

**CODE ABBREVIATIONS:**

- "CBC" – California Building Code 2022
- "CRC" – California Residential Code 2022
- "CEC" – California Electrical Code 2022
- "CPC" – California Plumbing Code 2022
- "CMC" – California Mechanical Code2022
- "CEnC" – California Energy Code 2022
- "CALGreen" – California Green Building Standards Code 2022
- "ASCE 7-16" – Americal Society of Civil Engineers
- "SDPWS" – Special Design Provisions for Wind & Seismic 2019

**DEFERRED APPROVALS**

**fire sprinklers**

PROVIDE AN AUTOMATIC FIRE SPRINKLER SYSTEM DESIGNED PER NFPA 13D  
 NOTE: A SEPARATE PERMIT FOR THE SPRINKLER SYSTEM IS APPLIED FOR WITH THE COUNTY FIRE PROTECTION DISTRICT. NO PERMIT WILL BE ISSUED PRIOR TO APPROVAL OF THE FIRE PROTECTION SYSTEMS.

**ENGINEERED TRUSSES**

NOTE: PRIOR TO INSTALLATION OF TRUSSES, TWO COPIES OF THE FOLLOWING MATERIALS BEARIN GHT APPORVAL OF THE DESIGNER(IN THE FORM OF SHOP DRAWING APPROVAL OR SEPARATE LETTER) MUST BE SUBMITTED TO THE BUILDING OFFICIAL FOR REVIEW AT L;EAST 2 WEEKS PRIOR TO FRAME INSPECTION  
 1. TRUSS LAYUOUT DRAWINGS  
 2. TRUSS CALCULATIONS & DETAILS SHOWING AXIAL & BEDNING STRESS & JOINT DESIGNS, CLEARLY INDICATING THAT DESIGN.

**SOLAR PANELS**

PROVIDE A SOLAR SYSTEM DESIGN TO THE COUNTY FOR APPROVAL PRIOR TO INSTALLATION

**LIST OF PROJECT CONSULTANTS**

<b>CIVIL ENGINEERING</b> MAJIT SAINI, P.E. 5890 STONERIDGE DR. SUITE 109 PLEASANTON, CA 94588 408-313-5400	<b>STRUCTURAL ENGINEERING</b> HJH EWNGIEERING JACK HADJIAN 23006 ERWIN ST. WOODLAND, CA 91367 818 519 8572 hjengineering.com	<b>ENERGY COMPLIANCE</b> NRG COMPLIANCE INC. PO Box 3777 Santa Rosa, CA 95402 TEL 707-237-6957
<b>CALGREEN</b> calgreen services gary welch – principal 12849 Cresthaven Drive, Groveland CA 95321 707-328-5299		

**RESIDENCE IS LOCATED WITHIN WILDLAND URBAN INTERFACE ZONE**

- CLASS "A" ROOFING – LIGHTWGT CONC ROOFING – BORAL FLAT SHINGLE – SEE SHEETA8
- WALL CONSTRUCTION SHALL BE PER NOTES AND DETAILS ON SHEETS A13
- MIN. 26 GA GALV VALLEY FLASHING OVER MIN. 36"-WIDE 90# MINERAL-SURFACED NON-PERFORATED CAP SHEET.
- GUTTERS SHALL BE PROVIDED WITH A MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS – MILL-FINISH ALUMINUM GUTTER GUARDS W/ 1/8" SCREENING – SEE SHEET A6.
- ATTIC VENTILATION VENTS SHALL HAVE OPENINGS THAT ARE A MIN. OF 1/16" AND A MAX. OF 1/8", AND SHALL BE NONCOMBUSTIBLE AS WELL AS CORROSION RESISTANT. VULCAN VENTS & O'HAGEN ROOF VENTS – SEE SHEET A6.
- ALL EAVES AND SOFFITS SHALL BE PROTECTED WITH CEMENT PLASTER (STUCCO) TO MATCH WALLS.
- ALL WINDOWS AND EXTERIOR GLAZED DOORS SHALL HAVE A FIRE-RESISTANT RATING OF 20 MINUTES, AND BE GLAZED WITH TEMPERED GLASS.
- DECKING SHALL BE PROTECTED PER CBC PART 2.5, SECTION R337.9 – ALL GROUND-LEVEL PATIOS SHALL BE POURED CONCRETE, AND ALL SECOND-FLOOR WOOD DECKS SHALL BE TILE W/ A MUDBED & MTL LATH OVER A WATERPROOF MEMBRANE – SEE DETAIL 5, SHEET A14. THE EXPOSED-TO-EXTERIOR UNDERSIDE OF ALL ELEVATED WOOD DECKS SHALL HAVE "JAMES HARDIE V- GROOVE" SIDING ATTACHED.
- PRIOR TO RECEIVING BUILDING-PERMIT FINAL APPROVAL, THE PROPERTY SHALL BE MADE TO COMPLY WITH THE VEGETATION MANAGEMENT REQUIREMENTS PRESCRIBED IN THE CALIFORNIA FIRE CODE SECTION 4906, INCLUDING CALIFORNIA PUBLIC RESOURCES CODE 4291 OR CALIFORNIA GOVERNMENT CODE SECTION 51182.

**PROJECT INFORMATION**

OWNER: JAMES LE  
 LOCATION: BELLA MADIERA,  
 SAN JOSE, CA 95127

APN: 654-64-012  
 LOT AREA: 3.73 ACRES  
 ZONING: hs-d1  
 OCCUPANCY: R-3  
 TYPE OF CONSTRUCTION: V-B  
 AUTOMATIC FIRE SPRINKLERS: FIRE  
 SPRINKLERS WILL BE INSTALLED

NUMBER OF STORIES: 3  
 BUILDING HEIGHT (MAXIMUM): 35'  
 BUILDING HEIGHT (ACTUAL): 34'  
 LIVING AREA:  
 LOWER LEVEL S.F.: 971.5  
 MAIN LEVEL S.F.: 2,528.25  
 UPPER LEVEL S.F.: 2,353  
 TOTAL LIVING AREA S.F.: 5,852.75  
 GARAGE SQUARE FOOTAGE: 882  
 TOTAL LIVING AREA+GARAGE: 6734.75  
 PATIO/ROOFED AREAS:  
 LOWER LEVEL COVERED S.F.: 37.75  
 MAIN LEVEL UNCOVERED S.F.: 220.45  
 MAIN LEVEL COVERED S.F.: 374.5  
 UPPER LEVEL UNCOVERED S.F.: 206.7  
 UPPER LEVEL COVERED S.F.: 87.5  
 TOTAL AREA INCLUDING PATIO COVERD AREA S.F.: 7,234.5

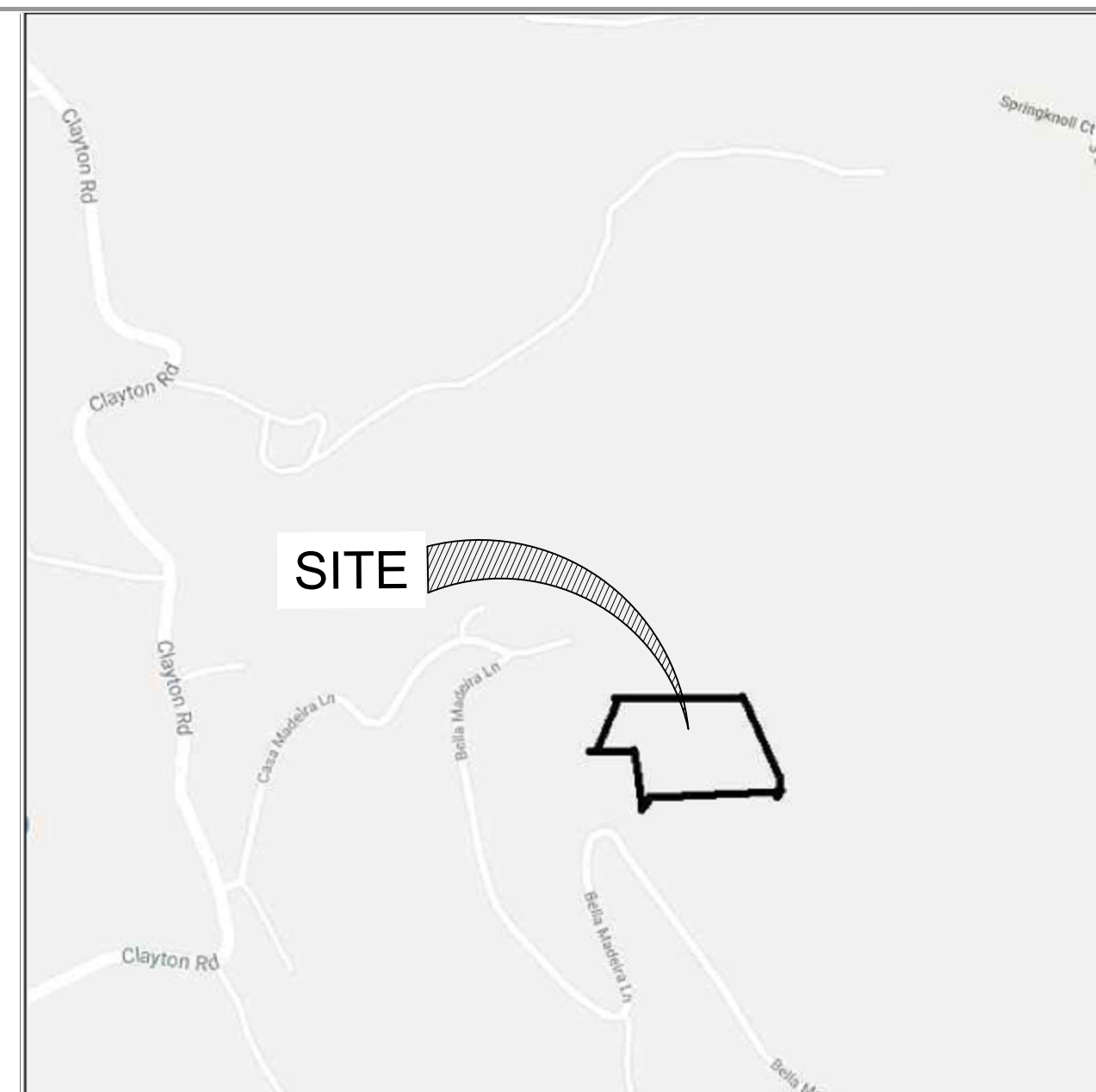
**SCOPE OF WORK**

NEW SINGLE FAMILY RESIDENCE

**HERS REQUIREMENTS**

- BUILDING-LEVEL VERIFICATIONS:  
 •QUALITY INSULATION INSTALLATION (QII)  
 •INDOOR AIR QUALITY VENTILATION  
 •KITCHEN RANGE HOOD  
 COOLING SYSTEM VERIFICATIONS:  
 •MINIMUM AIRFLOW  
 •VERIFIED EER  
 •VERIFIED SEER  
 •VERIFIED REFRIGERANT CHARGE  
 •FAN EFFICACY WATTS/CFM  
 HEATING SYSTEM VERIFICATIONS:  
 •-- NONE --  
 HVAC DISTRIBUTION SYSTEM VERIFICATIONS:  
 •DUCT LEAKAGE TESTING  
 DOMESTIC HOT WATER SYSTEM VERIFICATIONS:  
 •-- NONE --

**VICINITY MAP**



**SHEET INDEX**

SHEET NUMBER	TITLE	SHEET NUMBER	TITLE
A1.0	COVER SHEET	A10	BUILDING SECTION
A1.1	CONDITIONS OF APPROVAL	A11	BUILDING SECTIONS
A1.2	CONDITIONS OF APPROVAL	A12	BUILDING SECTION
	CIVIL ENGINEERING DRAWINGS	A13	DETAILS
G-00	COVER SHEET AND GENERAL NOTES	A14	DETAILS
G-01	EXISTING SITE CONDITIONS	A15	CABINET ELEVATIONS
G-02	TOPOGRAPHIC SURVEY		
G-03	RECORD OF SURVEY		
C-1.0	SITE GRADING KEY PLAN		"TITLE 24" SHEETS
C-1.1	FIRE TURNAROUND PLAN & FIRE HYDRANT LOCATION PLAN	T241	CERTIFICATE OF COMPLIANCE
C-2.0	GRADING & DRAINAGE PLAN (10F2)	T242	CERTIFICATE OF COMPLIANCE
C-2.1	GRADING & DRAINAGE PLAN (20F2)	T243	CERTIFICATE OF COMPLIANCE
C-3.0	DRIVEWAY GRADING /PLAN & PROFILE		STRUCTURAL SHEETS
C-4.0	BUILDING LAYOUT & UTILITIES LOCATION	S1.0	GENERAL NOTES & SPECS
C-5.0	HOUSE PAD SECTION	S1.1	GENERAL NOTES & SPECS
C-6.0	SECTIONS	S1.2	GENERAL NOTES & SPECS
C-7.0	DRIVEWAY CROSS SECTIONS & APPROACH PLAN & PROFILE	S1.3	GENERAL NOTES & SPECS
D-1	GRADING DETAIL	S2.0	SITE RETAINING WALL LAYOOUT
D-2	DETAILS	S2.1	BSMT FOUNDATION PLAN
ESC-1	EROSION CONTROL PLAN	S3	1ST FLR FOUNDATION & FRAMING PLAN
BMP-1	EROSION CONTROL DETAIL-1	S4	2ND FLOOR FRAMING PLAN
BMP-2	EROSION CONTROL DETAIL-2	S5	ROOF FRAMING PLAN
TPZ-1	TREE LOCATION PLAN	S6	STRUCTURAL DETAILS
SWMP	STORMWATER MANAGEMENT PLAN	S6.1	STRUCTURAL DETAILS
LF-1	SHALLOW PRESSURE DIST. SYSTEM	S7	STRUCTURAL DETAILS
LF-2	GENERAL AND CONSTRUCTION NOTES	S8	STRUCTURAL DETAILS
LF-3	GRADING PLAN	S9	STRUCTURAL DETAILS
LF-4	LEACH FIELD SECTION	S10	STRUCTURAL DETAILS
LF-5	LEACH FIELDS DETAILS PERCOLATION		
	TEST SUMMARY	S11	STRUCTURAL DETAILS
LF-6	PROPOSED SUMP PUMP & STORAGE TANK SPECIFICATIONS	HFX-1	ANCHORAGE DETAILS HFX PANELS
LF-7	PROPOSED SUMP PUMP & STORAGE TANK SPECIFICATIONS	HFX-2	FRAMING DETAILS HFX PANELS
L-1	PLANTING AND TREE MITIGATION PLAN		ELECTRICAL SHEETS
L-2	IRRIGATION PLAN		GENERAL NOTES & SPECS
L-3	DETAILS		
A2	FLOOR AREA CALCULATIONS	E1	LOWER LEVEL ELECTRICAL PLAN
A3	LOWER LEVEL FLOOR PLAN	E2	MAIN LEVEL ELECTRICAL PLAN
A4	MAIN LEVEL FLOOR PLAN	E3	UPPER LEVEL ELECTRICAL PLAN
A5	UPPER LEVEL FLOOR PLAN		
A6	ROOF PLAN	CG-1	CHECKLIST & VOC LIMITS
A7	EXTERIOR ELEVATIONS	CG-2	CWM FORMS & RECYCLED CONTENT
A8	EXTERIOR ELEVATIONS	CG-3	POLLUTANT CONTROL FORMS #1
A9	BUILDING SECTION	CG-4	POLLUTANT CONTROL FORMS #2

**ABBREVIATIONS AND INDICATIONS**

A.B. A/C ACC. ALUM BLK C.J. CONC CONT C.I. DF ELEV (E) EXIST EXT F.E. FIN F.O.C. F.O.B. F.O.S. FDN FTG GALV G.I. GYP. BD. H.B. INSUL INT INV M.B. M.C. MIN. MTL N.I.C.	ANCHOR BOLT ASPHALTIC CONC ACCOUSTIC ALUMINUM BLOCK COLD JOINT CONCRETE CONTINUOUS CAST IRON DOUGLAS FIR ELEVATION EXISTING EXISTING EXTERIOR FIRE EXTINGUISHER FINISH FACE OF CONC FACE OF BLOCK FACE OF STUD FOUNDATION FOOTING GALVINIZED GALVINIZED IRON GYPSUM BOARD HOSE BIBB INSULATION INTERIOR INVERT MACHINE BOLT MEDICINE CHEST MINIMUM METAL NOT IN CONTRACT	NTS NOM O/C OPG. LAM PLAS PL GL PLY RDWD RWL SIM TEMP GL T & G T.O.C. T.O.P. TYP UON VGDF W/ WC WWF TH	NOT TO SCALE NOMINAL ON CENTER OPENING LAMINATED PLASTIC PLATE GLASS PLYWOOD REDWOOD RAIN WATER LEADER SIMILAR TEMPERED GLASS TONGUE AND GROOVE TOP OF CURB TOP OF PLATE TYPICAL UNLESSOTHERWISENOTED VERTICAL GRAIN DOUGLAS FIR WITH WATER CLOSET WELDED WIRE FABRIC THRESHOLD	CONCRETE GRAVEL EARTH GYPSUM BOARD INSULATION METAL MASONRY MORTAR, GROUT CEMENT PLASTER PLYWOOD FINISH WOOD ROUGH WOOD
<p>SECTION No.   BUILDING SECTION SHEET No.   DETAIL INDICATION   DOOR INDICATION   WINDOW SYMBOL</p>				

STEVE BENZING ARCHITECT  
 C-17985  
 12103 FREDERICKSBURG  
 SARTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: steve@benzarch.com  
 WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
 BELLA MADIERA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

COVER SHEET

DATE:	9/16/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N.SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
**A1.0**

**ATTACHMENT B  
PRELIMINARY DESIGN REVIEW AND  
GRADING APPROVAL CONDITIONS OF APPROVAL**

**Date:** December 5, 2019  
**Owner/Applicant:** James Le  
**Location:** 0 Bella Madeira Lane, San Jose, CA (APN: 654-64-012)  
**File Number:** PLN17-10706 (10706-17G-17DR)  
**CEQA:** Categorically Exempt – Section 15303, Class 3(a)

**Project Description:** Design Review Approval (Tier 2) and Grading Approval for a 6,735 square-foot single-family residence with attached garage. Associated site improvements include an approximate 500-foot driveway, septic system, and removal of eight (8) trees. Grading consists of approximately 1,745 cubic yards of cut and 670 cubic yards of fill (total 2,415 cubic yards). Approval is based on plans submitted on August 22, 2019.

The proposed single-family residence is an approved building site, pursuant to Tract Map No. 6455. The project does not require coverage by the Santa Clara Valley Habitat Plan.

If you have any question regarding the following final conditions of approval, call the person whose name is listed below as the contact for that agency. She/he represents a specialty and can provide details about the conditions of approval.

Agency	Name	Phone	E-mail
Planning	Xue Ling	(408) 299- 5784	<a href="mailto:xue.ling@pln.sccgov.org">xue.ling@pln.sccgov.org</a>
Environmental Health	Darrin Lee	(408) 299 – 5748	<a href="mailto:darrin.lee@cep.sccgov.org">darrin.lee@cep.sccgov.org</a>
Fire Marshal	Alex Goff	(408) 299 – 5763	<a href="mailto:alex.goff@sccfd.org">alex.goff@sccfd.org</a>
Land Development Engineering	Ed Duazo	(408) 299 - 5733	<a href="mailto:ed.duazo@pln.sccgov.org">ed.duazo@pln.sccgov.org</a>
Geology	Jim Baker	(408) 299 - 5774	<a href="mailto:jim.baker@pln.sccgov.org">jim.baker@pln.sccgov.org</a>
Building Inspection		(408) 299 - 5700	

**STANDARD CONDITIONS OF APPROVAL**

**Building Inspection**  
 1. For detailed information about the requirements for a building permit, obtain a Building Permit Application Instruction handout from the Building Inspection Office or visit the website at [www.sccbuilding.org](http://www.sccbuilding.org).

**Planning**  
 2. Development must take place in substantial conformance with the approved plans, submitted on August 22, 2019 and the Conditions of Approval. Any changes to the proposed project

File PLN17 - 10706 James Le Design Review and Grading Page 1 Zoning Administration Meeting December 5, 2019 Continued Item #1

may result in additional environmental review, pursuant to the California Environmental Quality Act, and additional Planning review.

3. Existing zoning is HS-d1 (Hillsides - Combined Design Review District). Maintain the following minimum dwelling setbacks (Zoning Ordinance Sections 2.20.030):  
 Front: 30 feet Sides: 30 feet Rear: 30 feet  
 The maximum height of dwellings is 35 feet and shall not exceed three (3) stories.

4. Two (2) off-street parking spaces are required, one (1) of which must be covered.

5. With the exception of trim and minor details, the exterior surfaces of the house shall be painted muted colors with a light reflectivity value (LRV) of 45 or lower and shall be consistent with the color samples provided with this approval.

**Grading**  
 6. All on-site grading shall be limited to the work in this Grading Approval and as shown on the approved plans. Grading plans submitted into Plan Check shall be in substantial conformance with the approved plans received August 22, 2019. Any increase in grading quantities, or modification to the grading or design may require a Grading Approval and associated fees, as well as additional environmental review pursuant to the California Environmental Quality Act.

7. Building and grading permits shall be submitted to the Building Inspection Office concurrently.

**Archaeological Resources**  
 8. In the event that human skeletal remains are encountered, the applicant is required by County Ordinance No. B6-18 to immediately notify the County Coroner. Upon determination by the County Coroner that the remains are Native American, the coroner shall contact the California Native American Heritage Commission, pursuant to subdivision (c) of section 7050.5 of the Health and Safety Code and the County Coordinator of Indian Affairs. No further disturbance of the site may be made except as authorized by the County Coordinator of Indian Affairs in accordance with the provisions of state law and this chapter. If artifacts are found on the site a qualified archaeologist shall be contacted along with the County Planning Office. No further disturbance of the artifacts may be made except as authorized by the County Planning Office.

**Land Development Engineer**  
 9. Property owner is responsible for the adequacy of any drainage facilities and for the continued maintenance thereof in a manner that will preclude any hazard to life, health or damage to adjoining property.

**Environmental Health**  
 10. All construction activities shall be in conformance with the Santa Clara County Noise  
 File PLN17 - 10706 James Le Design Review and Grading Page 2 Zoning Administration Meeting December 5, 2019 Continued Item #1

Ordinance Section B11-154 and prohibited between the hours of 7:00 p.m. and 7:00 a.m. on weekdays and Saturdays, or at any time on Sundays for the duration of construction.

**Fire Marshal**  
 11. General Requirements:  
 a. These are minimum Fire Marshal standards. Should these standards conflict with any other local, state or federal requirement, the most restrictive shall apply.  
 b. Construction of access roads and driveways shall use good engineering practice.  
 c. All required access roads, driveways, turnarounds, and turnouts shall be installed, and serviceable prior to approval of the foundation, and shall be maintained throughout construction. A stop work order may be placed on the project if required driving surfaces are not installed, accessible, and/or maintained at all times.

12. Driveways (roads serving only one lot) shall comply with the following when the distance between the centerline of the access road and any portion of the structure exceeds 150 ft. (measured along the path of travel).  
 a. Width: Clear width of drivable surface of 12 feet.  
 b. Vertical Clearance: Minimum vertical clearance of 15 feet shall be maintained between the access road and the building site (trim or remove, tree limbs, electrical wires, structures, and similar improvements).  
 c. Curve Radius: Inside turn radius for curves shall be a minimum of 50 feet.  
 d. Grade: Maximum grade shall not exceed 16%. Grades exceeding 15% shall be paved in compliance with County Standard SD5.  
 e. Surface: All driving surfaces shall be all-weather and capable of sustaining 75,000-pound gross vehicle weight.  
 f. Turnouts: Passing turnouts in compliance with SD-16 shall be provided at every 400 feet and wherever hydrants are placed adjacent to driveways.  
 g. Turnarounds: Turnaround shall be provided for driveways in excess of 150 feet as measured along the path of travel from the centerline of the access road to the structure. Acceptable turnarounds shall be a 40-foot by 48-foot pad, hammerhead, or bulb of 40-foot radius complying with County Standard SD-16. All turnarounds shall have a slope of not more than 5% in any direction.  
 h. Gates: Gates shall not obstruct the required width or vertical clearance of the driveway and may require a Fire Department Lock Box/Gate Switch to allow for fire department access. Installation shall comply with CFMO-A3.

**Miscellaneous:**  
 13. Property is located within the State Response Area (served by Cal Fire).

14. This property is located in the Wildland/Urban Interface Fire Area. All of the following conditions shall apply:  
 a. A Class "A" roof assembly is required. Detail shall be included in plans submitted for building permit.

File PLN17 - 10706 James Le Design Review and Grading Page 3 Zoning Administration Meeting December 5, 2019 Continued Item #1

b. Provide a 1/2-inch spark arrester for the chimney.  
 c. Remove significant combustible vegetation within 30 feet of the structure to minimize risk of wildfire casualty. Maintain appropriate separation of vegetative fuels in areas between 30 feet and 100 feet from the structure.

15. Maintenance: Fire protection water systems and equipment shall be accessible and maintained in operable condition at all times and shall be replaced or repaired where defective. Fire protection water shall be made available to the fire department. Fire department access roads, driveways, turnouts, and turnarounds shall be maintained free and clear and accessible at all times for fire department use. Gates shall be maintained in good working order and shall remain in compliance with Fire Marshal Standard CFMO-A3 at all times.

**CONDITIONS OF APPROVAL TO BE COMPLETED PRIOR TO FINAL GRADING AND BUILDING PERMIT ISSUANCE**

**Planning**  
 16. Prior to issuance of any permits, the applicant shall pay all reasonable costs associated with the work by the Department of Planning and Development.

17. Prior to issuance of a building permit, and pursuant to Zoning Ordinance Section 5.20.125 record a Notice of Permit and Conditions with the County Office of Clerk-Recorder to ensure that successor property owners are aware that certain conditions of approval shall have enduring obligation. Evidence of such recordation shall be provided prior to building permit issuance.

18. Prior to issuance of a building permit, submit final color samples for the house facade, trim and roof indicating the Light Reflectivity Value (LRV) is less than or equal to 45 LRV, pursuant to Zoning Ordinance Section 3.20.040B, consistent with the project, color samples and plans approved at the November 7, 2019 Zoning Administration Hearing.

**Tree Protection**  
 19. Grading and building plans shall clearly identify the size and species of all trees proposed for removal. For each tree Twelve (12)-inches (diameter) or greater designated for removal, replacement shall occur per the County of Santa Clara Guidelines for Tree Protection and Preservation for Land Use Applications. The following tree replacement ratios apply:  
 • For the removal of one small tree (5- 18 inches):  
 (3) 15-gallon trees, or (2) 24-inch box trees.  
 • For the removal of one medium tree (18 – 24 inches):  
 (4) 15-gallon trees or (3) 24-inch box trees.  
 • For the removal of a tree larger than 24 inches  
 (5) 15-gallon trees or (4) 24-inch box trees.  
 The project proposes to remove eight (8) California coastal live oak trees per Tree Removal Plan submitted on August 22, 2019. Based on the size of the trees to be removed,

File PLN17 - 10706 James Le Design Review and Grading Page 4 Zoning Administration Meeting December 5, 2019 Continued Item #1

replacement of twenty-eight (28) 24-inch box California native oak trees are required per the above-mentioned guidelines.

**20. Prior to the issuance of a building permit, submit a final landscape documentation package** for review and approval consistent with the preliminary landscape plan prepared by Pennino Design Group in August 2019, and as approved at the December 5, 2019 Zoning Administration hearing. The submittal shall include a landscape plan, showing the tree location and species, irrigation design and water budget calculation stamped and signed by a licensed landscape architect. The requirements of Division B33 of the County Ordinance Code (Sustainable Landscape Ordinance) shall apply as the total landscape area appears to exceed 2,500 square feet. The landscape ordinance and supporting information can be found on the following web page:  
<https://www.sccgov.org/sites/dpd/PlansOrdinances/Landscape/Pages/welo-apply.aspx>

21. Per County Municipal Code Division C16-3(e), any tree that was required to be planted or retained by the conditions of approval of any land use entitlement are protected trees, regardless the size. The project trees are subject to tree removal and replacement trees. Irrigation system is highly recommended to increase the tree's survival.

22. For all trees to be retained with a canopy in the development area or interfaces with the limits of grading for any proposed development on-site, the trees shall be protected by the placement of five (5)-foot tall rigid tree protective fencing, as shown on final grading and final building plans and must include the following:  
 a. Fencing should be placed along the outside edge of the dripline of the tree or grove of trees.  
 b. The fencing should be maintained throughout the site during the entire construction period and should be inspected periodically for damage and proper functions.  
 c. Fencing should be repaired as necessary to provide a physical barrier from construction activities.  
 d. The following sign shall be placed on all tree protection fencing and must remain until final occupancy. The sign must read: "Warning. This fencing shall not be removed without permission from the Santa Clara County Planning Office. County of Santa Clara tree protection measures may be found at: <http://www.sccplanning.gov>, or call 408-299-5770 for additional details."  
 e. Protection measures must be in place prior to construction activity commencing.  
 f. Evidence of tree protective fencing can be provided by taking photos and emailing to the project planner.

**Landscape Permit**  
 23. The requirements of Division B33 of the County Ordinance Code (Sustainable Landscape Ordinance) shall apply. Calculate square footage of new landscaped area and if it equals or exceeds 500 sq. feet, then a landscaping permit is required. The landscape ordinance and supporting information can be found on the following web page:  
<https://www.sccgov.org/sites/dpd/PlansOrdinances/Landscape/Pages/welo-apply.aspx>

File PLN17 - 10706 James Le Design Review and Grading Page 5 Zoning Administration Meeting December 5, 2019 Continued Item #1

**Land Development Engineering**  
 24. Obtain a Grading Permit from Land Development Engineering (LDE) prior to beginning any construction activities. Issuance of the grading permit is required prior to LDE clearance of the building permit (building and grading permits may be applied for concurrently). The process for obtaining a grading permit and the forms that are required can be found at the following web page:  
[www.sccplanning.org](http://www.sccplanning.org) > I Want to... > Apply for a Permit > Grading Permit  
 If the County Roads and Airports Department provides a condition of approval to obtain an encroachment permit, for your convenience, the grading and encroachment permits will be processed concurrently under one set of improvement (grading) plans. Please contact LDE at (408) 299-5734 for additional information and timelines.

25. Final plans shall include a single sheet which contains the County standard notes and certificates, as shown on County Standard Cover Sheet. Plans shall be neatly and accurately drawn, at an appropriate scale that will enable ready identification and recognition of submitted information.

26. Final improvement plans shall be prepared by a licensed civil engineer for review and approval by LDE and the scope of work shall be in substantial conformance with the conditionally approved preliminary plans on file with the Planning Office. Include plan, profile, typical sections, contour grading for all street, road, driveway, structures and other improvements as appropriate for construction. The final design shall be in conformance with all currently adopted standards and ordinances. The following standards are available on-line:  
 § Standard Details Manual, September 1997, County of Santa Clara, Roads and Airports Department available at:  
[www.sccgov.org/sites/rda](http://www.sccgov.org/sites/rda) > Published Standards, Specifications, Documents and Forms  
 § March 1981 Standards and Policies Manual, Volume 1 (Land Development)  
[www.sccplanning.org](http://www.sccplanning.org) > Plans & Ordinances > Land Development Standards and Policies  
 § 2007 Santa Clara County Drainage Manual  
[www.sccplanning.org](http://www.sccplanning.org) > Plans & Ordinances > Grading and Drainage Ordinance

27. Survey monuments shall be shown on the improvement plan to provide sufficient information to locate the proposed improvements and the property lines. Existing monuments must be exposed, verified and noted on the grading plans. Where existing monuments are below grade, they shall be field verified by the surveyor and the grade shall be restored and a temporary stake shall be placed identifying the location of the found monument. If existing survey monuments are not found, temporary staking delineating the property line may be placed prior to construction and new monuments shall be set prior to final acceptance of the improvements. The permanent survey monuments shall be set pursuant to the State Land Surveyor's Act. The Land Surveyor / Engineer in charge of the boundary survey shall file appropriate records pursuant to Business and Professions Code Section 8762 or 8771 of the Land Surveyors Act with the County Surveyor.

File PLN17 - 10706 James Le Design Review and Grading Page 6 Zoning Administration Meeting December 5, 2019 Continued Item #1

28. The improvement plans shall include an Erosion and Sediment Control Plan that outlines seasonally appropriate erosion and sediment controls during the construction period). Include the County's Standard Best Management Practice Plan Sheets BMP-1 and BMP-2 with the Plan Set.

29. All applicable easements affecting the parcel(s) with benefactors and recording information shall be shown on the improvement plans.

**Drainage**  
 30. Provide a drainage analysis prepared by a licensed civil engineer in accordance with criteria as designated in the 2007 County Drainage Manual (see Section 6.3.3 and Appendix L for design requirements). The on-site drainage will be controlled in such a manner as to not increase the downstream peak flow for the 10-year and 100-year storm event or cause a hazard or public nuisance. The mean annual precipitation is available on the on-line property profile.

**Utilities**  
 31. All new on-site utilities, mains and services shall be placed underground and extended to serve the proposed development. All extensions shall be included in the improvement plans. Off-site work should be coordinated with any other undergrounding to serve other properties in the immediate area.

**Stormwater Treatment – SF Bay Watershed**  
 32. Include one of the following site design measures in the project design: (a) direct hardscape and/or roof runoff onto vegetated areas, (b) collect roof runoff in cisterns or rain barrels for reuse, or (c) construct hardscape (driveway, walkways, patios, etc.) with permeable surfaces. Though only one site design measure is required, it is encouraged to include multiple site design measures in the project design. For additional information, please refer to the C.3 Stormwater Handbook (June 2016) available at the following website:  
[www.scvurpp.org](http://www.scvurpp.org) > Resources > reports and work products > New Development and Redevelopment > C.3 Stormwater Handbook (June 2016)

**Soils and Geology**  
 33. Submit one copy of the signed and stamped of the geotechnical report for the project.

34. Submit a plan review letter by the Project Geotechnical Engineer certifying that the geotechnical recommendation in the above geotechnical report have been incorporated into the improvement plan.

**Notice of Intent**  
 35. Indicate on the improvement plans the land area that will be disturbed. If one acre or more of land area will be disturbed, file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) for coverage under the State General Construction Permit. The SWRCB will issue a Waste Discharge Identification number (WDID). The WDID number

File PLN17 - 10706 James Le Design Review and Grading Page 7 Zoning Administration Meeting December 5, 2019 Continued Item #1

shall be shown on the on the final improvement plans. The SWRCB web site is at: [www.waterboards.ca.gov](http://www.waterboards.ca.gov) > Water Issues > Programs > Stormwater

**Agreements:**  
 36. Submit an Engineer's Estimate of Probable Construction Cost prepared by a registered civil engineer with the all stages of work clearly identified for all improvements and grading as proposed in this application. Pay necessary inspection and plan check fees and provide County with a Certificate of Worker's Compensation Insurance. (C12-206).

**Environmental Health**  
 37. Based upon a percolation rate of 6.3 minutes per inch, sewage conditions have been determined at 190 lineal feet plus 190 lineal feet. This sewage dispersal system shall be designed as a pressure dosing wastewater treatment system, sized to serve a 5-bedroom single family residence (600 gallons per day). The onsite wastewater treatment system (OWTS) shall require a 2,000-gallon septic tank and a 1,500 gallon pump tank.

38. At the time of application for a building permit, submit four (4) revised plot plans to scale (1" = 20') on a grading and drainage plan showing the house, driveway, accessory structures, septic tank and required drainlines to contour in order to obtain a septic system permit. Maintain all setbacks as outlined within County of Santa Clara Onsite Manual. The original plans must be submitted to the field office for sign-off prior to the issuance of the septic system permit, and submitted as the final grading plan to Land Development Engineering when a grading permit is required. Contact Ross Kakinami at 408-918-3479 for sign-off.

39. Submitted grading and drainage plans that show a closed drainage pipe placed over the **proposed dispersal field. Prior to issuance of a building permit, revise drainage plan.** Closed pipe drainage must maintain a minimum of a 10-foot horizontal setback to OWTS.

40. Prior to issuance of a building permit, provide a water will-serve letter from the local water purveyor (Bella Madeira).

**Fire Marshal**  
**Fire Protection Water**  
 Note: Fire protection water system shall be functioning prior to approval of the foundation. System shall be maintained in good working order and accessible throughout construction. A stop work order may be placed on the project if the required hydrant systems are not installed, accessible, and/or functioning.

41. Fire-Flow: The minimum fire-flow shall be 500 gpm at 20 psi. (gpm has been reduced for installation of fire sprinklers). NOTE: the fire flow may be adjusted depending upon the final size of the structures shown on the building permit set of drawings.  
 a. At the time of plan submittal for building permit, provide written verification from the water company that this condition can be satisfied.  
 b. If an existing approved water system is within 300 ft. of the property line, extension

File PLN17 - 10706 James Le Design Review and Grading Page 8 Zoning Administration Meeting December 5, 2019 Continued Item #1

STEVE BENZING ARCHITECT  
 C-17985  
 12103 FREDERICKSBURG  
 SARTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: [steve@benzarch.com](mailto:steve@benzarch.com)  
 WEBSITE: [BENZARCH.COM](http://BENZARCH.COM)

NEW RESIDENCE ON  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

CONDITIONS OF  
 APPROVAL

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N.SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS	
NO.	

SHEET NUMBER  
 A1.1

# GENERAL PROJECT NOTES

- A. THIS WORK SHALL COMPLY WITH ALL 2022 CBC, CFC, CMC, CPC, CEC, 2022 CAL. ENERGY CODE, 2022 CAL. RESIDENTIAL CODE, 2022 CAL GREEN BUILDING STANDARDS CODE AND ALL OTHER REGULATIONS AS AMENDED TO DATES APPROVED BY THE COUNTY OF SANTA CLARA
- B. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. WRITTEN DIMENSIONS ARE APPROXIMATE AND MUST BE VERIFIED BY CONTRACTOR. CONTRACTOR SHALL VERIFY, AND BE RESPONSIBLE FOR, ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO, AND DURING, ALL PHASES OF WORK.
- C. IF THE CONTRACTOR FINDS ANY LACK OF INFORMATION, DISCREPANCY, AND/OR OMISSIONS IN THESE DRAWINGS, OR IF THE CONTRACTOR IS UNCLEAR AS TO THE DRAWINGS' MEANING AND/OR INTENT, THE CONTRACTOR SHALL CONTACT THE ARCHITECT AT ONCE FOR INTERPRETATION AND/OR CLARIFICATION BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. IF ANY SUBCONTRACTOR FINDS ANY LACK OF INFORMATION, DISCREPANCY, AND/OR OMISSIONS IN THESE DRAWINGS, OR IF ANY SUBCONTRACTOR IS UNCLEAR AS TO THE DRAWINGS' MEANING AND/OR INTENT, THAT SUBCONTRACTOR SHALL CONTACT THE GENERAL CONTRACTOR, WHO SHALL THEN CONTACT THE ARCHITECT AT ONCE FOR INTERPRETATION AND/OR CLARIFICATION BEFORE DIRECTING THE SUBCONTRACTOR TO PROCEED WITH THAT PORTION OF THE WORK.
- D. NO CHANGES, MODIFICATIONS, OR DEVIATIONS SHALL BE MADE TO AND/OR FROM THE DRAWINGS AND/OR SPECIFICATIONS WITHOUT FIRST SECURING WRITTEN PERMISSION FROM THE ARCHITECT OR THE OWNER.
- E. ALL MATERIALS USED SHALL BE EQUAL TO, OR EXCEED, ALL APPLICABLE STATE AND LOCAL CODES AND REQUIREMENTS.
- F. THE CONTRACTOR SHALL PROMPTLY AND LEGALLY REMOVE ALL ACCUMULATED DEBRIS DAILY, SHALL PROTECT ALL EXPOSED PORTIONS OF THE WORK FROM WEATHER ELEMENTS, SHALL AVOID OVER-LOADING THE STRUCTURE WITH CONSTRUCTION MATERIALS, AND SHALL SECURELY STORE ALL ITEMS TO BE USED FOR AND IN THE CONSTRUCTION OF THE WORK.
- G. ALL GLASS IN HAZARDOUS AREAS (INCLUDING TUBS AND/OR SHOWERS), ALL GLASS WITHIN 18" OF THE FINISHED FLOOR, AND ALL GLASS WITHIN 24" OF AN OPERABLE DOOR SHALL BE SAFETY GLASS, AND SHALL BE PERMANENTLY LABELED AS SUCH. (CBC SECTION 2406.4)
- H. THE CONTRACTOR SHALL MAINTAIN, KEEP IN SERVICE, AND PROTECT AGAINST DAMAGE, ALL EXISTING UTILITIES AND CITY SERVICES DURING CONSTRUCTION.
- I. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
- J. ALL ELECTRICAL CALCULATIONS AND WIRE SIZES SHALL BE PROVIDED BY A CALIFORNIA-LICENSED ELECTRICAL CONTRACTOR. RECEPTACLE, SWITCH, FIXTURE, AND EQUIPMENT LOCATIONS SHALL BE FOUND ON THE SITE PLAN AND PROPOSED FLOOR PLANS WITHIN THESE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, FIXTURE TYPES, AND EQUIPMENT WITH THE OWNER PRIOR TO PURCHASE AND INSTALLATION.
- K. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION.
- L. ANY EXISTING UTILITIES TO BE ABANDONED SHALL BE PROPERLY DISCONNECTED, PLUGGED, OR CAPPED AS REQUIRED BY CODE AND/OR SOUND CONSTRUCTION PRACTICES.
- M. THE CONTRACTOR SHALL PROVIDE ADEQUATE CONCEALED BLOCKING AND ANCHORING FOR ALL CEILING- AND WALL-MOUNTED EQUIPMENT, HARDWARE, FIXTURES, AND ACCESSORIES.

- N. UNLESS OTHERWISE NOTED, ELECTRICAL CONDUITS, PLUMBING LINES, ETC. SHALL BY RUN IN CONCEALED SPACES, AND ALL FRAMING SHALL BE ADEQUATELY SIZED TO ACCOMPLISH THIS RESULT WITHOUT CAUSING ANY DEFORMATION IN THE WALL PLANE.
- O. INTERIOR DIMENSIONS ARE SHOWN FROM CENTER OF WALL AND EXTERIOR DIMENSIONS ARE SHOWN FROM FACE OF STUD.
- P. EACH BEDROOM SHALL HAVE ONE EXTERIOR EGRESS-COMPLIANT WINDOW OR DOOR THAT IS OPENABLE FROM THE BEDROOM'S INTERIOR WITHOUT THE USE OF A KEY OR SPECIAL TOOLS, KNOWLEDGE, OR EFFORT.
- Q. ALL PRODUCTS LISTED IN THESE DRAWINGS BY ICC/NER NUMBER SHALL BE INSTALLED PER THE REPORT AND MANUFACTURER'S WRITTEN INSTRUCTIONS. PRODUCT SUBSTITUTION FOR PRODUCTS LISTED SHALL ALSO HAVE AN ICC/NER-APPROVED WRITTEN EVALUATION REPORT AND BE APPROVED AND LISTED BY OTHER NATIONALLY-RECOGNIZED TESTING AGENCIES.
- R. EXTERIOR OPENABLE WINDOWS AND DOOR SHALL BE WEATHER-STRIPPED. ALL OPEN JOINTS, PENETRATIONS, AND OTHER OPENINGS IN THE BUILDING ENVELOPE SHALL BE SEALED, CAULKED, GASKETED, AND/OR WEATHER-STRIPPED TO LIMIT, OR ELIMINATE, AIR LEAKAGE.
- S. SEE STRUCTURAL SHEETS FOR PROJECT CONSTRUCTION NOTES AND DETAILS.
- T. SEE ATTACHED TITLE 24 FORMS AND/OR CALCULATIONS FOR PROJECT ENERGY EFFICIENCY REQUIREMENTS.

## FIRE DEPT REQUIREMENTS

1. CONSTRUCTION SITE FIRE SAFETY:  
ALL CONSTRUCTION SITES MUST COMPLY WITH APPLICABLE PROVISIONS OF THE CFC CHAPTER 33 AND OUR STANDARD DETAIL AND SPECIFICATION SI-7. PROVIDE APPROPRIATE NOTATIONS AND SUBSEQUENT PLAN SUBMITTALS, AS APPROPRIATE TO THE PROJECT. CFC CH. 33.
2. WATER SUPPLY REQUIREMENTS:  
POTABLE WATER SUPPLIES SHALL BE PROTECTED FROM CONTAMINATION CAUSED BY FIRE PROTECTION WATER SUPPLIES. IT IS THE RESPONSIBILITY OF THE APPLICANT AND ANY CONTRACTORS AND SUBCONTRACTORS TO CONTACT THE WATER PURVEYOR SUPPLYING THE SITE OF SUCH PROJECT, AND TO COMPLY WITH THE REQUIREMENTS OF THAT PURVEYOR. SUCH REQUIREMENTS SHALL BE INCORPORATED INTO THE DESIGN OF ANY WATER-BASED FIRE PROTECTION SYSTEMS, AND/OR FIRE SUPPRESSION WATER SUPPLY SYSTEMS OR STORAGE CONTAINERS THAT MAY BE PHYSICALLY CONNECTED IN ANY MANNER TO AN APPLIANCE CAPABLE OF CAUSING CONTAMINATION OF THE POTABLE WATER SUPPLY OF THE PURVEYOR OF RECORD. FINAL APPROVAL OF THE SYSTEM(S) UNDER CONSIDERATION WILL NOT BE GRANTED BY THIS OFFICE UNTIL COMPLIANCE WITH THE REQUIREMENTS OF THE WATER PURVEYOR OF RECORD ARE DOCUMENTED BY THAT PURVEYOR AS HAVING BEEN MET BY THE APPLICANT(S). 2016 CFC SEC. 903.3.5 AND HEALTH AND SAFETY CODE 13114.7.
3. ADDRESS IDENTIFICATION.  
NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS, OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. WHERE REQUIRED BY THE FIRE CODE OFFICIAL, ADDRESS NUMBERS SHALL BE PROVIDED IN ADDITIONAL APPROVED LOCATIONS TO FACILITATE EMERGENCY RESPONSE. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL BE A MINIMUM OF 4 INCHES (101.6 MM) HIGH WITH A MINIMUM STROKE WIDTH OF 0.5 INCH (12.7 MM). WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING CANNOT BE VIEWED FROM THE PUBLIC WAY A MONUMENT, POLE, OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. ADDRESS NUMBERS SHALL BE MAINTAINED. CFC SEC. 505.1.

to site is required, provided it is feasible to do so. Contact local water purveyor as soon as possible. If the water company will not grant a water connection, submit official documentation from the water company to that effect.

- c. If the water company provides domestic water, but cannot provide the required hydrant fire-flow, installation of an approved residential fire sprinkler system complying with CFMO-SP6 shall be required throughout.
- d. If fire protection water cannot be supplied from a recognized water purveyor, fire protection water supply shall be provided by on-site aboveground storage tank(s) and wharf hydrant.

**Geology**  
42. Prior to permit issuance, submit a geotechnical engineer's Plan Review Letter that confirms the plans conform with the recommendations presented in the approved report (Langan Treadwell Rollo, dated 7-26-2016).

**CONDITIONS OF APPROVAL TO BE COMPLETED PRIOR TO OCCUPANCY OR ONE YEAR FROM THE DATE OF THE LAND DEVELOPMENT AGREEMENT, WHICHEVER COMES FIRST.**

**Planning**  
43. Prior to final inspection, contact Xue Ling, Assistant Planner, at least a week in advance to schedule a site visit to verify the approved exterior colors and landscaping have been installed, as approved.

**Land Development Engineering**  
44. Existing and set permanent survey monuments shall be verified by inspectors prior to final acceptance of the improvements by the County. Any permanent survey monuments damaged or missing shall be reset by a licensed land surveyor or registered civil engineer authorized to practice land surveying and they shall file appropriate records pursuant to Business and Professions Code Section 8762 or 8771 of the Land Surveyors Act with the County Surveyor.

45. Construct all of the aforementioned improvements. Construction staking is required and shall be the responsibility of the developer.

**Environmental Health**  
46. Prior to building final, provide proof of garbage service at the time of final occupancy sign-off. Garbage service in the unincorporated areas of Santa Clara County is mandatory.

**Fire Marshal**  
47. Fire Sprinkler System: An approved residential fire sprinkler system complying with CFMO-SP6 shall be installed throughout the structure (including existing residences when square footage is added).  
Note: The fire sprinkler system shall be installed and finalized by this office prior to File PLN17 - 10706 Zoning Administration Meeting December 5, 2019 Continued Item #1  
James Le Design Review and Grading Page 9

occupancy. A separate permit shall be obtained from this office by a state licensed C-16 contractor prior to installation. Please allow for a minimum of 30 days for plan review of fire sprinkler plans by this office.

**Geology**  
48. Prior to Final Inspection, submit a Construction Observations Letter that verifies the work was completed in accordance with the approved plans.

STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: ssteve@benzarch.com  
WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

CONDITIONS OF  
APPROVAL, GENERAL &  
MISC. NOTES

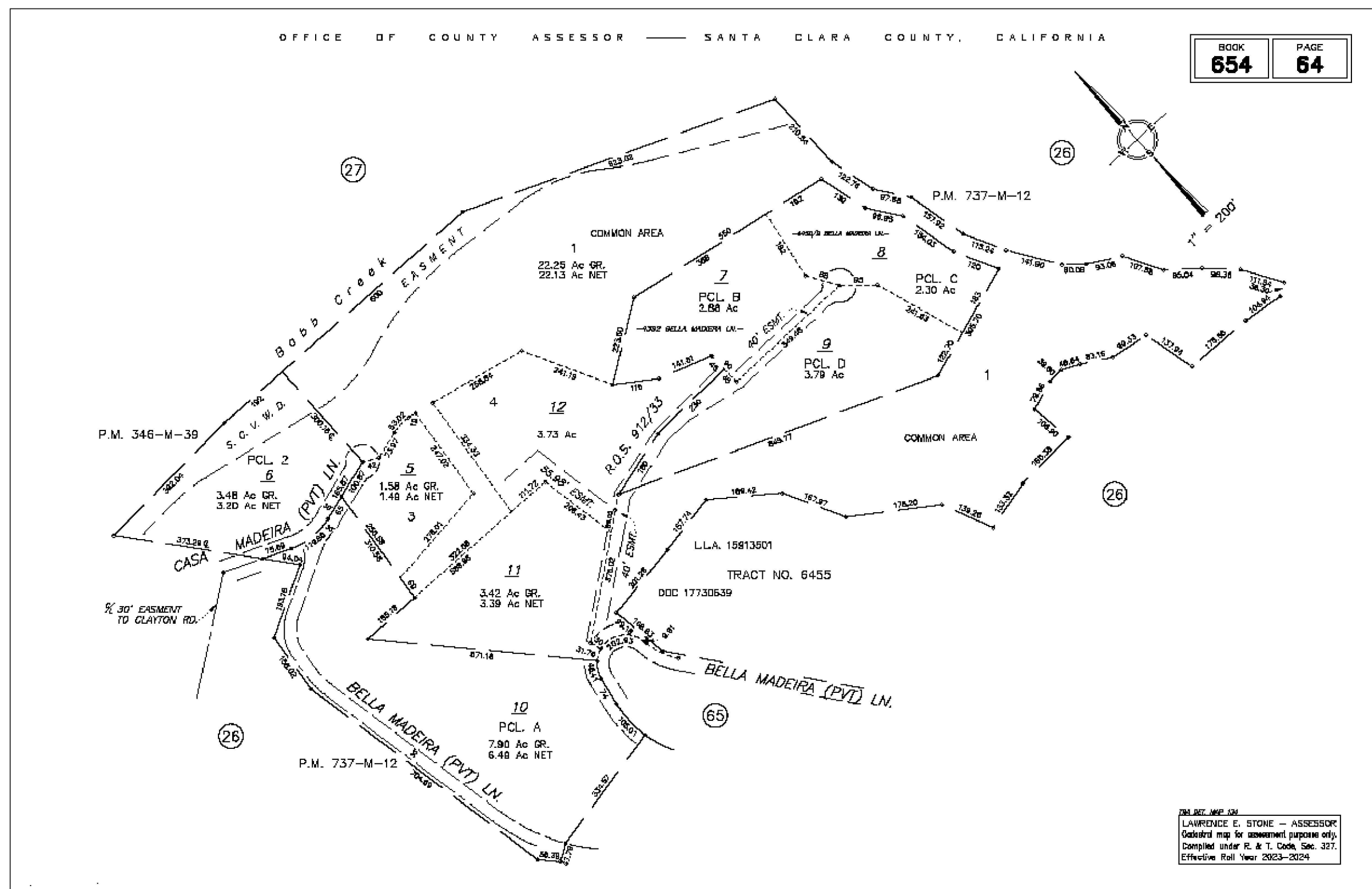
DATE:	9/12/2024	DESIGNED BY:	T. PENG	DRAWN BY:	N. SINGH	CHECKED BY:	M. SAINI	APPROVED BY:	M. SAINI
-------	-----------	--------------	---------	-----------	----------	-------------	----------	--------------	----------

NO.							
-----	--	--	--	--	--	--	--

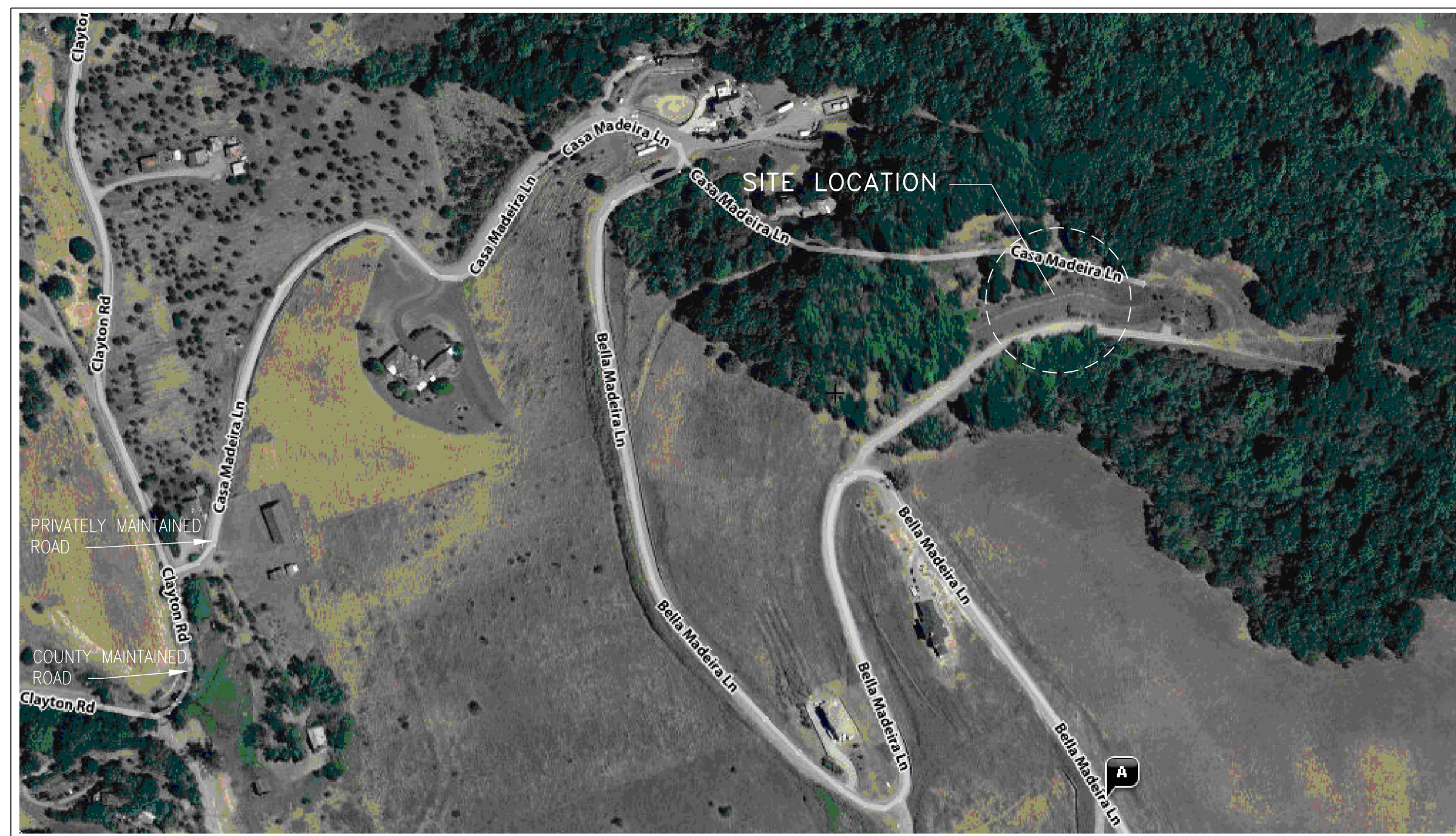
SHEET NUMBER  
**A1.2**



**LEGAL ACCESS AND UTILITY EASEMENT FROM CLAYTON ROAD  
PARCEL MAP. (BOOK NO. 469 O.R. PAGE NO. 150)**



**AERIAL MAP SHOWING ACCESS TO SITE**



**NOTE:**  
FROM CLAYTON ROAD (COUNTY MAINTAINED ROAD) ACCESS TO THIS SITE IS VIA CASA MADEIRA LANE (PRIVATELY MAINTAINED ROAD) THEN TO BELLA MADEIRA LANE (PRIVATELY MAINTAINED ROAD) AS SHOWN ABOVE. SEE LEGAL ACCESS PARCEL MAP.

**PROJECT NOTES**

1. THESE PLANS ARE FOR THE WORK DESCRIBED IN THE SCOPE OF WORK ONLY. A SEPARATE PERMIT WILL BE REQUIRED FOR THE SEPTIC LINE CONSTRUCTION.
2. THIS PLAN AUTHORIZES THE REMOVAL OF ONLY THOSE TREES WITH TRUNK DIAMETERS GREATER THAN 12 INCHES MEASURED 4.5 FEET ABOVE THE GROUND WHICH ARE SHOWN TO BE REMOVED. ANY OTHER SUCH TREES ARE NOT TO BE REMOVED UNLESS AN AMENDED PLAN IS APPROVED OR A SEPARATE TREE REMOVAL PERMIT IS OBTAINED FROM THE PLANNING OFFICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT REMOVAL OF ADDITIONAL TREES HAS BEEN PERMITTED.
3. PRIOR TO GRADING COMPLETION AND RELEASE OF BOND, ALL GRADED AREAS SHALL BE RESESSED IN CONFORMANCE WITH THE COUNTY GRADING ORDINANCE TO MINIMIZE THE VISUAL IMPACTS OF THE GRADED SLOPES AND REDUCE THE POTENTIAL FOR EROSION OF THE SUBJECT SITE.
4. ROADWAYS DESIGNATED AS NOT COUNTY MAINTAINED ROADS AS SHOWN ON THIS PLAN WILL NOT BE ELIGIBLE FOR COUNTY MAINTENANCE UNTIL THE ROADWAYS ARE IMPROVED (AT NO COST OF THE COUNTY) TO PUBLIC MAINTENANCE ROADS STANDARDS APPROVED BY THE BOARD OF SUPERVISORS AND IN EFFECT AT SUCH TIME THAT THE ROADWAYS ARE CONSIDERED FOR ACCEPTANCE INTO THE COUNTY'S ROAD SYSTEM.
5. THE WATER AND SANITARY UTILITIES SHOWN ON THESE PLANS ARE NOT PART OF THIS GRADING PERMIT AND ARE SHOWN FOR REFERENCE ONLY.
6. THE OWNER AND THE PRIME CONTRACTOR ARE RESPONSIBLE FOR MAINTAINING PROJECT SITE ACCESS AND NEIGHBORHOOD ACCESS FOR EMERGENCY VEHICLES AND LOCAL RESIDENTS.

**GENERAL SITE CONDITIONS**

1. THE DEVELOPMENT IS ON SLOPED GROUND.
2. GEOLOGICAL AND GEOTECHNICAL INVESTIGATION ASSESSMENT FOR SITE HAS BEEN COMPLETED, AND SUBMITTED TO COUNTY

**SITE DRAINAGE AND STORM WATER MANAGEMENT**

1. SITE DRAINAGE PATTERN SHALL BE MAINTAINED TO EXISTING CONDITIONS AS MUCH AS PRACTICAL.
2. THE RUNOFF FROM THE DEVELOPED AREA SHALL MATCH THE EXISTING CONDITIONS RUNOFF FOR A 2-YEAR 24 HOUR EVENT. STORAGE SHALL BE PROVIDED TO MAINTAIN THE PEAK FLOW TO PRE-DEVELOPMENT CONDITIONS.

**TREE SURVEY AND REMOVAL**

1. A DETAILED ARBORIST REPORT PREPARED FOR THE TREES TO BE REMOVED BY THIS DEVELOPMENT.
2. THE TREES NOT TO BE REMOVED SHALL BE PROTECTED IN ACCORDANCE WITH COUNTY REQUIREMENTS.

**TOPOGRAPHIC SURVEY**

TOPOGRAPHIC SURVEY FOR THE SITE WAS COMPLETED BY WILSON SURVEY. REFER SHEET G-02

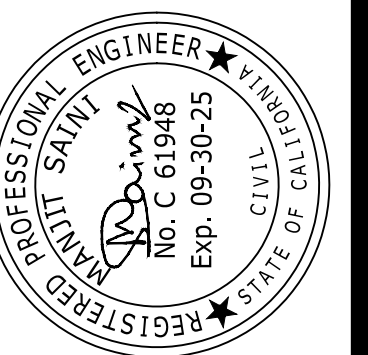
**GEOTECHNICAL NOTES:**

1. NOTIFY SOILS ENGINEER TWO (2) DAYS PRIOR TO COMMENCEMENT OF ANY GRADING AND GEOTECHNICAL WORK TO COORDINATE WORK IN THE FIELD.
2. ALL MATERIALS FOR FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. BEFORE IT IS BROUGHT TO THE SITE.
3. ALL AGGREGATE BASE AND ENGINEERED FILL THAT WILL SUPPORT STRUCTURES OR OTHER SITE IMPROVEMENTS IS TO BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D1557-10 TEST METHOD.
4. UPPER 6" OF THE SUBGRADE SOIL SHALL BE SCARIFIED, MOISTURE CONDITIONED, AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95%.
5. IN ALL PAVEMENT AREAS, THE UPPER 12 INCHES OF ALL TRENCH BACKFILL MUST BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.



JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

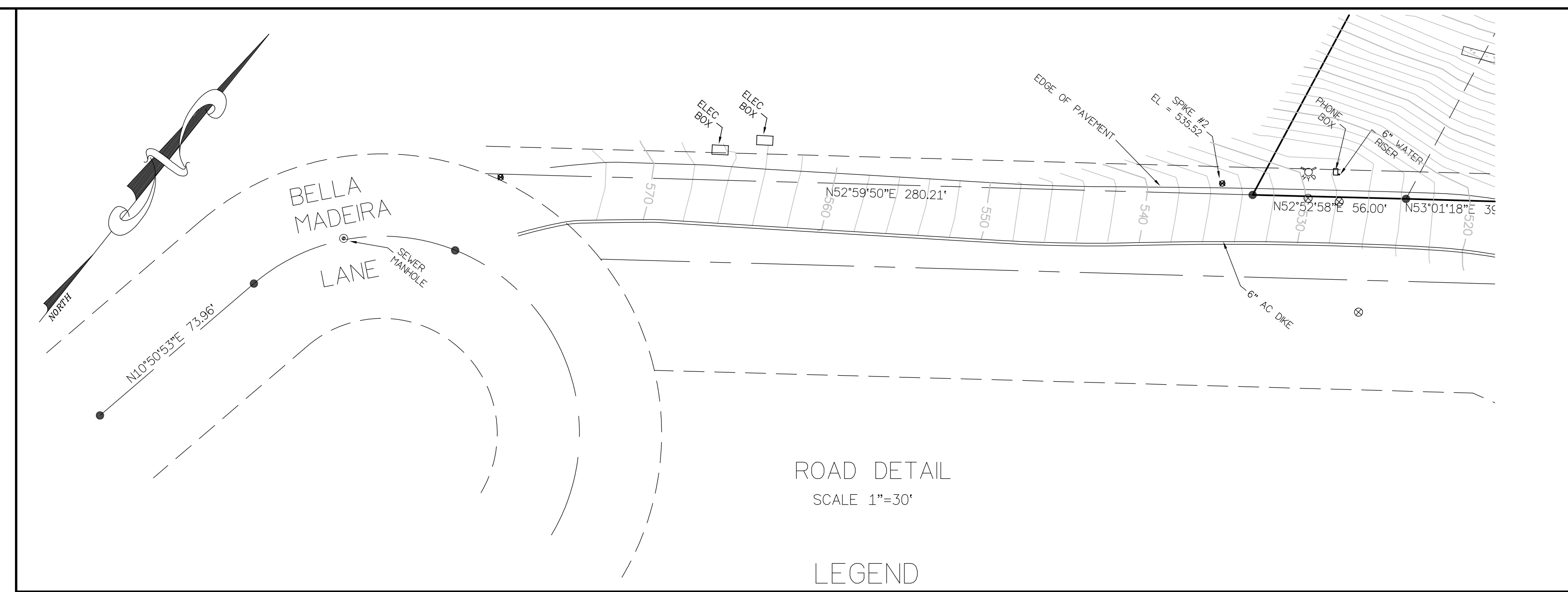
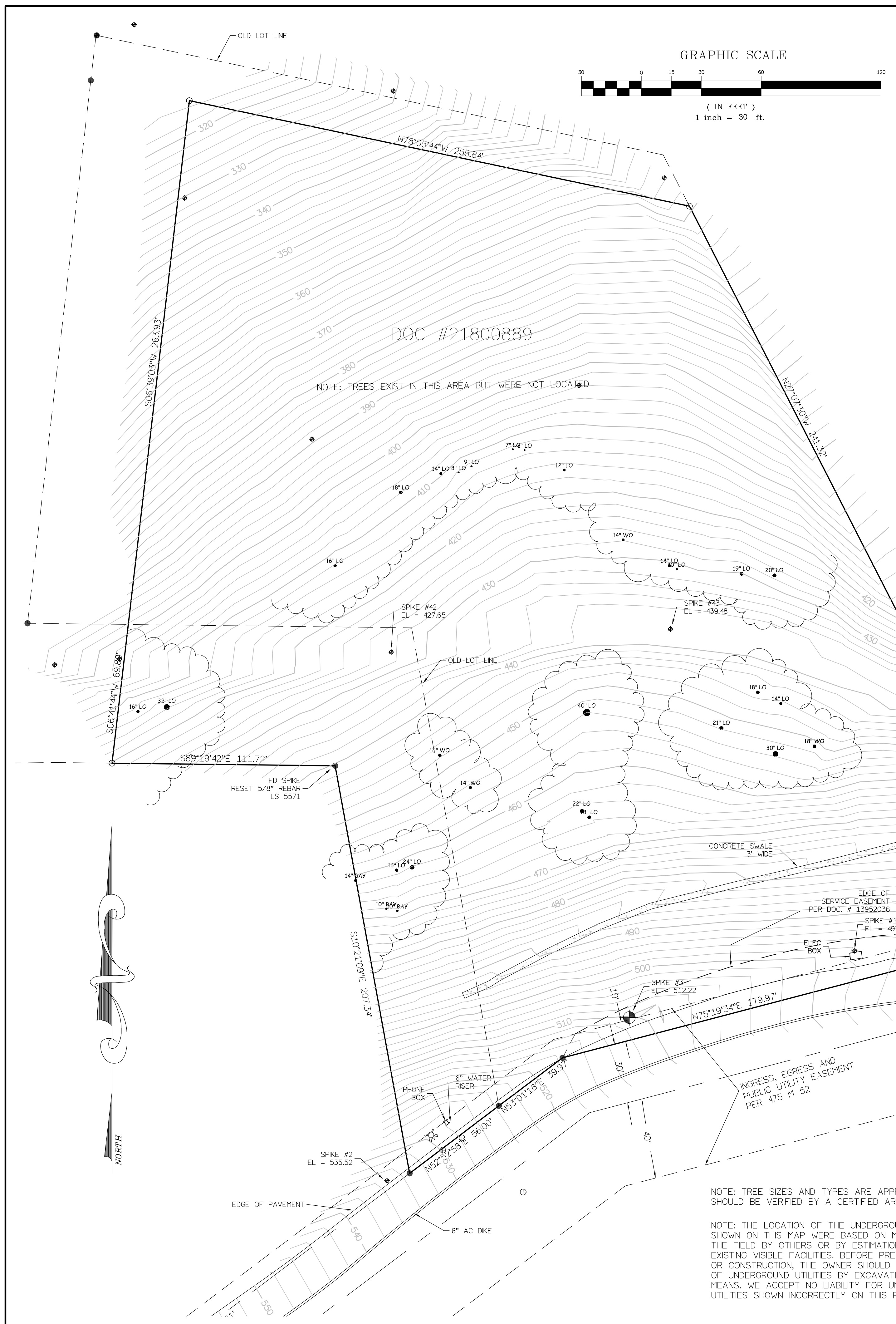
EXISTING SITE CONDITION



DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS	
NO.	
SHEET NUMBER	
G-01	
2 OF 20 SHEETS	

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.



**BASIS OF BEARINGS**  
 FOR THIS SURVEY IS NORTH 48°20'50"W, BEING THE BEARING BETWEEN THE TWO FOUND MONUMENTS AS SHOWN ON THIS MAP, PER 737 M 12.

- LEGEND**
- FOUND 3/4" IRON PIPE REE L5197 UNLESS OTHERWISE NOTED
  - SET 5/8" REBAR LS 5571 UNLESS OTHERWISE NOTED
  - ⊗ FIRE HYDRANT
  - ⊕ WATER VALVE
  - ⊖ WATER METER
  - BLUE PAINT- EVIDENCE OF UG WATER LINE
  - ⊕ GAS METER
  - ⊙ MONITORING WELL
  - G — YELLOW PAINT, EVIDENCE OF UG GAS LINE
  - ⊕ PHONE PEDESTAL
  - ⊕ PHONE BOX
  - ⊕ PHONE MANHOLE
  - P — ORANGE PAINT, EVIDENCE OF UG PHONE LINE
  - ⊕ TRAFFIC SIGNAL CONTROL BOX
  - ⊕ TRAFFIC SIGNAL
  - ⊕ TV BOX
  - TV — ORANGE PAINT, EVIDENCE OF UG TV LINE
  - ⊕ HANDICAP RAMP
  - ⊕ STORM DRAIN MANHOLE
  - ⊕ DROP INLET
  - ⊕ SEWER MANHOLE
  - ⊕ PARKING METER
  - ⊕ SIGN
  - ⊕ CONTROL POINT
  - ⊕ LAMP POST
  - ⊕ ELECTRIC BOX
  - ⊕ WALL
  - ⊕ BOLLARD
  - ⊕ WOOD FENCE

**TOPOGRAPHIC SURVEY**  
**MANJIT SAINI**

LEGAL DESCRIPTION: PORTIONS OF LOTS 1 AND 4 OF TRACT 6455 IN THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA AS RECORDED IN 475 M 52.

APN: 654-64-012  
 DATE: SEPTEMBER 2012

DRAWN BY: KDW SCALE: 1"=30' PROJECT: C-121 JOB NUMBER: C-121 G-02

KENNETH D. WILSON LS 5571

NOTE: TREE SIZES AND TYPES ARE APPROXIMATE AND SHOULD BE VERIFIED BY A CERTIFIED ARBORIST.

NOTE: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THIS MAP WERE BASED ON MARKINGS MADE IN THE FIELD BY OTHERS OR BY ESTIMATION BASED ON EXISTING VISIBLE FACILITIES. BEFORE PREPARING DESIGNS OR CONSTRUCTION, THE OWNER SHOULD VERIFY LOCATION OF UNDERGROUND UTILITIES BY EXCAVATION OR OTHER MEANS. WE ACCEPT NO LIABILITY FOR UNDERGROUND UTILITIES SHOWN INCORRECTLY ON THIS PLAN.

THIS MAP CORRECTLY REPRESENTS A SURVEY DONE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS ACT. THE BOUNDARY LINES SHOWN HEREON ARE BASED ON A BOUNDARY SURVEY DONE BY WILSON LAND SURVEYS.

*Kenneth D. Wilson* 9-30-2012  
 KENNETH D. WILSON LS 5571 DATE

This map was prepared as an instrument of service for the preparation of plans and specifications for construction on the site shown on the map. The information shown herein shall not be used in whole or in part for any other project without written authority of Wilson Land Surveys.

Copyright © 2012 Kenneth D. Wilson Wilson Land Surveys Inc. All rights reserved. Copies of this drawing shall have this notice. Any drawing using the information on this map shall contain the following: "Topographic Survey by Wilson Land Surveys Inc. Gilroy, CA"

Email: [kenw@wilsonlandsurveys.com](mailto:kenw@wilsonlandsurveys.com)  
[www.wilsonlandsurveys.com](http://www.wilsonlandsurveys.com)

**WILSON LAND SURVEYS**  
 747 GAGE COURT GILROY, CA 408-847-7607

THE BENCHMARK FOR THIS SURVEY IS A SPIKE HAVING AN ASSUMED ELEVATION OF 497.72 (#1).

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.

SHEET NO. G-02

**BASIS OF BEARINGS**

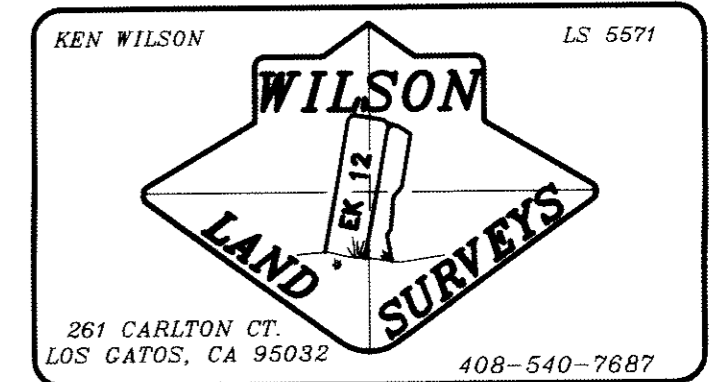
FOR THIS SURVEY IS NORTH 48°20'50"W, BEING THE BEARING BETWEEN THE TWO FOUND MONUMENTS AS SHOWN ON THIS MAP, PER 737 M 12.

REASONS FOR MANDATORY FILING ARE PER LAND SURVEYORS ACT SECTION 8762 (B)(4)

**LEGEND**

- FOUND 3/4" IRON PIPE RCE 5922 PER R-1 UNLESS OTHERWISE NOTED
- SET 5/8" REBAR W/ PLASTIC CAP LS 5571 UNLESS OTHERWISE NOTED
- R-1 475 M 50
- R-2 737 M 12-13
- DD-1 DOC # 21800889
- ( ) RECORD INFORMATION
- SURVEYED PROPERTY LINE
- CENTERLINE
- - - TIE LINE/ORIGINAL LOT LINE

Email: kenw@wilsonlandsurveys.com  
www.wilsonlandsurveys.com



**SURVEYOR'S STATEMENT**

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYORS ACT AT THE REQUEST OF MANJIT SAINI IN OCTOBER, 2017.

*Kenneth D. Wilson* 3-12-2018  
KENNETH D. WILSON LS 5571

**COUNTY SURVEYOR'S STATEMENT**

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE PROFESSIONAL LAND SURVEYORS ACT THIS 9<sup>th</sup> DAY OF April 2018

WILLIAM F. SLEPNIKOFF, COUNTY SURVEYOR  
PLS NO. 5701

BY: *August Hawks*  
AUGUST HAWKS, DEPUTY COUNTY SURVEYOR  
PLS NO. 9274

**RECORDER'S STATEMENT** 2018  
FILED THIS 10 DAY OF April 2018 AT 9:44 A.M. IN BOOK 912 OF MAPS AT PAGE 33, AT THE REQUEST OF KENNETH D. WILSON.  
FILE NO. 23906445 FEE \$83.00

REGINA ALCOMENDRAS, COUNTY RECORDER

BY: *Oscar Quijilla*  
DEPUTY

**RECORD OF SURVEY**

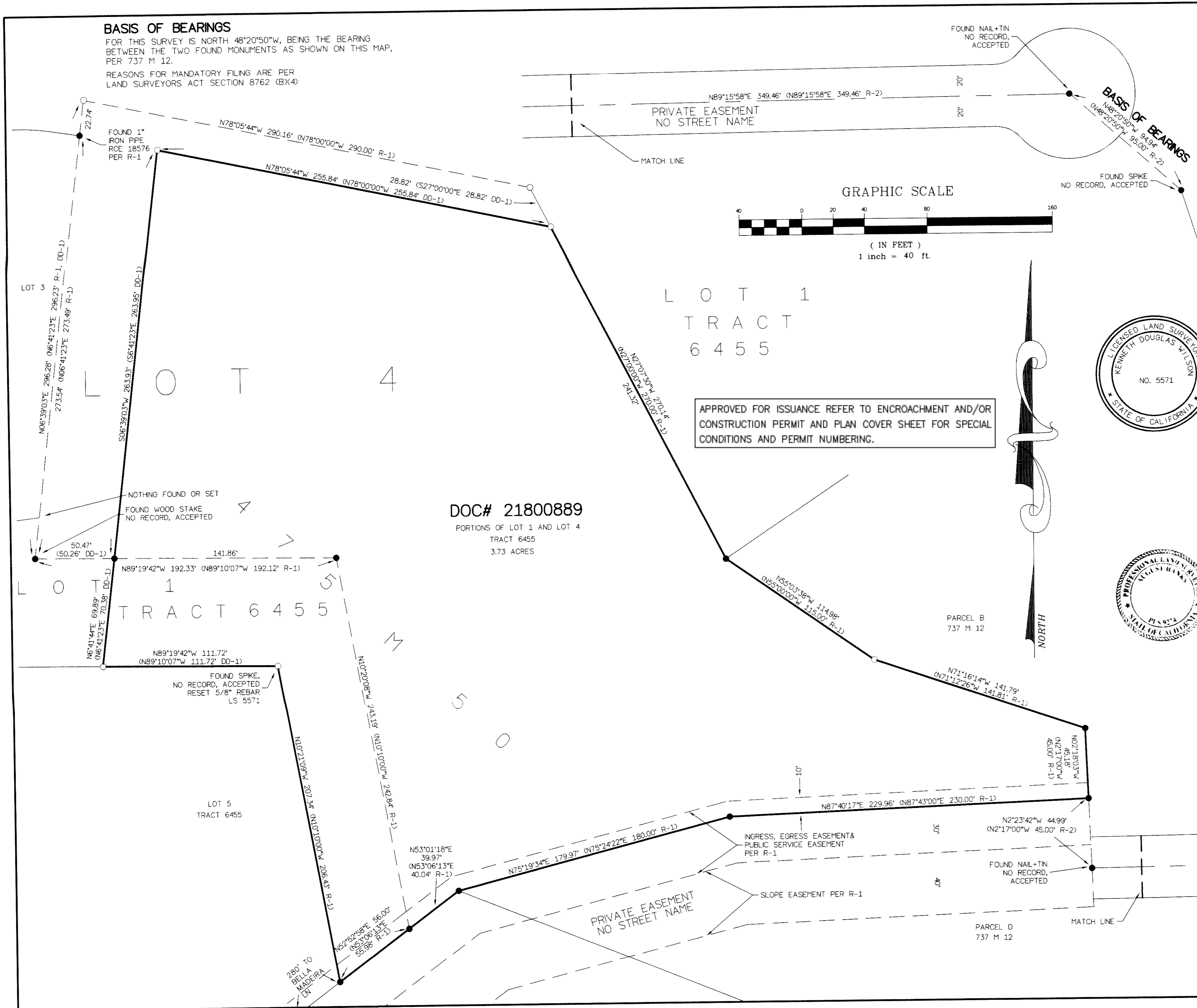
AS REQUESTED BY:  
**MANJIT SAINI**

LEGAL DESCRIPTION: PORTION OF LOTS 1 AND 4 OF TRACT 6455 IN THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA AS DESCRIBED IN DOCUMENT# 21800889 RECORDS OF SAID COUNTY.

APN: 654-64-012  
DATE: OCTOBER 2017  
FILENAME: C-121 SAINI RECORD OF SURVEY  
FIELD BOOK:

DRAWN BY:	SCALE:	PROJECT:	JOB NUMBER:	SHEET:
KTW	1"=40'	C-121	C-121	G-03

SHEET NO. G-03  
4 OF 19 SHEETS



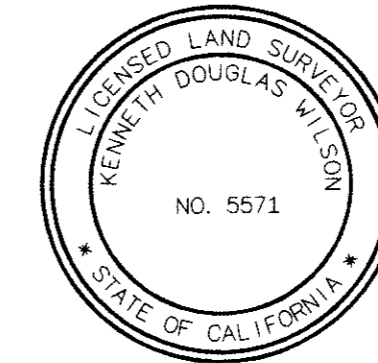
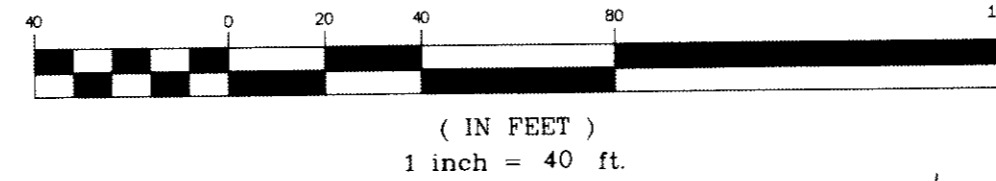
LOT 1  
TRACT  
6455

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.

**DOC# 21800889**

PORTIONS OF LOT 1 AND LOT 4  
TRACT 6455  
3.73 ACRES

GRAPHIC SCALE



23906445

912/  
33

33

APN:  
654-64-005

APN:  
654-64-012

APN:  
654-64-011

**GENERAL NOTES - GRADING WORK**

1. ALL GRADING WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE COUNTY REQUIREMENTS AND GUIDELINES.
2. EROSION PROTECTION SHALL BE IMPLEMENTED ALL THE TIME DURING GRADING WORK.
3. EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OFF-SITE AT AN APPROVED DISPOSAL FACILITY.

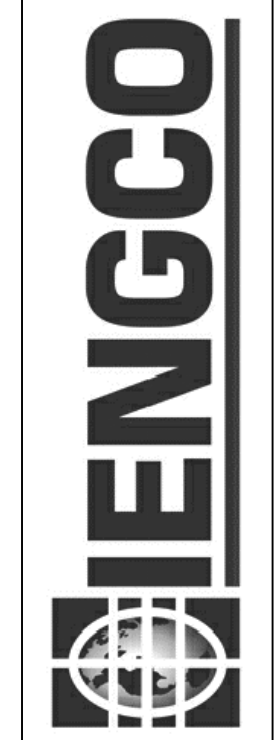
**TREE NOTE:**

1. TREES IDENTIFIED BY ARBORIST.
2. REFER SHEET TPZ-1 FOR TREE REMOVAL.
3. REFER ARBORIST REPORT FOR TREE PROTECTION DETAILS.

ALL EXCAVATION WITH FOUNDATION AND BASEMENT SHOWN IS EXEMPT FROM A GRADING PERMIT ONLY IF THE SPOILS OF EXCAVATION ARE EXPORTED FROM THE SITE AND TAKEN TO A COUNTY APPROVED DUMP FACILITY. TRUCKING MANIFESTS MUST BE PROVIDED TO THE BUILDING OR GRADING INSPECTOR PRIOR TO FOUNDATION CLEARANCE TO DEMONSTRATE THE EXEMPTION. SPREADING OF SPOILS FROM THE BASEMENT AND FOUNDATION ARE NOT ALLOWED WITHOUT AN ISSUED GRADING PERMIT.

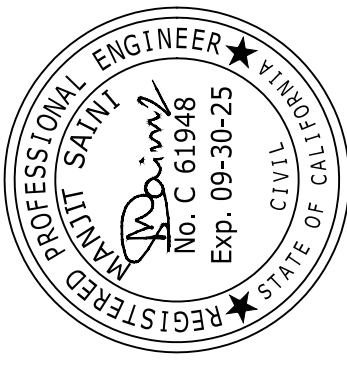
**LEGEND**

- RET. WALL
- BLOCK WALL
- FINISHED GRADE ELEV.
- TOP OF WALL
- BOTTOM OF WALL
- STORM DRAIN
- FINISHED GRADE CONTOURS
- EDGE OF GRADING
- SWALE
- CUT SLOPE
- FILL SLOPE
- CONCRETE
- GRAVEL
- ASPHALT
- LANDSCAPE
- GEOGRID STABILIZED SLOPE
- FLOOR/LAWN DRAIN
- CATCH BASIN
- CROSS DRAIN
- TREE LOCATION



JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

SITE GRADING KEY PLAN



DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS	
NO.	

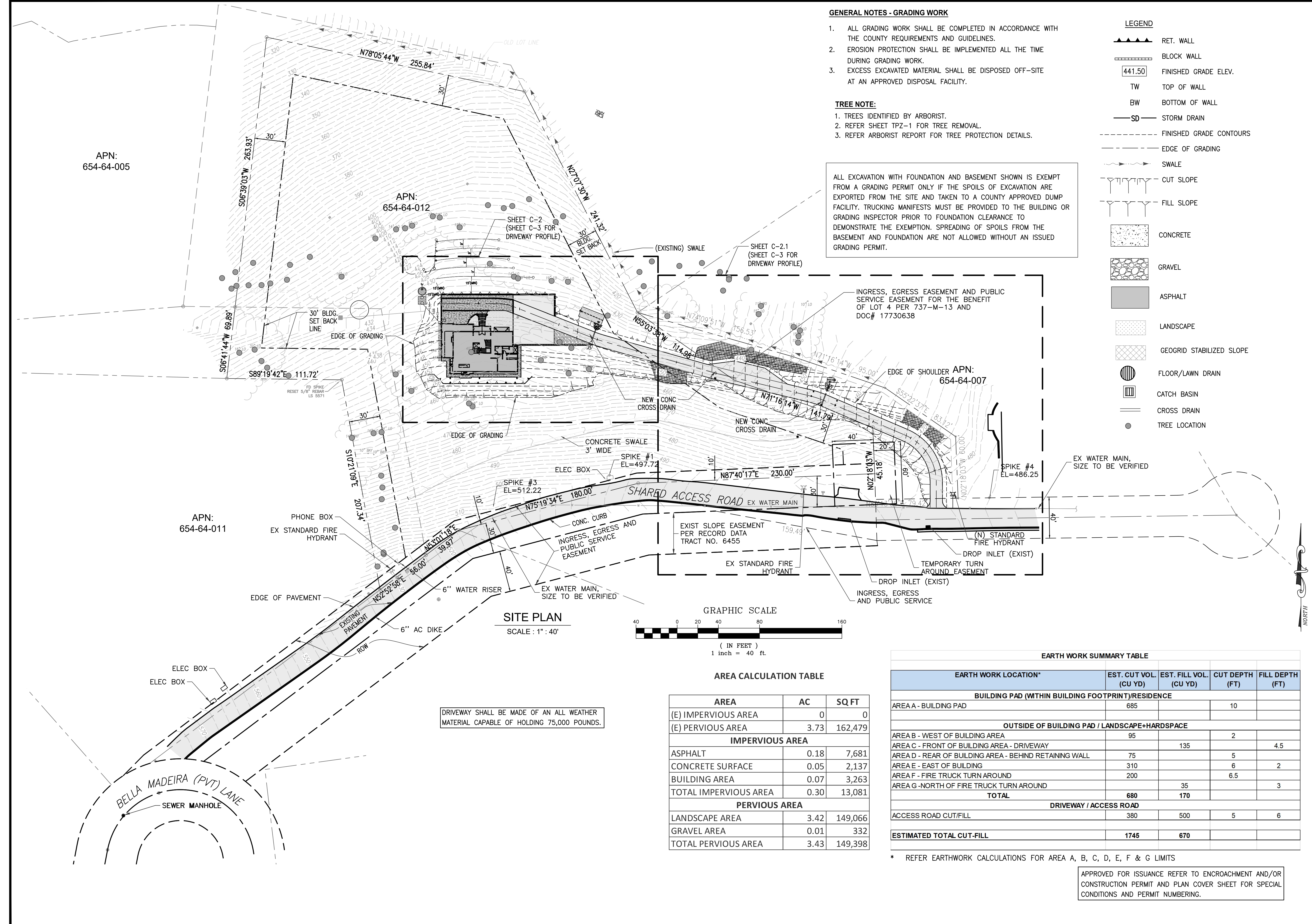
SHEET NUMBER  
**C-1.0**  
5 OF 20 SHEETS

CONSTRUCTION

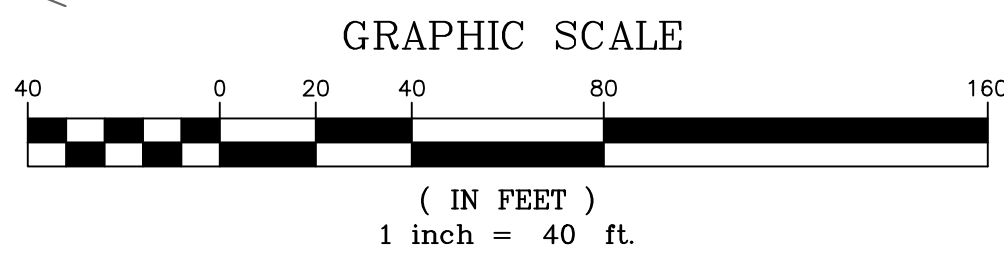
CONSULTATION

ENGINEERING

ARCHITECTURE



**SITE PLAN**  
SCALE: 1" = 40'



**AREA CALCULATION TABLE**

AREA	AC	SQ FT
(E) IMPERVIOUS AREA	0	0
(E) PERVIOUS AREA	3.73	162,479
<b>IMPERVIOUS AREA</b>		
ASPHALT	0.18	7,681
CONCRETE SURFACE	0.05	2,137
BUILDING AREA	0.07	3,263
TOTAL IMPERVIOUS AREA	0.30	13,081
<b>PERVIOUS AREA</b>		
LANDSCAPE AREA	3.42	149,066
GRAVEL AREA	0.01	332
TOTAL PERVIOUS AREA	3.43	149,398

EARTH WORK SUMMARY TABLE				
EARTH WORK LOCATION*	EST. CUT VOL. (CU YD)	EST. FILL VOL. (CU YD)	CUT DEPTH (FT)	FILL DEPTH (FT)
<b>BUILDING PAD (WITHIN BUILDING FOOTPRINT)/RESIDENCE</b>				
AREA A - BUILDING PAD	685		10	
<b>OUTSIDE OF BUILDING PAD / LANDSCAPE+HARDSPACE</b>				
AREA B - WEST OF BUILDING AREA	95		2	
AREA C - FRONT OF BUILDING AREA - DRIVEWAY		135		4.5
AREA D - REAR OF BUILDING AREA - BEHIND RETAINING WALL	75		5	
AREA E - EAST OF BUILDING	310		6	2
AREA F - FIRE TRUCK TURN AROUND	200		6.5	
AREA G - NORTH OF FIRE TRUCK TURN AROUND		35		3
<b>TOTAL</b>	<b>680</b>	<b>170</b>		
<b>DRIVEWAY / ACCESS ROAD</b>				
ACCESS ROAD CUT/FILL	380	500	5	6
<b>ESTIMATED TOTAL CUT-FILL</b>	<b>1745</b>	<b>670</b>		

\* REFER EARTHWORK CALCULATIONS FOR AREA A, B, C, D, E, F & G LIMITS

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.

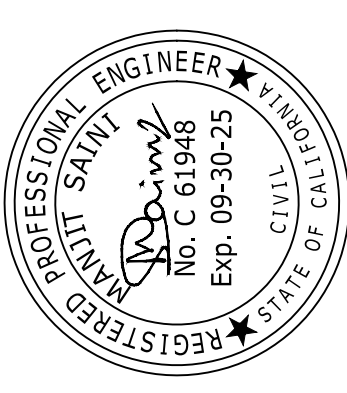
DRIVEWAY SHALL BE MADE OF AN ALL WEATHER MATERIAL CAPABLE OF HOLDING 75,000 POUNDS.





JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

FIRE TRUCK TURNAROUND AND  
FIRE HYDRANT LOCATION PLAN



DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
**C-1.1**  
6 OF 20 SHEETS

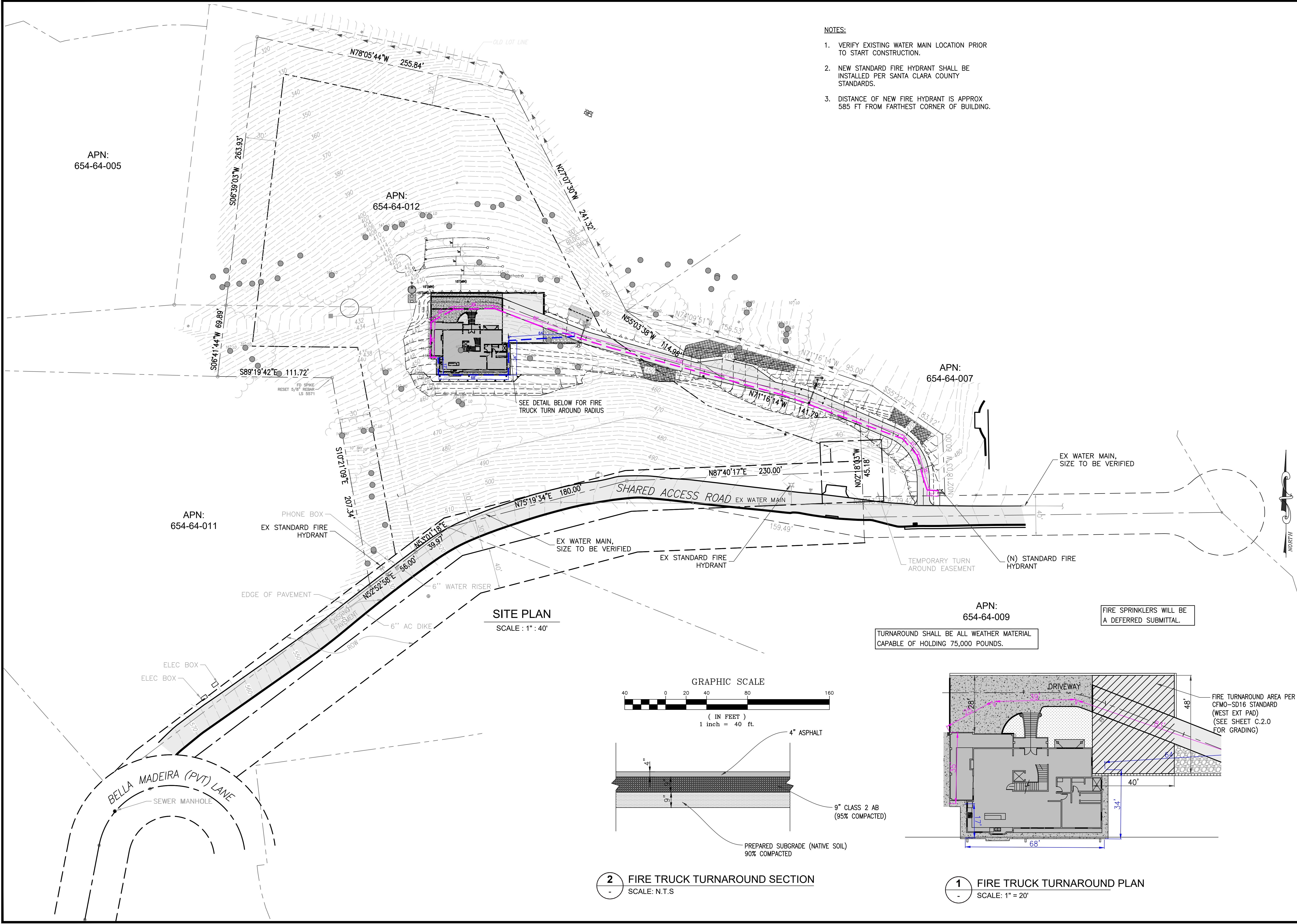
CONSTRUCTION

CONSULTATION

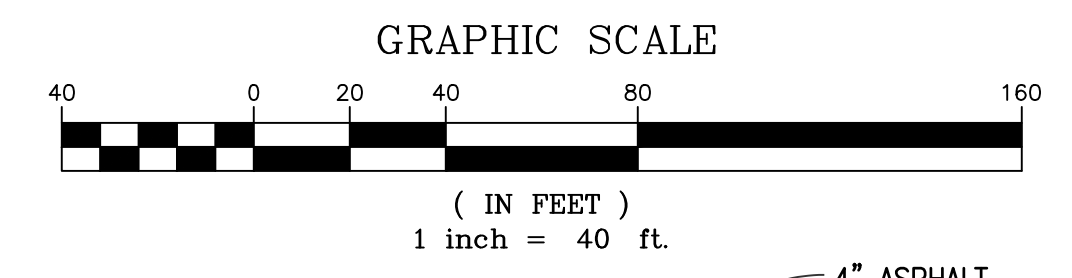
ENGINEERING

ARCHITECTURE

- NOTES:
1. VERIFY EXISTING WATER MAIN LOCATION PRIOR TO START CONSTRUCTION.
  2. NEW STANDARD FIRE HYDRANT SHALL BE INSTALLED PER SANTA CLARA COUNTY STANDARDS.
  3. DISTANCE OF NEW FIRE HYDRANT IS APPROX 585 FT FROM FARTHEST CORNER OF BUILDING.

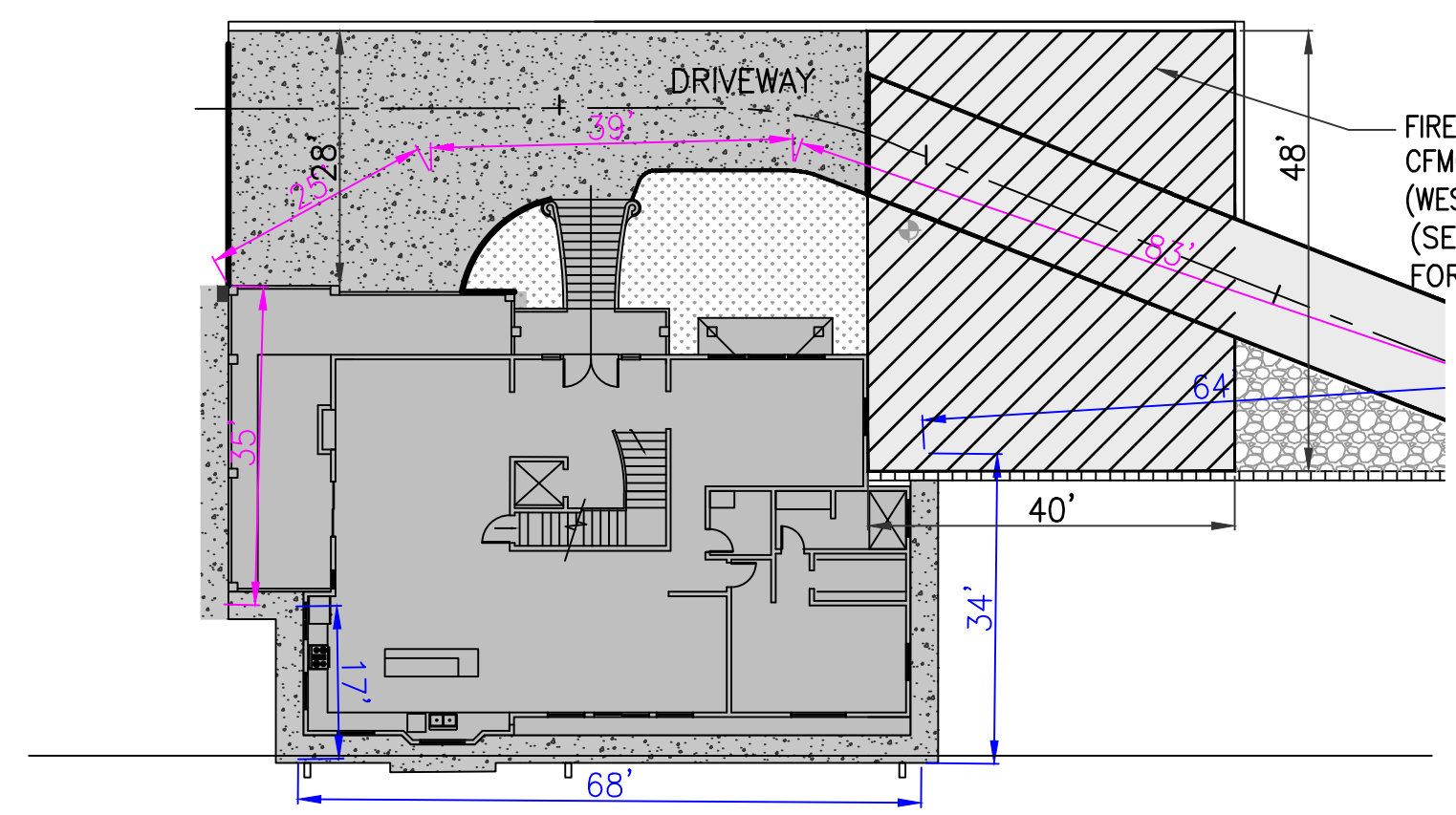


**SITE PLAN**  
SCALE: 1" = 40'

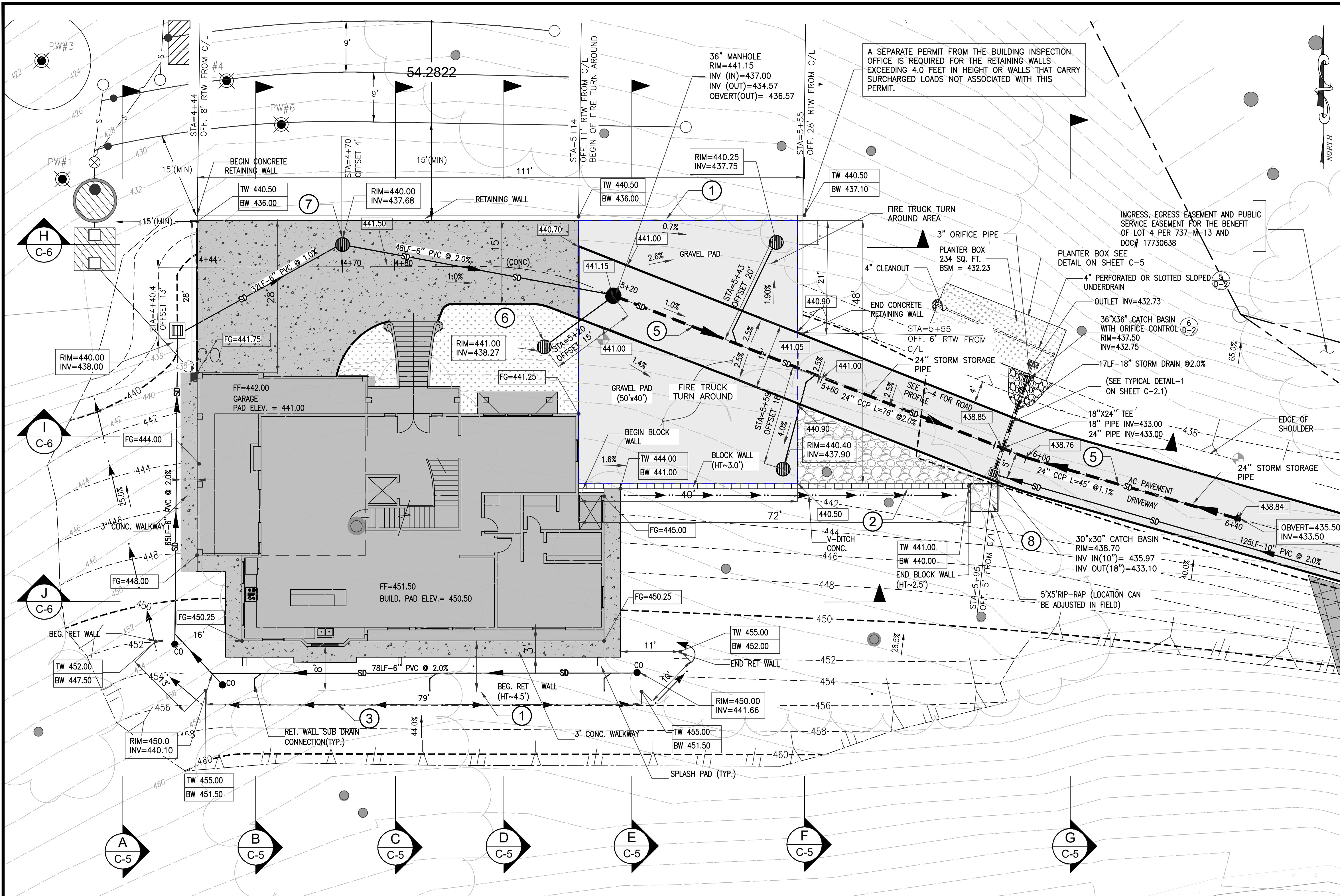


**2 FIRE TRUCK TURNAROUND SECTION**  
SCALE: N.T.S.

APN: 654-64-009  
TURNAROUND SHALL BE ALL WEATHER MATERIAL CAPABLE OF HOLDING 75,000 POUNDS.



**1 FIRE TRUCK TURNAROUND PLAN**  
SCALE: 1" = 20'



MATCHLINE (SEE DWG C-2.1)

**GENERAL SITE SLOPE (AVERAGE)**  
 UPPERMOST CONTOUR ELEVATION = 464 FT  
 LOWERMOST CONTOUR ELEVATION = 404 FT  
 ELEVATION DIFFERENCE = 56 FT  
 DISTANCE BETWEEN CONTOURS = 60 FT  
 SLOPE = 16/60 = 30%

**GENERAL SITE SLOPE - HOUSE PAD AREA**  
 UPPERMOST CONTOUR ELEVATION = 469 FT  
 LOWERMOST CONTOUR ELEVATION = 446 FT  
 ELEVATION DIFFERENCE = 23 FT  
 DISTANCE BETWEEN CONTOURS = 90 FT  
 SLOPE = 23/90 = 25%

- KEY PLAN NOTES**
- ① RET. WALL
  - ② CONC. BLOCK WALL
  - ③ V-DITCH (CONC.)
  - ④ STORM DRAIN
  - ⑤ 24 INCH STORM WATER STORAGE PIPE
  - ⑥ LAWN DRAIN
  - ⑦ FLOOR DRAIN
  - ⑧ CATCH BASIN

- LEGEND**
- RET. WALL
  - BLOCK WALL
  - FINISHED GRADE ELEV.
  - TOP OF WALL
  - BOTTOM OF WALL
  - STORM DRAIN
  - FINISHED GRADE CONTOURS
  - EDGE OF GRADING
  - SWALE (EARTH)
  - CUT SLOPE
  - FILL SLOPE
  - V-DITCH CONC.
  - CONC. DRIVEWAY
  - GRAVEL PAD
  - ASPHALT
  - LANDSCAPE
  - GEOGRID STABILIZED SLOPE
  - FLOOR/LAWN DRAIN
  - CATCH BASIN
  - CROSS DRAIN
  - TREE LOCATION
  - STORM WATER STORAGE PIPE
  - PW #3 PERC. TEST LOCATION
  - LEACH FIELD TEST EXCAVATION PIT
  - MANHOLE

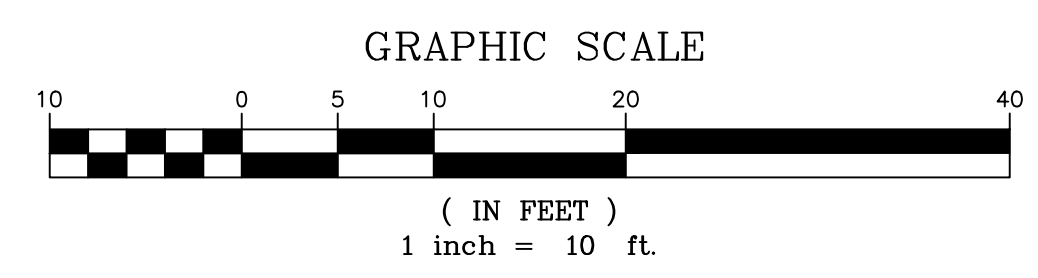
**STORMWATER DRAINAGE AND MANAGEMENT**

- STORMWATER FROM THE HOUSE PAD AND DRIVEWAY AREA SHALL BE CONTROLLED THROUGH STORAGE PIPES TO MAINTAIN THE EXISTING DISCHARGE FOR THE COUNTY REQUIRED STORM EVENT.
- CATCH BASINS SHALL BE CONSTRUCTED TO CAPTURE STORMWATER FROM THE HOUSE PAD, DRIVEWAY AND LANDSCAPE AREA.
- DRAINAGE PATTERN OF THE SITE FROM THE DISTURBED AND UNDISTURBED AREAS SHALL BE MAINTAINED TO THE EXISTING CONDITIONS AS PRACTICAL.

**RETAINING WALLS PERMIT**  
 A SEPARATE PERMIT FROM THE BUILDING INSPECTION OFFICE IS REQUIRED FOR THE RETAINING WALLS EXCEEDING 4.0' IN HEIGHT OR WALLS THAT CARRY SURCHARGE LOAD.

**CATCH BASINS OFFSET**  
 CATCH BASINS STATION AND OFFSET ARE FROM CENTER OF CATCH BASINS.

**SITE IMPROVEMENT PLAN**  
 SCALE : 1" = 10'

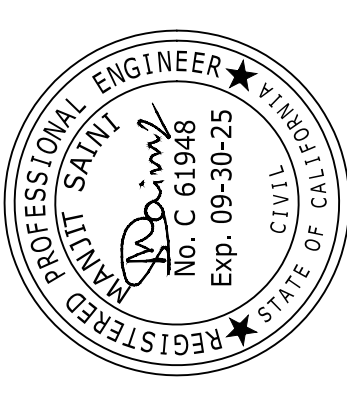


APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.



JAMES LE  
 BELLAMADERA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

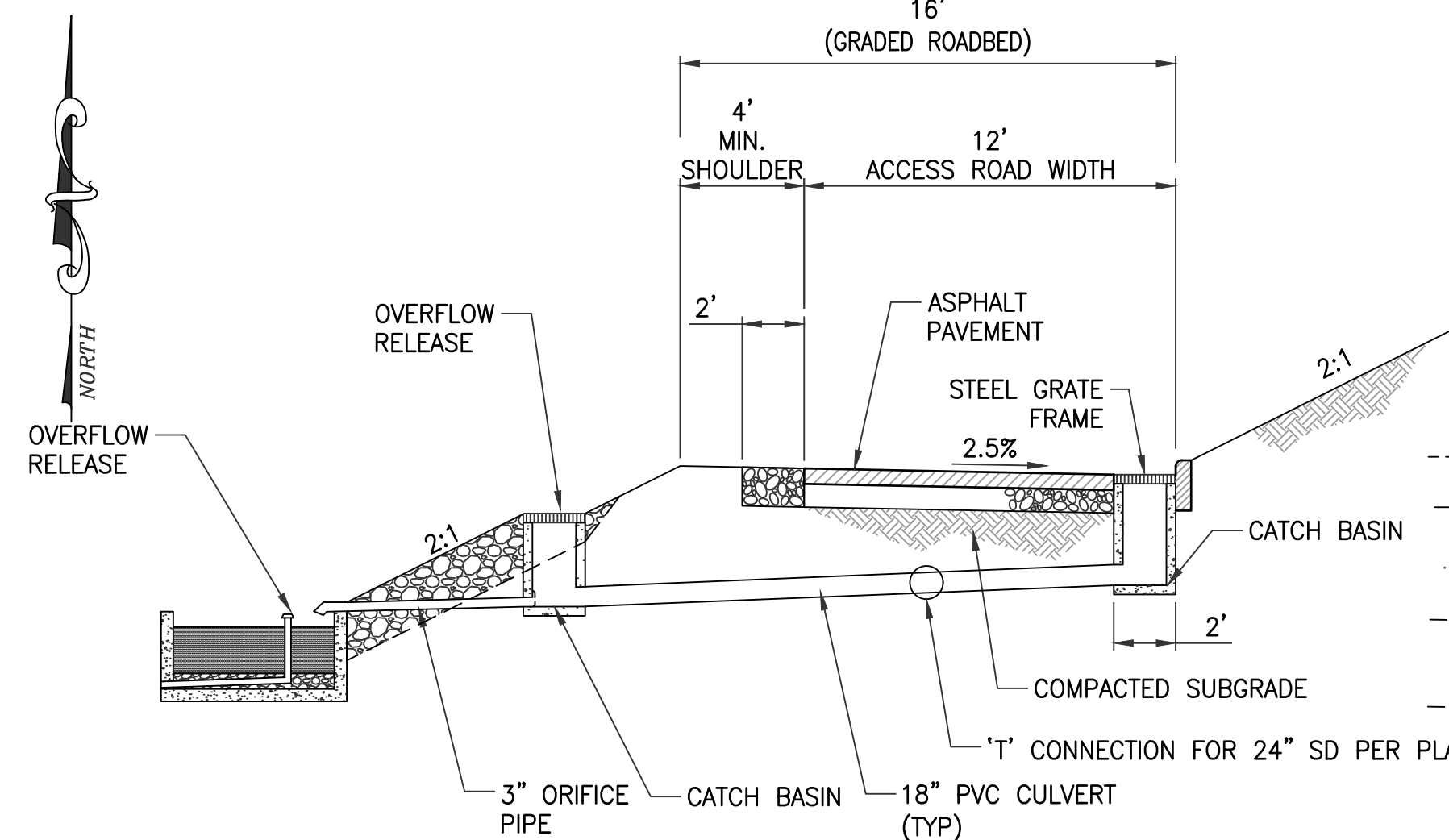
GRADING AND DRAINAGE PLAN  
 SHEET 1 OF 2



DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI
REVISIONS	
NO.	
SHEET NUMBER <b>C-2.0</b> 7 OF 20 SHEETS	

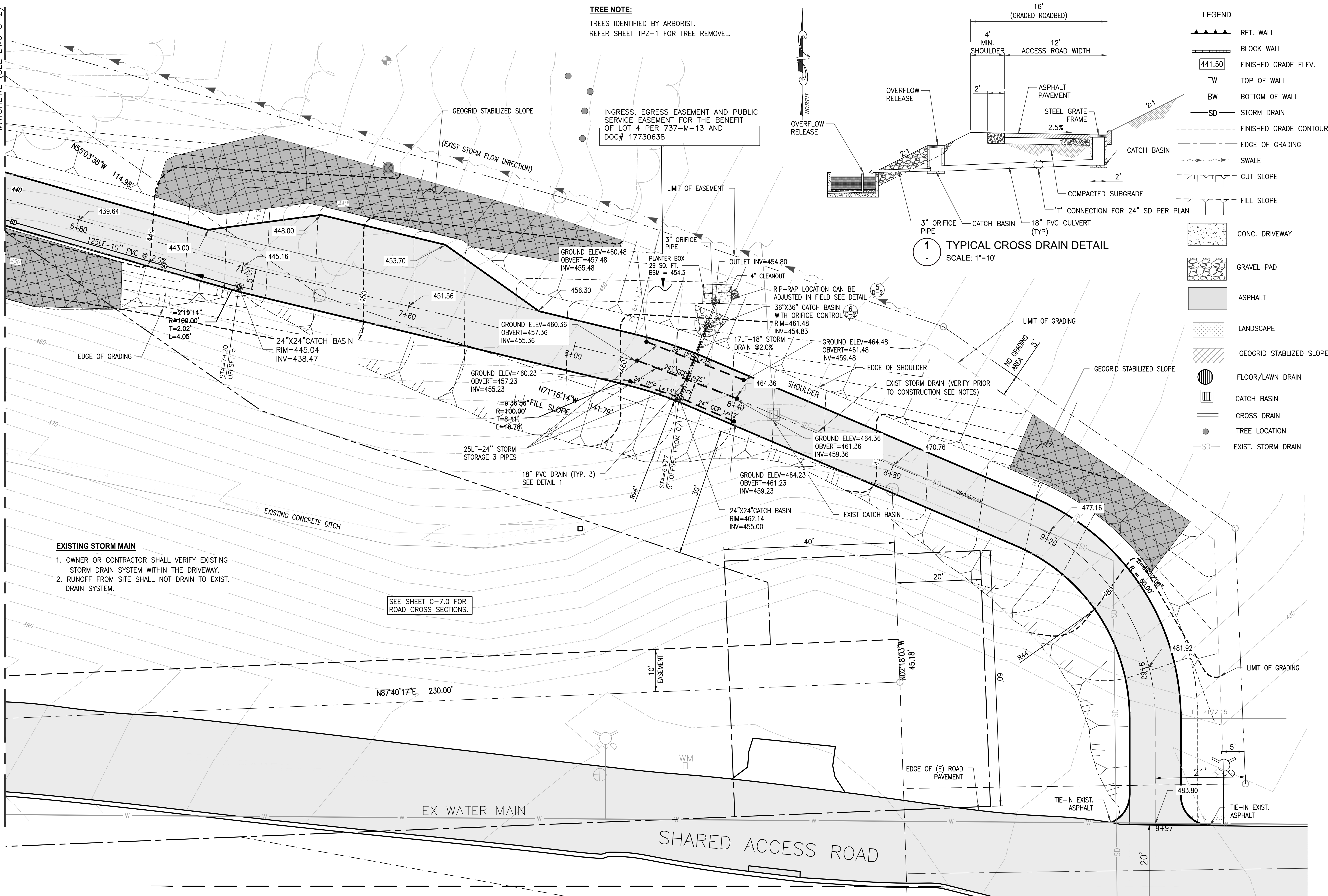
MATCHLINE (SEE DWG C-2)

**TREE NOTE:**  
TREES IDENTIFIED BY ARBORIST.  
REFER SHEET TPZ-1 FOR TREE REMOVAL.



**1** TYPICAL CROSS DRAIN DETAIL  
SCALE: 1"=10'

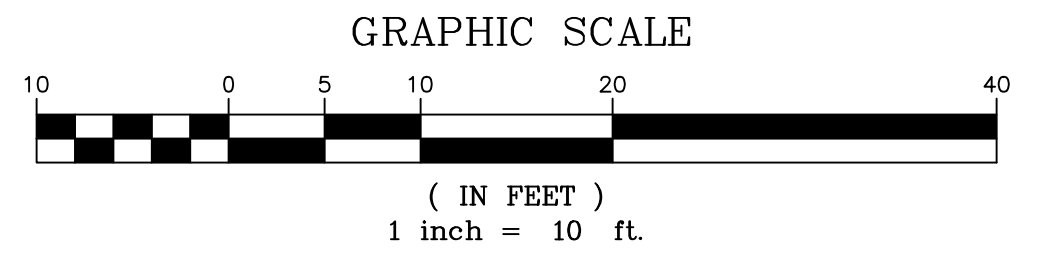
- LEGEND**
- RET. WALL
  - BLOCK WALL
  - 441.50 FINISHED GRADE ELEV.
  - TW TOP OF WALL
  - BW BOTTOM OF WALL
  - SD STORM DRAIN
  - FINISHED GRADE CONTOURS
  - EDGE OF GRADING
  - SWALE
  - CUT SLOPE
  - FILL SLOPE
  - CONC. DRIVEWAY
  - GRAVEL PAD
  - ASPHALT
  - LANDSCAPE
  - GEOGRID STABILIZED SLOPE
  - FLOOR/LAWN DRAIN
  - CATCH BASIN
  - CROSS DRAIN
  - TREE LOCATION
  - EXIST. STORM DRAIN



**EXISTING STORM MAIN**  
1. OWNER OR CONTRACTOR SHALL VERIFY EXISTING STORM DRAIN SYSTEM WITHIN THE DRIVEWAY.  
2. RUNOFF FROM SITE SHALL NOT DRAIN TO EXIST. DRAIN SYSTEM.

SEE SHEET C-7.0 FOR ROAD CROSS SECTIONS.

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.

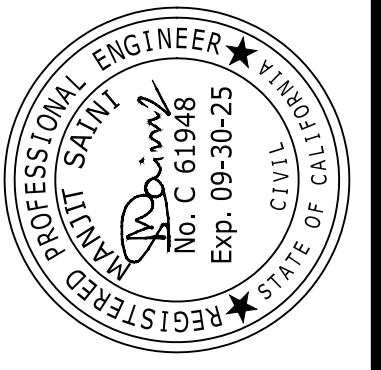


**SITE IMPROVEMENT PLAN**  
SCALE: 1" : 10'



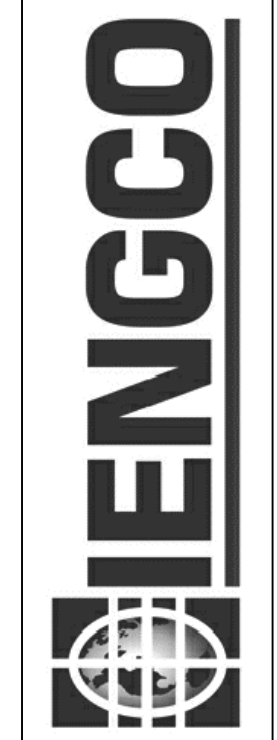
JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

**GRADING AND DRAINAGE PLAN**  
SHEET 2 OF 2



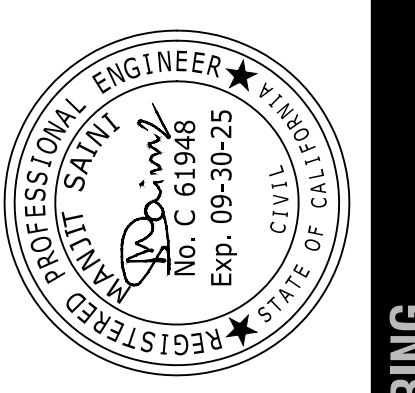
DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI
REVISIONS	
NO.	
SHEET NUMBER	
C-2.1	
8 OF 20 SHEETS	

● CONSTRUCTION  
● CONSULTATION  
● ENGINEERING  
● ARCHITECTURE



JAMES LE  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

DRIVEWAY GRADING  
 PLAN AND PROFILE



DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

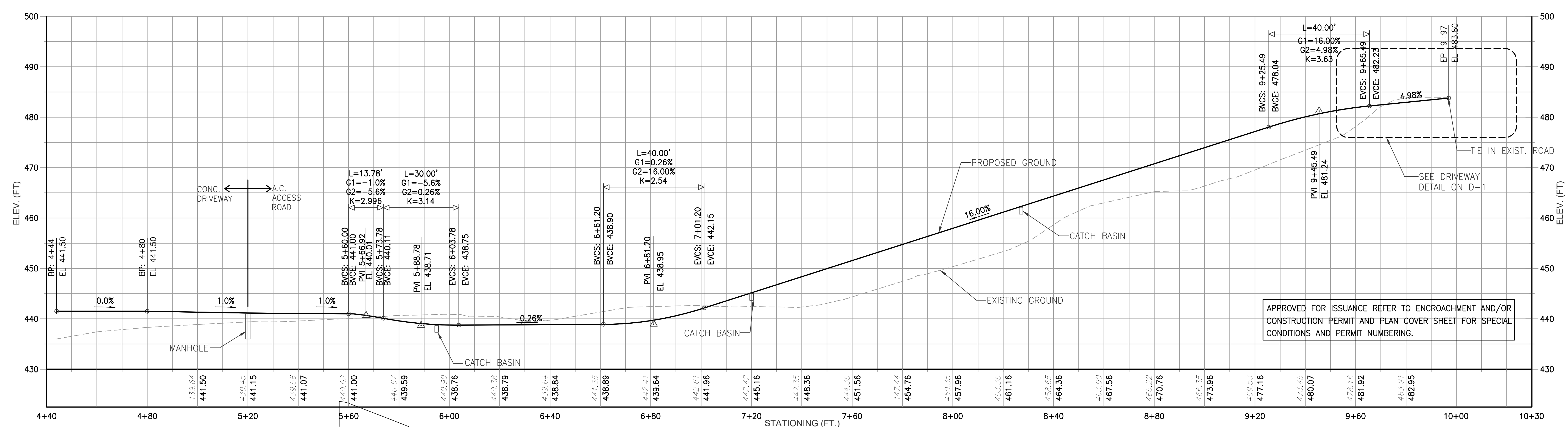
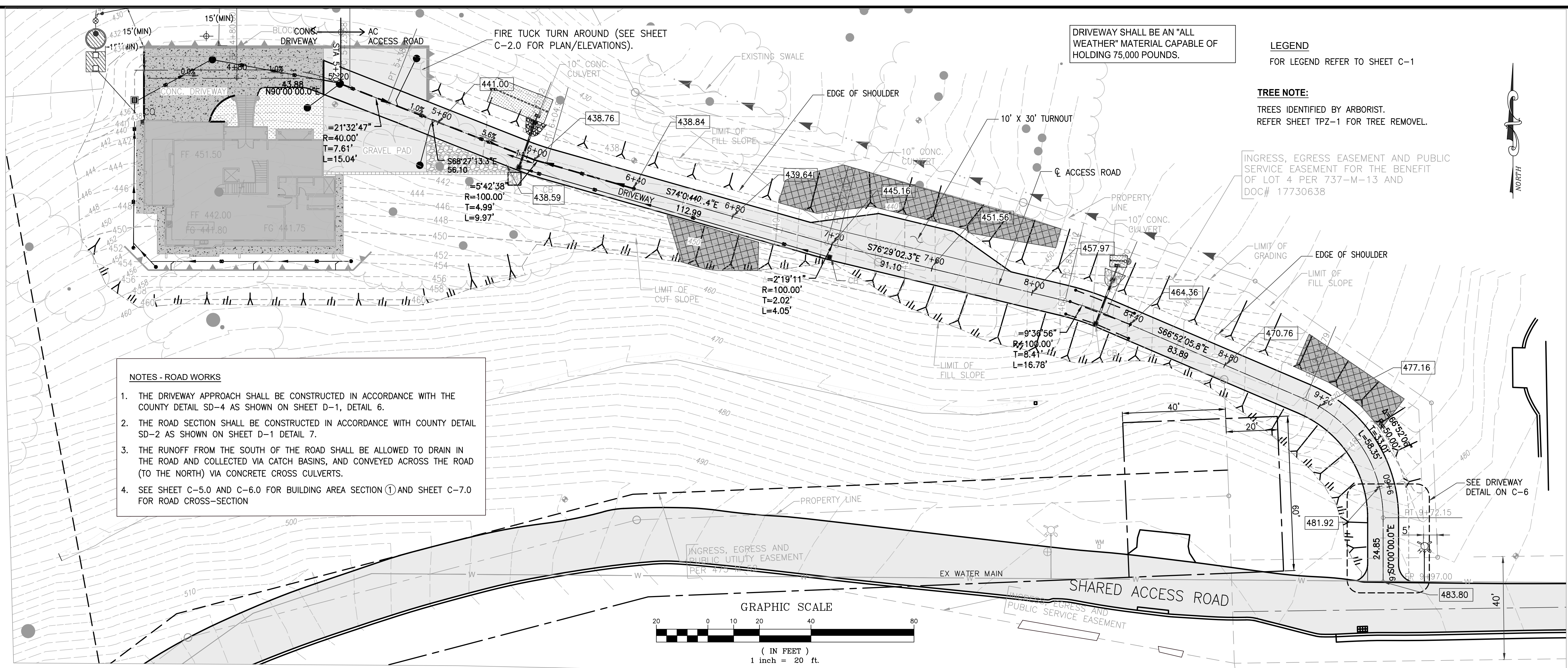
SHEET NUMBER  
**C-3.0**  
 9 OF 20 SHEETS

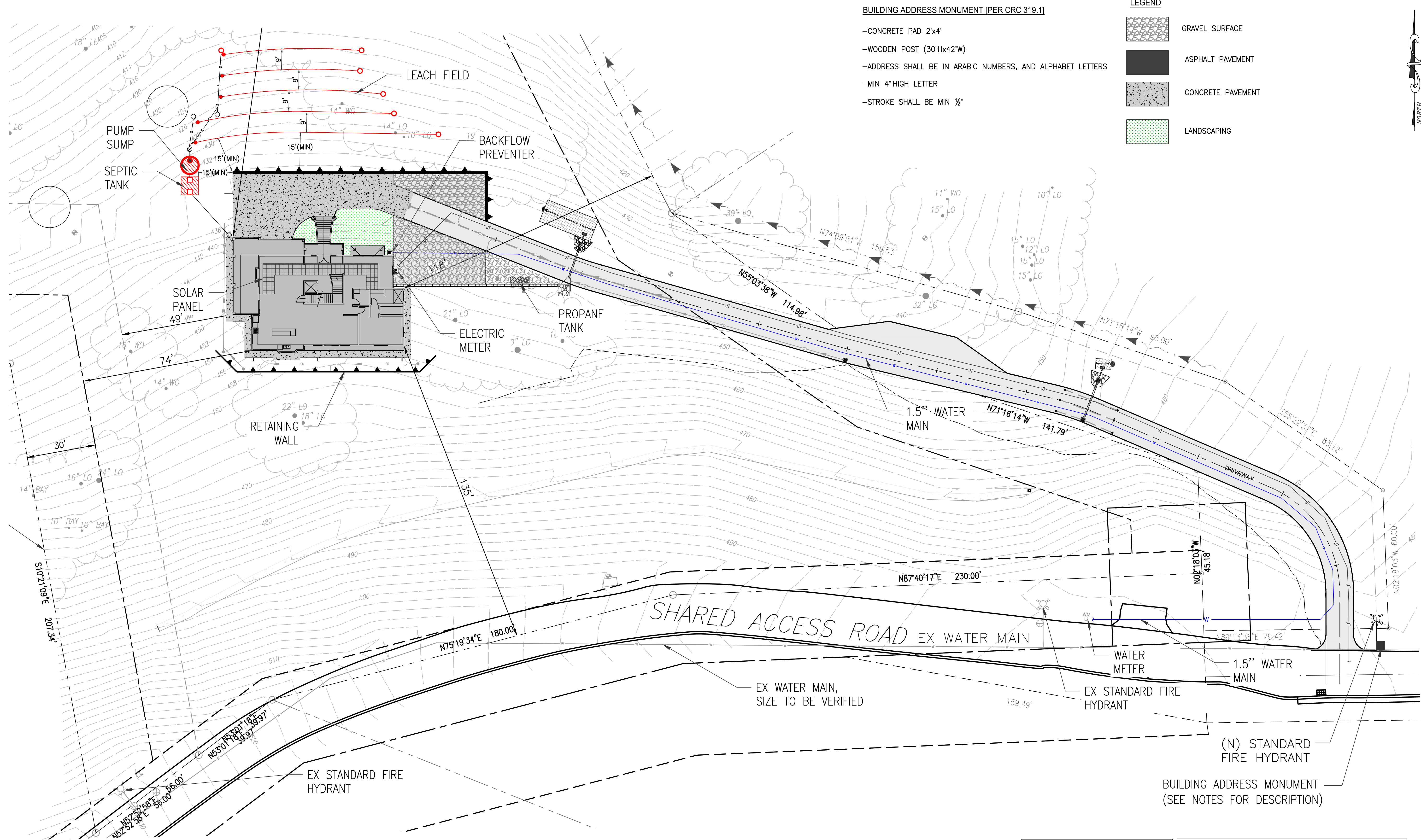
CONSTRUCTION

CONSULTATION

ENGINEERING

ARCHITECTURE



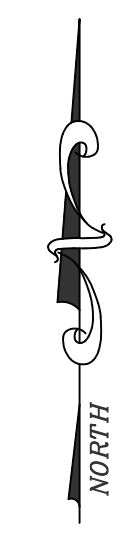


**BUILDING ADDRESS MONUMENT (PER CRC 319.1)**

- CONCRETE PAD 2'x4'
- WOODEN POST (30"Hx42"W)
- ADDRESS SHALL BE IN ARABIC NUMBERS, AND ALPHABET LETTERS
- MIN 4" HIGH LETTER
- STROKE SHALL BE MIN 1/2"

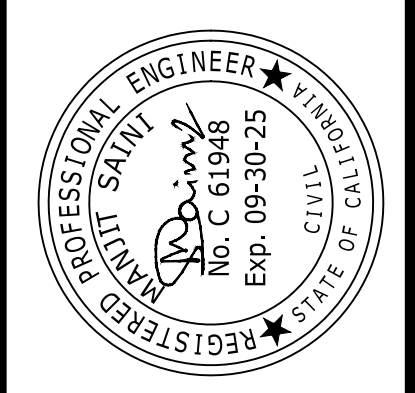
**LEGEND**

- GRAVEL SURFACE
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- LANDSCAPING



JAMES LE  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

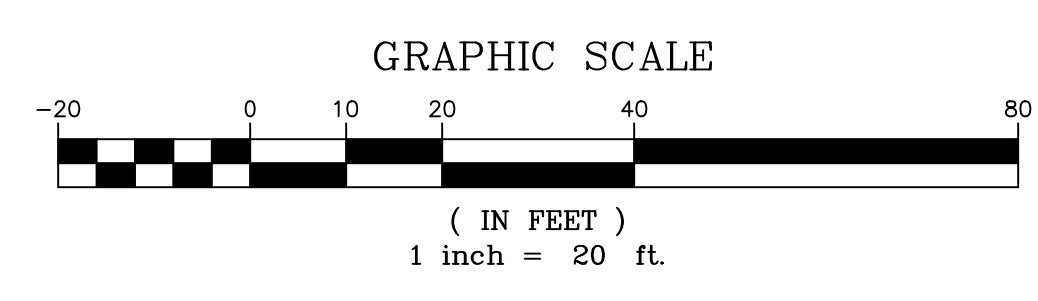
**BUILDING LAYOUT & UTILITIES LOCATION**



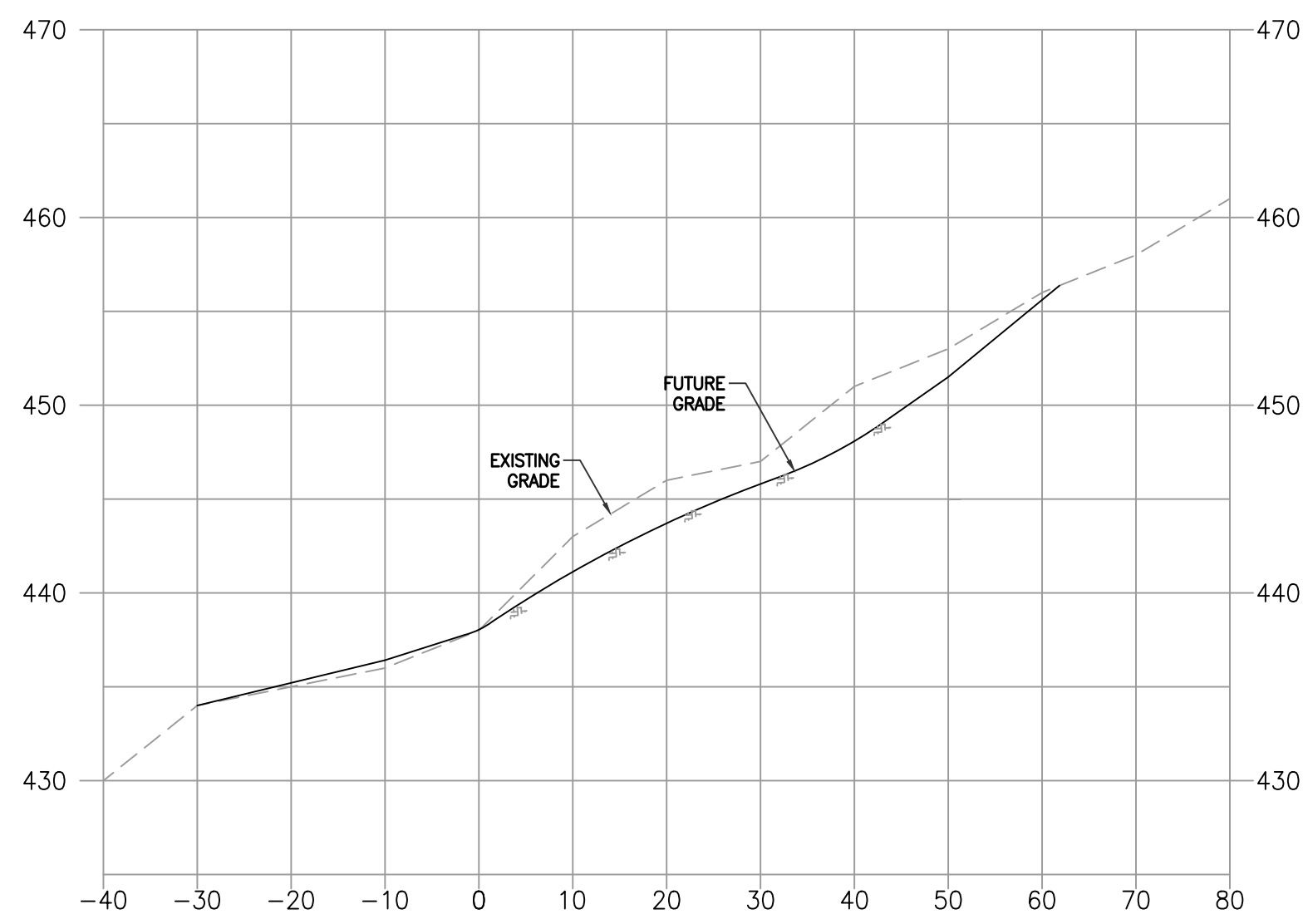
DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS	
NO.	
SHEET NUMBER	C-4
	10 OF 20 SHEETS

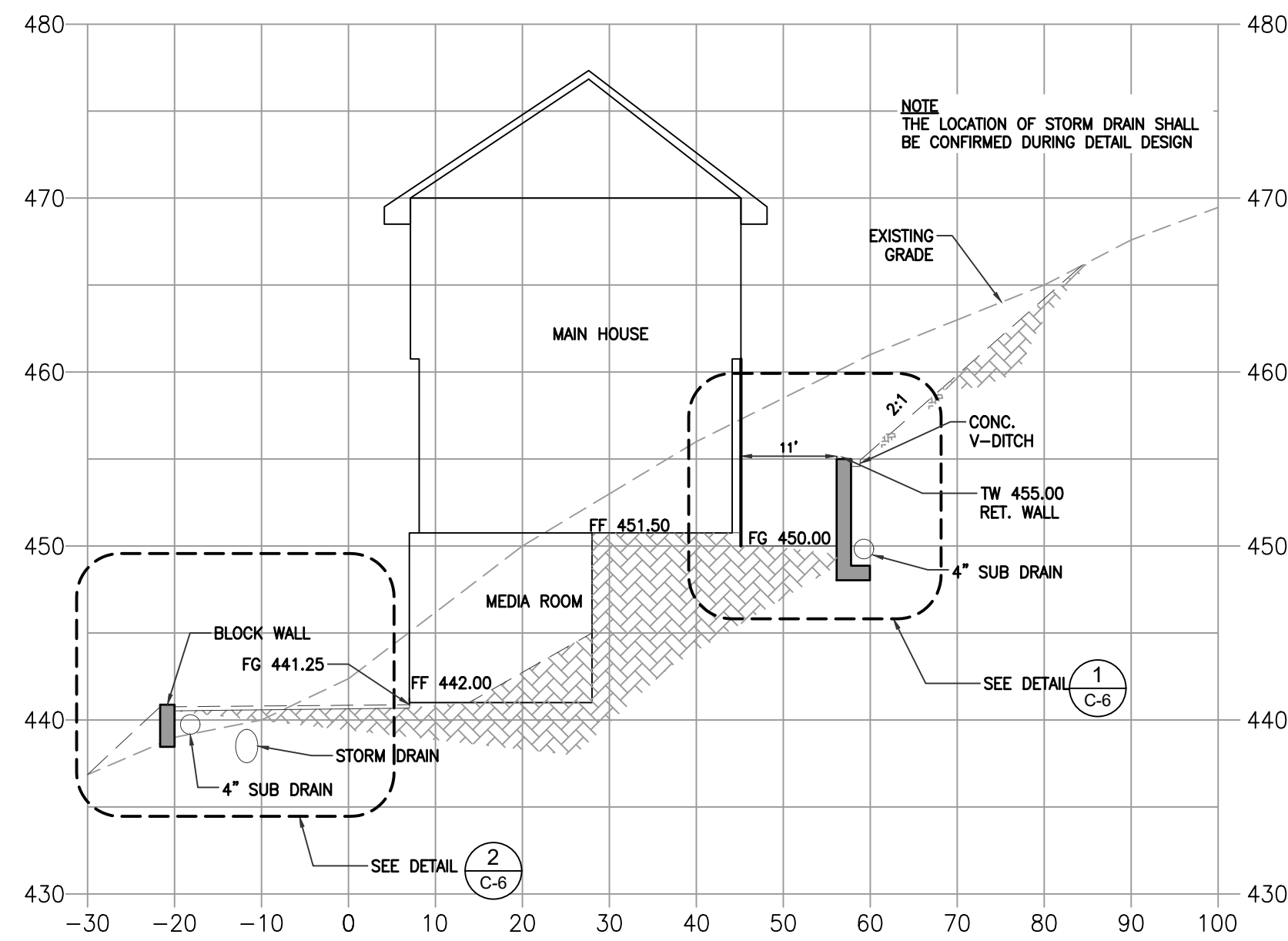
THE (N) STANDARD FIRE HYDRANT WILL BE DEFERRED SUBMITTAL. APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.



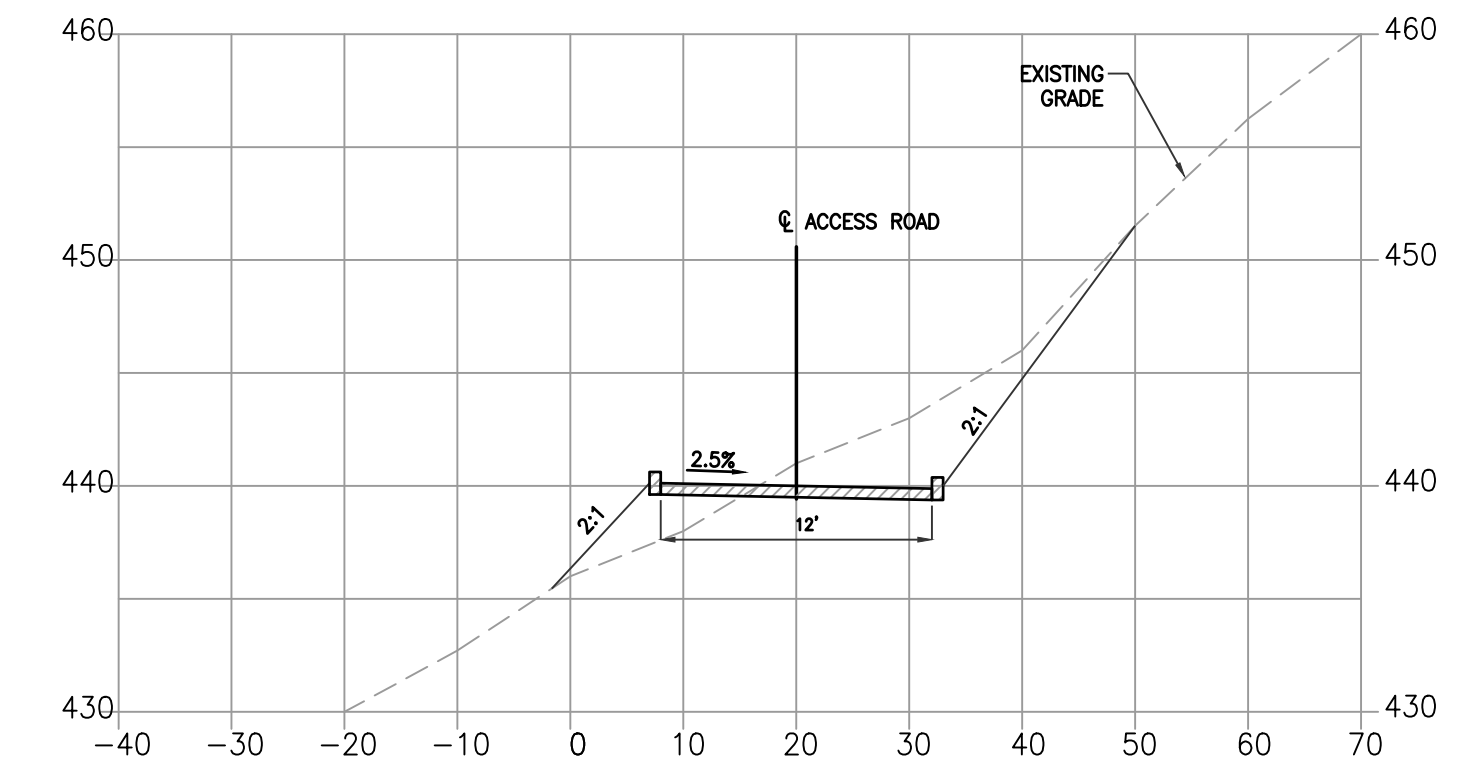
● CONSTRUCTION ● CONSULTATION ● ENGINEERING ● ARCHITECTURE



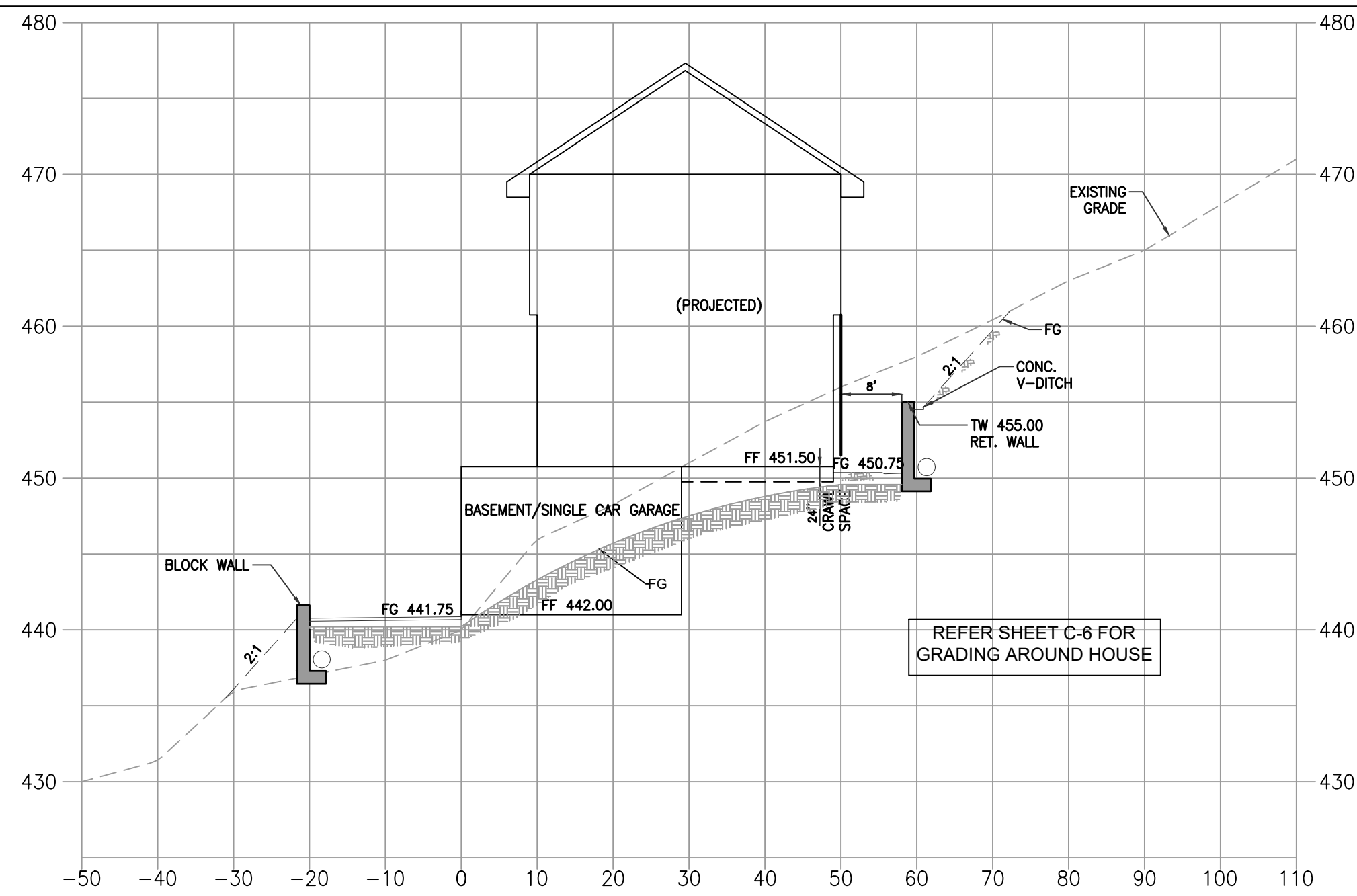
**A HOUSE PAD SECTION**  
C-2 SCALE: (H) 1"=10'; (V) 1"=5'



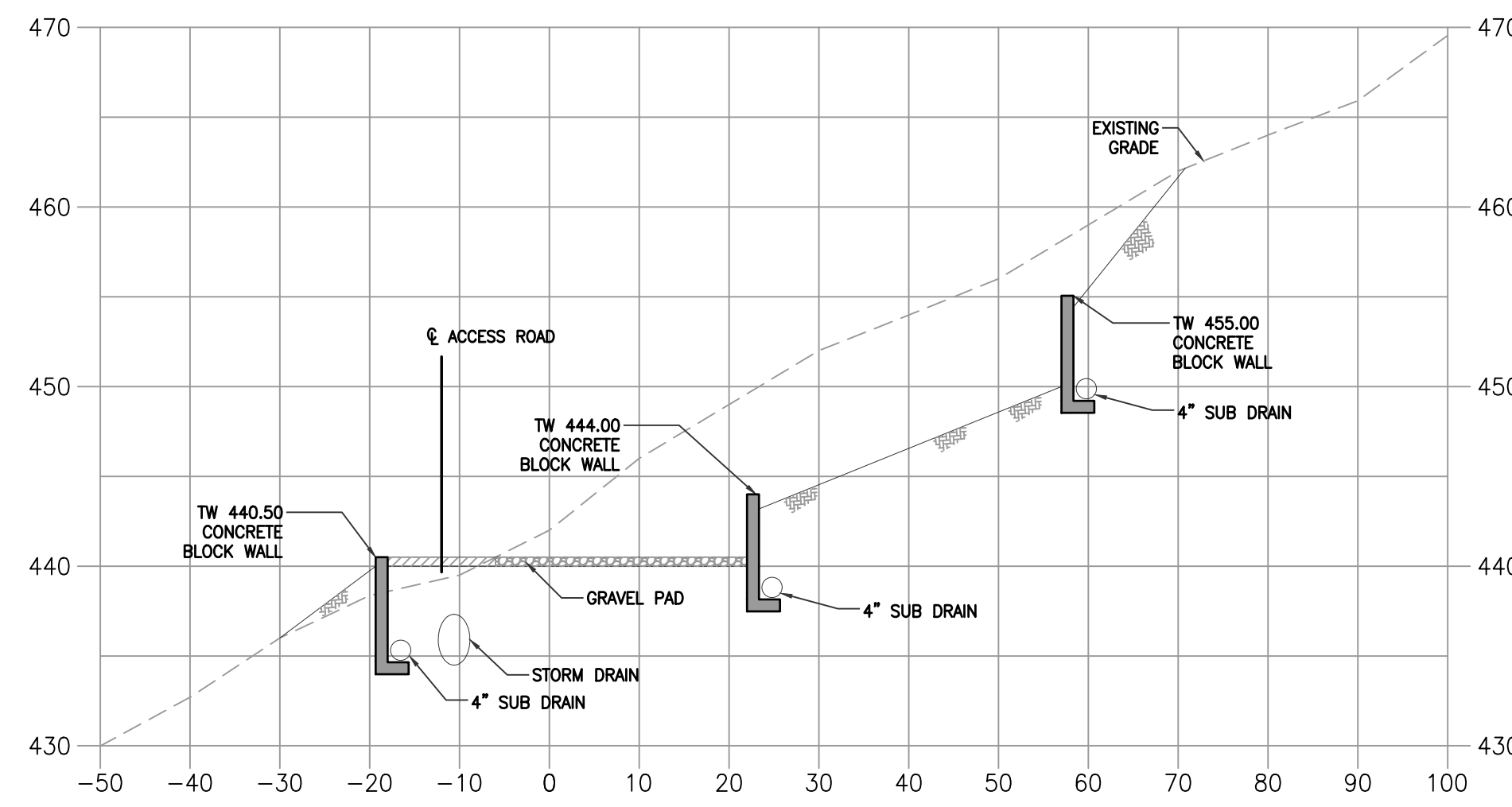
**D HOUSE PAD SECTION**  
C-2 SCALE: (H) 1"=10'; (V) 1"=5'



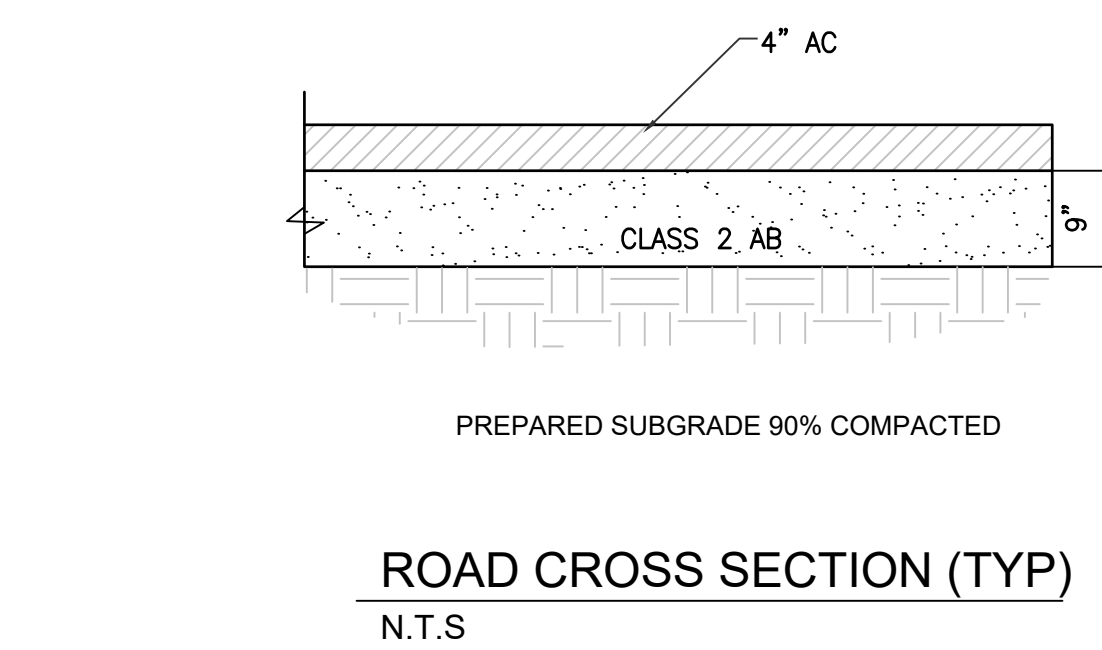
**G ROAD CROSS SECTION**  
C-2 SCALE: (H) 1"=10'; (V) 1"=5'



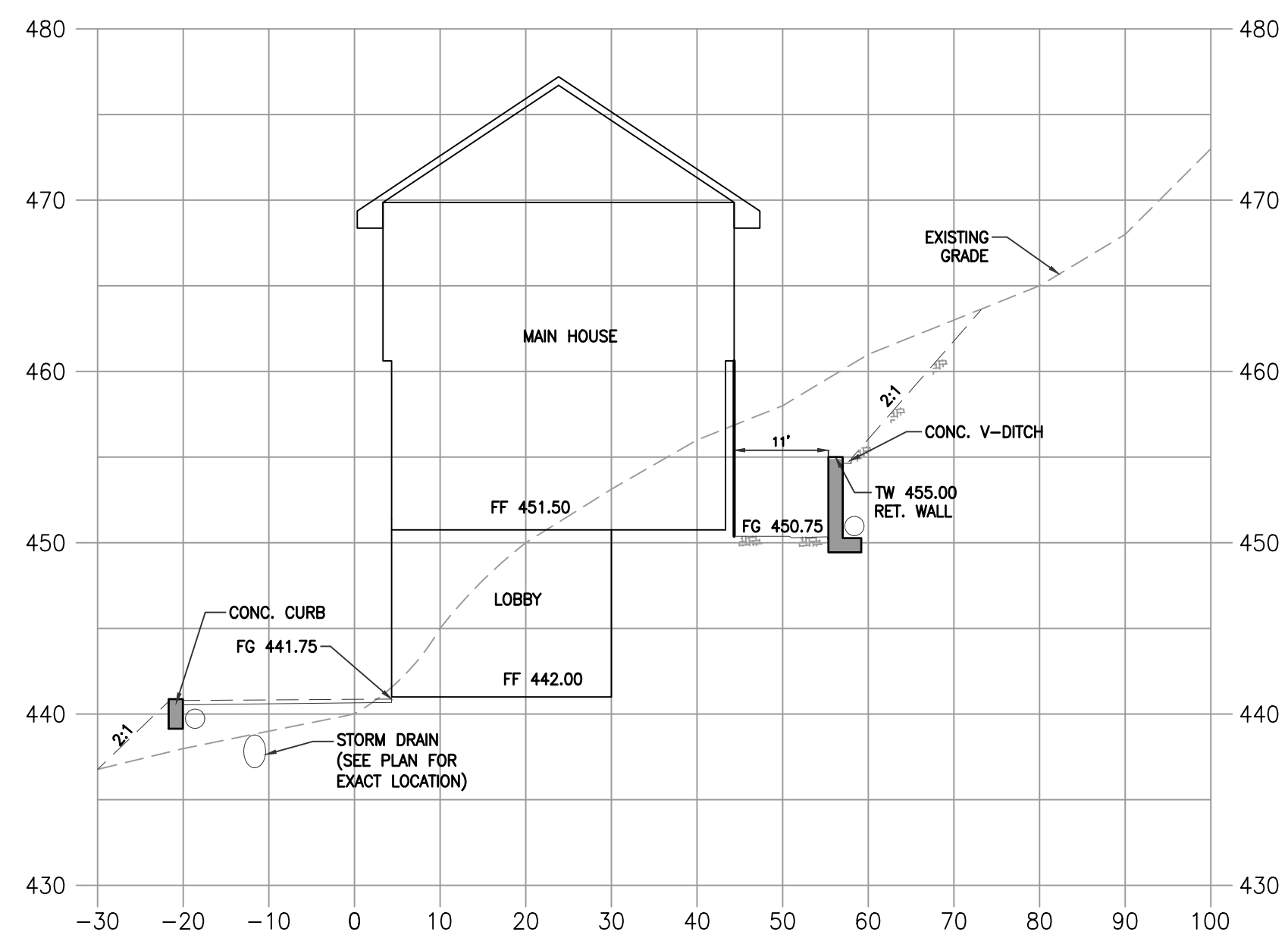
**B HOUSE PAD SECTION**  
C-2 SCALE: (H) 1"=10'; (V) 1"=5'



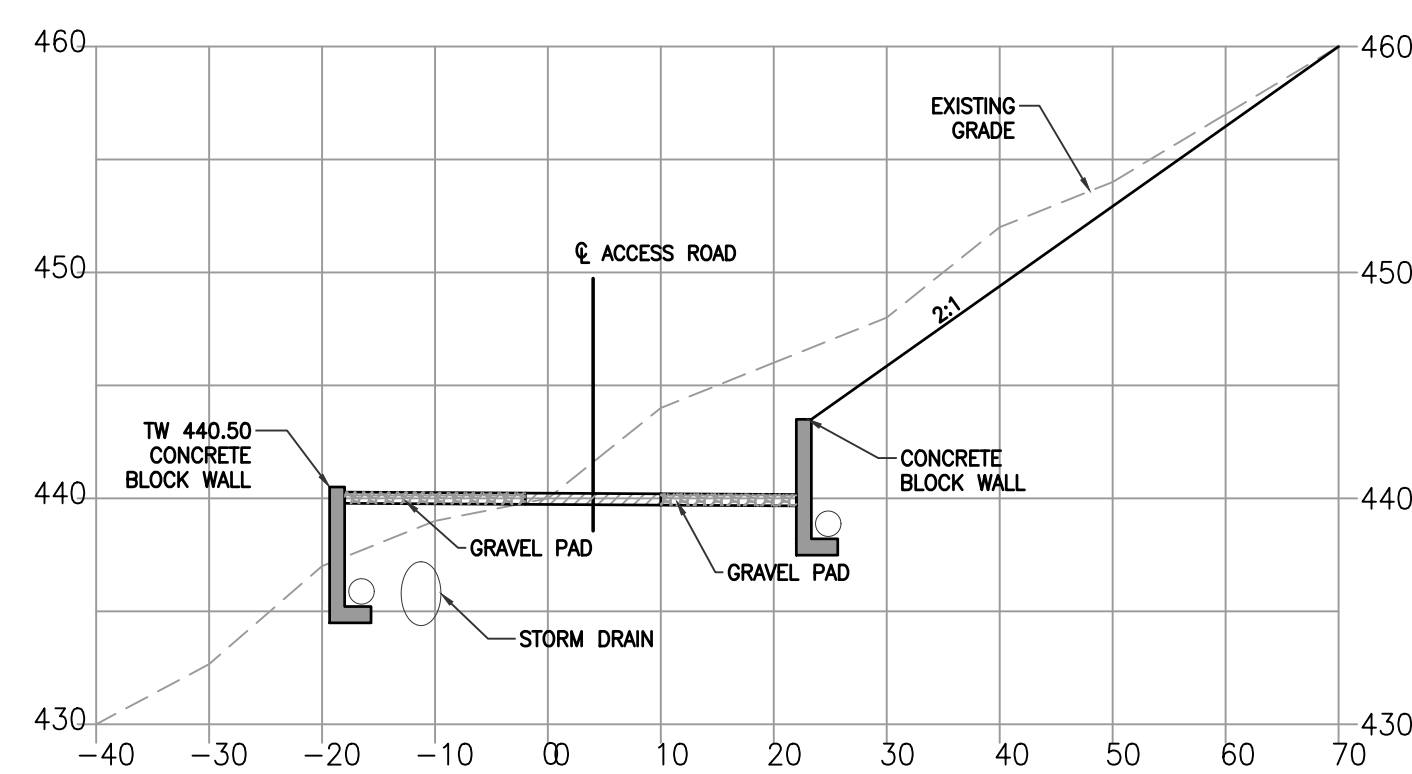
**E HOUSE PAD SECTION**  
C-2 SCALE: (H) 1"=10'; (V) 1"=5'



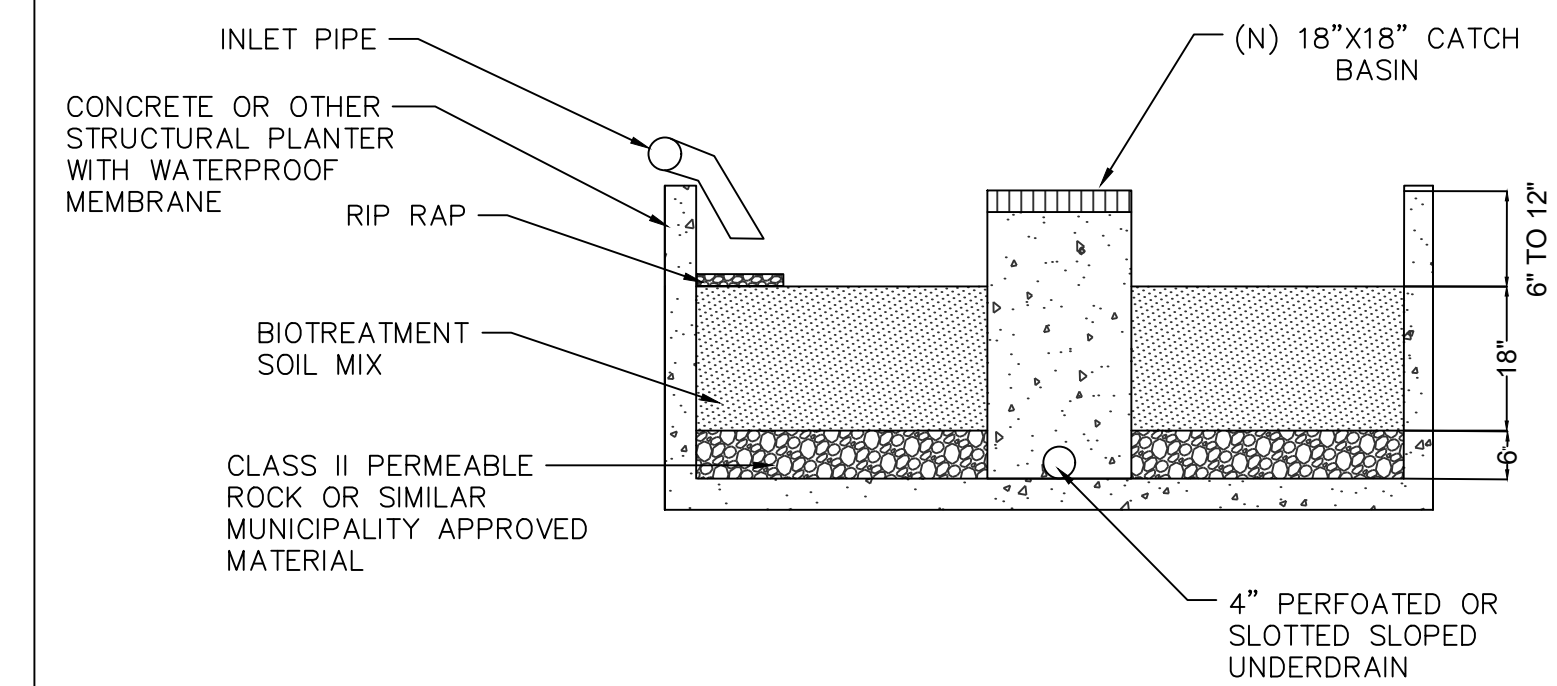
**ROAD CROSS SECTION (TYP)**  
N.T.S



**C HOUSE PAD SECTION**  
C-2 SCALE: (H) 1"=10'; (V) 1"=5'



**F ROAD CROSS SECTION**  
C-2 SCALE: (H) 1"=10'; (V) 1"=5'



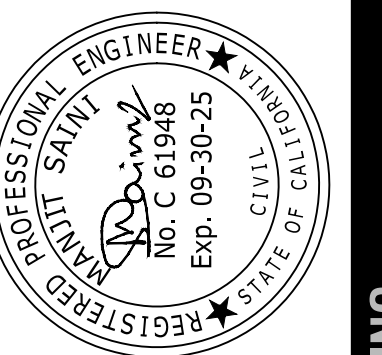
**PLANTER BOX DETAIL (TYP)**  
(N.T.S)

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.



JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

HOUSE PAD SECTION



DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

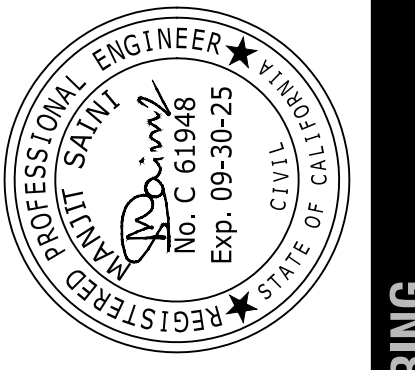
REVISIONS	
NO.	

SHEET NUMBER  
**C-5**  
11 OF 20 SHEETS



JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

SECTIONS

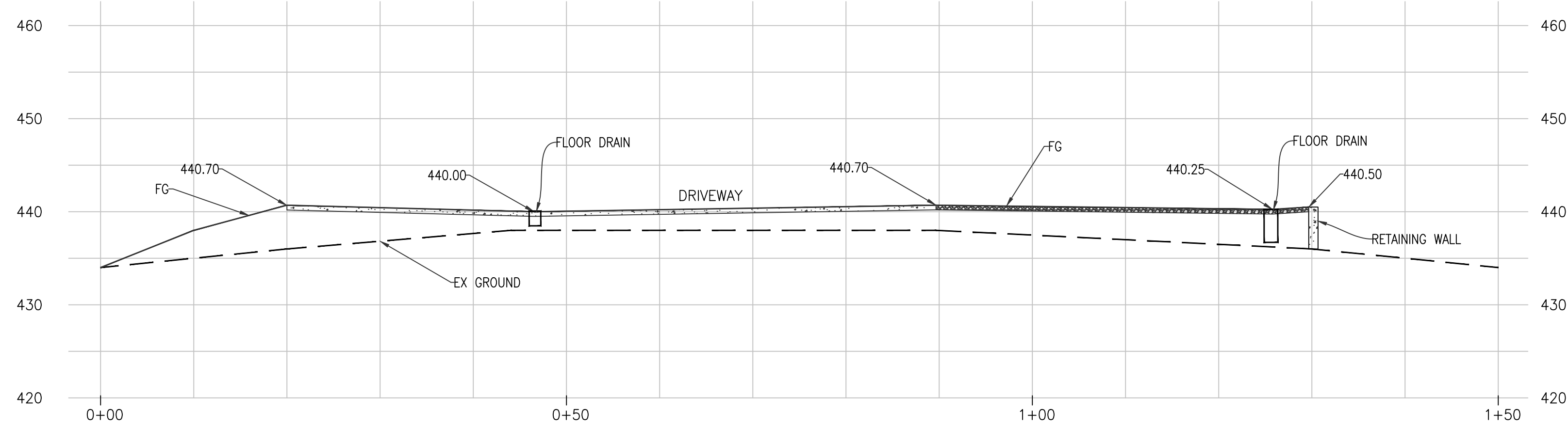


DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

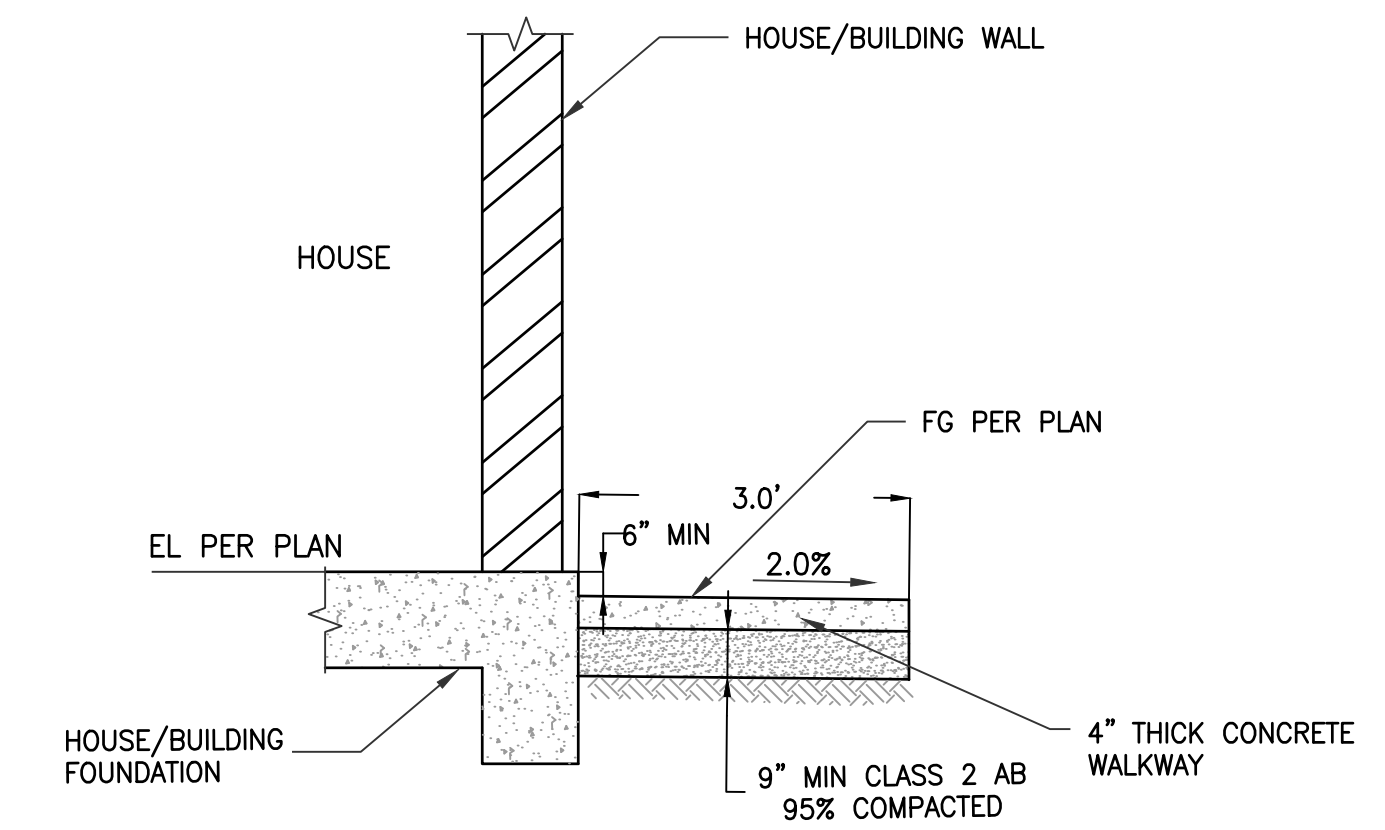
NO.	REVISIONS

SHEET NUMBER  
**C-6**  
12 OF 20 SHEETS

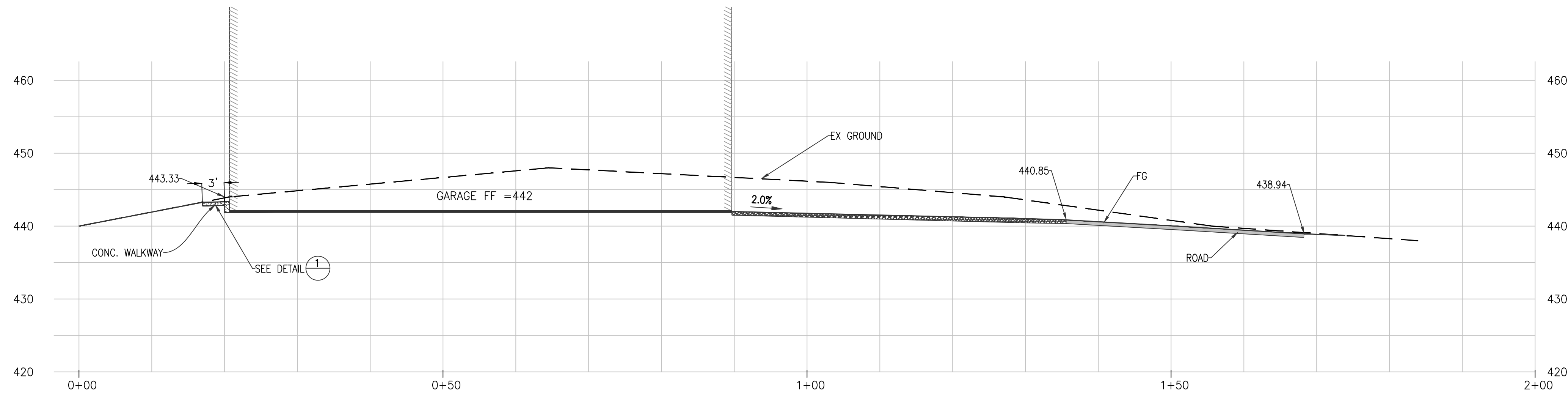
CONSTRUCTION  
CONSULTATION  
ENGINEERING  
ARCHITECTURE



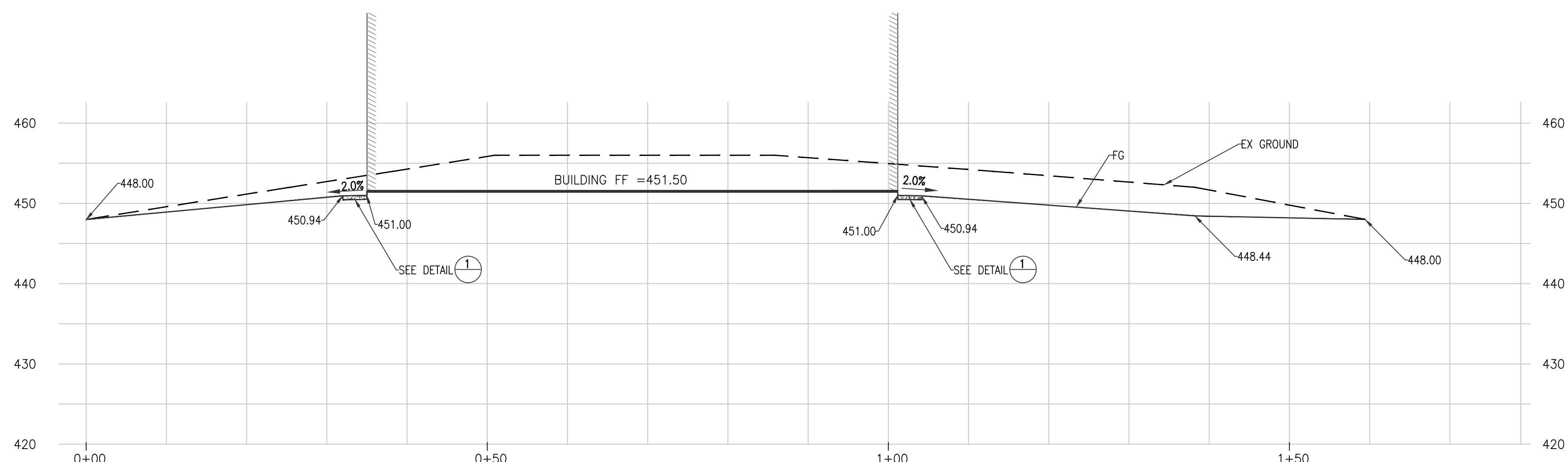
**H** SECTION  
C-2



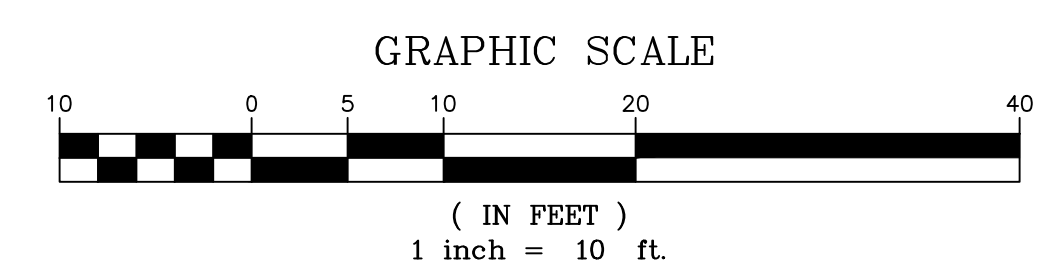
**1**  
TYPICAL CONC. PAD DETAIL FOR DRAIN AWAY FROM FOUNDATION.  
SCALE: NTS

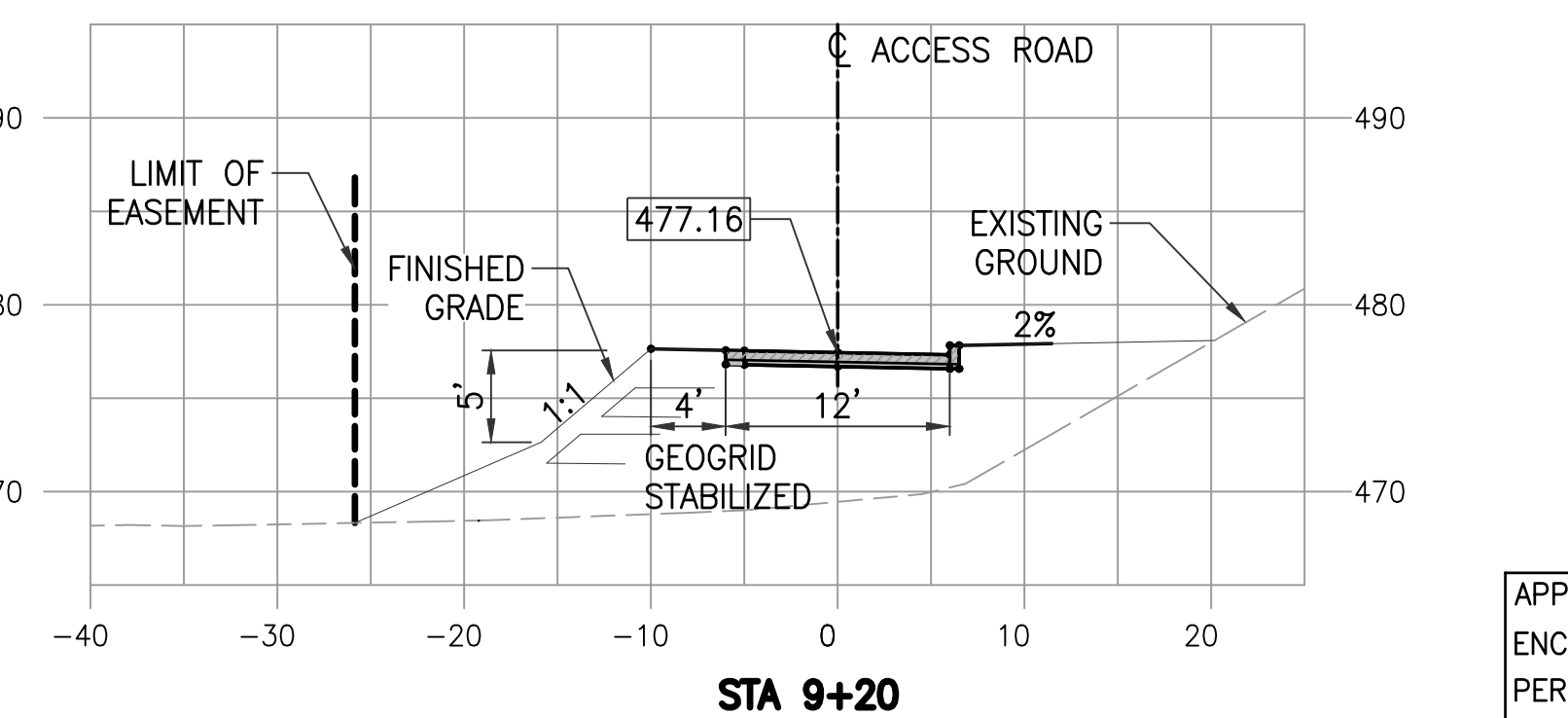
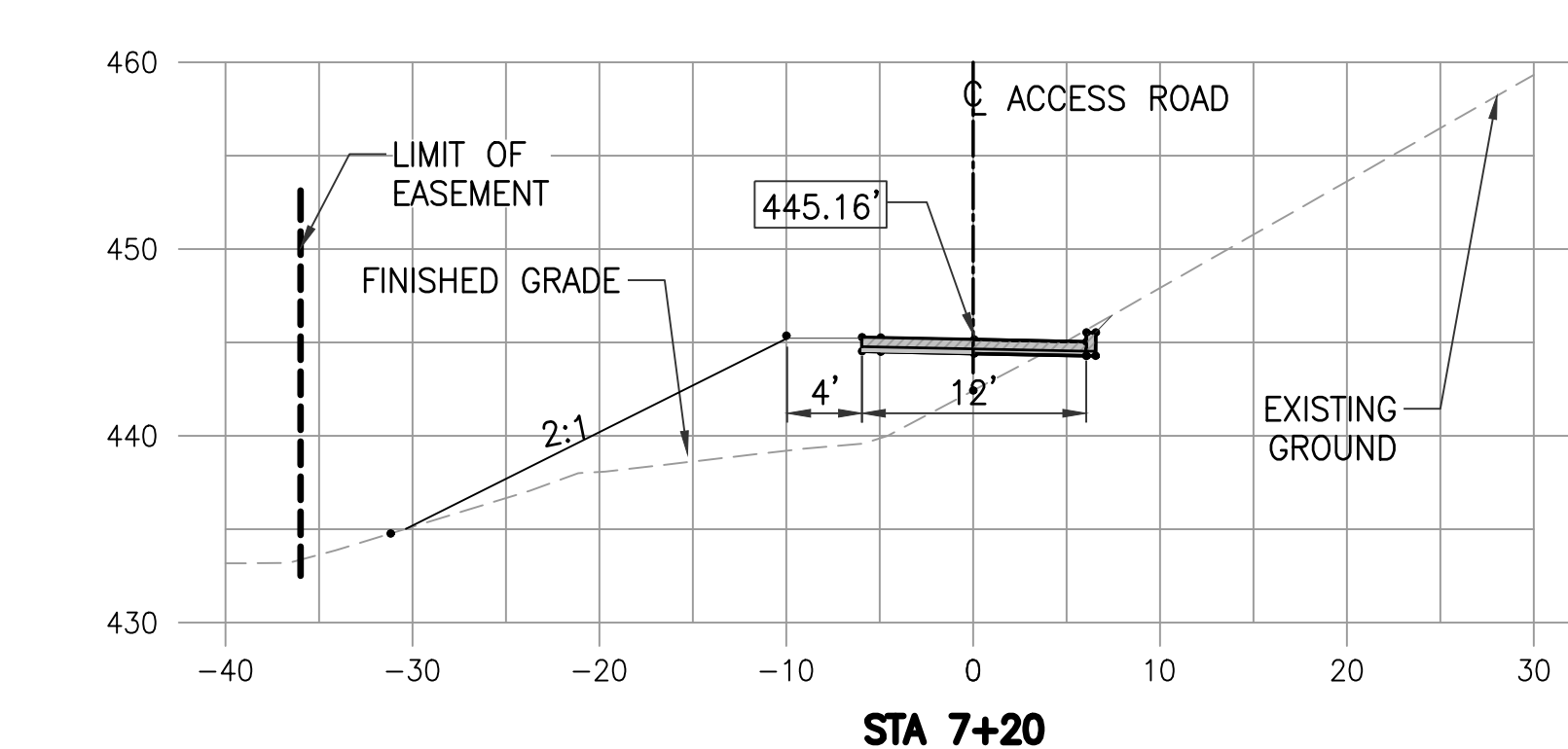
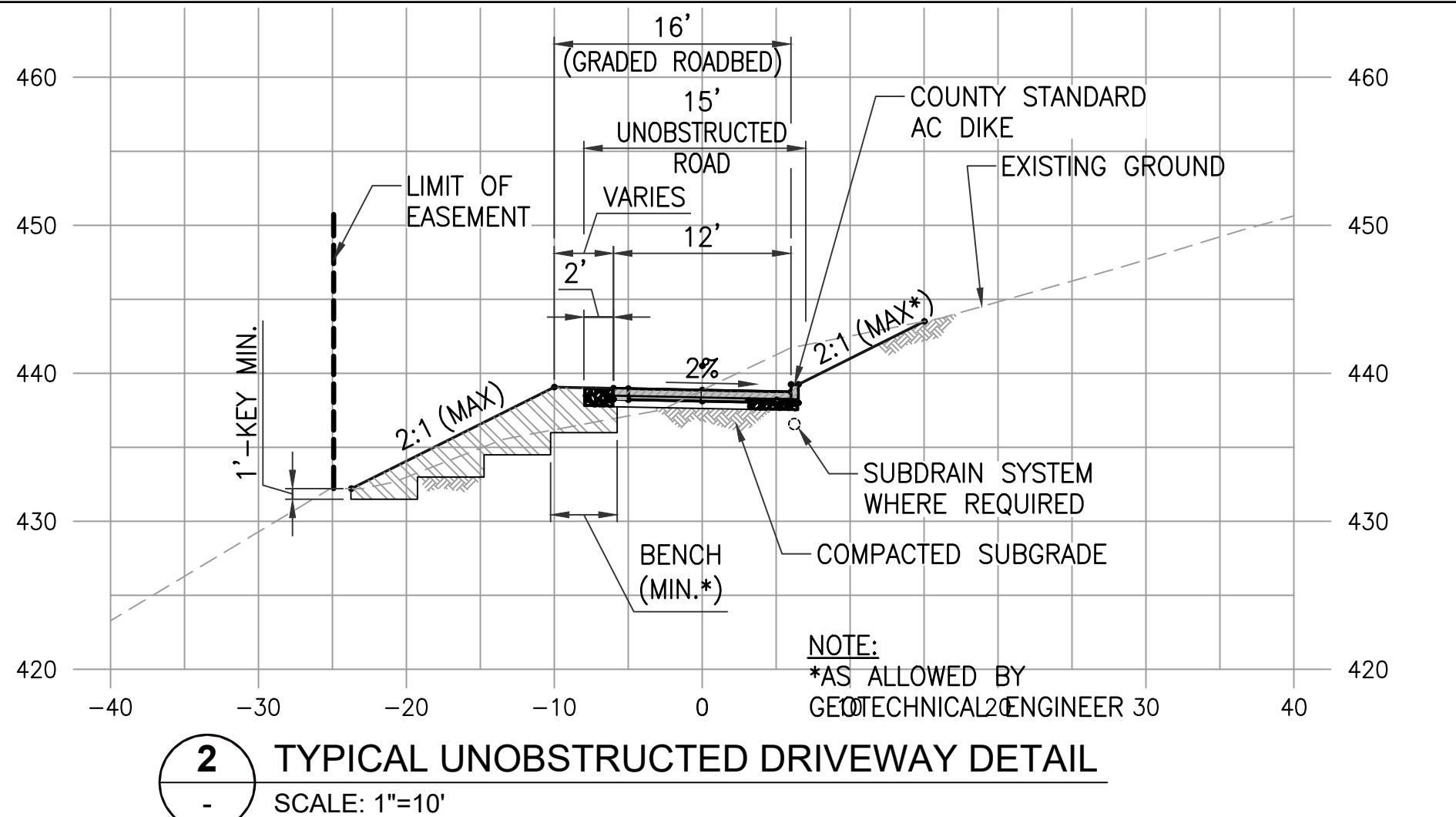
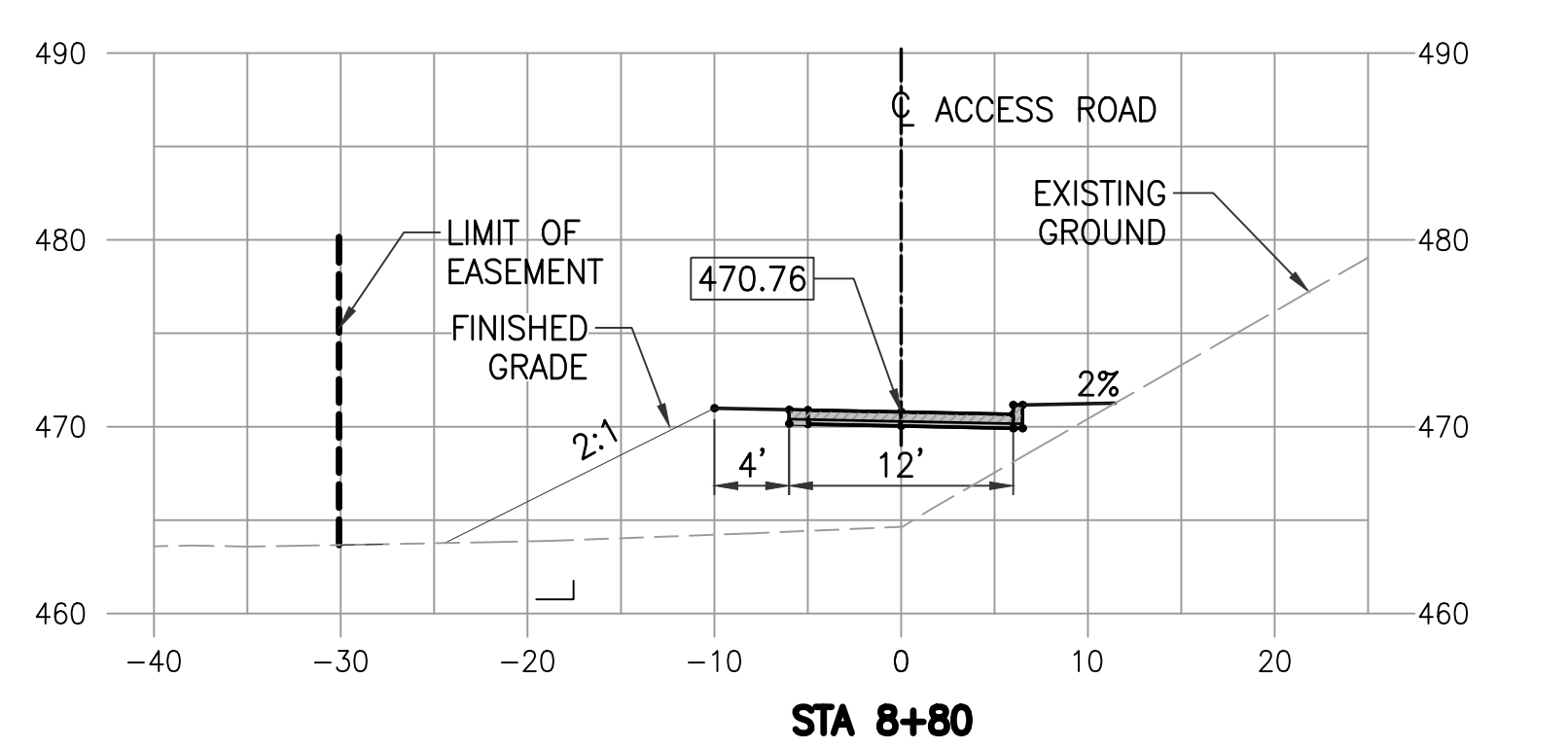
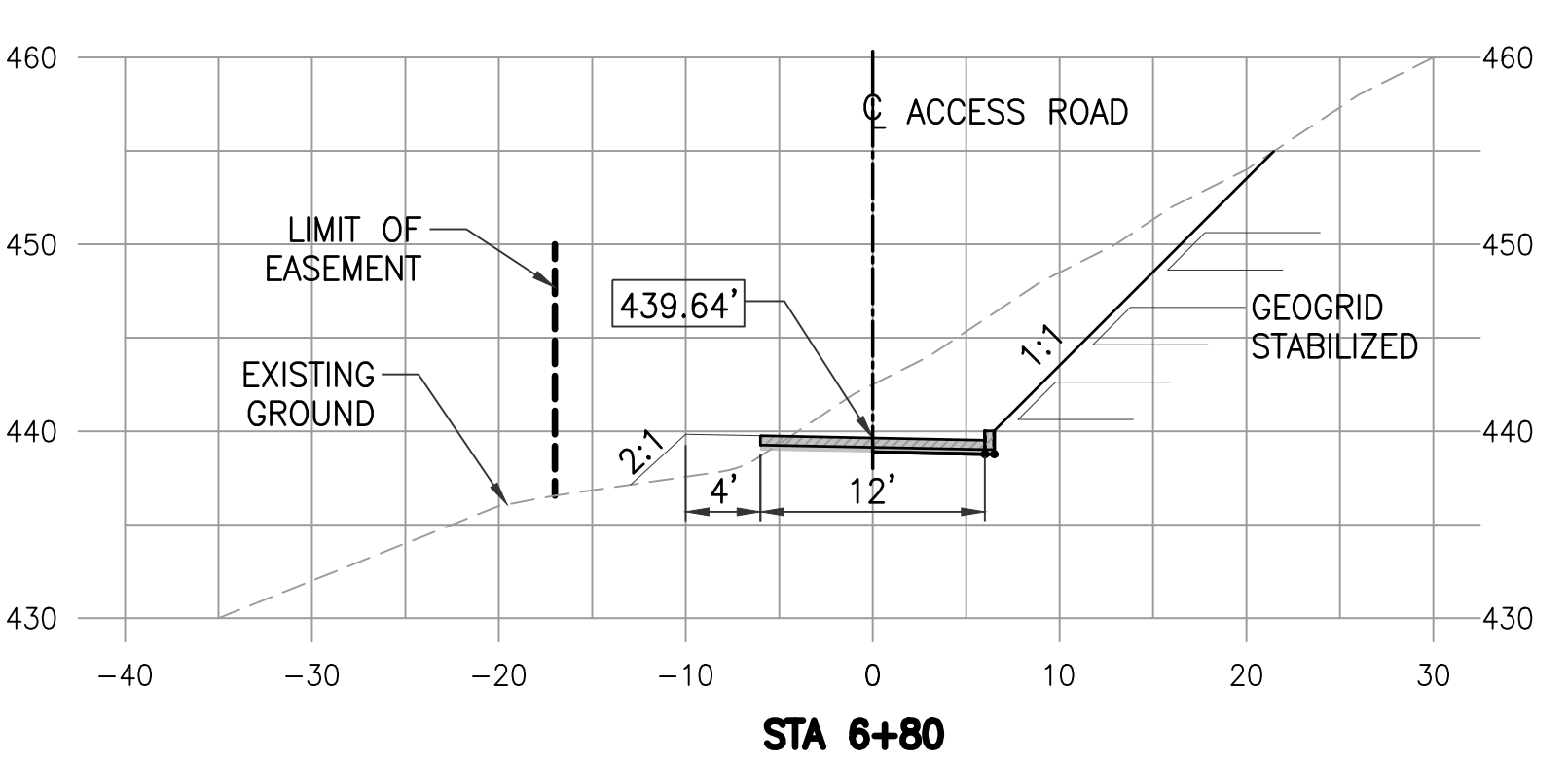
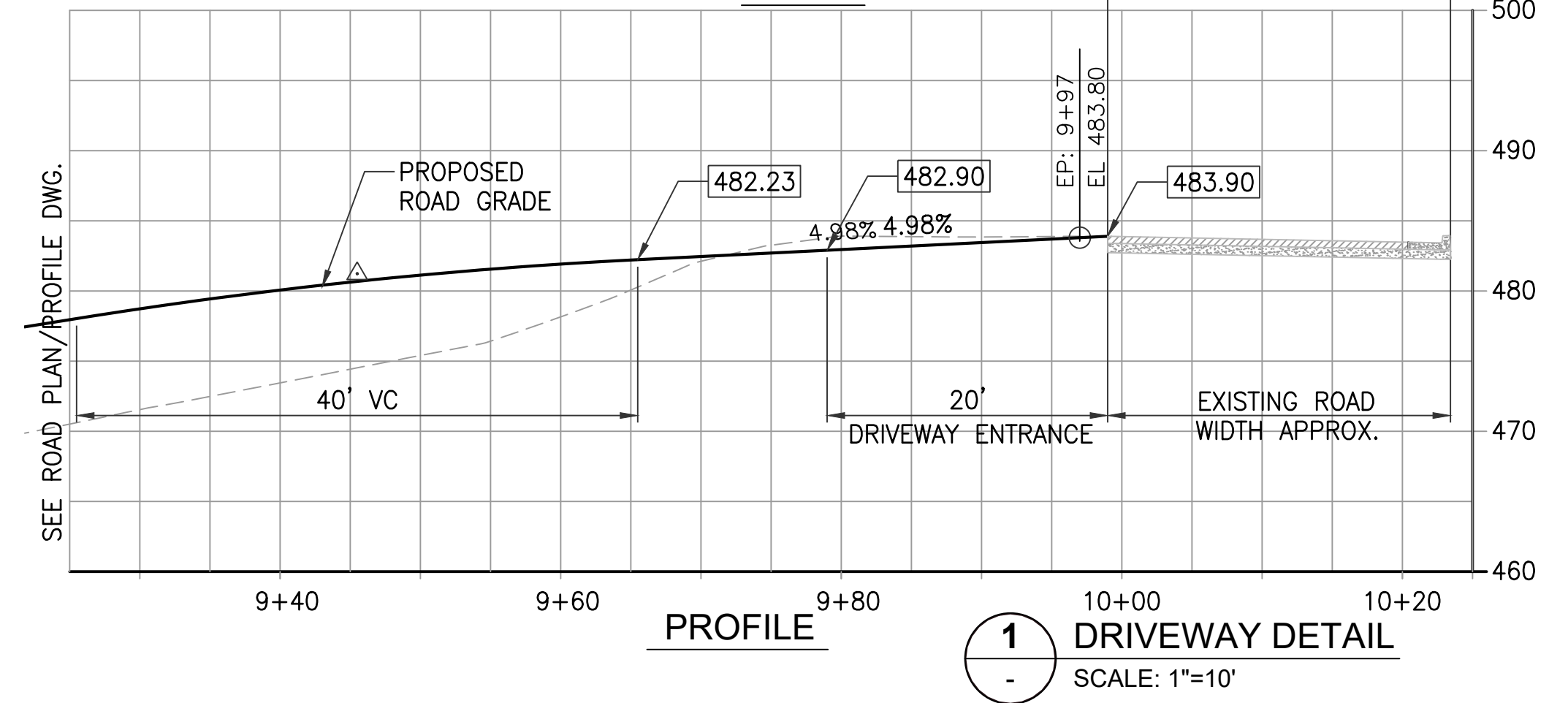
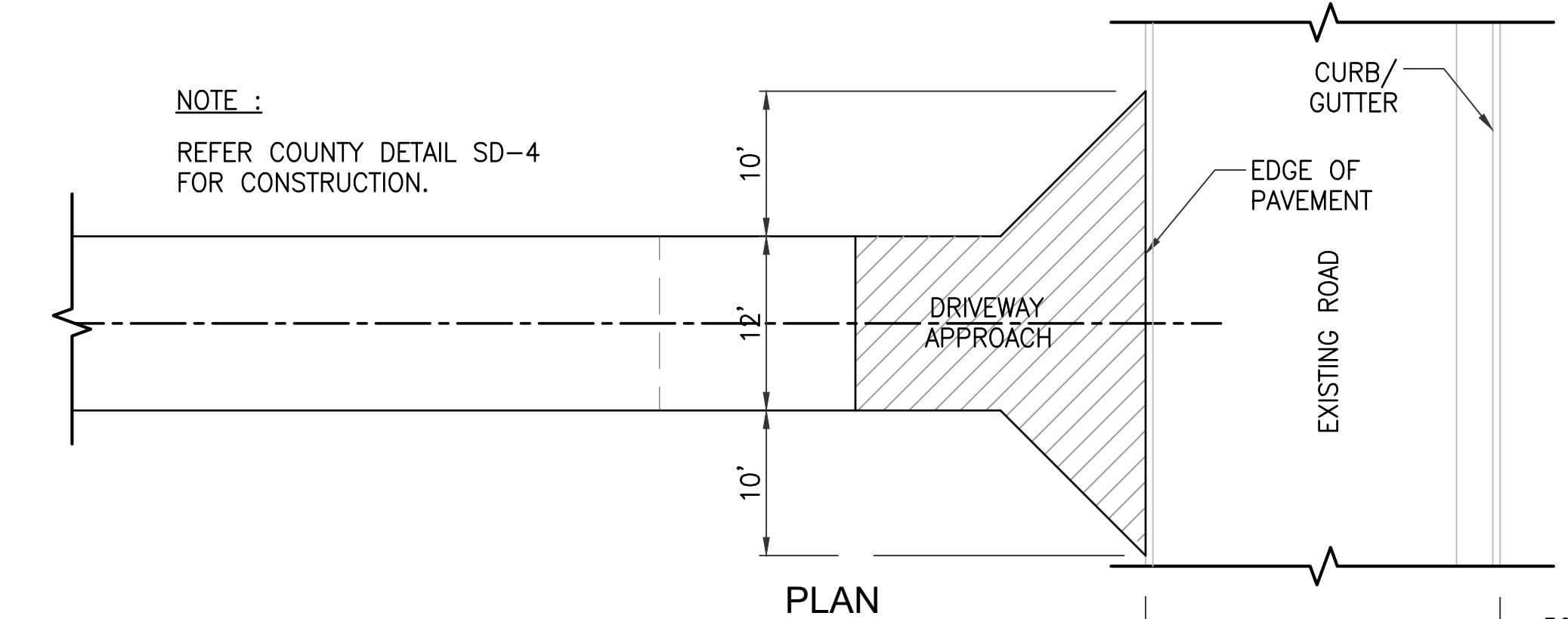
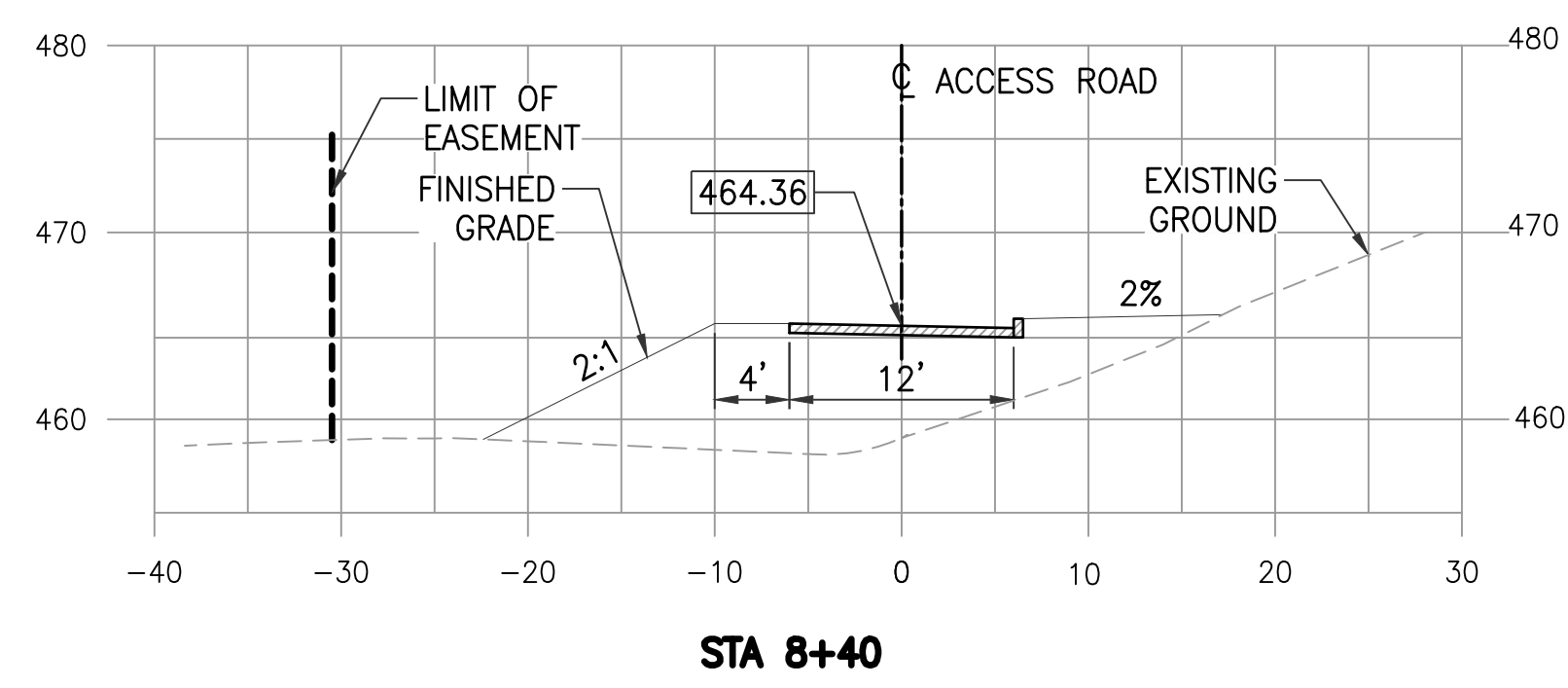
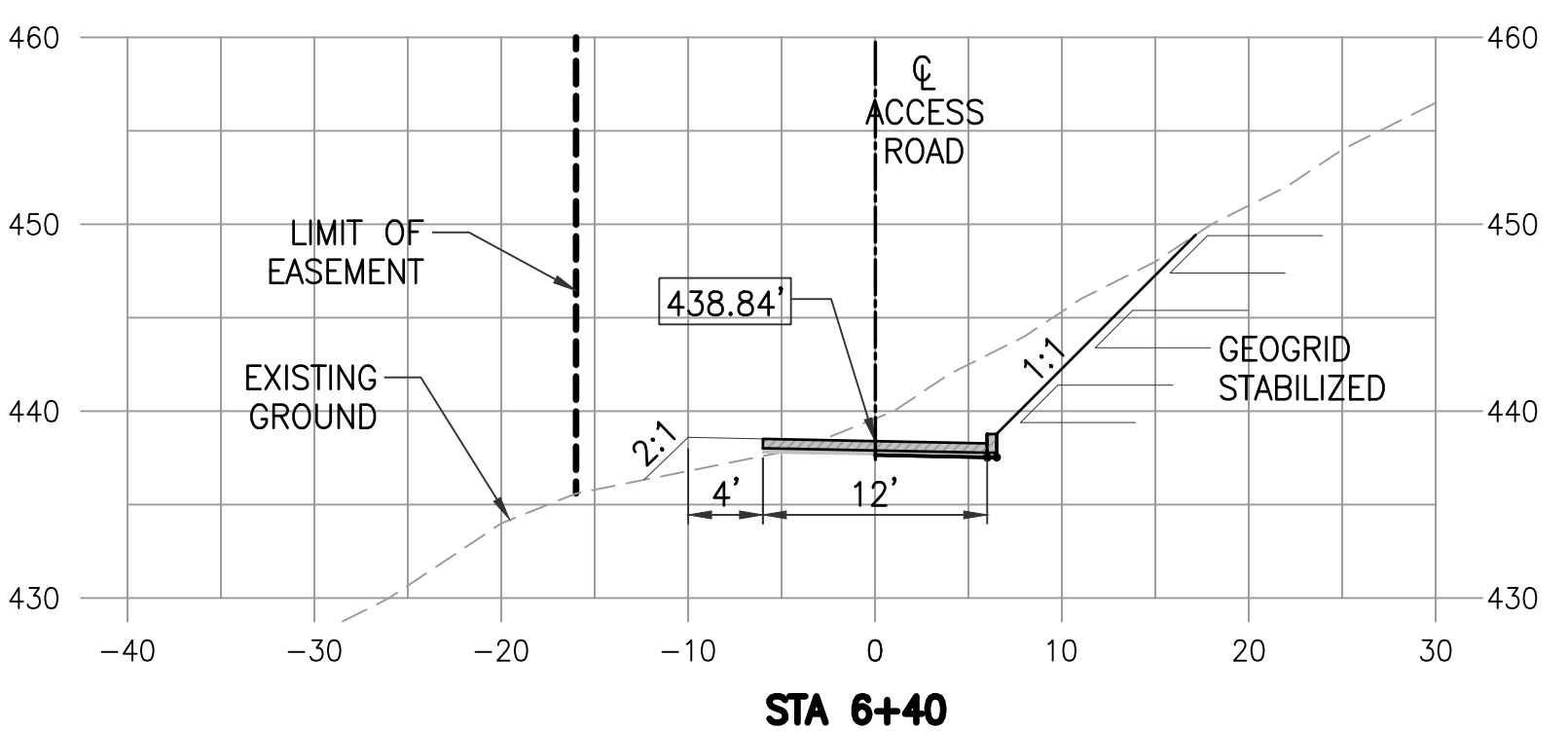
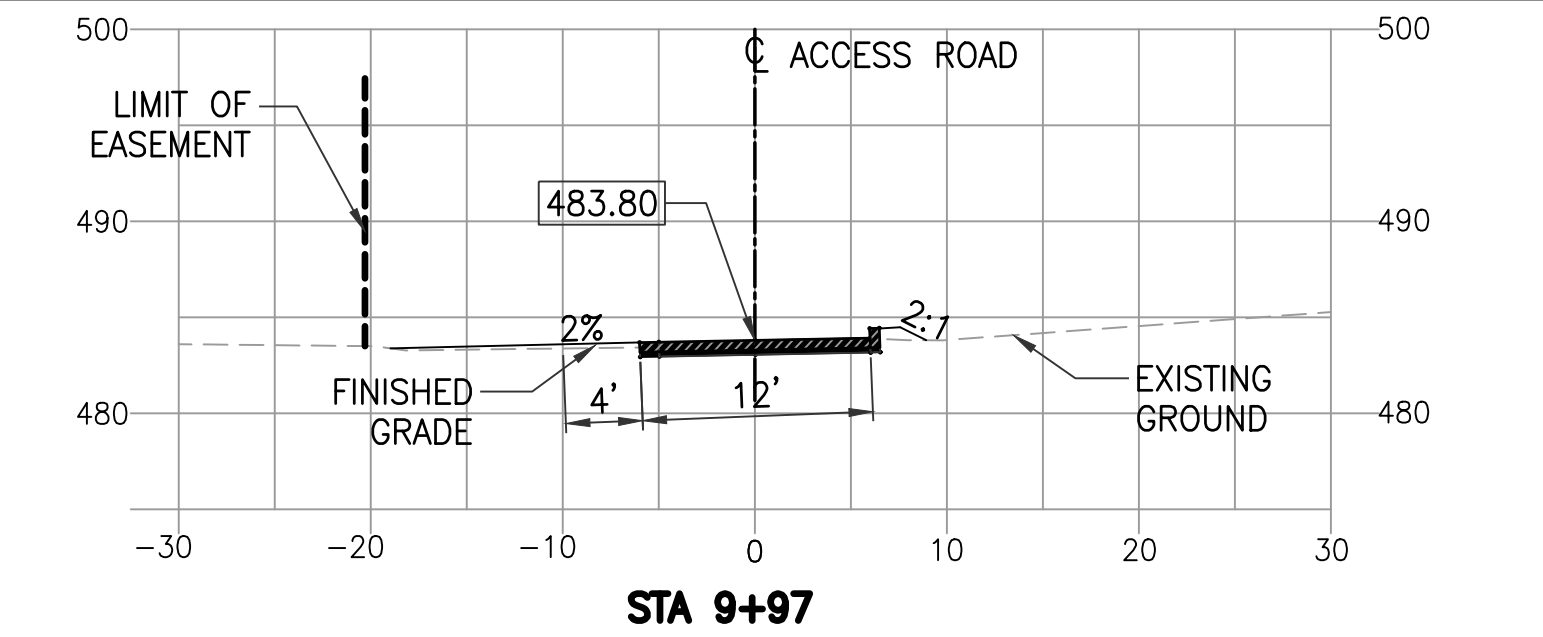
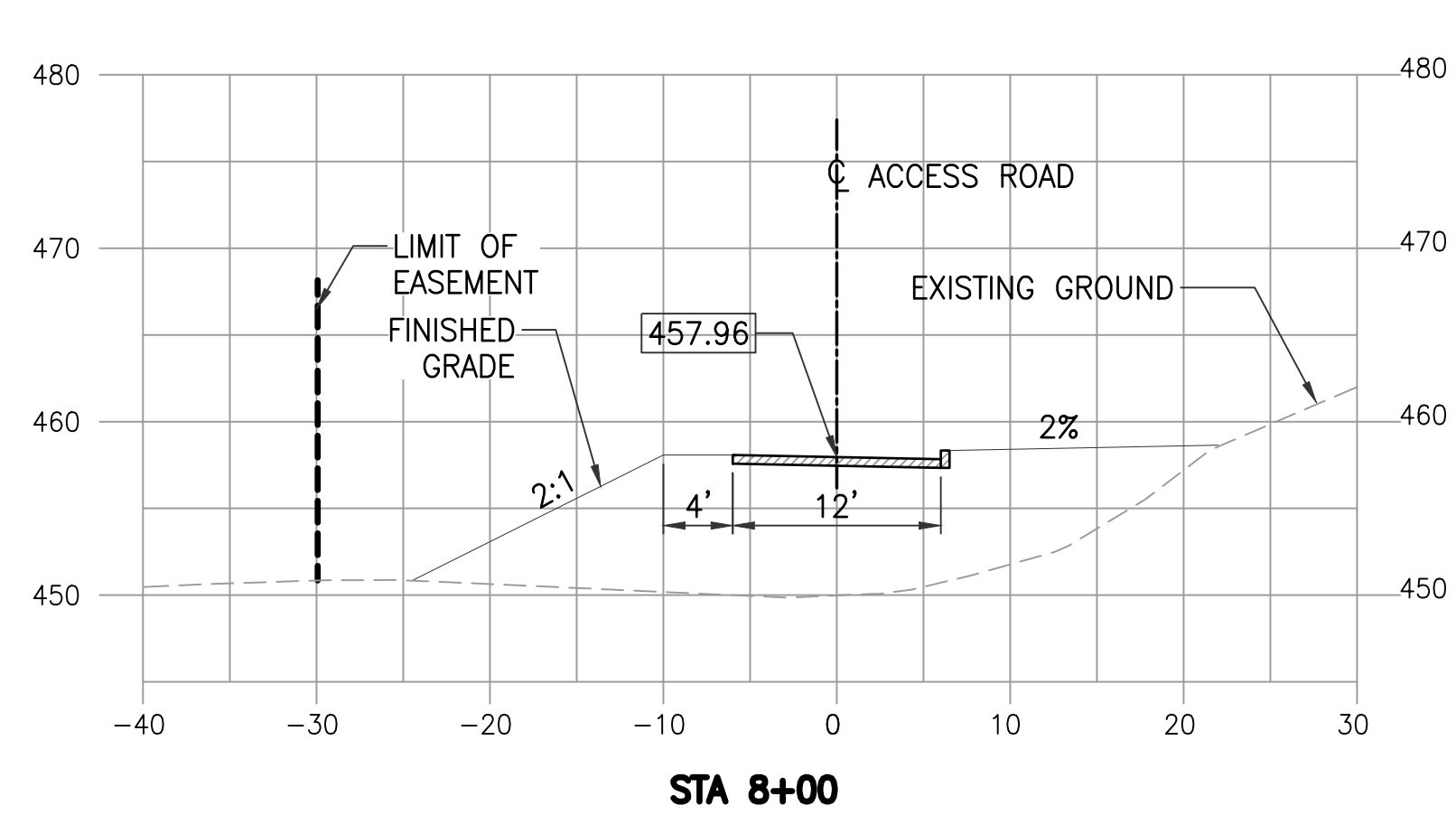
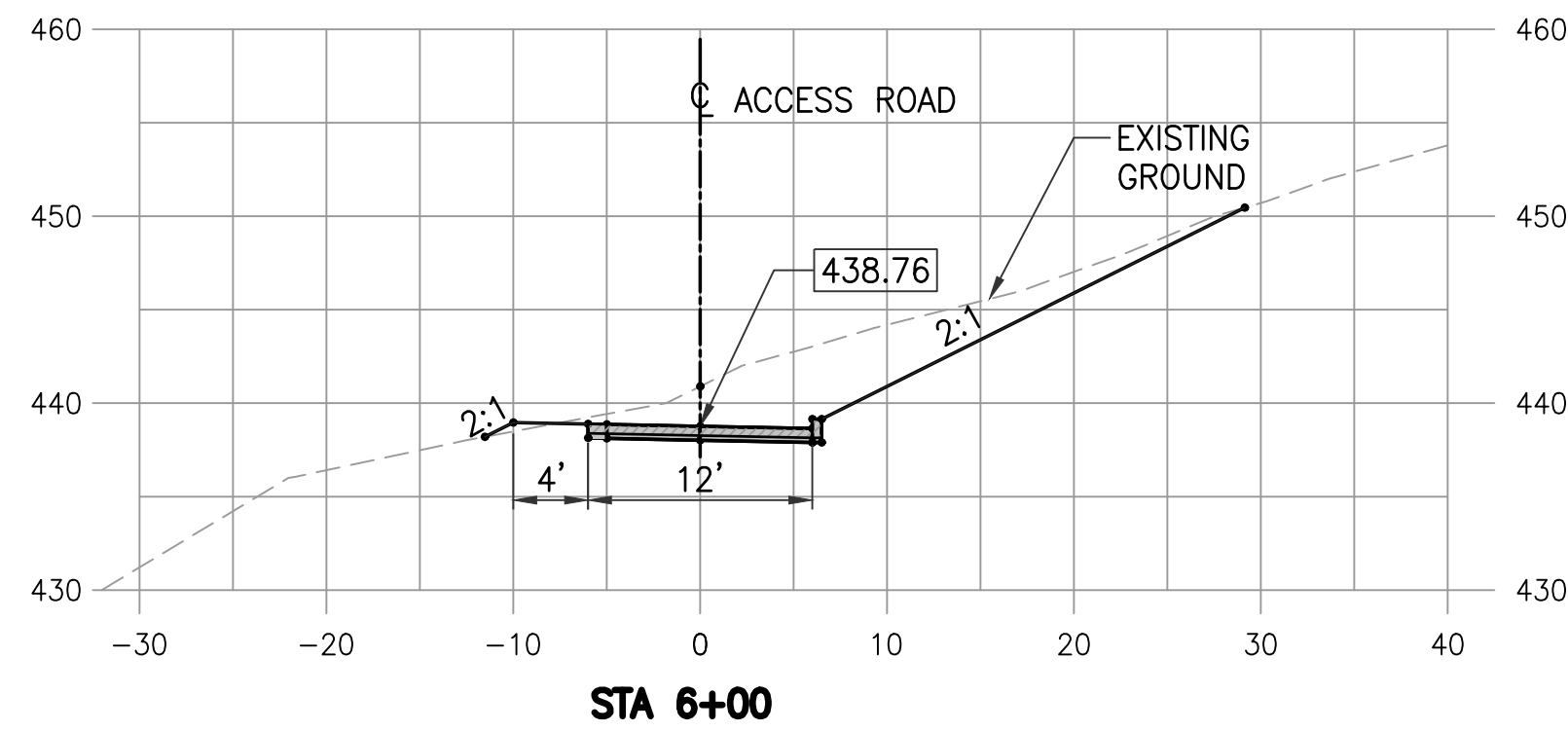
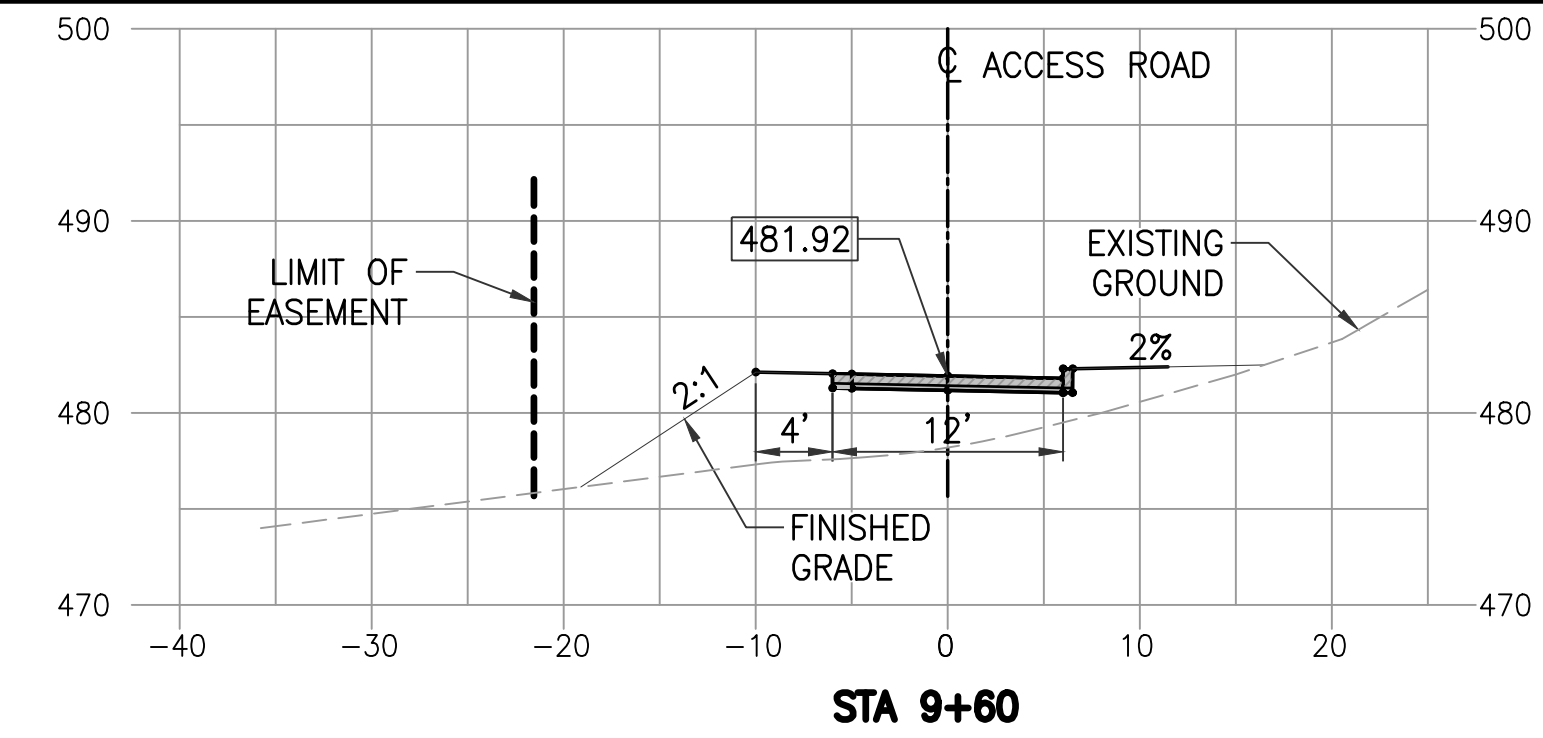
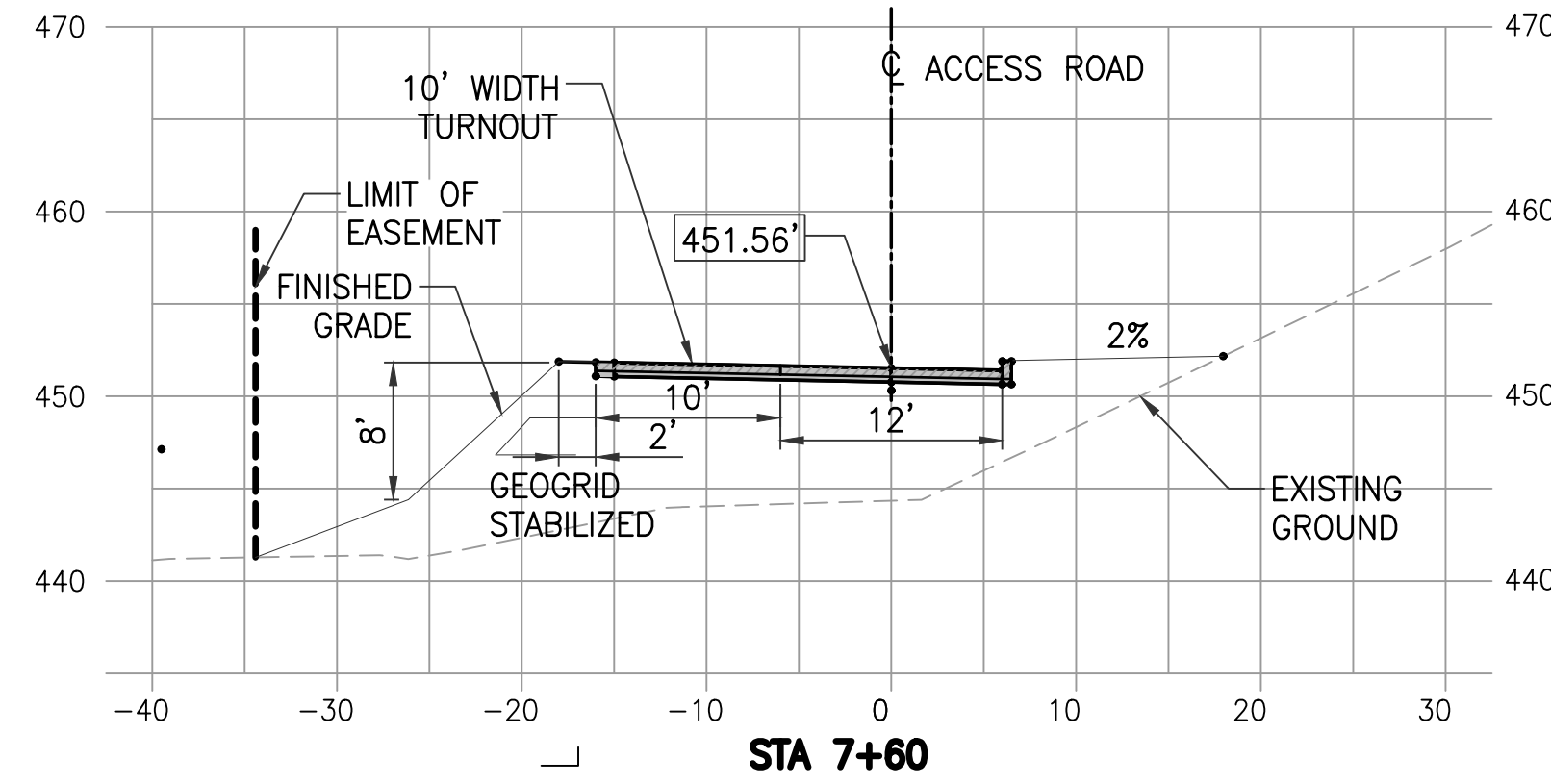
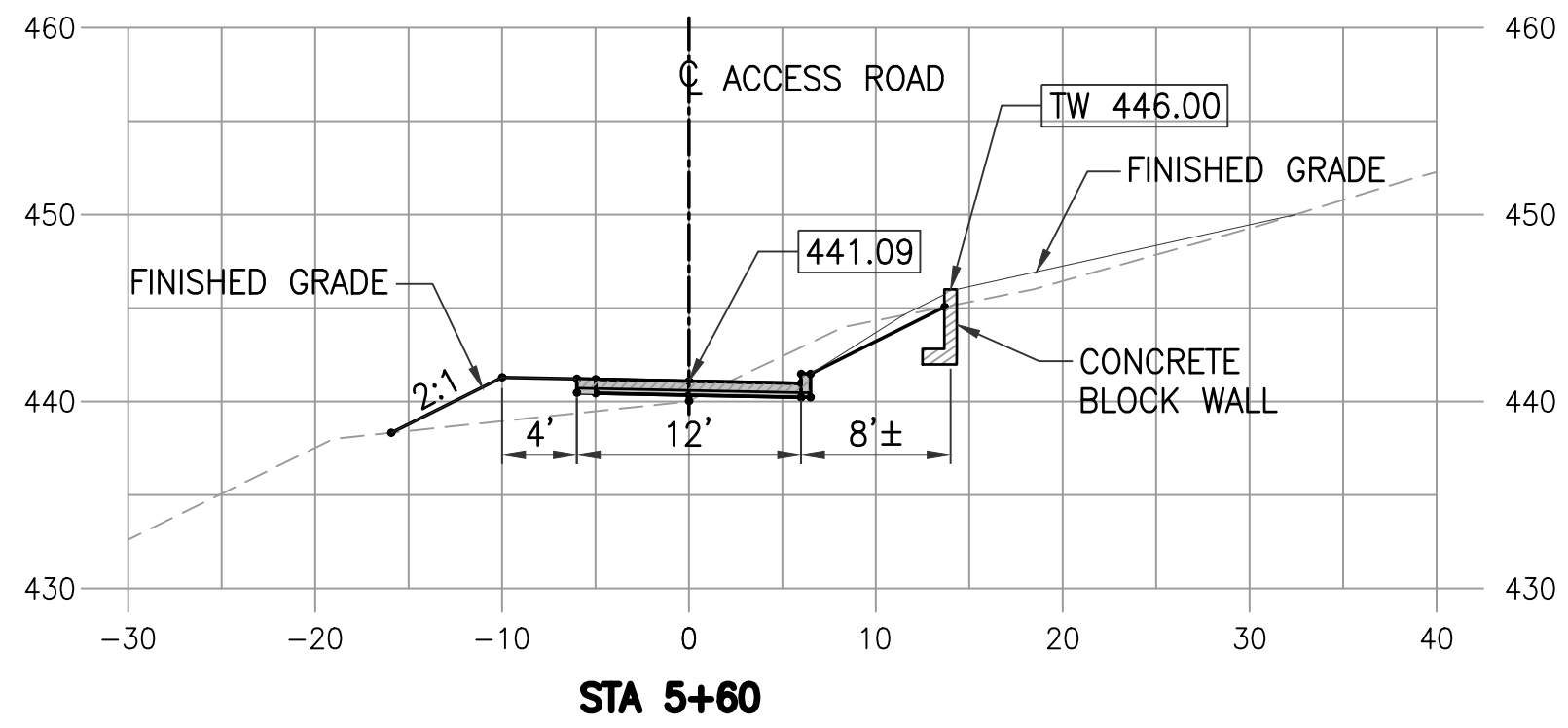


**I** SECTION  
C-2



**J** SECTION  
C-2



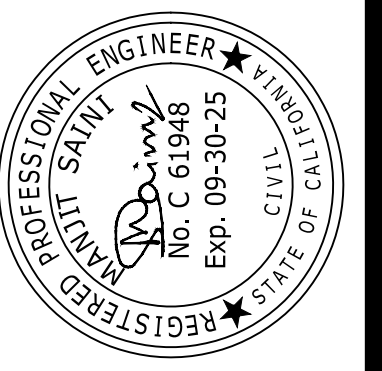


APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.



JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

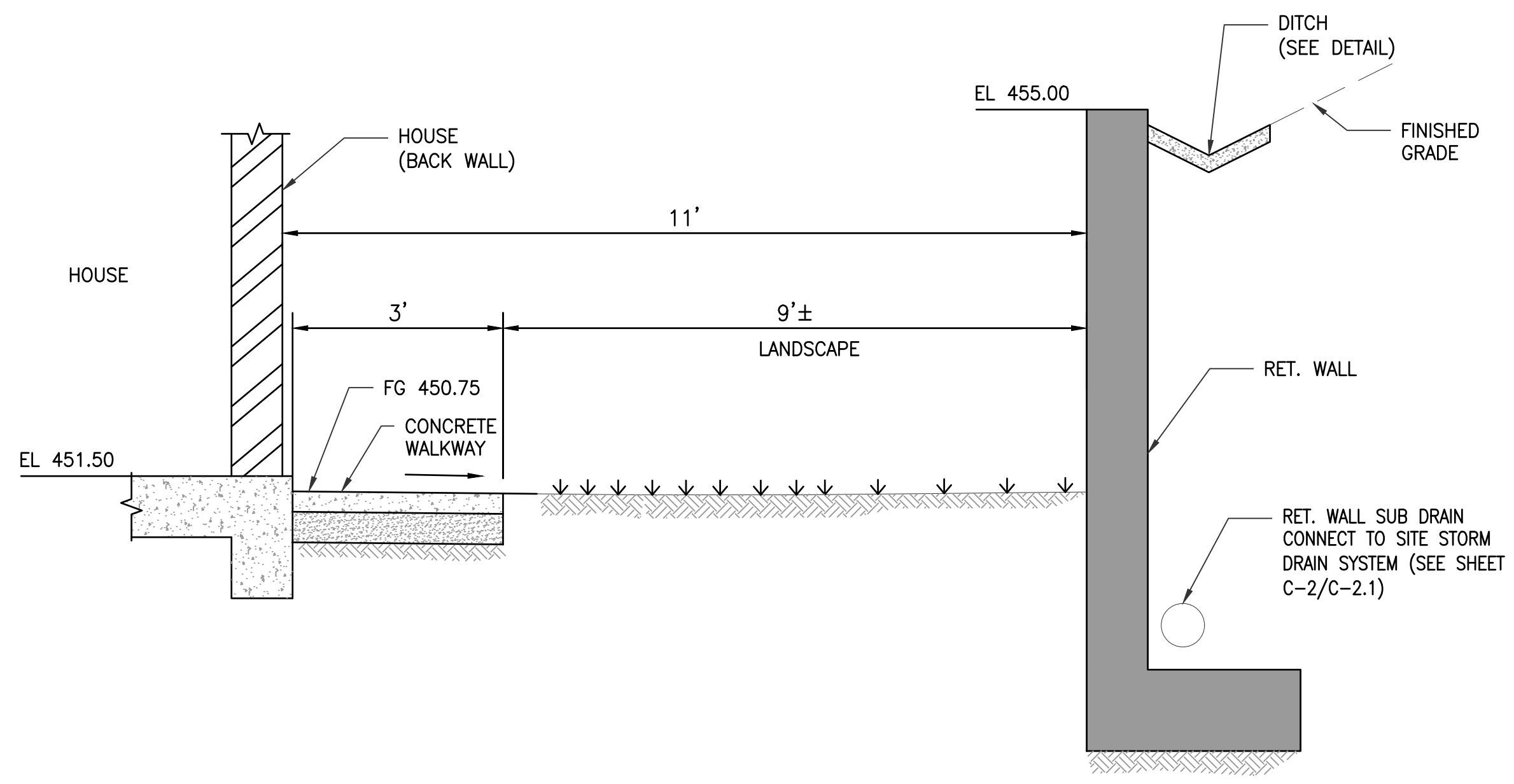
DRIVEWAY CROSS SECTIONS & APPROACH PLAN AND PROFILE



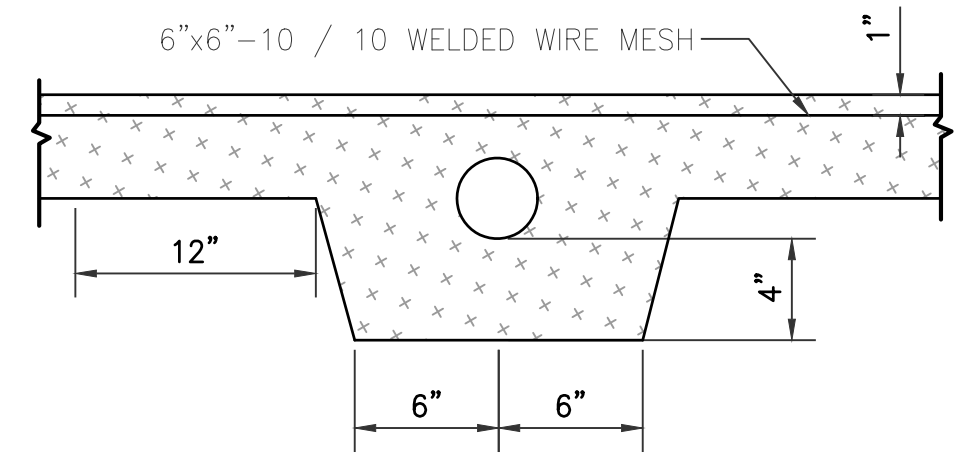
DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS
SHEET NUMBER <b>C-7</b>	
13 OF 20 SHEETS	



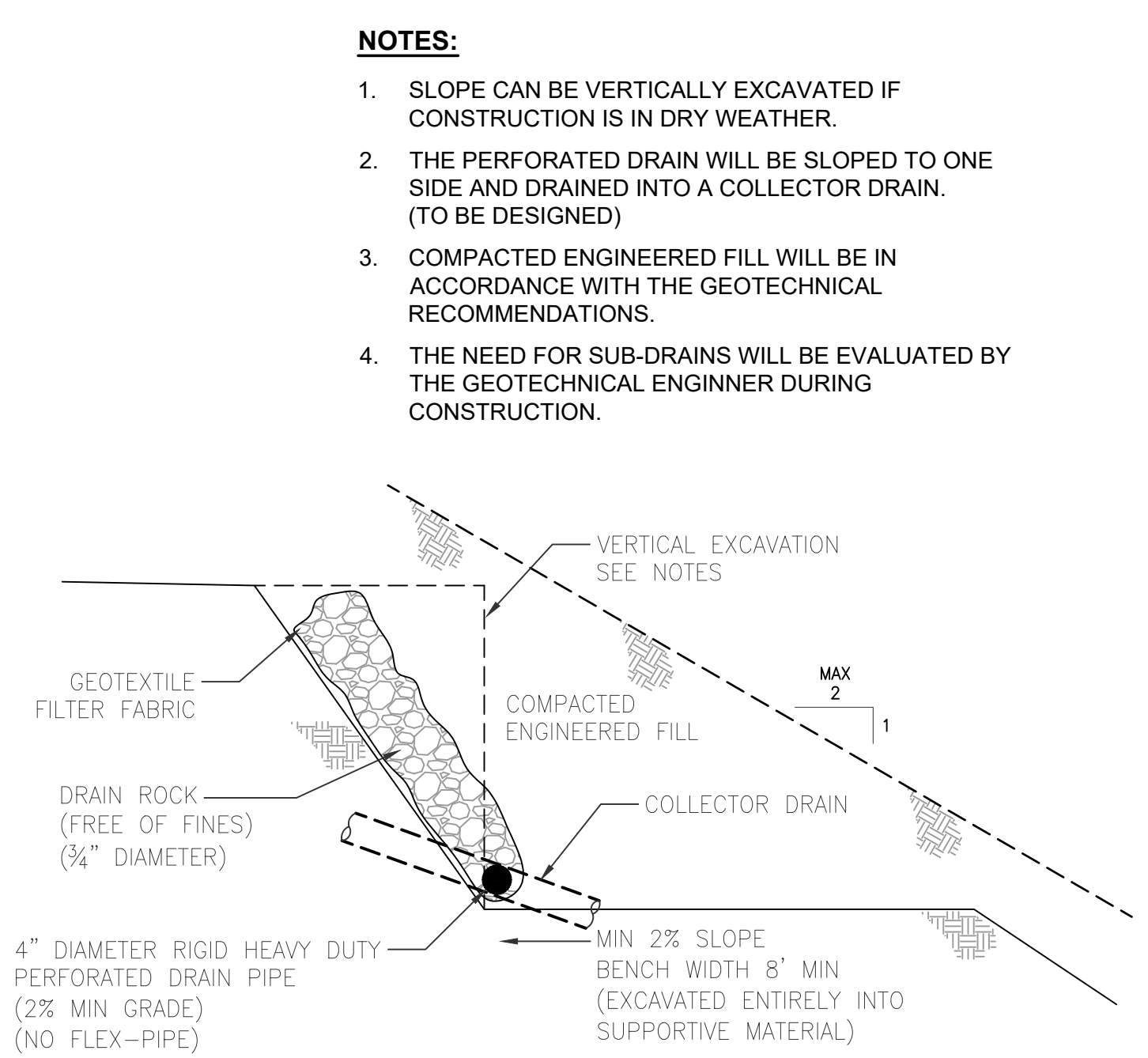


**1** DETAIL 1  
SCALE: N.T.S.



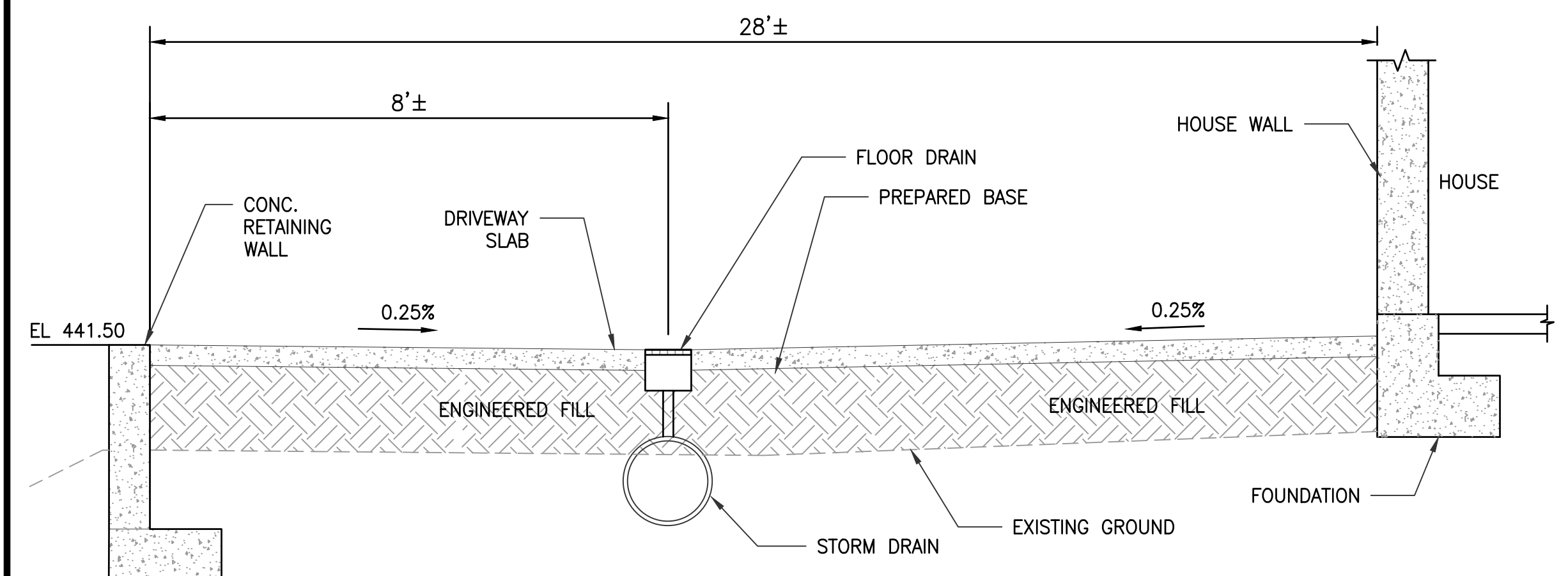
**4** UNDER DRIVEWAY DRAIN (TYP.)  
N.T.S.

- NOTES:**
- SEE DETAIL 7 FOR DRIVEWAY UNDERDRAIN.
  - SLOPE DRIVEWAY TOWARD CATCH BASIN.

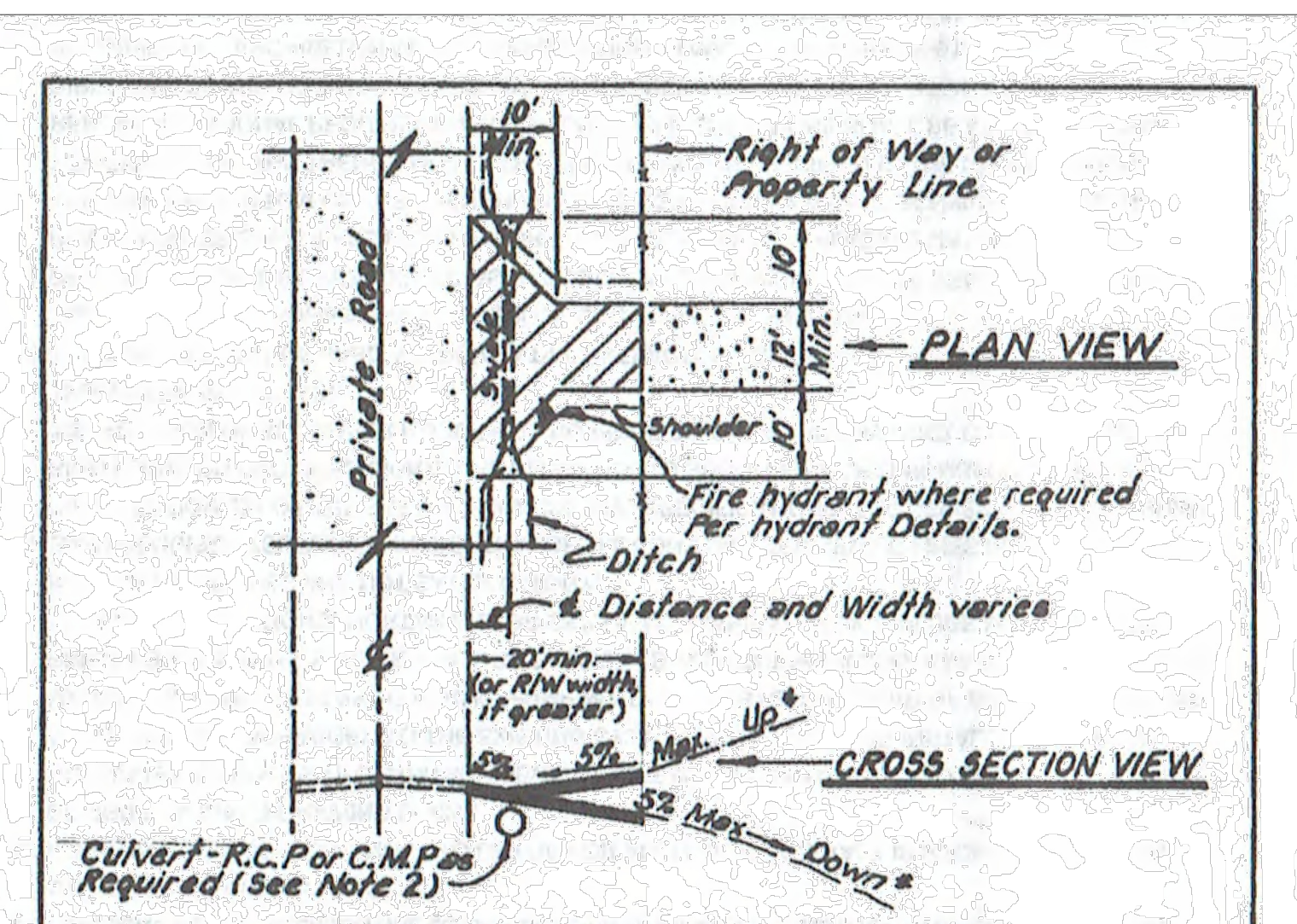


**5** BENCH DETAIL (TYP.)  
N.T.S.

- NOTES:**
- SLOPE CAN BE VERTICALLY EXCAVATED IF CONSTRUCTION IS IN DRY WEATHER.
  - THE PERFORATED DRAIN WILL BE SLOPED TO ONE SIDE AND DRAINED INTO A COLLECTOR DRAIN. (TO BE DESIGNED)
  - COMPACTED ENGINEERED FILL WILL BE IN ACCORDANCE WITH THE GEOTECHNICAL RECOMMENDATIONS.
  - THE NEED FOR SUB-DRAINS WILL BE EVALUATED BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION.



**2** DETAIL 2  
SCALE: N.T.S.



**DRIVEWAY APPROACH**  
Connection to Private Road

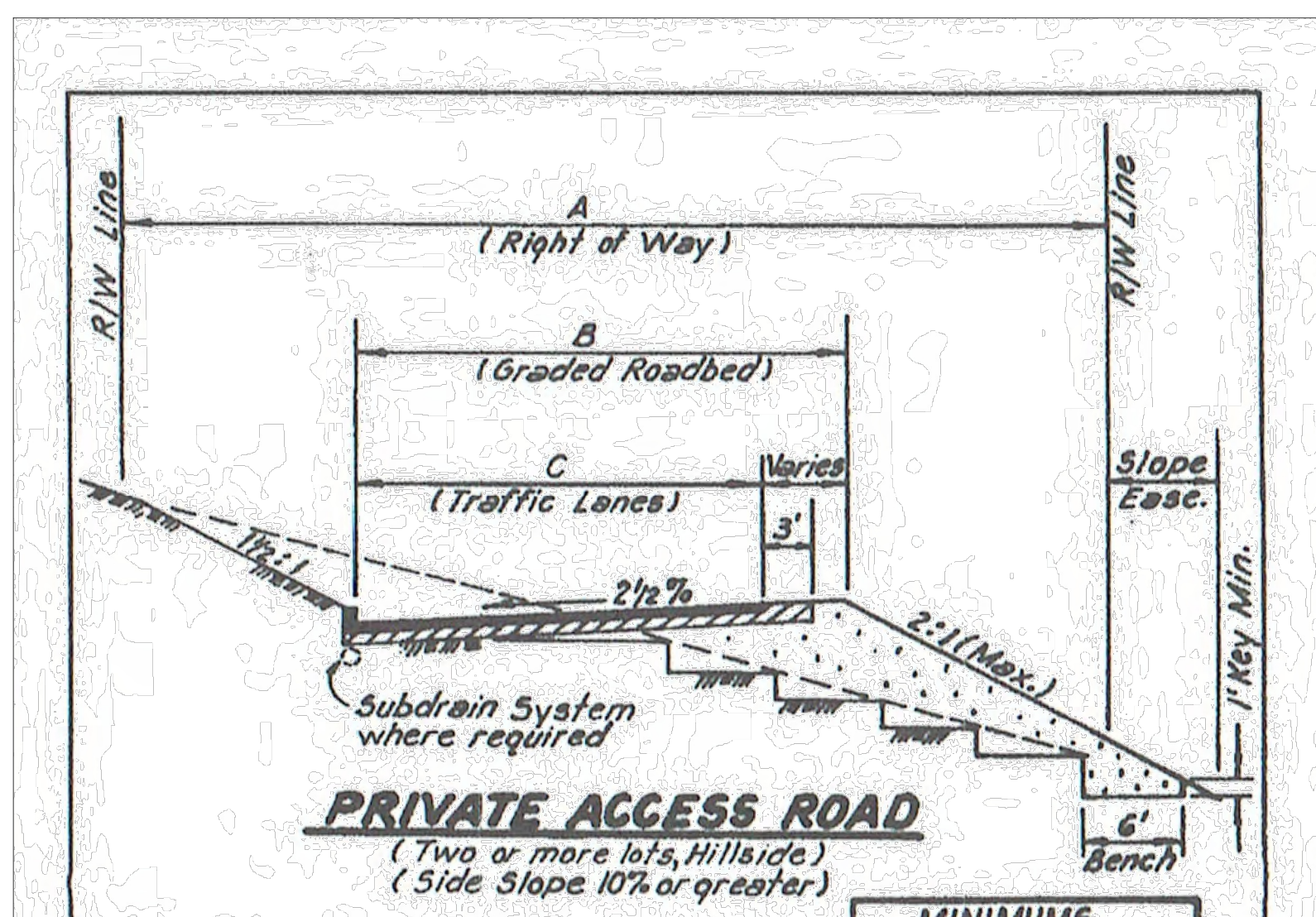
**NOTES**

- Culvert plus swale shall accommodate maximum flow. Minimum culvert size to be 12". Culvert shall extend 1' beyond each toe of shoulder. Provide headwalls and/or rip-rap as required. C.M.P. to be not less than 14 gauge.
- Culvert may be omitted where no roadside ditch exists with written approval of County Surveyor.
- Driveway approach base & paving to be same as or better than ultimate private road base & pavement.
- See Driveway section (this manual) for more information.

\* Maximum grade as per Fire Marshal

Approved: <i>[Signature]</i> Date: _____ Manager / County Surveyor Land Dev., Engineering & Surveying	COUNTY OF SANTA CLARA ENVIRONMENTAL MANAGEMENT / GENERAL SERVICES AGENCY
No. _____ Revision _____ Date _____	DRIVEWAY APPROACH (PRIVATE ROAD) SD 4

**6** DRIVEWAY APPROACH  
N.T.S.



**PRIVATE ACCESS ROAD**  
(Two or more lots, Hillside)  
(Side Slope 10% or greater)

TYPE OF ROAD	MINIMUMS		
	A	B	C
ONE-WAY LOOP (Turnouts as specified)	40'	18'	12'
2-3 LOTS (Ultimate Development)	40'	24'	18'
4OR MORE LOTS (Ultimate Development)	60'	30'-36'	18'
HALF-ROAD (Initial Construction)	40'	24'	18'
EMERGENCY ACCESS ROAD (with turnouts)	20'	15'	12'

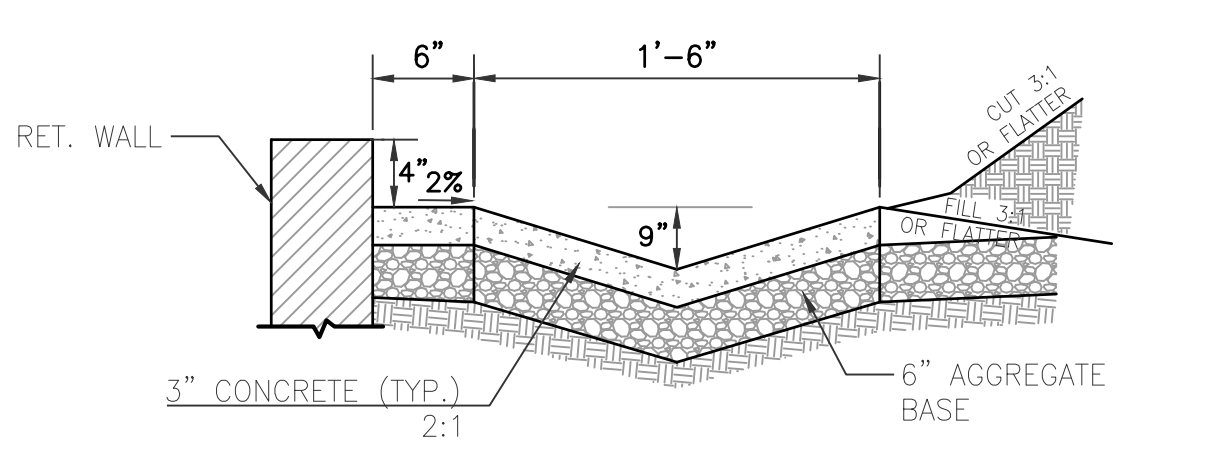
**NOTES**

- Roads serving 4 or more lots are to be designed for future upgrading to County maintained road standards unless exempted by County Surveyor.
- Base & surfacing-2 1/2" asphalt on 4" aggregate base, except as otherwise specified by County Surveyor.
- Asphalt dikes may be deleted where erosion protection is not needed. (See Chart for Determining Ditch Lining Requirements.)
- See section of manual entitled "Policies & Standards for Roads" for further design and construction information.
- Benching may be deleted where cross is less than 20%.

Approved: <i>[Signature]</i> Date: _____ Manager / County Surveyor Land Dev., Engineering & Surveying	COUNTY OF SANTA CLARA ENVIRONMENTAL MANAGEMENT / GENERAL SERVICES AGENCY
No. _____ Revision _____ Date _____	PRIVATE ACCESS ROAD (Hillside conditions) SD 2

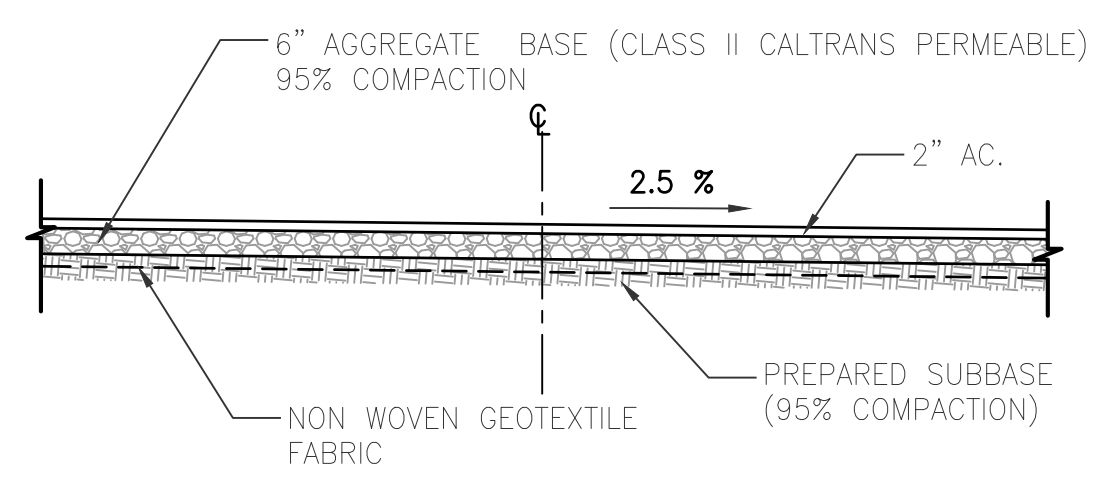
**7** PRIVATE ACCESS ROAD  
N.T.S.

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.



**3** CONCRETE DITCH (TYP.)  
N.T.S.

- NOTE:**
- CONC. (6") SHALL ONLY PLACED ALONG RET. WALL. NO CONC. BEYOND 2' WIDTH OF V-DITCH, OUTSIDE RET. WALL AREA

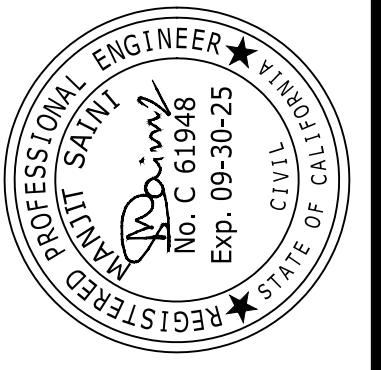


**3** DRIVEWAY CROSS SECTION (TYP.)  
N.T.S.



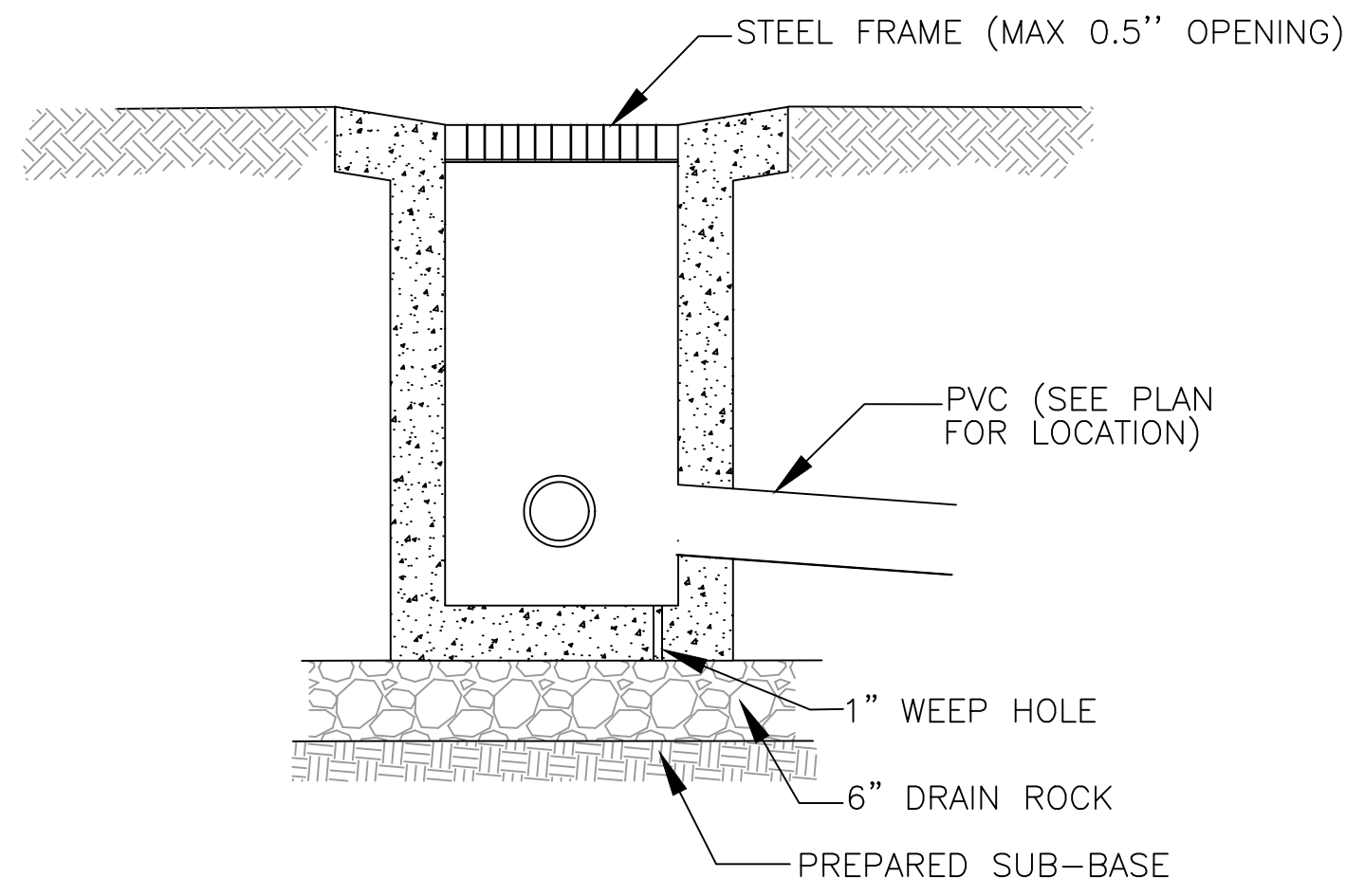
JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

GRADING DETAILS

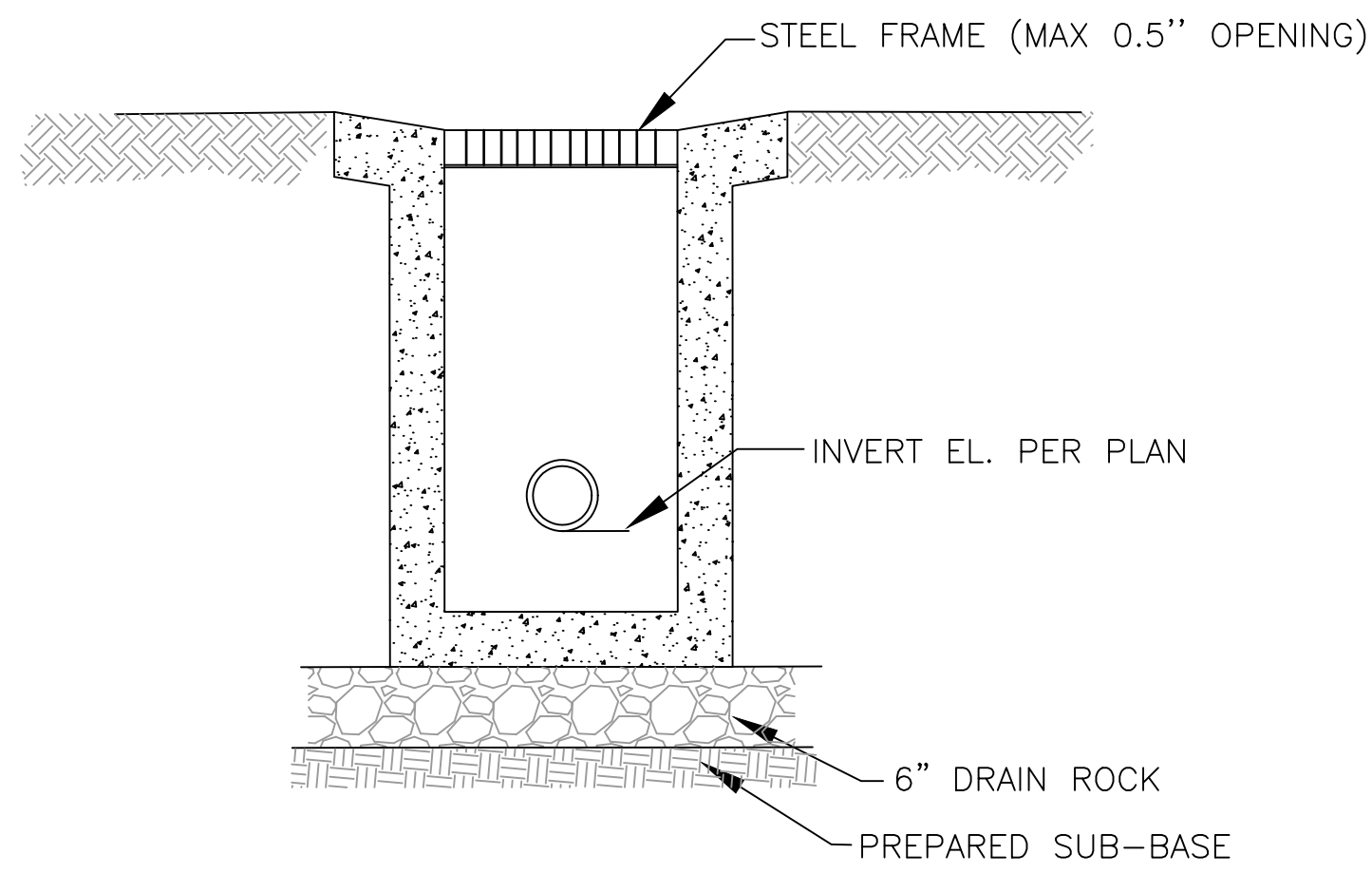


DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

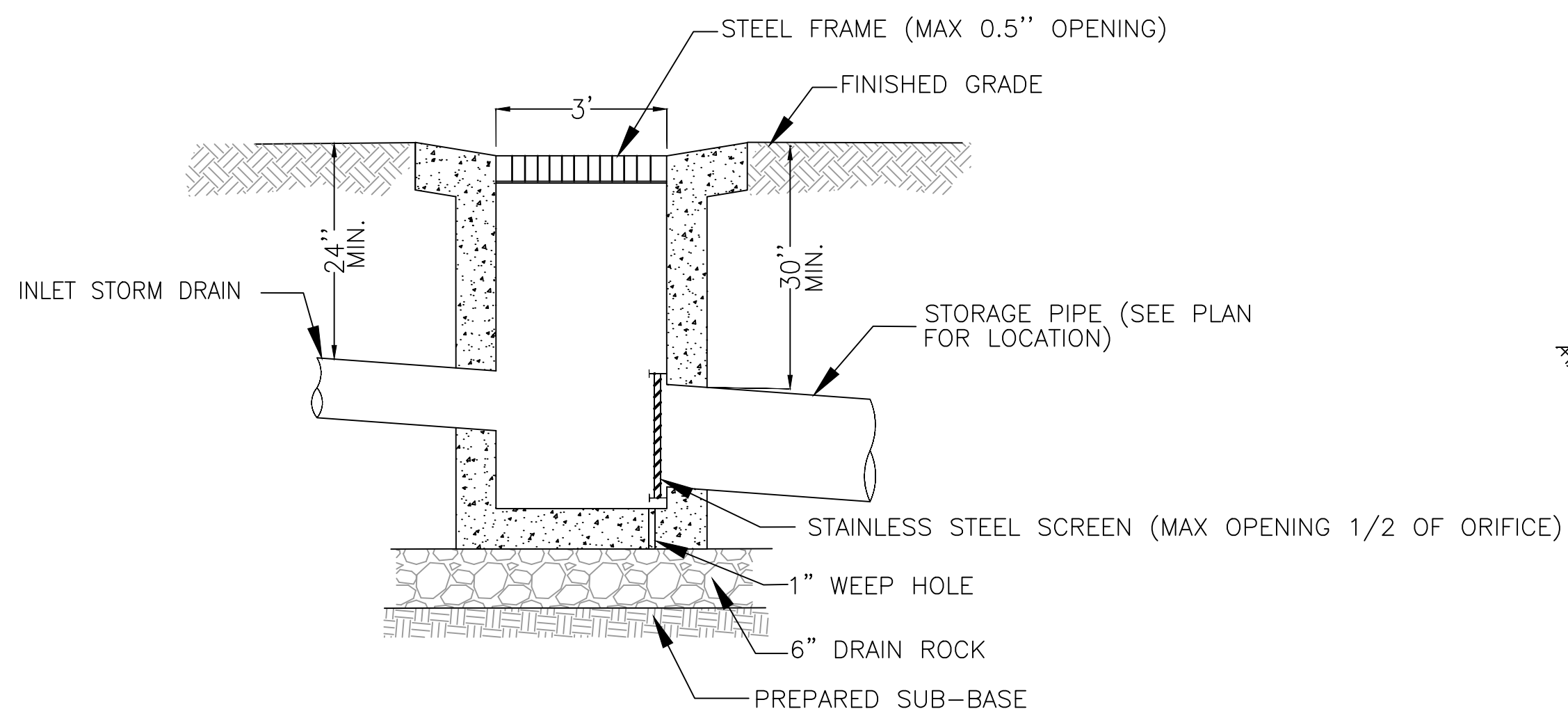
REVISIONS	
No.	



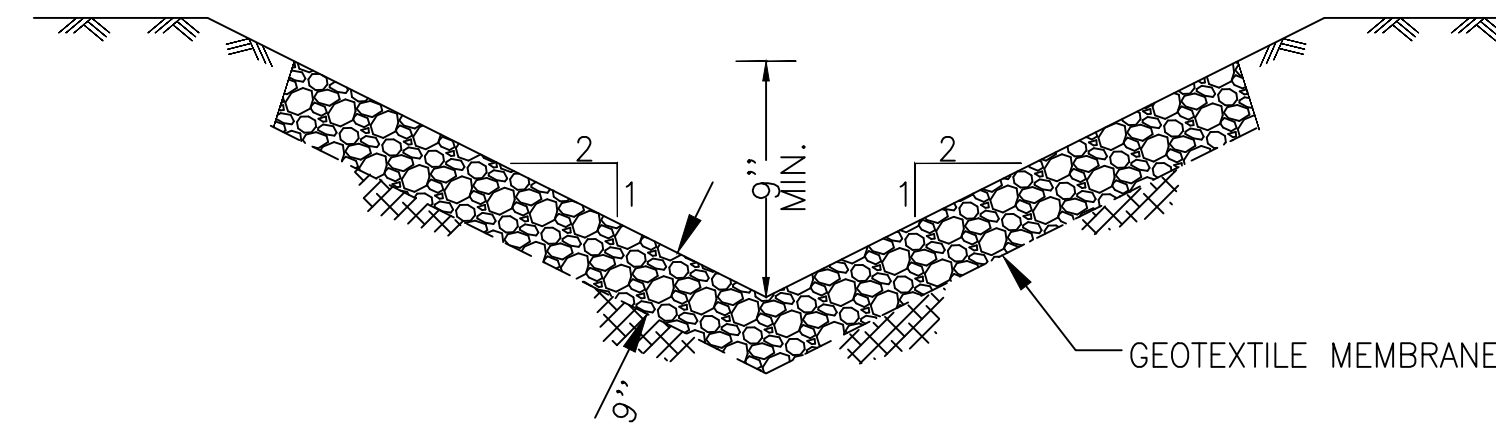
**CATCH BASIN (TYP.)** 1  
(N.T.S) C-4



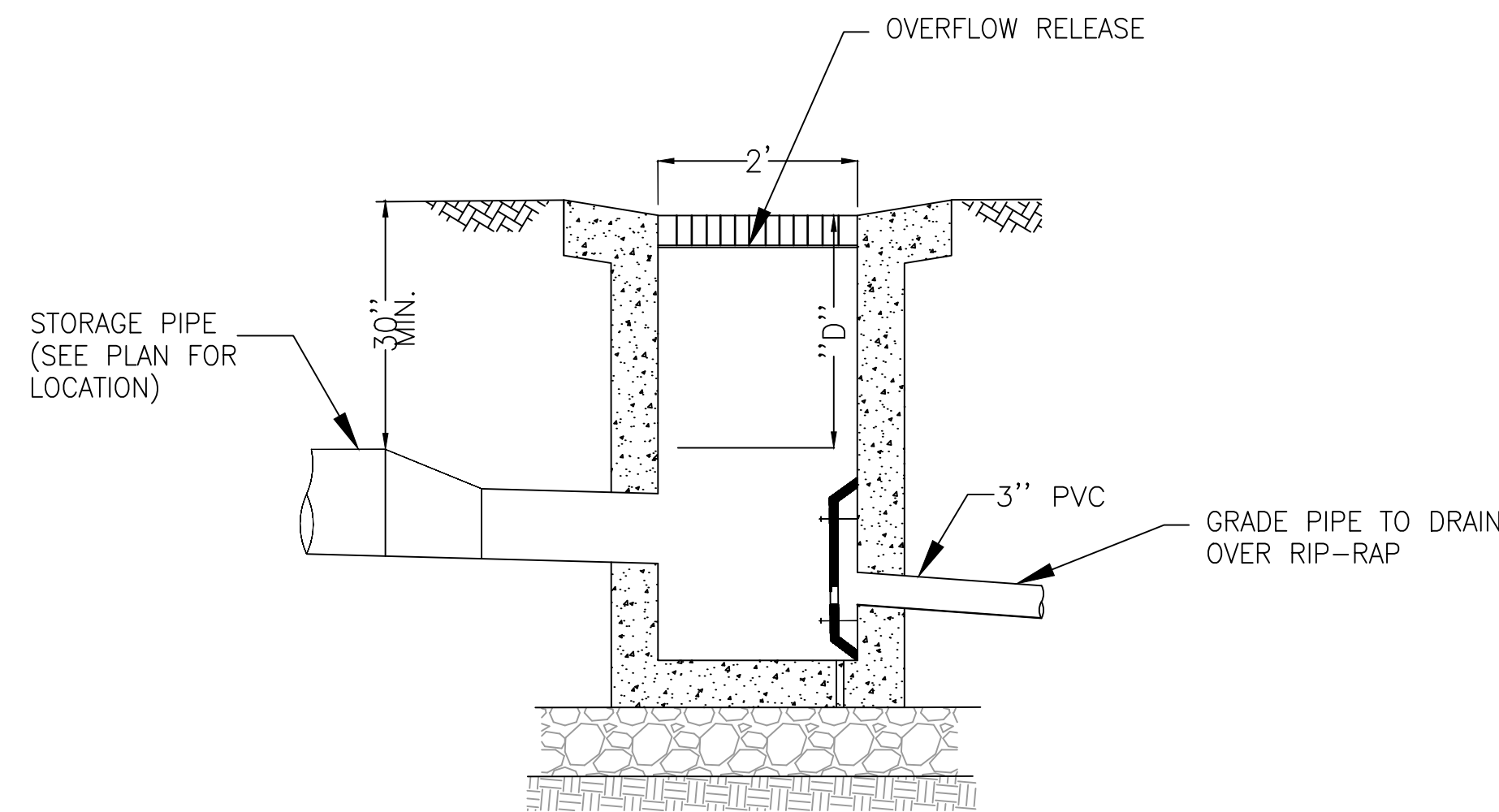
**CATCH BASIN (TYP.)** 1  
(N.T.S) C-4



**INLET CATCH BASIN** 2  
(N.T.S) C-4

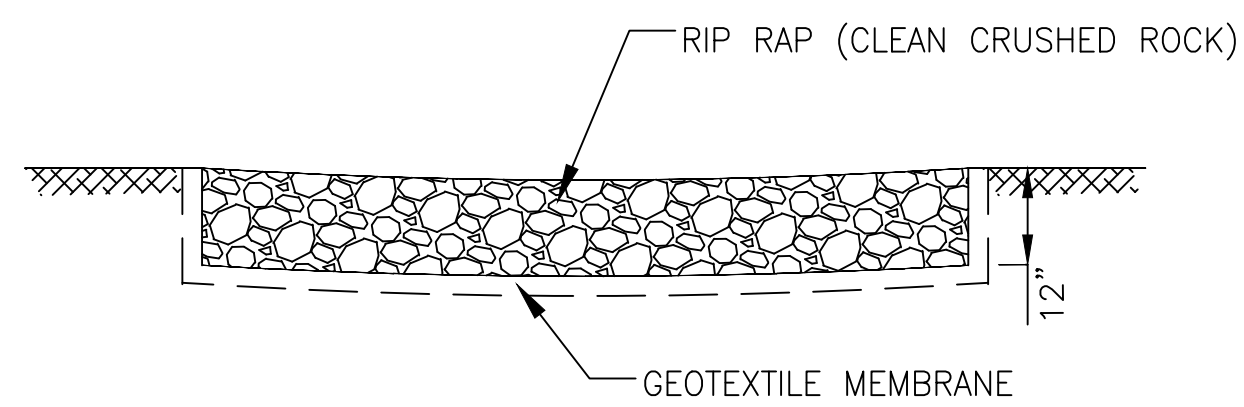


**ROCK V-DITCH (TYP)** 4  
(N.T.S)



NOTE: THE OVERFLOW RELEASE RIM ELEVATION SHALL MATCH OR ABOVE THE HIGHEST OVERT ELEVATION IN THE STORM STORAGE SYSTEM, AND A MIN. OF 8" BELOW THE LOWEST RIM ELEVATION IN THE STORM DRAIN SYSTEM

**ORIFICE CONTROL CATCH BASIN-2 (TYP)** 6  
(N.T.S)



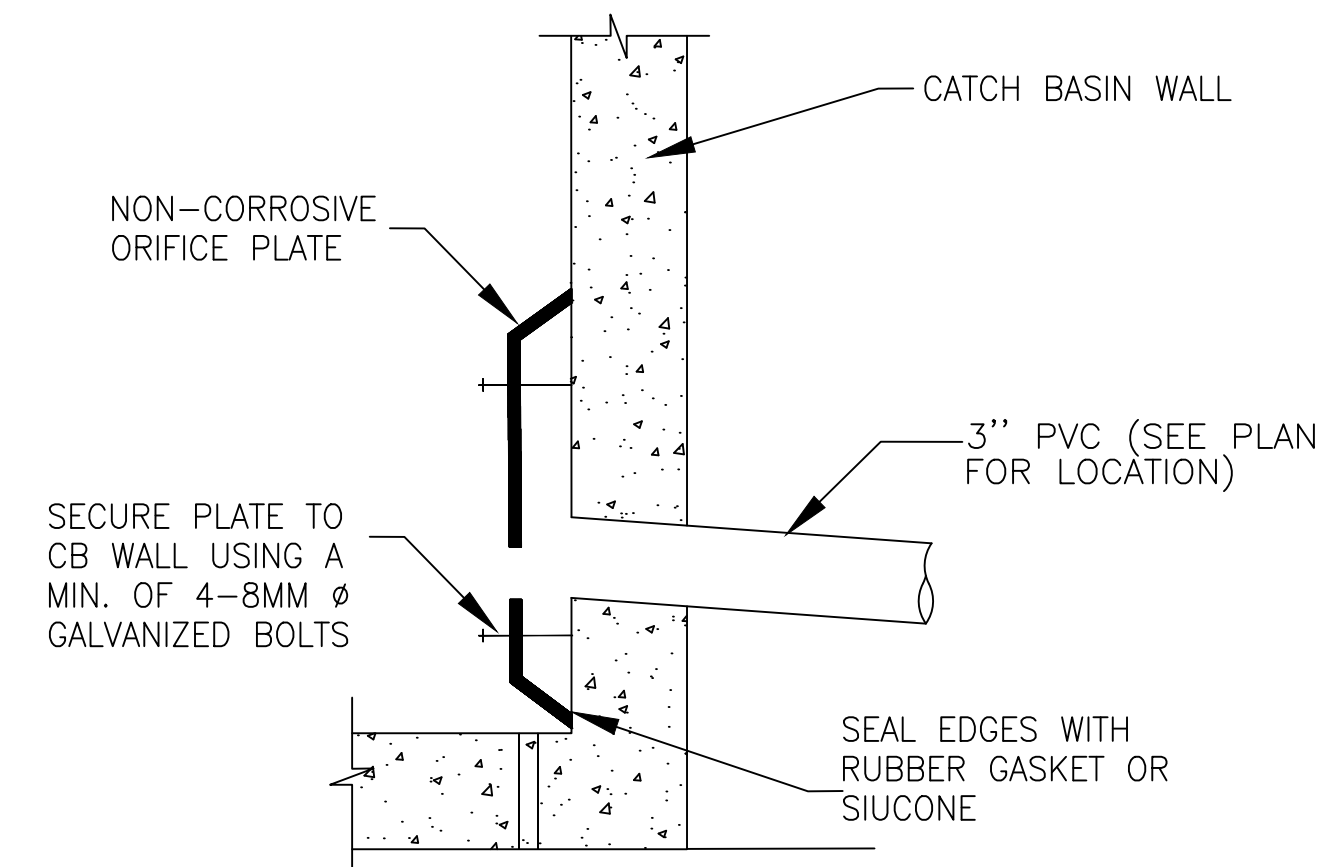
**RIP RAP (TYP) SECTION** 5  
(N.T.S)

**NOTES:**

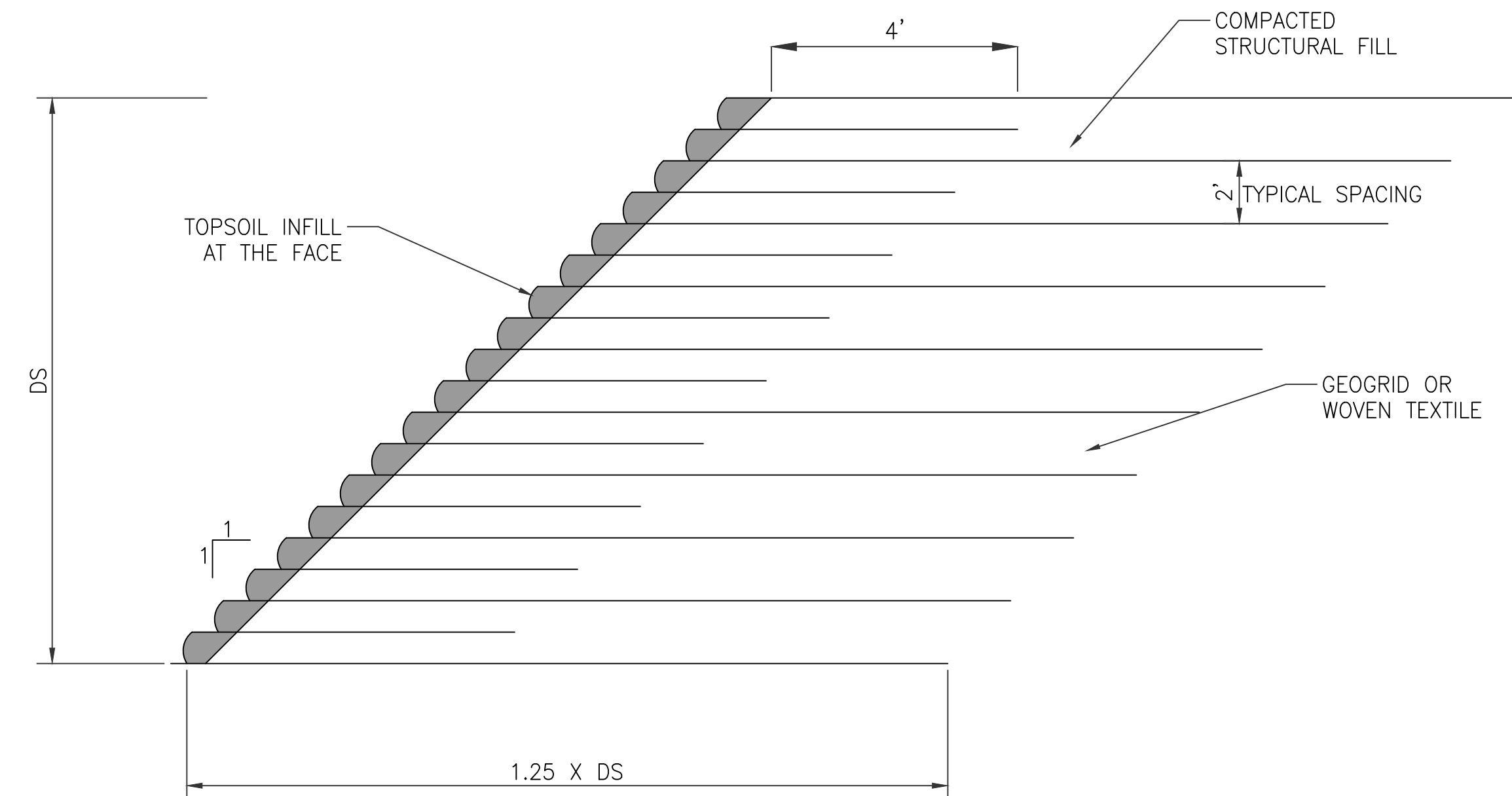
1. GEOTEXTILE MEMBRANE SHALL WOVEN MADE FROM POLYPROPYLENE, IN SLIT FILM OR MONOFILAMENT FORM, WITH 15% GRAB AND GRAB TENSILE STRENGTH 315 LBS.
2. RIPRAP: DURABLE ROCK, FREE FROM CRACKS AND SEAMS, WITH MEDIAN ROCK SIZE 4-INCHES
3. TRASH SCREEN SHALL BE STAINLESS STEEL SCREEN OR PLASTIC UV RESISTANT MATERIAL.
4. CATCH BASINS SHALL BE PRE-CAST CONCRETE.
5. MIN. SOIL COVER OVER DRAIN PIPE PER PLANS.

**NOTES:**

DEPTH "D" SHALL MATCH THE CROWN ELEV. OF STORAGE PIPE



**ORIFICE DETAIL (TYP)** 3  
(N.T.S)



**GEOGRID AND GEOTEXTILE**  
NTS

**NOTES:**

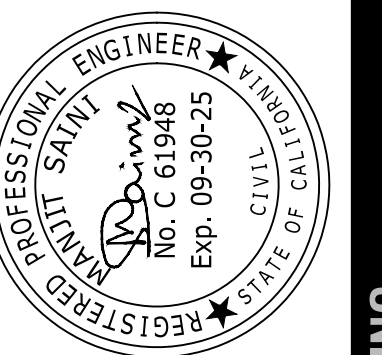
GEOTECHNICAL ENGINEER / MANUFACTURER SPECIFY GEOGRID TO BE USED AND FINALIZE THE DETAIL

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.



JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

DETAILS



DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS

NO.	
SHEET NUMBER	D-2
	15 OF 20 SHEETS

NOTE: TREES EXIST IN THIS AREA BUT WERE NOT LOCATED

**LEGEND**

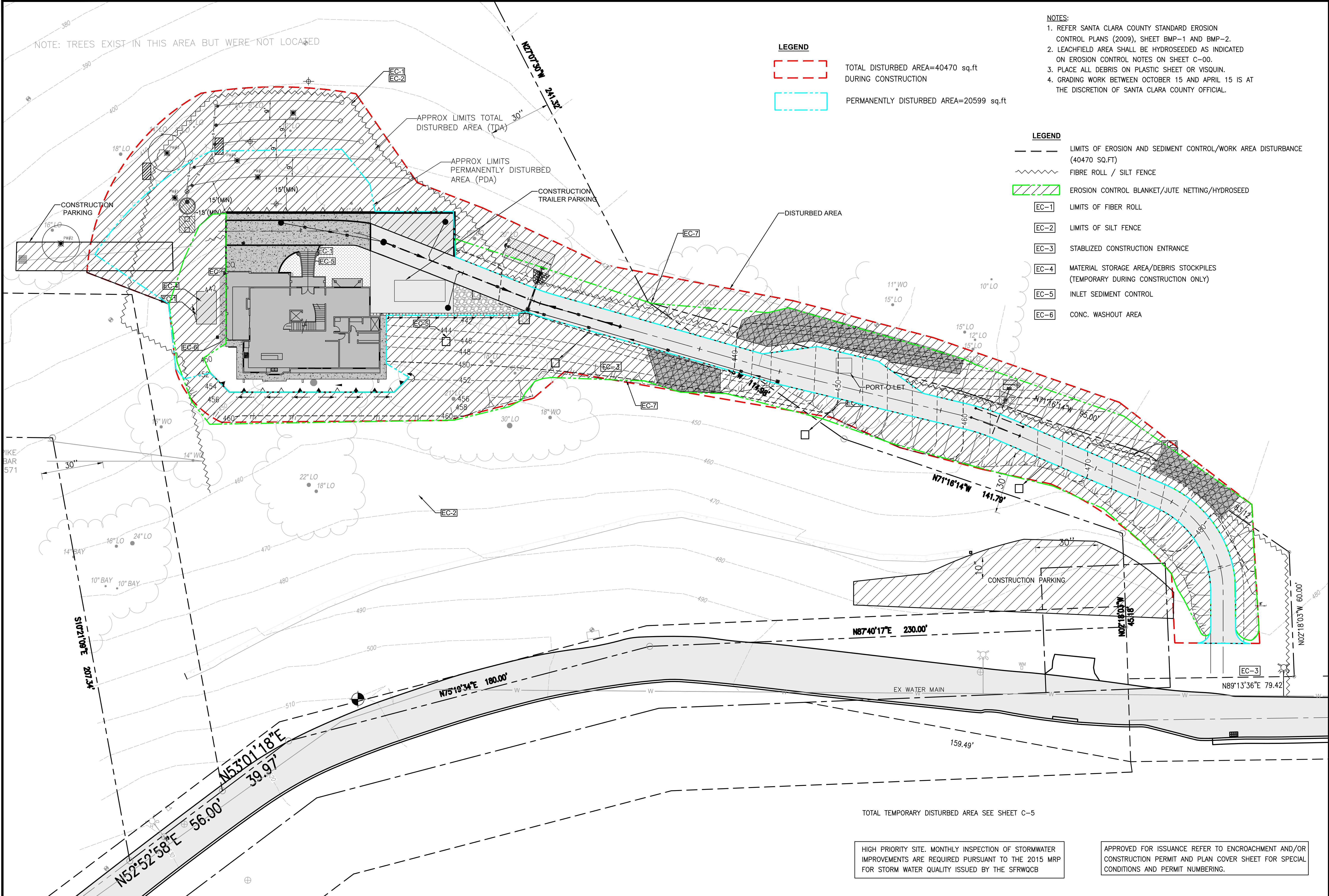
- TOTAL DISTURBED AREA=40470 sq.ft DURING CONSTRUCTION
- PERMANENTLY DISTURBED AREA=20599 sq.ft

**NOTES:**

1. REFER SANTA CLARA COUNTY STANDARD EROSION CONTROL PLANS (2009), SHEET BMP-1 AND BMP-2.
2. LEACHFIELD AREA SHALL BE HYDROSEED AS INDICATED ON EROSION CONTROL NOTES ON SHEET C-00.
3. PLACE ALL DEBRIS ON PLASTIC SHEET OR VISQUIN.
4. GRADING WORK BETWEEN OCTOBER 15 AND APRIL 15 IS AT THE DISCRETION OF SANTA CLARA COUNTY OFFICIAL.

**LEGEND**

- LIMITS OF EROSION AND SEDIMENT CONTROL/WORK AREA DISTURBANCE (40470 SQ.FT)
- FIBRE ROLL / SILT FENCE
- EROSION CONTROL BLANKET/JUTE NETTING/HYDROSEED
- EC-1 LIMITS OF FIBER ROLL
- EC-2 LIMITS OF SILT FENCE
- EC-3 STABILIZED CONSTRUCTION ENTRANCE
- EC-4 MATERIAL STORAGE AREA/DEBRIS STOCKPILES (TEMPORARY DURING CONSTRUCTION ONLY)
- EC-5 INLET SEDIMENT CONTROL
- EC-6 CONC. WASHOUT AREA



TOTAL TEMPORARY DISTURBED AREA SEE SHEET C-5

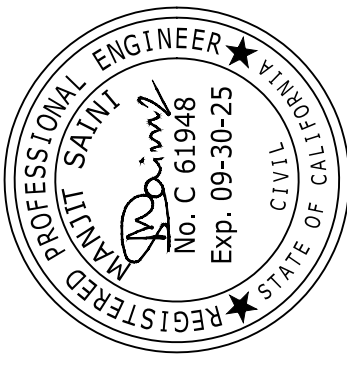
HIGH PRIORITY SITE. MONTHLY INSPECTION OF STORMWATER IMPROVEMENTS ARE REQUIRED PURSUANT TO THE 2015 MRP FOR STORM WATER QUALITY ISSUED BY THE SFRWQCB

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.



JAMES LE  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

EROSION CONTROL PLAN



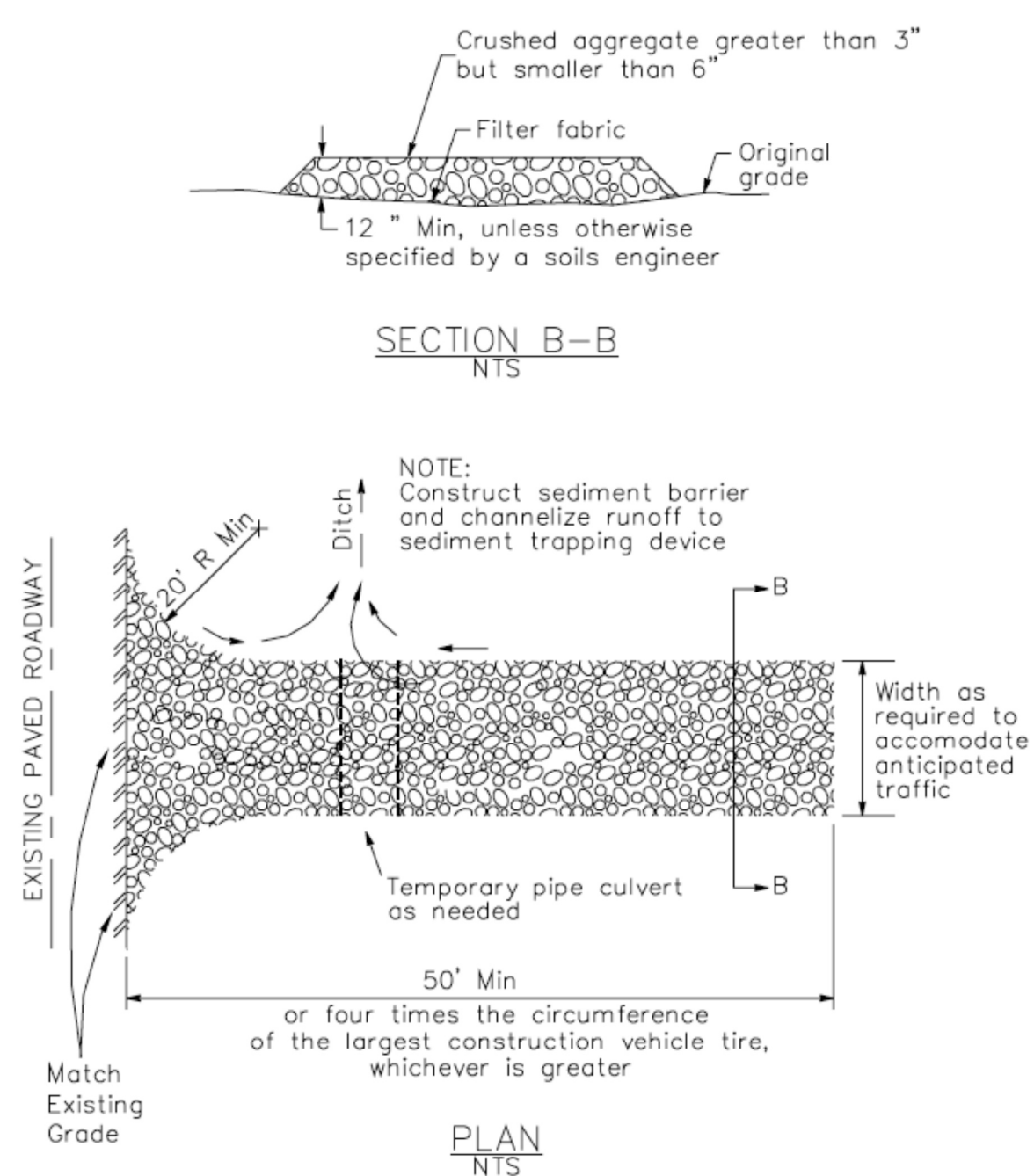
DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
**ESC-1**  
 16 OF 20 SHEETS

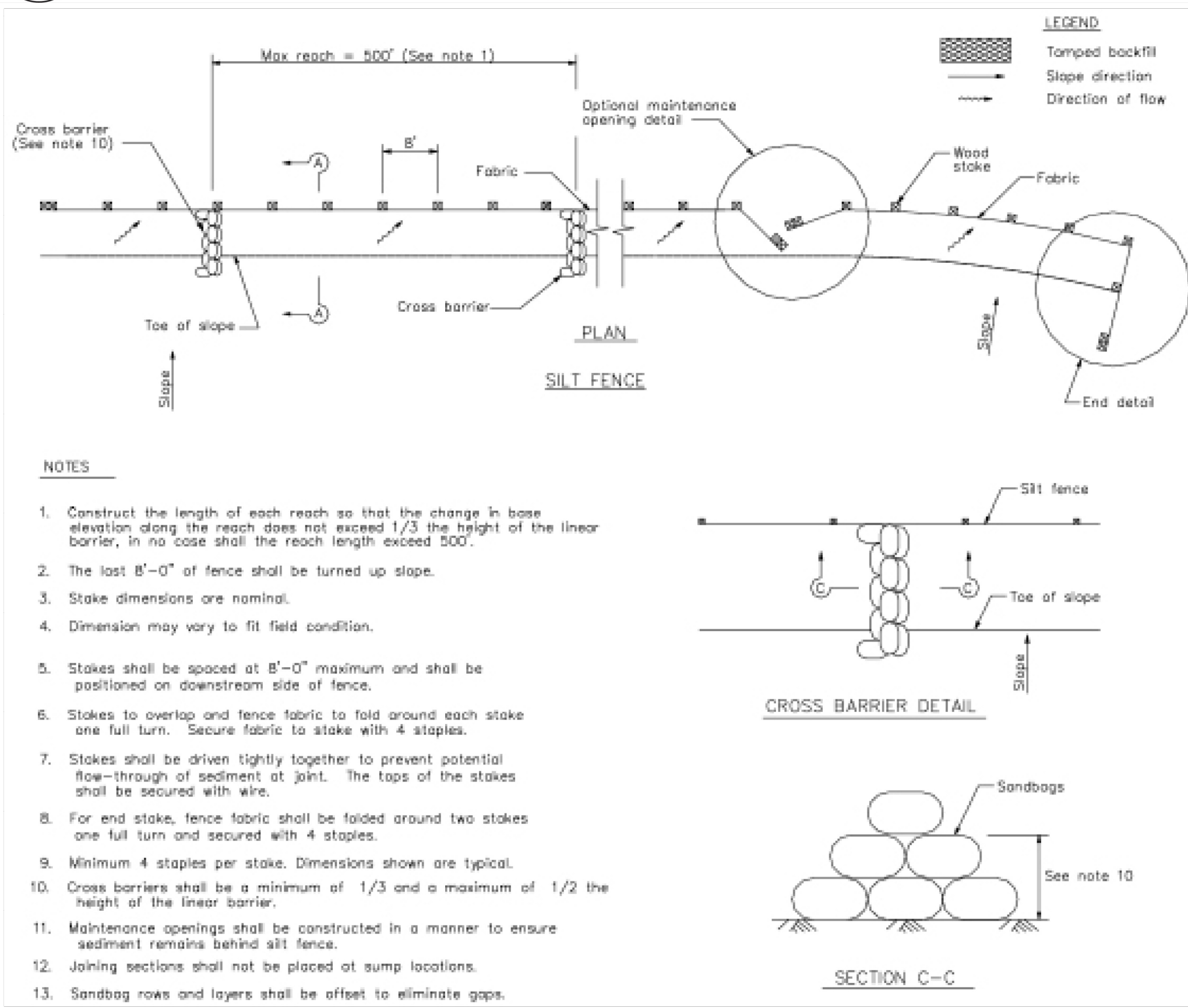
### 3 Stabilized Construction Entrance/Exit

CASQA Detail TC-1



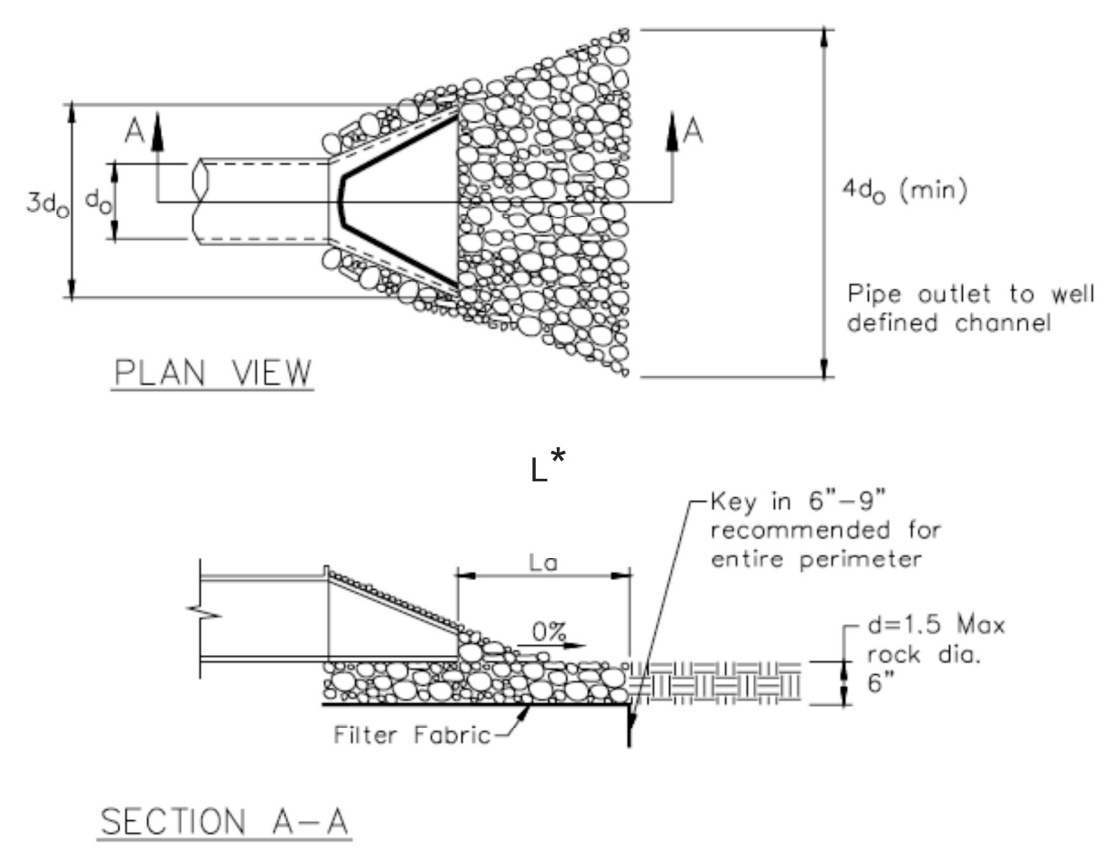
### 1 Silt Fence

CASQA Detail SE-1



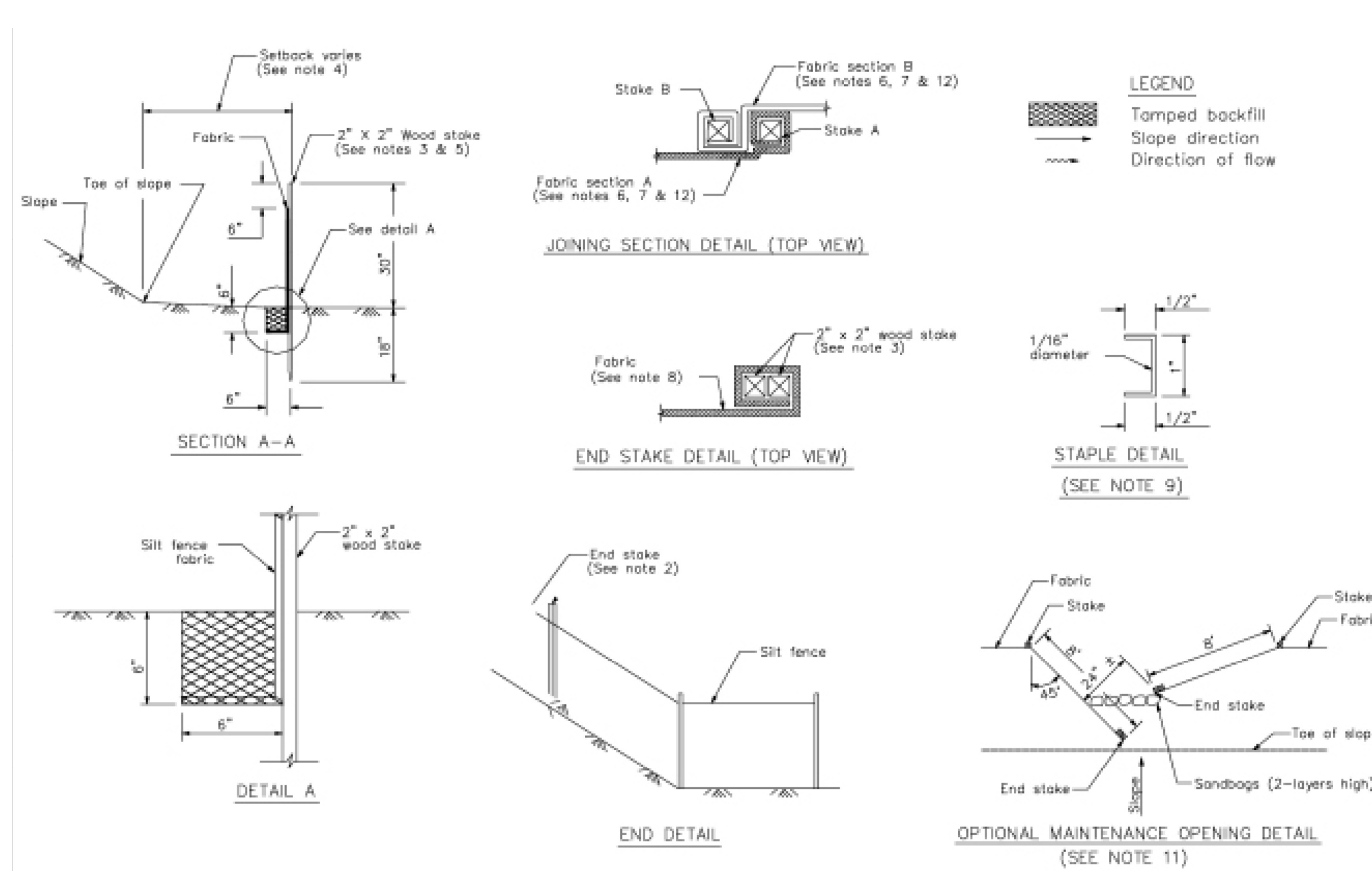
### 4 Velocity Dissipation Devices

CASQA Detail EC-10



### 2 Silt Fence

CASQA Detail SE-1



#### STANDARD BEST MANAGEMENT PRACTICE NOTES

- Solid and Demolition Waste Management:** Provide designated waste collection areas and containers on site away from streets, gutters, storm drains, and waterways, and arrange for regular disposal. Waste containers must be watertight and covered at all times except when waste is deposited. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C3) or latest.
- Hazardous Waste Management:** Provide proper handling and disposal of hazardous wastes by a licensed hazardous waste material hauler. Hazardous wastes shall be stored and properly labeled in sealed containers constructed of suitable materials. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-5 to C-6) or latest.
- Spill Prevention and Control:** Provide proper storage areas for liquid and solid materials, including chemicals and hazardous substances, away from streets, gutters, storm drains, and waterways. Spill control materials must be kept on site where readily accessible. Spills must be cleaned up immediately and contaminated soil disposed properly. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-7 to C-8, C-13 to C-14) or latest.
- Vehicle and Construction Equipment Service and Storage:** An area shall be designated for the maintenance, where on-site maintenance is required, and storage of equipment that is protected from stormwater run-on and runoff. Measures shall be provided to capture any waste oils, lubricants, or other potential pollutants and these wastes shall be properly disposed of off site. Fueling and major maintenance/repair, and washing shall be conducted off-site whenever feasible. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C9) or latest.
- Material Delivery, Handling and Storage:** In general, materials should not be stockpiled on site. Where temporary stockpiles are necessary and approved by the County, they shall be covered with secured plastic sheeting or tarp and located in designated areas near construction entrances and away from drainage paths and waterways. Barriers shall be provided around storage areas where materials are potentially in contact with runoff. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-11 to C-12) or latest.
- Handling and Disposal of Concrete and Cement:** When concrete trucks and equipment are washed on-site, concrete wastewater shall be contained in designated containers or in a temporary lined and watertight pit where wasted concrete can harden for later removal. If possible have concrete contractor remove concrete wash water from site. In no case shall fresh concrete be washed into the road right-of-way. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-15 to C-16) or latest.
- Pavement Construction Management:** Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent run-on and runoff pollution and properly disposing of wastes. Avoid paving in the wet season and reschedule paving when rain is in the forecast. Residue from saw-cutting shall be vacuumed for proper disposal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-17 to C-18) or latest.
- Contaminated Soil and Water Management:** Inspections to identify contaminated soils should occur prior to construction and at regular intervals during construction. Remediating contaminated soil should occur promptly after identification and be specific to the contaminant identified, which may include hazardous waste removal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-19 to C-20) or latest.
- Sanitary/Septic Water Management:** Temporary sanitary facilities should be located away from drainage paths, waterways, and traffic areas. Only licensed sanitary and septic waste haulers should be used. Secondary containment should be provided for all sanitary facilities. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C-21) or latest.
- Inspection & Maintenance:** Areas of material and equipment storage sites and temporary sanitary facilities must be inspected weekly. Problem areas shall be identified and appropriate additional and/or alternative control measures implemented immediately, within 24 hours of the problem being identified.

#### STANDARD EROSION CONTROL NOTES

- Sediment Control Management:**
  - Tracking Prevention & Clean Up:** Activities shall be organized and measures taken as needed to prevent or minimize tracking of soil onto the public street system. A gravel or proprietary device construction entrance/exit is required for all sites. Clean up of tracked material shall be provided by means of a street sweeper prior to an approaching rain event, or at least once at the end of each workday that material is tracked, or, more frequently as determined by the County Inspector. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-31 to B-33) or latest.
  - Storm Drain Inlet and Catch Basin Inlet Protection:** All inlets within the vicinity of the project and within the project limits shall be protected with gravel bags placed around inlets or other inlet protection. At locations where exposed soils are present, staked fiber rolls or staked silt fences can be used. Inlet filters are not allowed due to clogging and subsequent flooding. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-49 to B-51) or latest.
  - Storm Water Runoff:** No storm water runoff shall be allowed to drain in to the existing and/or proposed underground storm drain system or other above ground watercourses until appropriate erosion control measures are fully installed.
  - Dust Control:** The contractor shall provide dust control in graded areas as required by providing wet suppression or chemical stabilization of exposed soils, providing for rapid clean up of sediments deposited on paved roads, furnishing construction road entrances and vehicle wash down areas, and limiting the amount of areas disturbed by clearing and earth moving operations by scheduling these activities in phases.
  - Stockpiling:** Excavated soils shall not be placed in streets or on paved areas. Borrow and temporary stockpiles shall be protected with appropriate erosion control measures (tarps, straw bales, silt fences, etc.) to ensure silt does not leave the site or enter the storm drain system or neighboring watercourse.
- Erosion Control:** During the rainy season, all disturbed areas must include an effective combination of erosion and sediment control. It is required that temporary erosion control measures are applied to all disturbed soil areas prior to a rain event. During the non-rainy season, erosion control measures must be applied sufficient to control wind erosion at the site.
- Inspection & Maintenance:** Disturbed areas of the Project's site, locations where vehicles enter or exit the site, and all erosion and sediment controls that are identified as part of the Erosion Control Plans must be inspected by the Contractor before, during, and after storm events, and at least weekly during seasonal wet periods. Problem areas shall be identified and appropriate additional and/or alternative control measures implemented immediately, within 24 hours of the problem being identified.
- Project Completion:** Prior to project completion and signoff by the County Inspector, all disturbed areas shall be reseeded, planted, or landscaped to minimize the potential for erosion on the subject site.
- It shall be the Owner's/Contractor's responsibility to maintain control of the entire construction operation and to keep the entire site in compliance with the erosion control plan.
- Erosion and sediment control best management practices shall be operable year round or until vegetation is fully established on landscaped surfaces.

Source for Graphics: California Stormwater BMP Handbook, California Stormwater Quality Association, January 2003. Available from www.cabmphandbooks.com.

APPROVED FOR ISSUANCE WORK

APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.

EROSION CONTROL DETAIL-1

## Project Information

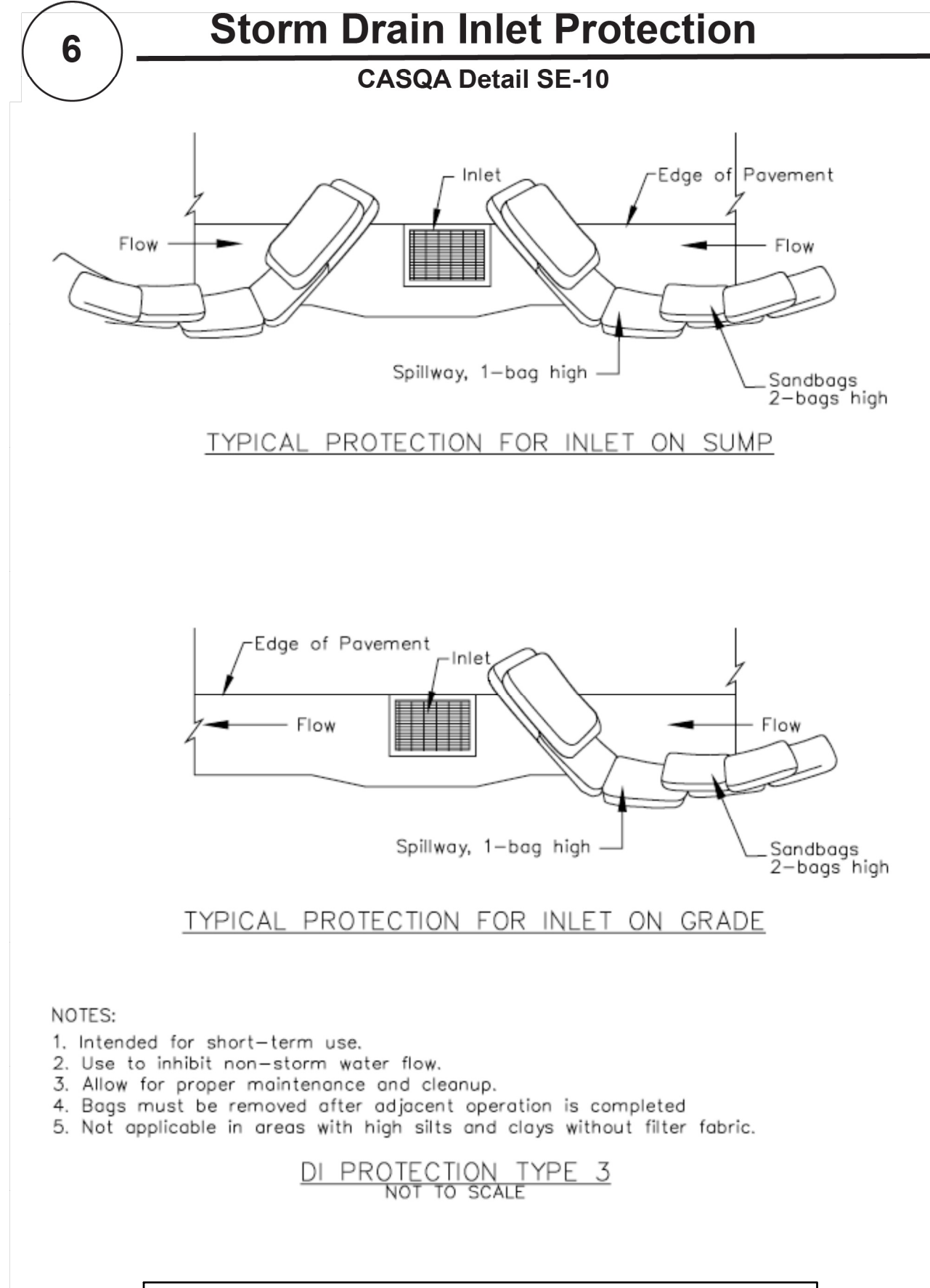
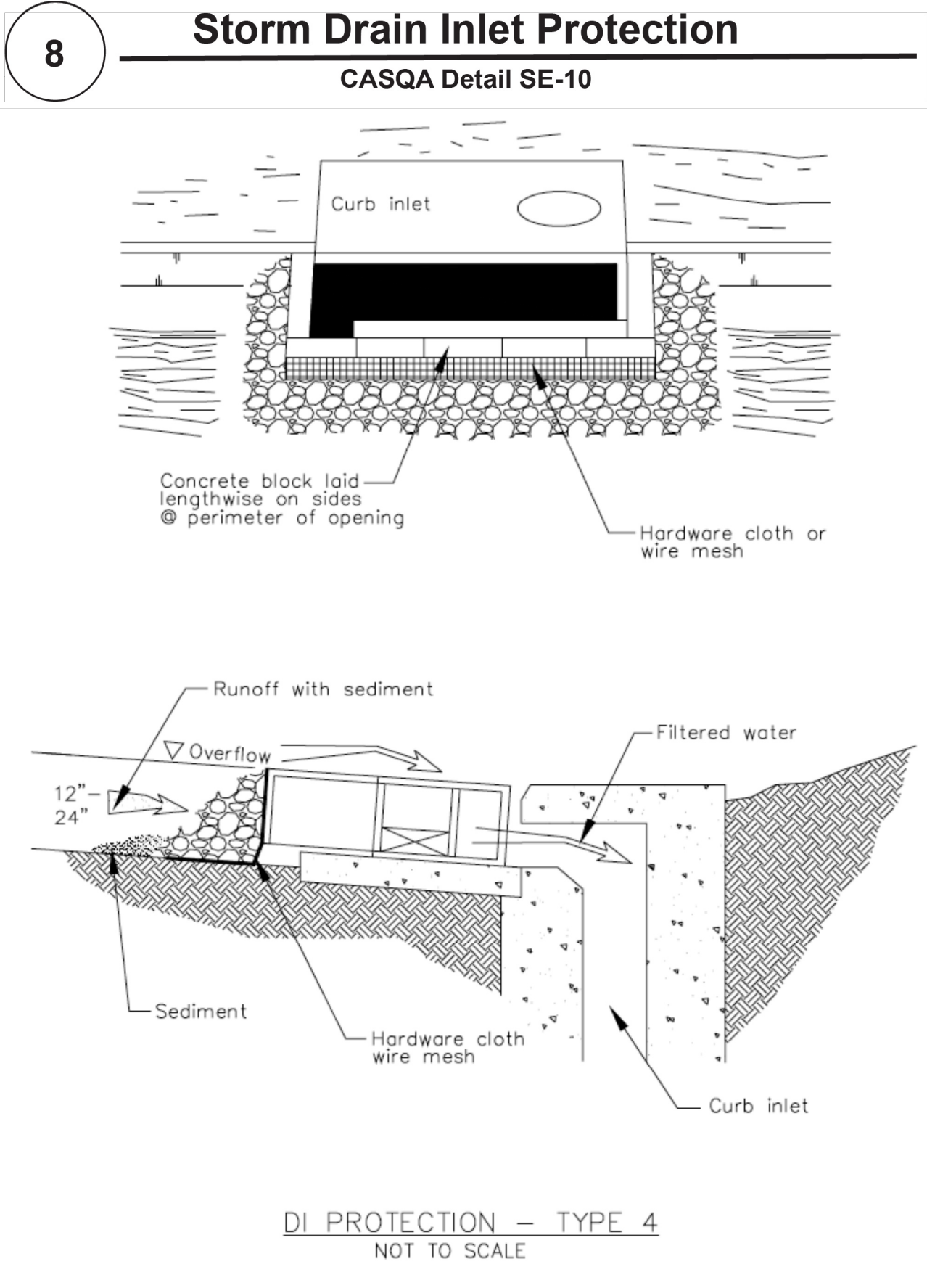
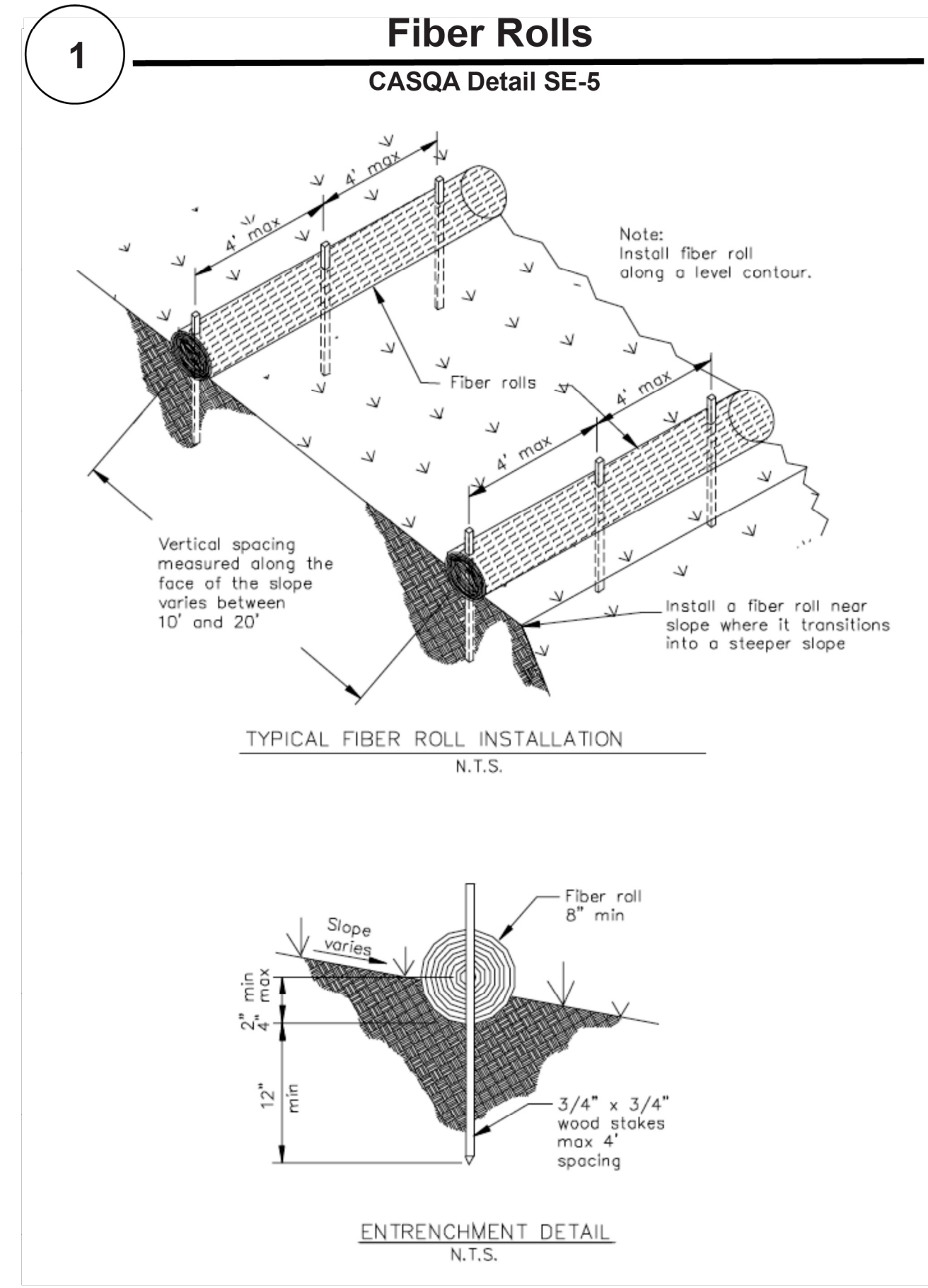
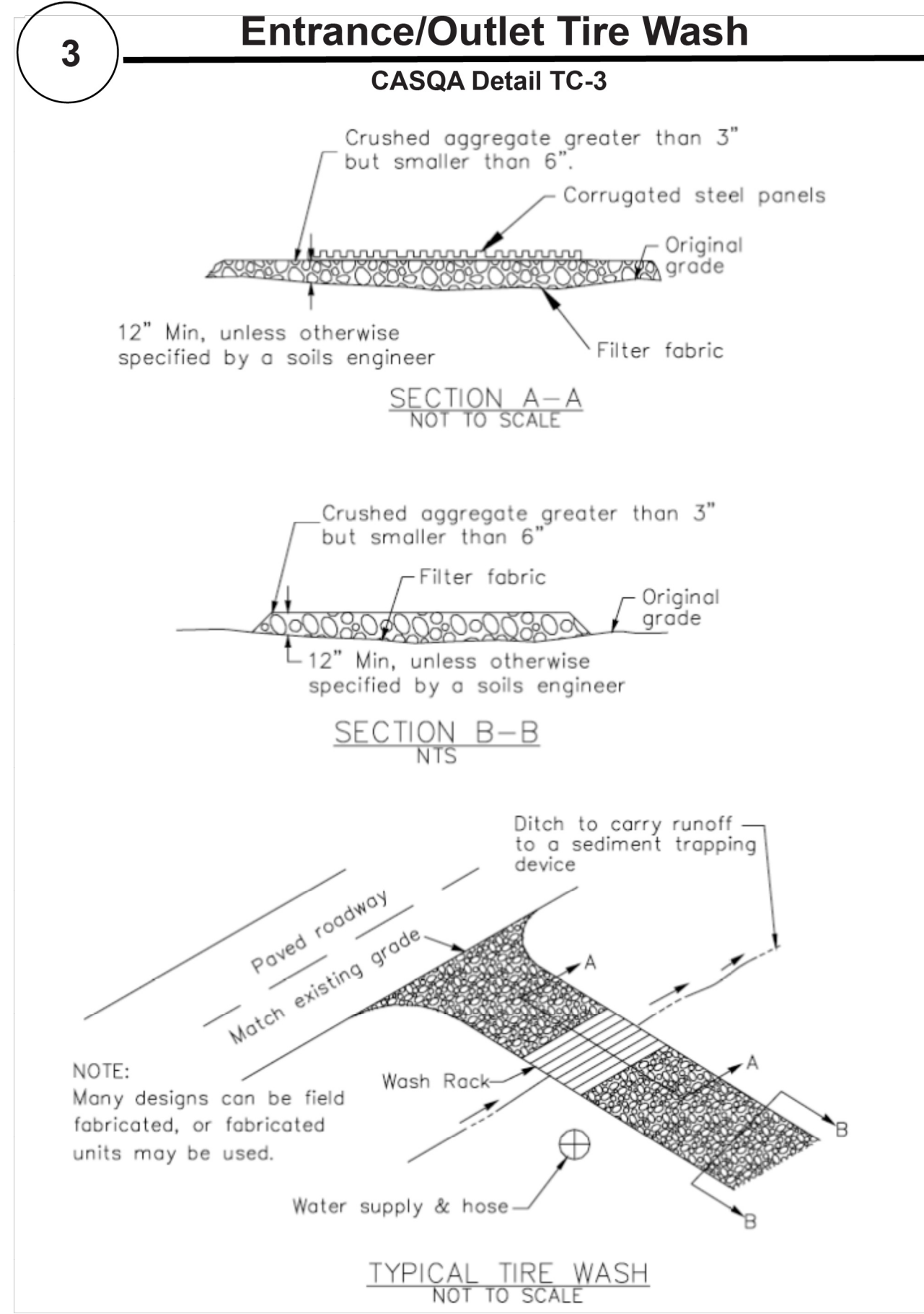
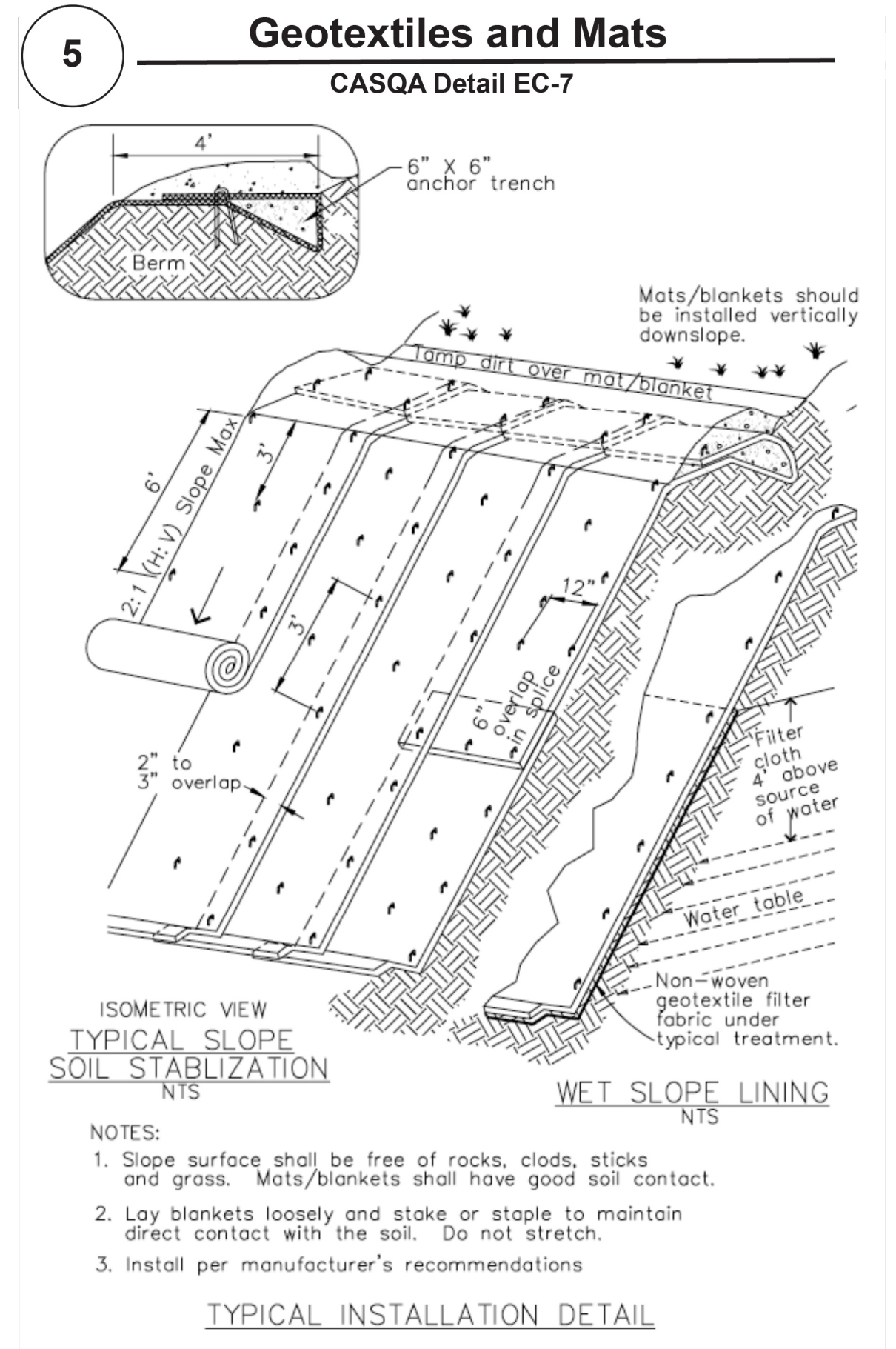
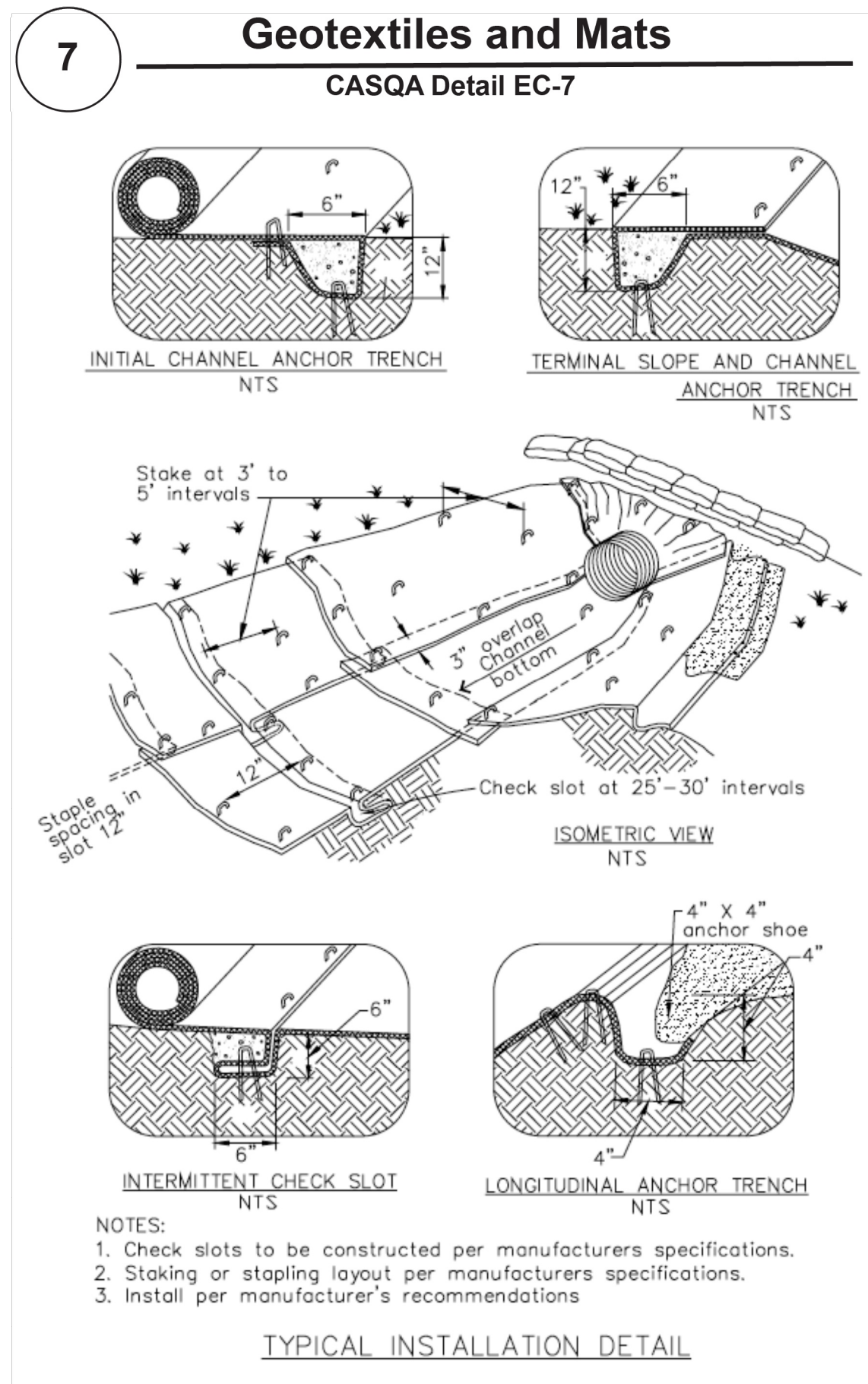
JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

# Best Management Practices and Erosion Control Details Sheet 1

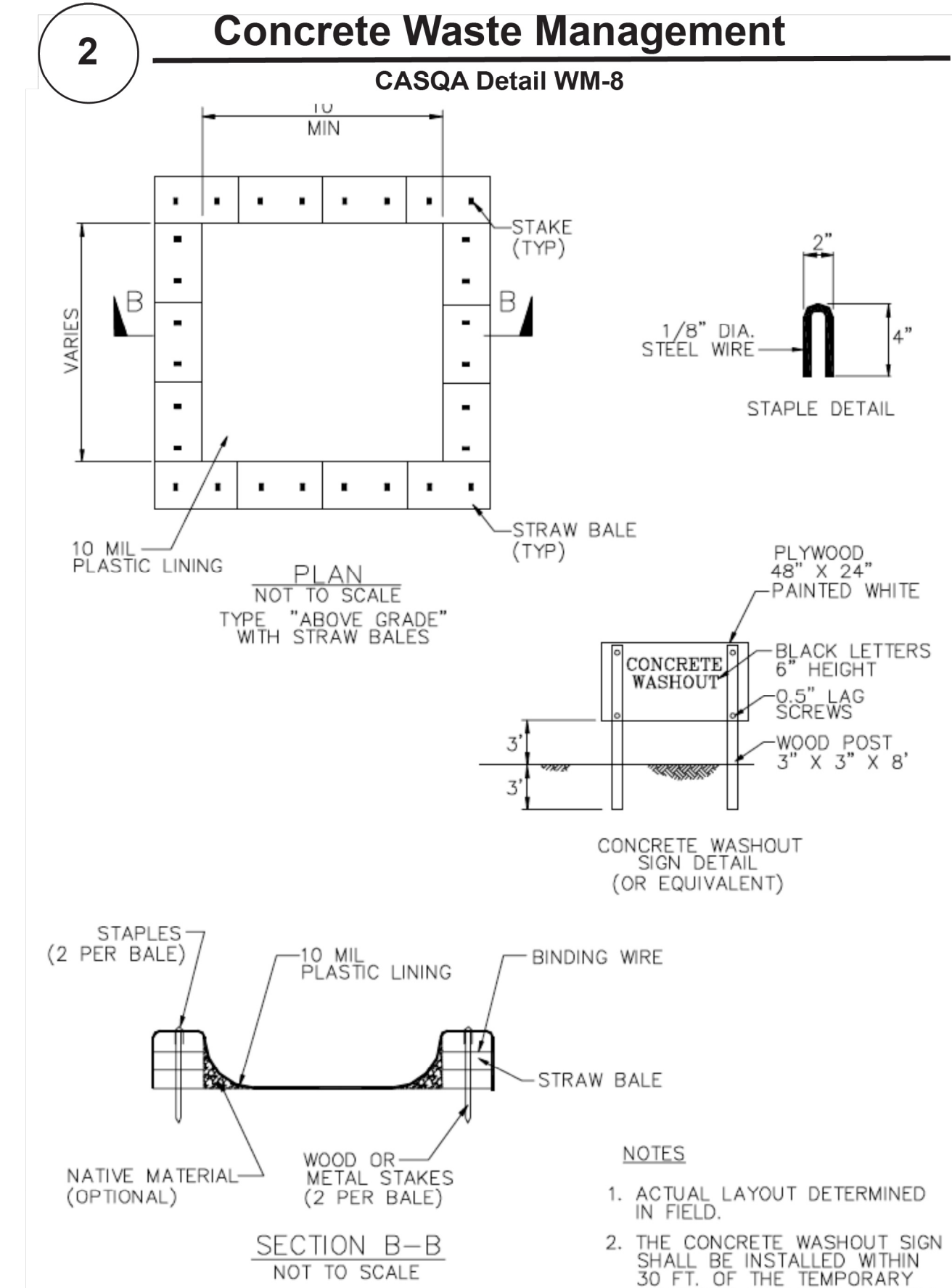
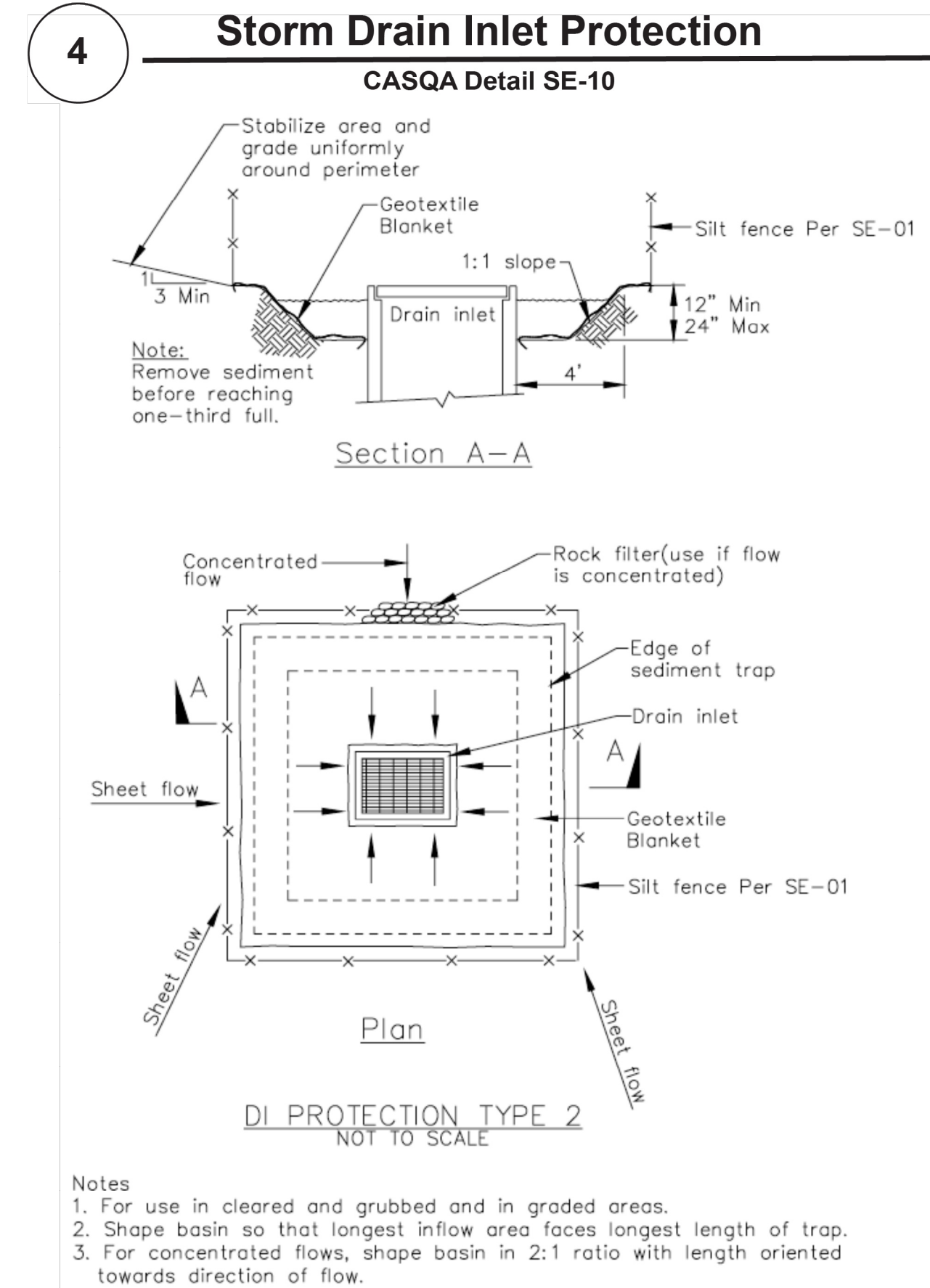
## County of Santa Clara



# BMP-1



APPROVED FOR ISSUANCE REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERING.



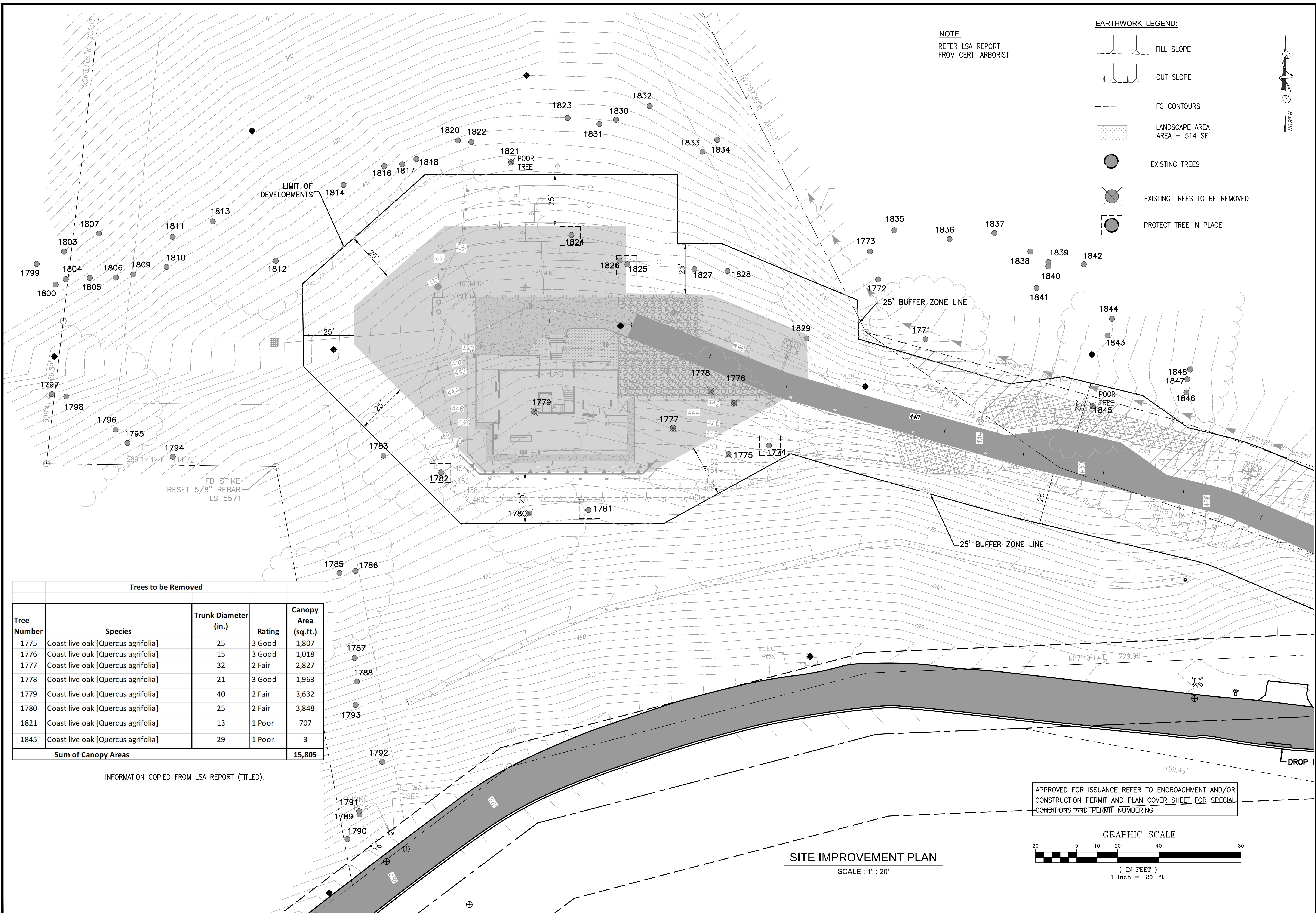
Source for Graphics: California Stormwater BMP Handbook, California Stormwater Quality Association, January 2003. Available from www.cabmphandbooks.com.

EROSION CONTROL DETAIL-2

## Project Information

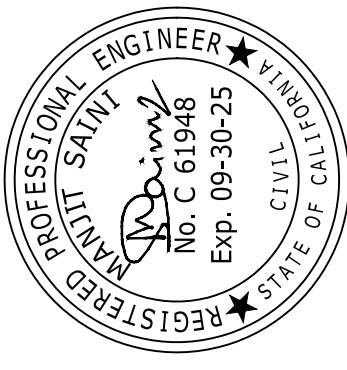
JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012





JAMES LE  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

TREE LOCATION PLAN



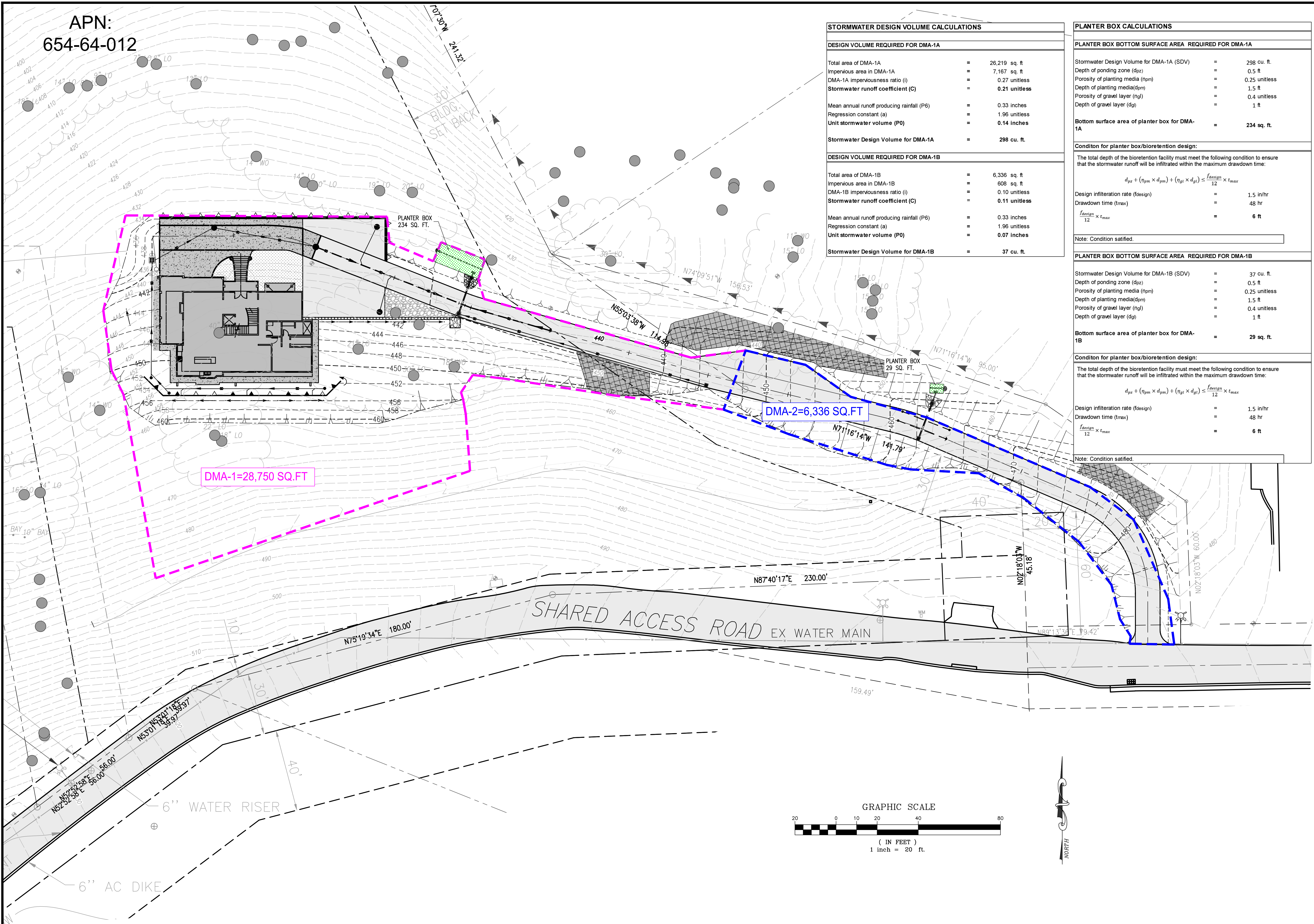
DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS	
NO.	

SHEET NUMBER  
**TPZ-1**  
 19 OF 20 SHEETS

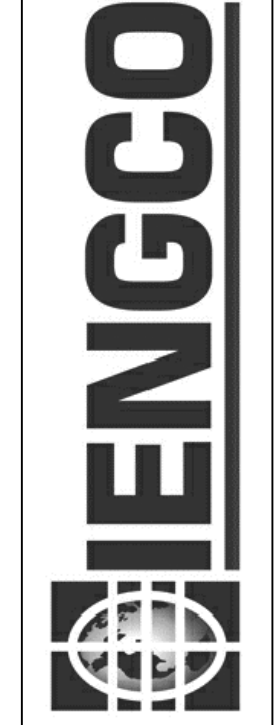
ENGINEERING ARCHITECTURE CONSTRUCTION

APN:  
654-64-012



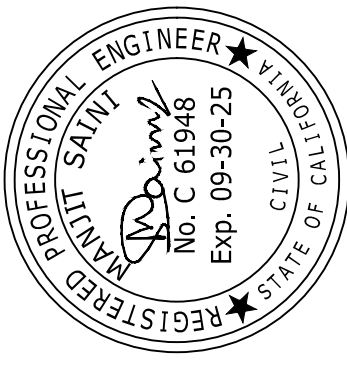
STORMWATER DESIGN VOLUME CALCULATIONS	
<b>DESIGN VOLUME REQUIRED FOR DMA-1A</b>	
Total area of DMA-1A	= 26,219 sq. ft
Impervious area in DMA-1A	= 7,167 sq. ft
DMA-1A imperviousness ratio (i)	= 0.27 unitless
Stormwater runoff coefficient (C)	= 0.21 unitless
Mean annual runoff producing rainfall (P6)	= 0.33 inches
Regression constant (a)	= 1.96 unitless
Unit stormwater volume (P0)	= 0.14 inches
Stormwater Design Volume for DMA-1A	= 298 cu. ft.
<b>DESIGN VOLUME REQUIRED FOR DMA-1B</b>	
Total area of DMA-1B	= 6,336 sq. ft
Impervious area in DMA-1B	= 608 sq. ft
DMA-1B imperviousness ratio (i)	= 0.10 unitless
Stormwater runoff coefficient (C)	= 0.11 unitless
Mean annual runoff producing rainfall (P6)	= 0.33 inches
Regression constant (a)	= 1.96 unitless
Unit stormwater volume (P0)	= 0.07 inches
Stormwater Design Volume for DMA-1B	= 37 cu. ft.

PLANTER BOX CALCULATIONS	
<b>PLANTER BOX BOTTOM SURFACE AREA REQUIRED FOR DMA-1A</b>	
Stormwater Design Volume for DMA-1A (SDV)	= 298 cu. ft.
Depth of ponding zone (d <sub>pz</sub> )	= 0.5 ft
Porosity of planting media (n <sub>pm</sub> )	= 0.25 unitless
Depth of planting media (d <sub>pm</sub> )	= 1.5 ft
Porosity of gravel layer (n <sub>gl</sub> )	= 0.4 unitless
Depth of gravel layer (d <sub>gl</sub> )	= 1 ft
Bottom surface area of planter box for DMA-1A	= 234 sq. ft.
<b>Condition for planter box/bioretenion design:</b>	
The total depth of the bioretention facility must meet the following condition to ensure that the stormwater runoff will be infiltrated within the maximum drawdown time:	
$d_{pz} + (n_{pm} \times d_{pm}) + (n_{gl} \times d_{gl}) \leq \frac{f_{design}}{12} \times t_{max}$	
Design infiltration rate (f <sub>design</sub> )	= 1.5 in/hr
Drawdown time (t <sub>max</sub> )	= 48 hr
$\frac{f_{design}}{12} \times t_{max}$	= 6 ft
Note: Condition satisfied.	
<b>PLANTER BOX BOTTOM SURFACE AREA REQUIRED FOR DMA-1B</b>	
Stormwater Design Volume for DMA-1B (SDV)	= 37 cu. ft.
Depth of ponding zone (d <sub>pz</sub> )	= 0.5 ft
Porosity of planting media (n <sub>pm</sub> )	= 0.25 unitless
Depth of planting media (d <sub>pm</sub> )	= 1.5 ft
Porosity of gravel layer (n <sub>gl</sub> )	= 0.4 unitless
Depth of gravel layer (d <sub>gl</sub> )	= 1 ft
Bottom surface area of planter box for DMA-1B	= 29 sq. ft.
<b>Condition for planter box/bioretenion design:</b>	
The total depth of the bioretention facility must meet the following condition to ensure that the stormwater runoff will be infiltrated within the maximum drawdown time:	
$d_{pz} + (n_{pm} \times d_{pm}) + (n_{gl} \times d_{gl}) \leq \frac{f_{design}}{12} \times t_{max}$	
Design infiltration rate (f <sub>design</sub> )	= 1.5 in/hr
Drawdown time (t <sub>max</sub> )	= 48 hr
$\frac{f_{design}}{12} \times t_{max}$	= 6 ft
Note: Condition satisfied.	



JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

STORMWATER MANAGEMENT  
PLAN



DATE:	9/23/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
**SWMP**  
20 OF 20 SHEETS

● CONSTRUCTION ● CONSULTATION ● ENGINEERING ● ARCHITECTURE

# JAMES LE RESIDENTIAL DEVELOPMENT (SHALLOW PRESSURE DISTRIBUTION SYSTEM)

BELLA MADEIRA LANE  
APN-654-54-012

**NOTES:**

1. CONCRETE SEPTIC TANK IS FOR A 5 BEDROOM HOUSE.
2. CONCRETE (PRE-CAST) SEPTIC TANK CONSISTS OF 1500 GALLONS IN CAPACITY. SEPTIC TANK HAS COMPARTMENTS WITH 10 LONG 1-10 OF AIRSPACE AND 5'-1" LIQUID DEPTH.
3. SEPTIC TANK SHALL BE DESIGNED AS PER SANTA CLARA COUNTY STANDARDS.
4. PRE FABRICATED SUMP SHALL HAVE 1.5 DAYS WASTEWATER STORAGE (600X1.5=900GALLON) 100 GALLONS DOSING VOLUME. 450 GALLONS FROM TANK BOTTOM TO DOSING FOR DETAIL SEE PUMP SYSTEM WORKSHEET ON SHEET LF-2.
5. INSTALLATION SHALL CONFORM TO SANTA CLARA COUNTY SEWAGE DISPOSAL ORDINANCE. CALL SANTA CLARA COUNTY DEPARTMENT OF ENVIRONMENT HEALTHS (DEH) 24 HOURS PRIOR FLOW. EACH ENDS WITH INSPECTION RISERS. TO START OF WORKS FOR INSPECTION (408) 918-3400.
6. WATER TIGHTNESS TESTING SHALL BE IN ACCORDANCE WITH SANTA CLARA COUNTY DEH SPECIFICATIONS.
7. THE SEPTIC TANK SHALL BE WATER TIGHT AND BE TESTED.

**PERCOLATION TEST NOTE**

TEST #2 & #3 FAILED PERC TEST.  
REF. SHEET LF-4, FOR FILED TEST DATA.

**SUMP PUMP AND STORAGE TANK**

ORENCO SYSTEMS PRODUCT HAS PROPOSED FOR THE SITE OR USE OTHER APPROVED EQUAL SYSTEM. REFER SHEET LF-4, LF-5 AND LF-6 FOR ORENCO DETAILS.

**TOPOGRAPHIC SURVEY**

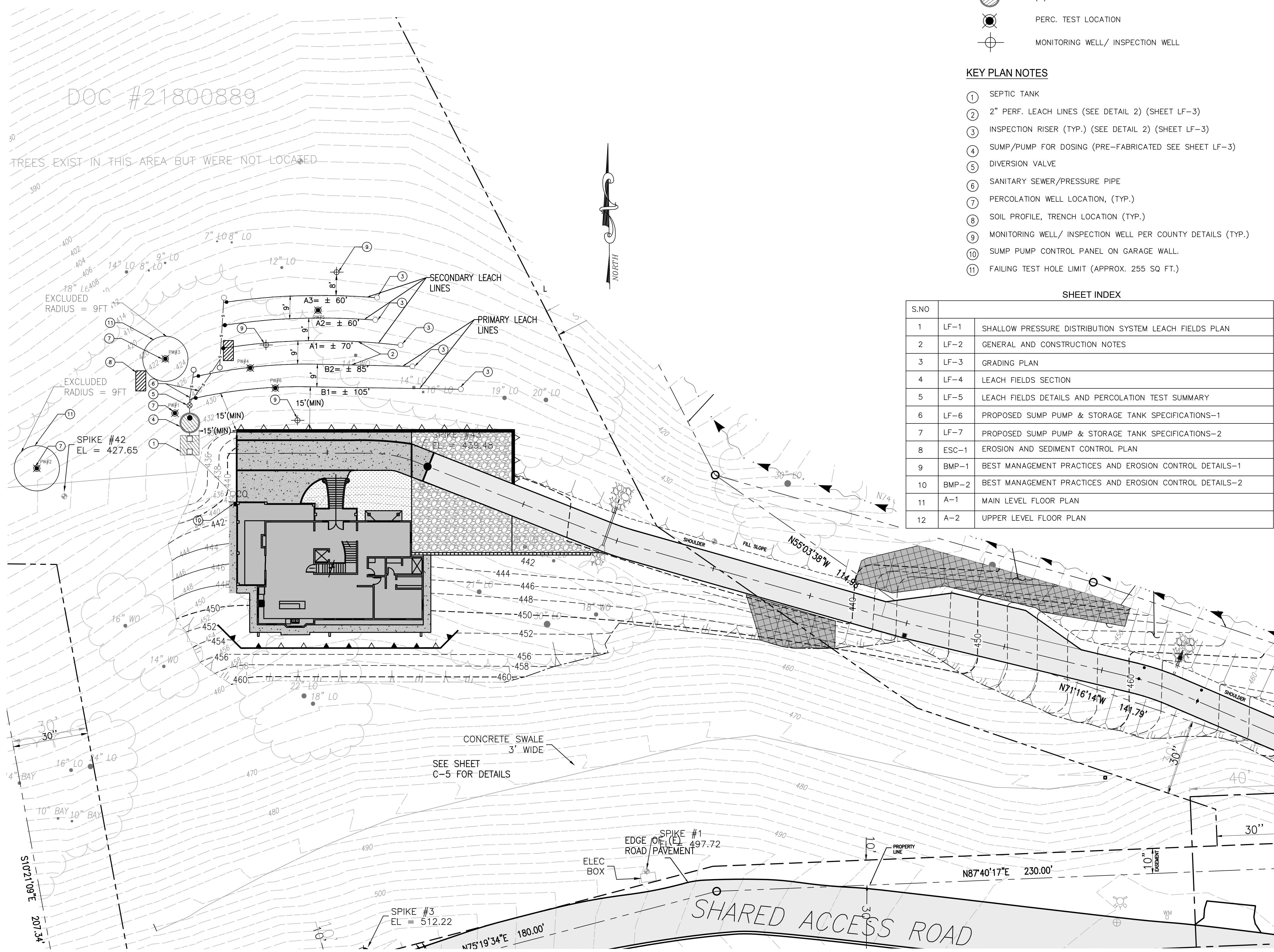
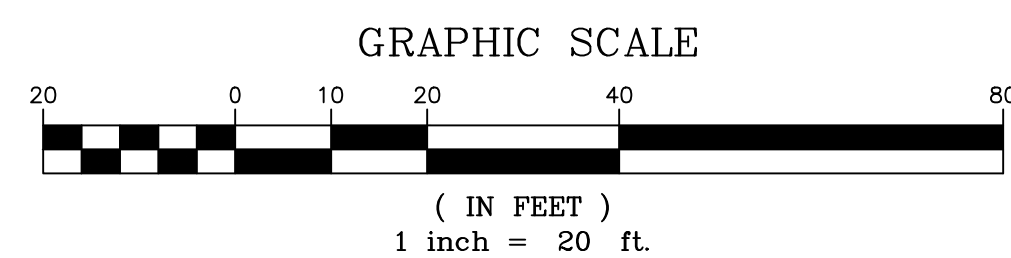
THE TOPOGRAPHIC SURVEY FOR THE SITE WAS COMPLETE BY WILSON SURVEY. REFER CIVIL PLANS (SHEETS C-2) FOR DETAIL.

**OPERATING PERMIT:**

1. A OWNER SHALL OBTAIN A SANTA CLARA COUNTY OPERATING PERMIT THE PD SYSTEM
2. OWNER SHALL SIGN AN ON-GOING SERVICE AGREEMENT WITH A SERVICE COMPANY PRIOR TO START OPERATIONAL.
3. MONITORING FREQUENCY: AT A MINIMUM FOLLOWING MONITORING FREQUENCY SHALL BE ACCEPTED  
-YEAR 1 THROUGH 4 = SEMI ANNUAL  
-YEAR 5 AND BEYOND = ANNUAL

**SHALLOW PRESSURE DOSING SYSTEM CALCULATIONS:**

SHALLOW PRESSURE DOSING SYSTEM DESIGN	
DEVELOPMENT SITE SLOPE	= 33%
NUMBER OF BEDROOMS	= 5
DESIGN FLOW	= 600 GPD
DEPTH OF GROUNDWATER AT SITE	= >40 FT
PERCOLATION RATE IN LEACH FIELD AREA	= 2.2-6.7 MPI
NO. OF DOSES - PER DAY	= 43
DOSING PIPE SIZE	= 1.5 IN
DOSING PIPE VOLUME	= 17 GAL
EACH DOSE VOLUME (80% OF DOSING PIPE VOLUME)	= 14 GAL
TANK VOLUME	= 1500 GAL
WASTEWATER APPLICATION RATE	= 0.8 GPD/FT <sup>2</sup>
EFFECTIVE INFILTRATIVE AREA	= 4 FT <sup>2</sup>
TRENCH WIDTH	= 2 FT
TRENCH LENGTH	= 188 FT



**LEGEND**

- ○ LEACH LIES
- ○ INSPECTION RISER
- ⊗ DIVERSION VALVE
- (N) SEPTIC TANK
- (N) PUMP
- (N) PUMP TANK
- ⊙ PERC. TEST LOCATION
- ⊕ MONITORING WELL/ INSPECTION WELL

**KEY PLAN NOTES**

- ① SEPTIC TANK
- ② 2" PERC. LEACH LINES (SEE DETAIL 2) (SHEET LF-3)
- ③ INSPECTION RISER (TYP.) (SEE DETAIL 2) (SHEET LF-3)
- ④ SUMP/PUMP FOR DOSING (PRE-FABRICATED SEE SHEET LF-3)
- ⑤ DIVERSION VALVE
- ⑥ SANITARY SEWER/PRESSURE PIPE
- ⑦ PERCOLATION WELL LOCATION, (TYP.)
- ⑧ SOIL PROFILE, TRENCH LOCATION (TYP.)
- ⑨ MONITORING WELL/ INSPECTION WELL PER COUNTY DETAILS (TYP.)
- ⑩ SUMP PUMP CONTROL PANEL ON GARAGE WALL.
- ⑪ FAILING TEST HOLE LIMIT (APPROX. 255 SQ FT.)

**SHEET INDEX**

S.NO		
1	LF-1	SHALLOW PRESSURE DISTRIBUTION SYSTEM LEACH FIELDS PLAN
2	LF-2	GENERAL AND CONSTRUCTION NOTES
3	LF-3	GRADING PLAN
4	LF-4	LEACH FIELDS SECTION
5	LF-5	LEACH FIELDS DETAILS AND PERCOLATION TEST SUMMARY
6	LF-6	PROPOSED SUMP PUMP & STORAGE TANK SPECIFICATIONS-1
7	LF-7	PROPOSED SUMP PUMP & STORAGE TANK SPECIFICATIONS-2
8	ESC-1	EROSION AND SEDIMENT CONTROL PLAN
9	BMP-1	BEST MANAGEMENT PRACTICES AND EROSION CONTROL DETAILS-1
10	BMP-2	BEST MANAGEMENT PRACTICES AND EROSION CONTROL DETAILS-2
11	A-1	MAIN LEVEL FLOOR PLAN
12	A-2	UPPER LEVEL FLOOR PLAN

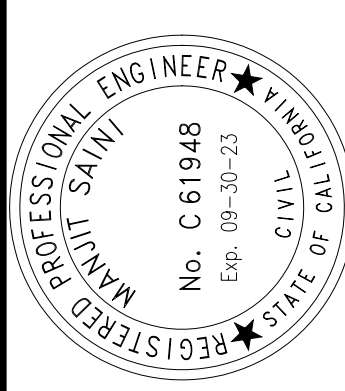
APPLICANT: JAMES LE

ROAD: BELLA MADEIRA LN

COUNTY FILE NO.: 10706-17G

**JAMES LE**  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-54-012

**SHALLOW PRESSURE DISTRIBUTION SYSTEM LEACH FIELDS PLAN**



DATE:	02-13-2023
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
**LF-1**  
 OF 7 SHEETS

● CONSTRUCTION

● CONSULTATION

● ENGINEERING

● ARCHITECTURE



**SCOPE OF WORK**

FOR SEPTIC WASTEWATER AT THE SITE INCLUDING:  
 - 2000 GALLONS SEPTIC TANK WITH GATE VALVE AT THE OUTLET.  
 - SUMP PUMP SYSTEM FROM ORENCO DOSING.  
 - LEACH FIELD SYSTEM.

**REASON OF ALTERNATIVE DISPOSAL SYSTEM**

THE GROUND SLOPE AT THE SITE IS >30%. THEREFORE, SHALLOW PRESSURE DISTRIBUTION SYSTEM IS PROPOSED AT THE SITE.

**GENERAL CONSTRUCTION NOTES**

- IMPLEMENT EROSION AND SEDIMENT CONTROL PLAN PRIOR TO START ANY CONSTRUCTION FOR THE LEACH FIELD SYSTEM IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL DRAWINGS INCLUDED IN CIVIL DRAWINGS.
- CLEAR THE SITE FROM ALL VEGETATION PRIOR TO TRENCHING.
- COORDINATE WITH THE COUNTY FOR LEACH FIELD LAYOUTS PRIOR TO START CONSTRUCTION.
- OWTS AREA MUST BE FENCED-OFF DURING CONSTRUCTION ACTIVITIES

**CONSTRUCTION INSPECTION NOTES**

AT A MINIMUM, INSPECTION OF THE STANDARD GRAVITY FLOW SYSTEM INSTALLATION SHALL INCLUDE THE ITEMS LISTED BELOW.

- PRE-CONSTRUCTION INSPECTION WHERE THE CONSTRUCTION STAKING OR MAKING OF THE VARIOUS SYSTEM COMPONENTS IS PROVIDED AND CONSTRUCTION PROCEDURES DISCUSSED.
- WATER TIGHTNESS OF SEPTIC TANK AND DOSING (PUMP) TANK.
- LAYOUT AND EXCAVATION OF DISPERSAL TRENCHES AND PIPING.
- DRAIN ROCK MATERIAL AND PLACEMENT.
- PIPING INSTALLATION AND HYDRAULIC ("SQUIRT") TEST OF THE DISTRIBUTION SYSTEM
- FUNCTIONING AND SETTING OF ALL CONTROL DEVICES
- FINAL INSPECTION TO VERIFY THAT ALL CONSTRUCTION ELEMENTS ARE IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, ALL PERFORMANCE WELLS ARE INSTALLED; AND EROSION CONTROL HAS BEEN COMPLETED.

**CONSTRUCTION OF MONITORING WELLS/INSPECTION WELLS**

- INSPECTION WELLS SHALL BE CONSTRUCTED OF 3" DIAMETER PIPE, EQUIPPED WITH A WRENCH-TIGHT CAP OR PIPE PLUG, AND A BOTTOM CAP.
- ALL WELLS SHALL BE PERFORATED BEGINNING AT A DEPTH OF 18 INCHES BELOW GRADE AND EXTENDING TO THE BOTTOM OF THE PIPE.
- PERFORATIONS SHALL CONSIST OF HACKSAW SLOTS AT NOMINAL 1" SPACING, OR EQUIVALENT COMMERCIALY-SLOTTED PIPE.
- TO PREVENT SURFACE WATER INFILTRATION, INSPECTION WELLS SHALL BE SEALED WITH A BENTONITE OR CONCRETE ANNULAR SEAL (OR EQUIVALENT) TO A DEPTH OF 12 INCHES, MINIMUM.

**PRESSURE DISTRIBUTION PIPING SPECIFICATIONS**

- Pressure-Rated Pipe Material.** All pipe, fittings and valves shall be pressure-rated PVC pipe, minimum 150 psi.
- Solvent Welded.** All joints in the pressure piping system shall be solvent welded.
- Pipe Sizing.** All pressure distribution pipes and fittings, including transport lines, manifolds, laterals and valves, must be adequately sized for the design flow, and shall be designed to minimize frictional losses to the maximum extent practicable.
- Thrust Blocks.** Concrete thrust blocks, or equivalent restraint, shall be provided at sharp changes in piping directions.
- Shut-off Valves.** The distribution lateral for each trench shall be fitted with a shut-off valve to adjust or terminate the flow to individual trenches. This valve may be either a ball or gate valve, and shall be located in a utility/valve box.
- Lateral End Riser.** The end of each lateral shall be fitted with a 90° long sweep to facilitate line cleaning and hydraulic testing. The end riser pipe shall also be fitted with a ball valve and/or threaded end cap or plug, housed in a valve box.

**PUMP SYSTEM WORKSHEET**

PUMP SYSTEM WORKSHEET			
Applicant <u>Manjit Saini</u>		Date <u>2022-03-11</u>	
Owner <u>James Lee</u>		File No. _____	
Site Address <u>Bella Madiera</u>		City <u>San Jose</u> APN <u>645-64-012</u>	
Designer (REHS or RCE) _____			
Number of bedrooms <u>5</u>		Total square footage of living space <u>6000</u>	
Septic tank size <u>1500 GAL</u>		Expansion drainfield <u>N/A</u>	
Installed drainfield <u>Shallow PD System</u>			
Elevation of highest drainfield (ft) = <u>7</u>			
Elevation of pump off (ft) = <u>0</u>			
Total lift (Ft Head) (A) = <u>7</u>			
TIGHT LINE			
Diameter of tight line (inches)		<u>2</u>	
Length of tight line from pump to upper drainfield (ft) (B)		<u>15</u>	
FITTINGS			
No. of Fittings		Pipe Length Equivalent (ft). See chart	Total Pipe Equivalent (ft)
<u>3</u>	<u>3 x 90 standard</u>	<u>X</u>	<u>6</u>
<u>1</u>	<u>45 standard elbow</u>	<u>X</u>	<u>18</u>
<u>1</u>	<u>90 long radius</u>	<u>X</u>	
<u>1</u>	<u>other fittings</u>	<u>X</u>	
<u>1</u>	<u>1 x gate valve (fully</u>	<u>X</u>	<u>1.5</u>
<u>1</u>	<u>check valve</u>	<u>X</u>	<u>1.5</u>
<u>1</u>	<u>(conventional swing)</u>	<u>X</u>	<u>1.5</u>
TOTAL (C) =			<u>19.5</u>
Total Length of Pipe (D) = B + C =			<u>34.5</u>
CALCULATIONS:			
<b>Friction Loss in Pipes and Fittings (E):</b>			
Friction loss in 2 in pipe at 50GPM = <u>4.16</u> (friction loss per chart)			
(E) Head in ft		$(D/100 \text{ ft}) \times 4.16 = 1.4352$	
<b>Required Pump Size:</b>			
Total Pumping Head, F (ft) = (A) + (E) <u>8.4352</u>			
<b>Pump Size:</b>			
(F) versus GPM = Pump Size (refer to pump curve)			
<b>Pump Model: (Attach Pump Curve)</b>			
<u>50</u> GPM at <u>37</u> (G) (ft of head: from pump curve)			
<b>Manufacturer/Model - Orenco Systems / BEP50DD</b>			
<b>Required Capacity in Gallons</b>			
Dosing Volume	<u>17</u>		
Storage Capacity (1 1/2 days)	<u>900</u>		
Pump Displacement	<u>16</u>		
Volume from tank bottle to pump base	<u>100</u>		
Volume from Pump to Dosing	<u>350</u>		
Total tank capacity	<u>1383</u> GAL		
Pump Tank Information			
Manufacturer- Orenco Systems	Size: <u>1500 GAL</u>	Gallons per inch: <u>25</u>	

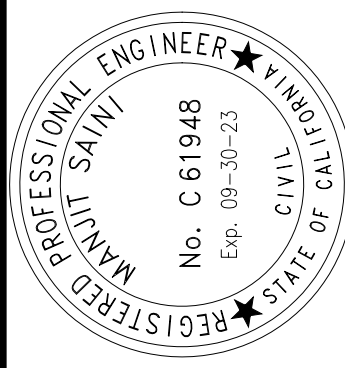
**SHALLOW PRESSURE DISTRIBUTION SYSTEM MANAGEMENT**

	Work	Frequency
<b>Inspection</b>	<ul style="list-style-type: none"> <li>Conduct routine visual observations of disposal field and downslope area and surroundings for wet areas, pipe leaks or damage, soil erosion, drainage issues, abnormal vegetation, or other problems.</li> <li>Perform all inspections of pump and appurtenances (per O&amp;M manual and Performance Evaluation Guidelines, Part 5 of this Manual).</li> </ul>	<ul style="list-style-type: none"> <li>Every 6 to 12 months.</li> </ul>
<b>Maintenance</b>	<ul style="list-style-type: none"> <li>Purge laterals, squirt and balance.</li> <li>Exercise valves to ensure functionality.</li> <li>Perform all maintenance work as recommended by equipment manufacturer for any special valves or other components.</li> <li>Investigate and repair erosion, drainage or other disposal field problems, as needed.</li> <li>Investigate and perform distribution system corrective work, as required.</li> <li>Record work done.</li> </ul>	<ul style="list-style-type: none"> <li>Distribution system maintenance annually.</li> <li>Other maintenance as required.</li> </ul>
<b>Water Monitoring &amp; Sampling</b>	<ul style="list-style-type: none"> <li>Measure and record water levels in trench observation wells.</li> <li>Measure and record water levels in dispersal field monitoring wells, as applicable, per permit requirements.</li> <li>Obtain and analyze water samples from monitoring wells, as applicable, per permit requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Measure trench water levels annually.</li> <li>Other monitoring according to permit conditions, as applicable.</li> </ul>
<b>Reporting</b>	<ul style="list-style-type: none"> <li>Report findings to DEH per permit requirements.</li> <li>Standard report to include dates, observation well and monitoring well readings and other data collected, work performed, corrective actions taken, and performance summary.</li> <li>Report public health/water quality emergency to DEH immediately.</li> </ul>	<ul style="list-style-type: none"> <li>According to permit conditions, typically every 1 to 2 years, depending on system size, usage, history, location.</li> </ul>

REFERENCE: ONSITE SYSTEM MANUAL. SANTA CLARA COUNTY, DEPARTMENT OF ENVIRONMENT HEALTH, 2014

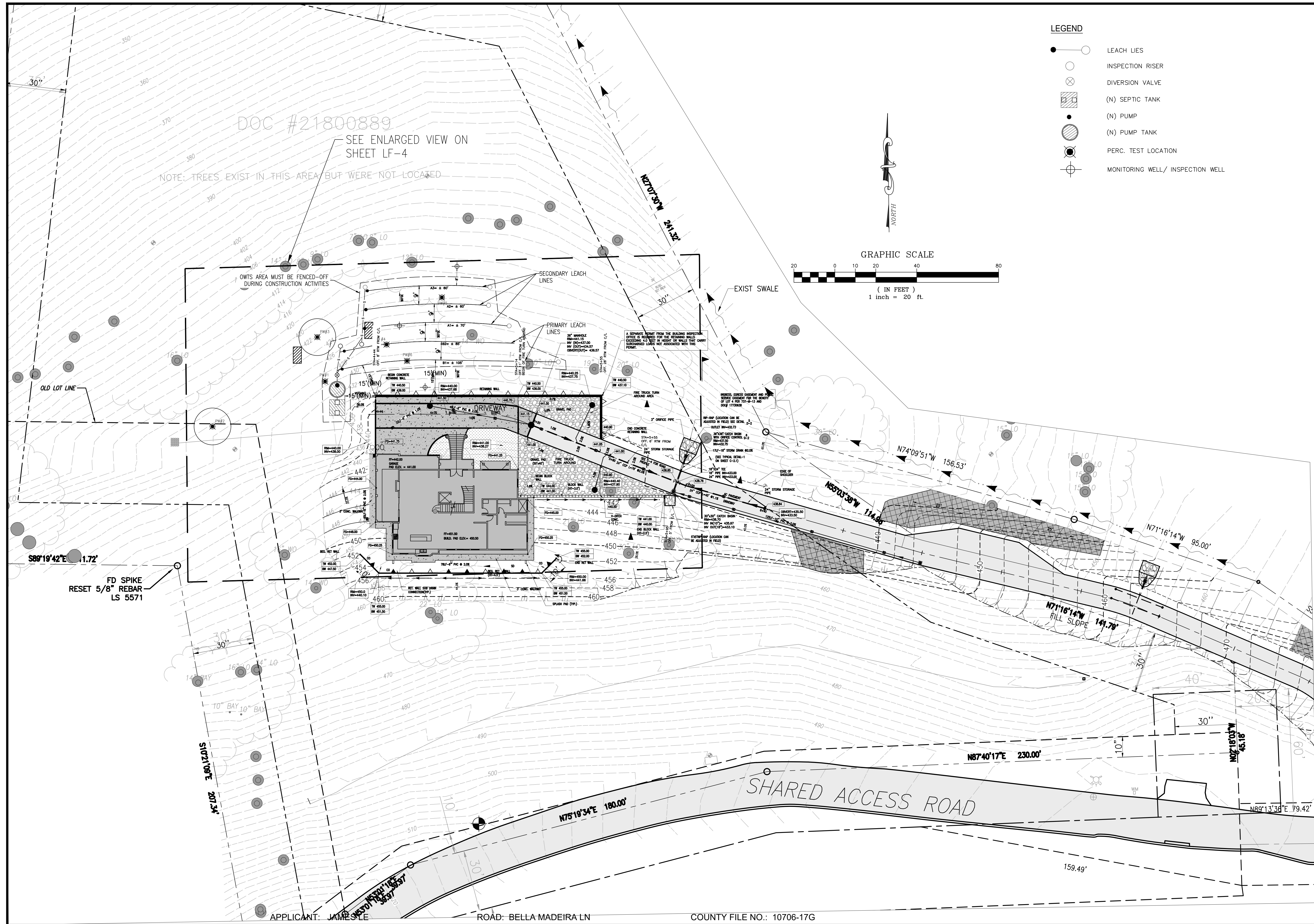
JAMES LE  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

GENERAL AND  
 CONSTRUCTION NOTES



DATE:	02-13-2023
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	
REVISIONS	
SHEET NUMBER	
LF-2	
2 OF 7 SHEETS	



JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

GRADING PLAN

REGISTERED PROFESSIONAL ENGINEER  
MANJIT SAINI  
No. C 61948  
Exp. 09-30-25  
CIVIL  
Manjit Saini

NO.	REVISIONS	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
3		02-13-2023	T. PENG	N. SINGH	M. SAINI	M. SAINI

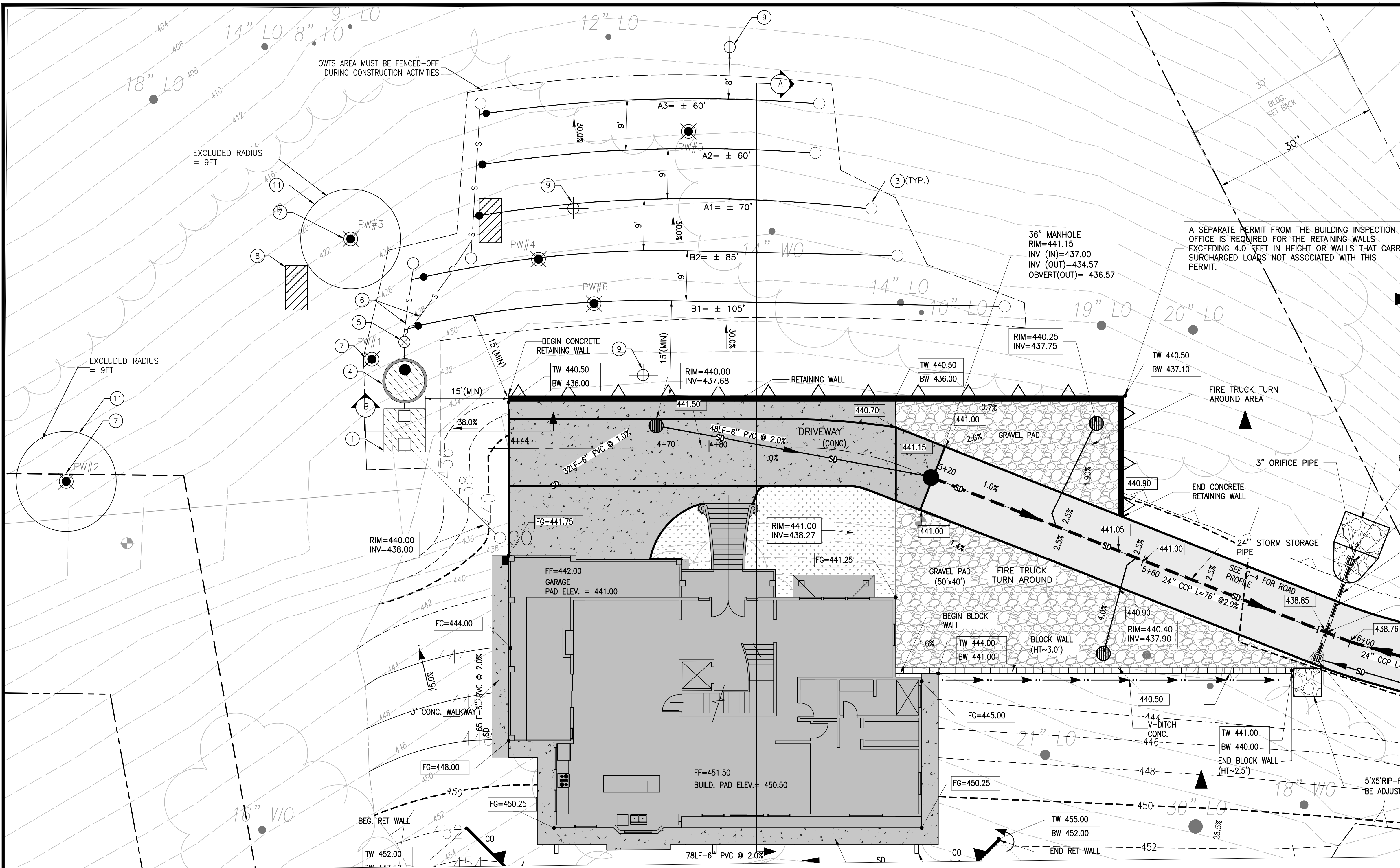
SHEET NUMBER  
LF-3  
OF 7 SHEETS

● CONSTRUCTION

● CONSULTATION

● ENGINEERING

● ARCHITECTURE

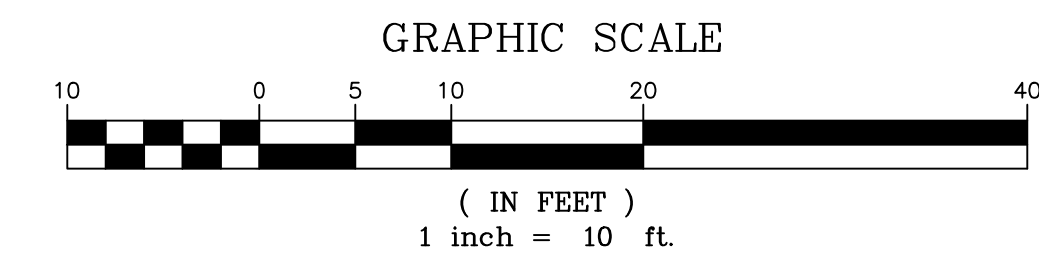


**KEY PLAN NOTES**

REFER SHEET LF-1 FOR KEY PLAN NOTES

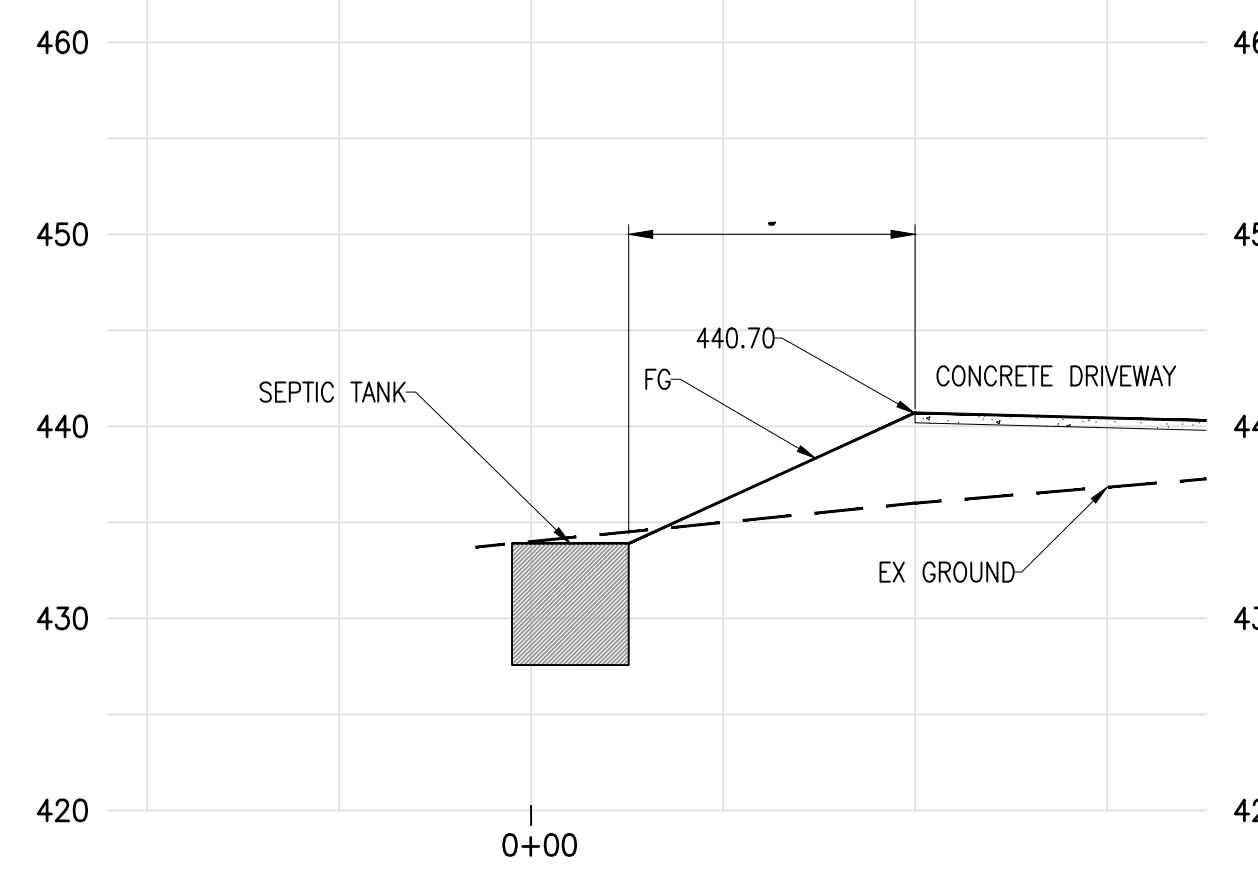
LEACH FIELD A=190 LF±  
LEACH FIELD B=190 LF±

TRENCH DEPTH = 5' TOTAL  
UPPER FILL/ABOVE FILTER FABRIC= 48"  
DRAIN ROCK = 12"  
PERF. PIPE DIA = 1.5"

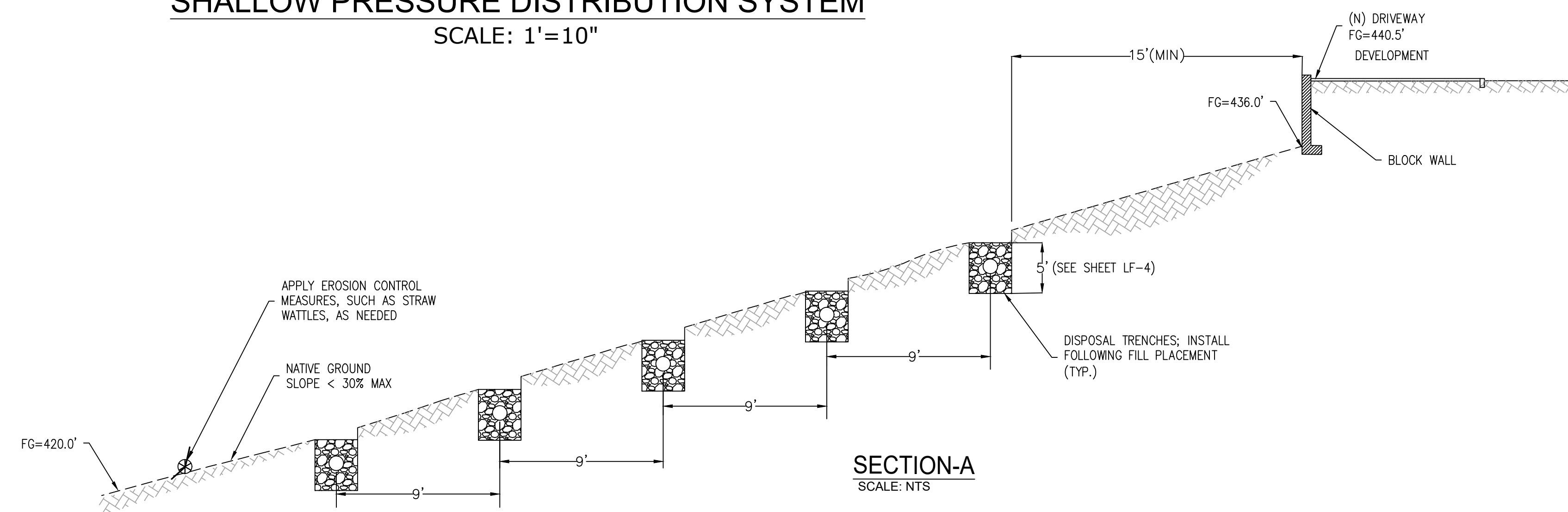


**SHALLOW PRESSURE DISTRIBUTION SYSTEM**

SCALE: 1'=10"



**SECTION-B**  
SCALE: 1:10



**SECTION-A**  
SCALE: NTS

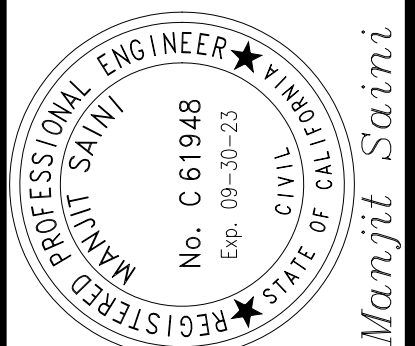
APPLICANT: JAMES LE

ROAD: BELLA MADEIRA LN

COUNTY FILE NO.: 10706-17G

JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

LEACH FIELDS SECTION



DATE:	02-13-2023
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS	
-----------	--

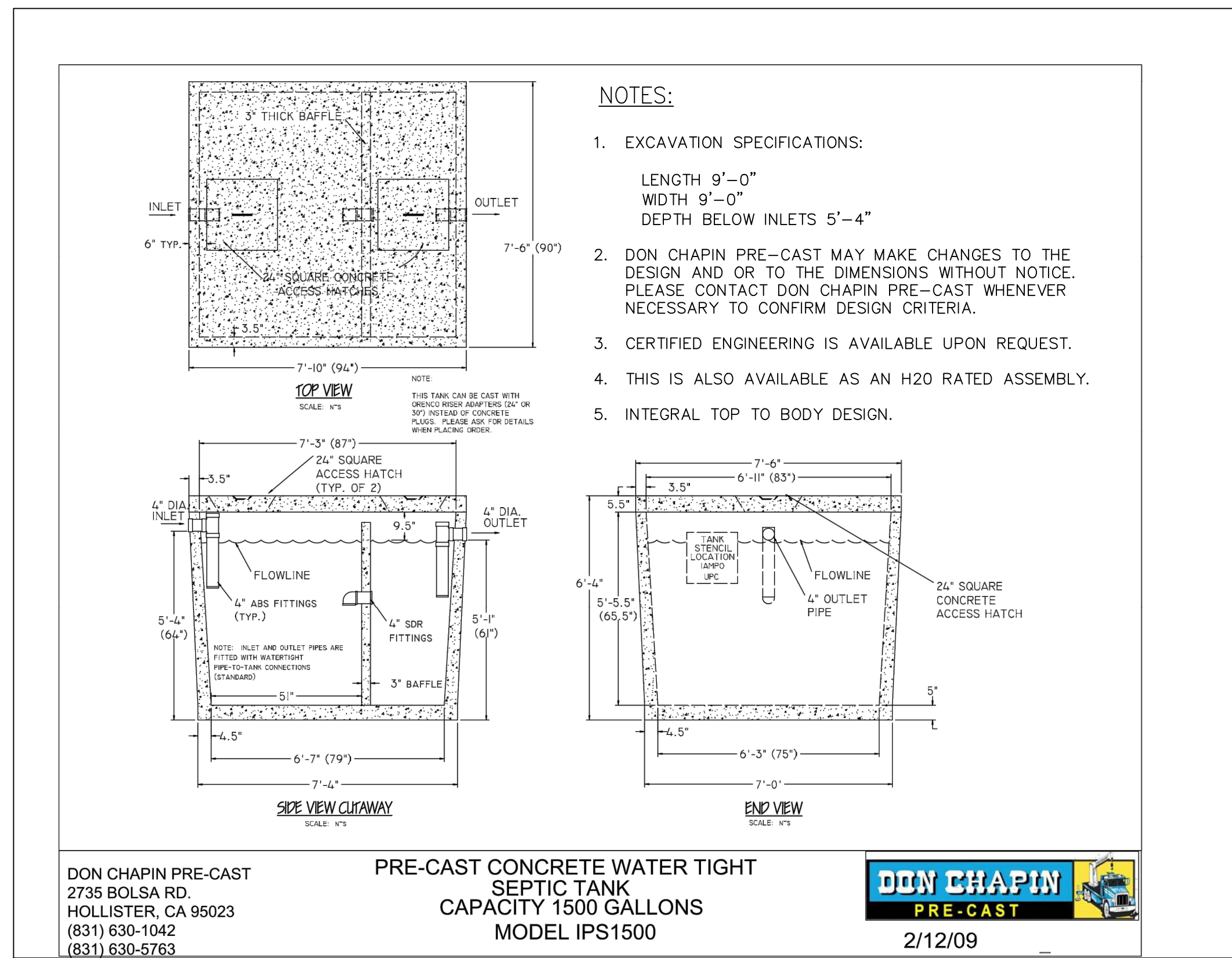
NO.	
SHEET NUMBER	LF-4
OF 7 SHEETS	4

CONSTRUCTION

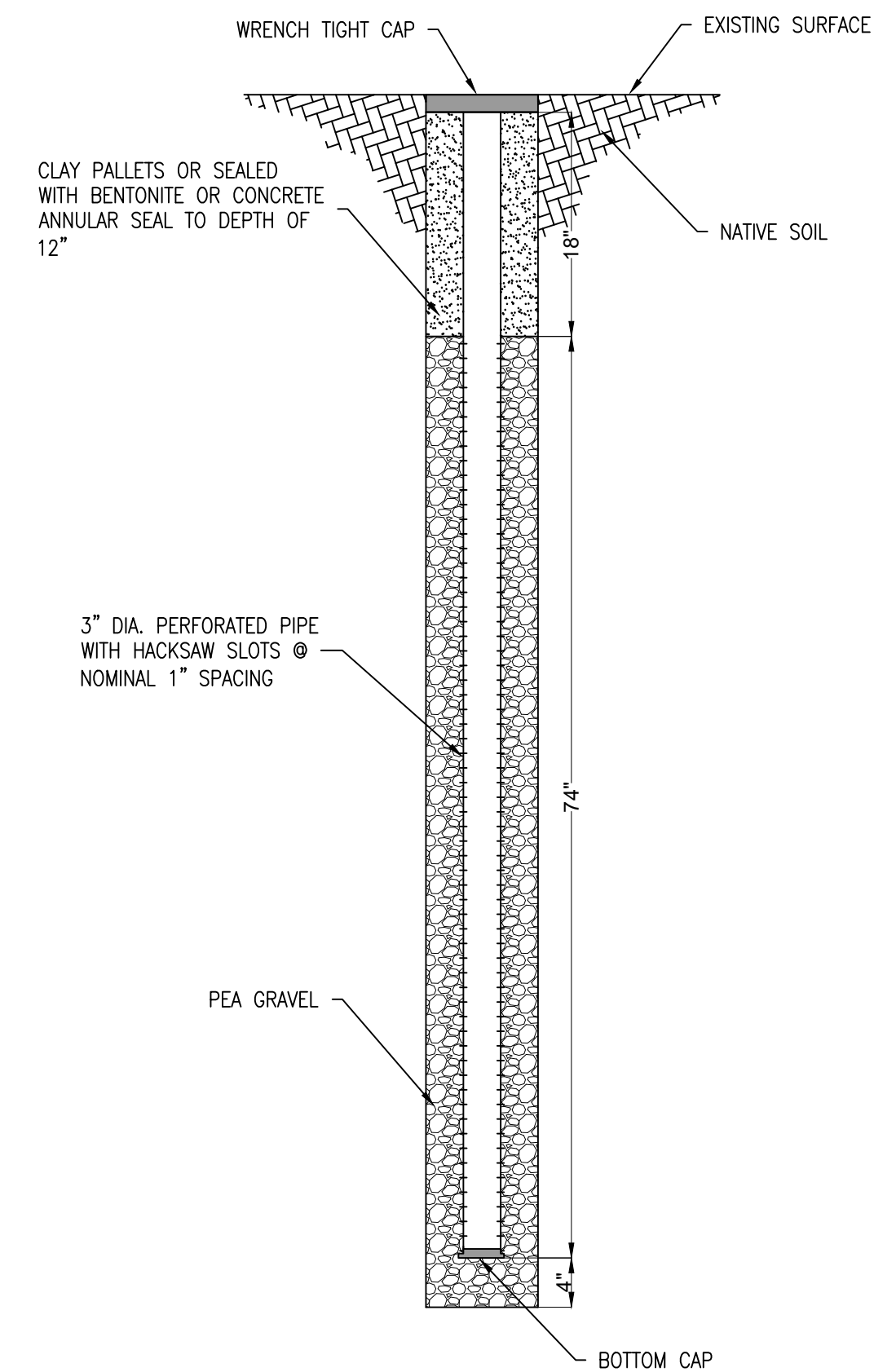
CONSULTATION

ENGINEERING

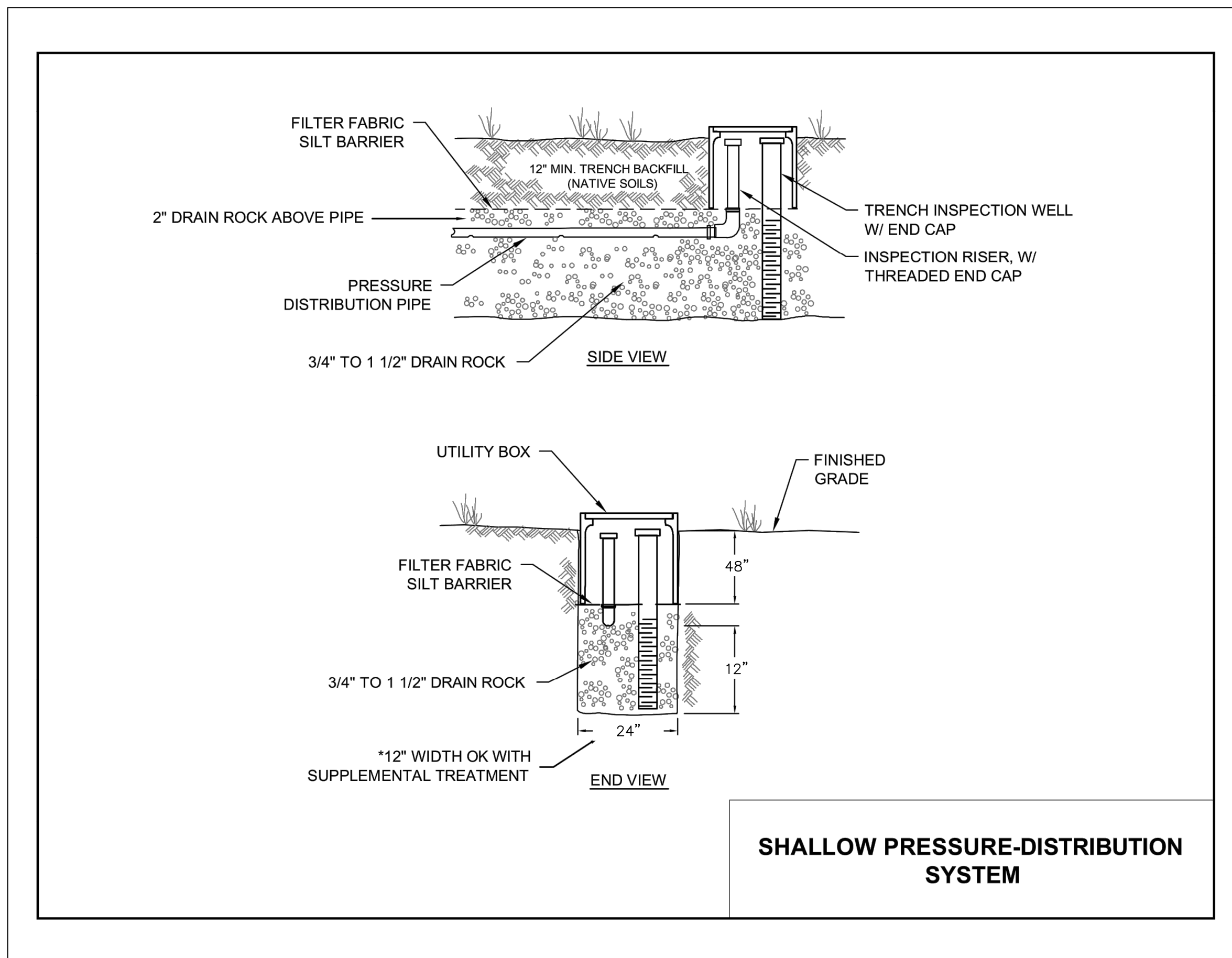
ARCHITECTURE



DETAIL 1: DON CHAPIN SEPTIC TANK DETAIL  
(NTS)



DETAIL 3: MONITORING/INSPECTION WELL DETAIL  
(NTS)



DETAIL 2: TRENCH SECTIONS  
(NTS)

APPLICANT: JAMES LE

ROAD: BELLA MADEIRA LN

STEVE BROOKS  
R.E.H.S., Consultant  
200 Greenbrier Drive  
Aptos, CA 95021  
(831) 684-4391 | (831) 203-2234

**SOIL PROFILE INSPECTION RESULTS**

OWNER: James Lee DATE OF INSPECTION: 7/19/2017  
ADDRESS: Bella Madeira CITY: San Jose  
APN: 654-64-012 CONDUCTED BY: Gabriela CHECKED BY: Ross K Brooks

HOLE #1		HOLE #2	
DEPTH	DESCRIPTION	DEPTH	DESCRIPTION
0 ft.	Dark brown silty clay	0 ft.	Dark brown silty clay
2 ft.	2 1/2' Begin weathered sandstone highly fractured	2 ft.	2' Begin light brown highly weathered frac. ss.
4 ft.	Same	4 ft.	Same
6 ft.	Same	6 ft.	Same
8 ft.	Same	8 ft.	Same
10 ft.	10' Larger rock - increase sand interspaces	10 ft.	10' Light colored mix with light brown frac. ss.
12 ft.	Same	12 ft.	Same
14 ft.	Same	14 ft.	Same
15 ft.	Terminate - no signs GW	14 ft.	Terminate no sign GW
16 ft.			

Comments:

REGISTERED ENVIRONMENTAL HEALTH SPECIALIST No. 2875

COUNTY FILE NO.: 10706-17G

Santa Clara County - Department of Environmental Health  
**SOIL PERCOLATION TEST RECORDED MEASUREMENTS**

OWNER/APPLICANT: James Lee FILE #  
LOCATION: BELLA MADEIRA LN REELS: BOSS KARENWANT  
CONTACT PERSON: STEVE BROOKS PHONE: (831) 684-4391 DATE: 8/10/17

HOLE #	DEPTH	WATER LEVEL	START	FINISH	AMN	INCH	MPI
HOLE #1	5.0'		10:10	10:40	11:50	DRY	30
			10:41	11:11	11:50	DRY	30
			11:12	11:34	11:50	DRY	30
			11:35	11:49	11:50	DRY	30
HOLE #2	5.0'		10:28	10:49	11:50	DRY	30
			10:50	11:14	11:50	DRY	30
			11:15	11:29	11:50	DRY	30
			11:30	11:43	11:50	DRY	30
HOLE #3	5.0'		10:16	10:46	11:00	DRY	30
			10:47	11:16	11:00	DRY	30
			11:17	11:34	11:50	DRY	30
			11:35	11:50	11:50	DRY	30
HOLE #4	5.0'		10:28	10:49	11:50	DRY	30
			10:50	11:14	11:50	DRY	30
			11:15	11:29	11:50	DRY	30
			11:30	11:43	11:50	DRY	30
HOLE #5	5.0'		10:22	10:52	11:00	DRY	30
			10:53	11:23	11:00	DRY	30
			11:24	11:38	11:50	DRY	30
			11:39	11:56	11:50	DRY	30
HOLE #6	5.0'		10:55	11:25	11:00	DRY	30
			11:26	11:39	11:50	DRY	30
			11:40	11:56	11:50	DRY	30
			11:57	12:07	11:50	DRY	30

HOLE #1  
Stabilized MPI: 3.6  
Adjusted Stabilized MPI: 6.2  
Average Adjusted Stabilized MPI: 6.3

HOLE #2  
Stabilized MPI: 3.6  
Adjusted Stabilized MPI: 6.2  
Average Adjusted Stabilized MPI: 6.3

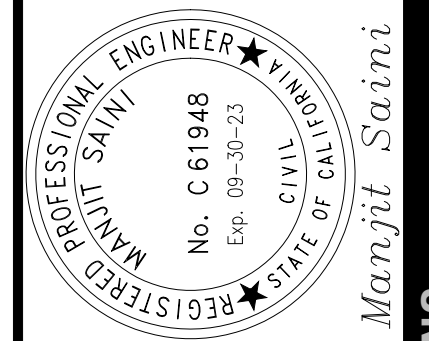
HOLE #3  
Stabilized MPI: 3.6  
Adjusted Stabilized MPI: 6.2  
Average Adjusted Stabilized MPI: 6.3

HOLE #4  
Stabilized MPI: 3.6  
Adjusted Stabilized MPI: 6.2  
Average Adjusted Stabilized MPI: 6.3

HOLE #5  
Stabilized MPI: 3.6  
Adjusted Stabilized MPI: 6.2  
Average Adjusted Stabilized MPI: 6.3

HOLE #6  
Stabilized MPI: 3.6  
Adjusted Stabilized MPI: 6.2  
Average Adjusted Stabilized MPI: 6.3

# Bedrocks: 10706-17G



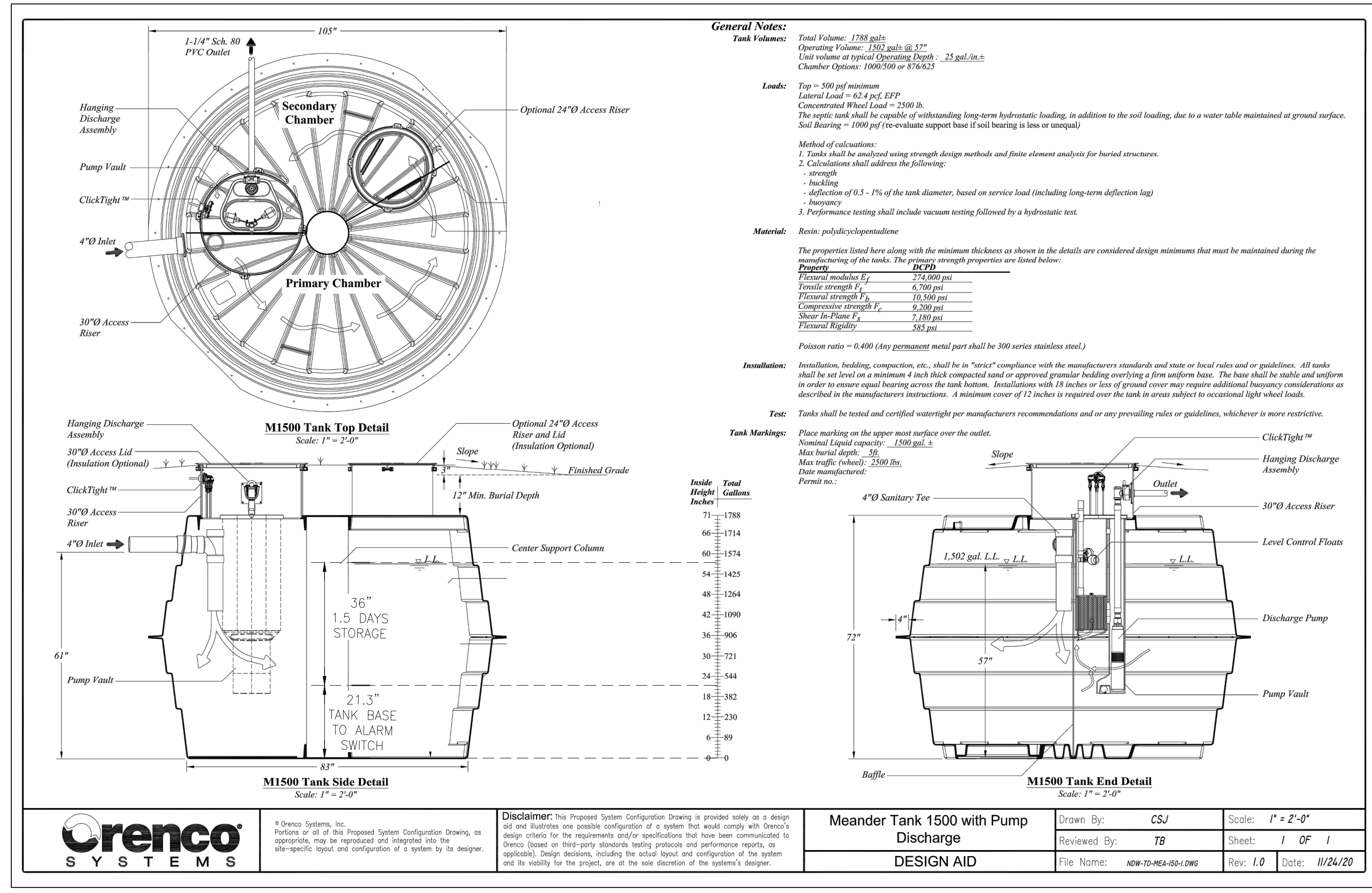
DATE:	02-13-2023
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
LF-5  
5 OF 7 SHEETS

JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

LEACH FIELD DETAILS AND  
PERCOLATION TEST SUMMARY



**General Notes:**  
**Tank Volume:** Total Volume: 1788 gal.; Operating Volume: 1500 gal. @ 2" LWT; Unit volume at typical Operating Depth: 25 gal./in.; Chamber Options: 1000/500 or 876/625

**Loads:** Top = 500 psf minimum; Lateral Load = 42.4 psf EWP; Concentrated Wheel Load = 2500 lb. The sump tank shall be capable of withstanding long-term hydrostatic loading, in addition to the soil loading, due to a water table maintained at ground surface. Soil bearing = 1000 psf (re-evaluate support base if soil bearing is less or unequal)

**Method of calculation:**  
 1. Tanks shall be analyzed using strong design methods and finite element analysis for buried structures.  
 2. Calculations shall address the following:  
 - strength  
 - buckling  
 - deflection of 0.5 - 1% of the tank diameter, based on service load (including long-term deflection lag)  
 - buoyancy  
 3. Performance testing shall include vacuum testing followed by a hydrostatic test.

**Material:** Resin: polypropylene  
 The properties listed here along with the minimum thickness as shown in the details are considered design minimums that must be maintained during the manufacturing of the tanks. The primary strength properties are listed below:

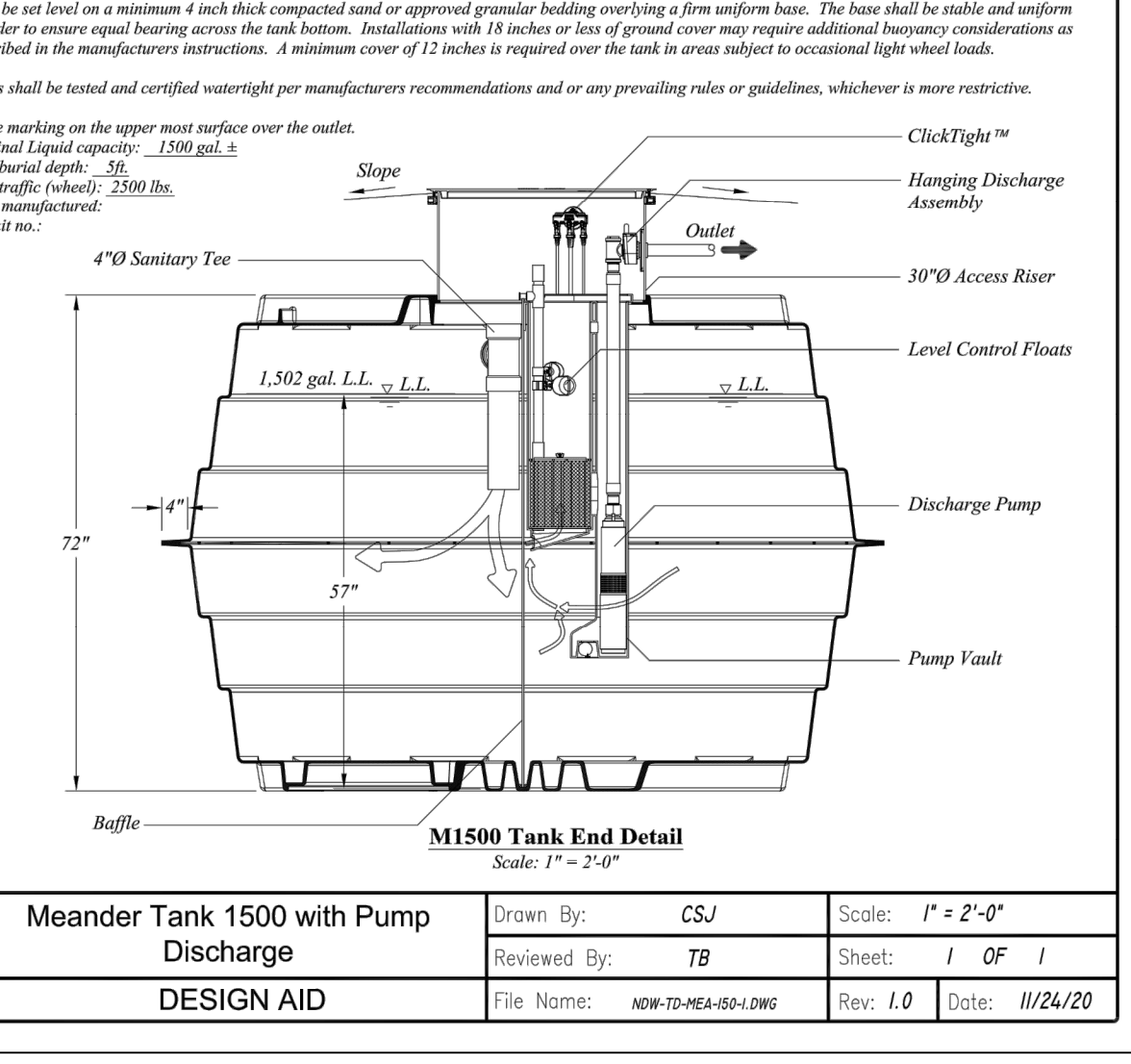
Property	DCD
Tensile Modulus $E_f$	2,700 psi
Tensile strength $F_f$	6,700 psi
Flexural strength $F_b$	73,500 psi
Compressive strength $F_c$	9,200 psi
Shear by Panel $F_v$	7,100 psi
Flexural Rigidity	592 psi

Poisson ratio = 0.40 (Any permanent metal part shall be 300 series stainless steel)

**Insulation:** Installation, bedding, compaction, etc., shall be in "strict" compliance with the manufacturers standards and state or local rules and/or guidelines. All tanks shall be set level on a minimum 4 inch thick compacted sand or approved granular bedding overlying a firm uniform base. The base shall be stable and uniform in order to ensure equal bearing across the tank bottom. Installations with 18 inches or less of ground cover may require additional frequency considerations as described in the manufacturers instructions. A minimum cover of 12 inches is required over the tank in areas subject to occasional light wheel loads.

**Test:** Tanks shall be tested and certified watertight per manufacturers recommendations and or any prevailing rules or guidelines, whichever is more restrictive.

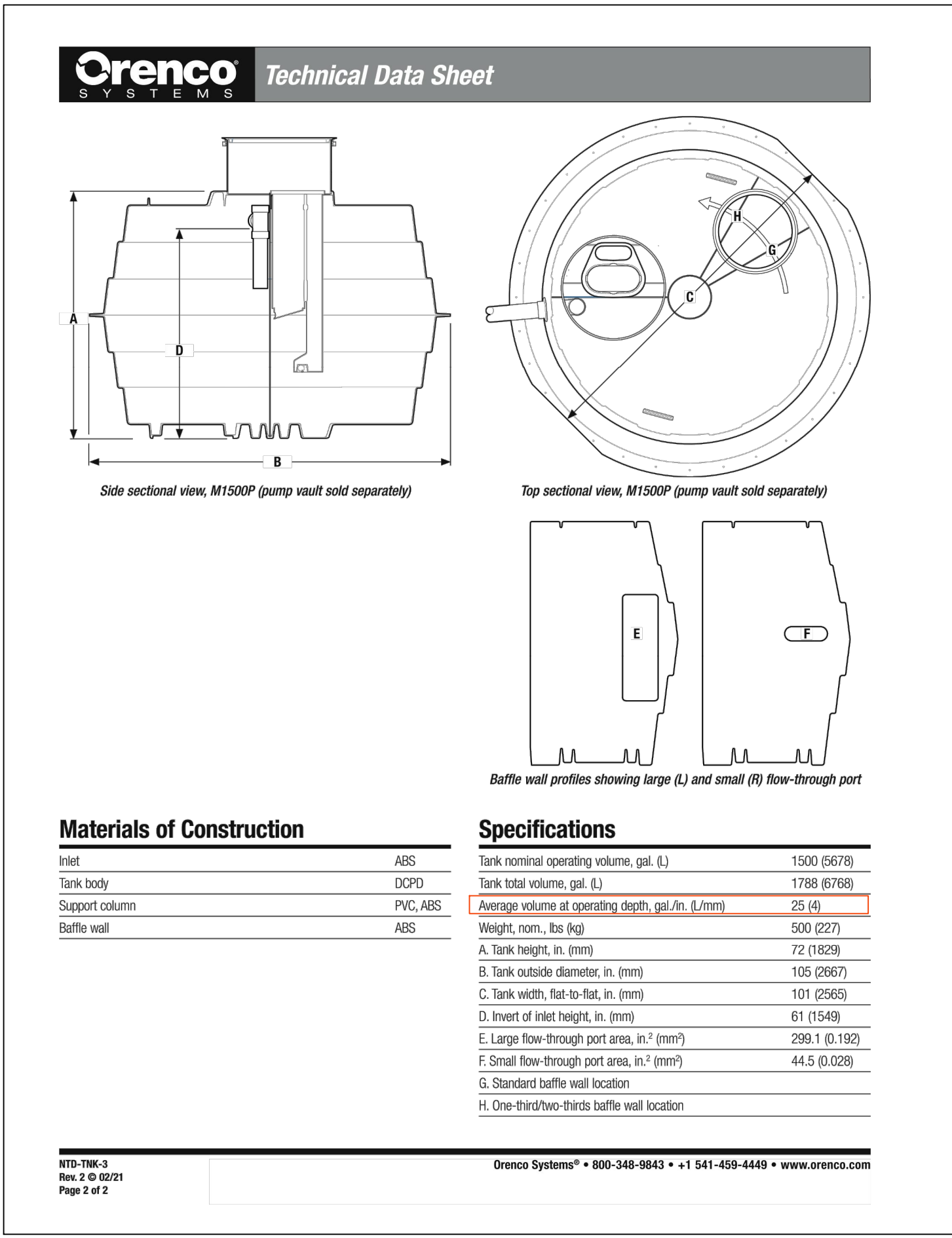
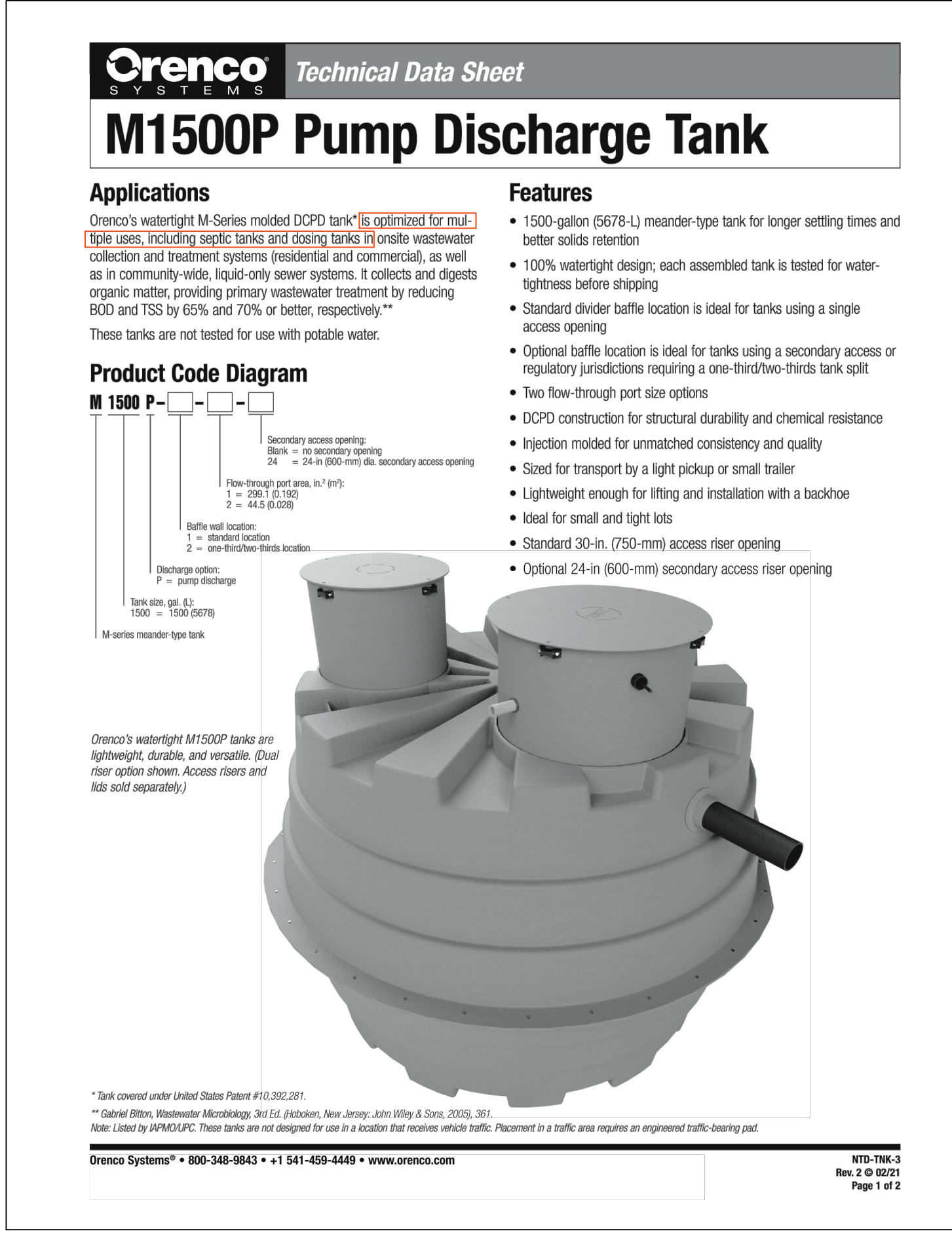
**Tank Markings:** Place marking on the upper most surface over the outlet.  
 Nominal Liquid Capacity: 1500 gal. ±  
 Max. burial depth: 36"  
 Max. traffic (wheel): 2500 lb.  
 Date manufactured:  
 Permit no.:



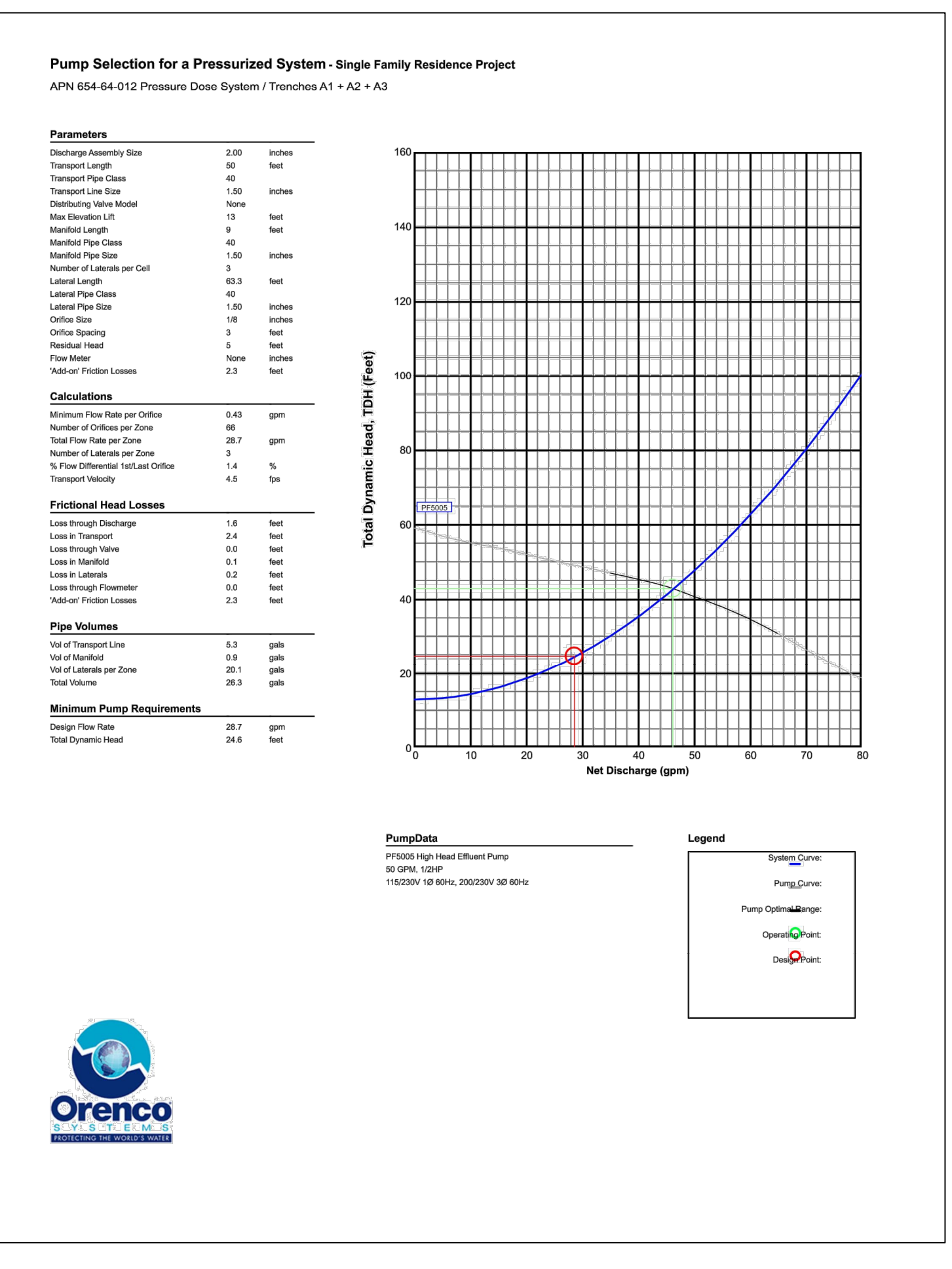
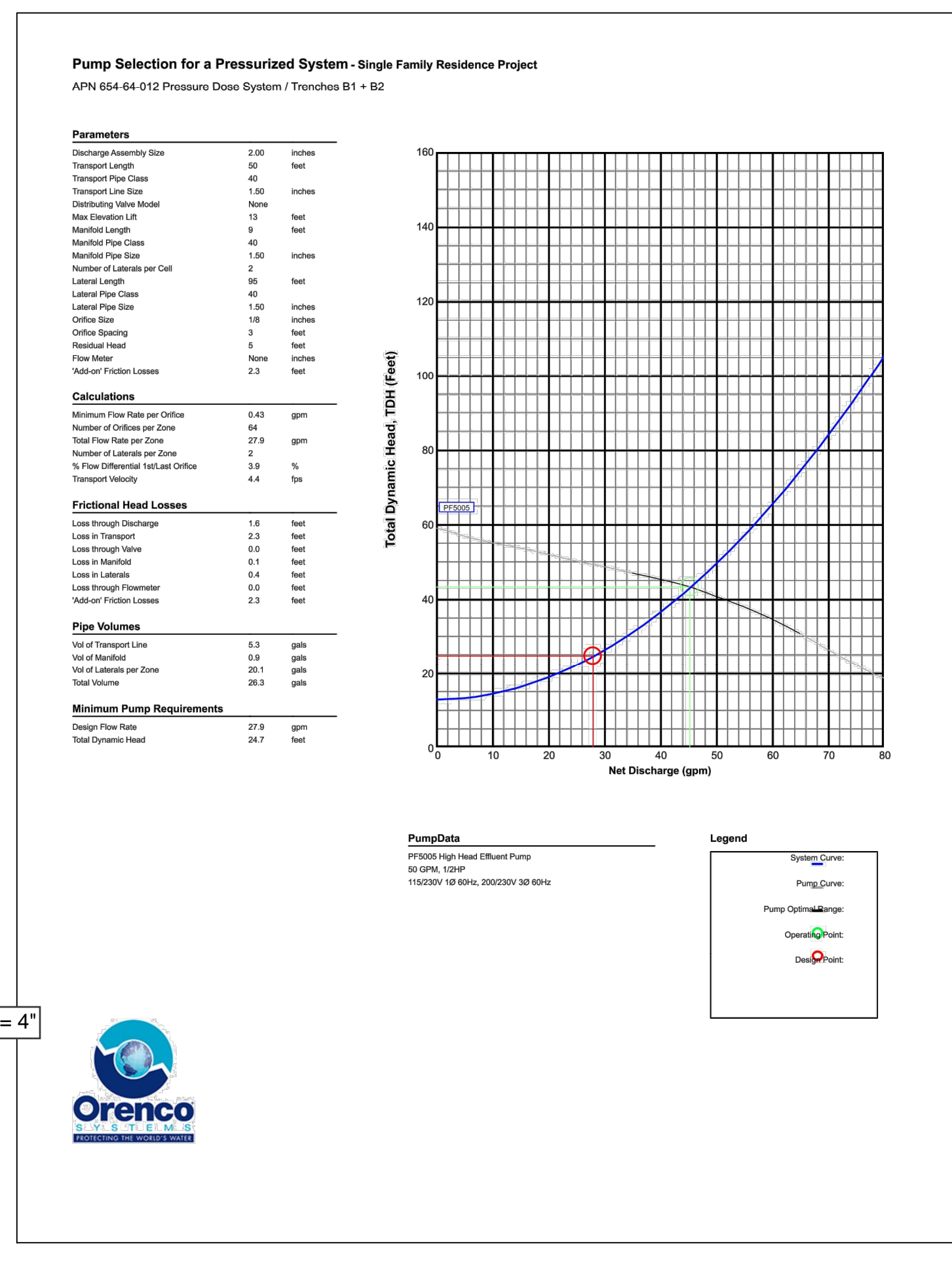
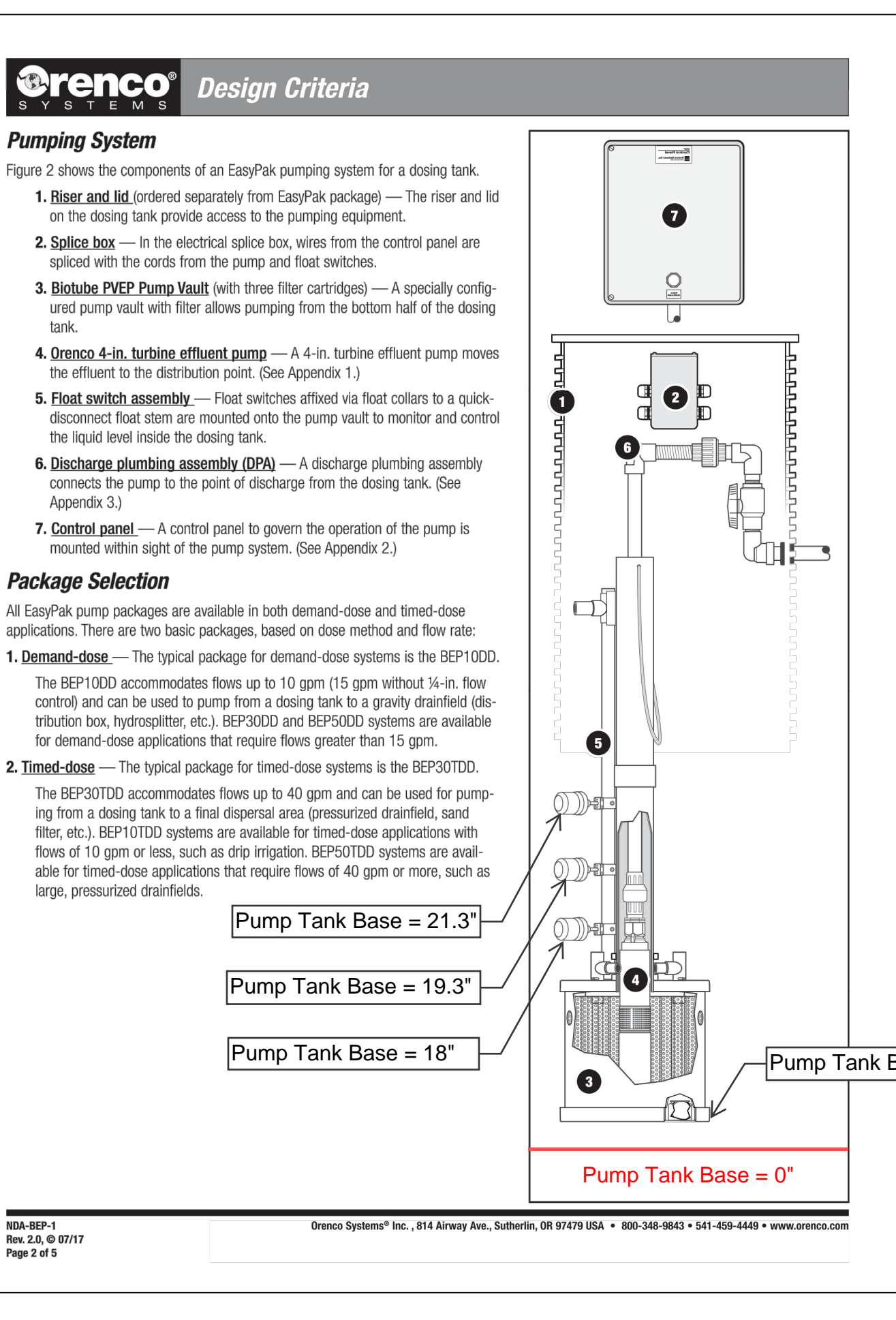
**Disclaimer:** This Proposed System Configuration Drawing is provided solely as a design aid and does not constitute a contract. It is subject to change without notice. Crenco, Inc. reserves the right to modify this design at any time without notice. Design of the system shall be the responsibility of the system designer. Design decisions, including the exact layout and configuration of the system and its utility for the project, are at the sole discretion of the system's designer.

Meander Tank 1500 with Pump Discharge  
 DESIGN AID

Drawn By: CSJ  
 Reviewed By: TB  
 File Name: NDR-1D-HEA-654-DWG  
 Scale: 1" = 2'-0"  
 Sheet: 1 OF 1  
 Rev: 1.0  
 Date: 11/24/20



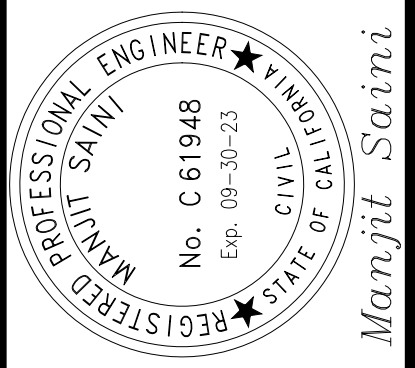
DETAIL 4: PUMP TANK AND OTHER COMPONENTS (NTS)



DETAIL 5: PUMP PACKAGE AND OTHER COMPONENTS (NTS)

JAMES LE  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

PROPOSED SUMP PUMP AND  
 STORAGE TANK  
 SPECIFICATIONS-1



DATE: 02-13-2023  
 DESIGNED BY: T. PENG  
 DRAWN BY: N. SINGH  
 CHECKED BY: M. SAINI  
 APPROVED BY: M. SAINI

REVISIONS

NO.	DATE	DESCRIPTION

SHEET NUMBER  
 LF-6  
 OF 7 SHEETS

CONSTRUCTION CONSULTATION ENGINEERING ARCHITECTURE

**Design Tools**

The EasyPak Design Aid CD-ROM allows system designers and specifiers to select the correct system for the application. When information about the drainfield or sand filter is entered, a PumpSelect™ program, which has been specially designed for EasyPak, calculates the pump flow rate and TDH required for the system. For help in calculations, see Appendix 3 in this document, "Headloss in Discharge Assemblies."

**Standard EasyPak™ Packages**

Demand Dose			Timed Dose		
Model Code	Discharge	Maximum Flow Rate	Model Code	Discharge	Maximum Flow Rate
BEP10DD	Standard	15 GPM	BEP10TDD	Standard	15 GPM
BEP10DD-DB	Drainback	15 GPM	BEP10TDD-DB	Drainback	15 GPM
BEP10DD-CW	Cold Weather	15 GPM	BEP10TDD-CW	Cold Weather	15 GPM
BEP30DD	Standard	40 GPM	BEP30TDD	Standard	40 GPM
BEP30DD-DB	Drainback	40 GPM	BEP30TDD-DB	Drainback	40 GPM
BEP30DD-CW	Cold Weather	40 GPM	BEP30TDD-CW	Cold Weather	40 GPM
BEP50DD	Standard	65 GPM	BEP50TDD	Standard	65 GPM
BEP50DD-DB	Drainback	65 GPM	BEP50TDD-DB	Drainback	65 GPM
BEP50DD-CW	Cold Weather	65 GPM	BEP50TDD-CW	Cold Weather	65 GPM

**Accessory Equipment**

The following products may be required to complete the package:

- Access Risers with Fiberglass Lids
- Riser Tank Adapters with Bolt-Down Kit
- Adhesives
- Anti-Siphon Valve
- Grommets

See Orengo's General Onsite Products Catalog to order these products.

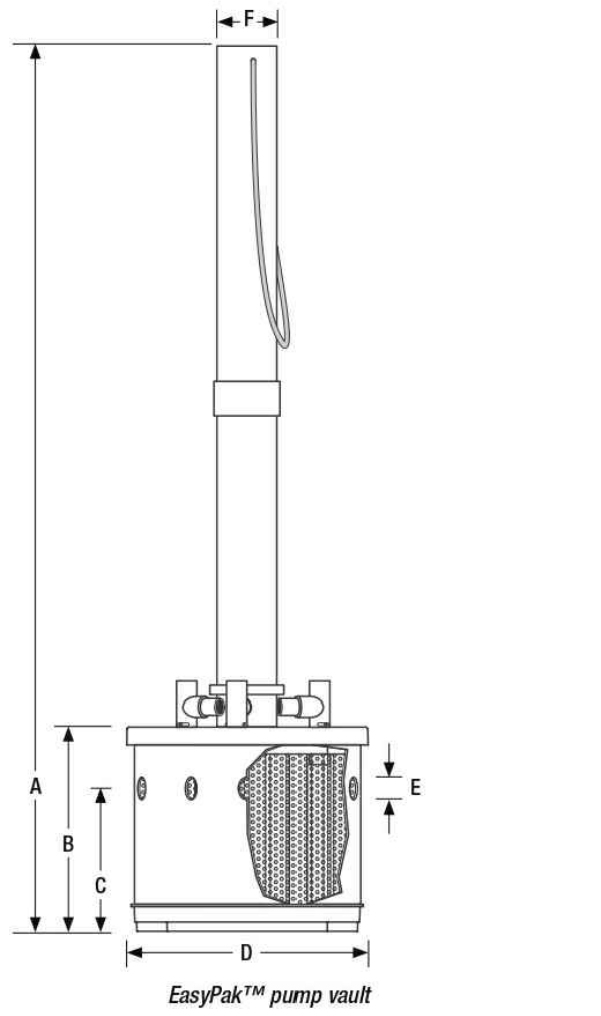
**EasyPak™ Pump Vault**

**Materials of Construction**

Vault body	PVC
Vault top	ABS
Vault base	Fiberglass
Flow inducer	PVC
Lifting strap	Hollow braided poly

**Dimensions, in. (mm)**

A - Overall height (adjustable)	64 (1629)
B - Vault height	15 (381)
C - Inlet hole center height	12 (305)
D - Vault diameter	15.75 (400)
E - Inlet hole diameter (ø total)	1.38 (35)
F - Flow inducer diameter, nominal	4 (102)



**Biotube® Filter Cartridge**

**Materials of Construction**

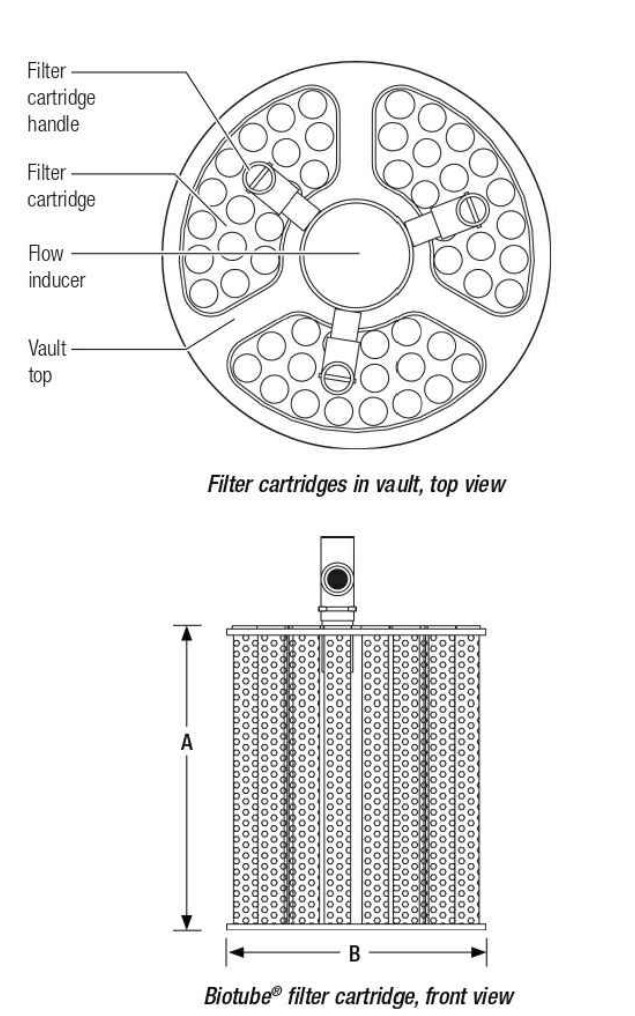
Filter tubes	Polypropylene
Cartridge end plates	Polyethylene
Handle	PVC

**Dimensions, in. (mm)**

A - Cartridge height	12 (305)
B - Cartridge width	10.3 (262)

**Performance**

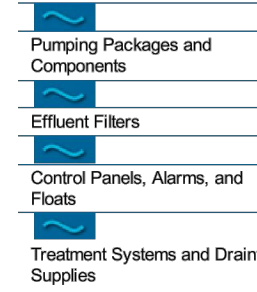
Number of filter cartridges	3
Biotube® mesh opening, in. (mm)	0.125 (3)
Total filter flow area, ft² (m²)	4.5 (0.4)
Total filter surface area, ft² (m²)	14 (1.3)
Maximum flow rate, gpm (L/sec)	75 (4.7)



**Flushing Assemblies**

Orengo flushing assemblies provide easy access for lateral maintenance. Flushing assembly kits include a PVC sweep kit with ball valve and a polyethylene valve box enclosure.

**Product Nomenclature**



**Product Example**

**Model Code**  
SEK075V  
**Description**  
Flushing Assembly Kit, 3/4-in. diameter, with ball valve

**Related Products**

- Intermittent Sand Filter Manifolds
- Valve Boxes
- Shallow Gravelless Drainfield Supplies
- Automatic Distributing Valves
- Hydrocyclones
- Hydrocyclifier Enclosures
- Flow Control Assemblies and Flow Control Discs
- Flowmeter Basins

Home | Distributor Locator | Videos | Product Catalog | Document Library | New Products | Fiberglass Tanks | Effluent Pumping Systems | Advanced Treatment Systems | Community Collection Systems | Monitoring and Control Devices | Information and Training | About Orengo

© 2009 by Orengo Systems, Inc. Terms of Service

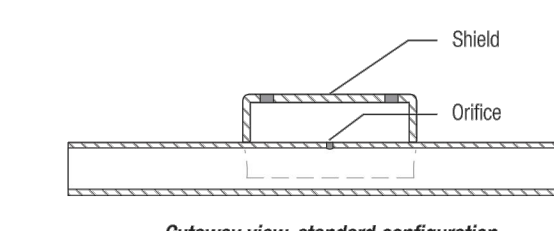
**Orifice Shields**

**Applications**

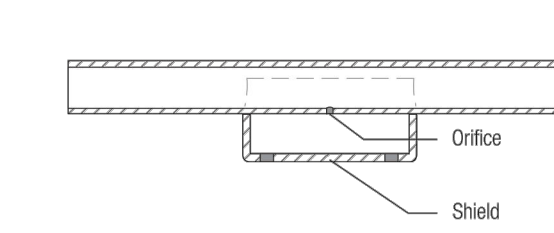
Orengo® Orifice Shields are used in a pressurized distribution system to protect the orifices from backfill debris that might cause orifice blockage.



Orifice shield installed on lateral pipe, standard configuration



Cutaway view, standard configuration

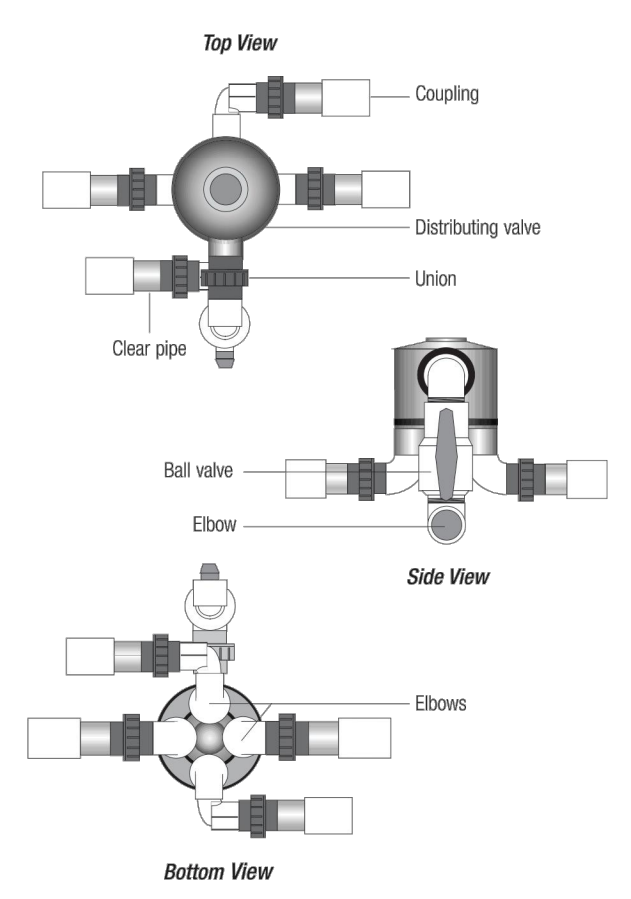


Cutaway view, cold weather configuration

**Distributing Valves**

**Applications**

Automatic Distributing Valve Assemblies are used to pressurize multiple zone distribution systems including textile filters, sand filters and drainfields.



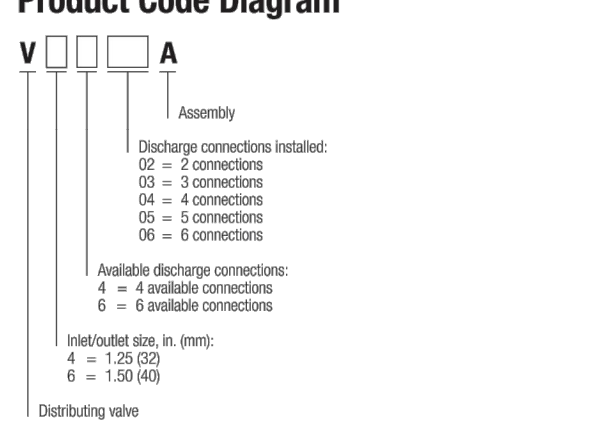
**General**

Orengo's Automatic Distributing Valve Assemblies are mechanically operated and sequentially redirect the pump's flow to multiple zones or cells in a distribution field. Valve actuation is accomplished by a combination of pressure and flow. They allow the use of smaller horsepower pumps on large sand filters and drainfields. For example, a large community drainfield requiring 300 gpm (18.90L/sec) can use a six-line valve assembly to reduce the pump flow rate requirement to only 50 gpm (3.14L/sec).

**Standard Models**

- V4402A, V4403A, V4404A, V4605A, V4606A, V6402A, V6403A, V6404A, V6605A, V6606A.

**Product Code Diagram**



**Materials of Construction**

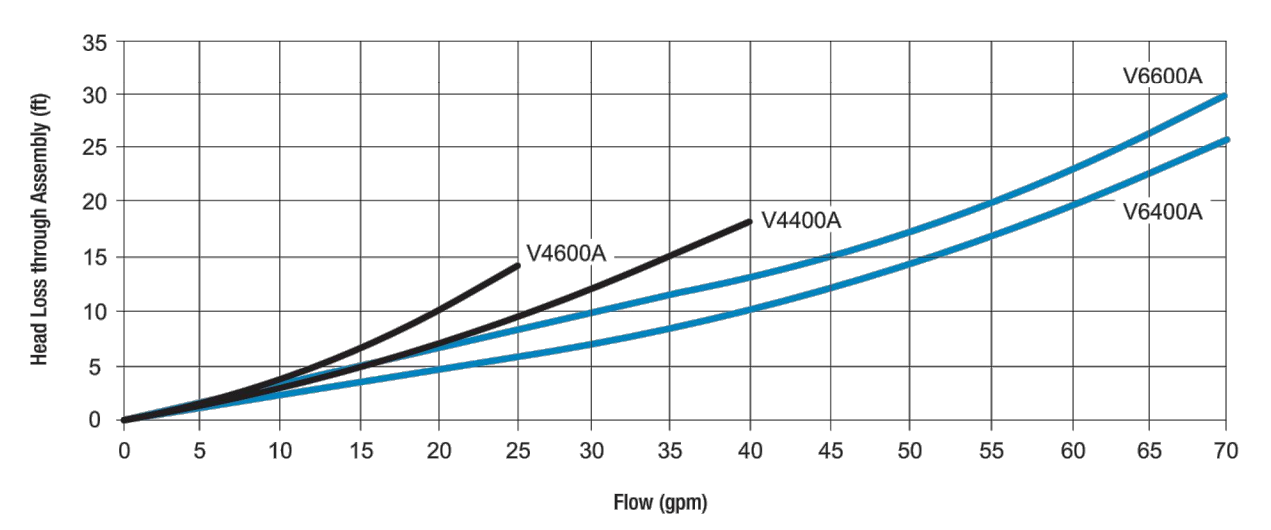
All Fittings	Sch. 40 PVC per ASTM specification
Unions	Sch. 80 PVC per ASTM specification
Ball Valve	Sch. 40 PVC per ASTM specification
Clear Pipe	Sch. 40 PVC per ASTM specification

**Specifications**

Model	Inlet Size, in. (mm)	Outlets Size, in. (mm)	Flow Range, gpm (L/sec)	Max Head, ft (m)	Min. Enclosure*
V4402A	1.25 (32)	1.25 (32)	10 - 40 (0.63 - 2.52)	170 (51.816)	V61217
V4403A	1.25 (32)	1.25 (32)	10 - 40 (0.63 - 2.52)	170 (51.816)	V61217
V4404A	1.25 (32)	1.25 (32)	10 - 40 (0.63 - 2.52)	170 (51.816)	V61217
V4605A	1.25 (32)	1.25 (32)	10 - 40 (0.63 - 2.52)	170 (51.816)	RP2418
V4606A	1.25 (32)	1.25 (32)	10 - 40 (0.63 - 2.52)	170 (51.816)	RP2418
V6402A	1.50 (38)	1.50 (38)	15 - 100 (0.95 - 6.31)	345 (105.16)	RP2418
V6403A	1.50 (38)	1.50 (38)	15 - 100 (0.95 - 6.31)	345 (105.16)	RP2418
V6404A	1.50 (38)	1.50 (38)	15 - 100 (0.95 - 6.31)	345 (105.16)	RP2418
V6605A	1.50 (38)	1.50 (38)	15 - 100 (0.95 - 6.31)	345 (105.16)	RP2418
V6606A	1.50 (38)	1.50 (38)	15 - 100 (0.95 - 6.31)	345 (105.16)	RP2418

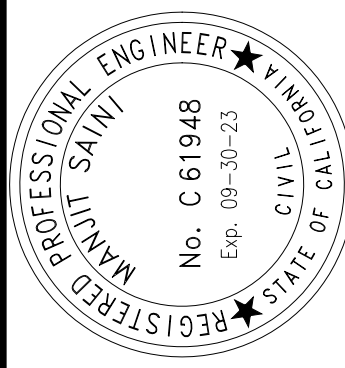
**Table 1. Automatic Distributing Valve Assembly Headloss Equations**

Model Series	Equation	Operating Range, gpm (L/sec)
V4400A	$H = 0.035 \times Q^{1.4}$	10 - 40 (0.63 - 2.52)
V4600A	$H = 0.035 \times Q^{1.4}$	10 - 25 (0.63 - 1.57)
V6400A	$H = 0.0245 \times Q^2 + 3.5 \times (1 - e^{-0.0005Q})$	15 - 70 (0.95 - 4.42)
V6600A	$H = 0.0249 \times Q^2 + 5.5 \times (1 - e^{-0.0005Q})$	15 - 70 (0.95 - 4.42)



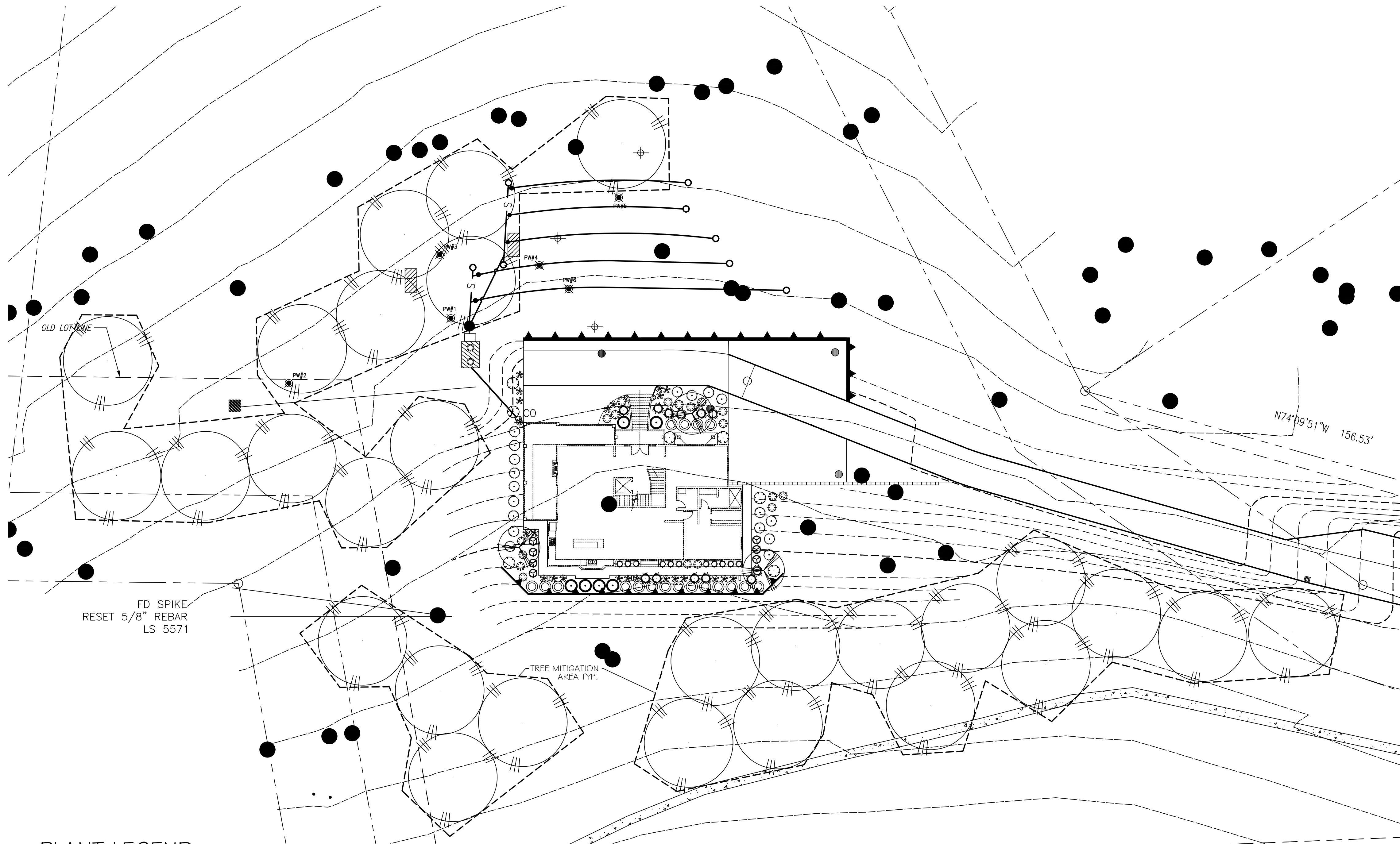
JAMES LE  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

PROPOSED SUMP PUMP AND  
STORAGE TANK  
SPECIFICATIONS-2



DATE:	02-13-2023
DESIGNED BY:	T. PENG
DRAWN BY:	N.SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS	
NO.	



**MWEO CALCULATIONS**

MAWA = (ETo)(.62)[(0.55x LA) + (0.3x SLA)]  
 Where:  
 MAWA = Maximum Applied Water Allowance (gallons per year)  
 ETo = Reference Evapotranspiration (inches per year)  
 0.55 = ET Adjustment Factor (per CA code, max 0.55 for residential)  
 LA = Landscaped Area including Special Landscape Area (square feet)  
 0.62 = Conversion factor (to gallons per square foot)  
 SLA = Portion of the landscaped area identified as Special Landscape Area (square feet)  
 0.3 = Additional ET adjustment factor for Special Landscape Area (1.0-0.7=0.3)

ETo = 45.3 in/yr  
 LA = 2,276 sq. ft.  
 SLA = 0 sq. ft.

MAWA = (45.3)(0.62)[(0.55 x 2,276)+(0.3x0)]  
 = (45.3)(0.62)[1,251.8 + 0]  
 = 35,158

Maximum Applied Water Allowance = 35,158 gallons per year

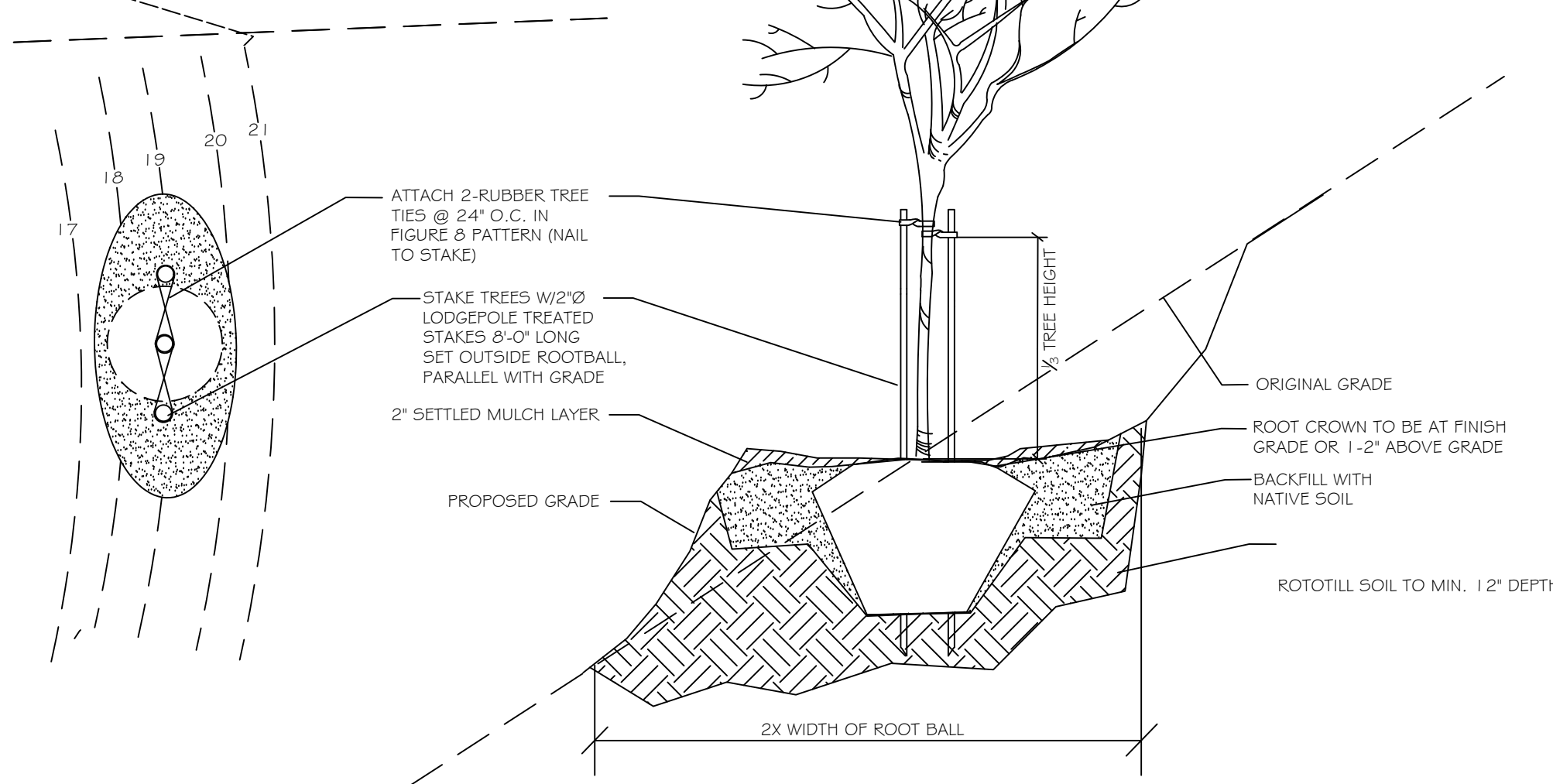
The following is the projects total Estimated Total Water Use:

ETWU = (ETo)(0.62) [(PFxHA)/IE] + SLA  
 Where:  
 ETWU = Estimated Total Water Use per year (gallons)  
 ETo = Reference Evapotranspiration (inches)  
 PF = Plant Factor from WUCOLS  
 HA = Hydrozone Area (high, medium, and low water use areas)(square feet)  
 SLA = Special Landscape Area (square feet)  
 0.62 = Conversion Factor  
 IE = Irrigation Efficiency (minimum 0.71)

ETWU Dnp = (45.3)(0.62)[(0.3x2,276)/.8]+0  
 = 23,971.4

Estimated Total Water Use = 23,971.4 gallons per year

MAWA > ETWU  
 = 35,158 > 23,971.4



TREE PLANTING ON SLOPE  
 INSTALLATION DETAIL

**PLANT LEGEND**

Symbol	Size	Botanical Name	Common Name	Water Use	Quantity
<b>TREES</b>					
	15 gal.	Lagerstroemia indica	Grape Myrtle	L	3
<b>SHRUBS</b>					
	5 gal.	Rhaphiolepis i. 'Springtime'	India Hawthorn	L	18
	5 gal.	Dodonaea v. 'Purpurea'	Purple Hopseed Bush	L	6
	5 gal.	Lavandula spp.	Lavender	L	16
	5 gal.	Phormium tenax	New Zealand Flax	L	7
	5 gal.	Rhaphiolepis i. 'Ballarina'	Dwarf India Hawthorne	L	11
	5 gal.	Phormium t. 'Bronze Baby'	New Zealand Flax	L	12
	5 gal.	Pittosporum t. 'Wheeler's Dwarf'	Dwarf Pittosporum	L	7
	5 gal.	Bacchans pilularis	Dwarf Coyote Brush	L	18
<b>ACCENT &amp; GROUND COVER</b>					
	1 gal.	Dietses vegeta	Fortnight Lily	L	21

**TREE REPLACEMENT LEGEND**

Symbol	Size	Botanical Name	Common Name	Water Use
	24\"/>			

**TREE REPLACEMENT**

(REFER TO SHEET C-11 TREE LOCATION PLAN, FOR TREES TO BE REMOVED)

TREE #	SPECIES	QUANTITY/SIZE	SPECIES
1775	QUERCUS AGRIFOLIA	4 -24\"/>	
1776	QUERCUS AGRIFOLIA	2 -24\"/>	
1777	QUERCUS AGRIFOLIA	4 -24\"/>	
1778	QUERCUS AGRIFOLIA	3 -24\"/>	
1779	QUERCUS AGRIFOLIA	4 -24\"/>	
1780	QUERCUS AGRIFOLIA	4 -24\"/>	
1821	QUERCUS AGRIFOLIA	2 -24\"/>	
1845	QUERCUS AGRIFOLIA	4 -24\"/>	
TOTAL		28 -24\"/>	

**PLANTING NOTES**

- ALL PLANTING SHALL BE COMPLETED IN ACCORDANCE WITH AND CONTRACTOR SHALL BE FAMILIAR WITH AND ADHERE TO SANTA CLARA STANDARD PLANS & SPECIFICATIONS. (COUNTY STANDARD PLANS SHALL SUPERCEDE NOTES IF A CONFLICT OF INFORMATION OCCURS.)
- FINISH GRADE IN PLANTERS SHALL BE 1/2" INCHES BELOW THE TOP OF ADJACENT PAVING. GRADE ALL PLANTING AREAS SMOOTH AND EVEN. ENSURE THAT ALL PLANTING AREAS MAINTAIN POSITIVE DRAINAGE.
- PLANTING AREAS SHALL BE KEPT CLEAN AND FREE FROM ALL CONCRETE, ASPHALTIC WASTE, LUMBER, AB BASE OR OTHER IMPURITIES. POLLUTION CAUSED BY GASOLINE, OIL OR OTHER SUCH MATERIALS SHALL BE REMOVED BY EXCAVATION OF THE SOIL AND REPLACED WITH CLEAN TOPSOIL AT THE CONTRACTOR'S EXPENSE.
- IMPORTED TOPSOIL (MIN 8\"/>
- SOIL AMENDMENT SHALL BE NITRIFIED FIR OR REDWOOD SOIL CONDITIONER 1/4". APPLY THE SOIL AMENDMENT TO ALL PLANTED AREAS AT THE RATE OF 4 CU. YDS. PER 1000 SQ. FT. BROADCAST BEST 6-20-20 XB FERTILIZER AT 15 LBS. PER 1000 SQ.FT. THE SOIL IN ALL LANDSCAPED AREAS SHALL BE THOROUGHLY ROTOTILLED OR HAND CULTIVATED TO A MINIMUM DEPTH OF 6\"/>
- CONTRACTOR SHALL SUBMIT A SAMPLE OF THE SOIL AMENDMENT TO THE CITY LANDSCAPE INSPECTOR FOR APPROVAL PRIOR TO DELIVERY.

**LANDSCAPE SUMMARY**

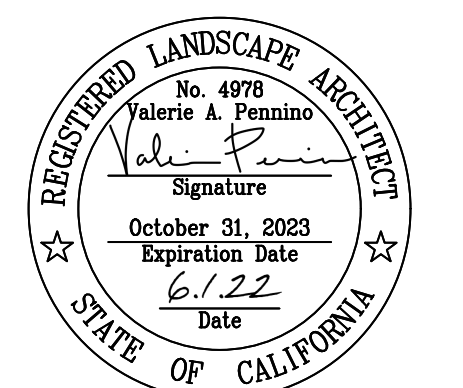
LANDSCAPE PLANTING AREA: 1,884 SQ.FT.  
 TREE REPLACEMENT AREA: 25,000 SQ.FT. (1.4 IRR. SF PER TREE)  
 TOTAL IRRIGATED AREA: 1,884 + 392 = 2,276 SQ.FT.  
 MAWA: 35,158 GALLONS PER YEAR  
 ETWU: 23,971.4 GALLONS PER YEAR

\* I HAVE COMPLIED WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLANS.

SIGNATURE *Valerie Pennino* DATE 6.1.22

Drawn By:  
 VP  
 Date:  
 6.1.22  
 Scale:  
 1"=20'  
 Job No.  
 119.16  
 Revisions:

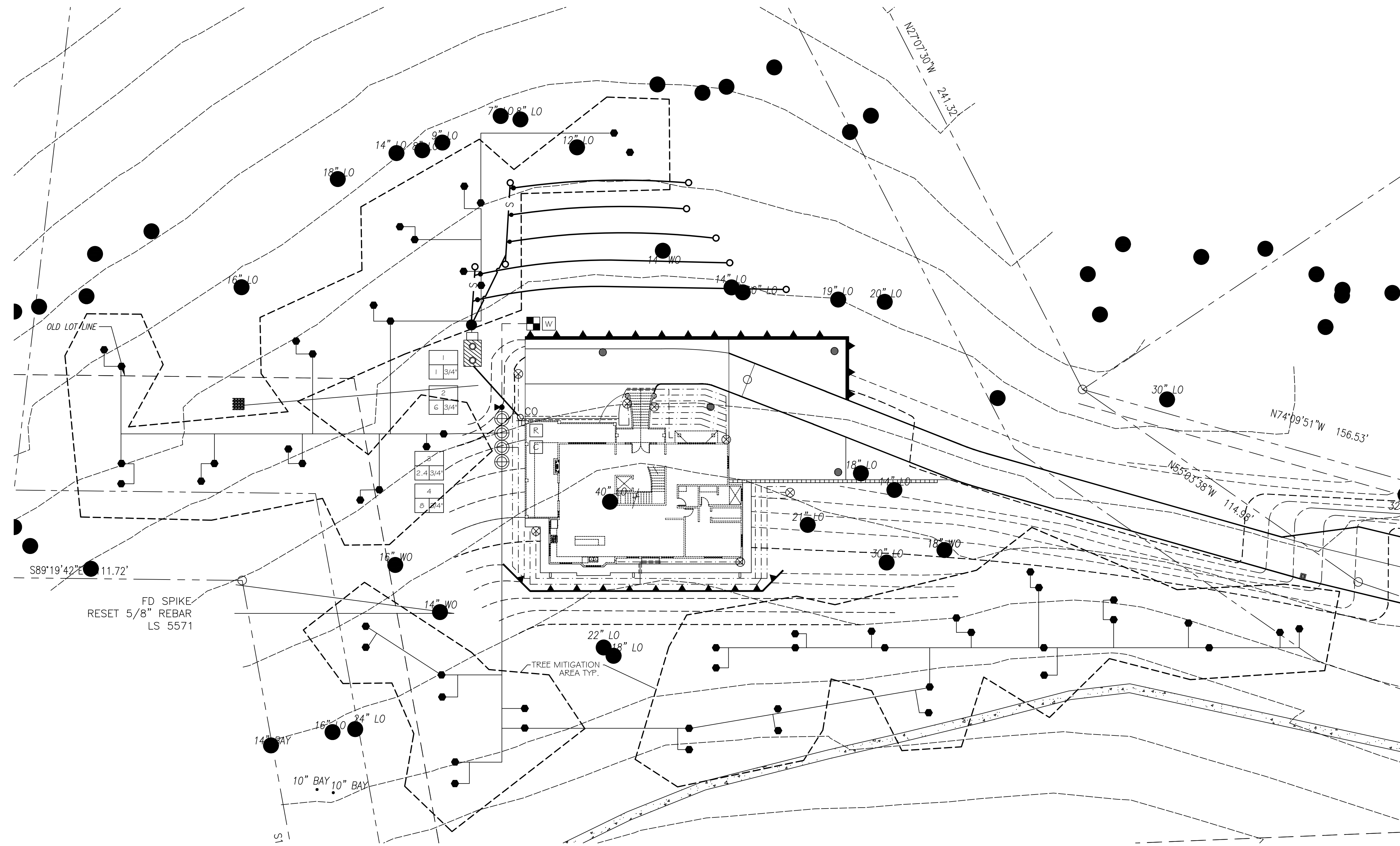
5.3.22  
 CITY COMMENTS/CLARIFICATIONS



This drawing is not final and shall not be used for construction work until it has been signed by the Landscape Architect

Sheet Number:

L1  
 Of 3 Sheets



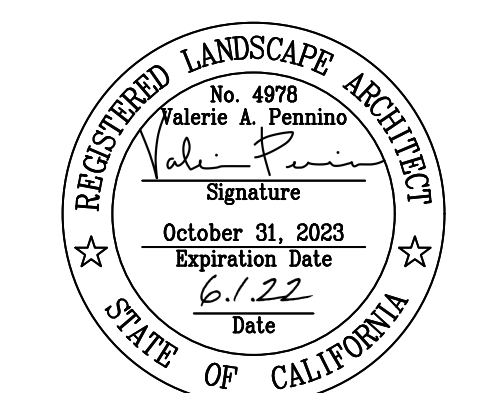
**IRRIGATION LEGEND**

- RAINBIRD XF5-P-0G-24, XF-SDI SERIES DRIPLINE W/ 24" EMITTER SPACING
- ⊗ RAINBIRD AR VALVE KIT - SEE DETAIL SHEET LS-10
- ⊙ RAINBIRD RWS-14001, ROOT WATERING SYSTEM WITH 0.25 GPM BUBBLER
- ⊕ RAINBIRD XCZ-100-PRB-COM CONTROL ZONE KIT, SEE PLAN FOR SIZE.
- ⊗ NIBCO T-113 GATE VALVE, LINE SIZE.
- ⊕ RAINBIRD RSD-CEx RAIN SENSING DEVICE
- ⊕ RAINBIRD ESP-LXBASIC, +ESPLXMSM8 MODULE; 20 STATION CONTROLLER, IN LXMM55FD
- ⊕ RAINBIRD 33DRC, QUICK COUPLER VALVE, CONTRACTOR TO PROVIDE 2 KEYS AND SWIVELS TO THE OWNERS REPRESENTATIVE.
- ⊕ FEBCO 825Y-1", REDUCED PRESSURE BACKFLOW PREVENTION DEVICE W/WEATHER BLANKET
- ⊕ WATER METER 1", BY OTHERS.
- SCH. 40 PVC MAINLINE, 1"
- CL 200 PVC LATERAL LINE, 3/4" (W/ 12" COVER)
- CL 200 PVC LATERAL LINE, 1" (W/ 12" COVER)
- 1-9.5 1" REMOTE CONTROL VALVE IDENTIFICATION NUMBER
- 1- REMOTE CONTROL VALVE SIZE
- 1- REMOTE CONTROL VALVE GPM

**IRRIGATION NOTES**

1. PLAN IS DIAGRAMATIC AND IS NOT INTENDED TO SHOW EXACT LOCATIONS OF PIPING, VALVES, ETC. INSTALL PIPE IN PLANTED AREAS WHENEVER POSSIBLE.
2. CONTRACTOR SHALL COORDINATE/VERIFY WATER STUB IN FIELD.
3. ELECTRICAL SUBCONTRACTOR TO SHALL VERIFY EXISTING 110V SERVICES AND SERVICE TO CONTROLLER LOCATION.
4. VALVES SHALL BE INSTALLED IN PLANTING AREA IN MARKED VALVE BOXES. LOCATION SHOWN ON PLAN IS FOR CLARITY ONLY.
5. ALL VALVES ARE TO BE CONNECTED TO WATER MAIN.
6. SLEEVES SHALL BE INSTALLED UNDER ALL PAVING SURFACES. ALL SLEEVING SHALL BE SCH. 40 PIPE AND SHOULD BE TWICE THE SIZE OF THE IRRIGATION LINE.
7. SEE IRRIGATION DETAILS FOR ADDITIONAL INFORMATION.
8. THE SYSTEM IS DESIGNED TO OPERATE AT (30) PSI. HIGHEST FLOW DURING IRRIGATION CYCLE IS (8 GPM). CONTRACTOR SHALL PERFORM PRESSURE TEST IN-FIELD PRIOR TO INSTALLING IRRIGATION SYSTEM, AND INFORM OWNER IF ADEQUATE PRESSURE IS NOT AVAILABLE, OR PRESSURE IS TOO HIGH. ANY CHANGES MUST BE PRE-APPROVED.
9. IRRIGATION SYSTEM SHALL BE INSTALLED PER LOCAL CODES AND ORDINANCES.

Drawn By:  
 VP  
 Date:  
 6.1.22  
 Scale:  
 1"=20'  
 Job No.  
 119.16  
 Revisions:



**LANDSCAPE SUMMARY**

LANDSCAPE PLANTING AREA: 1,884 SQ.FT.  
 TREE REPLACEMENT AREA: 25,000 SQ.FT. (14 IRR. SF PER TREE)  
 TOTAL IRRIGATED AREA: 1,884 + 392 = 2,276 SQ.FT.  
 MAWA: 35,158 GALLONS PER YEAR  
 ETWU: 23,971.4 GALLONS PER YEAR

\* I HAVE COMPLIED WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLANS.

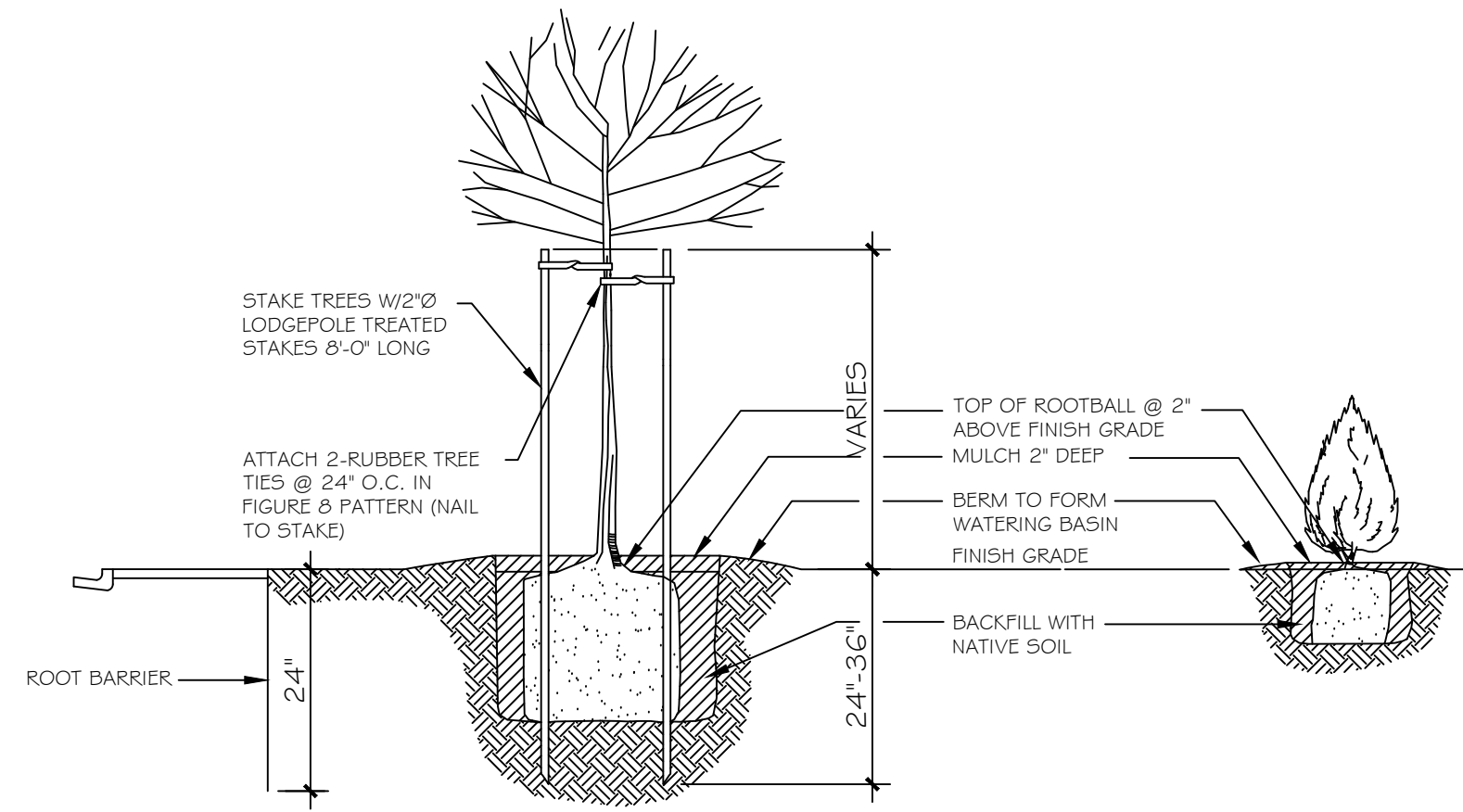
SIGNATURE *Valerie Pennino* DATE 6.1.22

This drawing is not final and shall not be used for construction work until it has been signed by the Landscape Architect

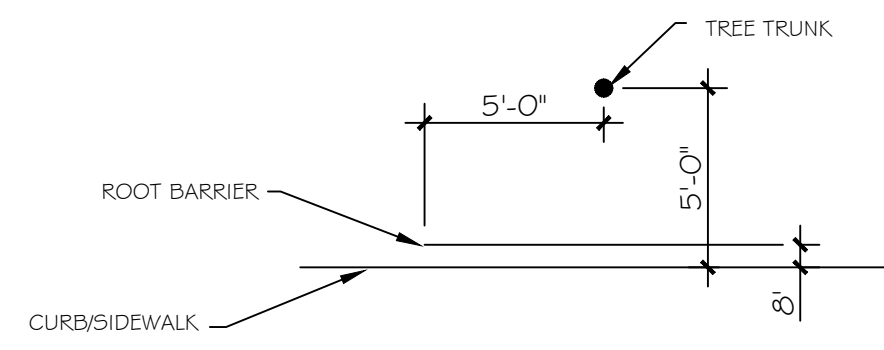
Sheet Number:

**L2**  
 Of 3 Sheets

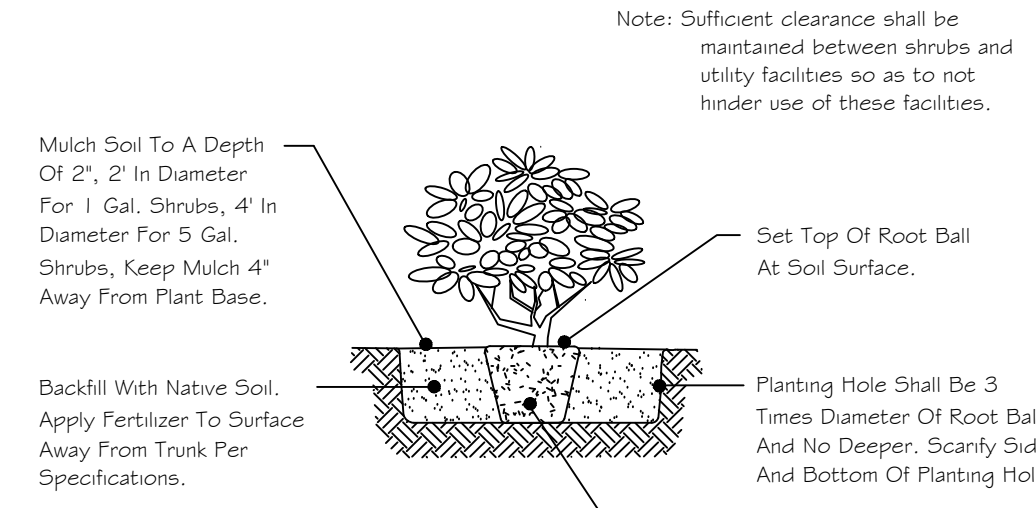




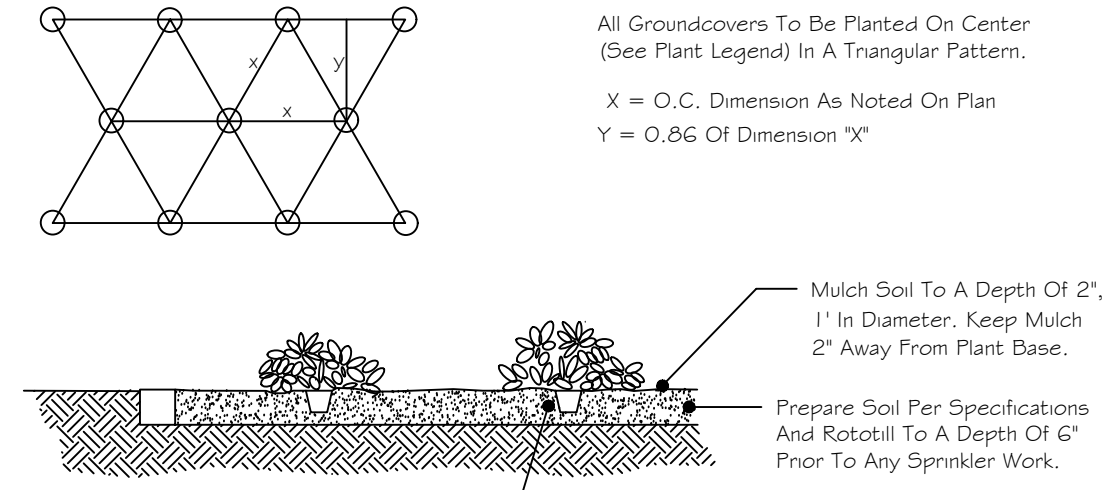
**1** PLANTING AND STAKING W/ROOT BARRIER  
 INSTALLATION DETAIL NO SCALE



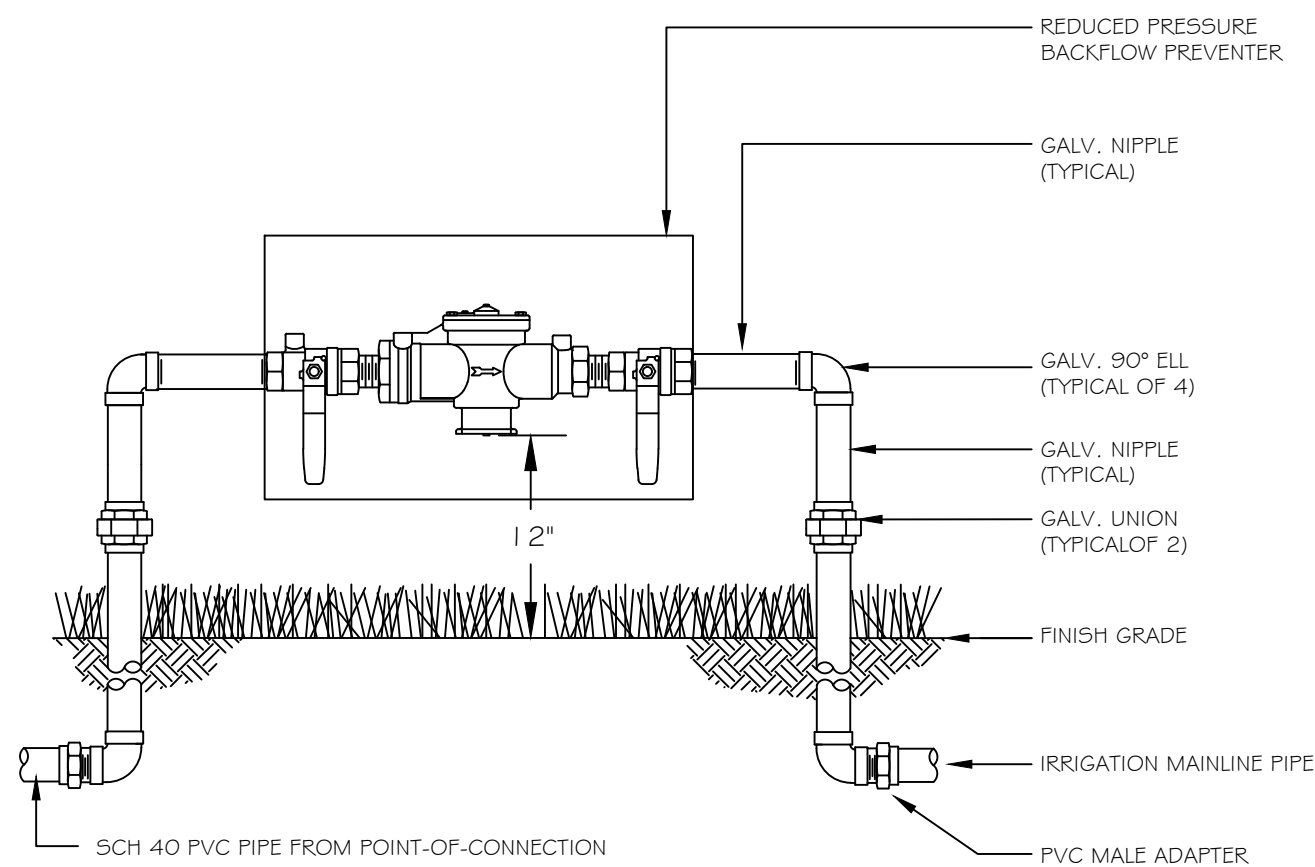
**2** ROOTBARRIER  
 INSTALLATION DETAIL NO SCALE



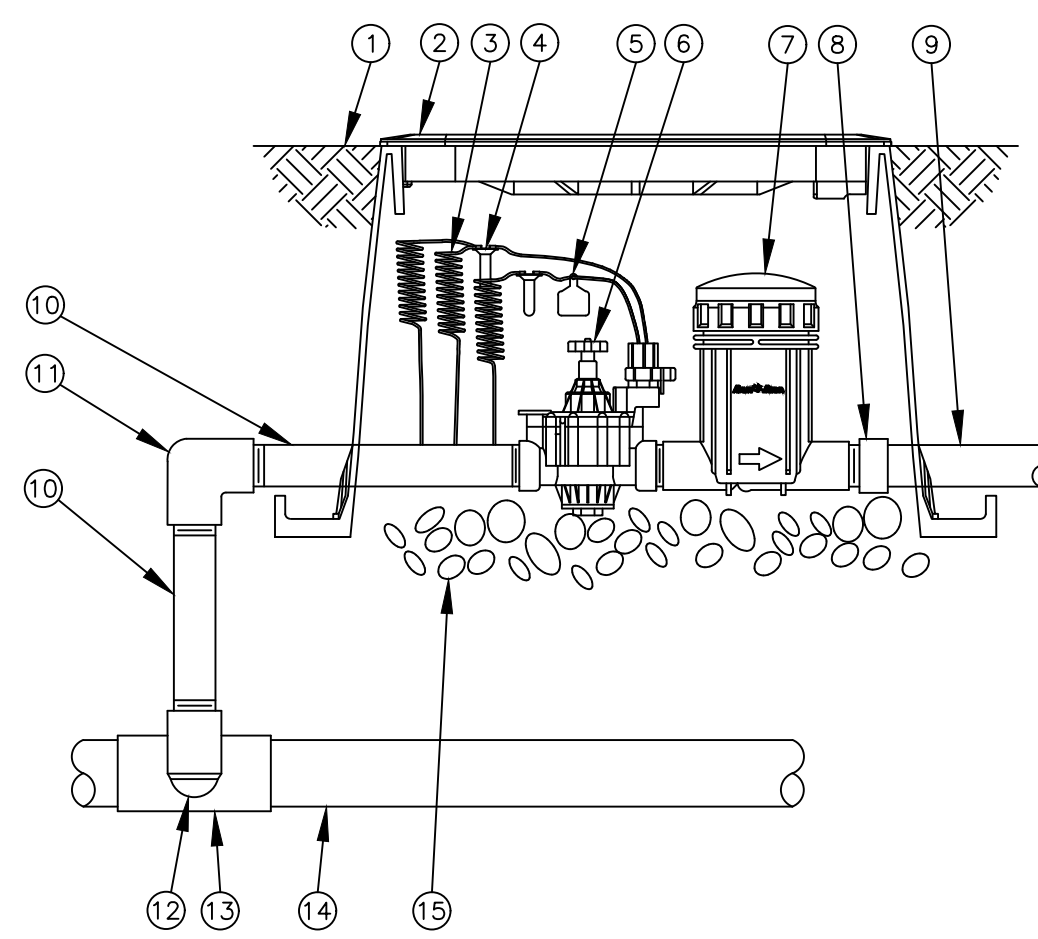
**3** SHRUB PLANTING  
 INSTALLATION DETAIL NO SCALE



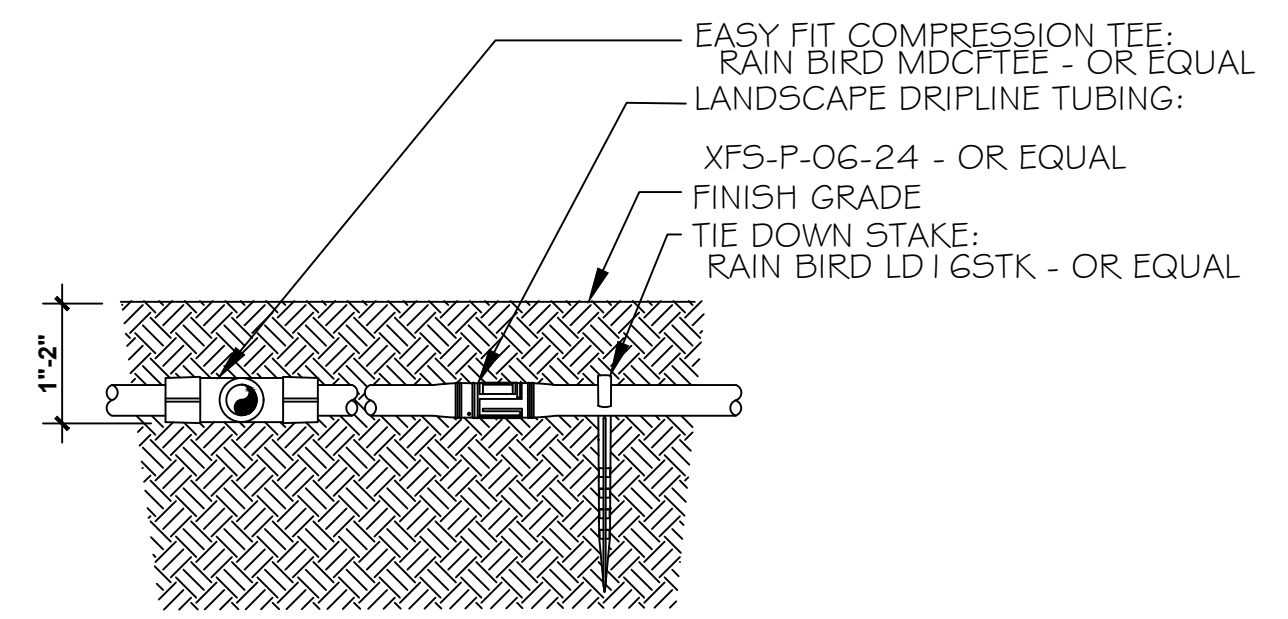
**4** GROUNDCOVER PLANTING  
 INSTALLATION DETAIL NO SCALE



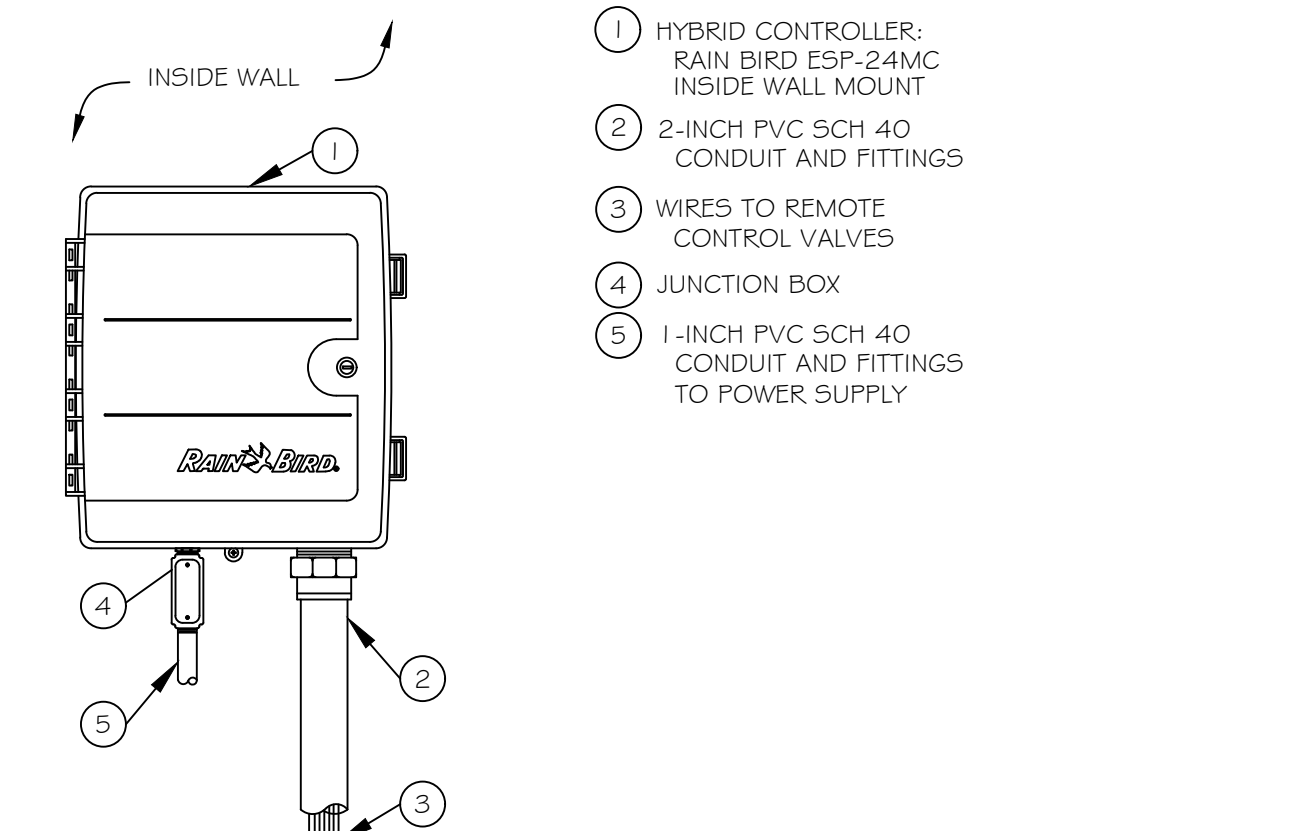
**5** REDUCED PRESSURE BACKFLOW  
 INSTALLATION DETAIL NO SCALE



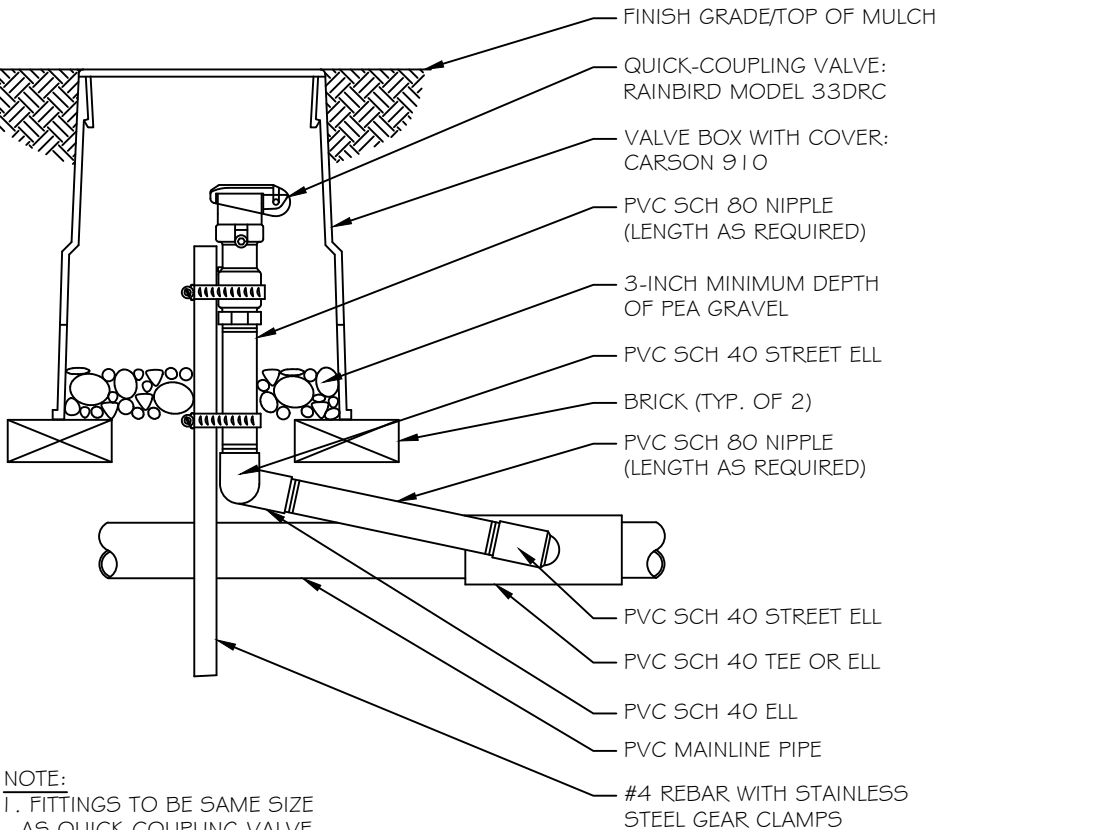
**6** CONTROL ZONE KIT  
 INSTALLATION DETAIL NO SCALE



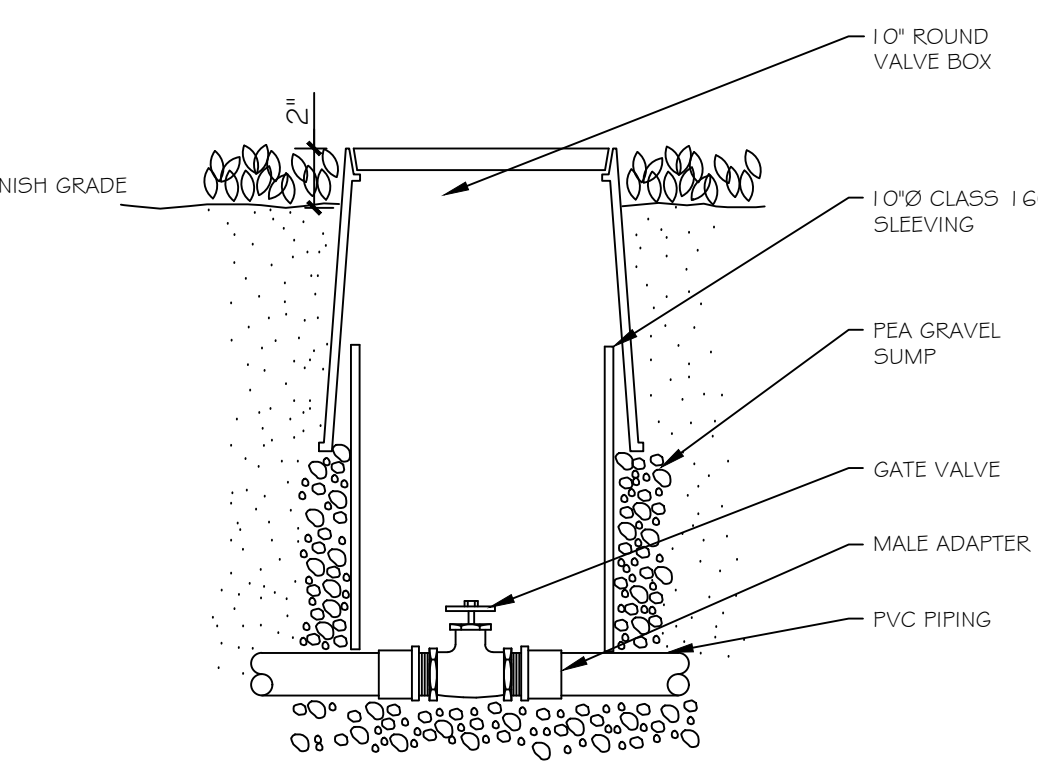
**7** LANDSCAPE DRIPLINE - BELOW GRADE  
 INSTALLATION DETAIL NO SCALE



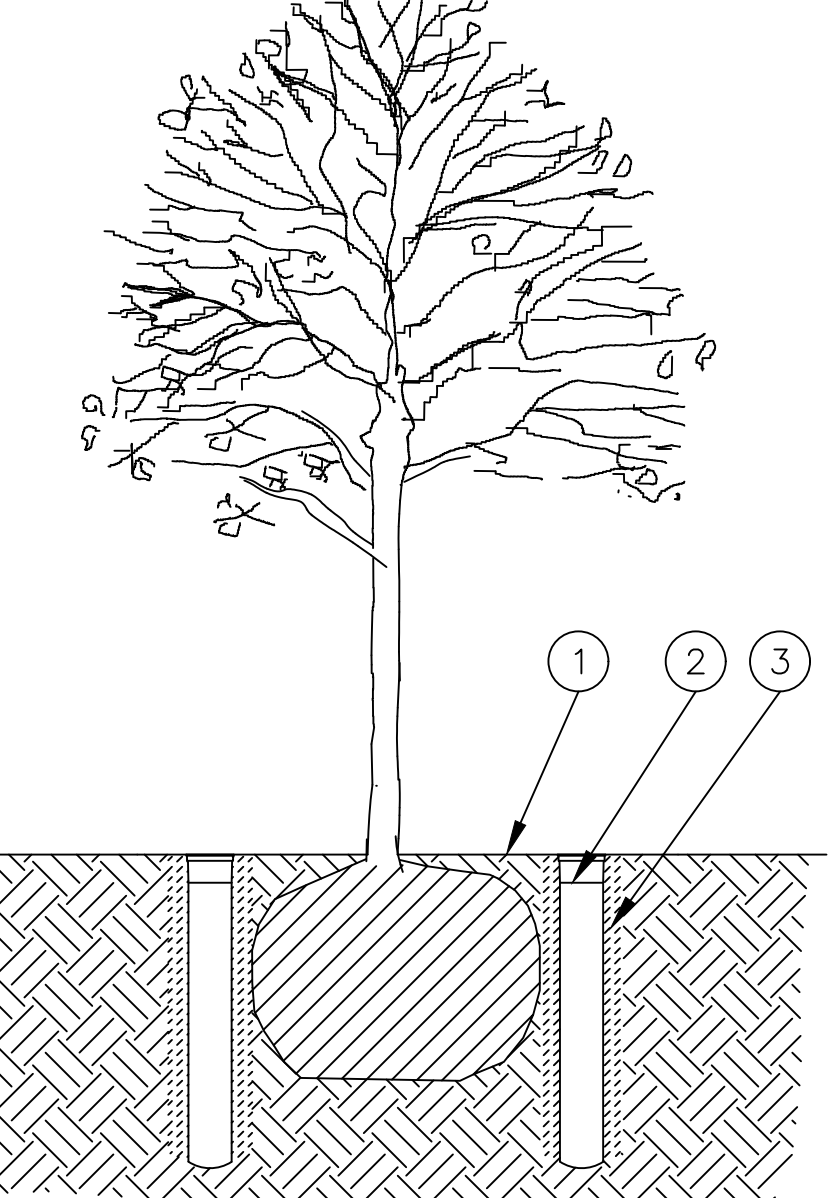
**8** AUTOMATIC IRRIGATION CONTROLLER  
 INSTALLATION DETAIL NO SCALE



**9** QUICK COUPLING  
 INSTALLATION DETAIL NO SCALE



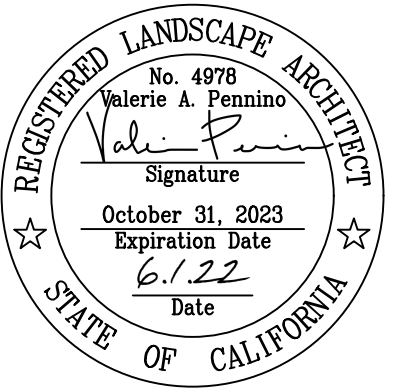
**10** GATE VALVE  
 INSTALLATION DETAIL NO SCALE



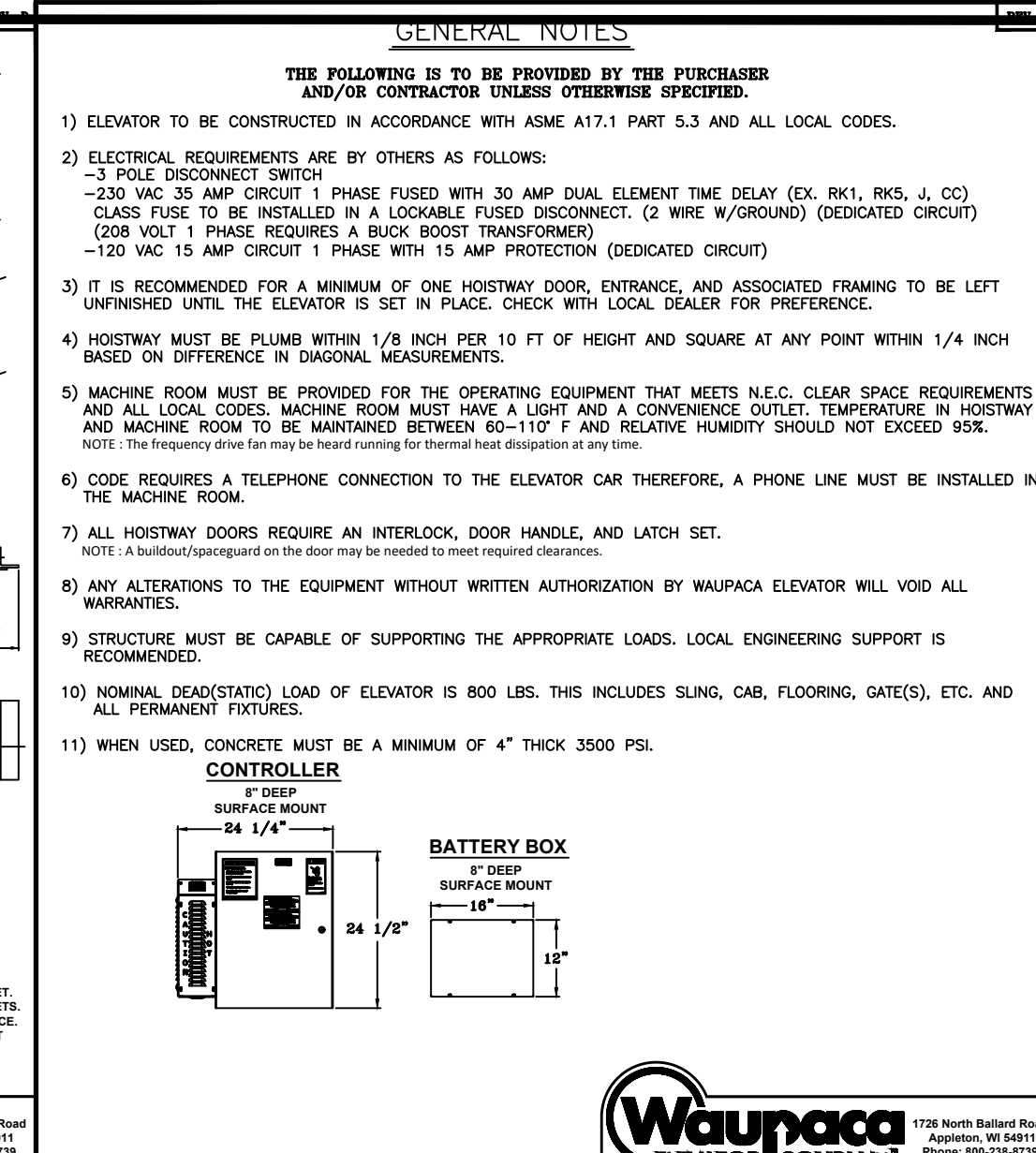
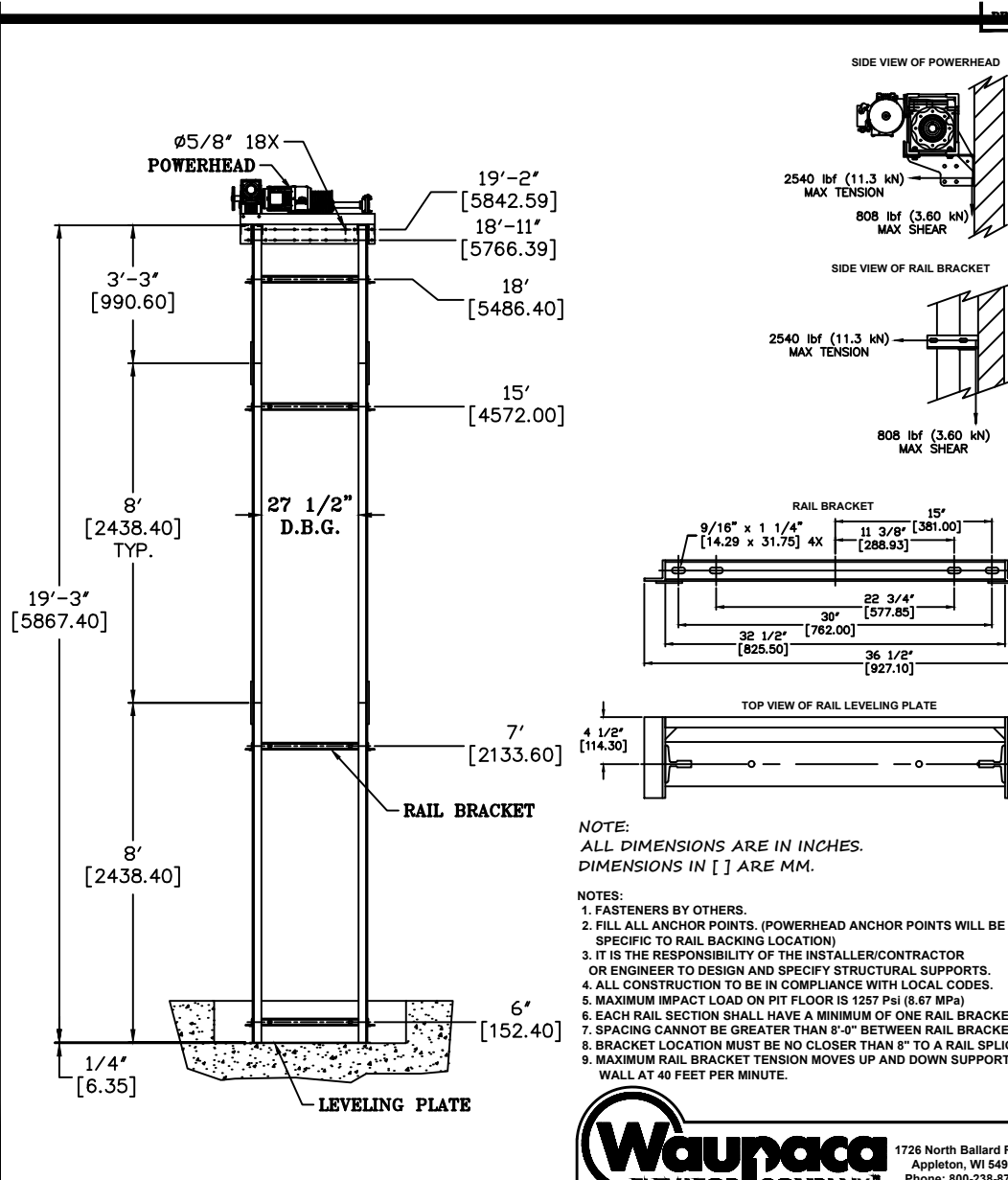
**11** ROOT WATERING SYSTEM  
 INSTALLATION DETAIL NO SCALE

PDG, Pennino Design Group Landscape Architecture. These plans are not to be reproduced, changed or copied without the permission of PDG, Pennino Design Group, Landscape Architecture

Drawn By:	VP
Date:	6.1.22
Scale:	1"=20'
Job No.	119.16
Revisions:	

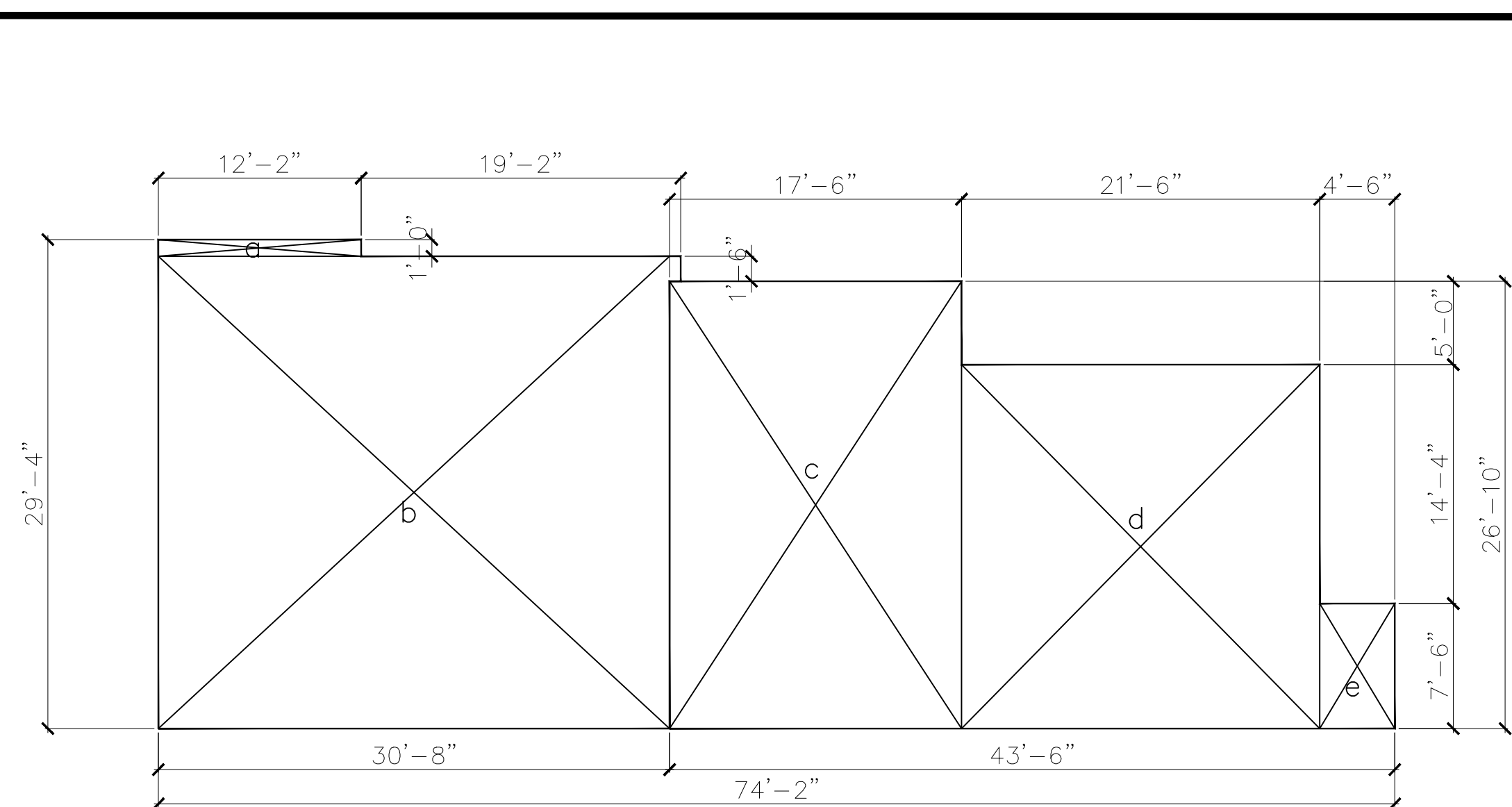
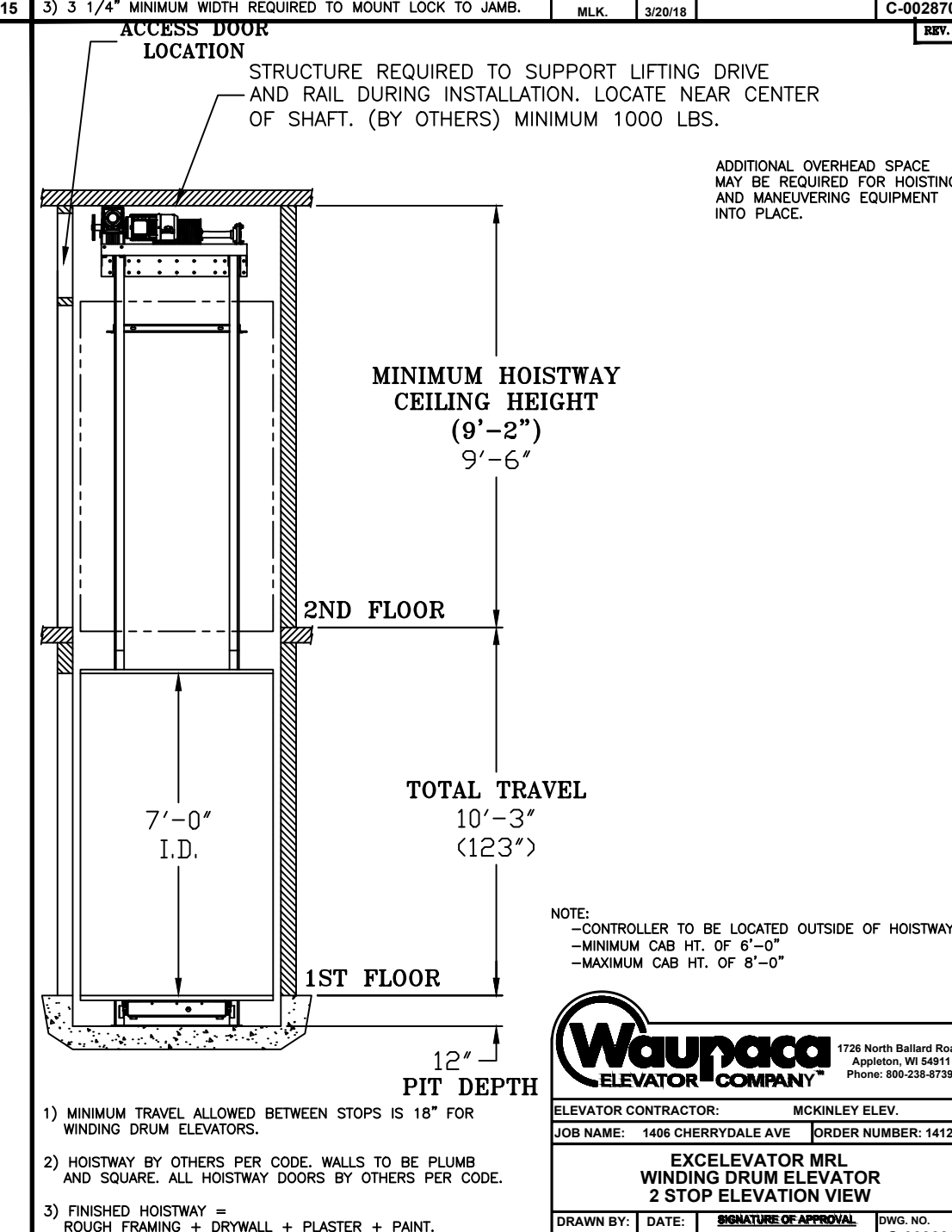
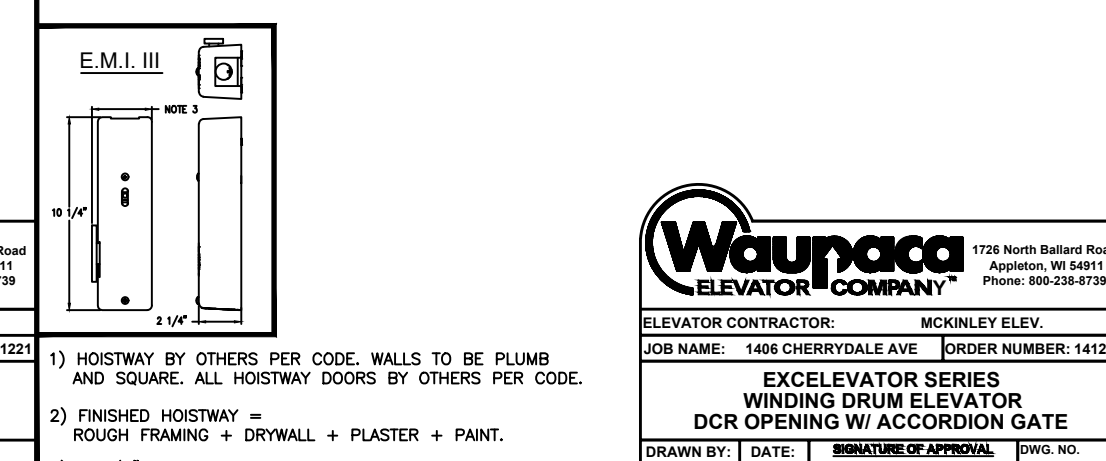
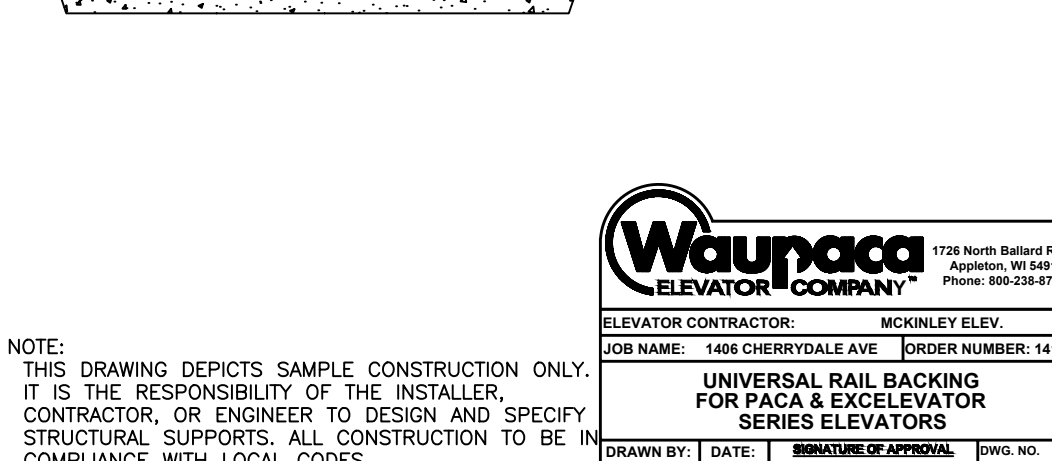
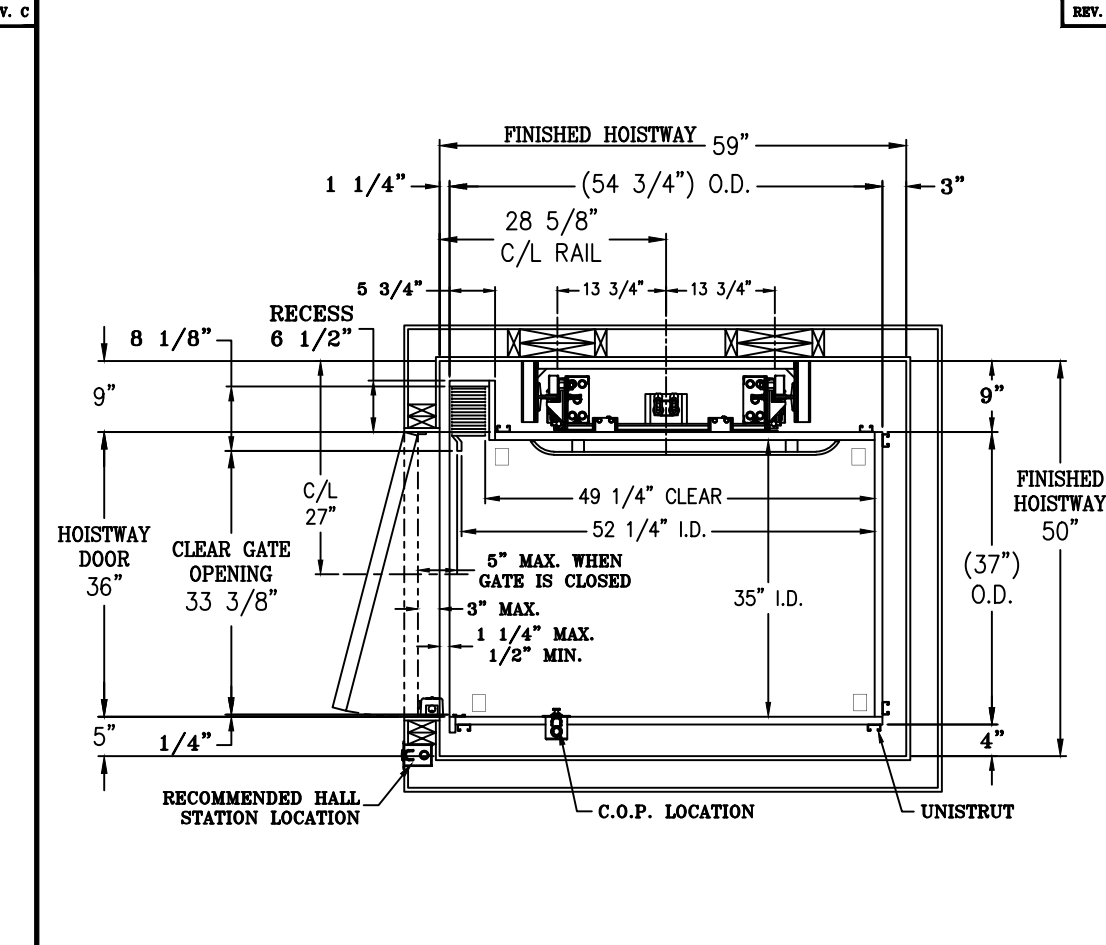
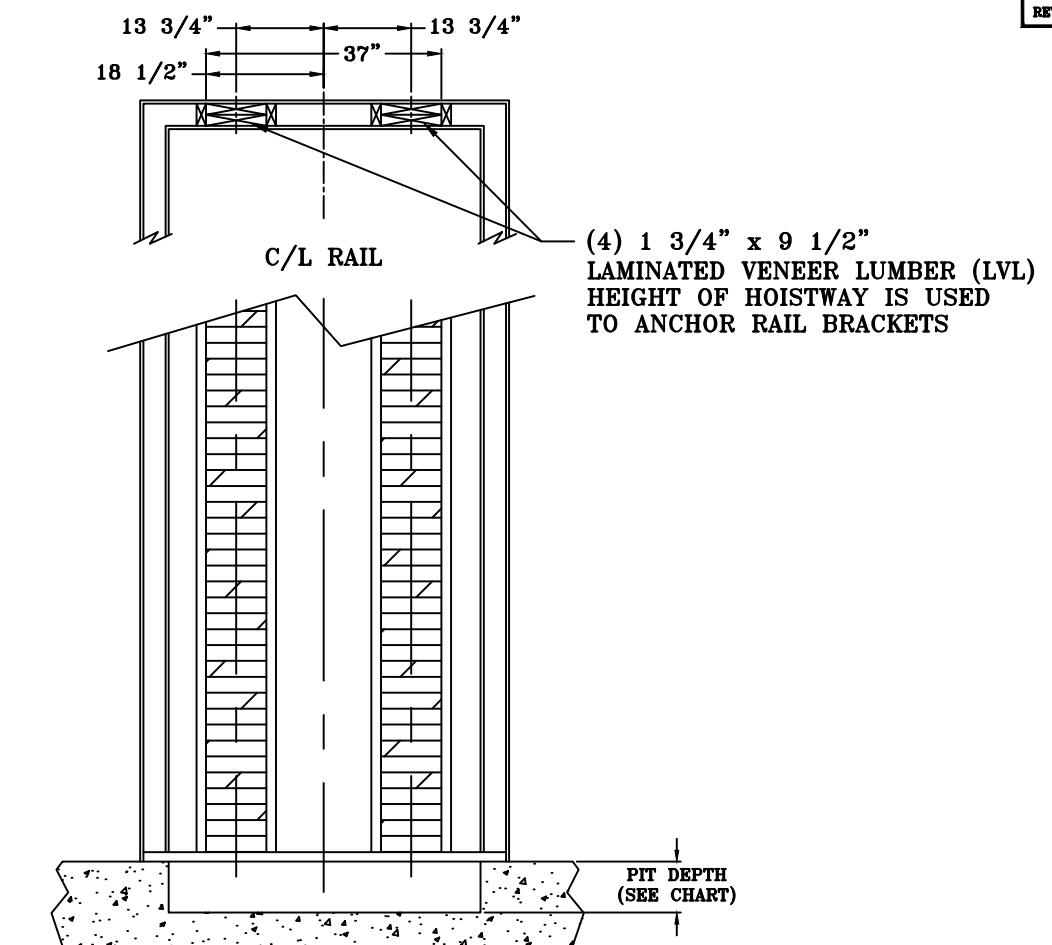


This drawing is not final and shall not be used for construction work until it has been signed by the Landscape Architect

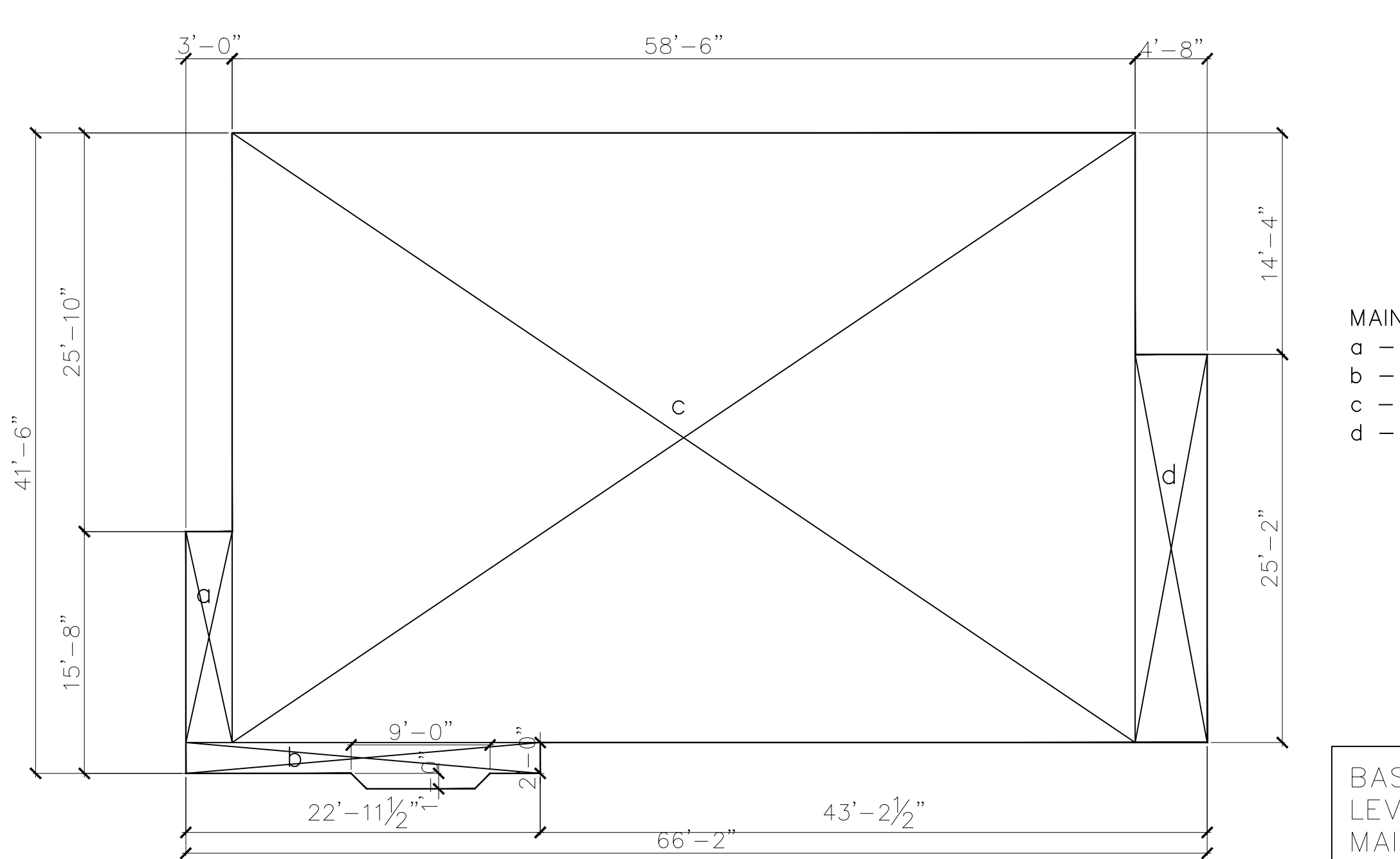


NOTE: RAIL LENGTH = PIT DEPTH + TRAVEL + CAB I.D. HEIGHT + 2"  
TOP RAIL MUST BE BETWEEN 14" AND 30"

Waupaca ELEVATOR COMPANY  
ELEVATOR CONTRACTOR: MCKINLEY ELEV.  
JOB NAME: 1408 CHERRYDALE AVE [ORDER NUMBER: 14122]  
EXCELEVATOR MRL AS-002810  
RAIL LAYOUT  
DRAWN BY: [SIGNATURE] DATE: [DATE] [REVISIONS/DATE] [REV. NO.]  
MLK 32015

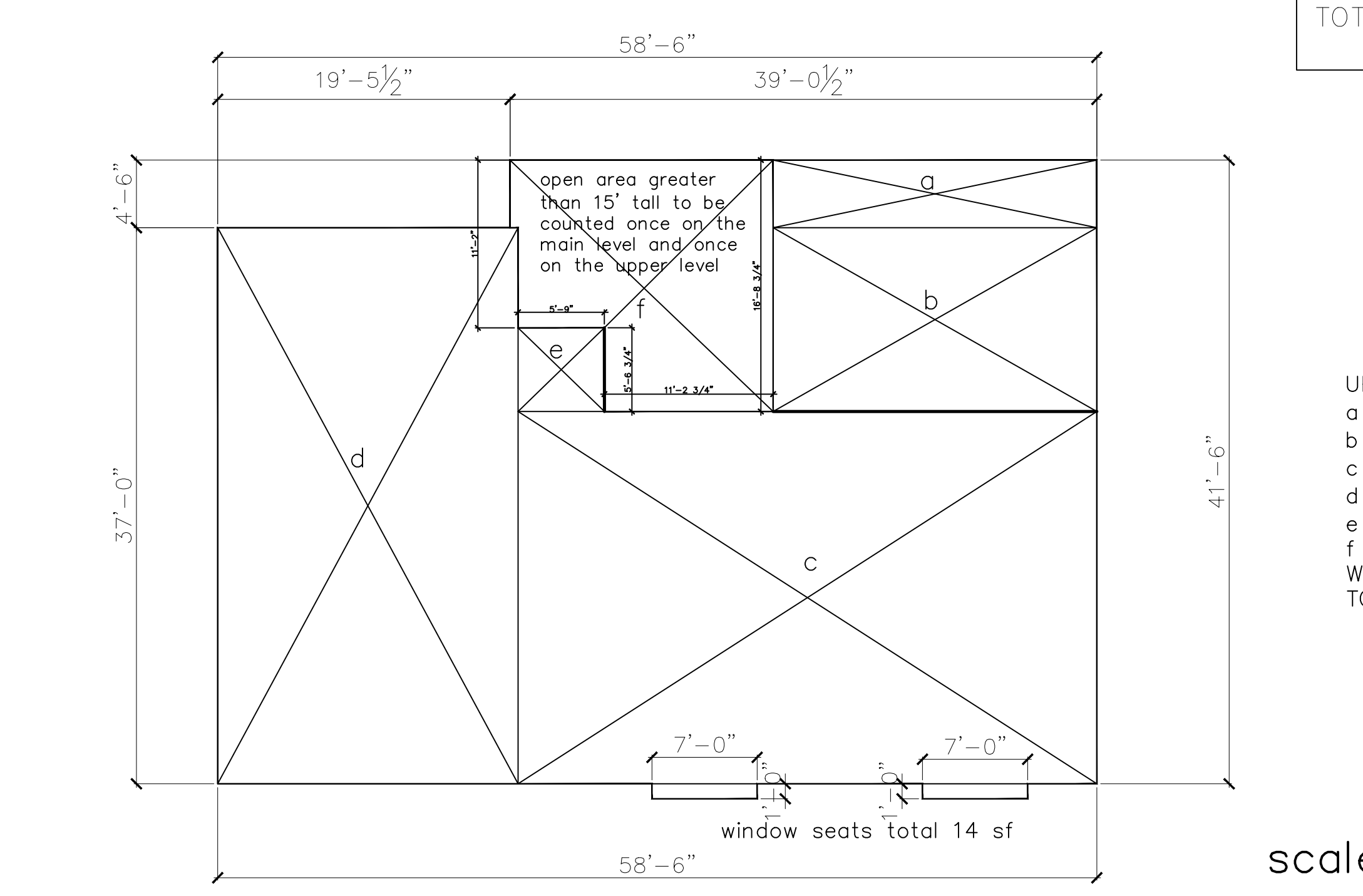


basement level floor area calculations  
a - 12'-2 x 1'-0 = 12.17  
b - 30'-8 x 28'-4 = 869.2  
c - 17'-6 x 26'-10 = 469.35  
d - 21'-6 x 21'-10 = 469  
e - 4'-6 x 7'-6 = 33.75  
total 1853.5



MAIN LEVEL FLOOR AREA CALCULATIONS  
a - 3'-0 x 15'-8 = 47  
b - 23'-0 x 2'-0(+) = 53  
c - 58'-6 x 39'-6 = 2310.75  
d - 4'-8 x 25'-2 = 117.5  
TOTAL 2528.25

BASEMENT & GARAGE LEVEL - 1853.5  
MAIN LEVEL - 2528.25  
UPPER LEVEL - 2353  
TOTAL FAR - 6734.75



UPPER LEVEL FLOOR AREA CALCULATIONS  
a - 21'-6 x 4'-6 = 96.75  
b - 21'-6 x 12'-3 = 263.375  
c - 38'-6 x 24'-9 = 953  
d - 20'-0 x 37'-0 = 740  
e - 5'-9 x 5'-7 = 32  
f = 254  
WINDOW SEATS 14  
TOTAL 2353.125

scale 1/8" = 1'-0"

STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: steve@benzarch.com  
WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

FLOOR AREA CALCULATIONS

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS

NO.	
-----	--

SHEET NUMBER  
A2

**FLOOR PLAN NOTES**  
**Egress**  
 all bedrooms shall have windows or doors meeting egress requirements. all egress windows with two or more latches shall have the latches interconnected and operable from the lowest latch, typical, u.n.o.+  
**Splash Areas**  
 NO GREENBOARD ALLOWED  
 provide water resistant 5/8" Dens-Shield by Georgia-Pacific or 1/4" HardieBacker board by JamesHardie, o/ asphalt saturated felt paper, o/ wood studs at all water splash areas, typical, u.n.o.  
**Bathtubs/Showers and Enclosures**  
 all wall & ceiling tile to be installed o/ water-proofing, o/ moisture resistant underlayment (per note #2 above) to a height of 72 min. above drain inlet  
**Cabinetry, Fixtures, Closet Packages, and Appliances**  
 contractor & cabinet maker shall verify all final design details & materials w/owner as well as all room dimensions & rough openings for fixtures & appliances, prior to fabrication & installation, typical, u.n.o.

**Crawl Space Access**  
 provide 18" x 24" min. access where shown w/ double 2x framing all around opening. see foundation plan for more info. typical, u.n.o.  
**HVAC System**  
 Contractor to coordinate all supply and return air ducts, zones, thermostat locations, requirements of mechanical units and systems w/ Electrical, Mechanical & Plumbing contractors, typical, run line sets to connect to new a.c. condensers at side yards per site plan.

**Water Heater** see electrical/mechanical plan drawings for more info., typical, u.n.o.  
**Conc. Porches/Patios**  
 slope to drain @ 1/4" per ft. away from structures. all slabs to be installed o/ properly pre-moistened & compacted subgrade per soils report. all stoops outside exterior doors shall conform to 2019 CRC sec. R311.3, typical.

**Bath Accessories**  
 verify all colors, sizes, finishes, etc. of both accessories, towel bars, roll holders, medicine cabinets, etc. w/ interior designer, typ., u.n.o.  
**water closets, showers, & bathtubs**  
 provide new 2x8 solid blocking @ 34" A.F.F. @ center line of block for future grab bars @ all fire blocking  
 provide fireblocking per section 302.11 & 302.12 of the 2019 crc. min 2x lumber in concealed spaces of walls & partitions, including furred spaces  
 vertically at the ceiling & floor levels  
 horizontally at intervals not exceeding 10 ft.  
 concealed space btwn stair stringers & at top & btm of run  
 see code for all listed spaces

**PLUMBING FIXTURE FLOW RATES**

ALL PLUMBING FIXTURES AND FITTINGS SHALL MEET THE STANDARDS REFERENCED IN TABLE 1701.1 OF THE 2022 CALIF PLUMBING CODE

FLOW RATES FOR NEW FIXTURES ARE TO BE:  
 1.20 GALLONS PER FLUSH FOR TOILETS  
 1.80 GPM @ 80 PSI FOR SINGLE SHOWERHEAD INSTALLATIONS AND MULTIPLE SHOWERHEADS SERVING ONE SHOWER - COMBINED FLOW RATE OF ALL SHOWERHEADS &/OR OTHER SHOWER FIXTURES CONTROLLED BY A SINGLE VALVE  
 1.8 gpm @ 80 PSI  
 1.2 GPM @ 60 PSI (min shall be not less than 0.8 gpm @ 20 psi) FOR LAVATORY FAUCETS  
 1.8 GPM @ 60 PSI FOR KITCHEN FAUCETS

**SHOWER NOTES**  
 TUB/SHOWER WALLS SHALL HAVE A SMOOTH, HARD NON-ABSORBENT SURFACE OVER A MOISTURE-RESISTANT UNDERLAYMENT TO A HGT OF 72" ABOVE THE DRAIN INLET.  
 NOTE - WATER-RESISTANT GYP. BACKING BD. SHALL NOT BE USED OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS  
 TUB/SHR WALLS SHALL RECEIVE HARDIE PANEL OR EQUAL FULL HT

**BATHROOM NOTES**  
 PROVIDE 2x8 WOODEN BACKING LOCATED AT 34" FROM THE FLOOR TO THE CENTER OF THE BACKING IN ALL BATHROOM WALLS AT W/C, SHOWER & BATHTUB LOCATIONS. BACKING SHALL BE SUITABLE FOR THE ADDITION OF GRAB BARS.

**NOTES:**  
 CONTRACTOR TO VERIFY THAT A BACKWATER VALVE IS INSTALLED. TOWN CODE REQUIRES AN APPROVED BACKWATER VALVE ON DRAINAGE PIPING SERVING FIXTURES THAT HAVE FLOOD LEVEL RIMS LESS THAN 12 INCHES ABOVE THE ELEVATION OF THE NEXT UPSTREAM MANHOLE.

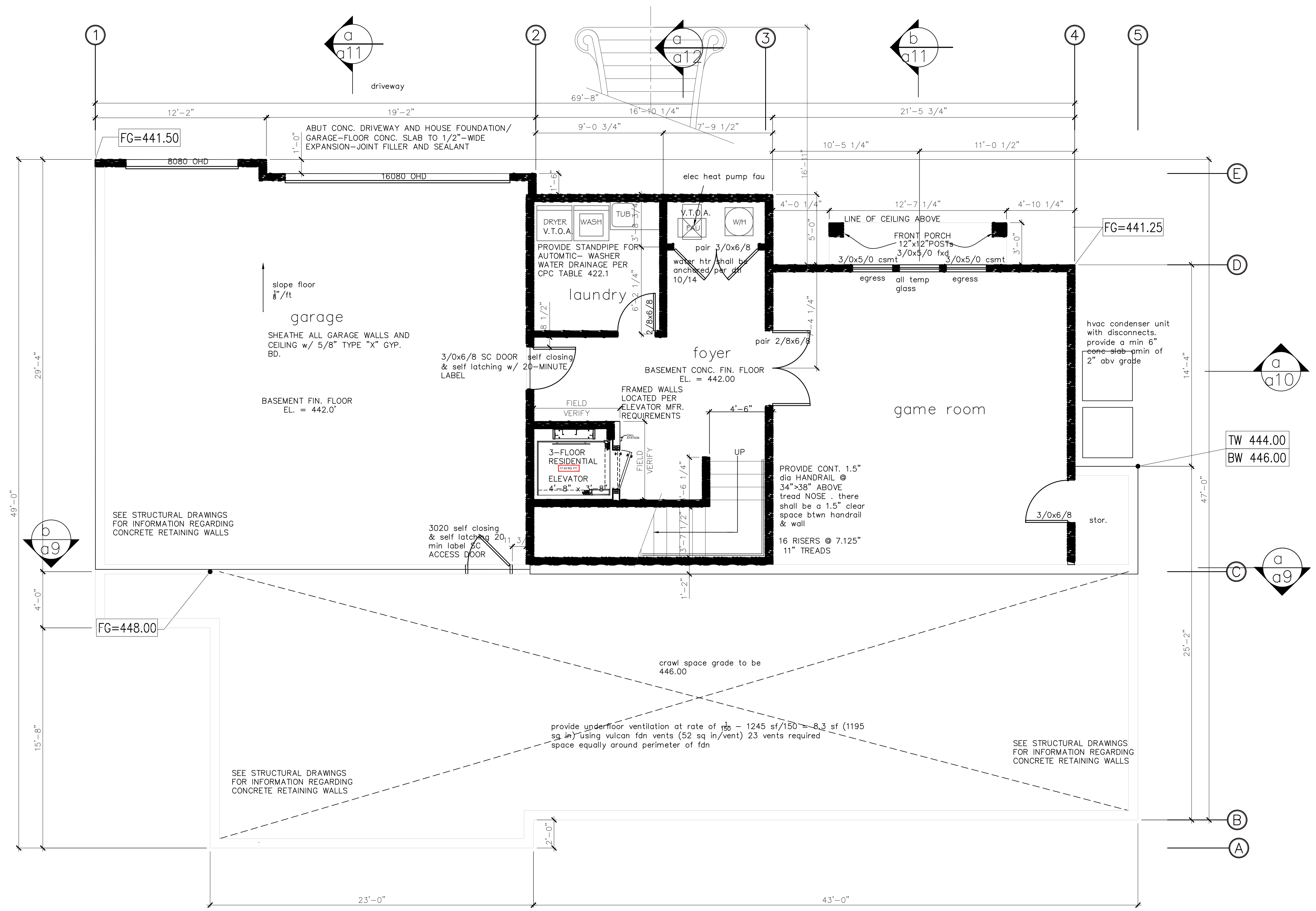
ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENING IN SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR ACCEPTABLE METHODS

**R302.11 Fireblocking**  
 In combustible construction, fireblocking shall be provided to cut off both vertical and horizontal concealed draft openings and to form an effective fire barrier between stories, and between a top story and the roof space.

Fireblocking shall be provided in wood-framed construction in the following locations:  
 1. In concealed spaces of stud walls and partitions, including furred spaces and parallel rows of studs or staggered studs, as follows:  
 1.1. Vertically at the ceiling and floor levels.  
 1.2. Horizontally at intervals not exceeding 10 feet (3048 mm).  
 2. All interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.  
 3. In concealed spaces between stair stringers at the top and bottom of the run. Concealed spaces under stairs shall comply with Section F302.7.  
 4. All openings around utility pipes, ducts, cables and wires at ceiling and floor level, with an approved material to meet the fire ratings of the pipe or cable products of construction. The material filling this annular space shall not be required to meet the ASTM E136 requirements.  
 5. For the fireblocking of chimneys and fireplaces, see Section R1002.10.  
 6. Fireblocking or closure of a two-family dwelling is required at the line of dwelling unit separation.

**R302.11.1 Fireblocking materials.**  
 Except as provided in Section R302.11, Item 4, fireblocking shall consist of the following materials:

- Two inch (51 mm) nominal lumber
- Two thicknesses of 1 1/2 inch (25.4 mm) nominal lumber with broken lap joints
- One thickness of 1 1/2 inch (16.3 mm) wood structural panels with joints backed by 2 1/2 inch (63.5 mm) wood structural panel
- One thickness of 1/2 inch (12.7 mm) particleboard with joints sealed by 1/2 inch (12.7 mm) particle board
- One-half inch (12.7 mm) gypsum board
- One quarter inch (6.4 mm) cement based millboard
- Bells or other bells of mineral wool or glass fiber or other approved materials installed in such a manner as to be securely retained in place
- Cellulose insulation installed as tested in accordance with ASTM E119 or UL 263, for the specific application.



LOWER LEVEL PLAN NORTH  
 scale 1/4" = 1'-0"

STEVE BENZING ARCHITECT  
 C-17985  
 12103 FREDERICKSBURG  
 SARTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: steve@benzarch.com  
 WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

LOWER LEVEL  
 FLOOR PLAN

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS
SHEET NUMBER	
A3	

deck waterproofing shall be:

**Paraseal® LG**  
HDPE/Bentonite Sheet Membrane Dual Waterproofing

**FLOOR PLAN NOTES**  
Egress

all bedrooms shall have windows or doors meeting egress requirements. all egress windows with two or more latches shall have the latches interconnected and operable from the lowest latch, typical, u.n.o.+  
Splash Areas  
NO GREENBOARD ALLOWED  
provide water resistant 5/8" Dens-Shield by Georgia-Pacific or 1/4" HardieBacker board by James Hardie, or asphalt saturated felt paper, or wood studs at all water splash areas, typical, u.n.o.

Bathtubs/Shower and Enclosures  
all wall & ceiling tile to be installed over water-proofing, or moisture resistant underlayment (per note #2 above) to a height of 72" min. above drain inlet

Cabinetry, Fixtures, Closet Packages, and Appliances  
contractor & cabinet maker shall verify all final design details & materials w/owner as well as all room dimensions & rough openings for fixtures & appliances, prior to fabrication & installation, typical, u.n.o.

Crawl Space Access  
provide 18" x 24" min. access where shown w/ double 2x framing all around opening, see foundation plan for more info, typical, u.n.o.

Attic Access  
22'x30' min. size per provide access opening large enough for removal of hvac unit where occurs.  
provide 30"x43" pull down attic access stair at location indicated w/ min 30" clear headroom in the attic space at or above the access opening.  
provide dbl 2x framing all around opg.  
w/ plywd path & platform to hvac unit, work light w/ switch \* receptacle per sec 904.11, 2016 cmc

HVAC System  
Contractor to coordinate all supply and return air ducts, zones, thermostat locations, and power requirements of mechanical units and systems w/ Electrical, Mechanical & Plumbing contractors, typical, run line sets to connect to new a.c. condensers at side yards per site plan.

Water Heater see electrical/mechanical plan drawings for more info., typical, u.n.o.

Conc. Porches/Patios  
slope to drain @ 1/4" per ft. away from structures. all slabs to be installed on properly pre-moistened & compacted subgrade per soils report.  
all stoops outside exterior doors shall conform to 2019 CRC sec. R311.3, typical.

Bath Accessories  
verify all colors, sizes, finishes, etc. of bath accessories, towel bars, roll holders, medicine cabinets, etc. w/ interior designer, typ., u.n.o.  
provide new 2x8 solid blocking @ 34" A.F.F. to water closets, showers, & baths typical u.n.o., center line of block for future grab bars @ all

**PLUMBING FIXTURE FLOW RATES**

ALL PLUMBING FIXTURES AND FITTINGS SHALL MEET THE STANDARDS REFERENCED IN TABLE 1701.1 OF THE 2022 CALIF PLUMBING CODE

FLOW RATES FOR NEW FIXTURES ARE TO BE:  
1.20 GALLONS PER FLUSH FOR TOILETS  
1.80 GPM @ 80 PSI FOR SINGLE SHOWERHEAD INSTALLATIONS AND MULTIPLE SHOWERHEADS SERVING ONE SHOWER - COMBINED FLOW RATE OF ALL SHOWERHEADS &/OR OTHER SHOWER FIXTURES CONTROLLED BY A SINGLE VALVE -

1.8 gpm @ 80 PSI  
1.2 GPM @ 60 PSI (min shall be not less than 0.8 gpm @ 20 psi) FOR LAVATORY FAUCETS  
1.8 GPM @ 60 PSI FOR KITCHEN FAUCETS

**SHOWER NOTES**

TUB/SHOWER WALLS SHALL HAVE A SMOOTH, HARD NON-ABSORBENT SURFACE OVER A MOISTURE-RESISTANT UNDERLAYMENT TO A HGT OF 72" ABOVE THE DRAIN INLET.  
NOTE - WATER-RESISTANT GYP. BACKING BD. SHALL NOT BE USED OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS  
TUB/SHR WALLS SHALL RECEIVE HARDIE PANEL OR EQUAL FULL HT

**BATHROOM NOTES**

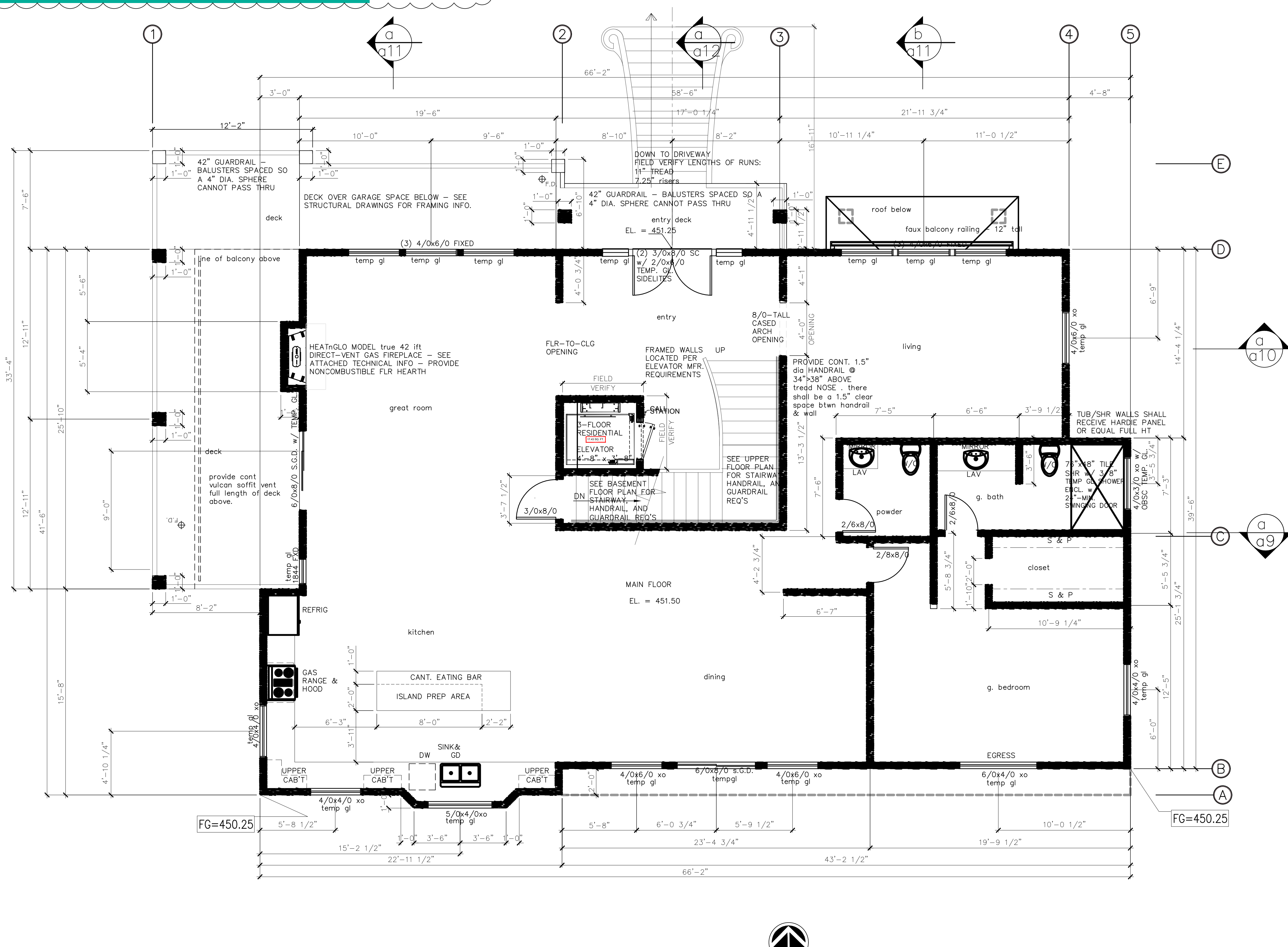
PROVIDE 2x8 WOODEN BACKING LOCATED AT 34" FROM THE FLOOR TO THE CENTER OF THE BACKING IN ALL BATHROOM WALLS AT W/C, SHOWER & BATHTUB LOCATIONS. BACKING SHALL BE SUITABLE FOR THE ADDITION OF GRAB BARS.  
MIN. 15" CLR. EA. SIDE OF W/C C/L AND MIN. 24" CLR. IN FRONT OF W/C

**DISHWASHER NOTE:**

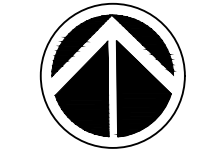
NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OR FOOD-WASTE DISPOSER WITHOUT THE USE OF AN APPROVED DISHWASHER-AIR-GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE. LISTED AIRGAPS SHALL BE INSTALLED WITH THE FLOOD LEVEL MARKING AT OR ABOVE THE FLOOD LEVEL OF THE SINK OR DRAINBOARD, WHICHEVER IS HIGHER.

CONTRACTOR TO VERIFY THAT A BACKWATER VALVE IS INSTALLED. TOWN CODE REQUIRES AN APPROVED BACKWATER VALVE ON DRAINAGE PIPING SERVING FIXTURES THAT HAVE FLOOD LEVEL RIMS LESS THAN 12 INCHES ABOVE THE ELEVATION OF THE NEXT UPSTREAM MANHOLE.

ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENING IN SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR ACCEPTABLE METHODS



MAIN FLOOR PLAN



NORTH  
scale 1/4" = 1'-0"

STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: steve@benzarch.com  
WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

MAIN LEVEL  
FLOOR PLAN

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS
SHEET NUMBER	
A4	

FLOOR PLAN NOTES

ALL BEDROOMS SHALL HAVE WINDOWS OR DOORS MEETING EGRESS REQUIREMENTS. ALL EGRESS WINDOWS WITH TWO OR MORE LATCHES SHALL HAVE THE LATCHES INTERCONNECTED AND OPERABLE FROM THE LOWEST LATCH, TYPICAL, U.N.O.+

SPLASH AREAS  
NO GREENBOARD ALLOWED  
PROVIDE WATER RESISTANT 5/8" DENS-SHIELD BY GEORGIA-PACIFIC OR 1/4" HARDIBACKER BOARD BY JAMESHARDIE. 0/ ASPHALT SATURATED FELT PAPER, 0/ WOOD STUDS AT ALL WATER SPLASH AREAS, TYPICAL, U.N.O.

BATHTUBS/SHOWERS ENCLOSURES  
ALL WALL & CEILING TILE TO BE INSTALLED 0/ WATER-PROOFING/ MOISTURE RESISTANT UNDERLAYMENT (PER NOTE #2 ABOVE) TO A HEIGHT OF 72" MIN. ABOVE DRAIN INLET

CABINETS, FIXTURES, CLOSET PACKAGES, AND APPLIANCES  
CONTRACTOR & CABINET MAKER SHALL VERIFY ALL FINAL DESIGN DETAILS & MATERIALS W/ OWNER AS WELL AS ALL ROOM DIMENSIONS & ROUGH OPENINGS FOR FIXTURES & APPLIANCES. PRIOR TO FABRICATION & INSTALLATION, TYPICAL, U.N.O.

CRAWL SPACE ACCESS  
PROVIDE 18" X 24" MIN. ACCESS WHERE SHOWN W/ DOUBLE 2X FRAMING ALL AROUND OPENING. SEE FOUNDATION PLAN FOR MORE INFO. TYPICAL, U.N.O.

ATTIC ACCESS  
22"X30" MIN. SIZE PER PROVIDE ACCESS OPENING LARGE ENOUGH FOR REMOVAL OF HVAC UNIT WHERE OCCURS.  
PROVIDE 30"X43" PULL DOWN ATTIC ACCESS STAIR AT LOCATION INDICATED W/ MIN 30" CLEAR HEADROOM IN THE ATTIC SPACE AT OR ABOVE THE ACCESS OPENING. PROVIDE DBL 2X FRAMING ALL AROUND OPG.  
W/ PLYWD PATH & PLATFORM TO HVAC UNIT, WORK LIGHT W/ SWITCH \* RECEPTACLE PER SEC 904.11, 2016 CMC

HVAC SYSTEM  
CONTRACTOR TO COORDINATE ALL SUPPLY AND RETURN AIR DUCTS, ZONES, THERMOSTATS, AND POWER REQUIREMENTS OF MECHANICAL UNITS AND SYSTEMS W/ ELECTRICAL, MECHANICAL & PLUMBING CONTRACTORS. TYPICAL. RUN LINES TO CONNECT TO NEW A.C. CONDENSERS AT SIDE YARDS PER SITE PLAN.

WATER HEATER SEE ELECTRICAL/MECHANICAL PLAN DRAWINGS FOR MORE INFO., TYPICAL, U.N.O.

CONC. PORCHES/PATIOS  
SLOPE TO DRAIN @ 1/4" PER 1' AWAY FROM STRUCTURES. ALL SLABS TO BE INSTALLED ON PROPERLY PRE-MOISTENED & COMPACTED SUBGRADE PER SOILS REPORT.  
ALL STOODS OUTSIDE EXTERIOR DOORS SHALL CONFORM TO 2019 CRC SEC. R311.3, TYPICAL.

BATH ACCESSORIES  
VERIFY ALL COLORS, SIZES, FINISHES, ETC. OF BATH ACCESSORIES, TOWEL BARS, ROY HOLDERS, MEDICINE CABINETS, ETC. W/ INTERIOR DESIGNER, TYP. U.N.O.  
PROVIDE NEW 2X8 SOLID BLOCKING @ 34" A.F.F. TO WATER CLOSETS, SHOWERS, & BATHS TYPICAL U.N.O. CENTER LINE OF BLOCK FOR FUTURE GRAB BARS @ ALL

PLUMBING FIXTURE FLOW RATES

ALL PLUMBING FIXTURES AND FITTINGS SHALL MEET THE STANDARDS REFERENCED IN TABLE 1701.1 OF THE 2022 CALIF PLUMBING CODE

FLOW RATES FOR NEW FIXTURES ARE TO BE:  
1.20 GALLONS PER FLUSH FOR TOILETS  
1.80 GPM @ 80 PSI FOR SINGLE SHOWERHEAD INSTALLATIONS AND MULTIPLE SHOWERHEADS SERVING ONE SHOWER - COMBINED FLOW RATE OF ALL SHOWERHEADS &/OR OTHER SHOWER FIXTURES CONTROLLED BY A SINGLE VALVE

1.8 GPM @ 80 PSI  
1.2 GPM @ 60 PSI (MIN SHALL BE NOT LESS THAN 0.8 GPM @ 20 PSI) FOR LAVATORY FAUCETS  
1.8 GPM @ 60 PSI FOR KITCHEN FAUCETS

SHOWER NOTES

TUB/SHOWER WALLS SHALL HAVE A SMOOTH, HARD NON-ABSORBENT SURFACE OVER A MOISTURE-RESISTANT UNDERLAYMENT TO A HGT OF 72" ABOVE THE DRAIN INLET.  
NOTE - WATER-RESISTANT GYP. BACKING BD. SHALL NOT BE USED OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS  
TUB/SHR WALLS SHALL RECEIVE HARDIE PANEL OR EQUAL FULL HT

BATHROOM NOTES

PROVIDE 2X8 WOODEN BACKING LOCATED AT 34" FROM THE FLOOR TO THE CENTER OF THE BACKING IN ALL BATHROOM WALLS AT W/C, SHOWER & BATHTUB LOCATIONS. BACKING SHALL BE SUITABLE FOR THE ADDITION OF GRAB BARS.  
MIN. 15" CLR. EA. SIDE OF W/C C/L AND MIN. 24" CLR. IN FRONT OF W/C

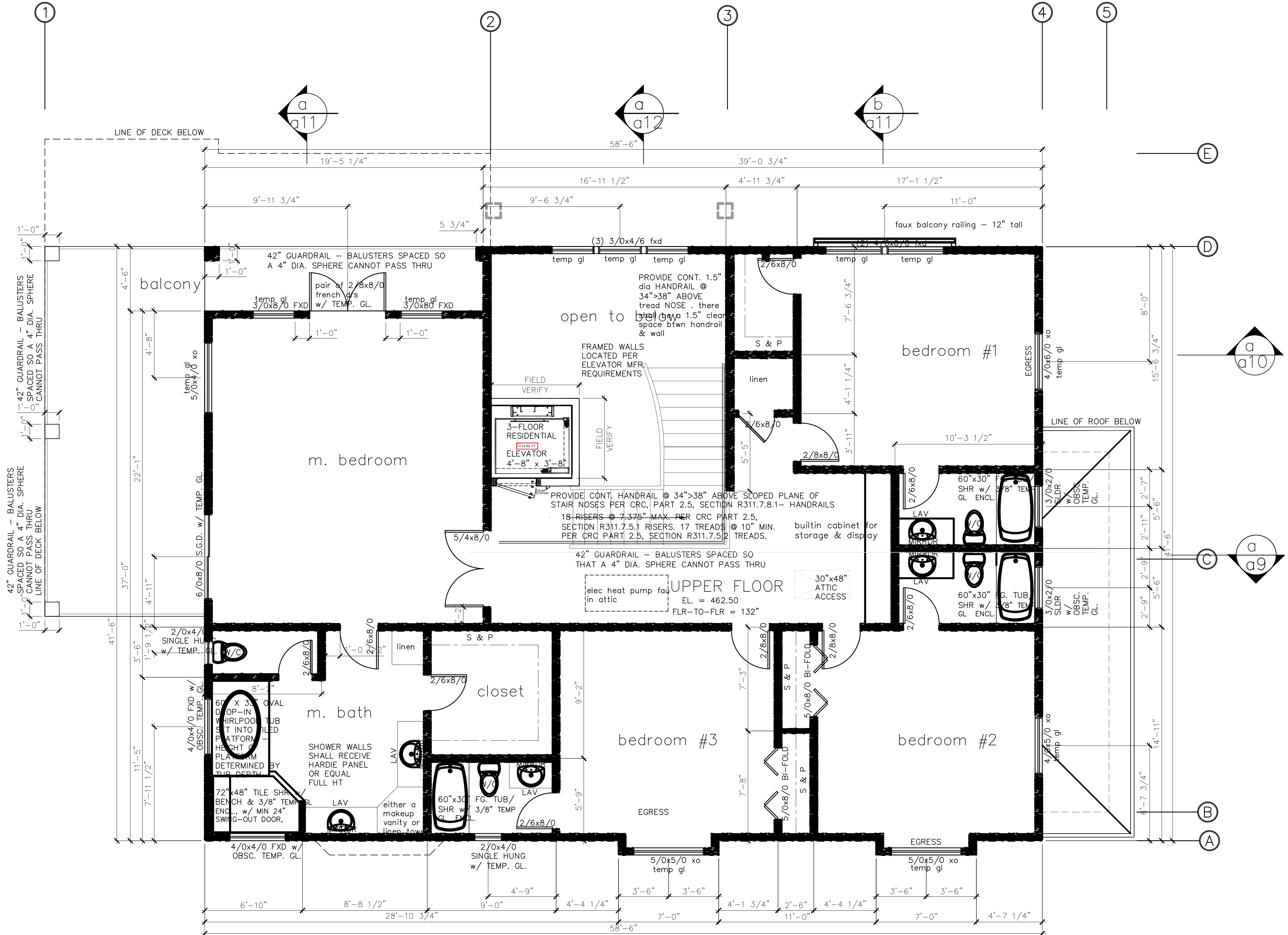
DISHWASHER NOTE:

NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OR FOOD-WASTE DISPOSER WITHOUT THE USE OF AN APPROVED DISHWASHER-AIR-GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE. LISTED AIRGAPS SHALL BE INSTALLED WITH THE FLOOD LEVEL MARKING AT OR ABOVE THE FLOOD LEVEL OF THE SINK OR DRAINBOARD, WHICHEVER IS HIGHER.

NOTES:

CONTRACTOR TO VERIFY THAT A BACKWATER VALVE IS INSTALLED. TOWN CODE REQUIRES AN APPROVED BACKWATER VALVE ON DRAINAGE PIPING SERVING FIXTURES THAT HAVE FLOOD LEVEL RIMS LESS THAN 12 INCHES ABOVE THE ELEVATION OF THE NEXT UPSTREAM MANHOLE.

ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENING IN SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR ACCEPTABLE METHODS



UPPER FLOOR PLAN NORTH scale 1/4" = 1'-0"

STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: steve@benzarch.com  
WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

UPPER LEVEL  
FLOOR PLAN

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
A5

1. CLASS A ROOFING SYSTEM  
 ALL ROOFING TO BE INSTALLED OVER 1/2" EXTERIOR GRADE LP OSB STRUCTURAL I OR CD-X PLYWOOD SHEATHING OR EQUIV. W/ ROOF PITCHES AS SHOWN, TYP., U.N.O.  
 SEE ROOF FRAMING PLAN & NOTES, SHEATHING SPECS, AND DETAILS FOR MORE INFO., TYPICAL, U.N.O.  
 EAGLE ROOFING LIGHTWGT ROOFING TILE - COLOR VALLEJO RANGE, APPROX WGT 100#/SQUARE

2. GUTTERS AND DOWNSPOUTS  
 SEE EAVE DETAILS FOR MORE INFO., TYPICAL, U.N.O.  
 SEE CIVIL PLANS FOR MORE SURFACE DRAINAGE INFO. DO NOT CONNECT DOWNSPOUT DRAINS TO FOOTING DRAINS. FINALIZE ALL DOWNSPOUT LOCATIONS WITH WALK THROUGH IN FIELD WITH DEVELOPER PRIOR TO SETTING UNDERGROUND DRAINAGE PIPING.

A. GUTTERS  
 5" FASCIA GUTTERS, 24 GA. FASCIA BONDERIZED. GUTTERS W/ G.I. BRACKETS AT APPROX. 4'-0" O.C. INCLUDE G.I. GUTTER COVER/SCREEN MESH AS REQUIRED TO PREVENT ACCUMULATION OF LEAVES/DEBRIS IN GUTTERS PER 2022 CRC SEC. R327.5.4, & 2022 CBC SEC. 705A.4, TYPICAL, U.N.O.  
 B. DOWNSPOUTS  
 3" DIA. ROUND 24 GA. G.I. DOWNSPOUTS WITH G.I. BRACKETS

3. ROOF JACKS  
 PROVIDE NEOPRENE GASKETS & G.I. ROOF JACK/ RAIN CAP. PAINT TO MATCH ROOF COLOR & LOCATE WHERE NOT VISIBLE FROM STREET WHEREVER POSSIBLE, TYPICAL, U.N.O.

A. EXHAUST VENTS  
 ALL EXHAUST VENTS SHALL BE LOCATED A MIN. OF 3' FROM OR 1' ABOVE ALL ROOF OR WALL OPENINGS PER 2022 CMC SEC. 504.5, SEC. 510.8.2 & SEC. 510.8.3, TYPICAL, U.N.O.

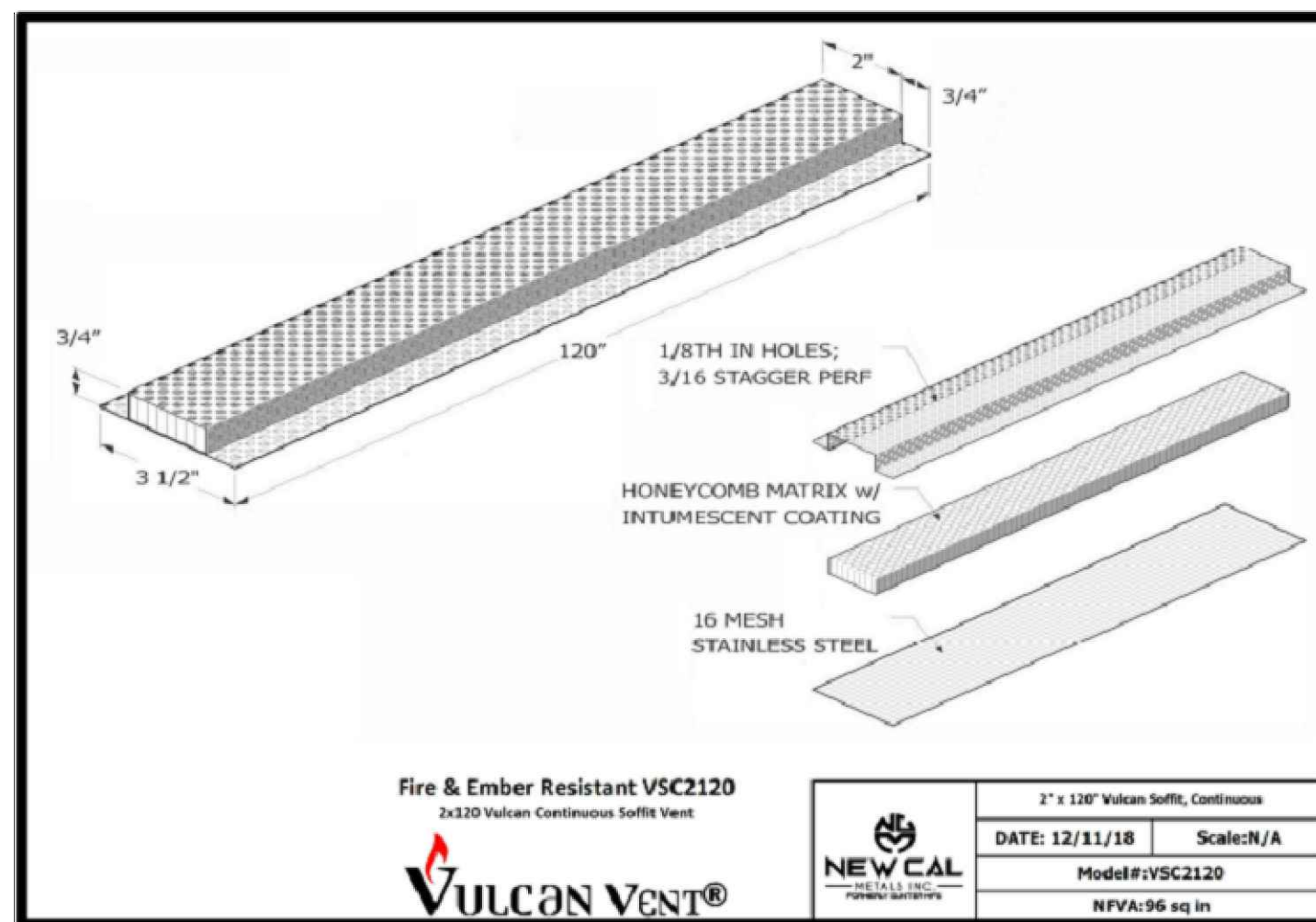
B. PLUMBING VENTS  
 ALL PLUMBING VENTS TO BE LOCATED A MIN. OF 10' FROM OR 3' ABOVE ROOF OR WALL OPENINGS PER SEC. 510.5.2, SEC. 906.1, & SEC. 906.2, 2022 CPC, TYPICAL, UNEDASHING

24 GA. G.I. FLASHING PER SEC. R905.2.8, 2022 CRC SEE ROOF PLAN AND DETAILS FOR MORE INFO., TYPICAL, U.N.O. INSTALL FLASHING IN A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS

A. VALLEY FLASHING  
 24 GA. G.I. "W" FLASHING OVER CONT. 36" WIDE (MIN.) EXTRA LAYER OF 30# FELT @ ALL VALLEYS, TYPICAL, U.N.O.  
 B. STEP FLASHING  
 24 GA. G.I. STEP "L" FLASHING PER DETAILS AT ROOF & UNDER EXT. WALL SIDING, TYPICAL, U.N.O.

C. PITCH BREAK FLASHING  
 24 GA. G.I. "L" FLASHING @ ALL WALL TO PITCHED ROOFS, TYP., U.N.O.

D. WINDOW/DOOR HEAD FLASHING  
 24 GA. G.I. "Z" FLASHING ABOVE WINDOWS & DOORS, TYPICAL, U.N.O.



CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
 OFFICE OF THE STATE FIRE MARSHAL  
 FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM  
**LISTING SERVICE**

LISTING No. 8165-2192-0100 Page 1 of 1  
 CATEGORY: 8165 - VENTS FOR WILDLAND URBAN INTERFACE (WUI)  
 LISTE: Vulcan Technologies (WUI) 3641, Suite 1, San Rafael, CA 94901  
 Contact: Larry Damm (916) 628-2400 Fax (916) 647-6477  
 Email: Larry@vulcanmetals.com  
 DESIGN: Vulcan Technologies  
 Model VFS414 (4'x14\"/>

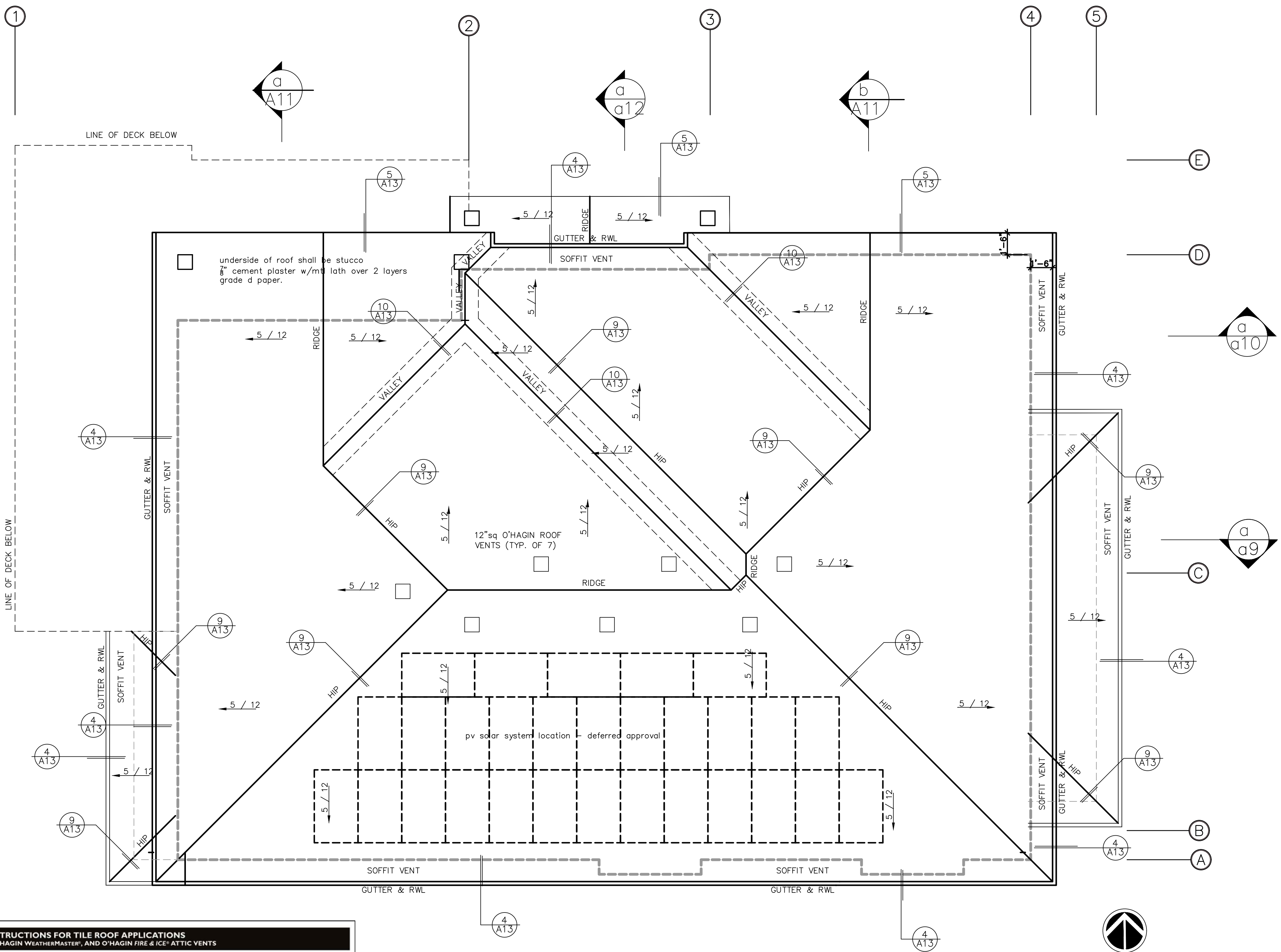
**INSTALLATION INSTRUCTIONS FOR TILE ROOF APPLICATIONS**  
 O'HAGIN STANDARD, O'HAGIN WEATHERMASTER®, AND O'HAGIN FIRE & ICE® ATTIC VENTS

VENTS FOR 1-PIECE TILE	VENTS FOR 2-PIECE CAP & PAN TILE	VENTS FOR FLAT TILE
<p>1. MARK &amp; CUT: 1 1/2 inch hole in the roof deck, centered between truss lines and aligned approximately as shown on the exposure lines. (Note: Set aside the thickness of the sheathing.)</p> <p>2. SEAL: using sufficient amount of locally-approved sealant (Class A where required by code for flame resistance) around crown flange of primary vent.</p>	<p>1. MARK &amp; CUT: primary vent opening as shown. Align the bottom of the opening 1/2-inch to 1-inch above the pan tile layout line as shown.</p> <p>2. Follow Steps 1-4 of the 1-Piece installation instructions.</p> <p>3. Seal: use mineral based sealant around edge of secondary vent cover and between flanged water channel (see note). <b>Band the metal cap tightly under the protruding course of tile, adjusting the protruding course of tile, adjusting the protruding course of tile, adjusting the protruding course of tile.</b> Seal the secondary vent cover for proper fit. For tile with continuous lip, a portion of the lip must be removed as needed for wind slip installation. The secondary vent cover takes the place of tile.</p> <p>4. Secure and seal as shown in Step 6 of the 1-Piece installation instructions. If necessary, seal underside of secondary vent and top of tile below, using locally-approved sealant (Class A where required).</p>	<p>1. Depending on these conditions and roof loading process the following methods are acceptable: a) Seal and install the secondary vent cover using roofing nails and sealant around the perimeter of the vent cover. b) Seal and install the secondary vent cover using roofing nails and sealant around the perimeter of the vent cover. c) Seal and install the secondary vent cover using roofing nails and sealant around the perimeter of the vent cover.</p> <p>2. Seal: use mineral based sealant around edge of secondary vent cover and between flanged water channel (see note). <b>Band the metal cap tightly under the protruding course of tile, adjusting the protruding course of tile, adjusting the protruding course of tile.</b> Seal the secondary vent cover for proper fit. For tile with continuous lip, a portion of the lip must be removed as needed for wind slip installation. The secondary vent cover takes the place of tile.</p> <p>3. Secure and seal as shown in Step 6 of the 1-Piece installation instructions. If necessary, seal underside of secondary vent and top of tile below, using locally-approved sealant (Class A where required).</p>
<p>3. ATTACH: at 4-inch centers using roofing nails of sufficient length to penetrate the sheathing.</p> <p>4. FLASH: for general installation areas. When using pool and sink or membrane and mastics methods, apply between roof and sheathing. Seal the top edge.</p> <p>5. INSTALL: secondary vent cover. (For "M" tile vent only, insert tile between protruding top secondary vent cover and between flanged water channel - see note). <b>Band the metal cap tightly under the protruding course of tile, adjusting the protruding course of tile, adjusting the protruding course of tile.</b></p>	<p>2. SEAL: ATTACH &amp; FLASH as shown in Step 2 of the 1-Piece installation instructions. Apply 4-6" tile up to the primary vent, sealing tile into place.</p> <p>3. FLASH: for general installation areas. When using pool and sink or membrane and mastics methods, apply between roof and sheathing. Seal the top edge.</p> <p>4. SECURE: with roofing nails of sufficient length to penetrate sheathing &amp; tile. For WEATHERMASTER® FIRE &amp; ICE®, SEAL any gaps between secondary vent cover and surrounding tile using locally-approved sealant (Class A where required by code for flame resistance).</p>	<p>3. INSTALL: the secondary vent, which takes the place of two eave and one pan tile. Band the metal cap tightly under the protruding course of tile, adjusting for band lip. Secure as shown in Step 6 of the 1-Piece installation instructions.</p>

SEE SHEET A9 FOR WUI COMPLIANCE FOR O'HAGIN VENTS

ROOF PLAN NORTH

scale 1/8" = 1'-0"  
 ROOFING SHALL BE CLASS A ROOF SYSTEM - EAGLE LIGHTWGT CONC ROOF TILES - COLOR VALLEJO RANGE  
 APPROX WEIGHT - 720#/100 SF  
 ROOF PITCH TO BE 5/12  
 FLASH ALL VALLEYS w/ 24ga GALV MTL VALLEY FLASHING UP EACH SIDE MIN 11" - INSTALLED OVER A MIN 36" WIDE UNDERLAYMENT OF No. 72 CAP SHEET RUNNING THE FULL LENGTH OF THE VALLEY  
 PROVIDE Ogee GALV GUTTERS AND 2"x3" RWL AS NECESSARY  
 PROVIDE METAL GUTTER GAUARDS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTERS FOR THE ENTIRE RESIDENCE  
 ROOF VENTILATION:  
 ROOF VENTILATION SHALL BE @ THE RATE OF 1SF VENT / 300SF ROOF AREA. 2,501 SF ROOF AREA / 300 = 8.34 SF, OR 1,200 SI OF VENTING REQUIRED. PROVIDE 7- 12"x12" OHAGIN ROOF VENTS @ 80 SI NFA / VENT, EQUALING 560 SI OF VENTING PROVIDED. 1,200 SI - 560 SI = 640 SI LEFT TO PROVIDE. PROVIDE CONT. 3"-WIDE SOFFIT VENT @ RATE OF 10SI NFA / LF; 640 SI / 10 SI/LF = 64 LF OF SOFFIT VENTING REQUIRED. DISTRIBUTE SOFFIT VENTING EQUALLY TO ALL FOUR SIDES OF ROOF, AND NO FARTHER THAN 3 FT FROM ANY CORNER.  
 THE TILE ROOF SHALL BE FIRESTOPPED AT EAVE ENDS OR SHALL HAVE ONE LAYER OF 1/2" IN 72 LB. MINERAL SURFACES NONPERFORATED CAP SHEET COMPLYING ASTM D3909 INSTALLED OVER THE COMBUSTIBLE DECKING PER CRC R337.5.2



STEVE BENZING ARCHITECT  
 C-17985  
 12103 FREDERICKSBURG  
 SAFTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: steve@benzarch.com  
 WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-04-012

ROOF PLAN

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO	REVISIONS	SHEET NUMBER
		A6

CLASS "A" ROOFING SYSTEM:  
 ALL ROOFING SHALL BE INSTALLED OVER 1/2" EXTERIOR GRADE LP OSB STRUCTURAL 1 OR CD-X PLYWOOD SHEATHING OR EQUIVALENT WITH ROOF PITCHES AS SHOWN, TYPICAL, U.N.O. - SEE ROOF FRAMING PLAN, NOTES, AND DETAILS, AND SHEATHING SPECS AND DETAILS FOR MORE INFORMATION, TYPICAL U.N.O..

LIGHTWEIGHT CONCRETE ROOF TILE:  
 (SPECIFY BRAND SPECIFICS)

GUTTERS AND DOWNSPOUTS:  
 SEE EAVE DETAILS FOR MORE INFORMATION, TYPICAL U.N.O. SEE SITE PLAN FOR MORE SURFACE-DRAINAGE INFORMATION. DO NOT CONNECT DOWNSPOUT DRAINS TO FOUNDATION FOOTING DRAINS. FINALIZE ALL DOWNSPOUT LOCATIONS WITH IN-FIELD WALK-THROUGH WITH OWNER/DEVELOPER PRIOR TO SETTING UNDERGROUND DRAINAGE PIPING.

GUTTERS:  
 PROVIDE 5"-DIA. 24-GA. HALF-ROUND BONDERIZED GUTTERS W/ G.I. BRACKETS AT APPROX. 4'-0" O/C. INCLUDE G.I. GUTTER COVER/SCREEN MESH AS REQUIRED TO PREVENT THE ACCUMULATION OF LEAVES/DEBRIS IN GUTTERS PER 2019 CRC SEC. R327.5.4. AND 2019 CBC SEC. 705A.4, TYPICAL U.N.O..

DOWNSPOUTS:  
 PROVIDE 3"-DIA. ROUND 24-GA. G.I. DOWNSPOUTS WITH G.I. BRACKETS.

ROOF JACKS:  
 PROVIDE NEOPRENE GASKETS AND G.I. ROOF JACK/RAIN CAP - PAINT TO MATCH ROOFING COLOR AND LOCATE WHERE NOT VISIBLE FROM STREET WHEREVER POSSIBLE, TYPICAL U.N.O..

EXHAUST VENTS:  
 ALL EXHAUST VENTS SHALL BE LOCATED A MIN. OF 3' FROM, OR 1' ABOVE, ALL ROOF OR WALL OPENINGS PER 2019 CMC SEC. 504.5, SEC. 510.8.2, AND SEC. 510.8.3, TYPICAL U.N.O..

PLUMBING VENTS:  
 ALL PLUMBING VENTS SHALL BE LOCATED A MIN. OF 10' FROM, OR 3' ABOVE, ROOF OR WALL OPENINGS PER 2019 CPC SEC. 510.5.2, SEC. 906.1, AND SEC. 906.2, TYPICAL U.N.O..

ADDRESS NUMBERS:  
 APPROVED ADDRESS NUMBERS SHALL BE PLACED (OR MAINTAINED) ON THE BUILDING IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET, OR ROAD, FRONTING THE PROPERTY, AND CONTRASTING TO THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE A MIN. OF 4" HIGH WITH A MIN. ILLUMINATED STROKE WIDTH OF 1/2". TYPICAL U.N.O..

FLASHING:  
 PROVIDE 26-GA. GALV. FLASHING PER 2019 CRC SEC. R905.2.8. SEE ROOF PLAN AND DETAILS FOR MORE INFORMATION, TYPICAL U.N.O. INSTALL FLASHING IN A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS.

VALLEY FLASHING:  
 PROVIDE 26-GA. GALV. "W" FLASHING OVER CONTINUOUS 36"-WIDE (MIN.) EXTRA LAYER 30# FELT AT ALL VALLEYS, TYPICAL U.N.O..

STEP FLASHING:  
 PROVIDE 26-GA. GALV. STEP "L" FLASHING PER DETAILS AT ROOF AND UNDER EXTERIOR WALL SIDING, TYPICAL U.N.O..

PITCH BREAK FLASHING:  
 PROVIDE 26-GA. GALV. "L" FLASHING AT ALL WALL/PITCHED-ROOF INTERSECTIONS, TYPICAL U.N.O..

WINDOW/DOOR HEAD FLASHING:  
 PROVIDE 26-GA. GALV. "Z" FLASHING ABOVE ALL WINDOWS AND DOORS, TYPICAL U.N.O..

EXTERIOR SIDING & TRIM:  
 SEE WALL, DOOR, AND WINDOW DETAILS FOR MORE INFORMATION. INSTALL ALL ADHERED STONE VENEER PER MANUFACTURER'S SPECIFICATIONS.

EXTERIOR STUCCO SIDING:  
 PROVIDE 7/8"-THICK MIN. 3-COAT ACRYLIC STUCCO WITH "OLD WORLD" TEXTURE OVER STUCCO WIRE LATH OVER 2 LAYERS CLASS "D" BUILDING PAPER OR TYVEK BUILDING WRAP, WITH WEEP SCREED AT BASE, TYPICAL U.N.O..

ADHERED THIN STONE VENEER:  
 EL DORADO "COURSED STONE" ADHERED VENEER, COLOR: "SANTA BARBARA", AT WALLS, CHIMNEYS, ETC. WHERE SHOWN ON DRAWINGS. INSTALL ALL STONE OVER 3/4"-1"-THICK MORTAR BED OVER STUCCO WIRE LATH OVER "CADCO J-DRAIN #303" DRAINAGE BLANKET (OR EQUIVALENT) OVER 2 LAYERS KRAFT WATERPROOF BUILDING PAPER OR TYVEK BUILDING WRAP OVER BUILDING SHEATHING PER STRUCTURAL DRAWINGS OVER 2X STUDS AT 16" O/C, TYPICAL U.N.O..

WINDOW/DOOR TRIM:  
 WINDOW AND DOOR TRIM IS INTEGRAL TO THE INDIVIDUAL UNITS.

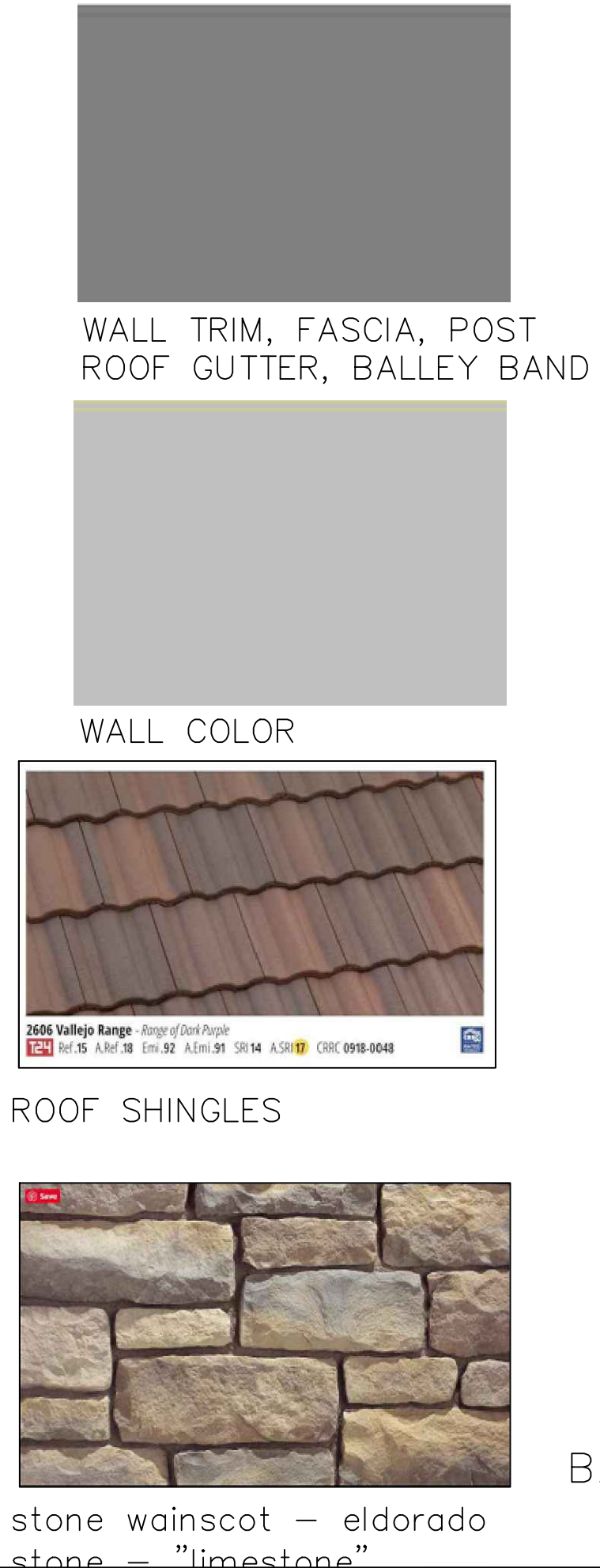
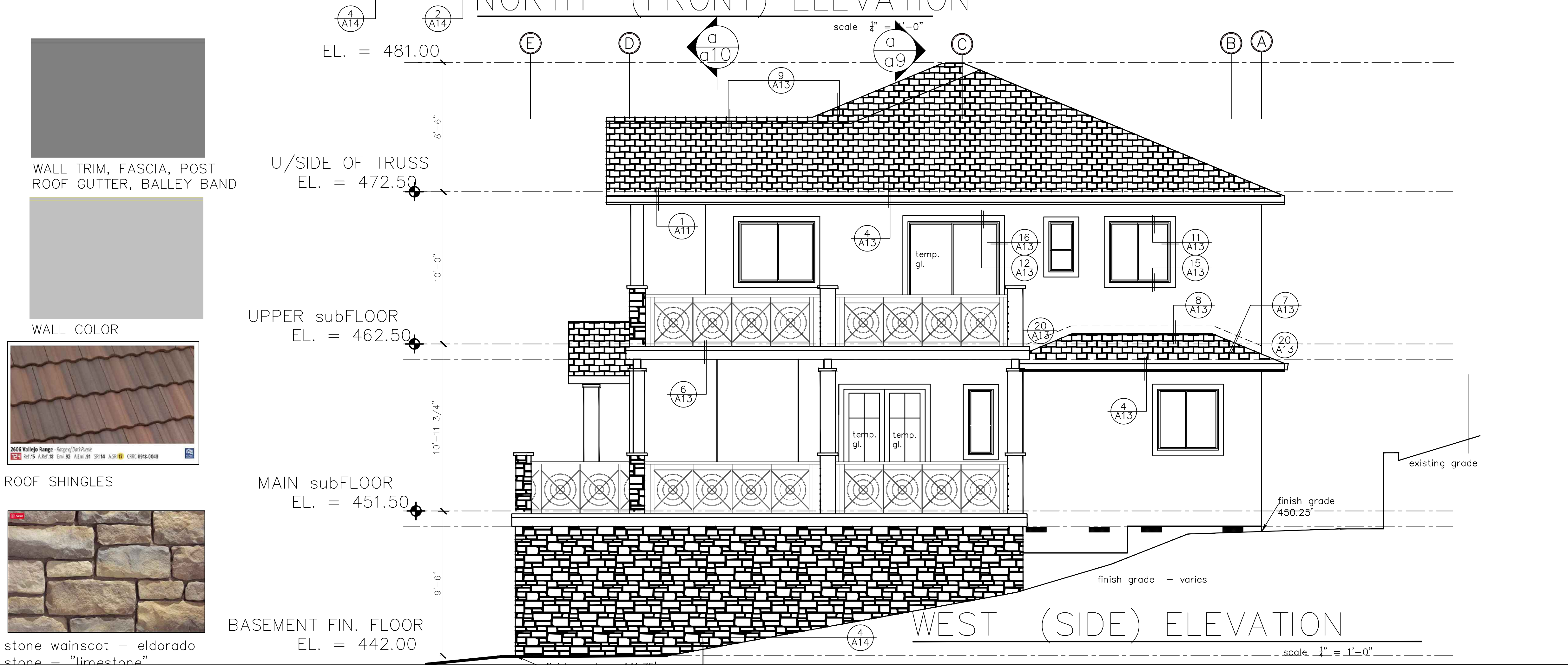
WINDOWS:  
 JEN-WELD WINDOW CO. ALUMINUM-CLAD WOOD-FRAME WINDOWS WITH PAINT-GRADE INTERIORS AND DUAL-GLAZED LOW-E2 GLASS, TYPICAL U.N.O. REFER TO WINDOW SCHEDULE FOR MORE INFORMATION.

EXTERIOR DOOR:  
 REFER TO DOOR SCHEDULE FOR MORE INFORMATION, TYPICAL U.N.O..

EXTERIOR RAILING:  
 WROUGHT IRON RAILING TO BE SELECTED BY OWNER.



VINYL FRAMED WINDOW TYP.



STEVE BENZING ARCHITECT  
 C-17985  
 12103 FREDERICKSBURG  
 SARTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: steve@benzarch.com  
 WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

EXTERIOR  
 ELEVATIONS

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS	
NO.	
SHEET NUMBER	
A7	

CLASS "A" ROOFING SYSTEM:  
ALL ROOFING SHALL BE INSTALLED OVER 1/2" EXTERIOR GRADE LP OSB STRUCTURAL 1 OR CD-X PLYWOOD SHEATHING OR EQUIVALENT WITH ROOF PITCHES AS SHOWN, TYPICAL, U.N.O. - SEE ROOF FRAMING PLAN, NOTES, AND DETAILS, AND SHEATHING SPECS AND DETAILS FOR MORE INFORMATION, TYPICAL U.N.O..

LIGHTWEIGHT CONCRETE ROOF TILE:  
(SPECIFY BRAND SPECIFICS)

GUTTERS AND DOWNSPOUTS:  
SEE EAVE DETAILS FOR MORE INFORMATION, TYPICAL U.N.O. SEE SITE PLAN FOR MORE SURFACE DRAINAGE INFORMATION. DO NOT CONNECT DOWNSPOUT DRAINS TO FOUNDATION FOOTING DRAINS. FINALIZE ALL DOWNSPOUT LOCATIONS WITH IN-FIELD WALK-THROUGH WITH OWNER/DEVELOPER PRIOR TO SETTING UNDERGROUND DRAINAGE PIPING.

GUTTERS:  
PROVIDE 5"-DIA. 24-GA. HALF-ROUND BONDERIZED GUTTERS W/ G.I. BRACKETS AT APPROX. 4'-0" O/C. INCLUDE G.I. GUTTER COVER/SCREEN MESH AS REQUIRED TO PREVENT THE ACCUMULATION OF LEAVES/DEBRIS IN GUTTERS PER 2016 CRC SEC. R327.5.4. AND 2019 CBC SEC. 705A.4, TYPICAL U.N.O..

DOWNSPOUTS:  
PROVIDE 3"-DIA. ROUND 24-GA. G.I. DOWNSPOUTS WITH G.I. BRACKETS.

ROOF JACKS:  
PROVIDE NEOPRENE GASKETS AND G.I. ROOF JACK/RAIN CAP - PAINT TO MATCH ROOFING COLOR AND LOCATE WHERE NOT VISIBLE FROM STREET WHEREVER POSSIBLE, TYPICAL U.N.O..

EXHAUST VENTS:  
ALL EXHAUST VENTS SHALL BE LOCATED A MIN. OF 3' FROM, OR 1' ABOVE, ALL ROOF OR WALL OPENINGS PER 2019 CMC SEC. 504.5, SEC. 510.8.2, AND SEC. 510.8.3, TYPICAL U.N.O..

PLUMBING VENTS:  
ALL PLUMBING VENTS SHALL BE LOCATED A MIN. OF 1' FROM, OR 3' ABOVE, ROOF OR WALL OPENINGS PER 2019 CPC SEC. 510.5.2, SEC. 906.1, AND SEC. 906.2, TYPICAL U.N.O..

ADDRESS NUMBERS:  
APPROVED ADDRESS NUMBERS SHALL BE PLACED (OR MAINTAINED) ON THE BUILDING IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET, OR ROAD, FRONTING THE PROPERTY, AND CONTRASTING TO THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE A MIN. OF 4" HIGH WITH A MIN. ILLUMINATED STROKE WIDTH OF 1/2", TYPICAL U.N.O..

FLASHING:  
PROVIDE 26-GA. GALV. FLASHING PER 2016 CRC SEC. R905.2.8. SEE ROOF PLAN AND DETAILS FOR MORE INFORMATION, TYPICAL U.N.O. INSTALL FLASHING IN A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS.

VALLEY FLASHING:  
PROVIDE 26-GA. GALV. "W" FLASHING OVER CONTINUOUS 36"-WIDE (MIN.) EXTRA LAYER 30# FELT AT ALL VALLEYS, TYPICAL U.N.O..

STEP FLASHING:  
PROVIDE 26-GA. GALV. STEP "L" FLASHING PER DETAILS AT ROOF AND UNDER EXTERIOR WALL SIDING, TYPICAL U.N.O..

PITCH BREAK FLASHING:  
PROVIDE 26-GA. GALV. "L" FLASHING AT ALL WALL/PITCHED-ROOF INTERSECTIONS, TYPICAL U.N.O..

WINDOW/DOOR HEAD FLASHING:  
PROVIDE 26-GA. GALV. "Z" FLASHING ABOVE ALL WINDOWS AND DOORS, TYPICAL U.N.O..

EXTERIOR SIDING & TRIM:  
SEE WALL, DOOR, AND WINDOW DETAILS FOR MORE INFORMATION. INSTALL ALL ADHERED STONE VENEER PER MANUFACTURER'S SPECIFICATIONS.

EXTERIOR STUCCO SIDING:  
PROVIDE 7/8"-THICK MIN. 3-COAT ACRYLIC STUCCO WITH "OLD WORLD" TEXTURE OVER STUCCO WIRE LATH OVER 2 LAYERS CLASS "D" BUILDING PAPER OR TYVEK BUILDING WRAP, WITH WEEP SCREED AT BASE, TYPICAL U.N.O..

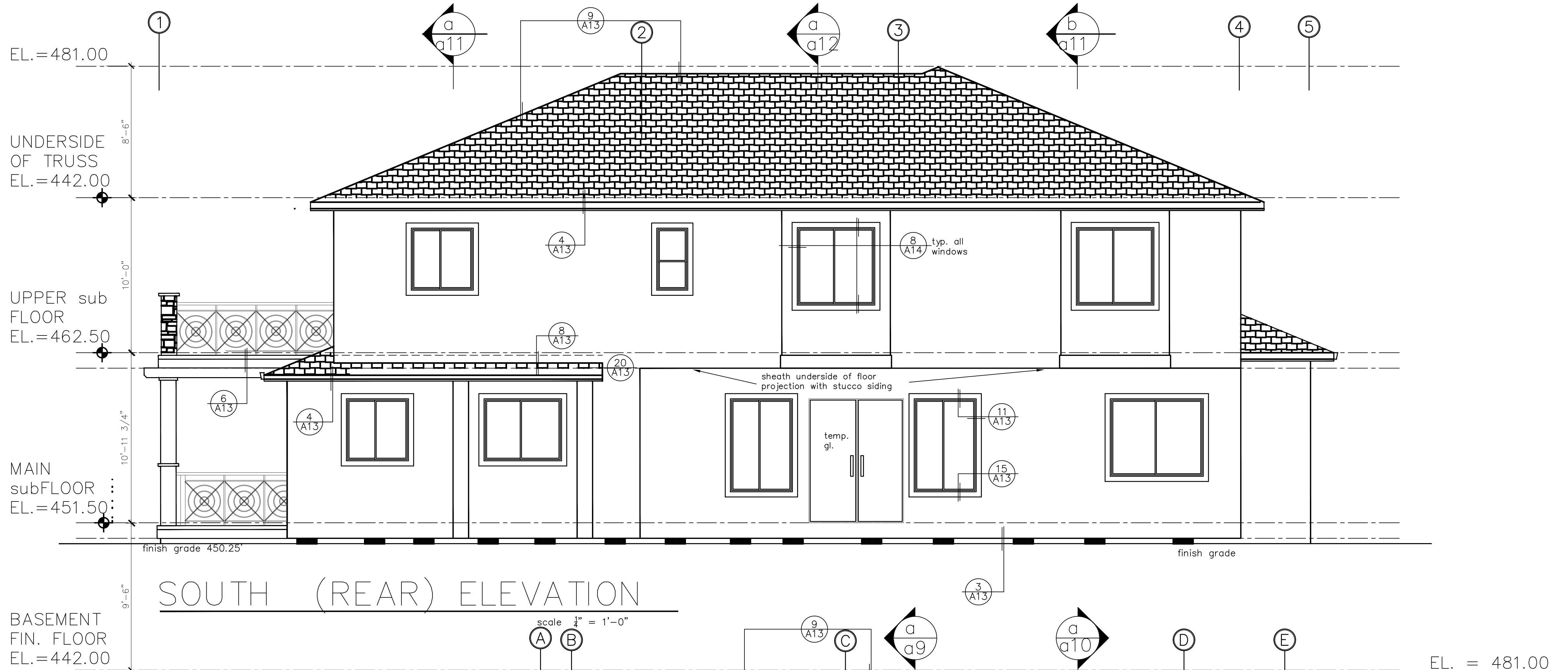
ADHERED THIN STONE VENEER  
EL DORADO "COURSED STONE" ADHERED VENEER, COLOR: "SANTA BARBARA", AT WALLS, CHIMNEYS, ETC. WHERE SHOWN ON DRAWINGS. INSTALL ALL STONE OVER 3/4"-1"-THICK MORTAR BED OVER STUCCO WIRE LATH OVER "CADCO J-DRAIN #303" DRAINAGE BLANKET (OR EQUIVALENT) OVER 2 LAYERS KRAFT WATERPROOF BUILDING PAPER OR TYVEK BUILDING WRAP OVER BUILDING SHEATHING PER STRUCTURAL DRAWINGS OVER 2X STUDS AT 16" O/C, TYPICAL U.N.O..

WINDOW/DOOR TRIM:  
WINDOW AND DOOR TRIM IS INTEGRAL TO THE INDIVIDUAL UNITS.

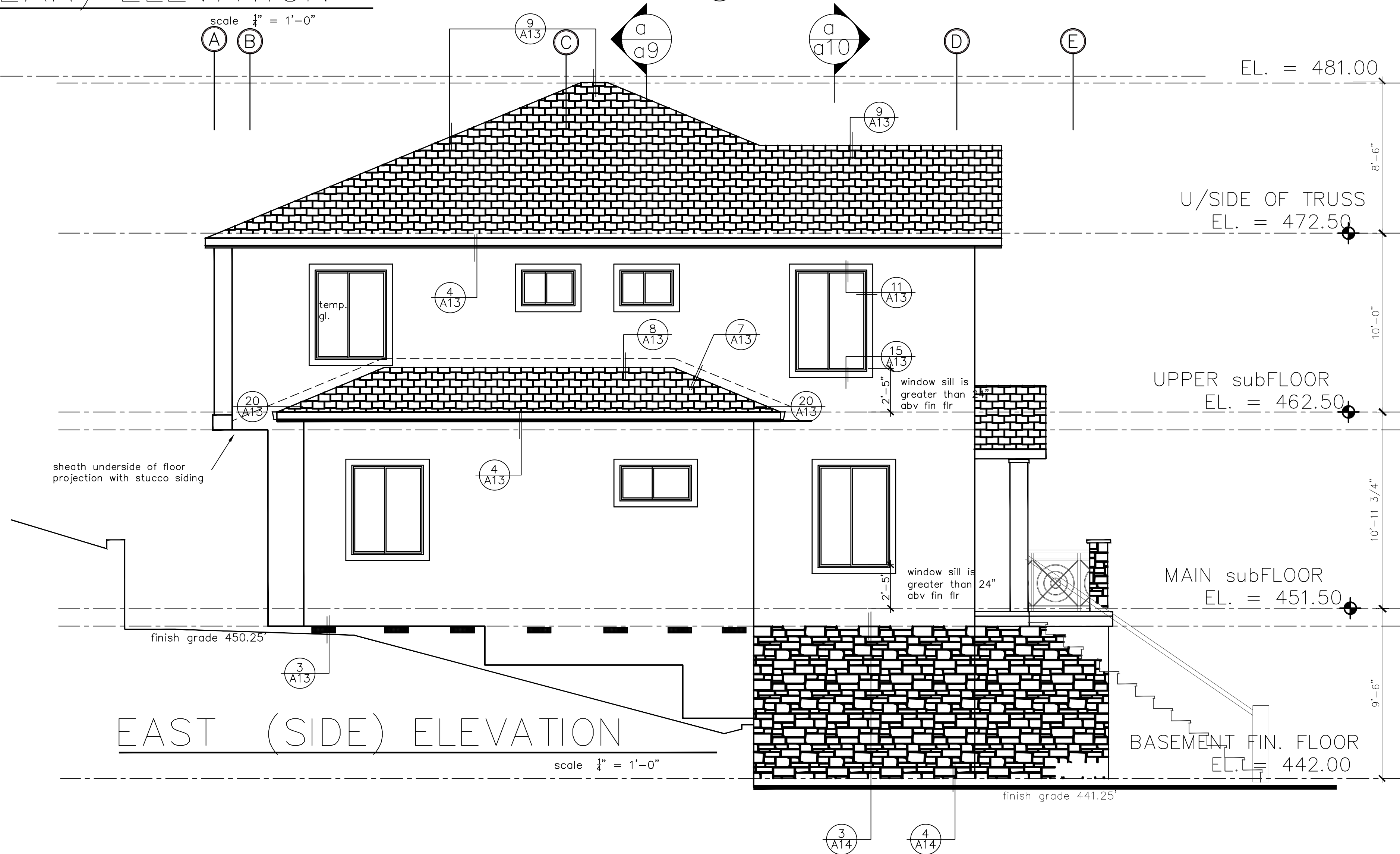
WINDOWS:  
JEN-WELD WINDOW CO. ALUMINUM-CLAD WOOD-FRAME WINDOWS WITH PAINT-GRADE INTERIORS AND DUAL-GLAZED LOW-E2 GLASS, TYPICAL U.N.O. REFER TO WINDOW SCHEDULE FOR MORE INFORMATION.

EXTERIOR DOOR:  
REFER TO DOOR SCHEDULE FOR MORE INFORMATION, TYPICAL U.N.O..

EXTERIOR RAILING:  
WROUGHT IRON RAILING TO BE SELECTED BY OWNER.



SOUTH (REAR) ELEVATION



EAST (SIDE) ELEVATION

STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: steve@benzarch.com  
WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

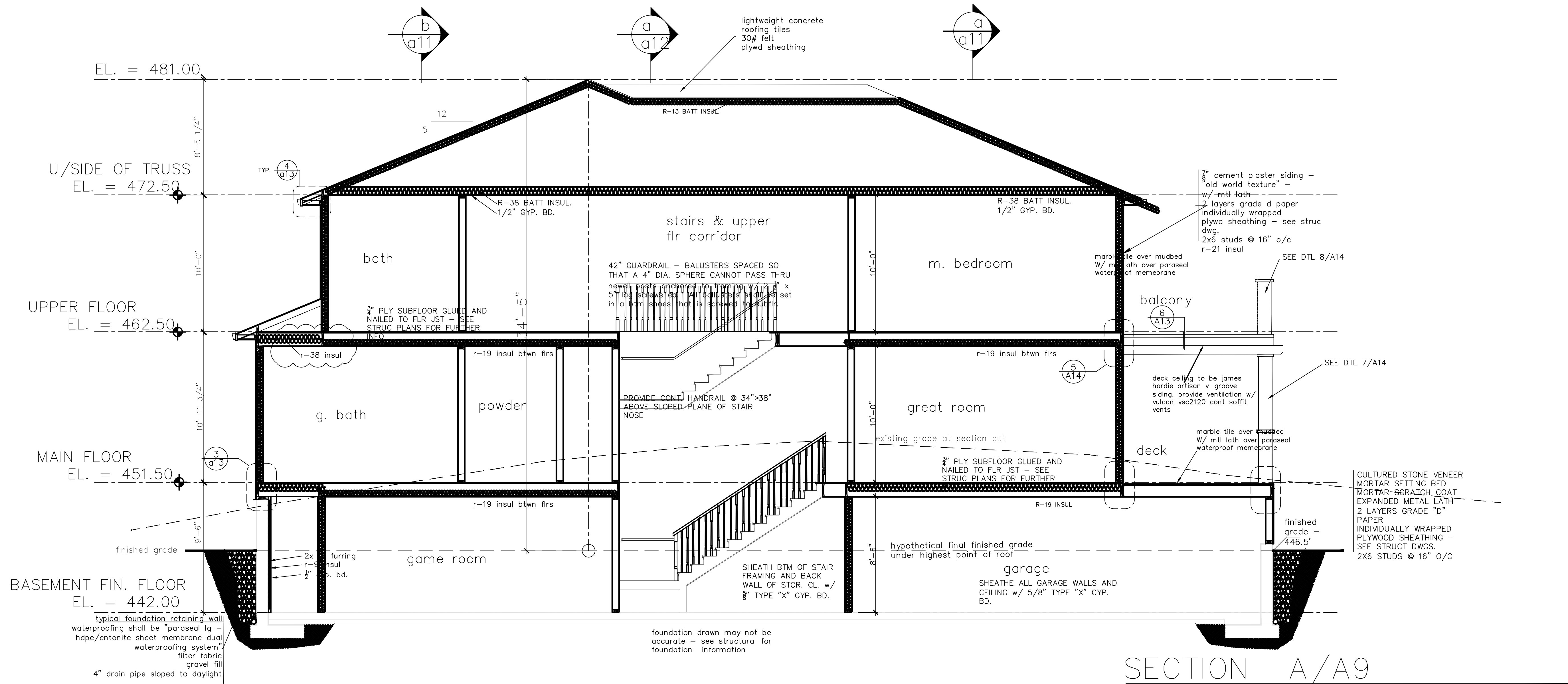
EXTERIOR  
ELEVATIONS

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
A8





SECTION A/A9

scale 1/4" = 1'-0"

STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: steve@benzarch.com  
WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

BUILDING  
SECTION

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS	
NO.	

SHEET NUMBER  
A9

### Owner's Manual

#### Care and Operation

**INSTALLER:** Leave this manual with party responsible for use and operation.  
**OWNER:** Retain this manual for future reference.  
Contact your dealer with questions regarding installation, operation or service.

**NOTICE: DO NOT discard this manual!**

**HEAT&GLO**  
No one builds a better fire

**Models:**  
TRUE-36G-IFT  
TRUE-36TG-IFT  
TRUE-36S-IFT  
TRUE-42G-IFT  
TRUE-42TG-IFT  
TRUE-42S-IFT  
TRUE-50TG-IFT  
TRUE-50S-IFT

**UL LISTED**

**WARNING: FIRE OR EXPLOSION HAZARD**  
Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

- DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- What to do if you smell gas:
  - DO NOT try to light any appliance.
  - DO NOT touch any electrical switch. DO NOT use any phone in your building.
  - Leave the building immediately.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

**DANGER**  
HOT GLASS WILL CAUSE BURNS.  
DO NOT TOUCH GLASS UNTIL COOLED.  
NEVER ALLOW CHILDREN TO TOUCH GLASS.  
A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and must be installed for the protection of children and other at-risk individuals.

In the Commonwealth of Massachusetts installation must be performed by a licensed plumber or gas fitter. See appliance installation manual for additional Commonwealth of Massachusetts requirements.

### Specifications

**HEAT&GLO**  
No one builds a better fire

**TRUE**  
42" Direct Vent Gas Fireplace

Please consult the manufacturer's installation manual for all details and requirements before making a final design layout decision.

MODEL	FRONT WIDTH	BACK WIDTH	HEIGHT	DEPTH	GLASS SIZE
TRUE-42	Actual Framing 67" 65-9/16"	Actual Framing 65-5/16"	Actual Framing 62-5/8"	Actual Framing 24"	Actual Framing 41-7/8" x 50-5/16"

**UNIT**

TOP: 65-5/16" (1653)

Left: 67-1/16" (1702)

Front: 62-5/8" (1594)

Right: 62-5/8" (1594)

FRONTS: Firescreen, Forge, Arched Firescreen, Arched Forge

### O'HAGIN

THE TECHNOLOGICAL LEADER IN ATTIC VENTILATION

MATERIAL: CLAY TILE  
PRODUCT: MEDIUM PROFILE (M)

**1. SELECT METAL**

Standard: 24 Gauge G 90 Galvanized Steel  
20 Year Warranty

Upgrade Options:  
402" Aluminum  
50 Year Warranty  
14 Oz. Copper  
50 Year Warranty

**2. SELECT FINISH**

The Painted Galvanized Steel Finish\*

BLACK BROWN CHARCOAL GRAY TERRA COTTA WHITE

**3. SELECT SUBFLASHING OPTIONS**

Standard: 2" Flange  
Upgrade Options: 4" Flange, 6" Flange, Diverter\*\*

**4. SELECT WIRE MESH**

Standard: 1/2" Galvanized  
86.25 sq. in.

Upgrade Options: 1/4" Stainless Steel  
86.25 sq. in.

1/2" Galvanized  
77.63 sq. in.

1/2" Stainless Steel  
77.63 sq. in.

**www.ohagin.com**  
210 Classic Court, Suite 100 • Robert Park, CA 94928  
Toll Free 877-324-0444 • Fax 707-885-9187

O'HAGIN IS PROUD TO WORK WITH THESE AND MANY OTHER QUALITY MANUFACTURERS

**FREE VERT LAYOUT AND CALCULATIONS**  
Send us your plans. No plans? No problem. Provide us with your address and roofing material. We'll figure out the rest. [vent@ohagin.com](mailto:vent@ohagin.com)

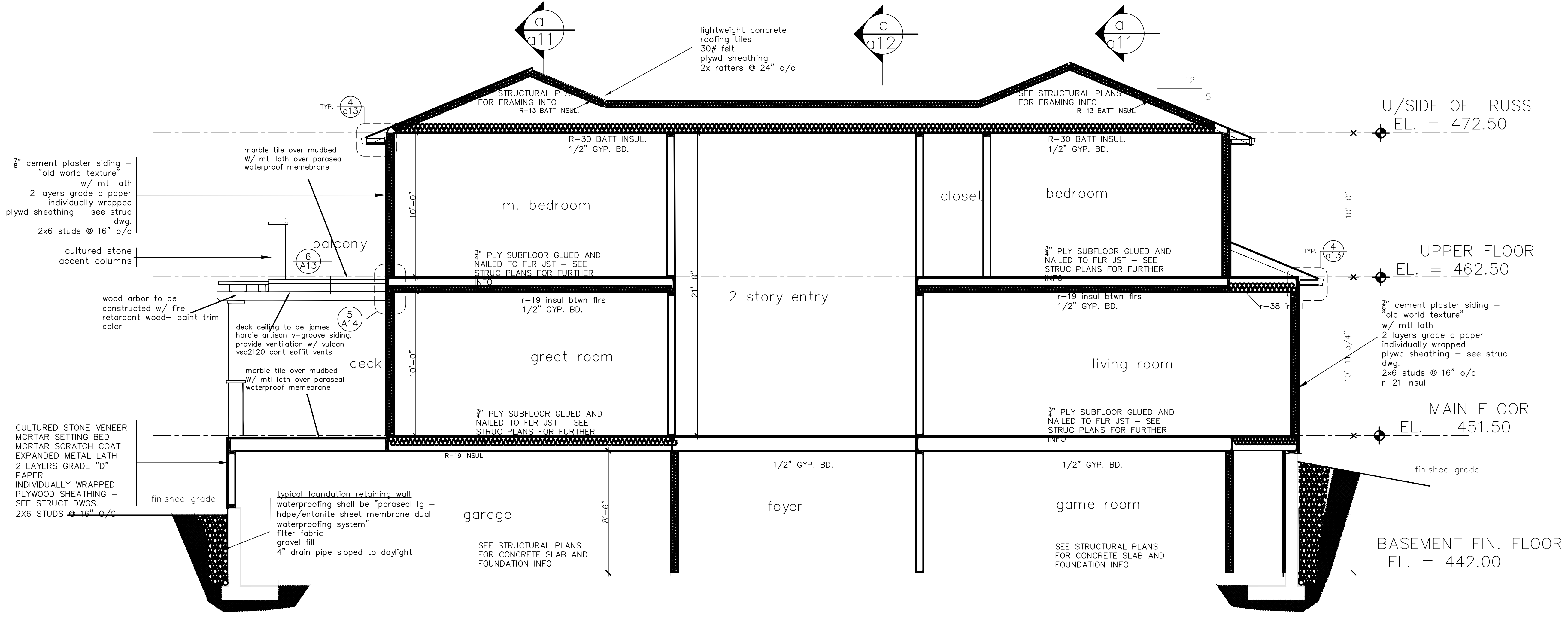
**WATCH OUR INSTALL VIDEOS**  
Scan this QR Code with your smart phone to watch easy step-by-step install videos.

**LOCAL AND NATIONAL APPROVALS**  
O'Hagin is a recognized leader in attic ventilation and design.

STEVE BENZING ARCHITECT  
 C-17985  
 12103 FREDERICKSBURG  
 SARTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: steve@benzarch.com  
 WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

BUILDING SECTION



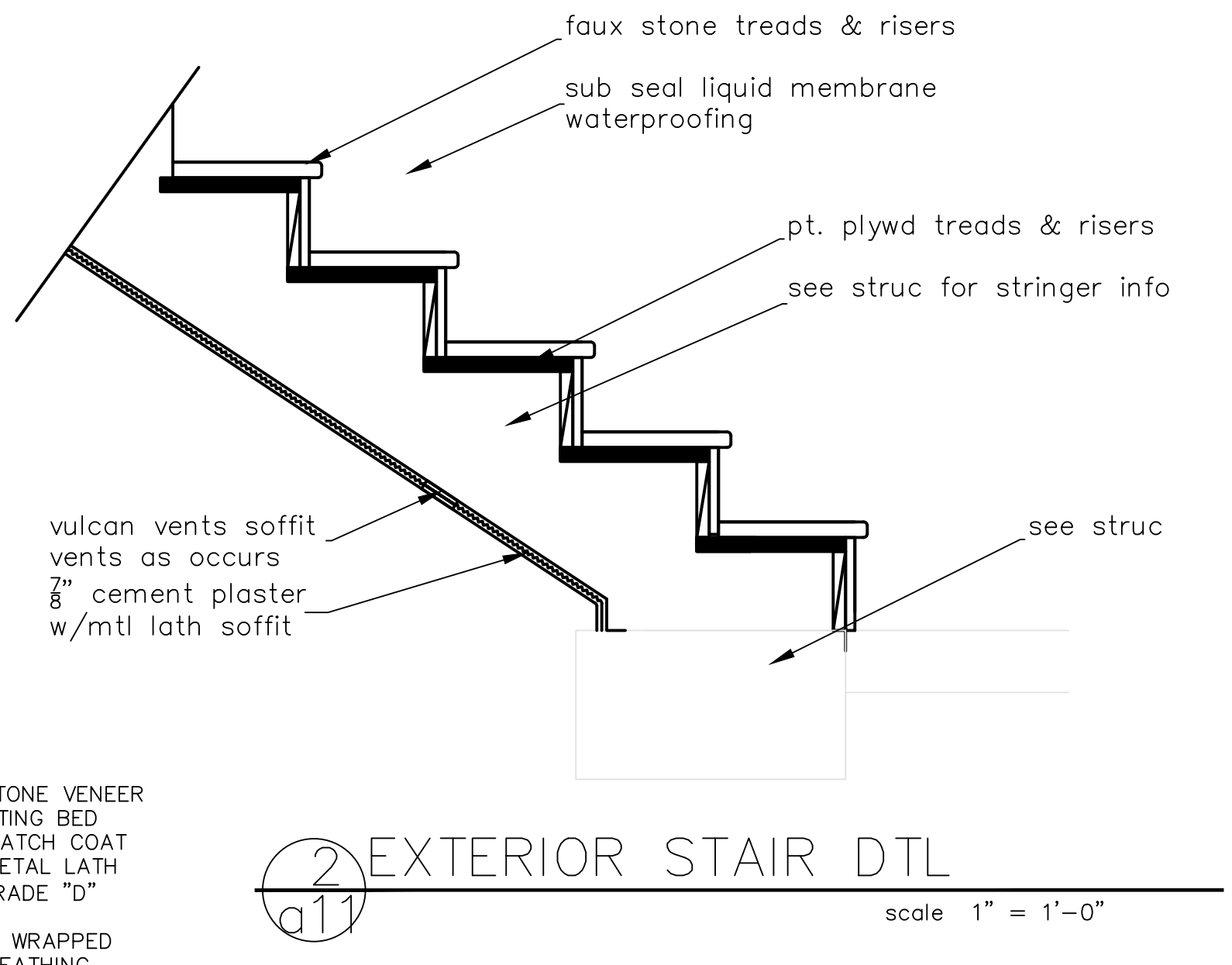
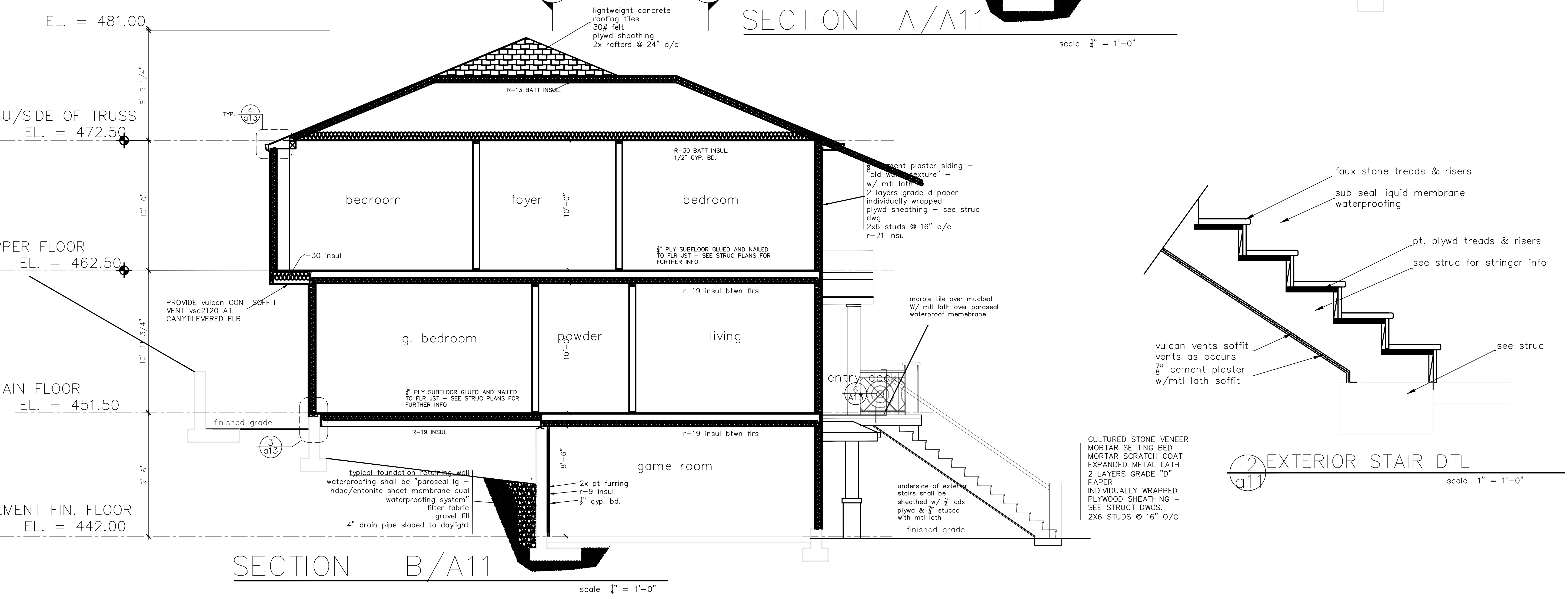
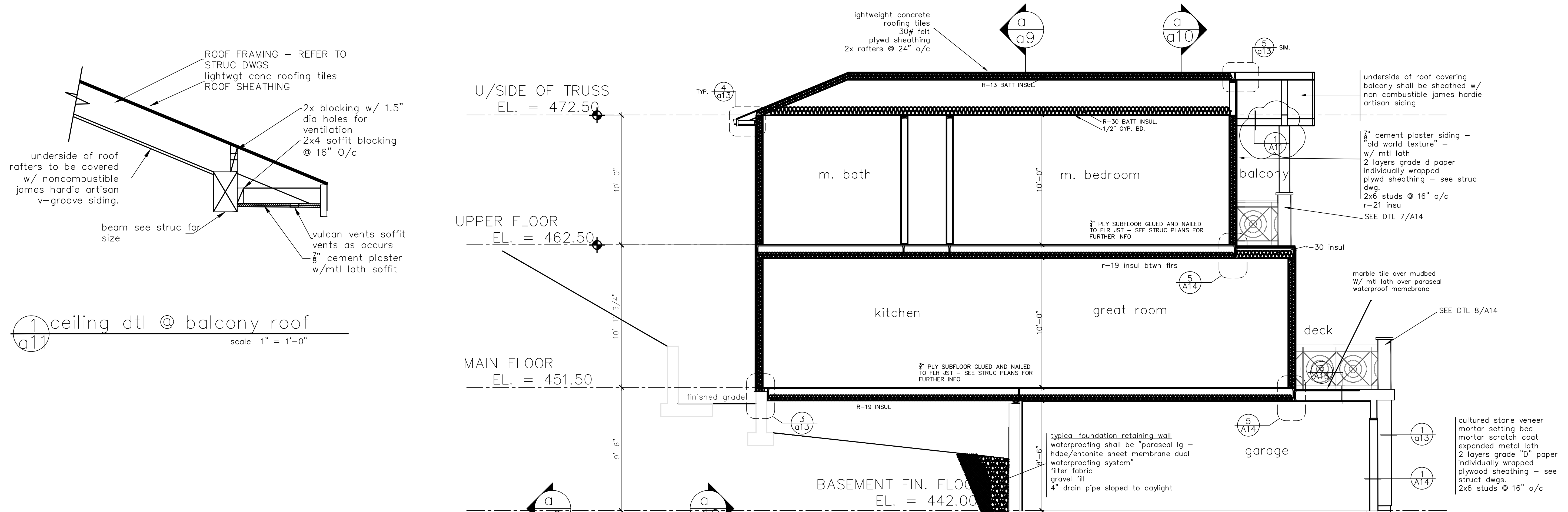
SECTION A/A10

scale 3/4" = 1'-0"

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
 A10



STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: steve@benzarch.com  
WEBSITE: BENZARCH.COM

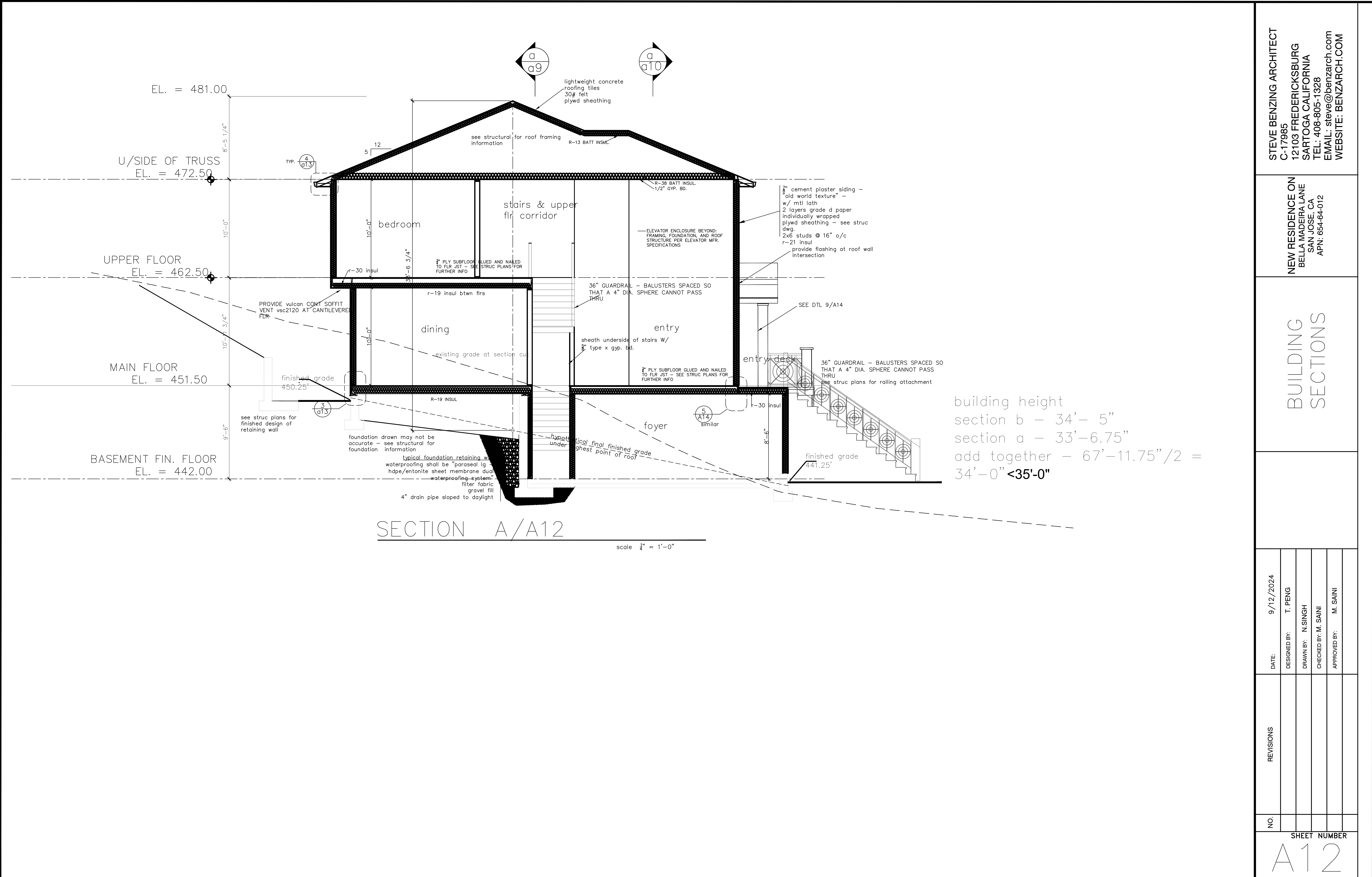
NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

BUILDING SECTIONS

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
A11



STEVE BENZING ARCHITECT  
 C-17985  
 12103 FREDERICKSBURG  
 SARTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: steve@benzarch.com  
 WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

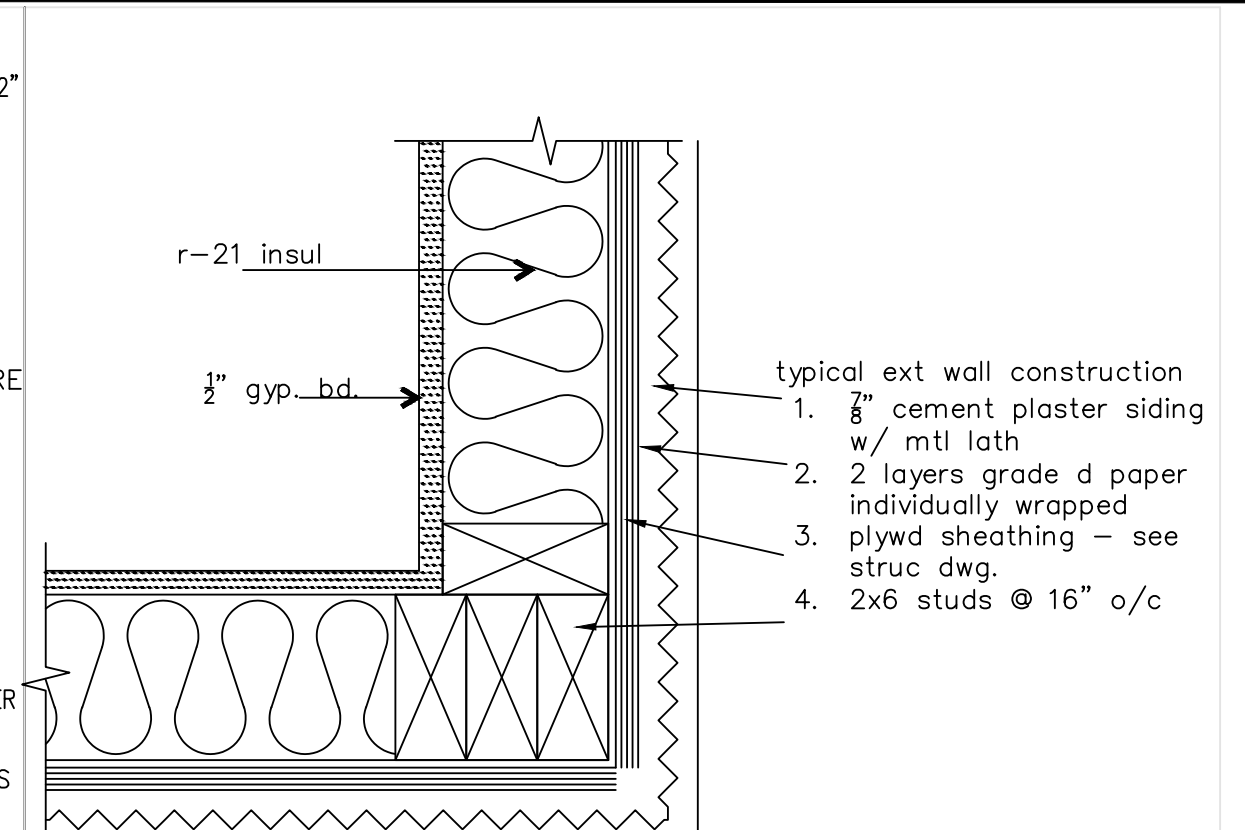
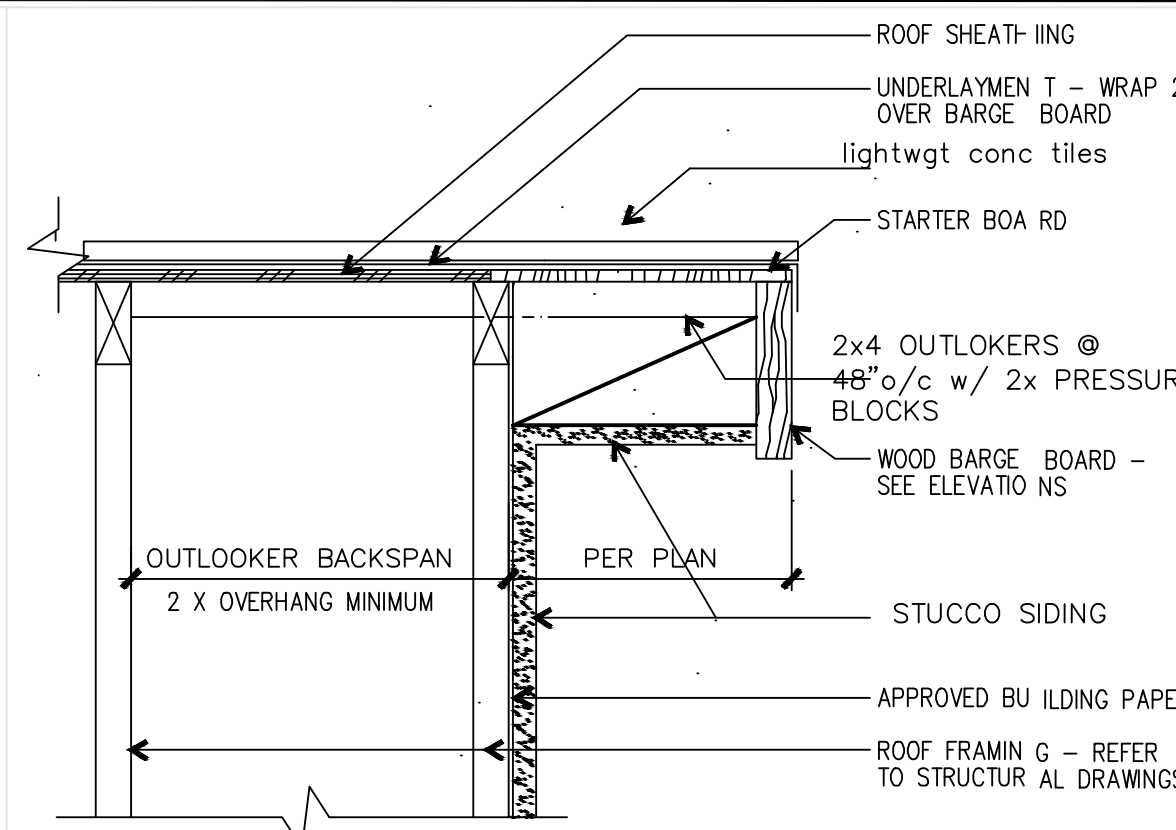
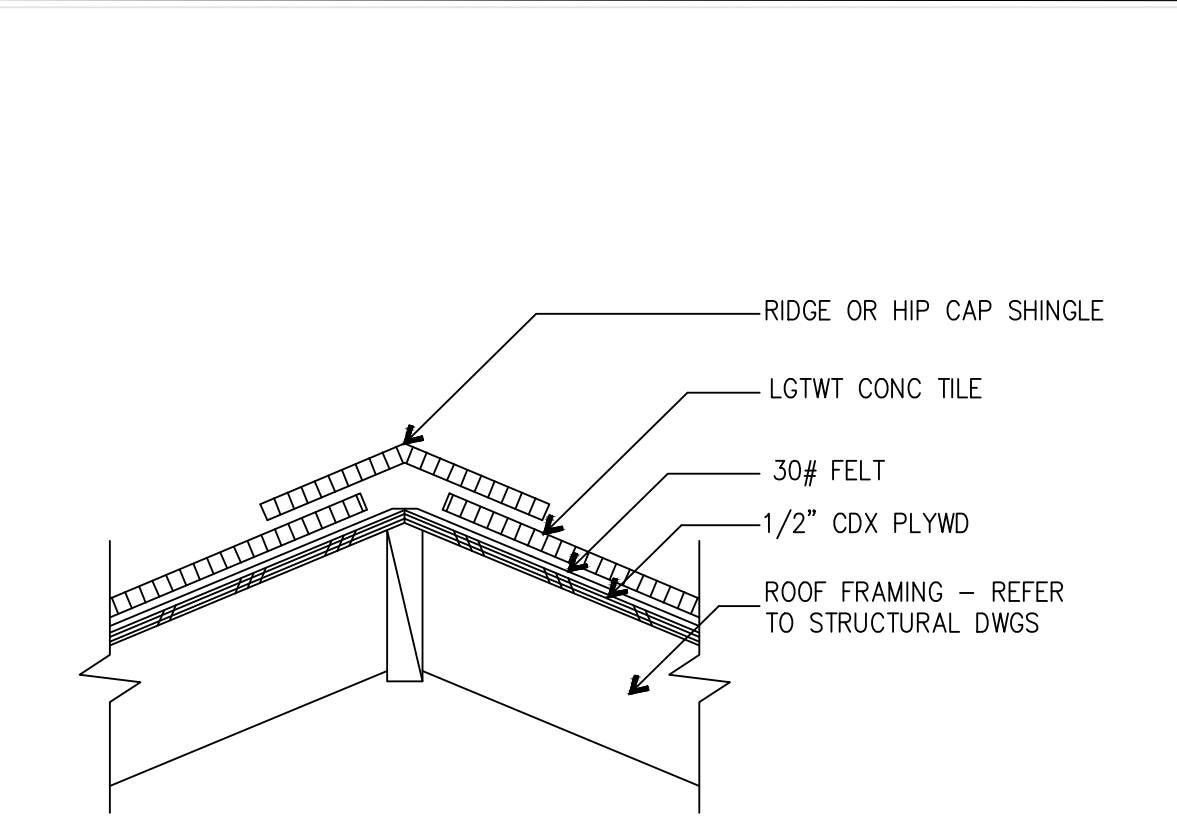
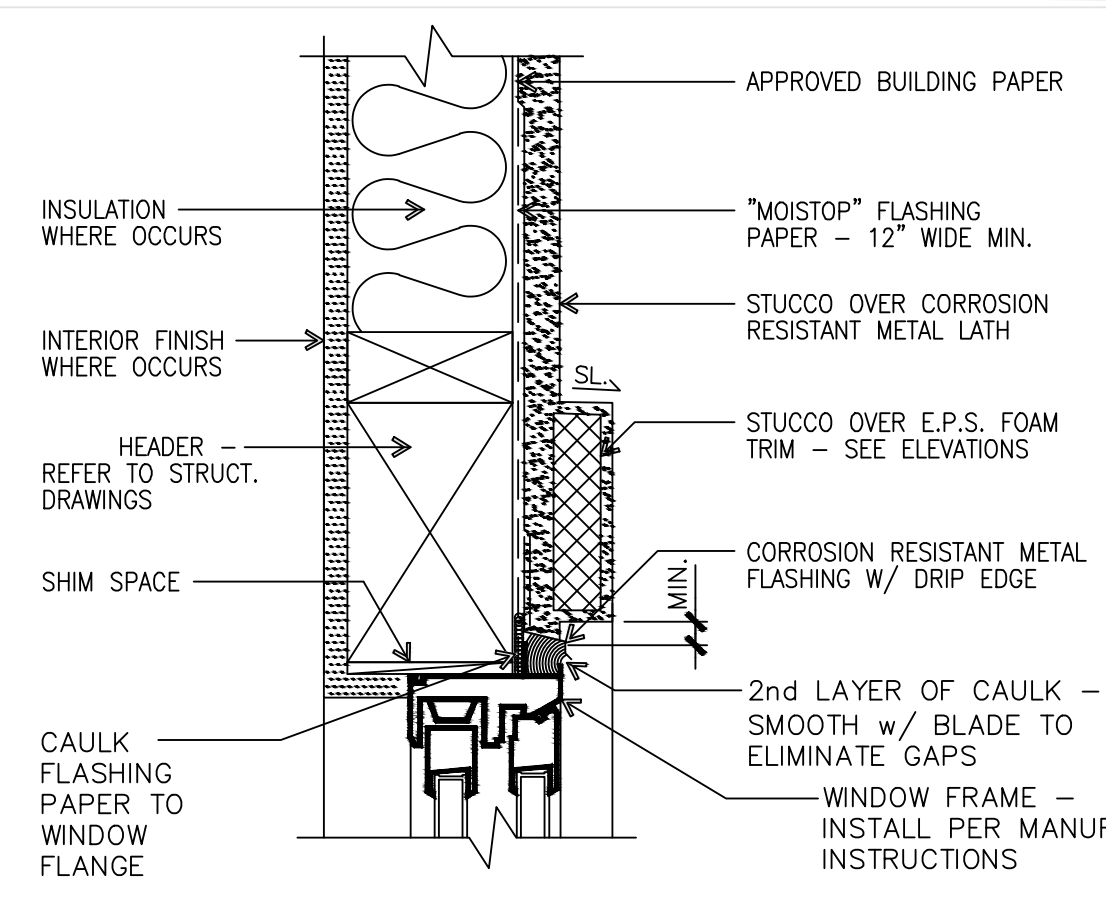
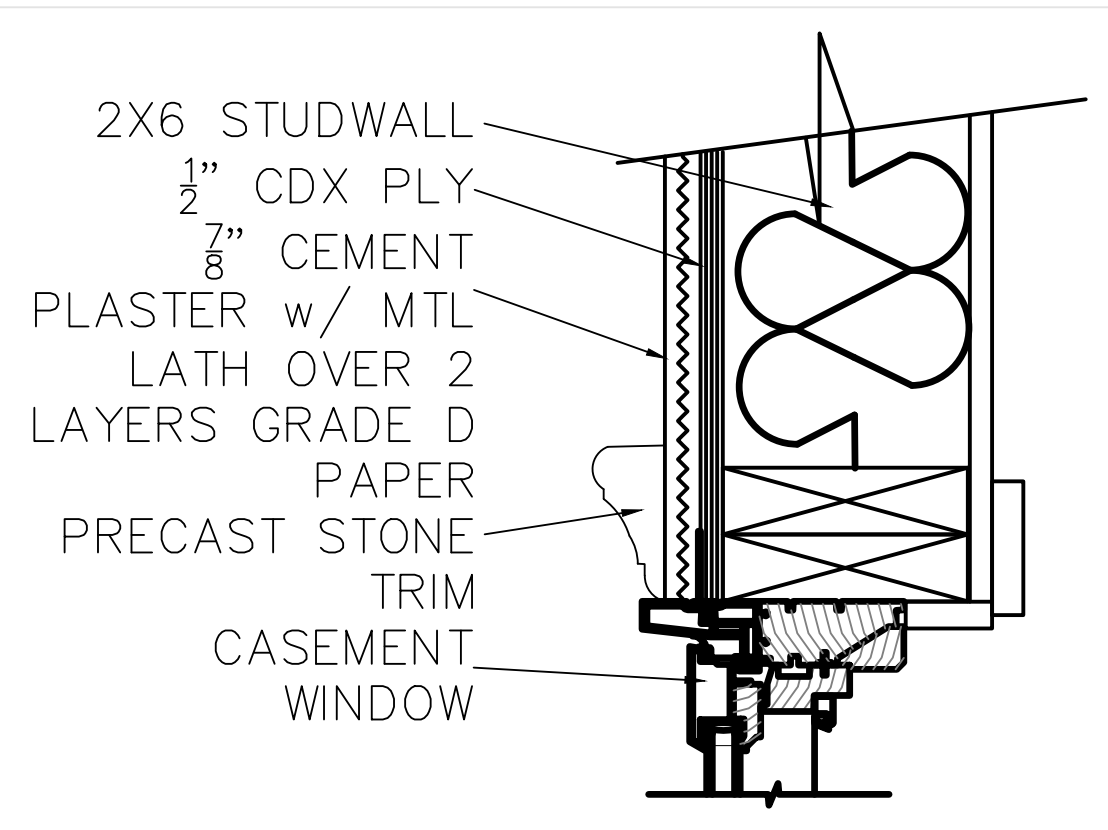
BUILDING  
 SECTIONS

building height  
 section b = 34'-5"  
 section a = 33'-6.75"  
 add together = 67'-11.75"/2 =  
 34'-0" < 35'-0"

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
 A12



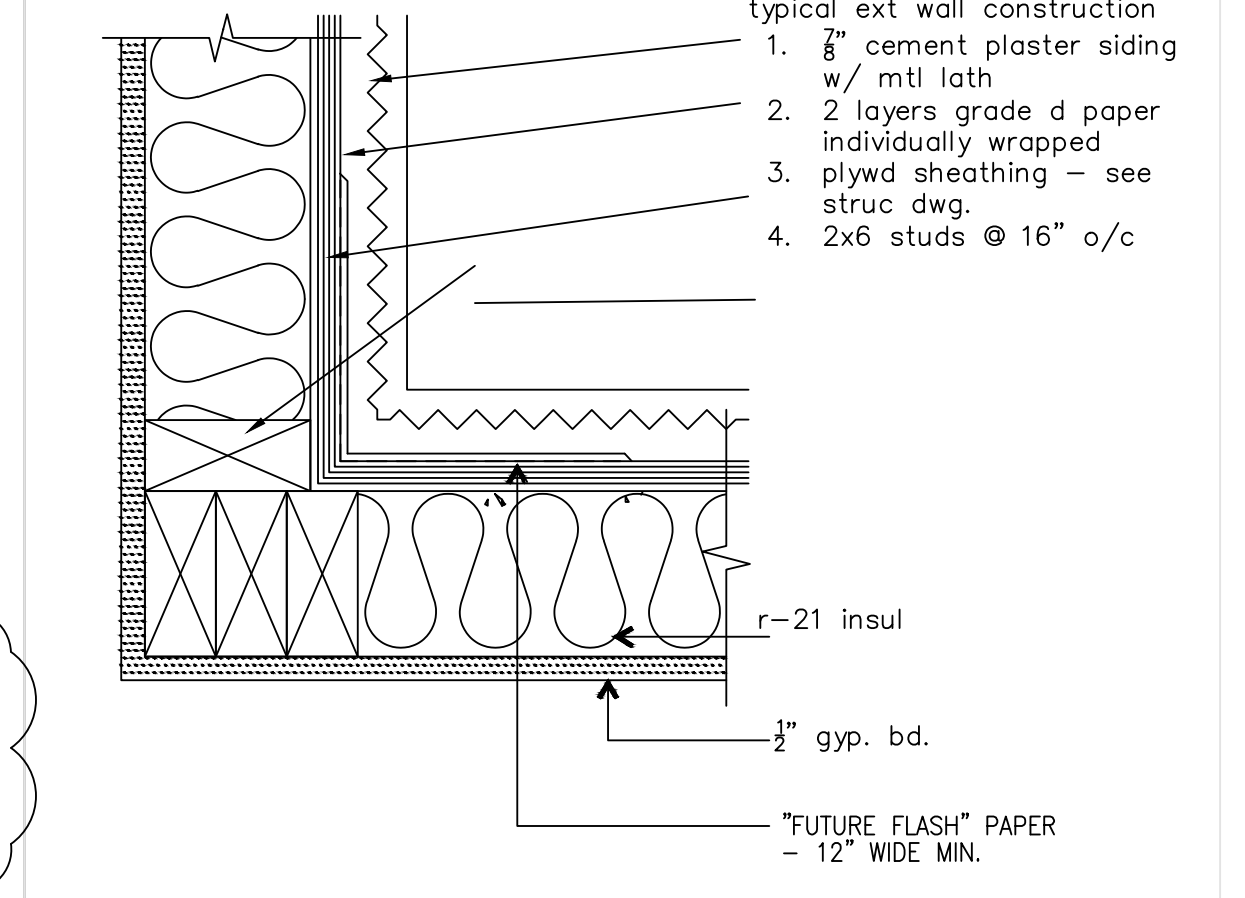
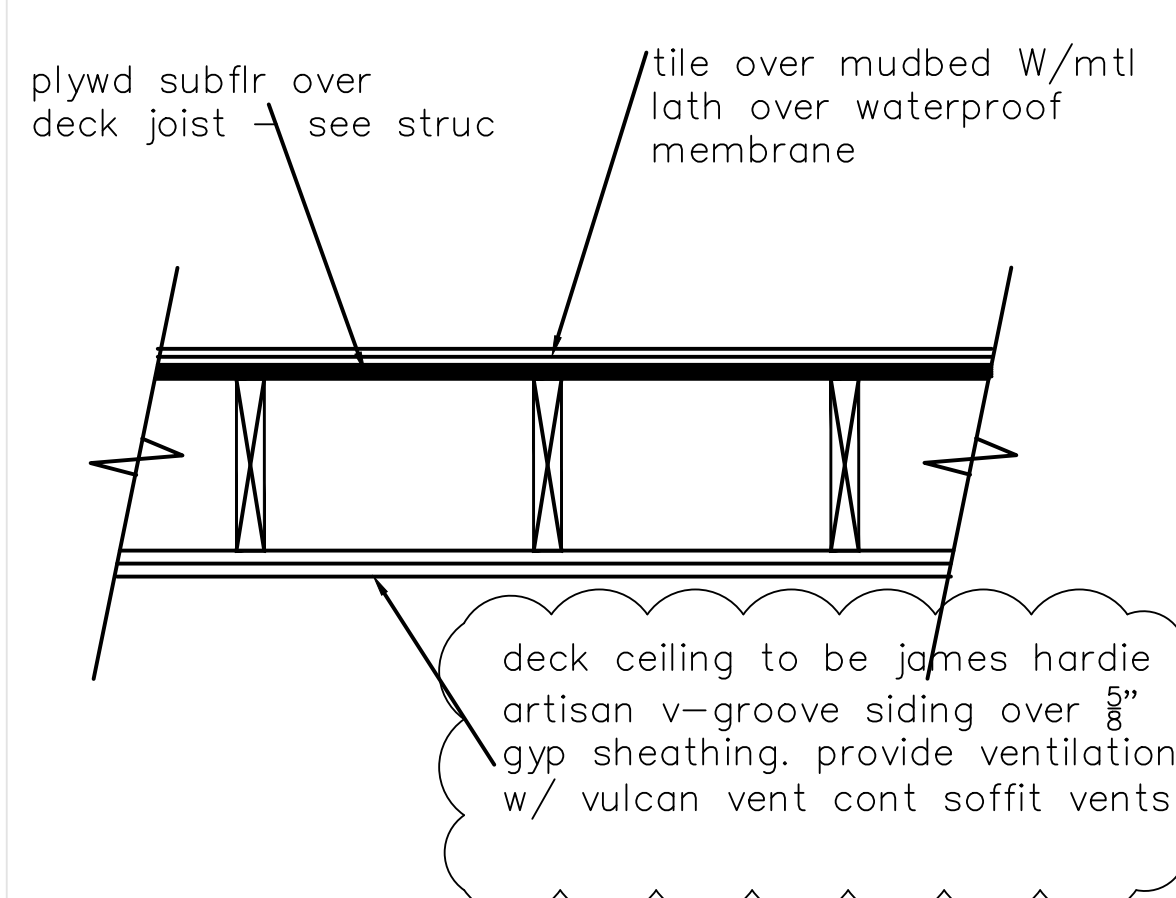
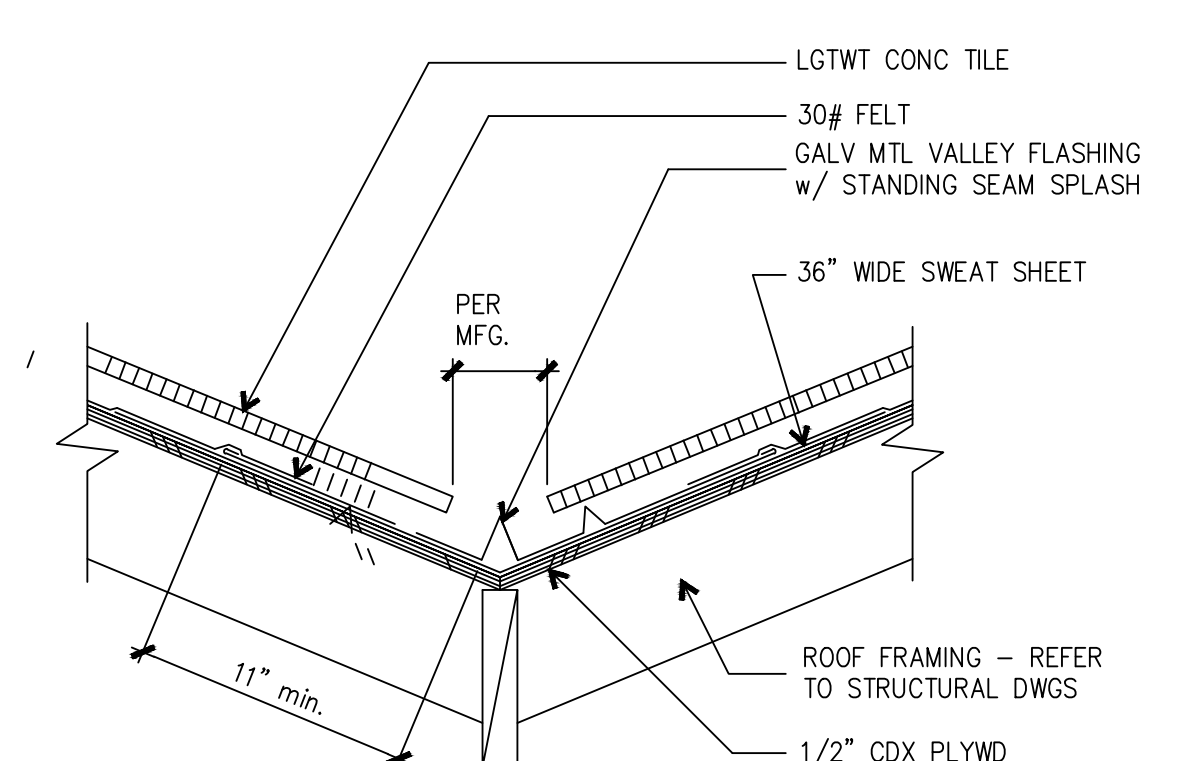
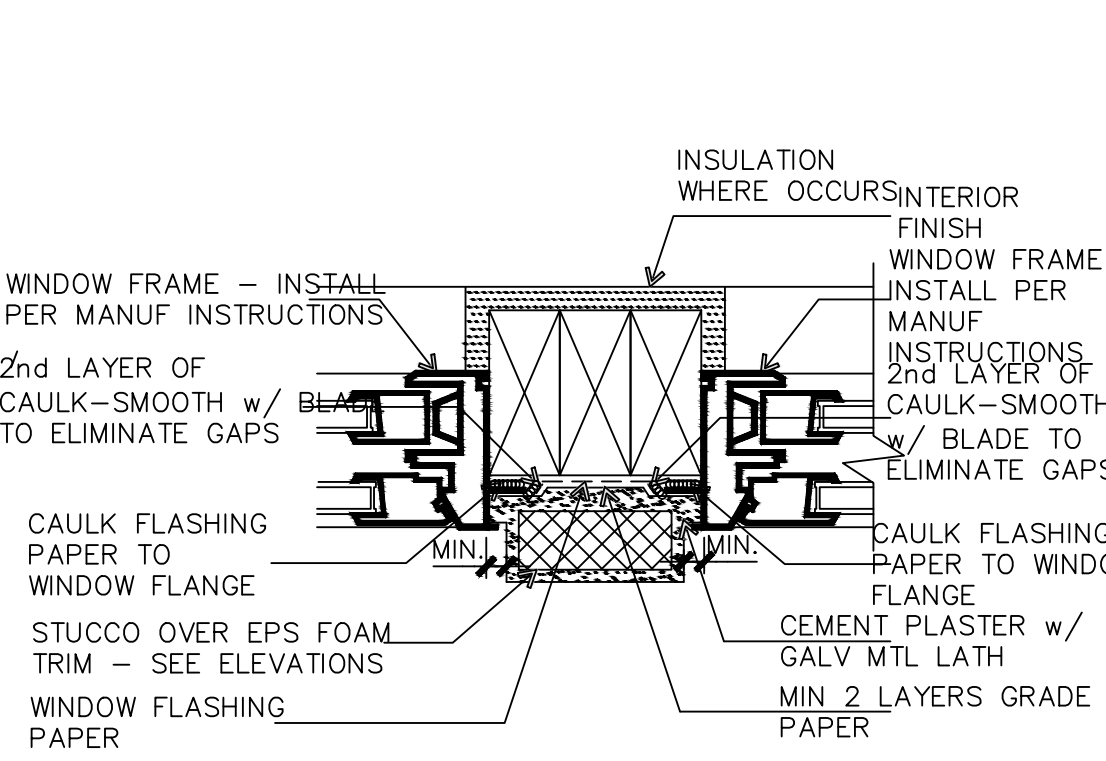
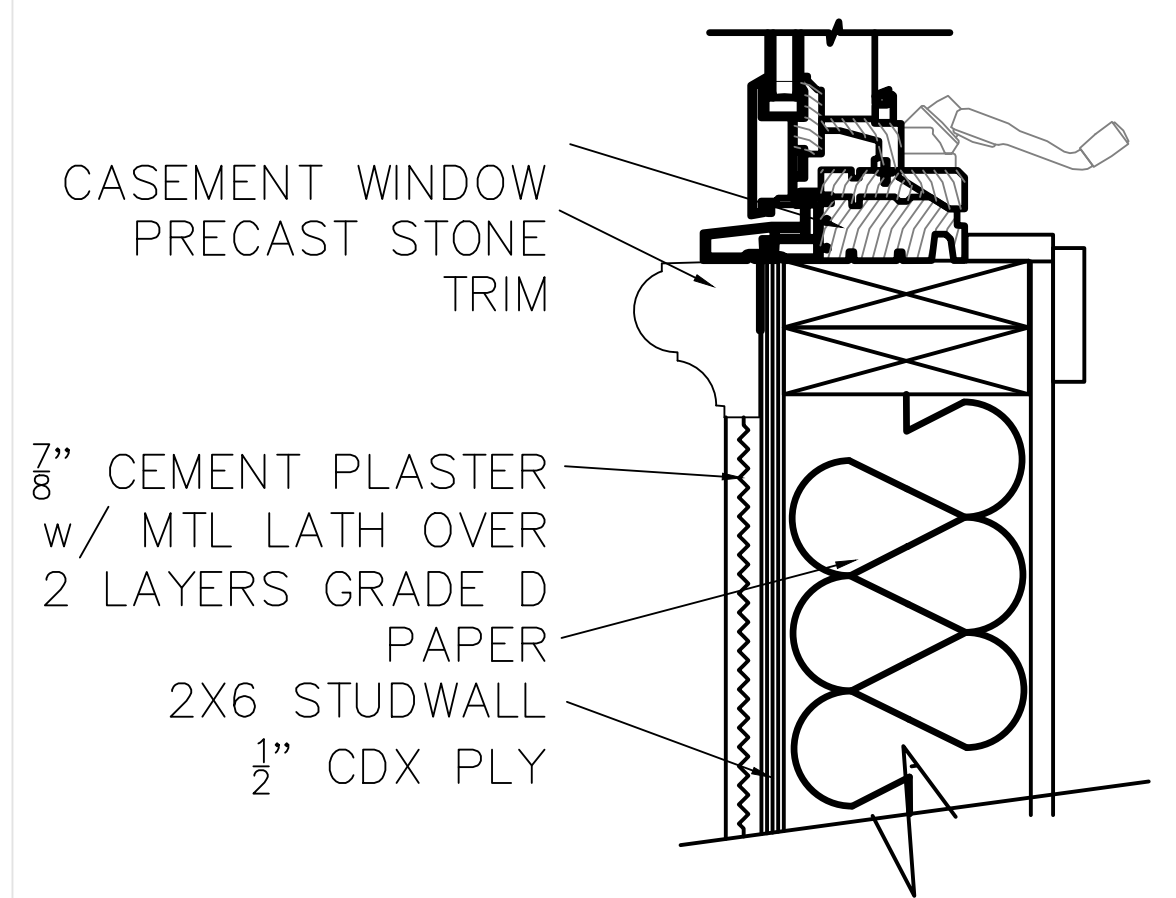
WINDOW HEAD/JAMB DTL 17

WINDOW HEAD/JAMB TRIM 13

RIDGE/HIP 9

TYPICAL RAKE 5

OUTSIDE STUCCO CORNER 1



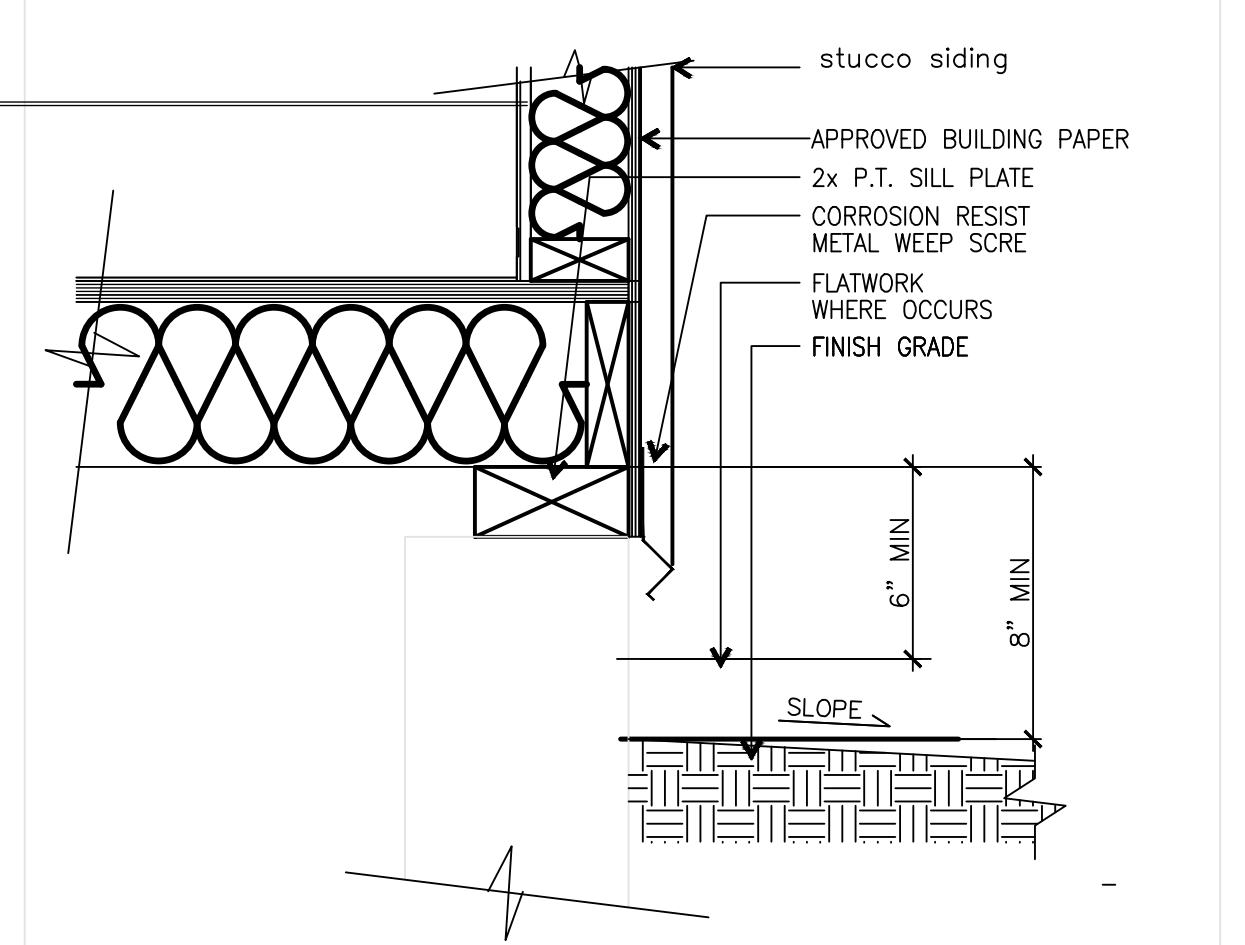
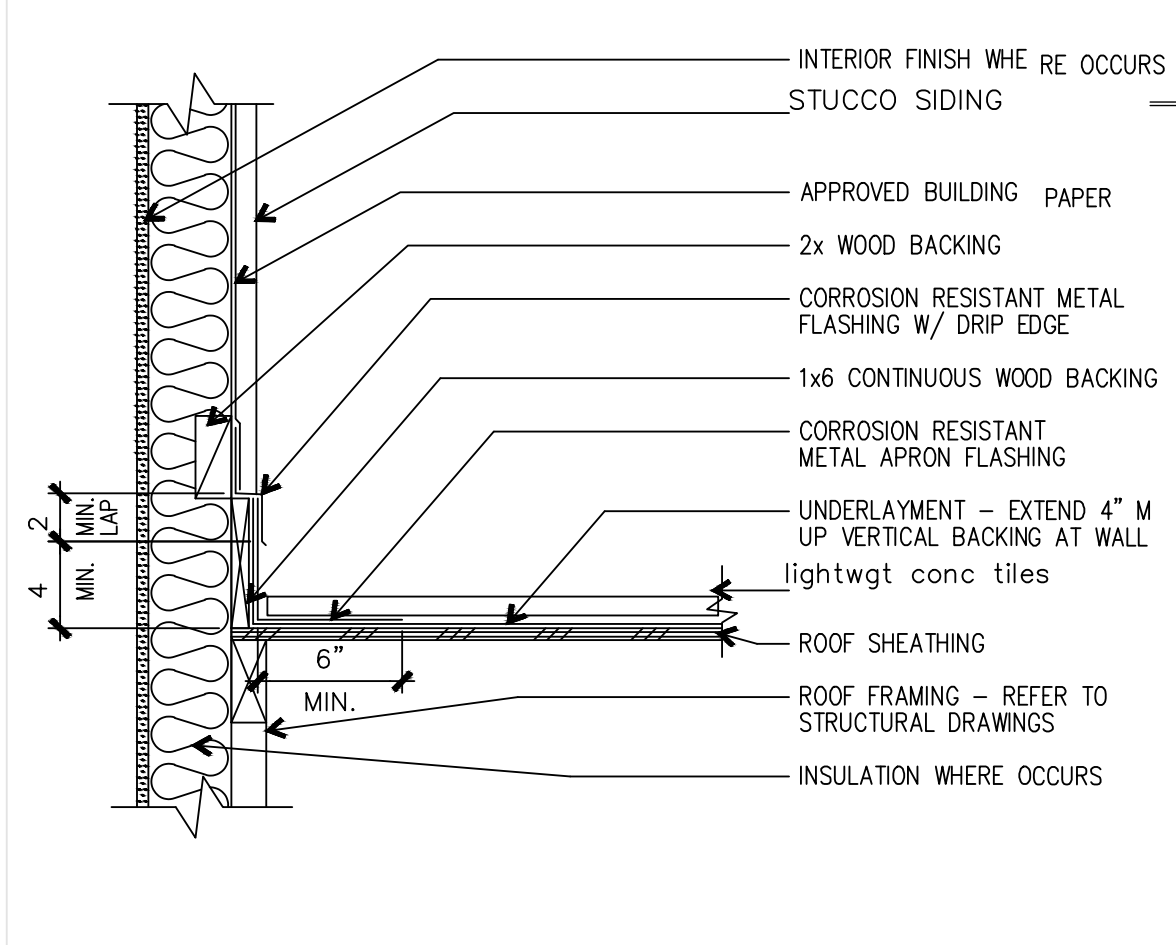
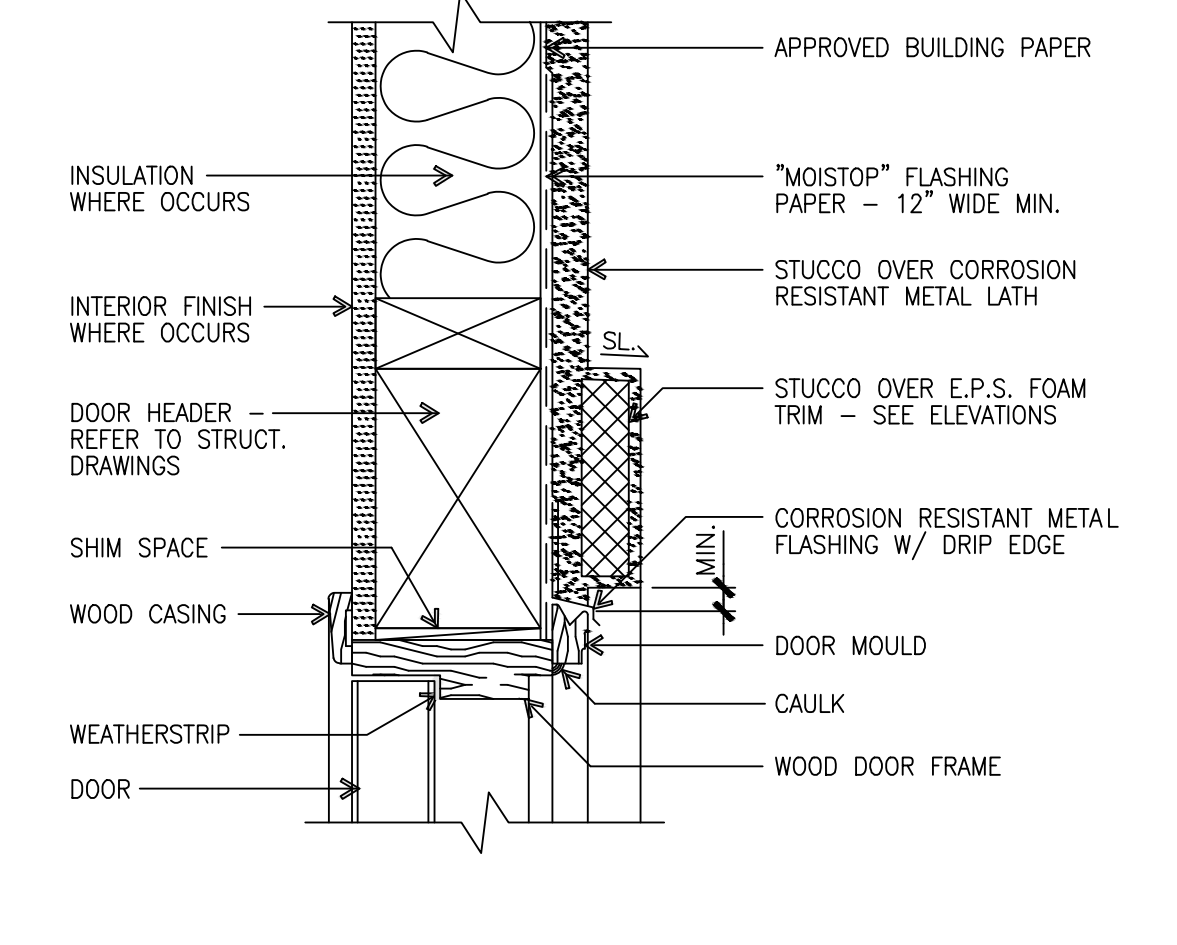
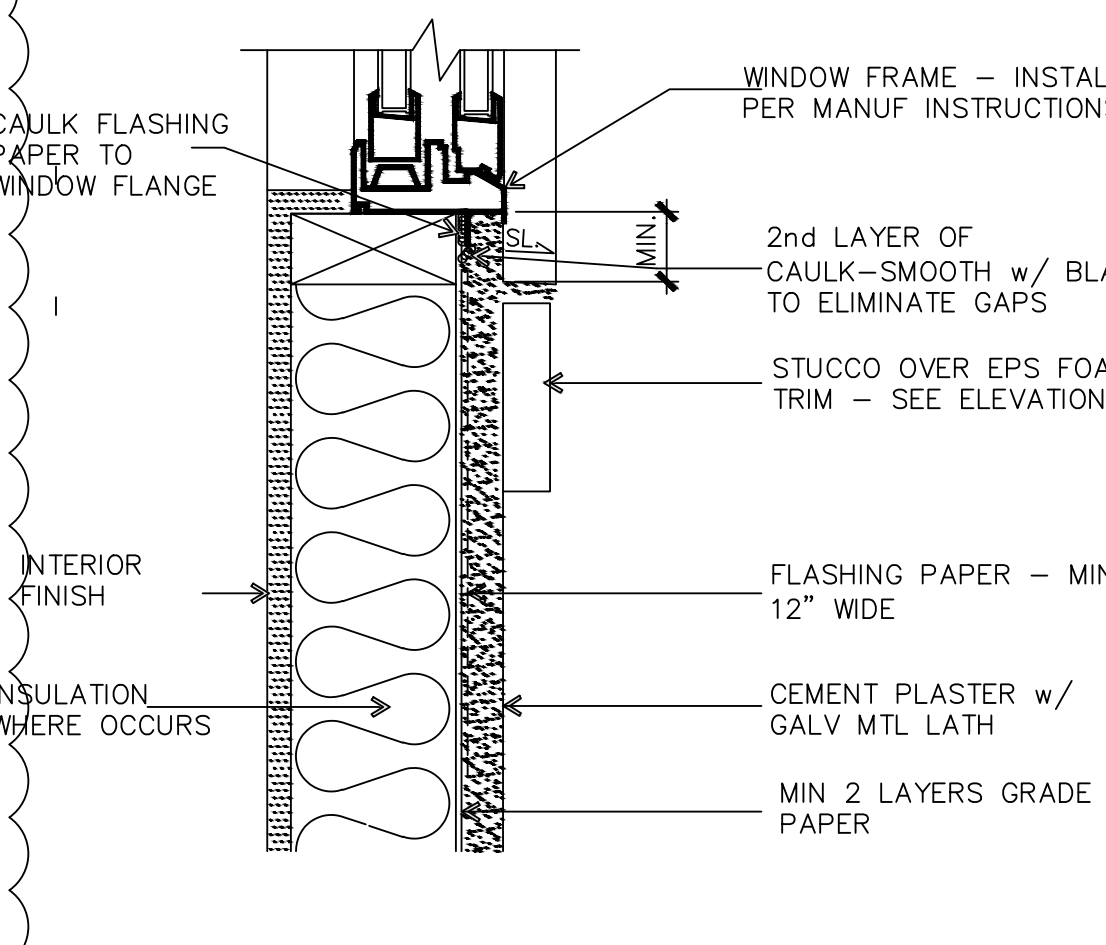
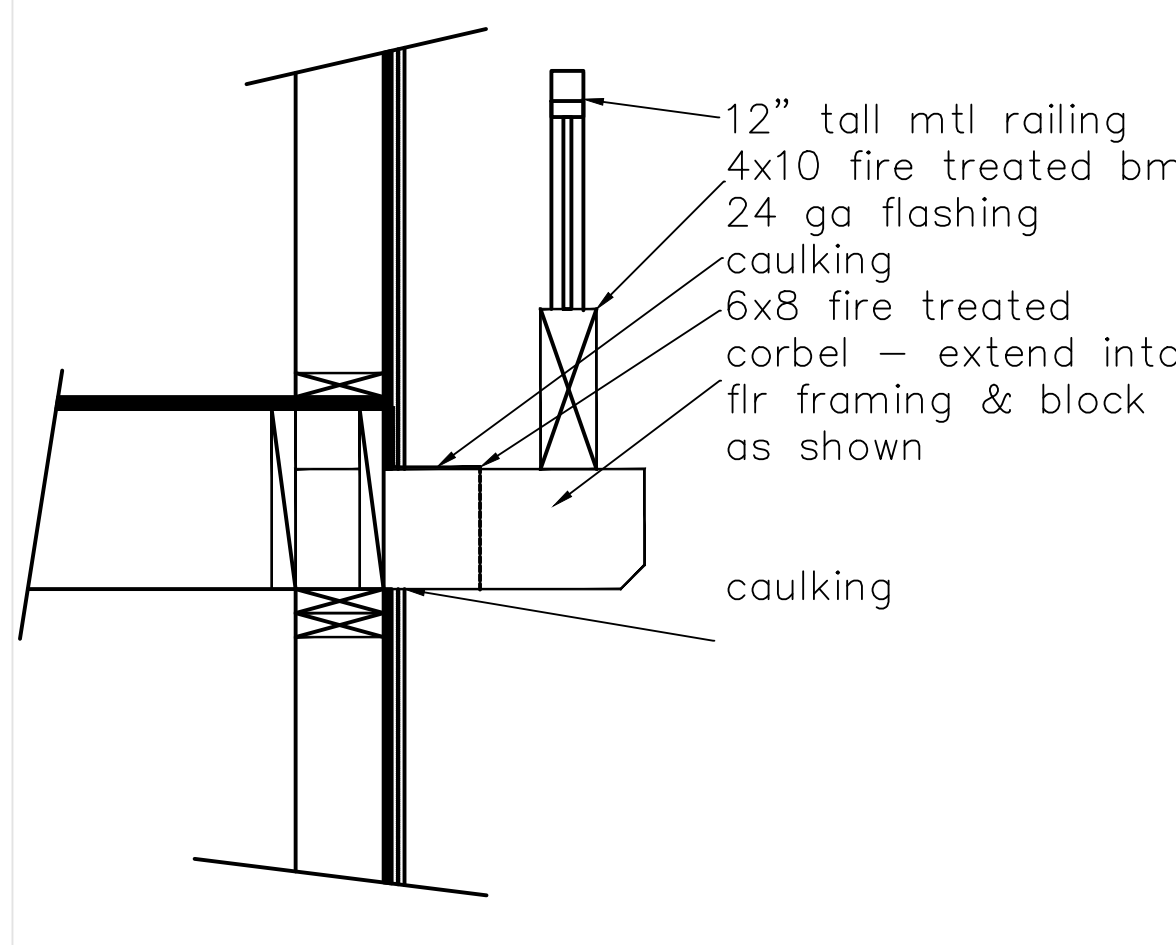
WINDOW SILL DTL 18

WINDOW MULLION 14

VALLEY 10

TYP 2ND FLR DECK CONST. 6

INSIDE STUCCO CORNER 2



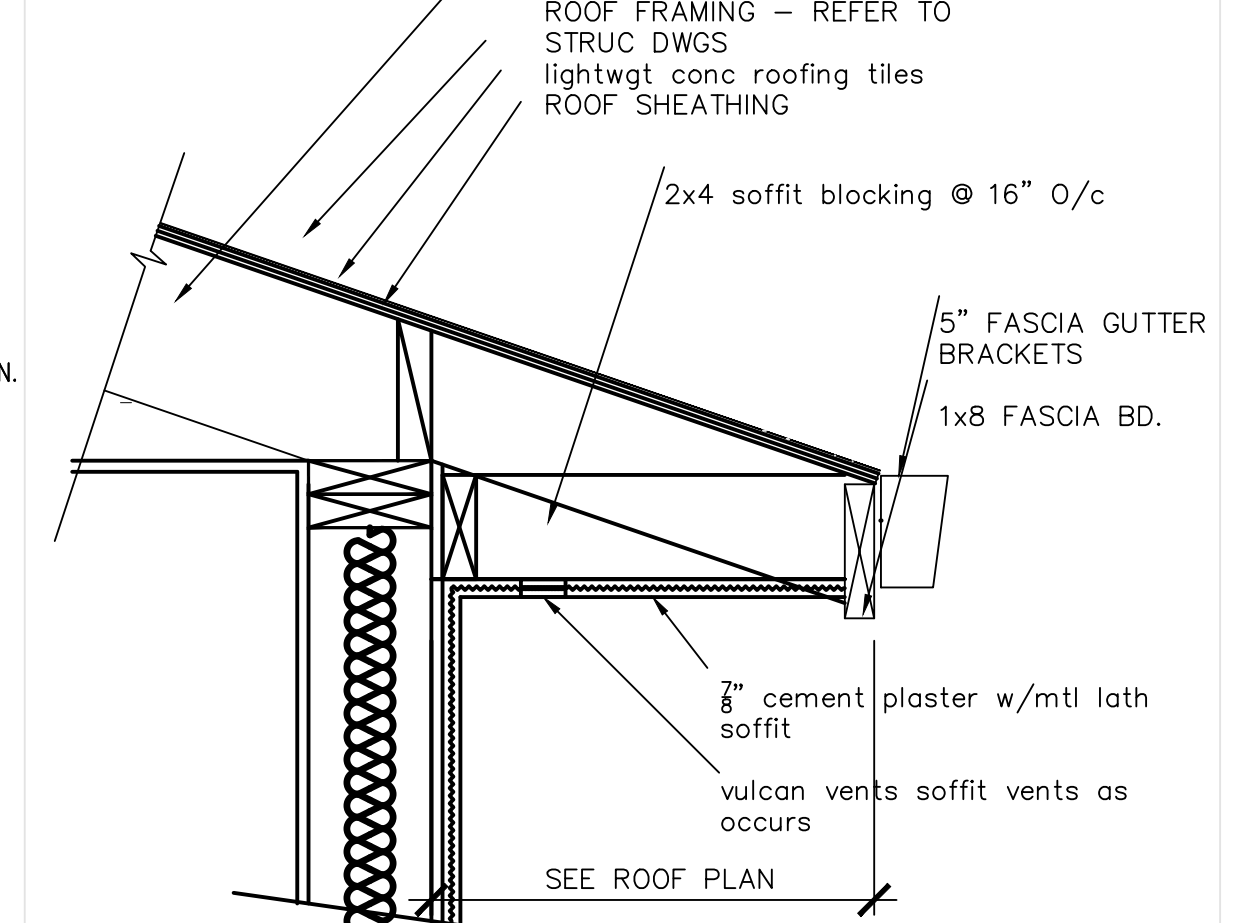
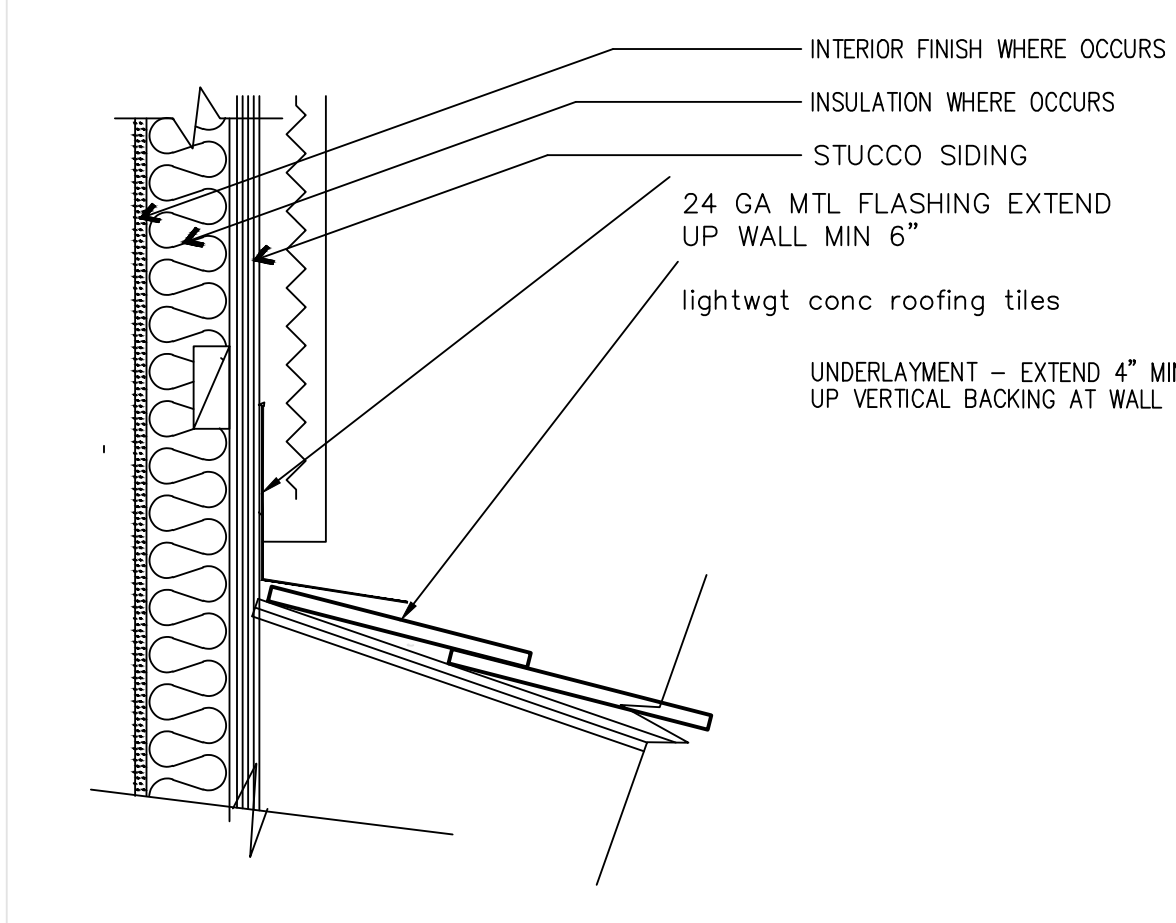
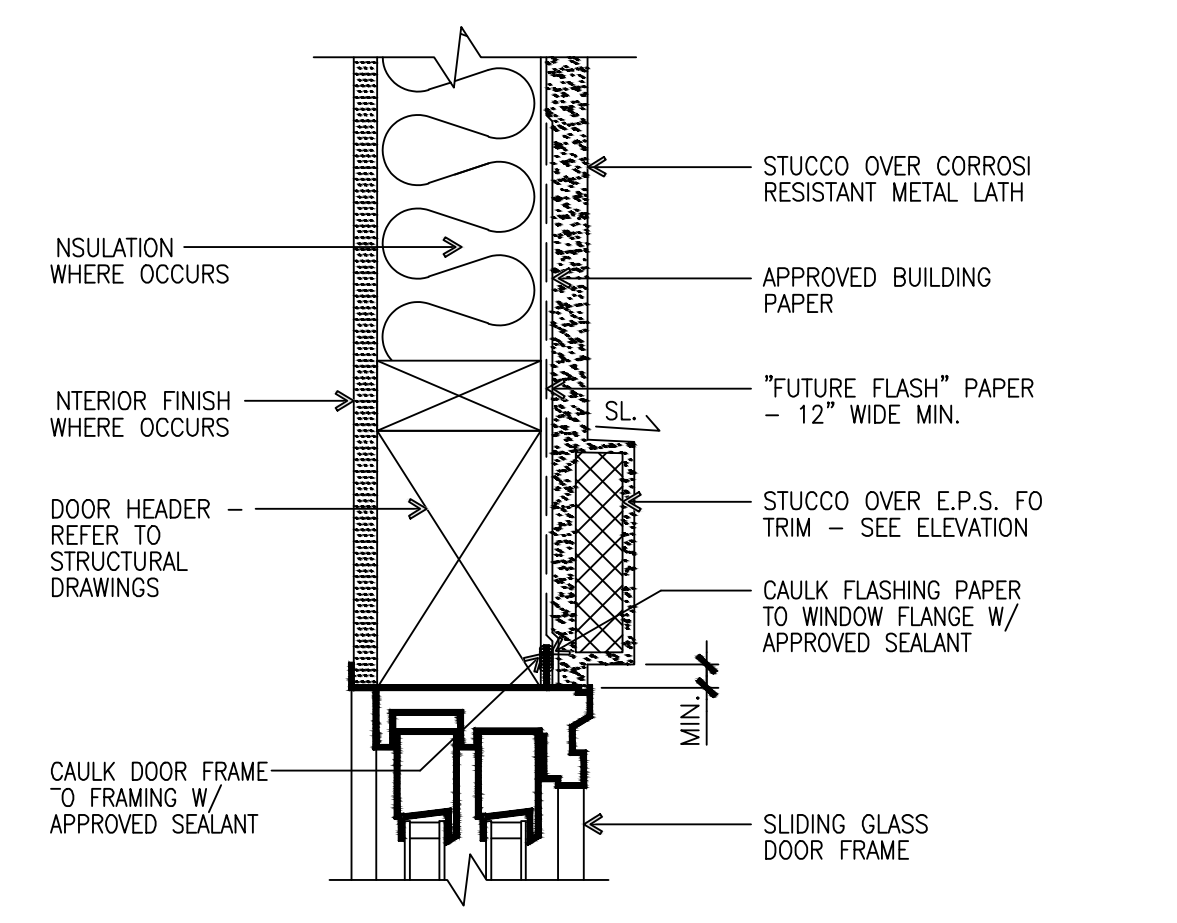
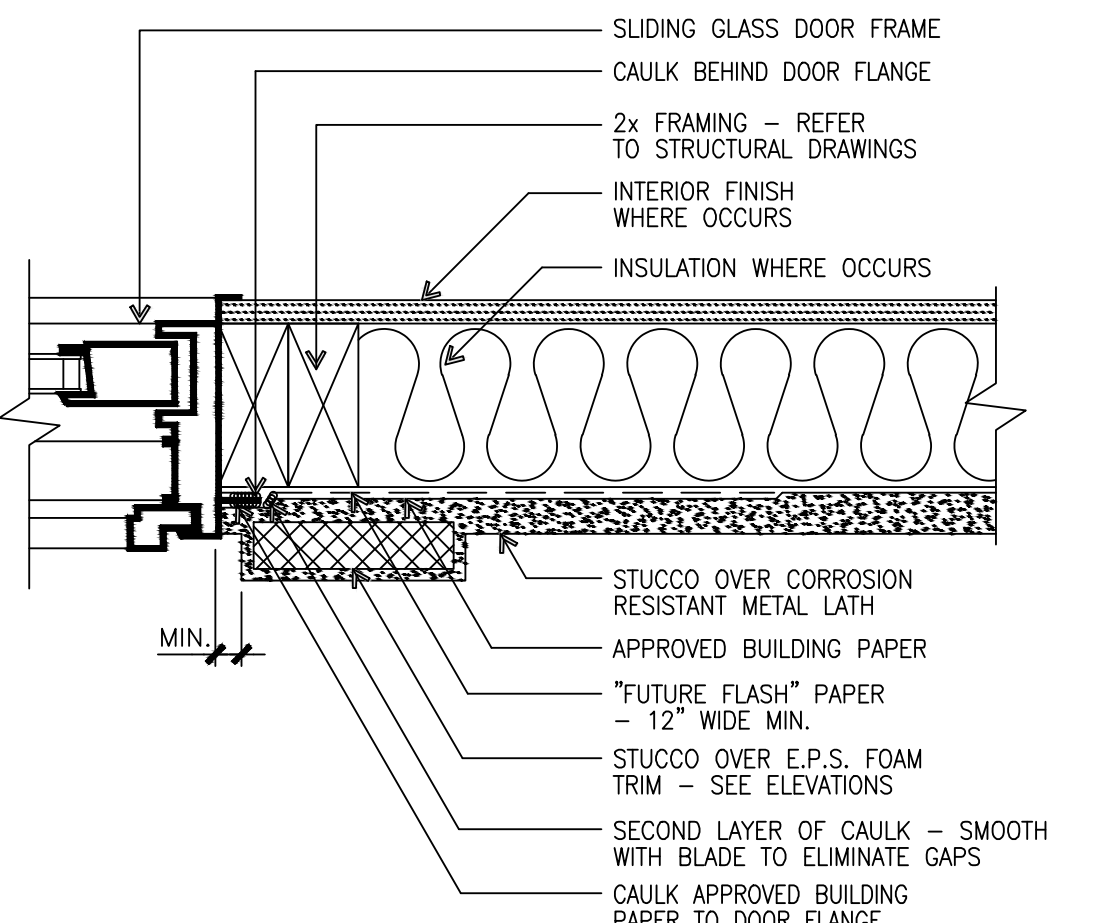
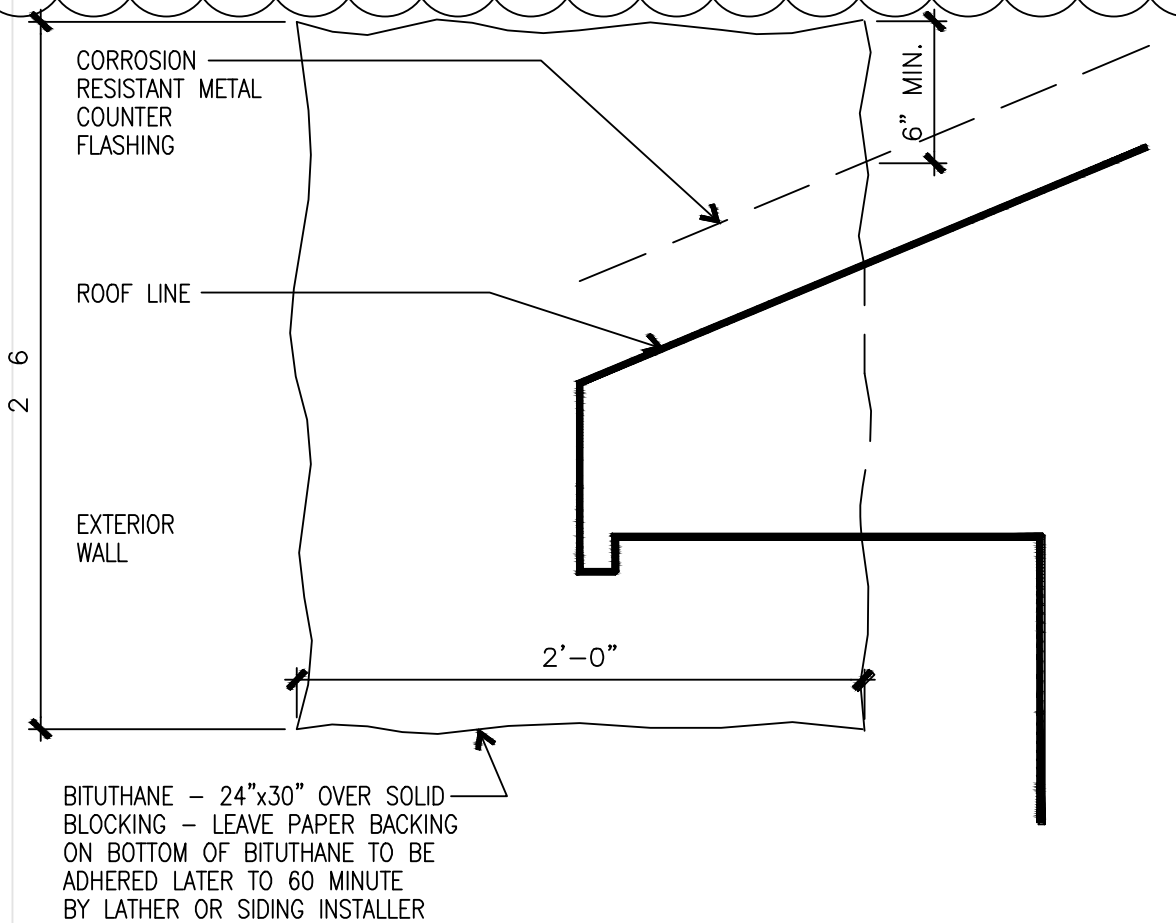
faux balcony 19

WINDOW SILL w/ FOAM TRIM 15

DOOR HEAD/JAMB TRIM 11

ROOF/WALL INTERSECTION 7

STUCCO WEEP SCREED 3



FASCIA TO WALL 20

SLIDING GLASS DOOR JAMB 16

SLIDING GLASS DOOR HEAD 12

ROOF/WALL INTERSECTION 8

TYPICAL EAVE 4

STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: steve@benzarch.com  
WEBSITE: BENZARCH.COM

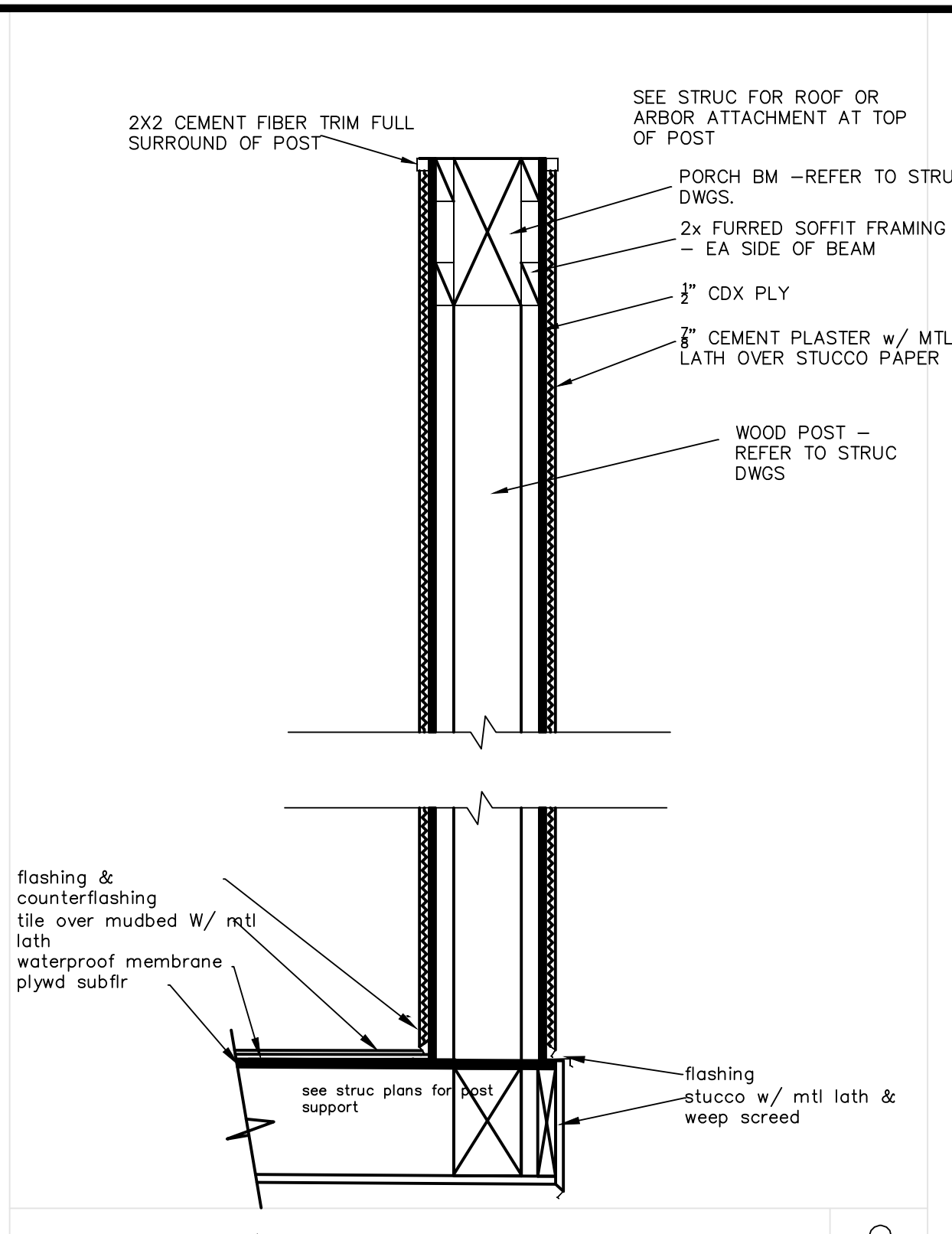
NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

DETAILS

DATE: 9/12/2024  
DESIGNED BY: T. PENG  
DRAWN BY: N. SINGH  
CHECKED BY: M. SAINI  
APPROVED BY: M. SAINI

NO	REVISIONS

SHEET NUMBER  
A13



COLUMN w/o STONE BASE 9

**SubSeal® Liquid Waterproofing Membrane**  
Product Data & Installation Instructions  
National Applied Construction Products, Inc. • 800-433-4332 • Fax: 336-644-8837 • www.NACProducts.com

**Liquid Waterproofing Membrane with Crack Isolation Technology**  
SubSeal® is a high solids, one-part, ready-to-use elastomeric waterproofing membrane for interior and exterior substrates. SubSeal® also functions as a sealer/stain-alone crack suppressant and moisture barrier for hard surfaces, resilient and wood flooring.

**Features and Benefits**

- Suitable for interior and exterior use
- Use as a stand alone waterproofing membrane
- Crack suppression up to 1/8"
- Thin, low profile with superior flexibility when cured
- Protects against reflective cracking and delamination
- Assures waterproof integrity of corners and seams
- Eases application in hard to reach areas
- Quick drying allows same day tile installation
- Flood test in less than 24 hours
- Effective barrier against mold
- Easily applied with brush, roller, brush or sprayer

**How it Works**

SubSeal® cures to form a thin, flexible layer that is an impervious water barrier providing superior waterproofing protection. It bonds directly to stainless steel, metal, PVC, and ABS fixtures. It can also be used for seam and corner applications such as shower pans and exterior decks and balconies.

SubSeal® can be used on floor-to-wall and wall-to-wall joints, at drains and protrusions and at all perimeters. The membrane bonds to the substrate while creating a new surface to accommodate A118.4 or better latex mortars, organic adhesives and solvent free epoxy setting materials. Recommended under thin-bed and medium-bed installations of ceramic, porcelain, stone, marble, granite and other floors requiring integrated waterproofing.

SubSeal® can reduce the failure by protecting the tile and other hard surface floors from substrate movement up to 1/8" while waterproofing underlying or adjacent building structures.

**Suitable Substrates**

SubSeal® is an excellent product for areas such as, food courts, restaurants, balconies, decks, commercial kitchens, showers, lavatories, spa areas, parking decks, laundry rooms, and other areas needing on grade or above grade waterproof protection.

Concrete: finished, pre-stressed and pre-cast. Cement backerboard, mud beds, gypsum board, lightweight concrete and patching/levelling compounds.

Wood: exterior or exposure 1 plywood

Other substrates: Exterior decks and balconies, existing ceramic and porcelain tile and resilient flooring.

©2014 NAC Products, Inc. • All Rights Reserved • SubSeal® Product Data Sheet • Rev. Nov 2014 - Page 1 of 2

**SubSeal® Liquid Waterproofing Membrane**

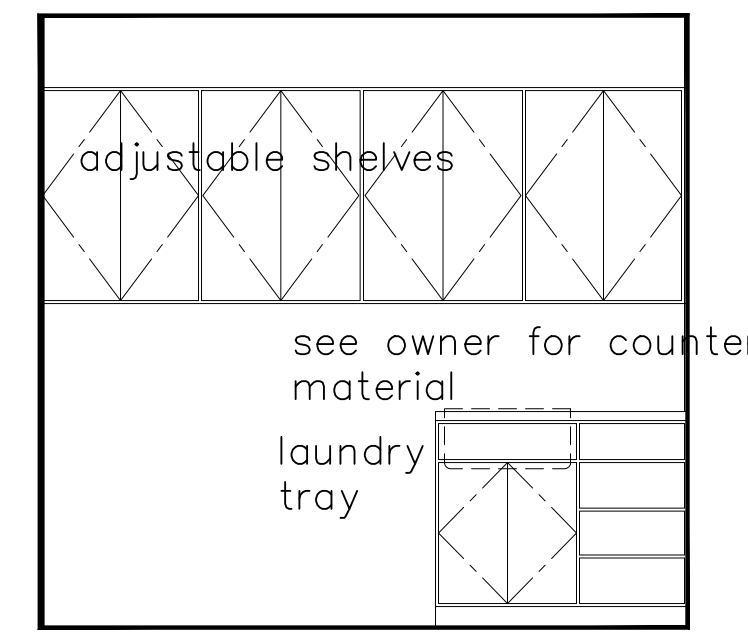
**Substrate Preparation**

1. Wear rubber gloves and eye protection while using this product.
2. Surface temperature must be above 40°F (4°C) for 24 hours prior to application of SubSeal® for 48 hours after application.
3. Exterior and wet areas must have proper sloping to drains.
4. Surfaces must be level, structurally sound and meeting 1/320 for ceramic and porcelain tile or 1/20 for stone tile on live or dead loads. Maximum variation of 1/4" in 10' from the required plane.
5. Grout bumps and level slab depressions with a quality latex underlayment in accordance with manufacturers' instructions. Surfaces must be free of holes, projections, moisture, dirt, wires, curing compounds or other bond breakers. On smooth surfaces, scuff floor.
6. Pre-fill cracks and joints by forcing SubSeal® into the openings. Gaps between plywood sheets must also be pre-filled.
7. Do not use under self leveling underlayment.
8. Keep SubSeal® and companion products protected from the elements until the tie is fully installed, grouted and cured.

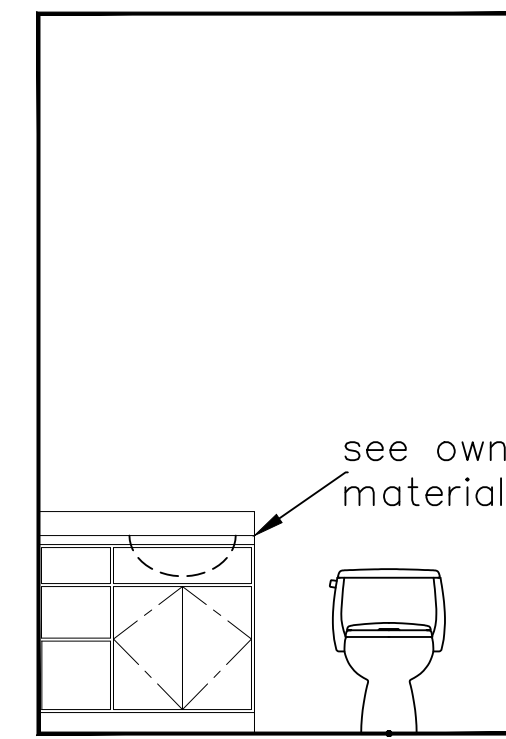
**Installation Instructions**

1. Apply SubSeal® evenly with:
  - Trowel: v-notch trowel (3/16" x 1/4"), using flat side. Butter edges to 3/16" offset.
  - Roller: rough textured (3/4") synthetic roller.
  - Paint brush: standard bristle paintbrush.
  - Adress Scarifier: with a PSI between 1900-2300, 10 to 15 spacing between 225 to 229 sq ft per hour rate 1.0 - 1.5 gpm.
2. Apply SubSeal® in a continuous coat and penetrates corners and end seams. Pre-formed inside and outside fabric corners may be used to add additional support to the corners.
3. Average dry time of SubSeal® is about two hours but may vary due to temperature, humidity, air not moisture level, porosity of substrate and application thickness.
4. After the first coat has dried, apply a second coat of SubSeal® at a right angle to the first coat. This is recommended for water containment and if voids or pinholes are found. Periodically check the film thickness with wet film gauge. When wet, the combined coating must be at least 60-70 mils thick. The combined dry coating thickness should be a minimum of 47 mil and should not exceed 115 mils wet film thickness.
5. Install tile or stone flooring with a polymer modified mortar that meets ANSI A118.4 standard.
6. Clean tools and hands with water prior to material drying.

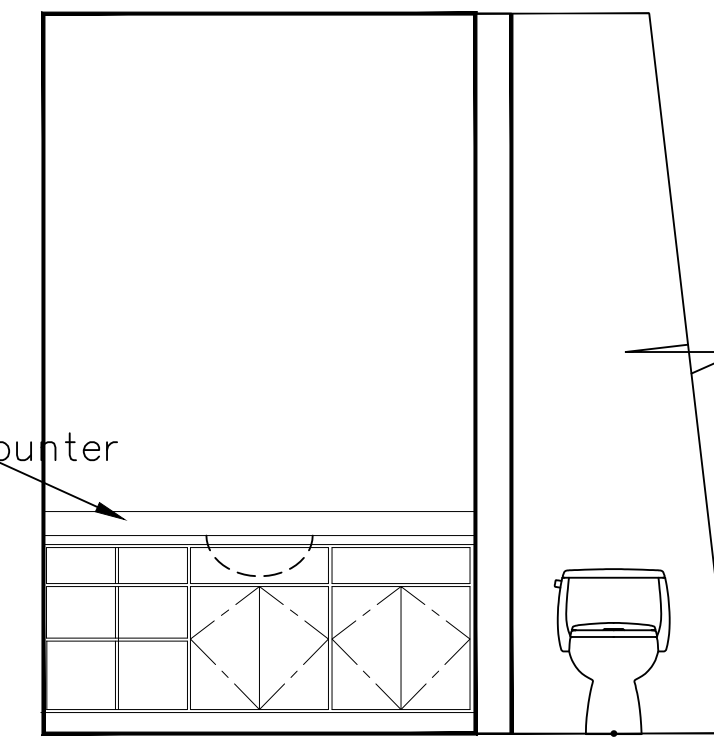
Technical Data		
SubSeal® Liquid Waterproofing Membrane		
Spec. & Method	Test Method	Test Results
Modulus	ANSI 118.10	1000 psi
Tensile Strength	ANSI 118.10	1000 psi
Elongation	ANSI 118.10	250%
Adhesion	ANSI 118.10	1000 psi
Water Vapor Transmission	ANSI 118.10	0.001 g/m <sup>2</sup> /24hrs
7-day water immersion	ANSI 118.10	Pass
30-day water immersion	ANSI 118.10	Pass
100-day water immersion	ANSI 118.10	Pass
1000-day water immersion	ANSI 118.10	Pass
Shrinkage	ANSI 136.10	0.01%
Shrinkage (28 Days)	ANSI 136.10	0.01%
Shrinkage (90 Days)	ANSI 136.10	0.01%
Shrinkage (180 Days)	ANSI 136.10	0.01%
Shrinkage (360 Days)	ANSI 136.10	0.01%
Shrinkage (720 Days)	ANSI 136.10	0.01%
Shrinkage (1440 Days)	ANSI 136.10	0.01%
Shrinkage (2880 Days)	ANSI 136.10	0.01%
Shrinkage (5760 Days)	ANSI 136.10	0.01%
Shrinkage (11520 Days)	ANSI 136.10	0.01%
Shrinkage (23040 Days)	ANSI 136.10	0.01%
Shrinkage (46080 Days)	ANSI 136.10	0.01%
Shrinkage (92160 Days)	ANSI 136.10	0.01%
Shrinkage (184320 Days)	ANSI 136.10	0.01%
Shrinkage (368640 Days)	ANSI 136.10	0.01%
Shrinkage (737280 Days)	ANSI 136.10	0.01%
Shrinkage (1474560 Days)	ANSI 136.10	0.01%
Shrinkage (2949120 Days)	ANSI 136.10	0.01%
Shrinkage (5898240 Days)	ANSI 136.10	0.01%
Shrinkage (11796480 Days)	ANSI 136.10	0.01%
Shrinkage (23592960 Days)	ANSI 136.10	0.01%
Shrinkage (47185920 Days)	ANSI 136.10	0.01%
Shrinkage (94371840 Days)	ANSI 136.10	0.01%
Shrinkage (188743680 Days)	ANSI 136.10	0.01%
Shrinkage (377487360 Days)	ANSI 136.10	0.01%
Shrinkage (754974720 Days)	ANSI 136.10	0.01%
Shrinkage (1509949440 Days)	ANSI 136.10	0.01%
Shrinkage (3019898880 Days)	ANSI 136.10	0.01%
Shrinkage (6039797760 Days)	ANSI 136.10	0.01%
Shrinkage (12079595520 Days)	ANSI 136.10	0.01%
Shrinkage (24159191040 Days)	ANSI 136.10	0.01%
Shrinkage (48318382080 Days)	ANSI 136.10	0.01%
Shrinkage (96636764160 Days)	ANSI 136.10	0.01%
Shrinkage (193273528320 Days)	ANSI 136.10	0.01%
Shrinkage (386547056640 Days)	ANSI 136.10	0.01%
Shrinkage (773094113280 Days)	ANSI 136.10	0.01%
Shrinkage (1546188226560 Days)	ANSI 136.10	0.01%
Shrinkage (3092376453120 Days)	ANSI 136.10	0.01%
Shrinkage (6184752906240 Days)	ANSI 136.10	0.01%
Shrinkage (12369505812480 Days)	ANSI 136.10	0.01%
Shrinkage (24739011624960 Days)	ANSI 136.10	0.01%
Shrinkage (49478023249920 Days)	ANSI 136.10	0.01%
Shrinkage (98956046499840 Days)	ANSI 136.10	0.01%
Shrinkage (197912092999680 Days)	ANSI 136.10	0.01%
Shrinkage (395824185999360 Days)	ANSI 136.10	0.01%
Shrinkage (791648371998720 Days)	ANSI 136.10	0.01%
Shrinkage (1583296743997440 Days)	ANSI 136.10	0.01%
Shrinkage (3166593487994880 Days)	ANSI 136.10	0.01%
Shrinkage (6333186975989760 Days)	ANSI 136.10	0.01%
Shrinkage (12666373951979520 Days)	ANSI 136.10	0.01%
Shrinkage (25332747903959040 Days)	ANSI 136.10	0.01%
Shrinkage (50665495807918080 Days)	ANSI 136.10	0.01%
Shrinkage (101330991615836160 Days)	ANSI 136.10	0.01%
Shrinkage (202661983231672320 Days)	ANSI 136.10	0.01%
Shrinkage (405323966463344640 Days)	ANSI 136.10	0.01%
Shrinkage (810647932926689280 Days)	ANSI 136.10	0.01%
Shrinkage (1621295865853378560 Days)	ANSI 136.10	0.01%
Shrinkage (3242591731706757120 Days)	ANSI 136.10	0.01%
Shrinkage (6485183463413514240 Days)	ANSI 136.10	0.01%
Shrinkage (12970366928227028480 Days)	ANSI 136.10	0.01%
Shrinkage (25940733856454056960 Days)	ANSI 136.10	0.01%
Shrinkage (51881467728908113920 Days)	ANSI 136.10	0.01%
Shrinkage (103762935457816227840 Days)	ANSI 136.10	0.01%
Shrinkage (207525870915632455680 Days)	ANSI 136.10	0.01%
Shrinkage (415051741831264911360 Days)	ANSI 136.10	0.01%
Shrinkage (830103483662529822720 Days)	ANSI 136.10	0.01%
Shrinkage (1660206967245059655440 Days)	ANSI 136.10	0.01%
Shrinkage (3320413934490119310880 Days)	ANSI 136.10	0.01%
Shrinkage (6640827868980238621760 Days)	ANSI 136.10	0.01%
Shrinkage (13281657337960477243520 Days)	ANSI 136.10	0.01%
Shrinkage (26563314675920954487040 Days)	ANSI 136.10	0.01%
Shrinkage (53126629351841909374080 Days)	ANSI 136.10	0.01%
Shrinkage (1062532587036838187516160 Days)	ANSI 136.10	0.01%
Shrinkage (2125065174073676375032320 Days)	ANSI 136.10	0.01%
Shrinkage (4250130348147352750064640 Days)	ANSI 136.10	0.01%
Shrinkage (850026069629470550121280 Days)	ANSI 136.10	0.01%
Shrinkage (1700052139258841000242560 Days)	ANSI 136.10	0.01%
Shrinkage (3400104274517682000485120 Days)	ANSI 136.10	0.01%
Shrinkage (6800208549035364000970240 Days)	ANSI 136.10	0.01%
Shrinkage (13600417098071728001940480 Days)	ANSI 136.10	0.01%
Shrinkage (27200834196143456003880960 Days)	ANSI 136.10	0.01%
Shrinkage (54401668392286912007761920 Days)	ANSI 136.10	0.01%
Shrinkage (108803336784573824015523840 Days)	ANSI 136.10	0.01%
Shrinkage (217606673569147648031047680 Days)	ANSI 136.10	0.01%
Shrinkage (435213347138295296062095360 Days)	ANSI 136.10	0.01%
Shrinkage (870426694276590592012418720 Days)	ANSI 136.10	0.01%
Shrinkage (174085338855318118402483440 Days)	ANSI 136.10	0.01%
Shrinkage (348170677710636236804966880 Days)	ANSI 136.10	0.01%
Shrinkage (696341355421272473609933760 Days)	ANSI 136.10	0.01%
Shrinkage (1392682710842444947219877120 Days)	ANSI 136.10	0.01%
Shrinkage (278536542168488989443975440 Days)	ANSI 136.10	0.01%
Shrinkage (557073084336977978887950880 Days)	ANSI 136.10	0.01%
Shrinkage (1114146168673955957779191760 Days)	ANSI 136.10	0.01%
Shrinkage (2228292337347911915558383520 Days)	ANSI 136.10	0.01%
Shrinkage (44565846746958238311117667040 Days)	ANSI 136.10	0.01%
Shrinkage (8913169349391647662223534080 Days)	ANSI 136.10	0.01%
Shrinkage (1782633869878329532445068160 Days)	ANSI 136.10	0.01%
Shrinkage (3565267739756659064890136320 Days)	ANSI 136.10	0.01%
Shrinkage (7130535479513318129780272640 Days)	ANSI 136.10	0.01%
Shrinkage (1426107095902663625976054480 Days)	ANSI 136.10	0.01%
Shrinkage (285221419180532725195210880 Days)	ANSI 136.10	0.01%
Shrinkage (570442838361065450390421760 Days)	ANSI 136.10	0.01%
Shrinkage (1140885677222130900800835320 Days)	ANSI 136.10	0.01%
Shrinkage (2281771354444261801601670640 Days)	ANSI 136.10	0.01%
Shrinkage (4563542708888523603203341280 Days)	ANSI 136.10	0.01%
Shrinkage (9127085417777047206406682560 Days)	ANSI 136.10	0.01%
Shrinkage (18254170355554094412813365120 Days)	ANSI 136.10	0.01%
Shrinkage (36508340711108188825626722240 Days)	ANSI 136.10	0.01%
Shrinkage (73016681422216377751253444480 Days)	ANSI 136.10	0.01%
Shrinkage (14603336844443275552506888960 Days)	ANSI 136.10	0.01%
Shrinkage (29206673688886551111013777920 Days)	ANSI 136.10	0.01%
Shrinkage (58413347377773102222227544160 Days)	ANSI 136.10	0.01%
Shrinkage (11682668675554620444445088320 Days)	ANSI 136.10	0.01%
Shrinkage (23365337351112240888891676640 Days)	ANSI 136.10	0.01%
Shrinkage (46730674702224481777778333280 Days)	ANSI 136.10	0.01%
Shrinkage (93461349404448955555556666560 Days)	ANSI 136.10	0.01%
Shrinkage (1869226988089799111111133333120 Days)	ANSI 136.10	0.01%
Shrinkage (3738453976179598222222266666240 Days)	ANSI 136.10	0.01%
Shrinkage (7476907952359197444444533333480 Days)	ANSI 136.10	0.01%
Shrinkage (1495381590471839488889066666960 Days)	ANSI 136.10	0.01%
Shrinkage (29907631809436789777781333331920 Days)	ANSI 136.10	0.01%
Shrinkage (5981526361887357955556266663840 Days)	ANSI 136.10	0.01%
Shrinkage (11963052723775159111112533337680 Days)	ANSI 136.10	0.01%
Shrinkage (23926105447550318222225066665360 Days)	ANSI 136.10	0.01%
Shrinkage (478522108951006364444501333310720 Days)	ANSI 136.10	0.01%
Shrinkage (957044217902012728889002666621440 Days)	ANSI 136.10	0.01%
Shrinkage (191408843580402555778181333342880 Days)	ANSI 136.10	0.01%
Shrinkage (38281768716080511155636266668560 Days)	ANSI 136.10	0.01%
Shrinkage (7656353743216102221127272666617120 Days)	ANSI 136.10	0.01%
Shrinkage (1531270748443220444224545453333342240 Days)	ANSI 136.10	0.01%
Shrinkage (306254149688644088844909090666684480 Days)	ANSI 136.10	0.01%
Shrinkage (612508299377288177778818181333317280 Days)	ANSI 136.10	0.01%
Shrinkage (122501698755657635556636363666634560 Days)	ANSI 136.10	0.01%
Shrinkage (2450033975113152711112727272666670080 Days)	ANSI 136.10	0.01%
Shrinkage (49000679502263054222254545453333141120 Days)	ANSI 136.10	0.01%
Shrinkage (980013590045261084444109090906666282240 Days)	ANSI 136.10	0.01%
Shrinkage (1960027180090222168888218181813333564480 Days)	ANSI 136.10	0.01%
Shrinkage (392005436018044337777363636366661128960 Days)	ANSI 136.10	0.01%
Shrinkage (78401087203608867555727272726666251920 Days)	ANSI 136.10	0.01%
Shrinkage (15680217440721775111454545453333503840 Days)	ANSI 136.10	0.01%
Shrinkage (313604348814435522229090909066661007680 Days)	ANSI 136.10	0.01%
Shrinkage (627208697628871110444181818133332015360 Days)	ANSI 136.10	0.01%
Shrinkage (125441739525774222236363636366664030720 Days)	ANSI 136.10	0.01%
Shrinkage (25088347905154444727272727266668061440 Days)	ANSI 136.10	0.01%
Shrinkage (5017669581030888945454545453333161280 Days)	ANSI 136.10	0.01%
Shrinkage (100353391606177788888909090906666322560 Days)	ANSI 136.10	0.01%
Shrinkage (2007067832123555777778181813333645120 Days)	ANSI 136.10	0.01%
Shrinkage (40141356642471115555663636366661290240 Days)	ANSI 136.10	0.01%
Shrinkage (80282713284942223111272727266662580480 Days)	ANSI 136.10	0.01%
Shrinkage (1605654265688844444444545454533335160960 Days)	ANSI 136.10	0.01%
Shrinkage (32113085313776888888889090909066661033920 Days)	ANSI 136.10	0.01%
Shrinkage (64226170627553777777781818133332067840 Days)	ANSI 136.10	0.01%
Shrinkage (12845234		



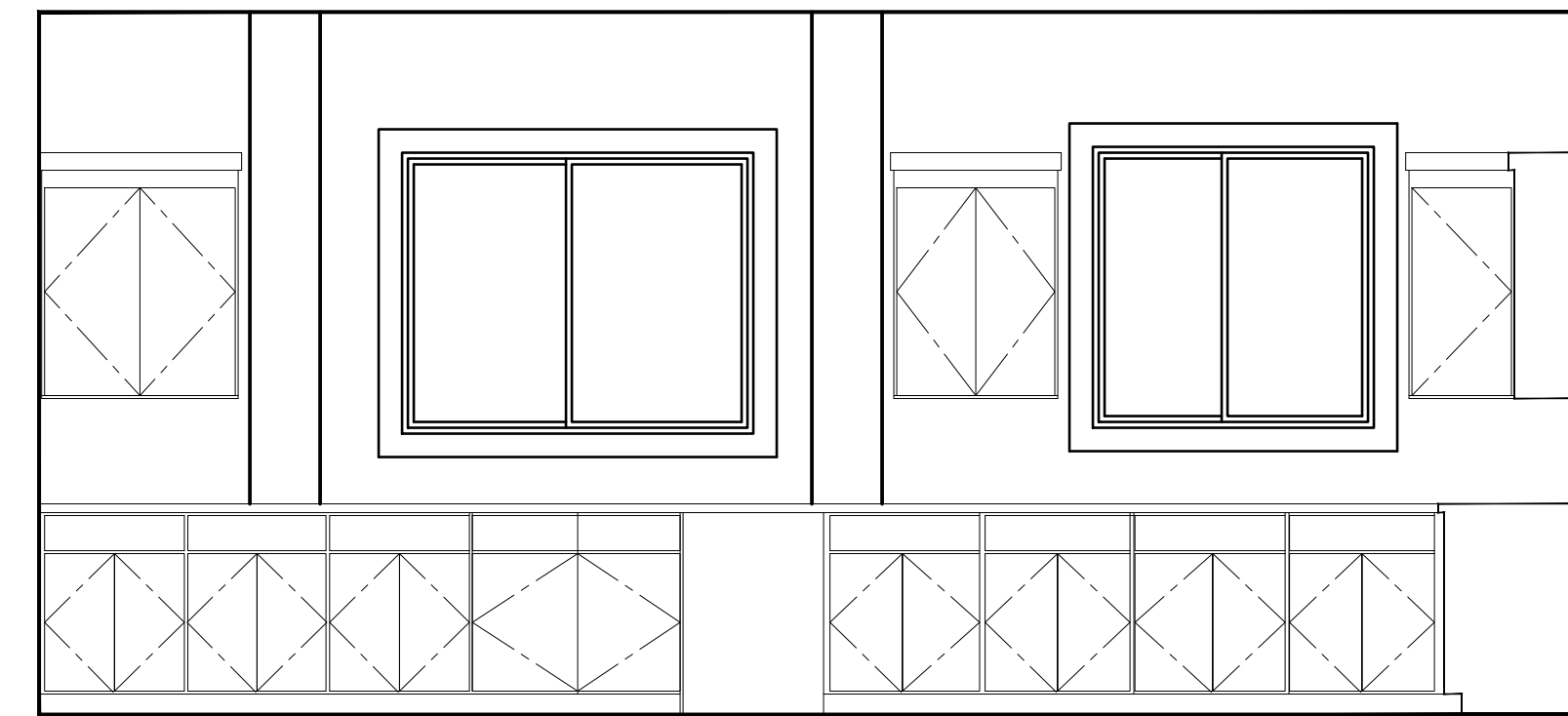
north  
laundry – lower level



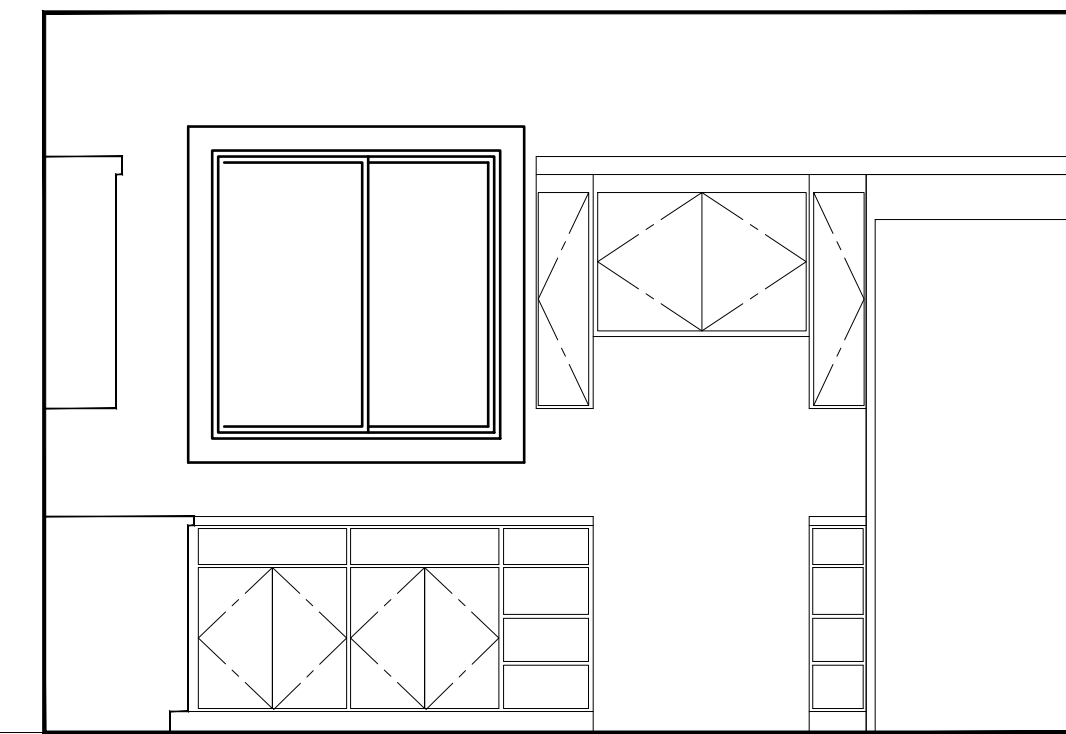
north  
powder – main level



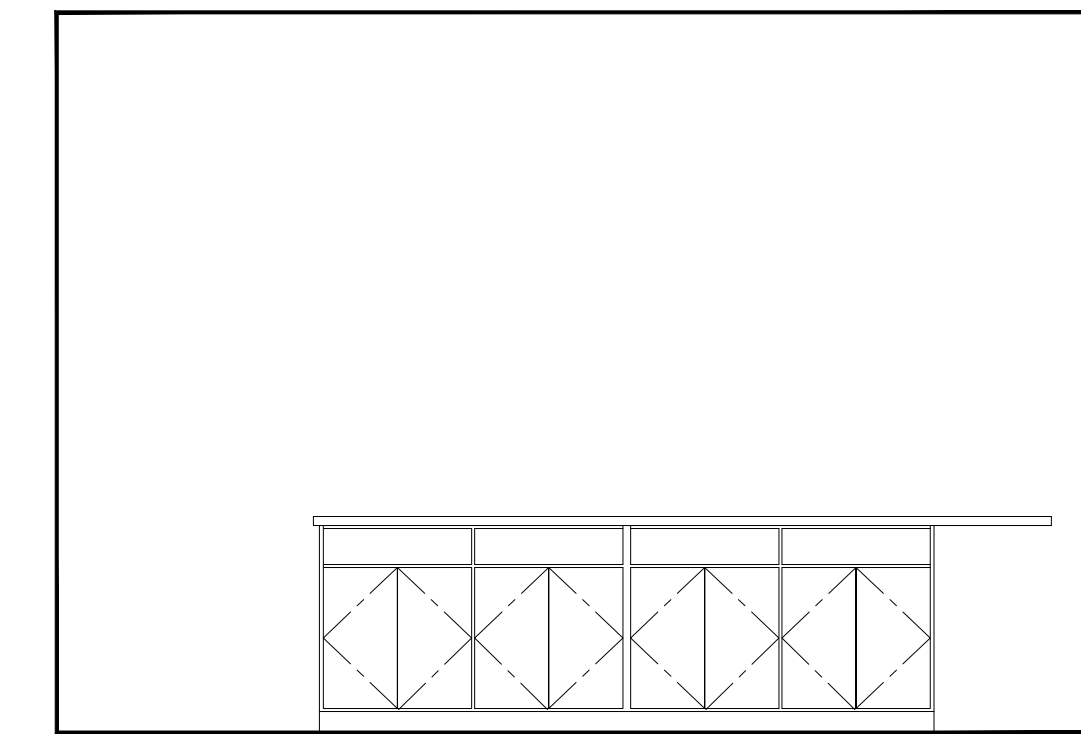
north  
g. bath – main level



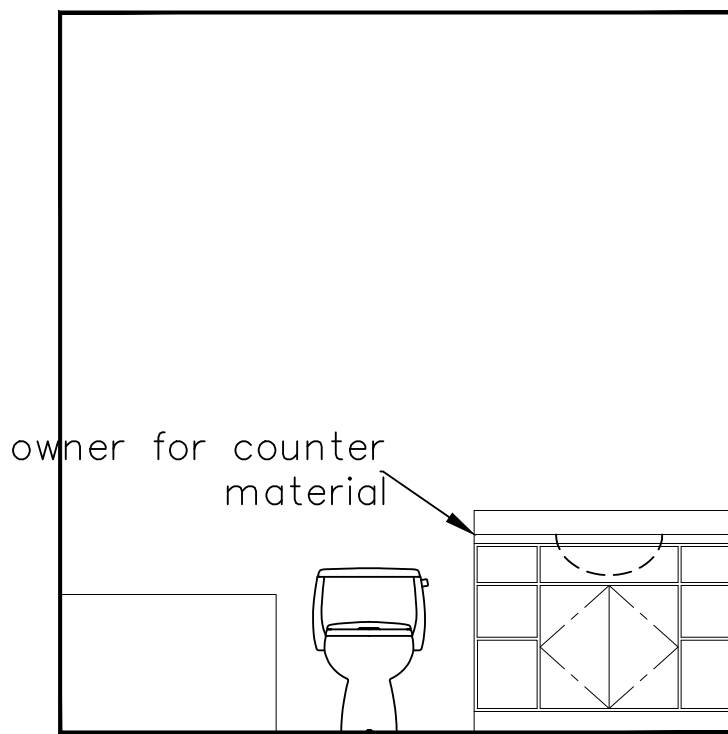
south  
kitchen – main level



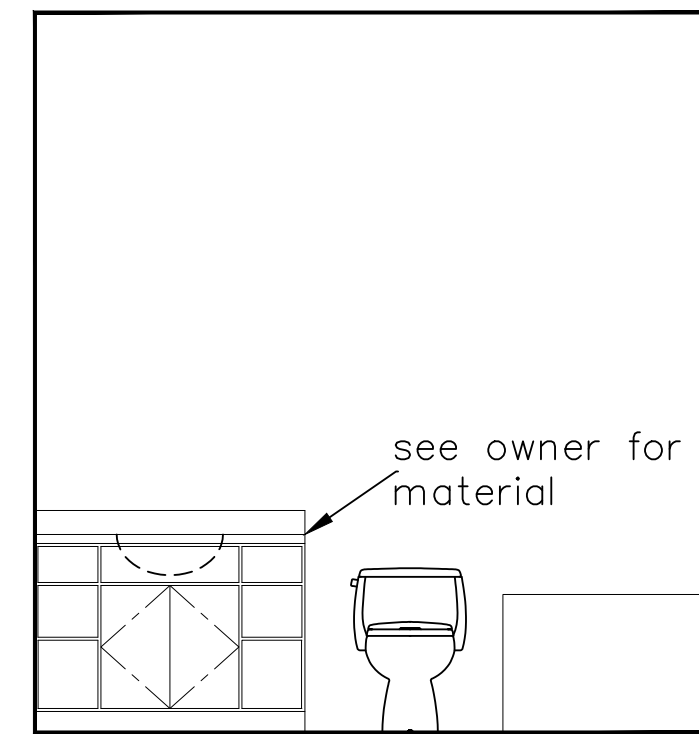
west



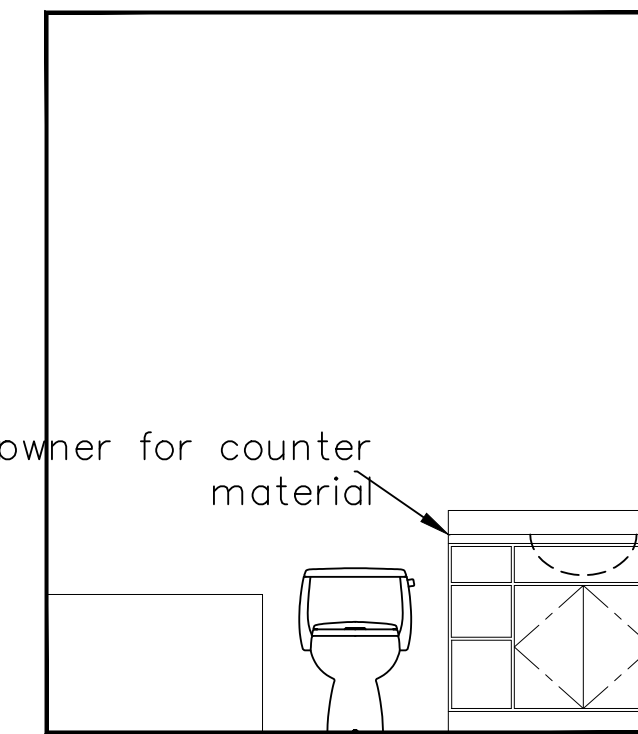
north – island



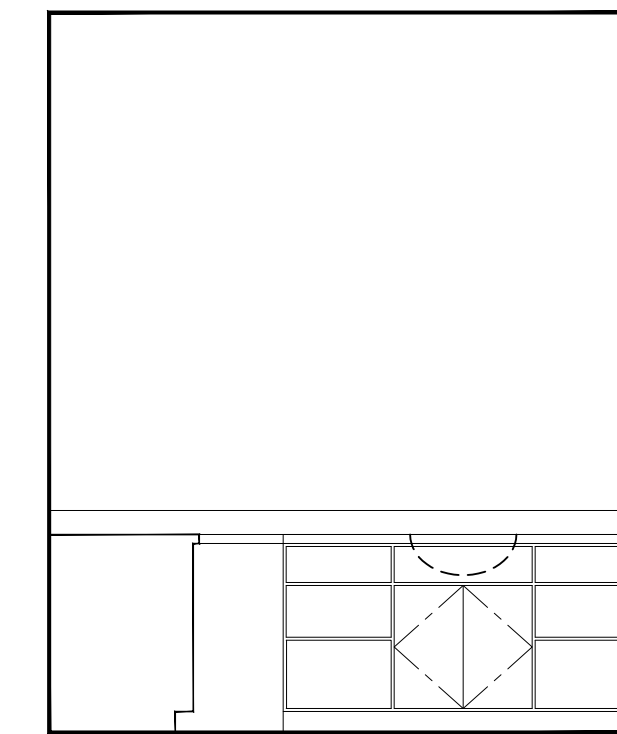
see owner for counter material  
south  
bedrm #1 – upper level



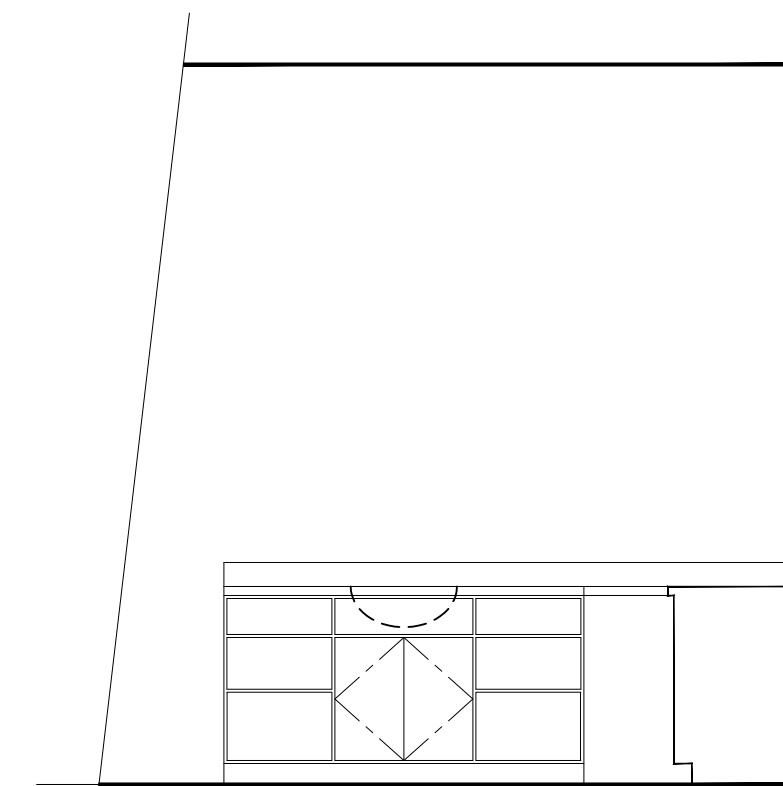
see owner for counter material  
north  
bedrm #2 – upper level



see owner for counter material  
north  
bedrm #3 – upper level



south  
m. bedroom – upper level



east

cabinet elevations

scale  $\frac{3}{8}'' = 1'-0''$

cabinet elevations are for schematic purposes only – see owner for final decisions regarding all finish materials, cabinet heights, door & drawer organizations.

STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: steve@benzarch.com  
WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

CABINET  
ELEVATIONS

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

REVISIONS

NO.

SHEET NUMBER

A15



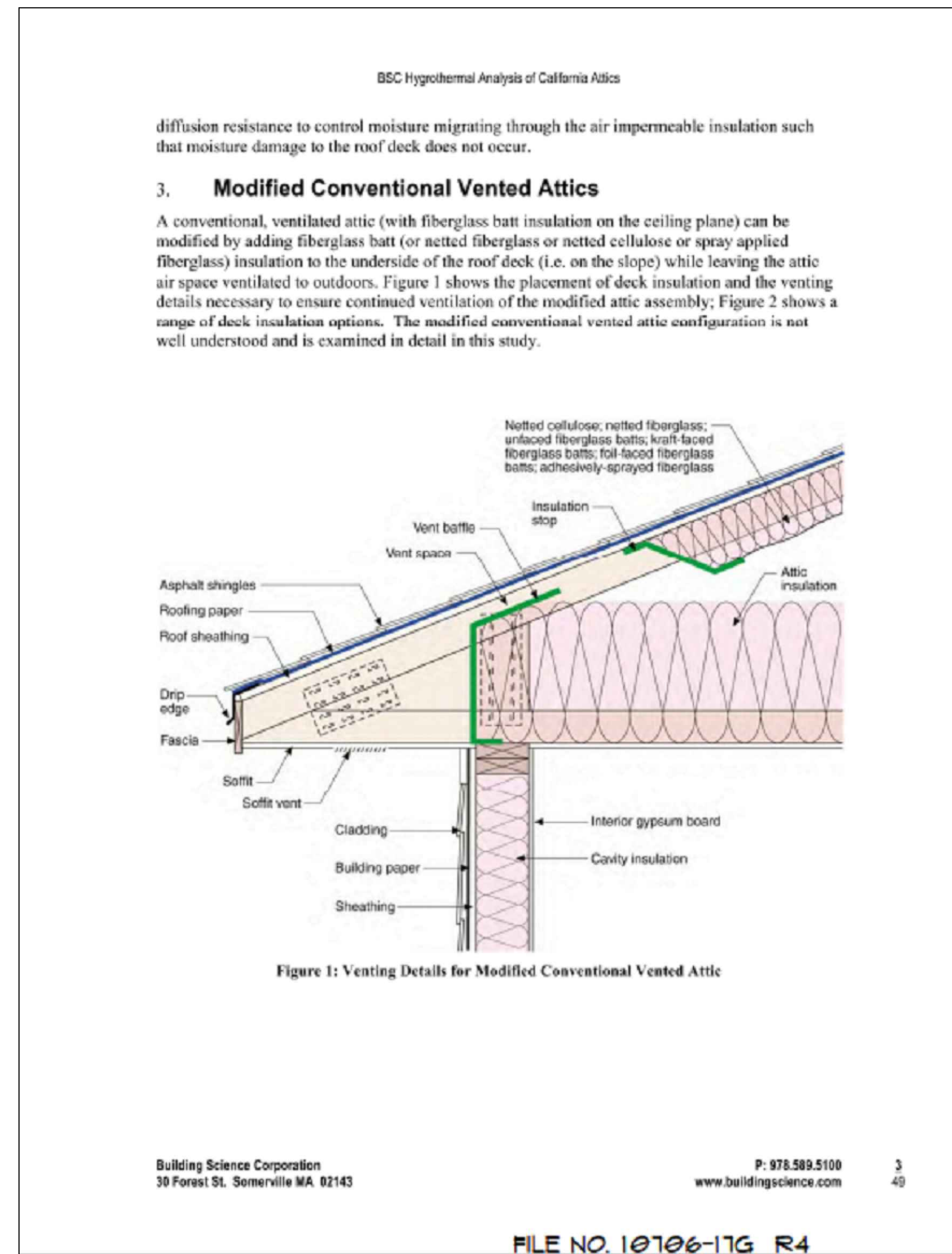




RESIDENTIAL MEASURES SUMMARY						RMS-1		
Project Name <b>Le, James Residence</b>		Building Type <input checked="" type="checkbox"/> Single Family <input type="checkbox"/> Addition Alone		Date 5/20/2023				
Project Address <b>Bella Madera Lane San Jose</b>		California Energy Climate Zone CA Climate Zone 04		Total Cond. Floor Area 5,853	# of Units 1			
INSULATION		Area (ft <sup>2</sup> )	Special Features	Status				
Wall	Wood Framed	R 20	2.958	New				
Wall	Soft Unit Masonry	- no insulation	496 Adh-R 9.0	New				
Roof	Wood Framed Rafter	R 30	50	New				
Slab	Unheated Slab-on-Grade	- no insulation	972 Perim + 108*	New				
Floor	Wood Framed w/Crawl Space	R 19	1,720	New				
Door	Quangie Door	- no insulation	40	New				
Roof	Wood Framed Attic	R 30	2,626 Adh-R 13.0	New				
Demising	Wood Framed w/o Crawl Space	- no insulation	3,137	New				
FENESTRATION		Total Area	Glazing Percentage	Non-Insulated Average U-Factor	Status			
Orientation		Area (ft <sup>2</sup> )	U-Fac	SHGC	Overhang	Sidelights		
Front (F)		352.2	0.310	0.25	none	none		
Rear (R)		230.0	0.310	0.25	none	none		
Right (W)		171.2	0.310	0.25	none	none		
Left (E)		108.0	0.310	0.25	none	none		
HVAC SYSTEMS		Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
2		Electric Heat Pump	9.70 HSPF	Split Heat Pump	16.0 SEER	Setback	New	
HVAC DISTRIBUTION		Location	Heating	Cooling	Duct Location	Duct R-Value	Status	
HVAC System		Ducted	Ducted	Crawlspace	R 0	New		
WATER HEATING		Qty.	Type	Gallons	Min. Eff	Distribution	Status	
1		Heat Pump	80	3.20	Standard	New		

RESIDENTIAL MEASURES SUMMARY						RMS-1		
Project Name <b>Le, James Residence</b>		Building Type <input checked="" type="checkbox"/> Single Family <input type="checkbox"/> Addition Alone		Date 5/20/2023				
Project Address <b>Bella Madera Lane San Jose</b>		California Energy Climate Zone CA Climate Zone 04		Total Cond. Floor Area 5,853	# of Units 1			
INSULATION		Area (ft <sup>2</sup> )	Special Features	Status				
Demising	Wood Framed w/o Crawl Space	R 20	427	New				
Floor	Wood Framed w/o Crawl Space	R 19	99	New				
FENESTRATION		Total Area	Glazing Percentage	Non-Insulated Average U-Factor	Status			
Orientation		Area (ft <sup>2</sup> )	U-Fac	SHGC	Overhang	Sidelights		
Front (F)		352.2	0.310	0.25	none	none		
Rear (R)		230.0	0.310	0.25	none	none		
Right (W)		171.2	0.310	0.25	none	none		
Left (E)		108.0	0.310	0.25	none	none		
HVAC SYSTEMS		Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
2		Electric Heat Pump	9.70 HSPF	Split Heat Pump	16.0 SEER	Setback	New	
HVAC DISTRIBUTION		Location	Heating	Cooling	Duct Location	Duct R-Value	Status	
HVAC System		Ducted	Ducted	Crawlspace	R 0	New		
WATER HEATING		Qty.	Type	Gallons	Min. Eff	Distribution	Status	
1		Heat Pump	80	3.20	Standard	New		

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY					
Project Name <b>Le, James Residence</b>		Building Type <input checked="" type="checkbox"/> Single Family <input type="checkbox"/> Addition Alone		Date 5/20/2023	
Project Address <b>Bella Madera Lane San Jose</b>		California Energy Climate Zone CA Climate Zone 04		Total Cond. Floor Area 5,853	# of Units 1
ENGINEERING CHECKS		SYSTEM LOAD			
Number of Systems		2		COIL COOLING PEAK	
Heating System		48,000		COIL HTG. PEAK	
Output per System		48,000		CFM Sensible	
Total Output (Btu/h)		96,000		1,811 38,270	
Output (Btu/h)		16.4		Latent 2,603 1,156	
Cooling System		40,000		Sensible 45,114	
Output per System		40,000		Latent 2,457	
Total Output (Btu/h)		80,000		Sensible 0	
Output (Tons)		6.7		Latent 2,457	
Total Output (Btu/h)		13.7		Sensible 0	
Total Output (Tons)		0.77		Latent 2,457	
TOTAL SYSTEM LOAD		49,669		2,603	
Air System		5		50,023	
CFM per System		5		Heat Pump	
Airflow (cfm)		0.00		76,863	
Airflow (cfm/ton)		0.0		0	
Airflow (cfm/ton)		0.0		0	
Outside Air (%)		0.0		Total Adjusted System Output	
Outside Air (cfm/ton)		0.00		(Adjusted for Peak Design Conditions)	
TIME OF SYSTEM PEAK		Aug 3 PM		Jan 1 AM	
HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)					
COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)					



STEVE BENZING ARCHITECT  
C-17985  
12103 FREDERICKSBURG  
SARTOGA CALIFORNIA  
TEL: 408-805-1328  
EMAIL: steve@benzarch.com  
WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
BELLA MADEIRA LANE  
SAN JOSE, CA  
APN: 654-64-012

ENERGY  
COMPLIANCE

DATE:	9/12/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS

SHEET NUMBER  
T243

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF HJH ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS. PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF AND APPROPRIATE COMPENSATION TO HJH ENGINEERING. COPYRIGHT ©2017

REINFORCING STEEL

- 1) ALL REINFORCING STEEL SHALL BE DEFORMED INTERMEDIATE GRADE BARS CONFORMING TO A.S.T.M. A-615, GRADE 40 FOR #4 AND SMALLER BARS, GRADE 60 FOR LARGER BARS.
2) REINFORCING STEEL SHALL NOT BE WELDED, UNLESS SPECIFICALLY NOTED OTHERWISE. WELDING OF REINFORCING STEEL (WHERE SPECIFICALLY NOTED OR DETAILED) SHALL CONFORM TO ACI 318-19.
3) TO HOLD REINFORCING BARS IN THEIR TRUE POSITION AND PREVENT DISPLACEMENT, STANDARD TIE AND ANCHORAGE DEVICES MUST BE PROVIDED.
4) SHOP DRAWINGS FOR FABRICATION OF ANY REINFORCING STEEL SHALL BE APPROVED BY THE CONTRACTOR AND SUBMITTED TO THE ARCHITECT AND THE ENGINEER, FOR THEIR REVIEW, PRIOR TO FABRICATION.
5) STAGGER SPLICES IN REINFORCING STEEL UNLESS SPECIFICALLY NOTED OTHERWISE.
6) ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
7) FABRICATION, ERECTION, AND PLACEMENT OF REINFORCING STEEL SHALL CONFORM TO CONCRETE REINFORCING STEEL INSTITUTE (C.R.S.I.) MANUAL OF STANDARD PRACTICE.
8) MINIMUM LAP SPLICE FOR ALL REINFORCING BARS AT SPLICES SHALL BE 40 BAR DIAMETERS. ALL SPLICES ARE TO BE STAGGERED. PERPENDICULAR FOOTINGS SHALL HAVE TWO SPLICE BARS AT THE TOP AND BOTTOM (24" MIN. SPLICE).
9) THE MINIMUM RADIUS OF BEND FOR REINFORCING STEEL, MEASURED ON THE INSIDE OF THE REBAR, SHALL BE AS FOLLOWS:
#3 := 1-1/2" #4 := 2" #5 := 2.5" #6 := 4.5"
10) AT THE TIME CONCRETE IS PLACED, REINFORCING SHALL BE FREE OF MUD, OIL OR OTHER NONMETALLIC COATING THAT DECREASES BOND. EPOXY COATING OF STEEL REINFORCEMENT WHEN NEEDED SHALL BE IN ACCORDANCE WITH THE STANDARDS OF ACI 318-19 SECTIONS 5.3.3.7 AND 5.3.3.8.
11) MINIMUM REINFORCING IN ALL SLABS ON GRADE SHALL BE #4 BARS AT 16" O.C. EACH WAY AT MID-DEPTH, UNLESS NOTED OTHERWISE.

STRUCTURAL OBSERVATION

AGREEMENT TO PERFORM STRUCTURAL OBSERVATION IN ACCORDANCE WITH SECTION 1704 OF THE CALIFORNIA BUILDING CODE.
I, THE UNDERSIGNED LICENSED PROFESSIONAL ENGINEER AGREE TO PERFORM STRUCTURAL OBSERVATION OF THE NEW RESIDENCE AT BELLA MADIERA LANE, SAN JOSE, CA, UNTIL COMPLETION OF THE PROJECT OR UNTIL SUCH TIME THAT THE DIRECTOR OF BUILDING AND SAFETY DETERMINES THAT THIS IS NO LONGER REQUIRED OR UNTIL SUCH TIME THAT I NOTIFY THE DEPARTMENT OF BUILDING AND SAFETY THAT I WILL NO LONGER BE RESPONSIBLE FOR SUCH INSPECTION.
I UNDERSTAND THAT SUCH VISUAL OBSERVATION IS FOR THE PURPOSES OF ENSURING GENERAL CONFORMANCE OF THE WORK TO THE APPROVED PLANS AND SPECIFICATIONS AT SIGNIFICANT CONSTRUCTION STAGES (AS INDICATED ON THE APPROVED PLANS) AND AT THE COMPLETION OF THE STRUCTURAL SYSTEM. I WILL PREPARE REPORTS FOR EACH ONE OF MY OBSERVATIONS TO BE SUBMITTED TO THE DEPARTMENT FOR REVIEW AND APPROVAL. MY REPORTS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, THE DESCRIPTION OF THE OBSERVED WORK AND A LIST OF ANY AND ALL OBSERVED DISCREPANCIES BETWEEN THE APPROVED PLANS AND THE OBSERVED FIELD WORK, AS WELL AS METHODS USED OR STEPS TAKEN TO CORRECT SUCH DISCREPANCIES.
COMPANY: HJH ENGINEERING
LICENSE NO.: 84917
EXP. DATE: 03/31/2024

CONSTRUCTION STAGES / ELEMENTS TO BE OBSERVED:

- A. BASEMENT FOUNDATION: REINFORCEMENT, STEEL BASE PLATE ANCHOR BOLTS, SHEAR WALL ANCHOR BOLTS, SLAB REINFORCEMENT DOWELS.
B. RETAINING WALLS: BLOCK WALL REINFORCEMENT, DOWELS, ANCHOR BOLTS
C. FLOOR STRUCTURAL FRAMING: GENERAL FRAMING AND SHEARWALL AND SHEAR TRANSFER ELEMENTS
D. ROOF STRUCTURAL FRAMING: GENERAL FRAMING AND SHEARWALL AND SHEAR TRANSFER ELEMENTS
E. STRUCTURAL FRAMING: MOMENT FRAME, SHEAR TRANSFER CLIPS TO MOMENT FRAME, BOUNDARY NAILING

NOTE: OBSERVATION OF THE ABOVE MENTIONED CONSTRUCTION STAGES/ELEMENTS MAY REQUIRE MULTIPLE OBSERVATION VISITS WHILE CONSTRUCTION IS IN PROGRESS.

PROVIDE ENGINEER WITH A MINIMUM OF 48 HOURS NOTICE BEFORE OBSERVATION IS NEEDED. CITY INSPECTOR SHALL BE SCHEDULED A FULL DAY AFTER ENGINEER OBSERVATION. CITY INSPECTION AND ENGINEER INSPECTION SHALL NOT TAKE PLACE ON THE SAME DAY.

ANY STEEL MEMBERS REQUIRED FOR THE ABOVE MENTIONED PROJECT SHALL HAVE STEEL SHOP DRAWINGS PREPARED, COMPLETED AND DELIVERED TO THE ENGINEER OF RECORD FOR APPROVAL BEFORE ANY MEMBERS ARE FABRICATED AND DELIVERED TO THE SITE.

SPECIAL INSPECTION

IN ADDITION TO THE REGULAR INSPECTIONS, THE FOLLOWING CHECKED ITEMS WILL ALSO REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH SEC. 1704 OF THE 2022 CALIFORNIA BUILDING CODE

- SOILS COMPLIANCE PRIOR TO FOUNDATION INSPECTION (CONTINUOUS)
STRUCTURAL CONCRETE COVER 2500 PSI (CONTINUOUS)
PRESTRESSED CONCRETE
STRUCTURAL MASONRY
FIELD WELDING (PERIODIC)
ORDINARY MOMENT FRAME CONNECTIONS (PERIODIC)
HIGH STRENGTH BOLTING
EXPANSION/EPOXY ANCHORS
SPRAYED ON FIRE-PROOFING
SHEARWALL NAILING CLOSER THAN 4" O.C. (PERIODIC)
OTHER:

NAME(S) OF INDIVIDUAL(S) OR FIRM(S) RESPONSIBLE FOR THE SPECIAL INSPECTIONS LISTED ABOVE:

A. (BY ARCHITECT/OWNER)

B. (BY ARCHITECT/OWNER)

DUTIES OF THE SPECIAL INSPECTORS FOR THE WORK LISTED ABOVE:

- A. VERIFY THAT ITEMS NOTED ABOVE ARE IN ACCORDANCE WITH DETAILS AND SPECIFICATIONS INDICATED ON THE STRUCTURAL DRAWING.
B. VERIFY THAT ITEMS NOTED ABOVE CONFORM WITH THE STANDARDS DESIGNATED BY THE UNIFORM BUILDING CODE AND ALL OTHER REQUIREMENTS SPECIFIED BY THE CITY.

CONCRETE

- 1) ALL APPLICABLE SECTIONS OF ACI 318 - 19 SHALL BE CONSIDERED AS A PART OF THESE SPECIFICATIONS. ALL CONCRETE WORK SHALL COMPLY WITH 2022 CALIFORNIA BUILDING CODE (C.B.C.) CHAPTER 19.
2) ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH (F'c) OF 2500 P.S.I. AT TWENTY-EIGHT (28) DAYS. ALL CONCRETE SHALL BE REGULAR WEIGHT (UNLESS SPECIFICALLY NOTED OTHERWISE). CONCRETE IN GRADE BEAMS SHALL BE 3000 PSI AND WITH CONTINUOUS SPECIAL DEPUTY INSPECTION.
3) SPECIAL INSPECTION (AS REQUIRED OR SPECIFIED) SHALL CONFORM TO 2022 CBC SECTION 1704. SPECIAL INSPECTION SERVICES SHALL BE PROVIDED BY AN I.C.B.O. CERTIFIED DEPUTY INSPECTOR OR BUILDING DEPARTMENT APPROVED ENGINEER.
4) TYPE 1 OR 2 PORTLAND CEMENT SHALL CONFORM TO C.B.C. SECTION 1903 AND ACI 318-19 SECTION 26.4 STANDARD SPECIFICATION (ASTM C 150).
5) AGGREGATES SHALL CONFORM TO 2022 C.B.C. 1903 AND ACI 318-19 SECTION 26.4.2.1 MAXIMUM AGGREGATE SIZE SHALL BE 1-1/4". AGGREGATE SIZE FOR EXPOSED CONCRETE, SUCH AS IN SLABS, SHALL NOT EXCEED 1". GRADATION OF AGGREGATE SIZE SHALL BE PER ASTM C33, C117 AND C136.
6) WHERE NOT SPECIFICALLY DETAILED, THE MINIMUM CONCRETE COVER ON REINFORCING STEEL SHALL BE PER ACI 318-19 SECTION 20.6.1:
A) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH OR WEATHER: 3"
B) CONCRETE PLACED AGAINST FORMS, BUT EXPOSED TO EARTH OR WEATHER: 2".
7) MAXIMUM CONCRETE SLUMP SHALL BE 3 INCHES, 4 INCHES FOR CONCRETE STRUCTURAL DECKS.
8) ALL SLABS ON GRADE SHALL BE 5" THICK WITH #4 BARS AT 16" O.C., EACH WAY, AT MID DEPTH, UNLESS NOTED OTHERWISE ON PLANS. PROVIDE 10 MIL VISOQUEEN VAPOR BARRIER PROTECTED BY SAND UNDER ALL SLABS AT LIVING AREAS.
9) ALL ANCHOR BOLTS USED IN CONCRETE CONSTRUCTION SHALL HAVE A MINIMUM TOTAL EMBEDMENT AS FOLLOWS, UNLESS NOTED OTHERWISE:
5/8" DIAMETER OR SMALLER: 9"
3/4" DIAMETER: 12"
10) LOCATION OF ALL CONSTRUCTION JOINTS, OTHER THAN SPECIFIED, SHALL BE APPROVED BY THE ARCHITECT AND THE ENGINEER PRIOR TO POURING. CONSTRUCTION JOINTS SHALL BE THOROUGHLY AIR AND WATER CLEANED AND HEAVILY ROUGHENED SO AS TO EXPOSE COARSE AGGREGATES. ALL SURFACES TO RECEIVE CONCRETE SHALL BE MAINTAINED CONTINUOUSLY WET AT LEAST THREE HOURS IN ADVANCE OF PLACING CONCRETE.
11) ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, INSERTS, AND ANY OTHER HARDWARE TO BE SET INTO CONCRETE SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING OF CONCRETE.
12) THE ARCHITECT, ENGINEER, AND INSPECTOR SHALL BE NOTIFIED, IN A TIMELY MANNER, FOR REINFORCING INSPECTION PRIOR TO THE POURING OF ANY CONCRETE.
13) THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ARCHITECT AND THE ENGINEER PRIOR TO PLACING SLEEVES, PIPES, DUCTS, CHASES, CORING, AND OPENING ON OR THROUGH STRUCTURAL CONCRETE BEAMS, WALLS, FLOORS, AND ROOF SLABS, UNLESS SPECIFICALLY NOTED OR DETAILED. ALL PIPES OR CONDUITS PASSING THROUGH CONCRETE MEMBERS SHALL BE SLEEVED WITH ANY MATERIAL NOT HARMFUL TO CONCRETE WITHIN LIMITATIONS OF THE ACI 318-19 SECTION 6.3.
14) FORMWORK DESIGN AND REMOVAL IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO 2022 C.B.C SECTION 1906.1 AND 1906.2 AND ACI 318-19 SECTION 26.11.1 AND 26.11.2.
15) FORM REMOVAL: REMOVE FORMS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:
SIDE FORMS AT FOOTINGS: MINIMUM 2 DAYS.
EDGE FORMS OF SLAB ON GRADE STRIP 1: MINIMUM 1 DAY.
16) VIBRATE ALL CONCRETE AS IT IS PLACED WITH A MECHANICAL VIBRATOR OPERATED BY EXPERIENCED PERSONNEL. THE VIBRATOR SHALL BE USED TO CONSOLIDATE THE CONCRETE, NOT TRANSPORT IT. REINFORCING STEEL AND FORMS SHALL NOT BE VIBRATED.
17) ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (A.C.I.) BUILDING CODE (A.C.I. 318-19) AND THE LATEST EDITIONS OF THE A.C.I. MANUALS OF CONCRETE PRACTICE AND SPECIFICATIONS.
18) CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT.
19) THE CONTRACTOR SHALL SUBMIT REQUESTS FOR THE USE OF ADMIXTURES TO THE ARCHITECT AND ENGINEER FOR THEIR REVIEW AND APPROVAL.
20) MIX DESIGNS SHALL BE PREPARED BY AN APPROVED TESTING LABORATORY AND SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL.
21) ONLY ONE GRADE OF CONCRETE SHALL BE ALLOWED ON THE PROJECT SITE AT ANY ONE TIME.
22) UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE, CONSTRUCTION AND CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE SLABS, AND SHALL BE LOCATED SUCH THAT THE AREA WITHIN THE JOINTS DOES NOT EXCEED 400 SQUARE FEET (20' x 20' AREA).
23) FOR MAT SLAB CONCRETE STRENGTH SHALL BE VERIFIED BY STANDARD CYLINDER TESTS ( IN ACCORDANCE WITH 2022 C.B.C. 1905.6 MADE BY AN APPROVED TESTING LABORATORY. THE CONTRACTOR SHALL MAINTAIN COPIES OF THE TEST REPORTS AT THE JOB SITE AND AVAILABLE FOR REVIEW AND INSPECTION BY THE BUILDING OFFICIALS. MAKE 3 TEST CYLINDERS FOR EACH DAY'S POUR. TEST EACH BATCH OF CYLINDERS AS FOLLOWS: 1 AT 7 DAYS, AND 2 AT 28 DAYS.
24) SEE ARCHITECTURAL PLANS FOR LOCATIONS OF ALL DIMENSIONS, SLAB DEPRESSIONS, SLOPES, CURBS, AND CONTROL JOINTS.
25) ALL "DRYPACK" CALLED FOR UNDER BASEPLATES SHALL BE PRE-MIX SPEC CONCRETE - 5000 PSI GROUT. THIS IS A DRY FACTORY-BLENDED CONCRETE MIX CONSISTING OF TYPE II PORTLAND CEMENT, SAND AND 3/8" AGGREGATE. THIS DRYPACK SHALL BE PLACED UNDER CONTINUOUS DEPUTY INSPECTION.
26) CEMENT USE IN FOUNDATION MIX DESIGN IS REDUCED. TIER 2: NOT LESS THAN 25% REDUCTION IN CEMENT USE. FLY ASH SHALL BE USED IN CONCRETE POURED ON GRADE INCLUDING FOOTINGS, PILES, RETAINING WALL FOOTINGS AND SLABS ON GRADE. FLY ASH SHALL CONSTITUTE NO MORE THAN 25 % OF THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS PER ACI 318-19 SECTION 19.3.3.4 AND MUST COMPLY WITH ASTM C 618 STANDARD SPECIFICATIONS FOR COAL FLY ASH. FLY ASH MAY NOT BE USED IN CONCRETE MEMBERS ABOVE GRADE (I.E., COLUMNS, DECKS, BEAMS, WALLS, ETC.) AND MAY NOT BE USED IN RETAINING WALL STEM. CONCRETE USING FLY ASH NEEDS A LONGER CURING TIME OF 56 DAYS TO REACH DESIRED COMPRESSIVE STRENGTH.

FOUNDATIONS

- 1) SEE SOIL REPORT BY C2 EARTH INC. REPORT NUMBER 23062C-01L2, DATED OCTOBER 12, 2023 WHICH IS CONSIDERED A PART OF THESE PLANS. ALLOWABLE BEARING PRESSURE = 4,000 PSF. RECOMMENDATIONS THEREIN SUPERCEDES STRUCTURAL DRAWINGS.
2) CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
3) NO DEVIATION FROM STRUCTURAL DETAILS WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. APPROVAL BY CITY INSPECTOR DOES NOT CONSTITUTE AUTHORITY TO DEVIATE FROM PLANS OR SPECIFICATIONS.
4) ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH (F'c) OF 4000 P.S.I. AT TWENTY-EIGHT (28) DAYS. ALL CONCRETE SHALL BE REGULAR WEIGHT (UNLESS SPECIFICALLY NOTED OTHERWISE). CONCRETE IN GRADE BEAMS AND PILES SHALL BE 4000 PSI AND WITH CONTINUOUS SPECIAL DEPUTY INSPECTION. CONCRETE IN RETAINING WALLS SHALL BE 4000 PSI AND WITH CONTINUOUS SPECIAL DEPUTY INSPECTION.
5) REINFORCING STEEL: ASTM - A615, 40 GRADE FOR #4 BARS AND SMALLER, 60 GRADE FOR LARGER BARS, CLEAN AND RUST FREE. LAPS AT SPLICES AND FOUR LINES TO BE 40 DIAMETER OR 2" O" MINIMUM UNLESS OTHERWISE NOTED ON PLANS. PERPENDICULAR FOOTINGS SHALL HAVE TWO SPLICE BARS TOP AND BOTTOM TYPICAL, 24" MIN. SPLICE.
6) CARRY ALL FOUNDATIONS TO REQUIRED DEPTHS INTO UNDISTURBED NATURAL SOIL OR BEDROCK (AS PER STRUCTURAL DRAWINGS) AND AS VERIFIED BY THE APPROPRIATE BUILDING OFFICIAL.
7) FOOTING SHALL BE POURED IN NEAT EXCAVATIONS, WITHOUT SIDE FORMS WHENEVER POSSIBLE. SIDES AND BOTTOMS OF DRY EXCAVATIONS MUST BE MOISTENED JUST PRIOR TO PLACING CONCRETE. CONVERSELY, DE-WATER OVER-WET EXCAVATIONS AS REQUIRED TO PRECLUDE STANDING WATER. WHEN FORMWORK IS NECESSARY, THE DESIGN AND REMOVAL IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO 2022 CBC SECTION 1906.1 AND 1906.2 AND ACI 318-19 SECTION 26.11.1 AND 26.11.2.
8) ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE APPROPRIATE BUILDING OFFICIAL AND GEOTECHNICAL CONSULTANT PRIOR TO FORMING AND PLACEMENT OF REINFORCING OR CONCRETE.
9) CEMENT: TESTED, TYPE I PORTLAND CEMENT SHALL CONFORM TO C.B.C. SECTION 1903 AND ACI 318-19 SECTION 26.4 AND ASTM C 150.
10) AGGREGATES SHALL CONFORM TO 2022 C.B.C. 1903 AND ACI 318-19 SECTION 26.4.2.1 MAXIMUM AGGREGATE SIZE SHALL BE 1-1/4". AGGREGATE SIZE FOR EXPOSED CONCRETE, SUCH AS IN SLABS, SHALL NOT EXCEED 1". GRADATION OF AGGREGATE SIZE SHALL BE PER ASTM C33, C117 AND C136.
11) VIBRATE CONCRETE AS IS IT PLACED IN FOOTING EXCAVATIONS WITH A MECHANICAL VIBRATOR OPERATED BY EXPERIENCED PERSONNEL. THE VIBRATOR SHALL BE USED TO CONSOLIDATE THE CONCRETE, NOT MOVE OR SPREAD THE CONCRETE. REINFORCING STEEL AND FORMS SHALL NOT BE VIBRATED.
12) CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT.
13) UNLESS NOTED OTHERWISE SLABS ON GRADE SHALL BE A MINIMUM OF 5" THICK WITH #4 BARS AT 16" O.C. EACH WAY - PROVIDE 1-1/2" COVER TO TOP OF SLAB. SLAB IS TO BE PLACED ON 2" SAND LAYER ON 10 MIL VISOQUEEN VAPOR BARRIER, OR PER SUBGRADE REQUIREMENTS IN SOIL REPORT, IF ANY, OR PER ARCHITECTS REQUIREMENTS.
14) ALL SILL PLATE BOLTS SHOWN ON STRUCTURAL DRAWINGS SHALL BE A307 "L" - GALVANIZED - BOLTS. MINIMUM ANCHOR BOLTS SHALL BE 5/8" DIA. WITH 9" EMBEDMENT INTO CONCRETE AND SPACING NOT MORE THAN 38 INCHES ON CENTER OR AS PER SHEARWALL SCHEDULE. ONE SILL PLATE BOLT SHALL BE LOCATED 12" FROM END OF WALL PANELS. BOLTS / HARDWARE IN CONTACT WITH PRESSURE TREATED LUMBER TO BE GALVANIZED.
15) ALL CAST-IN-PLACE HARDWARE, HOLDINGS, CB BASES, ANCHOR BOLTS ETC, SHALL BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION. FRAMING CONTRACTOR TO VERIFY LOCATIONS. NO WET PLACEMENT OF HARDWARE ALLOWED.
16) SEE ARCHITECTURAL PLANS FOR LOCATIONS AND DIMENSIONS OF SLAB DEPRESSIONS, SLOPES, CURBS AND CONTROL JOINTS.

GENERAL (CONTINUED)

- 4) ALL INFORMATION ON EXISTING CONDITIONS SHOWN ON THE DRAWINGS ARE BASED ON BEST PRACTICE KNOWLEDGE AVAILABLE. BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS AT THE SITE, BEFORE FINAL BIDDING AND/OR DURING CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE PLANS AND THE CONDITIONS AT THE SITE, OR BETWEEN THE STRUCTURAL AND ARCHITECTURAL DRAWINGS, SHOULD ANY CONDITION ARISE WHERE THE INTENT OF THE DRAWINGS IS IN DOUBT, OR WHERE THERE APPEARS TO BE A DISCREPANCY BETWEEN THE DRAWING (ARCHITECTURAL AND/OR STRUCTURAL) AND THE CONDITION IN THE FIELD, THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONTINUING WITH WORK / FINAL PRICING.
5) THERE SHALL BE NO DEVIATION FROM THE PLANS, DETAILS, NOTES, AND SPECIFICATIONS WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
6) DO NOT SCALE STRUCTURAL PLANS OR DETAILS. ONLY WRITTEN DIMENSIONS SHALL BE USED.
7) THE FOLLOWING NOTES, TYPICAL DETAILS AND SCHEDULES SHALL APPLY TO ALL PHASES OF THIS PROJECT UNLESS NOTED OR SHOWN OTHERWISE ON PLANS. TYPICAL DETAILS MAY NOT BE REFERENCED AND WILL APPLY TO SIMILAR CONDITIONS.
8) SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
9) THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS OF THE STRUCTURE.
10) ALL WORK SHALL CONFORM TO THE BEST PRACTICE PREVAILING IN THE VARIOUS TRADES COMPRISING THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES.
11) THESE NOTES, DETAILS, DRAWINGS AND SPECIFICATIONS (CONTRACT DOCUMENTS) REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING TEMPORARY SHORING AND SAFETY.
12) THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR INFORMATION NOT COVERED BY THE DRAWINGS.
13) THE CONTRACTOR SHALL PROVIDE THE DESIGN, MATERIALS, AND FABRICATION OF ALL TEMPORARY BRACING AND SHORING FOR ALL STRUCTURAL MEMBERS AS REQUIRED FOR STRUCTURAL STABILITY OF THE STRUCTURE DURING ALL PHASES OF THE CONSTRUCTION.
14) THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE PROPER ALIGNMENT OF THE STRUCTURE AFTER THE INSTALLATION OF ALL STRUCTURAL AND FINISH MATERIALS. THIS SHALL INCLUDE ANY NECESSARY PRE-LOADING OF THE STRUCTURE TO DETERMINE FINAL POSITION OF THE COMPLETED WORK.
15) OBSERVATION VISITS TO THE PROJECT SITE BY FIELD REPRESENTATIVES OF THE ENGINEER (SUPPORT SERVICES) SHALL NOT INCLUDE INSPECTIONS OF SAFETY OR PROTECTIVE MEASURES, NOR CONSTRUCTION PROCEDURES, TECHNIQUES OR METHODS. ANY SUPPORT SERVICES PERFORMED BY THE ENGINEER DURING ANY PHASE OF THE CONSTRUCTION, SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES (AS REQUIRED BY ANY REGULATING GOVERNMENTAL AGENCY, SUCH AS LOCAL BUILDING DEPARTMENT) PROVIDED BY OTHERS. THESE SUPPORT SERVICES, WHETHER MATERIAL OR WORK, ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE TO THE CONSTRUCTION DOCUMENTS, BUT DO NOT GUARANTEE THE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.
16) COORDINATION WITH ARCHITECTURAL PLANS; THE ARCHITECT SHALL COORDINATE STRUCTURAL PLANS WITH ALL OTHER PROFESSIONAL DISCIPLINES INCLUDING ARCHITECTURAL PLANS; ANY CONFLICTS BETWEEN THE STRUCTURAL PLANS AND OTHER CONSULTANTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN THE DESIGN PHASE.
17) PROVIDE OPENINGS AND SUPPORTS AS REQUIRED PER TYPICAL DETAILS AND NOTES FOR MECHANICAL AND ELECTRICAL EQUIPMENT, VENTS, DUCTS, PIPING, ETC. ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE PROPERLY "SWAY" BRACED AGAINST ALL LATERAL (WIND, SEISMIC, VIBRATION, ETC.) FORCES.
18) PRIOR TO COMMENCING WITH THE CONSTRUCTION, THE CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS TO COORDINATE WITH STRUCTURAL DRAWINGS, AND ANY DISCREPANCY BETWEEN THESE DRAWINGS SHALL BE REFERRED TO THE ENGINEER FOR CLARIFICATION BEFORE START OF CONSTRUCTION.
19) IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES OR SPECIFICATIONS, THEN THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR (SIM.) CONDITIONS THAT ARE SHOWN OR CALLED FOR.
20) THE CONTRACTOR SHALL HAVE A COPY OF THE PROJECT SOILS / GEOTECHNICAL / FOUNDATION INVESTIGATIONS ON THE JOB SITE AT ALL TIMES. THESE REPORTS SHALL BE CONSIDERED AS A PART OF THESE PLANS AND THE CONTRACTOR SHALL INCORPORATE ALL RECOMMENDATIONS/REQUIREMENTS OF SAID REPORTS INTO THE CONSTRUCTION OF THIS PROJECT.
21) ASTM DESIGNATIONS AND STANDARDS, ICBO REPORTS, AND CITY OF SAN JOSE (COLA) RESEARCH REPORTS (RR) REFER TO THE LATEST AMENDMENTS.
22) ONLY "BUILDING DEPARTMENT APPROVED" STRUCTURAL WORKING DRAWINGS ( AND ALL OTHER CONSTRUCTION DOCUMENTS) ARE PERMITTED TO BE USED FOR CONSTRUCTION ON THIS PROJECT. ALL OTHER DRAWINGS ARE OBSOLETE AND ARE NOT PERMITTED ON THE JOB SITE, NOR SHALL THEY BE USED FOR ANY CONSTRUCTION PURPOSES (INCLUDING THE CALCULATION OF ALL FINAL ESTIMATES AND BIDS AND CONTRACTS). ANY CONTRACTOR USING UNAPPROVED DRAWINGS WILL BE HELD SOLELY RESPONSIBLE FOR ALL WORK NOT PERFORMED IN ACCORDANCE WITH THE "APPROVED" DRAWINGS.
23) THESE PLANS REPRESENT THE STRUCTURAL DESIGN ONLY. NO INFORMATION NOR WARRANTY IS PROVIDED FOR ARCHITECTURAL INFORMATION, INCLUDING BUT NOT LIMITED TO, WATERPROOFING DETAILS, DRAINAGE, VENTILATION OF FRAMING, AND ARCHITECTURAL DIMENSIONS.
24) ALL REPORTS BY THE SPECIAL DEPUTY INSPECTOR SHALL BE SUBMITTED TO THE ENGINEER AND ARCHITECT.
25) NO WARRANTY: IN PERFORMANCE OF PROFESSIONAL SERVICES, THE ENGINEER SHALL USE THAT DEGREE OF CARE AND SKILL ORDINARILY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY OTHER MEMBERS OF THE PROFESSION IN THIS LOCALE AT THE TIME THE SERVICES ARE RENDERED. NO OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED, IS MADE IN CONNECTION WITH RENDERING OF PROFESSIONAL SERVICES.
26) STRUCTURE TO BE BUILT PER PERMITTED PLANS. IF ANY DISCREPANCIES FOUND BETWEEN EXISTING CONDITIONS IN THE FIELD AND EXISTING CONDITIONS ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AND ARCHITECT IN WRITTEN FORM EXPLAINING THE DISCREPANCY. ALL STRUCTURAL CONSTRUCTION QUESTIONS ARE TO BE IN WRITTEN FORM AND SENT TO THE ENGINEER OF RECORD AT HJH ENGINEERING AND ALSO SENT TO THE ARCHITECT OF RECORD BY THE GENERAL CONTRACTOR AND/OR SUBCONTRACTORS.
27) STRUCTURAL OBSERVATION: WHEN THE ENGINEER OF RECORD IS REQUIRED TO PERFORM STRUCTURAL OBSERVATIONS IN THE FIELD DURING CONSTRUCTION. (SEE STRUCTURAL OBSERVATION NOTES) THE FIELD SHALL NOTIFY THE ENGINEER OF RECORD AT LEAST 48 HOURS IN ADVANCE OF THE REQUIRED STRUCTURAL OBSERVATION. CITY INSPECTION SHALL BE SCHEDULED ONE DAY AFTER ENGINEER'S STRUCTURAL OBSERVATION.

BUILDING AND SITE INFORMATION

SEISMIC DESIGN CATEGORY: E
SEISMIC IMPORTANCE FACTOR, I: 1.0
RISK CATEGORY: 2
SEISMIC-FORCE-RESISTING SYSTEM(S): LIGHT FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
ORDINARY MOMENT FRAME (OMF) - GRID LINE 1, 1.2, 2, AND D
RESPONSE MODIFICATION FACTOR, R: 6.5 (LIGHT FRAMED SHEAR WALLS) 3 (OMF)
REDUNDANCY FACTOR, R: 1.3
DEAD LOADS: ROOF: 11.0 PSF (MAX. LIGHT WT. CONC. ROOF TILE WEIGHT = 7.5 PSF) CEILING: 11.0 PSF FLOOR: 20.0 PSF DECK: 33.0 PSF
LIVE LOADS: ROOF: 20.0 PSF FLOOR: 40.0 PSF DECK: 60.0 PSF
EQUIVALENT LATERAL FORCE PROCEDURE: SHORT SPECTRAL RESPONSE ACCELERATION, SS: 2.267 1 SEC. SPECTRAL RESPONSE ACCELERATION, S1: 0.874 SHORT SPECTRAL RESPONSE COEFFICIENT, SDS: 1.814 1 SEC. SPECTRAL RESPONSE COEFFICIENT, SD1: 0.991
SEISMIC RESPONSE COEFFICIENT, CS= 0.279 W
DESIGN BASE SHEAR, V= 0.254 W (ASD)
WIND DESIGN PARAMETERS: BASIC WIND SPEED (V) : 95 MPH (ASCE 7-16 FIG. 26.5-1B) EXPOSURE CATEGORY: C (ASCE 7-16 SEC. 26.7.3) RISK CATEGORY: 2 (ASCE 7-16, TABLE 1.5-1) TOPOGRAPHIC FACTOR (Kzt): 1.0 ADJUSTMENT FACTOR (X): 1.4 MEAN ROOF HEIGHT (H): 30 FT ROOF SLOPE (S): 22.6 INTERNAL PRESSURE COEFFICIENT (GCPI): +/- 0.18 (ASCE 7-16 FIG. 26.13-1) SIMPLIFIED HORIZONTAL PRESSURE (PS30): 18.86 PSF DESIGN HORIZONTAL PRESSURE (PS): 26.41 PSF (15.8 PSF ASD)

GENERAL

- 1) ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE MINIMUM STANDARDS OF THE 2021 EDITION OF THE IBC AND THE 2022 CALIFORNIA BUILDING CODE AND ALL OTHER REGULATING AGENCIES EXERCISING AUTHORITY OVER ANY PORTION OF THE WORK.
2) THE CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SPECIFICATIONS (CONTRACT DOCUMENTS) AND VERIFY ALL DIMENSIONS AND CONDITIONS AND REPORT ANY DISCREPANCIES (BETWEEN ARCHITECTURAL AND STRUCTURAL OR BETWEEN STRUCTURAL AND MEP OR BETWEEN STRUCTURAL AND THE CONDITIONS IN THE FIELD) TO THE ENGINEER AND ARCHITECT BEFORE PROCEEDING WITH CONSTRUCTION OR FINAL BIDDING. THE ARCHITECTURAL PLANS SHALL BE USED FOR ALL DIMENSIONS AND WALL LAYOUTS.
3) CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT TO THE COUNTY OF SANTA CLARA INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT.

SHEET INDEX

Table with 2 columns: Description and Sheet Number. Includes entries like GENERAL NOTES AND SPECIFICATIONS S-1, STEEL MOMENT FRAME SPECIFICATIONS AND QUALITY ASSURANCE S-1.2, BASEMENT FOUNDATION PLAN S-2, FIRST FLOOR FOUNDATION & FRAMING PLAN S-3, SECOND FLOOR FRAMING PLAN S-4, ROOF FRAMING PLAN S-5, STRUCTURAL DETAILS S-6.1, STRUCTURAL DETAILS S-6.2, STRUCTURAL DETAILS S-7, STRUCTURAL DETAILS S-8, STRUCTURAL DETAILS S-9, STRUCTURAL DETAILS S-10, STRUCTURAL DETAILS S-11, HFX DETAILS HFX-1, HFX DETAILS HFX-2.

County of Santa Clara Committee I-3: Structural Observation. STRUCTURAL OBSERVATION PROGRAM AND DESIGNATION OF THE STRUCTURAL OBSERVER. BELLA MADIERA LANE SAN JOSE, CA. PROJECT ADDRESS: APN: 654-64-012 PERMIT APPL. NO.:. Description of Work: NEW RESIDENTIAL. Owner: Architect: STEVE BENZING Engineer: HJH ENGINEERING. Table with columns: FOUNDATION, WALL, FRAME, DIAPHRAGM. Includes checkboxes for Footing, Stem Walls, Piers; Concrete; Steel Moment Frame; Concrete; Mat Foundation; Masonry; Steel Braced Frame; Steel Deck; Columns/Piles; Grade Beams; Wood; Concrete Moment Frame; Wood; Stepping, Retaining Foundation; Special Anchors; Others; HFX.

DECLARATION BY OWNER: I, the Owner of the project, declare that the above listed firm or individual is hired by me to be the Structural Observer. DECLARATION BY ARCHITECT OR ENGINEER OF RECORD: I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation.

REVISIONS table with columns for description, date, and revision number. HJH ENGINEERING logo and contact information: Structural Engineering Consultants, 23006 Erwin St., Woodland Hills, CA 91367, (818) 519-8572, jack@hjhengineering.com, email. JAMES LE RESIDENCE, BELLA MADIERA LANE, SAN JOSE, CA, APN: 654-64-012. GENERAL NOTES. PROJECT NUMBER: 23B03. PROJ. ENG. / DRAWN: JH. DATE: DEC. 10, 2023. SCALE: AS NOTED. SHEET NUMBER: S-1.0.

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF H.J. ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF AND APPROPRIATE COMPENSATION TO H.J. ENGINEERING. COPYRIGHT ©2017

### MASONRY (CONTINUED)

- I) GROUTING OPERATIONS, MAXIMUM GROUT POUR HEIGHT, AND USE OF CLEAN-OUTS SHALL CONFORM TO 2022 C.B.C SECTION 2104.1.2 AND ACI 530.1-11 SECTION 1.20. CLEANOUTS (IF REQUIRED) SHALL BE PROVIDED BY SUITABLE 'C' OPENINGS IN THE FACE SHELLS IN THE BOTTOM COURSE OF EACH CELL TO BE GROUTED, OR OTHER APPROVED LOCATIONS. THE CLEAN-OUTS SHALL BE SEALED AFTER INSPECTION AND BEFORE GROUTING.
  - J) ALL CELLS SHALL BE FILLED SOLIDLY WITH GROUT UNLESS NOTED OTHERWISE. GROUT SHALL BE A WORKABLE MIX SUITABLE FOR PUMPING WITHOUT SEGREGATION AND SHALL BE THOROUGHLY MIXED. GROUT SHALL BE PLACED BY PUMPING OR AN APPROVED ALTERNATIVE METHOD AND SHALL BE PLACED BEFORE INITIAL SET OR HARDENING OCCURS. GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION DURING PLACING AND RECONSOLIDATED AFTER EXCESS MOISTURE HAS BEEN ABSORBED BUT BEFORE WORKABILITY HAS BEEN LOST. THE GROUTING OF ANY SECTION OF A WALL SHALL BE COMPLETED IN ONE DAY WITH NO INTERRUPTIONS GREATER THAN ONE HOUR.
  - K) WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE POUR OF GROUT APPROXIMATELY 1 1/2" ABOVE OR BELOW A BED JOINT.
  - L) ALL REINFORCING SHALL BE IN PLACE AND SECURED PRIOR TO GROUTING. REINFORCEMENT SHALL BE PLACED AND SECURED IN CONFORMANCE WITH 2022 CBC AND ACI 530.1-11.
  - 6) FOR CONSTRUCTION DURING HOT WEATHER WHEN AMBIENT TEMPERATURE EXCEEDS 100 DEGREE F, OR EXCEEDS 90 DEGREE F WITH A WIND VELOCITY OF GREATER THAN 8 MPH PREPARATION AND CONSTRUCTION MUST CONFORM TO 2022 C.B.C. SECTION 2104.4, ARTICLE 1.8D OF ACI 530.1-11.
  - 7) BLOCK WALLS SHALL HAVE A MINIMUM OF #5 @ 24" O.C. VERTICAL STEEL AND #4 @ 24" OC. HORIZONTAL STEEL, UNLESS NOTED OTHERWISE ON PLANS.
  - 8) ALL WALL CORNERS AND ENDS, AND DOOR AND WINDOW JAMBS SHALL HAVE 2-#5 BARS AS JAMB STEEL MINIMUM UNLESS NOTED OTHERWISE.
  - 9) ALL JAMB REINFORCEMENT SHALL DOWEL AND HOOK INTO THE FOOTING OR DECK BELOW WITH LAP BARS OF THE SAME DIAMETER.
  - 10) BLOCK RETAINING WALLS MAY BE BACKFILLED BEFORE THE GROUT IS 28 DAYS OLD IF TEST RESULTS SUBSTANTIATE THAT THE 2000 PSI COMPRESSIVE STRENGTH HAS BEEN REACHED.
  - 11) MASONRY WALLS DESIGNED TO BE EVENTUALLY RESTRAINED AT THE TOP (I.E. BY A CONCRETE DECK OR FLOOR FRAMING) SHALL REQUIRE BRACING CLOSE TO THE TOP OF THE WALL IF BACKFILLED PRIOR TO THE CONCRETE DECK/FLOOR FRAMING INSTALLATION.
  - 12) REINFORCING BARS LARGER THAN #8 ARE NOT PERMITTED UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE. BAR DIAMETER SHALL NOT EXCEED 1/8 OF WALL THICKNESS AND SHALL NOT EXCEED 1/4 OF THE LEAST DIMENSION OF THE CELL, COURSE OR COLLAR JOINT IN WHICH IT IS PLACED (2022 CBC SECTION 2107.4).
  - 13) REINFORCEMENT LARGER THAN #9 SHALL BE SPLICED USING MECHANICAL CONNECTIONS IN ACCORDANCE WITH ACI 530 SECTION 2.1.8.7 (2022 CBC 2107.3).
  - 14) CONTINUOUS SPECIAL INSPECTION AS REQUIRED OR SPECIFIED SHALL CONFORM TO 2022 CBC SECTION 2105.3 AND SECTION 1705.4. SPECIAL INSPECTION SERVICES SHALL BE PROVIDED BY AN I.C.B.O. CERTIFIED DEPUTY INSPECTOR OR BUILDING DEPARTMENT APPROVED ENGINEER.
  - 15) AT ALL SPLICES IN REINFORCING (STAGGER SPLICES), LAP (MINIMUM) BARS 40 BAR DIAMETERS. THE MINIMUM RADIUS OF BEND FOR REINFORCING STEEL ( MEASURED ON THE INSIDE OF THE BAR) SHALL BE AS FOLLOWS:  
#3 := 1-1/5" #4 := 2" #5 = 2.5" #6 = 4.5"
  - 16) ALL HORIZONTAL ANCHOR BOLTS USED IN CONCRETE BLOCK CONSTRUCTION SHALL HAVE A MINIMUM TOTAL EMBEDMENT AS FOLLOWS: 5/8 DIA. OR SMALLER = 4" EMBEDMENT, 3/4" DIA = 5" EMBEDMENT, 7/8" DIA = 6" EMBEDMENT.
  - 17) UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE, VERTICAL CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE BLOCK WALLS PER THE LESSER OF:  
1) 25-0" O.C.  
2) LENGTH TO HEIGHT RATIO OF 1.5. (I.E. IF HEIGHT IS 8'-0" HIGH, THE SPACING WOULD BE 12'-0", THE GOVERNING SPACING WOULD BE 12'-0")  
CONTROL JOINTS SHALL EXTEND THE FULL HEIGHT OF THE WALL.
- LOCATION OF ALL CONSTRUCTION/CONTROL JOINTS, OTHER THAN THOSE SPECIFIED, SHALL BE APPROVED BY THE ARCHITECT AND THE STRUCTURAL ENGINEER PRIOR TO PLACEMENT.
- 18) CONCRETE BLOCK WALLS (OF ONE STORY OR TALLER) SHALL BE SECURELY BRACED AND SHORED BY CONTRACTOR DURING ALL PHASES OF CONSTRUCTION
  - 19) REINFORCEMENT SHALL BE SECURED AGAINST DISPLACEMENT PRIOR TO GROUTING USING WIRE POSITIONERS AT INTERVALS NOT EXCEEDING 200 BAR DIAMETERS. REINFORCEMENT PLACEMENT PER ACI 530-11 SECTION 1.16.3.

### PREFABRICATED WOOD ROOF TRUSSES

- 1) DESIGN AND FABRICATION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AND THE "GUIDELINES FOR METAL PLATE CONNECTED WOOD TRUSSES" BY THE AMERICAN FOREST AND PAPER ASSOCIATION.
- 2) THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, ALONG WITH A COMPLETE SET OF STRUCTURAL DESIGN CALCULATIONS FOR REVIEW PRIOR TO FABRICATION. DESIGN OF THE ROOF TRUSSES SHALL BE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER. SHOP DRAWINGS SHALL BE STAMPED BY AN ENGINEER REGISTERED IN THE STATE OF THE PROJECT.
- 3) CONNECTOR PLATES USED BY THE TRUSS MANUFACTURER SHALL BE APPROVED BY A CURRENT ICC RESEARCH RECOMMENDATION. A COPY OF THE RECOMMENDATION IS TO BE INCLUDED AS PART OF THE SHOP DRAWING SUBMITTAL.
- 4) ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING MINIMUM DEAD LOADS:  
TOP CHORD: [17] POUNDS PER SQ. FOOT.  
BOTTOM CHORD: [11] POUNDS PER SQ. FOOT.  
[INCLUDING A SINGLE 200 POUND POINT LOAD APPLIED WHERE A MAXIMUM STRESS CONDITION WILL OCCUR.] DESIGN BOTTOM CHORD FOR POINT LOAD IN ACCORDANCE WITH ASCE 7.
- 5) JOIST DEFLECTION REQUIREMENTS: LIVE LOAD = L/360, TOTAL LOAD = L/240, L= TRUSS SPAN IN INCHES.
- 6) TRUSSES SHALL BE DESIGNED FOR A NET UPLIFT PRESSURE OF [10] PSF.
- 7) LUMBER GRADES: MINIMUM GRADE = NO. 2, D.FIR/LARCH, S.DRY, Fb=1250.
- 8) THE DESIGN OF THE TRUSSES SHALL INCLUDE EFFECTS OF ANY ECCENTRICITY IN THE JOINTS.
- 9) BOTTOM CHORD BRACING NOT SHOWN ON PLANS SHALL BE THE MINIMUM REQUIRED. TRUSS MANUFACTURER TO PROVIDE ADDITIONAL LINES AS REQUIRED PER TRUSS DESIGN. ALL WEB MEMBERS IN COMPRESSION SHALL BE LATERALLY BRACED, UNLESS THE STRUCTURAL CALCULATIONS PROVE THAT NONE IS REQUIRED.

### MANUFACTURED LUMBER (TJI, PSL, LVL, LSL)

- 1) SCOPE: THIS WORK INCLUDES THE COMPLETE FURNISHINGS AND INSTALLATION OF ALL WOOD WEB JOISTS (TJI), PARALLEL STRAND LUMBER (PSL) BEAMS, LAMINATED VENEER LUMBER (LVL) AND TIMBERSTRAND LUMBER (LSL) MANUFACTURED BY WEYERHAEUSER ILEVEL (OR APPROVED EQUIVALENT) AS SHOWN ON THE DRAWINGS.
- 2) CODE APPROVALS: THESE PRODUCTS SHALL BE DESIGNED AND MANUFACTURED TO THE STANDARDS SET FORTH IN THE INTERNATIONAL CODE COUNCIL (ICC) EVALUATION SERVICE, INC. REPORT NO. ESR -1387 AND REPORT NO. ESR-1153 .
- 3) PRODUCT MATERIALS SHALL COMPLY WITH ICC REPORT NO. ESR -1387 AND NO. ESR-1153. MEMBERS SHALL BE MANUFACTURED FROM STRANDS OF WOOD FIBER IN A CONTINUOUS PROCESS WITH ALL STRANDS ORIENTED TO THE LENGTH OF THE MEMBER AND THEN FED INTO A PRESS IN THE DESIRED LAY-UP PATTERN. ALL MEMBERS ARE TO BE FREE OF FINGER JOINTS OR SCARS OR MECHANICAL CONNECTIONS IN FULL LENGTH MEMBERS. LVL WOOD VENEERS SHALL BE ULTRASONICALLY GRADED OR GRADED BY OTHER ADVANCED GRADING SYSTEMS. WEST COAST MICROSLAM 1.9 F SHALL BE USED. ADHESIVES SHALL BE OF THE WATERPROOF TYPE CONFORMING TO THE REQUIREMENTS OF ASTM D-2559.
- 4) FABRICATION: MEMBERS SHALL BE MANUFACTURED IN A PLANT APPROVED FOR FABRICATION BY THE BUILDING CODE AND UNDER THE SUPERVISION OF AN APPROVED THIRD PARTY INSPECTION AGENCY. PRODUCT TO BE FABRICATED IN AN LADS LICENSED FABRICATOR'S SHOP. IT SHALL BE MANUFACTURED IN A CONTINUOUS PROCESS WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBERS. IDENTIFICATION: EACH OF THE JOISTS SHALL BE IDENTIFIED BY A STAMP INDICATING THE TYPE, NER REPORT NUMBER, MANUFACTURERS NAME, PLANT NUMBER, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO.
- 5) ERECTION AND INSTALLATION: IF STORED PRIOR TO ERECTION, MEMBERS SHALL BE PROTECTED FROM THE WEATHER. IT SHALL BE ERECTED AND INSTALLED IN ACCORDANCE WITH THE PLANS, MANUFACTURER SPECIFICATIONS AND ANY OTHER DRAWINGS AND INSTALLATION SUGGESTIONS WHICH MAY BE PROVIDED. TEMPORARY CONSTRUCTION LOADS WHICH CAUSE STRESSES BEYOND DESIGN LIMITS ARE NOT PERMITTED. HOLES, CUTS, OR NOTCHES NOT PREVIOUSLY APPROVED BY MANUFACTURER AND/OR ENGINEER SHALL NOT BE PERMITTED.
- 6) PROVIDE SOLID BLOCKING AT SHEAR WALLS AS PER TYPICAL SHEAR TRANSFER DETAILS ON PLANS. THIS BLOCKING SHALL BE LSL MATERIAL.
- 7) JOISTS ARE TO BE BLOCKED AT SPANS PER MANUFACTURER'S RECOMMENDATIONS.
- 8) THE PRODUCTS DELIVERED SHALL BE FREE FROM MANUFACTURING ERRORS OR DEFECTS IN WORKMANSHIP AND MATERIAL. FIRE RATING/SOUND RATING: FIRE AND SOUND RATINGS ARE TO BE ESTABLISHED IN ACCORDANCE WITH ASSEMBLIES AS DETAILED IN ICC REPORT NO. ESR-1153.
- 9) ALTERNATES AND/OR EQUALS: DUE TO THE CUSTOMIZED DETAILING AND ENGINEERING CHARACTERISTIC OF THE ROOF AND/OR FLOOR FRAMING ASSEMBLY, IT IS A REQUIREMENT THAT WEYERHAEUSER LEVEL BE USED IN THE "BASE" BID. OTHER MANUFACTURERS' BIDS ARE TO BE LISTED IN THE ALTERNATE SECTION OF YOUR PROPOSAL. ALL FRAMING PLANS, DETAILING, AND CALCULATIONS FOR THE ALTERNATE BIDS WILL BE REVIEWED BY THE OWNER, ARCHITECT, AND ENGINEER FOR STRUCTURAL PERFORMANCE, POSSIBLE CONFLICTS RELATED TRADES, AND COMPATIBILITY WITH THE OVERALL BUILDING REQUIREMENTS AND BUILDING CODE.

### MASONRY

- 1) ALL CONCRETE BLOCK CONSTRUCTION SHALL BE SOLID GROUTED UNLESS NOTED OTHERWISE. CONSTRUCTION SHALL COMPLY WITH 2022 CBC SECTIONS 2104.1.1 THROUGH 2104.4 AND WITH ACI 530.1-11.
- 2) CONCRETE BLOCK UNITS:  
A) CONFORM TO 2022 C.B.C. SECTION 2103.1 AND ASTM C 90, HOLLOW LOAD BEARING CONCRETE UNITS.  
B) CONCRETE BLOCK UNIT TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF (FM) OF 1,500 PSI  
C) OPEN-END MASONRY UNITS (SPEED BLOCK) ARE ACCEPTABLE WHEN NEEDED.
- 3) MORTAR:  
A) MORTAR SHALL BE TYPE 'M' OR 'S' AND SHALL CONFORM TO ASTM C 270 AND ARTICLES 2.1 AND 2.6A OF ACI 530.1-11 (2022 CBC SECTION 2103.9).  
B) MORTAR SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 1800 P.S.I. AT 28 DAYS.
- 4) GROUT:  
A) GROUT SHALL COMPLY WITH ARTICLE 2.2 OF ACI 530.1 (2022 CBC SECTION 2103.13).  
B) GROUT SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 2000 P.S.I. AT 28 DAYS.
- 5) REQUIREMENTS FOR CONCRETE BLOCK CONSTRUCTION SHALL CONFORM TO THE FOLLOWING:  
A) CONCRETE BLOCK CONSTRUCTION SHALL CONFORM TO 2022 C.B.C. SECTION 2104 AND ACI 530.1-11.  
B) EVERY OPENING (EXCEEDING 24" IN EITHER DIRECTION) SHALL HAVE A MINIMUM OF 2-#5 DIRECTLY ABOVE, AND BELOW (UNLESS AT THE FOUNDATION) AND ADJACENT TO BOTH SIDES. REINFORCING BARS SHALL EXTEND A MINIMUM OF 24" PAST EDGE OPENING.  
C) AT THE ENDS OF ALL WALLS THERE SHALL BE A MINIMUM OF 2-#5 VERTICAL.  
D) AT THE TOP OF ALL WALLS SHALL BE A MINIMUM OF 2-#4 HORIZONTALLY.  
E) DOWEL CONCRETE BLOCK WALLS AND COLUMNS SUPPORTING CONCRETE WITH BARS OF THE SAME SIZE AND SPACING AS VERTICAL. SEE NOTES FOR MINIMUM LENGTH OF SPLICE.  
F) BOND SHALL BE PROVIDED BY LAPPING UNITS IN SUCCESSIVE VERTICAL COURSES (RUNNING BOND). STACK BOND OR MECHANICAL ANCHORAGE SHALL NOT BE USED UNLESS SPECIFICALLY NOTED OR DETAILED.  
G) AT THE TIME OF LAYING ALL MASONRY, UNITS SHALL BE FREE OF EXCESSIVE DIRT AND DUST. HOLLOW UNITS SHALL BE PLACED SUCH THAT FACE OF SHELLS OF BED JOINTS ARE FULLY MORTARED. WEBS SHALL BE FULLY MORTARED IN ALL COURSES OF PIERS, COLUMNS, PILASTERS, IN THE STARTING COURSE ON FOUNDATIONS WHERE ADJACENT CELLS OR CAVITIES ARE TO BE GROUTED, AND WHERE OTHERWISE REQUIRED. HEAD JOINTS SHALL BE MORTARED A MINIMUM DISTANCE FROM EACH FACE EQUAL TO THE FACE SHELL THICKNESS OF THE UNITS. THICKNESS OF BED JOINTS SHALL NOT EXCEED 5/8" (2022 CBC SECTION 2105.2.2.1.2)
- H) GROUTING OPERATIONS, MAXIMUM GROUT POUR HEIGHT, AND USE OF CLEAN-OUTS SHALL CONFORM TO 2022 C.B.C SECTION 2104.1.2 AND ACI 530.1-11 SECTION 1.20. CLEANOUTS (IF REQUIRED) SHALL BE PROVIDED BY SUITABLE 'C' OPENINGS IN THE FACE SHELLS IN THE BOTTOM COURSE OF EACH CELL TO BE GROUTED, OR OTHER APPROVED LOCATIONS. THE CLEAN-OUTS SHALL BE SEALED AFTER INSPECTION AND BEFORE GROUTING.

### GENERAL STEEL AND WELDING

- 1) ALL STRUCTURAL STEEL SHALL BE IDENTIFIED IN ACCORDANCE WITH 2021 IBC AND 2022 CBC SECTION 2205A AND AISC 360-16. WIDE FLANGE SECTIONS TO BE A-572 50 KSI STEEL.
- 2) STEEL SHAPES, PLATES AND BARS SHALL BE MIN. ASTM A36 (FY = 36 KSI) UNLESS NOTED OTHERWISE.
- 3) WIDE FLANGE SECTIONS IN MOMENT FRAMES SHALL BE A992 GR. 50-65 KSI. ALL OTHER WIDE FLANGE SECTIONS SHALL BE GR. 50 (MIN. FY = 50 KSI).
- 4) PIPE STEEL SHALL BE WELDED PIPE CONFORMING TO ASTM A-53 GRADE "B" (MIN. FY = 35 KSI); TUBE STEEL TO BE ASTM A500 (MIN. FY = 42 KSI) .
- 5) ALL BOLTS SHALL BE ASTM A-325 UNLESS NOTED OTHERWISE AND SHALL CONFORM TO AISC 360-16. REGULAR THREADED ROD SHOULD BE ASTM A36. HIGH STRENGTH THREADED ROD SHALL BE ASTM A449.
- 6) ALL STRUCTURAL STEEL AND CONNECTIONS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS AND CODE OF STANDARD PRACTICE AS AMENDED TO DATE. FABRICATOR TO BE LICENSED.
- 7) SHOP WELDING TO BE ELECTRIC-ARC PROCESS BY QUALIFIED AND CERTIFIED WELDERS IN THE CITY OF SAN JOSE APPROVED AND PROPER ELECTRODES. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL HAVE A FILLER METAL WITH A NOTCH TOUGHNESS OF 20 FOOT-POUNDS AVERAGE AT ZERO DEGREES FAHRENHEIT.
- 8) ALL STRUCTURAL STEEL SHALL BE PAINTED ONE SHOP COAT AND FIELD TOUCH-UP WITH SELF-CROSS LINKING HYDROPHOBIC ACRYLIC PRIMER AS NECESSARY. (FIELD PAINTING: TOUCH-UP ALL DAMAGED PAINT, BOLTS AND WELDS.)
- 9) SHOP DRAWINGS AND DETAILS FOR THE FABRICATION OF ANY STRUCTURAL STEEL SHALL BE APPROVED BY THE CONTRACTOR AND SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR THEIR REVIEW PRIOR TO FABRICATION. THE STEEL ERECTOR SHALL PROVIDE ALL ERECTION BRACING REQUIRED TO MAINTAIN STRUCTURE PLUMB AND PROPERLY BRACED DURING CONSTRUCTION.
- 10) SPECIAL INSPECTION SHALL BE PROVIDED FOR ALL STRUCTURAL FIELD WELDING IN ACCORDANCE WITH CBC 2022 SECTION 1704, AS INDICATED ON THE PLANS. ALL FIELD WELDING BY LICENSED WELDERS
- 11) ONLY THAT FIELD WELDING INDICATED ON PLANS WILL BE PERMITTED.
- 12) NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THROUGH STRUCTURAL STEEL MEMBERS. BURNING OF HOLES IS NOT PERMITTED.
- 13) ALL WELDING SHALL CONFORM TO 'AWS' SPECIFICATION FOR WELDING. SEE WELDING SPECS BELOW.
- 14) ALL HEADED STUDS (FOR CONCRETE ANCHORAGE) SHALL BE MANUFACTURED BY 'NELSON' OR APPROVED EQUAL.
- 15) WHERE FILLET WELD SIZE IS NOT INDICATED, USE 'AWS' MINIMUM SIZE BASED ON THE BEARING CAPACITY OF THE THICKER PART BEING WELDED, AS SPECIFIED IN AISC 360-16 SECTION J2.2.
- 16) ALL BUTT WELDS TO BE FULL PENETRATION, UNLESS SPECIFICALLY NOTED OTHERWISE.
- 17) ALL STEEL BEAMS SHALL HAVE 1/4" PLATE WEB STIFFENERS AT 1/3 POINTS OF THEIR SPANS - TWO PLACES MINIMUM PER BEAM.
- 18) PROVIDE HOT DIP GALVANIZING OR 3" MINIMUM CONCRETE COVER AROUND ALL STRUCTURAL STEEL BELOW GRADE.

### RETAINING WALL SPECIFICATIONS

- 1) CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR TEMPORARY SHORING DURING RETAINING WALL CONSTRUCTION. VERTICAL CUTS IN EXCESS OF 5' SHALL HAVE THE UPPER PORTION TRIMMED BACK AT A 1:1 SLOPE BEFORE CONSTRUCTION COMMENCES.
- 2) SEE SOIL REPORT BY C2 EARTH INC., REPORT NUMBER 23062C-01L2, DATED OCTOBER 12, 2023, WHICH IS CONSIDERED A PART OF THESE PLANS. ALLOWABLE BEARING PRESSURE = 4,000 PSF. RECOMMENDATIONS THEREIN SUPERSEDES STRUCTURAL DRAWINGS AND SPECIFIC RETAINING WALL DETAILS FOR ADDITIONAL REQUIREMENTS. PROJECT SOILS REPORT SHALL TAKE PRECEDENCE OVER THESE NOTES AND SPECIFIC RETAINING WALL DETAILS .
- 3) CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS AND INFORM THE ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
- 4) BEFORE BACKFILLING WALL, A GRANULAR DRAINAGE MATERIAL (SEE NOTE NUMBER 5) SHALL BE PLACED BEHIND THE WALL IN A CONTINUOUS 12" WIDE STRIP. THE DRAINAGE MATERIAL SHALL EXTEND THE FULL HEIGHT OF WALL UP TO 12" BELOW TOP OF THE HIGHER GRADE.
- 5) GRANULAR DRAINAGE MATERIAL SHALL CONSIST OF 3/4" TO 1-1/2" CLEAN CRUSHED ROCK AND SHALL BE FREE OF ORGANIC MATERIAL, CLAY, OR OTHER DELETERIOUS MATERIAL.
- 6) DRAINAGE AND BACKFILL MATERIAL SHALL NOT BE PLACED UNTIL CONCRETE AND/OR MASONRY HAS REACHED DESIGN STRENGTH.
- 7) BACKFILLING AND COMPACTION:  
A) FREE-STANDING WALLS: DO NOT BACKFILL WALL UNIT UNTIL SEVEN (7) DAYS (MINIMUM) AFTER SOLID GROUTING OF WALL IS COMPLETED AND REACHED DESIGN STRENGTH. BACKFILL MATERIAL SHALL BE PLACED IN CONTINUOUS (FOR ENTIRE LENGTH OF WALL) 12" LIFTS AND COMPACTED WITH LIGHTWEIGHT TAMPERS. DO NOT FRAME WOOD STUD WALLS OR JOIST FLOORS, OR POUR CONCRETE SLABS (AT TOP OF RETENTION) UNTIL SEVEN (7) DAYS (MINIMUM) AFTER BACKFILLING AND COMPACTION OPERATION IS COMPLETE.
- 8) ALL FOOTINGS SHALL BE POURED AGAINST UNDISTURBED GROUND OR APPROVED (BY SOILS ENGINEER) FILL.
- 9) CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER IF SUPERIMPOSED LOADING OCCURS FROM ADJACENT EXISTING FOUNDATIONS OR OTHER STRUCTURES WITHIN A DISTANCE EQUAL TO THE OVERALL HEIGHT OF THE WALL.
- 10) MAXIMUM UPHILL SLOPE BEHIND WALL (UNLESS NOTED OTHERWISE) SHALL BE 1 (VERTICAL) TO 2 (HORIZONTAL).
- 11) A FOUR INCH (4") MINIMUM DIAMETER PERFORATED DRAIN PIPE SDR 35 PVC (WITH PERFORATIONS PLACED DOWNWARD) SHALL BE PLACED AT THE BASE OF THE FOOTING AND COMPLETELY SURROUNDED BY GRANULAR DRAINAGE MATERIAL (SEE NOTE NUMBER 5). DRAIN PIPE SHALL HAVE A MINIMUM 2% SLOPE TO DAYLIGHT. ALL DRAINAGE AND WATERPROOFING SPECS SHALL BE BY OTHERS.
- 12) BEFORE GRANULAR DRAINAGE MATERIAL AND BACKFILL IS PLACED, THE ENTIRE BACKSIDE (RETENTION SIDE) OF WALL SHALL BE THOROUGHLY WATERPROOFED.
- 13) MIRAFI 140N FILTER FABRIC SHALL BE INSTALLED BETWEEN GRAVEL DRAINAGE MATERIAL (SEE NOTE NUMBER FOUR) AND BACKFILL MATERIAL, TO PREVENT INFILTRATION OF NATIVE SOILS OR BACKFILL MATERIAL INTO DRAINAGE MATERIAL.

### TIMBER (CONTINUED)

- 21) ALL LUMBER SHALL CONFORM TO THE AMERICAN SOFTWOOD LUMBER STANDARD DOC PS 20.
- 22) MAXIMUM MOISTURE CONTENT FOR ALL STRUCTURAL MEMBERS SHALL NOT EXCEED 19% (UNLESS SPECIFICALLY NOTED OTHERWISE).
- 23) FACE NAIL ALL DOUBLE 2X STUDS AND JOISTS TOGETHER WITH 16D AT 6" O.C., STAGGER NAILS TOP AND BOTTOM.
- 24) PROVIDE 2X SOLID FIRE BLOCKING IN ALL STUD WALLS AT A MAXIMUM OF 8'-0" VERTICAL SPACING.
- 25) PLACE ALL BEAMS WITH NATURAL CAMBER UPWARD.
- 26) NOTCHING AND HOLES IN STRUCTURAL MEMBERS SHALL CONFORM TO NOTES BELOW UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE, OR WITH THE WRITTEN APPROVAL OF THE ARCHITECT AND THE STRUCTURAL ENGINEER.
- 27) HOLES AND NOTCHES IN JOISTS:  
28) NOTCHES IN THE TOP AND BOTTOM OF JOISTS SHALL NOT EXCEED ONE SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN OR WITHIN 18" OF THE SUPPORTS.  
29) HOLES BORED IN JOISTS SHALL NOT EXCEED ONE SIXTH OF THE JOIST DEPTH AND SHALL BE LOCATED WITHIN THE MIDDLE 2/3 OF THE SPAN AND WITHIN THE MIDDLE THIRD OF THE JOIST'S DEPTH.
- 30) HOLES AND NOTCHES IN STUDS, PLATES, AND SILLS: BORED HOLES MAY BE PLACED IN STUDS, PLATES, AND SILLS PROVIDED THAT THEY ARE ACCURATELY CENTERED ABOUT STUD, SPACED A MINIMUM OF 12" APART AND THE HOLE DIAMETER DOES NOT EXCEED 25% OF THE STUD WIDTH. STUDS MAY BE NOTCHED PROVIDED NOTCH DEPTH DOES NOT EXCEED 25% OF STUD WIDTH. SHOULD THE BORED HOLE EXCEED 25%, CONTACT THE ARCHITECT AND THE STRUCTURAL ENGINEER. NON-BEARING PARTITIONS MAY BE BORED TO 40% OF WIDTH.
- 31) PROVIDE DOUBLE JOISTS BENEATH ALL NON-BEARING PARALLEL WALLS WITHOUT WALLS BELOW. PROVIDE SOLID BLOCKING BELOW WALLS WITH PERPENDICULAR FLOOR FRAMING.
- 32) ALL NAILS, BOLTS, SCREWS, HANGERS, WASHERS, NUTS, ETC., USED FOR CONSTRUCTION EXPOSED TO THE WEATHER IN ITS FINAL POSITION SHALL BE FIRST QUALITY HOT-DIPPED GALVANIZED.
- 33) SHEARWALL SHEATHING NOTES:  
34) PLYWOOD SHEARWALL NAILING: SEE PLAN AND SHEARWALL SCHEDULE FOR 3X FRAMING MEMBERS REQUIRED AT ADJOINING PANEL EDGES AND BOTTOM SILL PLATES. ALSO USE 3X FRAMING AT BOUNDARIES IF NAILING IS SPACED LESS THAN 4" O.C. A MINIMUM OF 1/2" EDGE DISTANCE SHALL BE PROVIDED FROM THE EDGE OF THE PLYWOOD PANEL TO THE NAILING.  
35) SHEAR PANELS: SEE DETAILS AND SHEAR WALL SCHEDULE. SHEAR WALLS TO EXTEND FULL LENGTH OF WALL BETWEEN DOOR OR WINDOW OPENINGS OR END OF WALL UNLESS NOTED OTHERWISE. PLYWOOD SHEATHING AND FRAMING MUST EXTEND THE FULL HEIGHT OF THE WALL TO THE ROOF OR FLOOR DIAPHRAGM ABOVE - NOT TO CEILING ONLY. SEE TYPICAL SHEAR TRANSFER DETAILS FOR THE PROPER CONNECTION OF THE ROOF AND FLOOR DIAPHRAGMS TO ALL SHEAR WALLS. PLYWOOD SHEAR WALLS TO BE BLOCKED AND NAILED WITH COMMON NAILS.
- 36) THE USE OF NAIL GUNS FOR SHEARWALL NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION AND APPROVAL BY THE ENGINEER PRIOR TO FRAMING. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. IF THE NAILHEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HELD HAMMER, OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.
- 37) ALL EXTERIOR WALLS SHALL RECEIVE ONE-HALF INCH PLYWOOD WRAP. NON-SHEARWALL AREAS (IE ABOVE AND BELOW WINDOWS AND DOORS, OR WALLS NOT DESIGNATED AS SHEARWALLS ON PLANS, ETC.) DO NOT NEED TO BE BLOCKED, BUT DO NEED TO HAVE ONE-HALF INCH PLYWOOD. SEE FRAMING PLAN NOTES AND SHEARWALL SCHEDULE. MINIMUM PLYWOOD WALL WILL BE #2 WALL PER SHEARWALL SCHEDULE.
- 38) WHERE PLYWOOD OCCURS ON BOTH SIDES OF A WALL, THE PLYWOOD JOINTS ON OPPOSITE SIDES SHALL NOT OCCUR OVER THE SAME STUDS OR BLOCKING.
- 39) ALL NAILS SHALL BE COMMON WIRE NAILS. AT EXISTING WALLS, #8 X 3 INCH FLAT HEAD WOOD SCREWS AT 6" O.C. VERTICALLY MAY BE USED IN PLACE OF 10D COMMON NAILS.
- 40) EACH PLYWOOD SHEET SHALL HAVE A MINIMUM AREA OF 8 SQUARE FEET AND A MINIMUM DIMENSION OF 2 FEET IN ANY DIRECTION. JOINTS NEED NOT BE STAGGERED AT WALLS. PLYWOOD MAY BE PLACED WITH GRAIN PARALLEL TO STUDS.
- 41) SIMPSON A35 OR LTP4 FRAMING CLIPS SHALL BE USED AT DOUBLE TOP PLATE TO BLOCKING AT ALL FLOOR LEVELS, SEE SHEAR TRANSFER DETAILS, SPACING SHALL BE PER PLAN AND SHEAR WALL SCHEDULE AT SHEARWALLS. EXCEPTION: SHEATHING EDGES BREAK AT RIM JOIST / BLOCKING (SEE STANDARD AND ALTERNATE SHEAR TRANSFER DETAILS - TYPICAL). AT NON-SHEARWALL AREAS (ABOVE OPENINGS, ETC.) MAXIMUM SPACING SHALL BE AT 32" O.C. TYPICAL. WOOD SILL PLATES SHALL BE ATTACHED PER SHEARWALL SCHEDULE AND PLAN. AT NON-SHEARWALL AREAS (BELOW OPENINGS, ETC.) MAXIMUM NAIL SPACING FOR SILL PLATE ATTACHMENT IS 16D AT 6" O.C. INTO BLOCKING BELOW - TYP.
- 42) WATERPROOFING: EXTERIOR STRUCTURAL WOOD PANEL SHEAR WALLS SHALL BE COVERED WITH A MINIMUM OF 2 LAYERS 15# FELT UNDERLAYMENT PRIOR TO PLACING FINISH MATERIAL.
- 43) STUCCO LATH NAILING FOR SHEARWALL APPLICATIONS (90PLF) SHALL BE: 12 Ga., 1-1/2" LONG, 3/8" DIAMETER HEAD, GALVANIZED AND BE FURRED A MINIMUM OF 1/4". SPACING SHALL BE 3" O.C. FOR NON-SHEARWALL APPLICATIONS THE SAME NAIL MAY BE USED AT 6" O.C.
- 44) HOLD-DOWN CONNECTORS: ALL BOLT HOLES IN WOOD POSTS ARE TO BE 1/16" MAXIMUM OVERSIZED. ALL CONNECTORS ARE TO BE TIGHTENED BEFORE WALL IS CLOSED UP. LEAVE ENOUGH SPACE BETWEEN SILL AND HOLDDOWN TO ALLOW FOR SOME SLIP AT POST WHEN TIGHTENED. PLATE WASHERS SHALL BE USED ON THE WOOD POST SIDE OF THE HOLDDOWN CONNECTION, WASHER SIZES ARE PER LIST BELOW.
- 45) HOLDDOWNS SHALL STACK UNLESS INTERRUPTED BY A BEAM. HOLDDOWNS SHOWN ON PLANS ARE FOR THE FRAMING LEVEL BELOW.
- 46) APPROVED PLATE WASHERS, IN LIEU OF CUT WASHERS, SHALL BE PROVIDED FOR ALL PLYWOOD SHEARWALL SILL PLATE ANCHOR BOLTS. FOLLOWING ARE PLATE WASHER SIZES:  
1/2" DIA. BOLT 2" x 2" x 3/16"  
5/8" DIA. BOLT 2.5" x 2.5" x 1/4"  
3/4" DIA. BOLT 2.75" x 2.75" x 5/16"  
7/8" DIA. BOLT 3" x 3" x 5/16"  
1" DIA. BOLT 3.5" x 3.5" x 3/8"

### TIMBER

- 1) FRAMING: 2X AND SMALLER TO BE DOUGLAS FIR GRADE #2 OR BETTER UNLESS NOTED OTHERWISE. 4X AND LARGER TO BE #1 OR BETTER UNLESS NOTED OTHERWISE. POSTS TO BE DOUGLAS FIR #1. STUDS AT BEARING WALLS TO BE DOUGLAS FIR #2 OR BETTER AND STUDS AT NON-BEARING WALLS TO BE STUD GRADE OR BETTER. ALL LUMBER MUST BE GRADE MARKED.
- 2) FOUNDATION SILL PLATES SHALL BE PRESSURE TREATED DOUGLAS FIR (PTDF) - SEE SHEAR WALL SCHEDULES FOR FOUNDATION AND FRAMING PLANS FOR ANCHOR BOLT SPACING. (MAXIMUM SPACING FOR SILL PLATE BOLTING SHALL BE 48" O.C. - 5/8" DIAMETER X 7" EMBEDMENT IN CONCRETE ANCHOR BOLT WITH 1-7/8" MIN. EDGE DISTANCE. PROVIDE A MINIMUM OF TWO BOLTS PER PLATE WITH ONE BOLT WITHIN 12" OF EACH END OF PLATE). PLATE WASHERS REQUIRED FOR SILLS ON CONCRETE OR MASONRY. ALL BOLTS GALVANIZED.
- 3) BOLTS IN TIMBER TO HAVE STANDARD CUT WASHERS, UNLESS NOTED OTHERWISE. BOLTS USED WITH STEEL PLATES OR ANGLES MAY NOT REQUIRE WASHERS. HOLES FOR BOLTS TO BE A MAXIMUM OF 1/16 INCH LARGER THAN BOLT DIAMETER. ALL BOLTS SHALL CONFORM TO ASTM A325-07A.
- 4) ALL NAILS SHALL BE COMMON WIRE NAILS. 16D SINKERS MAY BE USED FOR FRAMING, I.E. ATTACHING STUDS TOGETHER OR TO PLATES. COMMONS SHALL BE USED FOR ALL SHEARWALL NAILING, ROOF AND FLOOR SHEATHING, TOP PLATE SPLICING, HARDWARE CONNECTION, ETC. NAILS SHALL NOT BE SPACED CLOSER THAN 1/2 THEIR LENGTH, NOR CLOSER TO THE EDGE OF THE MEMBER THAN 1/4 THEIR LENGTH, EXCEPT FOR SHEATHING, SUB-BORE WHEN NAILS TEND TO SPLIT WOOD. DIAMETER TO BE 0.75 TIMES NAIL DIAMETER.
- 5) STRUCTURAL HARDWARE CALLOUTS (JOIST HANGERS, POST BASES, HOLDDOWNS AND ALL OTHER HARDWARE) SHOWN ON STRUCTURAL DRAWINGS REFER TO REFERENCE NUMBERS CONTAINED IN THE LATEST EDITION SIMPSON STRONG-TIE CO. INC. CATALOGUE. HARDWARE NOT SHOWN ON DRAWINGS MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ARCHITECT AND THE STRUCTURAL ENGINEER.
- 6) PLYWOOD FOR SHEARWALLS SHALL BE C.D.X. STRUCTURAL I (OR BETTER), 5-PLY WITH EXTERIOR GLUE, AS GRADED BY A.P.A. PLYWOOD FOR FLOORS AND ROOFS SHALL BE CDX EXTERIOR GRADE. PLYWOOD SHALL CONFORM TO DOC PS 1. STRUCT I ORIENTED STRAND BOARD IS ALSO ACCEPTABLE IF APPROVED BY THE ARCHITECT.
- 7) ALL HORIZONTAL PLYWOOD SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS AND WITH STAGGERED JOINTS.
- 8) SHEATHING: (PLYWOOD DIAPHRAGMS MUST BE PRODUCT STANDARD DOC PS 1 DOUGLAS FIR-LARCH, CDX)  
ROOF SHEATHING:  
5/8" CDX PLYWOOD (INDEX 32/16) NAILED WITH 10D COMMON WIRE NAILS (0.148" DIAMETER X 2-1/4" LONG - EZCODE ID "S") AT 6" ON CENTER AT BUILDING BOUNDARIES AND AT PANEL EGES AND AT 12" ON CENTER AT INTERMEDIATE SUPPORTS. PANEL EDGES TO BE BLOCKED WITH FLAT 2X4S.  
FLOOR SHEATHING:  
3/4" CDX PLYWOOD - TONGUE AND GROOVE - (INDEX 32/16) NAILED WITH 10D COMMON WIRE NAILS (0.148" DIAMETER X 2-3/8" LONG - EZCODE ID "T") AT 4" ON CENTER AT BUILDING BOUNDARIES, 6" ON CENTER AT INTERMEDIATE SUPPORTS. PANEL EDGES TO BE BLOCKED WITH FLAT 2X4S. (GLUE AND NAIL ALL PLYWOOD).
- 9) ALL FLUSH FRAMED JOISTS OR BEAMS SHALL SEAT IN 'SIMPSON' JOIST HANGERS: 2X JOISTS TO BEAMS - LU ; 4X BEAMS TO BEAMS - HU ; 6X BEAMS TO BEAMS - HUIF ; 6X BEAMS - HW/M HANGERS.
- 10) BUILT-UP OR MULTIPLE JOIST BEAMS SHALL NOT BE SUBSTITUTED FOR SOLID BEAMS.  
11) PROVIDE 2X SOLID BLOCKING BETWEEN ALL JOISTS AND RAFTERS AT ALL SUPPORTS AND UNDER ALL PARTITIONS. 2 X 10 OR LARGER JOISTS AND RAFTERS SHALL BE SUPPORTED LATERALLY BY BLOCKING AT INTERVALS NOT EXCEEDING EIGHT FEET AND AT ALL SUPPORTS. REFER TO IBC SECTION 2308.2 FOR ALL BLOCKING REQUIREMENTS. 2X10 ROOF JOISTS WITH RIP STRIPS ABOVE SHALL ALSO BE BLOCKED AT EIGHT FOOT INTERVALS. WOOD WEB JOISTS (TRUS JOIST, ETC) DO NOT REQUIRE MID SPAN BLOCKING, HOWEVER MICROSLAM BLOCKING/RIMS (LVL) SHALL BE USED ABOVE AND BELOW ALL WALLS. SEE ARCHITECTURAL PLANS FOR FIRE BLOCKING REQUIREMENTS.
- 12) LAG SCREWS SHALL BE TURNED NOT DRIVEN INTO PRE-DRILLED HOLES OF 3/4 THE SHANK DIAMETER, AND FULL DIAMETER FOR SMOOTH SHANK PORTION. SOAP, PARAFFIN OR OTHER APPROVED LUBRICANT SHALL BE USED ON THREADS. CARE SHALL BE TAKEN NOT TO OVER-TORQUE SCREWS.
- 13) SPLICES IN TOP PLATES SHALL HAVE A MINIMUM 4 FOOT LAP SPLICE WITH 20-16D NAILS. DOUBLE TOP PLATES SHALL BE NAILED TOGETHER EXCEEDING EIGHT FEET AND AT ALL SUPPORTS. REFER TO IBC SECTION 2308.2 FOR ALL BLOCKING REQUIREMENTS. 2X10 ROOF JOISTS WITH RIP STRIPS ABOVE SHALL ALSO BE BLOCKED AT EIGHT FOOT INTERVALS. WOOD WEB JOISTS (TRUS JOIST, ETC) DO NOT REQUIRE MID SPAN BLOCKING, HOWEVER MICROSLAM BLOCKING/RIMS (LVL) SHALL BE USED ABOVE AND BELOW ALL WALLS. SEE ARCHITECTURAL PLANS FOR FIRE BLOCKING REQUIREMENTS.
- 14) ALL BEAMS SHALL BE SUPPORTED BY POSTS OR GIRDERS. FOR 4X8 AND SMALLER BEAMS 2-2X4 POSTS SHALL BE USED UNLESS NOTED OTHERWISE. FOR LARGER BEAMS A 4X4 POST SHALL BE USED UNLESS NOTED OTHERWISE. ALL POSTS SHALL PROVIDE FULL BEARING WIDTH FOR THE BEAM UNLESS NOTED OTHERWISE.
- 15) ALL POSTS SHALL CONTINUE THROUGH FLOORS (OR SOLID BLOCKED BETWEEN FLOORS) UNTIL A BEAM OR FOUNDATION IS ENCOUNTERED.
- 16) ALL 4X6 POSTS, OR SMALLER, INSIDE WALLS MAY BEAR ON THE SILL PLATE UNLESS NOTED OTHERWISE. ISOLATED POSTS SHALL SEAT IN SIMPSON "CB" BASES, 4X8 OR LARGER POSTS, IN WALLS, SHALL BE SEATED IN SIMPSON POST BASES.
- 17) UNMARKED HEADERS SHALL BE THE FOLLOWING UNLESS NOTED OTHERWISE: SUPPORTING CEILING AND ROOF: 4X4 UP TO 4'-0" SPAN ; 4X6 UP TO 6'-0" SPAN ; 4X8 UP TO 8'-0" SPAN ; 4X10 UP TO 10'-0" SPAN ; 4X12 UP TO 12'-0" SPAN. SUPPORTING 2ND FLOOR, CEILING, AND ROOF: 4X4 UP TO 3'-0" SPAN ; 4X6 UP TO 5'-0" SPAN ; 4X8 UP TO 7'-0" SPAN ; 4X10 UP TO 9'-0" SPAN ; 4X12 UP TO 10'-0" SPAN.
- 18) MINIMUM WALL STUD SIZES - WALLS: 2X4 AT 16" O.C. UP TO 9'-0" TALL; 2X6 AT 16" O.C. UP TO 13'-0"; 2X8 AT 16" O.C. UP TO 17'-6" TALL. ALL STUDS FOR WALLS WILL CONTINUE FULL HEIGHT BETWEEN FLOORS, UNLESS BROKEN BY CEILING JOISTS OR FLOOR JOISTS ON AT LEAST ONE SIDE OF THE WALL. STUDS SUPPORTING TWO FLOORS SHALL BE 3X4 OR 2X8 AT 16" O.C. MINIMUM.
- 19) NAILING TO COMPLY WITH NAILING SCHEDULE - IBC TABLE NO. 2304.9.1 UNLESS NOTED OTHERWISE. NAILING REQUIREMENTS STATED IN THE SPECIFICATIONS, PLANS OR DETAILS SHALL SUPERSEDE TABLE 23-11-B-1.
- 20) TABLE NO. 23-11-B-1 NAILING SCHEDULE (ABBREVIATED VERSION):  
CONNECTION NAILING  
A) JOIST TO SILL OR GIRDER (TOENAIL) 3-8D  
B) BRIDGING TO JOIST, TOENAIL EACH END 2-8D  
C) SOLE PLATE TO JOIST OR BLOCKING FACE NAIL 16D AT 16" O.C.  
D) TOP PLATE TO STUD, END NAIL 2-16D  
E) STUD TO SOLE PLATE 4-8D, TOENAIL OR 2-16D, END NAIL  
F) DOUBLE STUDS, FACE NAIL 16D AT 16" O.C.  
G) DOUBLED TOP PLATES, FACE NAIL 16D AT 16" O.C.  
H) TOP PLATE INTERSECTIONS, FACE NAIL 2-16D  
I) CONTINUOUS HEADER, TWO PIECES 16D AT 16" O.C. ALONG EACH EDGE.  
J) CEILING JOISTS TO PLATE, TOENAIL 3-8D  
K) CONTINUOUS HEADER TO STUD, TOENAIL 4-8D  
L) CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL 3-16D  
M) CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL 3-16D  
N) RAFTER TO PLATE, TOENAIL 3-8D  
O) 1" BRACE TO EACH STUD AND PLATE, FACE NAIL 2-8D  
P) BUILT-UP CORNER STUDS 16D AT 24" O.C.

REVISIONS DATE

NO.	DESCRIPTION	DATE

**HJH ENGINEERING**  
Structural Engineering Consultants  
23006 Erwin St., Woodland Hills, CA 91367  
(818) 519-8572 Tel  
jack@hjhengineering.com email



**JAMES LE RESIDENCE**  
BELLA MADRERA LANE  
SAN JOSE, CA  
APN: 654-64-012

**GENERAL NOTES**

PROJECT NUMBER: 23B03  
PROJ. ENG. / DRAWN: JH  
DATE: DEC. 10, 2023  
SCALE: AS NOTED  
SHEET NUMBER: S-1.1

STEEL MOMENT FRAME SPECIFICATIONS AND QUALITY ASSURANCE (CONT.)

D. WELDING AND FABRICATION DETAILS

- 1. BASE METAL JOINT PREPARATION
A. BASE METAL PREPARATION SHALL BE IN COMPLY WITH AWS D1.1/D1.1M:2014 SECTION 5.15.
B. ALL BEAM FLANGE TO COLUMN FLANGE WELDS ARE TO BE MADE WITH AN AWS PREQUALIFIED CJP GROOVE WELDED JOINT DETAIL.
C. BEVEL, FIT-UP AND DETAIL TOLERANCES SHALL BE AS REQUIRED BY THE SELECTED PREQUALIFIED WELDED JOINT DETAIL.
D. WHENEVER POSSIBLE, USE THE AWS PREQUALIFIED CJP GROOVE WELDED JOINT PER STRUCTURAL DETAIL AND THE FOLLOWING:
I. USE SINGLE BEVEL CJP GROOVE WELDS MADE WITH A 30 DEGREE GROOVE ANGLE OR DOUBLE BEVEL CJP GROOVE WELDS WHEN FLANGE THICKNESS EXCEED 1-1/2 INCH.
II. "AS FIT-UP" AND "AS DETAILED" SHALL BE THE MAXIMUM TOLERANCES.
III. MEET ALL PREQUALIFIED WPS VARIABLES IN TABLE 5.
2. WELD ACCESS HOLE
A. WHERE WELD ACCESS HOLES ARE PROVIDED, THEY SHALL BE DETAILED AS ILLUSTRATED IN STRUCTURAL DETAILS.
B. NOTCHES AND GOUGES SHALL BE REPAIRED FOLLOWING A WPS APPROVED BY THE ENGINEER OF RECORD.
C. WELD ACCESS HOLES SHALL BE PREPARED BY GRINDING TO A SUITABLE FINISH IN ACCORDANCE WITH AISC LRFD SPECIFICATION SECTION J1.6 AND PROVIDED WITH A MINIMUM RADIUS OF 3/8 INCH AS ILLUSTRATED IN STRUCTURAL DETAILS.
3. BACKING BAR
A. BACKING BAR USED IN CONNECTIONS WITH A CJP GROOVE WELD OF BEAM FLANGE TO COLUMN FLANGE SHALL BE REMOVED EXCEPT THAT TOP FLANGE BACKING BAR ATTACHED TO THE COLUMN BY A CONTINUOUS FILLET WELD ON THE EDGE BELOW THE CJP GROOVE WELD NEED NOT BE REMOVED.
B. FOLLOWING REMOVAL OF BACKING BAR, THE ROOT PASS SHALL BE BACKGROUDED TO SOUND WELD METAL, AND BACK WELDED. A REINFORCING FILLET WELD WITH A MINIMUM LEG SIZE OF 5/16 INCH OR THE ROOT OPENING PLUS 1/16 INCH, WHICHEVER IS LARGER, SHALL BE PROVIDED. THE REINFORCING FILLET WELD NEED NOT BE GROUNDED.
C. WHEN BACKING BAR IS OTHER THAN AWS D1.1/D1.1M:2014 TABLE 3.1 AND SECTION 5.2.2 APPROVED BASE METAL IS USED, THE FOLLOWING SHALL APPLY:
I. CERAMIC, FLUX OR GLASS TAPE MAY BE USED PROVIDED THE MANUFACTURER'S RECOMMENDATIONS ARE FOLLOWED.
II. WHEN A NON-METALLIC BACKING BAR IS USED, THE WPS AND THE WELDER SHALL BE QUALIFIED USING THE TYPE OF BACKING BAR INTENDED FOR WELDING.
III. NONFERROUS METALLIC (E.G. COPPER) BACKING MATERIALS ARE NOT PERMITTED.
4. WELD TAB
A. WELD TABS SHALL BE ALIGNED PARALLEL TO THE JOINT PREPARATION.
B. NO WELD TABS ARE ALLOWED.
C. WELD TABS SHALL EXTEND BEYOND THE EDGE OF THE JOINT A MINIMUM DISTANCE EQUAL TO THE PART THICKNESS, BUT NOT LESS THAN ONE INCH.
D. WELD TAB SHALL BE REMOVED UPON COMPLETION OF THE WELDED JOINT AS FOLLOWS:
I. NO MORE THAN 1/8 INCH BEYOND THE EDGE OF THE JOINT SHALL REMAIN, EXCEPT AT CONTINUITY PLATE WHERE UP TO 1/4 INCH IS ACCEPTABLE.
II. EDGES OF THE WELD TAB SHALL BE FINISHED TO A SURFACE ROUGHNESS VALUE OF 500 MICRO INCH OR BETTER. GRINDING TO A FLUSH CONDITION IS NOT REQUIRED.
E. GOUGES AND NOTCHES ARE NOT PERMITTED. THE TRANSITIONAL SLOPE OF ANY AREA WHERE GOUGES AND NOTCHES HAVE BEEN REMOVED SHALL NOT EXCEED 1:5.
F. MATERIAL REMOVED BY GRINDING THAT EXTENDS MORE THAN 1/16 INCH BELOW THE SURFACE OF THE BASE METAL SHALL BE FILLED WITH WELD METAL. THE CONTOUR OF THE WELD AT THE ENDS SHALL PROVIDE A SMOOTH TRANSITION, FREE OF NOTCHES AND SHARP CORNERS.
5. CONTINUITY PLATE
A. CONTINUITY PLATES SHALL BE DETAILED AS ILLUSTRATED IN STRUCTURAL DETAILS.
B. THE WELD ATTACHING THE CONTINUITY PLATE TO THE COLUMN FLANGE SHALL BE AS FOLLOWS:
I. USE A CJP GROOVE WELD FOR THE FULL LENGTH OF THE GROOVE PREPARATION.
II. WHEN BACKING BARS ARE OMITTED, THE ROOT SHALL BE BACKGROUDED AND BACK WELDED.
III. WHEN BACKING BARS ARE USED AND REMAIN IN PLACE, BACKING BARS SHALL BE ATTACHED TO THE COLUMN FLANGES WITH A REINFORCING FILLET WELD.
IV. FILLET WELD SHALL NOT BE USED TO CONNECT BACKING BARS TO CONTINUITY PLATES.
V. THE FILLET WELD SIZE NEED NOT EXCEED THE MINIMUM SIZE REQUIREMENTS OF AWS D1.1/D1.1M:2014 TABLE 5.8.
C. WELD TERMINATIONS NEAR THE END OF THE COLUMN FLANGE TIPS MAY BE COMPLETED USING WELD TABS AS FOLLOWS:
I. WELD TABS MAY BE STEEL OR NONFUSIBLE MATERIAL.
II. WELD TERMINATIONS NEAR THE RADIUS OF THE COLUMN NEED NOT BE MADE USING WELD TABS. THE USE OF SMALL NONFUSIBLE WELD TABS TO ASSIST IN WELD TERMINATIONS IS PERMITTED.
III. WELD TABS SHALL BE REMOVED FOLLOWING COMPLETION OF WELDING.
D. CONTINUITY PLATES MAY BE WELDED TO THE COLUMN WEB WITH GROOVE WELDS, FILLET WELDS, OR A COMBINATION OF THE TWO. FILLET WELDS SHALL TERMINATE A MINIMUM DISTANCE OF 1/4 INCH FROM EACH END OF THE JOINT.

E. EXEMPTIONS

- 1. REDUCTION FROM CERTAIN QUALITY ASSURANCE COMPONENTS OF THIS STANDARD QUALITY ASSURANCE PLAN, AS LISTED IN ITEM 2, ARE PERMITTED FOR THE FOLLOWING BUILDINGS OR STRUCTURES:
A. ONE OR TWO FAMILY DWELLINGS NOT MORE THAN 1 STORY IN HEIGHT AND FLOOR AREA,
B. BUILDINGS OR STRUCTURES ACCESSORY TO RESIDENTIAL USES (SUCH AS CARPORT, STORAGE, GARAGE), AND
C. MISCELLANEOUS STRUCTURES (SUCH AS WALKWAY, CANOPY, PATIO COVER, GAZEBO, STORAGE RACK).
2. BUILDINGS OR STRUCTURES, AS LISTED IN ITEM 1, ARE EXEMPT FROM PROVIDING THE FOLLOWING QUALITY ASSURANCE COMPONENTS:
A. ELECTRODE STORAGE AND ATMOSPHERIC EXPOSURE, ITEM 5(F) AND 5(G) OF QUALITY ASSURANCE SPECIFICATIONS,
B. PLASTIC HINGING ZONE PROTECTION, ITEM 6 OF QUALITY ASSURANCE,
C. ADDITIONAL CVN NOTCH TOUGHNESS TESTING, ITEM 7 OF QUALITY ASSURANCE,
D. NON-DESTRUCTIVE TESTING, ITEM 8 OF QUALITY ASSURANCE,
E. PREHEAT AND INTERPASS TEMPERATURE, ITEM 4 OF WELDING PROCEDURES,
F. POST WELD HEAT TREATMENT, ITEM 5 OF WELDING PROCEDURES.

STEEL MOMENT FRAME SPECIFICATIONS AND QUALITY ASSURANCE (CONT.)

C. WELDING PROCEDURES

- 1. BOTTOM BEAM FLANGE MOMENT CONNECTION WELDING
WELDING THE BOTTOM FLANGE TO THE COLUMN FLANGE SHALL BE COMPLETED IN THE FLAT WELDING POSITION WITH THE FOLLOWING SEQUENCE:
A. START WELDING FROM SIDE A (ONE SIDE OF THE BEAM) WITH A MAXIMUM 1/4 INCH THICK ROOT PASS BEYOND THE CENTER OF THE JOINT ON SIDE B (OTHER SIDE OF THE BEAM), REACHING PAST THE BEAM WEB THROUGH THE WELD ACCESS HOLE.
B. AFTER THE ARC IS INITIATED, ELECTRODE TRAVEL SHALL PROGRESS TOWARD THE EDGE OF THE SIDE A BEAM FLANGE, TERMINATING ON THE SIDE A WELD TAB.
C. THE SIDE A ROOT PASS, AND THE ROOT PASS DEPOSIT ON SIDE B, SHALL BE THOROUGHLY CLEANED TO ALLOW THE DEPUTY INSPECTOR TO VERIFY THAT THE RESULTING BEAD PROFILE IS SUITABLE FOR OBTAINING GOOD FUSION BY THE SUBSEQUENT ROOT PASS TO BE INITIATED FROM SIDE B. IF THE PROFILE IS NOT CONDUCTIVE TO GOOD FUSION, THE START OF THE FIRST ROOT PASS SHALL BE GROUNDED, GOUGED, CHIPPED, OR OTHERWISE PREPARED TO ENSURE ADEQUATE PROFILE TO ACHIEVE FUSION.
D. COMPLETE THE ROOT PASS ON SIDE B BEFORE ANY OTHER WELD PASSES ARE PERFORMED.
E. THE ARC SHALL BE INITIATED AT THE START OF THE FIRST SIDE A ROOT PASS, AND ELECTRODE TRAVEL SHALL PROGRESS TOWARD THE EDGE OF THE SIDE B BEAM FLANGE, TERMINATING ON THE SIDE B WELD TAB.
F. THE ABOVE SEQUENCE SHALL BE REPEATED FOR SUBSEQUENT WELD LAYERS, AND EACH WELD LAYER SHALL BE COMPLETED ON BOTH SIDES OF THE JOINT BEFORE A NEW LAYER IS DEPOSITED. THE ORDER OF OPERATIONS (SIDE A, THEN SIDE B, OR VICE VERSA) IS NOT RESTRICTED AND MAY VARY FOR EACH WELD LAYER. WELD PASSES SHALL BE PLACED IN HORIZONTAL LAYERS. EACH PASS SHALL BE THOROUGHLY CLEANED OF SLAG AND WIRE BRUSHED. EACH PASS SHALL BE VISUALLY INSPECTED BY THE DEPUTY INSPECTOR, AS DESCRIBED ABOVE IN STEP (C).
2. SEQUENCE FOR WELDING AT MULTIPLE LOCATIONS
WHEN WELDING OCCUR AT MULTIPLE LOCATIONS OF WELDED STEEL MOMENT FRAME CONNECTIONS, THE FOLLOWING SEQUENCE SHALL BE FOLLOWED:
A. WELD BOTH TOP AND BOTTOM BEAM FLANGES PRIOR TO ANY SUPPLEMENTAL WELDING TO THE BEAM WEB OR SHEAR TAB.
B. ONLY FIELD WELDING INDICATED ON PLANS SHALL BE PERMITTED.
C. FIELD WELDING OF WEB SHEAR PLATES WITH BOLTS SHALL OCCUR AFTER FIELD WELDING OF BEAM FLANGES TO COLUMN FLANGE.
D. HIGH STRENGTH BOLTS SHALL BE IN THE SNUG TIGHT CONDITION PRIOR TO WELDING.
E. HIGH STRENGTH BOLTS SHALL BE FULLY TENSIONED UPON COMPLETION OF ALL WELDING ACTIVITIES.
3. WELDING TECHNIQUE
A. STRINGER BEADS SHALL BE USED DURING ALL WELDING OPERATIONS. MAXIMUM BEAD WIDTH, BEAD THICKNESS, AND LAYER THICKNESS SHALL BE CONSIDERED. WEAVING IS NOT PERMITTED, EXCEPT WHEN THE WPS APPROVED BY THE ENGINEER OF RECORD LIMITS ELECTRODE OSCILLATION TRANSVERSE TO THE WELD AXIS TO A MAXIMUM OF:
I. 3D FOR 1G/1F, 2G/2F, AND 4G/4F WELD POSITIONS, OR
II. 5D FOR THE 3G/3F POSITION, WHERE D = ELECTRODE DIAMETER.
B. WELDING LAYERS SHOULD PROGRESS FROM THE FACE OF THE COLUMN FLANGE OUTWARD TOWARD THE GROOVE FACE OF THE BEAM FLANGE AS ILLUSTRATED IN STRUCTURAL DETAILS.
4. PREHEAT AND INTERPASS TEMPERATURE
A. THE MINIMUM PREHEAT AND INTERPASS TEMPERATURE REQUIREMENTS IN TABLE 4 OF SHEET 2 SHALL BE OBSERVED. SPECIAL ATTENTION SHALL BE GIVEN TO AWS D1.1/D1.1M:2014 SECTION 3.5.1 AND SECTION 5.6 FOR THE THICKNESS OF THE BASE METAL TO BE WELDED.
B. PREHEAT AND ALL SUBSEQUENT INTERPASS TEMPERATURES SHALL BE MAINTAINED DURING THE WELDING OPERATION FOR A DISTANCE AT LEAST EQUAL TO THE THICKNESS OF THE THICKER WELDED PART, BUT NOT LESS THAN 3". IN ALL DIRECTIONS FROM THE POINT OF WELDING.
C. WHERE PLATES ARE OF DIFFERENT THICKNESS, THE HIGHER MINIMUM PREHEAT AND INTERPASS TEMPERATURE REQUIREMENTS OF THE THICKER PLATE SHALL GOVERN.
D. MAXIMUM PREHEAT AND INTERPASS TEMPERATURE SHALL NOT EXCEED THE LESSER OF:
I. 550 DEGREES FAHRENHEIT, OR
II. THE MAXIMUM TEMPERATURE RECOMMENDED BY THE MANUFACTURER.
5. POST WELD HEAT TREATMENT
POST WELD HEAT TREATMENT MAY REDUCE CRACKING TENDENCIES DUE TO POSSIBLE HYDROGEN EMBRITTELEMENT. POST WELD HEAT TREATMENT SHALL BE PROVIDED AS FOLLOWS:
A. APPLY HEAT IN THE 400F TO 600F RANGE AFTER COMPLETION OF WELDING.
B. COMPLYING WITH THE CONDITIONS OF AWS D1.1/D1.1M:2014 SECTION 3.14 AND SECTION 5.8.
C. ALTERNATIVELY, THE USE OF INSULATING BLANKETS AFTER THE COMPLETION OF WELDING IS PERMITTED TO CONTROL THE COOLING OF THE CONNECTION TO AMBIENT TEMPERATURE.

STEEL MOMENT FRAME SPECIFICATIONS AND QUALITY ASSURANCE (CONT.)

D. PLASTIC HINGING ZONES SHALL BE DEFINED BY PERMANENT MARKINGS SUCH AS PAINT OR INK, PER STRUCTURAL DETAILS.

- E. A NOTE, AS ILLUSTRATED IN STRUCTURAL DETAILS, SHALL BE PROMINENTLY PLACED ON THE STRUCTURAL PLANS AND THE CONSTRUCTION DOCUMENTS OF ALL TRADES.
F. WELDED, BOLTED, SCREWED, OR SHOT-IN (POWDER DRIVEN) ATTACHMENTS FOR PERIMETER EDGE ANGLES, SHEAR STUDS, EXTERIOR FACADES, PARTITIONS, DUCT WORK, PIPING, OR OTHER CONNECTIONS SHALL NOT BE PERMITTED WITHIN THE PLASTIC HINGING ZONES.
G. ANY PENETRATIONS OR DAMAGE FROM TEMPORARY WELDED ATTACHMENTS WITHIN THE PLASTIC HINGING ZONES SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER OF RECORD.
H. INITIALLY, THE PLASTIC HINGING ZONE "WARNING SIGN", AS ILLUSTRATED IN STRUCTURAL DETAILS, MAY BE TEMPORARY. HOWEVER, THE TEMPORARY "WARNING SIGN" SHALL BE REPLACED BY A PERMANENT "WARNING SIGN" BEFORE PROJECT COMPLETION. THIS SIGN AND IDENTIFICATION OF THE PLASTIC HINGING ZONE SHALL BE MAINTAINED DURING CONSTRUCTION, AND MAY REQUIRE REPAIR AFTER OPERATIONS SUCH AS FIREPROOFING.
I. SIGNS SHALL BE AFFIXED TO THE BEAM AND LOCATED WITHIN THE PLASTIC HINGING ZONE. THE CITY BUILDING INSPECTOR MAY ACCEPT ALTERNATE METHODS OF ATTACHING THE "WARNING SIGN" TO THE PLASTIC HINGING ZONE.
7. ADDITIONAL CHARPY V-NOTCH TOUGHNESS (NOT REQUIRED FOR OMF)
WELDS AT THE LOCATIONS INDICATED BELOW SHALL BE MADE WITH FILLER METAL HAVING A CVN TOUGHNESS OF 20 FT-LBF AT -20 DEGREES FAHRENHEIT AND 40 FT-LBF AT 70 DEGREES FAHRENHEIT AS DETERMINED BY TEST PROCEDURE PRESCRIBED IN THE AISC SEISMIC PROVISIONS, APPENDIX X "WELD METAL / WELDING PROCEDURE SPECIFICATION TOUGHNESS VERIFICATION TEST."
A. BEAM FLANGES TO COLUMNS,
B. SINGLE PLATE SHEAR CONNECTIONS TO COLUMNS,
C. BEAM WEBS TO COLUMNS, AND
D. COLUMN SPICES.
8. NON-DESTRUCTIVE TESTING (NDT) REQUIREMENTS
A. THE MINIMUM NON-DESTRUCTIVE TESTING AT EACH WELD JOINTS OR PARTS SHALL BE CONDUCTED AT THE LOCATIONS AND FREQUENCIES AS SPECIFIED IN TABLE 2 AND TABLE 3 RESPECTIVELY.
B. A COPY OF EACH NDT REPORT SHALL BE PROVIDED TO THE CONTRACTOR, ENGINEER OF RECORD, DEPUTY INSPECTOR, AND CITY BUILDING INSPECTOR WITH THE FOLLOWING INFORMATION:
I. DOCUMENT THE ACCEPTED AND REJECTED WELDS, PARTS, OR JOINTS.
II. IDENTIFY THE TESTED WELD BY PIECE MARK AND LOCATION IN THE PIECE.
III. IDENTIFY THE TESTED WELD LOCATION IN THE STRUCTURE.
C. NDT TECHNICIAN SHALL PERFORM THE FOLLOWING TASKS:
I. COORDINATE THE NDT SCOPE AND SCHEDULE WITH THE DEPUTY INSPECTOR.
II. PERFORM NDT IN A TIMELY MANNER, SO AS NOT TO HINDER CONSTRUCTION WORK, AND TO DETECT WELDING PROBLEMS SOON AFTER OCCURRENCE SO THAT CORRECTIVE MEASURES WILL BE TAKEN BY THE CONTRACTOR.
III. MARK THE INSPECTED AND ACCEPTED WELDS, PARTS, AND JOINTS WITH A DISTINGUISHING MARK OR DIE STAMP.
9. DOCUMENTATIONS
THE REPORTS LISTED IN TABLE 1 SHALL BE SUBMITTED TO THE CITY BUILDING INSPECTOR.

STEEL MOMENT FRAME SPECIFICATIONS AND QUALITY ASSURANCE (CONT.)

D. STATE IN THE REPORT THAT THE STEEL MOMENT FRAME SYSTEM VISUALLY CONFORMS WITH THE APPROVED STRUCTURAL PLANS AND SPECIFICATIONS.

- 4. DEPUTY INSPECTION
THE FOLLOWING ARE THE BASIC QUALITY ASSURANCE RESPONSIBILITIES OF THE DEPUTY INSPECTORS:
A. ARRIVE ON THE JOB IN SUFFICIENT TIME TO VERIFY THE PERMIT INFORMATION, CHECK FOR PRIOR INSPECTIONS AND/OR APPROVALS BY THE CITY BUILDING INSPECTOR OR PREVIOUS DEPUTY INSPECTORS. CHECK THE QUALITY OF ALL MATERIALS AND BECOME FAMILIAR WITH THE APPROVED STRUCTURAL PLANS AND SPECIFICATIONS.
B. VERIFY THAT STRUCTURAL STEEL DELIVERED IS FROM A FABRICATOR CURRENTLY LICENSED BY THE DEPARTMENT.
C. IDENTIFY MATERIAL FROM AN OFFSITE FABRICATOR IN ACCORDANCE WITH LABC SECTION 2203 AND COMPARE TO THE APPROVED PLANS AND SPECIFICATIONS.
D. VERIFY THAT EACH STEEL PIECE IS LABELED WITH THE APPROVED FABRICATOR'S SHOP NAME AND LICENSE NUMBER.
E. VISUAL CHECK SHOP WELDS, JOINT PREPARATION, FAYING SURFACES, INDENT STAMPS AND COLOR CODES OF HIGH STRENGTH STEEL, EXCESSIVE MILL SCALE OR LAMINATION, AND DIMENSIONAL CONFORMITY WITH THE APPROVED PLANS.
F. ENSURE THAT WELDING COMPLIES WITH AWS D1.1/D1.1M:2014.
G. INSPECT, BEFORE ANY WELDING BEGINS, JOINT PREPARATION, FIT-UP, CONDITION OF SURFACES TO BE WELDED, STORAGE AND USE OF ELECTRODES, CURRENT LICENSE OF ALL WELDERS, AND VOLTAGE/AMPERAGE OF WELDING MACHINES.
H. MEASURE VOLTAGE/AMPERAGES NEAR THE ARC WITH A HAND HELD CALIBRATED AVERAGING TYPE METER. THE METER SHALL BE CALIBRATED NOT LESS THAN ONCE A YEAR. THIS EQUIPMENT SHALL BE USED BY THE FABRICATOR, ERECTOR, AND DEPUTY INSPECTOR.
I. DURING WELDING OPERATION, PROVIDE CONTINUOUS INSPECTION PARTICULARLY ON MULTIPLE PASS WELDS TO ASSURE THAT EACH PASS HAS BEEN PREPARED CORRECTLY. PREHEAT AND INTERPASS TEMPERATURES ARE MAINTAINED AND FINISHED WELDS SHALL BE THE CORRECT SIZE AND WITHOUT REJECTABLE DISCONTINUITIES.
J. VERIFY TYPE AND SIZE OF BOLTS AND WASHERS, CHECK MILL CERTIFICATES, AND VERIFY FAYING SURFACES ARE FREE OF BURRS, SCALE, RUST, GREASE OR ANYTHING THAT MAY INHIBIT FULL CONTACT.
K. VERIFY CONNECTIONS INVOLVING HIGH STRENGTH BOLTS AND WELDS ARE FABRICATED AND ERECTED IN A SEQUENCE SPECIFIED BY THE ENGINEER OF RECORD.
L. VERIFY HIGH STRENGTH BOLTS ARE NOT WELDED OR DAMAGED BY PREHEATING.
M. VERIFY WASHERS ARE ALWAYS INSTALLED WITH ALL BOLTS, EXCEPT A-490 BOLTS WHICH REQUIRE WASHERS UNDER BOTH ELEMENTS.
N. PERFORM DEPUTY INSPECTOR OBSERVATION LISTED IN TABLE 6A.
O. VERIFY THE ENGINEER OF RECORD HAS APPROVED THE WRITTEN WELDING PROCEDURE SPECIFICATION (WPS) PREPARED BY THE FABRICATOR OR ERECTOR. IF VARIES FROM THESE SPECIFICATIONS THE WPS SHALL INCLUDE THE FOLLOWING:
I. ALL APPLICABLE CODE REQUIREMENTS, THIS STANDARD PLAN, AND ANY OTHER INFORMATION NECESSARY TO PRODUCE THE WELDS.
II. LIST THE APPLICABLE BASE METAL TYPES AND THICKNESSES.
III. LIST THE WELDING JOINT DETAILS, INCLUDING JOINT TYPE, WELD TYPE, JOINT GEOMETRY, AND APPLICABLE DIMENSIONS. INDIVIDUAL WELD PASSES SHALL BE IDENTIFIED IN SKETCHES AND NUMBERED TO IDENTIFY THE SEQUENCE OF WELDING. THE SKETCHES SHALL IDENTIFY THE MAXIMUM LAYER THICKNESSES AND BEAD WIDTHS. IN NO CASE SHALL LAYER THICKNESSES EXCEED 1/4 INCH NOR SHALL THE MAXIMUM BEAD WIDTH EXCEED 5/8 INCH.
IV. LIST THE WELDING PROCESSES.
V. SPECIFY THE REQUIRED WELDING POSITIONS.
VI. LIST THE FILLER METAL PER AWS D1.1 FOR ELECTRODE SPECIFICATION AND CLASSIFICATION (SEE TABLE 7) AS WELL AS INFORMATION REGARDING SHIELDING MATERIAL TO BE USED.
VII. INDICATE THE MINIMUM PREHEAT AND INTERPASS TEMPERATURES (SEE TABLE 4) AND POST WELD HEAT TREATMENT.
VIII. LIST ALL APPLICABLE ELECTRICAL CHARACTERISTICS FOR THE WELDING PROCESS EMPLOYED. WPS SHALL CLEARLY INDICATE THE SPECIFIC VALUES REQUIRED FOR EACH WELDING PASS. THESE ELECTRICAL CHARACTERISTICS SHALL INCLUDE AT A MINIMUM THE FOLLOWING:
(1) ELECTRODE DIAMETER (SEE TABLE 5),
(2) TYPE OF CURRENT, AND ACCEPTABLE RANGES OF CURRENT MEASURED IN AMPERAGE,
(3) VOLTAGE,
(4) TRAVEL SPEED (RANGE), AND
(5) AMPERAGE, VOLTAGE AND ELECTRODE EXTENSION (AS APPLICABLE) SHALL BE WITHIN THE FILLER METAL MANUFACTURER'S RECOMMENDATIONS.
IX. A COPY OF THE ELECTRODE MANUFACTURER'S TECHNICAL INFORMATION WITH ID # LISTED SHALL BE ATTACHED TO THE WPS.
P. WELD JOINTS NOT CONFORMING TO CHAPTER 3 OF AWS D1.1/D1.1M:2014 MUST BE TESTED BY AN APPROVED TESTING AGENCY AND ACCEPTED BY BOTH THE ENGINEER OF RECORD AND THE DEPARTMENT'S MATERIAL CONTROL SECTION BEFORE THE WELD IS PERFORMED.
Q. NOTIFY THE CONTRACTOR, ENGINEER OF RECORD, AND CITY BUILDING INSPECTOR OF ANY DEVIATIONS OR NON-COMPLIANCE WITH THE APPROVED WPS, PLANS OR SPECIFICATIONS.
R. DEPUTY INSPECTION REPORT FORM B-94" SHALL BE SUBMITTED ON A WEEKLY BASIS TO THE CITY BUILDING INSPECTOR, UNLESS DETERMINED OTHERWISE BY THE CITY BUILDING INSPECTOR.
S. DURING THE EXECUTION OF THE WORK, THE DEPUTY INSPECTOR SHALL NOT UNDERTAKE OR ENGAGE IN ANY OTHER TASK OR OCCUPATION WHICH WILL INTERFERE WITH THE PROPER PERFORMANCE OF THE DUTIES OF SUCH INSPECTION.

5. ELECTRODE STORAGE AND ATMOSPHERIC EXPOSURE

- A. ELECTRODES ARE CONSIDERED TO BE EXPOSED TO THE ATMOSPHERE IF:
I. THE MANUFACTURER'S SEALED ELECTRODE CONTAINERS OR PACKAGINGS ARE OPENED OR DAMAGED, OR
II. OUTSIDE OF BAKING OR STORAGE OVENS.
B. MODIFICATION OR LUBRICATION OF ELECTRODES ARE NOT PERMITTED.
C. DRYING OF ELECTRODES IN BAKING OR STORAGE OVENS ARE PERMITTED AS RECOMMENDED BY THE MANUFACTURER.
D. ELECTRODES SHALL BE IDENTIFIED TO FACILITATE MONITORING OF TOTAL ATMOSPHERIC EXPOSURE TIME.
E. STORAGE AND ATMOSPHERIC EXPOSURE OF AWS A5.1-91/A5.5-96 LOW-HYDROGEN SMAW ELECTRODES SHALL BE IN ACCORDANCE WITH AWS D1.1/D1.1M:2014 SECTION 5.3.2.
F. CWA ELECTRODES NOT CONSUMED WITHIN 24 HRS OF ACCUMULATED ATMOSPHERIC EXPOSURE TIME SHALL NOT BE USED. MANUFACTURER'S RECOMMENDATIONS THAT SHOW THAT DRYING EFFECTIVELY REMOVES MOISTURE AND RESTORES ELECTRODES TO THEIR DESIGNATED DIFFUSIBLE HYDROGEN LEVELS ARE PERMITTED.
G. CWA ELECTRODE WELDING SUSPENDED MORE THAN 8 HRS SHALL BE REMOVED FROM THE MACHINES AND STORED IN AN ELECTRODE WIRE BAKING OR STORAGE OVEN MAINTAINED AT A TEMPERATURE BETWEEN 250 DEGREES AND 550 DEGREE FAHRENHEIT, OR AS RECOMMENDED BY THE ELECTRODE MANUFACTURER.
6. PLASTIC HINGING ZONE PROTECTION
A. THE PLASTIC HINGING ZONE SHALL BE IDENTIFIED DIAGRAMMATICALLY, IN DETAILS ON THE STRUCTURAL PLANS BY THE ENGINEER OF RECORD.
B. THE ENGINEER OF RECORD AND CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING STEEL SHOP DRAWINGS TO ENSURE COMPLIANCE. THIS SHALL BE DISCUSSED AND DOCUMENTED IN PRE-CONSTRUCTION MEETINGS.
C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A PROGRAM TO ENSURE THAT ALL WORKERS ON THE PROJECT, INCLUDING THEIR SUBCONTRACTORS, ARE AWARE OF AND UNDERSTAND THIS REQUIREMENT. FAILURE TO COMPLY WITH THESE REQUIREMENTS MAY CAUSE THE REPLACEMENT OF STEEL.

STEEL MOMENT FRAME SPECIFICATIONS AND QUALITY ASSURANCE

A. GENERAL REQUIREMENTS

- 1. CODES:
THE DESIGN AND CONSTRUCTION OF STEEL MOMENT FRAMES SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES:
A. 2022 CBC & 2021 IBC.
B. AISC SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS, PART I (LRFD) AND PART III (ASD), DATED MAY 21, 2014, AND
C. AWS D1.1/D1.1M:2014 STRUCTURAL WELDING CODE - STEEL.
2. MATERIAL SPECIFICATIONS
A. STRUCTURAL STEEL SHALL COMPLY WITH UBC STANDARD 22-1 AND THE FOLLOWING ASTM STANDARD SPECIFICATIONS:
I. WIDE FLANGE SHAPES.....ASTM A572 (50), A992 (50) IN MOMENT FRAMES
II. CONTINUITY, DOUBLER AND COLUMN BASE PLATES, SHEAR TABS...ASTM A36
III. ANCHOR BOLTS AT COLUMN BASE PLATES.....A325
IV. FABRICATE AND ERECT STRUCTURAL STEEL IN COMPLIANCE WITH EITHER THE 2016 EDITION OF AISC "LOAD AND RESISTANCE FACTOR SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" OR THE 2010 EDITION OF AISC "LOAD AND RESISTANCE FACTOR SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
B. HIGH STRENGTH BOLTS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS AND ASTM STANDARD SPECIFICATIONS:
I. HIGH STRENGTH BOLTS, THREADED RODS, NUTS, AND WASHERS.....ASTM A325, A490
II. SHALL BE INSTALLED IN ACCORDANCE WITH THE "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."
III. SHALL BE TIGHTEN TO A SNUG TIGHT CONDITION THAT IS AT LEAST THE MINIMUM PROPER TENSION VERIFIED USING A CALIBRATED TENSION MEASURING DEVICE.
IV. SHALL BE SLP CRITICAL HIGH STRENGTH BOLTS.
V. ALL FAYING SURFACES OF CONNECTIONS WITH HIGH STRENGTH FASTENERS SHALL BE PREPARED AS REQUIRED FOR CLASS A PER THE 2014 AISC SEISMIC PROVISION, SECTION 7.2.
C. FILLER METAL PROPERTIES AND SPECIFICATIONS SHALL BE AS FOLLOWS:
I. ELECTRODES SHALL BE OF A LOW-HYDROGEN TYPE CONFORMING TO AWS SPECIFICATIONS AS REFERENCED IN TABLE 7 ON SHEET 1.3.
II. FILLER METALS SHALL BE CLASSIFIED FOR NOMINAL 70 KSI TENSILE STRENGTH.
III. THE MAXIMUM PERMITTED ELECTRODE DIAMETER SHALL BE PER TABLE 5 ON SHEET 1.3.
IV. FILLER METALS SHALL HAVE A MINIMUM CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LBF AT -20F USING AWS A5 CLASSIFICATION TEST METHODS.
V. THE USE OF INTERMIXED WELDS SHALL NOT OCCUR UNLESS IT CAN BE DEMONSTRATED BY TESTING IN ACCORDANCE WITH AWS D1.1/D1.1M:2014 SECTION 4.
VI. THE PARAMETERS ESTABLISHED BY THE ELECTRODE MANUFACTURER SHALL BE REFLECTED IN THE WPS.
D. OTHER MATERIALS NOT LISTED IN UBC STANDARD 22-1 OR LABC CHAPTER 35 ARE NOT PERMITTED WITHOUT SPECIFIC APPROVAL FROM THE DEPARTMENT. STEEL HAVING DUAL ASTM DESIGNATION SHALL BE CLEARLY IDENTIFIED ON EACH SPECIFIC PLAN DETAIL.
E. ALL STRUCTURAL STEEL SHALL BE ONE SHOP COAT & FIELD TOUCH-UP WITH RED LEAD (OR APPROVED ZINC CHROMATE PRIMER) AS NECESSARY. (FIELD PAINTING: TOUCH -UP ALL DAMAGED PAINT, BOLTS & WELDS). PROVIDE HOT DIP GALVANIZING OR 3" MINIMUM CONCRETE COVER AROUND ALL STRUCTURAL STEEL BELOW GRADE.
F. BASEPLATE GROUT SHALL HAVE A CURRENT LARR NUMBER. USE EMBCO 885 OR EQUIVALENT.
G. ALL STEEL BEAMS SHALL HAVE 1/4" PLATE WEB STIFFENERS AT 1/3 POINTS OF THEIR SPANS. TWO PLACES MINIMUM PER BEAM.
H. COLUMNS & BEAMS SHALL HAVE 1/2" DIA. STUDS WELDED AT 24" O.C. FOR WOOD NAILER ATTACHMENTS-TYPICAL.
I. NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE PERMITTED. BURNING OF HOLES IS NOT PERMITTED.
J. ALL HEADED STUDS (FOR CONCRETE ANCHORAGE) SHALL BE MANUFACTURED BY "NELSON" OR APPROVED EQUAL.
3. WELDING PROCESSES
STRUCTURAL WELDING SHALL BE LIMITED TO THE SHIELDED METAL ARC WELDING OR FLUX CORED ARC WELDING PROCESSES. ALL WELDING TO BE DONE BY QUALIFIED & CERTIFIED WELDERS.
4. BASE METAL REPAIRS OR RESTORATIONS
ANY REPAIR OR RESTORATION OF BASE METAL SHALL COMPLY WITH ALL OF THE FOLLOWING:
A. AWS D1.1/D1.1M:2014, SECTION 5.26, AND ASTM A6/A6M-02, SECTION 9.2, 9.3, 9.4 AND 9.5.
B. ENGINEER OF RECORD SHALL REVIEW AND APPROVE THE WPS FOR REPAIR PROCEDURES PRIOR TO WELDING.
C. ALL WELDING SHALL BE PERFORMED USING LOW-HYDROGEN PROCESS OR WITH SMAW USING LOW-HYDROGEN ELECTRODES.
D. PROVIDE CONTINUOUS VISUAL INSPECTION BY THE DEPUTY INSPECTOR, AND E. PROVIDE NON-DESTRUCTIVE TESTING.
5. DEVIATIONS FROM THE STANDARD QUALITY ASSURANCE PLAN
WHEN DEVIATIONS FROM THE STANDARD QA PLAN ARE MADE, COMPLY WITH ALL OF THE FOLLOWING:
A. DEVIATIONS FROM THIS STANDARD QA PLAN SHALL BE APPROVED BY THE DEPUTY INSPECTOR AND CITY BUILDING INSPECTOR PRIOR TO COMMENCEMENT OF WORK.
B. ALTERNATE PROCEDURES, SPECIFICATIONS, OR DETAILS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD.
C. SUPPLEMENTAL TESTING AND ADDITIONAL SPECIFICATIONS MAY BE REQUIRED TO APPROVE ALTERNATE PROCEDURES, SPECIFICATIONS, OR DETAILS.
D. CONFORMANCE WITH ALL APPLICABLE PROVISIONS OF THE AWS D1.1/D1.1M:2014 IS REQUIRED.

B. QUALITY ASSURANCE

- 1. CERTIFICATION
A. INSPECTORS SHALL BE CERTIFIED DEPUTY INSPECTORS
B. WELDERS SHALL BE CERTIFIED WELDERS FOR THE STRUCTURAL STEEL CLASSIFICATION
C. SHOP WELDS SHALL BE PERFORMED IN A CERTIFIED FABRICATOR'S SHOP
D. TECHNICIANS PERFORMING NDT SHALL BE CERTIFIED FOR LEVEL II IN ACCORDANCE WITH ASNT SNT-TC-1A 2016 EDITION BY AN APPROVED TESTING AGENCY
2. PRE-CONSTRUCTION MEETING
A. THE OWNER (OR OWNER'S REPRESENTATIVE) SHALL ARRANGE A PRE-CONSTRUCTION MEETING(S) WITH THE ENGINEER OF RECORD, THE CONTRACTOR (OR AFFECTED SUB-CONTRACTOR), AND THE DEPUTY INSPECTOR TO DISCUSS AND REVIEW WELDING PROCEDURES, BOLTING PROCEDURES, AND INSPECTION REQUIREMENTS.
3. STRUCTURAL OBSERVATION
STRUCTURAL OBSERVATION SHALL BE PERFORMED THE STRUCTURAL OBSERVER SHALL:
A. PERFORM STRUCTURAL OBSERVATION LISTED IN TABLE 6B, PLUS REVIEW & APPROVE STEEL SHOP DRAWINGS GIVEN BY CONTRACTOR TO ENGINEER OF RECORD.
B. PERFORM STRUCTURAL OBSERVATION OF STEEL & COMPLETED WELDING PRIOR TO PLACEMENT OF DECKING, COVERING BY FIREPROOFING, ENCASEMENT IN CONCRETE OR PLACEMENT OF OTHER FINISHES.
C. SUBMIT OBSERVATION REPORT(S) TO THE CITY BUILDING INSPECTOR (THROUGH CONTRACTOR) AT EACH STAGE OBSERVED AND UPON COMPLETION OF THE STRUCTURAL SYSTEM.

Table with 2 columns: REVISIONS, DATE. Multiple empty rows for revisions.

HJH ENGINEERING
Structural Engineering Consultants
23006 Erwin St., Woodland Hills, CA 91367
(818) 519-8572 Tel
jack@hjhengineering.com email



JAMES LE RESIDENCE
BELLA MADRERA LANE
SAN JOSE, CA
APN: 654-64-012

GENERAL NOTES

PROJECT NUMBER: 23B03
PROJ. ENG. / DRAWN: JH
DATE: DEC. 10, 2023
SCALE: AS NOTED
SHEET NUMBER:

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF HJH ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD, OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF AND APPROPRIATE COMPENSATION TO HJH ENGINEERING. COPYRIGHT ©2023

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF H.J.H. ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF H.J.H. ENGINEERING. COPYRIGHT © 2017.

TABLE 6B. STRUCTURAL OBSERVATION CHECKLIST

DEPUTY INSPECTOR OBSERVATION PROGRAM (STEEL MOMENT FRAME FOR SEISMIC APPLICATION)	
1.	REMOVAL OF BACKING BARS, AS REQUIRED ON THE PLANS & DETAILS
2.	PRESENCE OF CONTINUITY PLATES, AS REQUIRED ON THE PLANS & DETAILS
3.	PRESENCE OF DOUBLER PLATES, AS REQUIRED ON THE PLANS & DETAILS
4.	VERIFY THAT NO WELDED ATTACHMENTS OCCUR IN THE PLASTIC HINGING REGION.
5.	REVIEW NDT REPORTS FOR GENERAL COMPLIANCE.

NOTES:

- WELD QUALITIES SHALL BE VERIFIED BY THE DEPUTY INSPECTOR.
- THE OBSERVATIONS LISTED IN THIS TABLE ARE IN ADDITION TO THE OBSERVATIONS THAT MAY BE REQUIRED ON THE STRUCTURAL PLANS.

TABLE 7. PREQUALIFIED BASE METAL – FILLER METAL COMBINATIONS FOR MATCHING STRENGTH (1, 2, 3, 4)

BASE METAL		FILLER METAL		
GROUP	STEEL SPECIFICATION	WELDING PROCESS	AWS ELECTRODE SPECIFICATION	ELECTRODE CLASSIFICATION
I	ASTM A36 < 3/4 IN.	SMAW	A5.1	E70XX
			A5.5 (6)	E70XX-X
		FCAW	A5.20 (5)	E70XT-X, E7XT-XM
			A5.29 (6)	E70XTX-X, E7XTX-XM
II	ASTM A36 & 3/4 IN. ASTM A572 GRADE 50 ASTM A913 GRADE 50 ASTM A992	SMAW	A5.1	E7015, E7016, E7018, E7028
			A5.5 (6)	E70XX-X
		FCAW	A5.20 (5)	E70XT-X, E7XT-XM
			A5.29 (6)	E70XTX-X, E7XTX-XM
RELATIONSHIP	BASE METAL (S)	FILLER METAL STRENGTH RELATIONSHIP REQUIRED		
MATCHING	ANY STEEL TO ITSELF OR ANY STEEL TO ANOTHER IN THE SAME GROUP	ANY FILLER METAL LISTED IN THE SAME GROUP		
UNDER-MATCHING	ANY STEEL TO ANY STEEL TO ANY GROUP	ANY FILLER METAL LISTED FOR A LOWER STRENGTH GROUP [SMAW ELECTRODES SHALL BE THE LOW-HYDROGEN CLASSIFICATION]		

NOTES:

- THE BASE METAL/FILLER METAL STRENGTH RELATIONSHIPS ABOVE SHALL BE USED TO DETERMINE WHETHER MATCHING OR UNDER-MATCHING FILLER METALS ARE REQUIRED. REFER TO AWS D1.1/D1.1M:2002, SECTION 3.3.
- PREHEATING OF JOINTS INVOLVING BASE METALS OF DIFFERENT GROUPS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS APPLICABLE TO THE HIGHER STRENGTH GROUP.
- WHEN WELDS ARE TO BE STRESS-RELIEVED, THE DEPOSITED WELD METAL SHALL NOT EXCEED 0.05 PERCENT VANADIUM.
- ADAPTED WITH PERMISSION FROM THE AWS D1.1 COMMITTEE ON STRUCTURAL WELDING, STRUCTURAL WELDING CODE – STEEL, AWS D1.1/D1.1M: 2002, MIAMI: AMERICAN WELDING SOCIETY, TABLE 3.1.
- FCAW ELECTRODES WITH THE -2, -2M, -3, -4, -7, -10, -11, -13, -14, G, -GS SUFFIX SHALL BE EXCLUDED AND ELECTRODES WITH THE -11 SUFFIX SHALL BE EXCLUDED FOR THICKNESSES GREATER THAN 1/2 IN.
- FILLER METALS OF ALLOY GROUP B3, B3L, B4, B4L, B5, B5L, B6, B6L, B7, B7L, B8, B8L, B9, OR ANY BXH GRADE IN AWS A5.5 OR A5.29 ARE NOT PREQUALIFIED FOR USE IN THE AS-WELD CONDITION.

TABLE 5. PREQUALIFIED WPS REQUIREMENTS (1, 2, 3)

VARIABLE	POSITION OF WELD	WELD TYPE	SMAW	FCAW
MAXIMUM ELECTRODE DIAMETER	FLAT (F)	FILLET (4)	5/16 IN.	1/8 IN.
		GROOVE (4)	1/4 IN.	
		ROOT PASS	3/16 IN.	
	HORIZONTAL (H)	FILLET	1/4 IN.	1/8 IN.
		GROOVE	3/16 IN.	
	VERTICAL (V)	ALL	3/16 IN.	3/32 IN.
OVERHEAD (OH)	ALL	3/16 IN.	5/64 IN.	
MAXIMUM CURRENT	ALL	FILLET		
	ALL	GROOVE WELD ROOT PASS WITH OPENING	WITHIN THE RANGE OF RECOMMENDED OPERATION BY THE FILLER METAL MANUFACTURER AND A WPS APPROVED BY ENGINEER OF RECORD.	WITHIN THE RANGE OF RECOMMENDED OPERATION BY THE FILLER METAL MANUFACTURER AND A WPS APPROVED BY ENGINEER OF RECORD.
		GROOVE WELD ROOT PASS WITHOUT OPENING		
		GROOVE WELD FILL PASSES		
GROOVE WELD CAP PASS				
MAXIMUM ROOT PASS THICKNESS (S)	FLAT (F)	ALL	3/8 IN.	3/8 IN.
	HORIZONTAL (H)		5/16 IN.	5/16 IN.
	VERTICAL (V)		1/2 IN.	1/2 IN.
	OVERHEAD (OH)		5/16 IN.	5/16 IN.
MAXIMUM FILL PASS THICKNESS	ALL	ALL	3/16 IN.	1/4 IN.
MAXIMUM SINGLE PASS FILLET WELD SIZE	FLAT (F)	FILLET	3/8 IN.	1/2 IN.
	HORIZONTAL (H)		5/16 IN.	3/8 IN.
	VERTICAL (V)		1/2 IN.	1/2 IN.
	OVERHEAD (OH)		5/16 IN.	5/16 IN.
MAXIMUM SINGLE PASS LAYER WIDTH	ALL	ROOT OPENING >1/2 IN.	NOT APPLICABLE.	SPLIT LAYERS
		ANY LAYER OF WIDTH W		(6)

NOTES:

- APPLICABLE PROVISIONS OF AWS D1.1/D1.1M:2002 SECTION 3 "PREQUALIFICATION OF WPSS" MUST BE MAINTAINED FOR PREQUALIFIED STATUS OF SMAW AND FCAW WPSS.
- REFER TO DETAIL ON SHEET FOR DIAGRAM OF WELD PASS SEQUENCE.
- ADAPTED WITH PERMISSION FROM THE AWS D1.1 COMMITTEE ON STRUCTURAL WELDING, STRUCTURAL WELDING CODE – STEEL, AWS D1.1/D1.1M: 2002, MIAMI: AMERICAN WELDING SOCIETY, TABLE 3.7.
- EXCEPT ROOT PASSES.
- SEE AWS D1.1/D1.1M:2002, SECTION 3.7.2, FOR WIDTH-TO-DEPTH LIMITATIONS.
- IN THE F, H, OR OH POSITIONS FOR NONTUBULARS, SPLIT LAYERS WHEN THE LAYER WIDTH W > 5/8 INCH. IN THE V POSITION FOR NONTUBULARS OR THE 5G OR 6G FOR TUBULARS, SPLIT LAYERS WHEN THE WIDTH W > 1 INCH.

TABLE 6A. DEPUTY INSPECTOR OBSERVATION CHECKLIST

DEPUTY INSPECTOR OBSERVATION PROGRAM (STEEL MOMENT FRAME FOR SEISMIC APPLICATION)	
1.	REMOVAL OF BACKING BARS, AS REQUIRED ON THE PLANS & DETAILS
2.	REMOVAL OF RUNOFF TABS, AS REQUIRED ON THE PLANS & DETAILS
3.	PRESENCE OF CONTINUITY PLATES, AS REQUIRED ON THE PLANS & DETAILS
4.	PRESENCE OF DOUBLER PLATES, AS REQUIRED ON THE PLANS & DETAILS
5.	CONFIGURATION AND FINISH OF WELD ACCESS HOLES, IF APPLICABLE.
6.	CONTOUR OF RBS PROFILE, IF APPLICABLE.
7.	VERIFY THAT NO WELDED ATTACHMENTS OCCUR IN THE PLASTIC HINGING REGION.
8.	REVIEW NDT REPORTS FOR GENERAL COMPLIANCE.

NOTES:

- WELD QUALITIES SHALL BE VERIFIED BY THE DEPUTY INSPECTOR.
- THE OBSERVATIONS LISTED IN THIS TABLE ARE IN ADDITION TO THE OBSERVATIONS THAT MAY BE REQUIRED ON THE STRUCTURAL PLANS.

TABLE 1. REPORTS TO BE SUBMITTED TO THE CITY BUILDING INSPECTOR

	PREPARED BY	TYPE OF REPORT
1.	STRUCTURAL OBSERVER(S)	STRUCTURAL OBSERVATION REPORTS
2.	DEPUTY INSPECTOR(S)	DEPUTY INSPECTION REPORTS
3.	NDT TECHNICIAN(S)	NON-DESTRUCTIVE TESTING REPORTS

TABLE 2. NON-DESTRUCTIVE TEST LOCATIONS

REQUIRED LOCATIONS	OMF	IMF	SMF
1. C/P GROOVE WELD ULTRASONIC TEST SHALL BE PERFORMED ON ALL C/P GROOVE WELDS IN MATERIALS 5/16 INCH (8 MM) THICK OR GREATER. IN ADDITION, MAGNETIC PARTICLE TEST SHALL BE PERFORMED ON ALL BEAM-TO-COLUMN C/P GROOVE WELDS.	B	A	A
2. "K" AREA WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES, OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, THE WEB SHALL BE TESTED FOR CRACKS USING MAGNETIC PARTICLE TESTING. THE MAGNETIC PARTICLE TEST AREA SHALL INCLUDE THE K-AREA BASE METAL WITHIN 3 IN. (75 MM) OF THE WELD.	C	B	B
3. BEAM COPE AND ACCESS HOLE AT WELDED SPLICES AND CONNECTIONS, THERMALLY CUT SURFACES OF BEAM COPES AND ACCESS HOLES SHALL BE TESTED USING MAGNETIC PARTICLE TESTING, WHEN THE FLANGE THICKNESS EXCEEDS 1-1/2 IN. (38 MM) FOR ROLLED SHAPES.	C	B	B
4. REDUCED BEAM SECTION REPAIR MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON ANY WELD AND ADJACENT AREA OF THE RBS PLASTIC HINGE REGION THAT HAS BEEN REPAIRED BY WELDING, OR ON THE BASE METAL OF THE RBS PLASTIC HINGE REGION IF A SHARP NOTCH HAS BEEN REMOVED BY GRINDING.	B	B	A
5. BASE METAL LAMELLAR TEARING AND LAMINATIONS AT C/P GROOVE WELD BASE METAL THICKER THAN 1-1/2 IN. (38 MM) SHALL BE ULTRASONICALLY TESTED FOR DISCONTINUITIES BEHIND AND ADJACENT TO THE FUSION LINE WHEN THE BASE METAL IS LOADED IN TENSION IN THE THROUGH THICKNESS DIRECTION IN TEE AND CORNER JOINTS AND THE CONNECTED MATERIAL IS GREATER THAN 3/4 IN. (19 MM). ANY BASE METAL DISCONTINUITIES FOUND WITHIN 1/4 OF THE STEEL SURFACE SHALL BE ACCEPTED OR REJECTED ON THE BASIS OF CRITERIA OF AWS D1.1 TABLE 6.2, WHERE T IS THE THICKNESS OF THE PART SUBJECTED TO THE THROUGH-THICKNESS STRAIN.	B	B	A
6. END OF WELD AT WELD TAB REMOVAL SITE MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON THE END OF WELDS FROM WHICH THE WELD TABS HAVE BEEN REMOVED, EXCEPT FOR CONTINUITY PLATE WELD TABS.	C	B	B
7. P/P GROOVE WELD ULTRASONIC TESTING SHALL BE PERFORMED ON P/P GROOVE WELDS USED IN COLUMN SPLICES WITH AN EFFECTIVE THROAT OF 3/4 IN. (19.1 MM) THICK OR GREATER.	C	B	A

NOTE: A, B, AND C ARE THE FREQUENCIES OF NON-DESTRUCTIVE TESTS LISTED IN TABLE 3. OMF, IMF OR SMF CONNECTION NOTED IN STRUCTURAL DETAILS

TABLE 3. NON-DESTRUCTIVE TEST FREQUENCY

	FREQUENCY DESIGNATION		
	A	B	C
ULTRASONIC TESTING (UT)	100% OF JOINTS	50% OF JOINTS	25% OF JOINTS
MAGNETIC PARTICLE TESTING (MT)	50% OF JOINTS	25% OF JOINTS	NOT REQUIRED

NOTES:

- REFER TO TABLE 2 FOR LOCATIONS OF NON-DESTRUCTIVE TESTING.
- RATE OF NON-DESTRUCTIVE TESTING MAY BE REDUCED AS PERMITTED IN SHEET 1, PART IV, ITEM 8(D).

TABLE 4. PREQUALIFIED MINIMUM PREHEAT AND INTERPASS TEMPERATURE

STEEL SPECIFICATION	WELDING PROCESS	THICKNESS OF THICKEST PART AT POINT OF WELDING (in.)	MINIMUM PREHEAT AND INTERPASS TEMPERATURE (°F)
ASTM A36 ASTM A572 GRADE 50 ASTM A913 GRADE 50 ASTM A992	SMAW WITH LOW-HYDROGEN ELECTRODES, FCAW	1/8 TO 3/4 INCL.	32
		OVER 3/4 TO 1-1/2 INCL.	50
		OVER 1-1/2 TO 2-1/2 INCL.	150
		OVER 2-1/2	225

NOTES:

- SURFACES TO BE WELDED AND SURFACES ADJACENT TO WELDS SHALL BE FREE OF MOISTURE PURSUANT TO AWS D1.1/D1.1M:2002 SECTION 5.15. USE A HIGHER PREHEAT TEMPERATURE FROM THIS TABLE TO REMOVE MOISTURE.
- ADAPTED WITH PERMISSION FROM THE AWS D1.1 COMMITTEE ON STRUCTURAL WELDING, STRUCTURAL WELDING CODE – STEEL, AWS D1.1/D1.1M: 2002, MIAMI: AMERICAN WELDING SOCIETY, TABLE 3.2.

REVISIONS \_\_\_\_\_ DATE \_\_\_\_\_

**HJH ENGINEERING**  
 Structural Engineering Consultants  
 23006 Erwin St., Woodland Hills, CA 91367  
 (818) 519-8572 Tel  
 jack@hjhengineering.com email



JAMES LE RESIDENCE  
 BELLA MADERIA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

**GENERAL NOTES**

PROJECT NUMBER: 23B03

PROJ. ENG. / DRAWN: JH

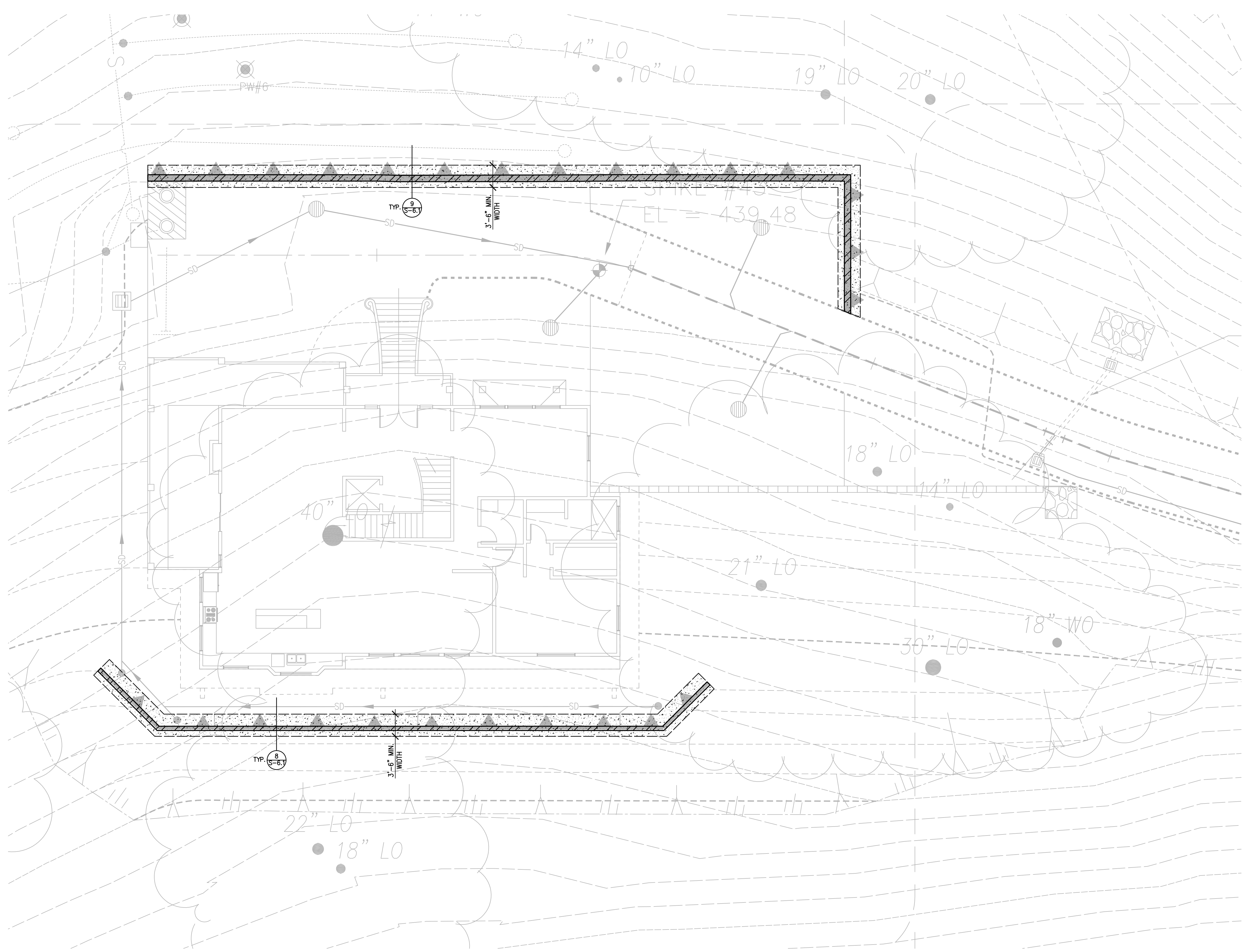
DATE: DEC. 10, 2023

SCALE: AS NOTED

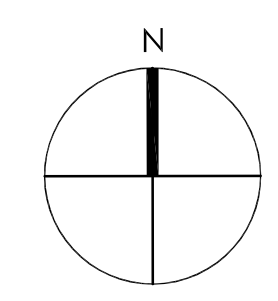
SHEET NUMBER:

**S-1.3**

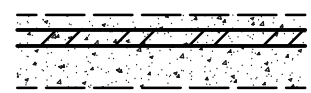
ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF H.J.H. ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF AND APPROPRIATE COMPENSATION TO H.J.H. ENGINEERING. COPYRIGHT © 2017



SITE RETAINING WALL LAYOUT 1  
 Scale: 1/8"=1'-0"

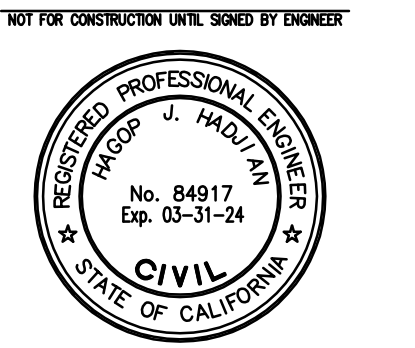


**FOUNDATION NOTES**

1. REFER TO THE ARCHITECTURAL AND CIVIL DRAWINGS FOR ALL DIMENSIONS, SLAB DEPRESSIONS, CURBS AND ELEVATIONS.
2. SOIL REPORT# 23062C-01L2, BY C2EARTH INC., DATED OCTOBER 12, 2023 IS CONSIDERED A PART OF THESE PLANS. C2EARTH INC., IS LOCATED AT 750 CAMDEN AVE. #A, CAMBELL, CA 95008 TEL: (408)-866-5436
3. GEOTECHNICAL ENGINEER OF RECORD SHALL REVIEW STRUCTURAL FOUNDATION PLANS, GRADING PLANS, AND SPECIFICATIONS. GEOTECHNICAL ENGINEER SHALL FURNISH A SIGNED AND STAMPED LETTER STATING THAT THE PLANS HAVE BEEN REVIEWED AND THAT THE RECOMMENDATIONS IN THE SOIL REPORT ARE PROPERLY INCORPORATED INTO THE PLANS. ANY DISCREPANCIES NOTED BY THE GEOTECHNICAL ENGINEER IN HIS/HER REVIEW LETTER SHOULD BE REFLECTED BY REVISIONS TO THE RESUBMITTED PLANS. GEOTECHNICAL ENGINEER SHALL INCLUDE THE SHEET NUMBERS REVIEWED AND DATE OF DRAWING.
4. BEARING MATERIAL IS BEDROCK. MAXIMUM ALLOWABLE BEARING PRESSURE IS 4000 PSF. MINIMUM EMBEDMENT DEPTH IS 12" INTO UNDERLYING SUPPORTIVE BEDROCK BELOW THE PLANE AT WHICH THERE IS A MIN. 5'-0" HORIZONTAL SEPARATION BETWEEN THE DOWNHILL FACE OF THE FOOTING AND THE SURFACE OF BEDROCK.
5. EXCAVATIONS SHALL BE MADE IN COMPLIANCE WITH CAL/OSHA REGULATIONS.
6. ALL FOUNDATION EXCAVATIONS MUST BE OBSERVED AND APPROVED BY SOIL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.
7. LEGEND:  
 = 8" BLOCK WALL AND FOUNDATION

REVISIONS DATE

**HJH ENGINEERING**  
 Structural Engineering Consultants  
 23006 Erwin St., Woodland Hills, CA 91367  
 (818) 519-8572 tel  
 jack@hjhengineering.com email



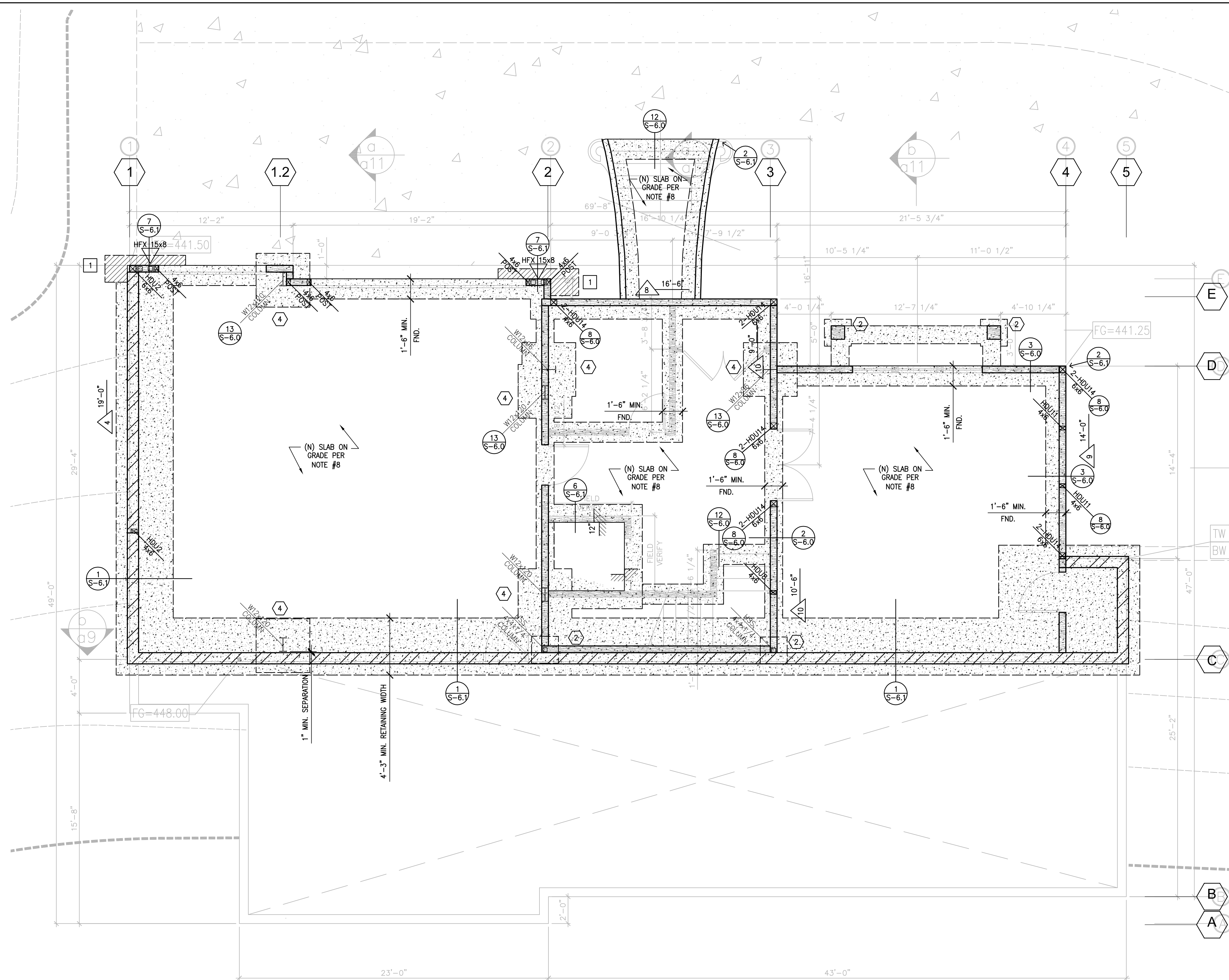
JAMES LE RESIDENCE  
 BELLA MADERIA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

**SITE RETAINING WALL LAYOUT**

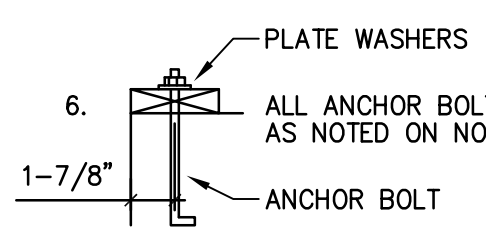
PROJECT NUMBER: 23B03  
 PROJ. ENG. / DRAWN: JH  
 DATE: DEC. 10, 2023  
 SCALE: AS NOTED  
 SHEET NUMBER:

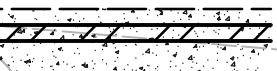

**S-2.0**

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF H.J.H. ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF H.J.H. ENGINEERING. COPYRIGHT © 2017



**FOUNDATION NOTES**

- PAD FOOTING INDICATOR - SEE PAD SCHEDULE FOR SIZE AND REINFORCEMENT.
- GRADE BEAM INDICATOR - SEE GRADE BEAM SCHEDULE FOR SIZE AND REINFORCEMENT.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, SLAB DEPRESSIONS, CURBS AND ELEVATIONS.
- REFER TO THE SHEAR WALL SCHEDULE FOR THE ANCHOR BOLT SPACING AND SILL PLATE DIMENSIONS. (MAXIMUM 2/8" Ø BOLT SPACING @ 48" O.C.-12" FROM END OF PLATE)
- FOUNDATION SILL PLATES SHALL BE PRESERVATIVE-TREATED LUMBER. ALL ANCHOR BOLTS AND OTHER FASTENERS IN PRESERVATIVE-TREATED SILL PLATES SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL.
- 

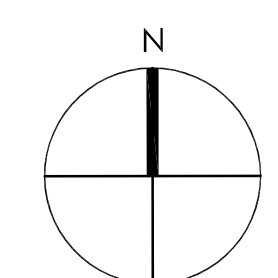
ALL ANCHOR BOLT SHALL HAVE THE STEEL PLATE WASHERS AS NOTED ON NOTE 11 OF THE SHEAR WALL SCHEDULE.
- ALL THE HOLD DOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
- SLAB ON GRADE: (12" MIN. COMPACTED FILL PER SOILS REPORT) 5" CONCRETE SLAB W/ #4 @ 16" O.C. EA. WAY OVER 15 MIL VIZQUEEN IN DIRECT CONTACT W/ CONCRETE OVER 6" THICK BASE OF 1/2" OR LARGER CLEAN AGGREGATE (FREE DRAINING GRAVEL).  
 $f_c = 2500$  psi  
 $F_y = 40,000$  psi  
 CONTROL JOINTS SHALL BE LOCATED NO MORE THAN 10' APART IN EACH DIRECTION UNLESS SPECIFIED OTHERWISE BY ARCHITECT.
- SOIL REPORT# 23062C-01L2, BY C2EARTH INC., DATED OCTOBER 12, 2023 IS CONSIDERED A PART OF THESE PLANS. C2EARTH INC. IS LOCATED AT 750 CAMDEN AVE. #A, CAMBELL, CA 95008 TEL: (408)-866-5436
- GEOTECHNICAL ENGINEER OF RECORD SHALL REVIEW STRUCTURAL FOUNDATION PLANS, GRADING PLANS, AND SPECIFICATIONS. GEOTECHNICAL ENGINEER SHALL FURNISH A SIGNED AND STAMPED LETTER STATING THAT THE PLANS HAVE BEEN REVIEWED AND THAT THE RECOMMENDATIONS IN THE SOIL REPORT ARE PROPERLY INCORPORATED INTO THE PLANS. ANY DISCREPANCIES NOTED BY THE GEOTECHNICAL ENGINEER IN HIS/HER REVIEW LETTER SHOULD BE REFLECTED BY REVISIONS TO THE RESUBMITTED PLANS. GEOTECHNICAL ENGINEER SHALL INCLUDE THE SHEET NUMBERS REVIEWED AND DATE OF DRAWING.
- BEARING MATERIAL IS BEDROCK. MAXIMUM ALLOWABLE BEARING PRESSURE IS 4000 PSF. MINIMUM EMBEDMENT DEPTH IS 12" INTO UNDERLYING SUPPORTIVE BEDROCK BELOW THE PLANE AT WHICH THERE IS A MIN. 5'-0" HORIZONTAL SEPARATION BETWEEN THE DOWNHILL FACE OF THE FOOTING AND THE SURFACE OF BEDROCK.
- EXCAVATIONS SHALL BE MADE IN COMPLIANCE WITH CAL/OSHA REGULATIONS.
- ALL FOUNDATION EXCAVATIONS MUST BE OBSERVED AND APPROVED BY SOIL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.
- LEGEND:
  -  = 10" BLOCK WALL AND FOUNDATION
  -  = NEW SLAB FOUNDATION

GRADE BEAM SCHEDULE					
BEAM	WIDTH	DEPTH	TOP STEEL	BOTT. STEEL	TIES
1	24"	24"	(4) #5 BARS	(4) #5 BARS	#3 @ 6" O.C.

NOTES:  
 $f_c = 3,000$  PSI W/ SPECIAL INSPECTION  
 $F_y = 60,000$  PSI

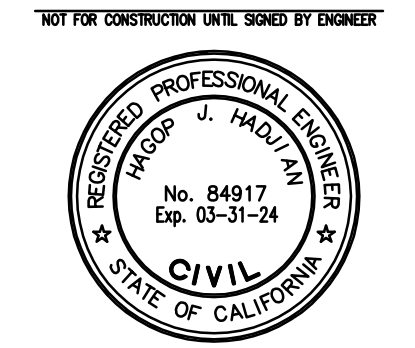
PAD SCHEDULE		
SYMBOL	SIZE	STEEL
1	1'-6" x 1'-6" x 12" THICK	(3) #4 EACH WAY
2	2'-0" x 2'-0" x 12" THICK	(4) #4 EACH WAY
3	3'-0" x 3'-0" x 12" THICK	(5) #5 EACH WAY
4	4'-0" x 4'-0" x 12" THICK	(6) #5 EACH WAY

**BASEMENT FOUNDATION PLAN**  
 Scale: 1/4"=1'-0" ①



REVISIONS DATE

**HJH ENGINEERING**  
 Structural Engineering Consultants  
 23006 Erwin St., Woodland Hills, CA 91367  
 (818) 519-8572 tel  
 jack@hjhengineering.com email



**JAMES LE RESIDENCE**  
 BELLA MADRERA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

**BASEMENT FOUNDATION PLAN**

PROJECT NUMBER: 23B03  
 PROJ. ENG. / DRAWN: JH  
 DATE: DEC. 10, 2023  
 SCALE: AS NOTED  
 SHEET NUMBER:

**S-2.1**

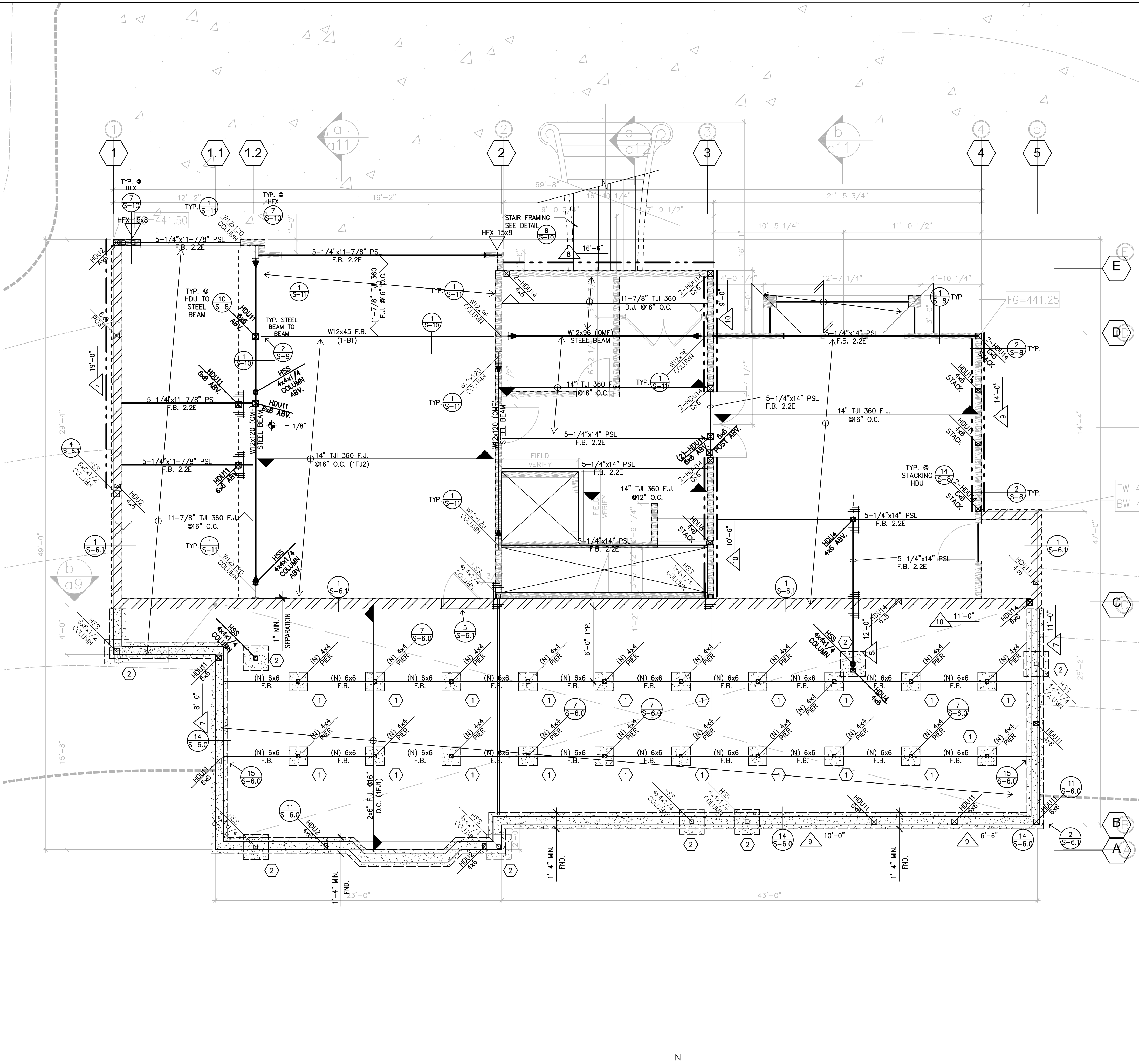


**FRAMING PLAN NOTES**

- 1) SHEARWALL INDICATOR - SEE SHEARWALL SCHEDULE.
- 2) ALL EXTERIOR WALLS ARE  $\triangle$  WALLS UNLESS NOTED OTHERWISE PER PLAN AND SHEARWALL SCHEDULE. AREAS ABOVE AND BELOW WINDOWS, ETC. NEED NOT BE BLOCKED WHEN WALL IS NOT DESIGNATED AS SHEARWALL.
- 3) INTERIOR WALLS ARE 5/8" GYPSUM WALL BOARD BOTH SIDES WITH 6d NAILS AT 6", 6", 6" NAILING. SILL CONNECTION 16d's @ 6" O.C. A35'S @ 32" O.C.
- 4) DENOTES POST BELOW FLOOR FRAMING. PROVIDE MULTIPLE STUDS AT ALL BEAMS FOR FULL BEARING UNLESS NOTED OTHERWISE. (2-2x MIN. IF NOT SPECIFIED)
- 5) DENOTES POST ABOVE LEVEL SHOWN.
- 6) DENOTES POST STACKS DIRECTLY WITH POST ABOVE. PROVIDE SOLID BLOCKING BELOW.
- 7) PROVIDE DOUBLE FLOOR JOISTS UNDER ALL PARALLEL WALLS AND PROVIDE BLOCKING BELOW ALL PERPENDICULAR WALLS
- 8) DENOTES SIMPSON HOLDOWN AND POST IN WALL, TO POST IN WALL, BEAM, DOUBLE JOIST, OR FOUNDATION BELOW. 2-2x POST MINIMUM IF NOT SPECIFIED.
- 9) FLOOR MATERIAL AND NAILING:  
3/4" CDX PLYWOOD (INDEX 32/16) T&G W/ 10d COMMON NAILS (0.148" dia. x 2-3/8" LONG - E2CODE ID "T") @ 6" O.C. AT PANEL EDGES AND 4" O.C. AT BUILDING PERIMETER (BOUNDARY) + 10" O.C. AT PANEL FIELDS. GLUE AND NAIL ALL PLYWOOD.
- 10) SEE FRAMING SYMBOL KEY OR PLAN FOR JOIST SIZES.
- 11) MINIMUM HANGERS:  
2x JOISTS TO BEAMS: U 6x BEAMS TO BEAM: HUTF  
4x BEAMS TO BEAM: HU > 6x BEAMS: HW, W  
TJI JOISTS TO BEAM: JUS OR MIU
- 12) TRIMMERS:  
1-2x4 TRIMMER REQUIRED FOR 4x8 HEADERS AND SMALLER, U.N.O.  
4x4 TRIMMER REQUIRED FOR HEADERS LARGER THAN 4x8 U.N.O.
- 13) DENOTES HORIZONTAL STRAP BETWEEN WALL TOP PLATES AND BEAM OR DOUBLE JOISTS OR BETWEEN TWO BEAMS AT BREAK - SEE TYPICAL DETAILS AND PLAN. (MST48 MIN. U.N.O.)
- 14) F.J. = FLOOR JOIST R.J. = ROOF JOIST  
F.B. = FLOOR BEAM R.B. = RIDGE BEAM
- 15) = BEAM (SIZE AS NOTED ON PLAN)  
= DOUBLE JOIST - (2) 1-3/4"x14" LSL, U.N.O.  
= SINGLE JOIST  
= BLOCKING  
= ROOF JOISTS  
= FLOOR JOISTS  
= DENOTES WALL AT FLOOR BELOW  
= DENOTES BLOCK WALL AT FLOOR BELOW  
= DENOTES STRUCTURAL WALL
- 16) PROVIDE STRAPS AND BLOCKS AROUND ALL WINDOWS PER ARCHITECT TO COORDINATE FRAMING OR CAMBER IN BEAM AS REQUIRED FOR FINISH
- 17) DENOTES DEAD LOAD DEFLECTION CONTRACTOR AND ARCHITECT TO COORDINATE FRAMING OR CAMBER IN BEAM AS REQUIRED FOR FINISH

**FOUNDATION NOTES**

- 1) PAD FOOTING INDICATOR - SEE PAD SCHEDULE FOR SIZE AND REINFORCEMENT.
- 2) REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, SLAB DEPRESSIONS, CURBS AND ELEVATIONS.
- 3) REFER TO THE SHEAR WALL SCHEDULE FOR THE ANCHOR BOLT SPACING AND SILL PLATE DIMENSIONS. (MAXIMUM 5/8" BOLT SPACING @ 48" O.C.-12" FROM END OF PLATE)
- 4) FOUNDATION SILL PLATES SHALL BE PRESERVATIVE-TREATED LUMBER. ALL ANCHOR BOLTS AND OTHER FASTENERS IN PRESERVATIVE-TREATED SILL PLATES SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL.
- 5) ALL ANCHOR BOLT SHALL HAVE THE STEEL PLATE WASHERS AS NOTED ON NOTE 11 OF THE SHEAR WALL SCHEDULE.
- 6) ALL THE HOLD DOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
- 7) SOIL REPORT# 23062C-01L2, BY C2EARTH INC., DATED OCTOBER 12, 2023 IS CONSIDERED A PART OF THESE PLANS. C2EARTH INC. IS LOCATED AT 750 CAMDEN AVE. #A, CAMEBELL, CA 95008 TEL: (408)-866-5436
- 8) GEOTECHNICAL ENGINEER OF RECORD SHALL REVIEW STRUCTURAL FOUNDATION PLANS, GRADING PLANS, AND SPECIFICATIONS. GEOTECHNICAL ENGINEER SHALL FURNISH A SIGNED AND STAMPED LETTER STATING THAT THE PLANS HAVE BEEN REVIEWED AND THAT THE RECOMMENDATIONS IN THE SOIL REPORT ARE PROPERLY INCORPORATED INTO THE PLANS. ANY DISCREPANCIES NOTED BY THE GEOTECHNICAL ENGINEER IN HIS/HER REVIEW LETTER SHOULD BE REFLECTED BY REVISIONS TO THE RESUBMITTED PLANS. GEOTECHNICAL ENGINEER SHALL INCLUDE THE SHEET NUMBERS REVIEWED AND DATE OF DRAWING.
- 9) BEARING MATERIAL IS BEDROCK  
MAXIMUM ALLOWABLE BEARING PRESSURE IS 4000 PSF  
MINIMUM EMBEDMENT DEPTH IS 12" INTO UNDERLYING SUPPORTIVE BEDROCK BELOW THE PLANE AT WHICH THERE IS A MIN. 5'-0" HORIZONTAL SEPARATION BETWEEN THE DOWNHILL FACE OF THE FOOTING AND THE SURFACE OF BEDROCK.
- 10) EXCAVATIONS SHALL BE MADE IN COMPLIANCE WITH CAL/OSHA REGULATIONS.
- 11) ALL FOUNDATION EXCAVATIONS MUST BE OBSERVED AND APPROVED BY SOIL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.
- 12) LEGEND:  
= RAISED WOOD FOOTING  
= FLOOR JOIST



FIRST FLOOR FOUNDATION AND FRAMING PLAN  
Scale: 1/4"=1'-0"

**HJH ENGINEERING**  
Structural Engineering Consultants  
23006 Erwin St., Woodland Hills, CA 91367  
(818) 519-8572 tel  
jack@hjhengineering.com email



JAMES LE RESIDENCE  
BELLA MADRERA LANE  
SAN JOSE, CA  
APN: 654-64-012

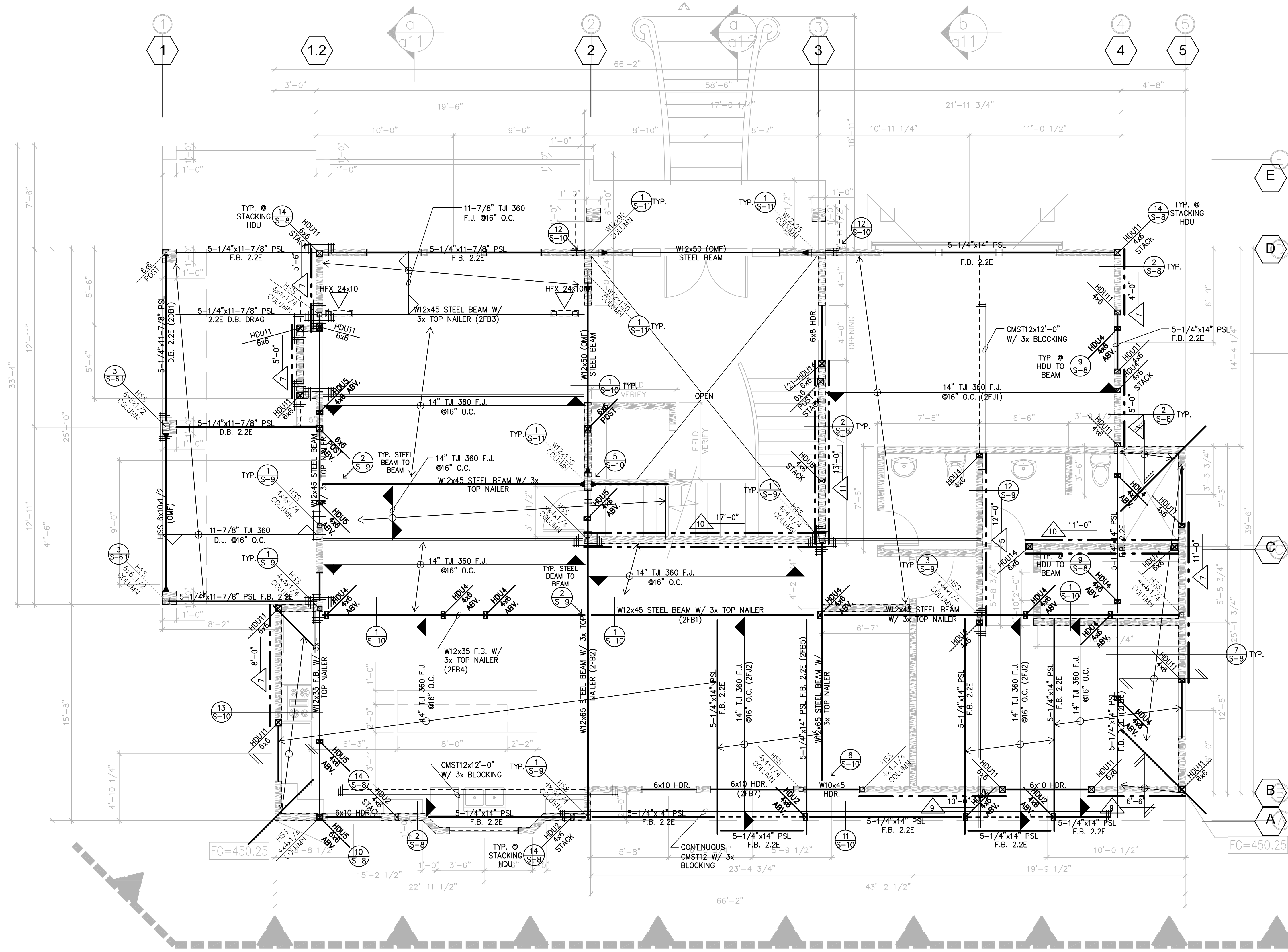
FIRST FLOOR  
FOUNDATION AND  
FRAMING PLAN

PROJECT NUMBER: 23B03  
PROJ. ENG. / DRAWN: JH  
DATE: DEC. 10, 2023  
SCALE: AS NOTED  
SHEET NUMBER:

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF H.J.H. ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF H.J.H. ENGINEERING. COPYRIGHT © 2023

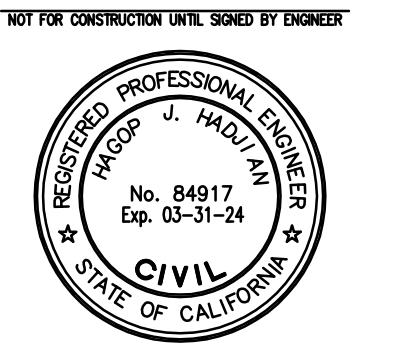
**FRAMING PLAN NOTES**

- 1) SHEARWALL INDICATOR - SEE SHEARWALL SCHEDULE.
- 3) ALL EXTERIOR WALLS ARE WALLS UNLESS NOTED OTHERWISE PER PLAN AND SHEARWALL SCHEDULE.
- 4) INTERIOR WALLS ARE 5/8" GYPSUM WALL BOARD BOTH SIDES WITH 6d NAILS AT 6", 6", 6" NAILING. SILL CONNECTION 16d's @ 6" O.C. A35'S @ 32" O.C.
- 5) DENOTES POST BELOW FLOOR FRAMING. PROVIDE MULTIPLE STUDS AT ALL BEAMS FOR FULL BEARING UNLESS NOTED OTHERWISE. (2-2x MIN. IF NOT SPECIFIED)
- DENOTES POST ABOVE LEVEL SHOWN.
- DENOTES POST STACKS DIRECTLY WITH POST BELOW. PROVIDE SOLID BLOCKING BELOW.
- 6) PROVIDE DOUBLE FLOOR JOISTS UNDER ALL PARALLEL WALLS AND PROVIDE BLOCKING BELOW ALL PERPENDICULAR WALLS
- 7) DENOTES SIMPSON HOLDOWN AND POST IN WALL TO POST IN WALL, BEAM, DOUBLE JOIST, OR FOUNDATION BELOW. 2-2x POST MINIMUM IF NOT SPECIFIED.
- 8) FLOOR MATERIAL AND NAILING:  
3/4" CDX PLYWOOD (INDEX 32/16) T&G W/ 10d COMMON NAILS (0.148" DIA. x 2-3/8" LONG - EZCODE ID "S") @ 6" O.C. AT PANEL EDGES AND 4" O.C. AT BUILDING PERIMETER (BOUNDARY) + 10" O.C. AT PANEL FIELDS. GLUE AND NAIL ALL PLYWOOD.  
  
ROOF MATERIAL AND NAILING:  
5/8" CDX PLYWOOD (INDEX 32/16) W/ 10d COMMON NAILS (0.148" DIA. x 2-3/8" LONG - EZCODE ID "S") @ 6" O.C. AT PANEL EDGES AND 12" O.C. @ PANEL FIELDS. ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING.
- 9) SEE FRAMING SYMBOL KEY OR PLAN FOR JOIST SIZES.
- 10) MINIMUM HANGERS:  
2x JOISTS TO BEAMS: U 6x BEAMS TO BEAM: HUTF  
4x BEAMS TO BEAM: HU > 6x BEAMS: HW, W  
TJ JOISTS TO BEAM: IUS OR MIU
- 11) TRIMMERS:  
1-2x4 TRIMMER REQUIRED FOR 4x8 HEADERS AND SMALLER, U.N.O.  
4x4 TRIMMER REQUIRED FOR HEADERS LARGER THAN 4x8 U.N.O.
- 12) DENOTES HORIZONTAL STRAP BETWEEN WALL TOP PLATES AND BEAM OR DOUBLE JOISTS OR BETWEEN TWO BEAMS AT BREAK - SEE TYPICAL DETAILS AND PLAN. (MST48 MIN. U.N.O.)
- 13) F.J. = FLOOR JOIST R.J. = ROOF JOIST  
F.B. = FLOOR BEAM R.B. = RIDGE BEAM  
= BEAM (SIZE AS NOTED ON PLAN)  
= DOUBLE JOIST - (2) 1-3/4"x14" LV, U.N.O.  
= SINGLE JOIST  
= BLOCKING  
= ROOF JOISTS  
= FLOOR JOISTS  
= DENOTES WALL AT FLOOR BELOW  
= DENOTES STRUCTURAL WALL
- 14) PROVIDE STRAPS AND BLOCKS AROUND ALL WINDOWS PER
- 15) INTERIOR STUDS ARE MINIMUM 2x6 @ 24" O.C.  
EXTERIOR STUDS ARE MINIMUM 2x6 @ 16" O.C.
- 16) ALL BEAMS DESIGNATED AS "STRUTS" TO HAVE PLYWOOD BOUNDARY NAILING.



**SECOND FLOOR FRAMING PLAN**  
Scale: 1/4"=1'-0" ①

**HJH ENGINEERING**  
Structural Engineering Consultants  
23006 Erwin St., Woodland Hills, CA 91367  
(818) 519-8572 tel  
jack@hjhengineering.com email



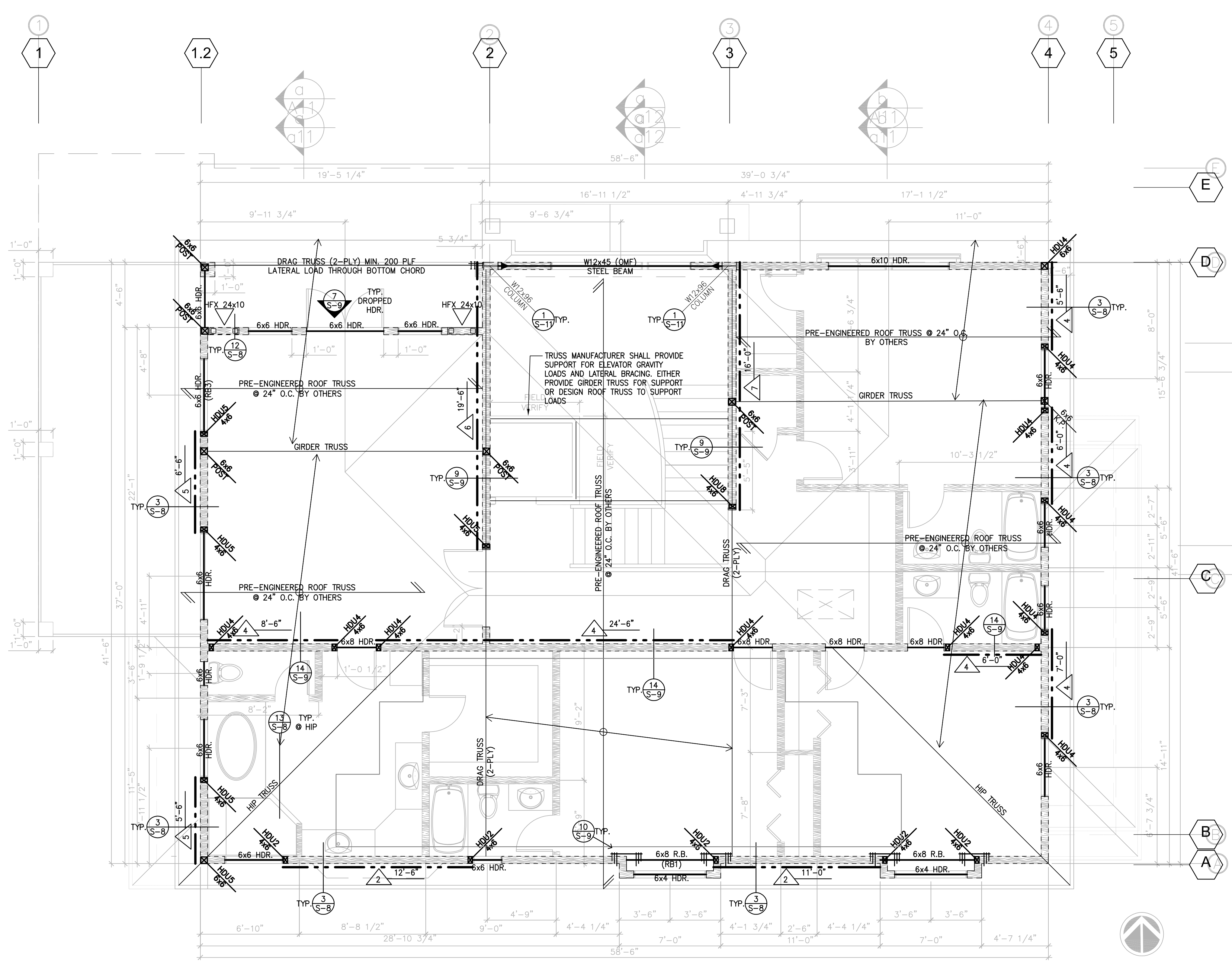
**JAMES LE RESIDENCE**  
BELLA MADRERA LANE  
SAN JOSE, CA  
APN: 654-64-012

**SECOND FLOOR FRAMING PLAN**

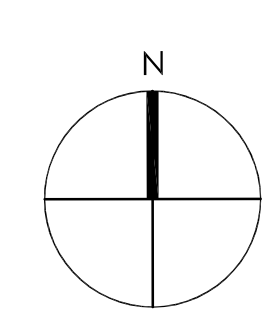
PROJECT NUMBER: 23B03  
PROJ. ENG. / DRAWN: JH  
DATE: DEC. 10, 2023  
SCALE: AS NOTED  
SHEET NUMBER:

ALL IDEAS, DESIGNS, ARRANGMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF H.J.H. ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF H.J.H. ENGINEERING. COPYRIGHT © 2017

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF H.J.H. ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF H.J.H. ENGINEERING. COPYRIGHT © 2017



**ROOF FRAMING PLAN**  
Scale: 1/4"=1'-0" ①

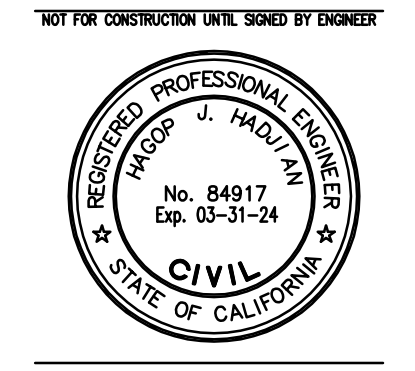


**FRAMING PLAN NOTES**

- △ SHEARWALL INDICATOR - SEE SHEARWALL SCHEDULE.
- ALL EXTERIOR WALLS ARE  $\frac{2}{2}$  WALLS UNLESS NOTED OTHERWISE PER PLAN AND SHEARWALL SCHEDULE.
- INTERIOR WALLS ARE 5/8" GYPSUM WALL BOARD BOTH SIDES WITH 6d NAILS AT 6", 6", 6" NAILING. SILL CONNECTION 16d's @ 6" O.C. A35'S @ 32" O.C.
- $\frac{4}{4}$  DENOTES POST BELOW ROOF FRAMING. PROVIDE MULTIPLE STUDS AT ALL BEAMS FOR FULL BEARING UNLESS NOTED OTHERWISE. (2-2x MIN. IF NOT SPECIFIED)
- PROVIDE BLOCKING W/ BOUNDARY NAILING AT ALL HIP, RIDGES, AND VALLEYS
- ROOF MATERIAL AND NAILING:  
5/8" CDX PLYWOOD (INDEX 32/16) W/ 10d COMMON NAILS (0.148" DIA. x 2-1/4" LONG - EZCODE ID "S") @ 6" O.C. AT PANEL EDGES AND 12" O.C. @ PANEL FIELDS. ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING.
- SEE FRAMING SYMBOL KEY OR PLAN FOR JOIST SIZES.
- MINIMUM HANGERS:  
2x JOISTS TO BEAMS: SIMPSON "U" SERIES  
4x BEAMS TO BEAM: HU  
6x BEAMS TO BEAM: HUTF  
> 6x BEAMS: HW, W
- TRIMMERS:  
1-2x4 TRIMMER REQUIRED FOR 4x6 HEADERS AND SMALLER, U.N.O.  
4x4 TRIMMER REQUIRED FOR 4x8 HEADERS AND LARGER U.N.O.
- $\frac{11}{11}$  DENOTES HORIZONTAL STRAP BETWEEN WALL TOP PLATES AND BEAM OR DOUBLE JOISTS OR BETWEEN TWO BEAMS AT BREAK - SEE TYPICAL DETAILS AND PLAN. (MST48 MIN. U.N.O.)
- BEAM (SIZE AS NOTED ON PLAN)
- PRE-ENGINEERED ROOF TRUSS BY OTHERS
- STRUCTURAL WALL BELOW
- CALIFORNIA FRAMING
- PRE-ENGINEERED ROOF TRUSS BLOCKING (2-PLY)
- PROVIDE STRAPS AND BLOCKS AROUND ALL WINDOWS PER  $\frac{10}{S-7}$
- INTERIOR STUDS ARE MINIMUM 2x4 @ 16" O.C.  
EXTERIOR STUDS ARE MINIMUM 2x6 @ 16" O.C.
- ALL MEMBERS DESIGNATED AS "STRUTS OR DRAG" TO HAVE PLYWOOD BOUNDARY NAILING. ALL DRAG AND GIRDER TRUSSES MUST BE DESIGNED TO TRANSFER MIN. DRAG FORCE OF 200 PLF AND MUST BE CONNECTED TO PLATE AND STUD WITH HTZ STRAP (MIN.)
- TRUSSES MUST BE BEARING ONLY ON POSTS, EXTERIOR WALLS, SHEAR WALLS AND INTERIOR BEARING WALLS. ALL OTHER WALLS WILL BE ASSUMED AS NON-BEARING WALLS.
- ROOF TRUSS DEAD LOADS  
TOP CHORD DL = 17.0 PSF  
BOTTOM CHORD DL = 11.0 PSF
- SEE ROOF TRUSS NOTES ON S-1.0
- TWO SETS OF TRUSS DESIGN DRAWINGS SHALL BE PROVIDED TO THE BUILDING OFFICIAL AND APPROVED PRIOR TO INSTALLATION PER CRC R801.10.1 AND CBC 107.3.4.1. ALL PAGES OF THE TRUSS DESIGN DRAWINGS SHALL BE PREPARED, SIGNED AND STAMPED BY A REGISTERED DESIGN PROFESSIONAL ENGINEER OF RECORD (EOR) SHOULD REVIEW THE TRUSS CALCULATIONS AND TRUSS LAYOUT SHEET AND SUBMIT A LETTER CONFIRMING GENERAL CONFORMANCE OF THE TRUSS DESIGN WITH THE BUILDING CODE AND DESIGN OF THE BUILDING, PRIOR TO RE-SUBMITTAL TO THE COUNTY OF SANTA CLARA.

REVISIONS DATE

**HJH ENGINEERING**  
Structural Engineering Consultants  
23006 Erwin St., Woodland Hills, CA 91367  
(818) 519-8572 tel  
jack@hjhengineering.com email

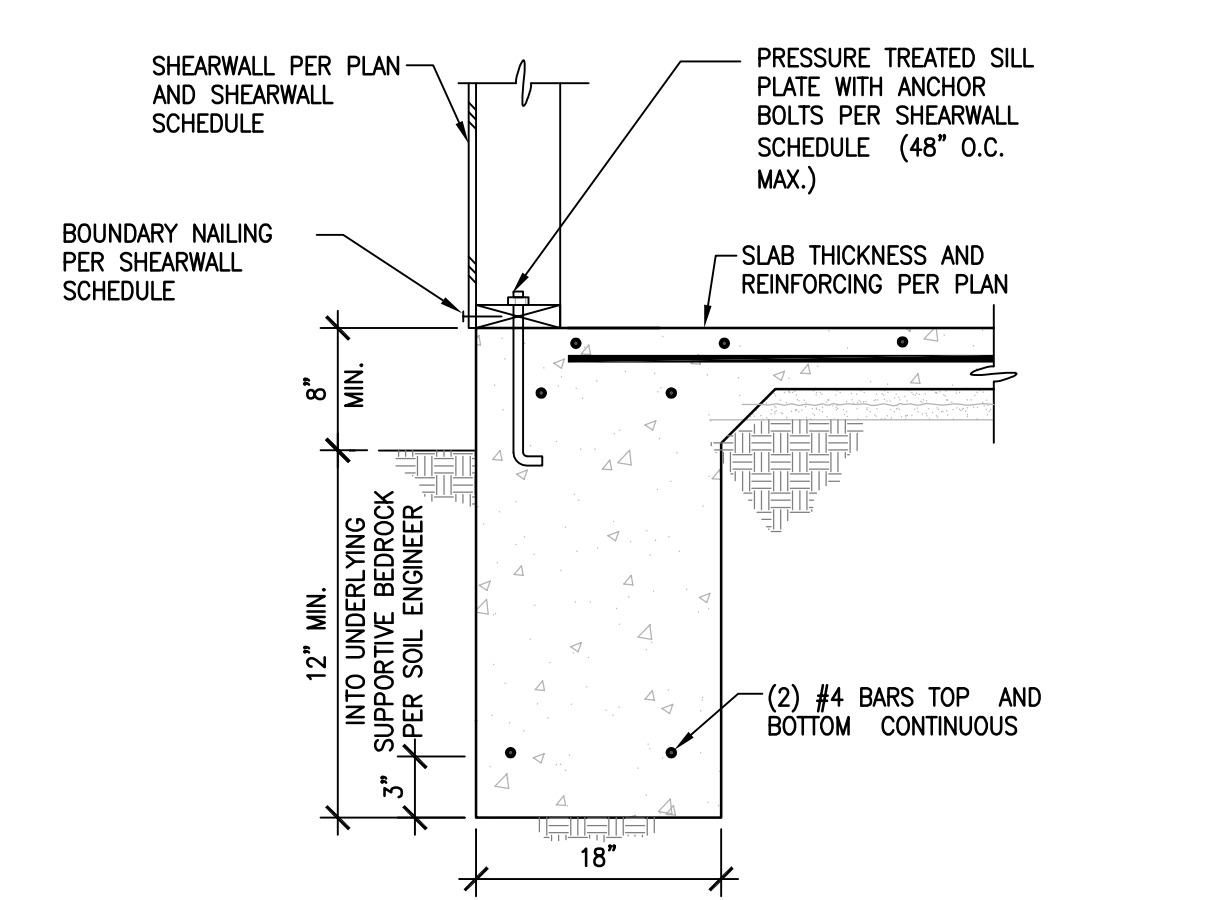


JAMES LE RESIDENCE  
BELLA MADRIA LANE  
SAN JOSE, CA  
APN: 654-64-012

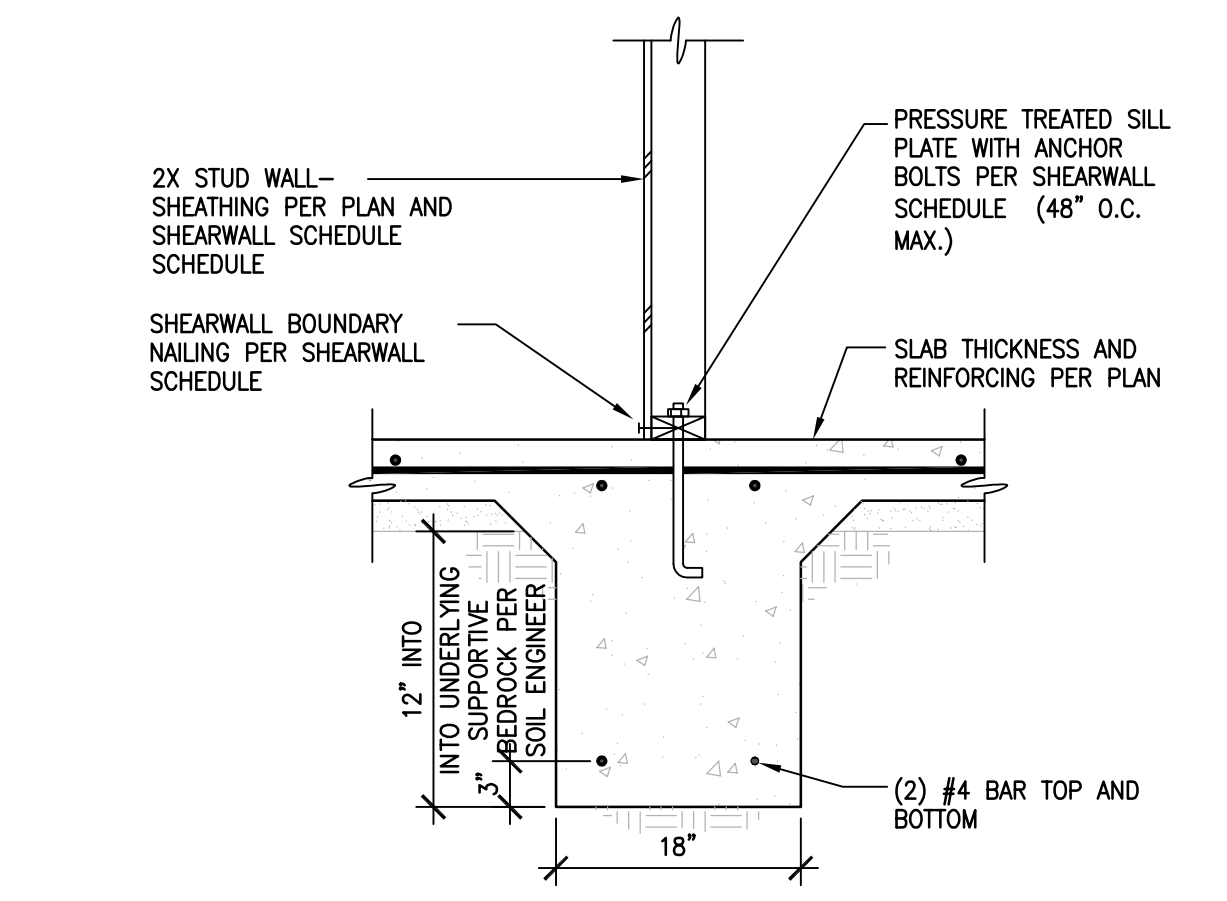
**ROOF FRAMING PLAN**

PROJECT NUMBER: 23B03  
PROJ. ENG. / DRAWN: JH  
DATE: DEC. 10, 2023  
SCALE: AS NOTED  
SHEET NUMBER:

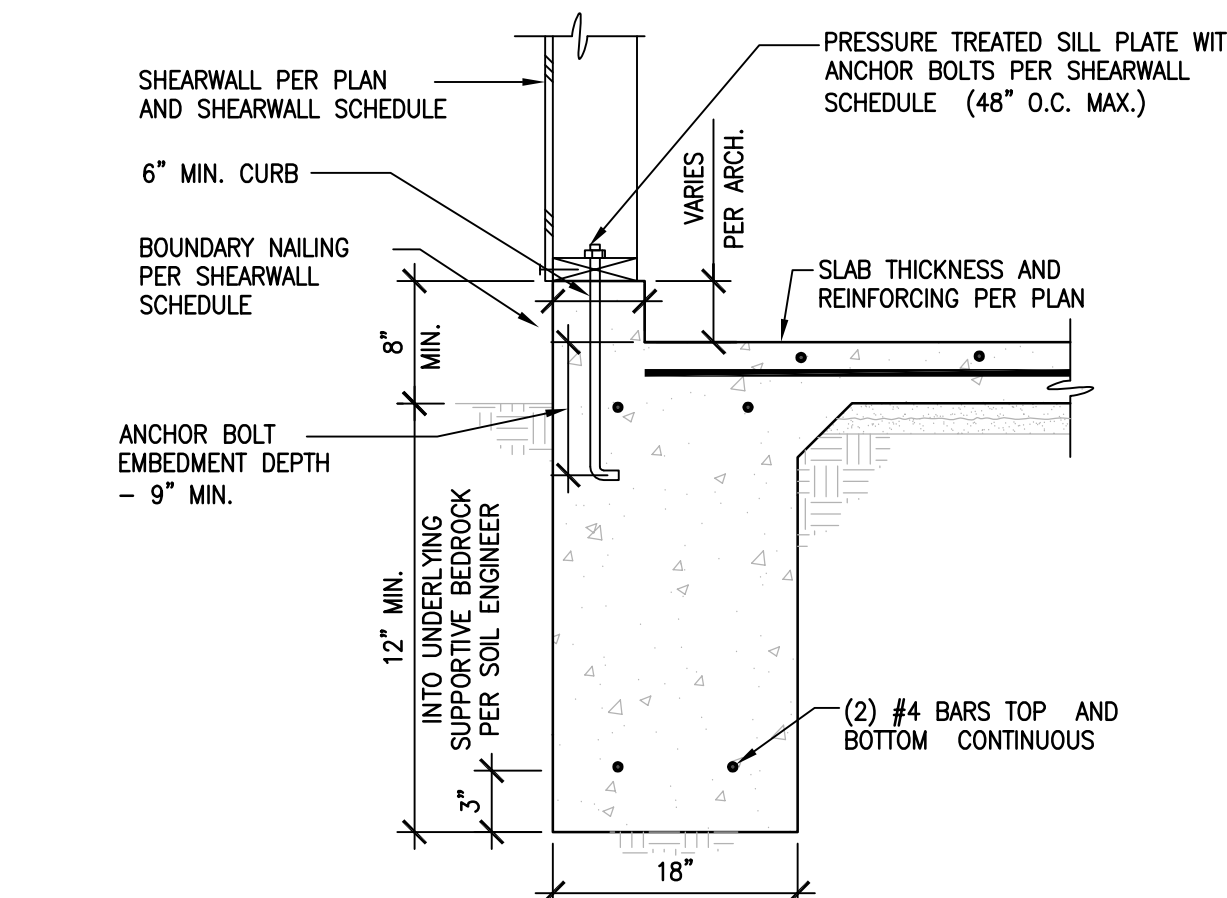
**S-5**



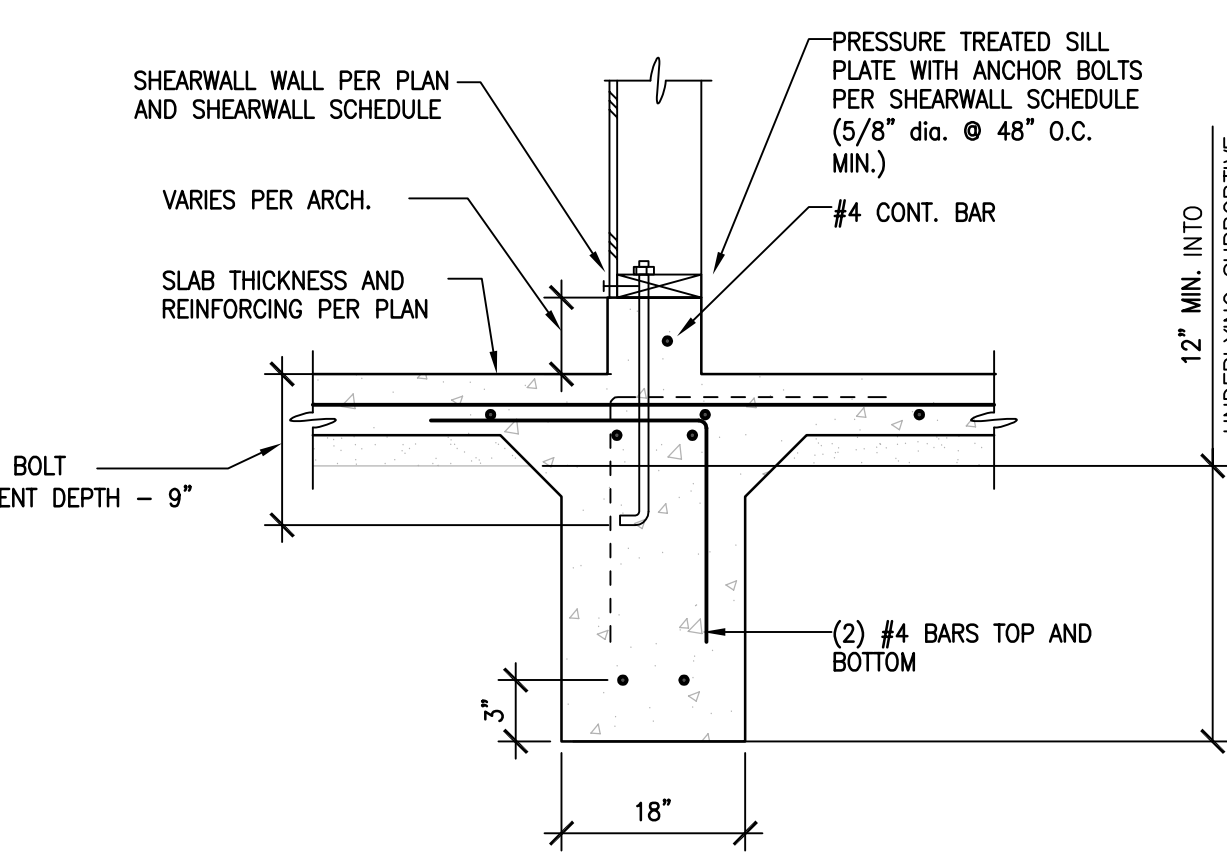
1 EXTERIOR FOUNDATION  
SCALE: 1"=1'-0"



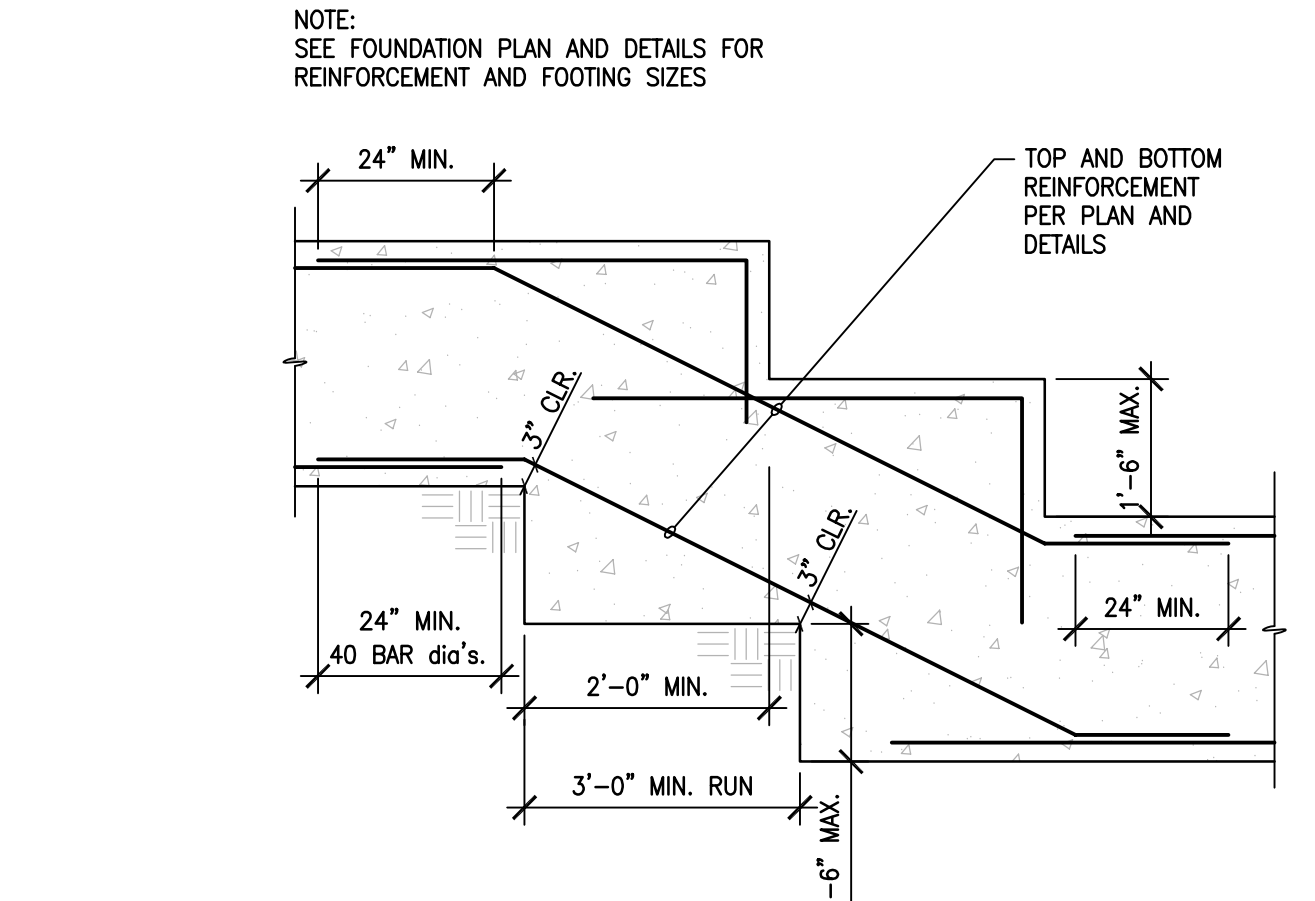
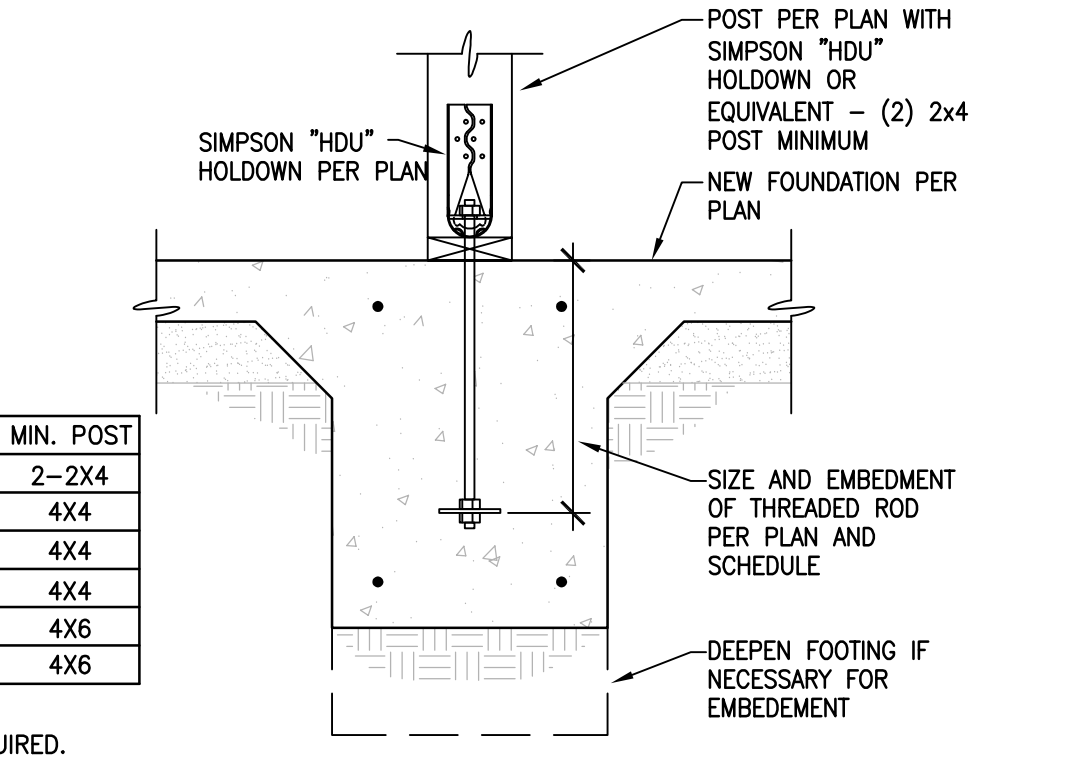
2 INTERIOR FOUNDATION  
SCALE: 1"=1'-0"



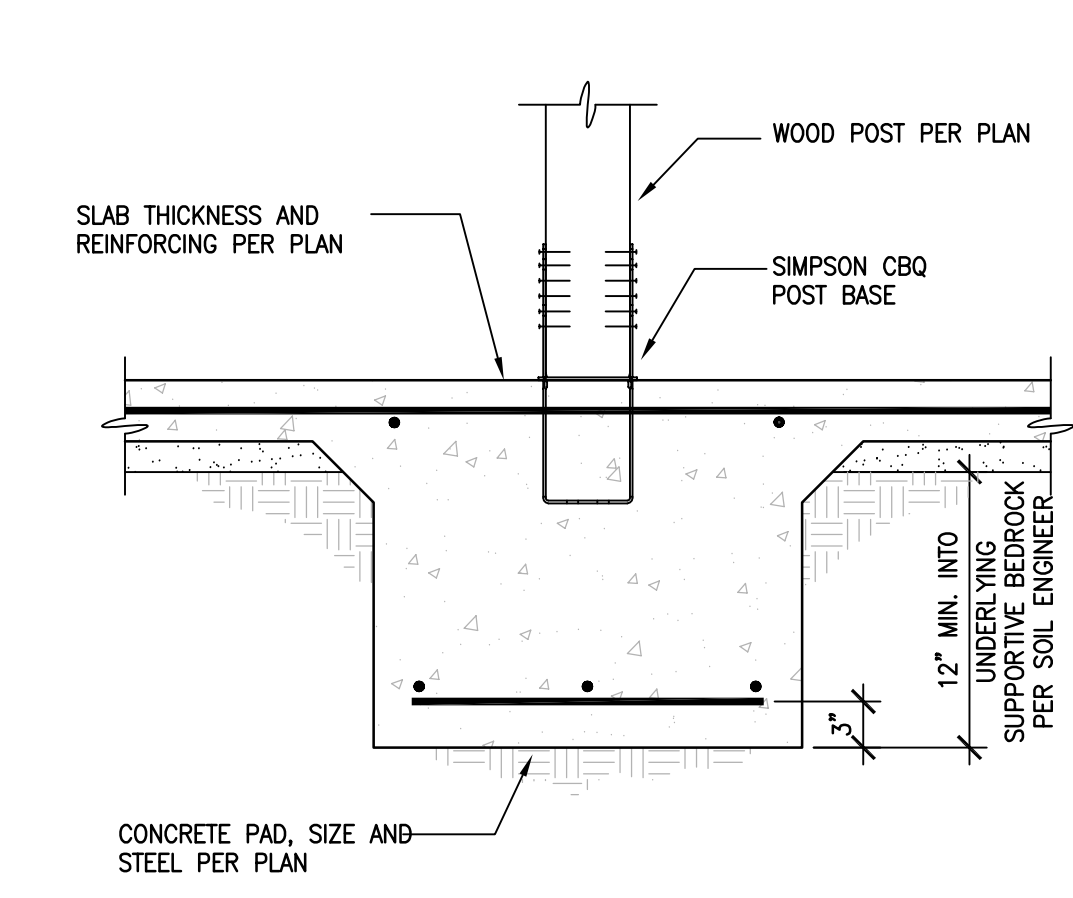
3 EXTERIOR FOUNDATION W/ CURB  
SCALE: 1"=1'-0"



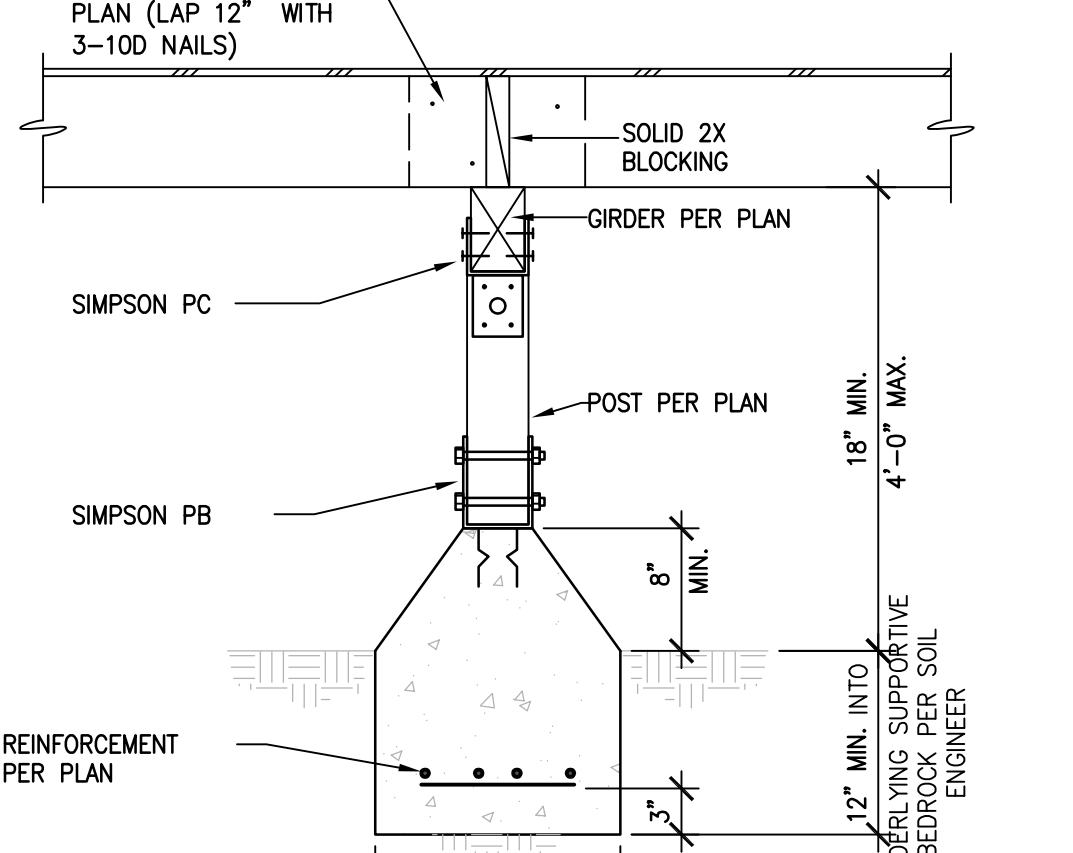
4 INTERIOR FOUNDATION  
SCALE: 1"=1'-0"



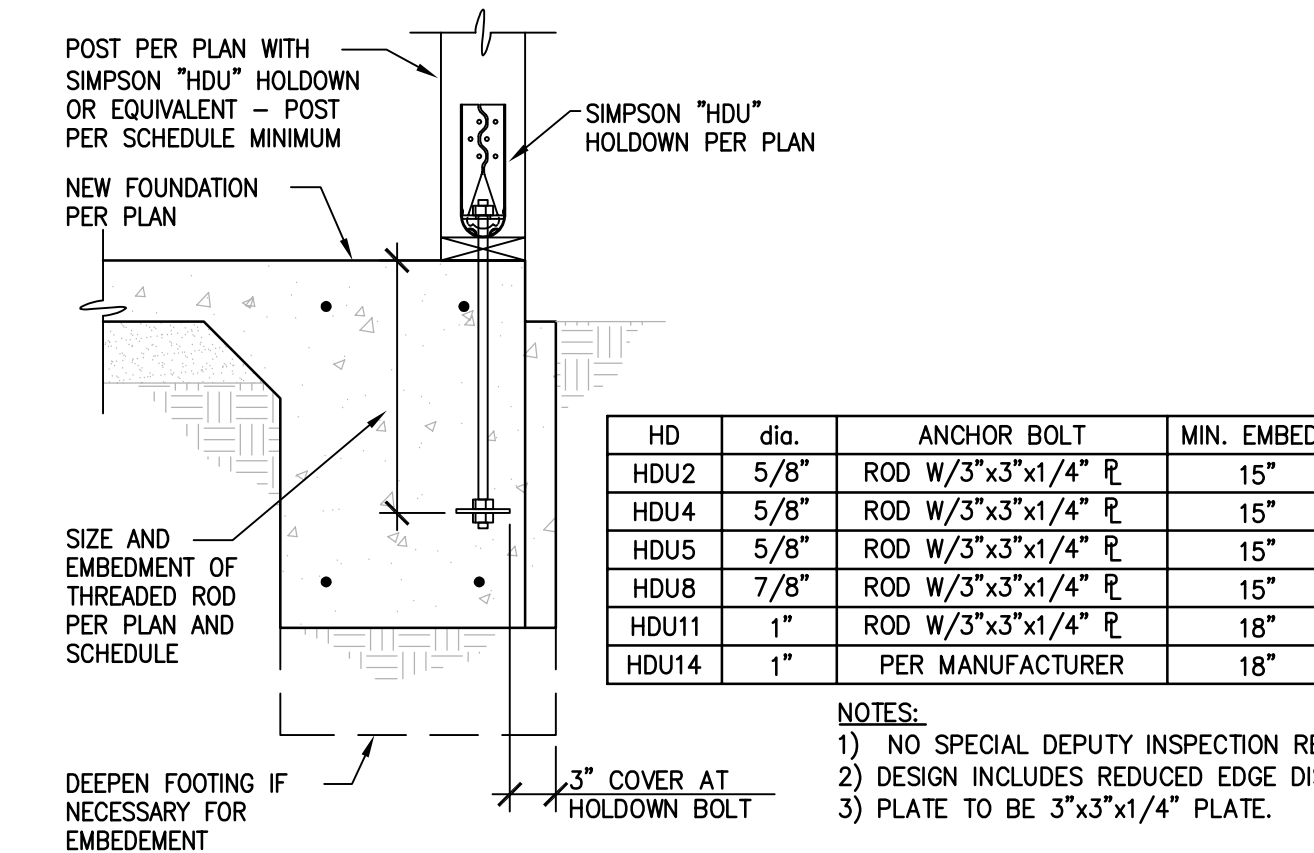
5 TYPICAL STEPPED FOOTING DETAIL  
SCALE: 1"=1'-0"



6 TYPICAL PAD FOOTING  
SCALE: 1"=1'-0"



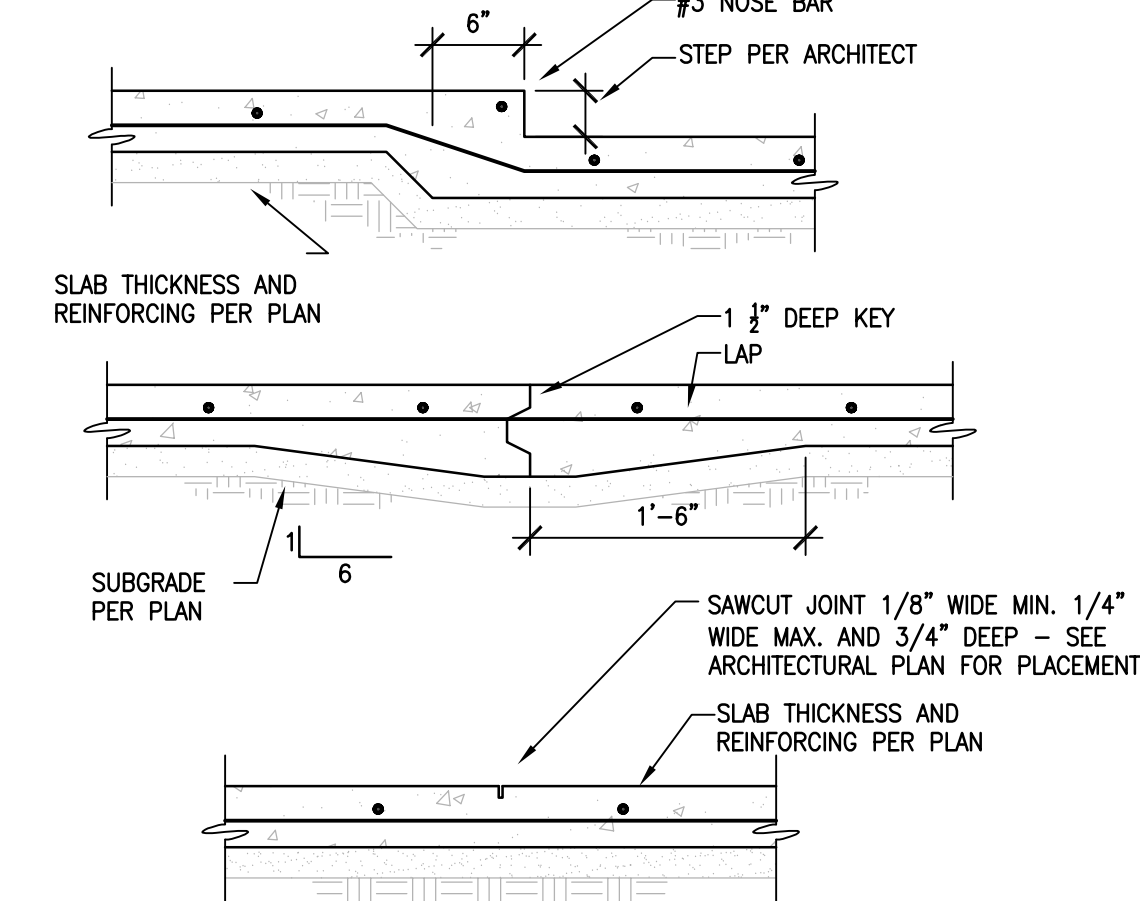
7 TYPICAL PIER FOUNDATION  
SCALE: 1"=1'-0"



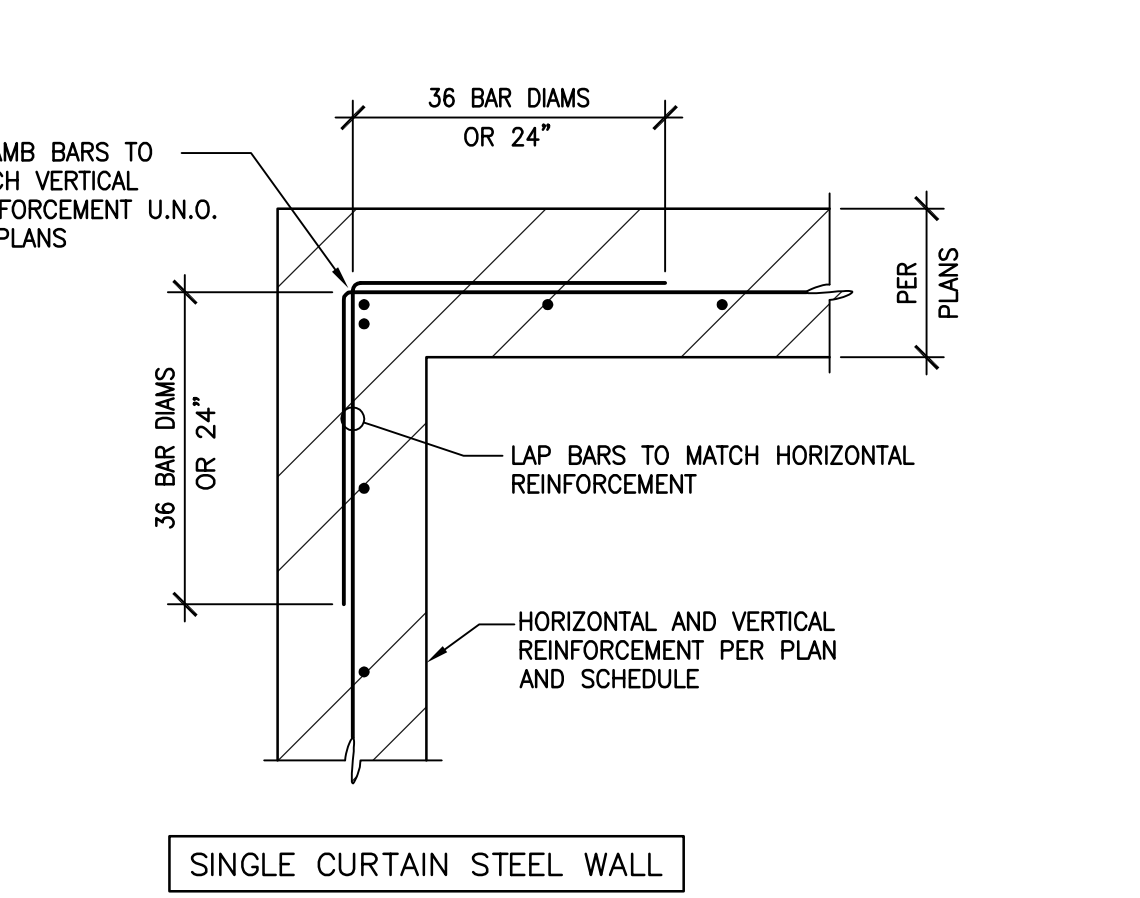
HD	dia.	ANCHOR BOLT	MIN. EMBED.	MIN. POST
HDU2	5/8"	ROD W/3"x3"x1/4" PL	15"	2-2X4
HDU4	5/8"	ROD W/3"x3"x1/4" PL	15"	4X4
HDU5	5/8"	ROD W/3"x3"x1/4" PL	15"	4X4
HDU8	7/8"	ROD W/3"x3"x1/4" PL	15"	4X4
HDU11	1"	ROD W/3"x3"x1/4" PL	18"	4X6
HDU14	1"	PER MANUFACTURER	18"	4X6

NOTES:  
1) NO SPECIAL DEPUTY INSPECTION REQUIRED.  
2) DESIGN INCLUDES REDUCED EDGE DISTANCE.  
3) PLATE TO BE 3"x3"x1/4" PLATE.

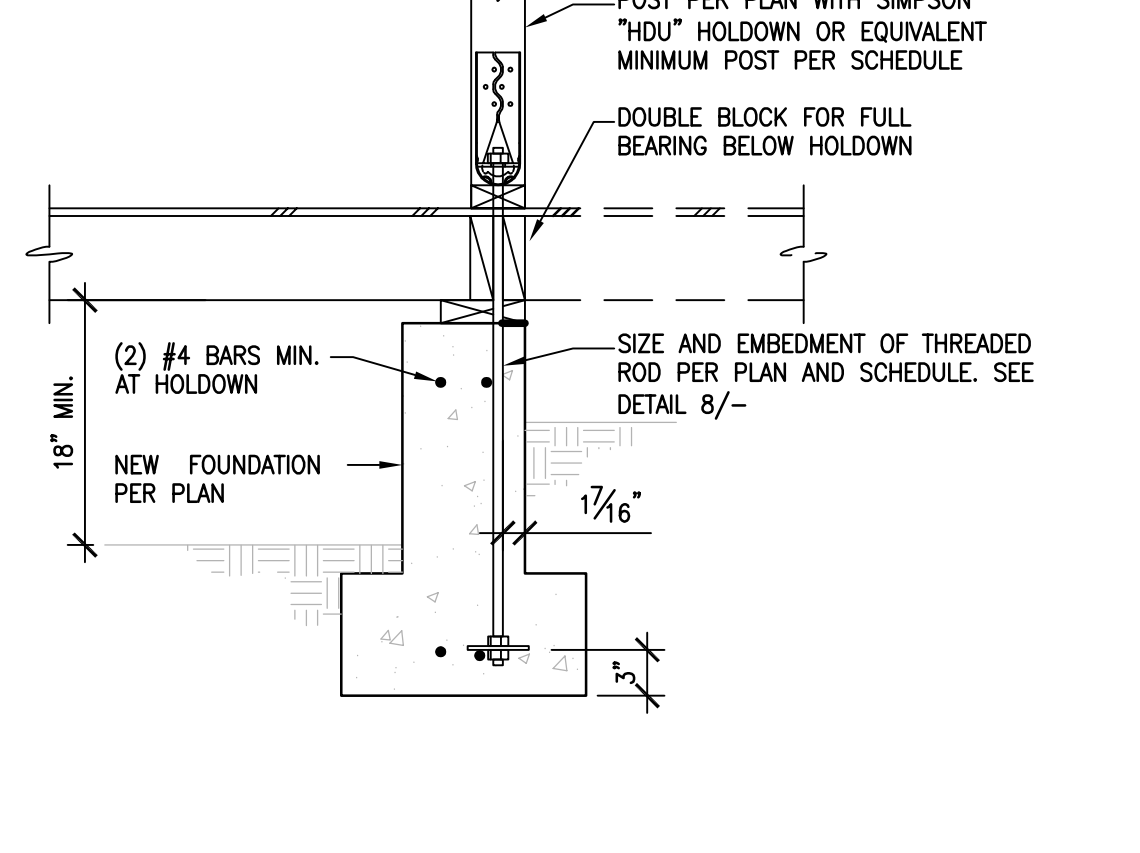
8 HDU HOLDOWN TO INTERIOR / EXTERIOR FOUNDATION  
SCALE: 1"=1'-0"



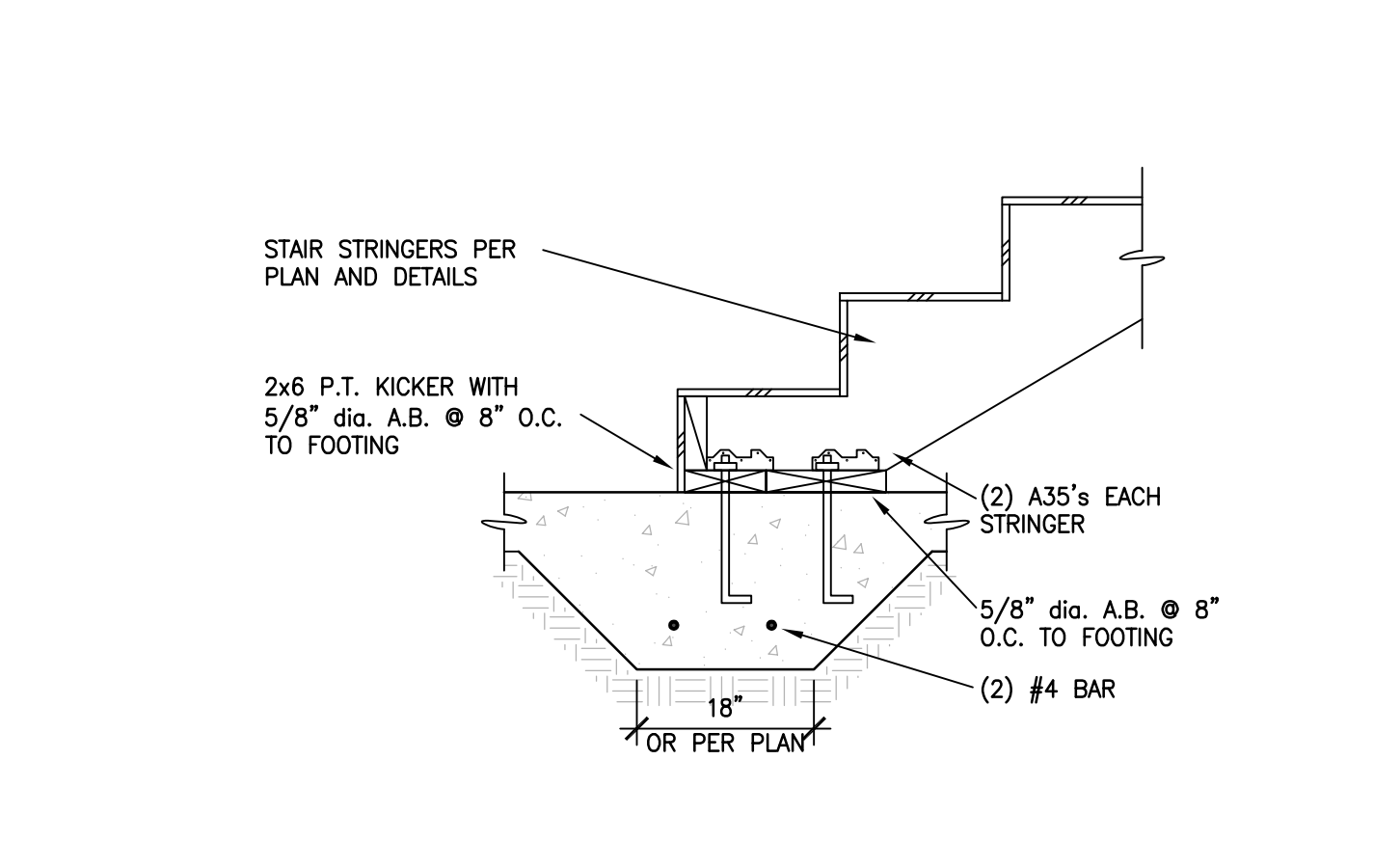
9 TYPICAL SLAB DETAIL  
SCALE: 1"=1'-0"



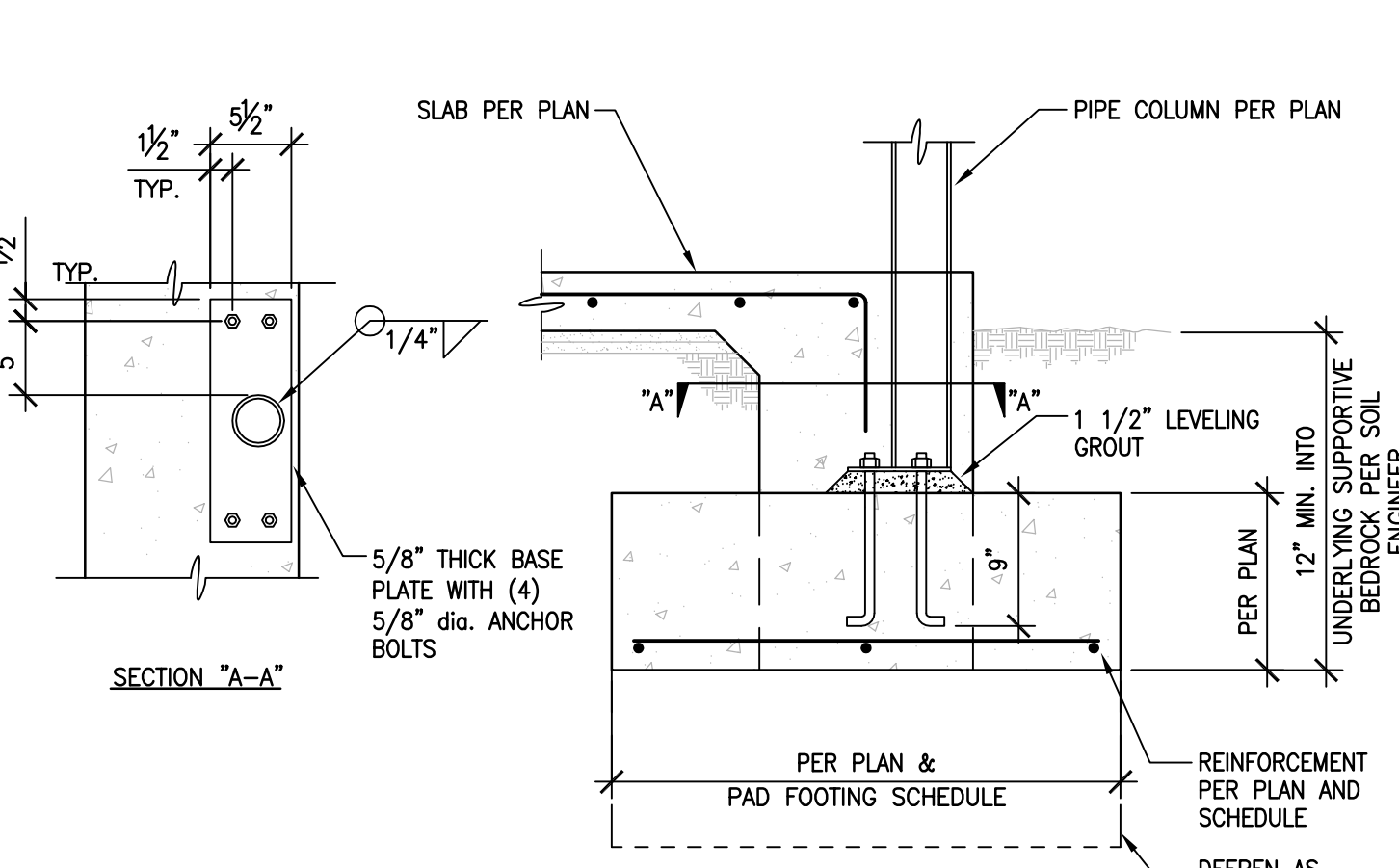
10 BLOCK WALL REINFORCING  
SCALE: 1"=1'-0"



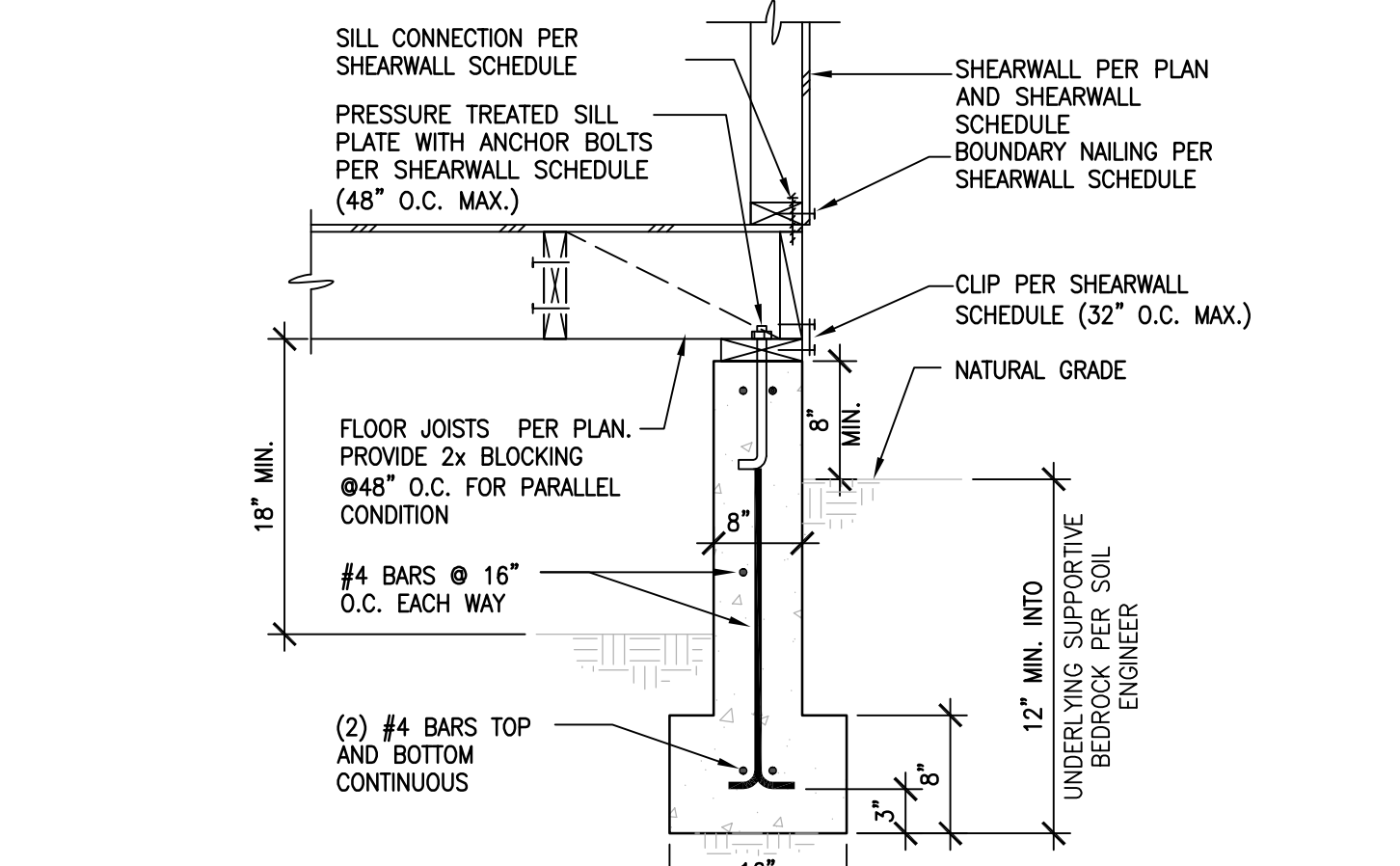
11 HDU HOLDOWN TO RAISED WOOD FOUNDATION  
SCALE: 1"=1'-0"



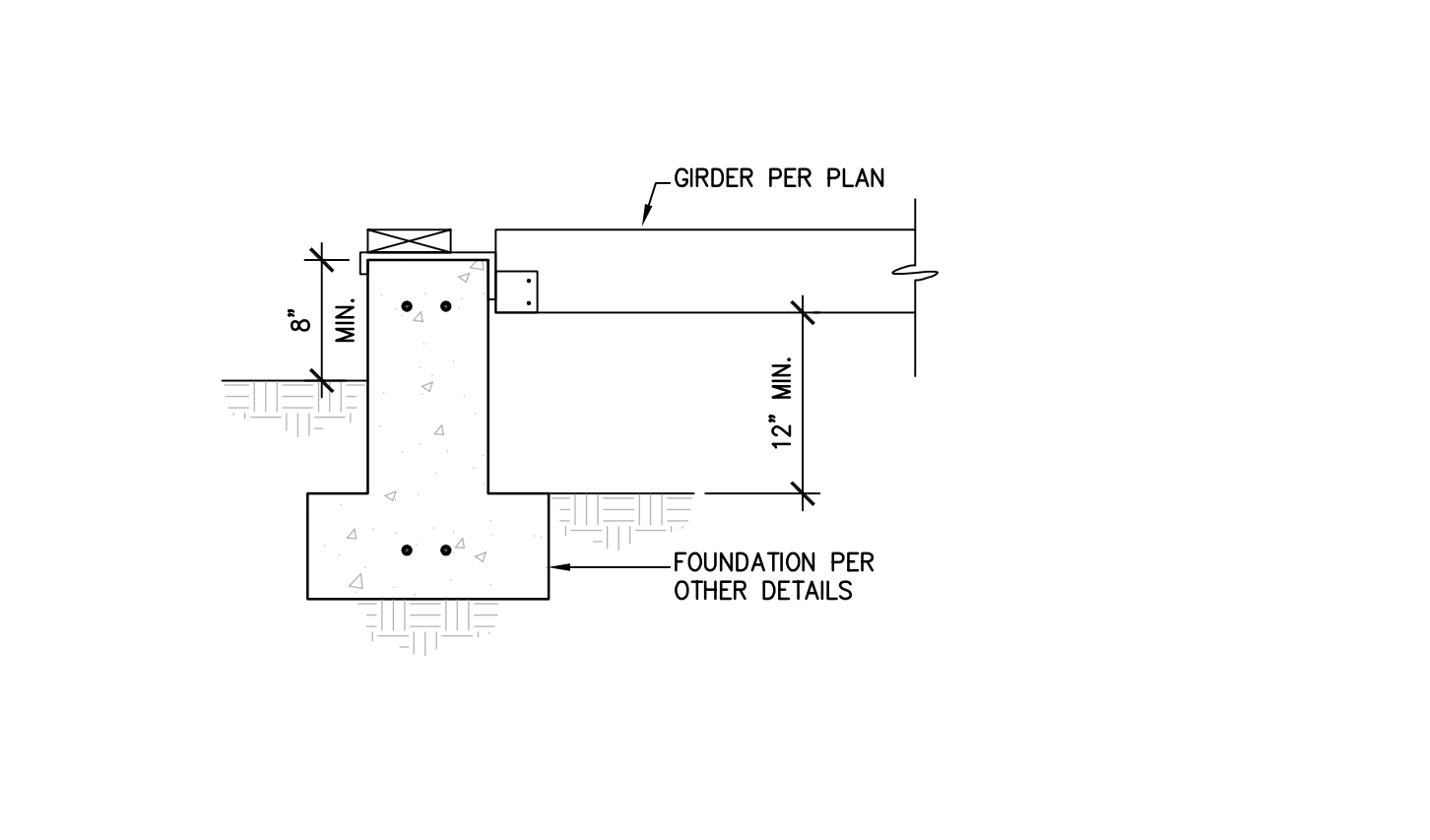
12 STAIR FOUNDATION  
SCALE: 1"=1'-0"



13 PIPE OR TUBE COLUMN AT FOUNDATION  
SCALE: 1"=1'-0"



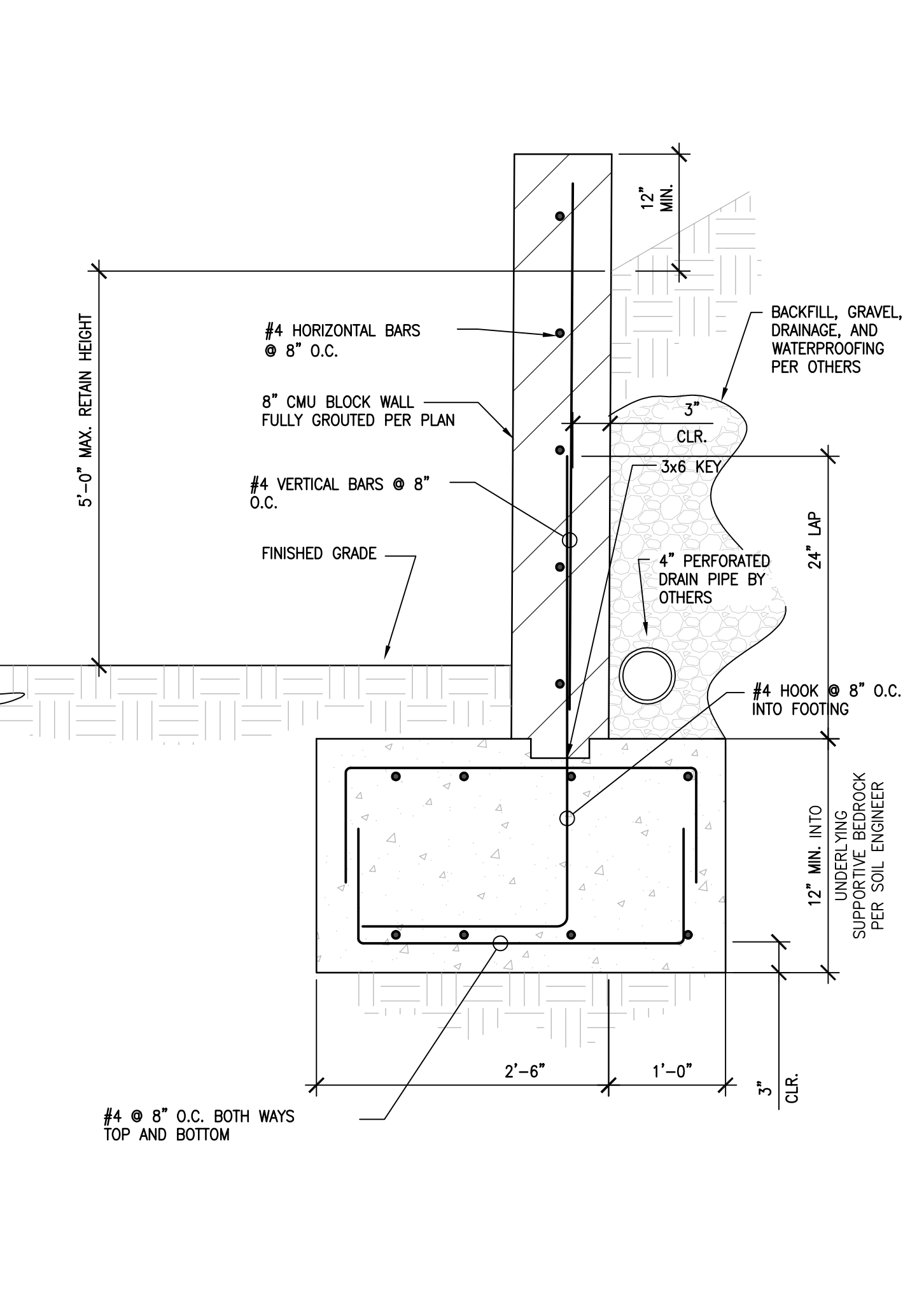
14 RAISED WOOD FOUNDATION  
SCALE: 1"=1'-0"



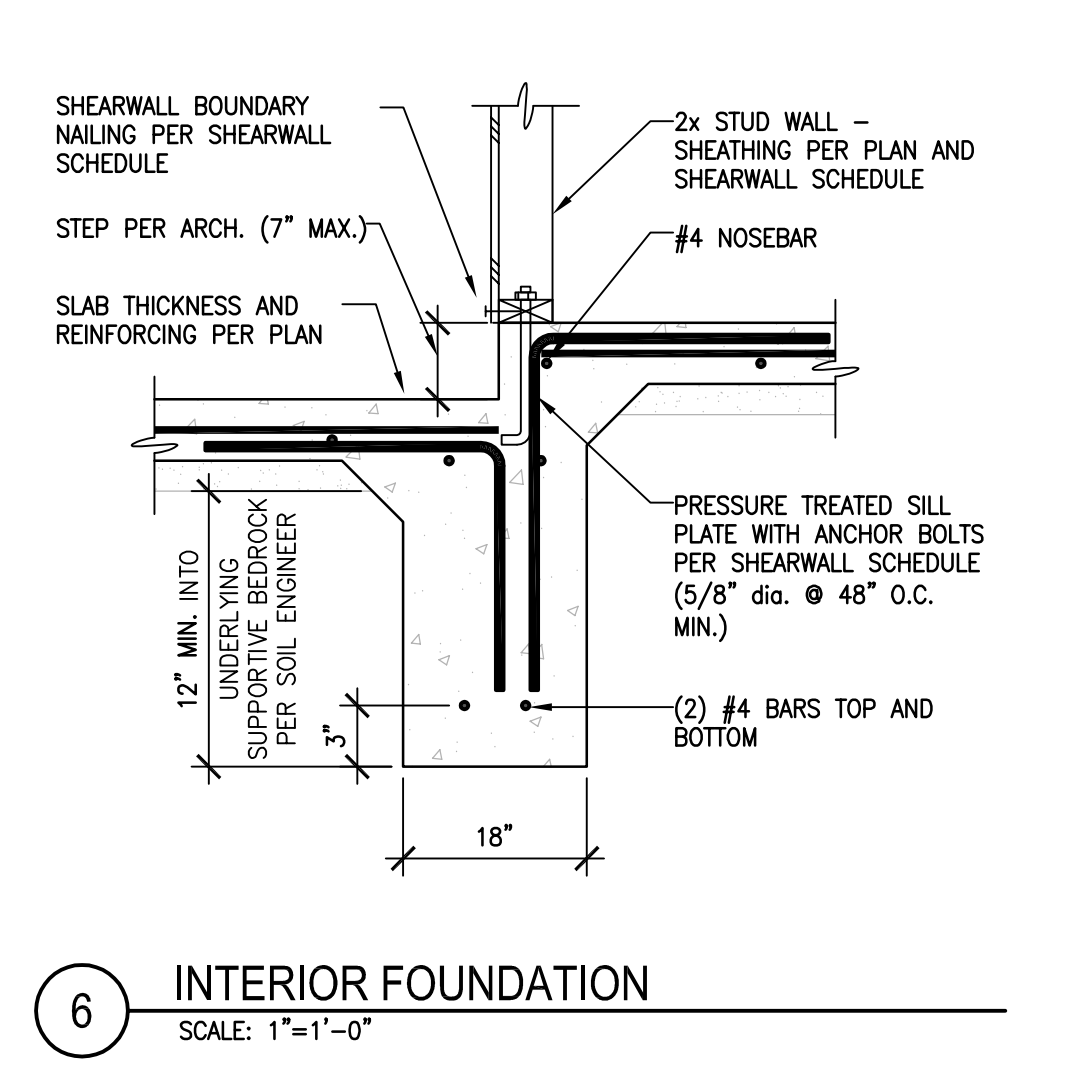
15 GIRDER TO FOUNDATION CONNECTION  
SCALE: 1"=1'-0"

ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF HJH ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF HJH ENGINEERING. COPYRIGHT ©2023

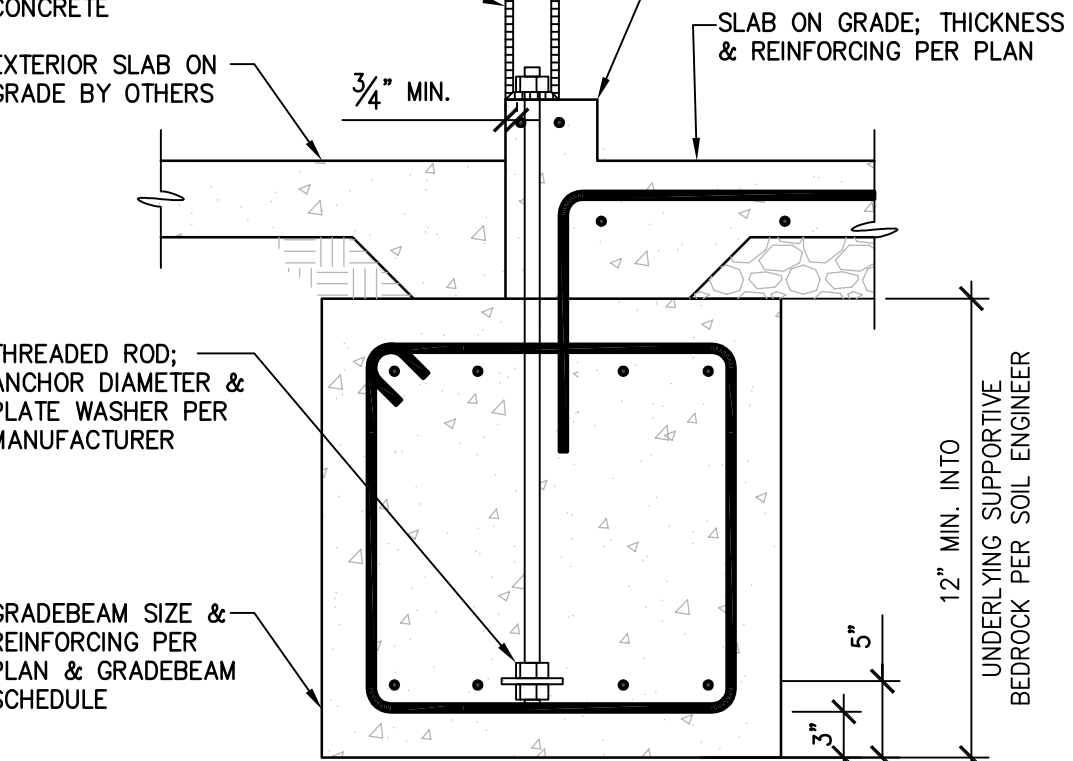
ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF HJH ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF HJH ENGINEERING. COPYRIGHT ©2017



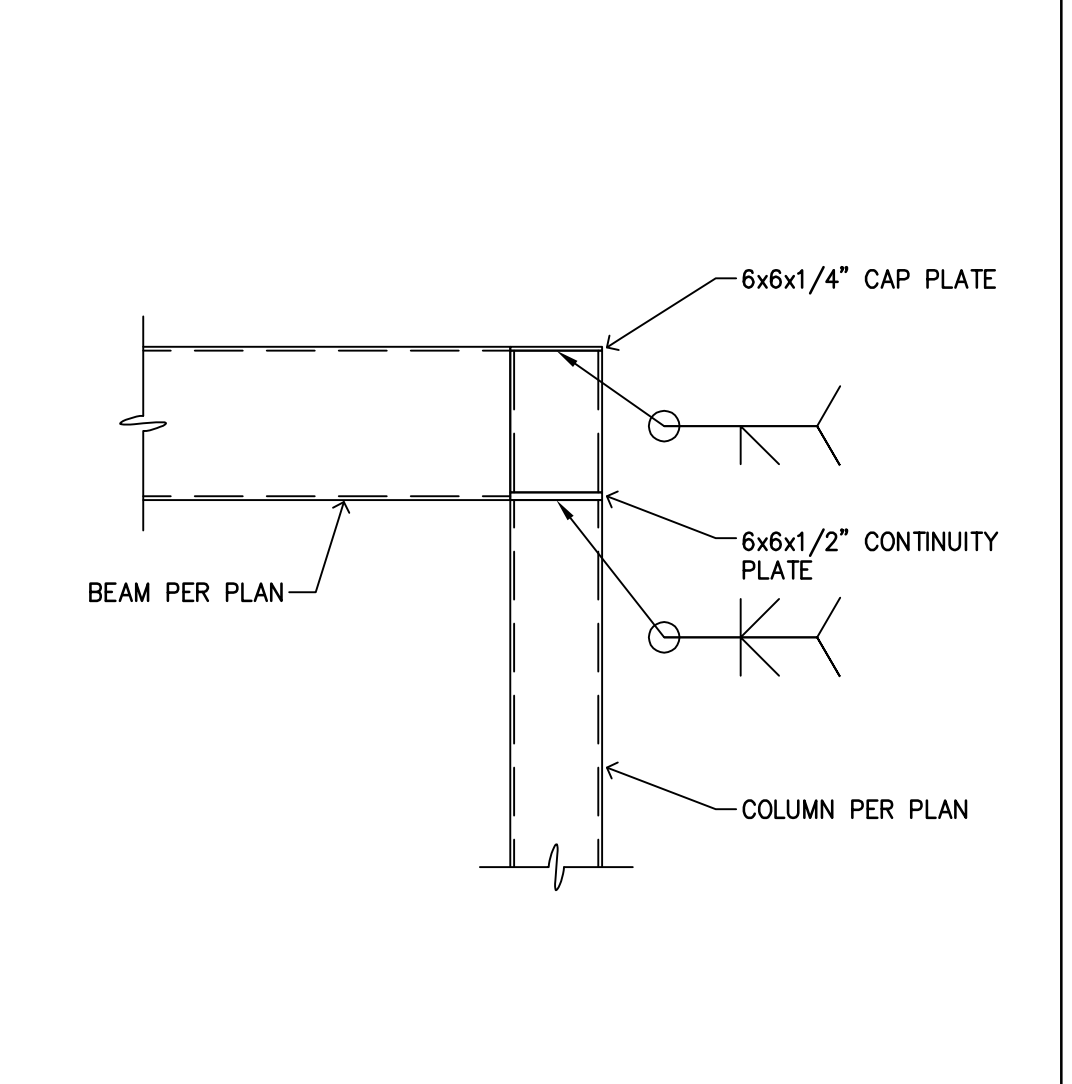
**8 SITE RETAINING WALL DETAIL**  
SCALE: 1"=1'-0"



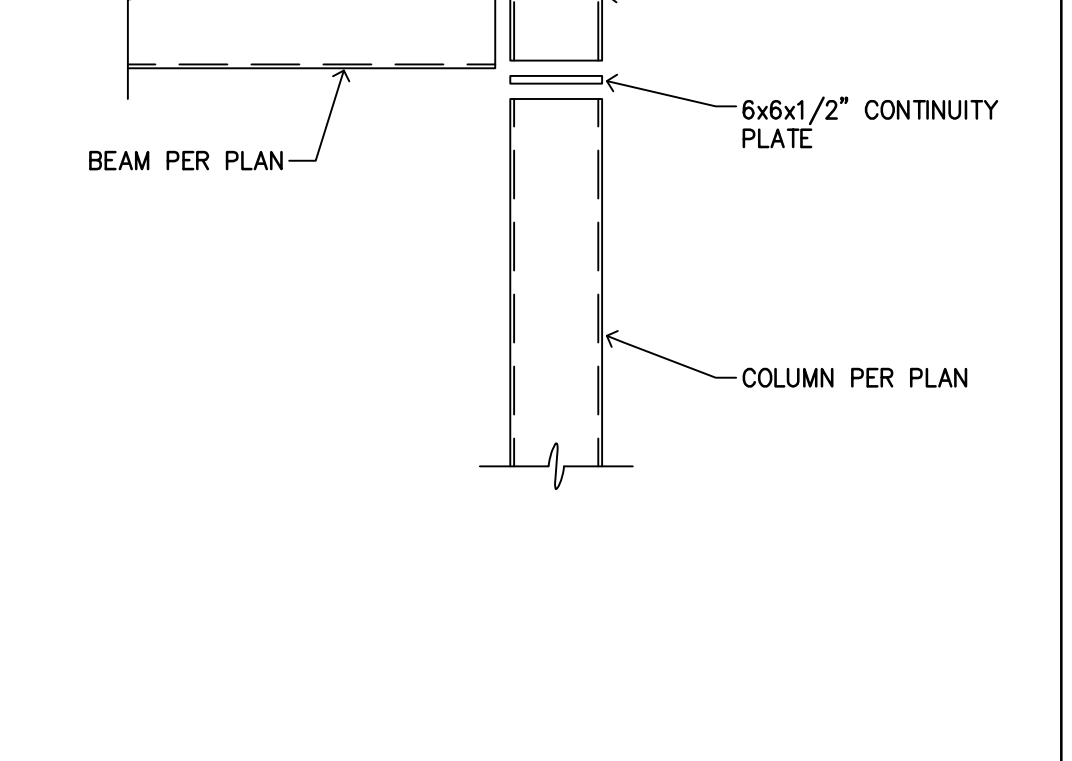
**6 INTERIOR FOUNDATION**  
SCALE: 1"=1'-0"



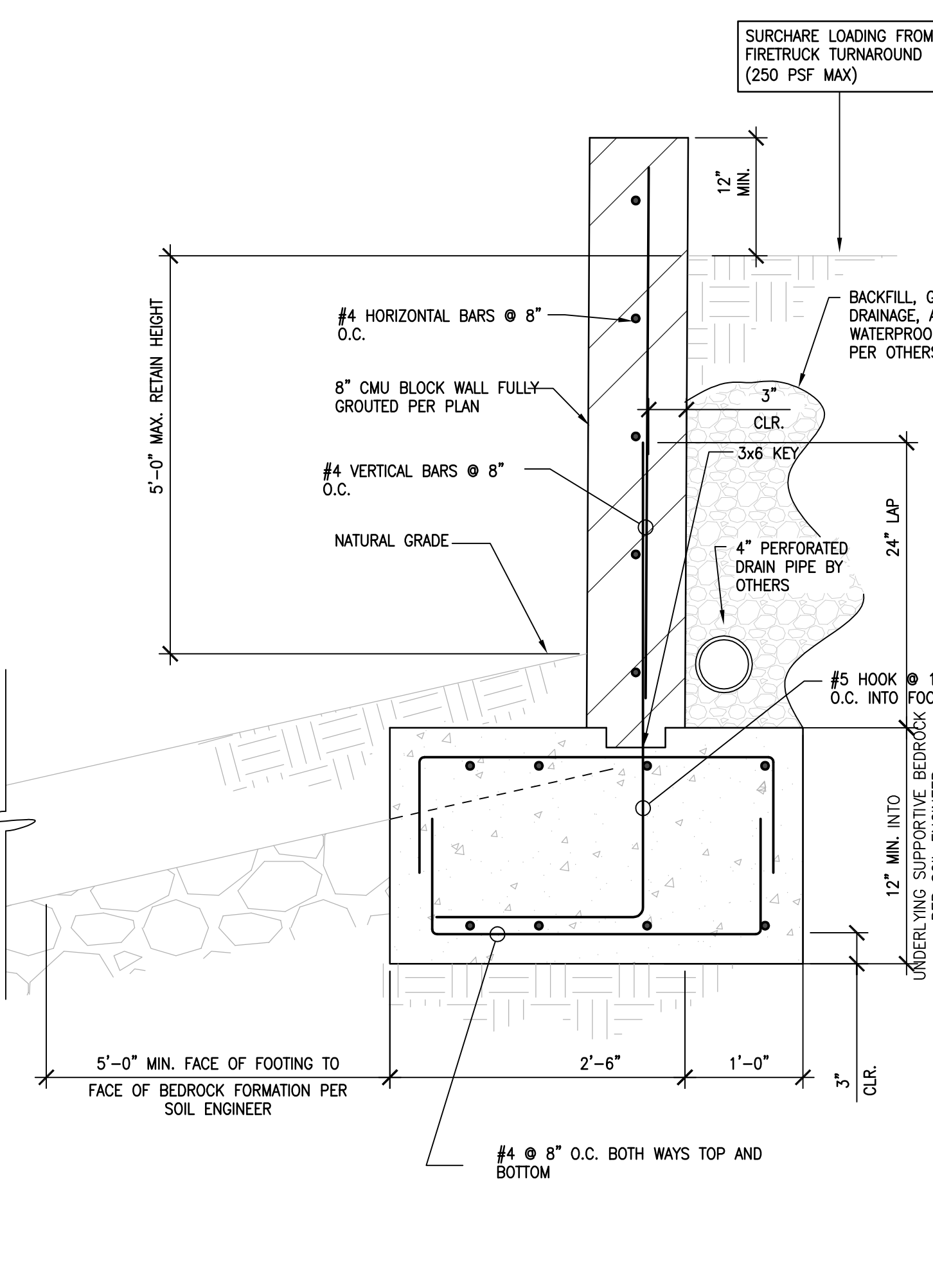
**7 HFX DETAIL**  
SCALE: 1"=1'-0"



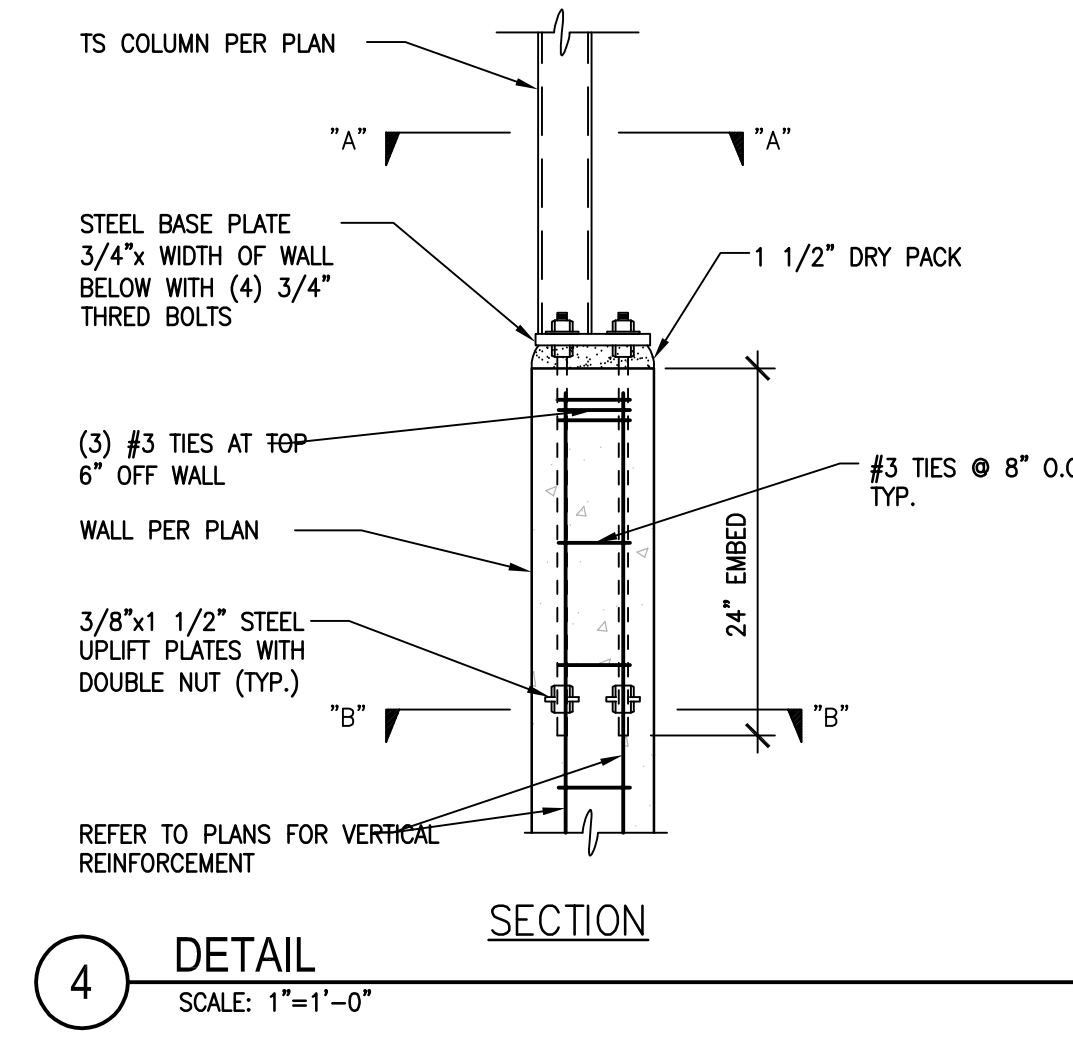
**3 TUBE STEEL MOMENT CONNECTION**  
SCALE: 1"=1'-0"



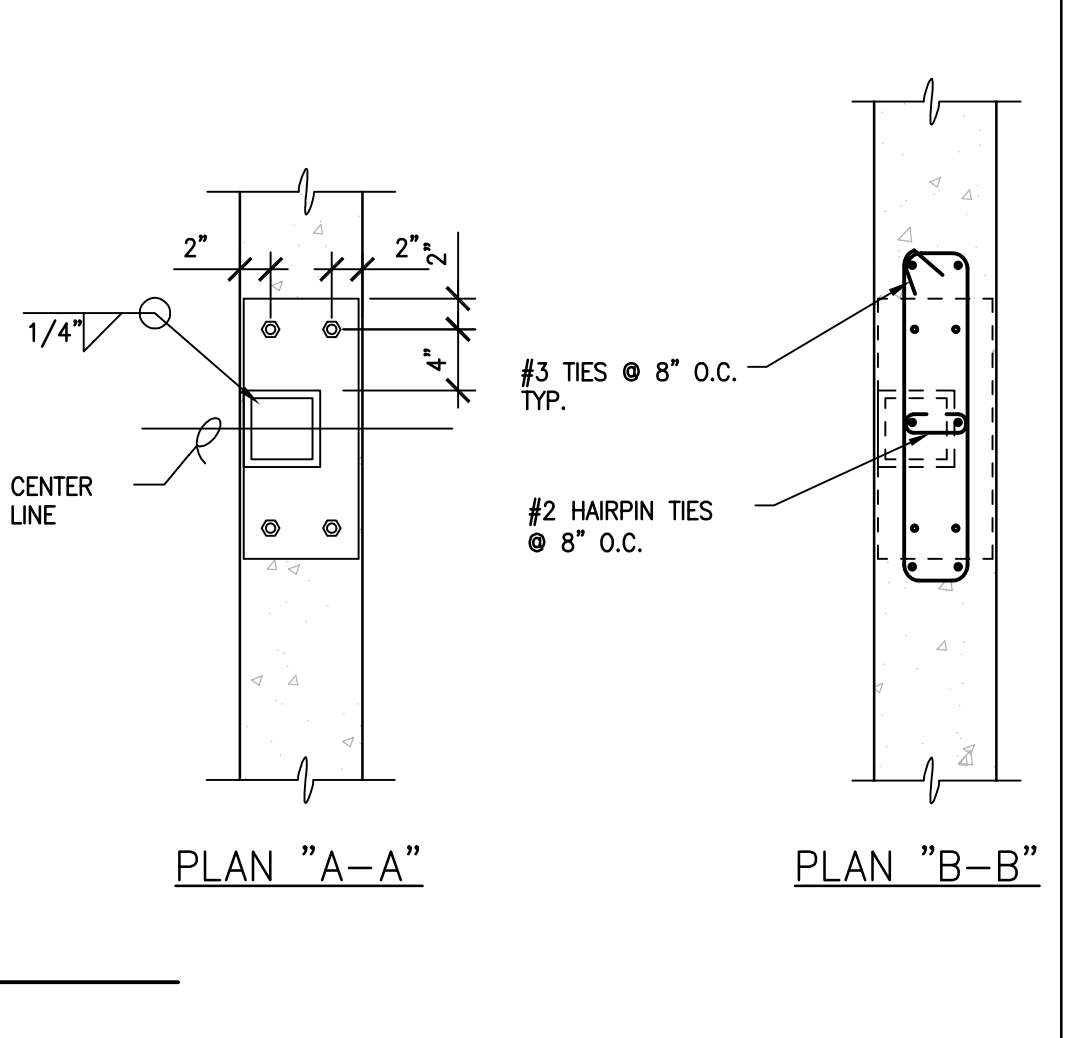
**3 TUBE STEEL MOMENT CONNECTION**  
SCALE: 1"=1'-0"



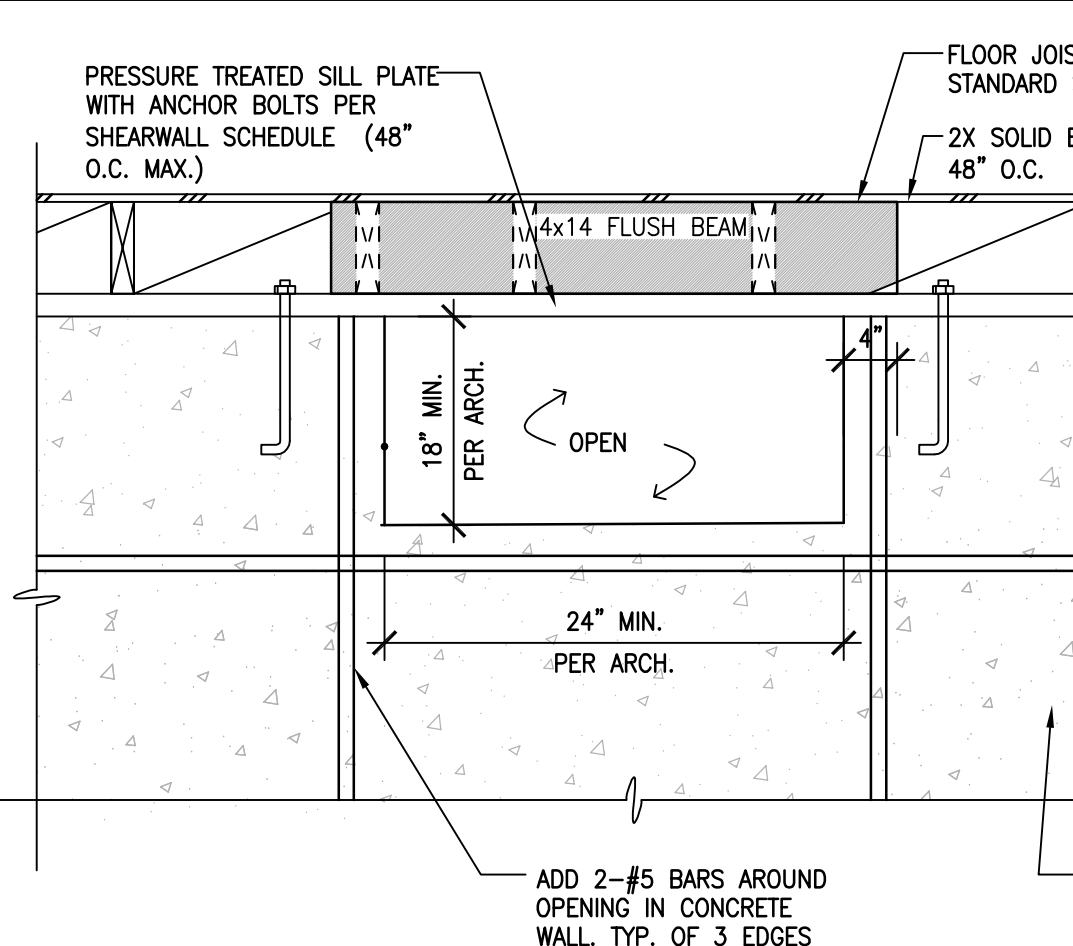
**9 SITE RETAINING WALL DETAIL (FILL WALL)**  
SCALE: 1"=1'-0"



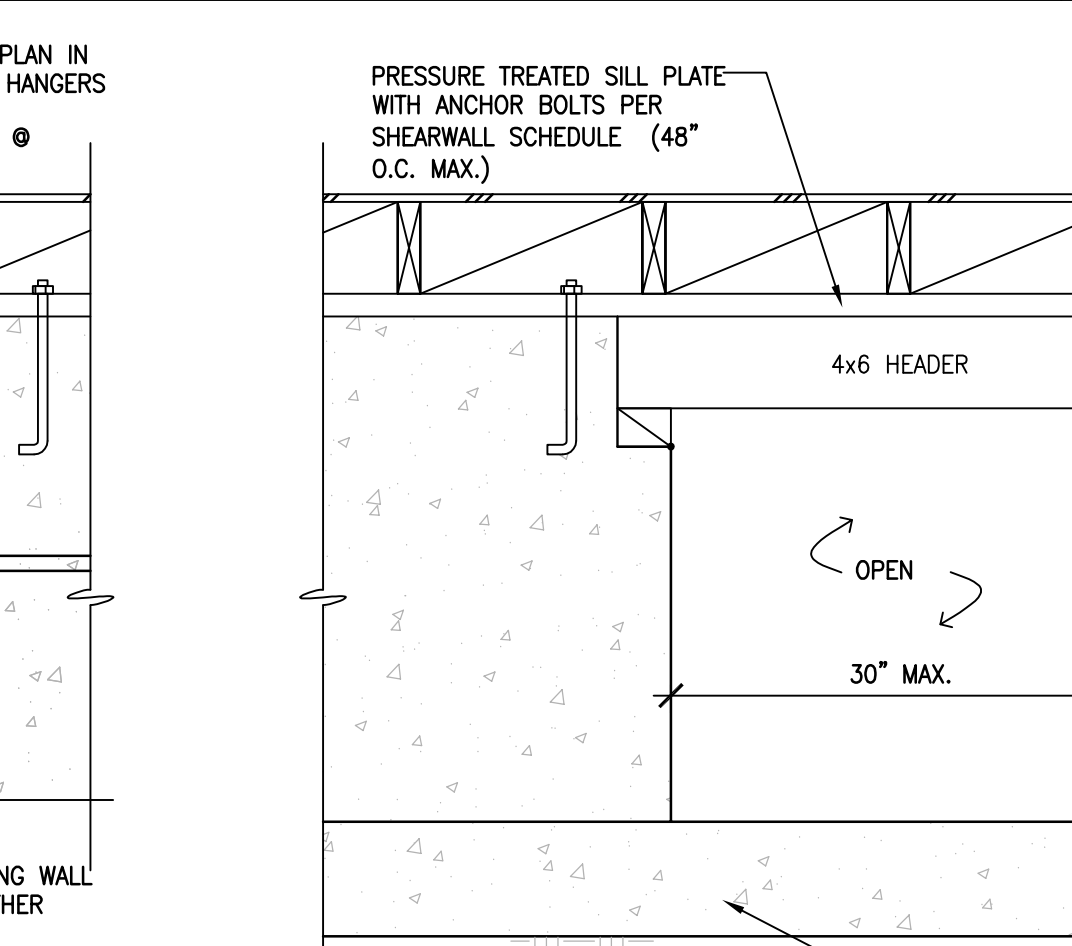
**4 DETAIL**  
SCALE: 1"=1'-0"



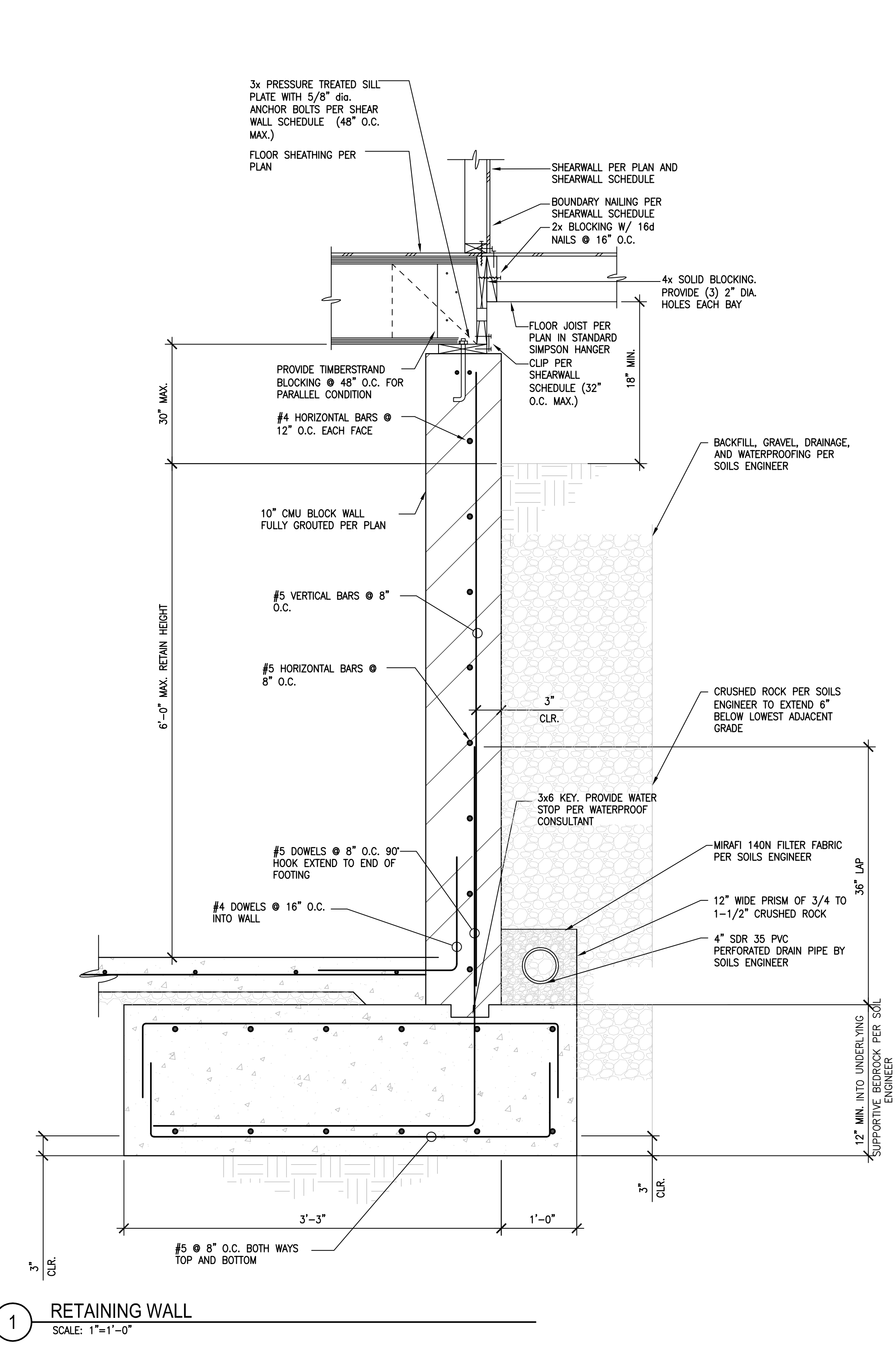
**4 DETAIL**  
SCALE: 1"=1'-0"



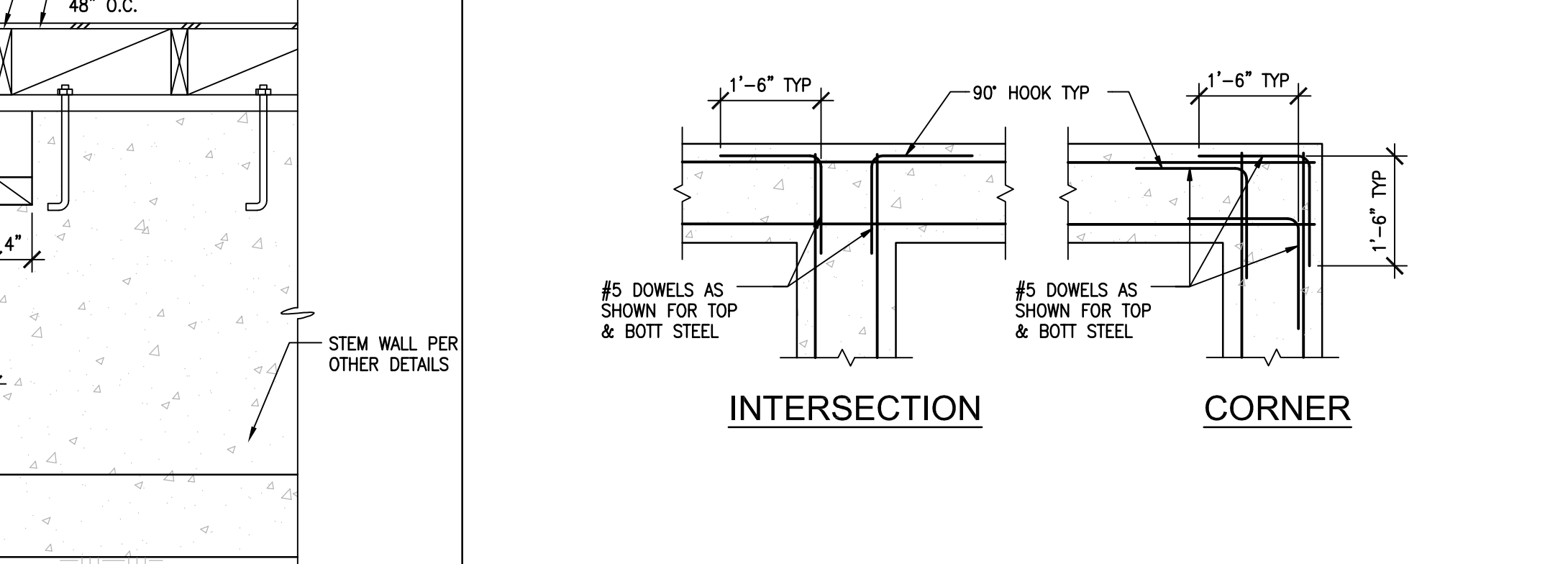
**5 INTERIOR CRAWL SPACE DETAIL**  
SCALE: 1"=1'-0"



**5 INTERIOR CRAWL SPACE DETAIL**  
SCALE: 1"=1'-0"



**1 RETAINING WALL**  
SCALE: 1"=1'-0"



**2 TYPICAL FOOTING INTERSECTIONS AND CORNERS**  
SCALE: 1"=1'-0"



ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF HJH ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF HJH ENGINEERING. COPYRIGHT ©2017

REVISIONS  
DATE

**HJH ENGINEERING**  
Structural Engineering Consultants  
23006 Erwin St., Woodland Hills, CA 91367  
(818) 519-8572 tel  
jack@hjhengineering.com email



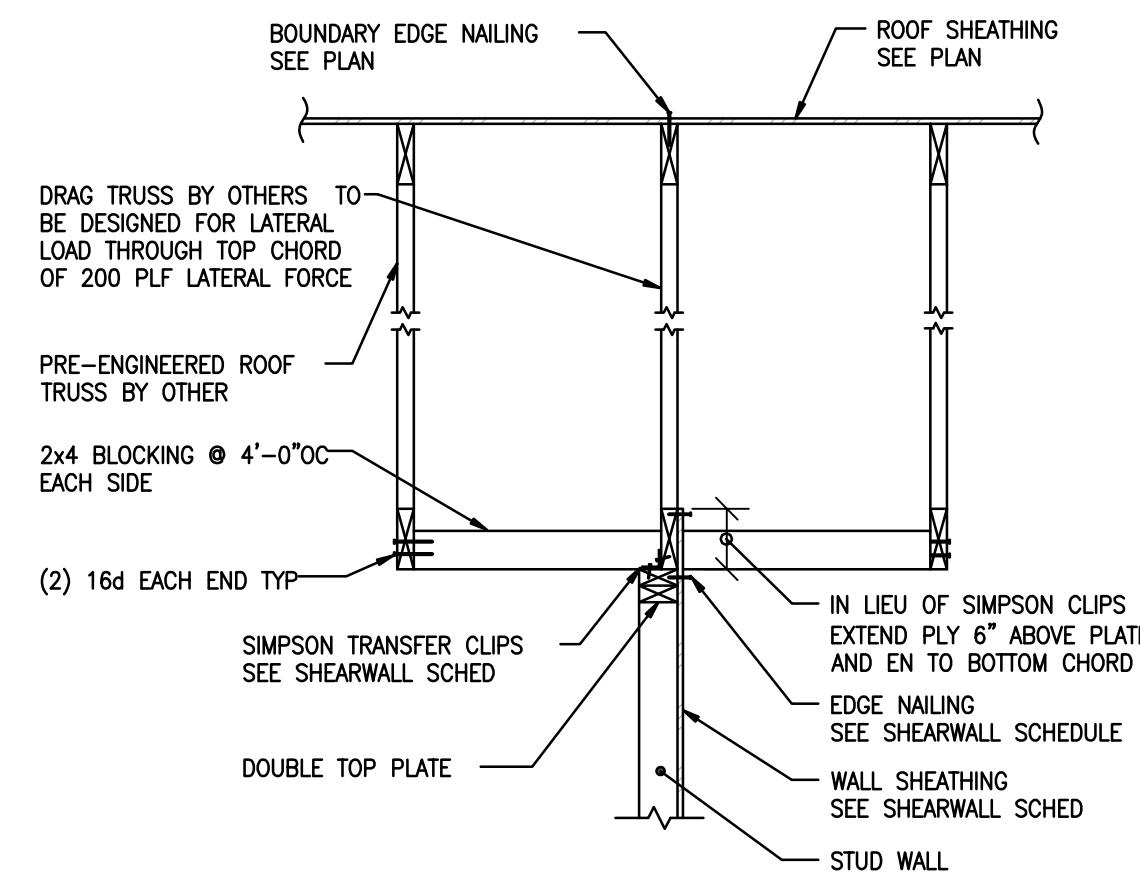
**JAMES LE RESIDENCE**  
BELLA MADERIA LANE  
SAN JOSE, CA  
APN: 654-64-012

**STRUCTURAL DETAILS**

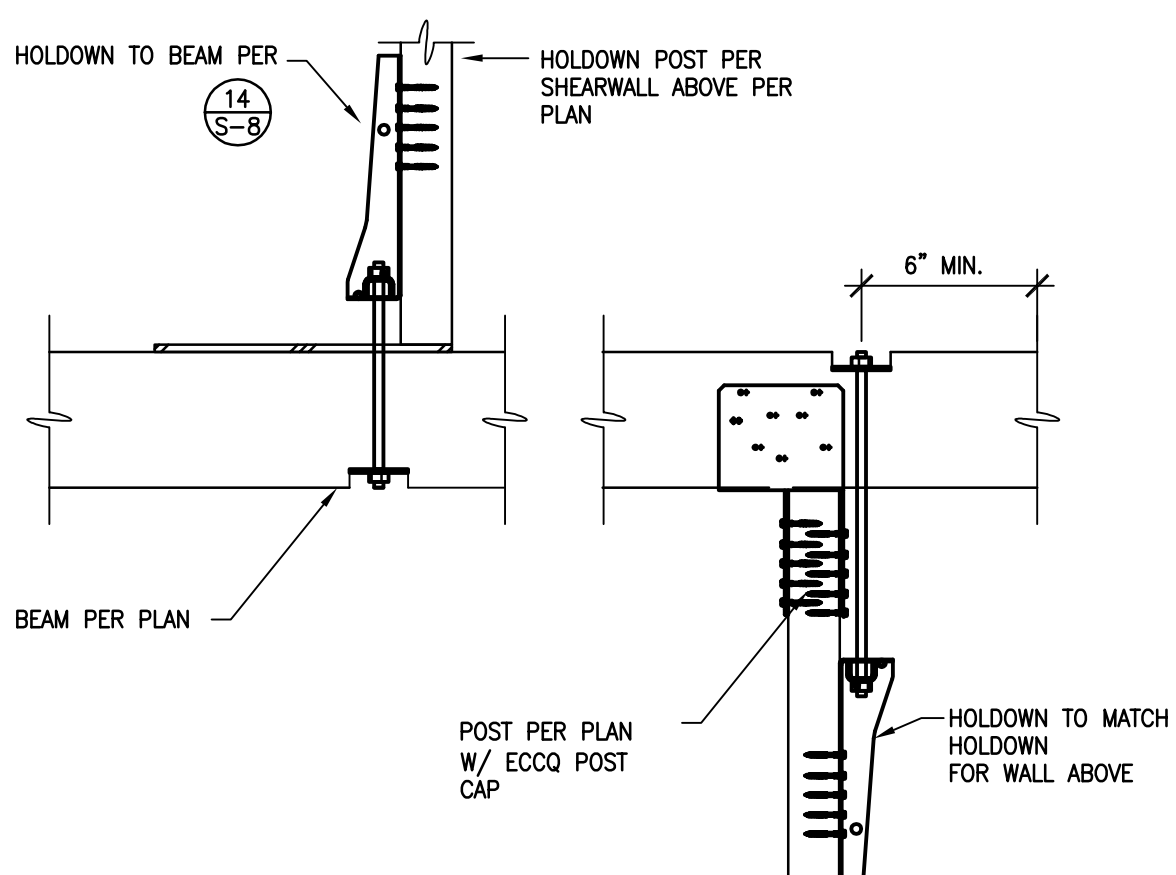
PROJECT NUMBER: 23B03  
PROJ. ENG. / DRAWN: JH  
DATE: DEC. 10, 2023  
SCALE: AS NOTED  
SHEET NUMBER:

**S-8**

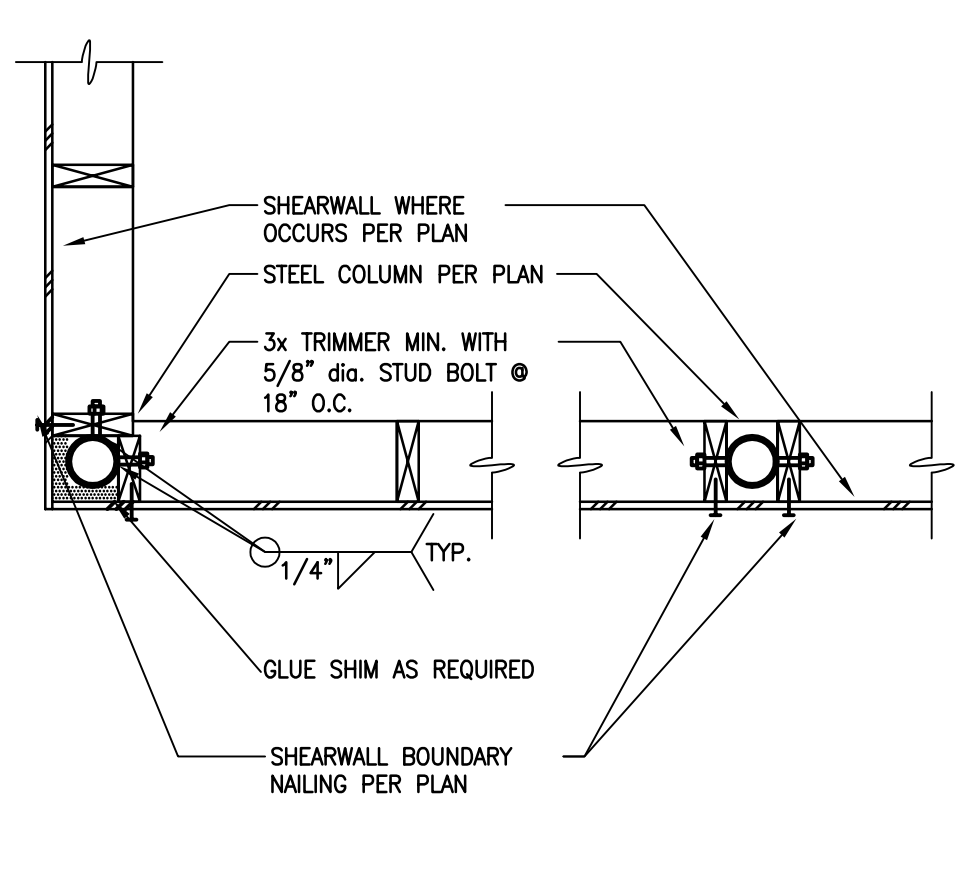
**12** ROOF TRUSS PARALLEL TO SHEARWALL  
SCALE: 1"=1'-0"



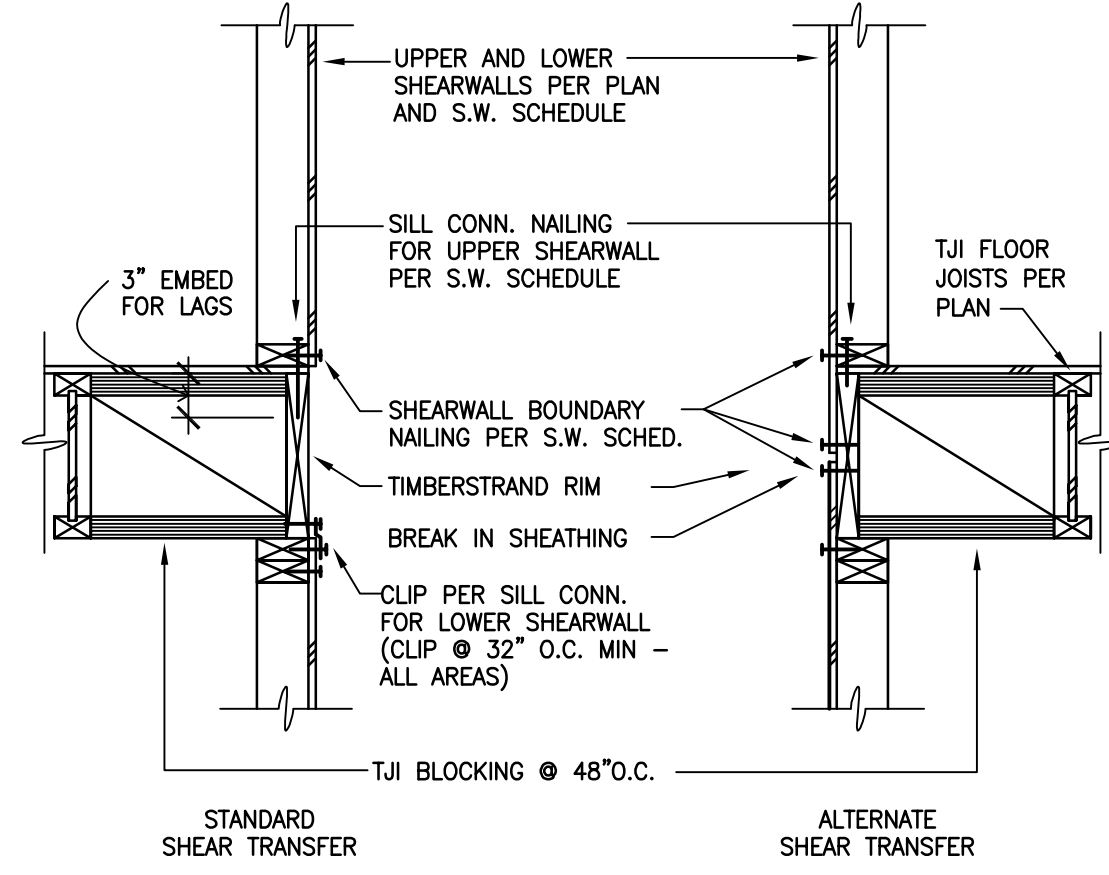
**9** HDU TO BEAM  
SCALE: 1"=1'-0"



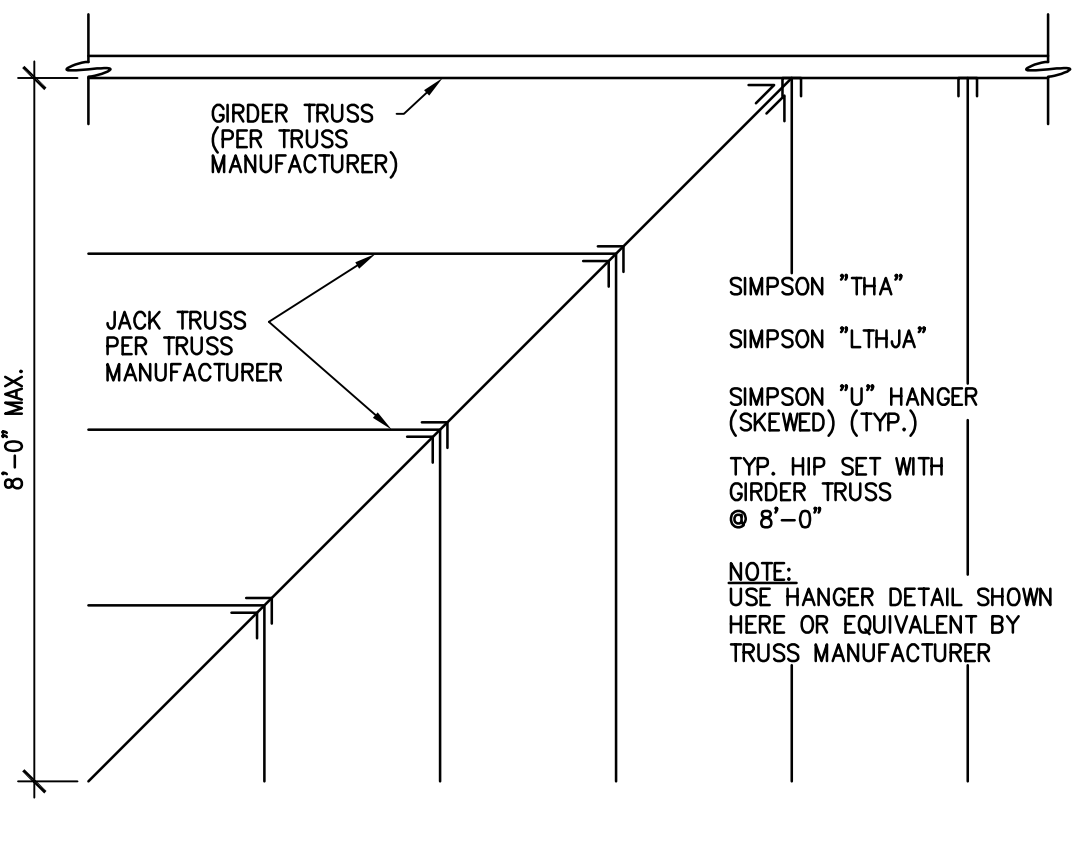
**5** STEEL COLUMN HOLD DOWN DETAIL  
SCALE: 1"=1'-0"



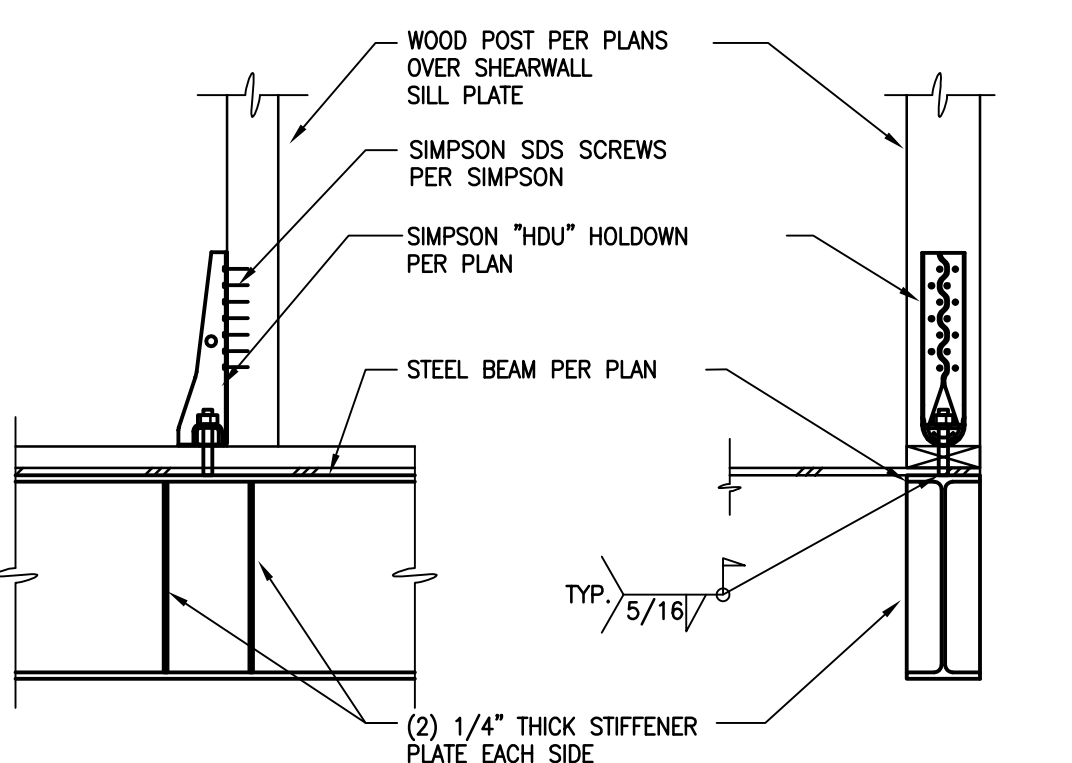
**1** TYPICAL SHEAR TRANSFER THROUGH FLOOR  
SCALE: 1"=1'-0"



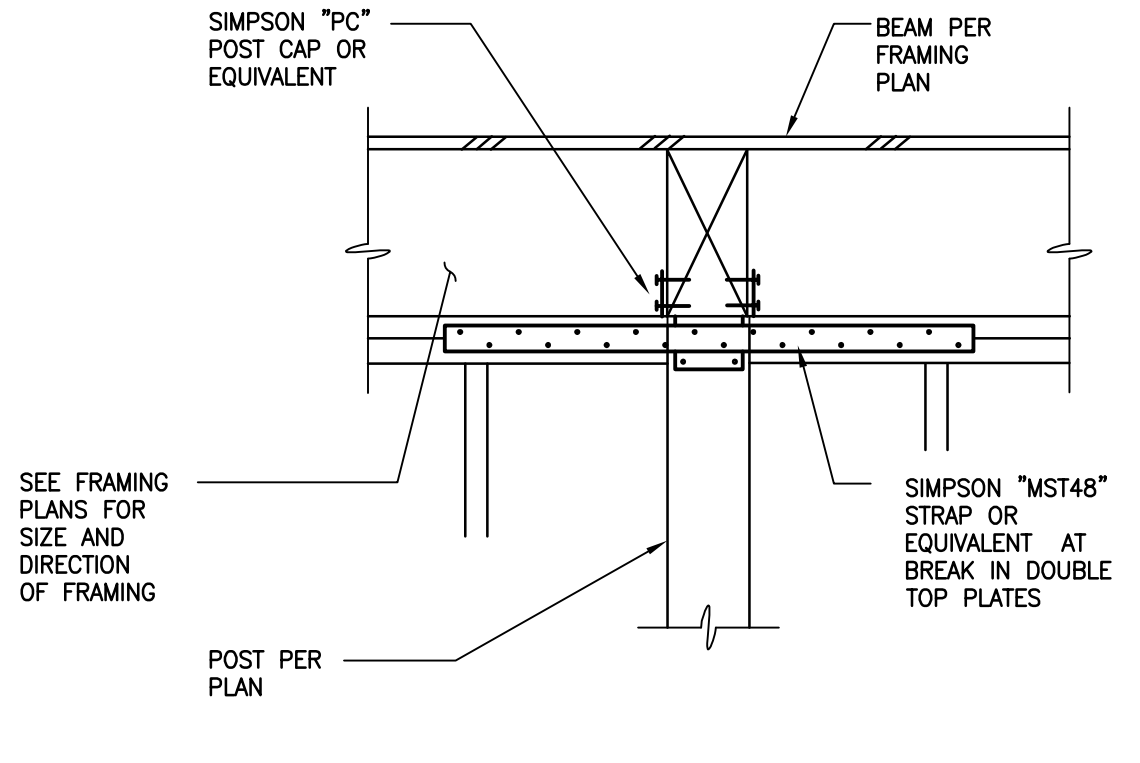
**13** TYPICAL HIP SET  
SCALE: 1"=1'-0"



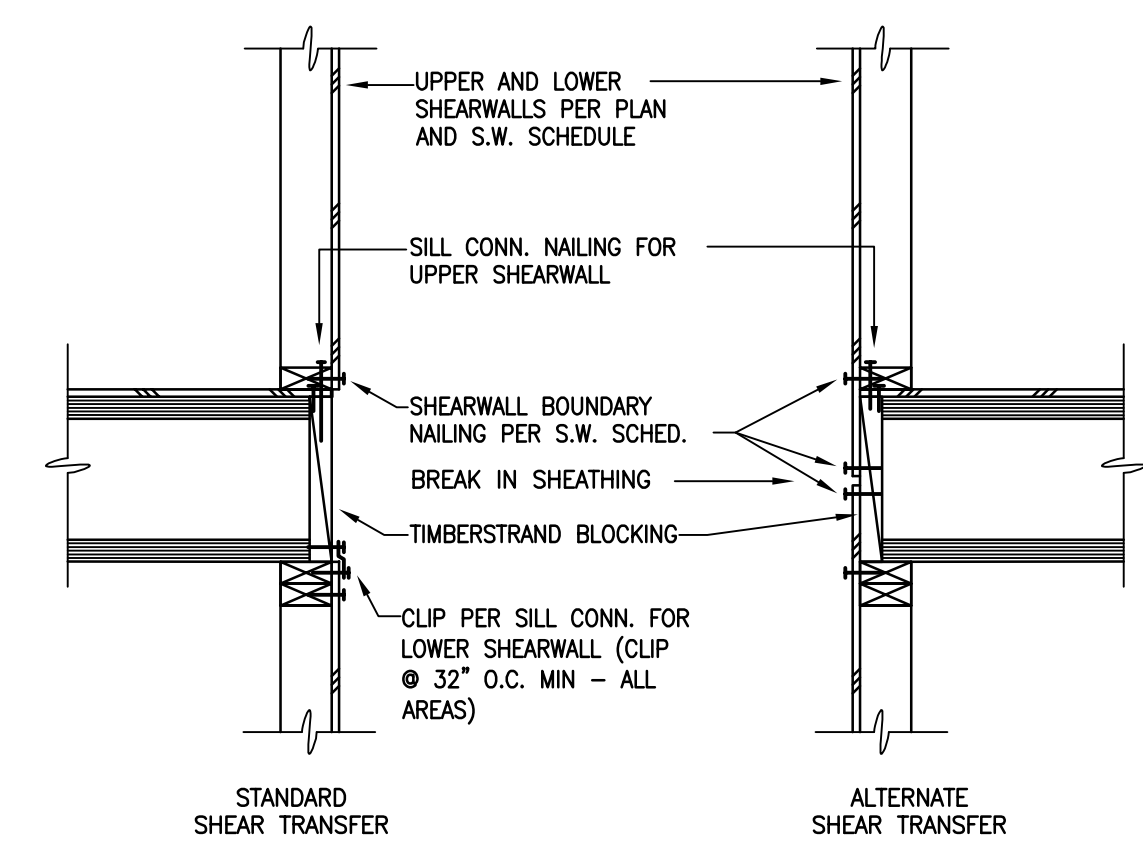
**10** HDU TO STEEL BEAM  
SCALE: 1"=1'-0"



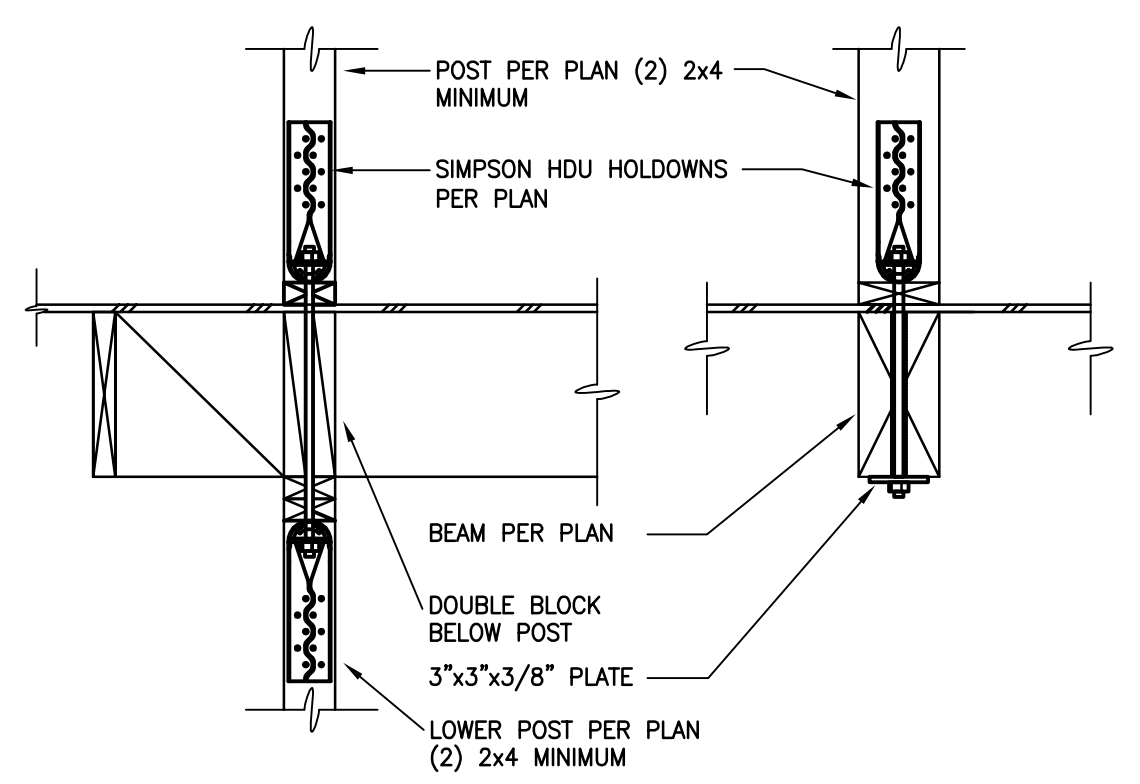
**6** BEAM TO POST IN WALL  
SCALE: 1"=1'-0"



**2** TYPICAL SHEAR TRANSFER THROUGH FLOOR  
SCALE: 1"=1'-0"



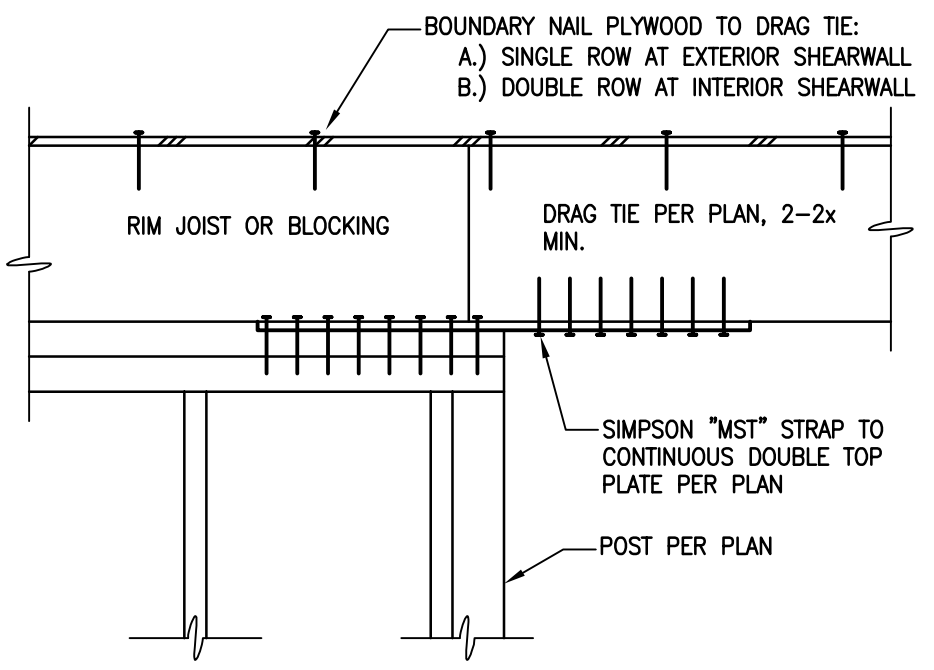
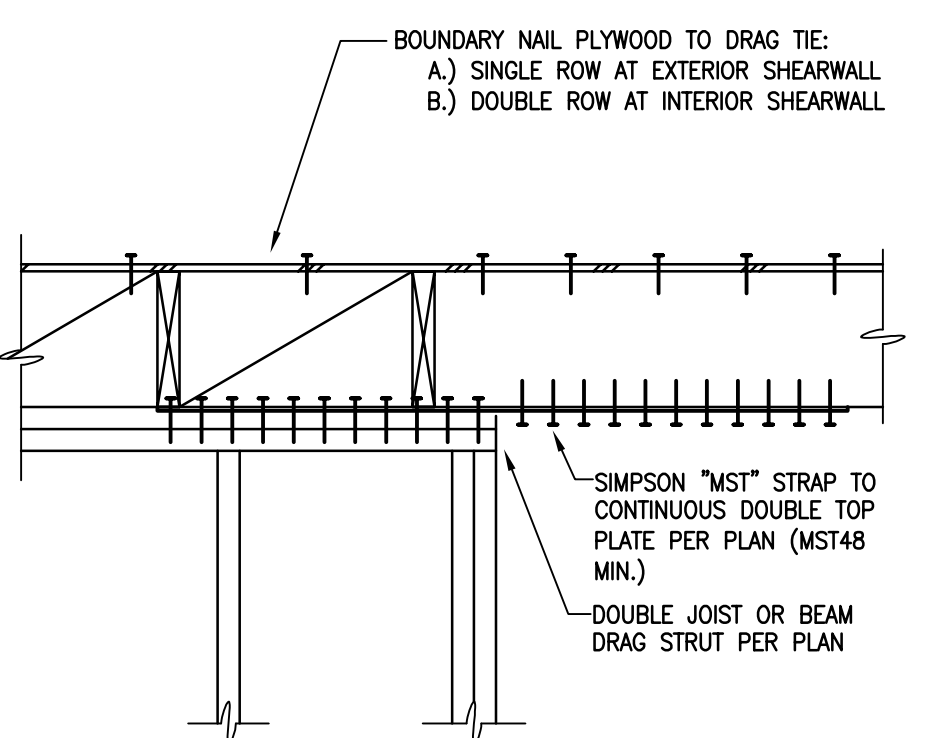
**14** HDU HOLDDOWN BETWEEN FLOORS  
SCALE: 1"=1'-0"



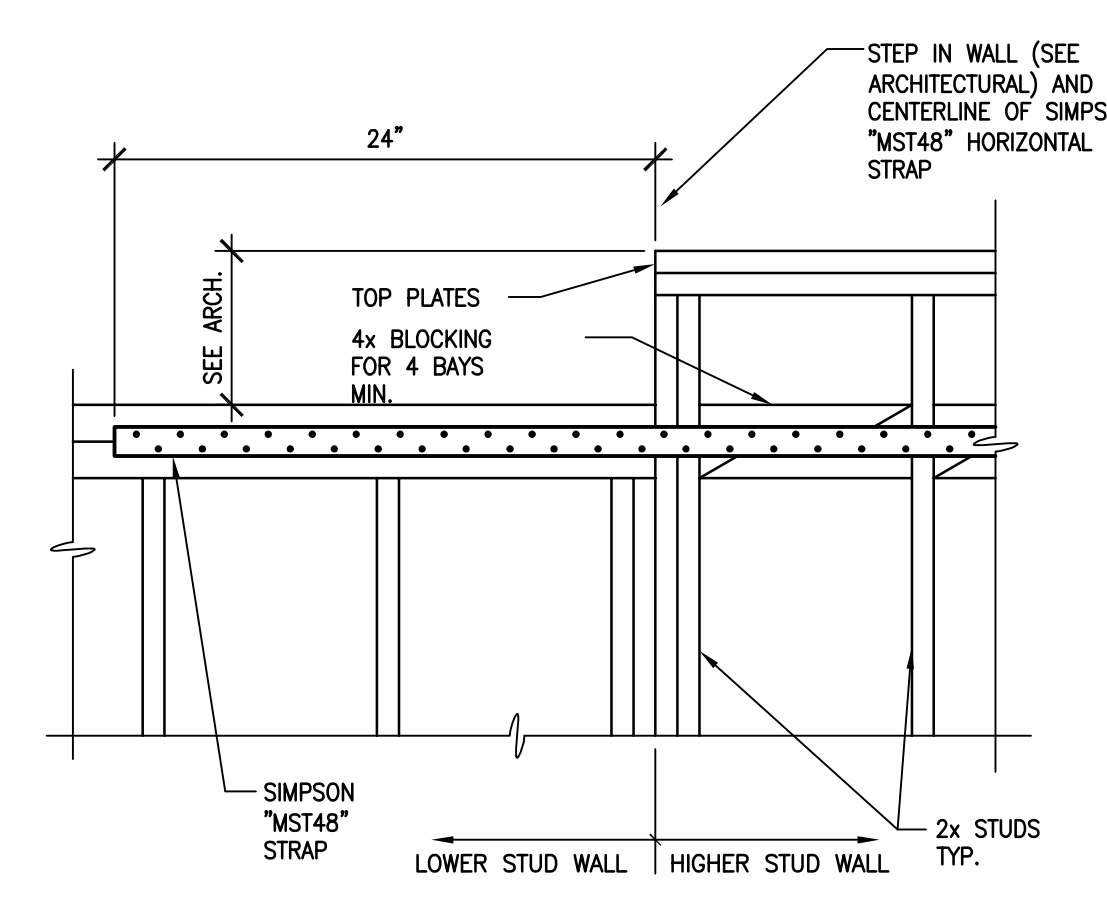
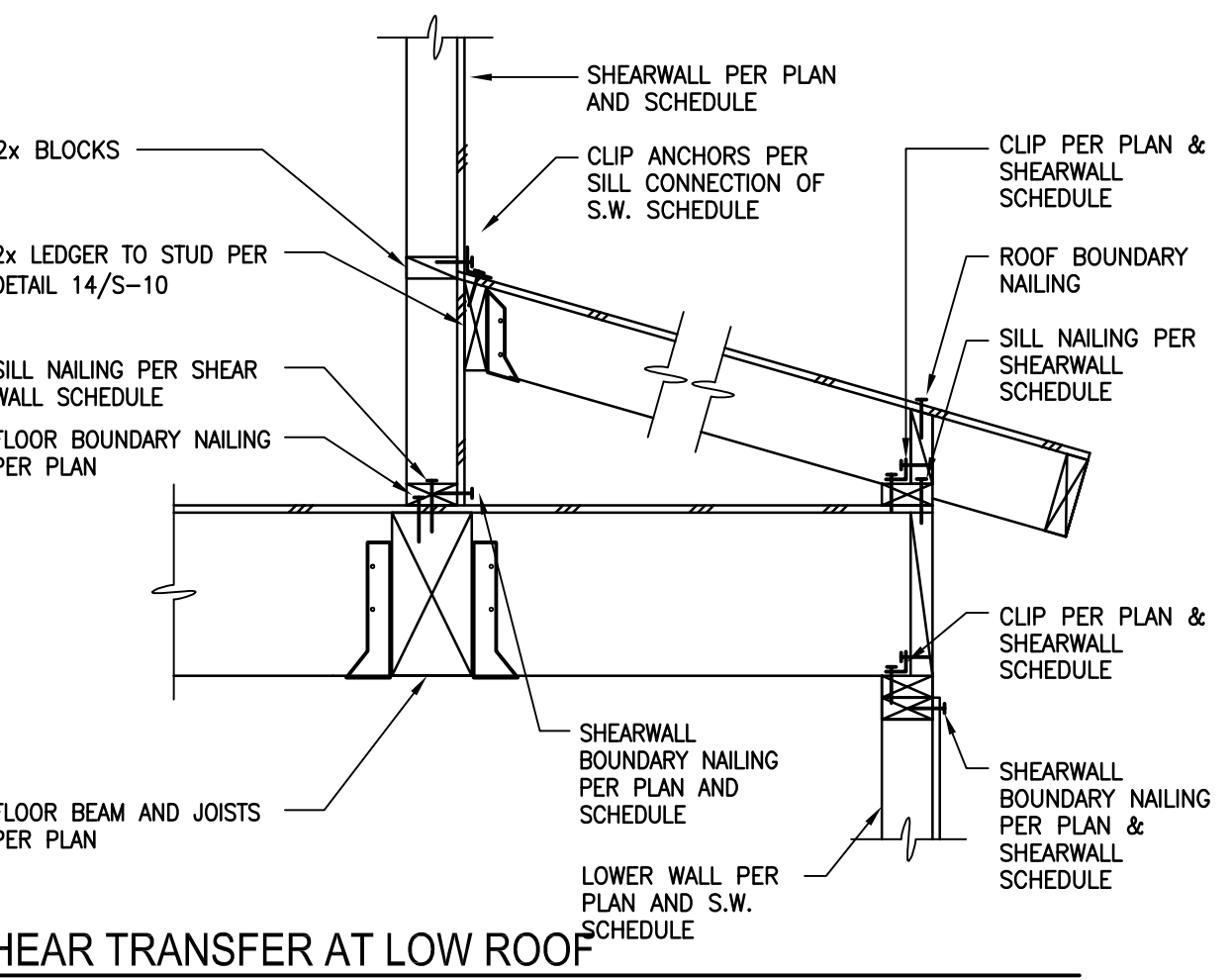
HD	ANCHOR ROD DIAMETER AND PLATE	MINIMUM EMBED.	MINIMUM POST	# OF SDS
HDU4	5/8" ROD W/3"x3"x1/4"	15"	4X4	10
HDU5	5/8" ROD W/3"x3"x1/4"	15"	4X4	14
HDU8	7/8" ROD W/3"x3"x3/8"	15"	4X4	20
HDU11	1" ROD W/3"x3"x3/8"	15"	4X6	30
HDU14	1" PER MANUF.	18"	4X6	36

- NOTES:  
1) NO SPECIAL DEPUTY INSPECTION REQUIRED.  
2) DESIGN INCLUDES REDUCED EDGE DISTANCE.  
3) ALLOWABLE LOADS HAVE BEEN REDUCED BY 25%  
4) ALL SDS SCREWS TO BE 1/4" dia. X 2-1/2" LONG

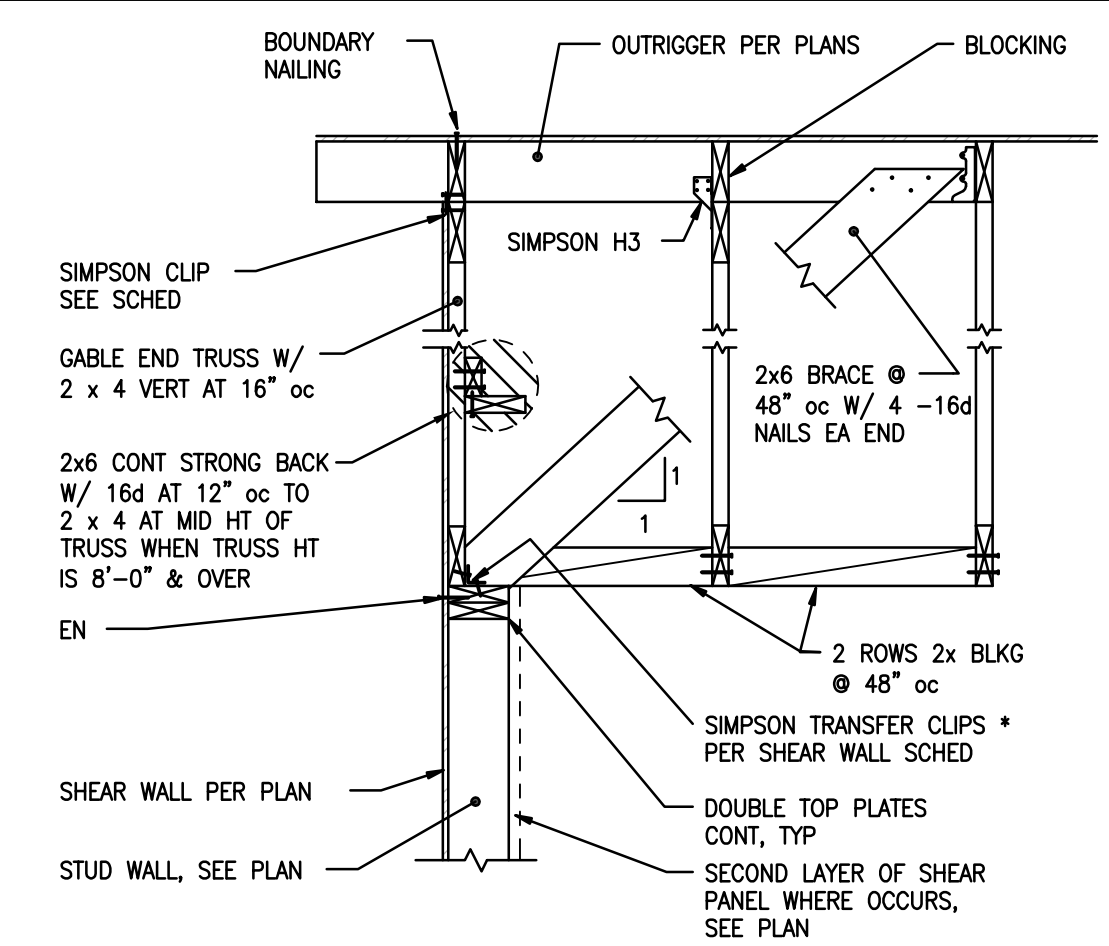
**11** DRAG CONNECTION  
SCALE: 1"=1'-0"



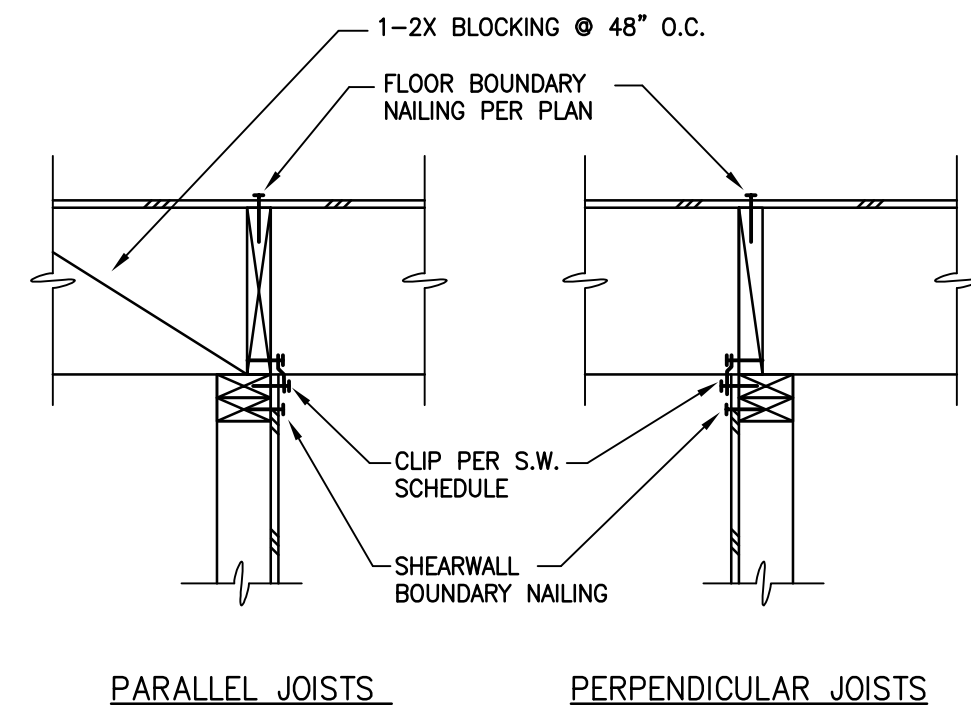
**8** STEPPED WALL STRAP  
SCALE: 1"=1'-0"



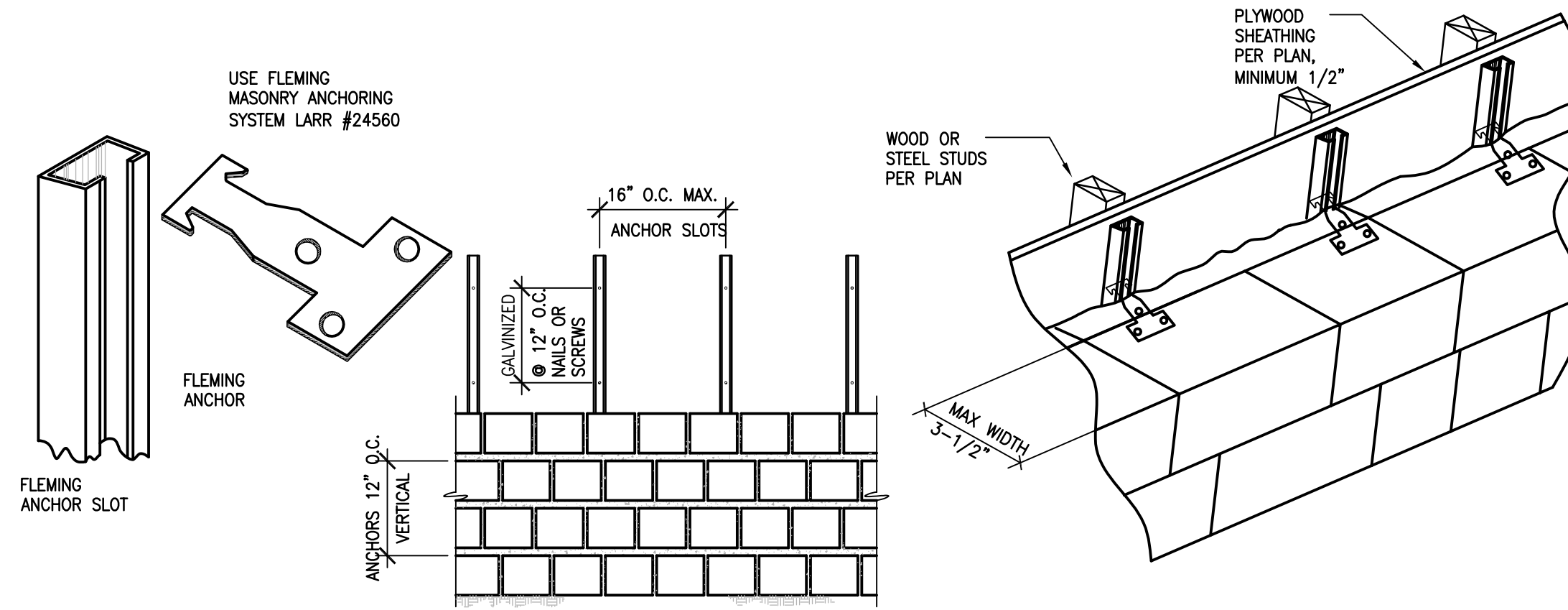
**4** SHEAR TRANSFER AT ROOF  
SCALE: 1"=1'-0"



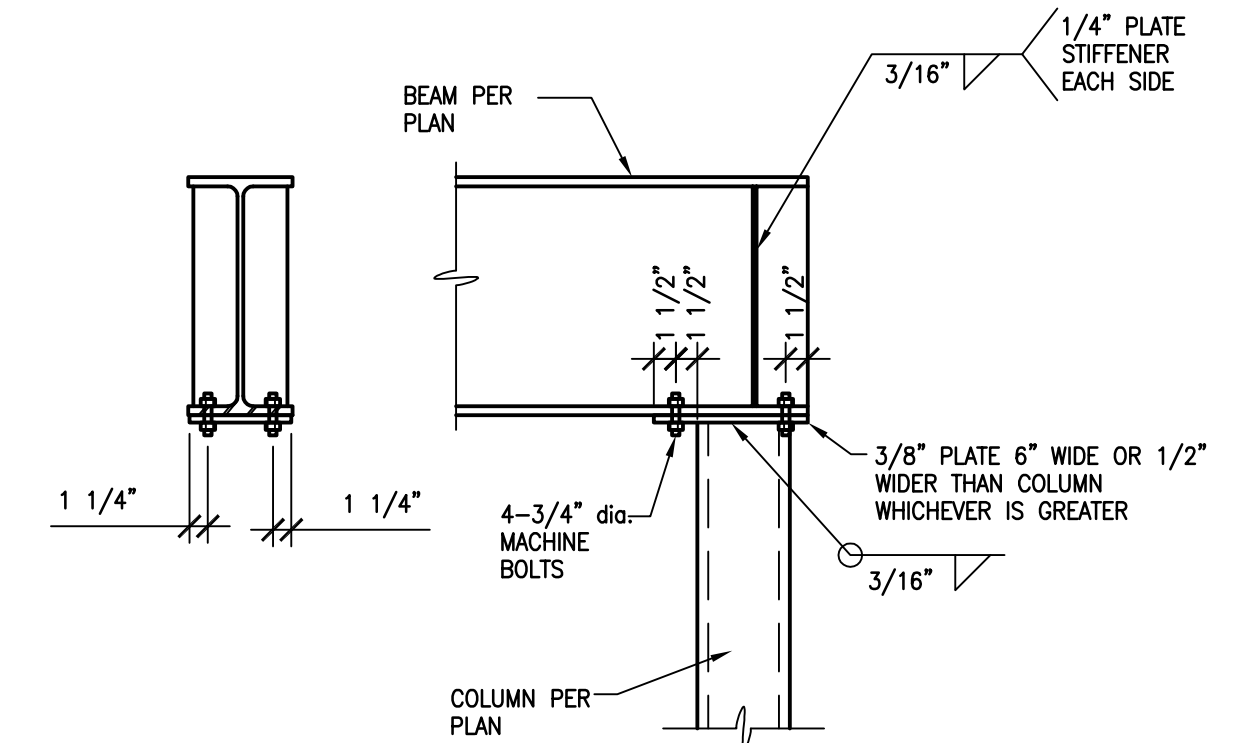
ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF HJH ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF HJH ENGINEERING. COPYRIGHT ©2017



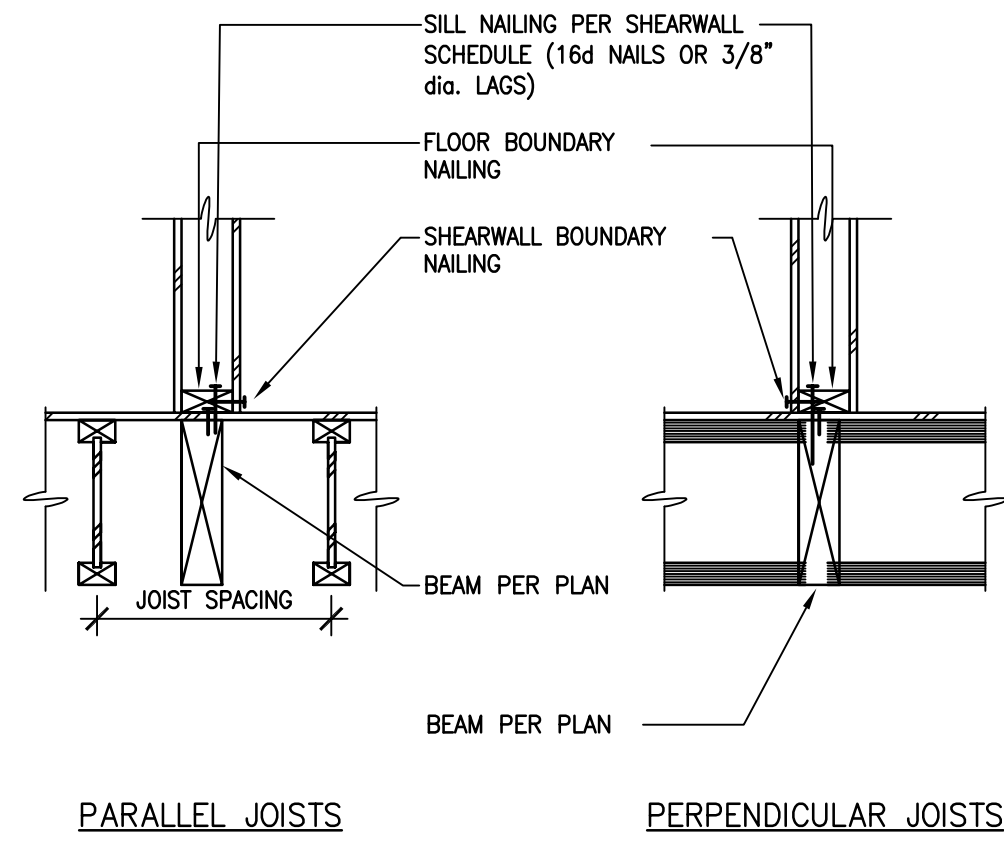
12 SHEAR TRANSFER TO WALL BELOW  
SCALE: 1"=1'-0"



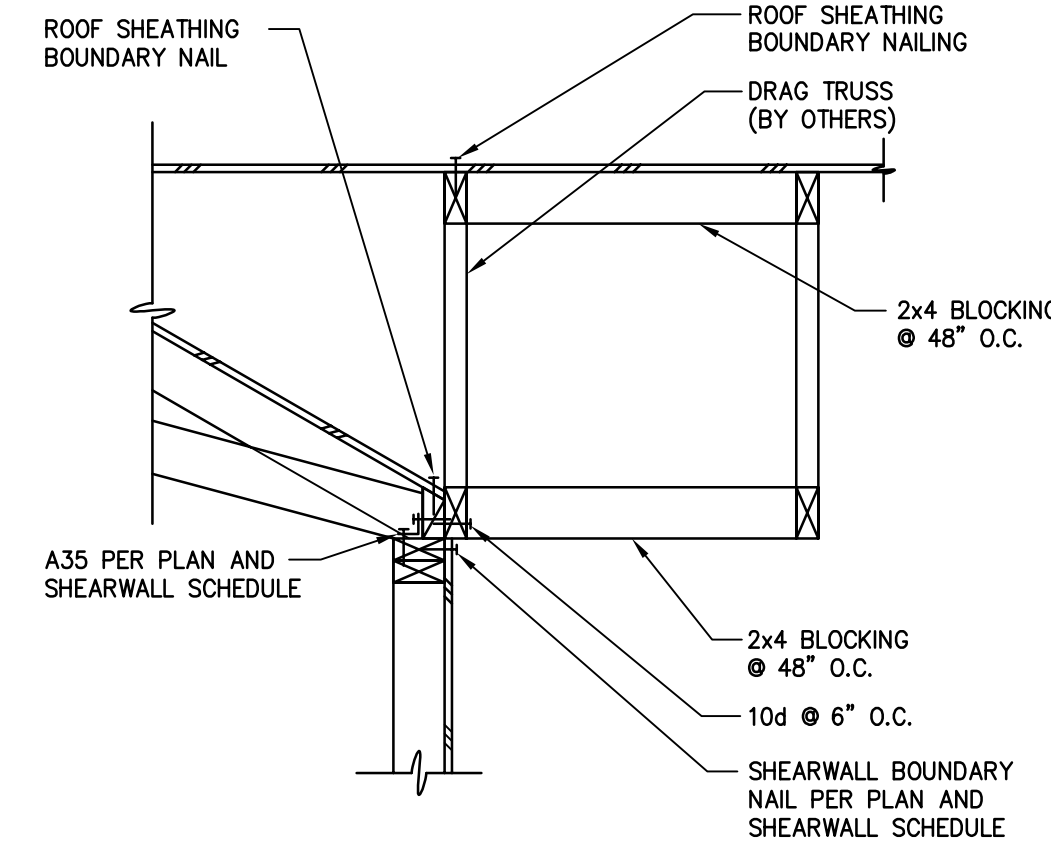
8 MASONRY VENEER ATTACHMENT  
SCALE: 1"=1'-0"



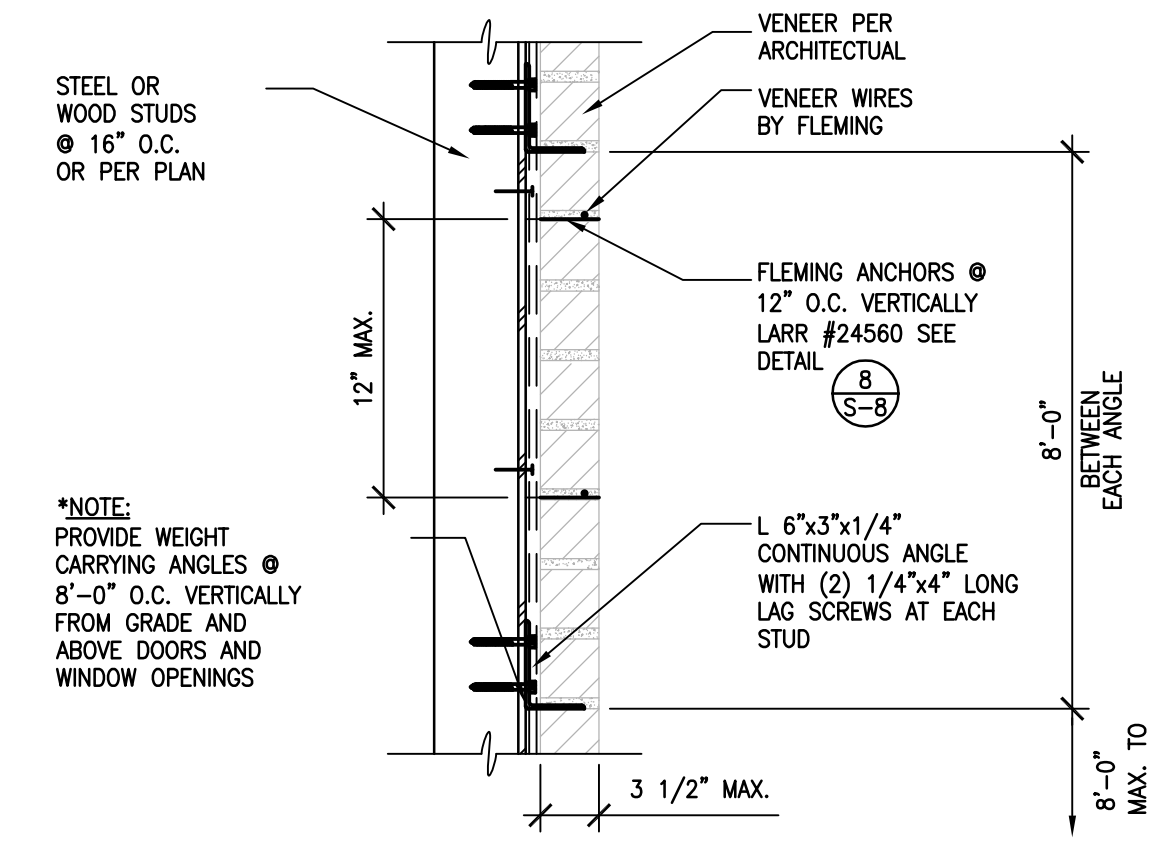
1 BEAM TO COLUMN CONNECTION  
SCALE: 1"=1'-0"



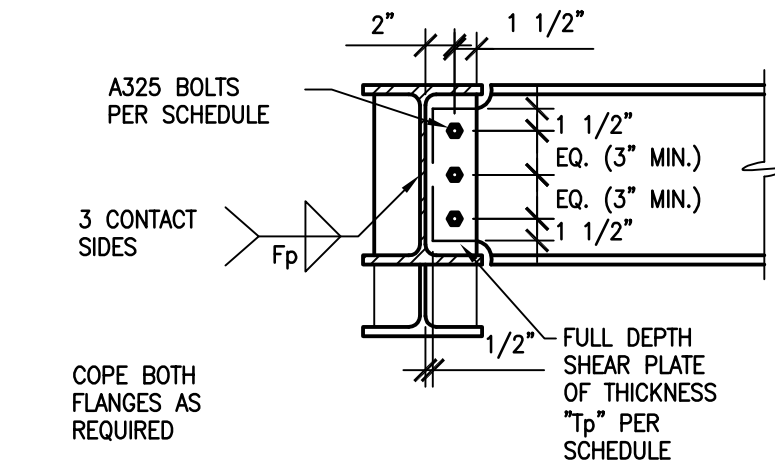
13 TYPICAL SHEAR TRANSFER TO FLOOR BELOW  
SCALE: 1"=1'-0"



9 SHEAR TRANSFER @ ROOF TRANSITION  
SCALE: 1"=1'-0"

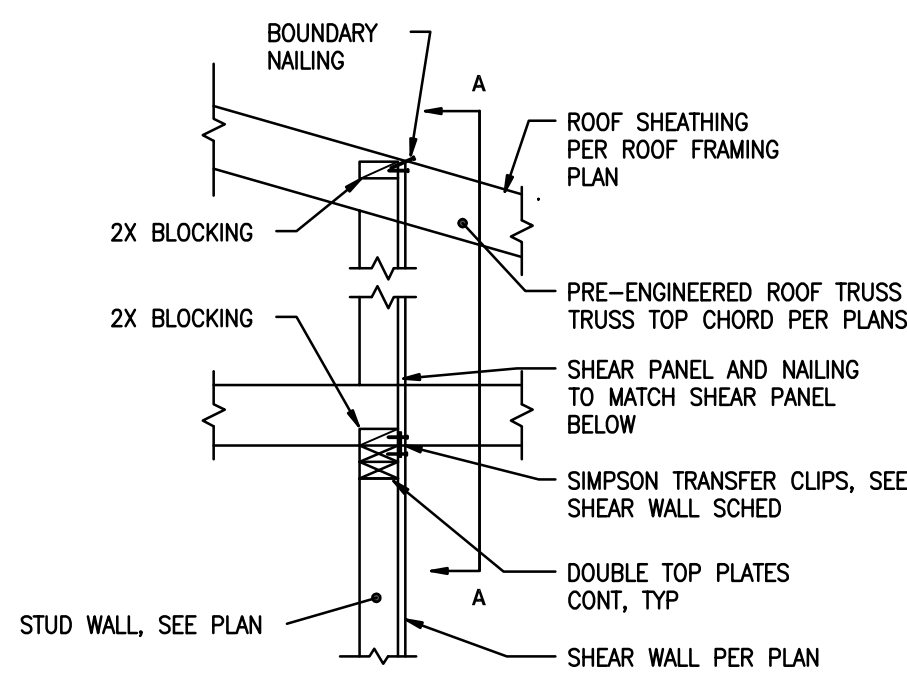


5 TYPICAL VENEER ATTACHMENT  
SCALE: 1"=1'-0"

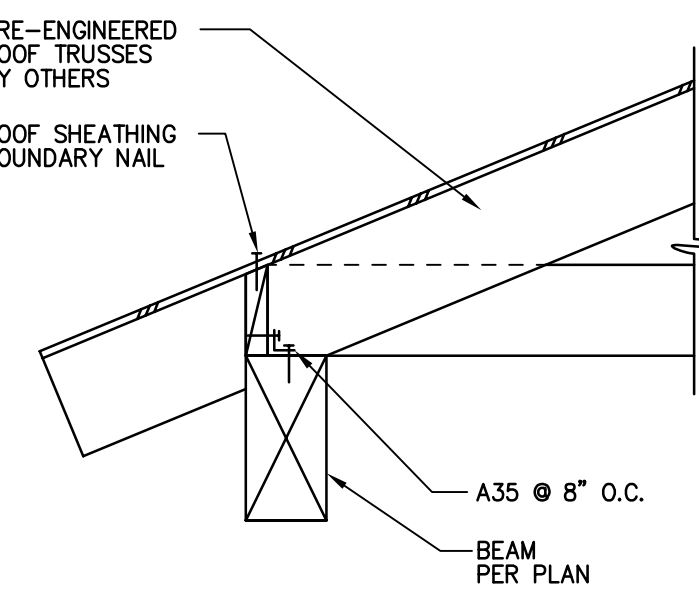


A-325 SINGLE SHEAR BOLT CONNECTION SCHEDULE			
BEAM SUPPORTED	WELD F <sub>p</sub>	SHEAR PLATE T <sub>p</sub>	NO. OF A-325 BOLTS (U.N.O.)
W 12x	5/16"	3/8"	(3) 7/8" dia.

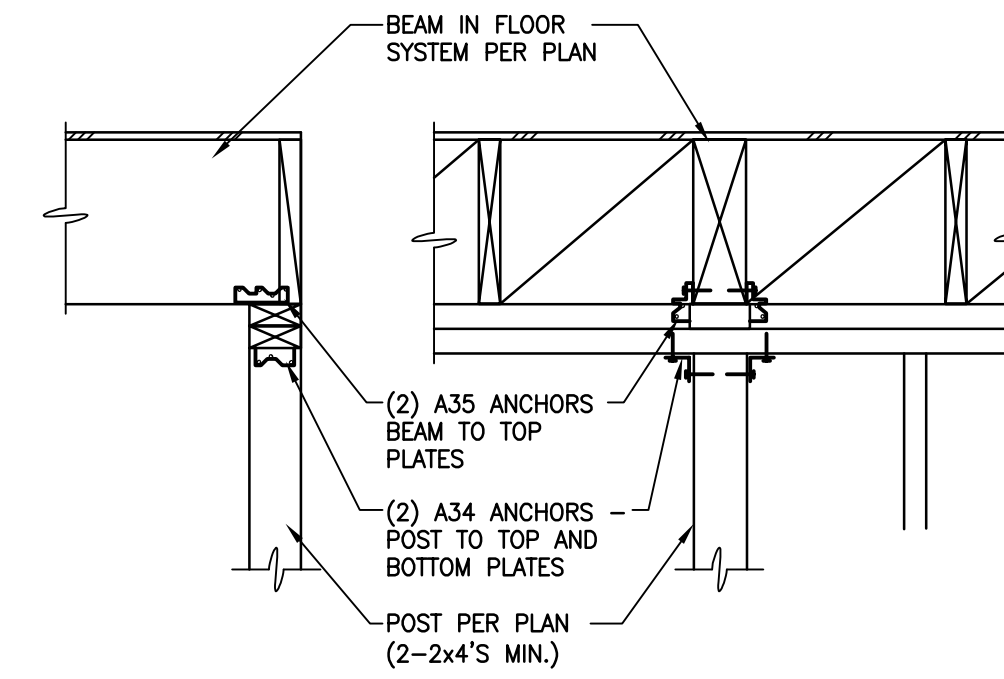
2 SINGLE SHEAR BEAM TO BEAM CONNECTION  
SCALE: 1"=1'-0"



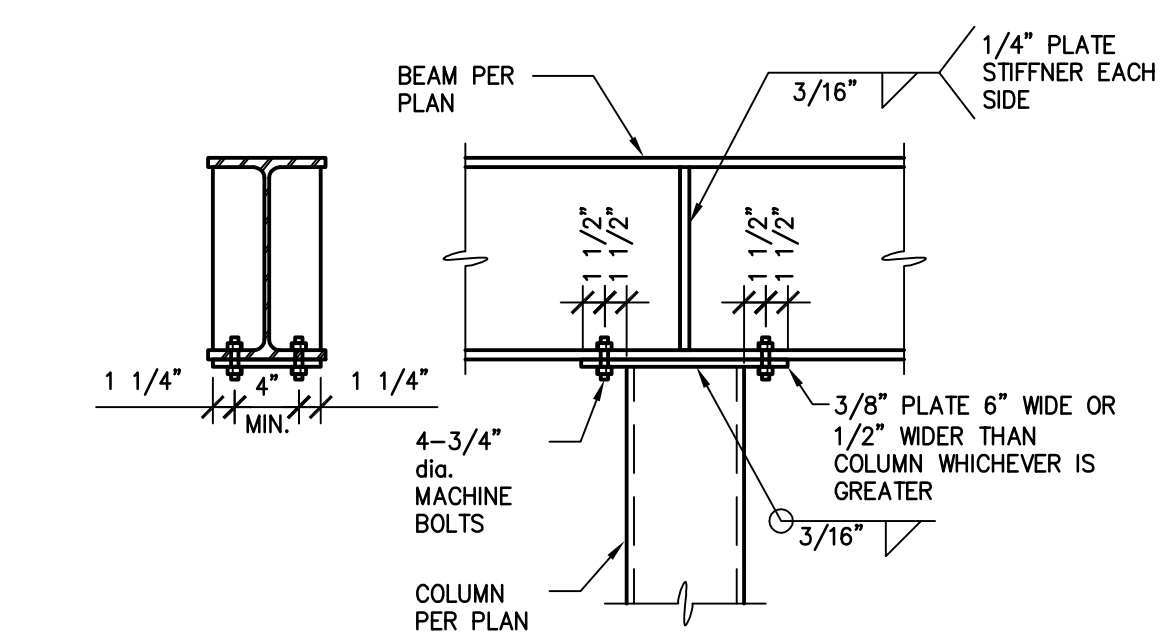
14 INTERIOR SHEARWALL  
SCALE: 1"=1'-0"



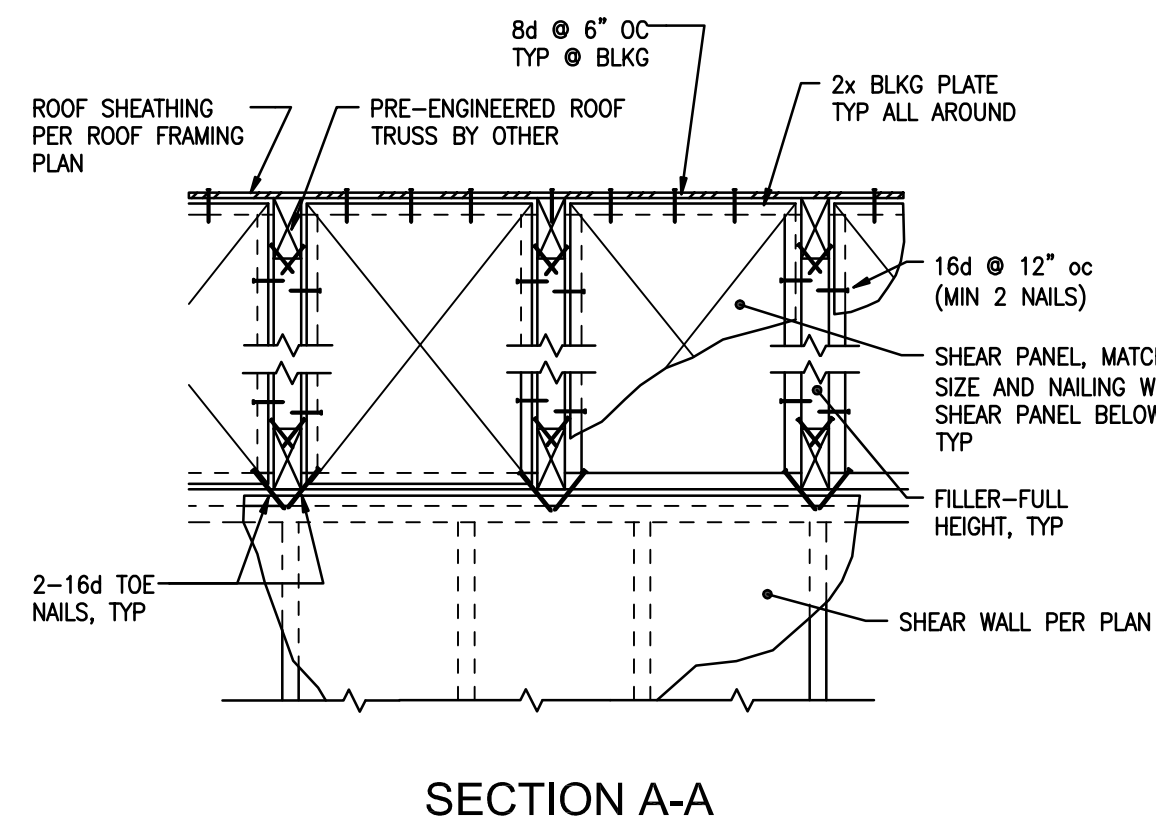
10 ROOF FRAMING CONNECTION  
SCALE: 1"=1'-0"



6 TYPICAL BEAM SUPPORT AT WALL  
SCALE: 1"=1'-0"



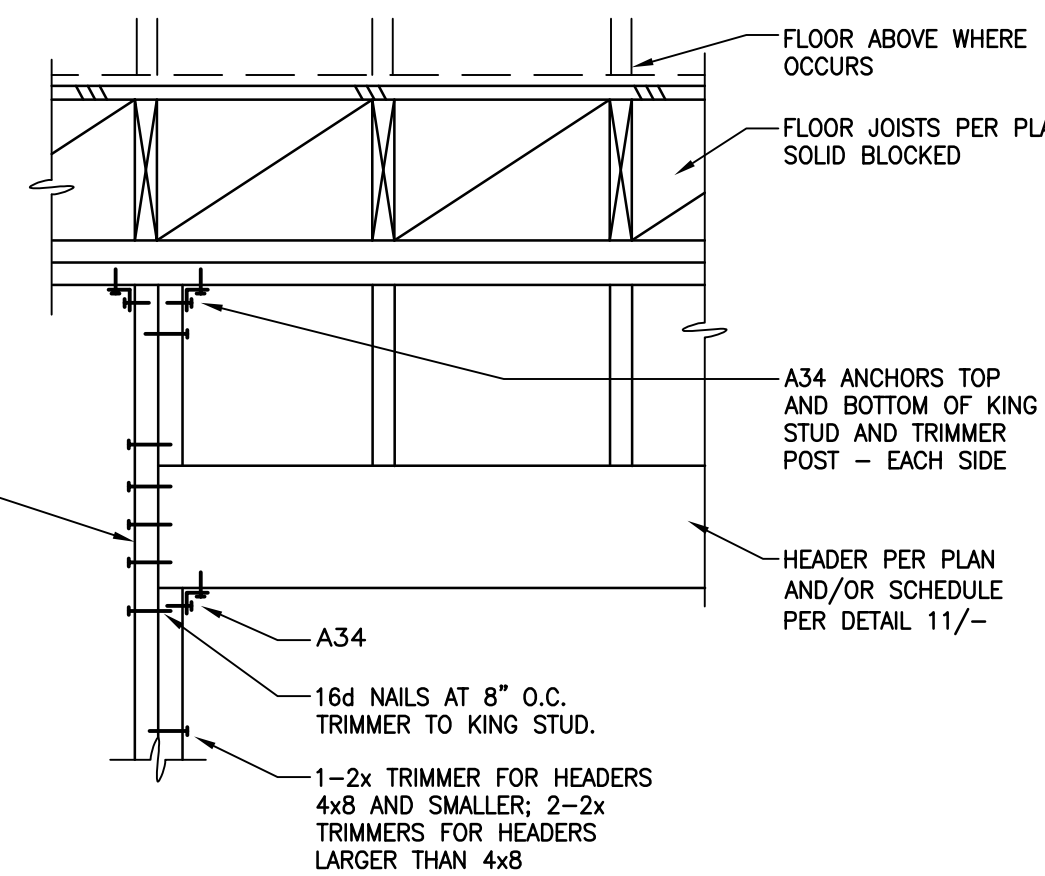
3 BEAM TO COLUMN CONNECTION  
SCALE: 1"=1'-0"



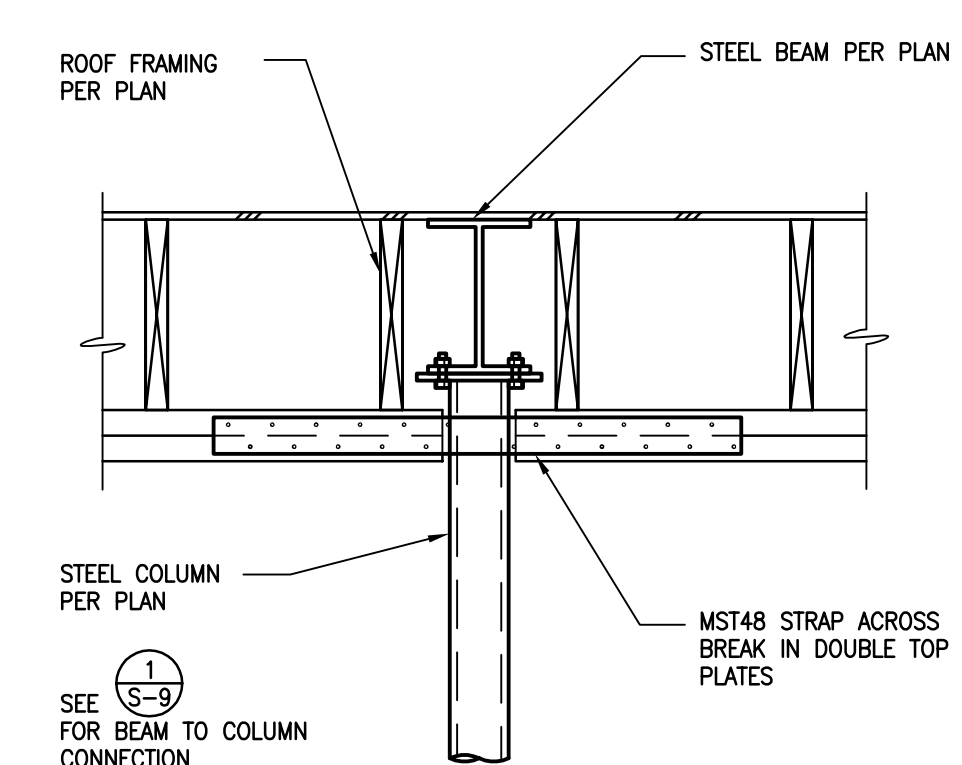
11 TYP. HDR. SCHEDULE  
SCALE: 1"=1'-0"

UNMARKED HEADERS		
SIZE	SUPPORTING 2ND FLOOR, CEILING AND ROOF	SUPPORTING CEILING AND ROOF
4x4	3'-0"	4'-0"
4x6	5'-0"	6'-0"
4x8	7'-0"	8'-0"
4x10	9'-0"	10'-0"
4x12	10'-0"	12'-0"

7 TYPICAL DROPPED HEADER  
SCALE: 1"=1'-0"

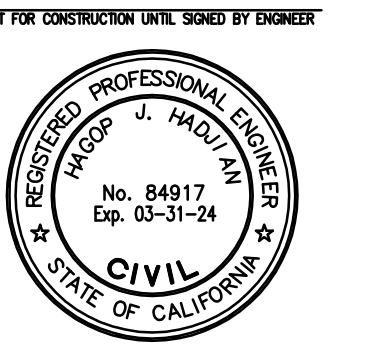


4 STEEL BEAM TO COLUMN IN WALL  
SCALE: 1"=1'-0"



REVISIONS DATE

**HJH ENGINEERING**  
Structural Engineering Consultants  
23006 Erwin St., Woodland Hills, CA 91367  
(818) 519-8572 tel  
jack@hjhengineering.com email



JAMES LE RESIDENCE  
BELLA MADERIA LANE  
SAN JOSE, CA  
APN: 654-64-012

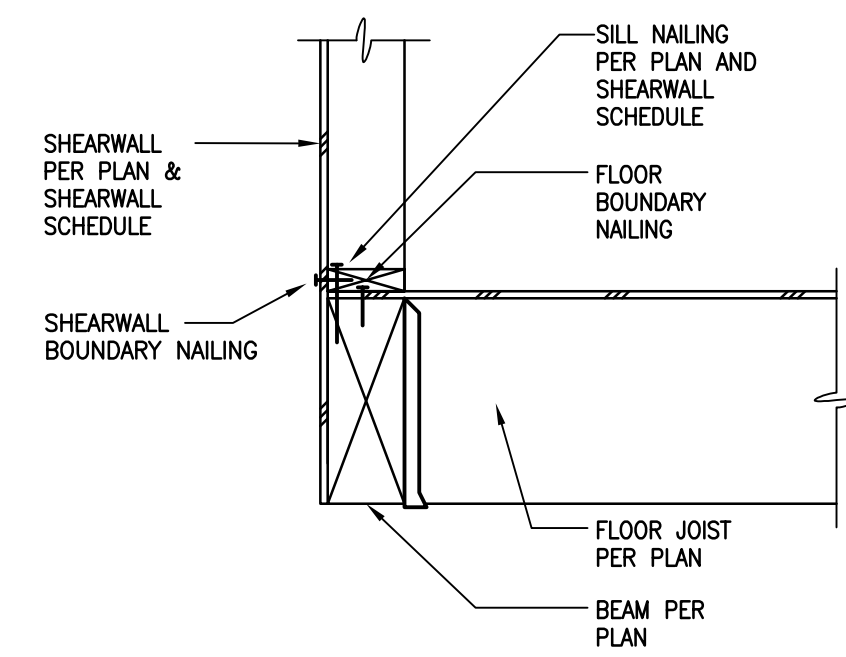
**STRUCTURAL DETAILS**

PROJECT NUMBER: 23B03  
PROJ. ENG. / DRAWN: JH  
DATE: DEC. 10, 2023  
SCALE: AS NOTED  
SHEET NUMBER:

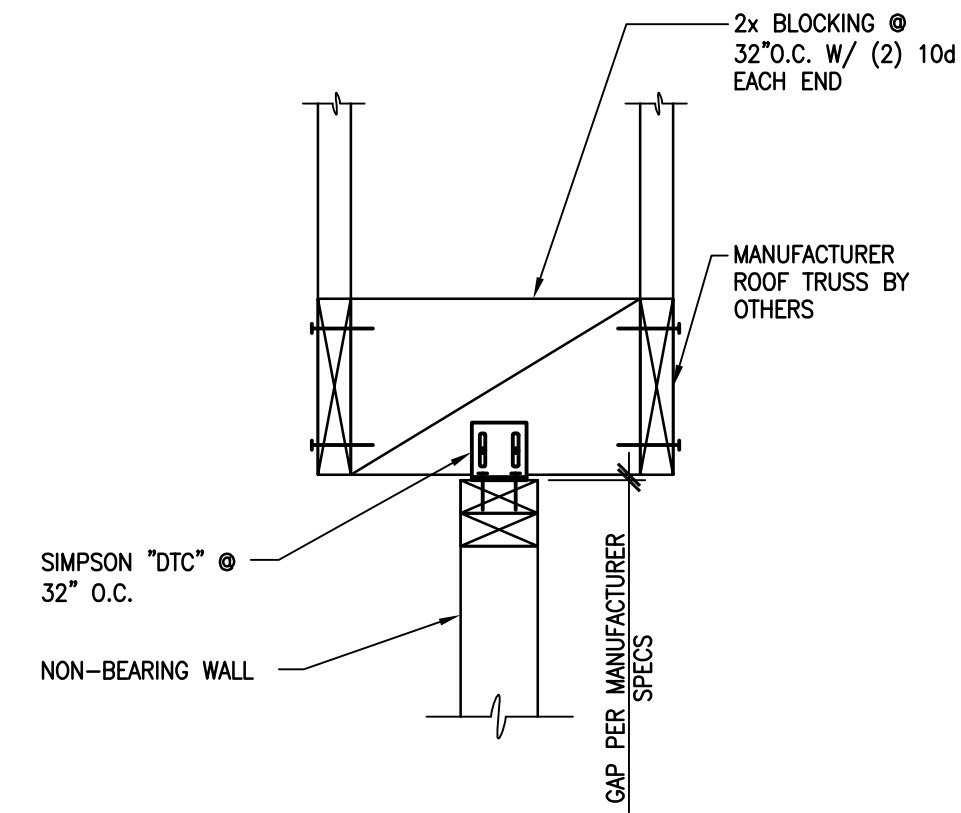
**S-9**



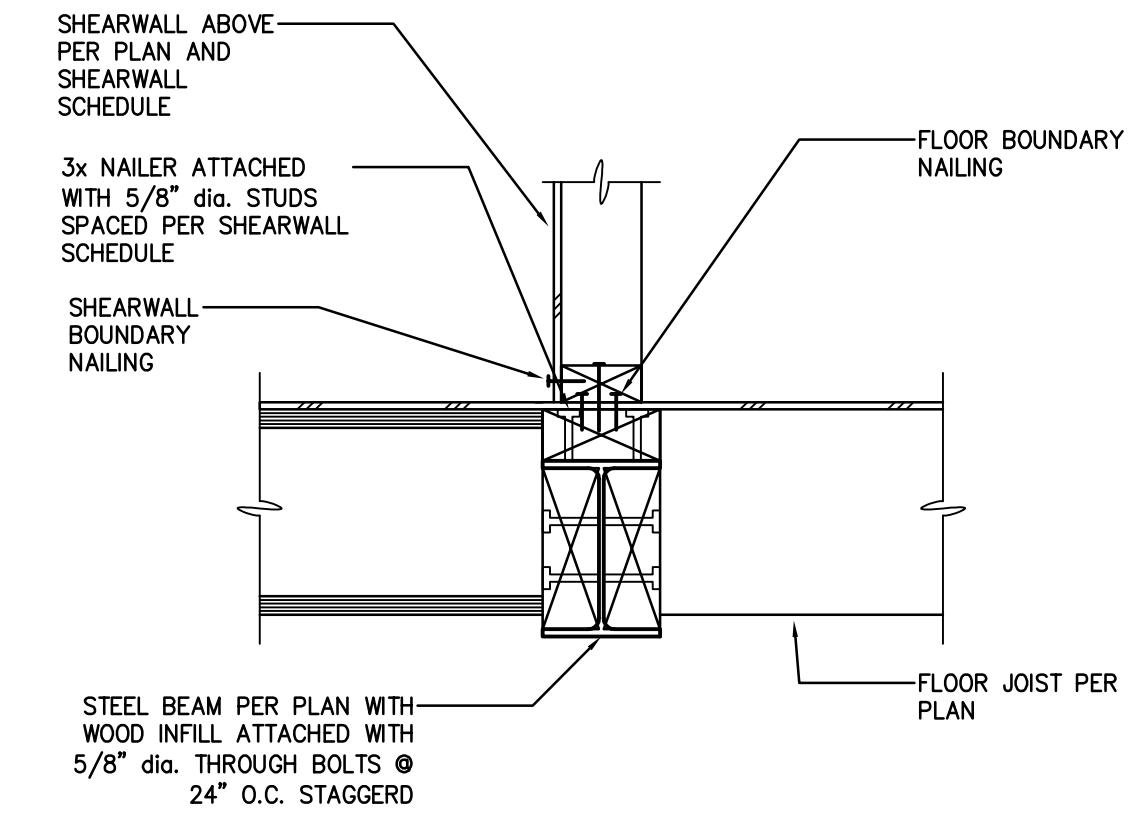
ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF HJH ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF HJH ENGINEERING. COPYRIGHT ©2017



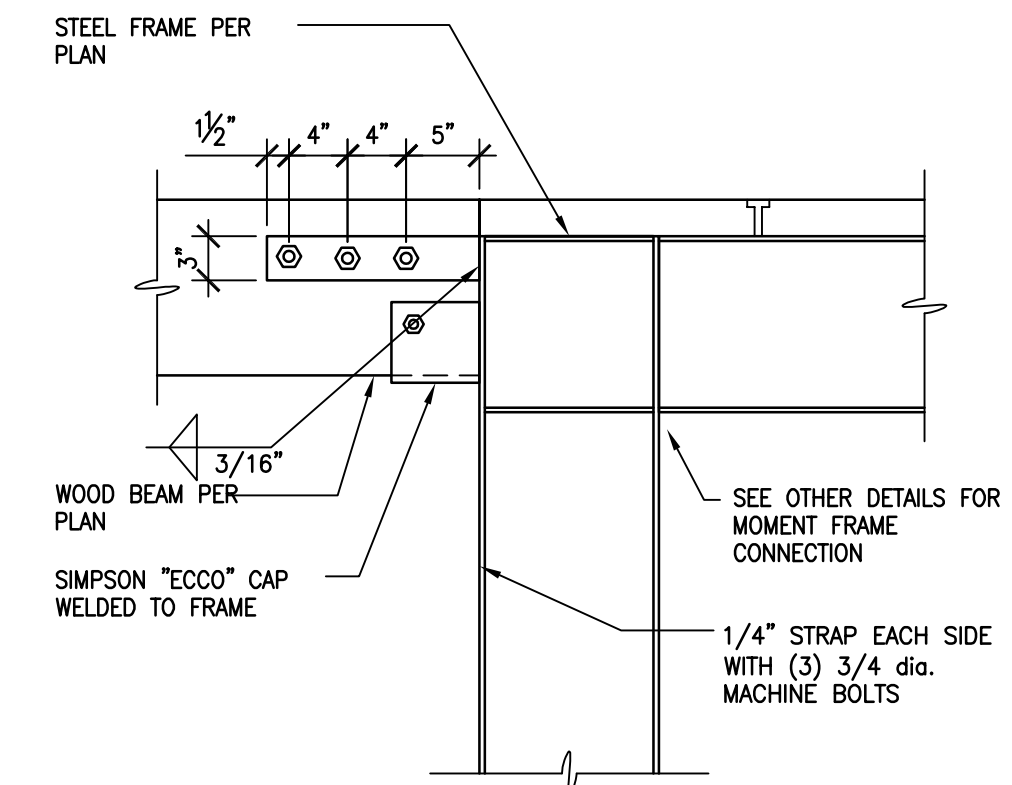
**11** SHEAR TRANSFER TO BEAM  
SCALE: 1"=1'-0"



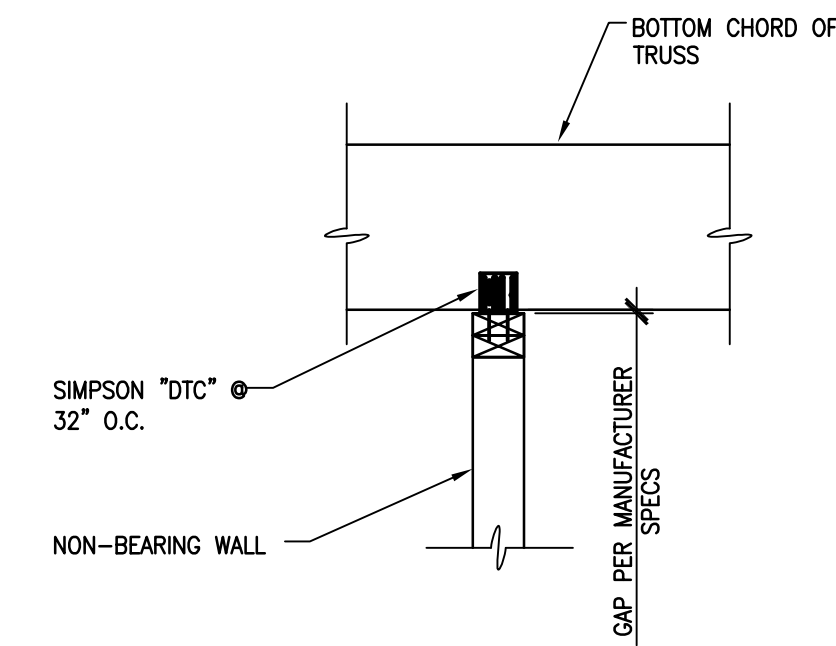
**5** MOMENT CONNECTION THROUGH COLUMN WEB  
SCALE: 1"=1'-0"



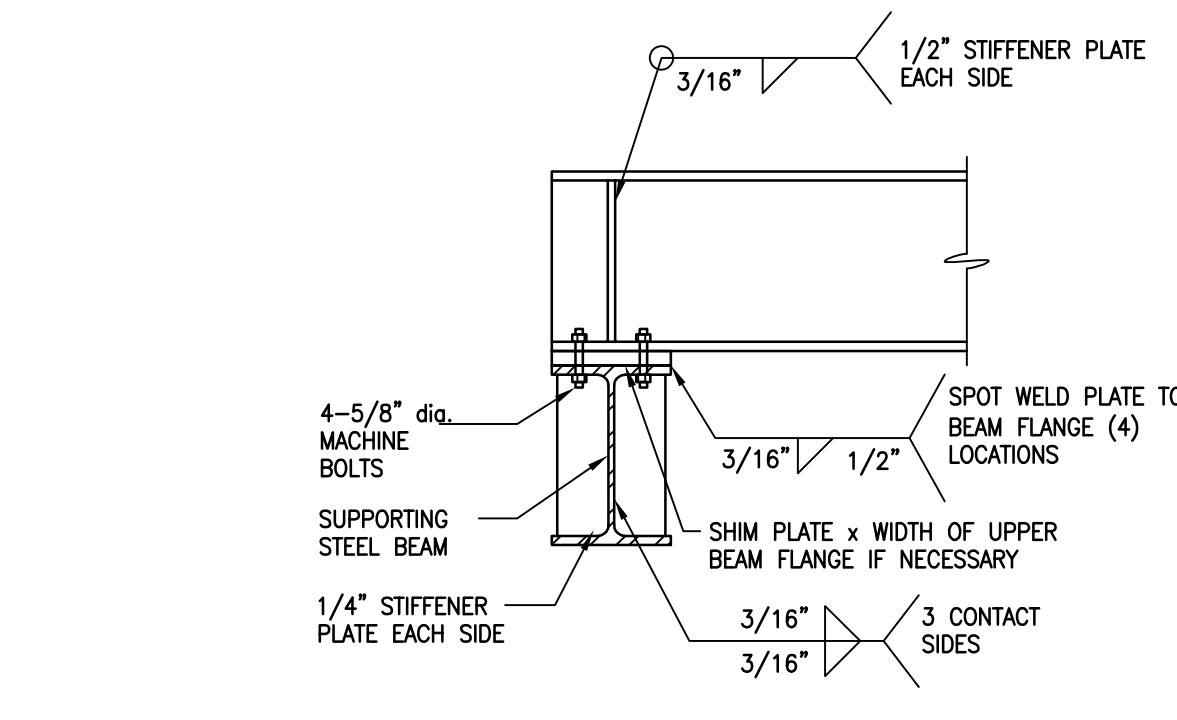
**1** SHEAR TRANSFER TO STEEL BEAM  
SCALE: 1"=1'-0"



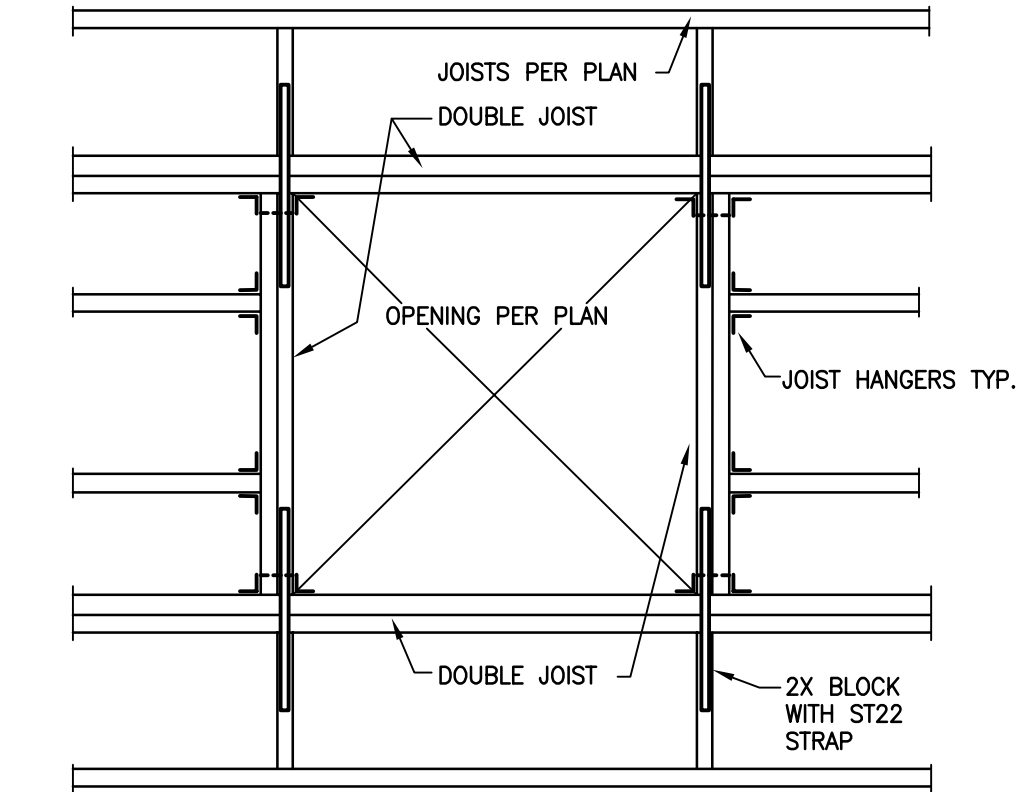
**12** DRAG TO MOMENT FRAME  
SCALE: 1"=1'-0"



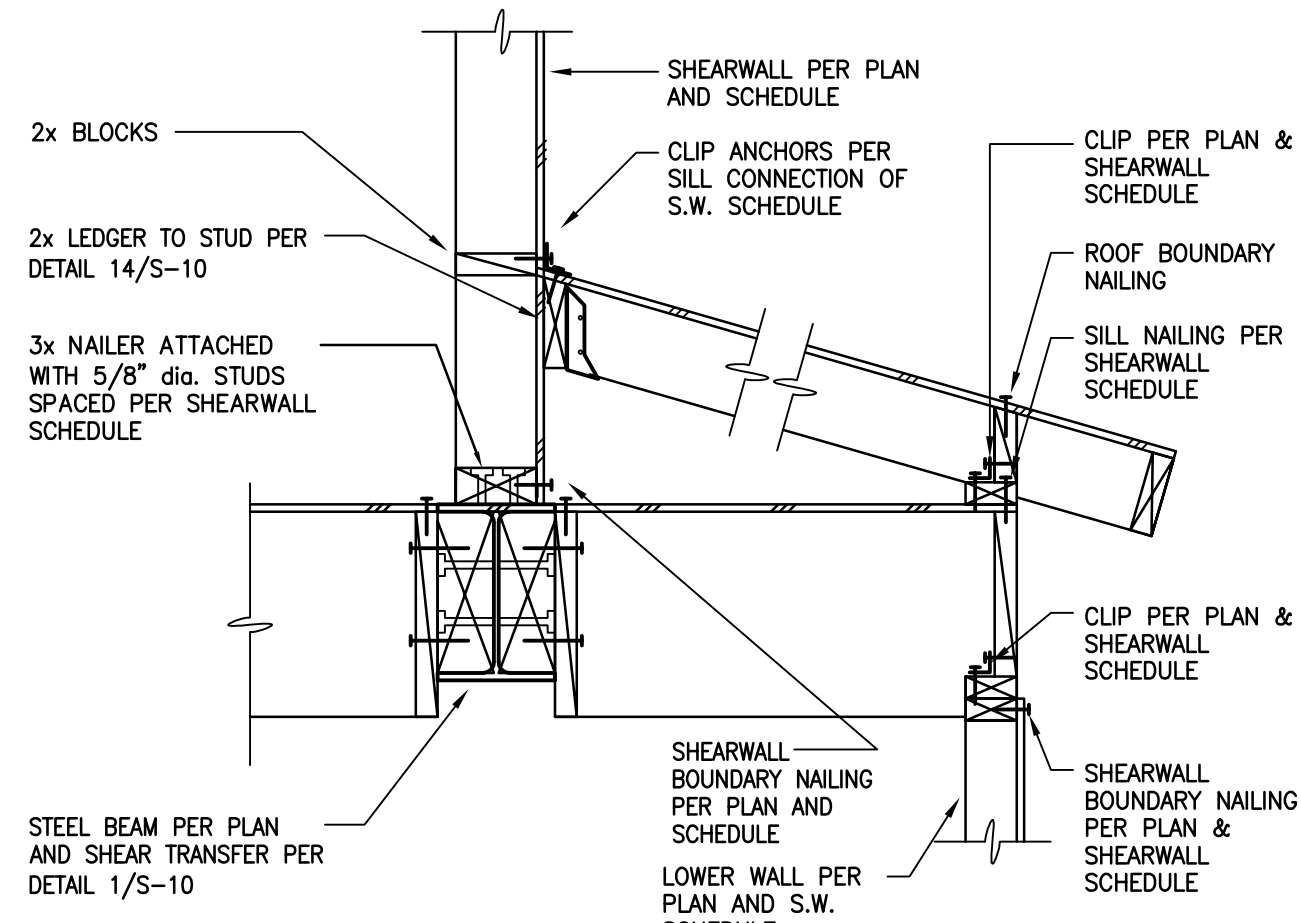
**9** TYP. NON-BEARING WALL  
SCALE: 1"=1'-0"



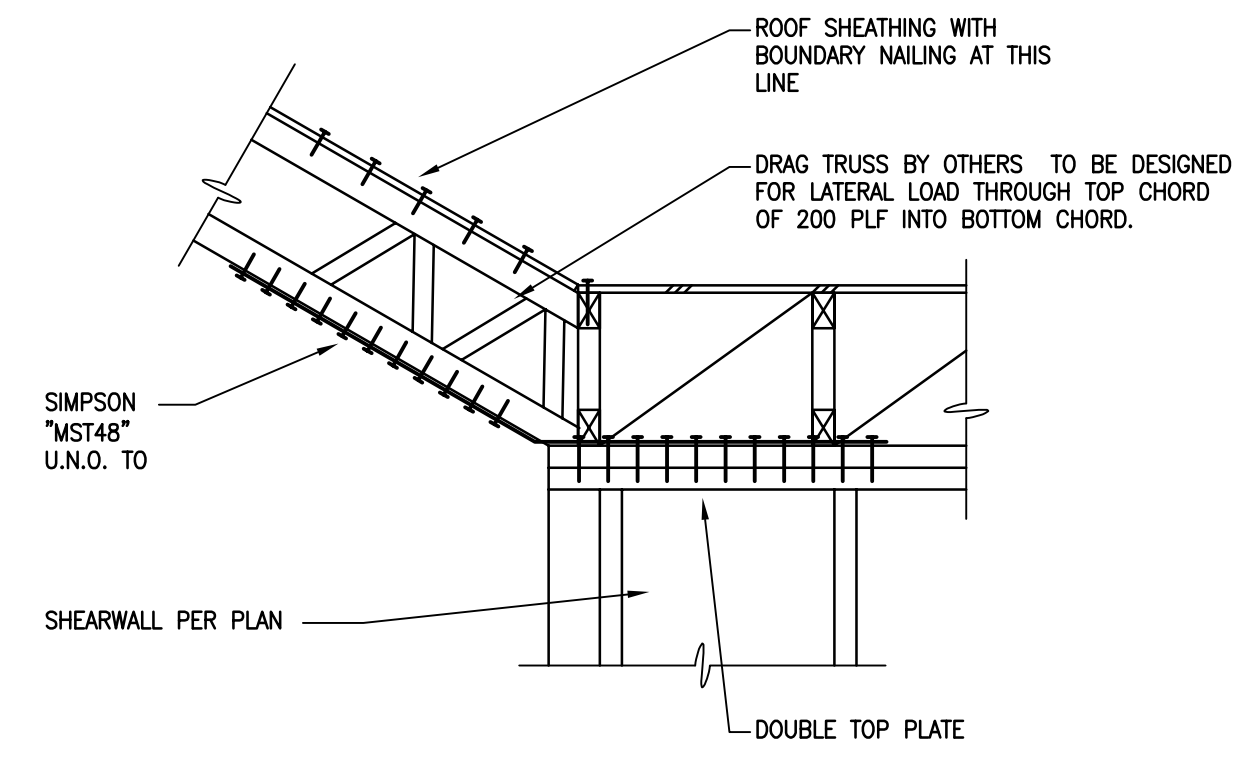
**6** STEEL BEAM TO DROPPED STEEL BEAM  
SCALE: 1"=1'-0"



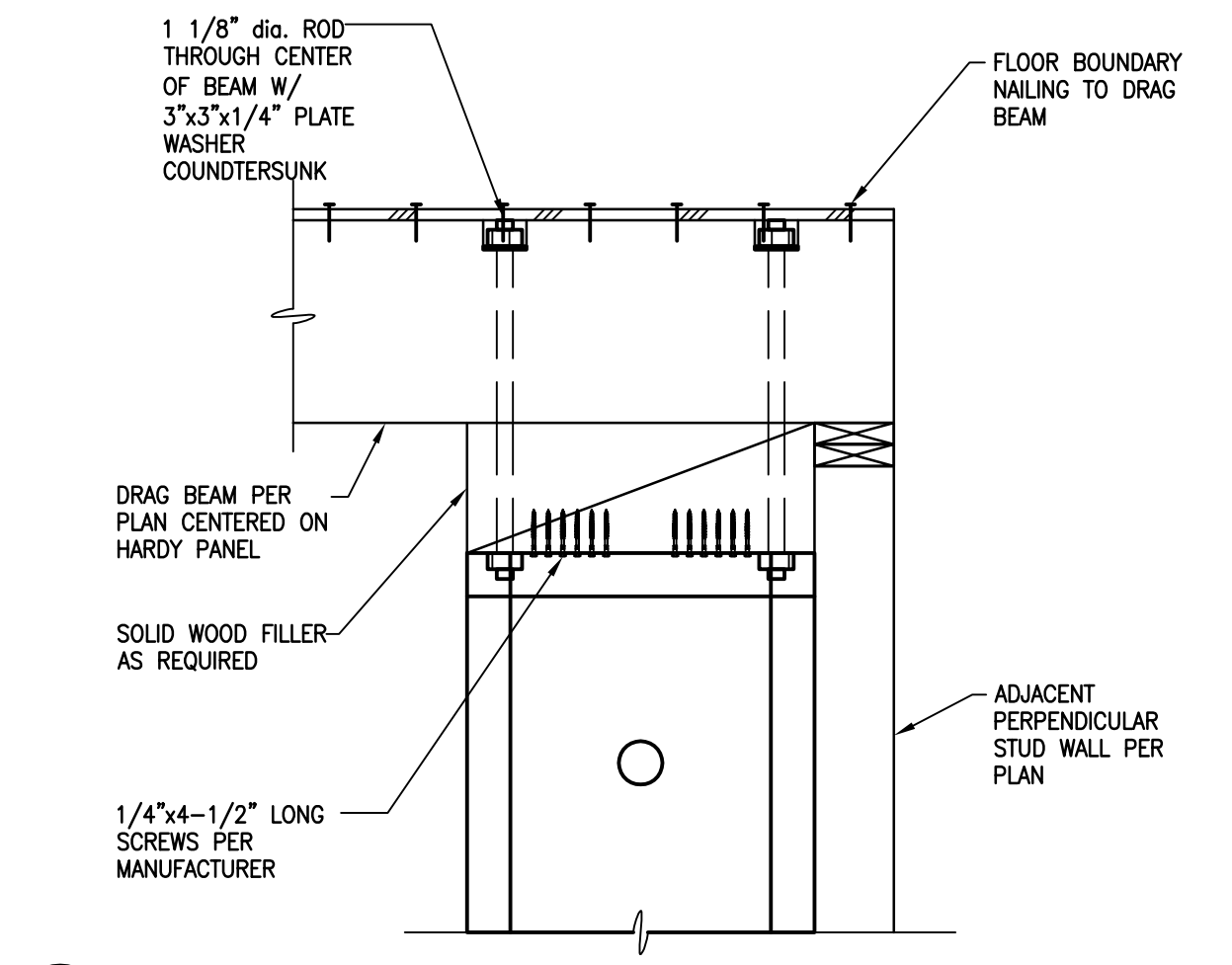
**2** TYPICAL FLOOR AND ROOF OPENING  
SCALE: 1"=1'-0"



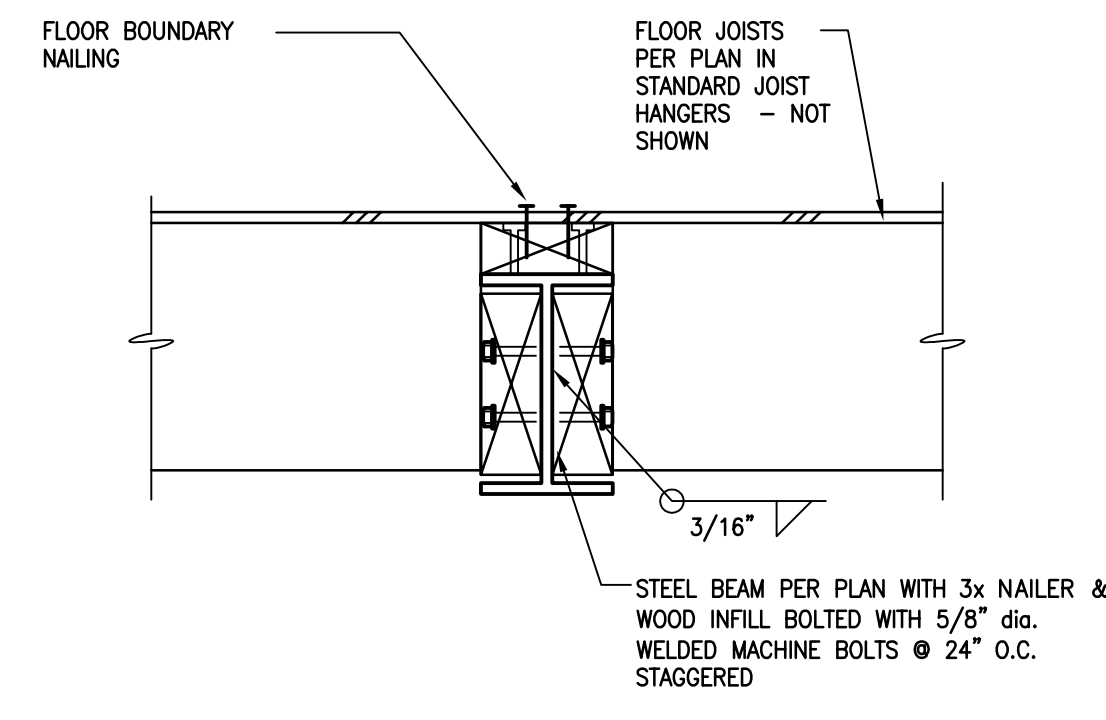
**12** SHEAR TRANSFER TO BEAM  
SCALE: 1"=1'-0"



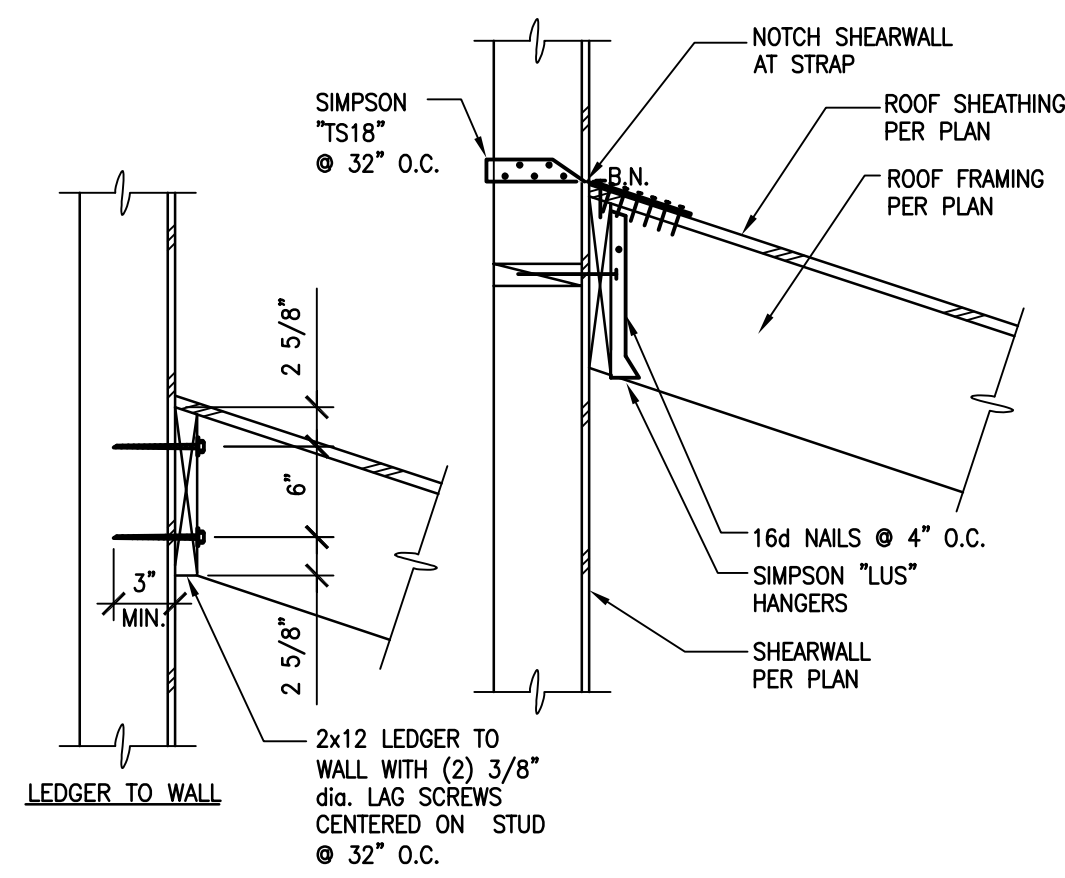
**9** DRAG CONNECTION  
SCALE: 1"=1'-0"



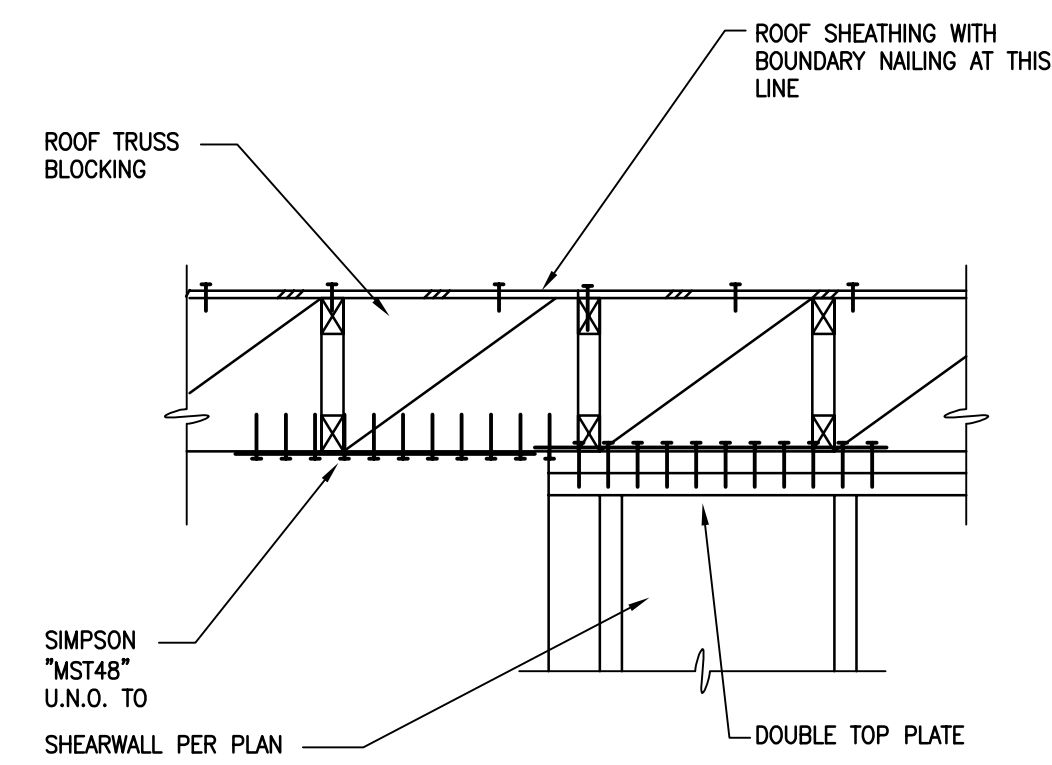
**7** SHEAR TRANSFER AT HARDY PANEL  
SCALE: 1"=1'-0"



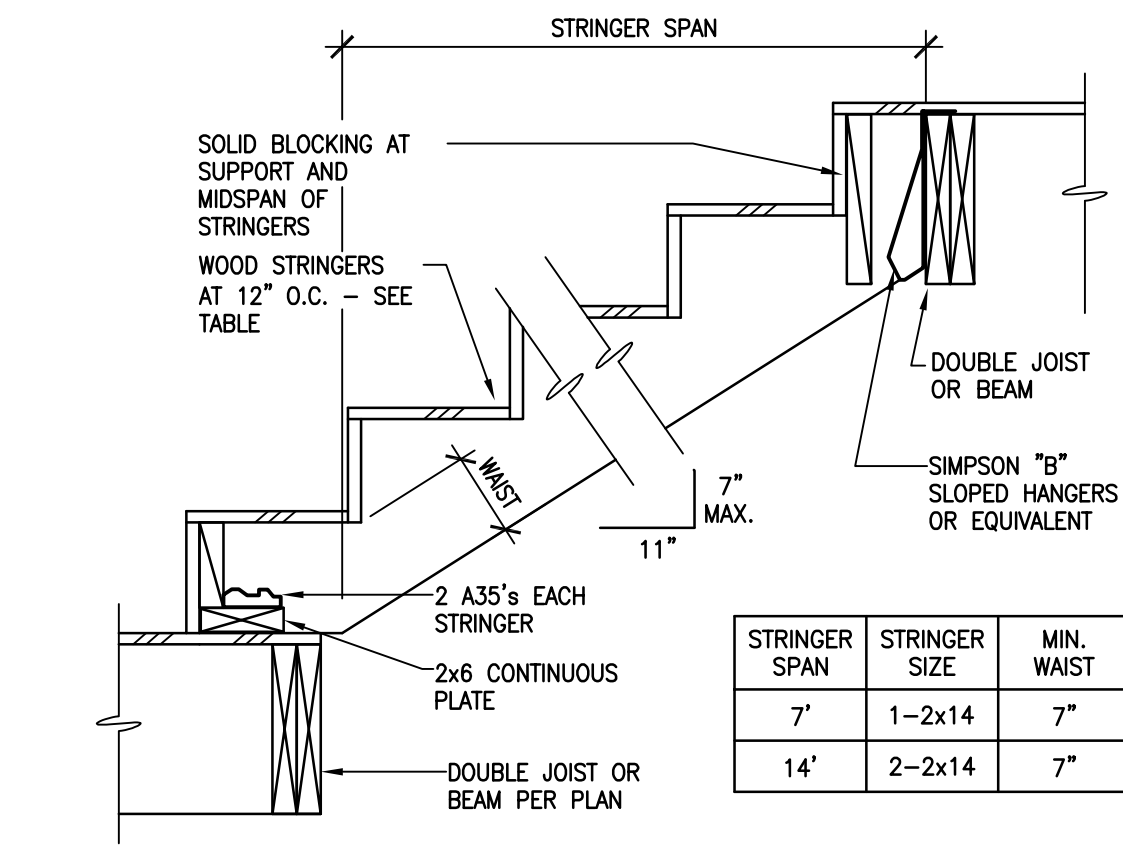
**3** SHEAR TRANSFER TO STEEL BEAM  
SCALE: 1"=1'-0"



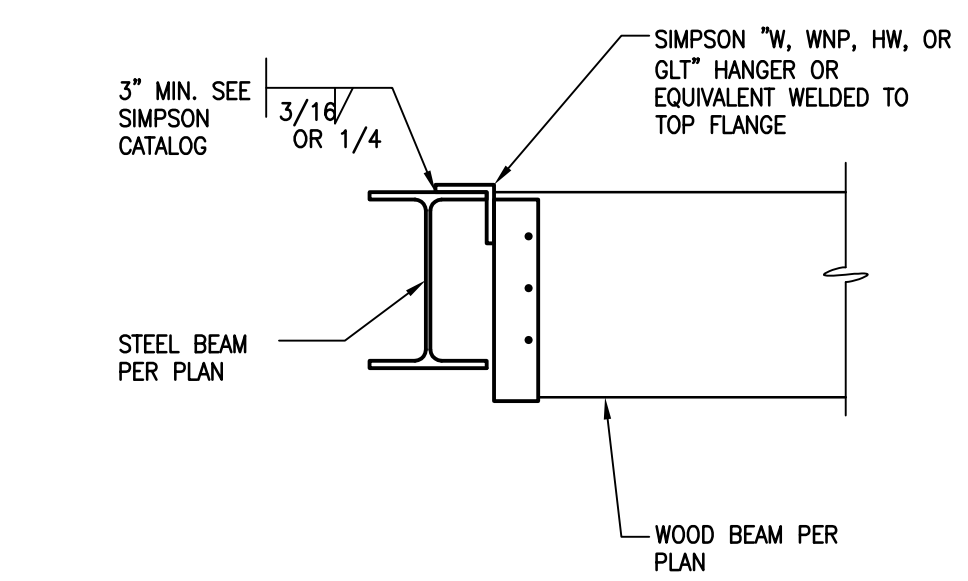
**13** SHEAR TRANSFER TO BEAM  
SCALE: 1"=1'-0"



**10** DRAG CONNECTION  
SCALE: 1"=1'-0"



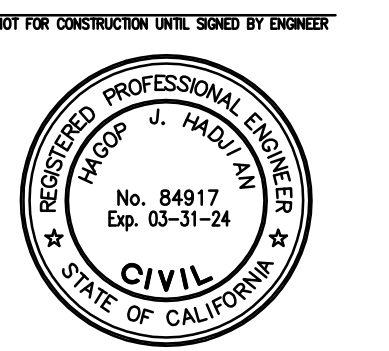
**8** TYPICAL WOOD STAIRS  
SCALE: 1"=1'-0"



**4** WOOD BEAM TO STEEL BEAM CONNECTION  
SCALE: 1"=1'-0"

REVISIONS DATE

**HJH ENGINEERING**  
Structural Engineering Consultants  
23006 Erwin St., Woodland Hills, CA 91367  
(818) 519-8572 tel  
jack@hjhengineering.com email



JAMES LE RESIDENCE  
BELLA MADERIA LANE  
SAN JOSE, CA  
APN: 654-64-012

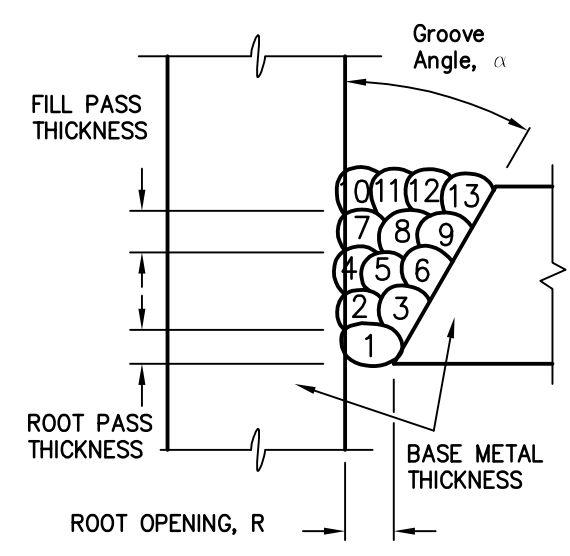
**STRUCTURAL  
DETAILS**

PROJECT NUMBER: 23B03  
PROJ. ENG. / DRAWN: JH  
DATE: DEC. 10, 2023  
SCALE: AS NOTED  
SHEET NUMBER:

**S-10**

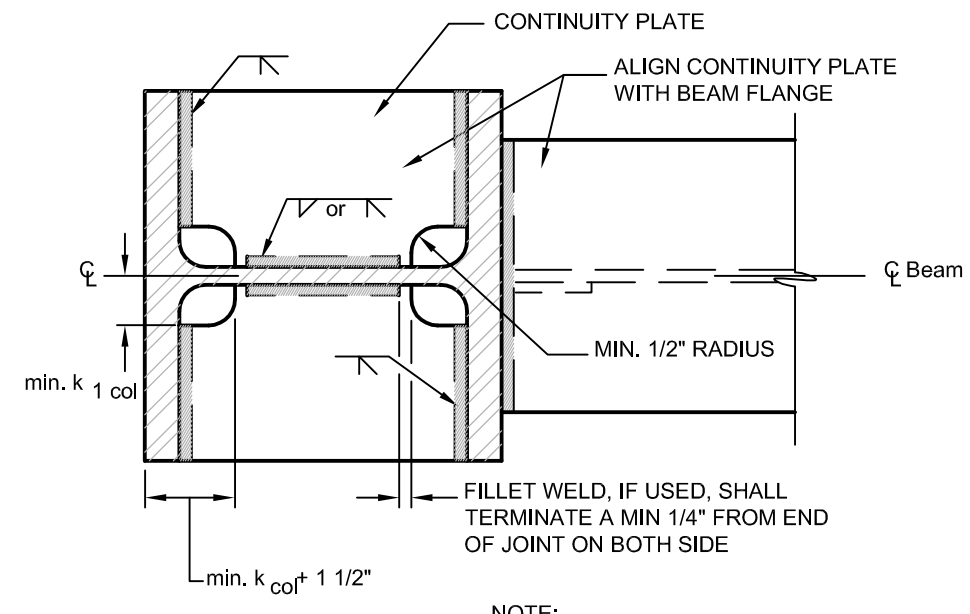
ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF HJH ENGINEERING. NO PART THEREOF SHALL BE REPRODUCED, COPIED, ADAPTED, OR DISTRIBUTED BY OTHERS, PUBLISHED, SOLD OR OTHERWISE USED WITHOUT THE PRIOR WRITTEN CONSENT OF AND APPROPRIATE COMPENSATION TO HJH ENGINEERING. COPYRIGHT ©2017

**8 WELD PASS SEQUENCE**  
SCALE: NTS



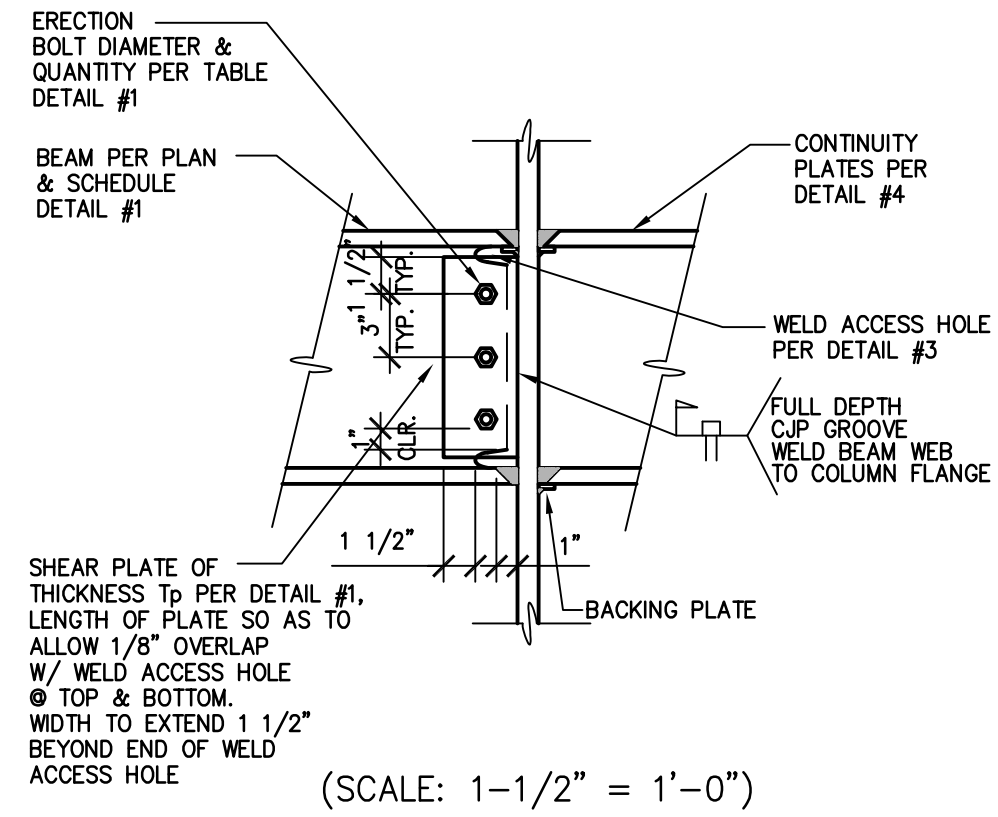
- NOTES:
- FOR MAXIMUM FILL PASS THICKNESS, SEE TABLE 5 ON SHEET 2.
  - FOR MOMENT CONNECTION AT BOTTOM BEAM FLANGE TO COLUMN FLANGE, THE MAXIMUM ROOT PASS THICKNESS SHALL NOT EXCEED 1/4" PER PART V, ITEM 1. FOR WELDED CONNECTION AT ALL OTHER LOCATIONS, SEE TABLE 5 ON SHEET 2 FOR MAXIMUM ROOT PASS THICKNESS.
  - ROOT OPENING, R, AND GROOVE ANGLE, SHALL BE PER SELECTED AWS PREQUALIFIED CJP GROOVE WELDED JOINT DETAIL.
  - WELDING PASS NUMBERS ARE SHOWN DIAGRAMMATICALLY TO INDICATE SEQUENCE. QUANTITY OF PASSES MAY VARY DUE TO DEPTH AND/OR POSITION OF WELD. THIS FIGURE IS INTENDED TO ILLUSTRATE RECOMMENDED WELDING SEQUENCE FOR FCAW AND SMAW WELDING PROCESS ONLY.

**4 CONTINUITY PLATE DETAIL**  
SCALE: NTS



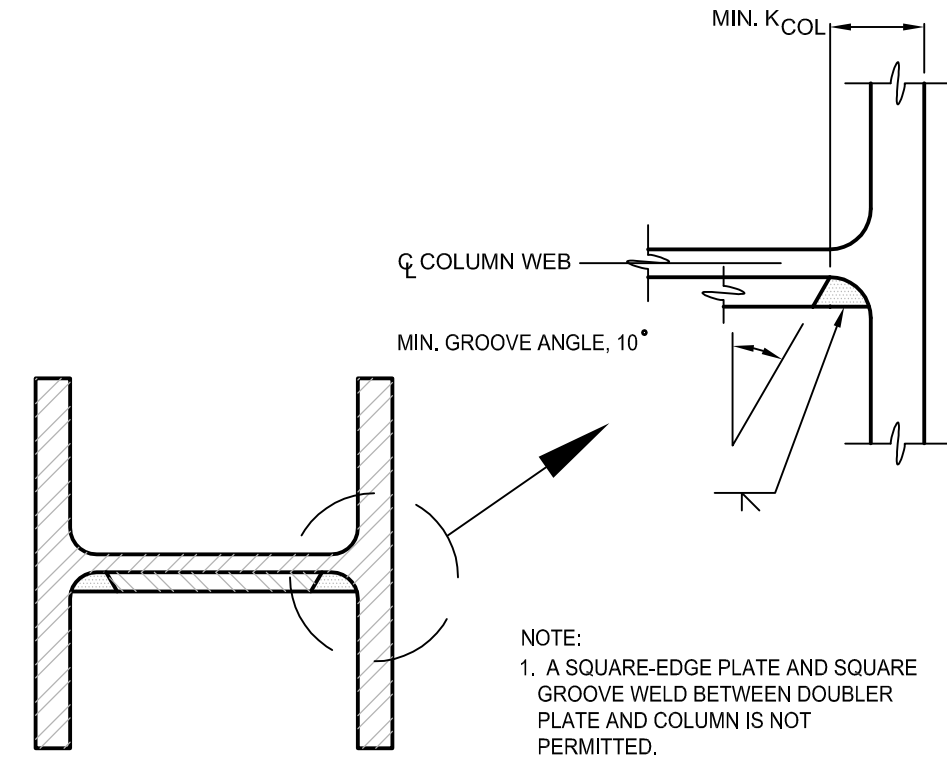
- NOTE: CONTINUITY PLATE SHALL HAVE A THICKNESS GREATER THAN OR EQUAL TO THE BEAM FLANGE OR BEAM FLANGE CONNECTION PLATE.

**9 SHEAR PLATE CONNECTION**  
SCALE: NTS



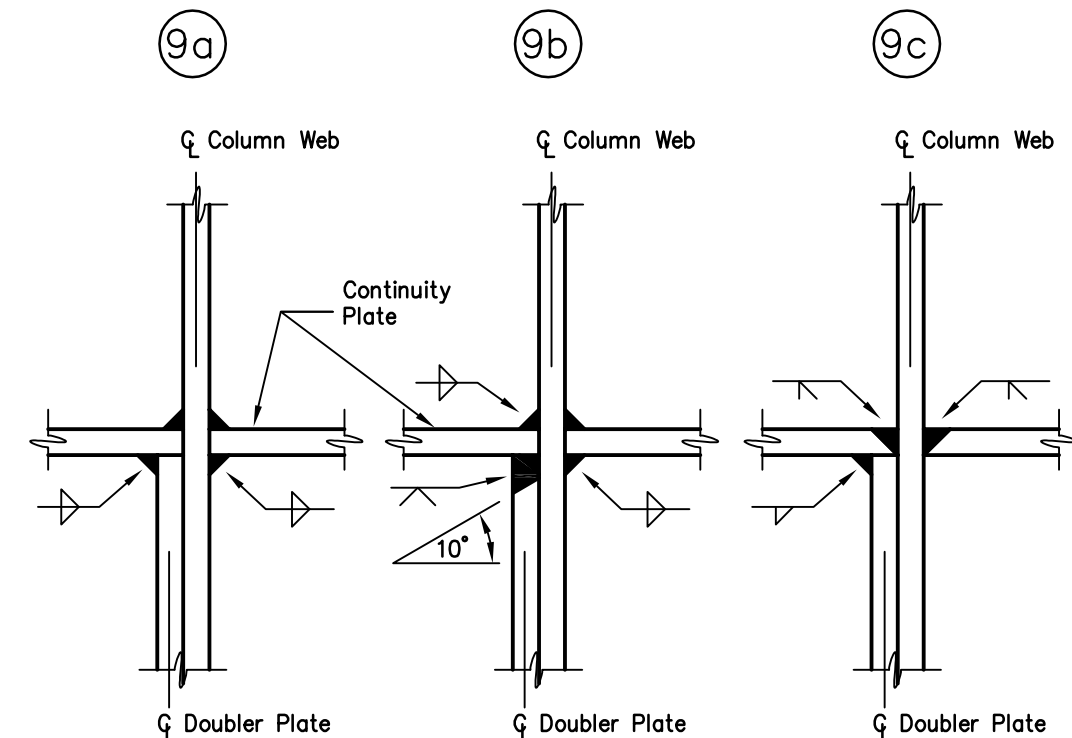
(SCALE: 1-1/2" = 1'-0")

**5 GROOVE WELDED DOUBLER PLATE**  
SCALE: NTS

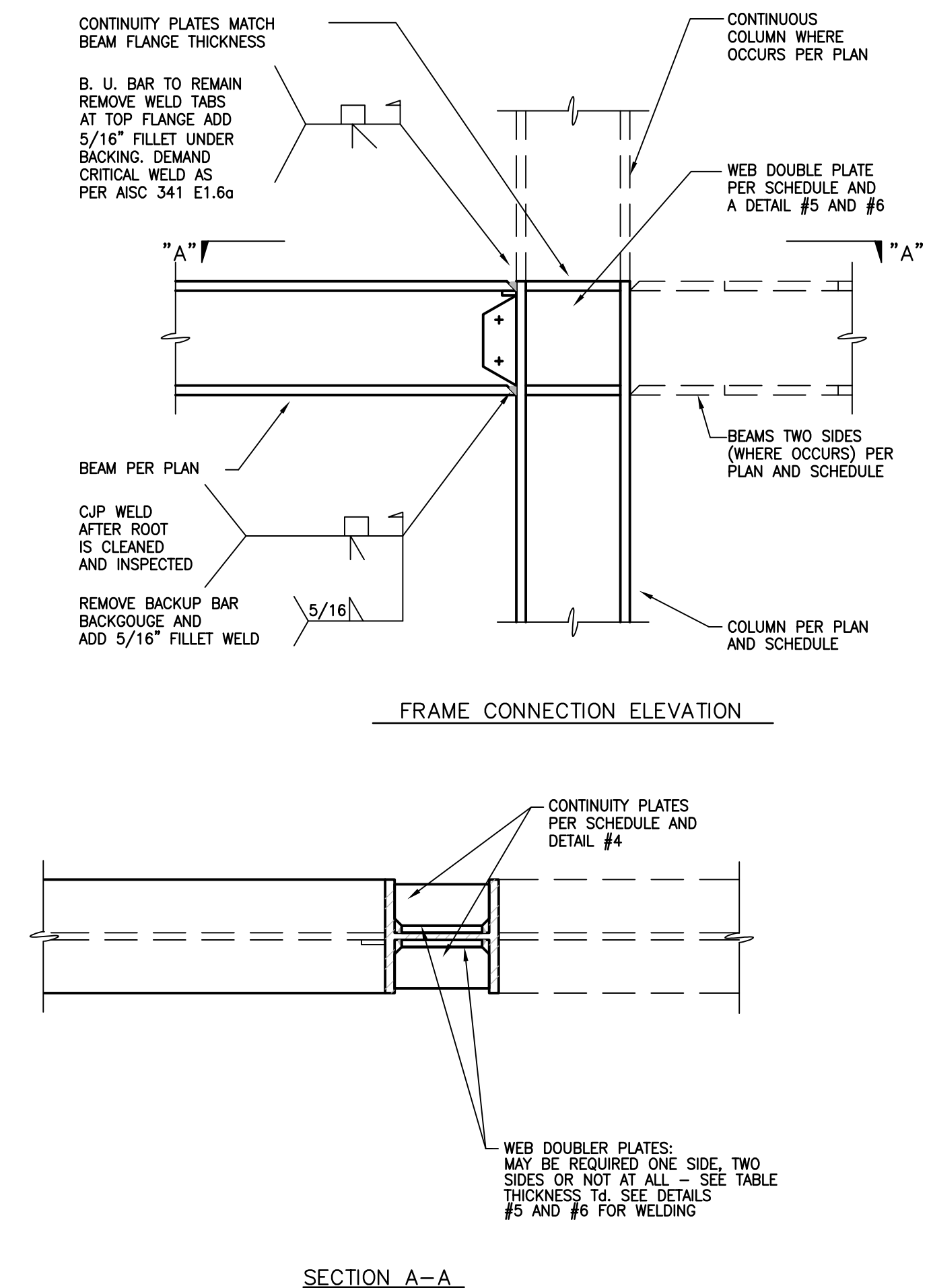


- NOTE:
- A SQUARE-EDGE PLATE AND SQUARE GROOVE WELD BETWEEN DOUBLER PLATE AND COLUMN IS NOT PERMITTED.
  - DOUBLE PLATE F<sub>y</sub> SHALL HAVE THE SAME AS THE COLUMN F<sub>y</sub>.

**6 DOUBLER PLATE WELDS TO CONTINUITY PLATE**  
SCALE: NTS



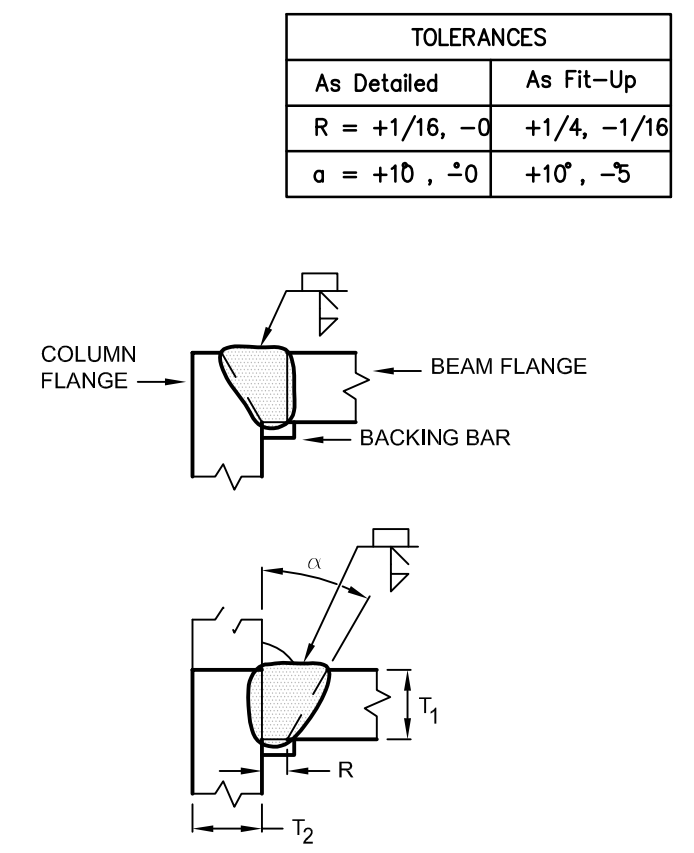
**1 ORDINARY MOMENT FRAME CONNECTION**  
SCALE: NTS



- NOTES:
- ALL WELDS: E70
  - ALL GROOVE WELDS: ELECTRODES MUST BE RATED FOR CWN OF AT LEAST 20 ft-lbs AT 0 deg. F. SEE DETAIL #7
  - ALL WELDING SHALL CONFORM TO AWS D1.1
  - SEE SPECIFICATIONS ON S-1.1 OF THESE PLANS FOR FABRICATION REQUIREMENTS.
  - WELDED SHEAR STUDS, DECKING ATTACHMENTS THAT PENETRATE THE BEAM FLANGES, WELDED, BOLTED, SCREWED, OR SHOT-IN ATTACHMENTS FOR PERIMETER EDGE ANGLES, FACADES, PARTITIONS, DUCT WORK, PIPING, OR OTHER CONSTRUCTION SHALL NOT BE PLACED WITHIN THE "PROTECTED ZONE." DECKING ARC-SPOT WELDS AS REQUIRED TO SECURE DECKING ARE PERMITTED.
  - THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS IN THE SEISMIC FORCE RESISTING SYSTEM FOR THE WORK OF OTHER TRADES WITHOUT WRITTEN PRIOR APPROVAL OF THE ENGINEER.
  - ALL WIDE FLANGE SECTIONS FOR MOMENT FRAMES SHALL BE A992 STEEL
  - TACK BACKING BARS WITHIN THE JOINT
  - THE SPECIFICATION & FABRICATION FOR STEEL FRAMES SHALL COMPLY WITH WELDING & FABRICATION PROCEDURE ON S-1.1
  - WELD ACCESS HOLE TO BE PER DETAIL #3
  - REFER TO STEEL NOTES SHEET S-1.1 AND S-1.2 FOR QC/QA SPECIFICATIONS

GRID	LEVEL	COLUMN	BEAM	SHEAR PLATE BOLTS (PER DETAIL #9)		THICKNESS T <sub>p</sub>	CONTINUITY PLATES TO COLUMN WELDS		WEB DOUBLER PLATE (S) (PER DETAIL #5 AND #6)	
				ERECTOR BOLT DIAMETER (A325)	QUANTITY OF BOLTS		CONTINUITY PLATE TO COLUMN FLANGE WELD	CONTINUITY PLATE TO COLUMN WEB WELD	THICKNESS T <sub>d</sub>	1 OR 2 SIDES
1.2	1ST	W12x120	W12x120	7/8"	3	3/4"	CJP GROOVE WELD	CJP GROOVE WELD	7/8"	2
2	2ND	W12x120	W12x50	7/8"	3	3/8"	CJP GROOVE WELD	CJP GROOVE WELD	3/16"	2
2	1ST	W12x120	W12x120	7/8"	3	3/4"	CJP GROOVE WELD	CJP GROOVE WELD	7/8"	2
D	ROOF	W12x96	W12x45	7/8"	3	3/8"	CJP GROOVE WELD	CJP GROOVE WELD	3/16"	2
D	2ND	W12x96	W12x50	7/8"	3	3/8"	CJP GROOVE WELD	CJP GROOVE WELD	1/4"	2
D	1ST	W12x96	W12x96	7/8"	3	5/8"	CJP GROOVE WELD	CJP GROOVE WELD	3/4"	2

**7 AWS PREQUALIFIED CJP GROOVE WELDED JOINT DETAIL**  
SCALE: NTS

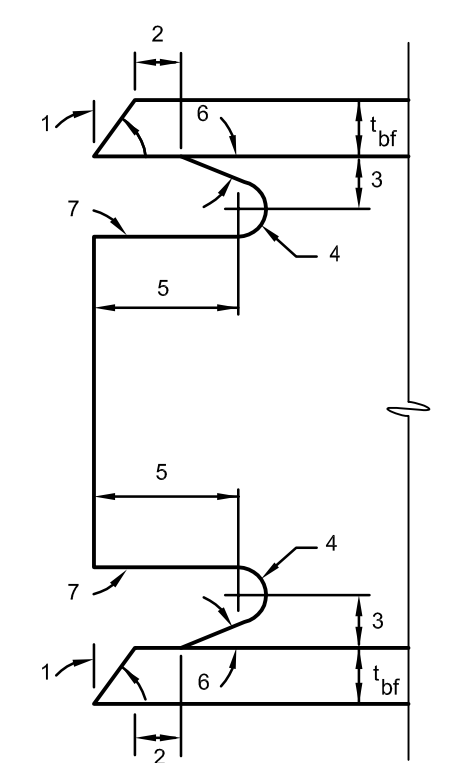


TOLERANCES	
As Detailed	As Fit-Up
R = +1/16, -0	+1/4, -1/16
a = +10, -0	+10', -5'

Welding Process	Joint Designation	Base Metal Thickness (U = unlimited)		Groove Preparation		Allowed Welding Positions	Gas Shielding for FCAW
		T <sub>1</sub>	T <sub>2</sub>	Root Opening	Groove Angle		
SMAW	TC-U4a	U	U	R = 1/4	α = 45°	All	-
				R = 3/8	α = 30°	F, V, OH	-
				R = 3/16	α = 30°	All	Required
FCAW	TC-U4a-GF	U	U	R = 3/8	α = 30°	F	Not required
				R = 1/4	α = 45°	All	Not required

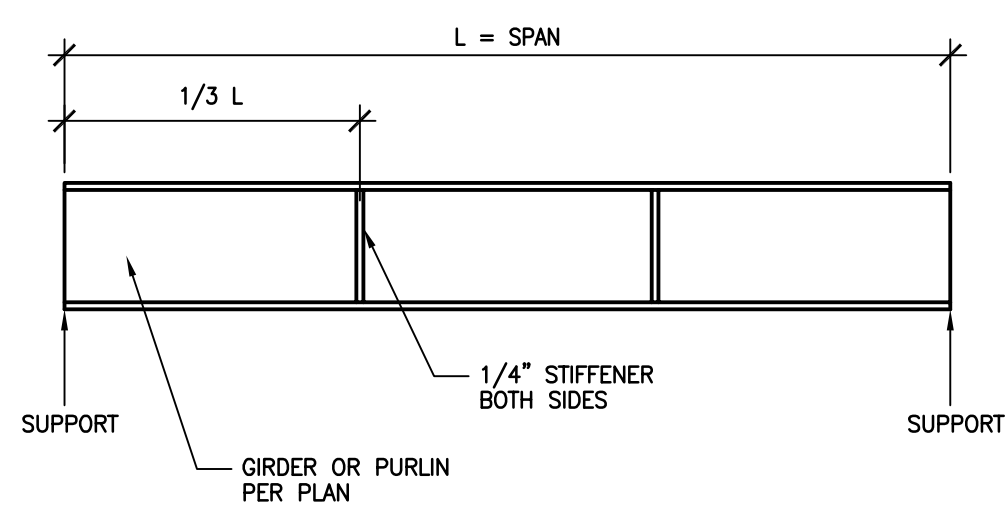
- NOTES:
- GROOVE WELDS IN CORNER AND T-JOINTS OF CYCLICALLY LOADED STRUCTURES SHALL BE REINFORCED WITH FILLET WELDS EQUAL TO T<sub>1</sub>/4, BUT NEED NOT EXCEED 3/8 INCH.
  - FOR CORNER JOINTS, THE OUTSIDE GROOVE PREPARATION MAY BE IN EITHER OR BOTH MEMBERS, PROVIDED THE BASIC GROOVE CONFIGURATION IS NOT CHANGED AND ADEQUATE EDGE DISTANCE IS MAINTAINED TO SUPPORT THE WELDING OPERATIONS WITHOUT EXCESSIVE EDGE MELTING.
  - ADAPTED WITH PERMISSION FROM THE AWS D1.1 COMMITTEE ON STRUCTURAL WELDING, STRUCTURAL WELDING CODE - STEEL, AWS D1.1/D1.1M: 2002, MIAMI: AMERICAN WELDING SOCIETY, FIGURE 3.4 PG. 92 (TOP LEFT).

**3 WELD ACCESS HOLE DETAIL**  
SCALE: NTS



- NOTES:
- Bevel as required by a selected AWS prequalified CJP groove welded joint detail.
  - Larger of t<sub>bf</sub> or 1/2" (plus 1/2 t<sub>bf</sub>, or minus 1/4 t<sub>bf</sub>).
  - 3/4 t<sub>bf</sub> to t<sub>bf</sub>, 3/4" minimum (± 1/4").
  - 3/8" minimum radius (plus not limited, or minus 0).
  - 3 t<sub>bf</sub> (± 1/2").
  - Tolerances shall not accumulate to the extent that the angle of the access hole cut to the flange surface exceed 25°.
  - Weld access hole shall be ground smooth to a surface roughness value not to exceed 500 micro inch; and shall be free of notches and gouges.

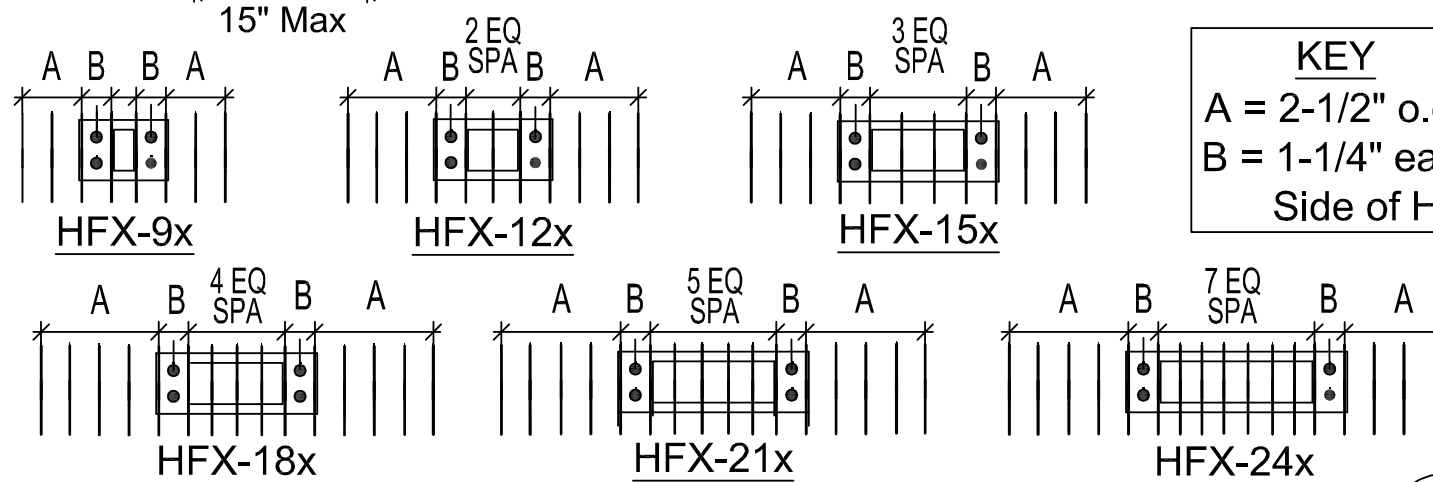
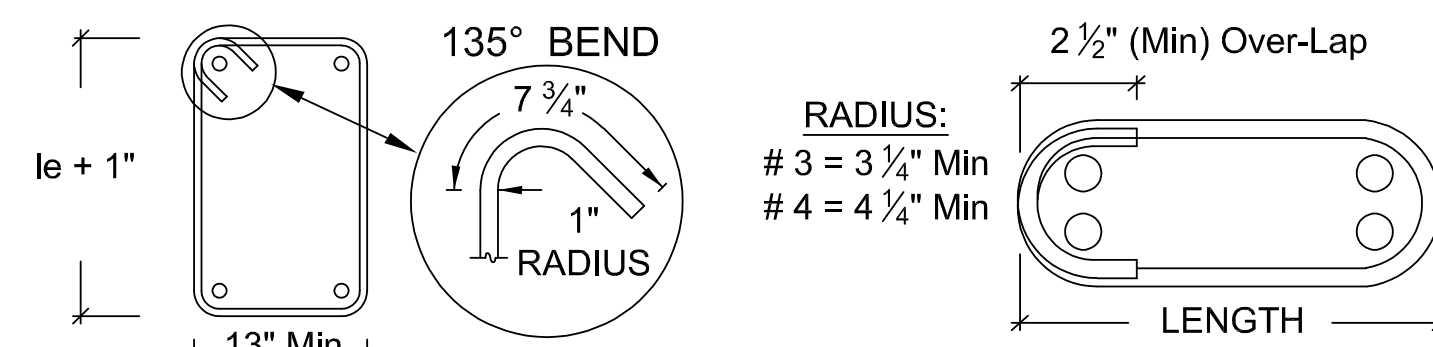
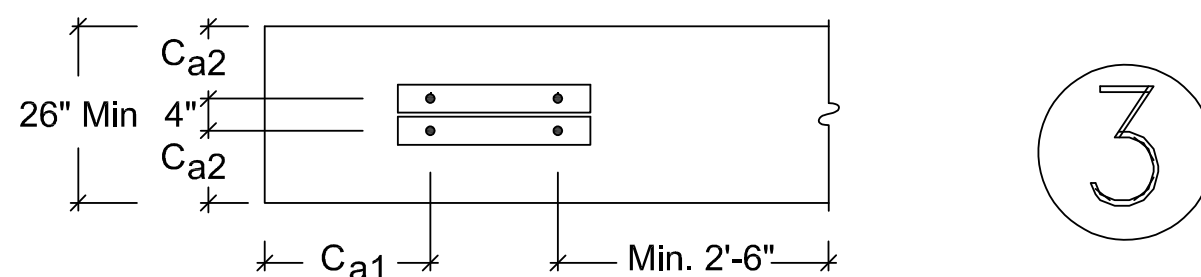
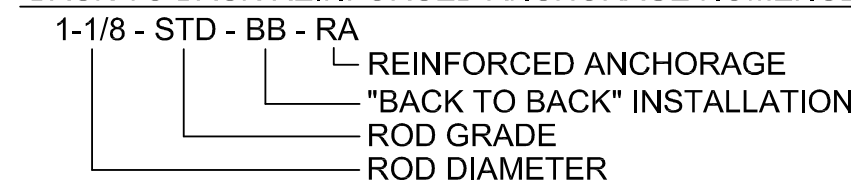
**2 TYPICAL WEB STIFFENER-ALL BEAMS**  
SCALE: NTS



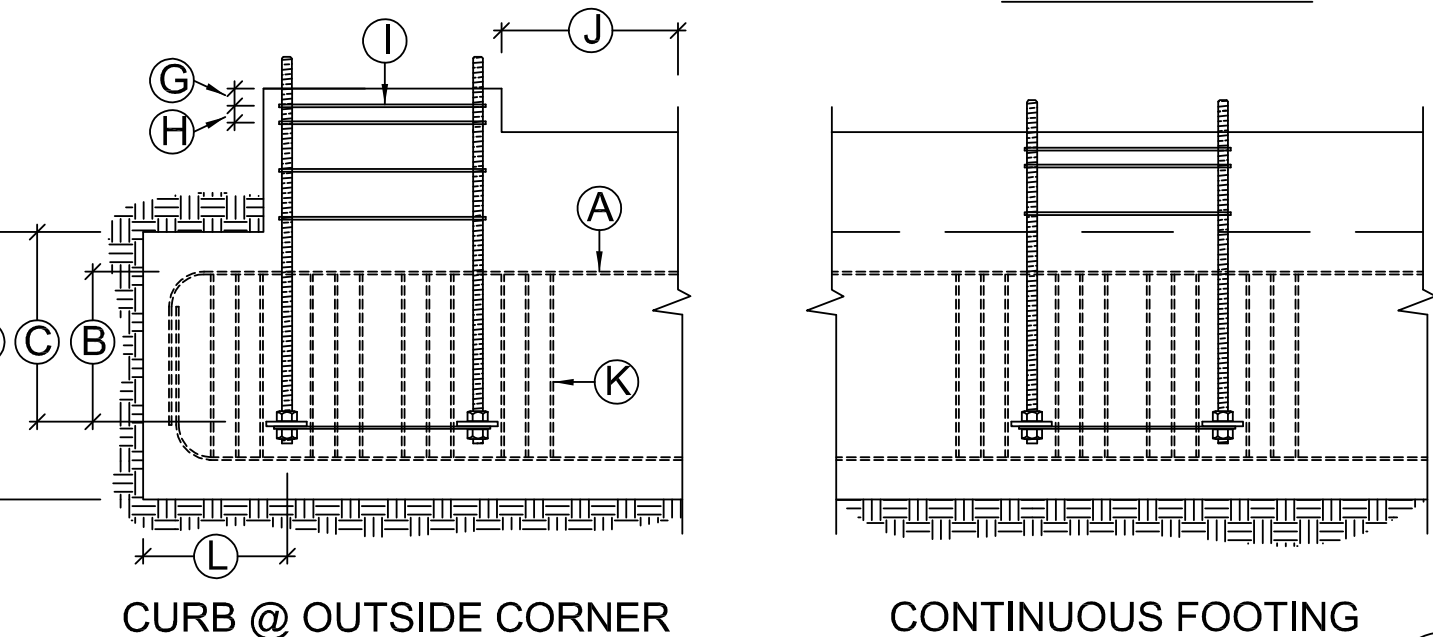
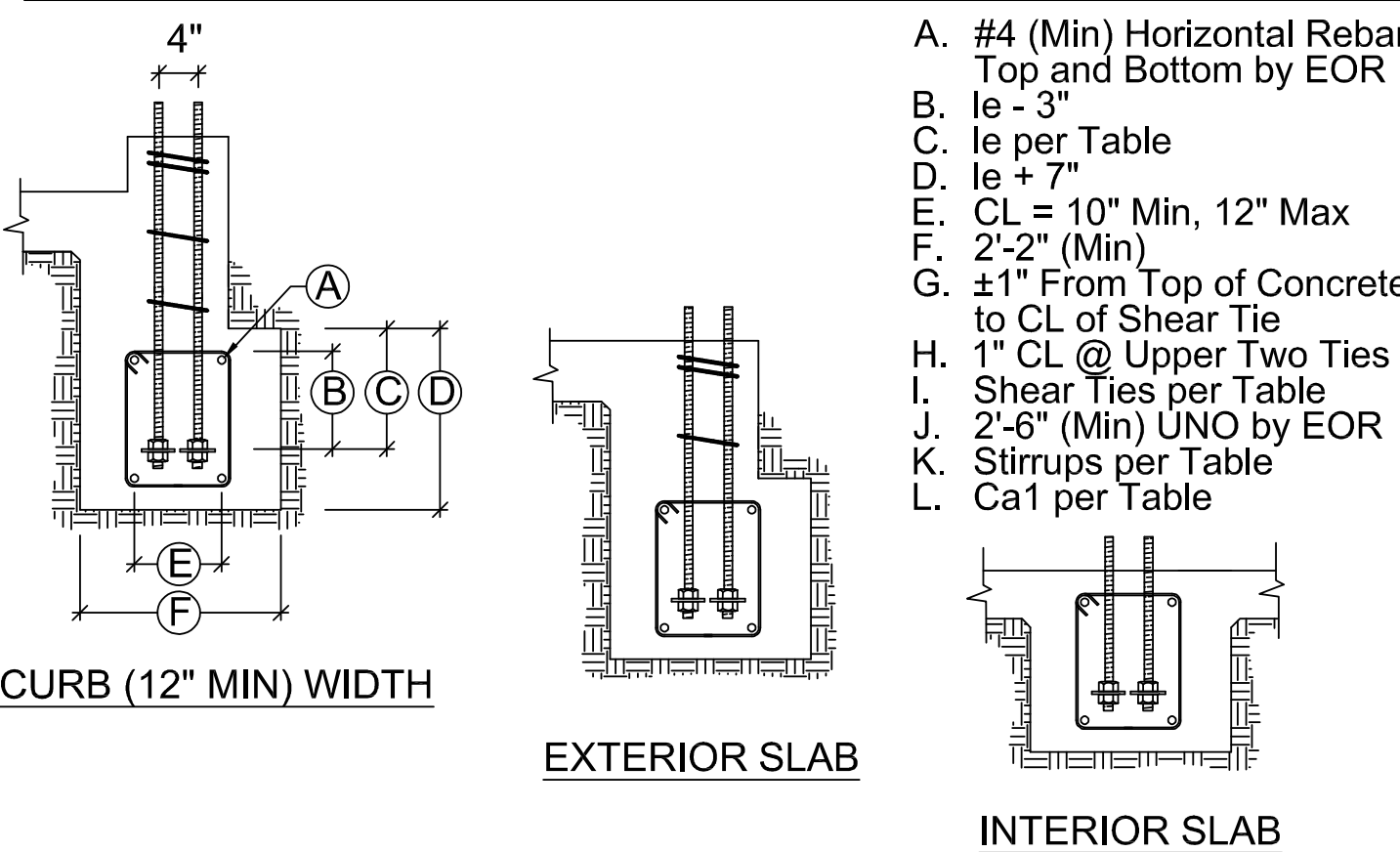
## BACK TO BACK REINFORCED ANCHORAGE (BB-RA)

Model	Panel Width (in)	Anchorage <sup>1</sup>	Rod Dia (in)	Rod Grade	BB-RA			Stirrups <sup>9</sup> (in)	Shear <sup>7</sup> Ties
					le <sup>4</sup> (in)	Ca <sup>5</sup> (in)	Ca <sup>6</sup> (in)		
HFX-9x	9	1-1/8-STD-BB-RA	1-1/8	STD	13	19-3/4	8 - # 4	# 3 (min) @ 3-3/4" OC	
HFX-12x	12	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA		STD HS	18		11 - # 4	# 3 (min) @ 4" OC	
HFX-15x	15	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA		STD HS	20	11	12 - # 4	# 4 (min) @ 4" OC	
HFX-18x	18	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA		STD HS	23		15 - # 4		
HFX-21x	21	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA		STD HS	26	20-5/8	16 - # 4		
HFX-24x	24	1-1/8-STD-BB-RA 1-1/8-HS-BB-RA		STD HS		26	18 - # 4		

### BACK TO BACK REINFORCED ANCHORAGE NOMENCLATURE



### BB-RA SHEAR TIES & STIRRUPS

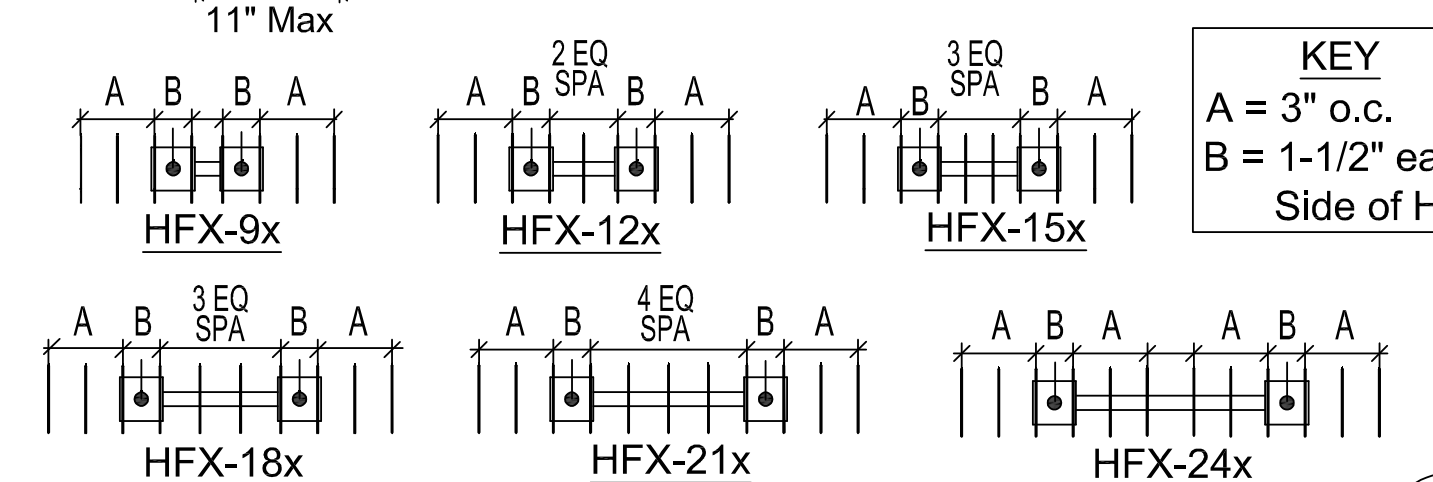
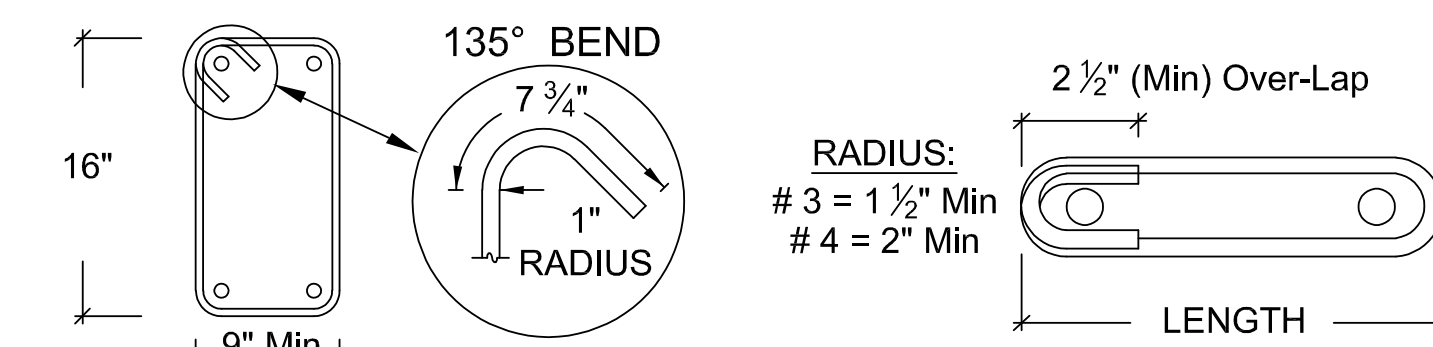
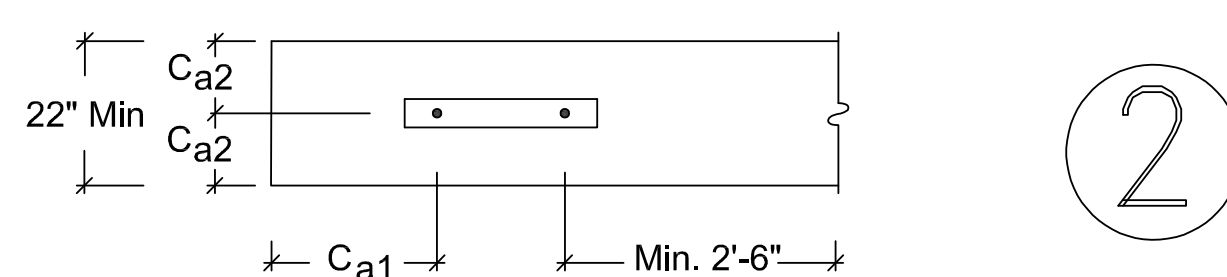
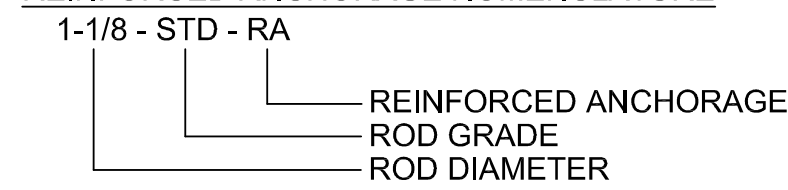


### BB-RA SECTIONS & ELEVATIONS

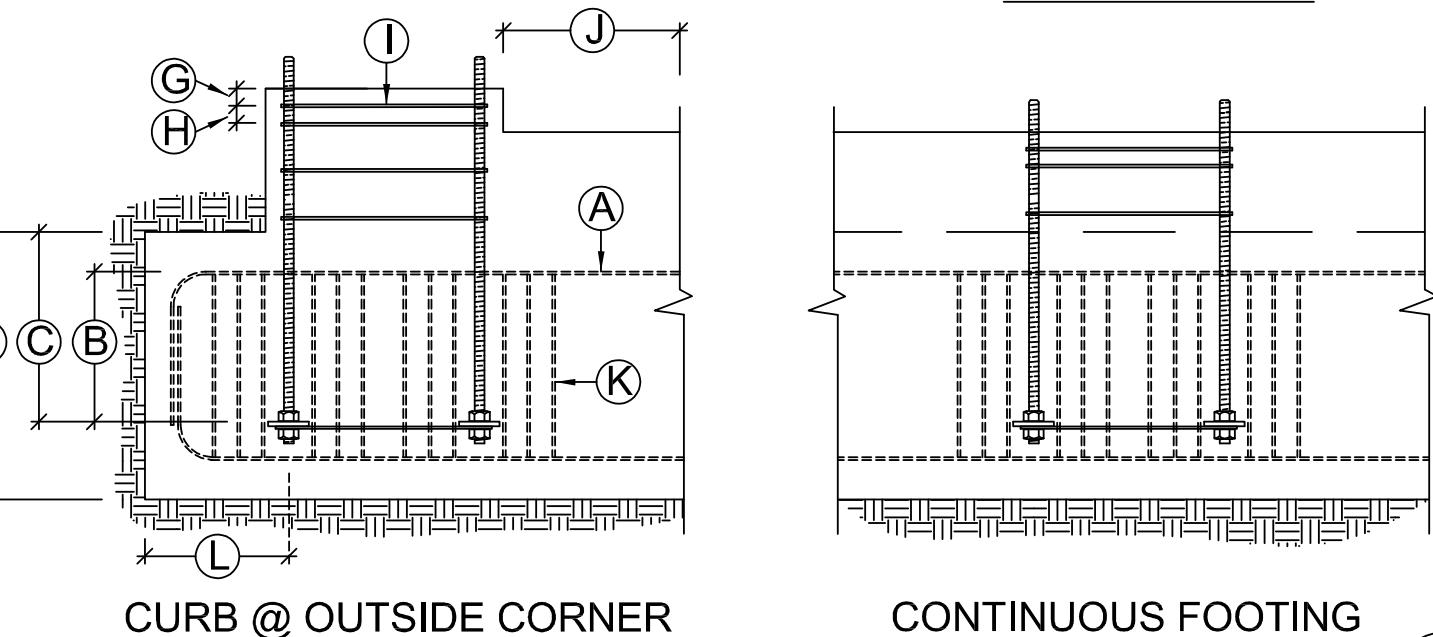
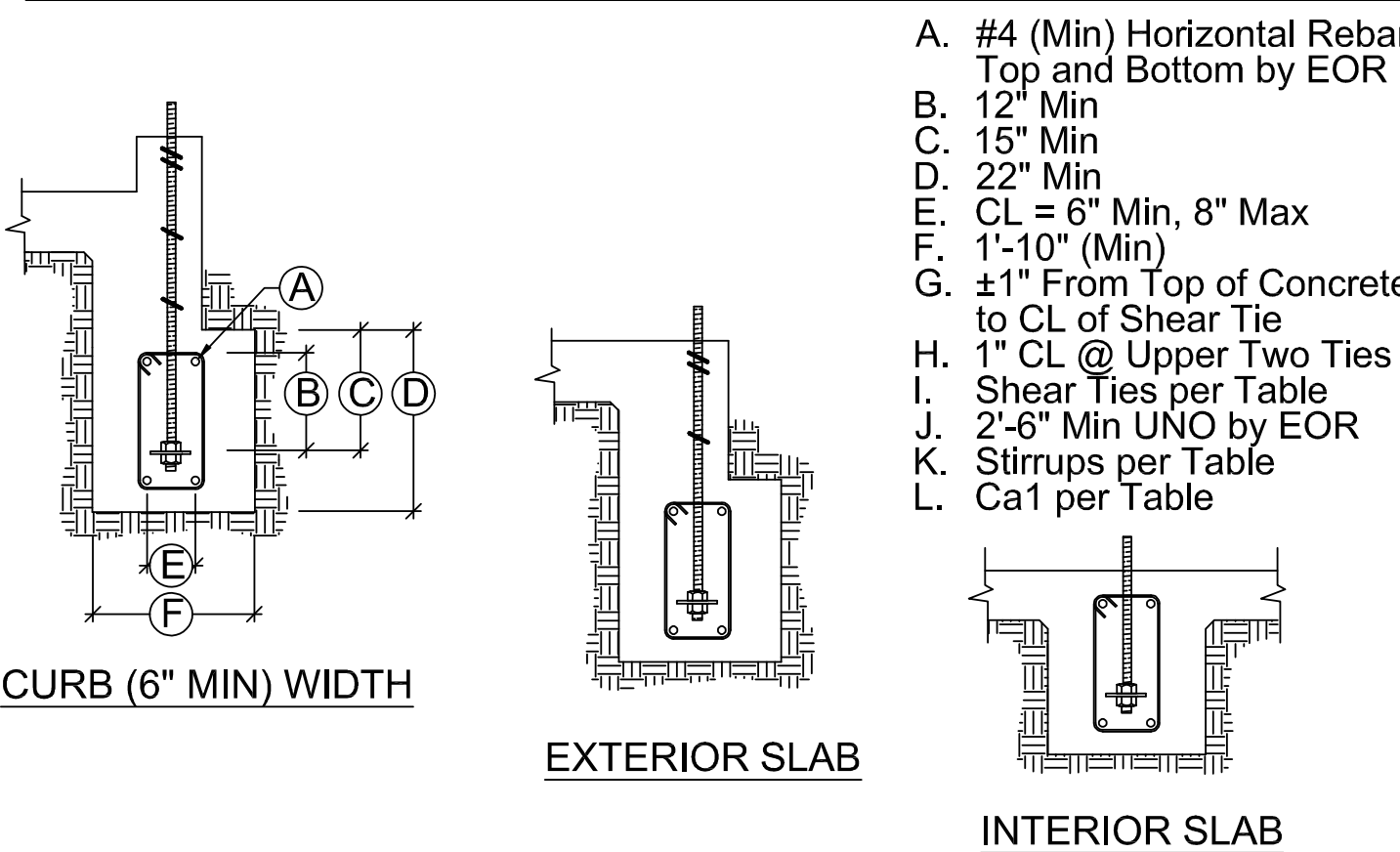
## REINFORCED ANCHORAGE (RA)

Model	Panel Width (in)	Anchorage <sup>1</sup>	Rod Dia (in)	Rod Grade	RA			Stirrups <sup>9</sup> (in)	Shear <sup>7</sup> Ties
					le <sup>4</sup> (in)	Ca <sup>5</sup> (in)	Ca <sup>6</sup> (in)		
HFX-9x	9	1-1/8-STD-RA	1-1/8	STD	19-3/4	11	8 - # 4	# 3 (min) @ 3-3/4" OC	
HFX-12x	12	1-1/8-STD-RA 1-1/8-HS-RA		STD HS			18	9 - # 4	# 3 (min) @ 4" OC
HFX-15x	15	1-1/8-STD-RA 1-1/8-HS-RA		STD HS	20	11	10 - # 4	# 3 (min) @ 4" OC	
HFX-18x	18	1-1/8-STD-RA 1-1/8-HS-RA		STD HS	23		11 - # 4		
HFX-21x	21	1-1/8-STD-RA 1-1/8-HS-RA		STD HS	26	20-5/8	12 - # 4		
HFX-24x	24	1-1/8-STD-RA 1-1/8-HS-RA		STD HS		26	12 - # 4		

### REINFORCED ANCHORAGE NOMENCLATURE



### RA SHEAR TIES & STIRRUPS

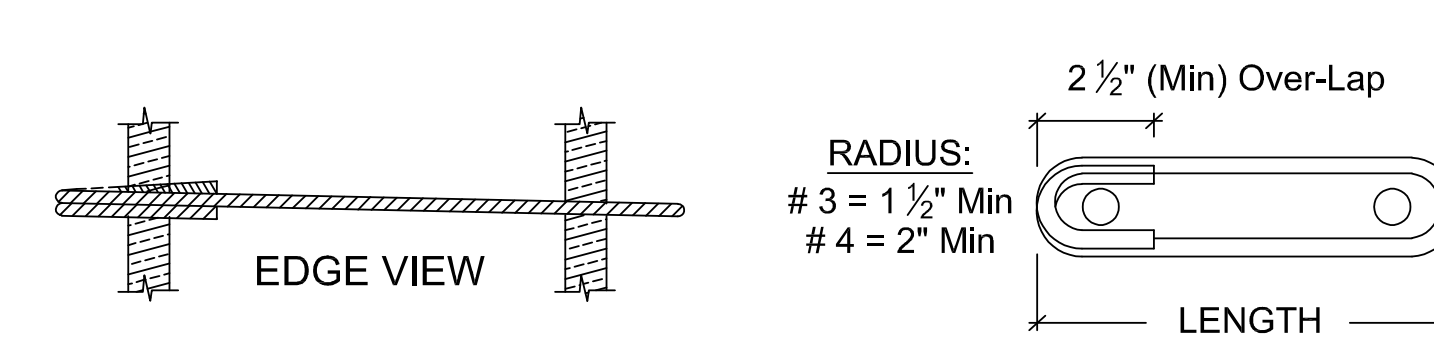
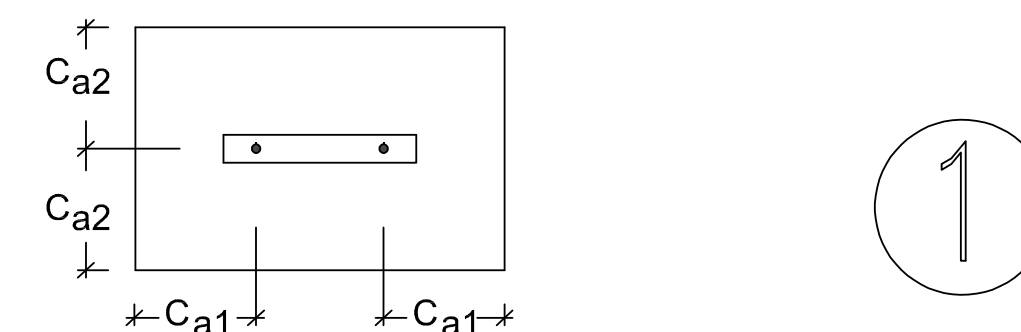
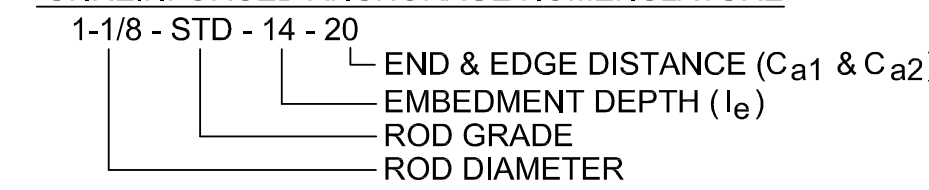


### RA SECTIONS & ELEVATIONS

## UNREINFORCED ANCHORAGE (UA)

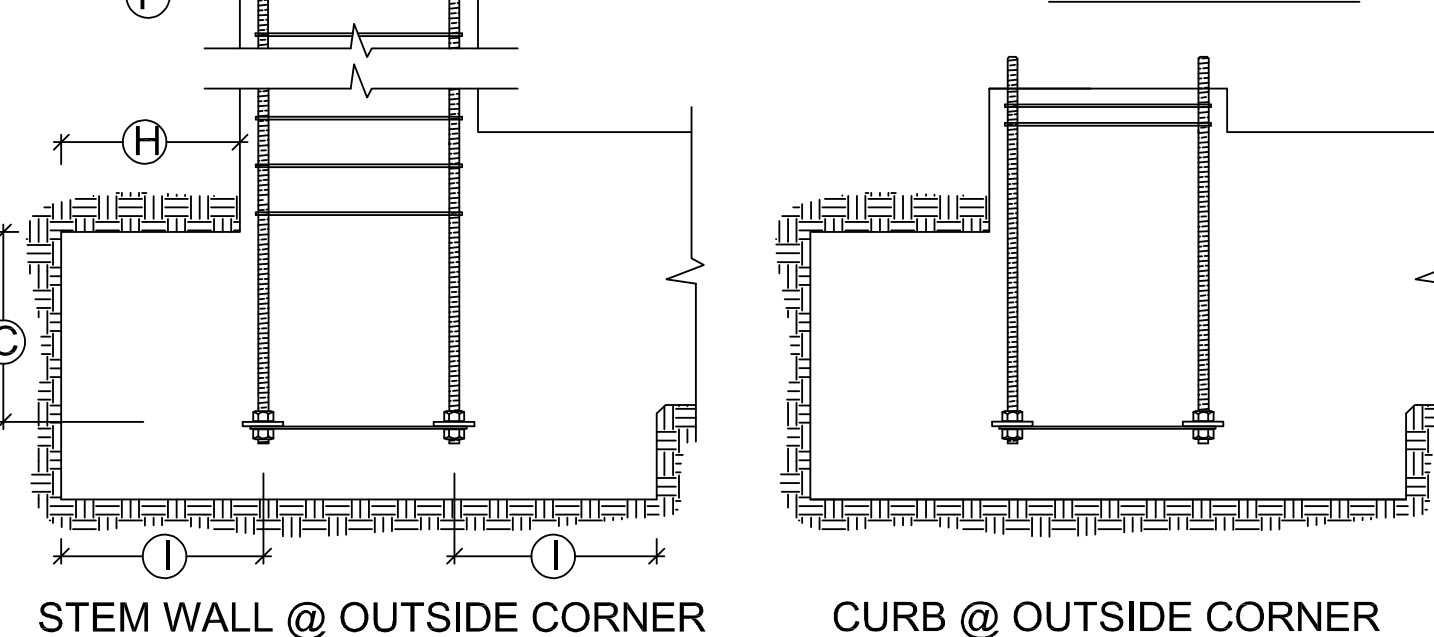
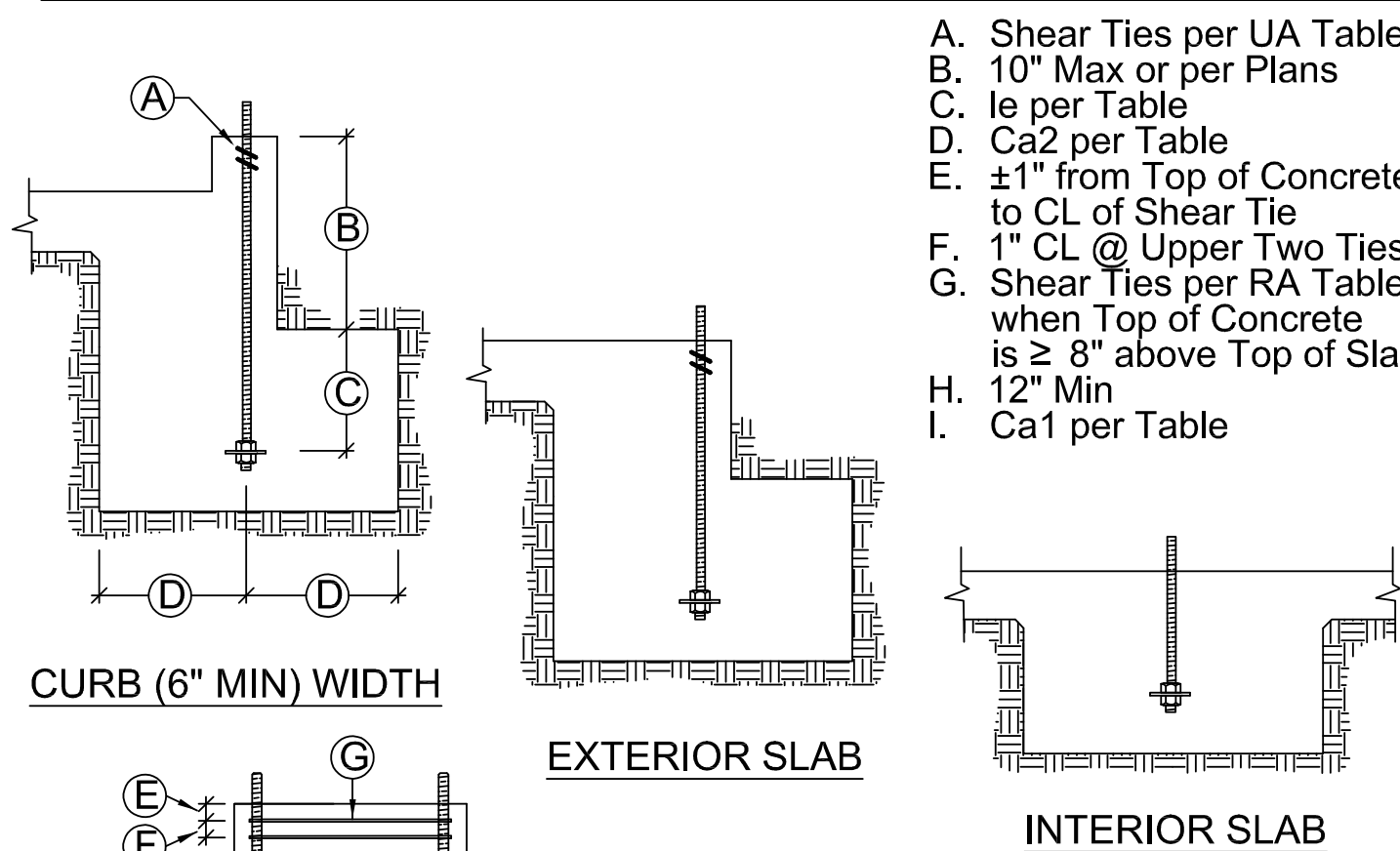
Model	Panel Height	Anchorage <sup>1</sup>	Rod Dia (in)	Rod Grade	UA			Shear <sup>7,8</sup> Ties
					le <sup>4</sup> (in)	Ca <sup>5</sup> (in)	Ca <sup>6</sup> (in)	
HFX-9x	79.5" - 8'	1-1/8-STD-13-19	1-1/8	STD	13	19	1 - # 3	
HFX-12x	78" - 10'	1-1/8-HS-20-30		HS	20	30		
HFX-15x, 18x	78" - 13'	1-1/8-STD-14-20		STD	14	20		
HFX-15x, 18x Balloon	14' - 20'	1-1/8-HS-20-30		HS	20	30	2 - # 3	
HFX-21x, 24x	78" - 13'	1-1/8-STD-14-20 1-1/8-HS-23-34		STD	14	20 23		34
HFX-21x, 24x Balloon	14' - 20'	1-1/8-HS-20-30		HS	20	30		

### UNREINFORCED ANCHORAGE NOMENCLATURE



Model	Length	SHEAR TIES NOT REQUIRED WHEN	
		End Distance ≥	Edge Distance ≥
HFX-9x	7-1/2"	2-3/8"	2-3/8"
HFX-12x	10-1/2"	6-1/4"	3-1/2"
HFX-15x	12"	7-3/8"	4-1/4"
HFX-18x	15"	8-3/8"	5"
HFX-21x	18"	9-3/8"	5-1/2"
HFX-24x	21"	10-3/8"	6"

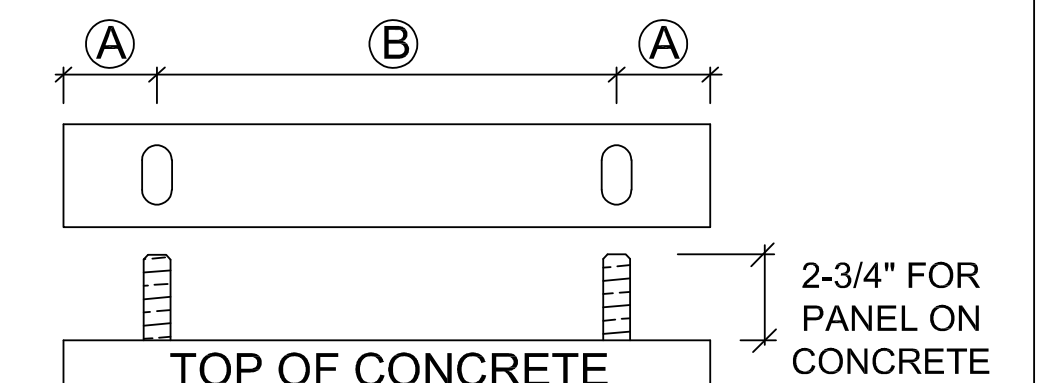
### UA SHEAR TIES



### UA SECTIONS & ELEVATIONS

## TABLE NOTES

- Designs are to resist loading per ACI 318-14, Section 17.2.3.4.3.
- STD indicates Anchors complying with ASTM F1554 Grade 36 with a Hardy Frame Bolt Brace (HFXBB) installed with double nuts on the embed end.
- HS indicates Anchors complying with ASTM A193 Grade B7 with a 1/2"x3"x3"(Min) Plate Washer installed with double nuts on the embed end (HFXBB not required).
- le = length of embedment from the top of footing or grade beam to the top of the HFXBB Bolt Brace (top of the embedded Plate Washer @ HS anchors)
- Ca1 = distance from HD Centerline to the end of the footing or grade beam.
- Ca2 = distance from HD Centerline to both the front and the back face of the footing or grade beam.
- Shear Ties are Grade 60 (Min) rebar and required for near edge distance conditions per ACI-318-14, f<sub>c</sub> = 2,500 psi. Curbs and stem walls must be 6 inch (min) width for UA and RA, 12 inch (min) width for BB-RA.
- For UA applications, additional ties may be required at stem walls. Shear Ties are not required for installation away from edge (see detail 1A), installation on wood framing, or for IRC Braced Wall Panel applications.
- Stirrups are Grade 60 (Min) rebar. See table for size and spacing. See "Stirrup Layout" diagrams and "Key" for layout patterns.
- Concrete Edge Distances must comply with ACI 318-14, Section 17.7.1



Model	Width	TOP OF CONCRETE	
		(A)	(B)
HFX-9x	9"	1-3/4"	5-1/2"
HFX-12x	12"		8-1/2"
HFX-15x	15"	2-5/8"	9-3/4"
HFX-18x	18"		12-3/4"
HFX-21x	21"		15-3/4"
HFX-24x	24"		18-3/4"

### HFX ANCHOR CENTERLINES

### IMPORTANT!

- ANCHORAGE IS DESIGNED FOR TENSION AND SHEAR TRANSFER ONLY, FOUNDATION DESIGN PER EOR.
- REINFORCEMENT SHOWN IS THE MINIMUM REQUIREMENT AND IS NOT INTENDED TO REPLACE REINFORCEMENT DESIGNED BY THE EOR.
- FOR RA AND BB-RA INSTALLATIONS, THE HFXBB BOLT BRACE MAY BE PLACED ON TOP OF THE STIRRUPS WITH DOUBLE-NUTS INSTALLED AT EMBED END OF STANDARD GRADE ANCHOR RODS. (NOTE: 1/2" x 3" x 3" PLATE WASHERS ARE REQUIRED TO BE DOUBLE-NUTTED AT EMBED END OF HIGH STRENGTH ANCHOR RODS.)
- HIGH STRENGTH ALL-THREAD RODS PROVIDED BY HARDY FRAMES ARE STAMPED ON BOTH ENDS.



### IMPORTANT NOTES

REVISIONS DATE

ANCHORAGE DETAILS - HFX PANELS

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH HARDY FRAME PRODUCTS

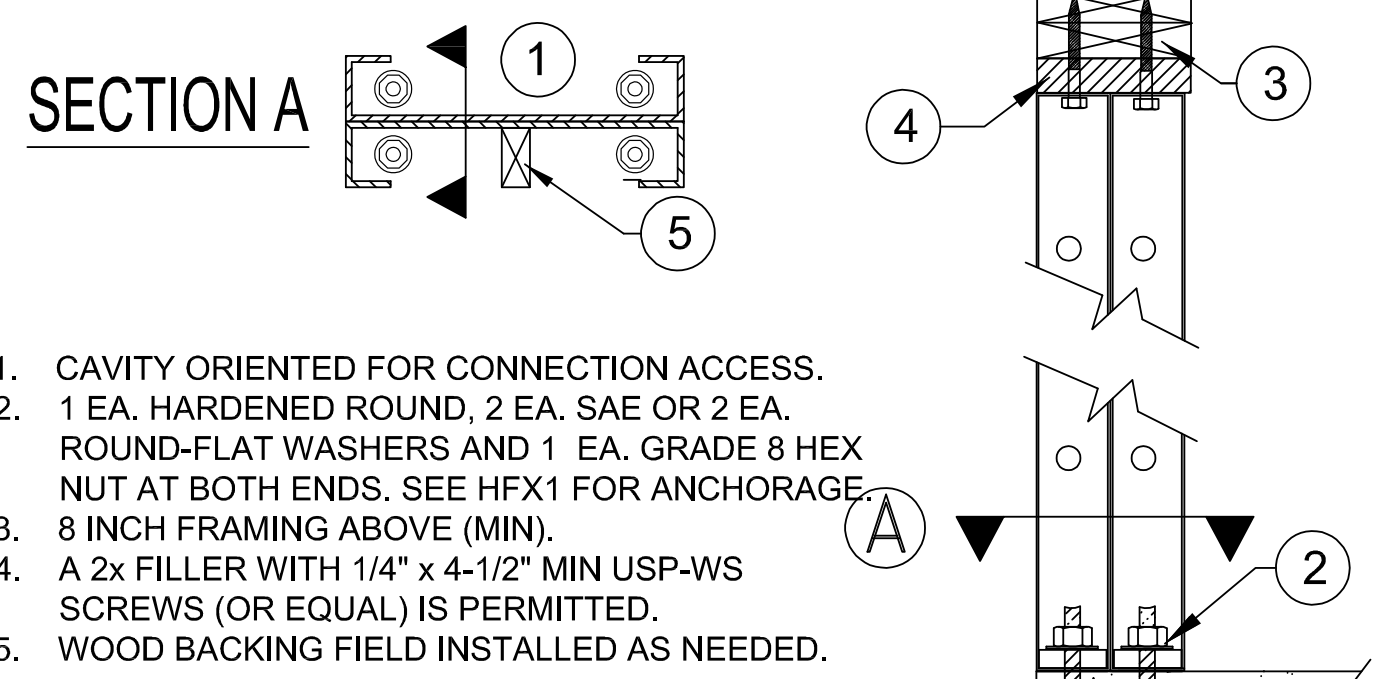
HARDY FRAME<sup>®</sup> SHEAR WALL SYSTEM

1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003  
TELEPHONE: 800 754-3030 / www.hardyframe.com

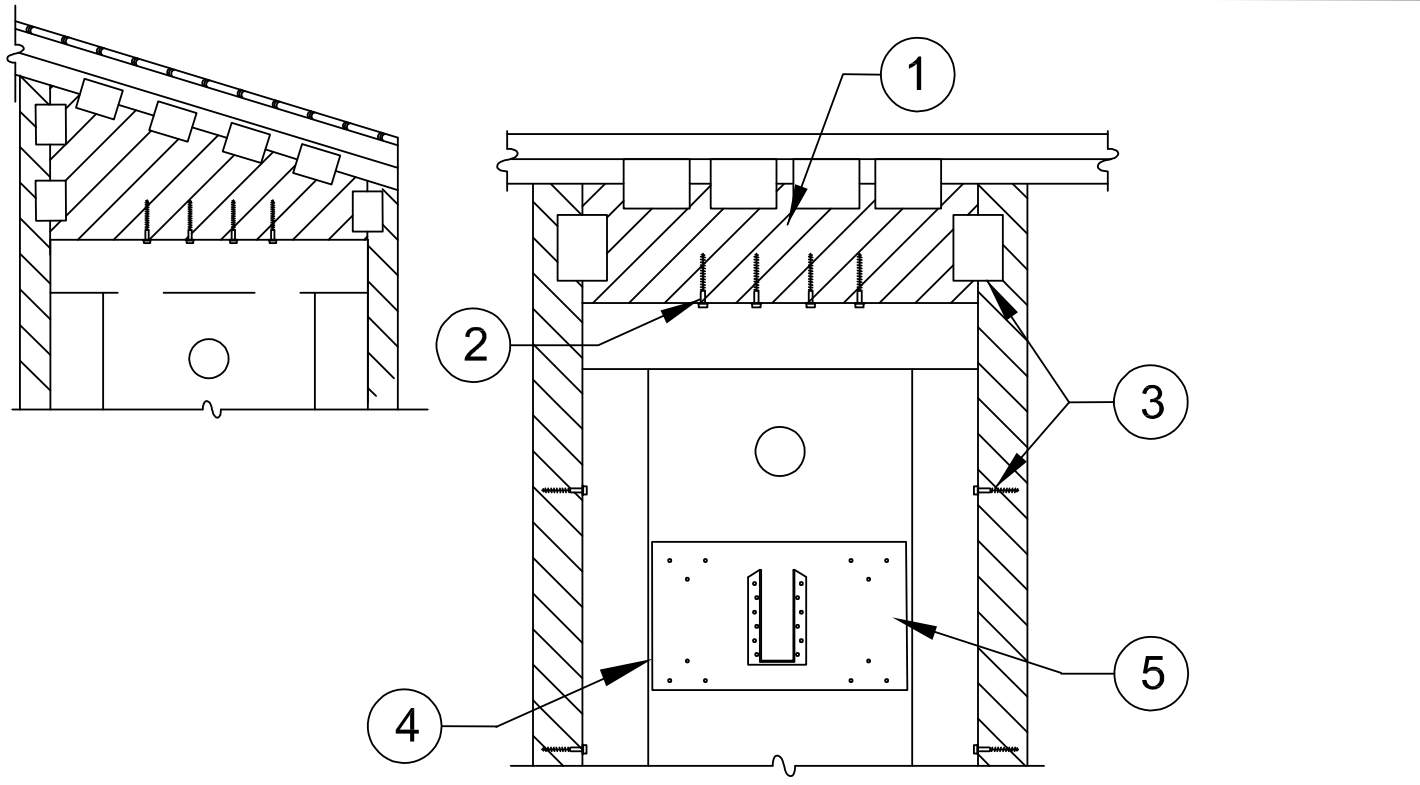


DATE: 1-1-2017

HFX1

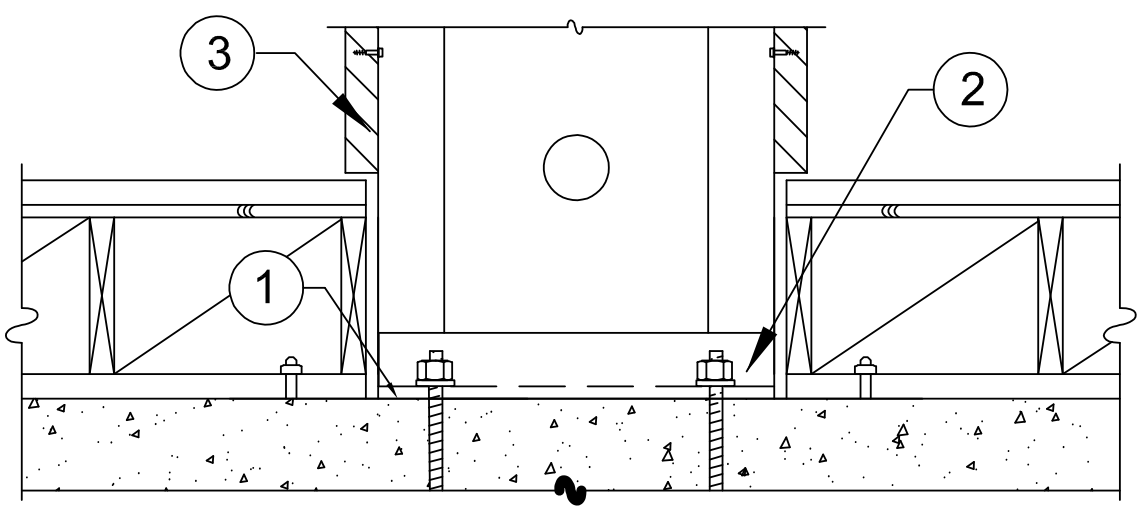


BACK TO BACK INSTALLATION (11)



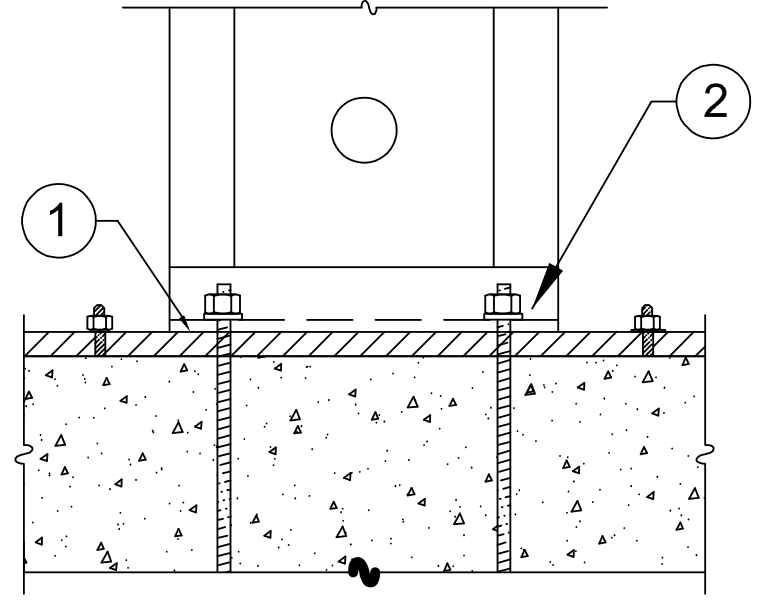
1. 4x WOOD FILLER WITH USP MP4-F CONNECTORS (OR EQUAL) BY BUILDING DESIGN PROFESSIONAL.
2. 1/4" x 3" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS INSTALLED AT THE EDGES WHEN INSTALLING A 4x FILLER ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.
4. OPTIONAL LEDGER PRE-DRILL 3/16" DIA. HOLES, EVENLY SPACED IN FACE OF PANEL AND INSTALL 1/4" DIA. WOOD SCREWS INTO 2x (MIN.) WOOD LEDGER LOCATED IN PANEL CAVITY.
5. CONNECTOR AND ATTACHMENT BY BUILDING DESIGN PROFESSIONAL.

TOP CONNECTION W/ 4x FILLER (10)



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS INSTALLED AT THE EDGES WHEN INSTALLING A 4x FILLER ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.

RAISED FLOOR HEAD-OUT (9)



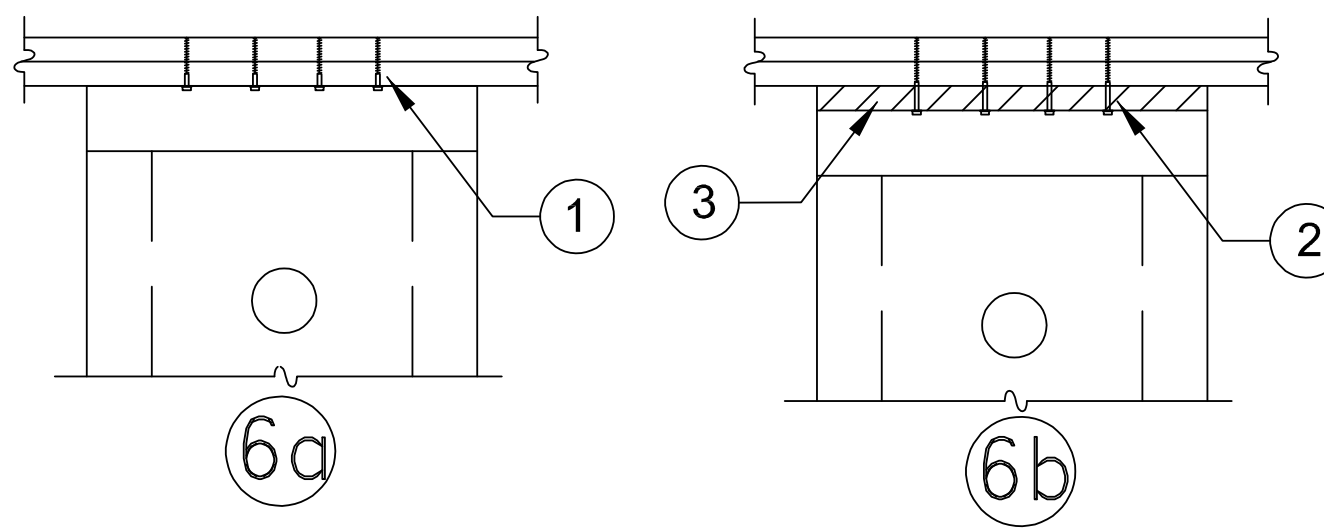
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

INSTALLATION ON 2x PLATE (8)

**NOTES:**  
 A) OUT OF PLANE FORCES TO BE RESISTED BY OTHER FRAMING MEMBERS PER THE BUILDING DESIGN PROFESSIONAL.  
 B) BALLOON WALL APPLICATIONS REQUIRE HIGH STRENGTH ANCHORAGE. SEE FOUNDATION PLAN AND ANCHORAGE TABLES ON SHEET HFX-1

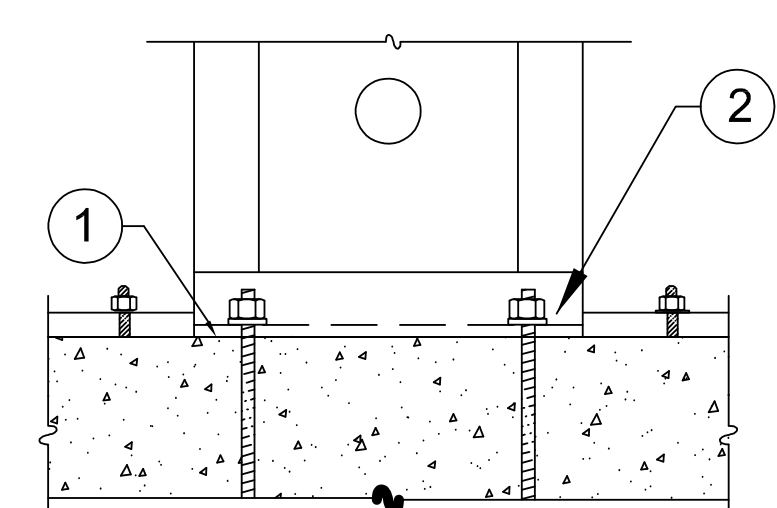
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
3. WELDED CONNECTION BY HARDY FRAMES, INC. (NO FIELD CONNECTION REQUIRED).
4. A 2x FILLER WITH 1/4" x 4-1/2" MIN USP-WS SCREWS (OR EQUAL) IS PERMITTED.
5. WHEN REQUIRED BY THE BUILDING DESIGN PROFESSIONAL ATTACH ADJACENT WOOD MEMBERS TO PANEL WITH 1/4" USP-WS SCREWS (OR EQUAL) THROUGH THE PANEL EDGE INTO THE WOOD MEMBER.

BALLOON WALL INSTALLATION (7)



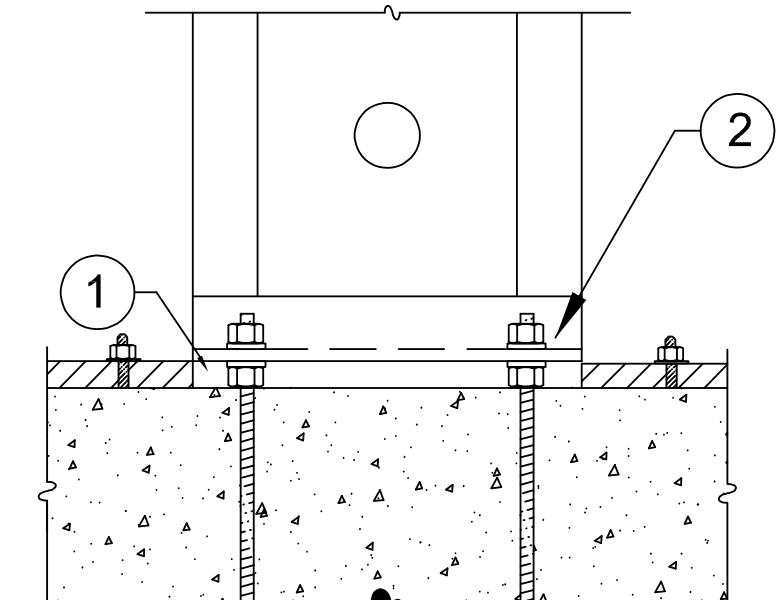
1. 1/4" x 3" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES
2. 1/4" x 4-1/2" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES
3. 2x WOOD FILLER.

TOP PLATE CONNECTIONS (6)



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.

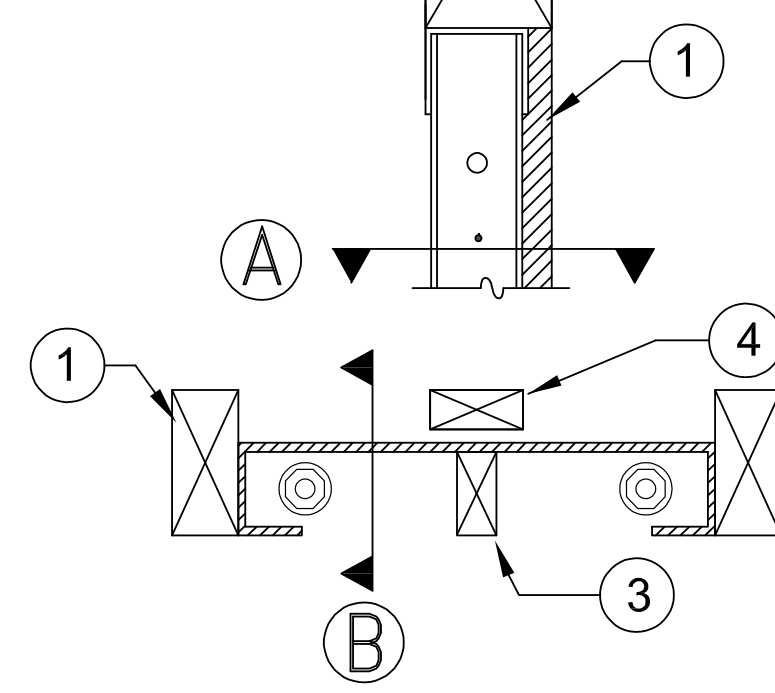
INSTALLATION ON FOUNDATION (5)



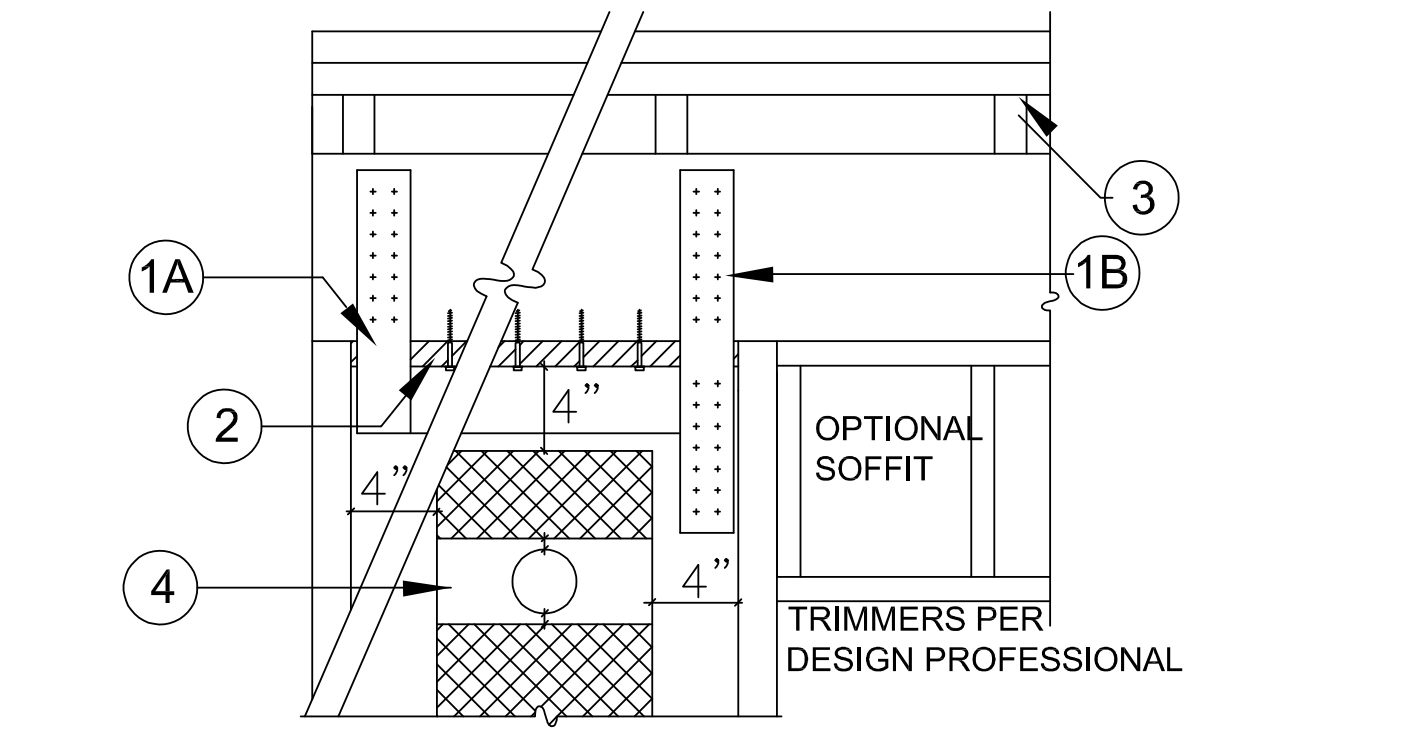
1. PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH MIN 5,000 PSI STRENGTH NON-SHRINK GROUT.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

INSTALLATION ON NUTS&WASHERS (4)

**NOTES:**  
 ATTACHMENTS MAY BE MADE AT SCREW HOLES PROVIDED OR WITH SELF TAPPING SCREWS (#12 AT EDGES, #10 AT FACE).

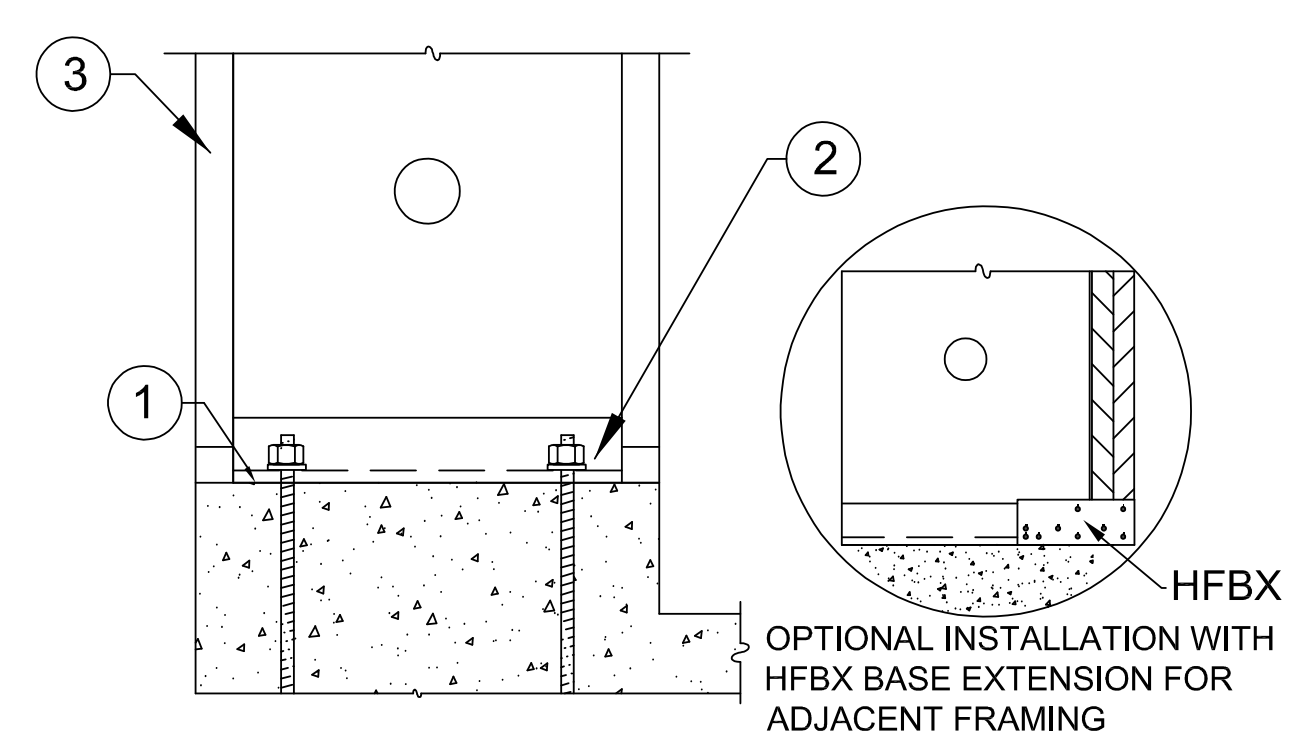


6x HEADER ABOVE-SECTION (3)



- 1A. WELDED STRAPS ARE AVAILABLE FROM MANUFACTURER WHEN REQUIRED BY THE DESIGN PROFESSIONAL.
- 1B. WHEN STRAPS ARE FIELD INSTALLED THE DESIGN AND CONNECTION IS BY THE DESIGN PROFESSIONAL. CONNECTION TO PANEL WITH SELF TAPPING SCREWS IS PERMITTED.
2. A 2x WOOD FILLER WITH 1/4"x4-1/2" (MIN.) USP "WS" SERIES SCREWS OR EQUAL IS PERMITTED.
3. WHEN CRIPPLE STUDS OCCUR, SHEAR TRANSFER DESIGN TO BE PER THE DESIGN PROFESSIONAL.
- 4A. THERE IS NO "INSIDE" OR "OUTSIDE" FACE OF PANEL. TO PREVENT THE NEED FOR ADDITIONAL HOLES ORIENT THE PANEL CAVITY TOWARD THE FIXTURE BEING INSTALLED.
- 4B. A 1" DIA. HOLE MAY BE ADDED IN THE PANEL FACE WHEN IT IS LOCATED IN THE UPPER HALF OF THE PANEL HEIGHT AND IS 4" MIN. FROM ANY EDGE. FOR PANELS MORE THAN 12" WIDE, ADDITIONAL HOLES MUST ALSO BE 1" MINIMUM ABOVE AND BELOW THE 3" DIA. HOLE PROVIDED.
- 4C. FOR HOLES LARGER THAN 1" DIA. OR TO ADD MORE THAN ONE HOLE CONTACT HARDY FRAMES, INC.

TOP CONNECTION TO HEADER (2)



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
3. ADJACENT FRAMING OPTIONAL U.N.O. BY BUILDING DESIGN PROFESSIONAL.

INSTALLATION ON CURB (1)

HFX-SERIES 78 IN. THRU 13 FOOT

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter <sup>1</sup> (in)	Top Screw Qty <sup>2</sup> (ea)	Screw Qty Available at Edges (ea) <sup>3</sup>
HFX-12,15,18,21 & 24x78	78	3-1/2	1-1/8	9" Width = 5	4
HFX-9x79.5	79-1/2			12" Width = 6	
HFX-12,15,18,21 & 24x8	92-1/4			15" Width = 8	
HFX-9x8	93-3/4			18" Width = 10	
HFX-12,15,18,21 & 24x9	104-1/4			21" Width = 12	
HFX-12,15,18,21 & 24x10	116-1/4			24" Width = 14	
HFX-15,18,21 & 24x11	128-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x12	140-1/4			18" Width = 10	
HFX-15,18,21 & 24x13	152-1/4			21" Width = 12	
HFX-15,18,21 & 24x14	164-1/4	3-1/2	1-1/8	18" Width = 10	7
HFX-15,18,21 & 24x15	176-1/4			21" Width = 12	
HFX-15,18,21 & 24x16	188-1/4			24" Width = 14	
HFX-15,18,21 & 24x17	200-1/4				
HFX-15,18,21 & 24x18	212-1/4	3-1/2	1-1/8	15" Width = 8	8
HFX-15,18,21 & 24x19	224-1/4			18" Width = 10	
HFX-15,18,21 & 24x20	236-1/4			21" Width = 12	

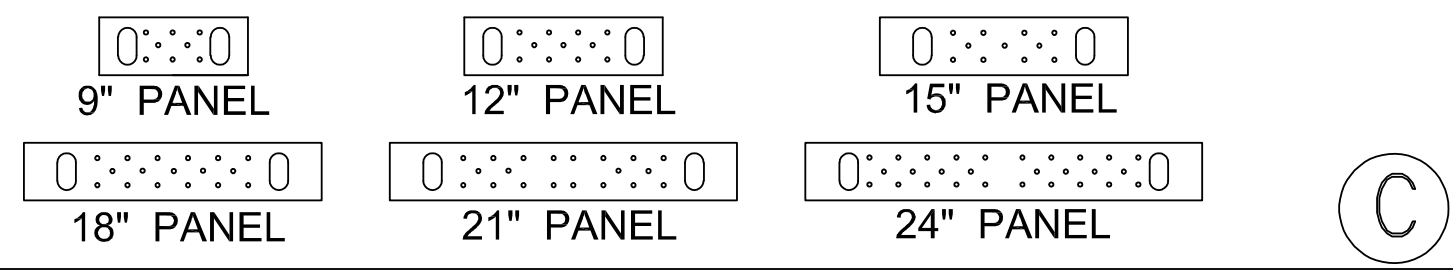
BALLOON PANELS 14 FEET THRU 20 FEET

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter <sup>1</sup> (in)	Top Screw Qty <sup>2</sup> (ea)	Screw Qty Available at Edges (ea) <sup>3</sup>
HFX-15,18,21 & 24x14	164-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x15	176-1/4			18" Width = 10	
HFX-15,18,21 & 24x16	188-1/4			21" Width = 12	
HFX-15,18,21 & 24x17	200-1/4			24" Width = 14	
HFX-15,18,21 & 24x18	212-1/4	3-1/2	1-1/8	15" Width = 8	7
HFX-15,18,21 & 24x19	224-1/4			18" Width = 10	
HFX-15,18,21 & 24x20	236-1/4			21" Width = 12	

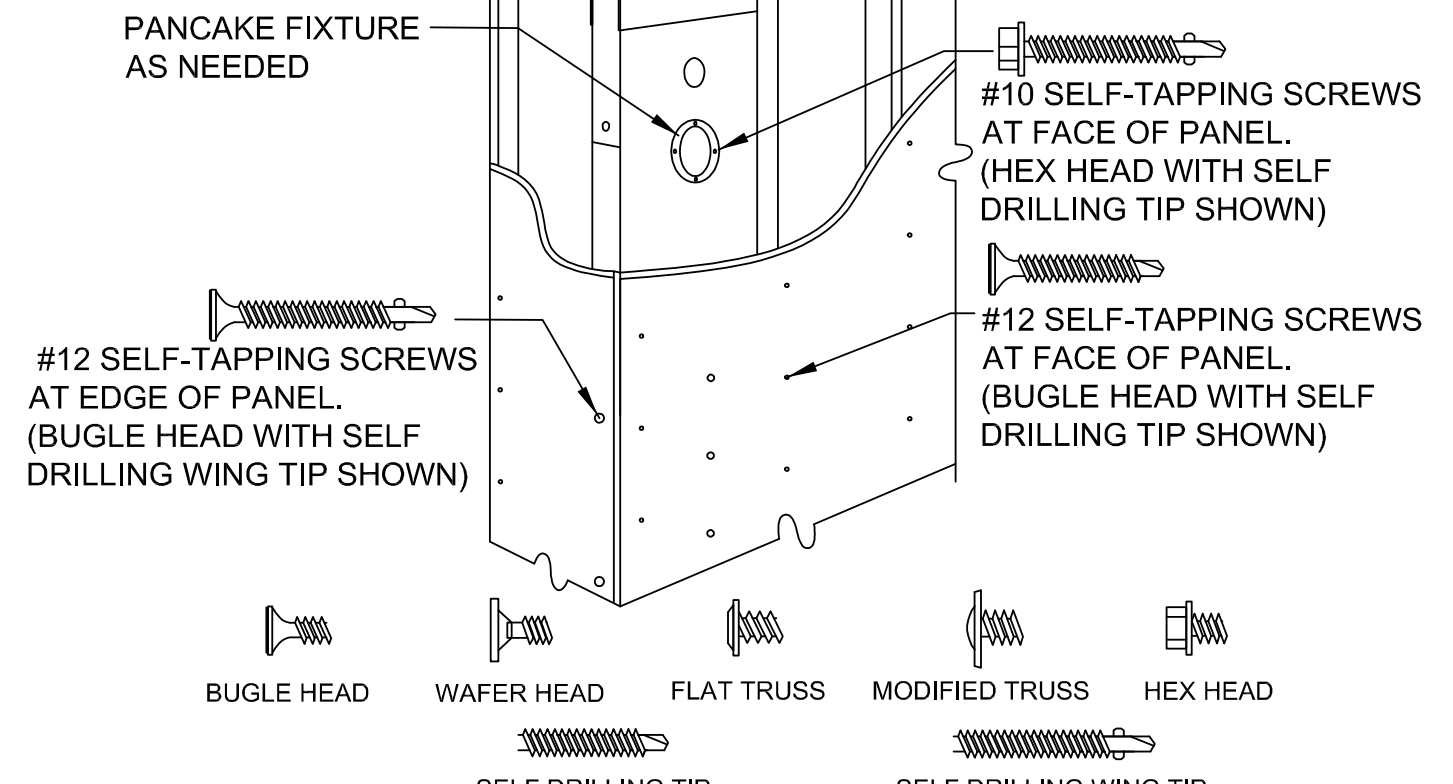
- 1) Hold down bolts connect to the Panel base with (1 ea) Hardened Round, (2 ea) Round-Flat or (2 ea) SAE Washers below (1 ea) Grade 8 Hex Nut on each rod or as specified by the Building Design Professional.
- 2) 1/4" diameter USP-WS Series screws (or equal). Length is 3" (minimum) when attached directly to the collector and 4-1/2" (minimum) when installing a 2x filler above the Panel.
- 3) Adjacent framing with 1/4" diameter screws is required at the edges when installing a 4X filler above or when specified by the Design Professional.

INSTALLATION INSTRUCTIONS (A)

- When installing directly on concrete, place Panel over bolts and connect with (1 ea) Hardened Round, (2 ea) Round-Flat or (2 ea) SAE Washers below (1 ea) Grade 8 or 2H Heavy Hex Nut. Secure with a deep socket (recommended) until "Snug Tight".
- If bottom connection is not detailed on plans, confirm with Design Professional before installing on Nuts & Washers or on a Mudsill.
- Use 1/4"x4-1/2" USP-WS Series screws (or equal) at top connections with a 2x filler. If the top of Panel is in direct contact with the collector above (top plates, header, beam, etc.) use 1/4 x 3" (minimum)
- For installations with a 4x filler above 1/4" diameter screws are required at the Panel edges to brace for the out-of-plane hinge or when they are specified by the Design Professional.



TOP CONNECTION TO HEADER (C)



- NOTES:**  
 1) SURFACE FINISHES, CONNECTORS AND FIXTURES ARE ATTACHED TO THE PANEL FACE WITH # 10 SELF-TAPPING SCREWS SPACED NO LESS THAN 2-1/4" OC.  
 2) ATTACHMENTS TO THE PANEL EDGES ARE MADE WITH # 12 SELF-TAPPING SCREWS.  
 3) STRUCTURAL CONNECTIONS ARE TO BE DESIGNED BY THE DESIGN PROFESSIONAL.  
 4) STRUCTURAL HARDWARE USED TO TRANSFER LOADS SHOULD NOT EXCEED 12 GAGE.

INSTALLATION ON CURB (D)

REVISIONS DATE

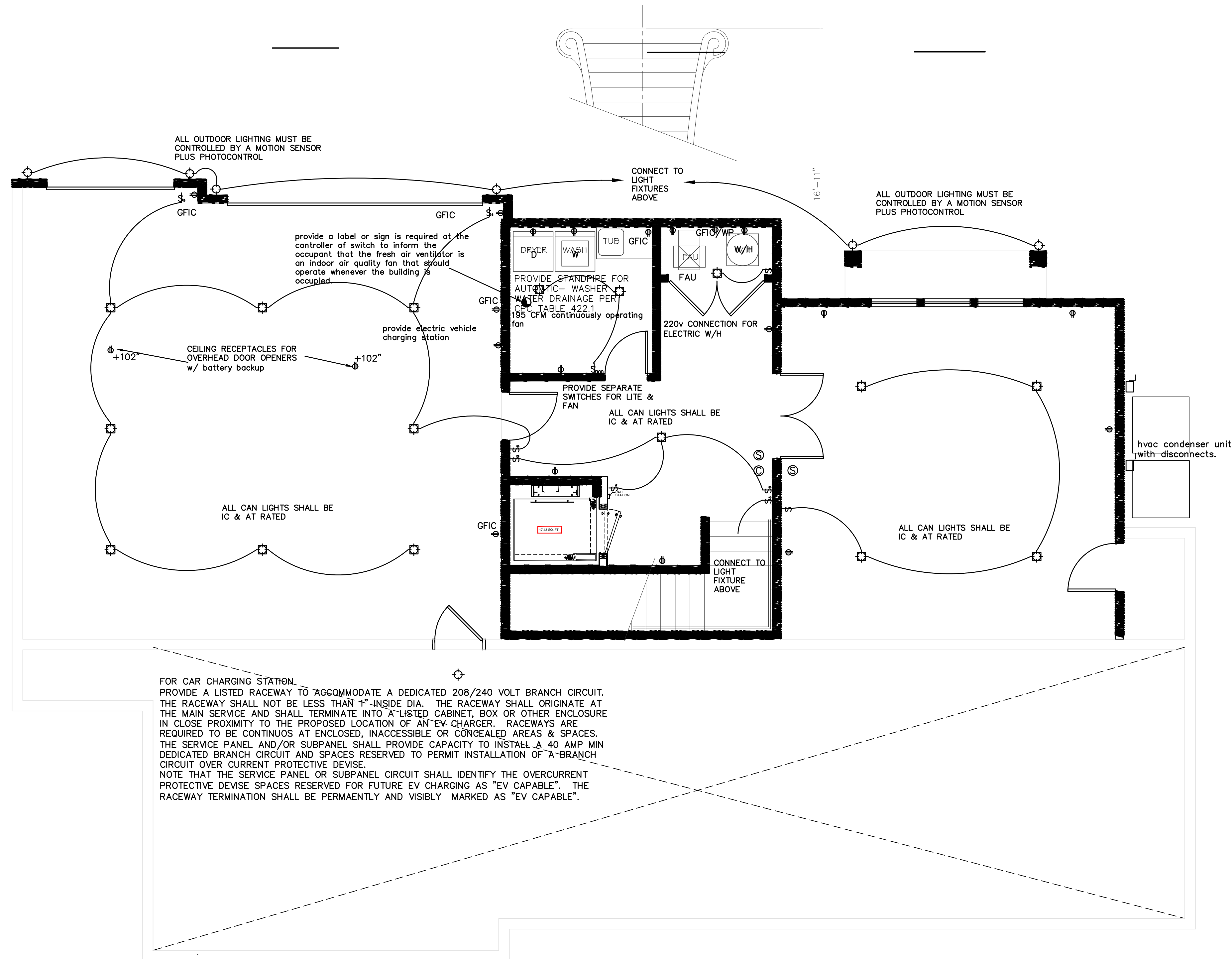
HARDY FRAME®  
 SHEAR WALL SYSTEM  
 FRAMING DETAILS - HFX PANELS  
 THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH HARDY FRAME PRODUCTS

HARDY FRAME®  
 SHEAR WALL SYSTEM  
 1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003  
 TELEPHONE: 800 754-3030 / www.hardyframe.com



DATE:  
1-1-2017

HFX2



SYMBOL LEGEND	
	MANUAL ON - VACANCY SENSOR SWITCH
	DIMMER SWITCH
	SINGLE POLE LIGHT SWITCH
	3-WAY LIGHT SWITCH
	4-WAY LIGHT SWITCH
	DUPLEX RECEPTACLE
	FAN/LITE COMBO
	220V RECEPTACLE
	SMOKE DETECTOR
	CARBON MONOXIDE DETECTOR
	FLUORESCENT STRIP FIXTURE
	EXHAUST FAN -
	LIGHT FIXTURE
	RECESSED LIGHT FIXTURE

LOWER LEVEL PLAN

NORTH

scale 1/4" = 1'-0"

STEVE BENZING ARCHITECT  
 C-17985  
 12103 FREDERICKSBURG  
 SARTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: steve@benzarch.com  
 WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

LOWER LEVEL  
 ELECTRICAL  
 PLAN

NO.	REVISIONS	DATE	DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:
		9/9/2024	T. PENG	N. SINGH	M. SAINI	M. SAINI

SHEET NUMBER

E1

**MECHANICAL & PLUMBING NOTES**

PROVIDE APPROVED MIXING VALVES FOR ALL TUB/SHOWER & SHOWER LOCATIONS  
 PROVIDE CLEANOUTS AT THE END OF ALL WASTE LINES  
 PROVIDE PRESSURE RELIEF PIPING TO THE EXTERIOR OF THE BUILDING FOR THE WATER HTR.  
 TERMINATION OF ALL ENVIRONMENTAL AIR DUCTS SHALL BE A MINIMUM OF 3 FEET FROM ANY OPENING INTO THE BUILDING. PER CMC 504.5  
 ALL DUCTS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER ACCEPTABLE METHODS AT THE TIME OF ROUGH INSTALLATION OR DURING STORAGE ON THE CONSTRUCTION SITE & UNTIL FINAL STARTUP OF THE HEATING & COOLING EQUIPMENT  
 ATTIC FURNACE SHALL COMPLY WITH SECTION 904.10 OF THE CMC.  
 -PROVIDE SOLID FLOORING NOT LESS THAN 24" WIDE FROM THE SERVICE ENTRANCE OPENING TO THE FURNACE  
 -SPECIFY A 30"x30" MIN LEVEL SERVICE SPACE IN FRONT OF THE FURNACE IN ATTIC  
 -PROVIDE A RECEPTACLE OUTLET AND LIGHT FIXTURE NEAR THE APPLIANCE, WITH A SWITCH CONTROLLING THE LIGHTING FIXTURE LOCATED AT THE ENTRANCE TO THE PASSAGEWAY

DRYER EXHAUST DUCT SHALL NOT EXCEED A TOTAL COMBINED HORIZ & VERTICAL LENGTH OF 14 FEET, INCLUDING 2 - 90 ELBOWS  
 ALL EXHAUST OUTLETS SHALL BE LOCATED A MIN OF 10 FEET FROM DOORS, OCCUPIED AREAS & OPERABLE WINDOWS  
 ALL PLUMBING WASTE VENTS SHALL TERMINATED AT LEAST 10 FEET HORIZONTALLY & 3 FEET ABOVE ANY OPERABLE WINDOWS, DOOR, VENT OPENING OR AIR INTAKE  
 THE GRADE OF HORIZONTAL DRAINS SHALL NOT BE LESS THAN 1/4" PER FOOT  
 PROVIDE A PRESSURE ABSORBING DEVICE (OR APPROVED MECHANICAL DEVICE PER ASSE 1010 OR PDI-WH-201) LOCATED AS CLOSE AS POSSIBLE TO QUICK ACTING VALVES, THAT WILL ABSORB HIGH PRESSURE RESULTING FROM QUICK CLOSING OF QUICK ACTING VALVES

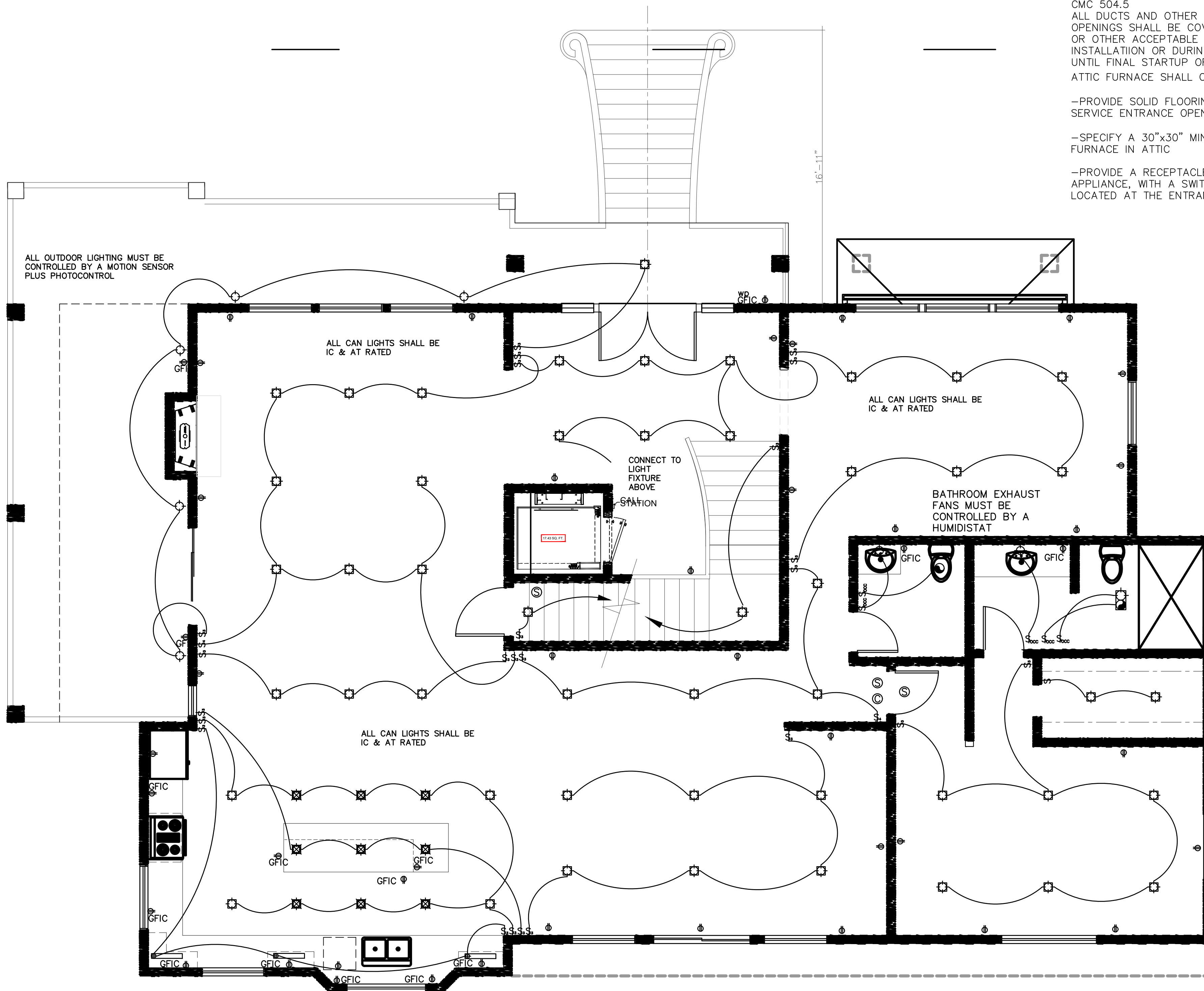
**ELECTRICAL PLAN**

THIS PROJECT MUST COMPLY WITH THE 2022 CALIF ENERGY CODE  
 ALL OUTLETS WITHIN 72 INCHES OF ANY WATER SOURCE SHALL BE ON A GFCI CIRCUIT.  
 ALL LIGHT FIXTURES WITHIN A TUB AND/OR SHOWER ENCLOSURE SHALL BEAR THE LABEL "SUITABLE FOR DAMP LOCATION".  
 PROVIDE TWO SMALL APPLIANCE BRANCH CIRCUITS FOR THE KITCHEN. THEY SHALL BE LIMITED TO SUPPLYING WALL AND COUNTERSPACE OUTLETS.  
 PROVIDE A DEDICATED 20-AMP CIRCUIT TO SERVE THE REQUIRED BATHROOM OUTLETS. THIS CIRCUIT CANNOT SUPPLY ANY LIGHTS, FANS, OR ANY OTHER TYPE OF ELECTRICAL DEVICE OR FIXTURE.  
 PROVIDE SMOKE DETECTORS & CARBON MONOXIDE DETECTORS PER CRC. HARDWARE AND INTERCONNECT PER 2022 CEC 314.3.2 & 315  
 PROVIDE LISTED COMBINATION AFCI BREAKERS FOR ALL ELECTRICAL CIRCUITS PER SECTION 210.12(A) & (B) OF 2022 CEC.  
 ALL OUTLETS SHALL BE TAMPER-RESISTANT PER ARTICLE 406.12 OF 2022 CEC.  
 ALL EXTERIOR OUTLETS SHALL BE WEATHER RESISTANT AND HAVE A WEATHER-RESISTANT BUBBLE COVER PER ARTICLE 406.11 OF 2022 CEC.  
 CARBON MONOXIDE ALARMS SHALL BE PLACED JUST OUTSIDE THE IMMEDIATE VICINITY OF EACH SLEEPING AREA PER SECTION 315 OF 2022 CEC.  
 ALL 110 VOLT SINGLE-PHASE OUTLETS SHALL HAVE GROUND FAULT CIRCUIT PROTECTION AT THE FOLLOWING LOCATIONS:  
 A. BATHROOMS  
 B. GARAGE  
 C. EXTERIOR OF BUILDING AND BEYOND  
 D. ALL KITCHEN COUNTERTOPS WITHIN 6' OF ANY SINK  
 E.  
 ALL BRANCH CIRCUITS THAT SUPPLY OUTLETS IN THE KITCHEN, FAMILY ROOMS, DINING, LIVING, LAUNDRY AREA OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER  
 ALL LIGHTING AS HIGH EFFICACY (i.e. PIN BASE CFL/PULSE START MH, HPS, GU-24 SOCKETS OTHER THAN LED'S. LED LUMINARIES WITH INTEGRAL SOURCES ) CEC TABLE 150.0-A  
 SCREW-BASED PERMANENTLY INSTALL LIGHT FIXTURES MUST CONTAIN SCREW-BASED JAB COMPLIANT LAMPS. JAB COMPLIANT LIGHT SOURCES MUST BE MARKED AS "JAB-2016 OR JAB-2016-E".  
 ALL JAB COMPLIANT LIGHT SOURCES IN THE FOLLOWING LOCATIONS ARE CONTROLLED BY VACANCY SENSORS OR DIMMERS (EX. CLOSETS LESS THAN 70 sf)  
 a. CEILING RECESSED DOWNLIGHT LUMINARIES  
 b. LED LUMINARIES WITH INTEGRAL SOURCES  
 c. PIN-BASED LED LAMPS  
 d. GU-24 BASED LED LIGHT SOURCES  
 AT LEAST ONE FIXTURE IN EACH BATHROOM CONTROLLED BY A VACANCY SENSOR  
 AT LEAST ONE FIXTURE IN THE GARAGE CONTROLLED BY A VACANCY SENSOR.  
 AT LEAST ONE FIXTURE IN EACH LAUNDRY ROOM CONTROLLED BY A VACANCY SENSOR  
 SEPARATE SWITCHING FOR ANY UNDER CABINET LIGHTING (INCL KITCHEN LIGHTING) FROM OTHER LIGHTING SYSTEMS  
 ALL OUTDOOR LIGHTING SHALL BE HIGH-EFFICACY LIGHTING WITH A MANUAL ON/OFF SWITCH & ONE OF THE FOLLOWING  
 a. PHOTOCONTROL & MOTION SENSOR  
 b. PHOTOCONTROL & AUTOMATIC TIME SWITCH CONTROL  
 c. ASTRONOMICAL TIME SWITCH CONTROL  
 d. ENERGY MANAGEMENT CONTROL SYSTEMS

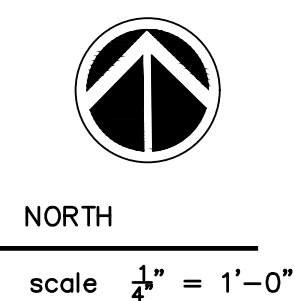
LUMINARIES IN INSULATED CEILINGS MUST BE RATED FOR DIRECT INSULATION CONTACT, RATED AIR-TIGHT PER ASTM E283, AND MUST HAVE A SEALED GASKET OR CAULKING BETWEEN THE HOUSING AND THE CEILING TO PREVENT THE FLOW OF HEATED OR COOLED AIR BETWEEN THE LIVING SPACE AND THE ATTIC / CEILING SPACE  
 PROVIDE A CONTINUOUSLY RUNNING FAN OF A MIN OF 195 CFM IN THE LAUNDRY 5850 sf/100 = 59 cfm + (5x7.5) = 195 cfm REQUIRED TO MEET THE REQUIREMENTS OF TITLE 24 PART 6 , MANDATORY MEASURES #150(00 AND THE ASHRAE 63.2 STDs.  
 ALL BATHROOM LIGHTS MUST BE HIGH EFFICACY & AT LEAST ONE FIXTURE IN EA BATHROOM MUST BE ON A VACANCY SENSOR  
 BATHROOM EXHAUST FANS MUST BE ENERGY STAR COMPLIANT, MUST BE DUCTED TO TERMINATE OUTSIDE THE BUILDING AND MUST BE CONTROLLED BY A HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE.

PROVIDE SEPARATE ELECTRICAL CIRCUITS FOR :  
 20 AMPS FOR BATHROOMS  
 2(20) AMP SMALL APPLIANCE CIRCUITS FOR THE KITCHEN MOTOR (FAU)  
 JACUZZI MOTORS (IF APPLICABLE)  
 GARBAGE DISPOSAL  
 DISHWASHER  
 1- 20 AMP LAUNDRY CIRCUIT

SYMBOL LEGEND	
	MANUAL ON - VACANCY SENSOR SWITCH
	DIMMER SWITCH
	SINGLE POLE LIGHT SWITCH
	3-WAY LIGHT SWITCH
	4-WAY LIGHT SWITCH
	DUPLEX RECEPTACLE
	FAN/LITE COMBO
	220V RECEPTACLE
	SMOKE DETECTOR
	CARBON MONOXIDE DETECTOR
	FLUORESCENT STRIP FIXTURE
	EXHAUST FAN -
	LIGHT FIXTURE
	RECESSED LIGHT FIXTURE



**MAIN FLOOR PLAN**



STEVE BENZING ARCHITECT  
 C-17985  
 12103 FREDERICKSBURG  
 SARTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: steve@benzarch.com  
 WEBSITE: BENZARCH.COM

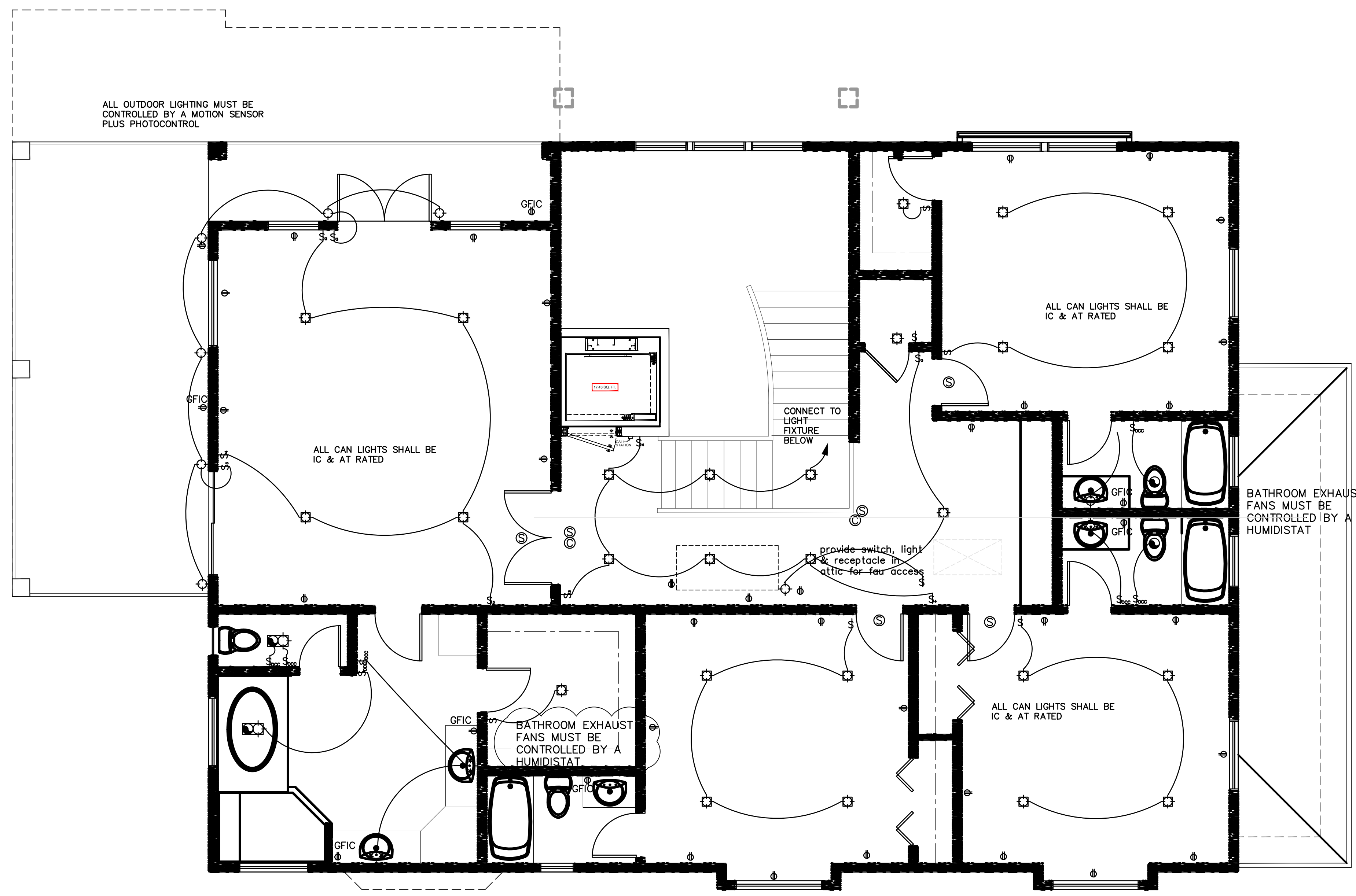
NEW RESIDENCE ON  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

**MAIN LEVEL ELECTRICAL PLAN**

DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
9/9/2024	T. PENG	N. SINGH	M. SAINI	M. SAINI

NO	REVISIONS

SHEET NUMBER  
**E2**



ATTIC FURNACE SHALL COMPLY WITH SECTION 904.10 OF THE CMC.  
 -PROVIDE SOLID FLOORING NOT LESS THA 24" WIDE FROM THE SERVICE ENTRANCE OPENING TO THE FURNACE  
 -SPECIFY A 30"x30" MIN LEVEL SERVICE SPACE IN FRONT OF THE FURNACE IN ATTIC  
 -PROVIDE A RECEPTACLE OUTLET AND LIGHT FIXTURE NEAR THE APPLIANCE, WITH A SWITCH CONTROLLING THE LIGHTING FIXTURE LOCATED AT THE ENTRANCE TO THE PASSAGEWAY

SYMBOL LEGEND	
	MANUAL ON - VACANCY SENSOR SWITCH
	DIMMER SWITCH
	SINGLE POLE LIGHT SWITCH
	3-WAY LIGHT SWITCH
	4-WAY LIGHT SWITCH
	DUPLEX RECEPTACLE
	FAN/LITE COMBO
	220V RECEPTACLE
	SMOKE DETECTOR
	CARBON MONOXIDE DETECTOR
	FLUORESCENT STRIP FIXTURE
	EXHAUST FAN -
	LIGHT FIXTURE
	RECESSED LIGHT FIXTURE

UPPER FLOOR PLAN

NORTH  
 scale 1/4" = 1'-0"

STEVE BENZING ARCHITECT  
 C-17986  
 12103 FREDERICKSBURG  
 SARTOGA CALIFORNIA  
 TEL: 408-805-1328  
 EMAIL: steve@benzarch.com  
 WEBSITE: BENZARCH.COM

NEW RESIDENCE ON  
 BELLA MADEIRA LANE  
 SAN JOSE, CA  
 APN: 654-64-012

UPPER LEVEL  
 ELECTRICAL  
 PLAN

DATE:	9/9/2024
DESIGNED BY:	T. PENG
DRAWN BY:	N. SINGH
CHECKED BY:	M. SAINI
APPROVED BY:	M. SAINI

NO.	REVISIONS
SHEET NUMBER	
E3	



**COUNTY OF SANTA CLARA**  
**2019 CALGREEN RESIDENTIAL CHECKLIST (MANDATORY+TIER 1)**  
 County Amendments to CALGreen are in Italics.

- Designer to cross out items that are not applicable to the project.  
 - Installer or designer shall verify all applicable requirements have been satisfied and sign and date each row. County Inspectors will verify completion signatures and supporting documentation DURING CONSTRUCTION.

ITEM #	CALGreen CODE SECTION	REQUIREMENT	APPLICANT TO COMPLETE		Installer or Designer	
			REFERENCE SHEET	Note or Detail No.	Date	Signature
<b>PLANNING AND DESIGN: MANDATORY REQUIREMENTS</b>						
1	4.106.2	A plan is developed and implemented to manage storm water drainage during construction.	CG-3	NOTE 1		
2	4.106.3	Construction plans indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.	CG-3	NOTE 2		
3	4.106.4.1	For new dwellings and the <b>rebuild</b> of existing dwellings that include a panel upgrade or construction between panel and parking area, a raceway to a dedicated 208/240-volt branch circuit meeting the requirements, is installed.	CG-3	NOTES 3 & 4		
<b>PLANNING AND DESIGN: TIER 1 MANDATORY REQUIREMENTS</b>						
4	A4.106.2.3	Displaced topsoil is stockpiled for reuse in a designated area and covered or protected from erosion.	CG-4	NOTE 7		
5	A4.106.4	Not less than 20 percent of the total parking, walking or patio surfaces are permeable.	CG-4	NOTE 9		
6	A4.106.8.1	For new dwellings with attached private garages, a dedicated 208/240-volt branch circuit including an overcurrent protective device is installed in the raceway, meeting the applicable requirements.	CG-4	NOTE 12		
<b>PLANNING AND DESIGN: TIER 1 ELECTIVE REQUIREMENTS</b>						
7	A4.103.1	An infiltration, greyfield site or EPA-recognized and Brownfield site is applicable.	CG-4	NOTE 1		
8	A4.103.2	Community connectivity is facilitated by use of the approved methods.	CG-4	NOTE 2		
9	A4.104.1	An individual with oversight responsibility for the project has participated in an educational program promoting environmentally friendly design or development and has provided instruction to appropriate entities.	CG-4	NOTE 3		
10	A4.105.2	Existing buildings are disassembled for reuse or recycling of building materials. The proposed structure utilizes at least one of the listed materials.	CG-4	NOTE 4		
11	A4.106.2.1	Soil analysis is performed by a licensed design professional and the findings are utilized in the structural design of the building.	CG-4	NOTE 5		
12	A4.106.2.2	Soil disturbance and erosion are minimized by using one or more of the methods listed.	CG-4	NOTE 6		
13	A4.106.3	Landscape areas disrupted during construction are restored to be consistent with native vegetation and/or at least 75% native California or drought tolerant plant and tree are utilized.	CG-4	NOTE 8		
14	A4.106.6	A vegetated roof for at least 50% of the roof area is installed. Vegetated roof complies with CPC chapters 15 and 16.	CG-4	NOTE 10		
15	A4.106.7	Nonroof heat islands are reduced for 50% of sidewalks, patios, driveways, or other paved areas by using one or more of the methods listed.	CG-4	NOTE 11		
16	A4.106.10	Outdoor lighting systems are designed and installed to comply with one of the methods listed.	CG-1	TABLE A4.106.10		
<b>ENERGY EFFICIENCY: MANDATORY REQUIREMENTS</b>						
17	4.201.1	Building meets or exceeds the requirements of the California Building Energy Efficiency Standards.	T24 SHEETS			
<b>WATER EFFICIENCY &amp; CONSERVATION: MANDATORY REQUIREMENTS</b>						
18	4.303.1	Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) installed in residential buildings comply with CALGreen Sections 4.303.1.1 through 4.303.1.4.4.	CG-3	NOTE 5		
19	4.303.2	Plumbing fixtures and fittings required in CALGreen Section 4.303.1 are installed in accordance with the CPC and meet the applicable referenced standards.	CG-3	Note 6		
20	4.304.1	Outdoor potable water use in landscape areas comply with a local water efficient landscape or the current California DWR MWEL0, whichever is more stringent.	CG-3	Note 7		
21	4.305.1	For new dwellings where disinfected tertiary recycled water is available, installation of recycled water supply system is required per CPC chapter 15.	CG-3	Note 8		

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

ITEM #	CALGreen CODE SECTION	REQUIREMENT	APPLICANT TO COMPLETE		Installer or Designer	
			REFERENCE SHEET	Note or Detail No.	Date	Signature
<b>ENVIRONMENTAL QUALITY: MANDATORY REQUIREMENTS</b>						
54	4.503.1	Any installed gas fireplace is a direct-vent sealed-combustion type. Any installed woodstove or pellet stove comply with US EPA Phase II emission limits where applicable.	CG-3	Note 13		
55	4.504.1	Duct openings and other related air distribution component openings are covered during construction until final startup of the HVAC equipment.	CG-3	Note 14		
56	4.504.2.1	Adhesives, sealants and caulks are compliant with VOC and other toxic compound limits.	CG-2	Table 4.504.1 Table 4.504.2 Note 15		
57	4.504.2.2	Architectural paints and coatings are compliant with VOC limits.	CG-2	Table 4.504.3		
58	4.504.2.3	Aerosol paints and coatings are compliant with product weighted MIR limits for ROC and other toxic compounds.	CG-3	Note 16		
59	4.504.2.4	Documentation are provided to the County of Santa Clara to verify that compliant VOC limit finish materials have been used.	CG-3	Note 17		
60	4.504.3	Carpet and carpet systems meet the applicable testing and product requirements.	CG-2	Table 4.504.1 Note 19		
61	4.504.5	Hardwood plywood, particleboard and medium density fiberboard composite wood meet formaldehyde limits.	CG-1	Table 4.504.5		
62	4.504.5.1	Documentation is provided to the County of Santa Clara to verify composite wood meets applicable formaldehyde limits.	CG-3	Note 21		
63	4.505.2	Vapor retarder and capillary break is installed at slab-on-grade foundations.	CG-3	Note 22		
64	4.505.3	Moisture content of building materials used in wall and floor framing do not exceed 19% prior to enclosure and is checked before enclosure. Insulation products are dry prior to enclosure.	CG-3	Note 23		
65	4.506.1	Each bathroom is mechanically ventilated and comply with applicable requirements.	CG-3	Note 24		
66	4.507.2	Heating and air-conditioning systems are sized, designed, and equipment is selected by using one of the methods listed.	CG-3	Note 25		
<b>ENVIRONMENTAL QUALITY: TIER 1 MANDATORY REQUIREMENTS</b>						
67	A4.504.2	At least 90% of resilient flooring complies with applicable VOC limits.	CG-4	Note 43		
68	A4.504.3	Thermal insulation in the building is installed in compliance with applicable standards.	CG-4	Note 44		
<b>ENVIRONMENTAL QUALITY: TIER 1 ELECTIVE REQUIREMENTS</b>						
69	A4.504.1	Composite wood products made with MAF or ULEF resins are used.	CG-4	Note 42		
70	A4.506.2	Filters at MERV 8 or higher are used on return air openings, during construction.	CG-4	Note 45		
71	A4.506.3	Direct vent heating and cooling equipment are utilized where the equipment will be located in the conditioned space or the space heating and water heating equipment is located in an isolated mechanical room.	CG-4	Note 46		
<b>INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS: MANDATORY REQUIREMENTS</b>						
72	702.1	HVAC system installers are trained and certified in the proper installation of HVAC systems.	CG-3	Note 27		
73	702.2	If required by County of Santa Clara, owner or owner's agent shall employ special inspector who are qualified and able to demonstrate competence in the discipline they are inspecting.	CG-3	Note 28		
74	703.1	Documentation used to show compliance with this code may include construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to County of Santa Clara which show substantial conformance.	CG-3	Note 29		

**TABLE 4.504.5**  
**FORMALDEHYDE LIMITS<sup>1</sup>**  
 Maximum Formaldehyde Emissions in Parts per Million

PRODUCT	CURRENT LIMIT
Hardwood plywood veneer core	0.05
Hardwood plywood composite core	0.05
Particleboard	0.09
Medium density fiberboard	0.11
Thin medium density fiberboard <sup>2</sup>	0.13

1. Values in this table are derived from those specified by the California Air Resources Board, Air Toxics Control Measure for Composite Wood as tested in accordance with ASTM E1333. For additional information, see California Code of Regulations, Title 17, Sections 93120 through 93120.12.  
 2. Thin medium density fiberboard has a maximum thickness of 3/8 inch (8 mm).

**TABLE A4.106.10**  
**MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS<sup>1,2</sup>**

ALLOWABLE RATING	LIGHTING ZONE 1	LIGHTING ZONE 2	LIGHTING ZONE 3	LIGHTING ZONE 4
<b>Maximum Allowable Backlight Rating<sup>3</sup></b>				
Luminaire greater than 2 mounting heights (MH) from property line	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1 - 2 MH from property line	B2	B3	B4	B4
Luminaire back hemisphere is 0.5 - 1 MH from property line	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	B0	B0	B1	B2
<b>Maximum Allowable Uplight Rating</b>				
For area lighting <sup>4</sup>	U0	U0	U0	U0
For all other outdoor lighting, including decorative luminaires	U1	U2	U3	U4
<b>Maximum Allowable Glare Rating<sup>5</sup></b>				
Luminaire greater than 2 MH from property line	G1	G2	G3	G4
Luminaire front hemisphere is 1 - 2 MH from property line	G0	G1	G1	G2
Luminaire front hemisphere is 0.5 - 1 MH from property line	G0	G0	G1	G1
Luminaire back hemisphere is less than 0.5 MH from property line	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the California Energy Code and Chapter 10 of the California Administrative Code.  
 2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.  
 3. If the nearest property line is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met.  
 4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet U-value limits for "all other outdoor lighting."  
 5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met.

NEW RESIDENCE ON  
 BELLA MADERIA LANE  
 SAN JOSE, CA  
 FOR MR. JAMES LE

Project Information

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



CG-1





**CALGREEN 2019 NOTES – MANDATORY REQUIREMENTS:**

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

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

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

**EXCEPTIONS:**

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

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

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

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

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

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

**7.** RESIDENTIAL DEVELOPMENTS SHALL COMPLY WITH A LOCAL WATER EFFICIENT LANDSCAPE ORDINANCE OR THE CURRENT CALIFORNIA DEPARTMENT OF WATER RESOURCES' MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWEL0), WHICHEVER IS MORE STRINGENT.

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

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

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

A. A CONSTRUCTION WASTE MANAGEMENT PLAN IS PROVIDED. THE CONSTRUCTION WASTE MANAGEMENT PLAN SHALL BE UPDATED AS NECESSARY AND SHALL BE AVAILABLE DURING CONSTRUCTION FOR EXAMINATION BY THE COUNTY OF SANTA CLARA.

- 1. IDENTIFY THE CONSTRUCTION AND DEMOLITION WASTE MATERIALS TO BE DIVERTED FROM DISPOSAL BY RECYCLING, REUSE ON THE PROJECT OR SALVAGE FOR FUTURE USE OR SALE.
- 2. SPECIFY IF CONSTRUCTION AND DEMOLITION WASTE MATERIALS WILL BE SORTED ON-SITE (SOURCE-SEPARATED) OR BULK MIXED (SINGLE STREAM).
- 3. IDENTIFY DIVERSION FACILITIES WHERE THE CONSTRUCTION AND DEMOLITION WASTE MATERIAL WILL BE TAKEN.
- 4. IDENTIFY CONSTRUCTION METHODS EMPLOYED TO REDUCE THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE GENERATED.
- 5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

B. A WASTE MANAGEMENT COMPANY CAN BE UTILIZED IF APPROVED BY THE COUNTY OF SANTA CLARA. SEE CALGREEN 4.408.3 FOR FURTHER .DETAILS

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

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

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

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

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

AEROSOL ADHESIVES, AND SMALLER UNIT SIZES OF ADHESIVES, AND SEALANT OR CAULKING COMPOUNDS (IN UNITS OF PRODUCT, LESS PACKAGING, WHICH DO NOT WEIGH MORE THAN 1 POUND AND DO NOT CONSIST OF MORE THAN 16 FLUID OUNCES) SHALL COMPLY WITH STATEWIDE VOC STANDARDS AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS, OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94507.

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

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

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

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

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

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

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

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

B. PRODUCTS CERTIFIED UNDER UL GREENGUARD GOLD (FORMERLY THE GREENGUARD CHILDREN & SCHOOLS PROGRAM).

C. CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM.

D. MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350).

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

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

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

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

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

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

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

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

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

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

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

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

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

NEW RESIDENCE ON  
BELLA MADERIA LANE  
SAN JOSE, CA  
FOR MR. JAMES LE

Project Information



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

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

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

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

- A. LOCATE PROJECT WITHIN A ¼ MILE TRUE WALKING DISTANCE OF AT LEAST FOUR BASIC SERVICES, READILY ACCESSIBLE BY PEDESTRIANS.
- B. LOCATE PROJECT WITHIN A ½ MILE TRUE WALKING DISTANCE OF AT LEAST SEVEN BASIC SERVICES, READILY ACCESSIBLE BY PEDESTRIANS.
- C. OTHER METHODS INCREASING ACCESS TO ADDITIONAL RESOURCES.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**10. INSTALL A VEGETATED ROOF FOR AT LEAST 50 PERCENT OF THE ROOF AREA. VEGETATED ROOFS SHALL COMPLY WITH REQUIREMENTS FOR ROOF GARDENS AND LANDSCAPED ROOFS IN THE CALIFORNIA BUILDING CODE, CHAPTER 15 AND CHAPTER 16.**

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

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

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

B. USE HIGH ALBEDO MATERIALS WITH AN INITIAL SOLAR REFLECTANCE VALUE OF AT LEAST 0.30 AS DETERMINED IN ACCORDANCE ASTM E1918 OR C1549.

C. USE OPEN GRID PAVEMENT SYSTEM OR PERVIOUS OR PERMEABLE PAVEMENT SYSTEM.

D. LOCATE 50 PERCENT OF PARKING UNDERGROUND OR USE MULTILEVEL PARKING.

E. OTHER METHODS OF REDUCING HEAT ISLAND EFFECTS ACCEPTABLE TO THE COUNTY OF SANTA CLARA.

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

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

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

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

EXCEPTIONS:

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

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

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

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

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

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

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

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

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

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

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

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

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

**24. RECYCLED WATER SHALL BE USED FOR LANDSCAPE IRRIGATION.**

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

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

- A. FLY ASH.
- B. SLAG.
- C. SILICA FUME.
- D. RICE HULL ASH.

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

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

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

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

- A. COMPOSITE FLOOR JOIST OR PREMANUFACTURED FLOOR FRAMING SYSTEM.
- B. COMPOSITE ROOF RAFTERS OR PREMANUFACTURED ROOF FRAMING SYSTEM.
- C. PANELIZED (SIPS, ICF OR SIMILAR) FRAMING SYSTEMS.
- D. OTHER METHODS APPROVED BY THE COUNTY OF SANTA CLARA.

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

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

**31. UTILIZE PREFINISHED BUILDING MATERIALS WHICH DO NOT REQUIRE ADDITIONAL PAINTING OR STAINING WHEN POSSIBLE. ONE OR MORE OF THE FOLLOWING BUILDING MATERIALS THAT DO NOT REQUIRE ADDITIONAL RESOURCES FOR FINISHING ARE USED:**

- A. EXTERIOR TRIM NOT REQUIRING PAINT OR STAIN.
- B. WINDOWS NOT REQUIRING PAINT OR STAIN.
- C. SIDING OR EXTERIOR WALL COVERINGS WHICH DO NOT REQUIRE PAINT OR STAIN.

**32. CONCRETE FLOORS THAT DO NOT REQUIRE ADDITIONAL COVERINGS SHALL BE USED INCLUDING BUT NOT LIMITED TO STAINED, NATURAL OR STAMPED CONCRETE FLOORS.**

**33. USE MATERIALS, EQUIVALENT IN PERFORMANCE TO VIRGIN MATERIALS WITH A TOTAL (COMBINED) RECYCLED CONTENT VALUE (RCV) OF NOT BE LESS THAN 10 PERCENT OF THE TOTAL MATERIAL COST OF THE PROJECT.**

REQUIRED TOTAL RCV (DOLLARS) = TOTAL MATERIAL COST(DOLLARS) × 10 PERCENT

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

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

FOR FURTHER INSTRUCTION SEE CALGREEN A4.405.3.

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

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

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

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

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

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

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

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

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

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

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

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

**41. NON-HAZARDOUS CONSTRUCTION AND DEMOLITION DEBRIS GENERATED AT THE SITE SHALL BE DIVERTED TO RECYCLE OR SALVAGE IN COMPLIANCE WITH THE FOLLOWING:**

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

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

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

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

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

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

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

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

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

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

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

NEW RESIDENCE ON  
BELLA MADERIA LANE  
SAN JOSE, CA  
FOR MR. JAMES LE

Project Information

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



CG-4