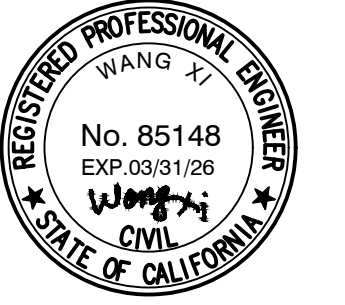
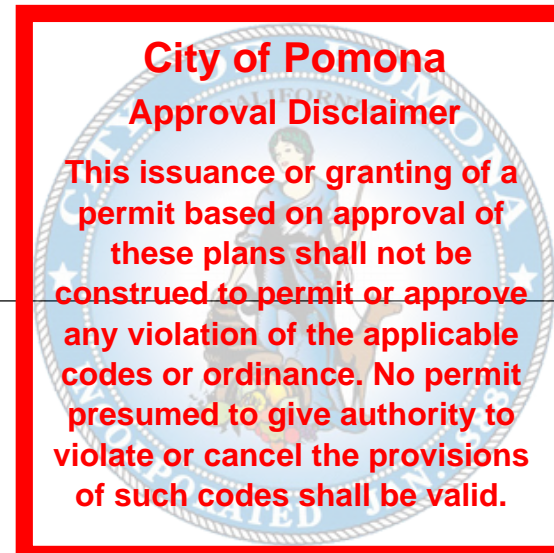
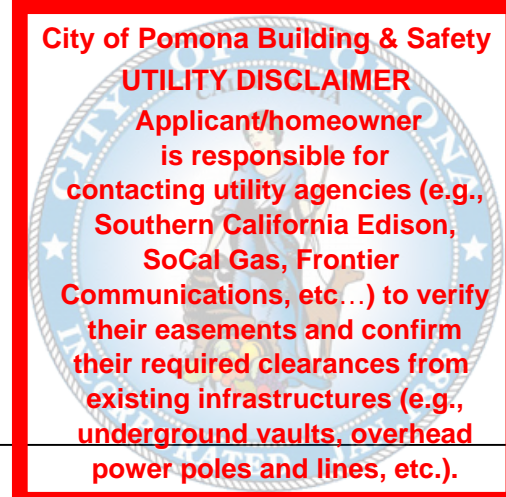




HAWK'S PROJECT

604 E MISSION BLVD,
POMONA, CA 91766



BUILDING DATA

BUILDING CODE: 2022 California Residential Code
2022 California Commercial Code
2022 California Building Code
2022 California Fire Code
2022 California Mechanical Code
2022 California Electrical Code
2022 California Plumbing Code
2022 California Energy Code
2022 California Green Building Standards Code
CITY OF POMONA MUNICIPAL CODE

PROJECT LOCATION: 604 E MISSION BLVD, POMONA, CA 91766 (COMMERCIAL UNIT)

OWNER: HAWK JIANG
604 E MISSION BLVD, POMONA, CA 91766
TEL: HAWK1212@CLOUD.COM

PROJECT DESCRIPTION (SCOPE OF WORK):
FIRST REMODEL AND SECOND FLOOR FIRE DAMAGE REPAIR. REMODELING EXISTING OFFICE AREA AROUND 780 SQ.FT. AND RESTROOM AND BREAK ROOM 225 SQ.FT.
PROPOSE AN ADDITIONAL IN EXISTING REAR PORCH AREA AROUND 130 SQ.FT TO A STORAGE ROOM.

USE OCCUPANCY AND FLOOR AREA:

TYPE OF CONSTRUCTION: V-B
ZONE: MIDTOWN SEGMENT OF THE POMONA CORRIDORS SPECIFIC PLAN (PCSP).

OCCUPANCY GROUP: B
FIRE SPRINKLER: NONE
NUMBER OF STORIES: 2
PARCEL #: 8335-022-005
LOT AREA: 6,866 SQ.FT

BUILDING AND OTHER AREA:
EXISTING HABITABLE AREA: 2,197 SQ. FT.
PROPOSE ADDITIONAL AREA: 235 SQ. FT.
TOTAL HABITABLE AREA: 2,432 SQ. FT.
EXISTING OFFICE AREA: 780 SQ. FT.
EXISTING ACCESSORY AREA: 225 SQ. FT.
PROPOSE ADDITIONAL AREA: 130 SQ. FT.
TOTAL FIRST FLOOR AREA: 1,135 SQ. FT.
LOT COVERAGE: 35.40%

LANDSCAPED AREA REQUIRED: 6,866x15% = 1,030 SQ.FT

EXISTING LANDSCAPED AREA: 640+56+376+56=1,128 SQ.FT.
PROPOSED LANDSCAPED AREA: 77 SQ.FT.
TOTAL LANDSCAPED AREA: 1,128+77=1,207 SQ.FT.>1,030 SQ.FT.

PARKING CALCULATION:

EXISTING PARKING SPACE:	5
PROPOSED PARKING SPACE:	3
ADA PARKING SPACE:	1
TOTAL PARKING SPACE:	4

GENERAL NOTES

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LOCAL BUILDING CODES, CITY, COUNTY AND STATE CURRENTLY ADOPTED.
- ALL WOOD BASE SHEATHING SHALL BE APPLIED OVER BY TWO LAYERS OF GRADE D PAPER.
- WRITTEN DIMENSIONS SHALL GOVERN. DO NOT SCALE DRAWINGS.
- DESTRUCTIVE REMOVAL OF WORK PERFORMED WITHOUT PERMITS MAY BE REQUIRED FOR INSPECTIONS.
- ATTIC ACCESS PANEL w/ELECTRIC LT. OUTLET ADJACENT TO FURNACE SWICH BY THE OPENING.
- THE GENERAL CONTRACTOR AND/OR SUB-CONTRACTOR SHALL CARRY THE FOLLOWING INSURANCE AND SHOW THE OWNER PROOF OF POLICY OWNERSHIP. PRIOR TO COMMENCEMENT OF WORK.
 - A. FIRE, THEFT, AND VANDALISM.
 - B. WORKERS COMPENSATION.
 - C. LIABILITY AND PROPERTY DAMAGE.
 THE AMOUNTS SHALL BE MINIMUM AS SHOWN OR AS REQUIRED BY LAW, AND THE CITY OR COUNTY WHERE THE PROJECT OCCURS.
- THE GENERAL CONTRACTOR AND/OR SUB-CONTRACTORS SHALL PROVIDE A COMPLETE AND WORKABLE BUILDING AS DESCRIBED IN ALL THE CHAPTERS AND SECTIONS OF THE CBC AND SHALL BE FREE FROM DEFECTS.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. ALL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER IN THE BEST STANDARDS OF PRACTICE. DAMAGED WORK SHALL BE REPLACED AT THE CONTRACTORS OWN EXPENSE.
- NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED FOR PIPES AND DUCTS UNLESS SPECIFICALLY DETAILED, IF ENCOUNTERED, NOTIFY OWNER AS SOON AS POSSIBLE.
- ALL SUB-CONTRACTORS SHALL INSPECT THE EXISTING CONDITIONS OR WORKMANSHIP PRIOR TO APPLYING OR INSTALLING THEIR WORK OR EQUIPMENT. COMMENCEMENT OF THIS WORK CONSTITUTES ACCEPTANCE OF THE JOB CONDITIONS AND WORKMANSHIP. ANY CYCLINGS NOT ACCEPTABLE OR WHICH MAY CAUSE ANY INSTALLATION OR APPLICATION PROBLEMS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER.
- ALL MATERIAL AND EQUIPMENT USED FOR THE CONSTRUCTION OF THE PROJECT SHALL MEET THE SPECIFICATIONS AND/OR REQUIREMENTS OF THE AIR QUALITY CONTROL DISTRICT, INDUSTRIAL SAFETY ACT AND OSHA ORDINANCES AND LAWS.
- THE SUBCONTRACTOR SHALL PROVIDE FOR THE OWNER AT LEAST FIVE (5) OF THE FOLLOWING SHOP DRAWINGS AND/OR MANUFACTURERS PRODUCT LITERATURE AND SAMPLES PRIOR TO FABRICATION OR INSTALLATION. OTHER SUBMITTALS MAY BE NECESSARY AS REQUIRED BY THE PARTICULAR PROJECT.
 - A. HVAC EQUIPMENT
 - B. PAINT COLORS
 - C. STOREFRONT SYSTEM
 - D. ROOFING/FLASHING
 - E. EXTERIOR FINISHES
- ALL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY OWNER AND/OR FILING OF NOTICE OF COMPLETION.
- THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN THE AREA TO BE EXCAVATED, PRIOR TO BEGINNING EXCAVATION.
- NO PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL BE PLACED IN SLABS, BEAMS, OR WALLS UNLESS SPECIFICALLY SHOWN OR NOTE. NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC., UNLESS OTHERWISE NOTED. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, ETC.

PUBLIC WORK NOTES

- IT IS THE OWNER'S AND THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ALL DAMAGE TO THE EXISTING PUBLIC IMPROVEMENTS DUE TO THE PROPOSED CONSTRUCTION ACTIVITIES AND TO ADDRESS ALL REPAIRS REQUESTED BY THE PUBLIC WORKS INSPECTOR BASED ON THE INSPECTOR'S REVIEW OF THE CURRENT CONDITION OF THE SAID PUBLIC IMPROVEMENTS.
- UNDERGROUNDING OF ALL EXISTING AND PROPOSED UTILITY LINES IS REQUIRED AS PER CITY OF POMONA MUNICIPAL CODE SECTION 62-31(B)(1).
- THE PARKWAY LANDSCAPING SHALL BE MAINTAINED BY THE PROPERTY OWNER PER CITY OF POMONA MUNICIPAL CODE SECTION 46-49B.
- THE PROPERTY ABUTTING SIDEWALK, PARKWAY AND ALLEY, AS APPLICABLE, SHALL BE MAINTAINED FREE OF WEEDS, RUBBISH AND REFUSE BY THE PROPERTY OWNER, AS REQUIRED BY THE CITY'S MUNICIPAL CODE SECTION 18-261.

CALGREEN NOTES:

- CG1. DOCUMENTATION SHALL BE PROVIDED TO VERIFY THAT COMPLIANT VOC LIMIT FINISH MATERIALS HAVE BEEN USED. CGBC 4.504.2.4.
- CG2. A MINIMUM OF 65 PERCENT OF THE CONSTRUCTION WASTE GENERATED AT THE SITE SHALL BE DIVERTED TO RECYCLE OR SALVAGE, PER CGBC 4.408.1.
- CG3. EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING, PER CGBC 4.506.1.

TRASH ENCLOSURE:

- DIMENSIONS OF THE STORAGE AREA MUST ACCOMMODATE CONTAINERS CONSISTENT WITH CURRENT METHODS OF COLLECTION
- THE STORAGE AREA MUST BE ACCESSIBLE TO ALL OCCUPANTS AND HAULERS
- ALL OUTDOOR STORAGE AREAS MUST BE DIRECTLY ACCESSIBLE FROM THE ALLEY
- SIGNS MUST BE CONSPICUOUSLY POSTED ON EACH RECYCLING AND TRASH ENCLOSURE, ADJACENT TO THE ACCESS POINT, GIVING INSTRUCTIONS ON THE USE OF THE RECYCLING BINS AND CONTAINERS.
- EACH SIGN MUST NOT EXCEED FOUR SQUARE FEET IN AREA
- THE PERIMETER OF THE RECYCLING AND TRASH ENCLOSURES MUST BE LANDSCAPED
- ALL TRASH COLLECTION AREAS MUST BE WELL LIT
- RECYCLING AND TRASH ENCLOSURES MUST NOT BE LOCATED IN ANY REQUIRED PARKING SPACE
- TRASH AND RECYCLING STORAGE AREAS MUST BE LOCATED WITHIN 150 FEET FORM THE DWELLING UNITS THAT THEY SERVE
- RECYCLING AND TRASH RECEPTACLES AND THEIR SCREENING ENCLOSURES CANNOT BE LOCATED IN A FRONT OR SIDE STREET YARD. RECYCLING AND TRASH RECEPTACLES MUST BE LOCATED TO THE SIDE AND REAR OF BUILDINGS.
- OUTDOOR RECYCLING AND TRASH RECEPTACLES MUST BE SCREENED ON THREE SIDES BY A WALL OR FENCE THAT IS A MINIMUM HEIGHT OF 6 FEET
- ACCESS GATES MUST BE PROVIDED ON THE FOURTH SIDE AND MUST ALSO BE A MINIMUM HEIGHT OF 6'
- THE ENCLOSURE WALL AND ACCESS GATE MUST BE DECORATIVE IN STYLE AND MATERIAL.

TEAM MEMBERS

DESIGNER:
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EM: KYLE.LEE@ACEMDCORP.COM LA PUENTE, CA, 91744

STRUCTURAL:
ENGINEER:
WANG XI 18305 E VALLEY BLVD, SUITE A
TEL: (626) 320-7531 LA PUENTE, CA, 91744
EM: 172544175@QQ.COM

KEYNOTE LEGEND	
1	(E) WATER METER
2	(E) COMMERCIAL ELECTRICAL PANEL, 200 AMP MAX.(MAINTAIN 36" CLEAR FROM FACE OF PANEL TO ANY OBSTRUCTION)
3	(N) NATURE GAS TANK-LESS WATER HEATER WITH CLOSET COVER, SIZE PER TITLE-24
4	(E) GAS METER
5	(N) A/C. CONDENSER UNIT-SIZE TBD-MIN. 9.0 MSL AND PROVIDE POWER AND SOUND DAMPENING PAS AS REQ'D (SOUND ATT.REQ'D. BY C.N.B.) COVERED BY OUTDOOR A/C SCREENED COVER.
6	(E) RESIDENTIAL ELECTRICAL PANEL, 200 AMP MAX.(MAINTAIN 36" CLEAR FROM FACE OF PANEL TO ANY OBSTRUCTION)
7	(E) SEWER CONNECTION
8	(N) WHEEL STOPS TYPICAL.
9	(N) 5 BICYCLE RACKS, SEE DETAIL C/A113
10	(N) MIN. 1-FOOT CANDLE LIGHTING.

NOTES:

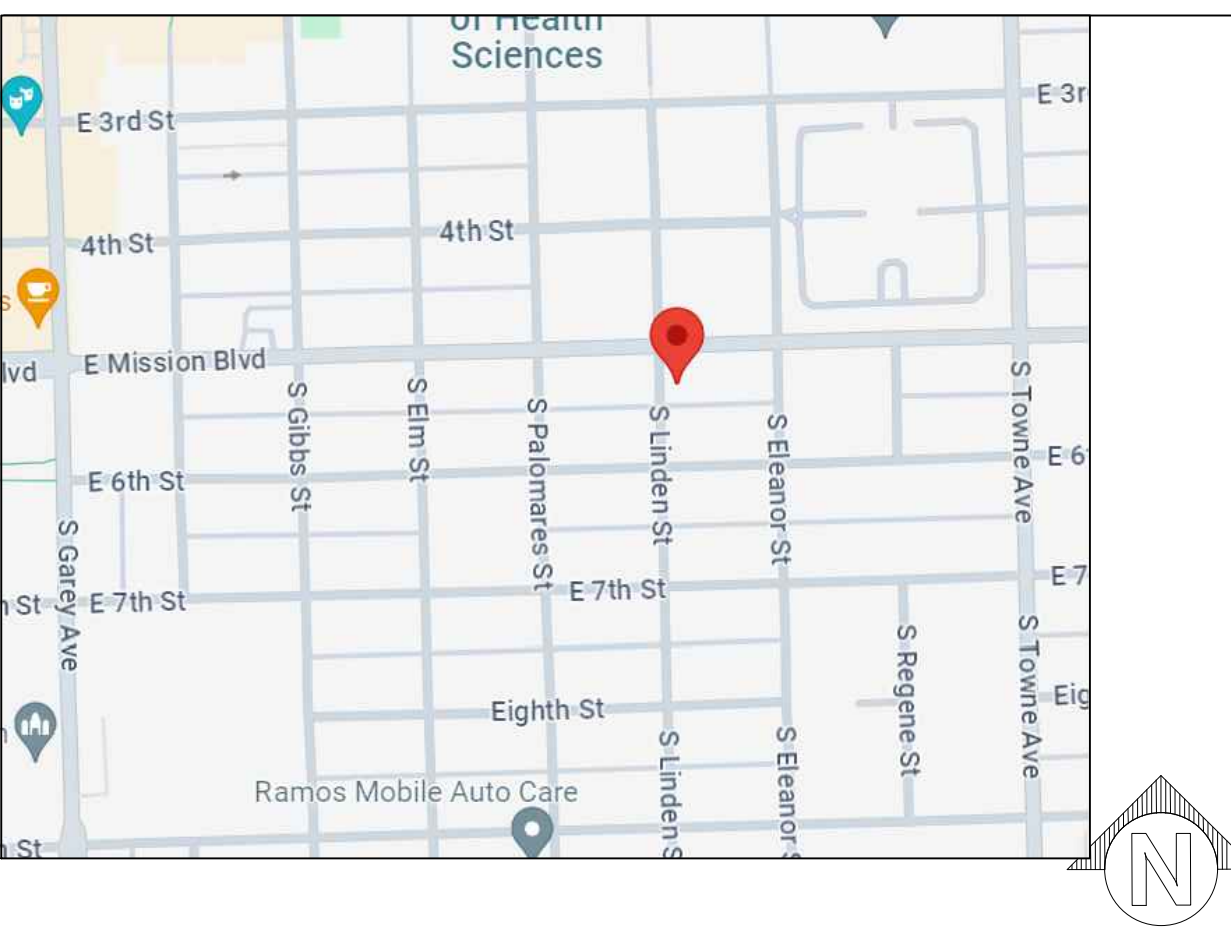
- ALL FIXTURES, EQUIPMENTS, PIPING, AND MATERIALS SHALL BE LISTED PROVIDE SAFETY GLASS FOR BATHROOM WINDOWS, PER CRC R308.4.5
- ALL HOSE BIBS MUST HAVE AN APPROVED ANTI-SIPHON DEVICE.
- APPLICATIONS FOR WHICH NO PERMIT IS ISSUED WITHIN 180 DAYS FOLLOWING THE DATE OF APPLICATION SHALL AUTOMATICALLY EXPIRE.
- EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS WORK AUTHORIZED IS COMMENCED WITHIN 180 DAYS AFTER ITS ISSUANCE OR IF THE WORK AUTHORIZED IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS. A SUCCESSFUL INSPECTION MUST BE OBTAINED WITHIN 180 DAYS.

A HVAC CONDENSING UNIT SUPPORTED FROM THE GROUND SHALL REST ON A CONCRETE OR OTHER APPROVED BASE EXTENDING NOT LESS THAN 3 INCHES ABOVE THE ADJOINING GROUND LEVEL.

SHEET INDEX

ARCHITECTURAL		STRUCTURAL	
A101	BUILDING DATA,GENERAL NOTE AND SITE PLAN	SN-1	GENERAL NOTES
A102	EXISTING FLOOR PLAN	SN-2	FASTENER SCHEDULE
A103	PROPOSAL FIRST FLOOR	S-1	FOUNDATION PLAN
A104	ELECTRICAL PLAN	S-2	FIRST FLOOR FRAMING PLAN
A105	ELEVATION PLAN	S-3	ROOF FRAMING PLAN
A106	ROOF PLAN	SD-1	STRUCTURAL DETAILS
A107	ADA DETAILS	SD-2	STRUCTURAL DETAILS
A108	CAL GREEN NOTE #1	SD-3	STRUCTURAL DETAILS
A109	CAL GREEN NOTE #2	HFX-1	HARDYFRAME DETAILS
A110	CAL GREEN NOTE #3	HFX-2	HARDYFRAME DETAILS
A111	CAL GREEN NOTE #4	TITLE-24-1	TITLE-24
A112	SECTION	TITLE-24-2	TITLE-24
A113	EXISTING SITE PLAN	TITLE-24-3	TITLE-24
M-1	MECHANICAL	TITLE-24-4	TITLE-24
P-1	PLUMBING PLAN		

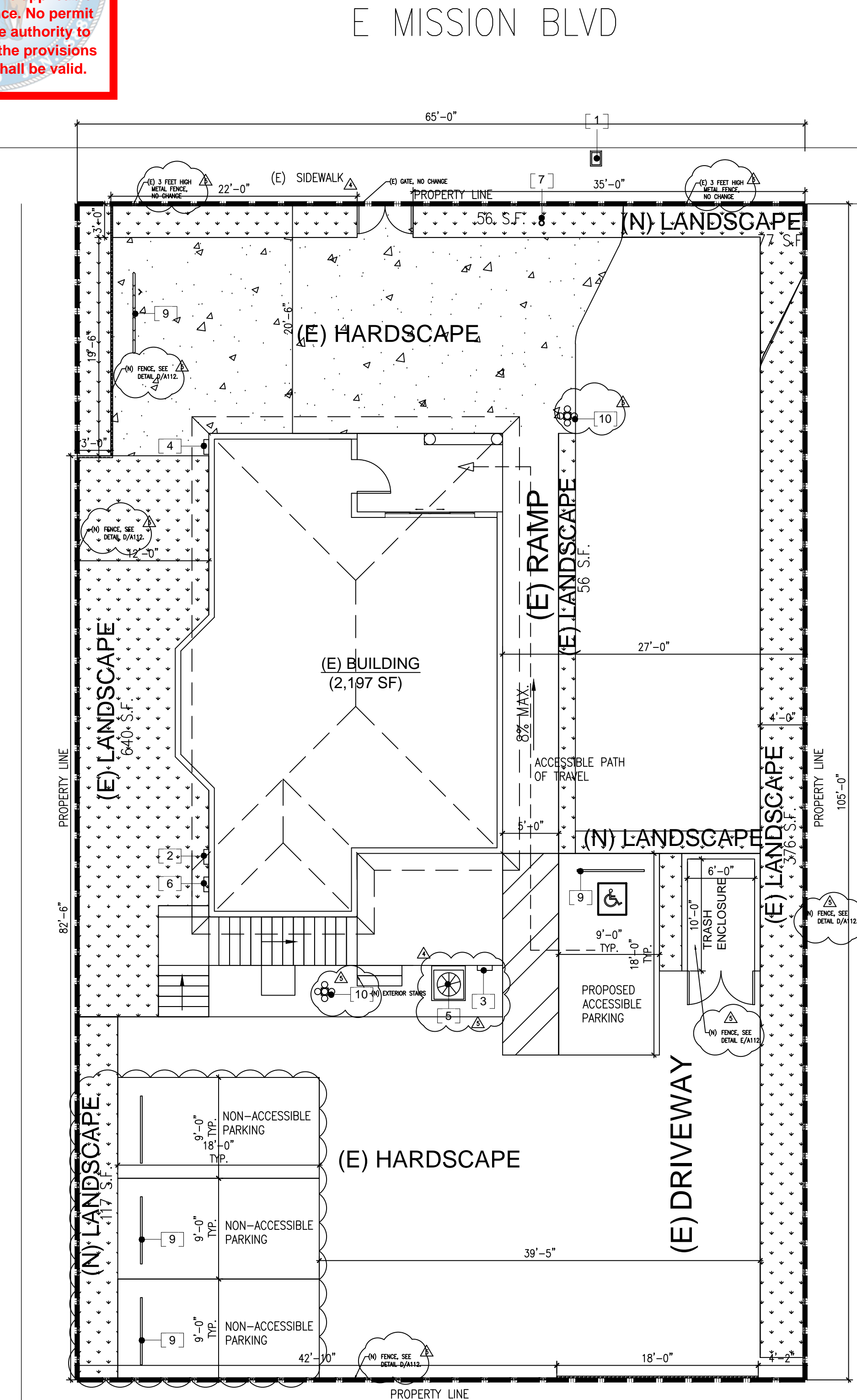
VICINITY MAP



BMP. NOTES

- COMMON AREA LITTER CONTROL
 - A. OWNER WILL IMPLEMENT TRASH MANAGEMENT AND LITTER CONTROL PROCEDURES ON THE SITE AIMED AT REDUCING POLLUTION OF DRAINAGE WATER. THE OWNER MAY CONTRACT WITH A LANDSCAPE MAINTENANCE FIRMS TO PROVIDE THIS SERVICE DURING REGULARLY SCHEDULED MAINTENANCE. IT WILL CONSIST OF LITTER PATROL AND EMPTYING OF TRASH RECEPTACLES.
 - B. THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL PARTICULATE, CONSTRUCTION WASTE MATERIALS, OR WASTEWATER GENERATED ON CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED, CONVEYED OR DISCHARGED INTO THE STREET, GUTTER OR STORM DRAIN SYSTEM.
- PRIVATE LOT SWEEPING.
 - OWNER IS RESPONSIBLE TO PROVIDE PRIVATE LOT SWEEPING. THE TRASH AREA MUST BE KEPT IN A CLEAN AND ORDERLY CONDITION THROUGH A REGULAR PROGRAM OF SWEEPING AND LITTER CONTROL AND IMMEDIATE CLEANUP OF SPILLS AND BROKEN CONTAINERS. STREET SWEEPING SHALL BE MAINTAINED ON A REGULAR BASIS. THE PRIVATE LOT SHALL BE INSPECTED AND CLEARED DURING CONSTRUCTION UP TO COMPLETION. IT IS NECESSARY THAT THE STREET BE SWEEP PRIOR TO THE STORM SEASON, COMMENCING ON OCTOBER 15TH OF THE YEAR.
- TRASH CONTAINER AREA
 - OWNER PROPOSES TO PROVIDE ON SITE TRASH CONTAINERS ON (C) CONC. DRIVEWAY THIS AREA WILL BE MAINTAIN BY OWNER TO PREVENT DRAINAGE DIRECTLY INTO STORM DRAIN SYSTEM IN ORDER TO PREVENT POSSIBLE HAZARDOUS POLLUTANTS FROM ENTERING THE DRAINAGE SYSTEMS.

C-001931-2024 (606 E MISSION BLVD Pomona, CA 91766) APARTMENT



LEGEND

- (E) LANDSCAPED AREA
- CONCRETE SLAB

NOTES:

THE CHAIN LINK FENCE SHOULD BE REMOVED AND NEW BLACK METAL FENCE MATCH THE EXISTING SHOULD BE REPLACED.

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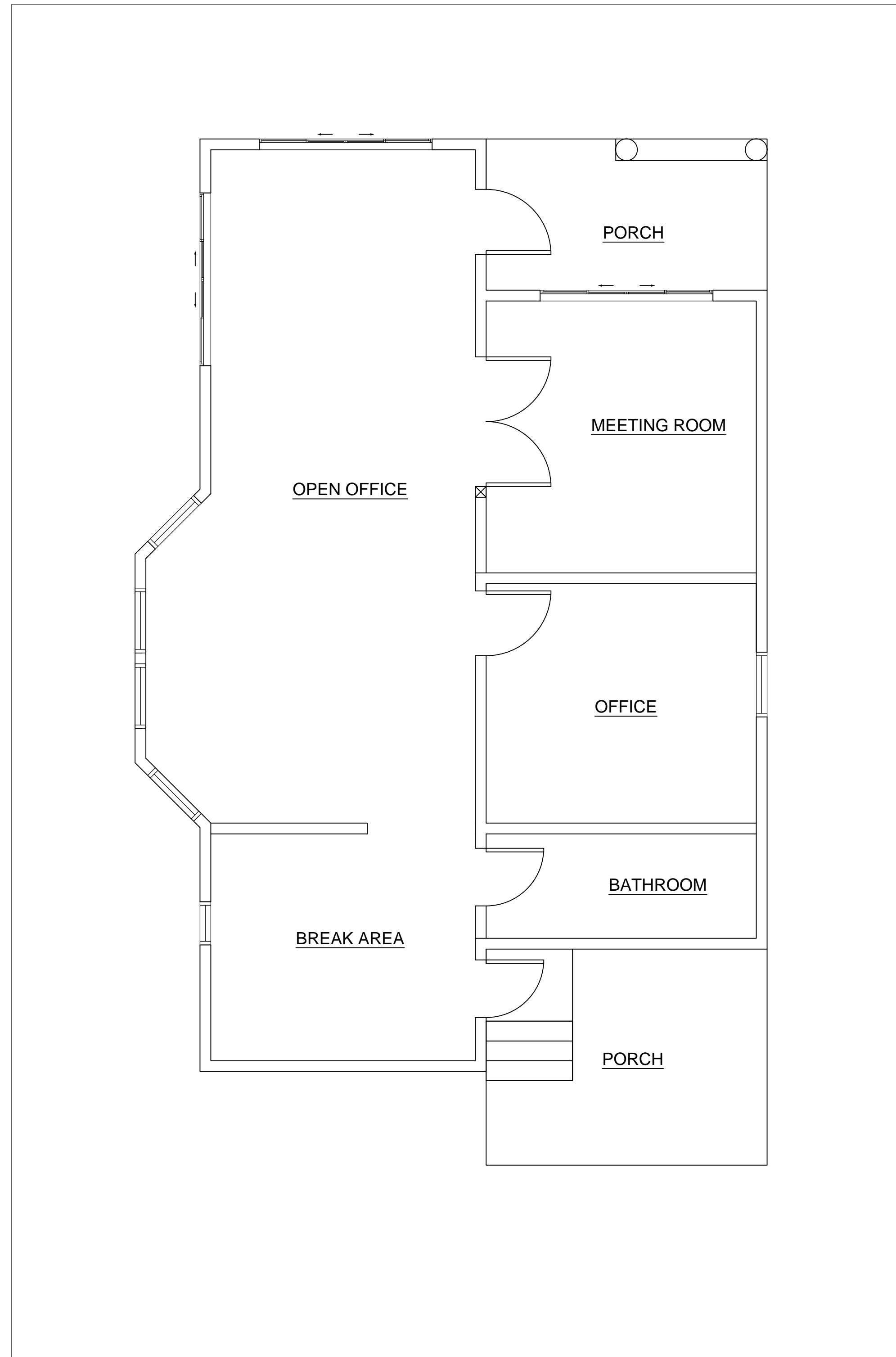
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HAWK'S PROJECT
604 E MISSION BLVD,
POMONA, CA 91766

SITE PLAN

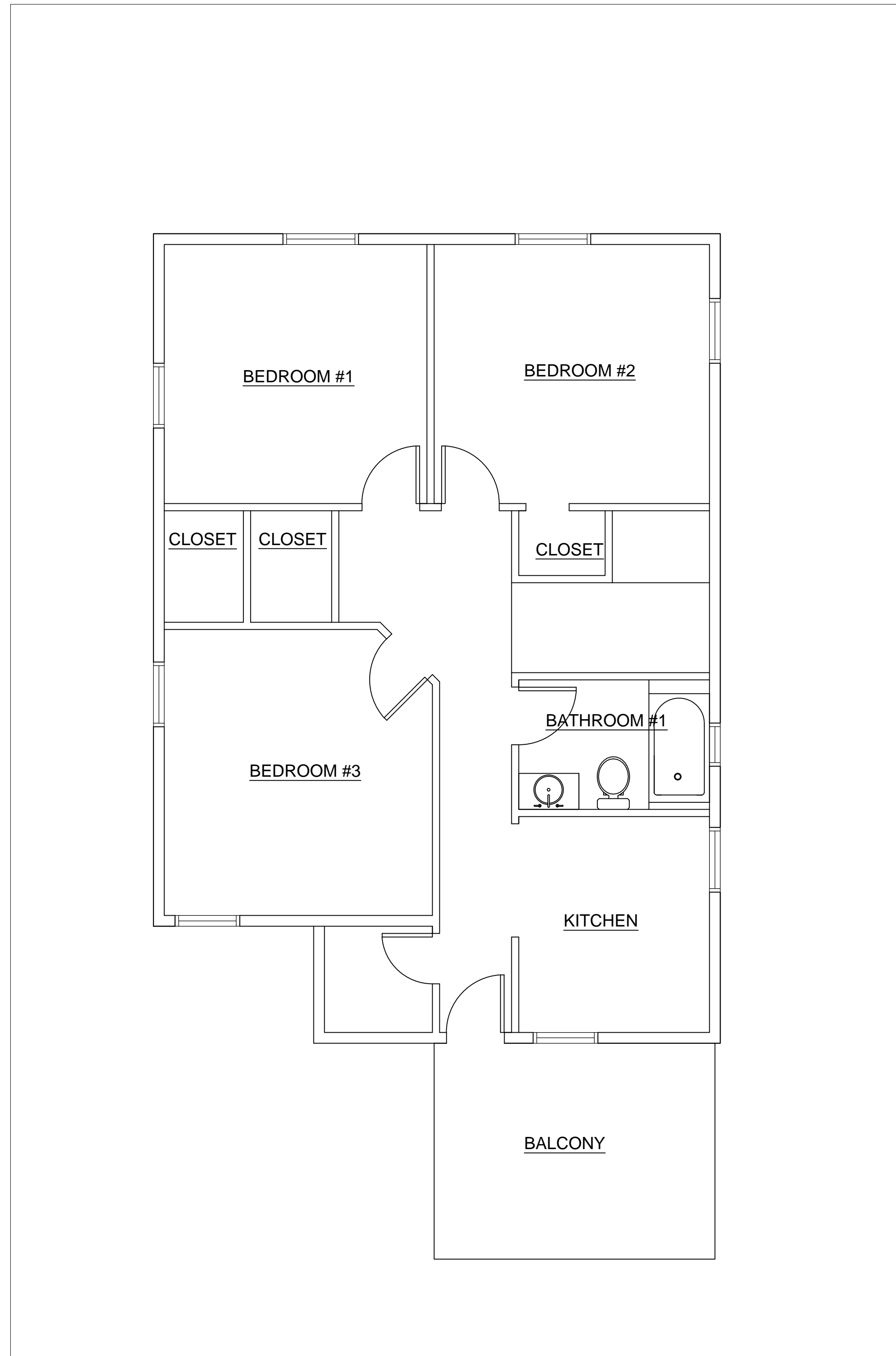
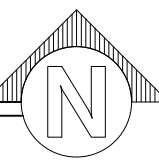
PROJECT NO.	2024-101
DATE	01/04/24
SCALE	AS REFERENCED
SHEET NO.	

A101



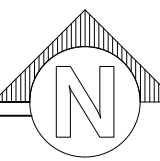
EXISTING FIRST FLOOR PLAN

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



EXISTING SECOND FLOOR PLAN

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



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HAWK'S PROJECT

604 E MISSION BLVD,
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SHEET TITLE

EXISTING
 PLAN

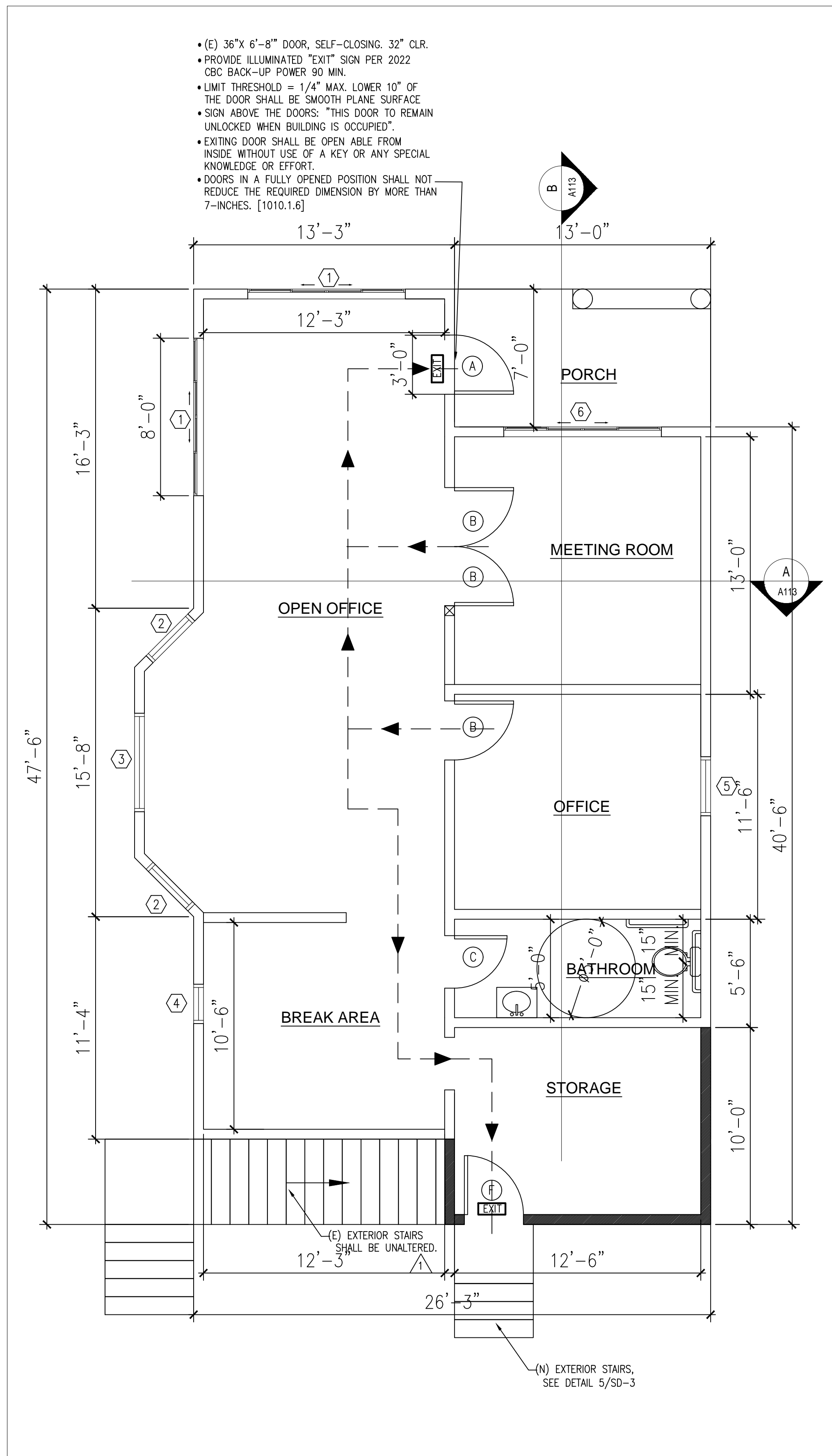
PROJECT NO. 2024-101

DATE 01/04/24

SCALE AS REFERENCED

SHEET NO.

A102



PROPOSED FIRST FLOOR

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

SYMBOL LEGEND

- (E) WALL TO BE REMAIN, 2x6 WOOD STUD @16 INCH O.C.
- (N) WALL, 2x6 WOOD STUD @16 INCH O.C.

- (E) 36"x 6'-8" DOOR, SELF-CLOSING, 32" CLR.
- PROVIDE ILLUMINATED "EXIT" SIGN PER 2022 CBC, BACK-UP POWER 90 MIN.
- LIMIT THRESHOLD = 1/4" MAX. LOWER 10" OF THE DOOR SHALL BE SMOOTH PLANE SURFACE
- SIGN ABOVE THE DOORS: "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED".
- EXITING DOOR SHALL BE OPEN ABLE FROM INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
- DOORS IN A FULLY OPENED POSITION SHALL NOT REDUCE THE REQUIRED DIMENSION BY MORE THAN 7-INCHES. [1010.1.6]

WINDOWS SCHEDULE

KEY	WIDTH x HEIGHT	LIGHTS	REQ.	MATERIAL & TYPE	U-FACTOR	SHGC	TEMP.(YES/NO)	EGRESS(YES/NO)	SILL HEIGHT	REMARK
①	8'-0" x 5'-0"	---	2	WOOD FRAMED SLIDING DOUBLE GLASS	0.45	0.4	NO	NO	1'-8"	EXISTING
②	3'-0" x 5'-0"	---	2	WOOD FRAMED SINGLE HUNG	0.45	0.4	NO	NO	1'-8"	EXISTING
③	5'-0" x 5'-0"	---	1	WOOD FRAMED SINGLE HUNG	0.45	0.4	NO	NO	1'-8"	EXISTING
④	2'-0" x 2'-0"	---	1	WOOD FRAMED SLIDING DOUBLE GLASS	0.45	0.4	NO	NO	4'-8"	EXISTING
⑤	3'-0" x 5'-0"	---	1	WOOD FRAMED SINGLE HUNG	0.45	0.4	NO	NO	1'-8"	EXISTING
⑥	8'-0" x 4'-0"	---	1	WOOD FRAMED SLIDING DOUBLE GLASS	0.45	0.4	NO	NO	1'-8"	EXISTING

NOTES: ALL WINDOWS REPLACE NEW WINDOWS WITH SAME SIZE, TYPE, FRAME, U-FACTOR AND SHGC.

DOORS SCHEDULE

KEY	SIZE WIDTH x HEIGHT	MATERIAL	THK.	REQ.	DESCRIPTION	REMARK
(A)	3'-0" x 6'-8"	WOOD	1 3/4"	1	EXTERIOR S.C.S COLONIST	EXISTING
(B)	3'-0" x 6'-8"	WOOD	1 3/4"	3	INTERIOR H.C.S COLONIST	EXISTING
(C)	2'-8" x 6'-8"	WOOD	1 3/4"	5	INTERIOR H.C.S COLONIST	EXISTING
(F)	3'-0" x 6'-8"	WOOD	1 3/4"	1	EXTERIOR S.C.S COLONIST	NEW

* ALL COLOR AND STYLE VERIFY BY OWNER REQUIRED.

NOTE

- * ALL COLOR AND STYLE VERIFY BY OWNER REQUIRED.
- * ALL WINDOWS AND DOORS ARE MANUFACTURED BY MEAGI WINDOWS&DOORS INC
- * BATHUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWERHEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE EXTENDING TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.
- * THE LOAD RESISTANCE OF GLASS UNDER UNIFORM LOAD SHALL BE DETERMINED IN ACCORDANCE WITH ASTM E1300
- * FIBER-REINFORCED GYPSUM BACKERS SHALL BE USED AS A BASE FOR CERAMIC WALL TILES IN TUB AND SHOWER AREAS AS WELL AS WALL PANELS IN SHOWER AREAS, PER CRC R702.4.2. GREEN BOARD SHALL NOT BE USED.
- * WATER PIPING MATERIAL WITHIN THE ADU SHALL BE CPVC.
- * ALL FIXTURES, EQUIPMENT, PIPING, AND MATERIALS SHALL BE LISTED.
- * PROVIDE SAFETY GLASS FOR BATHROOM WINDOWS, PER CRC R308.4.5
- * ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM CLEAR OPENING OF 5.0 SQUARE FEET ON FIRST FLOOR WITH A MINIMUM NET CLEAR OPENING HEIGHT OF 24 INCHES AND WIDTH OF 20 INCHES, WHICH SHALL BE ADDRESSED ON PLANS, PER CRC R310.2.1.
- * A MINIMUM OF 1" OF AIRSPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AT THE VENT LOCATION, PER CRC R806.3.

PLUMBING NOTE

- * SHOWER AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING VALVE TYPE THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION. THESE VALVES SHALL CONFORM TO ASSE 1016 OR ASME A112.18.1/CSA B125.1. HANDLE POSITION STOPS SHALL BE PROVIDED ON SUCH VALVES AND SHALL BE ADJUSTED PER THE MANUFACTURER'S INSTRUCTIONS TO DELIVER A MAXIMUM MIXED WATER SETTING OF 120F. WATER HEATING THERMOSTATS SHALL NOT BE CONSIDERED A SUITABLE CONTROL FOR MEETING THIS PROVISION. (CPC 408.3)

CALGREEN NOTE

WATER CONSERVING FIXTURES IN COMPLIANCE WITH THE 2022 CGC SHALL BE INSTALLED. WATER CLOSETS SHALL HAVE AN AVERAGE WATER CONSUMPTION OF NOT MORE THAN 1.28 GALLONS PER FLUSH; SHOWER HEADS SHALL HAVE A WATER FLOW NOT TO EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI; MAXIMUM FLOW RATE OF LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI, AND KITCHEN FAUCET SHALL HAVE A FLOW RATE NOT TO EXCEED 1.8 GALLONS PER MINUTE AT 60 PSI.

ALL NON-COMPLIANT PLUMBING FIXTURES SHALL BE REPLACED WITH WATER-CONSERVING PLUMBING FIXTURES, PER THE 2022 CGC. (CIVIL CODE SECTION 1101.4(A)) NONCOMPLIANT PLUMBING FIXTURE MEANS ANY OF THE FOLLOWING:

1. ANY TOILET MANUFACTURED TO USE MORE THAN 1.6 GALLONS OF WATER PER FLUSH.
2. ANY URINAL MANUFACTURED TO USE MORE THAN ONE GALLON OF WATER PER FLUSH.
3. ANY SHOWERHEAD MANUFACTURED TO HAVE A FLOW CAPACITY OF MORE THAN 2.5 GALLONS OF WATER PER MINUTE.
4. ANY INTERIOR FAUCET THAT EMITS MORE THAN 2.2 GALLONS OF WATER PER MINUTE.



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HAWK'S PROJECT

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POMONA, CA 91766

SHEET TITLE

PROPOSED
FIRST FLOOR
PLAN

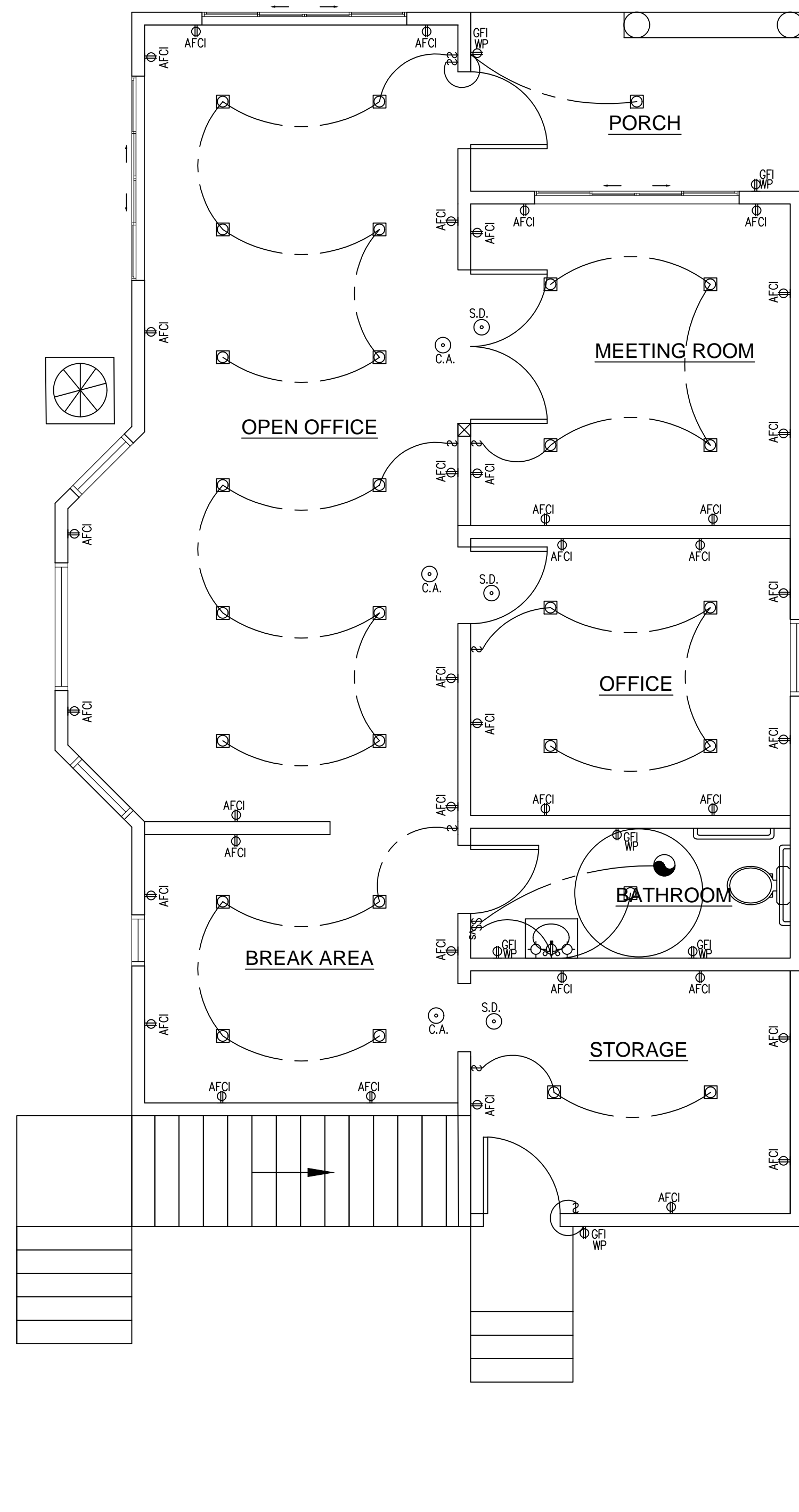
PROJECT NO. 2024-101

DATE 01/04/24

SCALE AS REFERENCED

SHEET NO.

A103



FIRST FLOOR ELECTRICAL PLAN

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

ELECTRICAL NOTES

- ALL LIGHTING IN BATHROOMS, LAUNDRY ROOMS, UTILITY ROOM AND WALK-IN CLOSETS, AT LEAST ONE INSTALLED LUMINAIRES SHALL BE CONTROLLED BY AN OCCUPANCY SENSOR OR VACANCY SENSOR PROVIDING AUTOMATIC OFF FUNCTIONALITY.
- ALL INSTALLED LUMINAIRES SHALL BE HIGH EFFICACY, AS HIGH EFFICIENCY CONTROLLED BY A STANDARD SWITCH OR INCANDESCENT CONTROLLED BY A DIMMER SWITCH OR MANUAL-ON OCCUPANCY SENSOR.
- ALL 15 & 20-AMP BRANCH CIRCUIT(S) SERVING DWELLING UNIT OUTLETS AND ALL CIRCUITS MUST BE AN ARC-FAULT CIRCUIT INTERRUPTER(S) PROTECTED.
- VERIFY AT (E) BEDROOM RECEPTACLES ARE TO BE LOCATED IN A WALL EVERY 12 LINEAR FEET SO THAT A FIXTURE WILL NOT BE MORE THAN 6 FEET FROM ANY RECEPTACLE.
- RECEPTACLES AT THE FRONT AND REAR OF HOME SHALL BE WITHIN 6'-6" OF GRADE. SUCH RECEPTACLES SHALL BE WATERPROOF & GFCI PROTECTED.
- ALL EXTERIOR LIGHTING SHALL BE WATER PROOF, ALL EXTERIOR ELECTRICAL OUTLETS SHALL BE WATER PROOF AND BE GFI PROTECTED.
- ALL OUTDOOR LIGHTING ATTACHED TO THE BUILDING TO BE HIGH EFFICACY LIGHTING CONTROLLED BY A STANDARD SWITCH OR INCANDESCENT CONTROLLED BY A MOTION SENSOR WITH INTEGRATED PHOTOCELL.
- AT LEAST ONE 20 AMP BRANCH CIRCUIT SHALL BR PROVIDE TO SUPPLY BATHROOM RECEPTACLE OUTLETS. SUCH CIRCUITS SHALL HAVE ON OTHER OUTLETS.
- GROUND FAULT CIRCUIT INTERRUPTER (GFI) RECEPTACLE PROTECTION IS REQUIRED IN THE -BATH, GARAGE, OUTDOORS, UNDER FLOOR SPACE, KITCHEN COUNTERS, UNFINISHED BASEMENTS AND LAUNDRY/UTILITY/WET BAR SINKS (WHERE THE RECEPTACLE IS WITHIN 6 FT OF THE OUTSIDE SINK EDGE).
- THE KITCHEN IS REQUIRED TO HAVE A MECHANICAL EXHAUST FAN DUCTED TO THE OUTSIDE. THE RANGE HOOD OVER THE STOVE MUST VENT TO THE OUTSIDE WITH A MINIMUM VENTILATION SHALL REFER 2022 CENC TABLE 150.0-E AND 150.0-G FOR COMPLIANCE OPTIONS, AND USE 6" DUCT MIN. THE DUCTING FOR THE EXHAUST FAN SHALL BE SIZED ACCORDING TO ASHRAE STANDARD 62.2 TABLE 7.1.

- THE LOCAL EXHAUST FANS IN THE BATHROOMS AND KITCHENS WILL DETERMINE THE MIN. VENTILATION RATE PER ASHRAE STANDARD 62.2 EQU. 4.1(G). BATHROOM USE 4" DUCT MIN. SIZE THAT ACCORDING TO ASHRAE STANDARD 62.2 TABLE 7.1 AND THIS EXHAUST FAN SHALL OPERATED CONTINUOUSLY.
- VERIFY WITH OWNER ON ALL ELECTRICAL WIRING & SPECIFICATIONS PRIOR TO INSTALLATIONS.
- SPECIAL SPEAKER/ VIDEO CABLE AND PHONE WIRING TO BE SPECIFIED BY OWNER.
- INSTALLATION MUST BE PER MFG. INSTALLATION INSTRUCTIONS, 2022 CMC 904.3
- PROVIDE HUMIDITY CONTROL OF BATHROOM SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF LESS THAN OR EQUAL TO 50 % TO A MAXIMUM OF 80%
- HVAC CONDENSER SHALL BE INSTALLED, PER MFG. REQUIREMENTS AND CMC 903.2.4, PROVIDE EQUIPMENT DISCONNECT FOR EACH CONDENSER UNIT.
- SPECIFY ON THE PLANS THAT ALL NEW LIGHTING SHALL BE HIGH EFFICACY
- PROVIDE TAMPER RESISTANT RECEPTACLES FOR ALL NEW RECEPTACLES
- SMOKE AND CO ALARMS MUST BE HARDWIRED (WITH BATTERY BACKUP) AND INTERCONNECTED.
- CONDENSERS SHALL BE INSTALLED, PER MFG.
- CLOTHES DRYERS AND ELECTRIC RANGES SHALL HAVE A 4 WIRE GROUNDED ELECTRICAL OUTLET PER CEC250.140. ELECTRIC RANGE REQUIRES A MINIMUM OF 40-AMP WIRE (#8 COPPER OR #6 ALUMINUM), PER CEC220-19.

ENERGY NOTES

- ALL OUTDOOR LIGHTING SHALL BE CONTROLLED BY A MANUAL ON AND OFF SWITCH THAT DOES NOT OVERRIDE TO ON AND ONE OF THE FOLLOWING: CONTROLLED BY PHOTOCELL AND MOTION SENSOR, PHOTO CONTROL AND AUTOMATIC SWITCH CONTROL, ASTRONOMICAL TIME CLOCK, OR ENERGY MANAGEMENT CONTROL SYSTEM.
- INSULATION BELOW ROOF DECK
- NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) RATED HEAT PUMP WATER HEATER; SPECIFIC BRAND/MODEL, OR EQUIVALENT, MUST BE INSTALLED.
- ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS. THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE, PER CEC150.0(A)2.
- ALL OUTDOOR LIGHTING SHALL BE CONTROLLED BY A MANUAL ON AND OFF SWITCH THAT DOES NOT OVERRIDE TO ON AND ONE OF THE FOLLOWING: CONTROLLED BY PHOTOCELL AND MOTION SENSOR, PHOTO CONTROL AND AUTOMATIC SWITCH CONTROL, ASTRONOMICAL TIME CLOCK, OR ENERGY MANAGEMENT CONTROL SYSTEM.
- PROVIDE A RADIANT BARRIER INSTALLED AT THE UNDERSIDE SURFACE OF THE ROOF SHEATHING AND THE INSIDE SURFACE OF GABLE ENDS OR OTHER EXTERIOR VERTICAL SURFACES IN ATTICS AS MODELED IN THE ENERGY CALCULATIONS. CBEES 150.1 (C)2 & TABLE 150.1-A

ADDITION NOTES

A RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH WALL COUNTERTOP AND WORK SURFACE THAT IS 12 IN. OR WIDER. RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE WALL LINE IS MORE THAN 24 IN. MEASURED HORIZONTALLY FROM A RECEPTACLE OUTLET IN THAT SPACE.

A MINIMUM OF 2-20-AMP CIRCUITS ARE REQUIRED TO SERVE THE KITCHEN COUNTERTOP OUTLETS. THESE CIRCUITS MAY ALSO SERVE THE PANTRY, BREAKFAST ROOM, DINING ROOM OR OTHER SIMILAR AREAS. NOTE IN THE PLAN.

A 125-VOLT, SINGLE-PHASE, 15- OR 20-AMPERE-RATED, GFCI PROTECTED RECEPTACLE OUTLET SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR-CONDITIONING, AND REFRIGERATION EQUIPMENT. THE RECEPTACLE SHALL BE LOCATED ON THE SAME LEVEL AND WITHIN 25 FT. OF THE HEATING, AIR- CONDITIONING, AND REFRIGERATION EQUIPMENT. THE RECEPTACLE OUTLET SHALL NOT BE CONNECTED TO THE LOAD SIDE OF THE EQUIPMENT DISCONNECTING MEANS.



SYMBOL LEGEND

Ⓢ	DUPLEX RECEPTACLE, FLUSH MOUNTED, NEAM 5-20R, 20 AMP. 125 VOLT. +15" MIN. TAMPER RESISTANT TYPE
GFI	15 AMP GFCI OUTLET
GFI WP	15 AMP WEATHERPROOF GFCI OUTLET
\$	SINGLE POLE LIGHT SWITCH, 20A, 250V.
AFCI	15 AMP AFCI OUTLET
☐	RECESSED CAN LIGHT, LED OR FLUORESCENT RATED
⊙	WALL MOUNTED LIGHT FIXTURE LED OR FLUORESCENT RATED
⊖	SURFACE MOUNTED CEILING LIGHT FIXTURE, LED OR FLUORESCENT RATED
☼	BATHROOM EXHAUST FAN w/50 CFM MIN. & HUMIDISTAT SWITCH AT FAN, INTERMITTENT FAN AT 3 SONES MAX.
VS	VACANCY SENSORS
⊙ C.A.	CARBON MONOXIDE ALERTER, CEILING MOUNT. COMPLY W/. CRC R315.3, HARD WIRDED W/. BATTERY BACK-UP
⊙ S.D.	KIDDE SEALED SMOKE ALARM HARD WIRDED W/. BATTERY BACK-UP AND INTERCONNECTED
☼	EXHAUST HOOD ABOVE THE RANGE TOP A MINIMUM OF 30" ABOVE THE COOKING SURFACE. HOUSEHOLD COOKING APPLIANCES SHALL HAVE A VERTICAL CLEARANCE ABOVE THE COOKING TOP OF NOT LESS THAN 30 INCHES TO COMBUSTIBLE MATERIAL OR METAL CABINETS.
D.C	DIMMING CONTROLS

NOTE: LIGHTING IN HABITABLE SPACES, INCLUDING BUT NOT LIMITED TO LIVING ROOMS, DINING ROOMS, KITCHENS AND BEDROOMS, SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED DIMMING CONTROLS THAT ALLOW THE LIGHTING TO BE MANUALLY ADJUSTED UP AND DOWN. FORWARD PHASE CUT DIMMERS CONTROLLING LED LIGHT SOURCES IN THESE SPACES SHALL COMPLY WITH NEMA SSL 7A.

TABLE 150.0-E

APPLICATION	COMPLIANCE CRITERIA
ENCLOSED KITCHEN OR NON-ENCLOSED KITCHEN	VENTED RANGE HOOD, INCLUDING APPLIANCE-RANGE HOOD COMBINATIONS, SHALL MEET EITHER THE CAPTURE EFFICIENCY (CE) OR THE AIRFLOW RATE SPECIFIED IN TABLE 150.0-G AS APPLICABLE.
ENCLOSED KITCHEN	OTHER KITCHEN EXHAUST FANS, INCLUDING DOWNDRAFT: 300 CFM (150 L/S) OR A CAPACITY OF 5 ACH
NON-ENCLOSED KITCHEN	OTHER KITCHEN EXHAUST FANS, INCLUDING DOWNDRAFT: 300 CFM (150 L/S)
BATHROOM	50 CFM (25 L/S)

TABLE 150.0-E

DWELLING UNIT FLOOR AREA (FT ²)	HOOD OVER ELECTRIC RANGE	HOOD OVER NATURAL GAS RANGE
>1500	50% CE OR 110 CFM	70% CE OR 180 CFM
>1000-1500	50% CE OR 110 CFM	80% CE OR 250 CFM
750-1000	55% CE OR 130 CFM	85% CE OR 280 CFM
<750	65% CE OR 160 CFM	85% CE OR 280 CFM



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HAWK'S PROJECT

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SHEET TITLE

ELECTRIC PLAN

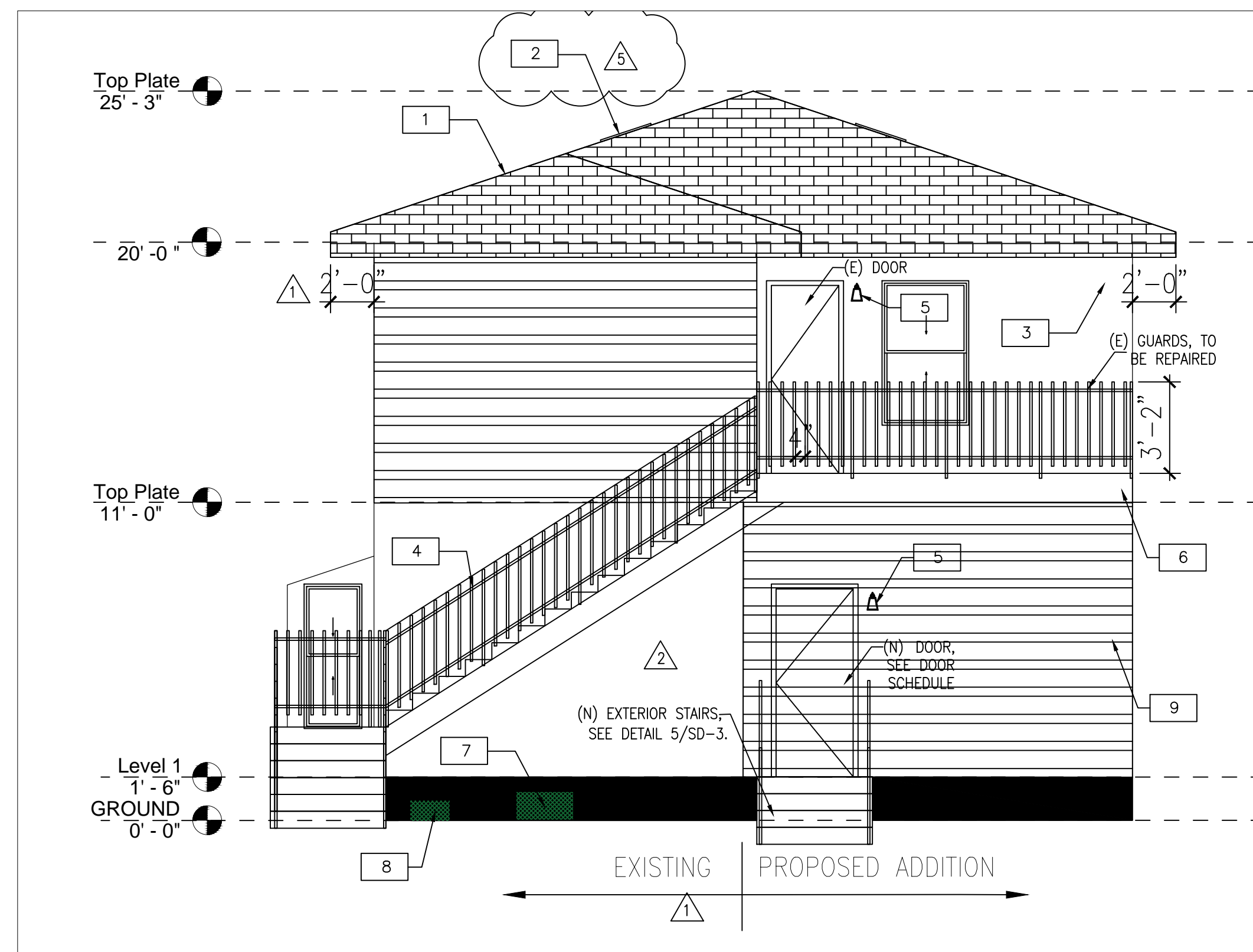
PROJECT NO. 2024-101

DATE 01/04/24

SCALE AS REFERENCED

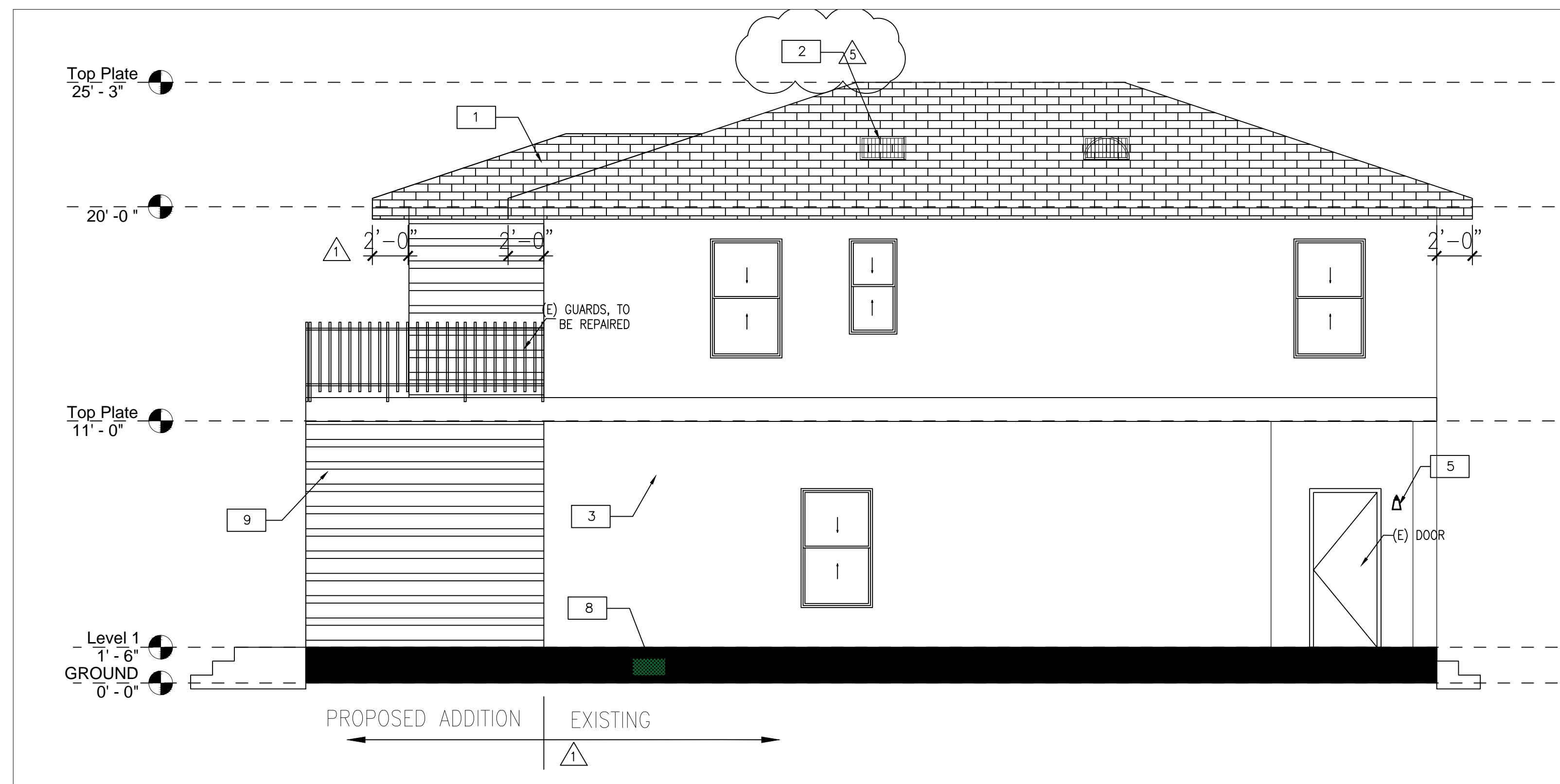
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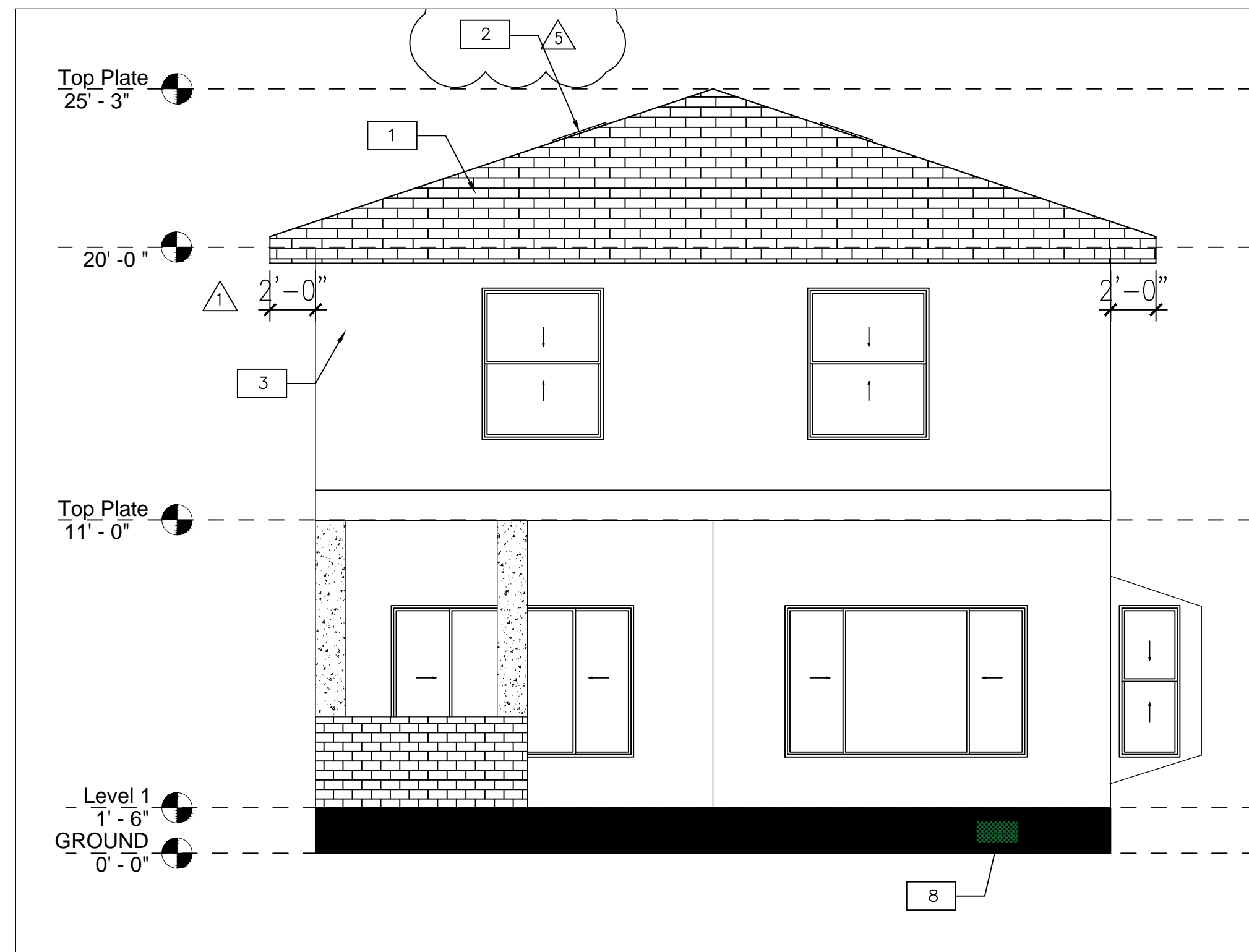
SOUTH ELEVATION

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



EAST ELEVATION

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



NORTH ELEVATION

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



WEST ELEVATION

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

KEYNOTE SCHEDULE

1	SHINGLE ROOF. MANUFACTURER CERTAIN TEED LLC, ICC REPORT# ESR-1389. MATERIAL ASPHALT SHINGLE. ROOFING MATERIAL INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.	4	(E) OUT-DOOR STAIR. WOOD RAILING TO MATCH EXISTING.
2	(N) DORMER VENT, LOW PROFILE ROOF VENTS/DORMERS.	5	EXTERIOR LIGHT, TO BE HIGH EFFICIENCY.
3	(E) DECOR WOOD SIDING, COLOR AND STYLE MATCH EXISTING, BROWN COAT INSPECTION IS REQUIRED. ALL FINISHES SHALL BE PAINTED ON WALL PRIOR TO BUILDING INSPECTION.	6	(E) BALCONY
9	(N) DECOR WOOD SIDING, COLOR AND STYLE MATCH EXISTING, BROWN COAT INSPECTION IS REQUIRED. ALL FINISHES SHALL BE PAINTED ON WALL PRIOR TO BUILDING INSPECTION.	7	(E) 18"x24" UNDERFLOOR ACCESS WITH VENT SCREEN.
		8	(E) 8"x16" CRAWL SPACE VENT WITH SCREEN.

SYMBOL LEGEND

	(E) WALL TO BE REMAIN
	(N) WALL

NOTE

ONE LAYER OF NO.15 ASPHALT FELT, COMPLYING WITH ASTM D 226 FOR TYPE 1 FELT, OR OTHER APPROVED WATER RESISTIVE BARRIER IS REQUIRED FOR THE EXTERIOR. SUCH MATERIAL SHALL BE APPLIED HORIZONTALLY WITH THE UPPER LAYER LAPPED OVER THE LOWER LAYER NOT LESS THAN 2" AND WHERE JOINTS OCCUR, THE MATERIAL SHALL BE LAPPED NOT LESS THAN 6 INCHES. WHERE APPLIED OVER WOOD BASE SHEATHING, A PERFORMANCE AT LEAST EQUIVALENT TO TWO LAYERS OF GRADE D PAPER IS REQUIRED.

FLIGHTS OF STAIRWAYS SHALL HAVE HANDRAILS ON EACH SIDE AND SHALL COMPLY WITH CBC SECTION 1014 (CBC 1011.11)

GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES, SUCH AS LANDINGS, THAT ARE LOCATED MORE THAN 30 INCHES, MEASURED VERTICALLY, TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 26 INCHES HORIZONTALLY TO THE EDGE OF THE OPEN SIDE (CBC 1015.2).



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SHEET TITLE

ELEVATION
PLAN

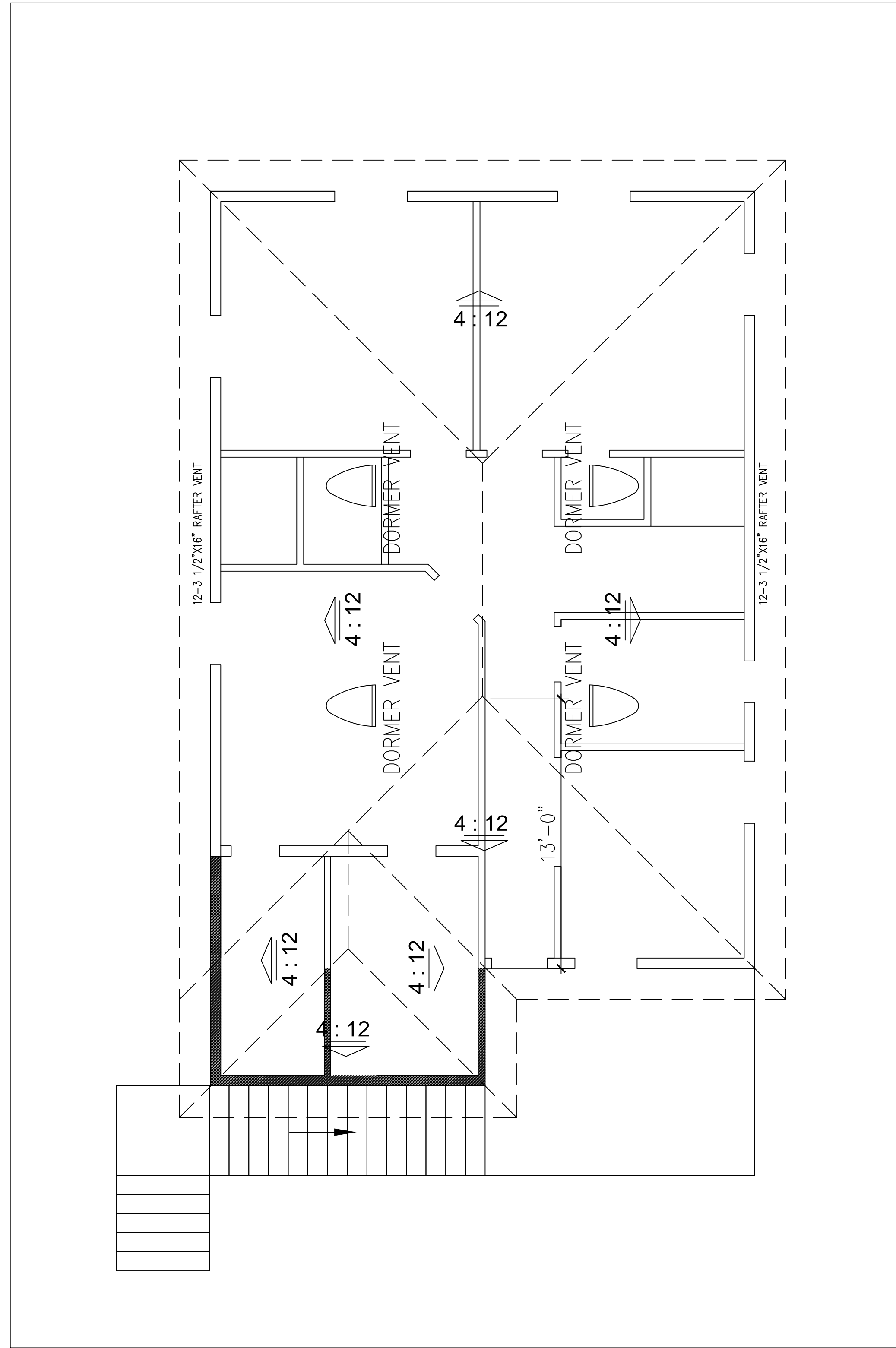
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ROOF PLAN

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

VENTS CALCULATION:

ROOF REQUIRED: 1,059/150=7.06 SQ FT = 1016.64 SQ IN
 PROVIDE ATTIC VENTS : 100X4+26X24=1,024 SQ IN>1016.64 SQ IN

NOTE

- * A MINIMUM OF 1" OF AIRSPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AT THE VENT LOCATION
- * INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.



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SHEET TITLE

ROOF PLAN

PROJECT NO. 2024-101

DATE 01/04/24

SCALE AS REFERENCED

SHEET NO.

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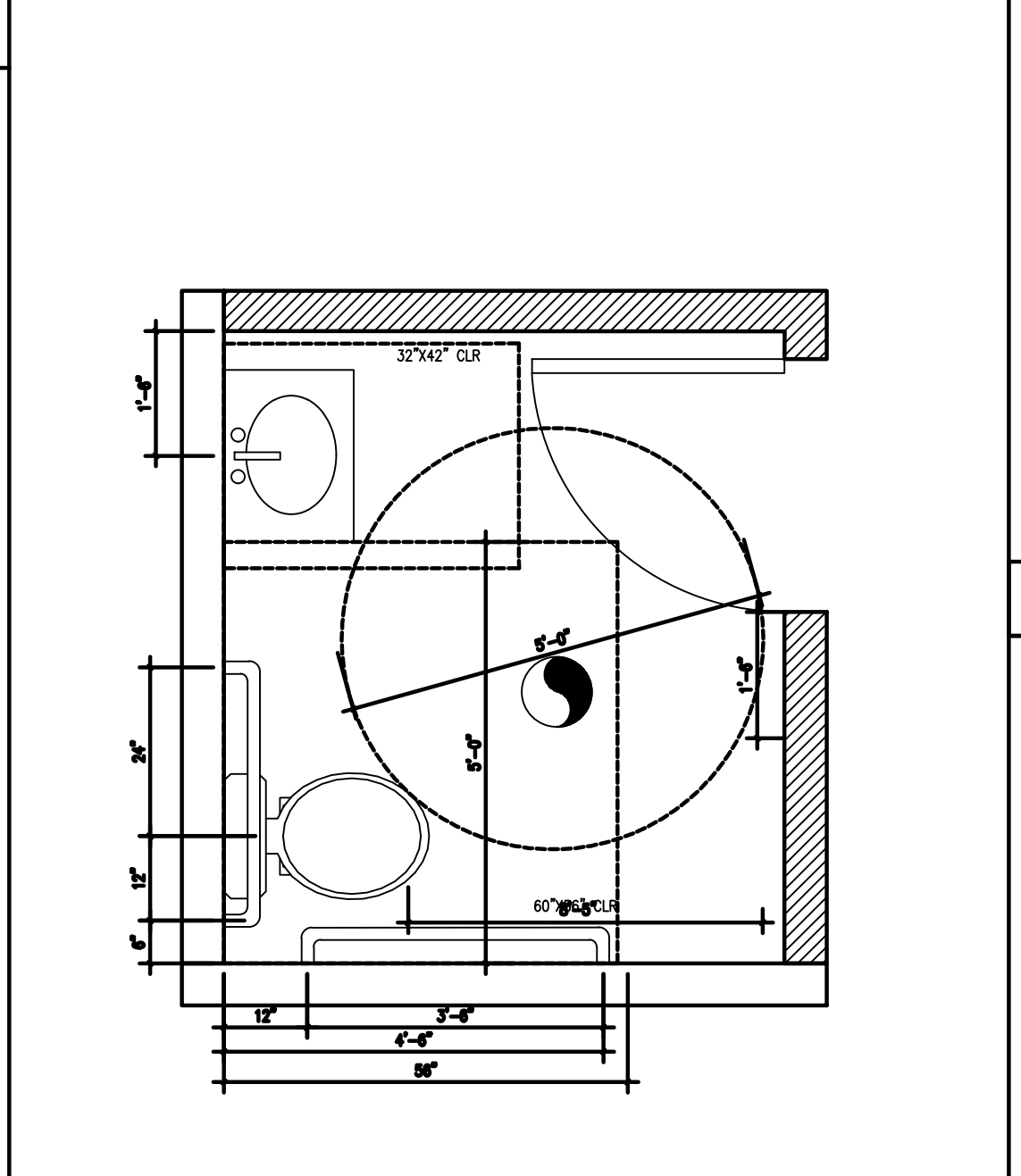
ADA ACCESSIBILITY STANDARDS

- IDENTIFICATION SYMBOLS (FOR SANITARY FACILITIES) **DOOR MOUNTED SIGNAGE** (SEE FIG.1)
- (MEN'S) - EQUILATERAL TRIANGLE 1/4" THICK WITH EDGES 12" LONG AND A VERTEX POINTING UPWARD.
- (WOMEN'S) - 12" DIAMETER CIRCLE 1/4" THICK WITH 1/4" THICK TRIANGLE SUPERIMPOSED WITHIN CIRCLE.
- (UNISEX)-12" DIAMETER CIRCLE 1/4" THICK WITH 1/4" THICK TRIANGLE SUPERIMPOSED WITHIN CIRCLE.
- THE CHARACTERS AND BACKGROUND OF THE SIGN IS EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH AND THE COLOR AND CONTRAST OF THE SIGN DISTINCTIVELY CONTRASTS WITH THE COLOR AND CONTRAST OF THE DOOR.
- SIGNS ARE CENTERED ON THE DOOR 60" FROM FLOOR.
- WALL MOUNTED SIGNAGE
- THE INTERNATIONAL SYMBOL OF ACCESSIBILITY IS INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. THE BORDER DIMENSION OF THIS PICTOGRAM SHALL BE A MINIMUM OF 6" IN HEIGHT.
- VERBAL DESCRIPTION AS TO RESTROOM USAGE (I.E. MEN'S RESTROOM, ETC.), IS PLACED DIRECTLY BELOW THE SYMBOL OF ACCESSIBILITY.
- THE CHARACTERS AND BACKGROUND OF THE SIGN IS EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH AND THE COLOR AND CONTRAST OF THE SIGN DISTINCTIVELY CONTRASTS WITH THE COLOR AND CONTRAST OF THE WALL.
- SIGNS ARE CENTERED ON THE WALL 60" FROM THE FLOOR.
- LETTERS AND NUMERALS ARE RAISED 1/32", ARE SANS-SERIF UPPERCASE CHARACTERS AND ARE ACCOMPANIED BY GRADE 2 BRAILLE. CHARACTERS ARE MINIMUM 5/8" HIGH AND A MAXIMUM OF 2" HIGH.
- MOUNTING LOCATIONS ALLOWS A PERSON TO APPROACH WITHIN 3" OF THE SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.
- SINGLE ACCOMMODATION TOILETS (SEE DETAILS 03 AND 04)
- EXCEPT AT DOORS, THE MINIMUM CLEAR WIDTH OF AN ACCESSIBLE ROUTE IN FACILITY IS 36".
- ENTRY DOOR HAS PRIVACY LATCH PUSH BUTTON-LEVER RELEASE)
- SUFFICIENT SPACE FOR WHEELCHAIR MEASURING 30"x 48" TO ENTER ROOM AND PERMIT THE DOOR TO CLOSE IS PROVIDED.
- A CLEAR SPACE OF SUFFICIENT SIZE TOP INSCRIBE A 60" DIAMETER CIRCLE IS PROVIDED WITHIN THE SANITARY FACILITY ROOM.
- 60" SPACE IS CLEAR OF OBJECTS FROM THE FLOOR TO A HEIGHT OF 27".
- NO DOOR ENCROACHES INTO REQUIRED 60" CLEAR SPACE.
- 48" MIN. CLEAR SPACE IS PROVIDED IN FRONT OF THE WATER CLOSET.
- 18" BETWEEN CENTER OF WATER CLOSET AND SIDE-WALL CORNER.
- 20.28" MINIMUM CLEAR SPACE IS PROVIDED FROM THE WATER CLOSET TO ANY FIXTURE, OR A MINIMUM 32" WIDE CLEAR SPACE TO THE OPPOSITE WALL.
- 21. TOP OF TOILET SEAT IS 17"-19" FROM FLOOR SURFACE.
- FLUSH VALVE IS ON WIDE SIDE OF TOILET AREA.
- 44" MAX. FROM FLOOR TO FLUSH VALVE.
- 5 LB. MAX. FORCE TO OPERATE FLUSH VALVE.
- WALLS WITHIN COMPARTMENT ARE SMOOTH, HARD AND NONABSORBENT TO 48" IN HEIGHT, AND ARE NOT ADVERSELY AFFECTED BY MOISTURE.
- FLOOR SURFACES OF TOILET ROOM ARE SMOOTH, HARD AND NON-ABSORBENT EXTENDING UPWARD A MINIMUM OF 5" ONTO WALLS.
- SIDE GRAB BAR IS A MINIMUM 42" LONG AND EXTENDS 24" BEYOND THE FRONT OF THE WATER CLOSET.
- THE FORWARD END OF THE SIDE GRAB BAR IS A LOCATED A MINIMUM OF 54" FROM THE BACK WALL.
- SIDE GRAB BAR BEGINS A MAXIMUM OF 12" FROM THE REAR WALL.
- REAR GRAB BAR IS A MINIMUM 36" LONG.
- REAR GRAB BAR BEGINS A MAXIMUM OF 6" FROM THE CORNER OF THE WALL ON THE TOILET SIDE.
- DIAMETER OF GRAB BAR(S) IS 1-1/4" - 1-1/2".
- CLEARANCE BETWEEN THE GRAB BAR(S) AND WALL IS 1-1/2".
- GRAB BARS ARE MOUNTED AT 33" TO CENTER OF BAR ABOVE AND PARALLEL TO FLOOR (FOR TANK TYPE TOILETS, 36" MAY BE ALLOWED IF TANK OBSTRUCTS PLACEMENT OF BAR).

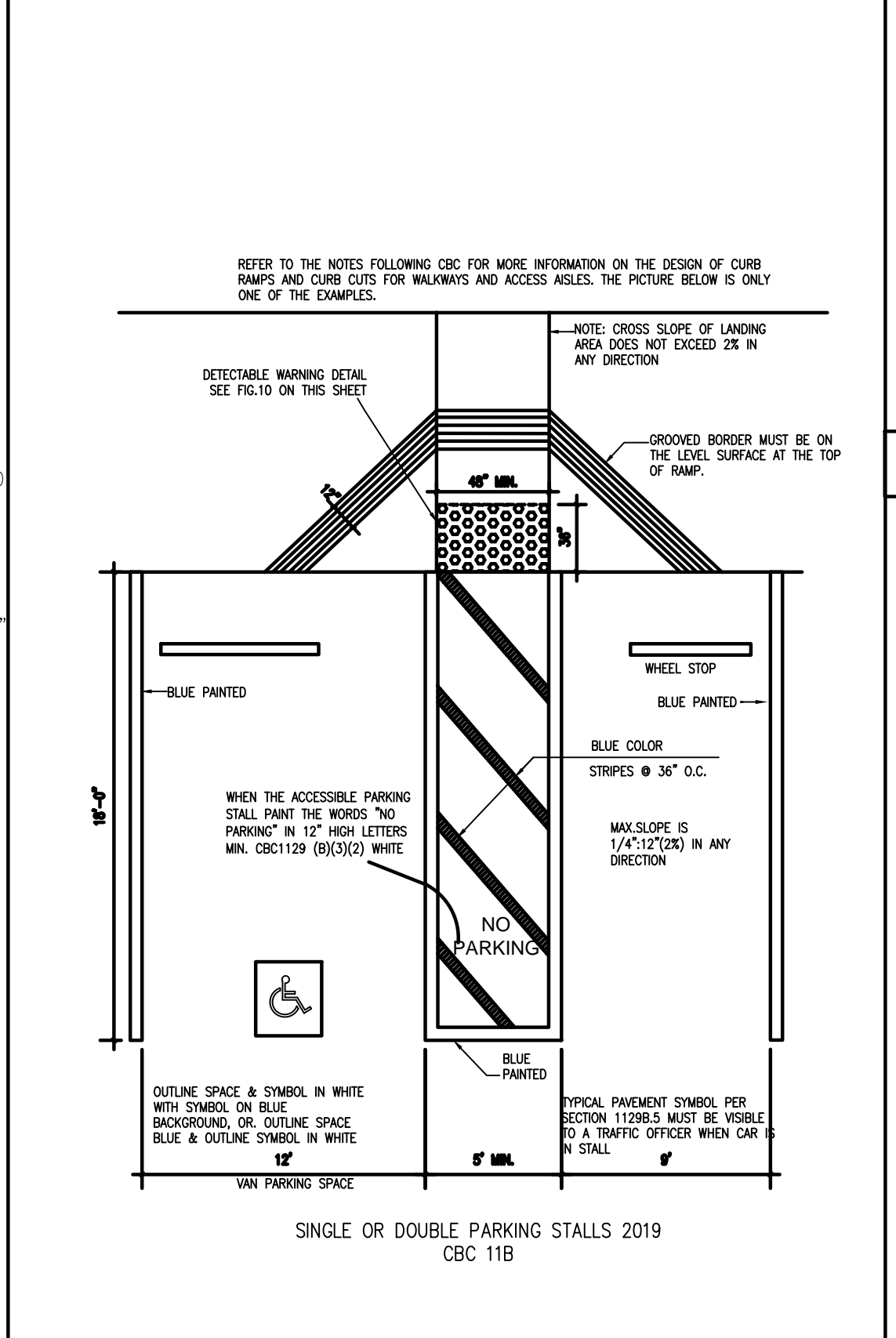
- 35. BARS ARE SMOOTH WITH A MIN. RADIUS OF 1/8".
- 36. MIN. STRUCTURAL STRENGTH OF GRAB BAR(S) WILL SUPPORT A 250 LB. POINT LOAD.
- 37. GRAB BARS DO NOT ROTATE WITHIN THEIR FITTINGS.
- 38. SURFACE OF WALL ADJACENT TO GRAB BAR(S) IS FREE OF SHARP OR ABRASIVE ELEMENTS.
- 39. TOILET PAPER DISPENSERS LOCATED 7 INCHES MINIMUM TO 9 INCHES MAXIMUM IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER; 11B-604.7
- 40. 19" MINIMUM HEIGHT FROM FLOOR TO CENTERLINE OF TOILET PAPER DISPENSER (LOCATION BELOW GRAB BAR SUGGESTED)
- 41. TOILET PAPER DISPENSER ALLOWS CONTINUOUS PAPER FLOW AND DOES NOT CONTROL DELIVERY.
 - LAVATORIES
 - MIN. 30" X 48" CLEAR SPACE IS PROVIDED IN FRONT OF LAVATORY THAT ALLOWS FORWARD APPROACH.
 - REQUIRED CLEAR SPACE ADJOINS OR OVERLAPS AN ACCESSIBLE ROUTE AND EXTENDS A MAX. OF 19" UNDERNEATH THE LAVATORY.
 - LAVATORIES ADJACENT TO A SIDE WALL HAVE A MIN. 18" DISTANCE TO CENTER OF FIXTURE.
 - 34" MAX. HEIGHT OF RIM OR COUNTER ABOVE FLOOR SURFACE.
 - 29- MIN. CLEARANCE FROM BOTTOM OF APRON TO THE FLOOR.
 - KNEE CLEARANCE UNDER FRONT LIP IS A MIN. OF 27" HIGH, 30" WIDE, AND EXTENDS A MIN. OF 8" IN DEPTH FROM THE FRONT OF THE LAVATORY.
 - TOE CLEARANCE UNDER LAVATORY IS A MIN. OF 9" HIGH, 30" WIDE, AND EXTENDS A MIN. OF 17" IN DEPTH FROM THE FRONT OF THE LAVATORY.
 - DRAIN AND HOT WATER PIPING IS INSULATED OR CONFIGURED TO PREVENT CONTACT.
 - THERE ARE NO SHARP OR ABRASIVE ELEMENTS UNDER LAVATORY.
 - FAUCETS ARE LEVER TYPE, ELECTRONICALLY ACTIVATED OR APPROVED SELF CLOSING VALVES (MIN. 10 SECONDS OPEN FLOW).
 - FAUCETS ARE OPERABLE WITH ONE HAND AND DO NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.
 - 5 LB. MAX. FORCE REQUIRED TO ACTIVATE CONTROLS.

INTERPRETATIONS: POSSIBLY THE MOST COMMON DESIGN AND CONSTRUCTION ERROR REGARDING LAVATORY MUST BE A MIN. OF 29" HIGH AND EXTEND BACK A MIN. OF 8" FROM THE FRONT EDGE. LAVATORY BOWLS WITH EXCESSIVE DEPTH OFTEN RESTRICT THIS REQUIRED CLEARANCE EVEN WHEN THE TOP OF THE BOWL IS MOUNTED AT THE MAX. ALLOWED 34". THIS SITUATION IS OF PARTICULAR IMPORTANCE IN ALTERATIONS, AS MANY OLDER MODEL LAVATORIES SIMPLY CANNOT PROVIDE FOR BOTH MAX. MOUNTING HEIGHT AND REQUIRED KNEE CLEARANCE. IT IS ALSO IMPORTANT TO UNDERSTAND THAT THE DRAIN PIPING CANNOT ENCROACH INTO THE REQUIRED KNEE CLEARANCE. THE FACT THAT AN INDIVIDUAL'S KNEES MAY BE ABLE TO SLIP PAST THE PIPING ON EITHER SIDE IS OF NO CONSEQUENCE; THE MIN. REQUIRED CLEARANCES MUST BE PROVIDED TO PREVENT POSSIBLE PROBLEMS. IT IS HIGHLY RECOMMENDED THAT PLAN DRAWINGS SPECIFY LAVATORY MODELS THAT PROVIDE A FULL 8" CLEARANCE FROM THE FRONT OF THE UNIT TO ANY PIPING AND ADDITIONALLY PROVIDES FOR A MAX. ALLOWABLE BOWL DEPTH OF 6-1/2". THE REQUIRED CLEARANCES BETWEEN LAVATORIES AND SINKS ARE DIFFERENT AND SHOULD NOT BE CONFUSED. ALTHOUGH CALIFORNIA'S ACCESSIBILITY GUIDELINES DO NOT PRESENTLY CONTAIN SPECIFIC GUIDELINES FOR SINKS, THE ADAAG DOES. LAVATORIES REQUIRE MIN. KNEE CLR. OF 30"W X 27"H X 8"D. SINKS REQUIRE MIN. KNEE CLEARANCES THAT ARE MIN. OF 30" WIDE BY 29" HIGH, HOWEVER THE DEPTH OF THIS CLEARANCE MUST MAINTAIN AN ABSOLUTE DISTANCE OF 19" FROM THE FRONT OF THE SINK. IN ADDITION, FEDERAL GUIDELINES RESTRICT EACH SINK TO A MAX. DEPTH OF 6-12" FOR APPLICABLE REQUIREMENT.

- ACCESSORIES IN SANITARY FACILITIES
- MINIMUM 30" X 48" CLEAR FLOOR OR GROUND SPACE IS PROVIDED TO ALLOW FORWARD OR PARALLEL APPROACH TO ACCESSORIES.
- ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACES ADJOINS OR OVERLAPS AN ACCESSIBLE ROUTE OR ADJOINS WHEELCHAIR CLR. FL. SPACE.
- MIRROR(S) IS MOUNTED WITH THE BOTTOM EDGE ON HIGHER THAN 40" FROM THE FLOOR.
- OPERABLE PARTS (INCLUDING COIN SLOTS) OF ALL FIXTURES OR ACCESSORIES ARE LOCATED A MINIMUM OF 40" ABOVE FLOOR (I.E., SOAP DISPENSERS, TOWELS TOILET SEAT COVERS, AUTO-DRYERS, SANITARY NAPKIN DISPENSERS, WASTE RECEPTACLES, ETC.).
- WALLS WITHIN COMPARTMENT ARE SMOOTH, HARD AND NONABSORBENT TO 48" IN HEIGHT, AND ARE NOT ADVERSELY AFFECTED BY MOISTURE.
- CONTROLS AND OPERATING MECHANISMS ARE OPERABLE WITH ONE HAND AND DO NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST.
- THE FORCE REQUIRED TO ACTIVATE CONTROLS IS 5 LB. MAX.
- COAT HOOKS AND SHELVING ARE LOCATED WITHIN APPROPRIATE REACH RANGES (44" MAX. ABOVE FLOOR RECOMMENDED).
- IF MEDICINE CABINETS ARE PROVIDED, AT LEAST ONE HAS A USABLE SHELF NO HIGHER THAN 44" ABOVE FLOOR.



RESTROOM PLAN (SCALE: 1/2"=1'-0") N.T.S. 11



EXISTING PARKING NO CHANGE N.T.S. 10

THAN 17 INCHES (432 MM) WIDE BY 22 INCHES (559 MM) HIGH.

11B-502.5.2 LETTERING. THE ADDITIONAL SIGN SHALL CLEARLY STATE IN LETTERS WITH A MINIMUM HEIGHT OF 1 INCH (25 MM) THE FOLLOWING:

*UNAUTHORIZED VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING Distinguishing PLACARDS OR SPECIAL LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES WILL BE TOWED AWAY AT THE OWNER'S EXPENSE. TOWED VEHICLES MAY BE RECLAIMED AT THE OWNER'S EXPENSE. OR BY TELEPHONING BLANK SPACES SHALL BE FILLED IN WITH APPROPRIATE INFORMATION AS A PERMANENT PORT OF THE SIGN.

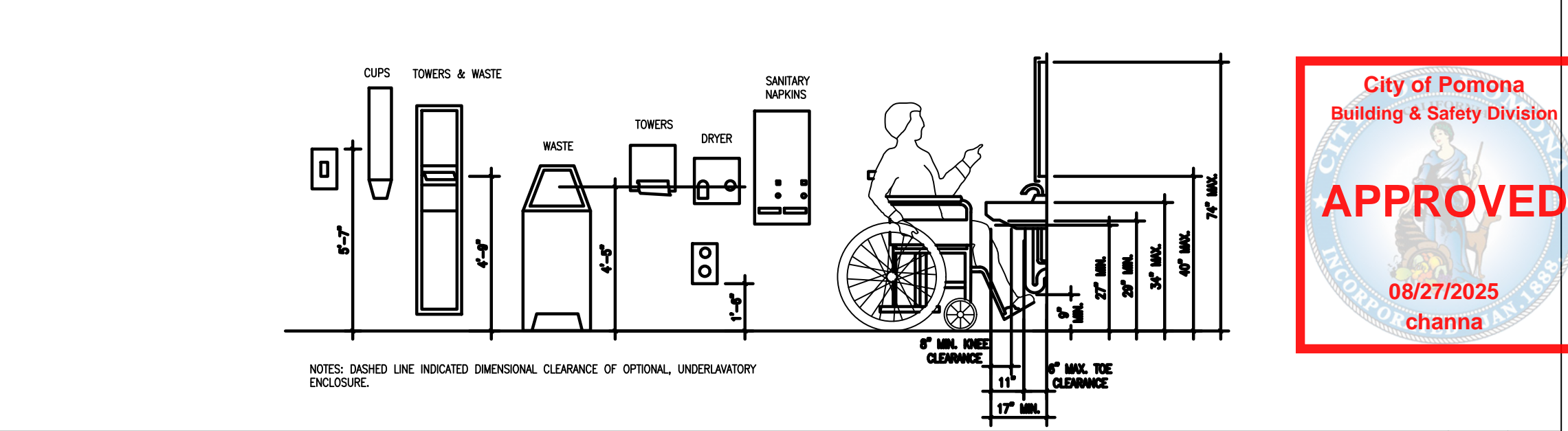
11B-202 A PATH OF TRAVEL REQUIREMENTS IN ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. WHEN ALTERATIONS OR ADDITIONS ARE MADE TO EXISTING BUILDINGS OR FACILITIES, AN ACCESSIBLE PATH OF TRAVEL TO THE SPECIFIC AREA OF ALTERATION OR ADDITION SHALL BE PROVIDED. THE PRIMARY ACCESSIBLE PATH OF TRAVEL SHALL INCLUDE:

- A PRIMARY ENTRANCE TO THE BUILDING OR FACILITY.
- TOILET AND BATHING FACILITIES SERVING THE AREA.
- DRINKING FOUNTAINS SERVING THE AREA.
- PUBLIC TELEPHONES SERVING THE AREA, AND
- SIGNS.

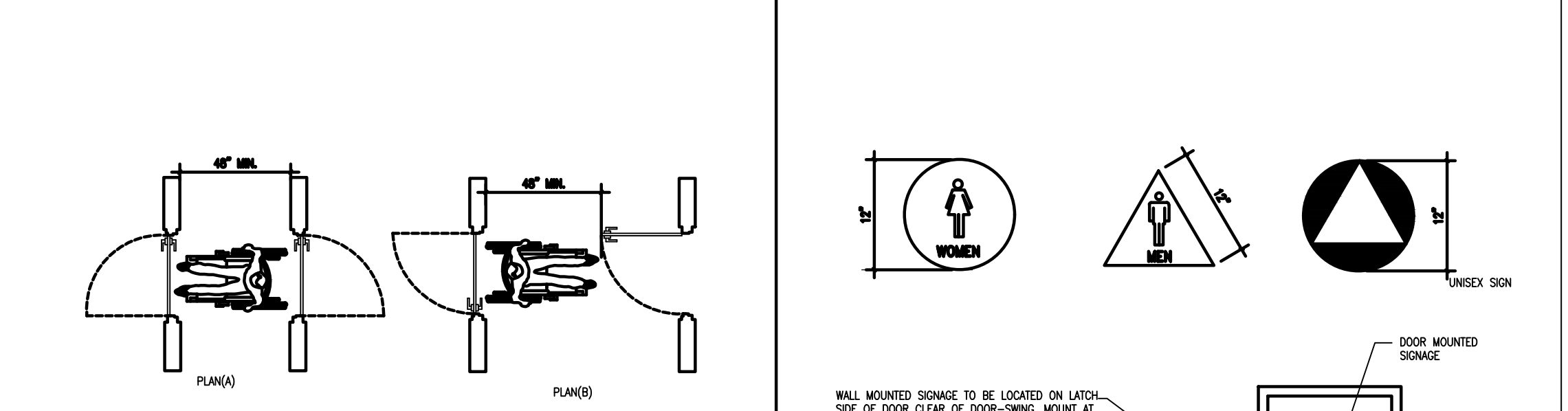
11B-308.1.1 ELECTRICAL SWITCHES, CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF A ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL COMPLY WITH SECTION 11B-308 EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX END THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX.

11B-308.1.2 ELECTRICAL RECEPTACLE OUTLETS. ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL COMPLY WITH SECTION 11B-308 EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX END THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX.

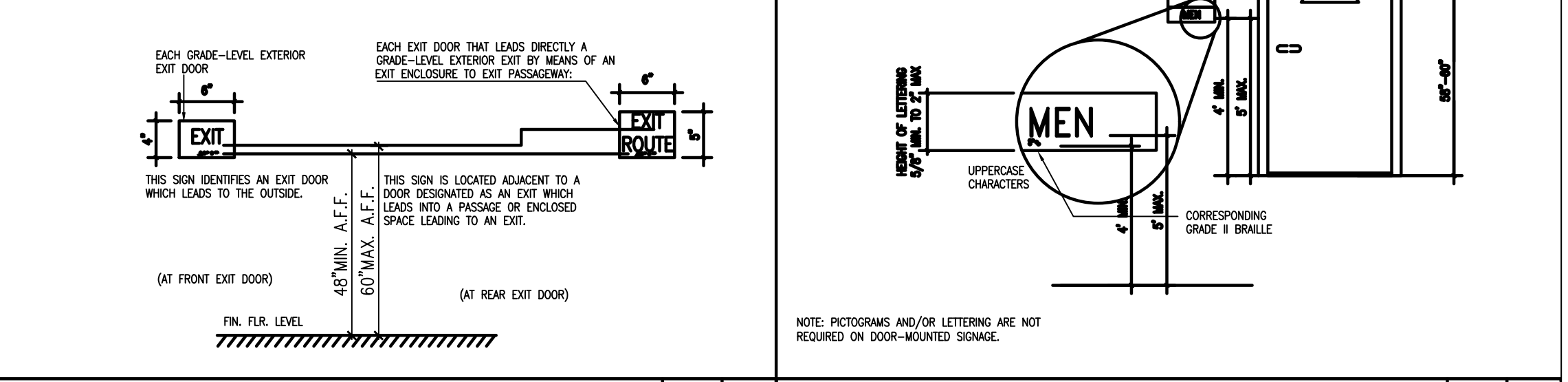
ADA ACCESSIBILITY STANDARDS N.T.S. 09



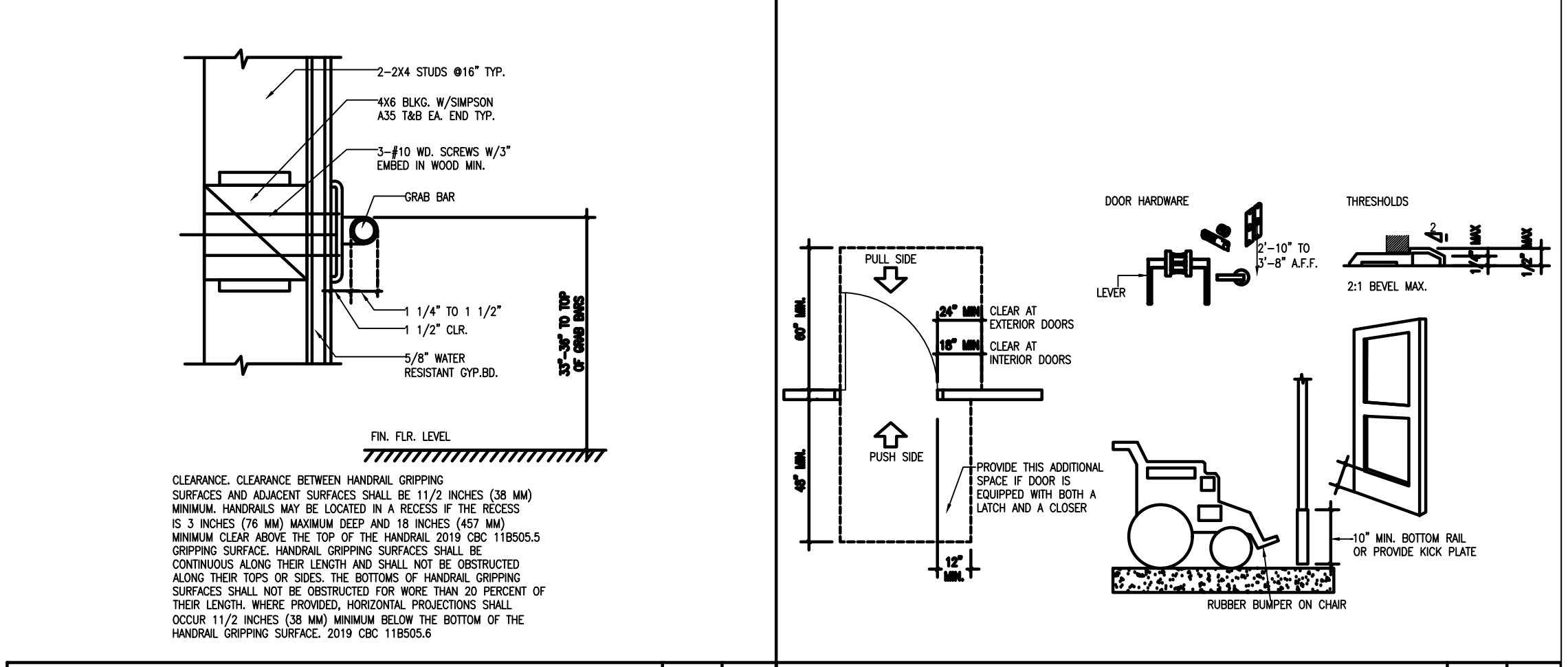
RESTROOM EQUIPMENT DETAILS N.T.S. 04



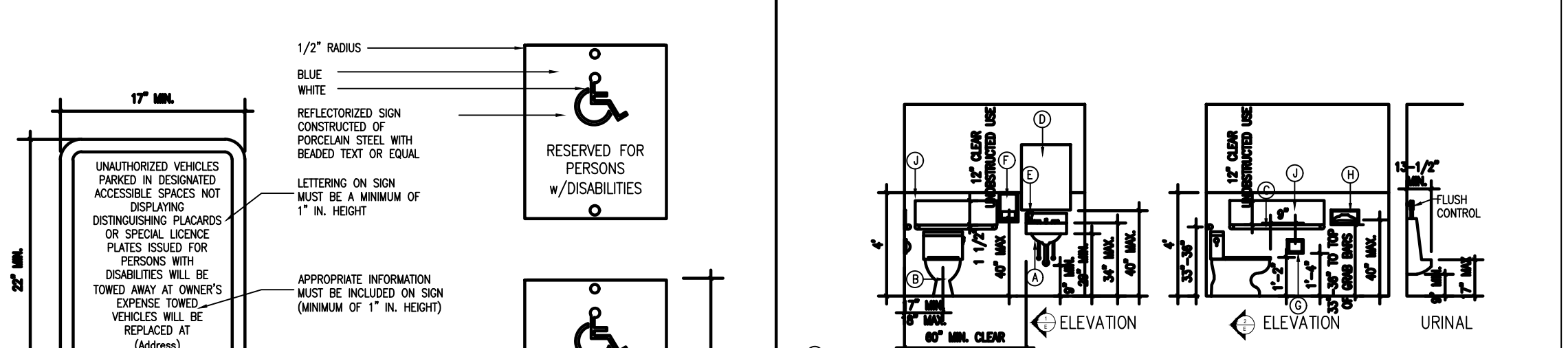
PATHWAY CLEARANCE (TYP.) N.T.S. 08



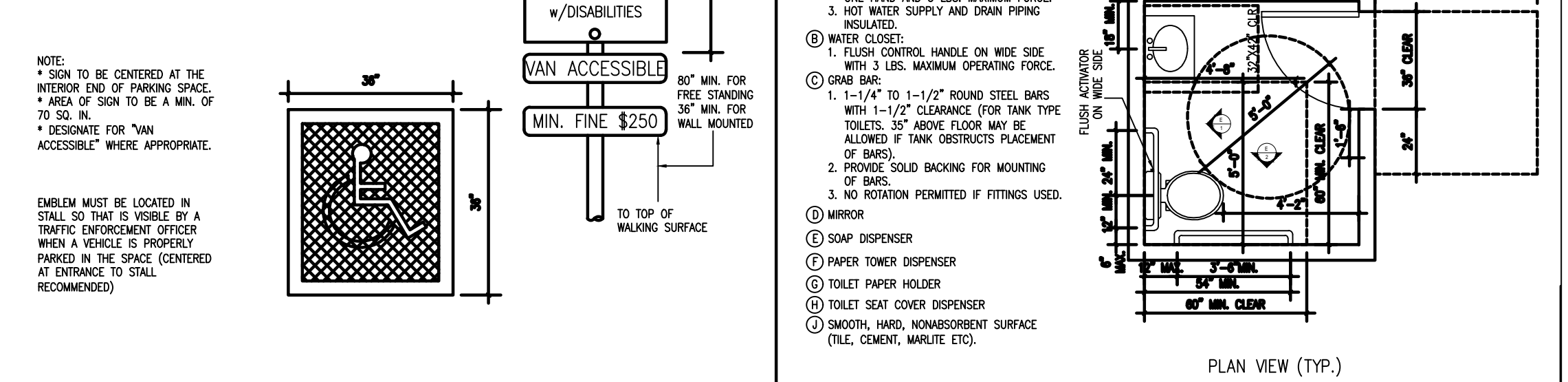
TACTILE EXIT SIGNS N.T.S. 07



DOOR MOUNTED SIGNAGE (TYP.) N.T.S. 03



HANDRAIL DETAILS N.T.S. 06



ACCESSIBLE DOOR DETAILS N.T.S. 02

- 11B-404 DOORS, DOORWAYS, AND GATES
- 11B-404.1 GENERAL
- DOORS, DOORWAYS, AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH SECTION 11B-404.
- 11B-404.2 MANUAL DOORS, DOORWAYS, AND MANUAL GATES
- MANUEL DOORS AND DOORWAYS END MANUAL GATES INTENDED FOR USER PASSAGE SHALL COMPLY WITH SECTION 11B-404.2.
- 11B-404.2.1 REVOLVING DOORS, GATES, AND TURNSTILES.
- REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES SHALL NOT BE PART OF AN ACCESSIBLE ROUTE.
- 11B-404.2.2 DOUBLE-LEAF DOORS AND GATES. AT LEAST ONE OF THE ACTIVE LEAVES OF DOORWAYS WITH TWO LEAVES SHALL COMPLY WITH SECTIONS 11B-404.2.3 AND 11B-404.2.4.
- 11B-404.2.3 CLEAR WIDTH. DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES (813 MM) MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. OPENINGS MORE THAN 24 INCHES (610 MM) DEEP SHALL PROVIDE A CLEAR OPENING OF 36 INCHES (914 MM) MINIMUM. THERE SHALL BE NO PROJECTIONS INTO THE REQUIRED CLEAR OPENING WITH LOWER THAN 34 INCHES (864 MM) ABOVE THE FINISH FLOOR OR GROUND. PROJECTIONS INTO THE DEAR OPENING WIDTH BETWEEN 34 INCHES (864 MM) AND 80 INCHES (2032 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL NOT EXCEED 4 INCHES (102 MM).
- 11B-404.2.4 MANEUVERING CLEARANCES. MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES SHALL COMPLY WITH SECTION 11B-404.2.4. MANEUVERING CLEARANCES SHALL EXTEND THE FULL WIDTH OF THE DOORWAY AND THE REQUIRED LATCH SIDE OR HINGE SIDE CLEARANCE.
- 11B-404.2.4.1 SWINGING DOORS AND GATES. SWINGING DOORS AND GATES SHALL HAVE MANEUVERING CLEARANCES COMPLYING WITH TABLE 11B-404.2.4.1.
- 11B-404.2.9 DOOR AND GATE OPENING FORCE. THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE EITHER THAN FIRE DOORS SHALL BE AS FOLLOWS:
 - INTERIOR HINGED DOORS AND GATES: 5 POUNDS (22.2 N) MAXIMUM.

- 2. SLIDING OR FOLDING DOORS: 5 POUNDS (22.2 N) MAXIMUM.
- 3. REQUIRED FIRE DOORS: THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NET TO EXCEED 15 POUNDS (66.7 N).
- 4. EXTERIOR HINGED DOORS: 5 POUNDS (22.2 N) MAXIMUM. THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR OR GATE IN A CLOSED POSITION.
- 11B-208: GENERAL. WHERE PARKING SPACES ARE PROVIDED, PARKING SPACES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 11B-205.
- 11B-205.2 MINIMUM NUMBER. PARKING SPACES COMPLYING WITH SECTION 11B-502 SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 11B-208.2 EXCEPT AS REQUIRED BY SECTIONS 11B-208.2.1, 11B-205.2.2, AND 11B-205.2.3. WHERE MORE THAN ONE PARKING FACILITY IS PROVIDED ON A SITE, THE NUMBER OF ACCESSIBLE SPACES PROVIDED ON THE SITE SHALL BE CALCULATED ACCORDING TO THE NUMBER OF SPACES REQUIRED FOR EACH PARKING FACILITY.
- 11B-205.2.4 VAN PARKING SPACES. FOR EVERY SIX OR FRACTION OF SIX PARKING SPACES REQUIRED BY SECTION 11B-205.2 TO COMPLY WITH SECTION 11B-502, AT LEAST ONE SHALL BE A VAN PARKING SPACE COMPLYING WITH SECTION 11B-502.
- 11B-502.6 IDENTIFICATION. PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH SECTION 11B-703.7.2.1. SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN ADDITIONAL LANGUAGE OR AN ADDITIONAL SIGN WITH THE DESIGNATION "VAN ACCESSIBLE." SIGNS SHALL BE 60 INCHES (1524 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND CLEARANCE MEASURED TO THE BOTTOM OF THE SIGN. EXCEPTION: SIGNS LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE A MINIMUM OF 80 INCHES (2032 MM) ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN.
- 11B-502.5 ADDITIONAL SIGNAGE. AN ADDITIONAL SIGN SHALL BE POSTED EITHER: 1) IN A CONSPICUOUS PLACE AT EACH ENTRANCE TO AN OFF-STREET PARKING FACILITY OR 2) IMMEDIATELY ADJACENT TO ON-SITE ACCESSIBLE PARKING AND VISIBLE FROM EACH PARKING SPACE.
- 11B-502.5.1 SIZE. THE ADDITIONAL SIGN SHALL NOT BE LESS

ADA ACCESSIBILITY STANDARDS N.T.S. 05

ACCESSIBLE PARKING SIGNAGE (TYP.) N.T.S. 05



#	REVISION	DATE

ACEMD CORPORATION
 18305 E VALLEY BLVD, SUITE A
 LA PUENTE, CA, 91744
 Off: (805) 259-7459
 KYLE.LEE@ACEMDCORP.COM

HAWK'S PROJECT
 604 E MISSION BLVD,
 POMONA, CA 91766

SHEET TITLE
ADA DETAILS

PROJECT NO. 2024-101
 DATE 01/04/24
 SCALE AS REFERENCED
 SHEET NO.

A107

ADA ACCESSIBILITY STANDARDS N.T.S. 09

ACCESSIBLE PARKING SIGNAGE (TYP.) N.T.S. 05

ADA ACCESSIBILITY STANDARDS N.T.S. 09

ACCESSIBLE PARKING SIGNAGE (TYP.) N.T.S. 05

SINGLE OCCUPANCY DISABLE TOILET (TYP.) N.T.S. 01

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (July 2024 Supplement)

Y	N/A	RESPON PARTY	CHAPTER 3 GREEN BUILDING SECTION 301 GENERAL
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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. 301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG] The provisions of individual sections of Chapter 3 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work. <p>A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no banner will be used.</p> 301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only: Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 et seq. for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance. 301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work. 301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC) 301.5 HEALTH FACILITIES. (see GBSC) 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. SECTION 303 PHASED PROJECTS 303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements, only those code provisions that apply to the building components and systems considered to be new construction (or newly constructed) shall apply. 303.1.1 Initial Tenant Improvements. The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations. ABBREVIATION DEFINITIONS: HCD Department of Housing and Community Development BSC California Building Standards Commission DSA-SS Division of the State Architect, Structural Safety OSHDP Office of Statewide Health Planning and Development LR Low Rise HR High Rise AA Additions and Alterations N New CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES DIVISION 5.1 PLANNING AND DESIGN SECTION 5.101 GENERAL 5.101.1 SCOPE The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties. SECTION 5.102 DEFINITIONS 5.102.1 DEFINITIONS The following terms are defined in Chapter 2 (and are included here for reference) CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candlepower per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire. ELECTRIC VEHICLE (EV), [BSC-CG, HCD] An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the California Electrical Code, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transporters, golf carts, airline ground support equipment, tractors, boats and the like, are not included. ELECTRIC VEHICLE (EV) CAPABLE SPACE, [BSC-CG, DSA-SS and HCD] A vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways, both underground and/or surface mounted, to support EV charging. ELECTRIC VEHICLE (EV) CHARGER, [BSC-CG, HCD] Off-board charging equipment used to charge an electric vehicle. ELECTRIC VEHICLE CHARGING SPACE (EV SPACE), [HCD] A space intended for future installation of EV charging equipment and charging of electric vehicles. ELECTRIC VEHICLE CHARGING STATION (EVCS), [BSC-CG, DSA-SS, HCD] One or more electric vehicle charging spaces served by EVSE or receptacle(s). ELECTRIC VEHICLE (EV) READY SPACE, [HCD] A vehicle space which is provided with a branch circuit, any necessary raceways, both underground and/or surface mounted; to accommodate EV charging, terminating in a receptacle or a charger. ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE), [BSC-CG, DSA-SS and HCD] The conductors, including the ungrounded, grounded and equipment grounding conductors and the electric vehicle connectors, attachment plugs, personnel protection system, and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle. SECTION 5.105 DECONSTRUCTION AND REUSE OF EXISTING STRUCTURES 5.105.1 Scope, [BSC-CG] Effective July 1, 2024, alteration(s) to existing building(s) where the combined altered floor area is 100,000 square feet or greater shall comply with either Section 5.105.2, 5.409.2, or 5.409.3. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 100,000 square feet or greater shall comply with either Section 5.105.2, Section 5.409.2, or Section 5.409.3. Effective January 1, 2026, the combined floor area shall be 50,000 square feet or greater. [DSA-SS] Alteration(s) to existing building(s) where the combined altered floor area is 50,000 square feet or greater shall comply with either Section 5.105.2, 5.409.2, or 5.409.3. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 50,000 square feet or greater shall comply with either Section 5.105.2, Section 5.409.2, or Section 5.409.3. Exception [BSC-CG, DSA-SS]: Combined addition(s) to existing building(s) of two times the area or more of the existing building(s) is not eligible to meet compliance with Section 5.105.2. 5.105.2 Reuse of existing building. An alteration or addition to an existing building shall maintain at a minimum 45 percent combined of the existing building's primary structural elements (foundations, columns, beams, walls, and floors) and lateral elements) and existing building enclosure (roof framing, wall framing and exterior finishes). Window assemblies, insulation, portions of buildings deemed structurally unsound or hazardous, and hazardous materials that are remediated as part of the project shall not be included in the calculation. 5.105.2.1 Verification of compliance. Documentation shall be provided in the construction documents to demonstrate compliance with Section 5.105.2. Note: Sample Worksheet WS-3 in Chapter 8 may be used to assist in documenting compliance with this section. 5.105.3 Deconstruction (Reserved).

Y	N/A	RESPON PARTY	SECTION 5.106 SITE DEVELOPMENT
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE OF LAND. Newly constructed projects and additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures: 5.106.1.1 Local ordinance. Comply with a lawfully enacted storm water management and/or erosion control ordinance. 5.106.1.2 Best Management Practices (BMPs). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMPs. <ol style="list-style-type: none">Soil loss BMPs that should be considered for implementation as appropriate for each project include, but are not limited to, the following:<ol style="list-style-type: none">Scheduling construction activity during dry weather, when possible.Preservation of natural features, vegetation, soil, and buffers around surface waters.Drainage swales or lined ditches to control stormwater flow.Mulching or hydroseeding to stabilize disturbed soils.Erosion control to protect slopes.Protection of storm drain inlets (gravel bags or catch basin inserts).Perimeter sediment control (perimeter silt fence, fiber rolls).Sediment trap or sediment basin to retain sediment on site.Stabilized construction exits.Wind erosion control.Spill response materials acceptable to the enforcing agency.Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following:<ol style="list-style-type: none">Dewatering activities.Material handling and waste management.Building materials stockpile management.Management of washout areas (concrete, paints, stucco, etc.).Control of vehicle/equipment fueling to contractor's staging area.Vehicle and equipment cleaning performed off site.Spill prevention and control.Other housekeeping BMPs acceptable to the enforcing agency. 5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development or sale. Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit). The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conversion design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency. Refer to the current applicable permits on the State Water Resources Control Board website at: www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development. 5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2. 5.106.4.1 Bicycle parking, [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter. 5.106.4.1.1 Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. Exception: Additions or alterations which add nine or less visitor vehicular parking spaces. 5.106.4.1.2 Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. 5.106.4.1.3 For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a minimum of one bicycle parking facility. 5.106.4.1.4 For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. 5.106.4.1.5 Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street and shall meet one of the following: <ol style="list-style-type: none">Covered, lockable enclosures with permanently anchored racks for bicycles;Lockable bicycle rooms with permanently anchored racks; orLockable, permanently anchored bicycle lockers. Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates. 5.106.4.2 Bicycle parking, [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2. 5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building. 5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following: <ol style="list-style-type: none">Covered, lockable enclosures with permanently anchored racks for bicycles;Lockable bicycle rooms with permanently anchored racks; orLockable, permanently anchored bicycle lockers. 5.106.5.3 Electric vehicle (EV) charging, [N] [BSC-CG] Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3.1 EV capable spaces. Section 5.106.5.3.2 Electric vehicle charging stations and associated Table 5.106.5.3.1, or Section 5.106.5.3.6 Electric vehicle charging stations (EVCS) – Power allocation method and associated Table 5.106.5.3.6 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code. Exceptions: <ol style="list-style-type: none">On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:<ol style="list-style-type: none">Where there is no local utility power supply.Where the local utility is unable to supply adequate power.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 5.106.5.3, may adversely impact the construction cost of the project.Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section. 5.106.5.3.1 EV capable spaces, [N] EV capable spaces shall be provided in accordance with Table 5.106.5.3.1 and the following requirements: <ol style="list-style-type: none">Raceways complying with the California Electrical Code and no less than 1-inch (25 mm) diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the EV capable and into a suitable listed cabinet, box, enclosure or equivalent. A common raceway may be used to serve multiple EV charging spaces.A service panel or subpanel (s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS.The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated ampereage at each EV capable space.The service panel or subpanel circuit directory shall identify the reserved overcurrent protective devices space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE." Note: 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 an enforcement agency. See vehicle Code Section 22511.2 for further details.

Y	N/A	RESPON PARTY	TABLE 5.106.5.3.1																																																						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<table border="1"><thead><tr><th>TOTAL NUMBER OF ACTUAL PARKING SPACES</th><th>NUMBER OF REQUIRED EV CAPABLE SPACES</th><th>NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE)^{1,2}</th></tr></thead><tbody><tr><td>0-9</td><td>0</td><td>0</td></tr><tr><td>10-25</td><td>2</td><td>0</td></tr><tr><td>26-50</td><td>8</td><td>2</td></tr><tr><td>51-75</td><td>13</td><td>3</td></tr><tr><td>76-100</td><td>17</td><td>4</td></tr><tr><td>101-150</td><td>25</td><td>6</td></tr><tr><td>151-200</td><td>35</td><td>9</td></tr><tr><td>201 AND OVER</td><td>20 percent of actual parking spaces³</td><td>25 percent of EV capable spaces³</td></tr></tbody></table> <ol style="list-style-type: none">Calculation for spaces shall be rounded up to the nearest whole number.The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count toward the total number of required EV capable spaces shown in column 2.At least one Level 2 EVSE shall be provided. 5.106.5.3.2 Electric vehicle charging stations (EVCS) EV capable spaces shall be provided with electric vehicle supply equipment (EVSE) to create EVCS in the number indicated in Table 5.106.5.3.1. The EVCS required by Table 5.106.5.3.1 shall be provided with Level 2 EVSE or DCFC as permitted in Section 5.106.5.3.2.1. At least one Level 2 EVSE shall be provided. One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.3.1 for each EV capable space is accumulatively supplied to the EV charger. The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces without EVSE by five and reduce proportionally the required electrical load capacity to the service panel or subpanel. 5.106.5.3.2.1 The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces without EVSE or EVCS with Level 2 EVSE by five and reduce proportionally the required electrical load capacity to the service panel or subpanel. 5.106.5.3.2.2 The installation of two low power Level 2 EV charging receptacles shall be permitted to reduce the minimum number of required EV capable spaces without EVSE in Table 5.106.5.3.1 by one. 5.106.5.3.3 Use of automatic load management systems (ALMS). ALMS shall be permitted for EVCS. When ALMS is installed, the required electrical load capacity specified in Section 5.106.5.3.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 3.0 ampers to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs. 5.106.5.3.4 Accessible EVCS. When EVSE is installed, accessible EVCS shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3. Note: For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s). 5.106.5.3.4 Accessible electric vehicle charging station (EVCS). When EVSE is installed, accessible EVCS shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3. 5.106.5.3.5 Electric vehicle charging station signage. Electric vehicle charging stations 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). Power allocation method shall include the following: <ol style="list-style-type: none">Use any kVA combination of EV capable spaces, low power Level 2, Level 2 or DCFC EVSEs.At least one Level 2 EVSE shall be provided. 5.106.5.3.6 Electric vehicle charging stations (EVCS) – power allocation method. The power allocation method may be used as an alternative to the requirements in Section 5.106.5.3.1, Section 5.106.5.3.2 and associated Table 5.106.5.3.1. Use Table 5.106.5.3.6 to determine the total power in kVA required based on the total number of actual parking spaces. <table border="1"><thead><tr><th>TOTAL NUMBER OF ACTUAL PARKING SPACES</th><th>MINIMUM TOTAL KVA @ 6.6 KVA</th><th>TOTAL KVA REQUIRED IN ANY COMBINATION OF EV CAPABLE, 3,4 LOW POWER LEVEL 2, LEVEL 2, 1, 2 OR DCFC</th></tr></thead><tbody><tr><td>0-9</td><td>0</td><td>0</td></tr><tr><td>10-25</td><td>26.4</td><td>26.4</td></tr><tr><td>26-50</td><td>52.8</td><td>52.8</td></tr><tr><td>51-75</td><td>85.8</td><td>85.8</td></tr><tr><td>76-100</td><td>112.2</td><td>112.2</td></tr><tr><td>101-150</td><td>165</td><td>165</td></tr><tr><td>151-200</td><td>231</td><td>231</td></tr><tr><td>201 AND OVER</td><td>20 percent of actual parking spaces x 6.6</td><td>Total required kVA = P x 20 ÷ 6.6 Where P = Parking spaces in facility</td></tr></tbody></table> <ol style="list-style-type: none">Level 2 EVSE @ 6.6 kVA minimum.At least one Level 2 EVSE shall be provided.Maximum allowed kVA to be utilized for EV capable spaces is 75 percent.If EV capable spaces are utilized, they shall meet the requirements of Section 5.106.5.3.1 EV capable spaces. 5.106.5.4 Additions or alterations to existing buildings or parking facilities [A]. [BSC-CG] Existing buildings or parking facilities being modified by one of the following shall comply with Section 5.106.5.4.1 or 5.106.5.4.2. When EVSE is installed, accessible EVCS shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3. <ol style="list-style-type: none">When the scope of construction work includes an increase in power supply to an electric service panel as part of a parking facility addition or alteration.When a new photovoltaic system is installed covering existing parking spaces.When additions or alterations to existing buildings are triggered pursuant to code Section 301.3 and the scope of work includes an increase in power supply to an electric service panel. Exceptions: <ol style="list-style-type: none">On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:<ol style="list-style-type: none">Where there is no local utility power supply.Where the local utility is unable to supply adequate power.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 5.106.5.3, may adversely impact the construction cost of the project.Remove parking facilities that do not have access to the building service panel.Parking area lighting upgrades where no trenching is part of the scope of work.Emergency repairs, including but not limited to water line break in parking facilities, natural disaster repairs, etc. 5.106.5.4.1 Existing buildings or parking areas without previously installed EV capable infrastructure [A]. When EV capable infrastructure is available at an existing parking facility or building, and the parking facility or building undergoes an addition or alteration listed in Section 5.106.5.4, construction shall include electric vehicle charging in compliance with either Section 5.106.5.3 and associated Table 5.106.5.3.1, or Section 5.106.5.3.6 and associated Table 5.106.5.3.6 for the total number of actual parking spaces being added or altered. 5.106.5.4.2 Existing buildings or parking areas with previously installed EV capable infrastructure [A]. When EV capable infrastructure is available at an existing parking facility or building, and the parking facility or building is undergoing an addition or alteration listed in Section 5.106.5.4, construction shall include electric vehicle charging in compliance with either Section 5.106.5.3 and associated Table 5.106.5.3.1, or Section 5.106.5.3.6 and associated Table 5.106.5.3.6 utilizing the existing EV capable allocated power and infrastructure for the total number of actual parking spaces being added or altered. If the area being added or altered exceeds the existing EV capable capacity, allocated power and infrastructure, provide additional EV charging as needed to comply with this section.	TOTAL NUMBER OF ACTUAL PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE) ^{1,2}	0-9	0	0	10-25	2	0	26-50	8	2	51-75	13	3	76-100	17	4	101-150	25	6	151-200	35	9	201 AND OVER	20 percent of actual parking spaces ³	25 percent of EV capable spaces ³	TOTAL NUMBER OF ACTUAL PARKING SPACES	MINIMUM TOTAL KVA @ 6.6 KVA	TOTAL KVA REQUIRED IN ANY COMBINATION OF EV CAPABLE, 3,4 LOW POWER LEVEL 2, LEVEL 2, 1, 2 OR DCFC	0-9	0	0	10-25	26.4	26.4	26-50	52.8	52.8	51-75	85.8	85.8	76-100	112.2	112.2	101-150	165	165	151-200	231	231	201 AND OVER	20 percent of actual parking spaces x 6.6	Total required kVA = P x 20 ÷ 6.6 Where P = Parking spaces in facility
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[N] [BSG-CG] Construction shall comply with Section 5.106.5.5.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores, office buildings, and manufacturing facilities with planned off-street loading spaces shall also comply with Section 5.106.5.5.1 for future installation of medium- and heavy-duty EVSE. Exceptions: <ol style="list-style-type: none">On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:<ol style="list-style-type: none">Where there is no local utility power supply.Where the local utility is unable to supply adequate power.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 5.106.5.3, may adversely impact the construction cost of the project. When EVSE(s) is/are installed, it shall be in accordance with the California Building Code, the California Electrical Code and as follows: 5.106.5.5.1.1 Electric vehicle charging readiness requirements for warehouses, grocery stores, office buildings, and manufacturing facilities and retail stores with planned off-street loading spaces. [N] In order to avoid future demolition when adding EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s) or subpanel(s) shall be installed at the time of construction in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following: <ol style="list-style-type: none">The transformer, main service equipment and subpanels shall meet the minimum power requirement in Table 5.106.5.5.1 to accommodate the dedicated branch circuits for the future installation of EVSE.The construction documents shall indicate one or more location(s) convenient to the planned off-street loading space(s) reserved for medium- and heavy-duty ZEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s), as shown in Table 5.106.5.5.1.Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium- and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipment for medium- and heavy-duty vehicles.The raceway(s) or busway(s) shall be of sufficient size to carry the minimum additional system load to the future location of the charging for medium- and heavy-duty ZEVs as shown in Table 5.106.5.5.1. TABLE 5.106.5.5.1 RACEWAY CONDUIT AND PANEL POWER REQUIREMENTS FOR MEDIUM- AND HEAVY-DUTY EVSE [N] <table border="1"><thead><tr><th>BUILDING TYPE</th><th>BUILDING SIZE (SQ. 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[DSA-SS] Electric vehicle infrastructure and electric vehicle charging stations shall comply with Section 5.106.5.6 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code. Exceptions: <ol style="list-style-type: none">On a case-by-case basis where compliance with this section has been demonstrated to be not feasible based upon one of the following conditions and with concurrence by the Division of the State Architect (DSA), compliance with Section 5.106.5.6 shall not be required.<ol style="list-style-type: none">Where there is no local utility power supply.Where the local utility is unable to supply adequate power.The installation of EVCS is impracticable.Parking spaces accessible only by automated mechanical car parking systems are not required to comply with Section 5.106.5.6. 5.106.5.6.1 EV capable spaces. EV capable spaces shall be provided in accordance with Table 5.106.5.6.1 and the following requirements: <ol style="list-style-type: none">Raceways complying with the California Electrical Code and no less than 1-inch (25 mm) diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area and shall terminate in close proximity to the proposed location of the EV capable space and into a suitable listed cabinet, box, enclosure or equivalent. A common raceway may be used to serve multiple EV capable spaces.A service panel or subpanel(s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS.The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated ampereage at each EV capable space.The service panel or subpanel circuit directory shall identify the reserved overcurrent protective device space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE." 5.106.5.6.2 Electric vehicle charging stations (EVCS). EV capable spaces shall be provided with EVSE to create EVCS in the number indicated in Table 5.106.5.6.1 and shall comply with Section 5.106.5.6.2. EVCS shall be serviced by Level 2 or Direct Current Fast Charging (DCFC) EVSE, or with EVSE in any combination of Level 2 and DCFC. Accessible EVCS shall be provided in accordance with California Building Code Chapter 11B. Exceptions: <ol style="list-style-type: none">Calculation for spaces shall be rounded up to the nearest whole number.Each EVCS shall reduce the number of required EV capable spaces by the same number. 5.106.5.6.2 Electric vehicle charging stations (EVCS). EV capable spaces shall be provided with EVSE to create EVCS in the number indicated in Table 5.106.5.6.1 and shall comply with Section 5.106.5.6.2. EVCS shall be serviced by Level 2 or Direct Current Fast Charging (DCFC) EVSE, or with EVSE in any combination of Level 2 and DCFC. Accessible EVCS shall be provided in accordance with California Building Code Chapter 11B.	BUILDING TYPE	BUILDING SIZE (SQ. FT.)	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KYLE.LEE@ACEMDCORP.COM

HAWK'S PROJECT

SHEET TITLE

CAL GREEN
NOTE 1

PROJECT NO. 2024-101
DATE 01/04/24
SCALE AS REFERENCED
SHEET NO.

A 108

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (July 2024 Supplement)

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

5.106.5.6.2.1 Reduced number of EV capable spaces. The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces indicated in Table 5.106.5.6.1 by five and reduce proportionally the required electrical load capacity to the service panel or subpanel.

5.106.5.6.2.2 Multiple connectors. EVSE with multiple vehicle connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.6.1 for each EV capable space is accumulatively supplied to the EVSE.

5.106.5.6.2.3 Use of automatic load management systems (ALMS). ALMS shall be permitted for EVCS installed in accordance with Section 5.106.5.6.2. When ALMS is installed, the required electrical load capacity specified in Section 5.106.5.6.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

5.106.5.6.3 EVCS alternative compliance. In lieu of compliance with Section 5.106.5.6.2, EVCS shall be provided with Level 1, low power Level 2, or Level 2, or any combination of Level 1, low power Level 2 or Level 2 EVSE such that the total power supplied by the combination of EVSE meets the minimum power indicated in Table 5.106.5.6.3, based on the total number of actual parking spaces in each parking facility.

NUMBER OF PARKING SPACES IN A PARKING FACILITY	MINIMUM TOTAL POWER (KVA) REQUIRED FOR EVCS
0-9	0
10-25	7
26-50	14
51-75	20
76-100	27
101-150	40
151-200	60
201 AND OVER	Total required KVA = P × .05 × 6.6 Where P = Parking spaces in facility

5.106.5.6.4 EVCS for alterations of or additions to parking facilities. Alterations of or additions to parking facilities shall provide EVCS in compliance with Section 5.106.5.6.4. The installation of infrastructure for EV capable spaces required to be provided without EVSE shall not be required.

5.106.5.6.4.1 Alterations of and additions to parking facilities. EVCS shall be provided in accordance with the number indicated in Table 5.106.5.6.1 or minimum power indicated in Table 5.106.5.6.3 when the scope of work includes an increase in power supply to an electric panel serving light fixtures illuminating the parking area or when area containing parking spaces is added to a parking facility. The number of required EVCS shall be based on the total number of existing and new parking spaces in the parking facility.

5.106.5.6.4.2 Alterations consisting of the installation of photovoltaic systems. EVCS shall be provided in accordance with the number indicated in Table 5.106.5.6.1 or maximum power indicated in Table 5.106.5.6.3 when a new photovoltaic system is installed in an existing parking facility.

5.106.5.6.5 Requirement to install EVSE. Level 2 EVSE shall be provided in all existing EV capable spaces to create EVCS when a project is required by California Administrative Code Section 4-309 to be submitted for plan approval to the Division of the State Architect. When EVSE is installed in existing EV capable spaces, accessible EVCS shall be provided in accordance with California Building Code Chapter 11B.

Exception: Projects in which improvements in parking areas consist only of accessibility improvements are not required to comply with Section 5.106.5.6.5.

5.106.8 LIGHT POLLUTION REDUCTION. [N]. Outdoor lighting systems shall be designed and installed to comply with the following:

- The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10, Section 10-114 of the California Administrative Code; and
- Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);
- Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in Chapter 8) and
- Allowable BUG ratings not exceeding those shown in Table 5.106.8, [N] or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

- Exceptions: [N]**
- Luminaires that qualify as exceptions in Sections 130.2 (b) and 140.7 of the California Energy Code.
 - Emergency lighting.
 - Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6.
 - Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.
 - Luminaires with less than 6,200 initial luminaire lumens.

ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
MAXIMUM ALLOWABLE BACKLIGHT RATING¹					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	B0	B0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING (U)					
For area lighting	N/A	U0	U0	U0	U0
For all other outdoor lighting, including decorative luminaires	N/A	U1	U2	U3	UR
MAXIMUM ALLOWABLE GLARE RATING - (G)					
MAXIMUM ALLOWABLE GLARE RATING - (G)	N/A	G1	G2	G3	G4
MAXIMUM ALLOWABLE GLARE RATING - (G)	N/A	G0	G1	G1	G2
MAXIMUM ALLOWABLE GLARE RATING - (G)	N/A	G0	G0	G1	G1
MAXIMUM ALLOWABLE GLARE RATING - (G)	N/A	G0	G0	G0	G1

- IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the California Energy Code and Chapter 10 of the California Administrative Code.
- For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.
- General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet U-value limits for "all other outdoor lighting"

5.106.8.1 Facing- Backlight
Luminaires within 2MH of a property line shall be oriented so that the nearest property line is behind the fixture, and shall comply with the backlight rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point of that property line.

Exception: Corners. If two property lines (or two segments of the same property line) have equidistant point to the luminaire, then the luminaire may be oriented so that the intersection of the two lines (the corner) is directly behind the luminaire. The luminaire shall still use the distance to the nearest point(s) on the property lines to determine the required backlight rating.

5.106.8.2 Facing-Glare.
For luminaires covered by 5.106.8.1, if a property line also exists within or extends into the front hemisphere within 2MH of the luminaire then the luminaire shall comply with the more stringent glare rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point on the nearest property line within the front hemisphere.

Note: [N]

- See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways
- Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1, California Energy Code Tables 130.2-A and 130.2-B.
- Refer to the California Building Code for requirements for additions and alterations.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a 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:

- Swales.
- Water collection and disposal systems.
- French drains.
- Water retention gardens.
- Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

5.106.12 SHADE TREES [DSA-SS]. Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.

5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years.

Exceptions: Surface parking area covered by solar photovoltaic shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting.

5.106.12.2 Landscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.

Exceptions: Playfields for organized sport activity are not included in the total area calculation.

5.106.12.3. Hardscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20 percent of the hardscape area within 15 years.

Exceptions:

- Walks, hardscape areas covered by solar photovoltaic shade structures or shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting.
- Designated and marked play areas of organized sport activity are not included in the total area calculation.

DIVISION 5.2 ENERGY EFFICIENCY

SECTION 5.201 GENERAL
5.201.1 Scope [BSC-CG, California Energy Code [DSA-SS]. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION

SECTION 5.301 GENERAL
5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

SECTION 5.302 DEFINITIONS
5.302.1 Definitions. The following terms are defined in Chapter 2 (and are included here for reference)

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETA) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which are two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unwholesome processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or dishwashers.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWLEO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWLEO) [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWLEO, or adopt a local ordinance at least as effective as the MWLEO.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5.

POTABLE WATER [HCD] Water that is satisfactory for drinking, culinary, and domestic purposes, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur (Water Code Section 13050 [n]). Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER, [HCD 1] A secondary device beyond a meter that measures water consumption of an individual rental unit within a multiunit residential structure or mixed-use residential and commercial structure. (See Civic Code Section 1954.202 (g) and Water code Section 517 for additional details.)

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWLEO).

SECTION 5.303 INDOOR WATER USE
5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 503.1.1 and 503.1.2.

- 5.303.1.1 Buildings in excess of 50,000 square feet.** Separate submeters shall be installed as follows:
- For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
 - Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
 - Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
 - Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s).
 - Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).
- 5.303.1.2 Excess consumption.** A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1 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.

5.303.3.2 Urinals.
5.303.3.2.1 Wall-mounted Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.

5.303.3.2.2 Floor-mounted Urinals. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.

5.303.3.3 Showerheads. [BSC-CG]
5.303.3.3.1 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.

5.303.3.3.2 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 allow only one shower outlet to be in operation at a time.
Note: A hand-held shower shall be considered a showerhead.

5.303.3.3.3 Showerheads. [BSC-CG]
5.303.3.3.1 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.

5.303.3.3.2 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 allow only one shower outlet to be in operation at a time.
Note: A hand-held shower shall be considered a showerhead.

5.303.3.4 Faucets and fountains.
5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 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.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 (rim space (inches) at 60 psi).

5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.

5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 (rim space (inches) at 60 psi).

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

5.303.3.4.6 Pre-rinse spray valve
When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 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).

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

5.303.4 COMMERCIAL KITCHEN EQUIPMENT.
5.303.4.1 Food Waste Disposers. Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.
Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation.

5.303.5 AREAS OF ADDITION OR ALTERATION. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building.

5.303.6 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 and in Chapter 6 of this code.

SECTION 5.304 OUTDOOR WATER USE
5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWLEO), whichever is more stringent.

Notes:

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

5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWLEO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration adjustment factor (ETA) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35.

Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWLEO.

5.304.6.1 Newly constructed landscapes. New construction projects with an aggregate landscape area equal to or greater than 500 square feet.

5.304.6.2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.

DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

SECTION 5.401 GENERAL
5.401.1 SCOPE. The provisions of this chapter specify the requirements of achieving material conservation, resource efficiency, and greenhouse gas (GHG) emission reduction through protection of buildings from exterior moisture, construction waste diversion, employment of techniques to reduce pollution through recycling of materials, the installation of products with lower GHG emissions and building commissioning or testing and adjusting.

SECTION 5.402 DEFINITIONS
5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 (and are included here for reference)

ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.

BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities.

BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner's project requirements.

BUY CLEAN CALIFORNIA ACT (BVCA). The Buy Clean California Act (BVCA) (Public Contract Code Sections 3500-3505) targets carbon emissions associated with the production of structural steel (hot-rolled sections, hollow structural sections, and plate), concrete reinforcing steel, flat glass, and mineral wool board insulation. The maximum acceptable global warming potential (GWP) limits are established by the Department of General Services (DGS), in consultation with the California Air Resources Board (CARB).

CRADLE-TO-GRAVE. Activities associated with a product or building's life cycle from the extraction stage through disposal stage, and covering modules A1 through C4 in accordance with ISO Standards 14025 and 21930.

ORGANIC WASTE. Food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food soiled paper waste that is mixed in with food waste.

REFERENCE STUDY PERIOD. The period of use for the building, in years, that will be assumed for life cycle assessment.

TEST. A procedure to determine quantitative performance of a system or equipment

TYPE III ENVIRONMENTAL PRODUCT DECLARATION (EPD). A third-party verified report that summarizes how a product impacts the environment. Type III EPDs can be either product-specific, factory-specific, or industry-wide EPDs. See "Cradle-to-Gate."

FACTORY-SPECIFIC EPD. A product-specific Type III EPD in which the environmental impacts can be attributed to a single manufacturer and manufacturing facility.

INDUSTRY-WIDE EPD (IW-EPD). A Type III EPD in which the environmental impacts are an average of the typical manufacturing impacts for a range of products within the same product category for a group of manufacturers.

PRODUCT-SPECIFIC EPD. A Type III EPD in which the environmental impacts can be attributed to a product design and manufacturer across multiple facilities.

SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT
5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 (Weather Protection), manufacturer's installation instructions or local ordinance, whichever is more stringent.

5.407.2 MOISTURE CONTROL. Employ moisture control measures by the following methods.

5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures.

5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:

- 5.407.2.2.1 Exterior door protection.** Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:
- An installed awning at least 4 feet in depth.
 - The door is protected by a roof overhang at least 4 feet in depth.
 - The door is recessed at least 4 feet.
 - Other methods which provide equivalent protection.
- 5.407.2.2.2 Flashing.** Install flashings integrated with a drainage plane.

SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

5.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that:

- Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse of the project or salvage for future use or sale.
- Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
- Identifies diversion facilities where construction and demolition waste material collected will be taken.
- Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

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

Exceptions to Sections 5.408.1.1 and 5.408.1.2:

- Excavated soil and land-clearing debris.
- Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
- Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.

5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement as approved by the enforcing agency.

5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.

Notes:

- Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen may be used to assist in documenting compliance with the waste management plan.
- Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

5.408.2 UNIVERSAL WASTE. [A] Additions and alterations to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction documents.

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2022 CALIFORNIA GREEN BUILDING STANDARDS CODE NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (July 2024 Supplement)

Y NA RESPON. PARTY
YES NOT APPLICABLE RESPONSIBLE PARTY (i.e. ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y	NA	RESPON. PARTY
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.409.2 Whole building life cycle assessment. Projects shall conduct a cradle-to-grave whole building life cycle assessment performed in accordance with ISO 14040 and ISO 14044, excluding operating energy, and demonstrating a minimum 10-percent reduction in global warming potential (GWP) as compared to a reference baseline building of similar size, function, complexity, type of construction, material specification, and location that meets the requirements of the California Energy Code currently in effect. Software used to conduct the whole building life cycle assessment, including reference baseline building, shall have a data set compliant with ISO 14044, and ISO 21930 or EN 15804, and the software shall conform to ISO 21931 and/or EN 15978. The software tools and data sets shall be the same for evaluation of both the baseline building and the proposed building.</p> <p>Notes: 1. Software for calculating whole building life cycle assessment is available for free at Athena Sustainable Materials Institute (https://calculatela.com/software/impact-estimator/) and OneClick LCA-Planetary (www.oneclicklca.com/planetary/). Paid versions include, but are not limited to, Sphera GaBI Solutions (gaabi.sphera.com), Simapro Pro (simapro.com), One-Click LCA (www.oneclicklca.com) and Tally for Revit (apps.autodesk.com). 2. ASTM E2921-22 "Standard Practice for Minimum Criteria for Comparing Whole Building Life Cycle Assessments for Use with Building Codes, Standards, and Rating Systems" may be consulted for the assessment. 3. In addition to the required documentation specified in Section 5.409.2.3, Worksheet WS-9 may be required by the enforcing entity to demonstrate compliance with the requirements.</p> <p>5.409.2.1 Building components. Building enclosure components included in the assessment shall be limited to glazing assemblies, insulation, and exterior finishes. Primary and secondary structural members included in the assessment shall be limited to footings and foundations, and structural columns, beams, walls, roofs, and floors.</p> <p>5.409.2.2 Reference study period. The reference study period of the proposed building shall be equal to the reference baseline building and shall be 60 years.</p> <p>5.409.2.3 Verification of compliance. A summary of the GWP analysis produced by the software and Worksheet WS-4 signed by the design professional of record shall be provided in the construction documents as documentation of compliance. A copy of the whole building life cycle assessment which includes the GWP analysis produced by the software, in addition to maintenance and training information, shall be included in the operation and maintenance manual and shall be provided to the owner at the close of construction. The enforcing agency may require inspection and inspection reports in accordance with Sections 702.2 and 703.1 during and at completion of construction to demonstrate substantial conformance. Inspection shall be performed by the design professional of record or third party acceptable to the enforcing agency.</p>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.409.3 Product GWP compliance—prescriptive path. Each product that is permanently installed and listed in Table 5.409.3 shall have a Type III environmental product declaration (EPD), either product-specific or factory-specific.</p>		

TABLE 5.409.3
PRODUCT GWP LIMITS

BUY CLEAN CALIFORNIA MATERIALS PRODUCT CATEGORY ¹	MAXIMUM ACCEPTABLE GWP VALUE (unfractionated) (GWP _{allowed})	UNIT OF MEASUREMENT
Hot-rolled structural steel sections	1.77	MT CO ₂ e/MT
Hollow structural sections	3.00	MT CO ₂ e/MT
Steel plate	2.61	MT CO ₂ e/MT
Concrete reinforcing steel	1.56	MT CO ₂ e/MT
Flat glass	2.50	kg CO ₂ e/MT
Light-density mineral wool board insulation	5.83	kg CO ₂ e/MT
Heavy-density mineral wool board insulation	14.28	kg CO ₂ e/MT
Concrete, Ready-Mixed²		
CONCRETE PRODUCT CATEGORY	MAXIMUM GWP ALLOWED VALUE (GWP _{allowed})	UNIT OF MEASUREMENT
up to 2499 psi	450	kg CO ₂ e/m ³
2500–3499 psi	489	kg CO ₂ e/m ³
3500–4499 psi	566	kg CO ₂ e/m ³
4500–5499 psi	661	kg CO ₂ e/m ³
5500–6499 psi	701	kg CO ₂ e/m ³
6500 psi and greater	799	kg CO ₂ e/m ³
Concrete, Lightweight Ready-Mixed²		
CONCRETE PRODUCT CATEGORY	MAXIMUM GWP ALLOWED VALUE (GWP _{allowed})	UNIT OF MEASUREMENT
up to 2499 psi	875	kg CO ₂ e/m ³
2500–3499 psi	956	kg CO ₂ e/m ³
3500–4499 psi	1039	kg CO ₂ e/m ³

1. The GWP values of the products listed in Table 5.409.3 are based on 175 percent of Buy Clean California Act (BCCA) GWP values, except for concrete products which are not included in the BCCA.
2. For concrete, 175 percent of the National Ready Mixed Concrete Association (NRMA) 2022 version 3 Pacific Southwest regional benchmark values are used for the GWP allowed, except for High Early Strength.
3. Concrete High Early Strength ready-mixed shall be calculated at 130 percent of the ready-mixed concrete GWP allowed values for each product category.

5.409.3.1 Products shall not exceed the maximum GWP value specified in Table 5.409.3.

Exception: Concrete may be considered one product category to meet compliance with this section. A weighted average of the maximum GWP for all concrete mixes installed in the project shall be less than the weighted average maximum GWP allowed per Table 5.409.3 using Exception Equation 5.409.3.1. Calculations shall be performed with consistent units of measurement for the material quantity and the GWP value.

For the purposes of this exception, industry-wide EPDs are acceptable.

Exception EQUATION 5.409.3.1

$$GWP_p < GWP_{allowed}$$

where

$$GWP_p = \sum (GWP_n)(V_n)$$

and

$$GWP_{allowed} = \sum (GWP_{allowed})(V_n)$$

and

V_n = each concrete mix installed in the project
 GWP_n = the GWP for concrete mix n per concrete mix EPD, in kg CO₂e/m³
 $GWP_{allowed}$ = the GWP potential allowed for concrete mix n , per Table 5.409.3
 V_n = the volume of concrete mix n installed in the project, in m³

Y	NA	RESPON. PARTY
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.409.3.2 Verification of compliance. Calculations to demonstrate compliance, Type III EPDs for products required to comply, if any, for the project, and Worksheet WS-5 signed by the design professional of record shall be provided on the construction documents. Updated EPDs for products used in construction shall be provided to the owner at the close of construction and to the enforcement entity upon request. The enforcing agency may require inspection and inspection reports in accordance with Sections 702.2 and 703.1 during and at completion of construction to demonstrate substantial conformance. Inspection shall be performed by the design professional of record or third party acceptable to the enforcing agency.</p> <p>SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS</p> <p>5.410.1 RECYCLING BY OCCUPANTS. Provide readily accessible areas that serve the entire building 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 waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive.</p> <p>Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section.</p> <p>5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.</p> <p>Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.</p> <p>5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the <i>Public Resources Code</i>. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).</p> <p>Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site.</p>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.410.2 COMMISSIONING. [N] New buildings 10,000 square feet and over. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated by the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply.</p> <p>Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements</p> <p>Commissioning requirements shall include:</p> <ol style="list-style-type: none"> Owner's or Owner representative's project requirements. Basis of design. Commissioning measures shown in the construction documents. Commissioning plan. Functional performance testing. Documentation and training. Commissioning report. <p>Exceptions:</p> <ol style="list-style-type: none"> Unconditioned warehouses of any size. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses. Tenant improvements less than 10,000 square feet as described in Section 303.1.1. Open parking garages of any size, or open parking garage areas, of any size, within a structure. <p>Note: For the purposes of this section, unconditioned shall mean a building, area or room which does not provide heating and/or air conditioning.</p> <p>Informational Notes:</p> <ol style="list-style-type: none"> Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the California Energy Code. 		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:</p> <ol style="list-style-type: none"> Environmental and sustainability goals. Building sustainable goals. Indoor environmental quality requirements. Project program, including facility functions and hours of operation, and need for after hours operation. Equipment and systems expectations. Building occupant and operation and maintenance (O&M) personnel expectations. <p>5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:</p> <ol style="list-style-type: none"> Renewable energy systems. Landscape irrigation systems. Water reuse system. <p>5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:</p> <ol style="list-style-type: none"> General project information. Commissioning goals. Systems to be commissioned. Plans to test systems and components shall include: <ol style="list-style-type: none"> An explanation of the original design intent. Equipment and systems to be tested, including the extent of tests. Functions to be tested. Conditions under which the test shall be performed. Measurable criteria for acceptable performance. Commissioning team information. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included. <p>5.410.2.4 Functional performance testing. [N] Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.</p> <p>5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in <i>California Code of Regulations</i> (CCR), Title 8, Section 5142, and other related regulations.</p>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following:</p> <ol style="list-style-type: none"> Site information, including facility description, history and current requirements. Site contact information. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log. Major systems. Site equipment inventory and maintenance notes. A copy of verifications required by the enforcing agency or this code. Other resources and documentation, if applicable. <p>5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:</p> <ol style="list-style-type: none"> System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces). Review and demonstration of servicing/preventive maintenance. Review of the information in the Systems Manual. Review of the record drawings on the system/equipment. <p>5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.</p>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.410.4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet. Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.</p>		

Y	NA	RESPON. PARTY
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.410.4.2 (Reserved)</p> <p>Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting system and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements and Sections 120.5, 120.6, 130.4, and 140.9(b)3 for additional testing requirements of specific systems.</p> <p>5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:</p> <ol style="list-style-type: none"> Renewable energy systems. Landscape irrigation systems. Water reuse systems. <p>5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.</p> <p>5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.</p> <p>5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.</p> <p>5.410.4.5 Operation and maintenance (O & M) manual. Provide the building owner or representative with detailed operating and maintenance instructions and copies of warranties/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.</p> <p>5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.</p>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>DIVISION 5.5 ENVIRONMENTAL QUALITY</p> <p>SECTION 5.501 GENERAL</p> <p>5.501.1 SCOPE. The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of the building's installers, occupants and neighbors.</p> <p>SECTION 5.502 DEFINITIONS</p> <p>5.502.1 DEFINITIONS. The following terms are defined in Chapter 2 (and are included here for reference)</p> <p>ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route.</p> <p>A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made.</p> <p>1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 32° Fahrenheit.</p> <p>COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn.</p> <p>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, timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a).</p> <p>Note: See CCR, Title 17, Section 93120.1.</p> <p>DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.).</p> <p>DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.</p> <p>ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the <i>California Electrical Code</i>, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.</p> <p>ELECTRIC VEHICLE CHARGING STATION(S) (EVCS). One or more spaces intended for charging electric vehicles.</p> <p>ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.</p> <p>ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.</p> <p>EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.</p> <p>FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections.</p> <p>GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.</p> <p>GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14; the AR4 GWP values are found in column "100 yr" of Table 2.14.</p> <p>HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hydrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).</p> <p>LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter.</p> <p>LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).</p> <p>MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2–1999.</p> <p>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 O₃/g ROG).</p> <p>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).</p> <p>PSIG. Pounds per square inch, gauge.</p> <p>REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.</p> <p>SCHRADER ACCESS VALVES. Access fittings with a valve core installed.</p> <p>SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.0 times the pipe diameter.</p> <p>SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units.</p> <p>VOC. A volatile organic compound 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).</p> <p>Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure in question.</p>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Y	NA	RESPON. PARTY
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>SECTION 5.503 FIREPLACES</p> <p>5.503.1 FIREPLACES. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances.</p> <p>5.503.1.1 Woodstoves. Woodstoves and pellet stoves 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.</p> <p>SECTION 5.504 POLLUTANT CONTROL</p> <p>5.504.1 TEMPORARY VENTILATION. The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy, or, if the building is occupied during alteration, at the conclusion of construction.</p> <p>5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilation equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.</p> <p>5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.</p> <p>5.504.4.1 Adhesives, sealants and caulks. Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards:</p> <ol style="list-style-type: none"> 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 Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, below. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one 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 <i>California Code of Regulations</i>, Title 17, commencing with Section 94507. 		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT^{1,2}

ARCHITECTURAL APPLICATIONS	CURRENT 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 ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY 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, www.arb.ca.gov/DRDB/SC/CURHTMLR1168.PDF

TABLE 5.504.4.2 - SEALANT VOC LIMIT

SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.



#	REVISION	DATE
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

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HAWK'S PROJECT
 604 E MISSION BLVD,
 POMONA, CA 91766

SHEET TITLE

**CAL GREEN
NOTE 3**

PROJECT NO. 2024-101
DATE 01/04/24
SCALE AS REFERENCED

SHEET NO.

A110

▲

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE NONRESIDENTIAL MANDATORY MEASURES, SHEET 4 (July 2024 Supplement)

Y = YES APPLICABLE
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (i.e. ARCHITECT, ENG. OWNER, CONTRACTOR, INSPECTOR ETC.)

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, 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 5.504.4.3 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 5.504.4.3 shall apply.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PVMIR Limits for VOC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) 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.

TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS:

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS	
COATING CATEGORY	CURRENT VOC LIMIT
FLAT COATINGS	50
NONFLAT 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	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.

5.504.4.3.2 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

5.504.4.4 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 Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEOD/CEHL/IAQ/Pages/VOC.aspx#material>

5.504.4.4.1 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 Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEOD/CEHL/IAQ/Pages/VOC.aspx#material>

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.

5.504.4.5 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 (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.

5.504.4.5.3 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 or European E 33 standards.
5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS:

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	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.
2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

5.504.4.6 Resilient flooring systems. Where resilient flooring is installed, at least 80 percent 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 Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEOD/CEHL/IAQ/Pages/VOC.aspx#material>

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

5.504.4.7 Thermal insulation
Comply with the requirements of the California Department of Public Health, "Standard Method of the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 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/DEOD/CEHL/IAQ/Pages/VOC.aspx#material>

5.504.4.7.1 Verification of compliance. Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission limits.

5.504.4.8 Acoustical ceiling and wall panels. Comply with 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.

5.504.4.8.1 Verification of compliance. Documentation shall be provided verifying that acoustical finish materials meet the pollutant emission limits.

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

Exceptions: Existing mechanical equipment.

5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL. Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

SECTION 5.505 INDOOR MOISTURE CONTROL
5.505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY
5.506.1 OUTSIDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 1201.1 (Requirements For Ventilation) of the California Energy Code, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

5.506.2 CARBON DIOXIDE (CO₂) MONITORING. For buildings or additions equipped with demand control ventilation, CO₂ sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

5.506.3 Carbon dioxide (CO₂) monitoring in classrooms. (DSA-SS) Each public K-12 school classroom, as listed in Table 120.1-A of the California Energy Code, shall be equipped with a carbon dioxide monitor or sensor that meets the following requirements:

- The monitor or sensor shall be permanently affixed in a lamp-free manner in each classroom between 3 and 8 feet (914 mm and 1829 mm) above the floor and at least 5 feet (1524 mm) away from door and operable windows.
- When the monitor or sensor is not integral to an Energy Management Control System (EMCS), the monitor or sensor shall display the carbon dioxide readings on the device. When the sensor is integral to an EMCS, the carbon dioxide readings shall be available to and regularly monitored by facility personnel.
- A monitor shall provide notification through a visual indicator on the monitor when the carbon dioxide levels in the classroom have exceeded 1,100ppm. A sensor integral to an EMCS shall provide notification to facility personnel through a visual and/or audible indicator when the carbon dioxide levels in the classroom have exceeded 1,100ppm.
- The monitor or sensor shall measure carbon dioxide levels at minimum 15- minute intervals and shall maintain a record of previous carbon dioxide measurements of not less than 30 days duration.
- The monitor or sensor used to measure carbon dioxide levels shall have the capacity to measure carbon dioxide levels with a range of 400ppm to 2000ppm or greater.
- The monitor or sensor shall be certified by the manufacturer to be accurate within 75ppm at 1,000ppm carbon dioxide concentration and shall be certified by the manufacturer to require calibration no more frequently than once every 5 years.

SECTION 5.507 ENVIRONMENTAL COMFORT
5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

- Within the 65 CNEL noise contour of an airport.

Exceptions:

- Leq or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICLZ) plan.
- Leq or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB Leq, 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1hr) of 50 dBA in occupied areas during any hour of operation.

5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior soundlevels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.tootbase.org/PDF/CaseStudies/stc_jcc_ratings.pdf.

SECTION 5.508 OUTDOOR AIR QUALITY
5.508.1 Odor depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO₂), and potentially other refrigerants.

5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.

5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

5.508.2.1.2.1 Anchorage. One-fourth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.

5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

5.508.2.2 Valves. Valves and fittings shall comply with the California Mechanical Code and as follows.

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are permitted for use.

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.

5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit over the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem operation.

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel, or be coated to prevent corrosion from these substances.

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.

5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

**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:

- State certified apprenticeship programs.
- Public utility training programs.
- Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
- Programs sponsored by manufacturing organizations.
- 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:

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

Notes:

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



#	REVISION	DATE
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HAWK'S PROJECT

604 E MISSION BLVD,
POMONA, CA 91766

SHEET TITLE

**CAL GREEN
NOTE 4**

PROJECT NO. 2024-101

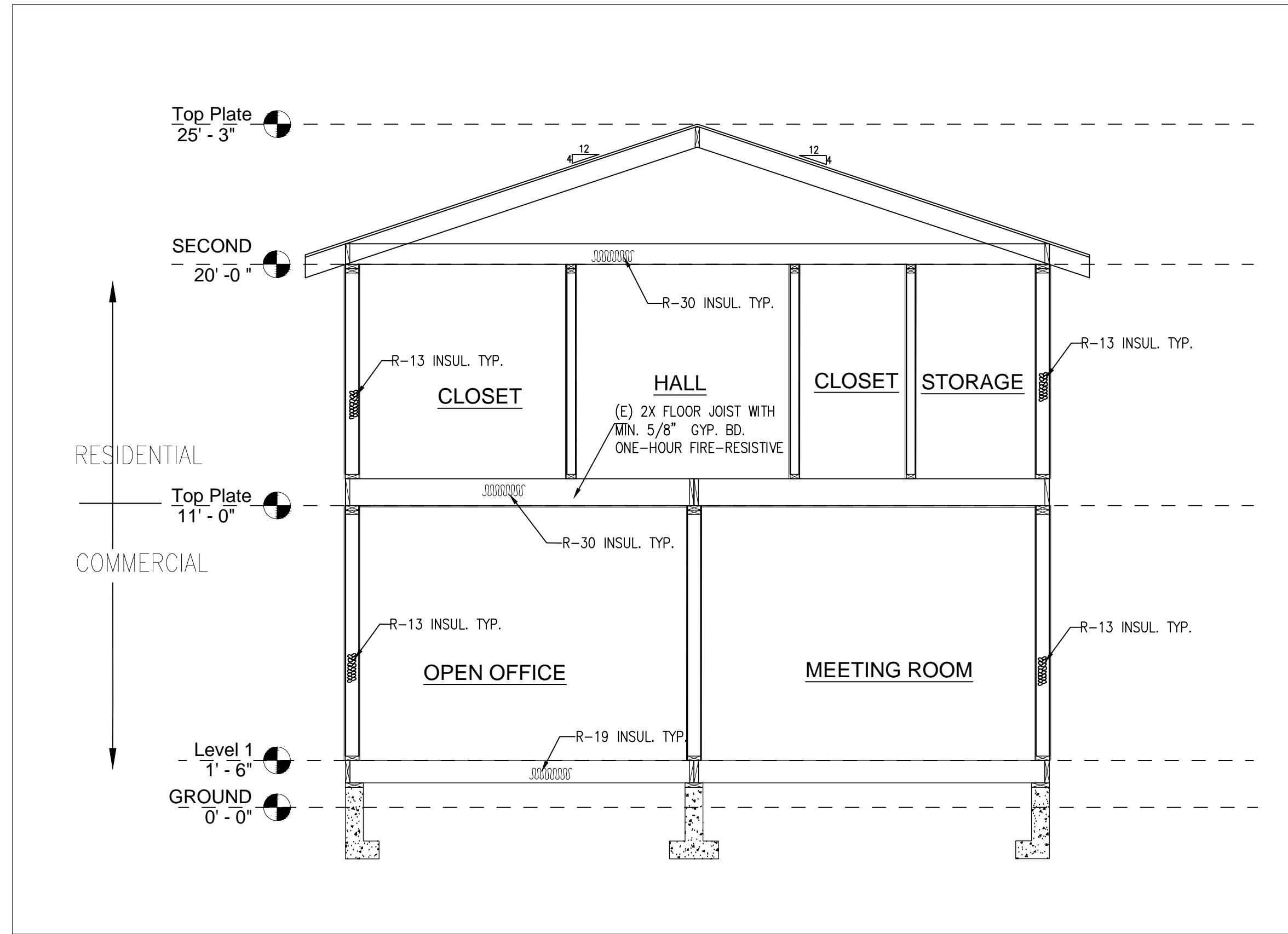
DATE 01/04/24

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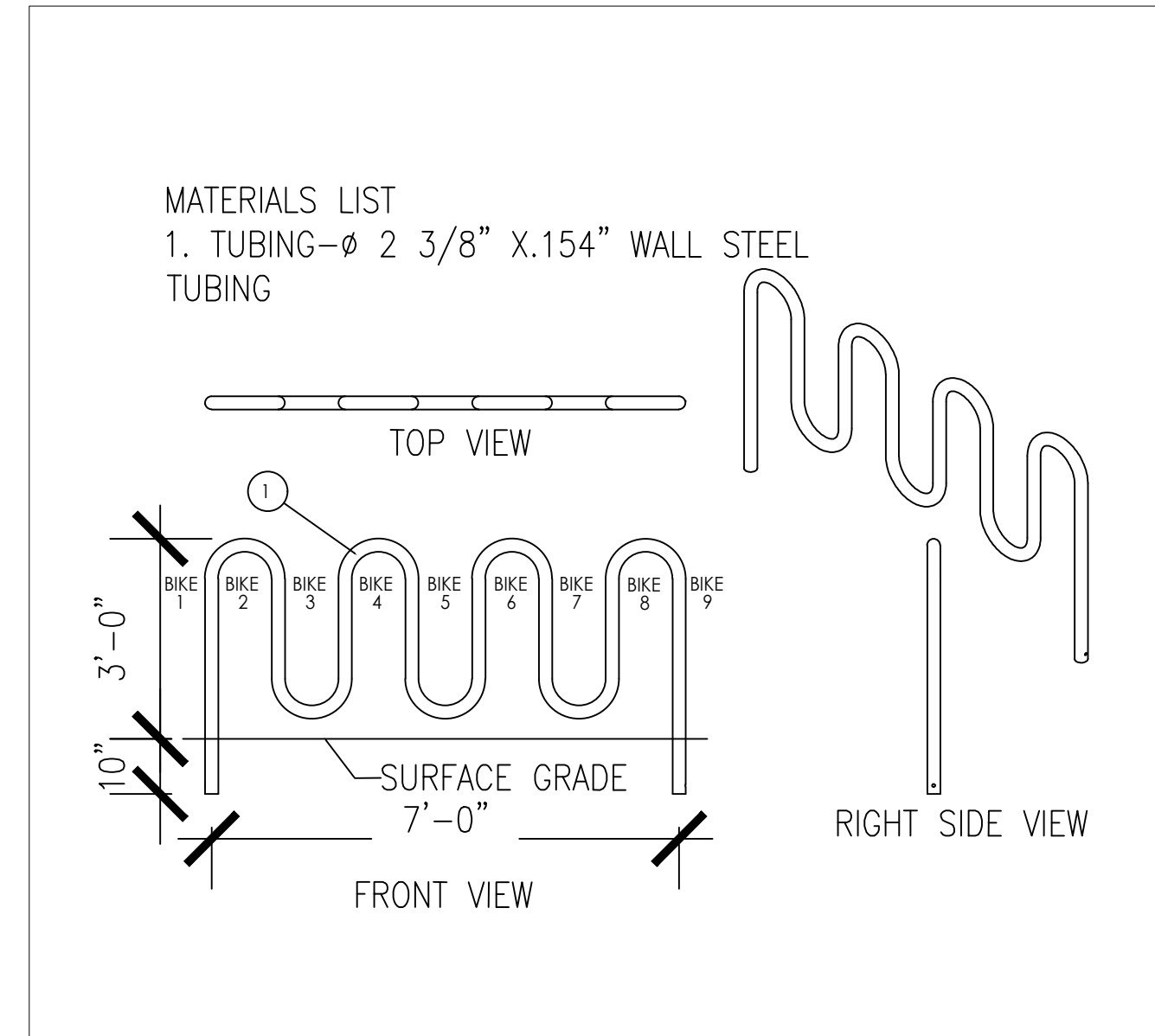
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A111

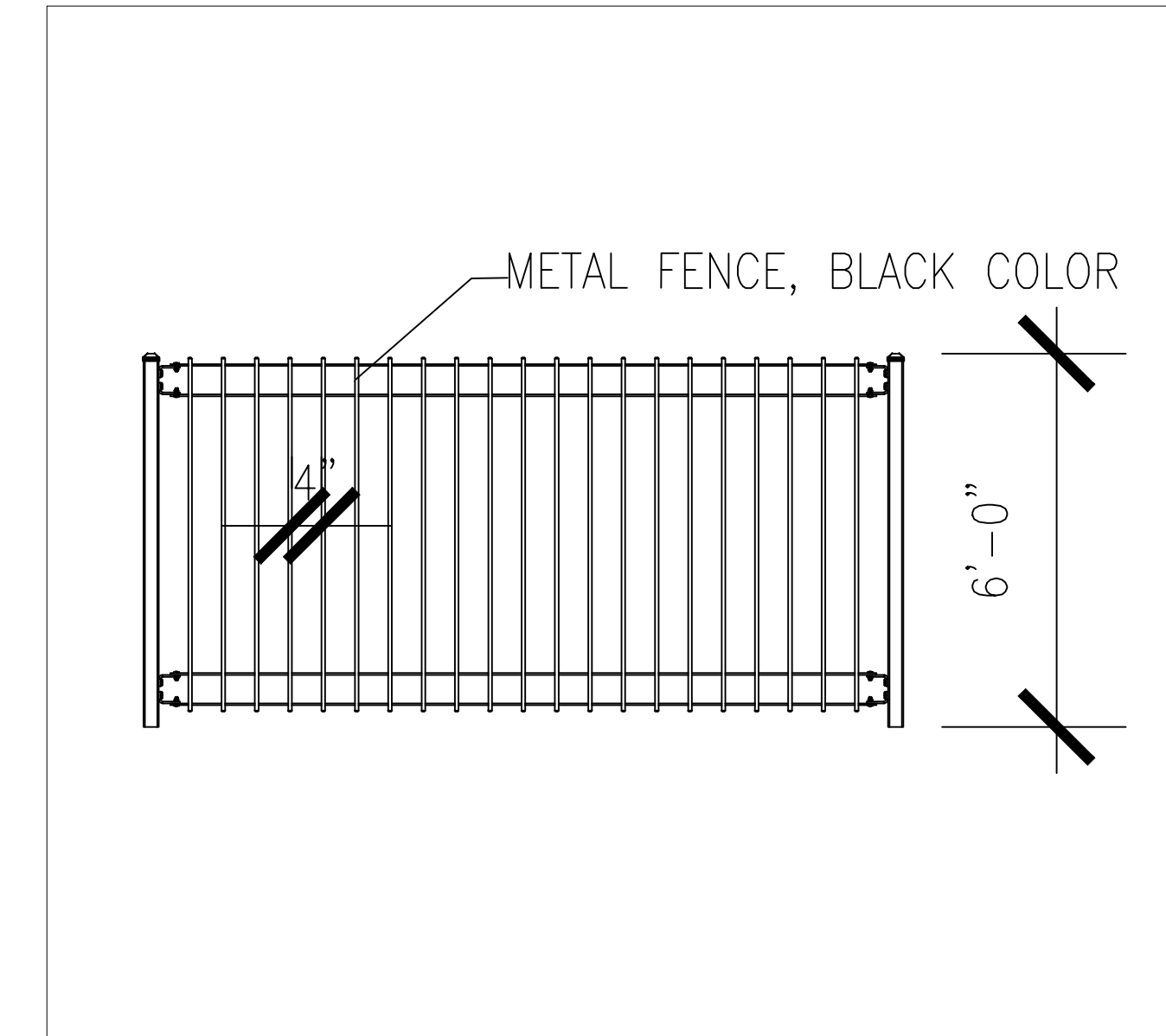




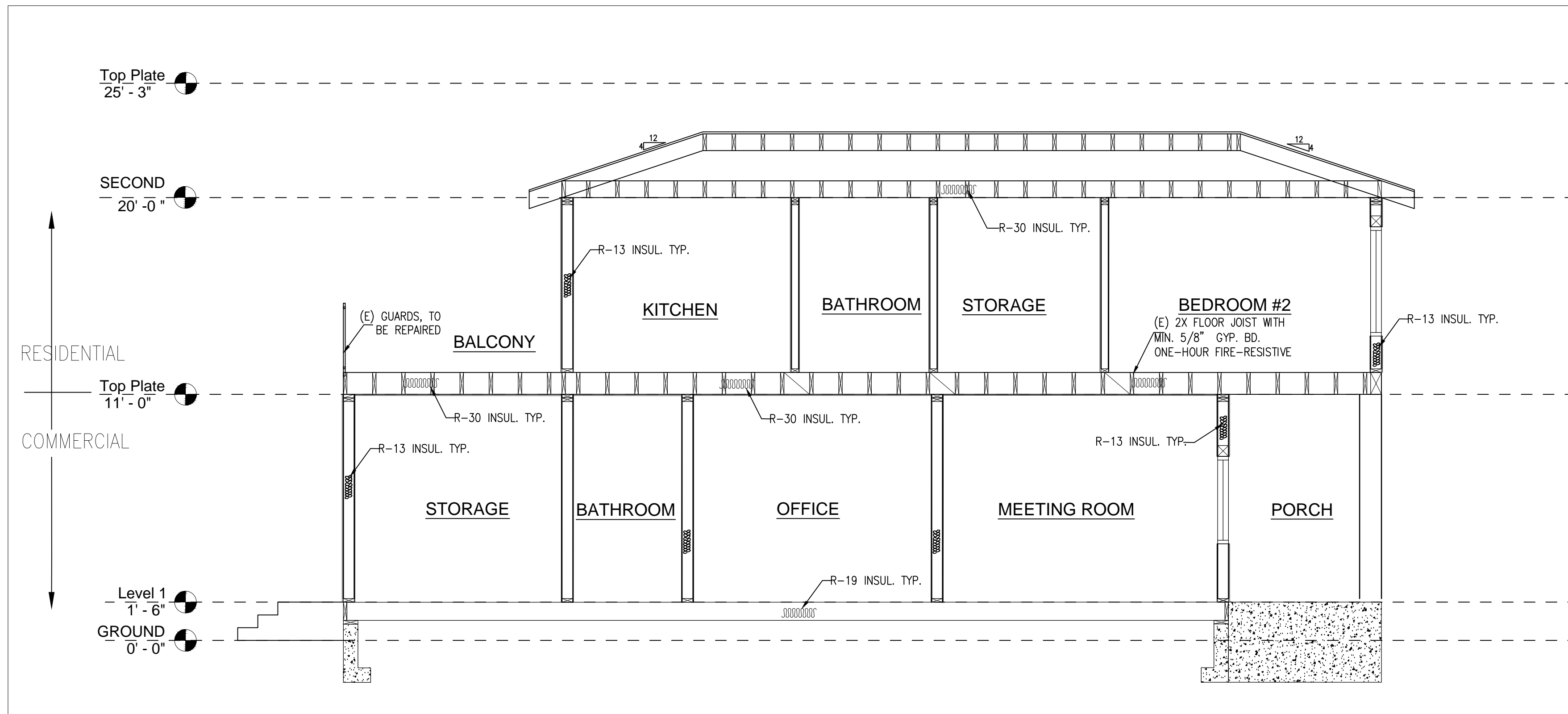
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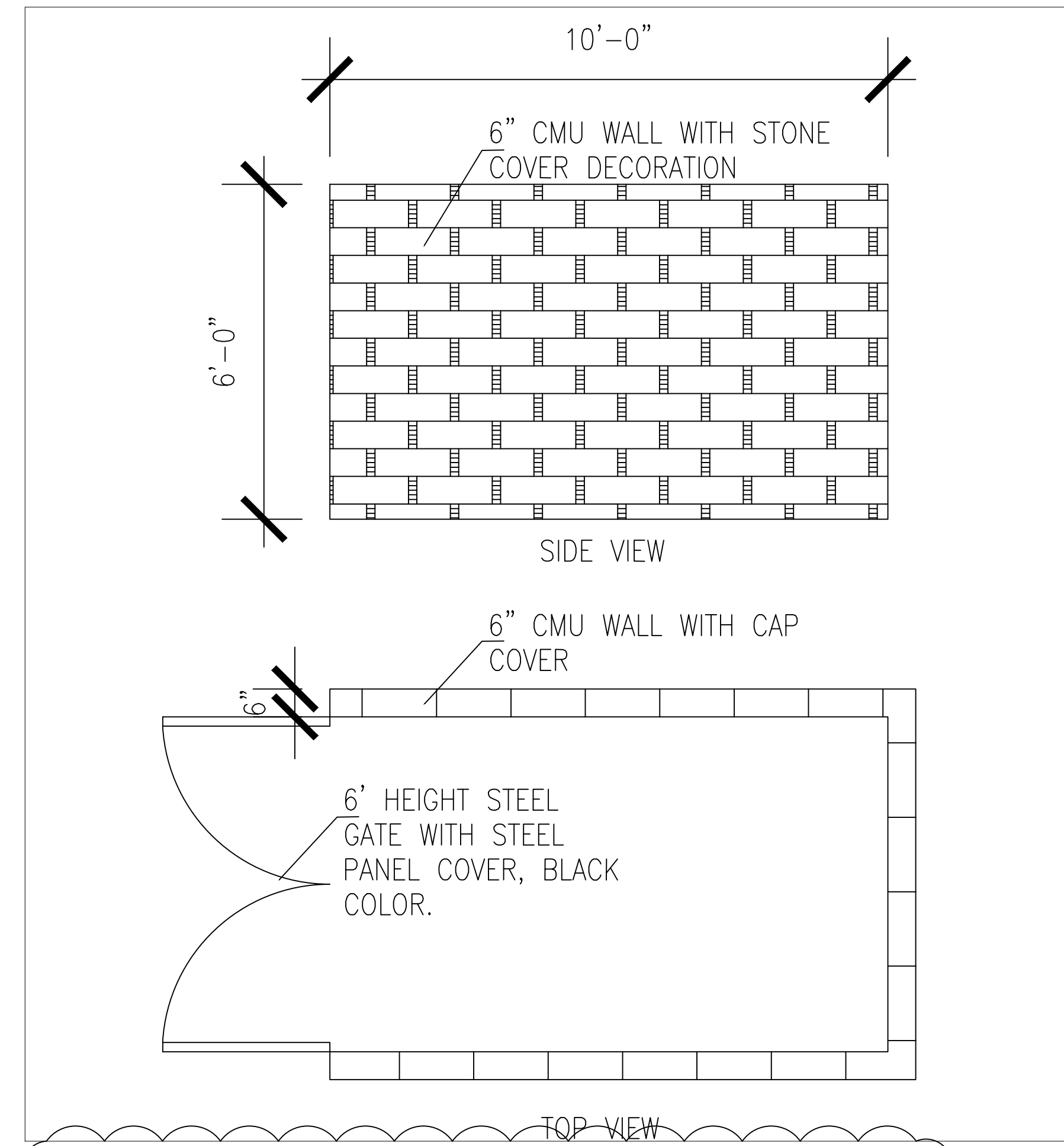
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SCALE: N/A



FENCE DETAIL D
SCALE: N/A



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



TRASH ENCLOSURE DETAIL E
SCALE: N/A



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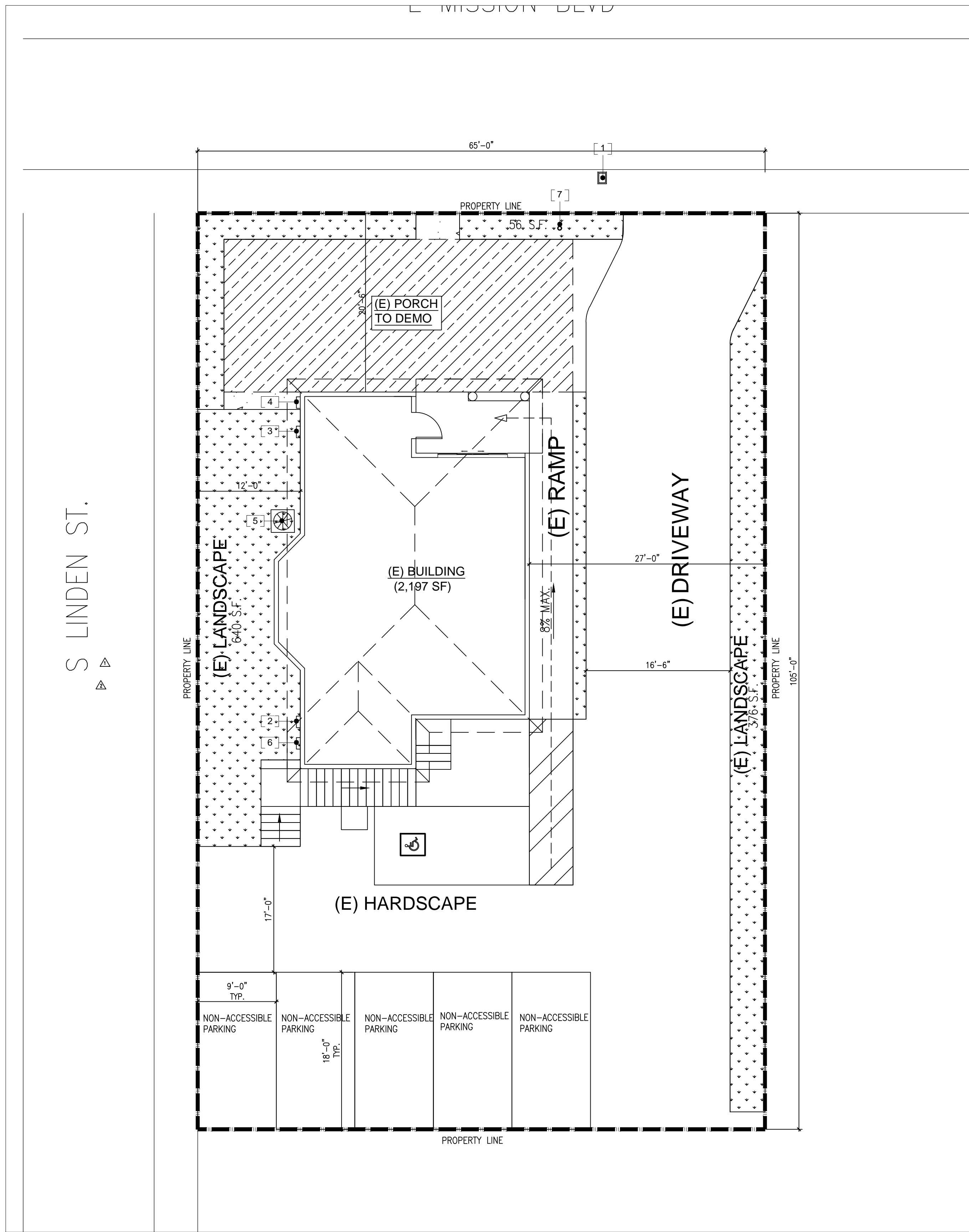
HAWK'S PROJECT
604 E MISSION BLVD,
POMONA, CA 91766

SHEET TITLE

ELEVATION PLAN

PROJECT NO.	2024-101
DATE	01/04/24
SCALE	AS REFERENCED
SHEET NO.	

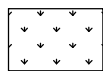
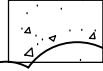
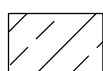
A112



EXISTING SITE PLAN

SCALE: 1/8" = 1'-0"

LEGEND

-  (E) LANDSCAPED AREA
-  CONCRETE SLAB
-  (E) PORCH TO BE DEMOLITION



#	REVISION	DATE
1		
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SHEET TITLE

EXISTING
SITE
PLAN

PROJECT NO. 2024-101

DATE 01/04/24

SCALE AS REFERENCED

SHEET NO.

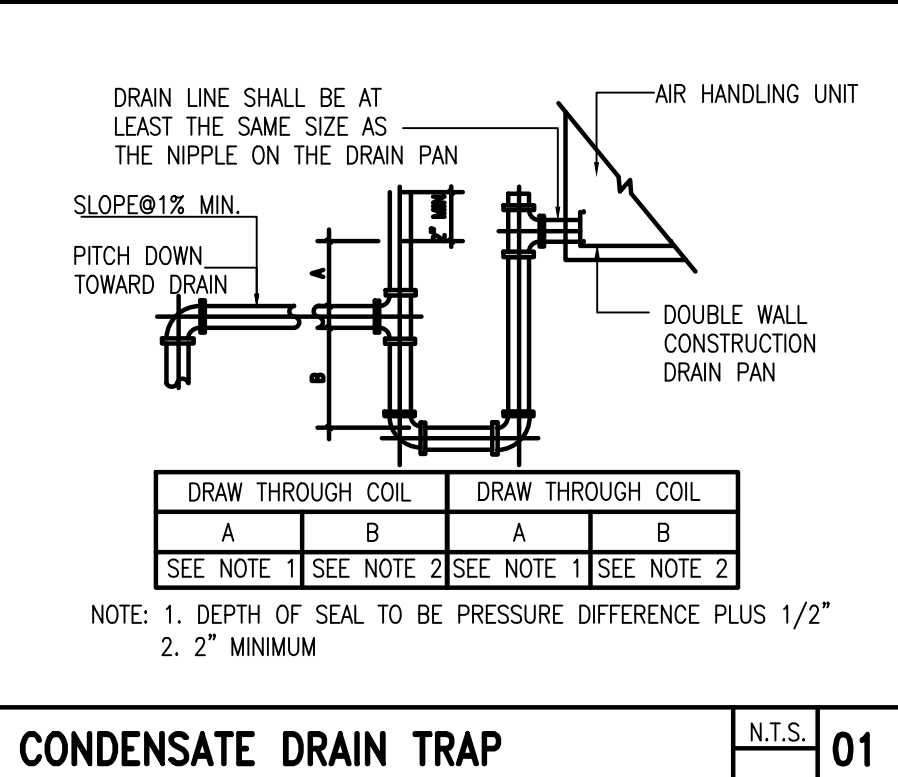
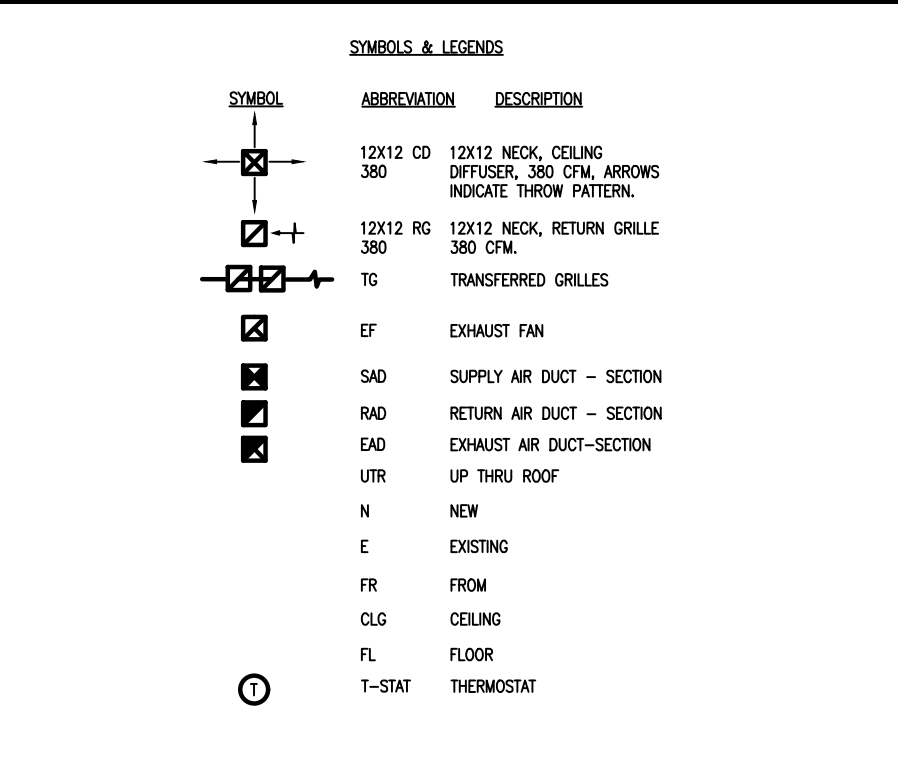
A113

PLAN CHECK NOTES:

- SCOPE: THE WORK OF THIS SECTION INCLUDES ALL MECHANICAL WORK AND EQUIPMENT NEEDED TO COMPLETE AND PROPER INSTALLATION AND OPERATION WORK INDICATED ON DRAWINGS BUT NOT MENTIONED IN THE SPECIFICATIONS, OR VICE VERSA, SHALL BE PERFORMED IN THE SAME AS IF SPECIFICALLY MENTIONED OR INDICATED IN BOTH. ANY SUPPLEMENTARY LABOR OR MATERIALS REQUIRED FOR A COMPLETE, APPROVED, AND PROPERLY OPERATING INSTALLATION SHALL BE FURNISHED WHETHER OR NOT INDICATED AND SPECIFIED WITHOUT COST TO THE OWNER.
- THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION AND PAYMENT FOR ALL PERMITS, INSPECTIONS AND REQUIRED WORK. ALL MECHANICAL WORK SHALL BE COMPLETED WITH ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL CODES. ALL MATERIAL, DEVICES AND EQUIPMENT SHALL BE CITY APPROVED FOR SUCH INSTALLATION. THE USE OF OPERATING/WORKING MANUFACTURED DEVICES LISTED IN SECTION 2-3.01(1) OF THE CALIFORNIA ENERGY COMMISSION SHALL BE LIMITED TO ONLY THOSE THAT HAVE BEEN CERTIFIED TO THE CALIFORNIA ENERGY COMMISSION.
- CONTRACTOR SHALL FURNISH A MINIMUM OF 1 COPY OF SUBMITTALS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL AS FOLLOWS:
 - MANUFACTURER'S DATA FOR EACH MANUFACTURED ITEM, PRESCRIPTIVE LITERATURE, CATALOG MODEL NO. AND ALL OTHER INFORMATION NECESSARY TO DETERMINE CORRECT COMPATIBILITY.
 - SHOP DRAWINGS FOR INSTALLATION OF EQUIPMENT, DUCTWORK AND PIPING.
- DUCTWORK:
 - ALL DUCT WORK, EXCEPT AS NOTED SHALL BE GALVANNEED STEEL AND SHALL BE CONSTRUCTED, INSTALLED, SEALED AND INSULATED AS PROVIDED IN CHAPTER 10 OF STATE MECHANICAL CODE.
 - SEAL ALL JOINTS DURING INSTALLATION WITH DURO DYNE 5-2 SEALER/FIBERGLASS SYSTEM OR EQUIVALENT (DUCT TAPE IS NOT ACCEPTABLE).
 - DUCT RIGS ARE SCHEMATIC IN THAT THEY DO NOT SHOW AN OFFSETS AND SPECIAL FITTINGS REQUIRED FOR A COMPLETE INSTALLATION. EXACT LOCATIONS, OFFSETS AND AVAILABLE SPACE ARE TO BE CHECKED AND DETERMINED IN THE FIELD. CHANGES IN SIZE, REQUIRED TO MEET FIELD CONDITIONS, SHALL BE MADE USING THAT EQUAL FRICTION METHOD.
 - ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED, SPACED, SUPPORTED AND TESTED IN ACCORDANCE WITH LATEST STANDARDS ADOPTED BY "SMACNA" AND SHALL COMPLY WITH THE STATE OF CALIFORNIA ENERGY CONSERVATION STANDARDS.
 - PROVIDE SHEET METAL FLASHINGS FOR DUCTS AND PIPES PASSING THROUGH ROOFS AND/OR OUTSIDE WALLS AND HOT TOP AND/OR SEAL AS REQUIRED FOR A WATER AND WEATHER LIGHT INSTALLATION.
 - ALL BRANCH DUCT RUNS ARE TO HAVE VOLUME CONTROL DAMPERS WITH LOCKING QUADRANTS FOR BALANCING.
 - ALL DUCT CONNECTIONS BETWEEN SUPPLY DIFFUSERS AND SUPPLY BRANCH DUCTS AND BETWEEN RETURN GRILLES AND RETURN BRANCH DUCTS SHALL BE MADE WITH LOW PRESSURE ACoustical FACTORY PRE-INSULATED FLEXIBLE DUCT UNLESS SHOWN OTHERWISE. THE MAXIMUM LENGTH CONNECTING TO TERMINAL OUTLETS SHALL BE FEET.
 - FLEXIBLE DUCTS SHALL BE CONSIST OF AN EXTERIOR REINFORCED LAMINATED VAPOR BARRIER, 1-1/2" THICK FIBER GLASS INSULATION (K=25 @ 75 DEGREES F), ENCAPSULATED SPRING STEEL WIRE HELIX INTERIOR, SMOOTH NON-PERFORATED INTERIOR WALL LINES, INDIVIDUAL LENGTHS OF FLEXIBLE DUCTS SHALL CONTAIN FACTORY FABRICATED STEEL CONNECTION COLLARS. FLEXIBLE DUCTS SHALL BE SUPPORTED AT OR NEAR MID LENGTH WITH 1" WIDE 2# GA. STEEL HANGER COLLAR ATTACHED TO THE STRUCTURE WITH AN APPROVED DUCT HANGER. INSTALLATION SHALL MINIMIZE SHARP BENDS, TURNS OR OFFSETS.
 - ALL CONCEALED SUPPLY AND RETURN DUCTS AND PLENUMS SHALL BE WRAPPED WITH 1/4" DENSITY FIBERGLASS, ONE INCH OR RETURN AND TWO INCHES ON SUPPLY, WRAP IN PLACE AT 18" O.C. MAXIMUM.
 - ALL DUCTS AND PLENUMS LOCATED ON ROOF OR EXTERIOR OF BUILDING SHALL BE LINED WITH ONE AND ONE HALF INCH 1.5# DENSITY FIBERGLASS WITH WIND FACE TO AIR SIDE. ALL WEATHER EXPOSED DUCTS, EQUIPMENT, AND DEVICES SHALL BE COMPLETELY WEATHERPROOFED.
 - DUCT UNITS, FLEXIBLE VIBRATION-ISOLATION CONNECTORS, DUCT CONNECTIONS AND DUCT TAPE TO BE APPROVED MATERIAL.
 - INSULATION TO BE MADE AND DUCT WORK APPROVED BEFORE COVERING WITH INSULATION.
- ALL DUCTWORK, INCLUDING INSULATION SHALL CONFORM TO CALIFORNIA ADMINISTRATIVE CODE T-24 AND SMCALLOW VELOCITY DUCT CONSTRUCTION STANDARDS LATEST EDITION.
- ALL DUCT INSULATION SHALL MEET IS-181 CLASS AND NFPA 90A AND 90B, AND FLAME SPREAD AND SMOKE DENSITY SHALL BE 25/25. 3/4" WALL OF INSULATION TO BE MIN. 1/4" IF THE INSULATION MATERIAL IS LIMITED TO THOSE THAT HAVE BEEN CERTIFIED TO THE CALIFORNIA ENERGY COMMISSION FILTERS AND ADHESIVES SHALL COMPLY WITH SECTION 1103.
- FIRE DAMPERS ARE TO BE PROVIDED AND INSTALLED AS REQUIRED BY CODE, STATE AND LOCAL FIRE MARSHALL.
- FIRE DAMPERS SHALL BE LISTED AND APPROVED BY STATE FIRE MARSHAL, WITH PERMANENT IDENTIFICATION, PROVIDE ACCESS AS REQUIRED FOR INSPECTION AND SERVICE.
- ALL CONNECTIONS BETWEEN AC UNITS/FANS AND DUCTWORKS SHALL HAVE: FIREPROOF, HEAVY DUTY FLEX-CONNECTORS (CITY APPROVED) WITH THREE INCH MINIMUM CLEARANCE, ISOLATE ALL HVAC UNITS, FANS AND EQUIPMENT FROM THE BUILDING STRUCTURE WITH APPROVED ISOLATION MOUNTS, PROVIDE SEISMIC RESTRAINTS FOR ALL UNITS AS REQUIRED BY CODE.
- ALL APPLIANCES DESIGNED TO BE FIRED IN POSITION SHALL BE SECURELY FASTENED IN PLACE.
- COORDINATE ALL WORK WITH OTHER TRADES, MAINTAIN PROPER CLEARANCES AND HEADROOM AT EQUIPMENT AND ETC. FOR INSPECTION AND SERVICE.
- ROOF MOUNTED EQUIPMENT, INCLUDING AIR INTAKES, SHALL BE LABELED AS TO THE SPACE IT SERVES.
- MAINTAIN AS-BUILT SET OF CONTRACT DRAWINGS ON ALL WORK AS INSTALLED, SHOWING SIZE AND/OR LOCATION CHANGES AND GIVING REFERENCE DIMENSIONS FOR LOCATION OF ANY CONDUCTED ITEMS REQUIRED ADJUSTMENT, INSPECTION, SERVICE OR OTHER.
- THE HVAC CONTRACTOR SHALL TEST, ADJUST AND PLACE IN PROPER OPERATION ALL SYSTEMS INSTALLED UNDER THE WORK OF THIS SECTION.
- PROVIDE A WRITTEN REPORT ON SYSTEM OPERATION, SETTINGS AND CONDITION OF ALL EQUIPMENT.
- WHEN ALL REQUIRED PORTIONS OF THE WORK HAVE BEEN COMPLETED, AND AT A TIME TO BE DESIGNATED BY THE OWNER, THOROUGHLY DEMONSTRATE TO THE OWNER'S MAINTENANCE PERSONNEL THE OPERATION AND MAINTENANCE OF ALL ITEMS INSTALLED UNDER THE WORK OF THIS SECTION.
- THE CONTRACTOR SHALL PROVIDE THE BUILDING OWNER FOUR BOUND COPIES OF SYSTEM EQUIPMENT CONTROL DIAGRAMS, REPORTS, MAINTENANCE AND OPERATING BROCHURES KEYS TO UNIT LABELINGS, WITH SERVICE INSTRUCTION AND PARTS LIST.
- ALL CONCEALED SPACES USED TO CONVEY CIRCULATING AIR SUPPLY SHALL BE OF INCOMBUSTIBLE MATERIAL AND CONTAIN NO COMBUSTIBLE (INCLUDING EXCESS COMMUNICATION CABLES).
- UNITS SHALL BE PROVIDED WITH FILTERS IN ACCORDANCE WITH MFG'S RECOMMENDATION, WITH ACCESS AS REQUIRED.
- THE CONTRACTOR SHALL GUARANTEE AT MATERIALS, DEVICES, EQUIPMENT, WORKMANSHIP AND THE SUCCESSFUL OPERATION OF ALL SYSTEM AND APPARATUS INSTALLED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE, WITHOUT COST TO THE OWNER.
- INSPECTION TO BE MADE AND DUCT WORK APPROVED BEFORE COVERING WITH INSULATION.
- DRAWINGS ARE SCHEMATIC IN NATURE AND NOT DRAWN TO SCALE. CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT ROUTING OF ALL SERVICES WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES.
- ALL NEW DUCT WORK DIMENSIONS ARE INSIDE CLEAR.
- DUCTS SHALL BE COORDINATED WITH EXISTING CONDITIONS. CONTRACTOR SHALL ROUTE NEW DUCTWORK AS REQUIRED TO FIT EXISTING CONDITIONS.
- CONTRACTOR SHALL VERIFY EXISTING CONDITIONS BEFORE WORK BEGINS AND VERIFY SCOPE OF WORK REQUIRED.
- PREFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF AIR DEVICES. ALL DEVICES FRAME STYLES SHALL BE COMPATIBLE WITH CEILING IN WHICH IT IS LOCATED.

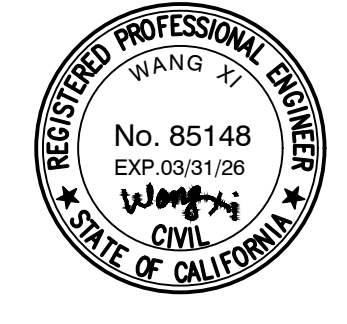
PLAN CHECK NOTES:

- SCOPE: THE WORK OF THIS SECTION INCLUDES ALL MECHANICAL WORK AND EQUIPMENT NEEDED TO COMPLETE AND PROPER INSTALLATION AND OPERATION WORK INDICATED ON DRAWINGS BUT NOT MENTIONED IN THE SPECIFICATIONS, OR VICE VERSA, SHALL BE PERFORMED IN THE SAME AS IF SPECIFICALLY MENTIONED OR INDICATED IN BOTH. ANY SUPPLEMENTARY LABOR OR MATERIALS REQUIRED FOR A COMPLETE, APPROVED, AND PROPERLY OPERATING INSTALLATION SHALL BE FURNISHED WHETHER OR NOT INDICATED AND SPECIFIED WITHOUT COST TO THE OWNER.
- THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION AND PAYMENT FOR ALL PERMITS, INSPECTIONS AND REQUIRED WORK. ALL MECHANICAL WORK SHALL BE COMPLETED WITH ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL CODES. ALL MATERIAL, DEVICES AND EQUIPMENT SHALL BE CITY APPROVED FOR SUCH INSTALLATION. THE USE OF OPERATING/WORKING MANUFACTURED DEVICES LISTED IN SECTION 2-3.01(1) OF THE CALIFORNIA ENERGY COMMISSION SHALL BE LIMITED TO ONLY THOSE THAT HAVE BEEN CERTIFIED TO THE CALIFORNIA ENERGY COMMISSION.
- CONTRACTOR SHALL FURNISH A MINIMUM OF 1 COPY OF SUBMITTALS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL AS FOLLOWS:
 - MANUFACTURER'S DATA FOR EACH MANUFACTURED ITEM, PRESCRIPTIVE LITERATURE, CATALOG MODEL NO. AND ALL OTHER INFORMATION NECESSARY TO DETERMINE CORRECT COMPATIBILITY.
 - SHOP DRAWINGS FOR INSTALLATION OF EQUIPMENT, DUCTWORK AND PIPING.
- DUCTWORK:
 - ALL DUCT WORK, EXCEPT AS NOTED SHALL BE GALVANNEED STEEL AND SHALL BE CONSTRUCTED, INSTALLED, SEALED AND INSULATED AS PROVIDED IN CHAPTER 10 OF STATE MECHANICAL CODE.
 - SEAL ALL JOINTS DURING INSTALLATION WITH DURO DYNE 5-2 SEALER/FIBERGLASS SYSTEM OR EQUIVALENT (DUCT TAPE IS NOT ACCEPTABLE).
 - DUCT RIGS ARE SCHEMATIC IN THAT THEY DO NOT SHOW AN OFFSETS AND SPECIAL FITTINGS REQUIRED FOR A COMPLETE INSTALLATION. EXACT LOCATIONS, OFFSETS AND AVAILABLE SPACE ARE TO BE CHECKED AND DETERMINED IN THE FIELD. CHANGES IN SIZE, REQUIRED TO MEET FIELD CONDITIONS, SHALL BE MADE USING THAT EQUAL FRICTION METHOD.
 - ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED, SPACED, SUPPORTED AND TESTED IN ACCORDANCE WITH LATEST STANDARDS ADOPTED BY "SMACNA" AND SHALL COMPLY WITH THE STATE OF CALIFORNIA ENERGY CONSERVATION STANDARDS.
 - PROVIDE SHEET METAL FLASHINGS FOR DUCTS AND PIPES PASSING THROUGH ROOFS AND/OR OUTSIDE WALLS AND HOT TOP AND/OR SEAL AS REQUIRED FOR A WATER AND WEATHER LIGHT INSTALLATION.
 - ALL BRANCH DUCT RUNS ARE TO HAVE VOLUME CONTROL DAMPERS WITH LOCKING QUADRANTS FOR BALANCING.
 - ALL DUCT CONNECTIONS BETWEEN SUPPLY DIFFUSERS AND SUPPLY BRANCH DUCTS AND BETWEEN RETURN GRILLES AND RETURN BRANCH DUCTS SHALL BE MADE WITH LOW PRESSURE ACoustical FACTORY PRE-INSULATED FLEXIBLE DUCT UNLESS SHOWN OTHERWISE. THE MAXIMUM LENGTH CONNECTING TO TERMINAL OUTLETS SHALL BE FEET.
 - FLEXIBLE DUCTS SHALL BE CONSIST OF AN EXTERIOR REINFORCED LAMINATED VAPOR BARRIER, 1-1/2" THICK FIBER GLASS INSULATION (K=25 @ 75 DEGREES F), ENCAPSULATED SPRING STEEL WIRE HELIX INTERIOR, SMOOTH NON-PERFORATED INTERIOR WALL LINES, INDIVIDUAL LENGTHS OF FLEXIBLE DUCTS SHALL CONTAIN FACTORY FABRICATED STEEL CONNECTION COLLARS. FLEXIBLE DUCTS SHALL BE SUPPORTED AT OR NEAR MID LENGTH WITH 1" WIDE 2# GA. STEEL HANGER COLLAR ATTACHED TO THE STRUCTURE WITH AN APPROVED DUCT HANGER. INSTALLATION SHALL MINIMIZE SHARP BENDS, TURNS OR OFFSETS.
 - ALL CONCEALED SUPPLY AND RETURN DUCTS AND PLENUMS SHALL BE WRAPPED WITH 1/4" DENSITY FIBERGLASS, ONE INCH OR RETURN AND TWO INCHES ON SUPPLY, WRAP IN PLACE AT 18" O.C. MAXIMUM.
 - ALL DUCTS AND PLENUMS LOCATED ON ROOF OR EXTERIOR OF BUILDING SHALL BE LINED WITH ONE AND ONE HALF INCH 1.5# DENSITY FIBERGLASS WITH WIND FACE TO AIR SIDE. ALL WEATHER EXPOSED DUCTS, EQUIPMENT, AND DEVICES SHALL BE COMPLETELY WEATHERPROOFED.
 - DUCT UNITS, FLEXIBLE VIBRATION-ISOLATION CONNECTORS, DUCT CONNECTIONS AND DUCT TAPE TO BE APPROVED MATERIAL.
 - INSULATION TO BE MADE AND DUCT WORK APPROVED BEFORE COVERING WITH INSULATION.
- ALL DUCTWORK, INCLUDING INSULATION SHALL CONFORM TO CALIFORNIA ADMINISTRATIVE CODE T-24 AND SMCALLOW VELOCITY DUCT CONSTRUCTION STANDARDS LATEST EDITION.
- ALL DUCT INSULATION SHALL MEET IS-181 CLASS AND NFPA 90A AND 90B, AND FLAME SPREAD AND SMOKE DENSITY SHALL BE 25/25. 3/4" WALL OF INSULATION TO BE MIN. 1/4" IF THE INSULATION MATERIAL IS LIMITED TO THOSE THAT HAVE BEEN CERTIFIED TO THE CALIFORNIA ENERGY COMMISSION FILTERS AND ADHESIVES SHALL COMPLY WITH SECTION 1103.
- FIRE DAMPERS ARE TO BE PROVIDED AND INSTALLED AS REQUIRED BY CODE, STATE AND LOCAL FIRE MARSHALL.
- FIRE DAMPERS SHALL BE LISTED AND APPROVED BY STATE FIRE MARSHAL, WITH PERMANENT IDENTIFICATION, PROVIDE ACCESS AS REQUIRED FOR INSPECTION AND SERVICE.
- ALL CONNECTIONS BETWEEN AC UNITS/FANS AND DUCTWORKS SHALL HAVE: FIREPROOF, HEAVY DUTY FLEX-CONNECTORS (CITY APPROVED) WITH THREE INCH MINIMUM CLEARANCE, ISOLATE ALL HVAC UNITS, FANS AND EQUIPMENT FROM THE BUILDING STRUCTURE WITH APPROVED ISOLATION MOUNTS, PROVIDE SEISMIC RESTRAINTS FOR ALL UNITS AS REQUIRED BY CODE.
- ALL APPLIANCES DESIGNED TO BE FIRED IN POSITION SHALL BE SECURELY FASTENED IN PLACE.
- COORDINATE ALL WORK WITH OTHER TRADES, MAINTAIN PROPER CLEARANCES AND HEADROOM AT EQUIPMENT AND ETC. FOR INSPECTION AND SERVICE.
- ROOF MOUNTED EQUIPMENT, INCLUDING AIR INTAKES, SHALL BE LABELED AS TO THE SPACE IT SERVES.
- MAINTAIN AS-BUILT SET OF CONTRACT DRAWINGS ON ALL WORK AS INSTALLED, SHOWING SIZE AND/OR LOCATION CHANGES AND GIVING REFERENCE DIMENSIONS FOR LOCATION OF ANY CONDUCTED ITEMS REQUIRED ADJUSTMENT, INSPECTION, SERVICE OR OTHER.
- THE HVAC CONTRACTOR SHALL TEST, ADJUST AND PLACE IN PROPER OPERATION ALL SYSTEMS INSTALLED UNDER THE WORK OF THIS SECTION.
- PROVIDE A WRITTEN REPORT ON SYSTEM OPERATION, SETTINGS AND CONDITION OF ALL EQUIPMENT.
- WHEN ALL REQUIRED PORTIONS OF THE WORK HAVE BEEN COMPLETED, AND AT A TIME TO BE DESIGNATED BY THE OWNER, THOROUGHLY DEMONSTRATE TO THE OWNER'S MAINTENANCE PERSONNEL THE OPERATION AND MAINTENANCE OF ALL ITEMS INSTALLED UNDER THE WORK OF THIS SECTION.
- THE CONTRACTOR SHALL PROVIDE THE BUILDING OWNER FOUR BOUND COPIES OF SYSTEM EQUIPMENT CONTROL DIAGRAMS, REPORTS, MAINTENANCE AND OPERATING BROCHURES KEYS TO UNIT LABELINGS, WITH SERVICE INSTRUCTION AND PARTS LIST.
- ALL CONCEALED SPACES USED TO CONVEY CIRCULATING AIR SUPPLY SHALL BE OF INCOMBUSTIBLE MATERIAL AND CONTAIN NO COMBUSTIBLE (INCLUDING EXCESS COMMUNICATION CABLES).
- UNITS SHALL BE PROVIDED WITH FILTERS IN ACCORDANCE WITH MFG'S RECOMMENDATION, WITH ACCESS AS REQUIRED.
- THE CONTRACTOR SHALL GUARANTEE AT MATERIALS, DEVICES, EQUIPMENT, WORKMANSHIP AND THE SUCCESSFUL OPERATION OF ALL SYSTEM AND APPARATUS INSTALLED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE, WITHOUT COST TO THE OWNER.
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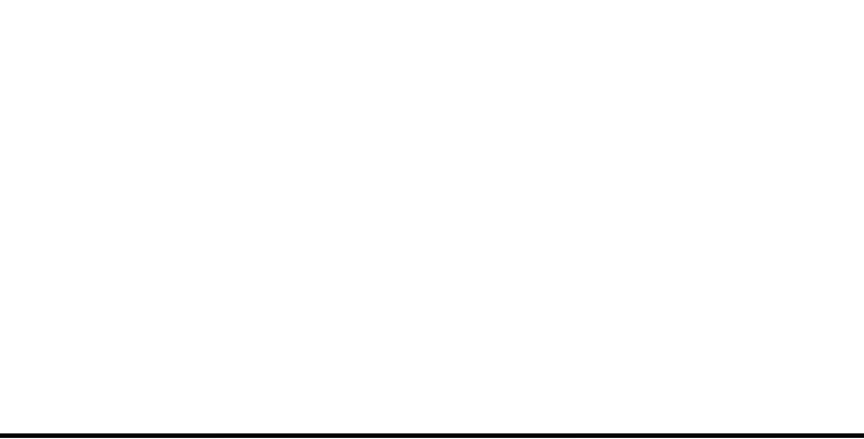
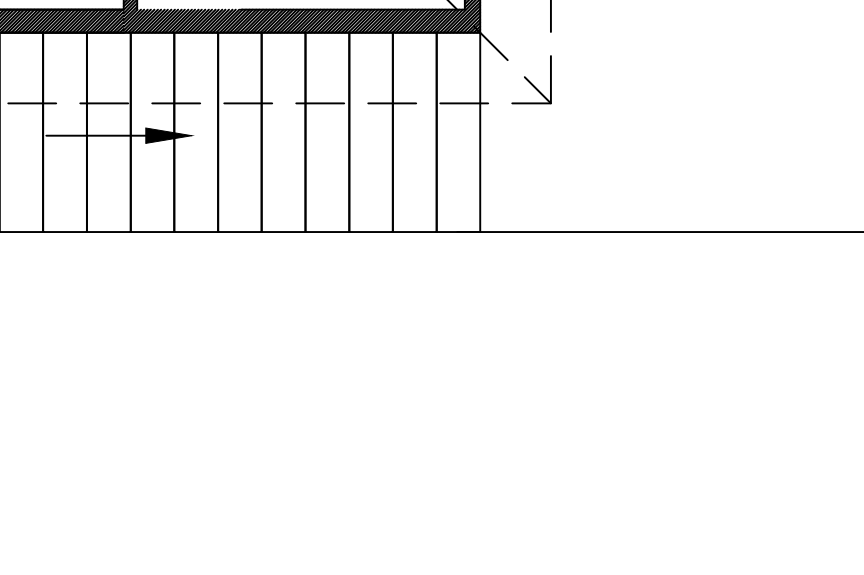
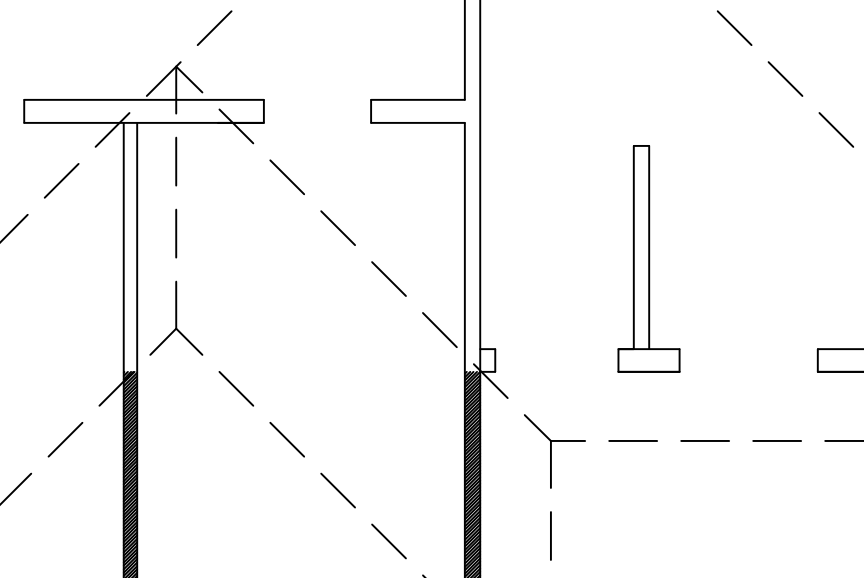
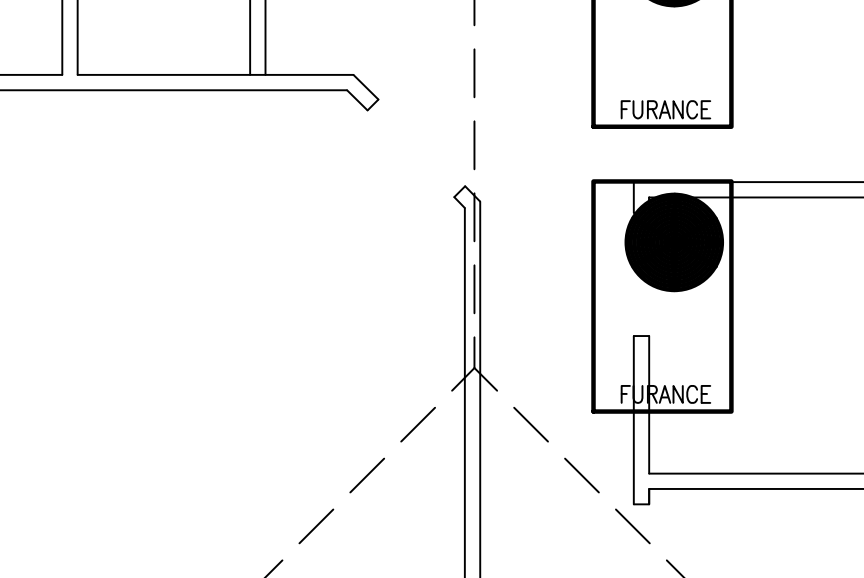
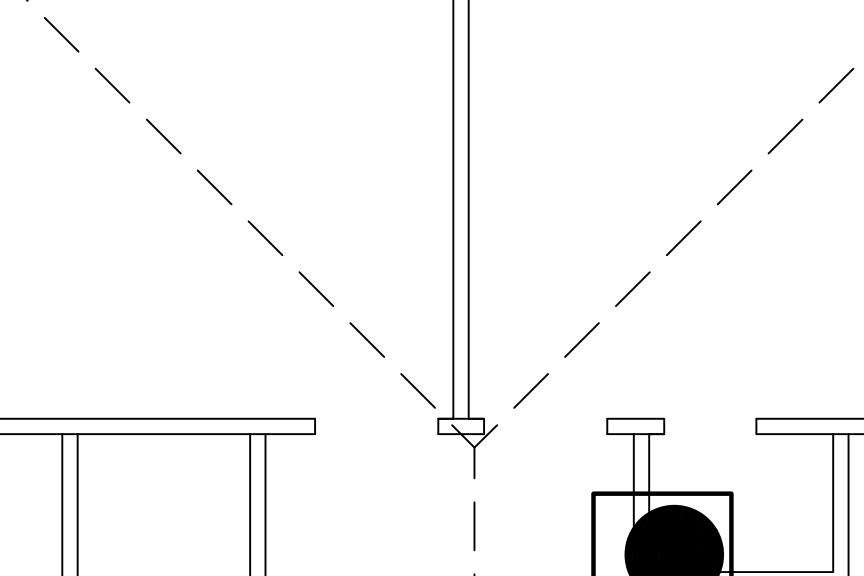
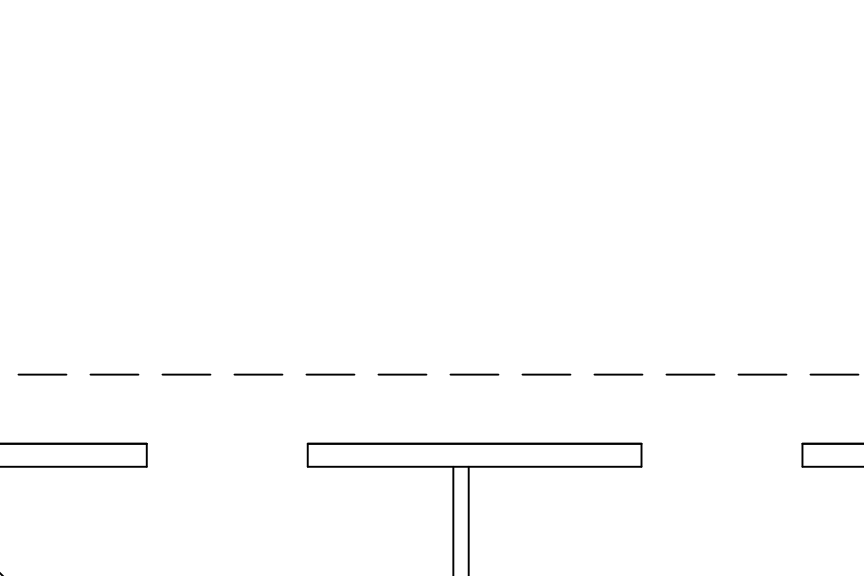
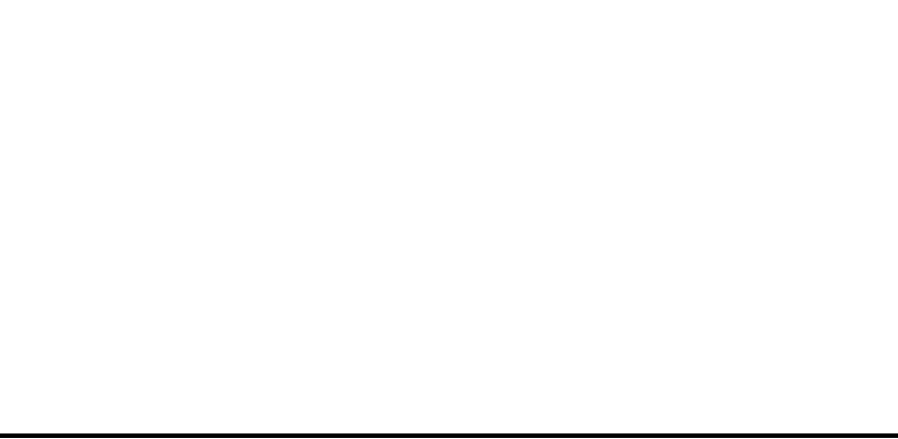
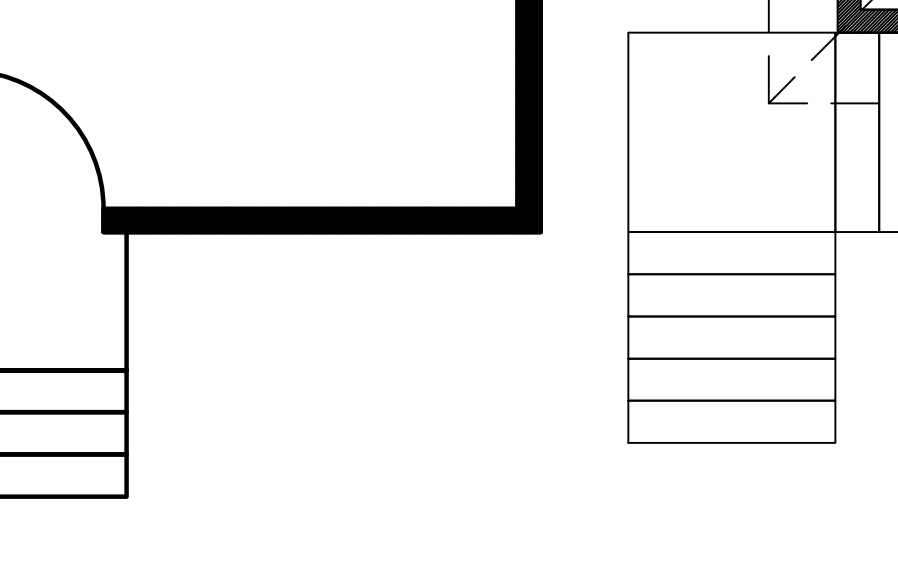
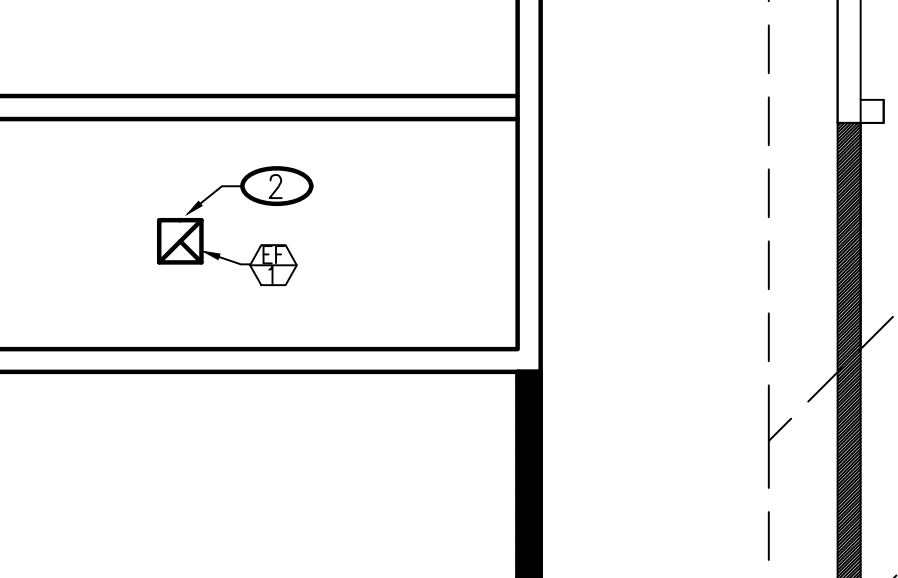
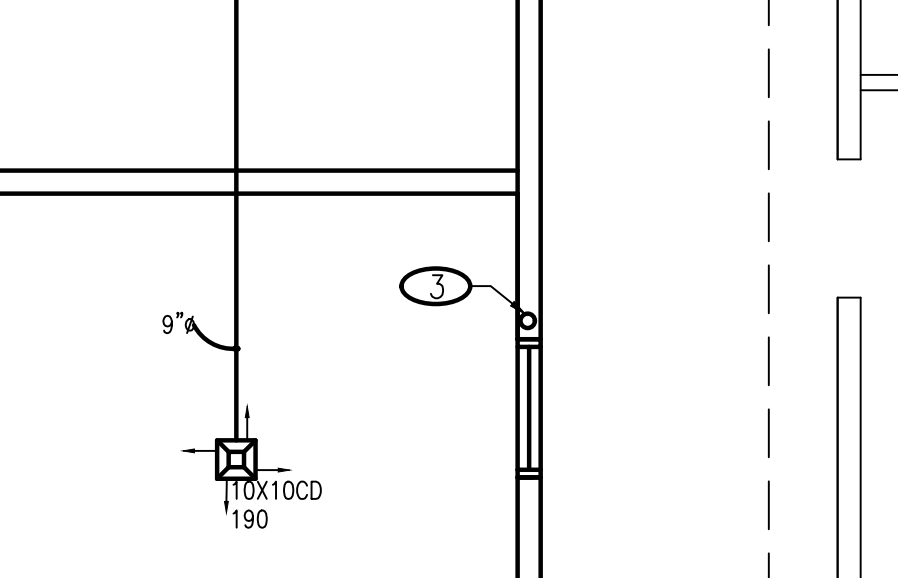
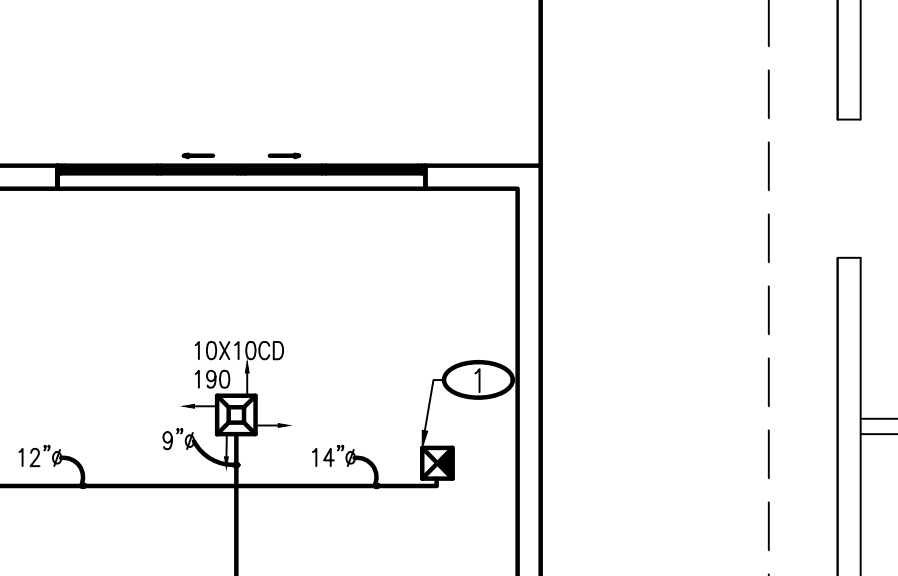
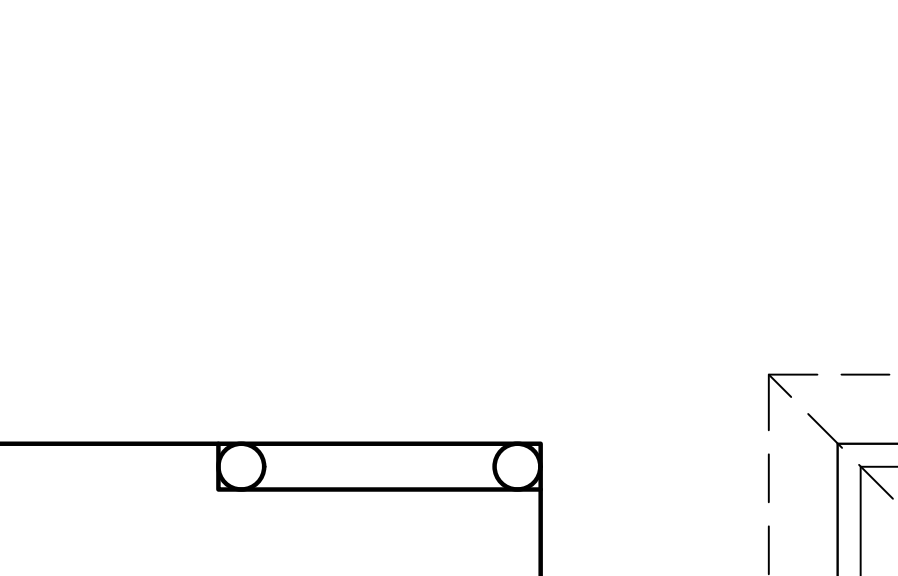
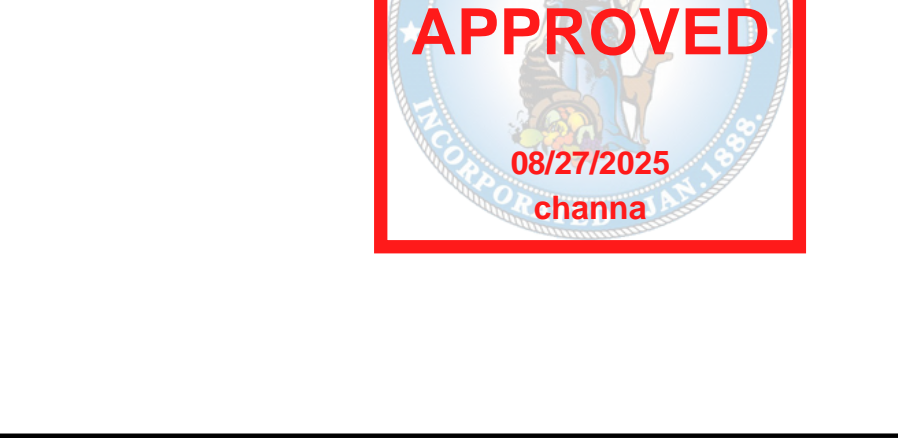
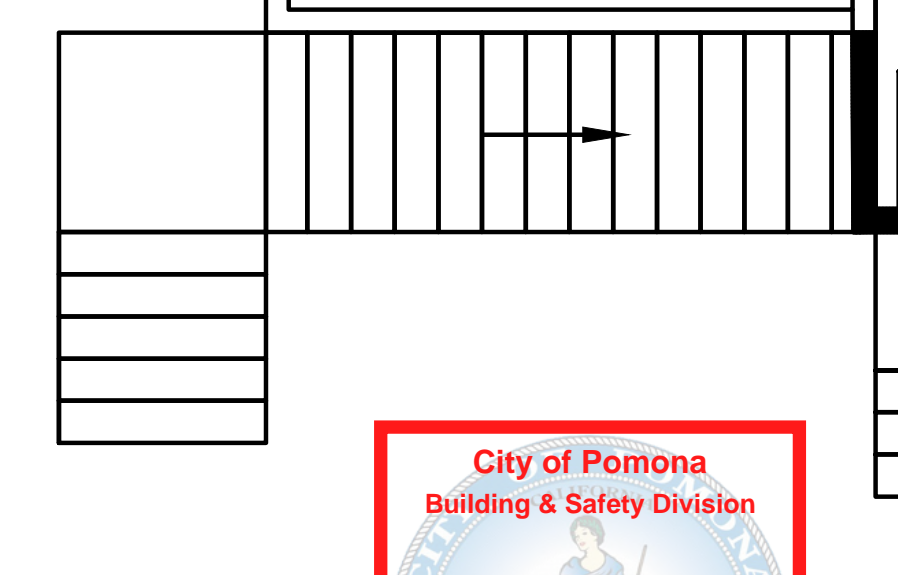
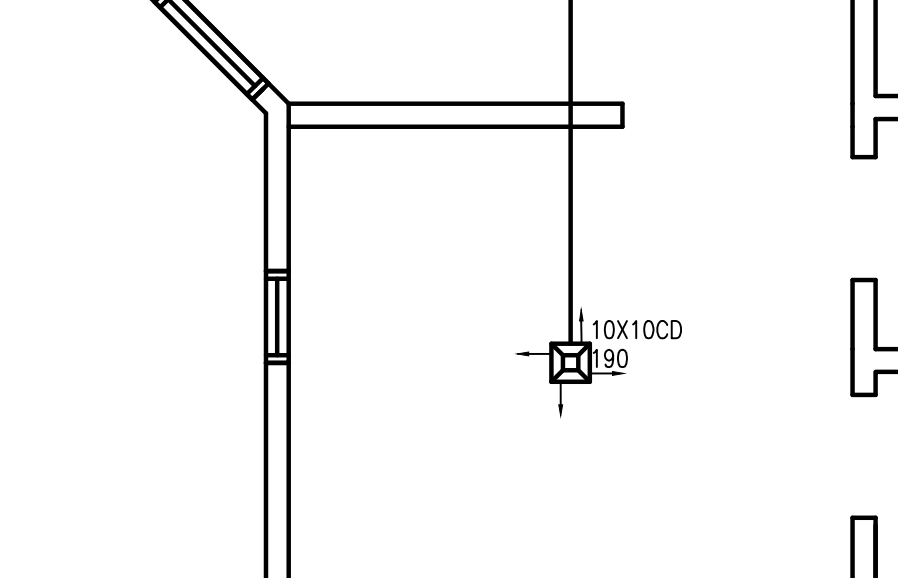
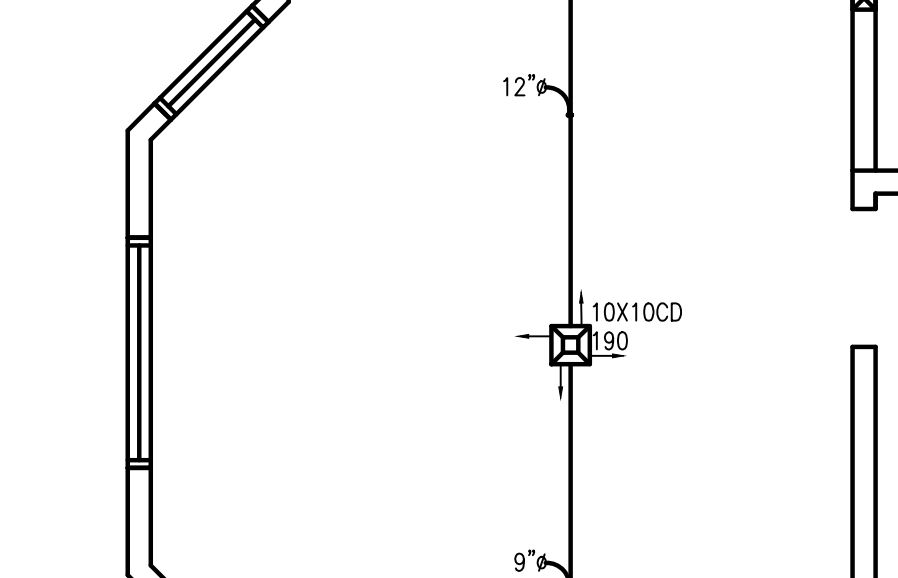
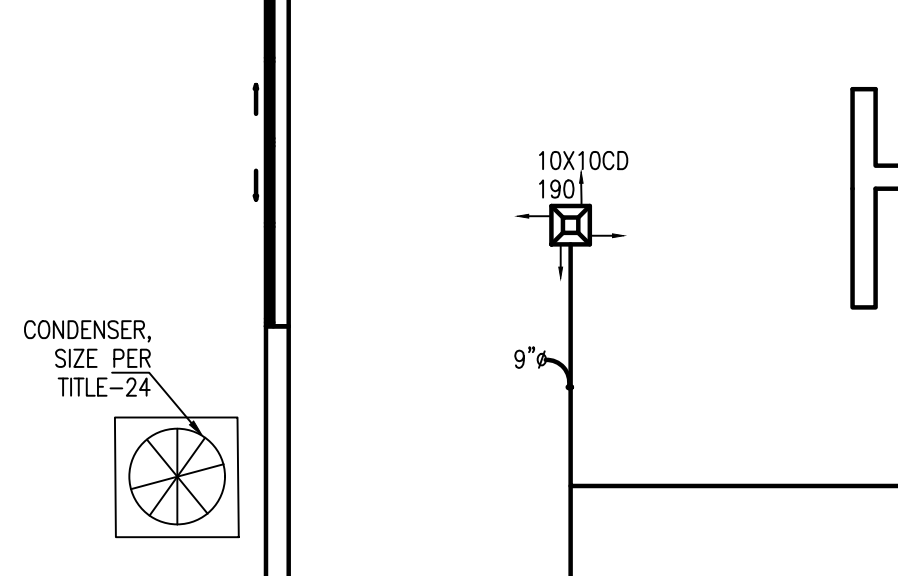
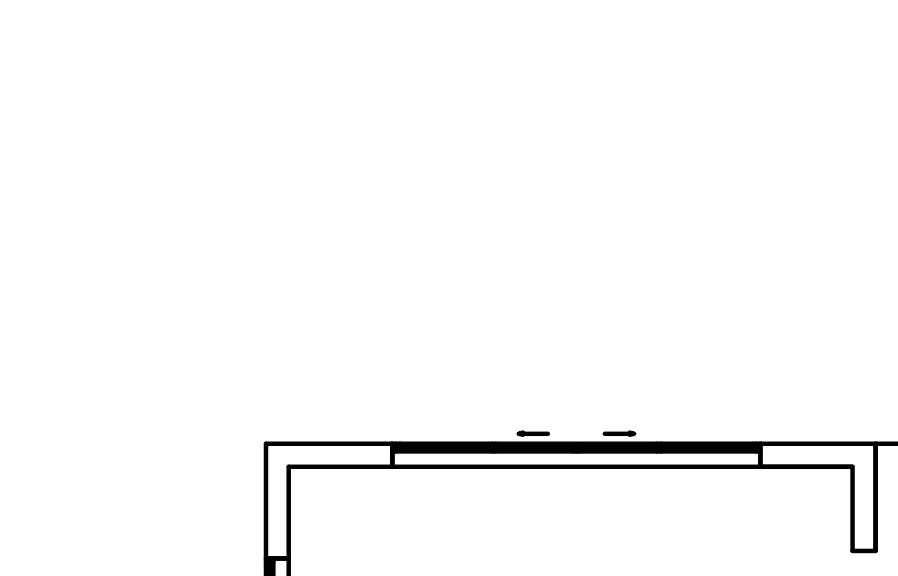
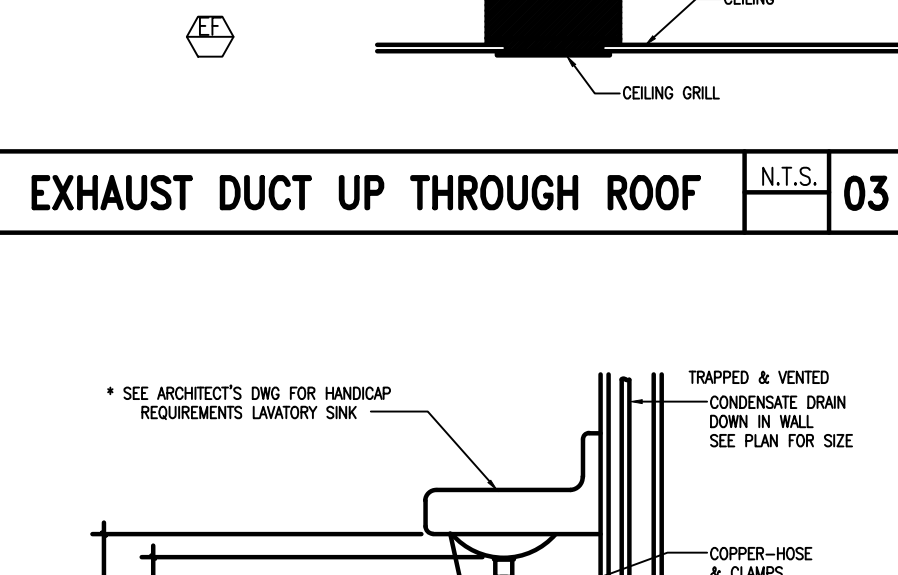
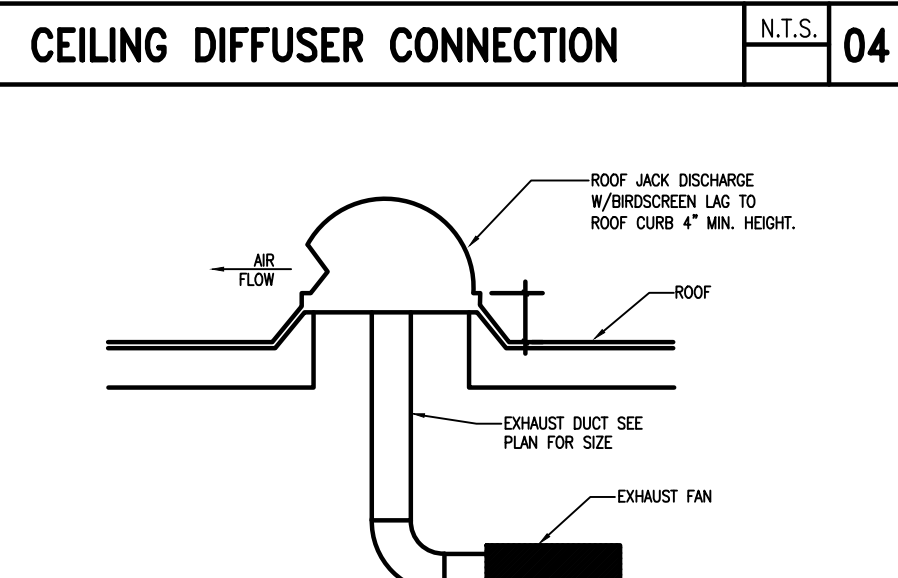
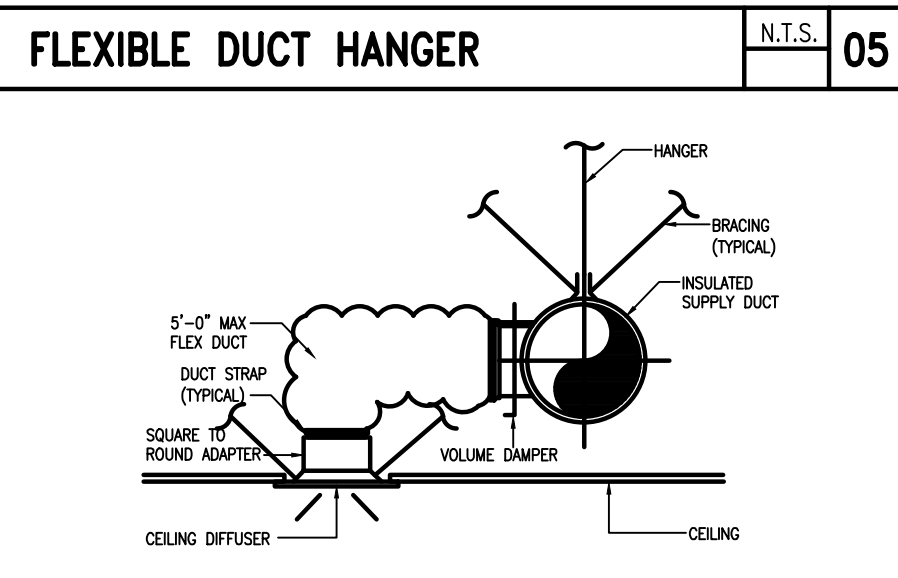
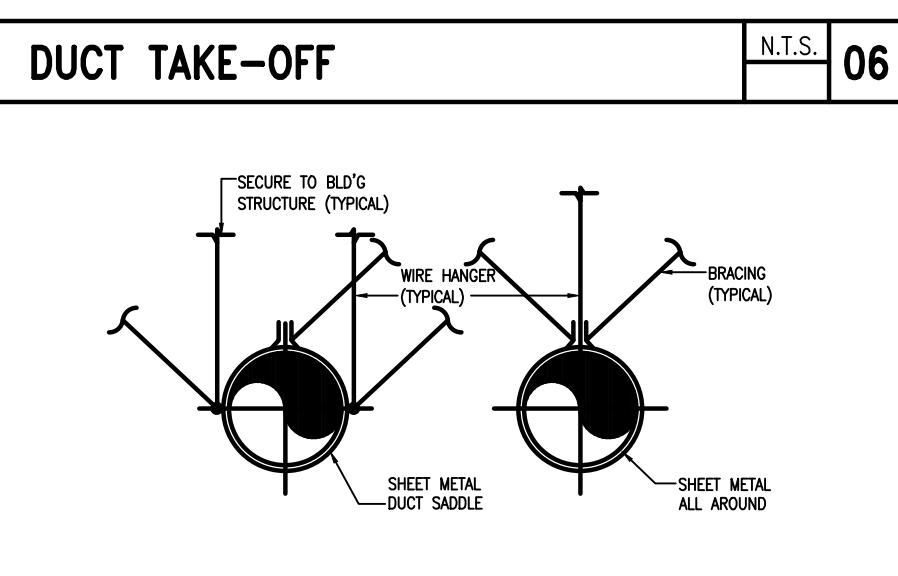
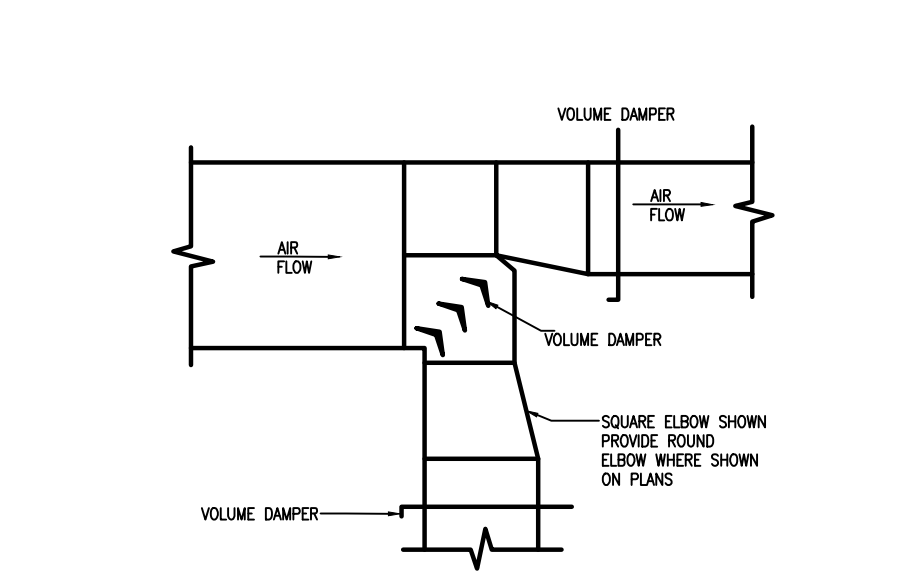
- FIRE DEPT. APPROVAL TO BE REQUIRED A FIRE PROTECTION SYSTEM FOR GREASE HOODS AND DUCKS AS REQUIRED BY SECTION 513 OF THE MECHANICAL CODE AND AS REQUIRED BY THE FIRE CODE.
- ALL HOODS REQUIRE A FIRE EXTINGUISHING SYSTEM AND CLEANABLE FILTERS APPROVED BY FIRE DEPT.
- EXHAUST FAN AND MAKE-UP AIR UNITS TO BE ELECTRICALLY INTERLOCKED.
- DUCT ENCLOSURE SHALL BE VENTED TO EXTERIOR THROUGH WEATHER PROTECTED OPENING.
- AUTOMATIC EXTINGUISHING SYSTEM FOR DEEP FRYER. INSTALLATION SHALL BE SUBMITTED IN TRIPlicate FOR APPROVAL TO THE ENGINEERING UNIT FIRE DEPT.
- PROVIDE POWER AND WATER WITH VACUUM BREAKER FOR EVAPORATIVE COOLER ON ROOF (MAKE-UP AIR) FIRE PROTECTIVE SYSTEM & MAKE-UP AIR WHERE REQUIRED BY OTHERS.
- EXHAUST TERMINATION 10'-0" MIN. FROM ADJACENT BUILDING, ADJACENT PROPERTY LINE, AIR INTAKES OF 10'-0" ABOVE ADJACENT GRADE.
- EXHAUST HOOD TO HAVE 18" ALL AROUND CLEARANCE FROM COMBUSTIBLES OR 3" MIN. FROM LIMITED COMBUSTIBLES.
- CONTRACTOR TO PROVIDE PERMANENT ACCESS TO ROOF.
- EXHAUST HOOD DUCT PENETRATION SHALL NOT AFFECT THE STRUCTURAL INTEGRITY OF THE ROOF.
- EXHAUST HOOD MATERIAL, MIN. 18 GAGE CARBON STEEL OR 20 GAGE STAINLESS STEEL.
- CONTRACTOR SHALL VERIFY THE LOCATION AND CONDITIONS OF EQUIPMENTS PLUMBING BEFORE CONSTRUCTION WORK.
- ALL WORK MUST COMPLY WITH CMG.
- PROVIDE DUCT CLEAN-OUT DOOR AT EVERY 12 FT, AND PROVIDE ALL WELDED ANGEL IRON DUCT SUPPORT AT EVERY 12 FT (MAX). IF THE BLDG. OVER ONE STORY SHOULD PROVIDE SOUND RATED PARTITION.

- M-3 FLOOR PLAN NUMBERED NOTES:**
- (E) SAD & RAD UP THROUGH ROOF
 - 6" EAD UTR W/ROOFJACK (THE OUTLET ON ROOF 10'-0" MIN. FROM PROPERTY LINE, ALSO 10'-0" MIN. FROM A/C UNIT OUTSIDE AIR INTAKE)
 - 3/4" CONDENSATE DRAIN (COOPER-TYPE "M") SHALL BE TRAPPED & PIPED TO TAILPIECE OF LAVATORY. DRAIN SHALL SLOPE AT NOT LESS THAN 1/4" PER FOOT (2X).
- MECHANICAL EQUIPMENT SCHEDULE**
- | | | |
|---|---------------------------|--|
| 1 | PANASONIC WHISPER FV-0V02 | CEILING MTD EXHAUST FAN FOR RESTROOM AREA |
| 2 | 90 CFM @ 3/8" S.P. | FURNISH W/BACKRAFT DAMPER, CONTROLLED FAN BY 24 HOUR TIME CLOCK. (ENERGY STAR) |
| 3 | ELECTRIC: 120/1/60, | |
| 4 | MOTOR HP: .15 | |
| 5 | 1065 RPM, SONE: .6 | |
| 6 | 6" DUCT | |



DUCTWORK LEGEND

SINGLE LINE	DESCRIPTION	DOUBLE LINE
	90° ELBOW DOWN	
	90° ELBOW UP	
	OFFSET TO CHANGE ELEVATION AT 30° WHEN POSSIBLE. (ARROW SLOPE DOWN)	
	ROUND RADIUS ELBOW	
	30° STRAIT TEE	
	90° CONICAL TEE	
	45° BRANCE	
	45° CONICAL TEE	
	SIZE OR SHAPE TRANSITION	
	ROUND FLEXIBLE DUCT	
	90° ELBOW DOWN	
	90° ELBOW UP	
	OFFSET TO CHANGE ELEVATION AT 30° WHEN POSSIBLE. (ARROW SLOPE DOWN)	
	RECTANGULAR RADIUS ELBOW	
	RECTANGULAR ELBOW WITH TURNING VANES	
	SPLIT BRANCH TAKEOFF WITH SQUARE ELBOW & SPLITTER DAMPER	
	SPLIT BRANCH TAKEOFF WITH RADIUS ELBOW & SPLITTER DAMPER	
	BRANCH TAKEOFF WITH RADIUS HEEL & DAMPER	
	BRANCH TAKE-OFF WITH AIR EXTRACTOR	
	SUPPLY DUCT RISER	
	RETURN, EXHAUST OR OUTSIDE AIR DUCT RISER	



#	REVISION	DATE

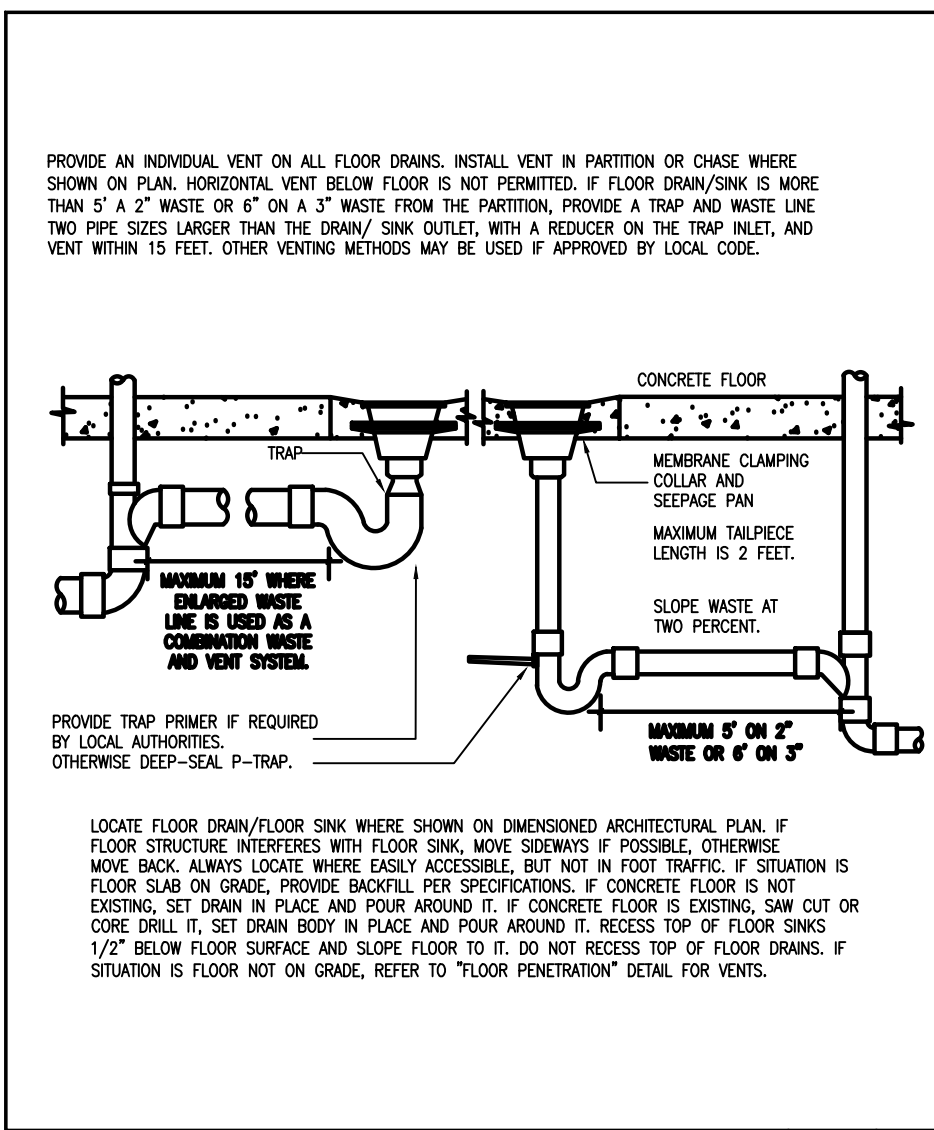
ACEMD CORPORATION
 18305 E VALLEY BLVD, SUITE A
 LA PUENTE, CA, 91744
 Off: (805) 259-7459
 KYLE.LEE@ACEMDCORP.COM

HAWK'S PROJECT
 604 E MISSION BLVD,
 POMONA, CA 91766

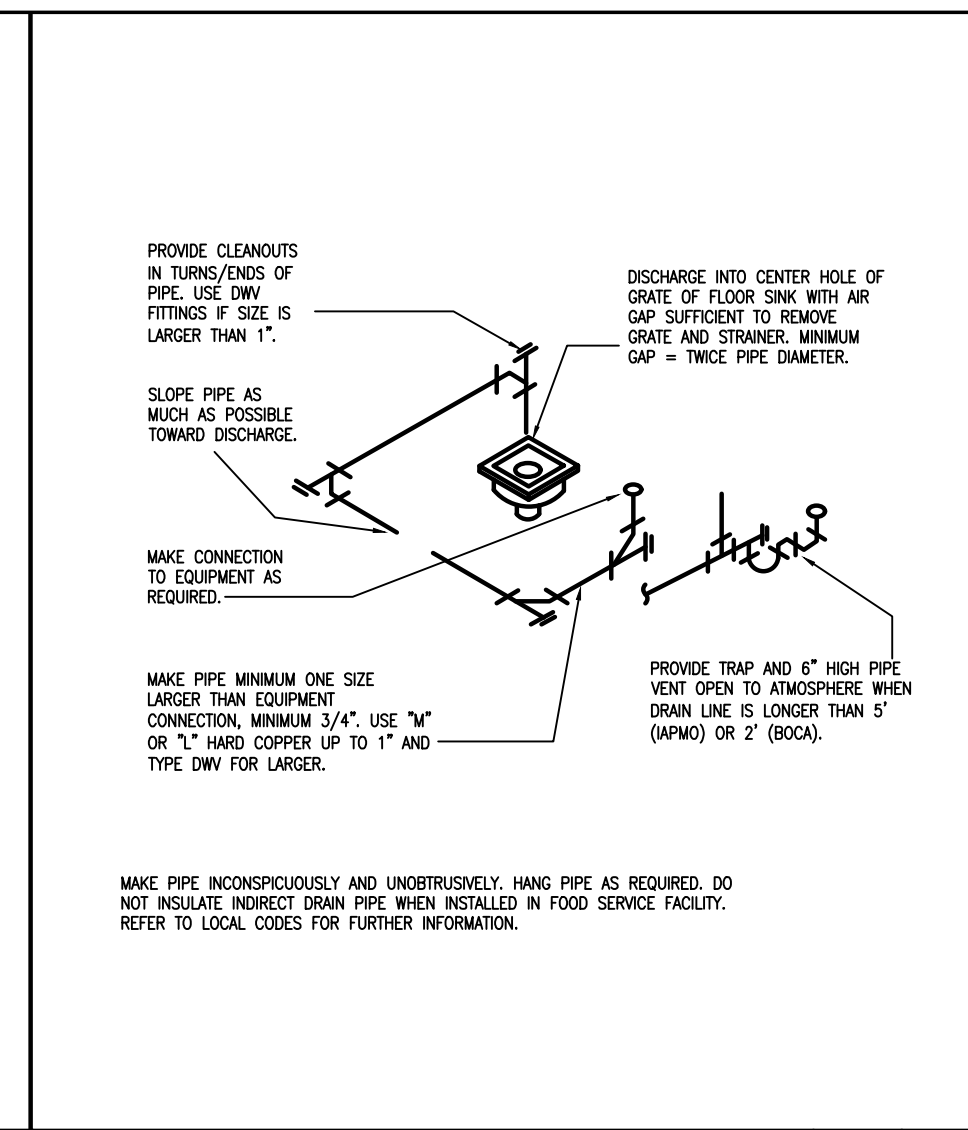
MECHANICAL PLAN

PROJECT NO. 2024-101
 DATE 01/04/24
 SCALE AS REFERENCED
 SHEET NO.

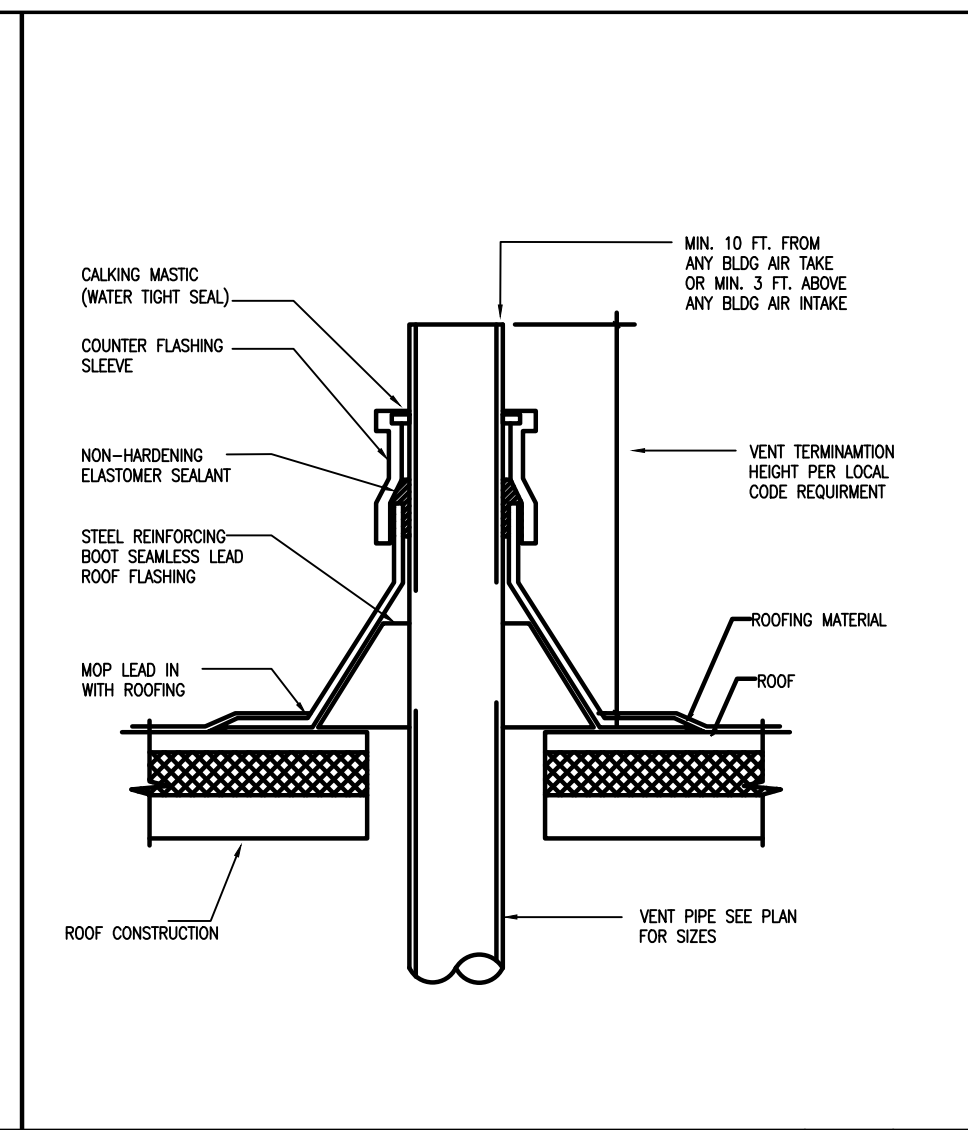
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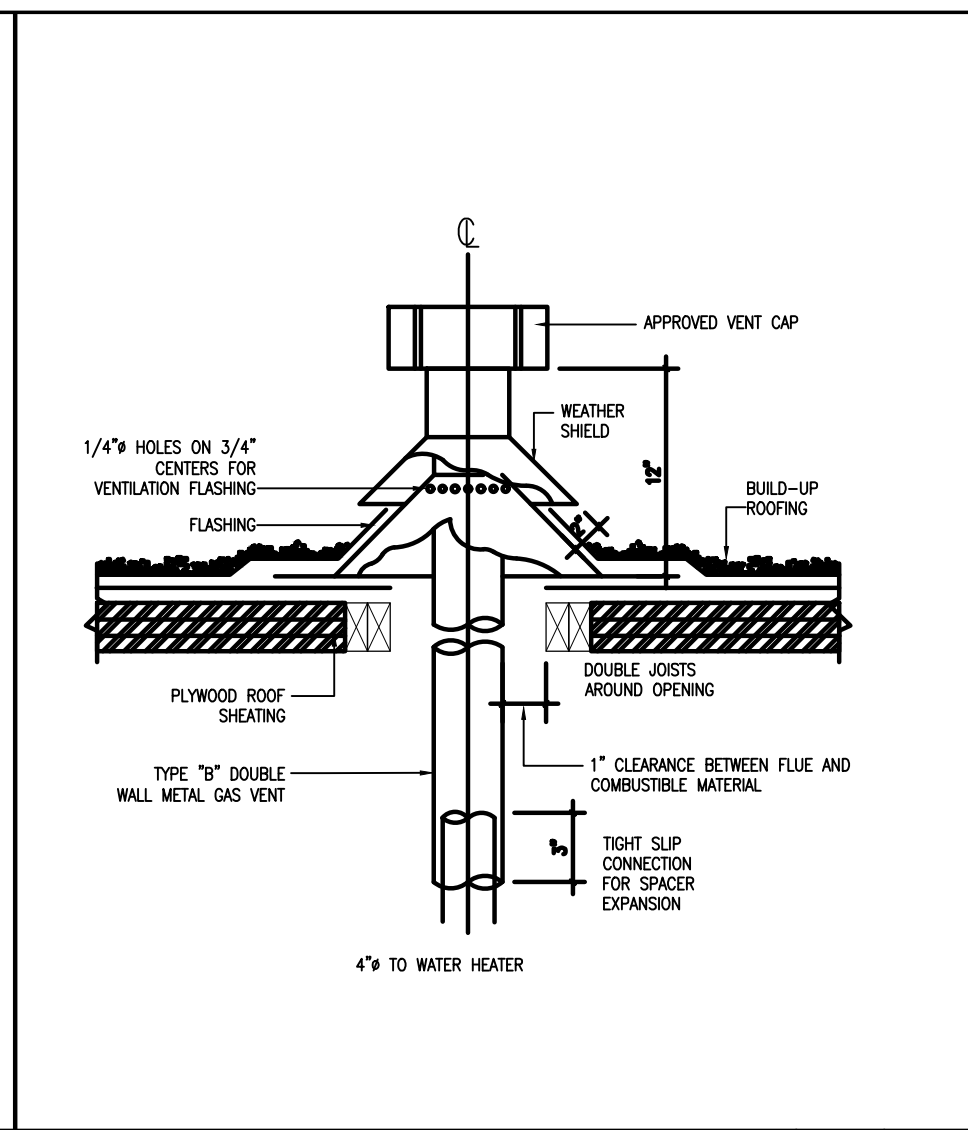
FLOOR DRAIN/SINK N.T.S. 17



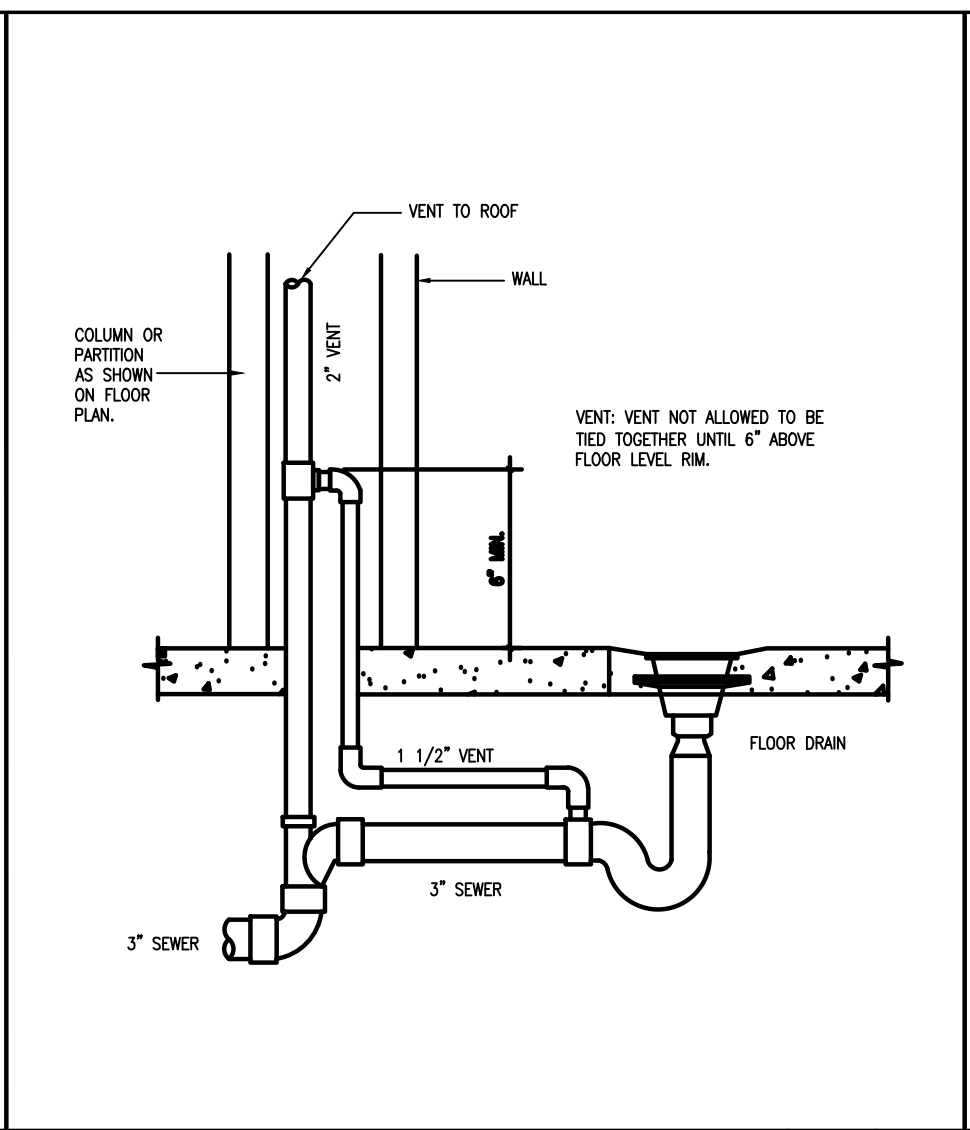
INDIRECT DRAIN N.T.S. 14



VENT THRU ROOF N.T.S. 10



FLUE VENT THRU ROOF N.T.S. 06



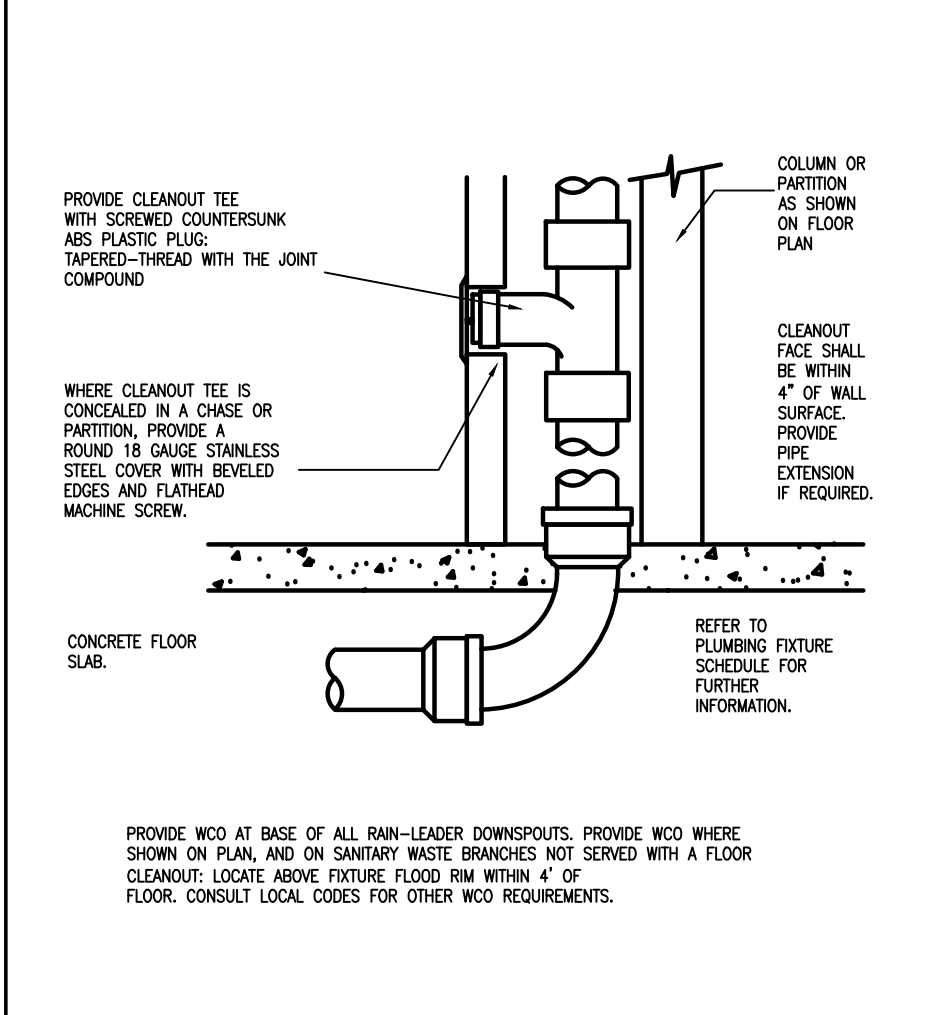
FD VENT CONNECTION N.T.S. 03

PLUMBING NOTE N.T.S. 02

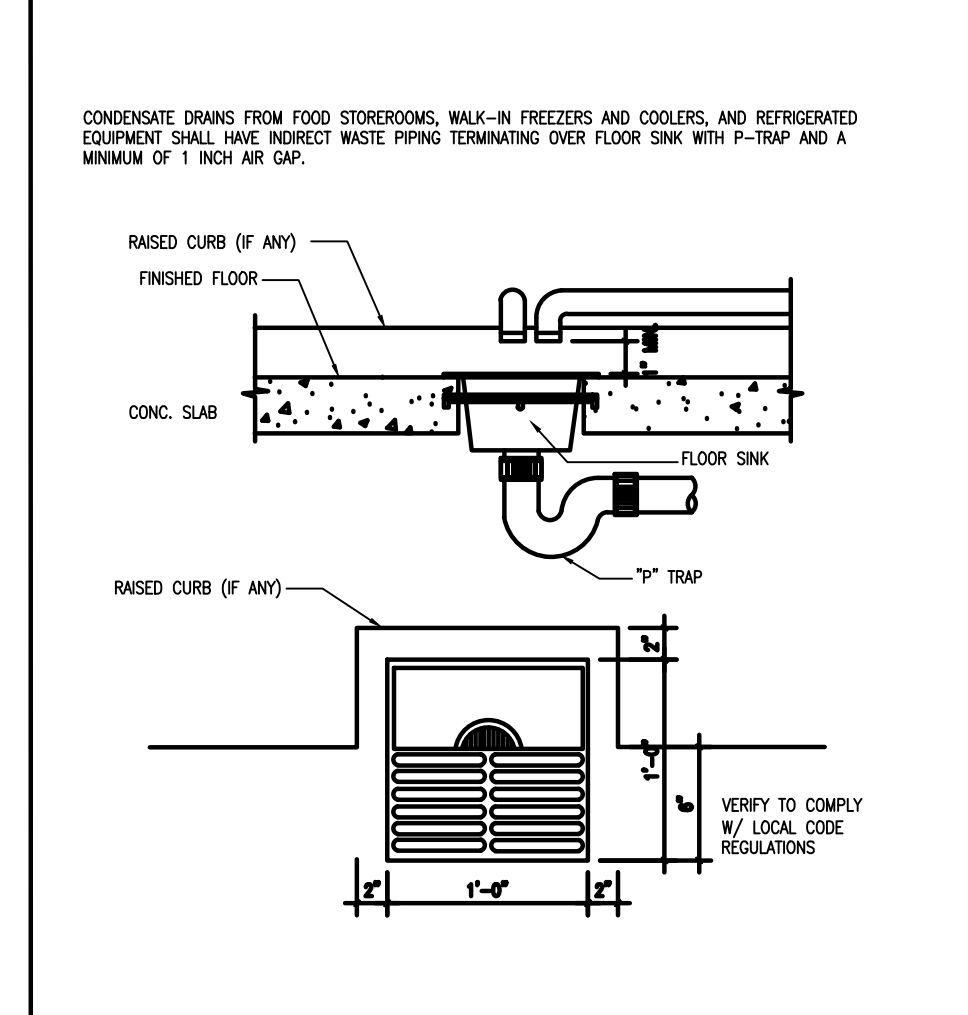
- WATER HEATER PROVIDE 1" COLD WATER LINE IN AND HOT WATER OUT, AND PROVIDE T&P VALVE TO OUTSIDE OF THE BUILDING. THE WATER HEATER SHALL BE PROVIDED MANUFACTURED SEISMIC STRAPS ON TOP AND BOTTOM.
- WATER HEATER VENT HAS TO EXTEND 2'-0" ABOVE PARAPET WALL OR MIN. 8'-0" AWAY FROM PARAPET WALL.
- ALL VENT PIPES SHALL RUN MIN. 10'-0" AWAY FROM ALL INTAKE AIR MACHINE OR RESOURCE.
- PROVIDE 1/2" COLD AND HOT WATER OUTLET TO ALL SINKS AND LAVATORIES.
- PROVIDE 1/2" COLD WATER OUTLETS TO evaporative cooler on roof and other equipment such as coffee machine, ice machine and soda dispenser, etc.

REGISTERED PROFESSIONAL ENGINEER
WANG AI
 No. 85148
 EXP. 03/31/26
CIVIL
 STATE OF CALIFORNIA

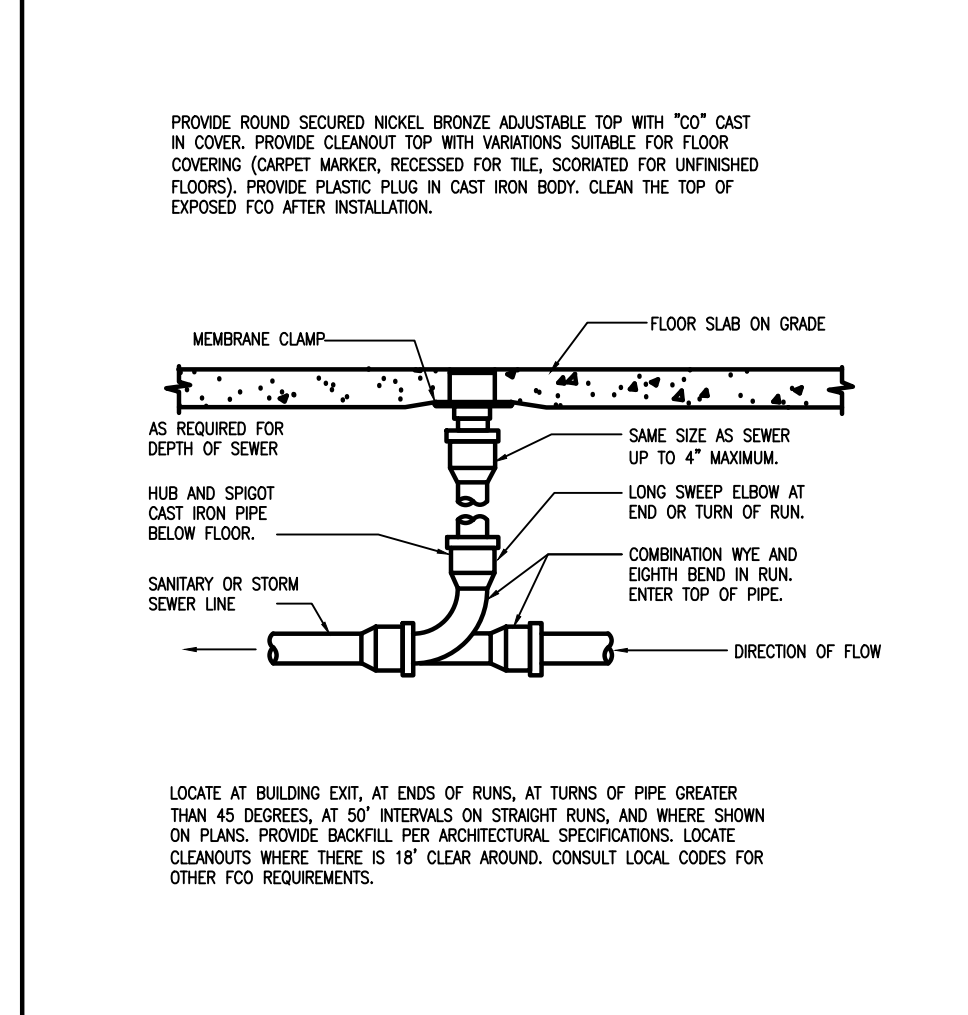
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WALL CLEAN OUT N.T.S. 16



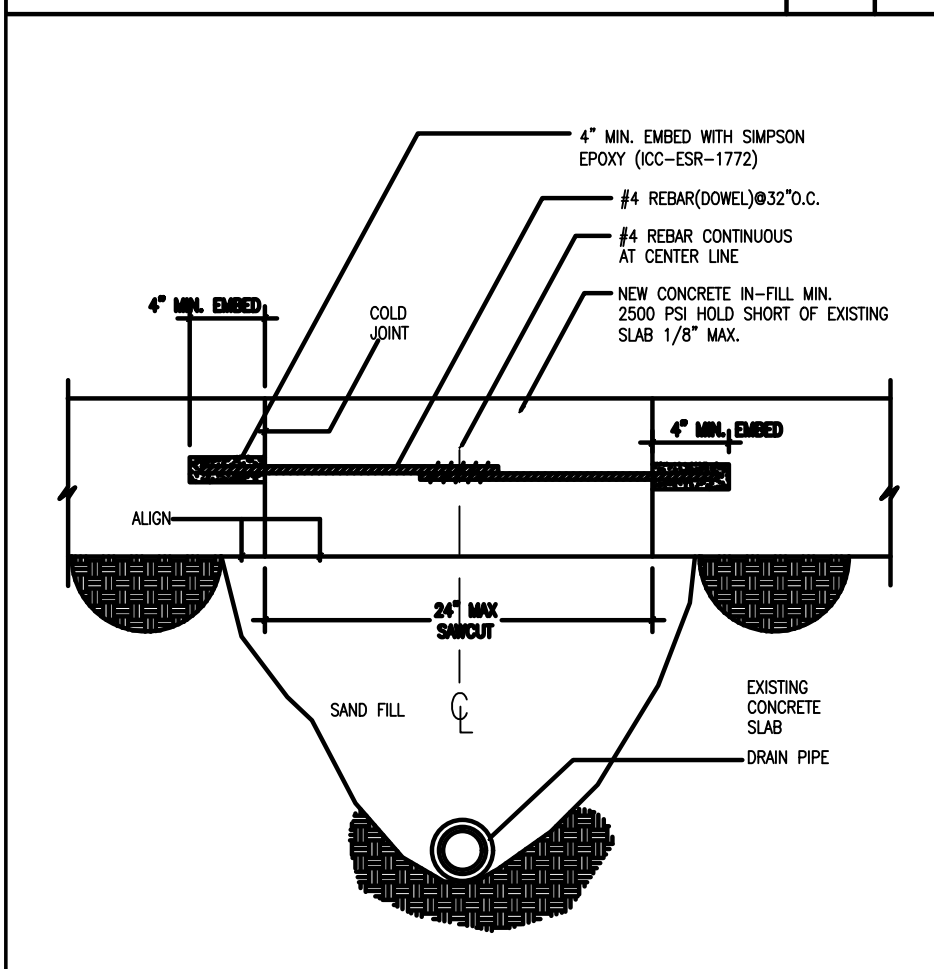
TYPICAL FLOOR SINK N.T.S. 13



FLOOR CLEAN OUT N.T.S. 09

PLUMBING NOTE N.T.S. 05

- THE PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION, SIZE, DEPTH, AND AVAILABILITY OF ALL UTILITIES CONCERNED.
- IF INSTALLING THE GREASE INTERCEPTOR, THE PLUMBING CONTRACTOR NOT ONLY NEEDS TO VERIFY THE EXACT LOCATION, SIZE, AND DEPTH BUT ALSO NEEDS TO AVOID THE BUILDING FOUNDATION AND THE EXISTING UNDERGROUND ELECTRICAL LINES, GAS LINES, AND CONDUITS. IF IT IS REQUIRED BY INSPECTOR, THE CONTRACTOR MAY PROVIDE STRUCTURE ENGINEER SERVICE DURING THE INSTALLATION WORK.
- IF THE PROJECT FLOOR IS A CONCRETE SLAB AND/OR IF THE PROJECT IS ON A SECOND FLOOR OR ON TOP OF THE PARKING LOT, THE PLUMBING CONTRACTOR MUST PROVIDE W-HAN TO VERIFY REBAR LOCATION PRIOR TO DRILL PLUMBING HOLES.
- FLOOR DRAINS ARE UTILIZED, THE FLOOR SURFACE MUST BE SLOPED 1:80 TO THE FLOOR DRAINS, OR A FOUR (4) FOOT BY FOUR (4) FOOT DEPRESSION THAT SLOPES 1/8 INCH PER FOOT MUST BE PROVIDED AROUND EACH FLOOR DRAIN.
- HORIZONTAL VENTING NOT APPROVED LESS THAN SIX (6) INCHES ABOVE THE FLOOR LEVEL RM OF FIXTURE SERVED UNLESS REQUIRED BY STRUCTURAL CONDITIONS.
- IF THE 3-COMP. SINK WITH A 7/0 (PER CPC 704.3), THE FIXTURE SHALL BE CONNECTED ON THE SEWER SIDE OF THE FLOOR DRAIN TRAP.



CONCRETE STRIP SLAB N.T.S. 15

PLUMBING LEGEND N.T.S. 12

SYMBOL	DESCRIPTION
S	SANITARY SEWER ABOVE GRADE
S	SANITARY SEWER BELOW GRADE
GW	GREASE WASTE BELOW GRADE
V	SANITARY VENT
D	INDIRECT DRAIN
CW	DOMESTIC COLD WATER
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
G	NATURAL GAS
D	CLEANOUT TO GRADE
FOG	FLOOR CLEANOUT
WCO	WALL CLEANOUT
SOV	SHIFT-OFF VALVE
POC	POINT OF CONNECTION
FD	FLOOR DRAIN
FS	FLOOR SINK
EX'G	EXISTING
(N)	NEW
ABV	ABOVE
VTR	VENT THROUGH ROOF

PIPE MATERIAL SCHEDULE N.T.S. 08

SERVICE	INSIDE	OUTSIDE	UNDER GRD.
WATER	1/2" SCH. 40 BLACK STEEL	1/2" SCH. 40 BLACK STEEL	1/2" SCH. 40 BLACK STEEL
SANITARY WASTE	1/2" SCH. 40 BLACK STEEL	1/2" SCH. 40 BLACK STEEL	1/2" SCH. 40 BLACK STEEL
SANITARY VENT	CONCEALED	EXPOSED	EXPOSED
GAS	INSIDE	OUTSIDE	OUTSIDE
INDIRECT WASTE	INSIDE	OUTSIDE	OUTSIDE
STORM DRAIN	INSIDE	OUTSIDE	OUTSIDE
ACID RESISTANCE	INSIDE	OUTSIDE	OUTSIDE

EACH HORIZONTAL DRAINAGE PIPE SHALL BE PROVIDED WITH A CLEANOUT AT ITS UPPER TERMINAL AND EACH RUN OF SINKS, WHICH IS MORE THAN ONE HUNDRED FEET IN TOTAL DEVELOPED LENGTH, SHALL BE PROVIDED WITH CLEANOUT AT EA. HUNDRED FEET OR FRACTION THEREOF OF LENGTH OF SUCH PIPING.

PLUMBING FIXTURE SCHEDULE N.T.S. 11

MARK	FIXTURE NAME	MANUF. & MODEL	MINIMUM ROUGH-IN SIZES					DESCRIPTION
			CW	HW	INST.	VENT	TRAP	
HS	HAND SINK	"FLAT RIM SINK" 7020.207	1/2"	1/2"	2"	1-1/2"	2"	END OUTLET, FLAT RIM, SINGLE BOWL, WALL MOUNTED SINK, STAINLESS STEEL, DIMENSION 18"x24"x2 1/2" FITTING: 3/4"x1 1/4" BRACKET w/ TOP BRACE, TOP & W/ WASH. BREAKER.
LAV	LAVATORY (HANDCAPPED)	"TANKLESS" 0470.021	1/2"	1/2"	2"	1-1/2"	2"	WHITE VITREOUS CHINA, FRONT OVERFLOW, "TOTO" CONCEALED ARM SUPPORT, 0.5 GPM. w/ P/OP UP DRAIN.
FS	FLOOR SINK	"COSAM" 9032	---	---	2"	1-1/2"	2"	12", 12", 6-1/4" DEPTH w/ ALUM. DOME AND 1/2 GRATE.
FD	FLOOR DRAIN	"MIFAB" #1000-S	---	---	2"	1-1/2"	2"	DUCCO CAST IRON BODY, ANCHOR FLANGE WITH PROTECTOR CAP AND 5" SQUARE POLISHED STAINLESS STEEL, ADJUSTABLE STANER HEAD, BOTTOM OUTLET WITH TRAP PRIMER CONNECTION, MEMBRANE SLAMP AT MEMBRANE FLOORS ONLY.
TP	TRAP PRIMER	---	---	---	---	---	---	PROVIDED BY PLUMBING CONTRACTOR
WC	WATER CLOSET (HANDCAPPED)	"TOTO" CT T02L ELONGATED TOILET	3/4"	---	3"	---	---	18" H, "TOTO" BY DC ELONGATED BOWL & TANK, FLUSHES ON 1.28 GAL. 2 BOLT CAPS 10 PSI REQUIRED, WHITE VITREOUS CHINA ACCESSORIES: SEAT SHOWN-GLSQUATE #95, OPEN FRONT SEAT w/ COVER
WH	WATER HEATER	"ECCOTEMP"	---	---	---	---	---	A/S "ECCOTEMP", 112 - NS, 4 GPM, 80,000BTU, 79% THERMAL EFFICIENCY 80 GPM @ 100F.

PLUMBING FIXTURE SCHEDULE N.T.S. 11

WATER GPH CALCULATION N.T.S. 07

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SHEET TITLE

PLUMBING PLAN

PROJECT NO. 2024-101
 DATE 01/04/24
 SCALE AS REFERENCED
 SHEET NO.

P-1

GENERAL STRUCTURAL NOTES

GENERAL

- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONDITIONS OF ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUB-CONTRACTORS. STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES FROM STRUCTURAL PLANS.
- ALL MATERIALS AND WORKMANSHIP SHALL BE PERFORMED IN ACCORDANCE WITH 2022 CALIFORNIA BUILDING CODE.
- ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS.
- NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- WHERE NO DETAILS SHOWN OR NOTED ON THE DRAWINGS, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- OPENINGS, POCKETS, SLEEVES, ETC., SHALL NOT BE PLACED IN SLABS, BEAMS, WALLS, COLUMNS AND FOOTINGS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.
- CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOADS SHALL NOT EXCEED DESIGN LIVE LOADS FOR EACH PARTICULAR LEVEL. PROVIDE ADEQUATE SHORING AND BRACING IF LOAD EXCEED DESIGN LIVE LOAD OR WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.
- THIS SET OF DRAWINGS REPRESENT THE FINISHED STRUCTURE. METHOD OF CONSTRUCTION NOT NECESSARY INDICATED. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKERS AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO BRACING, SHORING, SCAFFOLDING, ETC.

FOUNDATION

- THE SOILS BEARING PRESSURE = 1,500 p.s.f.
- FOUNDATION DESIGN SHALL BE 18" MIN. DEPTH OF FTG BELOW LOWEST ADJACENT FINAL GRADE, AND 15" MINIMUM WIDTH FOR 1 STORY, 18" MIN. WIDTH FOR 2 STORY, BEAR ON FIRM NATIVE OR PROPERLY COMPACTED SOILS.
- NOT USED
- GEOTECHNICAL ENGINEER OR DEPUTY INSPECTOR SHALL VERIFY THAT CONSTRUCTION AT THE SITE IS IN ACCORDANCE WITH THE RECOMMENDATIONS AND CONCLUSIONS OF HIS REPORT. FINISHED EXCAVATION FOR FOUNDATION SHALL BE NEAT AND TRUE TO LINE WITH ALL LOOSE MATERIAL AND STANDING WATER REMOVED FROM EXCAVATIONS.
- BEFORE ANY CONCRETE IS PLACED, EXCAVATIONS SHALL BE CHECKED AND APPROVED BY A QUALIFIED SOILS ENGINEER OR DEPUTY INSPECTOR TO ENSURE COMPLIANCE WITH THE REQUIREMENTS.
- ALL FILL MATERIALS TO BE APPROVED BY THE SOILS ENGINEER OR DEPUTY INSPECTOR AND APPROVED BY A QUALIFIED SOILS ENGINEER OR DEPUTY INSPECTOR TO ENSURE COMPLIANCE W/ THE REQUIREMENTS.
- SUBGRADE SHALL BE 2".
- SIDE OF FOUNDATION MAY BE POURED AGAINST STABLE EARTH UNLESS SHOWN OR NOTED OTHERWISE.
- CONTRACTOR SHALL PROVIDE TEMPORARY AND PERMANENT DEWATERING FOR EITHER SURFACE WATER, GROUND WATER OR SEEPAGE WATER.
- CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC. ENCOUNTERED DURING EXCAVATIONS AND BACKFILLING.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL CRIBBING SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN THE EARTH BANK.
- FOOTING BACKFILL AND UTILITY TRENCH BACKFILL SHALL BE PROPERLY COMPACTED.
- CONTRACTOR SHALL BRACE OR PROTECT FROM LATERAL LOADS FOR THE PIT AND RETAINING WALLS UNTIL ATTACHING SLABS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL STRENGTH.
- NO VERTICAL EXCAVATIONS 4'-0" OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND SHALL BE PERMITTED.

STRUCTURAL DESIGN CRITERIA

ROOF LOAD:	DL= 17 PSF	LL= 20 PSF
FLOOR LOAD:	DL= 14 PSF	LL= 40 PSF
DECK LOAD:	DL= 14 PSF	LL= 60 PSF

WIND DESIGN DATA:	
BASIC WIND SPEED	110 MPH
IMPORTANCE FACTOR I	1
OCCUPANCY CATEGORY	III
WIND EXPOSURE	C

EARTHQUAKE DESIGN DATA:	
IMPORTANCE FACTOR I	1
SITE CLASS	D (ASSUME STIFF SOIL PROFILE)
Ss	1.751
S1	0.635
Sds	1.167
SD1	0.635
SEISMIC DESIGN CATEGORY	D
BASIC SEISMIC FORCE-RESISTING SYSTEM	A-15 (ASCE 7-16 TABLE 12.2-1)
DESIGN BASE SHEAR	0.7V _E = 0.126*W (ASD LEVEL)
Cs	0.180
R	6.5
USE EQUIVALENT LATERAL FORCE PROCEDURE	

EPOXY ANCHORS

- EPOXY FOR EPOXY ANCHORS SHALL BE SET-XP EPOXY BY "SIMPSON STRONG-TIE" (ICC ESR. #2508)
- ANCHORS USED FOR EPOXY ANCHORS SHALL BE ASTM A-307 THREADED RODS UNO. SIZE AND EMBEDMENT SHALL BE AS INDICATED ON PLANS.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE EPOXY MANUFACTURER'S RECOMMENDATIONS AND THE CURRENT ICC REPORT. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH CBC-2022 SECTION 1704 AND IN ACCORDANCE WITH THE SPECIFIC SPECIAL INSPECTION REQUIREMENTS SET FORTH IN THE CORRESPONDING ICC REPORT.
- DRILLED HOLES SHALL BE CLEANED OF DUST AND ANY DEBRIS USING NYLON BRUSH AND COMPRESSED AIR. OIL, SCALE, AND RUST SHALL BE REMOVED FROM THREADED RODS PRIOR TO INSTALLATION.
- UNLESS NOTED OTHERWISE IN THE PLANS, EPOXY ANCHORS SHALL HAVE THE FOLLOWING MINIMUM EMBEDMENT

BAR SIZE	MINIMUM EMBEDMENT *	REMARKS
#3	3 1/2"	
#4 OR 1/2"Ø	4 1/4"	
#5 OR 5/8"Ø	5 1/2"	
#6 OR 3/4"Ø	6 3/4"	

* UNLESS NOTED OR DETAILED

CONCRETE

- ALL CONCRETE SHALL BE NORMAL WEIGHT CONFORMING TO THE FOLLOWING:

LOCATION	28-DAY MIN. COMPRESSIVE STRENGTH	MAXIMUM AGGREGATE SIZE (IN.)	MIX DESIGN SLUMP (INCHES)
A. SLAB ON GRADE	3000 psi	1	3 (4" MAX)
B. FOOTING	3000 psi	1	4 (5" MAX)

W/C=0.45
- ALL CONCRETE MIX DESIGN SHALL BE REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE V CEMENT.
- AGGREGATE SHALL CONFORM TO ASTM C-33.
- WATER SHALL BE CLEAN, FREE FROM DELETERIOUS AMOUNTS OF ACIDS, ALKALIS OR ORGANIC MATERIALS, OILS, SALTS AS PER ACI 318.
- CONCRETE MIXING OPERATIONS, ETC. SHALL CONFORM TO ASTM C-94. WATER-CEMENT RATIO IS LESS THAN 0.50
- UNLESS SHOWN OR NOTED OTHERWISE, CONCRETE COVERAGE FOR REINFORCING BAR TO FACE OF BAR SHALL BE AS FOLLOWS:

A. CONCRETE IN CONTACT WITH EARTH, UNFORMED	3"
B. CONCRETE IN CONTACT WITH EARTH, FORMED	2"
C. WALLS	1.5"
D. BEAMS, GIRDERS & COLUMNS (TO TIES OR STIRRUPS)	1.5"
- CONDUIT PLACED IN A CONCRETE SLAB SHALL NOT EXCEED 1/3 OF THE THICKNESS OF THE SLAB AND SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCING STEEL, MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE 6".
- CONSTRUCTION JOINTS: THE SURFACES OF ALL CONSTRUCTION JOINTS SHALL BE CLEAN, FREE FROM LOOSE DEBRIS. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, ALL CONSTRUCTION JOINTS SHALL BE WETTED AND STANDING WATER REMOVED.
- CONCRETE SHALL BE CURED IN ACCORDANCE WITH SECT 1905.11 OF 2022 C.B.C.
- REMOVAL OF CONCRETE FORMS AND SHORES SHALL BE IN ACCORDANCE WITH SECTION 1906.2 OF 2022 C.B.C.
- CONDUITS AND PIPES EMBEDDED IN CONCRETE SHALL COMPLY WITH THE PROVISION OF SECTION 1906.3 OF 2022 C.B.C.
- DESIGN AND CONSTRUCTION OF CONCRETE FORMWORK SHALL CONFORM TO ACI 347 "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK"
- ALL SAW CUTS IN SLAB ON GRADE SHALL BE MADE NOT LATER THAN 24 HOURS AFTER PLACING CONCRETE.

REINFORCING STEEL

- ALL REINFORCING BARS SHALL BE ASTM A-615 GRADE 60 DEFORMED BILLET STEEL BARS.
- GRADE 60 BARS SHALL BE MARKED SO ITS IDENTIFICATION CAN BE MADE WHEN THE FINAL IN PLACE INSPECTION IS MADE.
- THE TIE WIRE USED SHALL BE BLACK ANNEALED WIRE, 16 GA. OR HEAVIER.
- BAR SUPPORTS SHALL CONFORM TO THE BAR SUPPORT SPECIFICATIONS CONTAINED IN THE "MANUAL OF STANDARD PRACTICE" BY ACI.
- A CERTIFIED COPY OF MILL TEST ON EACH HEAT OF REINFORCING STEEL DELIVERED SHOWING PHYSICAL AND CHEMICAL ANALYSIS SHALL BE PROVIDED UPON REQUEST AT THE TIME OF SHIPMENT.
- ALL REQUIREMENT OF CONCRETE REINFORCEMENT NOT COVERED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH ACI "MANUAL OF STANDARD PRACTICE".
- REINFORCING STEEL AT THE TIME OF THE CONCRETE IS PLACED SHALL BE FREE FROM MUD, OIL, OR OTHER NON METALLIC COATINGS THAT ADVERSELY AFFECT BONDING CAPACITY.
- ALL HOOKS SHALL CONFORM TO THE BEND DIMENSION PER ACI "STANDARD HOOK" UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- REINFORCING BARS SHALL NOT BE BENT OR STRAIGHTENED IN A MANNER THAT WILL INJURE THE MATERIAL.
- REINFORCING BARS SHALL CONFORM ACCURATELY TO THE DIMENSIONS SHOWN ON THE DRAWINGS WITH THE FABRICATING TOLERANCES PER ACI "MANUAL OF STANDARD PRACTICE".
- BARS SHALL BE SECURELY TIED TO PREVENT DISPLACEMENT DURING THE CONCRETE OPERATION AND ALL DOWELS SHALL BE WIRED IN PLACE BEFORE DEPOSITING CONCRETE.
- DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL HAVE SAME SIZE AS THE VERTICAL REINFORCEMENT, EMBEDMENT OF DOWELS SHALL BE 36 BAR DIAMETER OR 2'-0" MINIMUM UNLESS OTHERWISE SHOWN.
- MINIMUM LAP OF MESH SHALL BE NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS TWO INCHES OR 60 DIA. OR 8 IN. WHICHEVER IS GREATER.

SHEET INDEX

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WOOD

- ALL LUMBER SHALL BE GRADE MARKED DOUGLAS FIR-LARCH AND SHALL HAVE THE FOLLOWING GRADES, UNLESS NOTED OTHERWISE:

JOISTS & RAFTERS	GRADE NO. 2 OR BETTER
BEAMS & STRINGERS	GRADE NO. 1 AND BETTER
DOUBLE TOP PLATES	GRADE NO. 1 AND BETTER
2X4 STUDS	CONSTRUCTION GRADE OR BETTER
3X4 & 2X6 STUDS	GRADE NO. 2 OR BETTER
POSTS AND TIMBERS	GRADE NO. 1 AND BETTER
LAGGING	GRADE NO. 2 AND BETTER
- PLYWOOD SHEATHING SHALL BE FULL SIZE SHEET WHERE POSSIBLE WITH 48" X 32" MINIMUM SHEET SIZE AND LAID CONTINUOUSLY OVER TWO OR MORE SPANS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS.
 - FLOOR OR TERRACE SHEATHING SHALL BE GRADE MARKED "D.F.P.A. EXTERIOR SHEATHING C-D GRADE" 3/4" THICK WITH EXTERIOR GLUE. PANEL I.D. RATING 32/16 OR BETTER. EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS. NAILED WITH 10d DEFORMED SHANK NAILS AT 6" O.C. AT EDGES AND BOUNDARIES, AT 10" O.C. IN FIELD. U.N.O.
 - ROOF SHEATHING SHALL BE GRADE MARKED "D.F.P.A. EXTERIOR SHEATHING C-D GRADE" 1/2" THICK WITH EXTERIOR GLUE. PANEL SPAN RATING 24/0 OR BETTER. NAILED WITH 8d COMMON NAILS AT 6" O.C. AT EDGES AND BOUNDARIES, AT 12" O.C. IN FIELD UNLESS NOTED OTHERWISE.
 - WOOD STRUCTURAL PANELS, WHEN USED STRUCTURALLY, SHALL CONFORM TO THE REQUIREMENTS FOR THEIR TYPE IN DOC PSI-95 AND/ OR PS2-92.
- ALL NAILS SHALL BE COMMON WIRE NAILS UNLESS NOTED OTHERWISE. SEE FRAMING PLANS OR DETAILS FOR NAIL SIZES AND SPACINGS. NAILS THAT NOT DETAILED OR NOTED SHALL BE IN ACCORDANCE WITH 2022 CBC TABLE 2304.9.1 - FASTENING SCHEDULE.
- ALL JOIST HANGERS AND FRAMING CONNECTORS SHALL BE "SIMPSON" OR APPROVED EQUAL.
- NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY NOTED.
- BOLT HOLES SHALL BE SAME DIAMETER AS THAT OF THE BOLTS. PROVIDE WASHERS BETWEEN BOLT HEADS OR NUTS AND WOOD MEMBERS.
- A PROPERLY SIZED NUT AND WASHER SHALL BE TIGHTENED ON EACH ANCHOR BOLT TO THE PLATE BEFORE CLOSING IN COMPLETION OF JOB.
- ALL SILL PLATES RESTING ON CONCRETE OR MASONRY THAT ARE LESS THAN 8" ABOVE GRADE SHALL BE PRESSURE TREATED DOUGLAS FIR.
- ALL SILL BOLTS SHALL BE PLACED STARTING 9" FROM THE ENDS OF A BOARD OR FROM A NOTCH AND SPACED AT INTERVALS AS NOTED ON THE PLANS.
- BLOCKING OR BRIDGING SHALL BE PROVIDED AS REQUIRED PER C.B.C.
- PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS THAT ARE PARALLEL TO JOISTS. USE 2-16d NAILS AT 16" O.C. TO NAIL THE DOUBLE JOISTS TOGETHER.
- TOP PLATES FOR ALL STUD WALLS SHALL BE 2-2X. LAP FOR TOP PLATES SHALL BE 48" LONG MINIMUM NAILED WITH 16d AT 4" AT EACH LAP UNLESS NOTED OTHERWISE. SPLICES IN UPPER AND LOWER PLATES SHALL BE STAGGERED 10'-0" MINIMUM.
- PRE-DRILL FOR NAILING AS REQUIRED WHEN NAIL SPACING RESULTS IN WOOD SPLITTING. PRE-DRILL HOLES SHALL BE SMALLER THAN THE DIAMETER OF THE NAILS.
- ALL WOOD STUD WALLS SHALL HAVE 2X4 STUDS AT 16" O.C. WHEN HEIGHT BETWEEN LATERAL SUPPORTS LESS THAN 10'-0", WHEN HEIGHT BETWEEN LATERAL SUPPORTS MORE THAN 10'-0", USE 2X6 STUDS AT 16" O.C. UNLESS NOTICED OTHERWISE.
- THE BOLT HOLES SHALL BE 1/16" (MAX.) OVERSIZED AT THE CONNECTOR OF THE HOLD-DOWN TO THE POST. "INSPECTOR TO VERIFY."
- THE HOLD-DOWN CONNECTORS SHALL BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
- APPROVED PLATE WASHERS, IN-LIEU OF CUT WASHERS, SHALL BE PROVIDED FOR ALL PLYWOOD SHEARWALL SILL PLATE ANCHOR BOLTS.
- THE SILL PLATE ANCHOR BOLTS AND HOLD-DOWN CONNECTOR BOLTS AT ALL PLYWOOD SHEARWALL SHALL HAVE THE PLATE WASHERS AS LISTED IN ITEM 20.
- CUTTING OR NOTCHING OF WOOD STUDS OR PLATES SHALL NOT EXCEED 25% OF THE STUD/PLATE WIDTH WITH THE EXTERIOR AND BEARING WALL AND NOT TO EXCEED 40% OF THE STUD/PLATE WIDTH FOR NONBEARING PARTITIONS. BORED HOLES DIAMETER IS LIMITED TO 40% OF THE STUD/PLATE WIDTH IN ANY STUD AND MAY BE 60% IN NONBEARING PARTITIONS OR WHEN THE BORED STUD IS DOUBLED.
- PLATE WASHERS FOR ALL ANCHOR BOLTS TYPICAL:

BOLT SIZE	PLATE SIZE (ASTM A-36)	MIN. EDGE DISTANCE (in)
5/8"Ø	0.229"x3"x3"	1 7/8
3/4"Ø	0.229"x3"x3"	2 1/2
7/8"Ø	5/16"x3"x3"	2 5/8
1 1/4"Ø	3/8"x3 1/2"x3 1/2"	3 3/4

NOTE:

- APPROVE PLATE WASHERS TO BE USED FOR PLYWOOD SHEARWALL SILL PLATE ANCHOR BOLTS* AND FOR HOLD-DOWN CONNECTOR BOLTS AT SHEARWALLS. FOR WOOD TO WOOD OR WOOD TO STEEL CONNECTION.
- FASTENERS FOR PRESERVATIVE-TREATED OR FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL IN ACCORDANCE WITH ASTM A 153. PER CRC R317.3.

STRUCTURAL OBSERVATION

PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, THE ENGINEER OR ARCHITECT SHALL SUBMIT WRITTEN CERTIFICATION TO THE BUILDING OFFICIAL STATING THAT SITE VISITS HAVE BEEN MADE AND WHETHER OR NOT ANY OBSERVED DEFICIENCIES HAVE BEEN CORRECTED TO CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS OR REVISED DETAILS APPROVED BY THE BUILDING OFFICIAL.

MANUFACTURED WOOD MEMBERS

- WHERE PARALLAM "PSL" MEMBERS ARE INDICATED ON THE PLANS AND SCHEDULES THEY SHALL BE MANUFACTURED BY THE ILEVEL TRUSS-JOIST "PSL" (ICC ESR-1387), GRADE: 2.0E. E=2000ksi, Fb=2900psi, Fv=290psi
- PLYWOOD WEB JOISTS DENOTED TJI ARE TO BE MANUFACTURED BY ILEVEL TRUSS-JOIST (ICC ESR-1153) OR APPROVED EQUAL.

SPECIAL INSPECTION PROGRAM AND STRUCTURAL TEST

THIS SECTION APPLIES TO THE STRUCTURAL PORTIONS OF THE PROJECT REQUIRING SPECIAL INSPECTION. THE SPECIAL INSPECTORS DUTIES ARE AS DESCRIBED IN CBC 1701.1 AND CBC 1704.4. COPIES OF TEST RESULTS AND FINAL REPORTS SHALL BE FURNISHED TO THE ENGINEER IN ADDITION TO OTHER NORMAL DISTRIBUTIONS WITHIN ONE WEEK OF THE TEST OR INSPECTION.

ALL TEST AND INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND INSPECTION AGENCY EMPLOYED BY THE OWNER OR THE ENGINEER OR THE ARCHITECT AND NOT THE CONTRACTOR PER CBC SECTION 106.3.5. JOB SITE VISITS BY THE STRUCTURAL ENGINEER DO NOT CONSTITUTE A SPECIAL INSPECTION. (NOTE: FOUNDATIONS INSPECTIONS LISTED BELOW SHALL BE PROVIDED BY THE GEOTECHNICAL ENGINEER).

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE TEST AND INSPECTION FIRM WITH A SCHEDULE TO FACILITATE THE PROPER COORDINATION OF WORK.

IN ADDITION TO THE REQUIRED INSPECTIONS, THE FOLLOWING CHECKED ITEMS WILL REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH SECTION 1704.5 OF THE CALIFORNIA BUILDING CODE.

ITEM	REQD. IF CHECKED	REMARKS
GRADING AND SOILS COMPLIANCE PRIOR TO FOUNDATION INSPECTION SEE FOUNDATION THIS SHEET.		TO BE PROVIDED BY THE GEOTECHNICAL ENGINEER.
DURING THE TAKING OF TEST SPECIMENS AND PLACING OF ALL REINFORCED CONCRETE, WITH THE EXCEPTION OF FOUNDATION CONCRETE WHEN THE STRUCTURAL DESIGN STRENGTH IS GREATER THAN FC = 2500 PSI. U.N.O.	●	SLAB ON GRADE DOES NOT REQUIRE SPECIAL INSPECTION
DURING PLACING OF AND STRESSING OF ITENDONS		
ALL STRUCTURAL FIELD WELDING, INCLUDING WELDING OF STRUCTURAL STEEL, REINFORCING STEEL, AND STEEL DECKING.		
DURING INSTALLATION OF EPOXY AND/OR EXPANSION ANCHORS.	●	
DURING PLACING OF REINFORCING STEEL.		
WOOD SHEAR WALLS AND DIAPHRAGMS WITH NAILING 4"O.C. OR LESS.	●	
INSTALLATION AND TIGHTENING OPERATIONS FOR ALL HIGH-STRENGTH FRICTION BOLTING (A325F) AND (A490F). INSTALLATION AND TIGHTENING OPERATIONS FOR HIGH-STRENGTH ANCHOR BOLTS.		

5. APPROVED FABRICATORS- (MUST SUBMIT CERTIFICATE OF COMPLIANCE FOR ALL OFFSITE FABRICATION SUCH AS STRUCTURAL STEEL, GLU-LAM, PRECAST CONCRETE, ETC.

6. ALL STRUCTURAL CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1905.6. RESULTS OF TESTS SHALL BE SUBMITTED WITH THE TESTING AGENCY TO THE ENGINEER FOR REVIEW. WHERE STRENGTH TEST RESULTS INDICATE A STRENGTH LOWER THAN THE SPECIFIED COMPRESSIVE STRENGTH, FURTHER INVESTIGATION SHALL BE MADE PER CBC SECTION 1905.6.4 AT THE EXPENSE OF THE CONTRACTOR.

7. STRUCTURAL OBSERVATIONS BY THE ENGINEER OF RECORD SHALL BE REQUIRED (BY DIRECTION OF BUILDING OFFICIAL):
A. UPON COMPLETION OF THE ROOF FRAMING STRUCTURE.
B. UPON COMPLETION OF THE ROOF COVERING AND DRAINAGE SYSTEM.

NOTES:

- ALL THE FASTENERS IN PRESSURE-TREATED AND FIRE-RETARDANT, TREATED WOOD SHALL BE OF HOT-DIPPED, ZINC-COATED GALVANIZED STEEL, STAINLESS, SILICON BRONZE OR COPPER.
- SHEAR WALL ANCHOR BOLTS AND HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

NOTES:

WHERE A BUILDING OF OTHERWISE CONVENTIONAL CONSTRUCTION CONTAINS STRUCTURAL ELEMENTS EXCEEDING THE LIMITS OF SECTION R301 OR OTHERWISE NOT CONFORMING TO THIS CODE, THESE ELEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE. THE EXTENT OF SUCH DESIGN NEED ONLY DEMONSTRATE COMPLIANCE OF NON-CONVENTIONAL ELEMENTS WITH OTHER APPLICABLE PROVISIONS AND SHALL BE COMPATIBLE WITH THE PERFORMANCE OF THE CONVENTIONAL FRAMED SYSTEM. ENGINEERED DESIGN IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE IS PERMITTED FOR BUILDINGS AND STRUCTURES, AND PARTS THEREOF, INCLUDED IN THE SCOPE OF THIS CODE.



#	REVISION	DATE
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SHEET TITLE

GENERAL NOTES

PROJECT NO. 2024-101

DATE 01/04/24

SCALE AS REFERENCED

SHEET NO.

SN-1

TABLE R602.3(1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS ^{a, b, c}	SPACING AND LOCATION	
			Edges ^d (inches)	Intermediate supports ^{e, f} (inches)
Roof				
1	Blocking between ceiling joists, rafters or trusses to top plate or other framing below	4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		Toe nail
		2-8d common (2 1/2" x 0.131") or 2-3" x 0.131" nails		Each end toe nail
		2-16d common (3 1/2" x 0.162") or 3-3" x 0.131" nails		End nail
2	Blocking between rafters or truss not at the wall top plates, to rafter or truss	4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		6" o.c. face nail
		4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, top over partitions (see Section R602.3.2 and Table R602.3.2(1))	4-10d box (3" x 0.148") or 4-3" x 0.131" nails		Face nail
		4-10d box (3" x 0.148") or 4-3" x 0.131" nails		Face nail
4	Ceiling joist attached to parallel rafter (heel joint) (see Section R602.3.2 and Table R602.3.2(1))	4-10d box (3" x 0.148") or 4-3" x 0.131" nails		Face nail
		4-10d box (3" x 0.148") or 4-3" x 0.131" nails		Face nail
5	Collar tie to rafter, face nail	4-10d box (3" x 0.148") or 4-3" x 0.131" nails		Face nail each rafter
		4-10d box (3" x 0.148") or 4-3" x 0.131" nails		Face nail each rafter
6	Rafter or roof truss to plate	4-16d box (3 1/2" x 0.135") or 3-10d common (3" x 0.148") or 4-10d box (3" x 0.148") or 4-3" x 0.131" nails		2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss
		4-16d box (3 1/2" x 0.135") or 3-10d common (3" x 0.148") or 4-10d box (3" x 0.148") or 4-3" x 0.131" nails		Toe nail
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	3-16d box (3 1/2" x 0.135") or 2-16d common (3 1/2" x 0.162") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		End nail
		3-16d box (3 1/2" x 0.135") or 2-16d common (3 1/2" x 0.162") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		End nail
Wall				
8	Stud to stud (not at braced wall panels)	16d common (3 1/2" x 0.162") or 3" x 0.131" nails		24" o.c. face nail
		16d common (3 1/2" x 0.162") or 3" x 0.131" nails		16" o.c. face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d common (3 1/2" x 0.162") or 3" x 0.131" nails		12" o.c. face nail
		16d common (3 1/2" x 0.162") or 3" x 0.131" nails		16" o.c. face nail
10	Built-up header (2" to 2" header with 1/2" spacer)	16d common (3 1/2" x 0.162") or 3" x 0.131" nails		16" o.c. each edge face nail
		16d common (3 1/2" x 0.162") or 3" x 0.131" nails		12" o.c. each edge face nail
11	Continuous header to stud 3 1/2"	5-8d box (2 1/2" x 0.113") or 4-8d common (2 1/2" x 0.131") or 4-10d box (3" x 0.128")		Toe nail
		4-16d box (3 1/2" x 0.135") or 3-10d common (3" x 0.148") or 4-10d box (3" x 0.148") or 4-3" x 0.131" nails		End nail
12	Adjacent full-height stud to end of header	16d common (3 1/2" x 0.162") or 3" x 0.131" nails		End nail
		16d common (3 1/2" x 0.162") or 3" x 0.131" nails		End nail
13	Top plate to top plate	10d box (3" x 0.128") or 3" x 0.131" nails		16" o.c. face nail
		10d box (3" x 0.128") or 3" x 0.131" nails		12" o.c. face nail
14	Double top plate splice	4-16d common (3 1/2" x 0.162") or 12-16d box (3 1/2" x 0.135") or 10-16d box (3" x 0.128") or 12-3" x 0.131" nails		Face nail on each side of end joint, (minimum 24" lap splice length each side of end joint)
		16d common (3 1/2" x 0.162") or 3" x 0.131" nails		16" o.c. face nail
15	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3 1/2" x 0.162") or 3" x 0.131" nails		16" o.c. face nail
		16d common (3 1/2" x 0.162") or 3" x 0.131" nails		12" o.c. face nail
Roof				
16	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panels)	3-16d box (3 1/2" x 0.135") or 2-16d common (3 1/2" x 0.162") or 4-3" x 0.131" nails		16" o.c. face nail
		4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131") or 4-10d box (3" x 0.128") or 4-3" x 0.131" nails		Toe nail
17	Top or bottom plate to stud	3-16d box (3 1/2" x 0.135") or 2-16d common (3 1/2" x 0.162") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		End nail
		3-10d box (3" x 0.128") or 2-16d common (3 1/2" x 0.162") or 3-3" x 0.131" nails		Face nail
18	Top plates, laps at corners and intersections	3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1/4"		Face nail
		3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1/4"		Face nail
19	1" brace to each stud and plate	3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1/4"		Face nail
		3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1/4"		Face nail
20	1" x 6" sheathing to each bearing	3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		Face nail
		3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		Face nail
21	1" x 6" and wider sheathing to each bearing	3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		Face nail
		3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		Face nail
Floor				
22	Joist to sill, top plate or girder	4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		Toe nail
		4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		Toe nail
23	Rim joist, band joist or blocking to sill or top plate (roof applications also)	4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		4" o.c. toe nail
		4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		6" o.c. toe nail
24	1" x 6" subfloor or less to each joist	3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		Face nail
		3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		Blind and face nail
25	2" subfloor to joist or girder	3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		Blind and face nail
		3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		Blind and face nail
26	2" planks (plank & beam—floor & roof)	3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		At each bearing, face nail
		3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		At each bearing, face nail
27	Band or rim joist to joist	3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		End nail
		3-8d box (2 1/2" x 0.113") or 2-8d common (2 1/2" x 0.131") or 2-10d box (3" x 0.128") or 2-10d box (3" x 0.128") or 2 staples, 1" crown, 16 ga., 1 1/4" long		End nail
28	Built-up girders and beams, 2-inch lumber layers	16d box (3 1/2" x 0.162") or 3" x 0.131" nails		Nail each layer as follows: 32" o.c. at top and bottom and staggered
		16d box (3 1/2" x 0.162") or 3" x 0.131" nails		24" o.c. face nail at top and bottom staggered on opposite sides
29	Ledge strip supporting joists or rafters	2-20d common (4" x 0.192") or 3-10d box (3" x 0.128") or 3-3" x 0.131" nails		Face nail at ends and at each splice
		4-16d box (3 1/2" x 0.135") or 3-16d common (3 1/2" x 0.162") or 4-10d box (3" x 0.128") or 4-3" x 0.131" nails		At each joist or rafter, face nail
30	Bracing or blocking to joist, rafter or truss	2-10d box (3" x 0.128") or 2-8d common (2 1/2" x 0.131") or 2-3" x 0.131" nails		Each end, toe nail
		2-10d box (3" x 0.128") or 2-8d common (2 1/2" x 0.131") or 2-3" x 0.131" nails		Each end, toe nail
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS ^{a, b, c}	SPACING OF FASTENERS	
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing (see Table R602.3(3) for wood structural panel exterior wall sheathing to framing)				
31	3/8" - 1/2"	6d common (2 1/2" x 0.113") or 2 1/2" x 0.113" nail (roof) or RRSR-01 (2 1/2" x 0.113") nail (roof)	6	6"
		6d common (2 1/2" x 0.113") or 2 1/2" x 0.113" nail (roof) or RRSR-01 (2 1/2" x 0.113") nail (roof)	6	6"
32	19/32" - 3/4"	8d common (2 1/2" x 0.131") nail (roof) or RRSR-01 (2 1/2" x 0.131") nail (roof)	6	12"
		8d common (2 1/2" x 0.131") nail (roof) or RRSR-01 (2 1/2" x 0.131") nail (roof)	6	6"
33	7/8" - 1 1/4"	10d common (3" x 0.148") nail or (2 1/2" x 0.131" x 0.281" head) deformed nail	6	12"
		10d common (3" x 0.148") nail or (2 1/2" x 0.131" x 0.281" head) deformed nail	6	12"
Other wall sheathing				
34	1/2" structural cellulose fiberboard sheathing	1 1/2" x 0.120" galvanized roofing nail, 7/16" head diameter, or 1 1/4" long, 16 ga., staple with 7/16" or 1" crown	3	6"
		1 1/2" x 0.120" galvanized roofing nail, 7/16" head diameter, or 1 1/4" long, 16 ga., staple with 7/16" or 1" crown	3	6"
35	1/2" gypsum sheathing ^f	1 1/2" x 0.120" galvanized roofing nail, 7/16" head diameter, or 1 1/4" long, 16 ga., staple with 7/16" or 1" crown	7	7"
		1 1/2" x 0.120" galvanized roofing nail, 7/16" head diameter, or 1 1/4" long, 16 ga., staple with 7/16" or 1" crown	7	7"
36	1/2" gypsum sheathing ^f	1 1/2" x 0.120" galvanized roofing nail, 7/16" head diameter, or 1 1/4" long, 16 ga., staple with 7/16" or 1" crown	7	7"
		1 1/2" x 0.120" galvanized roofing nail, 7/16" head diameter, or 1 1/4" long, 16 ga., staple with 7/16" or 1" crown	7	7"
37	3/8" gypsum sheathing ^f	1 1/2" x 0.120" galvanized roofing nail, 7/16" head diameter, or 1 1/4" long, 16 ga., staple with 7/16" or 1" crown	7	7"
		1 1/2" x 0.120" galvanized roofing nail, 7/16" head diameter, or 1 1/4" long, 16 ga., staple with 7/16" or 1" crown	7	7"
Wood structural panels, combination subfloor underlayment to framing				
38	3/4" and less	Deformed (2" x 0.113") or Deformed (2" x 0.120") nail; or 8d common (2 1/2" x 0.131") nail	6	12"
		Deformed (2" x 0.113") or Deformed (2" x 0.120") nail; or 8d common (2 1/2" x 0.131") nail	6	12"
39	7/8" - 1"	Deformed (2 1/2" x 0.131") or Deformed (2 1/2" x 0.120") nail	6	12"
		Deformed (2 1/2" x 0.131") or Deformed (2 1/2" x 0.120") nail	6	12"
40	1 1/4" - 1 1/2"	10d common (3" x 0.148") nail; or Deformed (2 1/2" x 0.131") nail	6	12"
		10d common (3" x 0.148") nail; or Deformed (2 1/2" x 0.131") nail	6	12"

For S1: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s, 1 ksi = 6.895 MPa.

a. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections are carbon steel and shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less. Connections using nails and staples of other materials, such as stainless steel, shall be designed by accepted engineering practice or approved under Section R104.11.

b. RRSR-01 is a Roof Sheathing Ring Shank nail meeting the specifications in ASTM F1667.

c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.

d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.

e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).

f. For wood structural panel roof sheathing attached to gable end roof framing and to intermediate supports within 48 inches of roof edges and ridges, nails shall be spaced at 4 inches on center where the ultimate design wind speed is greater than 130 mph in Exposure B or greater than 110 mph in Exposure C.

g. Gypsum sheathing shall conform to ASTM C1396 and shall be installed in accordance with ASTM C1280 or GA 253. Fiberboard sheathing shall conform to ASTM C208.

h. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.

i. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.



#	REVISION	DATE

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KYLE.LEE@ACEMDCORP.COM

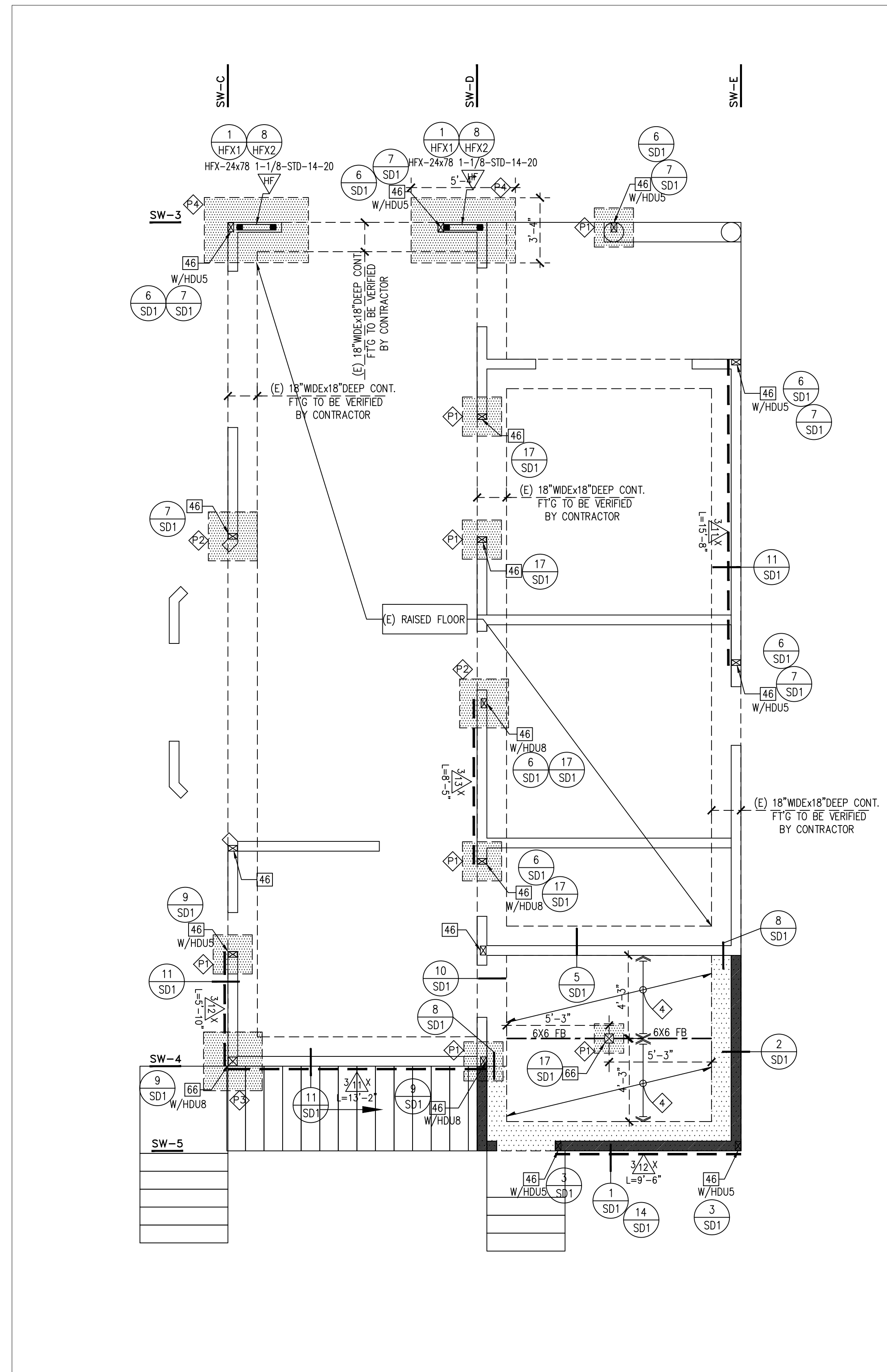
HAWK'S PROJECT

604 E MISSION BLVD,
POMONA, CA 91766

SHEET TITLE
FASTENER SCHEDULE

PROJECT NO.	2024-101
DATE	01/04/24
SCALE	AS REFERENCED
SHEET NO.	

SN-2



FOUNDATION PLAN

SCALE: 1/4" = 1'-0" NOTE: COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCH'L DRAWINGS



FOUNDATION NOTES

- SEE SPECIFICATIONS ON SHEET SN-1 FOR ADDITIONAL INFORMATION.
- BUILDING PAD SOIL BEARING VALUE SHOULD BE AT LEAST 1500 p.s.f.
- CEMENT USED IN FOUNDATIONS SHALL BE TYPE II UNLESS OTHERWISE REQUIRED BY THE SOIL ENGINEER.
- THE FLOOR SLAB SHALL BE POURED LEVEL TO WITHIN 1/8 INCH IN 10 FEET.
- THE FLOOR SLAB AND FOUNDATION MAY BE POURED HOMOGENEOUSLY (AT THE SAME TIME) OR IN TWO POURS, WITH A COLD JOINT BETWEEN THE SLAB AND FOUNDATION, AT THE CONTRACTORS DISCRETION. THE DETAILS DRAWN GENERALLY SHOW TWO POURS.
- ANCHOR BOLTS: AT ALL EXTERIOR WALLS, INSTALL A 5/8" DIA. ANC. BOLTS @ 48" O.C. WITH MINIMUM EMBEDMENT OF 7 INCHES INTO CONCRETE (U.N.O. ON SHEAR WALL SCHED.) INCLUDING AT LEAST ONE WITHIN A MAXIMUM OF 12" FROM EACH END. PLATES SMALLER THAN 24" IN LENGTH, SHALL BE PROVIDED WITH AT LEAST TWO ANC. BOLTS UNLESS OTHERWISE INDICATED ON PLANS. PROVIDE ALL EXTERIOR WALLS AS INDICATED ON PLANS. SEE FLOOR FRAMING PLAN FOR REFERENCE IN PROVIDING AN EXTENSION OF ANCHOR BOLTS ABOVE CONCRETE. HARDWARE SHALL BE TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE.
- ANY PENETRATIONS INTO PRESSURE TREATED WOOD MUST BE GALVANIZED, STAINLESS STEEL, SILICON BRONZE OR COPPER NAILS.
- FOUNDATION SILL PLATE SHALL BE TREATED LUMBER OR FOUNDATION RED WOOD.
- HOLDDOWNS: SEE FOUNDATION PLAN OR FLOOR FRAMING PLAN FOR REFERENCE TO HOLDDOWN LOCATION AND HARDWARE EXTENSIONS TO CONCRETE FOUNDATION.
SEE: (6/SD1) FOR HOLDDOWN DETAILS.
- RESIDENTIAL FLOOR SLAB: PLACE SLAB REINFORCEMENT IN CENTER OF SLAB. REINFORCEMENT SHALL BE CHAIRED AND TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE. A VISQUEEN VAPOR BARRIER SHALL BE PLACED AT ALL MOISTURE SENSITIVE FLOOR AREAS. PROVIDE SEAMS WITH AT LEAST A 6" OVERLAP AND SEAL TAPE.

FLOOR SLAB THICKNESS	FLOOR SLAB REINFORCEMENT	UPPER SAND LAYER	VISQUEEN	1/2-INCH OR LARGER DIAMETER GRAVEL
4"(MIN.)	#3 BARS AT 16" O.C. EACH WAY	2"	10 MIL	4"
- REFER TO ARCH. DWG. FOR TOP-OF-SLAB ELEVATIONS.
- NEW / EXISTING OR DEMO STUD WALLS NEED TO BE VERIFIED WITH ARCH. DRAWINGS.
- ALL HOLDDOWNS ANCHOR BOLTS AND STRAPS MUST BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION AND POURING CONCRETE.
- SHOT PINS: AT ALL INTERIOR, NON BEARING, NON SHEAR WALLS AND PARTITIONS, INSTALL A 0.145" DIA. X 2.875" LONG, SHANK AND METAL PLATE WASHER AT 36" O.C. ADDING ONE AT EACH END. PLATES SMALLER THAN 16" IN LENGTH SHALL HAVE A MINIMUM OF TWO FASTENERS, ONE AT EACH END. PLATES 16" OR LONGER AND INDICATED AS SHEAR WALLS, PLACE TWO ADDITIONAL FASTENERS, ONE AT 6" AND ANOTHER AT 10" FROM EACH END.
- COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCHITECT DRAWINGS.
- PRIOR TO REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOILS ENGINEER/ GEOTECHNICAL CONSULTANT SHALL INSPECT AND APPROVE THE FOUNDATION EXCAVATIONS.

FRAMING MEMBERS:

PAD FOOTING SCHEDULE

NO.	SIZE	THICKNESS	REINFORCEMENT EACH WAY
P1	2'-0" SQ.	1'-0"	(3)-#4, BOTTOM
P2	2'-6" SQ.	1'-6"	(5)-#4, BOTTOM
P3	3'-0" SQ.	1'-6"	(6)-#4, BOTTOM
P4	5'-4"x3'-4"	1'-6"	SEE DETAIL

SYMBOLS & LEGENDS

	WOOD STUD WALL		(N) CONTINUE/PAD FTG.
	HARDY FRAME (ICC-ES ESR-2089) SEE HFX-1 THRU HFX-3 FOR ADDITIONAL DETAILS		(2) 2x STUDS
	STUD OR 4x POST AS REQUIRED FOR HARDY FRAME INSTALLATION		(3) 2x STUDS
	SHEAR PANEL NUMBER, MIN. LENGTH NOTED. REFER TO DETAIL 14/SD2 FOR PANEL TYPE		4x4 POST
			4x6 POST
			6x6 POST
			(E) CONTINUE FTG.
			DETAIL NUMBER
			DETAIL SHEET NUMBER

CONTRACTOR NOTE:

- CONTRACTOR TO VERIFY ALL EXISTING FRAMING/CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO COMMENCING ANY WORK.
- FOR THE VAPOR RETARDER AT EXISTING CONCRETE FLOOR SLAB SHALL USE REDGARD, THE MFG.NAME: CUSTOM BUILDING PRODUCTS, INC. ICC REPORT #ESR-1413

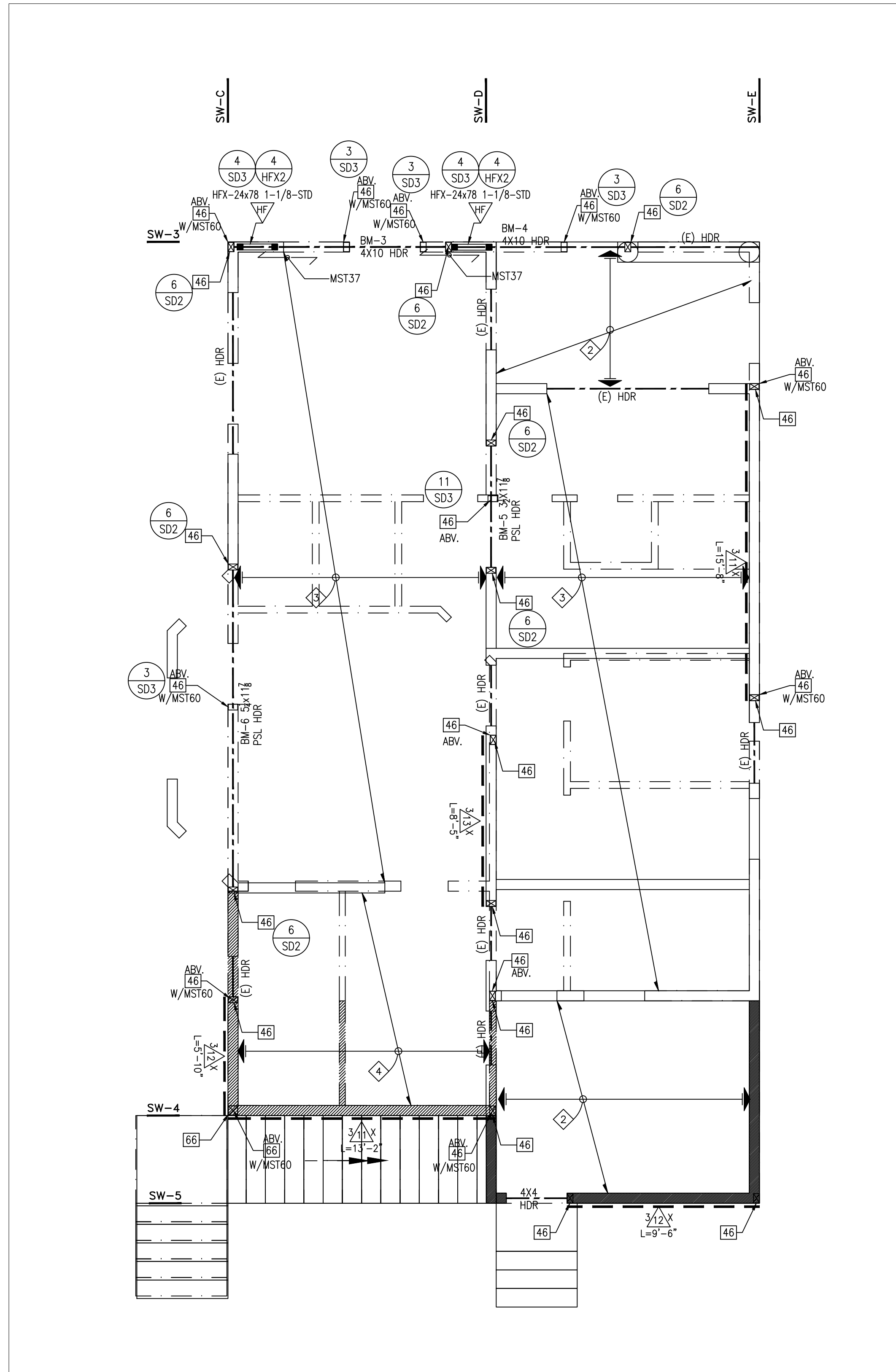


#	REVISION	DATE

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HAWK'S PROJECT
 604 E MISSION BLVD,
 POMONA, CA 91766

FOUNDATION PLAN
 PROJECT NO. 2024-101
 DATE 01/04/24
 SCALE AS REFERENCED
 SHEET NO.



FRAMING NOTES

- FOR GENERAL NOTE SEE SN-1.
- VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. FOR DIMENSIONS NOT SHOWN SEE ARCHITECTURAL DRAWINGS.
- DOUBLE TOP PLATES SHOULD BE CONTINUOUS OVER ALL HEADERS. U.N.O. ON FRAMING PLAN OR DETAILS, SEE (18) FOR DOUBLE TOP PLATES SPLICES.
- ALL BEAMS AT HARDY FRAME SHEAR LINES, SHOULD BE CONTINUED OVER HARDY-FRAMES, (U.N.O. ON FRAMING PLAN OR RELATED DETAILS. SEE DETAIL PER PLAN.
- ALL BEAMS WITH WIDTH 5/4" OR MORE, OR MARKED AS "DRAG" NEED TO HAVE (2) ROWS OF B.N.
- FOR PLYWOOD SHEAR WALL SCHEDULE SILL PLATE AND ANCHOR BOL REQUIREMENTS SEE DETAIL. (14) FOR NAILING SCHEDULE SEE (14) SD2
- FOR TYPICAL DIAPHRAGM DET. SEE (17) SD2 (14) SD2
FOR ROOF DIAPHRAGM 1/2" CDX PLYWOOD W/8d @ 6:6:12 (COMMON NAIL) PANEL SPAN RATING 24/0 OR BETTER.
FLOOR/DECK DIAPHRAGM 3/4" CDX PLYWOOD W/10d @ 6:6:10 (COMMON NAIL), U.N.O. PANEL I.D. RATING 32/16 OR BETTER, T&G.
- NOT USED.
- FOR LOCATION AND FRAMING OF NON-BEARING WALLS, SEE ARCHITECTURAL DRAWINGS.
- NOT USED.
- ALL GLU-LAM BEAMS SHALL BE 24F V4 DF/DF U.N.O.
- MULTIPLE ELEMENT MEMBERS (i.e. DBL JOISTS, DBL STUDS, etc.) SHALL BE NAILED TOGETHER W/ 16d's @ 16" O.C. STAGGERED. BEAMS COMPOSED OF MULTIPLE PIECES (4x OR LARGER) SHALL BE BOLTED TOGETHER W/ 5/8" M.B.'S @ 12" O.C., STAG'D. ALSO SEE DET. (7) SD2 FOR DBL. JOIST CONNECTION.
- WALL STUDS:
1) EXTERIOR WALLS:
a) 2x6 STUDS @16" O.C., U.N.O. ON ARCHITECTURAL PLAN.
b) ALL OUTSIDE WALL OF EXTERIOR WALL ARE BEARING WALL (U.N.O.).
2) INTERIOR WALLS:
a) ALL INTERIOR SHEAR/ BEARING WALLS SHALL BE 2x4 MIN. STUD GRADE OR BETTER STUDS @16" O.C., FOR 4" WALLS & 2x6 MIN. DFL STUD GRADE OR BETTER STUDS @16" O.C. FOR 6" WALLS.
b) ALL INTERIOR NON-BEARING/ NON-SHEAR WALL SHALL BE 2x4 OR 2x6 STUD GRADE OR BETTER STUDS @16" O.C. U.N.O.
- U.N.O. PROVIDE SOLID BLOCKING OR DBL. JOIST UNDER ALL WALLS ABOVE.
- WHERE HANGERS ARE NEEDED, WHETHER INDICATED ON PLAN OR NOT, U.N.O., USE "U" "TIT" OR "LB" HANGERS FOR JOISTS/RAFTERS, & "HUT" OR "HW" HANGERS FOR BEAMS OR MULTIPLE JOISTS.
- WHERE SHEAR WALLS ARE THRU WALLS AS INDICATED ON PLANS, SHEAR MATERIAL SHALL BE CONT. THRU WALLS.
- ALL POSTS/MULTIPLE STUDS IN WALLS SHALL RECEIVE EDGE NAILING FROM WALL SHEATHING. ALL BM'S, DRAGS GIRDER TRUSSES SHALL RECEIVE BOUNDARY NAILING FROM SHEATHING.
- WHENEVER A DETAIL IS CALLED ON A WALL LINE (FOR EXAMPLE, 2/S6 WITH A35'S AT 18" O.C.), IT NEEDS TO BE APPLIED TO THE FULL LENGTH OF THAT WALL. NOT JUST AT THE SPOTS IT IS KEYED OUT OR JUST AT SHEAR PANEL PORTION OF THE WALL.
- CONTRACTOR SHALL VERIFY EXACT HEIGHT AND LOCATION OF HARDY FRAME.
- FURR CEILINGS TO CONCEAL VALLEY OR HIP THAT ARE BELOW TOP PLATE LINE.
- FURR ALL WALL AS REQ'D IF SHEAR WALL DOES NOT COVER ENTIRE WALL TO WALL FLUSH.
- SHEAR WALLS ARE TO ROOF SHEATHING.
- WHERE TOP PLATES OR SOLE PLATES ARE CUT FOR WIDE SHALL BE FASTENED TO EACH PLATE ACROSS AND TO EACH SIDE OF THE OPENING WITH NOT LESS THAN 6-16d NAILS.
- ALL WATER HEATERS SHALL BE PROVIDED WITH SEISMIC STRAPS.
- 1/8-INCH GAP AT ALL PLYWOOD PANEL EDGES REQUIRED.



#	REVISION	DATE

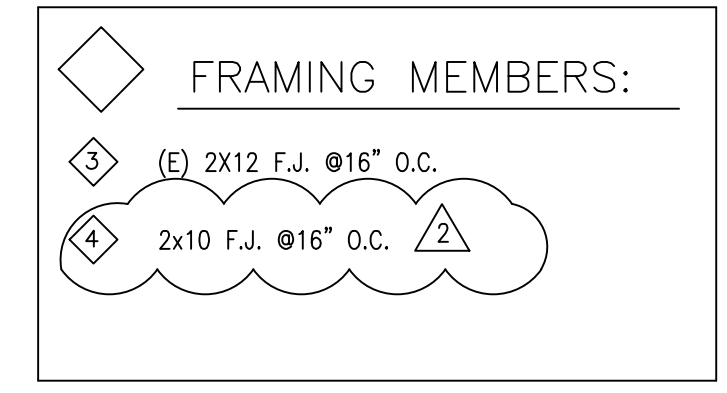
ACEMD CORPORATION
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HAWK'S PROJECT
 604 E MISSION BLVD,
 POMONA, CA 91766

SHEET TITLE	FIRST FLOOR FRAMING PLAN
PROJECT NO.	2024-101
DATE	01/04/24
SCALE	AS REFERENCED
SHEET NO.	S-2

SYMBOLS & LEGENDS

	COLUMN OR TRIMMER AS NOTED		(E)WOOD STUD WALL
	SPAN AND DIRECTION OF JOIST FRAMING MEMBER PER PLAN		NEW WOOD STUD WALL
	FLOOR/ROOF JOIST		CALIFORNIA FRAMING W/ 2X4 @24" O.C. FOR MAX. SPAN OF 6'-6" & 2X6 @24" O.C. FOR MAX. SPAN OF 10'-2" & 2X8 @24" O.C. FOR MAX. SPAN OF 13'-6" & W/ PLYWOOD SHEATHING CONTINUOUS UNDERNEATH ON MAIN FRAMING.
	CEILING JOIST		(2) (2) 2x STUDS (4) 4x4 POST (6) 4x6 POST (8) 4x8 POST
	SHEAR PANEL NUMBER, MIN. LENGTH NOTED, REFER TO DETAIL 14/SD2 FOR PANEL TYPE		DETAIL NUMBER DETAIL SHEET NUMBER
	CMST 14 x10'-0" MIN. LONG w/3'-0" MIN. OVER TOP OF SHEAR WALL OR DRAG BEAM, 4xBLK, (2) RR, OR (2) FJ		CMST 12 x10'-0" MIN. LONG w/3'-0" MIN. OVER TOP OF SHEAR WALL OR DRAG BEAM



FIRST FLOOR FRAMING PLAN

SCALE: 1/4" = 1'-0" NOTE: COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCH'L DRAWINGS

CONTRACTOR NOTE:
 • CONTRACTOR TO VERIFY ALL EXISTING FRAMING/CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO COMMENCING ANY WORK.

FRAMING NOTES

- FOR GENERAL NOTE SEE SN-1.
- VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. FOR DIMENSIONS NOT SHOWN SEE ARCHITECTURAL DRAWINGS.
- DOUBLE TOP PLATES SHOULD BE CONTINUOUS OVER ALL HEADERS. U.N.O. ON FRAMING PLAN OR DETAILS, SEE (18) FOR DOUBLE TOP PLATES SPLICES.
- ALL BEAMS AT HARDY FRAME SHEAR LINES, SHOULD BE CONTINUED OVER HARDY-FRAMES, (U.N.O. ON FRAMING PLAN OR RELATED DETAILS. SEE DETAIL PER PLAN.
- ALL BEAMS WITH WIDTH 5/4" OR MORE, OR MARKED AS "DRAG" NEED TO HAVE (2) ROWS OF B.N.
- FOR PLYWOOD SHEAR WALL SCHEDULE SILL PLATE AND ANCHOR BOL REQUIREMENTS SEE DETAIL. (14) FOR NAILING SCHEDULE SEE (14) SD2
- FOR TYPICAL DIAPHRAGM DET. SEE (17) SD2 (14) SD2
FOR ROOF DIAPHRAGM 1/2" CDX. PLYWOOD W/8d @ 6:6:12 (COMMON NAIL) PANEL SPAN RATING 24/0 OR BETTER.
FLOOR/DECK DIAPHRAGM 3/4" CDX. PLYWOOD W/10d @ 6:6:10 (COMMON NAIL), U.N.O. PANEL I.D. RATING 32/16 OR BETTER, T&G.
- NOT USED.
- FOR LOCATION AND FRAMING OF NON-BEARING WALLS, SEE ARCHITECTURAL DRAWINGS.
- NOT USED.
- ALL GLU-LAM BEAMS SHALL BE 24F V4 DF/DF U.N.O.
- MULTIPLE ELEMENT MEMBERS (i.e. DBL JOISTS, DBL STUDS, etc.) SHALL BE NAILED TOGETHER W/ 16d's @ 16" O.C. STAGGERED. BEAMS COMPOSED OF MULTIPLE PIECES (4x OR LARGER) SHALL BE BOLTED TOGETHER W/ 5/8" M.B.'S @ 12" O.C., STAG'D. ALSO SEE DET. (7) SD2 FOR DBL. JOIST CONNECTION.
- WALL STUDS:
1) EXTERIOR WALLS:
a) 2x6 STUDS @16" O.C., U.N.O. ON ARCHITECTURAL PLAN.
b) ALL OUTSIDE WALL OF EXTERIOR WALL ARE BEARING WALL (U.N.O.).
2) INTERIOR WALLS:
a) ALL INTERIOR SHEAR/ BEARING WALLS SHALL BE 2x4 MIN. STUD GRADE OR BETTER STUDS @16" O.C. FOR 4" WALLS & 2x6 MIN. DFL STUD GRADE OR BETTER STUDS @16" O.C. FOR 6" WALLS.
b) ALL INTERIOR NON-BEARING/ NON-SHEAR WALL SHALL BE 2x4 OR 2x6 STUD GRADE OR BETTER STUDS @16" O.C. U.N.O.
- U.N.O. PROVIDE SOLID BLOCKING OR DBL. JOIST UNDER ALL WALLS ABOVE.
- WHERE HANGERS ARE NEEDED, WHETHER INDICATED ON PLAN OR NOT, U.N.O., USE "U" "TIT" OR "LB" HANGERS FOR JOISTS/RAFTERS, & "HUT" OR "HW" HANGERS FOR BEAMS OR MULTIPLE JOISTS.
- WHERE SHEAR WALLS ARE THRU WALLS AS INDICATED ON PLANS, SHEAR MATERIAL SHALL BE CONT. THRU WALLS.
- ALL POSTS/MULTIPLE STUDS IN WALLS SHALL RECEIVE EDGE NAILING FROM WALL SHEATHING. ALL BM'S, DRAGS GIRDER TRUSSES SHALL RECEIVE BOUNDARY NAILING FROM SHEATHING.
- WHENEVER A DETAIL IS CALLED ON A WALL LINE (FOR EXAMPLE, 2/S6. WITH A35'S AT 18" O.C.), IT NEEDS TO BE APPLIED TO THE FULL LENGTH OF THAT WALL. NOT JUST AT THE SPOTS IT IS KEYED OUT OR JUST AT SHEAR PANEL PORTION OF THE WALL.
- CONTRACTOR SHALL VERIFY EXACT HEIGHT AND LOCATION OF HARDY FRAME.
- FURR CEILING TO CONCEAL VALLEY OR HIP THAT ARE BELOW TOP PLATE LINE.
- FURR ALL WALL AS REQ'D IF SHEAR WALL DOES NOT COVER ENTIRE WALL TO WALL FLUSH.
- SHEAR WALLS ARE TO ROOF SHEATHING.
- WHERE TOP PLATES OR SOLE PLATES ARE CUT FOR WIDE SHALL BE FASTENED TO EACH PLATE ACROSS AND TO EACH SIDE OF THE OPENING WITH NOT LESS THAN 6-16d NAILS.
- ALL WATER HEATERS SHALL BE PROVIDED WITH SEISMIC STRAPS.
- 1/8-INCH GAP AT ALL PLYWOOD PANEL EDGES REQUIRED.

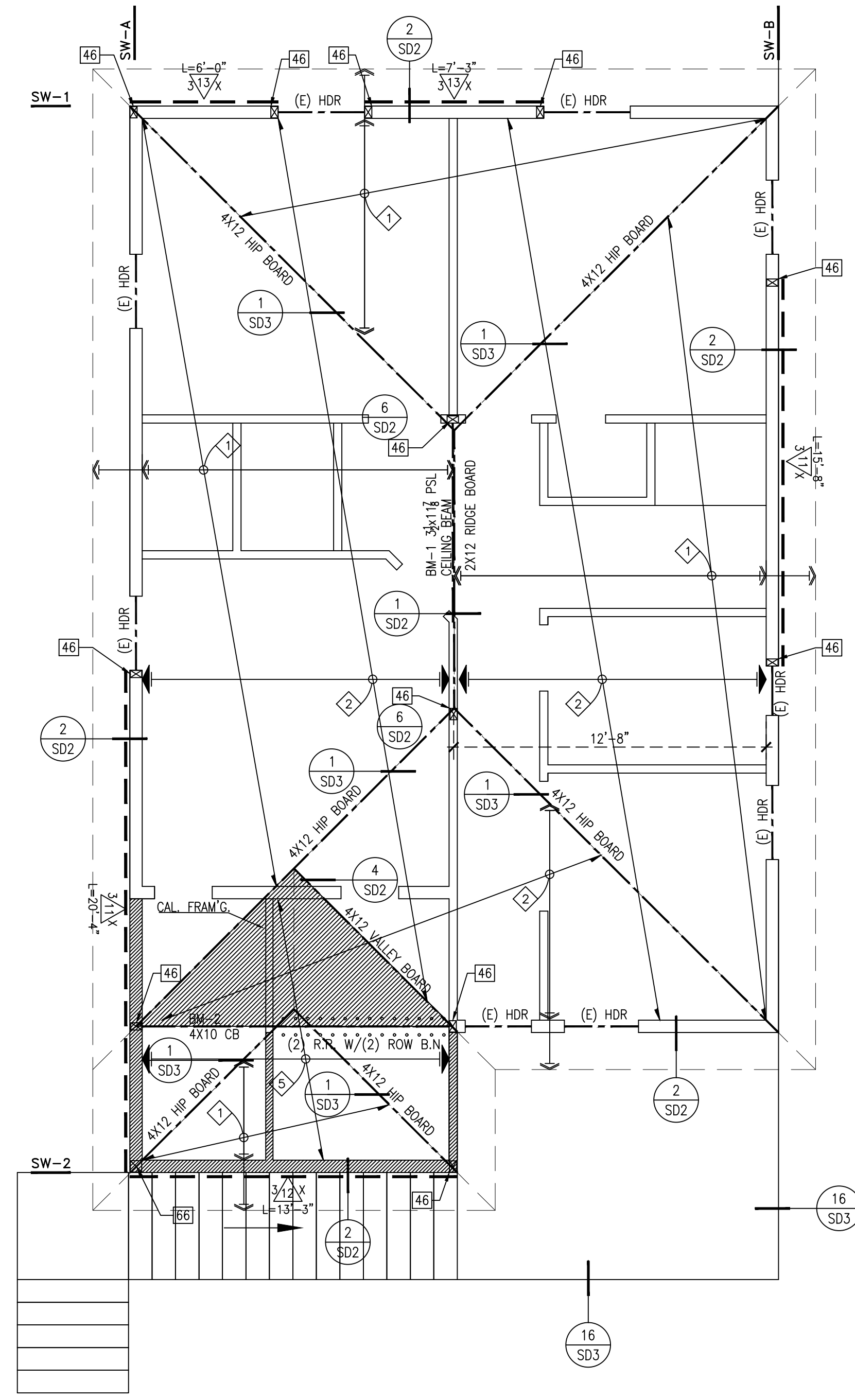


#	REVISION	DATE
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HAWK'S PROJECT
 604 E MISSION BLVD,
 POMONA, CA 91766

SHEET TITLE	ROOF FRAMING PLAN
PROJECT NO.	2024-101
DATE	01/04/24
SCALE	AS REFERENCED
SHEET NO.	S-3



ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0" NOTE: COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCH'L DRAWINGS

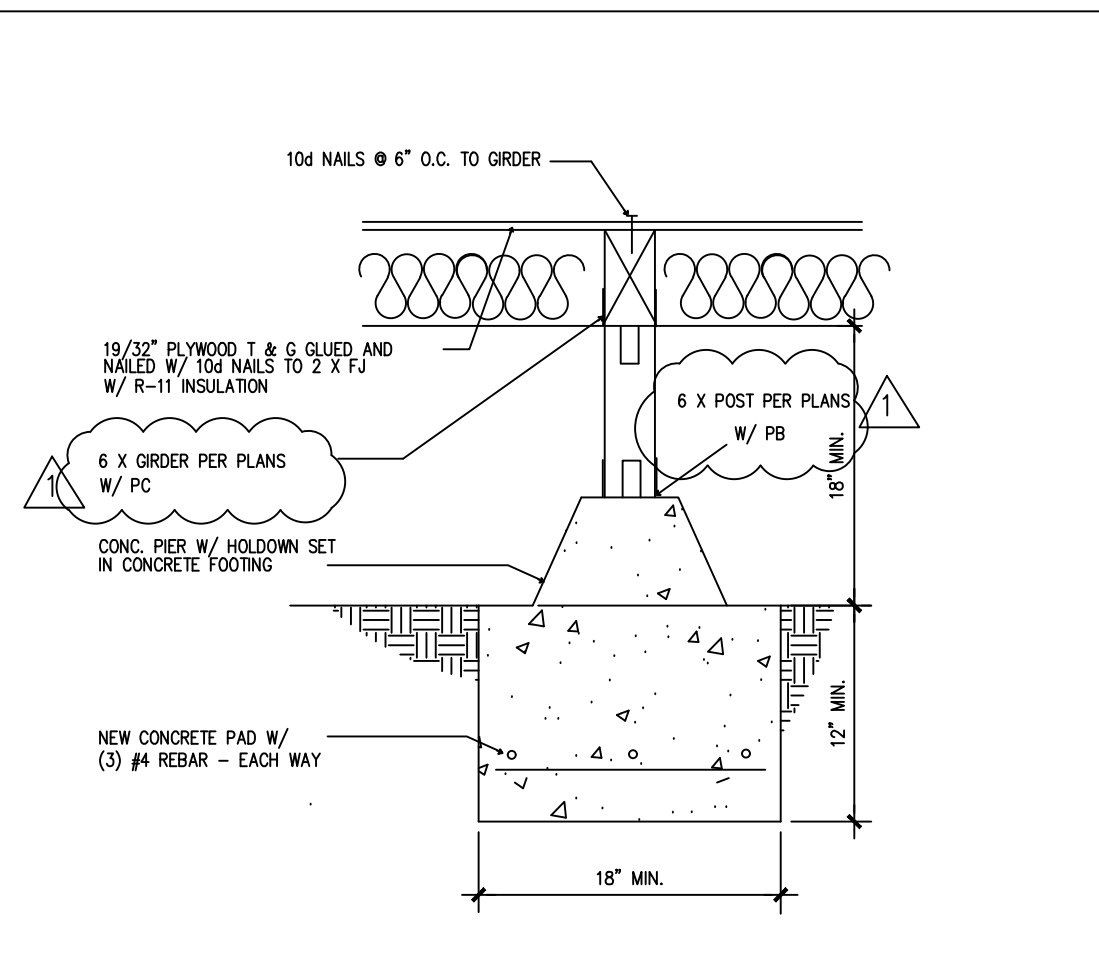
CONTRACTOR NOTE:
 • CONTRACTOR TO VERIFY ALL EXISTING FRAMING/CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO COMMENCING ANY WORK.

SYMBOLS & LEGENDS

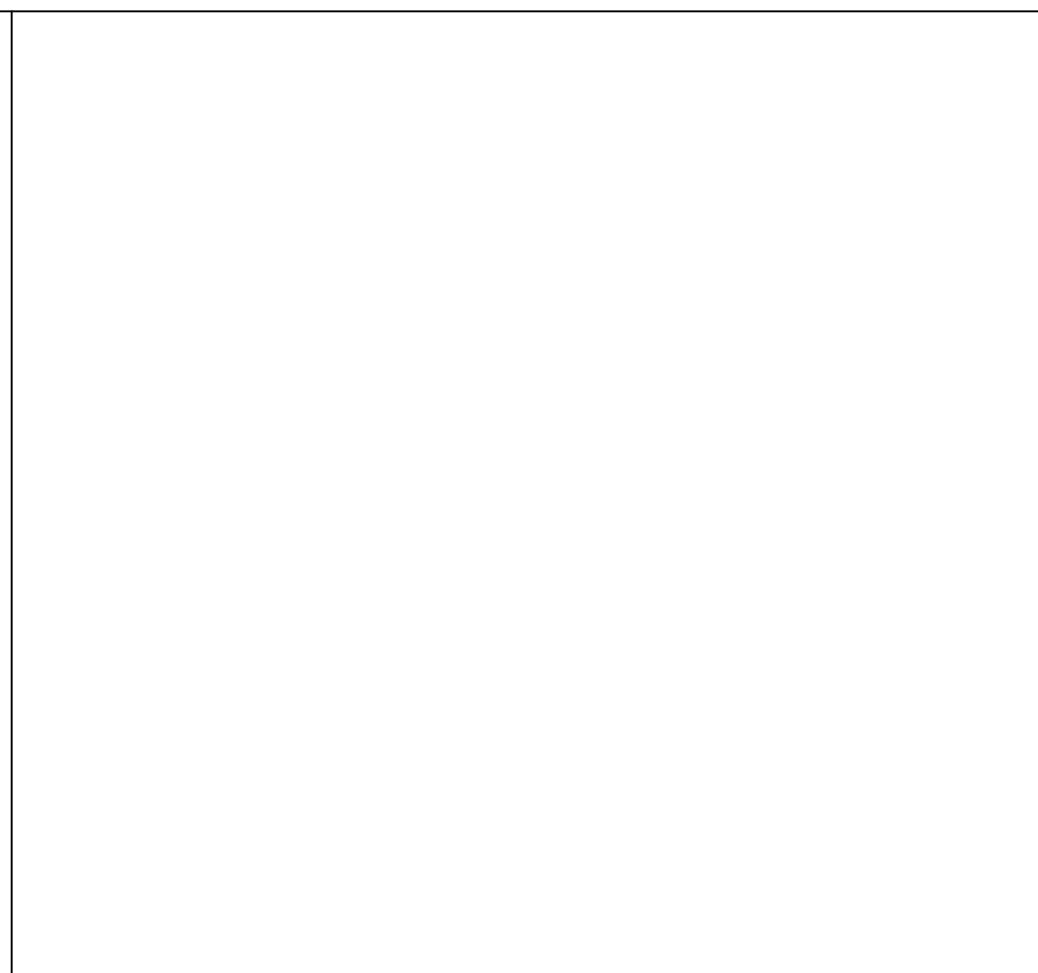
	COLUMN OR TRIMMER AS NOTED		(E)WOOD STUD WALL
	SPAN AND DIRECTION OF JOIST FRAMING MEMBER PER PLAN		NEW WOOD STUD WALL
	FLOOR/ROOF JOIST		CALIFORNIA FRAMING W/ 2x4 @24" O.C. FOR MAX. SPAN OF 6'-6" & 2x6 @24" O.C. FOR MAX. SPAN OF 10'-2" & 2x8 @24" O.C. FOR MAX. SPAN OF 13'-6" & W/ PLYWOOD SHEATHING CONTINUOUS UNDERNEATH ON MAIN FRAMING.
	CEILING JOIST		(2) 2x STUDS
	SHEAR PANEL NUMBER, MIN. LENGTH NOTED, REFER TO DETAIL 14/SD2 FOR PANEL TYPE		4x4 POST
	DETAIL NUMBER DETAIL SHEET NUMBER		4x6 POST
	CMST 14 x10'-0" MIN. LONG w/3'-0" MIN. OVER TOP OF SHEAR WALL OR DRAG BEAM, 4xBLK, (2) RR, OR (2) FJ		4x8 POST
			CMST 12 x10'-0" MIN. LONG w/3'-0" MIN. OVER TOP OF SHEAR WALL OR DRAG BEAM

FRAMING MEMBERS:

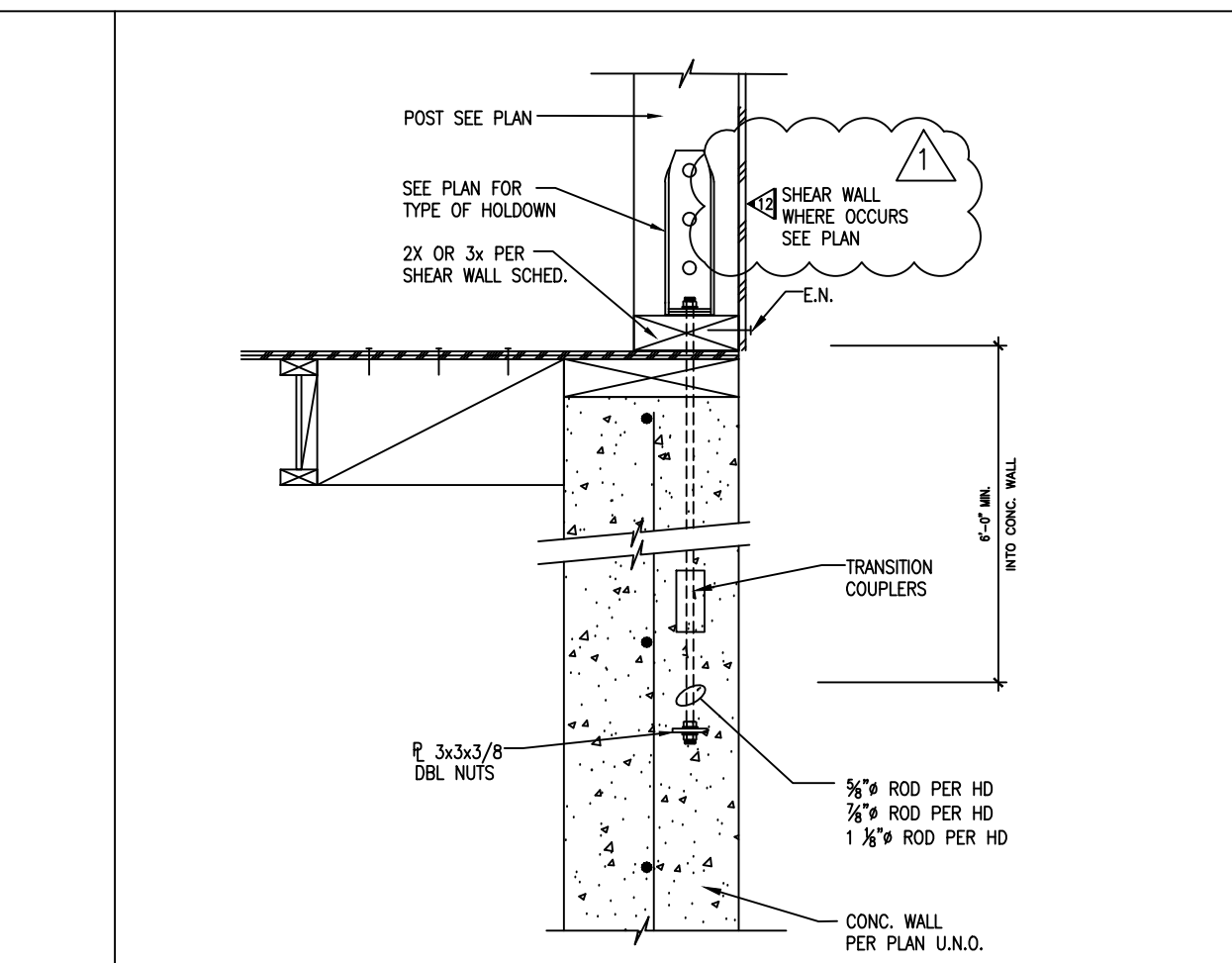
	2x10 R.R. @16" O.C.
	2x10 C.J. @16" O.C.
	2x10 C.J. @16" O.C. △



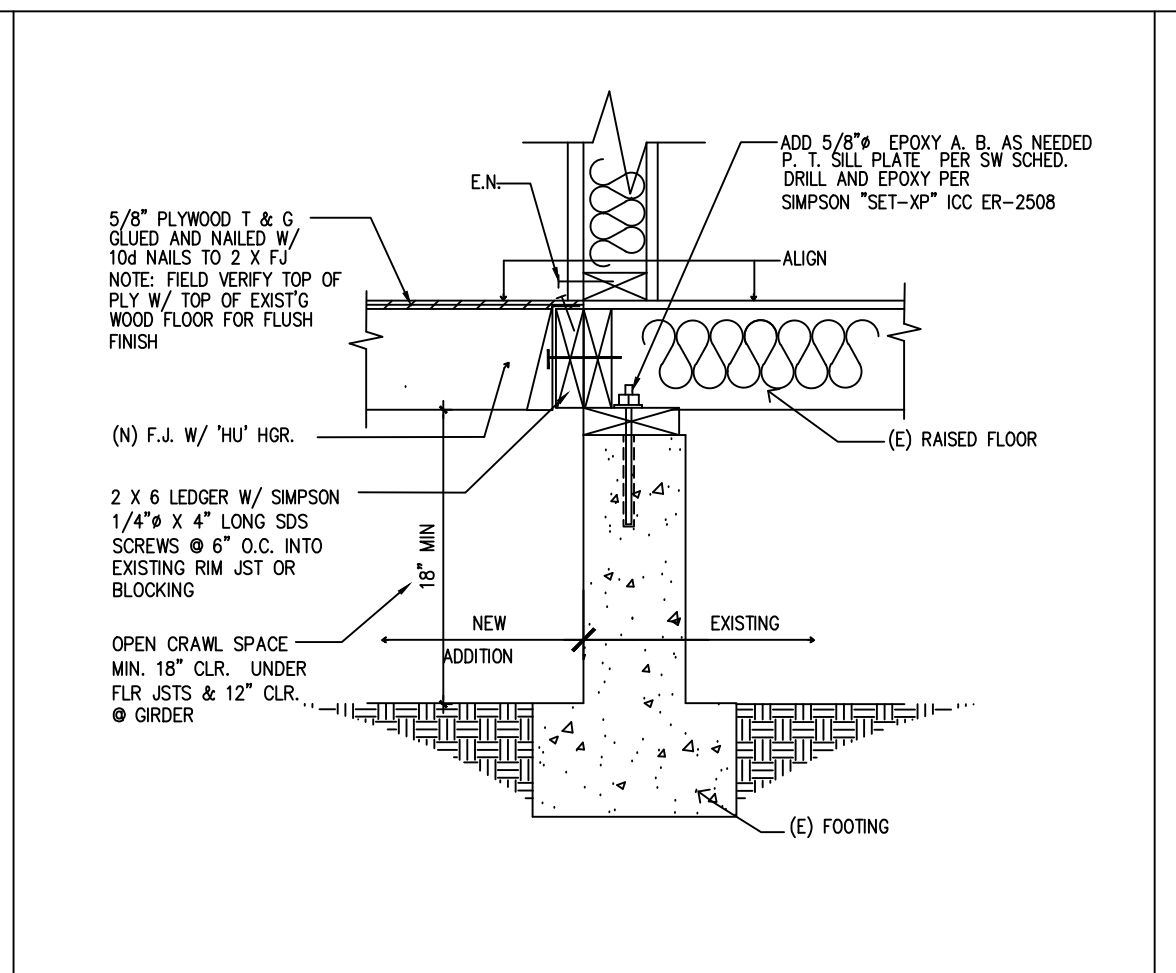
PIER FOOTING 17



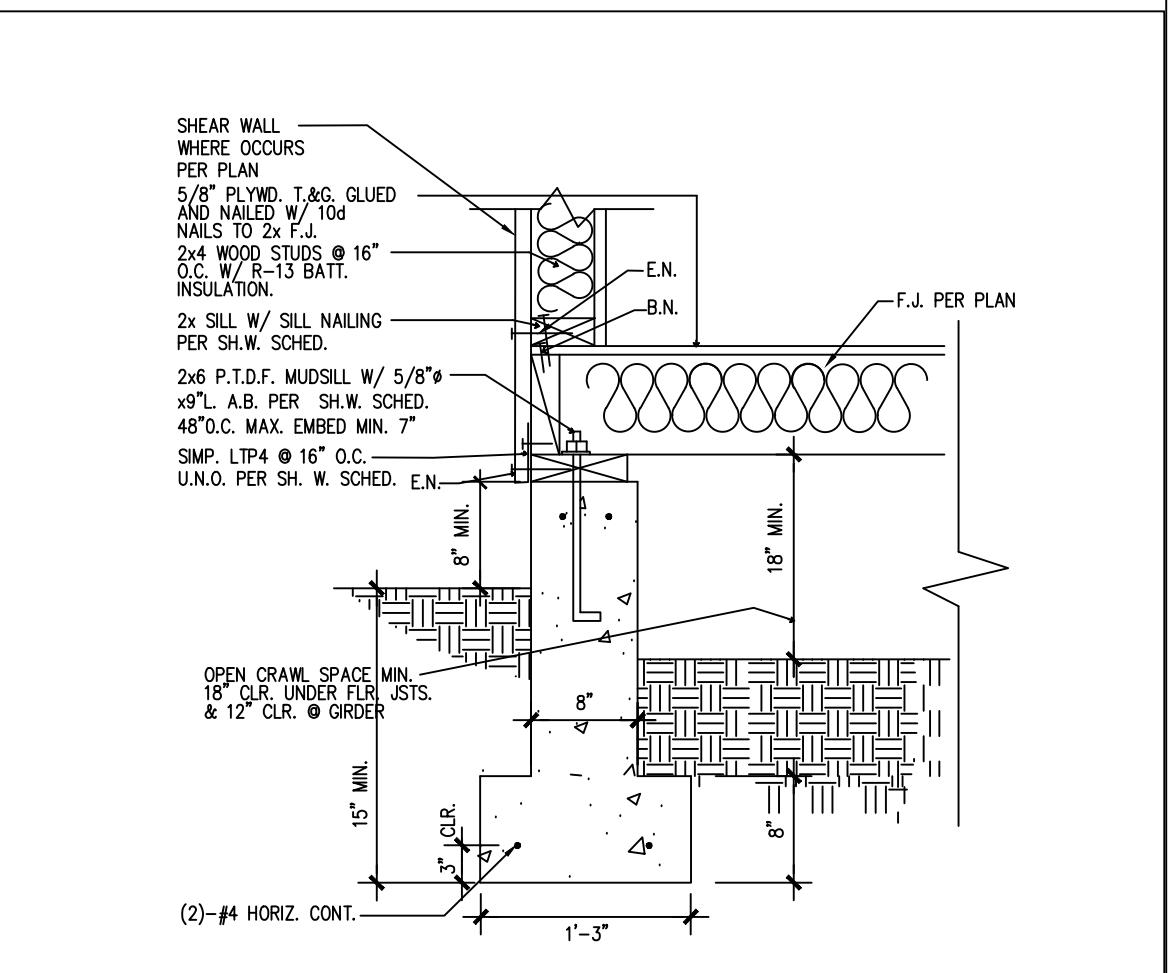
13 TYP. HOLDOWN @ CONC. WALL



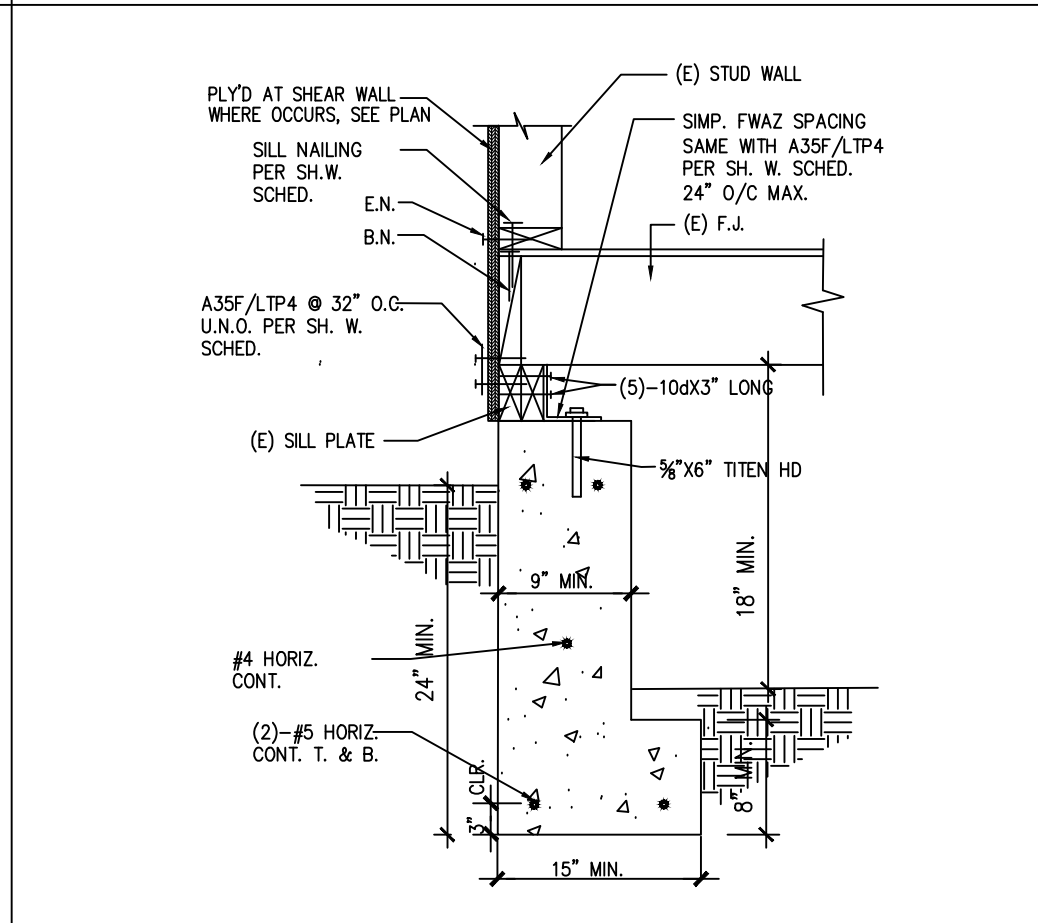
9 ADD (N) F.J. TO (E) WALL



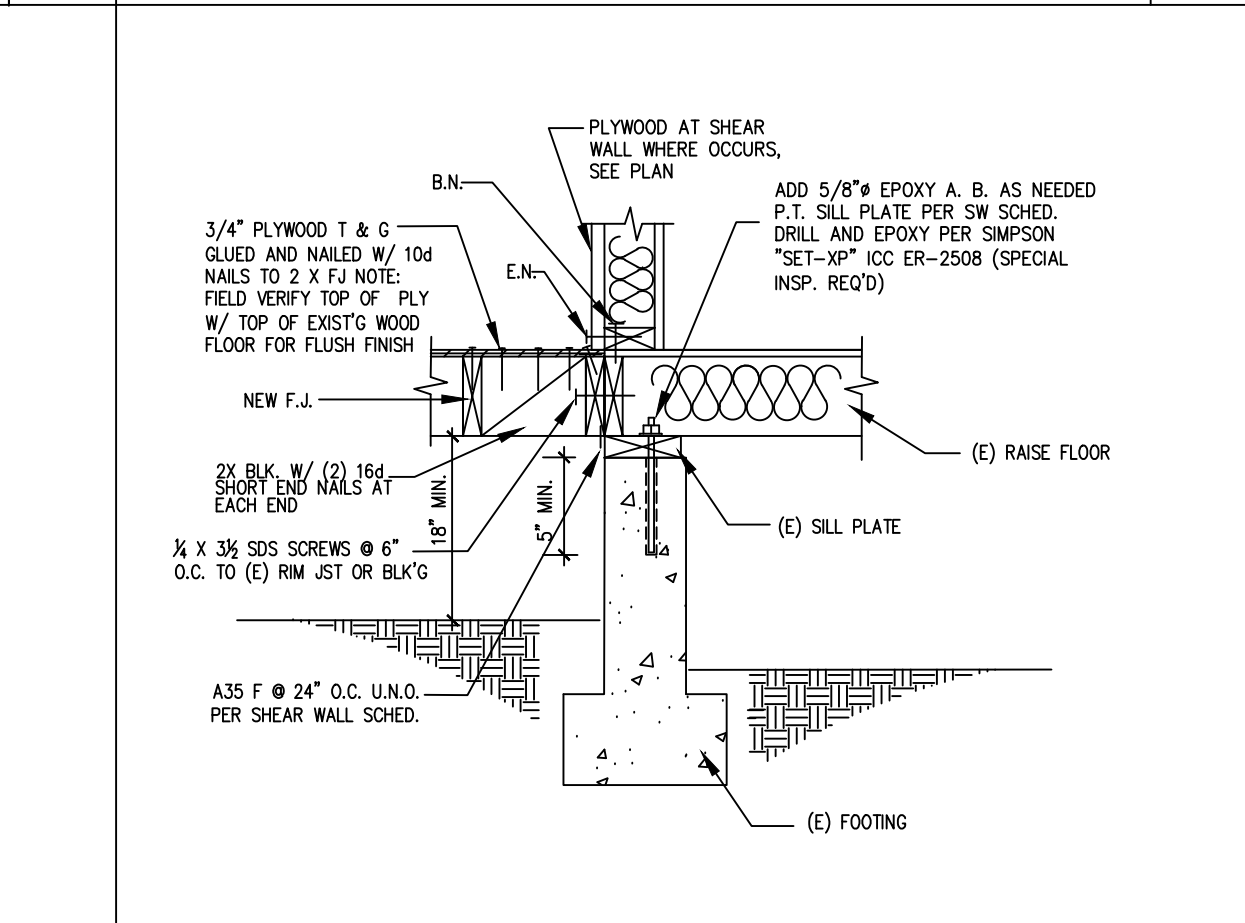
5 EXT. WALL AT FTG. (PERP.) 1



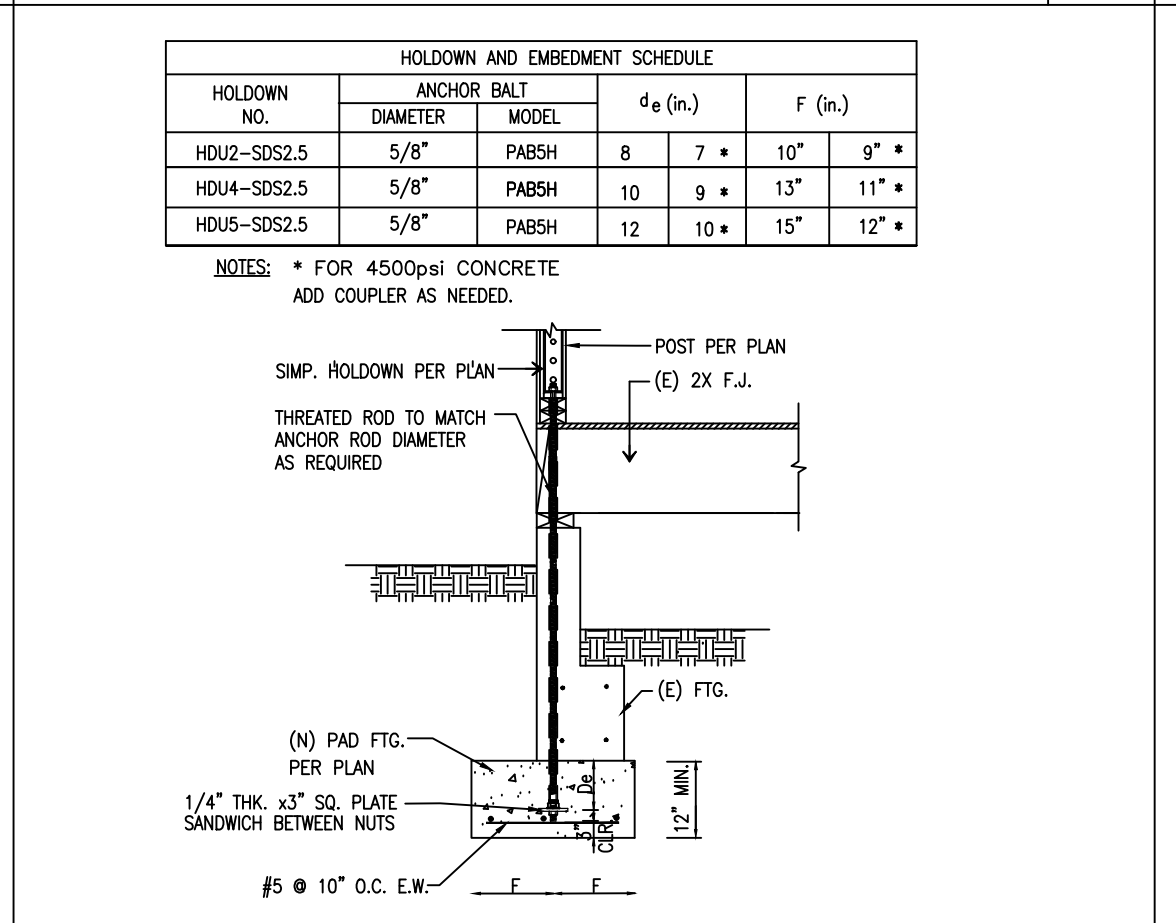
TYP. REINFORCING BENDS 18



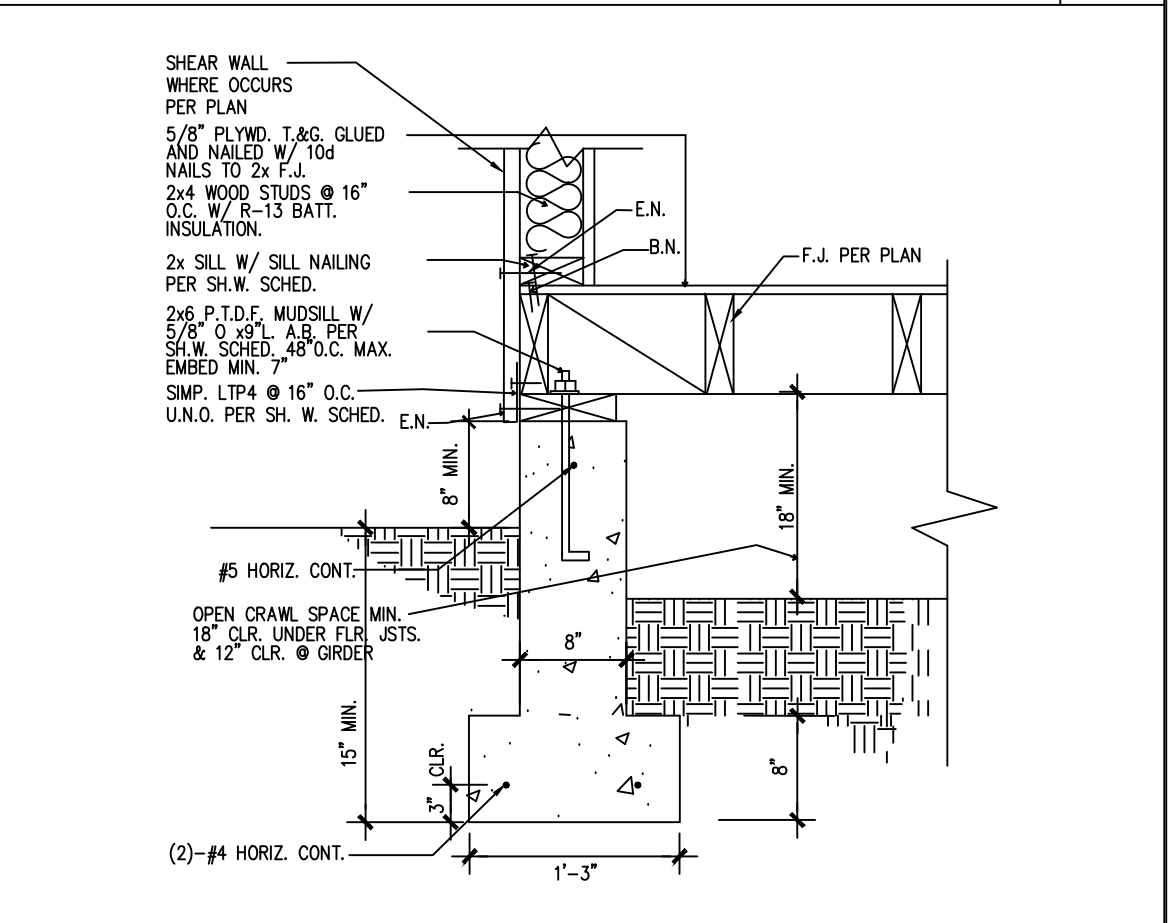
18 SHEAR WALL @ (N) FTG.



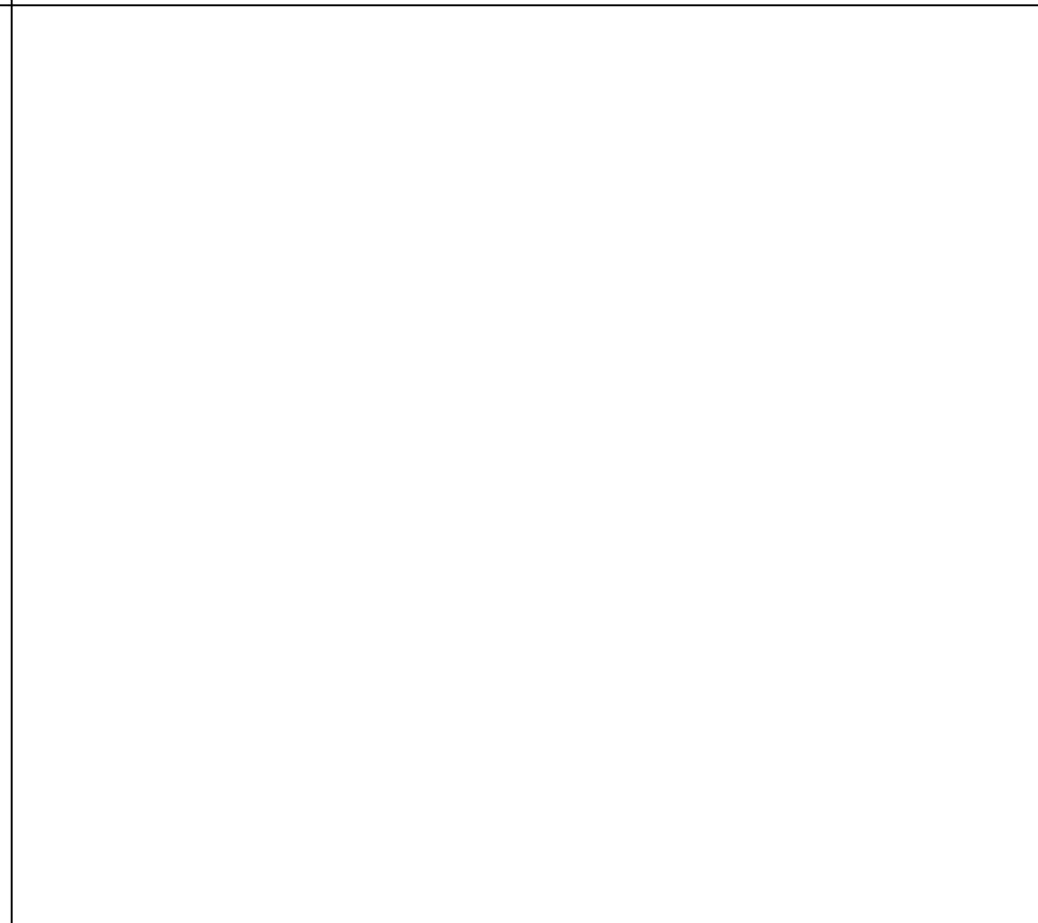
14 ADD (N) F.J. TO (E) WALL



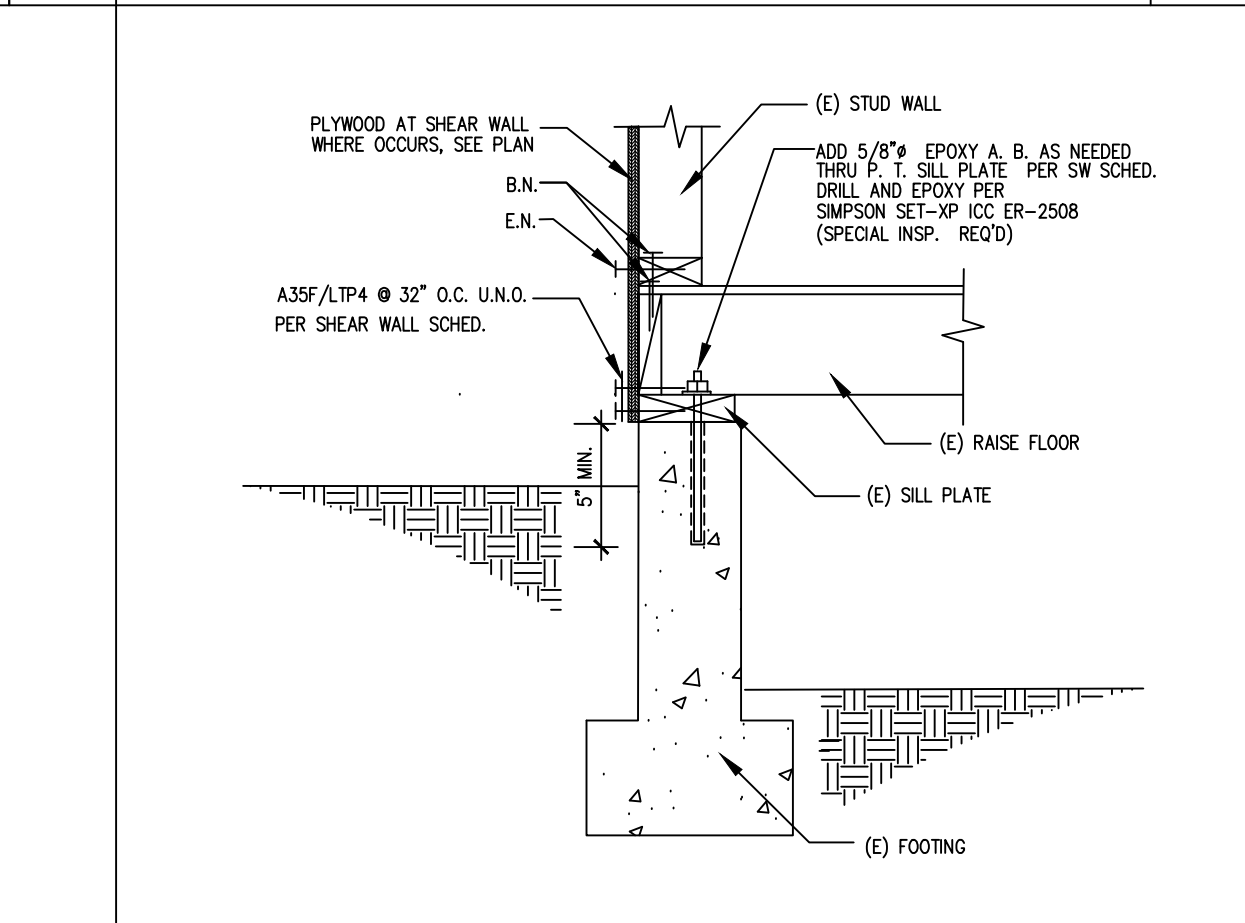
6 ADD HOLDOWN @ (E) FTG.



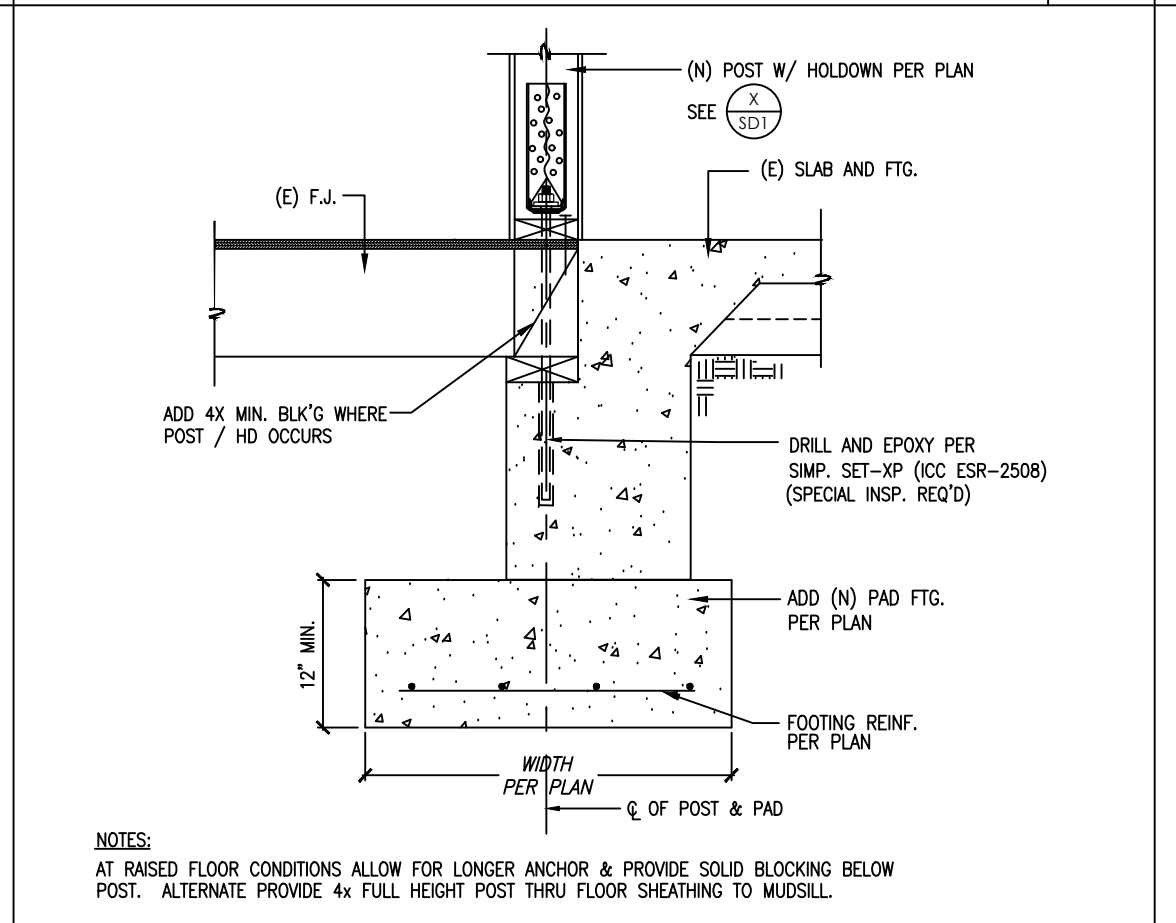
2 EXT. WALL AT FTG. (PARAL.)



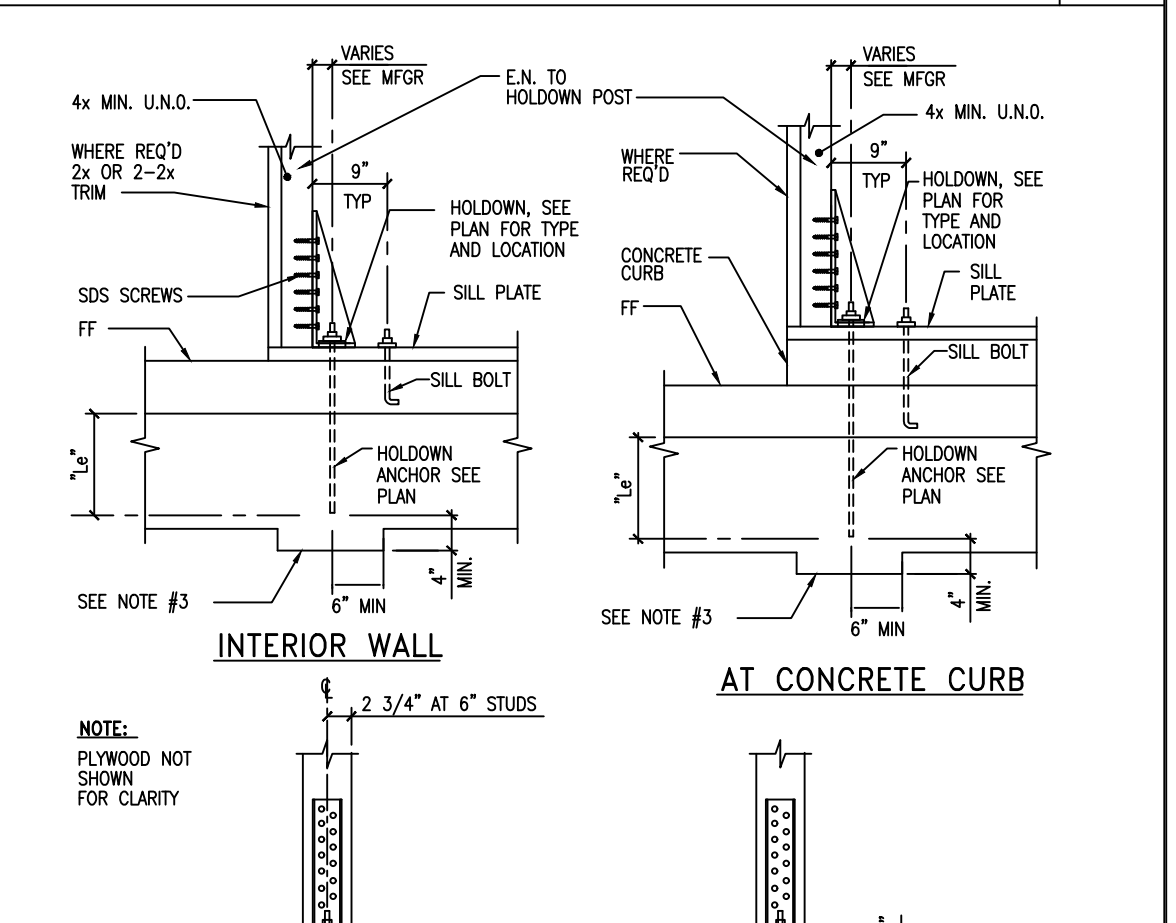
19 SHEAR WALL @ (E) FTG.



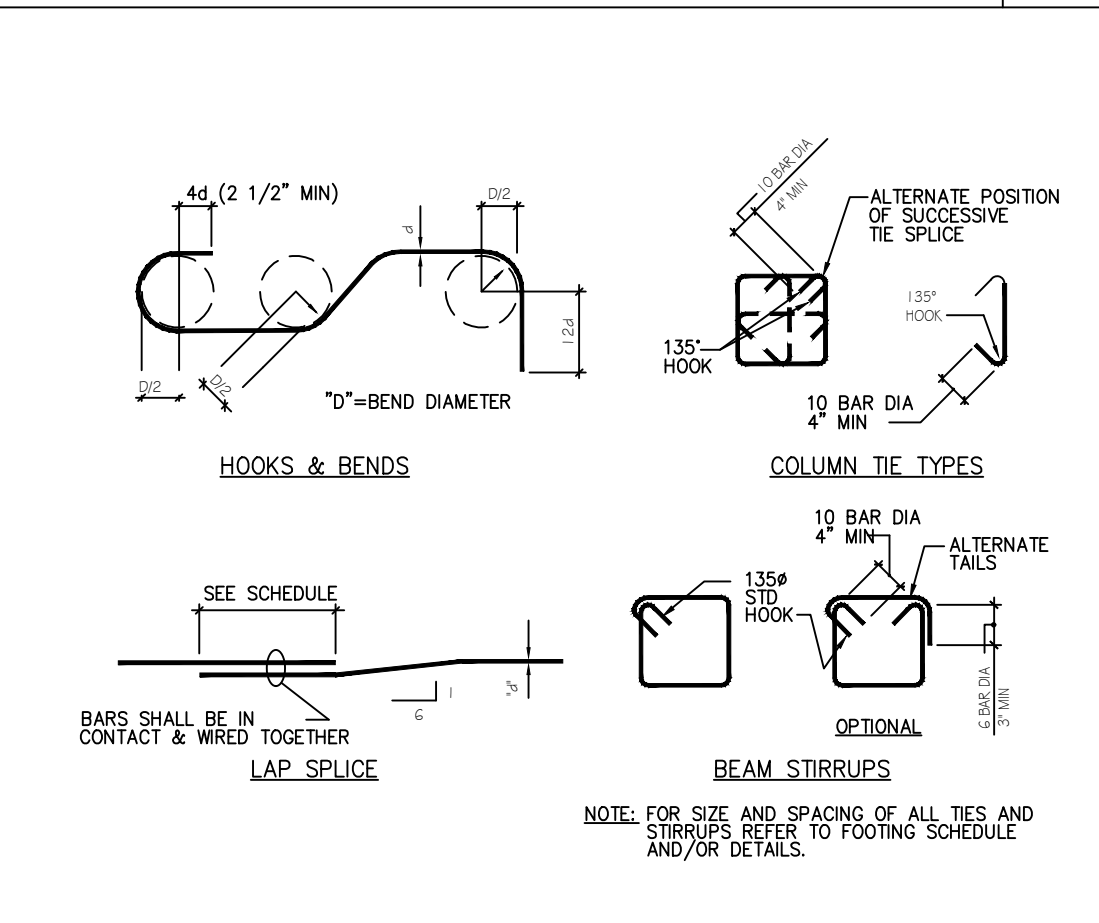
15 ADD SHEAR WALL @ (E) FTG.



11 FOUNDATION DETAIL 7



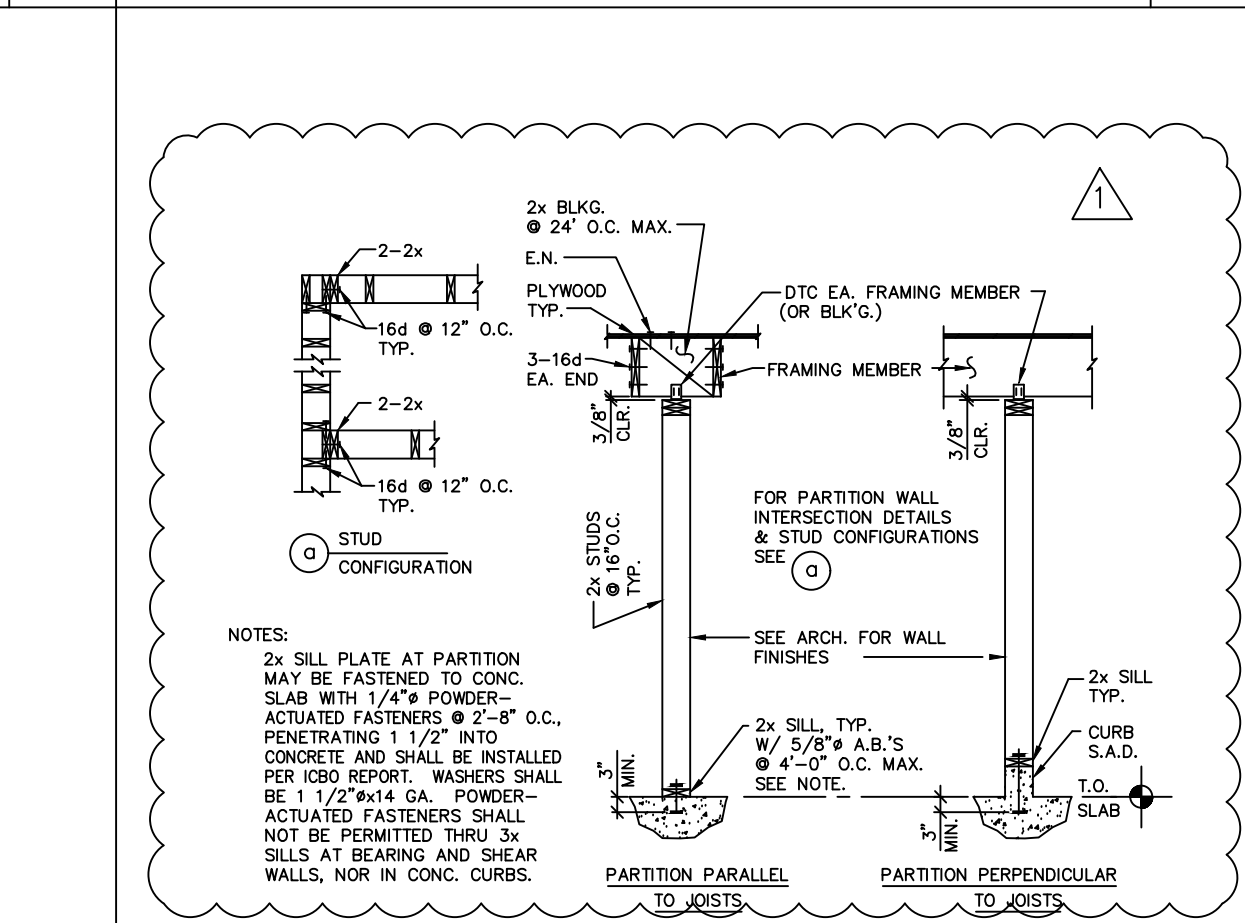
INTERIOR WALL and **AT CONCRETE CURB**



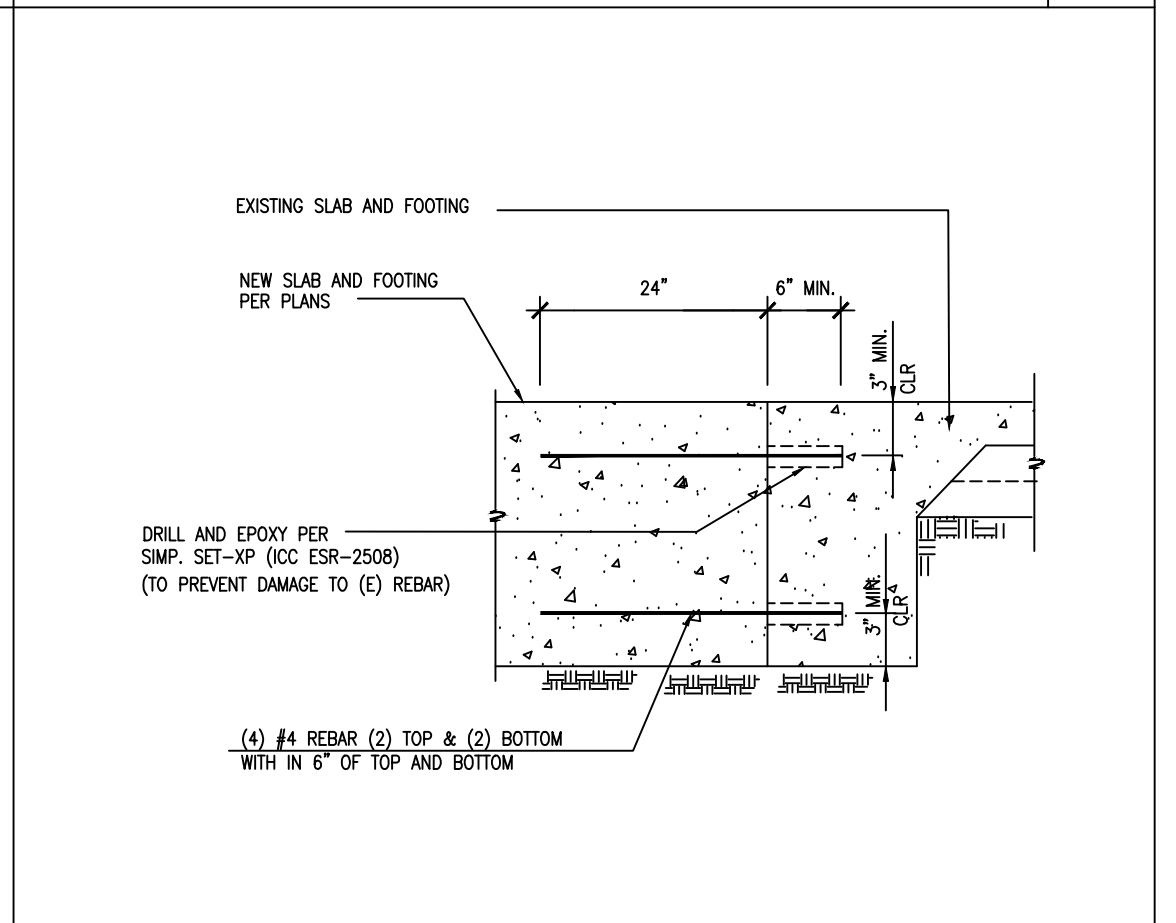
TYPICAL REINFORCEMENT DETAILS

3000 PSI MIN. CONCRETE REINFORCING BAR LAP SPICE			CONCRETE BLOCK	
BAR #	MINIMUM CLEAR BAR SPACING (BAR DIAMETER)	LAP SPICE LENGTH (INCHES)	BAR LAP IN INCHES	
#4	MORE THAN 2	30	23	24"
#5	MORE THAN 2	37	29	30"
#6	MORE THAN 2	44	34	36"
#7	MORE THAN 2	51	40	42"
#8	MORE THAN 2	58	46	48"
#9	MORE THAN 2	65	52	54"
#10	MORE THAN 2	72	58	60"
#11	MORE THAN 2	79	64	66"
#12	MORE THAN 2	86	70	72"

16 NON-STRUCTURAL PARTITION



12 FOOTING CONNECTION



8 HOLDOWN AT (N) FTG.

HOLDOWN AND EMBEDMENT SCHEDULE (2300 PSI CONCRETE)				
MODEL NO.	MINIMUM POST SIZE	ANCHOR BOLT SIZE	MIN. EMBED "L"	ANCHOR TYPE
HDU2-SDS2.5	2-2X	5/8"	17"	SSTR20
HDU4-SDS2.5	2-2X	5/8"	21"	SSTR24
HDU5-SDS2.5	4X	5/8"	21"	SSTR24

3 HOLDOWN AT (N) FTG.



#	REVISION	DATE

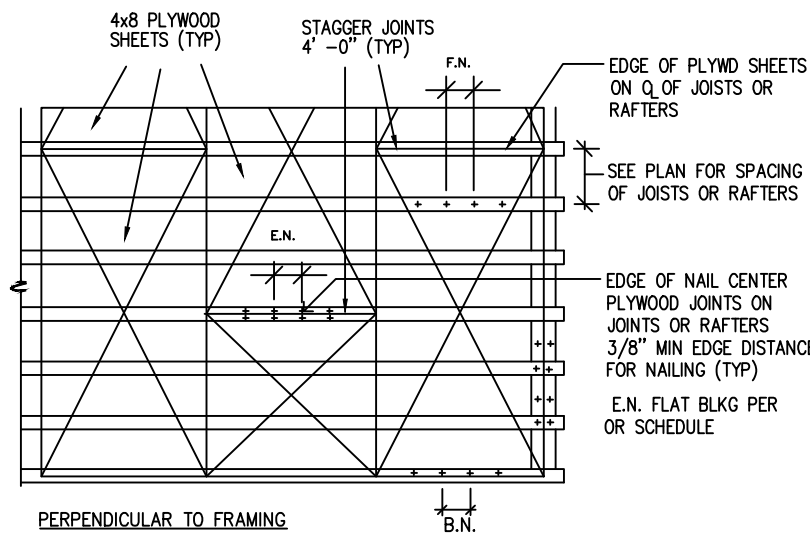
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HAWK'S PROJECT
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 POMONA, CA 91766

STRUCTURAL DETAILS

PROJECT NO. 2024-101
DATE 01/04/24
SCALE AS REFERENCED
SHEET NO.

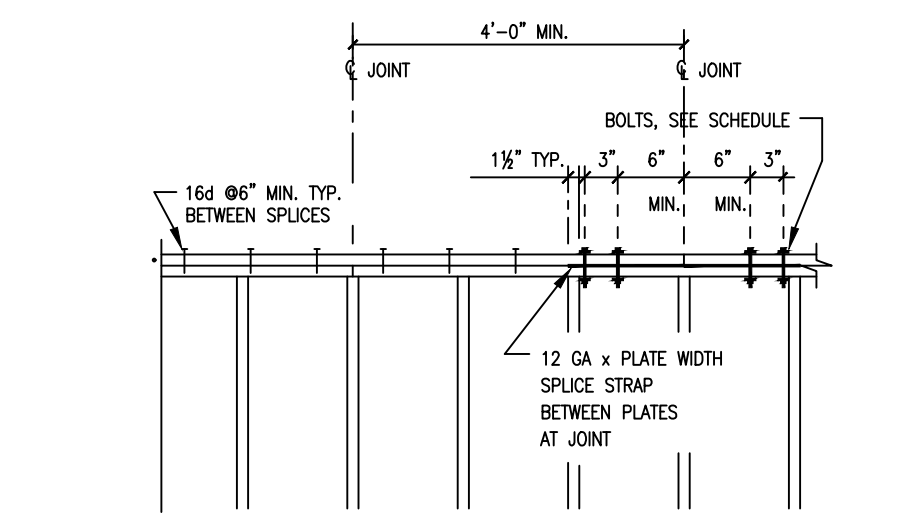
SD-1



TYPE	PLYWOOD THICKNESS	NAIL SIZE	BOUNDARY	EDGE	FIELD	PANEL INDEX
ROOF	3/4" CDX	8d	6"	6"	12"	32/16
FLOOR	3/4"	10d	6"	6"	10"	32/16

PLY.FLR./ROOF DIAPHRAGM

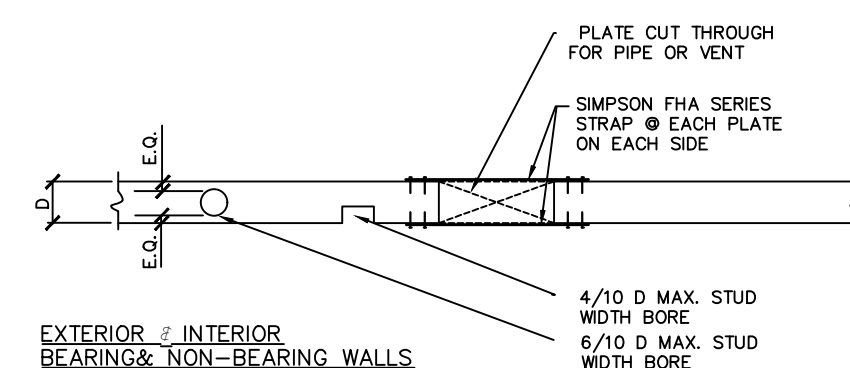
17



TYPE	NO. NAILS OR BOLTS EACH SIDE OF JOINT	PLATE SIZE UNO
A	8 - 16d NAILS	2 - 2x
B	12 - 16d NAILS	2 - 2x
C	16 - 16d NAILS	2 - 2x
D	22 - 16d NAILS	2 - 2x
E	3 - 3/4" BOLTS OR M160	2x 2x

TOP PLATE SPLICE

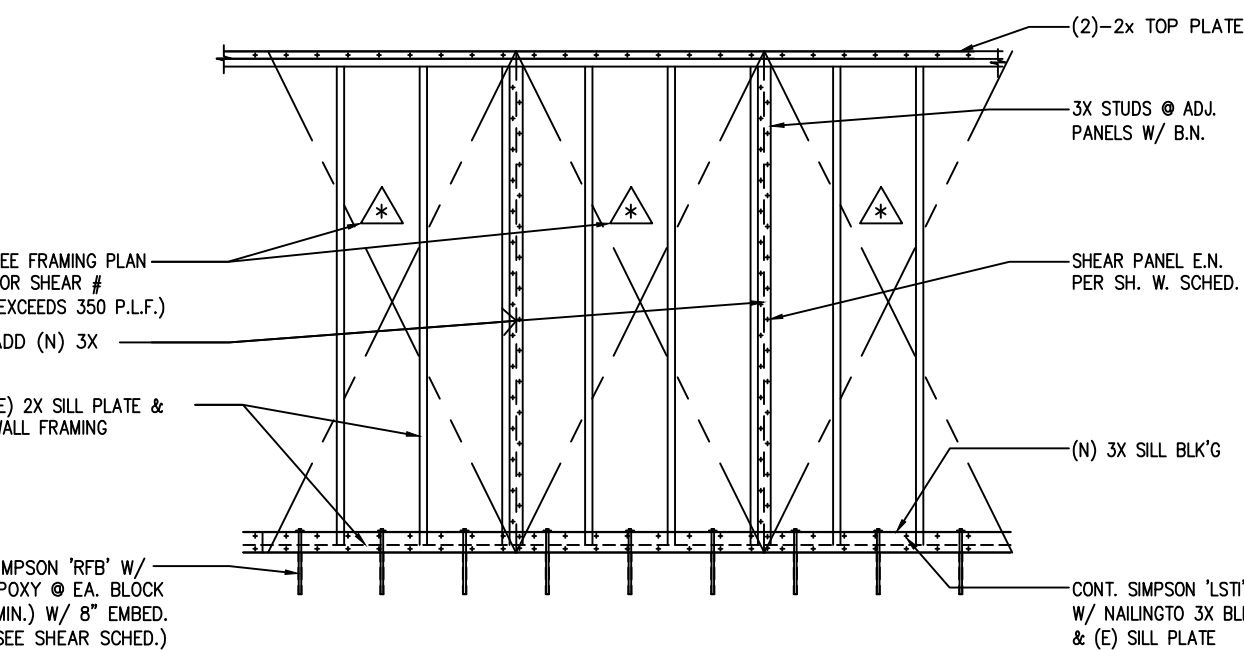
18



NOTCH OR BORE FRACTION OF STUD	2x4	2x6	2x8
4/10 D	1 3/4"	2 3/8"	3"
6/10 D	1 3/4"	3 3/8"	4 1/4"

BORE & NOTCH @ PLATE

19



SPECIAL SHEAR @ EXISTING WALLS

16

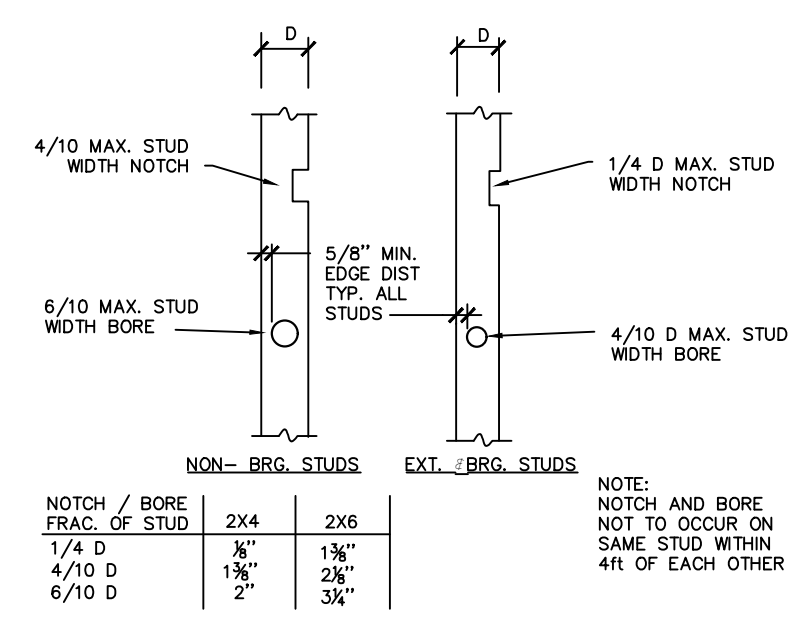
SHEAR SCHEDULE

SYM	SIDE	#T	MATERIAL	NAILS	EDGE	FIELD	GRD. FLOOR	UPPER FLR.	A35
ONE	180	7/8"	PAPER BACKED LATH (C.B.O. OR UNBLK'D) W/ 16 GA STAPLES	6	12	5/8" @ 48"	16d @ 10"	24" O.C.	
ONE	280	3/8"	PLYWD (24/0)	8d	6	12	5/8" @ 48"	16d @ 6"	18" O.C.
WALL CONSTRUCTION: 2x SILL STUDS & TOP PLATES. USE END POST PER HOLDOWN REQUIREMENTS.									
TWO	560	3/8"	PLYWD (24/0)	8d	6	12	5/8" @ 24"	16d @ 5"	10" O.C.
WALL CONSTRUCTION: 3x SILL, 3x STUDS @ BOUNDARIES, & 3x TOP PLATE, OFFSET ADJOINING PANELS ON OPPOSING SIDES. USE MIN. 4x END POST.									
ONE	350	3/8"	PLYWD (24/0)	8d	4	12	5/8" @ 32"	16d @ 5"	16" O.C.
WALL CONSTRUCTION: 2x SILL STUDS & TOP PLATES. USE END POST PER HOLDOWN REQUIREMENTS.									
ONE	430	3/8"	PLYWD (24/0)	8d	4	12	5/8" @ 32"	16d @ 4"	12" O.C.
WALL CONSTRUCTION: 3x SILL @ FOUNDATION, 2x SILL @ RAISED FLOOR OR SECOND STORY, 3x STUDS @ ADJOINING PANELS, & 2-2x TOP PLATES. USE 3x END POST (MIN) OR AS REQ'D BY HOLDOWN.									
TWO	860	3/8"	PLYWD (24/0)	8d	4	12	5/8" @ 16"	16d @ 3"	6" O.C.
WALL CONSTRUCTION: 3x SILL, 3x STUDS @ BOUNDARIES, & 3x TOP PLATE, OFFSET ADJOINING PANELS ON OPPOSING SIDES. USE MIN. 4x END POST.									
ONE	550	3/8"	PLYWD (24/0)	8d	3	12	5/8" @ 24"	16d @ 3"	10" O.C.
WALL CONSTRUCTION: 3x SILL @ FOUNDATION, 2x SILL @ RAISED FLOOR OR SECOND STORY, 3x STUDS @ ADJOINING PANELS, & 2-2x TOP PLATES. USE 3x END POST (MIN) OR AS REQ'D BY HOLDOWN.									
TWO	1100	3/8"	PLYWD (24/0)	8d	3	12	5/8" @ 12"	16d @ 3"	8" O.C. @ E.S.
WALL CONSTRUCTION: 3x SILL, 3x STUDS @ BOUNDARIES, & 3x TOP PLATE, OFFSET ADJOINING PANELS ON OPPOSING SIDES. USE MIN. 4x END POST.									
ONE	730	3/8"	PLYWD (24/0)	8d	2	12	5/8" @ 16"	16d @ 2"	8" O.C.
WALL CONSTRUCTION: 3x SILL @ FOUNDATION, 2x SILL @ RAISED FLOOR OR SECOND STORY, 3x STUDS @ ADJOINING PANELS, & 2-2x TOP PLATES. USE 3x END POST (MIN) OR AS REQ'D BY HOLDOWN.									
TWO	1460	3/8"	PLYWD (24/0)	8d	2	12	5/8" @ 8"	16d @ 3"	6" O.C. @ E.S.
WALL CONSTRUCTION: 3x SILL, 3x STUDS @ BOUNDARIES, & 3x TOP PLATE, OFFSET ADJOINING PANELS ON OPPOSING SIDES. USE MIN. 4x END POST.									
ONE	870	1/2"	PLYWD (32/16)	10d	2	12	5/8" @ 16"	16d @ 2"	5" O.C.
WALL CONSTRUCTION: 3x SILL @ FOUNDATION, 2x SILL @ RAISED FLOOR OR SECOND STORY, 3x STUDS @ ADJOINING PANELS, & 2-2x TOP PLATES. USE 3x END POST (MIN) OR AS REQ'D BY HOLDOWN.									
TWO	1740	1/2"	PLYWD (32/16)	10d	2	12	5/8" @ 8"	16d @ 3"	5" O.C. @ E.S.
WALL CONSTRUCTION: 3x SILL, 3x STUDS @ BOUNDARIES, & 3x TOP PLATE, OFFSET ADJOINING PANELS ON OPPOSING SIDES. USE MIN. 4x END POST.									

- NOTES:
- WHERE PANEL NAILING IS SPACED @ 2" O.C. OR CALCULATED SHEAR LOAD EXCEEDS 350 PLF, USE:
 - 3x STUDS @ ADJOINING PANELS w/ STAGGERED NAILS
 - 3x SILLS @ FOUNDATION LEVEL.
 - NAIL DOUBLE TOP PLATES TOGETHER w/ 16d SINKER NAILS @ 4" O.C.
 - WHERE PLYWOOD SHEAR PANELS OCCUR ON BOTH SIDES OF WALL:
 - USE 3x STUDS @ ALL BOUNDARIES (BOT. PLATES, TOP PLATES, & ADJOINING PANELS)
 - OFFSET ADJOINING PANELS ON OPPOSING SIDES.
 - WHERE SILL NAILING IS 2" OR LESS, OR LAG SCREW IS USED PROVIDE 3x BLK'G, 3x MIN. JOIST, OR BEAM INSURE THAT THE WOOD BEAM BELOW AND DOES NOT TEND TO SPLIT. PRE-DRILL FOR NAILS IF SPLITTING IS OBSERVED, USING A DRILL SIZE 3/4 OF THE DIAMETER OF THE SILL NAILING.
 - SHOT PINS BY "HILT", CONFORMING TO I.C.C. # 1917 MAY BE USED IN LIEU OF A.B. FOR INTERIOR NON-SHEAR WALLS ONLY ON CONCRETE FOUNDATION.
 - USE 5/8" x 8" SIMPSON SET-XP (ICC ESR-2506) EPOXY ADHESIVE AS A FIX SILL PLATE BOLT
 - EXISTING FOUNDATIONS PER SHEAR SCHEDULE SPACING.
 - ALL PLYWOOD EDGES TO BE BLOCKED-USE 3x BLOCKING AT 2" O.C. NAILING.
 - PLYWOOD USE STRUCTURAL 1.
 - TABLE BASED ON C.B.C. 2013 EDITION, SEISMIC FORCE IS INCREASED 25% FOR CONNECTIONS OF DIAPHRAGM TO SHEAR WALL.

SHEAR WALL SCHEDULE

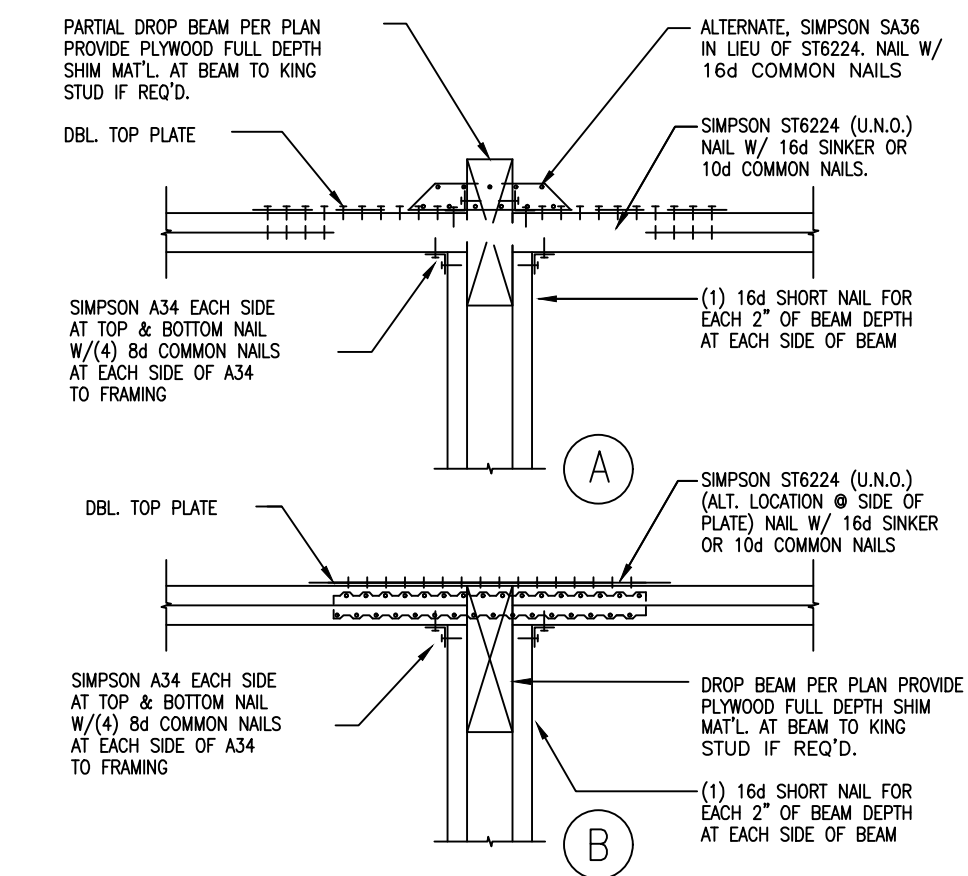
14



NOTCH / BORE FRACTION OF STUD	2x4	2x6
1/4 D	1 3/8"	1 3/8"
4/10 D	1 3/8"	2 3/8"
6/10 D	2"	3 3/8"

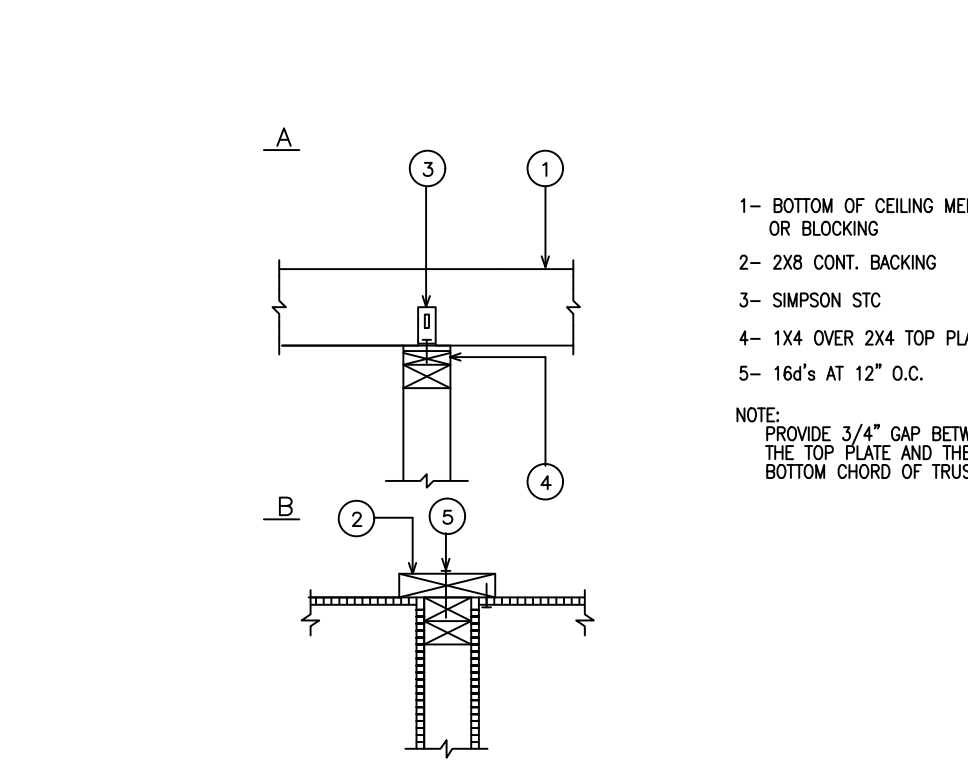
PIPE PENETRATION AT PLATES

9



TYP. BEAM TO POST WITH TOP PLATE

11

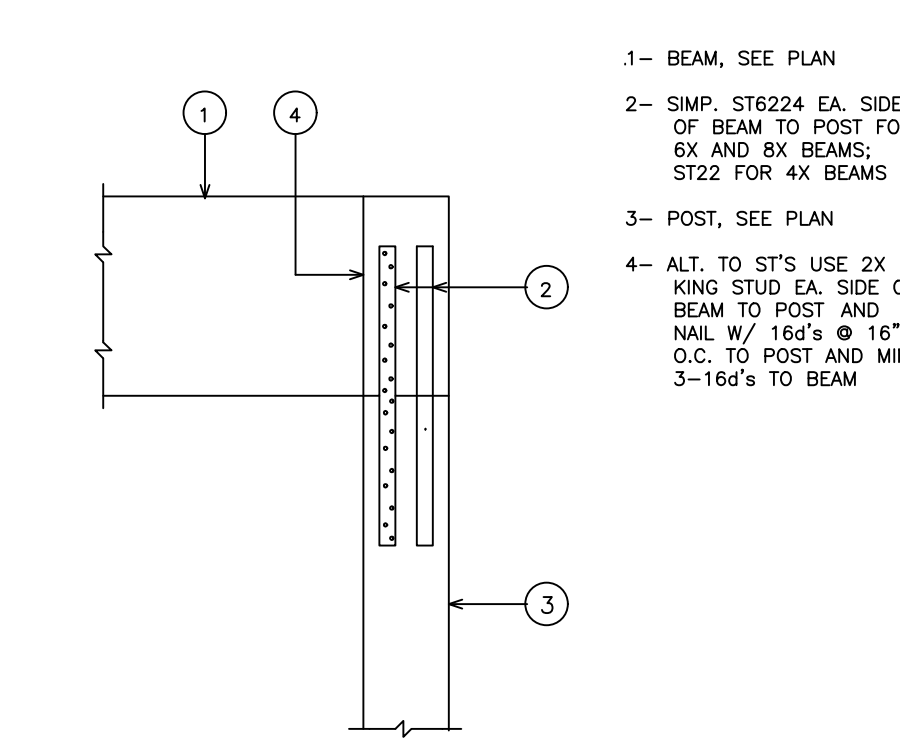


INTERIOR NON-BEARING

16

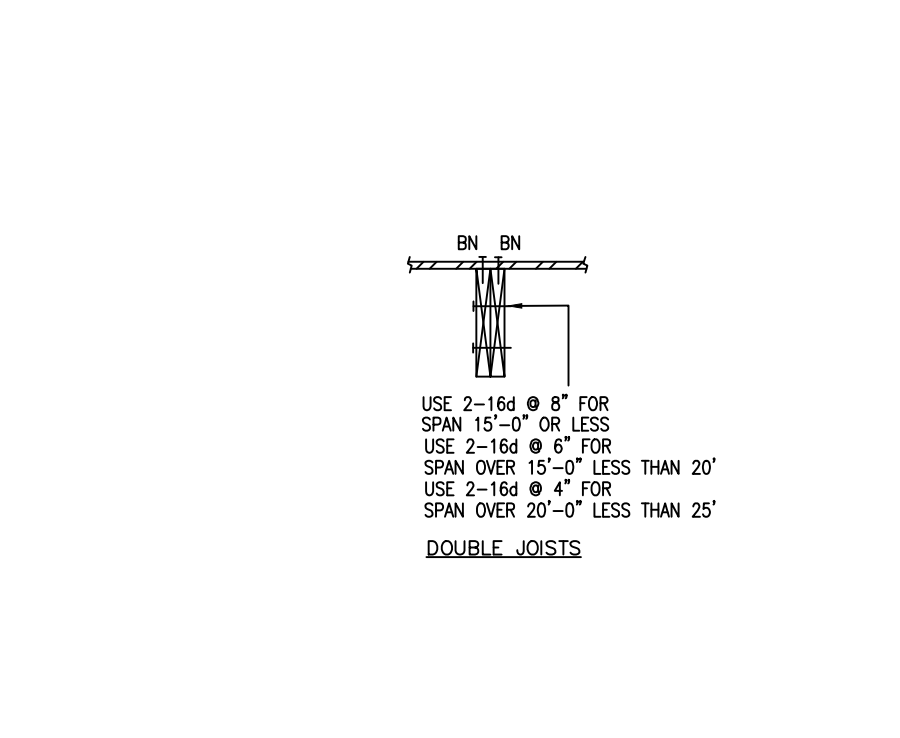
INT. SHEAR WALL SECTION

5



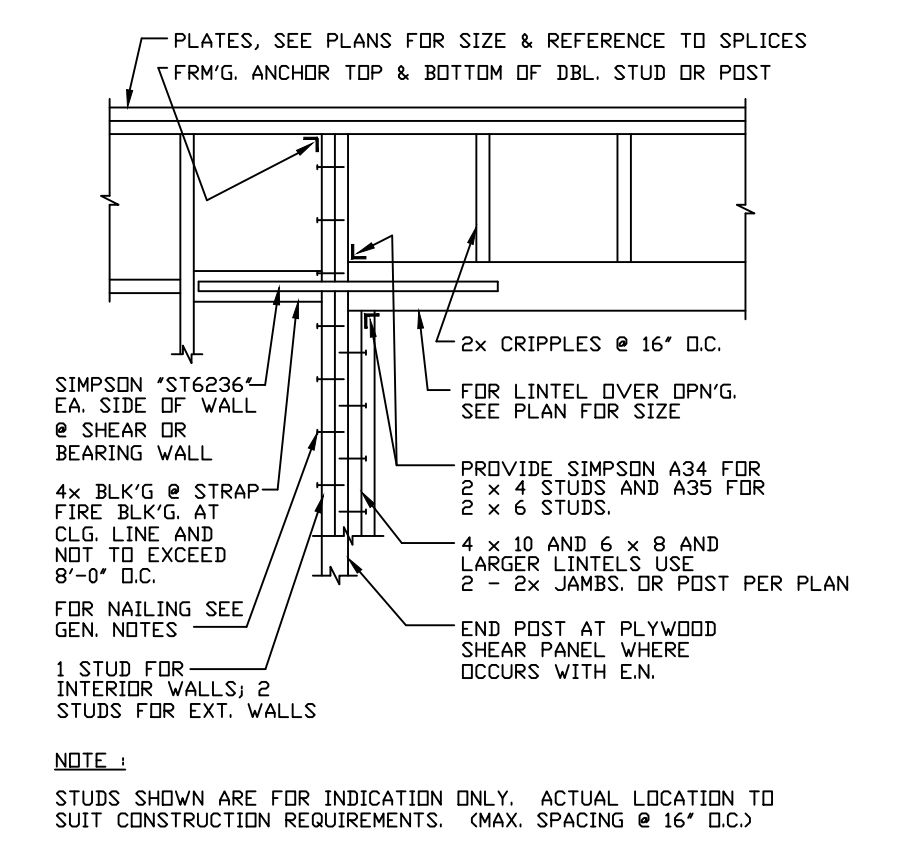
POST TO BEAM CONNECTION

6



TYP. FRAMING DETAIL

7

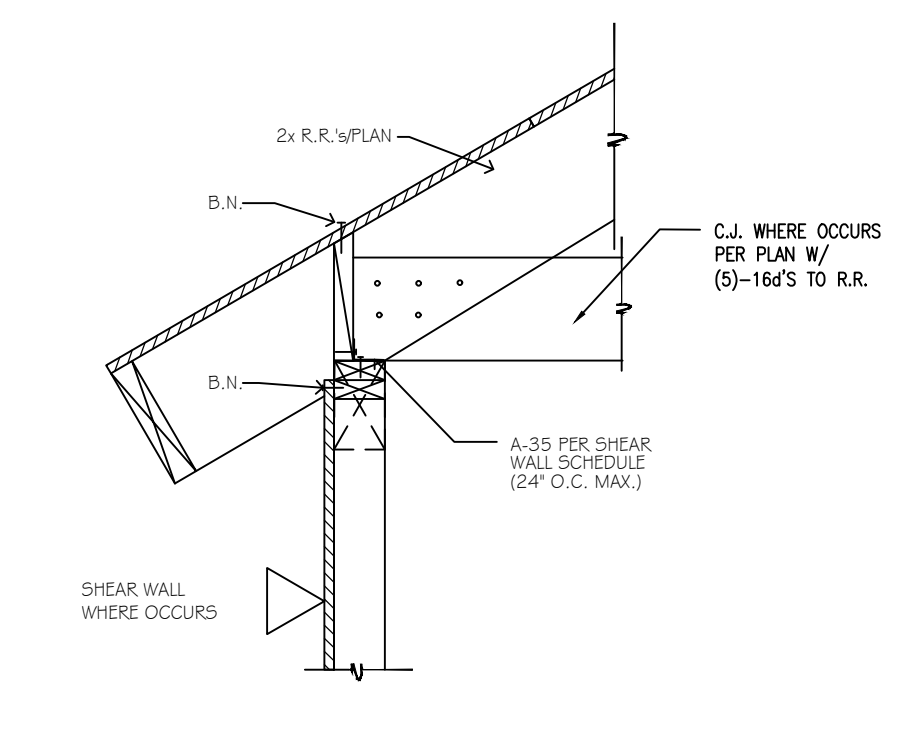


TYPICAL HEADER FRAMING

8

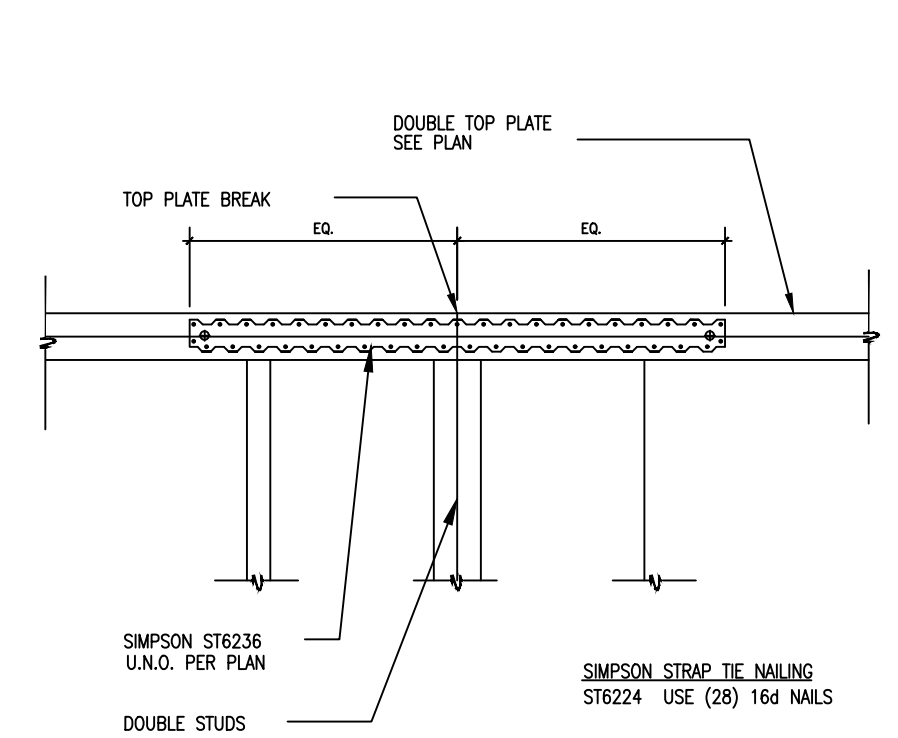
TYP. ROOF FRAMING DETAIL

1



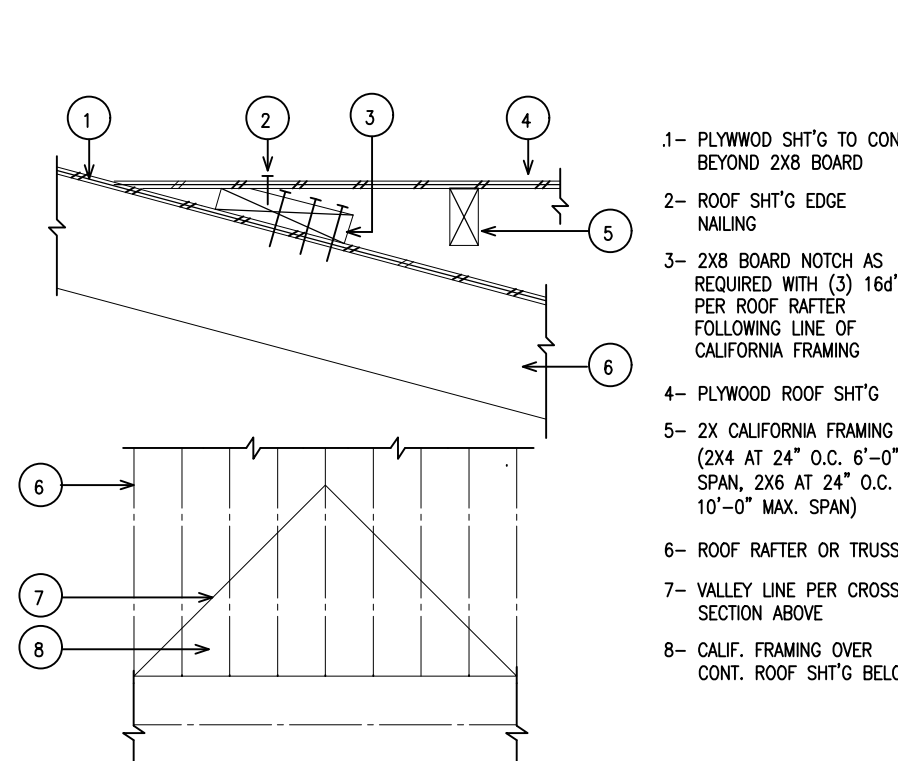
ROOF S.T. @ EXT. BEARING WALL

2



TOP PLATE CONNCTION

3



TYP. CALIF. FRAMING

4



#	REVISION	DATE

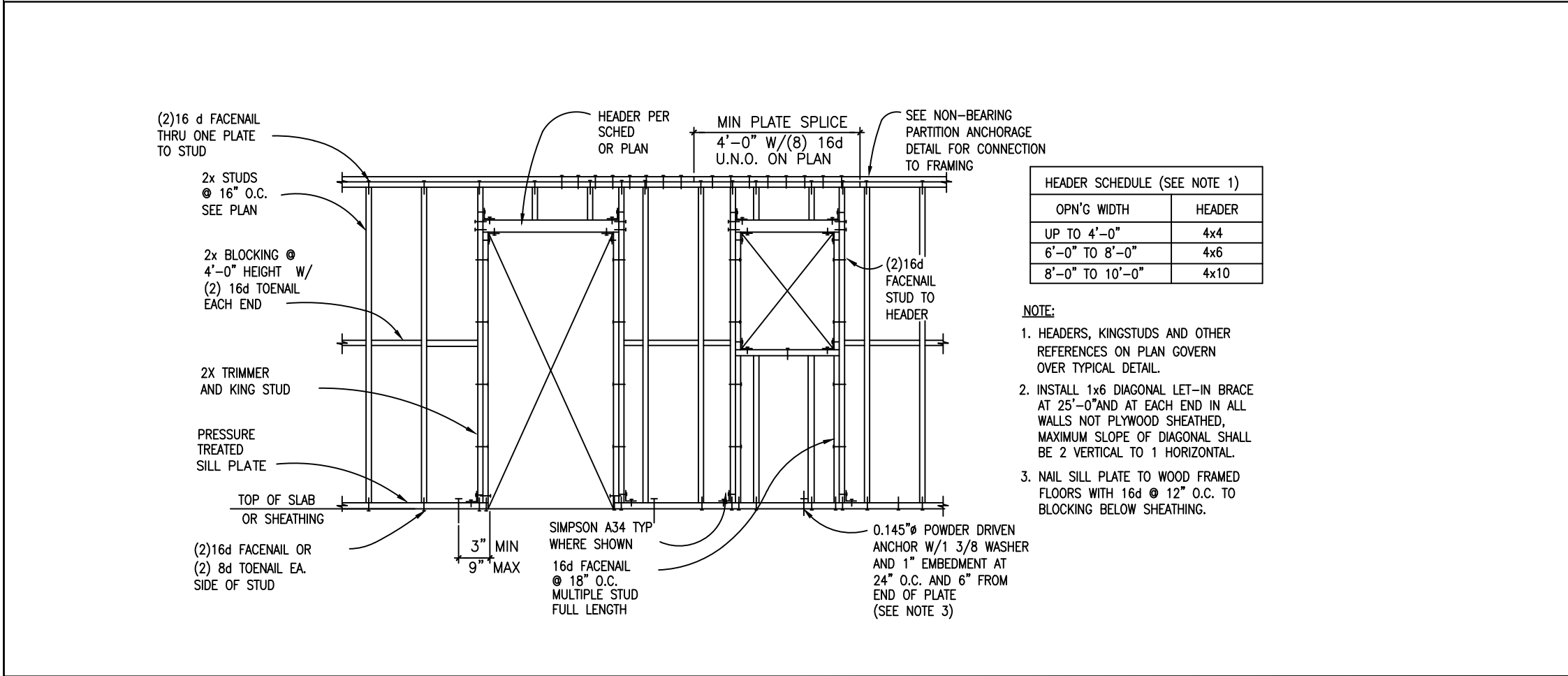
ACEMD CORPORATION
 18305 E VALLEY BLVD, SUITE A
 LA PUENTE, CA, 91744
 Off. (805) 259-7459
 KYLE.LEE@ACEMDCORP.COM

HAWK'S PROJECT
 604 E MISSION BLVD,
 POMONA, CA 91766

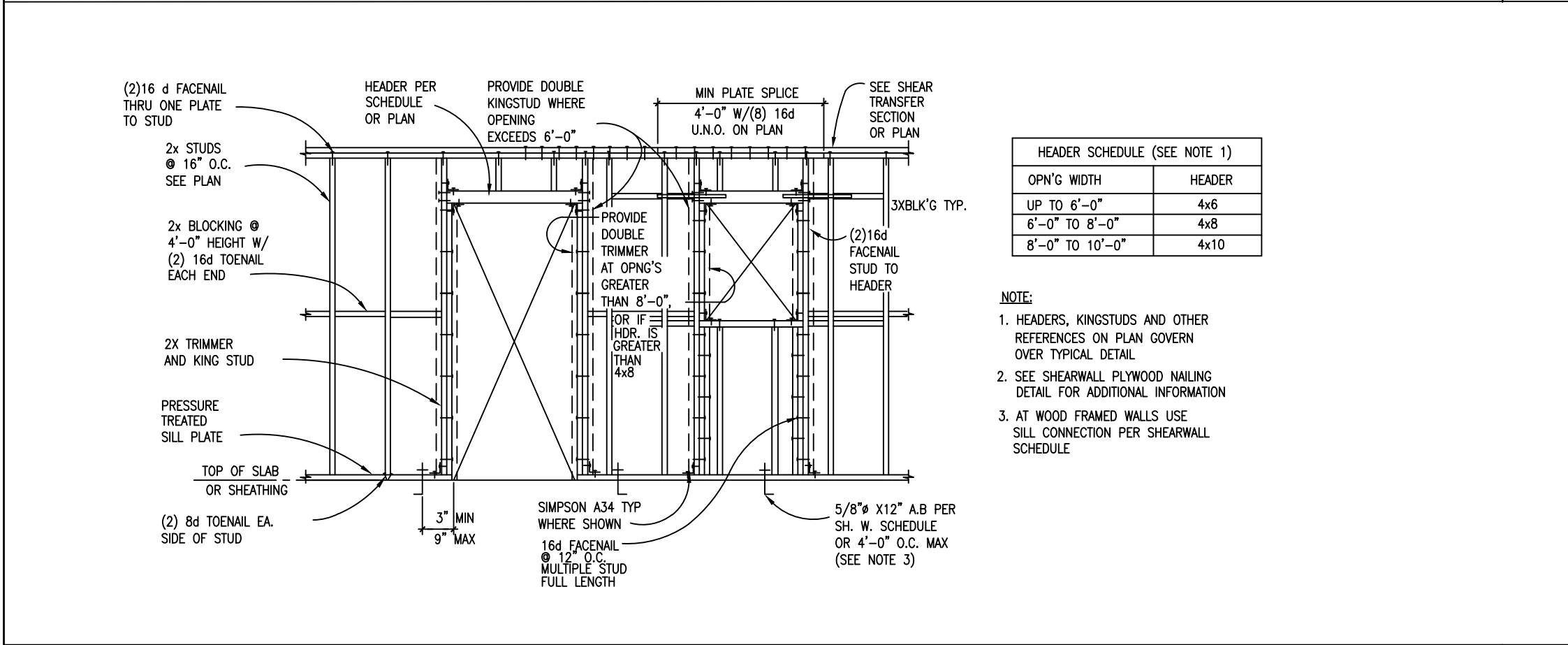
STRUCTURAL DETAILS

PROJECT NO.	2024-101
DATE	01/04/24
SCALE	AS REFERENCED

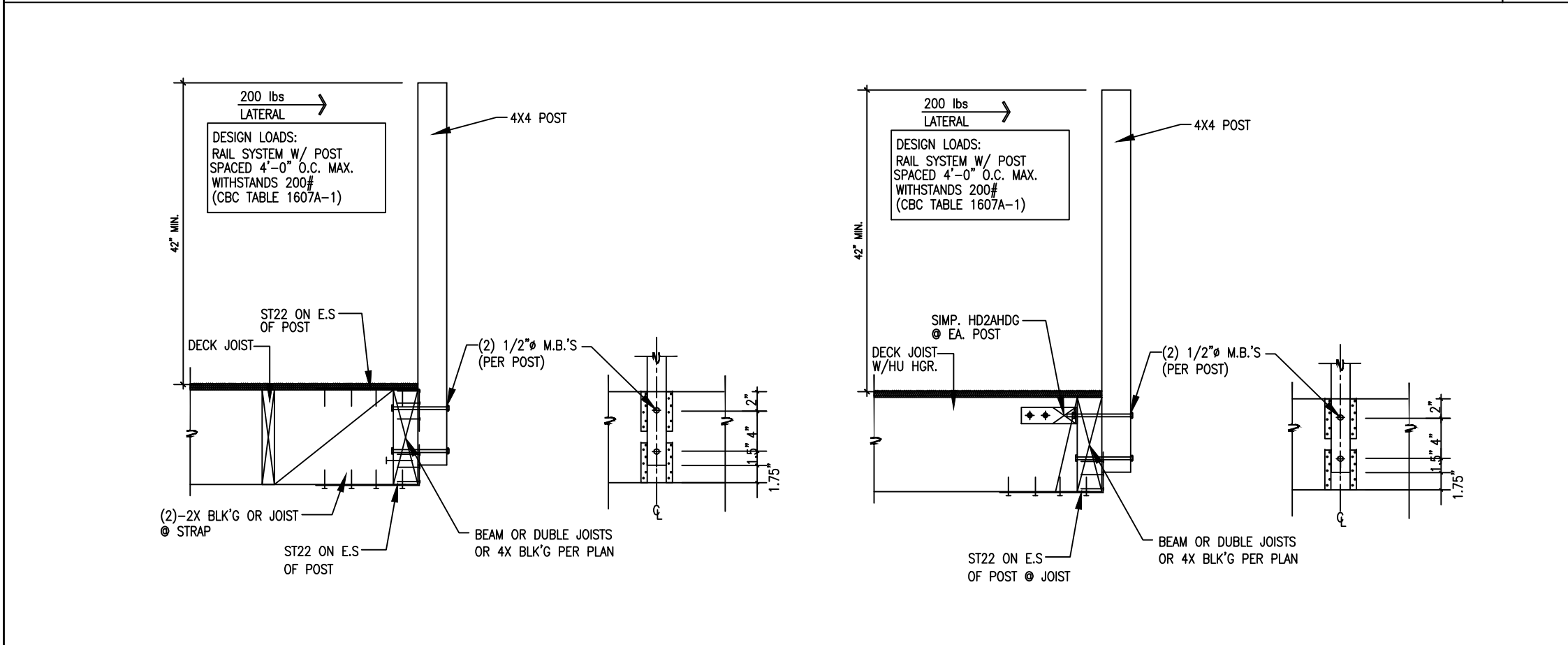
SD-2



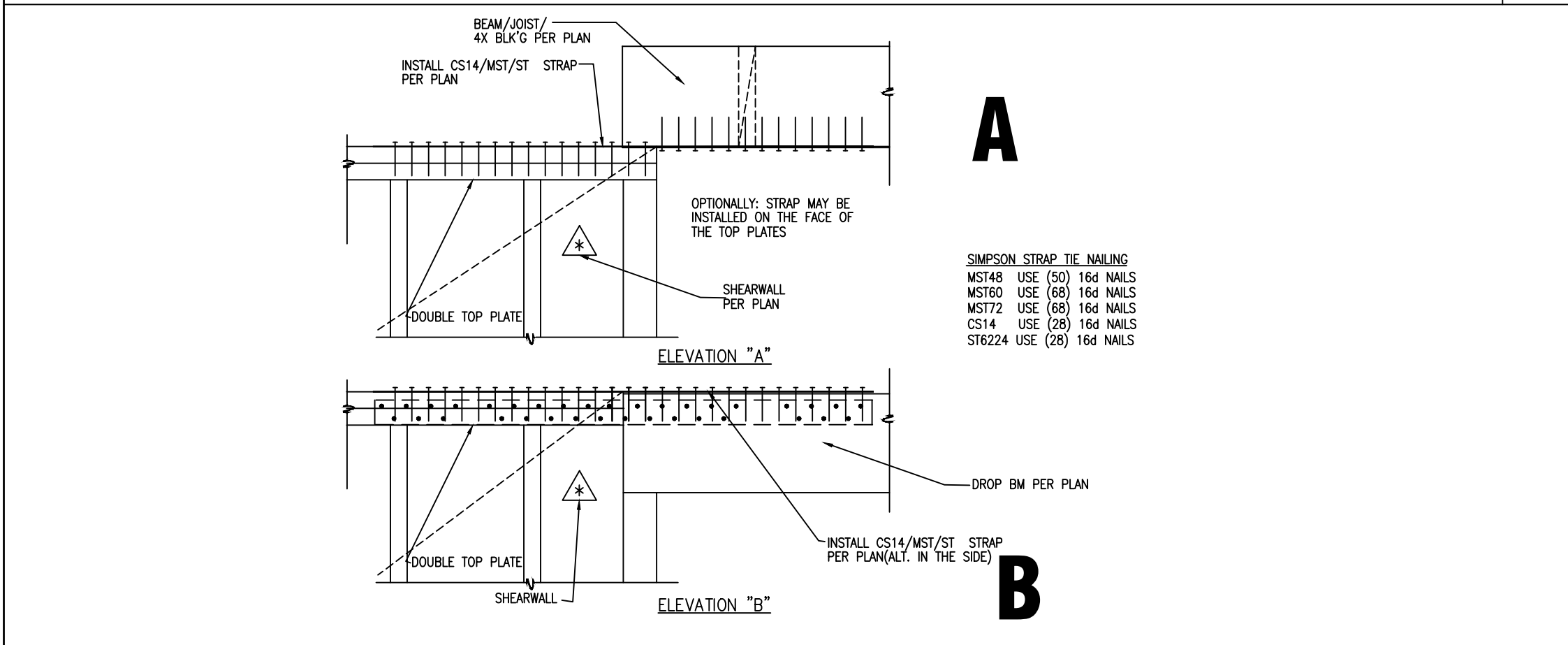
INTERIOR NON-BEARING STUD WALL FRAMING 14



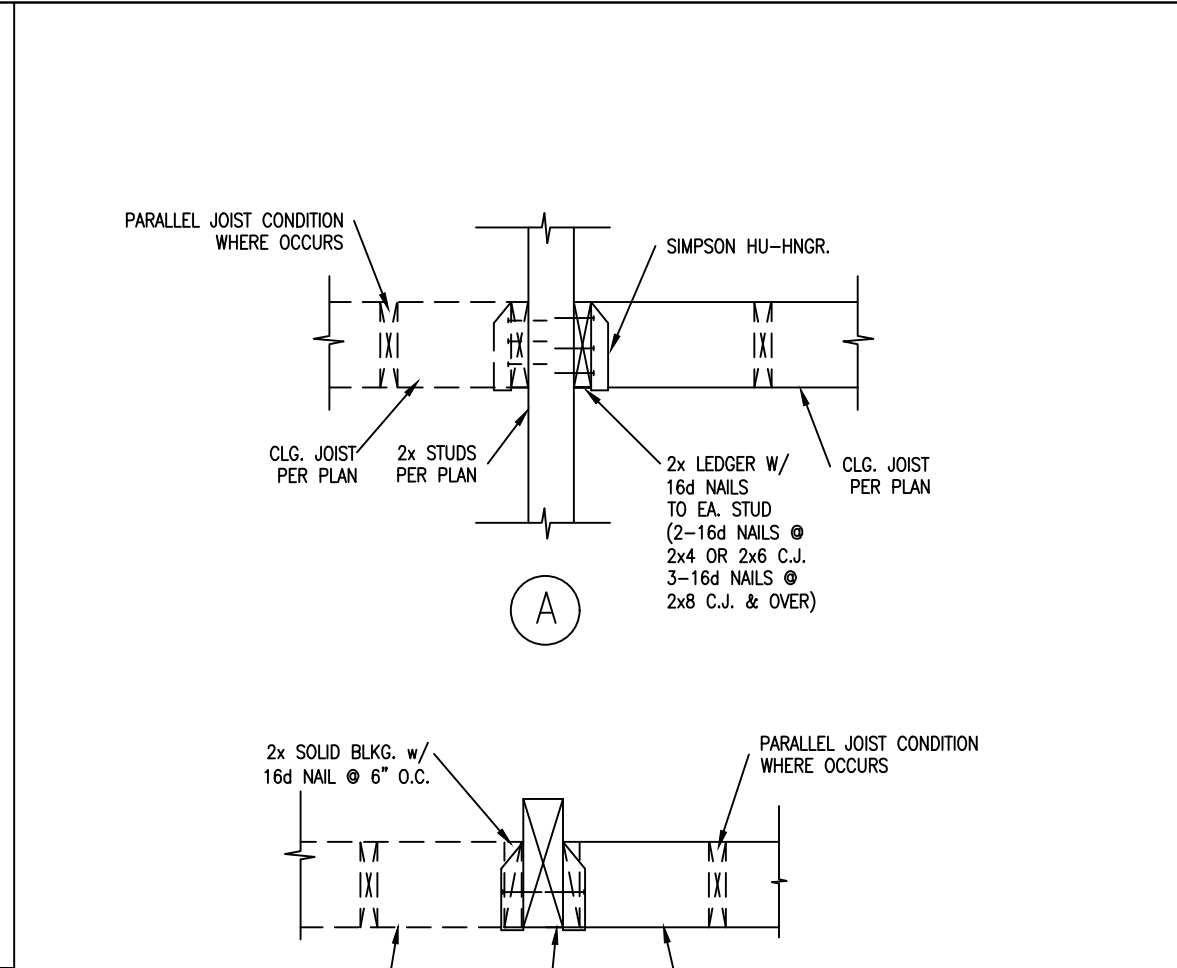
EXTERIOR AND INTERIOR BEARING/SHEAR WALL FRAMING 15



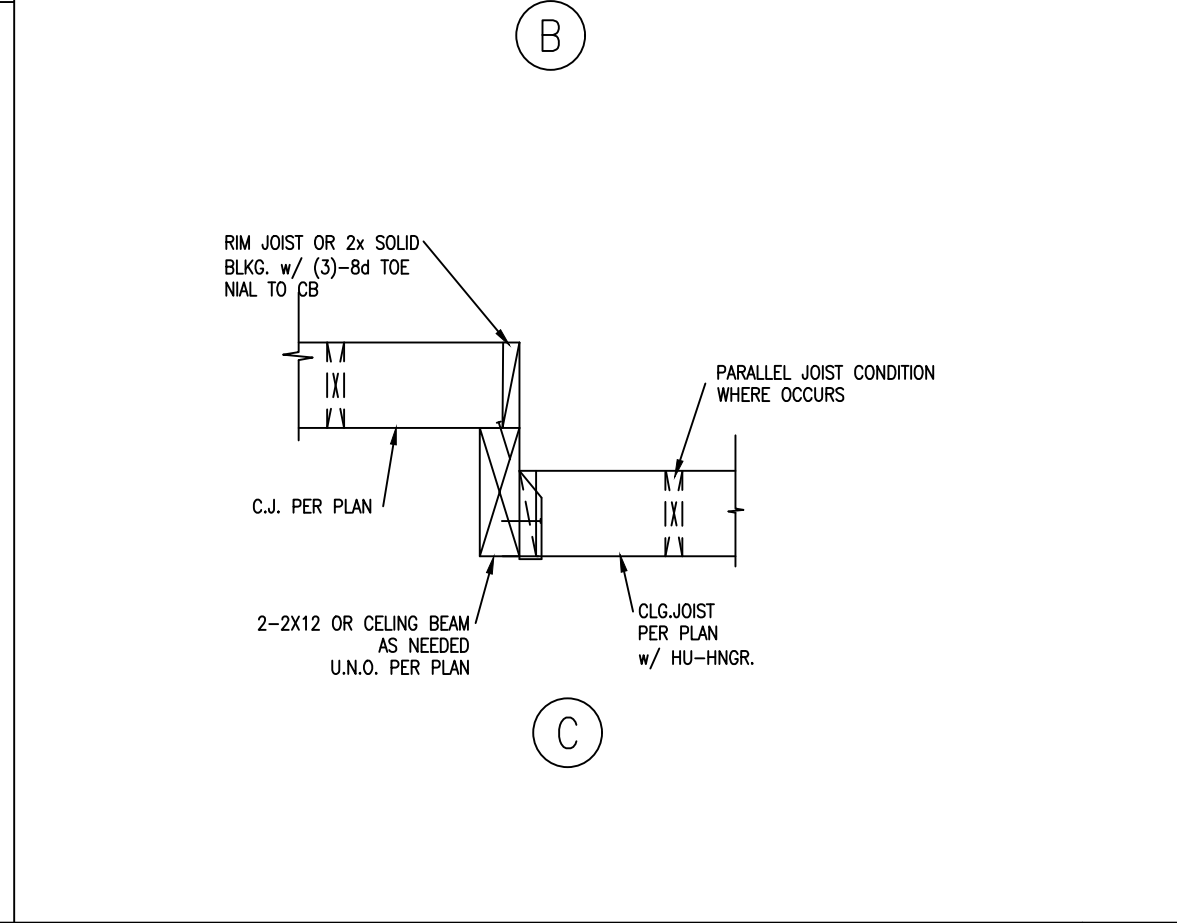
RAILING POST CONNECTION 16



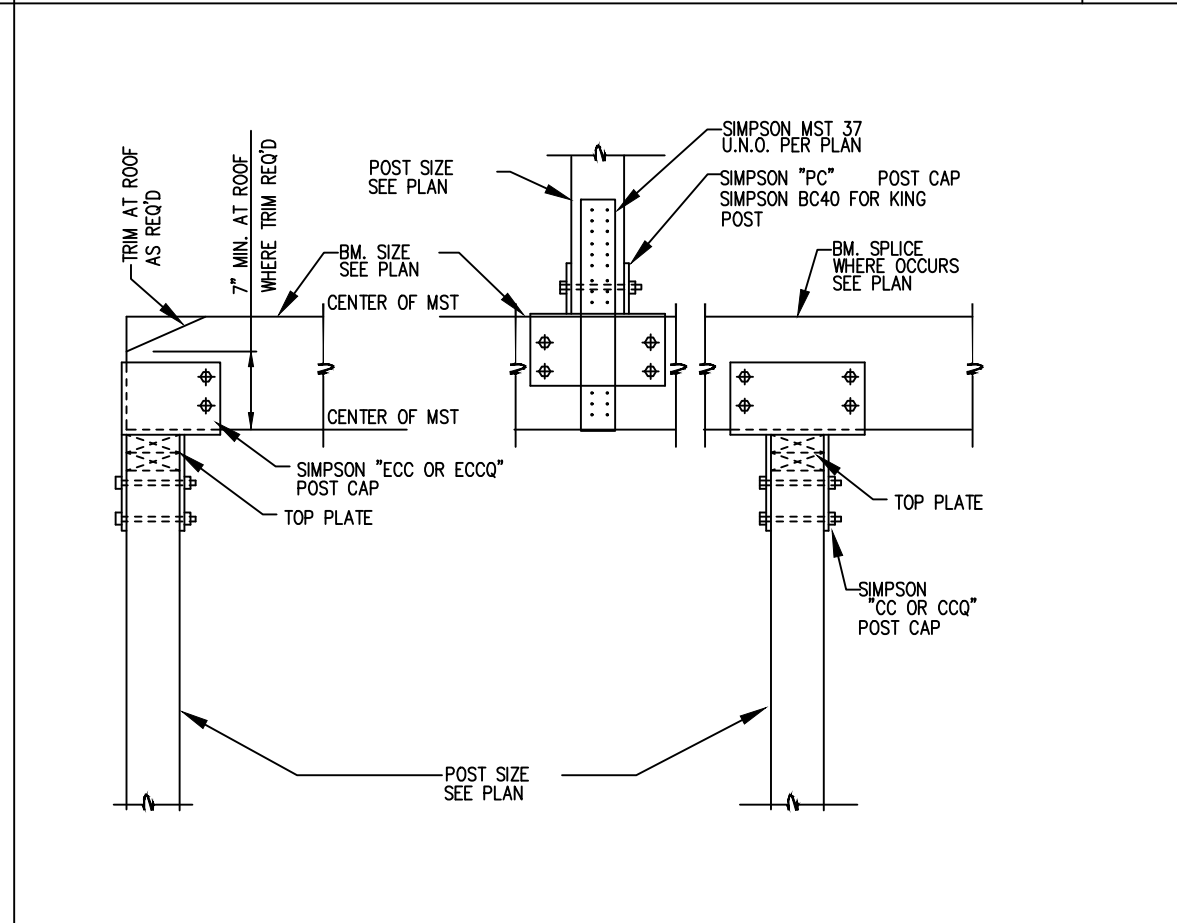
DRAG STRUT TYP. 17



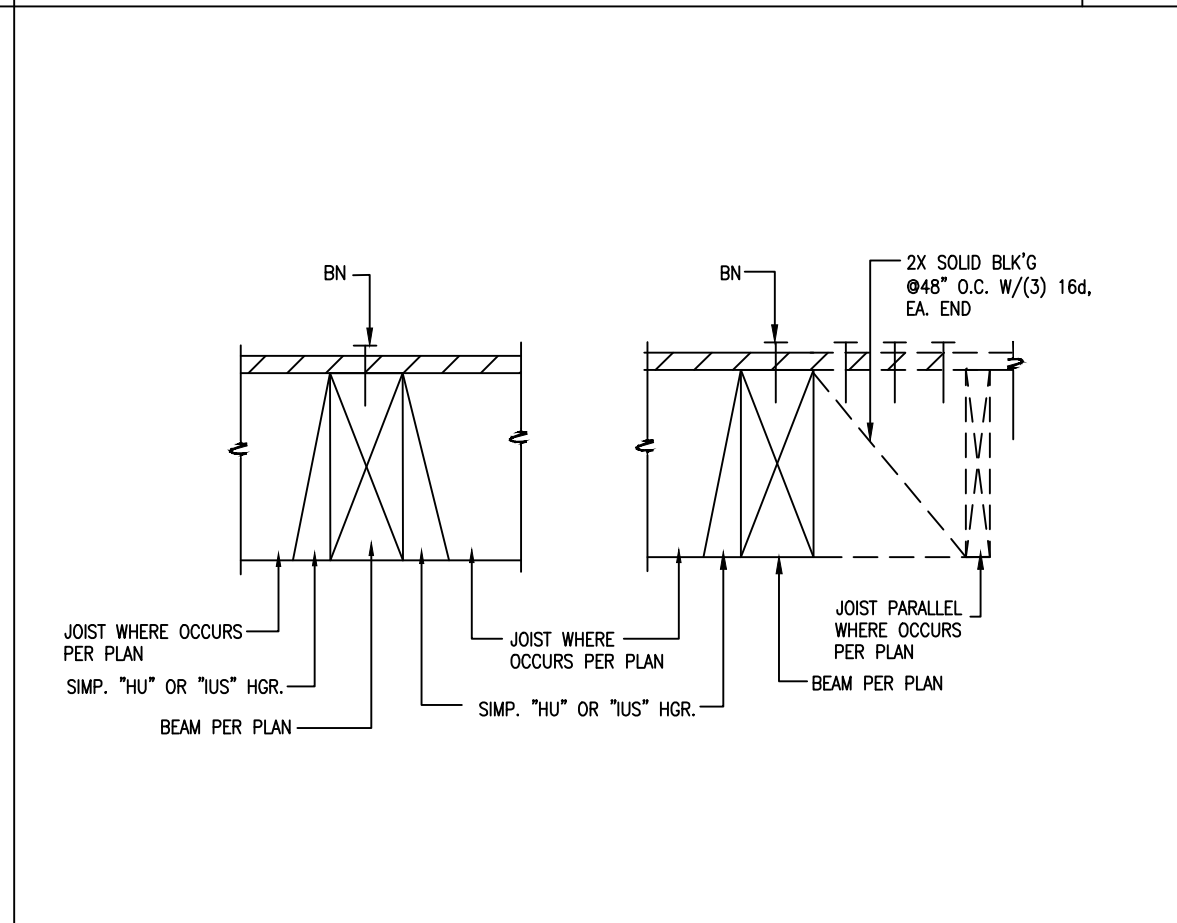
TYPICAL WOOD STAIR 5



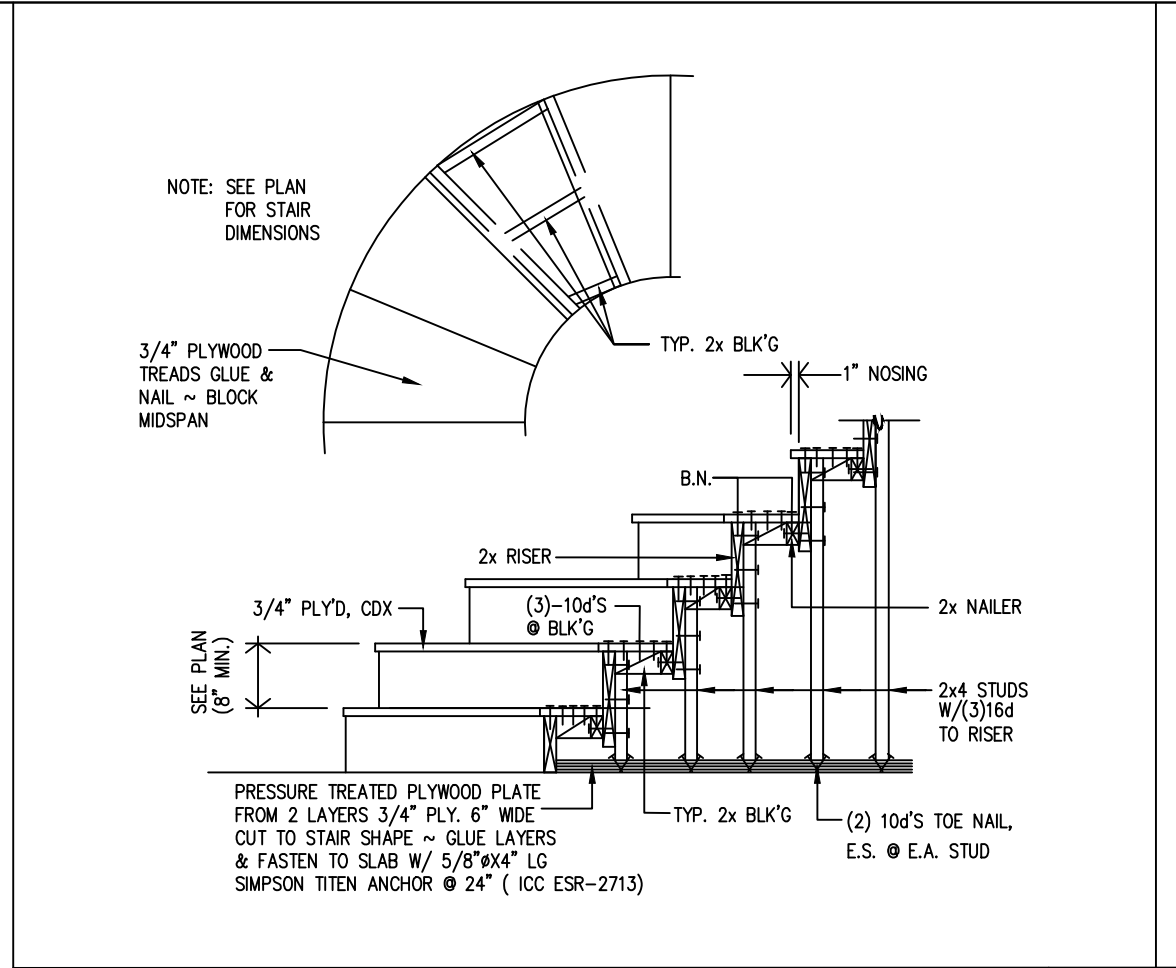
TYP. CEILING FRAMING DETAILS 10



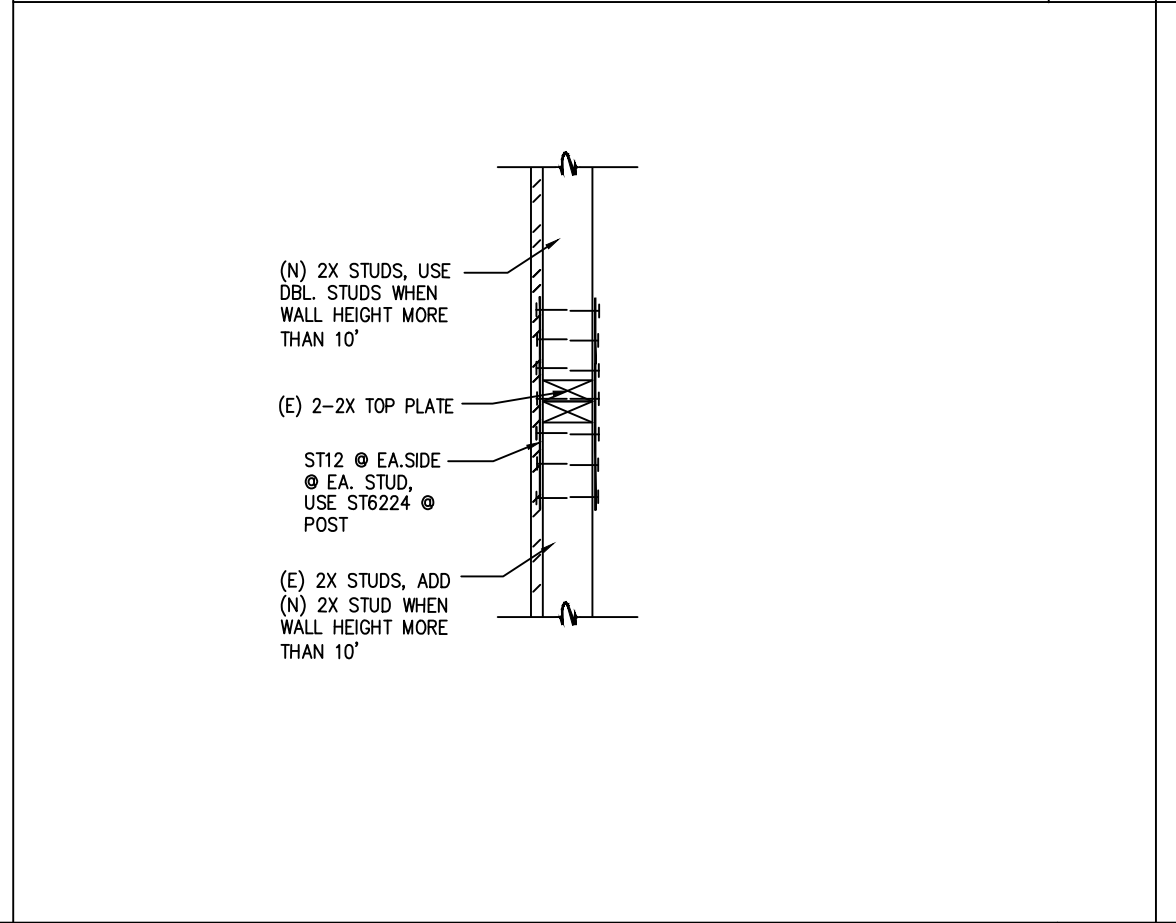
POST TO BEAM CONNECTION 11



FRAMING CONNECTION DETAIL 12



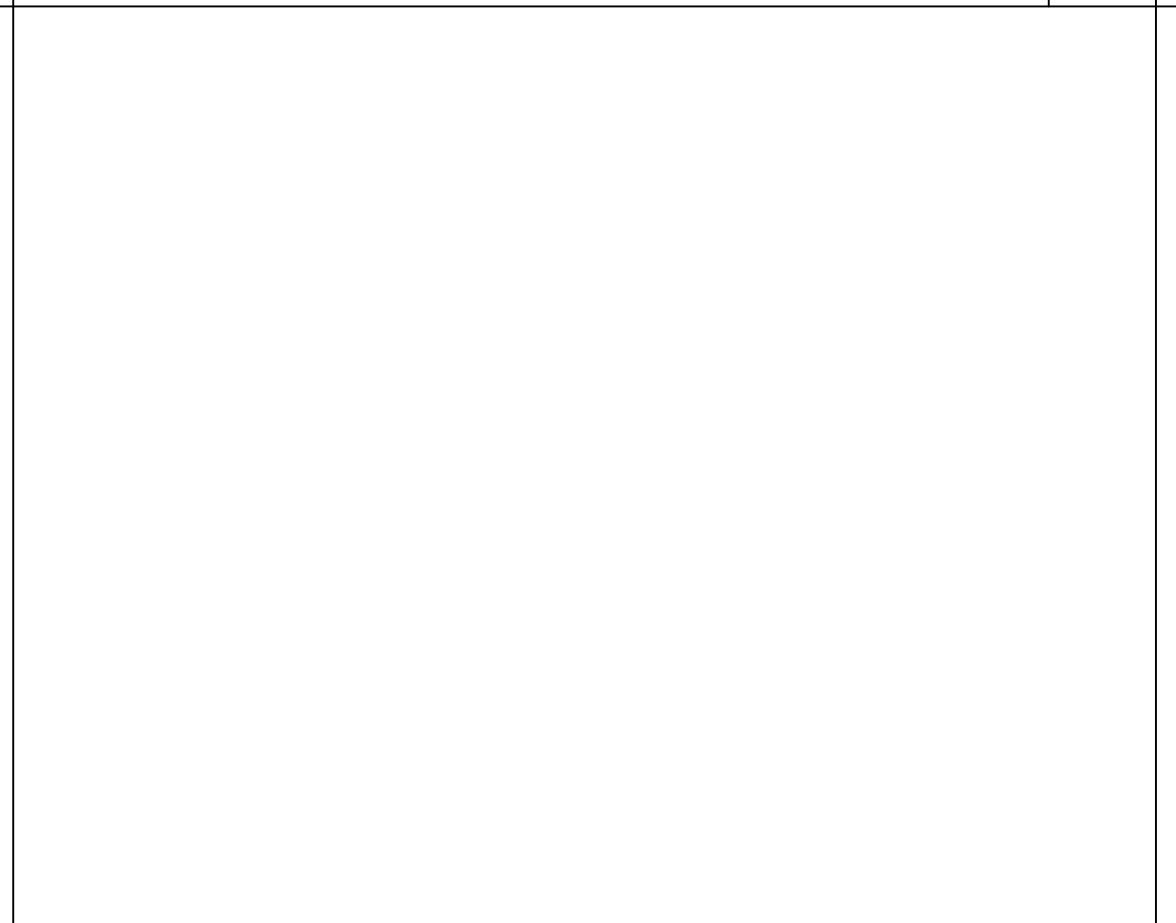
TYPICAL WOOD STAIR 5



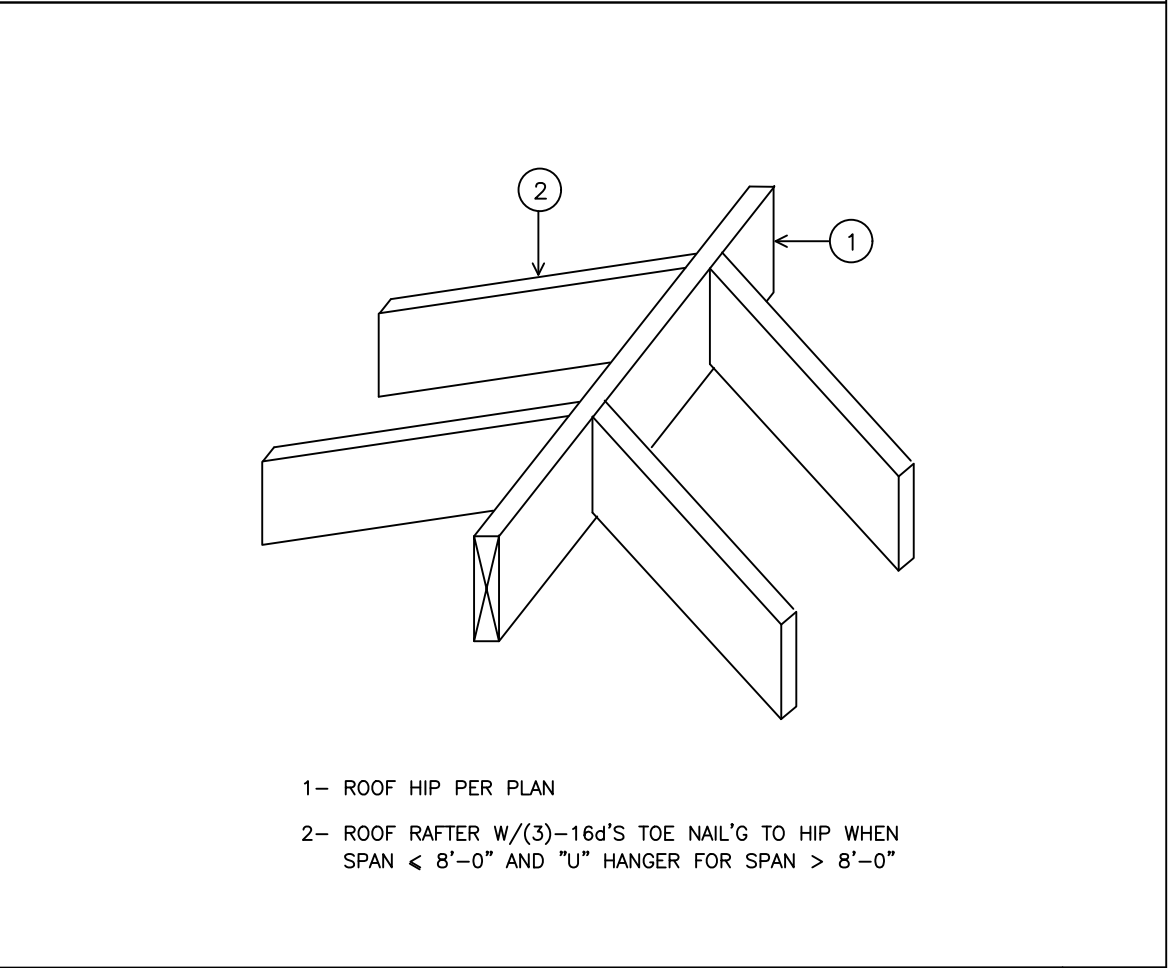
STUD CONNECTION DETAIL 6



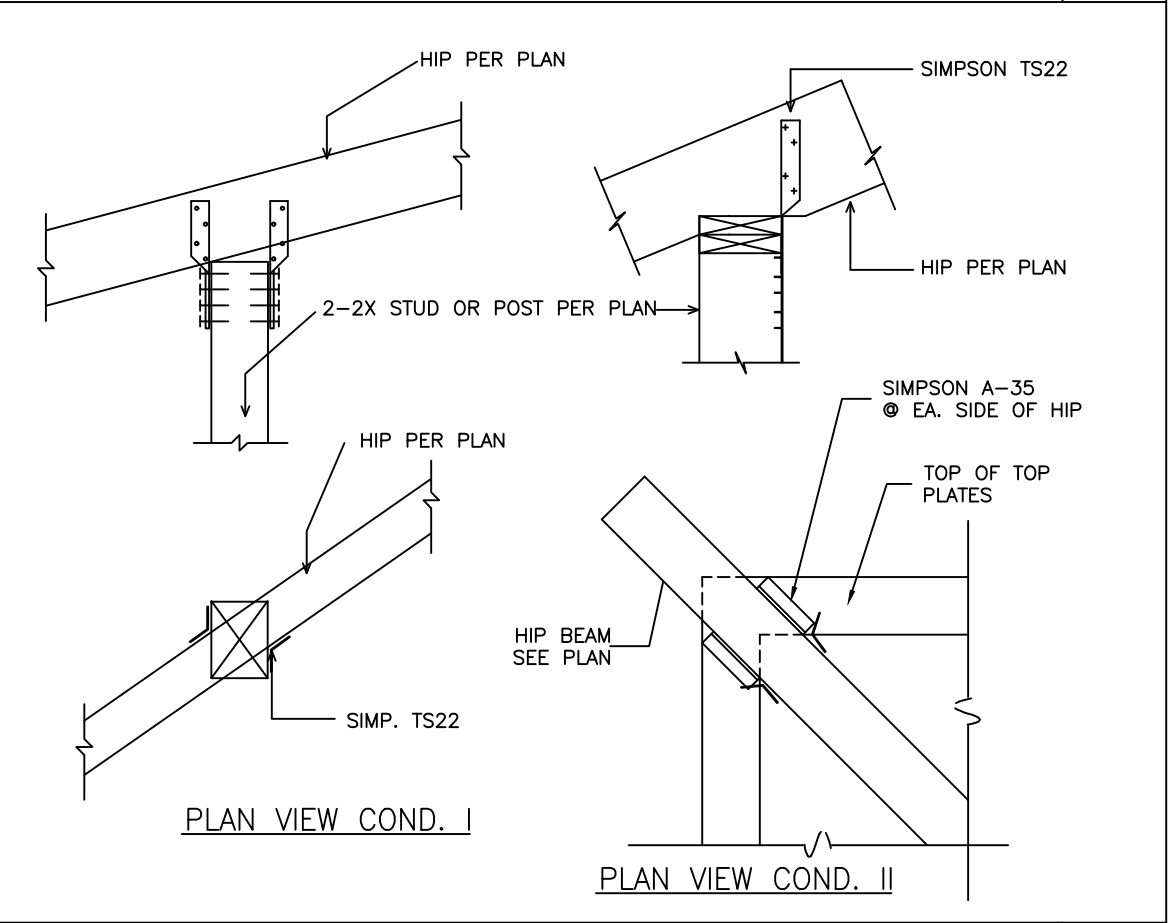
POST TO HEADER CONNECTION 3



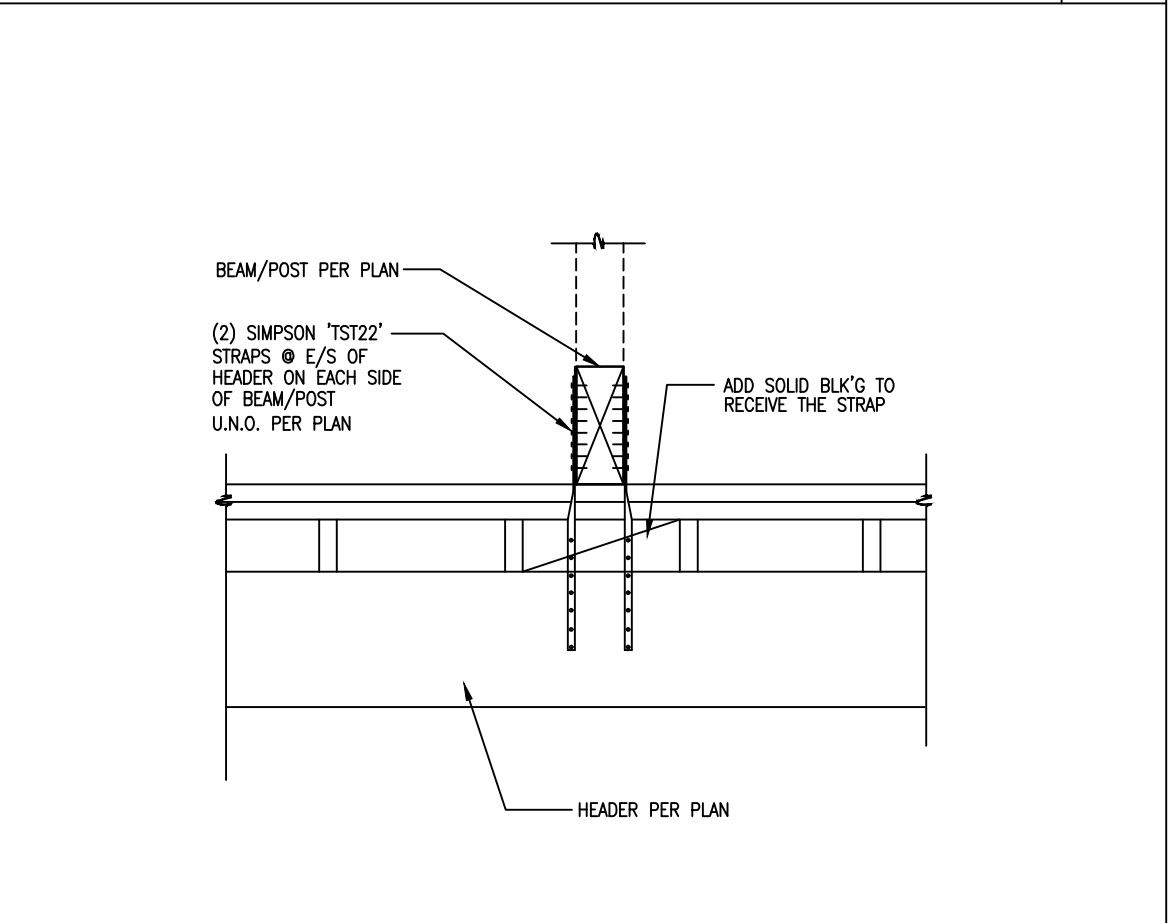
CONNECTION DETAIL 4



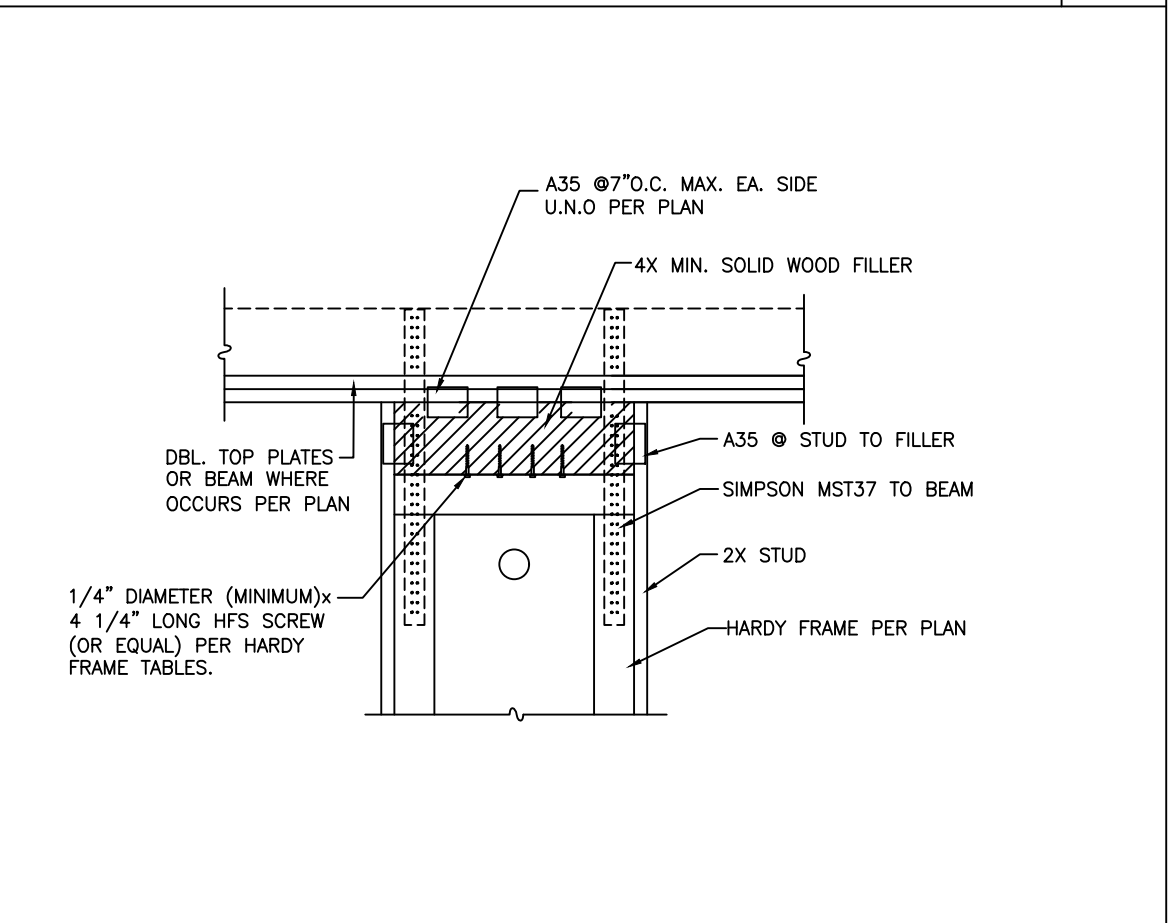
RAFTER TO HIP/VALLEY 1



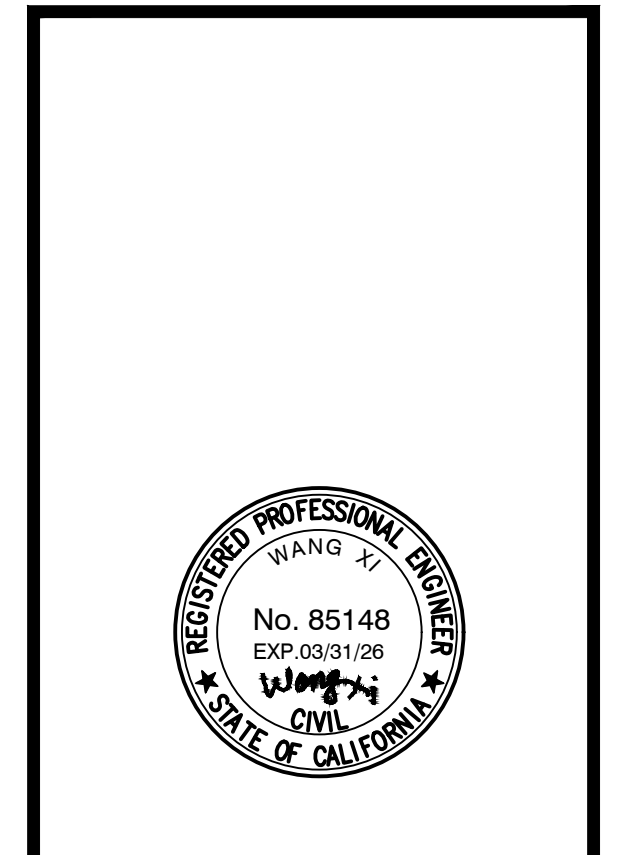
TYP. HIP/VALLEY TO POST 2



POST TO BEAM CONNECTION 11



FRAMING CONNECTION DETAIL 12



#	REVISION	DATE

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SHEET TITLE
STRUCTURAL DETAILS

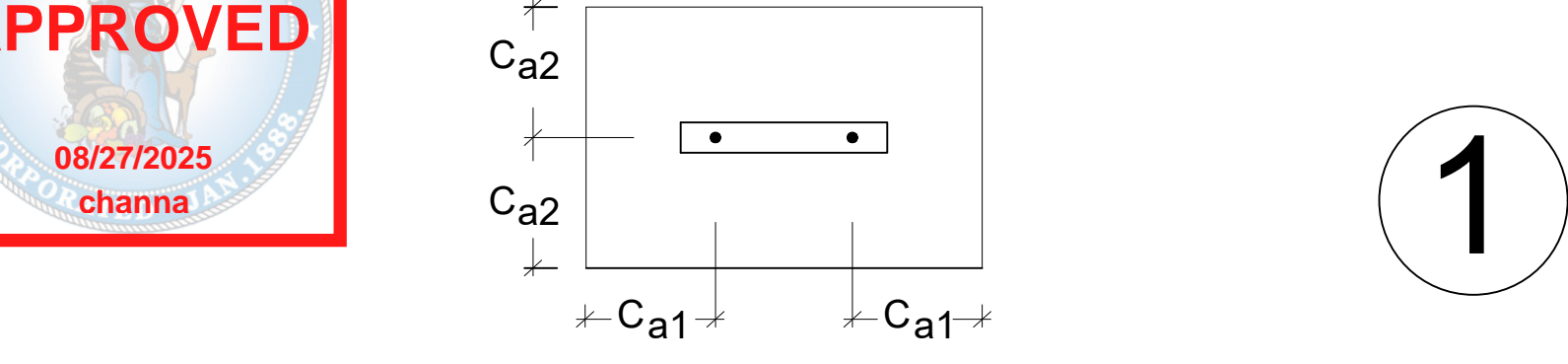
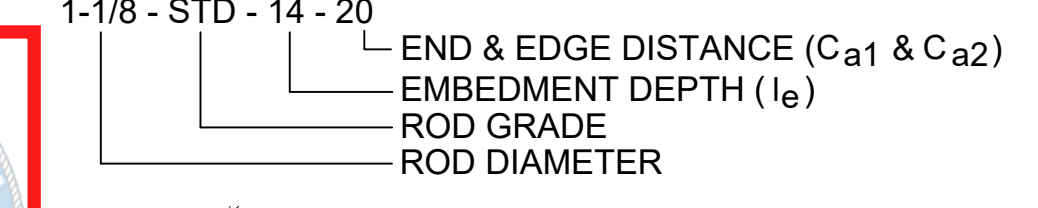
PROJECT NO. 2024-101
DATE 01/04/24
SCALE AS REFERENCED

SHEET NO.
SD-3

UNREINFORCED ANCHORAGE (UA)

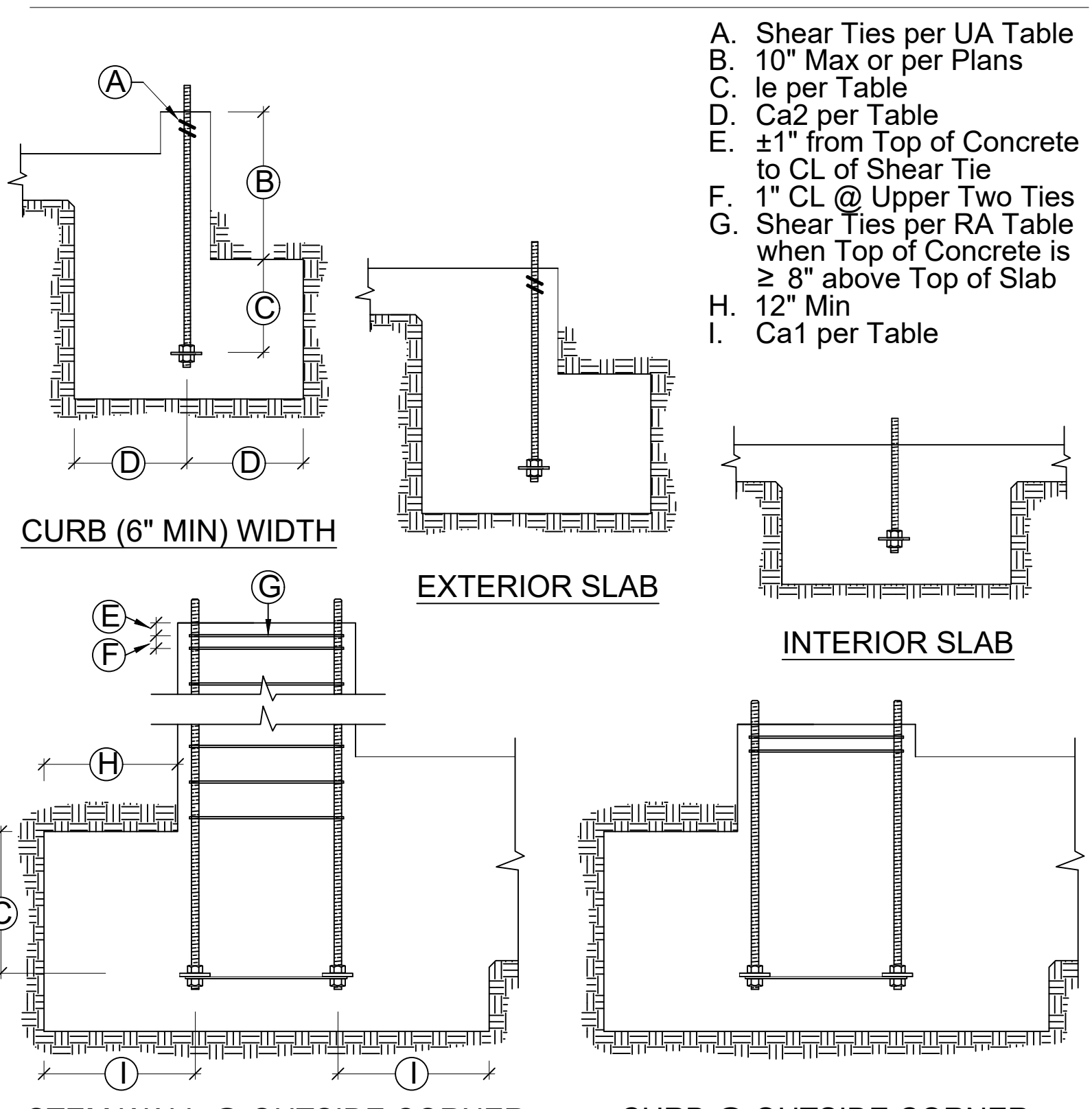
Model	Panel Height (in)	Anchorage ¹	Rod Dia (in)	Rod 2,3 Grade	le ⁴ (in)	Ca1 ⁵ (in)	Ca2 ⁶ (in)	Stirrups ⁹ (in)	Shear ^{7,8} Ties
HFX-9x	79.5" - 8'	1-1/8-STD-13-19	1-1/8	STD	13	19		8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	78" - 10'	1-1/8-HS-20-30	1-1/8	HS	20	30		9 - # 4	# 3 (min) @ 4" OC
HFX-15x, 18x	78" - 13'	1-1/8-STD-14-20	1-1/8	STD	14	20		10 - # 4	# 3 (min) @ 4" OC
HFX-15x, 18x Balloon	14' - 20'	1-1/8-HS-20-30	1-1/8	HS	20	30		11 - # 4	# 4 (min) @ 4" OC
HFX-21x, 24x	78" - 13'	1-1/8-STD-14-20	1-1/8	STD	14	20		12 - # 4	# 4 (min) @ 4" OC
HFX-21x, 24x Balloon	14' - 20'	1-1/8-HS-20-30	1-1/8	HS	20	30			

UNREINFORCED ANCHORAGE NOMENCLATURE



SHEAR TIES NOT REQUIRED WHEN

Model	Length	End Distance	Edge Distance
HFX-9x	7-1/2"	2-3/8"	2-3/8"
HFX-12x	10-1/2"	6-1/4"	3-1/2"
HFX-15x	12"	7-3/8"	4-1/4"
HFX-18x	15"	8-3/8"	5"
HFX-21x	18"	9-3/8"	5-1/2"
HFX-24x	21"	10-3/8"	6"

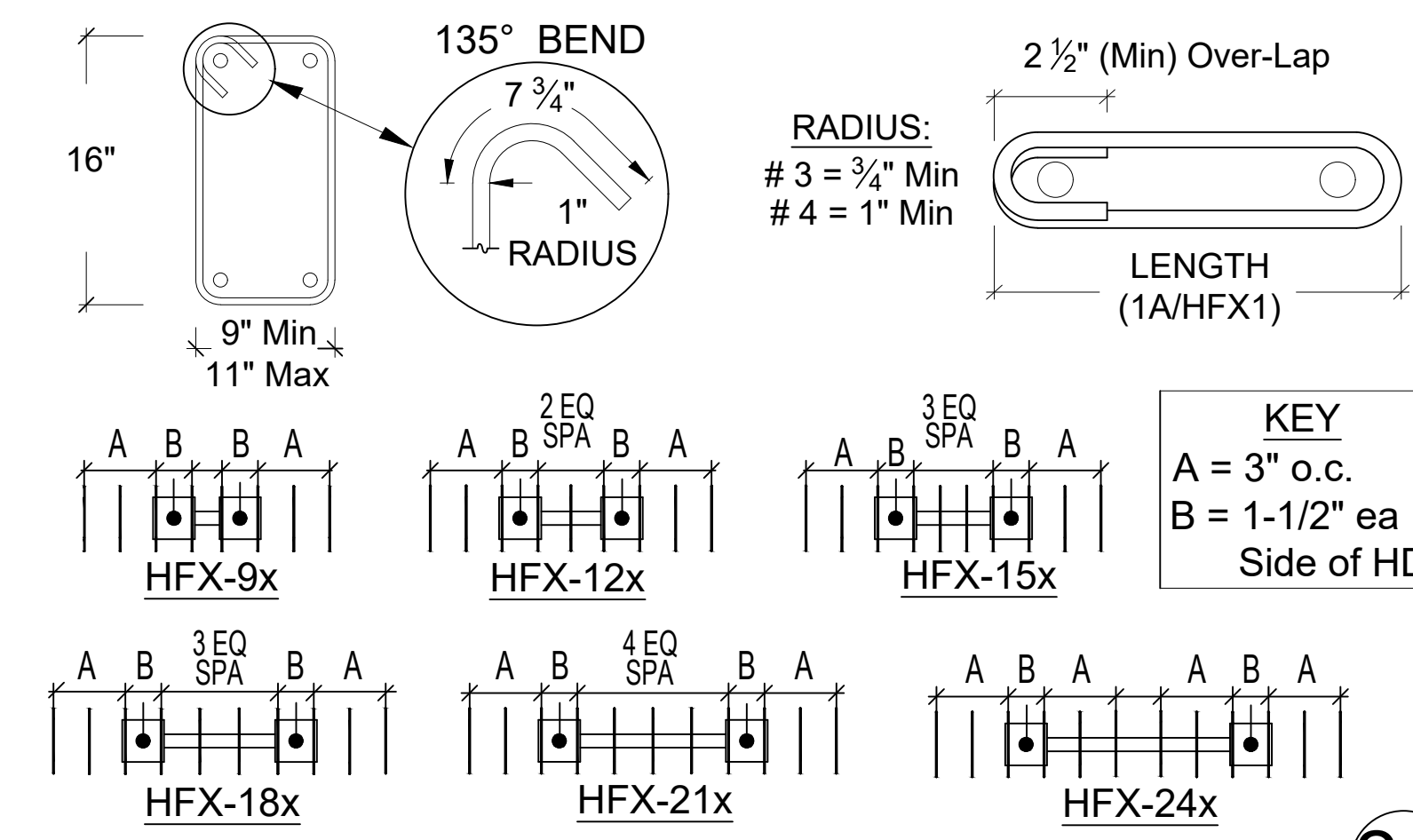
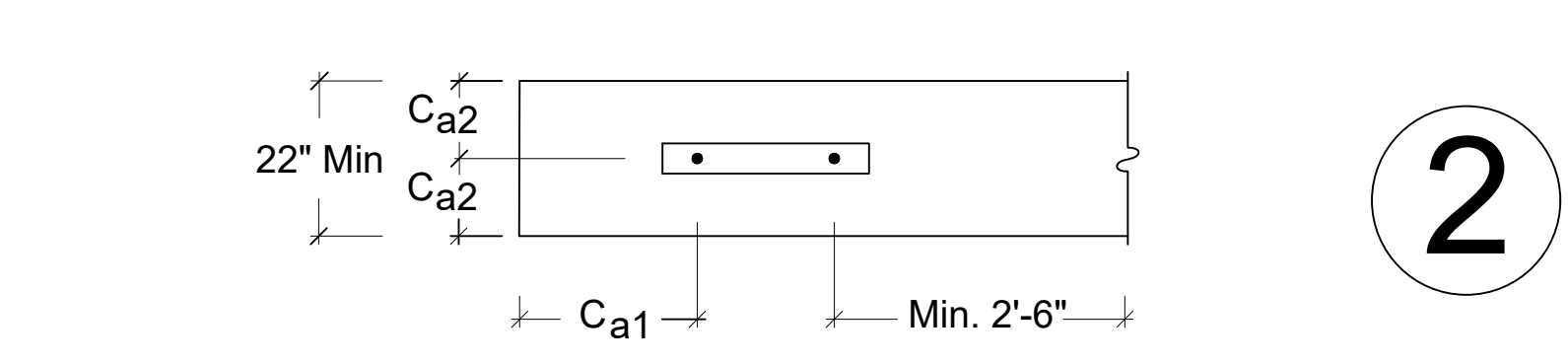
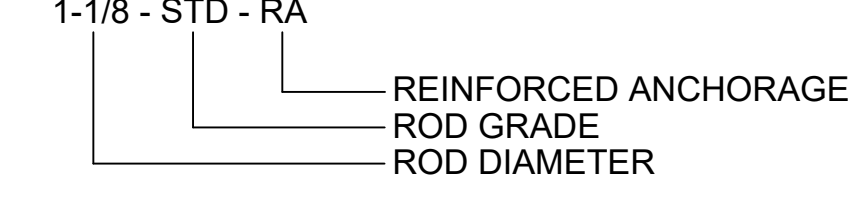


UA SECTIONS & ELEVATIONS

REINFORCED ANCHORAGE (RA)

Model	Panel Width (in)	Anchorage ¹	Rod Dia (in)	Rod 2,3 Grade	le ⁴ (in)	Ca1 ⁵ (in)	Ca2 ⁶ (in)	Stirrups ⁹ (in)	Shear ⁷ Ties
HFX-9x	9	1-1/8-STD-RA	1-1/8	STD	15	19-3/4		8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-STD-RA	1-1/8	STD	15	19-3/4		9 - # 4	# 3 (min) @ 4" OC
HFX-12x	12	1-1/8-HS-RA	1-1/8	HS	15	19-3/4		10 - # 4	# 3 (min) @ 4" OC
HFX-15x	15	1-1/8-STD-RA	1-1/8	STD	15	19-3/4		11 - # 4	# 3 (min) @ 4" OC
HFX-15x	15	1-1/8-HS-RA	1-1/8	HS	15	19-3/4		12 - # 4	# 3 (min) @ 4" OC
HFX-18x	18	1-1/8-STD-RA	1-1/8	STD	15	19-3/4		13 - # 4	# 3 (min) @ 4" OC
HFX-18x	18	1-1/8-HS-RA	1-1/8	HS	15	19-3/4		14 - # 4	# 3 (min) @ 4" OC
HFX-21x	21	1-1/8-STD-RA	1-1/8	STD	15	19-3/4		15 - # 4	# 3 (min) @ 4" OC
HFX-21x	21	1-1/8-HS-RA	1-1/8	HS	15	19-3/4		16 - # 4	# 3 (min) @ 4" OC
HFX-24x	24	1-1/8-STD-RA	1-1/8	STD	15	19-3/4		17 - # 4	# 3 (min) @ 4" OC
HFX-24x	24	1-1/8-HS-RA	1-1/8	HS	15	19-3/4		18 - # 4	# 3 (min) @ 4" OC

REINFORCED ANCHORAGE NOMENCLATURE

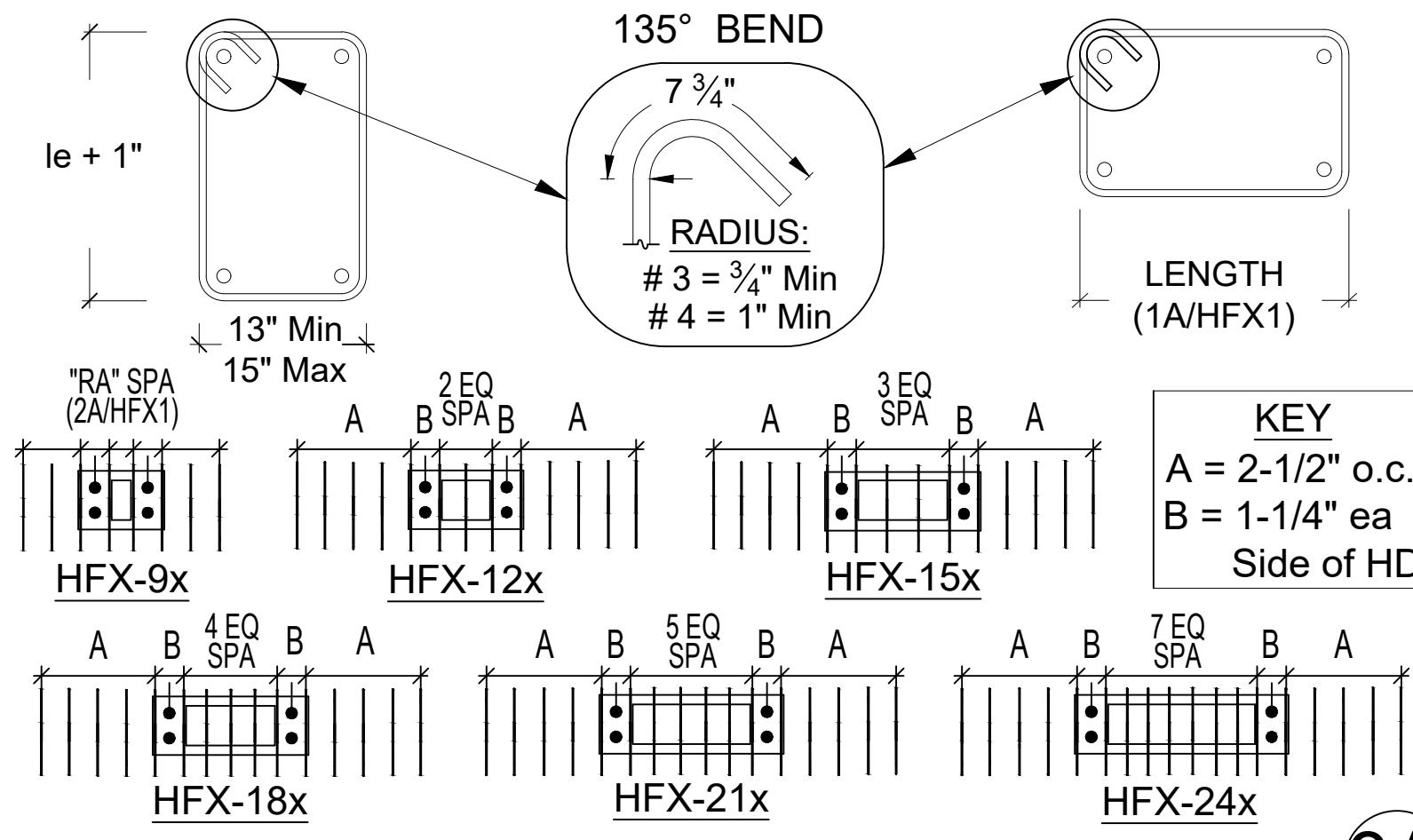
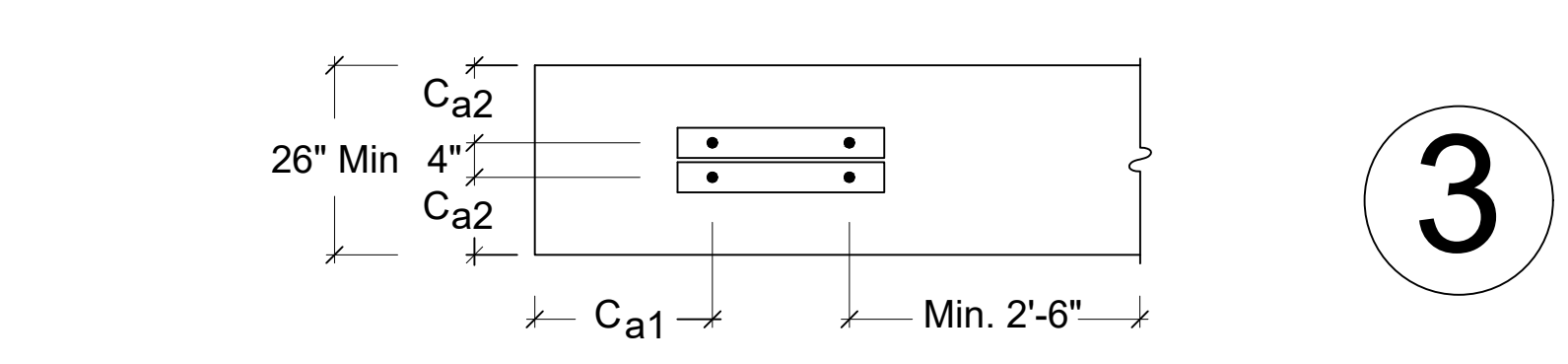
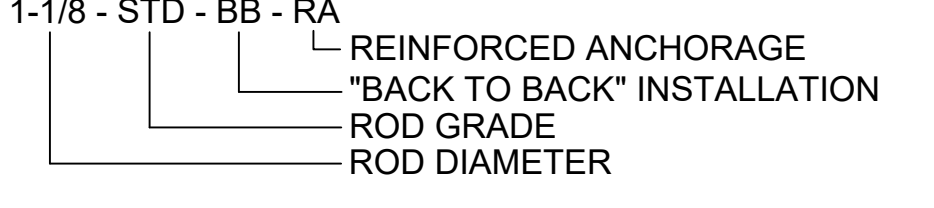


RA SECTIONS & ELEVATIONS

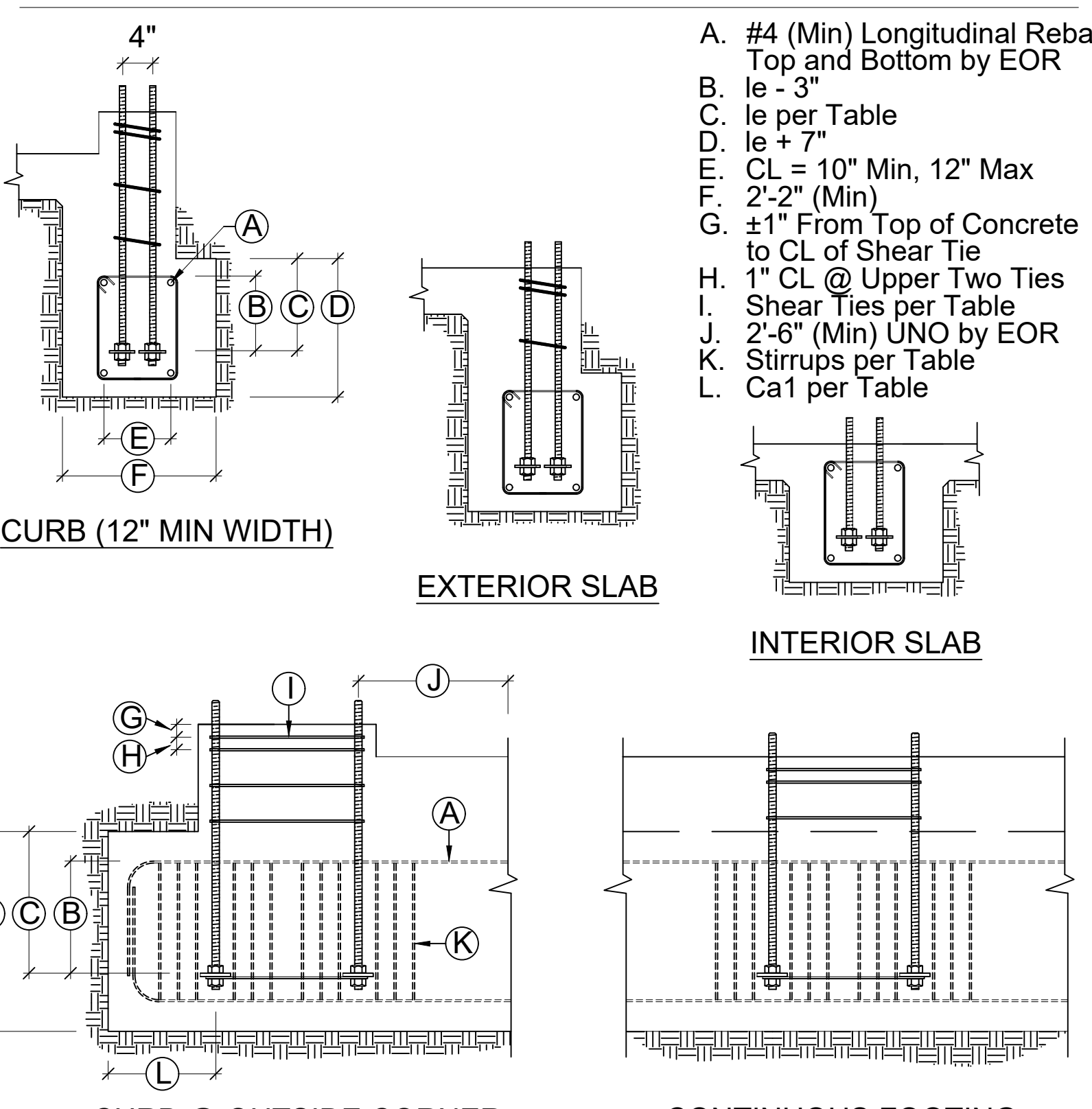
BACK TO BACK REINFORCED ANCHORAGE (BB-RA)

Model	Panel Width (in)	Anchorage ¹	Rod Dia (in)	Rod 2,3 Grade	le ⁴ (in)	Ca1 ⁵ (in)	Ca2 ⁶ (in)	Stirrups ⁹ (in)	Shear ⁷ Ties
HFX-9x	9	1-1/8-STD-BB-RA	1-1/8	STD	15	19-3/4		8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-STD-BB-RA	1-1/8	STD	15	19-3/4		9 - # 4	# 3 (min) @ 4" OC
HFX-12x	12	1-1/8-HS-BB-RA	1-1/8	HS	15	19-3/4		10 - # 4	# 3 (min) @ 4" OC
HFX-15x	15	1-1/8-STD-BB-RA	1-1/8	STD	15	19-3/4		11 - # 4	# 3 (min) @ 4" OC
HFX-15x	15	1-1/8-HS-BB-RA	1-1/8	HS	15	19-3/4		12 - # 4	# 3 (min) @ 4" OC
HFX-18x	18	1-1/8-STD-BB-RA	1-1/8	STD	15	19-3/4		13 - # 4	# 3 (min) @ 4" OC
HFX-18x	18	1-1/8-HS-BB-RA	1-1/8	HS	15	19-3/4		14 - # 4	# 3 (min) @ 4" OC
HFX-21x	21	1-1/8-STD-BB-RA	1-1/8	STD	15	19-3/4		15 - # 4	# 3 (min) @ 4" OC
HFX-21x	21	1-1/8-HS-BB-RA	1-1/8	HS	15	19-3/4		16 - # 4	# 3 (min) @ 4" OC
HFX-24x	24	1-1/8-STD-BB-RA	1-1/8	STD	15	19-3/4		17 - # 4	# 3 (min) @ 4" OC
HFX-24x	24	1-1/8-HS-BB-RA	1-1/8	HS	15	19-3/4		18 - # 4	# 3 (min) @ 4" OC

BACK TO BACK REINFORCED ANCHORAGE NOMENCLATURE



BB-RA SECTIONS & ELEVATIONS



BB-RA SECTIONS & ELEVATIONS

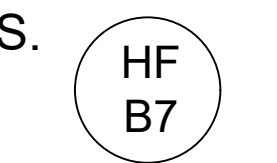
- DESIGNS ARE TO RESIST LOADING PER ACI 318-14, SEC 17.2.3.4.3.
- STD INDICATES ANCHORS COMPLYING WITH ASTM F1554 GRADE 36 WITH A HARDY FRAME BOLT BRACE (HFXBB) INSTALLED WITH STD OR GRADE 8 DOUBLE NUTS ON THE EMBED END.
- HS INDICATES ANCHORS COMPLYING WITH ASTM A193 GRADE B7 WITH A 1/2"x3"x3"(MIN) HFPW PLATE WASHER INSTALLED WITH DOUBLE NUTS ON THE EMBED END (HFXBB NOT REQUIRED).
- LE = LENGTH OF EMBEDMENT FROM THE TOP OF FOOTING OR GRADE BEAM TO THE TOP OF THE HFXBB BOLT BRACE (TOP OF THE EMBEDDED HFPW PLATE WASHER @ HS ANCHORS)
- CA1 = DISTANCE FROM HD CENTERLINE TO THE END OF THE FOOTING OR GRADE BEAM.
- CA2 = DISTANCE FROM HD CENTERLINE TO BOTH THE FRONT AND THE BACK FACE OF THE FOOTING OR GRADE BEAM.
- SHEAR TIES ARE GRADE 60 (MIN) REBAR AND REQUIRED FOR NEAR EDGE DISTANCE CONDITIONS PER ACI-318-14, F'C = 2,500 PSI. CURBS AND STEM WALLS MUST BE 6 INCH (MIN) WIDTH FOR UA AND RA, 12 INCH (MIN) WIDTH FOR BB-RA.
- FOR UA APPLICATIONS, ADDITIONAL TIES MAY BE REQUIRED AT STEM WALLS. SHEAR TIES ARE NOT REQUIRED FOR INSTALLATION AWAY FROM EDGE (SEE DETAIL 1A), INSTALLATION ON WOOD FRAMING, OR FOR IRC BRACED WALL PANEL APPLICATIONS.
- STIRRUPS ARE GRADE 60 (MIN) REBAR. SEE TABLE FOR SIZE AND SPACING. SEE "STIRRUP LAYOUT" DIAGRAMS AND "KEY" FOR LAYOUT PATTERNS.
- CONCRETE EDGE DISTANCES MUST COMPLY WITH ACI 318-14, SECTION 17.7.2. COATED REINFORCEMENT MAY BE SPECIFIED BY THE EOR TO LIMIT EXPOSURE AND THEREFORE REDUCE MINIMUM CONCRETE COVER. COATED REINFORCEMENT MUST COMPLY WITH ACI 318-14, SECTION 20.6.2.

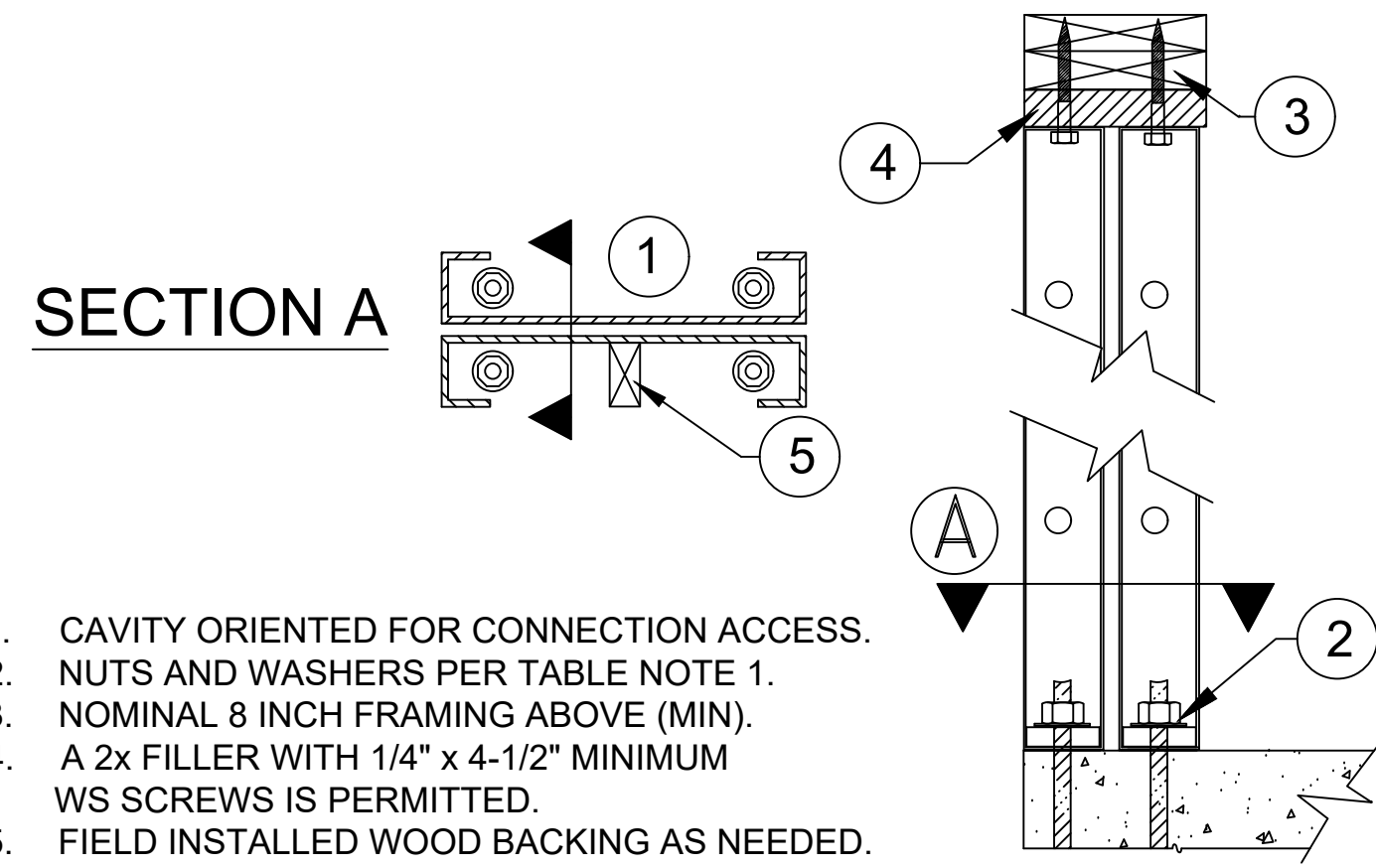
Diagram 1A: HFX ANCHOR CENTERLINES

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

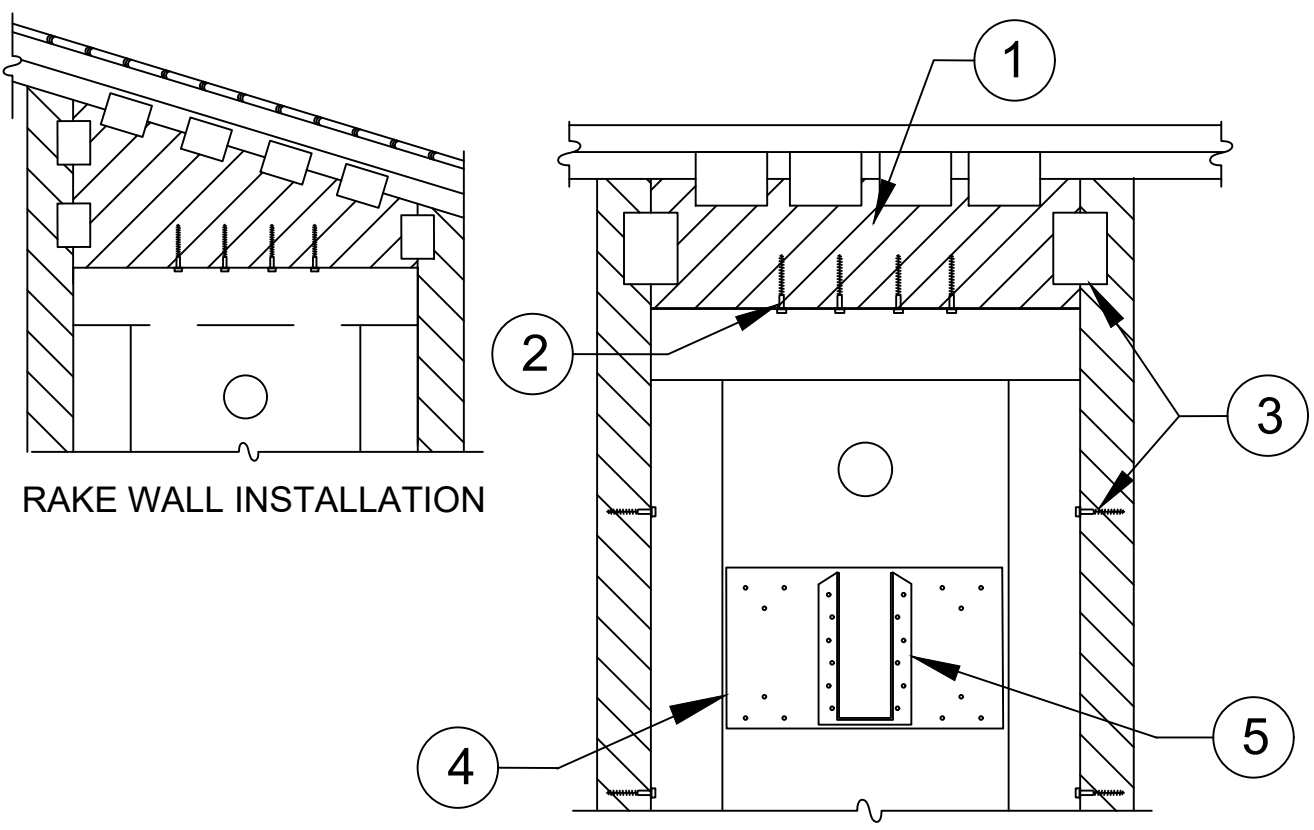
Diagram 3B: BB-RA sections & elevations

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



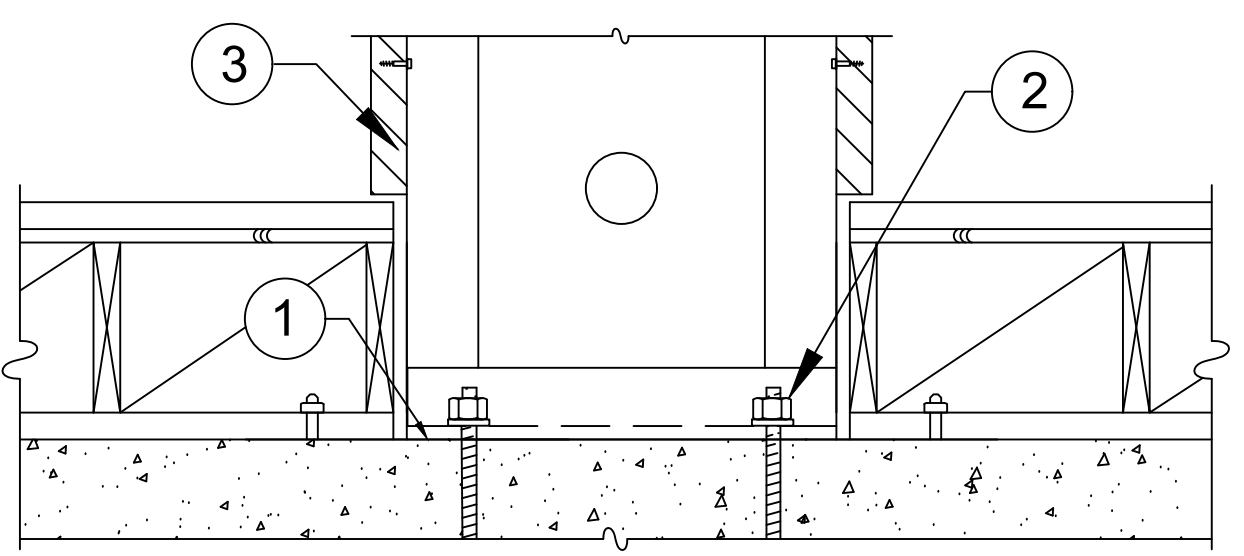


BACK TO BACK INSTALLATION 3



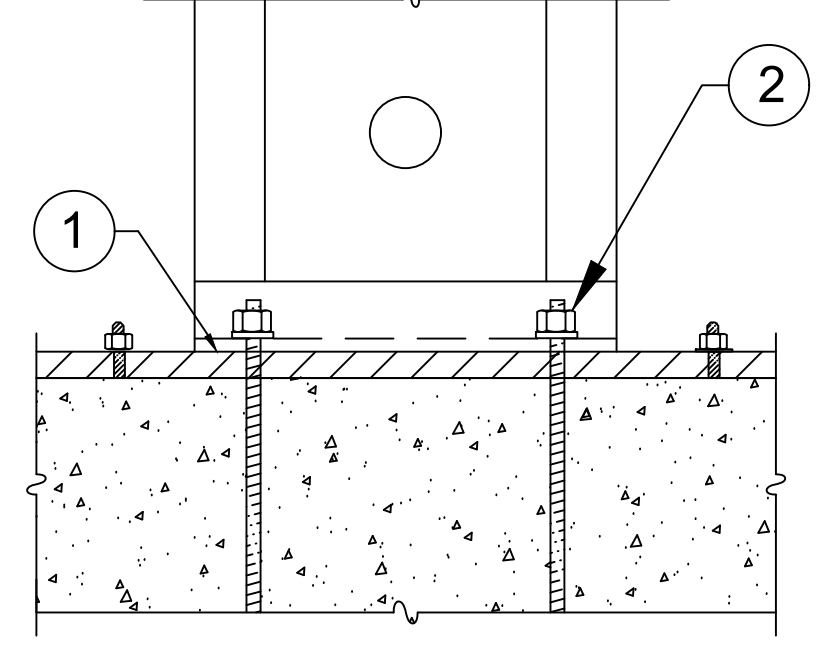
- WOOD FILLER WITH USP MP4F CONNECTORS BOTH SIDES, QUANTITY BY BUILDING DESIGN PROFESSIONAL.
- 1/4" x 3" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
- ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS INSTALLED THROUGH PRE-PUNCHED HOLES IN PANEL EDGES REQUIRED WHEN INSTALLING A FILLER GREATER THAN 1-1/2" ABOVE TO BRACE OUT-OF-PLANE HINGE OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL.
- PRE-DRILL 3/16" DIA. HOLES, EVENLY SPACED IN FACE OF PANEL NO LESS THAN 2-1/4" OC AND INSTALL 1/4" DIA. WOOD SCREWS INTO 2x (MIN.) WOOD "LEDGER" IN PANEL CAVITY.
- CONNECTOR AND ATTACHMENT BY BUILDING DESIGN PROFESSIONAL.

FILLER GREATER THAN 1-1/2 IN. 6



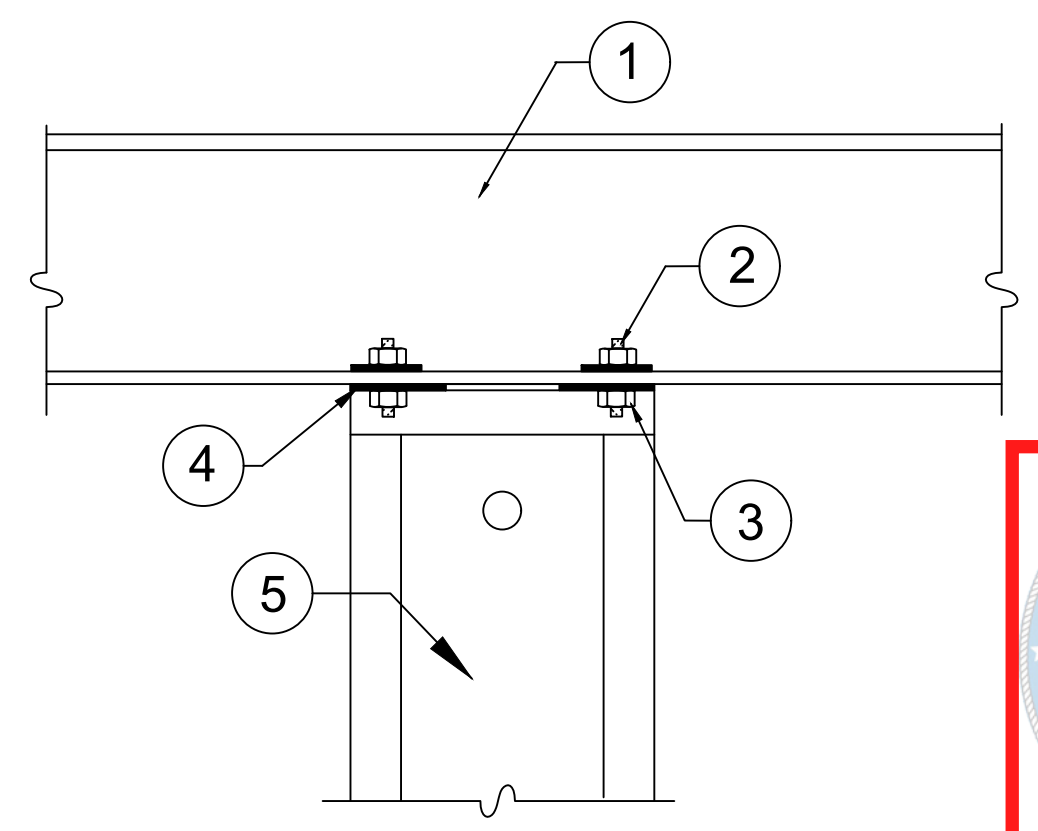
- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- NUTS AND WASHERS PER TABLE NOTE 1.
- ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS INSTALLED AT THE PANEL EDGES WHEN INSTALLING A FILLER GREATER THAN 1-1/2" ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.

RAISED FLOOR HEAD-OUT 8



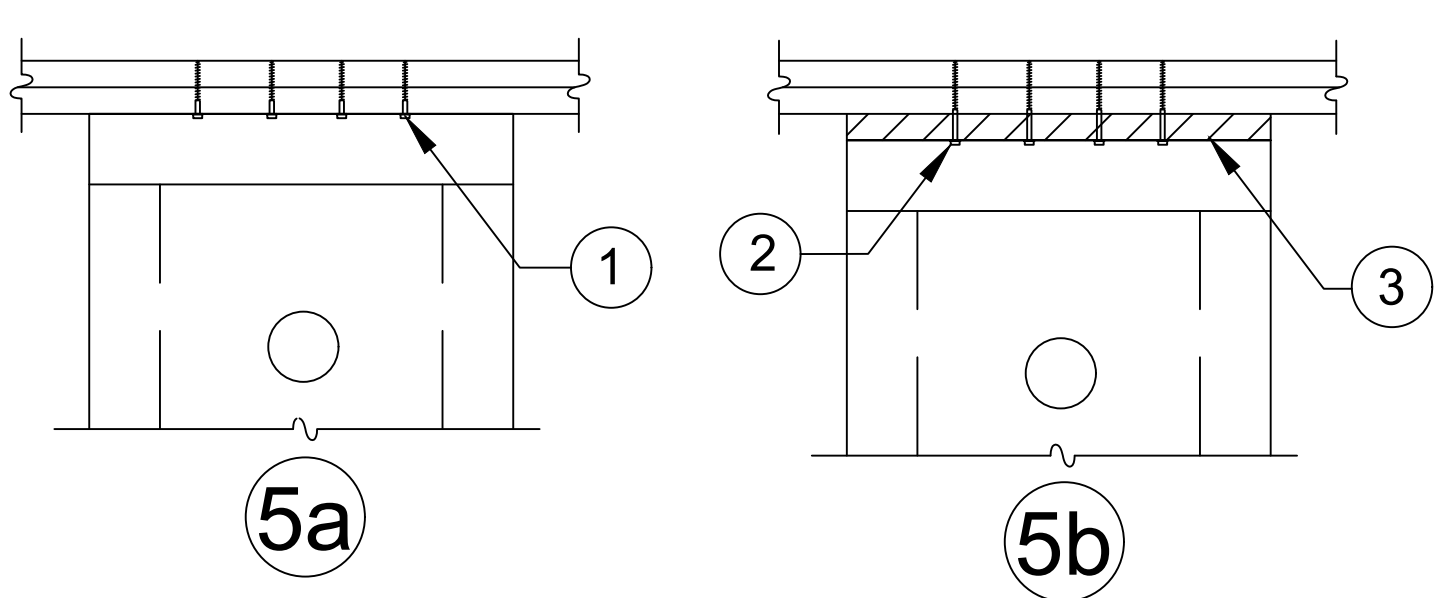
- ALLOWABLE VALUES ON 2x PLATE ARE LESS THAN INSTALLATION ON CONCRETE
- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND TREATED PLATE.
 - NUTS AND WASHERS PER TABLE NOTE 1.

INSTALLATION ON 2x PLATE 11



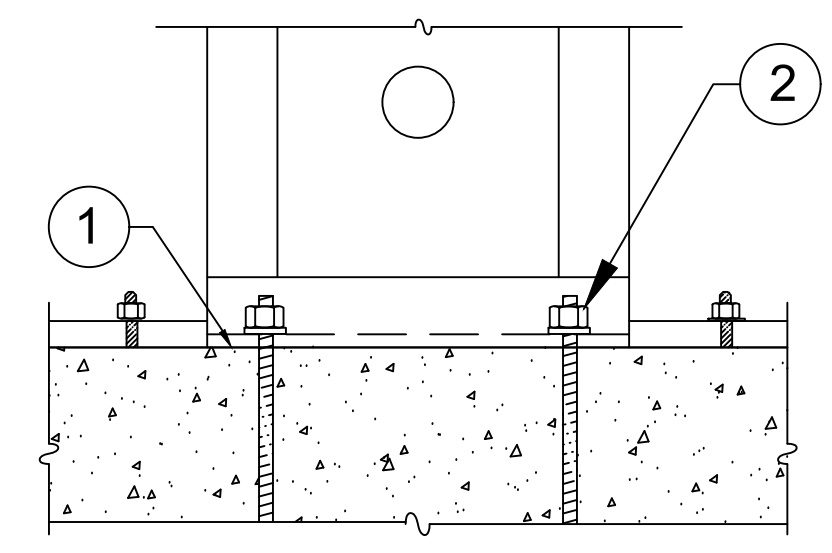
- STEEL BEAM PER PLANS
- ALL THREAD RODS THRU-BOLTED TO STEEL BEAM BY BUILDING DESIGN PROFESSIONAL.
- NUTS AND WASHERS PER TABLE NOTE 1.
- HARDY FRAME[®] STACKING WASHERS (HFSW) REQUIRED TO BE WELDED INSIDE TOP CHANNEL OF LOWER PANEL.
- HARDY FRAME[®] "STK" PANEL WITH STACKING WASHERS WELDED INSIDE THE TOP CHANNEL BY MANUFACTURER.

STEEL BEAM ABOVE THRU-BOLT 2



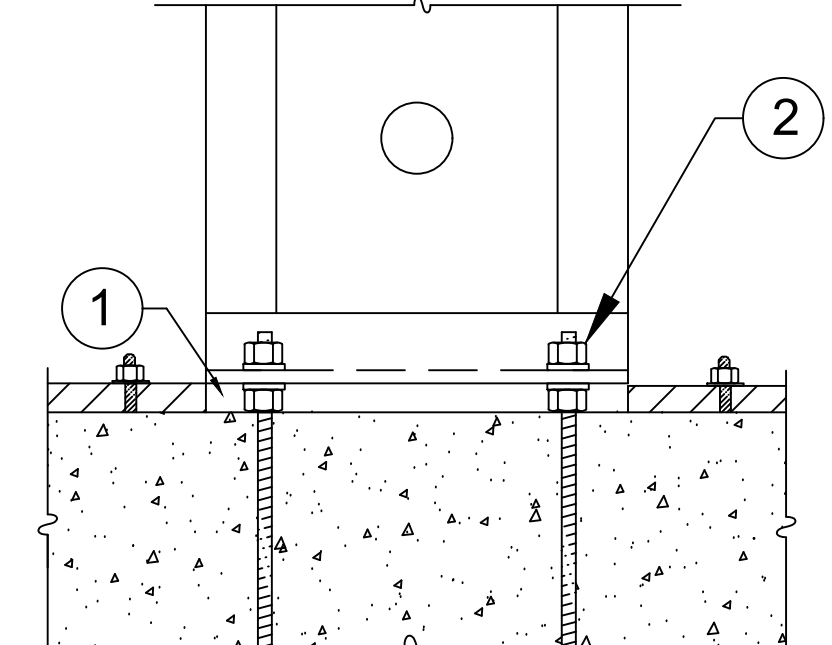
- 1/4" x 3" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
- 1/4" x 4-1/2" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
- 2x WOOD FILLER.

TOP PLATE CONNECTIONS 5



- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- NUTS AND WASHERS PER TABLE NOTE 1.

INSTALLATION ON CONCRETE 7

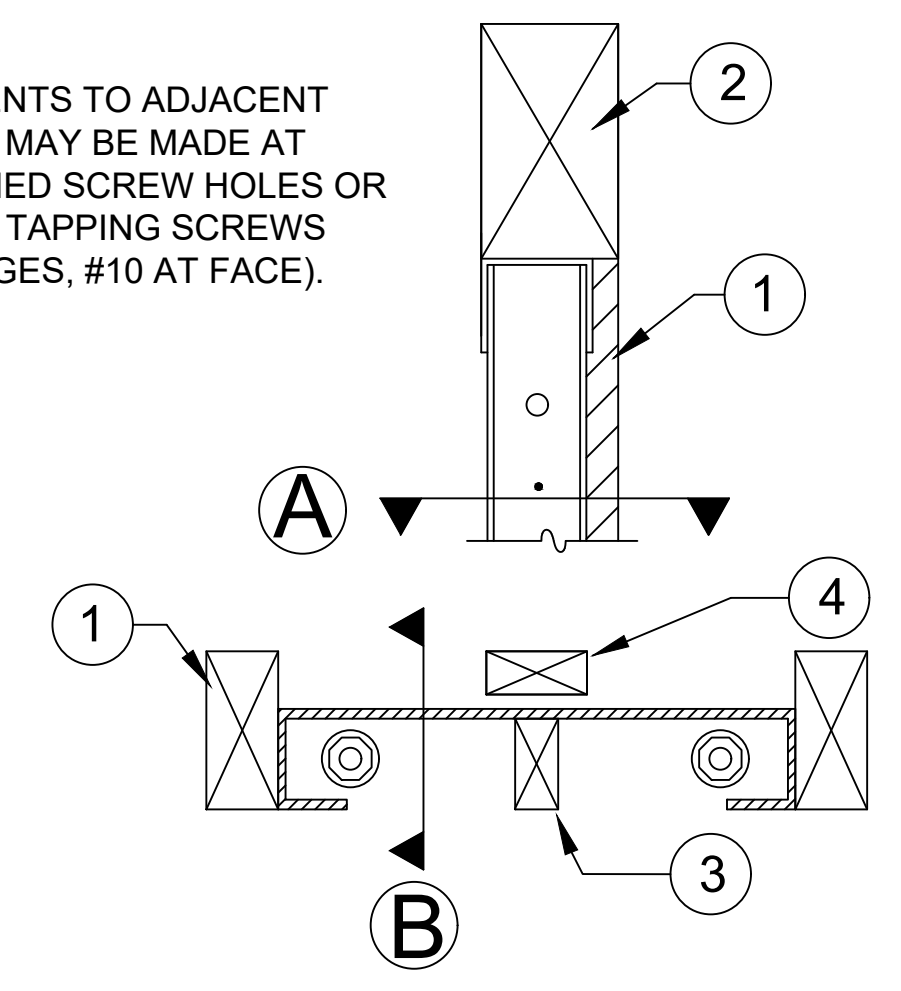


- ALLOWABLE VALUES ON N&W ARE LESS THAN INSTALLATION ON CONCRETE
- PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH 5,000 PSI NON-SHRINK GROUT (MINIMUM).
 - NUT AND WASHER GRADES PER TABLE NOTE 1.

INSTALLATION ON NUTS & WASHERS 10



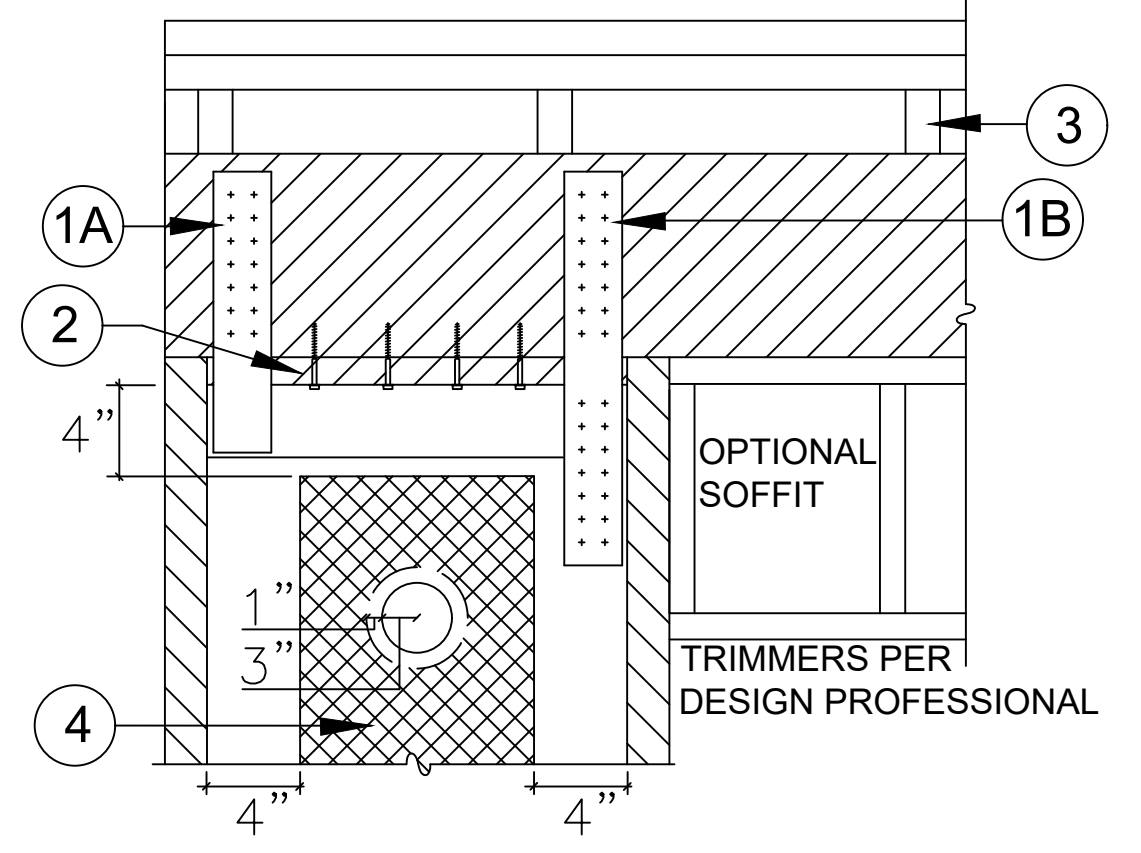
NOTE:
ATTACHMENTS TO ADJACENT TRIMMERS MAY BE MADE AT PREPUNCHED SCREW HOLES OR WITH SELF TAPPING SCREWS (#12 AT EDGES, #10 AT FACE).



- TRIMMERS PROVIDE FULL BEARING FOR HEADER ABOVE, DESIGN AND CONNECTIONS BY BUILDING DESIGN PROFESSIONAL.
- 6x HEADER.
- WOOD MEMBERS FOR BACKING MAY BE INSERTED VERTICALLY OR HORIZONTALLY IN THE PANEL CAVITY AS NEEDED.
- WOOD MEMBER FLUSH TO FACE OF WALL FOR BACKING AS NEEDED.

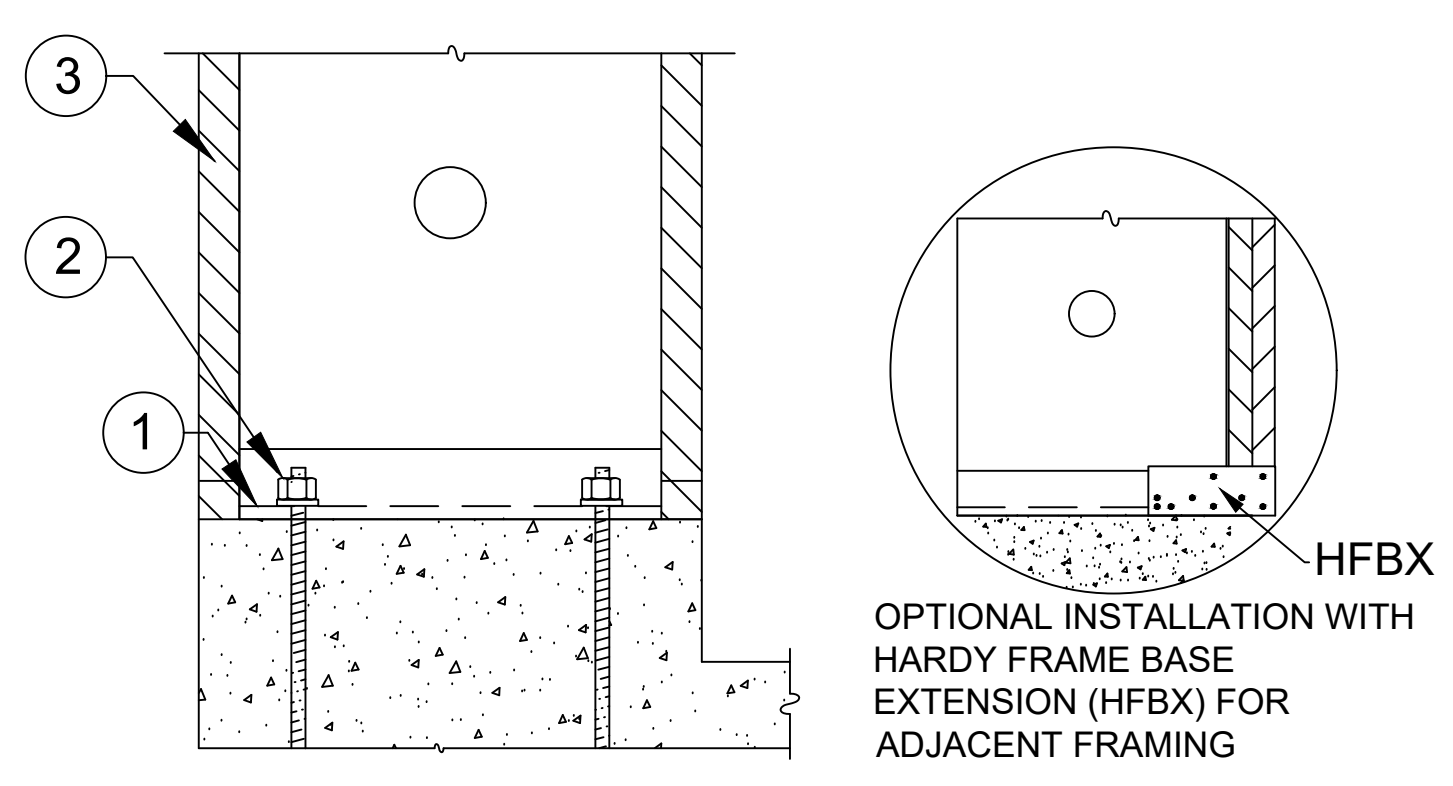
6x HEADER ABOVE-SECTIONS 1

NOTE:
TO PREVENT DRILLING ADDITIONAL HOLES ORIENT THE PANEL CAVITY TOWARD THE FIXTURE BEING INSTALLED.



- (A) PRE-WELDED STRAPS ARE PROVIDED ON 78" AND 79-1/2" PANEL HEIGHTS. THEY ARE AVAILABLE FOR OTHER HEIGHTS UPON REQUEST. (B) FIELD INSTALLED STRAPS WITH SELF TAPPING SCREWS ARE PERMITTED. THE DESIGN AND CONNECTION IS BY THE DESIGN PROFESSIONAL.
- A 2x WOOD FILLER WITH 1/4"x4-1/2" (MIN.) WS SCREWS IS PERMITTED.
- WHEN CRIPPLE STUDS OCCUR, SHEAR TRANSFER DESIGN TO BE PER THE BUILDING DESIGN PROFESSIONAL.
- A 1" DIA. HOLE MAY BE ADDED IN THE PANEL FACE WHEN IT IS LOCATED IN THE UPPER HALF OF THE PANEL HEIGHT AND IS 4" MINIMUM FROM ANY EDGE. FOR PANELS MORE THAN 12" WIDE, ADDITIONAL HOLES MUST BE OFFSET 1" MINIMUM FROM THE 3" DIA. PREPUNCHED HOLE. FOR HOLES LARGER THAN 1" DIAMETER OR TO ADD MORE THAN ONE HOLE CONTACT MITEK HARDY FRAME TECHNICAL SUPPORT AT (800) 754-3030.

TOP CONNECTION TO HEADER 4



- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- NUTS AND WASHERS PER TABLE NOTE 1.
- ADJACENT FRAMING OPTIONAL U.N.O. BY BUILDING DESIGN PROFESSIONAL.

INSTALLATION ON CURB 9

HFX PANELS 78 IN. THROUGH NOMINAL 13 FEET

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter ¹ (in)	Top Screw Qty ² (ea)	Screw Qty Available at Edges (ea) ³
HFX-12,15,18,21 & 24x78	78	3-1/2	1-1/8	9" Width = 5	4
HFX-9x79.5	79-1/2			12" Width = 6	
HFX-12,15,18,21 & 24x8	92-1/4			15" Width = 8	
HFX-9x8	93-3/4			18" Width = 10	5
HFX-12,15,18,21 & 24x9	104-1/4			21" Width = 12	
HFX-12,15,18,21 & 24x10	116-1/4			24" Width = 14	
HFX-15,18,21 & 24x11	128-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x12	140-1/4			18" Width = 10	
HFX-15,18,21 & 24x13	152-1/4			21" Width = 12	
HFX-15,18,21 & 24x14	164-1/4	3-1/2	1-1/8	18" Width = 10	7
HFX-15,18,21 & 24x15	176-1/4			21" Width = 12	
HFX-15,18,21 & 24x16	188-1/4			24" Width = 14	
HFX-15,18,21 & 24x17	200-1/4			15" Width = 8	8
HFX-15,18,21 & 24x18	212-1/4			18" Width = 10	
HFX-15,18,21 & 24x19	224-1/4			21" Width = 12	
HFX-15,18,21 & 24x20	236-1/4	3-1/2	1-1/8	18" Width = 10	7
HFX-15,18,21 & 24x21	248-1/4			21" Width = 12	
HFX-15,18,21 & 24x22	260-1/4			24" Width = 14	

BALLOON PANELS 14 FEET THROUGH 20 FEET

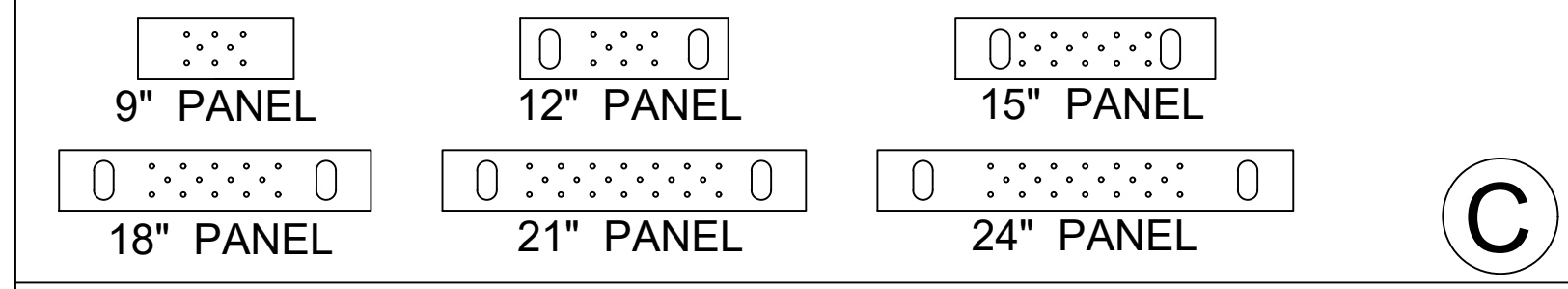
Model Number	Net Height (in)	Depth (in)	Hold Down Diameter ¹ (in)	Top Screw Qty ² (ea)	Screw Qty Available at Edges (ea) ³
HFX-15,18,21 & 24x14	164-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x15	176-1/4			18" Width = 10	
HFX-15,18,21 & 24x16	188-1/4			21" Width = 12	
HFX-15,18,21 & 24x17	200-1/4			24" Width = 14	7
HFX-15,18,21 & 24x18	212-1/4			15" Width = 8	
HFX-15,18,21 & 24x19	224-1/4			18" Width = 10	
HFX-15,18,21 & 24x20	236-1/4	3-1/2	1-1/8	21" Width = 12	8
HFX-15,18,21 & 24x21	248-1/4			24" Width = 14	
HFX-15,18,21 & 24x22	260-1/4			24" Width = 14	

TABLE NOTES

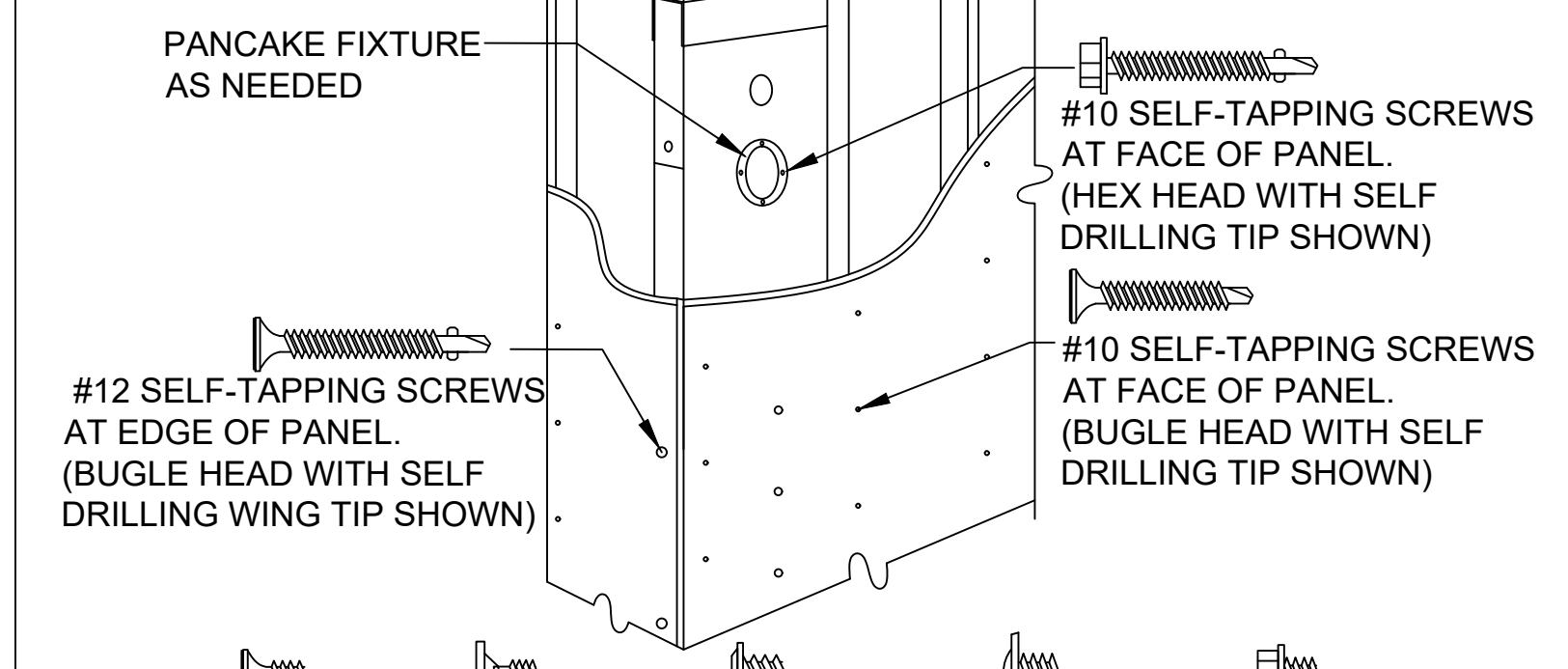
- FOR STD OR HS GRADE HOLD DOWN ANCHOR BOLTS CONNECT TO THE PANEL BASE WITH HARDENED ROUND WASHERS BELOW GRADE 8 NUTS. ALTERNATE WASHERS ARE (2 EA) ROUND-FLAT OR (2 EA) SAE WASHERS ON EACH BOLT. ALTERNATE NUTS ARE 2H HEAVY HEX.
- 1/4" DIAMETER MITEK[®] PRO SERIES[™] WS SCREWS. LENGTH IS 3" (MINIMUM) WHEN ATTACHED DIRECTLY TO THE COLLECTOR AND 4-1/2" (MINIMUM) WHEN INSTALLING A 2x FILLER ABOVE THE PANEL.
- ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS REQUIRED AT THE PANEL EDGES WHEN INSTALLING A FILLER ABOVE THE TOP CHANNEL THAT IS GREATER THAN 1-1/2" OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL.

INSTALLATION INSTRUCTIONS

- WHEN INSTALLING ON CONCRETE CONNECT WITH (1 EA) HARDENED ROUND WASHER BELOW (1 EA) GRADE 8 NUT. SECURE WITH A DEEP SOCKET (RECOMMENDED) UNTIL SNUG TIGHT. ALTERNATE WASHERS AND NUTS ARE PROVIDED IN TABLE NOTE 1.
- INSTALLATION ON CONCRETE PROVIDES THE HIGHEST ALLOWABLE VALUES. CONFIRM WITH THE DESIGN PROFESSIONAL BEFORE INSTALLING ON OTHER SUPPORTING SURFACES.
- USE 1/4"x4-1/2" MITEK[®] PRO SERIES[™] WS SCREWS AT TOP CONNECTIONS WITH A 2x FILLER. IF THE TOP OF PANEL IS IN DIRECT CONTACT WITH THE COLLECTOR ABOVE (TOP PLATES, HEADER, BEAM, ETC.) USE 1/4 x 3" (MIN)
- FOR INSTALLATIONS WITH A FILLER GREATER THAN 1-1/2" ABOVE, OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL, ADJACENT KING POSTS TO BRACE THE OUT-OF-PLANE HINGE CAN BE CONNECTED WITH 1/4" DIA. SCREWS THROUGH PRE-PUNCHED HOLES AT THE PANEL EDGES.



9" PANEL **12" PANEL** **15" PANEL**
18" PANEL **21" PANEL** **24" PANEL**



- NOTES:**
- SURFACE FINISHES, CONNECTORS AND FIXTURES ARE ATTACHED TO THE PANEL FACE WITH # 10 SELF-TAPPING SCREWS SPACED NO LESS THAN 2-1/4" OC.
 - ATTACHMENTS TO THE PANEL EDGES ARE MADE WITH # 12 SELF-TAPPING SCREWS.
 - STRUCTURAL CONNECTIONS ARE TO BE DESIGNED BY THE DESIGN PROFESSIONAL.
 - STRUCTURAL HARDWARE USED TO TRANSFER LOADS SHOULD NOT EXCEED 12 GAUGE.

DATE: 1-1-2020

REVISIONS DATE

FRAMING DETAILS - HFX PANELS

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH MITEK[®] HARDY FRAME[®] PRODUCTS

HARDY FRAME[®]
SHEAR WALL SYSTEM
1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003
TELEPHONE: 800 754-3030 / www.hardyframe.com

MiTek[®]

HFX2

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
 Project Name: 604 E Mission addition
 Calculation Date/Time: 2024-04-05T08:25:30-07:00
 Calculation Description: Title 24 Analysis
 Input File Name: 604_Mission_addition_v30.rbd22

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
01	Project Name	604 E Mission addition																			
02	Run Title	Title 24 Analysis																			
03	Project Location	604 E Mission Addition																			
04	City	Pomona, CA																			
05	Zip code	91766																			
06	Climate Zone	9																			
07	Building Type	Single Family																			
08	Project Scope	Addition of 100 sq ft																			
09	Existing Cond. Floor Area (ft²)	1059																			
10	Total Cond. Floor Area (ft²)	1159																			
11	ADU Bedroom Count	n/a																			
12	Fuel Type	Natural Gas																			

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	
01	Building Complies with Computer Performance																					
02	This building incorporates features that require field testing and/or verification by a certified HERS Rater under the supervision of a CEC approved HERS Provider.																					
03	Building does not incorporate Special Features																					

Registration Number: 424-P01000603A-000-000-000000-0000
 Registration Date/Time: 04/07/2024 20:33
 HERS Provider: CHEERS
 Report Generated: 2024-04-05 08:25:47

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
 Project Name: 604 E Mission addition
 Calculation Date/Time: 2024-04-05T08:25:30-07:00
 Calculation Description: Title 24 Analysis
 Input File Name: 604_Mission_addition_v30.rbd22

Energy Use	Standard Design Source Energy (SDSE) (kBtu/ft²-yr)	Proposed Design TDV Energy (EDT) (kBtu/ft²-yr)	Proposed Design TDV Energy (EDT) (kBtu/ft²-yr)	Compliance Margin (EM) (%)	Compliance Margin (EM) (%)	
Space Heating	0	2.81	0	3.38	0	-0.57
Space Cooling	0	11.22	0	50.23	0	0.99
IAQ Ventilation	0	0	0	0	0	0
Water Heating	0	14.46	0	34.46	0	0
Self Utilization/Recharge Credit	0	0	0	0	0	0
Efficiency Compliance Total	0	18.47	0	88.07	0	0.42
Photovoltaics	0	0	0	0	0	0
Battery	0	0	0	0	0	0
Flexibility	0	0	0	0	0	0
Indoor Lighting	0	7.94	0	7.94	0	0
Appl. & Cooking	0	20.42	0	16.62	0	0
Plug Loads	0	30.86	0	52.38	0	0
Outdoor Lighting	0	1.74	0	1.74	0	0
TOTAL COMPLIANCE	0	185.37	0	184.95	0	0

Registration Number: 424-P01000603A-000-000-000000-0000
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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
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 Input File Name: 604_Mission_addition_v30.rbd22

Energy Use Intensity	Standard Design (Std) (kBtu/ft²-yr)	Proposed Design (Prop) (kBtu/ft²-yr)	Compliance Margin (EM) (%)	Margin Percentage
Gross EUI ¹	27.99	20.38	-0.04	-0.14
Net EUI ²	27.99	20.38	-0.04	-0.14

Notes:
 1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.
 2. Net EUI is Energy Use Total (including PV) / Total Building Area.

REQUIRED SPECIAL FEATURES
 The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
 * NO SPECIAL FEATURES REQUIRED

HERS FEATURE SUMMARY
 The following is a summary of the features that must be field-verified by a Certified HERS Rater under the supervision of a CEC approved HERS Provider. Additional details are provided in the building tables below. Registered CPDs and CPDs are required to be uploaded to the HERS Rater.

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
01	Project Name	604 E Mission addition																			
02	Conditioned Floor Area (ft²)	1059																			
03	Number of Dwelling Units	1																			
04	Number of Bedrooms	2																			
05	Number of Zones	2																			
06	Number of Ventilation Cooling Systems	0																			
07	Number of Water Heating Systems	1																			

Registration Number: 424-P01000603A-000-000-000000-0000
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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
 Project Name: 604 E Mission addition
 Calculation Date/Time: 2024-04-05T08:25:30-07:00
 Calculation Description: Title 24 Analysis
 Input File Name: 604_Mission_addition_v30.rbd22

01	02	03	04	05	06	07	
01	Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Zone Ceiling Height	Water Heating System 1	Status
02	House	Conditioned	HVAC System	1059	10	DHW at	Existing Unchanged
03	ADDITION	Conditioned	HVAC System	105	10	DHW at	New

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
01	Name	Zone	Construction	Assembly	Orientation	Area (ft²)	Window Area (ft²)	Window U-Value	Window SHGC	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient	Window Solar Heat Gain Coefficient
02	Wall-a	House	Wall at	W	Front	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
03	Wall-b	House	Wall at	W	Back	110	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
04	Wall-c	House	Wall at	W	Right	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
05	Wall-d	House	Wall at	W	Left	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
06	Wall-e	House	Wall at	W	Front	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
07	Wall-f	House	Wall at	W	Back	110	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
08	Wall-g	House	Wall at	W	Right	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
09	Wall-h	House	Wall at	W	Left	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
10	Wall-i	House	Wall at	W	Front	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11	Wall-j	House	Wall at	W	Back	110	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12	Wall-k	House	Wall at	W	Right	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
13	Wall-l	House	Wall at	W	Left	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14	Wall-m	House	Wall at	W	Front	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	Wall-n	House	Wall at	W	Back	110	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16	Wall-o	House	Wall at	W	Right	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
17	Wall-p	House	Wall at	W	Left	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
18	Wall-q	House	Wall at	W	Front	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19	Wall-r	House	Wall at	W	Back	110	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20	Wall-s	House	Wall at	W	Right	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21	Wall-t	House	Wall at	W	Left	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22	Wall-u	House	Wall at	W	Front	115	11.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Registration Number: 424-P01000603A-000-000-000000-0000
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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
 Project Name: 604 E Mission addition
 Calculation Date/Time: 2024-04-05T08:25:30-07:00
 Calculation Description: Title 24 Analysis
 Input File Name: 604_Mission_addition_v30.rbd22

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
01	Name	Construction	Type	Area (ft²)	U-factor	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC	SHGC
02	Attic-ak	Roof at	Wood Framed	17.8	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
03	Attic-new	Roof new	Wood Framed	17.8	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
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2022 Single-Family Residential Mandatory Requirements Summary

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

Table with 2 columns: Code Section and Description. Includes sections for Building Envelope, Fireplaces, Space Conditioning, and Ventilation.

5/6/22



2022 Single-Family Residential Mandatory Requirements Summary

Table with 2 columns: Code Section and Description. Includes sections for Lighting, Energy Management, and Solar Readiness.

5/6/22



2022 Single-Family Residential Mandatory Requirements Summary

Table with 2 columns: Code Section and Description. Includes sections for Pilot Lights, Building Cooling and Heating Loads, Clearances, and Ducts and Fans.

5/6/22



2022 Single-Family Residential Mandatory Requirements Summary

Table with 2 columns: Code Section and Description. Includes sections for Energy Storage System (ESS) Ready, Heat Pump Space Heater Ready, Electric Cooktop Ready, and Electric Clothes Dryer Ready.

*Exceptions may apply.

5/6/22



2022 Single-Family Residential Mandatory Requirements Summary

Table with 2 columns: Code Section and Description. Includes sections for Space Conditioning System Airflow Rate and Fan Efficacy, Ventilation and Indoor Air Quality, and Pool and Spa Systems and Equipment.

5/6/22



Professional Engineer seal for Wang, Kyle Lee, No. 85148, State of California. Project information for ACEMD CORPORATION, HAWK'S PROJECT, SHEET TITLE TITLE 24, PROJECT NO. 2024-101, DATE 01/04/24, SCALE AS REFERENCED, SHEET NO. T-24-2.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD				NRCC-PRF-E			
Nonresidential Performance Compliance Method				(Page 1 of 15)			
Project Name:		604 E Mission TI	Date Prepared:	2024-04-05			
A. General Information							
1	Project Name	604 E Mission TI					
2	Run Title	Title 24 Analysis					
3	Project Location	604 E Mission Blvd					
4	City	Pomona					
5	Zip code	91766					
6	Climate Zone	5					
7	Building Type(s)	Nonresidential					
8	Weather File	LOS-ANGELES-US_C_5T1920.apw					
9	Project Scope	Existing addition and alteration					
10	Number of Dwelling Units	0					
11	Total of # of hotel/motel rooms (Scope (R))	1336					
12	Total of # of hotel/motel rooms (Scope (R))	0					
13	Fuel Type	Natural gas					
14	Nonresidential Conditioned Floor Area	1136					
15	Residential Conditioned Floor Area	0					

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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B. PROJECT SUMMARY							
Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.							
Building Components Complying via Performance				Building Components Complying Prescriptively			
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I)	Not Included	Not Included	The following building components are ONLY eligible for prescriptive compliance and must be documented on the NRCC form issued within the scope of the permit application. If compliance will be shown on the NRCC-PRF-E, compliance will not be shown on the NRCC-PRF-E.	
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (See Table I)	Not Included	Not Included	Indoor Lighting (Unconditioned) 140.6 & 170.2(a)	
Domestic Hot Water (See Table I)	Nonres	Performance	Covered Process: Laboratory Exhaust (See Table I)	Not Included	Not Included	Outdoor Lighting 140.7 & 170.2(a)	
Lighting (Indoor Conditioned, see Table K)	Nonres	Performance	Photovoltaics (See Table J)	Not Included	Not Included	Sign Lighting 140.8 & 170.2(a)	
	Multi/Fam	Not Included				Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form issued if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
						Battery (see Table F)	
						Commissioning 120.8	
						Solar and Battery 110.10	

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CL. COMPLIANCE SUMMARY							
Table C shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.							
COMPLIES ¹				Source Energy Use			
Time Dependent Valuation (TDV)				Total ² (kBtu/ft ² - yr)			
Efficiency ³ (kBtu/ft ² - yr)				Total ² (kBtu/ft ² - yr)			
Standard Design				261.29			
Proposed Design				165.65			
Compliance Margin				95.61			
Pass				Pass			

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CL. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)							
COMPLIES ¹				Compliance Margin (TDV) ²			
Energy Component				Standard Design (TDV)			
Proposed Design (TDV)				Compliance Margin (TDV) ²			
Space Heating				11.38			
Space Cooling				66.41			
Indoor Fans				118.69			
Heat Rejection				0			
Pumps & Misc.				0			
Domestic Hot Water				12.15			
Indoor Lighting				32.63			
Flexibility				---			
EFFICIENCY COMPLIANCE TOTAL				261.29			
Photovoltaics				---			
Batteries				---			
TOTAL COMPLIANCE				261.29			

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#	REVISION	DATE
1		
2		
3		

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CA. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS¹							
Non-Regulated Energy Component		Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ²			
Receptacle		109.34	109.34	---			
Process		---	---	---			
Other Ltg		---	---	---			
Process Motors		---	---	---			
TOTAL TOTAL COMPLIANCE + NON-REGULATED COMPONENTS		371.2	371.59	95.41 (25.5%)			
¹ Notes: This table is not used for Energy Code Compliance.							
CA. ABOVE CODE QUALIFICATIONS							
<input type="checkbox"/> This project is pursuing CalGreen Tier 1 <input type="checkbox"/> This project is pursuing CalGreen Tier 2							

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CA. ENERGY USE SUMMARY							
Energy Component	Standard Design Site (MMWh)	Proposed Design Site (MMWh)	Margin (MMWh)	Standard Design Site (MMWh)	Proposed Design Site (MMWh)	Margin (MMWh)	
Space Heating	---	0.6	---	4.6	---	---	
Space Cooling	2.3	2.8	-0.5	---	---	---	
Indoor Fans	5.6	1.3	4.3	---	---	---	
Heat Rejection	---	---	---	---	---	---	
Pumps & Misc.	---	---	---	---	---	---	
Domestic Hot Water	0.5	---	---	---	1.3	---	
Indoor Lighting	1.4	1.7	-0.3	---	---	---	
Flexibility	---	---	---	---	---	---	
EFFICIENCY TOTAL	9.8	6.4	3.4	4.6	1.3	3.3	
Photovoltaics	---	---	---	---	---	---	
Batteries	---	---	---	---	---	---	
ENERGY USE SUBTOTAL	9.8	6.4	3.4	4.6	1.3	3.3	
Receptacle	4.9	4.9	0	---	---	---	
Process	---	---	---	---	---	---	
Other Ltg	---	---	---	---	---	---	
Process Motors	---	---	---	---	---	---	
ENERGY USE TOTAL	14.7	11.3	3.4	4.6	1.3	3.3	

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CA. ENERGY USE INTENSITY (EUI)							
	Standard Design (kBtu/ft ² / yr)	Proposed Design (kBtu/ft ² / yr)	Margin (kBtu/ft ² / yr)	Margin Percentage			
GROSS EUI ¹	48.2	35.08	13.12	27.22			
NET EUI ¹	48.2	35.08	13.12	27.22			
¹ Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.							
DA. EXCEPTIONAL CONDITIONS							
*The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (Form NRCC-CT1-Q2-E) for the requirements of section 140.6(a) Automatic Daylighting Controls in Secondary Daylit Zones is required.							
EA. ENVELOPE GENERAL INFORMATION (conditioned spaces only)							
	01	02	03	04			
Oppose Surfaces & Orientation	Total Gross Surface Area (ft ²)		Total Fenestration Area (ft ²)		Window to Wall Ratio (%)		
North-Facing ¹	240		15		6.25		
East-Facing ¹	374		84		22.46		
South-Facing ¹	212		72		33.96		
West-Facing ¹	388		15		3.92		
Total	1296		186		14.42		
Roof	170		0		0		
Notes: ¹ North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW). ² East-Facing is oriented to within 45 degrees of true east, including 45 00'00" north of east (SE), but excluding 45 00'00" north of east (NE). ³ South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE). ⁴ West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW).							

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GA. NONRESIDENTIAL AIR BARRIER							
	01	02		03			
Building Story Name	Building Story Name		Air Barrier				
Com-Floor 1	Com-Floor 1		No air barrier				

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GA. OPAQUE SURFACE ASSEMBLY SUMMARY							
01	02	03	04	05	06	07	08
Surface Name	Construction Type	Area (ft ²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value
09	Description of Assembly Layers						
10	Status ¹						
Ceiling attic alt	Roof	40	Wood	30	N/A	N/A	U-factor: 0.0883
AlphaShielding02_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Composite-1 Gypsum Board - 1/2 in. Siding - Wood - bevel - 10 in. - lapped - 1/4 in. Vapor permeable felt - 1/8 in. Composite-2 Gypsum Board - 1/2 in. U-factor: 0.0912							
Wall alt10	Exterior Wall	988	Wood	13	N/A	N/A	U-factor: 0.0912
AlphaShielding02_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Composite-1 Gypsum Board - 1/2 in. U-factor: 0.0912							
Wall int R027	Interior Wall	147	N/A	0	N/A	N/A	U-factor: 0.3145
AlphaShielding02_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Composite-1 Gypsum Board - 1/2 in. U-factor: 0.3145							
Ceiling int R029	Ceiling	1,006	N/A	0	N/A	N/A	U-factor: 0.2475
AlphaShielding02_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Composite-1 Gypsum Board - 1/2 in. U-factor: 0.2475							
Floor crawl alt31	Exterior Floor	1,006	Wood	19	N/A	N/A	U-factor: 0.0374
Veratex Cover Scape Composite-3 Plywood - 1/2 in. Carpet - 3/4 in. U-factor: 0.0374							
¹ Status: N - New, A - Altered, E - Existing							

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GA. OPAQUE SURFACE ASSEMBLY SUMMARY							
01	02	03	04	05	06	07	08
Surface Name	Construction Type	Area (ft ²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value
09	Description of Assembly Layers						
10	Status ¹						
Ceiling cath new3	Roof	130	Wood	22	N/A	N/A	U-factor: 0.044
AlphaShielding02_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Ceiling - 3/4 in. Composite-4 Gypsum Board - 1/2 in. U-factor: 0.044							
Wall new35	Exterior Wall	218	Wood	13	N/A	N/A	U-factor: 0.0912
AlphaShielding02_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Composite-1 Gypsum Board - 1/2 in. U-factor: 0.0912							
Floor crawl new4	Exterior Floor	130	Wood	19	N/A	N/A	U-factor: 0.0374
Veratex Cover Scape Composite-3 Plywood - 1/2 in. Carpet - 3/4 in. U-factor: 0.0374							
¹ Status: N - New, A - Altered, E - Existing							
GA. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)							
01	02	03		04			
Assembly Name	Area (ft ²)	Overall U-factor		Status ¹			
Wood Door13	20	0.5		A			
Wood Door new38	20	0.5		N			
¹ Status: N - New, A - Altered, E - Existing							

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GA. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)							
01	02	03	04	05	06	07	08
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method ¹	Assembly Method	Area (ft ²)	Overall U-factor	Overall SHGC	Overall VT
09	Status ²						
Fenestration Low-E alt	Vertical Fenestration Operable window	NRFC	Manufactured	74	0.45	0.4	0.17
AlphaShielding02_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Ceiling - 3/4 in. Composite-4 Gypsum Board - 1/2 in. U-factor: 0.17							
Fenestration Low-E new	Vertical Fenestration Operable window	NRFC	Manufactured	112	0.45	0.4	0.17
AlphaShielding02_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Ceiling - 3/4 in. Composite-4 Gypsum Board - 1/2 in. U-factor: 0.17							
¹ Status: N - New, A - Altered, E - Existing							
² Status: N - New, A - Altered, E - Existing							
HA. SYSTEM SPECIAL FEATURES							
01	02	03		04			
System Name	Equipment Type	Interlocks per 140.6(a) ¹		Other Special Features and Controls			
HVAC	Single Zone Heat Pump (SDHP) Air System	No		Fixed Temperature Control			
Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-PRF-E.							
¹ Yes = interlocks are provided. No = interlocks are not provided. NA means no operable interlocks.							
HA. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION							
01	02	03		04			
Zone Name	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM	Conditioned Area (ft ²)	OCV or Occupant Sensor Controls, or Both	
1-Building	Office - Office space	5.66	170.4	0	1136	N/A	

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HA. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION							
01	02	03	04	05	06	07	08
Names or Item Tag	Qty	Design OA CFM	Power	Power Units	Control	Fan Type	CFM
09	Power Units						
10	Return / Relief Fan						
11	Status ¹						
HVAC	1	170.4	1,750	0.25	BHP	Constant VC	N/A
¹ Status: N - New, A - Altered, E - Existing							
HA. SYSTEM SPECIAL FEATURES							

