

PLAN CHECK COMMENTS 5

JULY 27, 2023

SANTA CLARA COUNTY RECORD NOS.:

- DEV22-1242 -- MAIN BLDG PERMIT
- DEV22-3324 -- AMMR FIRE SPRINKER DENSITY
- DEV23-1458 -- AMMR PLUMBING
- DEV23-1434 -- GRADING PERMIT

Permit# DEV22-1242

REVIEWED

BY: AG2k20

DATE: 07/28/2023

SUBJECT TO:

STATE LAWS AND REGULATIONS

COUNTY ORDINANCES

NOTATIONS HEREON

FIELD INSPECTIONS & TESTS

FINAL INSPECTION

*FIRAL INSPECTIONS & TESTS
*FINAL INSPECTION

THE STAMPING OF THESE PLANS
BY THIS OFFICE SHALL NOT BE
CONSTRUED AS APPROVAL OR
PERMISSION TO VIOLATE ANY
COUNTY OR STATE LAW OR
REGULATION.

A COPY OF THE APPROVED PERMIT AND PLANS SHALL BE KEPT ON THE JOB SITE DURING CONSTRUCTION. CALL 72 HOURS PRIOR TO DESIRED INSPECTION OR TEST FOR APPOINTMENT. Fire Life Safety stamped on behalf of CDS AG-2K20



SEE APPROVED GRADING PLAN DEV 22-1434

COUNTY OF SANTA CLARA PLANNING AND DEVELOPMENT SERVICES LANDSCAPE PLANS ARE MWELO COMPLIANT

RECORD NO: DEV22-1242

BY: Jess T Date: 07/28/2023

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS

LANDSCAPE SUBMITTALS PRIOR TO

- FINAL INSPECTION
- 2. AS-BUILT / RECORD DRAWINGS3. LANDSCAPE AND IRRIGATION

1. CERTIFICATE OF COMPLETION

4. 3RD PARTY IRRIGATION AUDIT

MAINTENANCE SCHEDULE

- REPORT
- 5. SOIL AMENDMENT VERIFICATION6. INSTALLATION CERTIFICATION

VAN METER WILLIAMS POLLACK

JOINT TRENCH / DRY UTILITIES

MILLENIUM DESIGN
PO BOX 737

ALAMO, CA 94507

CIVIL ENGINEER

BKF ENGINEERS 1730 N. FIRST ST SUITE 600

SAN JOSE, CA 95112

LANDSCAPE ARCHITECT
PLURAL STUDIO
2742 17TH STREET
SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER

HOHBACH-LEWIN, INC
250 SHERIDAN AVE STE 100
PALO ALTO, CA 94306

MEP ENGINEER

EMERALD CITY ENGINEERS
21705 HIGHWAY 99
LYNWOOD, WA 98036

ENERGY CONSULTANT

REDWOOD ENERGY

1887 Q STREET

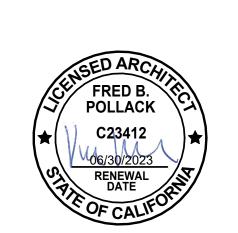
ARCATA, CA 95521

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT

RECORD NO.: <u>DEV22-1242</u>

RV: M O'Brien Date: 07/27/2

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



ID DATE NAME
3 05/12/23 PLAN CHECK RESPONSE 3
4 06/19/23 PLAN CHECK RESPONSE 4
5 06/26/23 PLAN CHECK RESPONSE 5

EDUCATOR HOUSING 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306





COVER SHEET

JOB #: 1925 SCALE:

DEFERRED SUBMITTALS

DEFERRED SUBMITTALS

WHEN REQUIRED BY THE AUTHORITIES HAVING JURISICTION, THE CONTRACTOR SHALL SUBMIT DEFERRED SUBMITTALS FOR THE FOLLOWING BUILDING SYSTEMS AND COMPONENTS:

- FIRE ALARM SYSTEMS & 2-WAY COMMUNICATIONS) - FIRE SPRINKLER, STANDPIPE AND FIRE PUMP SYSTEM
- PARKING STACKERS - ELECTRIC VEHICLE CHARGING STATIONS & AUTOMATIC LOAD MANAGEMENT SYSTEMS
- PHOTOVOLTAIC PANELS - ELEVATOR SHOP DRAWINGS
- SIGNAGE - LOW-VOLTAGE & SECURITY SYSTEM - EMERGENCY RESPONDER RADIO COVERAGE SYSTEM
- CORROSIVE SOILS MITIGATION - POST TENSIONED SLAB SHOP DRAWINGS
- 1. DEFERRED SUBMITTALS SHALL BEAR THE SEAL OF THE RESPONSIBLE DESIGNER OR ENGINEER IN ADDITION TO THE SHOP DRAWINGS APPROVAL STAMPS OF THE ARCHTIECT, ENGINEER OF RECORD AND THE GENERAL

2. DEFERRED SUBMITTAL ITEMS SHALL NOT BE FABRICATED OR INSTALLED UNTIL DEFERRED SUBMITTAL HAS BEEN APPROVED BY THE BUILDING OFFICIAL

FIRE SPRINKLERS

REQUIRED. SEPARATE

FIRE MARSHAL PERMIT

REQUIRED. ALLOW 30

AYS MINIMUM FOR PLAN

POWER RELIABILITY LETTER



11/16/2022

Re: City of Palo Alto Utilities Power Reliability for 231 Grant Avenue, Palo Alto, CA

This letter is in response to a request to provide the reliability data under NFPA 20 A.9.3.2 to determine if the source power meets the required standards.

The City of Palo Alto Utilities (CPAU) owns and operates the electric utility in Palo Alto, and will be providing the electric service to the project at site 231Grant Avenue. The following are CPAU's responses to section A.9.3.2.

1. The site, 231 Grant Avenue, is served by a main underground feeder from a nearby electric substation. The feeder circuit and the electrical substation has not experienced any shutdowns longer than 10 continuous hours in the last 5 years.

2. No power outages due to failures in generation or transmission has occurred in the last 12 years. CPAU does not own or operate generating facilities in Palo Alto. CPAU is currently connected to the PG&E and the CAISO controlled grid. CPAU is interconnected at Palo Alto Switching Station and served via three 115 kV PG&E lines. CPAU does not own high voltage transmission lines. CPAU operates a medium voltage loop (60kV) connecting 9 substations around Palo Alto. This provides a redundant power source in the event of a failure on any segment of the 60kV lines. This 60kV loop does not routinely experience power outages and it would be considered a rare event for there to be a power outage at 231 Grant Avenue as

3. The normal source of power for 231 Grant Avenue will be an underground electrical service. In addition, all utility lines around the project site are underground.

4. The requirement regarding the use of disconnect switches and overcurrent protection devices for the normal power source will be provided in the applicant's electrical design

The information provided above is based on current CPAU electric distribution system and records.

Senior Electrical Engineer 650.566.4532, Jim.Pachikara@cityofpaloalto.org

AREA MAP

JBLIC TRANSPORTATION LEGENI

CALTRAIN STATION(0.3 MILES/5 MINUTE WALK)

TA 522/22 BUS LINE(0.3 MILES/5 MINUTE WALK)



PLANNING INFORMATION & ZONING SUMMARY

	PLANNING INFORMATIO	N & ZONING SUMMARY	
ZONING REFERENCES	County of Santa Clara Zoning City of Palo Alto Workforce Ho	ousing Overlay (PAMC 18.30k)	
ADDRESS	231 Grant Avenue, Palo Alto, 0	CA 94306	
APN	132-31-074		
CITY OF PALO ALTO	PF - Public Facility		
ZONING DESIGATION	Workforce Housing Overlay (P	PAMC 18.30K)	
LOT AREA (SF)	60,536		
LOT AREA (ACRES)	1.39		
CONSTRUCTION TYPE	1 Level Type IA with 3 Levels	of Type VA	
SITE REGULATIONS	County of Santa Clara	City of Palo Alto Workforce Housing Overlay (REFERENCE ONLY)	PROPOSED
LAND USE	Public Facility	Public Facility, Housing	Residential, Community Space
MAX DENSITY (DU/AC)	N/A	Unlimited Density	110 units = 80 du/ac
MAXIMUM FLOOR AREA RATIO	N/A	2.0 FAR	1.84 FAR
MINIMUM LOT WIDTH	N/A		130'
WIINION EST WIBTT	147.		
MAXIMUM HEIGHT	N/A	50' building height	4 stories 49' to roof sheathing 55' to parapet
		Front: 10' min;	Front (Grant): 10'-2"
MINIMUM SETBACKS	N/A	Side: 5' min	Side (Park): 7'
WIINIWOW SETBACKS	IV/A	Rear: 10'min	Side (Birch): 14' Rear: 7'-6" to 10'-0"
HEIGHT EXCEPTIONS	N/A	Elevator Penthouse and Stair	
		to Rooftop acess	
MINIMUM SITE OPEN SPACE	N/A	20% 12,107 sf min	13,825 sf
USABLE OPEN SPACE	N/A	75 sf/unit 8,250 sf for 110 units	~89 sf/unit 9,833 sf for 110 units
CAR PARKING	County of Santa Clara	City of Palo Alto Workforce Housing Overlay	PROPOSED
Resident spaces	N/A	135 spaces 0.75 per spaces bedroom	108 spaces total (20% reduction) 103 stacker spaces 5 accessible spaces
Non-resident spaces		20% reduction with TDM	4 spaces total 3 stacker spaces 1 accessible space
Accessible Spaces (CBC 2019 Table 11B-208.2 & CBC 11B-208.2.3.1)	6 (5 accessible, 1 van accessible)		6 accessible spaces (4 accessible, 2 van accessible)
EV Ready Spaces	100%		100%
(SCC Energy Reach Code)	20 + 25% Level 2 Remaining Level 1 ALMS @ 1.4 kw/hr	15% (Palo Alto Reach Code)	20 + 25% Level 2 Remaining Level 1 ALMS @ 1.4 kw/hr
TOTAL CAR PARKING:	ALINO W 1.4 KW/III		ALIVIS (@ 1.4 kW/III
BICYCLE PARKING	County of Santa Clara	City of Palo Alto Workforce Housing Overlay	PROPOSED
Long Term	N/A	1 per dwelling unit 110 long term spaces	134 long term
Short Term	N/A	1 per 10 dwelling units 11 short term spaces	20 short term

PROJECT TEAM

DEVELOPER

MERCY HOUSING 1256 Market Street San Francisco, CA 94102

Contact: Kelly Hollywood Email: kelly.hollywood@mercyhousing.org Tel: 415.355.7116

ABODE COMMUNITIES 1149 S. Hill Street Suit 700

Los Angeles, CA 90015 Contact: Maegan Pearson Email: mpearson@abodecommunities.org Tel: 213.225.2786

ARCHITECT

Van Meter Williams Pollack 333 Bryant Street, Suite 300 San Francisco, CA 94107 Tel: 415.974.5352

Fred Pollack, Principal x202 Email: fred@vmwp.com Elaine Uang, Architect x204

CIVIL ENGINEER

Email: elaine@vmwp.com

BKF - San Jose 1730 N. Forsy Street Suite 600 San Jose, CA 95112 Contact: Joey Bernardi Email: jbernardi@bkf.com Tel: 925.202.6604

LANDSCAPE ARCHITECT

San Francisco, CA 94110

Tel: 415.450.9519 Haley Waterson, Principal Email: haley@plural.studio George Loew, Project Manager Email: george@plural.studio

SOLAR PHOTOVOLTAIC

<u>Cal Solar</u> www.calsolarinc.com 800-784-7612 Contact: Justin Chow

Email: justin@calsolarinc.com

EXTERIOR BLDG MAINTENANCE

Sit-Co 183 Beacon Street South SF, CA 94080 Contact: Joan De Jesus Email: joan@sit-co.com Tel: 650-588-4626

Tel: 626.726.1193

STRUCTURAL ENGINEER

Hohbach Lewin 260 Sheridan Avenue Suite 150 Palo Alto, CA 94306 Sam Shiotani, S.E. Email: sshiotani@hohbach-lewin.com Tel: 650.468.2061

Phyllis Mak, S.E. Email: pmak@hohbach-lewin.com Tel: 650.468.2093

MEP ENGINEERS

Emerald City Engineers 21705 Highway 99 Lynwood, WA 98036 Tel: 425.741.1200 Adam French, Vice-President x103 Email: afrench@emeraldcityeng.com Massamaghan Kone, Project Manager Email: mkone@emeraldcityeng.com Michael LeBlanc, Mechanical Contact Email: mleblanc@emeraldcityeng.com Keenan Stephens, Plumbing Contact Email: kstephens@emeraldcityeng.com

ENERGY/SUSTAINABILITY

Kevin Clayton, Electrical Contact Email: kclayton@emeraldcityeng.com

Redwood Energy 1887 Q Street

Arcata, CA 95521 Contact: Sean Armstrong Email: sean@redwoodenergy.net Tel: 707.826.1450

JOINT TRENCH/DRY UTILITIES Millenium Design PO Box 737

Alamo, CA 94507 Contact: Kahn Senimanora Email: kahn@jointutility.com Tel: 510-837-7602

FIRE SPRINKLER

Phone: 510.343.2921

Westates Mechanical Corporation 2566 Barrington Court Hayward, CA 94545 Contact: Rosanno Catiis Email: rcatiis@westatesmechanical.com

FIRE ALARM

<u>Pyro-Comm</u> 10966 Bigge Street San Leandro, CA 94577 Contact: Suleyman Sancar Tunca Email: stunca@pyrocomm.com Contact: Kevin Green Email: kgreen@pyrocomm.com Phone: 510.632-1200 x 409

BUILDING STATS

TEACHER & EDUCATOR HOUSING					
RESIDENTIAL UNITS SUMMARY	STUDIO	1BR	2BR	SUBTOTAL	
Ground Floor	2	4	1	5	
2nd Floor	8	19	8	35	
3rd Floor	8	19	8	35	
4th Floor	8	19	8	35	
SUBTOTAL	24	61	25		
TOTAL UNITS				110	
A		_			
<u> </u>	Total Gross	}	Circulation +	Common Areas	Mgmt/Leasing
BUILDING AREA SUMMARY	Area	Residential	Services	+ Amenities	& Offices
Ground Floor (Type IA)	15,458	3,516	7,485	3,177	1,28
2nd Floor (Type VA)	26,404	21,259	5,145		
3rd Floor (Type VA)	26,404	21,259	5,145		
4th Floor (Type VA)	26,404	21,259	5,145		
TOTAL (W/O GARAGE)	94,671	67,294	22,919	3,177	1,28
Garage	22,169	}			
TOTAL (W/GARAGE)	116,840	3			
(munum	.3			
C.	~~~~~	`			
VEHICLE PARKING		}	BICYCLE PARK	ING	
ACCESSIBLE - STANDARD	4	}	LONG TERM PA	ARKING	13-
ACCESSIBLE - VAN & EV READY	2	3	SHORT TERM F	PARKING	2
STACKED PARKING - EV READY	106	}			
TOTAL	112	3			
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		J. J		~~~~~~	
VEHICLE PARKING	STANDARD SPACES	ACCESSIBLE SPACES	TOTAL SPACES	APPLICABLE C	ODE SECTION
PARKING FOR RESIDENTS	103	5	108	CBC 11B-208.2.3	.1*
PARKING FOR GUESTS, EMPLOYEES & OTHER NON-RESIDENTS	3	1	4	CBC 11B-208.2.3	.3
TOTAL	106	6	112		

# 1 1ST FLOOR AREA DIAGRAM (GROSS) SCALE: 1" = 50'-0" 2 2ND-4TH FLOOR AREA DIAGRAM

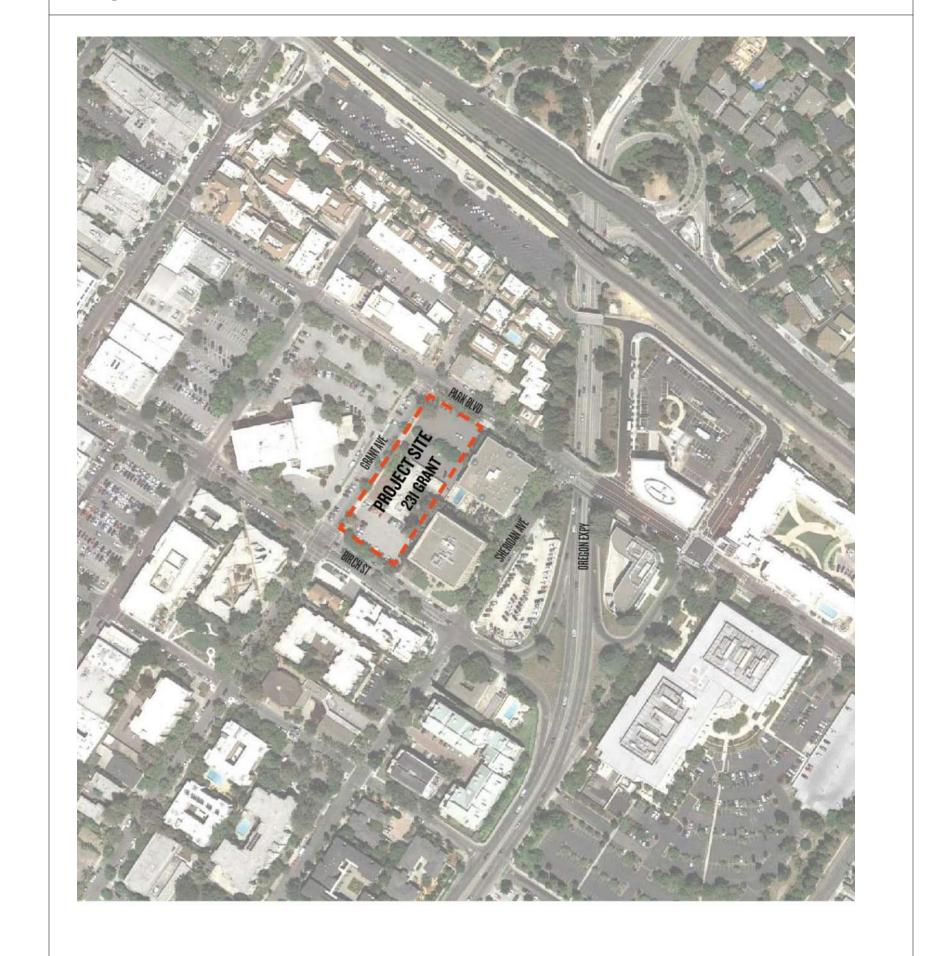
# PROJECT DESCRIPTION

231 GRANT IN PALO ALTO IS A COUNTY OWNED SITE THAT WILL OFFER NEW HIGH-QUALITY, MUCH NEEDED RENTAL HOUSING AFFORDABLE FOR TEACHERS, SCHOOL EMPLOYEES AND THEIR FAMILIES. THIS NEW COMMUNITY WILL INCLUDE 110 NEW STUDIO, ONE AND TWO BEDROOM APARTMENTS, AMENITY SPACES AND LANDSCAPE GARDENS. THE NEW BUILDING WILL BE FOUR-STORIES TALL WITH GROUND FLOOR PARKING AND SERVICE AREAS. AT THE FRONT, 5 UNITS PLUS A MAIN LOBBY, AND SEVERAL COMMUNITY SPACES ACTIVATE THE MAIN STREETSCAPE.
THREE STORIES OF WOOD FRAMED APARTMENTS WILL SIT ABOVE THE FIRST FLOOR PODIUM, AND CREATE THREE OPEN COURTYARDS ABOVE.

THE GROUND FLOOR WILL HAVE A PARKING GARAGE THAT WILL HOLD 112 PARKING SPACES 106 OF WHICH WILL BE PROVIDED BY TWO LEVEL PARKING STACKER SYSTEMS AND 6 AT GRADE ACCESSIBLE PARKING SPACES. 22 STACKER SPACES AND 2 ACCESSIBLE SPACES WILL HAVE EVSE INSTALLED THE REMAINDER WILL BE EV READY FOR FUTURE EVSE. THE SERVICE CORE WILL HOLD SYSTEMS - TRASH ROOMS, MAINTENANCE, ELECTRICAL AND

THE BUILDING IS STRUCTURED AS TWO C-SHAPED BUIDLINGS CONNECTED BY AN OPEN AIR BRIDGE THAT OFFER VIEWS TO MAJOR PLAZAS AND LANDSCAPED AREAS BELOW.

# **VICINITY MAP**



# **VAN METER**

333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES **MILLENIUM DESIGN** PO BOX 737 ALAMO, CA 94507

LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER **EMERALD CITY ENGINEERS** 

**ENERGY CONSULTANT** REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521

21705 HIGHWAY 99

LYNWOOD, WA 98036

**BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: <u>07/27/2023</u>

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS

11/11/22 PERMIT SET-CONV 03/20/23 PLAN CHECK RESPONSE 2 06/19/23 PLAN CHECK RESPONSE 4

# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



PROJECT INFO & DATA

JOB #: 1925 SCALE: As indicated

	SHEET INDEX							
	(REFERENCE ONLY, EXCEPT ) (VAPOR BARRIER DRAWINGS)	© ERMIT 5/13/22	R1-11/13/22	12/16/22	2 03/20/23	3 05/12/23	PC4 06/16/23	PC5 07/27/23
SHEET #	SHEET NAME TAIC	PEI	Ě	BID	PC2	PC3	P,	ြင်
PV-1	COVER SHEET(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
PV-2	ROOF PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
PV-3	ROOF PV LAYOUT(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
PV-4	CONDUIT LAYOUT(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
PV-5	ELEVATION VIEW(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
PV-6	ELECTRICAL LINE DIAGRAM(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
PV-7	MODULE & INVERTER DATASHEET(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
PV-8	RACKING DETAIL(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
PV-9	RACKING & ATTACHMENT DATASHEET(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
PV-10 EBM	FRAMING DETAIL(FOR REFERENCE ONLY)		•	•	•	•	•	•
EBM.01	ROOF PLAN ELEVATION(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
EBM.02	ROOF PLAN ELEVATION(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FIRE SPRI	IKLER							
F001	DETAILS AND NOTES(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F002	HANGER DETAILS(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F003	EARTHQUAKE BRACE DETAILS(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F004	EARTHQUAKE BRACE CALCS-1(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F005	SPRINKLER DATA SHEET(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F101	UNDERGROUND PIPING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F102	FIRE PUMP PIPING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F103	STANDPIPE PLAN AT FIRST FLOOR(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F104	STANDPIPE PIPING DETILS(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F105	GARAGE CAR STACKER PIPING PLAN AND DETAILS(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F201	FIRST FLOOR PIPING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F202	SECOND FLOOR PIPING PLAN(FOR REFERENCE ONLY) THIRD FLOOR PIPING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F203	FOURTH FLOOR PIPING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F204 F205	ROOF LEVEL PIPING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F301	FIRST FLOOR REFLECTED CEILING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F301 F302	SECOND FLOOR REFLECTED CEILING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	-
F303	THIRD FLOOR REFLECTED CEILING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F304	FOURTH FLOOR REFLECTED CEILING PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
F401	TYPICAL UNITS ENLARGED PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FIRE ALAR	1							
FA1.01	FIRE ALARM SYSTEM - LEVEL 1 OVERALL FLOOR PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.02	FIRE ALARM SYSTEM - LEVEL 1 FLOOR PLAN - A(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.03	FIRE ALARM SYSTEM - LEVEL 1 FLOOR PLAN - B(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.04	FIRE ALARM SYSTEM - LEVEL 2 OVERALL FLOOR PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
A1.05	FIRE ALARM SYSTEM - LEVEL 2 FLOOR PLAN - A(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.06	FIRE ALARM SYSTEM - LEVEL 2 FLOOR PLAN - B(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.07	FIRE ALARM SYSTEM - LEVEL 3 OVERALL FLOOR PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.08	FIRE ALARM SYSTEM - LEVEL 3 FLOOR PLAN - A(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.09	FIRE ALARM SYSTEM - LEVEL 3 FLOOR PLAN - B(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.10	FIRE ALARM SYSTEM - LEVEL 4 OVERALL FLOOR PLAN(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.11	FIRE ALARM SYSTEM - LEVEL 4 FLOOR PLAN - A(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
FA1.12 VAPOR	FIRE ALARM SYSTEM - LEVEL 4 FLOOR PLAN - B(FOR REFERENCE ONLY)	•	•	•	•	•	•	•
V-1	VAPOR BARRIER TITLE SHEET	•	•	•	•	•	•	•
V-2	VAPOR BARRIER PLAN	•	•	•	•	•	•	•
V-3	VAPOR BARRIER DETAILS	•	•	•	•	•	•	•
V-4	VAPOR BARRIER DETAILS	•	•	•	•	•	•	•
V-5	VAPOR BARRIER SPECIFICATIONS	•	•	•	•	•	•	•
<b>V-</b> 6	VAPOR BARRIER SPECIFICATIONS	•	•	•	•	•	•	•
V-7	VAPOR BARRIER SPECIFICATIONS					•	•	•
V-8	VAPOR BARRIER SPECIFICATIONS	_					•	•

	SHEET INDEX								SHEET INDEX								
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SHEET#	SHEET NAME	PERMIT	R1-11/1	BID 12/	PC2 03,	PC4 06	PC5 07	SHEET	# SHEET NAME	PERMIT	R1-11/1	BID 12/	PC2 03,	PC3 05	PC4 06	PC5 07	SHEET#
	STRUCTURAL GENERAL NOTES STRUCTURAL GENERAL NOTES	•	•		• •	•	•	ARCHIT A1.10 A1.11	SITE PLAN SITE PLAN DETAILS	•	•	•	•	•	•	•	GENERAL  A0.00 COVER SHEET  A0.01 PROJECT INFO & DATA
S1.2	STRUCTURAL GENERAL NOTES  LEVEL 1 - FOUNDATION PLAN	•	•	•	• •		•	A1.12 A1.20	SITE PHOTOMETRICS ON-SITE PHOTOMETRICS	•	•	•	•	•	•	•	A0.02 SHEET INDEX A0.10 SCHEMATIC RENDERING
S2.12B	LEVEL 2 PODIUM - REINFORCEMENT PLAN  LEVEL 2 PODIUM - P-T PLAN  LEVEL 2 PODIUM - FRAMING PLAN	•	•	•	• •	•	•	A1.21 A1.22 A1.23	ON-SITE PHOTOMETRICS ON-SITE PHOTOMETRICS ON-SITE PHOTOMETRICS	•	•	•	•	•	•	•	A0.11 GENERAL NOTES & ABB (M-47-C.1 CPAU COA FOR WATER)
S2.13	LEVEL 3 - FLOOR FRAMING PLAN  LEVEL 4 - FLOOR FRAMING PLAN	•	•	•	• •	•	•	A1.24 A1.25	ON-SITE PHOTOMETRICS ON-SITE PHOTOMETRICS ON-SITE PHOTOMETRICS	•	•	•	•	•	•	•	M-47-C.1 CPAU COA FOR WATER GENERAL
S3.01	ROOF LEVEL - ROOF FRAMING PLAN ELEVATION - NORTH AND SOUTH	•	•	•	• •	•	•	A2.01 A2.02	FIRST FLOOR SLAB PLAN (PREV A2.11B) SECOND FLOOR SLAB PLAN (PREV A2.12B)	•	•	•	•	•	•	•	A0.20 CODE ANALYSIS A0.21 BUILDING OCCUPANCY
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LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER EMERALD CITY ENGINEERS 21705 HIGHWAY 99

ENERGY CONSULTANT REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521

LYNWOOD, WA 98036

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: 07/27/2023

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



 ID
 DATE
 NAME

 3
 05/12/23
 PLAN CHECK RESPONSE 3

 4
 06/19/23
 PLAN CHECK RESPONSE 4

 5
 06/26/23
 PLAN CHECK RESPONSE 5

# EDUCATOR HOUSING 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306





SHEET INDEX

JOB #: 1925 SCALE:



BIRD'S EYE VIEW



VIEW ALONG PARK BLVD.



VIEW ALONG BIRCH ST.



**ELEVATION VIEW** 



ARCHITECTURE | URBAN DESIGN ■ SAN FRANCISCO | DENVER | MINNEAPOLIS
333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

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__

# EDUCATOR HOUSING 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



dbode communities MERCY HOUSING & ABODE COMMUNITIES

SCHEMATIC RENDERINGS

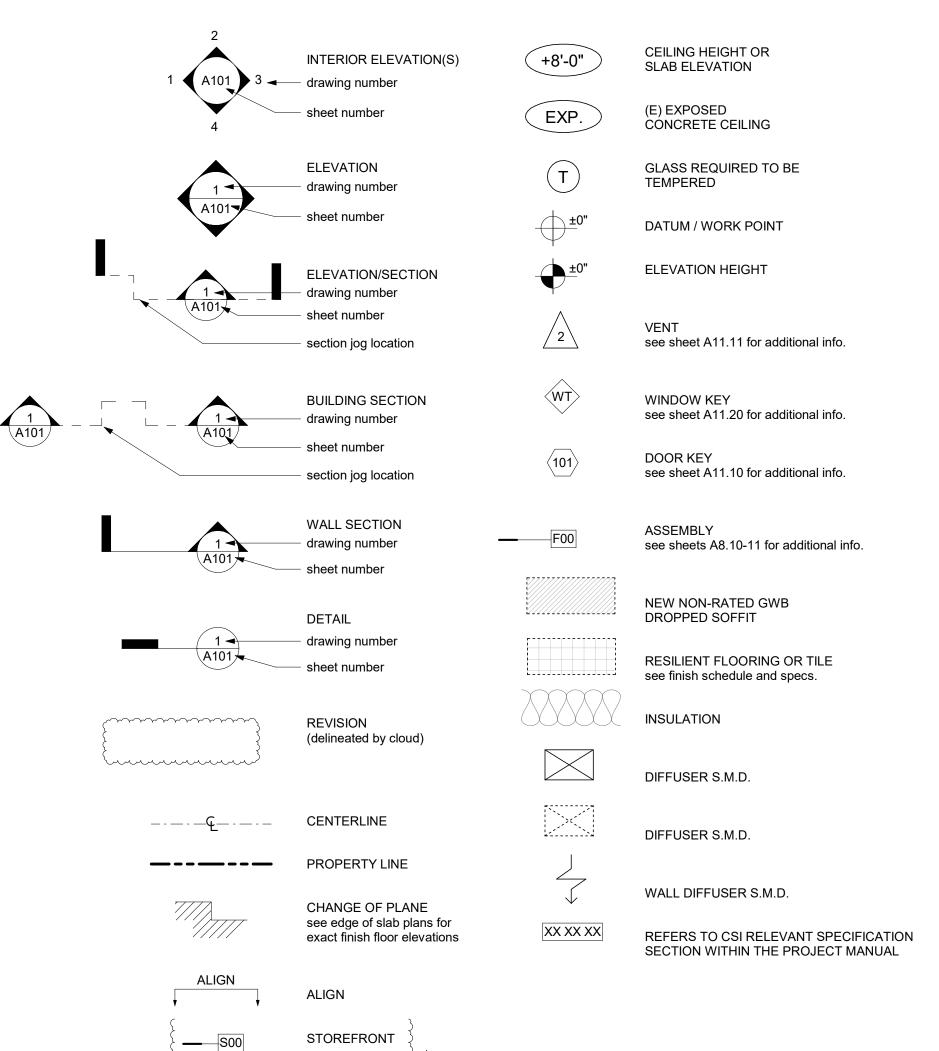
JOB #: 1925 SCALE: 12" = 1'-0"

A0.10

ABBREVIATIONS					
& <	And Angle	G.B. G.C.	Grab Bar General Contractor	RWD. REF.	Redwood Reference
@ CL	At	G.D. G.R.	Garbage Disposal	RFL. R.C.P.	Reflected
Ø	Centerline Diameter	G.S.M.	Guardrail Galvanized Sheet Metal		Reflected Ceiling Plan
O #	Diameter or Round Number or Pound	GA. GALV.	Gauge Galvanized	R. R.A.	Riser Return Air
PL	Property Line	GEN. GFCI	General Ground Fault Circuit Interruption	R.B. R.D.	Resilient Base Roof Drain
A.D.	Area Drain	GFRC	Glass Fiber Reinforced Concrete	R.O.	Roof Opening
A.F.F. A.L.	Above Finish Floor Aluminum	GL. GND.	Glass Ground	REFR. / REF. REINF.	Refrigerator Reinforced
A.P. A/C	Access Panel Air Condition	GR. GRG	Grade Glass Reinforced Gypsum	REM. REQ.	Remaining
ABV.	Above	GWB	Gypsum Wall Board	RES.	Required Resilient
ACOCUS. ADA	Acoustical Americans w/ Disabilities Act	GYP. GYP. BD.	Gypsum Gypsum Board	RET. REV.	Retaining Revised/Revision
ADDL. ADJ.	Additional	H.B.	Hose Bibb	RGTR. RM.	Register
ADJA.	Adjustable Adjacent	H.C.	Hollow Core	RND.	Room Round
AGGR. ANCH.	Aggregate Anchor	H.M. H.PT.	Hollow Metal High Point	S.	South
APPROX.	Approximate	H.R. / HNDRL.	Handrail	S.A.S.M	Self Adhesive Sheet Membran
ARCH. ASPH.	Architectural Asphalt	H.V.A.C. H.W.	Heating, Ventilating, Air Conditioning Hot water	S.C. S.C.D.	Solid Core See Civil Drawings
AUTO.	Automatic	HCP. HD.	Handicapped Head	S.D. S.E.D.	Soap Dispenser See Electrical Drawings
B.O."X"	Bottom Of "X"	HDBD.	Hard Board	S.F.	Square Foot (Feet)
B.O.I.C. B.U.R.	Bought by Owner; Installed by Contractor Built Up Roofing	HDR. HDW. / HDWE.	Header Hardware	S.F.D. S.F.P.D.	See Finish Drawings See Finish Protection Drawing
BD. BEL.	Board Below	HDWD. HOR. / HORIZ.	Hardwood Horizontal	S.H. S.L.D.	Sprinkler Head See Landscape Drawings
BLDG.	Building	HR.	Hour	S.M.D.	See Mechanical Drawings
BLK. BM.	Block Beam	HT.	Height	S.N.D. S.N.R.	Sanitary Napkin Dispenser Sanitary Napkin Receptacle
BOT. BRG	Bottom Bearing	I.D. IN.	Inside Diameter Inch	S.P.D. S.S.	See Plumbing Drawings Stainless Steel
BRK.	Brick	INCAN.	Incandescent	S.S.D	See Structural Drawings
BRKT. BSMT.	Bracket Basement	INCL. INFO.	Include(d)(ing) Information	S.SK. S.W.	Service Sink Shear Wall
C.	Carpet	INSUL. / INT. INTER	Insulation Intermediate	S.Y. SAN.	Square Yards Sanitary
C.B.	Catch Basin	INV.	Invert	SCHED.	Schedule
C.G. C.I.	Corner Guard Cast Iron	INT. / INTR.	Interior	SECT. SECT.	Section Section
C.I.P. C.J.	Cast in Place Control Joint	J-BOX JAN.	Junction Box Janitor	SHLF. SHR.	Shelf Shower
C.M.U.	Concrete Masonry Unit	JST.	Joist	SHT.	Sheet
C.O. C.R.	Cased Opening Cold Rolled	JT.	Joint	SIM. SK.	Similar Sink
CAB. CAT.	Cabinet Category	K.D. KIT.	Kiln Dried Kitchen	SL. SPEC.	Sliding Specification
CB.	Chalk Board	KO.	Knockout	SPKR.	Speaker
CEM. CER.	Cement Ceramic	K.P.	Kick Plate	SQ. STA.	Square Station
CLG. CLKG.	Ceiling Caulking	L. L.F.	Length Linear Foot	STC. STD.	Sound Transmission Coefficier Standard
CLO.	Closet	L.PT.	Low Point	STL.	Steel
CLR. CNTR.	Clear Counter	LAB. LAM.	Laboratory Laminate	STOR. STR. / STRUCT. / STRL.	Storage Structure
COL. CONC.	Column Concrete	LAV. LG.	Lavatory Long	SUSP. SYM.	Suspended Symmetrical
CONF.	Conference	LKR.	Locker	SYS.	System
CONSTR. CONT.	Construction Continuous	LT. LT.FIXT.	Light Light Fixture	T.	Tread
CONTR. CORD.	Contractor Corridor	M.	Meter	T.&G. T.B.	Tongue & Groove Towel Bar
CORR. CPT.	Corrugated	MM. M.D.F	Millimeter Medium Density Fiber Board	T.B.D. T.O."X".	To Be Determined Top of "X"
CT.	Carpet Ceramic Tile	M.O.	Masonry Opening	T.O.C.	Top of Concrete
CTR. CTSK.	Center Countersunk	MACH. MAINT.	Machine Maintenance	T.O.D. T.O.P.	Top of Deck Top of Pavement or Top of Pa
		MAS.	Masonry	T.O.PL.	Top of Plate
D.F. D.O.	Drinking Fountain Door Opening	MAT. MAX.	Material Maximum	T.O.STL. T.O.W.	Top of Steel Top of Wall
D.P. D.W.	Dimension Point Dishwasher	MECH. MEMB.	Mechanical Membrane	T.P.D. T.P.H.	Toilet Paper Dispenser Toilet Paper Holder
DBL.	Double	MEP MET. / MTL.	Mechanical, Electrical, Plumbing	T.S.	Tube Steel Television
DEPT. DET./DTL.	Department Detail	MFR.	Metal Manufacturer	T.V. T-24	Title 24
DIA. DIM.	Diameter Dimension	MH. MIC.	Manhole Microwave	TEL. TEMP.	Telephone Tempered
DISP. DMT.	Dispenser Demountable	MID. MIN.	Middle Minimum	TERR. TH.	Terrazzo Thick
DN.	Down	MIRR	Mirror	THK.	Thickness
DR. DRN.	Door Drain	MISC. MTD.	Miscellaneous Mounted	TYP.	Typical
DS. DWG.	Downspout Drawing	MUL.	Mullion	U.C. U.O.N.	Under Counter Unless Otherwise Noted
DWGS.	Drawings	(N)	New	UBC	Uniform Building Code
DWR.	Drawer	N. N.I.C.	North Not in Contract	UL UNF.	Underwriters Laboratory Unfinished
(E) E.	Existing East	N.T.S. NO.	Not to Scale Number	UR.	Urinal
E.I.F.S.	Exterior Insulation Finish System	NOM.	Nominal	V.G.D.F.	Vertical Grain Doug Fir
E.J. E.P.	Expansion Joint Electrical Panelboard	O.A.	Overall	V.I.F. V.P.	Verify in Field Veneer Plaster
E.W.C. EA.	Electric Water Cooler Each	O.C. O.D.	On Center Outside Diameter	VAR. VB.	Varies Vapor Barrier
EL. ELEC.	Elevation Electrical	O.F.C.I. O.F.O.I.	Owner Furnished Contractor Installed Owner Furnished Owner Installed	VCT. VEN.	Vinyl Composition Tile Veneer
ELEV.	Elevator	O.H.	Over Head	VERT.	Vertical
EMER. ENCL.	Emergency Enclosure	OFD. OFF.	Overflow Drain Office	VEST. VOL.	Vestibule Volume
ENGR. EPDM.	Engineer Ethylene Polypropylene	OFL. OPNG.	Overflow Leader	W.	West / Width
	(Elastic Plastic Flashing)	OPP.	Opening Opposite	W.B.	White Board
EQ. EQPT.	Equal Equipment	OPP.HD. OSB.	Opposite Hand Oriented Strand Board	W.C. W.H.	Water Closet Water Heater
ESD. EXP.	Electro-Static Dissipative Expansion	OVHD. OZ.	Overhead Ounce	W.R. W.W.F.	Water Resistant Welded Wire Fabric
EXPO.	Exposed			W/	With
EXT. / EXTR.	Exterior	P. P.C.	Paint Precast Concrete	W/O WD.	Without Wood
F. F.A.	Fabric Fire Alarm	P.G. P.LAM.	Paint Grade Plastic Laminate	WF WND. / WDW.	Wood Flooring Window
F.D.	Floor Drain	P.T.	Pressure Treated	WP.	Waterproof
F.E.C.	Fire Extinguisher Fire Extinguisher Cabinet	P.T.D. P.T.D./R.	Paper Towel Dispenser Combination Paper Towel Dispenser &	WPT. WSCT.	Work Point Wainscot
F.F. F.O.B	Finished Floor Face of Building	P.T.R.	Receptacle Paper Towel Receptor	WT.	Weight
F.O.C.	Face of Concrete	PAV.	Paving		
F.O.F. F.O.M.	Face of Finish Face of Masonry	PERP. PL.	Perpendicular Plate		
F.O.S. F.O."X".	Face of Stud Face of "X"	PLAS. PLBG.	Plaster Plumbing		
F.P.	Fireproof (ing) Fire Retardant	PLYWD.	Plywood Panel		
F.R. F.S.	Full Size	PNL. POL.	Polished		
F.T. F.V.C.	Fire Treated Fire Valve Cabinet	PR. PRCST.	Pair Precast		
FDN. FIN.	Foundation Finish	PSD PT.	Perforated storm drain Point		
FIXT.	Fixture	PTD.	Painted		
FL. / FLR. FLASH./FLSHG	Floor Flashing	PTN.	Partition		
FLUOR. FM.	Fluorescent Factory Manuel	Q.T.	Quarry Tile		
FT.	Foot or Feet	RAD.	Radius		
FTG.	Foot	RW.L.	Rainwater Leader		

Furring

GRAPHIC LEGEND



### PROJECT GENERAL NOTES

- PROVIDE FIRE SPRINKLER WORK PER NFPA 13 AND CBC 903.3.1.1 AS PART OF THESE DOCUMENTS ON A DESIGN-BUILD BASIS. CONTRACTOR TO SUBMIT DETAILED DRAWINGS & CALCULATIONS FOR REVIEW BY ARCHITECT PRIOR TO PERMIT SUBMITTAL. ALL FIRE SPRINKLER LINES TO BE CONCEALED WITHIN FLOOR / CEILING JOISTS AND ROOF JOISTS ASSEMBLIES, EXCEPT AS SHOWN IN THE PLAN. HEIGHT CLEARANCE AT GARAGE ALONG SHUTTLE'S TURNING ROUTE SHALL BE 10'-0" MINIMUM.
- INSTALL ALL WORK IN CONFORMANCE WITH ALL APPLICABLE LOCAL, STATE, & FEDERAL CODES & ORDINANCES. IF DISCREPANCIES OCCUR, THE MORE STRINGENT REGULATION
- 3. VERIFY ALL EXISTING SITE CONDITIONS, THEIR RELATIONSHIPS, DIMENSIONS, AND LOCATIONS, NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCRPANCIES BETWEEN FIELD CONDITIONS AND THESE DOCUMENTS. BEFORE PROCEEDING WITH ANY WORK, VERIFY AT THE PROJECT SITE ALL CONDITIONS AND MEASUREMENTS RELATED TO THE WORK. PROCEEDING WITH WORK SHALL BE AN INDICATION OF ACCEPTANCE BY THE CONTRACTOR OF CONDITIONS AND WORK ALREADY INSTALLED.
- 4. DO NOT SCALE THE DRAWINGS. WRITTEN DIMENSIONS OF THE DRAWINGS HAVE PRECEDENCE. DIMENSIONS SHOWN ON THE PLANS TO WALLS ARE TO BOTH FACE OF STUD AND FACE OF CONCRETE UNLESS OTHERWISE NOTED.
- MAINTAIN THE JOB SITE IN A NEAT AND SAFE CONDITION AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS. METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND COORDINATION OF ALL
- 6. IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THESE DOCUMENTS ARE ENCOUNTERED DURING CONSTRUCTION, THE OWNER AND THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
- PER CBC 2406, PROVIDE SAFETY GLAZING AT HAZARDOUS LOCATIONS AND AS REQUIRED BY CODES IN LOCATIONS INCLUDING, BUT NOT LIMITED TO, DOORS, TUB AND SHOWER ENCLOSURES, GLAZING WITHIN A 24" ARC OF A DOOR, ANY PANEL WITHIN 18" OF FLOORS, AND WALLS PERPENDICULAR TO THE PLANE OF A DOOR IN THE DIRECTION OF THE DOOR SWING.
- 8. ALL SILLS, PLATES, SLEEPERS, POSTS, COLUMNS, AND STRUCTURAL PANELS WHICH ARE IN CONTACT WITH CONCRETE OR MASONRY MUST BE FOUNDATION GRADE REDWOOD / CEDAR OR PRESSURE TREATED. SEE SPECIFICATIONS.
- PROVIDE A NON-ABSORBING WATERPROOF MATERIAL ON WALLS TO A HEIGHT OF 7'-0" ABOVE DRAIN INLET IN ALL ROLL IN SHOWERS AND BATHTUB ENCLOSURES AND AS SHOWN ON DRAWINGS. PROVIDE GLASS-FACED GYPSUM BOARD AROUND BATHTUBS AND PLUMBING FIXTURES IN BATHROOMS AND KITCHENS. PROVIDE ANTI-FRACTURE MEMBRANE AT ROLL IN SHOWER TILED WALLS.
- 10. WATER HEATERS AND INSTALLATION SHALL COMPLY WITH ALL CPC, CMC, AND TITLE 24 ENERGY EFFICIENCY REQUIREMENTS.
- 11. ANY ERRORS, OMISSIONS, OR CONFLICTS FOUND IN THE DRAWINGS SHALL BE BROUHGT
- TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. 12. VERIFY ALL ARCHITECTURAL DETAILS HAVE BEEN PROPERLY COORDINATED WITH THE STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS BEFORE ORDERING OR

ENCASED STRUCTURAL POSTS AS REQUIRED BY THE STRUCTURAL DRAWINGS.

INSTALLING ANY ITEM OF WORK. COORDINATE ALL DETAILS WITH SHEAR WALLS AND

- 13. INSTALL MATERIALS AND EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS.
- 14. SEALANT, CAULKING, AND FLASHING LOCATIONS INDICATED ON DRAWINGS ARE NOT INTENDED TO BE INCLUSIVE. FOLLOW MANUFACTURER'S RECOMMENDATIONS AND STANDARD INDUSTRY PRACTICE.
- 15. PROVIDE SOLID WOOD BLOCKING OR METAL PLATE BACKING FOR TOWEL BARS, HANDRAILS, SINKS, TUBS, ETC.
- 16. PERFORM EXCAVATION, SOIL TREATMENT, AND FOUNDATION WORK IN CONFORMANCE WITH THE REQUIREMENTS OF THE SOILS REPORT.
- 17. WOOD, CEMENTITIOUS BOARD, OR CEMENT PLASTER EXPOSED TO THE WEATHER IS TO RECEIVE PAINT. STAIN, OR SYNTHETIC ACRYLIC INTEGRAL COLOR FINISH UNLESS OTHERWISE NOTED ON THE DRAWINGS. SEE SPECIFICATIONS FOR PAINT SYSTEMS
- 18. STEEL EXPOSED TO WEATHER IS TO BE GALVANIZED AND PAINTED UNLESS NOTED OTHERWISE ON THE DRAWINGS. SEE SPECIFICATIONS FOR PAINT SYSTEMS.
- 19. PROVIDE FIRE-STOP PIPE PENETRATIONS THROUGH RATED ASSEMBLIES. SEE DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFO.
- 20. ACOUSTICALLY ISOLATE AND OFFSET BACK-TO-BACK ELECTRICAL OUTLETS. SEE DETAILS FOR ADDITIONAL INFO.
- 21. PROVIDE FIRE BLOCKING AT ALL RATED WALLS @ 10'-0" OC MAXIMUM, PER CBC 718.2.
- 22. ALL FRAMED UNIT CLOSETS TO BE MINIMUM 25 1/2" DEEP UNLESS NOTED OTHERWISE (MEASURED STUD TO STUD).
- 23. ALL UNIT INTERIOR DOORS TO HAVE 3" JAMB UNLESS NOTED OTHERWISE.
- 24. ALL JOINTS INDICATED TO RECEIVE SEALANT AND BACKER ROD SHALL BE 1/4" 3/8" IN
- 25. ALL GYPSUM WALLBOARD FINISH SURFACES NOT SPECIFICALLY CALLED OUT ON DRAWINGS TO RECEIVE PAINT PER SPECIFICATIONS.
- 26. ALL GUARDS AND RAILS SHALL BE CONSTRUCTED SO THAT A 4" DIAMETER SPHERE CANNOT PASS DIRECTLY THROUGH ANY OPENING.
- 27. ALL OFF-SITE DEMOLITION WORK IS NOT TO BE INCLUDED WITHIN THE SCOPE OF WORK.
- 28. ALL FRAMING MEMBER SUPPORTS DIRECTLY APPLIED FROM A FLOOR, ROOF, OR MULTIPLE FLOORS ARE TO BE INDIVIDUALLY FIRE PROTECTED WITH THE REQUIRED FIRE RESISTANCE RATING OF NOT LESS THAN ONE HOUR PER CBC 704.3. 29. ACOUSTICS:
- APPROVED ACOUSTICAL SEALANT SHALL BE PROVIDED ALONG THE JOINT BETWEEN THE FLOOR AND THE SEPARATION WALL. • ALL PENETRATIONS INTO SOUND-RATED PARTITIONS OF FLOOR/CEILING ASSEMBLIES
- SHALL BE SEALED WITH APPROVED PERMANENT RESILIENT SEALANT. • ALL RIGID CONDUIT, DUCTS, PLUMBING PIPES, AND APPLIANCE VENTS LOCATED IN SOUND ASSEMBLIES SHALL BE ISOLATED FROM THE BUILDING CONSTRUCTION BY MEANS OF RESILIENT SLEEVES, MOUNTS, OR MIN 1/4" THICK APPROVED RESILIENT MATERIAL. EXCEPTION: GAS PIPING DOES NOT NEED TO BE ISOLATED. METAL VENTILATING AND CONDITIONED AIR DUCTS LOCATED IN SOUND ASSEMBLIES SHALL BE LINED. EXCEPTION: DUCTS SERVING ONLY EXITWAYS, KITCHEN COOKING FACILITIES AND BATHROOMS NEED NOT BE LINED. MINERAL FIBER INSULATION SHALL BE INSTALLED IN JOIST SPACES TO A POINT 12" BEYOND THE PIPE OR DUCT WHENEVER A PLUMBING PIPE OR DUCT PENETRATES THROUGH A FLOOR/CEILING ASSEMBLY OR WHERE SUCH A UNIT PASSES THROUGH THE PLANE OF THE FLOOR/CEILING ASSEMBLY WITHIN A WALL.
- 30. SHOULD ANY HUMAN REMAINS OR HISTORICAL / UNIQUE RESOURCES BE DISCOVERED DURING SITE DEVELOPMENT, ALL WORK SHALL IMMEDIATELY CEASE AND THE PROVISIONS OF CEQA GUIDELINES, SECTION 15064.5(E) AND (F) FOR NOTIFICATION AND EVALUATIONS SHALL BE IMPLEMENTED.
- 31. A SAMPLE OF THE ACTUAL APPROVED EXTERIOR COLORS (NO LESS THAN 5' BY 5' SECTION) SHALL BE APPLIED ON THE CONSTRUCTED BUILDING FOR REVIEW BY PLANNING STAFF. AT THIS TIME, THE APPLICATION OF THE COLOR TREATMENT TO THE BUILDING CAN BE ARRANGED.
- 32. THE ELEVATORS SHALL COMPLY WITH REQUIREMENTS FROM AMERICAN SOCIETY OF MECHANICAL ENGINEERS STANDARD A17.1, SAFETY CODE FOR ELEVATORS AND ESCALATORS, AND WITH THE ACCESSIBILITY REQUIREMENTS FROM CBC 1124A.
- 33. HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED TO RESIST A LOAD OF 50 PLF DISTRIBUTED LOAD OR 200 LB POINT LOAD APPLIED IN ANY DIRECTION TO THE TOP OF THE ASSEMBLY AND TO TRANSFER THROUGH ANY SUPPORTS TO STRUCTURE.
- 34. NO HAZARDOUS MATERIALS SHALL BE STORED AND/OR USED WITHIN THE BUILDING IN EXCESS OF THE QUANTITIES LISTED IN THE CBC, TABLES 307.1(1) AND 307.2(2).
- 35. RESIDENTIAL MANDATORY MEASURES FOUND WITHIN 2019 TITLE 24 PART 11 CALIFORNIA GREEN BUILDING CODE ARE TO BE MET, INCLUDING VOC LIMITS FOUND IN THE FOLLOWING TABLES: 4.504.1 (ADHESIVES VOC LIMIT)
- 4.504.2 (SEALANT VOC LIMIT) 4.504.3 (VOC LIMITS FOR ARCHITECTURAL COATINGS)
- 4.504.5 (FORMALDEHYDE LIMITS) 36. IN BUILDINGS REQUIRED TO HAVE STANDPIPES, NO LESS THAN (1) STANDPIPE SHALL BE
- PROVIDED FOR USE DURING CONSTRUCTION. STANDPIPES SHALL BE REVIEWED AND APPROVED PRIOR TO INSTALLATION PER SECTION 3311.
- 37. EMERGENCY RESPONDER SAFETY FEATURE SHALL BE INSTALLED AS REQUIRED BY CBC SECTION 914.

ARCHITECTURE | URBAN DESIGN . SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

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ENERGY CONSULTANT **REDWOOD ENERGY** 1887 Q STREET ARCATA, CA 95521

LYNWOOD, WA 98036

COUNTY OF SANTA CLARA **BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242

BY: M. O'Brien Date: 07/27/2023

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ID	DATE	NAME	

# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



MERCY HOUSING 8 ABODE COMMUNITIES

**GENERAL NOTES & ABBREVIATIONS** 

SCALE: 1/4" = 1'-0"

JOB #: 1925

A0.11



### County of Santa Clara

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Department of Planning and Development County Government Center, East Wing 70 West Hedding Street, 7th Floor San Jose, California 95110

### DEVELOPMENT SERVICE PERMIT

### PERMIT & INSPECTION CARD FOR GRADING

PERMIT NO.: DEV22-1434 ISSUED BY: Cristina Rosas SITE ADDRESS: 231 GRANT AV, PALO ALTO, CA 94306-1907

APPROVED BY:

-\$2,109.19 06/28/2023

PARCEL NO.: 132-31-074 ISSUED: 07/18/2023

EXPIRES: 07/17/2025 CONTRACTOR ENGINEER Santa Clara County 231 GRANT AVE Cahill Contractors Llc PALO ALTO CA 425 California St #2200 94306 190 San Francisco, CA 94101

LICENSE NO.: 1011738

PHONE: 415-986-0600 PHONE: 4159745352 PROJECT DESCRIPTION Grading Permit related to DEV22-1242 for new (N) 69,631 SF 110 unit apartment building

Job Valuation: \$443,231.80 Performance Bond Amount: N/A Labor and Material Bond Amount: N/A

> FMO Review of Major Subdivisions and Non Residential \$402.00 06/28/2023 Information Technology Fee \$652.55 06/28/2023 \$7,658.61 06/28/2023 LDE Inspection \$16,202.09 07/01/2022 LDE Plan Check - Grading & Subdivision Improvements

### INSPECTION REQUESTS

### SCHEDULE THE PRE-CONSTRUCTION MEETING 48 HOURS PRIOR TO STARTING WORK.

TO REQUEST INSPECTIONS: USE THE ON-LINE PERMIT SYSTEM AT https://aca-prod.accela.com/SCCGOV/Default.aspx or CALL (408) 299-3161.

LDE Plan Check - Grading & Subdivision Improvements

# PETS/ANIMALS MUST BE KEPT IN A SECURED AREA, OR

The list of required inspections may be amended, as necessary, in the field by the Land Development Engineering -

YOUR INSPECTION WILL NOT BE MADE.

Inspection Division. POST THIS PERMIT AT THE JOB SITE

REQ CODE INSPECTION PC01 Pre-Construction
PC011 Erosion Control PC02 Clear & Grub PC03 Construction Grad Staking Grading .21 Keyway .3022 Cut G023 Fill 24 Subdrain 25 Mass Grading Drainage D031 Pipe Installation 
 D032
 Dissipater

 D034
 Trench Restoration

 D036
 DI/MH - Pipe Connection
 D038 DI/MH - Headwalls 
 D039
 DI/MH - Wingwalls

 D040
 DI/MH - Base, Barrel, Lid

 D041
 Detention Pond
 D044 C3 - Bio-Swale C3 - O & M 45 Day Treatment System C3 - Retention Pipe System C3 - Permeable Pavers Retaining Walls R051 Backfill, Mirafi, Subdrain Gravity Wall, Geofabric Retaining Wall

Common-Access/Single Site/ Parking Lot P061 Subgrade/Min. 95% Comp P062 Baserock/Min.95% P063 Finish Surface (A.C. Concrete, Gravel, Pavers)
P064 Curb & Gutter, AC Dike
P065 Turnaround P066 Turnouts BMP02 Monthly BMP
Inspection Fee/Final LDE Final Sign Off As-Built FINAL AS01 Plans
AS02 Long Term Erosion Control
Compaction Test Observ AS03 Compaction Test Observation Letter

**SEE APPROVED GRADING PLAN DEV** 22-1434

DocuSign Envelope ID: FA616D12-B8EA-468A-AFE1-DE1A78C4C219

**County of Santa Clara** Department of Planning and Development **Building Inspection Office** 

70 West Hedding Street, E 700

San Jose, California 95110

408 299 5700 FAX: 408 279 8537

APPLICATION for the USE of ALTERNATE MATERIAL, DESIGN, or METHOD OF CONSTRUCTION

The undersigned hereby requests approval of an alternate material, design or method of construction under the [ ] 2019 CA Building Code Section 104.11 [ ] 2019 CA Mechanical Code Section 302.2 [x] 2019 CA Plumbing Code Section 301.3 [ ] 2019 CA Electrical Code Article 90-4

**APPLICANT** 

Signature: Kelly Hollywood Business Name: 231 Grant LLC (C/O Mercy Housing CA)

Address: 1256 MARKET STREET, SAN FRANCISCO, CA 94102

Telephone: 415.355.7166 Project Name 231 GRANT AVE - EDUCATOR HOUSING

Project Address 231 GRANT AVENUE, PALO ALTO, CA, 94306

Describe Use 110 UNIT MULTIFAMILY AFFORDABLE TEACHER HOUSING.

Subject of Alternative PIPE MATERIALS. USE OF PVC PIPING FOR UNDERSLAB

Code Requirement (specify code, edition and section) 2019 CPC 701.2 DRAINAGE PIPING (2) (a)

Alternate Proposed USE OF PVC IN THE UNDERSLAB ONLY, IN A RESIDENTIAL

BUILDING THAT IS 4 STORIES. REST OF BUILDING USES CAST IRON FOR DRAINAGE. JUSTIFICATION

Justification PVC IS AN APPROVED MATERIAL PER CHAPTER 7, AND WILL BE INSTALLED IN ACCORDANCE WITH STANDARDS FROM 2019 CPC TABLE 701.2.

**ACTION BY OFFICE** [] Approve as revised 6/5/2023

Fire Marshal

| County of Santa Clara                  |                   |
|----------------------------------------|-------------------|
| Department of Planning and Development |                   |
| Building Inspection Office             | 408 299 5700      |
|                                        | FAX: 408 279 8537 |
| 70 West Hedding Street, E 700          |                   |
| San Jose, California 95110             |                   |

APPLICATION for the USE of ALTERNATE

MATERIAL, DESIGN, or METHOD OF CONSTRUCTION The undersigned hereby requests approval of an alternate material, design or method of construction under the authority of: [x] 2019 CA Building Code Section 104.11 [ ] 2019 CA Mechanical Code Section 302.2 [ ] 2019 CA Plumbing Code Section 301.3 [ ] 2019 CA Electrical Code Article 90-4

Name: Kelly Hollywood Business Name: 281 Grant/Ave LLC (C/O Mercy Housing CA)

DocuSign Envelope ID: BED74763-1937-4FAD-83A4-6495D58E29BC

APPLICANT

Address: 1256 MARKET STREET, SAN FRANCISCO, CA 94102 Telephone: 415.355.7166 Project Name 231 GRANT AVE - EDUCATOR HOUSING

Project Address 231 GRANT AVENUE, PALO ALTO, CA, 94306 Describe Use 110 UNIT MULTIFAMILY AFFORDABLE TEACHER HOUSING. Subject of Alternative INCREASED SPRINKER DENSITY TO ACCOMODATE STEEP LADDER
ANGLE AT EMERGENCY EGRESS RESCUE OPENINGS FOR 8 UNITS

Code Requirement (specify code, edition and section) SEE ATTACHED Alternate Proposed SEE ATTACHED JUSTIFICATION

Justification SEE ATTACHED **ACTION BY OFFICE** 

Recommendation of sapprove

[] Approve as revised 6/14/2023 STEN (FOR DC ESTRADA) Date 6/13/23

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**County of Santa Clara Building Inspection Office** 

Page 2

ALTERNATE MATERIALS, DESIGN or METHODS of CONSTRUCTION

> 2019 CBC Section 104.11 2019 CPC Section 301.3 2019 CMC Section 302.2 2019 CEC Article 90-4

The provisions of the codes are not intended to prevent the use of any material, alternate design or method of construction not specifically prescribed by the codes, provided an alternate has been approved and the Building Official and/or Fire Marshal authorize its use.

Building Official and/or Fire Marshal may approve any such alternate, provided it is found that: 1) The proposed design is satisfactory and complies with the provisions of the code, and 2) The proposed material, design or method is at least equivalent to the code in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation.

Sufficient evidence shall be submitted to substantiate any claim regarding its use.

### FILING INSTRUCTIONS

- Complete the application.
- 2 Submit the application with three copies of all supporting evidence (reports, calculations, manufacturer's instructions, etc.) to the Building Inspection Office.
- 3 A review fee is due at time of submittal. For Building Inspection Office review only, the submittal fee is \$321.73. For Fire Marshal's Office review only, the submittal fee is \$402. For both Building Inspection Office and Fire Marshal's Office review, the submittal fee is \$723.73.
- 4 Your submittal package will be reviewed. Supplemental review fees may be charged if the time necessary to review the submittal and prepare findings exceeds two hours.
- 5 When sufficient information is provided, a written decision to "approve," "approve as revised," or "deny" will be made.

Revised February 3, 2020

**VAN METER WILLIAMS** POLLACK \*\*

# Date: June 13, 2023

To: Christina Dasilva Santa Clara County Fire Department 70 West Hedding Street San Jose, CA 95110

# Subject: DEV22-3324 (formerly FMO22-131)

Project: 231 Grant Avenue Palo Alto, CA 94306

Project Description: 231 Grant is a 110 unit educator housing project to provide much needed rental housing that is affordable to teachers, school employees and their families. The four story structure consists of 3 stories of Type VA construction over 1 story of Type IA construction. The ground floor includes a parking garage and service spaces. The building is structured as 2 C-Shaped buildings, connected by a central bridge that offers views to 3 courtyards on the podium and 3 plazas below.

This building application DEV22-3324 was converted from a Fire Department AMMR FMO22-131.

# Modification Request:

At Type VA wood framed units CBC 1030 requires emergency egress rescue openings from the sleeping rooms. The responding fire department, Palo Alto Fire Department, has requested that the EEROs be accessed by ladders set at a maximum of 70 degrees. There are EEROs in sleeping rooms at four units per floor (for a total of 8 units) that cannot be accessed via ladders set at 70 degrees due to proximity of the property line. The 8 affected units are designated in pink in supplemental plans provided (x12, x13, x37 and x38 on Levels 2 & 3) and the specific sleeping rooms affected are also indicated in darker red.

# Per NFPA 13, 2016 edition Section 11.3.1.1, for a special design approach using residential

sprinklers, the design area shall be the area/compartments that includes the four (4) adjacent sprinklers that produce the greatest demand. Due to building construction and location; there will be some constraints which will make it difficult for PAFD to access the units on the second and third floors at the south side of the building with ladders at 70

> ARCHITECTURE | URBAN DESIGN - SAN FRANCISCO | DENVER 333 Bryant Street, Suite 300, San Francisco, CA 94107 T415.974.5352

**VAN METER** 

Date: May 17, 2023 To: County of Santa Clara

DocuSign Envelope ID: FA616D12-B8EA-468A-AFE1-DE1A78C4C219

Department of Planning and Development Building Inspection Office 70 West Hedding Street, E 700

### **Subject: AMMR - Subgrade PVC for Waste Lines**

San Jose, CA 95110

**Project:** 231 Grant Avenue Palo Alto, CA 94306

### **Project Description:**

231 Grant is a 110 unit educator housing project to provide much needed rental housing that is affordable to teachers, school employees and their families. The four story structure consists of 3 stories of Type VA construction over 1 story of Type IA construction. The ground floor includes a parking garage and service spaces. The building is structured as 2 C-Shaped buildings, connected by a central bridge that offers views to 3 courtyards on the podium and 3 plazas below.

### AMMR Request Scope Of Work:

At 231 Grant, the standard waste and vent system utilizes a no-hub cast iron four stories above grade and PVC below grade only. On May 2, 2023, we received a plan check comment from Warren Krause, Plumbing Plan Checker, that the county's interpretation of CPC 2019 701.2(2)a is that PVC is prohibited in any structure with more than two stories of residential accommodation, and use of PVC for below grade waste lines would require special approval. The design team submits this Alternate Means and Method Request (AMMR) to use PVC for underground waste and vent piping only due to the "corrosive to moderately corrosive" nature of the soils, as described by JDH Corrosion Consultants, Inc in their December 10, 2021 report. The report is attached to this application for reference.

We request the use of PVC below grade in lieu of cast iron pipes because the soil conditions are 231 Grant are "corrosive to moderately corrosive". Cast iron pipes at this location would need to be wrapped in 8 mil polyethylene in accordance with AWWA specification C-105, to protect the cast iron from contact with corrosive soil (see JDH Corrosion Inc Report p. 6) In reviewing this option with our contractor, the cast iron and polyethylene wrap below grade would be an increase in cost, and is an application that is typically not found in multifamily projects. Typical multifamily projects have cast-iron waste and vent above grade that transition to a single level of PVC waste lines below grade.

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degrees. To mitigate the situation, SCCFD and PAFD have allowed consideration of a modified hydraulic calculation method.

Density / Area design method with a 0.10 gpm / sq ft design density over a minimum 1500 sq. ft design area with a 10% safety factor. Additional proof calculation to be provided for five (5) sprinklers flowing in the corridor. A lower safety factor may be considered subject to SCCFD review / approval.

It is noted that this modified density option applies only on Second and Third floors where ladder access is required. Fourth Floor will be designed in accordance with NFPA 13, 2016 edition with a design area /compartment that includes the four (4) adjacent sprinkler which produce the greatest demand. Additional proof calculation for five (5) sprinklers in the corridor and a 10% safety factor.

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ARCHITECTURE | URBAN DESIGN ■ SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

**CIVIL ENGINEER BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES MILLENIUM DESIGN PO BOX 737 ALAMO, CA 94507

LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100

PALO ALTO, CA 94306

MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99

**ENERGY CONSULTANT REDWOOD ENERGY** 1887 Q STREET

ARCATA, CA 95521

LYNWOOD, WA 98036

COUNTY OF SANTA CLARA **BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT

RECORD NO.: DEV22-1242 BY: M. O'Brien Date: 07/27/2023

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



ID DATE NAME 06/19/23 PLAN CHECK RESPONSE 4 06/26/23 PLAN CHECK RESPONSE 5

**EDUCATOR HOUSING** 231 GRANT AVENUE

> 231 GRANT AVE PALO ALTO, CA 94306



AMMRS, PERMIT & **INSPECTION CARD** FOR GRADING

JOB #: 1925

### CONSTRUCTION FIRE-RESISTIVE REQUIREMENTS LEVEL 1 TYPE IA CONSTRUCTION HORIZONTAL BUILDING SEPARATION PER CBC 510.2 3-HR RATED HORIZONTAL CONCRETE PODIUM PRIMARY STRUCTURAL FRAME PER CBC TABLE 601 3-HR RATED CONSTRUCTION EXTERIOR BEARING WALLS PER CBC TABLE 601 3-HR RATED CONSTRUCTION

NON BEARING WALLS PER CBC TABLE 601 1-HR RATED CONSTRUCTION 3-HR RATED CONSTRUCTION PER CBC TABLE 601 AND CBC 704. INDIVIDUAL ENCASEMENT FOR PRIMARY STRUCTURAL MEMBERS THAT REQUIRE FIRE RESISTIVE PROTECTION SEE STRUCTURAL DRAWINGS FOR LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE PROTECTION DETAILS

LEVEL 2-4 TYPE VA CONSTRUCTION

EXTERIOR BEARING WALLS PER CBC TABLE 601 1-HR RATED CONSTRUCTION PRIMARY STRUCTURAL FRAME PER CBC TABLE 601 1-HR RATED CONSTRUCTION

INDIVIDUAL ENCASEMENT FOR PRIMARY STRUCTURAL MEMBERS THAT REQUIRE 1-HR RATED CONSTRUCTION PER CBC TABLE 601 AND CBC 704. FIRE RESISTIVE PROTECTION SEE STRUCTURAL DRAWINGS FOR LOCATIONS.

REFER TO ARCHITECTURAL DRAWINGS FOR FIRE PROTECTION DETAILS

TYPICAL FLOOR CONSTRUCTION PER CBC TABLE 601 1-HR RATED CONSTRUCTION 1-HR RATED CONSTRUCTION ROOF CONSTRUCTION PER CBC TABLE 601 INTERIOR BEARING WALLS PER CBC TABLE 601 1-HR RATED CONSTRUCTION

INTERIOR NON-BEARING WALLS PER CBC TABLE 601 NON-RATED

WALLS SEPARATING DWELLING UNITS WITHIN R-2 PER CBC 420.2 1-HR RATED FIRE PARTITION [PER CBC 708]

FLOORS SEPARATING DWELLING UNITS WITHIN R-2 PER CBC 420.3 1-HR RATED HORIZONTAL ASSEMBLY [PER CBC 711]

INTERIOR EXIT ENCLOSURES PER 1022.1 1-HR RATED FIRE BARRIER OR HORIZONTAL ASSEMBLY [CBC 707.3.2, 711] EXIT PASSAGEWAYS PER CBC 1023.1 1-HR RATED FIRE BARRIER OR HORIZONTAL ASSEMBLY [CBC 707.3.4, 711]

1-HR RATED FIRE PARTITION [CBC 708] - BUILDING SPRINKLER SYSTEM REQUIRED CORRIDORS PER CBC 1020

1-HR RATED FIRE BARRIER CONNECTING 3 STORIES [CBC 713.4] SHAFT ENCLOSURES PER CBC 713

ELEVATOR SHAFT PER CBC 713 2-HR RATED FIRE BARRIER CONNECTING 4 STORIES OR MORE [CBC 713.4]

HORIZONTAL EXIT NOT REQUIRED PER CBC 1009.2.1 EXCEPTION 1

1-HR OCCUPANCY SEPARATION BETWEEN R-2 & A-3, R-2 & S-2, S-2 & A-3, S-2 & B, A-3 & B OCCUPANCY SEPARATIONS PER CBC TABLE 508.4

### FIRE DEPARTMENT REQUIREMENTS

I. ROOF ACCESS PROVIDED FROM EAST AND WEST STAIRS THROUGH AN ACCESS HATCH. THIS COMPLIES WITH THE REQUIREMENT FOR AT LEAST ONE STAIRWAY TO EXTEND TO ROOF SURFACE PER CBC SECTION 1011.12 & 1011.12.1 & 1011.12.2.

2. BUILDING TO HAVE APPROVED RADIO COVERAGE FOR EMERGENCY RESPONDERS WITHIN THE BUILDING. UPON COMPLETION OF THE BUILDING CONSTRUCTION, A RADIO COVERAGE TEST SHALL BE CONDUCTED PER THE SPECIFIC REQUIREMENTS OF NFPA 72 AND IF THE TEST FAILS AN EMERGENCY RESPONDERS RADIO COVERAGE SYSTEM (ERRCS) SHALL BE INSTALLED.

3. STANDPIPES SHALL BE PROVIDED WITHIN INTERIOR STAIR ENCLOSURES AT MAIN LANDINGS IN COMPLIANCE WITH CBC 2019 SECTION 905.

. MIDBLOCK WET STAND PIPE PROVIDED AT THE REAR OF BUILDING. CFC 903.3.1.1 NOTES THAT FOR AN R-2 BUILDING WITH APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM, 150' DIMENSION MAY BE

INCREASED TO 300' WHEN APPROVED BY THE FIRE CODE OFFICIAL, PER SANTA CLARA COUNTY ORDINANCE 1100.131 SECTION B7-7

5. ADDITIONAL FIRE SPINKLER LOAD TO BE PROVIDED PER FIRE SPRINKLER DESIGN-BUILD, INCREASE IN FIRE SPRINKLER HYDRAULIC CALCULATIONS SHALL BE SUBMITTED AND APPROVED UNDER A PERMIT #DEV22-3324

S. SHUNT TRIP BREAKER NOT REQUIRED FOR ELEVATOR, PER CBC 3005.4.1

# OTHER CODE PROVISIONS

WINDOWS IN HABITABLE ROOMS SHALL HAVE AN AREA OF 8% OF THE FLOOR AREA MINIMUM ICBC 1205.21 AND 4% OF FLOOR AREA FOR NATURAL VENTILATION ICBC 1203.4.11

PER CBC 1009 ACCESSIBLE MEANS OF EGRESS PROVIDED PER ITEMS 2 & 3. INTERIOR EXIT STAIRWAY AND EXIT ACCESS STAIRWAY COMPLYING WITH SECTION 1009.3

BUILDING IS LESS THAN 4 STORIES ABOVE A LEVEL OF EXIT DISCHARGE. PER CBC 1009.2.1 ELEVATOR IS NOT REQUIRED TO BE ONE ACESSIBLE MEANS OF EGRESS.

STAIRWAYS TO COMPLY WITH THE REQUIREMENTS OF CHAPTER 11B

STAIRWELL AREAS OF REFUGE AREA NOT REQUIRED IN THIS BUILDING PER CBC 1009.3 EXCEPTION 2 & 5

FIRE EXTINGUISHERS SHALL BE MOUNTED IN COMMON AREAS, CORRIDORS, PATH OF EXIT TRAVEL AT OR LESS THAN 75' FROM ANY LOCATION OR 1 FIRE EXTINGUISHER EVERY 3.000 S.F. WHICHEVER RESULTS IN A HIGHER COUNT PER NFPA 10. SEE PLANS FOR LOCATIONS.

CORRIDOR PARTITION WALL RATING CAN TERMINATE AT UNDERSIDE OF CEILING AND NOT EXTEND TO ROOF SHEATHING OR FLOOR SHEATHING [PER CBC 708.4] ABOVE IF FIREBLOCKING AND DRAFTSTOPPING IS INSTALLED [PER CBC 708.4.2]

BLOCKING AND DRAFT STOPS CAN BE ELIMINATED AT FIRE PARTITIONS IF BUILDING IS EQUIPPED THROUGHOUT WITH AUTOMATIC SPRINKLER SYSTEM IN ALL COMBUSTABLE SPACES [PER CBC 708.4.2 EXC

INTERIOR FINISHES, DECORATIVE MATERIALS AND FURNISHINGS TO COMPLY WITH THE REQUIREMENTS OF THE 2019 CALIFORNIA FIRE CODE CHAPTER 8.

HORIZONTAL PENETRATIONS WITHIN BOXED OUT ENCLOSURES AND WALLS TO BE FIRE CAULKED AND COMPLY WITH THE PROVISIONS WITHIN CBC 714.4.1.1

EMERGENCY ESCAPE AND RESCUE OPENINGS TO BE PROVIDED PER CBC 1030 WINDOW SLEEPING UNITS TO COMPLY WITH CBC 1030 EERO.

RESIDENTIAL DWELLING UNITS TO COMPLY WITH CBC 11B-233

HORIZONTAL BUILDING SEPARATION ALLOWANCE PER CBC 510.2

NOTE: ALL RESIDENTIAL UNITS ARE GOVERNED BY CBC 2019 CHAPTER 11B; ALL COMMON AREAS ARE GOVERNED BY CBC 2019 CHAPTER 11B & ADAAG

APPLICABLE CODES LL WORK SHALL BE IN CONFORMANCE WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND CITY ORDINANCES (IF CONFLICTS OCCUR, THE MOST STRINGENT REGULATION GOVERNS), REQUIREMENTS AS ESTABLISHED BY STATE AND LOCAL FIRE MARSHALS, AND THE RULES AND REGULATIONS OF THE UTILITY COMPANIES SERVING THIS PROJECT. SANTA CLARA COUNTY CODE SANTA CLARA COUNTY GENERAL PLAN 2016 NFPA 13 (FIRE SPRINKLERS); 2016 NFPA 72 (FIRE ALARM SYSTEM); 2016 NFPA 14 (STANDPIPE) 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN 2019 EDITION PART 2 - CALIFORNIA BUILDING CODE [CBC] PART 3 - CALIFORNIA ELECTRICAL CODE 2019 EDITION PART 4 - CALIFORNIA MECHANICAL CODE 2019 EDITION PART 5 - CALIFORNIA PLUMBING CODE 2019 EDITION PART 6 - CALIFORNIA ENERGY CODE 2019 EDITION PART 7 - CALIFORNIA ELEVATOR SAFETY CONSTRUCTION CODE 2019 EDITION PART 9 - CALIFORNIA FIRE CODE 2019 EDITION 2019 EDITION PART 11 - CALIFORNIA GREEN BUILDING STANDARDS CODE [CALGreen]

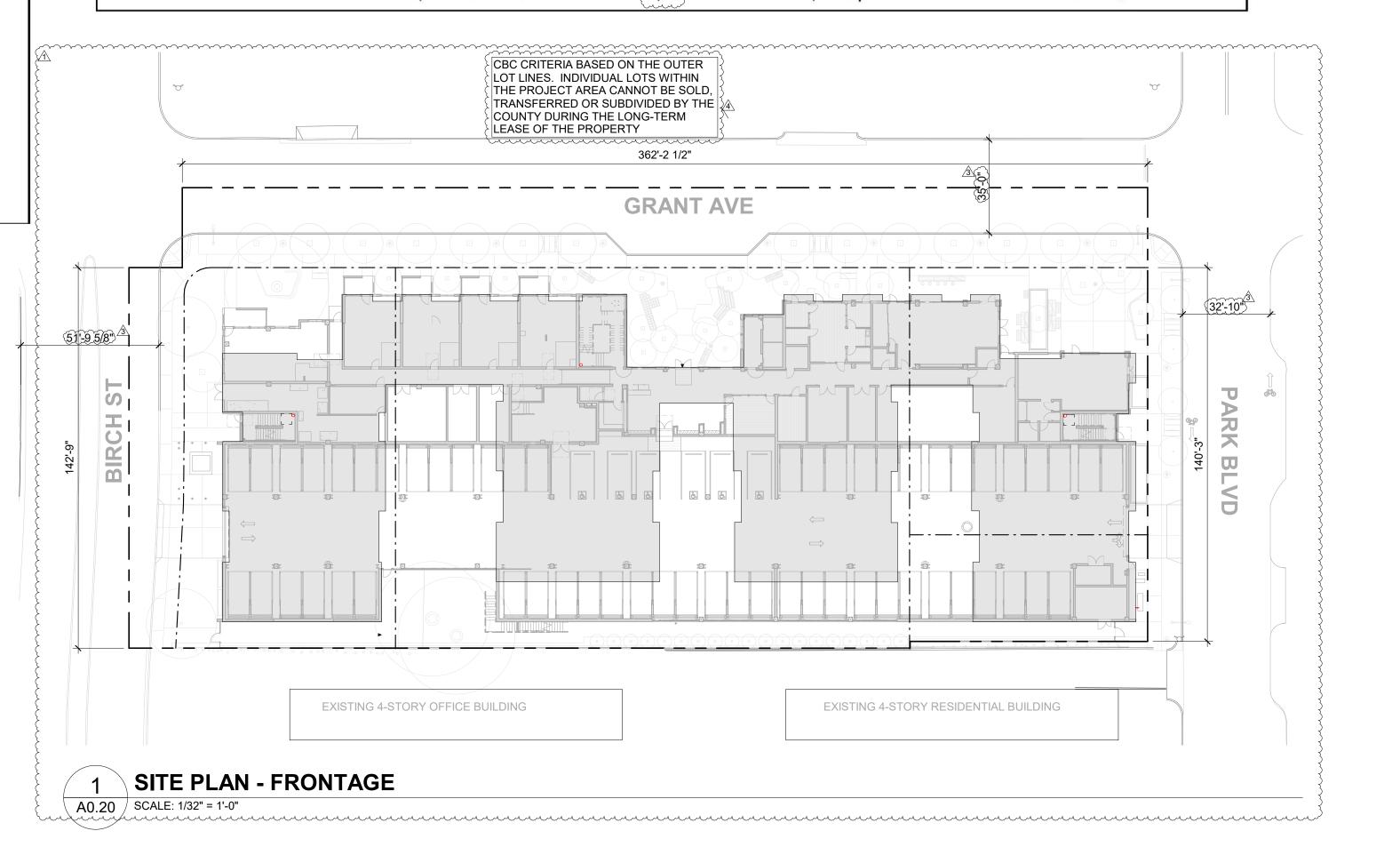
| CONSTRUCTION CLASSIFICATION                                                            |                                                                                    |                                         |                             |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------|
| OCCUPANCY TYPE                                                                         | CONSTRUCTION CLASSIFICATION                                                        | FIRE SPRINKLER REQUIREMENTS             | EXTERIOR WALLS              |
| TYPE IA 1 STORY LOBBY, OFFICES, CLASSROOMS, GARAGE, UTILITY ROOMS, 5 RESIDENTIAL UNITS | TYPE IA [CBC TABLE 601 & TABLE 602]                                                |                                         | 3 HR LOAD BEARING WALLS     |
| R-2, A-3, B, S-2                                                                       | SEPARATED OCCUPANCIES PER PROVISION IN CBC 508.4 AND BUILDING SEPARATION PER 510.2 |                                         | 1-HR NON LOAD BEARING WALLS |
| TYPE VA 3 STORIES 105 RESIDENTIAL UNITS WITH ACCESSORY SPACES                          | TYPE VA [CBC TABLE 601 & TABLE 602]                                                | FIRE SPRINKLERS PER<br>NFPA-13 REQUIRED | 1-HR WALLS THROUGHOUT       |
| R-2, A-3, B, S-2                                                                       | SEPARATED OCCUPANCIES PER PROVISIONS IN CBC 508.4 & 509.2                          |                                         |                             |

FIRE SPRINKLER REQUIREMENTS APPROVED AUTOMATIC SPRINKLER SYSTEM REQUIRED THROUGHOUT PER CBC 903.3.1.1 [NFPA 13]

NOTE: SPRINKLER SYSTEM NOTES ARE FOR REFERENCE ONLY. SPRINKLER SYSTEM SHALL BE DESIGN BUILD AND DRAWINGS SHALL BE SUBMITTED BY SPRINKLER SUBCONTRACTOR UNDER SEPARATE PERMIT.

| ALLOWABLE HEIGHT & ST                | ORIES                                                                                   |                                                                     | ABLE STORIES & HEIGHT<br>ABLES 504.3 & 504.4 | ACTUAL STO     | RIES AND HEIGHT                         |  |  |  |  |  |  |
|--------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------|----------------|-----------------------------------------|--|--|--|--|--|--|
| CONSTRUCTION TYPE DESIGNATION        | OCCUPANCY GROUP                                                                         | BASIC ALLOWABLE<br>STORIES, FIRE<br>SPRINKLED WITH AREA<br>INCREASE | MAXIMUM HEIGHT WITH AREA INCREASE            | ACTUAL STORIES | ACTUAL HEIGHT*                          |  |  |  |  |  |  |
|                                      |                                                                                         | [CBC Table 504.4]                                                   | [CBC Table 504.3]                            |                |                                         |  |  |  |  |  |  |
| TYPE IA                              | R-2, A-3, B, S-2                                                                        | UNLIMITED                                                           | UNLIMITED                                    | 1              | 16'                                     |  |  |  |  |  |  |
| TYPE VA                              | R-2                                                                                     | 4 STORIES                                                           | 60'                                          | 3              | 44' TO ROOF SHEATHING<br>50' TO PARAPET |  |  |  |  |  |  |
| *PER CBC MEASURED FROM AVERAGE GRADE | *PER CBC MEASURED FROM AVERAGE GRADE PLANE OF PRINCIPAL FACADE TO TOP OF ROOF SHEATHING |                                                                     |                                              |                |                                         |  |  |  |  |  |  |

|                                                                       |                                              | TO                                                    | TAL ALLOWABLE AREAS PER                                            | R TAB  | LE 506.2                                                       |                                                 |
|-----------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------|--------|----------------------------------------------------------------|-------------------------------------------------|
| FLOOR                                                                 | MAIN OCCUPANCY                               | CONSTRUCTION<br>TYPE                                  | At=SM BASE MAXIMUM Sq. Ft. WITHOUT HEIGHT INCREASE PER TABLE 506.2 | г      | NS = BASE MAXIMUM Sq. Ft. PER TAB<br>506.2 (FOR EQ. 5-2 BELOW) | LE I <sub>f</sub> = FRONTAGE<br>INCREASE FACTOR |
| FLOOR 1                                                               | A-3<br>B<br>S-2<br>R                         | TYPE IA                                               | UNLIMITED                                                          |        | UNLIMITED                                                      | N/A                                             |
| FLOOR 2-4                                                             | R-2                                          | TYPE VA                                               | 36,000                                                             |        | 12,000                                                         | SEE EQUATION 5-5<br>BELOW                       |
|                                                                       | If = (F/P -<br>Frontage F =<br>Perimeter P = |                                                       | Grant = 362' Park = 141'                                           |        | Birch = 143'                                                   |                                                 |
|                                                                       |                                              |                                                       |                                                                    |        |                                                                |                                                 |
| WEIGHTED AVERA<br>W:                                                  |                                              | EATER THAN 20' (CBC :<br><u>k w2 + L3 x w3 =</u><br>F | 506.3.2, EQ. 5-4)<br>(362 x 30) + (141 x 30) + (143 x 30) =<br>646 | 30     |                                                                |                                                 |
| FRONTAGE INCREASE (CBC 506.3.3, EQ 5-5)  If = (F/P - 0.25) x (W/30) = |                                              | 장 1.1 ·                                               | [(646/1011) - 0.25] x (30/30) =                                    | 0.3899 |                                                                |                                                 |
| MAXIMUM ALLOWA                                                        | ABLE AREA (CBC 506.                          | 2, EQ 5-2)                                            |                                                                    |        |                                                                |                                                 |
| Aa:                                                                   | = [At + NS                                   | $S \times [f] \times Sa =$                            | $[36,000 + (12,000 \times 0.39)] \times 2 =$                       |        |                                                                |                                                 |
| ALLOWABLE E                                                           | BLDG. AREA (SF)                              |                                                       | Aa = 81,360                                                        |        |                                                                |                                                 |
|                                                                       | TYPE VA                                      | BUILDING, LEVELS 2                                    | THRU 4 TOTAL AREA = 79,212                                         | < 8    | 1,360 Sq. Ft. FIRE WALL                                        | NOT REQUIRED                                    |





333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES **MILLENIUM DESIGN** ALAMO, CA 94507

LANDSCAPE ARCHITECT **PLURAL STUDIO** 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT **REDWOOD ENERGY** 1887 Q STREET

ARCATA, CA 95521

**BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: 07/27/2023

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



| ID | DATE     | NAME                  |
|----|----------|-----------------------|
| 1  | 11/11/22 | PERMIT SET-CONV       |
| 2  | 03/20/23 | PLAN CHECK RESPONSE 2 |
| 3  | 05/12/23 | PLAN CHECK RESPONSE 3 |
| 4  | 06/19/23 | PLAN CHECK RESPONSE 4 |
|    |          |                       |
|    |          |                       |
|    |          |                       |

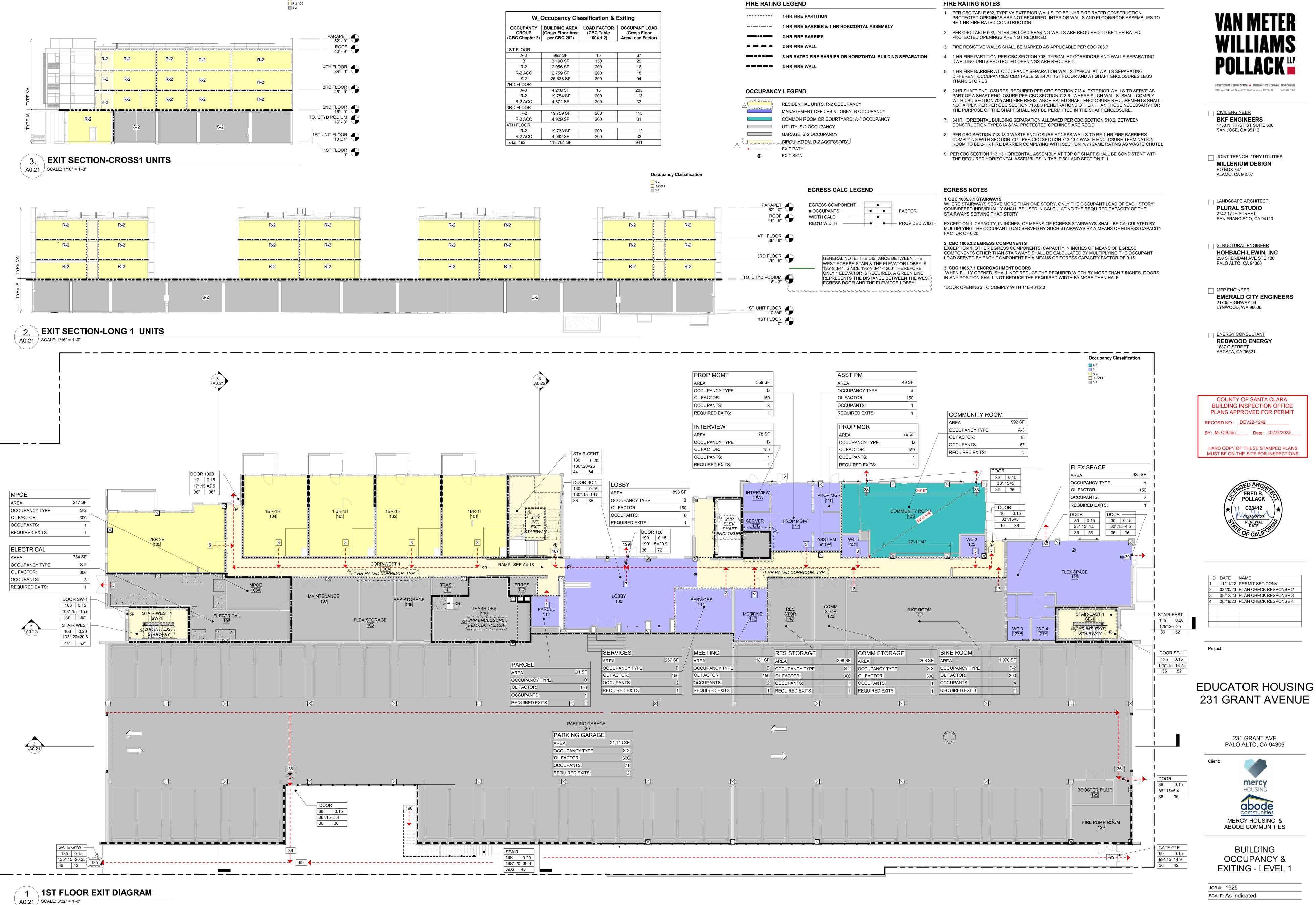
# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



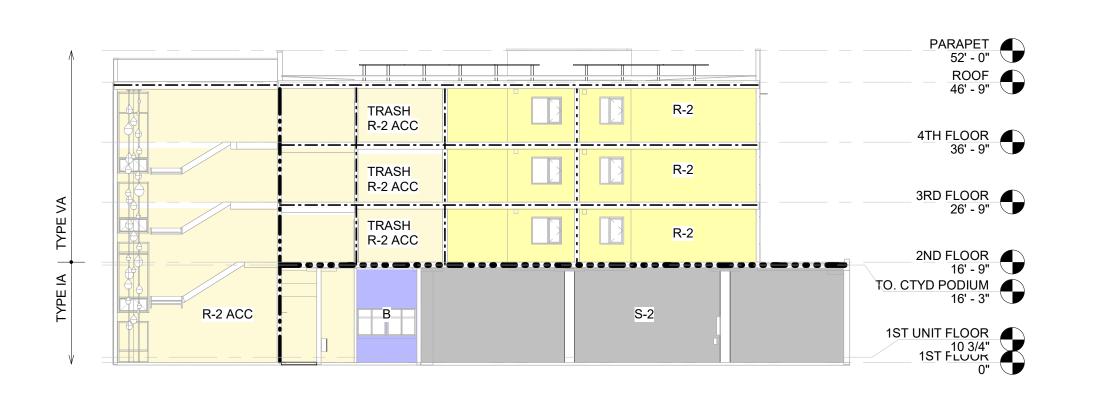
**CODE ANALYSIS** 

JOB #: 1925 SCALE: 1/32" = 1'-0"



**Occupancy Classification** 

A0.21







### FIRE RATING LEGEND FIRE RATING NOTES

3-HR RATED FIRE BARRIER OR HORIZONTAL BUILDING SEPARATION

RESIDENTIAL UNITS, R-2 OCCUPANCY

# OCCUPANTS

WIDTH CALC

REQ'D WIDTH

MANAGEMENT OFFICES & LOBBY, B OCCUPANCY

COMMON ROOM OR COURTYARD, A-3 OCCUPANCY

3-HR FIRE WALL

UTILITY, S-2 OCCUPANCY

GARAGE, S-2 OCCUPANCY

EXIT SIGN

CIRCULATION, R-2 ACCESSORY

OCCUPANCY LEGEND

← - - - - EXIT PATH

1. PER CBC TABLE 602, TYPE VA EXTERIOR WALLS, TO BE 1-HR FIRE RATED CONSTRUCTION. 1-HR FIRE PARTITION PROTECTED OPENINGS ARE NOT REQUIRED. INTERIOR WALLS AND FLOOR/ROOF ASSEMBLIES TO BE 1-HR FIRE RATED CONSTRUCTION. ----- 1-HR FIRE BARRIER & 1-HR HORIZONTAL ASSEMBLY

2. PER CBC TABLE 602, INTERIOR LOAD BEARING WALLS ARE REQUIRED TO BE 1-HR RATED. PROTECTED OPENINGS ARE NOT REQUIRED.

3. FIRE RESISTIVE WALLS SHALL BE MARKED AS APPLICABLE PER CBC 703.7

4. 1-HR FIRE PARTITION PER CBC SECTION 708, TYPICAL AT CORRIDORS AND WALLS SEPARATING DWELLING UNITS PROTECTED OPENINGS ARE REQUIRED.

5. 1-HR FIRE BARRIER AT OCCUPANCY SEPARATION WALLS TYPICAL AT WALLS SEPARATING

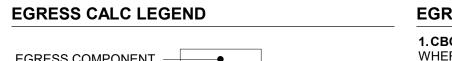
DIFFERENT OCCUPANCIES CBC TABLE 508.4 AT 1ST FLOOR AND AT SHAFT ENCLOSURES LESS

6. 2-HR SHAFT ENCLOSURES REQUIRED PER CBC SECTION 713.4. EXTERIOR WALLS TO SERVE AS PART OF A SHAFT ENCLOSURE PER CBC SECTION 713.6. WHERE SUCH WALLS SHALL COMPLY WITH CBC SECTION 705 AND FIRE RESISTANCE RATED SHAFT ENCLOSURE REQUIREMENTS SHALL NOT APPLY. PER PER CBC SECTION 713.8.8 PENETRATIONS OTHER THAN THOSE NECESSARY FOR THE PURPOSE OF THE SHAFT SHALL NOT BE PERMITTED IN THE SHAFT ENCLOSURE.

7. 3-HR HORIZONTAL BUILDING SEPARATION ALLOWED PER CBC SECTION 510.2. BETWEEN CONSTRUCTION TYPES IA & VA. PROTECTED OPENINGS ARE REQ'D

8. PER CBC SECTION 713.13.3 WASTE ENCLOSURE ACCESS WALLS TO BE 1-HR FIRE BARRIERS COMPLYING WITH SECTION 707. PER CBC SECTION 713.13.4 WASTE ENCLOSURE TERMINATION ROOM TO BE 2-HR FIRE BARRIER COMPLYING WITH SECTION 707 (SAME RATING AS WASTE CHUTE).

9. PER CBC SECTION 713.13 HORIZONTAL ASSEMBLY AT TOP OF SHAFT SHALL BE CONSISTENT WITH THE REQUIRED HORIZONTAL ASSEMBLIES IN TABLE 601 AND SECTION 711



1. CBC 1005.3.1 STAIRWAYS EGRESS COMPONENT — ● FACTOR •

GENERAL NOTE: THE DISTANCE BETWEEN THE WEST EGRESS STAIR & THE ELEVATOR LOBBY IS 195'-9 3/4" . SINCE 195'-9 3/4" < 200' THEREFORE, ONLY 1 ELEVATOR IS REQUIRED. A GREEN LINE REPRESENTS THE DISTANCE BETWEEN THE WEST EGRESS DOOR AND THE ELEVATOR LOBBY.

### **EGRESS NOTES**

WHERE STAIRWAYS SERVE MORE THAN ONE STORY, ONLY THE OCCUPANT LOAD OF EACH STORY CONSIDERED INDIVIDUALLY SHALL BE USED IN CALCULATING THE REQUIRED CAPACITY OF THE STAIRWAYS SERVING THAT STORY

PROVIDED WIDTH EXCEPTION 1, CAPACITY, IN INCHES, OF MEANS OF EGRESS STAIRWAYS SHALL BE CALCULATED BY MULTIPLYING THE OCCUPANT LOAD SERVED BY SUCH STAIRWAYS BY A MEANS OF EGRESS CAPACITY FACTOR OF 0.20

2. CBC 1005.3.2 EGRESS COMPONENTS

EXCEPTION 1, OTHER EGRESS COMPONENTS, CAPACITY IN INCHES OF MEANS OF EGRESS COMPONENTS OTHER THAN STAIRWAYS SHALL BE CALCULATED BY MULTIPLYING THE OCCUPANT LOAD SERVED BY EACH COMPONENT BY A MEANS OF EGRESS CAPACITY FACTOR OF 0.15.

3. CBC 1005.7.1 ENCROACHMENT DOORS WHEN FULLY OPENED, SHALL NOT REDUCE THE REQUIRED WIDTH BY MORE THAN 7 INCHES. DOORS IN ANY POSITION SHALL NOT REDUCE THE REQUIRED WIDTH BY MORE THAN HALF. \*DOOR OPENINGS TO COMPLY WITH 11B-404.2.3

Occupancy Classification

**BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242

**VAN METER** 

**WILLIAMS** 

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PO BOX 737 ALAMO, CA 94507

**BKF ENGINEERS** 

SAN JOSE, CA 95112

1730 N. FIRST ST SUITE 600

JOINT TRENCH / DRY UTILITIES

MILLENIUM DESIGN

LANDSCAPE ARCHITECT

PLURAL STUDIO

SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER

PALO ALTO, CA 94306

MEP ENGINEER

21705 HIGHWAY 99

LYNWOOD, WA 98036

ENERGY CONSULTANT REDWOOD ENERGY

1887 Q STREET ARCATA, CA 95521

HOHBACH-LEWIN, INC

250 SHERIDAN AVE STE 100

**EMERALD CITY ENGINEERS** 

2742 17TH STREET

BY: M. O'Brien Date: <u>07/27/2023</u> HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



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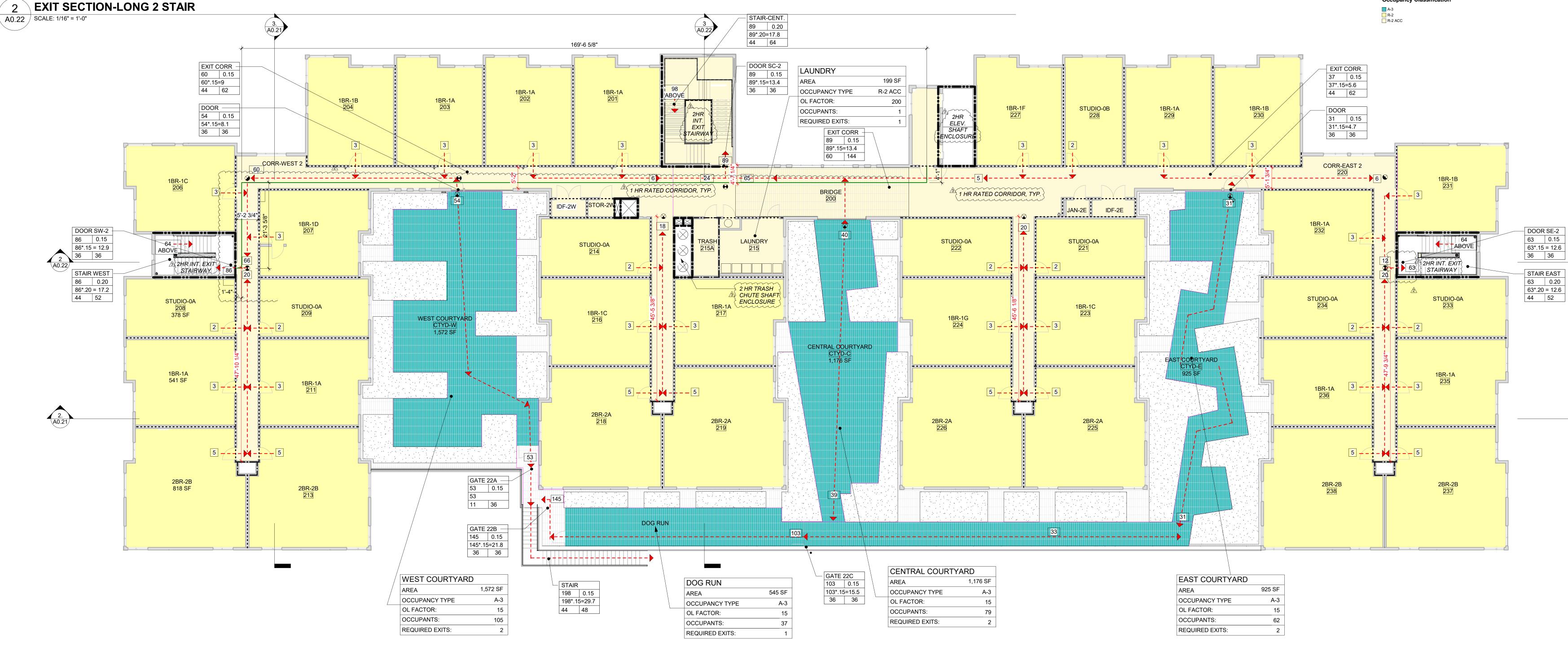
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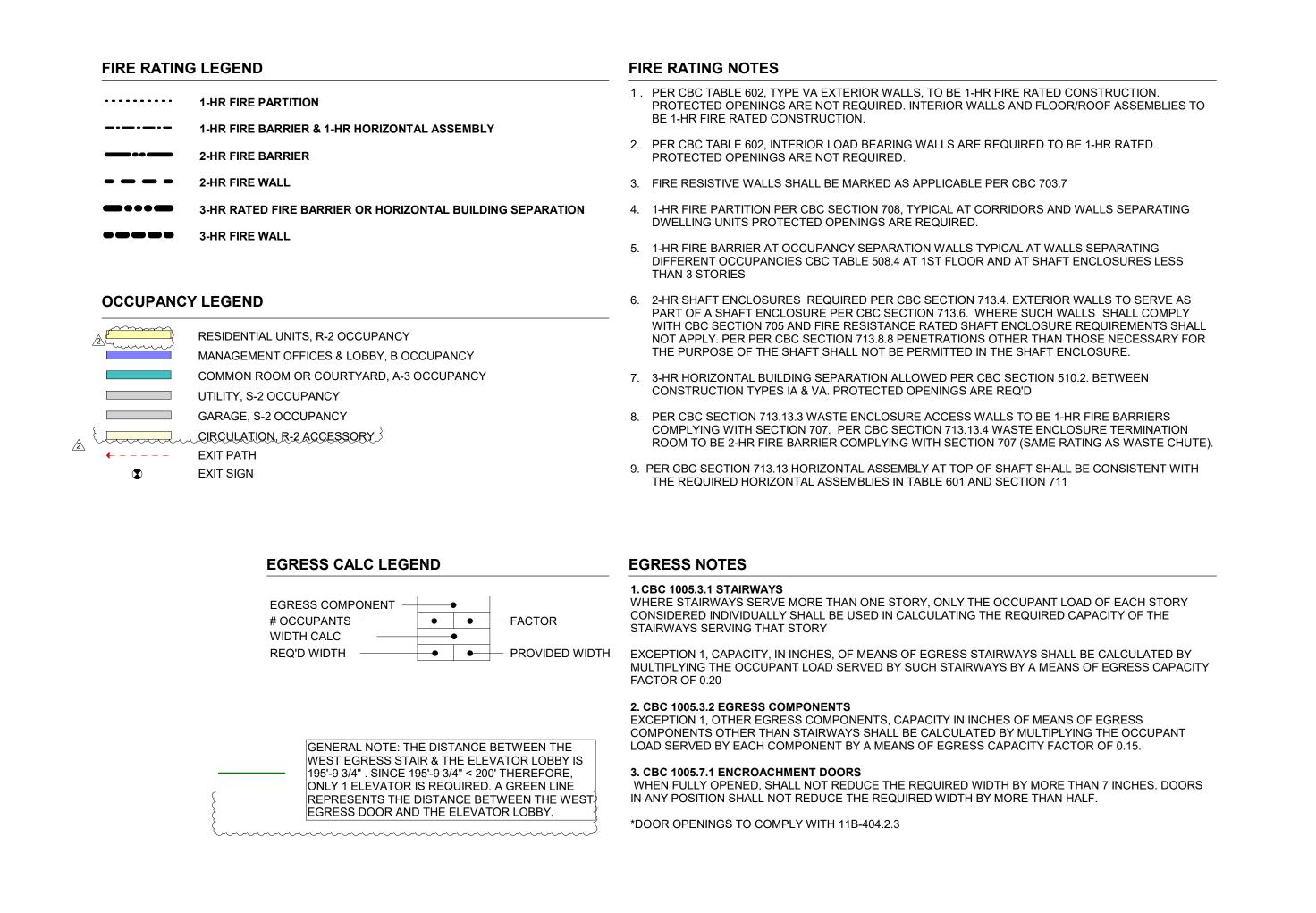


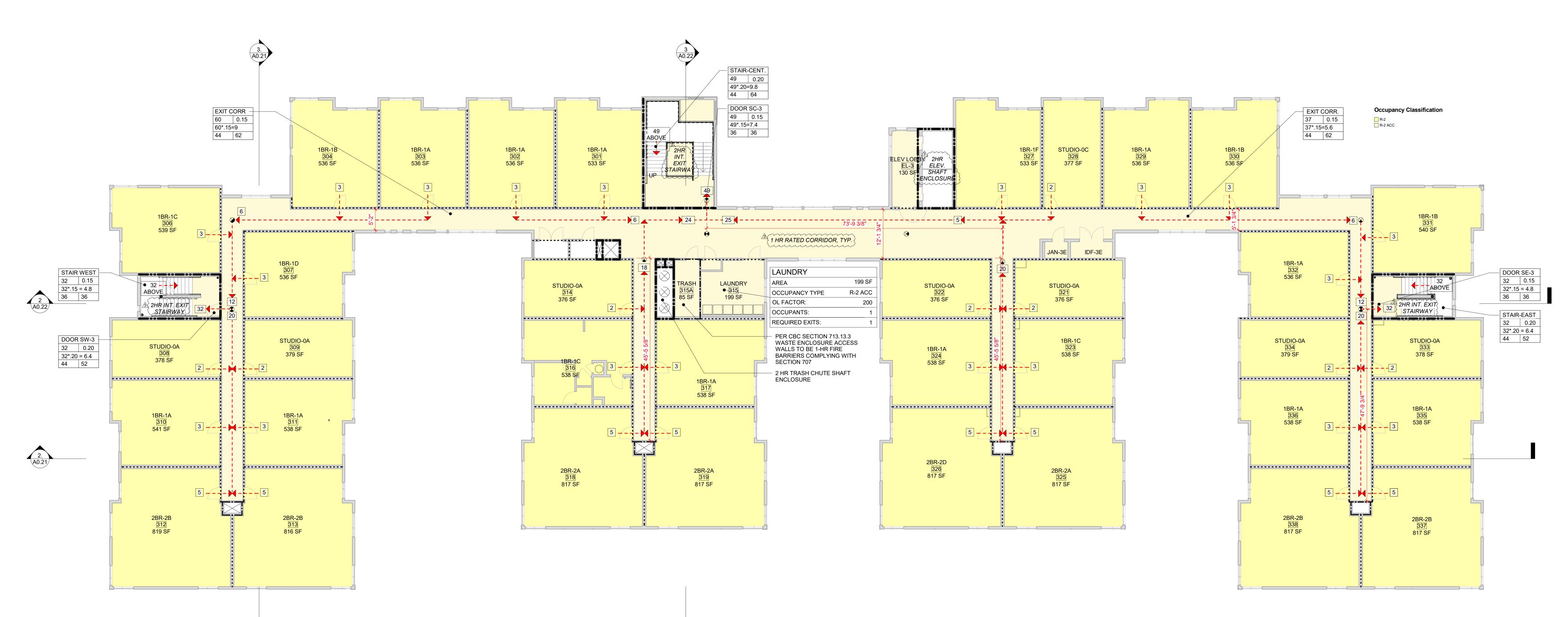
MERCY HOUSING 8 ABODE COMMUNITIES

BUILDING OCCUPANCY & EXITING - LEVEL 2

JOB #: 1925 SCALE: As indicated







1 3RD FLOOR EXIT DIAGRAM
A0.23 SCALE: 3/32" = 1'-0"

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COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT

 RECORD NO.:
 DEV22-1242

 BY:
 M. O'Brien
 Date:
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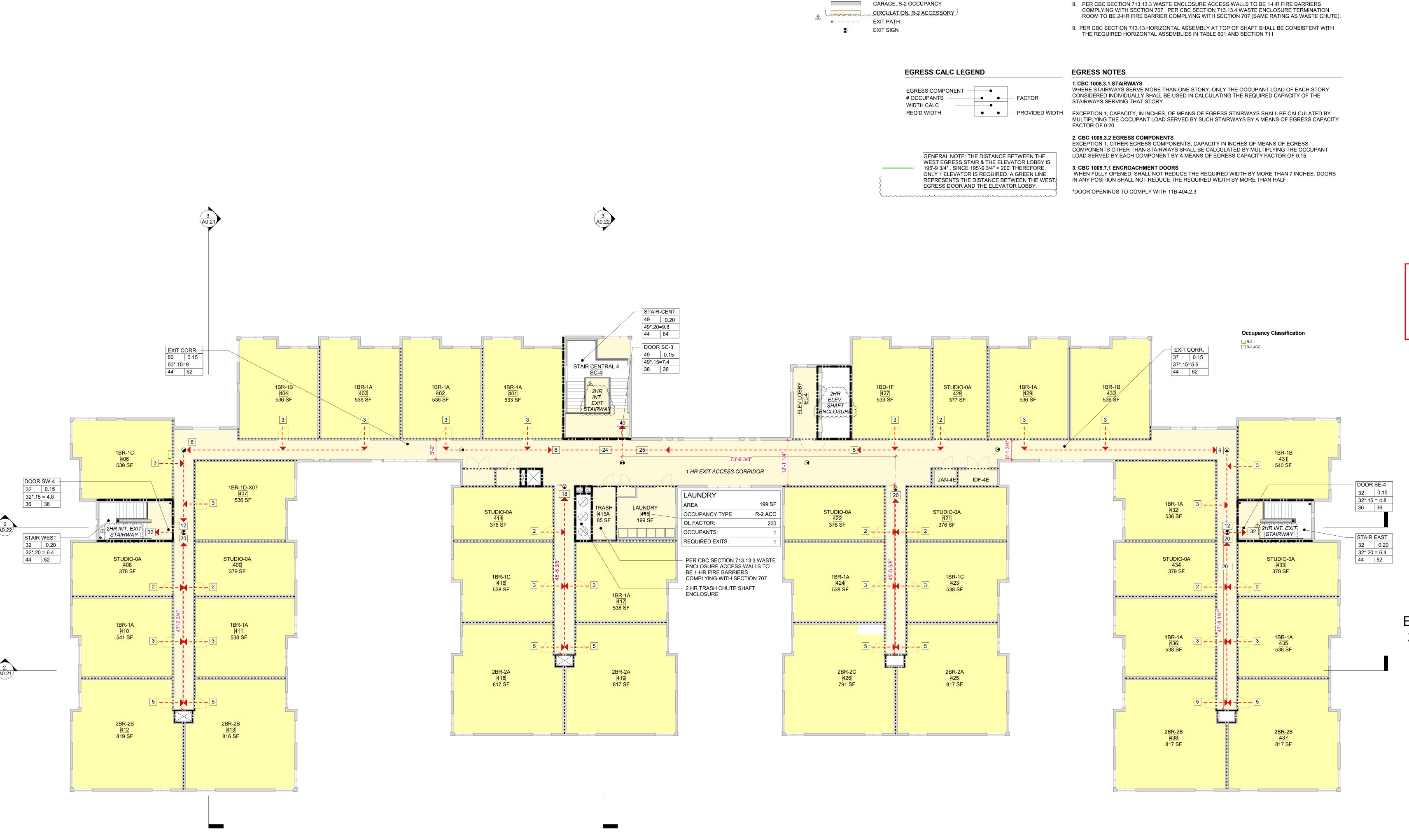
> 231 GRANT AVE PALO ALTO, CA 94306



BUILDING OCCUPANCY & EXITING - LEVEL 3

JOB #: 1925 SCALE: 3/32" = 1'-0"

A0.23



4TH FLOOR EXIT DIAGRAM

A0.24 SCALE: 3/32" = 1'-0"

FIRE RATING LEGEND

1-HR FIRE PARTITION

3-HR FIRE WALL

OCCUPANCY LEGEND

UTILITY, S-2 OCCUPANCY

1-HR FIRE BARRIER & 1-HR HORIZONTAL ASSEMBLY

RESIDENTIAL UNITS, R-2 OCCUPANCY

MANAGEMENT OFFICES & LOBBY, B OCCUPANCY

COMMON ROOM OR COURTYARD, A-3 OCCUPANCY

3-HR RATED FIRE BARRIER OR HORIZONTAL BUILDING SEPARATION

FIRE RATING NOTES

BE 1-HR FIRE RATED CONSTRUCTION.

PROTECTED OPENINGS ARE NOT REQUIRED.

1. PER CBC TABLE 602, TYPE VA EXTERIOR WALLS, TO BE 1-HR FIRE RATED CONSTRUCTION.

2. PER CBC TABLE 602, INTERIOR LOAD BEARING WALLS ARE REQUIRED TO BE 1-HR RATED.

4. 1-HR FIRE PARTITION PER CBC SECTION 708, TYPICAL AT CORRIDORS AND WALLS SEPARATING

DIFFERENT OCCUPANCIES CBC TABLE 508.4 AT 1ST FLOOR AND AT SHAFT ENCLOSURES LESS

PART OF A SHAFT ENCLOSURE PER CBC SECTION 713.6. WHERE SUCH WALLS SHALL COMPLY WITH CBC SECTION 705 AND FIRE RESISTANCE RATED SHAFT ENCLOSURE REQUIREMENTS SHALL

NOT APPLY. PER PER CBC SECTION 713.8.8 PENETRATIONS OTHER THAN THOSE NECESSARY FOR

6. 2-HR SHAFT ENCLOSURES REQUIRED PER CBC SECTION 713.4. EXTERIOR WALLS TO SERVE AS

5. 1-HR FIRE BARRIER AT OCCUPANCY SEPARATION WALLS TYPICAL AT WALLS SEPARATING

THE PURPOSE OF THE SHAFT SHALL NOT BE PERMITTED IN THE SHAFT ENCLOSURE.

7. 3-HR HORIZONTAL BUILDING SEPARATION ALLOWED PER CBC SECTION 510.2. BETWEEN

3. FIRE RESISTIVE WALLS SHALL BE MARKED AS APPLICABLE PER CBC 703.7

CONSTRUCTION TYPES IA & VA. PROTECTED OPENINGS ARE REQ'D

DWELLING UNITS PROTECTED OPENINGS ARE REQUIRED.

PROTECTED OPENINGS ARE NOT REQUIRED. INTERIOR WALLS AND FLOOR/ROOF ASSEMBLIES TO

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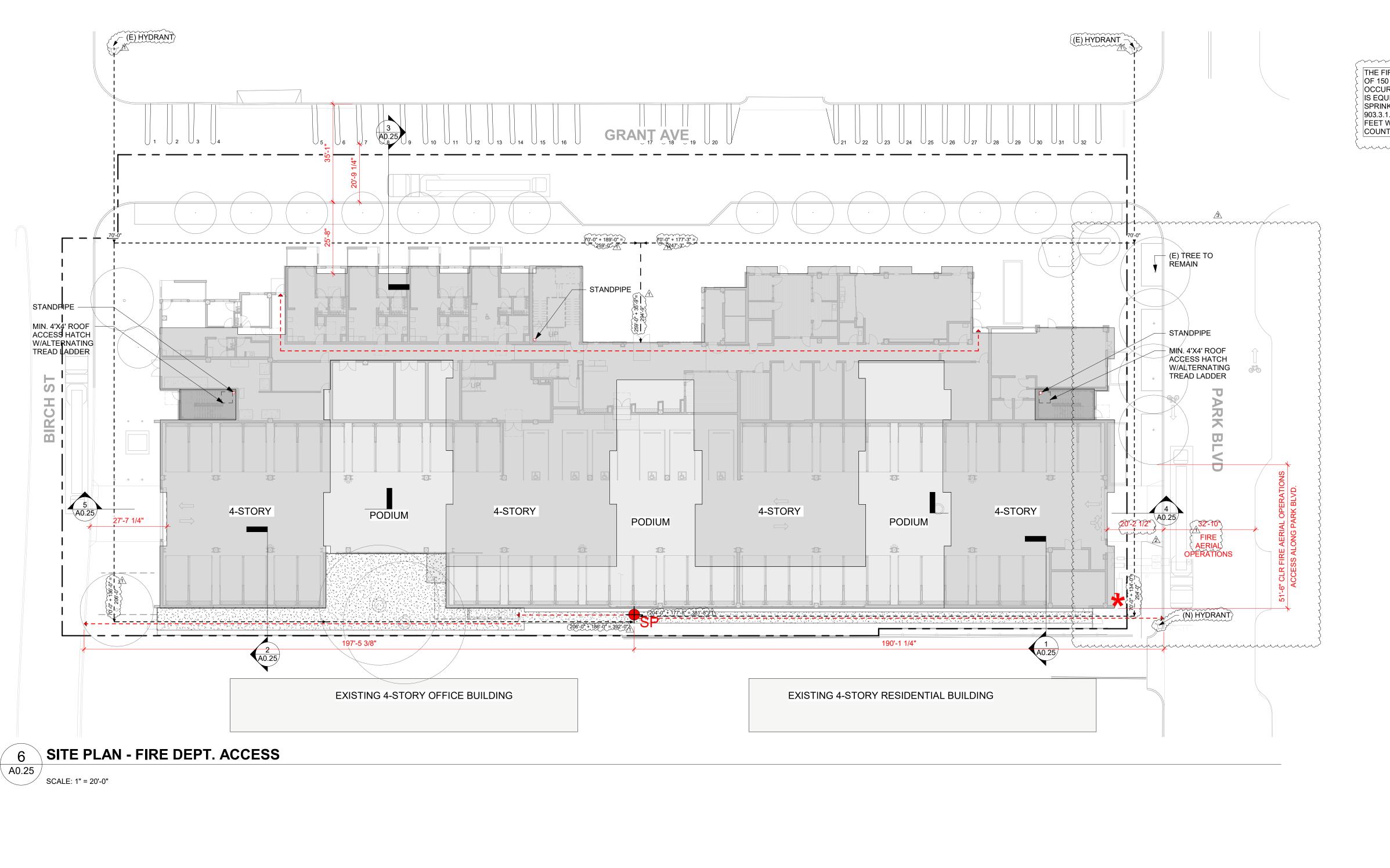
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BUILDING OCCUPANCY & EXITING - LEVEL 4

JOB #: 1925 SCALE: 3/32" = 1'-0"



THE FIRE CODE OFFICIAL IS AUTHORIZED TO INCREASE THE DIMENSION OF 150 FEET (45 720 MM) WHERE ANY OF THE FOLLOWING CONDITIONS OCCUR: IN OTHER THAN R-3 OR U OCCUPANCIES, WHEN THE BUILDING IS EQUIPPED THROUGHOUT WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM, INSTALLED IN ACCORDANCE WITH SECTIONS 903.3.1.1, THE DIMENSION MAY BE INCREASED TO A MAXIMUM OF 300 FEET WHEN APPROVED BY THE FIRE CODE OFFICIAL. PER SANTA CLARA COUNTY ORDINANCE 1100.131, SECTION B7-7. my manument in the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of t

# 1 STORY 4 STORIES **ROOF ACCESS** DISTANCE FROM FIRE ACCESS DRIVE (MAX 150' ALLOWED) PROPOSED WET STAND PIPE W/GROUND LEVEL & PODIUM LEVEL CONNECTIONS STANDPIPE LOCATION AT STAIR FIRE DEPARTMENT CONNECTION (FDC) 4 HEADS REQUIRED

# **GENERAL NOTES**

**LEGEND** 

1) EGRESS WINDOWS PER CBC 1030 2) SPRINKLER DENSITY INCREASE FOR PARKING STACKERS IN

DISTANCE PROM FIRE HYDRANT

3) KNOXBOXES TO BE PROVIDED BY PAFD, THE RESPONDING AGENCY.

4) INCREASED SPRINKLER DENSITY AT 4TH FLOOR WHERE EGRESS WINDOW ACCESS IS NOT POSSIBLE PROPOSED THROUGH SEPARATE ALTERNATE MEANS APPLICATION

5) ALL FIRE DEPARTMENT ACCESS WILL BE MADE OF AN ALL WEATHER MATERIAL CAPABLE OF HOLDING 75,000 POUNDS.

(6)THE MIDBLOCK WET STANDPIPE AT THE REAR ALLEY OF THE BUILDING INDICATED PER DETAIL 6/A0.25 IS PROPOSED TO MITIGATE THE HOSE PULL EXCEEDING 150' AT THE REQUEST OF PAFD. 7) AERIAL OPERATIONS ACCESS TO BE PROVIDED AT THE DRIVEWAY GARAGE DOOR ENTRY ALONG PARK BLVD.

8) TREES TO BE MAINTAINED SUCH THAT THEY DO NOT IMPEDE AERIAL APPARATUS ACCESS TO THE ROOF. 

PARAPET 52' - 0"

ROOF 46' - 9"

4TH FLOOR 36' - 9"

3RD FLOOR 26' - 9"

TO. CTYD PODIÚM 16' - 3"

1ST UNIT FLOOR 10 3/4"

10'-0 3/32"

A0.25 SCALE: 1/16" = 1'-0"

A0.25 | SCALE: 1/16" = 1'-0"

1ST FLOOR

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ALAMO, CA 94507

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STRUCTURAL ENGINEER

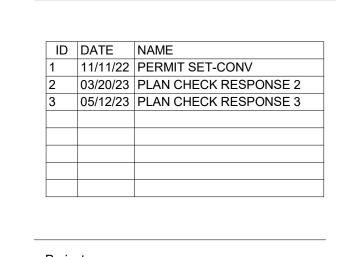
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MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99 LYNWOOD, WA 98036

**ENERGY CONSULTANT** REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521

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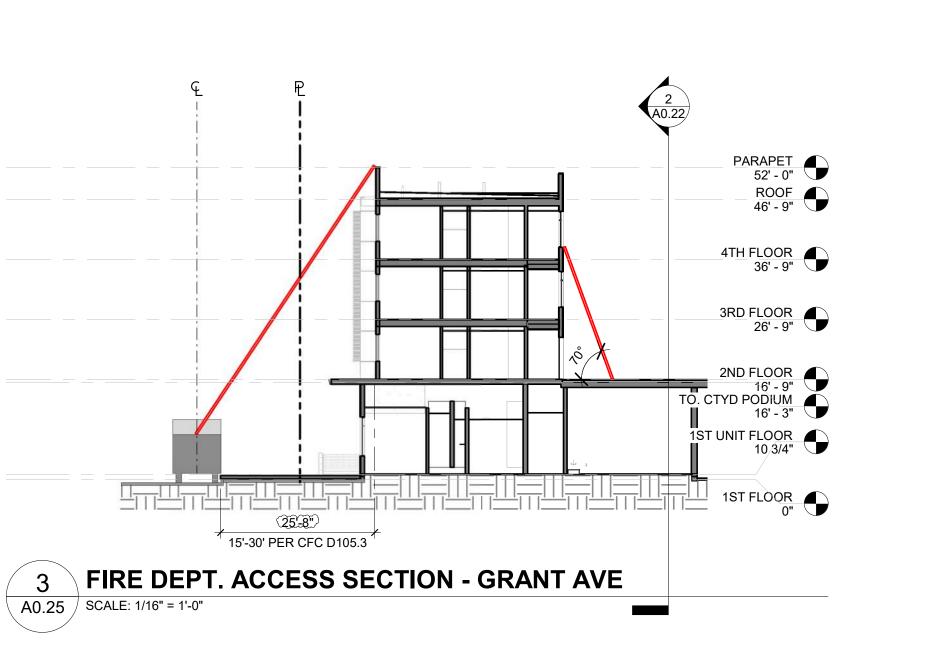
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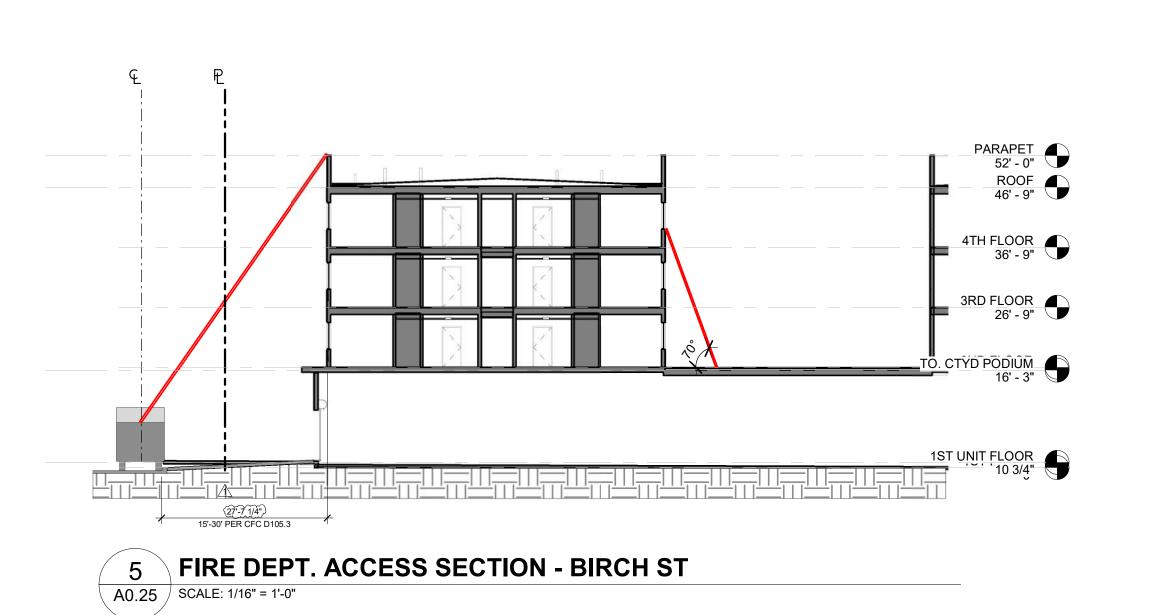


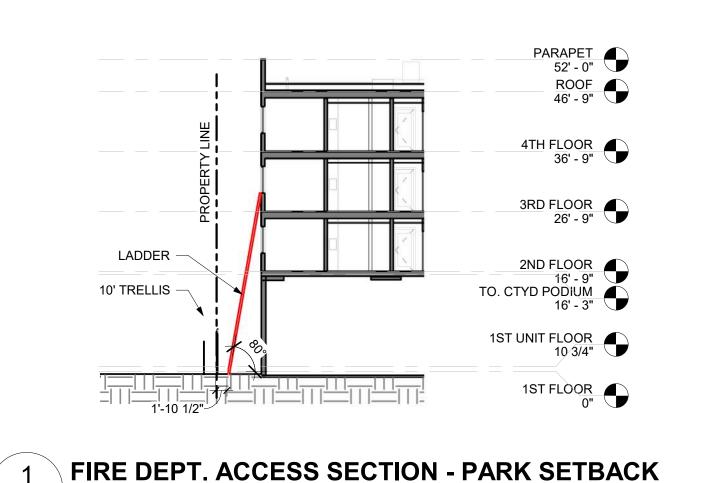
FIRE DEPT ACCESS **DIAGRAMS** 

JOB #: 1925 SCALE: As indicated PLAN CHECK REVISION 4 | DATE: 06/19/23

(E) TREES TO REMAIN
BEYOND FIRE AERIAL OPERATIONS.
SEE SITE PLAN DETAIL 6/A0.25
FOR THE AERIAL OPERATIONS ZONE &
THE (E) TREES TO REMAIN LOCATIONS. PARAPET 52' - 0" ROOF 46' - 9" 4TH FLOOR 36' - 9" 3RD FLOOR 26' - 9" 16' - 9" TO. CTYD PODIUM 1ST UNIT FLOOR 10 3/4" 1ST FLOOR FIRE DEPT. ACCESS SECTION - PARK BLVD A0.25 SCALE: 1/16" = 1'-0"







FIRE DEPT. ACCESS SECTION - BIRCH SETBACK



4 4TH FLOOR ACCESSIBILTY DIAGRAM

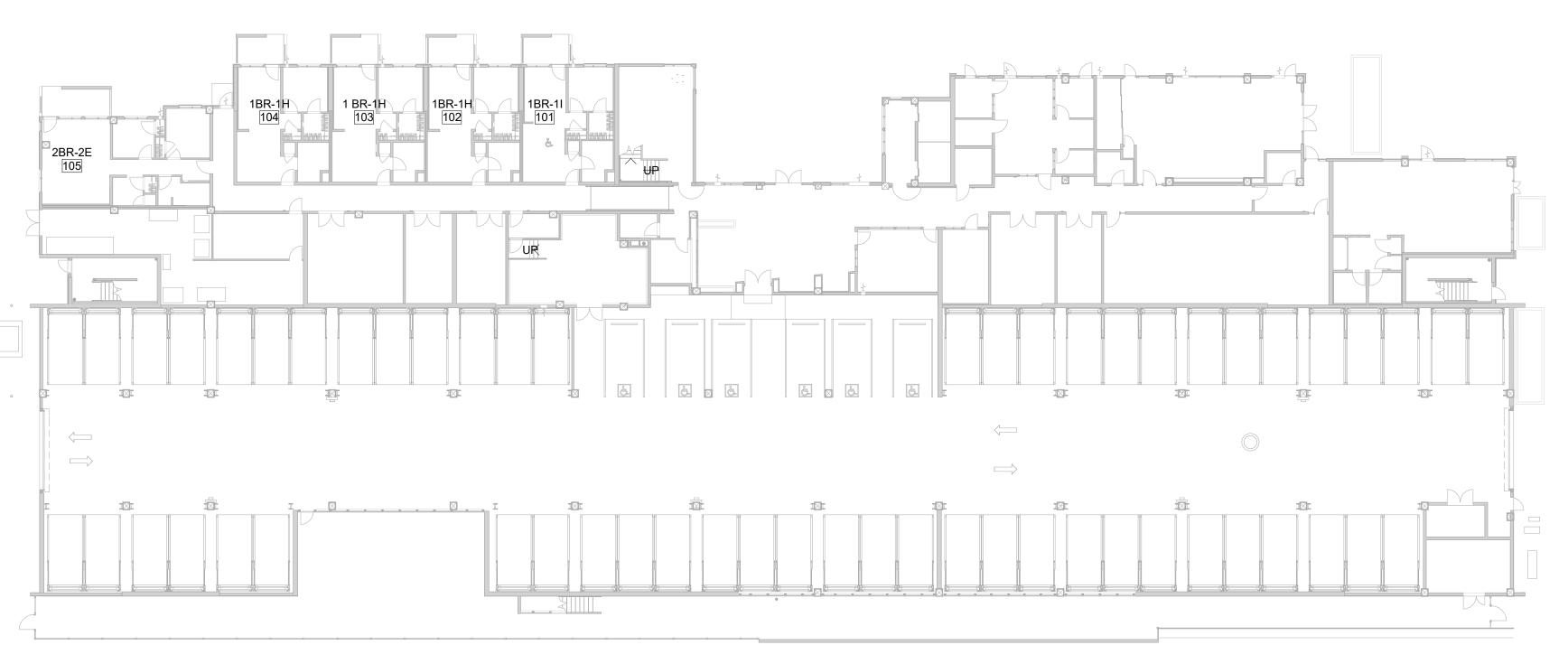
SCALE: 1" = 20'-0"



3 3RD FLOOR ACCESSIBILITY DIAGRAM

A0.30 SCALE: 1" = 20'-0"

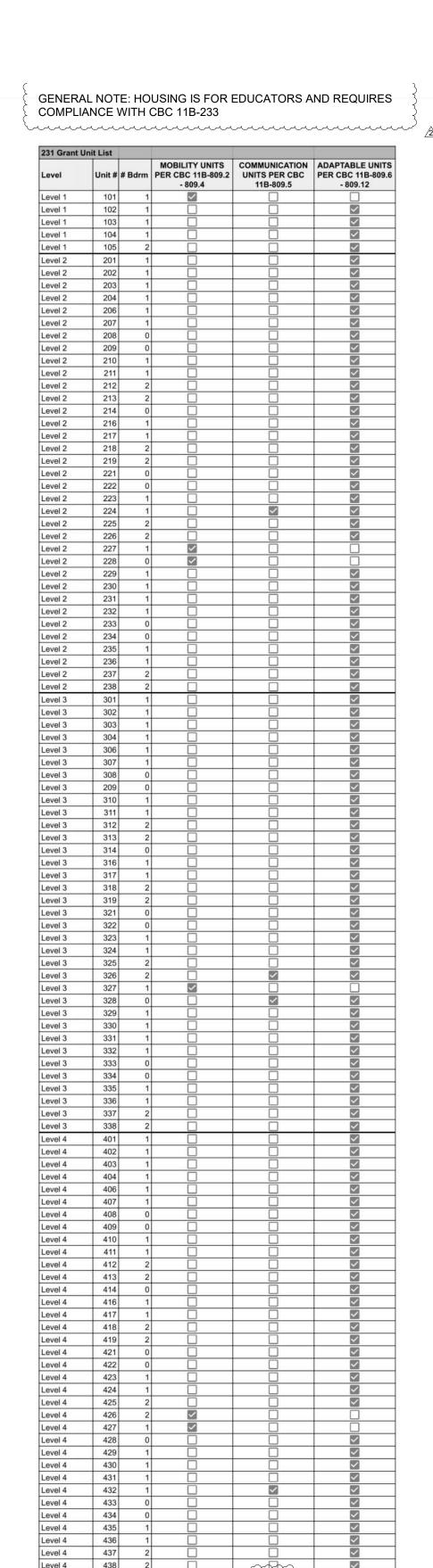




2 2ND FLOOR ACCESSIBILITY DIAGRAM

SCALE: 1" = 20'-0"

1ST FLOOR ACCESSIBILITY DIAGRAM A0.30 SUBTITLE\_OPTIONAL SCALE: 1" = 20'-0"





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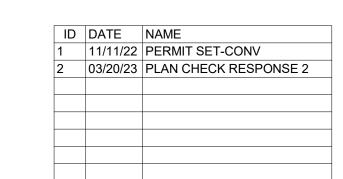
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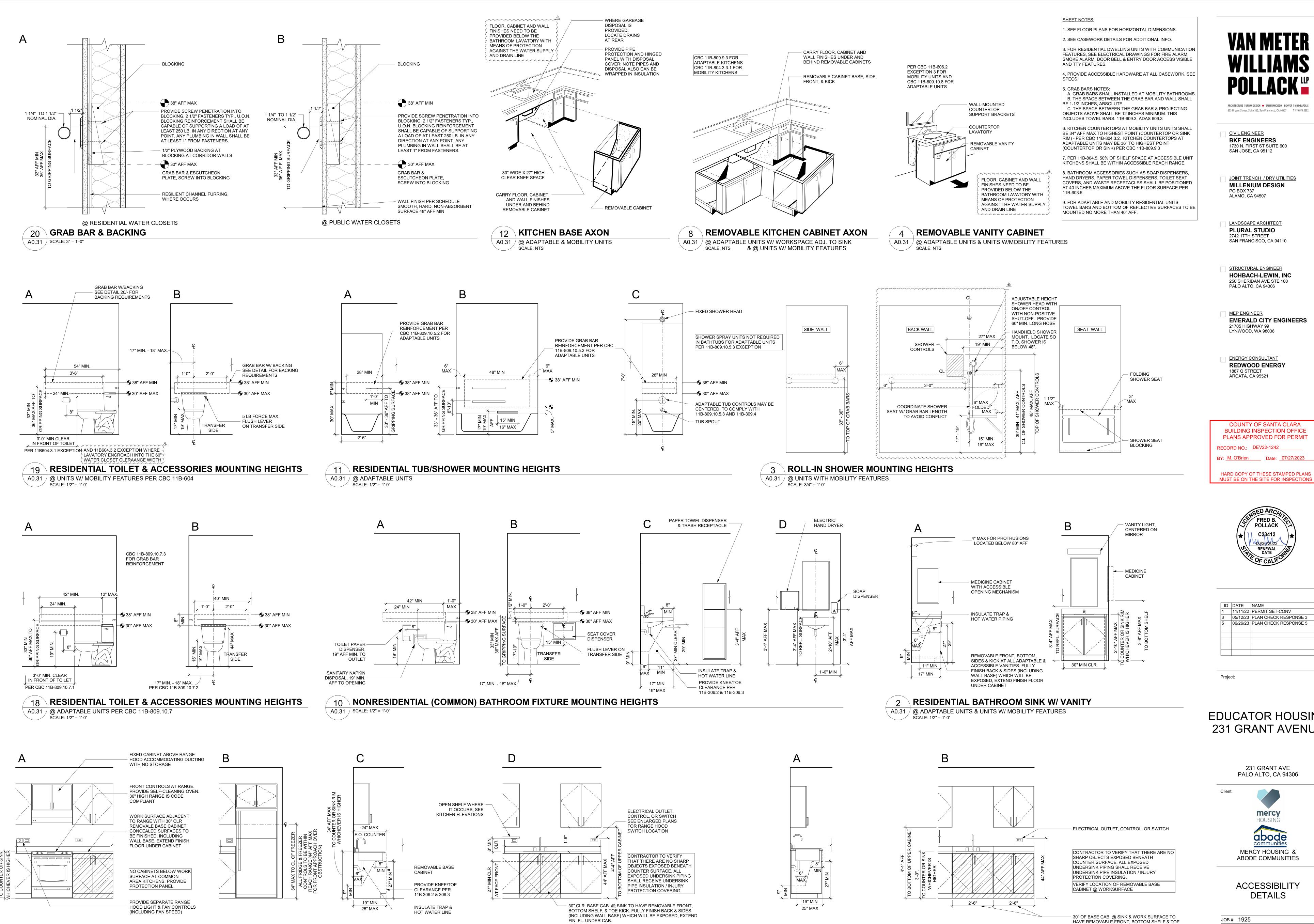
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ACCESSIBILITY SUMMARY

JOB #: 1925 SCALE: 1" = 20'-0"



NO CABINETS BELOW SINK AT COMMON AREA KITCHENS.

PROVIDE PROTECTION PANEL.

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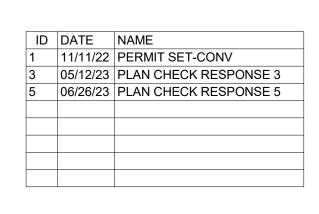
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MEP ENGINEER

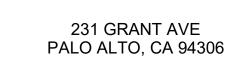
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**ACCESSIBILITY DETAILS** 

JOB #: 1925 SCALE: As indicated

KICK. FULLY FINISH BACK & SIDES (INCLUDING

WALL BASE) WHICH WILL BE EXPOSED, EXTEND

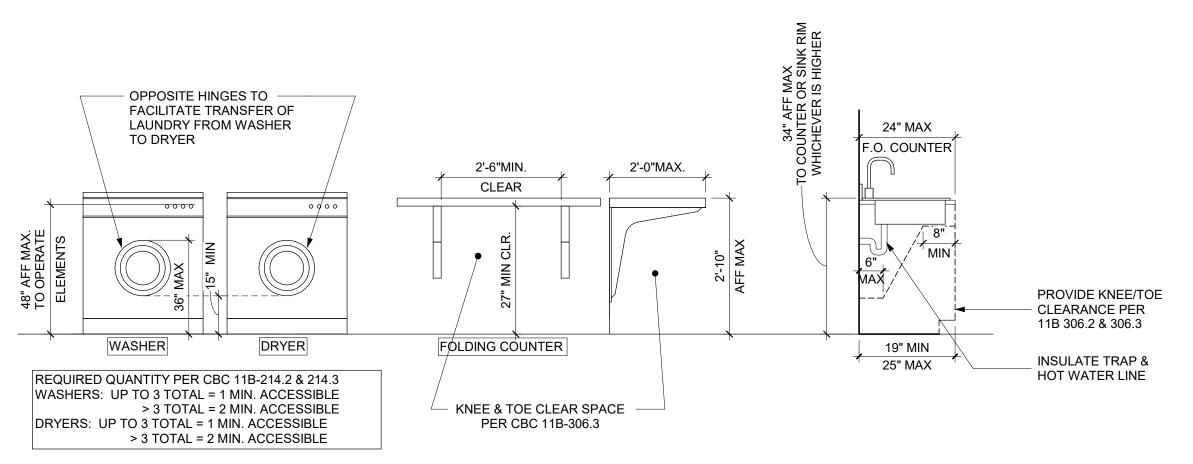
FINISH FOOR UNDER CABINET

PLAN CHECK REVISION 4 | DATE: 06/19/23

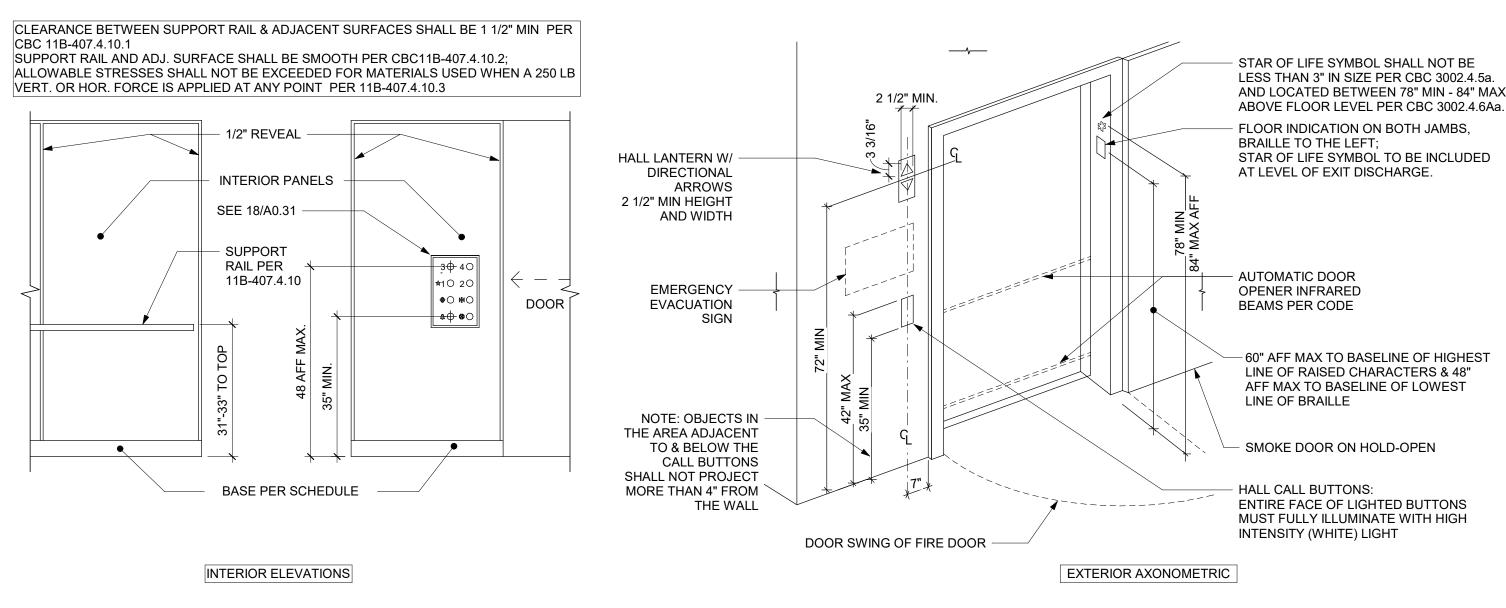
RESIDENTIAL & NONRESIDENTIAL (COMMON) KITCHEN FIXTURE MOUNTING HEIGHTS @ UNITS W/ MOBILITY FEATURES & COMMON AREA FACILITIES SCALE: 1/2" = 1'-0"

A0.31

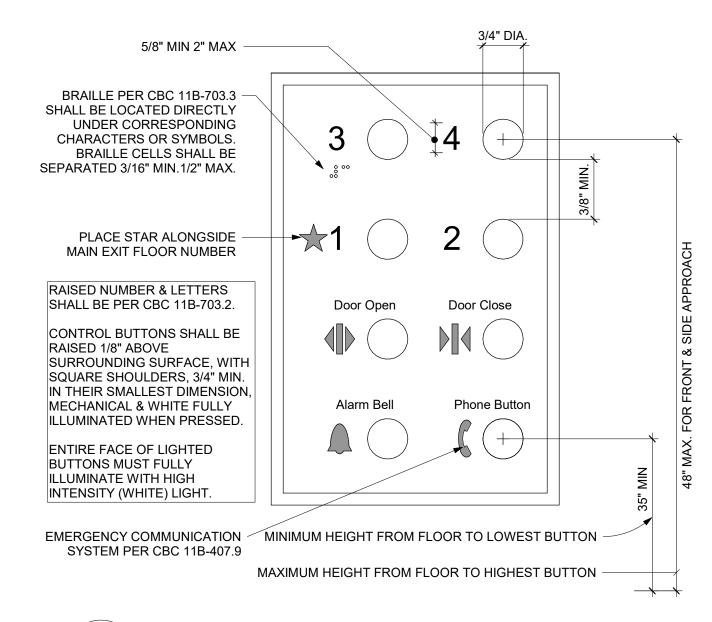
RESIDENTIAL KITCHEN FIXTURE MOUNTING HEIGHTS A0.31 / @ ADAPTABLE UNITS SCALE: 1/2" = 1'-0"



TYP. LAUNDRY FACILITIES @ COMMON AREA LAUNDRY ROOM, WHERE IT OCCURS SCALE: 1/2" = 1'-0"

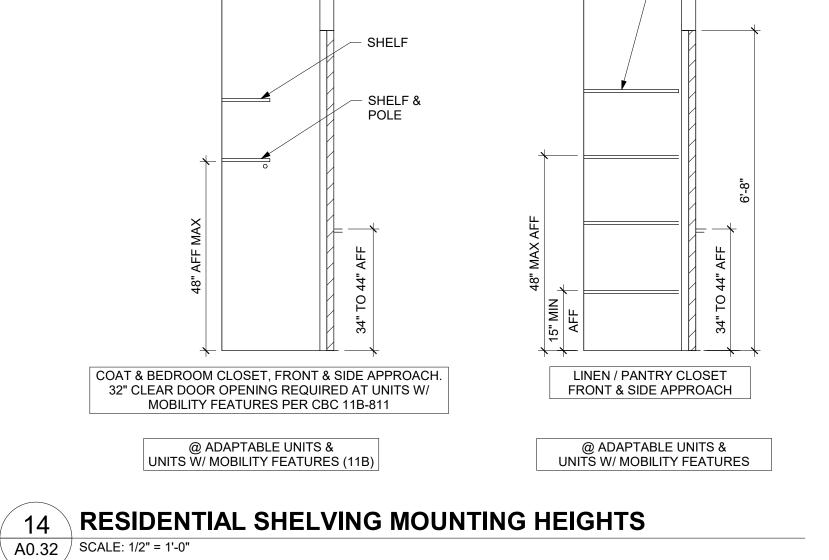


TYP. ELEVATOR MOUNTING HEIGHTS A0.32 SCALE: 1/2" = 1'-0"



**ELEVATOR CONTROLS** 

A0.32 SCALE: 1/2" = 1'-0"



- SHELVES, TYP. OF 4

PROVIDE TOP VIEWER @

ALL UNIT ENTRY DOORS

PROVIDE LOWER VIEWER

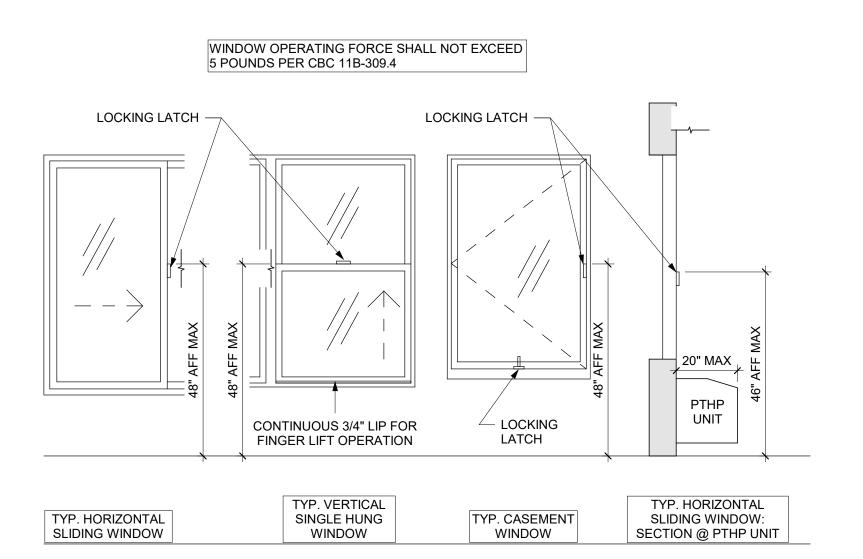
@ MOBILITY UNIT ENTRY

PROVIDE VIEWERS W/ 180°

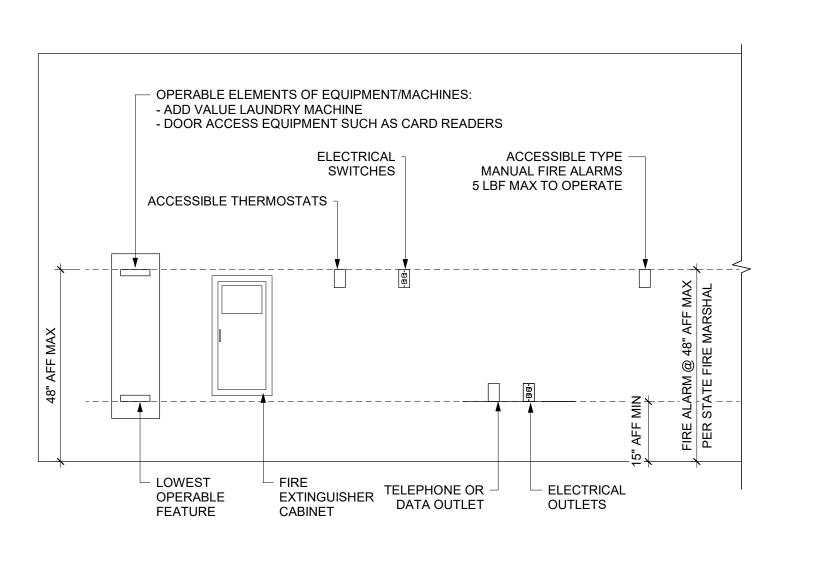
COMMUNICATION UNITS

DOORS

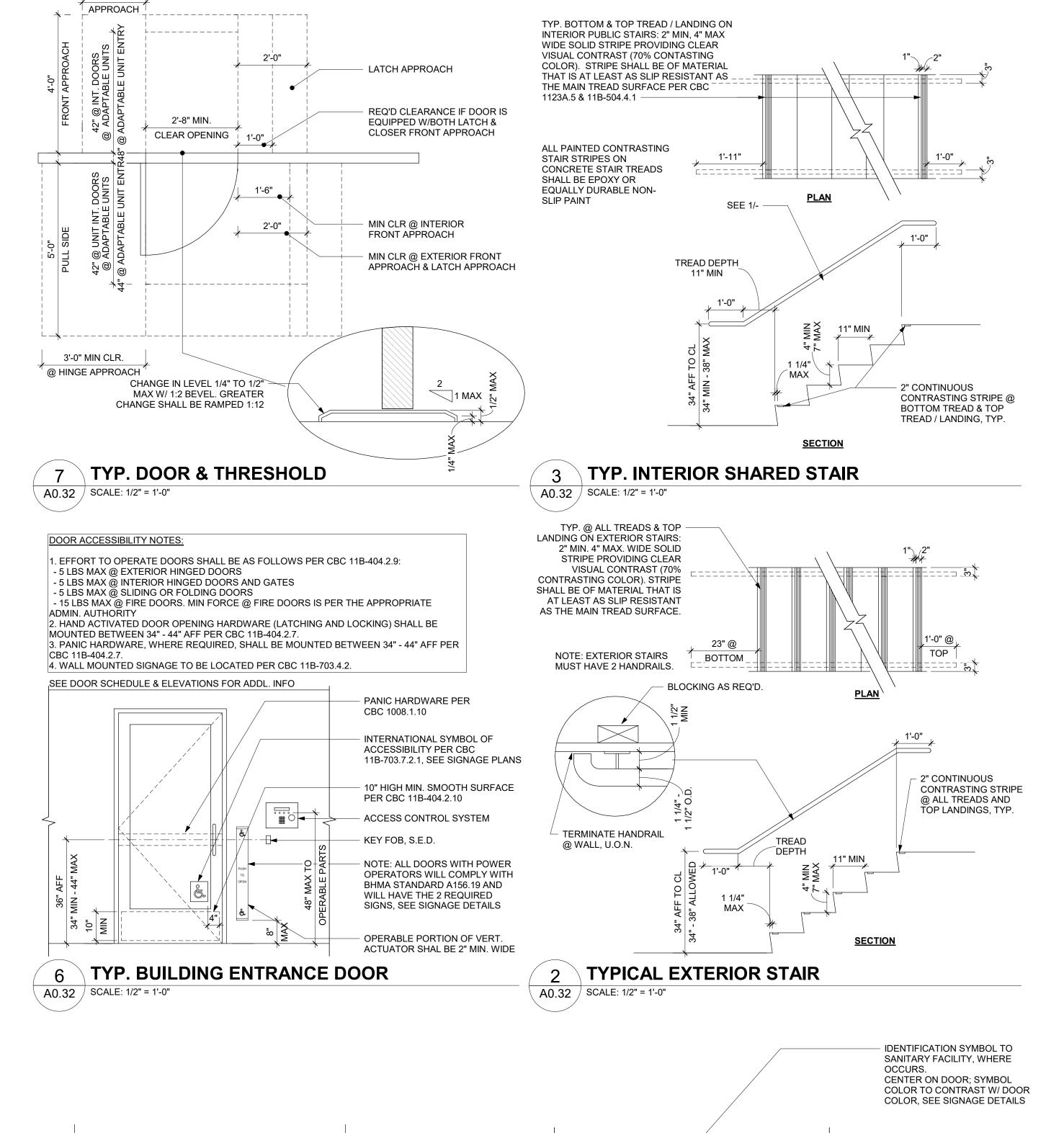
RANGE AT



**TYP. WINDOW LATCH HEIGHTS** A0.32 / @ UNITS W/ MOBILITY FEATURES & COMMON AREAS SCALE: 1/2" = 1'-0"



TYPICAL MOUNTING HEIGHTS A0.32 | SCALE: 1/2" = 1'-0"



PERMANENT UNIT

PER CBC 11B-703.4.2

IDENTIFICATION SIGN TO BE

WALL AT DOOR LATCH SIDE

48" MIN TO BASELINE OF THE

LOWEST BRAILLE CELL AND

THE HIGHEST TACTILE CHARACTER PER CBC

11B-703.4.1.

TYP. UNIT ENTRY DOORS

A0.32 | SCALE: 1/2" = 1'-0"

60" MAX TO THE BASELINE OF

10" HIGH SMOOTH SURFACE

PER CBC 11B-404.2.10

AFF

INSTALLED ON ADJACENT

1'-10" HINGE

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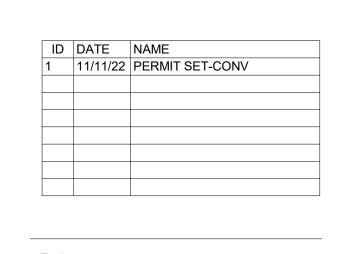
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LYNWOOD, WA 98036

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STAIR IDENTIFICATION SIGN

EMERGENCY EVACUATION

SIGN AT CORRIDOR SIDE OF

**IDENTIFICATION SIGN TO BE** 

INSTALLED ON THE WALL PER

48" MIN TO BASELINE OF THE

LOWEST BRAILLE CELLS AND

60" MAX TO THE BASELINE OF

THE HIGHEST LINE OF RAISED

10" HIGH SMOOTH SURFACE

PER CBC 11B-404.2.10

CHARACTERS PER CBC

STAIR ACCESS DOOR

PERMANENT ROOM

CBC 11B-703.4.2

AT STAIRWAY



**ACCESSIBILITY DETAILS AND** MOUNTING HEIGHTS

JOB #: 1925 SCALE: 1/2" = 1'-0" PLAN CHECK REVISION 4 | DATE: 06/19/23

TYP. COMMON DOORS & SIGNAGE A0.32 | SCALE: 1/2" = 1'-0"

| Proj                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | iect Name: 23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1 Grant Aven | ie                             |                                        |                                                                      |                  | NRCC-PRF-01-E                                                              | Page 1 of 4                                                                                           | 6                                                                   |                                                                                |  |
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| Proj                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CA Zip Code  CA Zip Code  CI Cotal Conditioned Floor Area in Scope  CA Total Unconditioned Floor Area  CA Total Unconditioned Floor Area  CA Total Unconditioned Floor Area  CA Total # of Stories (Habitable Above Grade)  CA Total # of dwelling units  CA Total # of dwelling units  CA Total # of dwelling units  CA Total # of dwelling units  CA Total # of dwelling units  CA Total # of dwelling units  CA Total # of Stories (Habitable Above Grade)  CA Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Above Grade)  A Total # of Stories (Habitable Ab |              |                                | Calculation Date/Time                  | e: 16:22, Tue,                                                       | Mar 07, 2023     |                                                                            |                                                                                                       |                                                                     |                                                                                |  |
| Inpu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ut File Name: Gr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ant.cibd19x  |                                |                                        |                                                                      |                  |                                                                            |                                                                                                       |                                                                     |                                                                                |  |
| Α. (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | GENERAL INFORMATIO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ON           |                                |                                        |                                                                      |                  |                                                                            |                                                                                                       |                                                                     |                                                                                |  |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Project Location (city)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |                                | Palo Alto                              | 0                                                                    | 8                | Standards Version                                                          |                                                                                                       | Compliance2019                                                      |                                                                                |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | See a supplied and the supplied supplied and supplied and supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplied supplints supplied supplied supplied supplied supplied supplied supplie |              |                                |                                        |                                                                      | 9                | Compliance Software                                                        | (version)                                                                                             | EnergyPro 8.3                                                       |                                                                                |  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4 Total Conditioned Floor Area in Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |                                |                                        |                                                                      | 10               | Weather File                                                               |                                                                                                       | PALO-ALTO_724937_C                                                  | Z2010.epw                                                                      |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Total Conditioned Floor Area in Scope Total Unconditioned Floor Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |                                |                                        | t²                                                                   | 11               | Building Orientation (                                                     | (deg)                                                                                                 | (S) 180 deg                                                         |                                                                                |  |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Total Unconditioned F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | loor Area    |                                | 0 ft <sup>2</sup>                      |                                                                      | 12               | Permitted Scope of W                                                       | /ork                                                                                                  | NewComplete                                                         |                                                                                |  |
| SOLO TO THE TO PRODUCE THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PRO |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |                                | 4                                      |                                                                      | 13               | Building Type(s)                                                           |                                                                                                       | High-Rise Residential                                               |                                                                                |  |
| SOURCE STATE OF THE SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SEC |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |                                | 110                                    |                                                                      |                  | Gas Type                                                                   |                                                                                                       | NaturalGas                                                          | ituralGas                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              | 580:1000 <del>.00</del> 7.3508 | 1941 • 1998 II 600 1081 100            |                                                                      |                  | I malcatea as not me                                                       | •                                                                                                     |                                                                     |                                                                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 100,000      |                                | onents Co                              | omplying via Performance                                             |                  |                                                                            | Buildir                                                                                               | ng Components Complyi                                               | ng Prescriptively                                                              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ×            | Perfo                          | rmance                                 | Covered Process Commercial                                           |                  |                                                                            |                                                                                                       |                                                                     | Y eligible for prescriptive<br>he NRCC form listed if withii                   |  |
| Envelope (see Table G)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | . I          |                                | [[[[[[]]]]][[[]]][[[]]][[]][[]][[]][[] |                                                                      | Not Included the | e scope of the pe                                                          | rmit application (i.e. con                                                                            | ne NRCC Jorm listed if Withi<br>opliance will not be shown          |                                                                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | □ Not                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              | Not II                         | ncluded                                |                                                                      | _                | on                                                                         | the NRCC-PRF-E                                                                                        | ).                                                                  |                                                                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | echanical (see Table H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |                                |                                        | Coursed Drasses Committee Decree                                     |                  | 1                                                                          |                                                                                                       | nconditioned)§140.6                                                 | NRCC-LTI-E                                                                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | chanical (see Table H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ×            | Perfo                          | rmance                                 | Covered Process: Computer Rooms                                      |                  | Performance Inc                                                            |                                                                                                       | nconditioned)§140.6                                                 | NRCC-LTI-E<br>NRCC-LTO-E                                                       |  |
| Med                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.58 - 43                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | Perfo                          | rmance                                 | ,                                                                    | 100              | Performance Inc<br>Not Included Ou                                         | door Lighting (Ur                                                                                     | nconditioned)§140.6                                                 | 0.0                                                                            |  |
| Med                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.00 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Die I)       | Perfo Not II                   | rmance<br>ncluded<br>rmance            | Covered Process: Computer Rooms  Covered Process: Laboratory Exhaust | Ø                | Performance Inc<br>Not Included Ou<br>Performance Sig                      | door Lighting (Ur<br>utdoor Lighting §                                                                | nconditioned)§140.6                                                 | NRCC-LTO-E<br>NRCC -LTS-E                                                      |  |
| Med<br>Don<br>Ligh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.00 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ole I)       | Perfo Not II Perfo Not II      | rmance<br>ncluded<br>rmance<br>ncluded | ,                                                                    |                  | Performance Inc Not Included Ou Performance Sig Not Included  Ele esc list | door Lighting (Ur<br>utdoor Lighting §<br>gn Lighting §140.<br>ectrical power sy-<br>calator requirem | nconditioned)§140.6 140.7 8 Mandatory Measustems, commissioning, so | NRCC-LTO-E  NRCC -LTS-E  res  plar ready, elevator and should on the NRCC form |  |

| Project Name:                 | 231 Grant Avenue                                    | NRCC-PRF                               | 01-E        | Page 2 of 46                           |                                      |  |
|-------------------------------|-----------------------------------------------------|----------------------------------------|-------------|----------------------------------------|--------------------------------------|--|
| Project Address:              | 231 Grant Avenue Palo Alto                          | Calculation                            | Date/Time:  | 16:22, Tue, Mar 07, 2023               |                                      |  |
| Input File Name:              | Grant.cibd19x                                       |                                        |             |                                        |                                      |  |
| C1 COMPLIANCE E               | RESULTS FOR PERFORMANCE COMPONENTS (Annu            | al TDV Fnergy Use kRtu/ft 2-vr)        |             |                                        |                                      |  |
|                               |                                                     |                                        | ~~~~~       | ······································ | <u> </u>                             |  |
|                               |                                                     | COMPLIES                               |             |                                        |                                      |  |
|                               | Energy Component                                    | Standard Design (TDV)                  | Proj        | posed Design (TDV)                     | Compliance Margin (TDV) <sup>1</sup> |  |
| Space Heating                 |                                                     | 6.0                                    | 5           | 6.23                                   | -0.1                                 |  |
| Space Cooling                 |                                                     | 15.0                                   | 0           | 14.45                                  | 0.5                                  |  |
| Indoor Fans                   |                                                     | 9.6                                    | 9           | 0.78                                   | 8.                                   |  |
| Heat Rejection                |                                                     | 3                                      | **          |                                        | 9                                    |  |
| Pumps & Misc.                 |                                                     | 8                                      |             | ***                                    | 9                                    |  |
| Domestic Hot Water            |                                                     | 29.3                                   | 5           | 21.61                                  | 7.7                                  |  |
| Indoor Lighting               |                                                     | 9                                      |             | 22<br>1                                | ii ii                                |  |
| ENERGY STAN                   | IDARDS COMPLIANCE TOTAL                             | 60.0                                   | 9           | 43.07                                  | 17.02 (28.3%)                        |  |
| <sup>1</sup> Notes: The numbe | er in parenthesis following the Compliance Margin i | n column 4. represents the Percent     | Better than | Standard.                              |                                      |  |
|                               |                                                     |                                        |             |                                        |                                      |  |
|                               | ABOVE CODE' QUALIFICATIONS1                         | ······································ | <u></u>     | ······································ |                                      |  |
| ☐ This project is purs        | suing CalGreen Tier 1                               | <u> </u>                               | ☐This proj  | ect is pursuing CalGreen Tier          | 2                                    |  |
|                               | Miscellaneous Energy Component                      | Standard Design (TDV)                  | Proj        | posed Design (TDV)                     | Compliance Margin (TDV) <sup>1</sup> |  |
| Receptacle                    |                                                     | 61.6                                   | 3           | 61.63                                  |                                      |  |
| Process                       |                                                     | 37.9                                   | 3           | 37.93                                  |                                      |  |
| Other Ltg                     |                                                     | 10.0                                   | 9           | 10.09                                  |                                      |  |

| Space Heating                                                                                                                                          | 6.05                                                  | 6.23                                                                         | -0.18                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------|
| Space Cooling                                                                                                                                          | 15.00                                                 | 14.45                                                                        | 0.55                                      |
| Indoor Fans                                                                                                                                            | 9.69                                                  | 0.78                                                                         | 8.91                                      |
| Heat Rejection                                                                                                                                         | 3.000                                                 |                                                                              |                                           |
| Pumps & Misc.                                                                                                                                          | S                                                     |                                                                              |                                           |
| Domestic Hot Water                                                                                                                                     | 29.35                                                 | 21.61                                                                        | 7.74                                      |
| Indoor Lighting                                                                                                                                        | 923                                                   | 120                                                                          | 122                                       |
| ENERGY STANDARDS COMPLIANCE TOTAL                                                                                                                      | 60.09                                                 | 43.07                                                                        | 17.02 (28.3%)                             |
|                                                                                                                                                        |                                                       |                                                                              |                                           |
| <sup>1</sup> Notes: The number in parenthesis following the Compliance Mar                                                                             | gin in column 4. represents the Percent B             | setter than Standard.                                                        |                                           |
| <sup>1</sup> Notes: The number in parenthesis following the Compliance Mar  C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS <sup>1</sup>                   | gin in column 4. represents the Percent B             | setter than Standara.                                                        |                                           |
|                                                                                                                                                        | gin in column 4. represents the Percent B             | ☐ This project is pursuing CalGreen Tie                                      |                                           |
| C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS <sup>1</sup>                                                                                               |                                                       |                                                                              | r 2  Compliance Margin (TDV) <sup>1</sup> |
| C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS¹  ☐ This project is pursuing CalGreen Tier 1  Miscellaneous Energy Component                               | <u>A</u>                                              | ☐This project is pursuing CalGreen Tie                                       | Compliance Margin (TDV) <sup>1</sup>      |
| C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS¹  This project is pursuing CalGreen Tier 1                                                                 | Standard Design (TDV)                                 | ☐ This project is pursuing CalGreen Tie  Proposed Design (TDV)               | Compliance Margin (TDV) <sup>1</sup>      |
| C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS¹  This project is pursuing CalGreen Tier 1  Miscellaneous Energy Component  Receptacle                     | Standard Design (TDV) 61.63                           | ☐ This project is pursuing CalGreen Tie  Proposed Design (TDV)  61.63        | Compliance Margin (TDV) <sup>1</sup>      |
| C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS¹  This project is pursuing CalGreen Tier 1  Miscellaneous Energy Component  Receptacle  Process            | Standard Design (TDV)           61.63           37.93 | □ This project is pursuing CalGreen Tie  Proposed Design (TDV)  61.63  37.93 |                                           |
| C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS¹  This project is pursuing CalGreen Tier 1  Miscellaneous Energy Component  Receptacle  Process  Other Ltg | Standard Design (TDV)           61.63           37.93 | □ This project is pursuing CalGreen Tie  Proposed Design (TDV)  61.63  37.93 | Compliance Margin (TDV) <sup>1</sup>      |

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                                                                                                                                                                                                                 | 9        | Compliance Softv                                                 | vare (version)                                                   | EnergyPro 8.3              |                                                                | (           |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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| _        | mate Zone                       |                                                                                             | 4                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          | Weather File                                                     |                                                                  | PALO-ALTO_724937_C         | ZZ2010.epw                                                     | (           |     | Energy Component                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proposed Design (T         |
| 1 Tot    | tal Conditioned Floor Area in   | Scope                                                                                       | 67,920 f             | ft <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 11       | Building Orientat                                                | ion (deg)                                                        | (S) 180 deg                | -                                                              | }           | Spa | ace Heating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                            |
| Tot      | tal Unconditioned Floor Area    | 1.5                                                                                         | 0 ft <sup>2</sup>    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12       | Permitted Scope                                                  | of Work                                                          | NewComplete                |                                                                | }           | Spa | ace Cooling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| 5 Tot    | tal # of Stories (Habitable Abo | ove Gra                                                                                     | 71000000<br>71000000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A POST A | Building Type(s)                                                 |                                                                  | High-Rise Residential      |                                                                | <u> </u>    | Ind | door Fans                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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|          | tal # of dwelling units         |                                                                                             | 110                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | _        | Gas Type                                                         |                                                                  | NaturalGas                 |                                                                | }           | He  | at Rejection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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| PROJE    | ECT SUMMARY                     |                                                                                             |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| ble Inst | tructions: Table B shows which  | h build                                                                                     | ling components      | are included in the performance calcu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | lation.  | . If indicated as no                                             | t included, the projec                                           | t must show compliance     | e prescriptively if within                                     | }           | Ind | door Lighting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |
| rmit ap  | oplication.                     |                                                                                             |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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|          | В                               | Building Components Complying via Performance  Building Components Complying Prescriptively |                      | <b>\</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1 N      | lotes: The number in parenthesis following the Compliance Margin | Compliance Margin in column 4. represents the Percent Better tha |                            |                                                                |             |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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|          |                                 | $\boxtimes$                                                                                 | Performance          | Covered Process: Commercial                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          | Performance                                                      |                                                                  |                            | LY eligible for prescriptive<br>the NRCC form listed if within | }           | -   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postage and Postag |                            |
| elope    | (see Table G)                   |                                                                                             | Not Included         | Kitchens                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Not Included                                                     | the scope of the per                                             | rmit application (i.e. cor | mpliance will not be shown                                     | _           | C2  | . RESULTS FOR 'ABOVE CODE' QUALIFICATIONS <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |
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                                                                                                                                                                                                                 |          |                                                                  | on the NRCC-PRF-E,                                               | ).                         |                                                                |             |     | This project is pursuing CalGreen Tier 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| echanic  | cal (see Table H)               | 52-32                                                                                       | Performance          | Covered Process: Computer Rooms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1000     | Performance                                                      |                                                                  | conditioned)§140.6         | NRCC-LTI-E                                                     |             |     | Miscellaneous Energy Component                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Proposed Design (T         |
|          | 2                               |                                                                                             | Not Included         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          | Not Included                                                     | Outdoor Lighting §2                                              | 140.7                      | NRCC-LTO-E                                                     |             | Rei | ceptacle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| omestic  | : Hot Water (see Table I)       | 40000                                                                                       | Performance          | Covered Process: Laboratory Exhaust                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1 100    | Performance                                                      | Sign Lighting §140.8                                             | 8                          | NRCC -LTS-E                                                    |             | Pro | ocess                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|          |                                 |                                                                                             | Not Included         | 1. 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the state of the state of the state of th |          | Not Included                                                     |                                                                  | Mandatory Meas             | ures                                                           |             | Otl | her Ltg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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                                                                                                                                                                                                                 |          |                                                                  |                                                                  |                            | olar ready, elevator and<br>I should on the NRCC form          |             | Pro | ocess Motors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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|          | Indoor Conditioned, see         | $\boxtimes$                                                                                 | Performance          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |                                                                  |                                                                  | i.e. compliance will not   | 77. D. D. B. B. B. B. B. B. B. B. B. B. B. B. B.               |             | со  | MPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 169.74                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |
| ble K)   |                                 |                                                                                             |                      | ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |                                                                  | NRCC-PRF-E.)                                                     | 15                         |                                                                |             | 1 N | lotes: This table is used to document compliance with programs OT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HER THAN Title 24 Part 6, if applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |
|          |                                 |                                                                                             | Not Included         | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |                                                                  | Electrical Power Dis                                             | stribution S110.11         | NRCC-ELC-E                                                     |             |     | 46. da mer - Electric e mandemente, stag men electrica de la competita de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat de la competitat del |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ,                          |
|          | rmal Water Heating (see         |                                                                                             | Performance          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |                                                                  | Commissioning S12                                                | 0.8                        | NRCC-CXR-E                                                     |             |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |
| able I)  |                                 | $\boxtimes$                                                                                 | Not Included         | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |                                                                  | Solar Ready S110.1                                               | 0                          | NRCC-SRA-E                                                     |             |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |

| CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance  Project Name: 231 Grant Avenue |                            | Report Version: NRCC-PRF-01-E-12092021-684 | Report Generated at: 3/8/2023 9:40:37 AM | CA Building Energy | fficiency Standards- 2019 Nonresidential Compliance | Report Version: NRCC | Report Version: NRCC-PRF-01-E-12092021-6844 |                          |  |
|---------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------|------------------------------------------|--------------------|-----------------------------------------------------|----------------------|---------------------------------------------|--------------------------|--|
|                                                                                                         |                            |                                            |                                          |                    |                                                     |                      |                                             |                          |  |
| Project Name:                                                                                           | 231 Grant Avenue           | NRCC-PRF-01-E                              | Page 4 of 46                             | Project Name:      | 231 Grant Avenue                                    |                      | NRCC-PRF-01-E                               | Page 5 of 46             |  |
| Project Address:                                                                                        | 231 Grant Avenue Palo Alto | Calculation Date/Time:                     | 16:22, Tue, Mar 07, 2023                 | Project Address:   | 231 Grant Avenue Palo Alto                          |                      | Calculation Date/Time:                      | 16:22, Tue, Mar 07, 2023 |  |
| Input File Name:                                                                                        | Grant.cibd19x              |                                            |                                          | Input File Name:   | Grant.cibd19x                                       |                      |                                             |                          |  |
|                                                                                                         |                            |                                            |                                          |                    |                                                     |                      |                                             | -1-                      |  |

| 1                                                                                                                                                                                                   | 2                                                                                          | 3                                               | 4                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------|
| Opaque Surfaces & Orientation                                                                                                                                                                       | Total Gross Surface Area (ft²)                                                             | Total Fenestration Area (ft²)                   | Window to Wall Ratio (%) |
| North-Facing <sup>1</sup>                                                                                                                                                                           | 9,335 ft <sup>2</sup>                                                                      | 1,957 ft²                                       | 21.0%                    |
| East-Facing <sup>2</sup>                                                                                                                                                                            | 11,741 ft <sup>2</sup>                                                                     | 2,089 ft <sup>2</sup>                           | 17.8%                    |
| South-Facing <sup>3</sup>                                                                                                                                                                           | 8,007 ft <sup>2</sup>                                                                      | 1,140 ft²                                       | 14.2%                    |
| West-Facing <sup>4</sup>                                                                                                                                                                            | 11,605 ft <sup>2</sup>                                                                     | 2,190 ft <sup>2</sup>                           | 18.9%                    |
| Total                                                                                                                                                                                               | 40,688 ft <sup>2</sup>                                                                     | 7,376 ft²                                       | 18.19                    |
| Roof                                                                                                                                                                                                | 21,504 ft <sup>2</sup>                                                                     | 0 ft <sup>2</sup>                               | 00.09                    |
| Notes:  North-Facing is oriented to within 45 degrees  East-Facing is oriented to within 45 degrees of  South-Facing is oriented to within 45 degrees  West-Facing is oriented to within 45 degrees | f true east, including 45°00'00" south of ea<br>of true south, including 45°00'00" west of | ast (SE), but excluding 45°00'00" north of east | t (NE).<br>south (SE).   |

| 1                           | 2             | 3          | 4               | 5                 | 6                     | 7        | 8     | 9                                                                                                                                                           |
|-----------------------------|---------------|------------|-----------------|-------------------|-----------------------|----------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surface Name                | Surface Type  | Area (ft²) | Framing<br>Type | Cavity<br>R-Value | Continuous<br>R-Value | Units    | Value | Description of Assembly Layers                                                                                                                              |
| E20 Exterior R-21 Wood Fr7  | ExteriorWall  | 39010      | Wood            | 21                | NA                    | U-Factor | 0.063 | Vapor permeable felt - 1/8 in.<br>Gypsum Board - 5/8 in.<br>Wood framed wall, 16in. OC, 5.5in.,<br>R-21<br>Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in. |
| P31 - Uninsulated CONCRET11 | ExteriorFloor | 418        | NA              | 0                 | NA                    | U-Factor | 0.230 | Concrete - 80 lb/ft3 - 12 in.                                                                                                                               |
| G10 Interior R-13 Wood Fr13 | InteriorWall  | 67935      | Wood            | 13                | NA                    | U-Factor | 0.091 | Gypsum Board - 5/8 in. Wood framed wall, 16in. OC, 3.5in., R-13 Gypsum Board - 5/8 in.                                                                      |

|                             |               |       |      | Serve that approach | 100000000000000000000000000000000000000 |          |       |                                                                                                                                                             |   |
|-----------------------------|---------------|-------|------|---------------------|-----------------------------------------|----------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| E20 Exterior R-21 Wood Fr7  | ExteriorWall  | 39010 | Wood | 21                  | NA                                      | U-Factor | 0.063 | Vapor permeable felt - 1/8 in.<br>Gypsum Board - 5/8 in.<br>Wood framed wall, 16in. OC, 5.5in.,<br>R-21<br>Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in. |   |
| P31 - Uninsulated CONCRET11 | ExteriorFloor | 418   | NA   | 0                   | NA                                      | U-Factor | 0.230 | Concrete - 80 lb/ft3 - 12 in.                                                                                                                               | I |
| G10 Interior R-13 Wood Fr13 | InteriorWall  | 67935 | Wood | 13                  | NA                                      | U-Factor | 0.091 | Gypsum Board - 5/8 in. Wood framed wall, 16in. OC, 3.5in., R-13 Gypsum Board - 5/8 in.                                                                      |   |

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|-------------------------------------------------------------------------|---------------------------------------------|------------------------------------------|

| Project Name:     | 231 Grant Avenue         |           |                                     |                                |                    | NRCC-PRF-01-E    |                                       | Page 7 of 46        |            |                              |        |
|-------------------|--------------------------|-----------|-------------------------------------|--------------------------------|--------------------|------------------|---------------------------------------|---------------------|------------|------------------------------|--------|
| Project Address:  | 231 Grant Avenue Palo A  | lto       |                                     |                                |                    | Calculation Date | e/Time:                               | 16:22, Tue, Mar 07, | 2023       |                              |        |
| Input File Name:  | Grant.cibd19x            |           |                                     |                                |                    |                  |                                       |                     |            |                              |        |
| H1 DDV SVSTEM FOI | JIPMENT (furnaces, air h | andling ( | inite heat num                      | ns VPE acono                   | mizors oto         | 1                |                                       |                     |            |                              |        |
| 1                 | 2                        | 3         | 4                                   | 5                              | 6                  | 7                | 8                                     | 9                   | 10         | 11                           | 1      |
|                   |                          |           |                                     | Heatin                         |                    |                  |                                       | Cooling             |            |                              | H      |
| Equipment Name    | Equipment Type           | Qty       | Total Heating<br>Output<br>(kBtu/h) | Supp Heat<br>Output<br>(kBtuh) | Efficiency<br>Unit | Efficiency       | Total<br>Cooling<br>Output<br>(kBtu/h | Efficiency Unit     | Efficiency | Economizer Type (if present) | Status |
| 0-BD 3-2-R        | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | ı      |
| 0-BD 3-3-R        | PTHP (NA)                | 1         | 8                                   | 7                              | COP                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | ı      |
| 0-BD 3-4-R        | PTHP (NA)                | 1         | 8                                   | 7                              | COP                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | П      |
| 0-BD 10-2-F       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           |        |
| 0-BD 10-3-F       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           |        |
| 0-BD 10-4-F       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | П      |
| 0-BD 14-2-L       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | П      |
| 0-BD 14-3-L       | PTHP (NA)                | 1         | 8                                   | 7                              | COP                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 14-4-L       | PTHP (NA)                | 1         | 8                                   | 7                              | COP                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 19-2-R       | PTHP (NA)                | 1         | 8                                   | 7                              | COP                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | ı      |
| 0-BD 19-3-R       | PTHP (NA)                | 1         | 8                                   | 7                              | COP                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 19-4-R       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | ı      |
| 0-BD 21-2-L       | PTHP (NA)                | 1         | 8                                   | 7                              | COP                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 21-3-L       | PTHP (NA)                | 1         | 8                                   | 7                              | COP                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 21-4-L       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 26-2-R       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 26-3-R       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 26-4-R       | PTHP (NA)                | 1         | 8                                   | 7                              | COP                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 32-2-R       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | ١      |
| 0-BD 32-3-R       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 32-4-R       | PTHP (NA)                | 1         | 8                                   | 7                              | СОР                | 3.5              | 8                                     | EER                 | 12.1       | NA                           | 1      |
| 0-BD 34-2-L       | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5              | 16                                    | EER                 | 12.1       | NA                           | 1      |
| 0-BD 34-3-L       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5              | 16                                    | EER                 | 12.1       | NA                           | 1      |

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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| 1                            | 2                | 3          | 4               | 5                 | 6                     | 7        | 8     | 9                                                                                                                                                                                                                                                                                                               |
|------------------------------|------------------|------------|-----------------|-------------------|-----------------------|----------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surface Name                 | Surface Type     | Area (ft²) | Framing<br>Type | Cavity<br>R-Value | Continuous<br>R-Value | Units    | Value | Description of Assembly Layer                                                                                                                                                                                                                                                                                   |
| R10 - Interior Floor17       | InteriorFloor    | 43047      | NA              | 0                 | 18                    | U-Factor | 0.046 | Gypsum Board - 5/8 in. Gypsum Board - 5/8 in. Air - Cavity - Wall Roof Ceiling - 4 or more Glass fiber batt - 5 1/2 in. R19 (C Default) Fiber cement board - 88 lb/ft3 - 1 in.                                                                                                                                  |
| T10 FLOOR-ROOF ROOF DECK25   | Roof             | 21504      | NA              | 0                 | 76                    | U-Factor | 0.013 | 5 PSF Roof - 1/2 in. Gypsum Board - 5/8 in. Expanded Polystyrene - EPS - 3 in R13 Expanded Polystyrene - EPS - 3 in R13 Expanded Polystyrene - EPS - 3 in R13 Vapor seal - plastic film - 1/16 in Plywood - 1 1/2 in. Glass fiber batt - 12 in. R38 (CEC Default) Gypsum Board - 1/2 in. Gypsum Board - 1/2 in. |
| P31 - Uninsulated CONCRET111 | InteriorFloor    | 6137       | NA              | 0                 | NA                    | U-Factor | 0.209 | Concrete - 80 lb/ft3 - 12 in.                                                                                                                                                                                                                                                                                   |
| P31 Insulated- CONCRETE P62  | ExteriorFloor    | 14988      | NA              | 0                 | 10                    | U-Factor | 0.070 | Compliance Insulation R10.00<br>Concrete - 80 lb/ft3 - 12 in.                                                                                                                                                                                                                                                   |
| J10-Exterior 2x6 R-19 Met280 | ExteriorWall     | 1678       | Metal           | 19                | NA                    | U-Factor | 0.141 | Vapor permeable felt - 1/8 in.<br>Gypsum Board - 5/8 in.<br>Metal framed wall, 16in. OC, 5.5i<br>R-19<br>Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in.                                                                                                                             |
| P30 - Slab On Grade286       | UndergroundFloor | 3330       | NA              | 0                 | NA                    | F-Factor | 0.73  | Slab Type = UnheatedSlabOnGra<br>Insulation Orientation = None<br>Insulation R-Value = R0                                                                                                                                                                                                                       |

| Project Name:      | 231 Grant Avenue         | FA.IAC    |                                     |                                |                    | IRCC-PRF-01-E  | 100                                    | Page 8 of 46        | ************************************** |                              |        |
|--------------------|--------------------------|-----------|-------------------------------------|--------------------------------|--------------------|----------------|----------------------------------------|---------------------|----------------------------------------|------------------------------|--------|
| Project Address:   | 231 Grant Avenue Palo A  | Alto      |                                     |                                | C                  | alculation Dat | e/Time: 1                              | L6:22, Tue, Mar 07, | 2023                                   |                              |        |
| nput File Name:    | Grant.cibd19x            |           |                                     |                                |                    |                |                                        |                     |                                        |                              |        |
| H1. DRY SYSTEM EQU | JIPMENT (furnaces, air h | andling u | ınits, heat pum                     | ps, VRF, econo                 | mizers etc.        | )              |                                        |                     |                                        |                              |        |
| 1                  | 2                        | 3         | 4                                   | 5                              | 6                  | 7              | 8                                      | 9                   | 10                                     | 11                           | 1      |
|                    |                          |           |                                     | Heatin                         | g                  | -8             | 22                                     | Cooling             | B.                                     |                              | Г      |
| Equipment Name     | Equipment Type           | Qty       | Total Heating<br>Output<br>(kBtu/h) | Supp Heat<br>Output<br>(kBtuh) | Efficiency<br>Unit | Efficiency     | Total<br>Cooling<br>Output<br>(kBtu/h) | Efficiency Unit     | Efficiency                             | Economizer Type (if present) | Status |
| 0-BD 34-4-L        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 2-2-R         | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 2-3-R         | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | N      |
| 1-BD 2-4-R         | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | I      |
| 1-BD 4-2-R         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 4-3-R         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 4-4-R         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 5-2-F         | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 5-3-F         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 5-4-F         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD-1 6-1-F       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 6-2-F         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 6-3-F         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 6-4-F         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | П      |
| 1-BD-1 7-1-F       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 7-2-F         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 7-3-F         | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD 7-4-F         | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |
| 1-BD-1 8-1-F       | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | T      |
| 1-BD 8-2-F         | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | Ī      |
| 1-BD 8-3-F         | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           |        |
| 1-BD 8-4-F         | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | T      |
| 1-BD-1 9-1-F       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5            | 16                                     | EER                 | 12.1                                   | NA                           | 1      |

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| Project Name:     | 231 Grant Avenue      |                               |                          | NRCC-PRF-01-E        | Page 3 of 46                   | Page 3 of 46                   |                |  |  |
|-------------------|-----------------------|-------------------------------|--------------------------|----------------------|--------------------------------|--------------------------------|----------------|--|--|
| Project Address:  | 231 Grant Avenue Palo | Alto                          |                          | Calculation Date/Tir | ne: 16:22, Tue, Mar 07, 2      | 023                            |                |  |  |
| Input File Name:  | Grant.cibd19x         |                               |                          |                      |                                |                                |                |  |  |
| C3. ENERGY USE SU | JMMARY                |                               | ,                        |                      |                                |                                |                |  |  |
| Ene               | rgy Component         | Standard Design Site<br>(MWh) | Proposed Design<br>(MWh) | Site Margin<br>(MWh) | Standard Design Site<br>(MBtu) | Proposed Design Site<br>(MBtu) | Margi<br>(MBtu |  |  |
| S                 | pace Heating          | 1122                          | 17.3                     | -17.3                | 200.8                          | ==                             | 200.8          |  |  |
| S                 | Space Cooling         | 17.0                          | 15.0                     | 2.0                  | 120                            | =                              |                |  |  |
|                   | Indoor Fans           | 19.0                          | 1.9                      | 17.1                 |                                |                                | 100            |  |  |
| Н                 | leat Rejection        |                               | ( <del>5.7.)</del>       | (50                  |                                | =                              | 100            |  |  |
| Pumps & Misc.     |                       | 377                           | . <del></del>            | 100                  | 1 <del>22</del>                | 100                            |                |  |  |
| Dom               | nestic Hot Water      | 72.3 57.0                     |                          | 15.3                 | 100                            |                                | 1              |  |  |
| In                | ndoor Lighting        | :==                           |                          |                      | C##                            |                                | >              |  |  |
| Co                | mpliance Total        | 108.3                         | 91.2                     | 17.1                 | 200.8                          | 0.0                            | 200.8          |  |  |
|                   | Receptacle            | 147.2                         | 147.2                    | 0.0                  |                                | =-                             |                |  |  |
|                   | Process               | 83.8                          | 83.8                     | 0.0                  |                                |                                |                |  |  |
|                   | Other Ltg             | 23.0                          | 23.0                     | 0.0                  |                                |                                | 144            |  |  |
| Pr                | rocess Motors         | 100                           |                          | (70)                 | V <del>al</del> a              |                                |                |  |  |
|                   | TOTAL                 | 362.3                         | 345.2                    | 17.1                 | 200.8                          | 0.0                            | 200.8          |  |  |

|  | D EVCED | TIONAL CONDITIONS |
|--|---------|-------------------|
|--|---------|-------------------|

This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is

### E. HERS VERIFICATION The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below.

Building-level Verifications:

 Residential ventilation airflow • Residential kitchen hood rated by HVI

Residential dwelling unit envelope air leakage

231 Grant Avenue

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|-------------------------------------------------------------------------|---------------------------------------------|------------------------------------------|

| Project Address: | 231 Grant Avenue  | Palo Alto    |         | Calc    | ulation Date/Tin | ne: 16:22  | 2, Tue, Mar 07 | , 2023 |                                  |     |
|------------------|-------------------|--------------|---------|---------|------------------|------------|----------------|--------|----------------------------------|-----|
| Input File Name: | Grant.cibd19x     |              |         |         |                  |            |                |        |                                  |     |
| G3. OPAQUE SURF  | ACE ASSEMBLY SUMM | 1ARY         |         |         |                  |            |                |        |                                  | -   |
|                  | 1                 | 2            | 3       | 4       | 5                | 6          | 7              | 8      | 9                                | 10  |
| Cfa              | N. N.             | Confess Tons | A (642) | Framing | Cavity           | Continuous | I lada         | Value  | Description of Assembly Lawrence | Sta |

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| 1                            | 2            | 3          | 4               | 5                 | 6                     | 7        | 8     | 9                                                                                                                                                    | 10     |
|------------------------------|--------------|------------|-----------------|-------------------|-----------------------|----------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Surface Name                 | Surface Type | Area (ft²) | Framing<br>Type | Cavity<br>R-Value | Continuous<br>R-Value | Units    | Value | Description of Assembly Layers                                                                                                                       | Status |
| K13-Corridor 2x6 R-19 Met288 | InteriorWall | 1280       | Metal           | 19                | NA                    | U-Factor | 0.133 | Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in.<br>Metal framed wall, 16in. OC, 5.5in.,<br>R-19<br>Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in. | N      |
| K10-Interior 2x4 R-11Meta290 | InteriorWall | 2302       | Metal           | 11                | NA                    | U-Factor | 0.185 | Gypsum Board - 5/8 in.<br>Metal framed wall, 16in. OC, 3.5in.,<br>R-11<br>Gypsum Board - 5/8 in.                                                     | N      |

<sup>1</sup> Status: N - New, A - Altered, E - Existing

| 1                                                     | 2                                                | 3                                 | 4               | 5                    | 6                   | 7               | 8             | 9                   |  |
|-------------------------------------------------------|--------------------------------------------------|-----------------------------------|-----------------|----------------------|---------------------|-----------------|---------------|---------------------|--|
| Fenestration Assembly Name / Tag<br>or I.D.           | Fenestration Type / Product Type /<br>Frame Type | Certification Method <sup>1</sup> | Assembly Method | Area ft <sup>2</sup> | Overall<br>U-factor | Overall<br>SHGC | Overall<br>VT | Status <sup>2</sup> |  |
| Grant Windows                                         | VerticalFenestration<br>FixedWindow<br>N/A       | NFRC Rated                        | Manufactured    | 6840                 | 0.26                | 0.24            | 0.50          | N                   |  |
| Residential Prescriptive                              | VerticalFenestration<br>FixedWindow<br>N/A       | NFRC Rated                        | Manufactured    | 416                  | 0.32                | 0.25            | 0.50          | N                   |  |
| VerticalFenestration Grant Glass Doors GlazedDoor N/A |                                                  | NFRC Rated                        | Manufactured    | 120                  | 0.26                | 0.24            | 0.50          | N                   |  |

1 Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis. <sup>2</sup> Status: N - New, A – Altered, E – Existing

231 Grant Avenue

231 Grant Avenue Palo Alto

PTHP (NA)

PTHP (NA)

PTHP (NA)

PTHP (NA)

Project Address:

1-BD 15-2-L 1-BD 15-3-L

1-BD 15-4-L

1-BD 18-2-R 1-BD 18-3-R

1-BD 18-4-R

1-BD 20-2-R

1-BD 20-3-R

1-BD 20-4-R

1-BD 22-2-L

1-BD 22-3-L

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| 1. DRY SYSTEM EQU | JIPMENT (furnaces, air h | andling u | ınits, heat pum                     | ps, VRF, econo                 | mizers etc.)       |            | 90                                     |                 |            |                              |                     |
|-------------------|--------------------------|-----------|-------------------------------------|--------------------------------|--------------------|------------|----------------------------------------|-----------------|------------|------------------------------|---------------------|
| 1                 | 2                        | 3         | 4                                   | 5                              | 6                  | 7          | 8                                      | 9               | 10         | 11                           | 12                  |
|                   |                          |           |                                     | Heatin                         | g                  | 949        |                                        | Cooling         | te         |                              |                     |
| Equipment Name    | Equipment Type           | Qty       | Total Heating<br>Output<br>(kBtu/h) | Supp Heat<br>Output<br>(kBtuh) | Efficiency<br>Unit | Efficiency | Total<br>Cooling<br>Output<br>(kBtu/h) | Efficiency Unit | Efficiency | Economizer Type (if present) | Status <sup>1</sup> |
| 1-BD 9-2-F        | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 9-3-F        | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 9-4-F        | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 11-2-F       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 11-3-F       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 11-4-F       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 12-2-F       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 12-3-F       | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 12-4-F       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 13-2-L       | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 13-3-L       | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
| 1-BD 13-4-L       | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5        | 16                                     | EER             | 12.1       | NA                           | N                   |
|                   | 1                        | 1         |                                     |                                |                    |            | 2                                      | 1               |            | 1                            | -                   |

COP 3.5

COP 3.5

COP 3.5

COP 3.5

COP 3.5

COP 3.5 16 EER

10 COP 3.5 16 EER 12.1

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EER

EER

16 EER 12.1

EER

12.1

12.1

NA

NA

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ARCHITECTURE | URBAN DESIGN | SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES **MILLENIUM DESIGN** PO BOX 737 ALAMO, CA 94507

LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521

**BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: <u>07/27/2023</u> HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



| ID | DATE     | NAME            |
|----|----------|-----------------|
| 1  | 11/11/22 | PERMIT SET-CONV |
| В  | 03/20/23 | BID ADDENDUM    |
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# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



MERCY HOUSING &

ABODE COMMUNITIES TITLE 24 CH. 6 ENERGY REPORT -

RES PRF-01

SCALE:

JOB #: 1925

| Project Name:      | 231 Grant Avenue Palo A  | Ilto      |                                     |                                |                    | alculation Date |                                        | Page 10 of 46<br>L6:22, Tue, Mar 07, | 2023       |                              | —                   |
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| roject Address:    |                          | lito      |                                     |                                |                    | alculation Date | e/Time:                                | 16:22, Tue, Mar 07,                  | 2023       |                              |                     |
| nput File Name:    | Grant.cibd19x            |           |                                     |                                |                    |                 |                                        |                                      |            |                              |                     |
| 11. DRY SYSTEM EQU | JIPMENT (furnaces, air h | andling u | ınits, heat pum                     | ps, VRF, econo                 | mizers etc.        | )               |                                        |                                      |            |                              |                     |
| 1                  | 2                        | 3         | 4                                   | 5                              | 6                  | 7               | 8                                      | 9                                    | 10         | 11                           | 12                  |
|                    |                          |           |                                     | Heatin                         | g                  |                 |                                        | Cooling                              | <i>y</i> - |                              |                     |
| Equipment Name     | Equipment Type           | Qty       | Total Heating<br>Output<br>(kBtu/h) | Supp Heat<br>Output<br>(kBtuh) | Efficiency<br>Unit | Efficiency      | Total<br>Cooling<br>Output<br>(kBtu/h) | Efficiency Unit                      | Efficiency | Economizer Type (if present) | Status <sup>1</sup> |
| 1-BD 22-4-L        | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | N                   |
| 1-BD 25-2-R        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | N                   |
| 1-BD 25-3-R        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | N                   |
| 1-BD 25-4-R        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | ١                   |
| 1-BD 28-2-L        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | N                   |
| 1-BD 28-3-L        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | N                   |
| 1-BD 28-4-L        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | Ν                   |
| 1-BD 31-2-R        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | ١                   |
| 1-BD 31-3-R        | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | ١                   |
| 1-BD 31-4-R        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | ١                   |
| 1-BD 33-2-L        | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | ١                   |
| 1-BD 33-3-L        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | N                   |
| 1-BD 33-4-L        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | N                   |
| 1-BD 35-2-L        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | N                   |
| 1-BD 35-3-L        | PTHP (NA)                | 1         | 17                                  | 10                             | СОР                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | N                   |
| 1-BD 35-4-L        | PTHP (NA)                | 1         | 17                                  | 10                             | COP                | 3.5             | 16                                     | EER                                  | 12.1       | NA                           | Ν                   |
| 2-BD 1-2-R         | PTHP (NA)                | 1         | 25                                  | 14                             | СОР                | 3.5             | 23                                     | EER                                  | 12.1       | NA                           | ١                   |
| 2-BD 1-3-R         | PTHP (NA)                | 1         | 25                                  | 14                             | COP                | 3.5             | 23                                     | EER                                  | 12.1       | NA                           | ١                   |
| 2-BD 1-4-R         | PTHP (NA)                | 1         | 25                                  | 14                             | COP                | 3.5             | 23                                     | EER                                  | 12.1       | NA                           | ١                   |
| 2-BD-1 5-1-F       | PTHP (NA)                | 1         | 25                                  | 14                             | COP                | 3.5             | 23                                     | EER                                  | 12.1       | NA                           | ١                   |
| 2-BD 16-2-L        | PTHP (NA)                | 1         | 25                                  | 14                             | COP                | 3.5             | 23                                     | EER                                  | 12.1       | NA                           | ١                   |
| 2-BD 16-3-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР                | 3.5             | 23                                     | EER                                  | 12.1       | NA                           | ١                   |
| 2-BD 16-4-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР                | 3.5             | 23                                     | EER                                  | 12.1       | NA                           | ١                   |

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Report Generated at: 3/8/2023 9:40:37 AM

| A Building Energy Efficiency Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-68 |
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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

| Project Name:    |     | 231 Grant Ave | nue          |                 |            |                | NRCC-PRF-01-E    |        | Page 13 of 46     |         |                |         |                     |
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| Project Address: |     | 231 Grant Ave | nue Palo Alt | 0               |            |                | Calculation Date | /Time: | 16:22, Tue, Mar 0 | 7, 2023 |                |         |                     |
| Input File Name: |     | Grant.cibd19x | 9            |                 |            |                |                  |        |                   |         |                |         |                     |
| H2. FAN SYSTEMS  | SUM | MARY          |              |                 |            | 100            |                  | -      |                   |         |                | M.      | -11.                |
| 1                | 2   | 3             | 4            | 5               | 6          | 7              | 8                | 9      | 10                | 11      | 12             | 13      | 14                  |
|                  |     | Design OA     | ,            |                 | Supply Fan |                |                  |        | Return Fan        |         |                |         | S.                  |
| Name or Item Tag | Qty | CFM           | CFM          | Modeling Method | Power      | Power<br>Units | Control          | СҒМ    | Modeling Method   | Power   | Power<br>Units | Control | Status <sup>1</sup> |
| 1-BD 2-3-R       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 2-4-R       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 4-2-R       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 4-3-R       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 4-4-R       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 5-2-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 5-3-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 5-4-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD-1 6-1-F     | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 6-2-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 6-3-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 6-4-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD-1 7-1-F     | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 7-2-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 7-3-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 7-4-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD-1 8-1-F     | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 8-2-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 8-3-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 8-4-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD-1 9-1-F     | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 9-2-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 9-3-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 9-4-F       | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |
| 1-BD 11-2-F      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA      | NA             | NA      | N                   |

|                            |      |               |                                  |                                 |                |                | NRCC-PRF-01-E                    |               | Page 16 of 46       |                     |                     |          |         |
|----------------------------|------|---------------|----------------------------------|---------------------------------|----------------|----------------|----------------------------------|---------------|---------------------|---------------------|---------------------|----------|---------|
| Project Address:           |      | 231 Grant Ave | nue Palo Alt                     | to                              |                |                | Calculation Date                 | /Time:        | 16:22, Tue, Mar 0   | 7, 2023             |                     |          |         |
| nput File Name:            |      | Grant.cibd19x |                                  |                                 |                |                |                                  |               |                     |                     |                     |          |         |
| H2. FAN SYSTEMS            | SUM  | MARY          |                                  | <u></u>                         |                |                |                                  |               | -11                 |                     | X                   | 201.     | - 111.  |
| 1                          |      | 3             | 4                                | 5                               | 6              | 7              | 8                                | 9             | 10                  | 11                  | 12                  | 13       | 1       |
|                            |      | Design OA     |                                  |                                 | Supply Fan     |                |                                  |               | •                   | Return Fan          |                     |          | 2       |
| Name or Item Tag           | Qty  | CFM           | CFM                              | Modeling Method                 | Power          | Power<br>Units | Control                          | СҒМ           | Modeling Method     | Power               | Power<br>Units      | Control  | status. |
| 2-BD 24-4-R                | 1    | 0             | 2100                             | BrakeHorsePower                 | 0.001          | bhp            | ConstantVolume                   | NA            | NA                  | NA                  | NA                  | NA       | N       |
| 2-BD 29-2-L                | 1    | 0             | 2100                             | BrakeHorsePower                 | 0.001          | bhp            | ConstantVolume                   | NA            | NA                  | NA                  | NA                  | NA       | N       |
| 2-BD 29-3-L                | 1    | 0             | 2100                             | BrakeHorsePower                 | 0.001          | bhp            | ConstantVolume                   | NA            | NA                  | NA                  | NA                  | NA       | N       |
| 2-BD 29-4-L                | 1    | 0             | 2100                             | BrakeHorsePower                 | 0.001          | bhp            | ConstantVolume                   | NA            | NA                  | NA                  | NA                  | NA       | N       |
| 2-BD 30-2-R                | 1    | 0             | 2100                             | BrakeHorsePower                 | 0.001          | bhp            | ConstantVolume                   | NA            | NA                  | NA                  | NA                  | NA       | N       |
|                            |      |               |                                  |                                 | \$246640343762 |                |                                  | $\rightarrow$ | 1                   |                     | <del>}</del>        | 1        | _       |
| 2-BD 30-3-R                | 1    | 0             | 2100                             | BrakeHorsePower                 | 0.001          | bhp            | ConstantVolume                   | NA            | NA                  | NA                  | NA                  | NA       | N       |
| 2-BD 30-3-R<br>2-BD 30-4-R | 1    | 0             | 2100                             | BrakeHorsePower BrakeHorsePower | 0.001          | bhp<br>bhp     | ConstantVolume<br>ConstantVolume | NA<br>NA      | NA<br>NA            | NA<br>NA            | NA<br>NA            | NA<br>NA | N       |
|                            | 1071 | 170           | 7 // (16032550<br>24000000 - 160 |                                 |                | 0.000          |                                  | 1201000       | 023307.07<br>Yescar | 20002000<br>1000000 | 10000000<br>1000000 | 1007077  | . 10    |
| 2-BD 30-4-R                | 1    | 0             | 2100                             | BrakeHorsePower                 | 0.001          | bhp            | ConstantVolume                   | NA            | NA                  | NA                  | NA                  | NA       | N       |

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| 2-BD 30-2-R                                                                        | A20                       |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |       |     |                |    |    |       |                                        |     |   |
|------------------------------------------------------------------------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------|-----|----------------|----|----|-------|----------------------------------------|-----|---|
| 2 DD 30 2 N                                                                        | 1                         | 0            | 2100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BrakeHorsePower   | 0.001 | bhp | ConstantVolume | NA | NA | NA    | NA                                     | NA  | N |
| 2-BD 30-3-R                                                                        | 1                         | 0            | 2100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BrakeHorsePower   | 0.001 | bhp | ConstantVolume | NA | NA | NA    | NA                                     | NA  | N |
| 2-BD 30-4-R                                                                        | 1                         | 0            | 2100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BrakeHorsePower   | 0.001 | bhp | ConstantVolume | NA | NA | NA    | NA                                     | NA  | N |
| 2-BD 36-2-L                                                                        | 1                         | 0            | 2100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BrakeHorsePower   | 0.001 | bhp | ConstantVolume | NA | NA | NA    | NA                                     | NA  | N |
| 2-BD 36-3-L                                                                        | 1                         | 0            | 2100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BrakeHorsePower   | 0.001 | bhp | ConstantVolume | NA | NA | NA    | NA                                     | NA  | N |
| 2-BD 36-4-L                                                                        | 1                         | 0            | 2100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | BrakeHorsePower   | 0.001 | bhp | ConstantVolume | NA | NA | NA    | NA                                     | NA  | N |
| Status: N - New, A – Alt                                                           | ered, E – E               | Existing     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ·                 |       |     |                |    |    | ılı . |                                        |     |   |
|                                                                                    |                           |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |       |     |                |    |    |       |                                        | -   |   |
| H3. EXHAUST FA                                                                     | N SUM                     | MARY         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |       |     |                | 61 | 91 |       |                                        | 101 |   |
| This Section Does                                                                  | Not App                   | ly           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |       |     |                |    |    |       |                                        |     |   |
|                                                                                    |                           |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | i i               | 7     |     | -              |    |    |       |                                        |     |   |
|                                                                                    |                           | 937 NO       | 20 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE 10 DE |                   |       |     |                |    |    |       |                                        |     |   |
| H4. Wet System                                                                     | Equipn                    | nent(boilers | chillers,coo,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ling towers,etc.) |       |     |                |    |    |       |                                        |     |   |
| <b>H4. Wet System</b><br>This Section Does                                         | (85% 1/2<br>an nower      | GES 12       | chillers,coo,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ling towers,etc.) |       |     | 11             |    |    |       |                                        |     |   |
| 1.50<br>1.000 - 1.000 - 1.000 - 1.000 - 1.000 - 1.000                              | (85% 1/2<br>an nower      | GES 12       | chillers,coo,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ling towers,etc.) |       |     |                |    |    |       | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |     |   |
| This Section Does                                                                  | Not App                   | ly           | chillers,coo,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ling towers,etc.) |       |     |                |    |    |       |                                        |     |   |
| This Section Does                                                                  | Not App                   | ly           | chillers,coo,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ling towers,etc.) | 0     |     |                |    |    |       |                                        |     |   |
| This Section Does                                                                  | Not App                   | ly           | ,chillers,coo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ling towers,etc.) |       |     |                |    |    |       |                                        |     |   |
| This Section Does  H5. PUMPS  This Section Does                                    | Not App                   | ly<br>ATURES | ,chillers,coo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ling towers,etc.) |       |     |                |    |    |       |                                        |     |   |
| This Section Does  H5. PUMPS  This Section Does  H6. SYSTEM SPE  This Section Does | Not App  Not App  CIAL FE | ly  ATURES   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ling towers,etc.) |       |     |                |    |    |       |                                        |     |   |
| This Section Does  H5. PUMPS  This Section Does  H6. SYSTEM SPE                    | Not App  Not App  CIAL FE | ly  ATURES   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ling towers,etc.) |       |     |                |    |    |       |                                        |     |   |

| Project Name:      | 231 Grant Avenue         |           |                                     |                                |                   | NRCC-PRF-01-E    |                                       | Page 11 of 46       |            |                              |                     |
|--------------------|--------------------------|-----------|-------------------------------------|--------------------------------|-------------------|------------------|---------------------------------------|---------------------|------------|------------------------------|---------------------|
| Project Address:   | 231 Grant Avenue Palo A  | lto       |                                     |                                |                   | Calculation Date | e/Time:                               | 16:22, Tue, Mar 07, | 2023       |                              |                     |
| nput File Name:    | Grant.cibd19x            |           |                                     |                                |                   |                  |                                       |                     |            |                              |                     |
| 11. DRY SYSTEM EQU | JIPMENT (furnaces, air h | andling u | ınits, heat pum                     | ps, VRF, econo                 | mizers et         | c.)              |                                       |                     |            |                              |                     |
| 1                  | 2                        | 3         | 4                                   | 5                              | 6                 | 7                | 8                                     | 9                   | 10         | 11                           | 12                  |
|                    |                          |           |                                     | Heatin                         | g                 |                  |                                       | Cooling             |            |                              | Т                   |
| Equipment Name     | Equipment Type           | Qty       | Total Heating<br>Output<br>(kBtu/h) | Supp Heat<br>Output<br>(kBtuh) | Efficienc<br>Unit | y Efficiency     | Total<br>Cooling<br>Output<br>(kBtu/h | Efficiency Unit     | Efficiency | Economizer Type (if present) | Status <sup>1</sup> |
| 2-BD 17-2-R        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 17-3-R        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 17-4-R        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 23-2-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 23-3-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 23-4-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 24-2-R        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 24-3-R        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 24-4-R        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 29-2-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 29-3-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 29-4-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 30-2-R        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 30-3-R        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 30-4-R        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 36-2-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 36-3-L        | PTHP (NA)                | 1         | 25                                  | 14                             | СОР               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |
| 2-BD 36-4-L        | PTHP (NA)                | 1         | 25                                  | 14                             | COP               | 3.5              | 23                                    | EER                 | 12.1       | NA                           | N                   |

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|------------------|-----|---------------|--------------|-----------------|------------|----------------|------------------|--------|-------------------|------------|----------------|---------|---------------------|
| Project Address: |     | 231 Grant Ave | nue Palo Alt | 0               |            |                | Calculation Date | /Time: | 16:22, Tue, Mar 0 | 7, 2023    |                |         |                     |
| Input File Name: |     | Grant.cibd19x | ß            |                 |            |                |                  |        |                   |            |                |         |                     |
| H2. FAN SYSTEMS  | SUM | MARY          | N.           |                 |            |                |                  |        | 3                 |            | X.             |         | -111.               |
| 1                | 2   | 3             | 4            | 5               | 6          | 7              | 8                | 9      | 10                | 11         | 12             | 13      | 14                  |
|                  |     | Design OA     |              |                 | Supply Fan |                |                  |        |                   | Return Fan |                |         | 2                   |
| Name or Item Tag | Qty | CFM           | CFM          | Modeling Method | Power      | Power<br>Units | Control          | СҒМ    | Modeling Method   | Power      | Power<br>Units | Control | Status <sup>1</sup> |
| 1-BD 11-3-F      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 11-4-F      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 12-2-F      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 12-3-F      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 12-4-F      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 13-2-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 13-3-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 13-4-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 15-2-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 15-3-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 15-4-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 18-2-R      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 18-3-R      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 18-4-R      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 20-2-R      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 20-3-R      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 20-4-R      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 22-2-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 22-3-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 22-4-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 25-2-R      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 25-3-R      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 25-4-R      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 28-2-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |
| 1-BD 28-3-L      | 1   | 0             | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA         | NA             | NA      | N                   |

| CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance | Re |
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231 Grant Avenue Palo Alto

231 Grant Avenue

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

| Report Version: NRCC-PRF-01-E-12092021-6844 |  |
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NRCC-PRF-01-E

| 14 | Report Generated at: 3/8/2023 9:40:37 AM |
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Project Name:

231 Grant Avenue

231 Grant Avenue Palo Alto

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Calculation Date/Time: 16:22, Tue, Mar 07, 2023

Report Generated at: 3/8/2023 9:40:37 AM

| r roject ridaress.                    | EST Granerwe  | nac raio /ito                      |            | Carcarac     | on bate, mile. | 10.22, 100, 11 | idi 07, 2025     |                                             |
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| Input File Name:                      | Grant.cibd19x |                                    |            |              |                |                |                  |                                             |
|                                       |               |                                    |            |              |                |                | A                |                                             |
| SERE FOR 20- NO. COMPLETE REPORTED IN | ENTIAL DWELLI | NG UNIT AND HOTEL/MOTEL VENTILATIO |            |              | <u> </u>       |                |                  |                                             |
| 1                                     |               | 2                                  | 3          | 4            | 5              | 6              | 7                | 8                                           |
|                                       |               |                                    | Mechanical | Ventilatio   | n              |                |                  |                                             |
| Zone Nam                              | ne            |                                    | # hotel    | # of         | Supply OA      | Exhaust        | Conditioned Area | DCV or Occupant Sensor<br>Controls, or Both |
|                                       |               | Ventilation Function               | rooms      | bedroo<br>ms | CFM            | CFM            | (sf)             | controls, or both                           |
| 1-0-BD 3-2                            | !-R           | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 2-0-BD 3-3                            | J-R           | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 3-0-BD 3-4                            | I-R           | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 4-0-BD 10-2                           | 2-F           | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 5-0-BD 10-                            | 3-F           | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 6-0-BD 10-4                           | 4-F           | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 7-0-BD 14-                            | 2-L           | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 8-0-BD 14-                            | 3-L           | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 9-0-BD 14-                            | 4-L           | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 10-0-BD 19-                           | -2-R          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 11-0-BD 19-                           | -3-R          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 12-0-BD 19-                           | -4-R          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 13-0-BD 21-                           | -2-L          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 14-0-BD 21-                           | -3-L          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 15-0-BD 21-                           | -4-L          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 16-0-BD 26-                           | -2-R          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 17-0-BD 26-                           | -3-R          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 18-0-BD 26-                           | -4-R          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 19-0-BD 32-                           | -2-R          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 20-0-BD 32-                           | -3-R          | NA                                 | 0          | 1            | NA             | 33             | 418              | NA                                          |
| 21-0-BD 32-                           | -4-R          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 22-0-BD 34-                           | -2-L          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |
| 23-0-BD 34-                           | -3-L          | NA                                 | 0          | 1            | NA             | 30             | 418              | NA                                          |

| 24-0-BD 34-4-L                            | NA .                             |          | U          | 1         | INA            | 30  | 418             | INA                        |
|-------------------------------------------|----------------------------------|----------|------------|-----------|----------------|-----|-----------------|----------------------------|
| V1                                        |                                  |          |            |           | 11             |     |                 |                            |
|                                           |                                  |          |            |           |                |     |                 |                            |
| A Building Energy Efficiency Standards- 2 | 019 Nonresidential Compliance Re | eport Ve | ersion: NR | CC-PRF-01 | -E-12092021-68 | 344 | Report Generate | ed at: 3/8/2023 9:40:37 AM |

| Project Name:    |     | 231 Grant Avenue |              |                 |            |                |                  |         | Page 12 of 46     |            |                |         |        |
|------------------|-----|------------------|--------------|-----------------|------------|----------------|------------------|---------|-------------------|------------|----------------|---------|--------|
| Project Address: |     | 231 Grant Ave    | nue Palo Alt | 0               |            |                | Calculation Date | :/Time: | 16:22, Tue, Mar 0 | 7, 2023    |                |         |        |
| Input File Name: |     | Grant.cibd19x    | 8            |                 |            |                |                  |         |                   |            |                |         |        |
| H2. FAN SYSTEMS  | SUM | MARY             | N            |                 |            |                | <u> </u>         |         | 7.                |            | X              |         | - 111. |
| 1                | 2   | 3                | 4            | 5               | 6          | 7              | 8                | 9       | 10                | 11         | 12             | 13      | 1      |
|                  |     | Design OA        | 2)           |                 | Supply Fan |                | ~                |         |                   | Return Fan |                |         | ير     |
| Name or Item Tag | Qty | CFM              | CFM          | Modeling Method | Power      | Power<br>Units | Control          | CFM     | Modeling Method   | Power      | Power<br>Units | Control | Status |
| 0-BD 3-2-R       | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | N      |
| 0-BD 3-3-R       | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | 1      |
| 0-BD 3-4-R       | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ı      |
| 0-BD 10-2-F      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ı      |
| 0-BD 10-3-F      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ı      |
| 0-BD 10-4-F      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ī      |
| 0-BD 14-2-L      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ī      |
| 0-BD 14-3-L      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | П      |
| 0-BD 14-4-L      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | П      |
| 0-BD 19-2-R      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | 1      |
| 0-BD 19-3-R      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | П      |
| 0-BD 19-4-R      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ī      |
| 0-BD 21-2-L      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ı      |
| 0-BD 21-3-L      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ī      |
| 0-BD 21-4-L      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | П      |
| 0-BD 26-2-R      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ī      |
| 0-BD 26-3-R      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | П      |
| 0-BD 26-4-R      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | 1      |
| 0-BD 32-2-R      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | П      |
| 0-BD 32-3-R      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | Г      |
| 0-BD 32-4-R      | 1   | 0                | 700          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | 1      |
| 0-BD 34-2-L      | 1   | 0                | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | ı      |
| 0-BD 34-3-L      | 1   | 0                | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      |        |
| 0-BD 34-4-L      | 1   | 0                | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | 1      |
| 1-BD 2-2-R       | 1   | 0                | 1400         | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA      | NA                | NA         | NA             | NA      | 1      |

| CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-6844 | Report Generated at: 3/8/2023 9:40:37 AM |
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|                                                                         |                                             |                                          |

| Project Name:    |     | 231 Grant Ave | enue |                 |            |                | NRCC-PRF-01-E    |        | Page 15 of 46     | AP _ 10 10 10 10 10 10 10 10 10 10 10 10 10 |                |         |   |
|------------------|-----|---------------|------|-----------------|------------|----------------|------------------|--------|-------------------|---------------------------------------------|----------------|---------|---|
| Project Address: |     | 231 Grant Ave |      | )               |            |                | Calculation Date | /Time: | 16:22, Tue, Mar 0 | 7, 2023                                     |                |         |   |
| Input File Name: |     | Grant.cibd19x | 8    |                 |            |                |                  |        |                   |                                             |                |         |   |
| H2. FAN SYSTEMS  | SUM | MARY          | 33   |                 |            | Ti:            |                  |        | W                 |                                             | <u> </u>       | al.     |   |
| 1                | 2   | 3             | 4    | 5               | 6          | 7              | 8                | 9      | 10                | 11                                          | 12             | 13      |   |
|                  |     | Design OA     |      |                 | Supply Fan | 120            | ***              |        |                   | Return Fan                                  |                | **      | Γ |
| Name or Item Tag | Qty | CFM           | CFM  | Modeling Method | Power      | Power<br>Units | Control          | CFM    | Modeling Method   | Power                                       | Power<br>Units | Control |   |
| 1-BD 28-4-L      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | Τ |
| 1-BD 31-2-R      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | Γ |
| 1-BD 31-3-R      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | Τ |
| 1-BD 31-4-R      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | Τ |
| 1-BD 33-2-L      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | Τ |
| 1-BD 33-3-L      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | T |
| 1-BD 33-4-L      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | Τ |
| 1-BD 35-2-L      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 1-BD 35-3-L      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | Γ |
| 1-BD 35-4-L      | 1   | 0             | 1400 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | T |
| 2-BD 1-2-R       | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 1-3-R       | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 1-4-R       | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD-1 5-1-F     | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 16-2-L      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 16-3-L      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 16-4-L      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 17-2-R      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | T |
| 2-BD 17-3-R      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | Γ |
| 2-BD 17-4-R      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 23-2-L      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 23-3-L      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | T |
| 2-BD 23-4-L      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 24-2-R      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      |   |
| 2-BD 24-3-R      | 1   | 0             | 2100 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA                | NA                                          | NA             | NA      | Τ |

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| 1               | 2                     | 3          | 4            | 5         | 6       | 7                | 8                      |
|-----------------|-----------------------|------------|--------------|-----------|---------|------------------|------------------------|
|                 |                       | Mechanical | Ventilatio   | n         |         |                  |                        |
| Zone Name       | 200 Par 200 - 2 - 200 | # hotel    | # of         | Supply OA | Exhaust | Conditioned Area | DCV or Occupant Sensor |
|                 | Ventilation Function  | rooms      | bedroo<br>ms | CFM       | CFM     | (sf)             | Controls, or Both      |
| 25-1-BD 2-2-R   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 26-1-BD 2-3-R   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 27-1-BD 2-4-R   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 28-1-BD 4-2-R   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 29-1-BD 4-3-R   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 30-1-BD 4-4-R   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 31-1-BD 5-2-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 32-1-BD 5-3-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 33-1-BD 10-4-F  | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 34-1-BD-1 6-1-F | NA                    | 0          | 1            | NA        | 34      | 612              | NA                     |
| 35-1-BD 6-2-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 36-1-BD 6-3-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 37-1-BD 6-4-F   | NA                    | 0          | 1            | NA        | 33      | 550              | NA                     |
| 38-1-BD-1 7-1-F | NA                    | 0          | 1            | NA        | 34      | 612              | NA                     |
| 39-1-BD 7-2-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 40-1-BD 7-3-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 41-1-BD 7-4-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 42-1-BD-1 8-1-F | NA                    | 0          | 1            | NA        | 34      | 612              | NA                     |
| 43-1-BD 8-2-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 44-1-BD 8-3-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 45-1-BD 8-4-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 46-1-BD-1 9-1-F | NA                    | 0          | 1            | NA        | 34      | 612              | NA                     |
| 47-1-BD 9-2-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |
| 48-1-BD 9-3-F   | NA                    | 0          | 1            | NA        | 33      | 589              | NA                     |

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Calculation Date/Time: 16:22, Tue, Mar 07, 2023



ARCHITECTURE | URBAN DESIGN SAN FRANCISCO | DENVER | MINNEAPOLIS

333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER

BKF ENGINEERS

1730 N. FIRST ST SUITE 600
SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES

MILLENIUM DESIGN
PO BOX 737
ALAMO, CA 94507

LANDSCAPE ARCHITECT

PLURAL STUDIO

2742 17TH STREET

SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER

HOHBACH-LEWIN, INC
250 SHERIDAN AVE STE 100
PALO ALTO, CA 94306

MEP ENGINEER

EMERALD CITY ENGINEERS

21705 HIGHWAY 99
LYNWOOD, WA 98036

ENERGY CONSULTANT

REDWOOD ENERGY

1887 Q STREET

ARCATA, CA 95521

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT

RECORD NO.: \_\_DEV22-1242

BY: \_M. O'Brien \_\_\_\_\_ Date: \_\_07/27/2023

HARD COPY OF THESE STAMPED PLANS
MUST BE ON THE SITE FOR INSPECTIONS



| ID | DATE     | NAME            |
|----|----------|-----------------|
| 1  | 11/11/22 | PERMIT SET-CONV |
| В  | 03/20/23 | BID ADDENDUM    |
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# EDUCATOR HOUSING 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



TITLE 24 CH. 6 ENERGY REPORT -RES PRF-01

JOB #: 1925

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| Project Address:   | 231 Grant Ave   | nue Palo Alto                         |           | Calculat       | ion Date/Time: | 16:22, Tue, N | 1ar 07, 2023     |                        |
|--------------------|-----------------|---------------------------------------|-----------|----------------|----------------|---------------|------------------|------------------------|
| nput File Name:    | Grant.cibd19x   |                                       |           |                |                |               |                  |                        |
| IO LUCIU DICE DECI | SENTIAL DIAGELL | NG UNIT AND HOTEL (MOTEL VENITH ATION |           |                |                |               | A                |                        |
|                    | DENTIAL DWELLI  | NG UNIT AND HOTEL/MOTEL VENTILATION   |           | T              |                |               | 122              |                        |
| 1                  |                 | 2                                     | 3         | 4              | 5              | 6             | 7                | 8                      |
|                    |                 |                                       | Mechanica |                |                |               | i                | DCV or Occupant Sensor |
| Zone Na            | me              | Ventilation Function                  | # hotel   | # of<br>bedroo | Supply OA      | Exhaust       | Conditioned Area | Controls, or Both      |
|                    |                 |                                       | rooms     | ms             | CFM            | CFM           | (sf)             |                        |
| 49-1-BD 9          | )-4-F           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 50-1-BD 1          | 1-2-F           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 51-1-BD 1          | 1-3-F           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 52-1-BD 1          | 1-4-F           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 53-1-BD 1          | 2-2-F           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 54-1-BD 1          | 2-3-F           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 55-1-BD 1          | 2-4-F           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 56-1-BD 1          | 3-2-L           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 57-1-BD 1          | 3-3-L           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 58-1-BD 1          | 3-4-L           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 59-1-BD 1          | 5-2-L           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 60-1-BD 1          | 5-3-L           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 61-1-BD 1          | 5-4-L           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 62-1-BD 1          | 8-2-R           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 63-1-BD 1          | 8-3-R           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 64-1-BD 1          | 8-4-R           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 65-1-BD 2          | 0-2-R           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 66-1-BD 2          | 0-3-R           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 67-1-BD 2          | 0-4-R           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 68-1-BD 2          | 2-2-L           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 69-1-BD 2          | 2-3-L           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 70-1-BD 2          | 2-4-L           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 71-1-BD 2          | 5-2-R           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |
| 72-1-BD 2          | 5-3-R           | NA                                    | 0         | 1              | NA             | 33            | 589              | NA                     |

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| Project Name: | 221 Grant Avenue | NDCC DDE 01 E | Page 22 of 46 |  |
|---------------|------------------|---------------|---------------|--|
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| Project Name:      | 231 Grant Avenue     |                                |      |         |                  | NRCC-PRF-01-E    |             | Page 22 of 46   |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |      |
|--------------------|----------------------|--------------------------------|------|---------|------------------|------------------|-------------|-----------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|
| Project Address:   | 231 Grant Avenue Pal | o Alto                         |      |         |                  | Calculation Date | /Time:      | 16:22, Tue, Mar | 07, 2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |      |
| Input File Name:   | Grant.cibd19x        |                                |      |         |                  |                  |             |                 |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |      |
| H9. ZONAL SYSTEM A | AND TERMINAL UNIT S  | SUMMARY                        | 11.  |         | 111              |                  | 2           |                 |          | the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s | A.     |      |
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| System ID          | Zone Name            | System Type                    | Qty  |         | Capacity<br>tuh) | A                | irflow (cfn | n)              |          | F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | an     | AST. |
| System ID          | Zone Name            | System Type                    | l qu | Heating | Cooling          | Design           | Min.        | Min. Ratio      | Power    | Power<br>Units                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cycles | VSD  |
| 3-0-BD 3-3-R-EXH   | 2-0-BD 3-3-R         | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 30               | NA          | NA              | 0.033    | W/cfm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |      |
| 0-BD 3-4-R         | 3-0-BD 3-4-R         | PTHP                           | 1    | 8.00    | 8.00             | 700              | NA          | NA              | 0.001    | bhp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |      |
| 4-0-BD 3-4-R-EXH   | 3-0-BD 3-4-R         | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 30               | NA          | NA              | 0.033    | W/cfm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |      |
| 0-BD 10-2-F        | 4-0-BD 10-2-F        | PTHP                           | 1    | 8.00    | 8.00             | 700              | NA          | NA              | 0.001    | bhp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |      |
| 5-0-BD 10-2-F-EXH  | 4-0-BD 10-2-F        | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 30               | NA          | NA              | 0.033    | W/cfm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |      |
| 0-BD 10-3-F        | 5-0-BD 10-3-F        | PTHP                           | 1    | 8.00    | 8.00             | 700              | NA          | NA              | 0.001    | bhp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |      |
| 6-0-BD 10-3-F-EXH  | 5-0-BD 10-3-F        | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 30               | NA          | NA              | 0.033    | W/cfm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |      |
| 0-BD 10-4-F        | 6-0-BD 10-4-F        | PTHP                           | 1    | 8.00    | 8.00             | 700              | NA          | NA              | 0.001    | bhp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |      |
| 7-0-BD 10-4-F-EXH  | 6-0-BD 10-4-F        | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 30               | NA          | NA              | 0.033    | W/cfm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |      |
| 0-BD 14-2-L        | 7-0-BD 14-2-L        | PTHP                           | 1    | 8.00    | 8.00             | 700              | NA          | NA              | 0.001    | bhp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |      |
| 8-0-BD 14-2-L-EXH  | 7-0-BD 14-2-L        | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 30               | NA          | NA              | 0.033    | W/cfm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |      |
| 0-BD 14-3-L        | 8-0-BD 14-3-L        | PTHP                           | 1    | 8.00    | 8.00             | 700              | NA          | NA              | 0.001    | bhp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |      |
| 9-0-BD 14-3-L-EXH  | 8-0-BD 14-3-L        | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 30               | NA          | NA              | 0.033    | W/cfm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |      |
| 0-BD 14-4-L        | 9-0-BD 14-4-L        | PTHP                           | 1    | 8.00    | 8.00             | 700              | NA          | NA              | 0.001    | bhp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |      |
| 10-0-BD 14-4-L-EXH | 9-0-BD 14-4-L        | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 30               | NA          | NA              | 0.033    | W/cfm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |      |
| 0-BD 19-2-R        | 10-0-BD 19-2-R       | PTHP                           | 1    | 8.00    | 8.00             | 700              | NA          | NA              | 0.001    | bhp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |      |
| 11-0-BD 19-2-R-EXH | 10-0-BD 19-2-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 30               | NA          | NA              | 0.033    | W/cfm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |      |
| 0-BD 19-3-R        | 11-0-BD 19-3-R       | PTHP                           | 1    | 8.00    | 8.00             | 700              | NA          | NA              | 0.001    | bhp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |      |

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Project Name:

231 Grant Avenue

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Report Generated at: 3/8/2023 9:40:37 AM

Report Generated at: 3/8/2023 9:40:37 AM

Project Name:

Project Address:

231 Grant Avenue

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

231 Grant Avenue Palo Alto

Report Generated at: 3/8/2023 9:40:37 AM

| Project Name:       | 231 Grant Avenue     |                                |     |         |                  | NRCC-PRF-01-E          |       | Page 25 of 46   |          |                |        |     |  |  |
|---------------------|----------------------|--------------------------------|-----|---------|------------------|------------------------|-------|-----------------|----------|----------------|--------|-----|--|--|
| Project Address:    | 231 Grant Avenue Pal | o Alto                         |     |         |                  | Calculation Date       | Time: | 16:22, Tue, Mar | 07, 2023 |                |        |     |  |  |
| nput File Name:     | Grant.cibd19x        |                                |     |         |                  |                        |       |                 |          |                |        |     |  |  |
| 19. ZONAL SYSTEM A  | ND TERMINAL LINIT    | SUMMARY                        |     |         | 110              |                        |       |                 |          |                |        |     |  |  |
| 1                   | 2                    | 3                              | 4   | 5       | 6                | 7                      | 8     |                 | 10       | 11             | 12     | 13  |  |  |
| System ID           | Zone Name            | System Type                    | Qty | Rated C | Lapacity<br>tuh) | 7 8 9 10 Airflow (cfm) |       |                 |          | Fan            |        |     |  |  |
| System is           | zone Hame            | System Type                    | Q., | Heating | Cooling          | Design                 | Min.  | Min. Ratio      | Power    | Power<br>Units | Cycles | VSD |  |  |
| 30-1-BD 4-3-R-EXH   | 29-1-BD 4-3-R        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33                     | NA    | NA              | 0.030    | W/cfm          |        |     |  |  |
| 1-BD 4-4-R          | 30-1-BD 4-4-R        | PTHP                           | 1   | 17.00   | 16.00            | 1400                   | NA    | NA              | 0.001    | bhp            |        |     |  |  |
| 31-1-BD 4-4-R-EXH   | 30-1-BD 4-4-R        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33                     | NA    | NA              | 0.030    | W/cfm          |        |     |  |  |
| 1-BD 5-2-F          | 31-1-BD 5-2-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400                   | NA    | NA              | 0.001    | bhp            |        |     |  |  |
| 32-1-BD 5-2-F-EXH   | 31-1-BD 5-2-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33                     | NA    | NA              | 0.030    | W/cfm          |        |     |  |  |
| 1-BD 5-3-F          | 32-1-BD 5-3-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400                   | NA    | NA              | 0.001    | bhp            |        |     |  |  |
| 33-1-BD 5-3-F-EXH   | 32-1-BD 5-3-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33                     | NA    | NA              | 0.030    | W/cfm          |        |     |  |  |
| 1-BD 5-4-F          | 33-1-BD 10-4-F       | PTHP                           | 1   | 17.00   | 16.00            | 1400                   | NA    | NA              | 0.001    | bhp            |        |     |  |  |
| 34-1-BD 10-4-F-EXH  | 33-1-BD 10-4-F       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33                     | NA    | NA              | 0.030    | W/cfm          |        |     |  |  |
| 1-BD-1 6-1-F        | 34-1-BD-1 6-1-F      | PTHP                           | 1   | 17.00   | 16.00            | 1400                   | NA    | NA              | 0.001    | bhp            |        |     |  |  |
| 35-1-BD-1 6-1-F-EXH | 34-1-BD-1 6-1-F      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 34                     | NA    | NA              | 0.029    | W/cfm          |        |     |  |  |
| 1-BD 6-2-F          | 35-1-BD 6-2-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400                   | NA    | NA              | 0.001    | bhp            |        |     |  |  |
| 36-1-BD 6-2-F-EXH   | 35-1-BD 6-2-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33                     | NA    | NA              | 0.030    | W/cfm          |        |     |  |  |
| 1-BD 6-3-F          | 36-1-BD 6-3-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400                   | NA    | NA              | 0.001    | bhp            |        |     |  |  |
| 37-1-BD 6-3-F-EXH   | 36-1-BD 6-3-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33                     | NA    | NA              | 0.030    | W/cfm          |        |     |  |  |
| 1-BD 6-4-F          | 37-1-BD 6-4-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400                   | NA    | NA              | 0.001    | bhp            |        |     |  |  |
| 38-1-BD 6-4-F-EXH   | 37-1-BD 6-4-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33                     | NA    | NA              | 0.030    | W/cfm          |        |     |  |  |
| 1-BD-1 7-1-F        | 38-1-BD-1 7-1-F      | PTHP                           | 1   | 17.00   | 16.00            | 1400                   | NA    | NA              | 0.001    | bhp            |        |     |  |  |

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|                    |                | Ventilation Function                | rooms      | bedroo<br>ms | CFM              | CFM                                         | (sf) | Controls, or both |  |
|--------------------|----------------|-------------------------------------|------------|--------------|------------------|---------------------------------------------|------|-------------------|--|
| Zone Nar           | # hotel        | # of                                | Supply OA  | Exhaust      | Conditioned Area | DCV or Occupant Sensor<br>Controls, or Both |      |                   |  |
|                    |                |                                     | Mechanical | Ventilatio   | n                |                                             | ***  |                   |  |
| 1                  |                | 2                                   | 3          | 4            | 5                | 6                                           | 7    | 8                 |  |
| 8. HIGH-RISE RESID | ENTIAL DWELLI  | NG UNIT AND HOTEL/MOTEL VENTILATION | W.         | 20           |                  |                                             |      |                   |  |
| put File Name:     | Grant.Cibd19x  |                                     |            |              |                  |                                             |      |                   |  |
| put File Name:     | Grant.cibd19x  | er COSTIGNE STRANGER MINISTERSON    |            |              |                  |                                             |      |                   |  |
| oject Address:     | 231 Grant Aver | 231 Grant Avenue Palo Alto          |            |              |                  | 16:22, Tue, Mar 07, 2023                    |      |                   |  |
| oject Name:        | 231 Grant Aver | nue                                 |            | NRCC-PF      | RF-01-E          | Page 20 of 4                                | 6    |                   |  |

| 2                    | 3                                                            | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5                                                                                     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|----------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------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|                      | Mechanical                                                   | Ventilatio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | n                                                                                     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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Ventilation Function | # hotel rooms                                                | # of<br>bedroo<br>ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Supply OA<br>CFM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Exhaust<br>CFM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Conditioned Area<br>(sf)                                                                                                                                                                                                                               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|                      | Ventilation Function  NA NA NA NA NA NA NA NA NA NA NA NA NA | Ventilation Function         # hotel rooms           NA         0           NA         0 | Ventilation Function         # hotel rooms         # of bedrooms           NA         0         1           NA         0         2           NA         0         2 | Mechanical Ventilation           Ventilation Function         # hotel rooms rooms         # of bedrooms         Supply OA           NA         0         1         NA           NA         0         2         NA           NA         0         2         NA           NA         0         2 | Mechanical Ventilation           Ventilation Function         # hotel rooms         # of bedrooms         Supply OA         Exhaust           NA         0         1         NA         33           NA         0 | Mechanical Ventilation   Wentilation   Function   Wentilation Function   Wentilation   Wentilation Function   nction   Wentilation Function Function   Wentilation Function Function Function   Wentilation Function Fun |

Report Version: NRCC-PRF-01-E-12092021-6844

Report Generated at: 3/8/2023 9:40:37 AM

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

| Project Name:      | 231 Grant Avenue      |                                |     |         |                  | NRCC-PRF-01-E    |           | Page 23 of 46   |          |                |        |     |  |
|--------------------|-----------------------|--------------------------------|-----|---------|------------------|------------------|-----------|-----------------|----------|----------------|--------|-----|--|
| Project Address:   | 231 Grant Avenue Pale | o Alto                         |     |         |                  | Calculation Date | /Time:    | 16:22, Tue, Mar | 07, 2023 |                |        |     |  |
| Input File Name:   | Grant.cibd19x         |                                |     |         |                  |                  |           |                 |          |                |        |     |  |
| H9. ZONAL SYSTEM A | ND TERMINAL UNIT S    | UMMARY                         | 11. |         |                  |                  |           |                 |          | di e           | X      |     |  |
| 1                  | 2                     | 3                              | 4   | 5       | 6                | 7                | 8         | 9               | 10       | 11             | 12     | 13  |  |
| System ID          | Zone Name             | System Type                    | Qty |         | Capacity<br>tuh) | Ai               | rflow (cf | m)              | Fan      |                |        |     |  |
| System ID          | Zone Name             | System Type                    | Qiy | Heating | Cooling          | Design           | Min       | Min. Ratio      | Power    | Power<br>Units | Cycles | VSD |  |
| 12-0-BD 19-3-R-EXH | 11-0-BD 19-3-R        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 30               | NA        | NA              | 0.033    | W/cfm          |        |     |  |
| 0-BD 19-4-R        | 12-0-BD 19-4-R        | PTHP                           | 1   | 8.00    | 8.00             | 700              | NA        | NA              | 0.001    | bhp            |        |     |  |
| 13-0-BD 19-4-R-EXH | 12-0-BD 19-4-R        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 30               | NA        | NA              | 0.033    | W/cfm          |        |     |  |
| 0-BD 21-2-L        | 13-0-BD 21-2-L        | PTHP                           | 1   | 8.00    | 8.00             | 700              | NA        | NA              | 0.001    | bhp            |        |     |  |
| 14-0-BD 21-2-L-EXH | 13-0-BD 21-2-L        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 30               | NA        | NA              | 0.033    | W/cfm          |        |     |  |
| 0-BD 21-3-L        | 14-0-BD 21-3-L        | PTHP                           | 1   | 8.00    | 8.00             | 700              | NA        | NA              | 0.001    | bhp            |        |     |  |
| 15-0-BD 21-3-L-EXH | 14-0-BD 21-3-L        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 30               | NA        | NA              | 0.033    | W/cfm          |        |     |  |
| 0-BD 21-4-L        | 15-0-BD 21-4-L        | PTHP                           | 1   | 8.00    | 8.00             | 700              | NA        | NA              | 0.001    | bhp            |        |     |  |
| 16-0-BD 21-4-L-EXH | 15-0-BD 21-4-L        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 30               | NA        | NA              | 0.033    | W/cfm          |        |     |  |
| 0-BD 26-2-R        | 16-0-BD 26-2-R        | PTHP                           | 1   | 8.00    | 8.00             | 700              | NA        | NA              | 0.001    | bhp            |        |     |  |
| 17-0-BD 26-2-R-EXH | 16-0-BD 26-2-R        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 30               | NA        | NA              | 0.033    | W/cfm          |        |     |  |
| 0-BD 26-3-R        | 17-0-BD 26-3-R        | PTHP                           | 1   | 8.00    | 8.00             | 700              | NA        | NA              | 0.001    | bhp            |        |     |  |
| 18-0-BD 26-3-R-EXH | 17-0-BD 26-3-R        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 30               | NA        | NA              | 0.033    | W/cfm          |        |     |  |
| 0-BD 26-4-R        | 18-0-BD 26-4-R        | PTHP                           | 1   | 8.00    | 8.00             | 700              | NA        | NA              | 0.001    | bhp            |        |     |  |
| 19-0-BD 26-4-R-EXH | 18-0-BD 26-4-R        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 30               | NA        | NA              | 0.033    | W/cfm          |        |     |  |
| 0-BD 32-2-R        | 19-0-BD 32-2-R        | PTHP                           | 1   | 8.00    | 8.00             | 700              | NA        | NA              | 0.001    | bhp            |        |     |  |
| 20-0-BD 32-2-R-EXH | 19-0-BD 32-2-R        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 30               | NA        | NA              | 0.033    | W/cfm          |        |     |  |
| 0-BD 32-3-R        | 20-0-BD 32-3-R        | PTHP                           | 1   | 8.00    | 8.00             | 700              | NA        | NA              | 0.001    | bhp            |        |     |  |

| A Building Energy Efficiency Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-6844 |
|------------------------------------------------------------------------|---------------------------------------------|
|                                                                        |                                             |

| H9. ZONAL SYSTEM AI  | ND TERMINIAL LINUT C | TIMANA A DV                    | 11. |         |                  |               |      |            |       | ii -           | A.     |    |
|----------------------|----------------------|--------------------------------|-----|---------|------------------|---------------|------|------------|-------|----------------|--------|----|
| 1                    | 2                    | 3                              | 4   | 5       | 6                | 7             | 8    | 9          | 10    | 11             | 12     | 1  |
| 987<br>2021 20 Sept. | (100) #886           | 699                            | 1,5 | Rated C | Capacity<br>tuh) | Airflow (cfm) |      |            | Fan   |                |        |    |
| System ID            | Zone Name            | System Type                    | Qty | Heating | Cooling          | Design        | Min. | Min. Ratio | Power | Power<br>Units | Cycles | vs |
| 39-1-BD-1 7-1-F-EXH  | 38-1-BD-1 7-1-F      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 34            | NA   | NA         | 0.029 | W/cfm          |        | E  |
| 1-BD 7-2-F           | 39-1-BD 7-2-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400          | NA   | NA         | 0.001 | bhp            |        |    |
| 40-1-BD 7-2-F-EXH    | 39-1-BD 7-2-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33            | NA   | NA         | 0.030 | W/cfm          |        |    |
| 1-BD 7-3-F           | 40-1-BD 7-3-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400          | NA   | NA         | 0.001 | bhp            |        |    |
| 41-1-BD 7-3-F-EXH    | 40-1-BD 7-3-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33            | NA   | NA         | 0.030 | W/cfm          |        | [  |
| 1-BD 7-4-F           | 41-1-BD 7-4-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400          | NA   | NA         | 0.001 | bhp            |        | ]  |
| 42-1-BD 7-4-F-EXH    | 41-1-BD 7-4-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33            | NA   | NA         | 0.030 | W/cfm          |        | Ι  |
| 1-BD-1 8-1-F         | 42-1-BD-1 8-1-F      | PTHP                           | 1   | 17.00   | 16.00            | 1400          | NA   | NA         | 0.001 | bhp            |        | [  |
| 43-1-BD-1 8-1-F-EXH  | 42-1-BD-1 8-1-F      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 34            | NA   | NA         | 0.029 | W/cfm          |        | [  |
| 1-BD 8-2-F           | 43-1-BD 8-2-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400          | NA   | NA         | 0.001 | bhp            |        | ]  |
| 44-1-BD 8-2-F-EXH    | 43-1-BD 8-2-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33            | NA   | NA         | 0.030 | W/cfm          |        | [  |
| 1-BD 8-3-F           | 44-1-BD 8-3-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400          | NA   | NA         | 0.001 | bhp            |        | ]  |
| 45-1-BD 8-3-F-EXH    | 44-1-BD 8-3-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33            | NA   | NA         | 0.030 | W/cfm          |        | Ε  |
| 1-BD 8-4-F           | 45-1-BD 8-4-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400          | NA   | NA         | 0.001 | bhp            |        | ]  |
| 46-1-BD 8-4-F-EXH    | 45-1-BD 8-4-F        | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 33            | NA   | NA         | 0.030 | W/cfm          |        |    |
| 1-BD-1 9-1-F         | 46-1-BD-1 9-1-F      | PTHP                           | 1   | 17.00   | 16.00            | 1400          | NA   | NA         | 0.001 | bhp            |        | [  |
| 47-1-BD-1 9-1-F-EXH  | 46-1-BD-1 9-1-F      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA               | 34            | NA   | NA         | 0.029 | W/cfm          |        | ı  |
| 1-BD 9-2-F           | 47-1-BD 9-2-F        | PTHP                           | 1   | 17.00   | 16.00            | 1400          | NA   | NA         | 0.001 | bhp            |        |    |

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| 17.00     | 16.00        | 1400            | NA       | NA | 0.001     | bhp           |              |         |  |
|-----------|--------------|-----------------|----------|----|-----------|---------------|--------------|---------|--|
|           |              |                 |          |    |           |               |              |         |  |
| Report Ve | rsion: NRCC- | PRF-01-E-120920 | 021-6844 |    | Report Ge | nerated at: 3 | 3/8/2023 9:4 | 0:37 AM |  |

Report Generated at: 3/8/2023 9:40:37 AM

| Project Name:      | 231 Grant Aven  | ue                                |         | NRCC-PF      | RF-01-E        | Page 21 of 46 |                  |                                             |  |  |
|--------------------|-----------------|-----------------------------------|---------|--------------|----------------|---------------|------------------|---------------------------------------------|--|--|
| Project Address:   | 231 Grant Aven  | ue Palo Alto                      |         | Calculat     | ion Date/Time: | 16:22, Tue, I | Mar 07, 2023     |                                             |  |  |
| Input File Name:   | Grant.cibd19x   |                                   |         |              |                |               |                  |                                             |  |  |
| H8. HIGH-RISE RESI | DENTIAL DWELLIN | IG UNIT AND HOTEL/MOTEL VENTILATI | ON      |              |                |               | .1.              |                                             |  |  |
| 1                  |                 | 2                                 | 3       | 4            | 5              | 6             | 7                | 8                                           |  |  |
|                    |                 |                                   |         |              |                |               |                  |                                             |  |  |
| Zone Name          |                 | V. 1                              | # hotel | # of         | Supply OA      | Exhaust       | Conditioned Area | DCV or Occupant Sensor<br>Controls, or Both |  |  |
| 72.72.75           |                 | Ventilation Function              | rooms   | bedroo<br>ms | CFM            | CFM           | (sf)             | controls, or Both                           |  |  |
| 97-2-BD 23-3-L     |                 | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 98-2-BD 2          | ?3-4-L          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 99-2-BD 2          | 4-2-R           | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 100-2-BD           | 24-3-R          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 101-2-BD           | 24-4-R          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 102-2-BD           | 29-2-L          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 103-2-BD           | 29-3-L          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 104-2-BD           | 29-4-L          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 105-2-BD           | 30-2-R          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 106-2-BD           | 30-3-R          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 107-2-BD 30-4-R    |                 | NA                                |         | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 108-2-BD           | 36-2-L          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |
| 109-2-BD           | 36-3-L          | NA                                | 0       | 2            | NA             | 50            | 876              | NA                                          |  |  |

| 1 2 2 4          |              |                                |       | 9728                      | r       | 228           |      |            |       |                |        |     |
|------------------|--------------|--------------------------------|-------|---------------------------|---------|---------------|------|------------|-------|----------------|--------|-----|
| 1                | 2            | 3                              | 4     | 5                         | 6       | 7             | 8    | 9          | 10    | 11             | 12     | 13  |
| Suctam ID        | Zone Name    | System Type                    | Qty   | Rated Capacity<br>(kBtuh) |         | Airflow (cfm) |      |            | Fan   |                |        |     |
| System ID        | Zone Name    | Зузієні туре                   | l diy | Heating                   | Cooling | Design        | Min. | Min. Ratio | Power | Power<br>Units | Cycles | VSD |
| 0-BD 3-2-R       | 1-0-BD 3-2-R | PTHP                           | 1     | 8.00                      | 8.00    | 700           | NA   | NA         | 0.001 | bhp            |        |     |
| 2-0-BD 3-2-R-EXH | 1-0-BD 3-2-R | VentilationOnly<br>ExhaustOnly | 1     | NA                        | NA      | 30            | NA   | NA         | 0.033 | W/cfm          |        |     |
| 0-BD 3-3-R       | 2-0-BD 3-3-R | PTHP                           | 1     | 8.00                      | 8.00    | 700           | NA   | NA         | 0.001 | bhp            |        |     |

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110-2-BD 36-4-L

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| Project Name:    | 231 Grant Avenue      |                            |     | NRCC-PRF-01-E Page 24 of 46 |         |        |             |                |          |                |        |     |
|------------------|-----------------------|----------------------------|-----|-----------------------------|---------|--------|-------------|----------------|----------|----------------|--------|-----|
| Project Address: | 231 Grant Avenue Palo | 231 Grant Avenue Palo Alto |     |                             |         |        |             | 5:22, Tue, Mar | 07, 2023 |                |        |     |
| Input File Name: | Grant.cibd19x         | Grant.cibd19x              |     |                             |         |        |             |                |          |                |        |     |
| H9. ZONAL SYSTEM | AND TERMINAL UNIT S   | UMMARY<br>3                | 4   | 5                           | 6       | 7      | 8           | 9              | 10       | 11             | 12     | 13  |
| System ID        | Zone Name             | System Type                | Otv | Rated Capacity<br>(kBtuh)   |         | Ai     | rflow (cfm) |                |          | Fa             | an     |     |
| System ID        | Zone Name             | system type                | Qty | Heating                     | Cooling | Design | Min.        | Min. Ratio     | Power    | Power<br>Units | Cycles | VSD |

| 1                  | 2              | 3                              | 4   | 5       | 6                      | 7      | 8            | 9          | 10    | 11             | 12     | 13   |
|--------------------|----------------|--------------------------------|-----|---------|------------------------|--------|--------------|------------|-------|----------------|--------|------|
| System ID          | Zone Name      | System Type                    | Qty |         | Capacity Airflow (cfm) |        | irflow (cfm) |            |       | Fa             | ın     | 10 m |
| System is          | Zone Name      | System Type                    | "   | Heating | Cooling                | Design | Min.         | Min. Ratio | Power | Power<br>Units | Cycles | VSD  |
| 21-0-BD 32-3-R-EXH | 20-0-BD 32-3-R | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                     | 33     | NA           | NA         | 0.030 | W/cfm          |        |      |
| 0-BD 32-4-R        | 21-0-BD 32-4-R | PTHP                           | 1   | 8.00    | 8.00                   | 700    | NA           | NA         | 0.001 | bhp            |        |      |
| 22-0-BD 32-4-R-EXH | 21-0-BD 32-4-R | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                     | 30     | NA           | NA         | 0.033 | W/cfm          |        |      |
| 0-BD 34-2-L        | 22-0-BD 34-2-L | PTHP                           | 1   | 17.00   | 16.00                  | 1400   | NA           | NA         | 0.001 | bhp            |        |      |
| 23-0-BD 34-2-L-EXH | 22-0-BD 34-2-L | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                     | 30     | NA           | NA         | 0.033 | W/cfm          |        |      |
| 0-BD 34-3-L        | 23-0-BD 34-3-L | PTHP                           | 1   | 17.00   | 16.00                  | 1400   | NA           | NA         | 0.001 | bhp            |        |      |
| 24-0-BD 34-3-L-EXH | 23-0-BD 34-3-L | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                     | 30     | NA           | NA         | 0.033 | W/cfm          |        |      |
| 0-BD 34-4-L        | 24-0-BD 34-4-L | PTHP                           | 1   | 17.00   | 16.00                  | 1400   | NA           | NA         | 0.001 | bhp            |        |      |
| 25-0-BD 34-4-L-EXH | 24-0-BD 34-4-L | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                     | 30     | NA           | NA         | 0.033 | W/cfm          |        |      |
| 1-BD 2-2-R         | 25-1-BD 2-2-R  | PTHP                           | 1   | 17.00   | 16.00                  | 1400   | NA           | NA         | 0.001 | bhp            |        |      |
| 26-1-BD 2-2-R-EXH  | 25-1-BD 2-2-R  | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                     | 33     | NA           | NA         | 0.030 | W/cfm          |        |      |
| 1-BD 2-3-R         | 26-1-BD 2-3-R  | PTHP                           | 1   | 17.00   | 16.00                  | 1400   | NA           | NA         | 0.001 | bhp            |        |      |
| 27-1-BD 2-3-R-EXH  | 26-1-BD 2-3-R  | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                     | 33     | NA           | NA         | 0.030 | W/cfm          |        |      |
| 1-BD 2-4-R         | 27-1-BD 2-4-R  | PTHP                           | 1   | 17.00   | 16.00                  | 1400   | NA           | NA         | 0.001 | bhp            |        |      |
| 28-1-BD 2-4-R-EXH  | 27-1-BD 2-4-R  | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                     | 33     | NA           | NA         | 0.030 | W/cfm          |        |      |
| 1-BD 4-2-R         | 28-1-BD 4-2-R  | PTHP                           | 1   | 17.00   | 16.00                  | 1400   | NA           | NA         | 0.001 | bhp            |        |      |
| 29-1-BD 4-2-R-EXH  | 28-1-BD 4-2-R  | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                     | 33     | NA           | NA         | 0.030 | W/cfm          |        |      |
| 1-BD 4-3-R         | 29-1-BD 4-3-R  | PTHP                           | 1   | 17.00   | 16.00                  | 1400   | NA           | NA         | 0.001 | bhp            |        |      |

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| Project Name:    | 231 Grant Avenue           | NRCC-PRF-01-E          | Page 27 of 46            |
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| Project Address: | 231 Grant Avenue Palo Alto | Calculation Date/Time: | 16:22, Tue, Mar 07, 2023 |
| Input File Name: | Grant.cibd19x              |                        |                          |

| 1                  | 2              | 3                              | 4   | 5       | 6                         | 7               | 8    | 9          | 10    | 11             | 12     | 13 |
|--------------------|----------------|--------------------------------|-----|---------|---------------------------|-----------------|------|------------|-------|----------------|--------|----|
| System ID          | Zone Name      | System Type                    | Qty |         | Rated Capacity<br>(kBtuh) | Y Airflow (cfm) |      | Fan        |       |                |        |    |
| System ib          | Zone Name      | System Type                    | Qty | Heating | Cooling                   | Design          | Min. | Min. Ratio | Power | Power<br>Units | Cycles | VS |
| 48-1-BD 9-2-F-EXH  | 47-1-BD 9-2-F  | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                        | 33              | NA   | NA         | 0.030 | W/cfm          |        |    |
| 1-BD 9-3-F         | 48-1-BD 9-3-F  | PTHP                           | 1   | 17.00   | 16.00                     | 1400            | NA   | NA         | 0.001 | bhp            |        |    |
| 49-1-BD 9-3-F-EXH  | 48-1-BD 9-3-F  | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                        | 33              | NA   | NA         | 0.030 | W/cfm          |        |    |
| 1-BD 9-4-F         | 49-1-BD 9-4-F  | PTHP                           | 1   | 17.00   | 16.00                     | 1400            | NA   | NA         | 0.001 | bhp            |        |    |
| 50-1-BD 9-4-F-EXH  | 49-1-BD 9-4-F  | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                        | 33              | NA   | NA         | 0.030 | W/cfm          |        |    |
| 1-BD 11-2-F        | 50-1-BD 11-2-F | PTHP                           | 1   | 17.00   | 16.00                     | 1400            | NA   | NA         | 0.001 | bhp            |        | Г  |
| 51-1-BD 11-2-F-EXH | 50-1-BD 11-2-F | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                        | 33              | NA   | NA         | 0.030 | W/cfm          |        | Г  |
| 1-BD 11-3-F        | 51-1-BD 11-3-F | PTHP                           | 1   | 17.00   | 16.00                     | 1400            | NA   | NA         | 0.001 | bhp            |        |    |
| 52-1-BD 11-3-F-EXH | 51-1-BD 11-3-F | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                        | 33              | NA   | NA         | 0.030 | W/cfm          |        | Г  |
| 1-BD 11-4-F        | 52-1-BD 11-4-F | PTHP                           | 1   | 17.00   | 16.00                     | 1400            | NA   | NA         | 0.001 | bhp            |        |    |
| 53-1-BD 11-4-F-EXH | 52-1-BD 11-4-F | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                        | 33              | NA   | NA         | 0.030 | W/cfm          |        |    |
| 1-BD 12-2-F        | 53-1-BD 12-2-F | PTHP                           | 1   | 17.00   | 16.00                     | 1400            | NA   | NA         | 0.001 | bhp            |        |    |
| 54-1-BD 12-2-F-EXH | 53-1-BD 12-2-F | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                        | 33              | NA   | NA         | 0.030 | W/cfm          |        | С  |
| 1-BD 12-3-F        | 54-1-BD 12-3-F | PTHP                           | 1   | 17.00   | 16.00                     | 1400            | NA   | NA         | 0.001 | bhp            |        |    |
| 55-1-BD 12-3-F-EXH | 54-1-BD 12-3-F | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                        | 33              | NA   | NA         | 0.030 | W/cfm          |        |    |
| 1-BD 12-4-F        | 55-1-BD 12-4-F | PTHP                           | 1   | 17.00   | 16.00                     | 1400            | NA   | NA         | 0.001 | bhp            |        |    |
| 56-1-BD 12-4-F-EXH | 55-1-BD 12-4-F | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                        | 33              | NA   | NA         | 0.030 | W/cfm          |        |    |
| 1-BD 13-2-L        | 56-1-BD 13-2-L | PTHP                           | 1   | 17.00   | 16.00                     | 1400            | NA   | NA         | 0.001 | bhp            |        |    |

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# **VAN METER** WILLIAMS

ARCHITECTURE | URBAN DESIGN - SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES MILLENIUM DESIGN PO BOX 737 ALAMO, CA 94507

LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521

**BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: 07/27/2023 HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



| ID | DATE     | NAME            |
|----|----------|-----------------|
| 1  | 11/11/22 | PERMIT SET-CONV |
| В  | 03/20/23 | BID ADDENDUM    |
|    |          |                 |
|    |          |                 |
|    |          |                 |
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# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



TITLE 24 CH. 6 ENERGY REPORT -

JOB #: 1925

| Project Name:      | 231 Grant Avenue     |                                |     |         |         | NRCC-PRF-01-E     |            | Page 28 of 46   |          |                |        |     |
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| Project Address:   | 231 Grant Avenue Pal | o Alto                         |     |         |         | Calculation Date, | Time:      | 16:22, Tue, Mar | 07, 2023 |                |        |     |
| nput File Name:    | Grant.cibd19x        |                                |     |         |         |                   |            |                 |          |                |        |     |
| H9. ZONAL SYSTEM A | ND TERMINAL UNIT S   | SUMMARY                        | 11. |         | 11      |                   |            |                 |          | ı.             |        |     |
| 1                  | 2                    | 3                              | 4   | 5       | 6       | 7                 | 8          | 9               | 10       | 11             | 12     | 13  |
| System ID          | Zone Name            | System Type                    | Qty | Rated C |         | Ai                | rflow (cfi | m)              |          | Fa             | an     |     |
| System ID          | Zone Name            | System Type                    | Quy | Heating | Cooling | Design            | Min.       | Min. Ratio      | Power    | Power<br>Units | Cycles | VSD |
| 57-1-BD 13-2-L-EXH | 56-1-BD 13-2-L       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA      | 33                | NA         | NA              | 0.030    | W/cfm          |        |     |
| 1-BD 13-3-L        | 57-1-BD 13-3-L       | PTHP                           | 1   | 17.00   | 16.00   | 1400              | NA         | NA              | 0.001    | bhp            |        |     |
| 58-1-BD 13-3-L-EXH | 57-1-BD 13-3-L       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA      | 33                | NA         | NA              | 0.030    | W/cfm          |        |     |
| 1-BD 13-4-L        | 58-1-BD 13-4-L       | PTHP                           | 1   | 17.00   | 16.00   | 1400              | NA         | NA              | 0.001    | bhp            |        |     |
| 59-1-BD 13-4-L-EXH | 58-1-BD 13-4-L       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA      | 33                | NA         | NA              | 0.030    | W/cfm          |        |     |
| 1-BD 15-2-L        | 59-1-BD 15-2-L       | PTHP                           | 1   | 17.00   | 16.00   | 1400              | NA         | NA              | 0.001    | bhp            |        |     |
| 60-1-BD 15-2-L-EXH | 59-1-BD 15-2-L       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA      | 33                | NA         | NA              | 0.030    | W/cfm          |        |     |
| 1-BD 15-3-L        | 60-1-BD 15-3-L       | PTHP                           | 1   | 17.00   | 16.00   | 1400              | NA         | NA              | 0.001    | bhp            |        |     |
| 61-1-BD 15-3-L-EXH | 60-1-BD 15-3-L       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA      | 33                | NA         | NA              | 0.030    | W/cfm          |        |     |
| 1-BD 15-4-L        | 61-1-BD 15-4-L       | PTHP                           | 1   | 17.00   | 16.00   | 1400              | NA         | NA              | 0.001    | bhp            |        |     |
| 62-1-BD 15-4-L-EXH | 61-1-BD 15-4-L       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA      | 33                | NA         | NA              | 0.030    | W/cfm          |        |     |
| 1-BD 18-2-R        | 62-1-BD 18-2-R       | PTHP                           | 1   | 17.00   | 16.00   | 1400              | NA         | NA              | 0.001    | bhp            |        |     |
| 63-1-BD 18-2-R-EXH | 62-1-BD 18-2-R       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA      | 33                | NA         | NA              | 0.030    | W/cfm          |        |     |
| 1-BD 18-3-R        | 63-1-BD 18-3-R       | PTHP                           | 1   | 17.00   | 16.00   | 1400              | NA         | NA              | 0.001    | bhp            |        |     |
| 64-1-BD 18-3-R-EXH | 63-1-BD 18-3-R       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA      | 33                | NA         | NA              | 0.030    | W/cfm          |        |     |
| 1-BD 18-4-R        | 64-1-BD 18-4-R       | PTHP                           | 1   | 17.00   | 16.00   | 1400              | NA         | NA              | 0.001    | bhp            |        |     |
| 65-1-BD 18-4-R-EXH | 64-1-BD 18-4-R       | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA      | 33                | NA         | NA              | 0.030    | W/cfm          |        |     |
| 1-BD 20-2-R        | 65-1-BD 20-2-R       | PTHP                           | 1   | 17.00   | 16.00   | 1400              | NA         | NA              | 0.001    | bhp            |        |     |

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| Project Name:       | 231 Grant Avenue     |                                |       |         |          | NRCC-PRF-01-E     |           | Page 31 of 46  |          |                |                                        |      |
|---------------------|----------------------|--------------------------------|-------|---------|----------|-------------------|-----------|----------------|----------|----------------|----------------------------------------|------|
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| nput File Name:     | Grant.cibd19x        |                                |       |         |          |                   |           |                |          |                |                                        |      |
| JO ZONAL SYSTEM A   | ND TERMINAL UNIT S   | CLINANAADV                     | 11.   |         |          | W                 |           | <u> </u>       |          |                |                                        |      |
| 1                   | 2                    | 3                              | 4     | 5       | 6        | 7                 | 8         | 9              | 10       | 11             | 12                                     | 13   |
| •                   | -                    | ,                              | 1 7   | 20094   | Capacity |                   |           | (32)           | 10       | 2000           | ************************************** | - 13 |
| System ID           | Zone Name            | System Type                    | Qty   |         | tuh)     | Ai                | rflow (cf | m)             |          | Fa             | an                                     | 441  |
| System ID           | Zone Name            | System Type                    | l diy | Heating | Cooling  | Design            | Min.      | Min. Ratio     | Power    | Power<br>Units | Cycles                                 | VSD  |
| 84-1-BD 35-2-L-EXH  | 83-1-BD 35-2-L       | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA       | 33                | NA        | NA             | 0.030    | W/cfm          |                                        |      |
| 1-BD 35-3-L         | 84-1-BD 35-3-L       | PTHP                           | 1     | 17.00   | 16.00    | 1400              | NA        | NA             | 0.001    | bhp            |                                        |      |
| 85-1-BD 35-3-L-EXH  | 84-1-BD 35-3-L       | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA       | 33                | NA        | NA             | 0.030    | W/cfm          |                                        |      |
| 1-BD 35-4-L         | 85-1-BD 35-4-L       | PTHP                           | 1     | 17.00   | 16.00    | 1400              | NA        | NA             | 0.001    | bhp            |                                        |      |
| 86-1-BD 35-4-L-EXH  | 85-1-BD 35-4-L       | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA       | 33                | NA        | NA             | 0.030    | W/cfm          |                                        |      |
| 2-BD 1-2-R          | 86-2-BD 1-2-R        | PTHP                           | 1     | 25.00   | 23.00    | 2100              | NA        | NA             | 0.001    | bhp            |                                        |      |
| 87-2-BD 1-2-R-EXH   | 86-2-BD 1-2-R        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA       | 50                | NA        | NA             | 0.020    | W/cfm          |                                        |      |
| 2-BD 1-3-R          | 87-2-BD 1-3-R        | PTHP                           | 1     | 25.00   | 23.00    | 2100              | NA        | NA             | 0.001    | bhp            |                                        |      |
| 88-2-BD 1-3-R-EXH   | 87-2-BD 1-3-R        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA       | 50                | NA        | NA             | 0.020    | W/cfm          |                                        |      |
| 2-BD 1-4-R          | 88-2-BD 1-4-R        | PTHP                           | 1     | 25.00   | 23.00    | 2100              | NA        | NA             | 0.001    | bhp            |                                        |      |
| 89-2-BD 1-4-R-EXH   | 88-2-BD 1-4-R        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA       | 50                | NA        | NA             | 0.020    | W/cfm          |                                        |      |
| 2-BD-1 5-1-F        | 89-2-BD-1 5-1-F      | PTHP                           | 1     | 25.00   | 23.00    | 2100              | NA        | NA             | 0.001    | bhp            |                                        |      |
| 90-2-BD-1 5-1-F-EXH | 89-2-BD-1 5-1-F      | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA       | 50                | NA        | NA             | 0.020    | W/cfm          |                                        |      |
| 2-BD 16-2-L         | 90-2-BD 16-2-L       | PTHP                           | 1     | 25.00   | 23.00    | 2100              | NA        | NA             | 0.001    | bhp            |                                        |      |
| 91-2-BD 16-2-L-EXH  | 90-2-BD 16-2-L       | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA       | 50                | NA        | NA             | 0.020    | W/cfm          |                                        |      |
| 2-BD 16-3-L         | 91-2-BD 16-3-L       | PTHP                           | 1     | 25.00   | 23.00    | 2100              | NA        | NA             | 0.001    | bhp            |                                        |      |
| 92-2-BD 16-3-L-EXH  | 91-2-BD 16-3-L       | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA       | 50                | NA        | NA             | 0.020    | W/cfm          |                                        |      |
| 2-BD 16-4-L         | 92-2-BD 16-4-L       | PTHP                           | 1     | 25.00   | 23.00    | 2100              | NA        | NA             | 0.001    | bhp            |                                        |      |

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| nput File Name:         | Grant.cibd19x         |                                |      |         |                  |                   |           |                 |          |                |        |     |
| H9. ZONAL SYSTEM A      | ND TERMINAL UNIT S    | UMMARY                         | 14.  |         | All.             |                   |           |                 |          |                | X.     |     |
| 1                       | 2                     | 3                              | 4    | 5       | 6                | 7                 | 8         | 9               | 10       | 11             | 12     | 13  |
| System ID               | Zone Name             | Sustam Tuna                    | Otre |         | Capacity<br>tuh) | Ai                | rflow (cf | m)              |          | Fa             | an     |     |
| System ID               | zone Name             | System Type                    | Qty  | Heating | Cooling          | Design            | Min       | Min. Ratio      | Power    | Power<br>Units | Cycles | VSD |
| 111-2-BD 36-4-L-EXH     | 110-2-BD 36-4-L       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| H10. EVAPORATIVE C      | OOLER SUMMARY         | ExtradistOffiy                 |      | į.      | 12               |                   |           | 9               | 5        | XX             |        |     |
| This Section Does Not A | pply                  |                                |      |         |                  | W                 |           | 11).            |          |                |        |     |
| 525                     |                       | 751                            |      |         |                  | 18                |           | <del>    </del> |          |                |        |     |

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| I. WATER HEA                       | TER EQUIPIVI              | ENT SUMMARY |     |                   |             |                     |            |                    |                                            |                             |                                             |                   |                                            |
|------------------------------------|---------------------------|-------------|-----|-------------------|-------------|---------------------|------------|--------------------|--------------------------------------------|-----------------------------|---------------------------------------------|-------------------|--------------------------------------------|
| 1                                  | 2                         | 3           | 4   | 5                 | 6           | 7                   | 8          | 9                  | 10                                         | 11                          | 12                                          | 13                | 14                                         |
| Name                               | Heater<br>Element<br>Type | Tank Type   | Qty | Tank Vol<br>(gal) | Rated Input | Rated Input<br>Unit | Efficiency | Efficiency<br>Unit | Tank<br>Insulation<br>R-value<br>(Int/Ext) | Standby<br>Loss<br>Fraction | 1st Hour<br>Rating or<br>Flow Rate<br>(gal) | Heat Pump<br>Type | Tank<br>Location o<br>Ambient<br>Condition |
| 0-BD Rheem<br>PROPH50 T2<br>RH31   | Heat Pump                 | NA          | 3   | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditioned                                |
| 0-BD Rheem<br>PROPH50 T2<br>RH31 2 | Heat Pump                 | NA          | 3   | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditioned                                |
| 0-BD Rheem<br>PROPH50 T2<br>RH31 3 | Heat Pump                 | NA          | 3   | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditioned                                |
| 0-BD Rheem<br>PROPH50 T2<br>RH31 4 | Heat Pump                 | NA          | 3   | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditioned                                |

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| Project Name:      | 231 Grant Avenue     |                                |      |         |                  | NRCC-PRF-01-E    |            | Page 29 of 46   |          |                |        |          |
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| nput File Name:    | Grant.cibd19x        |                                |      |         |                  |                  |            |                 |          |                |        |          |
| H9. ZONAL SYSTEM A | AND TERMINAL UNIT S  | SUMMARY                        | 11.  |         | 111              |                  | 2          |                 |          | di .           | A.     |          |
| 1                  | 2                    | 3                              | 4    | 5       | 6                | 7                | 8          | 9               | 10       | 11             | 12     | 13       |
| System ID          | Zone Name            | Sustam Tuna                    | Otre |         | Capacity<br>tuh) | А                | irflow (cf | m)              |          | Fa             | in     | 10000000 |
| System ID          | Zone Name            | System Type                    | Qty  | Heating | Cooling          | Design           | Min        | Min. Ratio      | Power    | Power<br>Units | Cycles | VSD      |
| 66-1-BD 20-2-R-EXH | 65-1-BD 20-2-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 33               | NA         | NA              | 0.030    | W/cfm          |        |          |
| 1-BD 20-3-R        | 66-1-BD 20-3-R       | PTHP                           | 1    | 17.00   | 16.00            | 1400             | NA         | NA              | 0.001    | bhp            |        |          |
| 67-1-BD 20-3-R-EXH | 66-1-BD 20-3-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 33               | NA         | NA              | 0.030    | W/cfm          |        |          |
| 1-BD 20-4-R        | 67-1-BD 20-4-R       | PTHP                           | 1    | 17.00   | 16.00            | 1400             | NA         | NA              | 0.001    | bhp            |        |          |
| 68-1-BD 20-4-R-EXH | 67-1-BD 20-4-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 33               | NA         | NA              | 0.030    | W/cfm          |        |          |
| 1-BD 22-2-L        | 68-1-BD 22-2-L       | PTHP                           | 1    | 17.00   | 16.00            | 1400             | NA         | NA              | 0.001    | bhp            |        |          |
| 69-1-BD 22-2-L-EXH | 68-1-BD 22-2-L       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 33               | NA         | NA              | 0.030    | W/cfm          |        |          |
| 1-BD 22-3-L        | 69-1-BD 22-3-L       | PTHP                           | 1    | 17.00   | 16.00            | 1400             | NA         | NA              | 0.001    | bhp            |        |          |
| 70-1-BD 22-3-L-EXH | 69-1-BD 22-3-L       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 33               | NA         | NA              | 0.030    | W/cfm          |        |          |
| 1-BD 22-4-L        | 70-1-BD 22-4-L       | PTHP                           | 1    | 17.00   | 16.00            | 1400             | NA         | NA              | 0.001    | bhp            |        |          |
| 71-1-BD 22-4-L-EXH | 70-1-BD 22-4-L       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 33               | NA         | NA              | 0.030    | W/cfm          |        |          |
| 1-BD 25-2-R        | 71-1-BD 25-2-R       | PTHP                           | 1    | 17.00   | 16.00            | 1400             | NA         | NA              | 0.001    | bhp            |        |          |
| 72-1-BD 25-2-R-EXH | 71-1-BD 25-2-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 33               | NA         | NA              | 0.030    | W/cfm          |        |          |
| 1-BD 25-3-R        | 72-1-BD 25-3-R       | PTHP                           | 1    | 17.00   | 16.00            | 1400             | NA         | NA              | 0.001    | bhp            |        |          |
| 73-1-BD 25-3-R-EXH | 72-1-BD 25-3-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 33               | NA         | NA              | 0.030    | W/cfm          |        |          |
| 1-BD 25-4-R        | 73-1-BD 25-4-R       | PTHP                           | 1    | 17.00   | 16.00            | 1400             | NA         | NA              | 0.001    | bhp            |        |          |
| 74-1-BD 25-4-R-EXH | 73-1-BD 25-4-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 33               | NA         | NA              | 0.030    | W/cfm          |        |          |
| 1-BD 28-2-L        | 74-1-BD 28-2-L       | PTHP                           | 1    | 17.00   | 16.00            | 1400             | NA         | NA              | 0.001    | bhp            |        |          |

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| Project Name:       | 231 Grant Avenue      |                                |       |         |                  | NRCC-PRF-01-E     |           | Page 32 of 46   |          |                |        |     |
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| Project Address:    | 231 Grant Avenue Pale | o Alto                         |       |         |                  | Calculation Date, | /Time:    | 16:22, Tue, Mar | 07, 2023 |                |        |     |
| nput File Name:     | Grant.cibd19x         |                                |       |         |                  |                   |           |                 |          |                |        |     |
| H9. ZONAL SYSTEM A  | ND TERMINAL UNIT S    | UMMARY                         | III.  |         | 11               |                   |           |                 |          |                | A      |     |
| 1                   | 2                     | 3                              | 4     | 5       | 6                | 7                 | 8         | 9               | 10       | 11             | 12     | 13  |
| System ID           | Zone Name             | System Type                    | Qty   |         | Capacity<br>tuh) | Ai                | rflow (cf | m)              |          | Fa             | n      |     |
| System io           | Zone Name             | Зузтені туре                   | l quy | Heating | Cooling          | Design            | Min       | Min. Ratio      | Power    | Power<br>Units | Cycles | VSD |
| 93-2-BD 16-4-L-EXH  | 92-2-BD 16-4-L        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 17-2-R         | 93-2-BD 17-2-R        | PTHP                           | 1     | 25.00   | 23.00            | 2100              | NA        | NA              | 0.001    | bhp            |        |     |
| 94-2-BD 17-2-R-EXH  | 93-2-BD 17-2-R        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 17-3-R         | 94-2-BD 17-3-R        | PTHP                           | 1     | 25.00   | 23.00            | 2100              | NA        | NA              | 0.001    | bhp            |        |     |
| 95-2-BD 17-3-R-EXH  | 94-2-BD 17-3-R        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 17-4-R         | 95-2-BD 17-4-R        | PTHP                           | 1     | 25.00   | 23.00            | 2100              | NA        | NA              | 0.001    | bhp            |        |     |
| 96-2-BD 17-4-R-EXH  | 95-2-BD 17-4-R        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 23-2-L         | 96-2-BD 23-2-L        | PTHP                           | 1     | 25.00   | 23.00            | 2100              | NA        | NA              | 0.001    | bhp            |        |     |
| 97-2-BD 23-2-L-EXH  | 96-2-BD 23-2-L        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 23-3-L         | 97-2-BD 23-3-L        | PTHP                           | 1     | 25.00   | 23.00            | 2100              | NA        | NA              | 0.001    | bhp            |        |     |
| 98-2-BD 23-3-L-EXH  | 97-2-BD 23-3-L        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 23-4-L         | 98-2-BD 23-4-L        | PTHP                           | 1     | 25.00   | 23.00            | 2100              | NA        | NA              | 0.001    | bhp            |        |     |
| 99-2-BD 23-4-L-EXH  | 98-2-BD 23-4-L        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 24-2-R         | 99-2-BD 24-2-R        | PTHP                           | 1     | 25.00   | 23.00            | 2100              | NA        | NA              | 0.001    | bhp            |        |     |
| 100-2-BD 24-2-R-EXH | 99-2-BD 24-2-R        | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 24-3-R         | 100-2-BD 24-3-R       | PTHP                           | 1     | 25.00   | 23.00            | 2100              | NA        | NA              | 0.001    | bhp            |        |     |
| 101-2-BD 24-3-R-EXH | 100-2-BD 24-3-R       | VentilationOnly<br>ExhaustOnly | 1     | NA      | NA               | 50                | NA        | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 24-4-R         | 101-2-BD 24-4-R       | PTHP                           | 1     | 25.00   | 23.00            | 2100              | NA        | NA              | 0.001    | bhp            |        |     |

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| Input File Name:                     | Gr                        | ant.cibd19x         |      |                   |             |                     |            |                    |                                            |                             |                                             |                   |                                         |
| I1. WATER HEA                        | TER EQUIP                 | MENT SUMMARY        | -    |                   |             |                     |            |                    |                                            |                             | ili.                                        |                   |                                         |
| 1                                    | 2                         | 3                   | 4    | 5                 | 6           | 7                   | 8          | 9                  | 10                                         | 11                          | 12                                          | 13                | 14                                      |
| Name                                 | Heater<br>Element<br>Type | Tank Type           | Qty  | Tank Vol<br>(gal) | Rated Input | Rated Input<br>Unit | Efficiency | Efficiency<br>Unit | Tank<br>Insulation<br>R-value<br>(Int/Ext) | Standby<br>Loss<br>Fraction | 1st Hour<br>Rating or<br>Flow Rate<br>(gal) | Heat Pump<br>Type | Tank<br>Location<br>Ambier<br>Condition |
| 0-BD Rheem<br>PROPH50 T2<br>RH31 5   | Heat Pump                 | NA NA               | 3    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |
| 0-BD Rheem<br>PROPH50 T2<br>RH31 6   | Heat Pump                 | ) NA                | 3    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |
| 0-BD Rheem<br>PROPH50 T2<br>RH31 7   | Heat Pump                 | ) NA                | 3    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |
| 0-BD Rheem<br>PROPH50 T2<br>RH31 8   | Heat Pump                 | ) NA                | 3    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188   | Heat Pump                 | ) NA                | 3    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 2 | Heat Pump                 | ) NA                | 3    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 3 | Heat Pump                 | ) NA                | 3    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 4 | Heat Pump                 | ) NA                | 4    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 5 | Heat Pump                 | ) NA                | 4    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 6 | Heat Pump                 | ) NA                | 4    | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                                |

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| Project Name:      | 231 Grant Avenue    |                                |     |         |                       | NRCC-PRF-01-E    | P           | age 30 of 46   |          |                |        |
|--------------------|---------------------|--------------------------------|-----|---------|-----------------------|------------------|-------------|----------------|----------|----------------|--------|
| Project Address:   | 231 Grant Avenue Pa | lo Alto                        |     |         |                       | Calculation Date | /Time: 1    | 6:22, Tue, Mar | 07, 2023 |                |        |
| Input File Name:   | Grant.cibd19x       |                                |     |         |                       |                  |             |                |          |                |        |
| H9 ZONAL SYSTEM    | AND TERMINAL UNIT   | SUMMARY                        | M.  |         | 111                   |                  |             |                |          |                |        |
| 1                  | 2                   | 3                              | 4   | 5       | 6                     | 7                | 8           | 9              | 10       | 11             | 12     |
| (1990)<br>(1990)   | \$100°C             | 200                            | 04  |         | L<br>Capacity<br>tuh) |                  | irflow (cfm |                | 0.588    | 1136.5.2       | an     |
| System ID          | Zone Name           | System Type                    | Qty | Heating | Cooling               | Design           | Min.        | Min. Ratio     | Power    | Power<br>Units | Cycles |
| 75-1-BD 28-2-L-EXH | 74-1-BD 28-2-L      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                    | 33               | NA          | NA             | 0.030    | W/cfm          |        |
| 1-BD 28-3-L        | 75-1-BD 28-3-L      | PTHP                           | 1   | 17.00   | 16.00                 | 1400             | NA          | NA             | 0.001    | bhp            |        |
| 76-1-BD 28-3-L-EXH | 75-1-BD 28-3-L      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                    | 33               | NA          | NA             | 0.030    | W/cfm          |        |
| 1-BD 28-4-L        | 76-1-BD 28-4-L      | PTHP                           | 1   | 17.00   | 16.00                 | 1400             | NA          | NA             | 0.001    | bhp            |        |
| 77-1-BD 28-4-L-EXH | 76-1-BD 28-4-L      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                    | 33               | NA          | NA             | 0.030    | W/cfm          |        |
| 1-BD 31-2-R        | 77-1-BD 31-2-R      | PTHP                           | 1   | 17.00   | 16.00                 | 1400             | NA          | NA             | 0.001    | bhp            |        |
| 78-1-BD 31-2-R-EXH | 77-1-BD 31-2-R      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                    | 33               | NA          | NA             | 0.030    | W/cfm          |        |
| 1-BD 31-3-R        | 78-1-BD 31-3-R      | PTHP                           | 1   | 17.00   | 16.00                 | 1400             | NA          | NA             | 0.001    | bhp            |        |
| 79-1-BD 31-3-R-EXH | 78-1-BD 31-3-R      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                    | 33               | NA          | NA             | 0.030    | W/cfm          |        |
| 1-BD 31-4-R        | 79-1-BD 31-4-R      | PTHP                           | 1   | 17.00   | 16.00                 | 1400             | NA          | NA             | 0.001    | bhp            |        |
| 80-1-BD 31-4-R-EXH | 79-1-BD 31-4-R      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                    | 33               | NA          | NA             | 0.030    | W/cfm          |        |
| 1-BD 33-2-L        | 80-1-BD 33-2-L      | PTHP                           | 1   | 17.00   | 16.00                 | 1400             | NA          | NA             | 0.001    | bhp            |        |
| 81-1-BD 33-2-L-EXH | 80-1-BD 33-2-L      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                    | 33               | NA          | NA             | 0.030    | W/cfm          |        |
| 1-BD 33-3-L        | 81-1-BD 33-3-L      | PTHP                           | 1   | 17.00   | 16.00                 | 1400             | NA          | NA             | 0.001    | bhp            |        |
| 82-1-BD 33-3-L-EXH | 81-1-BD 33-3-L      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                    | 33               | NA          | NA             | 0.030    | W/cfm          |        |
| 1-BD 33-4-L        | 82-1-BD 33-4-L      | PTHP                           | 1   | 17.00   | 16.00                 | 1400             | NA          | NA             | 0.001    | bhp            |        |
| 83-1-BD 33-4-L-EXH | 82-1-BD 33-4-L      | VentilationOnly<br>ExhaustOnly | 1   | NA      | NA                    | 33               | NA          | NA             | 0.030    | W/cfm          |        |
| 1-BD 35-2-L        | 83-1-BD 35-2-L      | PTHP                           | 1   | 17.00   | 16.00                 | 1400             | NA          | NA             | 0.001    | bhp            |        |

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

| Project Name:       | 231 Grant Avenue      |                                |      |         |                  | NRCC-PRF-01-E    |            | Page 33 of 46   |          |                |        |     |
|---------------------|-----------------------|--------------------------------|------|---------|------------------|------------------|------------|-----------------|----------|----------------|--------|-----|
| Project Address:    | 231 Grant Avenue Palo | Alto                           |      |         |                  | Calculation Date | /Time:     | 16:22, Tue, Mai | 07, 2023 |                |        |     |
| Input File Name:    | Grant.cibd19x         |                                |      |         |                  |                  |            |                 |          |                |        |     |
| H9. ZONAL SYSTEM A  | ND TERMINAL UNIT S    | UMMARY                         | 100  |         | 20               | 1980             | 00         | 22              |          | (d)            | A.     |     |
| 1                   | 2                     | 3                              | 4    | 5       | 6                | 7                | 8          | 9               | 10       | 11             | 12     |     |
| System ID           | Zone Name             | System Type                    | Qty  |         | Capacity<br>tuh) | А                | irflow (cf | m)              |          | F              | an     | No. |
| System 15           | Zone Name             | Зузтені туре                   | Q Ly | Heating | Cooling          | Design           | Min        | . Min. Ratio    | Power    | Power<br>Units | Cycles |     |
| 102-2-BD 24-4-R-EXH | 101-2-BD 24-4-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50               | NA         | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 29-2-L         | 102-2-BD 29-2-L       | PTHP                           | 1    | 25.00   | 23.00            | 2100             | NA         | NA              | 0.001    | bhp            |        | Г   |
| 103-2-BD 29-2-L-EXH | 102-2-BD 29-2-L       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50               | NA         | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 29-3-L         | 103-2-BD 29-3-L       | PTHP                           | 1    | 25.00   | 23.00            | 2100             | NA         | NA              | 0.001    | bhp            |        | Г   |
| 104-2-BD 29-3-L-EXH | 103-2-BD 29-3-L       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50               | NA         | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 29-4-L         | 104-2-BD 29-4-L       | PTHP                           | 1    | 25.00   | 23.00            | 2100             | NA         | NA              | 0.001    | bhp            |        | Г   |
| 105-2-BD 29-4-L-EXH | 104-2-BD 29-4-L       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50               | NA         | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 30-2-R         | 105-2-BD 30-2-R       | PTHP                           | 1    | 25.00   | 23.00            | 2100             | NA         | NA              | 0.001    | bhp            |        | Г   |
| 106-2-BD 30-2-R-EXH | 105-2-BD 30-2-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50               | NA         | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 30-3-R         | 106-2-BD 30-3-R       | PTHP                           | 1    | 25.00   | 23.00            | 2100             | NA         | NA              | 0.001    | bhp            |        |     |
| 107-2-BD 30-3-R-EXH | 106-2-BD 30-3-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50               | NA         | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 30-4-R         | 107-2-BD 30-4-R       | PTHP                           | 1    | 25.00   | 23.00            | 2100             | NA         | NA              | 0.001    | bhp            |        |     |
| 108-2-BD 30-4-R-EXH | 107-2-BD 30-4-R       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50               | NA         | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 36-2-L         | 108-2-BD 36-2-L       | PTHP                           | 1    | 25.00   | 23.00            | 2100             | NA         | NA              | 0.001    | bhp            |        |     |
| 109-2-BD 36-2-L-EXH | 108-2-BD 36-2-L       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50               | NA         | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 36-3-L         | 109-2-BD 36-3-L       | PTHP                           | 1    | 25.00   | 23.00            | 2100             | NA         | NA              | 0.001    | bhp            |        |     |
| 110-2-BD 36-3-L-EXH | 109-2-BD 36-3-L       | VentilationOnly<br>ExhaustOnly | 1    | NA      | NA               | 50               | NA         | NA              | 0.020    | W/cfm          |        |     |
| 2-BD 36-4-L         | 110-2-BD 36-4-L       | PTHP                           | 1    | 25.00   | 23.00            | 2100             | NA         | NA              | 0.001    | bhp            |        | +   |

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| Project Name:                         | 2                        | 31 Grant Avenue |           |                   |             |                     | NRCC-      | PRF-01-E           | Page 36                                    | of 46                       |                                             |                   |                                    |
|---------------------------------------|--------------------------|-----------------|-----------|-------------------|-------------|---------------------|------------|--------------------|--------------------------------------------|-----------------------------|---------------------------------------------|-------------------|------------------------------------|
| Project Address:                      | : 2                      | 31 Grant Avenue | Palo Alto |                   |             |                     | Calcul     | ation Date/Time    | e: 16:22, T                                | ue, Mar 07, 20              | 23                                          |                   |                                    |
| Input File Name                       | : G                      | rant.cibd19x    |           |                   |             |                     |            |                    |                                            |                             |                                             |                   |                                    |
| I1. WATER HEA                         | ATER EQUI                | PMENT SUMMA     | ARY       |                   | M.          |                     |            | <u> </u>           |                                            | 10.                         | 11.                                         |                   |                                    |
| 1                                     | 2                        | 3               | 4         | 5                 | 6           | 7                   | 8          | 9                  | 10                                         | 11                          | 12                                          | 13                | 14                                 |
| Name                                  | Heater<br>Elemen<br>Type | 8               | e Qty     | Tank Vol<br>(gal) | Rated Input | Rated Input<br>Unit | Efficiency | Efficiency<br>Unit | Tank<br>Insulation<br>R-value<br>(Int/Ext) | Standby<br>Loss<br>Fraction | 1st Hour<br>Rating or<br>Flow Rate<br>(gal) | Heat Pump<br>Type | Tanl<br>Locatio<br>Ambie<br>Condit |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 7  | Heat Pun                 | np NA           | 4         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Condition                          |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 8  | Heat Pun                 | np NA           | 3         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Condition                          |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 9  | Heat Pun                 | np NA           | 3         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Condition                          |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 10 | Heat Pun                 | np NA           | 3         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                           |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 11 | Heat Pun                 | np NA           | 3         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                           |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 12 | Heat Pun                 | np NA           | 3         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Condition                          |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 13 | Heat Pun                 | np NA           | 3         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Condition                          |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 14 | Heat Pun                 | np NA           | 3         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Conditio                           |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 15 | Heat Pun                 | np NA           | 3         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Condition                          |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 16 | Heat Pum                 | np NA           | 3         | 50.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Condition                          |

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ARCHITECTURE | URBAN DESIGN SAN FRANCISCO | DENVER | MINNEAPOLIS

333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER

BKF ENGINEERS

1730 N. FIRST ST SUITE 600
SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES

MILLENIUM DESIGN

PO BOX 737

ALAMO, CA 94507

LANDSCAPE ARCHITECT
PLURAL STUDIO
2742 17TH STREET
SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER

HOHBACH-LEWIN, INC
250 SHERIDAN AVE STE 100
PALO ALTO, CA 94306

MEP ENGINEER

EMERALD CITY ENGINEERS
21705 HIGHWAY 99
LYNWOOD, WA 98036

ENERGY CONSULTANT

REDWOOD ENERGY

1887 Q STREET

ARCATA, CA 95521

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT

RECORD NO.: DEV22-1242

BY: M. O'Brien Date: 07/27/2023

HARD COPY OF THESE STAMPED PLANS
MUST BE ON THE SITE FOR INSPECTIONS



| ID | DATE     | NAME            |
|----|----------|-----------------|
| 1  | 11/11/22 | PERMIT SET-CONV |
| В  | 03/20/23 | BID ADDENDUM    |
|    |          |                 |
|    |          |                 |
|    |          |                 |
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|    |          |                 |

Pr

# EDUCATOR HOUSING 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



TITLE 24 CH. 6 ENERGY REPORT -RES PRF-01

JOB #: 1925 SCALE:

A0.43

|                                       | Т.                      |           | NA VOLUMENTO      |     |                   |             |                     | 1         |                    |                                            |                             |                                             |                   |                                             |
|---------------------------------------|-------------------------|-----------|-------------------|-----|-------------------|-------------|---------------------|-----------|--------------------|--------------------------------------------|-----------------------------|---------------------------------------------|-------------------|---------------------------------------------|
| Project Name:                         | -                       |           | nt Avenue         |     |                   |             |                     |           | C-PRF-01-E         | Page 37                                    |                             |                                             |                   |                                             |
| Project Address:                      | _                       |           | nt Avenue Palo Al | to  |                   |             |                     | Cald      | ulation Date/Tin   | ne: 16:22, T                               | ue, Mar 07, 20              | 23                                          |                   |                                             |
| Input File Name:                      | : (                     | Grant.cik | od19x             |     |                   |             |                     |           |                    |                                            |                             |                                             |                   |                                             |
| I1. WATER HEA                         | TER EQU                 | IPMENT    | T SUMMARY         |     |                   |             |                     |           |                    |                                            |                             |                                             |                   |                                             |
| 1                                     | 2                       |           | 3                 | 4   | 5                 | 6           | 7                   | 8         | 9                  | 10                                         | 11                          | 12                                          | 13                | 14                                          |
| Name                                  | Heate<br>Elemer<br>Type | nt        | Tank Type         | Qty | Tank Vol<br>(gal) | Rated Input | Rated Input<br>Unit | Efficienc | Efficiency<br>Unit | Tank<br>Insulation<br>R-value<br>(Int/Ext) | Standby<br>Loss<br>Fraction | 1st Hour<br>Rating or<br>Flow Rate<br>(gal) | Heat Pump<br>Type | Tank<br>Location or<br>Ambient<br>Condition |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 17 | Heat Pur                | mp        | NA                | 3   | 50.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 18 | Heat Pur                | mp        | NA                | 3   | 50.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |
| 1-BD Rheem<br>PROPH50 T2<br>RH3188 19 | Heat Pur                | mp        | NA                | 3   | 50.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |
| 2-BD Rheem<br>PROPH65 T2<br>RH3751    | Heat Pur                | mp        | NA                | 3   | 65.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |
| 2-BD Rheem<br>PROPH65 T2<br>RH3751 2  | Heat Pur                | mp        | NA                | 1   | 65.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |
| 2-BD Rheem<br>PROPH65 T2<br>RH3751 3  | Heat Pur                | mp        | NA                | 3   | 65.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |
| 2-BD Rheem<br>PROPH65 T2<br>RH3751 4  | Heat Pur                | mp        | NA                | 3   | 65.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |
| 2-BD Rheem<br>PROPH65 T2<br>RH3751 5  | Heat Pur                | mp        | NA                | 3   | 65.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |
| 2-BD Rheem<br>PROPH65 T2<br>RH3751 6  | Heat Pur                | mp        | NA                | 3   | 65.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |
| 2-BD Rheem<br>PROPH65 T2<br>RH3751 7  | Heat Pur                | mp        | NA                | 3   | 65.00             | NA          | NA                  | NEEA Rate | d NA               | NA                                         | NA                          | NA                                          | NA                | Conditioned                                 |

| CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-6844 |
|-------------------------------------------------------------------------|---------------------------------------------|

| Papart Congrated at: 2/9/2022 0:40:27 AM |
|------------------------------------------|

| 4 | Report Generated at: 3/8/2023 9:40:37 AM |
|---|------------------------------------------|

| ject Name:    | 231 Grant Avenue           | NRCC-PRF-01-E          | Page 40 of 46            |
|---------------|----------------------------|------------------------|--------------------------|
| ject Address: | 231 Grant Avenue Palo Alto | Calculation Date/Time: | 16:22, Tue, Mar 07, 2023 |
|               |                            |                        |                          |

| Input File Name:                     | Grant.cibd19x                 |          |                  |                                   |                                    |                                    |                      |         |
|--------------------------------------|-------------------------------|----------|------------------|-----------------------------------|------------------------------------|------------------------------------|----------------------|---------|
| I2. MULTI-FAMILY W                   | VATER HEATING SYSTE           | M DETAIL |                  |                                   |                                    |                                    |                      |         |
| 1                                    | 2                             | 3        | 4                | 5                                 | 6                                  | 7                                  | 8                    | 9       |
| System Name                          | Configuration                 | Туре     | Qty in<br>System | Multi-Family<br>Distribution Type | Dwelling Unit<br>Distribution Type | Water Heater Name                  | Solar Heating System | Comp    |
| MF24-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Standard                           | 1-BD Rheem PROPH50 T2<br>RH3188 17 | NA                   | not com |
| MF25-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Standard                           | 1-BD Rheem PROPH50 T2<br>RH3188 18 | NA                   | not com |
| MF26-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Standard                           | 1-BD Rheem PROPH50 T2<br>RH3188 19 | NA                   | not com |
| MF27-2-BD Rheem<br>PROPH65 T2 RH3751 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Standard                           | 2-BD Rheem PROPH65 T2<br>RH3751    | NA                   | not com |
| MF28-2-BD Rheem                      | "Domestic Hot Water           | Unitary  | 1                | NA                                | Standard                           | 2-BD Rheem PROPH65 T2              | NA                   | not com |

| MF24-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary | 1 | NA | Standard | 1-BD Rheem PROPH50 T2<br>RH3188 17 | NA | not compact |
|--------------------------------------|-------------------------------|---------|---|----|----------|------------------------------------|----|-------------|
| MF25-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary | 1 | NA | Standard | 1-BD Rheem PROPH50 T2<br>RH3188 18 | NA | not compact |
| MF26-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary | 1 | NA | Standard | 1-BD Rheem PROPH50 T2<br>RH3188 19 | NA | not compact |
| MF27-2-BD Rheem<br>PROPH65 T2 RH3751 | "Domestic Hot Water<br>(DHW)" | Unitary | 1 | NA | Standard | 2-BD Rheem PROPH65 T2<br>RH3751    | NA | not compact |
| MF28-2-BD Rheem<br>PROPH65 T2 RH3751 | "Domestic Hot Water<br>(DHW)" | Unitary | 1 | NA | Standard | 2-BD Rheem PROPH65 T2<br>RH3751 2  | NA | not compact |
| MF29-2-BD Rheem<br>PROPH65 T2 RH3751 | "Domestic Hot Water<br>(DHW)" | Unitary | 1 | NA | Standard | 2-BD Rheem PROPH65 T2<br>RH3751 3  | NA | not compact |
| MF30-2-BD Rheem<br>PROPH65 T2 RH3751 | "Domestic Hot Water<br>(DHW)" | Unitary | 1 | NA | Standard | 2-BD Rheem PROPH65 T2<br>RH3751 4  | NA | not compact |
| MF31-2-BD Rheem<br>PROPH65 T2 RH3751 | "Domestic Hot Water<br>(DHW)" | Unitary | 1 | NA | Standard | 2-BD Rheem PROPH65 T2<br>RH3751 5  | NA | not compact |
| MF32-2-BD Rheem<br>PROPH65 T2 RH3751 | "Domestic Hot Water<br>(DHW)" | Unitary | 1 | NA | Standard | 2-BD Rheem PROPH65 T2<br>RH3751 6  | NA | not compact |

Unitary

Unitary

| CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-6844 |  |
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Standard

Standard

Standard

2-BD Rheem PROPH65 T2

RH37518

2-BD Rheem PROPH65 T2 RH3751 9

RH3751 7

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|                  | OF REQUIRED CERTIFICATES OF ACCEPTANCE Selections shall be made by Documentation Author to indice | the thirt Coulification of the |                          |
|------------------|---------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|
| Input File Name: | Grant.cibd19x                                                                                     |                                |                          |
| Project Address: | 231 Grant Avenue Palo Alto                                                                        | Calculation Date/Time:         | 16:22, Tue, Mar 07, 2023 |
| Project Name:    | 231 Grant Avenue                                                                                  | NRCC-PRF-01-E                  | Page 43 of 46            |

| compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit:https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/ |          |                                                          |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------|--|--|
| Building Component Form/Title                                                                                                                                                                                                                                                                                              |          |                                                          |  |  |
|                                                                                                                                                                                                                                                                                                                            | Envelope | NRCA-ENV-02-F - NRFC label verification for fenestration |  |  |

MF33-2-BD Rheem "Domestic Hot Water

MF34-2-BD Rheem "Domestic Hot Water

MF35-2-BD Rheem PROPH65 T2 RH3751 "Domestic Hot Water (DHW)"

PROPH65 T2 RH3751 (DHW)"

PROPH65 T2 RH3751 (DHW)"

| Indoor Lighting | NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls |
|-----------------|----------------------------------------------------------------------|
|                 | NRCA-LTI-04-A - Demand Responsive Lighting Controls                  |
|                 | \$                                                                   |

NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD ceptance (if applicable) since testing activities overlap Mechanical NRCA-MCH-20 Multifamily Ventilation

# NRCA-MCH-21 Multifamily Envelope

| CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-6844 | Report Generated at: 3/8/2023 9:40:37 AM |
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| Project Name:    | 231 Grant Avenue           |        | NRCC-PRF-01-E Page 46 of 46 |                          |            |
|------------------|----------------------------|--------|-----------------------------|--------------------------|------------|
| Project Address: | 231 Grant Avenue Palo Alto |        | Calculation Date/Time:      | 16:22, Tue, Mar 07, 2023 |            |
| Input File Name: | Grant.cibd19x              |        |                             |                          |            |
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| Phone:           |                            | Title: |                             |                          | License #: |

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844

| Project Name:                        | 23                        | 1 Grant Avenue        | ue  |                   |             | NRCC-PRF-01-E       |            |                    | Page 38                                    | Page 38 of 46               |                                             |                   |                                    |  |
|--------------------------------------|---------------------------|-----------------------|-----|-------------------|-------------|---------------------|------------|--------------------|--------------------------------------------|-----------------------------|---------------------------------------------|-------------------|------------------------------------|--|
| Project Address:                     | 23                        | 1 Grant Avenue Palo A | lto |                   |             |                     | Calcu      | ation Date/Tim     | ie: 16:22, Ti                              | ue, Mar 07, 20              | 23                                          |                   |                                    |  |
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| I1. WATER HEA                        | TER EQUIF                 | MENT SUMMARY          |     |                   |             |                     |            |                    |                                            |                             |                                             |                   |                                    |  |
| 1                                    | 2                         | 3                     | 4   | 5                 | 6           | 7                   | 8          | 9                  | 10                                         | 11                          | 12                                          | 13                | 14                                 |  |
| Name                                 | Heater<br>Element<br>Type | Tank Type             | Qty | Tank Vol<br>(gal) | Rated Input | Rated Input<br>Unit | Efficiency | Efficiency<br>Unit | Tank<br>Insulation<br>R-value<br>(Int/Ext) | Standby<br>Loss<br>Fraction | 1st Hour<br>Rating or<br>Flow Rate<br>(gal) | Heat Pump<br>Type | Tank Location of Ambient Condition |  |
| 2-BD Rheem<br>PROPH65 T2<br>RH3751 8 | Heat Pum                  | p NA                  | 3   | 65.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Condition                          |  |
| 2-BD Rheem<br>PROPH65 T2<br>RH3751 9 | Heat Pum                  | p NA                  | 3   | 65.00             | NA          | NA                  | NEEA Rated | NA                 | NA                                         | NA                          | NA                                          | NA                | Condition                          |  |

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# CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

(DHW)"

Unitary

Unitary

MF7-0-BD Rheem "Domestic Hot Water

MF8-1-BD Rheem "Domestic Hot Water

PROPH50 T2 RH3188 (DHW)"

PROPH50 T2 RH31

Standard

Standard

| L-6844 | Report Generated at: 3/8/2023 9:40:37 AM |
|--------|------------------------------------------|
|        |                                          |

not compact

not compact

0-BD Rheem PROPH50 T2 RH31 8

1-BD Rheem PROPH50 T2

RH3188

| Project Name:                         | 231 Grant Avenue                                       |                                     | NRCC-PRF-01-E            | Page 41 of 46                   |                         |  |  |
|---------------------------------------|--------------------------------------------------------|-------------------------------------|--------------------------|---------------------------------|-------------------------|--|--|
| Project Address:                      | 231 Grant Avenue Palo Alto                             |                                     | Calculation Date/Time:   | 16:22, Tue, Mar 07, 2023        |                         |  |  |
| Input File Name:                      | Grant.cibd19x                                          |                                     |                          |                                 |                         |  |  |
| K1. INDOOR CONDITIO                   | NED LIGHTING GENERAL INFO                              |                                     |                          |                                 |                         |  |  |
| 1                                     | 2                                                      | 3                                   | 4                        | 5                               | 6                       |  |  |
|                                       |                                                        | Installed Lighting Davies           | Lighting Control Credits | Additional (Custom) Allowance   |                         |  |  |
| Occupancy Type <sup>1</sup>           | Conditioned Floor Area <sup>2</sup> (ft <sup>2</sup> ) | Installed Lighting Power<br>(Watts) | (Watts)                  | Area Category Footnotes (Watts) | Tailored Method (Watts) |  |  |
| High-Rise Residential Livin<br>Spaces | g 67,920                                               |                                     | 0                        | 0                               | 0                       |  |  |
| Building T                            | otals: 67,920                                          |                                     | 0                        | 0                               | 0                       |  |  |

### <sup>2</sup> See NRCC-LTI-01-E for unconditioned spaces <sup>3</sup>Lighting information for existing spaces modeled is not included in the table

**Building Component** 

| K4. INDOOR CONDITIONED LIG      | HTING MANDATORY LIGHTING CONTROLS                               |                           |                                     |                                  |                                    |                                      |
|---------------------------------|-----------------------------------------------------------------|---------------------------|-------------------------------------|----------------------------------|------------------------------------|--------------------------------------|
| <b>Building Level Controls</b>  |                                                                 |                           |                                     |                                  |                                    |                                      |
|                                 | 1                                                               |                           |                                     |                                  | 2                                  |                                      |
|                                 | Mandatory Demand Response §110.12(c)                            |                           |                                     | Shut-Off Conf                    | trols §130.1(c)                    |                                      |
|                                 | Required                                                        |                           |                                     | Requ                             | uired                              |                                      |
| Area Level Controls (includes a | Il lighting controls installed in conditioned space to meet man | datory requireme          | nts per §130.1)                     |                                  |                                    |                                      |
| 4                               | 5                                                               | 6                         | 7                                   | 8                                | 9                                  | 10                                   |
| Area Description                | Area Category Primary Function Area                             | Area Controls<br>130.1(a) | Multi-Level<br>Controls<br>130.1(b) | Shut-Off<br>Controls<br>130.1(c) | Primary<br>Daylighting<br>130.1(d) | Secondary<br>Daylighting<br>140.5(d) |

### CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844 Report Generated at: 3/8/2023 9:40:37 AM

| Project Name:                                           | 231 Grant Avenue                                                                                                                                                                                                            | NRCC-PRF-01-E           | Page 44 of 46            |  |  |  |  |  |  |  |  |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------|--|--|--|--|--|--|--|--|
| Project Address:                                        | 231 Grant Avenue Palo Alto                                                                                                                                                                                                  | Calculation Date/Time:  | 16:22, Tue, Mar 07, 2023 |  |  |  |  |  |  |  |  |
| Input File Name:                                        | nput File Name: Grant.cibd19x                                                                                                                                                                                               |                         |                          |  |  |  |  |  |  |  |  |
| N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION |                                                                                                                                                                                                                             |                         |                          |  |  |  |  |  |  |  |  |
| compliance. These of                                    | Selections shall be made by Documentation Author to indicate which Certif<br>documents bust be retained and provided to the building inspector during<br>y.ca.gov/title24/2019standards/2019_compliance_documents/Nonreside | construction and can be | found online at:         |  |  |  |  |  |  |  |  |

# NRCV-MCH-24-H Enclosure Air Leakage NRCV-MCH-27 Indoor Air Quality & Mechanical Ventilation NRCV-MCH-32-H Local Mechanical Exhaust

| CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-6844 | Report Generated at: 3/8/2023 9:40:37 AM |
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| /State/Zip: |

| Project Name:                        | 231 Grant Avenue              |          |                  |                                   | NRO         | CC-PRF-01-E                                       |                                    | Page 39 of 46                 |                         |           |    |           |    |            |
|--------------------------------------|-------------------------------|----------|------------------|-----------------------------------|-------------|---------------------------------------------------|------------------------------------|-------------------------------|-------------------------|-----------|----|-----------|----|------------|
| Project Address:                     | 231 Grant Avenue Pa           | alo Alto |                  |                                   | Cale        | culation Date                                     | /Time:                             | 16:22, Tue, Mar 07, 202       | 3                       |           |    |           |    |            |
| Input File Name:                     | Grant.cibd19x                 |          |                  |                                   |             |                                                   |                                    | 10                            |                         |           |    |           |    |            |
| I2. MULTI-FAMILY W                   | ATER HEATING SYSTE            | M DETAIL | -                |                                   |             |                                                   |                                    |                               |                         |           |    |           |    |            |
| 1                                    | 2                             | 3        | 4                | 5                                 | ļ,          | 6                                                 |                                    | 7                             | 8                       | 9         |    |           |    |            |
| System Name                          | Configuration                 | Туре     | Qty in<br>System | Multi-Family<br>Distribution Type | 10000000000 | Dwelling Unit istribution Type  Water Heater Name |                                    | Solar Heating System          | Compact<br>Distribution |           |    |           |    |            |
| MF9-1-BD Rheem<br>PROPH50 T2 RH3188  | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD Rheem PROPH50 T2<br>RH3188 2  |                               |                         |           |    |           | NA | not compac |
| MF10-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD Rheem PROPH50 T2<br>RH3188 3  |                               |                         |           | NA | not compa |    |            |
| MF11-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD Rheem PROPH50 T2<br>RH3188 4  |                               |                         |           | NA | not compa |    |            |
| MF12-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD                               | Rheem PROPH50 T2<br>RH3188 5  | NA                      | not compa |    |           |    |            |
| MF13-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | Standard 1-BD Rheem PROPH50 T2<br>RH3188 6        |                                    | NA                            | not compa               |           |    |           |    |            |
| MF14-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD                               | Rheem PROPH50 T2<br>RH3188 7  | NA                      | not compa |    |           |    |            |
| MF15-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD                               | Rheem PROPH50 T2<br>RH3188 8  | NA                      | not compa |    |           |    |            |
| MF16-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD                               | Rheem PROPH50 T2<br>RH3188 9  | NA                      | not compa |    |           |    |            |
| MF17-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD Rheem PROPH50 T2<br>RH3188 10 |                               | NA                      | not compa |    |           |    |            |
| MF18-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD Rheem PROPH50 T2<br>RH3188 11 |                               | NA                      | not compa |    |           |    |            |
| MF19-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD Rheem PROPH50 T2<br>RH3188 12 |                               | NA                      | not compa |    |           |    |            |
| MF20-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD                               | Rheem PROPH50 T2<br>RH3188 13 | NA                      | not compa |    |           |    |            |
| MF21-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD                               | Rheem PROPH50 T2<br>RH3188 14 | NA                      | not compa |    |           |    |            |
| MF22-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD                               | Rheem PROPH50 T2<br>RH3188 15 | NA                      | not compa |    |           |    |            |
| MF23-1-BD Rheem<br>PROPH50 T2 RH3188 | "Domestic Hot Water<br>(DHW)" | Unitary  | 1                | NA                                | Star        | ndard                                             | 1-BD                               | Rheem PROPH50 T2<br>RH3188 16 | NA                      | not compa |    |           |    |            |

### Report Version: NRCC-PRF-01-E-12092021-6844 CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

| Project Name:                            | 231 Grant Avenue                                                                                                                                                           | NRCC-PRF-01-E                    | Page 42 of 46                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Address:                         | 231 Grant Avenue Palo Alto                                                                                                                                                 | Calculation Date/Time:           | 16:22, Tue, Mar 07, 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Input File Name:                         | Grant.cibd19x                                                                                                                                                              |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| L. DECLARATION OF R                      | EQUIRED CERTIFICATES OF INSTALLATION                                                                                                                                       | <u> </u>                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                          | ections shall be made by Documentation Author to indicate which Certifi<br>cuments bust be retained and provided to the building inspector during c                        |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| , , ,                                    | a.gov/title24/2019standards/2019_compliance_documents/Nonresiden<br>                                                                                                       |                                  | \$P\$\$P\$\$\$\$\$1.0515.05.05000.05275                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Building Component</b>                |                                                                                                                                                                            | ntial_Documents/NRCI/ Form/Title | \$\$\rms\rms\rms\rms\rms\rms\rms\rms\rms\rms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| , , ,                                    | n.gov/title24/2019standards/2019_compliance_documents/Nonresiden  NRCI-ENV-01-E - Must be submitted for all buildings  NRCI-MCH-01-E - Must be submitted for all buildings |                                  | \$\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\}\$}}}}\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\tex{\$\text{\$\text{\$\text{\$\text{\$\text{\$\texititt{\$\text{\$\text{\$\text{\$\text{\$\texititit{\$\text{\$\texit{\$\text{\$\text{\$\texit{\$\tex |
| Building Component  Envelope  Mechanical | NRCI-ENV-01-E - Must be submitted for all buildings                                                                                                                        |                                  | 59-20-20-20-20-20-20-20-20-20-20-20-20-20-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Building Component Envelope              | NRCI-ENV-01-E - Must be submitted for all buildings NRCI-MCH-01-E - Must be submitted for all buildings                                                                    | Form/Title                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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# CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Repo

| port Version: NRCC-PRF-01-E-12092021-6844 | Report Generated at: 3/8/2023 9:40:37 AM |
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| port Version: NRCC-PRF-01-E-12092021-6844 | Report Generated at: 3/8/2023 9:40:37 AM |

| Project Name:                                                                                                                                                                                                                                                                                                                                                                                            | 231 Grant Avenue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | NRCC-PRF-01-E                                                                                                                                                                                                                                                                                                                         | Page 45 of                                                                                     | 46                                                                                                                                                                                                                       |      |
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| Project Address:                                                                                                                                                                                                                                                                                                                                                                                         | 231 Grant Avenue Palo Alto                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Calculation Date/T                                                                                                                                                                                                                                                                                                                    | ime: 16:22, Tue,                                                                               | Mar 07, 2023                                                                                                                                                                                                             |      |
| nput File Name:                                                                                                                                                                                                                                                                                                                                                                                          | Grant.cibd19x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                       |                                                                                                |                                                                                                                                                                                                                          |      |
|                                                                                                                                                                                                                                                                                                                                                                                                          | AUTHOR'S DECLARATION STATEMENT cate of Compliance documentation is accurate and complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                       |                                                                                                |                                                                                                                                                                                                                          |      |
| Documentation Auth                                                                                                                                                                                                                                                                                                                                                                                       | nor Name: Michael Winkler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Signature: Muhail 2                                                                                                                                                                                                                                                                                                                   | Inkly                                                                                          |                                                                                                                                                                                                                          |      |
| Company: Redwood                                                                                                                                                                                                                                                                                                                                                                                         | Energy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Signature.                                                                                                                                                                                                                                                                                                                            |                                                                                                |                                                                                                                                                                                                                          |      |
| Address: 1090 12th 5                                                                                                                                                                                                                                                                                                                                                                                     | Street                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Signature Date: 3/14/202                                                                                                                                                                                                                                                                                                              | 3                                                                                              |                                                                                                                                                                                                                          |      |
| City/State/Zip: Arcat                                                                                                                                                                                                                                                                                                                                                                                    | a CA 95521                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CEA/ HERS Certification Ide<br>8A07-5C53-2B57-8D4D-FE0                                                                                                                                                                                                                                                                                |                                                                                                | able): NR19-18-30001<br>-0462-8C73-968D-15B8-DF2A-6971-B777-ADF                                                                                                                                                          | с    |
| Phone: 707-822-185                                                                                                                                                                                                                                                                                                                                                                                       | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                       |                                                                                                |                                                                                                                                                                                                                          |      |
| RESPONSIBLE PER                                                                                                                                                                                                                                                                                                                                                                                          | SON'S DECLARATION STATEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                       |                                                                                                |                                                                                                                                                                                                                          |      |
| <ol> <li>The information pro</li> <li>I am eligible under I</li> </ol>                                                                                                                                                                                                                                                                                                                                   | Division 3 of the Business and Professions Code to accept responsibil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ility for the building design or system design iden                                                                                                                                                                                                                                                                                   | ified on this Certifica                                                                        | te of Compliance (responsible designer)                                                                                                                                                                                  |      |
| 2. I am eligible under I<br>3. The energy features<br>of Title 24, Part 1 and I<br>4. The building design<br>plans and specification<br>5. I will ensure that a conspections. I understa                                                                                                                                                                                                                 | s and performance specifications, materials, components, and manui<br>Part 6 of the California Code of Regulations.<br>features or system design features identified on this Certificate of Consists submitted to the enforcement agency for approval with this buildicompleted signed copy of this Certificate of Compliance shall be made that a completed signed copy of this Certificate of Compliance is                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | factured devices for the building design or systen<br>compliance are consistent with the information printing permit application.<br>de available with the building permit(s) issued for                                                                                                                                              | n design identified on<br>ovided on other appl<br>the building, and ma                         | this Certificate of Compliance conform to the requir<br>icable compliance documents, worksheets, calculation<br>de available to the enforcement agency for all applic                                                    | ons, |
| 2. I am eligible under I<br>3. The energy features<br>of Title 24, Part 1 and I<br>4. The building design<br>plans and specification<br>5. I will ensure that a c<br>inspections. I understa                                                                                                                                                                                                             | s and performance specifications, materials, components, and manule Part 6 of the California Code of Regulations. features or system design features identified on this Certificate of Consumers submitted to the enforcement agency for approval with this build completed signed copy of this Certificate of Compliance shall be made and that a completed signed copy of this Certificate of Compliance is the Designer Name: Fred B. Pollack, Partner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ifactured devices for the building design or system ompliance are consistent with the information pring permit application. de available with the building permit(s) issued for srequired to be included with the documentation                                                                                                       | n design identified on<br>ovided on other appl<br>the building, and ma                         | this Certificate of Compliance conform to the requir<br>icable compliance documents, worksheets, calculation<br>de available to the enforcement agency for all applic                                                    | ons, |
| 2. I am eligible under I<br>3. The energy features<br>of Title 24, Part 1 and I<br>4. The building design<br>plans and specificatior<br>5. I will ensure that a c<br>inspections. I understa<br>Responsible Envelop<br>Company: Van Meter                                                                                                                                                                | s and performance specifications, materials, components, and manui<br>Part 6 of the California Code of Regulations.<br>features or system design features identified on this Certificate of Consists submitted to the enforcement agency for approval with this buildicompleted signed copy of this Certificate of Compliance shall be made and that a completed signed copy of this Certificate of Compliance is the Designer Name: Fred B. Pollack, Partner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | offactured devices for the building design or system compliance are consistent with the information printing permit application. de available with the building permit(s) issued for some required to be included with the documentation  Signature:  Signature:                                                                      | n design identified on<br>ovided on other appl<br>the building, and ma<br>the builder provides | this Certificate of Compliance conform to the requir<br>icable compliance documents, worksheets, calculation<br>de available to the enforcement agency for all applic                                                    | ons, |
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| 2. I am eligible under I<br>3. The energy features<br>of Title 24, Part 1 and I<br>4. The building design<br>plans and specification<br>5. I will ensure that a c<br>inspections. I understa<br>Responsible Envelop<br>Company: Van Meter<br>Address: 333 Bryant,<br>City/State/Zip: San F                                                                                                               | s and performance specifications, materials, components, and manule Part 6 of the California Code of Regulations. features or system design features identified on this Certificate of Components submitted to the enforcement agency for approval with this build completed signed copy of this Certificate of Compliance shall be madered that a completed signed copy of this Certificate of Compliance is the Designer Name: Fred B. Pollack, Partner reformation will be will be will be will be will be supported by the Service of Compliance is the Designer Name: Fred B. Pollack, Partner reformation will be will be will be supported by the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance is the Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Service of Compliance in Servi | offactured devices for the building design or system compliance are consistent with the information pricing permit application. de available with the building permit(s) issued for strequired to be included with the documentation  Signature:  Date Signed: 05/10/23                                                               | n design identified on<br>ovided on other appl<br>the building, and ma<br>the builder provides | this Certificate of Compliance conform to the requiricable compliance documents, worksheets, calculation de available to the enforcement agency for all applicate to the building owner at occupancy.                    | ons, |
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| 2. I am eligible under I<br>3. The energy features<br>of Title 24, Part 1 and I<br>4. The building design<br>plans and specification<br>5. I will ensure that a c<br>inspections. I understa<br>Responsible Envelop<br>Company: Van Meter<br>Address: 333 Bryant,<br>City/State/Zip: San F<br>Phone: (415) 974-53<br>Responsible Lighting                                                                | s and performance specifications, materials, components, and manul Part 6 of the California Code of Regulations. features or system design features identified on this Certificate of Completed signed copy of this Certificate of Compliance shall be madered that a completed signed copy of this Certificate of Compliance shall be madered that a completed signed copy of this Certificate of Compliance is the Designer Name: Fred B. Pollack, Partner or Williams Pollack, LLC  Suite 300  Francisco, CA, 94107  352  Designer Name: Adam French, P.E.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | offactured devices for the building design or system compliance are consistent with the information pricing permit application. de available with the building permit(s) issued for strequired to be included with the documentation  Signature:  Date Signed: 05/10/23                                                               | n design identified on<br>ovided on other appl<br>the building, and ma<br>the builder provides | this Certificate of Compliance conform to the requiricable compliance documents, worksheets, calculation de available to the enforcement agency for all applicate to the building owner at occupancy.                    | ons, |
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# VAN METER

ARCHITECTURE | URBAN DESIGN - SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES **MILLENIUM DESIGN** ALAMO, CA 94507

LANDSCAPE ARCHITECT **PLURAL STUDIO** 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER EMERALD CITY ENGINEERS 21705 HIGHWAY 99 LYNWOOD, WA 98036

**ENERGY CONSULTANT REDWOOD ENERGY** 1887 Q STREET ARCATA, CA 95521

COUNTY OF SANTA CLARA BUILDING INSPECTION OFFICE PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: <u>07/27/2023</u> HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



| ID | DATE     | NAME                  |
|----|----------|-----------------------|
| 1  | 11/11/22 | PERMIT SET-CONV       |
| В  | 03/20/23 | BID ADDENDUM          |
| 3  | 05/12/23 | PLAN CHECK RESPONSE 3 |
|    |          |                       |
|    |          |                       |
|    |          |                       |
|    |          |                       |
|    |          |                       |

# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



TITLE 24 CH. 6 ENERGY REPORT -RES PRF-01

JOB #: 1925

| Projec | ct Name:        | 231 Grant                 | 231 Grant             |  |    |                           | Page 1 of 18             | 1 of 18                     |  |  |
|--------|-----------------|---------------------------|-----------------------|--|----|---------------------------|--------------------------|-----------------------------|--|--|
| Projec | ct Address:     | 231 Grant Palo Alto 92251 |                       |  |    | Calculation Date/Time:    | 23:56, Mon, Mar 13, 2023 |                             |  |  |
| Input  | File Name:      | GRANT - NON-RES.cibd      | 19x                   |  |    |                           |                          |                             |  |  |
|        | ENERAL INFOR    | W 5 76                    | I- v - v              |  |    | I                         |                          |                             |  |  |
| 1      | Project Locatio | n (city)                  | Palo Alto             |  | 8  | Standards Version         | 9                        | Compliance2019              |  |  |
| 2      | CA Zip Code     |                           | 92251                 |  | 9  | Compliance Software (ve   | rsion)                   | EnergyPro 8.3               |  |  |
| 3      | Climate Zone    |                           | 4                     |  | 10 | Weather File              | n i                      | PALO-ALTO_724937_CZ2010.epw |  |  |
| 4      | Total Condition | ed Floor Area in Scope    | 7.034 ft <sup>2</sup> |  | 11 | Building Orientation (deg | )                        | (S) 180 deg                 |  |  |

12 Permitted Scope of Work

13 Building Type(s)

14 Gas Type

NewComplete

Nonresidential

NaturalGas

| B. PROJECT | SUMMARY |
|------------|---------|
|------------|---------|

5 Total Unconditioned Floor Area

7 Total # of dwelling units

6 Total # of Stories (Habitable Above Grade)

Table Instructions: Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within permit application.

| I                                              | Buildin     | g Components Co | omplying via Performance                |             |              | Building Components Comply                                                                                                                                                                                                                                                                                                                                                                                                              | ing Prescriptively        |  |
|------------------------------------------------|-------------|-----------------|-----------------------------------------|-------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--|
|                                                | $\boxtimes$ | Performance     |                                         | Performance |              | The following building components are ONLY eligible for prescriptive                                                                                                                                                                                                                                                                                                                                                                    |                           |  |
| Envelope (see Table G)                         |             | Not Included    | Covered Process: Commercial<br>Kitchens | ×           | Not Included | compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).  Indoor Lighting (Unconditioned)§140.6  NRCC-LTI-E  Dutdoor Lighting §140.7  NRCC-LTO-E  Sign Lighting §140.8  Mandatory Measures  Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should on the NRCC form |                           |  |
| Machanical (see Table H)                       | ×           | Performance     | Covered Process: Computer Rooms         |             | Performance  | Indoor Lighting (Unconditioned)§140.6                                                                                                                                                                                                                                                                                                                                                                                                   | NRCC-LTI-E                |  |
| Mechanical (see Table H)                       |             | Not Included    |                                         |             | Not Included | Outdoor Lighting §140.7                                                                                                                                                                                                                                                                                                                                                                                                                 | NRCC-LTO-E                |  |
| Domestic Hot Water (see Table I)               | ⊠           | Performance     | Covered Process: Laboratory Exhaust     |             | Performance  | Sign Lighting §140.8                                                                                                                                                                                                                                                                                                                                                                                                                    | NRCC -LTS-E               |  |
| Domestic not water (see Table I)               |             | Not Included    | Covered Process. Laboratory Exhaust     | Ø           | Not Included | Mandatory Measures                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |  |
| Lighting ( Indoor Conditioned, see<br>Table K) | ×           | Performance     |                                         |             |              |                                                                                                                                                                                                                                                                                                                                                                                                                                         | d should on the NRCC form |  |
|                                                |             | Not Included    | ľ                                       |             |              | Electrical Power Distribution S110.11                                                                                                                                                                                                                                                                                                                                                                                                   | NRCC-ELC-E                |  |
| Solar Thermal Water Heating (see               |             | Performance     |                                         |             |              | Commissioning S120.8                                                                                                                                                                                                                                                                                                                                                                                                                    | NRCC-CXR-E                |  |
| Table I)                                       | $\boxtimes$ | Not Included    | 1                                       |             |              | Solar Ready S110.10                                                                                                                                                                                                                                                                                                                                                                                                                     | NRCC-SRA-E                |  |

Report Generated at: 2023-03-14 00:03:15

| Building Energy Efficiency Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-6844 | Report Generated at: 2023-03-14 00:03:1 |
|----------------------------------------------------------------------|---------------------------------------------|-----------------------------------------|
|                                                                      |                                             |                                         |

| Project Name:    | 231 Grant                 | NRCC-PRF-01-E          | Page 4 of 18             |  |
|------------------|---------------------------|------------------------|--------------------------|--|
| Project Address: | 231 Grant Palo Alto 92251 | Calculation Date/Time: | 23:56, Mon, Mar 13, 2023 |  |
| Input File Name: | GRANT - NON-RES.cibd19x   |                        |                          |  |

| G1. ENVELOPE GENERAL INFORMATION | (conditioned spaces only) |
|----------------------------------|---------------------------|

| 1                             | 2                              | 3                             | 4                        |
|-------------------------------|--------------------------------|-------------------------------|--------------------------|
| Opaque Surfaces & Orientation | Total Gross Surface Area (ft²) | Total Fenestration Area (ft²) | Window to Wall Ratio (%) |
| North-Facing <sup>1</sup>     | 1,633 ft <sup>2</sup>          | 882 ft <sup>2</sup>           | 54.09                    |
| East-Facing <sup>2</sup>      | 530 ft <sup>2</sup>            | 186 ft²                       | 35.19                    |
| South-Facing <sup>3</sup>     | 1,226 ft <sup>2</sup>          | 0 ft²                         | 00.09                    |
| West-Facing <sup>4</sup>      | 830 ft <sup>2</sup>            | 336 ft <sup>2</sup>           | 40.59                    |
| Total                         | 4,219 ft <sup>2</sup>          | 1,404 ft²                     | 33.39                    |
| Roof                          | 0 ft <sup>2</sup>              | 0 ft²                         | 00.09                    |
| Notes:                        |                                |                               |                          |

<sup>1</sup> North-Facing is oriented to within 45 degrees of true north, including 45°00'00" east of north (NE), but excluding 45°00'00" west of north (NW). <sup>2</sup> East-Facing is oriented to within 45 degrees of true east, including 45°00'00" south of east (SE), but excluding 45°00'00" north of east (NE). <sup>3</sup> South-Facing is oriented to within 45 degrees of true south, including 45°00'00" west of south (SW), but excluding 45°00'00" east of south (SE). <sup>4</sup> West-Facing is oriented to within 45 degrees of true west, including 45°00'00" north of due west (NW), but excluding 45°00'00" south of west (SW).

## G3. OPAQUE SURFACE ASSEMBLY SUMMARY

| 1                          | 2                | 3          | 4               | 5                 | 6                     | 7        | 8     | 9                                                                                                                                                                    | 10      |
|----------------------------|------------------|------------|-----------------|-------------------|-----------------------|----------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Surface Name               | Surface Type     | Area (ft²) | Framing<br>Type | Cavity<br>R-Value | Continuous<br>R-Value | Units    | Value | Description of Assembly Layers                                                                                                                                       | status. |
| J10-Exterior 2x6 R-19 Met9 | ExteriorWall     | 8102       | Metal           | 19                | NA                    | U-Factor | 0.141 | Vapor permeable felt - 1/8 in. Gypsum Board - 5/8 in. Metal framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 5/8 in. Gypsum Board - 5/8 in. Gypsum Board - 5/8 in. | N       |
| P30 - Slab On Grade20      | UndergroundFloor | 11635      | NA              | 0                 | NA                    | F-Factor | 0.73  | Slab Type = UnheatedSlabOnGrade<br>Insulation Orientation = None<br>Insulation R-Value = R0                                                                          | N       |

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| Project Name:    | 231 Grant                 | NRCC-PRF-01-E          | Page 7 of 18             |
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| Input File Name: | GRANT - NON-RES.cibd19x   |                        |                          |

| 55. FENESTRATION ASSEMBLY SU  1             | 2                                                | 3                                 | 4               | 5                    | 6                   | 7               | 8             | 9                   |
|---------------------------------------------|--------------------------------------------------|-----------------------------------|-----------------|----------------------|---------------------|-----------------|---------------|---------------------|
| Fenestration Assembly Name / Tag<br>or I.D. | Fenestration Type / Product Type /<br>Frame Type | Certification Method <sup>1</sup> | Assembly Method | Area ft <sup>2</sup> | Overall<br>U-factor | Overall<br>SHGC | Overall<br>VT | Status <sup>2</sup> |
| Grant Storefront Door                       | Vertical Fenestration<br>Glazed Door<br>N/A      | NFRC Rated                        | Manufactured    | 405                  | 0.32                | 0.33            | 0.50          | N                   |
| Grant Storefront Window                     | Vertical Fenestration<br>Fixed Window<br>N/A     | NFRC Rated                        | Manufactured    | 1271                 | 0.32                | 0.33            | 0.50          | N                   |
| Grant Windows                               | Vertical Fenestration<br>Fixed Window<br>N/A     | NFRC Rated                        | Manufactured    | 584                  | 0.26                | 0.24            | 0.50          | N                   |
| Mendo Windows                               | Vertical Fenestration<br>Fixed Window<br>N/A     | NFRC Rated                        | Manufactured    | 209                  | 0.26                | 0.24            | 0.50          | N                   |
| Mendo Storefront Door                       | Vertical Fenestration<br>Glazed Door<br>N/A      | NFRC Rated                        | Manufactured    | 27                   | 0.32                | 0.33            | 0.50          | N                   |
| Mendo Storefront Window                     | VerticalFenestration<br>FixedWindow              | NFRC Rated                        | Manufactured    | 33                   | 0.32                | 0.33            | 0.50          | N                   |

Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis. <sup>2</sup> Status: N - New, A - Altered, E - Existing

| H1. DRY SYSTEM EQUI | H1. DRY SYSTEM EQUIPMENT (furnaces, air handling units, heat pumps, VRF, economizers etc.) |     |                                     |                                |                    |            |                                        |                 |             |                              |                     |  |
|---------------------|--------------------------------------------------------------------------------------------|-----|-------------------------------------|--------------------------------|--------------------|------------|----------------------------------------|-----------------|-------------|------------------------------|---------------------|--|
| 1                   | 2                                                                                          | 3   | 4                                   | 5                              | 6                  | 7          | 8                                      | 9               | 10          | 11                           | 12                  |  |
|                     |                                                                                            |     |                                     | Heatin                         | g                  | 3          |                                        | Cooling         |             |                              |                     |  |
| Equipment Name      | Equipment Type                                                                             | Qty | Total Heating<br>Output<br>(kBtu/h) | Supp Heat<br>Output<br>(kBtuh) | Efficiency<br>Unit | Efficiency | Total<br>Cooling<br>Output<br>(kBtu/h) | Efficiency Unit | Efficiency  | Economizer Type (if present) | Status <sup>1</sup> |  |
| HP-1                | SZHP (Split3Phase)                                                                         | 1   | 46                                  | 34                             | HSPF               | 8.20       | 47                                     | SEER/EER        | 14.00/11.50 | NoEconomizer                 | N                   |  |

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| Project Address: | 231 Grant Palo Alto 92251 | Calculation Date/Time: | 23:56, Mon, Mar 13, 2023 |
| Input File Name: | GRANT - NON-RES.cibd19x   |                        |                          |

| Pace Cooling 71.02 40.33 30 and oor Fans 135.10 27.26 107 deat Rejection      |                                       |                       |                                      |
|-------------------------------------------------------------------------------|---------------------------------------|-----------------------|--------------------------------------|
| Energy Component                                                              | Standard Design (TDV)                 | Proposed Design (TDV) | Compliance Margin (TDV) <sup>1</sup> |
| Space Heating                                                                 | 8.99                                  | 65.87                 | -56                                  |
| Space Cooling                                                                 | 71.02                                 | 40.33                 | 30                                   |
| Indoor Fans                                                                   | 135.10                                | 27.26                 | 107                                  |
| Heat Rejection                                                                |                                       |                       |                                      |
| Pumps & Misc.                                                                 |                                       |                       |                                      |
| Domestic Hot Water                                                            | 4.68                                  | 3.14                  | 1                                    |
| Indoor Lighting                                                               | 67.75                                 | 67.75                 | 8                                    |
| ENERGY STANDARDS COMPLIANCE TOTAL                                             | 287.54                                | 204.35                | 83.19 (28.99                         |
| <sup>1</sup> Notes: The number in parenthesis following the Compliance Margin | in column 4. represents the Percent B | etter than Standard.  | 72                                   |

| C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS <sup>1</sup> |                       |                                          |                       |
|----------------------------------------------------------|-----------------------|------------------------------------------|-----------------------|
| ☐ This project is pursuing CalGreen Tier 1               |                       | ☐ This project is pursuing CalGreen Tier | 2                     |
| Miscellaneous Energy Component                           | Standard Design (TDV) | Proposed Design (TDV)                    | Compliance Margin (TD |
| Receptacle                                               | 212.48                | 212.48                                   |                       |
| Process                                                  |                       |                                          |                       |
| Other Ltg                                                | 151.66                | 151.66                                   |                       |

| Receptacle                                                                      | 212.48                                 | 212.48 |            |
|---------------------------------------------------------------------------------|----------------------------------------|--------|------------|
| Process                                                                         |                                        |        |            |
| Other Ltg                                                                       | 151.66                                 | 151.66 |            |
| Process Motors                                                                  | 0.41                                   | 0.41   |            |
| COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS                                  | 652.09                                 | 568.90 | 83.2 (12.8 |
| <sup>1</sup> Notes: This table is used to document compliance with programs OTH | ER THAN Title 24 Part 6, if applicable | 2.     |            |

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| Project Name:    | 231 Grant                 | NRCC-PRF-01-E          | Page 5 of 18             |
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| Project Address: | 231 Grant Palo Alto 92251 | Calculation Date/Time: | 12:22, Sun, Oct 09, 2022 |
| Input File Name: | GRANT - NON-RES.cibd19x   |                        |                          |

| 1                           | 2             | 3          | 4               | 5                 | 6                     | 7        | 8     | 9                                                                                                                                                                                                          |
|-----------------------------|---------------|------------|-----------------|-------------------|-----------------------|----------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surface Name                | Surface Type  | Area (ft²) | Framing<br>Type | Cavity<br>R-Value | Continuous<br>R-Value | Units    | Value | Description of Assembly Layers                                                                                                                                                                             |
| K13-Corridor 2x6 R-19 Met22 | InteriorWall  | 10426      | Metal           | 19                | NA                    | U-Factor | 0.133 | Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in.<br>Metal framed wall, 16in. OC, 5.5in.,<br>R-19<br>Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in.                                                       |
| K10-Interior 2x4 R-11Meta24 | InteriorWall  | 9006       | Metal           | 11                | NA                    | U-Factor | 0.185 | Gypsum Board - 5/8 in.<br>Metal framed wall, 16in. OC, 3.5in.,<br>R-11<br>Gypsum Board - 5/8 in.                                                                                                           |
| E20 Exterior R-21 Wood Fr32 | ExteriorWall  | 5810       | Wood            | 21                | NA                    | U-Factor | 0.063 | Vapor permeable felt - 1/8 in.<br>Gypsum Board - 5/8 in.<br>Wood framed wall, 16in. OC, 5.5in.,<br>R-21<br>Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in.                                                |
| 10 - TPO R-30 Unvented R41  | Roof          | 5240       | Wood            | 30                | 12                    | U-Factor | 0.025 | Mastic asphalt (heavy - 20% grit) - 1 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Cellular polyisocyanurate (unfaced) - 2 in. R12 Wood framed roof, 16in. OC, 5.0in., R-30 Gypsum Board - 1/2 in. |
| R10 - Interior Floor43      | InteriorFloor | 10840      | NA              | 0                 | NA                    | U-Factor | 0.183 | Air - Cavity - Wall Roof Ceiling - 4 in.<br>or more<br>Plywood - 1/2 in.<br>Carpet - 3/4 in.                                                                                                               |
| G10 Interior R-13 Wood Fr45 | InteriorWall  | 22871      | Wood            | 13                | NA                    | U-Factor | 0.091 | Gypsum Board - 5/8 in.<br>Wood framed wall, 16in. OC, 3.5in.,<br>R-13<br>Gypsum Board - 5/8 in.                                                                                                            |
| P31 - CONCRETE PODIUM 1283  | InteriorFloor | 5240       | NA              | 0                 | NA                    | U-Factor | 0.139 | Concrete - 80 lb/ft3 - 12 in.<br>Carpet - 3/4 in.                                                                                                                                                          |

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Project Name:

| ncy Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-6844 | Report Generated at: 2022-10-09 12:28:11 |
|-----------------------------------------------|---------------------------------------------|------------------------------------------|
|                                               |                                             |                                          |

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| roject Name.        | 251 Grant                    |           |                                     |                                |                    | WINCE I IN OT L  |                                        | age o or to       |               |                              |   |
|---------------------|------------------------------|-----------|-------------------------------------|--------------------------------|--------------------|------------------|----------------------------------------|-------------------|---------------|------------------------------|---|
| Project Address:    | 231 Grant Palo Alto 9225     | 1         |                                     |                                |                    | Calculation Date | e/Time:                                | 23:56, Mon, Mar 1 | 3, 2023       |                              |   |
| nput File Name:     | GRANT - NON-RES.cibd19       | Эх        |                                     |                                |                    |                  |                                        |                   |               |                              |   |
| H1. DRY SYSTEM EQU  | IPMENT (furnaces, air h      | andling u | ınits, heat pum                     | ps, VRF, econo                 | mizers etc         | :.)              |                                        |                   |               |                              | _ |
| 1                   | 2                            | 3         | 4                                   | 5                              | 6                  | 7                | 8                                      | 9                 | 10            | 11                           | Γ |
|                     |                              |           |                                     | Heatin                         | g                  |                  |                                        | Cooling           | No.           |                              | Γ |
| Equipment Name      | Equipment Type               | Qty       | Total Heating<br>Output<br>(kBtu/h) | Supp Heat<br>Output<br>(kBtuh) | Efficiency<br>Unit | Efficiency       | Total<br>Cooling<br>Output<br>(kBtu/h) | Efficiency Unit   | Efficiency    | Economizer Type (if present) |   |
| HP-6                | SZHP (Split3Phase)           | 1         | 33                                  | 34                             | HSPF               | 8.20             | 33                                     | SEER/EER          | 14.00/12.00   | NoEconomizer                 | Γ |
| HP-7                | SZHP (Split3Phase)           | 1         | 46                                  | 34                             | HSPF               | 8.20             | 47                                     | SEER/EER          | 14.00/11.50   | NoEconomizer                 | Γ |
| IAC-1 115-ELEV EQPT | SZAC (Split3Phase)           | 1         | 0                                   | 0                              | NA                 | NA               | 17                                     | SEER/EER          | 13.00/10.00   | NoEconomizer                 | Γ |
| IAC-2 112-ERRCS     | SZAC (Split3Phase)           | 1         | 0                                   | 0                              | NA                 | NA               | 17                                     | SEER/EER          | 19.00/10.30   | NoEconomizer                 | Γ |
| IAC-3 106A-MPOE     | SZAC (Split3Phase)           | 1         | 0                                   | 0                              | NA                 | NA               | 17                                     | SEER/EER          | 19.00/10.30   | NoEconomizer                 | Γ |
| AC-4 106-ELECTRICAL | SZAC (Split3Phase)           | 1         | 0                                   | 0                              | NA                 | NA               | 17                                     | SEER/EER          | 19.00/10.30   | NoEconomizer                 | Г |
| IAC-5 117B-SERVER   | SZAC (Split3Phase)           | 1         | 0                                   | 0                              | NA                 | NA               | 17                                     | SEER/EER          | 19.00/10.30   | NoEconomizer                 | Г |
| HP-2                | MiniSplitHP<br>(Split3Phase) | 1         | 12                                  | 34                             | HSPF               | 11.40            | 12                                     | SEER/EER          | 22.00 / 12.50 | NA                           |   |
| HP-3                | MiniSplitHP<br>(Split3Phase) | 1         | 13                                  | 0                              | HSPF               | 11.40            | 12                                     | SEER/EER          | 22.00 / 13.30 | NA                           |   |
| HP-4                | MiniSplitHP<br>(Split3Phase) | 1         | 12                                  | 0                              | HSPF               | 12.20            | 9                                      | SEER/EER          | 22.40 / 13.40 | NA                           |   |

| H2. FAN SYSTEMS        | SUM | MARY      |      | 3               |            | la-            |                |     |                 |            | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |         |
|------------------------|-----|-----------|------|-----------------|------------|----------------|----------------|-----|-----------------|------------|----------------------------------------|---------|
| 1                      | 2   | 3         | 4    | 5               | 6          | 7              | 8              | 9   | 10              | 11         | 12                                     | 13      |
|                        |     | Design OA |      |                 | Supply Fan |                |                |     |                 | Return Fan |                                        |         |
| Name or Item Tag       | Qty | CFM       | CFM  | Modeling Method | Power      | Power<br>Units | Control        | СҒМ | Modeling Method | Power      | Power<br>Units                         | Control |
| HP-1                   | 1   | 0         | 1600 | BrakeHorsePower | 0.001      | bhp            | ConstantVolume | NA  | NA              | NA         | NA                                     | NA      |
| HP-6                   | 1   | 0         | 1200 | BrakeHorsePower | 0.500      | bhp            | ConstantVolume | NA  | NA              | NA         | NA                                     | NA      |
| HP-7                   | 1   | 0         | 1600 | BrakeHorsePower | 0.750      | bhp            | ConstantVolume | NA  | NA              | NA         | NA                                     | NA      |
| IAC-1 115-ELEV<br>EQPT | 1   | 0         | 550  | BrakeHorsePower | 0.001      | bhp            | ConstantVolume | NA  | NA              | NA         | NA                                     | NA      |

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| Project Name:    | 231 Grant                 | NRCC-PRF-01-E          | Page 3 of 18             |  |
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| Input File Name: | GRANT - NON-RES.cibd19x   |                        |                          |  |

| Energy Component   | Standard Design Site<br>(MWh) | Proposed Design Site<br>(MWh) | Margin<br>(MWh) | Standard Design Site<br>(MBtu) | Proposed Design Site<br>(MBtu) | Margin<br>(MBtu) |
|--------------------|-------------------------------|-------------------------------|-----------------|--------------------------------|--------------------------------|------------------|
| Space Heating      | 122                           | 19.0                          | -19.0           | 30.8                           | 227                            | 30.8             |
| Space Cooling      | 13.4                          | 5.2                           | 8.2             | 126                            | 22                             |                  |
| Indoor Fans        | 32.5                          | 6.6                           | 25.9            |                                |                                |                  |
| Heat Rejection     |                               | 255                           | (50             | 195                            | at.                            |                  |
| Pumps & Misc.      | 877                           | 315                           | 1555            | k <del>an</del>                | .==                            |                  |
| Domestic Hot Water | 0.7                           | 0.9                           | -0.2            | 7.5                            |                                | 7.5              |
| Indoor Lighting    | 16.0                          | 16.0                          | 0.0             | (==                            |                                | >                |
| Compliance Total   | 62.6                          | 47.7                          | 14.9            | 38.3                           | 0.0                            | 38.3             |
| Receptacle         | 50.1                          | 50.1                          | 0.0             | 0.8                            | 0.8                            | 0.0              |
| Process            | 122                           |                               | -02             | <u> </u>                       |                                | :20              |
| Other Ltg          | 36.2                          | 36.2                          | 0.0             |                                |                                | 188              |
| Process Motors     | 0.1                           | 0.1                           | 0.0             |                                |                                | 155              |
| TOTAL              | 149.0                         | 134.1                         | 14.9            | 39.1                           | 0.8                            | 38.3             |

D. EXCEPTIONAL CONDITIONS

This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is

E. HERS VERIFICATION This Section Does Not Apply

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| Project Address: | 231 Grant Palo Alto 92251 | Calculation Date/Time: | 23:56, Mon, Mar 13, 2023 |  |
| Input File Name: | GRANT - NON-RES.cibd19x   |                        |                          |  |

| 1                           | 2             | 3          | 4               | 5                 | 6                     | 7        | 8     | 9                                                                                                                                                                                      | 1      |
|-----------------------------|---------------|------------|-----------------|-------------------|-----------------------|----------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Surface Name                | Surface Type  | Area (ft²) | Framing<br>Type | Cavity<br>R-Value | Continuous<br>R-Value | Units    | Value | Description of Assembly Layers                                                                                                                                                         | Status |
| R10 - Interior Floor43      | InteriorFloor | 10840      | NA              | 0                 | 18                    | U-Factor | 0.046 | Gypsum Board - 5/8 in. Gypsum Board - 5/8 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Glass fiber batt - 5 1/2 in. R19 (CEC Default) Fiber cement board - 88 lb/ft3 - 1/2 in. | N      |
| G10 Interior R-13 Wood Fr45 | InteriorWall  | 22871      | Wood            | 13                | NA                    | U-Factor | 0.091 | Gypsum Board - 5/8 in.<br>Wood framed wall, 16in. OC, 3.5in.,<br>R-13<br>Gypsum Board - 5/8 in.                                                                                        | N      |
| P31 - Uninsulated CONCRET83 | InteriorFloor | 5240       | NA              | 0                 | NA                    | U-Factor | 0.209 | Concrete - 80 lb/ft3 - 12 in.                                                                                                                                                          | N      |
| J10-Exterior 2x6 R-19 Met91 | InteriorWall  | 115        | Metal           | 19                | NA                    | U-Factor | 0.132 | Vapor permeable felt - 1/8 in.<br>Gypsum Board - 5/8 in.<br>Metal framed wall, 16in. OC, 5.5in.,<br>R-19<br>Gypsum Board - 5/8 in.<br>Gypsum Board - 5/8 in.                           | N      |

| <sup>1</sup> Status: N - New, A - Altered, E - Existing |                  |                     |
|---------------------------------------------------------|------------------|---------------------|
| G4. OPAQUE DOOR SUMMARY                                 |                  |                     |
| 1                                                       | 2                | 3                   |
| Assembly Name                                           | Overall U-factor | Status <sup>1</sup> |
| Metal Door170                                           | 0.700            | N                   |

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Gypsum Board - 5/8 in.

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|-------------------------|--------|----------------|--------------|-----------------|------------|----------------|------------------|--------|-----------------|------------|----------------|---------|---------------------|
| Project Address:        |        | 231 Grant Palo | Alto 92251   |                 |            |                | Calculation Date | /Time: | 23:56, Mon, Mar | 13, 2023   |                |         |                     |
| Input File Name:        |        | GRANT - NON-   | -RES.cibd19x |                 |            |                |                  |        |                 |            |                |         |                     |
| LID FAN SYSTEMAS        | C118.6 | 8.4.4.DV       | 1            |                 |            |                |                  |        |                 |            |                | 11      | -11.                |
| H2. FAN SYSTEMS         | SUIVI  | IVIARY         |              |                 |            |                |                  | _      |                 |            |                | ·       |                     |
| 1                       | 2      | 3              | 4            | 5               | 6          | 7              | 8                | 9      | 10              | 11         | 12             | 13      | 14                  |
|                         |        | Design OA      |              |                 | Supply Fan | 8              |                  |        |                 | Return Fan |                | ~       | St                  |
| Name or Item Tag        | Qty    | CFM            | CFM          | Modeling Method | Power      | Power<br>Units | Control          | CFM    | Modeling Method | Power      | Power<br>Units | Control | Status <sup>1</sup> |
| IAC-2 112-ERRCS         | 1      | 0              | 550          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA              | NA         | NA             | NA      | N                   |
| IAC-3 106A-MPOE         | 1      | 0              | 550          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA              | NA         | NA             | NA      | N                   |
| IAC-4<br>106-ELECTRICAL | 1      | 0              | 550          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA              | NA         | NA             | NA      | N                   |
| IAC-5<br>117B-SERVER    | 1      | 0              | 550          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA              | NA         | NA             | NA      | N                   |
| HP-2                    | 1      | 0              | 335          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA              | NA         | NA             | NA      | N                   |
| HP-3                    | 1      | 0              | 600          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA              | NA         | NA             | NA      | N                   |
|                         |        | 0              | 300          | BrakeHorsePower | 0.001      | bhp            | ConstantVolume   | NA     | NA              | NA         | NA             | NA      | N                   |

| 1                    | 2                    | 3   | 4   | 5         | 6                         | 7                                            |     |
|----------------------|----------------------|-----|-----|-----------|---------------------------|----------------------------------------------|-----|
| System ID            | Zone Name            | Qty | CFM | Motor BHP | Power Per Flow<br>(W/cfm) | Total Static Pressure (in. H <sub>2</sub> O) |     |
| 123-COMMUNITY ROOM3  | 1-123-COMMUNITY ROOM | 1   | 815 | 0.001     | 0.001                     | 0.01                                         | ŝ   |
| Corridor-426         | 2-Corridor-4         | 1   | 820 | 0.001     | 0.001                     | 0.01                                         | Ī   |
| Corridor-354         | 3-Corridor-3         | 1   | 820 | 0.001     | 0.001                     | 0.01                                         |     |
| Corridor-273         | 4-Corridor-2         | 1   | 820 | 0.001     | 0.001                     | 0.01                                         |     |
| 107-MAINTENANCE93    | 5-107-MAINTENANCE    | 1   | 200 | 0.001     | 0.005                     | 0.02                                         |     |
| 108-FLEX STORAGE103  | 6-108-FLEX STORAGE   | 1   | 450 | 0.001     | 0.002                     | 0.01                                         |     |
| 109-RES. STORAGE109  | 7-109-RES. STORAGE   | 1   | 100 | 0.001     | 0.010                     | 0.05                                         | - 6 |
| 121-WC 1126          | 10-121-WC 1          | 1   | 10  | 0.001     | 0.100                     | 0.47                                         | į.  |
| 125-WC 2132          | 11-125-WC 2          | 1   | 10  | 0.001     | 0.100                     | 0.47                                         | 1   |
| 120-COMM. STORAGE138 | 12-120-COMM. STORAGE | 1   | 100 | 0.001     | 0.010                     | 0.05                                         | ĝ   |
| 122-BIKE ROOM144     | 13-122-BIKE ROOM     | 1 1 | 400 | 0.001     | 0.002                     | 0.01                                         | Š   |

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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ARCHITECTURE | URBAN DESIGN - SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES MILLENIUM DESIGN PO BOX 737 ALAMO, CA 94507

LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521

**BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: 07/27/2023 HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



| ID | DATE     | NAME            |
|----|----------|-----------------|
| 1  | 11/11/22 | PERMIT SET-CONV |
| В  | 03/20/23 | BID ADDENDUM    |
|    |          |                 |
|    |          |                 |
|    |          |                 |
|    |          |                 |
|    |          |                 |
|    |          |                 |

# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



TITLE 24 CH. 6 ENERGY REPORT -NONRES PRF-01

JOB #: 1925

| roject Name:                 | 231 Grant      |                                   |     |       | NRCC-PRF-01-E      | Page 10 of 1              | Page 10 of 18                                |                     |  |  |  |
|------------------------------|----------------|-----------------------------------|-----|-------|--------------------|---------------------------|----------------------------------------------|---------------------|--|--|--|
| roject Address:              | 231 Grant      | Palo Alto 92251                   |     |       | Calculation Date/T | ime: 23:56, Mon           | , Mar 13, 2023                               |                     |  |  |  |
| nput File Name:              | GRANT - N      | ON-RES.cibd19x                    |     |       |                    |                           |                                              |                     |  |  |  |
| 13. EXHAUST FAN S            | UMMARY         |                                   |     |       |                    | .di. 29                   |                                              |                     |  |  |  |
| 1                            |                | 2                                 | 3   | 4     | 5                  | 6                         | 7                                            | 8                   |  |  |  |
| System ID                    |                | Zone Name                         | Qty | CFM   | Motor BHP          | Power Per Flow<br>(W/cfm) | Total Static Pressure (in. H <sub>2</sub> O) | Status <sup>1</sup> |  |  |  |
| 127A-WC 31                   | 50             | 14-127A-WC 3                      | 1   | 10    | 0.001              | 0.100                     | 0.47                                         | N                   |  |  |  |
| 127B-WC 41                   | 56             | 15-127B-WC 4                      | 1   | 10    | 0.001              | 0.100                     | 0.47                                         | N                   |  |  |  |
| 129-FIRE PUMP ROOM167        |                | 17-129-FIRE PUMP ROOM             | 1   | 2,000 | 0.001              | 0.000                     | 0.00                                         | N                   |  |  |  |
| 118-RES STORAGE175           |                | 18-118-RES STORAGE                | 1   | 150   | 0.001              | 0.007                     | 0.03                                         | N                   |  |  |  |
| 215-LAUNDRY277               |                | 77 23-215-LAUNDRY                 |     | 100   | 0.001              | 0.010                     | 0.05                                         | N                   |  |  |  |
| 315-LAUNDRY                  | 287            | 24-315-LAUNDRY                    | 1   | 60    | 0.001              | 0.017                     | 0.08                                         | N                   |  |  |  |
| 415-LAUNDRY                  | 293            | 25-415-LAUNDRY                    | 1   | 60    | 0.001              | 0.017                     | 0.08                                         | N                   |  |  |  |
| 114-SERVICES                 | 300            | 26-114-SERVICES                   | 1   | 45    | 0.001              | 0.022                     | 0.11                                         | N                   |  |  |  |
| 117-PROP MGN                 | 1T306          | 27-117-PROP MGMT                  | 1   | 100   | 0.001              | 0.010                     | 0.05                                         | N                   |  |  |  |
| 116-MEETING                  | 335            | 28-116-MEETING                    | 1   | 85    | 0.001              | 0.012                     | 0.06                                         | N                   |  |  |  |
| 126-FLEX SPAC                | E342           | 29-126-FLEX SPACE                 | 1   | 247   | 0.001              | 0.004                     | 0.02                                         | N                   |  |  |  |
| 100-LOBBY/CORRI              | DOR361         | 30-100-LOBBY/CORRIDOR             | 1   | 565   | 0.001              | 0.002                     | 0.01                                         | N                   |  |  |  |
| 115-ELEV EQP                 | Т395           | 31-115-ELEV EQPT                  | 1   | 10    | 0.001              | 0.100                     | 0.47                                         | N                   |  |  |  |
| 112-ERRCS4                   | 01             | 32-112-ERRCS                      | 1   | 10    | 0.001              | 0.100                     | 0.47                                         | N                   |  |  |  |
| 106A-MPOE                    | 107            | 33-106A-MPOE                      | 1   | 33    | 0.001              | 0.030                     | 0.14                                         | N                   |  |  |  |
| 106-ELECTRICA                | L413           | 34-106-ELECTRICAL                 | 1   | 10    | 0.001              | 0.100                     | 0.47                                         | N                   |  |  |  |
| IAC-5 117B-SERV              | ′ER422         | 35-IAC-5 117B-SERVER              | 1   | 10    | 0.001              | 0.100                     | 0.47                                         | N                   |  |  |  |
| Status: N - New, A – Altered | , E – Existing |                                   |     |       |                    |                           |                                              |                     |  |  |  |
| A Mat Suntain Fac            | .i             |                                   |     |       | TI TI              |                           |                                              |                     |  |  |  |
|                              |                | ers,chillers,cooling towers,etc.) |     |       | 1/4                |                           |                                              |                     |  |  |  |
| his Section Does Not         | Apply          | 0                                 |     |       |                    |                           |                                              | -(-                 |  |  |  |
| H5. PUMPS                    | 1.5            | )                                 | 30  |       | 99                 |                           | 1                                            | 101                 |  |  |  |
| This Section Does Not        | Apply          |                                   |     |       | -                  |                           |                                              |                     |  |  |  |

| Project Name:                    | 231                       | Grant                |     |                   |             |                     | NRCC       | -PRF-01-E          | Page 13                                    | of 18                       |                                             |                    |                                            |
|----------------------------------|---------------------------|----------------------|-----|-------------------|-------------|---------------------|------------|--------------------|--------------------------------------------|-----------------------------|---------------------------------------------|--------------------|--------------------------------------------|
| Project Address:                 | 231                       | Grant Palo Alto 9225 | 1   |                   |             |                     | Calcu      | lation Date/Tim    | ie: 23:56, N                               | 1on, Mar 13, 2              | 023                                         |                    |                                            |
| Input File Name:                 | GRA                       | NT - NON-RES.cibd19  | x   |                   |             |                     |            |                    |                                            |                             |                                             |                    |                                            |
| 11. WATER HEA                    | TER EQUIPM                | IENT SUMMARY         |     | L <sub>1</sub>    |             |                     |            |                    |                                            | d.                          | h.                                          |                    |                                            |
| 1                                | 2                         | 3                    | 4   | 5                 | 6           | 7                   | 8          | 9                  | 10                                         | 11                          | 12                                          | 13                 | 14                                         |
| Name                             | Heater<br>Element<br>Type | Tank Type            | Qty | Tank Vol<br>(gal) | Rated Input | Rated Input<br>Unit | Efficiency | Efficiency<br>Unit | Tank<br>Insulation<br>R-value<br>(Int/Ext) | Standby<br>Loss<br>Fraction | 1st Hour<br>Rating or<br>Flow Rate<br>(gal) | Heat Pump<br>Type  | Tank<br>Location o<br>Ambient<br>Condition |
| Rheem<br>PROPH40 T2<br>RH375-152 | Electricity               | NA                   | 1   | 40.00             | 4.5         | kW                  | 3.10       | UEF                | NA                                         | NA                          | 80                                          | Heat-Pump<br>Split | Outdoor                                    |

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

<sup>1</sup> See Table 140.6-C

<sup>2</sup> See NRCC-LTI-01-E for unconditioned spaces

<sup>3</sup>Lighting information for existing spaces modeled is not included in the table

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

NRCA-MCH-11-A Automatic Demand Shed Controls

NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance

Report Version: NRCC-PRF-01-E-12092021-6844

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| 1                                                           | 2                                                      | 3                        | 4                        | 5                                  | 6                       |  |  |
|-------------------------------------------------------------|--------------------------------------------------------|--------------------------|--------------------------|------------------------------------|-------------------------|--|--|
|                                                             |                                                        | Installed Lighting Power | Lighting Control Credits | Additional (Custom) Allowance      |                         |  |  |
| Occupancy Type <sup>1</sup>                                 | Conditioned Floor Area <sup>2</sup> (ft <sup>2</sup> ) | (Watts)                  | (Watts)                  | Area Category Footnotes<br>(Watts) | Tailored Method (Watts) |  |  |
| Convention, Conference,<br>Multipurpose and Meeting<br>Area | 1,612                                                  | 1,371                    | 0                        | 0                                  | 0                       |  |  |
| Office Area (>250 square feet)                              | 927                                                    | 603                      | 0                        | 0                                  | 0                       |  |  |
| Retail Sales Area (Retail<br>Merchandise Sales)             | 984                                                    | 984                      | 0                        | 0                                  | 0                       |  |  |
| Corridor Area                                               | 2,117                                                  | 1,270                    | 0                        | 0                                  | 0                       |  |  |
| Electrical, Mechanical,<br>Telephone Rooms                  | 1,338                                                  | 535                      | 0                        | 0                                  | 0                       |  |  |
| Commercial/Industrial Storage<br>(Shipping & Handling)      | 56                                                     | 34                       | 0                        | 0                                  | 0                       |  |  |
| Building Totals:                                            | 7,034                                                  | 4,797                    | 0                        | 0                                  | 0                       |  |  |

| CA Building Energy Eff | iciency Standards- 2019 Nonresidential Compliance | Report Version: NRCC-PRF-01-E-12092021-684 | 4 Report Generated at: 2023-03-14 00:03:15 |
|------------------------|---------------------------------------------------|--------------------------------------------|--------------------------------------------|
|                        |                                                   |                                            |                                            |
| Project Name:          | 200                                               | Tuesco                                     |                                            |
| Project Name.          | 231 Grant                                         | NRCC-PRF-01-E                              | Page 16 of 18                              |
| Project Address:       | 231 Grant Palo Alto 92251                         | NRCC-PRF-01-E  Calculation Date/Time:      | Page 16 of 18 23:56, Mon, Mar 13, 2023     |

| compliance. These do                                                                 | ections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for cuments must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification more information visit:https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/ |  |  |  |  |  |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| <b>Building Component</b>                                                            | Form/Title                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |  |
| Envelope                                                                             | NRCA-ENV-02-F - NRFC label verification for fenestration                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |
| Indoor Lighting NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls |                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |
|                                                                                      | NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap                                                                                                                                                                                                              |  |  |  |  |  |
| Mechanical                                                                           | NRCA-MCH-03-A Constant Volume Single Zone HVAC                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |  |

Report Version: NRCC-PRF-01-E-12092021-6844

Report Generated at: 2023-03-14 00:03:15

| Documentation Author Name: Michael Winkler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -024 11                                                                                                                                                                                                                     | .22                                                                                                                                                                     |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| Company: Redwood Energy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Signature: Mushail Winker                                                                                                                                                                                                   |                                                                                                                                                                         |  |  |  |  |  |
| Address: 1090 12th Street                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Signature Date: 2023-03-14                                                                                                                                                                                                  | ——————————————————————————————————————                                                                                                                                  |  |  |  |  |  |
| City/State/Zip: Arcata CA 95521                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | CEA/ HERS Certification Identification                                                                                                                                                                                      | (if applicable): <b>NR19-18-30001</b><br>/D7-B24C-0462-8C73-968D-15B8-DF2A-6971-B773                                                                                    |  |  |  |  |  |
| Phone: 707-822-1857                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                             |                                                                                                                                                                         |  |  |  |  |  |
| RESPONSIBLE PERSON'S DECLARATION STATEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                             | -                                                                                                                                                                       |  |  |  |  |  |
| I certify the following under penalty of perjury, under the laws of the State of California:  1. The information provided on this Certificate of Compliance is true and correct.  2. I am eligible under Division 3 of the Business and Professions Code to accept responsibi 3. The energy features and performance specifications, materials, components, and manu of Title 24, Part 1 and Part 6 of the California Code of Regulations.  4. The building design features or system design features identified on this Certificate of C plans and specifications submitted to the enforcement agency for approval with this build 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be madinspections. I understand that a completed signed copy of this Certificate of Compliance is | factured devices for the building design or system design ide<br>ompliance are consistent with the information provided on o<br>ing permit application.<br>de available with the building permit(s) issued for the building | ntified on this Certificate of Compliance conform to the other applicable compliance documents, worksheets, cal g, and made available to the enforcement agency for all |  |  |  |  |  |
| Responsible Envelope Designer Name: Fred B. Pollack, Partner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | \\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\                                                                                                                                                                                      | 9                                                                                                                                                                       |  |  |  |  |  |
| Company: Van Meter Williams Pollack, LLC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Signature: VW VV                                                                                                                                                                                                            | Date Signed: 05/10/23                                                                                                                                                   |  |  |  |  |  |
| Address: 333 Bryant, Suite 300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Date Signed: 05/10/23                                                                                                                                                                                                       |                                                                                                                                                                         |  |  |  |  |  |
| City/State/Zip: San Francisco, CA, 94107                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                             |                                                                                                                                                                         |  |  |  |  |  |
| Phone: (415) 974-5352                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Title: Architect, Partner                                                                                                                                                                                                   | License #: C23412                                                                                                                                                       |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                             |                                                                                                                                                                         |  |  |  |  |  |
| Responsible Lighting Designer Name: Adam French, P.E.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Simulatura.                                                                                                                                                                                                                 | _                                                                                                                                                                       |  |  |  |  |  |
| Company: Emerald City Engineers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Signature:                                                                                                                                                                                                                  |                                                                                                                                                                         |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Signature:  Date Signed: 05/10/23                                                                                                                                                                                           |                                                                                                                                                                         |  |  |  |  |  |
| Company: Emerald City Engineers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                             |                                                                                                                                                                         |  |  |  |  |  |
| Company: Emerald City Engineers Address: 21705 Highway 99                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                             | License #: E-19421                                                                                                                                                      |  |  |  |  |  |
| Company: Emerald City Engineers  Address: 21705 Highway 99  City/State/Zip: Lynnwood / WA / 98036                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Date Signed: 05/10/23  Title: Electrical Engineer                                                                                                                                                                           | License #: E-19421                                                                                                                                                      |  |  |  |  |  |
| Company: Emerald City Engineers  Address: 21705 Highway 99  City/State/Zip: Lynnwood / WA / 98036  Phone: 425-741-1200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Date Signed: 05/10/23                                                                                                                                                                                                       | License #: E-19421                                                                                                                                                      |  |  |  |  |  |
| Company: Emerald City Engineers  Address: 21705 Highway 99  City/State/Zip: Lynnwood / WA / 98036  Phone: 425-741-1200  Responsible Mechanical Designer Name: Massamaghan Kone, P.E.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Date Signed: 05/10/23  Title: Electrical Engineer                                                                                                                                                                           | License #: E-19421                                                                                                                                                      |  |  |  |  |  |

| Project Name:                           | 231 Grant                 |                                                      |                           | NRC                                      | C-PRF-01-E           | Page 11 d        | of 18                                       |                       |  |
|-----------------------------------------|---------------------------|------------------------------------------------------|---------------------------|------------------------------------------|----------------------|------------------|---------------------------------------------|-----------------------|--|
| Project Address:                        | 231 Grant Palo            | Alto 92251                                           |                           | Calc                                     | ulation Date/Tin     | ne: 23:56, M     | on, Mar 13, 2023                            |                       |  |
| Input File Name:                        | GRANT - NON-              | RES.cibd19x                                          |                           |                                          |                      |                  |                                             |                       |  |
| H6. SYSTEM SPECIAL                      | EEATLIDES                 |                                                      |                           |                                          |                      |                  |                                             |                       |  |
| 1                                       | TEATORES                  | 2                                                    | 3                         |                                          |                      |                  | 4                                           |                       |  |
| System Na                               | ame                       | Equipment Type                                       | Window Interlo            | Interlocks per Other Special Features an |                      |                  | d Controls                                  |                       |  |
| DHW1 - S                                | HW                        | Service Hot Water, Primary Only                      | NA                        |                                          |                      | ntrol            |                                             |                       |  |
| lotes: This table includes cont         | rols related to the perfo | rmance path only. For projects using the prescriptiv | e path, mandatory and pre | scriptive c                              | ontrols requirements | are documented o | n the NRCC-MCH-E.                           |                       |  |
| H7. NONRESIDENTIA                       | L VENTILATION             |                                                      |                           | -                                        |                      |                  | 198                                         |                       |  |
| 1 2                                     |                           | Ĭ.                                                   | 3                         | 4                                        | 5                    | 6                | 7                                           |                       |  |
|                                         |                           |                                                      | al Ventil                 | ation                                    |                      |                  | DCV or Occupant Sensor<br>Controls, or Both |                       |  |
| Zone Na                                 | ame                       | Ventilation Function                                 |                           | # of                                     | of Supply OA         | Exhaust          |                                             | oust Conditioned Area |  |
|                                         |                           | Ventilation Function                                 | pe                        | eople                                    | CFM                  | CFM              | (sf)                                        | controls, or both     |  |
| 1-123-COMMU                             | NITY ROOM                 | Assembly - Courtroom                                 | Assembly - Courtrooms 48  |                                          | 276                  | 815              | 1450                                        | NA                    |  |
| 26-114-SE                               | RVICES                    | Office - Office space                                |                           | 1.33                                     | 40                   | 45               | 266                                         | NA                    |  |
| 27-117-PRO                              | P MGMT                    | Office - Office space                                |                           | 3.31                                     | 99                   | 100              | 661                                         | NA                    |  |
| 28-116-MI                               | EETING                    | General - Conference/med                             | eting !                   | 5.40                                     | 81                   | 85               | 162                                         | NA                    |  |
| 29-126-FLEX SPACE                       |                           | Retail - Sales                                       | 8                         | 3.20                                     | 246                  | 247              | 984                                         | NA                    |  |
| 29-126-FLE                              |                           |                                                      |                           | 0.59                                     | 318                  | 565              | 2117                                        | NA                    |  |
| 29-126-FLE<br>30-100-LOBBY/             | CORRIDOR                  | Residential - Common corr                            | idors                     |                                          |                      |                  |                                             | TWW.                  |  |
|                                         |                           | General - Unoccupied                                 |                           | 0.13                                     | 0                    | 10               | 85                                          | NA                    |  |
| 30-100-LOBBY/                           | V EQPT                    |                                                      |                           | 0.13                                     | 0                    | 10<br>10         | 85<br>56                                    | NA<br>NA              |  |
| 30-100-LOBBY/<br>31-115-ELE             | V EQPT                    | General - Unoccupied                                 | ng (                      |                                          |                      |                  |                                             |                       |  |
| 30-100-LOBBY/<br>31-115-ELE<br>32-112-E | RRCS<br>MPOE              | General - Unoccupied<br>Misc - Shipping/receiving    | ng (                      | 0.14                                     | 8                    | 10               | 56                                          | NA                    |  |

| Assembly - Courtrooms Office - Office space Office - Office space neral - Conference/meeting Retail - Sales | 48.34<br>1.33<br>3.31<br>5.40                                           | 276<br>40<br>99<br>81                                                                                               | 815<br>45<br>100<br>85                                                                                                       | 1450<br>266<br>661<br>162                                                                                                                                                                                                             | NA<br>NA<br>NA                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Office - Office space<br>neral - Conference/meeting                                                         | 3.31<br>5.40                                                            | 99                                                                                                                  | 100                                                                                                                          | 661                                                                                                                                                                                                                                   | NA                                                                                                                                                                                                                                                                 |
| neral - Conference/meeting                                                                                  | 5.40                                                                    |                                                                                                                     | 0.0000000                                                                                                                    |                                                                                                                                                                                                                                       | V 51.033.53                                                                                                                                                                                                                                                        |
|                                                                                                             | 2000000                                                                 | 81                                                                                                                  | 85                                                                                                                           | 162                                                                                                                                                                                                                                   | NΛ                                                                                                                                                                                                                                                                 |
| Retail - Sales                                                                                              | 0.20                                                                    |                                                                                                                     |                                                                                                                              |                                                                                                                                                                                                                                       | INA                                                                                                                                                                                                                                                                |
|                                                                                                             | 8.20                                                                    | 246                                                                                                                 | 247                                                                                                                          | 984                                                                                                                                                                                                                                   | NA                                                                                                                                                                                                                                                                 |
| dential - Common corridors                                                                                  | 10.59                                                                   | 318                                                                                                                 | 565                                                                                                                          | 2117                                                                                                                                                                                                                                  | NA                                                                                                                                                                                                                                                                 |
| General - Unoccupied                                                                                        | 0.13                                                                    | 0                                                                                                                   | 10                                                                                                                           | 85                                                                                                                                                                                                                                    | NA                                                                                                                                                                                                                                                                 |
| Misc - Shipping/receiving                                                                                   | 0.14                                                                    | 8                                                                                                                   | 10                                                                                                                           | 56                                                                                                                                                                                                                                    | NA                                                                                                                                                                                                                                                                 |
| Misc - Telephone closets                                                                                    | 0.33                                                                    | 33                                                                                                                  | 33                                                                                                                           | 217                                                                                                                                                                                                                                   | NA                                                                                                                                                                                                                                                                 |
| General - Unoccupied                                                                                        | 1.45                                                                    | 0                                                                                                                   | 10                                                                                                                           | 968                                                                                                                                                                                                                                   | NA                                                                                                                                                                                                                                                                 |
| General - Unoccupied                                                                                        | 0.10                                                                    | 0                                                                                                                   | 10                                                                                                                           | 68                                                                                                                                                                                                                                    | NA                                                                                                                                                                                                                                                                 |
|                                                                                                             | Misc - Shipping/receiving Misc - Telephone closets General - Unoccupied | Misc - Shipping/receiving 0.14  Misc - Telephone closets 0.33  General - Unoccupied 1.45  General - Unoccupied 0.10 | Misc - Shipping/receiving 0.14 8  Misc - Telephone closets 0.33 33  General - Unoccupied 1.45 0  General - Unoccupied 0.10 0 | Misc - Shipping/receiving       0.14       8       10         Misc - Telephone closets       0.33       33       33         General - Unoccupied       1.45       0       10         General - Unoccupied       0.10       0       10 | Misc - Shipping/receiving       0.14       8       10       56         Misc - Telephone closets       0.33       33       217         General - Unoccupied       1.45       0       10       968         General - Unoccupied       0.10       0       10       68 |

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Multi-Level

Controls 130.1(b)

Area Controls 130.1(a)

NRCC-PRF-01-E

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Shut-Off Primary Secondary
Controls Daylighting Daylighting
130.1(c) 130.1(d) 140.5(d)

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

231 Grant

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

231 Grant Palo Alto 92251

GRANT - NON-RES.cibd19x

I certify that this Certificate of Compliance documentation is accurate and complete.

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

**Area Description** 

Project Name: Project Address:

Input File Name:

| Project Name:      | 231 Grant                                    | NRCC-PRF-01-E          | Page 14 of 18                         |
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|                    | 9                                            |                        | η                                     |
| VA INDOOR COND     |                                              |                        |                                       |
| K4. INDOOR COND    | ITIONED LIGHTING MANDATORY LIGHTING CONTROLS |                        |                                       |
|                    |                                              |                        | , , , , , , , , , , , , , , , , , , , |
| Building Level Con |                                              |                        | 2                                     |
|                    |                                              |                        | 2<br>Shut-Off Controls §130.1(c)      |

Area Level Controls (includes all lighting controls installed in conditioned space to meet mandatory requirements per §130.1)

**Area Category Primary Function Area** 

| Project Name:    | 231 Grant                 | NRCC-PRF-01-E          | Page 12 of 18            |
|------------------|---------------------------|------------------------|--------------------------|
| Project Address: | 231 Grant Palo Alto 92251 | Calculation Date/Time: | 23:56, Mon, Mar 13, 2023 |
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| H9. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY  1 2 3 4 5 6 7 8 9 |                     |                        |        |     |                  |   |                      |    |  |   |    |
|---------------------------------------------------------------|---------------------|------------------------|--------|-----|------------------|---|----------------------|----|--|---|----|
|                                                               | 1                   | 2                      | 3      | 4   | 5                | 6 | 7                    | 8  |  | 9 |    |
| Input He Name. Grant - Not Residuals.                         | H9. ZONAL SYSTEM    | AND TERMINAL UNIT S    | UMMARY | 110 |                  |   |                      | 50 |  |   |    |
|                                                               | Input File Name:    | GRANT - NON-RES.cibo   |        | 110 |                  |   |                      |    |  | _ | 27 |
|                                                               | r rojecer radi ess. | Los Grane Falo Falo DE |        | ĭ   | arearation bate, |   | 25.50, 111011, 11101 |    |  |   |    |

| 1                             | 2                         | 3            | 4   | 5       | 6                            | 7      | 8    | 9          | 10    | 11             | 12     | 13  |
|-------------------------------|---------------------------|--------------|-----|---------|------------------------------|--------|------|------------|-------|----------------|--------|-----|
| System ID                     | Zone Name                 | System Type  | Qty |         | Rated Capacity Airflow (cfm) |        |      |            | Fa    | ın             |        |     |
| System ID                     | Zone Wanie                | System Type  | Qiy | Heating | Cooling                      | Design | Min. | Min. Ratio | Power | Power<br>Units | Cycles | VSD |
| HP-2                          | 26-114-SERVICES           | MiniSplitHP  | 1   | 12.00   | 12.00                        | 335    | NA   | NA         | 0.001 | bhp            |        |     |
| HP-3                          | 27-117-PROP MGMT          | MiniSplitHP  | 1   | 13.00   | 12.00                        | 600    | NA   | NA         | 0.001 | bhp            |        |     |
| HP-4                          | 28-116-MEETING            | MiniSplitHP  | 1   | 12.00   | 9.00                         | 300    | NA   | NA         | 0.001 | bhp            |        |     |
| 1-123-COMMUNITY<br>ROOM-Trm   | 1-123-COMMUNITY<br>ROOM   | Uncontrolled | 1   | NA      | NA                           | 1600   | NA   | 0.00       | 0.001 | bhp            | NA     |     |
| 29-126-FLEX<br>SPACE-Trm      | 29-126-FLEX SPACE         | Uncontrolled | 1   | NA      | NA                           | 1200   | NA   | 0.00       | 0.500 | bhp            | NA     |     |
| 30-100-<br>LOBBY/CORRIDOR-Trm | 30-100-<br>LOBBY/CORRIDOR | Uncontrolled | 1   | NA      | NA                           | 1600   | NA   | 0.00       | 0.750 | bhp            | NA     |     |
| 31-115-ELEV EQPT-Trm          | 31-115-ELEV EQPT          | Uncontrolled | 1   | NA      | NA                           | 550    | NA   | 0.00       | 0.001 | bhp            | NA     |     |
| 32-112-ERRCS-Trm              | 32-112-ERRCS              | Uncontrolled | 1   | NA      | NA                           | 550    | NA   | 0.00       | 0.001 | bhp            | NA     |     |
| 33-106A-MPOE-Trm              | 33-106A-MPOE              | Uncontrolled | 1   | NA      | NA                           | 550    | NA   | 0.00       | 0.001 | bhp            | NA     |     |
| 34-106-ELECTRICAL-<br>Trm     | 34-106-ELECTRICAL         | Uncontrolled | 1   | NA      | NA                           | 550    | NA   | 0.00       | 0.001 | bhp            | NA     |     |
| 35-IAC-5<br>117B-SERVER-Trm   | 35-IAC-5 117B-SERVER      | Uncontrolled | 1   | NA      | NA                           | 550    | NA   | 0.00       | 0.001 | bhp            | NA     |     |

| L | 117B-SERVER-Trm         | 35-IAC-5 11/B-SERVER | Uncontrolled | 1 | NA | NA | 550 | I NA | 0.00   | 0.001 | bnp |  |
|---|-------------------------|----------------------|--------------|---|----|----|-----|------|--------|-------|-----|--|
|   | H10. EVAPORATIVE (      | COOLER SUMMARY       |              |   |    |    | 9   |      | \$v 50 |       |     |  |
|   | This Section Does Not / | Apply                |              |   |    |    |     | 10   |        |       |     |  |
|   |                         |                      |              |   |    |    |     |      |        |       |     |  |

H11. HEAT RECOVERY SUMMARY

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

GRANT - NON-RES.cibd19x

Indoor Lighting NRCI-LTI-01-E - Must be submitted for all buildings

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

This Section Does Not Apply

Input File Name:

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|                           | ections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for<br>cuments bust be retained and provided to the building inspector during construction and can be found online at:<br>a.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/ |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Building Component</b> | Form/Title                                                                                                                                                                                                                                                                                                                                                      |
|                           |                                                                                                                                                                                                                                                                                                                                                                 |
| Envelope                  | NRCI-ENV-01-E - Must be submitted for all buildings                                                                                                                                                                                                                                                                                                             |
| Envelope<br>Mechanical    | NRCI-ENV-01-E - Must be submitted for all buildings  NRCI-MCH-01-E - Must be submitted for all buildings                                                                                                                                                                                                                                                        |

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844 Report Generated at: 2023-03-14 00:03:15

| Project Name:    | 231 Grant                 |        | NRCC-PRF-01-E          | Page 18 of 18 |              |
|------------------|---------------------------|--------|------------------------|---------------|--------------|
| Project Address: | 231 Grant Palo Alto 92251 |        | Calculation Date/Time: | 23:56, Mon, N | lar 13, 2023 |
| Input File Name: | GRANT - NON-RES.cibd19x   |        |                        |               |              |
| Phone:           |                           | Title: | ,                      |               | License #:   |
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Report Version: NRCC-PRF-01-E-12092021-6844

Report Generated at: 2023-03-14 00:03:15

ARCHITECTURE | URBAN DESIGN - SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES MILLENIUM DESIGN PO BOX 737 ALAMO, CA 94507

LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521

**BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: <u>07/27/2023</u>

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



| ID | DATE     | NAME                  |
|----|----------|-----------------------|
| 1  | 11/11/22 | PERMIT SET-CONV       |
| В  | 03/20/23 | BID ADDENDUM          |
| 3  | 05/12/23 | PLAN CHECK RESPONSE 3 |
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# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



TITLE 24 CH. 6 ENERGY REPORT -NONRES PRF-01

JOB #: 1925

# NON\_RES\_ECON-2

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| Project Address 231 Gra<br>Palo Al                                                                                                                                                                                                                                                                                                                     | ant<br>to, CA 92251                                                              |                    |                           | Author Add                                                                                                                                                                                                                    | ress                  | 1090  | 12th Stree<br>, CA 955 | t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |             |      |
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| End Use                                                                                                                                                                                                                                                                                                                                                | Existing \$0                                                                     | Energy Cost        | Savings                   | Existing                                                                                                                                                                                                                      | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ssil Fuel    |             |      |
| End Use<br>Space Heating                                                                                                                                                                                                                                                                                                                               | Existing<br>\$0                                                                  |                    |                           | Existing<br>18,974                                                                                                                                                                                                            | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro        |             |      |
| End Use Space Heating Space Cooling                                                                                                                                                                                                                                                                                                                    | Existing<br>\$0<br>\$0                                                           |                    |                           | 18,974<br>5,224                                                                                                                                                                                                               | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro        |             |      |
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| End Use Space Heating Space Cooling Fans Pumps                                                                                                                                                                                                                                                                                                         | \$0<br>\$0<br>\$0<br>\$0<br>\$0                                                  |                    |                           | 18,974<br>5,224<br>6,561                                                                                                                                                                                                      | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impre        |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water                                                                                                                                                                                                                                                                                      | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0                                    |                    |                           | 18,974<br>5,224<br>6,561<br>0<br>862                                                                                                                                                                                          | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impre        |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting                                                                                                                                                                                                                                                                      | \$0<br>\$0<br>\$0<br>\$0<br>\$0                                                  |                    |                           | 18,974<br>5,224<br>6,561                                                                                                                                                                                                      | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impre        |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting                                                                                                                                                                                                                                                     | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0                      |                    |                           | 18,974<br>5,224<br>6,561<br>0<br>862<br>16,019                                                                                                                                                                                | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impre        |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads                                                                                                                                                                                                                                          | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0                      |                    |                           | 18,974<br>5,224<br>6,561<br>0<br>862<br>16,019                                                                                                                                                                                | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impre        |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process                                                                                                                                                                                                                       | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0               |                    |                           | 862<br>16,019<br>0<br>50,100<br>99                                                                                                                                                                                            | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impre        |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary                                                                                                                                                                                                             | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0                      |                    |                           | 862<br>16,019<br>0<br>50,100                                                                                                                                                                                                  | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro<br>  0 |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery                                                                                                                                                                                        | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0        |                    |                           | Existing 18,974 5,224 6,561 0 862 16,019 0 50,100 99 36,182                                                                                                                                                                   | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro<br>  0 |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary                                                                                                                                                                                                             | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0        |                    |                           | Existing 18,974 5,224 6,561 0 862 16,019 0 50,100 99 36,182                                                                                                                                                                   | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro<br>  0 |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery TOTAL                                                                                                                                                                                  | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0 |                    |                           | Existing 18,974 5,224 6,561 0 862 16,019 0 50,100 99 36,182                                                                                                                                                                   | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro<br>  0 |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery TOTAL                                                                                                                                                                                  | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$                           | Improved           | Savings                   | Existing 18,974 5,224 6,561 0 862 16,019 0 50,100 99 36,182 0 134,022                                                                                                                                                         | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro   0    |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery                                                                                                                                                                                        | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0 | Improved           | Savings                   | Existing  18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022                                                                                                                                             | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro   0    |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year)                                                                                                                                                         | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$                           | Improved           | Savings                   | ### Existing  18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zo Electric Ra                                                                                                                | Improved              |       | ngs                    | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro   0    |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year) Electricity Fossil Fuel                                                                                                                                 | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$                           | Improved           | Savings                   | ### 18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zo  Electric Ra  Gas Rate: Floor Area                                                                                                   | Improved              |       |                        | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro   0    |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery TOTAL  CO2 (metric tons/year) Electricity Fossil Fuel                                                                                                                                  | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$                           | Improved           | Savings                   | ### 18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zo  Electric Ra  Gas Rate:                                                                                                              | Improved              |       |                        | 7,03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Impro   0    |             | sav  |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery TOTAL  CO2 (metric tons/year) Electricity Fossil Fuel TOTAL  Average Demand (kW)                                                                                                       | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$                           | Improved           | Savings                   | ### 18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zo  Electric Ra  Gas Rate: Floor Area                                                                                                   | Improved              |       |                        | 7,03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Impro   0    |             |      |
| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year) Electricity Fossil Fuel TOTAL  Average Demand (kW) TDV Energy (kBtu/ft²-yr)                                                                             | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$                           | Improved           | Savings                   | ### 18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zo Electric Ra Gas Rate: Floor Area Type:                                                                                               | Improved              | Savi  | N                      | Existing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impro   0    | oved \$     | Sav  |
| End Use  Space Heating  Space Cooling  Fans  Pumps  Domestic Hot Water  Indoor Lighting  Outdoor Lighting  Plug Loads  Appliances/Process  Ancillary  Photovoltaic+Battery  TOTAL  CO2 (metric tons/year)  Electricity  Fossil Fuel  TOTAL  Average Demand (kW)  TDV Energy (kBtu/ft²-yr)  The estimated operating cos  Equally important is the there | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$                           | Improved  Improved | Savings  Savings  Savings | ### Existing ### 18,974 ### 5,224 ### 6,561 ### 0 ### 862 ### 16,019 ### 0 ### 50,100 ### 99 ### 36,182 ### 0 ### 134,022  Climate Zo ### Electric Ra ### Gas Rate: ### Floor Area Type:  ################################### | Improved  one: ate: : | Savi  | A on features          | 7,03-donresidentia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Impro   0    | re imports  | ant. |
| End Use  Space Heating  Space Cooling  Fans  Pumps  Domestic Hot Water  Indoor Lighting  Outdoor Lighting  Plug Loads  Appliances/Process  Ancillary  Photovoltaic+Battery  TOTAL  CO2 (metric tons/year)  Electricity  Fossil Fuel  TOTAL  Average Demand (kW)  TDV Energy (kBtu/ft²-yr)  The estimated operating cos                                 | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$                           | Improved  Improved | Savings  Savings  Savings | ### Existing ### 18,974 ### 5,224 ### 6,561 ### 0 ### 862 ### 16,019 ### 0 ### 50,100 ### 99 ### 36,182 ### 0 ### 134,022  Climate Zo ### Electric Ra ### Gas Rate: ### Floor Area Type:  ################################### | Improved  one: ate: : | Savi  | A on features          | 7,03-donresidentia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Impro   0    | re imports  | ant. |

# RES\_ECON-2

| Project Name 231 Gr                                                                                                                                                                                                                                                                                    |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Project Address 231 Gr<br>Palo A                                                                                                                                                                                                                                                                       | to, CA 92251                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Recommended<br>Improvements                                                                                                                                                                                                                                                                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Descripti                 |                                                                                                                                                      | Annua            |                                                           | Saving         | gs<br>TDV | Recommended<br>Improvements                                                                                                                                                                                                                                                                                                                                                          |                                                                    | Descript                  | tion                                                                                                                                                            |                                                       | Annual<br>Savings      | Est. Cost to<br>Install                                       | Savings<br>Site TDV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| improvements                                                                                                                                                                                                                                                                                           |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Descripti                 | on .                                                                                                                                                 | Saving           | s ilistali                                                | Site           |           | miprovenienie                                                                                                                                                                                                                                                                                                                                                                        |                                                                    | Doorne                    |                                                                                                                                                                 |                                                       | - Curingo              | - Inotali                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Annual Results                                                                                                                                                                                                                                                                                         |                                                                                               | Energy Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ł I                       | Electricity (                                                                                                                                        | kWh)             | Fossil Fu                                                 | uel (therms)   |           | Annual Results                                                                                                                                                                                                                                                                                                                                                                       | Energy Cost                                                        |                           | - 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| nd Use                                                                                                                                                                                                                                                                                                 | r.o                                                                                           | Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| End Use<br>Space Heating                                                                                                                                                                                                                                                                               | \$0                                                                                           | Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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                                                                                                   | Existing Improved                                                  |                           | Existing<br>17,274                                                                                                                                              |                                                       | js E                   |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| End Use Space Heating Space Cooling                                                                                                                                                                                                                                                                    | \$0<br>\$0                                                                                    | Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Existing Improve<br>18,974<br>5,224                                                                                                                  |                  |                                                           |                | ings      | End Use Space Heating Space Cooling                                                                                                                                                                                                                                                                                                                                                  | Existing Improved                                                  |                           | Existing                                                                                                                                                        |                                                       | js E                   |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use<br>Space Heating<br>Space Cooling<br>Fans                                                                                                                                                                                                                                                      | \$0                                                                                           | Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Existing Improve                                                                                                                                     |                  |                                                           |                | ings      | End Use<br>Space Heating                                                                                                                                                                                                                                                                                                                                                             | Existing Improved \$0 \$0                                          |                           | 17,274<br>15,040                                                                                                                                                |                                                       | js E:                  |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps                                                                                                                                                                                                                                                         | \$0<br>\$0<br>\$0                                                                             | Improved  O  O  O  O  O  O  O  O  O  O  O  O  O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | Existing Improve<br>18,974<br>5,224<br>6,561                                                                                                         |                  |                                                           |                | ings      | End Use Space Heating Space Cooling Fans                                                                                                                                                                                                                                                                                                                                             | \$0   Improved<br>\$0   \$0<br>\$0   \$0<br>\$0   \$0<br>\$0   \$0 |                           | 17,274<br>15,040                                                                                                                                                |                                                       | js E:                  |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water                                                                                                                                                                                                                                      | \$0<br>\$0<br>\$0<br>\$0<br>\$0                                                               | Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Existing Improve 18,974 5,224 6,561 0                                                                                                                |                  |                                                           |                | ings      | End Use Space Heating Space Cooling Fans Pumps                                                                                                                                                                                                                                                                                                                                       | \$0   S0   S0   S0   S0   S0   S0   S0                             |                           | 17,274<br>15,040<br>1,928                                                                                                                                       |                                                       | js Ex                  |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting                                                                                                                                                                                                                      | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0                                                 | Improved    Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | Existing Improve  18,974  5,224  6,561  0  862  16,019  0                                                                                            |                  |                                                           |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water                                                                                                                                                                                                                                                                                                                    | \$0   S0   S0   S0   S0   S0   S0   S0                             |                           | 17,274<br>15,040<br>1,928<br>0<br>57,002                                                                                                                        |                                                       | js E:                  | xisting   Impr 0   0   0   0   0   0   0   0   0   0          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads                                                                                                                                                                                          | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0                                   | Improved    Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | Existing Improve 18,974 5,224 6,561 0 862 16,019 0 50,100                                                                                            |                  |                                                           |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads                                                                                                                                                                                                                                                                        | Existing   Improved                                                |                           | 17,274<br>15,040<br>1,928<br>0<br>57,002<br>0<br>147,246                                                                                                        |                                                       | js E:                  | xisting   Impr                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Dutdoor Lighting Plug Loads Appliances/Process                                                                                                                                                                       | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0                            | Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Existing Improve  18,974  5,224  6,561  0  862  16,019  0  50,100  99                                                                                |                  |                                                           |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process                                                                                                                                                                                                                                                     | \$0   S0   S0   S0   S0   S0   S0   S0                             |                           | Existing 17,274 15,040 1,928 0 57,002 0 147,246 83,756                                                                                                          |                                                       | js E:                  | xisting   Impr 0   0   0   0   0   0   0   0   0   0          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Dutdoor Lighting Plug Loads Appliances/Process Ancillary                                                                                                                                                             | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved    Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | Existing Improve 18,974 5,224 6,561 0 862 16,019 0 50,100                                                                                            |                  |                                                           |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary                                                                                                                                                                                                                                           | \$0   So   So   So   So   So   So   So   S                         |                           | 17,274<br>15,040<br>1,928<br>0<br>57,002<br>0<br>147,246                                                                                                        |                                                       | js E:                  | xisting   Impr 0   0   0   0   0   0   0   0   0   0          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Dutdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery                                                                                                                                        | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved    Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   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                                                                                                   | \$0   S0   S0   S0   S0   S0   S0   S0                             |                           | Existing 17,274 15,040 1,928 0 57,002 0 147,246 83,756                                                                                                          | Improved Saving                                       | js E:                  | xisting   Impr 0   0   0   0   0   0   0   0   0   0          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Dutdoor Lighting Plug Loads Appliances/Process Ancillary                                                                                                                                                             | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved    Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   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                                                                                                   | Improved   SO   SO   SO   SO   SO   SO   SO   S                    |                           | Existing 17,274 15,040 1,928 0 57,002 0 147,246 83,756 23,044 0                                                                                                 | Improved Saving                                       | js E:                  | xisting   Impr 0   0   0   0   0   0   0   0   0   0          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery TOTAL                                                                                                                                  | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved  Improved  Improved  Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | Existing Improve 18,974 5,224 6,561 0 862 16,019 0 50,100 99 36,182 0                                                                                |                  |                                                           |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery TOTAL CO2 (metric tons/year)                                                                                                                                                                                         | Existing   Improved                                                |                           | ### Existing ### 17,274 ### 15,040 ### 15,040 ### 15,040 ### 57,002 ### 0 ### 147,246 ### 83,756 ### 23,044 ### 0 ### 345,290  Climate Zo                       | Improved Saving                                       | js Ex                  | xisting   Impr 0   0   0   0   0   0   0   0   0   0          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Dutdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery TOTAL CO2 (metric tons/year)                                                                                                           | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved    Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   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Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved   Improved | Savings                   | Existing Improve  18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022                                                            |                  |                                                           |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year)                                                                                                                                                                                       | Signature   Improved                                               | Savings                   | ### Existing ### 17,274 ### 15,040 ### 15,040 ### 15,040 ### 17,028 ### 0 ### 147,246 ### 83,756 ### 23,044 ### 0 ### 345,290  Climate Zo Electric Ra           | Improved Saving                                       | js Ex                  | xisting   Impr 0   0   0   0   0   0   0   0   0   0          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Dutdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year)                                                                                                         | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved  Improved  Improved  Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Savings                   | Existing Improve  18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zone:                                            |                  | Existing   Imp 0   0   0   0   0   0   0   0   0   0      |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year) Electricity Fossil Fuel                                                                                                                                                               | Signature   Improved                                               | Savings                   | ### Existing ### 17,274 ### 15,040 ### 15,040 ### 15,040 ### 17,028 ### 0 ### 147,246 ### 83,756 ### 23,044 ### 0 ### 345,290  Climate Zo Electric Ra Gas Rate: | Improved Saving                                       | js E:                  | xisting   Impr 0   0   0   0   0   0   0   0   0   0          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Dutdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year)                                                                                                         | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved  Improved  Improved  Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Savings                   | Existing Improve  18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zone: Electric Rate:                             | d Savings        | Existing   Imp                                            |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year)                                                                                                                                                                                       | Signature   Improved                                               | Savings                   | 17,274 15,040 1,928 0 57,002 0 147,246 83,756 23,044 0 345,290  Climate Zo Electric Ra Gas Rate: Floor Area                                                     | Improved Saving                                       |                        | xisting   Impr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 4          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CO <sub>2</sub> (metric tons/year) Electricity Fossil Fuel                                                                                                                                                                                                                                             | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved  Improved  Improved  Improved  Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Savings                   | Existing Improve  18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zone: Electric Rate: Gas Rate:                   | d Savings        | Existing   Imp 0   0   0   0   0   0   0   0   0   0      |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year) Electricity Fossil Fuel                                                                                                                                                               | Existing   Improved                                                | Savings                   | ### Existing ### 17,274 ### 15,040 ### 15,040 ### 15,040 ### 17,028 ### 0 ### 147,246 ### 83,756 ### 23,044 ### 0 ### 345,290  Climate Zo Electric Ra Gas Rate: | Improved Saving                                       |                        | xisting   Impr 0   0   0   0   0   0   0   0   0   0          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery TOTAL CO2 (metric tons/year) Electricity Fossil Fuel                                                                                   | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved  Improved  Improved  Improved  Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Savings                   | Existing Improve  18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zone: Electric Rate: Gas Rate: Floor Area:       | d Savings        | Existing   Imp                                            |                | ings      | End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year) Electricity Fossil Fuel  TOTAL  Average Demand (kW)                                                                                                                                   | Signature   Improved                                               | Savings                   | 17,274 15,040 1,928 0 57,002 0 147,246 83,756 23,044 0 345,290  Climate Zo Electric Ra Gas Rate: Floor Area                                                     | Improved Saving                                       |                        | xisting   Impr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 4          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery  TOTAL  CO2 (metric tons/year) Electricity Fossil Fuel                                                                                 | \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | Improved  Improved  Improved  Improved  Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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                                                                                                   | Existing   Improved                                                | Savings                   | 17,274 15,040 1,928 0 57,002 0 147,246 83,756 23,044 0 345,290  Climate Zo Electric Ra Gas Rate: Floor Area                                                     | Improved Saving                                       |                        | xisting   Impr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 4          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| End Use Space Heating Space Cooling Fans Pumps Domestic Hot Water Indoor Lighting Outdoor Lighting Plug Loads Appliances/Process Ancillary Photovoltaic+Battery TOTAL  CO2 (metric tons/year) Electricity Fossil Fuel TOTAL  Average Demand (kW) TDV Energy (kBtu/ft²-yr) The estimated operating cost | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$                                        | Improved  Improved  Improved  Improved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Savings  Savings  Savings | Existing Improve  18,974  5,224  6,561  0  862  16,019  0  50,100  99  36,182  0  134,022   Climate Zone: Electric Rate: Gas Rate: Floor Area: Type: | No.              | Existing Imp  0  0  0  0  0  0  0  0  0  0  0  0  8  0  0 | are important. |           | End Use  Space Heating  Space Cooling  Fans  Pumps  Domestic Hot Water  Indoor Lighting  Outdoor Lighting  Plug Loads  Appliances/Process  Ancillary  Photovoltaic+Battery  TOTAL  CO2 (metric tons/year)  Electricity  Fossil Fuel  TOTAL  Average Demand (kW)  TDV Energy (kBtu/ft²-yr)  The estimated operating cos Equally important is the therr provided in this report are ba | Existing   Improved                                                | Savings  Savings  Savings | ## Existing                                                                                                                                                     | Improved Saving  one:  ate:  cuction and conservation | High<br>features of th | xisting   Impr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 thrise Res | are important.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

VAN METER WILLIAMS

ARCHITECTURE | URBAN DESIGN - SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

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MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521

PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242

BY: M. O'Brien Date: <u>07/27/2023</u>

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| ID | DATE     | NAME            |
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| 1  | 11/11/22 | PERMIT SET-CONV |
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# EDUCATOR HOUSING 231 GRANT AVENUE



TITLE 24 CH. 6 ENERGY REPORT -ECON-2

JOB #: 1925 SCALE:

A0.47

10 March 2023

Maegan Pearson and Kelly Hollywood 231 Grant Avenue, LP 1149 S. Hill Street, Suite 700 Los Angeles, CA 90015 mpearson@abodecommunities.org kelly.hollywood@mercyhousing.org

Subject: 231 Grant Avenue **Environmental Noise Study** Salter Project 21-0404

Dear Elaine:

We have conducted an environmental noise study for the project. The purpose of the study is to determine the noise environment at the site, compare the measured data with applicable standards, and propose mitigation measures as necessary. This report summarizes the results.

### PROJECT CRITERIA

### State Noise Standards

The 2019 California Building Code requires that the indoor noise level in residential units of multi-family projects not exceed DNL<sup>1</sup> 45 dB.

### City Noise Standard

The City of Palo Alto considers outdoor noise levels in residential locations of DNL 60 dB and below to be "normally acceptable". DNL between 60 and 75 dB are considered "conditionally acceptable", meaning that noise reduction features need to be included in the design.

1 DNL (Day-Night Average Sound Level) – A descriptor for a 24-hour A-weighted average noise level. DNL accounts for the increased acoustical sensitivity of people to noise during the nighttime hours. DNL penalizes sound levels by 10 dB during the hours from 10 PM to 7 AM. For practical purposes, the DNL and CNEL are usually interchangeable. DNL is sometimes

12 June 2023

Elaine Uang

Dear Elaine:

Van Meter Williams Pollack LLP

Subject: 231 Grant Avenue

Salter Project 21-0404

Review of Project Documents for Code Compliance

of the 2019 California Building Code. This letter summarizes our analysis.

2. Party floor-ceiling assemblies must achieve a minimum STC rating of 50.

3. Party floor-ceiling assemblies must achieve a minimum IIC<sup>2</sup> rating of 50.

5. Dwelling unit entry doors should be tight fitting to the frame and sill.

requirements for sound isolation at multi-family housing projects.

1. Party walls must achieve a minimum STC<sup>1</sup> rating of 50.

As requested, we reviewed the project documents to show conformance with Section 1207.4 of the

California Building Code. We have found the project documents to be in compliance with these provisions

The 2019 State of California Building Code Supplement (Title 24, Part 2, Vol.1, Section 1207) has several

4. Walls separating residences from corridors or other public spaces need to achieve a minimum STC

6. Interior noise levels attributable to exterior sources must not exceed DNL<sup>3</sup> 45 dB in any habitable

a partition under laboratory conditions. Increasing STC ratings correspond to improved airborne sound insulation.

AM. For practical purposes, the DNL and CNEL are usually interchangeable. DNL is sometimes written as Ldn.

STC (Sound Transmission Class) – A single-number rating defined in ASTM E90 that quantifies the airborne sound insulating performance of

IIC (Impact Insulation Class) – A single-number rating defined in ASTM E492 that quantifies the impact sound insulating performance of a floor ceiling assembly under laboratory conditions. This relates to footfall-generated noise reduction. Increasing IIC ratings correspond to

DNL (Day-Night Average Sound Level) – A descriptor for a 24-hour A-weighted average noise level. DNL accounts for the increased acoustical sensitivity of people to noise during the nighttime hours. DNL penalizes sound levels by 10 dB during the hours from 10 PM to 7

<u>,.....</u>

333 Bryant Street Suite 300

San Francisco, CA, 94107

elaine@vmwp.com

rating of 50.

San Francisco | San Jose | Los Angeles | Honolulu | Seattle



231 Grant Avenue **Environmental Noise Study** 10 March 2023

CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTRO

### RECOMMENDATIONS

Using the 16 December 2022 Bid Set, we calculated the STC<sup>4</sup> ratings needed to meet the criteria. Our calculations assume that the flooring is hard surfaced in all rooms.

### Interior Spaces

To meet the indoor DNL 45 dB criterion, it will be necessary for the windows and exterior doors to have STC ratings as shown in Figures 2 and 3.

The recommended STC ratings are for full window assemblies (glass and frame) rather than just the glass itself. Tested sound-rated assemblies should be used. For reference, typical construction-grade assemblies achieve an STC rating of 28.

Where windows need to be closed to achieve an indoor DNL of 45 dB, an alternative method of supplying fresh air (e.g., mechanical ventilation) should be considered. This applies to all of the locations where an STC rating is shown. This issue should be discussed with the project mechanical engineer.

### **Exterior Common Areas**

We calculated expected noise levels at the courtyards. The courtyards will be exposed to noise levels no greater than DNL 60 dB, within the City's goal of less than DNL 60 dB. Therefore, no mitigation is needed.

This concludes our preliminary environmental noise study for the 231 Grant Avenue project. Please feel free to call if you have any questions.

Best,

SALTER

San Francisco | San Jose | Los Angeles | Honolulu | Seattle

Senior Consultant

Senior Vice President

4 STC (Sound Transmission Class) - A single-number rating defined in ASTM E90 that quantifies the airborne sound insulating





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231 Grant Avenue

following policy applies:

project design.

NOISE ENVIRONMENT

10 March 2023

Policy N-6.1



The Palo Alto General Plan interior noise standard are consistent with the State requirement for multi-

• The guideline for maximum outdoor noise levels in residential areas is an Ldn of 60 dB. This level is a

guideline for the design and location of future development and a goal for the reduction of noise in

primarily applied where outdoor use is a major consideration (e.g., backyards in single-family housing

developments, and recreational areas in multiple family housing projects). Where the City determines

existing development. However, 60 Ldn is a guideline which cannot necessarily be reached in all residential areas within the constraints of economic or aesthetic feasibility. This guideline will be

that providing an Ldn of 60 dB or lower outdoors is not feasible, the noise level in outdoor areas

intended for recreational use should be reduced to as close to the standard as feasible through

This Code addresses acoustical issues for non-residential spaces in Section 5.507.4. If a building is

the interior noise environment to  $L_{eq}(h)^2$  of 50 dBA in occupied areas.

 $L_{eq}(h)$  during our measurement period as the basis of design.

levels). The monitors were at a height of 12 feet above grade.

acoustic energy as the time-varying sound level during the same period.

corresponds to a 1 dB increase in DNL over a ten-year period.

levels to account for future traffic increases<sup>3</sup>.

exposed to an exterior  $L_{eq}(h)^2$  of 65 dB during any hour of operation, the building envelope must reduce

We assumed that the hours of operation for the amenity spaces would be 24/7 and used the loudest

The site is in Palo Alto, west of Oregon Expressway, and bounded by Park Boulevard to the north and

Birch Street to the south. The noise environment at the site is predominantly controlled by traffic on

To quantify the existing noise environment, we conducted two long-term noise measurements between 31 August and 2 September 2021 (see Figure 1 for the measurement locations and measured noise

A traffic analysis has not yet been provided for this project. We have added 1 dB to our measured noise

<sup>2</sup> L<sub>eq</sub>(h) – The equivalent steady-state A-weighted sound level that, in a stated period of time, would contain the same

3 The California Department of Transportation (DOT) assumes a traffic volume increase of three-percent per year, which

family housing. Additionally, for residences exposed to periodic transportation activity noise, the

231 GRANT AVENUE MEASUREMENT LOCATIONS AND MEASURED NOISE LEVELS

NOTE: STC RATINGS ARE FOR THE COMPLETE ASSEMBLY (E.G., GLASS, FRAME, AND OPERABLE

231 GRANT AVENUE MINIMUM CODE—REQUIRED STC RATINGS FOR WINDOWS AND EXTERIOR DOORS (FLOOR 1)

NOTE: STC RATINGS ARE FOR THE COMPLETE ASSEMBLY (E.G., GLASS, FRAME, AND OPERABLE

231 GRANT AVENUE

MINIMUM CODE-REQUIRED STC RATINGS FOR WINDOWS AND EXTERIOR DOORS (FLOOR 1)

SECTIONS) BASED ON TEST REPORTS FROM AN NVLAP-ACCREDITED LAB

SECTIONS) BASED ON TEST REPORTS FROM AN NVLAP-ACCREDITED LAB

FIGURE 1 MDH/EBM Salter #

21-0404

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03.10.23

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03.10.23

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FIGURE 2

21-0404

FIGURE 2

21-0404

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CIVIL ENGINEER

**BKF ENGINEERS** 

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JOINT TRENCH / DRY UTILITIES

**MILLENIUM DESIGN** 

ALAMO, CA 94507

LANDSCAPE ARCHITECT

PLURAL STUDIO

STRUCTURAL ENGINEER

PALO ALTO, CA 94306

HOHBACH-LEWIN, INC

250 SHERIDAN AVE STE 100

SAN FRANCISCO, CA 94110

2742 17TH STREET

ENERGY CONSULTANT **REDWOOD ENERGY** 1887 Q STREET ARCATA, CA 95521

**BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: 07/27/2023



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03/20/23 PLAN CHECK RESPONSE 2 05/12/23 PLAN CHECK RESPONSE 3 06/19/23 PLAN CHECK RESPONSE 4

**EDUCATOR HOUSING** 231 GRANT AVENUE

> 231 GRANT AVE PALO ALTO, CA 94306



ABODE COMMUNITIES **ENVIRONMENTAL** NOISE STUDY & **ACOUSTIC REVIEW** 

**LETTER** 

JOB #: 1925 SCALE:

PLAN CHECK REVISION 4 | DATE: 06/19/23

salter-inc.com

12 June 2023

231 Grant Avenue Review of Project Documents for Code Compliance

# **COMPLIANCE REVIEW**

assembly achieves at least IIC 50.

We reviewed the 11 November 2022 Permit/Bid Set (Conventional Build). The following items identify the locations in the project documents where each Code item is addressed.

1. The party wall is show as Wall Type L10/A8.10 (for party walls below the podium) and Wall Type G10/A8.10 (for party walls above the podium). Each assembly consists of an insulated double-stud assembly with at least two total layers of gypsum board. These assemblies achieve at least STC 50.

2. The podium slab separating residences will be at least 11-inches thick as shown on Sheet S2.12A. This

assembly achieves at least STC 50. Above the podium, the party floor-ceiling assembly is shown as Floor-Ceiling Assembly R10/A8.11,

which consists of a 1-inch-thick layer of gypsum concrete with a 1/4-inch-thick acoustical underlayment, insulated wood joists, and two layers of gypsum board supported using resilient channels. This assembly achieves at least STC 50.

3. At residences on the podium slab, at hard-surfaced flooring areas, there will be a 5mm-thick

- acoustical underlayment (equal to Pliteq RST05) beneath the finished floor as noted in Floor-Ceiling Assembly P31 on Sheet A8.11. This assembly achieves at least IIC 50. At residences above the podium slab, at hard-surfaced flooring areas, there will be a 1/4-inch-thick acoustical underlayment (equal to Maxxon Acousti-Mat 1/4 per Specifications Section 03 54 13, Paragraph 2.2.A.1) beneath the gypsum concrete, as noted in Floor-Ceiling Assembly R10/A8.11. This
- 4. Below the podium, the corridor wall is shown as Wall Type K13/A8.10. Wall Type K13 consists of an insulated metal staggered-stud assembly with four total layers of gypsum board and/or shear plywood. This assembly achieves at least STC 50.
- Above the podium, the corridor wall is shown as Wall Type H10/A8.10. Wall Type H10 consists of an insulated wood staggered-stud assembly with at least three total layers of gypsum board and/or shear plywood. This assembly achieves at least STC 50.
- 5. Entry doors from public interior corridors are scheduled to receive gaskets Zero International 111 door shoes and Zero International 188S perimeter seals – per Hardware Group A in Specifications Section 08 71 00 Door Hardware. This gasketing would meet Code.
- 6. Our 27 September 2021 Environmental Noise Study recommended windows with STC ratings up to STC 32. This information is shown correctly on Sheet A0.50.

Fresh air will enter the residences via long lengths of duct attached to intake fans. There are also wall-mounted units that provide heating and cooling (and they each have two 6-inch openings in the exterior wall). These HVAC systems have been accounted for in the determinations of the window STC ratings.

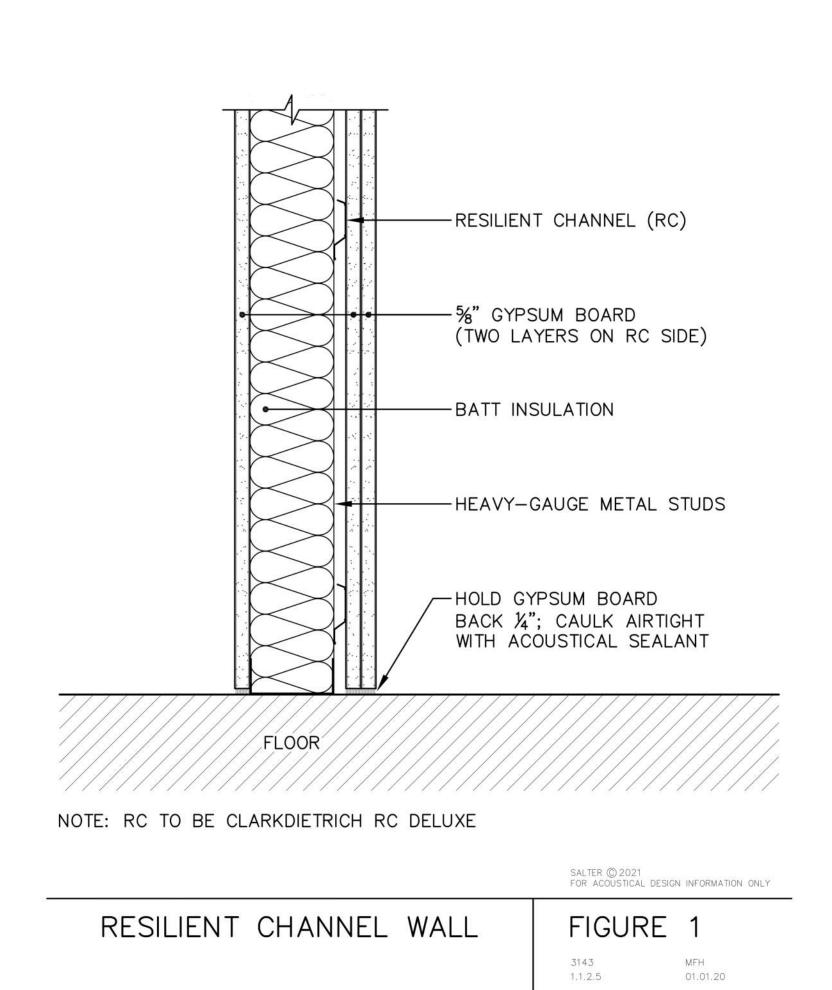
Environmental Noise Study

Audiovisual Telecommunications

231 Grant Avenue Review of Project Documents for Code Compliance 12 June 2023 This concludes our code-compliance review for the 231 Grant Avenue project. Please contact us with any Sincerely, SALTER Adrian L. Lu, PE Senior Consultant

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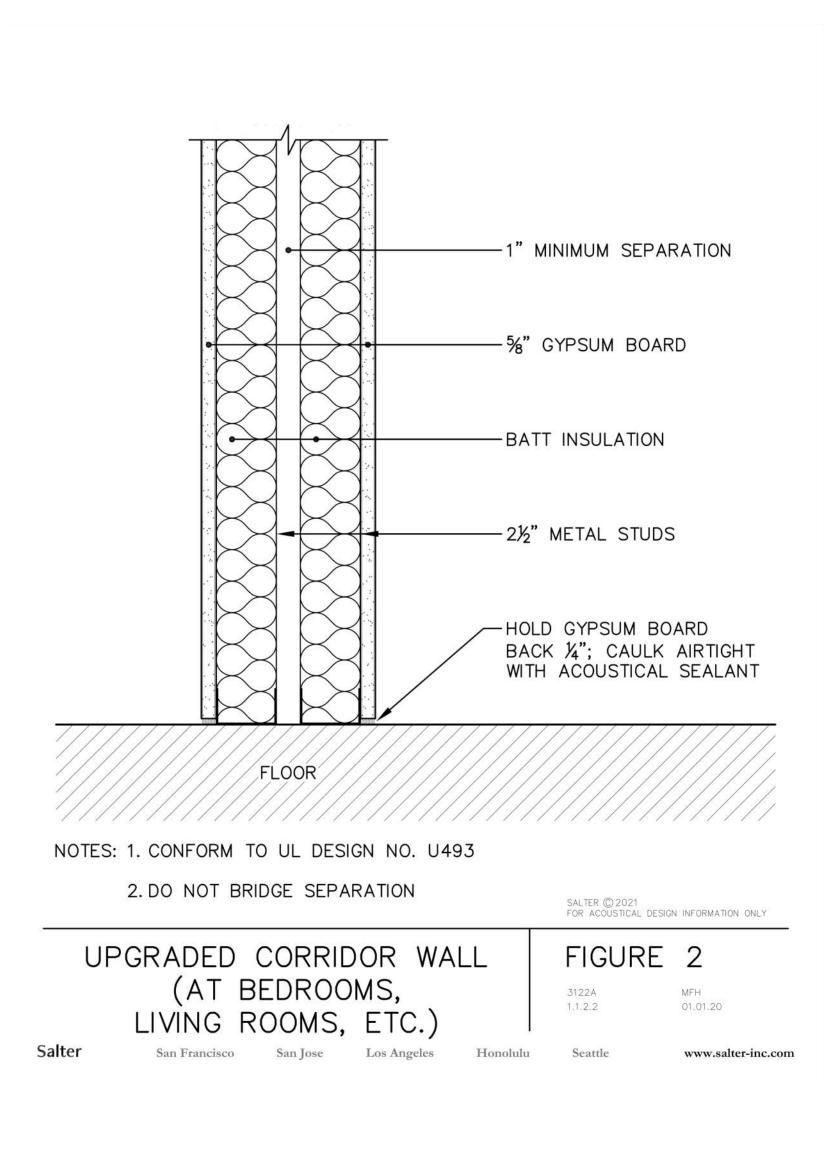
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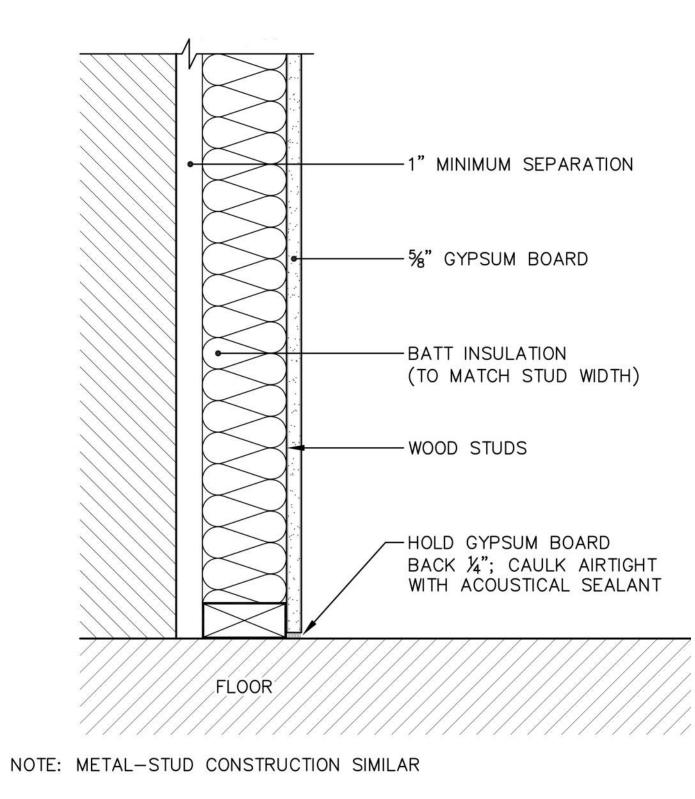


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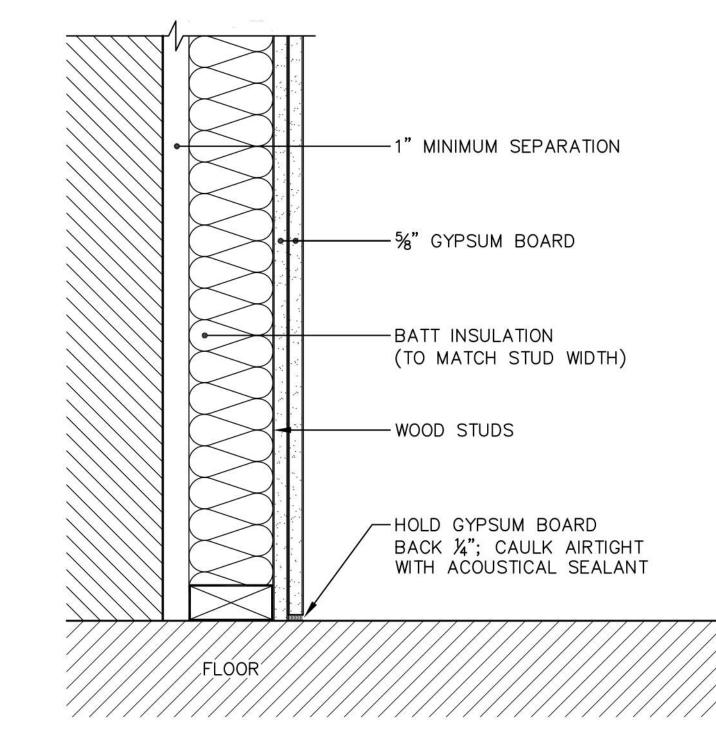
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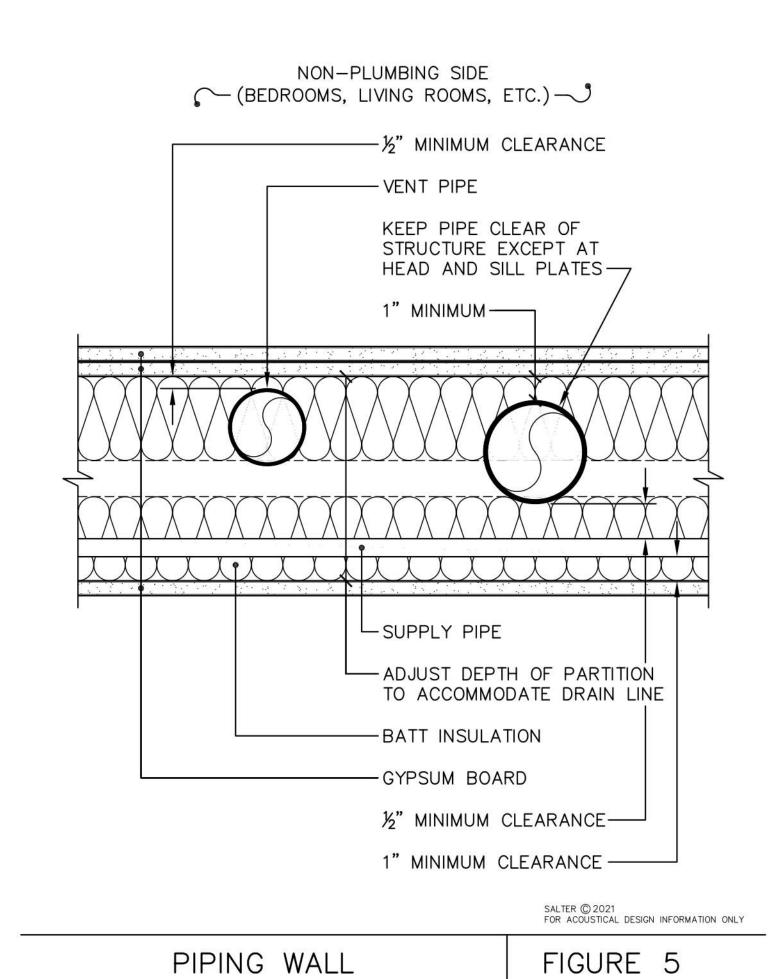
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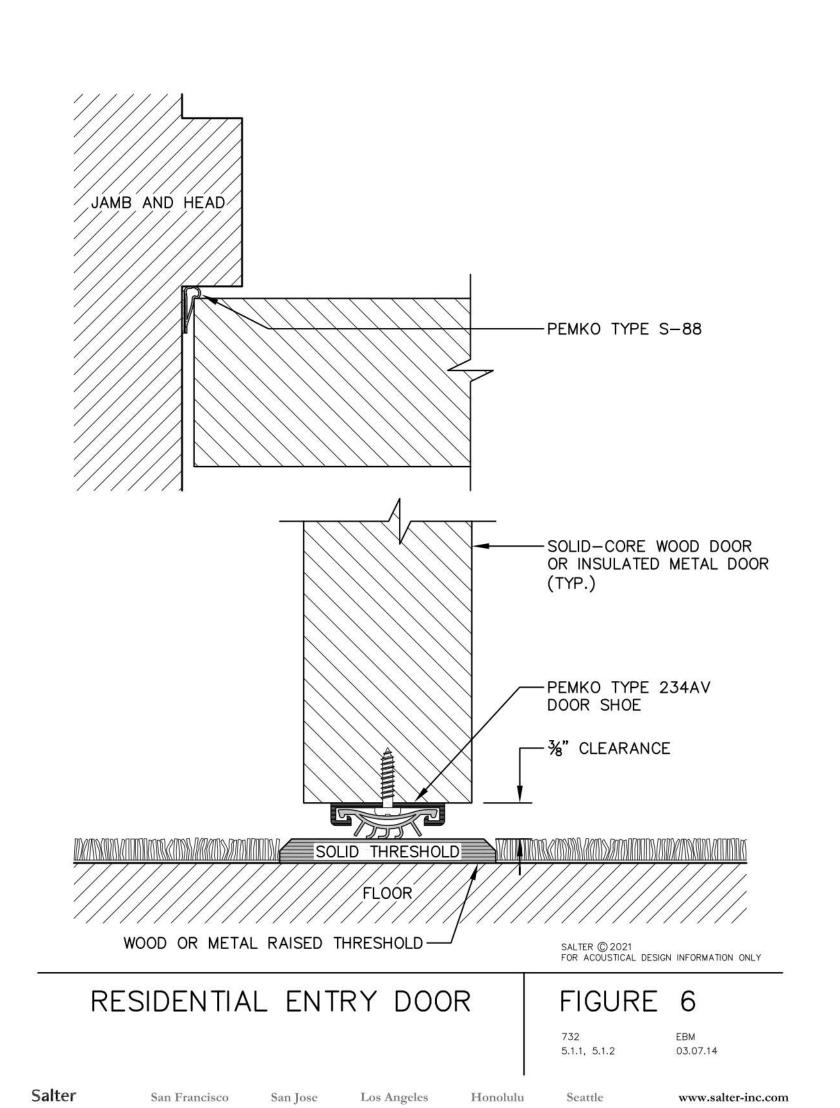
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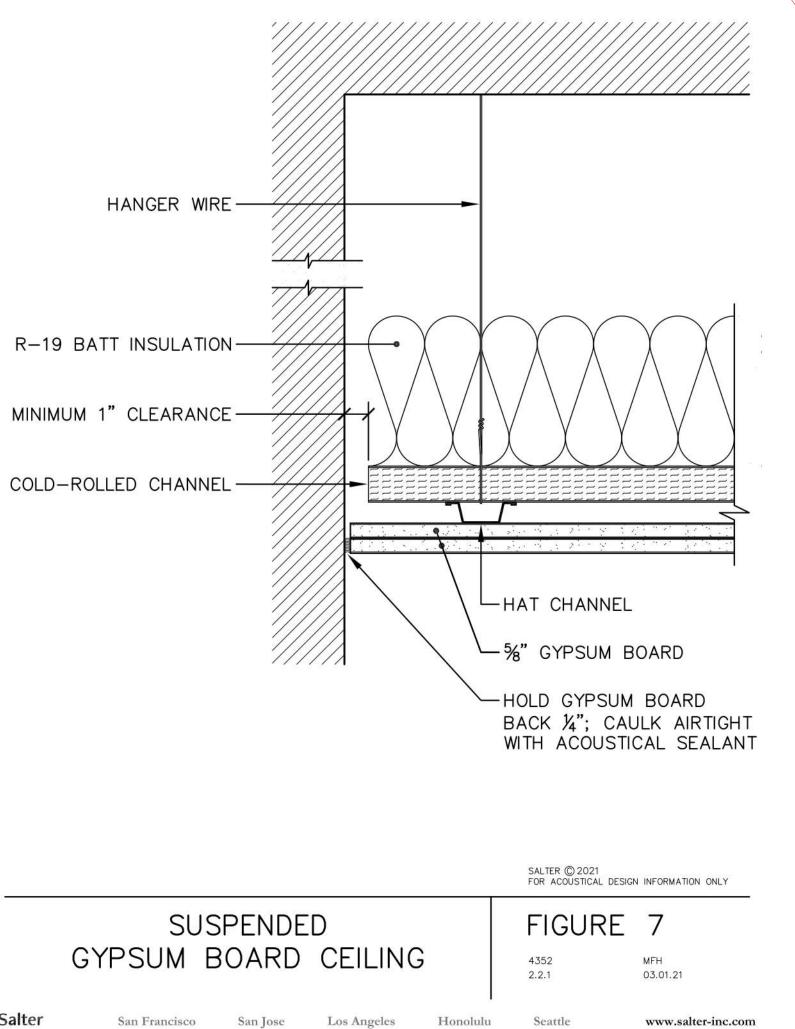
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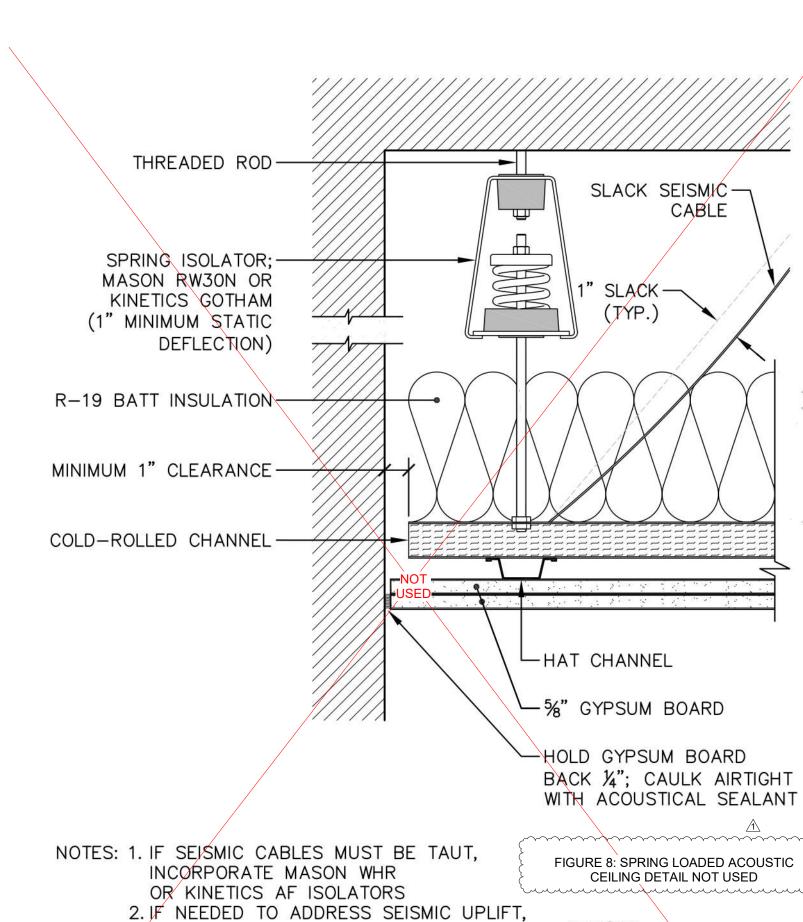
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WIDTH AND CLEARANCES







USE COMPRESSIBLE STRUTS

SPRING-ISOLATED

GYPSUM BOARD CEILING

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FIGURE 8

4372 2.2.1

Honolulu



**EDUCATOR HOUSING** 

231 GRANT AVENUE

**VAN METER** 

**WILLIAMS** 

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CIVIL ENGINEER

PO BOX 737

ALAMO, CA 94507

LANDSCAPE ARCHITECT

SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER

MEP ENGINEER

21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT

1887 Q STREET

ARCATA, CA 95521

RECORD NO.: DEV22-1242

**REDWOOD ENERGY** 

COUNTY OF SANTA CLARA

BUILDING INSPECTION OFFICE

PLANS APPROVED FOR PERMIT

BY: M. O'Brien Date: <u>07/27/2023</u>

FRED B. POLLACK

C23412

O6/30/2023

RENEWAL DATE

OF CALIFO

ID DATE NAME
1 11/11/22 PERMIT SET-CONV

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS

HOHBACH-LEWIN, INC 250 SHERIDAN AVE STÉ 100 PALO ALTO, CA 94306

**EMERALD CITY ENGINEERS** 

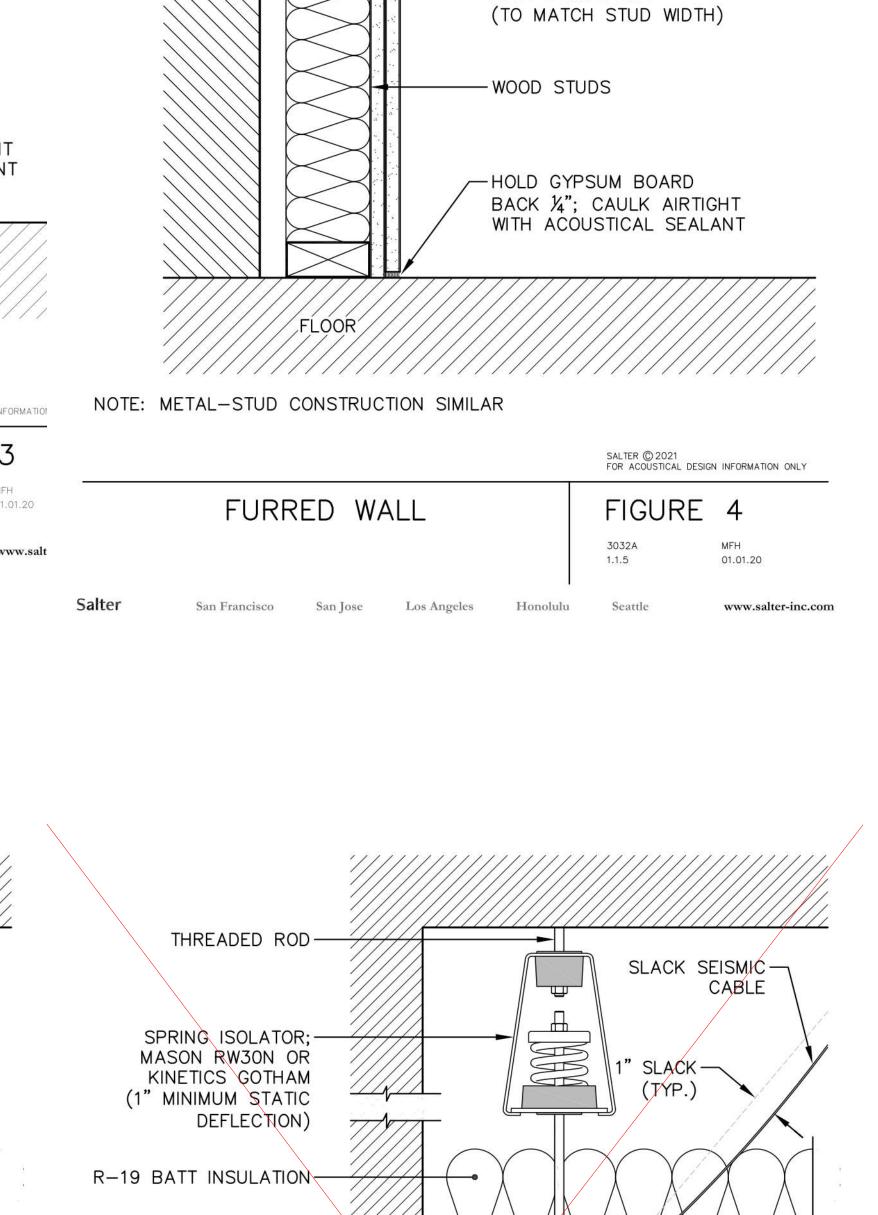
PLURAL STUDIO 2742 17TH STREET

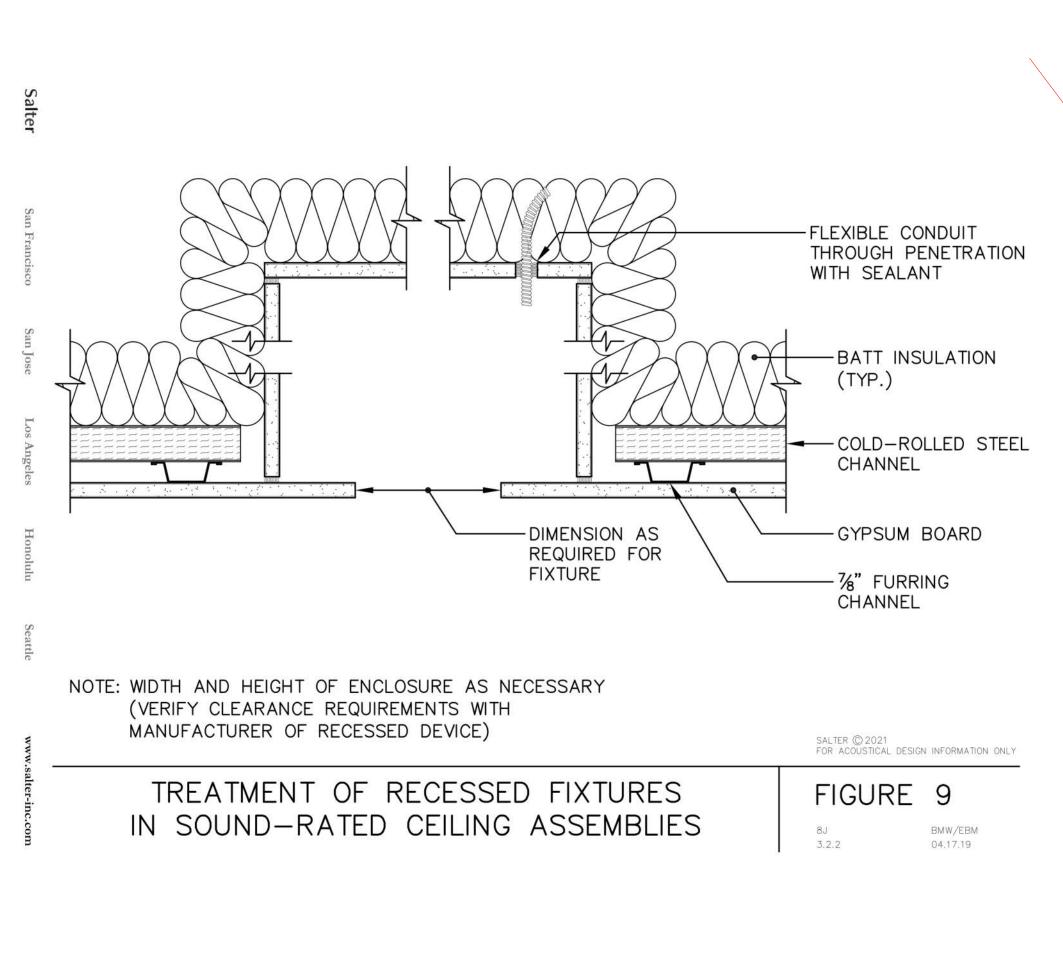
**BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

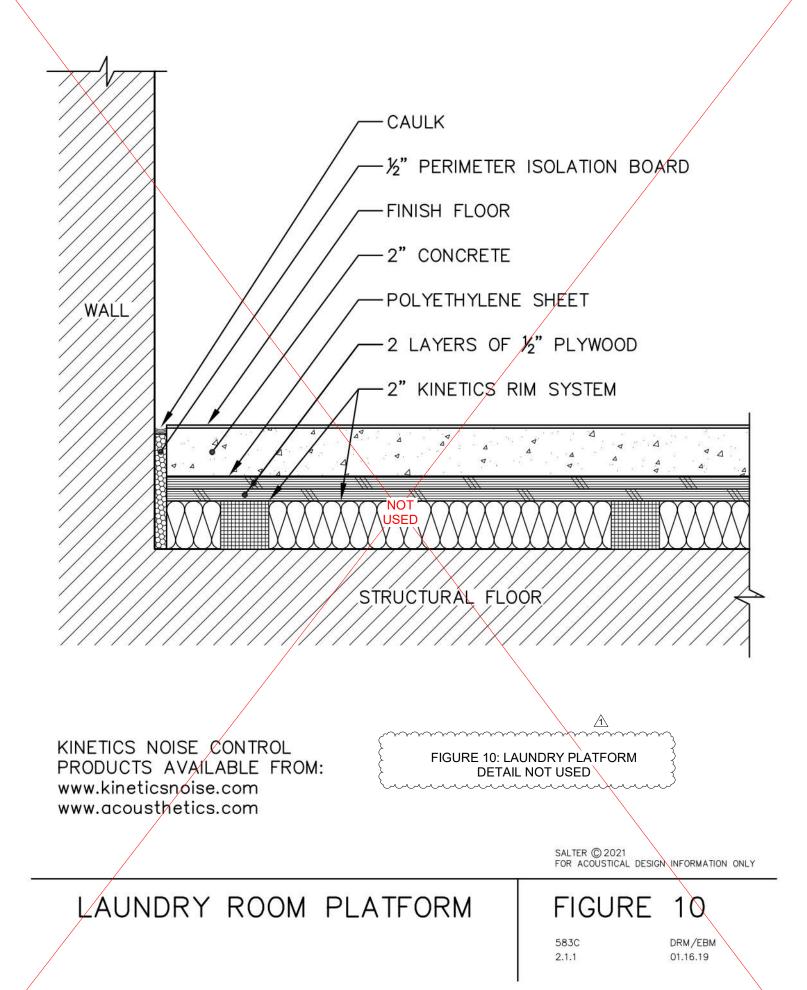
JOINT TRENCH / DRY UTILITIES **MILLENIUM DESIGN** 

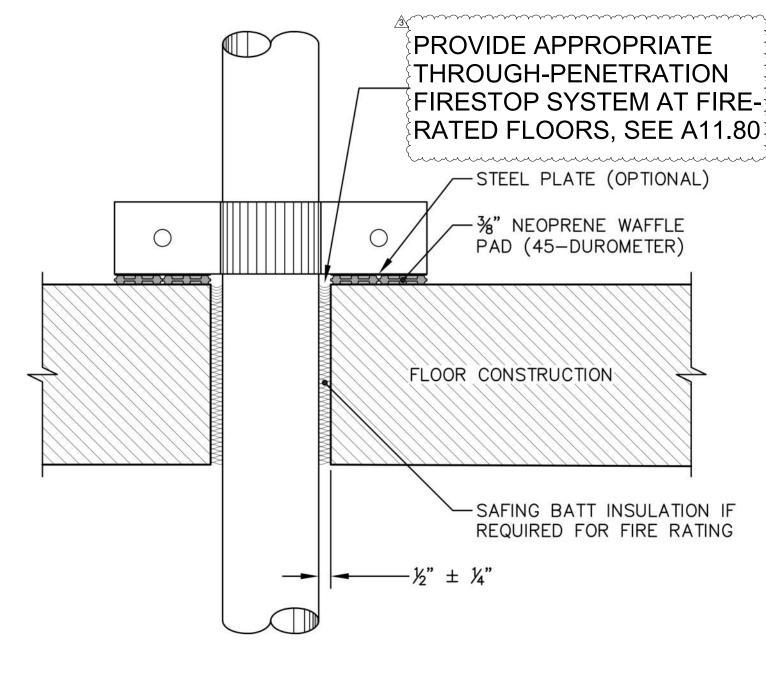
ACOUSTIC DETAILS

JOB #: 1925 SCALE: A0.51









NOTE: IF PIPE IS SUSPENDED FROM-OR DIRECTLY ATTACHED TO-STRUCTURE OR OTHER BUILDING ELEMENTS, USE %" THICK FELT, OR 40-DUROMETER NEOPRENE AS SLEEVE BETWEEN PIPE AND PIPE HANGER

SALTER © 2021 FOR ACOUSTICAL DESIGN INFORMATION ONLY PIPE RISER ISOLATION FIGURE 11 3.1.1, 8.3 03.14.17

TYPICAL DUCT, PIPE, OR CONDUIT PENETRATION THROUGH SOUND-RATED CONSTRUCTION

3.1.1, 3.1.2, 3.1.3 03.14.17

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PROVIDE APPROPRIATE THROUGH-PENETRATION FIRESTOP SYSTEM AT FIRE-RATED WALLS, SEE A11.80 一½"± ¼" - ACOUSTICAL SEALANT (TYP.) -FOAM BACKER ROD SAFING BATT INSULATION

(DUCT, PIPE, OR CONDUIT 3" DIAMETER OR GREATER)

NOTE: APPLICABLE AT ALL SOUND-RATED CONSTRUCTION INCLUDING INTERIOR INSULATED ASSEMBLIES

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FIGURE 12

**BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: 07/27/2023 HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS

**VAN METER** 

**WILLIAMS** 

POLLACK #

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**REDWOOD ENERGY** 

HOHBACH-LEWIN, INC

250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

**EMERALD CITY ENGINEERS** 

PLURAL STUDIO

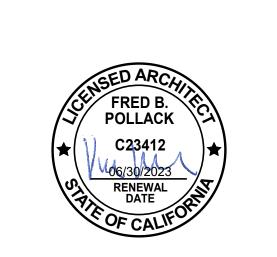
2742 17TH STREET

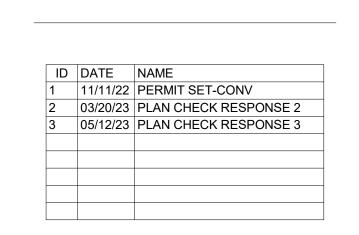
**BKF ENGINEERS** 

SAN JOSE, CA 95112

1730 N. FIRST ST SUITE 600

JOINT TRENCH / DRY UTILITIES **MILLENIUM DESIGN** 





**EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE

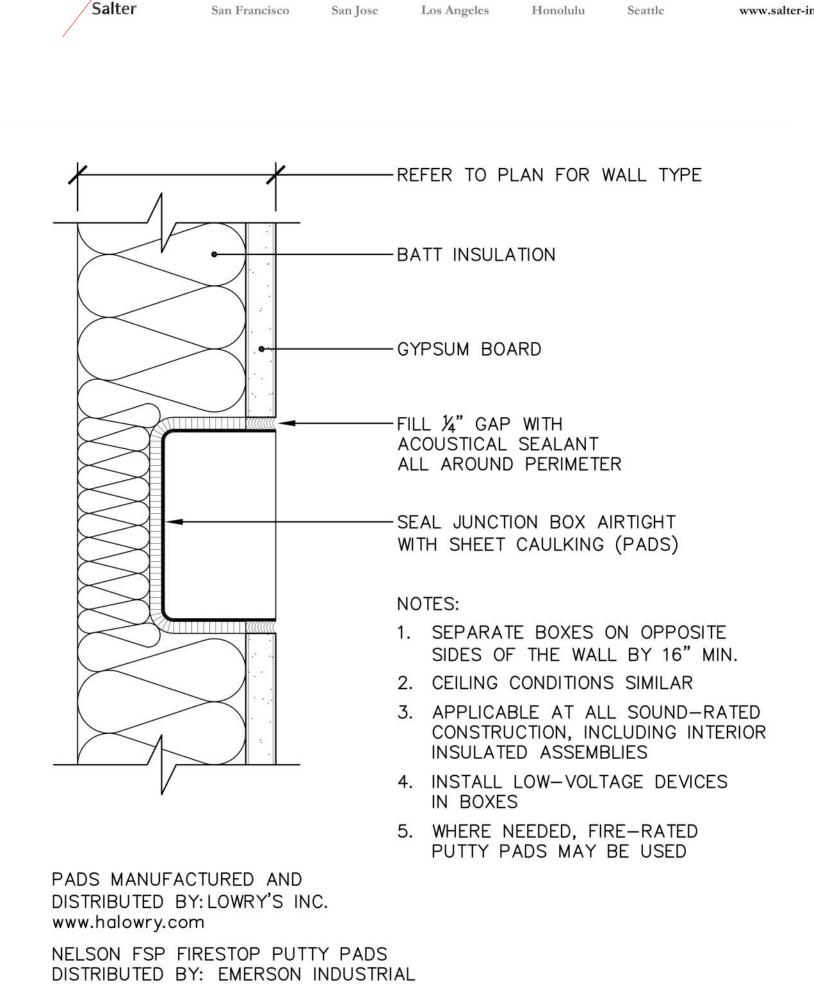
PALO ALTO, CA 94306

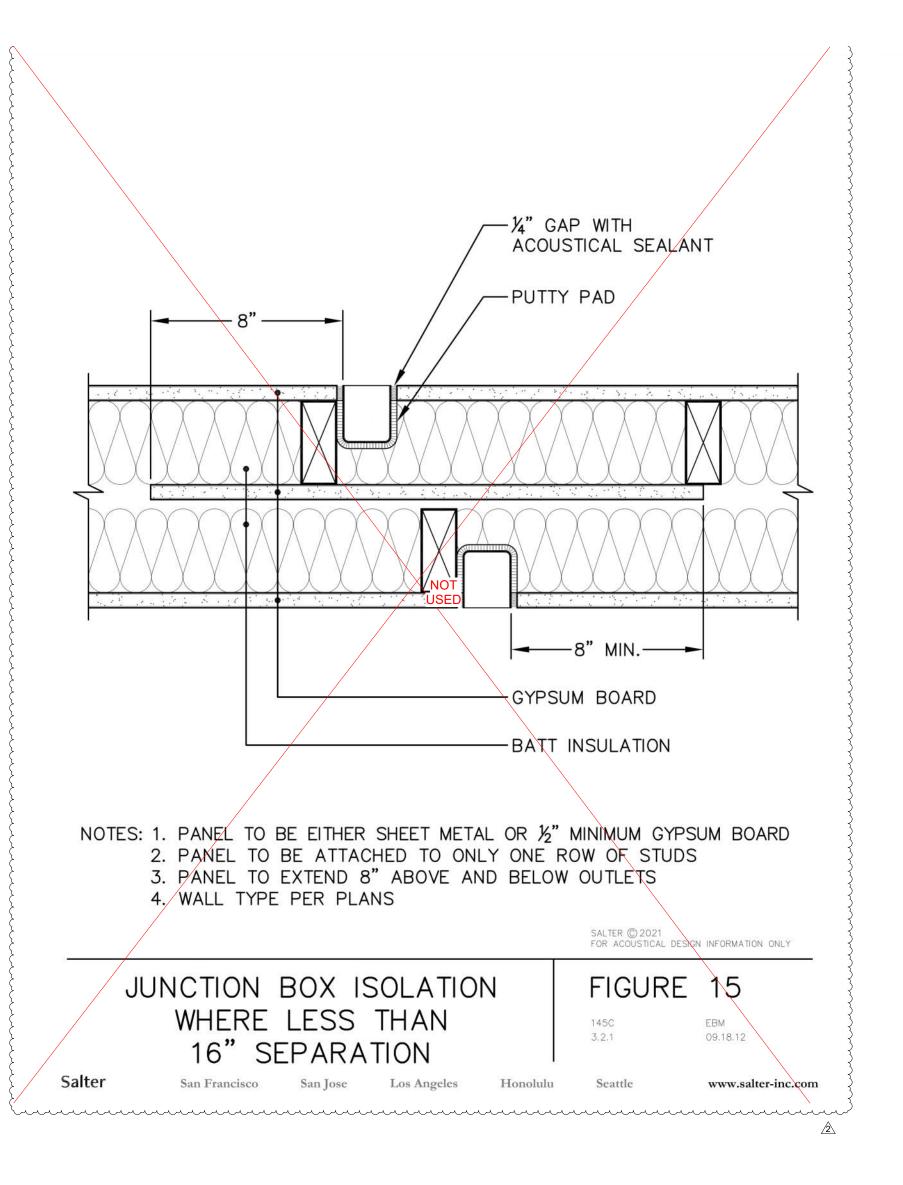


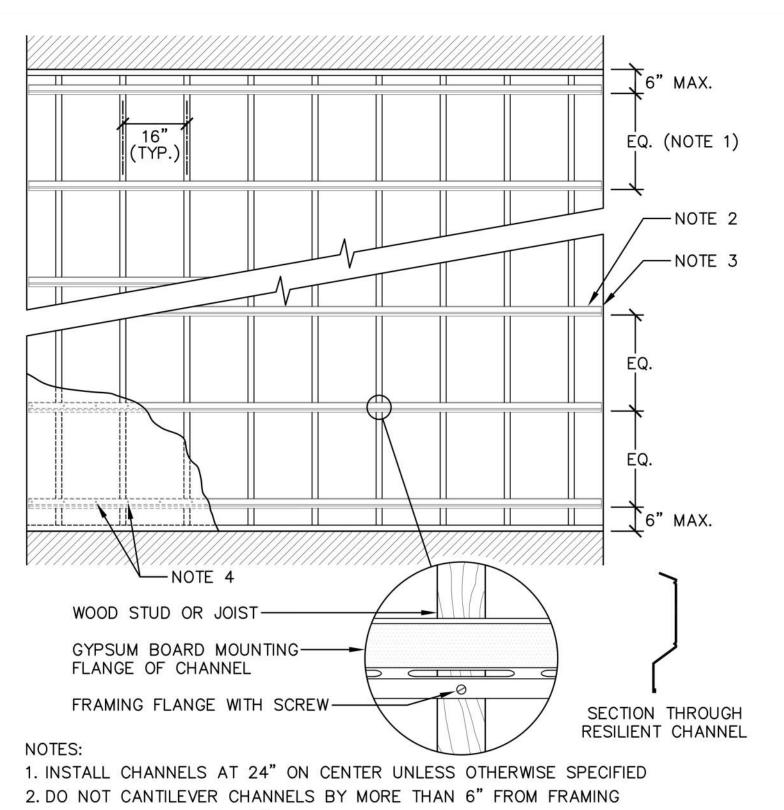
**ACOUSTIC DETAILS** 

JOB #: 1925 A0.52

PLAN CHECK REVISION 4 | DATE: 06/19/23







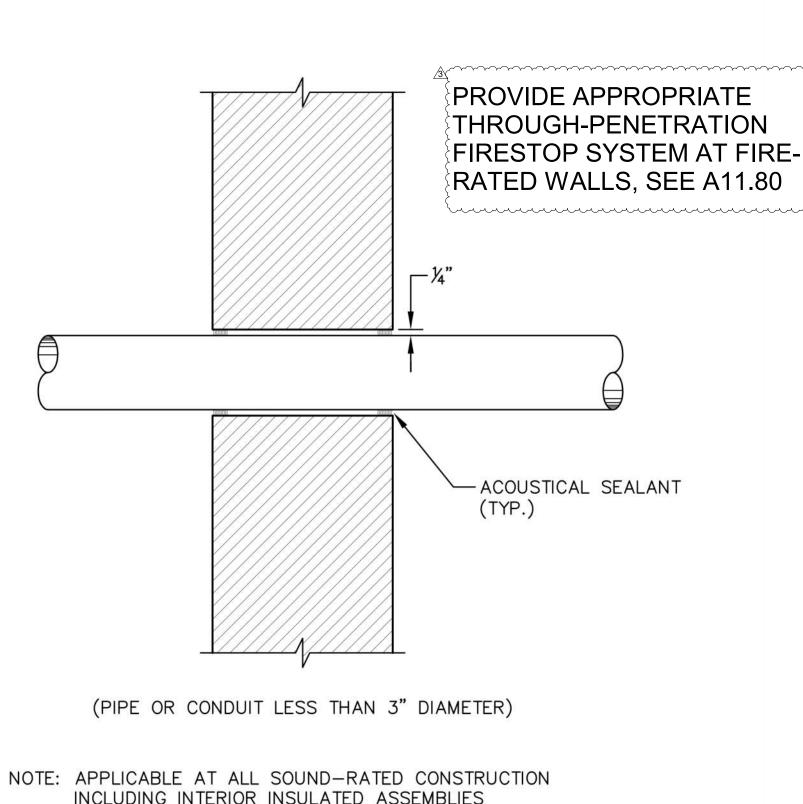
3. HOLD CHANNELS BACK 1/2" FROM INTERSECTING SURFACES

4. AVOID STUD OR JOIST WHEN FASTENING GYPSUM BOARD TO CHANNELS; GYPSUM BOARD SCREWS MUST NOT CONTACT FRAMING

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RESILIENT CHANNEL 682 1.1.1.4

INSTALLATION GUIDE FOR FIGURE 16 04.12.02 San Francisco San Jose Los Angeles www.salter-inc.com



INCLUDING INTERIOR INSULATED ASSEMBLIES SALTER © 2021 FOR ACOUSTICAL DESIGN INFORMATION ONLY TYPICAL PIPE OR CONDUIT PENETRATION THROUGH

SOUND-RATED CONSTRUCTION

FIGURE 13 182 EBM 3.1.1, 3.1.3 03.14.17

JUNCTION BOX IN SOUND-RATED CONSTRUCTION

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FIGURE 14 03.14.17 www.salter-inc.com

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# COUNTY OF SANTA CLARA

2019 CALGREEN RESIDENTIAL CHECKLIST (MANDATORY+TIER 1)
County Amendments to CALGreen are in Italics.

- Designer to cross out items that are not applicable to the project.

- Installer or designer shall verify all applicable requirements have been satisfied and sign and date each row. County Inspectors will verify completion signatures and supporting documentation DURING CONSTRUCTION.

|                                                                            |          |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | T TO COMPLETE<br>ck Review Data | In      | staller or Designer<br>Verification |
|----------------------------------------------------------------------------|----------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------|---------|-------------------------------------|
| ITE                                                                        | M #      | CALGreen<br>CODE<br>SECTION | REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | REFERENCE<br>SHEET | Note or Detail<br>No.           | Date    | Installer or Designe<br>Signature   |
| AIL                                                                        | . 1 alf  |                             | PLANNING AND DESIGN: MANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DATORY REC         | UIREMENTS                       | Date    |                                     |
|                                                                            | 1        | 4.106.2                     | A plan is developed and implemented to manage storm water drainage during construction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CG-3               | NOTE 1                          |         | CIVIL                               |
|                                                                            | 2        | 4.106.3                     | Construction plans indicates how site grading or a drainage system will manage all surface water flows to keep                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CG-3               | NOTE 2                          |         | CIVIL                               |
|                                                                            | 3        | 4.106.4.1                   | water from entering buildings. For new dwellings and the <b>rebuild</b> of existing dwellings that include a panel upgrade or construction between panel and parking area, a raceway to a dedicated 208/240-volt branch circuit meeting the requirements, is installed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CG-3               | NOTES 3 & 4                     |         | JOINT TRENCH                        |
|                                                                            |          |                             | PLANNING AND DESIGN: TIER 1 M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    | REQUIREMENTS                    |         | Г                                   |
| 9                                                                          | 4        | A4.106.2.3                  | Displaced topsoil is stockpiled for reuse in a designated area and covered or protected from erosion.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CG-4               | NOTE 7                          |         | LANDSCAPE                           |
| 1                                                                          | 5        | A4.106.4                    | Not less than 20 percent of the total parking, walking or patio surfaces are permeable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CG-4               | NOTE 9                          |         | LANDSCAPE                           |
| 10                                                                         | 6        | A4.106.8.1                  | For new dwellings with attached private garages, a dedicated 208/240-volt branch circuit including an overcurrent protective device is installed in the raceway, meeting the applicable requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CG-4               | NOTE 12                         |         | N/A                                 |
|                                                                            | ī        | 1                           | PLANNING AND DESIGN: TIER 1 An infill site, greyfield site or EPA-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ELECTIVE R         | EQUIREMENTS                     |         | Ť                                   |
| e                                                                          | 7        | A4.103.1                    | recognized and Brownfield site is applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CG-4               | NOTE 1                          |         | ARCH                                |
| applicable                                                                 | 8        | A4.103.2                    | Community connectivity is facilitated by one of the approved methods.  An individual with oversight                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CG-4               | NOTE 2                          |         |                                     |
| e rows not ap                                                              | 9        | A4.104.1                    | responsibility for the project has participated in an educational program promoting environmentally friendly design or development and has provided instruction to appropriate entities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CG-4               | NOTE 3                          |         |                                     |
| ross out th                                                                | 10       | A4.105.2                    | Existing buildings are disassembled for reuse or recycling of building materials. The proposed structure utilizes at least one of the listed materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CG-4               | NOTE 4                          |         |                                     |
| easures - (                                                                | 11       | A4.106.2.1                  | Soil analysis is performed by a licensed design professional and the findings are utilized in the structural design of the building.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CG-4               | NOTE 5                          |         | GEOTECH                             |
| tive me                                                                    | 12       | A4.106.2.2                  | Soil disturbance and erosion are minimized by using one or more of the methods listed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CG-4               | NOTE 6                          |         |                                     |
| Comply with at least two Tier 1 elective measures - Cross out the rows not | 13       | A4.106.3                    | Landscape areas disrupted during construction are restored to be consistent with native vegetation and/or at least 75% native California or drought tolerant plant and tree are utilized.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CG-4               | NOTE 8                          |         | LANDSCAPE                           |
| at least tv                                                                | 14       | A4.106.6                    | A vegetated roof for at least 50% of<br>the roof area is installed. Vegetated<br>roof complies with CBC chapters 15<br>and 16.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CG-4               | NOTE 10                         |         |                                     |
| nply with                                                                  | 15       | A4.106.7                    | Nonroof heat islands are reduced for 50% of sidewalks, patios, driveways, or other paved areas by using one or more of the methods listed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CG-4               | NOTE 11                         |         |                                     |
| Con                                                                        | 16       | A4.106.10                   | Outdoor lighting systems are designed and installed to comply with one of the methods listed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CG-4<br>CG-1       | NOTE 13 TABLE                   |         |                                     |
|                                                                            | <u> </u> |                             | and a state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the | v                  | A4.106.10                       | <u></u> |                                     |
|                                                                            |          |                             | Building meets or exceeds the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | HONEYY             | OIRMEN IS                       |         |                                     |
| 1                                                                          | L7       | 4.201.1                     | requirements of the California Building Energy Efficiency Standards.  /ATER EFFICIENCY & CONSERVATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | T24<br>SHEETS      | DDV DEGUTES                     | NTC     | ENERGY                              |
|                                                                            |          | W                           | Plumbing Fixtures (water closets and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | TANDATC            | KI KEQUIKEME                    | 113     |                                     |
| 1                                                                          | 18       | 4.303.1                     | urinals) and fittings (faucets and showerheads) installed in residential buildings comply with CALGreen Sections 4.303.1.1 through 4.303.1.4.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CG-3               | NOTE 5                          |         | ARCHITECT<br>PLUMBING               |
| 1                                                                          | 19       | 4.303.2                     | Plumbing fixtures and fittings required in CALGreen Section 4.303.1 are installed in accordance with the CPC and meet the applicable referenced standards.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CG-3               | Note 6                          |         | ARCHITECT<br>PLUMBING               |
| 2                                                                          | 20       | 4.304.1                     | Outdoor potable water use in landscape areas comply with a local water efficient landscape or the current California DWR MWELO, whichever is more stringent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CG-3               | Note 7                          |         | LANDSCAPE                           |
| 7                                                                          | 01       | 4 205 1                     | For new dwellings where disinfected tertiary recycled water is available,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CC-3               | Noto 9                          |         | LANDSCAPE                           |

installation of recycled water supply system is required per CPC chapter 15.

LANDSCAPE

|                                                                       |     | LCALC                       | _                                                                                                                                                                                                                                                                          |                    | T TO COMPLETE                                           | In     | staller or Designer<br>Verification  |
|-----------------------------------------------------------------------|-----|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------|--------|--------------------------------------|
| ITE                                                                   | M # | CALGreen<br>CODE<br>SECTION | REQUIREMENT TER EFFICIENCY & CONSERVATION :                                                                                                                                                                                                                                | REFERENCE<br>SHEET | Note or Detail<br>No.                                   | Date   | Installer or Designer<br>Signature   |
|                                                                       | 22  | A4.303.1                    | Kitchen faucet maximum flow rate does not exceed 1.5 gpm at 60 psi. See exceptions.                                                                                                                                                                                        | CG-4               | NOTE 14                                                 | TENTS  | ARCH/PLUMB                           |
| plicable                                                              | 23  | A4.303.2                    | Alternate nonpotable water resources are used for indoor potable water reduction and are installed in                                                                                                                                                                      | CG-4               | NOTE 15                                                 |        |                                      |
| s not ap                                                              | 24  | A4.303.3                    | accordance with CPC.  At least one qualified ENERGY STAR dishwasher or clothes washer is installed.                                                                                                                                                                        | CG-4               | NOTE 16                                                 |        | ARCH                                 |
| rows                                                                  | 25  | A4.303.4                    | Nonwater urinals or composting toilets are installed.                                                                                                                                                                                                                      | CG-4               | NOTE 17                                                 |        |                                      |
| Cross out the                                                         | 26  | A4.303.5                    | Dwelling is equipped with a demand hot water recirculation system. The system is installed per CPC, CEnC, and the manufacturer's installation instructions.                                                                                                                | CG-4               | NOTE 18                                                 |        |                                      |
| easures - (                                                           | 27  | A4.304.1                    | An approved rainwater catchment system is designed and installed to use rainwater generated by at least 65% of the available roof area. The system is installed per CPC.                                                                                                   |                    | NOTE 19                                                 |        |                                      |
| east two Tier 1 elective measures - Cross out the rows not applicable | 28  | A4.304.2                    | A water efficient landscape irrigation design that eliminates the use of potable water, is provided. Method used to accomplish the requirements comply with California Building Standards Code and one or more of listed methods.                                          | CG-4               | NOTE 20                                                 |        |                                      |
| _                                                                     | 29  | A4.304.3                    | Separate submeters or metering devices for outdoor potable water use is provided for landscape areas less than 5000 sq.ft.                                                                                                                                                 | CG-4               | NOTE 21                                                 |        |                                      |
| Comply with at                                                        | 30  | A4.305.1                    | Alternative plumbing piping is installed to permit the discharge from the clothes washer or other fixtures to be used for an irrigation system in compliance with CPC.                                                                                                     | CG-4               | NOTE 22                                                 |        |                                      |
| Сошр                                                                  | 31  | A4.305.2                    | Dual water piping is installed for future use of recycled water at listed locations.                                                                                                                                                                                       | CG-4               | NOTE 23                                                 |        |                                      |
|                                                                       | 32  | A4.305.3                    | Recycled water is used for landscape irrigation.                                                                                                                                                                                                                           | CG-4               | Note 24                                                 |        |                                      |
| 3                                                                     | 3   | 4.406.1                     | Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls are protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the County of Santa Clara. | CG-3               | Note 9                                                  | JIREME | MECHANICAL<br>ELECTRICAL<br>PLUMBING |
| 3                                                                     | 4   | 4.408.1                     | Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste. Submit either a Construction Waste management plan (CALGreen 4.408.2) or Utilize a waste management company (CALGreen 4.408.3).                            | CG-3               | Note 10                                                 |        | CONTRACTOR                           |
| 3                                                                     | 5   | 4.408.5                     | Documentation is provided to County of Santa Clara which demonstrates compliance with CALGreen sections 4.408.2 or 4.408.3.                                                                                                                                                | CG-2<br>CG-3       | Construction<br>Waste<br>Management<br>Forms<br>Note 11 |        | CONTRACTOR                           |
| 3                                                                     | 6   | 4.410.1                     | An operation and maintenance manual is placed in the building at the time of final inspection.                                                                                                                                                                             | CG-3               | Note 12                                                 | FOUTBL | CONTRACTOR                           |
| 3                                                                     | 7   | A4.403.2                    | Reduction in cement use in foundation                                                                                                                                                                                                                                      | CG-4               | Note 26                                                 | EQUIR  | STRUCTURAL                           |
| 3                                                                     | 8   | A4.405.3.1                  | mix design is not less than 20 percent.  Use materials with a total RCV (recycled content value) not less than a 10-percent of the total material cost of the project except structural framing material.                                                                  |                    | Note 33                                                 |        | STRUCTURAL                           |
| 3                                                                     | 9   | A4.408.1                    | Reduce construction waste by at least 65%. Documentation is submitted to the County of Santa Clara demonstrating compliance.                                                                                                                                               | CG-2<br>CG-34      | Construction<br>Waste<br>Management<br>Forms<br>Note 41 |        | CONTRACTOR                           |
|                                                                       | 6   | MATERIAL                    | CONSERVATION & RESOURCE EFFIC A Frost-Protected Shallow Foundation                                                                                                                                                                                                         | IENCY: TIER        | 1 ELECTIVE RE                                           | QUIREN | IENTS                                |
|                                                                       | 40  | A4.403.1                    | (FPSF) is utilized in compliance with CRC. The required manual includes instructions to the owner or occupant regarding the necessity for heating the structure per CRC R403.3.                                                                                            | CG-4               | NOTE 25                                                 |        |                                      |
| plicable                                                              | 41  | A4.404.1                    | Beams, headers and trimmers are sized and installed as specified in Chapter 23 of CBC or Chapter 6 of CRC.                                                                                                                                                                 | CG-4               | NOTE 27                                                 |        |                                      |
| vs not ap                                                             | 42  | A4.404.2                    | Building dimensions and layouts are designed to minimize waste by one or more of the listed measures in at least 80% of the structure.                                                                                                                                     | CG-4               | NOTE 28                                                 |        |                                      |
| he row                                                                | 43  | A4.404.3                    | Premanufactured building system, as listed, is used to eliminate solid sawn lumber                                                                                                                                                                                         | CG-4               | NOTE 29                                                 |        |                                      |
| Tier 1 elective measures - Cross out the rows not applicable          | 44  | A4.404.4                    | Material lists are included in the plans which specify the material quantity and direction for on-site cuts, for the listed systems.                                                                                                                                       | CG-4               | NOTE 30                                                 |        |                                      |
| sures - C                                                             | 45  | A4.405.1                    | Prefinished building materials are utilized which do not require additional painting or staining. Acceptable material list is per CALGreen A4.405.1.                                                                                                                       | CG-4               | NOTE 31                                                 |        |                                      |
| : mea                                                                 | 46  | A4.405.2                    | Concrete floors that do not require additional coverings are used.                                                                                                                                                                                                         | CG-4               | NOTE 32                                                 |        | ARCHITECT                            |
| elective                                                              | 47  | A4.405.4                    | One or more of the listed materials from rapidly renewable sources or agricultural byproducts are used.                                                                                                                                                                    | CG-4               | NOTE 34                                                 |        |                                      |
| ïer 1                                                                 | 48  | A4.407.1                    | Foundation and landscape drains with discharge to an approved on-site location is installed.                                                                                                                                                                               | CG-4               | NOTE 35                                                 |        |                                      |
| 0                                                                     | 49  | A4.407.2                    | Roof gutter and downspout system is installed to route water at least 5 feet away from the foundation or connect to landscape drains with approved onsite discharge.                                                                                                       | CG-4               | NOTE 36                                                 |        |                                      |
| Comply with at least two                                              | 50  | A4.407.3                    | Flashing details complying with accepted industry standards or manufacturer's instructions are provided on the plans.                                                                                                                                                      | CG-4               | NOTE 37                                                 |        | ARCHITECT & WATERPROOF               |
| Comp                                                                  | 51  | A4.407.4                    | Building materials delivered to the construction site are protected from                                                                                                                                                                                                   | CG-4               | NOTE 38                                                 | 0      |                                      |
|                                                                       | 52  | A4.407.6                    | rain and other sources of moisture.  Exterior doors are covered to prevent water intrusion by one or more listed methods.                                                                                                                                                  | CG-4               | NOTE 39                                                 |        |                                      |
|                                                                       | 53  | A4.407.7                    | A permanent overhang or awning at least two feet in depth is provided at all exterior walls.                                                                                                                                                                               | CG-4               | Note 40                                                 |        |                                      |

|                                                                                                        |                | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                  |                    | T TO COMPLETE<br>k Review Data            | Installer or Designer<br>Verification   |
|--------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------|-----------------------------------------|
| ITE                                                                                                    | M #            | CALGreen<br>CODE<br>SECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | REQUIREMENT                                                                                                                                                                                                                                                      | REFERENCE<br>SHEET | Note or Detail<br>No.                     | Installer or Designer<br>Date Signature |
|                                                                                                        |                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ENVIRONMENTAL QUALITY: MAI                                                                                                                                                                                                                                       | NDATORY R          | QUIREMENTS                                | T T                                     |
| 5                                                                                                      | 54             | 4.503.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Any installed gas fireplace is a direct-<br>vent sealed-combustion type. Any<br>installed woodstove or pellet stove<br>comply with US EPA Phase II emission<br>limits where applicable.                                                                          | CG-3               | Note 13                                   | N/A                                     |
| 5                                                                                                      | 55 4.504.1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Duct openings and other related air distribution component openings are covered during construction until final startup of the HVAC equipment.                                                                                                                   | CG-3               | Note 14                                   | CONTRACTOR                              |
| 56 4.504.2.1                                                                                           |                | 4.504.2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Adhesives, sealants and caulks are compliant with VOC and other toxic compound limits.                                                                                                                                                                           | CG-2<br>CG-2       | Table 4.504.1<br>Table 4.504.2<br>Note 15 | ARCHITECT                               |
| 5                                                                                                      | 57             | 4.504.2.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Architectural paints and coatings are compliant with VOC limits.                                                                                                                                                                                                 | CG-2<br>CG-3       | Table 4.504.3<br>Note 16                  | ARCHITECT                               |
| 5                                                                                                      | 8              | 4.504.2.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Aerosol paints and coatings are compliant with product weighted MIR limits for ROC and other toxic compounds.                                                                                                                                                    | CG-3               | Note 17                                   | ARCHITECT                               |
| 5                                                                                                      | 9              | 4.504.2.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Documentation are provided to the County of Santa Clara to verify that compliant VOC limit finish materials have been used.                                                                                                                                      | CG-3               | Note 18                                   | CONTRACTOR                              |
| 6                                                                                                      | 0              | 4.504.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Carpet and carpet systems meet the applicable testing and product requirements.                                                                                                                                                                                  | CG-2<br>CG-3       | Table 4.504.1<br>Note 19                  | N/A                                     |
| 10                                                                                                     | 22             | STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STA | Hardwood plywood, particleboard and                                                                                                                                                                                                                              | CG-1               | Table 4.504.5                             | 450000                                  |
| 6                                                                                                      | 51             | 4.504.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | medium density fiberboard composite wood meet formaldehyde limits.  Documentation is provided to the                                                                                                                                                             | CG-3               | Note 21                                   | ARCHITECT                               |
| 6                                                                                                      | 62 4.504.5.1   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | County of Santa Clara to verify composite wood meets applicable formaldehyde limits.                                                                                                                                                                             | CG-3               | Note 22                                   | CONTRACTOR                              |
| 6                                                                                                      | i3             | 4.505.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Vapor retarder and capillary break is                                                                                                                                                                                                                            | CG-3               | Note 23                                   | ARCHITECT/                              |
|                                                                                                        |                | 4.303.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | installed at slab-on-grade foundations.  Moisture content of building materials                                                                                                                                                                                  | 60.5               | 11010 25                                  | ENVIRONMENT                             |
| 6                                                                                                      | 64             | 4.505.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | used in wall and floor framing do not exceed 19% prior to enclosure and is checked before enclosure. Insulation products are dry prior to enclosure.                                                                                                             | CG-3               | Note 24                                   | CONTRACTOR                              |
| 6                                                                                                      | 55             | 4.506.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Each bathroom is mechanically ventilated and comply with applicable requirements.                                                                                                                                                                                | CG-3               | Note 25                                   | MECHANICAL                              |
| 6                                                                                                      | 66             | 4.507.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Heating and air-conditioning systems are sized, designed, and equipment is selected by using one of the methods listed.                                                                                                                                          | CG-3               | Note 26                                   | MECHANICAL                              |
|                                                                                                        |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ENVIROMENTAL QUALITY: TIER 1                                                                                                                                                                                                                                     | MANDATORY          | REQUIREMENT                               | S                                       |
| 6                                                                                                      | 57             | A4.504.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | At least 90% of resilient flooring complies with applicable VOC limits.                                                                                                                                                                                          | CG-4               | Note 43                                   | ARCHITECT                               |
| 6                                                                                                      | 8              | A4.504.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Thermal insulation in the building is installed in compliance with applicable                                                                                                                                                                                    | CG-4               | Note 44                                   | ENERGY                                  |
|                                                                                                        |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | standards.  ENVIROMENTAL QUALITY: TIER 1                                                                                                                                                                                                                         | FI FCTIVE F        | PEOLITREMENTS                             |                                         |
| - Cross                                                                                                | 69             | A4.504.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Composite wood products made with NAF or ULEF resins are used.                                                                                                                                                                                                   | CG-4               | Note 42                                   | ARCHITECT<br>SPEC WRITER                |
|                                                                                                        | 70             | A4.506.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Filters at MERV 8 or higher are used on return air openings, during construction.                                                                                                                                                                                | CG-4               | Note 45                                   |                                         |
| Comply with at least one file 1 least one file 1 elective measures - Cross out the rows not applicable | 71             | A4.506.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Direct vent heating and cooling equipment are utilized where the equipment will be located in the conditioned space or the space heating and water heating equipment is installed in an isolated mechanical room.                                                | CG-4               | Note 46                                   |                                         |
|                                                                                                        |                | INSTALLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | R AND SPECIAL INSPECTOR QUALIF                                                                                                                                                                                                                                   | CATIONS: M         | MANDATORY REC                             | QUIREMENTS                              |
| 7                                                                                                      | '2             | 702.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | HVAC system installers are trained and certified in the proper installation of                                                                                                                                                                                   | CG-3               | Note 27                                   | CONTRACTOR                              |
|                                                                                                        | 257°           | , 32.11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HVAC systems.  If required by County of Santa Clara,                                                                                                                                                                                                             |                    | 11010 27                                  | CONTRACTOR                              |
| 7                                                                                                      | '3             | 702.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | owner or owner's agent shall employ special inspector who are qualified and able to demonstrate competence in the discipline they are inspecting.                                                                                                                | CG-3               | Note 28                                   | CONTRACTOR                              |
| 7                                                                                                      | <sup>7</sup> 4 | 703.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Documentation used to show compliance with this code may include construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to County of Santa Clara which show substantial conformance. | CG-3               | Note 29                                   | CONTRACTOR                              |

 TABLE 4.504.5
FORMALDEHYDE LIMITS¹
Maximum Formaldehyde Emissions in Parts per Million

 PRODUCT
 CURRENT LIMIT

 Hardwood plywood veneer core
 0.05

 Hardwood plywood composite core
 0.05

 Particleboard
 0.09

 Medium density fiberboard
 0.11

 Thin medium density fiberboard²
 0.13

Values in this table are derived from those specified by the California Air Resources Board, Air Toxics Control Measure for Composite Wood as tested in accordance with ASTM E1333. For additional information, see *California Code of Regulations*, Title 17, Sections 93120 through 93120.12.
 Thin medium density fiberboard has a maximum thickness of <sup>5</sup>/<sub>16</sub> inch (8 mm).

| ALLOWABLE RATING                                                                                                                                                                                                                                                                                                                                                                                                        | LIGHTING ZONE<br>1                                                         | LIGHTING ZONE<br>2                                                  | LIGHTING ZONE<br>3                            | LIGHTING ZONE      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------|--------------------|
| Maximum Allowable Backlight Rating <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                         |                                                                            |                                                                     |                                               |                    |
| Luminaire greater than 2 mounting heights (MH) from property line                                                                                                                                                                                                                                                                                                                                                       | No Limit                                                                   | No Limit                                                            | No Limit                                      | No Limit           |
| Luminaire back hemisphere is 1 – 2 MH from property line                                                                                                                                                                                                                                                                                                                                                                | B2                                                                         | В3                                                                  | B4                                            | B4                 |
| Luminaire back hemisphere is 0.5 – 1 MH from property line                                                                                                                                                                                                                                                                                                                                                              | B1                                                                         | B2                                                                  | В3                                            | В3                 |
| Luminaire back hemisphere is less than 0.5 MH from property line                                                                                                                                                                                                                                                                                                                                                        | В0                                                                         | В0                                                                  | B1                                            | B2                 |
| Maximum Allowable Uplight Rating                                                                                                                                                                                                                                                                                                                                                                                        |                                                                            |                                                                     |                                               |                    |
| For area lighting <sup>4</sup>                                                                                                                                                                                                                                                                                                                                                                                          | U0                                                                         | U0                                                                  | U0                                            | U0                 |
| For all other outdoor lighting, including decorative luminaires                                                                                                                                                                                                                                                                                                                                                         | U1                                                                         | U2                                                                  | U3                                            | U4                 |
| Maximum Allowable Glare Rating <sup>5</sup>                                                                                                                                                                                                                                                                                                                                                                             |                                                                            |                                                                     |                                               |                    |
| Luminaire greater than 2 MH from property line                                                                                                                                                                                                                                                                                                                                                                          | G1                                                                         | G2                                                                  | G3                                            | G4                 |
| Luminaire front hemisphere is $1-2$ MH from property line                                                                                                                                                                                                                                                                                                                                                               | G0                                                                         | G1                                                                  | G1                                            | G2                 |
| Luminaire front hemisphere is 0.5 – 1 MH from property line                                                                                                                                                                                                                                                                                                                                                             | G0                                                                         | G0                                                                  | G1                                            | G1                 |
| Luminaire back hemisphere is less than 0.5 MH from property line                                                                                                                                                                                                                                                                                                                                                        | G0                                                                         | G0                                                                  | G0                                            | G1                 |
| 1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zon Administrative Code.  2. For property lines that abut public walkways, bikeways, plazas and parking line for purpose of determining compliance with this section. For property line considered to be the centerline of the public roadway or public transit corrid in the nearest property line is less than or equal to two mounting heights | lots, the property lin<br>nes that abut public ro<br>or for the purpose of | e may be considered<br>badways and public tr<br>determining complia | to be 5 feet beyond<br>ansit corridors, the p | the actual propert |

4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas

5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare

CALGreen One or Two Family Residential Project Mandatory and Tier1 Requirements County of Santa Clara

shall meet U-value limits for "all other outdoor lighting."

rating shall be met.



CG-1

VAN METER WILLIAMS POLLACK

ARCHITECTURE | URBAN DESIGN SAN FRANCISCO | DENVER | MINNEAPOLIS

333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER

BKF ENGINEERS

1730 N. FIRST ST SUITE 600
SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES

MILLENIUM DESIGN

PO BOX 737

ALAMO, CA 94507

LANDSCAPE ARCHITECT

PLURAL STUDIO

2742 17TH STREET

SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER

HOHBACH-LEWIN, INC
250 SHERIDAN AVE STE 100
PALO ALTO, CA 94306

MEP ENGINEER

EMERALD CITY ENGINEERS
21705 HIGHWAY 99
LYNWOOD, WA 98036

ENERGY CONSULTANT

REDWOOD ENERGY

1887 Q STREET

ARCATA, CA 95521

BUILDING INSPECTION OFFICE PLANS APPROVED FOR PERMIT

RECORD NO.: DEV22-1242

BY: M. O'Brien Date: 07/27/2023

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



| ID | DATE | NAME |
|----|------|------|
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EDUCATOR HOUSING 231 GRANT AVENUE

> 231 GRANT AVE PALO ALTO, CA 94306



GREEN BUILDING /CAL GREEN

CG-1

| TABLE 4.504.1 TABLE 4.504.3                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| ADHESIVE VOC LIMIT <sup>1, 2</sup> Less Water and Less Exempt Compounds in Grams per Liter  ARCHITECTURAL APPLICATIONS  VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS <sup>2, 3</sup> Grams of VOC per Liter of Coating,  Less Water and Less Exempt Compounds           | Construction Waste Management (CWM) Plan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Construction Waste Management (CWM) Worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Construction Waste Management (CWM) Acknowledgmen                                                                                                                                                                                                                                                                                                      | t              |
| Indoor carpet adhesives     50     COATING CATEGORY     VOC LIMIT       Carpet pad adhesives     50     Flat coatings     50       Outdoor carpet adhesives     150     Nonflat coatings     100                                                                         | Fill out the form including diversion rate and facility names and addresses  Project Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Note: This sample form may be used to assist in documenting compliance with the waste management plan.                                                                                                                                                                                                                                                 |                |
| Wood flooring adhesive 100 Nonflat-high gloss coatings 150 Rubber floor adhesives 60 SPECIALTY COATINGS                                                                                                                                                                  | Job #: Hauling Company Project Manager: Sorting Facility Name and Location                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Job Number:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Project Name:                                                                                                                                                                                                                                                                                                                                          |                |
| Subfloor adhesives     50     Aluminum roof coatings     400       Ceramic tile adhesives     65     Basement specialty coatings     400       VCT and asphalt tile adhesives     50     Bituminous roof coatings     50                                                 | Waste Hauling Company: Disposal Service Company Contact Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Project Manager:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Job Number: Project Manager:                                                                                                                                                                                                                                                                                                                           |                |
| Drywall and panel adhesives 50 Bituminous roof primers 350  Cove base adhesives 50 Bond breakers 350                                                                                                                                                                     | All Subcontractors shall comply with the project's Construction Waste Management Plan. All Subcontractor foremen shall sign the CWM Plan Acknowledgment Sheet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Waste Hauling Company:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Waste Hauling Company:                                                                                                                                                                                                                                                                                                                                 |                |
| Multipurpose construction adhesives     70     Concrete curing compounds     350       Structural glazing adhesives     100     Concrete/masonry sealers     100                                                                                                         | Subcontractor foremen shall sign the CWM Plan Acknowledgment Sheet.  Subcontractors who fail to comply with the Waste Management Plan will be subject to backcharges or withholding of payment, as deemed appropriate. For instance, Subcontractors who contaminate debris boxes that have been designated for a single material type will be subject to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Construction Waste Management (CWM) Plan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CWM Plan Acknowledgment                                                                                                                                                                                                                                                                                                                                |                |
| Single-ply roof membrane adhesives 250 Driveway sealers 50 Other adhesives not specifically listed 50 Dry fog coatings 150                                                                                                                                               | backcharge or withheld payment, as deemed appropriate.  1. The project's overall rate of waste diversion will be%.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WASTE MATERIAL TYPE  DIVERSION METHOD:  PROJECTED  DIVERSION RATE  OURCE SEPARATED ON SITE  DIVERSION RATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The Foreman for each new Subcontractor that comes on site is to receive a copy of the Construction Waste Management Pl complete this Acknowledgment Form.                                                                                                                                                                                              | an and         |
| SPECIALTY APPLICATIONS     Faux finishing coatings     350       PVC welding     510     Fire resistive coatings     350       CPVC welding     490     Floor coatings     100                                                                                           | <ol> <li>This project shall generate the least amount of waste possible by planning and ordering carefully, following all proper storage and<br/>handling procedures to reduce broken and damaged materials and reusing materials whenever possible. The majority of the waste that<br/>is generated on this jobsite will be diverted from the landfill and recycled for other use.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Asphalt Concrete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | I have read the Waste Management Plan for the project; I understand the goals of this plan and agree to follow the procedures described plan.                                                                                                                                                                                                          | bed in this    |
| ABS welding 325 Form-release compounds 250 Plastic cement welding 250 Graphic arts coatings (sign paints) 500                                                                                                                                                            | <ol><li>Spreadsheet 1, enclosed, identifies the waste materials that will be generated on this project, the diversion strategy for each waste type<br/>and the anticipated diversion rate.</li></ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Shotcrete Metals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DATE SUBCONTRACTOR COMPANY NAME FOREMAN NAME SIGNAT                                                                                                                                                                                                                                                                                                    | TURE           |
| Adhesive primer for plastic 550 High temperature coatings 420 Contact adhesive 80 Industrial maintenance coatings 250                                                                                                                                                    | 4. Waste prevention and recycling activities will be discussed at the beginning of weekly subcontractor meetings. As each new subcontractor comes on-site, the WMP Coordinator will present him/her with a copy of the CWM Plan and provide a tour of the jobsite to identify materials to be salvaged and the procedures for handling jobsite debris. All Subcontractor foremen will acknowledge in writ-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Wood Rigid insulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                        |                |
| Special purpose contact adhesive     250     Low solids coatings¹     120       Structural wood member adhesive     140     Magnesite cement coatings     450       Top and trim adhesive     250     Mastic texture coatings     100                                    | ing that they have read and will abide by the CWM Plan. Subcontractor Acknowledgment Sheet enclosed. The CWM Plan will be posted at the jobsite trailer.  5. Salvage: Excess materials that cannot be used in the project, nor returned to the vendor, will be offered to site workers, the owner, or                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fiberglass insulation Acoustic ceiling tile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                        |                |
| SUBSTRATE SPECIFIC APPLICATIONS Metal to metal  Metallic pigmented coatings  Multicolor coatings  250                                                                                                                                                                    | donated to charity if feasible.  Green Waste  will provide a commingled drop box at the jobsite for most of the construction waste. These commingled drop boxes will be taken to Zanker Recycling of San Jose. The average diversion rate for commingled waste will be%.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Gypsum drywall Carpet/carpet pad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |                |
| Plastic foams 50 Pretreatment wash primers 420 Porous material (except wood) 50 Primers, sealers, and undercoaters 100                                                                                                                                                   | As site conditions permit, additional drop boxes will be used for particular phases of construction (e.g., concrete and wood waste) to ensure the highest waste diversion rate possible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Plastic pipe Plastic buckets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                        |                |
| Fiberglass 80 Reactive penetrating sealers 350 Recycled coatings 250                                                                                                                                                                                                     | 7. In the event that the waste diversion rate achievable via the strategy described in (6) above, is projected to be lower than what is required, then a strategy of source-separated waste diversion and/or waste stream reduction will be implemented. Source separated waste refers to jobsite waste that is not commingled but is instead allocated to a debris box designated for a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Plastic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                        |                |
| 1. If an adhesive is used to bond dissimilar substrates together, the adhesive with the highest VOC content shall be allowed.  2. For additional information regarding methods to measure the VOC content  Shellacs  Roof coatings  Rust preventative coatings  Shellacs | single material type, such as clean wood or metal.  Notes:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Hardiplank siding and boards Glass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                        |                |
| specified in this table, see South Coast Air Quality Management District Rule 1168.  Clear Opaque 730 550                                                                                                                                                                | <ol> <li>Waste stream reduction refers to efforts taken by the builder to reduce the amount of waste generated by the project to below four (4) pounds per square foot of building area.</li> <li>When using waste stream reduction measures, the gross weight of the product is subtracted from a base weight of four (4)</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Cardboard Pallets Leb office trush paper gloss & plastic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                        | I              |
| TABLE 4.504.2 SEALANT VOC LIMIT Less Water and Less Exempt Compounds in Grams per Liter  Stains Stone consolidants  100 Stains 250 Stone consolidants                                                                                                                    | <ol> <li>When using waste stream reduction measures, the gross weight of the product is subtracted from a base weight of four (4) pounds per square foot of building area. This reduction is considered additional diversion and can be used in the waste reduction percentage calculations.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Job office trash, paper, glass & plastic bottles, cans, plastic  Alkaline and rechargeable batteries,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                        | —— I           |
| Architectural 250 Swimming pool coatings 340  Marino dook 760  Traffic marking coatings 100                                                                                                                                                                              | 8. Green Waste will track and calculate the quantity (in tons) of all waste leaving the project and calculate the waste diversion rate for the project. Green Waste will provide Project Manager with an updated monthly report on gross weight hauled and the waste diversion rate being achieved on the project. Green Waste monthly report will track separately the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | toner cartridges, and electronic devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                        |                |
| Nonmembrane roof  Nonmembrane roof  Roadway  250  Tub and tile refinish coatings Waterproofing membranes  250                                                                                                                                                            | gross weights and diversion rates for commingled debris and for each source-separated waste stream leaving the project. In the event that Green Waste does not service any or all of the debris boxes on the project, the Green Waste will work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Other: Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                        |                |
| Roadway 250 Wood coatings 275 Single-ply roof membrane 450 Wood preservatives 350 Other 420 Zing righ primary 240                                                                                                                                                        | with the responsible parties to track the material type and weight (in tons) in such debris boxes in order to determine waste diversion rates for these materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Other: Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                        | —— I           |
| SEALANT PRIMERS  1. Grams of VOC per liter of coating, including water and including exempt                                                                                                                                                                              | 9. In the event that Subcontractors furnish their own debris boxes as part of their scope of work, such Subcontractors shall not be excluded from complying with the CWM Plan and will provide Green Waste weight and waste diversion data for their debris boxes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        |                |
| Nonporous 250 Porous 775 2. The specified limits remain in effect unless revised limits are listed in subsequent columns in the table.                                                                                                                                   | 10. In the event that site use constraints (such as limited space) restrict the number of debris boxes that can be used for collection of designated waste the project Superintendent will, as deemed appropriate, allocate specific areas onsite where individual material types are to be consolidated. These collection points are not to be contaminated with non-designated waste types.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        |                |
| Marine deck  760  Marine deck  760  3. Values in this table are derived from those specified by the California Air Resources Board, Architectural Coatings Suggested Control Measure,                                                                                    | 11. Debris from jobsite office and meeting rooms will be collected by Green Waste  Green Waste will, at a minimum, recycle office paper, plastic, metal and cardboard.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        | [ ]            |
| Other 750 February 1, 2008. More information is available from the Air Resources Board.                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        |                |
| Table 1 - Recycled Content Value Calculations                                                                                                                                                                                                                            | Table 2 - Assembly Product Recycled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | d Content Calculations * Table 3 - F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Recycled Content Conversion Table (Pounds to %) *                                                                                                                                                                                                                                                                                                      |                |
| A B C D E F G  Recycled Post- Pre-                                                                                                                                                                                                                                       | ASSEMBLY PRODUCT:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | B C D E F                                                                                                                                                                                                                                                                                                                                              |                |
| Content Material/ Consumer Consumer Recycled Information Assembly Recycled Recycled Content                                                                                                                                                                              | l ' l l l l Post- l Post-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | F G H I Pre- Proportional Proportional                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Post- Post- Consumer Pre- Consumer Pre- Consumer                                                                                                                                                                                                                                                                                                       |                |
| Material/Assembly * Manufacturer Source Cost (\$) Content (%) Content (%) (%)                                                                                                                                                                                            | Value (\$) Consumer Consumer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Consumer   Consumer   Post-   Pre-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Material Recycled Recycled Recycled Recycled Weight (lb) Content(lb) Content (%) Content (lb) Content (%)                                                                                                                                                                                                                                              |                |
|                                                                                                                                                                                                                                                                          | The second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second secon | may be used for calculating the assembly calculations.  Step 1 - Insert the type of material Step 2 - Insert the weight of material sembly Pre-Consumer Recycled Content:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | d Pre-Consumer Recycled Content of any material are provided in pounds, Table 3 a percentages of the recycled contents in each material. Table 3 shall not be used for a linto Column A.  Trial (provided by the manufacturer or other source) into Column B.  Consumer Recycled Content (provided by the manufacturer or other source) into Column C. |                |
|                                                                                                                                                                                                                                                                          | ** Materials used as components of the structural frame shall not be used to calculate bearing structural elements, such as wall studs, plates, sills, columns, beams, girder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Step 4 - Insert the weight of Pre-Co                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | consumer Recycled Content (provided by the manufacturer or other source) into Column E.                                                                                                                                                                                                                                                                |                |
| Total Recycled Content Value  For calculating the total material cost, choose ONLY ONE of the three options below:                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Step 5 - Divide the values in Colum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | mn C by the values in Column B; insert the Post-Consumer Recycled Content of each                                                                                                                                                                                                                                                                      |                |
| 1.Size of project (sf): Cost per sf: x 45% = Total Material Cost                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | mn D. mn E by the values in Column B; insert the Pre-Consumer Recycled Content of each material                                                                                                                                                                                                                                                        |                |
| 2.Estimated project cost/valuation (\$): x 45% = Total Material Cost  3.Sum of estimated and/or actual cost of materials used in the project = Total Material Cost                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | in percentages into Column F.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | of Post-Consumer and Pre-Consumer Recycled Content from Column D and Column F to                                                                                                                                                                                                                                                                       |                |
| Total Recycled Content Value as a percentage of the Total Material Co                                                                                                                                                                                                    | Project Manager:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Table 1, Columns E and F.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | on the condument and the consumer recycled content from column braile column r to                                                                                                                                                                                                                                                                      |                |
| * Materials used as components of the structural frame shall not be used to calculate recycled content. The structural frame inclustructural elements, such as wall studs, plates, sills, columns, beams, girders, joists, rafters, and trusses.                         | The following section shall be completed by a person with overall responsibility for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | r the planning and design portion of the project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                        |                |
| The sum of post-consumer and pre-consumer recycled contents of each material cannot exceed 100%.                                                                                                                                                                         | DECLARATION STATEMENT:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        | 13             |
|                                                                                                                                                                                                                                                                          | <ul> <li>I certify under penalty of perjury, under the laws of the State of California, the in</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | formation provided is true and correct.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                        |                |
|                                                                                                                                                                                                                                                                          | I certify that the materials, components, assembly products or manufactured de applicable codes and regulations, and the installation is consistent with the plan.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        |                |
|                                                                                                                                                                                                                                                                          | applicable codes and regulations, and the installation is consistent with the plan agency.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        |                |
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|                                                                                                                                                                                                                                                                          | Richard Faigle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Dogulary spread by thicker Falge  The County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County of the County |                                                                                                                                                                                                                                                                                                                                                        |                |
|                                                                                                                                                                                                                                                                          | Date Signed: Position/T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s |                                                                                                                                                                                                                                                                                                                                                        | <u>5</u>       |
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|                                                                                                                                                                                                                                                                          | <b>\xi</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                        |                |
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|                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ne or Two Family Residential Project N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | viandatory and Tieri Requirements                                                                                                                                                                                                                                                                                                                      | CG-2           |
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VAN METER WILLIAMS POI I ACK

ARCHITECTURE | URBAN DESIGN SAN FRANCISCO | DENVER | MINNEAPOLIS

333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER

BKF ENGINEERS

1730 N. FIRST ST SUITE 600
SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES

MILLENIUM DESIGN

PO BOX 737;TREET

ALAMO, CA 94507 CA 94110

LANDSCAPE ARCHITECTE
PLURAL STUDION INC
2742 17TH STREET: STE 100
SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER

HOHBACH-LEWIN, INCEERS

250 SHERIDAN AVE STE 100
PALO ALTO, CA 94306

MEP ENGINEER//ENERGY

EMERALD CITY ENGINEERS

21705 HIGHWAY 99
LYNWOOD, WA 98036

ENERGY CONSULTANTILITY

REDWOOD ENERGY

1887 Q STREET

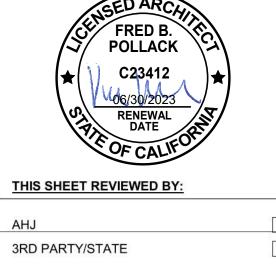
ARCATA, CA 95521

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT

RECORD NO.: \_DEV22-1242

BY: \_M. O'Brien \_\_\_\_\_ Date: \_07/27/2023

HARD COPY OF THESE STAMPED PLANS
MUST BE ON THE SITE FOR INSPECTIONS



| 3RD PARTY | /STATE |  |
|-----------|--------|--|
| ID DATE   | NAME   |  |
| D DATE    | NAME   |  |
|           |        |  |
|           |        |  |
|           |        |  |

EDUCATOR HOUSING 231 GRANT AVENUE

> 23231 GRANT AVEJE PALO ALTO, CA 94306



CALGREEN TIER 1 REQUIREMENTS

SCALE:

### **CALGREEN 2019 NOTES - MANDATORY REQUIREMENTS:**

1. PROJECTS WHICH DISTURB LESS THAN ONE ACRE OF SOIL AND ARE NOT PART OF A LARGER COMMON PLAN OF DEVELOPMENT WHICH IN TOTAL DISTURBS ONE ACRE OR MORE, SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION. SEE CALGREEN 4.106.2 FOR FURTHER DETAILS.

2. CONSTRUCTION PLANS SHALL INDICATE HOW THE SITE GRADING OR DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS. SWALES, WATER COLLECTION AND DISPOSAL SYSTEMS, FRENCH DRAINS, WATER RETENTION GARDENS, AND OTHER MEASURES CAN BE USED. EXCEPTION: ADDITIONS AND ALTERATIONS NOT ALTERING THE DRAINAGE PATH.

3. NEW CONSTRUCTION SHALL COMPLY WITH CALGREEN SECTION 4.106.4.1 TO FACILITATE FUTURE INSTALLATION AND USE OF EV CHARGERS. ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE) SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE, ARTICLE 625.

### EXCEPTIONS:

- A. WHERE COUNTY OF SANTA CLARA HAS DETERMINED EV CHARGING AND INFRASTRUCTURE ARE NOT FEASIBLE.
- B. ACCESSORY DWELLING UNITS (ADU) AND JUNIOR ACCESSORY DWELLING UNITS (JADU) WITHOUT ADDITIONAL PARKING FACILITIES.

**4.** FOR EACH DWELLING UNIT, INSTALL A LISTED RACEWAY TO ACCOMMODATE A DEDICATED 208/240-VOLT BRANCH CIRCUIT. THE RACEWAY SHALL NOT BE LESS THAN TRADE SIZE 1 (NOMINAL 1-INCH INSIDE DIAMETER). THE RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR SUBPANEL AND SHALL TERMINATE INTO A LISTED CABINET, BOX OR OTHER ENCLOSURE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF AN EV CHARGER. RACEWAYS ARE REQUIRED TO BE CONTINUOUS AT ENCLOSED, INACCESSIBLE OR CONCEALED AREAS AND SPACES. THE SERVICE PANEL AND/OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMPERE MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE. THE RACEWAY TERMINATION LOCATION SHALL BE PERMANENTLY AND VISIBLY MARKED AS "EV CAPABLE".

THE SERVICE PANEL OR SUB-PANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVER CURRENT PROTECTIVE DEVICE SPACE(S) RESERVED FOR FUTURE EV CHARGING AS "EV CAPABLE". THE RACEWAY TERMINATION LOCATION SHALL BE PERMANENTLY AND VISIBLY MARKED AS "EV CAPABLE".

**5.** ALL NONCOMPLIANT PLUMBING FIXTURES SHALL BE REPLACED WITH WATER-CONSERVING PLUMBING FIXTURES. PLUMBING FIXTURE REPLACEMENT IS REQUIRED PRIOR TO ISSUANCE OF A CERTIFICATE OF FINAL COMPLETION, CERTIFICATE OF OCCUPANCY, OR FINAL PERMIT APPROVAL BY BUILDING AND INSPECTION DIVISION. SEE CIVIL CODE SECTION 1101.1, ET SEQ., FOR THE DEFINITION OF A NONCOMPLIANT PLUMBING FIXTURE, TYPES OF RESIDENTIAL BUILDINGS AFFECTED AND OTHER IMPORTANT ENACTMENT DATES.

- A. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR TANK-TYPE TOILETS.
- B. SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEADS.
- C. WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL SHOWER-HEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME. A HAND-HELD SHOWER SHALL BE CONSIDERED A SHOWERHEAD.
- D. THE MAXIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI. THE MINIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT BE LESS THAN 0.8 GALLONS PER MINUTE AT 20 PSI.
- E. THE MAXIMUM FLOW RATE OF KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI.

**6.** PLUMBING FIXTURES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE, AND SHALL MEET THE APPLICABLE STANDARDS REFERENCED IN TABLE 1701.1 OF THE CALIFORNIA PLUMBING CODE.

7. RESIDENTIAL DEVELOPMENTS SHALL COMPLY WITH A LOCAL WATER EFFICIENT LANDSCAPE ORDINANCE OR THE CURRENT CALIFORNIA DEPARTMENT OF WATER RESOURCES' MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO), WHICHEVER IS MORE STRINGENT.

**8.** NEWLY CONSTRUCTED RESIDENTIAL DEVELOPMENTS, WHERE DISINFECTED TERTIARY RECYCLED WATER IS AVAILABLE FROM A MUNICIPAL SOURCE TO A CONSTRUCTION SITE, MAY BE REQUIRED TO HAVE RECYCLED WATER SUPPLY SYSTEMS INSTALLED, ALLOWING THE USE OF RECYCLED WATER FOR RESIDENTIAL LANDSCAPE IRRIGATION SYSTEMS. SEE CHAPTER 15 OF THE CALIFORNIA PLUMBING CODE.

**9.** ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR A SIMILAR METHOD ACCEPTABLE TO THE COUNTY OF SANTA CLARA.

**10.** RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65 PERCENT OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE IN ACCORDANCE WITH CALGREEN SECTION 4.408.2 OR 4.408.3.

- A. A CONSTRUCTION WASTE MANAGEMENT PLAN IS PROVIDED. THE CONSTRUCTION WASTE MANAGEMENT PLAN SHALL BE UPDATED AS NECESSARY AND SHALL BE AVAILABLE DURING CONSTRUCTION FOR EXAMINATION BY THE COUNTY OF SANTA CLARA.
- IDENTIFY THE CONSTRUCTION AND DEMOLITION WASTE MATERIALS TO BE DIVERTED FROM DISPOSAL BY RECYCLING, REUSE ON THE PROJECT OR SALVAGE FOR FUTURE USE OR SALE.
- SPECIFY IF CONSTRUCTION AND DEMOLITION WASTE MATERIALS WILL BE SORTED ON-SITE (SOURCE-SEPARATED) OR BULK MIXED (SINGLE STREAM).
- 3. IDENTIFY DIVERSION FACILITIES WHERE THE CONSTRUCTION AND DEMOLÍTION WASTE MATERIAL WILL BE TAKEN.
- 4. IDENTIFY CONSTRUCTION METHODS EMPLOYED TO REDUCE THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE GENERATED.
- 5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.
- B. A WASTE MANAGEMENT COMPANY CAN BE UTILIZED IF APPROVED BY THE COUNTY OF SANTA CLARA. SEE CALGREEN 4.408.3 FOR FURTHER .DETAILS

**11.** DOCUMENTATION SHALL BE PROVIDED TO THE COUNTY OF SANTA CLARA WHICH DEMONSTRATES COMPLIANCE WITH NOTE 10.

**12.** AT THE TIME OF FINAL INSPECTION, A MANUAL, COMPACT DISC, WEB-BASED REFERENCE OR OTHER MEDIA ACCEPTABLE TO THE COUNTY OF SANTA CLARA INCLUDES ALL OF THE REQUIRED INFORMATION, SHALL BE PLACED IN THE BUILDING. SEE CALGREEN 4.410.1 FOR DETAILS OF REQUIRED INFORMATION.

13. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. ANY INSTALLED WOODSTOVE OR PELLET STOVE SHALL COMPLY WITH U.S. EPA NEW SOURCE PERFORMANCE STANDARDS (NSPS) EMISSION LIMITS AS APPLICABLE, AND SHALL HAVE A PERMANENT LABEL INDICATING THEY ARE CERTIFIED TO MEET THE EMISSION LIMITS. WOODSTOVES, PELLET STOVES AND FIREPLACES SHALL ALSO COMPLY WITH APPLICABLE SANTA CLARA COUNTY ORDINANCES AND BAY AREA AIR QUALITY MANAGEMENT DISTRICT REGULATION 6, RULE 3.

14. AT THE TIME OF ROUGH INSTALLATION, DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE COUNTY OF SANTA CLARA TO REDUCE THE AMOUNT OF WATER, DUST AND DEBRIS, WHICH MAY ENTER THE SYSTEM.

15. ADHESIVES, SEALANTS AND CAULKS USED ON THE PROJECT SHALL MEET THE REQUIREMENTS OF CALGREEN TABLES 4.504.1 OR 4.504.2 AS REPRODUCED ON SHEET CG-1. SUCH PRODUCTS ALSO SHALL COMPLY WITH THE RULE 1168 PROHIBITION ON THE USE OF CERTAIN TOXIC COMPOUNDS (CHLOROFORM, ETHYLENE DICHLORIDE, METHYLENE CHLORIDE, PERCHLOROETHYLENE AND TRICHLOROETHYLENE), EXCEPT FOR AEROSOL PRODUCTS, AS SPECIFIED BELOW.

AEROSOL ADHESIVES, AND SMALLER UNIT SIZES OF ADHESIVES, AND SEALANT OR CAULKING COMPOUNDS (IN UNITS OF PRODUCT, LESS PACKAGING, WHICH DO NOT WEIGH MORE THAN 1 POUND AND DO NOT CONSIST OF MORE THAN 16 FLUID OUNCES) SHALL COMPLY WITH STATEWIDE VOC STANDARDS AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS, OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION

**16.** ARCHITECTURAL PAINTS AND COATINGS SHALL COMPLY WITH VOC LIMITS AS SHOWN IN TABLE 4.504.3 SHEET CG-1. THE VOC CONTENT LIMIT FOR COATINGS THAT DO NOT MEET THE DEFINITIONS FOR THE SPECIALTY COATINGS CATEGORIES LISTED IN TABLE 4.504.3 SHALL BE DETERMINED BY CLASSIFYING THE COATING AS A FLAT, NONFLAT OR NONFLAT-HIGH GLOSS COATING, BASED ON ITS GLOSS, AS DEFINED IN SUBSECTIONS 4.21, 4.36, AND 4.37 OF THE 2007 CALIFORNIA AIR RESOURCES BOARD, SUGGESTED CONTROL MEASURE, AND THE CORRESPONDING FLAT, NONFLAT OR NONFLAT-HIGH GLOSS VOC LIMIT IN TABLE 4.504.3, SHEET CG-1 SHALL APPLY.

17. AEROSOL PAINTS AND COATINGS SHALL MEET THE PRODUCT-WEIGHTED MIR LIMITS FOR ROC IN SECTION 94522(A)(2) AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS AND OZONE DEPLETING SUBSTANCES, IN SECTIONS 94522(E)(1) AND (F)(1) OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94520; AND IN AREAS UNDER THE JURISDICTION OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT ADDITIONALLY COMPLY WITH THE PERCENT VOC BY WEIGHT OF PRODUCT LIMITS OF REGULATION 8, RULE 49.

**18.** VERIFICATION OF COMPLIANCE WITH NOTES 15, 16, AND 17 SHALL BE PROVIDED AT THE REQUEST OF THE COUNTY OF SANTA CLARA.

**19.** ALL CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE FOLLOWING:

- A. CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS PROGRAM.
- B. CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350.)
- C. NSF/ANSI 140 AT THE GOLD LEVEL.
- D. SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE GOLD.

ALL CARPET CUSHION INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE REQUIREMENTS OF THE CARPET AND RUG INSTITUTE'S GREEN LABEL PROGRAM. ALL CARPET ADHESIVE SHALL MEET THE REQUIREMENTS OF TABLE 4.504.1, SHEET CG-1.

**20.** WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 80 PERCENT OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING:

- A. PRODUCTS COMPLIANT WITH THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350), CERTIFIED AS A CHPS LOW-EMITTING MATERIAL IN THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS) HIGH PERFORMANCE PRODUCTS DATABASE
- B. PRODUCTS CERTIFIED UNDER UL GREENGUARD GOLD (FORMERLY THE

GREENGUARD CHILDREN & SCHOOLS PROGRAM)

- C. CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM.
- D. MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350).

**21.** HARDWOOD PLYWOOD, PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED IN TABLE 4.504.5 SHEET CG-1.

**22.** VERIFICATION OF COMPLIANCE WITH NOTE 21 SHALL BE PROVIDED AT THE REQUEST OF THE COUNTY OF SANTA CLARA.

**23.** CONCRETE SLAB FOUNDATIONS REQUIRED TO HAVE A VAPOR RETARDER BY CBC, CHAPTER 19 OR CONCRETE SLAB-ON-GROUND FLOORS REQUIRED TO HAVE A VAPOR RETARDER BY CRC CHAPTER 5, SHALL COMPLY WITH FOLLOWING REQUIREMENT:

A CAPILLARY BREAK SHALL BE INSTALLED IN COMPLIANCE WITH AT LEAST ONE OF THE FOLLOWING:

- A. A 4-INCH-THICK BASE OF 1/2 INCH OR LARGER CLEAN AGGREGATE SHALL BE PROVIDED WITH A VAPOR RETARDER IN DIRECT CONTACT WITH CONCRETE AND A CONCRETE MIX DESIGN, WHICH WILL ADDRESS BLEEDING, SHRINKAGE, AND CURLING, SHALL BE USED.
- B. A SLAB DESIGN SPECIFIED BY THE LICENSED DESIGN PROFESSIONAL.

24. BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN THE FRAMING MEMBERS EXCEED 19 PERCENT MOISTURE CONTENT. INSULATION PRODUCTS WHICH ARE VISIBLY WET OR HAVE A HIGH MOISTURE CONTENT SHALL BE REPLACED OR ALLOWED TO DRY PRIOR TO ENCLOSURE IN WALL OR FLOOR CAVITIES. WET-APPLIED INSULATION PRODUCTS SHALL FOLLOW THE MANUFACTURERS' DRYING RECOMMENDATIONS PRIOR TO ENCLOSURE.

**25.** EACH BATHROOM SHALL BE MECHANICALLY VENTILATED AND SHALL COMPLY WITH THE FOLLOWING:

- A. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING.
- B. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL.
- 1. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF  $\leq$  50 PERCENT TO A MAXIMUM OF 80 PERCENT. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF
- 2. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL.

**26.** HEATING AND AIR-CONDITIONING SYSTEMS SHALL BE SIZED, DESIGNED AND HAVE THEIR EQUIPMENT SELECTED USING THE FOLLOWING METHODS:

- A. THE HEAT LOSS AND HEAT GAIN IS ESTABLISHED ACCORDING TO ANSI/ACCA 2 MANUAL J—2016 (RESIDENTIAL LOAD CALCULATION), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.
- B. DUCT SYSTEMS ARE SIZED ACCORDING TO ANSI/ACCA 1 MANUAL D—2016 (RESIDENTIAL DUCT SYSTEMS), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.
- C. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S—2014 (RESIDENTIAL EQUIPMENT SELECTION) OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.

27. HVAC SYSTEM INSTALLERS SHALL BE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS INCLUDING DUCTS AND EQUIPMENT BY A NATIONALLY OR REGIONALLY RECOGNIZED TRAINING OR CERTIFICATION PROGRAM. UNCERTIFIED PERSONS MAY PERFORM HVAC INSTALLATIONS WHEN UNDER THE DIRECT SUPERVISION AND RESPONSIBILITY OF A PERSON TRAINED AND CERTIFIED TO INSTALL HVAC SYSTEMS OR CONTRACTOR LICENSED TO INSTALL HVAC SYSTEMS.

28. IF REQUIRED BY THE COUNTY OF SANTA CLARA, THE OWNER OR THE RESPONSIBLE ENTITY ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTION OR OTHER DUTIES NECESSARY TO SUBSTANTIATE COMPLIANCE WITH THIS CODE. SPECIAL INSPECTORS SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE COUNTY OF SANTA CLARA FOR THE PARTICULAR TYPE OF INSPECTION OR TASK TO BE PERFORMED. SPECIAL INSPECTORS SHALL BE INDEPENDENT ENTITIES WITH NO FINANCIAL INTEREST IN THE MATERIALS OR THE PROJECT THEY ARE INSPECTING FOR COMPLIANCE WITH THIS CODE.

29. DOCUMENTATION USED TO SHOW COMPLIANCE WITH THIS CODE SHALL INCLUDE BUT IS NOT LIMITED TO, CONSTRUCTION DOCUMENTS, PLANS, SPECIFICATIONS, BUILDER OR INSTALLER CERTIFICATION, INSPECTION REPORTS, OR OTHER METHODS ACCEPTABLE TO THE COUNTY OF SANTA CLARA WHICH DEMONSTRATE SUBSTANTIAL CONFORMANCE. WHEN SPECIFIC DOCUMENTATION OR SPECIAL INSPECTION IS NECESSARY TO VERIFY COMPLIANCE, THAT METHOD OF COMPLIANCE WILL BE SPECIFIED IN THE APPROPRIATE SECTION OR IDENTIFIED IN THE APPLICATION CHECKLIST.

Project Information

CALGreen One or Two Family Residential Project Mandatory and Tier1 Requirements County of Santa Clara



CG-3

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250 SHERIDAN AVE STE 100
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MEP ENGINEER

EMERALD CITY ENGINEERS
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LYNWOOD, WA 98036

ENERGY CONSULTANT

REDWOOD ENERGY

1887 Q STREET

ARCATA, CA 95521

BUILDING INSPECTION OFFICE PLANS APPROVED FOR PERMIT

RECORD NO.: \_\_DEV22-1242

BY: \_M. O'Brien \_\_\_\_\_ Date: \_\_07/27/2023

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



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EDUCATOR HOUSING 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306

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CALGREEN TIER 1 REQUIREMENTS

**ABODE COMMUNITIES** 

JOB #: 1925 SCALE:

CG-3

### **CALGREEN 2019 NOTES – TIER 1 REQUIREMENTS:**

1. SITE WHICH COMPLIES WITH AT LEAST ONE OF THE FOLLOWING CHARACTERISTICS SHALL BE SELECTED:

- A. AN INFILL SITE.
- B. A GREYFIELD SITE.
- C. AN EPA-RECOGNIZED AND REMEDIATED BROWNFIELD SITE.

2. FACILITATE COMMUNITY CONNECTIVITY BY ONE OF THE FOLLOWING METHODS:

- A. LOCATE PROJECT WITHIN A 1/4 MILE TRUE WALKING DISTANCE OF AT LEAST FOUR BASIC SERVICES, READILY ACCESSIBLE BY PEDESTRIANS.
- B. LOCATE PROJECT WITHIN A 1/2 MILE TRUE WALKING DISTANCE OF AT LEAST SEVEN BASIC SERVICES, READILY ACCESSIBLE BY PEDESTRIANS.
- C. OTHER METHODS INCREASING ACCESS TO ADDITIONAL RESOURCES.

EXAMPLES OF SERVICES INCLUDE, BUT ARE NOT LIMITED TO, BANK, PLACE OF WORSHIP, CONVENIENCE GROCERY, DAY CARE, CLEANERS, FIRE STATION, BARBER SHOP, BEAUTY SHOP, HARDWARE STORE, LAUNDRY, LIBRARY, MEDICAL CLINIC, DENTAL CLINIC, SENIOR CARE FACILITY, PARK, PHARMACY, POST OFFICE, RESTAURANT, SCHOOL, SUPERMARKET, THEATER, COMMUNITY CENTER, FITNESS CENTER, MUSEUM OR FARMERS MARKET.

3. INDIVIDUALS WITH OVERSIGHT AUTHORITY ON THE PROJECT WHO HAVE BEEN TRAINED IN AREAS RELATED TO ENVIRONMENTALLY FRIENDLY DEVELOPMENT SHALL TEACH GREEN CONCEPTS TO OTHER MEMBERS OF THE DEVELOPMENT STAFF AND ENSURE THAT TRAINING IS PROVIDED TO ALL PARTIES ASSOCIATED WITH THE DEVELOPMENT OF THE PROJECT.

PRIOR TO BEGINNING THE CONSTRUCTION ACTIVITIES, ALL PARTIES INVOLVED WITH THE DEVELOPMENT PROCESS SHALL RECEIVE A WRITTEN GUIDELINE AND INSTRUCTION SPECIFYING THE GREEN GOALS OF THE PROJECT.

4. THE SALVAGED MATERIALS FROM DECONSTRUCTION OF EXISTING BUILDINGS ON THE SITE SHALL BE REUSED. REUSED MATERIALS OR PRODUCTS MUST COMPLY WITH CURRENT BUILDING STANDARDS REQUIREMENTS OR BE AN ACCEPTED ALTERNATE METHOD OR MATERIAL.

MATERIALS WHICH CAN BE EASILY REUSED INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- A. LIGHT FIXTURES.
- B. PLUMBING FIXTURES.
- C. DOORS AND TRIM.
- D. MASONRY. E. ELECTRICAL DEVICES.
- F. APPLIANCES.
- G. FOUNDATIONS OR PORTIONS OF FOUNDATIONS.

REUSED MATERIAL MUST BE IN COMPLIANCE WITH THE APPROPRIATE TITLE 24 REQUIREMENTS.

**5.** BUILDING SITE SOIL ANALYSIS SHALL BE PERFORMED BY A LICENSED DESIGN PROFESSIONAL AND THE FINDINGS SHALL BE UTILIZED IN THE STRUCTURAL DESIGN OF THE BUILDING.

6. THE EFFECT OF DEVELOPMENT ON BUILDING SITES SHALL BE EVALUATED AND THE SOIL SHALL BE PROTECTED BY ONE OR MORE OF THE FOLLOWING:

- A. NATURAL DRAINAGE PATTERNS SHALL BE EVALUATED AND EROSION CONTROLS SHALL BE IMPLEMENTED TO MINIMIZE EROSION DURING CONSTRUCTION AND AFTER OCCUPANCY.
- B. SITE ACCESS SHALL BE ACCOMPLISHED BY MINIMIZING THE AMOUNT OF CUT AND FILL NEEDED TO INSTALL ACCESS ROADS AND DRIVEWAYS. C. AS ALLOWED BY OTHER PARTS OF THE CALIFORNIA BUILDING STANDARDS CODE,
- UNDERGROUND CONSTRUCTION ACTIVITIES SHALL BE COORDINATED TO UTILIZE THE SAME TRENCH, MINIMIZE THE AMOUNT OF TIME THE DISTURBED SOIL IS EXPOSED AND THE SOIL SHALL BE REPLACED USING ACCEPTED COMPACTION

7. TOPSOIL SHALL BE PROTECTED OR SAVED FOR REUSE. DISPLACED TOPSOIL SHALL BE STOCKPILED FOR REUSE IN A DESIGNATED AREA AND COVERED OR PROTECTED FROM EROSION. PROTECTION FROM EROSION INCLUDES COVERING WITH TARPS, STRAW, MULCH, CHIPPED WOOD, VEGETATIVE COVER, OR OTHER MEANS ACCEPTABLE TO THE COUNTY OF SANTA CLARA TO PROTECT THE TOPSOIL FOR LATER USE.

8. POSTCONSTRUCTION LANDSCAPE DESIGNS SHALL ACCOMPLISH ONE OR MORE OF THE FOLLOWING:

- A. AREAS DISRUPTED DURING CONSTRUCTION SHALL BE RESTORED TO BE CONSISTENT WITH NATIVE VEGETATION SPECIES AND PATTERNS.
- B. UTILIZE AT LEAST 75 PERCENT NATIVE CALIFORNIA OR DROUGHT TOLERANT PLANT AND TREE SPECIES APPROPRIATE FOR THE CLIMATE ZONE REGION.

9. PERMEABLE PAVING SHALL BE UTILIZED FOR NOT LESS THAN 20 PERCENT OF THE TOTAL PARKING, WALKING OR PATIO SURFACES

THE PRIMARY DRIVEWAY, PRIMARY ENTRY WALKWAY AND ENTRY PORCH OR LANDING SHALL NOT BE INCLUDED WHEN CALCULATING THE AREA REQUIRED TO BE A PERMEABLE SURFACE.

10. INSTALL A VEGETATED ROOF FOR AT LEAST 50 PERCENT OF THE ROOF AREA. VEGETATED ROOFS SHALL COMPLY WITH REQUIREMENTS FOR ROOF GARDENS AND LANDSCAPED ROOFS IN THE CALIFORNIA BUILDING CODE, CHAPTER 15 AND CHAPTER

11. REDUCE NONROOF HEAT ISLANDS FOR 50 PERCENT OF SIDEWALKS, PATIOS, DRIVEWAYS OR OTHER PAVED AREAS BY USING ONE OR MORE OF THE METHODS LISTED.

A. TREES OR OTHER PLANTINGS TO PROVIDE SHADE AND THAT MATURE WITHIN 15 YEARS OF PLANTING. TREES SHOULD BE NATIVE OR ADAPTIVE TO THE REGION AND CLIMATE ZONES AND NONINVASIVE; HARDY AND RESISTANT TO DROUGHT, INSECTS AND DISEASE; EASY TO MAINTAIN (NO FREQUENT SHEDDING OF TWIGS, BRANCHES, UNWANTED FRUIT OR SEED PODS); AND SUITABLE IN MATURE SIZE

AND ENVIRONMENTAL REQUIREMENTS FOR THE SITE. TREE SELECTION AND PLACEMENT SHOULD CONSIDER LOCATION AND SIZE OF AREAS TO BE SHADED, LOCATION OF UTILITIES, VIEWS FROM THE STRUCTURE, DISTANCE TO SIDEWALKS AND FOUNDATIONS, OVERHANGS ONTO ADJACENT PROPERTIES AND STREETS; OTHER INFRASTRUCTURE AND ADJACENT TO LANDSCAPING. IN ADDITION, SHADING SHALL NOT CAST A SHADOW, AS SPECIFIED, ON ANY NEIGHBORING SOLAR COLLECTORS PURSUANT TO PUBLIC RESOURCES CODE SECTION 25981, ET

SEQ. (SOLAR SHADE CONTROL ACT). B. USE HIGH ALBEDO MATERIALS WITH AN INITIAL SOLAR REFLECTANCE VALUE OF AT

- LEAST 0.30 AS DETERMINED IN ACCORDANCE ASTM E1918 OR C1549. C. USE OPEN GRID PAVEMENT SYSTEM OR PERVIOUS OR PERMEABLE PAVEMENT
- D. LOCATE 50 PERCENT OF PARKING UNDERGROUND OR USE MULTILEVEL PARKING. E. OTHER METHODS OF REDUCING HEAT ISLAND EFFECTS ACCEPTABLE TO THE COUNTY OF SANTA CLARA.

12. FOR EACH DWELLING UNIT, INSTALL A DEDICATED 208/240-VOLT BRANCH CIRCUIT IN THE RACEWAY REQUIRED BY CALGREEN SECTION 4.106.4.1 (SEE SHEET GB-2 NOTE 4). THE BRANCH CIRCUIT AND ASSOCIATED OVERCURRENT PROTECTIVE DEVICE SHALL BE RATED AT 40 AMPERES MINIMUM. OTHER ELECTRICAL COM-PONENTS, INCLUDING A RECEPTACLE OR BLANK COVER, RELATED TO THIS SECTION SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.

THE SERVICE PANEL OR SUB-PANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVERCURRENT PROTECTIVE DEVICE DESIGNATED FOR FUTURE EV CHARGING PURPOSES AS "EV READY" IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE. THE RECEPTACLE OR BLANK COVER SHALL BE IDENTIFIED AS "EV READY."

13. OUTDOOR LIGHTING SYSTEMS SHALL BE DESIGNED AND INSTALLED TO COMPLY WITH THE FOLLOWING:

- A. THE MINIMUM REQUIREMENTS IN THE CALIFORNIA ENERGY CODE FOR LIGHTING ZONES 1-4 AS DEFINED IN CHAPTER 10 OF THE CALIFORNIA ADMINISTRATIVE CODE; AND
- B. BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS AS DEFINED IN IES TM-15-11;
- C. ALLOWABLE BUG RATINGS NOT EXCEEDING THOSE SHOWN IN CALGREEN TABLE A4.106.10

## **EXCEPTIONS:**

- 1. LUMINAIRES THAT QUALIFY AS EXCEPTIONS IN THE CALIFORNIA ENERGY CODE.
- EMERGENCY LIGHTING.
- ONE- AND TWO-FAMILY DWELLINGS.

14. THE MAXIMUM FLOW RATE OF KITCHEN FAUCETS SHALL NOT EXCEED 1.5 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.5 GAL-LONS PER MINUTE AT 60 PSI. WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION.

15. ALTERNATE NONPOTABLE WATER SOURCES SHALL BE USED FOR INDOOR POTABLE WATER REDUCTION. ALTERNATE NONPOTABLE WATER SOURCES SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING Code.

16. INSTALL AT LEAST ONE QUALIFIED ENERGY STAR DISHWASHER OR CLOTHES WASHER.

17. NONWATER URINALS OR COMPOSTING TOILETS SHALL BE INSTALLED. WHERE APPROVED, HYBRID URINALS, AS DEFINED IN CALGREEN CHAPTER 2, SHALL BE CONSIDERED NONWATER URINALS.

18. ONE- AND TWO-FAMILY DWELLINGS SHALL BE EQUIPPED WITH A DEMAND HOT WATER RECIRCULATION SYSTEM, AS DEFINED IN CALGREEN CHAPTER 2. THE DEMAND HOT WATER RECIRCULATION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE, CALIFORNIA ENERGY CODE, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

19. AN APPROVED RAINWATER CATCHMENT SYSTEM SHALL BE DESIGNED AND INSTALLED TO USE RAINWATER GENERATED BY AT LEAST 65 PERCENT OF THE AVAILABLE ROOF AREA. RAINWATER CATCHMENT SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE.

20. WHEN LANDSCAPING IS PROVIDED AND AS ALLOWED BY LOCAL ORDINANCE, A WATER EFFICIENT LANDSCAPE IRRIGATION DESIGN THAT ELIMINATES THE USE OF POTABLE WATER BEYOND THE INITIAL REQUIREMENTS FOR PLANT INSTALLATION AND ESTABLISHMENT SHALL BE PROVIDED. METHODS USED TO ACCOM-PLISH THE REQUIREMENTS OF THIS SECTION SHALL COMPLY WITH THE REQUIREMENTS OF THE CALIFORNIA BUILDING STANDARDS CODE AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

- A. USE OF CAPTURED RAINWATER.
- B. USE OF RECYCLED WATER.
- C. WATER TREATED FOR IRRIGATION PURPOSES AND CONVEYED BY A WATER DISTRICT OR PUBLIC ENTITY.
- D. USE OF GRAYWATER.
- E. USE OF DROUGHT TOLERANT PLANTS.

21. FOR NEW WATER SERVICE CONNECTIONS, LANDSCAPED IRRIGATED AREAS LESS THAN 5,000 SQUARE FEET SHALL BE PROVIDED WITH SEPARATE SUBMETERS OR METERING DEVICES FOR OUTDOOR POTABLE WATER USE.

22. ALTERNATIVE PLUMBING PIPING SHALL BE INSTALLED TO PERMIT THE DISCHARGE FROM THE CLOTHES WASHER OR OTHER FIXTURES TO BE USED FOR AN IRRIGATION SYSTEM IN COMPLIANCE WITH THE CALIFORNIA PLUMBING CODE.

23. BASED ON PROJECTED AVAILABILITY, DUAL WATER PIPING SHALL BE INSTALLED FOR FUTURE USE OF RECYCLED WATER AT THE FOLLOWING LOCATIONS:

- A. INTERIOR PIPING FOR THE USE OF RECYCLED WATER SHALL BE INSTALLED TO SERVE ALL WATER CLOSETS, URINALS AND FLOOR DRAINS
- B. EXTERIOR PIPING IS INSTALLED TO TRANSPORT RECYCLED WATER FROM THE POINT OF CONNECTION TO THE STRUCTURE. RECYCLED WATER SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING

24. RECYCLED WATER SHALL BE USED FOR LANDSCAPE IRRIGATION.

**25.** AS ALLOWED BY LOCAL CONDITIONS, UTILIZE A FROST-PROTECTED SHALLOW FOUNDATION (FPSF) IN COMPLIANCE WITH THE CALIFORNIA RESIDENTIAL CODE (CRC). WHEN AN FPSF FOUNDATION SYSTEM IS INSTALLED, THE MANUAL REQUIRED BY CALGREEN SECTION 4.410.1 SHALL INCLUDE INSTRUCTIONS TO THE OWNER OR OCCUPANT REGARDING THE NECESSITY FOR HEATING THE STRUCTURE AS REQUIRED IN SECTION R403.3 OF THE CALIFORNIA RESIDENTIAL CODE.

26. AS ALLOWED BY THE COUNTY OF SANTA CLARA, CEMENT USED IN FOUNDATION MIX DESIGN SHALL BE REDUCED NOT LESS THAN 20 PERCENT. RODUCTS COMMONLY USED TO REPLACE CEMENT IN CONCRETE MIX DESIGNS INCLUDE, BUT ARE NOT LIMITED TO:

- A. FLY ASH.
- B. SLAG. C. SILICA FUME.

STRUCTURE:

D. RICE HULL ASH.

27. BEAMS, HEADERS AND TRIMMERS SHALL BE SIZED AND INSTALLED AS SPECIFIED IN CHAPTER 23 OF THE CALIFORNIA BUILDING CODE, OR CHAPTER 6 OF THE CALIFORNIA RESIDENTIAL CODE, AS APPLICABLE. OTHER CALCULATIONS ACCEPTABLE TO THE COUNTY OF SANTA CLARA WHICH USE THE MINIMUM SIZE MEMBER FOR THE TRIBUTARY LOAD IS ACCEPTABLE.

28. BUILDING DIMENSIONS AND LAYOUTS SHALL BE DESIGNED TO MINIMIZE WASTE BY ONE OR MORE OF THE FOLLOWING MEASURES IN AT LEAST 80 PERCENT OF THE

- A. BUILDING DESIGN DIMENSIONS IN 2-FOOT INCREMENTS ARE USED.
- B. WINDOWS AND DOORS ARE LOCATED AT REGULAR 16" OR 24" STUD POSITIONS. C. OTHER METHODS ACCEPTABLE TO THE COUNTY OF SANTA CLARA.

29. PREMANUFACTURED BUILDING SYSTEMS SHALL BE USED TO ELIMINATE SOLID SAWN LUMBER WHENEVER POSSIBLE. ONE OR MORE OF THE FOLLOWING PREMANUFACTURED BUILDING SYSTEMS IS USED:

- A. COMPOSITE FLOOR JOIST OR PREMANUFACTURED FLOOR FRAMING SYSTEM.
- B. COMPOSITE ROOF RAFTERS OR PREMANUFACTURED ROOF FRAMING SYSTEM.

C. PANELIZED (SIPS, ICF OR SIMILAR) FRAMING SYSTEMS D. OTHER METHODS APPROVED BY THE COUNTY OF SANTA CLARA.

30. MATERIAL LISTS SHALL BE INCLUDED IN THE PLANS WHICH SPECIFY THE MATERIAL QUANTITY AND PROVIDE DIRECTION FOR ON-SITE CUTS TO BE MADE FROM THE MATERIAL PROVIDED. MATERIAL LISTS AND DIRECTION SHALL BE PROVIDED FOR THE

A. FLOOR FRAMING.

FOLLOWING SYSTEMS:

- B. WALL FRAMING.
- C. CEILING AND ROOF FRAMING. D. STRUCTURAL PANELS AND ROOF SHEATHING.

31. UTILIZE PREFINISHED BUILDING MATERIALS WHICH DO NOT REQUIRE ADDITIONAL PAINTING OR STAINING WHEN POSSIBLE. ONE OR MORE OF THE FOLLOWING BUILDING

- MATERIALS THAT DO NOT REQUIRE ADDITIONAL RESOURCES FOR FINISHING ARE USED: A. EXTERIOR TRIM NOT REQUIRING PAINT OR STAIN.
- B. WINDOWS NOT REQUIRING PAINT OR STAIN.
- C. SIDING OR EXTERIOR WALL COVERINGS WHICH DO NOT REQUIRE PAINT OR

INCLUDING BUT NOT LIMITED TO STAINED, NATURAL OR STAMPED CONCRETE FLOORS. **33.** USE MATERIALS, EQUIVALENT IN PERFORMANCE TO VIRGIN MATERIALS WITH A TOTAL (COMBINED) RECYCLED CONTENT VALUE (RCV) OF NOT BE LESS THAN 10

32. CONCRETE FLOORS THAT DO NOT REQUIRE ADDITIONAL COVERINGS SHALL BE USED

PERCENT OF THE TOTAL MATERIAL COST OF THE PROJECT. REQUIRED TOTAL RCV (DOLLARS) = TOTAL MATERIAL COST(DOLLARS) × 10 PERCENT

FOR THE PURPOSES OF THIS SECTION, MATERIALS USED AS COMPONENTS OF THE STRUCTURAL FRAME SHALL NOT BE USED TO CALCULATE RECYCLED CONTENT. THE STRUCTURAL FRAME INCLUDES THE LOAD BEARING STRUCTURAL ELEMENTS, SUCH AS WALL STUDS, PLATES, SILLS, COLUMNS, BEAMS, GIRDERS, JOISTS, RAFTERS AND TRUSSES. SAMPLE FORMS WHICH ALLOW USER INPUT, LOCATED AT SHEET CG-4, MAY BE USED TO SIMPLIFY DOCUMENTING COMPLIANCE WITH THIS SECTION AND FOR CALCULATING RECYCLED CONTENT VALUE OF MATERIALS OR ASSEMBLY PRODUCTS.

SOURCES AND RECYCLED CONTENT OF SOME RECYCLED MATERIALS CAN BE OBTAINED FROM CALRECYCLE IF NOT PROVIDED BY THE MANUFACTURER.

FOR FURTHER INSTRUCTION SEE CALGREEN A4.405.3

34. ONE OR MORE OF THE FOLLOWING MATERIALS MANUFACTURED FROM RAPIDLY RENEWABLE SOURCES OR AGRICULTURAL BY-PRODUCTS SHALL BE USED:

- A. INSULATION.
- B. BAMBOO OR CORK.
- C. ENGINEERED PRODUCTS. D. AGRICULTURAL BASED PRODUCTS.
- E. OTHER PRODUCTS ACCEPTABLE TO THE ENFORCING AGENCY.

THE INTENT OF THIS SECTION IS TO UTILIZE BUILDING MATERIALS AND PRODUCTS WHICH ARE TYPICALLY HARVESTED WITHIN A 10-YEAR OR SHORTER CYCLE.

35. INSTALL FOUNDATION AND LANDSCAPE DRAINS WHICH DISCHARGE TO A DRY WELL, SUMP, BIOSWALE OR OTHER APPROVED ON-SITE LOCATION.

36. INSTALL GUTTER AND DOWNSPOUT SYSTEMS TO ROUTE WATER AT LEAST 5 FEET AWAY FROM THE FOUNDATION OR CONNECT TO LANDSCAPE DRAINS WHICH DISCHARGE

TO A DRY WELL, SUMP, BIOSWALE, RAINWATER CAPTURE SYSTEM OR OTHER APPROVED ON-SITE LOCATION.

37. PROVIDE FLASHING DETAILS ON THE BUILDING PLANS WHICH COMPLY WITH ACCEPTED INDUSTRY STANDARDS OR MANUFACTURER'S INSTRUCTIONS. DETAILS SHALL BE SHOWN ON HOUSE PLANS AT ALL OF THE FOLLOWING LOCATIONS:

- A. AROUND WINDOWS AND DOORS.
- B. ROOF VALLEYS.
- C. DECK CONNECTIONS TO THE STRUCTURE.
- D. ROOF-TO-WALL INTERSECTIONS. E. CHIMNEYS TO ROOF INTERSECTIONS.
- F. DRIP CAPS ABOVE WINDOWS AND DOORS WITH ARCHITECTURAL PROJECTIONS.

38. PROTECT BUILDING MATERIALS DELIVERED TO THE CONSTRUCTION SITE FROM RAIN AND OTHER SOURCES OF MOISTURE

**39.** EXTERIOR DOORS TO THE DWELLING SHALL BE COVERED TO PREVENT WATER INTRUSION BY ONE OR MORE OF THE FOLLOWING:

- A. AN AWNING AT LEAST 4 FEET IN DEPTH IS INSTALLED. B. THE DOOR IS PROTECTED BY A ROOF OVERHANG AT LEAST 4 FEET IN DEPTH.
- C. THE DOOR IS RECESSED AT LEAST 4 FEET.
- D. OTHER METHODS WHICH PROVIDE EQUIVALENT PROTECTION.

PROVIDED AT ALL EXTERIOR WALLS. 41. NON-HAZARDOUS CONSTRUCTION AND DEMOLITION DEBRIS GENERATED AT THE SITE SHALL BE DIVERTED TO RECYCLE OR SALVAGE IN COMPLIANCE WITH THE

**40.** A PERMANENT OVERHANG OR AWNING AT LEAST 2 FEET IN DEPTH SHALL BE

FOLLOWING: AT LEAST A 65 PERCENT REDUCTION. ANY MIXED RECYCLABLES THAT ARE SENT TO MIXED-WASTE RECYCLING FACILITIES SHALL INCLUDE A QUALIFIED THIRD PARTY VERIFIED FACILITY AVERAGE DIVERSION RATE. VERIFICATION OF DIVERSION RATES SHALL MEET MINIMUM CERTIFICATION ELIGIBILITY GUIDELINES, ACCEPTABLE TO THE

COUNTY OF SANTA CLARA. DOCUMENTATION SHALL BE PROVIDED TO THE COUNTY OF SANTA CLARA WHICH DEMONSTRATES COMPLIANCE WITH THIS SECTION. DOCUMENTATION SHALL BE IN COMPLIANCE WITH CALGREEN SECTION 4.408.5.

**42.** USE COMPOSITE WOOD PRODUCTS MADE WITH EITHER CALIFORNIA AIR RESOURCES BOARD APPROVED NO-ADDED FORMALDEHYDE (NAF) RESINS OR ULTRA-LOW EMITTING FORMALDEHYDE (ULEF) RESINS.

DOCUMENTATION MUST BE PROVIDED THAT VERIFIES THAT FINISH MATERIALS ARE CERTIFIED TO MEET THE POLLUTANT EMISSION LIMITS.

43. AT LEAST 90 PERCENT OF THE TOTAL AREA OF RESILIENT FLOORING SYSTEMS INSTALLED IN THE BUILDING SHALL COMPLY WITH THE VOC-EMISSION LIMITS DEFINED IN AT LEAST ONE OF THE FOLLOWING:

- A. PRODUCTS COMPLIANT WITH THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS, "VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350), CERTIFIED AS A CHPS LOW-EMITTING MATERIAL IN THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS) HIGH PERFORMANCE PRODUCTS DATABASE.
- B. PRODUCTS CERTIFIED UL GREENGUARD GOLD (FORMERLY THE GREENGUARD CHILDREN & SCHOOLS PROGRAM.
- C. CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM
- D. MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350.)

DOCUMENTATION MUST BE PROVIDED THAT VERIFIES THAT FINISH MATERIALS ARE CERTIFIED TO MEET THE POLLUTANT EMISSION LIMITS IN THIS SECTION.

44. INSTALL THERMAL INSULATION IN COMPLIANCE WITH THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350), CERTIFIED AS A CHPS LOW-EMITTING MATERIAL IN THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS) HIGH PERFORMANCE PRODUCTS DATABASE; PRODUCTS CERTIFIED UNDER THE UL GREENGUARD GOLD (FORMERLY GREENGUARD CHILDREN & SCHOOLS PROGRAM); OR MEET CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350).

DOCUMENTATION MUST BE PROVIDED THAT VERIFIES THE MATERIALS ARE CERTIFIED TO MEET THE POLLUTANT EMISSION LIMITS IN THIS SECTION.

45. PROVIDE FILTERS ON RETURN AIR OPENINGS RATED AT MERV 8 OR HIGHER DURING CONSTRUCTION.

46. DIRECT-VENT HEATING AND COOLING EQUIPMENT SHALL BE UTILIZED IF THE EQUIPMENT WILL BE LOCATED IN THE CONDITIONED SPACE OR INSTALL THE SPACE HEATING AND WATER HEATING EQUIPMENT IN AN ISOLATED MECHANICAL ROOM.

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# CALGreen One or Two Family Residential Project Mandatory and Tier1 Requirements County of Santa Clara



CALGREEN TIER ' REQUIREMENTS

JOB #: 1925

PLAN CHECK REVISION 4 | DATE: 06/19/23

**VAN METER WILLIAMS** POLLACK \*\*

333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES MILLENIUM DESIGN ALAMO, CA 94507

LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER

21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT

1887 Q STREET

**ARCATA**, CA 95521

**REDWOOD ENERGY** 

EMERALD CITY ENGINEERS

COUNTY OF SANTA CLARA **BUILDING INSPECTION OFFICE** PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1242 BY: M. O'Brien Date: 07/27/2023 HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS



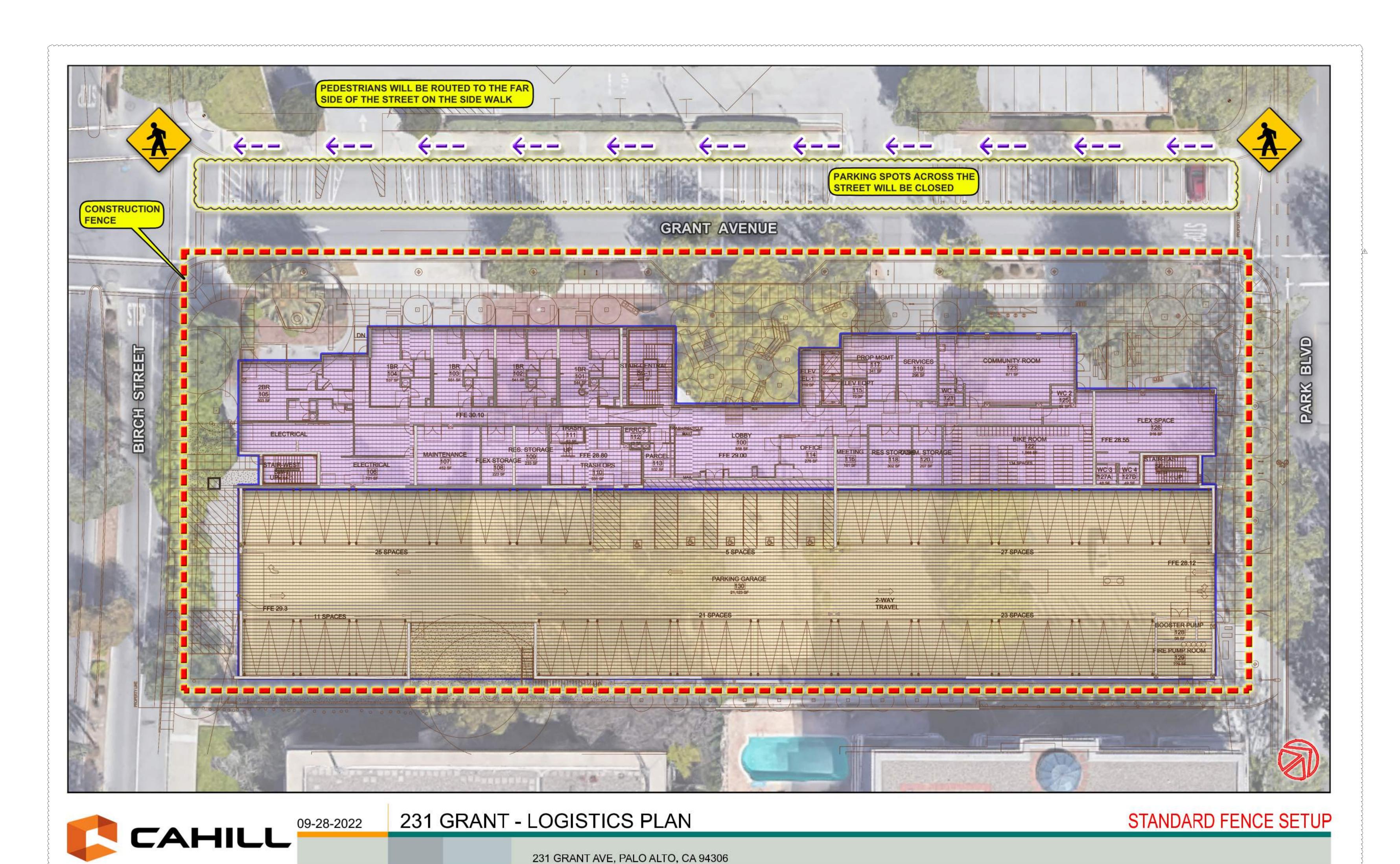
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EDUCATOR HOUSING 231 GRANT AVENUE

> 231 GRANT AVE PALO ALTO, CA 94306

> > abode MERCY HOUSING ABODE COMMUNITIES

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333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES **MILLENIUM DESIGN** PO BOX 737 ALAMO, CA 94507

LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT **REDWOOD ENERGY** 1887 Q STREET ARCATA, CA 95521



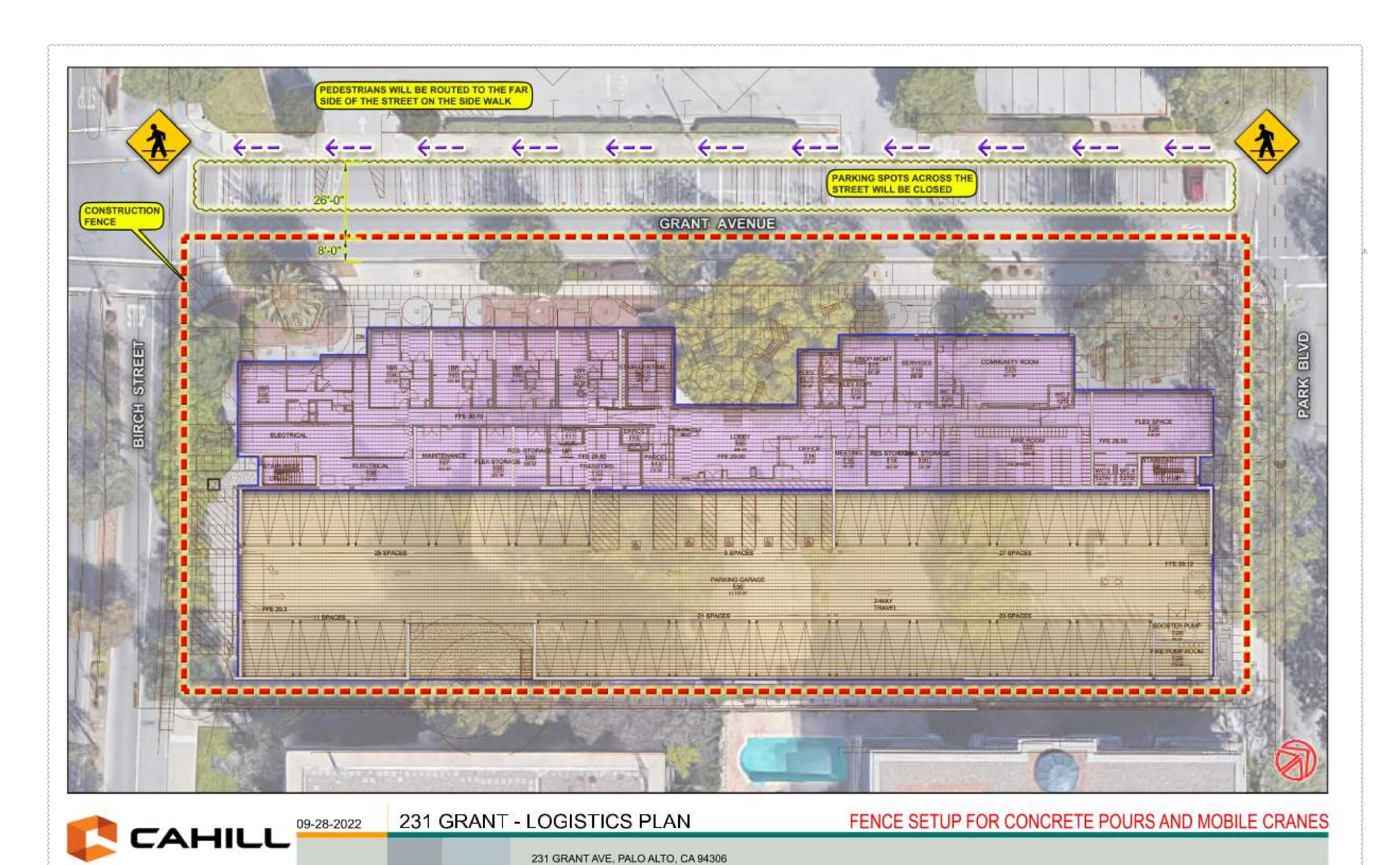
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# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



CONSTRUCTION SEQUENCE



231 GRANT AVE, PALO ALTO, CA 94306

**VAN METER WILLIAMS** 

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ENERGY CONSULTANT REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521



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# **EDUCATOR HOUSING** 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306





CONSTRUCTION SEQUENCE

### COUNTY OF SANTA CLARA General Construction **Specifications**

### GENERAL CONDITIONS

- ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS AND/OR GEOTECHNICAL REPORT TITLED GEOTECHNICAL INVESTIGATION <u>PROPOSED RESIDENTIAL BUILDING 231 GRANT AVENUE PALO ALTO, CALIFORNIA</u> PREPARED BY ROCKRIDGE GEOTECHNICAL AND DATED MARCH 25, 2021. THIS REPORT IS SUPPLEMENTED BY: 1) THESE PLANS AND SPECIFICATIONS, 2) THE COUNTY OF SANTA CLARA STANDARD DETAILS. 3) THE COUNTY OF SANTA CLARA STANDARD SPECS. 4) STATE OF CALIFORNIA STANDARD DETAILS. 5) STATE OF CALIFORNIA STANDARD SPECIFICATIONS. IN THE EVENT OF CONFLICT THE FORMER SHALL TAKE PRECEDENCE OVER THE LATTER. THE PERFORMANCE AND COMPLETION OF ALL WORK MUST BE TO THE SATISFACTION OF THE
- DEVELOPER IS RESPONSIBLE FOR INSTALLATION OF THE IMPROVEMENTS SHOWN ON THESE PLANS AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE RESPONSIBLE FOR THEIR CONTINUED MAINTENANCE.
- DEVELOPER SHALL BE RESPONSIBLE FOR CORRECTION OF ANY ERRORS OR OMISSIONS IN THESE PLANS. THE COUNTY SHALL BE AUTHORIZED TO REQUIRE DISCONTINUANCE OF ANY WORK AND SUCH CORRECTION AND MODIFICATION OF PLANS AS MAY BE NECESSARY TO COMPLY WITH COUNTY STANDARDS OR
- CONDITIONS OF DEVELOPMENT APPROVAL DEVELOPER SHALL OBTAIN ENCROACHMENT PERMITS FROM THE SANTA CLARA VALLEY WATER DISTRICT AND CALIFORNIA DEPARTMENT OF TRANSPORTATION WHERE NEEDED. COPIES OF THESE PERMITS SHALL BE KEPT AT THE JOB SITE 4
- FOR REVIEW BY THE COUNTY'S INSPECTOR. DEVELOPER SHALL REMOVE OR TRIM ALL TREES TO PROVIDE AN UNOBSTRUCTED FIFTEEN (15) FOOT VERTICAL CLEARANCE FOR ROADWAY AREA. THIS PLAN AUTHORIZES THE REMOVAL OF ONLY THOSE TREES WITH TRUNK DIAMETERS GREATER THAN 12 INCHES MEASURED 4.5 FEET ABOVE THE GROUND THAT ARE SHOWN TO BE REMOVED UNLESS AN AMENDED PLAN IS APPROVED OR A SEPARATE TREE REMOVAL PERMIT IS OBTAINED FROM THE PLANNING OFFICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT REMOVAL OF ADDITIONAL TREES HAS BEEN PERMITTED.
- DEVELOPER SHALL PROVIDE ADEQUATE DUST CONTROL AS REQUIRED BY THE COUNTY INSPECTOR ALL PERSONS MUST COMPLY WITH SECTION 4442 OF THE PUBLIC RESOURCES CODE AND SECTION 13005 OF THE HEALTH AND SAFETY CODE RELATING TO
- THE USE OF SPARK ARRESTERS. UPON DISCOVERING OR UNEARTHING ANY BURIAL SITE AS EVIDENCED BY HUMAN SKELETAL REMAINS OR ARTIFACTS, THE PERSON MAKING SUCH DISCOVERY SHALL IMMEDIATELY NOTIFY THE COUNTY CORONER AT (4008) 454-2520 AND LAND DEVELOPMENT ENGINEERING OFFICE AT (408) 299-5730. NO FURTHER DISTURBANCE OF THE SITE MAY BE MADE EXCEPT AS AUTHORIZED BY THE LAND DEVELOPMENT OFFICE IN ACCORD WITH PROVISIONS OF THIS ORDINANCE (COUNTY ORDINANCE CODE SECTION B6-18). THESE PLANS ARE FOR THE WORK DESCRIBED IN THE SCOPE OF WORK ONLY. A SEPARATE PERMIT WILL BE REQUIRED FOR THE SEPTIC LINE CONSTRUCTION.

### CONSTRUCTION STAKING

THE DEVELOPER'S ENGINEER IS RESPONSIBLE FOR THE INITIAL PLACEMENT AND REPLACEMENT OF CONSTRUCTION GRADE STAKES. THE STAKES ARE TO BE ADEQUATELY IDENTIFIED, LOCATED, STABILIZED, ETC. FOR THE CONVENIENCE OF CONTRACTORS. LATERAL OFFSET OF STAKES SET FOR CURBS AND

1. ANY DEVIATION FROM THESE APPROVED PLANS SHALL BE RE-APPROVED IN

WRITING BY THE COUNTY ENGINEER PRIOR TO CONSTRUCTION.

- GUTTERS SHALL NOT EXCEED 2 1/2 FEET FROM BACK OF CURB. ANY PROPERTY LINE STAKES OR ROAD MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY DEVELOPER'S ENGINEER AND LICENSED LAND SURVEYOR PROPERTY LINE STAKING MUST BE PERFORMED BY THE PROJECT ENGINEER OR
- LAND SURVEYOR TO ESTABLISH OR RE-ESTABLISH THE PROJECT BOUNDARY AND SHALL BE INSPECTED BY THE COUNTY INSPECTOR PRIOR TO THE BEGINNING OF THE WORK PROPER CONSTRUCTION STAKES SHALL BE SET IN THE FIELD BY THE PROJECT ENGINEER OR LAND SURVEYOR AND VERIFIED BY THE COUNTY INSPECTOR

### CONSTRUCTION INSPECTION

PRIOR TO THE COMMENCEMENT OF GRADING.

- CONTRACTOR SHALL NOTIFY PERMIT INSPECTION UNIT. SANTA CLARA COUNTY PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE. THE COUNTY REQUIRES A MINIMUM OF 24 HOURS ADVANCE NOTICE FOR GENERAL INSPECTION. 48 HOURS FOR ASPHALT CONCRETE INSPECTION INSPECTION BY SANTA CLARA COUNTY SHALL BE LIMITED TO INSPECTION OF MATERIALS AND PROCESSES OF CONSTRUCTION TO OBSERVE THEIR COMPLIANCE WITH PLANS & SPECIFICATIONS BUT DOES NOT INCLUDE
- RESPONSIBILITY FOR THE SUPERINTENDENT OF CONSTRUCTION, SITE CONDITIONS, EQUIPMENT OR PERSONNEL. CONTRACTOR SHALL NOTIFY THE COUNTY LAND DEVELOPMENT INSPECTOR AT PHONE (408) 299-6868 AT LEAST 24 HOURS PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE. DEVELOPER AND/OR HIS AUTHORIZED REPRESENTATIVE MUST SUBMIT WRITTEN
- REQUEST FOR FINAL INSPECTION AND ACCEPTANCE. SAID REQUEST SHALL BE DIRECTED TO THE INSPECTION OFFICE NOTED ON THE PERMIT FORM. THE CONTRACTOR SHALL PROVIDE TO THE COUNTY CONSTRUCTION INSPECTOR WITH PAD ELEVATION AND LOCATION CERTIFICATES, PREPARED BY THE PROJECT ENGINEER OR LAND SURVEYOR, PRIOR TO COMMENCEMENT OF THE BUILDING FOUNDATION.

### SITE PREPARATION (CLEARING AND GRUBBING). EXISTING TREES AUTHORIZED FOR REMOVAL, ROOTS, AND FOREIGN MATERIAL IN AREAS TO BE IMPROVED WILL BE REMOVED TO AN AUTHORIZED DISPOSAL SITE AS FOLLOWS:

- A) TO A MINIMUM DEPTH OF TWO FEET BELOW THE FINISHED GRADE OF 1. PROPOSED ROADWAYS (EITHER PRIVATE OR TO BE DEDICATED TO PUBLIC USE) B) FROM AREAS AFFECTED BY THE PROPOSED GRADING EXCEPT WHERE
- NOTED ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO MOVE OR RELOCATE UTILITY POLES AND OTHER OBSTRUCTIONS IN THE WAY OF CONSTRUCTION.

# JTILITY LOCATION. TRENCHING & BACKFILL

- CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 1-800-277-2600 A MINIMUM OF 24 HOURS BEFORE BEGINNING UNDERGROUND WORK FOR VERIFICATION OF THE LOCATION OF UNDERGROUND
- ACCURATE VERIFICATION AS TO SIZE, LOCATION, AND DEPTH OF EXISTING UNDERGROUND CONDUITS OR FACILITIES SHALL BE THE INDIVIDUAL CONTRACTORS RESPONSIBILITY. PLAN LOCATIONS ARE APPROXIMATE AND FOR
- GENERAL INFORMATION ONLY ALL UNDERGROUND INSTALLATIONS SHALL BE IN PLACE AND THE TRENCH BACKFILLED AND COMPACTED BEFORE PLACING AGGREGATE BASE MATERIAL OR SURFACE STRUCTURES. SURFACING MAY BE DONE IF THE UTILITY COMPANY CONCERNED INDICATES BY LETTER THAT IT WILL BORE. UNLESS SPECIFICALLY AUTHORIZED BY THE COUNTY, GAS AND WATER MAINS SHALL BE INSTALLED OUTSIDE THE PAVED AREAS.
- TRENCH BACKFILL IN EXISTING PAVEMENT AREAS SHALL BE SAND MATERIAL IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE SPECIFICATIONS. THE STRUCTURAL SECTION FOR TRENCH REPLACEMENT SHALL CONSIST OF NOT LESS THAN 12 INCHES OF APPROVED AGGREGATE BASE MATERIAL COMPACTED TO A RELATIVE COMPACTION OF AT LEAST 95% AND 4 INCHES OF HOT ASPHALT CONCRETE PLACED IN TWO LIFTS. TRENCH RESTORATION FOR HIGHER TYPE PAVEMENTS SHALL BE MADE IN KIND OR AS
- DIRECTED BY THE COUNTY. TRENCH BACKFILL IN NEW CONSTRUCTION AREAS SHALL BE SAND MATERIAL COMPACTED TO A RELATIVE COMPACTION OF AT LEAST 90%. THE REQUIREMENT FOR SELECT MATERIAL MAY BE WAIVED BY COUNTY IF THE NATIVE SOIL IS SUITABLE FOR USE AS TRENCH BACKFILL BUT THE COMPACTION REQUIREMENTS WILL NOT BE THEREBY WAIVED.
- BACKFILL AND TRENCH RESTORATION REQUIREMENTS SHALL APPLY AS MINIMUM STANDARDS TO ALL UNDERGROUND FACILITIES INSTALLED BY OTHER FIRMS OR PUBLIC AGENCIES.

# RETAINING WALLS

- REINFORCED CONCRETE AND CONCRETE MASONRY UNIT RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING CONTINUAL CONTROL OF THE COUNTY INSPECTOR. INSPECTOR AND ENGINEER OF RECORD PRIOR TO POURING THE FOUNDATION AND
- SEGMENTAL BLOCK RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING INSPECTOR.

### GRADING

- 1. EXCAVATED MATERIAL SHALL BE PLACED IN THE FILL AREAS DESIGNATED OR SHALL BE HAULED AWAY FROM THE SITE TO A COUNTY APPROVED DISPOSAL SITE. WHERE FILL MATERIAL IS TO BE PLACED ON NATURAL GROUND, IS SHALL BE STRIPPED OF ALL VEGETATION. TO ACHIEVE A PROPER BOND WITH THE FILL MATERIAL. THE SURFACE OF THE GROUND SHALL BE SCARIFIED TO DEPTH OF 6" BEFORE FILL IS PLACED. WHERE NATURAL GROUND IS STEEPER THAN 5:1, IT SHALL BE BENCHED AND THE FILL KEYED IN TO ACHIEVE STABILITY. WHERE NEW FILL IS TO BE PLACED ON EXISTING FILL THE EXISTING FILL SHALL BE REMOVED UNTIL MATERIAL COMPACTED TO 90% RELATIVE COMPACTION IS EXPOSED. THEN THE NEW FILL MATERIAL SHALL BE PLACED AS PER THESE CONSTRUCTION NOTES. FILL MATERIAL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 6" IN UNCOMPACTED THICKNESS. BEFORE COMPACTION BEGINS, THE FILL SHALL BE BROUGHT TO A WATER CONTENT THAT WILL PERMIT PROPER COMPACTION BY EITHER 1) AERATING THE FILL IF IT IS TOO WET OR 2) MOISTENING THE FILL WITH WATER IF IT IS TOO DRY. EACH LIFT SHALL BE THOROUGHLY MIXED BEFORE COMPACTION TO ENSURE A UNIFORM DISTRIBUTION OF MOISTURE EXCESS CUT MATERIAL SHALL NOT BE SPREAD OR STOCKPILED ON THE SITE. SURPLUS EARTH FILL MATERIAL SHALL BE PLACED IN A SINGLE (8" MAX) THICK LAYER COMPACTED TO WITHSTAND WEATHERING IN THE AREA(S)
- DELINEATED ON THE PLAN. NO ORGANIC MATERIAL SHALL BE PLACED IN ANY FILL. NO TREES SHALL BE REMOVED OUTSIDE OF CUT, FILL OR ROADWAY AREAS. 5. THE UPPER 6" OF SUBGRADE BELOW DRIVEWAY ACCESS ROAD OR PARKING AREA SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY. 6. MAXIMUM CUT SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL. MAXIMUM FILL SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL.

| LOCATION       | CUT (C.Y.) | FILL (C.Y.) | VERT. DEPTH |
|----------------|------------|-------------|-------------|
| RESIDENCE      | 1280       | _           | 2'          |
| ACCESSORY      |            |             |             |
| STRUCTURE      | _          | _           | _           |
| POOL/HARDSCAPE | 52         | _           | 1.5'        |
| LANDSCAPE      | 200        | _           | 1'          |
| DRIVEWAY       | 22         | _           | 1.5'        |
| OFF SITE       |            |             |             |
| IMPROVEMENTS   | 88         | _           | 1.5'        |
| TOTAL          | 1642       | _           | VARIES      |

- NOTE: FILL VOLUMES INCLUDE 10% SHRINKAGE. EXCESS MATERIAL SHALL BE OFF HAULED TO A COUNTY APPROVED DUMP
- NOTIFY SOILS ENGINEER TWO (2) DAYS PRIOR TO COMMENCEMENT OF ANY GRADING WORK TO COORDINATE THE WORK IN THE FIELD. ALL MATERIALS FOR FILL SHOULD BE APPROVED BY THE SOILS ENGINEER BEFORE IT IS BROUGHT TO THE SITE. 9. THE UPPER 6" OF THE SUBGRADE SOIL SHALL BE SCARIFIED, MOISTURE
- CONDITIONED AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95% 10. ALL AGGREGATE BASE MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION. 11. THE GEOTECHNICAL PLAN REVIEW LETTER MUST BE REVIEWED AND APPROVED BY THE COUNTY GEOLOGIST PRIOR TO FINAL APPROVAL BY THE COUNTY
- ENGINEER FOR BUILDING OCCUPANCY. 12. THE PROJECT GEOTECHNICAL ENGINEER SHALL PERFORM COMPACTION TESTING AND PRESENT THE RESULTS TO THE COUNTY ENGINEERING INSPECTOR PRIOR TO THE CONSTRUCTION OF ANY PAVED AREA.

ISSUED BY THE STATE AND THAT A CURRENT AND UP TO DATE STORM WATER

13. GRADING WORK BETWEEN OCTOBER 15TH AND APRIL 15TH IS AT THE DISCRETION OF THE SANTA CLARA COUNTY GRADING OFFICIAL. 14. TOTAL DISTURBED AREA FOR THE PROJECT 73,073 SF. 15. WDID NO. 2 43C400472 16. THE INSPECTOR MAY VERIFY THAT A VALID NOTICE OF INTENT (NOI) HAS BEEN

POLLUTION PREVENTION PLAN (SWPPP) IS AVAILABLE ON SITE.

## TREE PROTECTION

- 1. FOR ALL TREES TO BE RETAINED WITH A CANOPY IN THE DEVELOPMENT AREA OR INTERFACES WITH THE LIMITS OF GRADING FOR ALL PROPOSED DEVELOPMENT ON SITE. THE TREES SHALL BE PROTECTED BY THE PLACEMENT OF RIGID TREE PROTECTIVE FENCING CONSISTENT WITH THE COUNTY INTEGRATED LANDSCAPE GUIDELINES, AND INCLUDE THE FOLLOWING:
- FENCING SHOULD BE PLACED ALONG THE OUTSIDE EDGE OF THE DRIPLINE OF THE TREE OR GROVE OF TREES. THE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE CONSTRUCTION PERIOD AND SHALL BE INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION. FENCING SHALL BE REPAIRED, AS NECESSARY, TO PROVIDE A PHYSICAL
- BARRIER FROM CONSTRUCTION ACTIVITIES. SIGNAGE STATING, "WARNING- THIS FENCING SHALL NOT BE REMOVED WITHOUT PERMISSION FROM THE SANTA CLARA COUNTY PLANNING OFFICE (408) 299-5770. COUNTY OF SANTA CLARA TREE PROTECTION MEASURES MAY BE FOUND AT
- http://www.sccplanning.gov." SHALL BE PLACED ON THE TREE PROTECTIVE FENCING UNTIL FINAL OCCUPANCY. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, TREE PROTECTIVE FENCING SHALL BE SECURELY IN PLACED AND INSPECTED BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR. SEE EXISTING TREE PROTECTION DETAILS FOR MORE INFORMATION.

### ACCESS ROADS AND DRIVEWAYS

- DRIVEWAY LOCATIONS SHALL BE AS SHOWN ON THE IMPROVEMENT PLANS WITH CENTERLINE STATIONING. THE MINIMUM CONCRETE THICKNESS SHALL BE 6 INCHES THROUGHOUT (WITH A MAXIMUM APPROACH SLOPE OF 1 1/4 INCHES PER FOOT)
- 2. ALL DRIVEWAY OR COMMON ACCESS ROAD SECTIONS IN EXCESS OF 15 LONGITUDINAL SLOPE MUST BE PAVED WITH A MINIMUM 2-INCH ASPHALT LIFT OR FULL DEPTH CONCRETE LIFT PRIOR TO ANY COMBUSTIBLE FRAMING. THE OWNER AND PRIME CONTRACTOR ARE RESPONSIBLE FOR MAINTAINING PROJECT SITE ACCESS AND NEIGHBORHOOD ACCESS FOR EMERGENCY VEHICLES
- AND LOCAL RESIDENTS. 4. ROADWAYS DESIGNATED AS NOT COUNTY MAINTAINED ROADS AS SHOWN ON THE PLAN WILL NOT BE ELIGIBLE FOR COUNTY MAINTENANCE UNTIL THE ROADWAYS ARE IMPROVED (AT NO COST TO THE COUNTY) TO THE PUBLIC MAINTENANCE ROAD STANDARDS APPROVED BY THE BOARD OF SUPERVISORS AND IN EFFECT AT SUCH TIME THAT THE ROADWAYS ARE CONSIDERED FOR ACCEPTANCE INTO THE COUNTY'S ROAD SYSTEM.
- ALL WORK IN THE COUNTY ROAD RIGHT-OF-WAY REQUIRES AN ENCROACHMENT PERMIT FROM THE ROADS AND AIRPORTS DEPARTMENT. EACH INDIVIDUAL ACTIVITY REQUIRES A SEPARATE PERMIT - I.E. CABLE, ELECTRICAL. GAS, SEWER, WATER, RETAINING WALLS, DRIVEWAY APPROACHES, FENCES, LANDSCAPING, TREE REMOVAL, STORM DRAINAGE IMPROVEMENTS, ETC..

### STREET LIGHTING

1. PACIFIC GAS & ELECTRIC ELECTROLIER SERVICE FEE SHALL BE PAID BY THE DEVELOPER AND/OR HIS AUTHORIZED REPRESENTATIVE.

## SANITARY SEWER

- THE SANITARY SEWER AND WATER UTILITIES SHOWN ON THESE PLANS ARE NOT PART OF THIS GRADING PERMIT AND ARE SHOWN FOR REFERENCE ONLY.
- ALL MATERIALS AND METHODS OF CONSTRUCTION OF SANITARY SEWERS SHALL CONFORM TO THE SPECIFICATIONS OF THE JURISDICTION INVOLVED. INSPECTION OF SANITARY SEWER WORK SHALL BE DONE BY SAID JURISDICTION.

### PORTLAND CEMENT CONCRETE

CONCRETE USED FOR STRUCTURAL PURPOSES SHALL BE CLASS "A" (6 SACK PER CUBIC YARD) AS SPECIFIED IN THE STATE STANDARD SPECIFICATIONS. CONCRETE PLACED MUST DEVELOP A MINIMUM STRENGTH FACTOR OF 2800 PSI IN A SEVEN-DAY PERIOD. THE CONCRETE MIX DESIGN SHALL BE UNDER THE

### AIR QUALITY, LANDSCAPING AND EROSION CONTROL

- WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY (NON-TOXIC) SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES. THE USE OF DRY POWDER SWEEPING IS PROHIBITED.
- SWEEPING IS PROHIBITED. 6. ALL CONSTRUCTION VEHICLES, EQUIPMENT AND DELIVERY TRUCKS SHALL HAVE A MAXIMUM IDLING TIME OF 5 MINUTES (AS REQUIRED BY THE CALIFORNIA AIRBORNE TOXIC CONTROL MEASURE TITLE 13, SECTION 2485 OF CALIFORNIA CODE OF REGULATIONS (CCR)). ENGINES SHALL BE SHUT OFF IF

SWEEP STREETS DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS

CARRIED ONTO ADJACENT PUBLIC STREETS. THE USE OF DRY POWDER

CONSTRUCTION REQUIRES LONGER IDLING TIME UNLESS NECESSARY FOR PROPER OPERATION OF THE VEHICLE. ALL VEHICLE SPEEDS ON UNPAVED ROADS SHALL BE LIMITED TO 15 MILES PER HOUR. ALL CONSTRUCTION EQUIPMENT SHALL BE MAINTAINED AND PROPERLY TUNED

IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. ALL EQUIPMENT

SHALL BE CHECKED BY A CERTIFIED MECHANIC AND DETERMINED TO BE

- RUNNING IN PROPER CONDITION PRIOR TO OPERATION. POST A SIGN THAT IS AT LEAST 32 SQUARE FEET MINIMUM 2 INCHES LETTER HEIGHT VISIBLE NEAR THE ENTRANCE OF CONSTRUCTION SITE THAT IDENTIFIES THE FOLLOWING REQUIREMENTS. OBTAIN ENCROACHMENT PERMIT FOR SIGN FROM ROADS DEPARTMENT OR OTHER APPLICABLE AGENCY IF REQUIRED.
- A. 15 MILES PER HOUR (MPH) SPEED LIMIT B. 5 MINUTES MAXIMUM IDLING TIME OF VEHICLES TELEPHONE NUMBER TO CONTACT THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT REGARDING DUST COMPLAINTS. NOTE PHONE NUMBER OF THE BAY AREA AIR  $\;\;\;$  QUALITY MANAGEMENT DISTRICT AIR POLLUTION COMPLAIN HOTLINE OF 1-800-334-6367.
- 10. ALL FILL SLOPES SHALL BE COMPACTED AND LEFT IN A SMOOTH AND FIRM CONDITION CAPABLE OF WITHSTANDING WEATHERING. 11. ALL EXPOSED DISTURBED AREAS SHALL BE SEEDED WITH BROME SEED SPREAD AT THE RATE OF 5 LB. PER 1000 SQUARE FEET (OR APPROVED EQUAL). SEEDING AND WATERING SHALL BE MAINTAINED AS REQUIRED TO ENSURE
- 12. ALL DITCHES SHALL BE LINED PER COUNTY STANDARD SD8. 13. ALL STORM DRAINAGE STRUCTURES SHALL BE INSTALLED WITH EFFECTIVE ENTRANCE & OUTFALL EROSION CONTROLS E.G. SACKED CONCRETE RIP-RAP. ENERGY DISSIPATERS SHALL BE INSTALLED AT ALL DITCH OUTFALLS. WHERE OUTFALLS ARE NOT INTO AN EXISTING CREEK OR WATER COURSE, RUNOFF SHALL BE RELEASED TO SHEET FLOW. 14. PRIOR TO GRADING COMPLETION AND RELEASE OF THE BOND, ALL GRADED
- AREAS SHALL BE RESEEDED IN CONFORMANCE WITH THE COUNTY GRADING ORDINANCE TO MINIMIZE THE VISUAL IMPACTS OF THE GRADE SLOPES AND REDUCE THE POTENTIAL FOR EROSION OF THE SUBJECT SITE. 15. PERMANENT LANDSCAPING SHOWN ON THE ATTACHED LANDSCAPE PLAN MUST BE INSTALLED AND FIELD APPROVED BY THE COUNTY PLANNING OFFICE PRIOR TO FINAL APPROVAL BY THE COUNTY ENGINEER, AND FINAL OCCUPANCY

RELEASE BY THE BUILDING INSPECTION OFFICE.

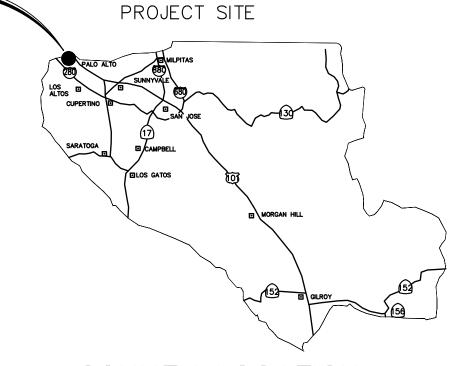
- 16. THE OWNER SHALL PREPARE AND PRESENT A WINTERIZATION REPORT TO THE COUNTY INSPECTOR FOR REVIEW PRIOR TO OCTOBER 15TH OF EVERY YEAR. 17. THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL INSTALL AND MAINTAIN CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPS) ON THE PROJECT SITE AND WITHIN THE SANTA CLARA COUNTY ROAD RIGHT-OF-WAY THROUGHOUT THE DURATION OF THE CONSTRUCTION AND UNTIL THE ESTABLISHMENT OF PERMANENT STABILIZATION AND SEDIMENT CONTROL TO PREVENT THE DISCHARGE OF POLLUTANTS INCLUDING SEDIMENT, CONSTRUCTION MATERIALS, EXCAVATED MATERIALS, AND WASTE INTO THE SANTA CLARA COUNTY RIGHT-OF-WAY, STORM SEWER
- WATERWAYS, ROADWAY INFRASTRUCTURE. BMPS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING; A. PREVENTION OF POLLUTANTS IN STORM WATER DISCHARGES FROM THE CONSTRUCTION SITE AND THE CONTRACTOR'S MATERIAL AND
- EQUIPMENT LAYDOWN / STAGING AREAS. B. PREVENTION OF TRACKING OF MUD, DIRT, AND CONSTRUCTION MATERIALS ONTO THE PUBLIC ROAD RIGHT-OF-WAY. PREVENTION OF DISCHARGE OF WATER RUN-OFF DURING DRY AND WET
- WEATHER CONDITIONS ONTO THE PUBLIC ROAD RIGHT-OF-WAY. 18. THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL ENSURE THAT ALL TEMPORARY CONSTRUCTION FACILITIES. INCLUDING BUT NOT LIMITED TO CONSTRUCTION MATERIALS, DELIVERIES, HAZARDOUS AND NON-HAZARDOUS MATERIAL STORAGE, EQUIPMENT, TOOLS, PORTABLE TOILETS. CONCRETE WASHOUT, GARBAGE CONTAINERS, LAYDOWN YARDS, SECONDARY CONTAINMENT AREAS, ETC. ARE LOCATED OUTSIDE THE SANTA CLARA COUNTY ROAD RIGHT-OF-WAY.
- 19. EROSION CONTROL PLAN IS A GUIDE AND SHALL BE AMENDED AS NECESSARY TO PREVENT EROSION AND ILLICIT DISCHARGES ON A YEAR AROUND BASIS, DEPENDING ON THE SEASON, WEATHER, AND FIELD CONDITIONS. EROSION CONTROL MEASURES IN ADDITION TO THOSE NOTED IN THE PERMITTED PLANS MAY BE NECESSARY. FAILURE TO INSTALL SITE SITE AND SITUATIONALY APPROPRIATE EROSION CONTROL MEASURES MAY RESULT IN VIOLATIONS, FINES, AND A STOPPAGE OF WORK.

## STORM DRAINAGE AND STORMWATER MANAGEMENT

- 1. DEVELOPER IS RESPONSIBLE FOR ALL NECESSARY DRAINAGE FACILITIES WHETHER SHOWN ON THE PLANS OR NOT AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE RESPONSIBLE FOR THE ADEQUACY AND CONTINUED MAINTENANCE OF THESE FACILITIES IN A MANNER WHICH WILL PRECLUDE ANY HAZARD TO LIFE, HEALTH, OR DAMAGE TO ADJOINING PROPERTY, CONSISTENT WITH NPDES PERMIT CAS612008 / ORDER NO. R2-2009-0047 AND NPDES
- PERMIT CAS000004/ ORDER NO. 2013-0001-DWQ. DROP INLETS SHALL BE COUNTY STANDARD TYPE 5 UNLESS OTHERWISE NOTED ON THE PLANS. THE DEVELOPER'S ENGINEER SHALL BE RESPONSIBLE FOR THE PROPER LOCATION OF DROP INLETS. WHERE STREET PROFILE GRADE EXCEEDS 6% DROP INLETS SHALL BE SET AT 500 ANGLE CURB LINE TO ACCEPT WATER OR AS SHOWN ON THE PLANS.
- WHERE CULVERTS ARE INSTALLED THE DEVELOPER SHALL BE RESPONSIBLE FOR GRADING THE OUTLET DITCH TO DRAIN TO AN EXISTING SWALE OR TO AN OPEN AREA FOR SHEET FLOW. UPON INSTALLATION OF DRIVEWAY CONNECTIONS, PROPERTY OWNERS SHALL
- PROVIDE FOR THE UNINTERRUPTED FLOW OF WATER IN ROADSIDE DITCHES. THE COUNTY SHALL INSPECT UNDERGROUND DRAINAGE IMPROVEMENTS AND STORMWATER MANAGEMENT FEATURES PRIOR TO BACKFILL.

1. A CONSTRUCTION OBSERVATION LETTER FROM THE RESPONSIBLE GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST DETAILING CONSTRUCTION OBSERVATIONS AND CERTIFYING THAT THE WORK WAS DONE IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL AND GEOLOGIC REPORTS SHALL BE SUBMITTED PRIOR TO THE GRADING COMPLETION AND RELEASE OF THE BOND.

ROAD: GRANT AVE





### SURVEY MONUMENT PRESERVATION

PROJECT LOCATION

- 1. THE LANDOWNER / CONTRACTOR MUST PROTECT AND ENSURE THE PERPETUATION OF SURVEY MONUMENTS AFFECTED BY CONSTRUCTION
- 2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE, STAKE, AND FLAG OR OTHERWISE IDENTIFY WITH PAINT OR OTHER MARKINGS ALL PERMANENT SURVEY MONUMENTS OF RECORD AND ANY UNRECORDED MONUMENTS THAT ARE DISCOVERED THAT ARE WITHIN 50 FEET OF THE
- CONSTRUCTION ACTIVITY. 3. THE LANDOWNER, CONTRACTOR AND/OR ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES THAT WILL OR MAY DISTURB AN EXISTING MONUMENT, CORNER STAKE, OR ANY OTHER PERMANENT SURVEYED MONUMENT SHALL CAUSE TO HAVE A LICENSED LAND SURVEYOR OR CIVIL ENGINEER, AUTHORIZED TO PRACTICE SURVEYING, ENSURE THAT A CORNER RECORD AND/OR RECORD OF SURVEY ARE FILED WITH THE COUNTY SURVEYOR'S OFFICE PRIOR TO DISTURBING SAID MONUMENTS AND RESET PERMANENT MONUMENT(S) IN THE SURFACE OF THE NEW CONSTRUCTION OR SET A WITNESS MONUMENT(S) TO PERPETUATE THE LOCATION IF ANY PERMANENT MONUMENT COÙLD BE DESTROYED, DAMAGED, COVERED, DISTURBED, OR OTHERWISE OBLITERATED. THE LICENSED LAND SURVEYOR OR CIVIL ENGINEER SHALL FILE A CORNER RECORD OR RECORD OF SURVEY WITH COUNTY SURVEYOR PRIOR TO FINAL ACCEPTANCE OF THE PROJECT BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR.

STORMWATER INSPECTION SITE

MONTHLY WET SEASON STORMWATE

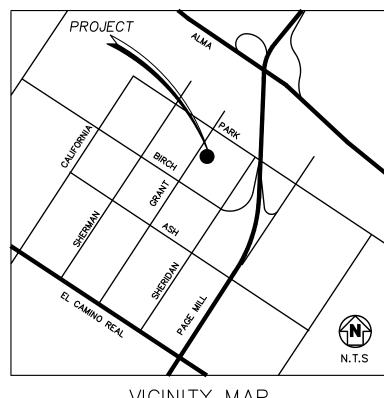
**CONTROLS INSPECTION IS REQUIRED** 

COUNTY OF SANTA CLARA DEPT. OF ROADS AND AIRPORTS

NO WORK SHALL BE DONE IN THE COUNTY'S RIGHT-OF-WAY

STAGING OF CONSTRUCTION MATERIAL AND THE PLACEMENT

WITHUOT AN ENCROACHEMENT PERMIT. INCLUDING THE



VICINITY MAP

# SCOPE OF WORK

231 GRANT

EDUCATOR HOUSING

PALO ALTO, CA 94306

PROPOSED ON THE EROSION CONTROL PLAN. THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE DESIGN OF THE EROSION CONTROL PLANS AND ANY MODIFICATIONS OF THE EROSION CONTROL PLANS TO PREVENT ILLICIT DISCHARGES FROM THE SITE DURING CONSTRUCTION.

1. THE DEVELOPER IS RESPONSIBLE FOR THE INSTALLATION OF THE WORK

2. PERFORM GRADING ACTIVITIES PRIOR TO PERMANENT IMPROVEMENTS BEING INSTALLED.

3. NEW ON-SITE IMPROVEMENTS INCLUDE RESIDENTIAL LANDSCAPES, AND CONCRETE HARDSCAPE IMPROVEMENTS WALKWAYS AND OPEN SPACE AREAS.

### OTHER ITEMS TO BE INCLUDED UNDER SEPARATE PERMITS RE: - NEW VERTICAL CURB AND GUTTER WITHIN THE PUBLIC RIGHT OF WAY.

- NEW ASPHALTIC CONCRETE WITHIN GRANT AVE. - NEW STORM DRAIN INLETS WITHIN GRANT AVE WITH THE CONNECTIONS
- GOING TO THE CITY'S SYSTEM. NEW ON-SITE IMPROVEMENTS INCLUDE A NEW BUILDING AND NON-STORM

# EXISTING TREE PROTECTION DETAILS

CHAIN SEE SIGNAGE LINK DETAIL

)'—0" MAX**⋙** 

- PRIOR TO THE COMMENCEMENT OF ANY GRADING, TREE PROTECTIVE FENCING SHALL BE IN PLACE IN ACCORDANCE WITH THE TREE PRESERVATION PLAN AND INSPECTED BY A CERTIFIED ARBORIST. THE ARBORIST SHALL MONITOR CONSTRUCTION ACTIVITY TO ENSURE THAT THE TREE PROTECTION MEASURES ARE IMPLEMENTED AND ADHERED TO DURING CONSTRUCTION. THIS CONDITION SHALL BE INCORPORATED INTO THE GRADING PLANS.
- FENCE SHALL BE MINIMUM 5 FEET TALL CONSTRUCTED OF STURDY MATERIAL (CHAIN-LINK OR EQUIVALENT STRENGTH/ DURABILITY).
- . FENCE SHALL BE SUPPORTED BY VERTICAL POSTS DRIVEN 2 FEET (MIN) INTO THE GROUND AND SPACED NOT MORE THAN 10 FEET APART. 4. TREE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE DURING THE CONSTRUCTION PERIOD, INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION, REPAIRED AS NECESSARY TO PROVIDE A PHYSICAL BARRIER FROM CONSTRUCTION ACTIVITIES, AND REMAIN IN PLACE UNTIL THE FINAL
- 5. A SIGN THAT INCLUDES THE WORDS, "WARNING: THIS FENCE SHALL NOT BE REMOVED WITHOUT THE EXPRESSED PERMISSION OF THE SANTA CLARA COUNTY PLANNING OFFICE," SHALL BE SECURELY ATTACHED TO THE FENCE IN A VISUALLY PROMINENT LOCATION.

DEV22-1434

# COUNTY OF SANTA CLARA LAND DEVELOPMENT ENGINEERING OFFICE PLANS APPROVED FOR PERMIT

RECORD NO.:

BY: E.D. Date: <u>6/27/2023</u> ISSUE HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS

**GRADI** 

TENSION

BAR (OPT)

PIPE 2" O.C. -

OF PORTABLE TOILETS. ENGINEER'S STATEMENT HEREBY STATE THAT THESE PLANS ARE IN COMPLIANCE WITH ADOPTED COUNTY STANDARDS APPROVED, THE APPROVED TENTATIVE MAP (OR PLAN) AND CONDITIONS OF APPROVAL PERTAINING THERETO DATED

DATE 6/22/2023



COUNTY ENGINEER'S NOTE

ISSUED BY: \_

FILE(S) NO.\_

ENCROACHMENT PERMIT NO.

ISSUANCE OF A PERMIT AUTHORIZING CONSTRUCTION DOES NOT RELEASE THE DEVELOPER, PERMITTEE OF ENGINEER FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS OR OMISSIONS CONTAINED IN THE PLANS. IF, DURING THE COURSE OF CONSTRUCTION, THE PUBLIC INTEREST REQUIRES A MODIFICATION OF (OR DEPARTURE FROM) THE SPECIFICATIONS OF THE PLANS, THE COUNTY SHALL HAVE THE AUTHORITY TO REQUIRE THE SUSPENSION OF WORK, AND THE NECESSARY MODIFICATION OR DEPARTURE AND TO SPECIFY THE MANNER IN WHICH THE SAME IS TO BE MADE.

DARRELL K.H. WONG BHARADWAJ SURYANARAYAN VEDULA <del>63958</del> 74440 <del>9/30/2024</del> 9/30/2023 EXPIRATION DATE R.C.E. NO.

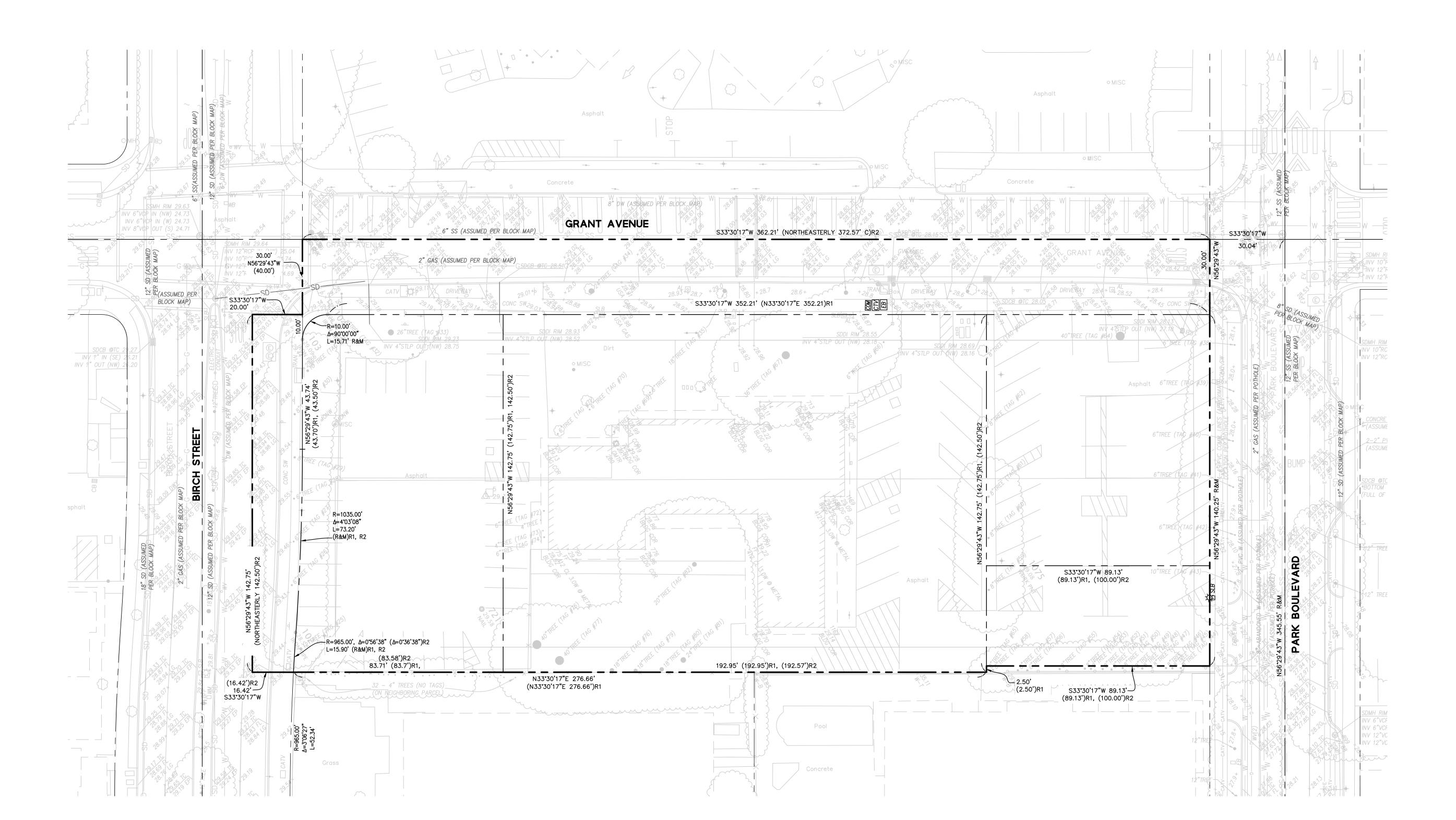
# SHEET INDEX

COUNTY NOTE SHEET C1.0 EXISTING CONDITION PLAN C2.0 DEMOLITION PLAN C3.0 CIVIL SITE PLAN C4.0 GRADING AND DRAINAGE PLAN C5.0 UTILITY PLAN C6.0 EROSION CONTROL PLAN C6.1 BMP-1 C6.2 BMP-2C7.0 STORMWATER MANAGEMENT PLA ENGINEER'S NAME: \_\_\_\_PATRICK CHAN

ADDRESS: 1730 N. FIRST STREET SAN JOSE, CA 95112

408-467-6100 PHONE NO. FAX NO.

DateRevision 1 Sheet132-31-074 Revision 2 Co. File Revision 3



**COUNTY OF SANTA CLARA** LAND DEVELOPMENT ENGINEERING OFFICE PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1434 BY: <u>E.D.</u> Date: <u>6/27/2023</u>

HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS

### **LEGEND VAN METER** BOUNDARY LINE \_\_\_\_

\_\_\_\_\_\_ ROADWAY CENTER LINE \_\_\_\_\_\_

BUILDING WALL LINE FENCE LINE \_\_\_\_×\_\_\_ EXISTING DRIVEWAY DRIVEWAY CC SW SIDEWALK \_\_\_\_\_

LOT LINE

EASEMENT LINE

OVERHEAD LINE COMMUNICATION LINE \_\_\_\_\_COMM\_\_\_\_ ELECTRICAL LINE GAS LINE

STORM DRAIN LINE \_\_\_\_SD\_\_\_\_ SANITARY SEWER LINE \_\_\_\_\_SS\_\_\_\_ WATER LINE (TC XX.X±) ELEVATION BOLLARD 8 COMMUNICATION BOX

ELECTRIC BOX FIRE HYDRANT GAS METER GUY WIRE JOINT POLE SANITARY SEWER CLEANOUT SANITARY SEWER MANHOLE STORM DRAIN CATCH BASIN STORM DRAIN DROP INLET STORM DRAIN MANHOLE STREET LIGHT BOX SURVEY IRON PIPE SURVEY STREET MONUMENT TRAFFIC SIGNAL TRAFFIC SIGNAL BOX

UNKNOWN MANHOLE

SURVEY NOTES

BASIS OF BEARINGS

COUNTY RECORDS.

BENCHMARK

CITY OF PALO ALTO BENCHMARK: BM 2348

ELEVATION = 29.40 FEET (NGVD 29)

. ALL DISTANCES, DIMENSIONS AND ELEVATIONS SHOWN ARE IN U.S. SURVEY FEET AND DECIMALS HEREON, UNLESS OTHERWISE STATED.

2. THE DATES OF THE CONDUCTED FIELD SURVEY; AUGUST 17-27, 2020.

. THE LOCATION OF UTILITIES SHOWN ON THIS SURVEY ARE DERIVED FROM SURFACE OBSERVATION ONLY. NO WARRANTY IS IMPLIED AS TO THE ACTUAL LOCATION, SIZE OR PRESENCE OF ANY ADDITIONAL UTILITIES THAT ARE NOT SHOWN ON THIS SURVEY.

4. AERIAL TOPO USED AS A BACKGROUND FOR THIS SURVEY WAS PROVIDED

BY 360 AERIAL SURVEYS. DATE OF PHOTOGRAPHY IS AUGUST 13, 2020.

N 37°57'02" E BETWEEN MONUMENTS FOUND AS SHOWN HEREON, AND AS SAID MONUMENTS ARE CALCULATED FROM THAT CERTAIN RECORD OF SURVEY MAP RECORDED IN BOOK 223 OF MAPS, AT PAGE 2, SANTA CLARA

BRASS DISK ON TOP OF CONCRETE PILLAR, AT BOTTOM/ CENTER OF SOUTHWESTERLY HEADWALL ON PARK AVENUE BRIDGE AT MATADERO CREEK, 30 MORE OR LESS FEET FROM FRY'S ELECTRONICS PARKING LOT.

WATER METER

WATER VALVE

ALAMO, CA 94507 LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110

PO BOX 737

CIVIL ENGINEER

BKF ENGINEERS

1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES

MILLENIUM DESIGN

STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

**WILLIAMS** 

ARCHITECTURE | URBAN DESIGN - SAN FRANCISCO | DENVER | MINNEAPOLIS

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MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99 LYNWOOD, WA 98036

ENERGY CONSULTANT REDWOOD ENERGY 1887 Q STREET ARCATA, CA 95521





| ID | DATE     | NAME                  |
|----|----------|-----------------------|
| 1  | 11/11/22 | PERMIT SET-CONV       |
| Α  | 12/16/22 | BID SET               |
| 2  | 03/20/23 | PLAN CHECK RESPONSE 2 |
| В  | 03/20/23 | BID ADDENDUM          |
| C2 | 06/02/23 | MINOR ARCH REV. 1     |
| 3  | 6/20/23  | PLAN CHECK RESPONSE 3 |
|    |          |                       |

# EDUCATOR HOUSING 231 GRANT AVENUE

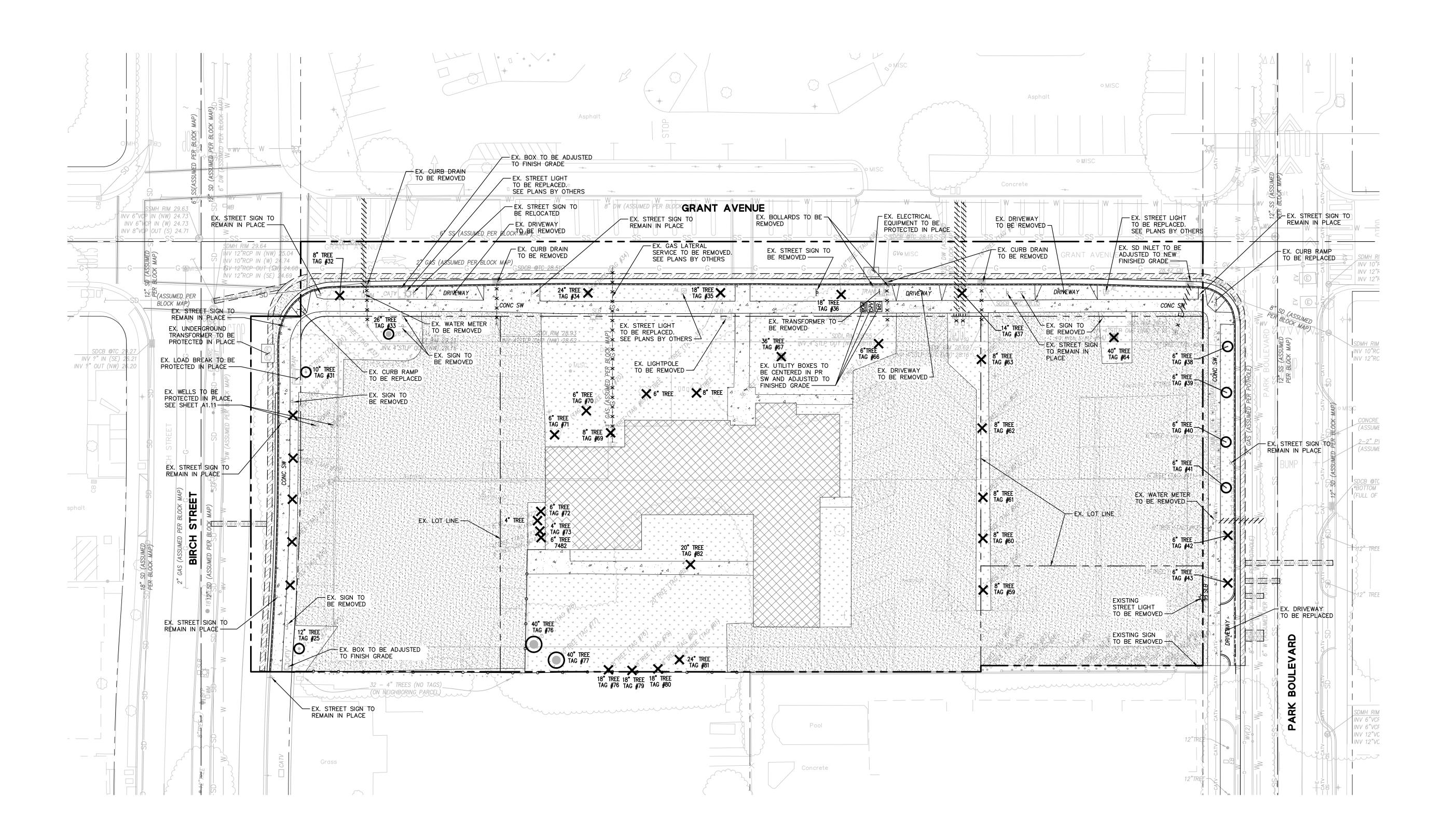
231 GRANT AVE PALO ALTO, CA 94306



**EXISTING** CONDITIONS

JOB #: 20192086 C1.0

PLAN CHECK RESPONSE 2 | DATE: 03/20/23



COUNTY OF SANTA CLARA LAND DEVELOPMENT ENGINEERING OFFICE PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1434 BY: <u>E.D.</u> Date: <u>6/27/2023</u> HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS

# **LEGEND**

BOUNDARY LINE LOT LINE ROADWAY CENTER LINE

REMOVE EX. ASPHALT AND BASEROCK REMOVE EX. CONCRETE PAVEMENT AND BASEROCK

REMOVE EX. STRUCTURE, FOUNDATION, AND BASEROCK REMOVE EX. COMPACTED GRAVEL AND VEGETATION (INCLUDES BOLLARDS)

2' WIDE UTILITY TRENCH AC DEEP LIFT LIMIT OF SAWCUT

ABANDON EXISTING UTILITY LINE PER CITY STANDARD. CAP AT THE PROPERTY LINE REMOVE EX. OVERHEAD LINE REMOVE EX. UTILITY LINE REMOVE EX. FENCE

REMOVE EX. TREE (SEE LANDSCAPE PLANS) PROTECT EX. TREE (SEE LANDSCAPE PLANS)

**GENERAL DEMOLITION NOTES** 

POLLUTION PREVENTION REQUIREMENTS.

SERVICE(S) AND GAS SERVICE(S).

WORK OUTSIDE OF THE PROPERTY LINE SHOULD BE PERFORMED AS NEEDED, ON SCHEDULE. SUCH AREAS ARE NOT TO BE CLOSED FOR THE ENTIRE DURATION OF CONSTRUCTION.

2. CONTRACTOR SHALL PROTECT EXISTING DRY UTILITY INSTALLATIONS, POLES, TRANSFORMERS, OVERHEAD LINES AND UTILITY VAULTS UNTIL THEY ARE

CONTRACTOR SHALL REMOVE ALL IRRIGATION LINES AND APPURTENANCES, WHETHER INDICATED ON THIS PLAN OR NOT.

4. ITEMS SHOWN TO BE REMOVED OR ABANDONED ARE INDICATED PER INFORMATION AVAILABLE TO THE ENGINEER. IT IS THE INTENTION OF THESE PLANS TO REMOVE OR ABANDON ALL EXISTING UTILITIES AND IMPROVEMENTS TO ALLOW CONSTRUCTION OF THE PROPOSED IMPROVEMENTS, WHETHER INDICATED ON THIS PLAN OR NOT. THE PRESENCE OF ANY ADDITIONAL LITERATURE OF THE PROPOSED IMPROVEMENTS.

UTILITIES NOT SHOWN ON THIS PLAN SHALL BE VERIFIED BY CONTRACTOR PRIOR TO DEMOLITION.

CONTRACTOR SHALL REFER TO THE TITLE/CONSTRUCTION NOTES (SHEET CO.0), EROSION CONTROL PLAN (SHEET C6.0) AND CITY'S BEST MANAGEMENT PRACTICES (SHEETS C6.1 AND C6.2) FOR STORM WATER

CONTRACTOR SHALL COORDINATE WITH CITY WATER GAS WASTEWATER (WGW) TO DISCONNECT AND REMOVE EXISTING WATER SERVICE(S), SANITARY SEWER

CONTRACTOR SHALL COORDINATE WITH CITY UTILITIES (ELECTRIC) TO

10. EXCAVATION ACTIVITIES ASSOCIATED WITH THE INSTALLATION OF THE

8. CONTRACTOR SHALL COORDINATE WITH COMCAST AND AT&T TO DISCONNECT AND REMOVE EXISTING CABLE TELEVISION SERVICE(S) AND TELEPHONE

CONTRACTOR SHALL CLEAR, GRUB AND REMOVE ALL EXISTING VEGETATION AND TOP SOIL FROM LANDSCAPED AREA. TOP SOIL MAY BE STOCKPILED FOR RE-USE IN LANDSCAPED AREAS UPON APPROVAL.

DRIVEWAY APPROACH AND UTILITIES SHALL OCCUR NO CLOSER THAN 10 FEET FROM THE EXISTING STREET TREE, AS APPROVED BY THE URBAN FORESTRY DIVISION. ANY CHANGES SHALL BE APPROVED BY THE SAME.

BACKFILL FROM DEMOLITION ACTIVITIES SHALL BE COMPACTED PER THE GEOTECHNICAL REPORT AND THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH THE GEOTECHNICAL ENGINEER TO TAKE THE APPROPRIATE TESTS TO VERIFY COMPACTION VALUES.

DISCONNECT AND REMOVE EXISTING ELECTRIC SERVICE(S).

REMOVE EX. CURB

-000000000 ------X TAG #

\_ \_ \_ \_ \_ \_ \_

**VAN METER** ARCHITECTURE | URBAN DESIGN ■ SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

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SAN JOSE, CA 95112

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STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100

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MEP ENGINEER EMERALD CITY ENGINEERS 21705 HIGHWAY 99 LYNWOOD, WA 98036

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|    |          |                       |

# EDUCATOR HOUSING 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



# **DEMOLITION PLAN**

JOB #: 20192086

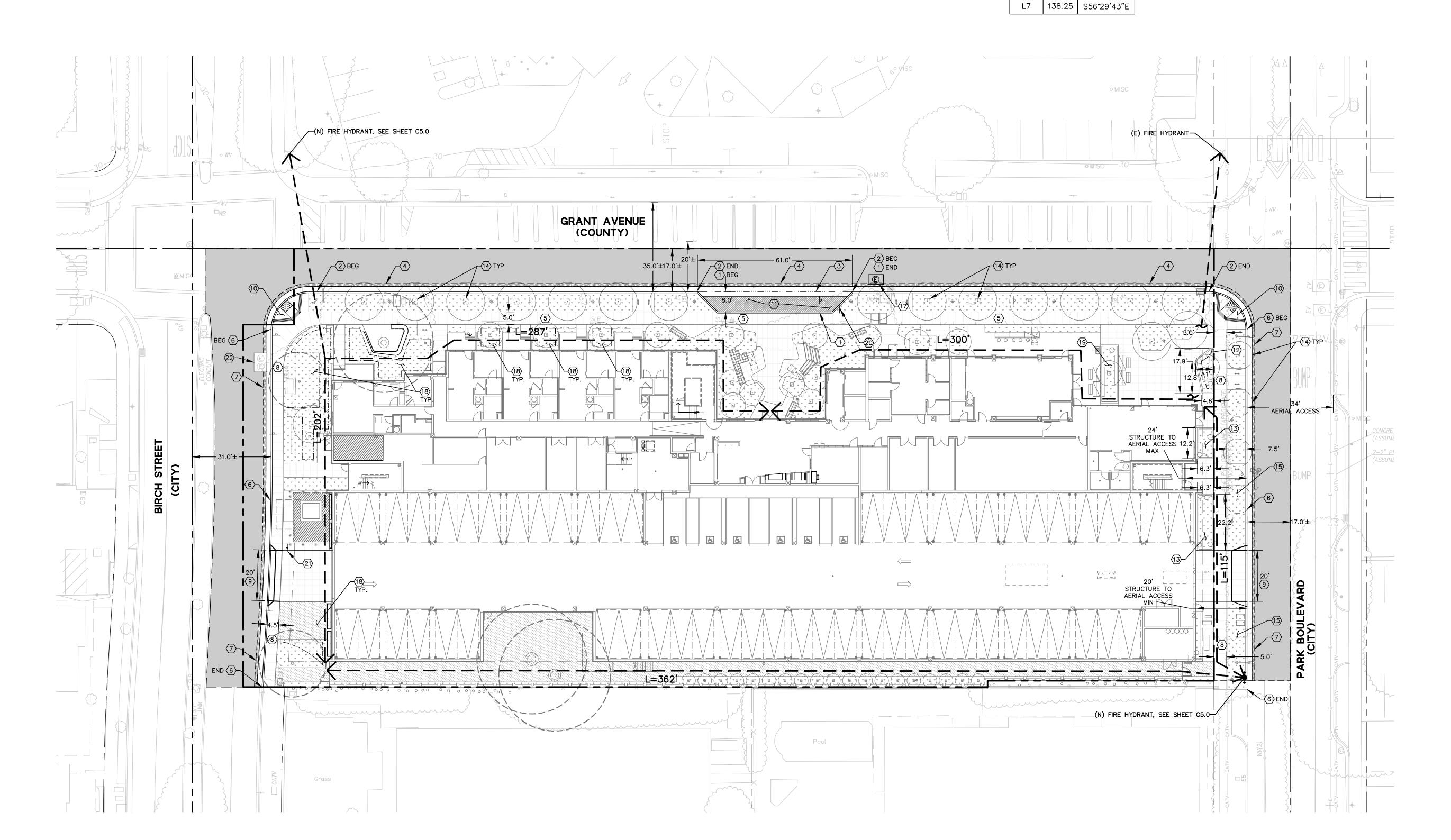
C2.0

PLAN CHECK RESPONSE 2 | DATE: 03/20/23

DEMOLITION TO BE PERMITTED AND PREFORMED UNDER SEPARATE PERMIT

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Line T | able       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------|
| Line #                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Length | Direction  |
| L1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 51.74  | N56°29'43" |
| L2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 152.84 | N33°30'17" |
| L3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 11.31  | N78°30'17" |
| L4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 45.00  | N33°30'17" |
| L5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 11.31  | N11°29'43" |
| L6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 140.37 | N33°30'17" |
| The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s |        |            |

|     |         | Curv   | ve Table |                     |
|-----|---------|--------|----------|---------------------|
| on  | Curve # | Length | Radius   | Delta               |
| 3"W | C1      | 16.53  | 974.00   | 000 <b>°</b> 58'21" |
| 7"E | C2      | 72.56  | 1026.00  | 004°03'08"          |
| 7"E | C4      | 23.56  | 15.00    | 090°00'00"          |
| 7"E | C5      | 23.56  | 15.00    | 090°00'00"          |
| 3"W | ·       |        | ·        |                     |



COUNTY OF SANTA CLARA
LAND DEVELOPMENT ENGINEERING OFFICE PLANS APPROVED FOR PERMIT RECORD NO.: DEV22-1434 BY: <u>E.D.</u> Date: <u>6/27/2023</u> HARD COPY OF THESE STAMPED PLANS MUST BE ON THE SITE FOR INSPECTIONS

**LEGEND** BOUNDARY LINE LOT LINE EASEMENT LINE ROADWAY CENTER LINE BIORETENTION BASIN FLOWLINE FOR SELF-RETAINING AREA \_\_\_\_\_ 2" MIN. AC GRIND & OVERLAY AC DEEPLIFT AC FULL SECTION CONCRETE SIDEWALK LANDSCAPING PERVIOUS PAVEMENT TRUNCATED DOME DRIVEWAY VERTICAL CURB & GUTTER VERTICAL CURB ----SAWCUT TRANSFORMER, SEE J.T. DRAWINGS

# **KEY NOTES**

PATH OF TRAVEL FROM FIRE HYDRANT

1 INSTALL TYPE B3 VERTICAL CURB PER SCC STD DTL B-13 (2) INSTALL TYPE A2-6 CURB & GUTTER PER SCC STD DTL B-13  $\overline{3}$  INSTALL VALLEY GUTTER PER SCC STD DTL B-11

 $\overline{\langle 4 \rangle}$  INSTALL 1' WIDE AC DEEP LIFT PER SCC STD DTL B-12

(5) INSTALL SIDEWALK PER SCC STD DTL B-2

(6) INSTALL VERTICAL CURB & GUTTER PER CPA CITY STD DTL 133

(7) SAWCUT AND INSTALL 12" DEEP AC PLUG PER CPA CITY STD DTL 135 (8) INSTALL SIDEWALK PER CPA CITY STD DTL 141,

 $\overline{9}$  INSTALL DRIVEWAY PER CPA CITY STD DTL 120

(10) INSTALL CURB RAMP PER CPA CITY STD DTL 101

(11) FREIGHT LOADING ZONE

(12) INSTALL IN-GROUND FLOW-THROUGH PLANTER PER DETAIL 5 SHEET C8.0

(13) INSTALL FLOW-THROUGH PLANTER PER DETAIL 9 SHEET C8.0 (14) INSTALL STREET TREE, S.L.D.

(15) INSTALL NEW LANDSCAPE STRIP, S.L.D.

(16) NOT USED

\$\langle 17 \rangle PROTECT-IN-PLACE EX. SUBGRADE TRANSFORMER.

(18) CONSTRUCT SELF RETAINING AREA PER DETAIL 6 SHEET C8.0

(19) CONSTRUCT ABOVE GRADE PLANTER S.L.D.

20 INSTALL NO PARKING LOADING ZONE SIGN

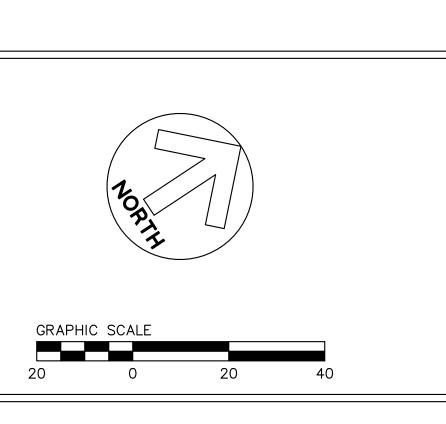
(21) INSTALL STOP SIGN 22 PROTECT IN PLACE EX. TRANSFORMER VAULT

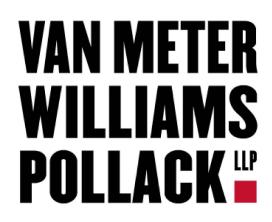
# **GENERAL NOTES**

- ALL DIMENSIONS ON THE PLANS ARE IN FEET OR DECIMALS THEREOF UNLESS SPECIFICALLY CALLED OUT AS FEET AND INCHES.



- FIRE DEPARTMENT ACCESS IS VIA PUBLIC STREET AND THEREFORE IS AN ALL WEATHER MATERIAL CAPABLE OF HOLDING 75,000 POUNDS.
- CONTRACTOR SHALL COORDINATE WITH LAND SURVEYOR PRIOR TO THE START OF CONSTRUCTION AND ESTABLISH PRECISE CONTROL FOR CONSTRUCTION.
- ALL CURB RETURN RADII AND CURB DATA ARE TO FACE OF CURB, UNLESS OTHERWISE SHOWN OR INDICATED.





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EDUCATOR HOUSING 231 GRANT AVENUE

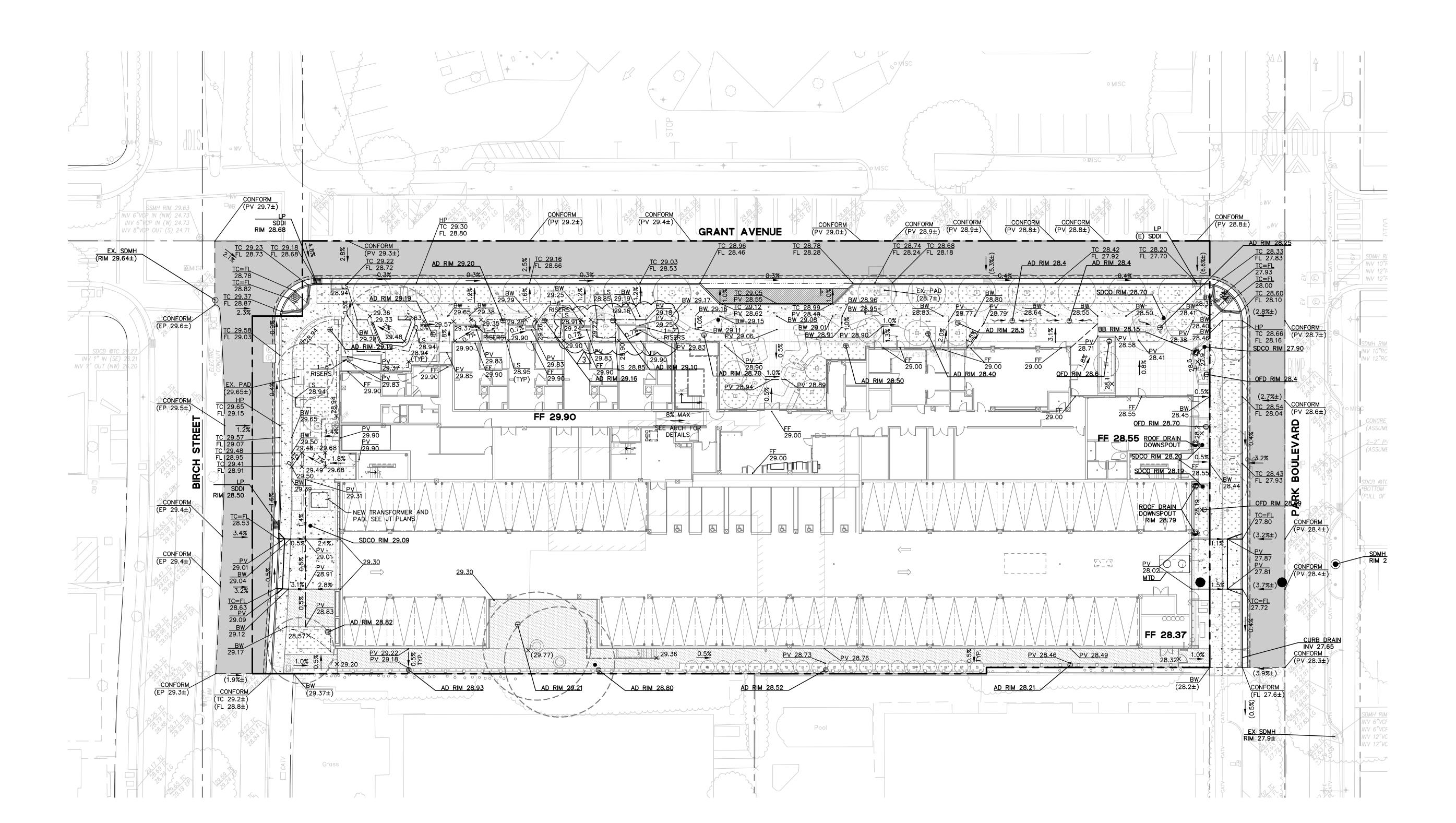
> 231 GRANT AVE PALO ALTO, CA 94306



SITE PLAN

C3.0

PLAN CHECK RESPONSE 2 | DATE: 03/20/23



COUNTY OF SANTA CLARA
LAND DEVELOPMENT ENGINEERING OFFICE
PLANS APPROVED FOR PERMIT

RECORD NO.: DEV22-1434

BY: E.D. Date: 6/27/2023

HARD COPY OF THESE STAMPED PLANS

MUST BE ON THE SITE FOR INSPECTIONS

| BOUNDARY LINE                                |                         |
|----------------------------------------------|-------------------------|
| LOT LINE                                     |                         |
| EASEMENT LINE                                | <del></del>             |
| ROADWAY CENTER LINE                          |                         |
| ELEVATION (PROPOSED)                         | TC XXX.XX<br>FL XXX.XX  |
| ELEVATION (EXISTING)                         | (TC XXX.X±) (FL XXX.X±) |
| FINISHED FLOOR ELEVATION                     | FF XX.XX                |
| SPOT ELEVATION (PROPOSED)                    | ×100.00                 |
| SPOT ELEVATION (EXISTING)                    | ×(100.0±)               |
| GRADE BREAK                                  |                         |
| OVERLAND RELEASE                             |                         |
| SLOPE TO GRADE (LANDSCAPE)                   | <b>→</b>                |
| SLOPE TO GRADE (HARDSCAPE)                   | X.X%                    |
| SPILL (GUTTER)                               | ↓↓↓↓<br>SPILL           |
| THRESHOLD GARAGE SLAB<br>GRADE CHANGE (3/4") |                         |
|                                              |                         |

# GENERAL NOTES

4" RISER

1. ALL PAVED AREAS ARE TO SLOPE A MINIMUM OF 0.5% AND MAXIMUM OF 8%.
ACCESSIBLE STALLS AND LOADING ZONES ARE TO SLOPE AT A MAXIMUM OF 2%
IN ALL DIRECTIONS. ACCESSIBLE PATHWAYS ARE TO SLOPE AT A MAXIMUM OF 5%
IN THE DIRECTION OF TRAVEL AND THE SLOPE CROSSWAYS TO THE DIRECTION OF
TRAVEL SHALL BE AT A MAXIMUM OF 2%. ANY AREAS ON THE SITE NOT
CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR
DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE
ENGINEER/ARCHITECT PRIOR TO PROCEEDING WITH PLACEMENT OF BASE ROCK,
FORM WORK AND/OR FLATWORK.

**—** 

- 2. ALL FILL SHALL BE COMPACTED PER THE GEOTECHNICAL REPORT AND THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH THE GEOTECHNICAL ENGINEER TO TAKE THE APPROPRIATE TESTS TO VERIFY COMPACTION VALUES.
- 3. IMPORT SOILS SHOULD MEET THE REQUIREMENTS OF THE GEOTECHNICAL REPORT AND SPECIFICATIONS.
- 4. COORDINATE THE PLACEMENT OF ALL SLEEVES FOR LANDSCAPE IRRIGATION (WATER AND CONTROL WIRING) AND SITE LIGHTING PRIOR TO PLACEMENT OF ANY ASPHALT, BASE ROCK OR FLATWORK. SEE SITE LANDSCAPING AND ELECTRICAL
- 5. DO NOT ADJUST GRADES ON THIS PLAN WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER/ARCHITECT.6. SITE STRIPPINGS THAT CONTAIN ONLY ORGANIC MATERIAL (NO DEBRIS TRASH,
- BROKEN CONCRETE OR ROCKS GREATER THAN 1" IN DIAMETER) MAY BE USED IN LANDSCAPE AREAS, EXCEPT FOR AREAS IDENTIFIED AS IMPORT TOP SOIL BY THE LANDSCAPE DRAWINGS. EXCESS STRIPPINGS SHALL BE REMOVED FROM THE SITE.
- ROUGH GRADING TO BE WITHIN 0.1' AND FINISH GRADES ARE TO BE WITHIN 0.05'. HOWEVER, CONTRACTOR SHALL NOT CONSTRUCT ANY IMPROVEMENTS THAT WILL CAUSE WATER TO POND OR NOT MEET REQUIREMENTS IN GRADING NOTE #1.
   CONTRACTOR SHALL EXERCISE EXTREME CARE TO CONFORM TO THE LINES, GRADES, SECTIONS AND DIMENSIONS AS SET FORTH ON THESE PLANS. ALL
- GRADES, SECTIONS AND DIMENSIONS AS SET FORTH ON THESE FLANS. ALL
  GRADED AREAS SHALL CONFORM TO THE VERTICAL ELEVATIONS SHOWN WITH A
  TOLERANCE OF ONE—TENTH OF A FOOT. WHERE GRADED AREAS DO NOT
  CONFORM TO THESE TOLERANCES, THE CONTRACTOR SHALL BE REQUIRED TO
  PERFORM CORRECTIVE GRADING AT NO EXTRA COST TO THE OWNER.

  9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE GROUND
  ELEVATIONS AND OVERALL TOPOGRAPHY PRIOR TO THE START OF CONSTRUCTION
  AS TO THE ACCURACY BETWEEN THE WORK SET FORTH ON THESE PLANS AND
- THE WORK IN THE FIELD. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER/ARCHITECT IN WRITING PRIOR TO THE START OF CONSTRUCTION WHICH MAY REQUIRE CHANGES IN DESIGN AND/OR AFFECT THE EARTHWORK QUANTITIES.

  10. TRENCHES SHALL NOT BE LEFT OPEN OVERNIGHT IN EXISTING PUBLIC STREET AREAS. CONTRACTOR SHALL BACKFILL TRENCHES OR PLACE STEEL PLATING WITH
- AREAS. CONTRACTOR SHALL BACKFILL TRENCHES OR PLACE STEEL PLATING WITH ADEQUATE CUTBACK TO PREVENT SHIFTING OF STEEL PLATE AND/OR HOT-MIX ASPHALT REQUIRED TO PROTECT OPEN TRENCHES AT THE END OF THE WORKING DAY.
- 12. SEE SITE ARCHITECTURAL/LANDSCAPE PLANS FOR ALL WALKWAY COLORS, FINISHES, SCORE JOINT DETAILING AND LAYOUT.
- 13. SEE STRUCTURAL DRAWINGS FOR BUILDING SLAB SECTIONS AND PAD PREP.

  14. ALL ASPHALT PAVING SHALL BE IN CONFORMANCE WITH SECTION 26,
- 14. ALL ASPHALT PAVING SHALL BE IN CONFORMANCE WITH SECTION 26,
  "AGGREGATE BASE" AND SECTION 39, "ASPHALT CONCRETE" PER LATEST EDITION
  OF CALTRANS STANDARD SPECIFICATIONS.

  15. EXCAVATION ACTIVITIES ASSOCIATED WITH THE INSTALLATION OF THE DRIVEWAY
- APPROACH AND UTILITIES SHALL OCCUR NO CLOSER THAN 10 FEET FROM THE EXISTING STREET TREE, AS APPROVED BY THE URBAN FORESTRY DIVISION. ANY CHANGES SHALL BE APPROVED BY THE SAME.

  16. CONTRACTOR SHALL NOT STAGE, STORE, OR STOCKPILE ANY MATERIAL OR
- EQUIPMENT WITHIN THE PUBLIC ROAD RIGHT-OF-WAY OUTSIDE OF THE AREA APPROVED ON THE LOGISTICS PLAN.
- 17. CONTRACTOR SHALL PROVIDED SAMPLES OF THE BRICK TO BE USED TO PUBLIC WORKS INSPECTORS FOR APPROVAL PRIOR TO INSTALLATION.
- 18. ALL APPLICABLE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL INVESTIGATION BY CORNERSTONE EARTH GROUP. HISTORIC HIGH GROUND WATER AT THE SITE WILL BE ON THE ORDER OF 22 FEET BELOW SURROUNDING GRADES OR AT APPROXIMATELY ELEVATION 26 FEET.
- 19. PUBLIC ACCESS EASEMENT IS TO BE RECORDED PRIOR TO BUILDING PERMIT FINAL.
- 20. ALL WORK WITHIN PALO ALTO'S PUBLIC RIGHT—OF—WAY (PARK AND BIRCH) REQUIRES A SEPARATE STREET WORK PERMIT FROM PUBLIC WORKS.

| VAN METER<br>WILLIAMS                                                |
|----------------------------------------------------------------------|
| ARCHITECTURE   URBAN DESIGN                                          |
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Proj

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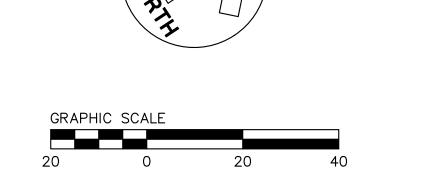


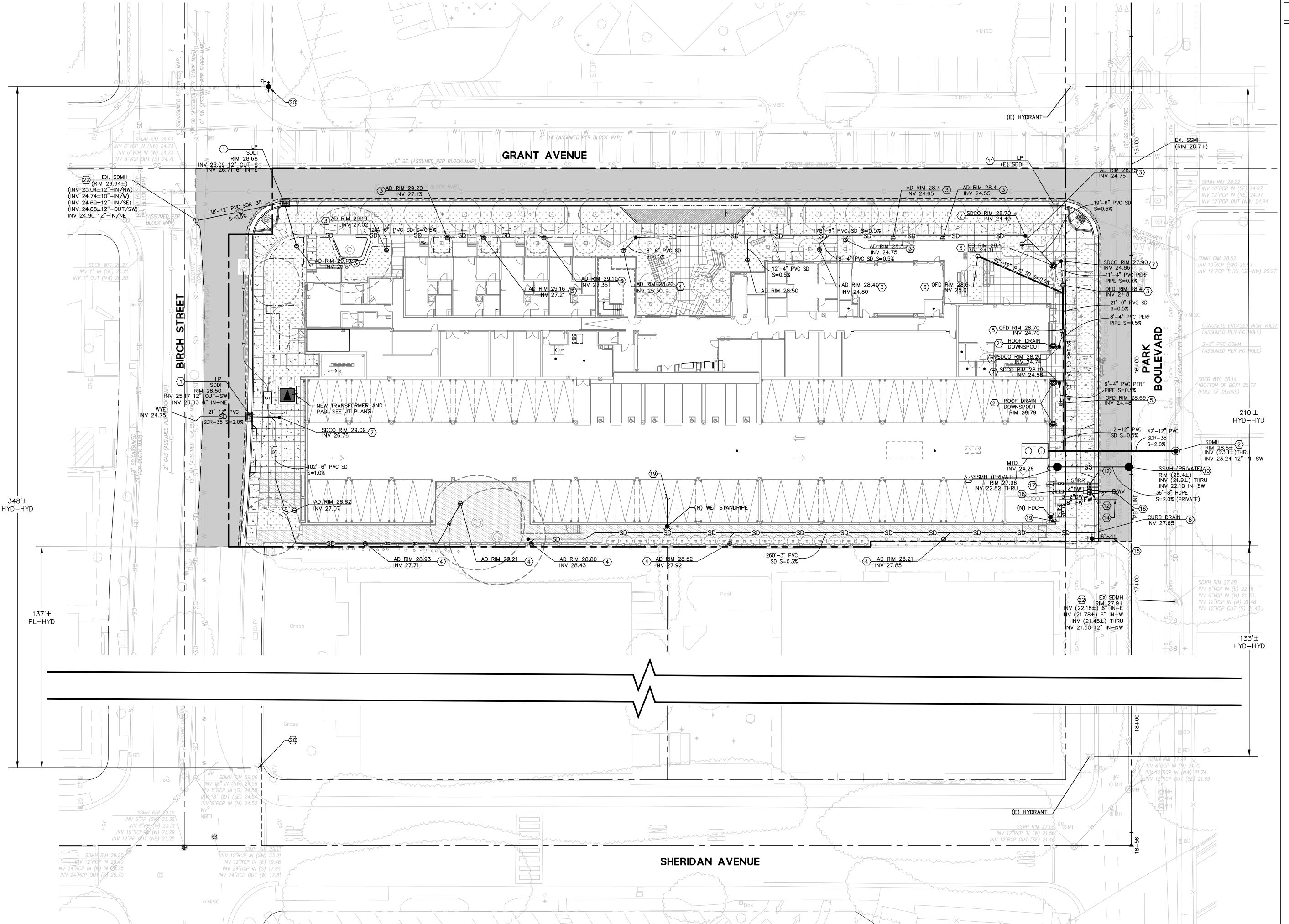
GRADING AND DRAINAGE PLAN

JOB #: 20192086 SCALE: **1" = 20'** 

C4.0

PLAN CHECK RESPONSE 2 | DATE: 03/20/23





COUNTY OF SANTA CLARA LAND DEVELOPMENT ENGINEERING OFFICE PLANS APPROVED FOR PERMIT

RECORD NO.: DEV22-1434 BY: E.D. Date: <u>6/27/2023</u>

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## **UTILITY GENERAL NOTES**

### STORM DRAIN:

- PRIVATE STORM DRAIN LINE 4-INCH THROUGH 12-INCH WITH A MINIMUM OF TWO (2) FEET OF COVER IN NON-TRAFFIC AREAS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 WHITE PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION D 3034-73 WITH GLUED JOINTS, ALL DIRECTION CHANGES SHALL BE MADE WITH WYE CONNECTIONS, 22.5° ELBOWS, 45° ELBOWS OR LONG SWEEP ELBOWS, 90° ELBOWS AND TEE'S ARE PROHIBITED.
- PRIVATE STORM DRAIN LINE 6-INCH THROUGH 12-INCH WITH LESS THAN THREE (3) FEET OF COVER IN VEHICULAR TRAFFIC AREAS SHALL BE POLYVINYL CHLORIDE (PVC) C900, RATED FOR 150 PSI CLASS PIPE. PROVIDE AND INSTALL "STORM DRAIN" MARKER TAPE FOR THE ENTIRE LENGTH OF PIPE TRENCH IN ACCORDANCE WITH CITY STANDARDS. ALL DIRECTION CHANGES SHALL BE MADE WITH WYE CONNECTIONS, OBTUSE ELBOWS OR LONG SWEEP ELBOWS, 90° ELBOWS AND TEE'S ARE PROHIBITED.
- USE DETECTABLE METALIZED WARNING TAPE APPROXIMATELY 6" BELOW THE SURFACE. TAPE SHALL BE A BRIGHT COLOR AND IMPRINTED WITH "CAUTION-STORM DRAIN LINE BELOW", CALPICO TYPE 2 OR EQUAL.
- CITY OF PALO ALTO STANDARD MEDALLIONS STATING "NO DUMPING, FLOWS TO CREEK" SHALL BE PLACED ON THE CURB ADJACENT TO ALL STORM DRAIN INLETS IN THE PUBLIC RIGHT OF WAY FRONTING THE PROJECT. PRIVATE STORM DRAIN INLETS SHALL BE MARKED WITH PAINT USING THE CITY'S STANDARD STENCILING STATING "NO DUMPING -FLOWS TO SAN FRANCISQUITO CREEK." STENCIL AND MEDALLIONS CAN BE OBTAINED FROM THE CITY OF PALO ALTO PUBLIC WORKS INSPECTOR.
- ALL AREA DRAINS AND CATCH BASINS GRATES WITHIN PEDESTRIAN ACCESSIBLE AREAS SHALL MEET ADA REQUIREMENTS.
- ALL TRENCHES SHALL BE BACK FILLED PER THE SPECIFICATIONS WITH APPROPRIATE TESTS BY THE GEOTECHNICAL ENGINEER TO VERIFY COMPACTION VALUES. FOR GRAVITY FLOW SYSTEMS CONTRACTOR SHALL VERIFY

(POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND

DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF ANY GRAVITY FLOW SYSTEM. COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A GENERAL MANNER ON THESE PLANS. CONTRACTOR IS

TO PROVIDE ALL FITTINGS, ACCESSORIES AND WORK

- NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED. ALL DOWN SPOUTS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM WITH PVC SDR 35 PIPE OR EQUIVALENT. SEI ARCHITECTURAL PLANS FOR EXACT LOCATION OF THE DOWN
- WATER SYSTEM:
- MAINTAIN WATER LINES 10' AWAY FROM SANITARY SEWER LINES UNLESS APPROVED PER CITY AND COUNTY REQUIREMENTS. WHERE WATER LINES HAVE TO CROSS SANITARY SEWER LINES, DO SO AT A 90 DEGREE ANGLE AND WATER LINES
- SHALL BE MINIMUM OF 12" ABOVE TOP OF SANITARY SEWER WATER LINES ARE SHOWN SCHEMATICALLY, CONTRACTOR
- SHALL IDENTIFY EACH ANGLE AND/OR BEND THAT MAY BE REQUIRED TO ACCOMPLISH THE INTENDED DESIGN. CPAU SHALL INSTALLED DOMESTIC AND IRRIGATION WATER
- AND FIRE SERVICES AND METERS. 4) INSTALL HEEL PROOF SDAD PER DETAIL 1 ON SHEET USE DETECTABLE METALIZED WARNING TAPE APPROXIMATELY 6" BELOW THE SURFACE. TAPE SHALL BE A BRIGHT COLOR (5) INSTALL SD OFD PER DETAIL 3 ON SHEET C8.0 AND IMPRINTED WITH "CAUTION-WATER LINE BELOW",
- ALL WATER SERVICE CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OR APPLICABLE WATER CPAU STANDARDS.
- PUBLIC WATER MAIN AND WATER SERVICE LINE SHALL BE HDPE. PRIVATE WATER MAIN AND WATER SERVICE LINE 21/2" THROUGH 12-INCH SHALL BE POLYVINYL CHLORIDE (PVC) AND SHALL MEET AWWA C900, RATED FOR 200 PSI CLASS PIPE WITH EPOXY COATED DUCTILE IRON FITTINGS AND FUSION EPOXY COATED GATE VALVES. ALL JOINTS SHALL BE FACTORY MANUFACTURED WITH BELL AND SPIGOT ENDS AND RUBBER GASKETS. NONMETALLIC WATER LINES TO HAVE TRACER WIRE INSTALLED PER CITY STANDARDS OR APPLICABLE WATER CPAU STANDARDS.
- ALL WATER LINES SHALL BE INSTALLED WITH 36" MINIMUM
- ALL WATER VALVES SHALL BE PER APPLICABLE CPAU
- O. ALL ON AND OFF-SITE LANDSCAPE IRRIGATION SYSTEMS SHALL BE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECTURAL PLANS AND SPECIFICATIONS AND SHALL BE CONNECTED TO THE EXISTING AND/OR NEW WATER SYSTEM AND METERED ACCORDINGLY.

### SANITARY SEWER: . USE DETECTABLE METALIZED WARNING TAPE APPROXIMATELY

- 6" BELOW THE SURFACE. TAPE SHALL BE A BRIGHT COLOR (18) SEE PLUMBING PLANS FOR CONTINUATION AND IMPRINTED WITH "CAUTION-SANITARY SEWER LINE BELOW", CALPICO TYPE 2 OR EQUAL. (19) SEE FIRE PROTECTION PLANS FOR CONTINUATION . ALL SEWER WORK SHALL BE IN CONFORMANCE WITH THE CPAU WGW STANDARDS.
- . PRIVATE SANITARY SEWER SERVICE LINE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) SDR 17 AND ALL PIPES AND ASSOCIATED FITTINGS SHALL CONFORM TO CPAU WGW
- 4. ALL LATERALS SHALL HAVE A MANHOLE AT FACE OF BUILDING AND AS SHOWN ON PLANS PER LATEST CA PLUMBING CODES. 5. PRIVATE IMPROVEMENTS ARE TO BE INSTALLED PER CA LATEST
- PLUMBING CODES. FIRE PROTECTION:
- . APPROVED DRAWINGS SHALL BE OBTAINED FROM THE LOCAL FIRE MARSHAL, AND THE RATING AGENCY, ALLOWING TIME FOR REVIEW AND ACCEPTANCE, PRIOR TO START OF WORK.
- . THE UNDERGROUND FIRE PROTECTION SYSTEM INSTALLER SHALL OBTAIN ALL APPROVED PLANS AND PERMITS PRIOR TO ORDERING MATERIALS, FABRICATING SYSTEMS OR ANY INSTALLATION.
- 3. GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AND EQUIPMENT LOCATIONS. RISER LOCATIONS CITY UTILITIES: ARE SHOWN ON ARCHITECTURAL AND PLUMBING DRAWINGS AND ARE TO BE COORDINATED WITH ACTUAL FIELD
- 4. INSTALL MONITORED TAMPER SWITCHES AT ALL PIV'S AND VALVES ON BACKFLOW ASSEMBLIES.
- 5. ALL FIRE WATER LINES SHALL BE INSTALLED WITH 36"

OF THE FITTING/ITEM BEING CONNECTED TO.

- 6. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL FOR ANY CHANGES TO THE FIRE PROTECTION LINE AND FOR CONTINUATION OF THE FIRE PROTECTION LINE BEYOND THE CIVIL POINT OF TERMINATION.
- CONTRACTOR TO USE CATHODIC PROTECTION FOR ALL UNDERGROUND FIRE PROTECTION SYSTEMS IF RECOMMENDED BY THE GEOTECHNICAL REPORT. CATHODIC PROTECTION IS TO BE DESIGNED BY CATHODIC PROTECTION ENGINEER. FINAL LOCATION OF ANODES AND TEST STATIONS SHALL BE COORDINATED WITH ARCHITECT/ENGINEER. CONTRACTOR MAY ASSUME THAT THE TEST STATIONS WILL BE WITHIN 10 FEET

# **LEGEND**

# BOUNDARY LINE LOT LINE

JOINT TRENCH LINE

SANITARY SEWER LINE

STORM DRAIN (DIRECTION)

STORM DRAIN (TREATED)

STORM DRAIN (PERFORATED)

STORM DRAIN (UNTREATED)

STORM DRAIN AREA DRAIN /

STORM DRAIN BUBBLER BOX

STORM DRAIN CLEANOUT

STORM DRAIN CATCH BASIN

STORM DRAIN DROP INLET

STORM DRAIN MANHOLE

SANITARY SEWER CLEANOUT

SANITARY SEWER MANHOLE

WATER METER

WATER VALVE

ELECTRIC STRUCTURES

(FOR REFERENCE ONLY,

**KEYNOTES** 

SEE JOINT TRENCH PLANS)

REDUCED PRESSURE DETECTOR ASSEMBLY NO BFV

(1) INSTALL SDDI PER COUNTY STD DETAIL C1

 $\langle 2 \rangle$  INSTALL SDMH PER CITY STANDARD DETAIL 312

(3) INSTALL SDAD PER DETAIL 2 ON SHEET C8.0

(7) INSTALL SDCO PER DETAIL 7 ON SHEET C8.0

(10) INSTALL SSMH PER CITY STANDARD DETAIL 312

12 INSTALL 1.5" IRRIGATION LATERAL AND METER PER WGW STANDARD WD-07A

14 INSTALL NEW FIRE LATERAL PER WGW STANDARD WGW WD-03B

15 INSTALL NEW FIRE HYDRANT ASSEMBLY PER WGW STANDARDS WD-16

(17) SEE LANDSCAPING PLANS FOR CONTINUATION

(16) INSTALL GATE VALVE PER WGWW STANDARDS WD-14

 $\ensuremath{\bigcirc}$  REPLACE EXISTING FIRE HYDRANT WITH NEW AMERICAN AVK SERIES 24

 $\langle 22 \rangle$  CONNECT TO EXISTING MANHOLE PER CITY STANDARDS.

(21) INSTALL ROOF DRAIN DISSIPATOR PER DETAIL 9 ON SHEET C8.0

**UTILITY GENERAL NOTES** 

. WATER DEMANDS (PROVIDED BY OTHERS)

MECHANICAL PLANS)

ACCORDANCE WITH:

FEATURES.

WASTEWATER.

IRRIGATION DEMAND - 10± (SEE LANDSCAPE PLAN)

. ALL WORK WITHIN PALO ALTO'S PUBLIC RIGHT-OF-WAY (PARK

|FIRE DEMAND - 1,500± GPM (SEE SPRINKLER DESIGNER'S PLAN)

|DOMESTIC WATER DEMAND- 244± GPM / 1300± FU/GPM (SEE

FOR CONTRACTOR INSTALLED NEW PRIVATE WASTEWATER MANHOLE AND LATERAL, THE APPLICANT SHALL SUBMIT TO THI CPAU WGW ENGINEERING SECTION OF THE UTILITIES DEPARTMENT FOUR COPIES OF THE INSTALLATION OF WATER AND WASTEWATER

UTILITIES OFFSITE IMPROVEMENT PLANS IN ACCORDANCE WITH

THE UTILITIES DEPARTMENT DESIGN CRITERIA. ALL UTILITY WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE CLEARLY SHOWN

ON THE PLANS THAT ARE PREPARED, SIGNED AND STAMPED BY

A REGISTERED CIVIL ENGINEER. THE CONTRACTOR SHALL ALSO SUBMIT A COMPLETE SCHEDULE OF WORK, METHOD OF

CONSTRUCTION AND THE MANUFACTURER'S LITERATURE ON THE

ENGINEERING SECTION. THE APPLICANTS CONTRACTOR WILL NOT BE ALLOWED TO BEGIN WORK UNTIL THE IMPROVEMENT PLAN AND OTHER SUBMITTALS HAVE BEEN APPROVED BY THE CPAU WATER, GAS, AND WASTEWATER ENGINEERING SECTION. AFTER THE WORK IS COMPLETE BUT PRIOR TO SIGN OFF, THE APPLICANT SHALL

PROVIDE RECORD DRAWINGS (AS-BUILTS) OF THE CONTRACTOR

INSTALLED WATER AND WASTEWATER MAINS AND SERVICES PER

CITY OF PALO ALTO UTILITIES RECORD DRAWING PROCEDURES.

FOR CONTRACTOR INSTALLED WASTEWATER SERVICES, THE

2.1. TWO SETS OF AS-BUILT DRAWINGS (HARD COPIES).

2.3. AS-BUILT DRAWINGS IN .TIFF FORMAT.

APPLICANT SHALL PREPARE AND SUBMIT TO THE CPAU WGW

ENGINEERING SECTION OF THE UTILITIES DEPARTMENT AS-BUILT DRAWINGS OF THE INSTALLATION OF WATER AND WASTEWATER UTILITIES TO BE OWNED AND MAINTAINED BY THE CITY IN

2.2. AS-BUILT DRAWINGS IN 2008 OR 2010 AUTOCAD FORMAT.

2.4. SURVEY POINTS IN .CSV FORMAT FOR ALL NEW UTILITY

NOTE: ALL SURVEY DATA SHALL BE COLLECTED BY A CALIFORNIA LICENSED LAND SURVEYOR. THE SURVEYOR IS RESPONSIBLE TO

SETUP ALL CONTROL POINTS NEEDED TO PERFORM THE SURVEY

WORK. THE ACCURACY FOR ALL SURVEY DATA SHALL BE  $\pm$  1 CM.

3. ALL UTILITY INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CITY OF PALO ALTO UTILITY STANDARDS FOR WATER, GAS &

MATERIALS TO BE USED FOR APPROVAL BY THE UTILITIES

AND BIRCH) REQUIRES A SEPARATE STREET WORK PERMIT FROM

(11) ADJUST (E) SDDI TO GRADE

(8) INSTALL FLOW THROUGH CURB DRAIN PER CITY STD

(9) INSTALL SS CLEANOUT PER CITY STD DETAIL WW2-02A

(6) INSTALL POPUP EMITTER PER DETAIL 5 ON SHEET C8.0

STORM DRAIN JUNCTION BOX

OVER FLOW DRAIN

- \_\_\_\_\_\_ ROADWAY CENTER LINE \_\_\_\_\_\_\_ COMMUNICATION LINE
  - RIM XXX.XX INV XXX.XX ------СОММ-----\_\_\_\_\_w\_\_\_
- DOMESTIC WATER LINE ELECTRIC LINE (SEE JOINT TRENCH PLANS FOR MORE DETAILS) FIRE WATER LINE GAS LINE
  - ARCHITECTURE | URBAN DESIGN | SAN FRANCISCO | DENVER | MINNEAPOLIS 333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352 \_\_\_\_\_FW\_\_\_\_ CIVIL ENGINEER \_\_\_\_\_JT \_\_\_\_

<u>XX'-X"</u>SS———

 $\longrightarrow$ SD $\longrightarrow$ 

- XX'-X" -- -- -

<u>XX'-X"</u>SD

SDAD

😂 SDBB

SDCO

SDCB

SDDI

☑ SDJB

SDMH

SSCO

SSMH

+**●**+ FH

**⊠** WM

⊗ WV

\_\_\_\_\_

\_\_\_\_\_

- **BKF ENGINEERS** 1730 N. FIRST ST SUITE 600 SAN JOSE, CA 95112
- JOINT TRENCH / DRY UTILITIES MILLENIUM DESIGN PO BOX 737 ALAMO, CA 94507

**VAN METER** 

- LANDSCAPE ARCHITECT PLURAL STUDIO 2742 17TH STREET SAN FRANCISCO, CA 94110
- STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306
- MEP ENGINEER **EMERALD CITY ENGINEERS**
- ENERGY CONSULTANT **REDWOOD ENERGY** 1887 Q STREET

ARCATA, CA 95521

21705 HIGHWAY 99

LYNWOOD, WA 98036





| ID | DATE     | NAME                  |
|----|----------|-----------------------|
| 1  | 11/11/22 | PERMIT SET-CONV       |
| Α  | 12/16/22 | BID SET               |
| 2  | 03/20/23 | PLAN CHECK RESPONSE 2 |
| В  | 03/20/23 | BID ADDENDUM          |
| C2 | 06/02/23 | MINOR ARCH REV. 1     |
| 3  | 6/20/23  | PLAN CHECK RESPONSE 3 |
|    |          |                       |
|    |          |                       |

# EDUCATOR HOUSING 231 GRANT AVENUE

231 GRANT AVE PALO ALTO, CA 94306



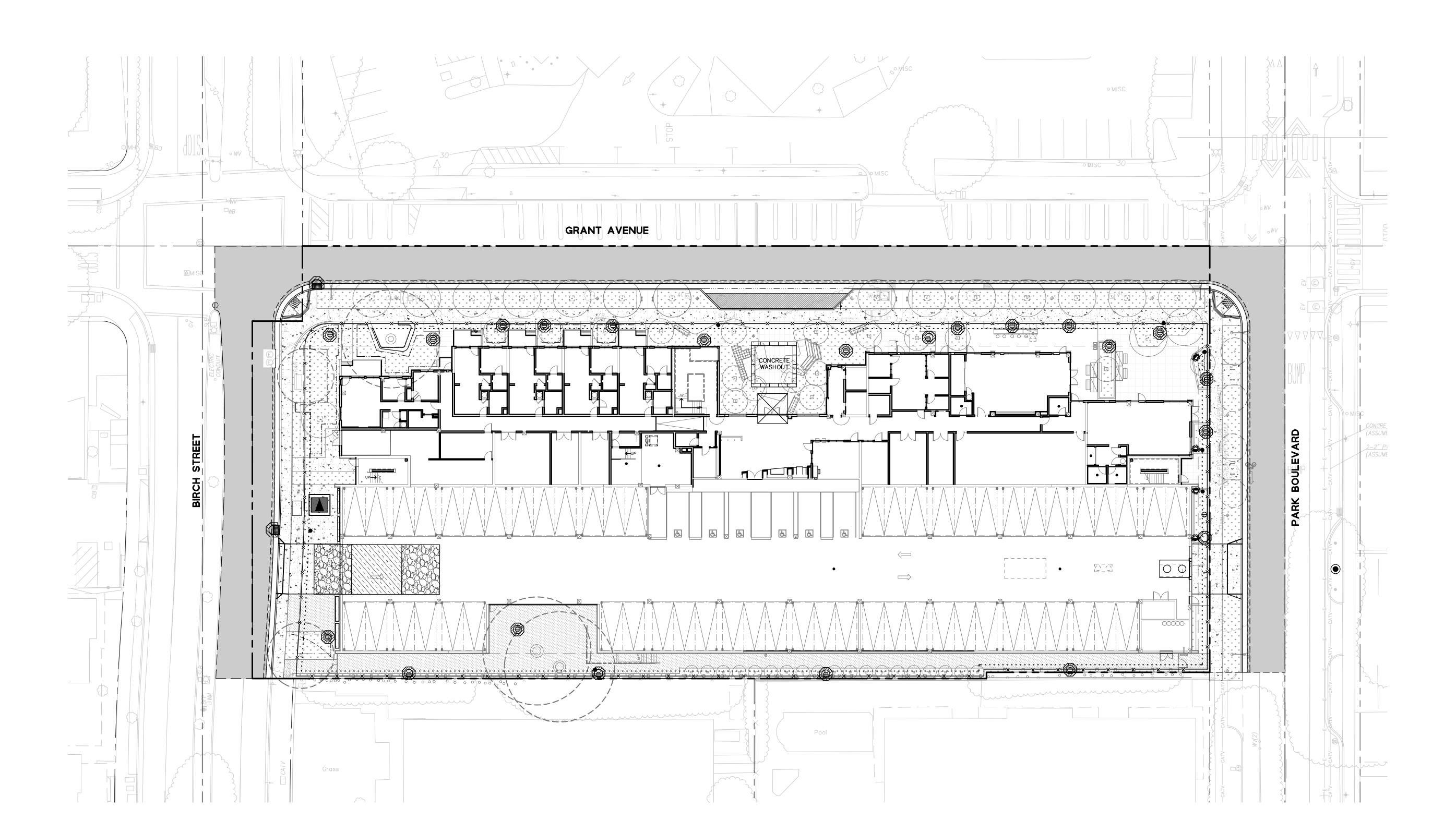
ABODE COMMUNITIES

**UTILITY PLAN** 

JOB #: 20192086 SCALE: 1" = 20' C5.0

PLAN CHECK RESPONSE 2 | DATE: 03/20/23

GRAPHIC SCAL



COUNTY OF SANTA CLARA
LAND DEVELOPMENT ENGINEERING OFFICE
PLANS APPROVED FOR PERMIT

RECORD NO.: DEV22-1434

BY: E.D. Date: 6/27/2023

HARD COPY OF THESE STAMPED PLANS
MUST BE ON THE SITE FOR INSPECTIONS

# LEGEND

PROPERTY LINE

ADJACENT PROPERTY LINES

FIBER ROLL; SEE DETAIL 1, SHEET C6.2

TEMPORARY 6' CONSTRUCTION FENCE

STORM DRAIN INLET PROTECTION SEE DETAIL 4, SHEET C6.2

STORM DRAIN INLET PROTECTION SEE DETAIL 6, SHEET C6.2

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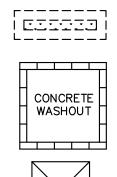
STABILIZED CONSTRUCTION ENTRANCE/EXIT SEE DETAIL 3, SHEET C6.1

ENTRANCE/EXIT TIRE WASH SEE DETAIL 3, SHEET C6.2

BIORETENTION AREA

CONCRETE WASTE MANAGEMENT SEE
DETAIL 2 SHEET C6.2
(ACTUAL LOCATION TO BE DETERMINED IN
FIELD BY CONTRACTOR)

STOCKPILE AREA SEE DETAIL 5 SHEET C6.2 (ACTUAL LOCATION TO BE DETERMINED IN FIELD BY CONTRACTOR)



LANDSCAPE ARCHITECT
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STRUCTURAL ENGINEER

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**VAN METER** 

**WILLIAMS** 

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MEP ENGINEER

EMERALD CITY ENGINEERS

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LYNWOOD, WA 98036

ENERGY CONSULTANT

REDWOOD ENERGY

1887 Q STREET

ARCATA, CA 95521





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| C2 | 06/02/23 | MINOR ARCH REV. 1     |
| 3  | 6/20/23  | PLAN CHECK RESPONSE 3 |
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Pro

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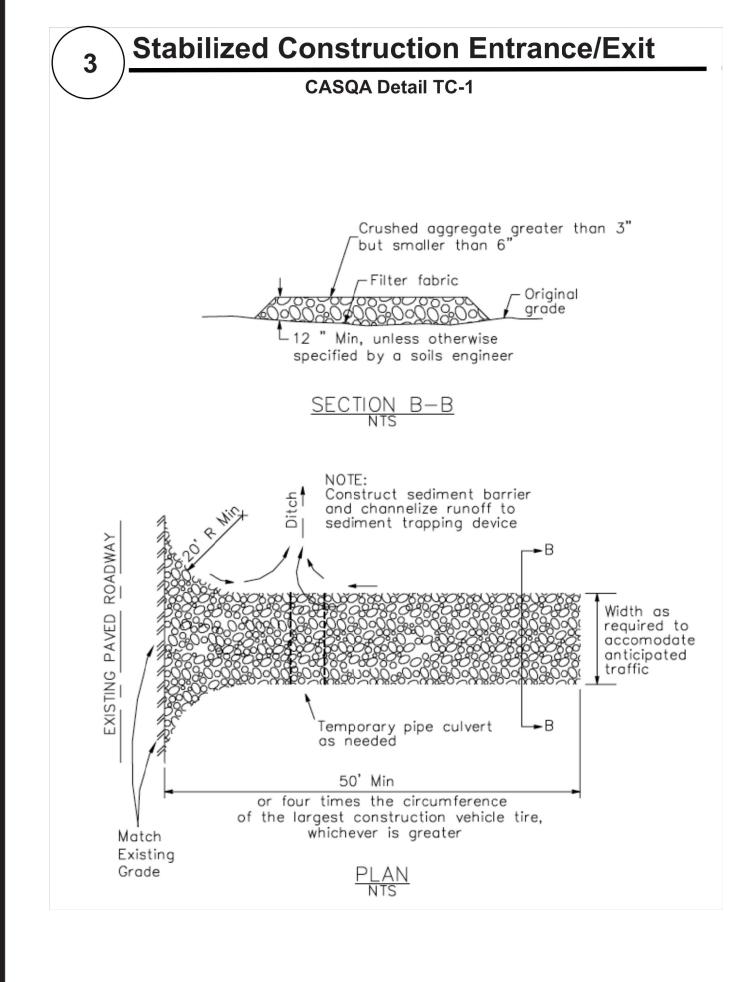


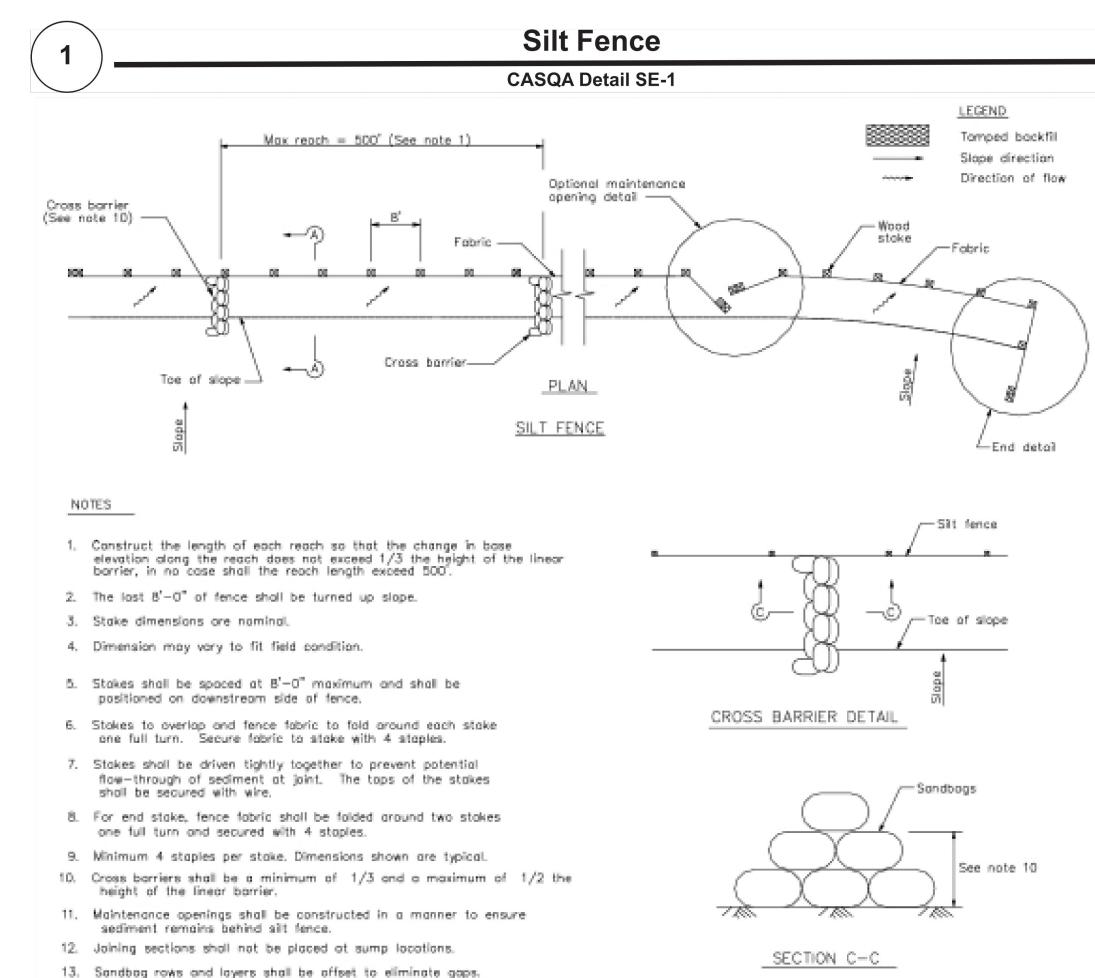
EROSION CONTROL PLAN

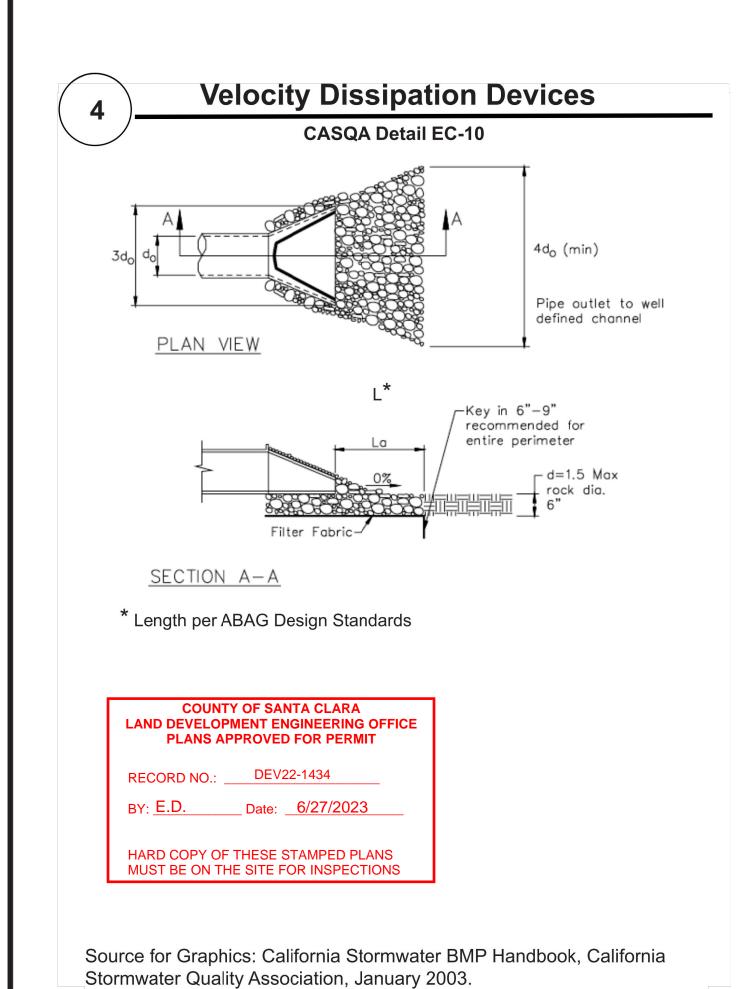
JOB #: 20192086 SCALE: **1" = 20'** 

C6.0

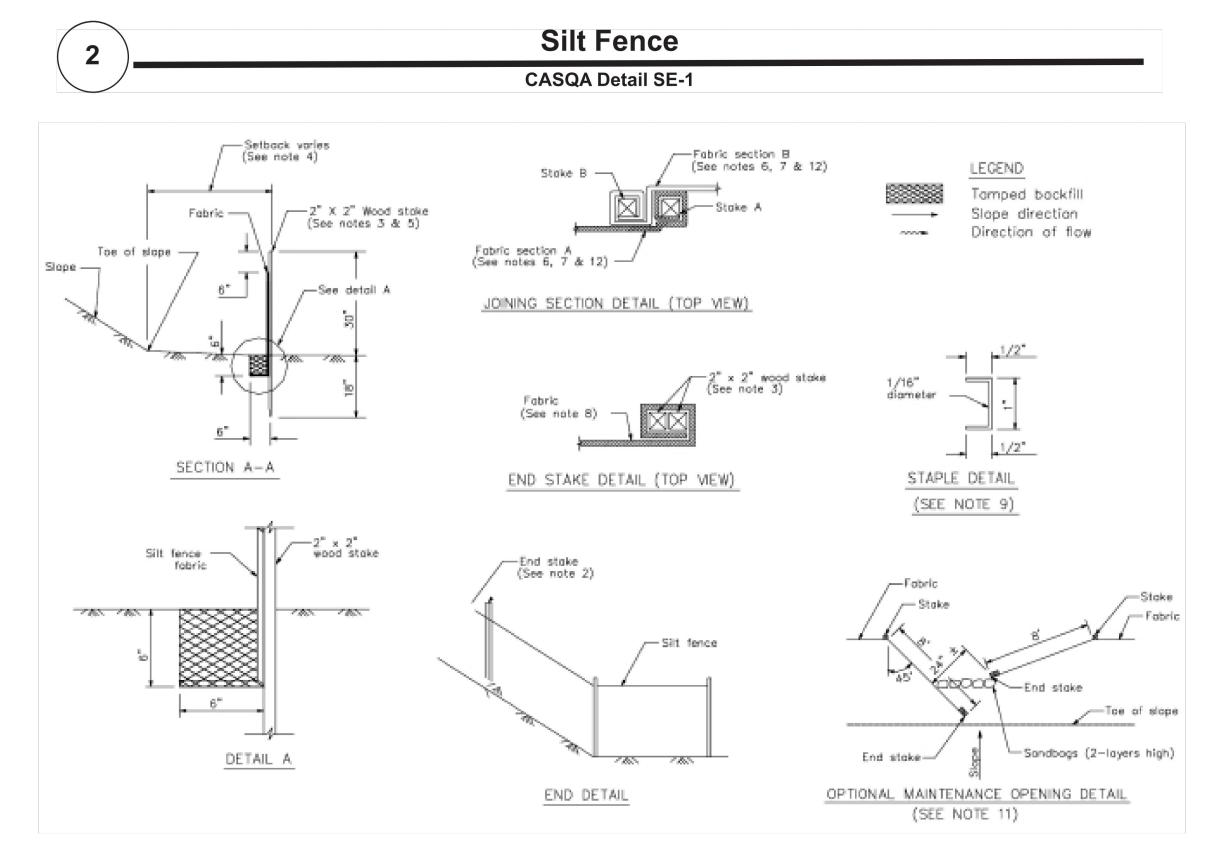
PLAN CHECK RESPONSE 2 | DATE: 03/20/23







Available from www.cabmphandbooks.com



### STANDARD BEST MANAGEMENT PRACTICE NOTES

- 1. Solid and Demolition Waste Management: Provide designated waste collection areas and containers on site away from streets, gutters, storm drains, and waterways, and arrange for regular disposal. Waste containers must be watertight and covered at all times except when waste is deposited. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C3) or
- 2. <u>Hazardous Waste Management</u>: Provide proper handling and disposal of hazardous wastes by a licensed hazardous waste material hauler. Hazardous wastes shall be stored and properly labeled in sealed containers constructed of suitable materials. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-5 to C-6) or latest.
- 3. Spill Prevention and Control: Provide proper storage areas for liquid and solid materials, including chemicals and hazardous substances, away from streets, gutters, storm drains, and waterways. Spill control materials must be kept on site where readily accessible. Spills must be cleaned up immediately and contaminated soil disposed properly. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-7 to C-8, C-13 to C-14) or latest.
- 4. <u>Vehicle and Construction Equipment Service and Storage</u>: An area shall be designated for the maintenance, where onsite maintenance is required, and storage of equipment that is protected from stormwater run-on and runoff. Measures shall be provided to capture any waste oils, lubricants, or other potential pollutants and these wastes shall be properly disposed of off site. Fueling and major maintenance/repair, and washing shall be conducted off-site whenever feasible. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C9) or
- 5. <u>Material Delivery, Handling and Storage</u>: In general, materials should not be stockpiled on site. Where temporary stockpiles are necessary and approved by the County, they shall be covered with secured plastic sheeting or tarp and located in designated areas near construction entrances and away from drainage paths and waterways. Barriers shall be provided around storage areas where materials are potentially in contact with runoff. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-11 to C-12) or latest.
- 6. <u>Handling and Disposal of Concrete and Cement</u>: When concrete trucks and equipment are washed on-site, concrete wastewater shall be contained in designated containers or in a temporary lined and watertight pit where wasted concrete can harden for later removal. If possible have concrete contractor remove concrete wash water from site. In no case shall fresh concrete be washed into the road right-of-way. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-15 to C-16) or latest.
- 7. Pavement Construction Management: Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent run-on and runoff pollution and properly disposing of wastes. Avoid paving in the wet season and reschedule paving when rain is in the forecast. Residue from saw-cutting shall be vacuumed for proper disposal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-17 to C-18) or latest.
- 8. <u>Contaminated Soil and Water Management</u>: Inspections to identify contaminated soils should occur prior to construction and at regular intervals during construction. Remediating contaminated soil should occur promptly after identification and be specific to the contaminant identified, which may include hazardous waste removal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-19 to C-20) or
- Sanitary/Septic Water Management: Temporary sanitary facilities should be located away from drainage paths, waterways, and traffic areas. Only licensed sanitary and septic waste haulers should be used. Secondary containment should be provided for all sanitary facilities. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C-21) or
- 10.<u>Inspection & Maintenance</u>: Areas of material and equipment storage sites and temporary sanitary facilities must be inspected weekly. Problem areas shall be identified and appropriate additional and/or alternative control measures implemented immediately, within 24 hours of the problem being identified.

### 1. <u>Sediment Control Management</u>:

<u>Tracking Prevention & Clean Up</u>: Activities shall be organized and measures taken as needed to prevent or minimize tracking of soil onto the public street system. A gravel or proprietary device construction entrance/exit is required for all sites. Clean up of tracked material shall be provided by means of a street sweeper prior to an approaching rain event, or at least once at the end of each workday that material is tracked, or, more frequently as determined by the County Inspector. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-31 to B-33) or latest.

All inlets within the vicinity of the project and within the project limits shall be protected with gravel bags placed around inlets or other inlet protection. At locations where exposed soils are present, staked fiber roles or staked silt fences can be used. Inlet filters are not allowed due to clogging and subsequent flooding. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-49 to B-51) or latest.

Storm Water Runoff: No storm water runoff shall be allowed to drain in to the existing and/or proposed underground storm drain system or other above ground watercourses until appropriate erosion control measures are fully installed.

<u>Dust Control</u>: The contractor shall provide dust control in graded areas as required by providing wet suppression or chemical stabilization of exposed soils, providing for rapid clean up of sediments deposited on paved roads, furnishing construction road entrances and vehicle wash down areas, and limiting the amount of areas disturbed by clearing and earth moving operations by scheduling these activities in phases.

Stockpiling: Excavated soils shall not be placed in streets or on paved areas. Borrow and temporary stockpiles shall be protected with appropriate erosion control measures(tarps, straw bales, silt fences, ect.) to ensure silt does not leave the site or enter the storm drain system or neighboring watercourse.

- 2. Erosion Control: During the rainy season, all disturbed areas must include an effective combination of erosion and sediment control. It is required that temporary erosion control measures are applied to all disturbed soil areas prior to a rain event. During the non-rainy season, erosion control measures must be applied sufficient to control wind
- . <u>Inspection & Maintenance</u>: Disturbed areas of the Project's site, locations where vehicles enter or exit the site, and all erosion and sediment controls that are identified as part of the Erosion Control Plans must be inspected by the Contractor before, during, and after storm events, and at least weekly during seasonal wet periods. Problem areas shall be identified and appropriate additional and/ or alternative control measures implemented immediately, within 24 hours of the problem being identified.
- 4. <u>Project Completion</u>: Prior to project completion and signoff by the County Inspector, all disturbed areas shall be reseeded, planted, or landscaped to minimize the potential for erosion on the subject site.
- 5. It shall be the Owner's/Contractor's responsibility to maintain control of the entire construction operation and to keep the entire site in compliance with the erosion control plan.
- 6. Erosion and sediment control best management practices shall be operable year round or until vegetation is fully established on landscaped surfaces.

### STANDARD EROSION CONTROL NOTES

Storm Drain Inlet and Catch Basin Inlet Protection:

- erosion at the site.

On ati Inform C roj

Best Management Practices and Erosion Control Details Sheet 1 County of Santa Clara



BMP-1

**VAN METER WILLIAMS** POLLACK \*\* ARCHITECTURE | URBAN DESIGN | SAN FRANCISCO | DENVER | MINNEAPOLIS

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STRUCTURAL ENGINEER HOHBACH-LEWIN, INC 250 SHERIDAN AVE STE 100 PALO ALTO, CA 94306

MEP ENGINEER **EMERALD CITY ENGINEERS** 21705 HIGHWAY 99

ENERGY CONSULTANT **REDWOOD ENERGY** 1887 Q STREET

ARCATA, CA 95521

LYNWOOD, WA 98036





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| 3  | 6/20/23  | PLAN CHECK RESPONSE 3 |
|    |          |                       |
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**EDUCATOR HOUSING** 231 GRANT AVENUE

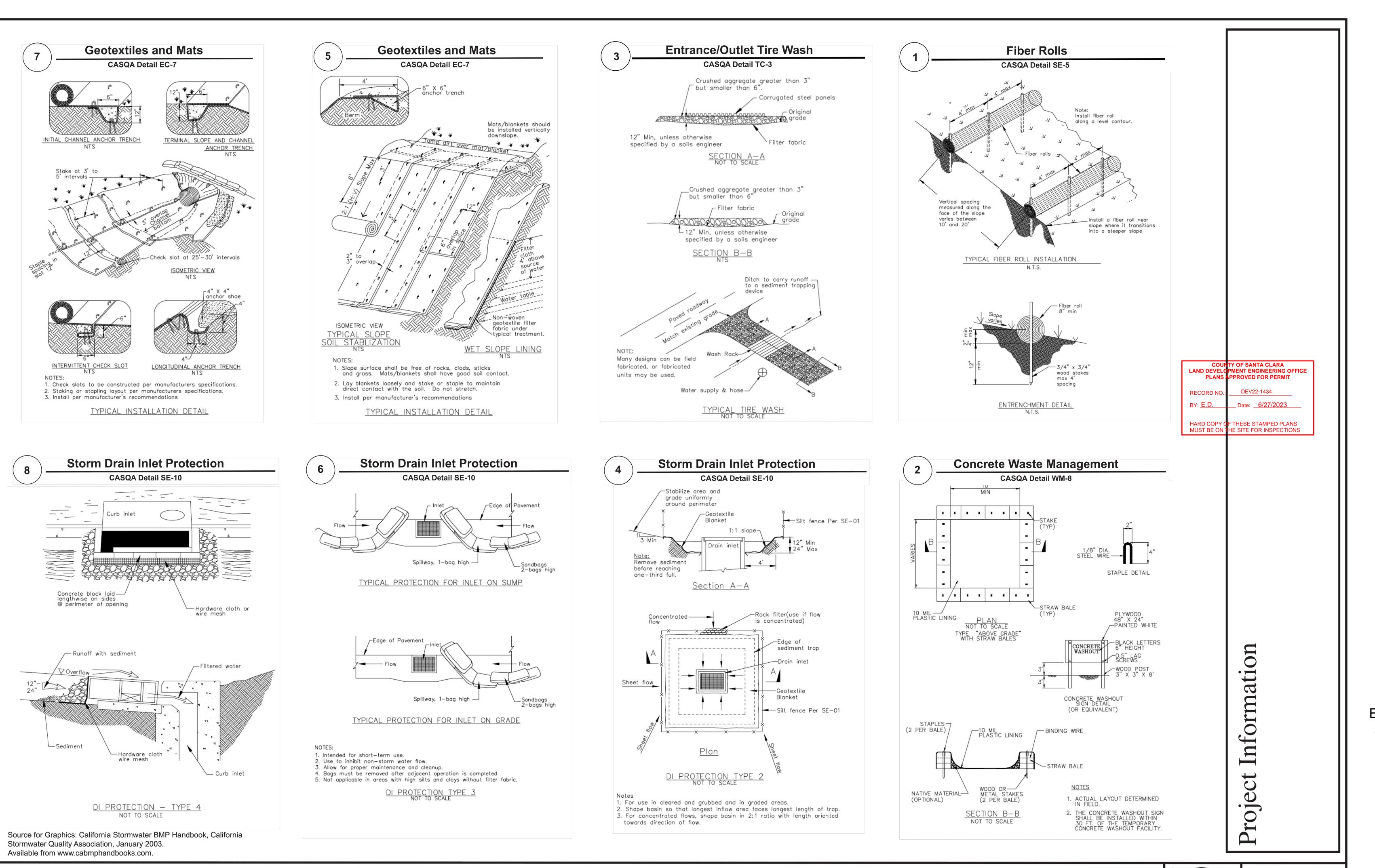
> 231 GRANT AVE PALO ALTO, CA 94306



**EROSION** CONTROL **DETAILS** 

C6.1

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PLURAL STUDIO
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SAN FRANCISCO, CA 94110

STRUCTURAL ENGINEER

HOHBACH-LEWIN, INC
250 SHERIDAN AVE STE 100
PALO ALTO, CA 94306

MEP ENGINEER
EMERALD CITY ENGINEERS
21705 HIGHWAY 99

ENERGY CONSULTANT

REDWOOD ENERGY

1887 Q STREET

ARCATA, CA 95521

LYNWOOD, WA 98036





| ID | DATE     | NAME                  |
|----|----------|-----------------------|
| 1  | 11/11/22 | PERMIT SET-CONV       |
| Α  | 12/16/22 | BID SET               |
| 2  | 03/20/23 | PLAN CHECK RESPONSE 2 |
| В  | 03/20/23 | BID ADDENDUM          |
| C2 | 06/02/23 | MINOR ARCH REV. 1     |
| 3  | 6/20/23  | PLAN CHECK RESPONSE 3 |

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EDUCATOR HOUSING 231 GRANT AVENUE

> 231 GRANT AVE PALO ALTO, CA 94306



EROSION CONTROL DETAILS

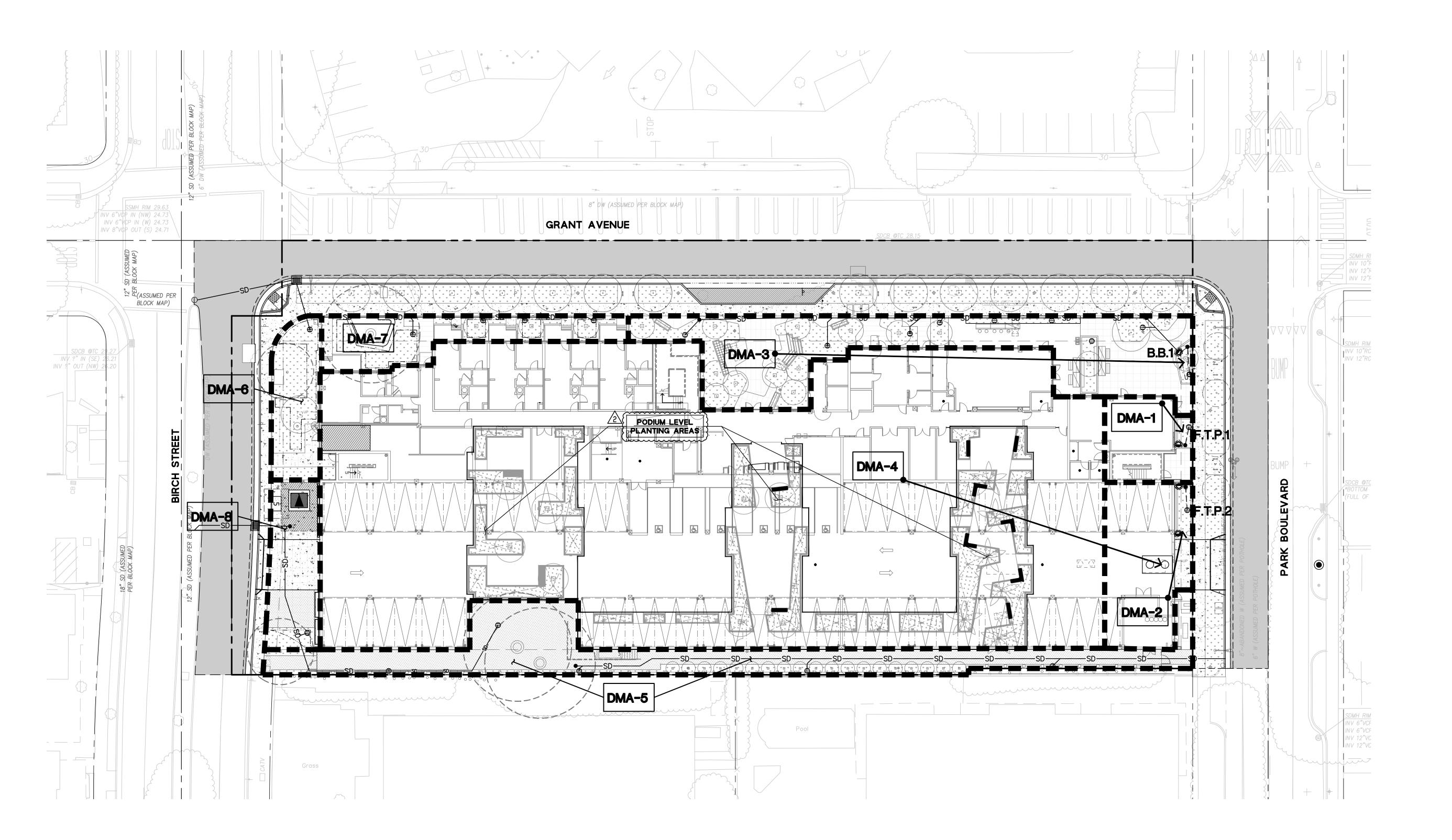
JOB #: 20192086 SCALE:

C6.2

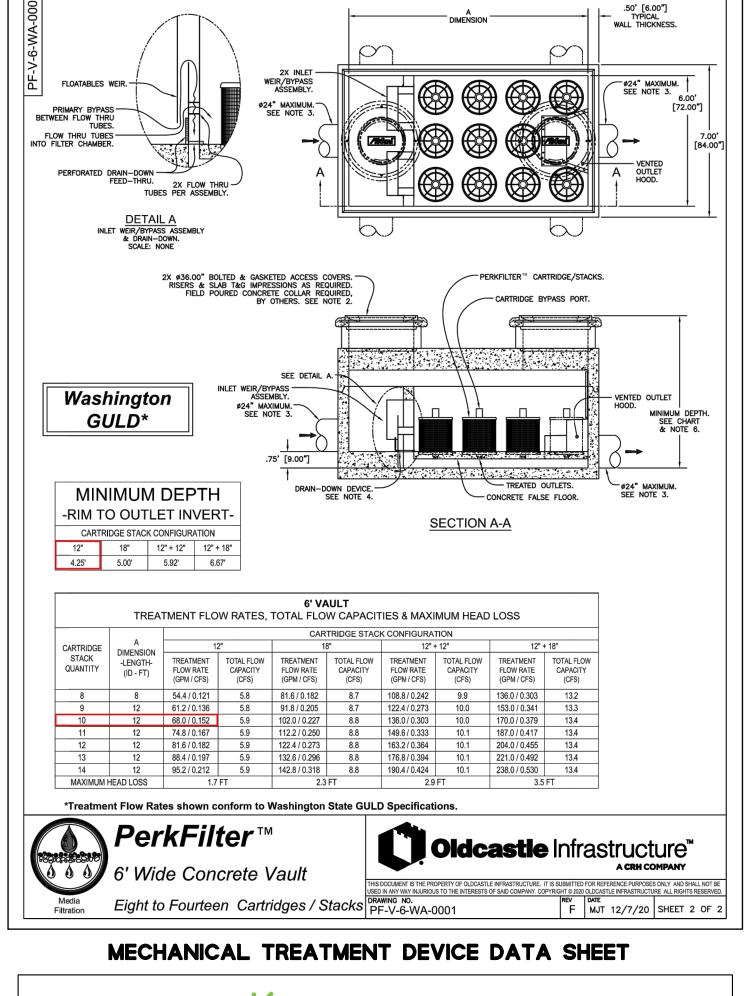
PLAN CHECK RESPONSE 2 | DATE: 03/20/23

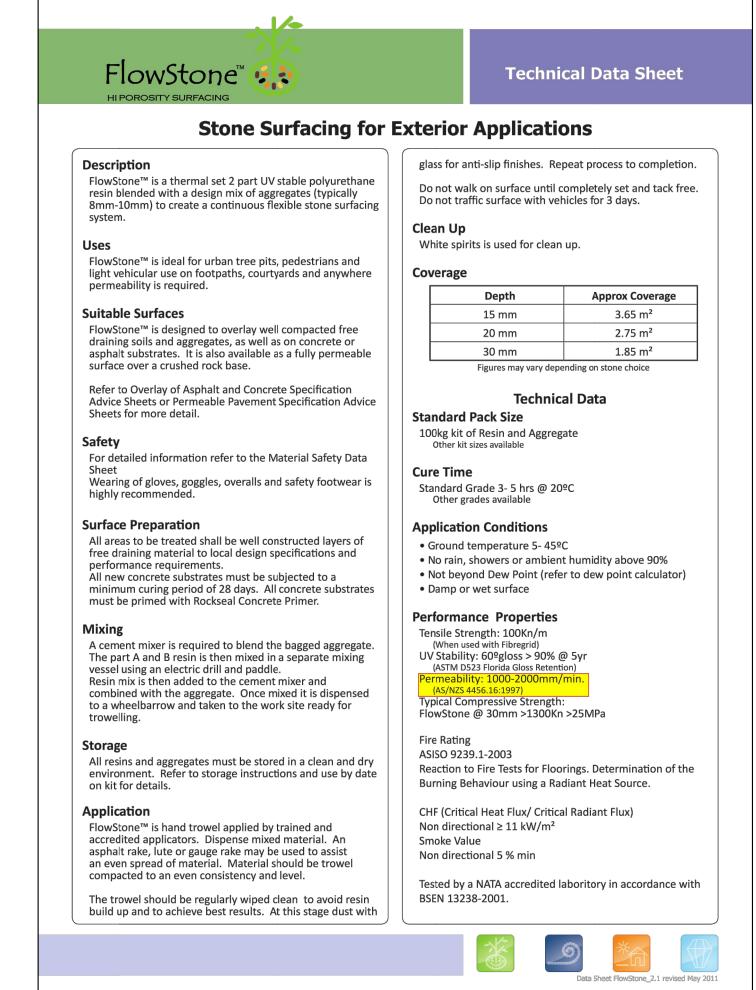
Best Management Practices and Erosion Control Details Sheet 2 County of Santa Clara





|                                           |                       | TREATMENT CONTROL MEASURE SUMMARY    |                                           |                       |                  |                  |                        |                                                          |
|-------------------------------------------|-----------------------|--------------------------------------|-------------------------------------------|-----------------------|------------------|------------------|------------------------|----------------------------------------------------------|
| DRAINAGE DRAINAGE AREA<br>AREAS SIZE (SF) | PROPOSED              | CONDITION                            | TREATMENT MEASURE SIZE                    |                       |                  |                  |                        |                                                          |
|                                           | PERVIOUS SURFACE (SF) | IMPERVIOUS SURFACE (SF)              | PERCENT IMPERVIOUS<br>OF TOTAL IMPERVIOUS | PONDING DEPTH<br>(IN) | REQUIRED<br>(SF) | PROVIDED<br>(SF) | TREATMENT MEASURE TYPE |                                                          |
| DMA-1                                     | 1,023                 | LANDSCAPE<br>53                      | ROOF<br>970                               | 2.3%                  | 9                | 25               | 59                     | FLOW THROUGH PLANTER<br>DMA-1 TO FTP-1                   |
| DMA-2                                     | 1,767                 | LANDSCAPE<br>117                     | ROOF<br>1,650                             | 4.0%                  | 9                | 42               | 112                    | FLOW THROUGH PLANTER<br>DMA-2 TO FTP-2                   |
| DMA-3                                     | 5,037                 | LANDSCAPE<br>2,267                   | CONCRETE WALK<br>2,770                    | 6.7%                  | 12               | 68               | 76                     | BIORETENTION BASIN<br>DMA-3 TO BB-1                      |
| DMA-4                                     | 37,145                | PODIUM PLANTING<br>3,050             | ROOF<br>34,095                            | 82.9%                 | N/A              | N/A              | N/A                    | MECHANICAL TREATMENT DEVICE<br>DMA-4 TO MTD              |
| DMA-5                                     | 4,527                 | LANDSCAPE<br>PERV. PAVEMENT<br>4,527 | Ο                                         | 0%                    | N/A              | N/A              | N/A                    | SELF—TREATING<br>(SEE PRODUCT DATA SHEET,<br>THIS SHEET) |
| DMA-6                                     | 1,000                 | LANDSCAPE<br>780                     | CONCRETE WALK<br>220                      | 0.5%                  | 3                | N/A              | N/A                    | SELF-RETAINING                                           |
| DMA-7                                     | 1,730                 | LANDSCAPE<br>1,078                   | CONCRETE WALK<br>652                      | 1.6%                  | 3                | N/A              | N/A                    | SELF-RETAINING                                           |
| DMA-8                                     | 1,137                 | LANDSCAPE<br>379                     | CONCRETE WALK<br>758                      | 1.8%                  | 3                | N/A              | N/A                    | SELF-RETAINING                                           |





# PERVIOUS GRAVEL DATA SHEET

COUNTY OF SANTA CLARA
LAND DEVELOPMENT ENGINEERING OFFICE

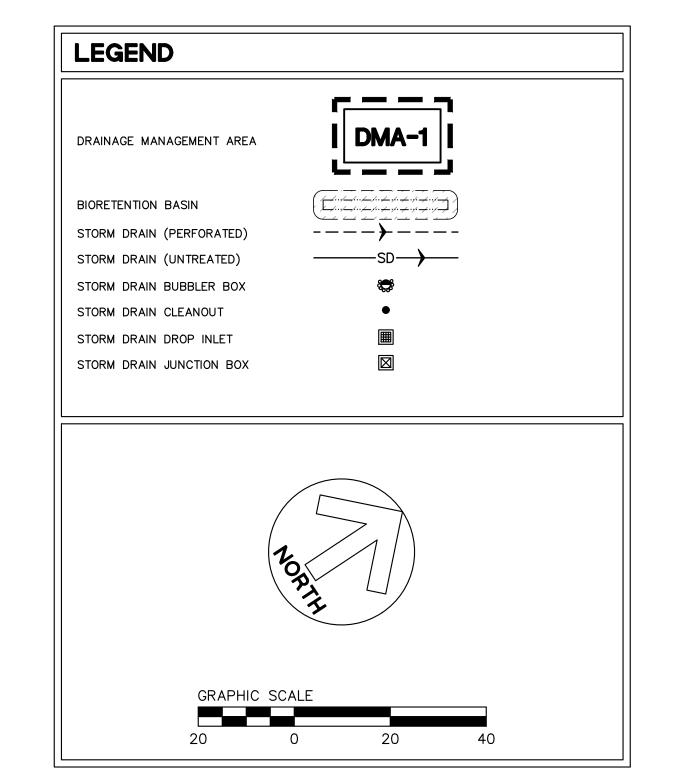
PLANS APPROVED FOR PERMIT

RECORD NO.: DEV22-1434

BY: <u>E.D.</u> Date: <u>6/27/2023</u>

HARD COPY OF THESE STAMPED PLANS

MUST BE ON THE SITE FOR INSPECTIONS





ARCHITECTURE | URBAN DESIGN ■ SAN FRANCISCO | DENVER | MINNEAPOLIS

333 Bryant Street, Suite 300, San Francisco, CA 94107 T 415.974.5352

CIVIL ENGINEER

BKF ENGINEERS

1730 N. FIRST ST SUITE 600
SAN JOSE, CA 95112

JOINT TRENCH / DRY UTILITIES

MILLENIUM DESIGN

PO BOX 737
ALAMO, CA 94507

LANDSCAPE ARCHITECT
PLURAL STUDIO
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SAN FRANCISCO, CA 94110

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| 2  | 03/20/23 | PLAN CHECK RESPONSE 2 |
| 3  | 5/12/23  | PLAN CHECK RESPONSE 3 |
| 4  | 6/19/23  | PLAN CHECK RESPONSE 4 |
|    |          |                       |
|    |          |                       |

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# EDUCATOR HOUSING 231 GRANT AVENUE



MERCY HOUSING 8

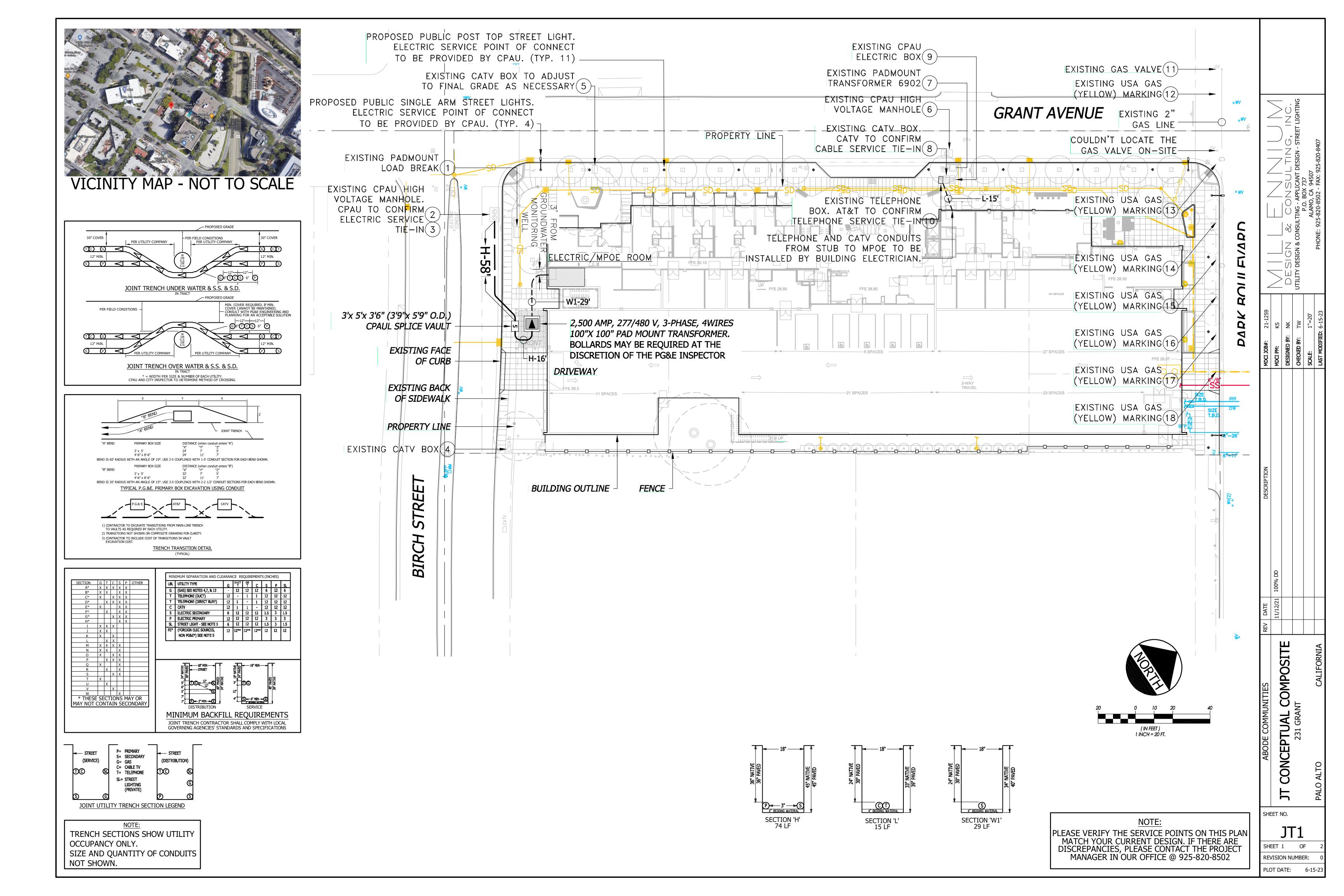
STORMWATER
MANAGEMENT PLAN

JOB #: 20192086

SCALE: " = 20'

C7.0

PLAN CHECK RESPONSE 2 | DATE: 03/20/23





(YELLOW) MARKING

PHO1 SHEET 2 OF REVISION NUMBER:

PLOT DATE: 3-2-22