NPDES NOTES

NOTES MUST BE SHOWN AS WORDED, ON THE TITLE SHEET OF THE PLAN.

1. IN THE CASE OF EMERGENCY, CALL: ____________________

AT WORK PHONE # ____________________

OR CELL PHONE # ____________________

2. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.

3. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND.

4. APPROPRIATE BMPS FOR CONSTRUCTION − RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.

5. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITESUNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.

6. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OR THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.

7. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.

8. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORMDOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORM WATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.

9. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPER − CHLORINATED POTABLE WATER LINE FLUSHING.
DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON − SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

10. DE − WATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DE − WATERING OF NON − CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.

11. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DE− SILTING FACILITIES.

12. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.

13. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THATTHE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.

14. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS,LESSEES, AND PROPERTY OWNERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.

15. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

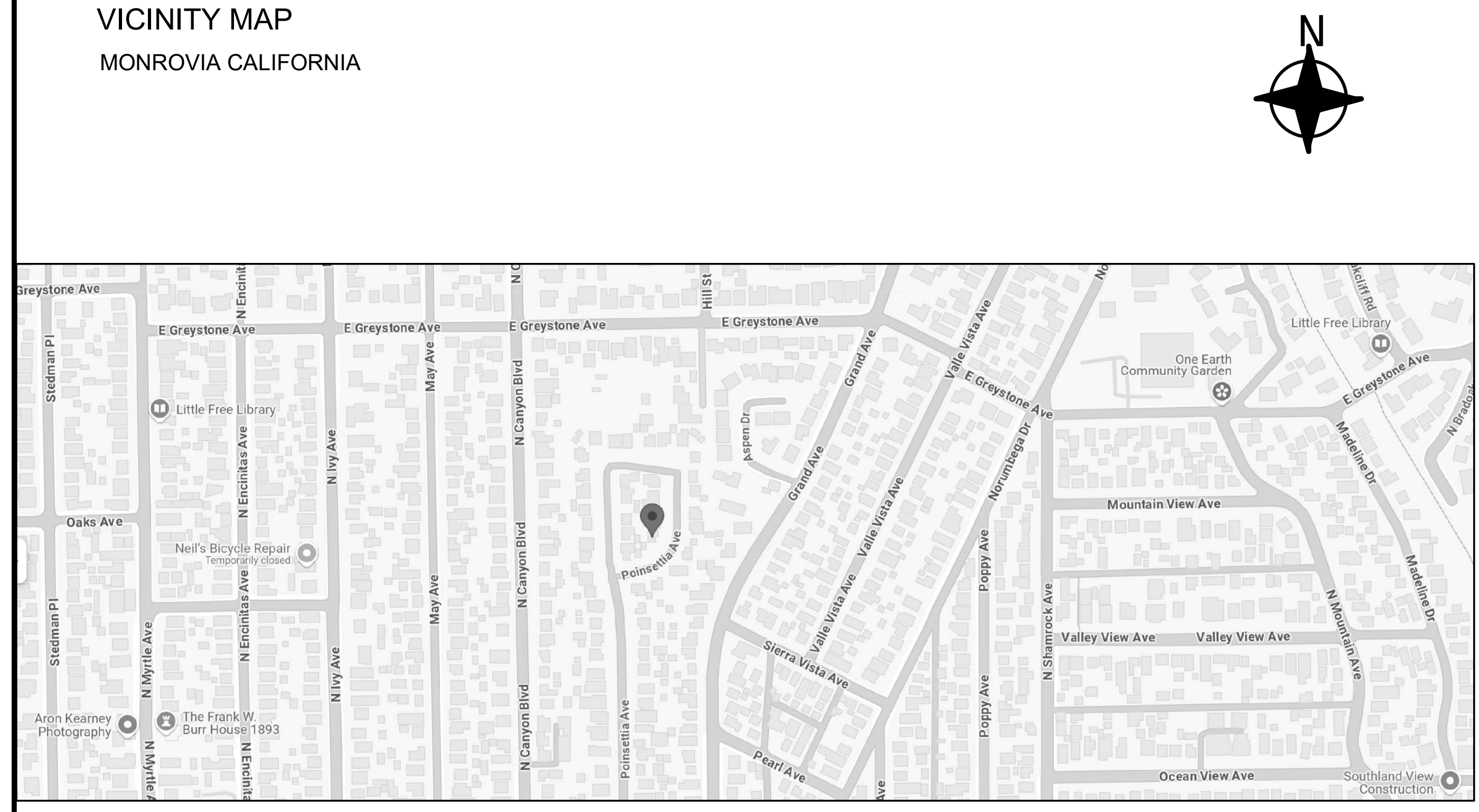
16. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5 − DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.

17. SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.

18. APPROPRIATE BMPS FOR CONSTRUCTION − RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.

VICINITY MAP

MONROVIA CALIFORNIA



ABBREVIATIONS

A/C	Air Conditioning
ABV.	Above
A.C.P	Asphaltic Concrete Paving
A.F.F.	Above Finish Floor
A.F.S	Above Finish Slab
ALT.	Alternate
ALU	Aluminum
ARCH	Architect(ural)
BD.	Board
BLW.	Below
BLDG.	Building
BLCK.	Blocking
BM.	Beam
CAB	Cabinet
C.J.	Ceiling Joist
C/J	Control Joint
CL.	Center Line
CLG.	Ceiling
CLR.	Clear
COL.	Column
CONC.	Concrete
CONT.	Continuous
CPT.	Carpet
C.T.	Ceramic Tile
CTR.	Center
D	Dryer
D.A.	Disabled Access
D.F.	Drinking Fountain
DIA.	Diameter
D.S.	Downspout
DN.	Down
DIM	Dimension
DTL(S).	Detail
DWG(S).	Drawing
(EX)	Existing
EA.	Each
E/J	Expansion Joint
ELEC.	Electrical
EL.	Elevation
ELEV.	Elevator
EQ.	Equal
EQUIP.	Equipment
E.W.C.	Electric Water Cooler
EXT.	Exterior
FAU.	Forced Air Unit
FIN.	Finish
F.D.	Floor Drain
FT.	Feet
FDN.	Foundation
F.E.	Fire Extinguisher
F.E.C.	Fire Extinguisher Cabinet
F.F.	Finish Floor
F.S.	Finish Slab
F.O.C.	Face of Concrete
F.O.F.	Face of Finish
F.O.M.	Face of Masonry
F.O.S.	Face of Stud
F.R.	Fire-Retardant
FUR.	Furring
GA.	Gauge or Gage
GI.	Galvanized Iron
GALV.	Galvanized
GL.	Glass
G.C.	General Contractor
G.W.B.	Gypsum Wall Board
G.W.B.-M.R.	GWB Moisture Resistant
G.W.B.-X	GWB Fire Rated "X"
H.B.	Hose Bib
H.C.	Hollow Core
HDR.	Header
HDWR.	Hardware
H.M.	Hollow Metal
HORZ.	Horizontal
HT.	Height
HVAC.	Heating, Ventillation, and Air-conditioning
I.D.	Inside Diameter
INSUL	Insulation
INT	Interior

JAN.	Janitor
JT.	Joint
LAV.	Lavatory
LAM.	Laminate
MAX.	Maximum
MECH.	Mechanical
MEMB.	Membrane
M.F.	Manufacturer Finish
MFR.	Manufacturer
MIN.	Minimum
M.O.	Masonry Opening
MTL.	Metal
(N)	New
NIC	Not in Contract
NOM	Nominal
NTS	Not To Scale
O/	Over
O.C.	On Center
OCC.	Occupancy
O.D.	Outside Diameter
O.H.	Overhang
OPNG.	Opening
OPP.	Opposite
O.F.C.I	Owner Furnished Contractor Installed
(P)	Paint
PR.	Pair
PLYWD.	Plywood
PL.	Property Line
PLAST	Plaster
P.T.	Pressure Treated
Q.T.	Quarry Tile
R	Riser
REF.	Refer (to)
REQD.	Required
R.D.REINF.	Reinforced
	Roof Drain
R.O.	Rough Opening
Rm.	Room
S.A.C.	Suspended Acoustical Ceiling
S.C.	Solid Core
SQ. FT./SF.	Square Foot
SIM.	Similar
SPEC.	Specifications
STL.	Steel
S.STL.	Stainless Steel
STD.	Standard
STRUCT.	Structural (Engineer)
SUSP.	Suspended
SHT.	Sheet
T	Tread
T.O.B.	Top of Beam - Steel
T.O.C.	Top of Concrete
T.O.S.	Top of Sheathing
T.O.SL.	Top of Slab
T.O.W.	Top of Wall
T.P.	Top Plate
TYP.	Typical
TEMP	Tempered
THK.	Thick
UL	Underwriters Laboratory
U.N.O.	Unless Noted Otherwise
V.C.T.	Vinyl Composition Tile
VERT.	Vertical
V.W.C.	Vinyl Wall Covering
VIF	Verify in Field
W	Washer
W/	With
WI	Wrought Iron
W.I.C.	Walk in Closet
WC	Water Closet
WD	Wood
WIN	Window
W.H.	Water Heater
W.R.	Water Resistant
W.W.F.	Welded Wire Fabric

FIRE SPRINKLER SYSTEM: NO

PROJECT SUMMARY

PROJECT DESCRIPTION:

ADDITION

OWNER:

DEAN & CASEY DAMUTH
278 POINSETTIA AVE.
MONROVIA, CA 91016

BUILDING USE: SINGLE FAMILY RES.

OCCUPANCY CLASSIFICATION: R-3 / U

TYPE OF CONSTRUCTION: V-B

NUMBER OF STORIES: ONE

EXISTING DWELLING: 1,029 SQ.FT.

EXISTING GARAGE: 400 SQ.FT.

EXISTING LOT COVERAGE: 20%

PROPOSED ADDITION: 394 SQ.FT.

PROPOSED LOT COVERAGE: 26%

LOT SIZE = 7,025 SQ.FT.

LEGAL DESCRIPTION

APN # 8518-012-018

TRACT NO 16229 LOT 47

CONSULTANTS

DRAFTING:

AMIN LAK
+1(949) 439-7404
amin159357@yahoo.com

ENGINEERING:

HOSSEIN ZAND ASSOCIATES
CIVIL AND STRUCTURAL ENGINEERING
5175 Chapala Dr., RIVERSIDE, CA. 92507
(951) 784-2424 Cell (909) 223-2000
email: "hosseinzand@sbcglobal.net"
LIC# CO35721

CODES

2022 CALIFORNIA BUILDING CODE (CBC)
2022 CALIFORNIA RESIDENTIAL CODE (CRC)
2022 CALIFORNIA ELECTRICAL CODE (CEC)
2022 CALIFORNIA MECHANICAL CODE (CMC)
2022 CALIFORNIA PLUMBING CODE (CPC)
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC)
2022 CALIFORNIA FIRE CODE (CFC)
2022 CALIFORNIA ENERGY EFFICIENCY STANDARDS (CEES)

SCOPE OF WORK:

- ADDITION OF 394 SQ. FT. INCLUDING A MASTER BEDROOM, MASTER BATHROOM, AND WALK-IN CLOSET.

INDEX OF DRAWINGS

SHEET #	DESCRIPTION:
T-1	TITLE PAGE
SP-1	SITE PLAN
A-0.1	2022 CALIFORNIA GREEN BUILDING
A-0.2	2022 CALIFORNIA GREEN BUILDING
A-1	FLOOR & ROOF PLANS
A-2	ELEVATIONS
A-3	ELECTRICAL PLAN
SGN	STRUCTURAL & GENERAL NOTES
S-1	FOUNDATION & FRAMING PLANS

NOTES:

1- 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 drain system.

2- Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents. CRC R106.4.

(From north to south)

262 Poinsettia- 32.74-8=24.74

268 Poinsettia- 33.6 -8= 25.6

278 Poinsettia- 33.61-8= 25.61 (largest-remove from calc.)

272 Poinsettia- 30.37-8= 22.37

204 Poinsettia- 21.04-8 =13.04 (Smallest-remove from calc.)

AVG (72.71)/3= 24.24

REVISIONS	BY

PLANS DRAWN BY:
AMIN LAK
+1(949) 439-7404
amin159357@yahoo.com

PROJECT DESCRIPTION:
278 POINSETTIA AVE.
394 SQ.FT. ADDITION

OWNERS:
DEAN & CASEY DAMUTH
278 POINSETTIA AVE.
MONROVIA, CA 91016

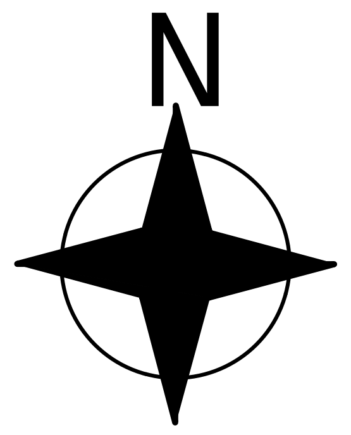
DATE:
05/15/2024

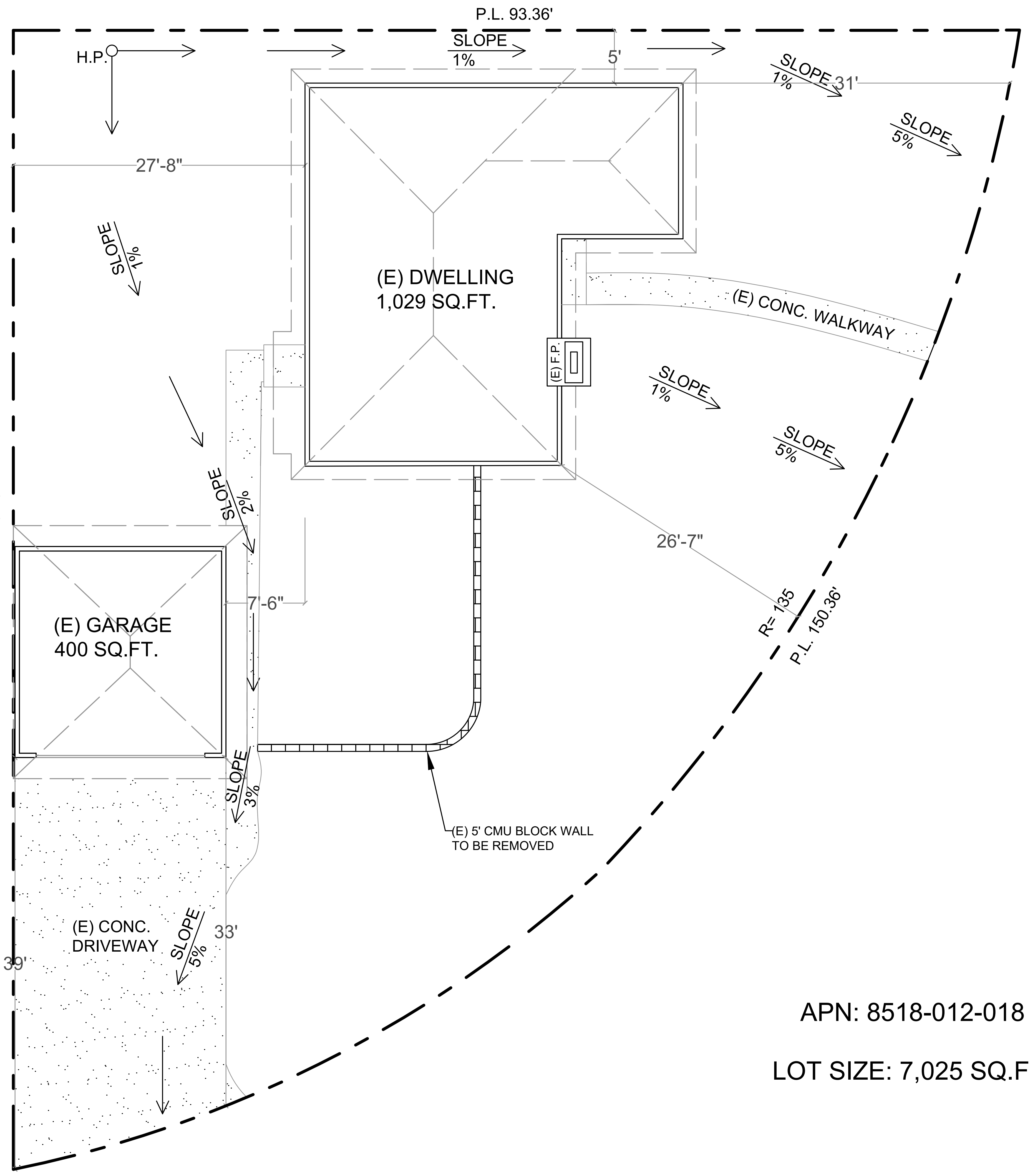
SCALE:

DRAWN:

JOB:

SHEET:
T-1





APN: 8518-012-018

LOT SIZE: 7,025 SQ.FT.

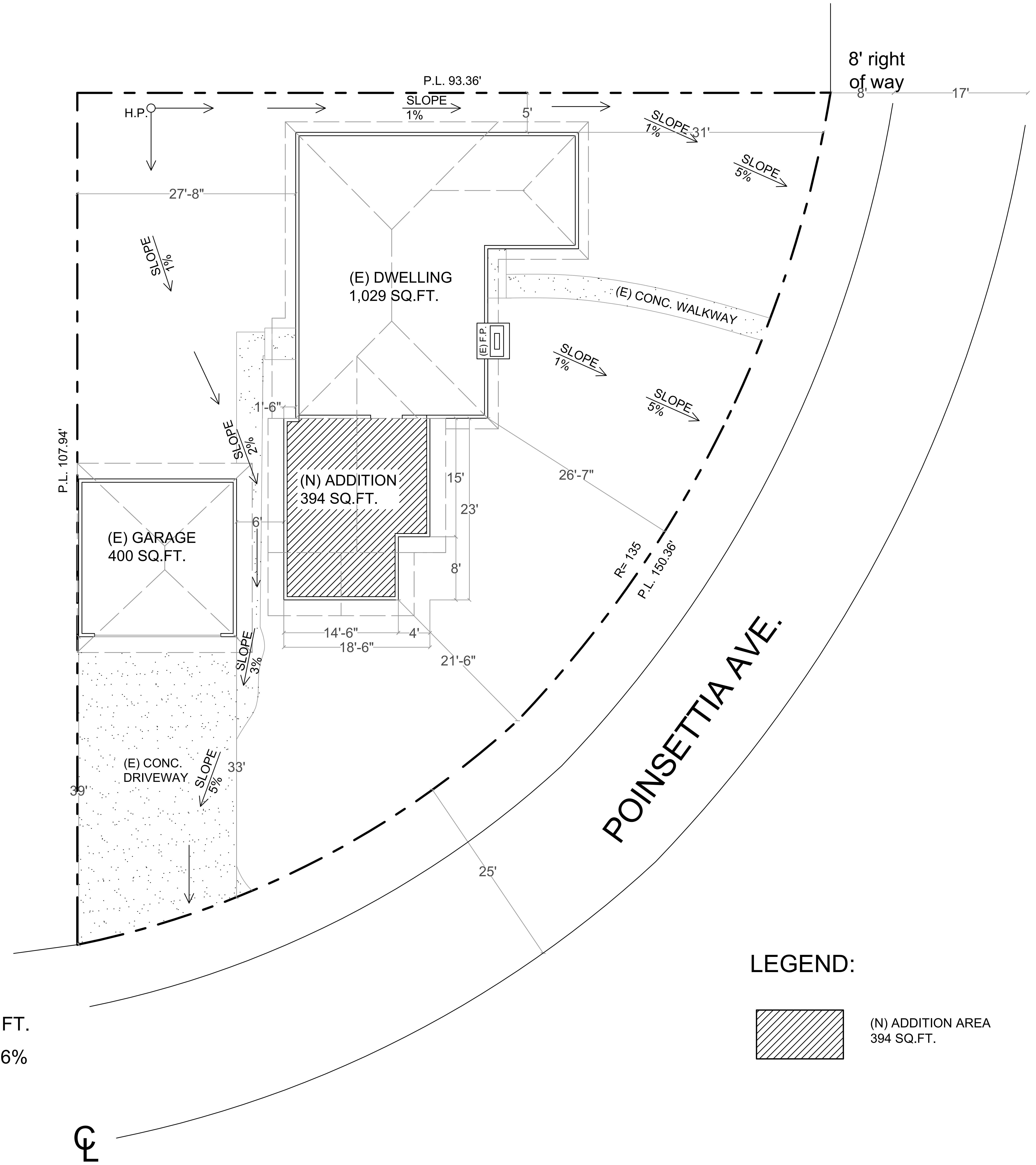
EXISTING DWELLING: 1,029 SQ.FT.

EXISTING GARAGE: 400 SQ.FT.

EXISTING LOT COVERAGE: 20%

EXISTING SITE PLAN

SCALE: 1/8" = 1'



PROPOSED ADDITION: 394 SQ.FT.

PROPOSED LOT COVERAGE: 26%

PROPOSED SITE PLAN

SCALE: 1/8" = 1'

LEGEND:

▨	(N) ADDITION AREA 394 SQ.FT.

REVISIONS	BY

PLANS DRAWN BY:
AMIN LAK
+1(949) 439-7404
amin159357@yahoo.com

STAMP

ENGINEER:
HOSSEIN ZAND ASSOCIATES
CIVIL AND STRUCTURAL ENGINEERING
5175 Chapala Dr., RIVERSIDE, CA. 92507
(951) 784-2424 Cell (909) 223-2000
email: "hosseinzand@sbcglobal.net"
LIC# CO35721

PROJECT DESCRIPTION:
SITE PLAN

OWNERS:
DEAN & CASEY DAMUTH
278 POINSETTIA AVE.
MONROVIA, CA 91016

DATE:
05/15/2024

SCALE: 1/8" = 1'

DRAWN:
AMIN LAK

JOB:

SHEET:
SP-1

AIA California

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

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

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 *CAL*Green, 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 *(and are included here for reference)*

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 Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code,* Article 625.

Exceptions:
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".

☐ ☐ **4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities.**
When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

☐ ☐ **4.106.4.2.1Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms.**
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as “EV CAPABLE” in accordance with the California Electrical Code.

Exceptions:

1.When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.

2.When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.

Notes:

a.Construction documents are intended to demonstrate the project’s capability and capacity for facilitating future EV charging.

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

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

☐ ☐ **4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms.**
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as “EV CAPABLE” in accordance with the California Electrical Code.

Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

Notes:

a.Construction documents shall show locations of future EV spaces.

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

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE shall have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable requirements.

4.106.4.2.2.1.1 Location.
EVCS shall comply with at least one of the following options:

1.The charging 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.

2.The charging 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 and Section 4.106.4.2.2.1.2, Item 3.

4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions.
The charging spaces shall be designed to comply with the following:

1.The minimum length of each EV space shall be 18 feet (5486 mm).

2.The minimum width of each EV space shall be 9 feet (2743 mm).

3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

4.106.4.2.2.1.3 Accessible EV spaces.
In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A.

4.106.4.2.3 EV space requirements.
1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated 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 enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the California Electrical Code.

2.Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code.

4.106.4.2.4 Identification.
The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as “EV CAPABLE” in accordance with the California Electrical Code.

4.106.4.2.5 Electric Vehicle Ready Space Signage.
Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

☐ ☐ **4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings.**
When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.

Notes:

1.Construction documents are intended to demonstrate the project’s capability and capacity for facilitating future EV charging.

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

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL

4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE

☐ ☐ **4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS.** Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by 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.

4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets.

4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.1.4.5 Pre-rinse spray valves.
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7) and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations),Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)]

☐ ☐ **4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial buildings.**
Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the *California Plumbing Code*.

☐ ☐ **4.303.3 Standards for plumbing fixtures and fittings.** Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

NOTE:
THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE

☐ ☐ **4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS**. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

NOTES:

1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code Regulations,* Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

☐ ☐ **4.406.1 RODENT PROOFING.** Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

☐ ☐ **4.408.1 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 local construction and demolition waste management ordinance.

Exceptions:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

☐ ☐ **4.408.2 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 construction for examination by the enforcing agency.

1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected will be taken.
4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

☐ ☐ **4.408.3 WASTE MANAGEMENT COMPANY.** Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1.

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

☐ ☐ **4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR].** Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

☐ ☐ **4.408.5 DOCUMENTATION**. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.
2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4.410 BUILDING MAINTENANCE AND OPERATION

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

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   d. Landscape irrigation systems.
   e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspections verifications required by the enforcing agency or this code.
11. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
12. Information and/or drawings identifying the location of grab bar reinforcements.

☐ ☐ **4.410.2 RECYCLING BY OCCUPANTS.** Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: 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 organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL
4.501.1 Scope
The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS
5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

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

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 93120.1.

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

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.*

REVISIONS BY

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LIC# CO35721

PROJECT DESCRIPTION:
2022 CALIFORNIA GREEN
BUILDING STANDARDS CODE

OWNERS:
DEAN & CASEY DAMUTH
278 POINSETTIA AVE.
MONROVIA, CA 91016

DATE: 05/15/2024

SCALE: 1/4" = 1'

DRAWN: AMIN LAK

JOB:

SHEET: A-0.1

AIA California

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

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 "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O^3/g ROC).
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 (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).
Note: PWMIR 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 caulks 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 caulks 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, perchloroethylene and tricloroethylene), 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 94507.

☐ ☐ **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.

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
SHELLACS	
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.

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 CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. 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 receiving 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.

hhttps://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. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL

4.505.1 General. Buildings shall meet or exceed the provisions of the *California Building Standards Code*.

☐ ☐ **4.505.2 CONCRETE SLAB FOUNDATIONS.** Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

☐ ☐ **4.505.2.1 Capillary break.** A capillary break shall be installed in compliance with at least one of the following:

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
2. Other equivalent methods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

☐ ☐ **4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS.** Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST

☐ ☐ **4.506.1 Bathroom exhaust fans.** Each bathroom shall be mechanically ventilated and shall comply with the following:

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
    a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
    b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code.*

4.507 ENVIRONMENTAL COMFORT

☐ ☐ **4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN.** Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

☐ ☐ **702.1 INSTALLER TRAINING.** HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

☐ ☐ **702.2 SPECIAL INSPECTION [HCD].** When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

☐ ☐ **703.1 DOCUMENTATION.** Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

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.*

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LIC# CO35721

PROJECT DESCRIPTION:
2022 CALIFORNIA GREEN
BUILDING STANDARDS CODE

OWNERS:
DEAN & CASEY DAMUTH
278 POINSETTIA AVE.
MONROVIA, CA 91016

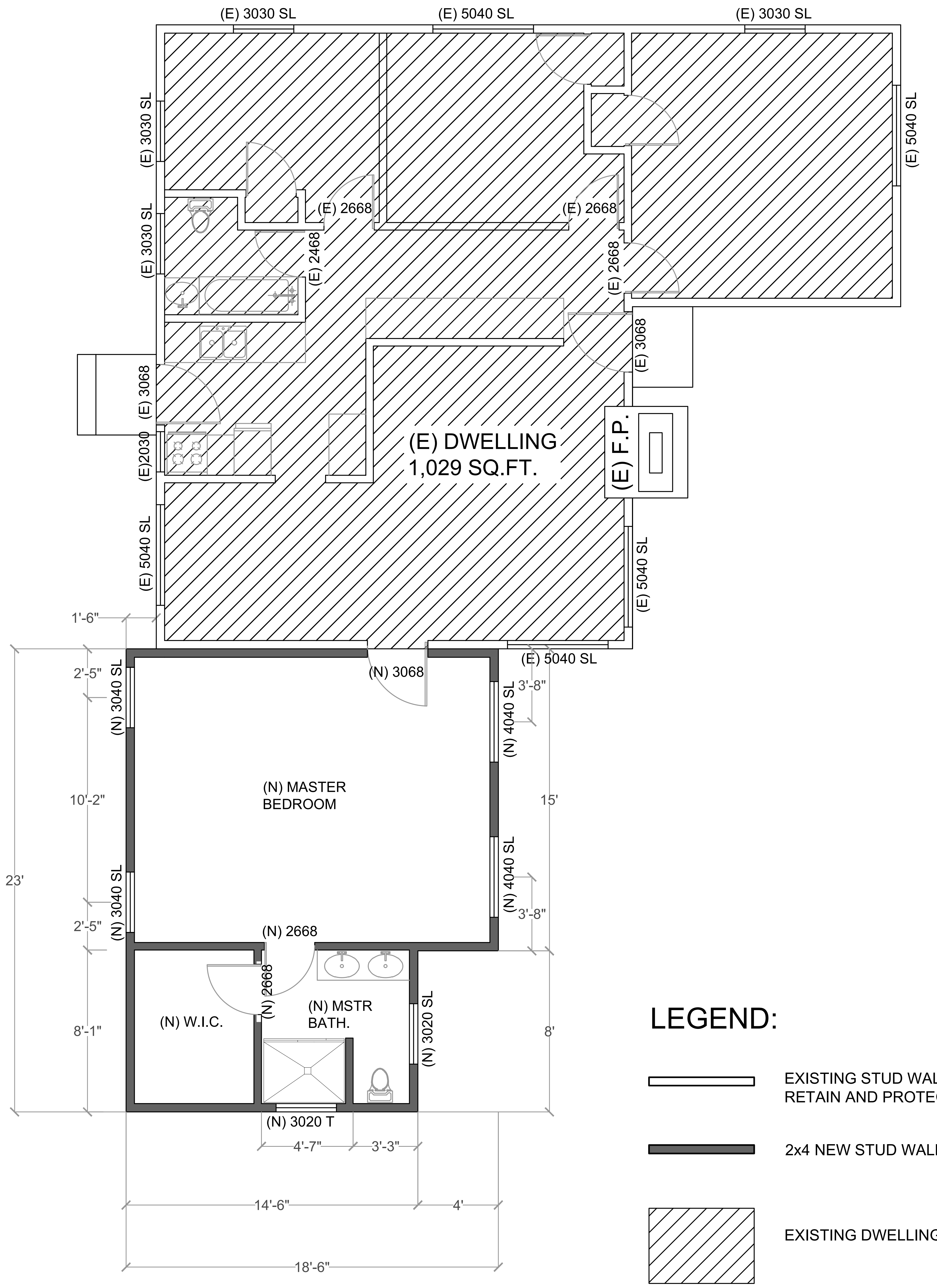
DATE: 05/15/2024

SCALE: 1/4" = 1'

DRAWN: AMIN LAK

JOB:

SHEET: A-0.2

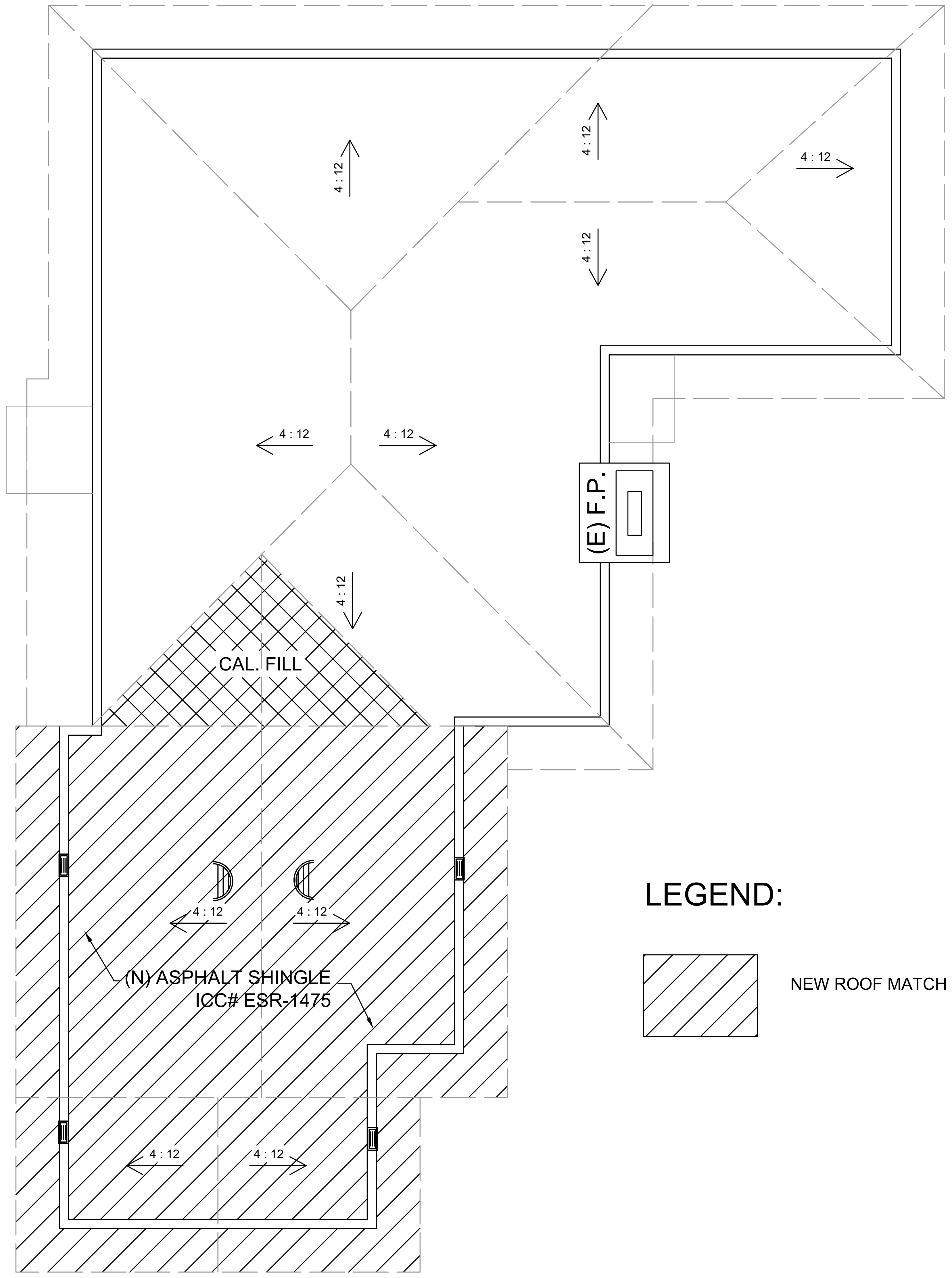


FLOOR PLAN

SCALE: 1/4" = 1'

LEGEND:

▭	EXISTING STUD WALL, RETAIN AND PROTECT
▬	2x4 NEW STUD WALL @ 16" O.C.
▨	EXISTING DWELLING AREA (NO WORK)



ROOF PLAN

SCALE: 1/4" = 1'

LEGEND:

▨	NEW ROOF MATCH TO EXISTING

ATTIC VENTILATION GARAGE & PORCH

NEW ATTIC AREA = 394 SQ. FT. $394 \times \frac{1}{150} = 2.6$

+	ITEM	FREE AIR AREA (SQ. FT.)	QTY.	AREA
A.)	24 " x 12" HALF ROUND DORMER	0.9	2	1.8
B.)	14" x 6" EAVE VENT	0.3	4	1.2
C.)	14" x 18" SQ. GABLE VENT	0.8	0	0
D.)	3" DIA. HOLE THROUGH EAVE BLOCK	0.05	0	0
E.)	3-1/2" x 22" EAVE VENT		0	0
			TOTAL	3

AT LEAST 50% OF ATTIC VENTS SHALL BE EAVE AND CORNICE VENTS, OPENING TO HAVE 1/4" CORRISION RESISTANT METAL MESH COVERING (CBC 1 203.2).

- ATTIC VENTILATION WITH ADEQUATE CROSS VENTILATION: 1/16" MIN, 1/4" MESH AT ALL VENT, INCLUDING CONTINUOUS VENTS (CRC R806.1).

NOTE:
FOR ROOF COVRING INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURE'S INSTALLATION INSTRUCTIONS.

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PROJECT DESCRIPTION:
FLOOR PLAN

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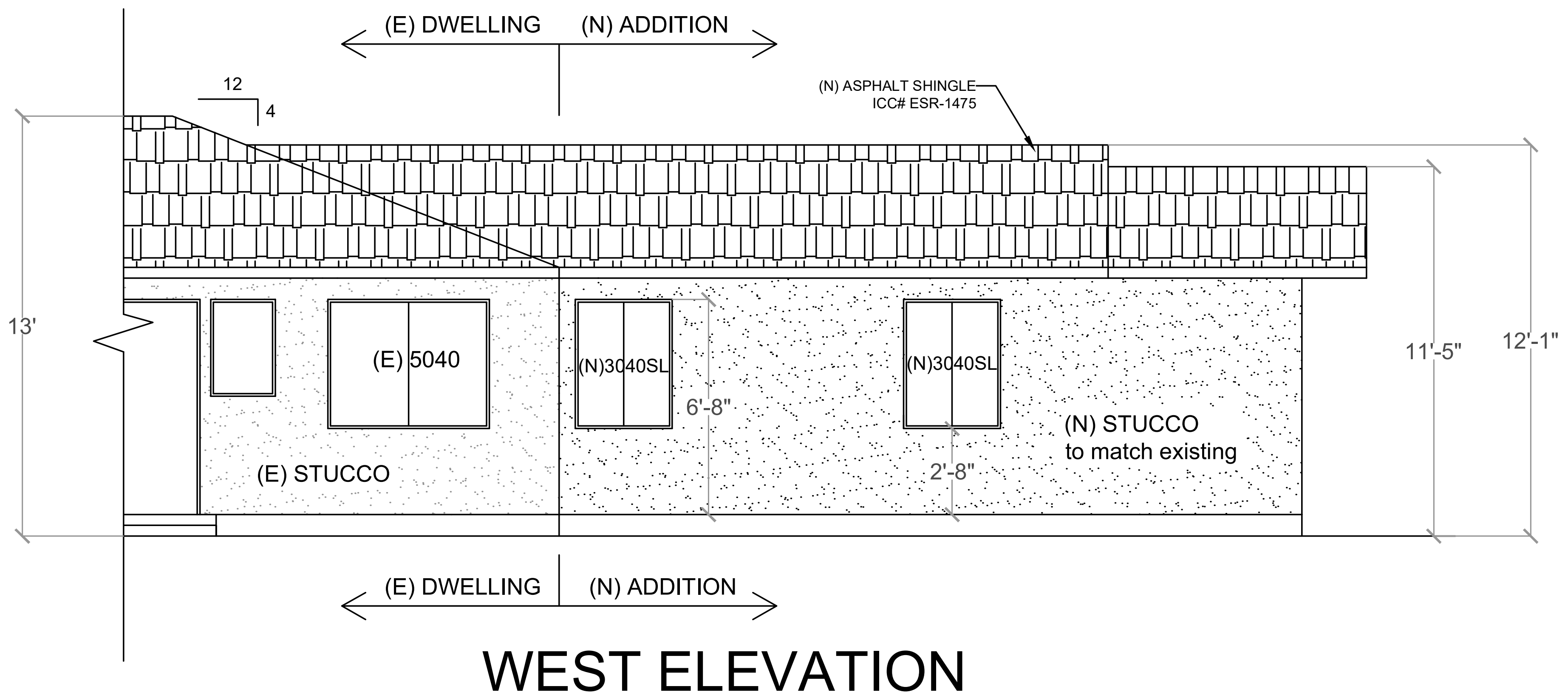
05/15/2024

SCALE: 1/4" = 1'

DRAWN: AMIN LAK

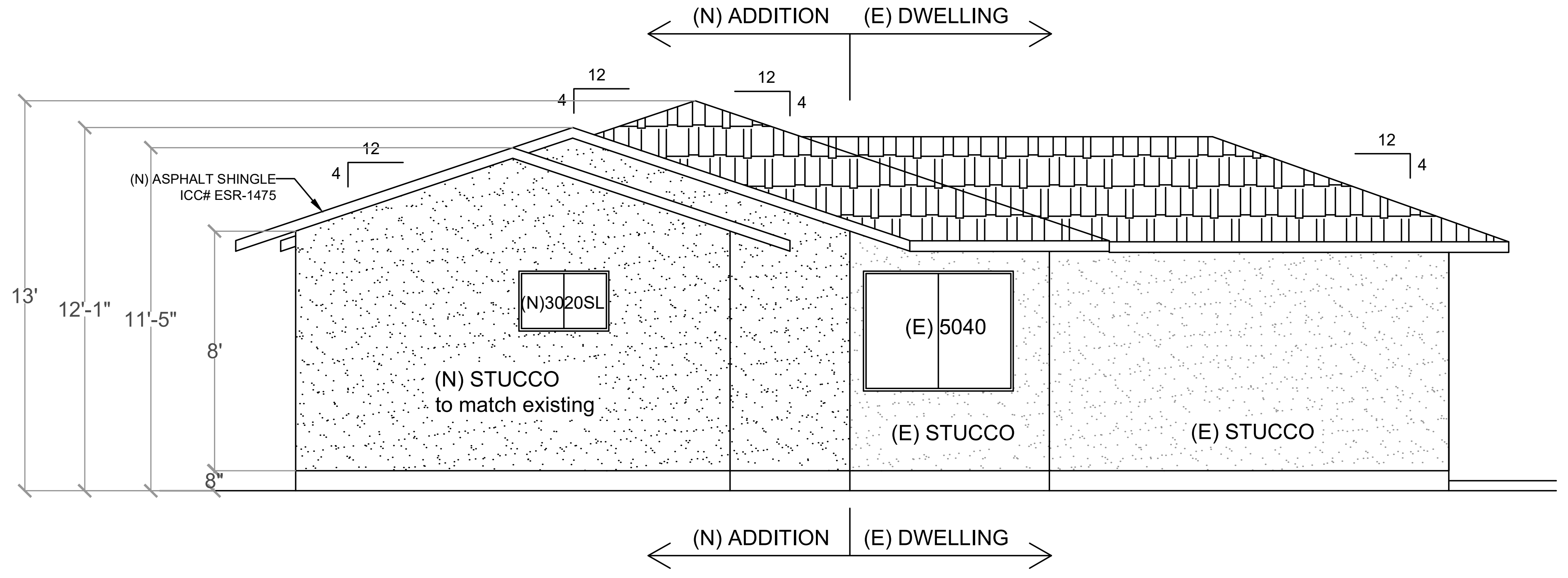
JOB:

SHEET:
A-1



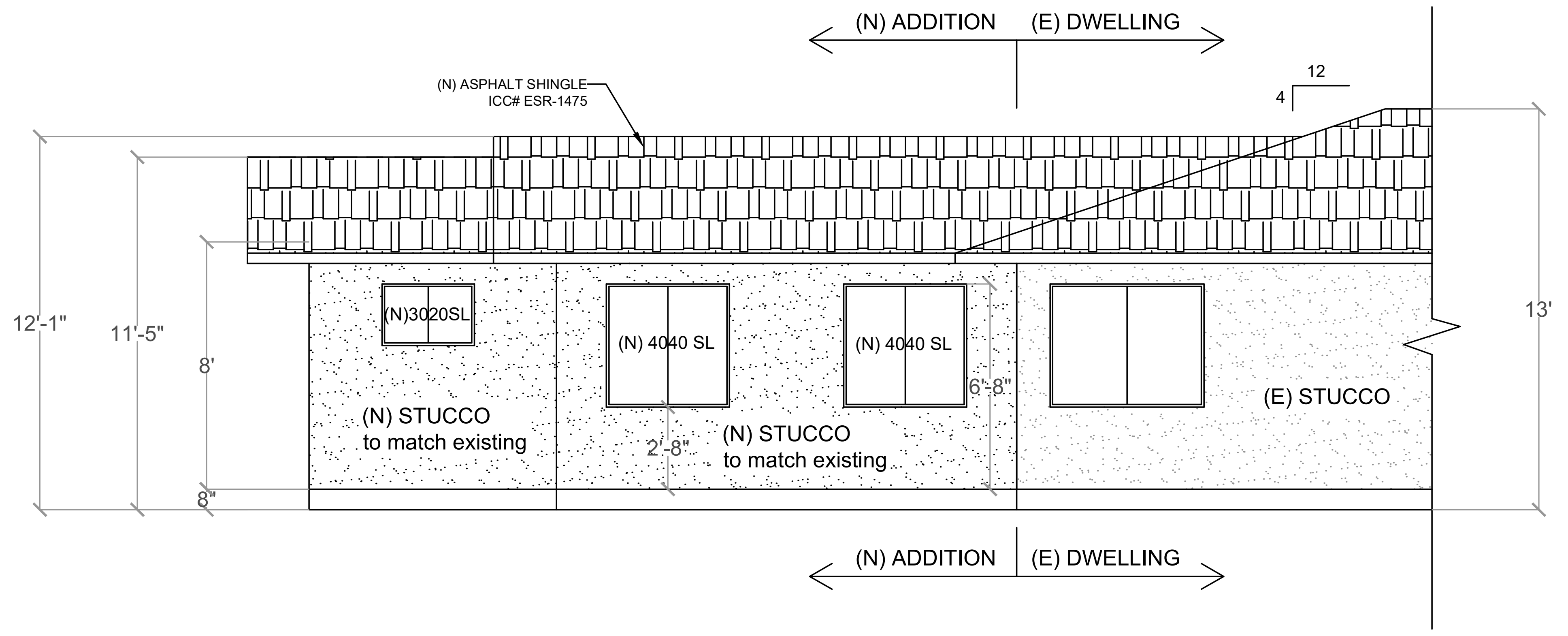
WEST ELEVATION

SCALE: 1/4" = 1'



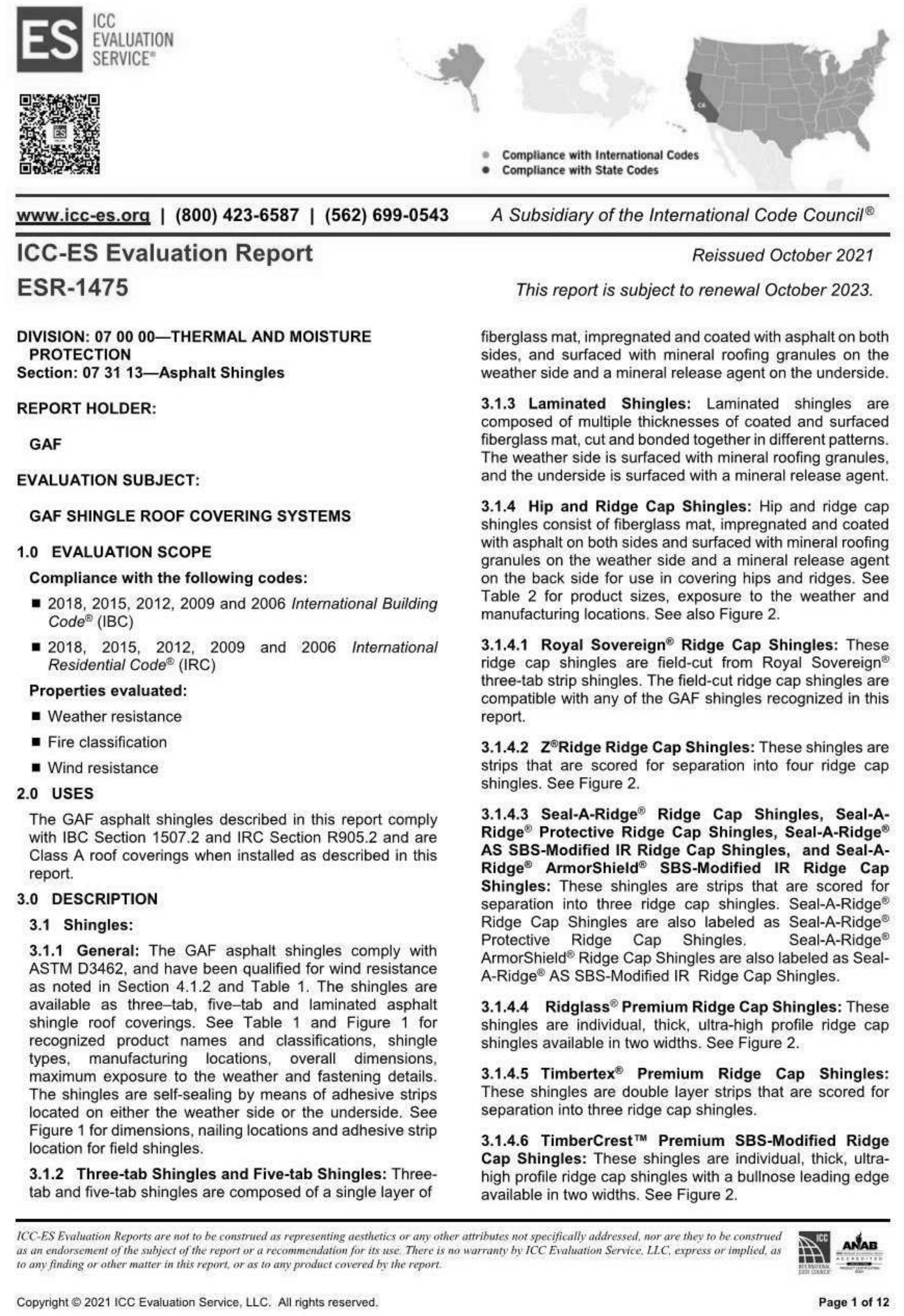
SOUTH ELEVATION

SCALE: 1/4" = 1'



EAST ELEVATION

SCALE: 1/4" = 1'



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ICC-ES Evaluation Report *Reissued October 2021*

ESR-1475 *This report is subject to renewal October 2023.*

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 31 13—Asphalt Shingles

REPORT HOLDER:

GAF

EVALUATION SUBJECT:

GAF SHINGLE ROOF COVERING SYSTEMS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, 2009 and 2006 *International Building Code®* (IBC)
- 2018, 2015, 2012, 2009 and 2006 *International Residential Code®* (IRC)

Properties evaluated:

- Weather resistance
- Fire classification
- Wind resistance

2.0 USES

The GAF asphalt shingles described in this report comply with IBC Section 1507.2 and IRC Section R905.2 and are Class A roof coverings when installed as described in this report.

3.0 DESCRIPTION

3.1 Shingles:

3.1.1 General: The GAF asphalt shingles comply with ASTM D3462, and have been qualified for wind resistance as noted in Section 4.1.2 and Table 1. The shingles are available as three–tab, five–tab and laminated asphalt shingle roof coverings. See Table 1 and Figure 1 for recognized product names and classifications, shingle types, manufacturing locations, overall dimensions, maximum exposure to the weather and fastening details. The shingles are self-sealing by means of adhesive strips located on either the weather side or the underside. See Figure 1 for dimensions, nailing locations and adhesive strip location for field shingles.

3.1.2 Three-tab Shingles and Five-tab Shingles: Three-tab and five-tab shingles are composed of a single layer of fiberglass mat, impregnated and coated with asphalt on both sides, and surfaced with mineral roofing granules on the weather side and a mineral release agent on the underside.

3.1.3 Laminated Shingles: Laminated shingles are composed of multiple thicknesses of coated and surfaced fiberglass mat, cut and bonded together in different patterns. The weather side is surfaced with mineral roofing granules, and the underside is surfaced with a mineral release agent.

3.1.4 Hip and Ridge Cap Shingles: Hip and ridge cap shingles consist of fiberglass mat, impregnated and coated with asphalt on both sides and surfaced with mineral roofing granules on the weather side and a mineral release agent on the back side for use in covering hips and ridges. See Table 2 for product sizes, exposure to the weather and manufacturing locations. See also Figure 2.

3.1.4.1 Royal Sovereign® Ridge Cap Shingles: These ridge cap shingles are field-cut from Royal Sovereign® three-tab strip shingles. The field-cut ridge cap shingles are compatible with any of the GAF shingles recognized in this report.

3.1.4.2 Z®Ridge Ridge Cap Shingles: These shingles are strips that are scored for separation into four ridge cap shingles. See Figure 2.

3.1.4.3 Seal-A-Ridge® Ridge Cap Shingles, Seal-A-Ridge® Protective Ridge Cap Shingles, Seal-A-Ridge® AS SBS-Modified IR Ridge Cap Shingles, and Seal-A-Ridge® ArmorShield® SBS-Modified IR Ridge Cap Shingles: These shingles are strips that are scored for separation into three ridge cap shingles. Seal-A-Ridge® Ridge Cap Shingles are also labeled as Seal-A-Ridge® Protective Ridge Cap Shingles. Seal-A-Ridge® ArmorShield® Ridge Cap Shingles are also labeled as Seal-A-Ridge® AS SBS-Modified IR Ridge Cap Shingles.

3.1.4.4 Ridglass® Premium Ridge Cap Shingles: These shingles are individual, thick, ultra-high profile ridge cap shingles available in two widths. See Figure 2.

3.1.4.5 Timbertex® Premium Ridge Cap Shingles: These shingles are double layer strips that are scored for separation into three ridge cap shingles.

3.1.4.6 TimberCrest™ Premium SBS-Modified Ridge Cap Shingles: These shingles are individual, thick, ultra-high profile ridge cap shingles with a bullnose leading edge available in two widths. See Figure 2.

Page 1 of 12

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PROJECT DESCRIPTION:
ELEVATIONS

OWNERS:
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MONROVIA, CA 91016

DATE:
05/15/2024

SCALE: 1/4" = 1'

DRAWN:
AMIN LAK

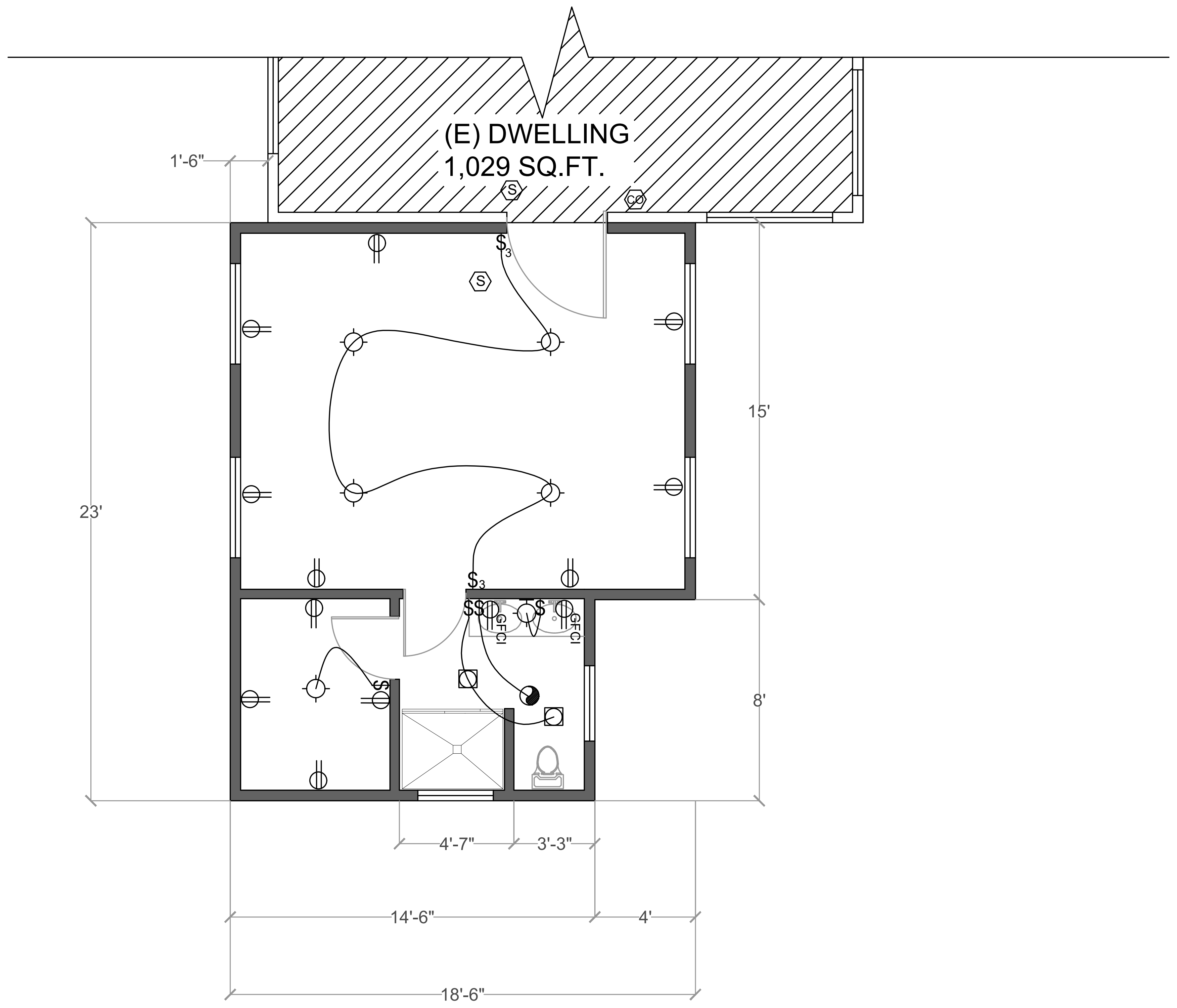
JOB:

SHEET:
A-2

NOTES:

- Luminaires and lamps that are Energy Commission certified must be marked with JA8-2019 or JA8-2019-E

- All LED luminaires are required to be controlled by a National Electrical Manuracturers ASSOCiation (NEMA) SSL-7A-compliant dimmer unless they are controlled by a vacancy sensor or an occupancy sensor.



ELECTRICAL PLAN

SCALE: 1/4" = 1'

ELECTRICAL LEGEND

$	SINGLE POLE SWITCH
$_3	THREE WAY SWITCH
⊖ GFCI	GFCI GROUND FAULT CURRENT INTERRUPTERS. SHALL BE TAMPER-RESISTANT
⊖ GFCI 220	220V GFCI GROUND FAULT CURRENT INTERRUPTERS. SHALL BE TAMPER-RESISTANT
⊖	DUPLEX OUTLET - AFCI
⌖	CEILING MOUNTED LED LIGHT FIXTURE
⌖	WALL MOUNTED LIGHT FIXTURE
⌖	CEILING FAN - LIGHT
	HIGH EFFICACY LIGHTING OR HAVE OCCUPANCY SENSORS
S	SMOKE DETECTORS- SHALL BE INTERCONNECTED SUCH THAT THE ACTIVATION OF ONE ALARMS WILL ACTIVATE ALL ALARMS, AND SHALL BE "HARD-WIRED" AND BATTERY BACKUP.
CO	CARBON MONOXIDE DETECTORS- SHALL BE INTERCONNECTED SUCH THAT THE ACTIVATION OF ONE ALARMS WILL ACTIVATE ALL ALARMS, AND SHALL BE "HARD-WIRED" AND BATTERY BACKUP.
◑	FAN/ LED LIGHT COMBO. EXHAUST FAN CAPABLE TO PROVIDE 5-AIR CHANGES (MIN.50 CFM to outside - Ductless fans are unacceptable.) 1.) Energy Star Compliant 2.) Ducted Termination Outside 3.) Controlled By Humidity

ALL LIGHTS WILL BE HIGH EFFICACY

ELECTRICAL NOTES:

-THE WORKING CLEARANCES REQUIRED BY CEC-110-26 MUST BE PERMANENTLY MAINTAINED IN FRONT OF ALL ELECTRICAL EQUIPMENT

-RECESSED LIGHTING IN INSULATED CEILING MUST MEET THREE REQUIREMENTS:

1.) RATED IC.
2.) CERTIFIED AIR TIGHT.
3.) HAVE SEALED GASKET OR CAULK BETWEEN HOUSING AND CEILING.

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ELECTRICAL PLAN

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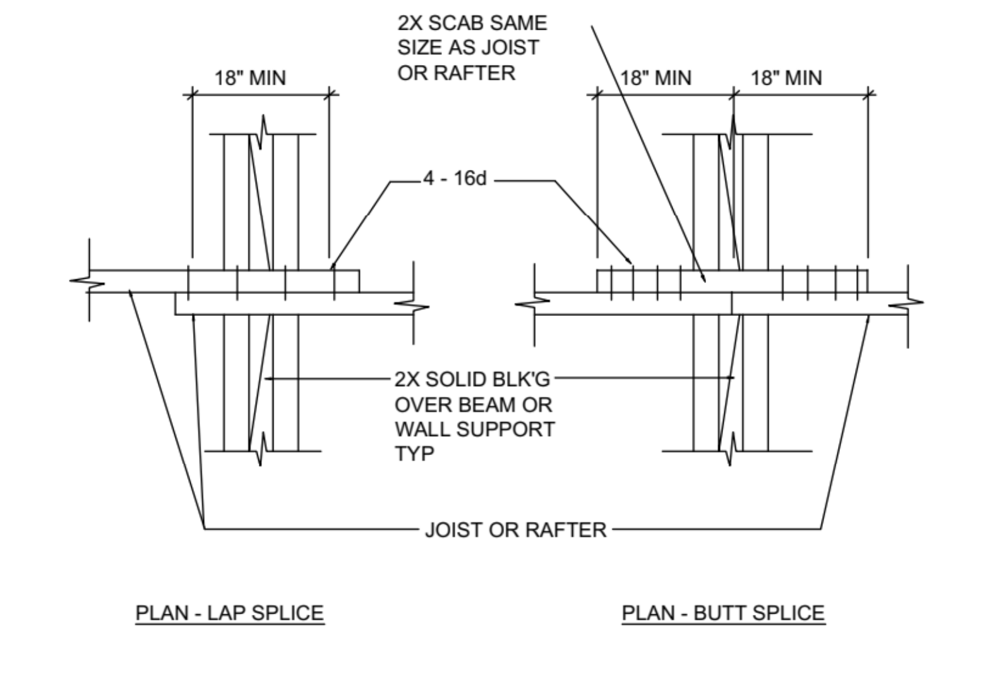
DATE: 05/15/2024

SCALE: 1/4" = 1'

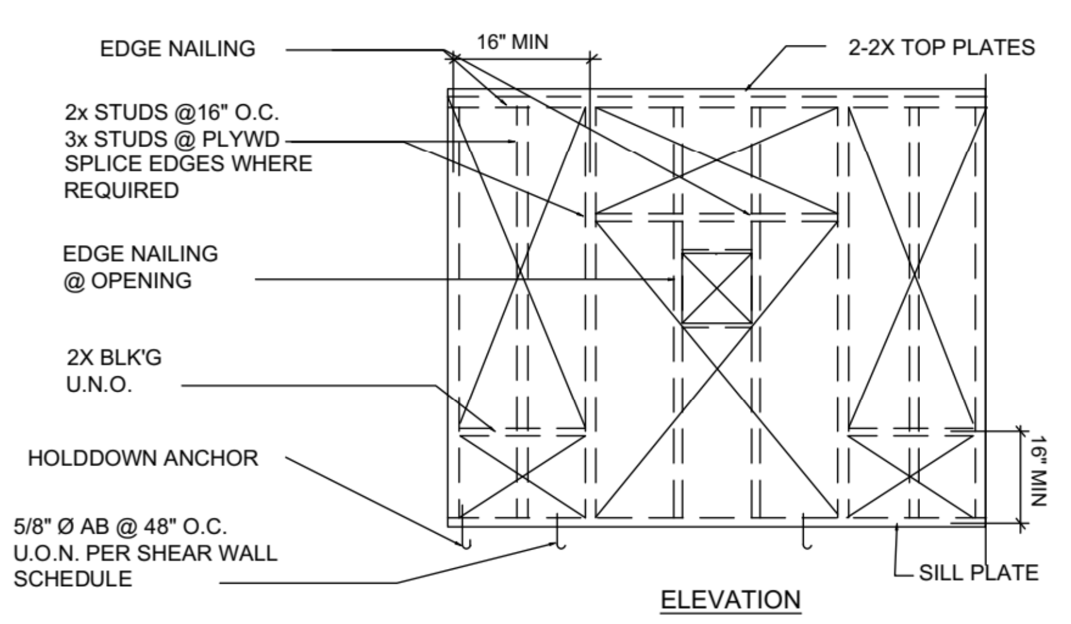
DRAWN: AMIN LAK

JOB:

SHEET: A-3



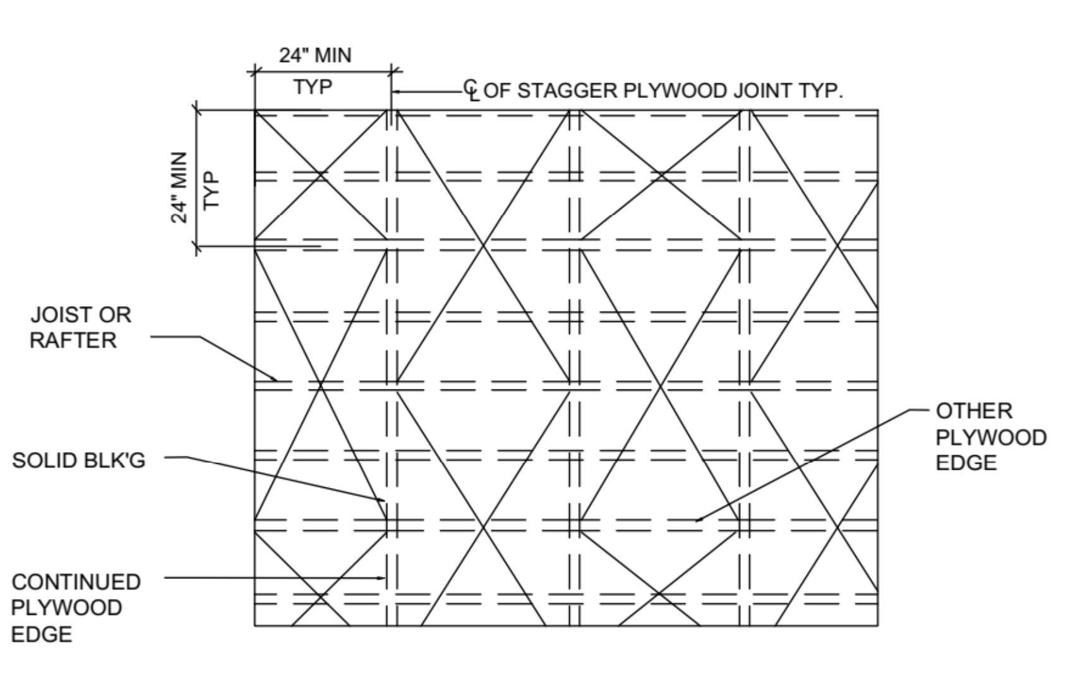
TYPICAL JOIST OR RAFTER SPLICE 16



NOTE

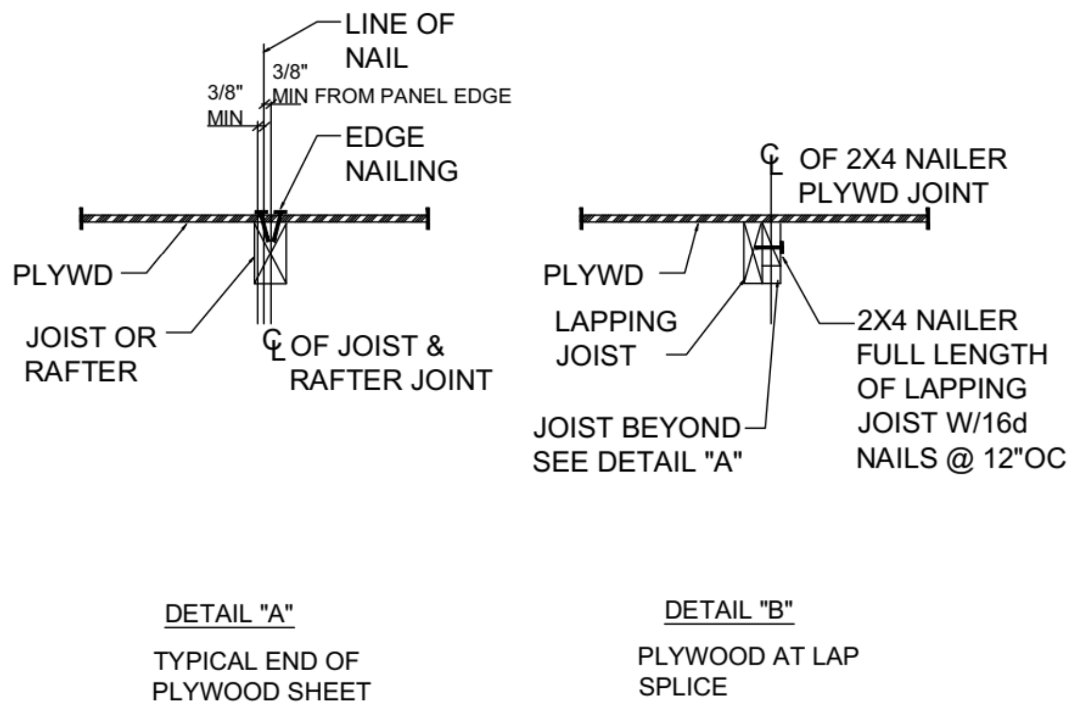
1. NAILS SHALL HAVE A MINIMUM OF 3/8" EDGE DISTANCE.
2. 2X STUDS & BLOCKING AT ALL PLYWD JOINTS U.N.O.
3. PLWD.SHEET SHALL RUN PARALLEL WITH STUDS

TYPICAL PLYWOOD SHEAR PANEL 17

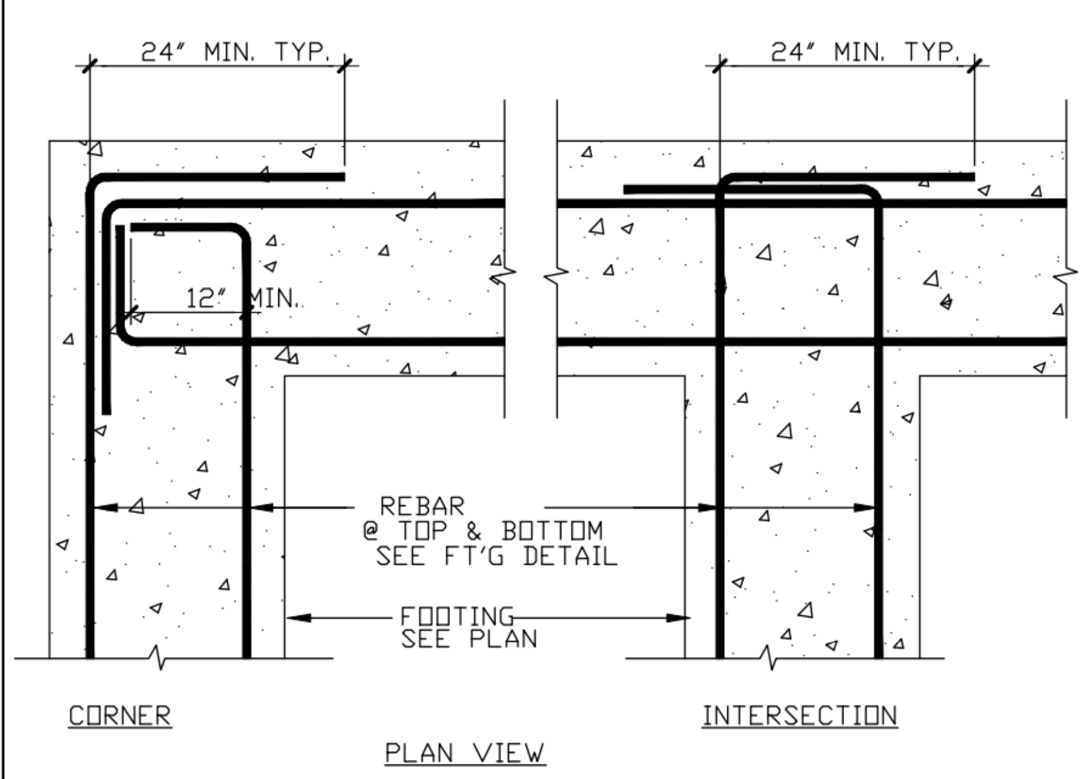


NOTE

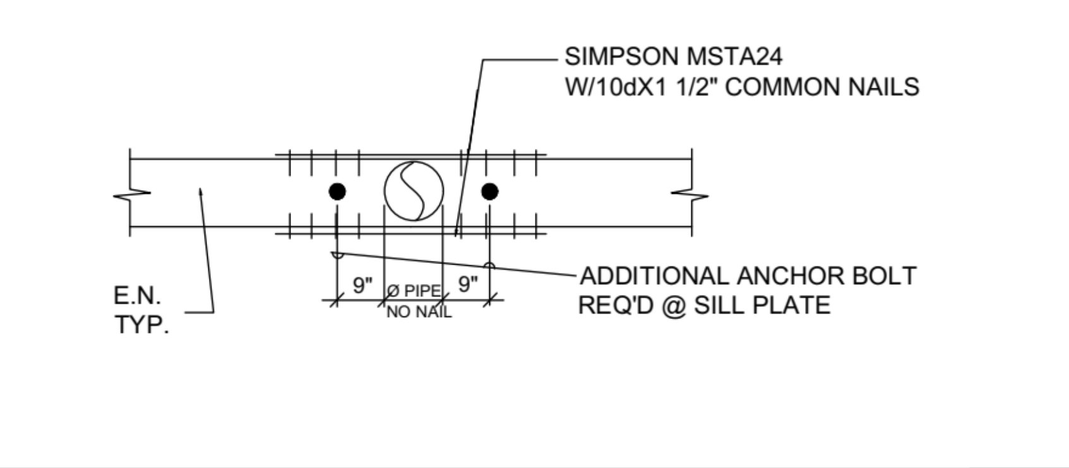
1. RUN LONG DIMENSION OF PLYWD SHEETS ACROSS (PERPENDICULAR TO) JOISTS.
2. MINIMUM DISTANCE OF PLYWD EDGE TO NAIL = 3/8"
3. ALL JOISTS SHALL BE ON A 4'-0" MODULE TO COINCIDE WITH PLYWD PATTERN. SEE DETAIL "A" BELOW.
4. WHERE JOISTS LAP SPLICE OCCURS @ THE END OF LAPPING JOIST. SEE DETAIL "B" BELOW.
5. PLYWD NAILING:



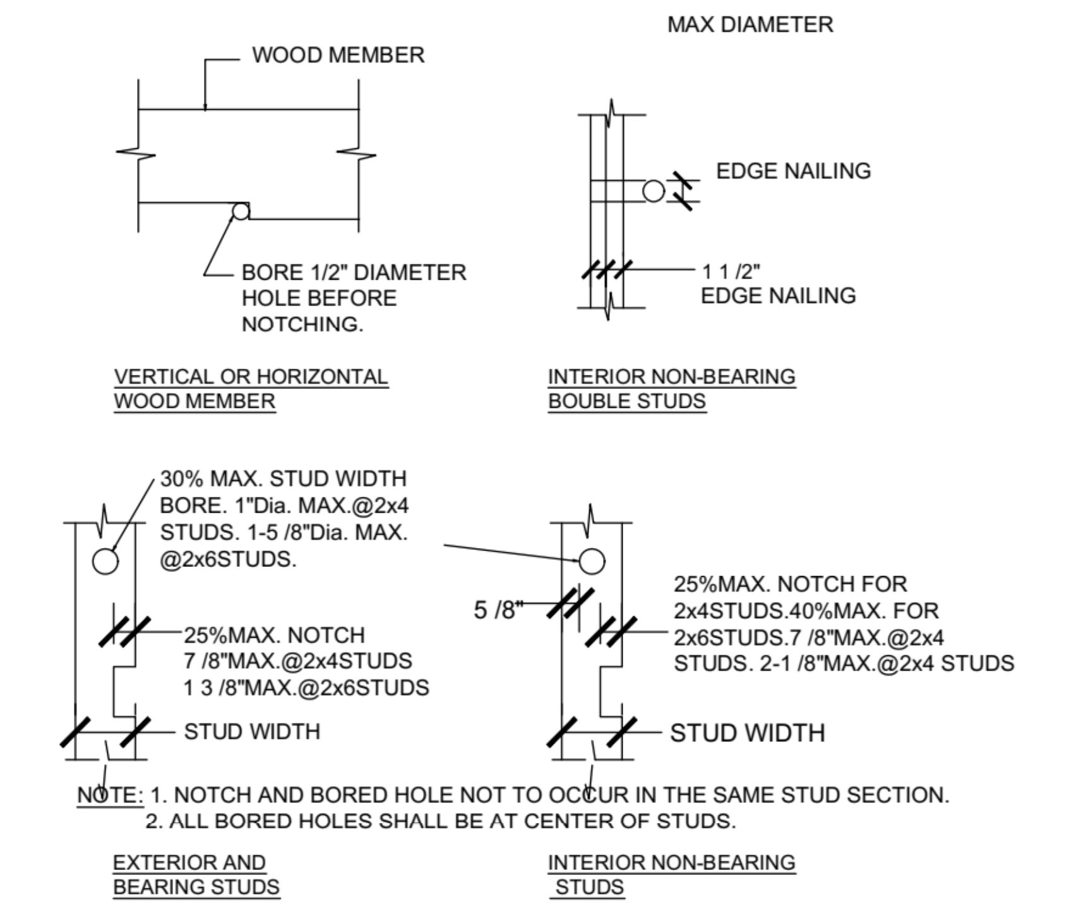
TYPICAL PLYWOOD SHEATHING CONSTRUCTION DETAIL 18



TYPICAL REBAR IN FOOTING 19

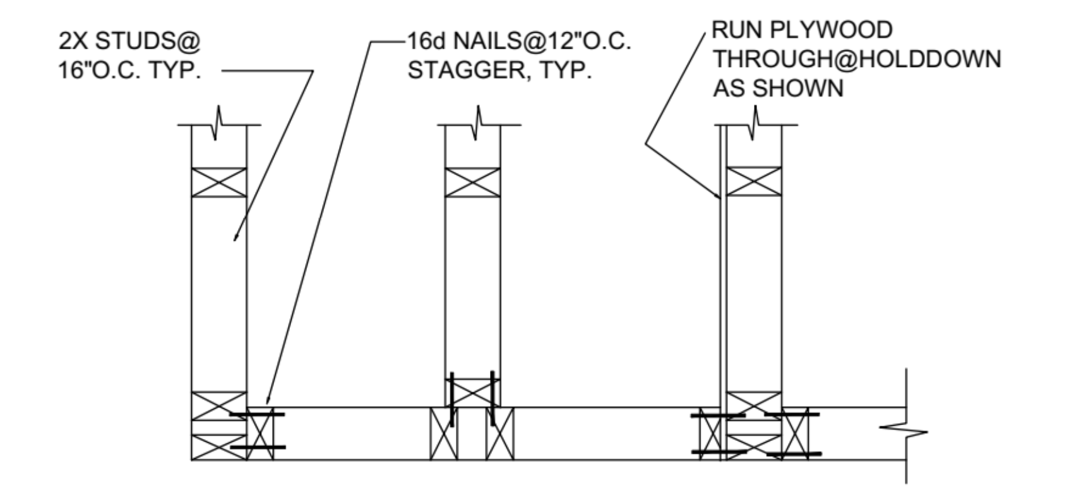


PIPE THRU TOP PLATES OR SILL PLATE 10



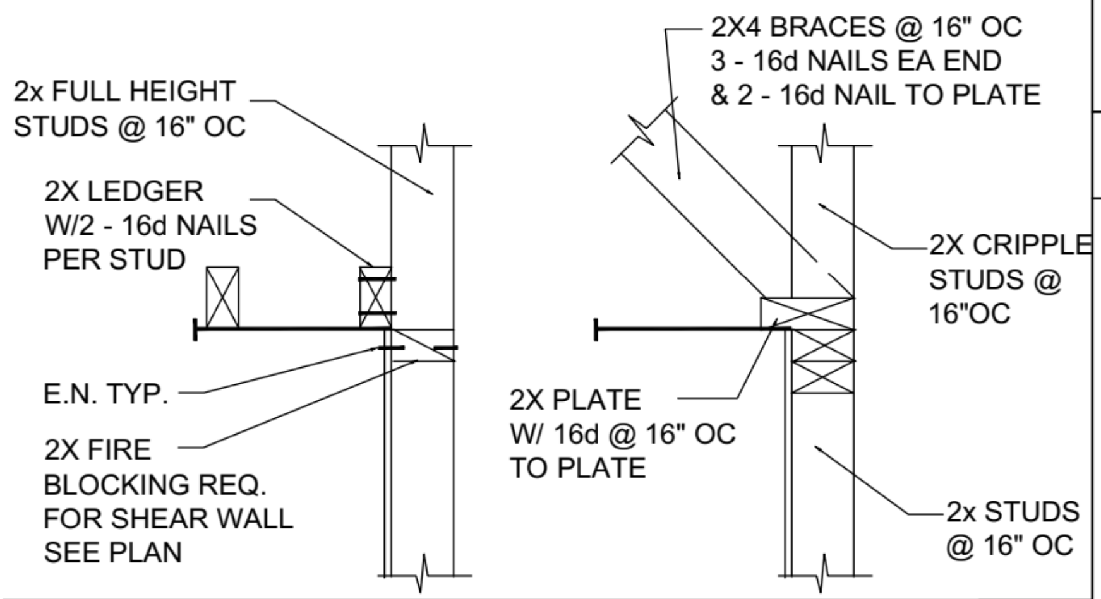
NOTE: 1. NOTCH AND BORED HOLE NOT TO OCCUR IN THE SAME STUD SECTION.
2. ALL BORED HOLES SHALL BE AT CENTER OF STUDS.

TYPICAL NOTCHING AND BORING OF STUDS AND BEAM DETAIL 11

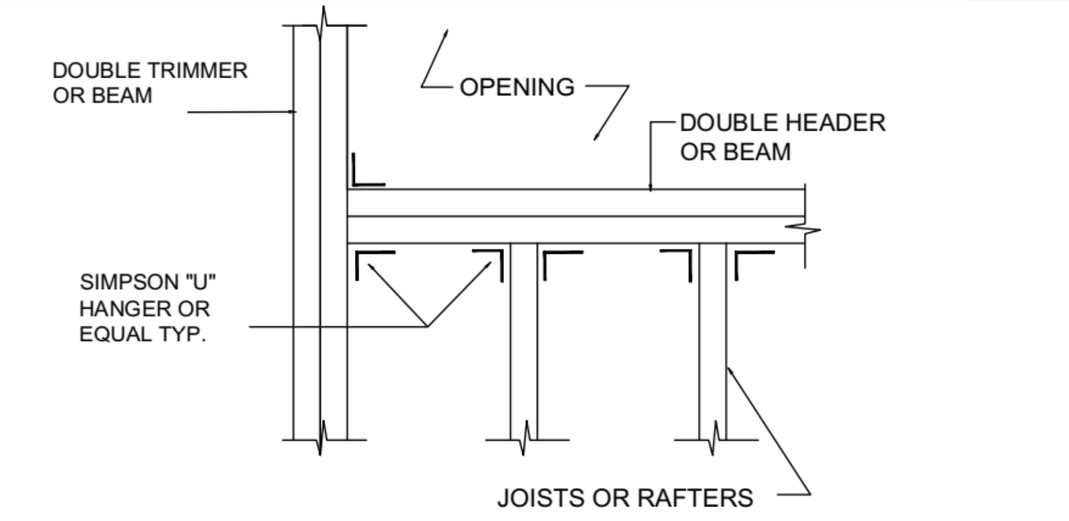


NOTE: PROVIDE REQUIRED DOUBLE STUDS OR POST WHERE HOLDDOWN ANCHORS OCCUR.

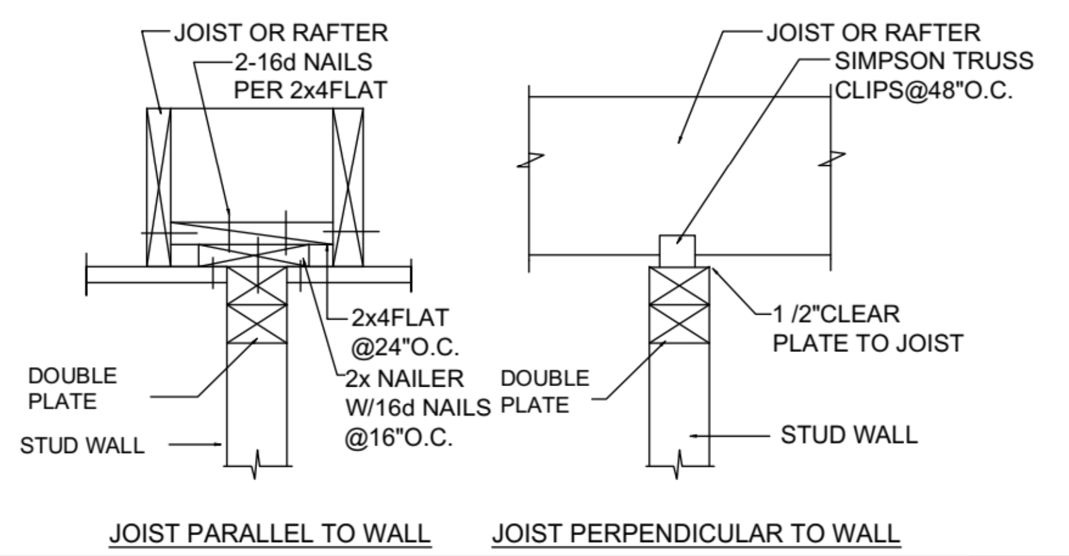
TYPICAL STUD WALL CONNECTIONS 12



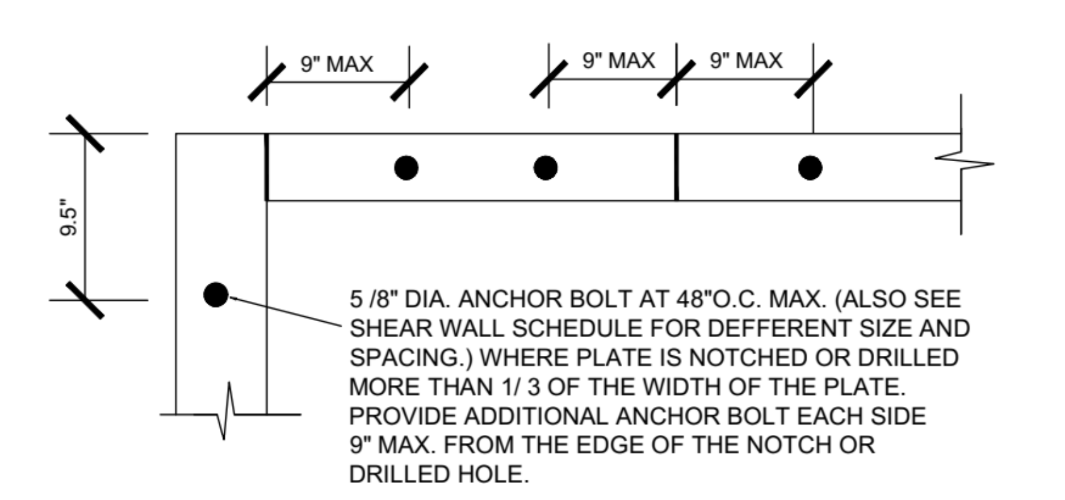
CEILING AND WALL FRAMING DETAIL 13



TYPICAL JOIST AND RAFTER FRAMING AT OPENING DETAIL 14

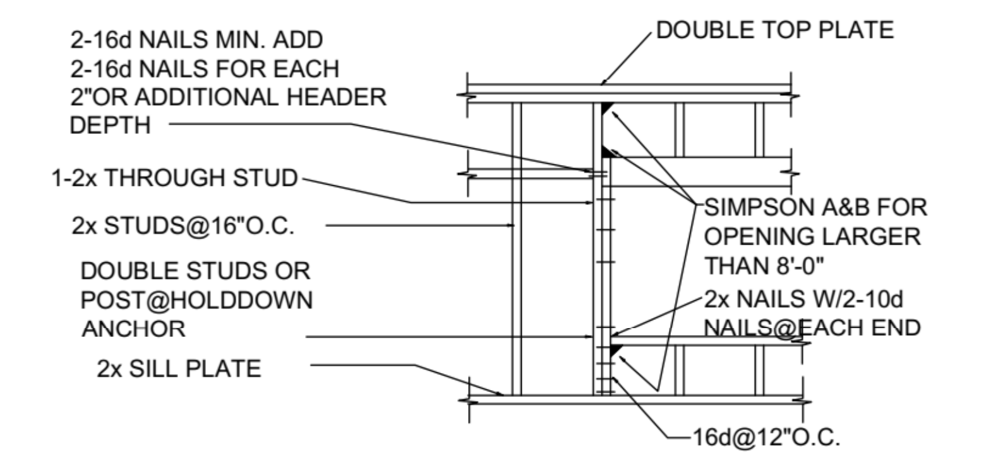


TYPICAL NON-BEARING/NON-SHEAR WALL AT CEILING DETAIL 15



5 /8"DIA. ANCHOR BOLT AT 48"O.C. MAX. (ALSO SEE SHEAR WALL SCHEDULE FOR DEFFERENT SIZE AND SPACING.) WHERE PLATE IS NOTCHED OR DRILLED MORE THAN 1/ 3 OF THE WIDTH OF THE PLATE. PROVIDE ADDITIONAL ANCHOR BOLT EACH SIDE 9" MAX. FROM THE EDGE OF THE NOTCH OR DRILLED HOLE.

TYPICAL SILL ANCHOR BOLTS PLACING 5



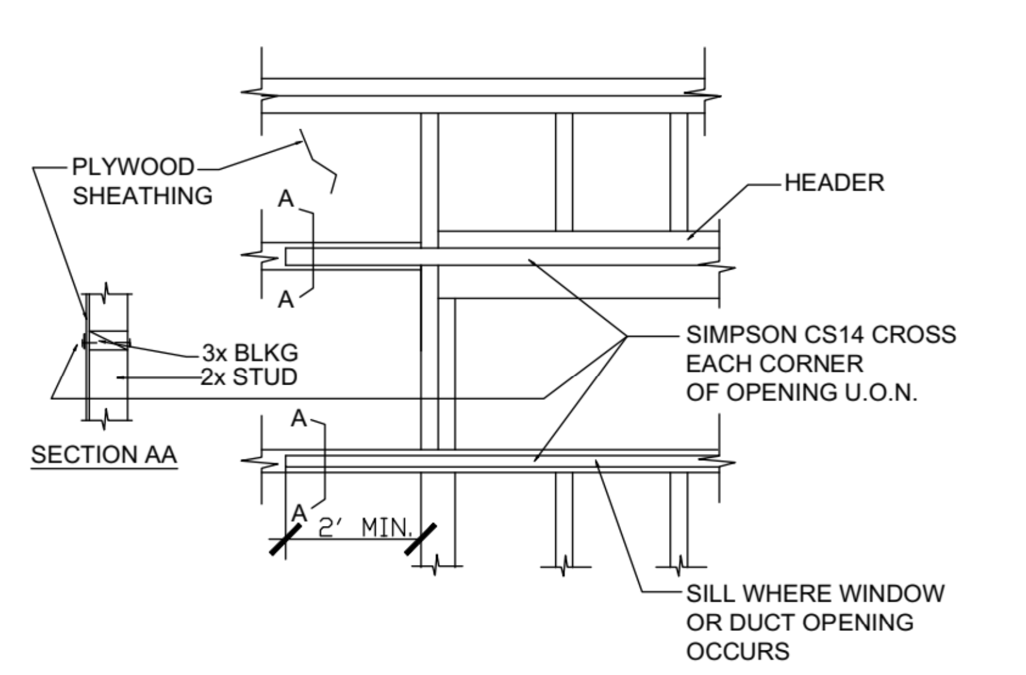
NOTE: PROVIDE 2x HORIZONTAL SOLID BLOCKING BETWEEN STUDS@8'-0" MAX. ALSO PROVIDE 2x FIRE BLOCKING AT CEILING LINE AS REQUIRED.

HEADER SCHEDULE (U.N.O.)

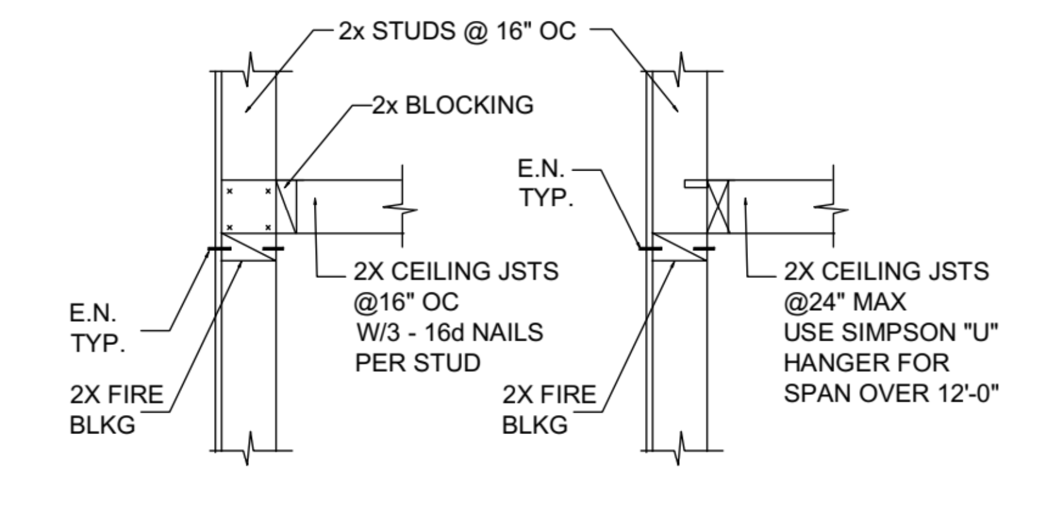
SIZE	MAX. OPENING	SIZE	MAX. OPENING
4x4	4'-0"	4x10	10'-0"
4x6	6'-0"	4x12	12'-0"
4x8	8'-0"		

NOTE: WHERE 6" STUDS ARE USED, USE 6x HEADER

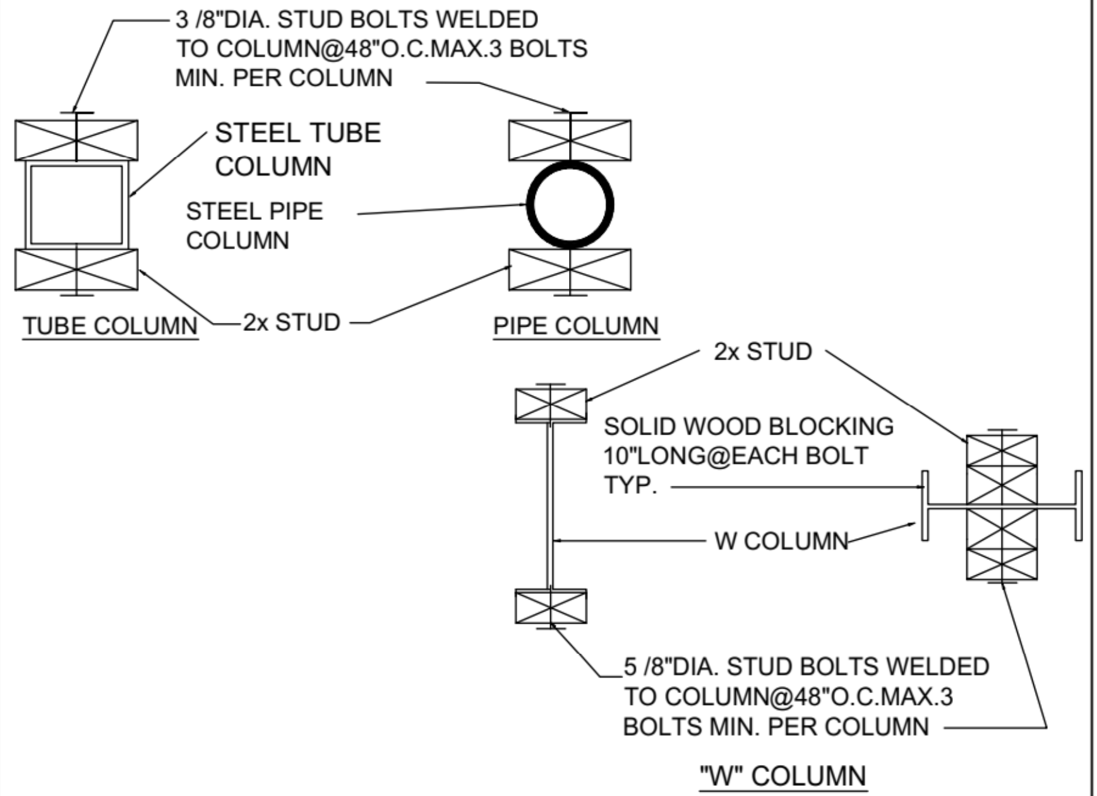
TYPICAL FRAMING @ STUD WALL OPENING 6



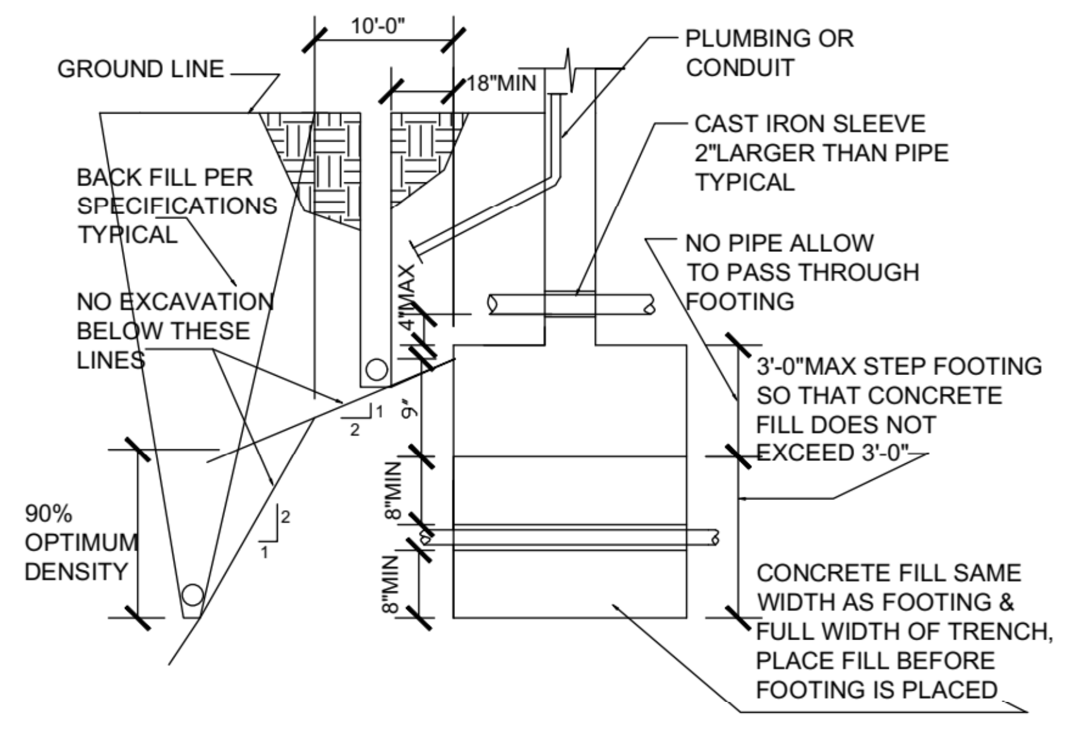
TYPICAL OPENING AT SHEAR WALL DETAIL (FOR DOORS, WINDOW, OR DUCT OPENING) 7



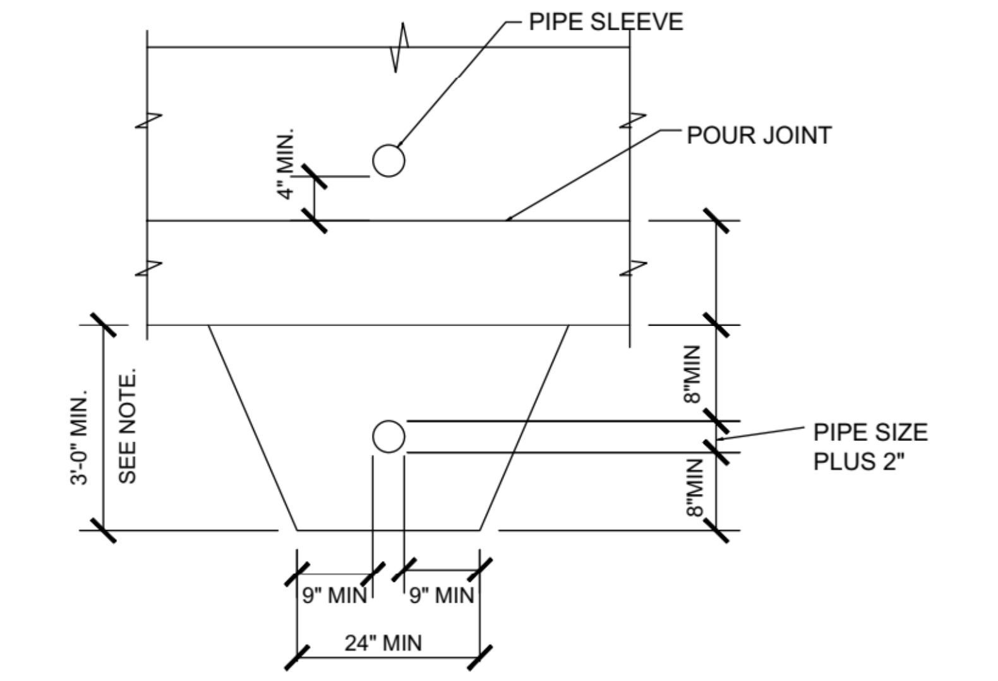
CEILING & WALL FRAMING DETAIL 8



TYPICAL STEEL COLUMN IN STUD WALL 9

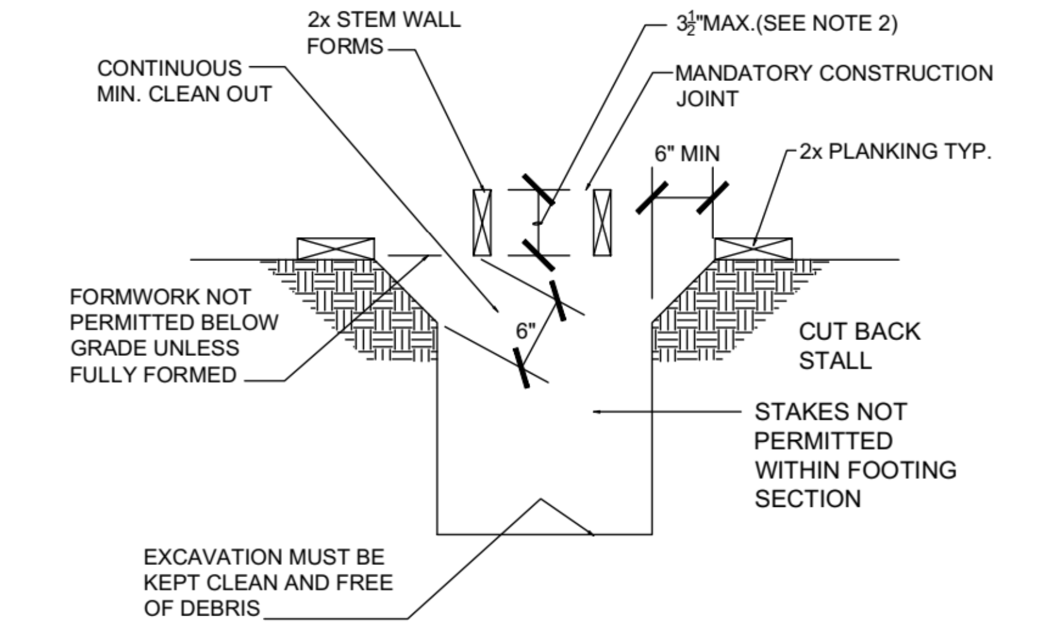


NOTE: FOR PIPES MORE THAN 3'-0" BELOW BOTTOM OF FOOTING TRENCH MAY BE BACKFILLED WITH COMPACTED FIL PER SPECIFICATION. DO NOT TRENCH BENEATH FOOTING AFTER FOOTING HAS BEEN POURED.



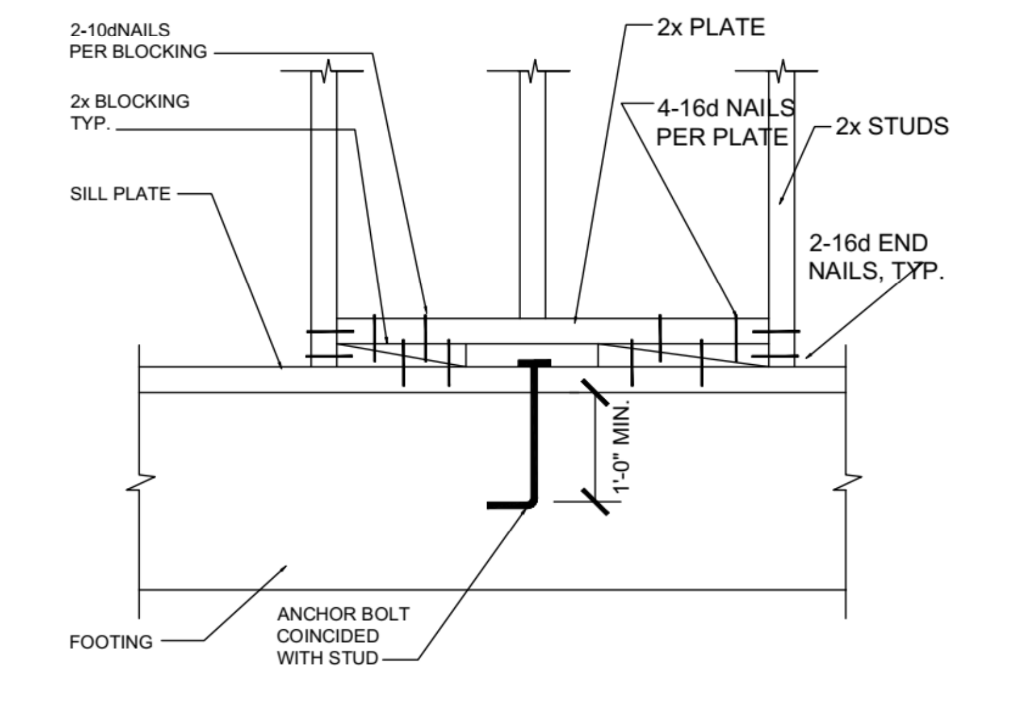
NOTE: FOOTING SHALL BE STEPPED. SO THIS DIMENSION DOES NOT EXCEED 3'-0" IN ANY CASE.

TYPICAL PIPE AND TRENCH DETAIL 1

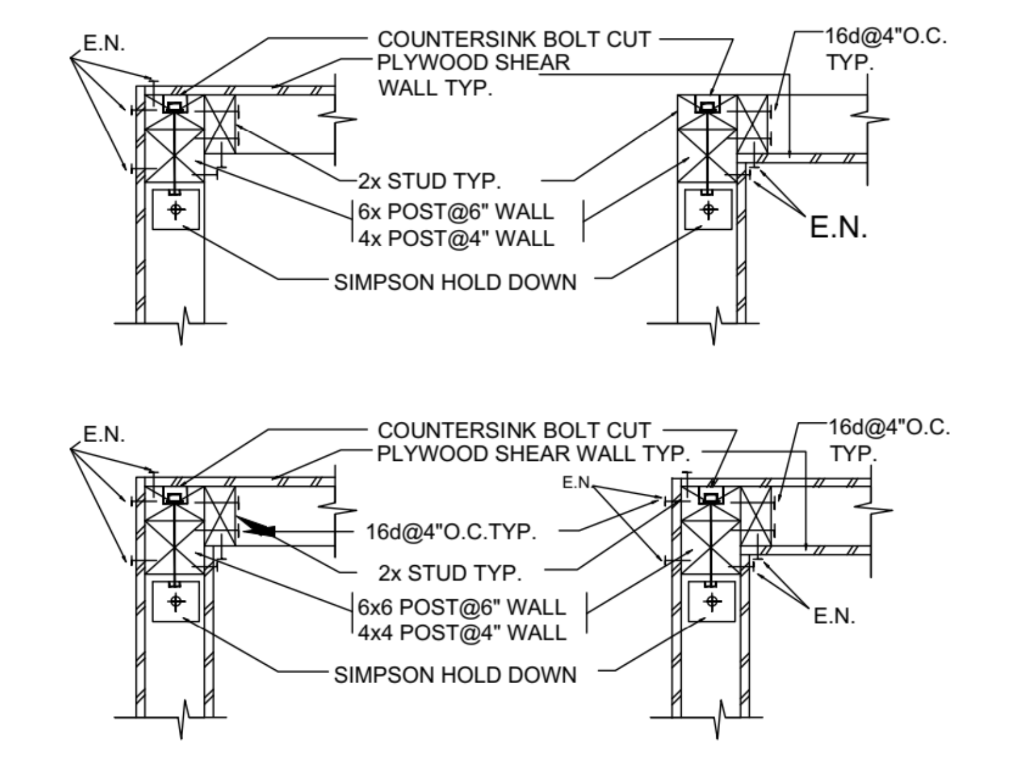


NOTE: 1. FOUNDATION CONCRETE MAY BE PLACED DIRECTLY INTO NEAT EXCAVATION, PROVIDED THE FOUNDATION TRENCH WALLS ARE STABLE AND DETERMINED BY ARCHITECT (FOUNDATION ENGINEER) SUBJECT TO THE APPROVAL OF THE OFFICE OF STATE ARCHITECT.
2. PROVIDE 3/4" STARTER WALL ON ALL CONCRETE AND MASONRY WALLS FOOTINGS BELOW GRADE.

TYPICAL FOUNDATION FORMING 2



TYPICAL STUD CONSTRUCTION AT ANCHOR BOLT DETAIL 3



TYPICAL SHEAR WALL WITH HOLDDOWN ANCHOR DETAIL 4

GENERAL

1. IT IS INTENDED THAT ALL WORK CONFORM TO THE REQUIREMENTS OF THE APPLICABLE CODE: 2022 EDITION OF CALIFORNIA BUILDING CODE AND TO OTHER APPLICABLE STATE AND LOCAL CODES AND ORDINANCES ALSO CALIF. CODE OF REGULATIONS (CCR).

2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS & JOB CONDITIONS RELATING TO THE PERFORMANCE OF THE WORK.

3. SHOULD ANY CONDITION ARISE WHERE THE INTENT OF THE DRAWINGS IS IN DOUBT OR WHERE THERE APPAEARS TO BE AN ERROR ON THE DRAWINGS OR A DISCREPANCY BETWEEN THE DRAWINGS & FIELD CONDITIONS, THE ENGINEER SHALL BE NOTIFIED AS SOON AS POSSIBLE FOR PROCEDURE TO BE FOLLOWED. IF THE CONTRACTOR PROCEEDS WITH THE WORK SO AFFECTED WITHOUT INSTRUCTIONS FROM THE ENGINEER, THE CONTRACTOR SHALL MAKE GOOD ANY RESULTING DAMAGES OR DEFECTS. THIS INCLUDES TYPOGRAPICAL ERRORS IN THE SPECIFICATIONS & NOTATIONAL ERRORS IN THE DRAWINGS WHERE DOUBTFUL OF INTERPRETATION.

4. IN THE CASE WHERE TWO OR MORE DETAILS APPLYING TO THE SAME PART OF THE WORK ARE IN CONFLICT THE MOST RESTRICTIVE SHALL GOVERN UNLESS CLARIFIED OR OTHERWISE APPROVED BY THE ENGINEER.

5. THE CONTRACTOR & EACH SUBCONTRACTOR SHALL CAREFULLY EXAMINE THE CONDITIONS AFFECTING HIS WORK BEFORE PROCEEDING & SHALL REPORT TO THE ENGINEER ANY CONDITION WHICH WOULD PREVENT THE PROPER & LEGAL COMPLETION OF HIS WORK. NOT REPORTING ANY SUCH UNSUITABLE CONSITION WILL CONSTITUTE ACCEPTANCE OF ALL CONDITIONS BY THE CONTRACTOR AND/OR SUBCONTRACTOR.

6. APPROVAL OF SHOP DRAWINGS MEANS APPROVAL OF GENERAL METHOD OF FABRICATION ONLY. DIMENSIONS & QUANTITIES MAY NOT BE CHECKED & APPROVAL OF SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE DRAWINGS & SPECIFICATIONS UNLESS SPECIFICALLY SO INDICATED IN THE APPROVAL.

7. WHERE SHOP DRAWING SAMPLES OR OTHER SUBMITTALS ARE REQUIRED FIVE (5) OF EACH SHALL BE SUBMITED. THREE (3) OF WHICH WILL BE RETURNED TOT HE CONTRACTOR. ALLOW MINIMUM OF ONE WEEK CHECKING TIME BY THE ENGINEER.

8. SEE MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS FOR SIZE & LOCATION OF ALL OPENINGS REQUIRED FOR DUCTS, PIPES & PIPE SLEEVES, ELECTRICAL CONDUCTS, & OTHER ITEMS TO BE EMBEDDED IN CONCRETE OR OTHERWISE INCORPORATED IN STRUCTURAL WORK.

9. ALL CONDITIONS SHOWN OR NOTED AS EXISTING ARE BASED ON BEST INFORMATION CURRENTLY AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS. NO WARRANTY IS IMPLIED AS TO THE ACCURACY OF SAME, HOWEVER, CONTRACTOR IS TO FIELD VERIFY ALL CONDITIONS. SHOULD CONDITIONS BECOME APPARENT WHICH DIFFER FROM THE CONDITIONS SHOWN HEREIN THEY SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT (STRUCTURAL ENGINEER). THE ARCHITECT(STRUCTURAL ENGINEER) WILL THEN PREPARE ADDITIONAL DRAWINGS AS MAY BE NEEDED TO ACCOMMODATE THE CONDITIONS AS BROUGHT TO THEIR ATTENTION.

10. ARCHTIECTURAL & MECHANICAL PLANS ARE CONSIDERED A PART OF THE STRUCTURAL DESIGN DRAWINGS & ARE TO BE USED TO DEFINE DETAIL CONFIGURATIONS INCLUDING BUT NOT LIMITED TO RELATIVE LOCATION OF MEMBERS, ELEVATION, LOCATION OF ALL OPENINGS, ETC.

11. THE CONTRACT DRAWINGS & SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE UNLESS OTHERWISE SHOWN. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE & DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL SEQUENCES & PROCEDURES. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ARCHITECT (OR STRUCTURAL ENGINEER) DO NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OF THE PROCEDURES FOR SUCH METHODS OF CONSTRUCTION. ANY SUPPORT SERVICES

PERFORMED BY THE ARCHITECT (OR STRUCTURAL ENGINEER) DURING CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS & DETAIL INSPECTION SERVICES WHICH ARE FURNINSHED BY OTHERS. THESE SUPPORT SERVICES WHICH ARE FURNISHED BY THE ARCHITECT(STRUCTURAL ENGINEER), WHETHER OF MATERIAL OR WORK & WHETHER PERFORMED PRIOR TO, DURING, OR AFTER COMPLETION OF CONSTRUCTION, ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL & IN ACHIEVING CONFORMANCE WITH THE CONTRACT DRAWINGS & SPECIFICATIONS. BUT THEY DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE & SHALL NOT BE CONSTRUDED AS SUPERVISION OF CONSTRUCTION.

12. DRAWINGS INDICATE GENERAL & TYPICAL DETAILS OF CONSTRUCTION, WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW BY THE ARCHITECT (STRUCTURAL ENGINEER).

13. U.N.O. INDICATED UNLESS NOTED OTHERWISE.

14. STRUCTURAL OBSERVATION.
THE MINIMUM OBSERVATION ARE:
AT FOUNDATION STAGE AT SHEAR WALL/ DIAPHRAGMS AND AT FINAL FRAMING STAGE.

SOIL

1. FOR SUBSURFACE CONDITIONS & FOUNDATION RECOMMENDATIONS THE SOIL PRESSURE SHALL BE 1500 PSF PER CHAPTER 18 OF THE C.B.C. UNLESS A WRITTEN REPORT IS PROVIDED.

2. WHEN A WRITTEN REPORT OF THE INVESTIGATIONS IS REQUIRED BY THE BUILDING OFFICIAL IT SHALL INCLUDE BUT NOT LIMITED TO SUBSURFACE CONDITIONS, RECOMMENDATIONS FOR FOUNDATION TYPE, DESIGN CRITERIA, BEARINGCAPACITY, EXPANSIVE SOILS & THE EFFECT OF ADJACENT LOADS & DIFFERENTIAL SETTLEMENT.

COMPANY____–NONE____________________
REPORT #____–NONE________ –NONE
DATE____________ 1500 PSF
DESIGN BEARING CAPACITY________________
AND THE REPORT SHALL BE A PART OF THE PROJECT.

3. SITE PREPARTATION SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS CONTAINED IN THE FOUNDATION INVESTIGATION.

4. THE CONTRACTOR SHALL INSPECT THE SITE, THE FOUNDATION INVESTIGATION REPORT, THE REQUIREMENTS OF THE PLANS & SPECIFICATIONS & OTHERWISE INFORM HIMSELF OF THE CONDITIONS AFFECTING HIS WORK & HIS SUBMISSION OF A BID SHALL BE INDICATIVE OF THE ACCEPTANCE OF THE SITE CONDITIONS.

5. TESTS & INSPECTIONS AS COALLED FOR IN THE FOUNDATION INVESTIGATIONS SHALL BE CARRIED OUT THROUGHOUT THE COURSE OF THIS WORK BY A FOUNDATION ENGINEER. THE COST OF SUCH TESTS WILL BE BORNE BY THE CONTRACTOR. COPIES OF ALL TEST REPORTS SHALL BE DISTRIBUTED BY THE OWNER, ARCHITECT, ENGINEER, CONTRACTOR & BUILDING DEPARTMENT.

SOIL REPORT REFERENCE:

SUBMITTED A COPY OF SOIL REPORT FOR THE PROPOSED SITE IN A SEPARATE PACKAGE.

6. BACKFILLING SHALL NOT BEGIN UNTIL ALL FORMWORK & DEBRIS HAVE BEEN REMOVED & UNTIL ADEQUATE LATERAL SUPPORT FOR THE WALL BEING BACKFILLED HAS BEEN PROVIDED (EXCEPT WALLS DESIGNED AS FREESTANDING RETAINING WALLS) AND SHALL BE POLACED IN LAYERS NOT EXCEEDING 8" IN BEPTH & COMPACTED AS FOR FILLING USING HAND OR PNEUMATIC TAMPER. COMPACTION OF EACH LAYER SHALL BEGIN AT EH WALL AND WORK AWAY FROM THE WALL TO PREVENT WEDGING OF THE WALLS.

7. ALL GRADING SHALL BE DONE UNIFORMLY BETWEEN CONTROL ELEVATIONS & SUCH THAT THE AREAS ARE DRAINED AS INDICATED ON THE PLANS.

8. ALL GRADED AREAS SHALL HAVE THE TOLERANCE OF PLUS OR MINUS 0.10 FEET. BUT OVERALL AREAS SHALL HAVE A TOLERANCE OF ZERO.

9. ALL GRADES AROUND THE PERIMETER OF E BUILDING SHALL SLOPE AWAY FROM THE BUILDING TO PREVENT WATER FROM ENTERING THE BUILDING OR PONDING ADGACENT TO FOOTING.

10. THE CONTRACTOR SHALL BE REPONSIBLE FOR OBTAINING & PAYING FOR ALL REQUIRED PERMITS & COMPLIANCE WITH ALL APPLICABLE CODES & ORDINANCES.

DESIGN CRITERIA: --EQUIVALENT PROCEDURE

SEISMIC: LAT.=33.91836; LONG.=-117.4834
Ss=1.500; S1=0.600; Fa=1.0 ;Fv=1.5; RC=II
Sds=1.00; Sd1=0.60; I=1.0; R=6.5; p=1.3
Cs=0.154(strength level)

WIND: Vult=110mph; Vasd=Vult*0.6^½=85mph
EXPOSURE C; Pasd=12psf (15'ht.)
Pasd=14psf (30' ht.)

ROOF: DEAD LOAD=17.0 psf; LIVE LOAD=20.0 psf
FLOOR: DEAD LOAD=27.0 psf; LIVE LOAD=50.0 psf
FLOOR PARTITION LOAD=20.0 psf

EQUIVALENT FLUID PRESSURE (psf/ft)

ACTIVE (LEVEL) NONE
ACTIVE (2:1)
PASSIVE

CONCRETE

1. CONCRETE MIX DESIGNS SHALL BE MADE BY AN APPROVED LABORATORY FOR ALL CONCRETE HAVING A COMPRESSIVE STRENGTH OF fc-2500 psi OR MORE, & SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE USE. ALL CEMENT SHALL BE TYPE II MODIFIED.

2. CONCRETE DESIGN ULTIMATE COMPRESSIVE STRENGTH AT 28 DAY SHALL BE AS FOLLOWS:

SLAB ON GRADE, CURB, ETC..........	f'c=2500	PSI
FOOTINGS..	f'c=2500	PSI
PILES & PILE CAPS........................	f'c=	PSI
RAISED SLABS..................................	f'c=	PSI
COLUMNS...	f'c=	PSI
WALLS..	f'c=2000	PSI

3. THE MAXIMUM SIZE AGGREGATE SHALL BE 3/4" FOR SLABS & WALLS LESS THAN 8" IN THICKNESS & 1" FOR WALLS 8" OR THICKER, IN LEAST DIMENSION.

4. THE SLUMP OF TE CONCRETE SHALL BE THE MINIMUM THAT BE PRACTICAL. WHEN VIBRATORS ARE USED TO CONSOLIDATE THE CONCRETE, THE SLUMP SHALL EXCEED 4" OTHERWISE THE SLUMP SHALL NOT EXCEED 6"

5. THE MAXIMUM SIZE OF THE AGGREGATE SHALL NOT BE LARGER THAN ONE-FIFTH OF THE NARROWEST DIMENSION BETWEEN SIDES OF THE FORMS WITHIN WHICH THE CONCRETE IS TO BE CAST. NOT LARGER THAN THREE-FOURTH OF THE MINIMUM CLEAR SPACING BETWEEN REINFORCING BARS & FORMS. FOR UNREINFORCED SLAB THE MAXIMUM SIZE OF THE AGGREGATE SHALL NOT BE LARGER THAN ONE-THIRD OF THE SLAB THICKNESS.

6. READY MIXED CONCRETE SHALL BE MIXED & DELIVERD IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE STANDARD SPECIFICATIONS FOR READY MIXED CONCRETE ASTM C-94".

7. REINFORCING BARS SHALL BE INTERMEDIATE GRADE. DEFORMED BARS CONFORMING TO ASTM A615 GRADE 60. UNLESS OTHERWISE NOTED.

8. EXCEPT WHERE INDICATED OTHERWISE, ALL REINFORCING SHALL BE BENT & PLACED IN ACCORDANCE WITH THE "CODE OF STANDARD PRACTICE & THE SPECIFICATION FOR PLACING REINFORCING STEEL OF THE CONCRETE REINFORCING STEEL INSTITUTE".

9. MINIMUM CLEAR DISTANCE BETWEEN BARS SHALL BE 1-1/2".

10. WELDED WIRE MESH SHALL CONFORM TO ASTM A165.

11. WHERE BARS ARE SPLICED THEY SHALL BE LAPPED PER CLASS B OF ACI CURRENT CODE..

12. MINIMUM CONCRETE COVERAGE OF BARS SHALL BE 3" WHERE CONCRETE IS POURED AGAINST EARTH, 2" WHERE FORMED BUT IN CONTACT WITH EARTH, 1" IN WALL BEAMS & COLUMNS AND 3/4" FOR FORMED SLABS.

13. FORMS SHALL NOT BE REMOVED OR DISTRURBED FOR 48 HOURS WHEN SUPPORTING VERTICAL SURFACES OR 7 DAYS WHEN SUPPORTING BEAMS & SLABS.

14. ALL SLABS ON GRADE SHALL HAVE CONTRACTION JOINTS AT NOT MORE THAN 12'-0" APART. THESE JOINTS MAY BE POUR JOINT WITH AT LEAST TWO HOURS BETWEEN ABUTTING POURS OR 3/4" DEEP SAWED THE SAME DAY THE SLAB IS PURED, OR A WEAKENED JOINT MADE BY A STRIP OF PLASTIC EMBEDDED 1 1/2" MINIMUM INTO THE SLAB.

15. ALL SLABS UNLESS OTHERWISE INDICATED SHALL HAVE A STEEL TROWEL FINISH & BE LEVEL TO WITHIN 3/16" IN ANY 10 FEET.

16. SLABS SHALL BE CURED BY KEEPING CONTINUOUSLY WET FOR FOUR POUR DAYS AFTER POURING OR BY SEALING SURFACE WITH THOMPSON'S WATER SEAL, OR APPROVED EQUAL.

17. ALL EXPOSED SURFACES SHALL BE FORMED WITH SANDED PLYWOOD & ANY FINS OR OTHER PROJECTIONS SHALL BE REMOVED. ANY VOIDS SHALL BE FILLED. THE ENTIRE SURFACE SHALL BE "SACKED" TO PROVIDE A UNIFORM ATTRACTIVE FINISH.

18. BOLT INSERTS IN EXISTING CONCRETE SHALL BE OF THE TITAN HD TYPE IN PREDRILL HOLE AS MANUFACTURED BY SIMPSON STRONG TIE, OR APPROVED EQUAL AS APPROVED BY THE STRUCTURAL ENGINEER & BUILDING DEPARTMENT, THOSE BOLTS MUST HAVE I.C.C. APPROVAL.

MASONRY

1. ALL CONCRETE BLOCKS SHALL BE GRADE "A" LIGHTWEIGHT UNITS CONFORMING TO ASTM C-90.

2. REINFORCING STEEL SHALL BE AS PER CONCRETE WORK.

3. ALL CELLS CONTAINING REINFORCING, ALL LINTELS, OR WHERE OTHERWISE NOTED, SHALL BE FILLED SOLIDLY WITH GROUT IN LIFTS NOT EXCEEDING 8" WITH CLEANOUT HOLE.

4. MORTAR SHALL CONSIST OF ONE PART PORTLAND CEMENT, TWO PARTS HYDRATED LOME OR LIME PUTTY & VOLUME OF SAND NOT LESS THAN 2, NOR MORE THAN 3 TIMES THE SUM OF THE VOLUMES OF CEMNT & LIME USED. MORTAR SHALL BE TYPE "M" OR "S"

5. GROUT SHALL CONSIST OF ONE PART PORTLAND CEMENT, 3 PARTS SAND, 2 PARTS GRAVEL. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH fc-2000 PSI.

6. VERTICAL REINFORCING SHALL BE LOCATED IN THE CENTER OF THE WALL UNLESS OTHERWISE INDICATED & SHALL BE HELD IN POSITION AT NOT TO EXCEED 8'-0".

7. ADJACENT TO ALL OPENINGS THERE SHALL BE 2-#5 BAR VERTICALLY THE FULL HEIGHT OF THE WALL AND 2-#5 BARS HORIZONTALLY EXTENDING 2'-0" MINIMUM BEYOND THE EDGES OF THE OPENING. THIS SHALL INCLUDE DOOR OPENINGS.

8. PROVIDE DOWELS IN THE FOOTING FOR EACH VERTICAL BAR. DOWELS SHALL BE THE SAME SIZE AS THE BAR ABOVE.

9. ALL SHORINGS FOR LINTELS SHALL REMAIN UNDISTURBED FOR 7 DAYS AFTER POURING IN ALL CELLS. LINTELS SHALL BE FILLED WITH GROUT.

10. ALL HORIZONTAL BARS SHALL BE CHANNEL OR LINTEL BLOCKS.

11. ALL WALL CORNERS & INTERSECTIONS SHALL HAVE 1-#5 BAR VERTICALLY.

12. VERTICAL CELLS TO BE FILLED SHALL HAVE VERTICAL ALIGHNMENT SUFFICIENT TO MAINTAIN A CLEAR UNOBSTRUCTED VERTICAL CELL MEASURING 2"X3".

13. UNLESS OTHERWISE INDICATED, ALL EXTERIOR JOINTS SHALL BE TOOLED CONCAVE, & INTERIOR JOINTS SHALL BE STRUCK FLUSH & BACKED.

14. NO PIPING OTHER THAN CONDUIT SHALL BE EMBEDDED IN THE BLOCK UNLESS APPROVED BY THE ENGINEER.

15. ALL BOLTS, ANCHORS, ETC. INSERTED IN THE WALL SHALL BE SOLID GROUTED IN PLACE.

16. SPACES AROUND METAL DOOR FRAMES & OTHER BUILT-IN ITEMS SHALL BE FILLED SOLIDLY WITH GROUT OR MORTAR.

17. WHERE CONCRETE BLOCK WALLS ABUT CONCRETE WALLS, THERE SHALL BE DOWELS EMBEDDED IN & EXTENDING OUT FROM THE CONCRETE WALL WITH A MINIMUM OF 2'-0". THEY SHALL BE THE SAME SIZE & SPACING AS THE HORIZONTAL BARS IN THE MASONRY WALLS TO WHICH THEY WILL BE LAPPED.

STEEL

1. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 & SHALL BE FABRICATED & ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. U.O.N.

2. ALL PIPE COLUMNS SHALL CONFORM TO ASTM A-53 GRADE "B".

3. ALL FABRICATION SHALL BE DONE BY LICENSED STEEL FABRICATORS.

4. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS, USING THE ELECTRIC ARC PROCESS & E-70 ELCETRODES.
STEEL FABRICATOR/WELDERS SHALL BE APPROVED BY THE CITY.

5. CONTINUOUS INSPECTION IS REQUIRED FOR ALL FIELD WELDING.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY/ALL TEMPORARY BRACING.

7. BOLTS SHALL CONFORM TO ASTM A-307 UNLESS OTHERWISE NOTED ON PLANS.

8. SHOP DRAWING SHALL BE SUBMITTED TO STRUCTURAL ENGINEER & APPROVED PRIOR TO FABRICATION.

9. GALVANIZED STEEL SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. GALVANIZING SHALL BE ACCOPMPLISHED AFTER STEEL PARTS HAVE BEEN GALVANIZED.

10. ALL STRUCTURAL STEEL OF W, S, M SHAPES SHALL BE ASTM A992 – GRADE 50. U.O.N.

WOOD

1. BOLT HOLES IN WOOD SHALL BE 1/32" TO 1/16" LARGER THAN THE NORMAL BOLT DIAMETER. ALL BOLTS SHALL HAVE STANDARD CUT WASHER UNDER HEAD & NUT UNLESS OTHERWISE NOTED.

2. PROVIDE 2X SOLID BLOCKING BETWEEN JOISTS & RAFTERS AT ALL SUPPORTS. BLOCKING SHALL BE ONE PIECE & FULL DEPTH OF THE JOIST OR RAFTER.

3. ALL BOLTS SHALL BE RETIGHTENED PRIOR TO THE APPLICATION OF SHEATHING, PLASTER, ETC.

4. EACH SHEET OF PLYWOOD SHALL BE IDENTIFIED BY A REGISTERED STAMP OR BRAND OF THE DOUGLAS FIR PLYWOOD ASSOCIATION.

5. PLYWOOD FOR ROOF SHEATHING SHALL BE CDX. USE EXTERIOR TYPE, MINIMUM -C- GRADE WHERE PLYWOOD IS EXPOSED TO WEATHER. PLYWOOD FOR FLOOR SHEATHING SHALL BE CDX & SHALL HAVE APPROVED TONGUE & GROOVE. ALL PLYWOOD SHALL CONFORM TO U.S. PRODUCT STANDARS DOC PS 2-20.

6. ALL WOOD BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR.

7. STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY DETAILED.

8. CROSS BRIDGING SHALL BE PROVIDED AT 8'-0" CENTER TO CENTER, MAXIMUM FOR ALL JOISTS & RAFTERS HAVING A DEPTH OF MORE THAN 8".

9. ALL NAILS SHALL BE COMMON. NAILING SHALL BE PER CHAPTER 23 OF THE CALIFORNIA BUILDING CODE.

10. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR LARCH OF THE FOLLOWING GRADE, CONFORMING TO STANDARD GRADING RULES FOR WEST COAST LUMBER. UNLESS NOTED OTHERWISE. (DOC P20)

2X RAFTERS OR JOISTS.......	NO. 2 OR BETTER
3X MEMBERS....................................	NO. 2 OR BETTER
4X HEADERS OR BEAMS.........	NO. 2 OR BETTER
6X OR GREATER............................	NO. 1 OR BETTER
POST OR TIMBERS......................	NO. 1 OR BETTER
LAMINATED BEAMS......................	DF/DF 24F-V4

11. STUDS MAY BE BORED TO 40% OF WIDTH MAXIMUM. EXCEPT INTERIOR NONBEARING STUDS WHICH MAY BE BORED TO 60% OF WIDTH MAXIMUM WHEN EACH BORED STUD IS DOUBLED WITH NOT MORE THAN TWO SUCCESSIVE DOUBLED STUDS.

12. IN NO CASE SHALL THE EDGE OF A BORED HOLE BE NEARER THAT 5/8" TO THE EDGE OF THE STUD.

13. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS CUT OR NOTCH.

14. PROVIDE MINIMUM DOUBLE JOISTS UNDER PARALLELED PARTITIONS.

15. SIMPSON HARDWARE MAY SUBSTITUTE OTHER APPROVED HARDWARE. HARDWARE MUST HAVE ICC APPROVAL.

16. ALL LUMBER SHALL HAVE MOISTURE CONTENT OF 19% OR LESS AT TIME OF INSTALLATION.

17. ANCHOR BOLTS SHALL BE ZMAX (G185 ASTM A653) OR HOT-DIP GALVANIZED (ASTM A153).

18. ALL WOOD SHALL COMPLY WITH NDS 2007.

GLU-LAM BEAM

1. ALL FABRICATION & WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED DOUGLAS FIR (COAST REGION) LUMBER BY THE WEST COAST LUMBERMAN'S ASSOCIATION & THE CURRENT EDITION OF TIMBER CONSTRUCTION.

2. ALL GLUED LAMINATED MEMBERS SHALL BE IN COMBINATION 24F-V4 WITH WATERPROOF RESORCINOL OF PHENOL RESORCINOL GLUE CONFORMING TO THE CBC STANDARD.

3. UNLESS SPECIFIED OTHERWISE FINISH OF THE MEMBERS SHALL BE INDUSTRIAL APPEARANCE GRADE IN CONFORMANCE WITH THE STANDARD APPEARANCE GRADES OF THE A.I.T.C.

4. MANUFACTURER SHALL SUBMIT COMPLETE SHOP DRAWINGS TOTE ENGINEER FOR APPROVAL PRIOR TO ANY FABRICATION & SHALL SUBMIT CERTIFICATES OF COMPLIANCE FOR EACH MEMBER IN ACCORDANCE WITH THE C.B.C.

PARALLAM (2.0E) PSL ICC#1387

F_v = 290 psi
F_b = 2900 psi
E = 2.0X10^6 psi

MICROLAM (1.9E) LVL ICC#1387

F_v = 285 psi
F_b = 2600 psi
E = 1.9X10^6 psi

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REVISIONS	BY

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PROJECT DESCRIPTION:
STRUCTURAL AND
GENERAL NOTES

OWNERS:
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278 POINSETTIA AVE.
MONROVIA, CA 91016

DATE:
05/15/2024

SCALE:
1/4" = 1'

DRAWN:
AMIN LAK

JOB:

SHEET:
SGN