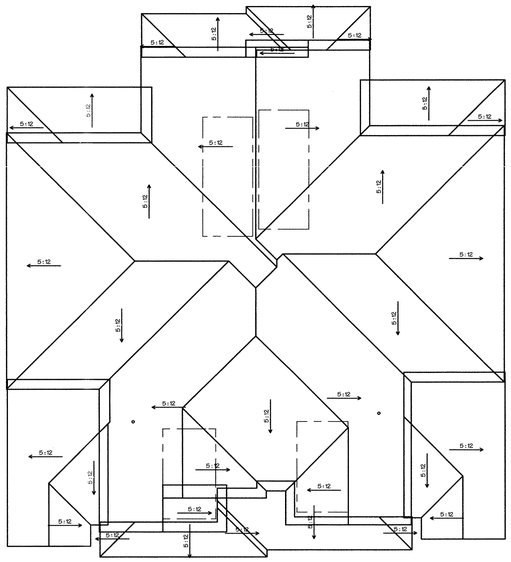


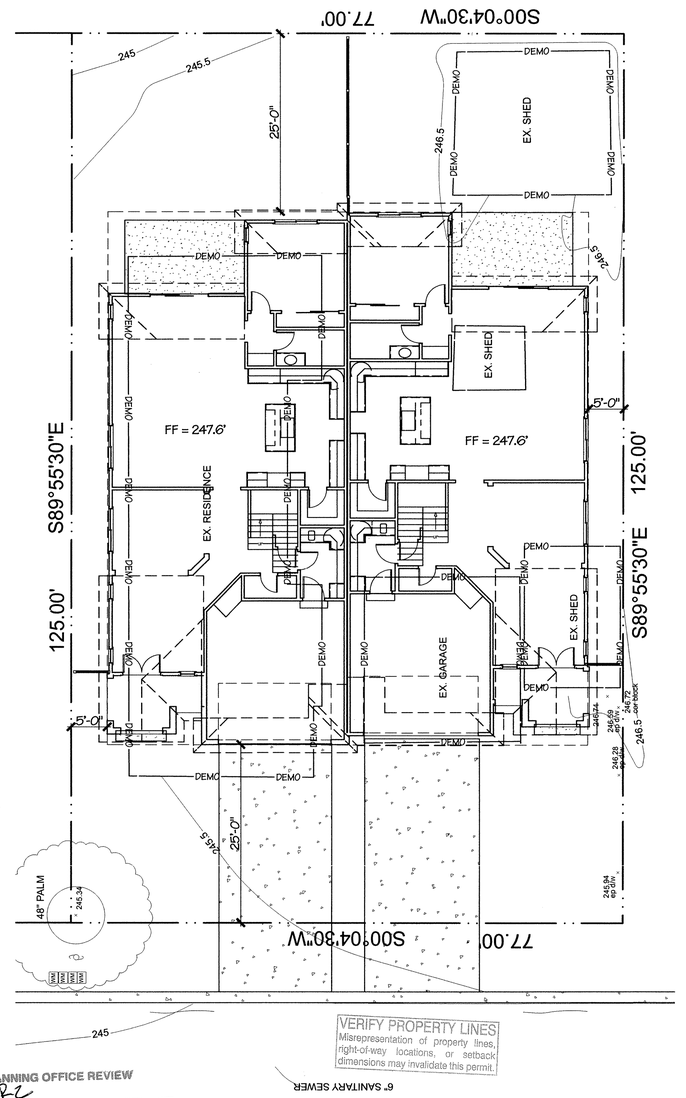
ROOF PLAN

DEFERRED SUBMITTAL ITEMS:
FIRE SPRINKLER PERMITS

GREEN BUILDING

1

SCOPE OF WORK:
NEW 2-STORY DUPLEX WITH 4 BEDROOMS, 3.5 BATHS AND ATTACHED 2-CAR GARAGES FOR EACH SIDE.



VERIFY PROPERTY LINES
Misrepresentation of property lines, right-of-way locations, or setback dimensions may invalidate this permit.

PLANNING OFFICE REVIEW
Zoning R2
Setbacks: Front 25' Sides 5' Rear 25'
Max. Height 35'
APN# 419-30-018
This project conforms to current zoning requirements.
By SW Date 6-19-14
DUPLEX NOT IN THE SRS
HCP EXEMPT
ANNEXATION WAIVED
ADDRESSING C/L REPRESENTATION FOR FRONT P/L LOCATION

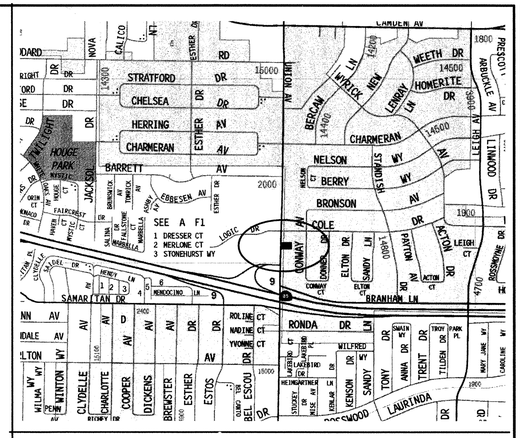
UTILITIES MUST BE INSTALLED UNDERGROUND

U N I O N A V E.

SITE PLAN
1" = 10'-0"

NO ENCROACHMENT WITHIN ANY EASEMENT OR RIGHT-OF-WAY IS APPROVED

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, ELECTRIC GAS, SEWER, WATER, RETAINING WALLS, DRIVEWAY APPROACHES, FENCES, LANDSCAPING, ETC.



VICINITY MAP

A.P.N.:	419 - 30 - 018		
ZONING:	R - 2		
LOT SIZE:	9,625 S.F.		
EXISTING HOUSE:	1,830 S.F. (TO BE REMOVED)		
NEW UNITS:	UNIT #1:	UNIT #2:	TOTAL:
FIRST FLOOR:	1,708 S.F.	1,708 S.F.	3,416 S.F.
SECOND FLOOR:	1,448.5 S.F.	1,448.5 S.F.	2,897 S.F.
TOTAL UNITS:	3,156.5 S.F.	3,156.5 S.F.	6,313 S.F.
GARAGE:	406.5 S.F.	406.5 S.F.	813 S.F.

TYPE OF CONSTRUCTION: VB
OCCUPANCY GROUP: R-3, U

THIS PROJECT SHALL COMPLY WITH 2013 CBC, CRC, CMC, CPC, CEC, CFC, CAL GREEN, CAL ENERGY CODE, AND LOCAL ORD.

SITE DATA

SHEET INDEX

BP 34815

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 1 OF 19 SHEETS
CORRECTIONS TO BE MADE FOR INSPECTIONS
DATE 6/5/14

RECEIVED
MAY 16 2014
BUILDING INSPECTION UNIT

LICENSED ARCHITECT
RICHARD A. HARTMAN
REG. C-18932
REN. 7-31-15
STATE OF CALIFORNIA

REVISIONS	BY
PLAN CHECK 5-14-14	1

HOMETEC
ARCHITECTURE, INC.
RICHARD A. HARTMAN
A.I.A.
619 NORTH FIRST STREET, SAN JOSE, CA 95112
408-995-0496
Hometecarch@hotmail.com

NEW DUPLEX FOR:

Date	1 - 31 - 14
Scale	1" = 10'-0"
Drawn	RAH
Job	13-044
Sheet	A-1
of	Sheets

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF STUD, UNLESS NOTED OTHERWISE

2. ADJUST DIMENSIONS TO ALIGN WITH EXISTING CONDITIONS IN THE FIELD, WHERE APPLICABLE.

3. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND, NOTIFY ARCHITECT IMMEDIATELY.

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5. SLOPE FINISH GRADE AT 5% MIN. FOR 10' AWAY FROM HOUSE & 1% MIN. TO AN APPROVED FACILITY

6. PROVIDE NON-REMOVABLE BACK FLOW PROTECTION AT ALL EXTERIOR HOSE BIBBS

7. PROVIDE EMERGENCY EGRESS FROM SLEEPING ROOMS, MIN. WINDOW OPENINGS OF 24" MIN. CLEAR HEIGHT, 20" MIN. CLEAR WIDTH, 5.7 SQ. FT. MIN. AREA WITH 44" MAXIMUM TO BOTTOM

8. TERMINATION OF ALL ENVIRONMENTAL AIR DUCTS (I.E., DRYERS, BATH & UTILITY FANS, ECT.) SHALL BE A MINIMUM OF 3 FEET AWAY FROM ANY OPENINGS INTO THE BUILDING (DOORS, WINDOWS, OPENING SKYLIGHTS, OR ATTIC VENTS)

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12. PROVIDE A SMOOTH, HARD, NONABSORBENT SURFACE OVER A MOISTURE RESISTANT UNDERLAYMENT TO A MINIMUM HEIGHT OF 72" ABOVE THE DRAIN INLET AT SHOWERS & TUB/SHOWERS (NO GREEN BOARD)

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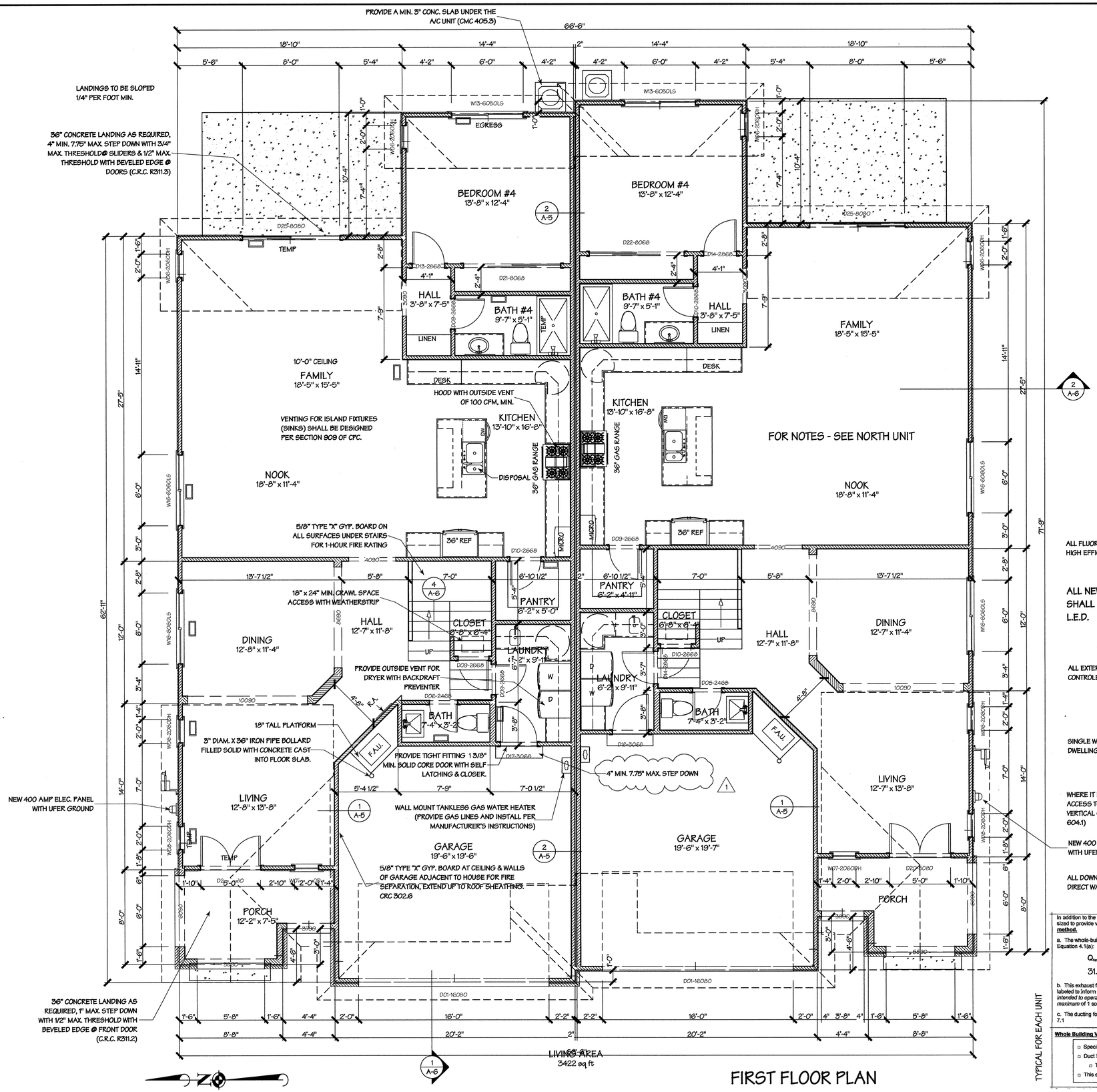

SYMBOLS & LEGEND

- NEW WALLS
- 1-HOUR FIRE RATED WALLS
- DUPLEX OUTLET (ALL TAMPER-RESISTANT)
- 220V OUTLET
- GFCI PROTECTED OUTLET
- WEATHERPROOF OUTLET (ALL GFCI PROTECTED)
- WALL SWITCH
- WALL SWITCH TIMER
- WALL SWITCH, MANUAL ON, AUTO OFF
- DIMMER WALL SWITCH (INCANDES. ONLY)
- 3-WAY WALL SWITCH
- WALL MOUNT LIGHT
- CEILING MOUNT LIGHT
- CEILING MOUNT FLUORES. LIGHT
- UNDER CAB. MOUNT FLUORES. LIGHT
- RECESSED LIGHT (CFL= FLUORES.)
- HEATER REGISTER (FLOOR) (WALL)
- SMOKE DETECTOR INNERCONNECTED (A/C, D/C)
- CARBON MONOXIDE DETECTOR INNERCONNECTED(A/C, D/C)
- DOORBELL
- PHONE/TV/NETWORK CABLE
- EXHAUST FAN
- EXHAUST FAN/FLUORES. LIGHT w/ sep. switch
- CEILING FAN

ALL FLUORESCENT LIGHTS TO BE HIGH EFFICACY

ALL NEW LIGHTING FIXTURES SHALL BE FLUORESCENT OR L.E.D.

ALL EXTERIOR MOUNTED LIGHTS SHALL BE HIGH EFFICACY OR CONTROLED BY MOTION SENSOR + PHOTOCONTROL

SINGLE WALL METAL PIPE SHALL NOT BE USED AS A VENT IN DWELLINGS AND RESIDENTIAL OCCUPANCIES (CMC 802.7.4.1)

WHERE IT IS REQUIRED TO MOVE UNDER DUCTS FOR ACCESS TO AREAS OF THE CRAWL SPACE, A MINIMUM VERTICAL CLEARANCE OF 18" SHALL BE PROVIDED (CMC 604.1)

NEW 400 AMP ELEC. PANEL WITH UFER GROUND

ALL DOWNSPOUTS SHALL HAVE SPLASH BLOCKS TO DIRECT WATER FLOW TO LANDSCAPED AREAS.

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 2 OF 19 SHEETS
BY RMA DATE 6/5/14
NOT VALID WITHOUT WET SEAL FOR INSPECTIONS

In addition to the local exhaust fans in the bathrooms and kitchens, an exhaust fan shall be sized to provide ventilation for the whole house. **Window operation is not a permissible method.**

a. The whole-building exhaust fan shall provide a minimum ventilation rate accordance to Equation 4.1(a):

$Q_{fan} = 0.01\ A_{floor} + 7.5\ (N_{br} + 1)$ Where Q_{fan} = fan flow rate, (cfm)

A_{floor} = conditioned floor area, ft²

N_{br} = number of bedroom

$31.56 + 7.5\ (4+1) = 69$

b. This exhaust fan can be controlled by a standard on/off switch, but the switch MUST be labeled to inform home occupants that it is the whole-building ventilation exhaust fan that is *intended to operate continuously*. This exhaust fan is required to be rated for *sound* at a *maximum* of 1 sone.

c. The ducting for the exhaust fan shall be sized according to ASHRAE Standard 62.2, Table 7.1

Whole Building Ventilation

- ☐ Specify Building Fan Flow (cfm) = 70 and Duct Type = SM
- ☐ Duct Size (in) = 4 and Maximum Allowable Duct Length (ft) = 16
- ☐ This exhaust fan is required to be rated for *sound* at a *maximum* of 1 sone.
- ☐ This exhaust fan is intended to operate continuously to ensure indoor air quality.

REVISIONS	BY
PLAN CHECK 5-14-14	1

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HometecArch@hotmail.com
HOMETEC
ARCHITECTURE, INC.
619 NORTH FIRST STREET, SAN JOSE, CA 95112

LICENSED ARCHITECT
RICHARD A. HARTMAN
NO. C-18952
REN. 7-31-15
STATE OF CALIFORNIA

NEW DUPLEX FOR:

Date	1 - 31 - 14
Scale	1/4" = 1'-0"
Drawn	RAH
Job	13-044
Sheet	A-2
of	Sheets

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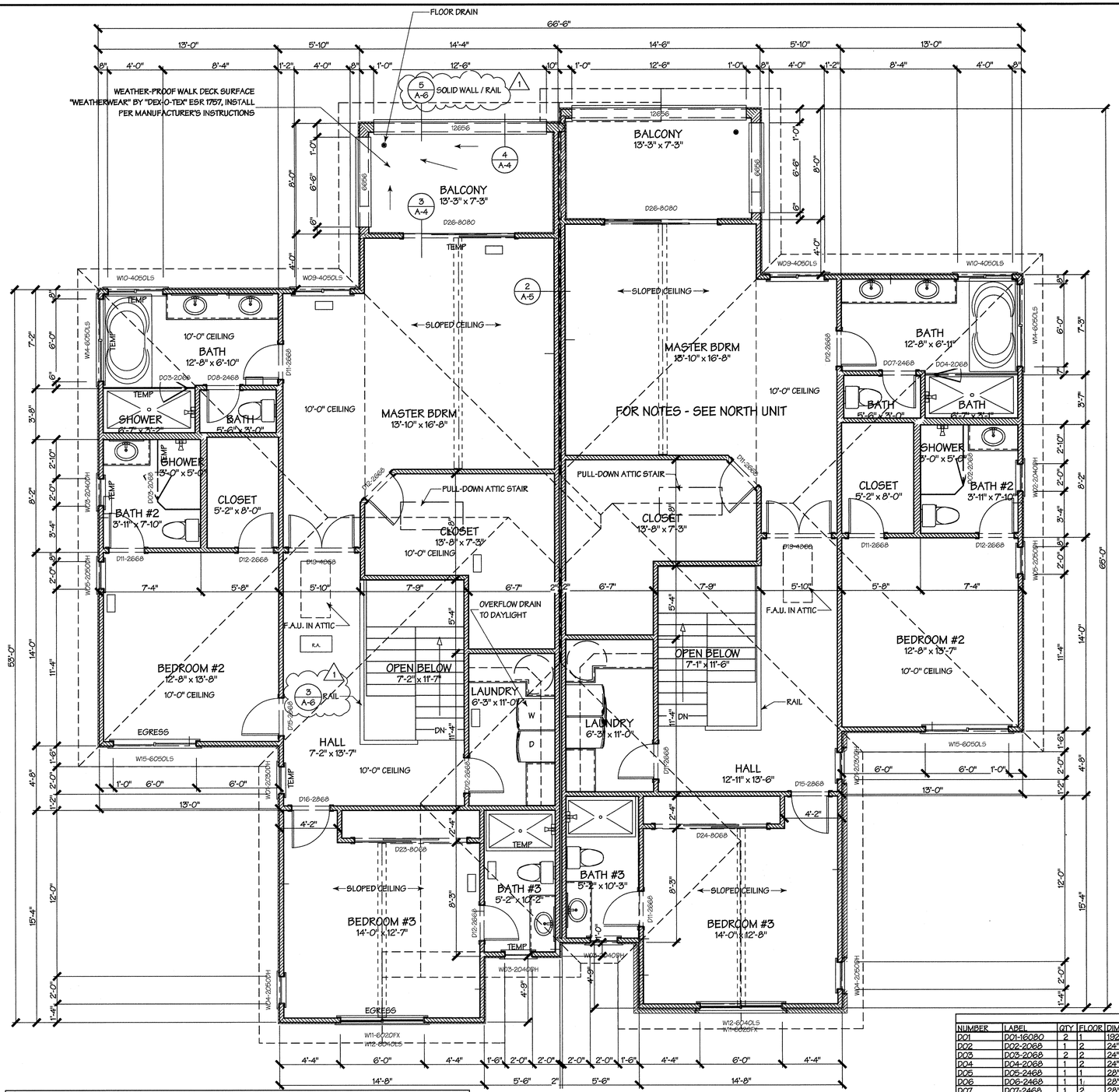

FOR F.A.U. IN ATTIC, PROVIDE: 36" SERVICE FLOOR. SWITCHED SERVICE LIGHT, SERVICE OUTLET, 24" WIDE CATWALK FROM ACCESS TO UNIT

A PORTABLE FIRE EXTINGUISHER IS REQUIRED IN THE HOUSE. PROVIDE A MINIMUM 2-A:10BC EXTINGUISHER.

SECOND FLOOR PLAN

WINDOW SCHEDULE

NUMBER	LABEL	QTY	FLOOR	DIMENSIONS	TOP	EGRESS	TEMPERED	ARCH	DESCRIPTION
W01	W01-2030DH	2	2	24"X36"DH	96"		YES		DOUBLE HUNG
W02	W02-2040DH	1	2	24"X48"DH	96"				DOUBLE HUNG
W03	W03-2040DH	3	2	24"X48"DH	96"		YES		DOUBLE HUNG
W04	W04-2050DH	2	2	24"X60"DH	96"				DOUBLE HUNG
W05	W05-2050DH	2	2	24"X60"DH	96"		YES		DOUBLE HUNG
W06	W06-2060DH	6	1	24"X72"DH	96"				DOUBLE HUNG
W07	W07-2060DH	2	1	24"X72"DH	96"			BROKEN ARCH	DOUBLE HUNG-AT
W08	W08-2060DH	2	1	24"X72"DH	96"		YES		DOUBLE HUNG
W09	W09-4050LS	2	2	48"X60"LS	96"				LEFT SLIDING
W10	W10-4050LS	2	2	48"X60"LS	96"		YES		LEFT SLIDING
W11	W11-6020FX	2	2	72"X24"FX	116"			BROKEN ARCH	FIXED GLASS-AT
W12	W12-6040LS	2	2	72"X48"LS	80"	YES			LEFT SLIDING
W13	W13-6050LS	2	1	72"X60"LS	96"	YES			LEFT SLIDING
W14	W14-6050LS	2	2	72"X60"LS	96"		YES		LEFT SLIDING
W15	W15-6050LS	2	2	72"X60"LS	96"	YES			LEFT SLIDING
W16	W16-6060LS	4	1	72"X72"LS	96"				LEFT SLIDING

DOOR SCHEDULE

NUMBER	LABEL	QTY	FLOOR	DIMENSIONS	TOP	TYPE	THICKNESS	TEMPERED
D01	D01-16080	2	1	192"X96"X1 3/4"	96"	GARAGE	1 3/4"	
D02	D02-2068	1	2	24"X80"X1/2" L IN	80"	HINGED	1/2"	
D03	D03-2068	2	2	24"X80"X1/2" L IN	80"	HINGED	1/2"	YES
D04	D04-2068	1	2	24"X80"X1/2" R IN	80"	HINGED	1/2"	
D05	D05-2468	1	1	28"X80"X1 3/4" R IN	80"	HINGED	1 3/4"	
D06	D06-2468	1	1	28"X80"X1 3/8" L IN	80"	HINGED	1 3/8"	
D07	D07-2468	1	2	28"X80"X1 3/8" L IN	80"	HINGED	1 3/8"	
D08	D08-2468	1	2	28"X80"X1 3/8" R IN	80"	HINGED	1 3/8"	
D09	D09-2668	4	1	30"X80"X1 3/8" L IN	80"	HINGED	1 3/8"	
D10	D10-2668	3	1	30"X80"X1 3/8" R IN	80"	HINGED	1 3/8"	
D11	D11-2668	6	2	30"X80"X1 3/8" L IN	80"	HINGED	1 3/8"	
D12	D12-2668	6	2	30"X80"X1 3/8" R IN	80"	HINGED	1 3/8"	
D13	D13-2868	1	1	32"X80"X1 3/8" L IN	80"	HINGED	1 3/8"	
D14	D14-2868	2	1	32"X80"X1 3/8" R IN	80"	HINGED	1 3/8"	
D15	D15-2868	2	2	32"X80"X1 3/8" L IN	80"	HINGED	1 3/8"	
D16	D16-2868	1	2	32"X80"X1 3/8" R IN	80"	HINGED	1 3/8"	
D17	D17-3068	1	1	36"X80"X1 3/4" L EX	80"	HINGED	1 3/4"	
D18	D18-3068	1	1	36"X80"X1 3/4" R EX	80"	HINGED	1 3/4"	
D19	D19-4868	2	2	(2) 28"X0"X1 3/8" L/R IN	80"	DOUBLE HINGED	1 3/8"	
D20	D20-5080	2	1	(2) 30"X96"X1 3/4" L/R EX	96"	DOUBLE HINGED	1 3/4"	YES
D21	D21-8068	1	1	96"X80"X1 3/8" L IN	80"	SLIDER	1 3/8"	
D22	D22-8068	1	1	96"X80"X1 3/8" R IN	80"	SLIDER	1 3/8"	
D23	D23-8068	1	2	96"X80"X1 3/8" L IN	80"	SLIDER	1 3/8"	
D24	D24-8068	1	2	96"X80"X1 3/8" R IN	80"	SLIDER	1 3/8"	
D25	D25-8080	2	1	96"X96"X1 3/4" R EX	96"	SLIDER	1 3/4"	YES
D26	D26-8080	2	2	96"X96"X1 3/4" R EX	96"	SLIDER	1 3/4"	YES

SYMBOLS & LEGEND

- NEW WALLS
- 1-HOUR FIRE RATED WALLS
- DUPLEX OUTLET (ALL TAMPER-RESISTANT)
- 220V OUTLET
- GFCI PROTECTED OUTLET
- WEATHERPROOF OUTLET (ALL GFCI PROTECTED)
- WALL SWITCH
- 3 WALL SWITCH TIMER
- OC WALL SWITCH, MANUAL ON, AUTO OFF
- DM DIMMER WALL SWITCH (INCANDES. ONLY)
- 3 3-WAY WALL SWITCH
- WALL MOUNT LIGHT
- CEILING MOUNT LIGHT
- CEILING MOUNT FLUORES. LIGHT
- UNDER CAB. MOUNT FLUORES. LIGHT
- CFL RECESSED LIGHT (CFL= FLUORES.)
- (FLOOR) (WALL) HEATER REGISTER
- SD SMOKE DETECTOR INNERCONNECTED (A/C, D/C)
- CO CARBON MONOXIDE DETECTOR INNERCONNECTED(A/C, D/C)
- DOORBELL
- TV PHONE/TV/NETWORK CABLE
- EXHAUST FAN
- CFL EXHAUST FAN/FLUORES. LIGHTW/ sep. switch
- CEILING FAN

ATTIC VENTILATED PER C.R.C., C.P.C. 507.0 SUFFICIENT FOR COMBUSTION AIR FOR F.A.U. IN ATTIC PER MANUFACTURER'S INSTRUCTIONS

IN ADDITION TO THE PRIMARY CONDENSATE DRAINS, WHEN COOLING COILS ARE LOCATED IN THE ATTIC, A SECONDARY OR OVERFLOW DRAIN SHALL BE PROVIDED. THE OVERFLOW LINE SHALL BE A SEPARATE LINE FROM THE PRIMARY AND SHALL TERMINATE WHERE IT IS READILY OBSERVABLE, OVER A DOOR OR WINDOW.

ALL EXHAUST FANS SHALL BE EQUIPTED WITH A TIMER SWITCH, AND SWITCHED SEPARATLY FROM LIGHTING SYSTEMS.

30" MIN. CLEAR SPACE FOR TOILET (15" EACH WAY), WITH 24" CLEAR SPACE IN FRONT (TYP. @ ALL TOILETS)

PROVIDE 2X8 WOODEN BACKING IN ALL BATHROOM WALLS AT TOILET, SHOWER AND BATHTUB, LOCATED AT 34" FROM FLOOR TO THE CENTER OF THE BACKING, SUITABLE FOR THE ADDITION OF GRAB BARS.

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
3 OF 19 SHEETS
DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

REVISIONS	BY
PLAN CHECK 5-14-14	1

HOMETEC ARCHITECTURE, INC.
RICHARD A. HARTMAN A.I.A.
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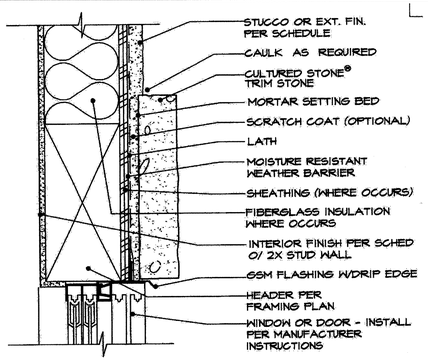
HometecArch@hotmail.com
619 NORTH FIRST STREET, SAN JOSE, CA 95112

LICENSED ARCHITECT RICHARD A. HARTMAN NO. C-18652 REN. 7-31-15 STATE OF CALIFORNIA

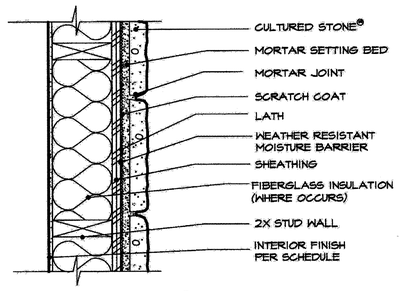
NEW DUPLEX FOR:

Date	1 - 31 - 14
Scale	1/4" = 1'-0"
Drawn	RAH
Job	13-044
Sheet	A-3
of	Sheets



1 CULTURED STONE® TRIM STONE HEAD

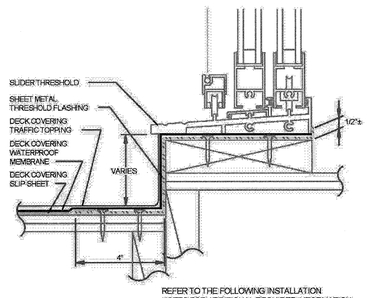
SCALE: N.T.S.



2 CULTURED STONE® OVER SHEATHING OVER STUDS

SCALE: NTS

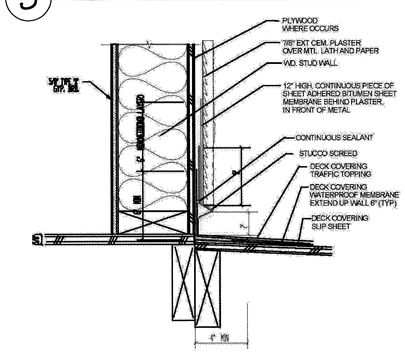
INSTALL PER MANUFACTURE INSTRUCTIONS



REFER TO THE FOLLOWING INSTALLATION NOTES FOR ADDITIONAL REQUIRED INFORMATION:

1. PLYWOOD SHEATHING AND FRAMING.
3A. SHEET METAL INSTALLATION - WOOD.

3 Slider Door Threshold Detail (1 of 2) - W2A



4 Deck To Wall 2 piece Flashing Detail - W3A

WEST ELEVATION

SOUTH ELEVATION

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LICENSED ARCHITECT
RICHARD A. HARTMAN
NO. C-18652
REN. 7-31-15
STATE OF CALIFORNIA

NEW DUPLEX FOR:

[redacted]

Date	1 - 31 - 14
Scale	1/4" = 1'-0"
Drawn	RAH
Job	13-044
Sheet	A-4
of	Sheets

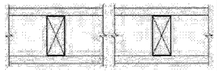
COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 4 OF 19 SHEETS
BY RMA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

WALLS AND INTERIOR PARTITIONS, WOOD FRAMED			
GA FILE NO. WP 3614	GENERIC	1 HOUR FIRE	30 to 34 STC SOUND

GYPSUM WALLBOARD, WOOD STUDS

One layer 5/8" type X gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side of 2 x 4 wood studs 16" o.c. with 1¼" Type W drywall screws 12" o.c.

Joints staggered 16" on opposite sides. **(LOAD-BEARING)**



Thickness: 4¾"
Approx. Weight: 7 psf
Fire Test: SWRI 01-4511-619[1], 3-94
Sound Test: See WP 3520 (G&H NG-246FT, 7-2-65)

1 1-HOUR FIRE WALL

GA FILE NO. WP 5508	PROPRIETARY*	1 HOUR FIRE	55 to 59 STC SOUND

GYPSUM WALLBOARD, WOOD STUDS

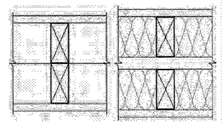
One layer 5/8" proprietary type X gypsum wallboard applied parallel or at right angles to each side of double row of 2 x 4 wood studs 24" o.c. on separate plates with 1¼" drywall screws 8" o.c. No minimum airspace between rows of studs.

Joints staggered 16" on opposite sides.

Sound tested with 1" air space between rows of studs and 3½" glass fiber insulation in stud cavity on both sides. **(LOAD-BEARING)**

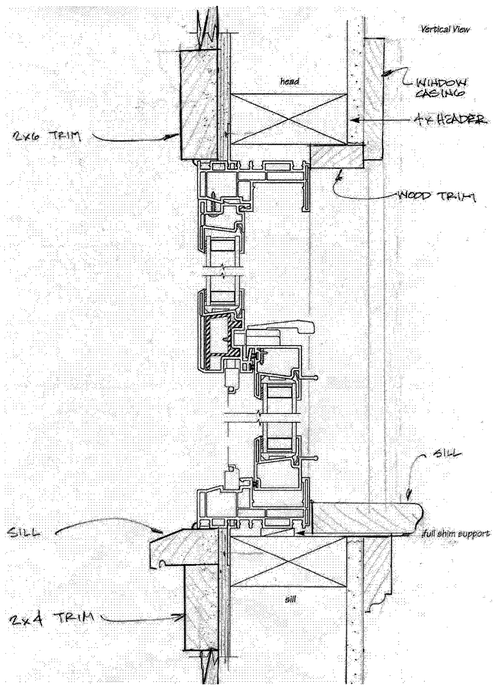
PROPRIETARY GYPSUM BOARD

American Gypsum Company LLC - 5/8" FireBloc® Type X



Thickness: 9½"
Approx. Weight: 10 psf
Fire Test: UL R14196, 06NK07241, 3-13-06, UL Design U341
Sound Test: RAL TL11-160, 7-11-11

2 1-HOUR FIRE/SOUND PARTY WALL



3 TYPICAL WINDOW TRIM

INSTALL PER MANUFACTURER'S INSTRUCTIONS

EAST ELEVATION

NORTH ELEVATION

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 5 OF 19 SHEETS
BY MA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

REVISIONS	BY
PLAN CHECK 5-14-14	1

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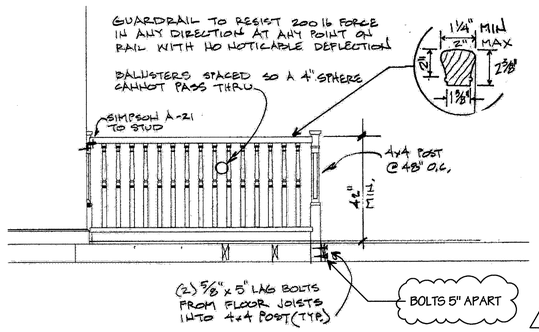
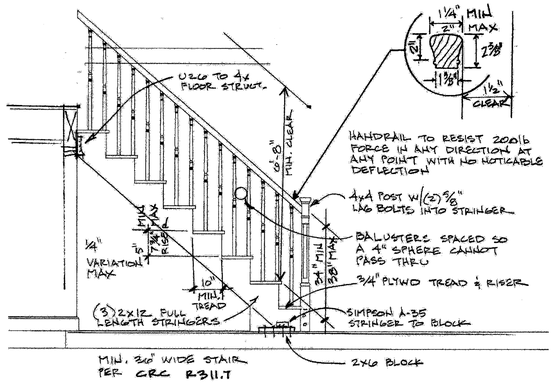
LICENSED ARCHITECT RICHARD A. HARTMAN No. C-18852 REN. 7-31-15 STATE OF CALIFORNIA

NEW DUPLEX FOR:

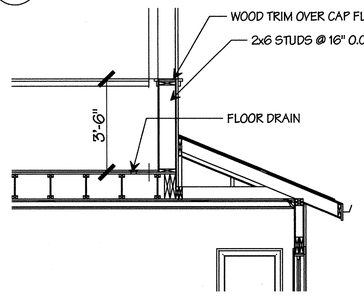
Date	1 - 31 - 14
Scale	1/4" = 1'-0"
Drawn	RAH
Job	13-044
Sheet	A-5
of	Sheets



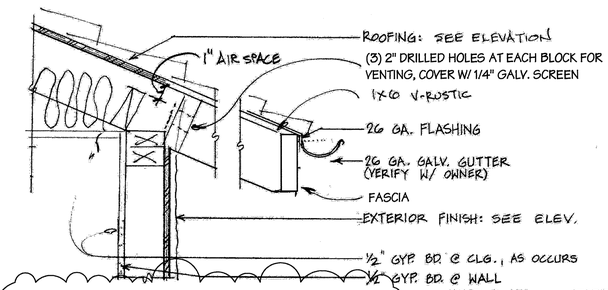
3 INTERIOR RAIL



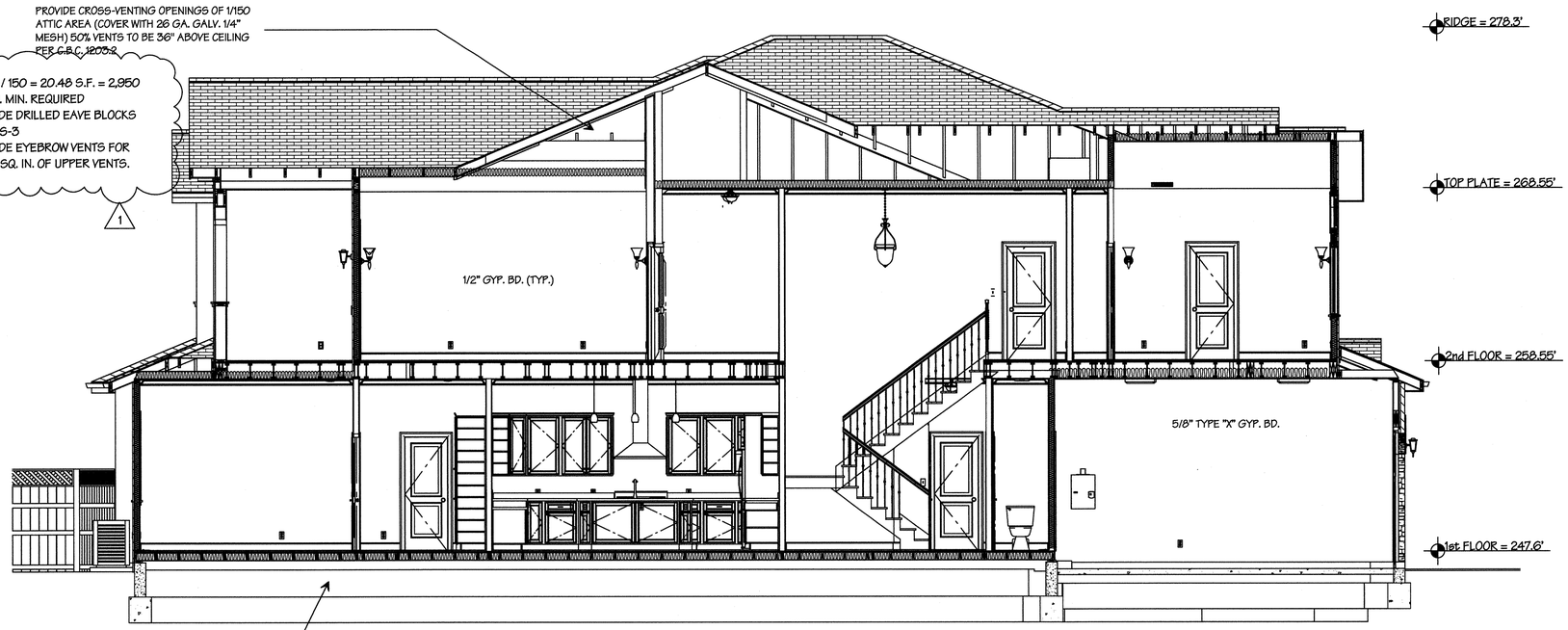
4 STAIR



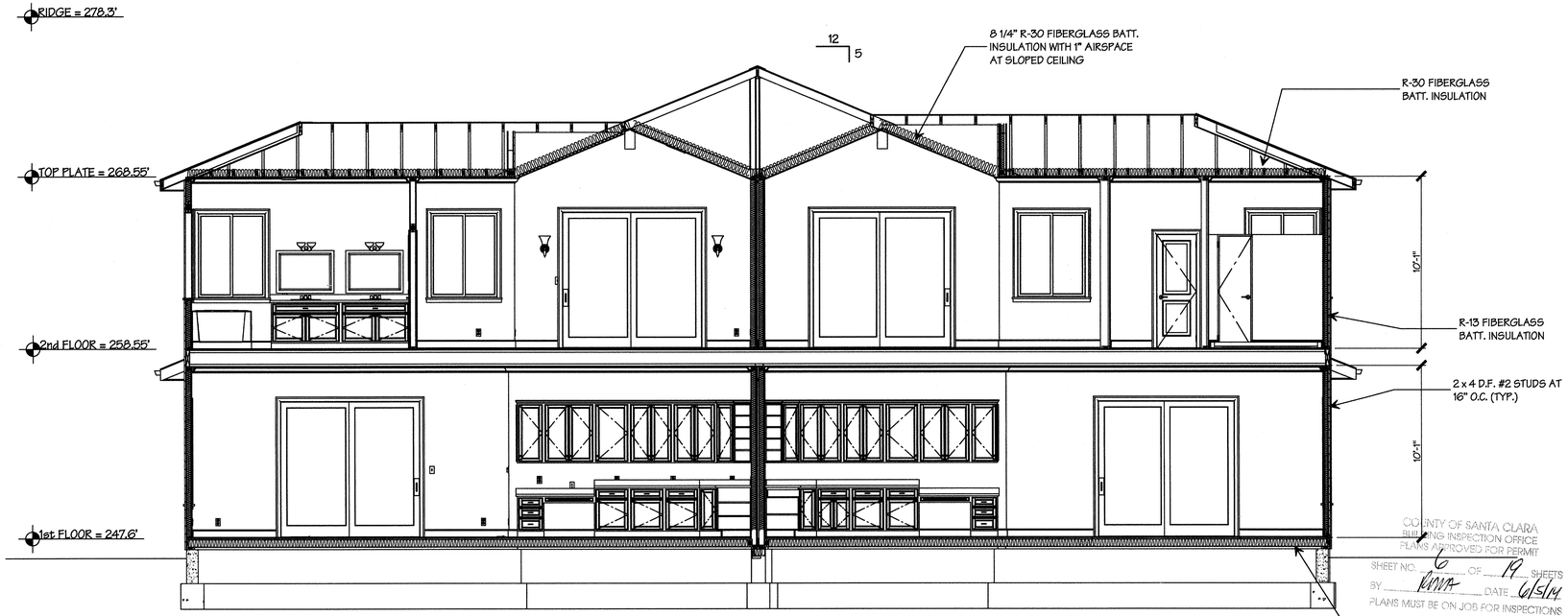
5 EXTERIOR BALCONY RAIL



6 TYP. EAVE VENTING



1 SECTION



2 SECTION

REVISIONS	BY
PLAN CHECK 5-14-14	1

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LICENSED ARCHITECT
RICHARD A. HARTMAN
NO. C-18952
REN. 7-31-15
STATE OF CALIFORNIA

NEW DUPLEX FOR:

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 6 OF 19 SHEETS
BY MMA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

Date	1 - 31 - 14
Scale	1/4" = 1'-0"
Drawn	RAH
Job	13-044
Sheet	A-6
of	Sheets

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF STUD, UNLESS NOTED OTHERWISE

2. ADJUST DIMENSIONS TO ALIGN WITH EXISTING CONDITIONS IN THE FIELD, WHERE APPLICABLE.

3. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND, NOTIFY ARCHITECT IMMEDIATELY.

4. INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT SHALL BE POSTED AND PROVIDED TO THE FIELD INSPECTOR AT TIME OF INSPECTION

5. SLOPE FINISH GRADE AT 5% MIN. FOR 10' AWAY FROM HOUSE & 1% MIN. TO AN APPROVED FACILITY

6. PROVIDE NON-REMOVABLE BACK FLOW PROTECTION AT ALL EXTERIOR HOSE BIBBS

7. PROVIDE EMERGENCY EGRESS FROM SLEEPING ROOMS, MIN. WINDOW OPENINGS OF 24" MIN. CLEAR HEIGHT, 20" MIN. CLEAR WIDTH, 5.7 SQ. FT. MIN. AREA WITH 44" MAXIMUM TO BOTTOM

8. TERMINATION OF ALL ENVIRONMENTAL AIR DUCTS (I.E., DRYERS, BATH & UTILITY FANS, ECT.) SHALL BE A MINIMUM OF 3 FEET AWAY FROM ANY OPENINGS INTO THE BUILDING (DOORS, WINDOWS, OPENING SKYLIGHTS, OR ATTIC VENTS)

9. ALL AIR DUCTS PENETRATING A SEPARATION WALL OR CEILING BETWEEN GARAGE AND LIVING AERA SHALL BE 26 GA. MINIMUM

10. ALL EXHAUST FANS SHALL BE "ENERGY STAR" AND SEPARATELY SWITCHED WITH TIMER OR HUMIDISTAT SWITCHES AND CAPABLE OF 5 AIR CHANGES PER HOUR (MIN. 50 CFM) AT BATHS, TOILETS, AND LAUNDRY

11. ALL WATER CLOSETS SHALL BE MAXIMUM 1.28 GALLONS PER FLUSH

12. PROVIDE A SMOOTH, HARD, NONABSORBENT SURFACE OVER A MOISTURE RESISTANT UNDERLAYMENT TO A MINIMUM HEIGHT OF 72" ABOVE THE DRAIN INLET AT SHOWERS & TUB/SHOWERS (NO GREEN BOARD)

13. SHOWER AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH PRESSURE BALANCE ANTI-SCALD VALVES TO 120f MAX. WITH MAX. 2.0 GPM FLOW @ 80 PSI, SINK FAUCETS MAX. 1.5 GPM FLOW @ 20 PSI.

14. SHOWER COMPARTMENTS, REGARDLESS OF SHAPE, HAVING A MINIMUM INTERIOR FLOOR AREA OF 1,024 SQUARE INCHES, SHALL ALSO BE CAPABLE OF ENCOMPASSING A 30-INCH CIRCLE, AND OUTWARD SWING 22" MIN. DOOR

15. ALL UNDERFLOOR PLUMBING CLEANOUTS SHALL BE WITHIN 20' OF THE UNDERFLOOR ACESS, OR EXTENDED TO THE EXTERIOR

16. KITCHEN SHALL HAVE SEPARATE CIRCUITS FOR DISPOSAL, DISHWASHER, & TWO (2) 20 AMP CIRCUITS LIMITED TO SUPPLYING WALL AND COUNTER SPACE OUTLETS.

17. FOR 30 AMP ELECTRIC DRYERS AND COOKTOPS PROVIDE WIRES WITH INSULATED NEUTRAL AND 4-PRONG OUTLET

18. LAUNDRY ROOM AND BATHROOM COUNTERTOP OUTLETS SHALL BE EACH SUPPLIED WITH A DEDICATED 20 AMP CIRCUIT

19. ALL ELECTRIC SWITCHES SHALL BE OF THE SCREW TYPE GROUND.

20. ALL BRANCH CIRCUITS IN ALL ROOMS OTHER THAN KITCHEN & BATHS SHALL BE PROTECTED BY COMBINATION ARCH-FAULT CIRCUIT INTERRUPTERS.(C.E.C. 210.12.B)

21. LIGHT FIXTURES LOCATED OVER TUBS OR SHOWER ENCLOSURES SHALL BE LABELED "SUITABLE FOR DAMP LOCATIONS"

22. A PERMANENT LABEL SHALL IDENTIFY EACH LITE OF SAFETY GLAZING

23. T-24 INSTALLATION CERTIFICATE (CF-6R) AND INSTALLATION CERTIFICATE OF INSULATION (IC-1) SHALL BE SUBMITTED TO THE FIELD INSPECTOR AT TIME OF FINAL INSPECTION.

24. RECESSED LUMINARIES IN INSULATED CEILINGS SHALL BE A.T. & I.C. RATED, ELECTRONIC BALLAST AND CAULKED AIR-TIGHT

25. DRYER EXHAUST VENTS SHALL BE PER MANUF. REQUIRMENTS OR MAX. 14' IN LENGTH, TERMINATING 3' CLEAR OF ANY OPENING

26. JOINTS AND SEAMS OF DUCT SYSTEMS SHALL BE SEALED WITH UL 181 LISTED DUCT TAPE, AND INSULATED WITH R-6 MIN.

27. ALL PENETRATIONS INTO UNCONDITIONED SPACE (ATTICS, UNDERFLOORS, ECT.) SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED, OR SEALED TO LIMIT INFILTRATION AND EXFILTRATION.

28. ALL PENETRATIONS IN TOP PLATES, FLOORS, ECT. SHALL BE CAULKED WITH A RESIDENTAL FIRE RATED CAULK WITH AN ASTM E136 OR EB14 RATING (CRC R302.1)

29. EGRESS WINDOWS WITH MULTIPLE LATCHES SHALL HAVE THEM INTERCONNECTED AND OPERABLE FROM THE LOWEST LATCH.

30. SHOWER ENCLOSURE DOORS SHALL OPEN OUT WITH A CLEAR OPENING OF 22" MIN. IN THE OPEN POSITION

31. SMOKE DETECTORS SHALL BE INSTALLED IN ALL BEDROOMS AND AT AREAS LEADING TO BEDROOMS.

32. ALL 15-AMP AND 20-AMP DWELLING UNIT RECEPTACLE OUTLETS SHALL BE LISTED TAMPER-RESISTANT RECEPTICALS (CEC 406.11)

33. MAIN ENTRY DOOR SHALL BE OPENABLE FROM THE INSIDE OF THE DWELLING WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE OR EFFORT.

34. A COMPLETED FORM CF-6R-LTG-01 MUST BE PROVIDED TO THE FEILD BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION.

35. VENTILATION HEATING AND AIR CONDITIONING SYSTEMS SHALL HAVE A MERV-6 FILTER OR BETTER.

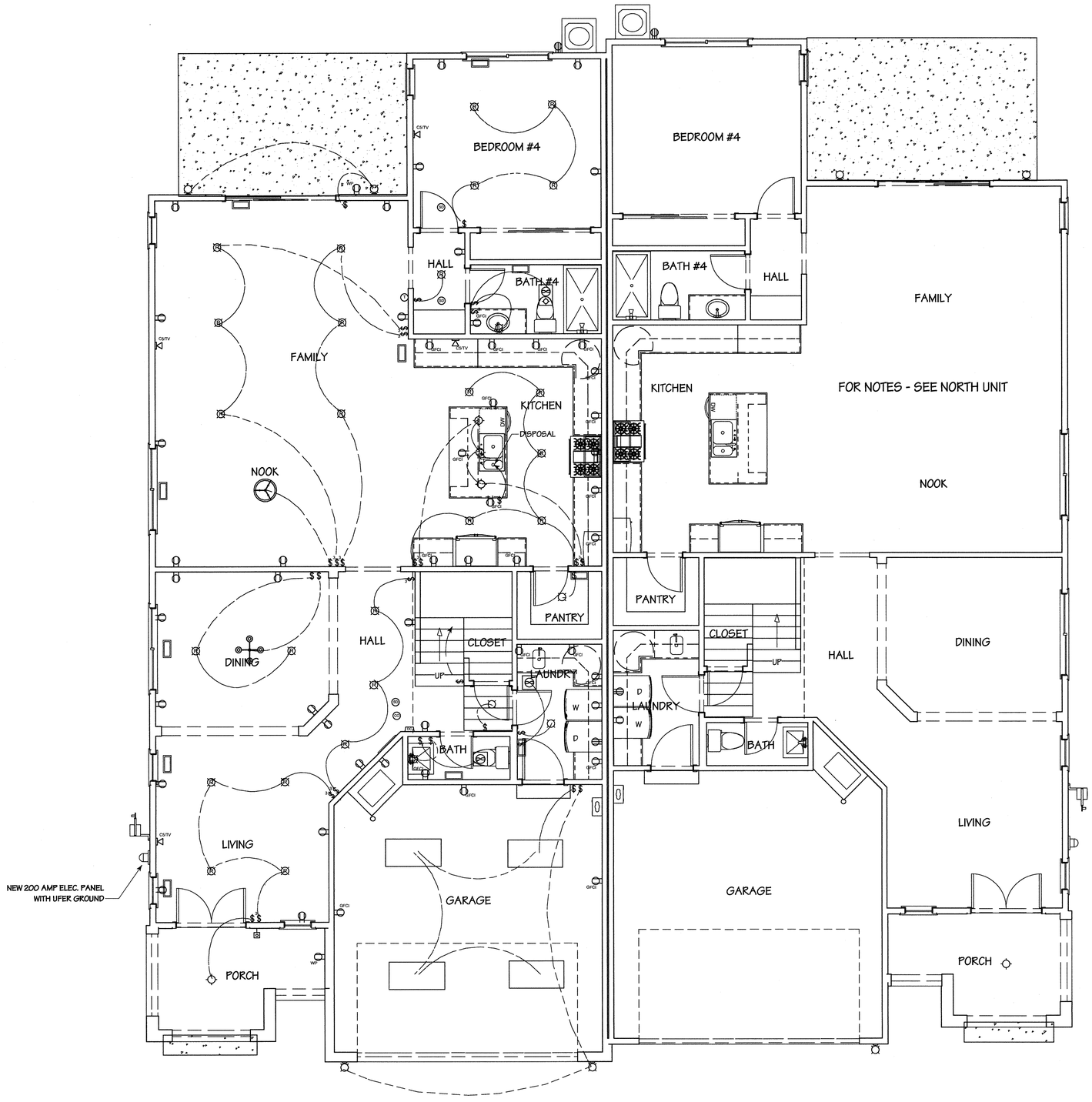
36. PROVIDE STATE ARCHITECT CERTIFIED EARTHQUAKE-ACTUATED GAS SHUT OFF VALVES AT ALL NEW, RELOCATED, AND REPLACED GAS UTILITY METERS.

37. PROVIDE A DEDICATED 20 AMP CIRCUIT FOR EACH FAN MOTOR (F.A.U., EXHAUST, ECT.)

38. PROVIDE COMBO SMOKE/CARBON MONOXIDE DETECTORS AT HALLWAYS ON EACH LEVEL,AND OUTSIDE OF BEDROOMS (PER CRC 315.1)

39. A GAS PIPING LAYOUT PLAN SHALL BE PROVIDED TO THE FIELD INSPECTOR BY THE CONTRACTOR AT TIME OF INSPECTION.

40. FOR ANY L.E.D. LIGHTS TO QUALIFY AS HIGH EFFICACY LIFTING, THEY MUST BE CERTIFIED BY THE ENERGY COMMISSION AND LISTED ON THEIR DATABASE AT http://www.appliances.energy.ca.gov/. PROVIDE TO THE FIELD INSPECTOR EVIDENCE OF CERTIFICATION FOR ALL HIGH EFFICACY L.E.D. LIGHTS AS SELECTED BY THE OWNER.



LIVING AREA
3422 sq ft

ALL FLUORESCENT LIGHTS TO BE HIGH EFFICACY

ALL NEW LIGHTING FIXTURES SHALL BE FLUORESCENT OR L.E.D.

ALL EXTERIOR MOUNTED LIGHTS SHALL BE HIGH EFFICACY OR CONTROLED BY MOTION SENSOR + PHOTOCONTROL

FOR REFERENCE ONLY

SYMBOLS & LEGEND

- NEW WALLS
- 1-HOUR FIRE RATED WALLS
- DUPLEX OUTLET (ALL TAMPER-RESISTANT)
- 220V OUTLET
- GFCI PROTECTED OUTLET
- WEATHERPROOF OUTLET (ALL GFCI PROTECTED)
- WALL SWITCH
- WALL SWITCH TIMER
- WALL SWITCH, MANUAL ON, AUTO OFF
- DIMMER WALL SWITCH (INCANDES. ONLY)
- 3-WAY WALL SWITCH
- WALL MOUNT LIGHT
- CEILING MOUNT LIGHT
- CEILING MOUNT FLUORES. LIGHT
- UNDER CAB. MOUNT FLUORES. LIGHT
- RECESSED LIGHT (CFL= FLUORES.)
- HEATER REGISTER (FLOOR) (WALL)
- SMOKE DETECTOR INNERCONNECTED (A/C, D/C)
- CARBON MONOXIDE DETECTOR INNERCONNECTED(A/C, D/C)
- DOORBELL
- PHONE/TV/NETWORK CABLE
- EXHAUST FAN
- EXHAUST FAN/FLUORES. LIGHTw/ sep. switch
- CEILING FAN

REVISIONS	BY
PLAN CHECK 5-14-14	1

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LICENSED ARCHITECT
RICHARD A. HARTMAN
NO. C-18952
REN. 7-31-15
STATE OF CALIFORNIA

NEW DUPLEX FOR:
[redacted]

Date	1 - 31 - 14
Scale	1/4" = 1'-0"
Drawn	RAH
Job	13-044
Sheet	E-1
of	Sheets

ELECTRICAL FIRST FLOOR PLAN

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF STUD, UNLESS NOTED OTHERWISE

2. ADJUST DIMENSIONS TO ALIGN WITH EXISTING CONDITIONS IN THE FIELD, WHERE APPLICABLE.

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4. INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT SHALL BE POSTED AND PROVIDED TO THE FIELD INSPECTOR AT TIME OF INSPECTION

5. SLOPE FINISH GRADE AT 5% MIN. FOR 10' AWAY FROM HOUSE & 1% MIN. TO AN APPROVED FACILITY

6. PROVIDE NON-REMOVABLE BACK FLOW PROTECTION AT ALL EXTERIOR HOSE BIBBS

7. PROVIDE EMERGENCY EGRESS FROM SLEEPING ROOMS, MIN. WINDOW OPENINGS OF 24" MIN. CLEAR HEIGHT, 20" MIN. CLEAR WIDTH, 5.7 SQ. FT. MIN. AREA WITH 44" MAXIMUM TO BOTTOM

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13. SHOWER AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH PRESSURE BALANCE ANTI-SCALD VALVES TO 120F MAX. WITH MAX. 2.0 GPM FLOW @ 80 PSI, SINK FAUCETS MAX. 1.5 GPM FLOW @ 20 PSI.

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22. A PERMANENT LABEL SHALL IDENTIFY EACH LITE OF SAFETY GLAZING

23. T-24 INSTALLATION CERTIFICATE (CF-6R) AND INSTALLATION CERTIFICATE OF INSULATION (IC-1) SHALL BE SUBMITTED TO THE FIELD INSPECTOR AT TIME OF FINAL INSPECTION.

24. RECESSED LUMINARIES IN INSULATED CEILINGS SHALL BE A.T. & I.C. RATED, ELECTRONIC BALLAST AND CAULKED AIR-TIGHT

25. DRYER EXHAUST VENTS SHALL BE PER MANUF. REQUIRMENTS OR MAX. 14' IN LENGTH, TERMINATING 3' CLEAR OF ANY OPENING

26. JOINTS AND SEAMS OF DUCT SYSTEMS SHALL BE SEALED WITH UL 181 LISTED DUCT TAPE, AND INSULATED WITH R-8 MIN.

27. ALL PENETRATIONS INTO UNCONDITIONED SPACE (ATTICS, UNDERFLOORS, ECT.) SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED, OR SEALED TO LIMIT INFILTRATION AND EXFILTRATION.

28. ALL PENETRATIONS IN TOP PLATES, FLOORS, ECT. SHALL BE CAULKED WITH A RESIDENTAL FIRE RATED CAULK WITH AN ASTM E136 OR E814 RATING (CRC R302.1)

29. EGRESS WINDOWS WITH MULTIPLE LATCHES SHALL HAVE THEM INTERCONNECTED AND OPERABLE FROM THE LOWEST LATCH.

30. SHOWER ENCLOSURE DOORS SHALL OPEN OUT WITH A CLEAR OPENING OF 22" MIN. IN THE OPEN POSITION

31. SMOKE DETECTORS SHALL BE INSTALLED IN ALL BEDROOMS AND AT AREAS LEADING TO BEDROOMS.

32. ALL 15-AMP AND 20-AMP DWELLING UNIT RECEPTACLE OUTLETS SHALL BE LISTED TAMPER-RESISTANT RECEPTICALS (CEC 406.11)

33. MAIN ENTRY DOOR SHALL BE OPENABLE FROM THE INSIDE OF THE DWELLING WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE OR EFFORT.

34. A COMPLETED FORM CF-6R-LTG-01 MUST BE PROVIDED TO THE FEILD BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION.

35. VENTILATION HEATING AND AIR CONDITIONING SYSTEMS SHALL HAVE A MERV-6 FILTER OR BETTER.

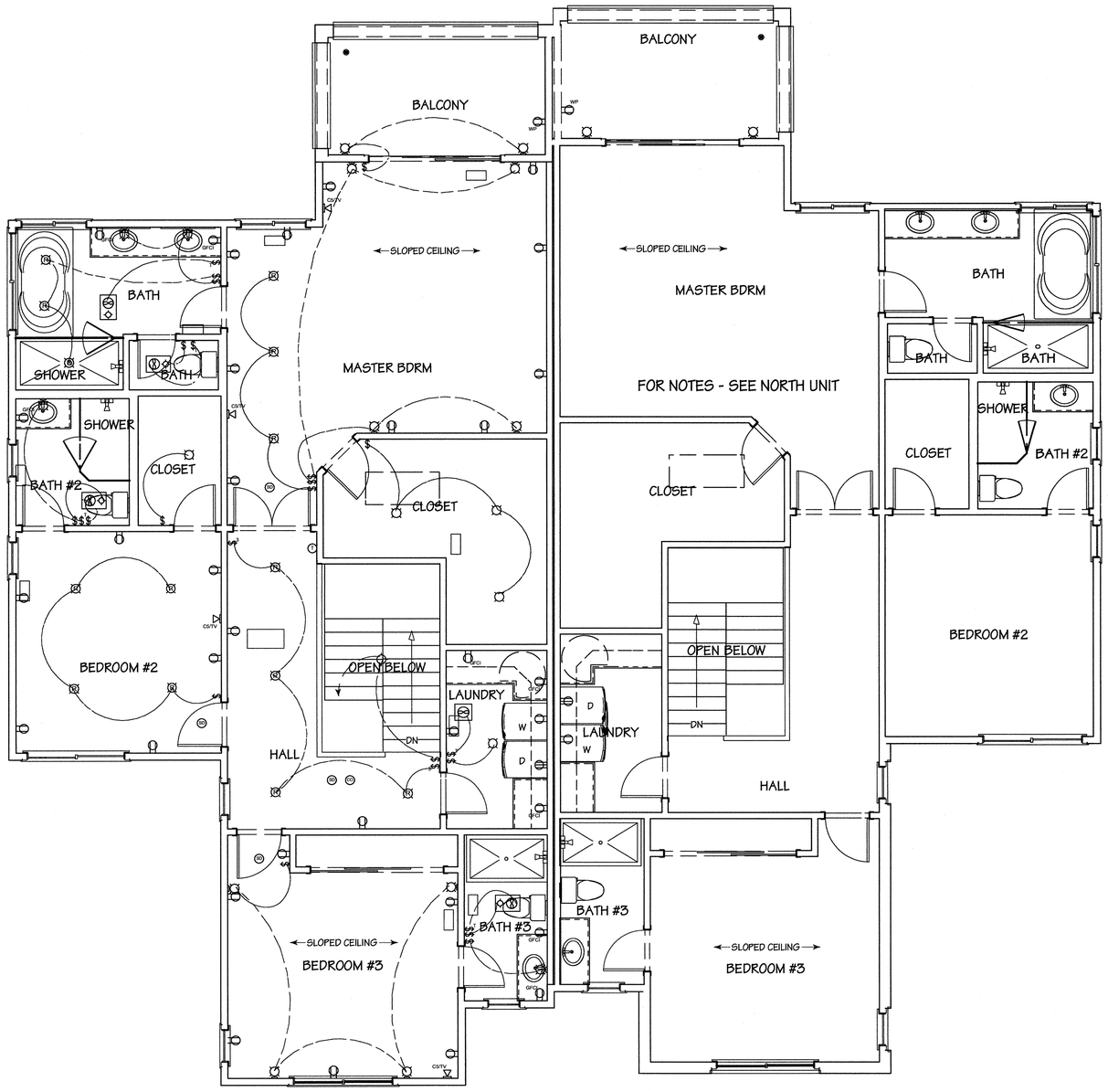
36. PROVIDE STATE ARCHITECT CERTIFIED EARTHQUAKE-ACTUATED GAS SHUT OFF VALVES AT ALL NEW, RELOCATED, AND REPLACED GAS UTILITY METERS.

37. PROVIDE A DEDICATED 20 AMP CIRCUIT FOR EACH FAN MOTOR (F.A.U., EXHAUST, ECT.)

38. PROVIDE COMBO SMOKE/CARBON MONOXIDE DETECTORS AT HALLWAYS ON EACH LEVEL AND OUTSIDE OF BEDROOMS (PER CRC 315.1)

39. A GAS PIPING LAYOUT PLAN SHALL BE PROVIDED TO THE FIELD INSPECTOR BY THE CONTRACTOR AT TIME OF INSPECTION.

40. FOR ANY L.E.D. LIGHTS TO QUALIFY AS HIGH EFFICACY LIFTING, THEY MUST BE CERTIFIED BY THE ENERGY COMMISSION AND LISTED ON THEIR DATABASE AT http://www.appliances.energy.ca.gov/. PROVIDE TO THE FIELD INSPECTOR EVIDENCE OF CERTIFICATION FOR ALL HIGH EFFICACY L.E.D. LIGHTS AS SELECTED BY THE OWNER.



LIVING AREA
2904 sq ft

FOR F.A.U. IN ATTIC, PROVIDE: 36" SERVICE FLOOR. SWITCHED SERVICE LIGHT, SERVICE OUTLET, 24" WIDE CATWALK FROM ACCESS TO UNIT

SYMBOLS & LEGEND

- NEW WALLS
- 1-HOUR FIRE RATED WALLS
- DUPLEX OUTLET (ALL TAMPER-RESISTANT)
- 220V OUTLET
- GFCI PROTECTED OUTLET
- WEATHERPROOF OUTLET (ALL GFCI PROTECTED)
- WALL SWITCH
- WALL SWITCH TIMER
- WALL SWITCH, MANUAL ON, AUTO OFF
- DIMMER WALL SWITCH (INCANDES. ONLY)
- 3-WAY WALL SWITCH
- WALL MOUNT LIGHT
- CEILING MOUNT LIGHT
- CEILING MOUNT FLUORES. LIGHT
- UNDER CAB. MOUNT FLUORES. LIGHT
- RECESSED LIGHT (CFL= FLUORES.)
- HEATER REGISTER (FLOOR) (WALL)
- SMOKE DETECTOR INNERCONNECTED (A/C, D/C)
- CARBON MONOXIDE DETECTOR INNERCONNECTED(A/C, D/C)
- DOORBELL
- PHONE/TV/NETWORK CABLE
- EXHAUST FAN
- EXHAUST FAN/FLUORES. LIGHTw/ sep. swtch
- CEILING FAN

ALL EXHAUST FANS SHALL BE EQUIPTED WITH A TIMER SWITCH, AND SWITCHED SEPARATLY FROM LIGHTING SYSTEMS.

ALL NEW LIGHTING FIXTURES SHALL BE FLUORESCENT OR L.E.D.

FOR REFERENCE ONLY

ELECTRICAL SECOND FLOOR PLAN

REVISIONS	BY
PLAN CHECK 5-14-14	1

HOMETEC
ARCHITECTURE, INC.
619 NORTH FIRST STREET, SAN JOSE, CA 95112
RICHARD A. HARTMAN
A.I.A.
408.995.0496
HometecArch@hotmail.com

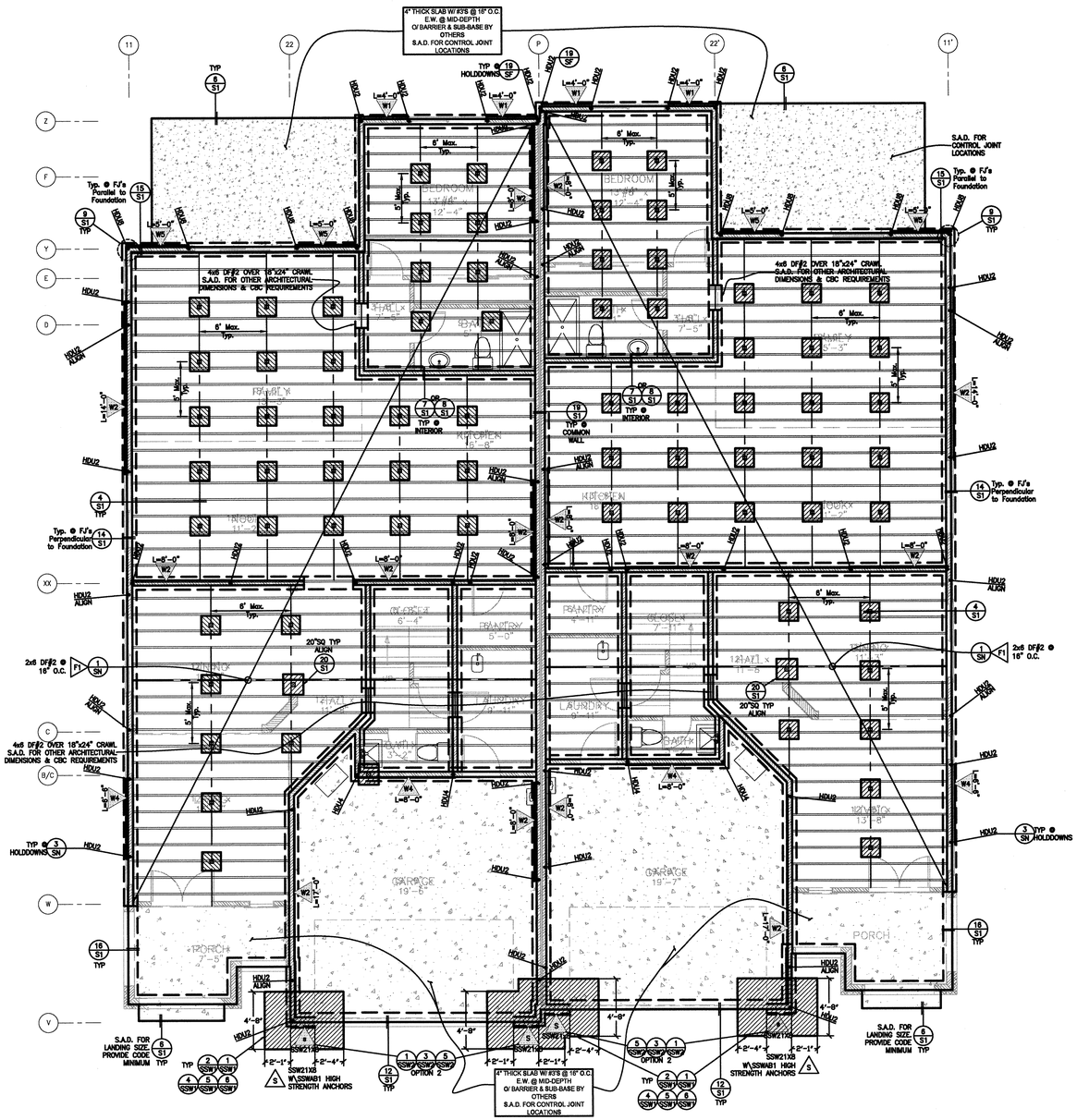
LICENSED ARCHITECT
RICHARD A. HARTMAN
RENEW 08-31-15
STATE OF CALIFORNIA

NEW DUPLEX FOR:
[redacted]

Date	1 - 31 - 14
Scale	1/4" = 1'-0"
Drawn	RAH
Job	13-044
Sheet	E-2
of	Sheets

FOUNDATION NOTES

1. Partial foundation notes are given here for your convenience, contractor shall read and follow the Structural Notes on other sheet in its entirety.
2. SOILS ENGINEER'S APPROVAL:
   a. Foundation plans must be approved and certified in writing by the Project Soils Engineer (if exists). Contractor/Owner is responsible for acquiring such approval PRIOR to starting any foundation work.
   b. Soils engineer may be required to monitor/verify the foundation work (trenching, pier drilling, etc.) including footing depth, width and soil presaturation. Contractor shall read soils report for details.
3. FOUNDATION
   a. Grade beams: Unless noted otherwise, all continuous footings shall have (1) #5 near the top and (1) #5 near the bottom.
   b. Welded wire fabric is not permitted for structural flat-work. Use #3's @ 18" o.c. each way at mid-depth. Placing the reinforcement at slab mid-depth is very important. Adobe seats or rebar chairs are mandatory and MUST seat/bear on base rock - NOT sand.
   c. The slab reinforcement, shall be extended into the perimeter grade beams with 2" distance from the face of the footing.
   d. Unless shown in details, 2-pour system is not allowed. Pier to Grade Beam excepted.
4. CONCRETE:
   a. Concrete shall be of normal weight and Fc'= 2500 psi minimum at 28 days Cement to be Portland cement ASTM C-150 type I or II
      - Aggregate per ASTM C-33
      - Water to be clean and potable.
      - High alumina cement must not be used in concrete because of high sulfide contents.
      - No admixtures containing calcium chlorides or other chlorides shall be added to the concrete
   b. Unless shown otherwise on plans, cold joints are not allowed.
   c. Concrete placement shall be in one continuous operation, uniformly placed and must be vibrated and well consolidated.
   d. Concrete shall be cured per ACI 318 "Current practices and ACI commitee 308 Standard Practice for Curing Concrete"
5. REBARS:
   a. Reinforcing steel may be ASTM A615 Grade 60.
   b. rebars to be welded shall be ASTM A706
   c. Lap all reinforcing splices a minimum 48 bar diameters but in no cases less than 24".
6. HOLDOWN NOTES:
   a. Holdown rods/straps shall be set in place prior to foundation inspection and concrete pouring.
   b. Where strap holdowns are used, foundation rebar must be located above and near the holdown return hook.
   c. Simpson "STAB" bolts shall be used if so specified on plans or details. Where not specified, holdown rods shall be threaded rods with double nut and 2"x2" washer at bottom.
7. POST BASE: U.O.N., individual isolated posts bearing on concrete shall be secured by Simpson PB connectors (PBS at exterior locations) placed in the concrete.
8. ANCHOR BOLTS:
   a. Unless noted otherwise on the foundation plans, sill plates for all the exterior walls, interior bearing walls and interior shearwalls shall be anchored to the foundation with 5/8" diameter anchor bolts with 3" square x 0.229" washers at a maximum spacing of 4 feet on center.
9. SUB-BASE preparation, see soils report for subbase and vapor barrier requirements.
10. FRAMING ISSUES:
    a. Unless specified otherwise, all holdowns (strap and rod) shall be attached to a 4x post which receives shearwall edge nailing along full height. (HDU's are allowed (2)2x's in some situations).
    b. Where multiple studs are approved as a holdown post, the multiple pieces shall be internailed together matching nailing pattern in SWS. Predrill as necessary to prevent splitting.
    c. ICBO approved powder driven anchor pins (shot pins) may be used on interior non-shear and non-bearing walls. Shot pins shall be used in conjunction with plate washers and shall be spaced no more than 32" on center.
    d. Please see SF for general structural framing details and always maintain a copy of this years Simpson Catalog (20XX). C-2011.



Structural Design Data

CODE: CBC 2013/ASCE 7-10

Conterminous 48 States	Site Class:	D
2010 ASCE 7 Standard	Wind Speed:	85 mph
Latitude = 37.25289	Exposure:	B
Longitude = -121.93124	OCC:	II
Spectral Response Accelerations Ss and S1	I:	1
Ss and S1 = Mapped Spectral Acceleration Values	SDC:	D
Site Class B - Fa = 1.0 ,Fv = 1.0	R:	6.5
Data are based on a 0.01 deg grid spacing	Omega:	3.0 or 2.5
Period Sa	Cd:	(flexible)
(sec) (g)		4.0
0.2 2.066 (Ss, Site Class B)		
1.0 0.716 (S1, Site Class B)		

Spectral Response Accelerations SMs and SM1
SMs = Fa x Ss and SM1 = Fv x S1
Site Class D - Fa = 1.0 ,Fv = 1.5

Period Sa (sec) (g)	
0.2	2.066 (SMs, Site Class D)
1.0	1.074 (SM1, Site Class D)

Design Spectral Response Accelerations SDs and SD1
SDs = 2/3 x SMs and SD1 = 2/3 x SM1
Site Class D - Fa = 1.0 ,Fv = 1.5

Period Sa (sec) (g)	
0.2	1.377 (SDs, Site Class D)
1.0	0.716 (SD1, Site Class D)

Vertical Design Criteria

Roof Dead Load:	14 psf Comp Shingles
Roof Live Load:	20 psf
Roof Rafter DL:	14 psf Comp Shingles
Ceiling Dead Load:	6 psf Gypsum Ceiling
Ceiling Live Load:	10 psf (non-concurrent with roof live load)
Floor Dead Load:	14 psf Dimensional Lumber
Floor Live Load:	40 psf Basic Floor Area / Decks / Storage
	60 psf Balconies (may not apply)
Wall Dead Load:	17 psf Stucco
	12 psf Wood siding
	10 psf Interior Walls
Bearing Capacity:	1500 psf CBC UON

DO NOT LEAVE OUT ECCQ's CALLED OUT ON PLANS OR DETAILS OR BEAM TABLES AS THIS WILL LEAD TO COSTLY FIXES AND THE ECCQ's ARE AT CRITICAL CONNECTIONS. PLAN ALL BEAM INSTALLATIONS ALL THE WAY UP TO RIDGES PRIOR TO COMMENCING CONSTRUCTION. ORDER ALL CUSTOM HANGER "BUCKETS" AND COLUMN CAPS AHEAD OF TIME AS NO SUBSTITUTIONS ARE ALLOWED.

(9 SF, 10 SF, 11 SF, 12 SF) Typical @ All Beam/ Post Framing

ALL SHEAR-WALLS OTHER THAN W1 & W2 REQUIRE 3x T&B PLATES AND 3x STUDS @ PANEL EDGES.

(4 SN) Special Inspection By Engineer for All Epoxied H.D.'s and A.B.'s between new H.D.'s

See "SN" For SWS and Plywood/CDX Nailing Schedule and Complete Notes

Misc. Notes

1. Please See "SN" for SWS / Plywood Nailing Schedule.
2. Please see complete notes on "SN"

FOUNDATION PLAN

3/16" = 1'-0" DO NOT SCALE

Do not scale; verify dimension with most current architectural drawings.

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 7 OF 19 SHEETS
BY RMA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

January 24, 2014
NEW DUPLEX

MAY 16 2014

LICENSED ARCHITECT
RICHARD A. HARTMANN
NO. C-19952
REN. 7-31-15
STATE OF CALIFORNIA

Engineer:
Hometec Architecture
619 N 1st Street
San Jose, CA 95112
(408) 995-0496

Date: January 24, 2014

Revisions

No.	Date	Description
1		
2		
3		
4		
5		

Project Number:
APEX: 4887-13

Drawn By: PC Checked By: TY

Sheet Title:
Fndn Plan

Sheet Number:
1S1

PARTIAL 2ND FLOOR FRAMING NOTES:

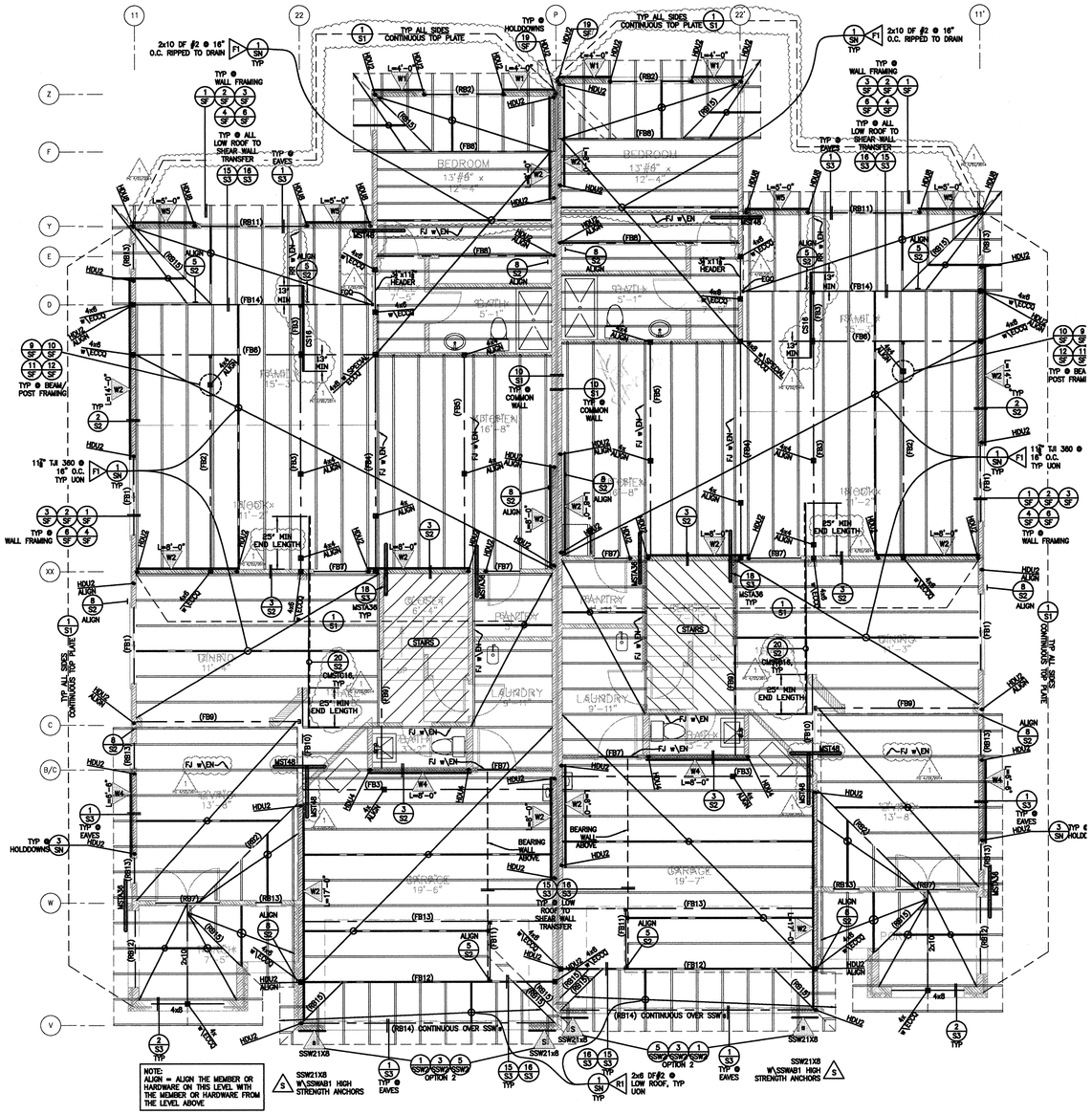
1. Partial framing notes are given here for your convenience, contractor must read and follow the additional notes under "Structural Notes" on other sheet for its entirety.
2. JOISTS:
   a. Joist shall be 12" deep spaced at 16" o.c. unless noted otherwise.
3. HEADERS: See 6/SF
4. BEAM HANGER: Hangers for beams/headers shall follow plan specifications. Where not specified, contractor shall use following Simpson Hangers unless approved otherwise by APEX:
   ==========
   (2)2x Beam/Header: HUS212-2TF
   4x Beam/Header: HU412TF
   6x Beam/Header: HHB612
   3-1/8x GLB Beam/Header: GLT3
   5-1/8x GLB Beam/Header: HGLT5
   6-3/4x GLB Beam/Header: HGLT7
   ==========
5. SHEATHING: Panels for floor sheathing shall have tongue-and-groove edges. Floor sheathing over 2x dimension lumber shall be CDX only, where applied over "I" joists or open-web floor trusses, it may be CDX or OSB. Thickness and span rating shall be one of the following:
   ==========
   * for joists spaced 16" o.c.,
   19/32" with APA span rating 40/20
   5/8" with APA span rating 32/16
   5/8" with APA span rating 40/20
   3/4" with APA span rating 40/20
   ---
   * for joists spaced 19.2" o.c.,
   5/8" with APA span rating 40/20
   3/4" with APA span rating 40/20
   ---
   * for joists spaced 24" o.c.,
   3/4" with APA span rating 48/24
   ==========
   Floor sheathing shall be glued and nailed with 10d screw shank common nails at 6" o.c. all panel edges and at 10" o.c. all intermediate supports.
6. SHEAR:
   a. Collector Joists: All top-flush floor beams and collectors joists shall receive sheathing edge nailing (10d at 6" o.c.) along its entire length.
   b. Floor Holdowns: U.N.O. all holdowns indicated on floor framing plan shall be applied across the 2nd floor with equal length covering the framing member above and below.
7. STUDS:
   Note: The optional HF studs allowed below shall not be used when the Shearwall Schedule requires DF studs for lateral strength.
   a. Exterior Walls & Interior Bearing/ShearWalls
      * when supporting 2 stories above, regardless the height, use 2x6 DF-Larch #1 or better at 16" o.c.
      * Up To 10' Tall: 2x4 studs at 16" o.c. may be DF-Larch of Std Grade or better
      * more than 10' Tall: 2x6 studs shall be DF-Larch #2 or better unless called out differently on plans.
   b. Interior Non-bearing Walls
      * Up To 14' Tall: 2x4 studs may be DF-Larch of Std Grade or better spaced 16" or 24" o.c.
      * more than 14' Tall: all studs shall be 2x6 HF or DF-Larch #2 grade or better spaced at 16" o.c. unless called out differently on plans.
   c. Plumbing Wall: studs with holes greater than 2.5" in diameter shall be 2x6. For exterior walls, bearing walls and shearwalls, studs with holes greater than 1.5" in diameter shall be 2x6. See 2/SF
8. PLATES:
   a. All exterior walls and interior structural bearing/shearwalls shall have double top plates and be spliced for continuity. See 1/S1
   b. Top & sole plates shall be DF-Larch Std grade or better.

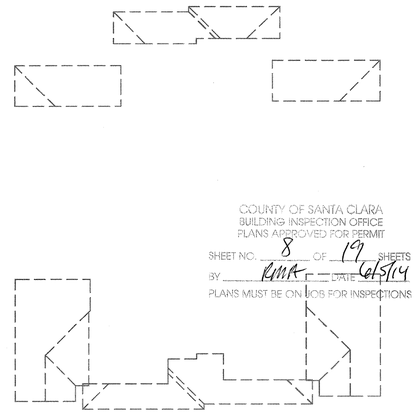
PARTIAL WALL NOTES:

AT BEARING WALLS OVER 12'-0" TALL PROVIDE DOUBLE 2X6 FULL HEIGHT CRIPPLE STUDS EACH SIDE OF ALL EXTERIOR WALL OPENINGS FROM 4'-0" TO 6'-0" WIDE AND (3) 2X6 FULL HEIGHT CRIPPLE STUDS AT OPENING 6'-1" TO 8'-0" WIDE.

MAXIMUM WALL HEIGHT SCHEDULE:

STUD:	BEARING:	NON-BEARING:
2X4@16" O.C.	10'	14'
2X6@16"O.C.	15'	20'
2X8@16"O.C.	20'	24'
(2) 2X6@16"O.C.	14'	17'
(2) 2X6@16"O.C.	20'	24'
(2) 2X8@16"O.C.	24'	24'





Low Roof Lines

N.T.S.

Floor Level Beam Schedule

INCREASE DEPTH AS NEEDED TO MEET FRAMING NEEDS

DESIGNATION	TYPE	MAX. SPAN	SIZE	MIN. SUPPORT
FB1	HEADER	7'-0" MAX	4 x 12 DF#2	2x TRIMMER
FB2	FLUSH	18'-0" MAX	11 7/8" TJI 360	4x POST
FB3	FLUSH	18'-0" MAX	3 1/2" x 11 7/8" 2.0E PSL	4x POST
FB4	FLUSH	18'-0" MAX	(2) 11 7/8" TJI 360	4x POST
FB5	FLUSH	18'-0" MAX	3 1/2" x 11 7/8" 2.0E PSL	4x POST
FB6	FLUSH	19'-0" MAX	7" x 11 7/8" 2.0E PSL	4x6 w\CCQ or ECCQ
FB7	FLUSH	5'-0" MAX	2 x 8 DF#2	4x6 w\CCQ or ECCQ
FB8	FLUSH	14'-6" MAX	3 1/2" x 11 1/4" 2.0E PSL	4x POST
FB9	FLUSH	14'-0" MAX	3 1/2" x 11 1/4" 2.0E PSL	4x POST
FB10	FLUSH	9'-0" MAX	3 1/2" x 11 1/4" 2.0E PSL	4x6 POST
FB11	FLUSH	5'-0" MAX	1 3/4" x 11 1/4" 1.9E LVL	6x6 POST
FB12	FLUSH	20'-0" MAX	7" x 11 1/4" 2.0E PSL	6x6 POST
FB13	FLUSH	20'-0" MAX	5 1/4" x 11 1/4" 2.0E PSL	6x6 POST
FB14	FLUSH	19'-0" MAX	7" x 11 1/4" 2.0E PSL	4x6 POST w\ECCQ or EGQ

Misc. Notes

1	Please See "SN" for SWS / Plywood Nailing Schedule.
2	Please see complete notes on "SN"

Beam Hanger Table

Unless Noted Otherwise on Plans/Order Special Order Hangers Prior to Construction

4x's	HGUS
6x's	HGUS
GLB's	HGUS/HGLT/EGP Top Flange/EG
PL's	GLTV/HGLT/EGP Top Flange/EG
Multiple	MSC5 w/ Shims as Required (Valleys/Ridge Etc.)
Heavy Truss	Verify THGW3 Fit Conformance
HUSC @ Headers w/ No Trimmers	
HUSC412 Max. Span= 10'	

Notes:
1. Please see Simpson Hanger options and Hanger options matrix for Skew/Slopes/Etc.
2. Special Order Skewed Hangers/ Wide Hangers etc., well in advance to avoid delays
3. Use Top Flange Hangers WHEREVER Possible
4. Special Order Glu-Lam Beams well in advance to avoid delays and redesigns

DO NOT LEAVE OUT ECCQ's CALLED OUT ON PLANS OR DETAILS OR BEAM TABLES AS THIS WILL LEAD TO COSTLY FIXES AND THE ECCQ's ARE AT CRITICAL CONNECTIONS. PLAN ALL BEAM INSTALLATIONS ALL THE WAY UP TO RIDGES PRIOR TO COMMENCING CONSTRUCTION. ORDER ALL CUSTOM HANGER "BUCKETS" AND COLUMN CAPS AHEAD OF TIME AS NO SUBSTITUTIONS ARE ALLOWED.

9 SF, 10 SF, 11 SF, 12 SF — Typical @ All Beam/ Post Framing

ALL SHEAR-WALLS OTHER THAN W1 & W2 REQUIRE 3x T&B PLATES AND 3x STUDS @ PANEL EDGES.

4 SN — Special Inspection By Engineer for All Epoxied H.D.'s and A.B.'s between new H.D.'s

See "SN" For SWS and Plywood/CDX Nailing Schedule and Complete Notes

FIRST FLOOR PLAN

3/16" = 1'-0" DO NOT SCALE

Do not scale; verify dimension with most current architectural drawings.

January 24, 2014
NEW DUPLEX

MAY 16 2014
LICENSED ARCHITECT RICHARD A. HARTMAN NO. C-18952 REN. 7-31-15 STATE OF CALIFORNIA

Engineer:
Hometec Architecture
619 N 1st Street
San Jose, CA 95112
(408) 995-0496

Date: January 24, 2014

Revisions

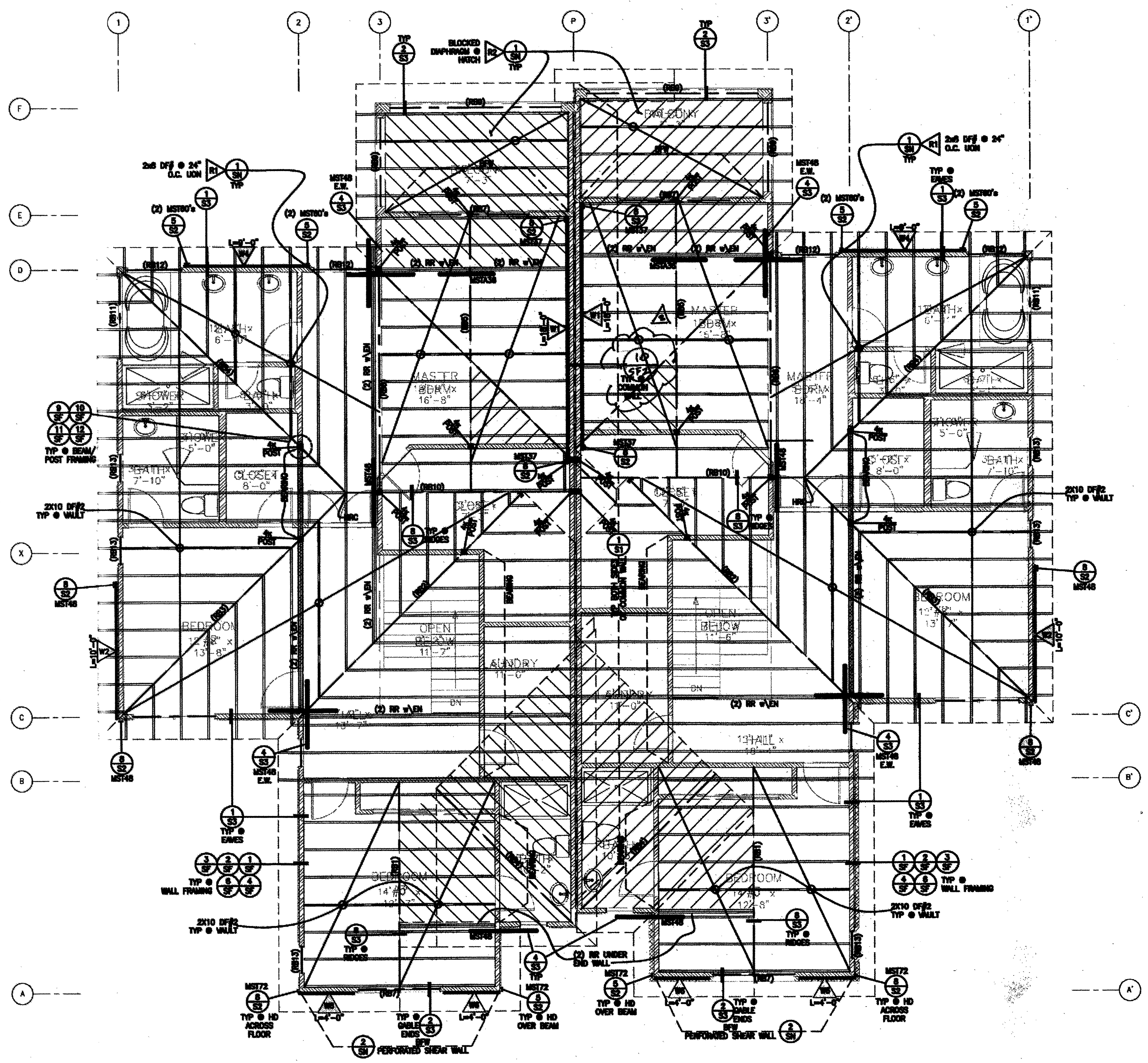
No.	Date	Description
1	4.22.14	PC RESPONSE
2		
3		
4		
5		

Project Number: APEX: 4887-13

Drawn By: PC Checked By: TY

Sheet Title: Floor Plan

Sheet Number: 1S2



ROOF FRAMING PLAN

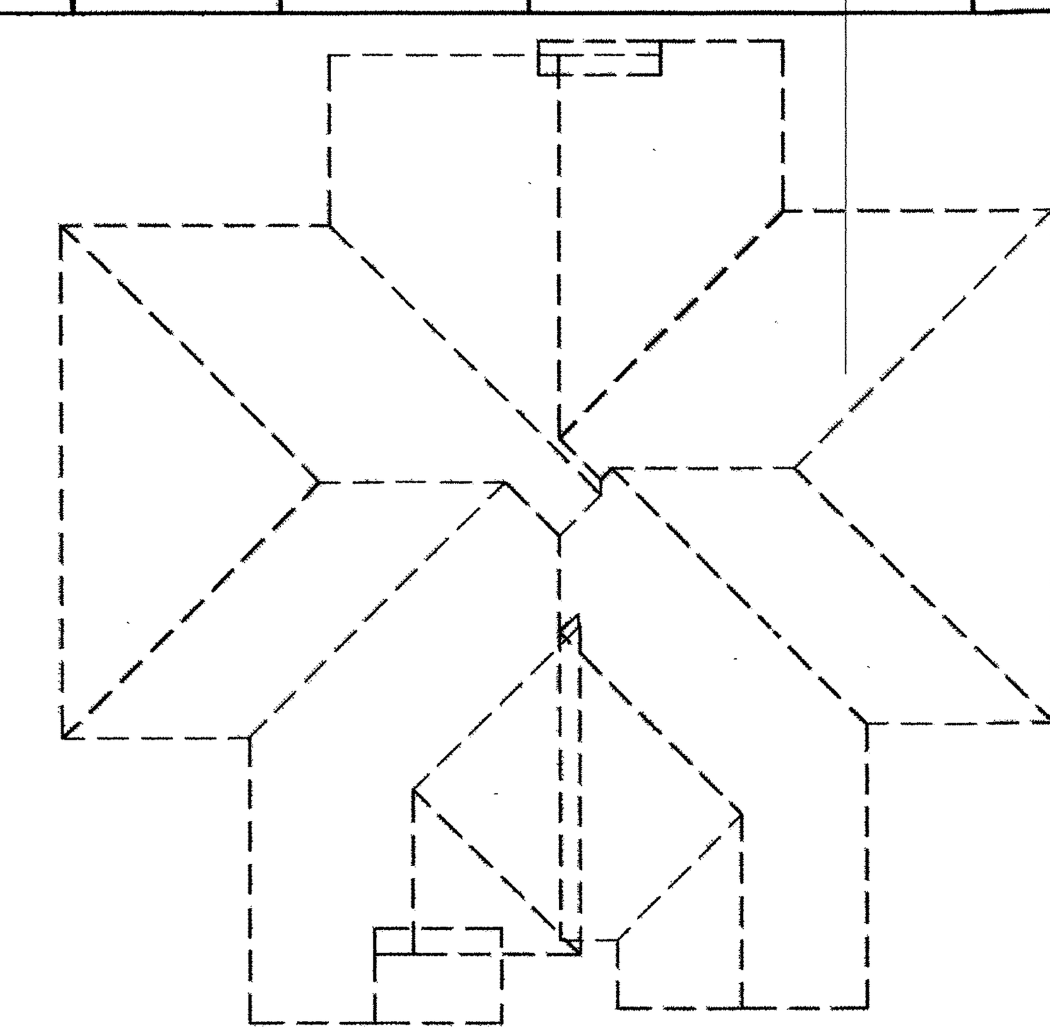
3/16" = 1'-0" DO NOT SCALE

Do not scale; verify dimension with most current architectural drawings.

Roof Level Beam Schedule

INCREASE DEPTH AS NEEDED TO ACCEPT ROOF RAFTERS

DESIGNATION	TYPE	MAX. SPAN	SIZE	MIN. SUPPORT
RB1	RIDGE	16'-0" MAX	4 x 12 DF#1	4x POST w\COLUMN CAP
RB2	HIP	17'-0" MAX	4 x 10 DF#2	4x POST
RB3	HIP	18'-6" MAX	(2) 2 x 10 DF#2	4x POST
RB4	HIP	9'-0" MAX	2 x 10 DF#2	4x POST
RB5	RIDGE	17'-6" MAX	(3) 2 x 12 DF#2 OR (1) 1¾" x 14" 1.9E LVL	4x POST
RB6	RIDGE	17'-0" MAX	4 x 12 DF#2	4x POST
RB7	HEADER	9'-0" MAX	4 x 12 DF#2	2x TRIMMER
RB8	HEADER	14'-0" MAX	4 x 10 DF#2	2x TRIMMER
RB9	HEADER	7'-0" MAX	4 x 6 DF#2	2x TRIMMER
RB10	RIDGE	14'-0" MAX	(2) 2 x 12 DF#1	4x POST w\COLUMN CAP
RB11	HEADER	8'-6" MAX	2 x 8 DF#1	2x TRIMMER
RB12	HEADER	5'-0" MAX	2 x 8 DF#2	2x TRIMMER
RB13	HEADER	3'-0" MAX	2 x 4 DF#2	2x TRIMMER
RB14	HEADER	16'-6" MAX	4 x 12 DF#2	2x TRIMMER
RB15	HIP/VALLEY	10'-6"	2 x 8 DF#2	4x POST OR HRC



Roof Lines

N.T.S.

PARTIAL WALL NOTES:

AT BEARING WALLS OVER 12'-0" TALL PROVIDE DOUBLE 2X6 FULL HEIGHT CRIPPLE STUDS EACH SIDE OF ALL EXTERIOR WALL OPENINGS FROM 4'-0" TO 6'-0" WIDE AND (3) 2X6 FULL HEIGHT CRIPPLE STUDS AT OPENING 6'-1" TO 8'-0" WIDE.

MAXIMUM WALL HEIGHT SCHEDULE:

STUD:	BEARING:	NON-BEARING:
2X4@16" O.C.	10'	14'
2X6@16"O.C.	15'	20'
2X8@16"O.C.	20'	24'
(2) 2X6@16"O.C.	14'	17'
(2) 2X6@16"O.C.	20'	24'
(2) 2X8@16"O.C.	24'	24'

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO 9 OF 19 SHEETS
BY RMA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

Beam Hanger Table

Unless Noted Otherwise on Plans/Order Special Order Hangers Prior to Construction

4x's	HGUS
6x's	HGUS
GLB's	HGUS/HGLT/EGP Top Flange/EG
PL's	GLTV/HGLT/EGP Top Flange/EG
Multiple	MSC5 w/ Shims as Required (Valleys/Ridge Etc.)
Heavy Truss	Verify THGW3 Fit Conformance

HUSC @ Headers w/ No Trimmers
HUSC412 Max. Span= 10'

Notes:
1. Please see Simpson Hanger options and Hanger options matrix for Skew/Slopes/Etc.
2. Special Order Skewed Hangers/ Wide Hangers etc., well in advance to avoid delays
3. Use Top Flange Hangers WHEREVER Possible
4. Special Order Glu-Lam Beams well in advance to avoid delays and redesigns

Misc. Notes

1	4x12 DF#2 Headers U.N.O.
2	Please See "SN" for SWS / Plywood Nailing Schedule.
3	Please see complete notes on "SN"

DO NOT LEAVE OUT ECCQ's CALLED OUT ON PLANS OR DETAILS OR BEAM TABLES AS THIS WILL LEAD TO COSTLY FIXES AND THE ECCQ's ARE AT CRITICAL CONNECTIONS. PLAN ALL BEAM INSTALLATIONS ALL THE WAY UP TO RIDGES PRIOR TO COMMENCING CONSTRUCTION. ORDER ALL CUSTOM HANGER "BUCKETS" AND COLUMN CAPS AHEAD OF TIME AS NO SUBSTITUTIONS ARE ALLOWED.

9/SF 10/SF 11/SF 12/SF Typical @ All Beam/ Post Framing

ALL SHEAR-WALLS OTHER THAN W1 & W2 REQUIRE 3x T&B PLATES AND 3x STUDS @ PANEL EDGES.

4/SN Special Inspection By Engineer for All Epoxied H.D.'s and A.B.'s between new H.D.'s

See "SN" For SWS and Plywood/CDX Nailing Schedule and Complete Notes

January 24, 2014
NEW DUPLEX
[redacted]

RECEIVED
JUN 04 2014
BUILDING INSPECTION DIV.

LICENSED ARCHITECT
RICHARD A. HARTMAN
NO. C-18952
REN. 7-31-15
STATE OF CALIFORNIA

Engineer: JUN 03
Hometec Architecture
619 N 1st Street
San Jose, CA 95112
(408) 995-0496

Date: January 24, 2014

Revisions

No.	Date	Description
1		
2	5/30/14	PLAN CHECK
3		
4		
5		

Project Number: APEX: 4887-13

Drawn By: PC Checked By: TY

Sheet Title: Roof Plan

Sheet Number: 1S3

Structural General Notes:

1. APEX Engineering. (APEX) is the Project Engineer. Any structural engineering issues sholl be directed to APEX at 408.379.2068.
2. 2013 CBC: All construction work performed for this project sholl comply with 2013 Californio Building Code (CBC) ond ony local code requirements.
3. CONTRACTOR'S APPROVAL:
a. Contractor shall, prior to bidding and/or starting construction, coordinate all the construction documents of the latest revision, verify oll the dimensions, check for conflicting requirements ond report to APEX ony discrepancies and field conditions, which ore different from those, indicated on drawings.
b. Areas requiring speciol attention: variation coused by different Architectural elevations, e.g. locatian changes of holdawns and post anchors due to different window sizes, locotion ond porch loyout, the existence or nonexistence of interior bearing wall ond footings, plonter shelves, box columns, brick ledge, isolated column pads in 3-cor gorage, etc.
4. STRUCTURAL ONLY:
o. Structural drawings ore intended to cover the structural framing and the foundation elements only. Non-structural elements including decorative architectural elements, stair framing, guard rails, concrete pads, driveway, etc. may not be covered in the structural drawings. Contractors ore advised to review oll other plans and construction documents for non-structural items, which may be embedded in, attached to or otherwise interfering with the structural elements.
b. MARBLE/TILE: Where morble/tiles are instolled, it is the contractor's responsibility to consult with an expert for special framing odvice to avoid cracking which may include upsizing the floor joists, reducing the joist span & spacing, increase the thickness of floor sheathing, etc.
c. APEX is not responsible for the ventilation, including under-floor, joist ond attic, nor concrete flat work including concrete driveway, walkway, door pads and other similor items. Images ond/or dimensions given for the flat work are intended to be conceptuol. Contractors sholl follow the Architectural Plons or Owner's specifications for final location, geometry ond dimensions.
5. NOT TO SCALE: Drawings are not to be scoled. Engineer sholl determine dimensions not specified, when required by field condition.
6. TYPICAL DETAILS: Typicol ond similar details sholl opply where no specific details ore given. Materiol notes and details on drawings shall toke precedence over the structural notes contained herein.
7. REVISIONS & MODIFICATIONS:
o. All drawings and subsequent revisions, if any, shall be opproved by APEX prior to storting construction. No structural members sholl be substituted, relocated or omitted, without prior written approvol.
b. Field Modifications: When the installation of mechanicol, plumbing, electrical, landscaping ond other similar elements requires changes or modifications including boring, notching, or cutting made to the structural elements, contractor sholl submit such changes or modificotion to APEX for opprovol prior to installation.
c. Notching, of all framing members, from the top edge or the bottom edge is never permitted without APEX opproval. Boring is ollowed only if located within the middle 1/3 span ond the bore hole size sholl be limited ta 1/10 of member depth.
8. ADDITIONAL EQUIPMENT: Unless specified on the structural framing plons, mechanical and plumbing equipment's, e.g. spa tub, FAU, etc., to be ploced over or suspended off the structure members sholl be submitted to APEX for opprovol.
9. CONSTRUCTION SAFETY: Contractor and the subcontractars are responsible for the order ond meons of construction ond oll temporary shoring, bracing & erection during canstruction.
10. Sheet-rock Stocking Guidelines: When sheet-rock is stocked on a wood-framed floor during construction, the following guidelines shall be followed:
a. The sheet-rock sholl be laid with the long directian perpendicular to the joists below.
b. Sheet-rock must not be stocked more than 2 feet high.
c. If sleepers are used beneath o stack of sheet-rock, they sholl be placed ot no more thon 2'-0" on center.
d. The floor joists directly beneath a stack of sheet-rock sholl be shored from below with 4x4 temporory beams placed PERPENDICULAR to the joists. These beams sholl then be supported by 2x4 (min.) posts over 4x4 x 24" sleepers at o maximum spacing of 3'-0" on center. This shoring shall be done prior to stacking the sheet-rock and sholl be repeated on every floor directly below the stocked sheet-rock until o concrete slob or foundation system is reached.

ADDITION AND REMODELING:

1. Contractor shall verify oll existing field conditions ond dimensions prior to storting construction. Existing construction information given on drawings moy not be occurate.
2. DEMOLITION:
a. Contractor shall safely shore the existing construction wherever the existing supparts ore remaved to ollow the instollotion of new work.
b. No existing members may be removed unless the structural plons indicated otherwise. If structural members not indicated far removol are interfering with the new work, contractor sholl notify APEX immediately.
c. Cutting, drilling, removal, etc. of the existing construction sholl be performed in o great core not to domage the integrity of the building.
3. All locations where new structure is attoched to existing structure sholl be waterproof and domp proof.
4. Contractor to ensure thot the new alterotion works shall not cause ony existing mechonical, electricol, plumbing etc. systems non-operationol

FOUNDATION NOTES:

1. Requirements set forth by Soils Report (when provided) shall toke precedence over the structural notes and details. In absence of soils report refer to most recent bldg. code footing table.
2. GRADING & DRAINAGE:
a. Site grading, subgrade preparation, cutting slopes, excavation ond plocement of engineered fill materiol shall be performed in occordonce with the soils report.
b. For slab-on-grade construction the Soils Report sholl be referenced regording compaction, soaking, moisture barrier, subase gravel, sond, etc.
c. Site drainoge requirements including finol pad grades, roof drainoge downspouts sholl be referred to Soils Report ond Architectural Plons.
d. FINISH GRADING: Finish grading oround the exterior of the foundation sholl be sloped to drain awoy from the building ond be o minimum of "6 below the sill plate. Contractor must follow the soil report for groding detoils.
3. CONCRETE:
o. All concrete shall have o minimum compressive strength of 2500 psi @ 28 days, unless otherwise noted (u.o.n.).
1. Concrete for retaining wolls shall be 2500 psi @ 28 days.
2. Concrete for retoining woll foundations sholl be 2500 psi @ 28 days.
b. Owner/Builder sholl consult with a geotechnical engineer to determine if the underlying soil contains sulfate or if the building site is exposed to salt woter. If sulfate ond/or solt water exposure exist, above referenced code shall be followed in concrete mix design. See most current bldg. code for details. Unless odvised by soils engineer otherwise, the following recommendations sholl be followed os a minimum:
1. Far salt water exposure ond/or moderate (0.10-0.20) sulfate-containing soil: Type II cement and normol weight aggregate shall be used and woter-cement ratio sholl be no more than 0.5 by weight.
2. Far severe sulfate-cantoining soil (0.20-2.00): Type V cement and normal weight oggregate sholl be used ond woter-cement ratio sholl be no more than 0.45 by weight.
c. Cold joints may be used only where shown. Jointing surface shall be clean, free of foreign materiol ond intentionolly roughened.
d. Speciol Inspection per CBC is required where the concrete's compressive design strength exceeds 2500 psi @ 28 days.

4. REBAR:
o. Unless noted otherwise, reinforcing steel sholl be deformed bors of billet or axle steel per ASTM A615. Use Grode 40 for #4 and smoller reinforcing ond Grode 60 for #5 and larger.
b. Use ASTM A706 for reinforcing that is to be welded. c. INSTALLATION: Reinforcing, dowels and other embedded elements sholl be in ploce before pouring concrete. Reinforcement sholl be clean and free of oil ond other foreign material.
d. CLEARANCE:
1. 3" cleorance shall be provided where concrete is cast ogoinst earth.
2. 2" clearance for concrete exposed to earth or weather but cost ogoinst formwork.
3. 3/4" clearance for slabs ond walls where concrete is not exposed to eorth or weather.
e. LAPPING: Lap oll reinforcing splices a minimum 48 bar diameters but in no coses less thon 24".

5. ANCHOR BOLTS:
o. Anchor bolts sholl be 5/8" diometer with 3" squore by 0.229" thick plote wosher. Embedment into concrete shall be 7" minimum. For 2-pour slob-on-grade foundotions, the minimum embedment sholl be 7" into the 1st pour.
b. Two bolts minimum eoch piece of mudsill.

c. 6" minimum but no more thon 12" from each cut end of the sill plate

6. HOLDOWNS:
a. Holdowns locations sholl not be scaled off of foundation plons. They shall be located by close evoluation of architectural floor plons, sheorwoll plons, and the framing plans above.
b. For holdown instollation, contractor sholl refer to the manufocture's specifications for embedment, caverage ond ather requirements.
c. AT Auto Toke-Up Devices (ICBO ER-5889) ar equal are recommended by APEX @ oll HD's but is not mondated to allow far economic choice for builder ond owner.

7. SLAB REINFORCEMENT:
a. Welded wire fabric is not permitted for structural flat-work. UNO use #3's @ 16" o.c. each way at mid-depth. Placing the reinforcement at slab mid-depth is very importont. Adobe seats or rebar chairs are mandatary and MUST seat/bear on base rock - NOT sand.
b. The slab reinforcement, shall be extended inta the perimeter grade beams with 2" distonce fram the face of the footing
8. SLAB-ON-GRADE FOUNDATION:
o. U.N.O. an the plans, oll slob-on-grade shall be 4" concrete slab with #3's @18"oc EW at midepth o/ sub-base or per soil report.
b. MOISTURE BARRIER: 10 mil Visqueen under the slab is recommended for the living orea (This is o minimum S.A.D.).
c. Garoge sholl be 4" floating concrete slab with #3's @18"oc EW at mid-depth over o sub-base per sail report ar architect.

CONCRETE MASONRY NOTES:
1. MATERIALS:
a. Concrete masanry units sholl be f'm = 1500 psi unless otherwise noted.
b. Concrete block sholl be Grade N-1, 1900 psi units.
c. Grout sholl be pea-gravel and develop a minimum compressive strength of 2000 psi within 28 doys.
d. Mortor shall be type S ond develop o minimum compressive strength of 2000 psi within 28 days.
2. All masonry cells shall be grouted solid. Reinforcing steel shall be accurately placed and positively retoined in position during grouting. All harizontol reinforcing steel larger than #2 bars shall be placed in bond beam units. Reinforcing steel shall be as noted on the plans except that oll openings shall be reinforced with two #5 bars along each boundary and extending 24" beyond all corners or thraugh dowels to foundation. Construction shall conform to cade referred to above
3. Low-lift Grouted Construction: Units may be laid to a height nat to exceed 8 feet. If the height exceeds 4 feet, clean-outs must be provided in the bottom course of each cell.

STRUCTURAL STEEL NOTES:
1. STANDARDS:
o. All structural ond miscellaneous steel shall meet ASTM A36/A50 or os colled out for greater on plons.
b. Fobrication and assembly shall follaw AISC.
c. Contractor is responsible for the full compliance of above specifications which include, but not limited to, oversized hales, hardened woshers, surfoce treatment, fostener tension, inspection, etc.
d. Do not paint steel that is in contact with concrete.

2. WELDING:
a. All the welding sholl be perfarmed in occordance with all the applicable pravisions of the "Structural Welding Code" af the American Welding Society and AISC Specification.
b. Welding electrodes sholl be E70XX for shield metal arc welding or ER70S-X for gos metal arc welding.
3. HIGH STRENGTH BOLTS:
o. All structural steel bolt connectors sholl be Heavy Hex Structural bolts monufoctured to ASTM A325.
b. The ossembly of structural jaints using ASTM A325 bolts shall conform to "Specification for Structural Joints using ASTM A325 or A490 Bolts" by AISC.
c. All steel bolted connections shall be friction type with surface condition of clean mill scale.

4. NELSON studs sholl be manufoctured ond fabricated per "TRW NELSON" requirements.

ROOF FRAMING NOTES:
1. DESIGN LOADS:
a. Maximum roof live lood = 20 psf.
b. SNOW LOAD: Roof structure shall be designed for 20 psf snow load where applicable or by o snow load determined by local jurisdictian. It is the contractors responsibility to bring differing snow load to Engineer's attention.
2. ROOF SHEATHING NOTES:
o. Any sheathing panels used on roof sholl not be less thon 24 inches wide unless oll edges ore solidly blocked.
b. Roof sheathing sholl be installed with the face grain perpendiculor to framing members below, stagger the adjacent panels by 4 feet. Refer to plywood panel noiling schedule for other information not listed here.
c. The sheathing panels sholl be installed such that there is a 1/8" gap maintoined between oll ponel edges to occammodate possible swelling ond/or expansion.
3. PREFABRICATED ROOF TRUSSES NOTES:
a. The design ond fobrication of roof trusses are ta be performed by a registered professional engineer, who is experienced in prefabricated trusses, hired by the truss monufocturer. Prefabricated truss design ond detoiling sholl meet requirements of code referred ta above.
b. The truss manufacturer shall submit stomped, by o duly licensed engineer, colculations ond shop drawings to APEX for review and appraval. The review is for generol conformonce to project. APEX is nat responsible for correctness ond/or completeness of the prefabricated truss shop drawings or calculations. Contractor sholl then submit two sets of such oppraved copies to the building officiol at least two weeks prior to frame inspection.
c. ADDITIONAL DEFLECTION CRITERIA: The truss engineer shall design the roof trusses to olso meet the following criterio:
1. Deflection of individuol top chords of prefobricated roof trusses sholl not exceed L/240 under combined dead ond live loading.
2. Moximum prefobricoted truss bottom chord deflection shall be limited to L/480 for dead + live loading, and L/720 for live loading.
d. Unless otherwise required, oll trusses shall be designed as simply supported fram end to end. Do not use interior wolls far bearing unless opproved otherwise. The truss engineer shall design the gable-end roof trusses to resist proper wind loads, particularly the 2x4 webs subject to bending in weak direction.
e. The truss engineer shall detoil all required lateral bracing for the prefobricoted trusses. In contilever condition, truss engineer shall notify APEX when uplift occurs at ony truss support.
f. Where multiple trusses ore ploced together os o Girder-truss, these trusses shall be identicol in their geometry ond ore field cannected with 16d at 6" o.c. face noiling along oll top chord, bottom chord and web members.
* The truss drawings ond specifications must comply with the following stondords: o) ANSI/TPI 1 "National Design Standards far Metol-Plote-Connected Wood Truss Construction." b) TPI HIB Commentary and Recommendations for Hondling and Instolling & Bracing Metol Plate Connected Wood Trusses." c) TPI DSB "Recommended Design Specifications for Temporory Bracing of Metol Plate Connected Wood Trusses."
4. CONVENTIONAL STICK FRAMING NOTES: (find see code for oll reqrmnts)
o. U.N.O. all ceiling jaists shall be 2x6 @ 24" a.c. (Mox span = 10'0")
b. U.N.O. all hips, volleys, & ridges shall be 2x8.
c. Kickers supporting purlins to be 2x4 spaced no more thon 4'-0" o.c.
d. Strong-bock supporting kickers to be o standing 2x4 faced noiled to o flat 2x4 with 16d at 12" o.c. Strong-backs shall be installed to hove the 5" foce verticolity stonding with the 3-1/2" face laid flat.
e. GYPSUM CEILING: Adjacent joints of gypsum ceiling board shall be stoggered not to occur on the some ceiling joist.

FLOOR FRAMING NOTES
1. DEFLECTION: For prefobricated floor joist, the recommended deflection sholl be limited to L/480 under dead + live ond L/720 under live load only. However, the prefobricated floor joist engineer shall make the finol judgment ond select the proper deflecting criterio.
2. TJI JOISTS:
o. "I" joists shall be installed per monufocture's recommendations. Controctors sholl corefully reod the monufocture's product instollation monuol for speciol attentions including nailing schedule
b. RIM JOISTS:
1. U.N.O. All rim joists sholl be (1) TimberStrand Rim Board when supporting 1-floor above, (2) TimberStrand Rim Board when supporting 2-floors obove. May use Micro Lam in ploce of TimberStrand Rim Board to increase the nailing surface.
2. All rim joists, parallel to framing, sholl be blocked at 48" o.c. moximum.
3. BLOCKING
o. AT SUPPORTS: 2x, Micro Lam, or TJI blocking sholl be provided between floor jaists at two ends ond at each supporting point such as bearing wolls, structural beoms, etc. Blocking may be omitted only at the ends of floor joists where they ore foce-noiled directly to o header, beam, or rim joist.
b. Blocking shall be noiled ond/or clipped on three sides (i.e. to the framing ond sheathing).
c. PERPENDICULAR WALLS: Provide solid blocking between joist for the entire upper woll.
d. PARALLEL PARTITIONS: Provide a double joist beneath the upper wall, unless noted otherwise (u.n.o.). Provide lateral blocking, on both sides, @ 48" on center.
4. FLOOR SHEATHING NOTES:
a. Floor sheathing sholl be installed with foce grain perpendicular to framing members below, stogger odjocent panels by 4 feet. Floor sheathing sholl be glued and nailed. Refer to the plywood panel-nailing schedule for information not stated here.
b. Panels shall not be less than 24 inches wide unless all edges are solidly blocked.
c. The sheathing ponels sholl be instolled such that there is a 1/8" gap maintoined between oll panel edges to accommodate possible swelling and/or expansion.
5. FLOOR HOLDOWNS
a. All holdowns indicated on floor framing plan sholl be opplied acrass the floor diophragm.

WALL FRAMING NOTES:
1. HEADERS FRAMING: See "SF" Detoil Sheet with Framing Detoils and Header Table.
2. KING STUDS:
a. Unless otherwise noted (u.o.n.), oll window and door openings 8 ft ond wider shall have full-height double king studs.
3. POST CONNECTION:
o. Unless otherwise noted (u.o.n.), freestonding beam-to-post connections sholl have BC brackets, PC, EPC, CC, ar ECC's.
b. Bottom of posts shall have full bearing in a tight-fit candition ta the supporting structural member of same width below(eg 6x12 beam with o 4x6 Post connected over plates with BC6).
d. Where posts terminated on floor with stud wolls or beams below, the space between the bottom of the post ond the tap of the plate or the beam shall be solidly filled with 2x blocking and the stud woll belaw sholl have matching post at same location.
5. SHEAR MATERIAL COVERAGE: shear materiol shall be applied continuously from sill plate to top plote with oll the panel edges solidly blocked.
6. CDX or OSB SHEATHING:
o. APA span rating of 24/0 or better, all panel edges blocked and nailed per Shear Woll Schedule (SWS).
b. Sheathing sholl be ploced on the designated side af studs os shown on plons. It may be ploced on the opposite side provided there are no perpendicular walls intersecting the shear-woll. When opposite side is desired ond there is intersecting wall, sheathing sholl be ploced to continuously pass through the perpendiculor wall framing without stop.

LUMBER NOTES:
1. 2x joists and 4x beams shall be Douglas Fir Larch #1 or better UNO
2. Finger-joined studs must not be used without prior opprovol by APEX.
3. Top plotes, sill plotes, studs ond posts shall be Douglas Fir Lorch Stondord Grade or better for heights up to 10 feet ond Douglos Fir Larch #2 or better for wall heights greater thon 10 feet.
4. 6x & 8x framing members sholl be Douglas Fir Larch #1 or better.
5. Mud sill, wood in direct cantoct with concrete ond other members located within 6" of finish grade sholl be pressure treated Hem Fir or Douglos Fir Larch, or foundation grade Califomio redwood.
6. Glue-Laminated Beams (GLB's):
o. Simply supported GLB's sholl be 24F-V4 DF-Larch/DF-Larch per CBC.
b. Cantilevered at ends or continuously across supports shall be 24F-V8 DF-Larch/DF-Larch.
c. Glulom beams sholl bear AITC certificates and submitted to the Building Official.
d. Shop drawings sholl be submitted to Engineer for review before fobrication.
e. GLB's may be replaced with parallom Beams of equivalent size.
7. All lominated veneer lumber (i.e. microllom) shall be manufoctured by "TrusJoist MocMillon". (ICBO Report Numbers NER-481 ond ER-4979, grade 1.9E DF/LP/WH). All porallel strand lumber (i.e. parallam) sholl be manufoctured by TrusJoist McMillen (ICBO Repart Numbers 4217 ond ER-4979, grade WH 2.0E).
8. All lumber sholl have moisture content not exceeding 19% prior to plocement.

HARDWARE
1. All framing onchors, straps, hongers, post cops, column bases, holdowns, hinge connectors, ongles and clips shall be manufoctured by "SIMPSON" or equol. Noiling schedule shall be in occordonce with product requirements for maximum tobulated loads. Unless noted otherwise, Simpson type N nails sholl be used with the obove framing connectors.
2. The contractar sholl have o current capy af oll pertinent "Simpson" catalogs on the job-site at oll times. The catalogs shall include, but not be limited to, C-2011.
3. U.O.N. All flush mounted single floor joists shall hove LU210 hongers ond oll flush mounted single roof rafters shall have "LSU" hangers.
4. U.O.N. All flush mounted sown lumber beams ar multiple joists sholl have "HHUS" hongers (to match beam width and depth) where flush mounted. Flush GLB's ond LVL/PSL sholl hove HGLTV/EGP.
5. All straps indicated on drowings shall be fastened with nails where bolts ond noils ore optionol. Bolts ore required only when specified. All straps sholl be ploced over the plywood sheathing.
6. 16d and 10d fosteners are common noils and sholl be used thraughout this project except oll toe noiling sholl be 8d nails. 10d common noils may be reploced with 16d sinkers. Box nails shall not be used unless nated otherwise.
7. All nails exposed to the weather shall be hot-dipped golvanized noils. Galvonized noils specified in Shear-wall Schedule sholl be hot dipped not electroplated galvanized
8. The diometer of bored holes, including mochine bolts, onchor bolts, holdown bolts, sholl not be lorger thon the specified bolt size plus 1/16th of on inch.
9. Noiling sholl conform ta the noiling table in the obave referenced code, unless noted otherwise.

MISCELLANEOUS
1. For pressure treated lumber, nails shall canform to obove referenced code for Galv. ond Hat Dipping etc...
2. Speciol Inspection on epoxied bolts per obove referenced code.
3. Contractor shall provide (minimum) attic access to CA framed areas per obove referenced code .
4. Some hordware used in the construction documents moy not be readily available "off-the-shelf" ond may need to be ordered prior to beginning construction ar may need to be fabricated in steel shops to the "Simpson or Equol" specifications in order to accept large beoms, skew hangers, etc... It is the contractors responsibility to review plons in their entirety and to determine this at time of bid to prevent ony delays/field problems.
5. The floor joist/beams ond roof rafters/beams may be engineered to current bldg code minimum requirements (L/240 TL & L/360 LL) for economicol reasons. Engineer recommends that contractor/owner increase size of these members to occammodate the individuol 'comfort' level of each individuol client per individual contractor/structure. Wolk-thrus prior to rocking/plumbing/electricol lessens labor/time/materiols by allowing for doubled floor joist 'sistered' beams etc... without ripping out soffits/rock/plumbing etc...
6. The contractar ond owner must build as shawn and bring concems/discepencies to orchitect/engineer priar to commencement of construction/demo. Any changes ar discrepancies not clorified in writing (ond opproved by proper porties) may result in o failed building inspection. Engineering changes after construction are difficult and expensive to accommodate.
7. All RFI's shall be sent thraugh Primary Design Professional (Architect/Designer) using complete C.A.S.E. farm (www.thestructurals.com) with attoched 1/4" scale 8-1/2 x 11 portion of plon in question.
8. These CD's ore not complete without other supporting documents; some of these ore: Geotechnical Investigation (if exists), Civil Plons (if exists), Architectural Plans, 3rd Party Product Instollatian Detoils ond Instruction (eg. Simpson Important Information and General Notes, iSB & Z-Wall Shop Drawings and Instollation Detoils/Instructions), Truss Shop Drawings ond Layouts etc.

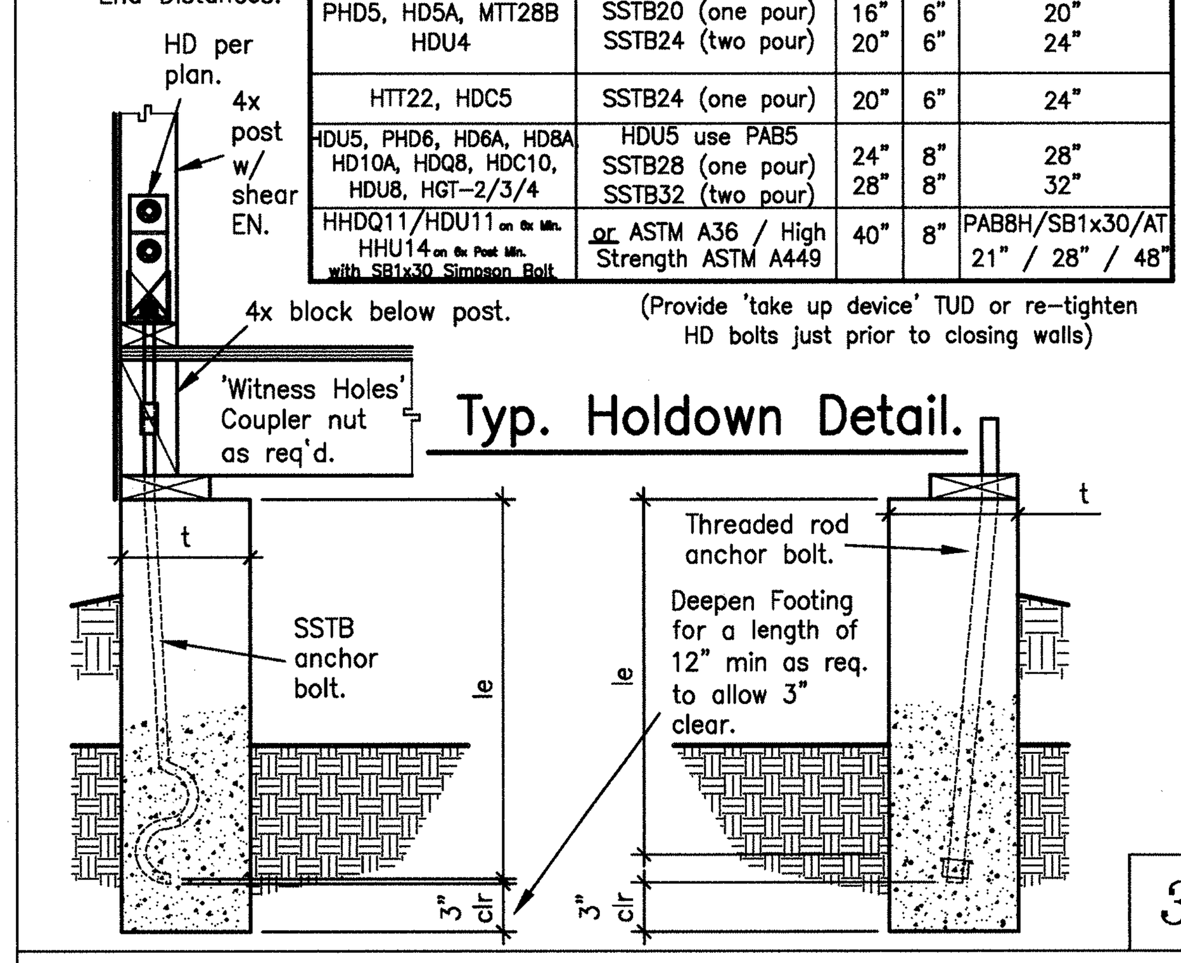
Abbreviations

RR	Roof Rafter
FJ	Floor Joist
CJ	Ceiling Joist
EN	Edge Nailing
FN	Field Nailing
FL	Floor Line
Ext	Exterior
Int	Interior
OH	Overhang
Cant	Cantilever
Flr	Floor
Fdn	Foundation
Conc	Concrete
Rbr	Rebar
o/	over
w/	with
NLG	Nailing
BND	Boundary
DBN	Diaphragm BND NLG
HD	Holdown
AB	Anchor Bolts
SW	Shearwall
SWS	Shearwall Schedule
Mat	Material
KP	King Post
KS	King Stud
BFW	Balloon Frame Wall
UON	Unless Otherwise Noted
UNO	Unless Noted Otherwise
PST	Post
BM	Beam
RB	Roof Beam
HB	Hip Beam
Hdr	Header
Cont	Continuous
RT	Roof Truss
GT	Girder Truss
JT	Jack Truss
CT	Collector/Drag Truss
ST	Scissor/Step Truss
2P	2 Point Bearing RT
3P	3 Point Bearing RT
GLB	Glu-Lam Beam
c=	camber
PL	Plate/Parallam
Abv	Above
Sim	Similar
Typ	Typical
Max	Maximum
Min	Minimum
Arch	Architectural
DWG	Drawing
SAD	See Arch. Dwgs.
Per	Pursuant/Perpendicular

*Refer to newest Simpson Catalog for Egde and End Distances.

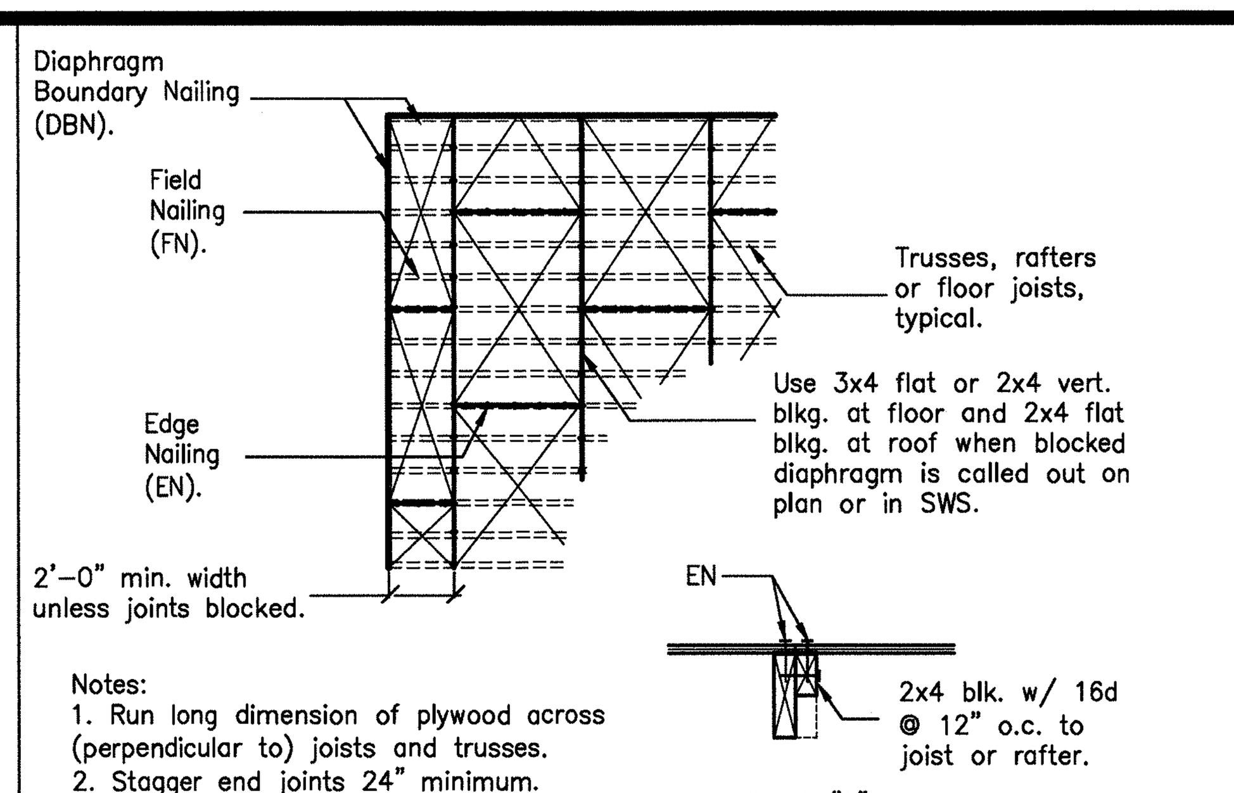
HD type*	Anchor bolt type	le	t	ftg./gr.bm. depth
PHD2, HD2A, LTT20B, LTTI31, HTT16, MGT/LGT, HDU2	SSTB16 (one pour) SSTB20 (two pour)	12" 16"	6" 6"	16" 20"
PHD5, HD5A, MTT28B HDU4	SSTB20 (one pour) SSTB24 (two pour)	16" 20"	6" 6"	20" 24"
HTT22, HDC5	SSTB24 (one pour)	20"	6"	24"
HDU5, PHD6, HD6A, HD8A HD10A, HDQ8, HDC10, HDU8, HGT-2/3/4	HDU5 use PAB5 SSTB28 (one pour) SSTB32 (two pour)	24" 28"	8" 8"	28" 32"
HHDQ11/HDU11 on 6x Min. HHU14 on 6x Post Min. with SB1x30 Simpson Bolt	or ASTM A36 / High Strength ASTM A449	40"	8"	PAB8H/SB1x30/AT 21" / 28" / 48"

(Provide 'take up device' TUD or re-tighten HD bolts just prior to closing walls)



Typ. Holdown Detail.

3



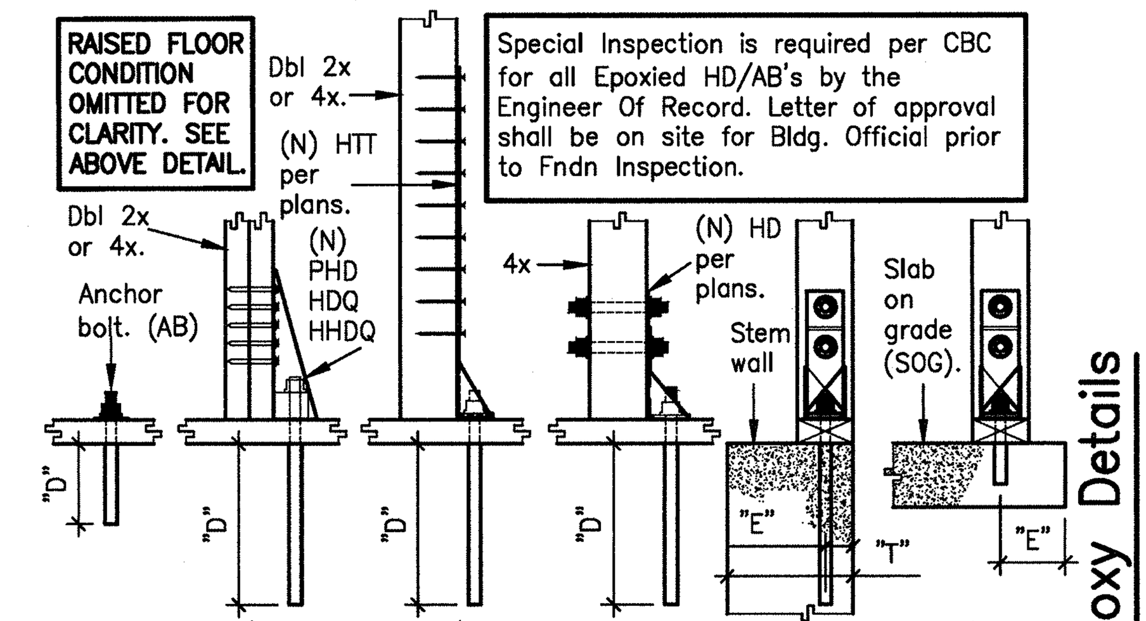
Notes:
1. Run long dimension of plywood across (perpendicular to) joists and trusses.
2. Stagger end joints 24" minimum.
3. Nails shall have 3/8" minimum edge distance.
4. All joists and trusses shall be laid out in a 48" module to coincide with plywood.
5. See detail "A" where plywood joints are offset due to rafter or joist splice.

Plywood Diaphragm detail

1

RAISED FLOOR CONDITION OMITTED FOR CLARITY. SEE ABOVE DETAIL.

Special Inspection is required per CBC for all Epoxied HD/AB's by the Engineer Of Record. Letter of approval shall be on site for Bldg. Official prior to Fndn Inspection.



FNDN Type	Holdown anchor	Embed Depth "D"	Edge distance "E"	End distance	Stem thickness "T"	Notes	Holdowns (always refer to latest Simpson Catalog)
Stem	5/8"ø or 3/4"ø	12.5"	1 3/4"	14"	6"	A307 GR. C or Better	PHD2/5/6, HD2A/5A/6A, L/H/MTT's, HDC5, PV6/10, EPB44T, MGT, HDU2/4/5,LGT2.
SOG		12.5"	1 3/4"	17 1/4"	SOG	A307 GR. C or Better	
Stem	7/8"ø	25.5	1 3/4"	19 1/8"	8"	A307 GR. C or Better	HD6A/8A/10A, HTT22, HDQ8, HDC10, HDU8, and HGT-2/3/4.
SOG		17.5	1 3/4"	19 1/8"	SOG	A307 GR. C or Better	
HHDQ/HDU 11 HHDQ/HDU 14	1"ø	25.5	1 3/4"	22 1/2"	SOG Stem	A307 GR. C or Better	
Hardy Frames	7/8"ø 1-1/8"ø	25.5	2 3/4"	28 1/8"	SOG Stem	A307 GR. C or Better	

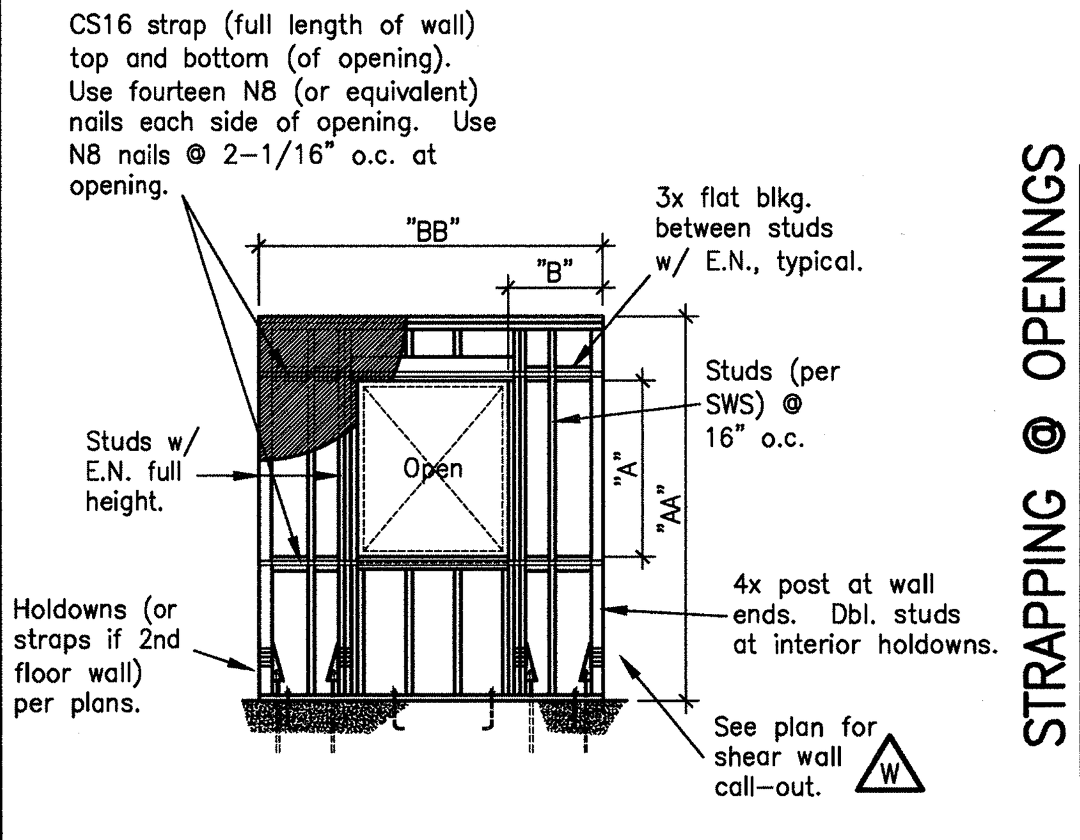
Anchor Bolt (AB)	Embed Depth "D"	Edge Dist. "E"	End distance	Allowable shear 2x	Allowable shear 3x	Table 11E 2005 NDS
5/8"ø A307 GR.C	6"	1 3/4"	6 3/8"	1236 lbs	1569 lbs	

Detail for use ONLY w/ Simpson "SET-XP" epoxy (ICC-ESR 2508). Verify all values with latest Simpson ICC report, ESR 2508

SET Epoxy Details

4

CS16 strap (full length of wall) top and bottom (of opening). Use fourteen N8 (or equivalent) nails each side of opening. Use N8 nails @ 2-1/16" o.c. at opening.



STRAPPING @ OPENINGS

Schematic drawing, wall frames may have more than one opening (see arch. dwgs).

The panel aspect ratio shall meet the following requirements.
1. "A" < 2*"B"
2. "AA" < 2*"BB"

2

CONTRACTOR'S PREFERENCE

The HD's listed on the left may be replaced by those listed directly to the right of the HD.

LTT19	PHD2
LTT19	STHD8/RJ
HTT16	PHD2
HTT16	STHD14/RJ
HTT22	PHD6
PHD2	HTT22
PHD5	HTT22
PHD6	HD8A
PHD8	HD8A

CEILING FRAMING SCHEDULE

Joist Size DF#2	SPACING 12" O.C.	16" O.C.	24" O.C.
2x6	14'-0"	12'-9"	11'-0"
2x8	17'-0"	16'-0"	14'-6"
2x10	21'-0"	19'-0"	17'-6"
2x12	24'-0"	22'-0"	20'-0"

INTERPRETATION OF DRAWINGS
1. REFER TO ARCHITECTURAL DRAWINGS FOR INFORMATION NOT SHOWN ON STRUCTURAL DRAWINGS
2. COMPARISON OF STRUCT. & ARCH. DRAWINGS SHALL BE MADE BY CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION, ANY DISCREPANCIES SHALL BE REFERRED TO ARCH FOR CLARIFICATION.
3. IF IT IS EVIDENT THAT CERTAIN FEATURES AND DETAILS ARE NOT FULLY SHOWN REFER TO ARCH. FOR CLARIFICATION.

Please read all special notes for diaphragm you are using. **SWS - Plywood Nailing Schedule / Shear Wall Schedule (1)(6)**

Column 1 Panel mark	Column 2 Minimum plywood (OSB) thickness	Column 3 Diaphragm boundary nailing (0)	Column 4 Edge nailing (0)(5)	Column 5 Field nailing (0)	Column 6 Block all panel edges	Column 7 Special detailing notes	Column 8 Sill Plate/ledger/blkg bolting to conc/masonary	Column 9 Sill Plate/ledger/blkg Nailing for Wood Floor	Column 10 Top plate	Column 11 Sill Plate & Mud Sill /ledger/blkg/ panel joints	Column 12 Clip spacing below diaphragm or at shear-wall below	Column 13 Further Special detailing notes	Column 14 allowable shear (plf)
R1	1/2" CDX/OSB	8d @ 6"	8d @ 6"	8d @ 12"	No	******	******	16d @ 6"	******	2x	******	(11)	230 R1
R2	1/2" CDX/OSB	8d @ 4"	8d @ 6"	8d @ 12"	Yes	******	******	20d @ 4"	******	3x	******	(11)	360 R2
R3	1/2" CDX/OSB	8d @ 2-1/2"	8d @ 6"	8d @ 12"	Yes	(10)	******	1/4" dia. lag @ 6"	******	3x	******	(11)	505 R3
F1	3/4" CDX/OSB	10d @ 6"	10d @ 6"	10d @ 12"	No	******	******	20d @ 4"	******	2x	******	(11)	285 F1
F2	3/4" CDX/OSB	10d @ 6"	10d @ 6"	10d @ 12"	Yes	******	******	20d @ 4"	******	2x	******	(11)	320 F2
F3	3/4" CDX/OSB	10d @ 4"	10d @ 6"	10d @ 12"	Yes	******	******	20d @ 3"	******	3x	******	(11)	425 F3
F4	1-3/32" CDX/OSB	10d @ 6"	10d @ 6"	10d @ 12"	No	(8)	******	20d @ 4"	******	2x	******	(11)	285 F4
F5	1-3/32" CDX/OSB	10d @ 6"	10d @ 6"	10d @ 12"	Yes	(8)	******	20d @ 4"	******	2x	******	(11)	320 F5
F6	1-3/32" CDX/OSB	10d @ 4"	10d @ 6"	10d @ 12"	Yes	(8)	******	20d @ 3"	******	3x	******	(11)	425 F6
W1	3/8" CDX/OSB	******	8d @ 6"	8d @ 12"	Yes	(2)	5/8" ø @ 48" (embed 7" min)	20d @ 6"	2x	2x	A34 @ 16" o.c	(9)(11)(1)	260 W1
W2	3/8" CDX/OSB	******	8d @ 4"	8d @ 12"	Yes	(2)	5/8" ø @ 32" (embed 7" min)	20d @ 4"	2x	2x	A34 @ 12" o.c	(9)(11)(1)	350 W2
W3	3/8" CDX/OSB	******	8d @ 4"	8d @ 12"	Yes	(10)(2)	5/8" ø @ 32" (embed 7" min)	1/4"ø x 5" lag @ 7" or SDS1/4x6 Screw @ 10"	3x*	3x*	A34 @ 10" o.c	(9)(11)(12)(13)*	380 W3
W4	3/8" CDX/OSB	******	8d @ 3"	8d @ 12"	Yes	(10)(2)	5/8" ø @ 32" (embed 7" min)	1/4"ø x 5" lag @ 5" or SDS1/4x6 Screw @ 8"	3x*	3x*	A34 @ 8" o.c	(9)(11)(12)(13)*	490 W4
W5	3/8" CDX/OSB	******	8d @ 2"	8d @ 12"	Yes	(10)(4)(5)(2)	5/8" ø @ 24" (embed 7" min)	1/4"ø x 5" lag @ 4" or SDS1/4x6 Screw @ 6"	3x	3x	A34 @ 6" o.c	(4)(9)(11)(12)	640 W5
W6	15/32" CDX/OSB	******	10d @ 2"	10d @ 12"	Yes	(10)(4)(5)(2)	5/8" ø @ 16" (embed 7" min)	1/4"ø x 5" lag @ 3-1/2" or SDS1/4x6 Screw @ 5"	3x	3x	A34 @ 5" o.c	(4)(9)(11)(12)	770 W6
W7	19/32" CDX/OSB	****	10d @ 2"	10d @ 12"	Yes	(10)(4)(5)(2)	5/8" ø @ 16" (embed 7" min)	1/4"ø x 5" lag @ 3" or SDS1/4x6 Screw @ 4"	3x	3x	A34 @ 5" o.c	(4)(7)(9)(11)(12)	870 W7
W8	3/8" CDX/OSB (BS)	******	8d @ 3"	8d @ 12"	Yes	(10)(4)(5)(2)	5/8" ø @ 16" (embed 7" min)	1/4"ø x 5" lag @ 2-1/2" or SDS1/4x6 Screw @ 4"	3x	3x	LS70 @ 8" o.c	(4)(7)(9)(11)(12)	980 W8
W9	3/8" CDX/OSB (BS)	******	8d @ 2"	8d @ 12"	Yes	(10)(4)(5)(2)	5/8" ø @ 12" (embed 7" min)	1/4"ø x 5" lag @ 2" or SDS1/4x6 Screw @ 3-1/2"	3x	3x	LS90 @ 8" o.c	(4)(7)(9)(11)(12)	1280 W9
W10	19/32" CDX/OSB (BS)	******	10d @ 2"	10d @ 12"	Yes	(10)(4)(5)(2)	5/8" ø @ 10" (embed 7" min)	SDS1/4x6 Screw @ 2-1/2"	4x	4x	HL35 @ 6" o.c	(4)(7)(9)(11)(12)	1740 W10

0 Diaphragm Boundary Nailing (DBN) is nailing at roof/floor perimeter (eaves not included). Edge Nailing (EN) is nailing at all plywood panel edges. Field Nailing (FN) is nailing within the plywood panel.
1 Common nails shall be used. Use hot-dipped or tumbled galvanized nails in pressure treated sills.
2 4x/(2)2x post required at the end of each shear-wall. Use 2x trim to avoid counter-sinking bolts (for holdowns) into 4x. May use double 2x when Simpson catalog allows for it's holdowns.
3 All studs shall be spaced @ 16" on center, maximum.
4 Stagger nailing or lagging.
5 Pre-drilling may be required to avoid splitting wood for nail spacing of 2 1/2" or less
6 Nomenclature: R = Roof F = Floor W = Wall
7 Plywood is applied to both sides (BS).
8 Use 1-3/32" "Warmboard" radiant heating floor panels, which has an APA rating equivalent of 3/4" APA plywood (see APA Report T98Q-9).
9 Use 3" x 3" x 0.229" (minimum) plate washers for all anchor bolts.
10 Framing at abutting panel edges and sill/top plates shall be 3-inch nominal or wider and nails shall be staggered.
11 A34 clips at blkg./ rim joist below plywood roof diaphragm except when otherwise req'd. over shear-wall below. A34 clips at blkg./ rim joist below plywood floor diaphragm except when combining with clips from shear-wall below.
12 3x mudsill is also required where AB's attach to concrete, all panel edges require 3x members (commonly missed: mudsill to concrete @ raised floor while sill plate <bottom of wall framing> is also 3x).
13 2x MEMBERS MAY BE USED IF CONTRACTOR PROVIDES DOUBLE THE CALLED OUT ANCHOR BOLTS, NAILING, CLIPS etc from sill plate to foundation; AT PANEL JOINTS (2)2x's can be used with 1/4"x3" SDS's sistering them @ 6" o.c.

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 10 OF 19 SHEETS
BY RMA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

January 24, 2014
NEW DUPLEX

[redacted]

MAY 16 2014

LICENSED ARCHITECT
RICHARD A. HARTMAN
NO. C-18952
REN. 7-31-15
STATE OF CALIFORNIA

Engineer:
Hometec Architecture
619 N 1st Street
Son Jose, CA 95112
(408) 995-0496

Date: Janaury 24, 2014

Revisions

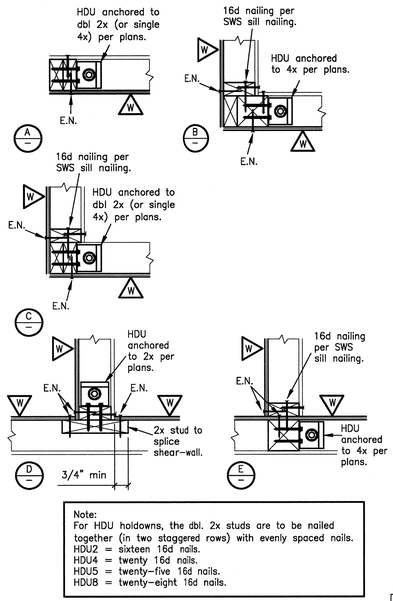
No.	Date	Description
1		
2		
3		
4		
5		

Project Number:
APEX: 4887-13

Drawn By: PC Checked By: TY

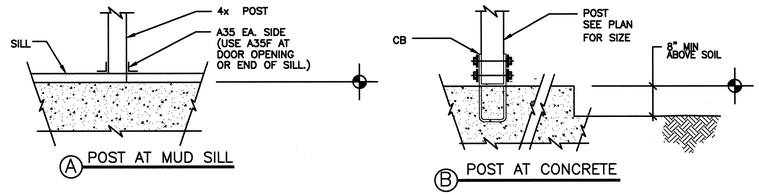
Sheet Title:
Notes

Sheet Number:
SN



Note:
For HDU holdowns, the dbl. 2x studs are to be nailed together (in two staggered rows) with evenly spaced nails.
HDU2 = sixteen 16d nails.
HDU4 = twenty 16d nails.
HDU5 = twenty-five 16d nails.
HDU8 = twenty-eight 16d nails.

19



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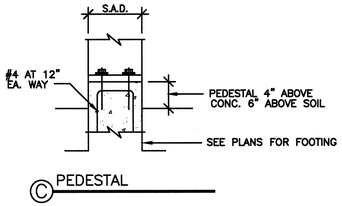


Post Bases

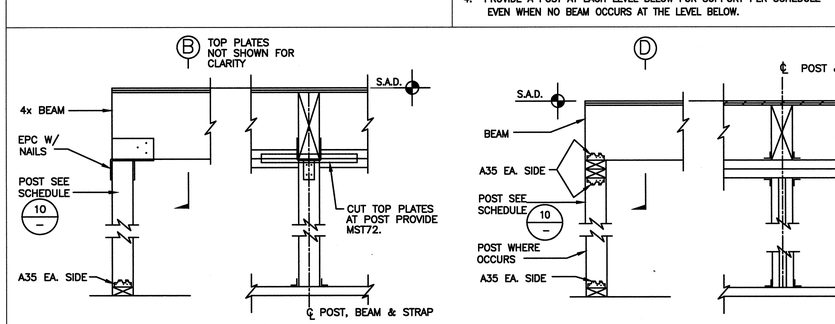
BEAM SIZE	POST SIZE		
	AT 2x4 WALL	AT 2x6 WALL TYP. AT ALL LEVELS	REFERENCE DETAILS
4x10	2–2x4	2–2x6	11 this sheet
4x12	2–2x4	2–2x6	11 this sheet
4x14	2–2x4	2–2x6	11 this sheet
6x10	3–2x4	2–2x6	11 this sheet
6x12	3–2x4	2–2x6	11 this sheet
GLB 5 1/8 PSL 3 1/2	4x6	6x6	12 this sheet
GLB 6 3/4 PSL 5 1/4	4x8	6x8	12 this sheet
GLB 8 3/4 PSL 7	4x8	6x8	12 this sheet
ROOF GIRDER TRUSS	4x	6x	11 this sheet

Typical Beam to Post Connection Schedule

NOTES

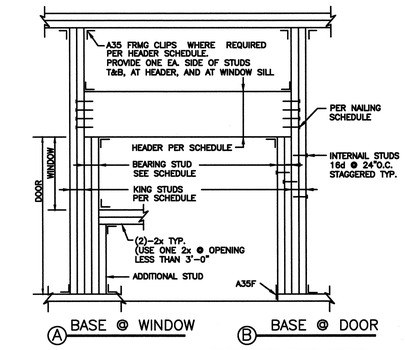
1. CCQ's/CC's SHALL MATCH SIZE OF CONNECTING BEAM AND SHALL BE SELECTED FROM THE MOST CURRENT SIMPSON (STRONG–TIE CONNECTOR) CATALOG BASED ON THE MAXIMUM MANUFACTURER RECOMMENDATIONS u.o.n.
2. SEE DETAIL 9 THIS SHEET FOR POST BASE CONNECTIONS.
3. POSTS SPECIFIED ARE FOR SUPPORTING ONE END OF THE BEAM ONLY WHERE TWO BEAMS FRAME INTO THE SAME LOCATION, PROVIDE A POST UNDER EACH, U.O.N.
4. PROVIDE A POST AT EACH LEVEL BELOW FOR SUPPORT PER SCHEDULE EVEN WHEN NO BEAM OCCURS AT THE LEVEL BELOW.

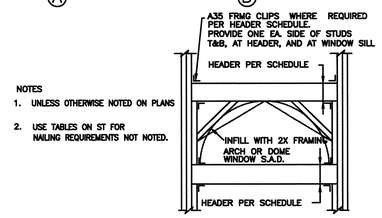
10



Typical Beam to Post Connections (SAWN Lumber)

11



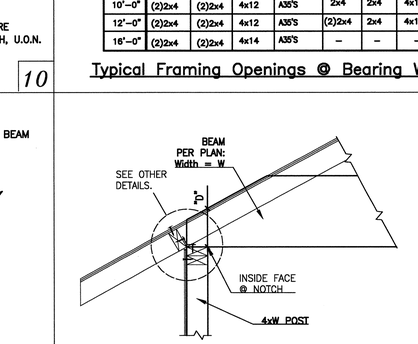


NOTES
1. UNLESS OTHERWISE NOTED ON PLANS
2. USE TABLES ON ST FOR NAILING REQUIREMENTS NOT NOTED.

MAX. OPENING WIDTH	EXTERIOR WALL				INTERIOR WALL		
	BEARING STUD	KING STUD	MIN. HEADER SIZE(1)	FRAMING CLIPS	BEARING STUD	KING STUD	MIN. HEADER SIZE
4'–0"	2x4	2x4	4x6	NONE	2x4	2x4	4x6
6'–0"	2x4	2x4	4x8	NONE	2x4	2x4	4x8
8'–0"	(2)2x4	(2)2x4	4x10	A35'S	2x4	2x4	4x10
10'–0"	(2)2x4	(2)2x4	4x12	A35'S	2x4	2x4	4x12
12'–0"	(2)2x4	(2)2x4	4x12	A35'S	(2)2x4	2x4	4x12
16'–0"	(2)2x4	(2)2x4	4x14	A35'S	–	–	–

Typical Framing Openings @ Bearing Walls

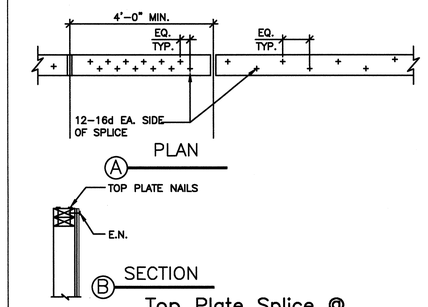
6



NOTES:
1. NOTCH ALLOWED AS CALLED OUT IN PLANS.
2. TOP OF BEAM MAY BE FLUSH WITH TOP OF CDX TO GAIN ADDITIONAL 1/2"
3. PROVIDE SAME WIDTH POST BELOW SUPPORT, SEE 10,11,12 'SF' FOR INFO NOT SHOWN.

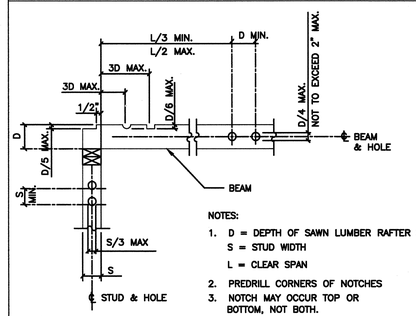
BEAM TOP NOTCH

7



Top Plate Splice @ Bearing/Shear Walls

1



NOTES:
1. D = DEPTH OF SAWN LUMBER RAFTER OR BEAM
   S = STUD WIDTH
   L = CLEAR SPAN
2. PREDRILL CORNERS OF NOTCHES
3. NOTCH MAY OCCUR TOP OR BOTTOM, NOT BOTH.
4. NO HOLES WITHIN 2 INCHES OF TOP OR BOTTOM.

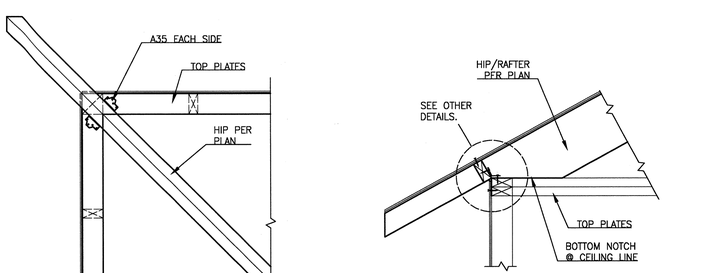
Typical Allowable Holes/Notches in SAWN Lumber Members

2

Plate Penetration Detail

*PROVIDE 4 (2–SIDED) CTS218's WHERE THESE DIMENSIONS ARE EXCEEDED WITH 24 – SDWS9x1–1/2" FASTENERS

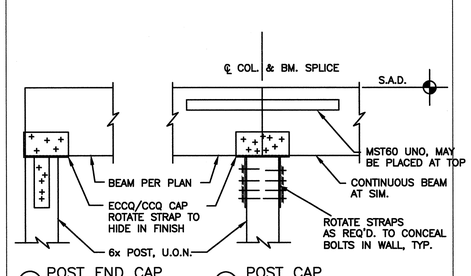
3



NOTES:
1. MIN. (2) 2x's BELOW HIP SUPPORT POINT
2. INTERNAIL DOULBERS W/ 6d's @ 6" OC STAGGERED

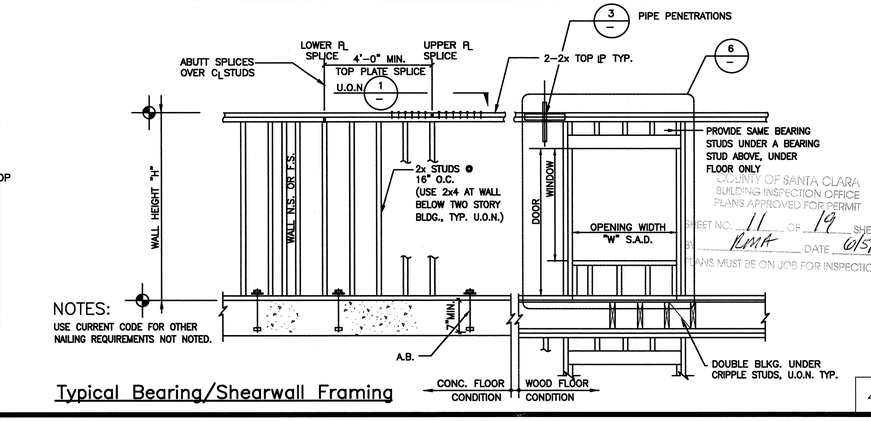
Typical Deep Hip/Rafter Framing @ Support

16



Typ. Bm to Post Connection

12



NOTES:
USE CURRENT CODE FOR OTHER NAILING REQUIREMENTS NOT NOTED.

Typical Bearing/Shearwall Framing

4

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 11 OF 19 SHEETS
BY KMA DATE 01/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

MAY 16 2014

LICENSED ARCHITECT
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NO. C-18952
REN. 7-31-15
STATE OF CALIFORNIA

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Date: January 24, 2014

Revisions

No.	Date	Description
1		
2		
3		
4		
5		

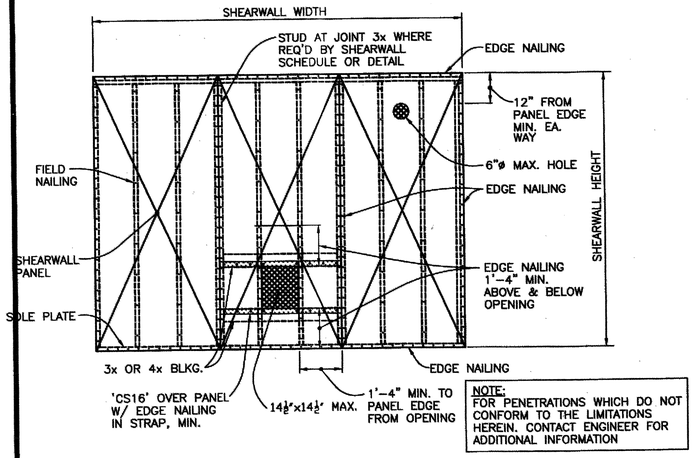
Project Number:
APEX: 4887–13

Drawn By: PC Checked By: TY

Sheet Title:
Typ. Framing

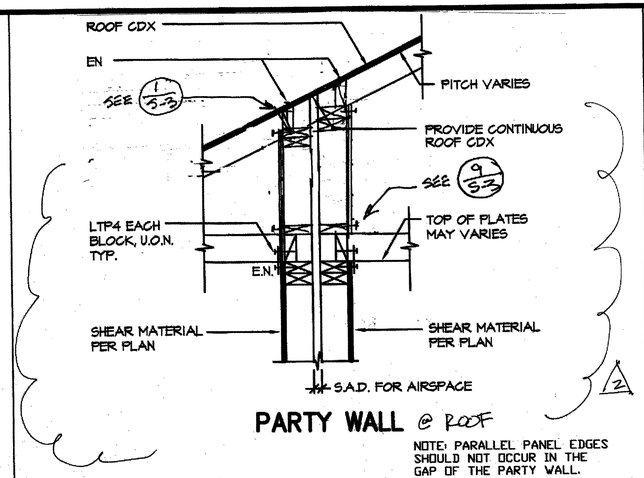
Sheet Number:
SF

January 24, 2014
NEW DUPLEX



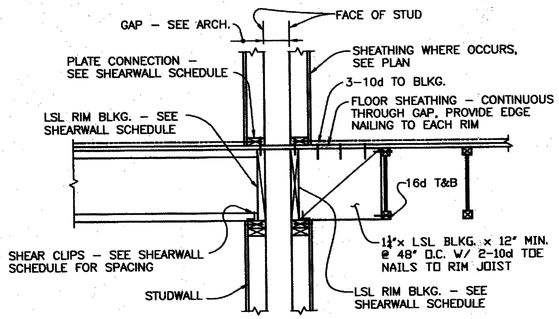
NOTE:
FOR PENETRATIONS WHICH DO NOT CONFORM TO THE LIMITATIONS HEREIN, CONTACT ENGINEER FOR ADDITIONAL INFORMATION

18



PARTY WALL @ ROOF

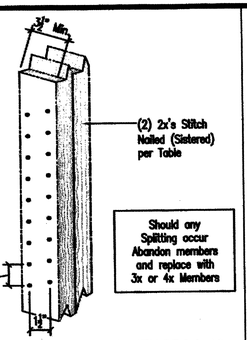
NOTE: PARALLEL PANEL EDGES SHOULD NOT OCCUR IN THE GAP OF THE PARTY WALL.



WHERE JOISTS ARE PERPENDICULAR WHERE JOISTS ARE PARALLEL

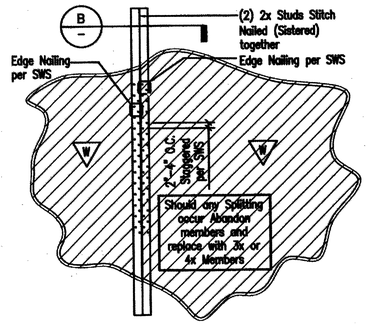
10

Fastener / Stich Nailing Table	
W3	4" O.C.
W4	3" O.C. Staggered
W5	3" O.C. Staggered
W6	2" O.C. Staggered
W7	2" O.C. Staggered
W8	1/4" SDS's @ 6" o.c.
W9	1/4" SDS's @ 4" o.c.



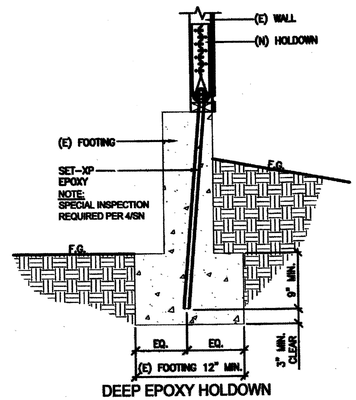
Should any Splitting occur Abandon members and replace with 3x or 4x Members

STITCH NAILING (2) 2x's in LIEU OF 3x's AS ALLOWED BY SHEAR WALL SHEDULE



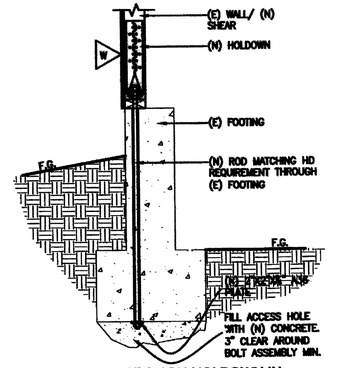
(2) 2x's in Lieu of 3x Retrofit @ Panel Edges AS ALLOWED BY SHEAR WALL SCHEDULE

6



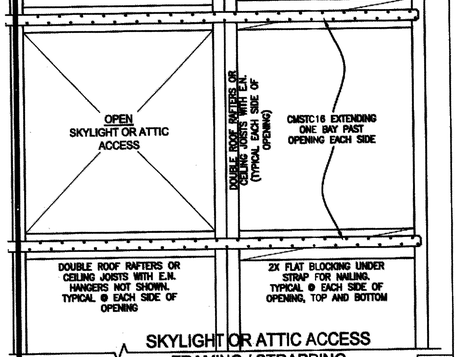
DEEP EPOXY HOLDOWN

1



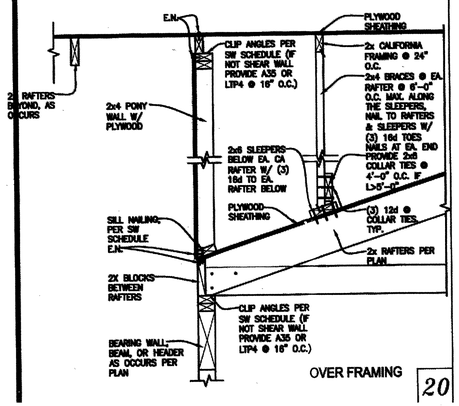
THROUGH HOLDOWN IN EXISTING FOOTING

2



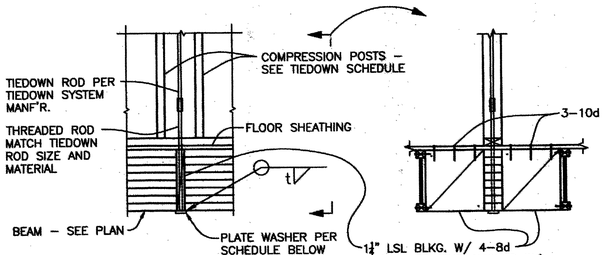
SKYLIGHT OR ATTIC ACCESS FRAMING / STRAPPING

19



OVER FRAMING

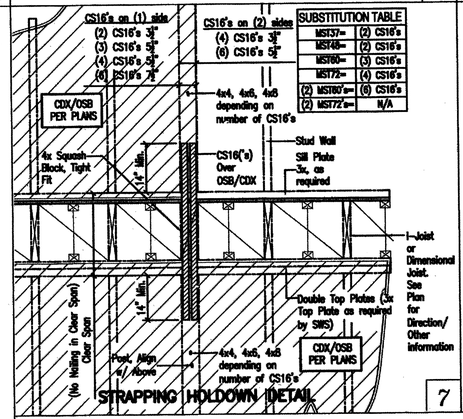
20



ROD DIAMETER	BEARING PLATE	WELD SIZE, t (IN.)
⅝"ø A307	3" x 4½" x ⅝" THICK	¼"
⅞"ø A307	5" x 5½" x ¾" THICK[1]	⅜"

NOTE: 1. WIDTH OF BEAM SHALL BE LARGER THAN BEARING PLATE WIDTH

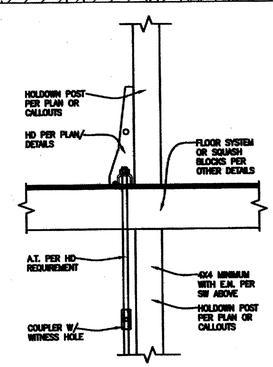
12



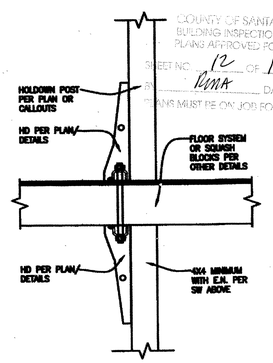
SUBSTITUTION TABLE	
MST37=	(2) CS16's
MST48=	(2) CS16's
MST60=	(3) CS16's
MST72=	(4) CS16's
(2) MST60's=	(6) CS16's
(2) MST72's=	N/A

STRAPPING HOLDOWN DETAIL

7



Holdown to Rod



Holdown to Holdown

4

January 24, 2014
NEW DUPLEX

RECEIVED
JUN 04 2014
BUILDING INSPECTION DIV.

JUN 03 2014

Engineer:
Homatec Architecture
619 N 1st Street
San Jose, CA 95112
(408) 995-0496

Date: January 24, 2014

Revisions

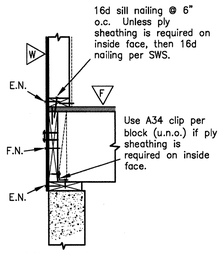
No.	Date	Description
1		
2	5/30/14	PLAN CHECK
3		
4		
5		

Project Number:
APEX: 4887-13

Drawn By: PC Checked By: TY

Sheet Title:
Typ. Framing

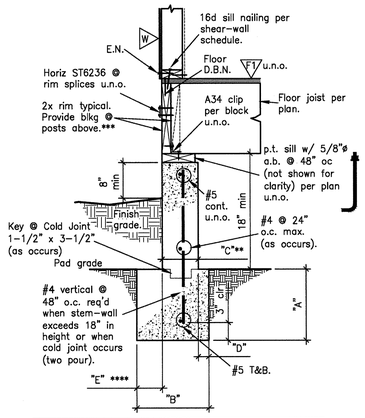
Sheet Number:
SF2



Alternate

E.N. = edge nailing
F.N. = field nailing
D.B.N. = diaphragm boundary nailing

Number of floors supported	A	B	C	D	E
1	12"	12"	6"	2"	4"
2	18"	15"	8"	1"	6"
3	24"	18"	10"	1"	7"

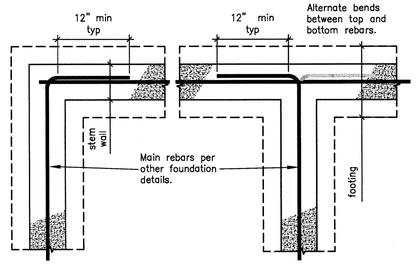


* Deepen footing as req'd at holdown locations.
** Stem–wall to be 8" min. at holdown locations.
*** Use 4x bm @ W5 or greater above.
**** Not for masonry veneer support.

Typical T–Footing (exterior condition joist ⊥ shown)

THIS DETAIL SHOWS TYPICAL FOOTING INFORMATION AND SHOULD BE REFERENCED WHEN OTHER SIMILAR DETAILS ARE INTENTIONALLY INCOMPLETE. THIS INFORMATION IS GIVEN IN ONE PLACE ONLY TO AVOID CONFLICTING INFORMATION IN THESE AFOREMENTIONED SIMILAR DETAILS.

14

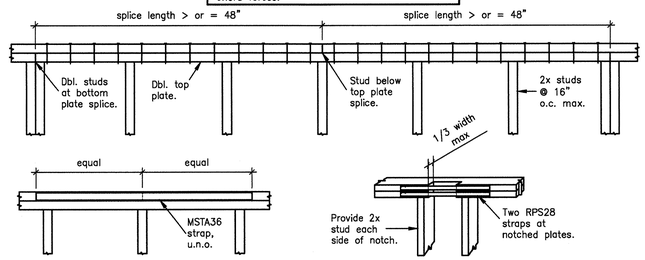


"L" Intersection "T" Intersection

Typical lapping detail.

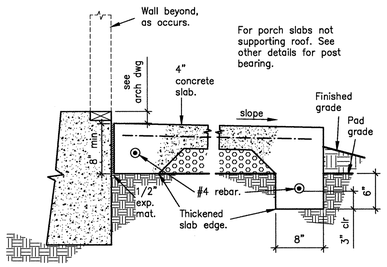
9

Minimum twelve staggered and evenly spaced 16d nails each side of splice. Additionally, nail spacing shall not exceed 8" o.c. maximum. STRAP CALLOUTS ON PLANS, as they occur, are IN ADDITION to nailing to transfer higher drag or chord forces.



ALTERNATE TYP. NOTCH

1



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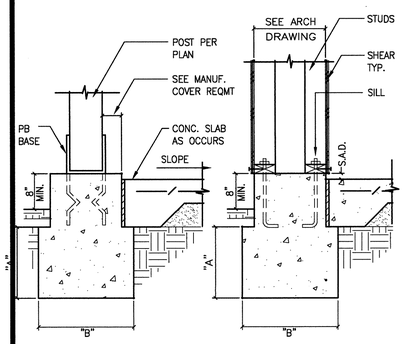

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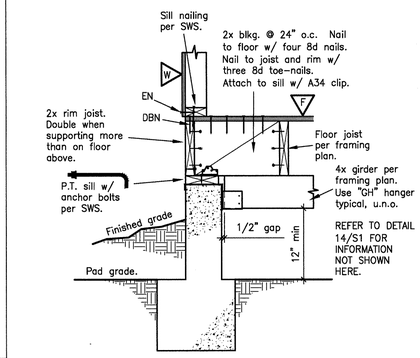

Footing Parallel To Joist

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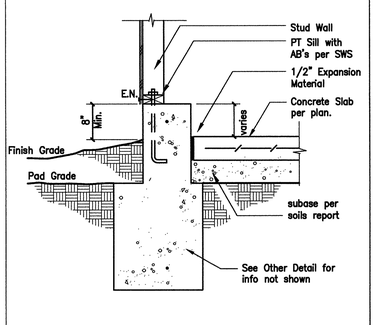

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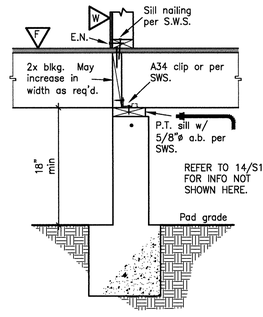

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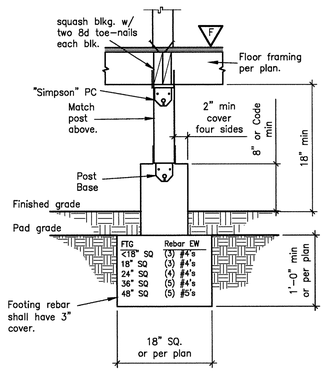

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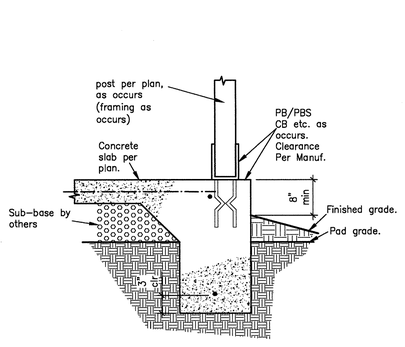

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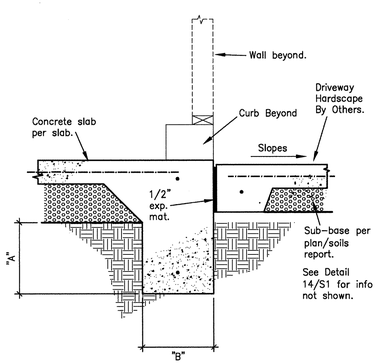

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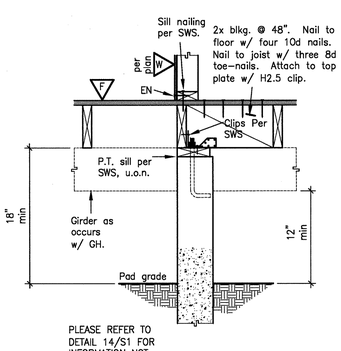
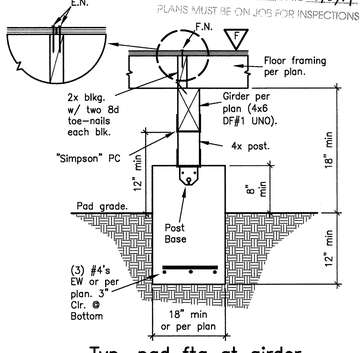


PLEASE REFER TO DETAIL 14/S1 FOR INFORMATION NOT SHOWN HERE.

8



Typ. pad ftg at girder

4

MAY 16 2014

LICENSED ARCHITECT RICHARD A. HARTMAN NO. C-18982 REN. 7-31-15 STATE OF CALIFORNIA

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 13 OF 19 SHEETS
BY RMA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

January 24, 2014
NEW DUPLEX

[redacted]

Engineer:
Hometec Architecture
619 N 1st Street
San Jose, CA 95112
(408) 995–0496

Date: January 24, 2014

Revisions

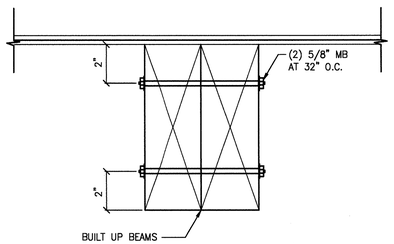
No.	Date	Description
1		
2		
3		
4		
5		

Project Number:
APEX: 4887–13

Drawn By: PC Checked By: TY

Sheet Title:
Details

Sheet Number:
S1



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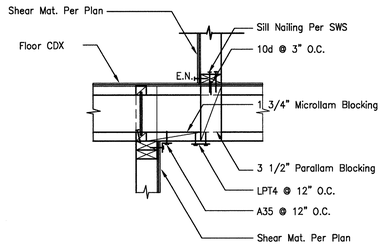

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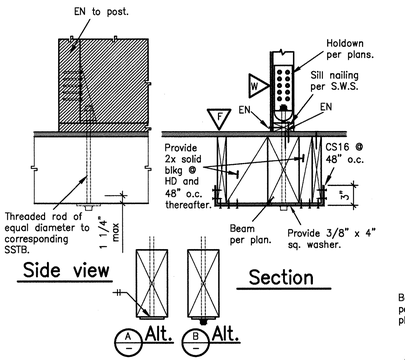

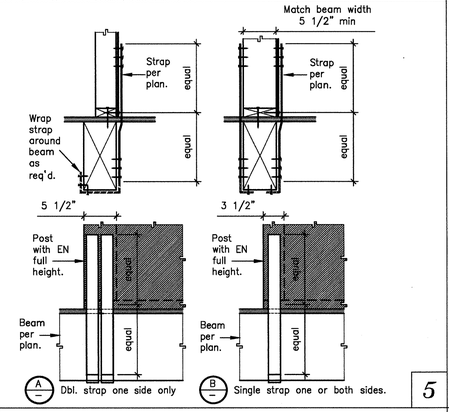

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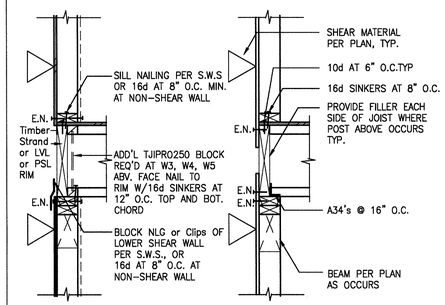
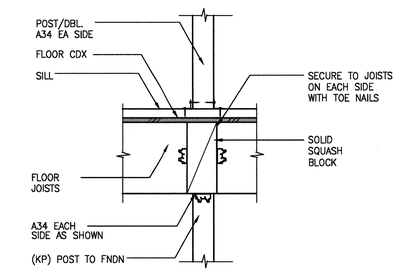


"I" Joist Perpendicular to Wall

1



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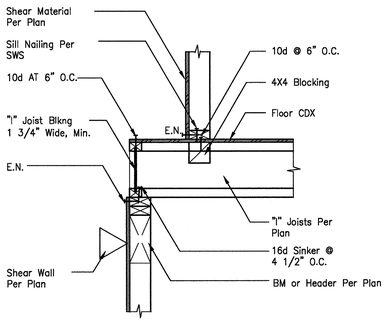

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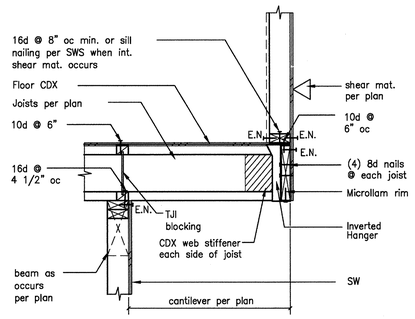

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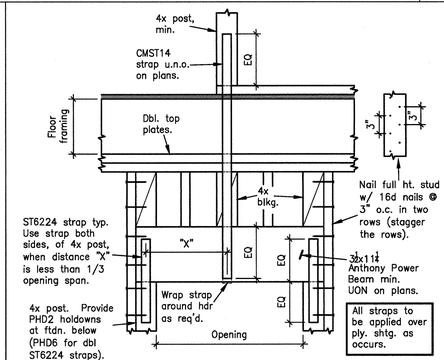
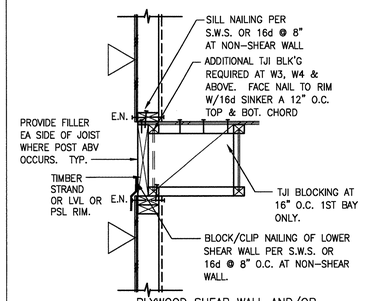
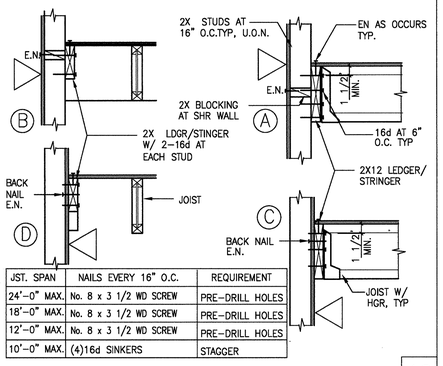




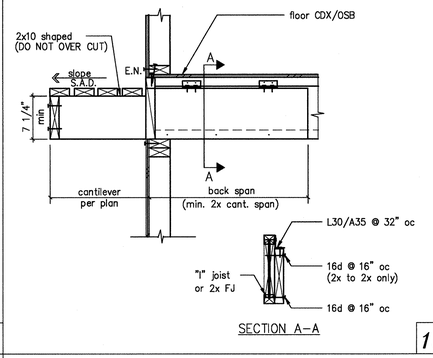
SINGLE RIM // TO WALL

2



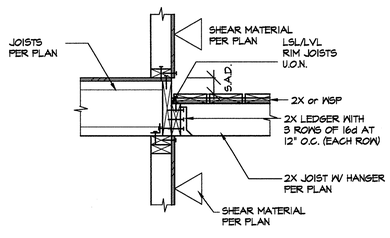
JST. SPAN	NAILS EVERY 16" O.C.	REQUIREMENT
24'-0" MAX.	No. 8 x 3 1/2 WD SCREW	PRE-DRILL HOLES
18'-0" MAX.	No. 8 x 3 1/2 WD SCREW	PRE-DRILL HOLES
12'-0" MAX.	No. 8 x 3 1/2 WD SCREW	PRE-DRILL HOLES
10'-0" MAX.	(4)16d SINKERS	STAGGER

19



SECTION A-A

15



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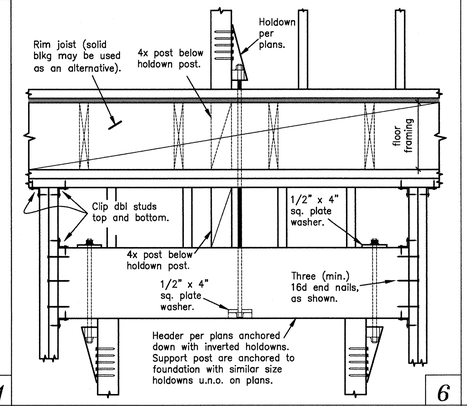

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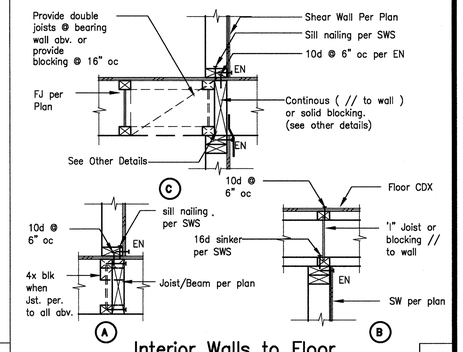
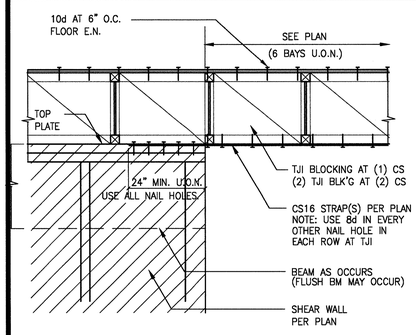


Interior Walls to Floor

3



Drag Strap(s) to Top Plate

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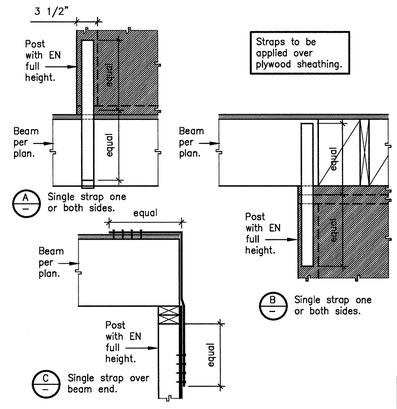

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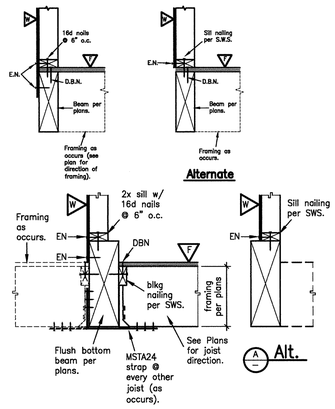

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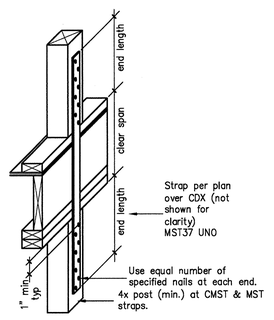

8

COUNTY OF SANTA CLARA
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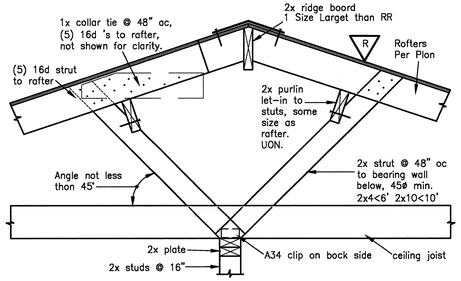
Project Number:
APEX: 4887-13

Drawn By: PC Checked By: TY

Sheet Title:
Details

Sheet Number:
S2



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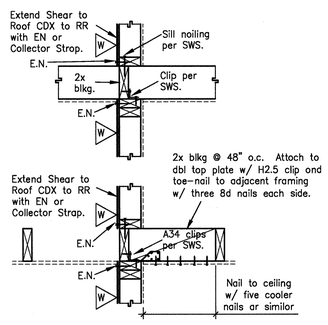

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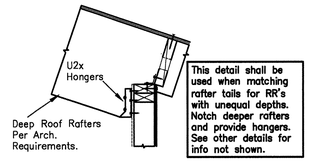
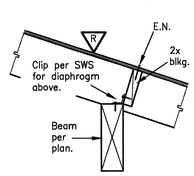
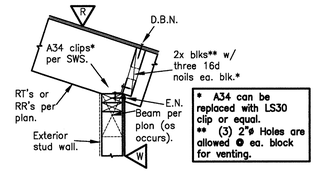


Deep Rafter @ Vault

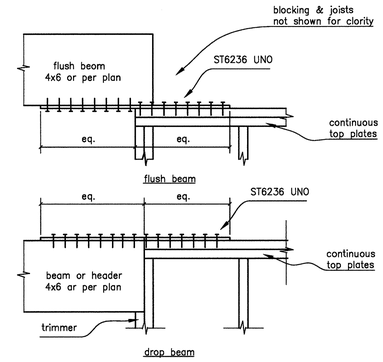


Stick roof eave shear transfer

1



Exterior Shearwall



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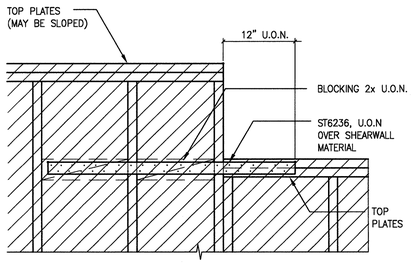

STRAP AT TOP PLATES BREAK

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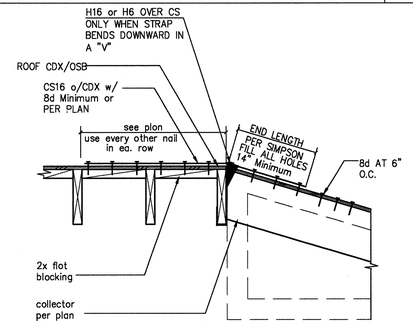

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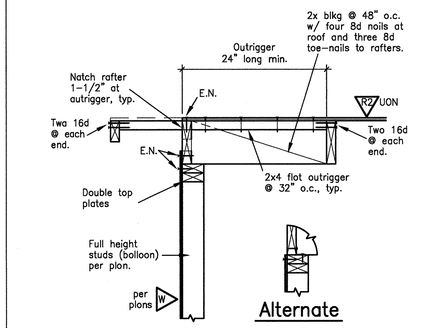
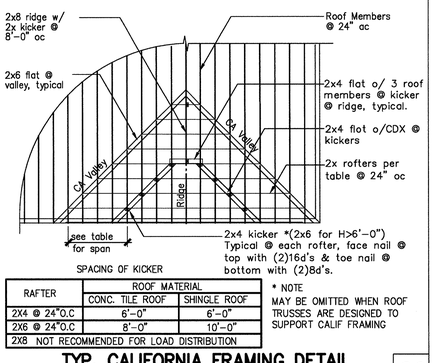


Alternate

2



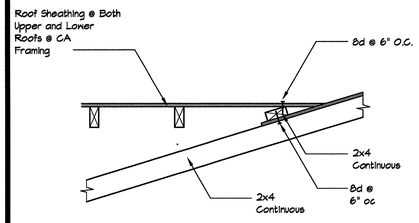
SPACING OF KICKER

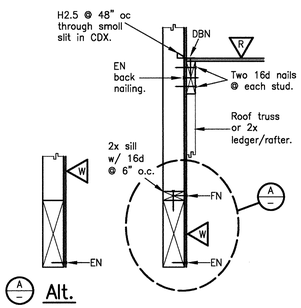
RAFTER	ROOF MATERIAL	
	CONC. TILE ROOF	SHINGLE ROOF
2X4 @ 24"O.C	6'-0"	6'-0"
2X6 @ 24"O.C	8'-0"	10'-0"
2X8 NOT RECOMMENDED FOR LOAD DISTRIBUTION		

* NOTE
MAY BE OMITTED WHEN ROOF TRUSSES ARE DESIGNED TO SUPPORT CALIF FRAMING

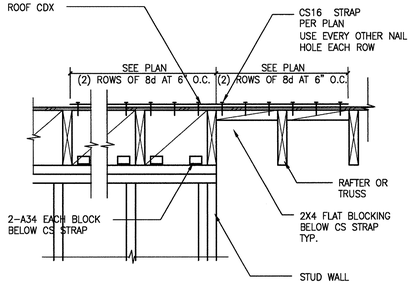
TYP. CALIFORNIA FRAMING DETAIL

20





15



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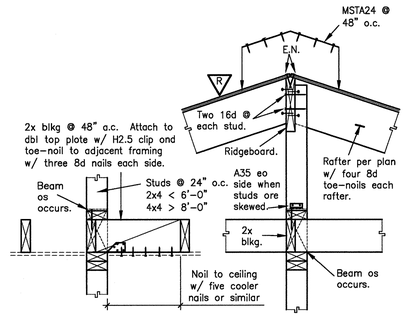
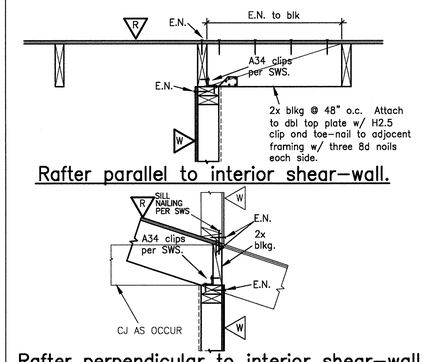


Joist parallel to wall Joist perp to wall

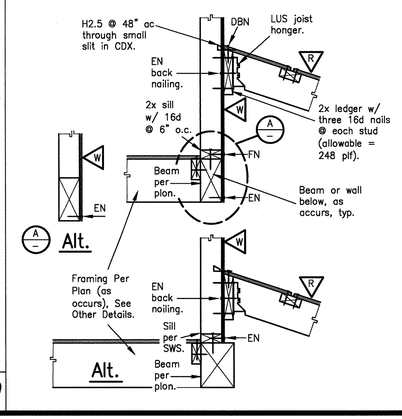
7



Rafter parallel to interior shear-wall.

Rafter perpendicular to interior shear-wall.

3



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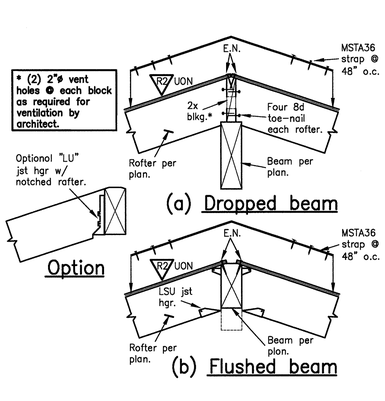

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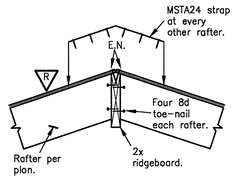
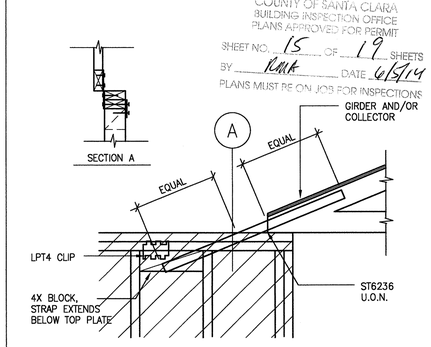




4

January 24, 2014
NEW DUPLEX

LICENSED ARCHITECT
RICHARD A. HARTMAN
NO. C-18852
REN. 7-31-15
STATE OF CALIFORNIA

MAY 16 2014

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 15 OF 19 SHEETS
BY RMA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

Engineer:
Hometec Architecture
619 N 1st Street
San Jose, CA 95112
(408) 995-0496

Date: January 24, 2014

Revisions

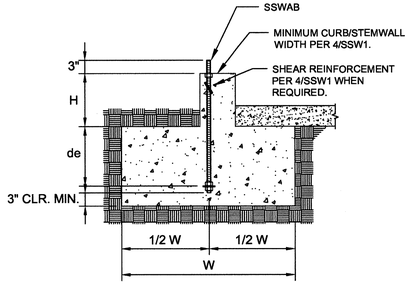
No.	Date	Description
1		
2		
3		
4		
5		

Project Number:
APEX: 4887-13

Drawn By: PC Checked By: TY

Sheet Title:
Details

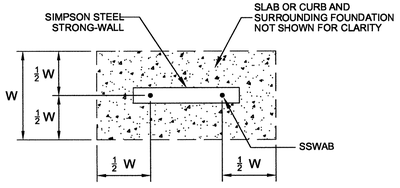
Sheet Number:
S3



CURB OR STEMWALL FOUNDATION

NOTES:
1. SEE 2/SSW1 AND 3/SSW1 FOR DIMENSIONS AND ADDITIONAL NOTES.
2. SEE 4/SSW1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.
3. MAXIMUM H = le - de. SEE 5/SSW1 AND 6/SSW1 FOR le.

STEEL STRONG-WALL ANCHORAGE - TYPICAL SECTIONS | 1



SEE TABLES BELOW FOR DIMENSIONS

FOUNDATION PLAN VIEW

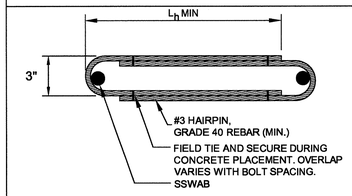
STEEL STRONG-WALL ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE								
DESIGN CRITERIA	CONDITION	ANCHOR STRENGTH	SSWAB 3/4" ANCHOR BOLT			SSWAB 1" ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)	ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)
SEISMIC	CRACKED	STANDARD	9,600	25	9	17,100	36	12
		HIGH STRENGTH	19,900	39	13	35,300	56	19
	UNCRACKED	STANDARD	9,600	21	7	17,100	32	11
		HIGH STRENGTH	19,900	34	12	35,300	49	17
WIND	CRACKED	STANDARD	4,500	12	6	5,600	14	6
			6,900	16	6	12,700	24	8
			9,600	20	7	17,100	30	10
		HIGH STRENGTH	11,100	22	8	22,400	35	12
			13,500	25	9	26,800	39	13
			16,000	28	10	31,600	43	15
			19,900	33	11	35,300	47	16
	UNCRACKED	STANDARD	5,600	12	6	5,600	12	6
			7,800	15	6	12,000	20	7
			9,600	18	6	17,100	26	9
		HIGH STRENGTH	11,200	19	7	22,100	30	10
			13,900	22	8	26,700	34	12
			15,800	24	8	32,100	38	13
			19,900	29	10	35,300	41	14

NOTES:
1. ANCHORAGE DESIGNS CONFORM TO ACI 318 APPENDIX D WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF SSWAB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-05 SECTION D.3.3.4.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE REGISTERED DESIGN PROFESSIONAL MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
6. REFER TO 1/SSW1 FOR de.

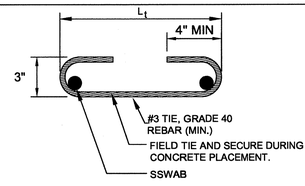
SSWAB TENSION ANCHORAGE SCHEDULE 2500 PSI | 2

APEX Engineering • *Engineers@TheStructurals.com*
452 West Hamilton Avenue • 339 • Campbell • CA • 95008-4843
Telephone: 408.378.2068 • Facsimile: 408.378.4602
□ REVISE AND RESUBMIT X REVIEWED
□ REVIEWED AS NOTED □ OTHER
Corrections or comments made on the shop drawings during this review do not relieve the contractor from compliance with requirements of the drawings and specifications. The check is only for review of general compliance with the information given in the contract documents. The contractor is responsible for confirming and correcting all quantities and dimensions, selecting fabrication processes and techniques of construction coordinating his with that of all other trades and performing his work in a safe and satisfactory manner.
DATE: February 27, 2014 BY: Thomas J. Yates, EOR

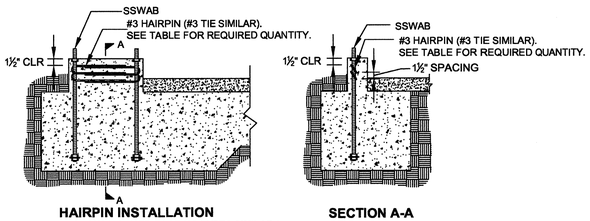
3



HAIRPIN SHEAR REINFORCEMENT



TIE SHEAR REINFORCEMENT



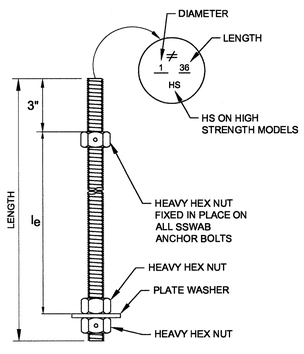
HAIRPIN INSTALLATION
(GARAGE CURB SHOWN. OTHER FOOTING TYPES SIMILAR.)

SECTION A-A

STEEL STRONG-WALL ANCHORAGE							
	SEISMIC[3]				WIND[4]		
MODEL	L_t OR L_h (in)	SHEAR REINFORCEMENT	MINIMUM CURB/ STEMWALL WIDTH (in)	SHEAR REINFORCEMENT	MINIMUM CURB/ STEMWALL WIDTH (in)	ASD ALLOWABLE SHEAR LOAD V (lbs) UNCRACKED	CRACKED
SSW12	9	(1) #3 TIE	6	NONE REQUIRED	6	1370	980[6]
SSW15	12	(1) #3 TIE	6	NONE REQUIRED	6	1765[7]	1260[7]
SSW18	14	(1) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6	N/A	
SSW21	15	(1) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6	N/A	
SSW24	17	(2) #3 HAIRPINS	8[5]	(2) #3 HAIRPINS	6	N/A	

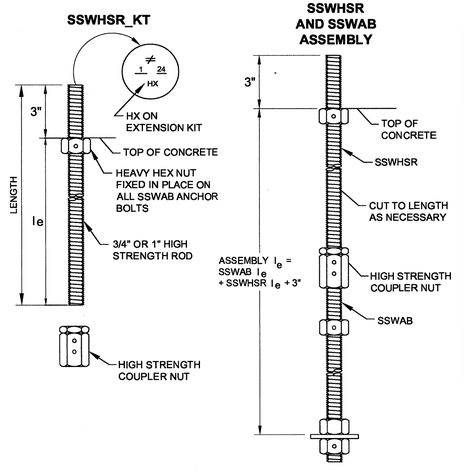
NOTES:
1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-05 AND ASSUME MINIMUM f'c=2,500 PSI CONCRETE. SEE DETAILS 1/SSW1 TO 3/SSW1 FOR TENSION ANCHORAGE.
2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR PANELS INSTALLED ON A WOOD FLOOR, INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.
5. MINIMUM CURB/STEMWALL WIDTH IS 6" WHEN STANDARD STRENGTH SSWAB IS USED.
6. 8" MINIMUM CURB/STEMWALL ALLOWABLE SHEAR IS 1145 lbs. USE SEISMIC SHEAR REINFORCEMENT FOR HIGHER SHEAR LOADS.
7. 8" MINIMUM CURB/STEMWALL ALLOWABLE SHEAR IS 2015 lbs. UNCRACKED AND 1440 lbs. CRACKED. USE SEISMIC SHEAR REINFORCEMENT FOR HIGHER SHEAR LOADS.
8. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318 D.8.2.

STEEL STRONG-WALL ANCHOR BOLT SHEAR ANCHORAGE | 4



STEEL STRONG-WALL WIDTH	MODEL NO.	DIAMETER	LENGTH	l_e
12" MODEL	SSWAB3/4x24	3/4"	24"	19"
	SSWAB3/4x24HS	3/4"	24"	19"
	SSWAB3/4x30	3/4"	30"	25"
	SSWAB3/4x30HS	3/4"	30"	25"
	SSWAB3/4x36HS	3/4"	36"	31"
15", 18", 21 AND 24" MODELS	SSWAB1x24	1"	24"	19"
	SSWAB1x24HS	1"	24"	19"
	SSWAB1x30	1"	30"	25"
	SSWAB1x30HS	1"	30"	25"
	SSWAB1x36HS	1"	36"	31"

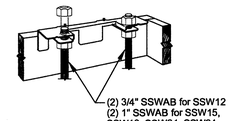
SSW ANCHOR BOLTS | 5



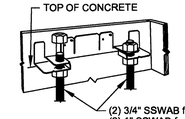
SSW WIDTH	MODEL NO.	DIAMETER	TOTAL LENGTH	l_e
12" MODEL	SSWHSR3/4-2KT	3/4"	24"	21"
	SSWHSR3/4-3KT	3/4"	36"	33"
15", 18", 21 AND 24" MODELS	SSWHSR1-2KT	1"	24"	21"
	SSWHSR1-3KT	1"	36"	33"

SSW ANCHOR BOLT EXTENSION | 6

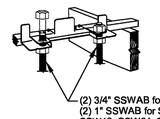
SSWT EXTERIOR INSTALLATION



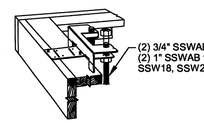
SSWTPF PANEL FORM INSTALLATION



SSWT INTERIOR INSTALLATION



SSWTBL BRICK LEDGE INSTALLATION



COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 16 OF 19 SHEETS
BY RMA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

SSW ANCHOR BOLT TEMPLATES | 7

NO.	DATE	REVISIONS
1	9/21/2009	2006 IBC REVISIONS

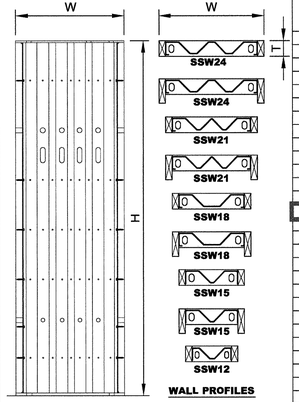
SIMPSON STRONG-TIE COMPANY, INC.
HOME OFFICE:
5956 W. LAS POSITAS BLVD.
PLEASANTON, CA 94588
TEL: (800) 999-5099

SIMPSON Strong-Tie THERE IS NO EQUAL

STEEL STRONG-WALL
ANCHORAGE DETAILS
ENGINEERED DESIGNS

NAME	
DATE	9-21-2009
SCALE	N.T.S.
CHECKED	
SHEET	SSW1
	OF SHEETS
JOB NO.	

STEEL STRONG-WALL MODELS

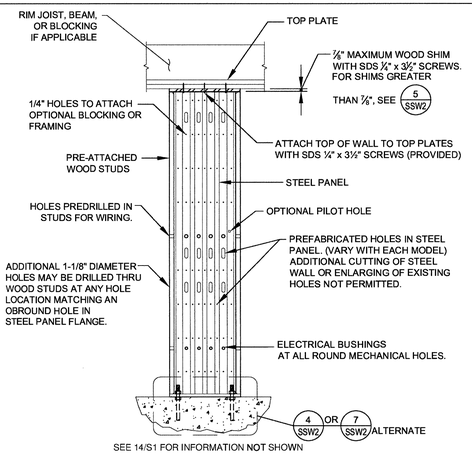


WALL PROFILES

STD. WALL MODEL NO.	-STK WALL MODEL NO.	H (in)	T (in)	HOLDOWN ANCHOR BOLTS[2]	QTY. OF TOP OF WALL SCREWS[1]
SSW12x7	- -	80	3 1/2	(2) 3/4"	4
SSW15x7	- -	80	3 1/2	(2) 1"	6
SSW18x7	- -	80	3 1/2	(2) 1"	9
SSW21x7	- -	80	3 1/2	(2) 1"	12
SSW24x7	- -	80	3 1/2	(2) 1"	14
SSW12x7.4	- -	85 1/2	3 1/2	(2) 3/4"	4
SSW15x7.4	- -	85 1/2	3 1/2	(2) 1"	6
SSW18x7.4	- -	85 1/2	3 1/2	(2) 1"	9
SSW21x7.4	- -	85 1/2	3 1/2	(2) 1"	12
SSW24x7.4	- -	85 1/2	3 1/2	(2) 1"	14
SSW12x8	- -	93 1/4	3 1/2	(2) 3/4"	4
SSW15x8	SSW15x8-STK	93 1/4	3 1/2	(2) 1"	6
SSW18x8	SSW18x8-STK	93 1/4	3 1/2	(2) 1"	9
SSW21x8	SSW21x8-STK	93 1/4	3 1/2	(2) 1"	12
SSW24x8	SSW24x8-STK	93 1/4	3 1/2	(2) 1"	14
SSW12x9	- -	105 1/4	3 1/2	(2) 3/4"	4
SSW15x9	SSW15x9-STK	105 1/4	3 1/2	(2) 1"	6
SSW18x9	SSW18x9-STK	105 1/4	3 1/2	(2) 1"	9
SSW21x9	SSW21x9-STK	105 1/4	3 1/2	(2) 1"	12
SSW24x9	SSW24x9-STK	105 1/4	3 1/2	(2) 1"	14
SSW12x10	- -	117 1/4	3 1/2	(2) 3/4"	4
SSW15x10	SSW15x10-STK	117 1/4	3 1/2	(2) 1"	6
SSW18x10	SSW18x10-STK	117 1/4	3 1/2	(2) 1"	9
SSW21x10	SSW21x10-STK	117 1/4	3 1/2	(2) 1"	12
SSW24x10	SSW24x10-STK	117 1/4	3 1/2	(2) 1"	14
SSW15x11	SSW15x11-STK	129 1/4	5 1/2	(2) 1"	6
SSW18x11	SSW18x11-STK	129 1/4	5 1/2	(2) 1"	9
SSW21x11	SSW21x11-STK	129 1/4	5 1/2	(2) 1"	12
SSW24x11	SSW24x11-STK	129 1/4	5 1/2	(2) 1"	14
SSW15x12	SSW15x12-STK	141 1/4	5 1/2	(2) 1"	6
SSW18x12	SSW18x12-STK	141 1/4	5 1/2	(2) 1"	9
SSW21x12	SSW21x12-STK	141 1/4	5 1/2	(2) 1"	12
SSW24x12	SSW24x12-STK	141 1/4	5 1/2	(2) 1"	14
SSW18x13	SSW18x13-STK	153 1/4	5 1/2	(2) 1"	9
SSW21x13	SSW21x13-STK	153 1/4	5 1/2	(2) 1"	12
SSW24x13	SSW24x13-STK	153 1/4	5 1/2	(2) 1"	14

TABLE NOTES:
1. SDS¼" x 3½" SCREWS PROVIDED WITH WALL.
2. SEE SHEET SSW1 FOR ANCHORAGE SOLUTIONS.

STEEL STRONG-WALL MODELS 1



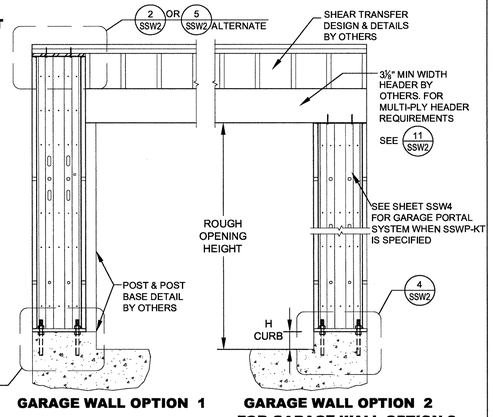
SEE 14/S1 FOR INFORMATION NOT SHOWN

SINGLE-STORY SSW ON CONCRETE 2

GARAGE HEADER ROUGH OPENING HEIGHT

MODEL No.	H CURB	ROUGH OPENING HEIGHT
SSW12x7	5½"	7' - 1½"
SSW15x7		
SSW18x7	6"	7' - 2"
SSW21x7		
SSW24x7		
SSW12x8	5½"	8' - 2¾"
SSW15x8		
SSW18x8	6"	8' - 3½"
SSW21x8		
SSW24x8		

1. THE HEIGHT OF THE GARAGE CURB ABOVE THE GARAGE SLAB IS CRITICAL FOR THE ROUGH HEADER OPENING AT GARAGE RETURN WALLS.
2. SHIMS ARE NOT PROVIDED WITH STEEL STRONG-WALL.
3. FURRING ON UNDERSIDE OF GARAGE HEADER MAY BE NECESSARY FOR LESSER ROUGH OPENING HEIGHTS.

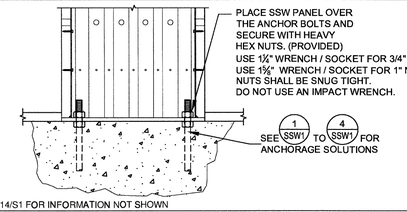


GARAGE WALL OPTION 1 — GARAGE WALL OPTION 2 FOR GARAGE WALL OPTION 2

NOTE:
7-FT. HIGH STEEL STRONG-WALL MODELS ARE 80", 2" TALLER THAN 7-FT. HIGH WOOD STRONG-WALL SHEARWALLS

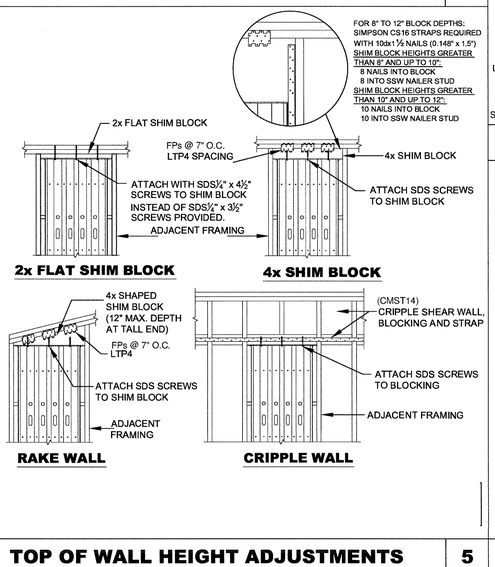
SEE 14/S1 FOR INFORMATION NOT SHOWN

ALTERNATE GARAGE WALL OPTIONS 3

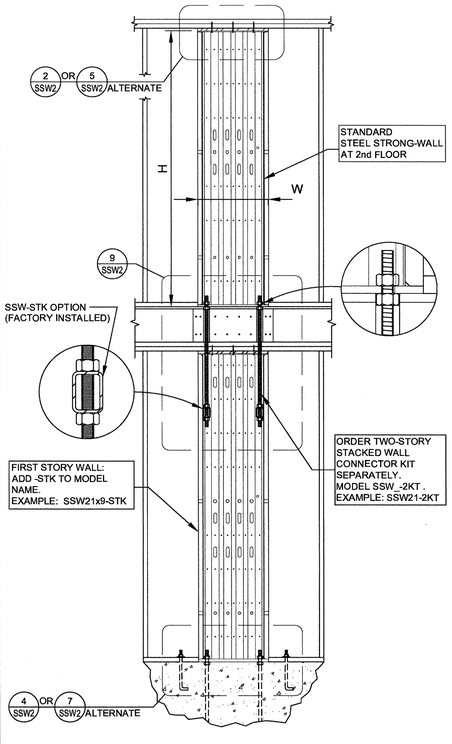


SEE 14/S1 FOR INFORMATION NOT SHOWN

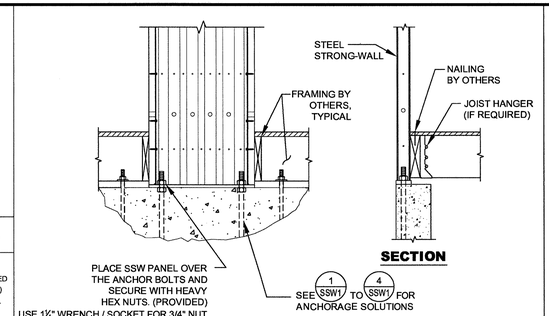
STRONG-WALL ON CONCRETE 4



TOP OF WALL HEIGHT ADJUSTMENTS 5

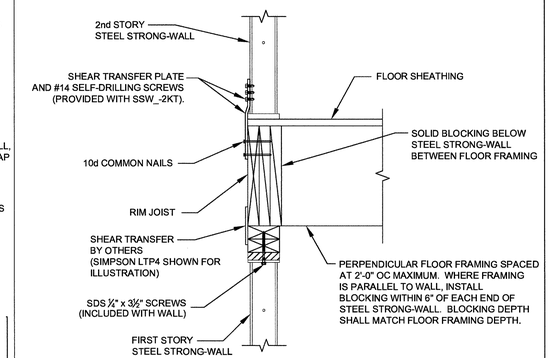


TWO-STORY STACKED 6

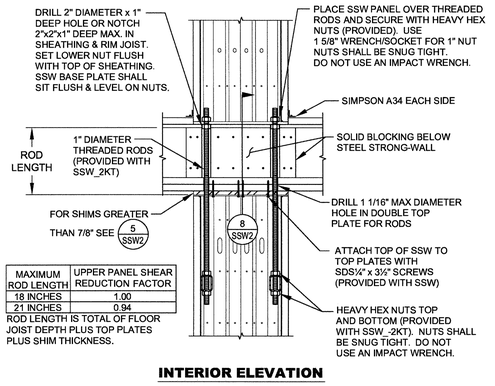


SEE 14/S1 FOR INFORMATION NOT SHOWN

ALTERNATE 1ST FLOOR WOOD FRAMING 7



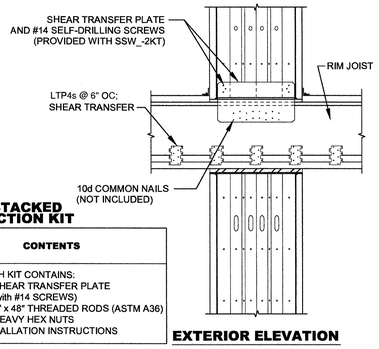
TWO-STORY STACKED FLOOR SECTION 8



MAXIMUM ROD LENGTH	UPPER PANEL SHEAR REDUCTION FACTOR
18 INCHES	1.00
21 INCHES	0.94

ROD LENGTH IS TOTAL OF FLOOR JOIST DEPTH PLUS TOP PLATES PLUS SHIM THICKNESS.

INTERIOR ELEVATION

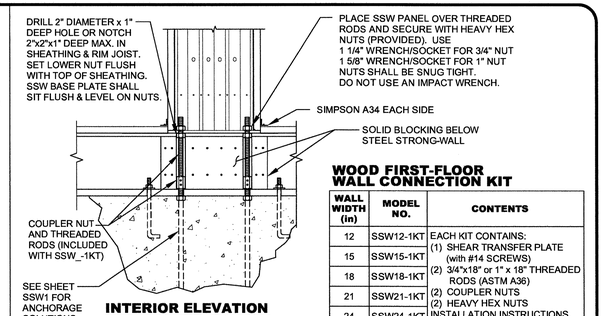


TWO-STORY STACKED WALL CONNECTION KIT

WALL WIDTH (in)	MODEL NO.	CONTENTS
15	SSW15-2KT	EACH KIT CONTAINS: (1) SHEAR TRANSFER PLATE (with #14 SCREWS) (2) 1" x 48" THREADED RODS (ASTM A36) (6) HEAVY HEX NUTS INSTALLATION INSTRUCTIONS
18	SSW18-2KT	
21	SSW21-2KT	
24	SSW24-2KT	

EXTERIOR ELEVATION

TWO-STORY STACKED FLOOR FRAMING 9

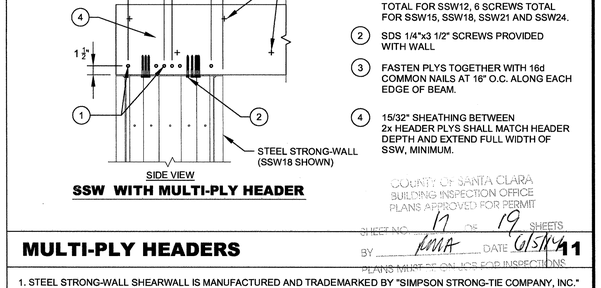


INTERIOR ELEVATION

WOOD FIRST-FLOOR WALL CONNECTION KIT

WALL WIDTH (in)	MODEL NO.	CONTENTS
12	SSW12-1KT	EACH KIT CONTAINS: (1) SHEAR TRANSFER PLATE (with #14 SCREWS) (2) 3/4"x18" or 1" x 18" THREADED RODS (ASTM A36) (2) COUPLER NUTS (2) HEAVY HEX NUTS INSTALLATION INSTRUCTIONS
15	SSW15-1KT	
18	SSW18-1KT	
21	SSW21-1KT	
24	SSW24-1KT	

ORDER FIRST FLOOR CONNECTOR KIT SEPARATELY. MODEL SSW_-1KT . EXAMPLE: SSW21-1KT

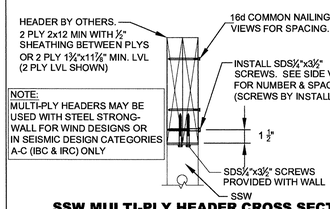


EXTERIOR ELEVATION — SECTION

FIRST FLOOR AT WOOD FRAMING NOTES:
1. USE WOOD FIRST-FLOOR ALLOWABLE LOAD TABLES FROM THE STRONG-WALL CATALOG FOR THIS INSTALLATION.
2. USE ALTERNATE DETAIL 7 SSW2 TO ACHIEVE MAXIMUM ON-CONCRETE ALLOWABLE LOADS.
3. FOR TWO-STORY STACKED STEEL STRONG-WALLS WITH WOOD FIRST FLOOR, USE ALTERNATE DETAIL 7 SSW2.

SEE 14/S1 FOR INFORMATION NOT SHOWN

FIRST FLOOR AT WOOD FRAMING 10



NOTE:
MULTI-PLY HEADERS MAY BE USED WITH STEEL STRONG-WALL FOR WIND DESIGNS OR IN SEISMIC DESIGN CATEGORIES A-C (IBC & IRC) ONLY

SSW MULTI-PLY HEADER CROSS SECTION

SIDE VIEW

SSW WITH MULTI-PLY HEADER

1. INSTALL SDS 1/4"x3 1/2" SCREWS HORIZONTALLY THROUGH LVL OR 2 x LUMBER HEADER PLYS. 4 SCREWS TOTAL FOR SSW12, 6 SCREWS TOTAL FOR SSW15, SSW18, SSW21 AND SSW24.
2. SDS 1/4"x3 1/2" SCREWS PROVIDED WITH WALL
3. FASTEN PLYS TOGETHER WITH 16d COMMON NAILS AT 16" O.C. ALONG EACH EDGE OF BEAM.
4. 15/32" SHEATHING BETWEEN 2x HEADER PLYS SHALL MATCH HEADER DEPTH AND EXTEND FULL WIDTH OF SSW, MINIMUM.

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 17 OF 19 SHEETS
BY AMA DATE 01/31/11
PLANS MUST BE ON JOB FOR INSPECTIONS

MULTI-PLY HEADERS 11

NOTES 12

1. STEEL STRONG-WALL SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY, INC." HOME OFFICE: 5956 W. LAS POSITAS BLVD. , PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY, INC." IS AN ISO 9001 REGISTERED COMPANY.
2. USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
3. THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE SPECIFIER.
4. ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STEEL STRONG-WALL SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE SPECIFIER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
6. INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE SPECIFIER.
7. SIMPSON STRONG-TIE COMPANY, INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
8. ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.

NO.	DATE	REVISIONS

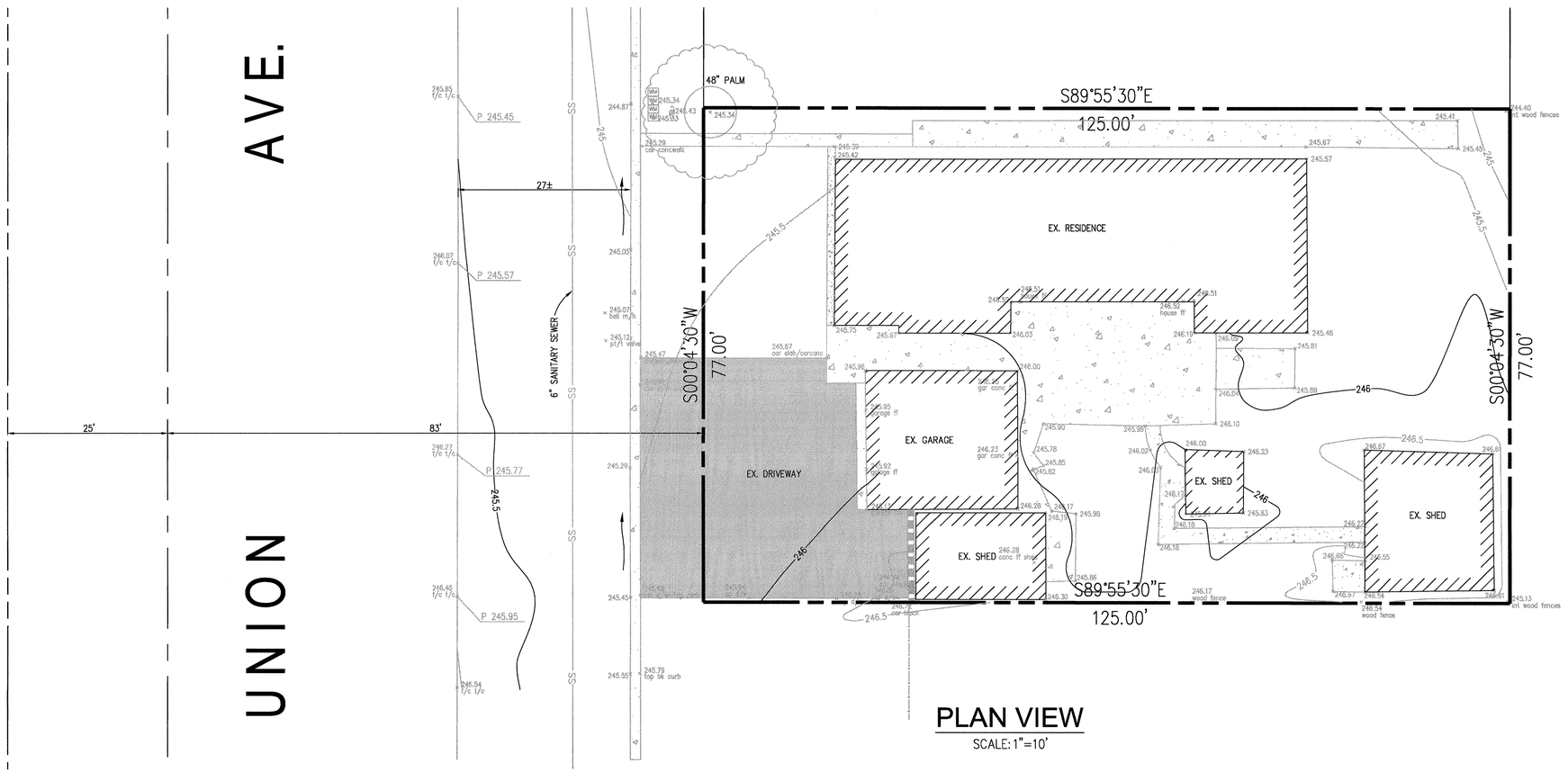
SIMPSON STRONG-TIE COMPANY, INC.
HOME OFFICE: 5956 W. LAS POSITAS BLVD. PLEASANTON, CA 94588 TEL: (800) 999-5099

SIMPSON Strong-Tie® THERE IS NO EQUAL

STEEL STRONG-WALL
FRAMING DETAILS
ENGINEERED DESIGNS

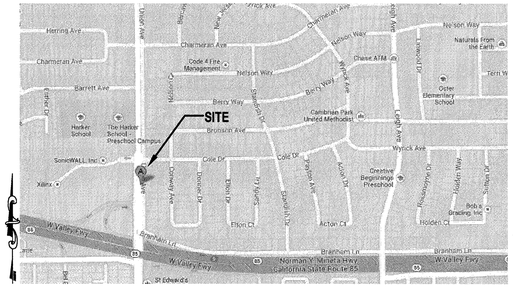
SIMPSON Strong-Tie® THERE IS NO EQUAL

NAME	
DATE	9-21-2009
SCALE	N.T.S.
CHECKED	
SHEET	SSW2
	OF SHEETS
JOB NO.	



PLAN VIEW

SCALE: 1"=10'



VICINITY MAP
N.T.S

ABBREVIATIONS

B/W	BACK OF WALK
BW	BOTTOM WALL
BC	BOTTOM OF CURB
CP	CONTROL POINT
EX	EXISTING
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
G	GROUND
PL	PROPERTY LINE
(P)	PROPOSED
SFNF	SEARCHED FOR NOT FOUND
SSCO	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
SVC	SERVICE
TBR	EX. TREE / TREE WELL TO BE REMOVED
TC	TOP OF CURB
UGND	UNDERGROUND

LEGEND

- EX. CONTOUR MAJOR
- EX. CONTOUR MINOR
- EX. BUILDING, DRIVEWAY
- EX. ELECTRICAL LINE
- EX. GAS LINE
- EX. SANITARY SEWER LINE
- EX. STORM DRAIN LINE
- EX. OVERHEAD WIRE
- EX. CURB & GUTTER
- EX. WOOD FENCE
- EX. WATER
- EXISTING STREET LIGHT BOX
- EXISTING LAMPOLIER
- EXISTING ELECTROLIER/TRAFFIC SIGN
- EXISTING TREE TO BE REMOVED
- PROPOSED SANITARY SEWER
- PROPOSED STORM DRAIN
- PROPOSED GAS
- PROPOSED WATER
- PROPOSED CONTOUR
- PROPOSED BUILDING
- PROPOSED JOINT UTILITIES
- PROPOSED ELECTRICAL LINE
- PROPOSED DECK/PLATER/WALKWAY/DWY
- PROPOSED CURB & GUTTER
- PROPOSED VEGETATION SWALE/FLOW LINE
- BUILDING SETBACK LINES
- PROPERTY LINE
- STREET CENTER LINE

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1" = 10'

TS CIVIL ENGINEERING, INC.
1776 TECHNOLOGY DRIVE
SAN JOSE, CA 95110
PH: 408.452.9300 TOLL FREE: 888.327.7070 FAX: 408.452.9301

TS CIVIL ENGINEERING

BY	REVISIONS	DATE
2	ADDED EX. FH'S, NEW FC'S ON WINCHESTER & KNOWLES	3-7-12

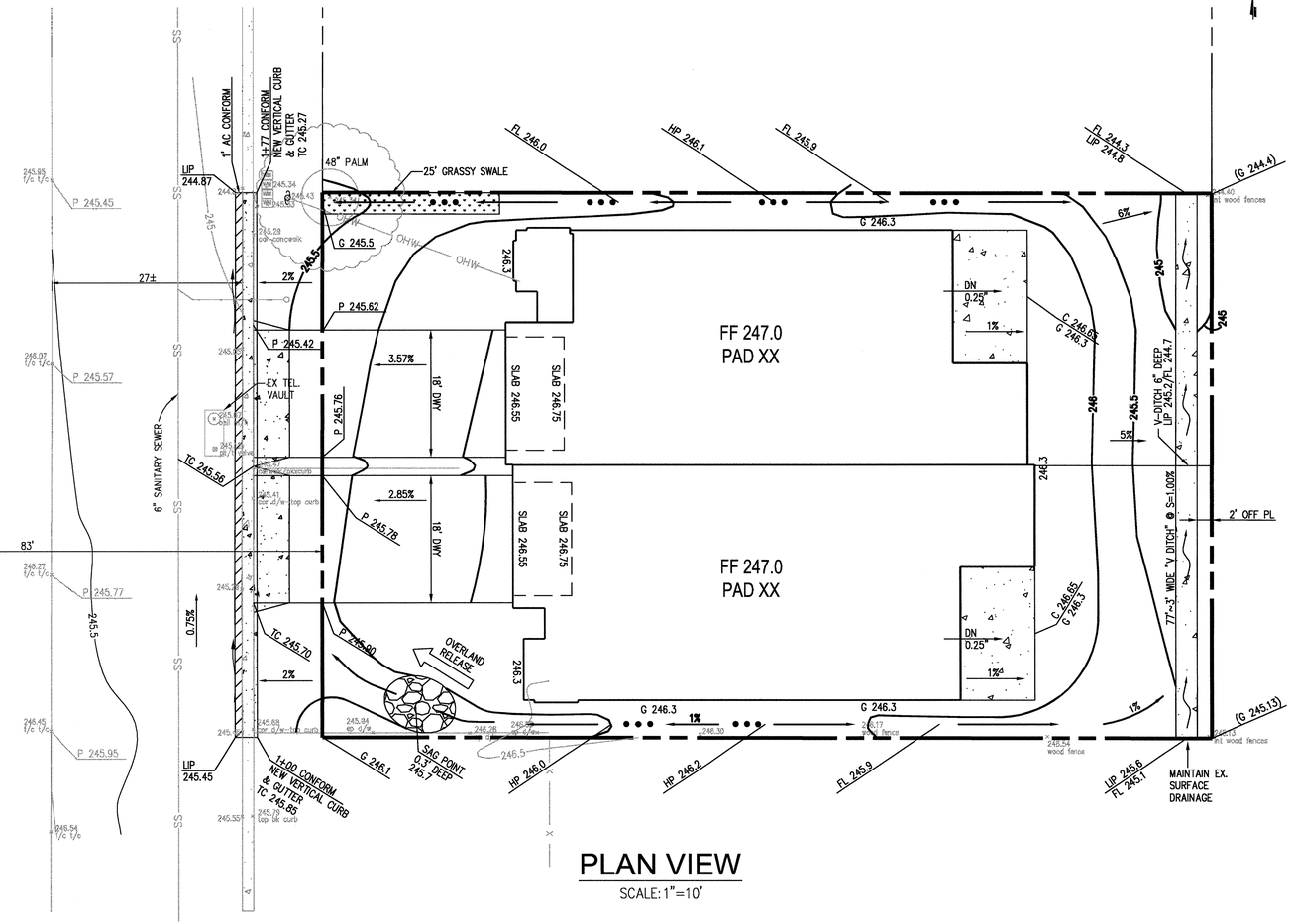
TOPOGRAPHIC/ EXISTING CONDITIONS MAP

[redacted]

DATE:	11/27/13
SCALE:	1"=10'
DRAWN BY:	AC
SURVEYED BY:	HB
PROJ ENGR:	TJS
CHECK BY:	TJS
SHEET NO.	C-1
OF	1 SHEETS
JOB NO.	13-277

AVE.

UNION



PLAN VIEW

SCALE: 1"=10'

SITE

VICINITY MAP
N.T.S

ABBREVIATIONS

B/W	BACK OF WALK
BW	BOTTOM WALL
BC	BOTTOM OF CURB
CA	CONTROL POINT
EX	EXISTING
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
G	GROUND
PL	PROPERTY LINE
(P)	PROPOSED
SFNF	SEARCHED FOR NOT FOUND
SSCO	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
SVC	SERVICE
TBR	EX. TREE / TREE WELL TO BE REMOVED
TC	TOP OF CURB
UGND	UNDERGROUND

LEGEND

- 530 / 534 — EX. CONTOUR MAJOR / MINOR
- EX. BUILDING, DRIVEWAY
- E — E — EX. ELECTRICAL LINE
- G — G — EX. GAS LINE
- SS — SS — EX. SANITARY SEWER LINE
- SD — SD — EX. STORM DRAIN LINE
- OHW — OHW — OHW — EX. OVERHEAD WIRE
- EX. CURB & GUTTER
- X — X — EX. WOOD FENCE
- W — W — EX. WATER
- EXISTING STREET LIGHT BOX
- EXISTING LAMPOLIER
- EXISTING ELECTROLIER/TRAFFIC SIGN
- EXISTING TREE TO BE REMOVED
- SS — PROPOSED SANITARY SEWER
- SD — PROPOSED STORM DRAIN
- G — PROPOSED GAS
- W — W — PROPOSED WATER
- 534 — PROPOSED CONTOUR
- PROPOSED BUILDING
- JT — PROPOSED JOINT UTILITIES
- E — E — PROPOSED ELECTRICAL LINE
- PROPOSED DECK/PLATER/WALKWAY/DWY
- PROPOSED CURB & GUTTER
- PROPOSED VEGETATION SWALE/FLOW LINE
- BUILDING SETBACK LINES
- PROPERTY LINE
- STREET CENTER LINE

LEGAL DESCRIPTION:

LOT 4 OF BLOCK 18–TRACT 845 CAMBRIAN PARK UNIT NUMBER 6, RECORDED JULY 23, 1951, BOOK 34 OF MAPS PAGES 10 & 11, SANTA CLARA COUNTY RECORDS.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1" = 10'

TS CIVIL ENGINEERING, INC.
1776 TECHNOLOGY DRIVE
SAN JOSE, CA 95110
PH: 408.452.9300 TOLL FREE: 888.327.7070 FAX: 408.452.9301

CIVIL ENGINEERING

	BY	REVISIONS	DATE
1			
2			
3			
4			
5			
6			
7			

GRADING & DRAINAGE PLAN

[redacted]

DATE:	12–12–13
SCALE:	1"=10'
DRAWN BY:	AC
SURVEYED BY:	HB
PROJ ENGR:	TJS
CHECK BY:	TJS
SHEET NO.	C-2
OF	1 SHEETS
JOB NO.	13–277

CERTIFICATE OF COMPLIANCE: Residential (Part 4 of 5) CF-1R

Project Name: Union Ave Duplex | Building Type: ☒ Single Family ☐ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration | Date: 2/6/2014

OPAQUE SURFACE DETAILS

Surface Type	Area	U-Factor	Cavity	Exterior	Frame	Interior	Frame	Azm	Tilt	Status	Joint Appendix 4	Location/Comments
Wall	239	0.102	R-13					90	90	New	4.3.1-A3	1ST Floor Unit 2
Wall	535	0.102	R-13					0	90	New	4.3.1-A3	1ST Floor Unit 2
Roof	543	0.031	R-30					90	18	New	4.2.1-A20	1ST Floor Unit 2
Floor	283	0.048	R-19					0	180	New	4.4.2-A4	2ND Floor Unit 2
Wall	259	0.102	R-13					270	90	New	4.3.1-A3	2ND Floor Unit 2
Wall	506	0.102	R-13					180	90	New	4.3.1-A3	2ND Floor Unit 2
Wall	229	0.102	R-13					90	90	New	4.3.1-A3	2ND Floor Unit 2
Wall	58	0.102	R-13					0	90	New	4.3.1-A3	2ND Floor Unit 2
Roof	1,042	0.031	R-30					90	18	New	4.2.1-A20	2ND Floor Unit 2
Roof	407	0.051	R-19					90	18	New	4.2.2-A12	2ND Floor Unit 2

FENESTRATION SURFACE DETAILS

ID	Type	Area	U-Factor[1]		SHGC[2]		Azm	Status	Glazing Type	Location/Comments
17	Window	20.0	0.350	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 1
18	Window	40.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 2
19	Window	12.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 2
20	Window	36.0	0.350	NFRC	0.30	NFRC	180	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 2
21	Window	36.0	0.350	NFRC	0.30	NFRC	180	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 2
22	Window	48.0	0.350	NFRC	0.30	NFRC	180	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 2
23	Window	64.0	0.370	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Door	1ST Floor Unit 2
24	Window	30.0	0.350	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 2
25	Window	30.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 2
26	Window	36.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 2
27	Window	8.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 2
28	Window	30.0	0.350	NFRC	0.30	NFRC	180	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 2
29	Window	8.0	0.350	NFRC	0.30	NFRC	180	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 2
30	Window	20.0	0.350	NFRC	0.30	NFRC	180	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 2
31	Window	6.0	0.350	NFRC	0.30	NFRC	180	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 2
32	Window	64.0	0.370	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Door	2ND Floor Unit 2

(1) U-Factor Type: 116-A = Default Table from Standards, NFRC = Labeled Value
(2) SHGC Type: 116-B = Default Table from Standards, NFRC = Labeled Value

EXTERIOR SHADING DETAILS

ID	Exterior Shade Type	SHGC	Window Hgt	Window Wd	Overhang Len	Overhang Hgt	Overhang LExt	Overhang RExt	Left Fin Dist	Left Fin Len	Left Fin Hgt	Right Fin Dist	Right Fin Len	Right Fin Hgt
17	Bug Screen	0.76												
18	Bug Screen	0.76	8.0	5.0	8.0	0.1	8.0	8.0						
19	Bug Screen	0.76	6.0	2.0	6.0	0.1	6.0	6.0						
20	Bug Screen	0.76												
21	Bug Screen	0.76												
22	Bug Screen	0.76												
23	Bug Screen	0.76	8.0	8.0	9.5	0.1	8.0	8.0						
24	Bug Screen	0.76												
25	Bug Screen	0.76												
26	Bug Screen	0.76												
27	Bug Screen	0.76												
28	Bug Screen	0.76												
29	Bug Screen	0.76												
30	Bug Screen	0.76												
31	Bug Screen	0.76												
32	Bug Screen	0.76												

CERTIFICATE OF COMPLIANCE: Residential (Part 4 of 5) CF-1R

Project Name: Union Ave Duplex | Building Type: ☒ Single Family ☐ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration | Date: 2/6/2014

OPAQUE SURFACE DETAILS

Surface Type	Area	U-Factor	Cavity	Exterior	Frame	Interior	Frame	Azm	Tilt	Status	Joint Appendix 4	Location/Comments
Floor	1,708	0.037	R-19					0	180	New	4.4.1-A4	1ST Floor Unit 1
Wall	78	0.102	R-13					270	90	New	4.3.1-A3	1ST Floor Unit 1
Wall	518	0.102	R-13					0	90	New	4.3.1-A3	1ST Floor Unit 1
Wall	239	0.102	R-13					90	90	New	4.3.1-A3	1ST Floor Unit 1
Wall	535	0.102	R-13					180	90	New	4.3.1-A3	1ST Floor Unit 1
Roof	543	0.031	R-30					90	18	New	4.2.1-A20	1ST Floor Unit 1
Floor	283	0.048	R-19					0	180	New	4.4.2-A4	2ND Floor Unit 1
Wall	259	0.102	R-13					270	90	New	4.3.1-A3	2ND Floor Unit 1
Wall	506	0.102	R-13					0	90	New	4.3.1-A3	2ND Floor Unit 1
Wall	229	0.102	R-13					90	90	New	4.3.1-A3	2ND Floor Unit 1
Wall	58	0.102	R-13					180	90	New	4.3.1-A3	2ND Floor Unit 1
Roof	1,042	0.031	R-30					90	18	New	4.2.1-A20	2ND Floor Unit 1
Roof	407	0.051	R-19					90	18	New	4.2.2-A12	2ND Floor Unit 1
Floor	1,708	0.037	R-19					0	180	New	4.4.1-A4	1ST Floor Unit 2
Wall	78	0.102	R-13					270	90	New	4.3.1-A3	1ST Floor Unit 2
Wall	518	0.102	R-13					180	90	New	4.3.1-A3	1ST Floor Unit 2

FENESTRATION SURFACE DETAILS

ID	Type	Area	U-Factor[1]		SHGC[2]		Azm	Status	Glazing Type	Location/Comments
1	Window	40.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 1
2	Window	12.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 1
3	Window	36.0	0.350	NFRC	0.30	NFRC	0	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 1
4	Window	36.0	0.350	NFRC	0.30	NFRC	0	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 1
5	Window	48.0	0.350	NFRC	0.30	NFRC	0	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 1
6	Window	64.0	0.370	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Door	1ST Floor Unit 1
7	Window	30.0	0.350	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Clear	1ST Floor Unit 1
8	Window	30.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 1
9	Window	36.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 1
10	Window	8.0	0.350	NFRC	0.30	NFRC	270	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 1
11	Window	30.0	0.350	NFRC	0.30	NFRC	0	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 1
12	Window	8.0	0.350	NFRC	0.30	NFRC	0	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 1
13	Window	20.0	0.350	NFRC	0.30	NFRC	0	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 1
14	Window	6.0	0.350	NFRC	0.30	NFRC	0	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 1
15	Window	64.0	0.370	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Door	2ND Floor Unit 1
16	Window	20.0	0.350	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 1

(1) U-Factor Type: 116-A = Default Table from Standards, NFRC = Labeled Value
(2) SHGC Type: 116-B = Default Table from Standards, NFRC = Labeled Value

EXTERIOR SHADING DETAILS

ID	Exterior Shade Type	SHGC	Window Hgt	Window Wd	Overhang Len	Overhang Hgt	Overhang LExt	Overhang RExt	Left Fin Dist	Left Fin Len	Left Fin Hgt	Right Fin Dist	Right Fin Len	Right Fin Hgt
1	Bug Screen	0.76	8.0	5.0	8.0	0.1	8.0	8.0						
2	Bug Screen	0.76	6.0	2.0	6.0	0.1	6.0	6.0						
3	Bug Screen	0.76												
4	Bug Screen	0.76												
5	Bug Screen	0.76												
6	Bug Screen	0.76	8.0	8.0	9.5	0.1	8.0	8.0						
7	Bug Screen	0.76												
8	Bug Screen	0.76												
9	Bug Screen	0.76												
10	Bug Screen	0.76												
11	Bug Screen	0.76												
12	Bug Screen	0.76												
13	Bug Screen	0.76												
14	Bug Screen	0.76												
15	Bug Screen	0.76												
16	Bug Screen	0.76												

PERFORMANCE CERTIFICATE: Residential (Part 3 of 5) CF-1R

Project Name: Union Ave Duplex | Building Type: ☒ Single Family ☐ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration | Date: 2/6/2014

ANNUAL ENERGY USE SUMMARY

TDV (kBtu/ft²-yr)	Standard	Proposed	Margin
Space Heating	19.75	19.95	-0.20
Space Cooling	5.57	3.35	2.23
Fans	4.01	3.82	0.19
Domestic Hot Water	12.52	8.33	4.19
Pumps	0.00	0.00	0.00
Totals	41.85	35.44	6.41
Percent Better Than Standard:			15.3 %

BUILDING COMPLIES - NO HERS VERIFICATION REQUIRED

		Ext. Walls/Roof	Wall Area	Fenestration Area
Building Front Orientation:	(W) 270 deg	(W)	925	252
Number of Dwelling Units:	2.00	(N)	1,800	184
Fuel Available at Site:	Natural Gas	(E)	1,330	396
Raised Floor Area:	3,962	(S)	1,800	184
Slab on Grade Area:	0	Roof	3,992	0
Average Ceiling Height:	10.0		TOTAL:	1,016
Fenestration Average U-Factor:	0.36			
Average SHGC:	0.30		Fenestration/CFA Ratio:	16.1 %

REMARKS

STATEMENT OF COMPLIANCE

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 the Administrative Regulations and Part 6 the Efficiency Standards of the California Code of Regulations.

The documentation author hereby certifies that the documentation is accurate and complete.

Documentation Author

Company: FRI Energy Consultants, LLC
Address: 21 N. Harrison Ave. Suite 210
City/State/Zip: Campbell, CA 95008
Name: Deborah San Luis R06-12-2133
Phone: 408-866-1620
Signed: [signature] Date: 2/6/2014

The individual with overall design responsibility hereby certifies that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application, and recognizes that compliance using duct design, duct sealing, verification of refrigerant charge, insulation installation quality, and building envelope sealing require installer testing and certification and field verification by an approved HERS rater.

Designer or Owner (per Business & Professions Code)

Company: Hometec Architecture, Inc.
Address: 619 North First Street
City/State/Zip: San Jose, CA 95112
Name: Richard A. Hartman
Phone: 408-995-0496
Signed: [signature] License: C-18952 Date: 5/10/14

PERFORMANCE CERTIFICATE: Residential (Part 2 of 5) CF-1R

Project Name: Union Ave Duplex | Building Type: ☒ Single Family ☐ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration | Date: 2/6/2014

SPECIAL FEATURES INSPECTION CHECKLIST

The enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

The Roof R-30 Roof Attic includes credit for a Radiant Barrier that is Continuous meeting eligibility and installation criteria as specified in Residential Appendix RA4.2.2.

HERS REQUIRED VERIFICATION

Items in this section require field testing and/or verification by a certified HERS Rater. The inspector must receive a completed CF-4R form for each of the measures listed below for final to be given.

PERFORMANCE CERTIFICATE: Residential (Part 1 of 5) CF-1R

Project Name: Union Ave Duplex | Building Type: ☒ Single Family ☐ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration | Date: 2/6/2014

Project Address: 14852 Union Ave San Jose | California Energy Climate Zone: CA Climate Zone 04 | Total Cond. Floor Area: 6,313 | Addition: n/a | # of Stories: 2

FIELD INSPECTION ENERGY CHECKLIST

☐ Yes ☒ No HERS Measures -- If Yes, A CF-4R must be provided per Part 2 of 5 of this form.
☒ Yes ☐ No Special Features -- If Yes, see Part 2 of 5 of this form for details.

INSULATION Construction	Type	Cavity	Area (ft²)	Special Features (see Part 2 of 5)	Status
Floor	Wood Framed w/Crawl Space	R-19	3,416		New
Wall	Wood Framed	R-13	4,839		New
Roof	Wood Framed Attic	R-30	3,168	Radiant Barrier	New
Floor	Wood Framed w/o Crawl Space	R-19	566		New
Roof	Wood Framed Rafter	R-19	814		New

FENESTRATION Orientation	Area(ft²)	U-Factor	SHGC	Overhang	Sidefins	Exterior Shades	Status
Front (W)	80.0	0.350	0.30	8.0	none	Bug Screen	New
Front (W)	24.0	0.350	0.30	6.0	none	Bug Screen	New
Left (N)	184.0	0.350	0.30	none	none	Bug Screen	New
Rear (E)	128.0	0.370	0.30	9.5	none	Bug Screen	New
Rear (E)	140.0	0.350	0.30	none	none	Bug Screen	New
Front (W)	148.0	0.350	0.30	none	none	Bug Screen	New
Rear (E)	128.0	0.370	0.30	none	none	Bug Screen	New
Right (S)	184.0	0.350	0.30	none	none	Bug Screen	New

HVAC SYSTEMS Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
2	Central Furnace	90% AFUE	Split Air Conditioner	14.0 SEER	Setback	New
2	Central Furnace	90% AFUE	Split Air Conditioner	14.0 SEER	Setback	New

HVAC DISTRIBUTION Location	Heating	Cooling	Duct Location	Duct R-Value	Status
HVAC System	Ducted	Ducted	Attic, Ceiling Ins, vented	6.0	New
HVAC System	Ducted	Ducted	Attic, Ceiling Ins, vented	6.0	New

WATER HEATING Qty.	Type	Gallons	Min. Eff	Distribution	Status
1	Instant Gas	0	0.92	All Pipes Ins	New
1	Instant Gas	0	0.92	All Pipes Ins	New

MANDATORY MEASURES SUMMARY: Residential (Page 3 of 3) MF-1R

Project Name: Union Ave Duplex | Date: 2/6/2014

§150(k)10: Permanently installed luminaires in bathrooms, attached and detached garages, laundry rooms, closets and utility rooms shall be high efficacy.
EXCEPTION 1: Permanently installed low efficacy luminaires shall be allowed provided that they are controlled by a manual-on occupant sensor certified to comply with the applicable requirements of §119.
EXCEPTION 2: Permanently installed low efficacy luminaires in closets less than 70 square feet are not required to be controlled by a manual-on occupancy sensor.

§150(k)11: Permanently installed luminaires located in rooms or areas other than in kitchens, bathrooms, garages, laundry rooms, closets, and utility rooms shall be high efficacy luimnaires. EXCEPTION 1: Permanently installed low efficacy luminaires shall be allowed provided they are controlled by either a dimmer switch that complies with the applicable requirements of §119, or by a manual-on occupant sensor that complies with the applicable requirements of §119. EXCEPTION 2: Lighting in detached storage building less than 1000 square feet located on a residential site is not required to comply with §150(k)11.

§150(k)12: Luminaires recessed into insulated ceilings shall be listed for zero clearance insulation contact (IC) by Underwriters Laboratories or other nationally recognized testing/rating laboratory; and have a label that certifies the lumiunaire is airtight with air leakage less then 2.0 CFM at 75 Pascals when tested in accordance with ASTM E283; and be sealed with a gasket or caulk between the luminaire housing and ceiling.

§150(k)13: Luminaires providing outdoor lighting, including lighting for private patios in low-rise residential buildings with four or more dwelling units, entrances, balconies, and porches, which are permanently mounted to a residential building or to other buildings on the same lot shall be high efficacy. EXCEPTION 1: Permanently installed outdoor low efficacy luminaires shall be allowed provided that they are controlled by a manual on/off switch, a motion sensor not having an override or bypass switch that disables the motion sensor, and one of the following controls: a photocontrol not having an override or bypass switch that disables the photocontrol; OR an astronomical time clock not having an override or bypass switch that disables the astronomical time clock, OR an energy management control system (EMCS) not having an override or bypass switch that allows the luminaire to be always on EXCEPTION 2: Outdoor luminaires used to comply with Exception1 to §150(k)13 may be controlled by a temporary override switch which bypasses the motion sensing function provided that the motion sensor is automatically reactivated within six hours. EXCEPTION 3: Permanently installed luminaires in or around swimming pool, water features, or other location subject to Article 680 of the California Electric Code need not be high efficacy luminaires.

§150(k)14: Internally illuminated address signs shall comply with Section 148; OR not contain a screw-base socket, and consume no more than five watts of power as determined according to §130(d).

§150(k)15: Lighting for parking lots and carports with a total of for 8 or more vehicles per site shall comply with the applicable requirements in Sections 130, 132, 134, and 147. Lighting for parking garages for 8 or more vehicles shall comply with the applicable requirements of Sections 130, 131, 134, and 146.

§150(k)16: Permanently installed lighting in the enclosed, non-dwelling spaces of low-rise residential buildings with four or more dwelling units shall be high efficacy luminaires. EXCEPTION: Permanently installed low efficacy luminaires shall be allowed provided that they are controlled by an occupant sensor(s) certified to comply with the applicable requirements of §119.

MANDATORY MEASURES SUMMARY: Residential (Page 2 of 3) MF-1R

Project Name: Union Ave Duplex | Date: 2/6/2014

§150(m)1: All air-distribution system ducts and plenums installed, are sealed and insulated to meet the requirements of CMC Sections 601, 602, 603, 604, 605 and Standard 6-5; supply-air and return-air ducts and plenums are insulated to a minimum installed level of R-4.2 or enclosed entirely in conditioned space. Openings shall be sealed with mastic, tape or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than 1/4 inch, the combination of mastic and either mesh or tape shall be used

§150(m)1: Building cavities, support platforms for air handlers, and plenums defined or constructed with materials other than sealed sheet metal, duct board or flexible duct shall not be used for conveying conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms shall not be compressed to cause reductions in the cross-sectional area of the ducts.

§150(m)2D: Joints and seams of duct systems and their components shall not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.

§150(m)7: Exhaust fan systems have back draft or automatic dampers.

§150(m)8: Gravity ventilating systems serving conditioned space have either automatic or readily accessible, manually operated dampers.

§150(m)9: Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Cellular foam insulation shall be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation that can cause degradation of the material.

§150(m)10: Flexible ducts cannot have porous inner cores.

§150(o): All dwelling units shall meet the requirements of ANSI/ASHRAE Standard 62.2-2007 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings. Window operation is not a permissible method of providing the Whole Building Ventilation required in Section 4 of that Standard.

Pool and Spa Heating Systems and Equipment Measures:

§114(a): Any pool or spa heating system shall be certified to have: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater; a permanent weatherproof plate or card with operating instructions; and shall not use electric resistance heating or a pilot light.

§114(b)1: Any pool or spa heating equipment shall be installed with at least 36" of pipe between filter and heater, or dedicated suction and return lines, or built-up connections for future solar heating.

§114(b)2: Outdoor pools or spas that have a heat pump or gas heater shall have a cover.

§114(b)3: Pools shall have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.

§150(p): Residential pool systems or equipment meet the pump sizing, flow rate, piping, filters, and valve requirements of §150(p).

Residential Lighting Measures:

§150(k)1: High efficacy luminaires or LED Light Engine with Integral Heat Sink has an efficacy that is no lower than the efficacies contained in Table 150-C and is not a low efficacy luminaire as specified by §150(k)2.

§150(k)3: The wattage of permanently installed luminaires shall be determined as specified by §130(d).

§150(k)4: Ballasts for fluorescent lamps rated 13 Watts or greater shall be electronic and shall have an output frequency no less than 20 kHz.

§150(k)5: Permanently installed night lights and night lights integral to a permanently installed luminaire or exhaust fan shall contain only high efficacy lamps meeting the minimum efficacies contained in Table 150-C and shall not contain a line-voltage socket or line-voltage lamp holder; OR shall be rated to consume no more than five watts of power as determined by §130(d), and shall not contain a medium screw-base socket.

§150(k)6: Lighting integral to exhaust fans, in rooms other than kitchens, shall meet the applicable requirements of §150(k).

§150(k)7: All switching devices and controls shall meet the requirements of §150(k)7.

§150(k)8: A minimum of 50 percent of the total rated wattage of permanently installed lighting in kitchens shall be high efficacy. EXCEPTION: Up to 50 watts for dwelling units less than or equal to 2,500 ft² or 100 watts for dwelling units larger than 2,500 ft² may be exempt from the 50% high efficacy requirement when: all low efficacy luminaires in the kitchen are controlled by a manual on occupant sensor, dimmer, energy management system (EMCS), or a multi-scene programmable control system; and all permanently installed luminaries in garages, laundry rooms, closets greater than 70 square feet, and utility rooms are high efficacy and controlled by a manual-on occupant sensor.

§150(k)9: Permanently installed lighting that is internal to cabinets shall use no more than 20 watts of power per linear foot of illuminated cabinet.

MANDATORY MEASURES SUMMARY: Residential (Page 1 of 3) MF-1R

Project Name: Union Ave Duplex | Date: 2/6/2014

NOTE: Low-rise residential buildings subject to the Standards must comply with all applicable mandatory measures listed, regardless of the compliance approach used. More stringent energy measures listed on the Certificate of Compliance (CF-1R, CF-1R-ADD, or CF-1R-ALT Form) shall supersede the items marked with an asterisk (*) below. This Mandatory Measures Summary shall be incorporated into the permit documents, and the applicable features shall be considered by all parties as minimum component performance specifications whether they are shown elsewhere in the documents or in this summary. Submit all applicable sections of the MF-1R Form with plans.

Building Envelope Measures:

§116(a)1: Doors and windows between conditioned and unconditioned spaces are manufactured to limit air leakage.

§116(a)4: Fenestration products (except field-fabricated windows) have a label listing the certified U-Factor, certified Solar Heat Gain Coefficient (SHGC), and infiltration that meets the requirements of §10-111(a).

§117: Exterior doors and windows are weather-stripped; all joints and penetrations are caulked and sealed.

§118(a): Insulation specified or installed meets Standards for Insulating Material. Indicate type and include on CF-6R Form.

§118(i): The thermal emittance and solar reflectance values of the cool roofing material meets the requirements of §118(i) when the installation of a Cool Roof is specified on the CF-1R Form.

*§150(a): Minimum R-19 insulation in wood-frame ceiling or equivalent U-factor.

§150(b): Loose fill insulation shall conform with manufacturer's installed design labeled R-Value.

*§150(c): Minimum R-13 insulation in wood-frame wall or equivalent U-factor.

*§150(d): Minimum R-13 insulation in raised wood-frame floor or equivalent U-factor.

§150(f): Air retarding wrap is tested, labeled, and installed according to ASTM E1677-95(2000) when specified on the CF-1R Form.

§150(g): Mandatory Vapor barrier installed in Climate Zones 14 or 16.

§150(l): Water absorption rate for slab edge insulation material alone without facings is no greater than 0.3%; water vapor permeance rate is no greater than 2.0 perm/inch and shall be protected from physical damage and UV light deterioration.

Fireplaces, Decorative Gas Appliances and Gas Log Measures:

§150(e)1A: Masonry or factory-built fireplaces have a closable metal or glass door covering the entire opening of the firebox.

§150(e)1B: Masonry or factory-built fireplaces have a combustion outside air intake, which is at least six square inches in area and is equipped with a with a readily accessible, operable, and tight-fitting damper and or a combustion-air control device.

§150(e)2: Continuous burning pilot lights and the use of indoor air for cooling a firebox jacket, when that indoor air is vented to the outside of the building, are prohibited.

Space Conditioning, Water Heating and Plumbing System Measures:

§110-§113: HVAC equipment, water heaters, showerheads, faucets and all other regulated appliances are certified by the Energy Commission.

§113(c)5: Water heating recirculation loops serving multiple dwelling units and High-Rise residential occupancies meet the air release valve, backflow prevention, pump isolation valve, and recirculation loop connection requirements of §113(c)5.

§115: Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces, household cooking appliances (appliances with an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt), and pool and spa heaters.

§150(h): Heating and/or cooling loads are calculated in accordance with ASHRAE, SMACNA or ACCA.

§150(i): Heating systems are equipped with thermostats that meet the setback requirements of Section 112(c).

§150(j)1A: Storage gas water heaters rated with an Energy Factor no greater than the federal minimal standard are externally wrapped with insulation having an installed thermal resistance of R-12 or greater.

§150(j)1B: Unfired storage tanks, such as storage tanks or backup tanks for solar water-heating system, or other indirect hot water tanks have R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.

§150(j)2: First 5 feet of hot and cold water pipes closest to water heater tank, non-recirculating systems, and entire length of recirculating sections of hot water pipes are insulated per Standards Table 150-B.

§150(j)2: Cooling system piping (suction, chilled water, or brine lines), and piping insulated between heating source and indirect hot water tank shall be insulated to Table 150-B and Equation 150-A.

§150(j)2: Pipe insulation for steam hydronic heating systems or hot water systems >15 psi, meets the requirements of Standards Table 123-A.

§150(j)3A: Insulation is protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind.

§150(j)3A: Insulation for chilled water piping and refrigerant suction lines includes a vapor retardant or is enclosed entirely in conditioned space.

§150(j)4: Solar water-heating systems and/or collectors are certified by the Solar Rating and Certification Corporation.

CERTIFICATE OF COMPLIANCE: Residential (Part 5 of 5) CF-1R

Project Name: Union Ave Duplex | Building Type: ☒ Single Family ☐ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration | Date: 2/6/2014

BUILDING ZONE INFORMATION

System Name	Zone Name	Floor Area (ft²) New	Existing	Altered	Removed	Volume	Year Built
HVAC System	1ST Floor Unit 1	1,708				17,080	
	2ND Floor Unit 1	1,449				14,485	
HVAC System	1ST Floor Unit 1	1,708				17,080	
	2ND Floor Unit 1	1,449				14,485	
	Totals	6,313	0	0	0		

HVAC SYSTEMS

System Name	Qty.	Heating Type	Min. Eff.	Cooling Type	Min. Eff.	Thermostat Type	Status
HVAC System	2	Central Furnace	90% AFUE	Split Air Conditioner	14.0 SEER	Setback	New
HVAC System	2	Central Furnace	90% AFUE	Split Air Conditioner	14.0 SEER	Setback	New

HVAC DISTRIBUTION

System Name	Heating	Cooling	Duct Location	Duct R-Value	Ducts Tested?	Status
HVAC System	Ducted	Ducted	Attic, Ceiling Ins, vented	6.0	☐	New
HVAC System	Ducted	Ducted	Attic, Ceiling Ins, vented	6.0	☐	New

WATER HEATING SYSTEMS

System Name	Qty.	Type	Distribution	Rated Input (Btuh)	Tank Cap. (gal)	Energy Factor or RE	Standby Loss or Pilot	Ext. Tank Insul. R-Value	Status
Takagi T-H1	1	Instant Gas	All Pipes Ins	199,000	0	0.92	n/a	n/a	New
Takagi T-H1	1	Instant Gas	All Pipes Ins	199,000	0	0.92	n/a	n/a	New

MULTI-FAMILY WATER HEATING DETAILS

Control	Qty.	HP	Hot Water Piping Length (ft) Plenum	Outside	Buried	Add ½" Insulation

HYDRONIC HEATING SYSTEM PIPING

System Name	Pipe Length	Pipe Diameter	Insul. Thick.

CERTIFICATE OF COMPLIANCE: Residential (Part 4 of 5) CF-1R

Project Name: Union Ave Duplex | Building Type: ☒ Single Family ☐ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration | Date: 2/6/2014

OPAQUE SURFACE DETAILS

Surface Type	Area	U-Factor	Cavity	Exterior	Frame	Interior	Frame	Azm	Tilt	Status	Joint Appendix 4	Location/Comments

FENESTRATION SURFACE DETAILS

ID	Type	Area	U-Factor[1]		SHGC[2]		Azm	Status	Glazing Type	Location/Comments
33	Window	20.0	0.350	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 2
34	Window	20.0	0.350	NFRC	0.30	NFRC	90	New	Low-E Milgard Tuscany Clear	2ND Floor Unit 2

(1) U-Factor Type: 116-A = Default Table from Standards, NFRC = Labeled Value
(2) SHGC Type: 116-B = Default Table from Standards, NFRC = Labeled Value

EXTERIOR SHADING DETAILS

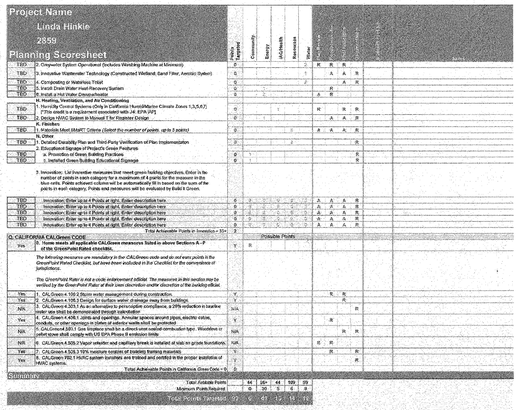
ID	Exterior Shade Type	SHGC	Window Hgt	Window Wd	Overhang Len	Overhang Hgt	Overhang LExt	Overhang RExt	Left Fin Dist	Left Fin Len	Left Fin Hgt	Right Fin Dist	Right Fin Len	Right Fin Hgt
33	Bug Screen	0.76												
34	Bug Screen	0.76												

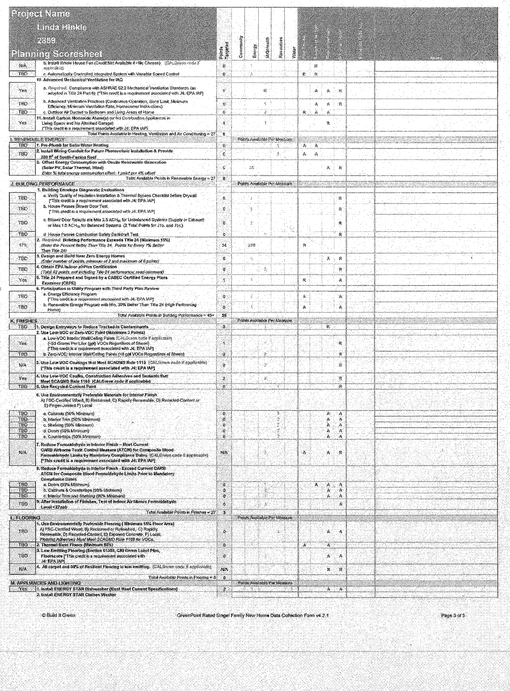
FRI Energy Consultants, LLC
21 N. Harrison Avenue, Suite 210
Campbell, Ca. 95008
Phone: 408-866-1620 Fax: 408-866-6832

UNION AVE DUPLEX [redacted]

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 18 OF 19 SHEETS
BY [signature] DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS

T24-1





County of Santa Clara

Green Building One or Two Family Residential GreenPoint Rated Project Requirements

Use this sheet to track your progress towards certification during construction.

1. Prior to issuance of a Building Permit, a Certified Green Building Rater Plan Review must be completed and verified by signing and dating this sheet and any other applicable plan sheets. The Green Building Rater shall determine the proposed number of points to be obtained and minimum points required according to the County of Santa Clara Green Building Ordinance (summarized in the table below).

Additions ≥ 500 sq. ft. and Remodels with valuation >$100K	Submit GreenPoint Rated Existing Home Checklist (no points required)
New Residences/Rebuilds 1,200 < 3,000 s.f.	GreenPoint Rated or LEED Certification
New Residences & Rebuilds > 3,000 s.f.	GreenPoint Rated + 1 point per 100 sq. ft. Over 3,000 sq. ft. or LEED Certification

2. Incorporate the applicable checklist on this sheet. Indicate the measures you will implement in order to fulfill the minimum standard. It is recommended that you provide at least a three-point margin for credits that might be compromised during construction. Enter the point values in the boxes provided here. Once the permit is issued, this sheet shall remain with the job plan set and retained on site throughout construction.

3. Provide evidence your project has been registered with Build It Green or USGBC. Include Build It Green or USGBC project number on plans.

4. Submit a Title 24 energy calculation with your application. At least 15% above minimum Title 24 standards is a prerequisite for certification.

5. If mid-construction corrections require changes to your checklist or if the number of verified Green Points at final inspection is less than the minimum number of points required, the GreenPoint Rater shall notify the County Building Office as soon as possible.

6. Keep careful documentation regarding the green measures you have chosen. Review supporting documentation and conduct performance testing as needed. Raters are responsible for doing reviews and collecting required information in order to obtain GreenPoint Rated certification for new homes over 1,200 square feet.

7. For GreenPoint Rated, Build It Green reviews reports and supporting documentation and issues a GreenPoint Rated Certificate of Evaluation. For LEED for Homes, certify your project through your LEED for Homes Provider. In either case, obtain an additional certificate for submittal to the County Building Office.
Note: For self-verification, you do not need to submit any proof of certification.

8. Provide a GreenPoint Rated or LEED certificate to the County Building Office. Once a certificate has been received and approved you can schedule your final building inspection.

Verification of Green Building Rater Plan Review

Green Building Rater: Linda Hinkle
Phone: 408-778-5454
Email: seshatdesign@garlic.com
Rater Certification #: 2859
Project Tracking #: SU-14-076

Total Points Proposed: (from Project Checklist) **93**

Total minimum Points Required: (from Project Scoping Form) **84**

To the best of my knowledge, it is my professional opinion the Green Building requirements of the County of Santa Clara will be met for the above referenced project. I have been retained by the project sponsor to review all submittal documents and assure that approved construction documents and construction properly reflect the Green Building requirements of Chapter III Division C3 of the County Ordinance Code. I will notify the County Building Office if I believe that the project will not substantially comply with these green building requirements, or if I am no longer the Green Building Compliance Professional of Record for this project.

Linda Hinkle — 02/26/14
Rater Signature — Date

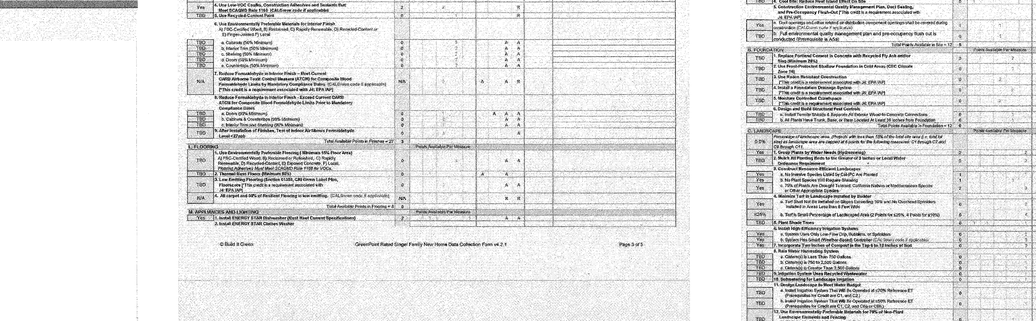
Points Allocation	
Community	6
Energy	41
IAQ/Health	13
Resources	14
Water	19

Final Green Building Verification

Verified Points: (Determined by GreenPoint Rater from Data Collection Form and Certification Documents)

Rater Signature — Date

Points Allocation	
Community	
Energy	
IAQ/Health	
Resources	
Water	



NEW DUPLEX

DATE	FEBRUARY 26, 2014
SCALE	AS SHOWN
JOB NUMBER	BIG 1401
SHEET	BIG-1
OF	SHEETS

COUNTY OF SANTA CLARA
BUILDING INSPECTION OFFICE
PLANS APPROVED FOR PERMIT
SHEET NO. 19 OF 19 SHEETS
BY LMA DATE 6/5/14
PLANS MUST BE ON JOB FOR INSPECTIONS