

1.) THE GOVERNING CODES FOR THIS PROJECT ARE:

THE CURRENT PREVAILING BUILDING AND CONSTRUCTION CODES IN THE CITY OF LONG BEACH AS FOLLOWS: THE 2022 EDITION OF THE CALIFORNIA BUILDING CODE, 2022 EDITION OF THE CALIFORNIA MECHANICAL CODE, 2022 EDITION OF THE CALIFORNIA PLUMBING CODE, 2022 EDITION OF THE CALIFORNIA ELECTRIC CODE, 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, 2022 CALIFORNIA ENERGY CODE (TITLE 24) AND TITLE 18 OF THE LONG BEACH MUNICIPAL CODE

2.) SEPARATE PERMITS SHALL BE REQUIRED FOR THE FOLLOWING ITEMS IF APPLICABLE:

- A. RETAINING WALLS OR BLOCK FENCE WALLS
- B. GRADING WORK
- C. SWIMMING POOLS
- D. A SEPARATE STRUCTURE
- E. SHORING
- F. DEMOLITION
- G. SOLAR SYSTEM
- H. NEW WATER METER
- I. FIRE SPRINKLER
- J. SIGNS
- K. TRASH ENCLOSURE
- L. FLAGPOLES
- M. MOLE MOUNTED YARD LIGHTING FOUNDATIONS
- N. HVAC UNITS
- O. PLANTERS
- P. ELECTRICAL METER BOX
- Q. GAS METER
- R. WATER METER, ETC.
- S. MECHANICAL, ELECTRICAL, PLUMBING PLANS

3.) PLAN CHECK/PERMIT APPLICATION FOR WHICH NO PERMIT IS ISSUED WITHIN 180 DAYS FOLLOWING THE DATE OF APPLICATION SHALL EXPIRE BY LIMITATION PER SECTION 107.4 CBC.

4.) CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE DESIGNER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

5.) CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AT 1-800-422-4133, 48 HOURS IN ADVANCE OF COMMENCEMENT OF CONSTRUCTION, FOR EXISTING UTILITY LOCATIONS.

6.) CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES—WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

7.) AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIDGILY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING.

8.) PROVIDE LOW CONSUMPTION WATER CLOSETS FOR ALL NEW CONSTRUCTION. EXISTING SHOWER HEADS AND TOILETS MUST BE ADAPTED FOR LOW WATER CONSUMPTION.

9.) PROVIDE 72" HIGH NON-ABSORBENT WALL ADJACENT TO SHOWER AND APPROVED SHATTER-RESISTANT MATERIALS FOR SHOWER ENCLOSURE

10.) ALL CONSTRUCTION WASTE AND DEBRIS MUST BE CONTAINERIZED AT ALL TIMES

11.) A RE-INSPECTION FEE WILL BE CHARGED FOR AN INSPECTION WHICH IS NOT ACCESSIBLE, OR APPROVAL PLANS ARE NOT ON SITE, OR JOB IS NOT READY.

12.) FINAL APPROVAL REQUIRED BY THE PUBLIC WORKS DEPARTMENT FOR STREET IMPROVEMENTS, CURB CORES, CURB/GUTTERS, ETC. SEPARATE PUBLIC WORKS PERMIT REQUIRED FOR DRIVEWAYS, APPROACH TO DRIVEWAY, SEWER LATERALS AND ANY WORK IN RIGHT OF WAY.

13.) A SURVEY SHALL BE PROVIDED BY A LICENSED SURVEYOR ON STRUCTURES WHICH DEFINE PROPERTY LINES, SET BACKS, DESIGNATED PARKLAND OR STREET RIGHT-OF-WAY.

14.) DUST CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

15.) PRE-CONSTRUCTION MEETING TO BE SCHEDULED WITH INSPECTOR PRIOR TO START OF WORK.

16.) THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL, PARTICULATE, CONSTRUCTION WASTE MATERIALS, OR WASTEWATER GENERATED ON CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED, CONVEYED OR DISCHARGED INTO THE STREET, GUTTER OR STORM DRAIN SYSTEM.

17.) ANY WORK IN THE CITY PUBLIC WORKS SHALL BE UNDER A SEPARATE ENCROACHMENT PERMIT WITH THE PUBLIC WORKS DEPARTMENT.

18.) 2% SLOPE FOR HARDSCAPE AND 5% MINIMUM FOR PERVIOUS LANDSCAPE.

19.) DIG ALERT (811) IS TO BE CONTACTED AND THAT COMPLIANCE WITH EXCAVATION SAFETY IN ACCORDANCE WITH GOVERNMENT CODE 4216 WILL BE FOLLOWED PRIOR TO ANY EXCAVATION TAKING PLACE.

20.) PROPOSED ADU WILL HAVE GAS HOOK UP FOR RANGE & DRYER.

21.) THE FOLLOWING ARE FEATURES THAT MUST BE INSTALLED AS CONDITION FOR MEETING THE MODELED ENERGY PERFORMANCE FOR THE TITLE 24 COMPUTER ANALYSIS.
- NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) RATED HEAT PUMP WATER HEATER; SPECIFIC BRAND/MODEL, OR EQUIVALENT, MUST BE INSTALLED.
- ONE OR MORE HEAT PUMP WATER HEATERS HAVE BEEN MODELED AS DEMAND RESPONSE COMPATIBLE.

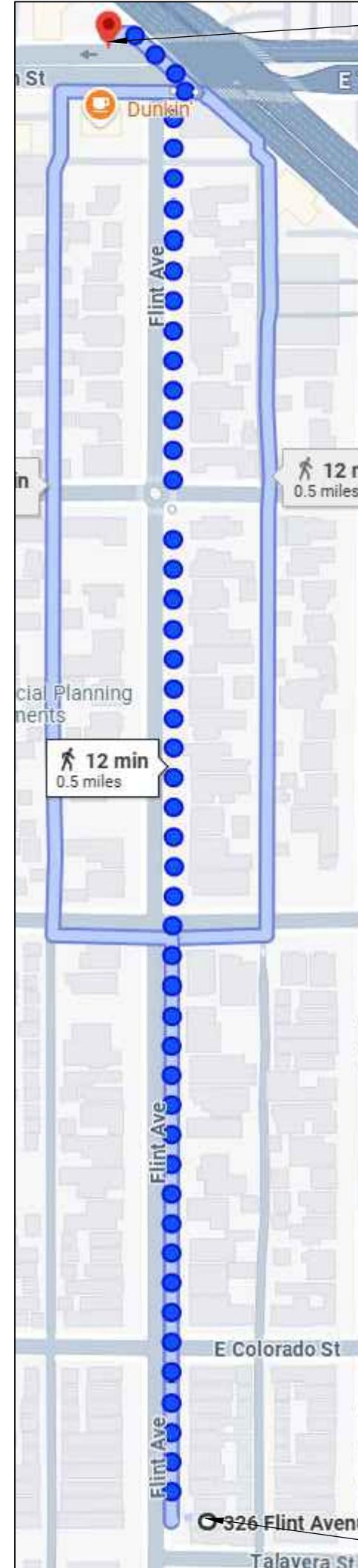
22.) THE FOLLOWING IS A SUMMARY OF THE FEATURES THAT MUST BE FIELD-VERIFIED BY A CERTIFIED HER'S RATER AS A CONDITION FOR MEETING THE MODELED ENERGY PERFORMANCE FOR THE TITLE 24 COMPUTER ANALYSIS.
ADDITIONAL DETAIL IS PROVIDED IN THE BUILDING TABLE OF THE TITLE 24 COMPUTER ANALYSIS (SHEETS T-1 THROUGH T-3). REGISTERED CF2Rs AND CF3Rs ARE REQUIRED TO BE COMPLETED IN THE HER'S REGISTRY.
- INDOOR AIR QUALITY VENTILATION
- KITCHEN RANGE HOOD
- VERIFIED HEAT PUMP RATED HEATING CAPACITY.

23.) SEWER LINE CANNOT TRAVEL UNDER THE EXISTING RESIDENCE UNLESS IT'S AN EXISTING CONDITION.

- 1.) NEW 2ND FLOOR ADU (475.0 SQ.FT.) ABOVE EXISTING GARAGE (380.0 SQ.FT.).
- OPEN STUDIO LAYOUT WITH KITCHEN.
- 3/4 BATHROOM.
- LAUNDRY CLOSET FOR STACKED W/D.
- 2.) NEW STAIRCASE w/ TOP LANDING (71.0 SQ.FT.).
- 3.) NEW COVERED PATIO (65.0 SQ.FT.).
- 4.) ELECTRIC HEAT PUMP WATER HEATER PLACED WITHIN A FRAMED/STUCCOED COMPARTMENT.
- 5.) NEW ELECTRIC DUCTLESS HEAT PUMP MINI-SPLIT CONDENSER (SINGLE-ZONE SYSTEM).
- 6.) NEW 100 AMP ELECTRICAL METER FOR ADU.

SCOPE OF WORK 12

SEPARATE PERMITS 13



NEAREST PUBLIC TRANSIT

326 FLINT AVE.
Talavera St.

City of Long Beach Building and Safety Bureau	
Pre-Construction Inspection Meeting Required	
A pre-construction inspection meeting shall be scheduled with the inspection division prior to commencing any construction work.	

DEPUTY INSPECTION & STRUCTURAL OBSERVATION	
<input checked="" type="checkbox"/> Concrete	<input type="checkbox"/> Insulating Concrete
<input checked="" type="checkbox"/> Ductile Frame	<input type="checkbox"/> Fire Proofing
<input checked="" type="checkbox"/> Reinforcing Steel	<input type="checkbox"/> Pilings/Caissons
<input checked="" type="checkbox"/> Welding	<input type="checkbox"/> Grading
<input type="checkbox"/> H.S. Bolts	<input type="checkbox"/> Special Cases
<input type="checkbox"/> Masonry	<input checked="" type="checkbox"/> Structural Steel
<input checked="" type="checkbox"/> Anchors	<input checked="" type="checkbox"/> Structural Observ.
NPDES REPORTING REQUIREMENTS	
<input type="checkbox"/> SUSMP	<input type="checkbox"/> SWPPP
Plan Checked by: <i>[Signature]</i>	

NEW ADU ABOVE GARAGE MAIN HOME ADDRESS: 326 FLINT AVE. ADU ADDRESS: 326 FLINT AVE., UNIT 'A'

BADD326126 DATE: 10/29/25

APPROVED

This construction document MUST be at the job site during construction. It is unlawful to alter, change or deviate from this construction document without approval from the appropriate City agency or department. This approval is subject to field inspection and acceptance of the completed work/condition. The approval of this construction document SHALL NOT be held to permit or to be an approval of the violation of any provisions of the municipal code or other ordinances of the City or laws and statutes of the State.

Anthony Montez - Building Plan Check



APPROVED
By Pablo Castillo at 7:52 am, Jan 12, 2026

PLANNING AND ZONING

APPROVED

By Pablo Castillo at 7:52 am, Jan 12, 2026

CITY OF LONG BEACH APPROVED

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CITY OF LONG BEACH APPROVED



City of Long Beach
Department of Development Services
Building and Safety Bureau
**Erosion Control
Best Management Practices**

Information Bulletin
BU-039
Eff. 01-07-2013
Rev. 04-04-2017

Long Beach has two drainage systems – the sewers and the storm drains. The storm drain system was designed to prevent flooding by carrying excess rainwater away from city streets out to the ocean. Because the system contains no filters, it now serves the *unintended* function of carrying urban pollution straight to the ocean. This Information Bulletin will describe how to prevent ocean pollution from "stormwater" or "urban runoff."

Best management practices, such as handling, storing and disposing of materials properly prevents construction site pollutants from entering the storm drains.

GENERAL BUSINESS PRACTICES

ESCI SCHEDULING

Purpose: To reduce the discharge of pollutants from construction sites by sequencing the construction project to reduce the amount and duration of soil exposure.

- Schedule major grading operations during dry months.
- Practice erosion and sediment control year round.
- Schedule project to disturb only small portions of the site at any one time.
- Close and stabilize open trenches as soon as possible.

ESC21 DUST CONTROL

Purpose: To reduce the discharge of pollutants from construction sites by using dust control measures to stabilize soil from wind erosion, and reduce dust generated by construction activities.

- Stabilize exposed soils by using vegetation, watering/sprinkling, and stone gravel layering.
- Identify and stabilize primary access to site.
- Direct traffic to stabilized areas within the project.
- Street sweeping of adjacent public right-of-way.

ESC24 STABILIZED CONSTRUCTION ENTRANCE

Purpose: To reduce the discharge of pollutants from construction sites by reducing the amount of sediment, dust, and mud tracked off-site from construction traffic.

- Stabilize construction entrance with aggregate underlain with filter cloth.
- Construct on level ground where possible.
- Provide ample turning radius as part of entrance.
- Length should be 50-foot minimum, and width 30-foot minimum.

This information is available in an alternative format by request to (562) 570-3807. For an electronic version of this document, visit our website at www.lbds.info.

1 of 2



ESC50 SILT FENCE

Purpose: To reduce the discharge of pollutants from construction sites utilizing a silt fence that detains sediment-laden water, promoting sedimentation behind the fence.

- Use in areas where sheet flow occurs.
- Turn ends of fence uphill.
- Select filter fabric that retains 85% of soil.
- Silt fence, which is made of filter fabric, should be entrenched and attached to supporting poles.

ESC52 SAND BAG BARRIER

Purpose: To reduce the discharge of pollutants from construction sites by stacking sand bags along a level contour creating a barrier that detains sediment-laden water promoting sedimentation. Use along the perimeter of the site and around catch basin inlets to storm drains to create a temporary sediment trap.

- Use sand bags large enough to withstand flooding.
- Inspect sand bags after each rain.
- Remove sediment behind sand bags.
- Reshape or replace damaged sand bags.

ESC56 SEDIMENT BASIN

Purpose: To discharge the pollutants from construction sites by retaining runoff sufficiently to allow excessive sediment to settle.

- Should be located where failure of embankment would not cause life/property damage.
- Inspect weekly and after each rain.
- Remove sediments by using filters if necessary when basin is half-full.
- Line basin if ground water is within 10 feet of bottom.



Development Services
Building & Safety Bureau
411 W. Ocean Boulevard, 2nd Floor, Long Beach, CA 90802
562.570.PMIT (7648) | longbeach.gov/lbds

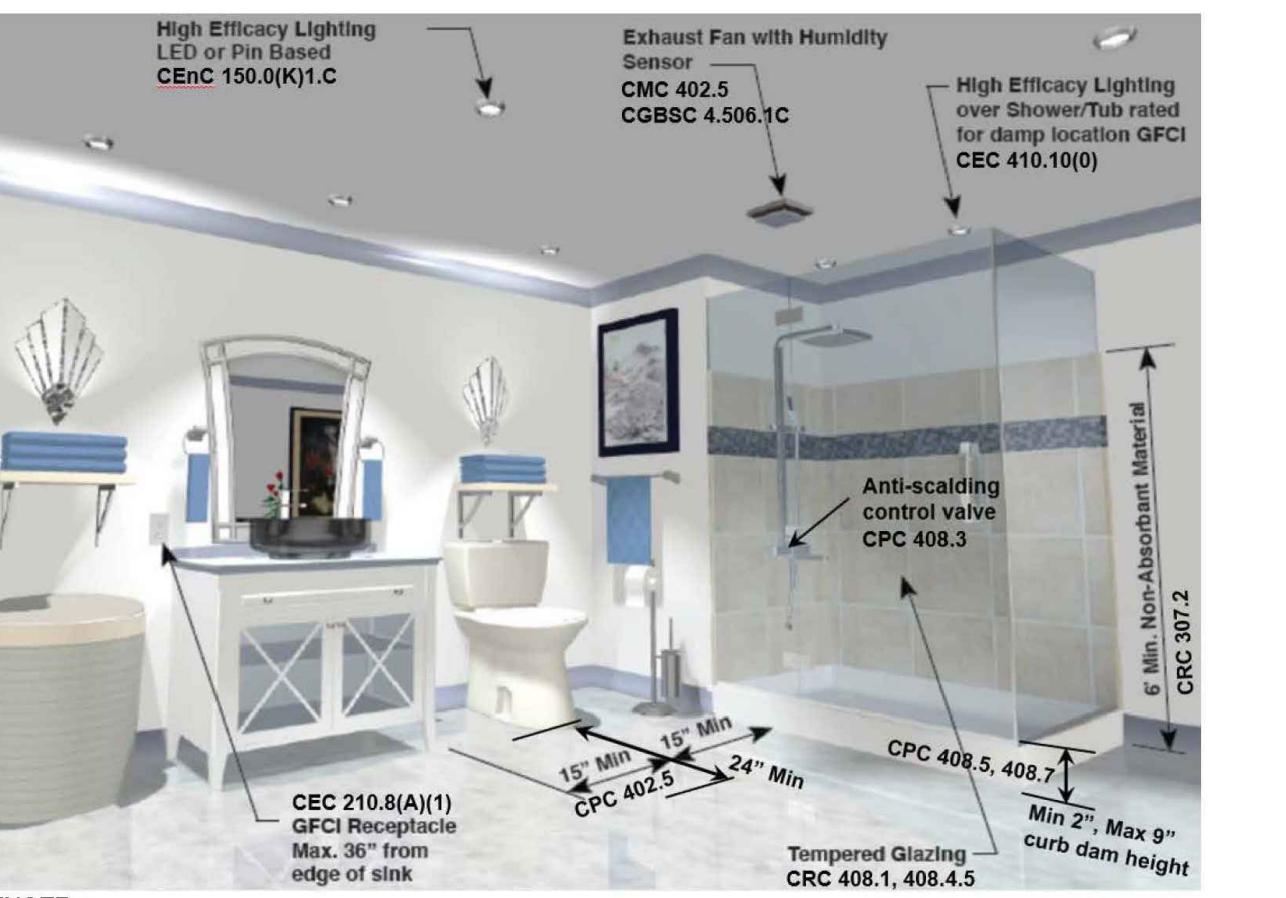
INFORMATION BULLETIN

IB-056

Eff. 01-01-2020 Rev. 08-28-2020

Residential Bathroom Remodel

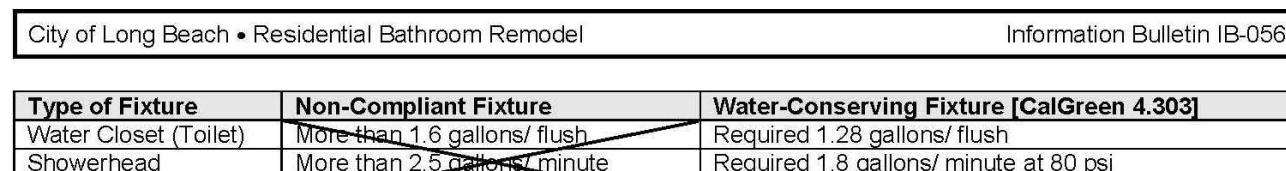
The purpose of this Information Bulletin (IB) is to assist homeowners and contractors with some of the most common code requirements and frequently asked questions associated with bathroom remodels for one- and two-family dwellings. A construction permit is required for bathroom remodels that include the removal, replacement, and/or relocation of showers, tubs or lavatories (sinks) or replacement/alteration to the electrical and/or exhaust fan. A construction permit is not required for re-facing of the existing bathroom cabinets. If a construction permit is required, it must be obtained prior to the start of the remodel.



FOOTNOTE:

1. This figure is for information and reference only and should not solely be used or relied upon as a substitute for construction documents (i.e., plans and specifications) prepared for each project by a design professional (i.e., architects, engineers, etc.).
2. The requirements are based on the 2019 Edition of the California Electrical Code (CEC), California Residential Code (CRC), California Mechanical Code (CMC), California Plumbing Code (CPC), California Energy Code (CEC), and California Green Building Standards Code (CGBC).

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City of Long Beach • Residential Bathroom Remodel

Information Bulletin IB-056

Type of Fixture	Non-Compliant Fixture	Water-Saving Fixture [CalGreen 4.303]
Water Closet (Toilet)	More than 1.6 gallons/flush	Required 1.28 gallons/flush
Showershead	More than 2.5 gallons/minute	Required 1.8 gallons/minute at 80 psi
Faucet-Bathroom	More than 2.2 gallons/minute	Required 1.2 gallons/minute at 60 psi

LIGHTING:

- No electrical fixtures within 3' horizontally and 8' above bathtub/shower. Recessed lighting at bathtub/shower shall be suitable for damp locations and provided with a cover. CEC 410.10(D).
- Bathroom lighting shall have at least one high efficacy luminaire or controlled by an occupancy sensor or vacancy sensor; it shall have a manual "On" switch. CEC 150.0(K)2.I.
- Recessed luminaires shall be high efficacy and not be screw based. Luminaires installed in an insulated ceiling shall be I.C. (insulation contact) rated, AT (airtight), and sealed and/or gasketed between ceiling and housing. CEC 150.0(K)1.C

MECHANICAL:

- Each bathroom shall be mechanically vented, be ENERGY STAR compliant, terminate outside the building, controlled by a humidity control, and capable of manual or automatic adjustment of relative humidity between ≤ 50% to a max of 80%. Exhaust fans shall be capable of providing a min of 50 cfm intermittently or 25 cfm continuous ventilation. CMC 402.5 & Table 403.7, CGBSC 4.506.1, CRC 303.3
- Back draft dampers are required on bathroom ventilation fan. Fan must vent through an approved duct and terminate 3' from an opening, 3' of property line, or 10' from a forced air inlet. CMC 502.2.1

PLUMBING:

- Where two separate handles control the hot and cold water, the left-handed handle, when facing the fixture shall control the hot water. CPC 417.5
- Min shower dimensions 1024 square inches and 30-inch circle. CPC 408.6
- Bathtubs and shower floors and walls w/shower heads shall be finished with a nonabsorbent surface to a min height of 6" above the floor. CRC 307.2
- Shower stall door shall be a min 22" wide. CPC 408.5
- Shower head shall not discharge directly at the entrance of the shower. CPC 408.9
- Shower drain outlet shall not be less than 2" in diameter. CPC 408.4
- Max 3 water closets on a 3" main sewer drain. CPC Table 703.2
- Min 12"x12" access to slip joint tub trap. CPC 402.10

ELECTRICAL:

- A min of one 20-amp GFCI circuit is required for bathroom receptacles. CEC 210.11(C)3
- This circuit shall not contain other outlets, except where the 20-amp circuit supplies a single bathroom. Outlets for other equipment within the same bathroom shall be permitted to be supplied in accordance with CEC 210.23 (A).
- At least one GFCI electrical outlet shall be installed within 3' of the outside edge of each bathroom sink basin and be located on wall or partition adjacent to the sink. In no case shall the receptacle be more than 12" below the countertop or sink basin. CEC 210.52(D)
- All bathroom outlets must be GFCI protected. CEC 210.8 (A)(1)

GLAZING IN HIGH HAZARD AREAS:

- Glazing in walls or enclosures containing bathtubs or showers where the bottom of the glazing is less than 60" above the walking surface shall be tempered and identification of tempered glazing shall be acid etched, laser etched or embossed. CRC 308.1, 308.4.5

To request this information in an alternative format or to request a reasonable accommodation, please contact the Development Services Department at longbeach.gov/lbds and 562.570.3807. A minimum of three business days is requested to ensure availability; attempts will be made to accommodate requests with shorter notice.

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City of Long Beach
Department of Development Services
Building and Safety Bureau
**Construction Activity
Best Management Practices**

Information Bulletin
BU-038
Eff. 01-07-2013
Rev. 04-04-2017

Long Beach has two drainage systems – the sewers and the storm drains. The storm drain system was designed to prevent flooding by carrying excess rainwater away from city streets out to the ocean. Because the system contains no filters, it now serves the *unintended* function of carrying urban pollution straight to the ocean. This Information Bulletin will describe how to prevent ocean pollution from "stormwater" or "urban runoff" for residential projects.

Best management practices, such as handling, storing and disposing of materials properly prevents construction site pollutants from entering the storm drains.

GENERAL BUSINESS PRACTICES

CD4(2) WATER CONSERVATION PRACTICE

Purpose: To reduce the discharge of pollutants from construction sites by using construction water that does not cause erosion or wash materials off-site.

Standards:

- Discourage washing of equipment on site.
- Avoid using water to clean construction areas. Sweep paved areas where practical.
- Direct construction water run-off to areas where it can soak into the ground.
- Apply water for dust control moderately so run-off does not occur.

CA10 MATERIAL DELIVERY AND STORAGE

Purpose: To reduce the discharge of pollutants during the delivery and storage process by minimizing the contact of materials with run-off.

Standards:

- Designate storage areas at the project site.
- Prevent spills or leakage of liquid materials from contaminating soil or soaking into the ground by placing storage areas on impervious surfaces. Do not store hazardous chemicals, drums, or bagged materials directly on the ground.
- Provide curbs or dikes around the perimeter of material storage areas.
- Store materials indoors when available.
- Minimize hazardous material storage on-site.
- Keep hazardous materials in their original containers and keep them well labeled.
- Keep ample supply of appropriate spill clean-up material near storage areas.
- Contain and clean up any spill immediately.

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1 of 2



CA11 MATERIAL USE

Purpose: To reduce the discharge of pollutants by properly storing and utilizing materials.

Standards:

- Use materials only where and when needed to complete the construction activity.
- Follow manufacturers instructions regarding the preparation, use, and disposal of materials.
- Avoid exposing applied materials to rainfall and run-off unless sufficient time has allowed for them to dry.

CA12 SPILL PREVENTION AND CONTROL

Purpose: To reduce the discharge of pollutants from spills by preventing, containing and clean-up spills.

Standards:

- Hold regular meetings to discuss and reinforce appropriate disposal procedures.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, notify local emergency response by calling 911.

CA20 SOLID WASTE MANAGEMENT

Purpose: To reduce the discharge of pollutants as a result of the creation, stockpiling and removal of litter and other construction waste.

Standards:

- Collect site trash regularly, daily during rainy and windy conditions.
- Keep solid materials shielded by using either a covered dumpster or other enclosed trash container that limits contact with rain, run-off, and/or scattering due to winds.
- Make sure that toxic wastes and chemicals are not disposed of in dumpsters designed for construction debris.

CA21 HAZARDOUS WASTE MANAGEMENT

Purpose: To reduce the discharge of pollutants by the proper storage and disposal of waste.

Standards:

- Sites with existing structures may contain waste which must be disposed of in accordance with federal, state, and local regulations which include sandblasting grit mixed with lead, cadmium, or chromium based paints and asbestos.
- Major contamination, large spills, and other serious hazardous waste incidents require immediate response from specialists.
- Keep liquid or semi-liquid hazardous waste in appropriate containers and under cover.
- Clearly mark on all hazardous waste containers which materials are acceptable for the container.
- Place hazardous waste containers in secondary containment.
- Make sure that toxic wastes and chemicals are not disposed of in dumpsters designed for construction debris.



CA23 CONCRETE WASTE MANAGEMENT

Purpose: To reduce the discharge of Portland cement, concrete slurries and asphalt by implementing appropriate wash-out procedures, slurry containment, housekeeping and disposal practices.

Standards:

- Do not allow slurry residue from wet coring or saw-cutting to enter storm drains.
- Shovel or vacuum slurry residue and dispose in a temporary pit.
- Designate areas to be used for washout of vehicles transporting concrete.
- Washout areas shall have a temporary pit or berm area of sufficient volume to completely contain all liquid and waste concrete.
- Once the concrete wastes are washed into the designated areas and allowed to harden, the concrete can be properly disposed.

CA30 VEHICLE AND EQUIPMENT CLEANING

Purpose: To reduce the discharge of pollutants by cleaning equipment and related activities offsite when practical.

Standards:

- Clean all vehicles and equipment that regularly enter and leave the construction site.
- Design wash area



2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (July 2024 Supplement)

For more information about the study, please contact Dr. Michael J. Hwang at (310) 206-6500 or via email at mhwang@ucla.edu.

Y	N/A	RESPON. PARTY			
					CHAPTER 3
					GREEN BUILDING
					SECTION 301 GENERAL
					301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.
					301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.
					The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.
					Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.
					Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures 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 the local building department. 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.
					301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.
					SECTION 302 MIXED OCCUPANCY BUILDINGS
					302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.
					Exceptions:
					1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
					2. [HCD] For purposes of CALGreen, live/work units, complying with Section 419 of the California Building Code, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.
					DIVISION 4.1 PLANNING AND DESIGN
					ABBREVIATION DEFINITIONS:
					HCD Department of Housing and Community Development
					BSC California Building Standards Commission
					DSA-SS Division of the State Architect, Structural Safety
					OSHPD Office of Statewide Health Planning and Development
					LR Low Rise
					HR High Rise
					AA Additions and Alterations
					N New
					CHAPTER 4
					RESIDENTIAL MANDATORY MEASURES
					SECTION 4.102 DEFINITIONS
					4.102.1 DEFINITIONS
					The following terms are defined in Chapter 2 (<i>and are included here for reference</i>)
					FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.
					WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.
					4.106 SITE DEVELOPMENT
					4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.
					4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. 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. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.
					1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
					2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
					3. Compliance with a lawfully enacted storm water management ordinance.
					Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.
					(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)
					4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:
					1. Swales
					2. Water collection and disposal systems
					3. French drains
					4. Water retention gardens
					5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.
					Exception: Additions and alterations not altering the drainage path.
					4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Section 4.106.4.1 or 4.106.4.2. Electric vehicle supply equipment (EVSE) shall comply with the California Electrical Code.
					Exceptions:
					1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
					1.1 Where there is no local utility power supply or the local utility is unable to supply adequate power.
					1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project.
					2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.
					4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. 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 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.
					Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the California Electrical Code.
					4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent 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".

new multifamily dwellings, hotels and motels and new residential parking facilities.
 ing is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the
 ts of Section 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole num
 ce served by electric vehicle supply equipment or designed as an EV charging space shall count
 standard automobile parking space only for the purpose of complying with any applicable minimum
 requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further detail

6.4.2.1 Reserved.

6.4.2.2 Multifamily dwellings, hotels and motels

1. EV ready parking spaces with receptacles.

a. Hotels and motels. Forty (40) percent of the total number of parking spaces shall be
 with low power Level 2 EV charging receptacles.

b. Multifamily parking facilities. Forty (40) percent of the total number of parking spaces
 equipped with low power Level 2 EV charging receptacles. EV charging receptacles required
 this section shall be located in at least one assigned parking space per dwelling unit where
 assigned parking is provided but need not exceed forty (40) percent of the total number of
 parking spaces provided on the site.

Exception: Areas of parking facilities served by parking lifts, including but not limited to
 automated mechanical-access open parking garages as defined in the *California Building Code*; or parking facilities otherwise incapable of supporting electric vehicle chargers.

c. Receptacle power source. EV charging receptacles in multifamily parking facilities shall be
 provided with a dedicated branch circuit connected to the dwelling unit's electrical panel
 determined as infeasible by the project builder or designer and subject to concurrence of
 enforcing agency.

Exception: Areas of parking facilities served by parking lifts, including but not limited to
 automated mechanical-access open parking garages as defined in the *California Building Code*; or parking facilities otherwise incapable of supporting electric vehicle chargers.

d. Receptacle configurations. 208/240V EV charging receptacles shall comply with one of
 the following configurations:

1. For 20-ampere receptacles, NEMA 6-20R
2. For 30-ampere receptacles, NEMA 14-30R
3. For 50-ampere receptacles, NEMA 14-50R

2. EV ready parking spaces with EV chargers.

a. Hotels and motels. Ten (10) percent of the total number of parking spaces shall be
 with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be
 with J1772 connectors.

b. Multifamily parking facilities. Ten (10) percent of the total number of parking spaces shall be
 equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be
 equipped with J1772 connectors. Where common use parking or unassigned parking is provided,
 EV chargers shall be located in common use or unassigned parking areas and shall be
 for use by all residents or guests.

Where low power Level 2 EV charging receptacles or Level 2 EV chargers are installed to
 the minimum required, an automatic load management system (ALMS) may be used to limit
 the maximum required electrical capacity to each space served by the ALMS. The electrical
 and any on-site distribution transformers shall have sufficient capacity to deliver at least
 simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuits
 have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity
 less than 30 amperes.

6.4.2.2.1 Electric vehicle charging stations (EVCS).
 Electric vehicle charging stations required by Section 4.106.4.2.2, Item 2, with EV chargers installed
 shall comply with Section 4.106.4.2.2.1.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels
 and restaurants, and other transient occupancy facilities, as defined in the *California Building Code*,
 not be required to comply with this section. See *California Building Code*, Chapter 11B, for applicable
 requirements.

6.4.2.2.1.1 Electric vehicle charging stations (EVCS) spaces with EV chargers installed; design location.

S spaces shall be designed to comply with the following:

The minimum length of each EVCS space shall be 18 feet (5486 mm).
 The minimum width of each EVCS space shall be 9 feet (2743 mm).
 One in every 25 EVCS spaces, but not less than one, shall also have an 8-foot (2438 mm) wide
 aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of
 EVCS space is 12 feet (3658 mm). Surface slope for this EVCS space and the aisle shall not
 exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction. These EVCS spaces
 shall comply with at least one of the following:

- a. The EVCS space shall be located adjacent to an accessible parking space meeting the requirements of the *California Building Code*, Chapter 11A, to allow use of the EV charger from the accessible parking space.
- b. The EVCS space shall be located on an accessible route, as defined in the *California Building Code*, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the *California Building Code*, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1.

6.4.2.2.1.2 Accessible electric vehicle charging station spaces.
 In addition to the requirements in Section 4.106.4.2.2.1.1, all EV chargers, where installed, shall comply with the accessibility provisions for EV chargers in the *California Building Code*, Chapter 11B. EV ready spaces in multifamily developments shall comply with *California Building Code*, Chapter 11A, Section 1103.1.

6.4.2.3 Reserved.

6.4.2.4 Reserved.

6.4.2.5 Electric vehicle ready space signage.
 Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with the Zero Emission Vehicle Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or successor(s).

Electric vehicle charging for additions and alterations of parking facilities serving existing buildings.
 New parking facilities are added, or electrical systems or lighting of existing parking facilities are altered, and the work requires a building permit, ten (10) percent of the total number of parking spaces added shall be EV capable spaces to support future Level 2 electric vehicle supply equipment. The service panel circuit directory shall identify the overcurrent protective device space(s) reserved for EV charging purposes as "EV CAPABLE."

Construction documents are intended to demonstrate the project's capability and capacity for facility charging.

There is no requirement for EV spaces to be constructed or available until EV chargers are installed.

BADD326126	DATE:10/29/25
City of Long Beach Electronic Plan Check	
APPROVED	
<p>This construction document MUST be at the job site during construction. It is unlawful to alter, change or deviate from this construction document without approval from the appropriate City agency or department. This approval is subject to field inspection for acceptance of the completed work or installation. The approval of this construction document SHALL NOT be held to permit or to be an approval of the violation of any provisions of the municipal code or other ordinances of the City or laws and statutes of the State.</p>	
Anthony Montez - Building Plan Check	

	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y	N/A	RESPON. PARTY	
4.406 ENHANCED EFFICIENCY	<input checked="" type="checkbox"/>	<input type="checkbox"/>				DIVISION 4 EFFICIENCY
4.406.1 RODENT PROOF	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.406 ENHANCED EFFICIENCY
other openings shall be designed to prevent passage of rodents or similar pests.						4.406.1 RODENT PROOF
4.408 CONSTRUCTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.408 CONSTRUCTION
4.408.1 CONSTRUCTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.408.1 CONSTRUCTION
minimum of 65% of the construction shall be in accordance with stringent local codes.						4.408.1 CONSTRUCTION
Exceptions:						Exceptions:
1. Excavated areas shall be backfilled with soil.						1. Excavated areas shall be backfilled with soil.
2. Alternative diversion methods may be used if diversion methods do not exist or are not feasible.						2. Alternative diversion methods may be used if diversion methods do not exist or are not feasible.
3. The enforcement section which applies to the diversion of the diverted water.						3. The enforcement section which applies to the diversion of the diverted water.
4.408.2 CONSTRUCTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.408.2 CONSTRUCTION
management plan for construction shall be developed by the management plan for construction.						management plan for construction shall be developed by the management plan for construction.
1. Identify diversion methods from existing water sources or save water.						1. Identify diversion methods from existing water sources or save water.
2. Specify diversion methods on-site.						2. Specify diversion methods on-site.
3. Identify materials and equipment.						3. Identify materials and equipment.
4. Identify construction methods.						4. Identify construction methods.
5. Specify diversion methods and diversion devices.						5. Specify diversion methods and diversion devices.
4.408.3 WASTE MANAGEMENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.408.3 WASTE MANAGEMENT
by the enforcing agency, the percentage of construction waste which complies with Section 4.408.3.						by the enforcing agency, the percentage of construction waste which complies with Section 4.408.3.
Note: The enforcement section and demolition sections apply to the enforcement of the waste management plan for construction.						Note: The enforcement section and demolition sections apply to the enforcement of the waste management plan for construction.
4.408.4 WASTE MANAGEMENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.408.4 WASTE MANAGEMENT
combined weight of all materials and components of construction waste shall not exceed 65% of the minimum weight of construction waste.						combined weight of all materials and components of construction waste shall not exceed 65% of the minimum weight of construction waste.
4.408.4.1 WASTE MANAGEMENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.408.4.1 WASTE MANAGEMENT
combined weight of all materials and components of construction waste shall not exceed 65% of the minimum weight of construction waste.						combined weight of all materials and components of construction waste shall not exceed 65% of the minimum weight of construction waste.
4.408.5 DOCUMENTATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.408.5 DOCUMENTATION
which demonstrates compliance with Section 4.408.3 or Section 4.408.4.						which demonstrates compliance with Section 4.408.3 or Section 4.408.4.
Notes:						Notes:
1. Sanitary Standards Code.						1. Sanitary Standards Code.
2. Mixed waste located at the facility.						2. Mixed waste located at the facility.
4.410 BUILDING	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.410 BUILDING
4.410.1 OPERATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.410.1 OPERATION
manual, comparable to the enforcement agency.						manual, comparable to the enforcement agency.
1. Directions for operating the building that are specific to the building type.						1. Directions for operating the building that are specific to the building type.
2. Operational procedures.						2. Operational procedures.
a. Instructions for operating the building.						a. Instructions for operating the building.
b. Instructions for operating the building.						b. Instructions for operating the building.
c. Instructions for operating the building.						c. Instructions for operating the building.
d. Instructions for operating the building.						d. Instructions for operating the building.
e. Instructions for operating the building.						e. Instructions for operating the building.
3. Information on how to further reduce waste.						3. Information on how to further reduce waste.
4. Public education programs.						4. Public education programs.
5. Education and training between 30% and 60% of the relative amount of waste.						5. Education and training between 30% and 60% of the relative amount of waste.
6. Information on how to divert waste.						6. Information on how to divert waste.
7. Instructions for diverting waste.						7. Instructions for diverting waste.
8. Information on how to divert waste.						8. Information on how to divert waste.
9. Information on how to divert waste.						9. Information on how to divert waste.
10. A copy of the enforcement agency or its equivalent.						10. A copy of the enforcement agency or its equivalent.
11. Information on how to maintain the enforcement agency or its equivalent.						11. Information on how to maintain the enforcement agency or its equivalent.
12. Information on how to reinforce the enforcement agency or its equivalent.						12. Information on how to reinforce the enforcement agency or its equivalent.
4.410.2 RECYCLING	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.410.2 RECYCLING
constructed on buildings on the site.						constructed on buildings on the site.
non-hazardous materials such as cardboard, glass, plastic, and metal.						non-hazardous materials such as cardboard, glass, plastic, and metal.
Exception: Residential developments shall be constructed on buildings on the site.						Exception: Residential developments shall be constructed on buildings on the site.
DIVISION 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>				DIVISION 4
SECTION 4.50	<input checked="" type="checkbox"/>	<input type="checkbox"/>				SECTION 4.50
4.501.1 Scope	<input checked="" type="checkbox"/>	<input type="checkbox"/>				4.501.1 Scope
The provisions of this section shall apply to the disposal of organic wastes that are irritating and/or harmful to the environment.						The provisions of this section shall apply to the disposal of organic wastes that are irritating and/or harmful to the environment.
SECTION 4.50	<input checked="" type="checkbox"/>	<input type="checkbox"/>				SECTION 4.50
5.102.1 DEFINITION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				5.102.1 DEFINITION
The following terms shall have the meanings specified in this section.						The following terms shall have the meanings specified in this section.
AGRIFIBER PRODUCTS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				AGRIFIBER PRODUCTS
cores, not including insulation.						cores, not including insulation.
COMPOSITE WOOL	<input checked="" type="checkbox"/>	<input type="checkbox"/>				COMPOSITE WOOL
medium density fiberboard, structural panels, strand board, wood I-joists or finger joists.						medium density fiberboard, structural panels, strand board, wood I-joists or finger joists.
DIRECT-VENT APPLIANCE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				DIRECT-VENT APPLIANCE
that draws all flue gases to the outside.						that draws all flue gases to the outside.

4 MATERIAL CONSERVATION AND RESOURCE

CED DURABILITY AND REDUCED MAINTENANCE

ROOFING. Annular spaces around pipes, electric cables, conduits or in sole/bottom plates at exterior walls shall be protected against the elements by closing such openings with cement mortar, concrete masonry or other method acceptable to the enforcing agency.

CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent construction and demolition waste management ordinance.

ed soil and land-clearing debris.

The waste reduction methods developed by working with local agencies or recycle facilities capable of compliance with this item do not have to be located reasonably close to the jobsite.

The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of a diversion facility.

CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during inspection and examination by the enforcing agency.

ify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use.

ify if construction and demolition waste materials will be sorted site (source separated) or bulk mixed (single stream).

ify diversion facilities where the construction and demolition waste material collected will be taken.

ify construction methods employed to reduce the amount of construction and demolition waste generated.

ify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the construction and demolition waste material diverted from the landfill in accordance with Section 4.408.1.

The owner or contractor may make the determination if the construction waste materials will be diverted by a waste management company.

WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total amount of construction and demolition waste disposed of in landfills, which is less than 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% waste reduction requirement in Section 4.408.1.

WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total amount of construction and demolition waste disposed of in landfills, which is less than 2 pounds per square foot of the building area, shall meet the construction waste reduction requirement in Section 4.408.1.

DOCUMENTATION. Documentation shall be provided to the enforcing agency to demonstrate compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 and Section 4.408.4..

ample forms found in "A Guide to the California Green Building Standards (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to document compliance with this section.

Excluded construction and demolition debris (C & D) processors can be found on the California Department of Resources Recycling and Recovery website.

MAINTENANCE AND OPERATION

MANUAL AND MAINTENANCE MANUAL. At the time of final inspection, a hard copy disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

Instructions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.

Instructions and maintenance instructions for the following:

Equipment and appliances, including water-saving devices and fixtures, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.

Roof and yard drainage, including gutters and downspouts.

Space conditioning systems, including condensers and air filters.

Landscape irrigation systems.

Water reuse systems.

Information from local utility, water and waste recovery providers on methods to reduce resource consumption, including recycle programs and transportation and/or carpool options available in the area.

Information on the positive impacts of an interior relative humidity between 40–60 percent and what methods an occupant may use to maintain the humidity level in that range.

Information about water-conserving landscape and irrigation design and fixtures which conserve water.

Instructions for maintaining gutters and downspouts and the importance of placing them at least 5 feet away from the foundation.

Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.

Information about state solar energy and incentive programs available.

Summary of all special inspections verifications required by the enforcing agency to verify compliance with this code.

Information from the Department of Forestry and Fire Protection on the maintenance of defensible space around residential structures.

Information and/or drawings identifying the location of grab bar requirements.

BY OCCUPANTS. Where 5 or more multifamily dwelling units are located on a building site, provide readily accessible area(s) that serves all dwelling units on the site and are identified for the depositing, storage and collection of recyclable materials for recycling, including (at a minimum) paper, corrugated cardboard, plastics, organic waste, and metals, or meet a lawfully enacted city or county ordinance, if more restrictive.

In rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are note required to comply with the applicable portion of this section.

5 ENVIRONMENTAL QUALITY

01 GENERAL

This chapter shall outline means of reducing the quality of air contaminants that are odorous, harmful to the comfort and well being of a building's installers, occupants and neighbors.

02 DEFINITIONS

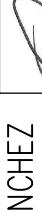
Terms defined in Chapter 2 (and are included here for reference)

DUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door furniture, fixtures and equipment (FF&E) not considered base building elements.

WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural composite lumber, oriented strand board, glued laminated timber, prefabricated timber-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 1700.

COMPLIANCE. A fuel-burning appliance with a sealed combustion system draws air for combustion from the outside atmosphere and discharges all exhaust air to the outside atmosphere.

NEW ADU ABOVE (E) GARAGE
MAIN HOME ADDRESS: 326 FLINT AVE
ADU ADDRESS: 326 FLINT AVE., UNIT
LONG BEACH, CA. 90814

REV.	REVISION DESCRIPTION	DATE	DESIGNER	OSCAR SANCHEZ (562) 481-6269	
1.	BUILDING CORRECTIONS	08/27/25			
2.	PLANNING CORRECTIONS	09/12/25	CONTRACTOR	ADU WEST COAST (714) 794-9167	
3.					
4.				CUSTOMER	
5.					
6.					ENGINEER
7.					
DRAWN BY : C. SANCHEZ					
DATE : 07/22/2025					
UPDATED BY : C. SANCHEZ					
DATE : 09/23/2025					
JOB NO.: 25-326FLINT					
PAGE AIA-1					

The logo for ADU West Coast features the letters "ADU" in large blue block letters. The letter "A" is partially overlaid by a red triangle pointing downwards. Below "ADU" is the word "WEST COAST" in smaller blue capital letters. At the bottom is the address "2001 SEAL BEACH BLVD".

**3001 SEAL BEACH BLVD.
SEAL BEACH, CA. 90740**

— Ideal

NEW ADU ABOVE (E) GARAGE		MAIN HOME ADDRESS: 326 FLINT AVE.		ADU ADDRESS: 326 FLINT AVE., UNIT 'A'		LONG BEACH, CA. 90814		*2022 CALGREEN AIA CHECKLIST*	
DESIGNER	08/27/25	CONTRACTOR	09/12/25	CUSTOMER		ENGINEER			
DRAWN BY : C. SANCHEZ DATE : 07/22/2025									
UPDATED BY : C. SANCHEZ DATE : 09/23/2025									
JOB NO.: 25-326FLINT									
PAGE AIA-1									



2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 2 (July 2024 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y	N/A	RESPON. PARTY
MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the Less Reactive Organic Gas (ROG) Mixture per weight of compound added expressed to hundredths of a gram (g C/g ROG). Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.		
MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.		
PRODUCT-WEIGHTED MIR (PWWMR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWWMR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging). Note: PWWMR is calculated according to equations found in CCR, Title 17, Section 94521 (a).		
REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.		
VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).		
4.503 FIREPLACES		
4.503.1 GENERAL. 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 local ordinances.		
4.504 POLLUTANT CONTROL		
4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. 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 enforcing agency to reduce the amount of water, dust or debris which may enter the system.		
4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.		
4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulk used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:		
1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulk shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchlorethylene and trichlorethylene), except for aerosol products, as specified in Subsection 2 below.		
2. 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 94307.		
4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.		
4.504.2.3 Aerosol Paints and Coatings. 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.		
4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:		
1. Manufacturer's product specification. 2. Field verification of on-site product containers.		
TABLE 4.504.1 – ADHESIVE VOC LIMIT_{1,2} (Less Water and Less Exempt Compounds in Grams per Liter)		
ARCHITECTURAL APPLICATIONS VOC LIMIT		
INDOOR CARPET ADHESIVES	50	
CARPET PAD ADHESIVES	50	
OUTDOOR CARPET ADHESIVES	150	
WOOD FLOORING ADHESIVES	100	
RUBBER FLOOR ADHESIVES	60	
SUBFLOOR ADHESIVES	50	
CERAMIC TILE ADHESIVES	65	
VCT & ASPHALT TILE ADHESIVES	50	
DRYWALL & PANEL ADHESIVES	50	
COVE BASE ADHESIVES	50	
MULTIPURPOSE CONSTRUCTION ADHESIVE	70	
STRUCTURAL GLAZING ADHESIVES	100	
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250	
OTHER ADHESIVES NOT LISTED	50	
SPECIALTY APPLICATIONS		
PVC WELDING	510	
CPVC WELDING	490	
ABS WELDING	325	
PLASTIC CEMENT WELDING	250	
ADHESIVE PRIMER FOR PLASTIC	550	
CONTACT ADHESIVE	80	
SPECIAL PURPOSE CONTACT ADHESIVE	250	
STRUCTURAL WOOD MEMBER ADHESIVE	140	
TOP & TRIM ADHESIVE	250	
SUBSTRATE SPECIFIC APPLICATIONS		
METAL TO METAL	30	
PLASTIC FOAMS	50	
POROUS MATERIAL (EXCEPT WOOD)	50	
WOOD	30	
FIBERGLASS	80	
1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.		
2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.		

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

TABLE 4.504.2 – SEALANT VOC LIMIT	
(Less Water and Less Exempt Compounds in Grams per Liter)	
SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 – VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS _{2,3}	
GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS	
COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS ₁	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACCS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340
1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS	
2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.	
3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.	

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.5 – FORMALDEHYDE LIMITS ₁	
MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION	
PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD ₂	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 E 1333. 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 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350).

See California Department of Public Health's website for certification programs and testing labs.

<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx>.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350).

See California Department of Public Health's website for certification programs and testing labs.

<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx>.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed, at least 80% of floor area requiring resilient flooring shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350).

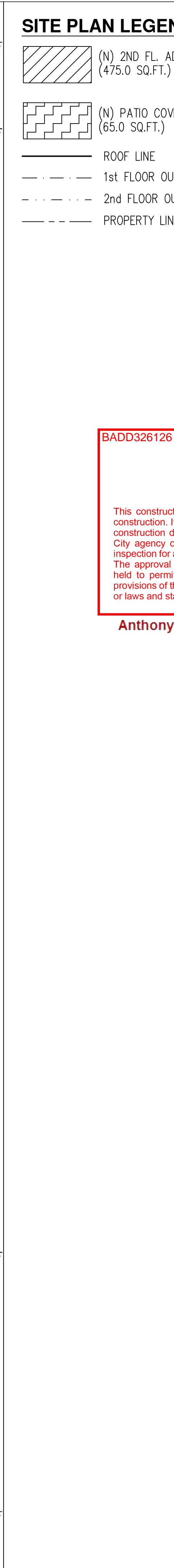
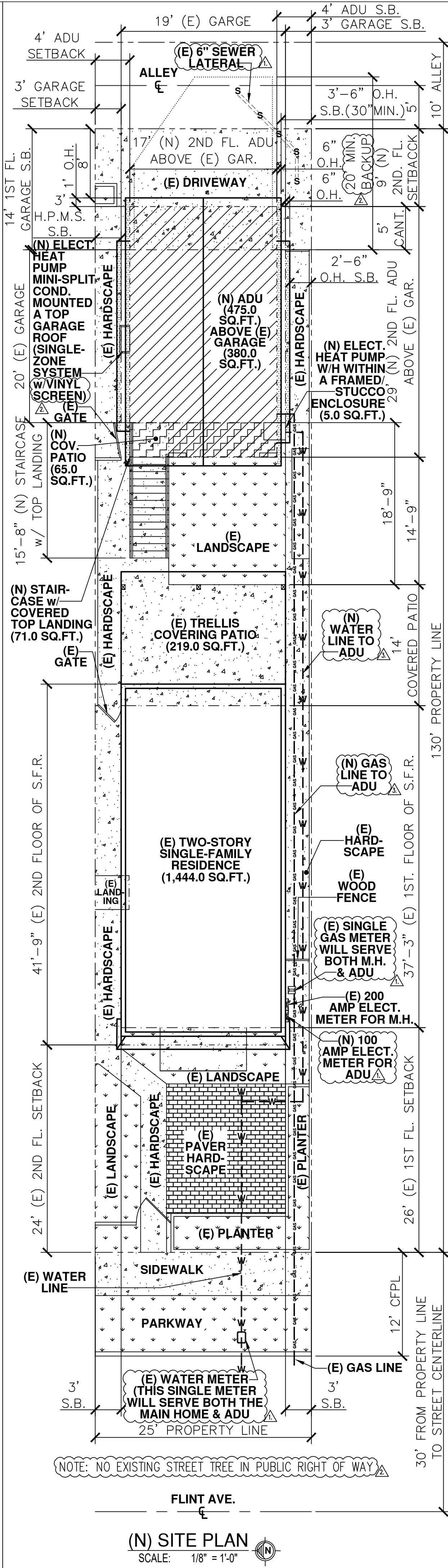
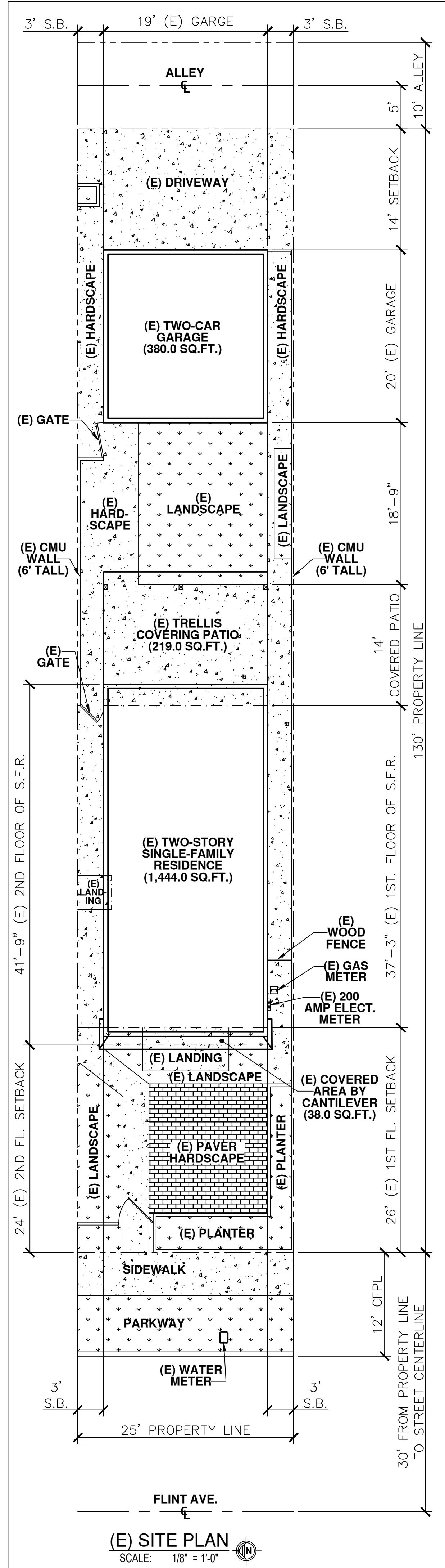
See California Department of Public Health's website for certification programs and testing labs.

<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx>.

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5.

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

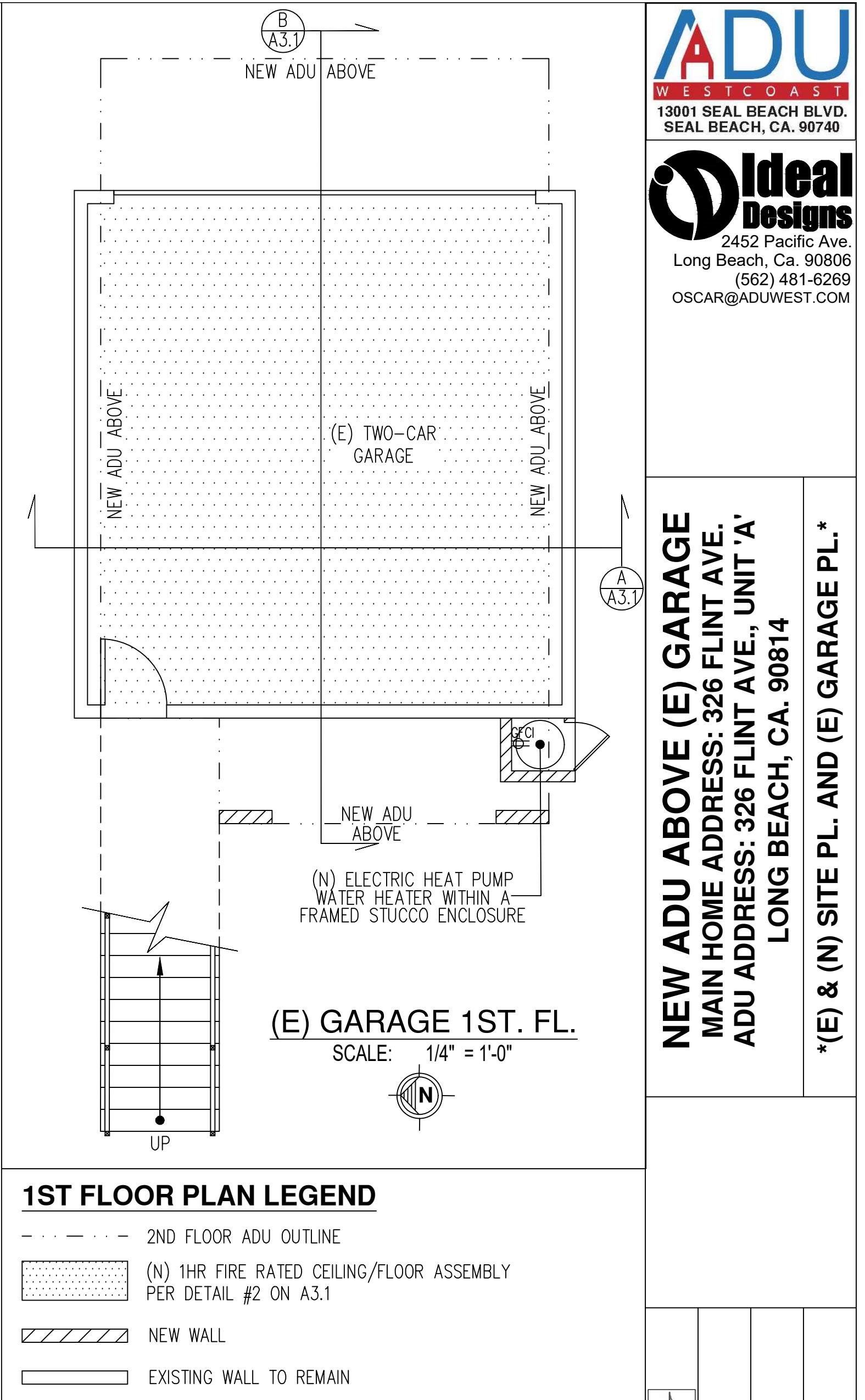
1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120 et seq.).
4. External grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636



APPROVED

This construction document MUST be at the job site during construction. It is unlawful to alter, change or deviate from this construction document without approval from the appropriate City agency or department. This approval is subject to field inspection for acceptance of the completed work or installation. The approval of this construction document SHALL NOT be held to permit or to be an approval of the violation of any provisions of the municipal code or other ordinances of the City or laws and statutes of the State.

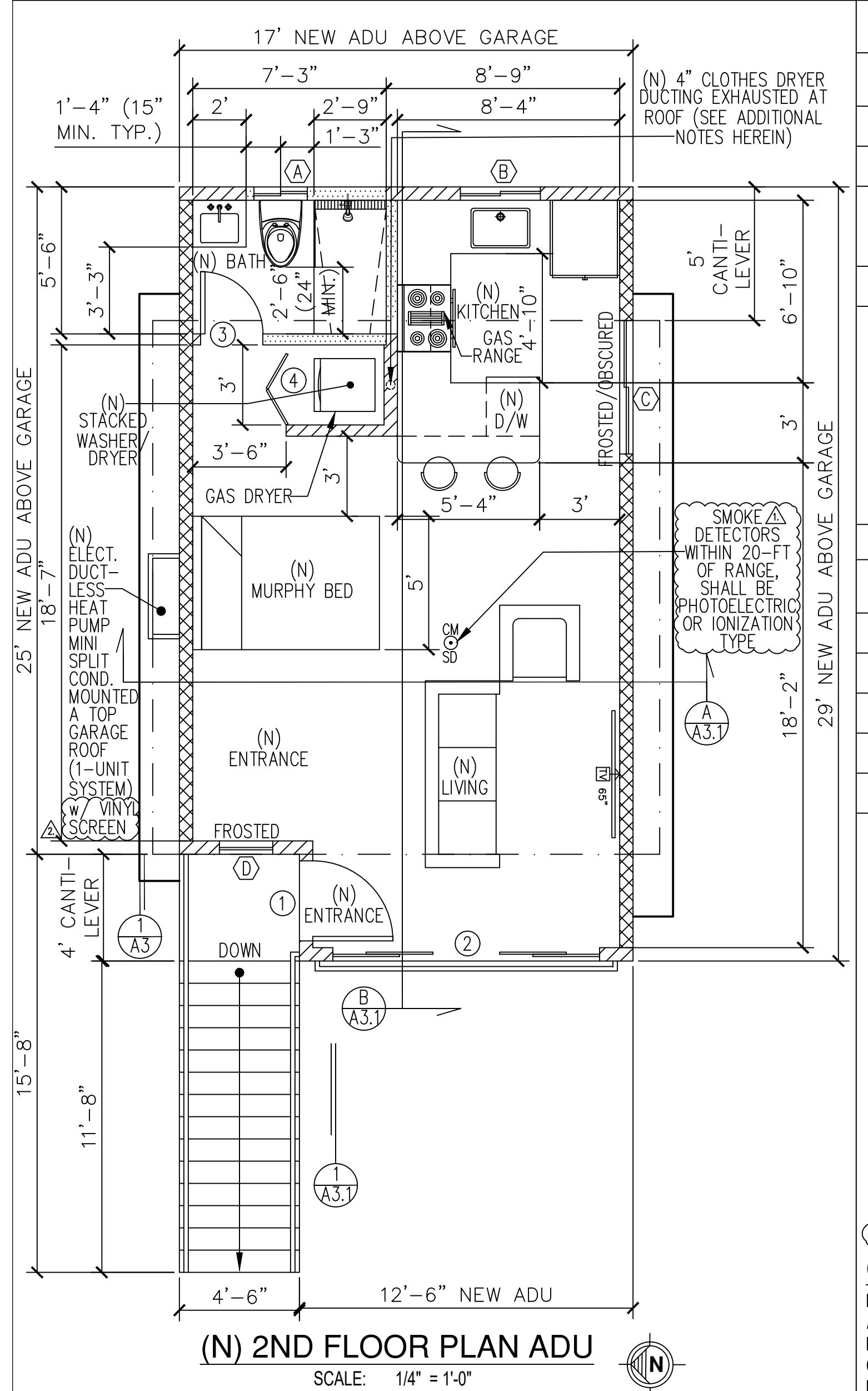
Anthony Montez - Building Plan Check



REV.	REVISION DESCRIPTION	DATE	DESIGNER	OSCAR SANCHEZ (562) 481-6269
△	BUILDING CORRECTIONS	08/27/25		
△	PLANNING CORRECTIONS	09/12/25	CONTRACTOR	ADU WEST COAST (714) 794-9167
△	BUILDING CORRECTIONS	10/08/25	CUSTOMER	
△			ENGINEER	

DRAWN BY : C. SANCHEZ
DATE : 07/22/2025
UPDATED BY : C. SANCHEZ
DATE : 10/06/2025

JOB NO.: 25-326FLINT



WINDOW SCHEDULE (CONTRACTOR TO VERIFY SIZES BEFORE ORDER)						
SYM.	SIZE	THK.	GLAZING	MATERIAL	TYPE	REMARKS
(A)	24"x36"	1 3/8"	DBL. LOW "E" U-F=.53 / SHGC=.24	TEMPERED GLASS VINYL	SLIDING	PROVIDED BY CONTRACTOR
(B)	36"x36"	1 3/8"	DBL. LOW "E" U-F=.29 / SHGC=.22	TEMPERED GLASS VINYL	SLIDING	PROVIDED BY CONTRACTOR
(C)	60"x24"	1 3/8"	DBL. LOW "E" U-F=.29 / SHGC=.22	TEMPERED GLASS VINYL	SLIDING FROSTED OR OBSCURED GLASS	PROVIDED BY CONTRACTOR; WINDOW IS REQ'D TO BE OBSCURED OR FROSTED GL. TO PROVIDE PRIVACY TO NEIGHBORING PROPERTY
(D)	24"x90"	1 3/8"	DBL. LOW "E" U-F=.53 / SHGC=.24	TEMPERED GLASS VINYL	FIXED FROSTED	PROVIDED BY CONTRACTOR

MIN. BEDROOM EGRESS STANDARDS

ALL NEW WINDOWS IN NEW BEDROOMS SHALL HAVE EMERGENCY RESCUE WINDOWS OR DOORS (CRC 310.4)

- a.) MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT.
- b.) MINIMUM NET CLEAR OPENING WIDTH OF 20".
- c.) MINIMUM NET CLEAR HEIGHT OF 24"
- d.) 44" FROM FINISHED FLOOR TO BOTTOM OF CLEAR OPENING

DOOR SCHEDULE

SYM.	SIZE	THK.	FRAME	MATERIAL	TYPE	REMARKS
(1)	3'-0" X 8'-0"	1 3/8"	WOOD	WOOD	SWING	FRONT DOOR W/ SECURITY LOCK; SELECTED BY OWNERS
(2)	10'-0" X 8'-0"	1 3/8"	WOOD	TEMP. GLASS VINYL	SLIDING	DOORS W/ SECURITY LOCK; SELECTED BY OWNERS
(3)	2'-6" X 6'-8"	1 3/8"	WOOD	WOOD	SWING	BATH DOOR W/ PRIVACY LOCK; SELECTED BY OWNERS
(4)	3'-0" X 8'-0"	1 3/8"	WOOD	WOOD	DOUBLE BI-FOLD	LAUNDRY DOOR W/ LOUVERS FOR MAKEUP AIR; SELECTED BY OWNERS; NO LOCK ON DOOR
(5)						

FLOOR PL. LEGEND

- 1ST FLOOR GARAGE OUTLINE
- NEW WALL
- NEW 1 HR. FIRE RATED EXT. WALL PER DETAIL #3 ON A3.1
- NEW WALL w/ 2x8 BACKING FOR FUTURE INSTALLATION OF GRAB BARS (AGE-IN-PLACE) DETAILS #5 & #6 ON A3.1

CLOTHES DRYER EXHAUST DUCTING

- 1.) A MIN. 4" DIAMETER TO THE OUTSIDE, EQUIPPED WITH A BACK-DRAFT DAMPER. DUCT LENGTH IS LIMITED TO 14' WITH 2 ELBOWS". OTHER LENGTHS OR SIZES AS PERMITTED OR REQUIRED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND APPROVED BY THE BUILDING OFFICIAL. (SUBMIT A REQUEST FOR MODIFICATIONS) CMC 504.3.2.2.

SMOKE ALARM NOTES

- INTERCONNECTED HARD-WIRED "SMOKE ALARM" WITH BATTERY BACKUP SHALL BE PLACED IN THE FOLLOWING LOCATIONS:
- A. IN EACH SLEEPING ROOM.
 - B. OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
 - C. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS, BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS.
 - D. NOT LESS THAN 3-FT FROM A DOOR OR OPENING OUTSIDE OF A BATHROOM THAT CONTAINS BATHROOM OR SHOWER UNLESS IT AFFECTS A-C.
 - E. SMOKE ALARM SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP AND SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72.
 - F. SMOKE DETECTORS WITHIN 20-FT FROM RANGE SHALL BE PHOTOELECTRIC OR IONIZATION TYPE.

CARBON MONOXIDE ALARM NOTES

- INTERCONNECTED HARD-WIRED "CARBON MONOXIDE ALARM" WITH BATTERY BACKUP SHALL BE PLACED IN THE FOLLOWING LOCATIONS:
- A. OUTSIDE OF EACH SEPARATE SLEEPING AREA IS THE IMMEDIATE VICINITY OF THE BEDROOMS.
 - B. ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS.
 - C. WHERE FUEL-BURNING APPLIANCES ARE IN BEDROOM OR ATTACHED BATHROOM.
 - D. CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP AND SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72.

SHOWER / BATH NOTES

- 1.) SHOWER COMPARTMENTS AND WALLS ABOVE BATHTUB WITH SHOWER HEADS SHALL BE FINISHED WITH A SMOOTH, NON-ABSORBENT SURFACE TO A HEIGHT NOT LESS THAN 6' ABOVE FLOOR. (R307.2)
- 2.) CEMENT, FIBER-CEMENT, FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM OR FIBER-REINFORCED GYPSUM BACKERS SHALL BE USED AS BASE FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS. (R702.4.2)
- 3.) ALL SHOWERS AND TUB-SHOWERS SHALL HAVE A PRESSURE BALANCE, THERMOSTATIC MIXING VALVE, OR A COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING TYPE VALVE.
- 4.) AS OF JANUARY 1, 2014, SB 407 REQUIRES THAT NONCOMPLIANT PLUMBING FIXTURES IN RESIDENTIAL AND COMMERCIAL PROPERTIES BUILT ON OR BEFORE JANUARY 1, 1994, BE REPLACED WITH WATER-CONSERVING PLUMBING FIXTURES WHEN THE PROPERTY IS UNDERGOING ADDITIONS, ALTERATION OR IMPROVEMENTS.

BADD326126 DATE:10/29/25
City of Long Beach
Electronic Plan Check

APPROVED

This construction document MUST be at the job site during construction. It is unlawful to alter, change or deviate from this construction document without approval from the appropriate City agency or department. This approval is subject to field inspection for acceptance of the completed work or condition. The approval of this construction document SHALL NOT be held to permit or to be an approval of the violation of any provisions of the municipal code or other ordinances of the City or laws and statutes of the State.

Anthony Montez - Building Plan Check

REVIEWED BY : C. SANCHEZ DATE : 09/27/25
DRAWN BY : C. SANCHEZ DATE : 07/22/25
UPDATED BY : C. SANCHEZ DATE : 09/23/25
JOB NO.: 25-326FLINT

GLAZING

- 1.) GLAZING IN THE FOLLOWING LOCATIONS SHALL BE SAFETY GLAZING CONFORMING TO THE HUMAN IMPACT LOADS OF SECTION R308.3 AND R308.4:
 A. FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BI-FOLD DOOR ASSEMBLIES
 B. GLAZING IN AN INDIVIDUAL FIXED OR WALKING SURFACE AND IT MEETS EITHER OF THE FOLLOWING CONDITIONS:
 i. WHERE THE GLAZING IS WITHIN 24 INCHES OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION

MEANS OF EGRESS

- LANDING OR FLOOR AT REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1.5 INCHES THRESHOLD (R311.3.1).

MISCELLANEOUS

- FOAM PLASTIC INSULATION SHALL COMPLY WITH SECTION R316.5.

DRAINAGE

- LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS WITH A MINIMUM FALL OF 6 INCHES WITHIN THE FIRST 10 FEET (R401.3).

WALL COVERING

- 1.) INTERIOR COVERINGS AND WALL FINISHES SHALL COMPLY WITH SECTION R702.1
 2.) EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANCE EXTERIOR WALL ENVELOPE (R703.1)
 3.) CEILING FINISHES SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS FOR INTERIOR WALL FINISHES (R805.1)

ATTIC ACCESS

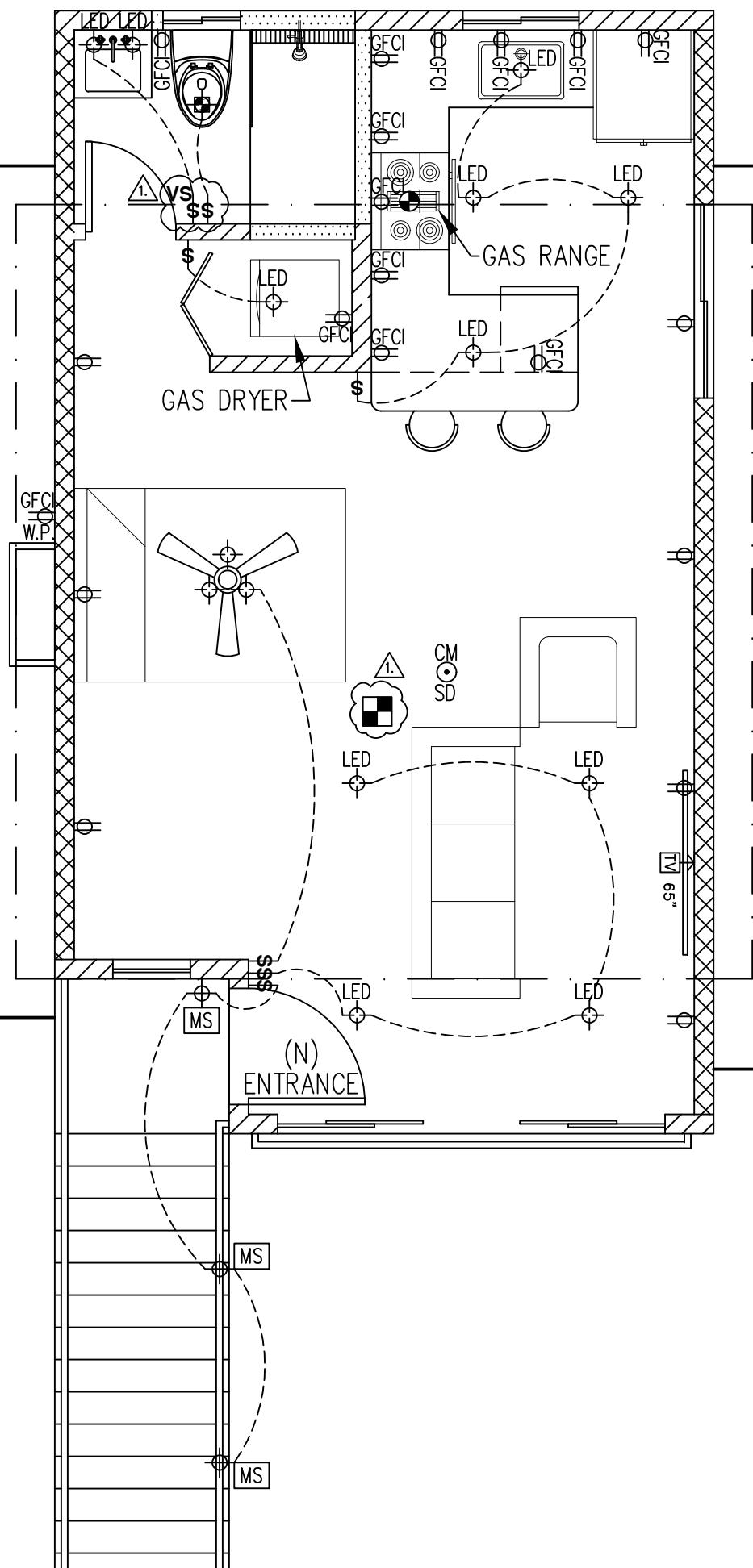
- 1.) ATTIC AREAS HAVING AN AREA EXCEEDING 30 S.F. AND A CLEAR HEADROOM OF 30" SHALL HAVE AN OPENING OF NOT LESS THAN 22"x30". A MINIMUM CLEAR HEADROOM OF 30" SHALL BE PROVIDED ABOVE THE ACCESS OPENING. (R807.1)

PLUMBING FIXTURE NOTES

- AS OF JANUARY 1, 2014, SB 407 REQUIRES THAT NONCOMPLIANT PLUMBING FIXTURES IN RESIDENTIAL AND COMMERCIAL PROPERTIES BUILT ON OR BEFORE JANUARY 1, 1994, BE REPLACED WITH WATER-CONSERVING PLUMBING FIXTURES WHEN THE PROPERTY IS UNDERGOING ADDITIONS, ALTERATION OR IMPROVEMENTS.
 ALL PLUMBING FIXTURES AND FITTINGS SHALL COMPLY WITH 2019 CGBSC SECTION 4.303:
 A. WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH
 B. URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH
 C. SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF 2.0 GALLONS PER MINUTE AT 80 PSI
 D. LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI
 E. KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 60 PSI

TABLE — MAXIMUM FIXTURE WATER USE	
Fixture Type	Flow Rate
WATER CLOSETS	1.28 GAL/FLUSH
SINGLE SHOWERHEAD	1.8 GPM @ 80 PSI
MULTIPLE SHOWERHEADS	1.8 GPM @ 80 PSI FOR ALL COMBINED SHOWERHEADS
LAVATORY FAUCETS	1.2 GPM @ 60 PSI
KITCHEN FAUCETS	1.5 GPM @ 60 PSI

ELECTRIC READINESS NOTE (SEE SHEET CS.2 FOR MORE DETAIL): A SPACE MUST BE RESERVED IN THE MAIN ELECTRICAL SERVICE PANEL FOR A DOUBLE POLE CIRCUIT BREAKER FOR THE FUTURE INSTALLATION OF AN ELECTRIC COOKTOP AND DRYER. THE RESERVED SPACES MUST BE LABELED "FOR FUTURE 240V USE."



NEW ADU ABOVE (E) GARAGE
MAIN HOME ADDRESS: 326 FLINT AVE.
ADU ADDRESS: 326 FLINT AVE., UNIT A'
LONG BEACH, CA. 90814

NEW 2ND FL. ADU PLAN w/ SCHEDULES

REVISION	DESIGNER	DATE
	OSCAR SANCHEZ (562) 481-6269	08/27/25
	CONTRACTOR	09/12/25
	CUSTOMER	(714) 794-9167
	ENGINEER	

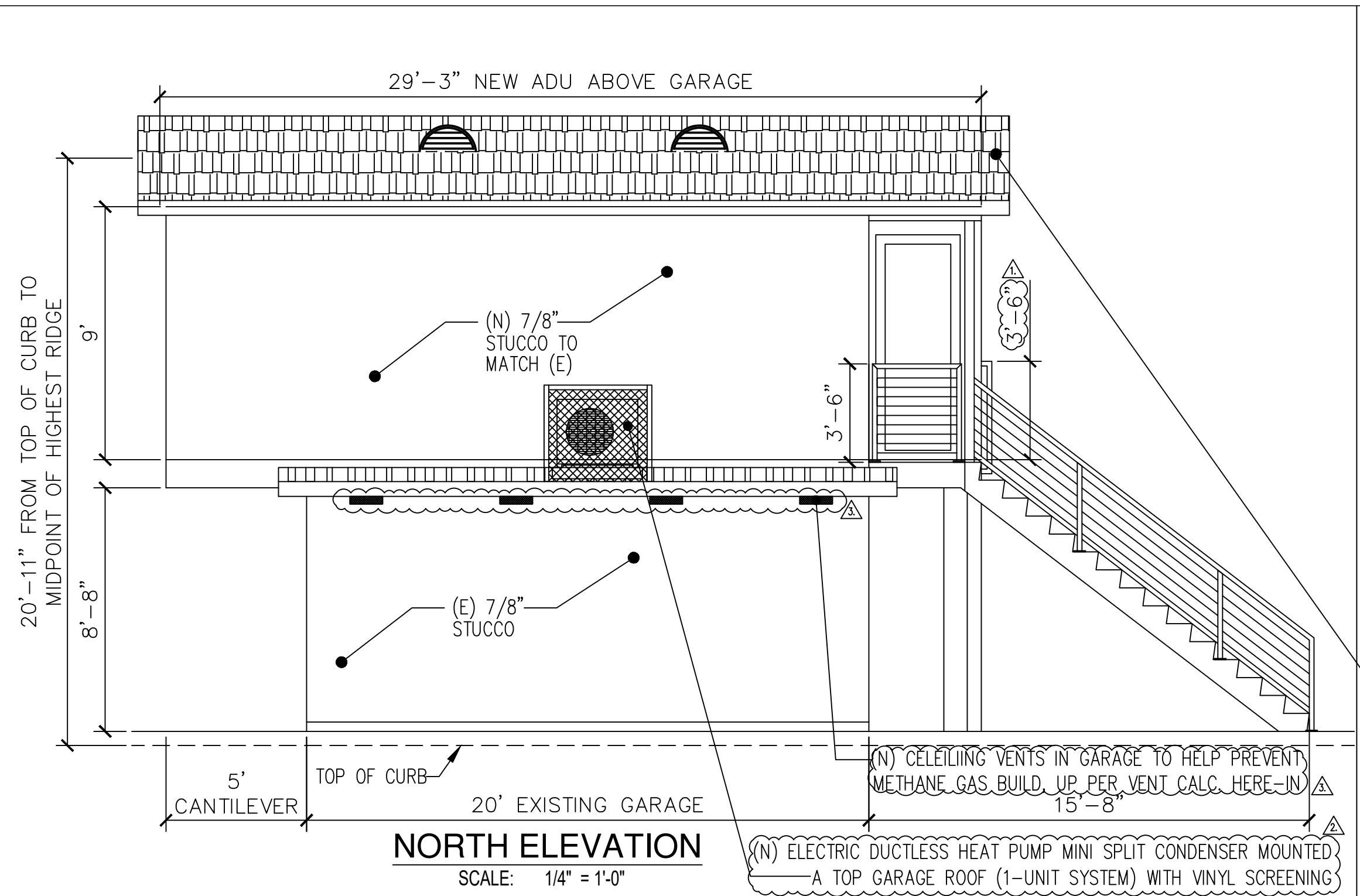
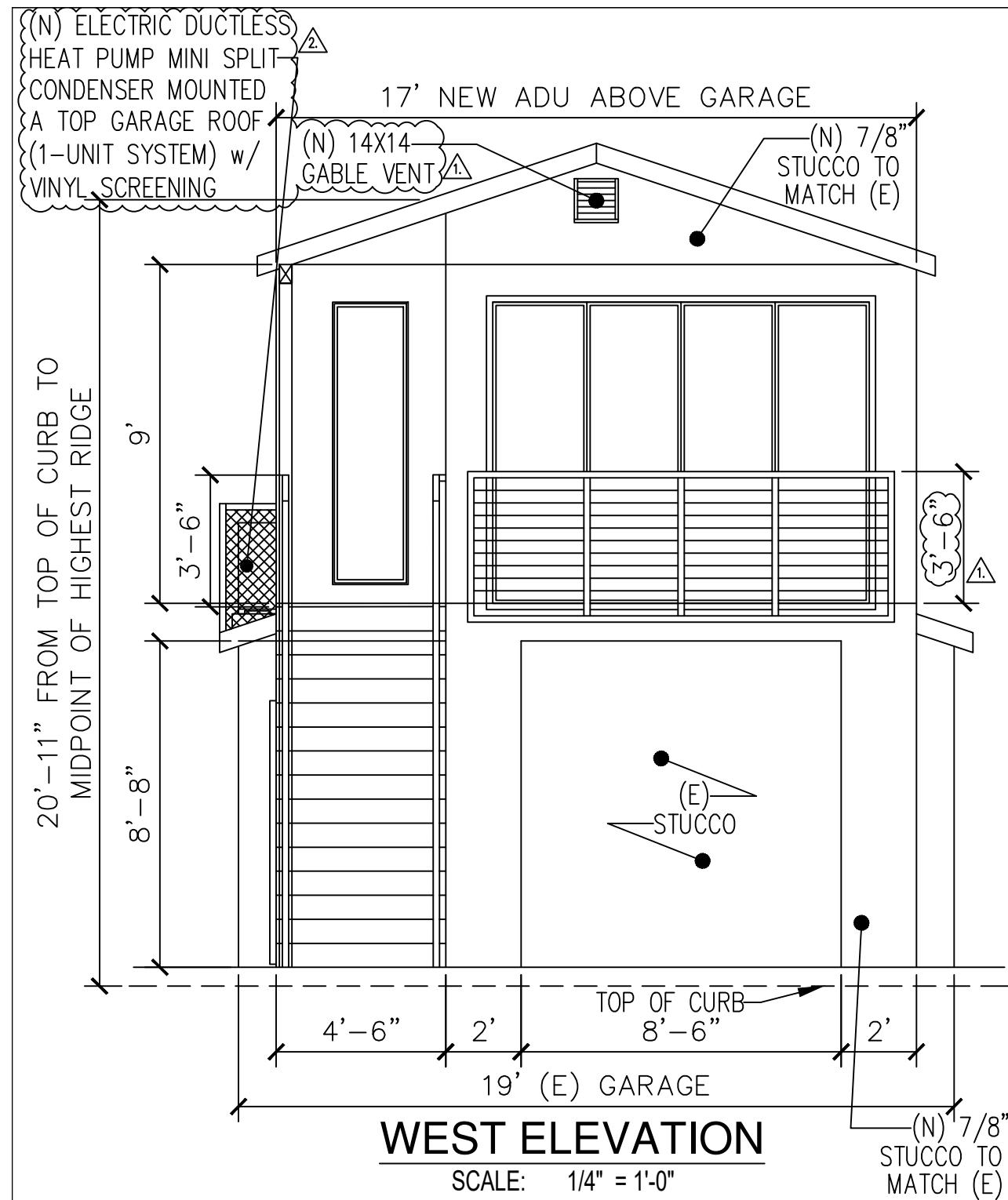
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ADU
WEST COAST
13001 SEAL BEACH BLVD.
SEAL BEACH, CA. 90740

Ideal Designs
2452 Pacific Ave.
Long Beach, Ca. 90806
(562) 481-6269
OSCAR@ADUWEST.COM

NEW ADU ABOVE (E) GARAGE
MAIN HOME ADDRESS: 326 FLINT AVE.
ADU ADDRESS: 326 FLINT AVE., UNIT 'A'
LONG BEACH, CA. 90814

ELEVATIONS & PROPOSED ROOF PLAN



NEW ATTIC AREA VENTILATION CALCULATION:
NEW ATTIC AREA: 475.0 S.F.
VENT AREA CALC.: 475.0/150 = 3.17 S.F.
 $3.17 \times 144 = 456.0$ MIN. S.I.
OF NET FREE VENTILATION

PROPOSED VENTS:

4 - DORMER VENTS 24"x12"	400.00 S.I.
(100.0 S.I. NET FREE PER VENT)	
2 - GABLE VENTS (14"x14")	140.00 S.I.
(70.0 S.I. NET FREE PER VENT)	
TOTAL (N) NET FREE VENTILATION	540.00 S.I.

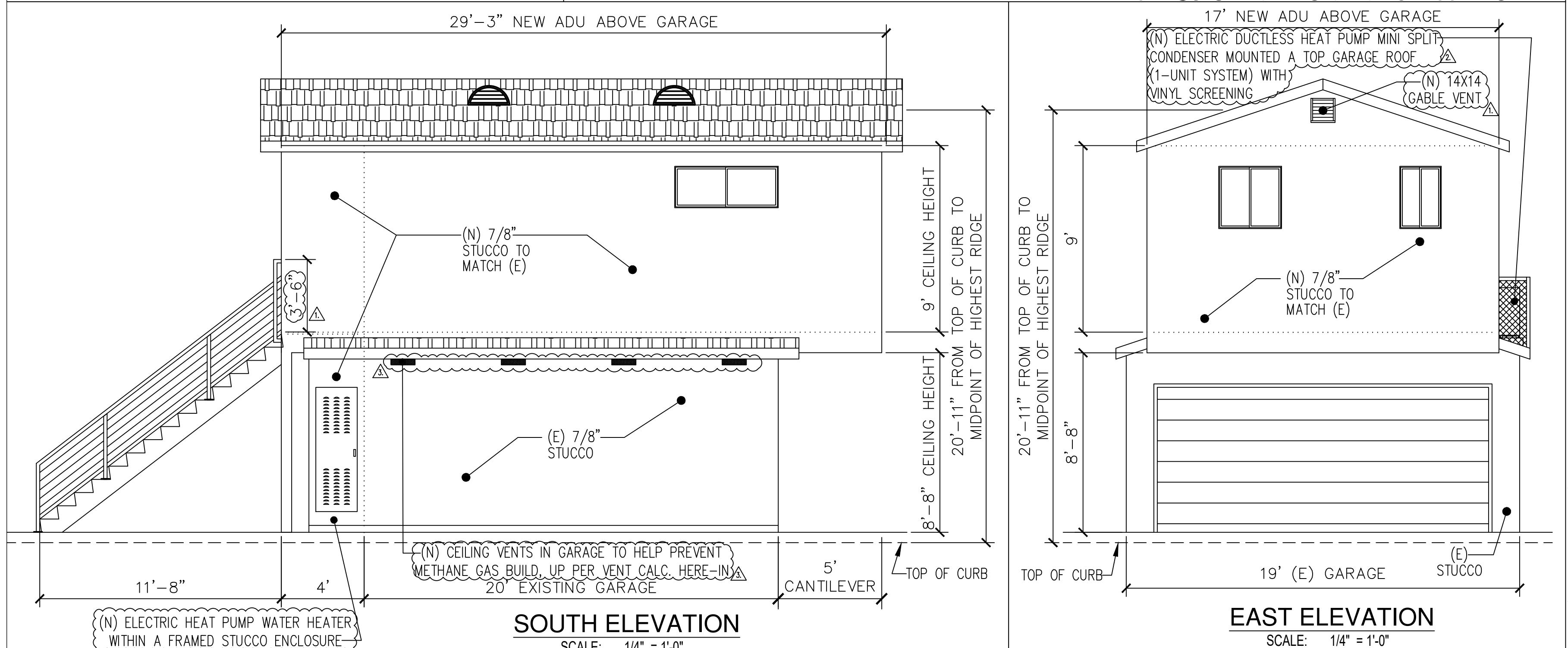
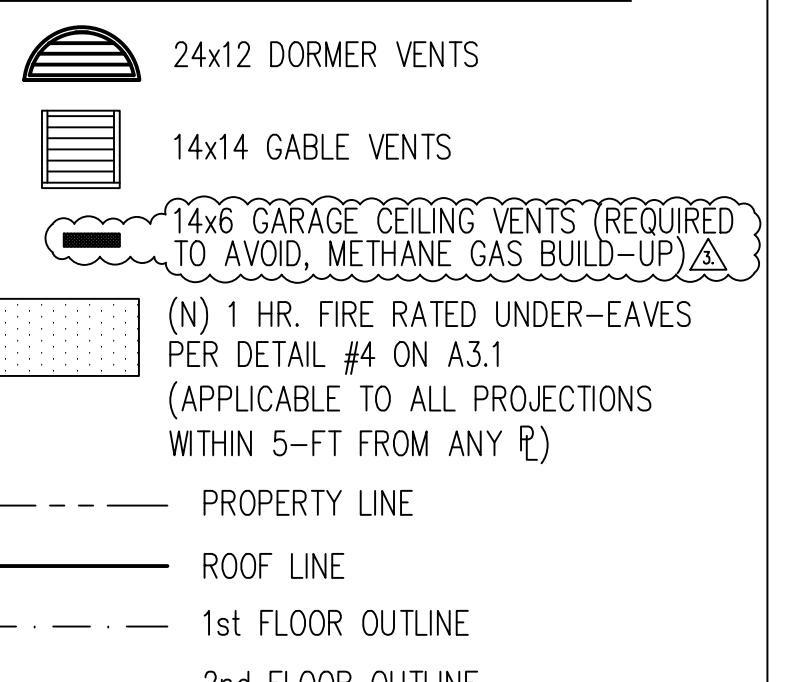
ATTIC VENTS MUST MEET THE FOLLOWING REQUIREMENTS: (R806.2)

- OPENINGS SHALL BE PLACED SO AS TO PROVIDE CROSS VENTILATION OF THE ATTIC SPACE.
- THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150 OF THE ATTIC AREA.
- OPENINGS SHALL HAVE CORROSION-RESISTANT WIRE MESH OR OTHER APPROVED MATERIAL WITH 1/16" MINIMUM AND 1/4" MAXIMUM OPENING.
- 50% OF THE REQUIRED VENTILATION AREA MUST BE LOCATED AT LEAST 3-FT. ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE PROVIDED BY EAVE OR CORNICE VENTS.
- WHERE THE RATIO OF 1/300 IS USED TO VENT THE ATTICS, NOT LESS THAN 40% BUT NOT MORE THAN 50% OF THE VENTS SHALL BE LOCATED NOT MORE THAN 3-FT. BELOW THE RIDGE.

ROOFING MATERIAL

- "ROOFING MATERIAL ON THE ROOF SHALL NOT EXCEED 4.5# PER SQ. FT." | (N) GAF CLASS A SHINGLES ICC# ESR-1475 COLOR: BIRCHWOOD (LIGHT GRAY TO MATCH (E) HOME)
- EXTERIOR LATH: PROVIDE TWO LAYERS OF GRADE D PAPER SPECIFICATIONS
- GRADE & SPECIES OF ALL LUMBER- DF LARCH #2 UON
- WOOD STRUCTURAL PANELS SHALL COMPLY WITH CRC 2022 STANDARD TABLE 2304.7 (3)

ROOF/ELEVATION LEGENDS

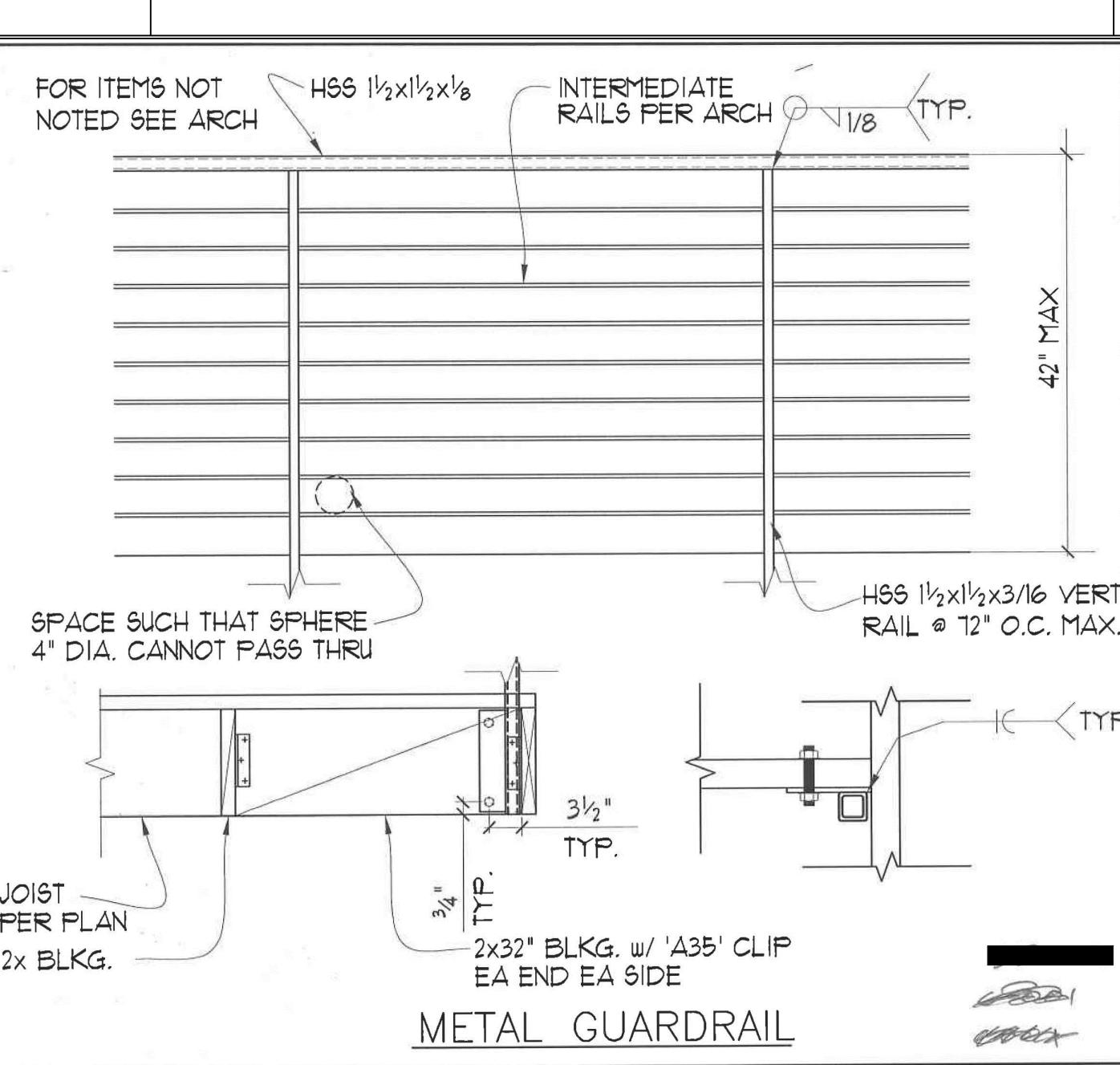
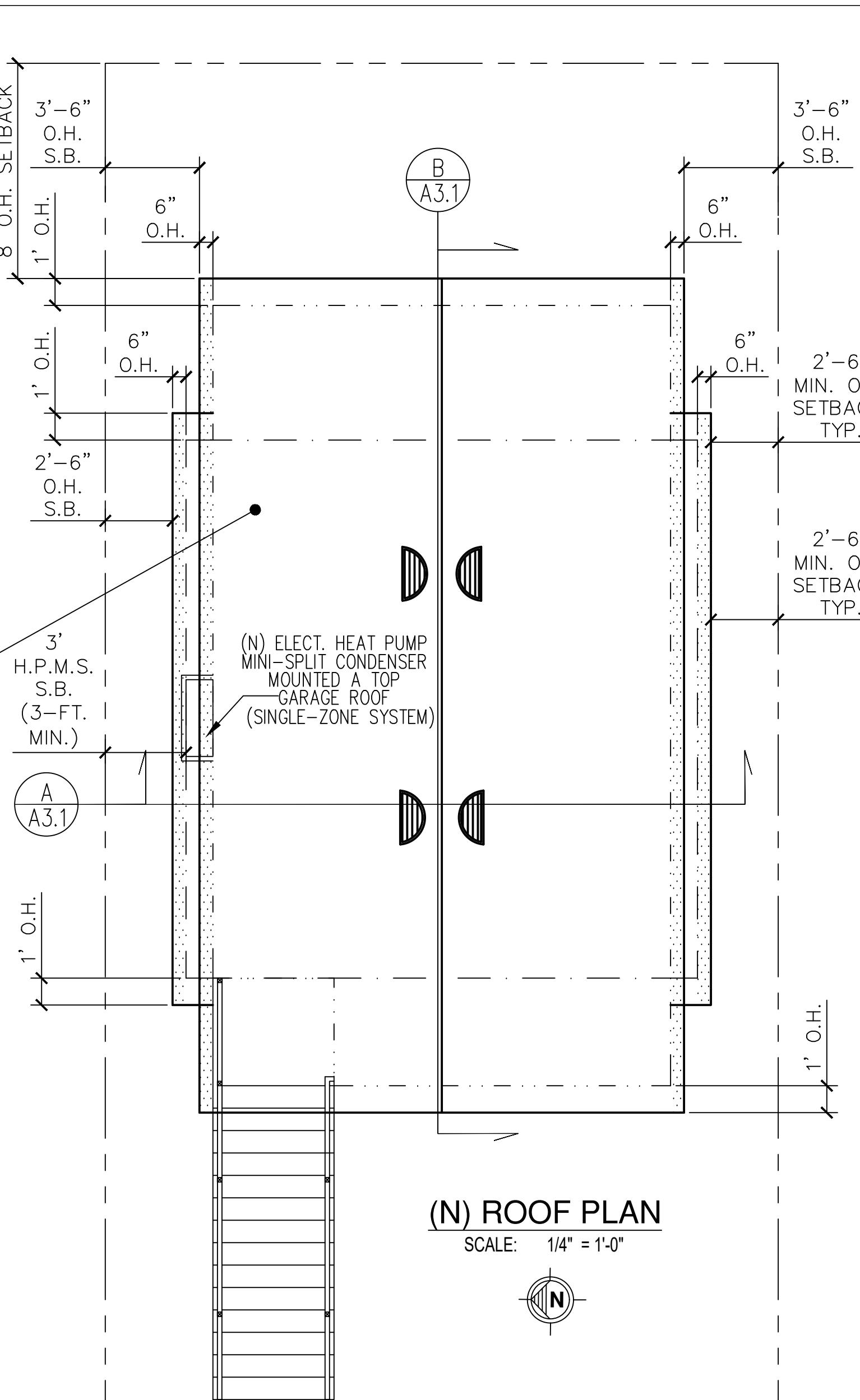


NEW CEILING/FLOOR AREA VENTILATION CALC.:
NEW ATTIC AREA: 380.0 S.F.
VENT AREA CALC.: 380.0/150 = 2.533 S.F.
 $2.533 \times 144 = 364.8$ MIN. S.I.
OF NET FREE VENTILATION

PROPOSED VENTS:

8 - FLOOR VENT 14"x6"	416.00 S.I.
(52.0 S.I. NET FREE PER VENT)	
TOTAL (N) NET FREE VENTILATION	416.00 S.I.

NOTE: CEILING/FLOOR VENTILATION REQUIRED FOR METHANE MITIGATION MEASURES.



1. METAL GUARDRAILING DETAIL

REVISION DESCRIPTION	DATE	DESIGNER	CONTRACTOR	CUSTOMER	ENGINEER
BUILDING CORRECTIONS	08/27/25	OSCAR SANCHEZ (562) 481-6269	ADU WEST COAST (714) 794-9167		
PLANNING CORRECTIONS	09/12/25				
BUILDING CORRECTIONS	11/18/25				

DRAWN BY : C. SANCHEZ
DATE : 07/22/2025
UPDATED BY : C. SANCHEZ
DATE : 11/18/2025
JOB NO.: 25-326FLINT

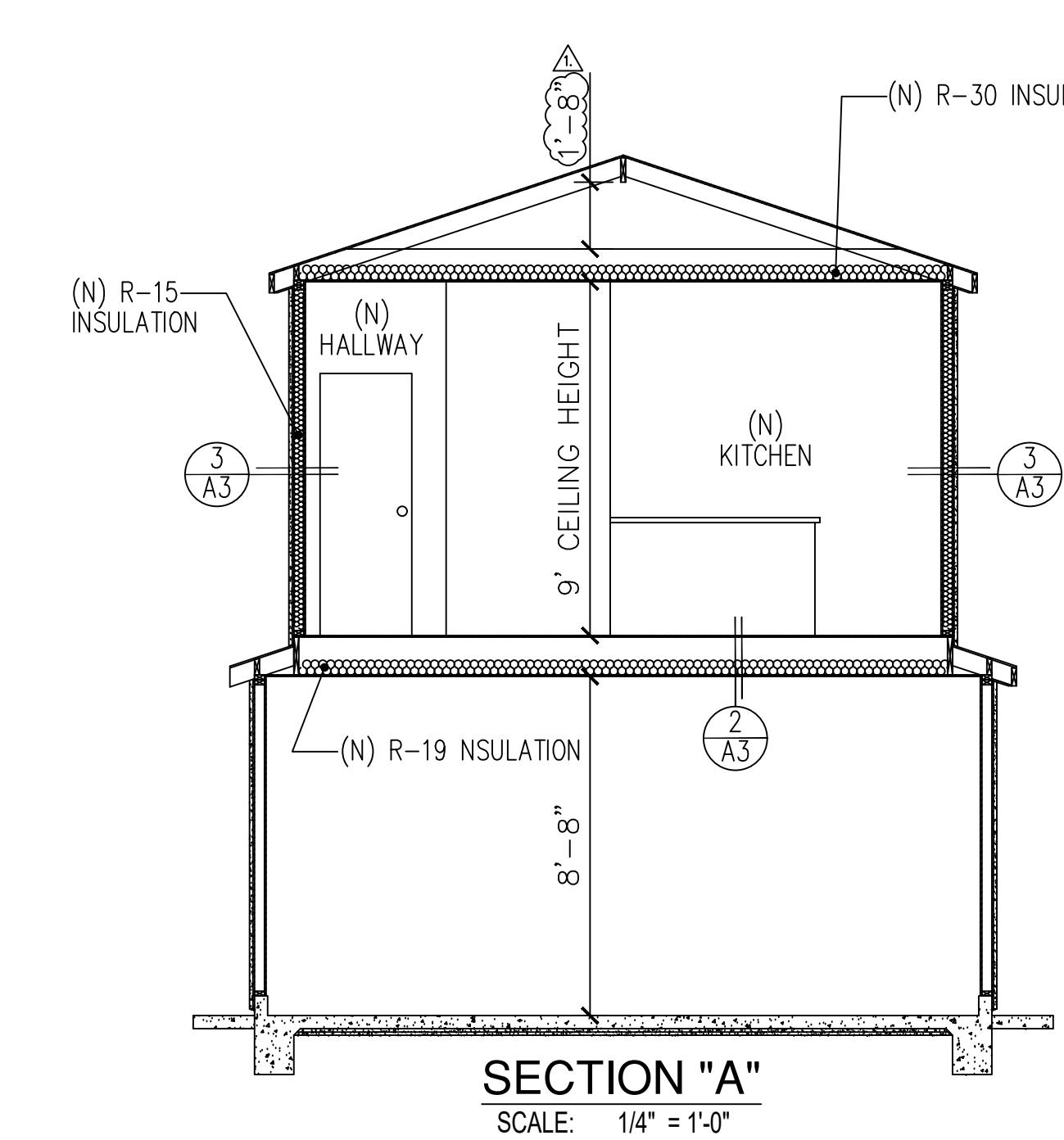
BADD326126 DATE:10/29/25

City of Long Beach
Electronic Plan Check

APPROVED

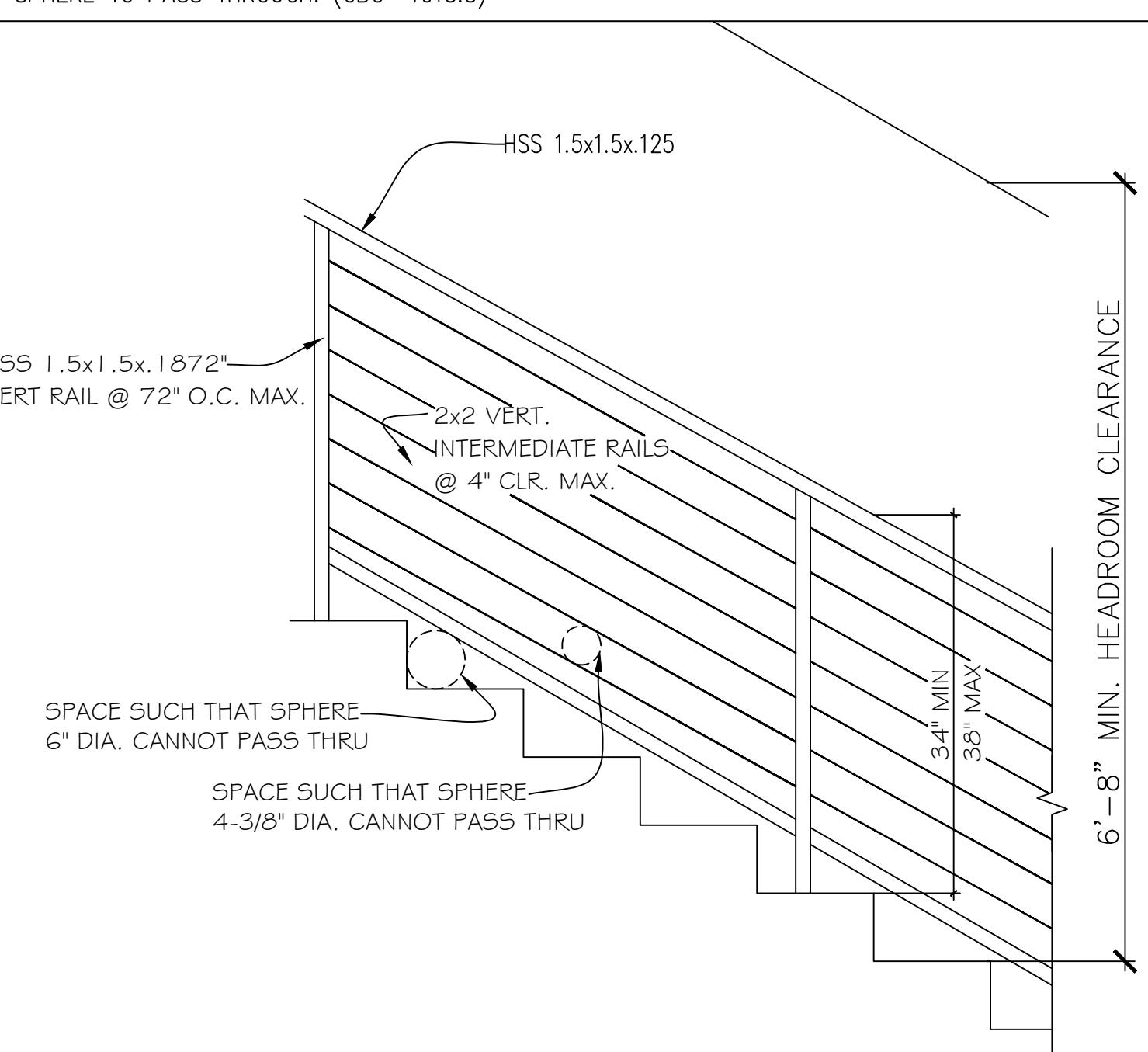
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Anthony Montez - Building Plan Check



STAIRWAY GUARD RAILINGS

- A. GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES, MEZZANINES, STAIRWAYS, RAMPS AND LANDINGS THAT ARE MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW. (CBC 1015.1)
- B. GUARD WHOSE TOP RAIL DOES NOT SERVE AS A HANDRAIL SHALL HAVE A HEIGHT OF 42 INCHES HIGH ABOVE THE LEADING EDGE OF THE TREAD. (CBC 1015.2)
- C. GUARD WHOSE TOP RAIL SERVES AS A HANDRAIL SHALL HAVE A HEIGHT OF 34 INCHES TO 38 INCHES HIGH ABOVE THE LEADING EDGE OF THE TREAD. (CBC 1015.2)
- D. OPEN GUARD SHALL NOT PERMIT 4.375 INCHES DIAMETER SPHERE TO PASS THROUGH ANY OPENING. (CBC 1015.3)
- E. TRIANGULAR OPENING FORMED BY TREAD, STAIR AND BOTTOM RAIL SHALL NOT PERMIT 6 INCHES DIAMETER SPHERE TO PASS THROUGH. (CBC 1015.3)



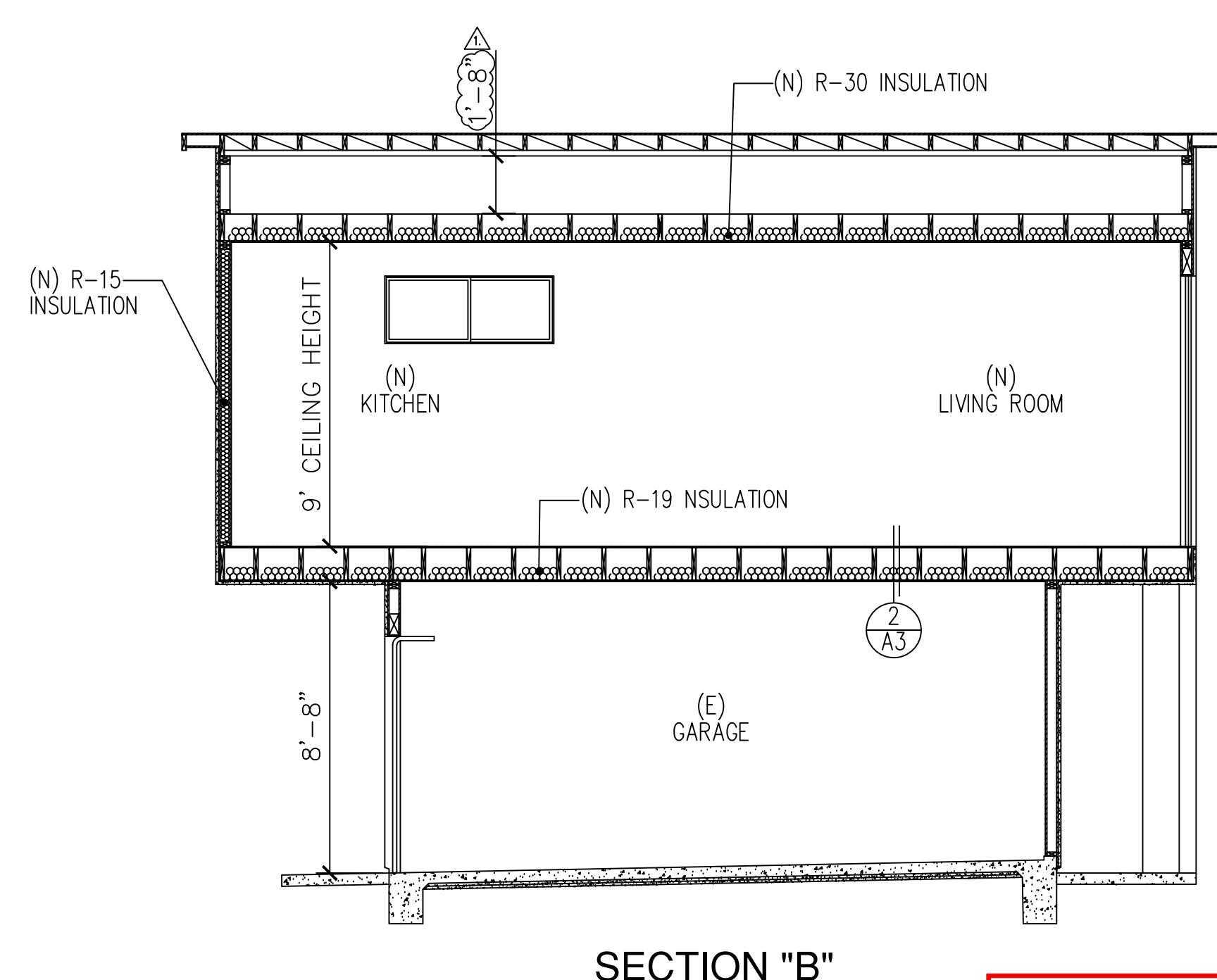
ELEVATION VIEW (N.T.S.)

1. STAIRCASE GUARD/HAND RAILING DETAIL

- A. HANDRAIL SHALL BE CONTINUOUS WITHOUT INTERRUPTION. (CBC 1012.4)
- B. MINIMUM 34 INCHES TO MAXIMUM 38 INCHES HIGH ABOVE THE STAIR TREAD NOSING. (CBC 1012.2)
- C. MINIMUM 1.25 INCHES TO MAXIMUM 2 INCHES (FOR ACCESSIBILITY, 1-1/2 INCHES PER CBC 1133B.4.2.6).
- D. MINIMUM 4 INCHES TO MAXIMUM 6.25 INCHES PERIMETER DIMENSION WITH MAXIMUM 2.25 INCHES CROSS-SECTION FOR NON-CIRCULAR HANDGRIP PORTION OF HANDRAIL. (CBC 1012.3).
- E. CIRCULAR CROSS-SECTION FOR HANDGRIP PORTION OF HANDRAIL. (CBC 1012.3).
- F. MINIMUM 12 INCHES HORIZONTALLY EXTENSION BEYOND THE TOP RISER AND CONTINUE TO SLOPE FOR THE DEPTH OF ONE TREAD BEYOND THE BOTTOM RISER SERVING MORE THAN ONE DWELLING UNIT OR NOT WITHIN A DWELLING UNIT. (CBC 1012.5).
- G. THE HANDGRIP SHALL EXTEND 12 INCHES BEYOND THE TOP AND 12 INCHES PLUS TREAD WIDTH BEYOND BOTTOM TREAD AND RETURN THE HANDRAIL TO NEWEL POST OR WALL. (SEE TITLE 24 DISABLED ACCESS FOR ADDITIONAL REQUIREMENTS.) (CBC 1133B.4.2.2).
- H. MINIMUM 1.5 INCHES CLEAR SPACE BETWEEN HANDRAIL AND WALL. (CBC 1012.6)

STAIRWAY HANDRAILS

- A. SEE PENETRATION DETAIL #5 ON A3.1.
- B. ALL RIGID CONDUITS, DUCTS, PLUMBING PIPES, AND APPLIANCE VENTS LOCATED IN SOUND ASSEMBLIES SHALL BE ISOLATED FROM THE BUILDING CONSTRUCTION BY MEANS OF RESILIENT SLEEVES, MOUNTS, OR A MINIMUM 1/4 INCHES THICK APPROVED RESILIENT MATERIAL. VENTS LOCATED IN SOUND ASSEMBLIES SHALL BE ISOLATED FROM THE BUILDING CONSTRUCTION BY MEANS OF RESILIENT SLEEVES, MOUNTS, OR A MINIMUM 1/4 INCHES THICK APPROVED RESILIENT MATERIAL.
- C. AN APPROVED PERMANENT AND RESILIENT ACOUSTICAL SEALANT SHALL BE PROVIDED ALONG THE JOINT BETWEEN THE FLOOR AND THE SEPARATION WALLS. FLOOR-CEILING ASSEMBLIES SHALL BE SEALED, LINED OR INSULATED WITH 'SHEETROCK BRAND ACOUSTICAL SEALANT'.
- D. CARPETS OR SIMILAR SURFACE MATERIAL WHICH ARE PART OF THE FLOOR-CEILING ASSEMBLY MUST BE INSTALLED AND INSPECTED BEFORE THE CERTIFICATE OF OCCUPANCY IS ISSUED AND MAY BE REPLACED ONLY BY OTHER FLOOR COVERING THAT PROVIDES THE REQUIRED IMPACT SOUND INSULATION. (CBC 1206.8)
- E. THE ENTRANCE DOORS TO RESIDENTIAL UNITS FROM INTERIOR CORRIDORS ARE REQUIRED TO HAVE A MINIMUM STC RATING OF 26.(LAMINATED 1-3/4 INCHES SOLID-CORE DOORS WITH RESILIENT STOPS AND GASKETS OR 18 GAUGE INSULATED STEEL SLAB DOORS WITH COMPRESSION SEALS ALL AROUND, INCLUDING THRESHOLDS WILL MEET THIS REQUIREMENT). (CBC 1206.7)
- F. METAL VENTILATING AND CONDITIONED AIR DUCTS LOCATED IN SOUND ASSEMBLIES SHALL BE LINED. (EXCEPTION: DUCTS SERVING ONLY EXIT-WAYS, KITCHEN COOKING FACILITIES, AND BATHROOMS NEED NOT BE LINED).
- G. MINERAL FIBER INSULATION SHALL BE INSTALLED IN JOIST SPACES WHENEVER A PLUMBING PIPING OR DUCT PENETRATES A FLOOR-CEILING ASSEMBLY OR WHERE SUCH UNIT PASSES THROUGH THE PLANE OF THE FLOOR-CEILING ASSEMBLY FROM WITHIN A WALL. THE INSULATION SHALL BE INSTALLED TO A POINT 12 INCHES BEYOND THE PIPE OR DUCT. THIS REQUIREMENT IS NOT APPLICABLE TO FIRE SPRINKLER PIPE, GAS LINE OR ELECTRICAL CONDUIT.



SECTION "B"

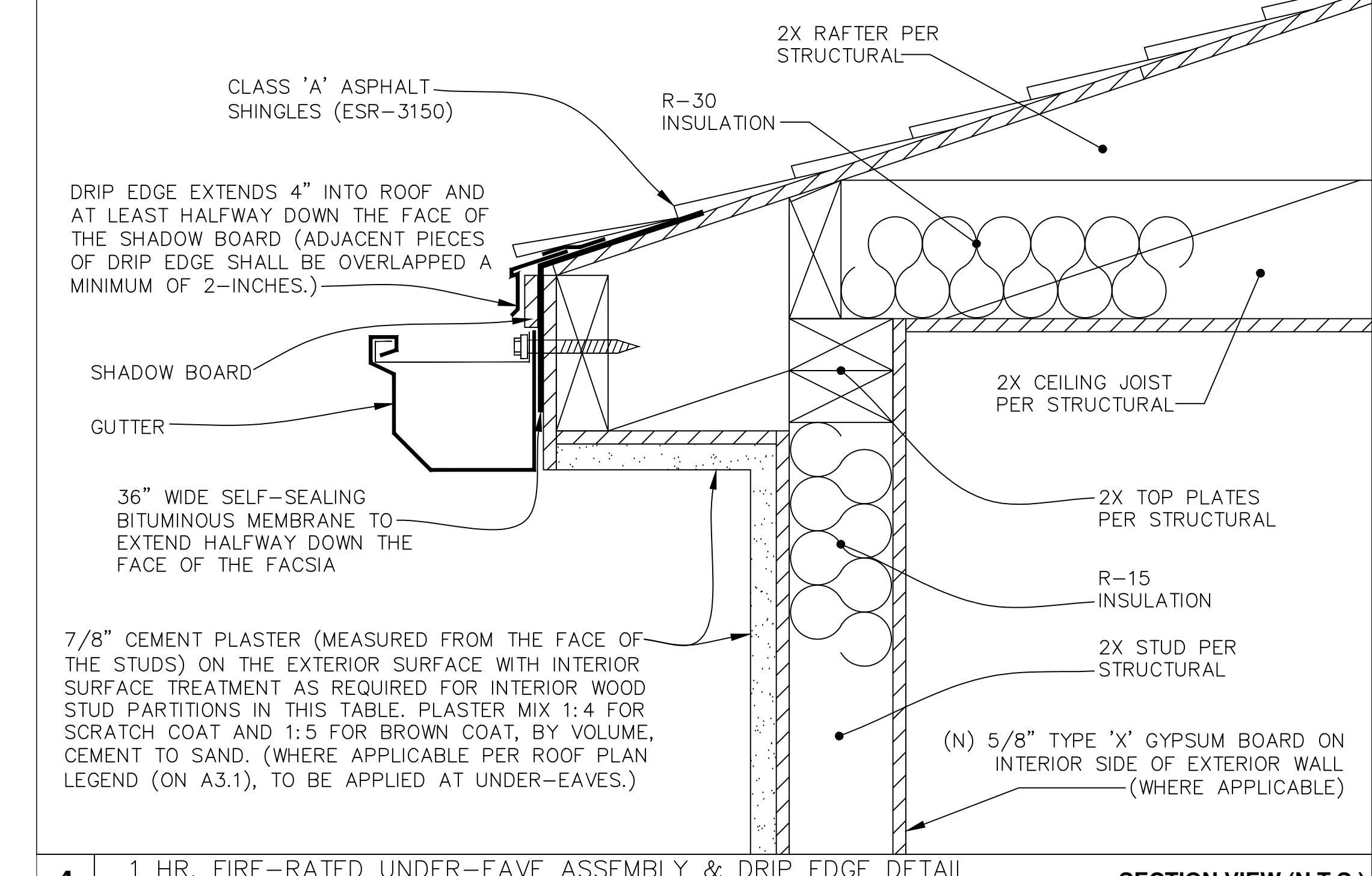
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BADD326126 DATE:10/29/25

APPROVED

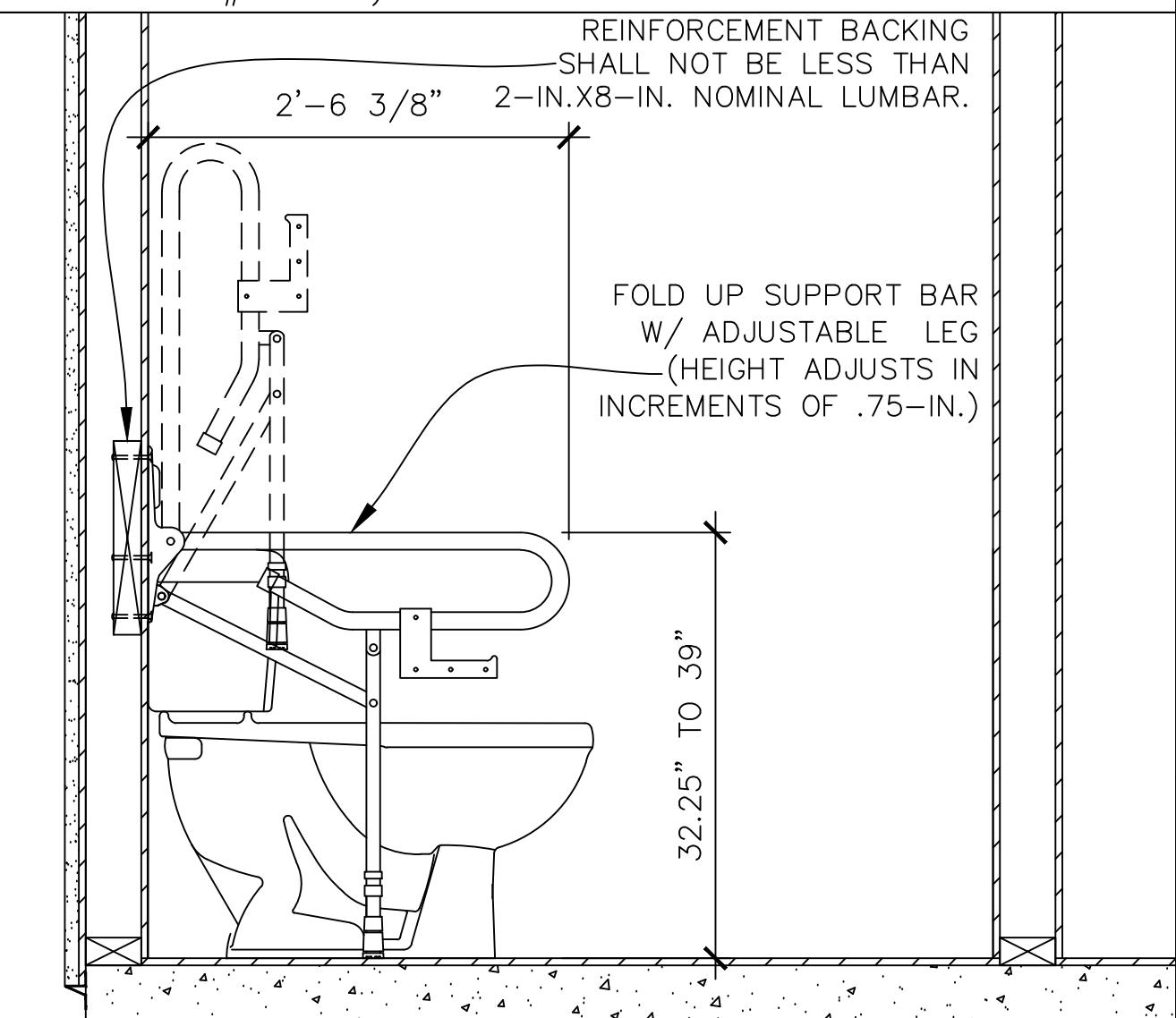
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Anthony Montez - Building Plan Check



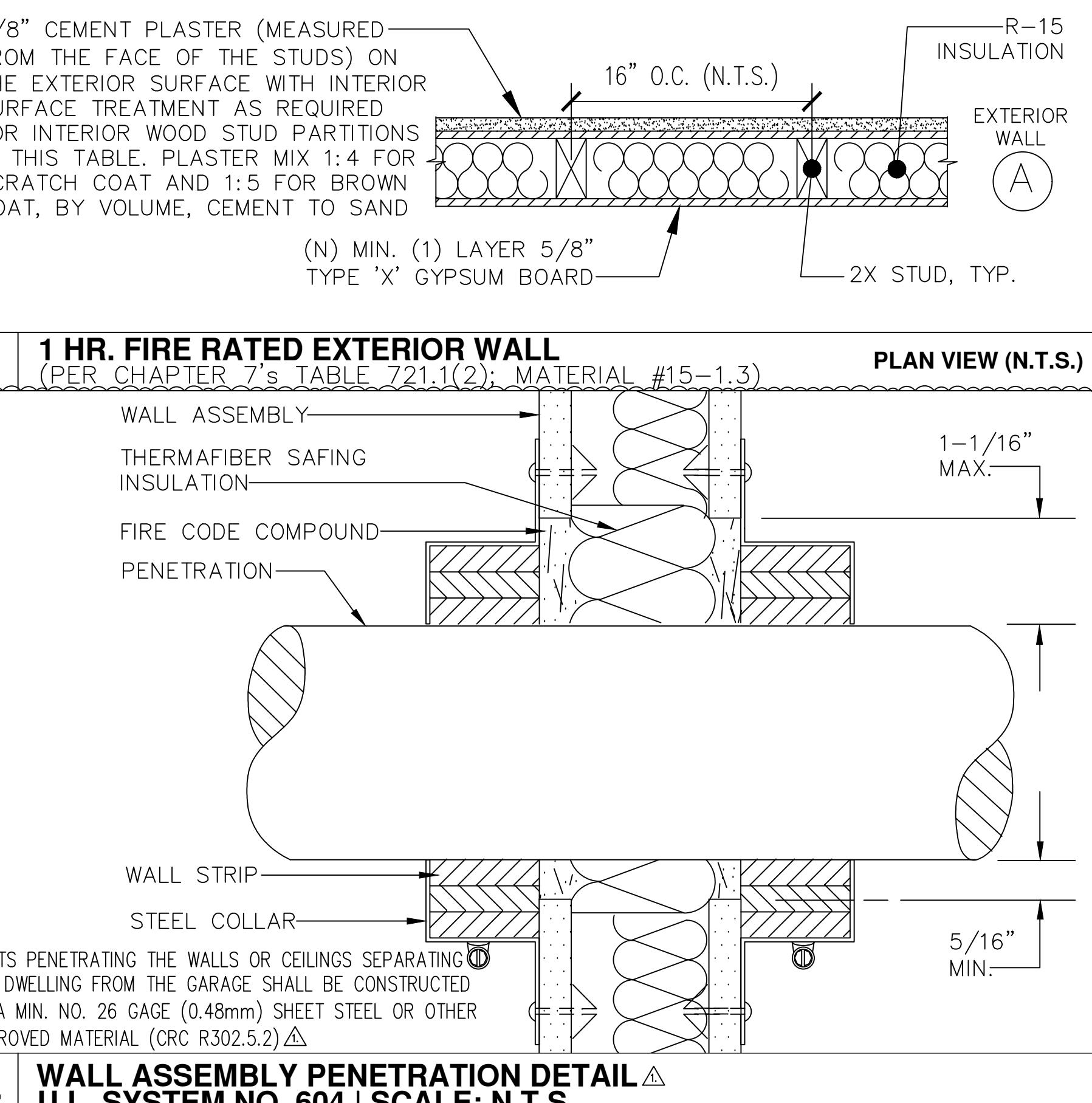
SECTION VIEW (N.T.S.)

4. 1 HR. FIRE-RATED UNDER-EAVE ASSEMBLY & DRIP EDGE DETAIL (PER CHAPTER 7's TABLE 721.1(2); MATERIAL #15-1.3)



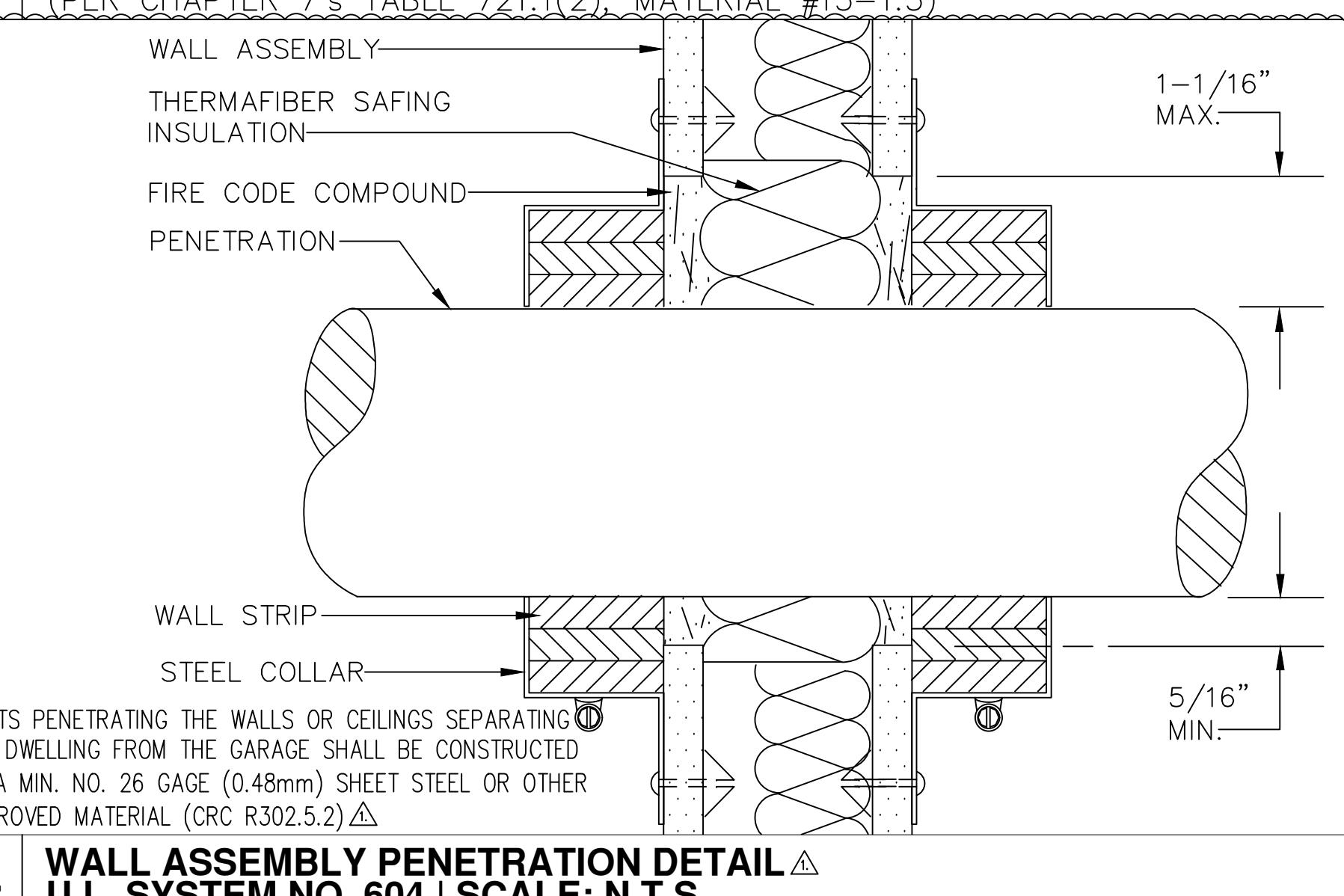
ELEVATION VIEW (N.T.S.)

5. WALL MOUNTED, FOLDABLE GRAB BAR FOR WATER CLOSET

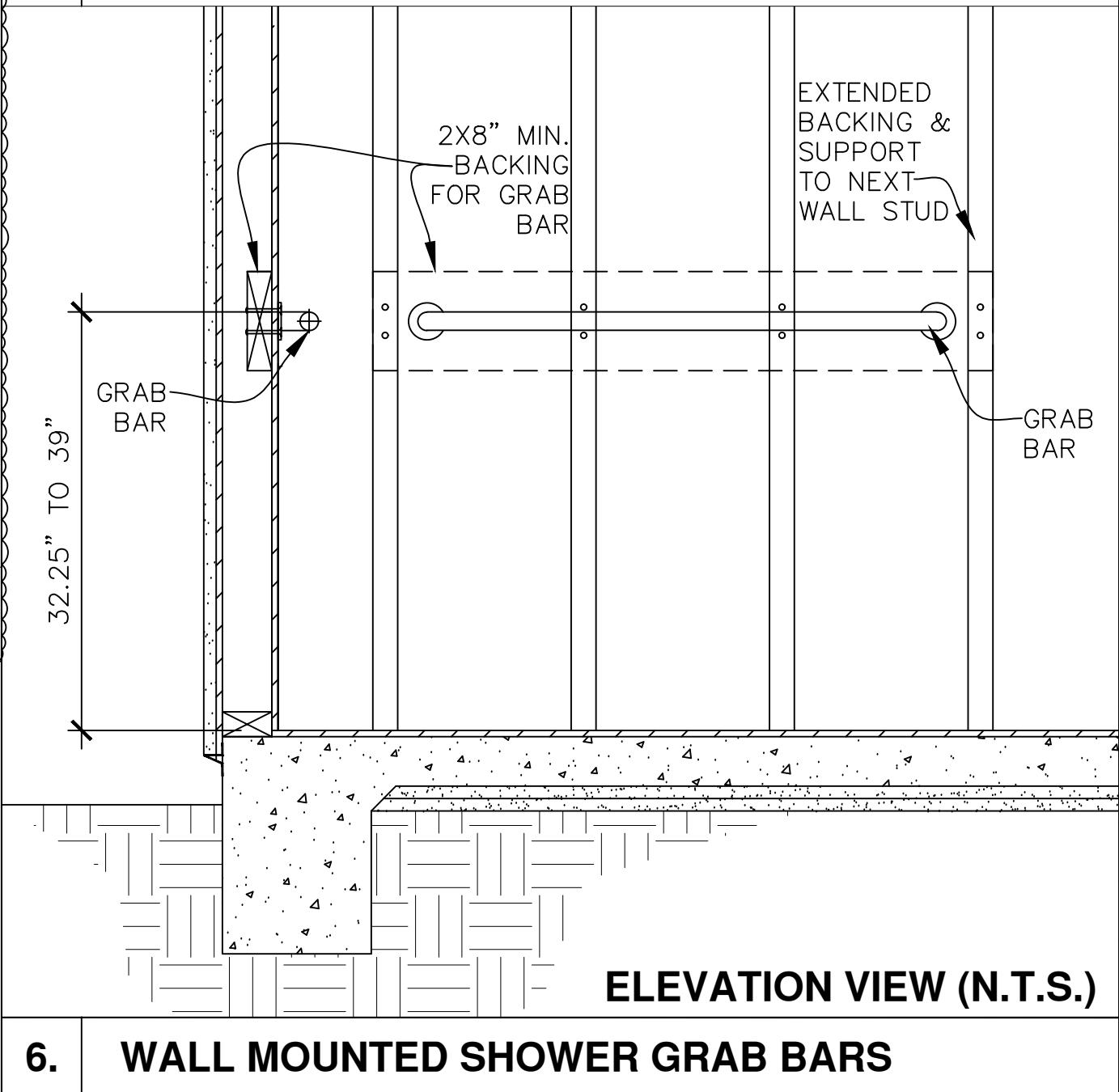


PLAN VIEW (N.T.S.)

3. 1 HR. FIRE RATED EXTERIOR WALL (PER CHAPTER 7's TABLE 721.1(2); MATERIAL #15-1.3)



7. WALL ASSEMBLY PENETRATION DETAIL △ U.L. SYSTEM NO. 604 | SCALE: N.T.S.



ELEVATION VIEW (N.T.S.)

6. WALL MOUNTED SHOWER GRAB BARS

REVISION DESCRIPTION	BUILDING CORRECTIONS	PLANNING CORRECTIONS	DESIGNER	DATE	CONTRACTOR	DATE	CUSTOMER	ENGINEER
DK			OSCAR SANCHEZ	08/27/25	ADU WEST COAST	(714) 794-9167		

PAGE A3.1

2022 CBC: TABLE NO. 2304.10.2: FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER*	SPACING AND LOCATION
1. BLOCKING BETWEEN CEILING JOIST, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	4-8d BOX (2 1/2" x 13") OR 3-10d BOX (3 1/2" x 13") OR 3-10d BOX (3" x 13") NAILS; OR 3-3x 1/16 GAGE STAPLES 7/16" CROWN	EACH END, TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	2-8d COMMON (2 1/2" x 13") 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES (COMMON 6 1/2" x 0.162") 3-3x 1/16" NAILS; OR	EACH END, TOENAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON (3 1/2" x 0.162") @ 6" O.C. 3" x 1/16" NAILS @ 6" O.C. 3" x 14 GAGE STAPLES @ 6" O.C.	FACE NAIL
2. CEILING JOISTS TO TOP PLATE	4-8d BOX (2 1/2" x 0.13") OR 3-8d COMMON (2 1/2" x 0.13") OR 3-10d BOX (3 1/2" x 0.13") OR 3-3x 1/16 GAGE STAPLES 7/16" CROWN	EACH JOIST, TOENAIL
3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER LAPS OVER PARTITIONS (NO THRUST) (SEE SECTION 2308.7.1, TABLE 2308.7.1)	4-10d BOX (3" x 0.128"); OR 3-3x 1/16" NAILS; OR 4-3/14 GAGE STAPLES 7/16" CROWN	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT) (SEE SECTION 2308.7.1, TABLE 2308.7.1)	PER TABLE 2308.7.1	FACE NAIL
5. COLLAR TIE TO RAFTER	3-10d COMMON (5 1/2" x 0.148"); OR 4-10d BOX (3" x 0.128"); OR 4-3/14 GAGE STAPLES 7/16" CROWN	FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE (SEE SECTION 2308.7.5, TABLE 2308.7.5)	2 TOENAILS ON ONE SIDE AND 1 TOENAIL ON OPPOSITE SIDE OF RAFTERS OR TRUSS	
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 1-INCH RIDGE BEAM	2-16d COMMON (3 1/2" x 0.162"); OR 4-16d BOX (3 1/2" x 0.135"); OR 3-10d BOX (3" x 0.128"); OR 3-3x 1/16" NAILS; OR 4-3/14 GAGE STAPLES 7/16" CROWN	END NAIL
8. STUD TO STUD (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162"); 10d BOX (3 1/2" x 0.128"); OR 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	24" O.C. FACE NAIL
9. STUD TO STUD AND BUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162"); OR 10d BOX (3 1/2" x 0.128"); OR 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	16" O.C. FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON (3 1/2" x 0.162"); 10d BOX (3 1/2" x 0.135"); OR 4-10d BOX (3" x 0.128"); OR 5-8d BOX (2 1/2" x 0.13")	16" O.C. EA EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	4-10d BOX (3" x 0.128"); OR 5-8d BOX (2 1/2" x 0.13")	TOENAIL
12. TOP PLATE TO TOP PLATE	16d COMMON (3 1/2" x 0.162"); 10d BOX (3 1/2" x 0.128"); OR 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	16" O.C. FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d COMMON (3 1/2" x 0.162"); OR 12-16d BOX (3 1/2" x 0.135"); OR 12-10d BOX (3 1/2" x 0.13"); OR 2-24d GAGE STAPLES 7/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL, MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162"); 10d BOX (3 1/2" x 0.135"); OR 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	16" O.C. FACE NAIL
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS	3-16d BOX (3 1/2" x 0.135"); OR 4-10d BOX (3" x 0.128"); OR 4-3x 1/16" NAILS; OR 4-3/14 GAGE STAPLES 7/16" CROWN	16" O.C. FACE NAIL
16. STUD TO TOP OR BOTTOM PLATE	4-8d BOX (2 1/2" x 0.115"); OR 4-3/14 GAGE STAPLES 7/16" CROWN OR 2-16d BOX (3 1/2" x 0.162"); OR 3-10d BOX (3 1/2" x 0.13"); OR 3-10d BOX (3" x 0.128"); OR 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	TOENAIL
17. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	2-16d COMMON (3 1/2" x 0.162"); OR 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	FACE NAIL
18. 1" BRACE TO EACH STUD AND PLATE	2-8d BOX (2 1/2" x 0.135"); OR 2-10d BOX (3" x 0.128"); OR 2-3x 1/16" NAILS; OR 2-3x 1/16" GAGE STAPLES 7/16" CROWN	FACE NAIL
19. 1x6" SHEATHING TO EACH BEARING	2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	FACE NAIL
20. 1x8" AND WIDER SHEATHING TO EACH BEARING	3-8d BOX (2 1/2" x 0.135"); OR 3-10d BOX (3 1/2" x 0.131"); OR 3-10d BOX (3" x 0.128"); OR 4-1/4" 16 GAGE STAPLES, 1" CROWN	FACE NAIL
21. JOIST TO SILL, TOP PLATE, OR GIRDER	3-8d COMMON (2 1/2" x 0.131"); OR 3-10d BOX (3" x 0.128"); OR 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	TOENAIL
22. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d BOX (2 1/2" x 0.131") 3-8d BOX (2 1/2" x 0.131"); OR 3-10d BOX (3" x 0.128"); OR 3-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	4" O.C. TOENAIL
23. 1x6" SUBFLOOR OR LESS TO EACH JOIST	2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 2-3x 1/16" GAGE STAPLES, 1" CROWN	FACE NAIL
24. 2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON (3 1/2" x 0.135"); OR 2-16d COMMON (3 1/2" x 0.162")	BLIND AND FACE NAIL
25. 2" PLANKS (PLANK & BEAM-FLOOR & ROOF)	3-16d COMMON (3 1/2" x 0.135"); OR 2-16d COMMON (3 1/2" x 0.162") 204 COMMON (4" x 0.192")	EACH BEARING, FACE NAIL
26. BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS; OR 3-3x 1/16" GAGE STAPLES 7/16" CROWN	24" O.C. FACE NAIL AT TOP & BOT. STAGG. ON OPP. SIDES
27. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 4-10d BOX (3" x 0.128"); OR 4-3x 1/16" NAILS; OR 4-3x 1/16" GAGE STAPLES 7/16" CROWN	ENDS AND AT EACH SPLICE, FACE NAIL
28. JOIST TO BAND JOIST OR RIM JOIST	3-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 2-3x 1/16" NAILS; OR 4-3/14 GAGE STAPLES 7/16" CROWN	END NAIL
29. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 2-3x 1/16" NAILS; OR 3-3x 1/16" GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL

2022 CBC: TABLE NO. 2304.10.2: FASTENING SCHEDULE, CONT.

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
WOOD STRUCTURAL PANELS (WSP), SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING		
30. 3/8" - 1/2"	6d COMMON OR DEFORMED (2x0.113"); OR 2 3/8" x 0.113" NAIL (SUBFLOOR AND WALL) 8d BOX OR DEFORMED (2 1/2" x 0.13" x 0.261" HEAD) (ROOF) OR RSRS-01 (2 1/2" x 0.13" NAIL (ROOF)) 1 3/4" 16 GAGE STAPLE, 7/16" CROWN (SUBFLOOR AND WALL)	6" 12
31. 19/32" - 3/4"	8d COMMON OR DEFORMED (2 1/2" x 0.13" x 0.281" HEAD) (ROOF) OR RSRS-01 (2 1/2" x 0.13" NAIL (ROOF)) 2 3/8" 16 GAGE STAPLE, 7/16" CROWN	6" 12
32. 7/8" - 1 1/4"	100 COMMON (3 1/4" x 0.148"); OR DEFORMED (2 1/2" x 0.13" x 0.281" HEAD)	6" 12
OTHER EXTERIOR WALL SHEATHING		
33. 1/2" FIBERBOARD SHEATHING ^b	1 1/4" 16 GAGE STAPLE WITH 1/16" OR 1" CROWN	3" 6
34. 25/32" FIBERBOARD SHEATHING ^b	1 3/4" 16 GALVANIZED ROOFING NAIL (7/16" DIAMETER HEAD) OR 1 1/4" 16 GAGE STAPLE WITH 1/16" OR 1" CROWN	3" 6
PANELS SECURE TO FRAMING		
35. 3/4" AND LESS	8d COMMON (2 1/2" x 0.13"); OR DEFORMED (2 1/2" x 0.13"); OR DEFORMED (2 1/2" x 0.12")	6" 12
36. 7/8" - 1"	8d COMMON (2 1/2" x 0.13"); OR DEFORMED (2 1/2" x 0.13"); OR DEFORMED (2 1/2" x 0.12")	6" 12
37. 1 1/8" - 1 1/4"	100 COMMON (3 1/4" x 0.148"); OR DEFORMED (2 1/2" x 0.13"); OR DEFORMED (2 1/2" x 0.12")	6" 12
INTERIOR SHEATHING		
38. 1/2" OR LESS	1 1/4" 16 GAGE STAPLE (7/16" x 0.108"); OR 6d CORROSION-RESISTANT CASING (2" x 0.099")	6" 12
39. 5/8"	6d CORROSION-RESISTANT CASING (2" x 0.099") 8d CORROSION-RESISTANT CASING (2 1/2" x 0.113")	6" 12
40. 1/4"	4d FINISH (1 1/2" x 0.089") OR 4d FINISH (1 1/2" x 0.072") 6d CASING (2" x 0.099") OR 6d FINISH (2" x 0.092") (PANEL SUPPORTS AT 24 INCHES)	6" 12
41. 3/8"		6" 12

STRUCTURAL WOOD

- ALL FRAMING LUMBER SHALL BE DOUGLAS FIR-LARCH GRADE MARKED BY A RECOGNIZED GRADING AGENCY (WCLIB OR WWPA), VOLUNTARY STANDARD DOC PS20-25.
- LIGHT FRAMING JOISTS & PLANKS CONSTRUCTION
No. 2
No. 1
No. 1
PARALLAM (PSL)
PARALLAM (PSL)
MICROLAM (LVL)
VERTICAL STUDS:
2x4 STUDS, 8'-0" LONG
2x4 STUDS, 8'-1" TO 14'-0"
2x6 STUDS
ALL OTHER LUMBER No. 1 STRUCTURAL LIGHT FRAMING
- ALL SILL PLATES RESTING ON CONCRETE OR MASONRY, WHICH IS IN CONTACT WITH EARTH OR RESTING ON FOUNDATIONS SHALL BE PRESSURE TREATED DOUGLAS FIR (PT.D.F.). ALL FASTENERS SUCH AS NAILS, BOLTS, SCREWS, ANCHOR BOLTS, ETC., ATTACHING P.T.D.F. OR FIRE-RETARDANT TREADED WOOD SHALL BE HOT-DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL (ASTM A153).
- WHERE STUD PARTITIONS JOIN CONCRETE OR MASONRY WALLS, THE END STUD WALL SHALL BE ANCHORED THERETO WITH $\frac{1}{2}$ " (BOLES NEAR THE TOP & BOTTOM AND AT EACH ROW OF TIRE BLOCKING). SUCH BOLTS SHALL BE EMBEDDED IN THE WALL NOT LESS THAN $\frac{2}{3}$ OF THE WALL THICKNESS OR 8" MAX).
- CUTTING, NOTCHING, OR BORING OF STUDS SHALL BE PERMITTED ONLY AS DETAILED OR APPROVED BY ENGINEER AND/OR PER 2022 CBC TABLE 2308.5.9 OR 2308.5.10.
- ALL NAILING SHALL CONFORM TO 2022 CBC TABLE 2304.10.1, AND SHALL BE COMMON NAILS, UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.
- ALL BOLY HEADS AND NUTS BEARING ON WOOD SHALL HAVE STANDARD CUT WASHERS. HOLES FOR BOLTS SHALL BE BORED $\frac{1}{16}$ " LARGER THAN THE NOMINAL DIAMETER. BOLTS IN THE WOOD SHALL NOT BE LESS THAN 7 DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER.
- TOP PLATES OF ALL WOOD STUD WALLS TO BE 2x2 MINIMUM (SAME WIDTH AS STUDS), LAP 48" MIN. WITH NOT LESS THAN 6-160 NAILS AT EACH LAP AND NOT MORE THAN 12" BETWEEN NAILS.
- PLYWOOD SHALL BE APA STRUCTURAL I RATED SHEATHING WITH EXTERIOR GLUE, PER DOC PS1 OR DOC PS2.
- PROVIDE DOUBLED JOISTS UNDER ALL PARALLEL PARTITIONS.
- ALL LAG SCREWS TO BE PREDRILLED, DRILL DIAMETER TO BE 40 TO 70 PERCENT OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.
- RE-TIGHTEN ALL ANCHOR BOLTS JUST BEFORE CLOSING IN.
- ALL FRAMING ANCHORS, POST CAPS, BASES, HANGERS, STRAPS, ETC. SHALL BE AS MANUFACTURED BY "SIMPSON COMPANY" OR ENGINEER APPROVED EQUAL.
- PROVIDE BLOCKING OR BRIDGING PER 2021 NDS SECTION 4.4.1 & 2022 CBC SECTION 2308.4.6 AND SECTION 2308.5.7.
- MOISTURE CONTENT OF WOOD AT TIME OF PLACING SHALL NOT EXCEED 19 PERCENT.
- MACHINE BOLTS SHALL BE GRADE-A CONFORMING TO ASTM A307. ANCHOR BOLTS SHALL BE ASTM F1554, GRADE 36. NUTS FOR MACHINE BOLTS AND ANCHOR BOLTS SHALL CONFORM TO ASTM A563, HEX GRADE-A. THREADED RODS SHALL CONFORM TO ASTM A36. THREADED AND NUTTED ANCHOR BOLTS SHALL BE ASTM F1554, GRADE 36. ROUNDS WASHERS SHALL CONFORM TO ASTM F436.

CONCRETE

- CEMENT SHALL CONFORM TO ASTM C150, TYPE II.
- AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS: 4" MAX. SLUMP FOR FLATWORK.
- MIN. COMPRESSIVE STRENGTH FOR GRADE BEAMS TO BE 3,000 PSI
- MIN. COMPRESSIVE STRENGTH FOR CAISSON TO BE 3,000 PSI
- ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL COMPLY WITH ASTM C494 & C107 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT (CALCIUM CHLORIDE SHALL NOT BE USED).
- NO CONDUIT PLACED IN A CONCRETE SLAB SHALL HAVE AN OUTSIDE DIAMETER GREATER THAN $\frac{1}{3}$ THE THICKNESS OF THE SLAB. NO CONDUIT SHALL BE EMBEDDED IN A SLAB THAT IS LESS THAN 3 $\frac{1}{2}$ " THICK, EXCEPT FOR LOCAL OFFSETS, MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE THREE DIAMETERS ON CENTER (EXCEPT IF THE CONDUIT IS PASSING THROUGH).
- PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH 3 $\frac{1}{2}$ " CHAMFERS.
- REFER TO DRAWINGS OF OTHER DISCIPLINES FOR MOLDS, GROOVES, CLIPS, ORNAMENTS, OR GROUNDS REQUIRED TO BE CAST IN CONCRETE.
- ALL SLABS ON GRADE SHALL HAVE CONTROL JOINTS INSTALLED TO PROVIDE APPROXIMATELY 15 FOOT SQUARES UNLESS DETAILED OTHERWISE ON THE PLANS. WHERE CONCRETE POURS ARE STOPPED, THE JOINTS SHALL BE FORMED. SEE "TYPICAL SLAB-ON-GRADE JOINT DETAIL".

FOUNDATION

- SOILS INFORMATION:
BEARING PRESSURE = 1500 PSF ($\frac{1}{2}$ INCREASE FOR WIND OR SEISMIC)
- BOTTOM OF FOOTING SHALL BE AT LEAST 24 INCHES BELOW THE LOWEST ADJACENT FINISHED GRADE INTO COMPETENT SOIL.
- REFER TO AND CHECK WITH ARCHITECTURAL DRAWINGS FOR VARIOUS FLOOR SLOPES, DROPPED SLABS, DEPRESSIONS, CURBS, STEPS, WALKS DRAINS, DEPRESSED FLOOR, ETC. & DIMENSIONS NOT SHOWN.
- NO CONCRETE SHALL BE POURED IN ANY FOUNDATION UNTIL EXCAVATION HAS BEEN

CITY OF
LONG BEACH

Community Development Department
Building and Safety Bureau
411 W. Ocean Boulevard, 2nd Floor, Long Beach, CA 90802
562.570.PMIT (7648) | longbeach.gov/lbcb



FORM-020
Structural Observation Designation

STRUCTURAL OBSERVATION DESIGNATION shall be provided as required by CBC Section 1704.6 and amended by L BMC Section 18.40.340. The Registered Design Professional responsible (RDP) for the structural design shall identify the frequency and extent of required structural observations. The required structural observations shall be made part of the approved construction documents. This form shall be completed, signed and submit to the Building and Safety Bureau prior to the issuance of the building permit or commencement of structural observations.

PROJECT INFORMATION	
PROJECT ADDRESS: 326 FLINT AVE, LONG BEACH, CA 90814	PROJECT NO.:
NAME OF REGISTERED DESIGN PROFESSIONAL (RDP)	RDP LIC/REG. NO.:
NAME OF PROPERTY OWNER:	PHONE NO. OF OWNER:

DESIGNATE THE STRUCTURAL OBSERVER		
NAME OF STRUCTURAL OBSERVER (SOR): JOSE RAMIREZ	SOR LIC/REG. NO.: 562-519-6045	PHONE NO. OF SOR:

STRUCTURAL OBSERVATION (Please specify or check the structural elements/connections below that requires Structural Observation and identify the scheduled interval or stage of construction when the Structural Observation will be performed.)		
TYPE	STRUCTURAL ELEMENTS OR CONNECTIONS TO BE OBSERVED	SCHEDULED INTERVAL OR STAGE OF CONSTRUCTION

FOUNDATIONS	<input checked="" type="checkbox"/> Footing, Stem Wall	
	<input type="checkbox"/> Mat Foundation, Prestressed Conc. Slab	
	<input type="checkbox"/> Caisson, Pile, Grade Beam	
	<input type="checkbox"/> Foundation Pad, Anchor	
WALLS	<input type="checkbox"/> Concrete	
	<input type="checkbox"/> Masonry	
	<input checked="" type="checkbox"/> Wood Shear Wall Panel	
	<input type="checkbox"/> Other	
FRAMES	<input type="checkbox"/> Steel Moment Frame	
	<input type="checkbox"/> Steel Braced Frame	
	<input type="checkbox"/> Concrete Moment Frame	
	<input type="checkbox"/> Masonry Wall Frame	
DIAPHRAGMS (FLOOR/ROOF)	<input type="checkbox"/> Concrete	
	<input type="checkbox"/> Steel Deck	
	<input checked="" type="checkbox"/> Wood	
	<input type="checkbox"/> Other	

FORM-020 Page 1 of 2 Revised Date: 10-19-23

For additional information regarding the structural observation requirement of CBC Section 1704.6 as amended by L BMC Section 18.40.340, refer to Information Bulletin IB-032 Structural Observation. IB-032 describes the responsibility of all parties involved to ensure that the requirement of the structural observation is properly understood and implemented.

CBC = 2022 Edition of the California Building Code
L BMC = Long Beach Municipal Code

DECLARATION AND ACKNOWLEDGEMENT STATEMENT

DECLARATION BY OWNER (or authorized representative)

- I, the Owner of the project, declare that the above listed individual is hired by me to be the Structural Observer of Record. Should I elect to retain a different Structural Observer during the course of the project, I acknowledge my responsibility to:
- Notify the Building Official in writing and receiving his/her approval before requesting the next inspection;
- Call for a new pre-construction meeting and certifying to the Building Official in writing that the meeting was conducted;
- Furnish the new Structural Observer with copies of all previous structural observation reports; and
- The new Structural Observer shall approve the correction of all deficiencies identified in the previous reports unless otherwise approved by the Building Official.

SIGNATURE OF OWNER (OR AUTHORIZED REPRESENTATIVE) DATE

DECLARATION BY REGISTERED DESIGN PROFESSIONAL (required if the Structural Observer of Record is different from the Registered Design Professional responsible for the structural design)

I, the Registered Design Professional responsible for the structural design, declare that the above listed individual is designated by me to be responsible for the Structural Observation.

10/29/2025

SIGNATURE OF REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE STRUCTURAL DESIGN DATE

SPECIAL INSPECTION

- SPECIAL INSPECTION SHALL MEET THE REQUIREMENTS OF THE 2022 CBC SECTION 1704 & 1705.
- SPECIAL INSPECTOR SHALL:
 - BE UNDER THE SUPERVISION OF A CALIFORNIA REGISTERED ENGINEER.
 - OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH APPROVED DRAWINGS AND SPECIFICATIONS.
 - FURNISH INSPECTION REPORTS TO THE ENGINEER AND BUILDING DEPARTMENT. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION; THEN IF NOT CORRECTED, TO THE ENGINEER AND BUILDING DEPARTMENT.
 - SUBMIT TO THE ENGINEER AND BUILDING DEPARTMENT A FINAL REPORT, SIGNED BY A CALIFORNIA REGISTERED CIVIL ENGINEER, STATING THAT THE WORK WAS IN CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CBC.
- INSPECTION NOTES:
 - CONSTRUCTION INSPECTIONS LISTED ARE IN ADDITION TO THE CALLED INSPECTIONS REQUIRED BY THE 2022 CBC SECTION 110. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A BUILDING OFFICIAL, SPECIALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL IS SUBJECT TO REMOVAL FOR EXPOSURE.
 - CONTINUOUS INSPECTION IS ALWAYS REQUIRED DURING PERFORMANCE OF THE WORK UNLESS SPECIFICALLY NOTED.
 - SPECIAL INSPECTORS MUST BE CERTIFIED BY THE BUILDING DEPARTMENT TO PERFORM THE TYPES OF INSPECTIONS SPECIFIED.
 - IT IS THE RESPONSIBILITY OF THE OWNER TO INFORM THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY BEFORE PERFORMING ANY WORK THAT REQUIRED SPECIAL INSPECTION. ALL WORK PERFORMED WITHOUT REQUIRED SPECIAL INSPECTION IS SUBJECT TO REMOVAL.

STRUCTURAL ABBREVIATIONS

A.B.	ANCHOR BOLT	J.T.	JOINT
ABV.	ABOVE	K.	KIPS (1000)
ADD'L	ADDITIONAL	LAT.	LATERAL
ADJ.	ADJACENT	LB(#)	POUNDS
ALUM.	ALUMINUM	L.B.	LAG BOLTS
ALT.	ALTERNATE	LDGR.	LEDGER
APPRX.	APPROXIMATE(LY)	L.F.	LINEAL FEET(FOOT)
ARCH.	ARCHITECT(TURAL)	LG.	LONG(ITALIAN)
&	AND	LGTH.	LENGTH
BEL.	AT	LLH.	LONG LEG HORIZ.
BEL.	BELOW	LLV.	LONG LEG VERT.
BLDG.	BRACED FRAME	LT WT.	LIGHT WEIGHT
BLK.	BUILDING	MAS.	MASONRY
BLKG.	BLOCK	MATL.	MATERIAL
BM.	BLOCKING	MAX.	MAXIMUM
B.N.	BOUNDARY NAILING	M.B.	MACHINE BOLT
BNDRY.	BOUNDARY	MECH.	MECHANICAL
B.O.F.	BOTTOM OF FOOTING	MEZZ.	MEZZANINE
BRDG.	BRIDGE (ING)	MFR.	MANUFACTURER
BRG.	BEARING	MISC.	MISCELLANEOUS
BTM.	BOTTOM	MIN.	MINIMUM
BTWN.	BETWEEN	MLB.	MINI-LAM-BM.
CAMB.(C)	CAMBER(ED)	MTL.	METAL
CANT.	CANTILEVERED	N.	NEW
C.F.	CUBIC FEET(FOOT)	NO. (#)	NUMBER
C.G.	CENTER OF GRAVITY	N.S.	NEAR SIDE
C.I.P.	CAST IN PLACE	N.S.G.	NON-SHRINK GROUT
C.J.	CONSTRUCTION JOINT	N.T.S.	NOT TO SCALE
CL.	CENTER LINE	O.C.	ON CENTER
CLG.	CEILING	O.D.	OUTSIDE DIAMETER
CLR.	CLEAR	O.D.	OUTSIDE FACE
CMU.	CONC. MASONRY UNIT	O.F.	OPPOSITE HAND
COL.	COLUMN	O.H.	OPENING
CONN.	CONCRETE	OPNG.	ORIENTATE(ION)
CONST.	CONNECTION	ORNT.	OPEN WEB JOISTS
CONT.	CONSTRUCTION	PAR. (//)	PARALLEL
CTSK.	CONTINUOUS	P/C	PRECAST CONCRETE
CTR.	COUNTERSINK	PERP. (-)	PERPENDICULAR
C.Y.	CENTER(ED)	PL. (PL)	PLATE
D.	CUBIC YARD	PLAM.	PURLAM BEAM
DBL.	PENNY(NAILS)	PLY.	PLYWOOD
DEPT.	DOUBLE	P.S.F.	POUNDS PER SQUARE FOOT
D.F.	DEPARTMENT	P.S.I.	POUNDS PER SQUARE INCH
DIA. (Φ)	Douglas Fir	P.T.	PRESSURE TREATED
DIA.	DIAMETER	P.T.	POSTTENSIONED
DIAPH.	DIAGONAL	QTY.	(PRESTRESSED)
DIM.	DIAPHRAGM	RAD. (R)	QUANTITY
DN.	DIMENSION	R.C.P.	RADIUS
do	DOWN	REF.	REINFORCED CONCRETE PIPE
DP (D)	DITTO(REPEAT)	REINF.	REFERENCE
DWG.	DEEP (DEPTH)	REQ'D.	REINFORCEMENT(ING)
DWL.	DRAWING(S)	R.F.	REQUIRED
EA.	DOWEL(S)	R.O.	RIGID FRAME
E.F.	EACH	R.B.	ROUGH OPENING
E.J.	EACH FACE	SCHED.	RIDGE BOARD
EL.	EXPANSION JOINT	SHEET	SCHEDE
ELEC.	ELEVATION	SHTG.	SHEATHING
ELEV.	ELECTRICAL	SIM.	SIMILAR
EMBD.	ELEVATOR	SKW(ED)	SPECIFICATION(S)
E.N.	EMBED(MENT)	SPC.	SPACE(S) (VING)
ENG.	EDGE NAIL /SCREWS	SPEC.	SPECIFICATION(S)
ES.	ENGINEER	SS.	SQUARE
EQPT.	EDGE SCREWS	STD.	SELECT STRUCTURAL
EXST.	EQUAL	STGR.	STANDARD
EXT.	EQUIPMENT EXP.	STIFF.	STAGGERED)
FAB.	EXPANSION	STIR.	STIFFENER(S)
FND.	EXISTING	STL.	STIRRUP(S)
FIN.	EXTERIOR	STRUC.	STEEL
FLG.	FABRICATION	SUSP.	STRUCTURAL
F.N.	FOUNDATION	SYMM.	SUSPENDED)
F.O.C.	FINISH(ED)	(T)	SYMMETRICAL
F.O.M.	FLANGE	T&B	TOP
F.O.S.	FLOOR	TEMP.	TOP AND BOTTOM
F.O.W.	FIELD(FACE)NAIL	T&G.	TEMPERATURE
FRM.	FACE OF CONCRETE	THK.	TONGUE AND GROOVE
F.S.	FACE OF STUD	THR.	THICKNESS)
FT. (')	FACE OF WALL	THRD.	THREADED
FTG.	FRAME(ING)	TMTRY.	TEMPORARY
GA.	Far Side	T.N.	TOE NAIL
GALV.	FOOT(FEET)	T.O.A.	TOP OF SHEATHING
GB.	FOOTING	T.O.W.	TOP OF WALL
GLB.	Gauge	TRANSV.	TRANSVERSE
GRD.	GALVANIZED	T.S.	TOP OF STEEL
GYPDB.	GRADE BEAM	TYP.	TYPICAL
HID.	GLUED LAMINATED BEAM	UBC.	UNIFORM BUILDING CODE
HDR.	GRADE	U.O.N.	UNLESS OTHERWISE NOTED
HGR.	CYPSUM WALLBOARD	VERT.	VERTICAL
HORZ. (H)	HOLD DOWN	VIF.	VERIFY IN FIELD
HSB.	HEADER	(W)	WIDE(WIDTH)
HT.	HANGER	w/	WITH
ID.	HORIZONTAL	WD.	WOOD
I.E.	HIGH STRENGTH	W.P.	WORK POINT
I.F.	HEIGHT	WPJ.	WEAKENED PLANE JOINT
I.G.	INSIDE DIAMETER	W.S.	WELDED STUD(S)
JST.	INVERT ELEVATION	WT.	WEIGHT
	INSIDE FACE	WWF.	WELDED WIRE FABRIC
	INCH(S)	X-STG.	EXTRA STRONG
	INTERIOR	XX-STG.	DOUBLE EXTRA STRONG
	JOIST	YD.	YARD

STRUCTURAL STEEL

- ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE CBC CHAPTER 22, FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL BUILDINGS.
- WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. OTHER ROLLED SHAPED PLATES SHALL CONFORM ASTM A500, GRADE-B. PIPES SHALL CONFORM TO ASTM A53, GRADE-B. IDENTIFICATION PROCEDURES SHALL CONFORM TO ASTM A6.
- MACHINE BOLTS SHALL BE GRADE-A CONFORMING TO ASTM A307. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GRADE 36. NUTS FOR MACHINE BOLTS AND ANCHOR BOLTS SHALL CONFORM TO ASTM A563, HEX GRADE-F1554, GRADE 36. ROUND WASHERS SHALL CONFORM TO ASTM F436.
- HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM A325. NUTS FOR HIGH STRENGTH BOLTS SHALL BE HEAVY HEX, GRADE-C, CONFORMING TO ASTM A563. INSTALLATION OF HIGH STRENGTH BOLTS SHALL BE INSPECTED AS REQUIRED BY "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" (JUNE 2004).
- ALL BOLT HOLES SHALL BE $\frac{1}{16}$ " LARGER THAN THE BOLT, UNLESS NOTED OTHERWISE.
- HEADED STUDS EMBEDDED IN CONCRETE SHALL CONFORM TO ASTM A108.
- NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 7000 PSI PER ASTM C109. NON-SHRINK GROUT SHALL BE INSTALLED IMMEDIATELY AFTER COLUMN IS PLUMBED. CONTRACTOR SHALL NOT LOAD COLUMN ANCHOR BOLTS BEFORE PLACEMENT OF NON-SHRINK GROUT WITHOUT TAKING MEASURES TO PREVENT BUCKLING OF ANCHOR BOLTS UNDER CONSTRUCTION LOAD.
- WELDING SHALL CONFORM TO THE LATEST EDITION OF AWS D1.1 AND SHALL USE EITHER THE SHIELDED OR FLUX CORE METHODS. ELECTRODES USED SHALL BE E70XX, E71-T8 OR E70-Y6. WELDERS SHALL BE CERTIFIED.
- WELDS IDENTIFIED AS REQUIRING CONTINUOUS OR PERIODIC SPECIAL INSPECTION NEED TO HAVE CONTINUOUS INSERTION WHEN THE WELDING IS DONE IN AN APPROVED FABRICATOR'S SHOP. HOWEVER, THE APPROVED FABRICATION MUST SUBMIT A CERTIFICATE IN ACCORDANCE WITH CBC SECTION 1704.2.
- ALL FULL PENETRATION GROOVE WELDS FOR MOMENT FRAME MEMBERS SHALL BE ULTRASONICALLY INSPECTED BY AN APPROVED TESTING AGENCY AND SHALL CONFORM TO THE LATEST EDITION OF THE AWS D1.1, SECTION 5 & 6.
- ALL STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED AND ALL FIELD WELDS FOR SUCH MEMBERS SHALL BE TOUCHED UP WITH GALVALOID.
- STEEL FABRICATION TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS. STEEL FABRICATOR TO COORDINATE WITH MECHANICAL SUBCONTRACTOR FOR THE SIZE, LOCATION, AND DIMENSIONS OF MECHANICAL UNITS AND OPENINGS.
- ALL FABRICATION SHALL BE DONE INS A SHOP OF AN APPROVED FABRICATOR. STRUCTURAL STEEL SHOP DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER BEFORE FABRICATION.

**RAMIREZ
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JOSE C. RAMIREZ
REGISTERED PROFESSIONAL ENGINEER
C 91046
EXP. 03-31-26
STATE OF CALIFORNIA

326 FLINT AVE
NEW ADU ABOVE
(E) GARAGE

326 FLINT AVE
LONG BEACH, CA 90814

PROJECT NO. 25-357

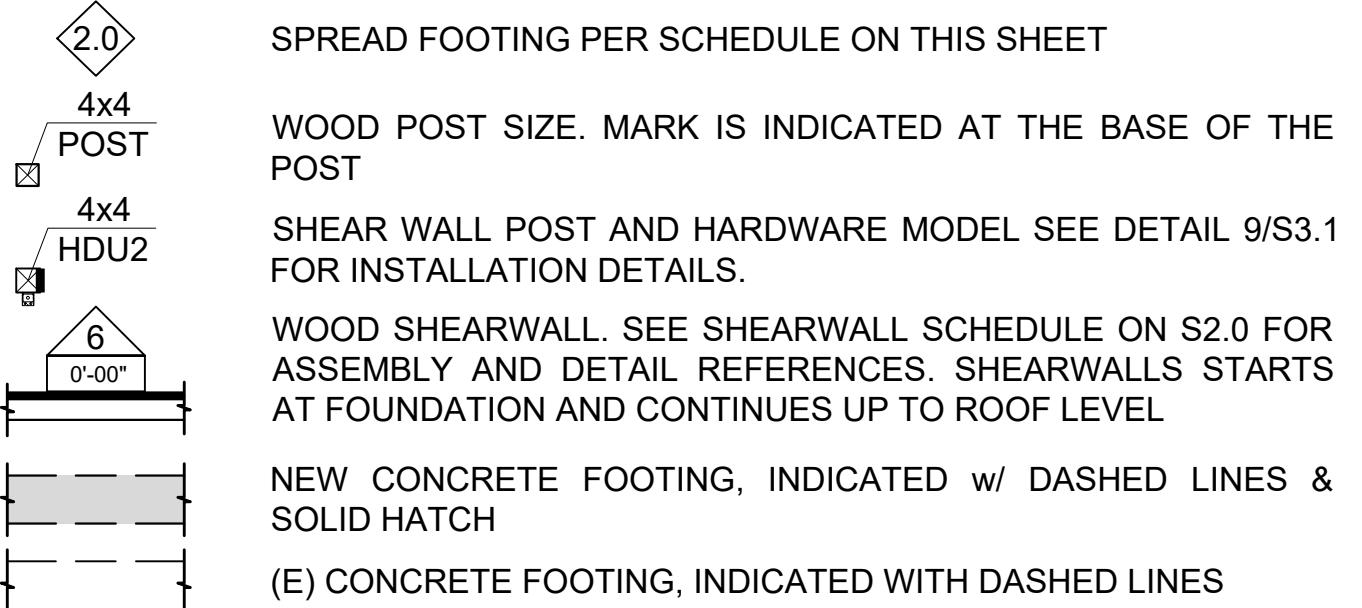
DATE: 10/29/25

REVISION	DESCRIPTION	DATE
▲	REVISION	09-19-25

PLAN NOTES

- REFER TO STRUCTURAL NOTES ON SHEET S1.0 AND TYPICAL DETAILS ON SHEETS S3.0-S3.3. THESE NOTES AND DETAILS SHALL BE USED WHERE APPLICABLE WHETHER SPECIFICALLY REFERENCED ON PLANS OR NOT.
- CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES WITH STRUCTURAL REQUIREMENTS INDICATED. REFER TO ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- NON-STRUCTURAL ELEMENTS IN NATURE SUCH AS DRAINS, SUMPS, EXTERIOR HARDCAPE, MECHANICAL UNITS, ETC., ARE TO BE DESIGNED BY OTHERS.
- STRUCTURAL WALLS ARE WALLS THAT RESIST GRAVITY, WIND, AND/OR SEISMIC LOADS. ALL EXTERIOR WOOD FRAMED WALLS ARE STRUCTURAL WALLS. WALLS OR PORTIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS ARE PARTITION WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF PARTITION WALLS.
- FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. FIELD-CUT ENDS, NOTCHED, AND BORINGS SHALL BE FIELD-TREATED. FASTENERS IN TREATED WOOD SHALL BE APPROVED SILICON BRONZE/COPPER, STAINLESS STEEL, OR HOT-DIPPED ZINC COATED STEEL.
- ALL WOOD FRAMED STRUCTURAL WALLS ARE TO BE 2x4 STUDS @ 16" O.C. U.O.N. (USE 2x6 STUDS @ 16" O.C. AT PLUMBING WALLS).
- ANCHOR BOLTS SHALL BE EMBEDDED AT LEAST 7" MIN. INTO CONCRETE OR MASONRY FOUNDATION SPACED NO MORE THAN 48" AND PROVIDE A PLATE WASHER WITH MINIMUM SIZE OF 0.299"X3"X3".
- ANCHOR BOLTS AND HOLDOWN ANCHORS SHALL BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION. ON RAISED FLOOR HOLDDOWN THAT USE 7/8" OR GRATER DIA., STEMP WALL WITH MIN. OF 8" DURING 4x6 LENGTH FROM MIDDLE.
- SHEAR WALL SHEATHING SHOWN ON ONE SIDE MAY ALTERNATIVELY BE SHEATHED ON THE OPPOSITE SIDE OF THE WALL.
- IF ADVERSE SOILS CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATION MAY BE REQUIRED.
- EXTREME CARE SHOULD BE TAKEN WHEN DOING FOUNDATION WORK WITH POST-TENSIONED SLABS (WHERE APPLICABLE). NO TENDONS SHALL BE DAMAGED OR CUT. NOTIFY THE ENGINEER OF RECORD PRIOR TO ANY DRILLING, CORING, SAW-CUTTING, ETC. USE NON-DESTRUCTIVE METHODS TO LOCATE TENDONS PRIOR TO ANY WORK.

LEGEND



SHEARWALL SCHEDULE

TYPE ¹	SHEATHING ²	NAIL SIZE ³	EDGE NAIL ⁴	FIELD NAIL ⁵	SILL PLATE CONN.		SHEAR CLIPS ⁶	ALLOW SHEAR (PLF)
					WOOD	CONCRETE		
6 32 STRUC 1 O.S.	10d	6"	12"	SDS ₄ "x6"	5/8" DIA.	5/8" DIA.	@ 16" A.B. @32" A.B. @48" A35 @ 16"	312

NOTES:
1. SEE DETAIL 5/S3.1 & 7/S3.1 FOR ALL SHEARWALL ASSEMBLIES BASED ON SHEAR WALL TYPE:
TYPE I 4, 3 & 2
TYPE II 4D 3D & 2D
2. O.S. INDICATES SHEATHING ON ONE SIDE OF THE WALL & D.S. INDICATES SHEATHING ON BOTH SIDES OF THE WALL.
3. USE COMMON WIRE NAILS FOR ALL STRUC 1 SHEATHING
4. USE MIN. 8d COMMON NAILS MIN. FOR NAILS FOR LTP4 INSTALLED OVER SHEATHING
5. USE A35 @ 6" O.C. ON SIMPSON STRONG WALL

PAD FOOTING SCHEDULE

TYPE	SIZE (WxLGTHxTHK) (E.W. BOT.)	REINF.	CAPACITY (KIPS)	TYPE (WxLGTHxTHK) (E.W. BOT.)		REINF.	CAPACITY (KIPS)
				SIZE (WxLGTHxTHK) (E.W. BOT.)	REINF.		
1.5	1'-6" x 1'-6" x 12"	2 - #4	3.04	3.0	3'-0" x 3'-0" x 12"	3 - #5	12.15
2.0	2'-0" x 2'-0" x 12"	3 - #4	5.40	3.5	3'-6" x 3'-6" x 12"	3 - #5	16.50
2.5	2'-6" x 2'-6" x 12"	4 - #4	8.44	4.0	4'-0" x 4'-0" x 12"	4 - #5	21.60

NOTES:
1. ALL PAD FOOTINGS SHALL HAVE A MIN. BEARING DEPTH OF 18" FOR INTERIOR CONDITIONS & 24" FOR EXTERIOR CONDITIONS.
2. ALLOWABLE CAPACITY VALUES ARE BASED ON AN ALLOWABLE BEARING PRESSURE OF 1,500 PSF.
3. IF SPREAD FOOTING OCCURS AT SAME LOCATION AS HOLDOWN ANCHOR PAD, THE LARGER SIZE AND REINFORCEMENT SHALL GOVERN.

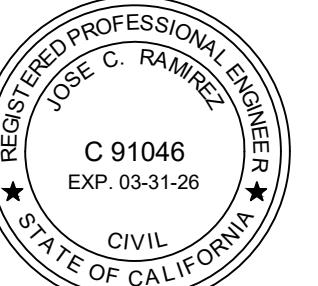
CONC. GRADE BEAM SCHEDULE

MARK	WIDTH	DEPTH(2)	CONT. BARS AT TOP AND BOTTOM	STIRRUP BAR AND SPACING
GB1	12"	24"	3-#4 AT TOP & 3-#4 AT BOTTOM	#3 @ 12" MIN.

NOTES:
1. CONC. MIN f'c= 3,000 PSI
2. MIN. BEARING DEPTH INTO COMPETENT SOIL

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Anthony Montez - Building Plan Check

326 FLINT AVE
NEW ADU ABOVE
(E) GARAGE

326 FLINT AVE
LONG BEACH, CA 90814

PROJECT NO. 25-357

DATE: 9/19/25

REVISION	DESCRIPTION	DATE
A	REVISION	09-19-25
B		
C		

S2.0

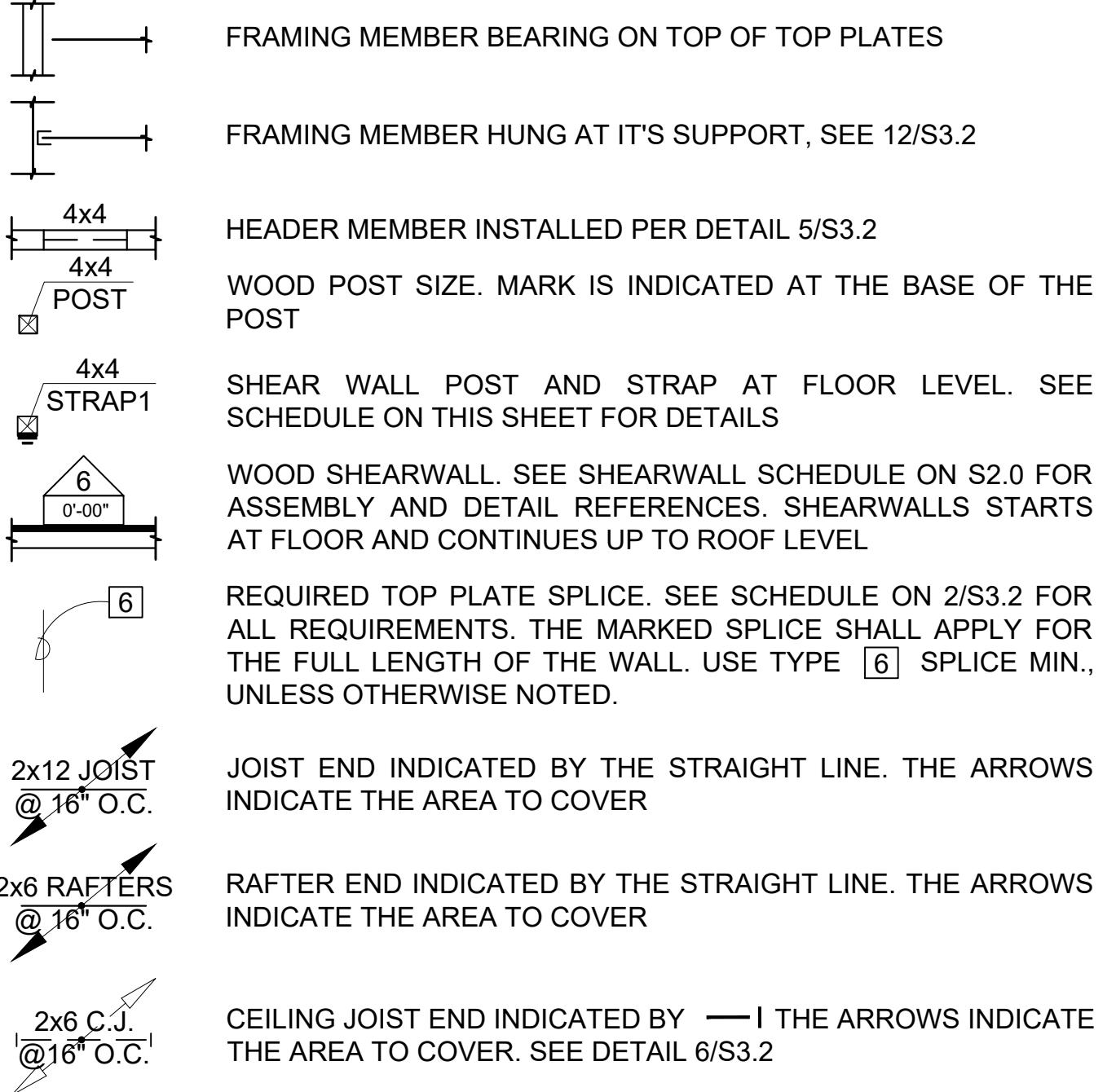
FOUNDATION
PLAN

N
FOUNDAION PLAN
SCALE: 1/4" = 1'-0"

PLAN NOTES

1. REFER TO STRUCTURAL NOTES ON SHEET S1.0 AND TYPICAL DETAILS ON SHEETS S3.0-S3.3. THESE NOTES AND DETAILS SHALL BE USED WHERE APPLICABLE WHETHER SPECIFICALLY REFERENCED ON PLANS OR NOT.
 2. CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES WITH STRUCTURAL REQUIREMENTS INDICATED. REFER TO ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
 3. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
 4. STRUCTURAL WALLS ARE WALLS THAT RESIST GRAVITY, WIND, AND/OR SEISMIC LOADS. ALL EXTERIOR WOOD FRAMED WALLS ARE STRUCTURAL WALLS. WALLS OR PORTIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS ARE PARTITION WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF
 5. NOMINAL FLOOR LINE VARIES, REFER TO ARCHITECTURAL.
 6. WALLS BELOW FLOOR SHEATHING ARE INDICATED BY DASHED LINES. WALLS ABOVE FLOOR SHEATHING ARE INDICATED BY SOLID LINES.
 7. BEAMS IN CONTACT WITH FLOOR SHEATHING OR DIRECTLY BELOW ROOF FRAMING ARE INDICATED WITH SOLID LINES, ANY OTHER BEAM AT A LOWER LEVEL IS INDICATED WITH DASHED LINES.
 8. SIZE AND LOCATION OF ALL MECHANICAL EQUIPMENT TO BE REVIEWED AND APPROVED BY THE E.O.R. PRIOR TO PLACEMENT.
 9. FOR SIZE AND LOCATION OF ROOF OPENINGS FOR PIPES AND DUCTS, REFER TO MECHANICAL AND PLUMBING DRAWINGS.
 10. ALL WOOD EXPOSED TO WEATHER TO BE TREATED WOOD, REDWOOD, OR OTHER SPECIES NATURALLY RESISTANT TO DECAY AND JOIST HANGERS, STRAPS, TIES, ETC. SHALL BE GALVANIZED (G185 COATING). FASTENERS SHALL BE STAINLESS STEEL OR APPROVED EQUAL.
 11. SHEAR WALL SHEATHING SHOWN ON ONE SIDE MAY ALTERNATIVELY BE SHEATHED ON THE OPPOSITE SIDE OF THE WALL.

LEGEND



STRAP SCHEDULE

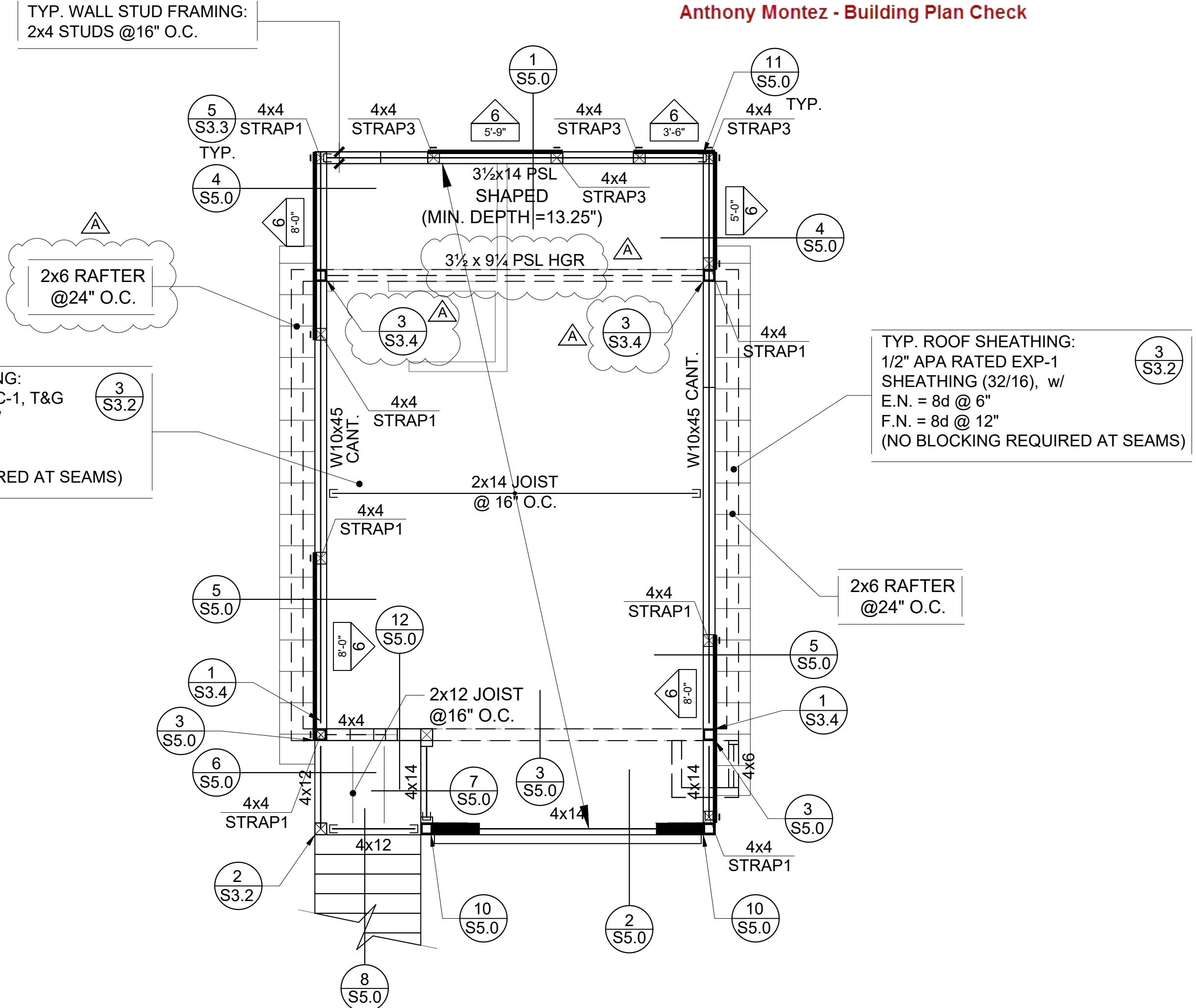
MARK	STRAP MODEL	END LENGTH "L1"	NAILS REQUIRED WITHIN END LENGTH "L1"	CAPACITY KIPS (LA CITY)	PROVIDE HOLDOWN SIZE @ FOUDATION
STRAP1	CS18	9"	16-10d	1.37(1.03)	HDU2
STRAP2	CS16	11"	20-10d	1.70(1.28)	HDU2
STRAP3	2-CS18	9"	32-10d	2.74(2.06)	HDU2
STRAP4	2-CS16	11"	40-10d	3.41(2.56)	HDU4
STRAP5	CMSTC16	20"	50-16d SINKER	4.69(3.52)	HDU5
STRAP6	CMST14	26"	56-16d	6.47(4.85)	HDU8
STRAP7	CMST12	30"	74-12d	9.22(6.62)	HDU11

NOTES:

1. STRAP CONNECTION TO FRAMING BELOW PER PER DETAIL 5/S3.3.
2. FOR STACKING WALLS, CONTINUE POST TO FOUNDATION AND PROVIDE HOLDOWN PER TABLE.
3. INSTALL STRAP OVER SHEATHING. SHEATHING NAILING REQUIRED IN ADDITION TO STRAP NAILING.

BADD326126	DATE:10/29/25
City of Long Beach Electronic Plan Check	
APPROVED	
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Anthony Montez - Building Plan Check



**326 FLINT AVE
NEW ADU ABOVE
(E) GARAGE**

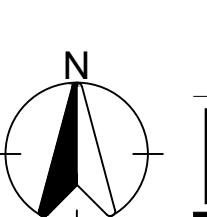
326 FLINT AVE
ONG BEACH, CA 90814

PROJECT NO. 25-357
DATE: 8/19/25

REVISION	DESCRIPTION	DATE
 A	REVISION	09-19-25
 B		
 C		

S2.1

FLOOR FRAMING PLAN



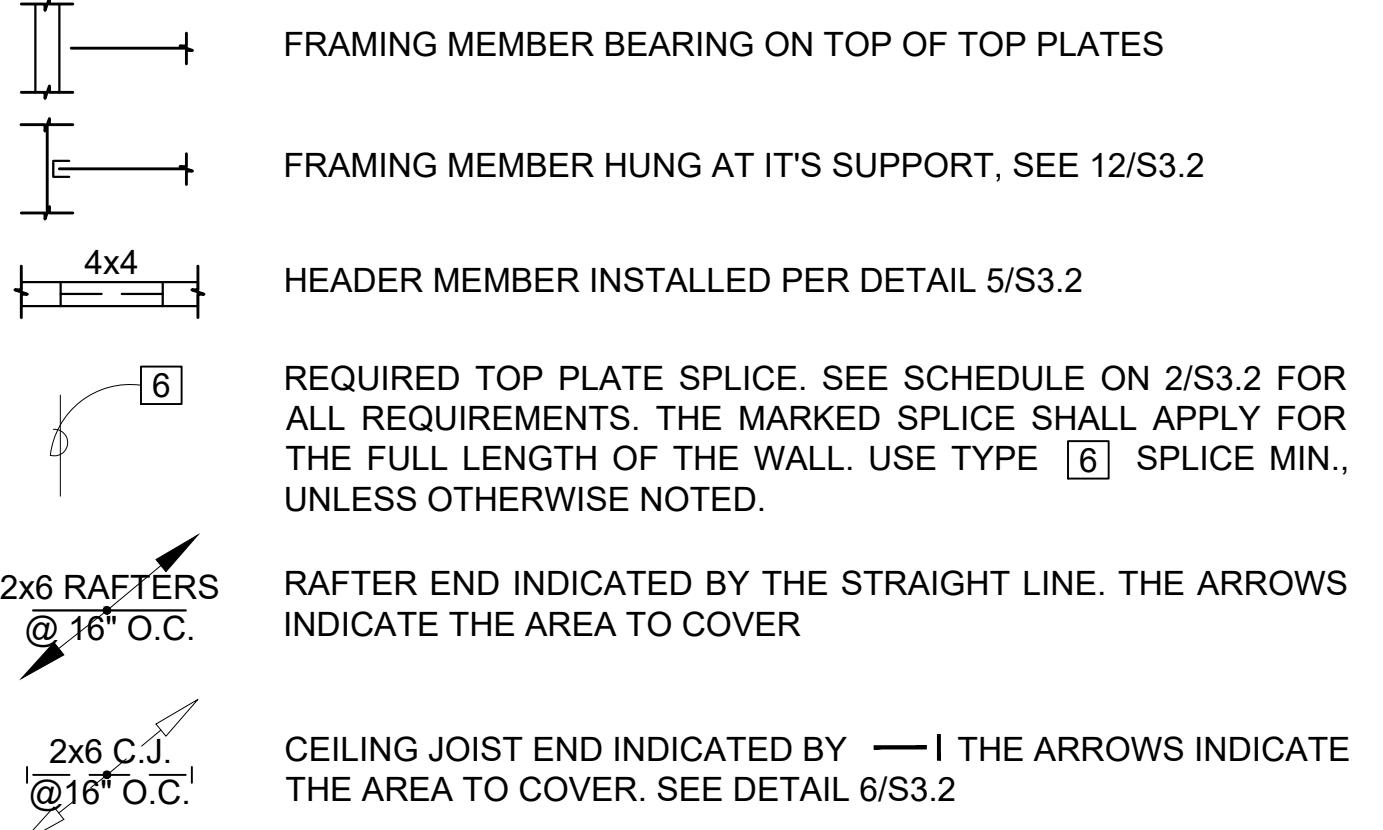
FLOOR FRAMING PLAN

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

PLAN NOTES

- REFER TO STRUCTURAL NOTES ON SHEET S1.0 AND TYPICAL DETAILS ON SHEETS S3.0-S3.3. THESE NOTES AND DETAILS SHALL BE USED WHERE APPLICABLE WHETHER SPECIFICALLY REFERENCED ON PLANS OR NOT.
- CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES WITH STRUCTURAL REQUIREMENTS INDICATED. REFER TO ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- STRUCTURAL WALLS ARE WALLS THAT RESIST GRAVITY, WIND, AND/OR SEISMIC LOADS. ALL EXTERIOR WOOD FRAMED WALLS ARE STRUCTURAL WALLS. WALLS OR PORTIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS ARE PARTITION WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF.
- NOMINAL ROOF LINE VARIES, REFER TO ARCHITECTURAL.
- WALLS BELOW ROOF SHEATHING ARE INDICATED BY DASHED LINES. WALLS ABOVE ROOF SHEATHING ARE INDICATED BY SOLID LINES.
- BEAMS IN CONTACT WITH ROOF SHEATHING OR DIRECTLY BELOW ROOF FRAMING ARE INDICATED WITH SOLID LINES, ANY OTHER BEAM AT A LOWER LEVEL IS INDICATED WITH DASHED LINES.
- SIZE AND LOCATION OF ALL MECHANICAL EQUIPMENT TO BE REVIEWED AND APPROVED BY THE E.O.R. PRIOR TO PLACEMENT.
- FOR SIZE AND LOCATION OF ROOF OPENINGS FOR PIPES AND DUCTS, REFER TO MECHANICAL AND PLUMBING DRAWINGS.
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LEGEND

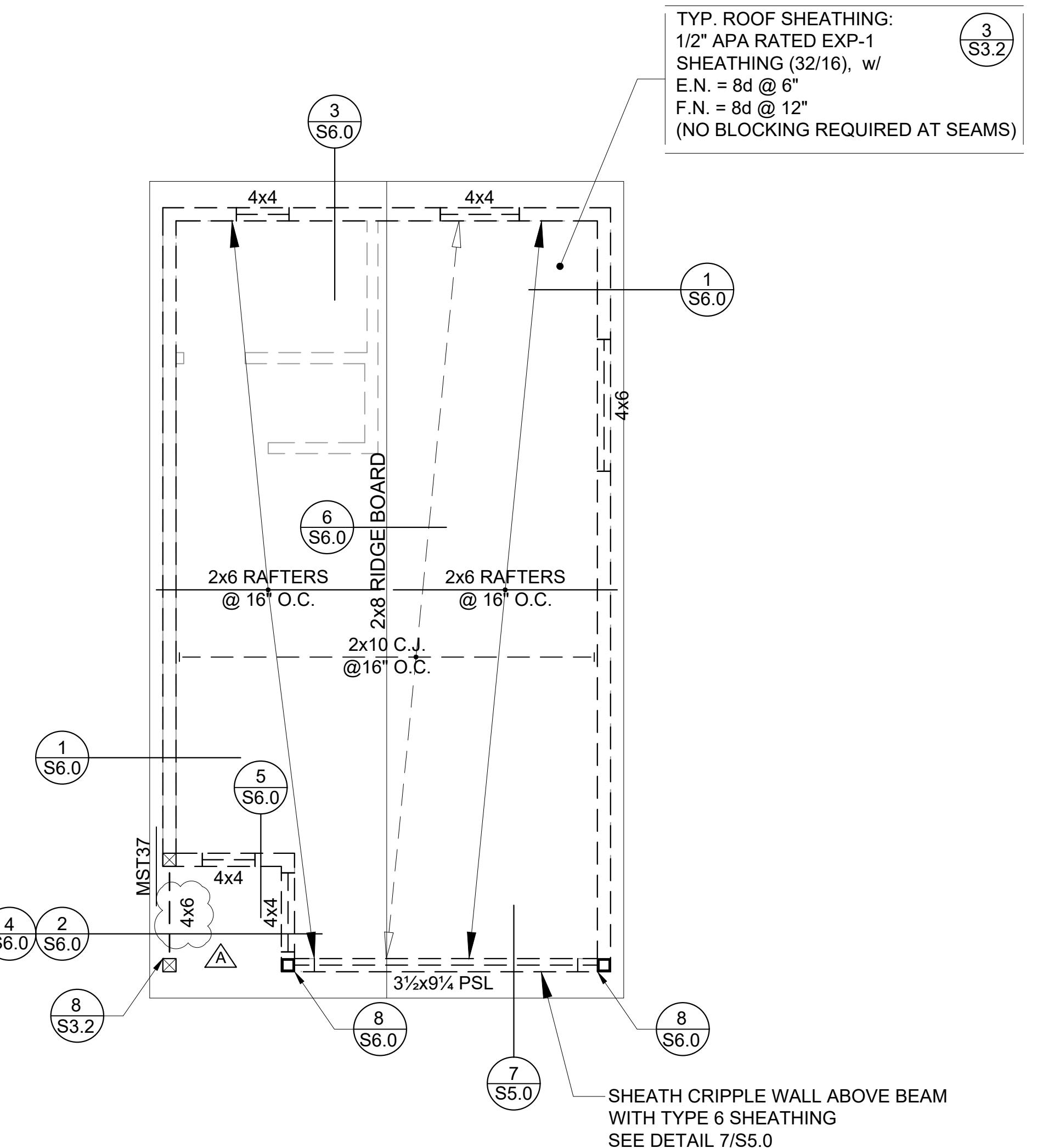


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City of Long Beach
Electronic Plan Check

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326 FLINT AVE
NEW ADU ABOVE
(E) GARAGE

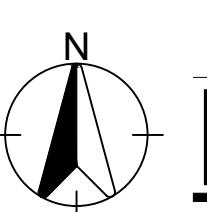
326 FLINT AVE
LONG BEACH, CA 90814

PROJECT NO. 25-357

DATE: 9/19/25

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S2.2
ROOF
PLAN



ROOF FRAMING PLAN

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



**326 FLINT AVE
NEW ADU ABOVE
(E) GARAGE**

326 FLINT AVE
LONG BEACH, CA 90814

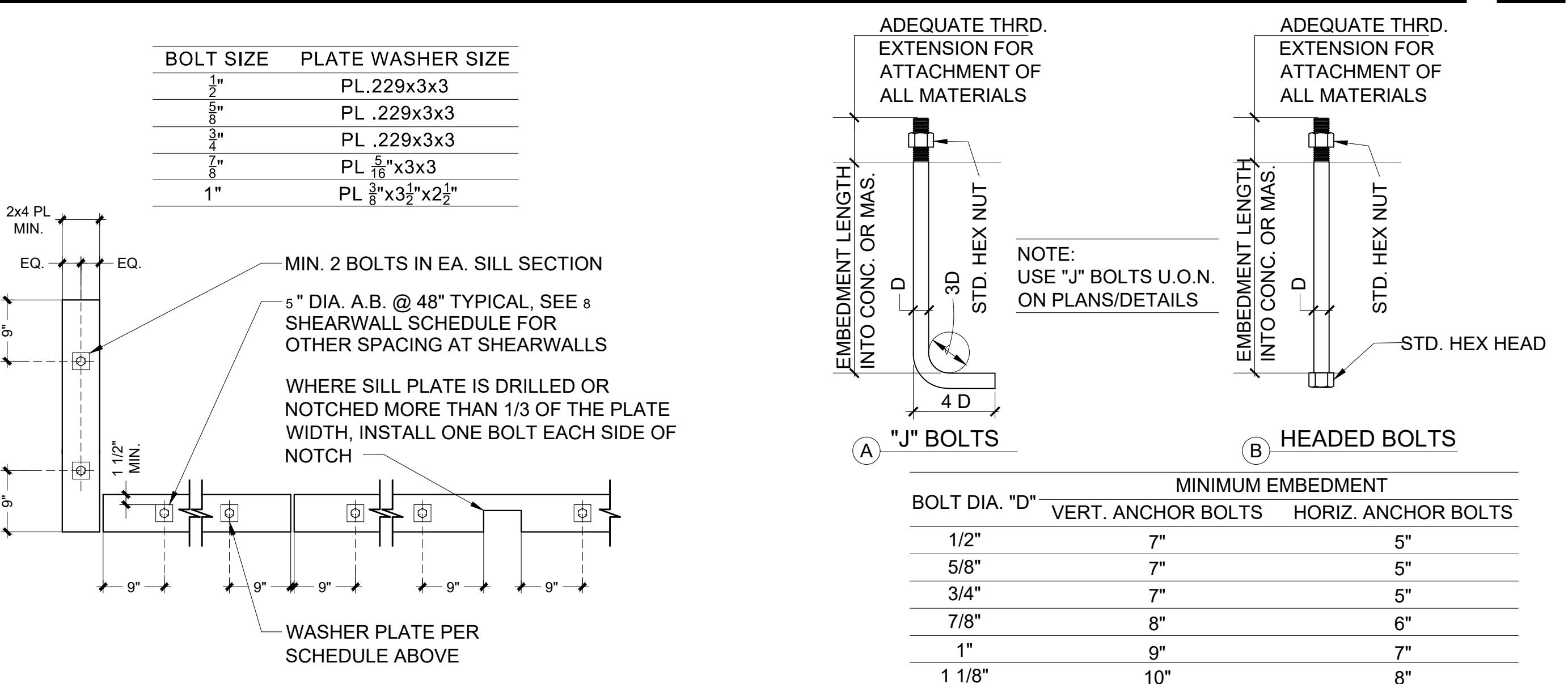
PROJECT NO. 25-357
DATE: 9/19/25

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A	REVISION	09-19-25
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**S3.1
TYPICAL DETAILS**

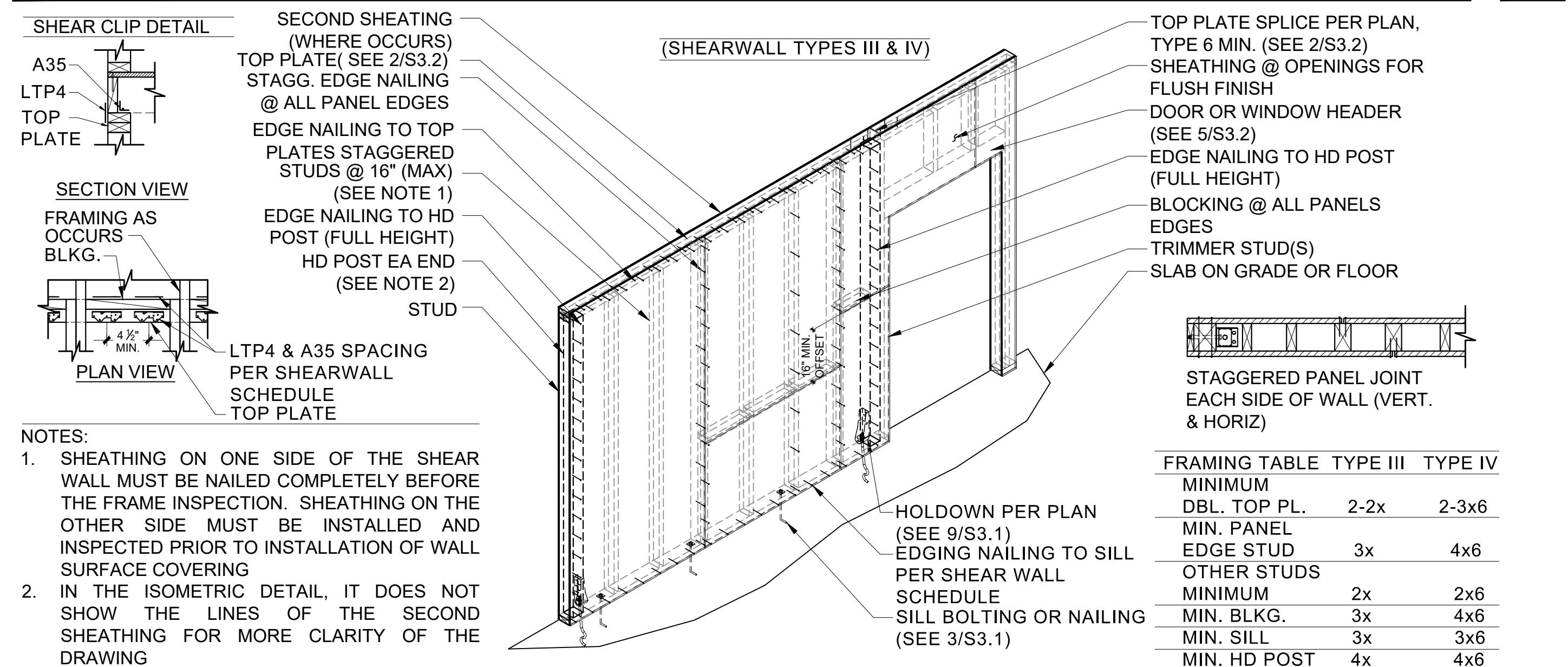
TYP. PLATE BOLTING & ANCHOR BOLTS

3



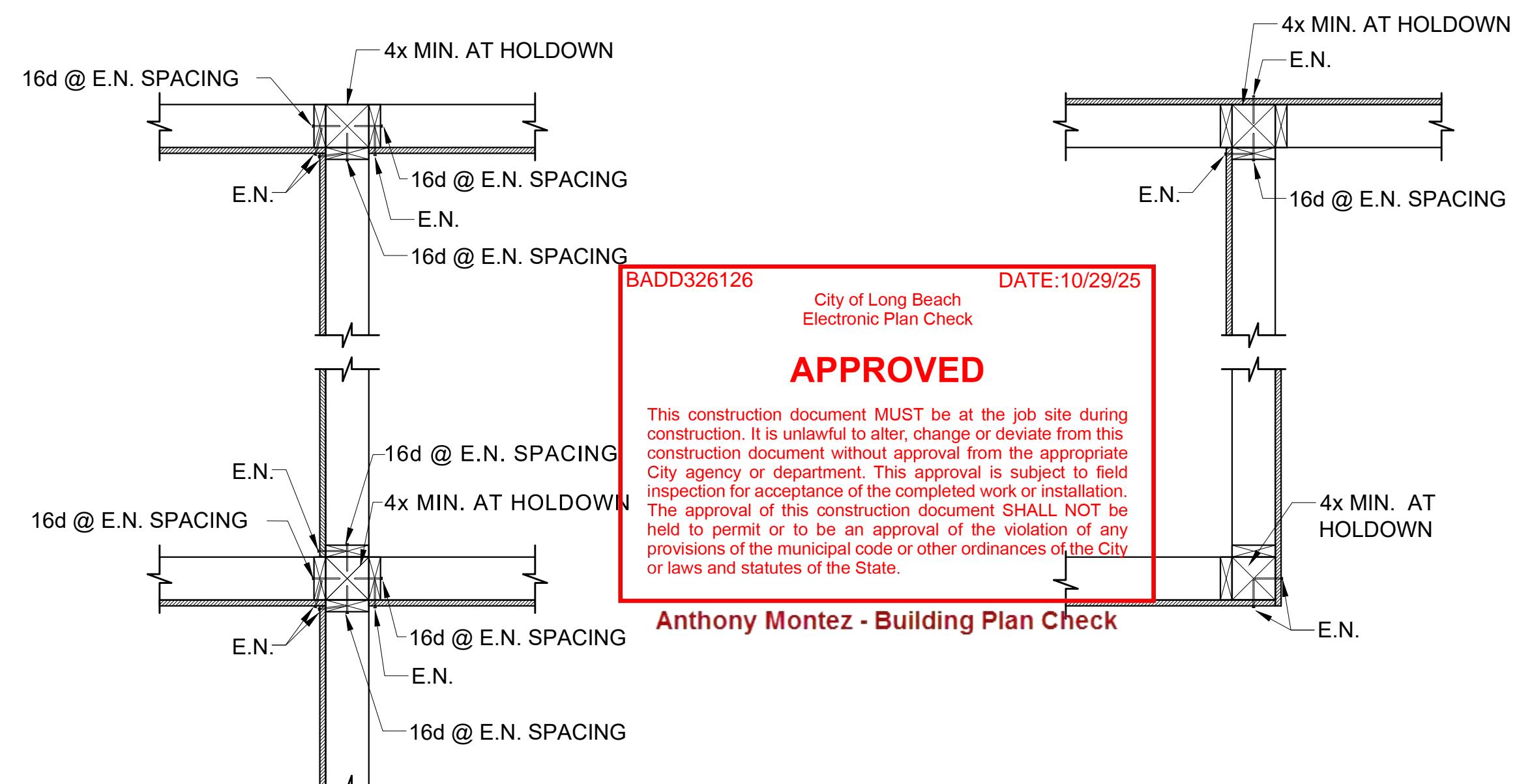
7

SHEARWALL ASSEMBLY w/ SHEATHING ON BOTH SIDES

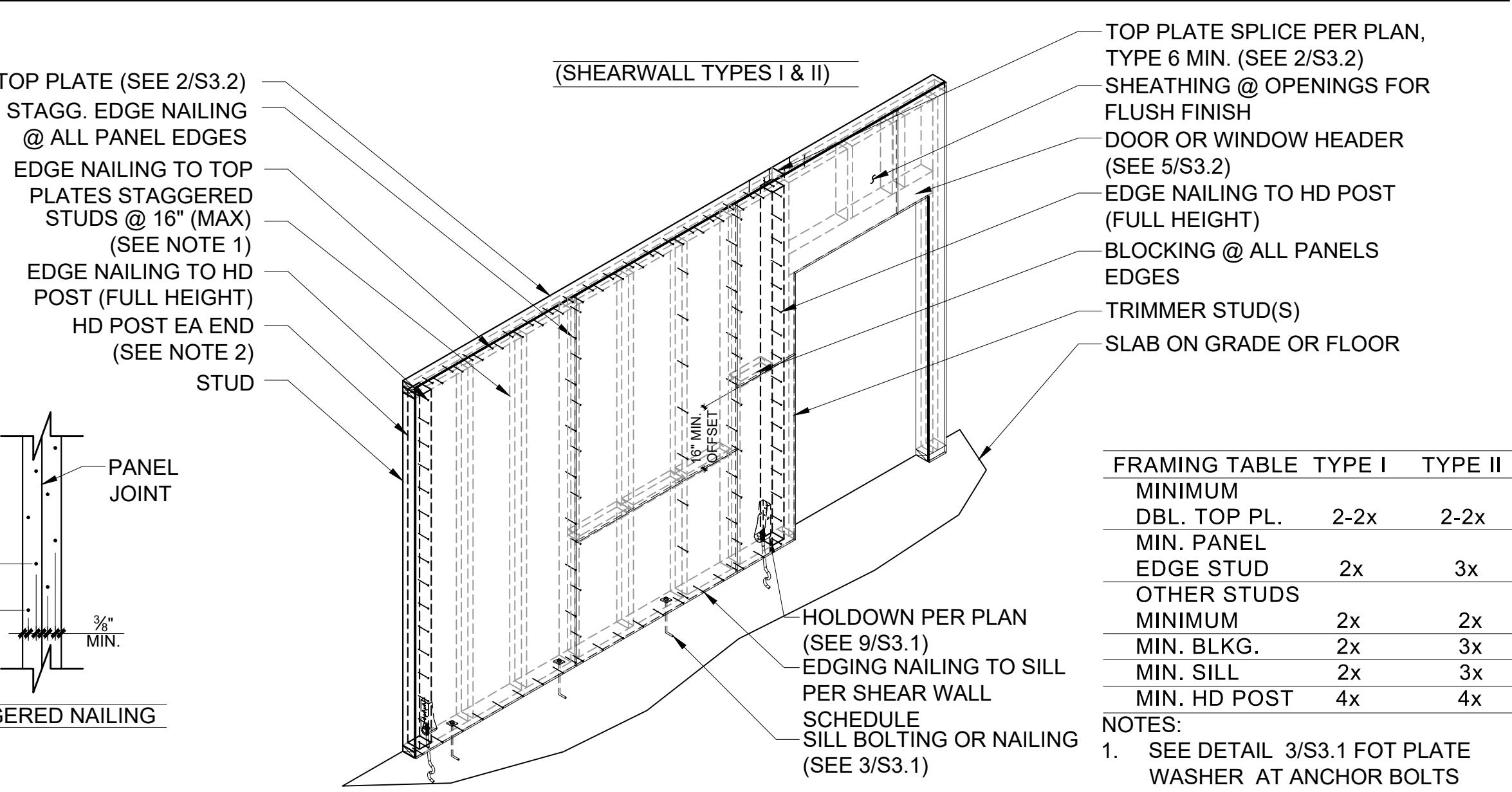


SHEARWALL INTERSECTIONS

1



SHEARWALL ASSEMBLY w/ SHEATHING ON ONE SIDE

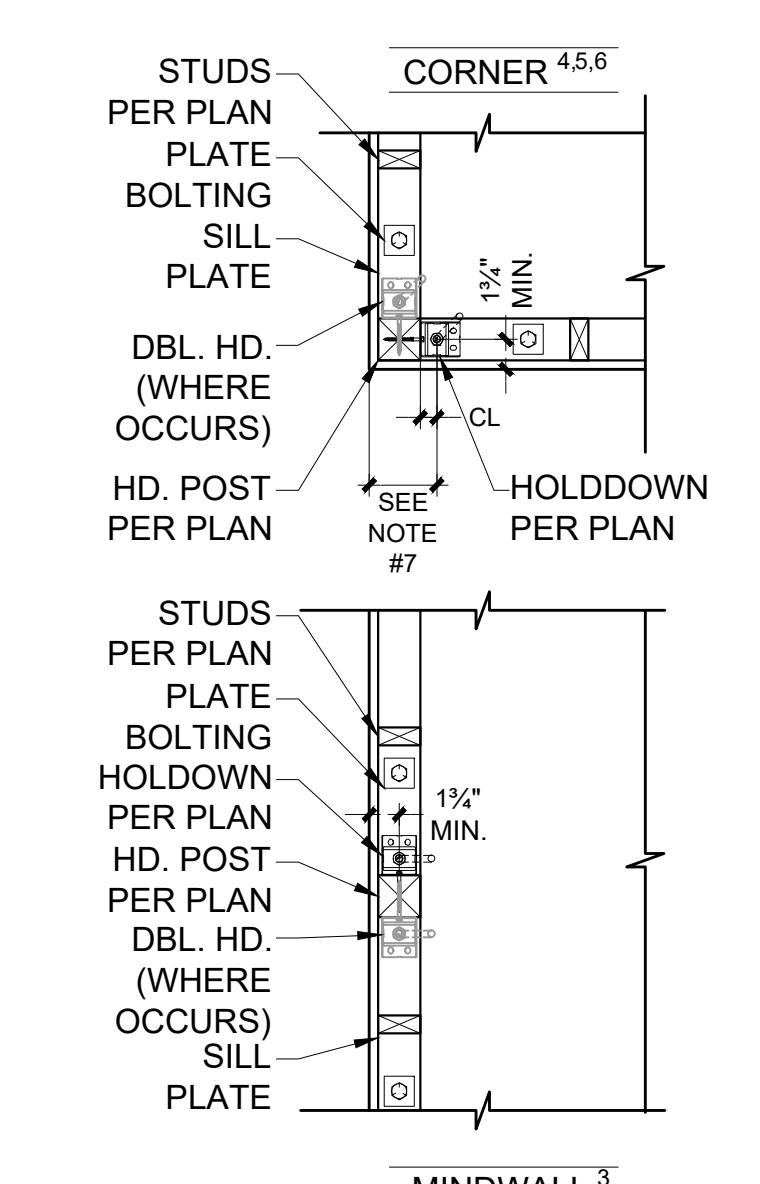
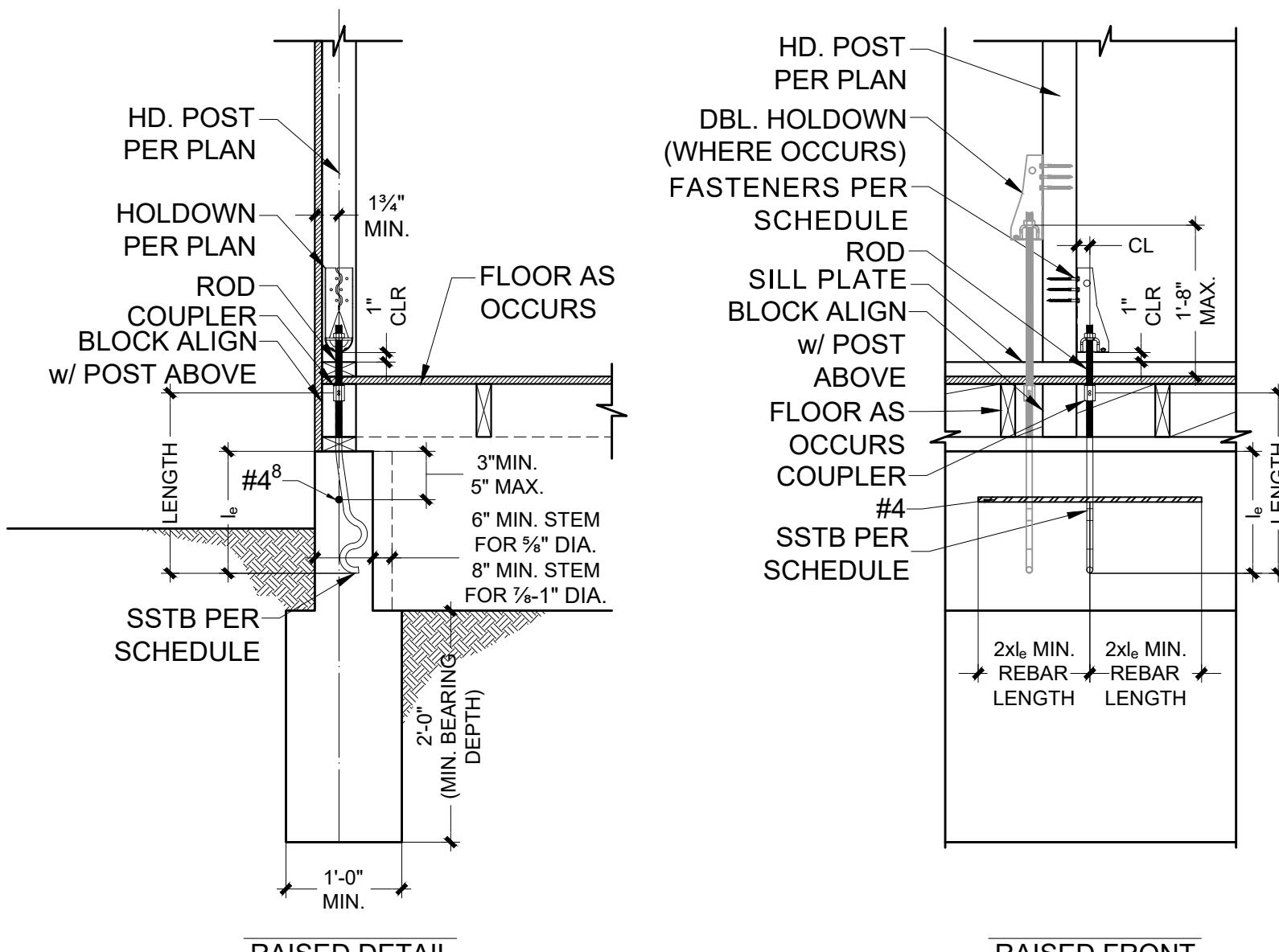
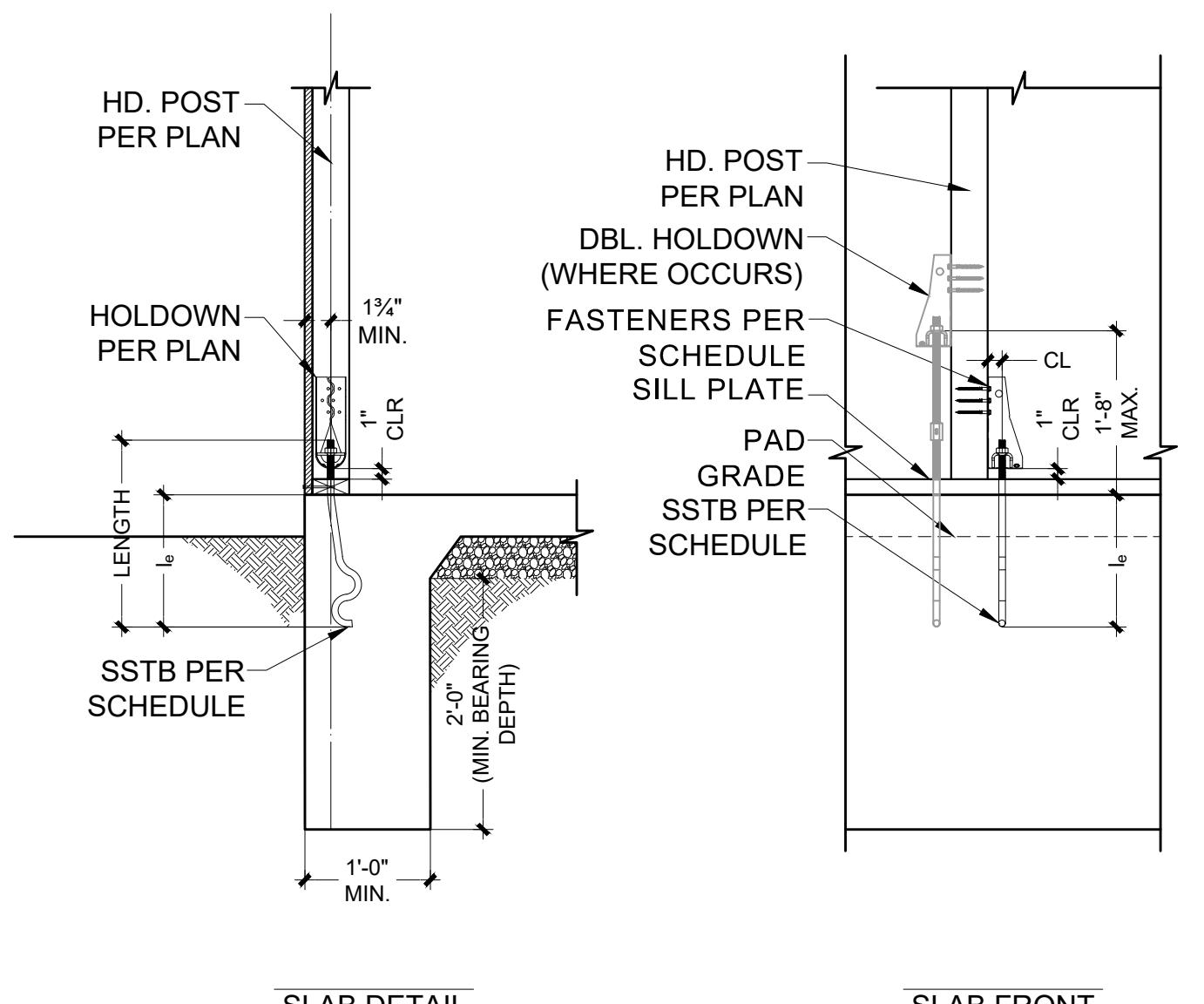


5

HOLDOWN AND SSTB ANCHOR

MARK	MIN. HD POST (WALL 2x4 OR 2x6)	NO. OF SDS 1/4"x3 SCRES	CL	SIMPSON STRONGTEC ANCHOR BOLT	MIN. ANCHOR DIA.	ALLOW TENSION KIPS (LA CITY)
HDU2	4x4 OR 4x6	6	1 5/16"	SSTB20	5/8"	16 5/8" 3.075 (2.306) 2.960 (2.220)
HDU4	4x4 OR 4x6	10	1 5/16"	SSTB24	5/8"	20 5/8" 3.740 (2.805) 3.325 (2.494)
HDU8	4x6 OR 4x6	20	1 3/8"	SSTB28	7/8"	24 7/8" 6.970 (5.228) 6.970 (5.228)
HDU11	4x6 OR 4x6	30	1 3/8"	SB1x30	1"	24" 9.535 (7.151) 8.315 (6.236)
HDU14	4x8 OR 6x6	36	1 9/16"	SB1x30	1"	24" 11.470 (8.603) 16.630 (12.473)
2-HDU14	4x8 OR 6x6	30	1 3/8"	2-SB1x30	2-1"	24" 19.070 (14.303) 16.630 (12.473)
2-HDU14	4x8 OR 6x6	36	1 9/16"	2-SB1x30	2-1"	24" 22.940 (17.205)

- 1) ALL HOLDOWN ANCHOR BOLTS SHALL BE SECURELY FASTENED IN PLACE PRIOR TO PLACING CONCRETE.
- 2) MINIMUM END DISTANCES FOR SSTB & SB BOLTS ARE AS SHOWN IN GRAPHICS.
- 3) MIDWALL LOADS APPLY WHEN ANCHOR IS 1.5 l_e OR GREATER FROM THE END. FOR BOLTS ACTING IN TENSION SIMULTANEOUSLY, THE MINIMUM BOLT CENTER-TO-CENTER SPACING IS 3 l_e.
- 4) ON CORNER APPLICATION THE STEM WALL NEED TO HAVE 16" MIN. RETURN OF WALL.
- 5) PLACE SSTB & SB ARROW DIAGONAL IN CORNER APPLICATION
- 6) FOOTING, SLAB, FLOOR FRAMING & SHEATHING ARE NOT SHOWN FOR CLARITY ON ELEVATIONS (CORNER & MINDWALL).
- 7) MIN. DISTANCE FOR SLAB IS 4" & FOR STEM IS 5".
- 8) REBAR IS REQUIRED AT THE TOP OF STEM WALL FOUNDATIONS, BUT IS NOT REQUIRED FOR SLAB-ON-GRADE EDGE AND GARAGE CURB, OR STEM WALL GARAGE FRONT INSTALLATIONS.
- 9) ON GARAGE USE A ROD & COUPLER AS SHOWN ALTERNATIVE ON SLAB DETAIL





**326 FLINT AVE
NEW ADU ABOVE
(E) GARAGE**

326 FLINT AVE
LONG BEACH, CA 90814

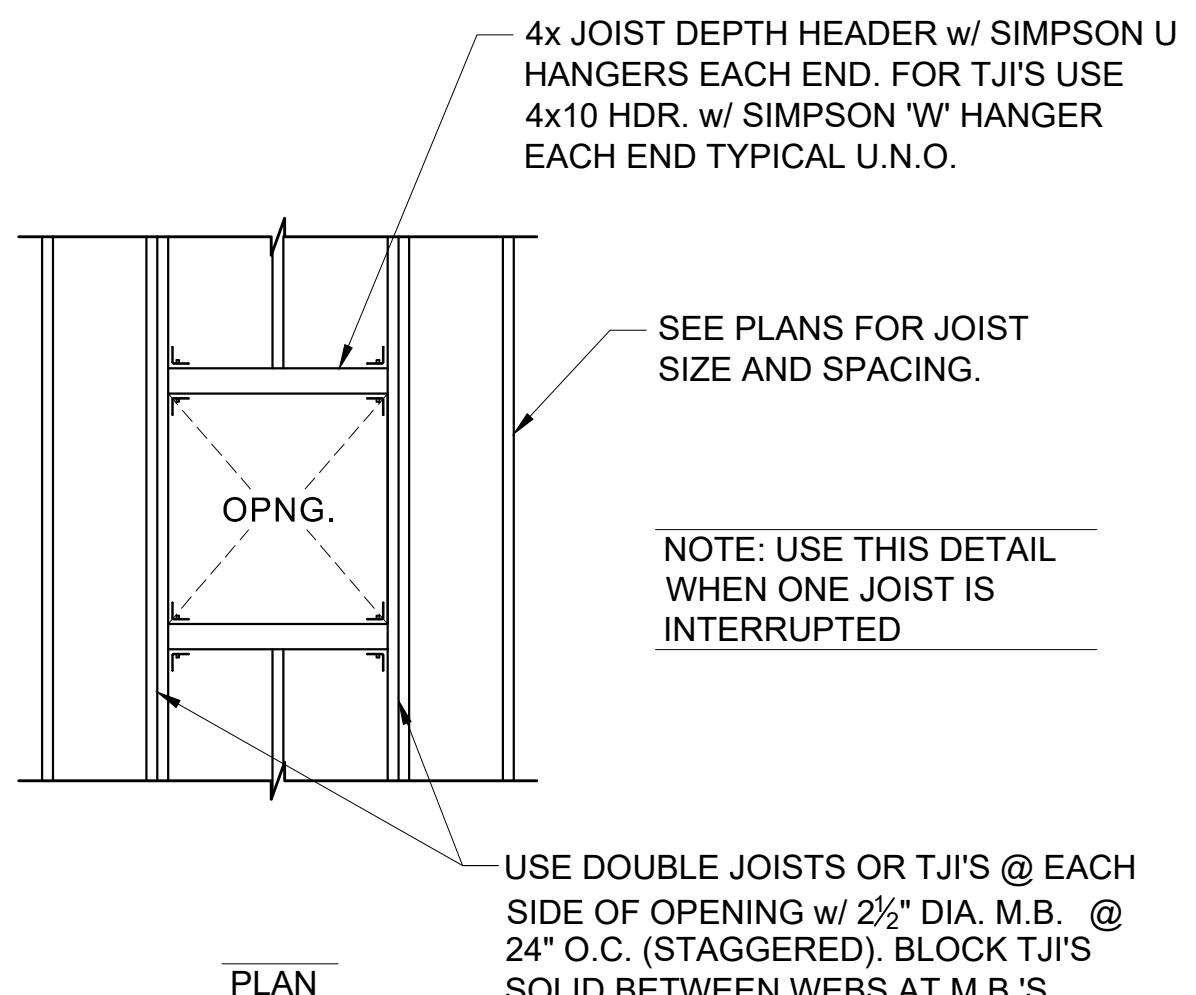
PROJECT NO. 25-357
DATE: 9/19/25

REVISION	DESCRIPTION	DATE
A	REVISION	09-19-25
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**S3.2
TYPICAL DETAILS**

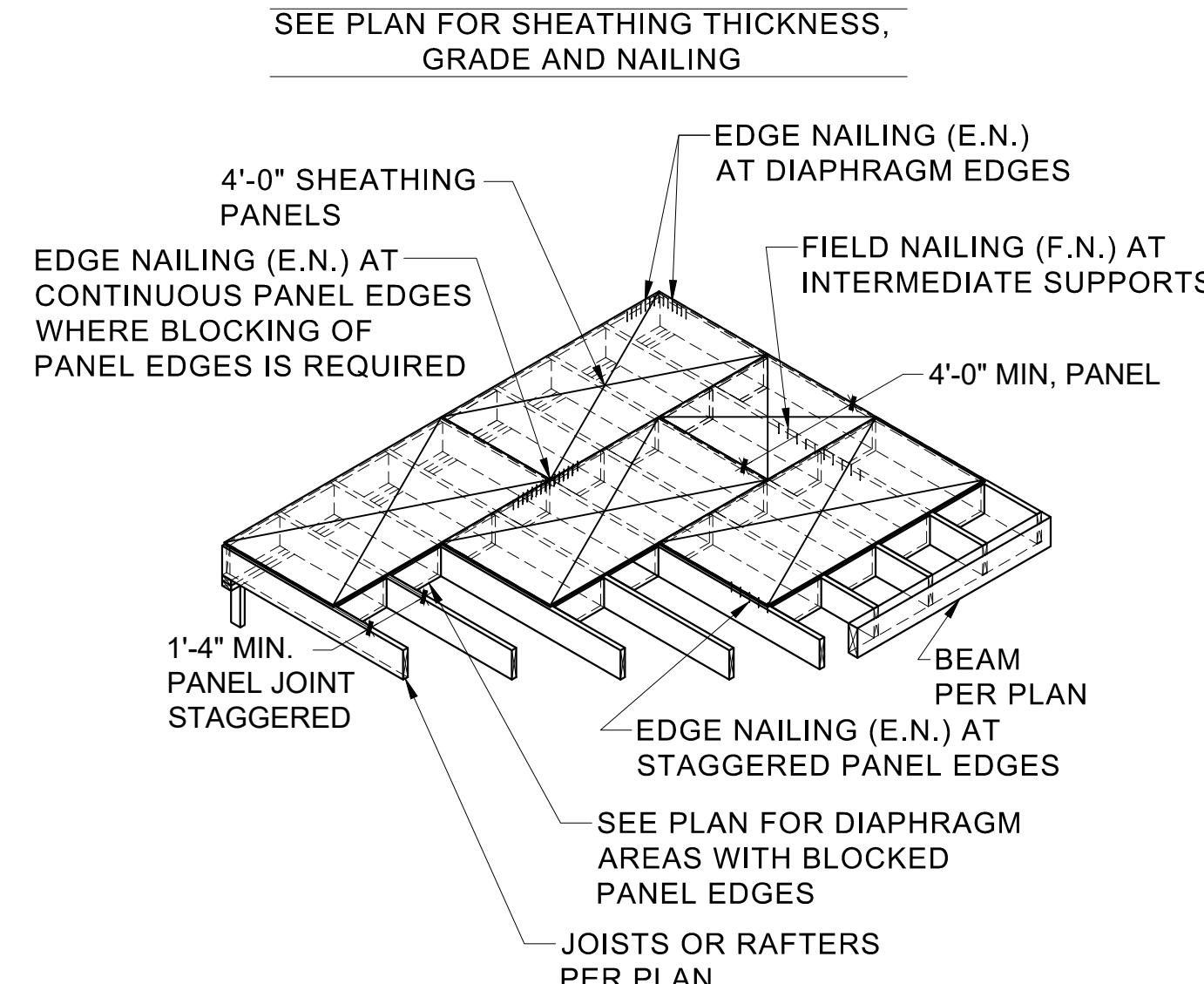
OPENING AT ROOF/FLOOR

4



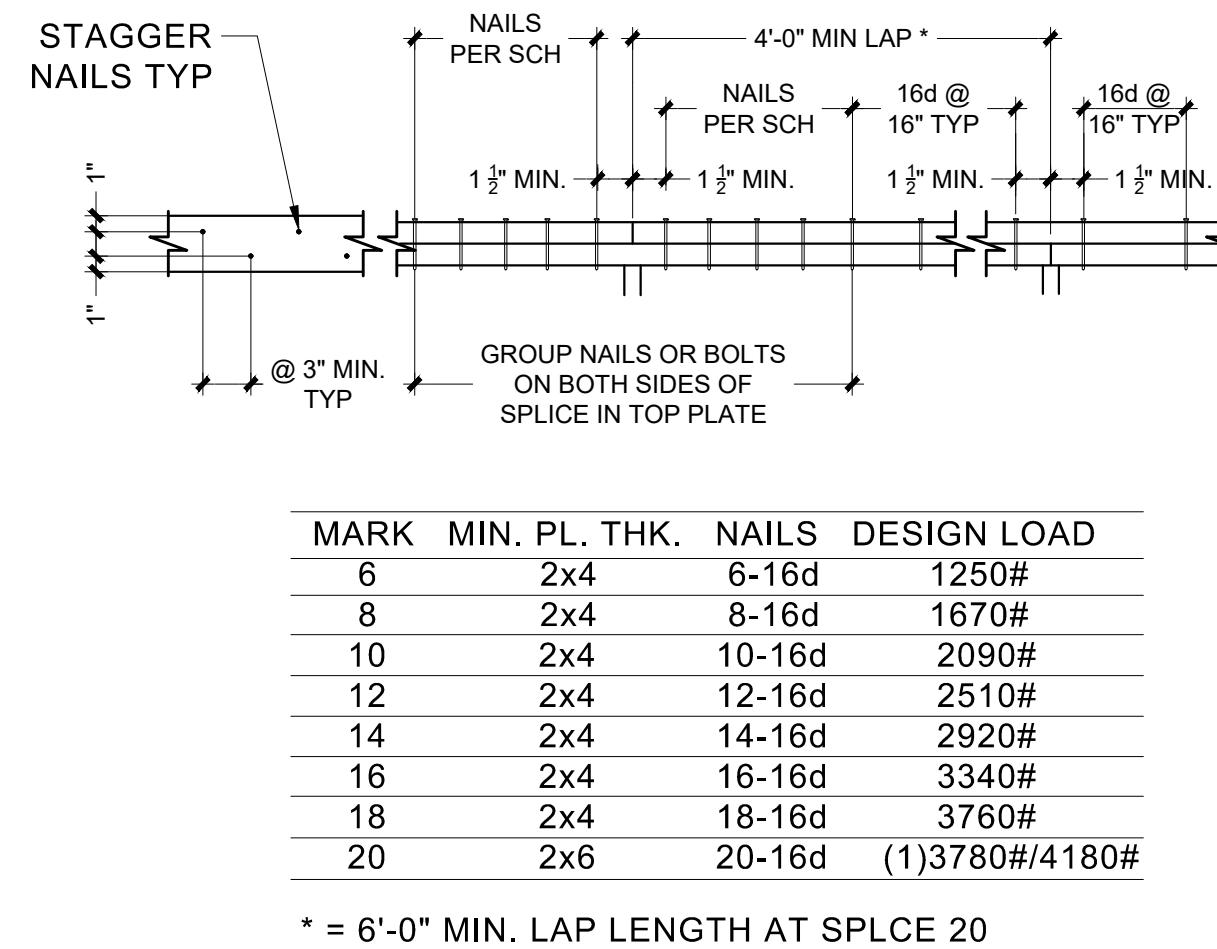
ROOF/FLOOR DIAPHRAGM ASSEMBLY

3



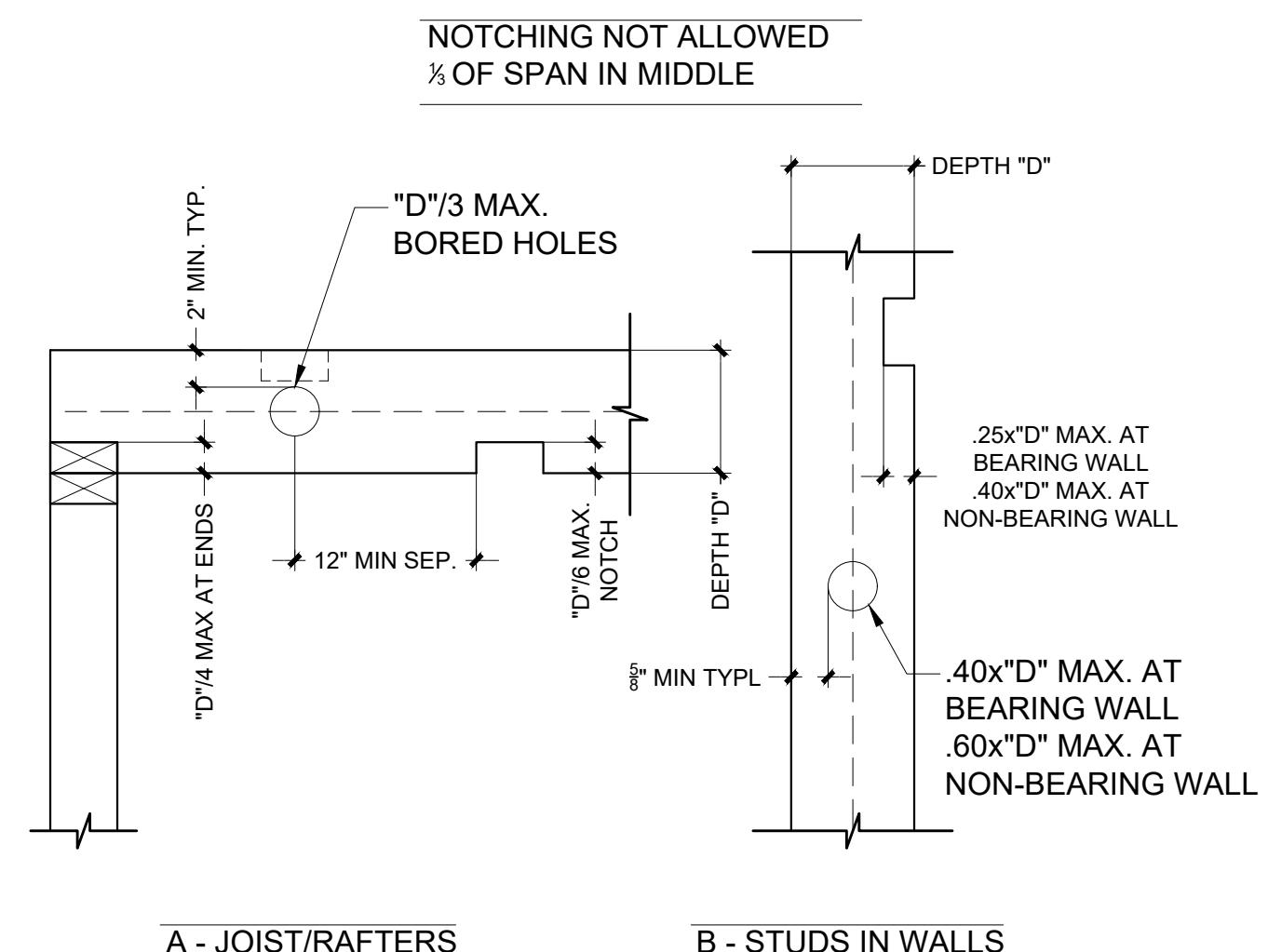
TOP PLATE SPLICING

2



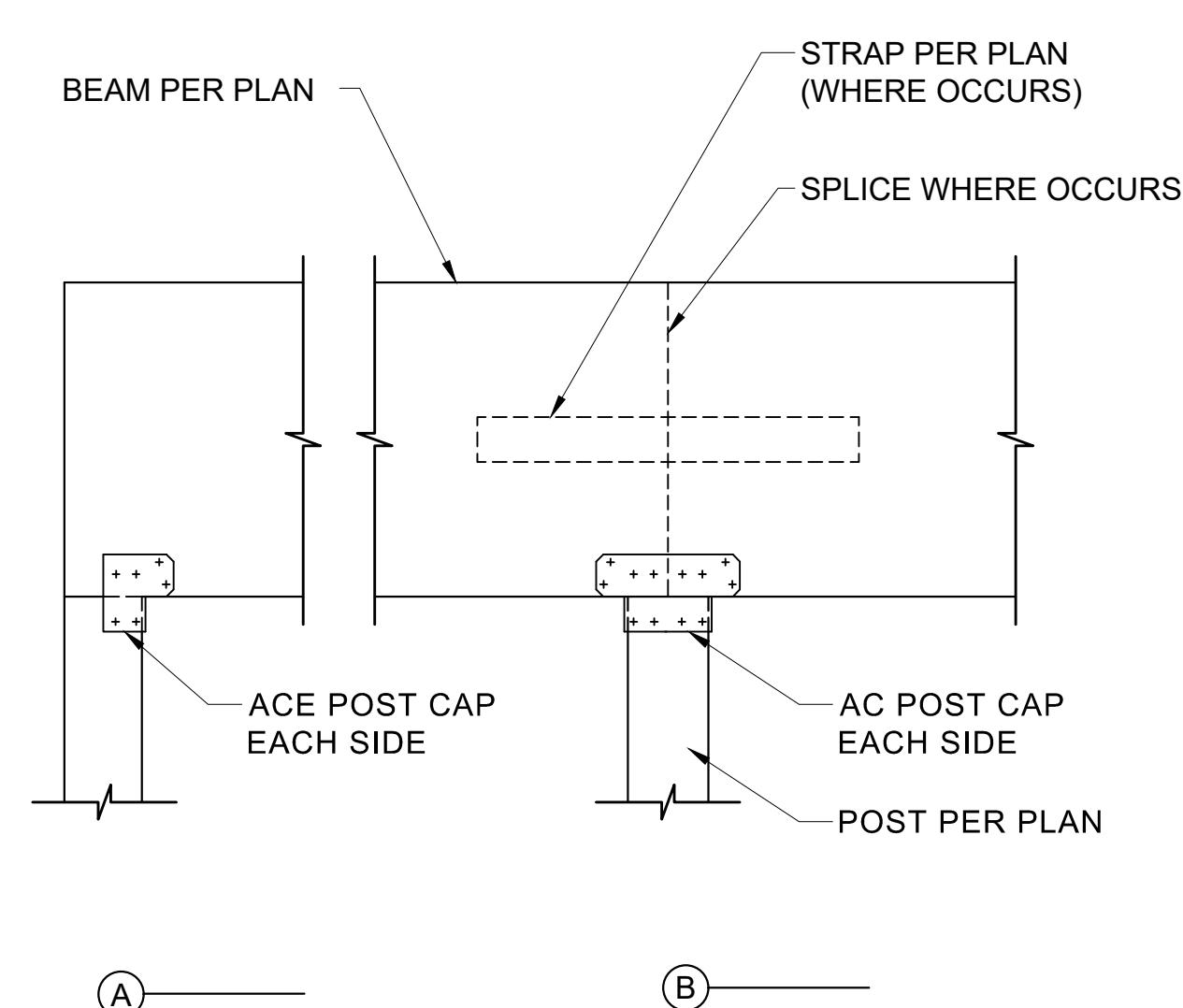
BORING AND NOTCHING

1



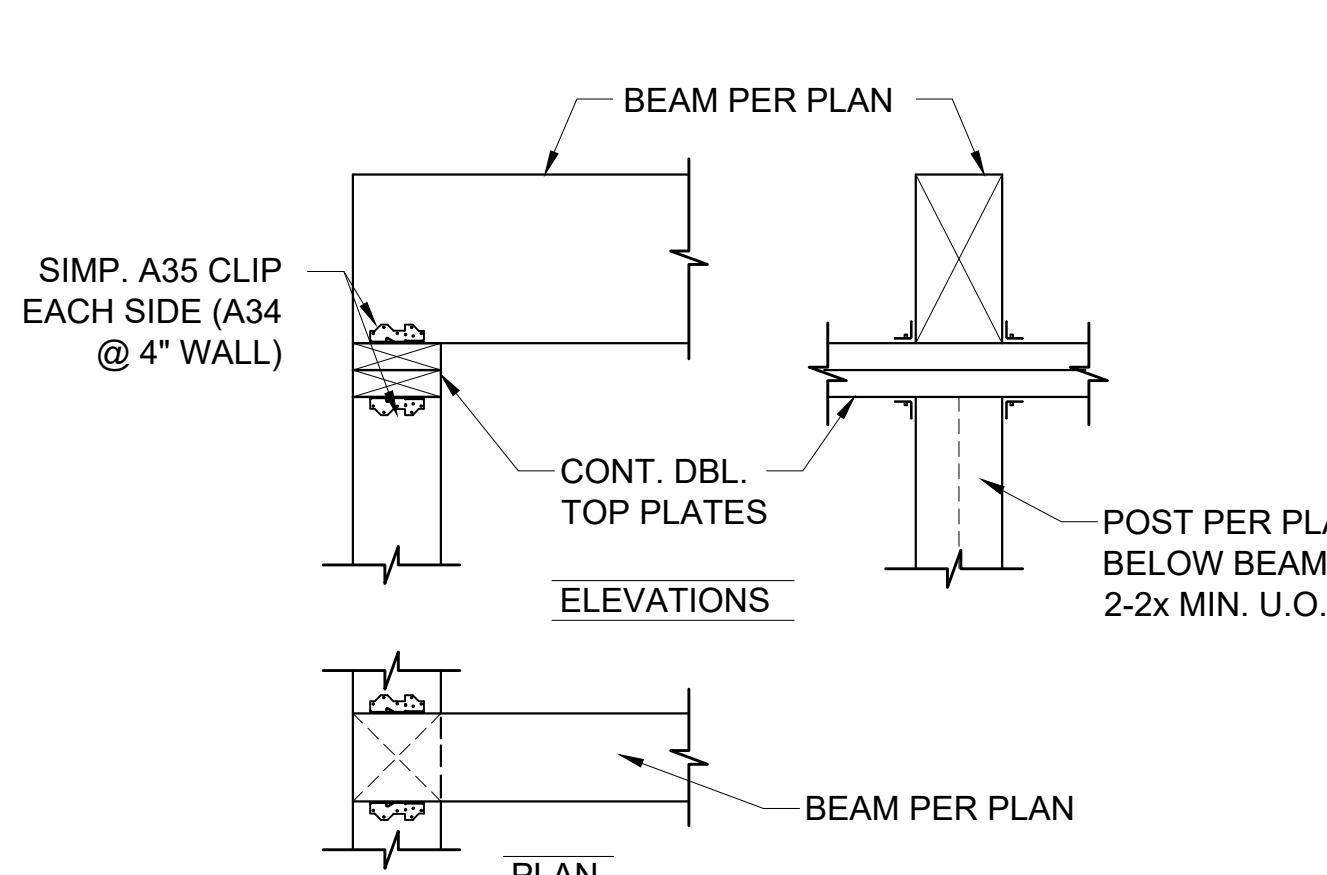
4x OR 6x BEAM TO POST

8



BEAM PERP. TO WALL

7

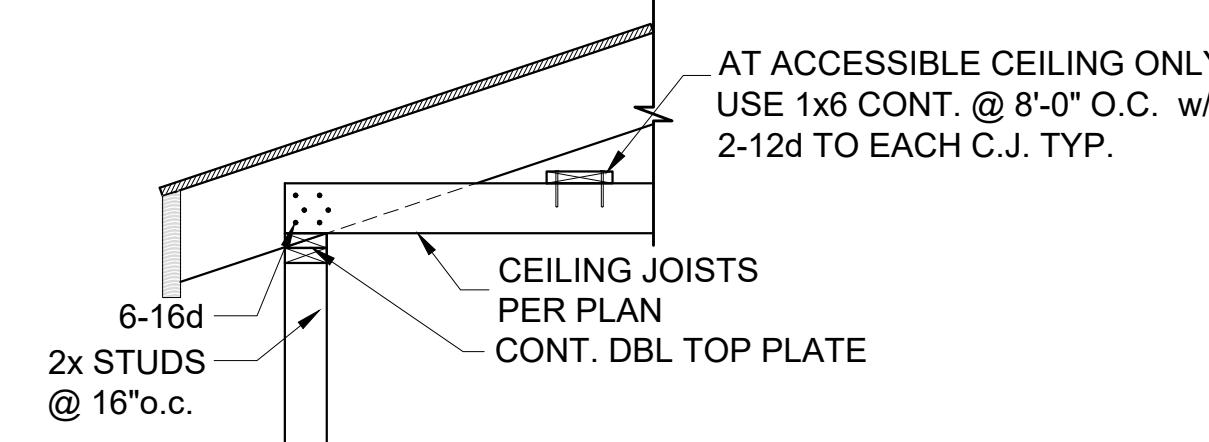


CEILING JOIST DETAIL APPROVED

6

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AT ROOF Anthony Montez - Building Plan Check

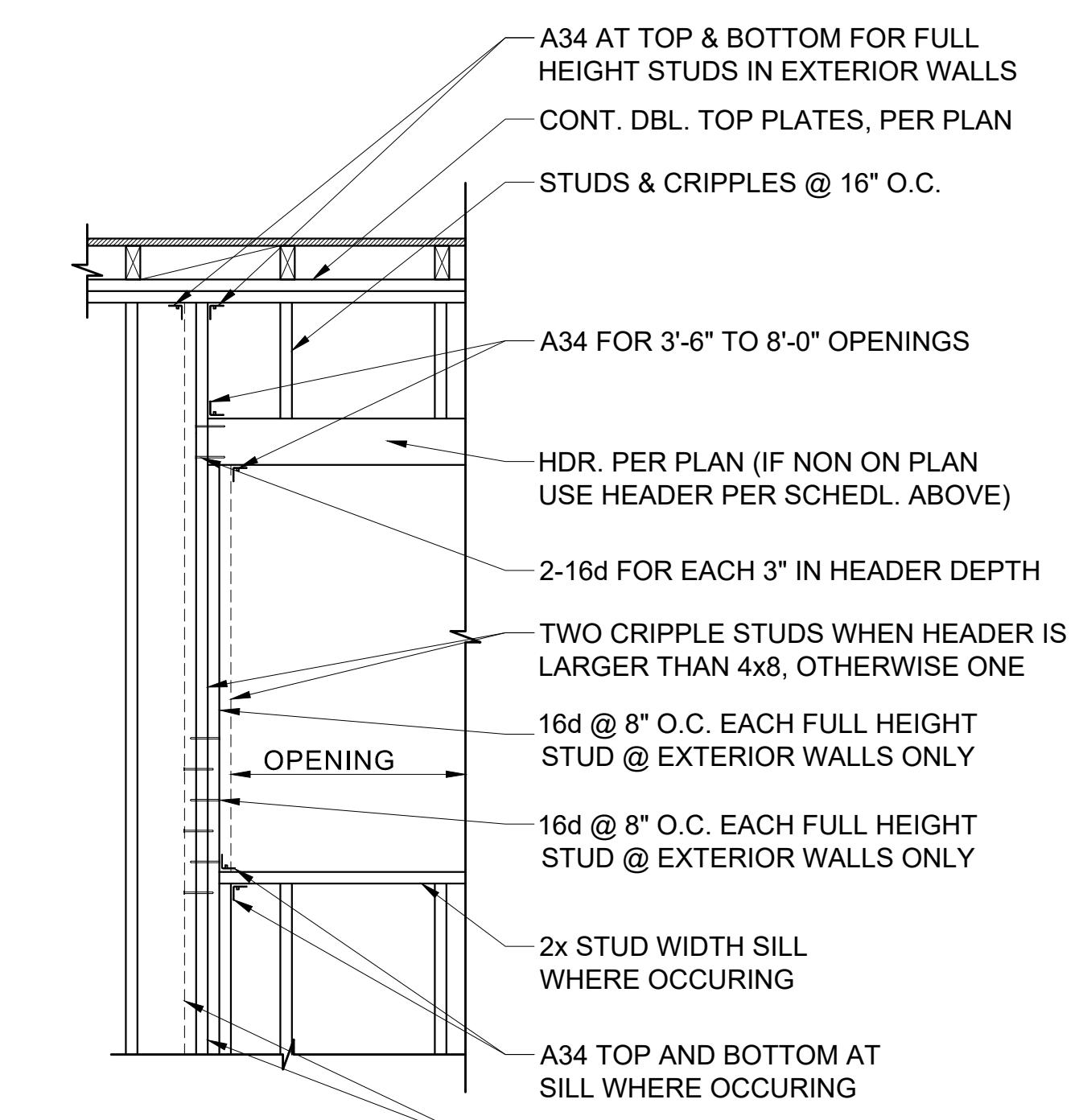


HEADER DETAIL

5

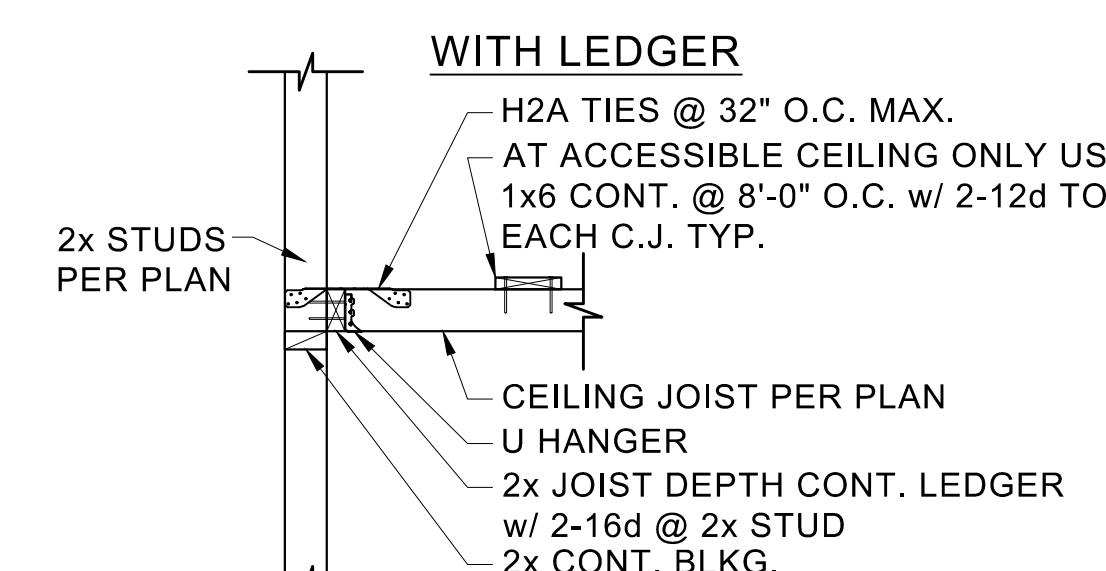
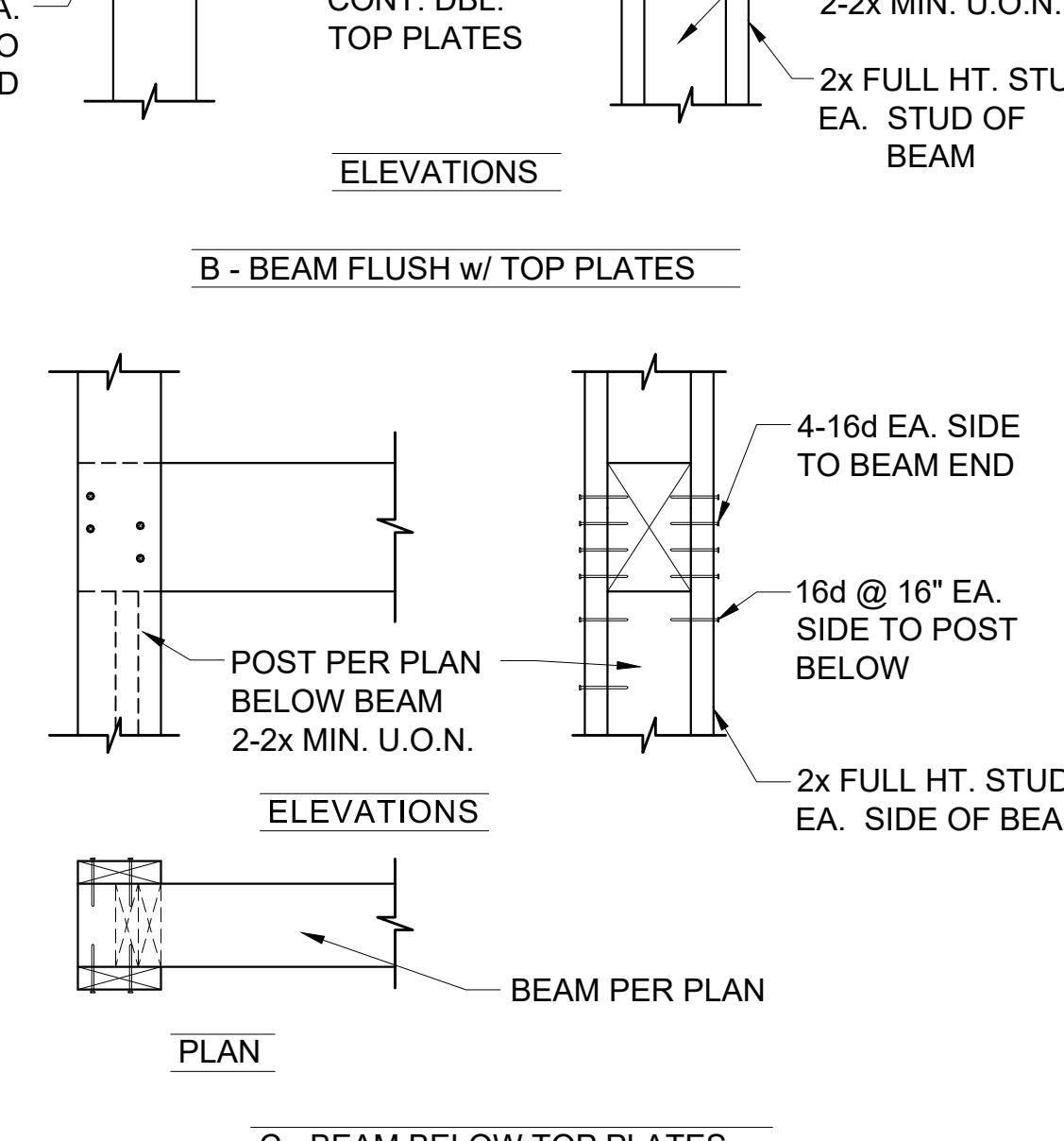
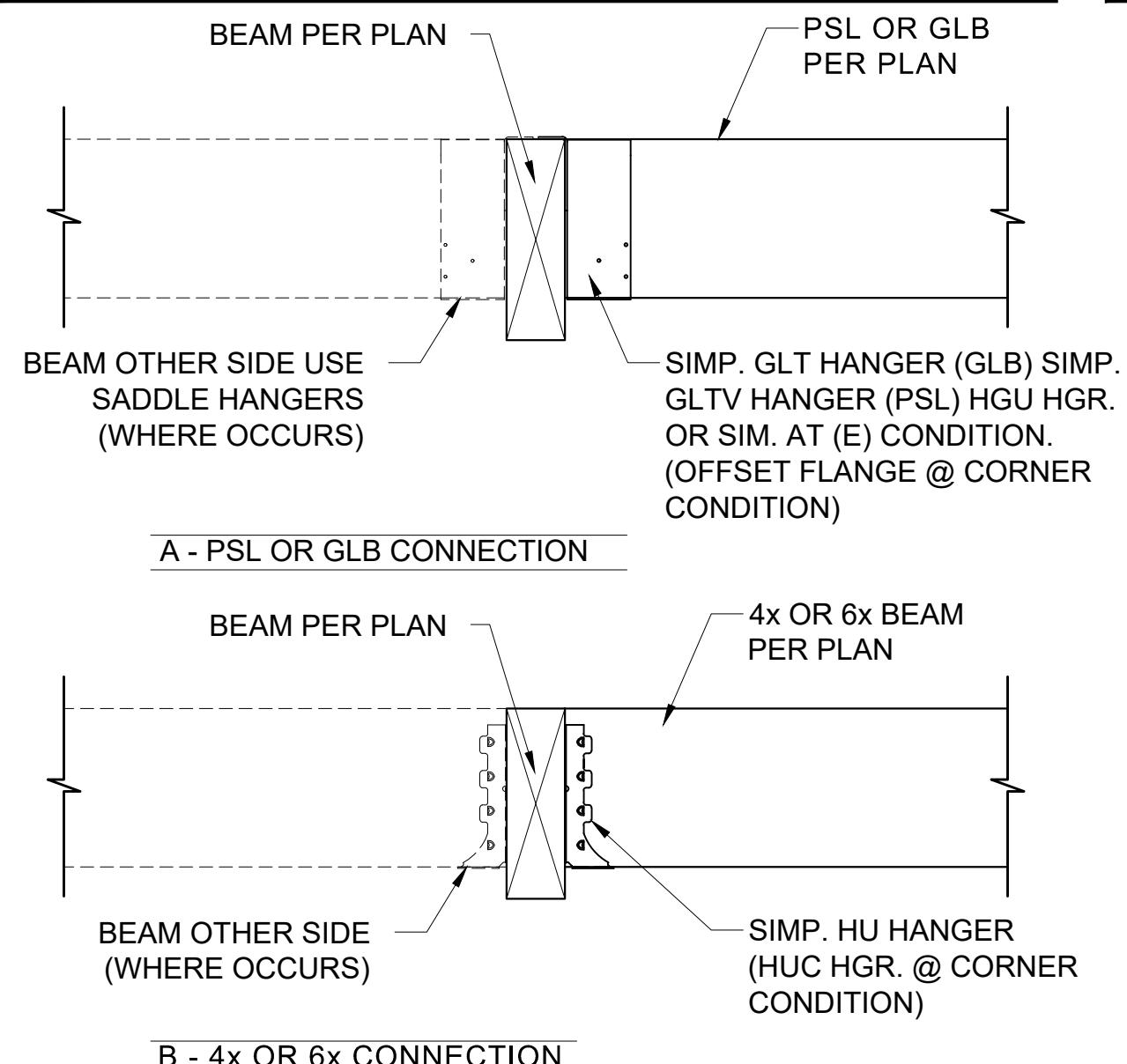
HEADER SCHEDULE		NON-BEARING WALLS	
OPENING WIDTH	HEADER SIZE	OPENING WIDTH	HEADER SIZE
6'-0" OR LESS	4x6	8'-0" OR LESS	4x6
6'-1" TO 8'-0"	4x8	8'-1" TO 12'-0"	4x10
8'-1" TO 10'-0"			

NOTE: USE 6x LINTEL MEMBERS IN 2x6 STUD WALLS.



BEAM TO BEAM HANGER CONN.

12



OPENING WIDTH	NUMBER OF FULL HEIGHT STUDS		
	ALL EXTERIOR WALLS	INTERIOR BRG. WALLS	NON-BEARING WALLS
7'-0" OR LESS	2	2	1
7'-1" TO 10'-0"	3	2	1
OVER 10'-0"	4	2	1

NOTE: OMIT FULL HEIGHT STUDS WHERE POST FOR HOLDOWN ANCHOR OCCURS. SEE PLAN AND TYPICAL HOLDOWN DETAIL.



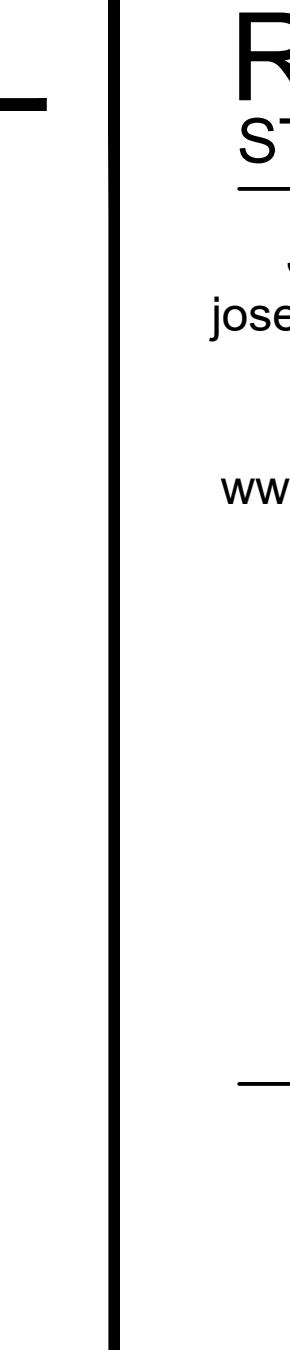
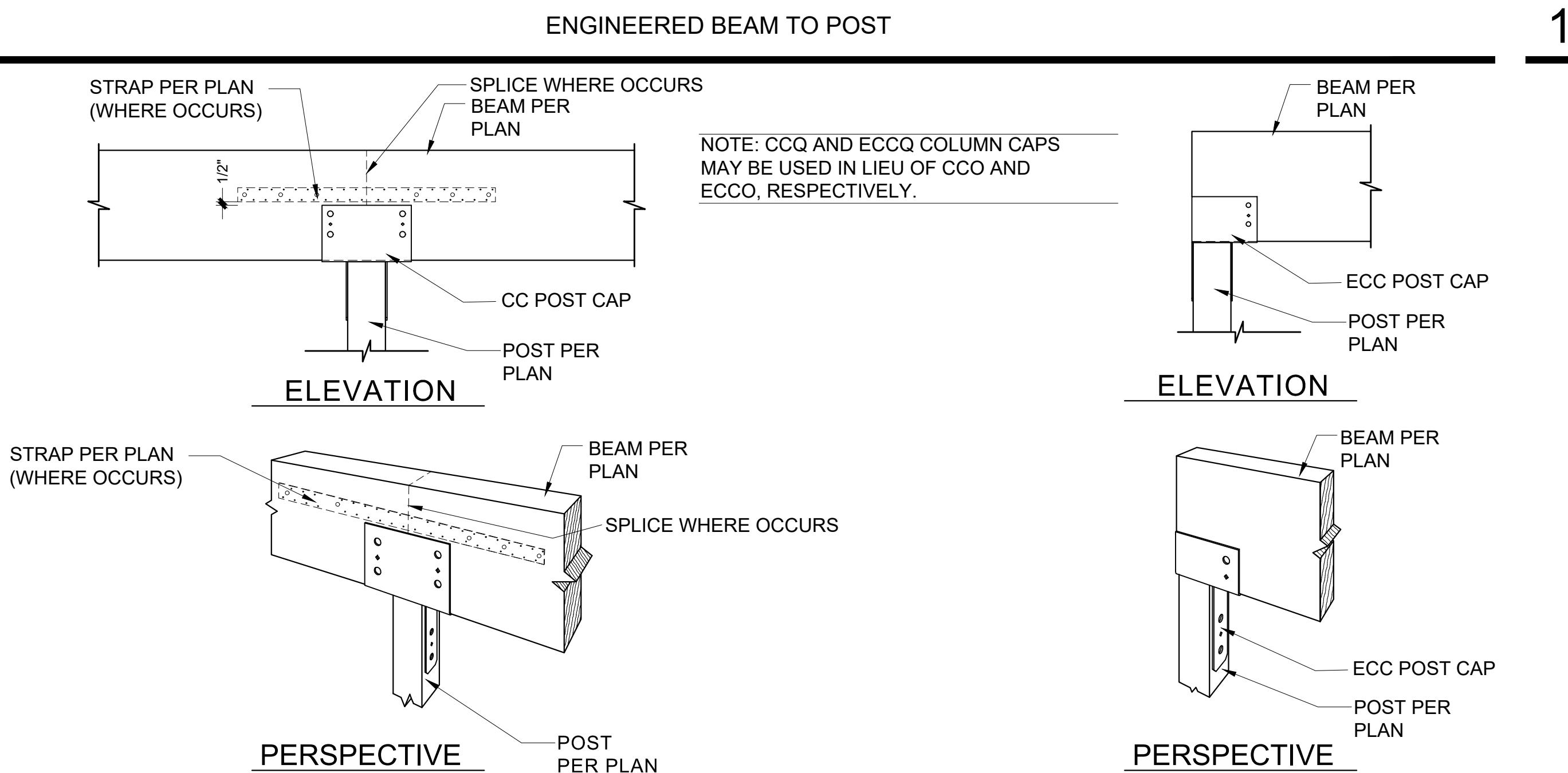
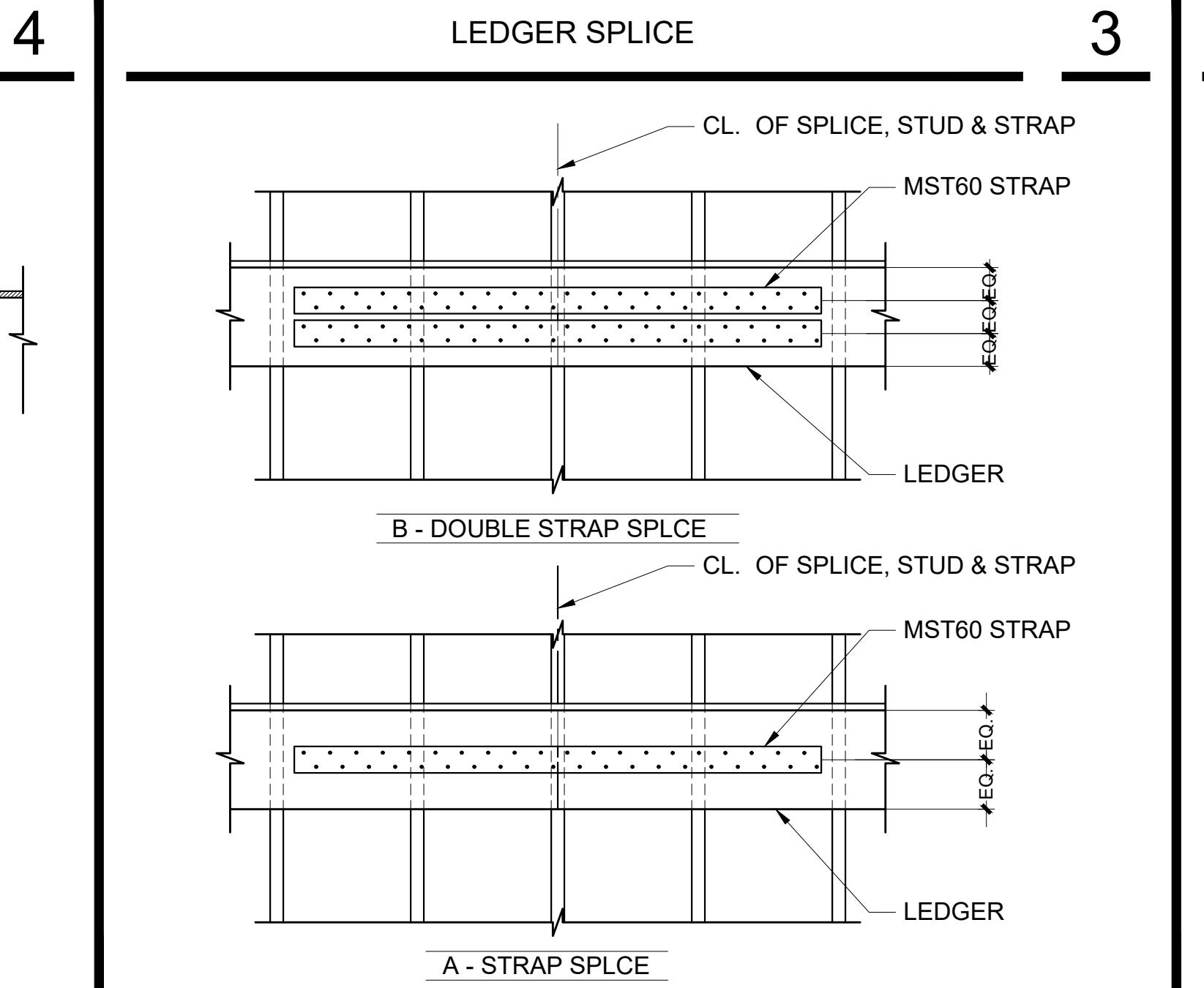
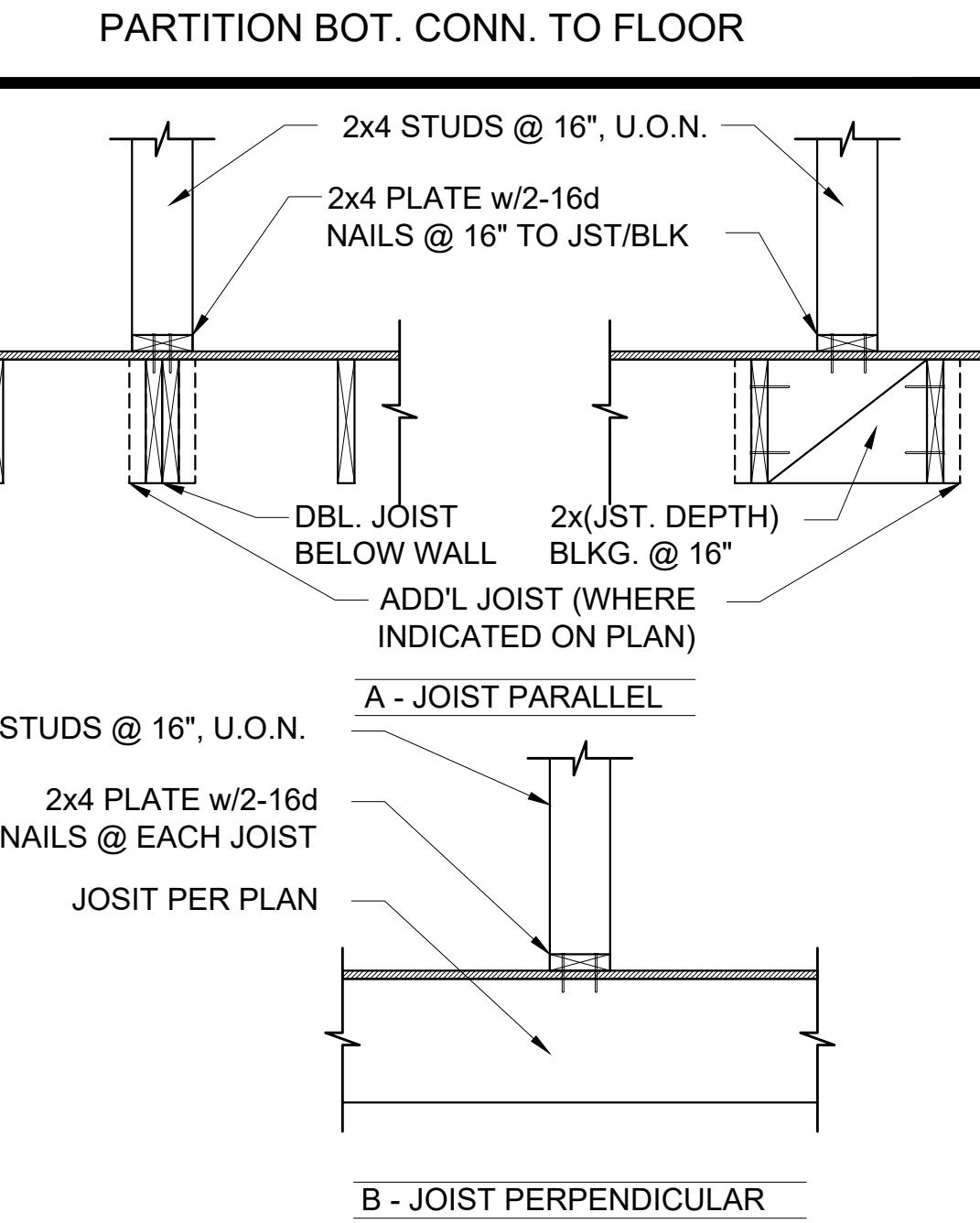
326 FLINT AVE NEW ADU ABOVE (E) GARAGE

326 FLINT AVE
LONG BEACH, CA 90814

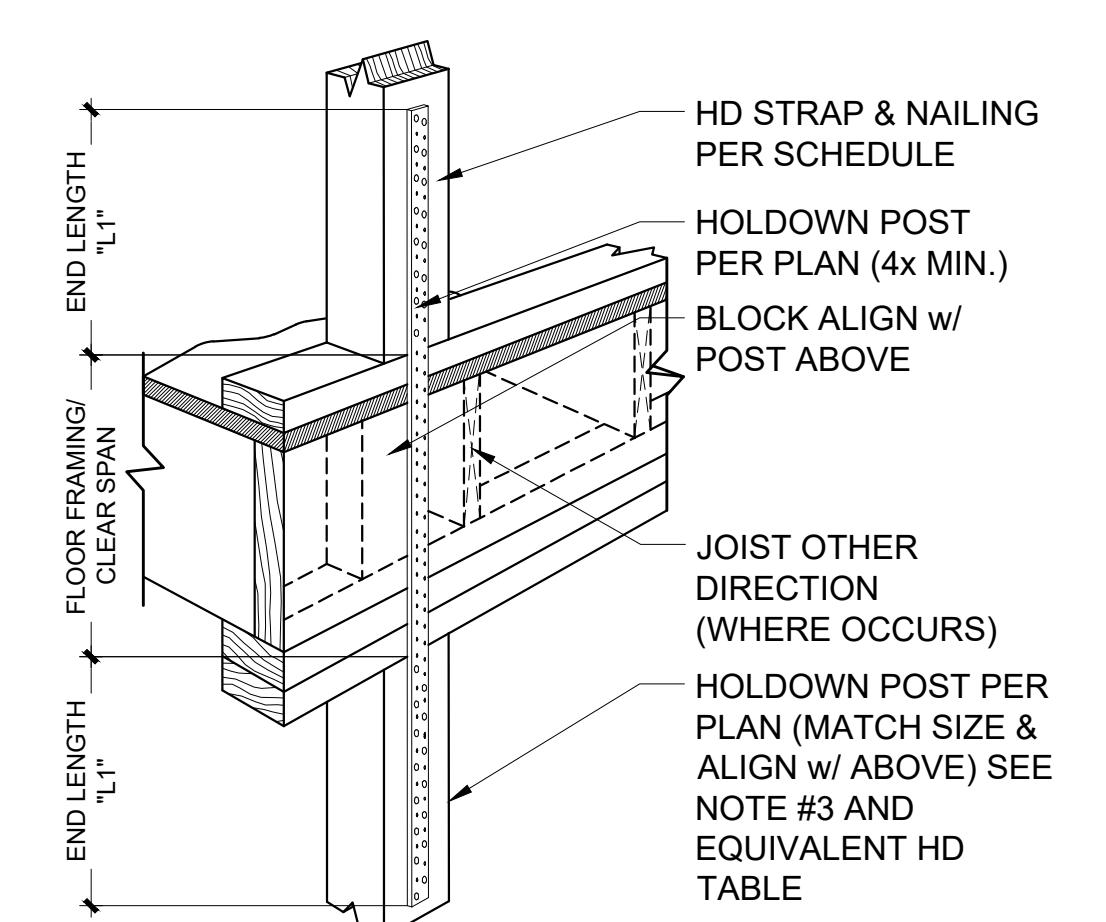
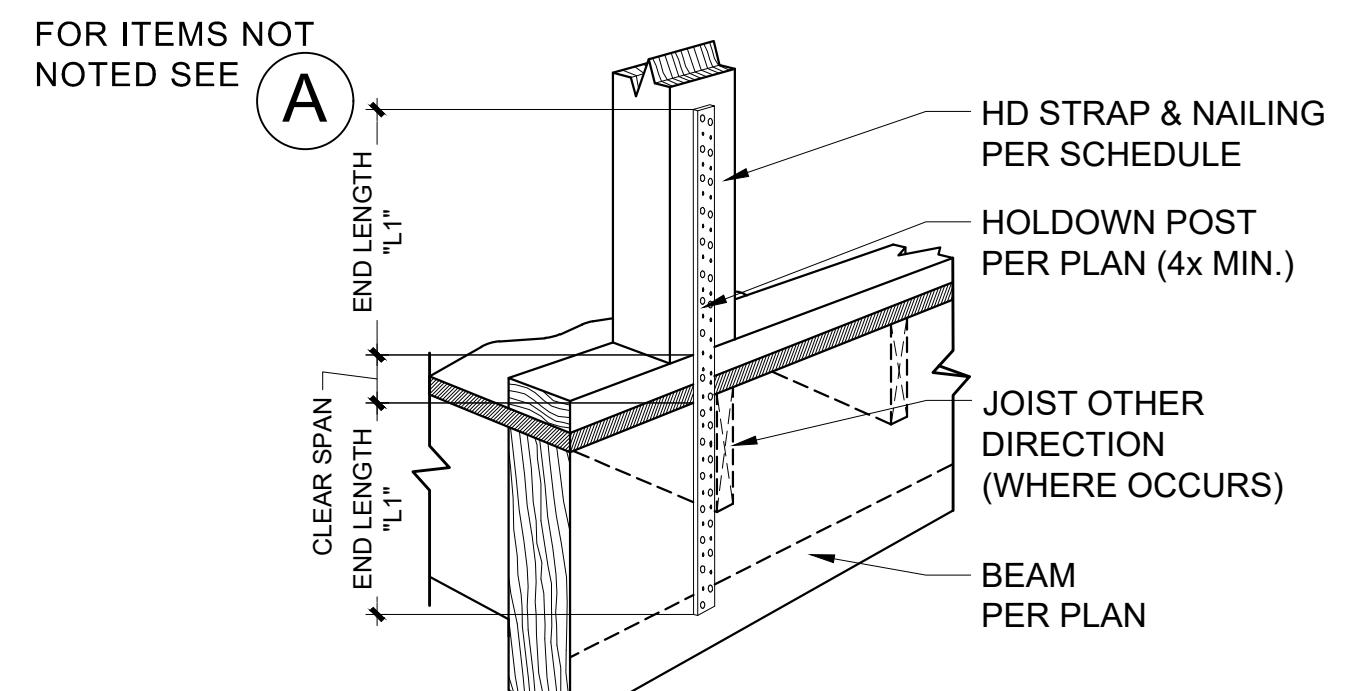
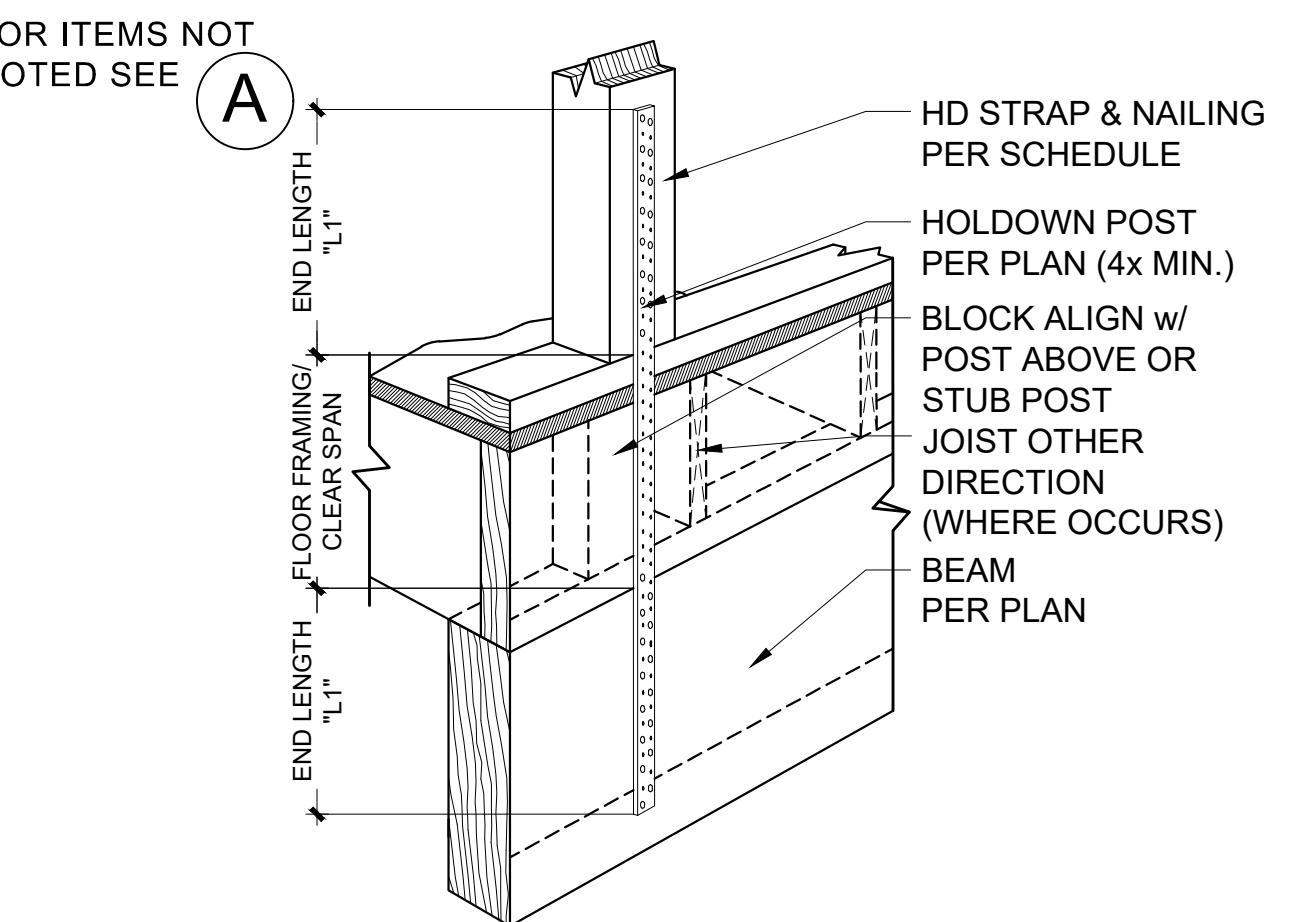
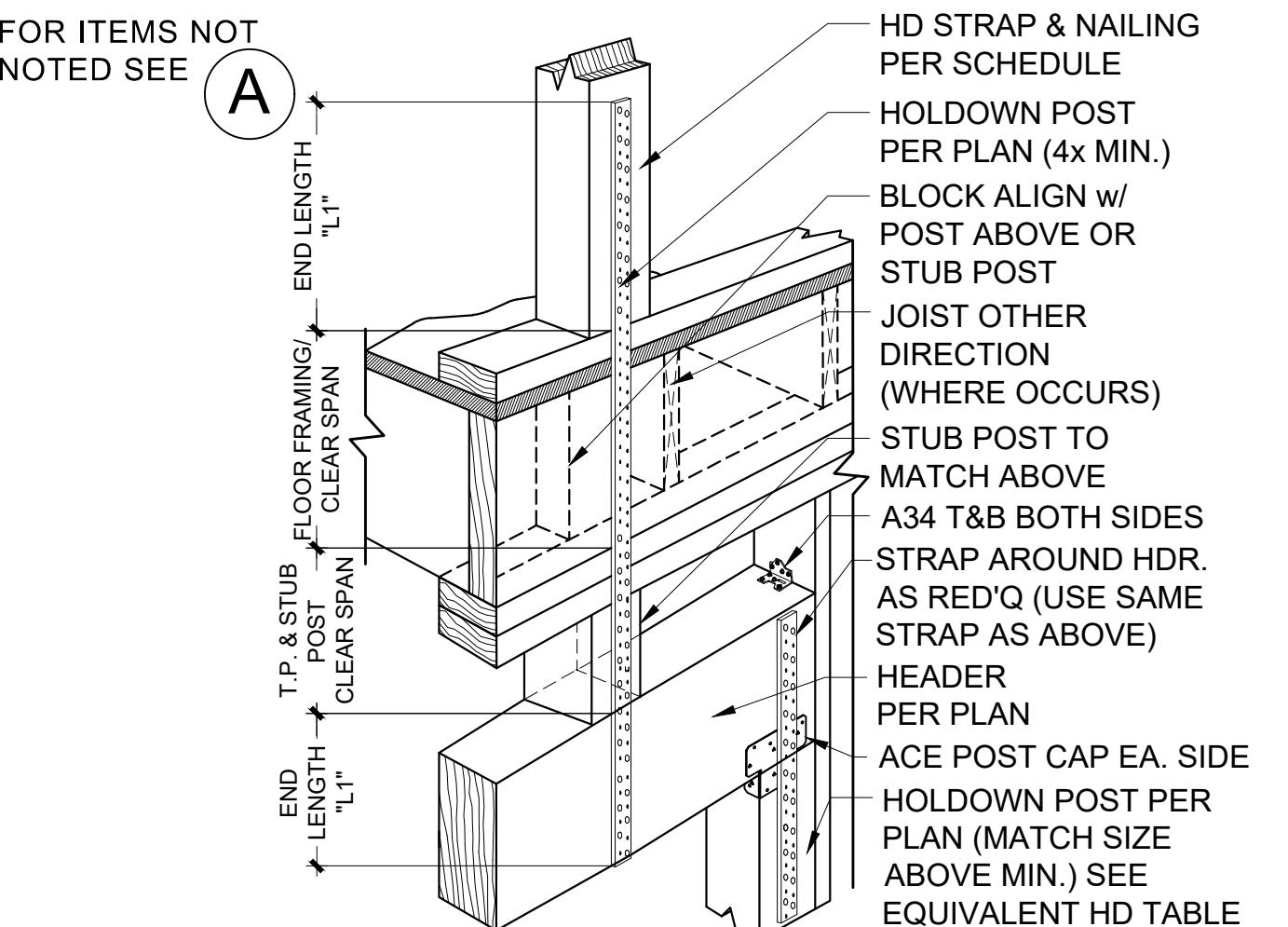
PROJECT NO. 25-357
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S3.3 TYPICAL DETAILS



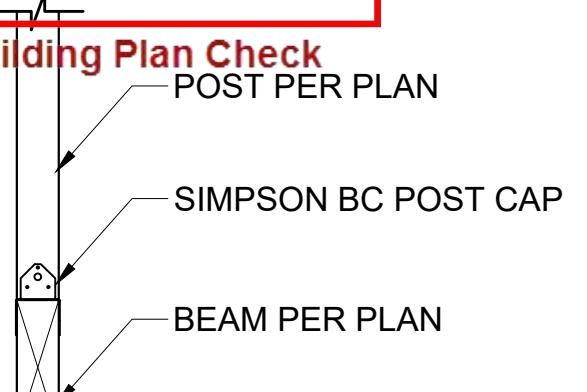
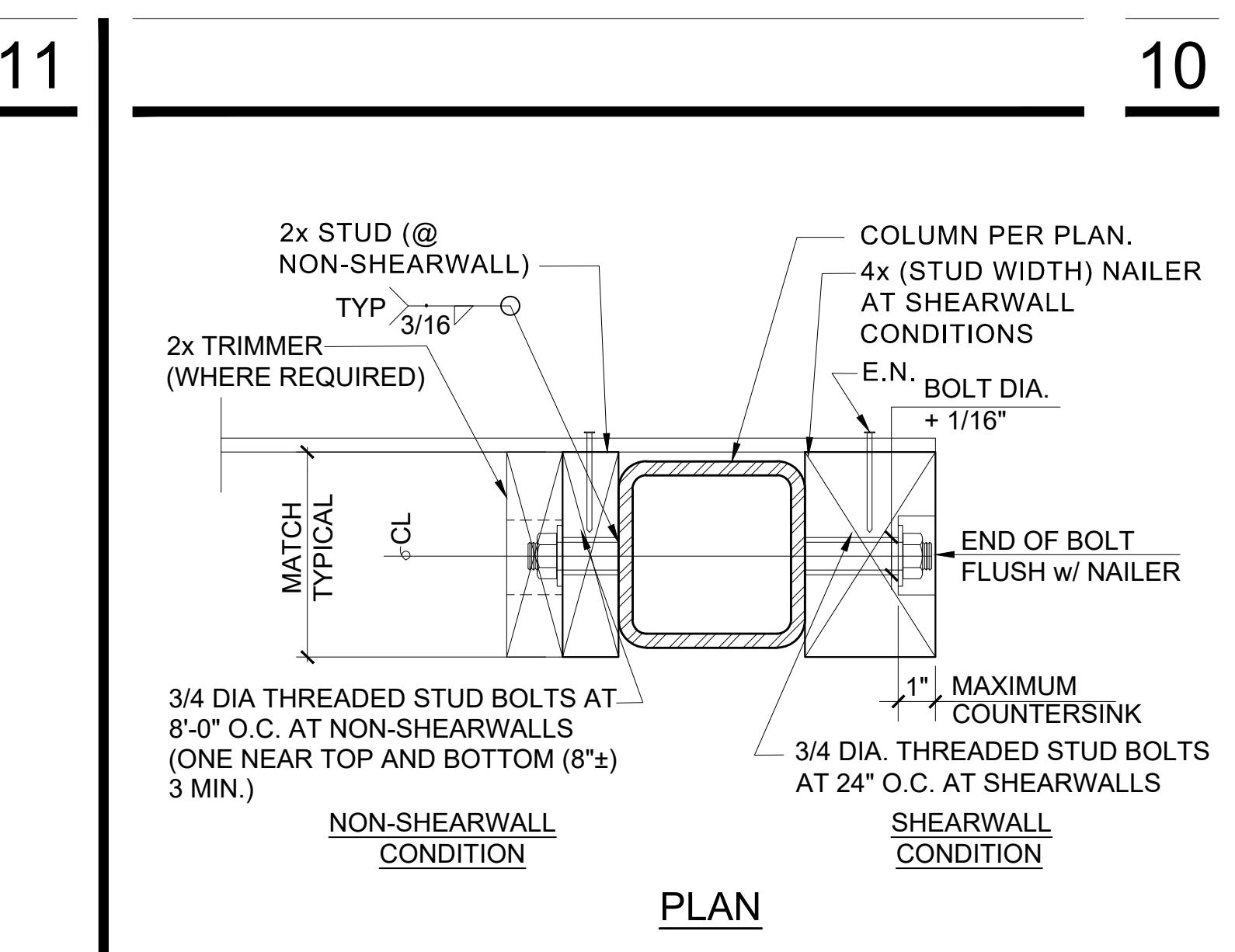
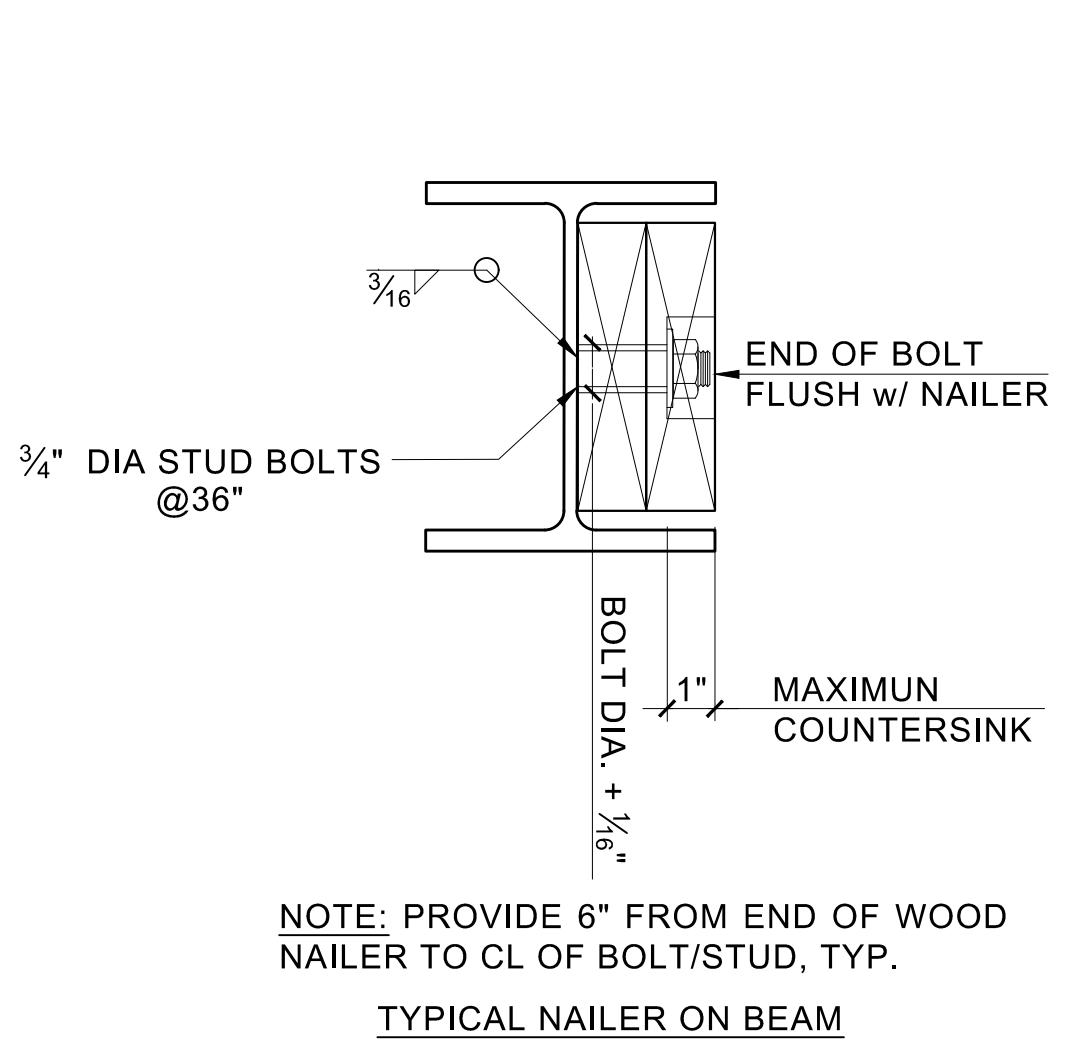
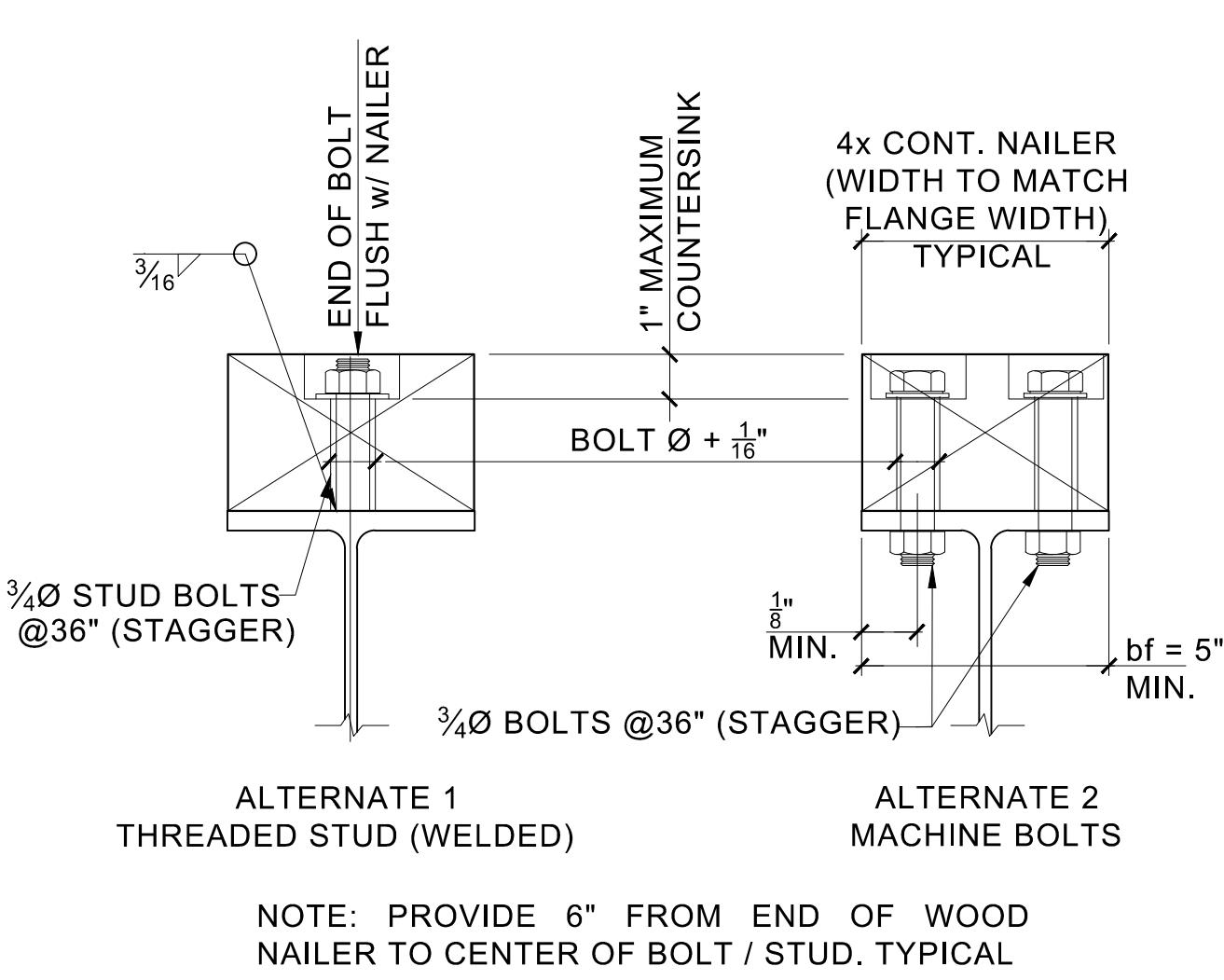
STRAP HOLDOWNS



NOTE: IF END LENGTH "L1" IS GREATER THAN HEADER DEPTH STRAP AROUND BOTTOM OF HEADER AND NAIL ACCORDINGLY. FOR ITEMS NOT NOTED SEE 5/S3.2

NOTE: IF END LENGTH "L1" IS GREATER THAN BEAM DEPTH STRAP AROUND BOTTOM OF BEAM AND NAIL ACCORDINGLY.

NOTE: IF END LENGTH "L1" IS GREATER THAN BEAM DEPTH STRAP AROUND BOTTOM OF BEAM AND NAIL ACCORDINGLY.





**326 FLINT AVE
NEW ADU ABOVE
(E) GARAGE**

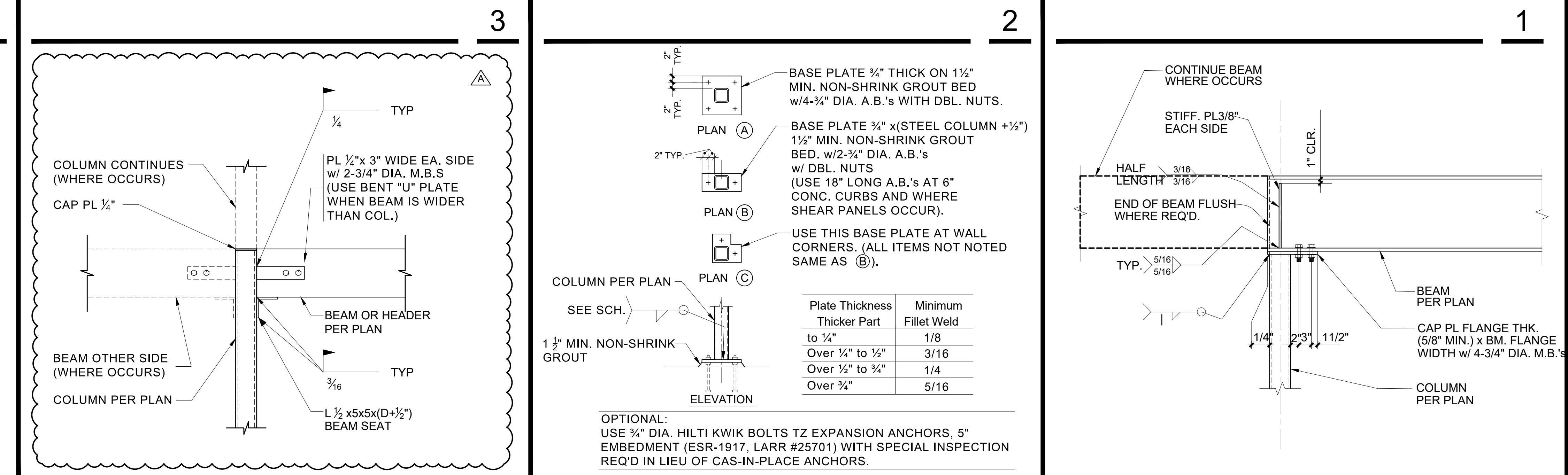
326 FLINT AVE
LONG BEACH, CA 90814

PROJECT NO. 25-357

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REVISION	DESCRIPTION	DATE
▲	REVISION	09-19-25
●		
△		

S3.4
**TYPICAL
DETAILS**

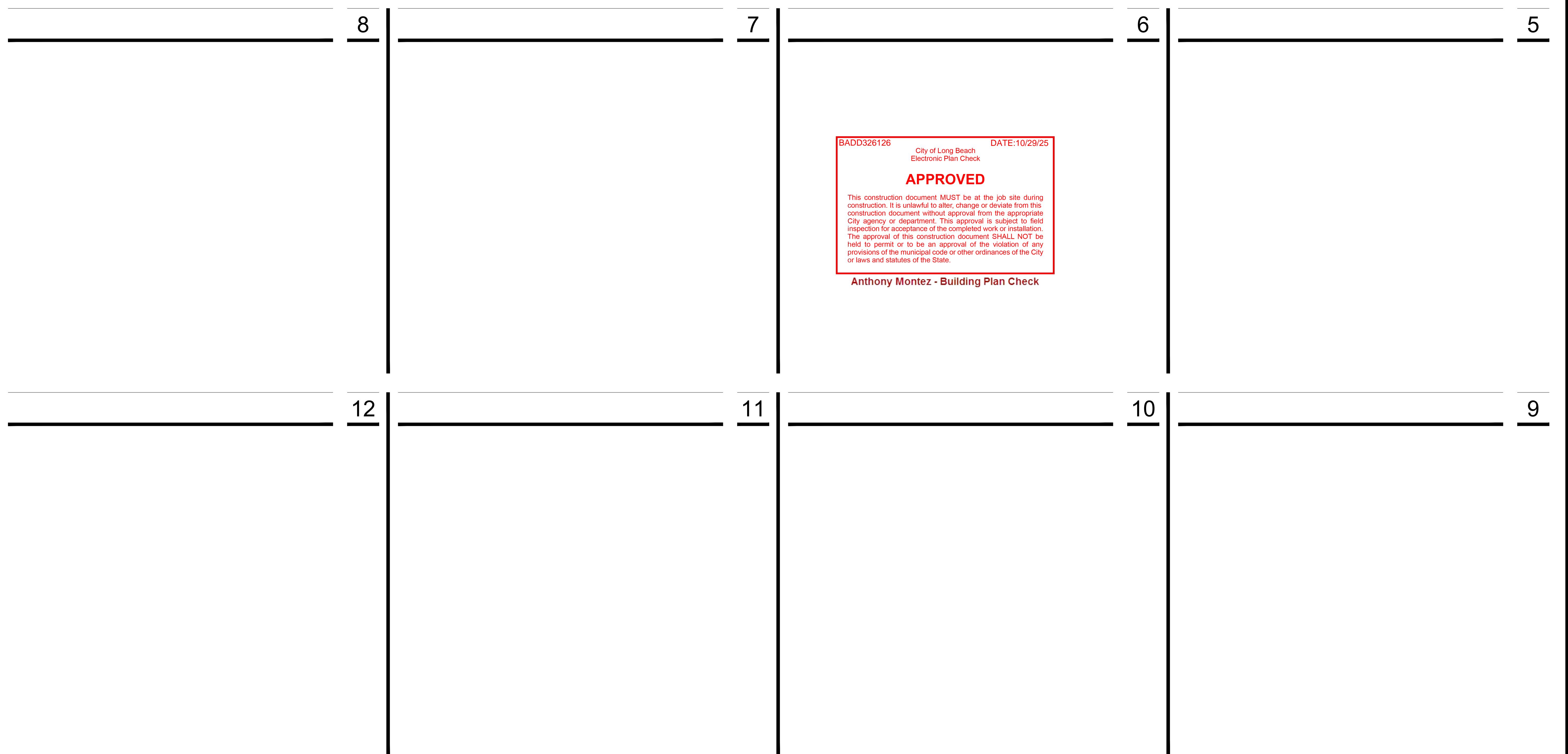


BADD326126 DATE: 10/29/25
City of Long Beach
Electronic Plan Check

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NEW ADU ABOVE
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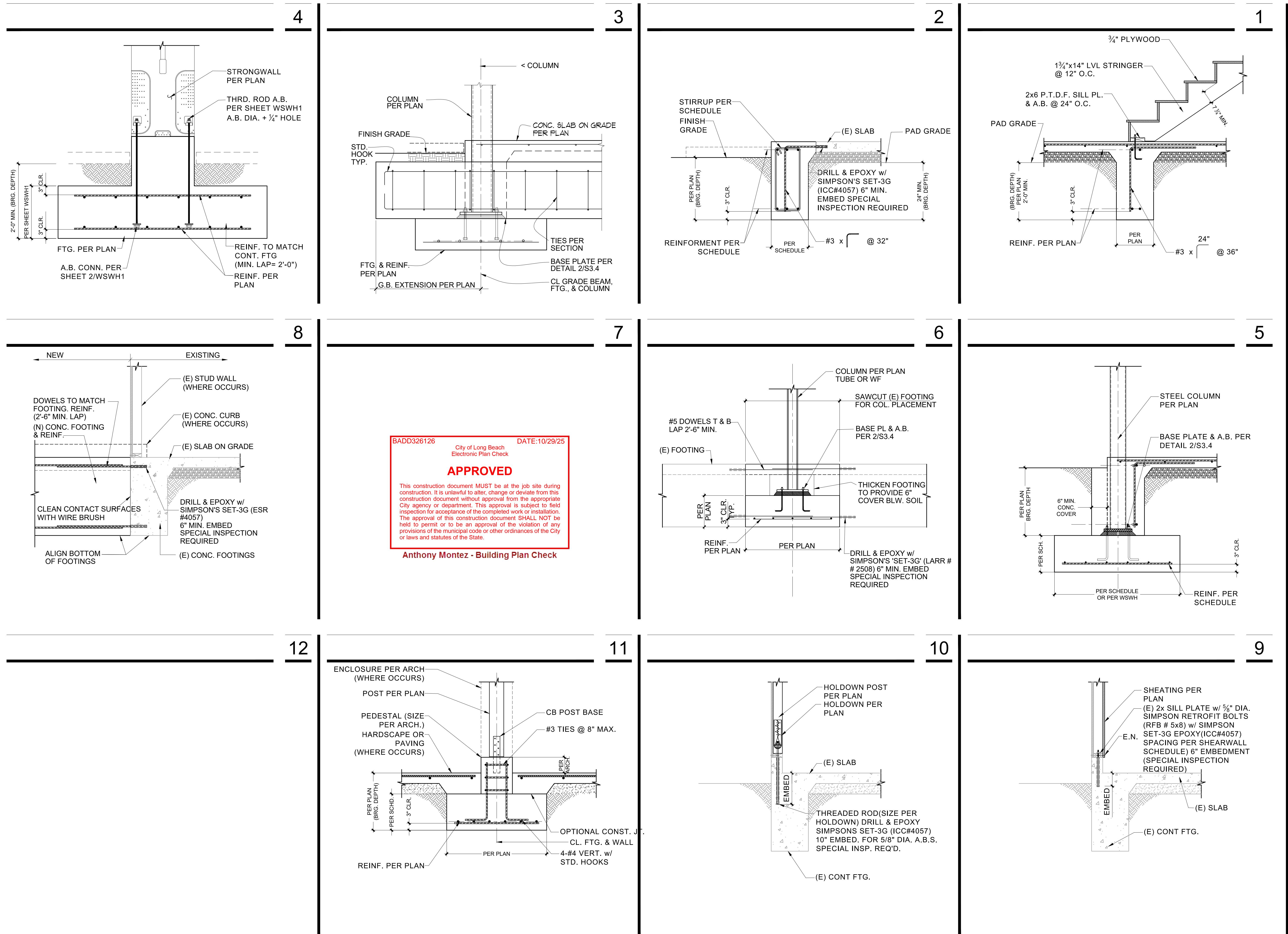
326 FLINT AVE
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**S4.0
FOUNDATION
DETAILS**





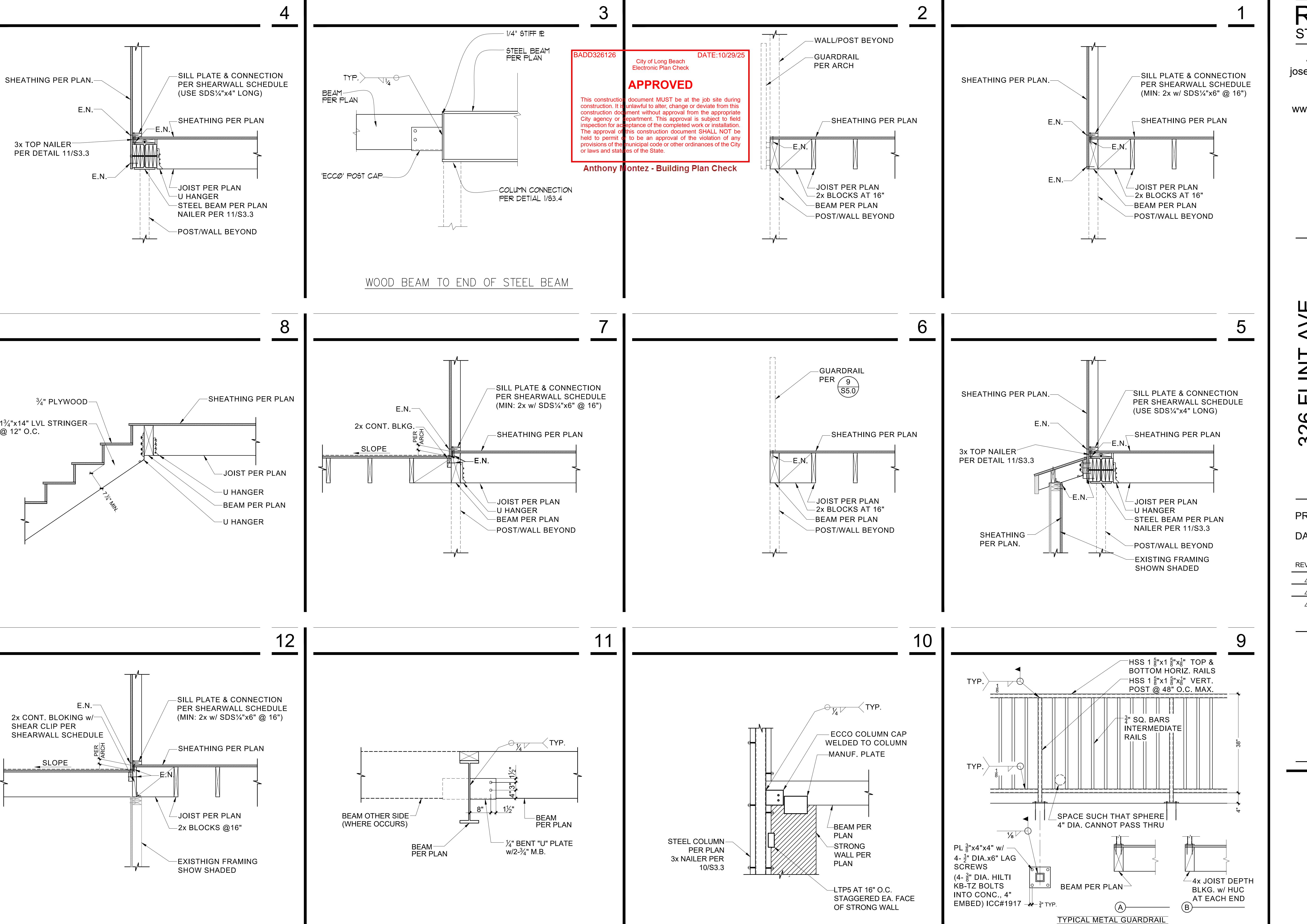
**326 FLINT AVE
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S5.0
FLOOR
FRAMING
DETAILS





**326 FLINT AVE
NEW ADU ABOVE
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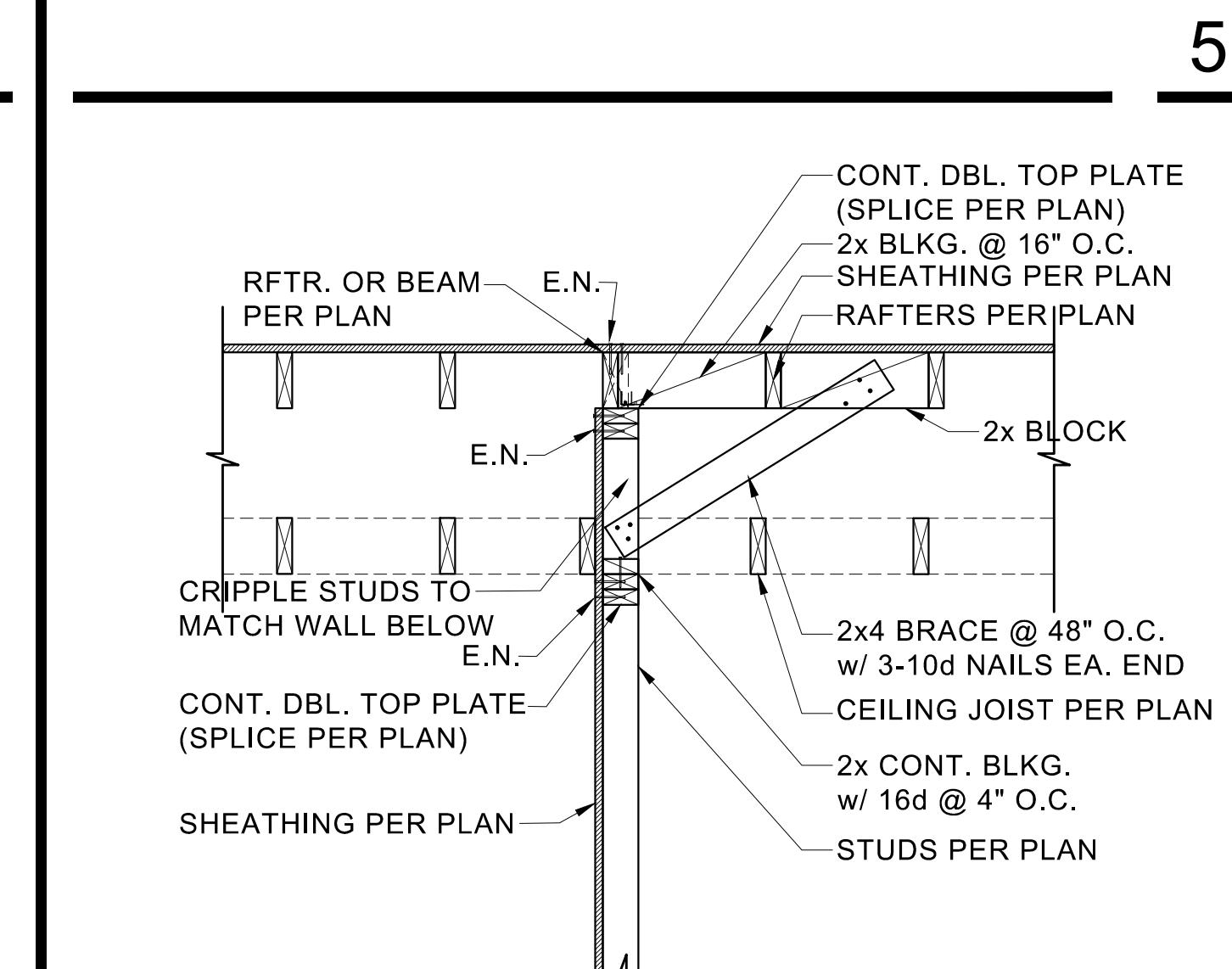
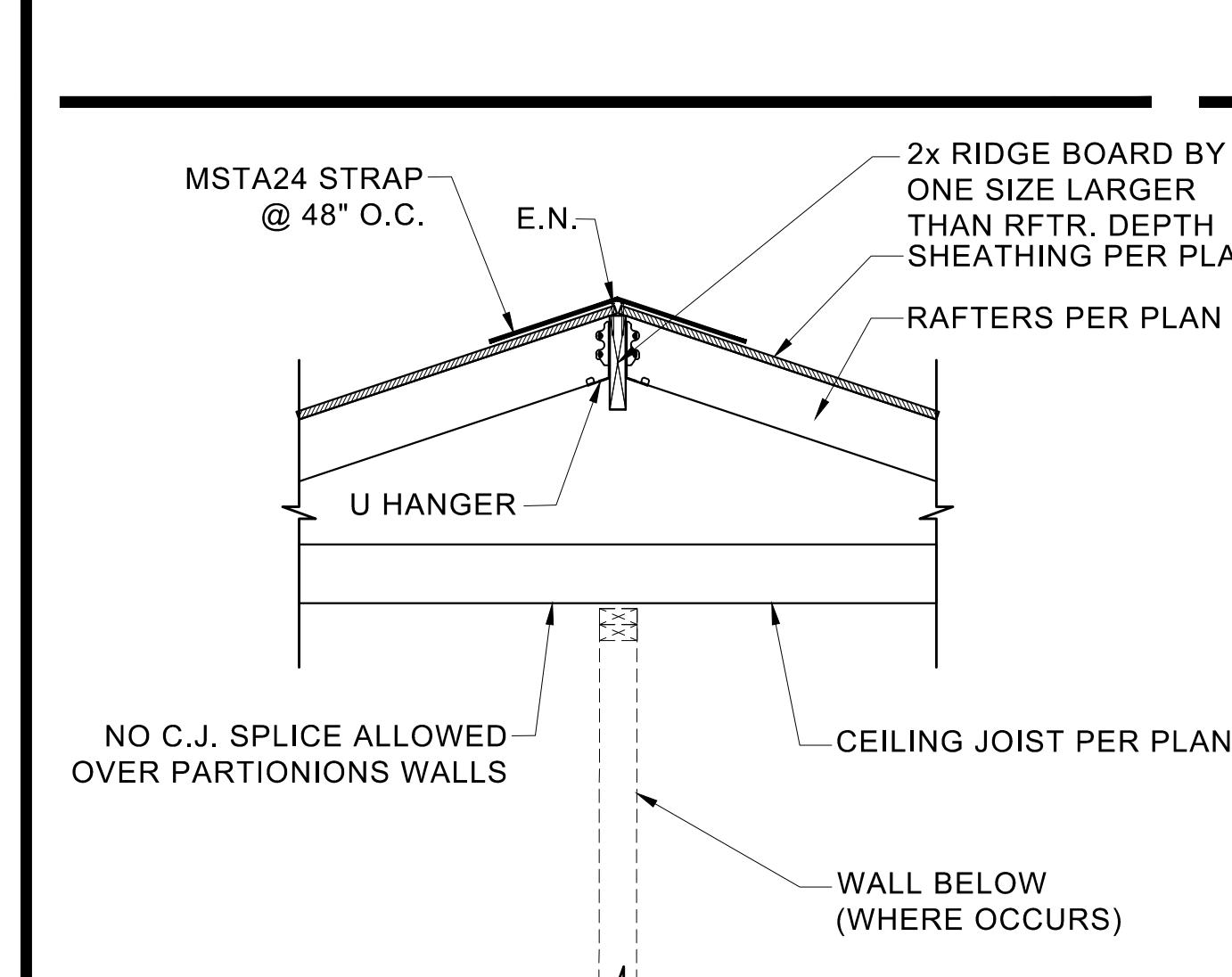
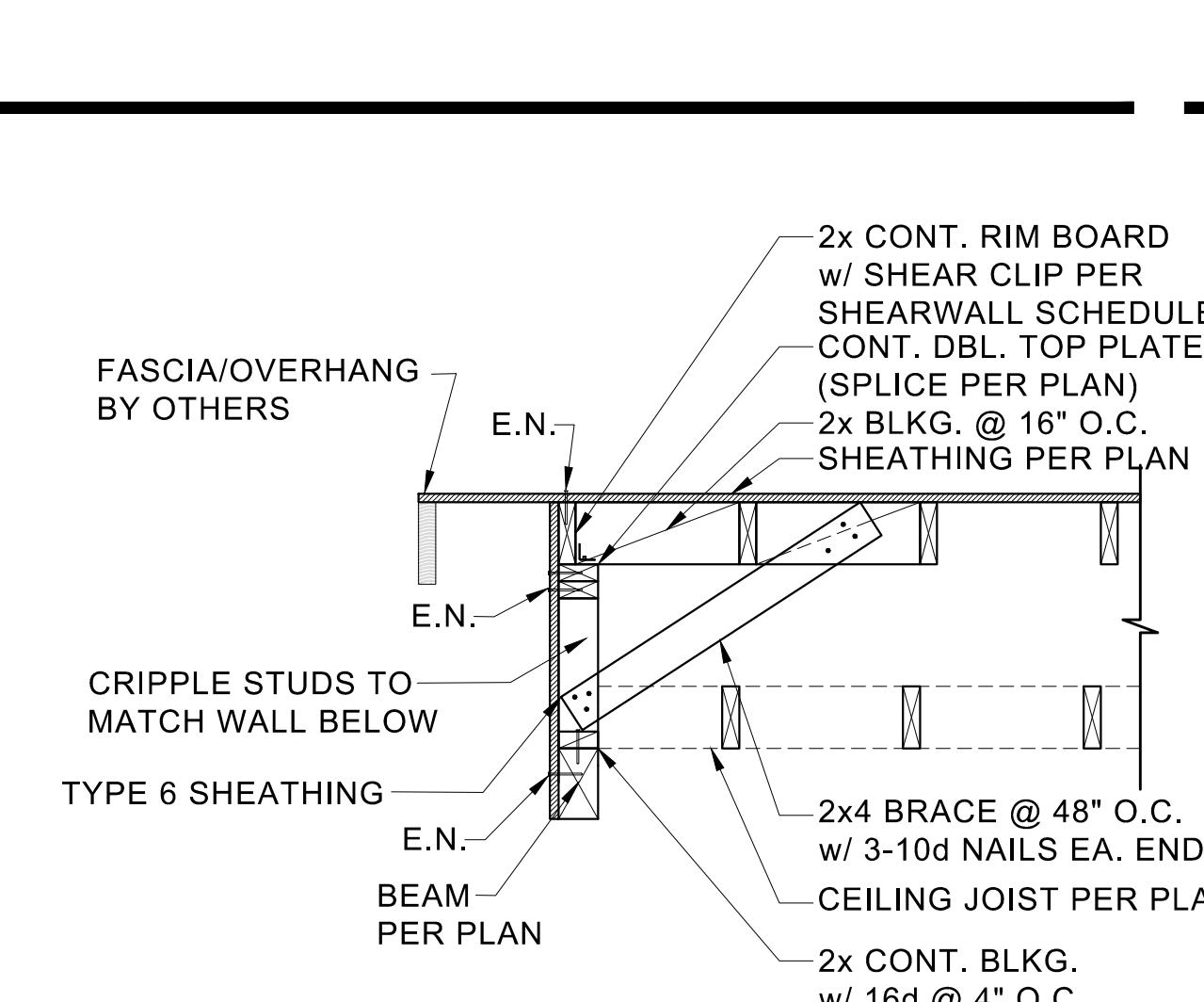
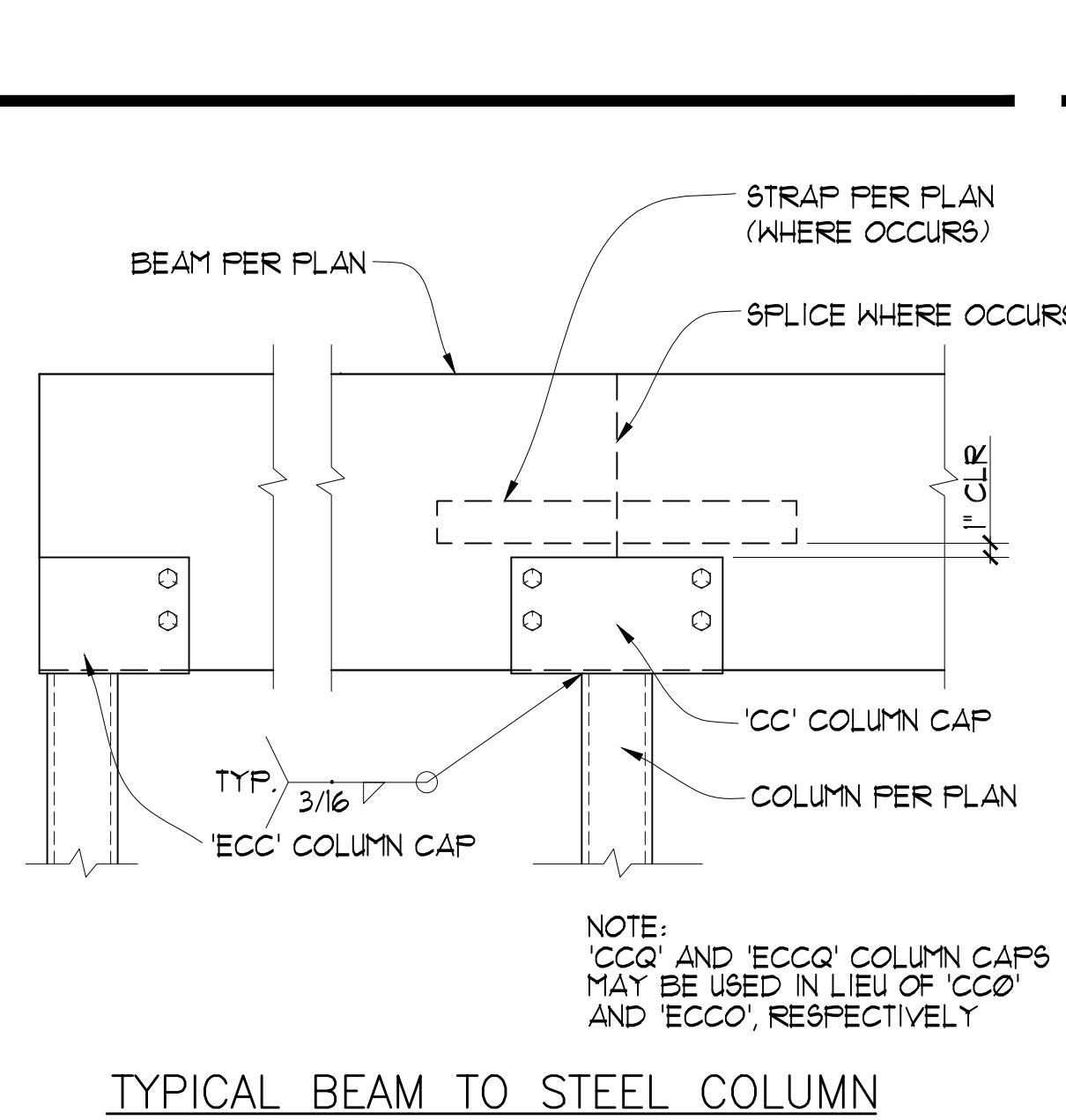
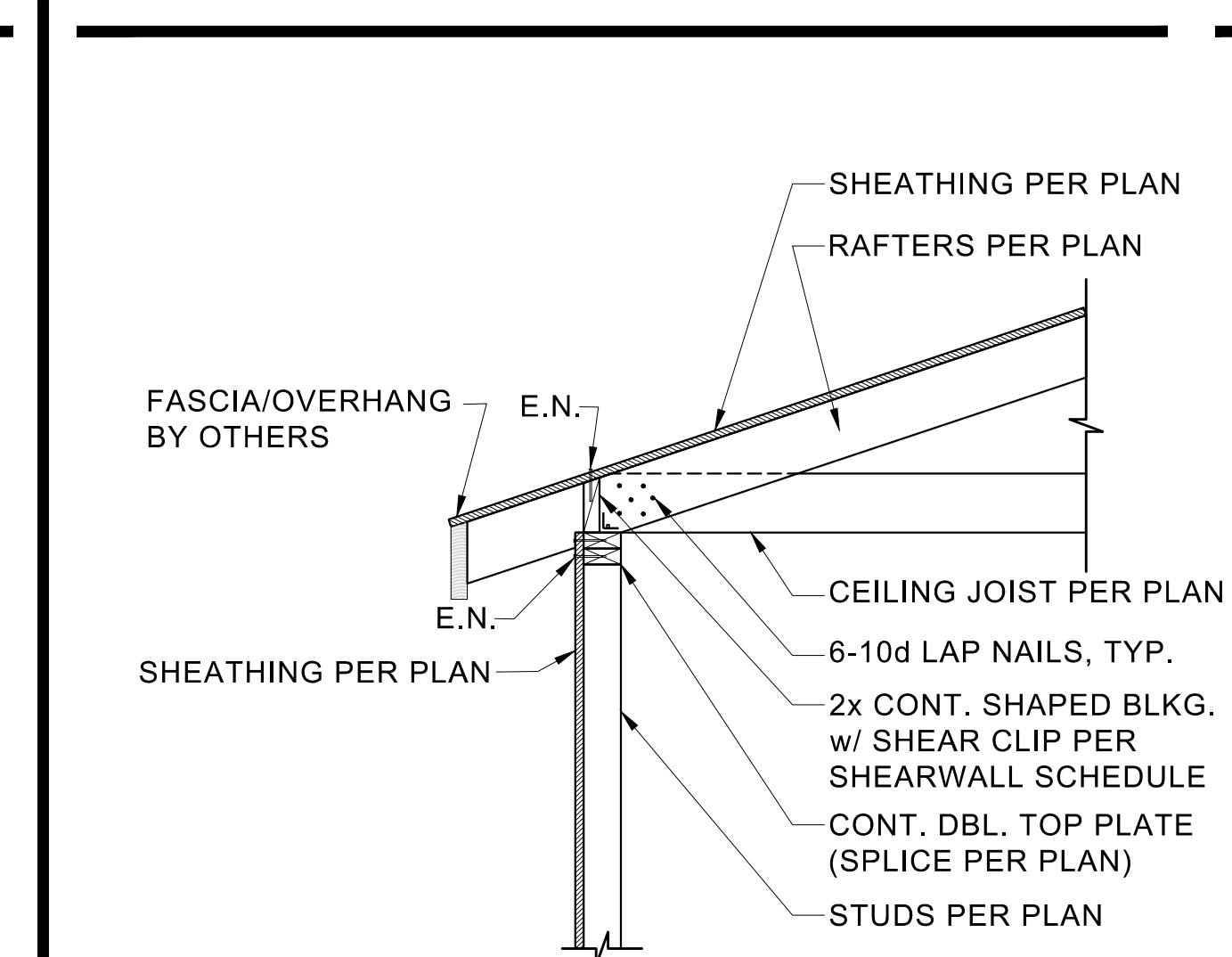
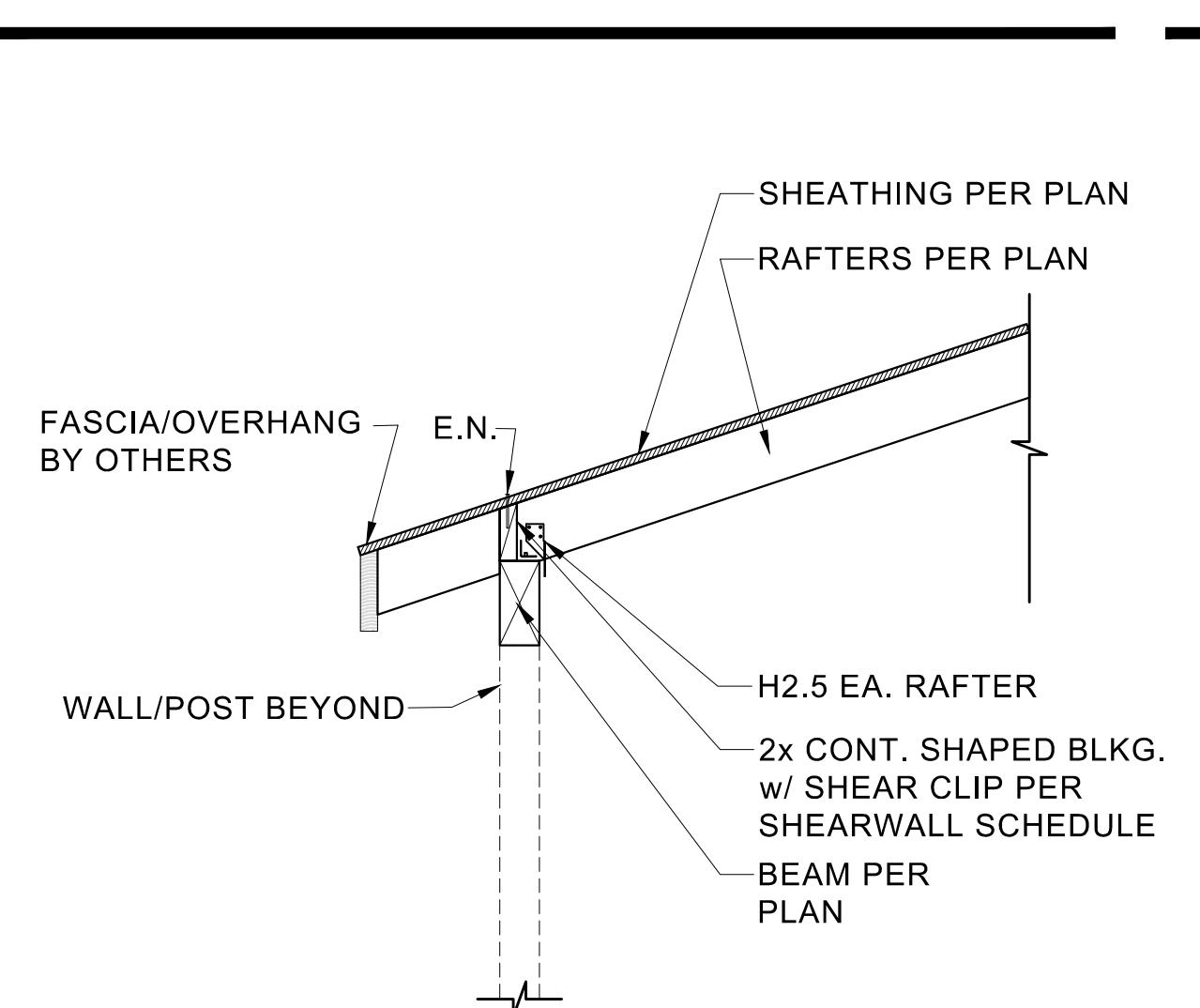
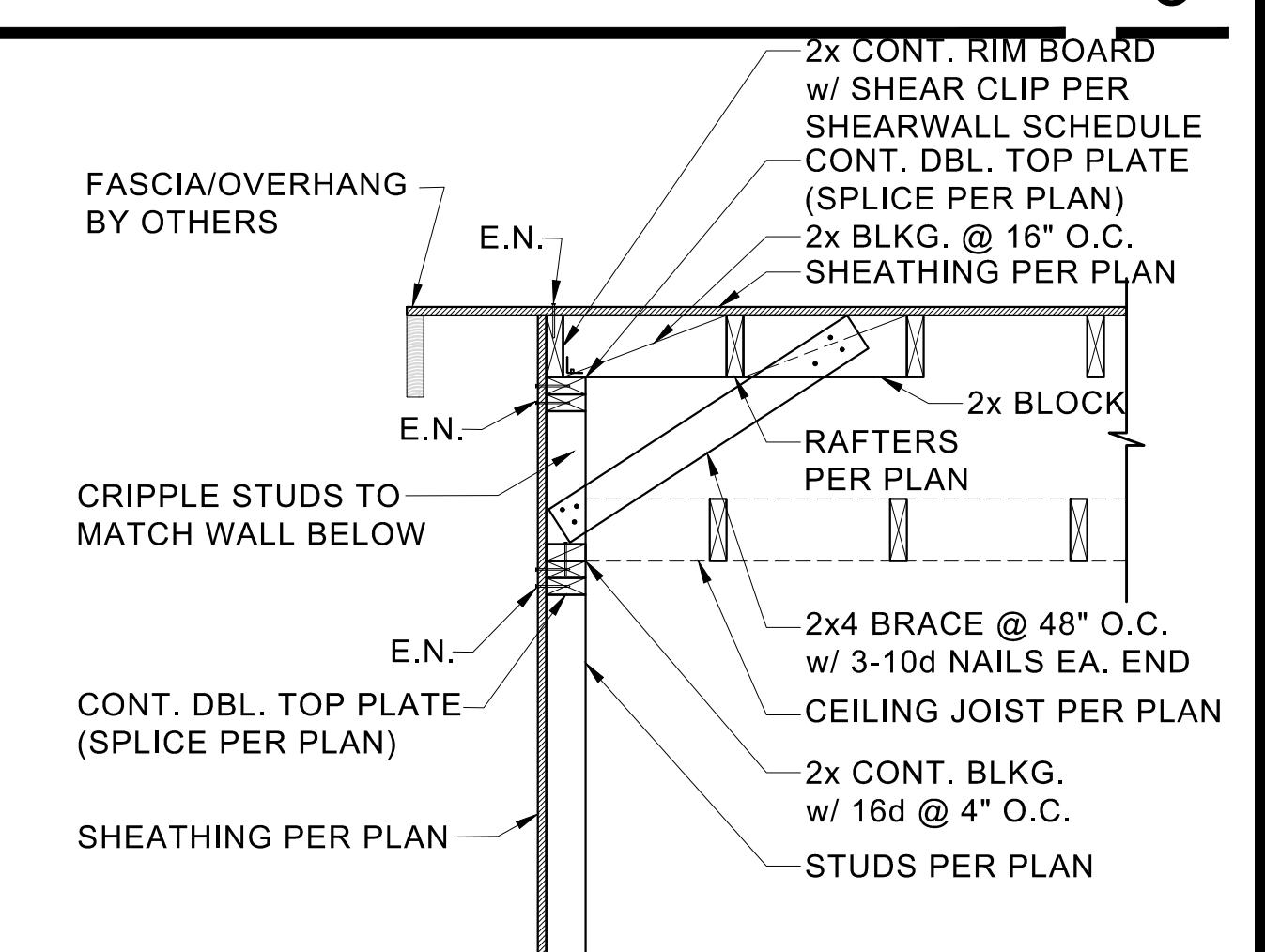
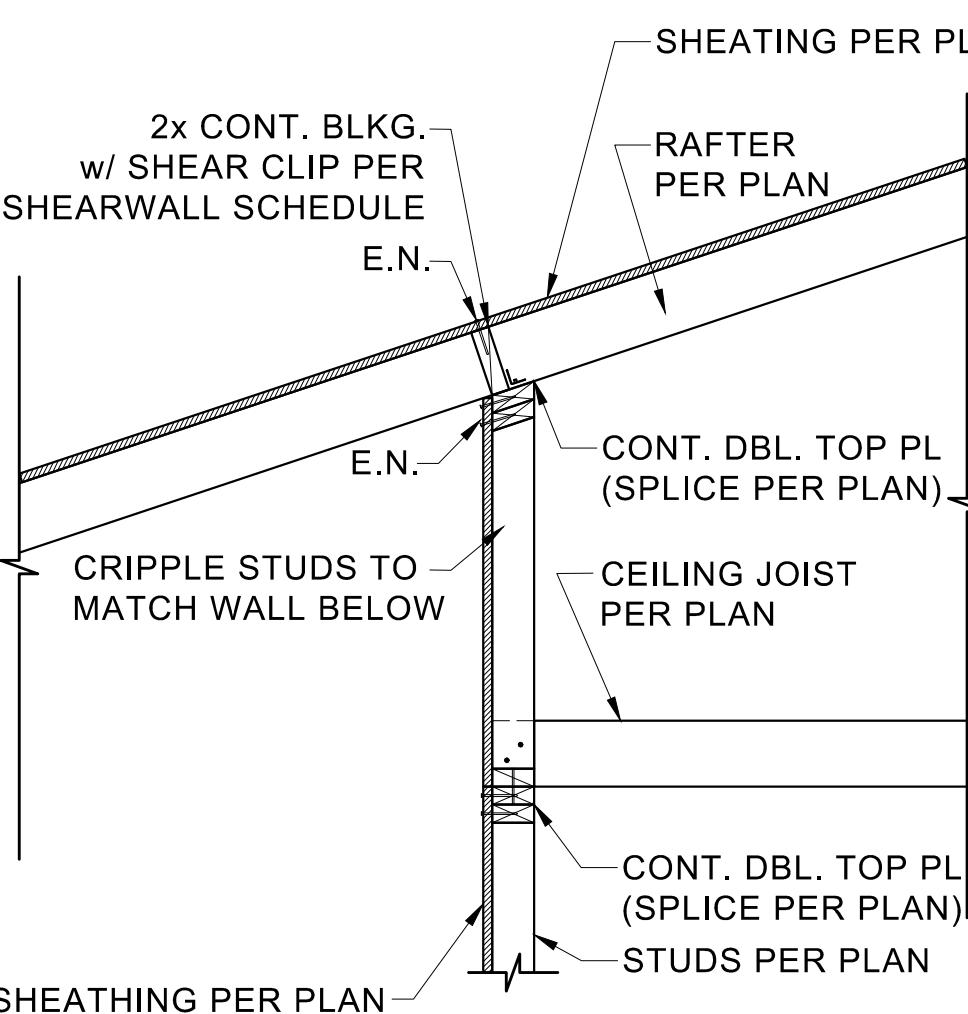
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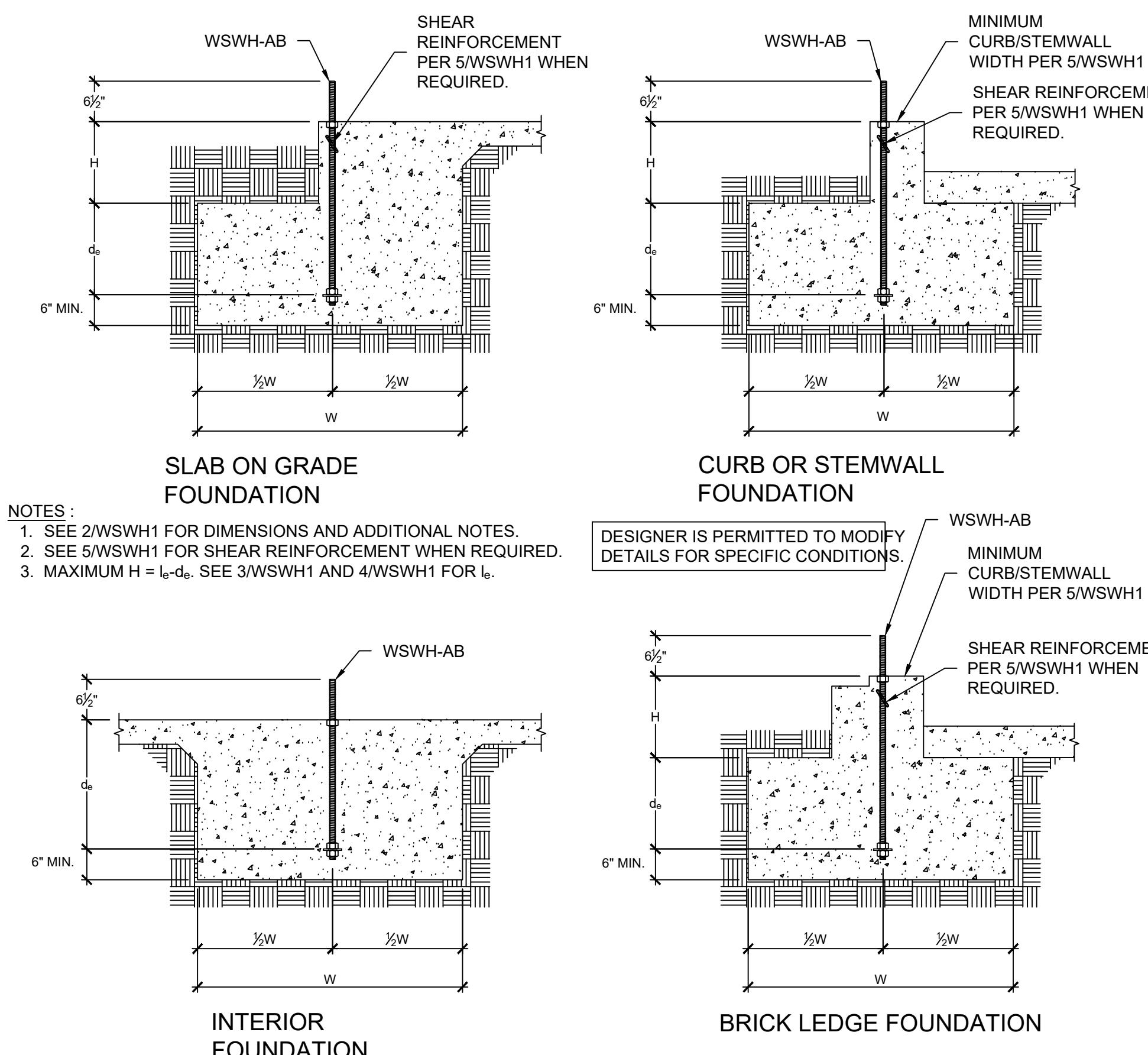
S6.0
ROOF
FRAMING
DETAILS





326 FLINT AVE
NEW ADU ABOVE
(E) GARAGE

326 FLINT AVE
LONG BEACH, CA 90814



STRONG-WALL® WSWH ANCHORAGE - TYPICAL SECTIONS

1

WSWH ANCHOR BOLTS

3

WSWH ANCHOR BOLT EXTENSION

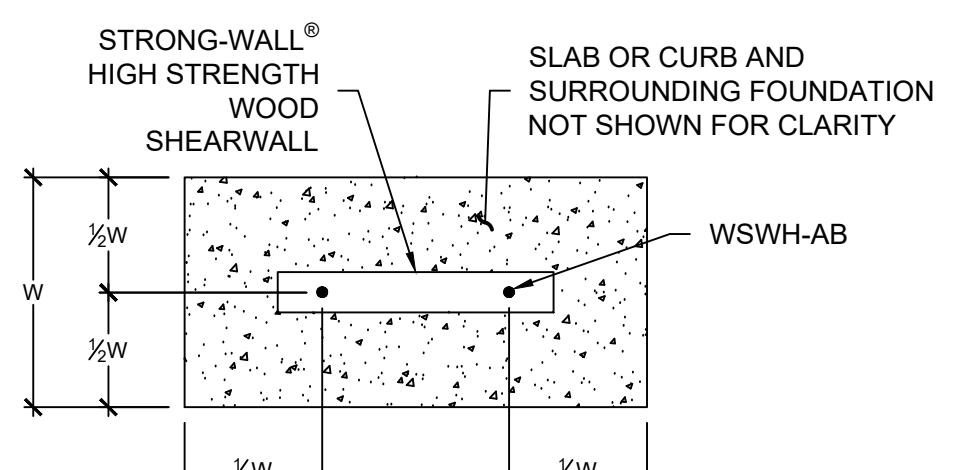
4

WSWH ANCHOR BOLT TEMPLATES

6

NOTES :

- ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D, ACI 318-14 CHAPTER 17 AND ACI 318-19 CHAPTER 17 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
- ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSWH-AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A193 GRADE B7).
- SEISMIC INDICATES SEISMIC DESIGN CATEGORY C-F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3, ACI 318-14 SECTION 17.2.3.4.3 AND ACI 318-19 SECTION 17.10.5.3.
- WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
- FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
- REFER TO 1/WSWH1 FOR d_e .



FOUNDATION PLAN VIEW

WSWH ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT			
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)	
SEISMIC	CRACKED	STANDARD	16,000	.33	11	
		STANDARD	17,100	.35	12	
		HIGH STRENGTH	34,100	.52	18	
	UNCRACKED	STANDARD	36,600	.55	19	
		STANDARD	15,700	.28	10	
		HIGH STRENGTH	17,100	.30	10	
WIND	CRACKED	STANDARD	33,500	.45	15	
		STANDARD	36,800	.48	16	
		STANDARD	6,200	.16	6	
		STANDARD	11,400	.24	8	
		STANDARD	17,100	.32	11	
		HIGH STRENGTH	21,100	.36	12	
	UNCRACKED	STANDARD	27,300	.42	14	
		STANDARD	34,100	.48	16	
		STANDARD	36,800	.51	17	
		STANDARD	6,400	.14	6	
		STANDARD	12,500	.22	8	
		HIGH STRENGTH	17,100	.28	10	

BADD326126 DATE:10/29/25
City of Long Beach
Electronic Plan Check

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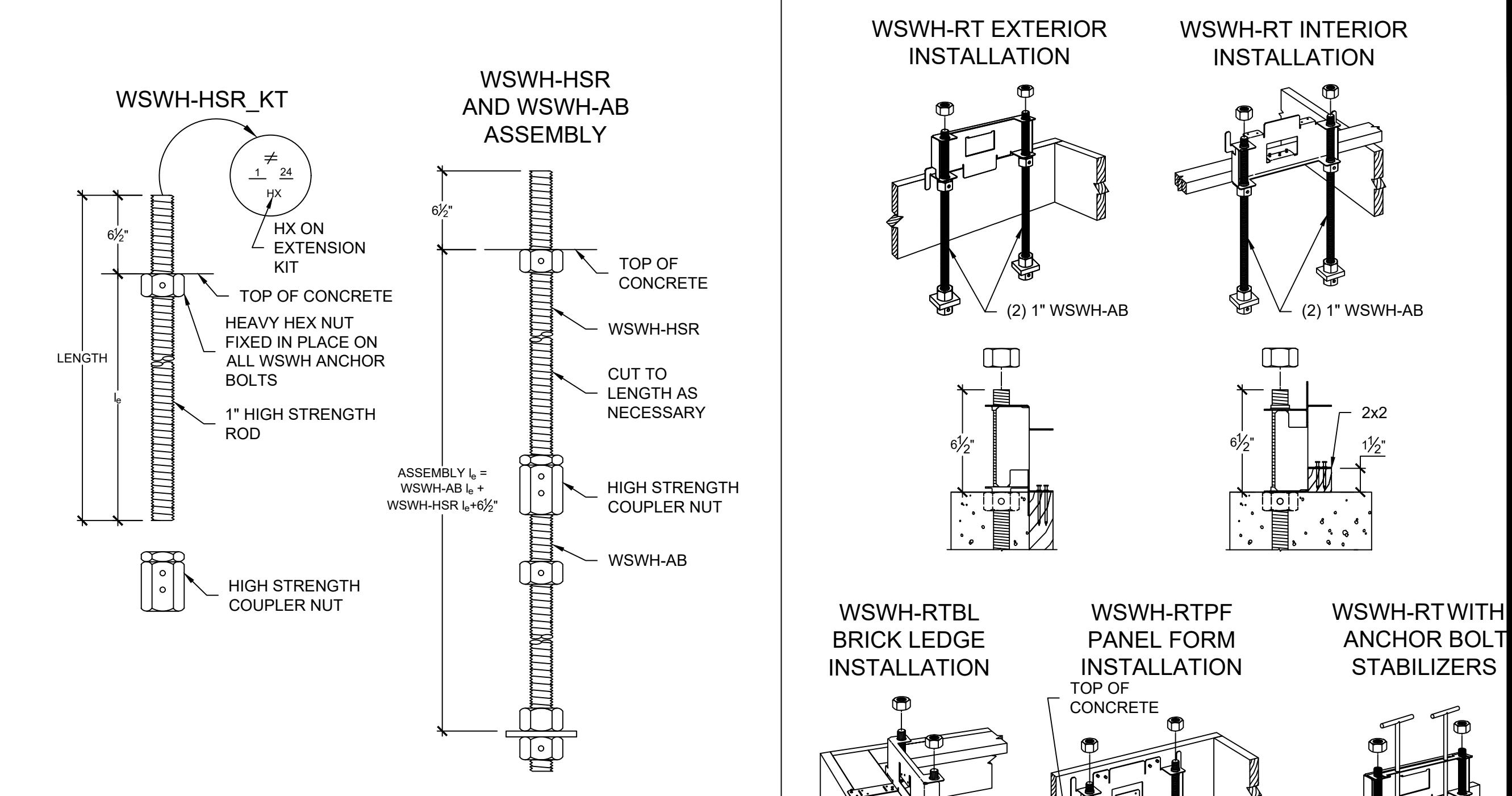
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STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL TENSION ANCHORAGE SCHEDULE 2,500, 3,000 AND 4,500 PSI

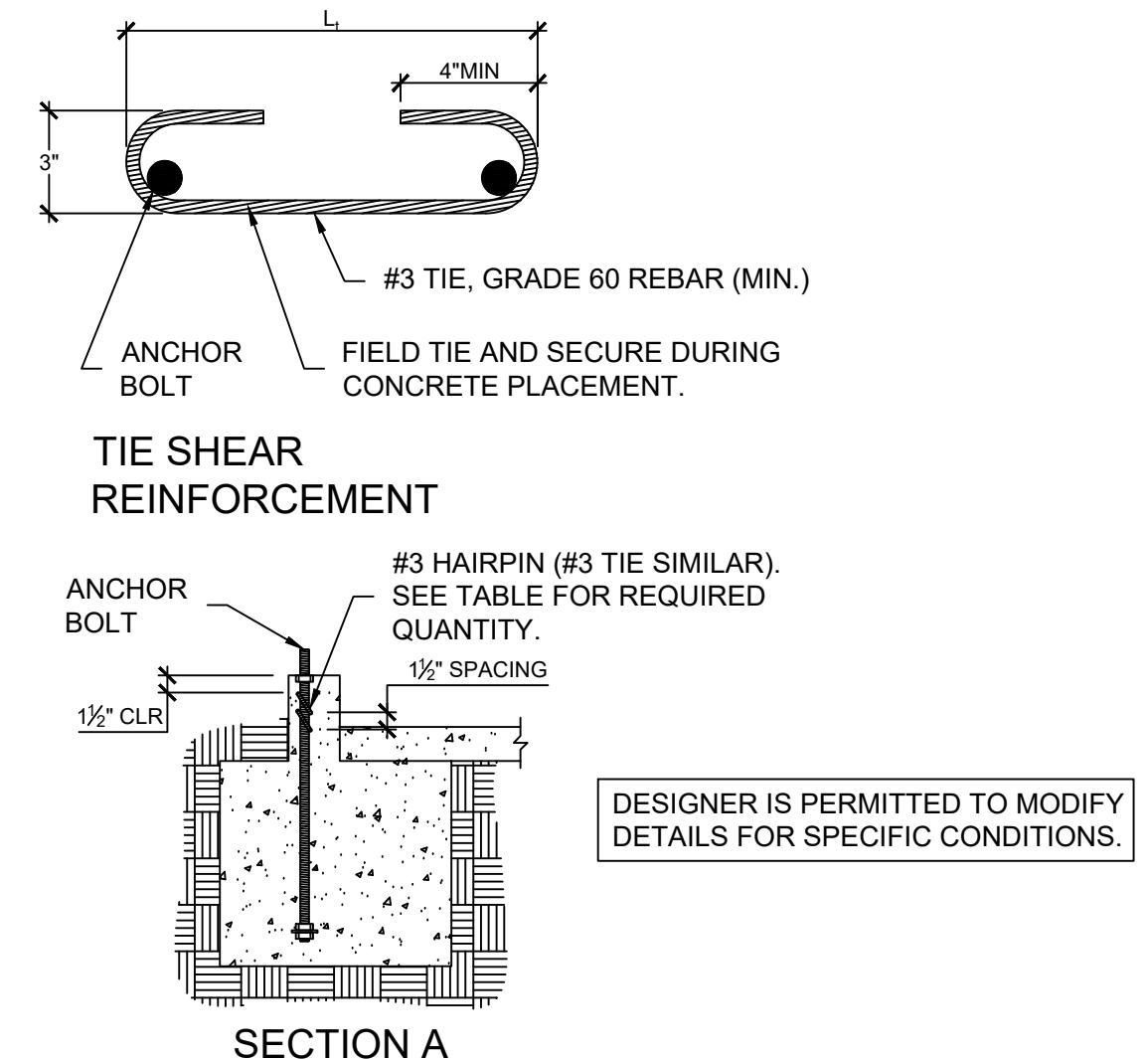
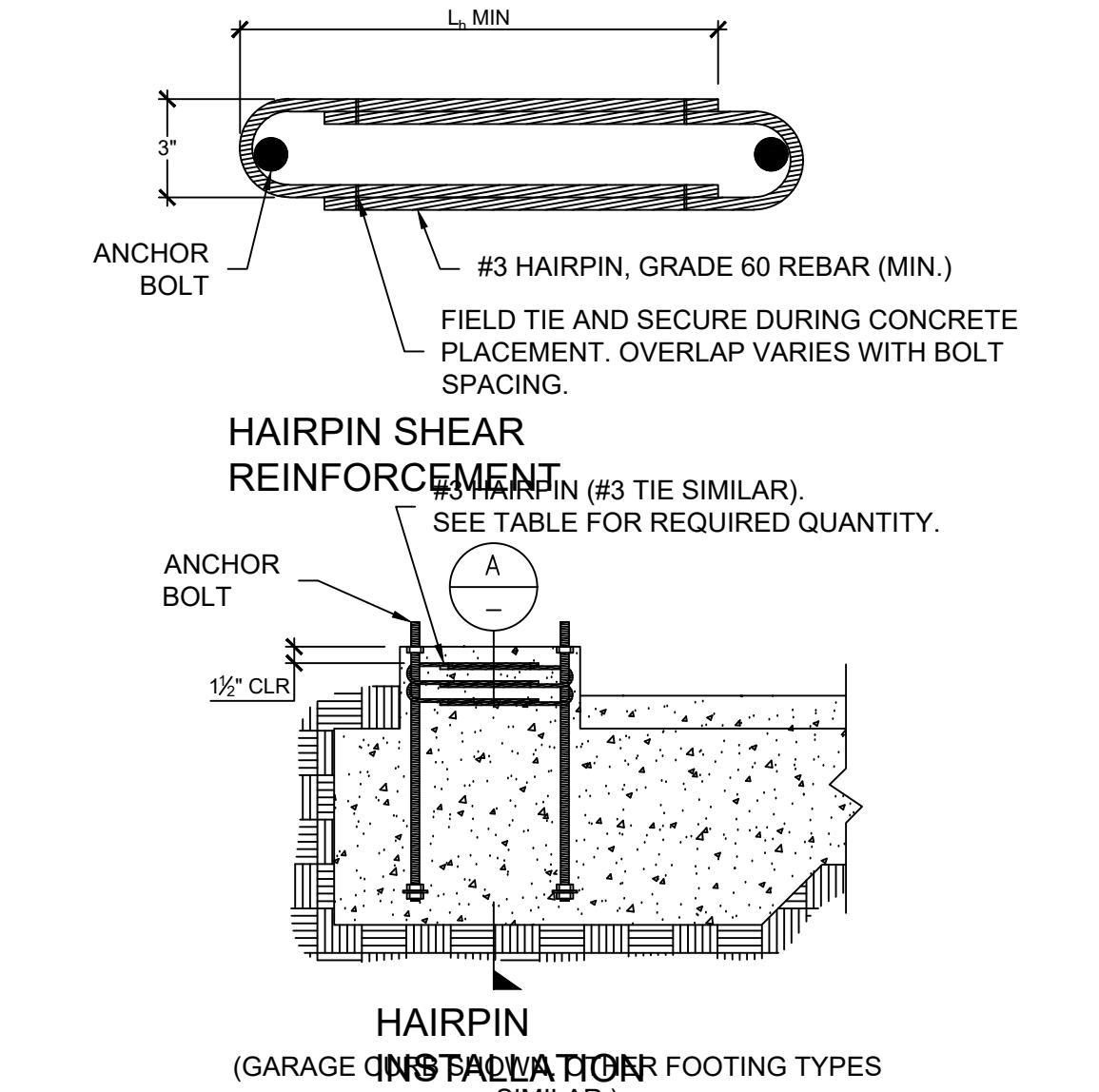
2

STRONG-WALL® WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS



WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSWH12, WSWH18 AND WSWH24	WSWH-AB1x24	1"	24"	15½"
	WSWH-AB1x24HS	1"	24"	15½"
	WSWH-AB1x30	1"	30"	21½"
	WSWH-AB1x30HS	1"	30"	21½"
	WSWH-AB1x36	1"	36"	27½"
	WSWH-AB1x36HS	1"	36"	27½"

WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSWH12, WSWH18 AND WSWH24	WSWH-HSR1x24KT	1"	24"	17½"
	WSWH-HSR1x36KT	1"	36"	29½"



WSWH1 TYPICAL DETAILS

PROJECT NO. 25-357

DATE: 9/19/25

REVISION	DESCRIPTION	DATE
A		09-19-25
B		
C		

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL SHEAR ANCHORAGE						
MODEL	SEISMIC ³			WIND ⁴		
	L _e OR L _h (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD, V (lb.)
WSWH12	10¼	(1) #3 TIE	6	SEE NOTE 7	6	1,080 770
WSWH18	15	(2) #3 HAIRPINS ^{5,6}	6	(1) #3 HAIRPIN	6	HAIRPIN REINF. ACHIEVES MAX. ALLOW SHEAR LOAD OF THE WSWH
WSWH24	19	(2) #3 HAIRPINS ⁵	6	(2) #3 HAIRPINS ⁵	6	

- NOTES :
1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-19, ACI 318-11 AND ACI 318-14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.
 2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
 3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC SHEAR REINFORCEMENT DESIGNS CONFORM TO ACI 318-19, SECTION 17.6.3, ACI 318-14, SECTION 17.2.3.5.3.
 4. WIND INDICATES WIND DESIGN CATEGORY A AND B.
 5. ADDITIONAL TIES MAY BE REQUIRED AT GARAGE CURB OR STEMWALL INSTALLATIONS BELOW ANCHOR REINFORCEMENT PER DESIGNER.
 6. USE (1) #3 HAIRPIN FOR WSWH12 WHEN STANDARD STRENGTH ANCHOR IS USED.
 7. USE (1) #3 TIE FOR WSWH12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
 8. #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSWH SHEAR ANCHORAGE SOLUTIONS.
 9. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318-19 SECTION 17.9.2, ACI 318-14 SECTION 17.7.2 AND ACI 318-11 SECTION D.8.2.
 10. THE DESIGNER MAY SPECIFY ALTERNATE SHEAR ANCHORAGE.

5



326 FLINT AVE
NEW ADU ABOVE
(E) GARAGE

326 FLINT AVE
LONG BEACH, CA 90814

PROJECT NO. 25-357
DATE: 9/19/25

REVISION	DESCRIPTION	DATE
A		09-19-25
B		
C		

WSWH2 TYPICAL DETAILS

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODELS

MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS		TOTAL WALL WEIGHT (lb.)
			QUANTITY	DIA. (in.)	
WSWH12x7	12	84	2	1	105
WSWH18x7	18	84	2	1	155
WSWH12x8	12	96	2	1	120
WSWH18x8	18	96	2	1	175
WSWH24x8	24	96	2	1	225
WSWH12x9	12	108	2	1	130
WSWH18x9	18	108	2	1	195
WSWH24x9	24	108	2	1	250
WSWH12x10	12	120	2	1	145
WSWH18x10	18	120	2	1	210
WSWH24x10	24	120	2	1	275
WSWH12x12	12	144	2	1	165
WSWH18x12	18	144	2	1	245
WSWH24x12	24	144	2	1	325
WSWH18x14	18	168	2	1	285
WSWH24x14	24	168	2	1	370
WSWH24x16	24	192	2	1	420
WSWH18x20	18	240	2	1	390
WSWH24x20	24	240	2	1	520

- NOTES:
 1. FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74 $\frac{1}{2}$.
 2. ALL PANELS COME WITH PRE-ATTACHED HOLDOWNS, TWO HEAVY HEX NUTS, TWO HEAVY BEARING PLATES, ONE WSWH-TP TOP CONNECTION PLATE WITH REQUIRED FASTENERS AND INSTALLATION INSTRUCTIONS.
 3. ALL PANELS ARE 3/4" THICK.

STRONG-WALL® WSWH MODELS

1 STANDARD INSTALLATION BASE CONNECTION

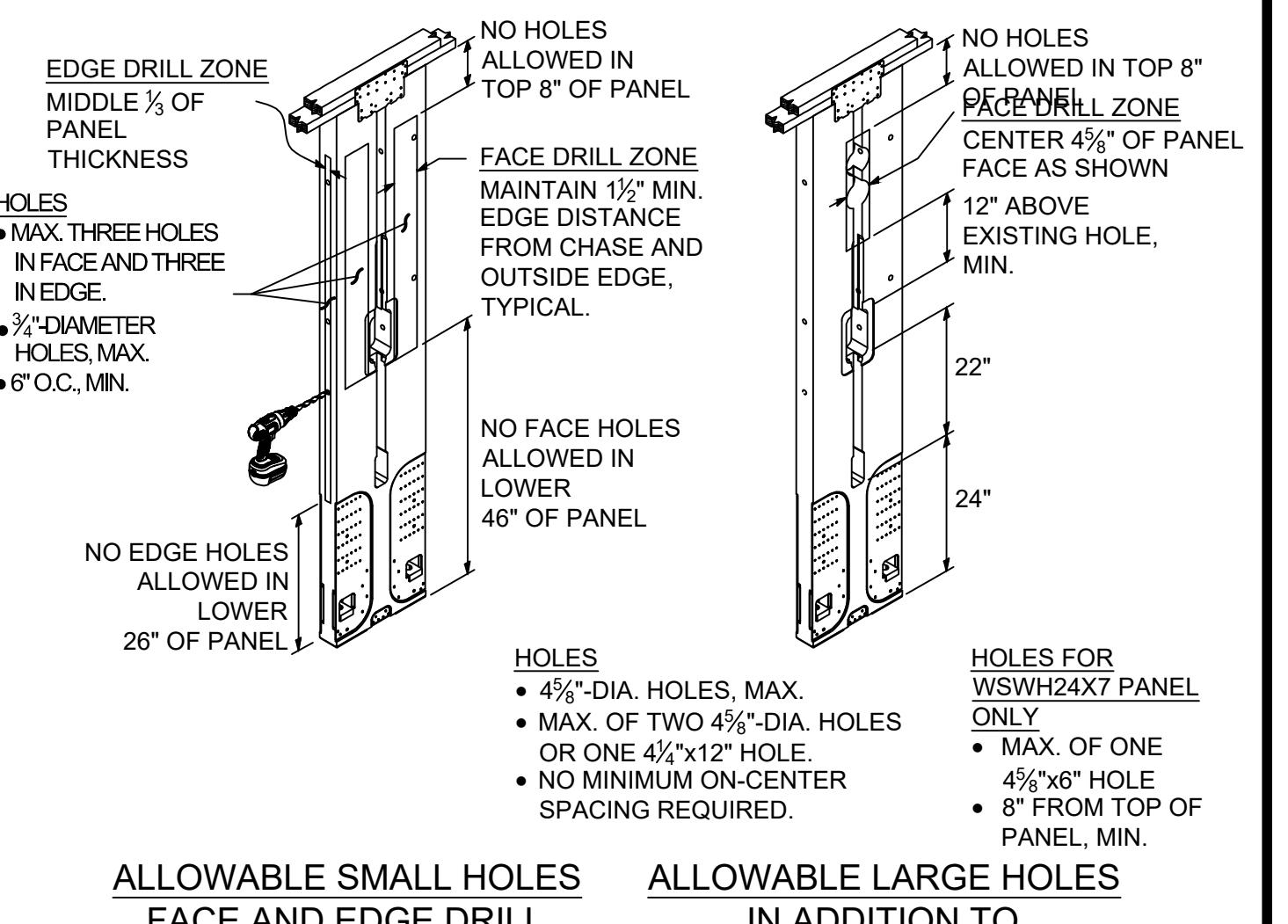
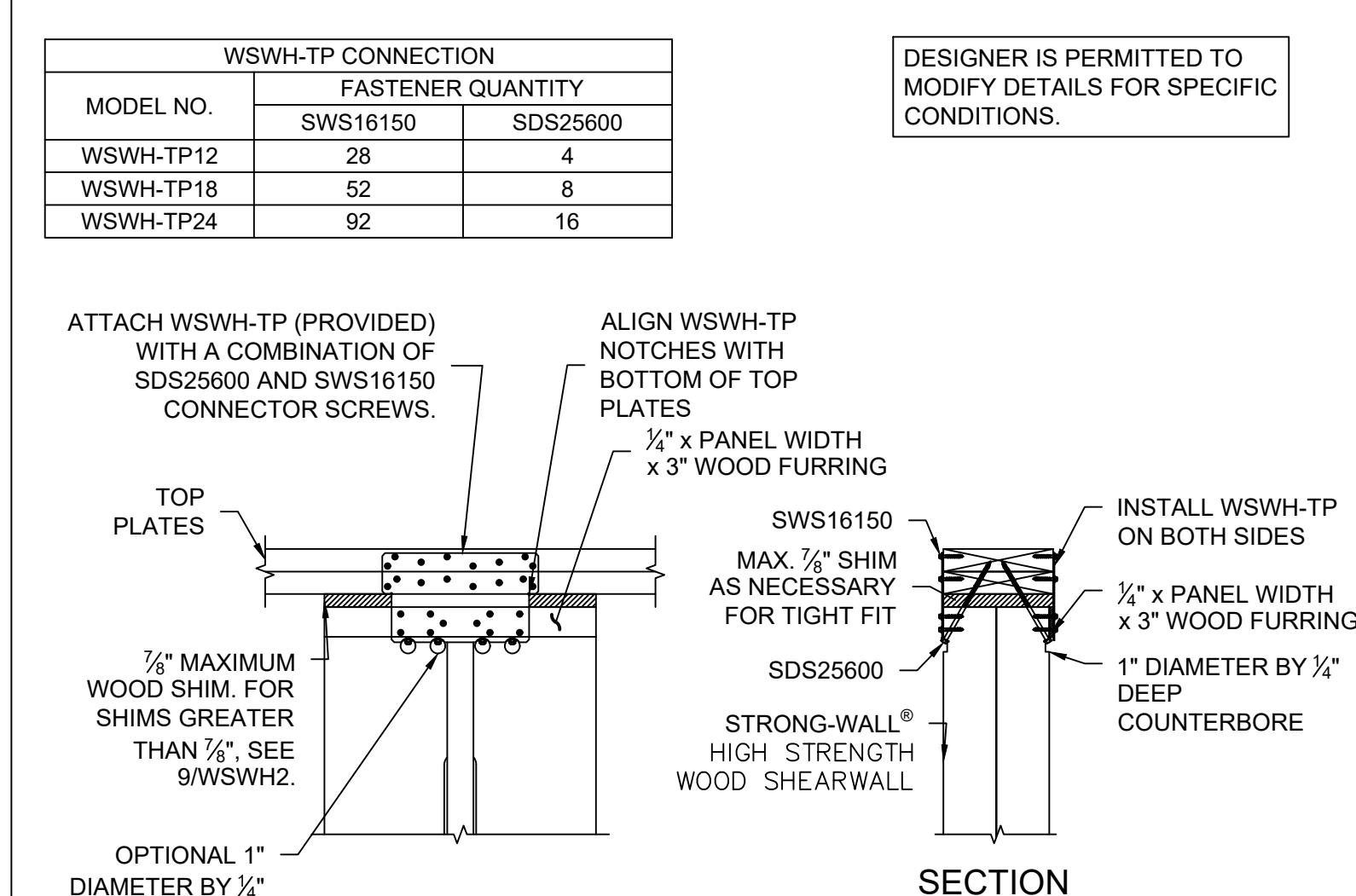
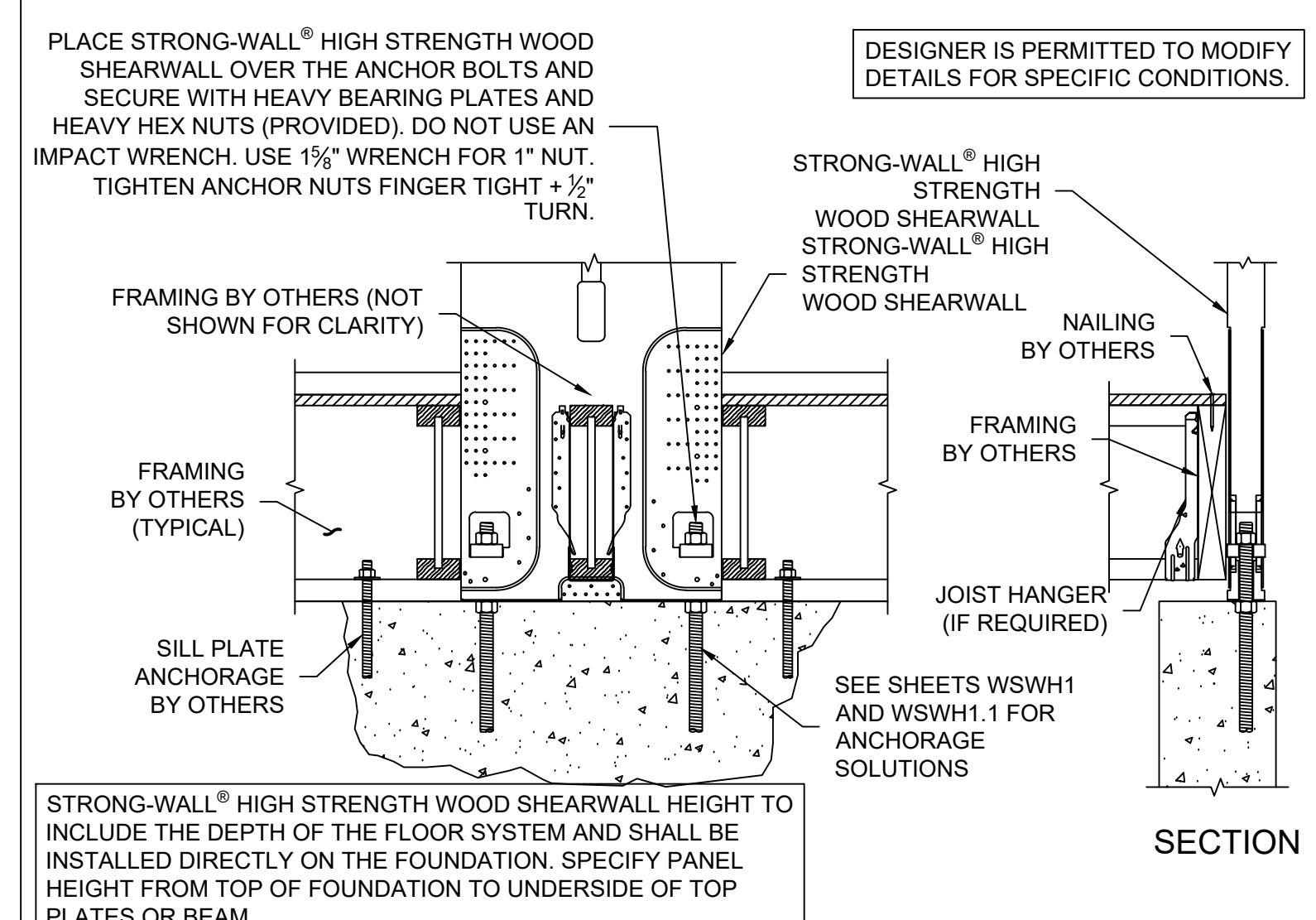
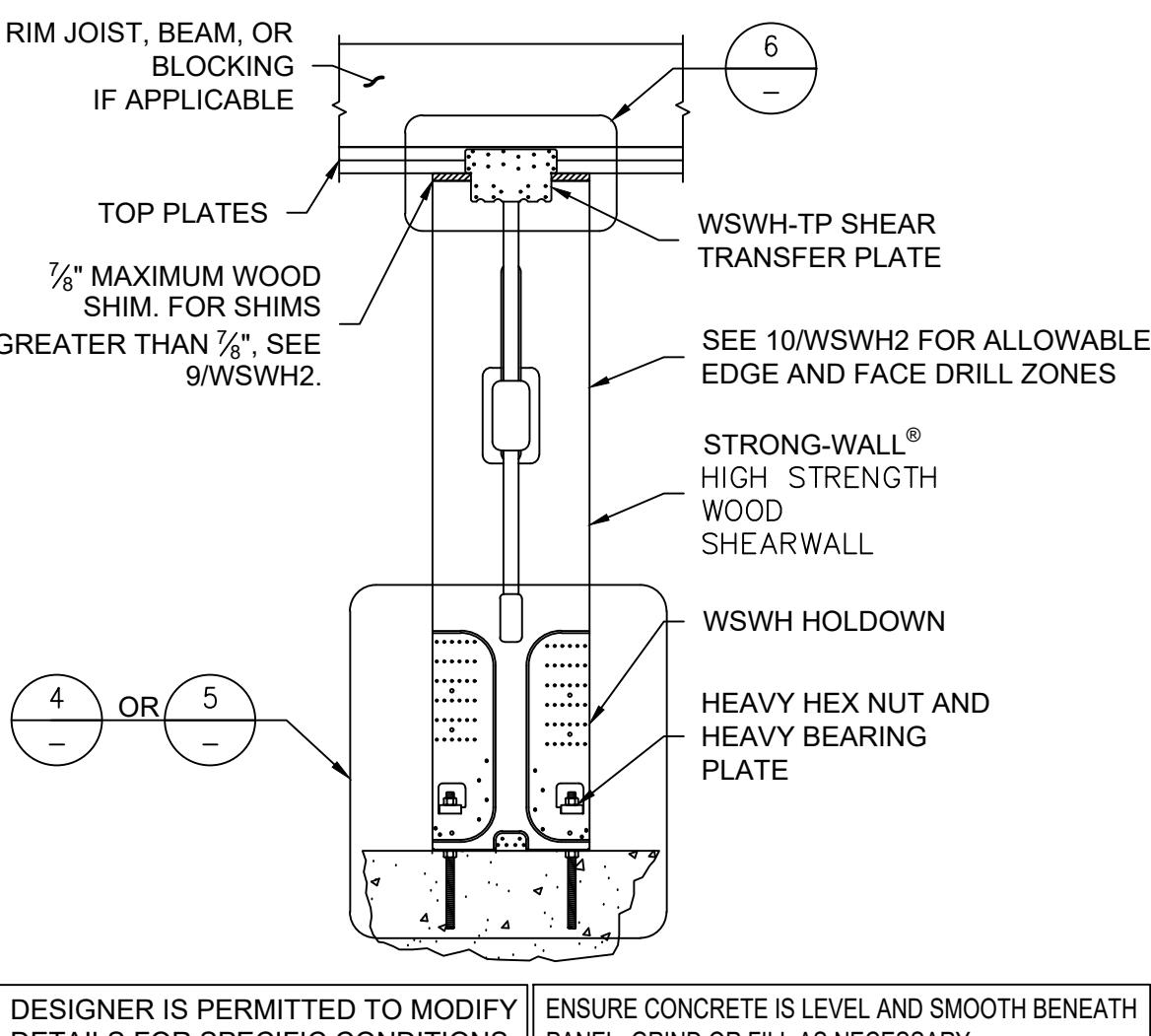
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TOP CONNECTION

6

TOP OF WALL HEIGHT ADJUSTMENTS

9



SINGLE STORY WSWH ON CONCRETE

2 WOOD FLOOR SYSTEM BASE CONNECTION

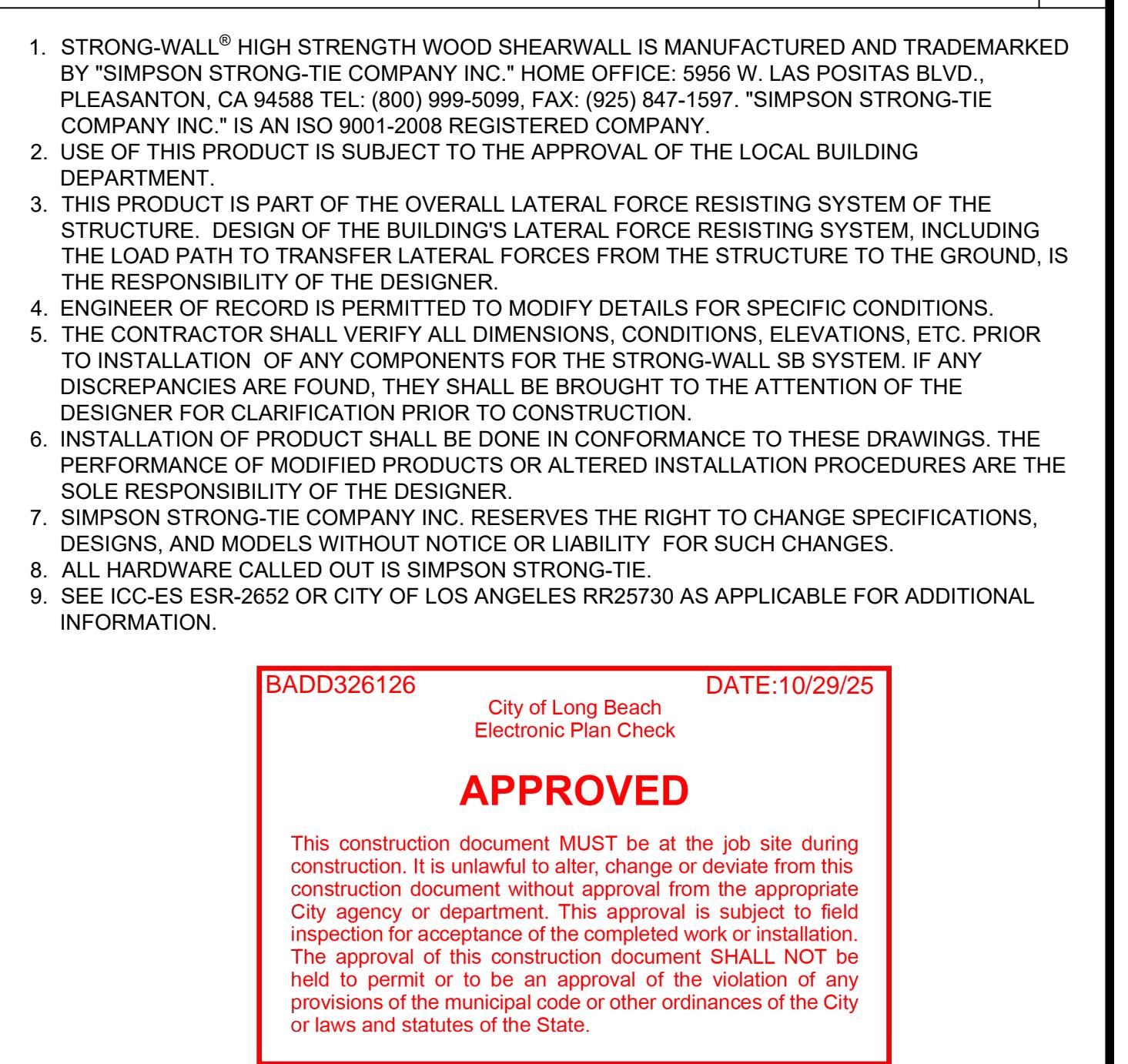
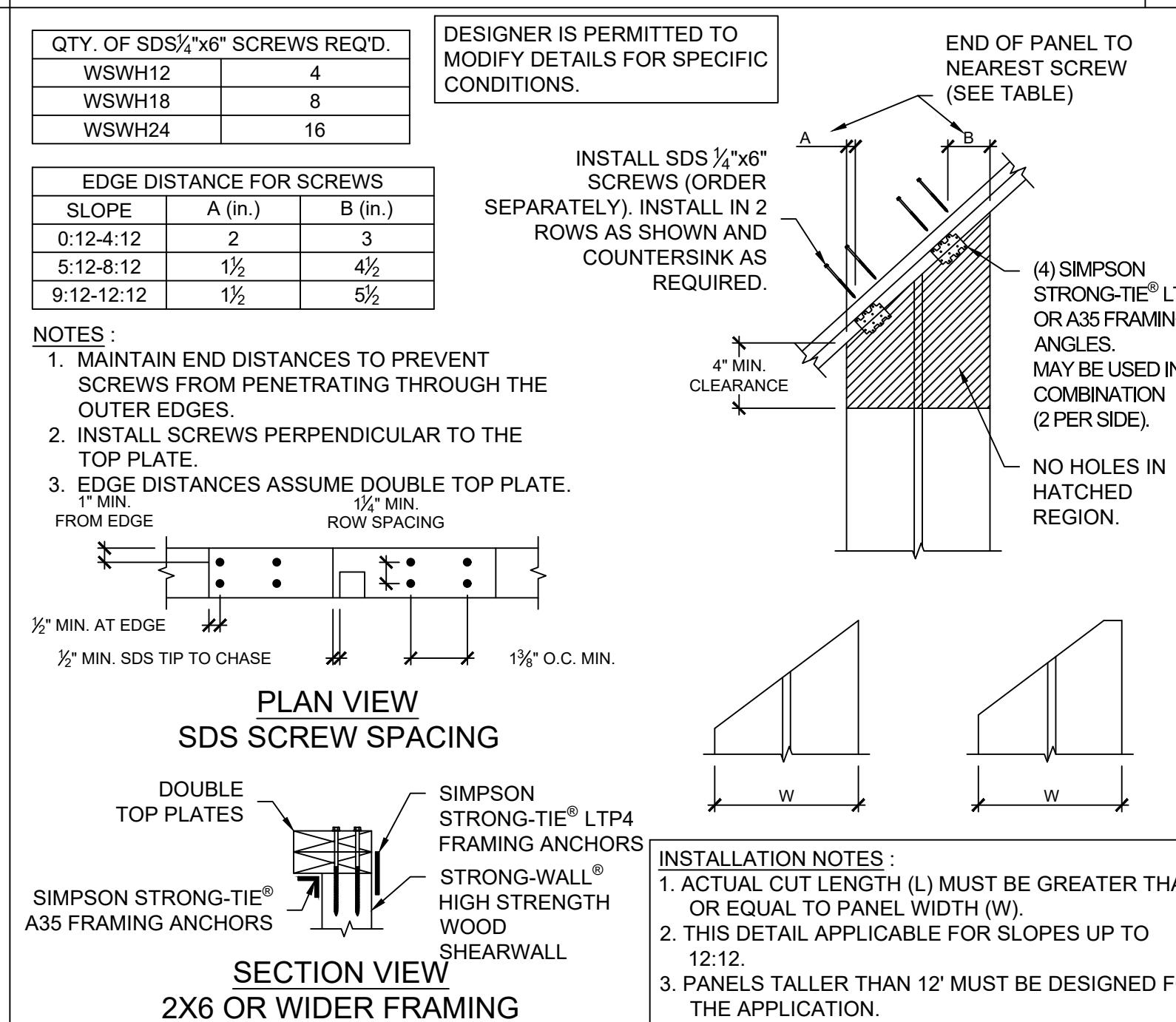
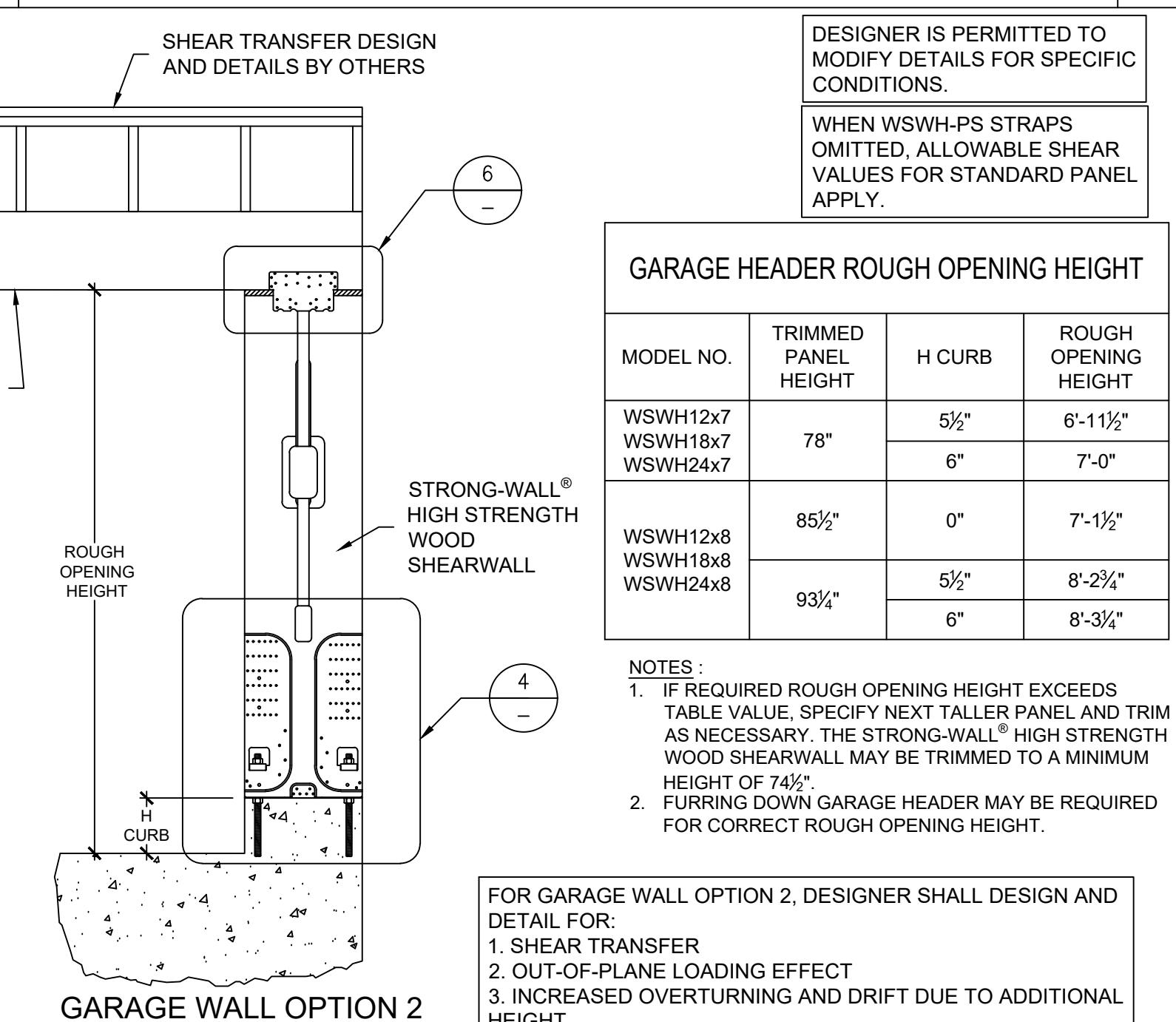
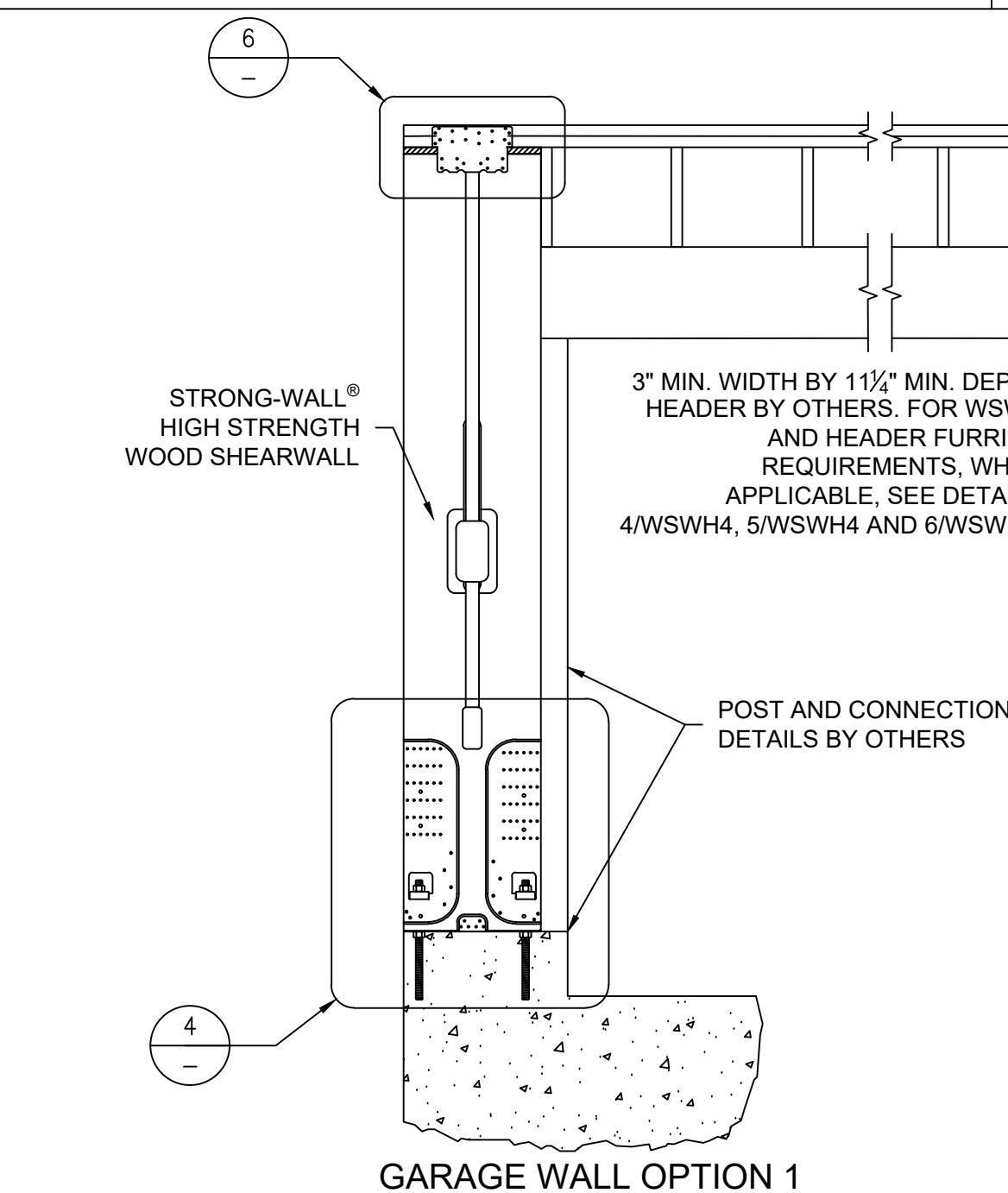
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BACK-TO-BACK TOP CONNECTION

7

TRIM ZONE AND ALLOWABLE HOLES

10



ALTERNATE WSWH GARAGE FRONT OPTIONS

3

RAKE WALL

8

NOTES

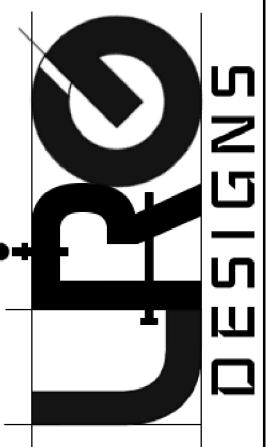
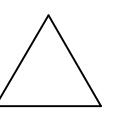
11



This construction document MUST be at the job site during construction. It is the responsibility of the designer to obtain a permit and obtain a building inspection from the appropriate City agency or department. This approval is subject to field inspection for acceptance of the completed work or installation. The approval of this construction document SHALL NOT be held to permit or to be an approval of the violation of any provisions of the municipal code or other ordinances of the City or laws and statutes of the State.

Anthony Montez - Building Plan Check

REVISION / DATE



P.O. BOX 47011
LOS ANGELES, CA 90041
(323) 485-4227
EMAIL: URODESIGNS14@GMAIL.COM

SITE ADDRESS: 326 FLINT AVENUE UNIT A
LONG BEACH, CA 90814

OWNER: BRANDAN KING

DATE
9/22/2025

SCALE

SHEET

T-1

OF SHEETS

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: 326 FLINT AVENUE ADU ADDITION
Calculation Date/Time: 2025-09-22T18:36:53-07:00
(Page 4 of 11)
Input File Name: 326 FLINT AVENUE UNIT A ADU ADDITION (AA2ND).ribd22

ENERGY USE INTENSITY				
	Standard Design (kBtu/ft ² - yr)	Proposed Design (kBtu/ft ² - yr)	Margin (kBtu/ft ² - yr)	Margin Percentage
Gross EU ¹	25.69	25.22	0.47	1.83
Net EU ¹	25.69	25.22	0.47	1.83
Notes: 1. Gross EU is Energy Use Total (not including PV) / Total Building Area. 2. Net EU is Energy Use Total (including PV) / Total Building Area.				
REQUIRED SPECIAL FEATURES				
The following are features that must be installed condition for meeting the modeled energy performance for this computer analysis.				
<ul style="list-style-type: none"> Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed One or more heat pump water heaters have been modeled as demand response compatible 				
HERS FEATURE SUMMARY				
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry.				
<ul style="list-style-type: none"> Indoor air quality ventilation Kitchen range hood Verified heat pump rated heating capacity 				
ZONE INFORMATION				
01	02	03	04	05
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft ²)	Avg. Ceiling Height
ADU ADDITION	Conditioned	HVAC System	475	8
			DHW System	New

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

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Calculation Date/Time: 2025-09-22T18:36:53-07:00
(Page 1 of 11)
Input File Name: 326 FLINT AVENUE UNIT A ADU ADDITION (AA2ND).ribd22

GENERAL INFORMATION							
01	Project Name	326 FLINT AVENUE ADU ADDITION					
02	Run Title	TITLE 24 COMPLIANCE					
03	Project Location	326 FLINT AVENUE UNIT A					
04	City	LONG BEACH, CA					
05	Zip code	90814					
06	Climate Zone	6					
07	Software Version	CBECC-Res 2022.3.2-SP1					
08	Building Type	Single family					
09	Project Scope	Newly Constructed Addition					
10	Number of Dwelling Units	1					
11	Number of Bedrooms	1					
12	Addition Cond. Floor Area (ft ²)	475					
13	Existing Cond. Floor Area (ft ²)	0					
14	Total Cond. Floor Area (ft ²)	475					
15	Fenestration Average U-factor	0.3					
16	ADU Bedroom Count	1					
17	ADU Conditioned Floor Area (ft ²)	475					
18	Fuel Type	Natural gas					
19	No Dwelling Units	No					
20							
21							
22							
ADDITION ALONE - Project Analysis Parameters							
01	02	03	04	05	06	07	08
Existing Area (excl. new addition) (ft ²)	0	475	475	0	1	1	
ADU Area (excl. existing) (ft ²)							
Total Area (ft ²)							
Existing Bedrooms							
Addition Bedrooms							
Total Bedrooms							
ADDITION ALONE - ACCESSORY DWELLING UNIT (ADU) PROJECT ANALYSIS PARAMETERS							
01	02	03	04	05	06	07	08
Zone Name	Existing Area (excl. new addition) (ft ²)	ADU Area (excl. existing) (ft ²)	Total Area (ft ²)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms	Attached vs. Detached
ADU ADDITION	0	475	475	0	1	1	Detached

BADD326126 DATE:10/29/25
City of Long Beach
Electronic Plan Check

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Calculation Date/Time: 2025-09-22T18:36:53-07:00
(Page 5 of 11)
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OPAQUE SURFACES										
01	02	03	04	05	06	07	08	09	10	Status
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft ²)	Window and Door Area (ft ²)	Tilt (deg)	Wall Exceptions		
REAR EXTERIOR WALL 1.	ADU ADDITION	R-15 Wall Stucco	180	Back	261	10	90	Extension	New	
RIGHT EXTERIOR WALL 1.	ADU ADDITION	R-15 Wall Stucco	270	Right	153	95	90	Extension	New	
LEFT EXTERIOR WALL 1.	ADU ADDITION	R-15 Wall Stucco	90	Left	153	15	90	Extension	New	
FRONT EXTERIOR WALL 1.	ADU ADDITION	R-15 Wall Stucco	0	Front	261	24	90	Extension	New	
Ceiling (below attic) ¹	ADU ADDITION	R-30 Ceiling	n/a	n/a	475	n/a	n/a			New
Exterior Floor 1	ADU ADDITION	R-19 EXTERIOR FLOOR	n/a	n/a	85	n/a	n/a			New
Interior Floor 1	ADU ADDITION	(N) R-19 Interior Floor	n/a	n/a	380	n/a	n/a			New
ATTIC										
01	02	03	04	05	06	07	08	09	10	
Name	Construction	Type	Roof Rise (in 12)	Roof Reflectance	Roof Emissance	Radiant Barrier	Cool Roof			
Attic	R-0 ASPHALT SHINGLE ROOF	Ventilated	4	0.1	0.85	Yes	No			
FENESTRATION / GLAZING										
01	02	03	04	05	06	07	08	09	10	
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft ²)	U-factor	U-factor Source
Window D(1)	Window	RIGHT EXTERIOR WALL 1.	Right	270	2	7.5	1	15	0.3	NFRC
									0.23	NFRC
									0.23	Bug Screen
OPAQUE DOORS										
01	02	03	04							
Name		Side of Building		Area (ft ²)						
Door 1		FRONT EXTERIOR WALL 1.		24						
OPAQUE SURFACE CONSTRUCTIONS										
01	02	03	04	05	06	07	08			
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor		Assembly Layers		
R-15 Wall Stucco	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	R-15	None / None	0.087		Inside Finish: Gypsum Board / Gvch / Frame: R-15 / 2x4 Siding / Insulation: Wood Siding/sheathing/decking / Exterior Finish: 3 Coat Stucco		

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

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(Page 6 of 11)
Input File Name: 326 FLINT AVENUE UNIT A ADU ADDITION (AA2ND).ribd22

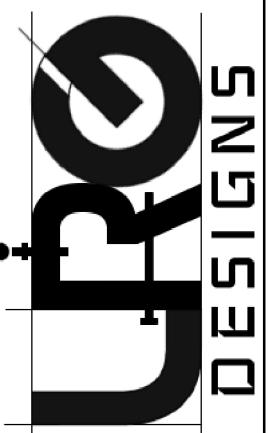
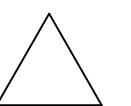
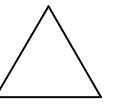
FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft ²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Window C(1)	Window	REAR EXTERIOR WALL 1.	Back	180	5	2	1	10	0.3	NFRC	0.23	NFRC	Bug Screen
Window A(1)	Window	LEFT EXTERIOR WALL 1.	Left	90	2	3	1	6	0.3	NFRC	0.23	NFRC	Bug Screen
Window B(1)	Window	LEFT EXTERIOR WALL 1.	Left	90	3	3	1	9	0.3	NFRC	0.23	NFRC	Bug Screen
Door 2	Window	RIGHT EXTERIOR WALL 1.	Right	270	10	8	1	80	0.3	NFRC	0.23	NFRC	Bug Screen
OPAQUE DOORS													
01	02	03	04										
Name		Side of Building		Area (ft ²)									
Door 1		FRONT EXTERIOR WALL 1.		24									
OPAQUE SURFACE CONSTRUCTIONS													
01	02	03	04	05	06	07	08						
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor		Assembly Layers					
R-15 Wall Stucco	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	R-15	None / None	0.087		Inside Finish: Gypsum Board / Gvch / Frame: R-15 / 2x4 Siding / Insulation: Wood Siding/sheathing/decking / Exterior Finish: 3 Coat Stucco					

Registration Number: 425-P010299837A-000-00000000-0000
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CA Building Energy Efficiency Standards - 2022 Residential Compliance
Report Version: 2022.0.000
Schema Version: rev 20220901

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: 326 FLINT AVENUE ADU ADDITION
Calculation Date/Time: 2025-09-22T18:36:53-07:00
(Page 3 of 11)
Input File Name: 326 FLINT AVENUE UNIT A ADU ADDITION (AA2ND).ribd22

ENERGY USE SUMMARY									
Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft ² -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft ² -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft ² -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft ² -yr)	Margin (EDR1)	Margin (EDR2)			
Space Heating	0	1.45	0	2.82	0	-1.37			
Space Cooling	0	33.6	0	34.58	0	-0.98			
IAQ Ventilation	0	5.09	0	5.09	0	0			
Water Heating	0	36.68	0	30.35	0	6.33			
Self Utilization/Flexibility Credit				0		0			
Efficiency Compliance									



P.O. BOX 470011
LOS ANGELES, CA 90041
EMAIL: LRGDESIGNS14@GMAIL.COM

SITE ADDRESS: 326 FLINT AVENUE UNIT A

LONG BEACH, CA 90814

OWNER: BRANDAN KING

PROJECT: NEW ADU

DATE
9/22/2025

SCALE

SHEET

T-2

OF SHEETS

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

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Calculation Date/Time: 2025-09-22T18:36:53-07:00
Input File Name: 326 FLINT AVENUE UNIT A ADU ADDITION (AA2ND).ribd22

CF1R-PRF-01-E
Project Name: 326 FLINT AVENUE ADU ADDITION
Calculation Description: TITLE 24 COMPLIANCE
Input File Name: 326 FLINT AVENUE UNIT A ADU ADDITION (AA2ND).ribd22

CF1R-PRF-01-E
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Input File Name: 326 FLINT AVENUE UNIT A ADU ADDITION (AA2ND).ribd22

INDOOR AIR QUALITY (IAQ) FANS								
01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
Sfam ADU IAQVenRpt	29	0.35	Exhaust	No	n/a / n/a	No	Yes	

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 ASPHALT SHINGLE ROOF	Attic Roofs	Wood Framed Ceiling	2x6 @ 16 in. O.C.	R-0	None / None	0.624	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/Sheathing/Decking: Cavity / Frame: no insul. / 2x6
R-30 Ceiling	Ceilings (below attic)	Wood Framed Ceiling	2x6 @ 16 in. O.C.	R-30	None / None	0.032	Over Ceiling Joists: R-15.7 insul. Cavity / Frame: R-14.3 / 2x6 Inside Finish: Gypsum Board
R-19 EXTERIOR FLOOR	Exterior Floors	Wood Framed Floor	2x12 @ 16 in. O.C.	R-19	None / None	0.046	Floor Surface: Carpeted Floor Deck: Wood Siding/Sheathing/Decking: Cavity / Frame: R-19 / 2x12 Exterior Finish: 3 Coat Stucco
(N) R-19 Interior Floor	Interior Floors	Wood Framed Floor	2x12 @ 16 in. O.C.	R-19	None / None	0.047	Floor Surface: Hardwood Floor Deck: Wood Siding/Sheathing/Decking: Cavity / Frame: R-19 / 2x12 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION				
01	02	03	04	05
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50	CFM50
Not Required	Not Required	N/A	n/a	n/a

BADD326126 DATE: 10/29/25

City of Long Beach
Electronic Plan Check

APPROVED

This construction document MUST be at the job site during construction. It is unlawful to alter, change or deviate from this construction document without approval from the appropriate City agency or department. This approval is subject to field inspection for acceptance of the completed work or installation. The approval of this construction document SHALL NOT be held to permit or to be an approval of the violation of any provisions of the municipal code or other ordinances of the City or laws and statutes of the State.

Anthony Montez - Building Plan Check

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: 326 FLINT AVENUE ADU ADDITION

Calculation Description: TITLE 24 COMPLIANCE

CF1R-PRF-01-E
Project Name: 326 FLINT AVENUE ADU ADDITION
Calculation Date/Time: 2025-09-22T18:36:53-07:00
Input File Name: 326 FLINT AVENUE UNIT A ADU ADDITION (AA2ND).ribd22

Registration Number: 425-P010290837A-000-000-000000-0000
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CA Building Energy Efficiency Standards - 2022 Residential Compliance

HERS Provider: CHEERS
Report Version: 2022.0.000
Report Generated: 2025-09-22 18:37:19
Schema Version: rev 20220901

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Lawrence Gordon
Signature: Lawrence Gordon

Company: LRG Designs, LLC
Signature Date: 09/23/2025

Address: P.O. BOX 470011
CEA/HERS Certification Identification (If applicable):

City/State/Zip: Los Angeles, CA 90047
Phone: (323) 955-9827

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify that I am a licensed professional of design, under the laws of the State of California:

- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
- I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Lawrence Gordon
Responsible Designer Signature: Lawrence Gordon

Company: LRG Designs, LLC
Date Signed: 09/23/2025

Address: P.O. BOX 470011
License:

City/State/Zip: Los Angeles, CA 90047
Phone: (323) 955-9827

Digitally signed by California Home Energy Efficiency Rating Services (CHEERS). This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW System	Domestic Hot Water (DHW)	Standard	Heat Pump Water Heater	1	n/a	None	n/a	Heat Pump Water Heater (1)

WATER HEATERS - NEA HEAT PUMP

01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
Heat Pump Water Heater	1	40	Rheem	XE40T10H45U1 (40 gal)	Outside	Outside	Outside

WATER HEATING - HER'S VERIFICATION

01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Type	Recirculation Control	Shower Drain Water Heat Recovery	
DHW System - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name
HVAC System	Heat pump heating cooling	Heat Pump System 1	1	Heat Pump System 1	1	HVAC Fan System	n/a

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HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13	
Name	System Type	Number of Units	Heating				Cooling				Zonally Controlled	Compressor Type	HERS Verification
			Heating Efficiency Type	HSPF/HSPF2/COP	Cap 47	Cap 12	Cooling Efficiency Type	SEER/SEER2	ER2/ER2/COP	Cap 47			
Heat Pump System 1	Ductless MiniSplit	1	HSPE	8.2	12000	10000	EEER/EEER2	14	11.87	Not Zonal	Single Speed	Heat Pump System 1-her's-htpump	

HVAC HEAT PUMPS - HER'S VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER/ER2	Verified SEER/SEER2	Verified Refrigerant Charge	Verified HSPF/HSPF2	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System	Not Required	0	Not Required	Not Required	No	No	Yes	Yes

HVAC FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan System	HVAC Fan	0.4	HVAC Fan System - her's-fan

HVAC FAN SYSTEMS - HER'S VERIFICATION

01	02	03	04
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)	
HVAC Fan System - her's-fan	Not Required	0	

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TITLE 24 NOTES

1. Compliance Information The builder shall leave in the building, copies of the completed, signed and submitted compliance documents for the building owner at occupancy. For low-rise residential buildings, such information shall, at a minimum, include copies of all Certificate of Compliance, Certificate of Installation, and Certificate of Verification documentation submitted. [10-103(b)(1)]

2. Operating Information The builder shall provide the building owner at occupancy, operating information for all applicable features, materials, components, and mechanical devices installed in the building. Operating information shall include instructions on how to operate the features, materials, components, and mechanical devices correctly and efficiently. The instructions shall be consistent with specifications set forth by the Executive Director. For residential buildings, such information shall be contained in a folder or manual which provides all Certificate of Compliance, Certificate of Installation, and Certificate of Verification documentation. This operating information shall be in paper or electronic format. [10-103(b)(2)]

3. Maintenance Information The builder shall provide to the building owner at occupancy, maintenance information for all features, materials, components, and manufactured devices that require routine maintenance for efficient operation. Required routine maintenance actions shall be clearly stated and incorporated on a readily accessible label. The label may be limited to identifying, by title and/or publication number, the operation and maintenance manual for that particular model and type of feature, material, component or manufactured device. [10-103(b)(3)]

4. Ventilation Information The builder shall provide to the building owner at occupancy, a description of the quantities of outdoor air that the ventilation system(s) are designed to provide to the building's conditioned space, and instructions for proper operation and maintenance of the ventilation system. [10-103(b)(4)]

5. All systems, equipment, appliances and building components shall comply with the applicable manufacturing, construction, and installation provisions of Sections 110.0 through 110.11 for newly constructed buildings.

6. Any appliance regulated by the Appliance Efficiency Regulations, Title 20 California Code of Regulations, Section 1601 et seq., may be installed only if the appliance fully complies with Section 1608(a) of those regulations. [110.1(a)]

7. Service water-heating systems shall be equipped with automatic temperature controls capable of adjustment from the lowest to the highest acceptable temperature settings for the intended use as listed in Table 3, Chapter 50 of the ASHRAE Handbook, HVAC Applications Volume. [110.3(a)]

8. On systems that have a total capacity greater than 167,000 Btu/hr, outlets that require higher than service water temperatures as listed in the ASHRAE Handbook, Applications Volume, shall have separate remote heaters, heat exchangers, or boosters to supply the outlet with the higher temperature. [110.3(c)(1)]

9. Service hot water systems with circulating pumps or with electrical heat trace systems shall be capable of automatically turning off the system. [110.3(c)(2)]

10. Controls for service water-heating systems shall limit the outlet temperature at public lavatories to 110°F. [110.3(c)(3)]

11. Unfired service water-heater storage tanks and backup tanks for solar water-heating systems shall have: a. External insulation with an installed R-value of at least R-12, or b. Internal and external insulation with a combined R-value of at least R-16, or c. The heat loss of the tank surface based on an 80°F water-air temperature difference shall be less than 6.5 Btu/hr per square foot. [110.3(c)(4)]

12. For nonresidential, high-rise residential, and hotel/motel buildings, space conditioning systems shall meet the efficiency standards specified Section 120.2.

13. Continuously burning pilot light shall be prohibited for the following natural gas system or equipment listed below. [110.5] a. Fan-type central furnaces b. Household cooking appliances, except for household cooking appliances without an electrical supply voltage connection and in which each pilot consumes less than 150 Btu/hr c. Pool heaters d. Spa heaters

14. Any pool or spa heating system or equipment shall: [110.4] a. A thermal efficiency that complies with the Appliance Efficiency Regulations b. Have a readily accessible on/off switch, mounted on the outside of the heater that allows shutting off the heater without adjusting the thermostat setting. c. Not utilize electric resistance heating. d. Have a cover for outdoor pools or spas that have a heat pump or gas heater. e. Have a permanent, easily readable, and weatherproof instruction card that gives instructions for the energy efficient operation of the pool or spa heater and for the proper care of pool or spa water when a cover is used. f. Have at least 36 inches of pipe installed between the filter and heater or dedicated suction and return lines, or built-in or built-up connections shall be installed to allow for the future addition of solar heating equipment. g. Have directional inlets for the pool or spa that adequately mix the pool water. h. A time switch or similar control mechanism shall be installed as part of a pool water circulation control system that will allow all pumps to be set or programmed to run only during the off-peak electric demand period and for the minimum time necessary to maintain the water in the condition required by applicable public health standards.

15. Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft² of window area, 0.3 cfm/ft² of residential door area, 0.3 cfm/ft² of nonresidential single door area, and 1.0 cfm/ft² of nonresidential double door area. [110.6(a)]

16. Fenestration products shall be rated in accordance with NFRC 100 for U-factor, NFRC 200 for SHGC, and VT or use the applicable default value. Fenestration products shall have a temporary label for manufactured fenestration products or a label certificate when the Component Modeling Approach is used and for site-built fenestration meeting the requirements of Section 10-111(a). [110.6(a), 110.6(a), 110.6(a), 110.6(a)]

17. Field-fabricated fenestration products and exterior doors, other than unframed glass doors and fire doors, shall be caulked between the fenestration products or exterior door and the building, and shall be weatherstripped. [110.6(b)]

18. Joints, penetrations and other openings in the building envelope that are potential sources of air leakage shall be caulked, gasketed, weather stripped, or otherwise sealed to limit infiltration and exfiltration. [110.7]

19. Insulation shall be certified by Department of Consumer Affairs, Bureau of Home Furnishing and Thermal Insulation that the insulation conductive thermal performance is approved pursuant to the California Code of Regulations, Title 24, Part 12, Chapter 12-13, Article 3, "Standards for Insulating Material." [110.8(a)]

20. Urea formaldehyde foam insulation may only be used in exterior side walls, and requires a four-mill-thick plastic polyethylene vapor barrier between the urea formaldehyde foam insulation and the interior space in all applications. [110.8(b)]

21. Insulating material shall be installed in compliance with the flame spread rating and smoke density requirements of the CBC. [110.8(c)]

22. Insulation installed on an existing space conditioning duct, it shall comply with Section 604.0 of the CMC. [110.8(d)]

23. External insulation installed on an existing unfired water storage tank or on an existing back-up tank for a solar water-heating system, it shall have an R-value of at least R-12, or the heat loss of the tank surface based on an 80°F water-air temperature difference shall be less than 6.5 Btu per hour per square foot. [110.8(e)]

E. Residential Notes:

- 1. A masonry or factory-built fireplace shall have the following: [150.0(e)(1)] a. Closeable metal or glass doors covering the entire opening of the firebox; b. A combustion air intake from the outside of the building directly into the firebox, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device (Exception: An outside combustion-air intake is not required if the fireplace will be installed over concrete slab flooring and the fireplace will not be located on an exterior wall); and c. A flue damper with a readily accessible control. [150.0(e)(2)]
- 2. Heating or cooling systems shall be equipped with a setback thermostat that meet the requirements of Section 110.2(c). [150.0(f)]
- 3. Gas or propane water heaters shall have: [150.0(n)] a. A 120V electrical receptacle that is within 3 feet from the water heater; b. A Category III or IV vent, or a Type B vent with straight pipe. c. Condensate drain that is no more than 2 inches higher than the base. d. A gas supply line with a capacity of at least 200,000 Btu/hr.
- 4. All pumps and pump motors installed shall be listed in the Commission's directory of certified equipment and shall comply with the Appliance Efficiency Regulations. [150.0(p)(1)]
- 5. The minimum installed weight per square foot of any loose-fill insulation shall conform with the insulation manufacturer's labeled R-value. [150.0(p)(2)]
- 6. The minimum depth of concrete-slab floor perimeter insulation shall be 16 inches or the depth of the footing of the building, whichever is less. [150.1(x)(1)]
- 7. The crawl space shall be covered with a vapor retarder over the entire floor. [150.1(x)(2)]
- 8. Insulations are required for: [150.0(j)(2)] a. All hot water pipes from the heating source to the kitchen fixtures. b. All piping with a nominal diameter of 3/4 inch or larger. c. The first 5 feet (1.5 meters) of hot and cold water pipes from the storage tank. d. All piping associated with a domestic hot water recirculation system. e. Piping from the heating source to storage tank or between tanks. f. Piping buried below grade.
- 9. Insulation shall be provided for water heaters as follows: a. Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, shall be externally wrapped with insulation having an installed thermal resistance of R-12 or greater or have internal insulation of at least R-16 and a label on the exterior of the tank showing the insulation R-value. [150.0(p)(1)]
- 10. Lighting [150.0(k)] a. Installed luminaires shall be classified as high-efficacy in accordance with TABLE 150.0-b. b. Exhaust fans shall be switched separately from lighting systems. c. Luminaires shall be switched with readily accessible controls that permit the luminaires to be manually switched ON and OFF. d. Lighting installed in attached and detached garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces shall be controlled by vacancy sensors. e. Dimmers or vacancy sensors shall control all luminaires required to have light sources compliant with Reference Joint Appendix JA8. EXCEPTION 1: Luminaires in closets less than 70 square feet. EXCEPTION 2: Luminaires in hallways. f. A. In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building shall be high efficacy luminaires or controlled by an occupant sensor. g. In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting in that building shall: i) Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and ii) Lighting installed in corridors and stairwells shall be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors shall be capable of turning the light fully On and Off on all designated paths of ingress and egress.

2022 Single-Family Residential Mandatory Requirements Summary

- Space Conditioning System Airflow Rate and Fan Efficiency.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≤ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*
- Ventilation and Indoor Air Quality:**
- § 150.0(o): Requirements for Ventilation and Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o).1.
 - § 150.0(o): Central Fan Integrated (CFI) Ventilation Systems. Continuous operation of CFI air handlers is not allowed to provide the whole-dwelling unit ventilation airflow required per § 150.0(o)1C. A motorized damper(s) must be installed on the ventilation duct(s) that provide all dwelling unit space conditioning duct system when the damper(s) is closed and controlled per § 150.0(o)1Bii&iv. CFI ventilation systems must have controls that track outdoor air ventilation run time, and either open or close the motorized damper(s) for compliance with § 150.0(o)1C.
 - § 150.0(o): Whole-Dwelling Unit Ventilation Requirements for Single-Family Detached and townhouses. Single-family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow specified in § 150.0(o)1Cii.
 - § 150.0(o): Local Mechanical Exhaust. Kitchens and bathrooms must have local mechanical exhaust, nonenclosed kitchens must have demand-controlled exhaust system meeting requirements of § 150.0(o)1Gii; enclosed kitchens and bathrooms can use demand-controlled or continuous exhaust meeting § 150.0(o)1Gii-v. Airflow must be measured by the installer per § 150.0(o)1Gv, and rated for sound per § 150.0(o)1Gvi.
 - § 150.0(o)H&I: Airflow Measurement and Sound Ratings of Whole-Dwelling Unit Ventilation Systems. The airflow required per § 150.0(o)1C must be measured by using a flow hood, flow pit, or other airflow measuring device at the fan's inlet or outlet terminals/grilles per Reference Residential Appendix RA3.7. Whole-Dwelling unit ventilation systems must be rated for sound per ASHRAE 62.2 §7.2 at no less than the minimum airflow rate required by § 150.0(o)1C.
 - § 150.0(o): Field Verification and Diagnostic Testing. Whole-Dwelling Unit ventilation airflow, vented range hood airflow and sound rating, and HRV and ERV fan efficacy must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm if it is rated by HVI or AHAM to comply with the airflow rates and sound requirements per § 150.0(o)1G.
- Pool and Spa Systems and Equipment:**
- § 110.4(a): Certification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: compliance with the Appliance Efficiency Regulations and listing in MAEDs; an off-switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.*
 - § 110.4(b): Piping. Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
 - § 110.4(b): Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover.
 - § 110.4(b): Directional Inlets and Time Switches for Pools. Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
 - § 110.5: Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.
 - § 150.0(p): Pool Systems and Equipment Installation. Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.
 - § 110.9: Lighting: Lighting Controls and Components. All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.*
 - § 150.0(k): Luminaires Efficacy. All installed luminaires must meet the requirements in Table 150.0-A, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts, and lighting integral to drawers, cabinets, and linen closets with an efficacy of at least 45 lumens per watt.
 - § 150.0(k): Screw based Luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.*
 - § 150.0(k): Reduced Downlights and Cans. Luminaires receiving ratings or markings from the Energy Code § 410.11 must not meet a requirement for a luminaire with a power of one watt or less.
 - § 150.0(k): Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
 - § 150.0(k): Blank Electrical Boxes. The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device shall be no more than the number of bedrooms. These boxes must be served by a dimmer, vacancy sensor control, low voltage wiring, or fan speed control.
 - § 150.0(k): Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).*

5/6/22

2022 Single-Family Residential Mandatory Requirements Summary

NOTE: Single-family residential buildings subject to the Energy Codes must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. (04/2022)

- Building Envelope:**
- § 110.6(a): Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFGC-400, ASTM E283, or AAMA/WDMA/CSA 101/S.2/A440-2011.
 - § 110.6(a): Labeling. Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
 - § 110.6(b): Field fabricated exterior doors and fenestration products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weatherstripped.
 - § 110.7: Air Leakage. All joints, panels, and other parts of the building envelope that are potential sources of air leakage must be caulked, gasketed, or weatherstripped.
 - § 110.8: Insulation Certification by Manufacturers. Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
 - § 110.8(g): Insulation Protection for Heated Slab Floors. Heated slab floors must be insulated per the requirements of § 110.8(g).
 - § 110.8(h): Roofing Products Solar Reflectance and Thermal Emittance. The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(h) and be labeled per § 10-113 when the installation of a cool roof is specified on the CFPR.
 - § 110.8(i): Radiant Barrier. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
 - § 150.0(h): Roof Deck, Ceiling and Rafter Roof insulation. Roof decks in newly constructed attics in climate zones 4 and 8-10-area-weighted average U-factor not exceeding U-0.184. Ceiling and rafter rods minimum R-22 insulation in wood framing; or area-weighted average U-factor must not exceed 0.043. Rafter rods minimum R-19 or area-weighted average U-factor of 0.054 or less. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a roof or ceiling which is sealed to limit infiltration and exfiltration, as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.
 - § 150.0(h): Loose-fit Insulation. Loose-fit insulation must meet the manufacturer's required density for the labeled R-value.
 - § 150.0(h): Wall insulation. Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.07 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.*
 - § 150.0(d): Raised-floor insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
 - § 150.0(f): Slab Edge insulation. Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facing, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm/inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
 - § 150.0(g): Vapor Retarder. In climate zones 1 through 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
 - § 150.0(g): Vapor Retarder. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
 - § 150.0(q): Fenestration Products. Fenestration, including skylights, separated conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.45; or area-weighted average U-factor of a fenestration must not exceed 0.45.
 - § 150.0(q): Fireplaces, Decorative Gas Appliances, and Gas Log: Pilot Light. Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
 - § 150.0(e): Closable Doors. Masonry or factory-built fireplaces must have a closeable metal or glass door covering the entire opening of the firebox.
 - § 150.0(e): Combustion Intake. Masonry or factory-built fireplaces must have a combustion intake air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.
 - § 150.0(e): Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*
 - § 150.0(m): Space Conditioning, Water Heating, and Plumbing System: Certification. Heating, ventilating, and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.
 - § 110.0-S § 110.3: HVAC Efficiency. Equipment must meet the applicable efficiency requirements in Table 110.2-4 through Table 110.2-N.*
 - § 110.2(b): Controls for Heat Pumps and Supplemental Electric Resistance Heaters. Heat pumps with supplementary electric resistance heating must have controls that prevent defrosting during load demand by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.
 - § 110.2(c): Thermostats. All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.*
 - § 110.3(c): Insulation. Unfired service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating.
 - § 110.3(c): Isolation Valves. Instantaneous water heaters with an input rating greater than 6.8 kBTU per hour (2 kW) must have isolation valves with hose bibs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

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2022 Single-Family Residential Mandatory Requirements Summary

- Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas, fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 BTU per hour); and pool and spa heaters.
- Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Application Volume, and Fundamentals Volume, the SMACNA Residential Comfort System Installation Standards Manual, or the ACCA Manual J using design specifications in § 150(h)(2).
- Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any spa heaters.
- Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
- Water Piping, Solar Water-Heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in § 609.11 of the California Plumbing Code.*
- Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by § 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushing casing or sleeve.
- Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must designate a space at least 2.5' x 2.5' x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements based on the distance between this designated space and the water heater location; and a condensate drain no more than 2' higher than the base of the water heater.
- Solar Water-Heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a testing agency that is approved by the executive director.

Ducts and Fans:

- Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
- CMC Compliance.** All air-distribution system ducts and plenums must meet CMC §§ 601.0-605.0 and ANSI/SMACNA-006-2006 HVAC Duct Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to R-6.0 or higher; ducts located entirely in conditioned space as confirmed by field verification and diagnostic testing (RA3.1.4.3.8).
- Field Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closure points and seams of duct systems and their components must not be sealed with cloth back rub adhesive duct tapes unless such tape is used in combination with mastic and sand bands.
- Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
- Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.