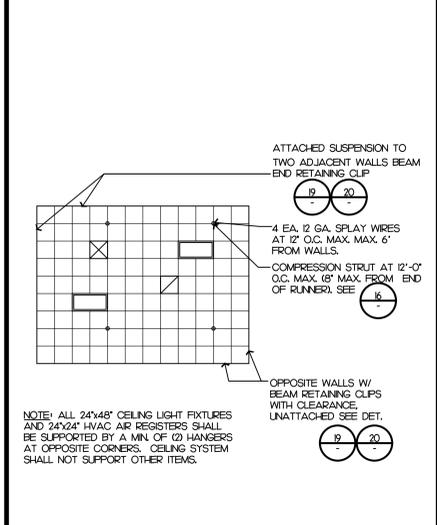
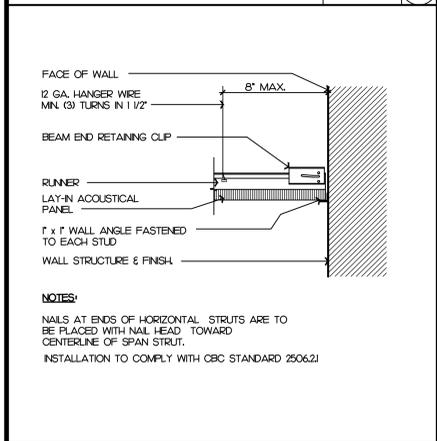


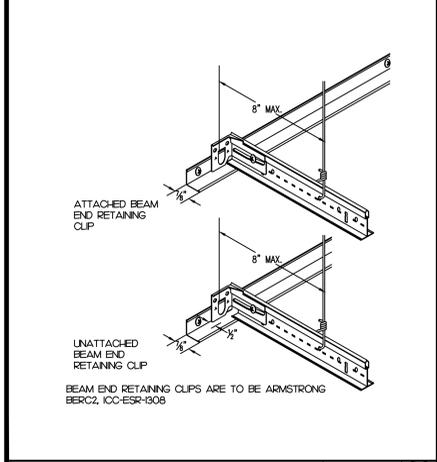
CEILING SYSTEM SCALE: 3/8"=1'-0" 17



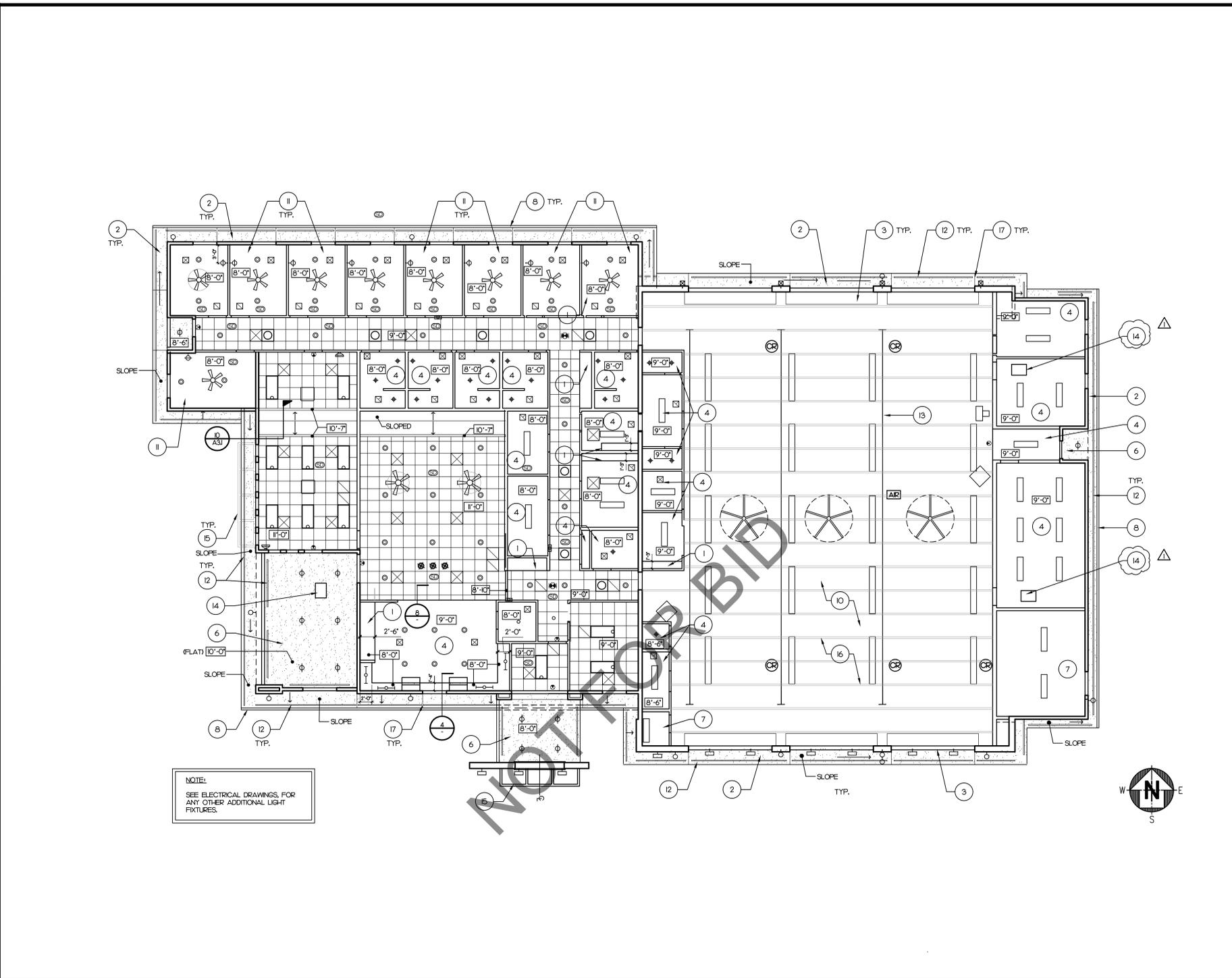
CEILING SYSTEM PLAN SCALE: 1/8"=1'-0" 18



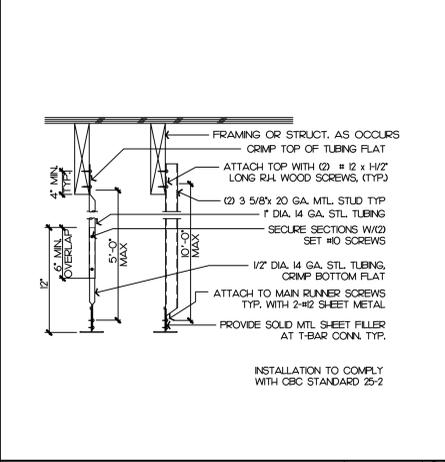
GRID BEAM END SCALE: 1/2"=1'-0" 19



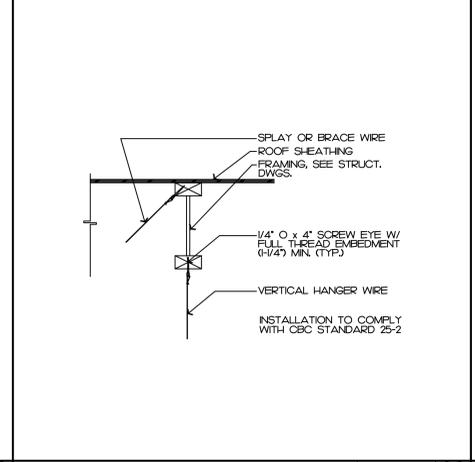
BERC DETAIL SCALE: N.T.S. 20



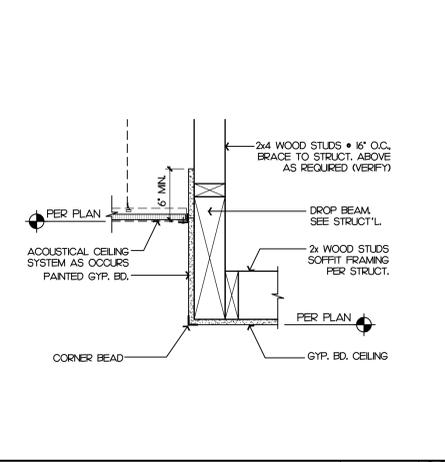
REFLECTED CEILING PLAN SCALE: 1/8"=1'-0" 3



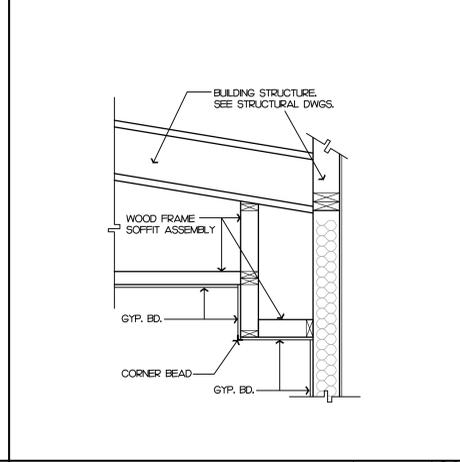
COMPRESSION STRUT SCALE: 1/2"=1'-0" 16



DETAIL SCALE: 1/2"=1'-0" 12



SOFFIT SCALE: 1/2"=1'-0" 8



SOFFIT SCALE: 3/4"=1'-0" 4

- KEY NOTE**
- GYP. BD. SOFFIT OVER 2x FRAMING • 24" O.C.
 - CEMENT PLASTER SLOPED LEAVES AND RAKE. PROVIDE CONTROL JOINTS. COORDINATE LOCATIONS WITH WALL CONTROL JOINTS.
 - OVERHEAD COLLING DOOR - TYP. OF 6.
 - GYP. BOARD CEILING AND C.J. FRAMING.
 - TUBULAR SKYLIGHT - TYP. OF 7.
 - CEMENT PLASTER OVER C.J. FRAMING.
 - OPEN TO STRUCTURE.
 - GALV. SHEET METAL GUTTER & DOWNSPOUT.
 - 2x2 SUSPENDED ACOUSTICAL CEILING.
 - EXPOSED INSULATION ON CEILING. PAINT EXPOSED STRUCTURE AND MPE SYSTEMS, ETC.
 - 1/2 HOUR RATED GYPSUM BOARD CEILING. PROVIDE DAMPERS AT AC REGISTERS. PROVIDE FIRE RATED RECESSED LIGHT FIXTURE ENCLOSURES. SEE MECH. AND ELECT. SEE 16 FOR UL ASSEMBLY.
 - CONTINUOUS 2" EAVE SOFFIT VENT.
 - VEHICLE EXHAUST SYSTEM. REFER TO MECH.
 - 22x30 ACCESS PANEL. PAINT.
 - STEEL AWNING. PAINT.
 - EXPOSED TRUSSES. PAINT.
 - CEMENT PLASTER CONTROL JOINTS. INSTALL PER CODE REQUIREMENT. COORDINATE LOCATION WALL CONTROL JOINTS.

- SYMBOL LEGEND**
- 1' x 4' SURFACE MOUNTED LIGHT FIXTURE
 - 2' x 4' LAY IN RECESSED LED LIGHT FIXTURE
 - 2' x 2' LAY IN RECESSED LED LIGHT FIXTURE
 - RECESSED DOWN LIGHT FIXTURE
 - RECESSED DOWN LIGHT FIXTURE ON DIMMER SWITCH
 - RECESSED LIGHT FIXTURE (WET AREA)
 - SURFACE MOUNTED FIXTURE UNDER CABINET. (NOTE: NO EXPOSED CONDUIT, USE ELECT. WIRING W/HP)
 - WALL MOUNTED READING LIGHT FIXTURE AT 4'-0" AFF.
 - PENDANT LIGHT FIXTURE
 - EXTERIOR RECESSED DOWN LIGHT FIXTURE
 - EXTERIOR WALL LIGHT FIXTURE
 - EXTERIOR WALL LIGHT FIXTURE (SIGNS)
 - EXTERIOR WALL MOUNTED AREA LIGHT
 - EXIT SIGN
 - SUPPLY AIR REGISTER
 - RETURN AIR REGISTER
 - EXHAUST FAN
 - TUBULAR SKYLIGHT ICC ESR-2253
 - ELECT. CORD REEL
 - COMPRESSED AIR REEL
 - SMOKE DETECTORS ARE PART OF DEFERRED SUBMITTAL FIRE ALARM SYSTEM
 - CEILING FAN MANUFACTURE: MINKA ARE MODEL F786-WH-F 44" INSTALL AT 7'-0" AFF CLEARANCE MIN. IN SLEEP QUARTERS. ADD 24" DOWN ROD IN DAYROOM. EXT. RATED WALL CONTROL-WC400 PROVIDE FAN/FIXTURE BOX FOR SUSPENDED CEILING ARLINGTON WWW.ARTIFING.COM FBR54205C #75300, 50lb RATING, OR EQUAL.
 - WALL MOUNTED FAN MINKA-ARE ANYWHERE 16" OSCILLATING FAN F507-MBK; MATTI BLACK. INSTALL WITH HARD WIRED OPTION.
 - LARGE FORMAT CEILING FAN SEE DETAIL 10/A61 FOR MOUNTING PLATE.



PROJECT ADMINISTERED BY:
SAN BERNARDINO COUNTY
PROJECT & FACILITIES
MANAGEMENT DEPARTMENT

385 N. ARROWHEAD AVE.
SAN BERNARDINO, CA 92415

PROJECT NAME:
SAN BERNARDINO
COUNTY FIRE
DEPARTMENT:
FIRE STATION 227

PROJECT # 10J0202
CIP #22-105
APN Part of 0154-281-01

180 W. 38TH STREET
SAN BERNARDINO,
CA 92405

ISSUE INFORMATION:

DATE:	INFORMATION:
9-11-24	D.D.s
10-26-24	PROGRESS
12-20-24	95% CDs
03-14-25	Plan Check Δ
05-09-25	Plan Check Δ
07-25-25	BID SET
08-22-25	BID SET

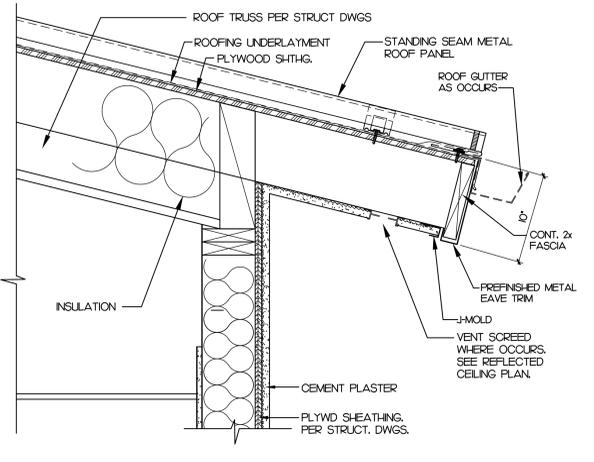
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SCALE: AS NOTED
DATE: DECEMBER 2024
PLOT DATE:
DRAWING NAME:



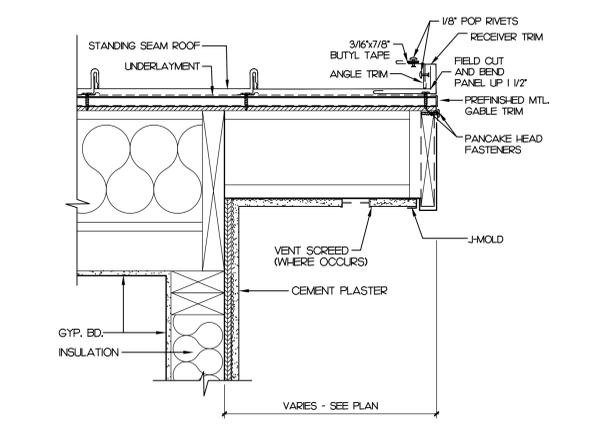
SHEET TITLE:
**REFLECTED
CEILING PLAN
& DETAILS**

SHEET NO.:

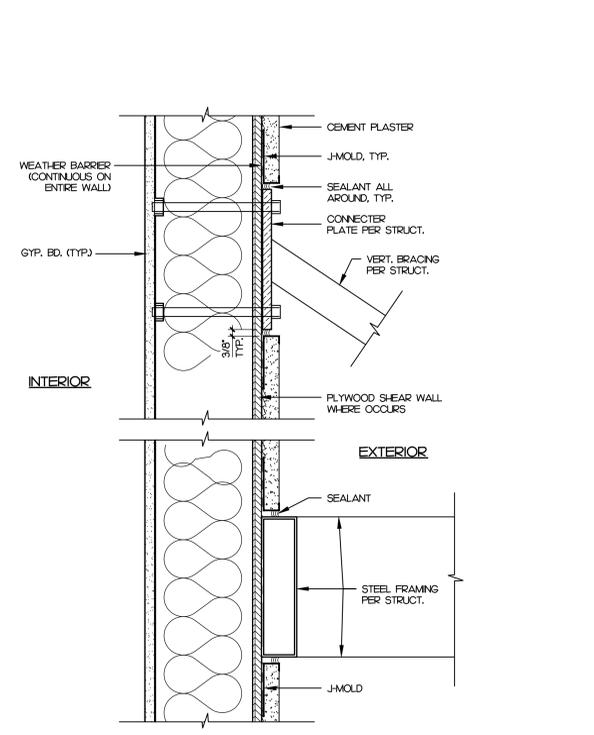
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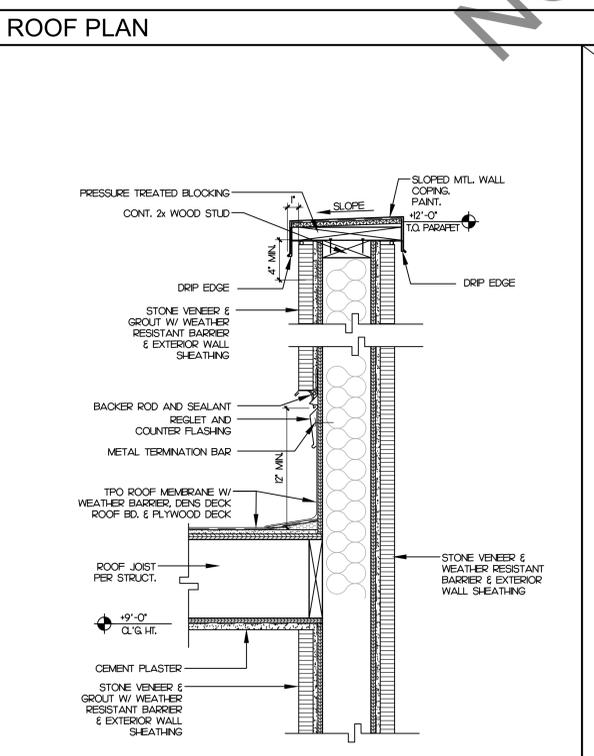
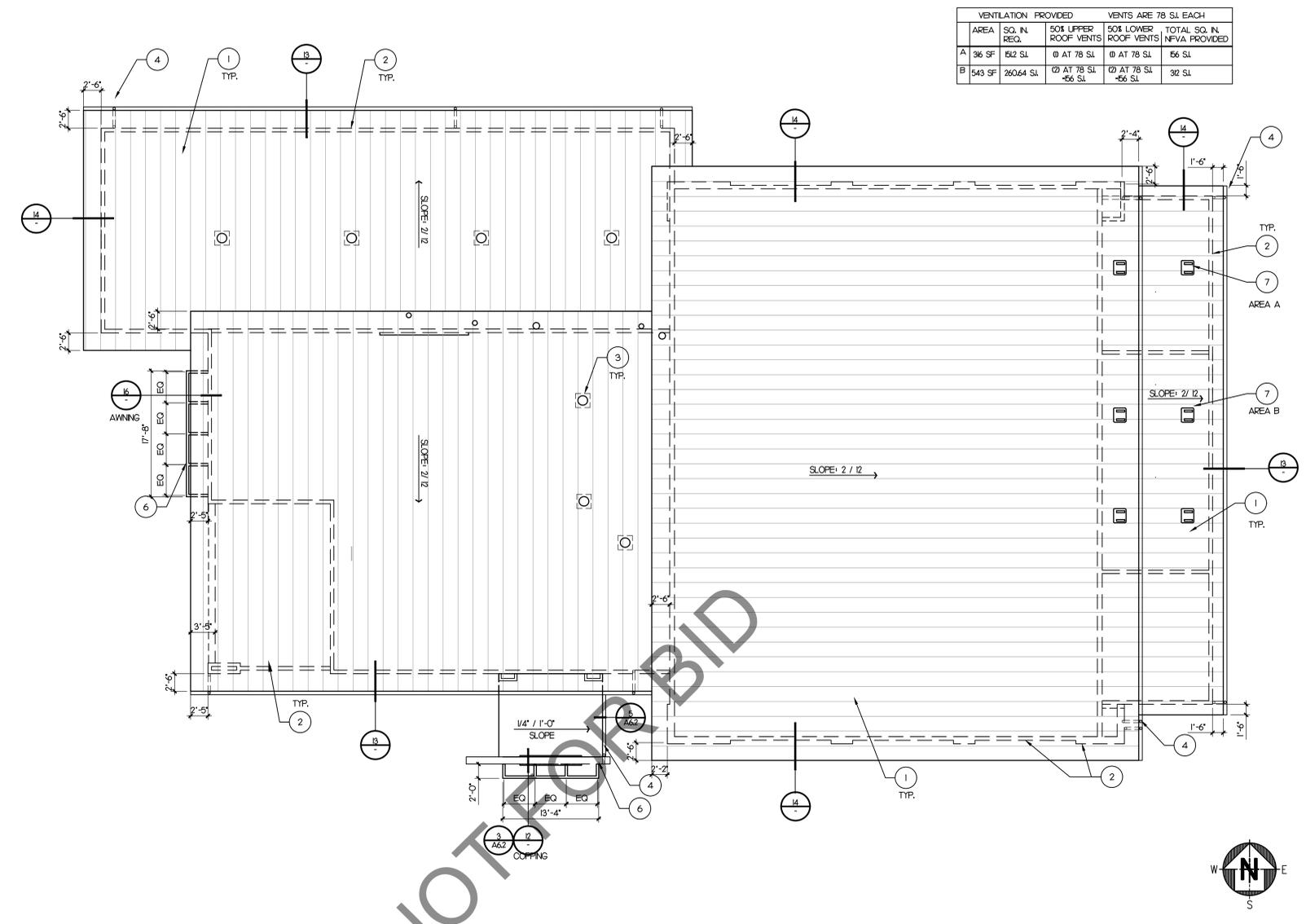
ROOF EAVE SCALE: 1/1/2"=1'-0" 13



ROOF RAKE SCALE: 1/1/2"=1'-0" 14



CANOPY TO WALL FLASHING SCALE: 1/1/2"=1'-0" 16



ENTRY WALL SCALE: 1/1/2"=1'-0" 12

KEY NOTE

- STANDING SEAM METAL ROOF OVER PLYWOOD SHEATHING.
- WALL LINE BELOW SHOWN DASHED.
- TUBULAR SKYLIGHT - TYP. OF 7.
- GALV. SHEET METAL GUTTER AND DOWNSPOT. DOWN FROM EXTERIOR WALL OR SPILL UNDER CONC. SLAB TO LANDSCAPE PAINT.
- DUCT ROOF CAP. SEE MECHANICAL.
- STEEL CANOPY. PAINT.
- ROOF VENTS. PAINT TO MATCH ROOF.



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PROJECT # 10J0202
CIP #22-105
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180 W. 38TH STREET
SAN BERNARDINO,
CA 92405

ISSUE INFORMATION:

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12-20-24	95% CDs
03-14-25	Plan Check Δ
05-09-25	Plan Check Δ
07-25-25	BID SET
08-22-25	BID SET

SHEET INFORMATION:
STK PROJECT NO.: 374-193-24
SCALE: AS NOTED
DATE: DECEMBER 2024
PLOT DATE:
DRAWING NAME:
SEAL:

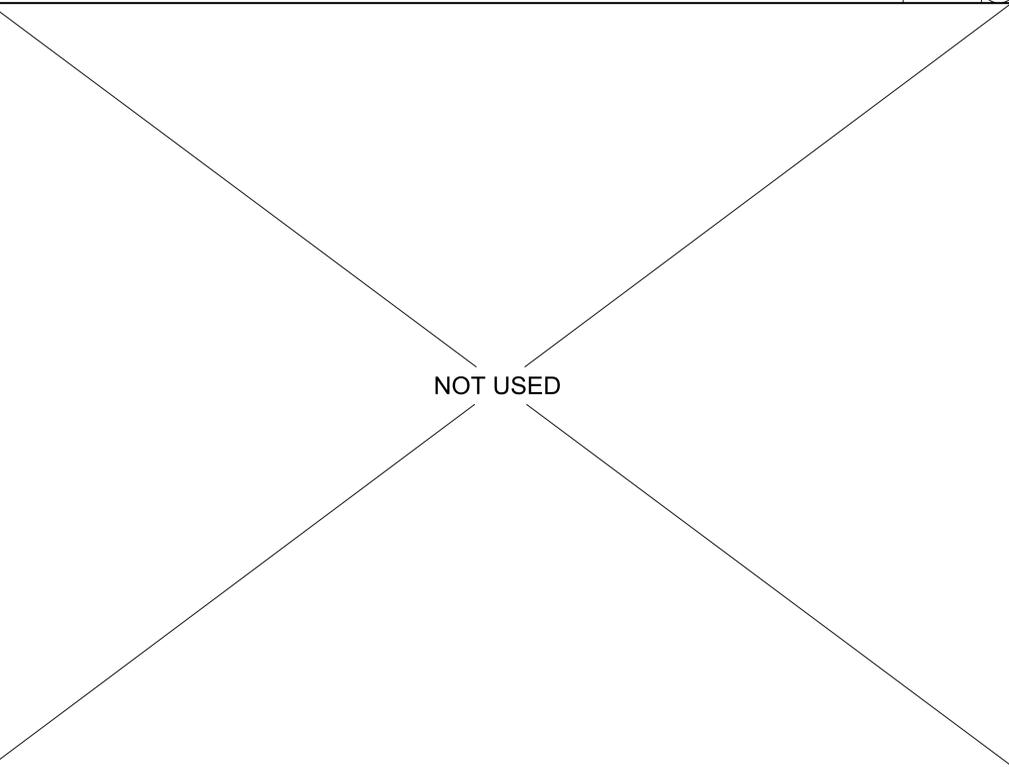


SHEET TITLE:
ROOF PLAN
& DETAILS

SHEET NO.:

A2.6

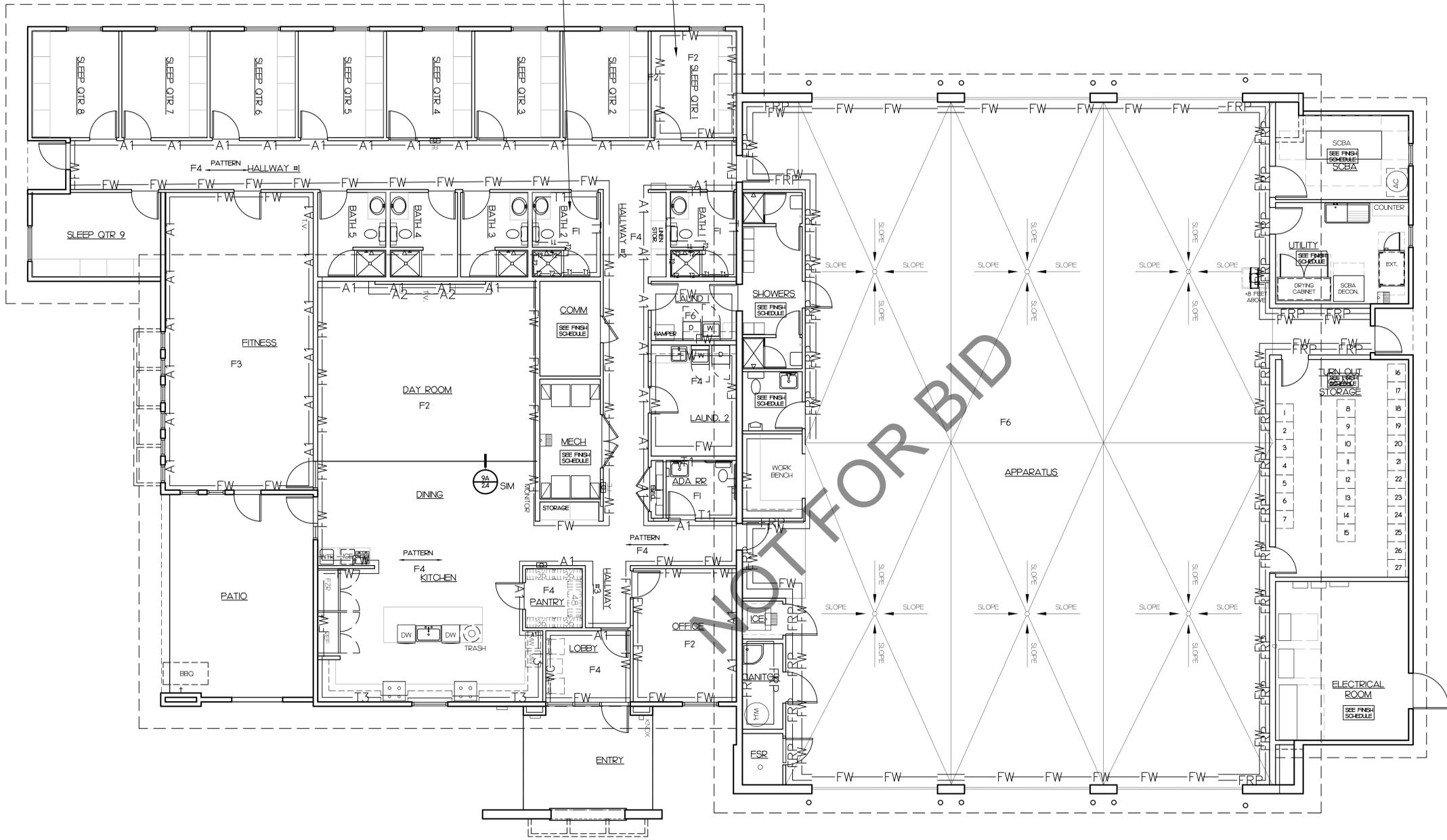
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08/22/2025 1:19PM J:\174-SANBERNARDINO\183-24 Fire Station 227\Architectural\A2.6-15-227-ROOF PLAN.dwg

TYPICAL AT ALL BATHS

TYPICAL AT ALL SLEEP QUARTERS.



FINISH LEGEND

INTERIOR FINISHES:

FLOOR FINISHES:

- F1 CERAMIC TILE OVER FULL MORTAR BED
- F2 CARPET TILE
- F3 RESILIENT ATHLETIC FLOORING
- F4 LUXURY VINYL TILE
- F5 EXPOSED CONCRETE, MEDIUM BROOM
- F6 EXPOSED CONCRETE, SMOOTH TROWEL FINISH (SEALED)

WALL FINISHES:

- WALL PAINT
 - FIELD
 - ACCENT 1
 - ACCENT 2
 - ACCENT 3
- WALLCOVER GRAPHICS
- WALL TILE
 - 4x12 SLEWAY TILE, STACKED BOND
 - 4FT HT.
 - FULL HT.
 - AS SHOWN IN KITCHEN ELEV.
- STAINLESS STEEL
 - BEHIND RANGE UP TO UNDERSIDE OF HOOD AND ON SIDES OF BASE CABINETS.
- SANITARY WALL PANEL
 - FROM 4" TO 48" AFF.

NOTE:
REFER TO SHEET A23 FOR THE FINISH SCHEDULE AND A32 FOR EXTERIOR ELEVATION FINISHES.



CONSULTANT:

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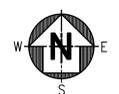


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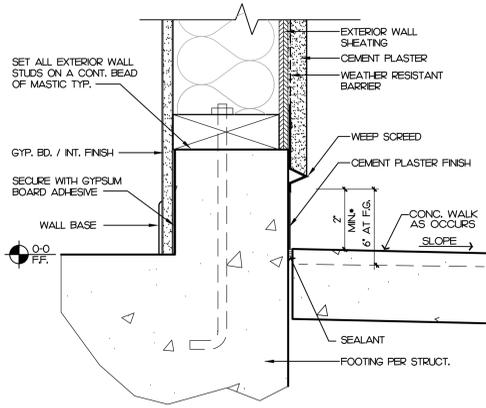
**FINISH FLOOR
PLAN**

SHEET NO.:

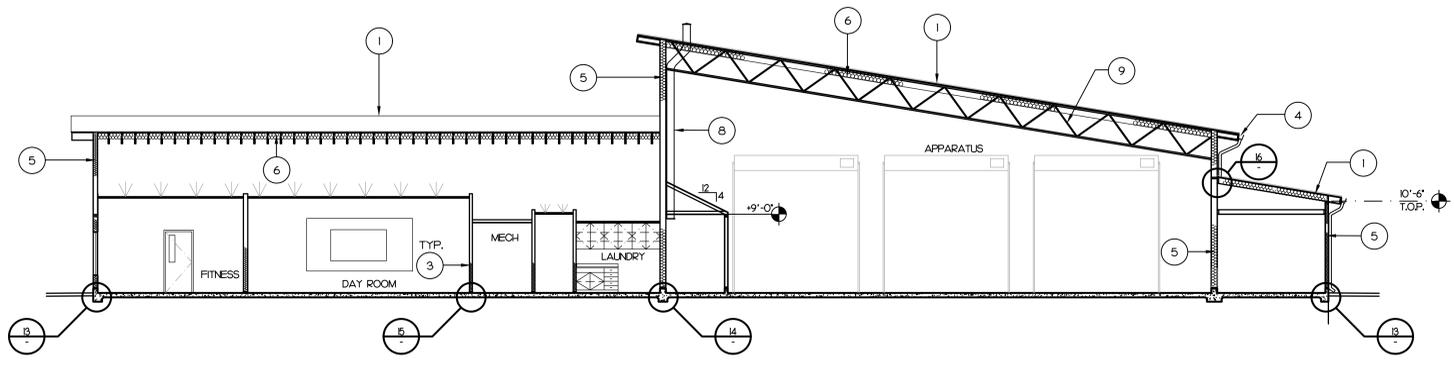
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11/14 SAN BERNARDINO COUNTY PROJECT & FACILITIES DEPARTMENT 227 ARROWHEAD AVE. 227 FINISH FLOOR PLAN.dwg 08/22/2025 1:09PM

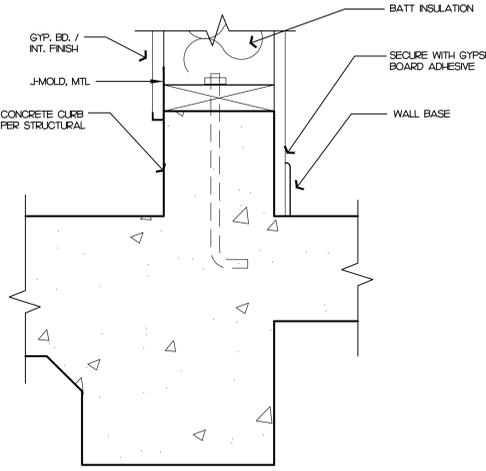
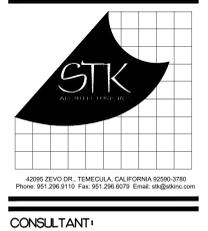


DETAIL SCALE: 3/4"=1'-0" 13

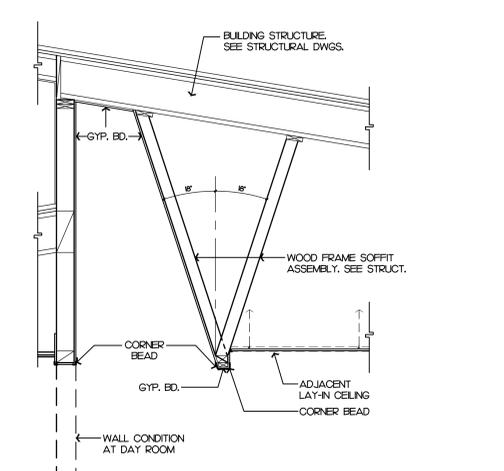


SECTION SCALE: 1/8"=1'-0" 1

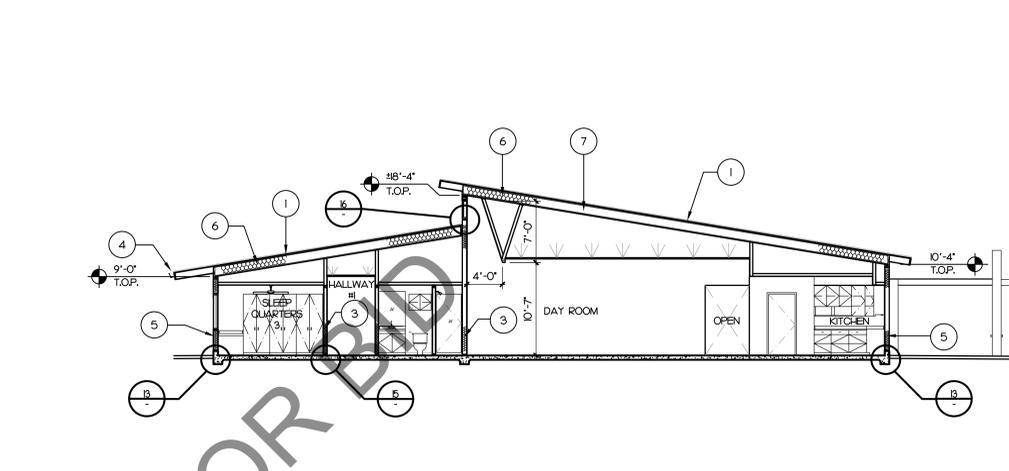
- KEY NOTE**
1. STANDING SEAM METAL ROOF
 2. CEMENT PLASTER CEILING
 3. SOUND INSULATION, TYP. ALL INTERIOR WALLS.
 4. SHEET METAL GUTTER AND DOWNSPOUT, PAINT.
 5. R-21 WALL INSULATION, TYP. ALL EXTERIOR WALLS.
 6. R-38 ROOF INSULATION.
 7. BUILDING STRUCTURE. SEE STRUCTURAL DRAWINGS.
 8. DUCT UP THRU ROOF TO ROOF CAP, BRACE TO WALL. SEE MECHANICAL DRAWINGS.
 9. EXPOSED TRUSSES. PAINT.



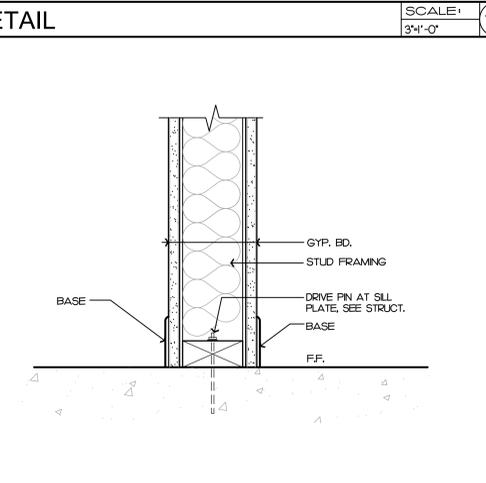
DETAIL SCALE: 3/4"=1'-0" 14



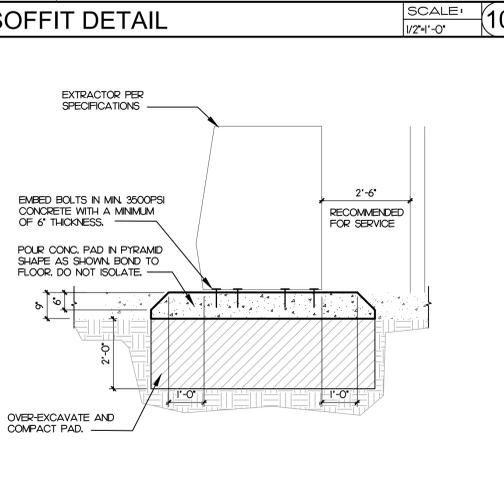
SOFFIT DETAIL SCALE: 1/2"=1'-0" 10



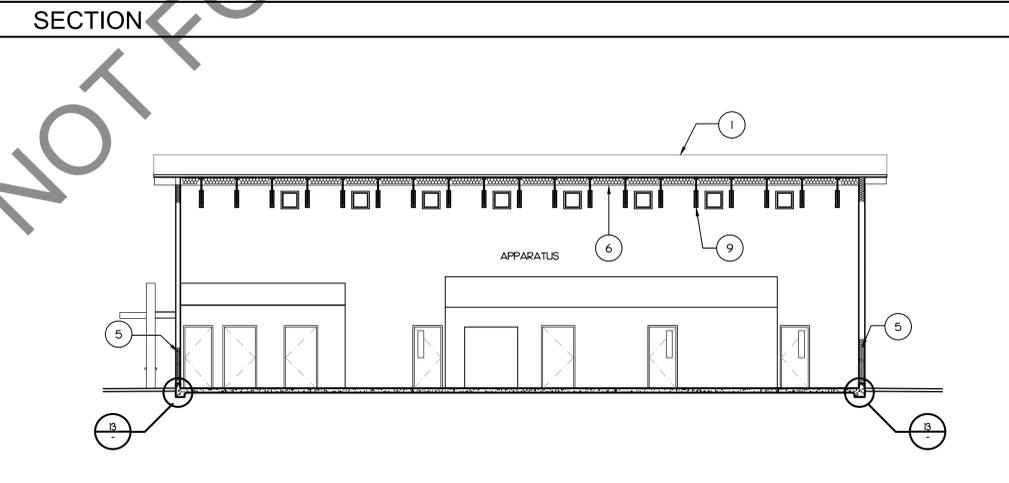
SECTION SCALE: 1/8"=1'-0" 2



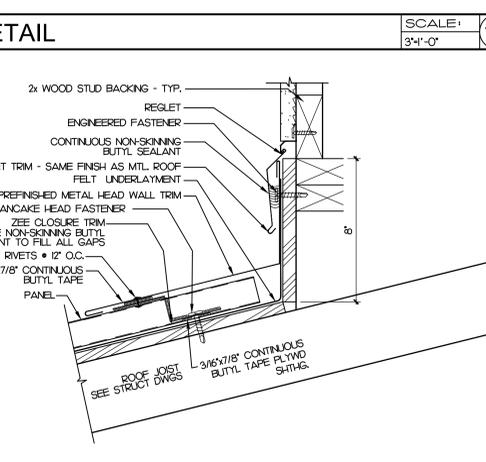
DETAIL SCALE: 3/4"=1'-0" 15



EXTRACTOR FOUNDATION SCALE: 1/2"=1'-0" 11

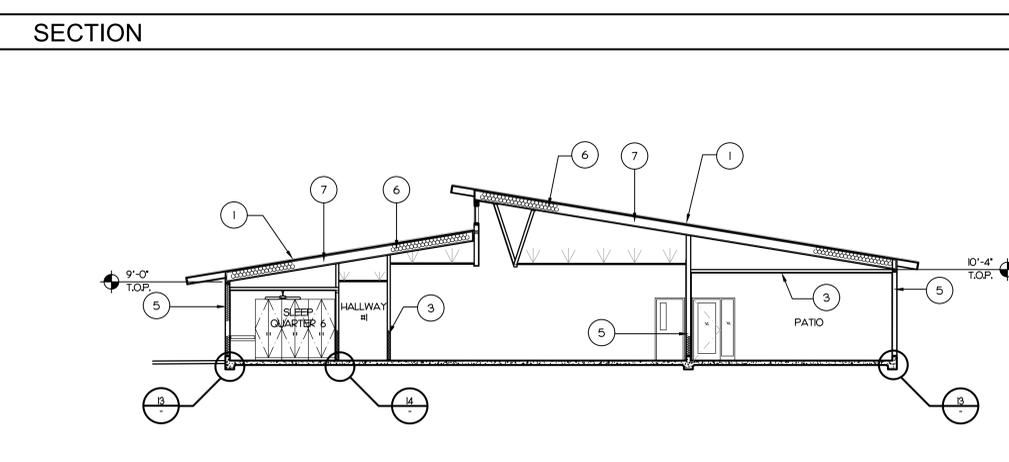


SECTION SCALE: 1/8"=1'-0" 3



DETAIL SCALE: 3/4"=1'-0" 16

NOT USED



SECTION SCALE: 1/8"=1'-0" 4

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SAN BERNARDINO, CA 92415

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SAN BERNARDINO
COUNTY FIRE
DEPARTMENT:
FIRE STATION 227

PROJECT # 10.10.202
CIP #22-105
APN Part of 0154-281-01

180 W. 38TH STREET
SAN BERNARDINO,
CA 92405

ISSUE INFORMATION:

DATE:	INFORMATION:
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SHEET INFORMATION:
STK PROJECT NO.: 374-193-24
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SHEET TITLE:
BUILDING
SECTIONS
& DETAILS

SHEET NO.:
A3.1

1/17/24 SAN BERNARDINO COUNTY PROJECT 227 ARCHITECTURAL - FIRE STATION BUILDING SECTIONS & DETAILS.dwg

KEY NOTE

1. GYPSUM BOARD, PAINT.
2. SLOPED GYPSUM BOARD SOFFIT OR WALL.
3. GYPSUM BOARD CONTROL JOINT. SEE 6 A&1
4. PLASTIC LAMINATE CABINETS W/ ADJUSTABLE SHELVING (TYP)
5. VEHICLE EXHAUST SYSTEM WITH MOTOR & SHELF.
6. 6" CONCRETE CURB WITH SEALER.
7. STAINLESS STEEL COUNTER AND 4" BACK SPLASH.
8. STAINLESS STEEL SINK WITH DRAINBOARD. SEE PLUMBING DWGS.
9. STAINLESS STEEL CORNER GUARD.
10. WALL MOUNTED METAL MESH LOCKERS. MOUNT PER MFG. RECOMMENDATIONS.
11. EXHAUST THRU ROOF. SEE MECHANICAL DWGS.
12. SANITARY WALL PANEL, FROM 48" AFF. TO 48'-6" AFF.
13. LOUVER. REFER TO MECH. PLANS.
14. OVER-HEAD COILING DOOR. SEE 4 A&2
15. FIRE EXTINGUISHER CABINET. SEE 4 A&2
16. EXPOSED STRUCTURE, PAINT.
17. GYPSUM BOARD SOFFIT OVER WOOD STLD FRAMING.
18. ATTACH TO TRUSS CORD WITH STEEL CHANNEL. DO NOT SCREW DIRECTLY TO TRUSS. SEE 6 A&2



CONSULTANT:

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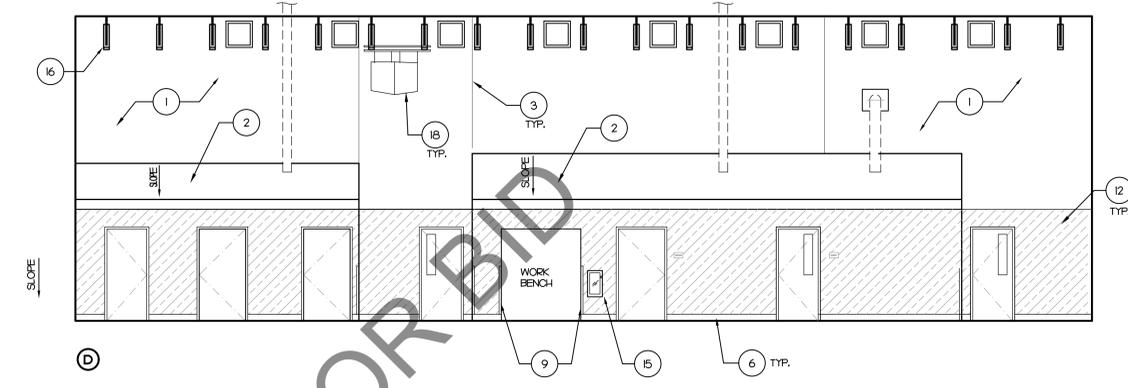
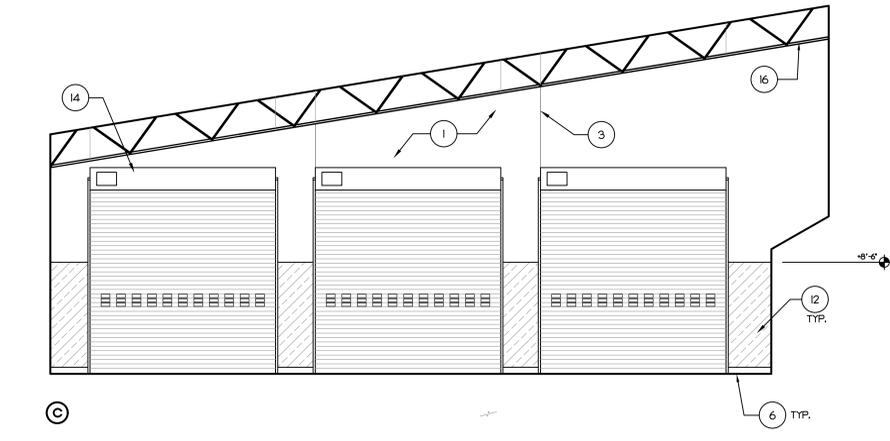
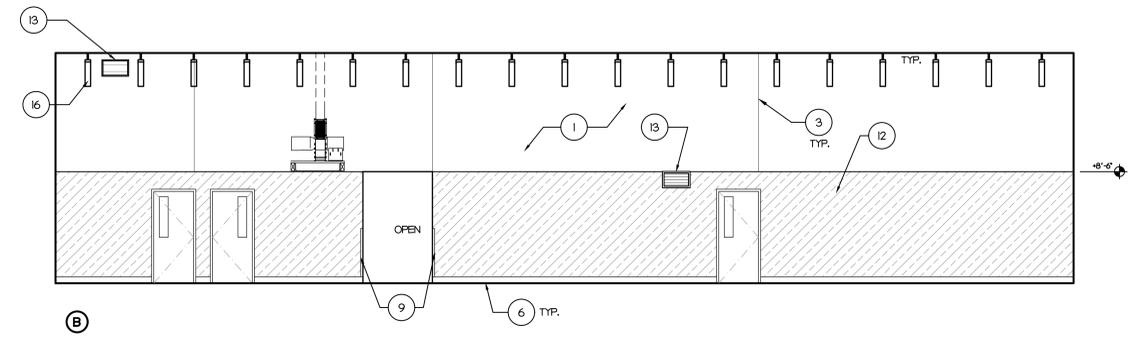
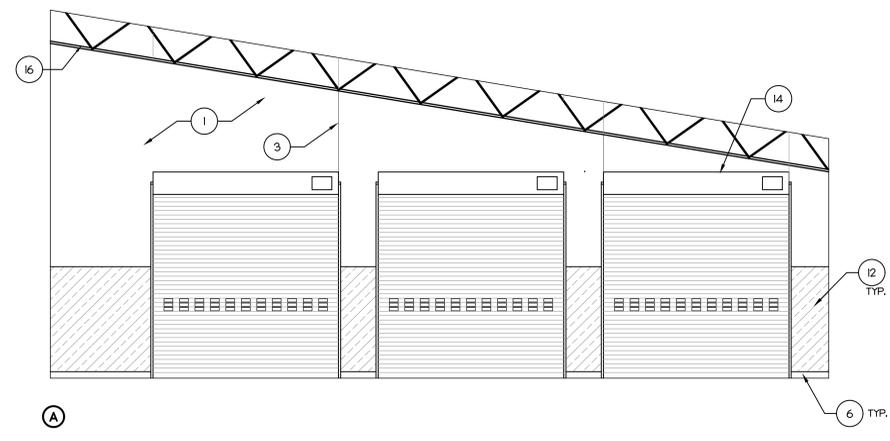


SHEET TITLE:

**INTERIOR
ELEVATIONS**

SHEET NO.:

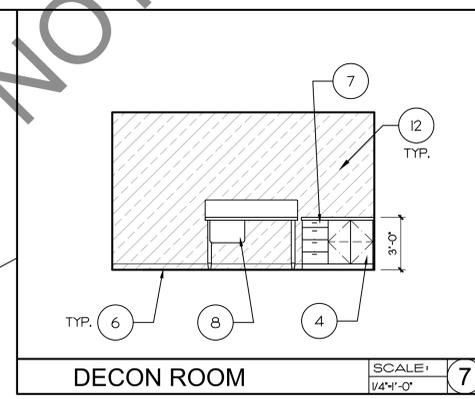
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INTERIOR ELEVATION- APPARATUS

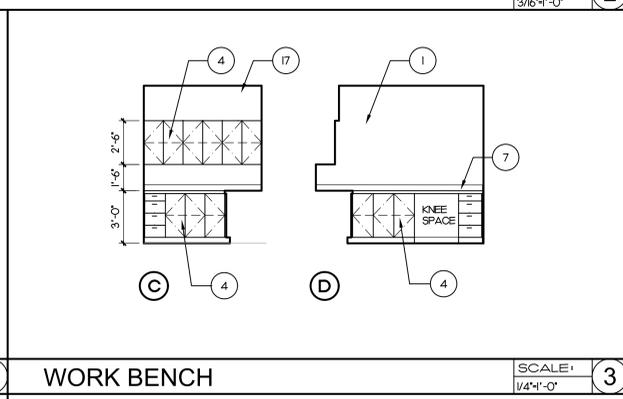
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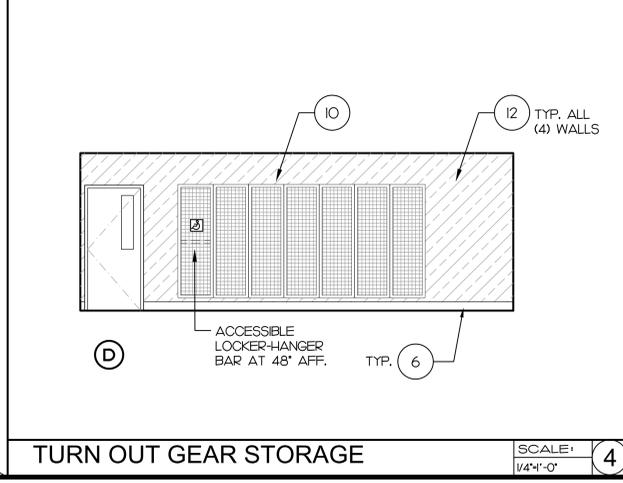
DECON ROOM

SCALE: 7
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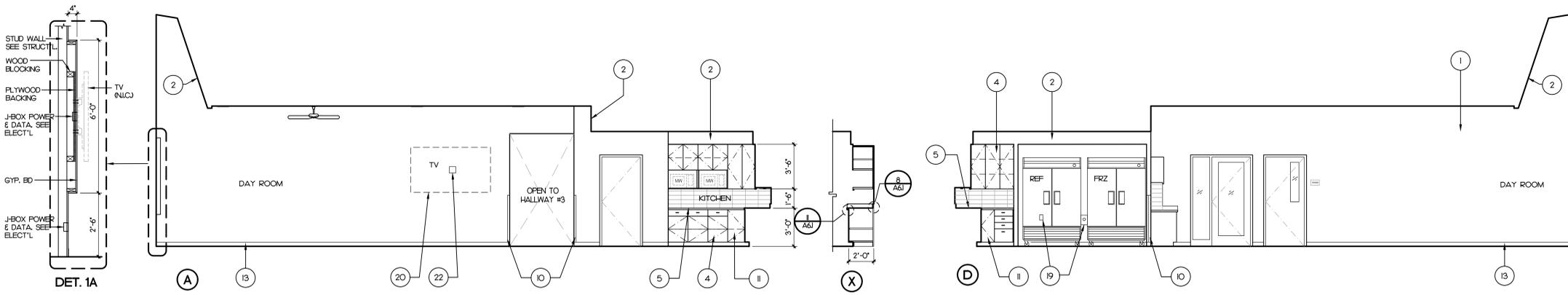
WORK BENCH

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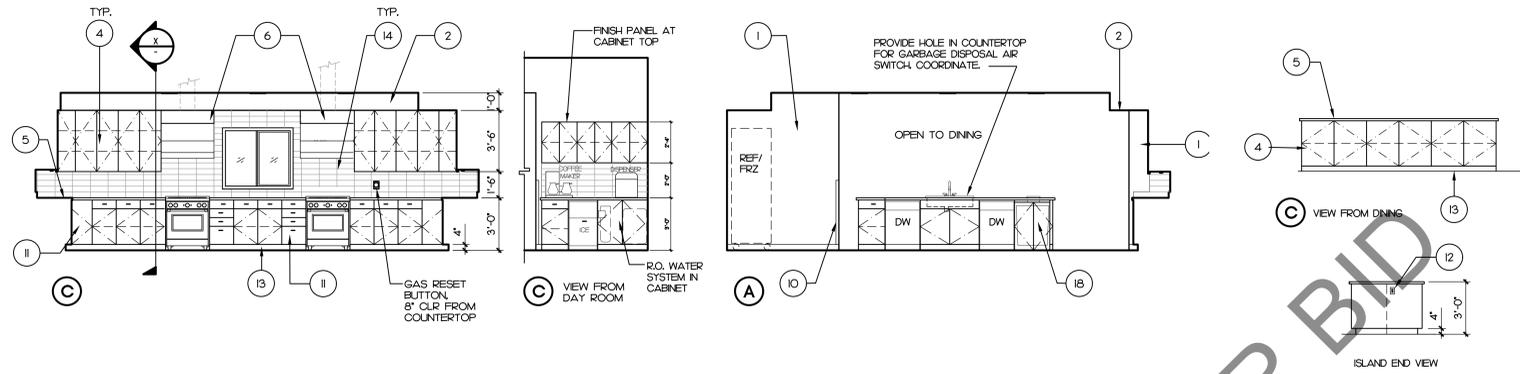
TURN OUT GEAR STORAGE

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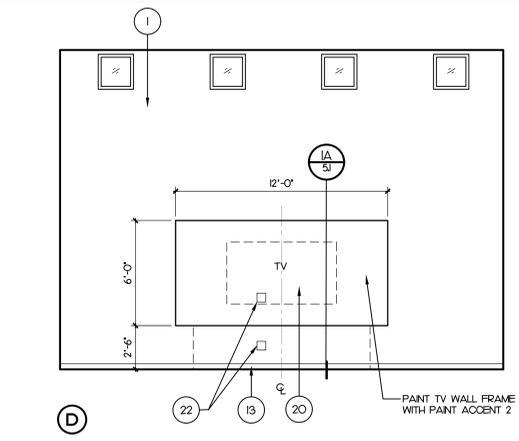


DAYROOM, DINING, KITCHEN

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



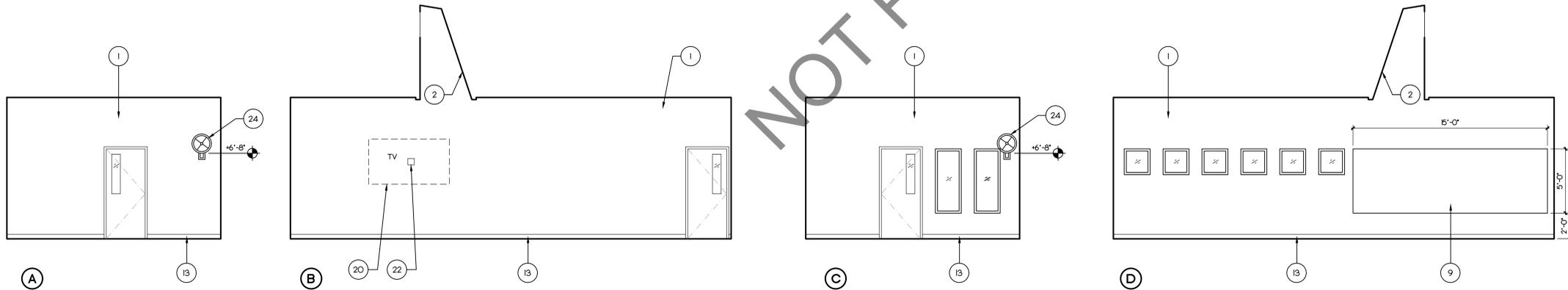
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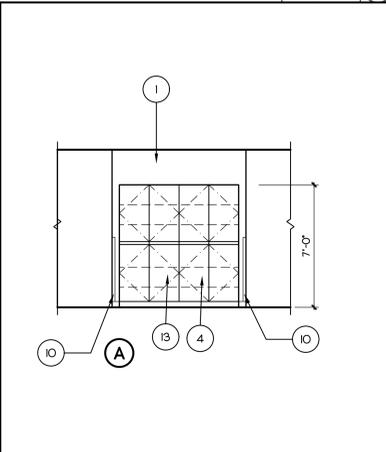
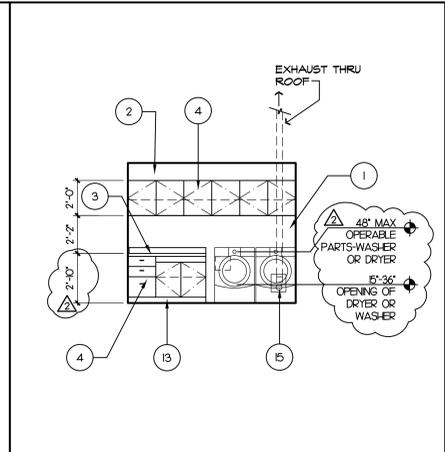
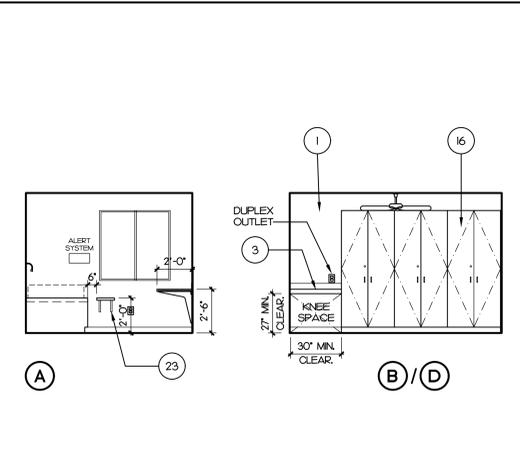
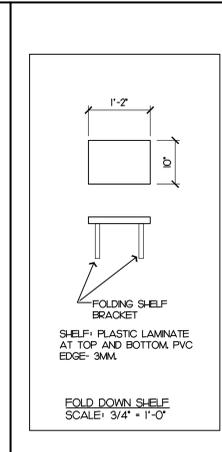
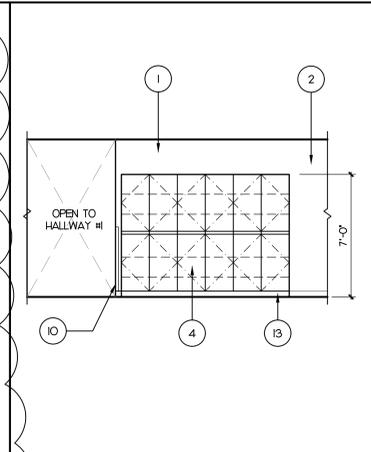
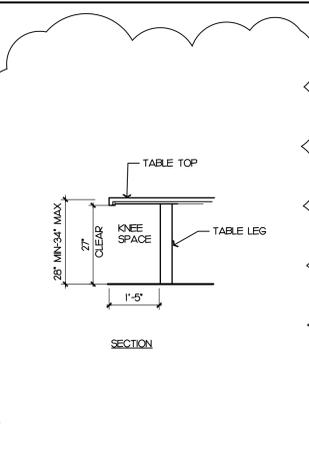
KITCHEN

DAYROOM



FITNESS

SCALE: 1/4"=1'-0" 3



ADA DINING SURFACE SCALE: 1/2"=1'-0" 20

HALLWAY #2 SCALE: 1/4"=1'-0" 16

SLEEP QUARTERS - TYP. SCALE: 1/4"=1'-0" 12

LAUNDRY #2 SCALE: 1/4"=1'-0" 8

HALLWAY #3 SCALE: 1/4"=1'-0" 4

KEY NOTE

1. GYPSUM BOARD.
2. GYPSUM BOARD SOFFIT
3. PLASTIC LAMINATE COUNTERTOP AND 4" SPLASH.
4. PLASTIC LAMINATE CABINETS w/ ADJUSTABLE SHELVES (TYP).
5. QUARTZ COUNTERTOP
6. RANGE EXHAUST HOOD. SEE MECH.
7. NOT USED
8. SHOWER HEAD MOUNTED AT 7'-0" AFF.
9. MIRROR
10. CORNER GUARDS (PVC).
11. CORNER CABINET WITH LAZY-SUSAN STORAGE UNIT.
12. DUPLEX OUTLET
13. 4" TOP SET BASE
14. CERAMIC TILE BACK SPLASH. PROVIDE TILE BEHIND RANGE ALL THE WAY TO FLOOR BASE.
15. RECESSED 4" DEEP x 8" WIDE x 10" SHEET METAL BOX w/ 4" SQ. LINT. CLEAN OUT DOOR & DRYER EXHAUST OUTLET - PAINT.
16. WARDROBE LOCKERS. SEE (K) A&I
17. SANITARY WALL PANEL.
18. CABINET FOR TRASH RECEPTACLE. PROVIDE PLASTIC ON INSIDE SURFACE OF OPENING AND CABINET LINER AT UNDERSIDE OF COUNTER. PROVIDE 9" DIA. S.S. TRASH CHUTE IN COUNTER.
19. COORDINATE REF/FREEZER POWER REQUIREMENTS.
20. TV. PROVIDE WOOD BACKING FOR TV MOUNTING BRACKET/SUPPORT.
21. LAMINATED 3/4" SHOP GRADE PLYWOOD SHELVING
22. J-BOX POWER & DATA. SEE ELECT'L.
23. FOLD-DOWN SHELF
24. WALL MOUNTED FAN. VERIFY MOUNTING HEIGHT WITH OWNER.



CONSULTANT:

PROJECT ADMINISTERED BY:
SAN BERNARDINO COUNTY
PROJECT & FACILITIES
MANAGEMENT DEPARTMENT

385 N. ARROWHEAD AVE.
SAN BERNARDINO, CA 92415

PROJECT NAME:
SAN BERNARDINO
COUNTY FIRE
DEPARTMENT:
FIRE STATION 227

PROJECT # 10.10.202
CIP #22-105
APN Part of 0154-281-01

180 W. 38TH STREET
SAN BERNARDINO,
CA 92405

ISSUE INFORMATION:

DATE:	INFORMATION:
9-11-24	D.D.s
10-26-24	PROGRESS
12-20-24	95% CD's
03-14-25	Plan Check Δ
05-09-25	Plan Check Δ
07-25-25	BID SET
08-22-25	BID SET

SHEET INFORMATION:

STK PROJECT NO.: 374-193-24
SCALE: AS NOTED
DATE: DECEMBER 2024
PLOT DATE:
DRAWING NAME:

SEAL:



SHEET TITLE:

INTERIOR
ELEVATIONS

SHEET NO.:

A5.1

ISSUE INFORMATION:

DATE:	INFORMATION:
9-11-24	D.D.s
10-26-24	PROGRESS
12-20-24	95% CDs
03-14-25	Plan Check
05-09-25	Plan Check
07-25-25	BID SET
08-22-25	BID SET

SHEET INFORMATION:

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 SCALE: AS NOTED
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 PLOT DATE:
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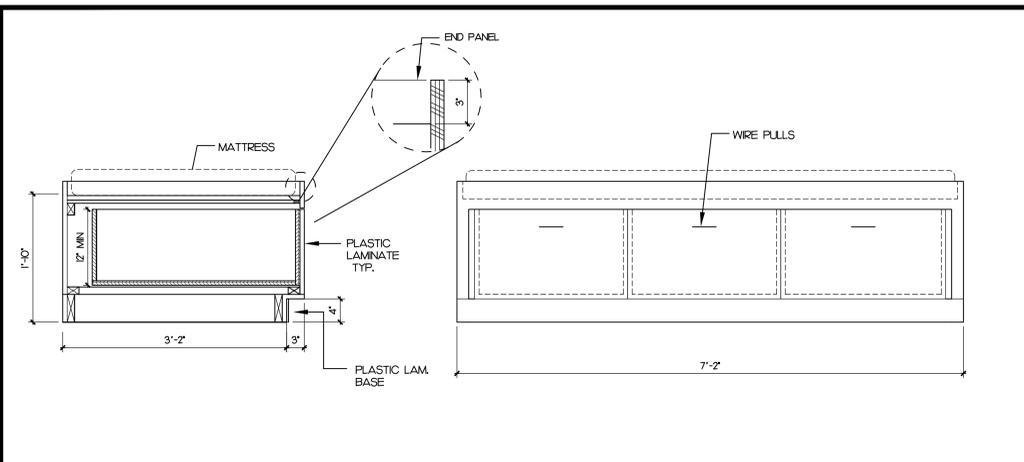


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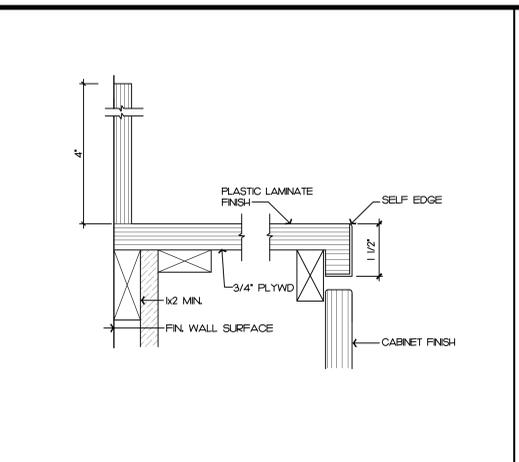
MISC. DETAILS

SHEET NO.:

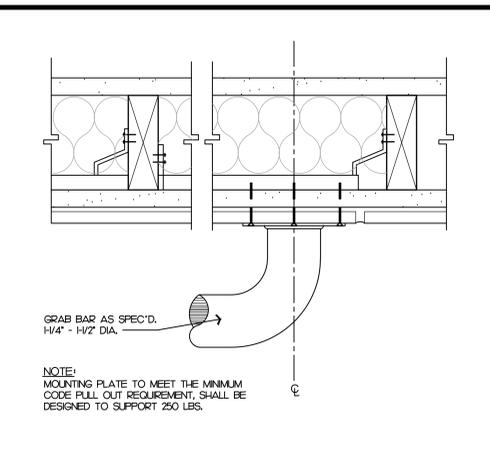
A6.1



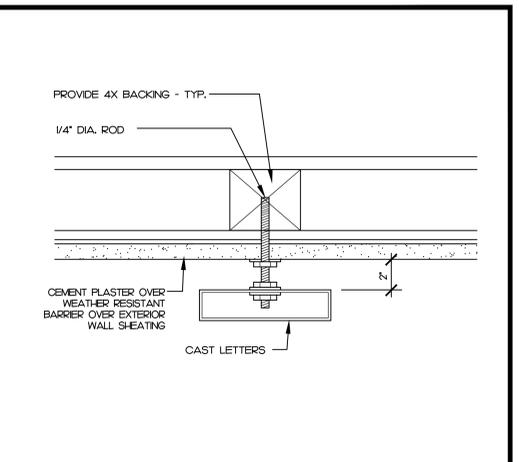
BUILT-IN BED DETAIL SCALE: 1/4"=1'-0" 13



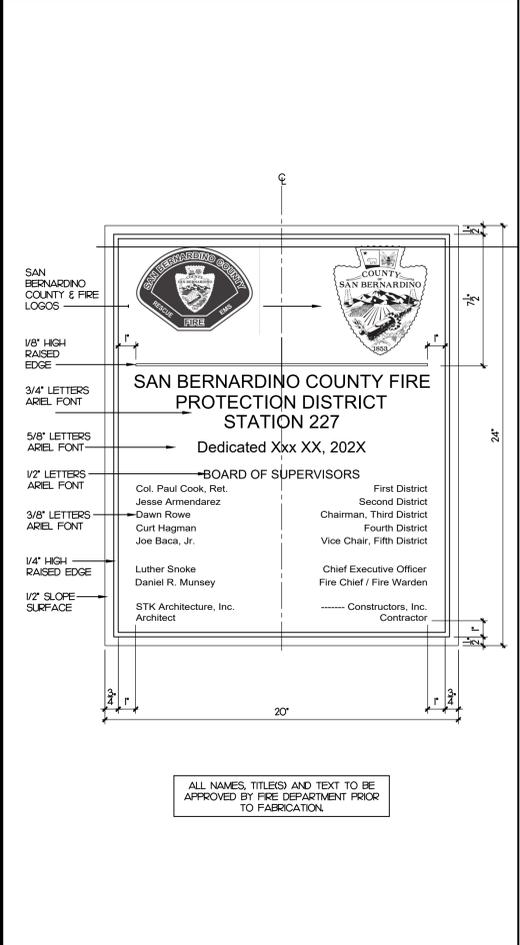
COUNTER EDGE DETAIL SCALE: 1/4"=1'-0" 9



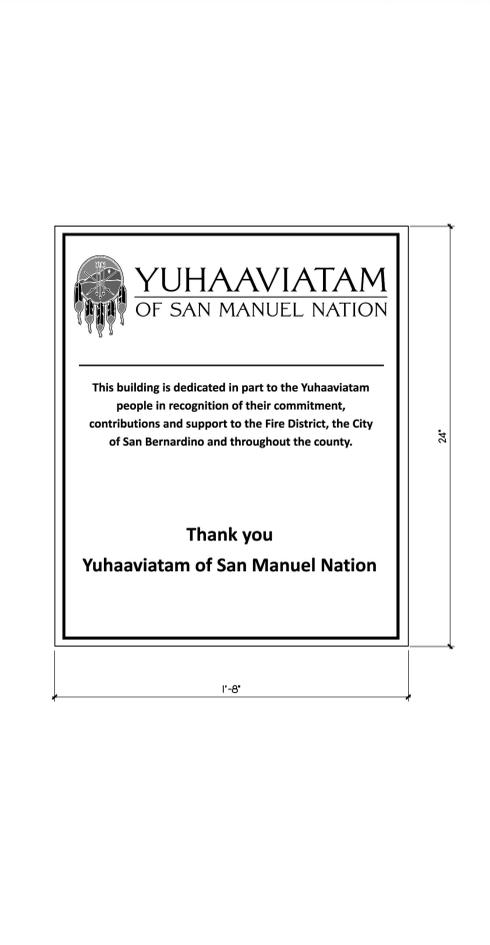
GRAB BAR DETAIL SCALE: 1/4"=1'-0" 5



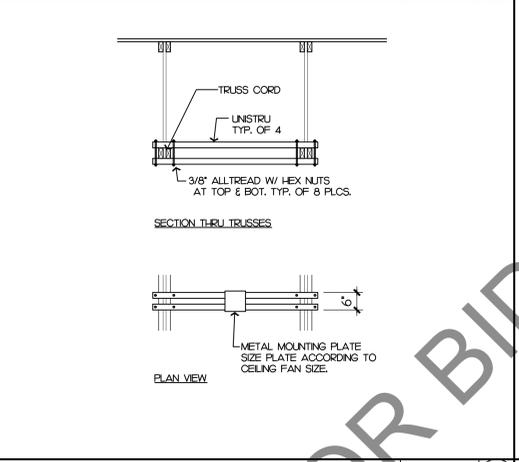
SIGN ATTACHMENT DETAIL SCALE: 3/4"=1'-0" 1



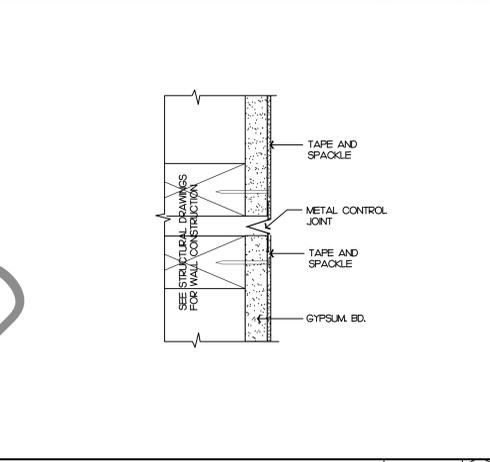
DEDICATION PLAQUE-1 SCALE: 3/4"=1'-0" 17



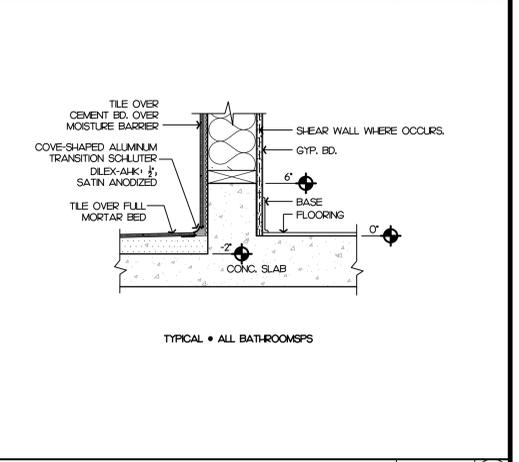
DEDICATION PLAQUE-2 SCALE: 3/4"=1'-0" 15



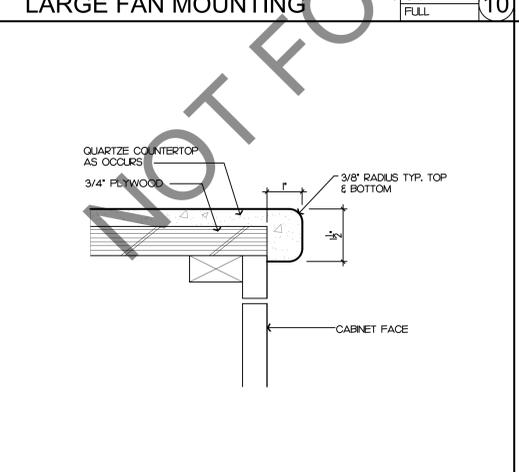
LARGE FAN MOUNTING SCALE: FULL 10



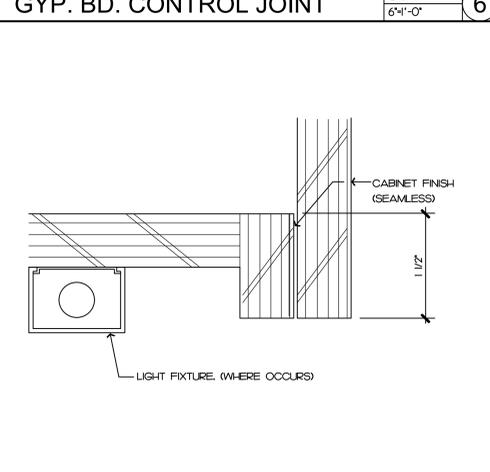
GYP. BD. CONTROL JOINT SCALE: 1/2"=1'-0" 6



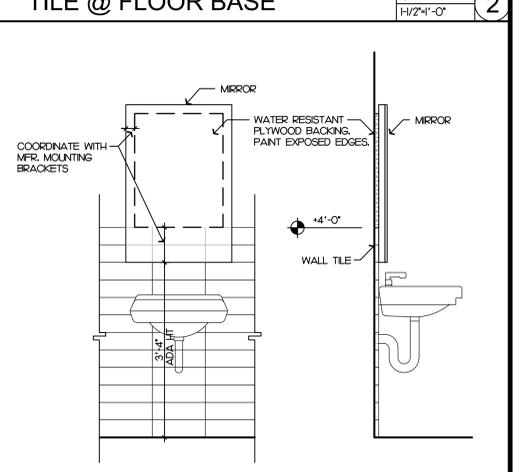
TILE @ FLOOR BASE SCALE: 1/2"=1'-0" 2



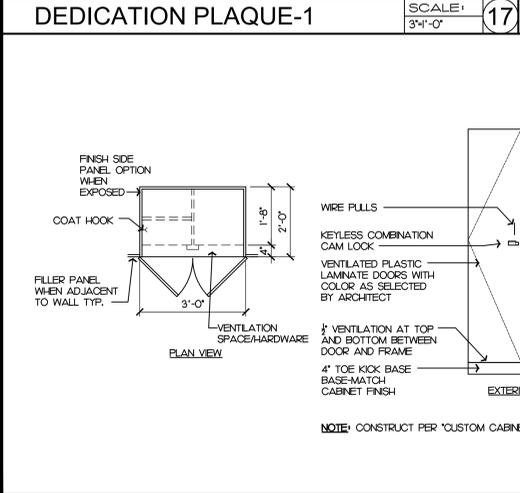
COUNTER EDGE SCALE: 1/4"=1'-0" 11



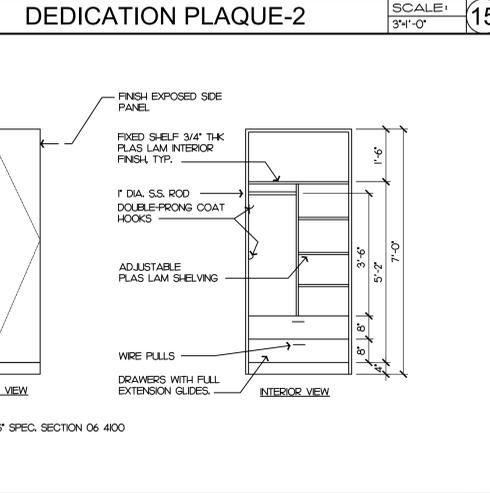
CABINET DETAIL SCALE: FULL 7



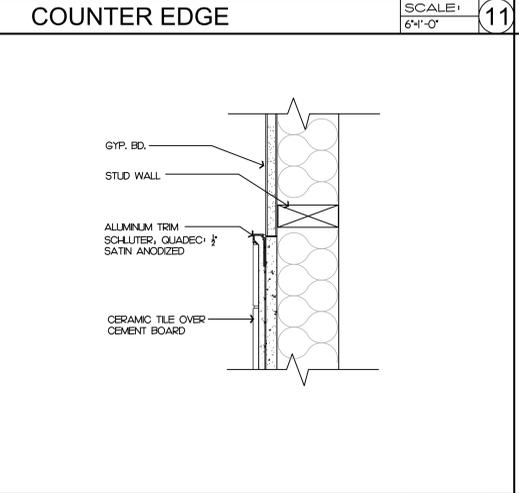
MIRROR DETAIL SCALE: 3/4"=1'-0" 3



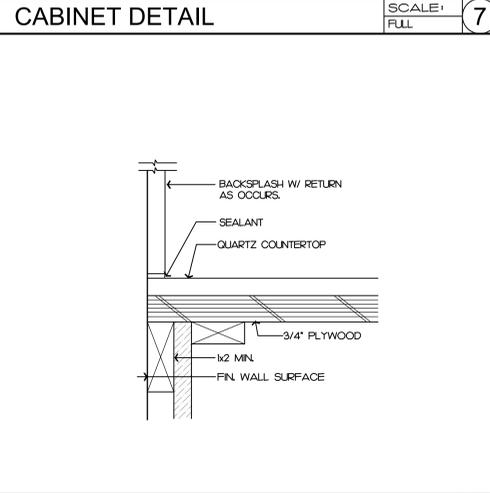
WARDROBE LOCKERS SCALE: 1/2"=1'-0" 16



TILE TRIM DETAIL SCALE: 3/16"=1'-0" 12

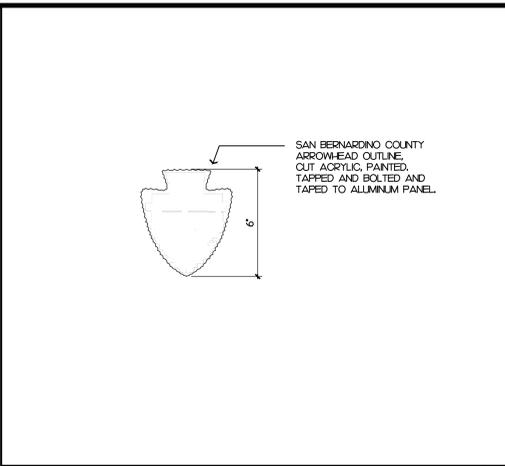
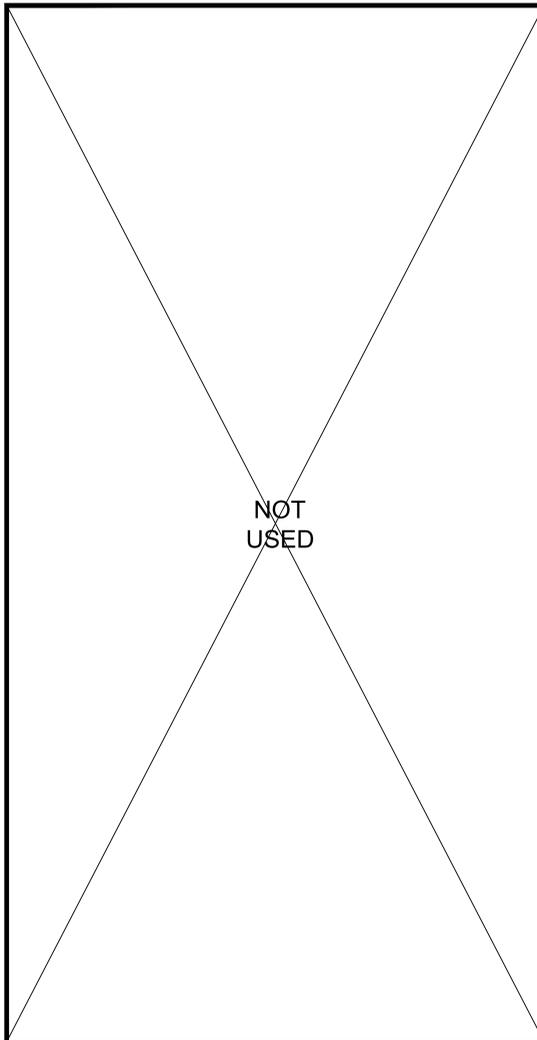


BACK SPLASH DETAIL SCALE: 1/4"=1'-0" 8

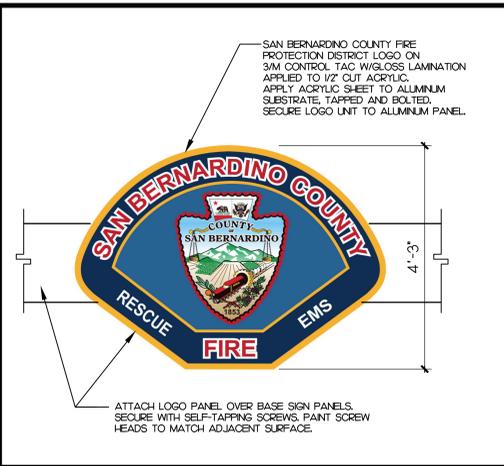


TILE TRANSITION DETAIL SCALE: 3/4"=1'-0" 4

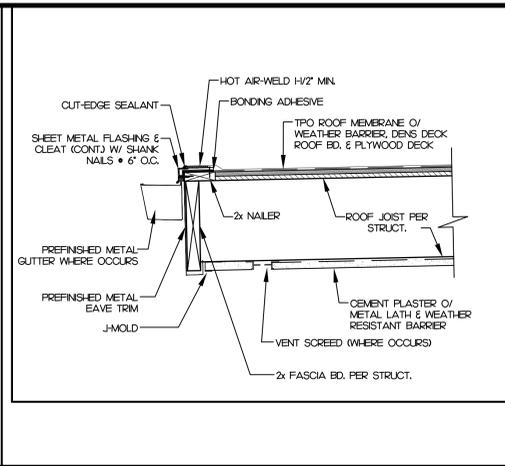
3/22/2025 1:31PM J:\24 SAN BERNARDINO\180324 Fire Station 227\Architectural\A6.1.dwg P: 227 ARCHITECTURE DETAILS.dwg



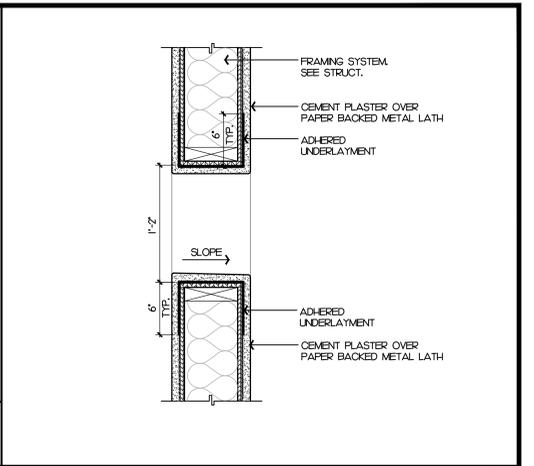
SBC ARROWHEAD SCALE: 3/4"=1'-0" **13**



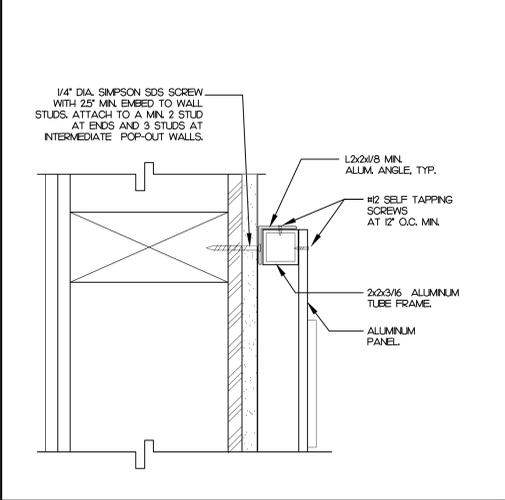
FIRE DEPT. LOGO SCALE: 3/4"=1'-0" **9**



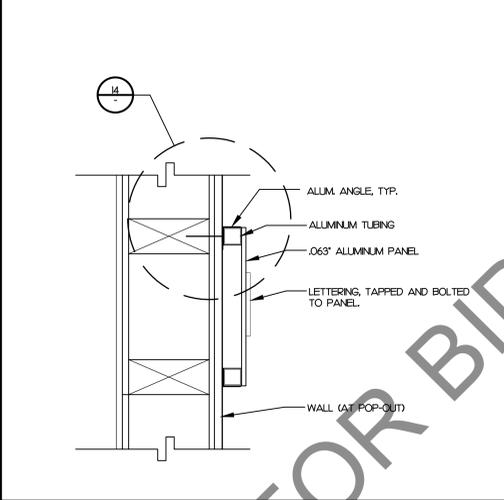
ROOF EDGE DETAIL SCALE: 1/2"=1'-0" **5**



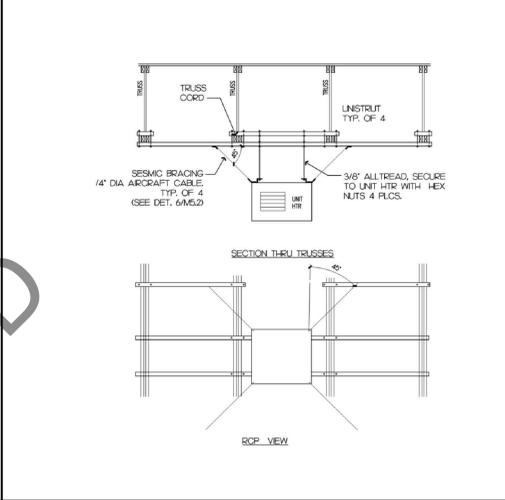
PATIO WINDOW SCALE: 1/2"=1'-0" **1**



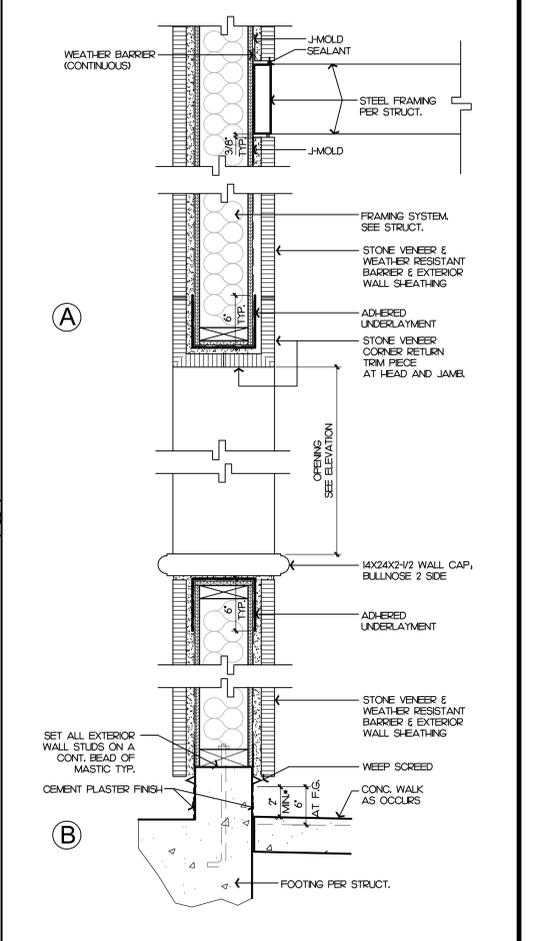
SIGN ATTACHMENT SCALE: 3/4"=1'-0" **10**



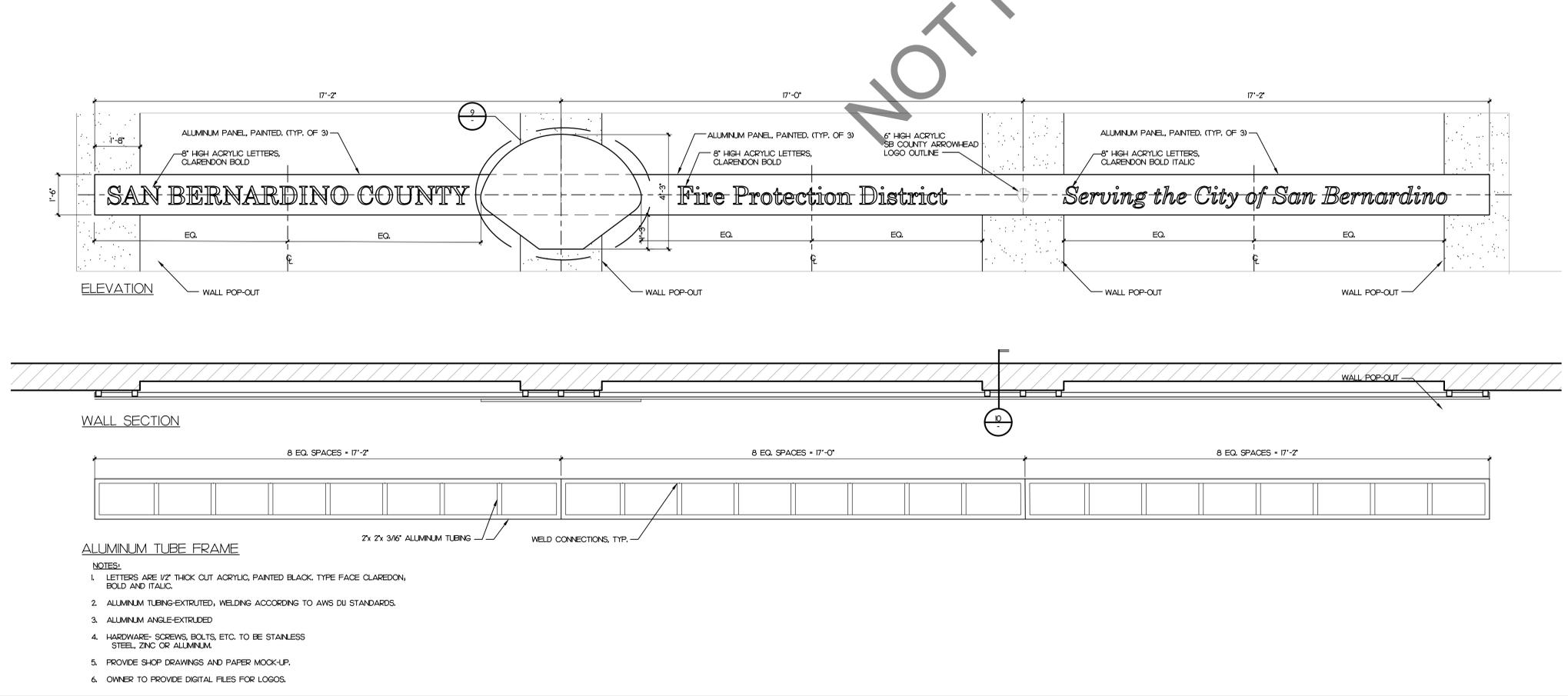
SIGN SECTION SCALE: 1/2"=1'-0" **10**



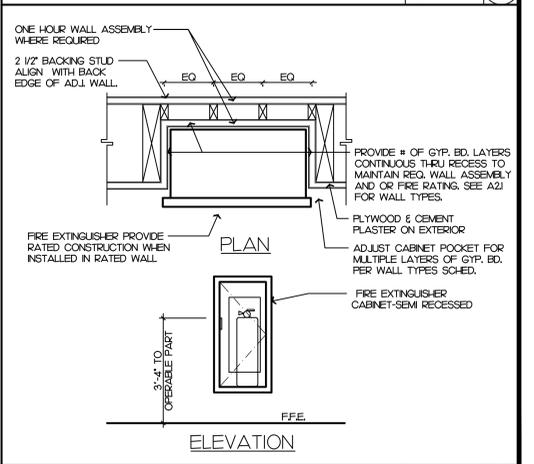
UNIT HEATER MOUNTING SCALE: N.T.S. **6**



DETAIL SCALE: 1/2"=1'-0" **3**



SIGN ELEVATION / DETAILS SCALE: 1/2"=1'-0" **8**



SEMI-RECESSED FIRE EXT. SCALE: 3/4"=1'-0" **4**



PROJECT ADMINISTERED BY:
SAN BERNARDINO COUNTY
PROJECT & FACILITIES
MANAGEMENT DEPARTMENT

385 N. ARROW-HEAD AVE.
SAN BERNARDINO, CA 92415

PROJECT NAME:
SAN BERNARDINO
COUNTY FIRE
DEPARTMENT:
FIRE STATION 227

PROJECT # 10J01202
CIP #22-105
APN Part of 0154-281-01

180 W. 38TH STREET
SAN BERNARDINO,
CA 92405

ISSUE INFORMATION:

DATE:	INFORMATION:
9-11-24	D.D.s
10-26-24	PROGRESS
12-20-24	95% CD's
03-14-25	Plan Check Δ
05-09-25	Plan Check Δ
07-25-25	BID SET
08-22-25	BID SET

SHEET INFORMATION:

STK PROJECT NO.: 374-193-24
SCALE: AS NOTED
DATE: DECEMBER 2024
PLOT DATE:
DRAWING NAME:



SHEET TITLE:

MISC. DETAILS

SHEET NO.:

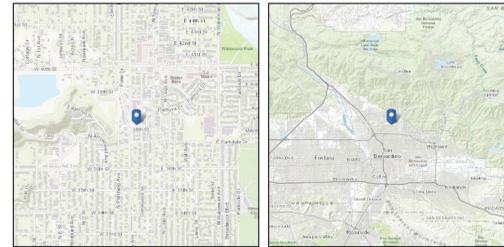
A6.2

DESIGN PARAMETERS



ASCE Hazards Report

Address: No Address at This Location
Standard: ASCE/SEI 7-16
Risk Category: IV
Soil Class: D - Stiff Soil
Latitude: 34.160118
Longitude: -117.286677
Elevation: 1286.6701953335498 ft (NAVD 88)



Wind

Results:
 Wind Speed: 125 Vmph for Special Wind Region
 10-year MRI: 67 Vmph
 25-year MRI: 72 Vmph
 50-year MRI: 77 Vmph
 100-year MRI: 82 Vmph
 Special: Special Wind Region -- Mountainous terrain, gorges, and special wind regions shown in Fig. 26.5-1 shall be examined for unusual wind conditions. The Authority Having Jurisdiction shall, if necessary, adjust the values given in Fig. 26.5-1 to account for higher local wind speeds. Such adjustment shall be based on meteorological information and an estimate of the basic wind speed obtained in accordance with the provisions in Section 26.5.3.

Data Source: ASCE/SEI 7-16, Fig. 26.5-1D and Figs. CC.2-1-CC.2-4, and Section 26.5.2
Date Accessed: Thu Aug 29 2024



Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 1.0% probability of exceedance in 50 years (annual exceedance probability = 0.00033, MRI = 3,000 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

SHEET INDEX

GENERAL NOTES

- SCS STRUCTURAL COVER SHEET
- SN1 STRUCTURAL NOTES
- SN2 STRUCTURAL NOTES

PLANS

- S1 FOUNDATION PLAN
- S2 LOW ROOF FRAMING PLAN
- S3 HIGH / CLERESTORY ROOF FRAMING PLAN
- S4 CEILING FRAMING PLAN
- S5 SITE STRUCTURES, STORAGE BUILDING & TRASH ENCLOSURE - ROOF FRAMING AND FOUNDATION PLANS
- S6 SITE STRUCTURES, FUEL GENERATOR/TANK CANOPY ROOF FRAMING & FOUNDATION PLANS

STRUCTURAL DETAILS

- SD1 FOUNDATION DETAILS
- SD1.1 SITE & RETAINING WALL DETAILS
- SD2 GENERAL WOOD FRAMING DETAILS
- SD3 ROOF FRAMING DETAILS
- SD3.1 AWNING FRAMING DETAILS
- SD4 SITE STRUCTURES - ADDITIONAL DETAILS

PROJECT DESIGN CRITERIA	
BUILDING CODE:	2022 CBC
LOCATION (LATITUDE / LONGITUDE):	34.160118, -117.286677
GEOTECHNICAL PARAMETERS:	
SOILS ENGINEER:	INLAND FOUNDATION ENGINEERING, INC.
REPORT NUMBER:	S168-193
DATE:	SEPTEMBER 6, 2024
ALLOWABLE SOIL BEARING PRESSURE:	2,000PSF - 4,000PSF
ALLOWABLE PASSIVE PRESSURE:	250PCF
EXPANSION POTENTIAL:	LOW
LIQUEFACTION POTENTIAL:	NOT SIGNIFICANT
DIFFERENTIAL SETTLEMENT POTENTIAL:	LESS THAN 1/2" OVER 30'
CORROSIVITY:	MODERATE
SULFATE CONTENT:	CLASS SO
CHLORIDE CONTENT:	30 PPM
SEISMIC DESIGN PARAMETERS:	
RISK CATEGORY:	IV
SITE CLASS:	D
SHORT PERIOD SPECTRAL ACCELERATION, S ₁ :	2.506
1 st PERIOD SPECTRAL ACCELERATION, S ₁ :	1.002
SPECTRAL RESPONSE COEFFICIENT, S _{DS} :	1.620
SHORT PERIOD SPECTRAL RESPONSE, S _{DS} :	1.670
SITE COEFFICIENT, F _a :	1.2
SITE COEFFICIENT, F _v :	1.7
SEISMIC DESIGN CATEGORY:	F
SEISMIC IMPORTANCE FACTOR, I _e :	1.5
RESPONSE MODIFICATION, R & SEISMIC FORCE RESISTING SYSTEM:	6.5 - LIGHT FRAMED SHEAR WALLS
DESIGN PROCEDURE:	EQUIVALENT LATERAL FORCE
REDUNDANCY FACTOR, p:	1.0
SYSTEM OVERSTRENGTH FACTOR, Ω:	2.5
DEFLECTION AMPLIFICATION FACTOR, C _d :	4.0
HORIZONTAL STRUCTURAL IRREGULARITIES:	NONE
VERTICAL STRUCTURAL IRREGULARITIES:	NONE
WIND DESIGN PARAMETERS:	
RISK CATEGORY:	IV
WIND EXPOSURE CATEGORY:	C
ULTIMATE DESIGN WIND SPEED (3-SECOND GUST), V _{ULT} :	125
NOMINAL DESIGN WIND SPEED (3-SECOND GUST), V _{ASD} :	97 MPH
INTERNAL PRESSURE COEFFICIENT, GC _{pi} :	±0.18

GRAVITY DESIGN PARAMETERS: (PSF, SERVICE LOADS)					
	DEAD	ROOF LIVE	SNOW	LIVE	TOTAL
ROOF:	15	20	-	-	35
EXTERIOR WALL:	15	-	-	-	15
INTERIOR WALL:	10	-	-	-	10



4205 ZEVOR DR., TEMECULA, CALIFORNIA 92590-3700
 Phone: 951.296.0110 Fax: 951.296.6079 Email: sk@stkrco.com

CONSULTANT:



STRUCTURAL ENGINEERS

23369 VIA INDUSTRIAL
 TEMECULA, CA 92590
 TELE 951-694-0032
 WWW.ISEENGINEERS.COM
 SOCIAL | NORCAL | COLORADO
 ISE PROJECT NO.: 24-8400.32

PROJECT MANAGER:
 SANDY FONG EXT. 1016
 SANDY@ISEENGINEERS.COM

PROJECT ADMINISTERED BY:
 SAN BERNARDINO COUNTY
 PROJECT & FACILITIES
 MANAGEMENT DEPARTMENT

385 N. ARROWHEAD AVE.
 SAN BERNARDINO, CA 92415

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08-22-25	BID SET

SHEET INFORMATION:

STK PROJECT NO.: 374-193-24
 SCALE: AS NOTED
 DATE: JULY 2025
 PLOT DATE:
 DRAWING NAME:

SEAL:



SHEET TITLE:

STRUCTURAL
 COVER SHEET

SHEET NO.:

SCS

NOT FOR BID

WOOD MANUFACTURED PLATED TRUSSES

- MANUFACTURED PLATED TRUSSES ARE A DEFERRED SUBMITTAL ITEM. SEE DESIGN/BUILD NOT SECTION FOR REQUIREMENTS.
- GRAVITY LOADS REFER TO PROJECT DESIGN CRITERIA FOR ALL ROOF & FLOOR MEMBER GRAVITY LOAD REQUIREMENTS. TRUSSES SHALL BE DESIGNED WITH CONSIDERATION FOR ALL SUPERIMPOSED LOADS, SUCH AS CHIMNEY FLUE FRAMING, MECHANICAL EQUIPMENT, ETC. PER NFPA 13-16 SECTION 9.2.1.1, FIRE SPRINKLER PIPE SHALL BE SUBSTANTIALLY SUPPORTED FROM THE BUILDING STRUCTURE, WHICH MUST SUPPORT THE SPRINKLER LOADS ON THE WATER-FILLED PIPE PLUS A MINIMUM OF 250 LB. APPLIED AT THE POINT OF HANGING.
- LATERAL LOADS: TRUSSES SHALL BE DESIGNED FOR SPECIFIC DRAG LOADS NOTED ON THE STRUCTURAL PLANS. ALL GABLE END TRUSSES SHALL BE DESIGNED FOR A MINIMUM 1000# LATERAL LOAD.
- MATERIAL: ALL TRUSSES SHALL UTILIZE DOUGLAS FIR LUMBER UNLESS NOTED OTHERWISE.
- DESIGN & CONSTRUCTION: THE STRUCTURAL DESIGN, MEANS OF CONSTRUCTION AND BRACING OF TRUSSES IS THE SOLE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND ENGINEER OF RECORD FOR THE TRUSS DESIGN AND NOT BE.
- SHOP DRAWINGS: THE TRUSS SUPPLIER SHALL SUBMIT SHOP DRAWINGS TO BE FOR REVIEW AND APPROVAL FOR GENERAL CONFORMANCE TO THE BUILDING STRUCTURAL DESIGN. THE SHOP DRAWINGS SHOULD INCLUDE A FLOOR PLAN LAYOUT AND DESIGN FOR EACH SPECIFIC TRUSS. THE TRUSS CALCULATION SHOULD INCLUDE MATERIAL TYPE, LOADING, TRUSS PROFILE AND REACTIONS.
- HANGERS: THE TRUSS SUPPLIER SHALL SPECIFY ALL TRUSS TO TRUSS & TRUSS TO FRAMING MEMBER HANGERS.
- LAYOUT & SPACING: THE STRUCTURAL PLANS SPECIFY A RECOMMENDED SPACING OF TRUSSES. THE TRUSS DESIGN PACKAGE DETERMINES THE FINAL SPACING OF TRUSSES. THE INTENT OF THE STRUCTURAL PLANS IS A RECOMMENDATION AND IN NO WAY REPRESENTS THE FINAL TRUSS SPACING. CONSTRUCTION SHALL BE LIMITED TO THE FOLLOWING:

LEVEL	DEFLECTION CRITERIA	
	LIVE LOAD	TOTAL LOAD
ROOF	L/360	L/240
FLOOR	L/600	L/240

CONVENTIONAL WOOD FRAMING REQUIREMENTS - CBO A TABLE 2304.10.1

CONNECTION	NAILING
BLOCKING BETWEEN JOISTS OR RAFTERS TOP PLATES, TOENAIL	(2) 8d COMMON, (3) 3" x 0.131" NAILS, OR (3) 3" 14 GAGE STAPLES
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT WALL TOP PLATES, TOENAIL	(2) 8d COMMON, (2) 3" x 0.131" NAILS, (2) 3" 14 GAGE STAPLES
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT WALL TOP PLATES, END NAIL	(2) 16d COMMON, (3) 3" x 0.131" NAILS, (3) 3" 14 GAGE STAPLES
FLAT BLOCKING TO TRUSS/WEB JOIST	16d COMMON, 3" x 0.131" NAILS, 3" 14 GAGE STAPLES
CEILING JOIST TO TOP PLATE, EACH JOIST TOENAIL	(3) 8d COMMON, (3) 3" x 0.131" NAILS, (2) 3" 14 GAGE STAPLES, 3/4" CROWN
CEILING JOIST, LAPS PARTITION, FACE NAIL	(3) 16d COMMON, (4) 3" x 0.131" NAILS, (4) 3" 14 GAGE STAPLES, 3/4" CROWN
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	PER TABLE 2308.7.3.1
COLLAR TIE TO RAFTER, FACE NAIL	(3) 10d COMMON, (4) 3" x 0.131" NAILS, OR (4) 3" 14 GAGE STAPLES
RAFTER OR ROOF TRUSS TO PLATE, TOENAIL, TABLE 2308.7.5	(3) 10d COMMON, (4) 3" x 0.131" NAILS, OR (4) 3" 14 GAGE STAPLES
ROOF RAFTER TO 2x RIDGE BEAM, END NAIL	(2) 16d COMMON, (3) 3" x 0.131" NAILS, OR (3) 3" 14 GAGE STAPLES
ROOF RAFTER TO 2x RIDGE BEAM, TOE NAIL	(3) 10d COMMON, (4) 3" x 0.131" NAILS, OR (4) 3" 14 GAGE STAPLES
STUD TO STUD (NON-BRACED WALL PANELS), 24" O.C. FACE NAIL	16d COMMON (2) 3/2" x 0.162"
STUD TO STUD (NON-BRACED WALL PANELS), 16" O.C. FACE NAIL	3" x 0.131" NAILS, (3) 3" 14 GAGE STAPLES
STUD TO STUD AT INTERSECTING CORNER (BRACED), 16" O.C. FACE NAIL	16d COMMON (2) 3/2" x 0.162"
STUD TO STUD AT INTERSECTING CORNER (BRACED), 12" O.C. FACE NAIL	3" x 0.131" NAILS, (3) 3" 14 GAGE STAPLES
BUILT-UP HEADER (2" TO 2"), 16" O.C. EACH EDGE, FACE NAIL	16d COMMON (3) 3/2" x 0.162"
CONTINUOUS HEADER TO STUD, TOENAIL	(4) 8d COMMON
TOP PLATE TO TOP PLATE, 16" O.C. FACE NAIL	16d COMMON
TOP PLATE TO TOP PLATE, 12" O.C. FACE NAIL	3" x 0.131" NAILS, 3" 14 GAGE STAPLES
TOP PLATE TO END JOINT, FACE NAIL, MIN. 2" LAP SPLICED LENGTH EACH SIDE END JOINT	(3) 16d COMMON, (12) 3" x 0.131" NAILS, (12) 3" 14 GAGE STAPLES
BOTTOM PLATE TO JOIST, RIM JOIST, OR BLOCKING AT NON-BRACED PANEL, 16" O.C. FACE NAIL	16d COMMON
BOTTOM PLATE TO JOIST, RIM JOIST, OR BLOCKING AT BRACED PANEL, 12" O.C. FACE NAIL	3" x 0.131" NAILS, 3" 14 GAGE STAPLES
BOTTOM PLATE TO JOIST, RIM JOIST, OR BLOCKING AT BRACED PANEL, 16" O.C. FACE NAIL	(2) 16d COMMON, (4) 3" x 0.131" NAILS, (4) 3" 14 GAGE STAPLES
STUD TO TOP OR BOTTOM PLATE, TOENAIL	(4) 8d COMMON, (4) 3" x 0.131" NAILS, (4) 3" 14 GAGE STAPLES
STUD TO TOP OR BOTTOM PLATE, END NAIL	(2) 16d COMMON, (3) 3" x 0.131" NAILS, (3) 3" 14 GAGE STAPLES
TOP OR BOTTOM PLATE TO STUD, END NAIL	(2) 16d COMMON, (3) 3" x 0.131" NAILS, (3) 3" 14 GAGE STAPLES
TOP PLATES, LAP AND INTERSECTIONS, FACE NAIL	(2) 16d COMMON, (3) 3" x 0.131" NAILS, OR (3) 3" 14 GAGE STAPLES
1" BRACE TO EACH STUD AND PLATE, FACE NAIL	(2) 8d COMMON, (2) 3" x 0.131" NAILS, OR (2) 3" 14 GAGE STAPLES
1" x 6" SHEATHING TO EACH BEARING, FACE NAIL	(2) 8d COMMON, (2) 3" x 0.128" NAILS
1" x 8" AND WIDER SHEATHING TO EACH BEARING, FACE NAIL	(3) 8d COMMON, (3) 3" x 0.128" NAILS
JOIST TO SILL OR GIRDER, TOENAIL	(3) 8d COMMON, (3) 3" x 0.131" NAILS, OR (3) 3" 14 GAGE STAPLES
RIM JOIST, BLOCKING TO TOP PLATE, FACE NAIL	8d (2) 12" x 0.131" AT 6" OC, 3" x 0.131" NAILS AT 24" OC, OR 3" 14 GAGE STAPLES AT 6" OC
1" x 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	(2) 8d COMMON
2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	(2) 16d COMMON
2" PLANKS	(2) 16d COMMON AT EACH BEARING
BUILT-UP GIRDER AND BEAMS	20d COMMON AT 32" OC, 3" x 0.131" NAILS AT 24" OC, OR 3" 14 GAGE STAPLES AT 24" AT TOP AND BOTTOM, STAGGERED (2) 20d COMMON, (3) 3" x 0.131" NAILS, OR (3) 3" 14 GAGE STAPLES AT EACH SPLICE
LEDGER STRIP, EACH JOIST OR RAFTER, FACE NAIL	(3) 16d COMMON, (4) 3" x 0.131" NAILS, OR (4) 3" 14 GAGE STAPLES
JOIST TO BAND JOIST, FACE NAIL	(3) 16d COMMON, (4) 3" x 0.131" NAILS, OR (4) 3" 14 GAGE STAPLES
BRIDGING TO JOIST, TOENAIL EACH END	(2) 8d COMMON, (2) 3" x 0.131" NAILS, OR (2) 3" 14 GAGE STAPLES
BRIDGING TO JOIST, TOENAIL EACH END	(2) 8d COMMON, (2) 3" x 0.131" NAILS, OR (2) 3" 14 GAGE STAPLES

EARTHWORK AND FOUNDATIONS

- GEO TECHNICAL REPORT: PERFORM SOILS WORK COMPLYING WITH FOUNDATION DESIGN BASED ON RECOMMENDATIONS IN SOILS REPORT. SEE STRUCTURAL COVER SHEET FOR SOILS REPORT NUMBER AND DATE.
- ALLOWABLE FOUNDATION DESIGN VALUES PER GEO TECHNICAL REPORT: VALUES BELOW MAY BE INCREASED 33 PERCENT FOR TRANSIENT LOADING.
 - A. BEARING CAPACITY: SEE PROJECT DESIGN CRITERIA
 - B. PASSIVE LATERAL BEARING PRESSURE: SEE PROJECT DESIGN CRITERIA
 - C. COEFFICIENT OF FRICTION: SEE PROJECT DESIGN CRITERIA
- GRADING, EXCAVATIONS, BACKFILL AND COMPACTION OF BACKFILL: COMPLY WITH GEO TECHNICAL REPORT AND REQUIREMENTS OF GOVERNING CODE AUTHORITY AND PERFORM ONLY UNDER CONTINUOUS SPECIAL INSPECTION OF GEO TECHNICAL ENGINEER.
- PREPARATION OF SOIL UNDER BUILDING PAD: SEE GEO TECHNICAL REPORT FOR OVER-EXCAVATION OF EXISTING SOIL AND INSTALLATION OF PROPERLY COMPACTED BACKFILL.
- FOUNDATION EXCAVATIONS: FOUNDATIONS ARE TO BEAR ON FIRM EXISTING SOIL OR APPROVED COMPACTED FILL AS INDICATED IN GEO TECH REPORT. EXCAVATIONS ARE TO BE INSPECTED BY GEO TECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL AND FORMWORK. ENSURE EXCAVATIONS ARE CLEANS, DRY AND FREE OF DEBRIS OR LOOSE SOIL. SLOPE SIDES OF EXCAVATION NOT LESS THAN MINIMUM SLOPE INDICATED IN GEO TECHNICAL REPORT. CAST CONCRETE DIRECTLY AGAINST EXCAVATED SURFACES.
- BACKFILLING OF RETAINING WALLS: PLACE AFTER COMPLETION AND INSPECTION OF WATERPROOFING. ADEQUATELY SHORE RETAINING WALLS DURING BACKFILL OPERATION. UNLESS ADEQUATELY SHORED, DO NOT PLACE BACKFILL BEHIND BUILDING STRUCTURE RETAINING WALLS EXCLUDING SITE RETAINING WALLS UNTIL CONCRETE AT ELEVATED FLOOR LEVELS ADJACENT TO WALLS ARE COMPLETELY Poured (IN AREA) AND HAVE CURED FOR AT LEAST 7 DAYS.
- WATER EXPOSURE AT BUILDING PERIMETER FOOTINGS: AT AREAS WHERE SIDEWALKS OR PAVING DO NOT IMMEDIATELY ADJOIN STRUCTURE, PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURE AT BUILDING PERIMETER. LANDSCAPE RETENTION IS NOT PERMITTED WITHIN FIVE FEET OF BUILDING PERIMETER FOOTINGS EXCEPT WHEN ENCLOSED IN PROTECTED PLANTERS WITH DIRECT DRAINAGE AWAY FROM STRUCTURE OR WHICH COMPLY WITH APPLICABLE CODE. DISCHARGE FROM DOWN SPOUTS, ROOF DRAINS AND SCUPPERS IS NOT PERMITTED UNTO UNPROTECTED SOILS WITHIN FIVE FEET OF BUILDING PERIMETER. REFER TO GEO TECHNICAL REPORT FOR COMPLETE REQUIREMENTS.

WOOD FRAMING

1. SAWN LUMBER: ALL STRUCTURAL SAWN LUMBER SHALL BE DOUGLAS FIR LARCH WITH 19% MAXIMUM MOISTURE CONTENT OF THE FOLLOWING GRADES, CONFORMING TO STANDARD GRADING RULES FOR LUMBER FOR CONSTRUCTION PER 2017, UNLESS NOTED OTHERWISE. THE LUMBER GRADES AS SPECIFIED BELOW MEET MINIMUM REQUIREMENTS:

CONDITION	LUMBER GRADES	GRADE
PLATES & BLOCKING		STANDARD OR BETTER
STUDS TO 10'-0" IN HEIGHT		STANDARD OR BETTER
STUDS OVER 10'-0" IN HEIGHT	#2	
2x RAFTER JOISTS	#2	
4x6 THROUGH 4x12 BEAMS, HEADER & POSTS	#2	
4x14 BEAMS, HEADERS & POSTS	#1	
4x4 POSTS, HEADERS	#1	
6x AND LARGER POSTS, BEAMS, STRINGERS	#1	

- GRADE STAMPS: WHERE POSSIBLE ALL LUMBER GRADE STAMPS SHALL REMAIN ON LUMBER AFTER INSTALLATION. CONVENTIONAL LUMBER SHALL MEET DOO PS 20 REQ.
- PRESSURE TREATED LUMBER: ALL EXPOSED EXTERIOR WOOD AND WOOD BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED FIR, ALL NAILS TO PLATES TREATED W/ BORATE MAY BE STANDARD NAILS. ALL FOR OTHER PRESURE TREATED PLATES, USE HOT DIP GALVANIZED NAILS.
- PLYWOODS: EACH WOOD-BASED STRUCTURAL-USE PANEL USED FOR DIAPHRAGM CONSTRUCTION SHALL BE IDENTIFIED BY A REGISTERED STAMP OR BRAND OF AN ICC-APPROVED COMPLIANCE ASSURANCE AGENCY WOOD-BASED STRUCTURAL-USE PANELS SHALL MEET THE REQUIREMENTS OF DOO PS 1 OR PS 2. ALL PANELS SHALL BE GATED WITH EXTERIOR TYPE OF FINISH. PANELS PERMANENTLY EXPOSED TO THE OUTDOORS SHALL BE EXTERIOR TYPE.
- METAL CONNECTORS: ALL METAL CONNECTORS SHALL BE THOSE MANUFACTURED BY SIMPSON STRONG TIE OR USP LUMBER CONNECTORS. THE NAILS FOR THESE CONNECTORS SHALL BE AS SPECIFIED BY THE MANUFACTURERS FOR CAPACITY OF THE HARDWARE. ALL CONNECTORS REFER TO SIMPSON PRODUCT CODES AND NAMES. REFER TO CROSS REFERENCE TABLES PROVIDED BY USP IN THEIR PRODUCT CATALOGS.
- FIRE STOPS: PROVIDE FIRE STOPS AT ALL INTERSECTIONS OF STUD WALLS AT FLOOR, CEILING AND ROOF. FIRE STOPS SHALL BE 2x NOMINAL THICKNESS OF WOOD AND SHALL BE THE FULL WIDTH OF THE ENCLOSED SPACE. PLACE FIRE STOPS AT A MAXIMUM SPACING OF 10'-0" IN THE VERTICAL DIRECTION. PROVIDE 2x FIRE STOPS IN ALL FURRED SPACES. VERTICAL AND HORIZONTAL SPACING OF 10'-0" IN EACH DIRECTION AND AT THE SAME LINES AS FIRE STOPS IN ADJACENT STUD WALLS.
- BOLT HOLES: IN WOOD SHALL BE 1/32" TO 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER. ALL BOLTS SHALL HAVE A STANDARD CUT WASHER UNDER HEAD AND NUTS UNLESS NOTED OTHERWISE.
- BOLTS: ALL BOLTS USED FOR WOOD CONNECTIONS SHALL BE ASTM A307, U.S. ALL TOE AND BOLTS SHALL BE RE-TIGHTENED PRIOR TO THE APPLICATION OF SHEATHING, PLASTER, ETC.
- NOTCHING & CUTTING: STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY DETAILED. NOTCHING OF HORIZONTAL STRUCTURAL MEMBERS SHALL COMPLY WITH THE BUILDING CODE. NOTCHING AND BORING OF STUDS AND TOP PLATES SHALL CONFORM TO THE BUILDING CODE.
- JOIST BLOCKING: PROVIDE 2x BLOCKING BETWEEN JOISTS AND RAFTERS AT ALL BEARING SUPPORTS UNLESS CROSS BRIDGING OR SOLID BLOCKING SHALL BE PROVIDED AT 8'-0" O.C. MAXIMUM FOR ALL JOISTS UNLESS BOTH EDGES ARE HELD IN LINE FOR THEIR ENTIRE LENGTH.
- JOIST HANGERS: FOR JOISTS, PROVIDE SIMPSON 'IUS' HANGER. FOR CONVENTIONAL JOIST, USE SIMPSON 'LUS' HANGER, OR EQUIVALENT.
- BEAM BEARING: ALL BEAMS TO BE SUPPORTED WITH FULL BEARING UNLESS NOTED OTHERWISE.
- CONVENTIONAL FRAMING: ALL CONVENTIONAL FRAMED PORTIONS OF THE STRUCTURE ARE TO BE CONSTRUCTED PER CBO SECTION 2308.
- WALLS ON WOOD FLOOR: PROVIDE SINGLE FLOOR JOIST BELOW NON-BEARING, PARALLEL WALLS 10'-0" OR LONGER.
- FINGER JOINTED STUDS: IT IS STRUCTURALLY ACCEPTABLE TO USE STRUCTURAL GLUED (FINGER-JOINTED) LUMBER. ALL FINGER-JOINTED LUMBER MUST BE 'GER EXT' JOINTS' AND CONFORM WITH THE WPPAS GATED PRODUCTS PROCEDURES AND QUALITY CONTROL. FINGER-JOINTED LUMBER IS TO BE STAMPED WITH 'GER EXT' JOINTS' AND MAY BE USED IN INTERIOR AREAS WITH ANY SOLID-SAWN LUMBER PRODUCT OF THE SAME SPECIES AND GRADES. PLEASE REFER TO LUMBER SPECIFICATION IN THE STRUCTURAL GENERAL NOTES AND CALCULATIONS.
- PLATE WASHERS AT NON-SILL PLATE APPLICATION: MINIMUM SIZE FOR SQUARE PLATE WASHERS: REFER TO PLANS FOR SILL PLATE WASHER REQUIREMENTS.)

EXPOSURE CLASS	MAX W/CM	MIN Fc	ADDITIONAL MINIMUM REQUIREMENTS
F0	N/A	2500	AIR CONTENT N/A
F1	0.25	3500	PER TABLE 19.3.1.1 N/A
F2	0.45	4500	PER TABLE 19.3.1.1 N/A
F3	0.40	5000	PER TABLE 19.3.1.1 26.4.2(2)(b)
S0	N/A	2500	CEMENTITIOUS MATERIALS - TYPES ASTM C1157 NO TYPE RESTRICTION
S1	0.50	4000	CEMENTITIOUS MATERIALS - TYPES IP, IS, OR II WITH (HS) DESIGNATION
S2	0.45	4500	V PLUS POZZOLAN OR SLAG CEMENT OR
S3	0.45	4500	V PLUS POZZOLAN OR SLAG CEMENT OR
W0	N/A	2500	NONE
W1	0.50	4000	NONE

CONCRETE CLASS	MAX W/CM	MIN Fc	ADDITIONAL MINIMUM REQUIREMENTS
C0	N/A	2500	1.00 0.06 NONE
C1	N/A	2500	0.30 0.06 NONE
C2	0.40	5000	0.15 0.06 CONCRETE COVER =

PLATE WASHERS NON SILL PLATE APPLICATION	BOLT SIZE	PLATE WASHER SIZE
1"	3/8"	3" x 2 1/2" x 3/8"
1 1/2"	1/2"	3" x 2 1/2" x 3/8"
2"	5/8"	3" x 2 1/2" x 3/8"

MANUFACTURED LUMBER PRODUCTS

- MANUFACTURED LUMBER: ALL MANUFACTURED SHALL HAVE ICC APPROVAL FOR THE LATEST BUILDING CODE.
- SIZES & STRENGTH: THE FOLLOWING MINIMUM DESIGN VALUES MUST BE ACHIEVED FOR EACH TYPE OF MANUFACTURED LUMBER SPECIFIED ON THE STRUCTURAL PLANS.

BEAM TYPE	Fb (PSI)	Fv (PSI)	E (PSI x 10^6)
PSL - PARALLAM	2,900	290	2.0
LVL - MICRO LAM	2,600	285	1.9
LSL - TIMBERSTRAND	1,700	310	1.65
RLM - TIMBERSTRAND	2,325	400	1.83

MODEL NAME	CAPACITY (LBS)	FASTENER SCHEDULE	APPLICATION	MODEL NAME
MTH4	3,500	(24) 10d Nails (0.131" x 1-1/2)	HOLDOWN OR RIM	MPA1
HU4	4,455	(18) 8d #10 x 1-1/2	HOLDOWN	MP4F
HU4	4,565	(10) 3/2" x 2-1/2" SDS	HOLDOWN	MP4F
HU5	5,645	(14) 3/2" x 2-1/2" SDS	HOLDOWN	MP4F
HU8	6,755	(20) 3/2" x 2-1/2" SDS	HOLDOWN	MP4F
HU11	9,335	(30) 3/2" x 2-1/2" SDS	HOLDOWN	MP4F
HU14	10,770	(36) 3/2" x 2-1/2" SDS	HOLDOWN	MP4F

MODEL NAME	CAPACITY (LBS)	FASTENER SCHEDULE	APPLICATION	MODEL NAME
CS16	1,705	(22) 8d Nails (0.131" x 2-1/2)	DIRECTLY TO THRU PLYWOOD	RS150
CS14	2,490	(30) 8d Nails (0.131" x 2-1/2)	DIRECTLY TO TIMBER	RS150
CMSTC16	4,690	(60) 10d Nails (0.148" x 3-1/2)	DIRECTLY TO TIMBER	
CMST14	6,475	(66) 10d Nails (0.148" x 2-1/2)	DIRECTLY TO TIMBER	
CMST12	9,215	(66) 10d Nails (0.148" x 2-1/2)	DIRECTLY TO TIMBER	

CONCRETE EXPOSURE REQUIREMENTS

ACI 318-14 TABLE 19.3.1.1 - EXPOSURE CATEGORIES AND CLASSES	CLASS	CONDITION
F FREEZING AND THAWING	F0	CONCRETE NOT EXPOSED TO FREEZING-AND-THAWING CYCLES
	F1	CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH LIMITED EXPOSURE TO WATER
	F2	CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH FREQUENT EXPOSURE TO WATER
S SULFATE	S0	CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH FREQUENT EXPOSURE TO WATER AND EXPOSURE TO DEICING CHEMICALS
	S1	WATER SOLUBLE SULFATE (SO4) IN PERCENT BY WEIGHT IN WATER, PPM
	S2	SO4 < 0.10
W IN CONTACT WITH WATER	W0	CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS NOT REQUIRED
	W1	CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS NOT REQUIRED
	W2	CONCRETE DRY OR PROTECTED FROM MOISTURE
C CORROSION PROTECTION OF REINFORCEMENT	C1	CONCRETE EXPOSED TO MOISTURE BUT NOT TO EXTERNAL SOURCES OF CHLORIDES
	C2	CONCRETE EXPOSED TO MOISTURE AND AN EXTERNAL SOURCE OF CHLORIDES FROM DEICING CHEMICALS, SALT, BRACKISH WATER, SEAWATER, OR SPRAY FROM THESE SOURCES

EXPOSURE CLASS	MAX W/CM	MIN Fc	ADDITIONAL MINIMUM REQUIREMENTS
F0	N/A	2500	AIR CONTENT N/A
F1	0.25	3500	PER TABLE 19.3.1.1 N/A
F2	0.45	4500	PER TABLE 19.3.1.1 N/A
F3	0.40	5000	PER TABLE 19.3.1.1 26.4.2(2)(b)
S0	N/A	2500	CEMENTITIOUS MATERIALS - TYPES ASTM C1157 NO TYPE RESTRICTION
S1	0.50	4000	CEMENTITIOUS MATERIALS - TYPES IP, IS, OR II WITH (HS) DESIGNATION
S2	0.45	4500	V PLUS POZZOLAN OR SLAG CEMENT OR
S3	0.45	4500	V PLUS POZZOLAN OR SLAG CEMENT OR
W0	N/A	2500	NONE
W1	0.50	4000	NONE

CONCRETE CLASS	MAX W/CM	MIN Fc	ADDITIONAL MINIMUM REQUIREMENTS
C0	N/A	2500	1.00 0.06 NONE
C1	N/A	2500	0.30 0.06 NONE
C2	0.40	5000	0.15 0.06 CONCRETE COVER =

- MAXIMUM WATER SOLUBLE CHLORIDE ION CONTENT IN CONCRETE PERMITS IS NOT REQUIRED.
- NON-PRESTRRESSED CONCRETE.
- PRESTRESSED CONCRETE.
- MAXIMUM WATER SOLUBLE CHLORIDE ION CONTENT IN CONCRETE PERMITS IS NOT REQUIRED.
- OTHER AVAILABLE TYPES OF CEMENT SUCH AS TYPE III OR TYPE IV ARE PERMITTED IN EXPOSED AREAS IF THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG CEMENT DOES NOT EXCEED 0.40.
- EXPOSED AREAS: THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG CEMENT TO BE USED SHALL BE AT LEAST THE AMOUNT TESTED IN ACCORDANCE WITH ASTM D1155 AND MEETING THE CRITERIA IN 26.4.2(2)(b).
- WATER-SOLUBLE CHLORIDE ION CONTENT THAT IS CONTRIBUTED FROM THE INGREDIENTS INCLUDING WATER, AGGREGATES, CEMENTITIOUS MATERIALS, AND ADMIXTURES SHALL BE DETERMINED ON THE CONCRETE MIXTURE BY ASTM C1218 AT AGE BETWEEN 28 AND 42 DAYS.
- CONCRETE COVER SHALL BE IN ACCORDANCE WITH 20.6.

PROPRIETARY ANCHORS AND FASTENERS

- ANCHORAGES:
 - 1.A. DRILL AND EPOXY ANCHORS: SIMPSON STRONG TIE EPXY ADHESIVE SYSTEM USING THREADED STEEL RODS CONFORMING TO ASTM F1554, GRADE 88, OR REINFORCING STEEL CONFORMING TO ASTM A615 OR A706, GRADE 60, COMPLYING WITH ICC ESR 2908. INSTALLERS TO BE CERTIFIED BY MANUFACTURER.
 - 1.B. MECHANICAL ANCHORS:
 - 1.B.1. HILTI KWIK BOLT-III CARBON STEEL EXPANSION ANCHORS COMPLYING WITH ICC ESR-2713.
 - 1.B.2. SIMPSON TITEN HD ANCHORS STEEL SCREW ANCHORS COMPLYING WITH ICC ESR-2713.
 - 1.B.2.1. TITEN HD ANCHORS SHALL BE STAINLESS STEEL IN EXPOSED WET ENVIRONMENTS.
 - 1.C. WELDED SHEAR STUDS: NELSON 3SL FLUX FILLED, HEADED STUD ANCHORS, 60,000 PSI MINIMUM ULTIMATE TENSILE STRENGTH, AUTOMATICALLY END WELDED IN EXPOSURE CLASS F0 OR F1. REFER TO THE STRUCTURAL PLANS FOR DETAILS.
 - 1.D. WELDED DEFORMED ANCHORS, NELSON D2L, COLD ROLLED, DEFORMED STEEL REINFORCING BARS CONFORMING TO ASTM A496 AND COMPLYING WITH ICC ESR REPORT NO. 5217.
- FASTENERS:
 - 2.1. POWERDRIVEN ACTUATED FASTENERS: HILTI XCP, COMPLYING WITH CURRENT ICC ESR REPORT NO. 2379. PROVIDE APPROPRIATE WASHER BETWEEN FASTENER HEAD AND LIGHT GAUGE METAL OR WOOD SURFACE.
 - 2.A.1. POWER-DRIVEN FASTENERS SHALL NOT BE USED TO ANCHOR SILL PLATES EXCEPT AT INTERIOR NON-BEARING WALL. NOT DESIGN AS SHEAR WALLS.
 - 2.B. SELF-DRILLING METAL SCREWS (INDICATED 'SCREWS' ON DRAWINGS): MINIMUM 0.292-1/8" HEAD DIAMETER SELF-DRILLING SELF-TAPPING STEEL SCREWS COMPLYING WITH ICC ESR REPORT. MINIMUM YIELD STRESS, 75,000 PSI.
 - 2.A. FASTENERS, INCLUDING NUTS AND WASHERS, IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. STAPLES SHALL BE OF STAINLESS STEEL. FASTENERS OTHER THAN NAILS, STAPLES, TIMBER RIVETS, WOOD SCREWS AND LAG SCREWS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B695, CLASS 55 MINIMUM.
 - 2.A.1. EXCEPTION: PLAIN CARBON STEEL FASTENERS, INCLUDING NUTS AND WASHERS, IN CONTACT WITH PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED.
- INSTALLATION: SEE MANUFACTURERS WRITTEN INSTRUCTIONS AND REFERENCED ICC ESR REPORT.
- MATERIALS NOT TO BE PENETRATED BY FASTENERS OR ANCHORAGES: POST-TENSIONED CONCRETE AND PRECAST, PRESTRESSED CONCRETE UNLESS SPECIFICALLY DETAILED HEREIN OR AS ACCEPTED IN WRITING BY ARCHITECT (STRUCTURAL ENGINEER), WHEN INSTALLATION IS PERMITTED, LOCATE PRESTRESSING AND POST-TENSIONED TENDONS ACCURATELY PRIOR TO INSTALLATION.
- DRILLING HOLES IN EXISTING CONCRETE OR MASONRY FOR ANCHORAGES: USE NON-PNEUMATIC, ROTARY HAMMER TOOLS WITH ANSI COMPLIANT NON-BEAR CUTTING DRILL BITS TO DRILL HOLES OF PROPER TOLERANCES. LOCATE EXISTING REBAR INCLUDING PRESTRESSING AND POST-TENSIONING TENDONS USING HEATING CONCRETE DETECTOR. NON-DESTRUCTIVE TESTING TO DETERMINE TOLERANCES (PLUS OR MINUS 1/8" INCH PRIOR TO DRILLING 4 HOLES TO AVOID CUTTING OR DAMAGING HOLES SHALL BE THOROUGHLY CLEANED PER MANUFACTURERS WRITTEN RECOMMENDATIONS PRIOR TO INSTALLATION OF ANCHORAGES.
- DELETERIOUS MATERIALS: KEEP ANCHORAGES, INCLUDING HOLES FOR DRILL AND EPOXY ANCHORS AND MECHANICAL ANCHORS, FREE OF DUST, GREASE, AND OTHER MATERIALS THAT IMPAIR BOND.
- TESTING FOR DRILL AND EPOXY ANCHORS:
 - 6.A. SPECIAL INSPECTION: SPECIAL INSPECTOR WILL PERFORM CONTINUOUS SPECIAL INSPECTION DURING INSTALLATION.
 - 7. EXTERIOR PROPRIETARY ANCHORS & FASTENERS:
 - 7.A. FOR EXTERIOR APPLICATIONS & CORROSIVE ENVIRONMENTS, ALL ANCHORS SHOULD BE GALVANIZED OR STAINLESS STEEL. CONTRACTOR TO VERIFY AND REPORT TO ARCHITECT. CONTRACTOR TO VERIFY AND REPORT TO ARCHITECT THAT ALL ANCHORS MEET THE REQUIREMENTS OF THE MANUFACTURER'S WRITTEN RECOMMENDATIONS AND THE STRUCTURAL DESIGNER'S REQUIREMENTS. CONTRACTOR TO IMMEDIATELY NOTIFY THE STRUCTURAL EOR OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.
 - 7.B. EXTERIOR ANCHOR BOLTS AND POST BASES SHALL BE GALVANIZED AND SHALL HAVE AT LEAST TWO GALVANIZED NUTS ABOVE THE BASE PLATE.

REINFORCING STEEL

- REINFORCING STEEL:
 - A. ALL BARS, U.N.O.: ASTM A6

REQUIRED INSPECTION OF STEEL CONSTRUCTION PER CBC 2019 - SECT. 1705.2 & ACI 308-14

PRIOR TO WELDING STEEL - PER TABLE NS.4-1			
CHECK IF REQUIRED	TASK	CONTINUOUS	PERIODIC
X	WELDING QUALIFICATION RECORDS AND CONTINUITY RECORDS		X
X	WELDING PROCEDURES (WPSs) AVAILABLE	X	
X	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES	X	
X	MATERIAL IDENTIFICATION (TYPE/GRADE)		X
--	WELDER IDENTIFICATION SYSTEM (1)	X	
X	FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) <ul style="list-style-type: none"> • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKLING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE) 		X
X	FIT-UP OF GROOVE WELDS OF HSS T-, Y- AND K-JOINT WITHOUT BACKING (INCLUDING JOINT GEOMETRY) <ul style="list-style-type: none"> • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKLING (TACK WELD QUALITY AND LOCATION) 		X
--	CONFIGURATION AND FINISH OF ACCESS HOLES		X
X	FIT-UP OF FILLET WELDS <ul style="list-style-type: none"> • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKLING (TACK WELD QUALITY AND LOCATION) 		X
X	CHECK WELDING EQUIPMENT		X
DURING WELDING STEEL - PER TABLE NS.4-2			
CHECK IF REQUIRED	TASK	CONTINUOUS	PERIODIC
X	CONTROL AND HANDLING OF WELDING CONSUMABLES <ul style="list-style-type: none"> • PACKAGING • EXPOSURE CONTROL 		X
--	NO WELDING OVER CRACKED TACK WELDS		X
--	ENVIRONMENTAL CONDITIONS <ul style="list-style-type: none"> • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE 		X
X	WPS FOLLOWED <ul style="list-style-type: none"> • SETTINGS ON WELDING EQUIPMENT • SHIELDING GAS FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN. MAX.) • PROPER POSITION (F, V, H, OH) 		X
X	WELDING TECHNIQUES <ul style="list-style-type: none"> • PREHEAT AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS (MIN. MAX.) • PROPER POSITION (F, V, H, OH) 		X
--	PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	X	
AFTER WELDING STEEL - PER TABLE NS.4-3			
CHECK IF REQUIRED	TASK	CONTINUOUS	PERIODIC
X	WELDS CLEANED		X
X	SIZE, LENGTH AND LOCATION OF WELDS	X	
X	WELDS MEET VISUAL ACCEPTANCE CRITERIA <ul style="list-style-type: none"> • CRACK PROHIBITION • WELD-BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY 	X	
--	ARC STRIKES	X	
--	K-AREA (2)	X	
--	WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES (3)	X	
--	BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X	
--	REPAIR ACTIVITIES	X	
X	DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	X	
X	NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR	X	

FOOTNOTES:

- THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.
- WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 8 IN. (75 MM) OF THE WELD.
- AFTER ROLLED HEAVY SHAPES (SEE SECTION A3.11) AND BUILT-UP HEAVY SHAPES (SEE SECTION A3.14) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS

EXCEPTION:

SPECIAL INSPECTION OF THE STEEL FABRICATION PROCESS SHALL NOT BE REQUIRED WHERE THE FABRICATOR DOES NOT PERFORM ANY WELDING, THERMAL CUTTING OR HEATING OPERATION OF ANY KIND AS PART OF THE FABRICATION PROCESS. IN SUCH CASES, THE FABRICATOR SHALL BE REQUIRED TO SUBMIT A DETAILED PROCEDURE FOR MATERIAL RECORDS AND PROCEDURES SUCH THAT, AT ANY TIME DURING THE FABRICATION PROCESS, THE MATERIAL SPECIFICATION, AND GRADE FOR THE MAIN STRESS-CARRYING ELEMENTS ARE CAPABLE OF BEING DETERMINED. MILL TEST REPORTS SHALL BE IDENTIFIABLE TO THE MAIN STRESS-CARRYING ELEMENTS WHEN REQUIRED BY THE APPROVED CONSTRUCTION DOCUMENTS.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION PER TABLE 1705.3

TYPE		CONTINUOUS	PERIODIC
X	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT		X
X	REINFORCING BAR WELDING: <ul style="list-style-type: none"> • VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706; • INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 3/4"; AND • INSPECT ALL OTHER WELDS 		X
X	INSPECT ANCHORS CAST IN CONCRETE		X
--	INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS		X
--	ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS <ul style="list-style-type: none"> • MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED ABOVE 		X
X	VERIFY USE OF REQUIRED DESIGN MIX		X
X	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE		X
X	INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES		X
--	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
--	INSPECT PRESTRESSED CONCRETE FOR: <ul style="list-style-type: none"> • APPLICATION OF PRESTRESSING FORCES; AND • GROUPING OF BONDED PRESTRESSING TENDONS 		X
--	INSPECT ERECTION OF PRECAST CONCRETE MEMBERS		X
--	VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO 2. IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, OR F, SPECIAL INSPECTIONS ARE NOT REQUIRED FOR STRUCTURAL STEEL SEISMIC FORCE-RESISTING SYSTEMS WHERE DESIGN AND DETAILING IN ACCORDANCE WITH AISC 360 IS PERMITTED BY ASCE 7, TABLE 15.4-1.		X
--	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

EXCEPTIONS:

- ISOLATED SPREAD FOOTINGS OF BUILDINGS THREE STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK.
- CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF BUILDINGS THREE STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK WHERE:
 - THE FOOTINGS SUPPORT WALLS OF LIGHT FRAME CONSTRUCTION;
 - THE FOOTINGS ARE DESIGNED IN ACCORDANCE WITH 1909.7; OR
 - THE STRUCTURAL DESIGN OF THE FOOTING IS BASED ON $f_{c'} \geq 2,400$ PSI OR LESS, REGARDLESS OF THE COMPRESSIVE STRENGTH SPECIFIED IN THE IN THE CONSTRUCTION DOCUMENTS OR USED IN THE FOOTING CONSTRUCTION.
- NON STRUCTURAL CONCRETE SLABS SUPPORTED DIRECTLY ON THE GROUND, INCLUDING PRESTRESSED SLABS ON GRADE, WHERE THE EFFECTIVE PRE-STRESS IS LESS THAN 150 PSI.
- CONCRETE FOUNDATION WALLS CONSTRUCTED WITH TABLE 1807.1.6.2
- CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS ON GRADE.

MINIMUM VERIFICATION REQUIREMENTS OF MASONRY CONSTRUCTION PER TMS 602-TABLE 3				
CHECK IF REQUIRED	TASK	REQUIRED FOR QUALITY ASSURANCE (1)		
		LEVEL 1	LEVEL 2	LEVEL 3
X	WELDS CLEANED			
X	SIZE, LENGTH AND LOCATION OF WELDS			
X	WELDS MEET VISUAL ACCEPTANCE CRITERIA <ul style="list-style-type: none"> • CRACK PROHIBITION • WELD-BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY 	NR	R	R
--	ARC STRIKES	NR	NR	R
--	K-AREA (2)	NR	NR	R

EXCEPTIONS: SPECIAL INSPECTIONS AND TESTS SHALL NOT BE REQUIRED FOR: 1. EMPERICALLY DESIGNED MASONRY, GLASS UNIT MASONRY OR MASONRY VENEER DESIGNED IN ACCORDANCE WITH SECTION 2109, 2110 OR CHAPTER 14, RESPECTIVELY, WHERE THEY ARE PART OF A STRUCTURE CLASSIFIED AS RISK CATEGORY I, II OR 2. MASONRY FOUNDATION WALLS CONSTRUCTED IN ACCORDANCE WITH TABLE 1807.1.6.3(1), 1807.1.6.3(2), 1807.1.6.3(3) OR 1807.1.6.3(4).

1. THE SHEATHING IS GYPSUM BOARD OR FIBERBOARD.

2. THE SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONLY ONE SIDE OF THE SHEARWALL, SHEAR PANEL OR DIAPHRAGM ASSEMBLY AND THE FASTENER SPACING AT PANEL EDGES IS MORE THAN 4 INCHES ON CENTER.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF WIND RESISTANCE PER 1705.11			
CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	1. IN WIND EXPOSURE CATEGORY B, WHERE $V_{100} \geq 160.9$ 3.1 IS 120 MPH PER HOUR OR GREATER		X
--	2. IN WIND EXPOSURE CATEGORY C OR D, WHERE $V_{100} \geq 110$ MPH OR GREATER		X
STRUCTURAL STEEL PER 1705.11.1			
CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	DURING FIELD GLUING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM	X	--
X	INSPECTION FOR NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM, INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, COLLECTORS (DRAG STRUTS) AND HOLD-DOWNS.		X

EXCEPTION: SPECIAL INSPECTIONS ARE NOT REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING AND OTHER FASTENING TO OTHER ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM, WHERE EITHER OF THE FOLLOWING APPLIES:

- THE SHEATHING IS GYPSUM BOARD OR FIBERBOARD.
- THE SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONLY ONE SIDE OF THE SHEARWALL, SHEAR PANEL OR DIAPHRAGM ASSEMBLY AND THE FASTENER SPACING AT PANEL EDGES IS MORE THAN 4 INCHES ON CENTER.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF WIND RESISTANCE PER 1705.11.2			
CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	INSPECTION FOR WELDING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM		X
--	INSPECTION FOR SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM, INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, COLLECTORS (DRAG STRUTS) AND HOLD-DOWNS.		X

EXCEPTION: SPECIAL INSPECTIONS ARE NOT REQUIRED FOR COLD-FORMED STEEL LIGHT-FRAME SHEAR WALLS AND DIAPHRAGMS, INCLUDING SCREWING, BOLTING, ANCHORING AND OTHER FASTENING TO COMPONENTS OF THE WINDFORCE-RESISTING SYSTEM, WHERE EITHER OF THE FOLLOWING APPLIES:

- THE SHEATHING IS GYPSUM BOARD OR FIBERBOARD.
- THE SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONLY ONE SIDE OF THE SHEARWALL, SHEAR PANEL OR DIAPHRAGM ASSEMBLY AND THE FASTENER SPACING AT PANEL EDGES IS MORE THAN 4 INCHES ON CENTER.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS PER TABLE 1705.6

TYPE		CONTINUOUS	PERIODIC
X	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X
X	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X
X	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		X
X	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL		X
X	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X

EXCEPTION: WHERE SECTION 1803 DOES NOT REQUIRE REPORTING OF MATERIALS AND PROCEDURES FOR FILL PLACEMENT, THE SPECIAL INSPECTOR SHALL VERIFY THAT THE IN-PLACE DRY DENSITY OF THE COMPACTED FILL IS NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT DETERMINED IN ACCORDANCE WITH ASTM D1557.

REQUIRED SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE PER 1705.12

STRUCTURAL STEEL PER 1705.12.1		CONTINUOUS	PERIODIC
CHECK IF REQUIRED	TYPE		
--	SPECIAL INSPECTIONS OF STRUCTURAL STEEL IN THE SEISMIC FORCE-RESISTING SYSTEMS IN BUILDINGS AND STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY B, C, D, E OR F SHALL BE PERFORMED IN ACCORDANCE WITH THE QUALITY ASSURANCE REQUIREMENTS OF AISC 341.		

EXCEPTIONS:

- IN BUILDINGS AND STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY B OR C, SPECIAL INSPECTIONS ARE NOT REQUIRED FOR STRUCTURAL STEEL SEISMIC FORCE-RESISTING SYSTEMS WHERE THE RESPONSE MODIFICATION COEFFICIENT, R, DESIGNATED FOR THE STRUCTURE IS GREATER THAN 1.5.
- IN BUILDINGS AND STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, OR F, SPECIAL INSPECTIONS ARE NOT REQUIRED FOR STRUCTURAL STEEL SEISMIC FORCE-RESISTING SYSTEMS WHERE DESIGN AND DETAILING IN ACCORDANCE WITH AISC 360 IS PERMITTED BY ASCE 7, TABLE 15.4-1.

STRUCTURAL STEEL ELEMENTS PER 1705.12.2			
CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	INSPECTION OF STRUTS, COLLECTORS, CHORDS AND FOUNDATION ELEMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH THE QUALITY ASSURANCE REQUIREMENTS OF AISC 341.		

EXCEPTIONS:

- IN BUILDINGS AND STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY B OR C, SPECIAL INSPECTIONS OF STRUCTURAL STEEL ELEMENTS ARE NOT REQUIRED FOR SEISMIC FORCE-RESISTING SYSTEMS WITH A RESPONSE MODIFICATION COEFFICIENT, R, OF 3 OR LESS.
- IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, OR F, SPECIAL INSPECTIONS OF STRUCTURAL STEEL ELEMENTS ARE NOT REQUIRED FOR SEISMIC FORCE-RESISTING SYSTEMS WHERE THE RESPONSE MODIFICATION COEFFICIENT, R, IS PERMITTED BY ASCE 7, TABLE 15.4-1. SPECIAL INSPECTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE REFERENCED STANDARD LISTED IN ASCE 7, TABLE 15.4-1.

STRUCTURAL WOOD PER 1705.12.2			
CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	INSPECTION DURING FIELD GLUING OPERATIONS OF ELEMENTS OF THE SEISMIC FORCE-RESISTING SYSTEM	X	--
X	INSPECTION FOR NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE SEISMIC FORCE-RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS AND HOLD-DOWNS.		X

EXCEPTION: SPECIAL INSPECTIONS ARE NOT REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING AND OTHER FASTENING TO OTHER ELEMENTS OF THE SEISMIC FORCE-RESISTING SYSTEM, WHERE THE FASTENER SPACING OF THE SHEATHING IS MORE THAN 4 INCHES ON CENTER.

COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION PER 1705.11.2

CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	INSPECTION FOR WELDING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM		X
--	INSPECTION FOR SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM, INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, COLLECTORS (DRAG STRUTS) AND HOLD-DOWNS.		X

EXCEPTION: SPECIAL INSPECTIONS ARE NOT REQUIRED FOR COLD-FORMED STEEL LIGHT-FRAME SHEAR WALLS AND DIAPHRAGMS, INCLUDING SCREWING, BOLTING, ANCHORING AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE-RESISTING SYSTEM, WHERE EITHER OF THE FOLLOWING APPLIES:

- THE SHEATHING IS GYPSUM BOARD OR FIBERBOARD.
- THE SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONLY ONE SIDE OF THE SHEARWALL, SHEAR PANEL OR DIAPHRAGM ASSEMBLY AND THE FASTENER SPACING AT PANEL EDGES IS MORE THAN 4 INCHES ON CENTER.

REQUIRED SPECIAL INSPECTIONS OF METAL PLATE-CONNECTED WOOD TRUSSES PER 1705.5.2			
CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	SPECIAL INSPECTIONS OF WOOD TRUSSES WITH OVERALL HEIGHTS OF 60 INCHES OR GREATER SHALL BE PERFORMED TO VERIFY THAT THE INSTALLATION OF THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BOLTING HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE.		X
--	FOR WOOD TRUSSES WITH A CLEAR SPAN OF 60 FEET OR GREATER, THE SPECIAL INSPECTOR SHALL VERIFY DURING CONSTRUCTION THAT THE TEMPORARY INSTALLATION RESTRAINTS ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE.		X

REQUIRED SPECIAL INSPECTIONS FOR WIND RESISTANCE PER 1705.11			
CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	1. IN WIND EXPOSURE CATEGORY B, WHERE $V_{100} \geq 160.9$ 3.1 IS 120 MPH PER HOUR OR GREATER		X
--	2. IN WIND EXPOSURE CATEGORY C OR D, WHERE $V_{100} \geq 110$ MPH OR GREATER		X
STRUCTURAL STEEL PER 1705.11.1			
CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	DURING FIELD GLUING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM	X	--
X	INSPECTION FOR NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM, INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, COLLECTORS (DRAG STRUTS) AND HOLD-DOWNS.		X

EXCEPTION: SPECIAL INSPECTIONS ARE NOT REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING AND OTHER FASTENING TO OTHER ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM, WHERE EITHER OF THE FOLLOWING APPLIES:

- THE SHEATHING IS GYPSUM BOARD OR FIBERBOARD.
- THE SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONLY ONE SIDE OF THE SHEARWALL, SHEAR PANEL OR DIAPHRAGM ASSEMBLY AND THE FASTENER SPACING AT PANEL EDGES IS MORE THAN 4 INCHES ON CENTER.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF WIND RESISTANCE PER 1705.11.2			
CHECK IF REQUIRED	TYPE	CONTINUOUS	PERIODIC
--	INSPECTION FOR WELDING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM		X
--	INSPECTION FOR SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM, INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, COLLECTORS (DRAG STRUTS) AND HOLD-DOWNS.		X

EXCEPTION: SPECIAL INSPECTIONS ARE NOT REQUIRED FOR COLD-FORMED STEEL LIGHT-FRAME SHEAR WALLS AND DIAPHRAGMS, INCLUDING SCREWING, BOLTING, ANCHORING AND OTHER FASTENING TO COMPONENTS OF THE WINDFORCE-RESISTING SYSTEM, WHERE EITHER OF THE FOLLOWING APPLIES:

- THE SHEATHING IS GYPSUM BOARD OR FIBERBOARD.
- THE SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONLY ONE SIDE OF THE SHEARWALL, SHEAR PANEL OR DIAPHRAGM ASSEMBLY AND THE FASTENER SPACING AT PANEL EDGES IS MORE THAN 4 INCHES ON CENTER.

QUALITY ASSURANCE (STRUCTURAL OBSERVATION, MATERIALS TESTING, AND SPECIAL INSPECTION)

- STRUCTURAL OBSERVATION:
 - COORDINATION RESPONSIBILITIES OF CONTRACTOR: NOTIFY ARCHITECT (STRUCTURAL ENGINEER) 48 HOURS IN ADVANCE OF CRITICAL STAGES OF CONSTRUCTION INDICATED BELOW. SO VISITS MAY BE SCHEDULED BY STRUCTURAL OBSERVER. FAILURE BY CONTRACTOR TO MEET OBSERVATION SCHEDULE MAY REQUIRE REMOVAL OF SUBSEQUENT WORK FOR OBSERVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND REPLACEMENT OF FINISHED WORK OR FRAMING DAMAGED BY REMOVAL. PROCESS OR REPAIR OF FINISHED WORK SHALL BE BASED ON APPLICABLE BUILDING CODE.
 - PRE-CONSTRUCTION MEETING: OWNER MAY COORDINATE AND CALL FOR MEETING BETWEEN ARCHITECT (STRUCTURAL ENGINEER) RESPONSIBLE FOR STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND SPECIAL INSPECTOR. STRUCTURAL OBSERVER WILL PRESIDE OVER THIS MEETING. PURPOSE OF MEETING IS TO IDENTIFY MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT VERTICAL AND LATERAL LOAD RESISTING SYSTEMS OF STRUCTURE AND TO REVIEW SCHEDULE OF STRUCTURAL OBSERVATION, MATERIALS TESTING, AND SPECIAL INSPECTION OF PROJECT.
 - CRITICAL STAGES OF CONSTRUCTION REQUIRING STRUCTURAL OBSERVATION: CASTING OF CONCRETE.
 - COVERING OF FRAMING
- MILL TEST REPORTS CERTIFYING MATERIALS: CONTRACTOR TO SUBMIT MILL TEST REPORTS CERTIFYING REINFORCING STEEL, STRESSING TENDONS, AND STRUCTURAL STEEL. ARE OF IDENTIFIABLE TESTED STOCK TO OWNER, SPECIAL INSPECTOR, ARCHITECT (STRUCTURAL ENGINEER) AND, UPON REQUEST, TO GOVERNING CODE AUTHORITY. ENSURE MATERIALS ARE PROPERLY TAGGED FOR IDENTIFICATION. IF MILL TEST REPORTS CANNOT BE MADE AVAILABLE OR IF MATERIAL CANNOT BE IDENTIFIED, TESTING LABORATORY WILL PERFORM TESTS AS DIRECTED BY ARCHITECT (STRUCTURAL ENGINEER). CONTRACTOR SHALL PAY TESTING RELATED TO TESTS AND INSPECTIONS OF UNIDENTIFIABLE MATERIALS FURNISHED WITHOUT MILL LABORATORY FOR COSTS TEST REPORTS, MATERIALS SOUND DEFICIENT AFTER TESTING WAS CONDUCTED IN ACCORDANCE WITH AISC 341 REPLACING DEFICIENT MATERIALS.
- ULTRASONIC EXAMINATION OF HEAVY ROLLED SHAPES AND THICK PLATES AT PRECISED WELDED JOINT CONNECTIONS: WHERE DEFICIENT PENETRATION GROOVE WELDS OCCUR AT GROUPS 4 AND 8 STRUCTURAL STEEL SHAPES, AS DEFINED BY ASTM A, AND PLATES EXCEEDING 2 INCHES THICK, SUBMIT MILL TEST REPORTS TO ARCHITECT (STRUCTURAL ENGINEER) AND, UPON REQUEST, TO GOVERNING CODE AUTHORITY. MILL TEST REPORTS SHALL CERTIFY THAT CHIPPY AND/OR TESTING WAS CONDUCTED IN COMPLIANCE WITH ASTM A6 SUPPLEMENTARY REQUIREMENT S5, INCLUDING IMPACT TEST COMPLYING WITH ASTM A674 AT FREQUENCY F WITH MINIMUM AVERAGE VALUE OF 20 FT-LBS. ABSORBED ENERGY AT 70 DEGREES FAHRENHEIT.
- CERTIFICATE OF COMPLIANCE FOR OFFSITE FABRICATION: SUBMIT FOR STRUCTURAL STEEL, GLU-LAMS, AND PLYWOOD-WEB JOISTS, PRECAST CONCRETE IN COMPLIANCE WITH APPLICABLE CODE SECTION 1701.7. SUBMIT TO OWNER, TESTING LABORATORY, ARCHITECT (STRUCTURAL ENGINEER) AND GOVERNING CODE AUTHORITY.
- WELD TESTING AND INSPECTION: TESTING LABORATORY WILL SUBMIT WELD TEST RESULTS TO OWNER, CONTRACTOR, ARCHITECT (STRUCTURAL ENGINEER) AND, UPON REQUEST, TO GOVERNING CODE AUTHORITY. SEE SPECIFICATIONS FOR TESTING REQUIREMENTS NOT INDICATED ON STRUCTURAL DRAWINGS.
 - STRUCTURAL STEEL WELDING: NON DESTRUCTIVE TESTING REQUIREMENTS, APART FROM VISUAL INSPECTION, SHALL BE PERFORMED BY ARCHITECT (STRUCTURAL ENGINEER) OR ARCHITECT (STRUCTURAL ENGINEER) AND, UPON REQUEST, TO GOVERNING CODE AUTHORITY. TESTING AND INSPECTION, OWNER'S TESTING LABORATORY WILL PERFORM INDICATED SHOP AND FIELD INSPECTION AND TESTING. TESTING LABORATORY WILL BE AINS CERTIFIED AND WILL PROVIDE INSPECTORS FOR CONTINUOUS INSPECTION OF STEEL FABRICATION AND ERECTION AND STRUCTURAL WELDING. SHOP AND FIELD TESTING OF MATERIALS AND WELDING SHALL BE AS FOLLOWS:
 - COMPLETE JOINT PENETRATION WELDS: FOR STRUCTURES IN RISK CATEGORY I, II OR IV ULTRASONIC INSPECTION SHALL BE PERFORMED BY QA OR ALL CJP GROOVE WELDS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING IN BUTT, T- AND CORNER JOINTS, IN MATERIALS 5/16 IN. THICK OR GREATER. FOR STRUCTURES IN RISK CATEGORY I, II OR CJP GROOVE WELDS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING, IN MATERIALS 5/16 IN. THICK OR GREATER, FOR STRUCTURES IN RISK CATEGORY I, II OR CJP GROOVE WELDS IS NOT REQUIRED. FOR ALL STRUCTURES IN ALL RISK CATEGORIES, NDT OF CJP GROOVE WELDS IN MATERIALS LESS THAN 5/16 IN. THICK IS NOT REQUIRED.
 - ACCESS HOLES: THERMALLY CUT SURFACES OF ACCESS HOLES SHALL BE TESTED BY QA USING MT OR PT, WHEN THE FLANGE THICKNESS EXCEEDS 2 IN. (50 MM) FOR ROLLED SHAPES, OR WHEN THE WEB THICKNESS EXCEEDS 2 IN. FOR BUILT-UP SHAPES. ANY CRACK SHALL BE DEEMED UNACCEPTABLE REGARDLESS OF SIZE OR LOCATION.
 - CONTINUOUS SPECIAL INSPECTION: UNLESS OTHERWISE INDICATED, CONTINUOUS SPECIAL INSPECTION SHALL BE PERFORMED BY SPECIAL INSPECTOR COMPLYING WITH APPLICABLE CODE SECTION 1701 AND SPECIFICALLY APPROVED BY GOVERNING CODE AUTHORITY FOR EACH INSPECTION CATEGORY BELOW. PERIODIC INSPECTION IS NOT PERMITTED UNLESS INDICATED IN THE PROGRAM OR OTHERWISE ACCEPTED BY ARCHITECT (STRUCTURAL ENGINEER). SEE SPECIFICATIONS FOR ADDITIONAL SPECIAL INSPECTION REQUIREMENTS.

ENGINEER OF RECORD - STRUCTURAL OBSERVATION PROGRAM

STRUCTURAL OBSERVATIONS FOR SEISMIC & WIND RESISTANCE:

- THE OWNER SHALL EMPLOY THE ENGINEER OR ARCHITECT REGISTERED/LICENSED IN THE STATE OF CALIFORNIA WHO IS RESPONSIBLE FOR THE STRUCTURAL DESIGN TO PERFORM STRUCTURAL OBSERVATIONS.

ENGINEER IN RESPONSIBLE CHARGE/ENGINEER OF RECORD:

NAME: SHAWN LOTHROP, SE
LIC #: 95627

OBSERVER DESIGNATED BY E.O.R. RESPONSIBLE FOR STRUCTURAL OBSERVATIONS:

NAME: SHAWN LOTHROP, SE
LIC #: 95627

- STRUCTURAL OBSERVATIONS SHALL BE PROVIDED BY THE DESIGNATED STRUCTURAL OBSERVER FOR ALL BUILDINGS AT THE FOLLOWING STAGES OF CONSTRUCTION, UNLESS OTHERWISE AUTHORIZED OR REQUESTED IN WRITING BY THE BUILDING OFFICIAL:
 - PRE-CONCRETE POUR REBAR OBSERVATION
 - WOOD FRAMING OBSERVATION PRIOR TO COVERING W/ FINISH & AFTER ROOF LOAD
- PRIOR TO COMMENCEMENT OF OBSERVATION, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING DEPARTMENT A WRITTEN STATEMENT IDENTIFYING THE FREQUENCY AND EXTENT OF THE STRUCTURAL OBSERVATION.
- AT THE CONCLUSION OF WORK, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING DEPARTMENT A WRITTEN STATEMENT THAT THE STRUCTURAL OBSERVATION VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVERS KNOWLEDGE, HAVE NOT BEEN RESOLVED.

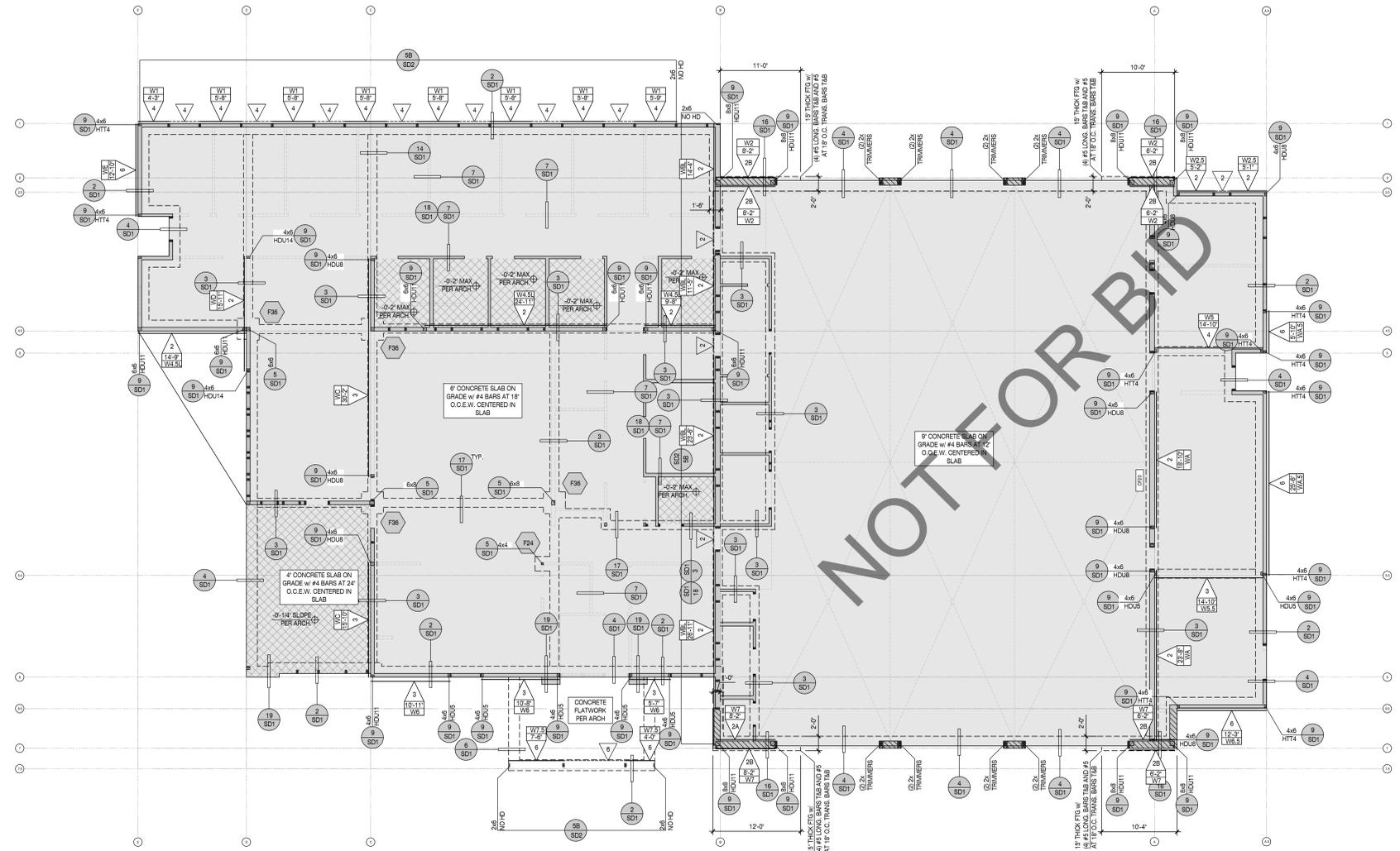
DEPUTY SPECIAL INSPECTOR

- DEPUTY SPECIAL INSPECTIONS SHALL BE PROVIDED BY:
 - NAME:
 - PHONE NUMBER:
- SPECIAL INSPECTOR SHALL BE HIRED BY THE OWNER TO PROVIDE SPECIAL INSPECTIONS AS REQUIRED PER THE PLANS.
- SPECIAL INSPECTOR: A QUALIFIED PERSON, EMPLOYED BY THE OWNER, WHO HAS DEMONSTRATED COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. DUTIES INCLUDE VISUAL INSPECTIONS AND FIELD MEASUREMENTS OF MATERIALS, OBTAINING SPECIMENS FOR TESTS AND RELATED ACTIONS INCLUDING PREPARATION OF REPORTS.
- CONTINUOUS INSPECTION: ON SITE INSPECTION BY THE SPECIAL INSPECTOR ON A CONTINUOUS BASIS OBSERVING ALL WORK REQUIRING SPECIAL INSPECTION
- PERIODIC INSPECTION: INTERMITTENT INSPECTION AS PERMITTED BY THE PLAN, SPECIFIED AT PRE-DETERMINED INTERVALS OR MORE FREQUENTLY AS WORK PROGRESSES. NO SIGNIFICANT ELEMENTS OR AREAS SHALL BE COVERED BY ADDITIONAL WORK UNTIL APPROVED BY THE BUILDING OFFICIAL AND/OR SPECIAL INSPECTOR.
- REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL IN A TIMELY MANNER AS DETERMINED BY THE BUILDING OFFICIAL.

NAILS

- DIAPHRAGM NAILING: ALL FLOOR SHEATHING, ROOF SHEATHING AND SHEAR PANELS CONSTRUCTED USING WOOD-BASED STRUCTURAL-USE PANELS SHALL BE FASTENED WITH COMMON NAILING HARDWARE SHALL BE NAILED PER MANUFACTURER'S REQUIREMENTS. OTHERWISE SHORT NAILS MAY BE USED. NAILING SHALL BE PER THE BUILDING CODE UNLESS NOTED OTHERWISE ON THE PLANS OR DETAILS.
- NAIL GUNS: MUST BE EQUIPPED WITH A FLUSH NAILER ATTACHMENT FOR NAILING OF PLYWOOD SHEAR WALLS, FLOOR SHEATHING AND ROOF SHEATHING.
- NAIL MANUFACTURING: ALL NAILS MUST BE DOMESTICALLY MANUFACTURED & MEET THE REQUIREMENTS OF THE CURRENT BUILDING CODE.
- GALVANIZED NAILS: ALL NAILS INTO PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED OR ALL NAILS NOTED OTHERWISE TO RESIST CORROSION UNLESS PRESSURE TREATED PLATE IS TREATED WITH BORATE.

MASONRY



GEOTECHNICAL INFORMATION

- REFER TO STRUCTURAL COVER SHEET (SCS) FOR ASSUMED SOIL VALUES OR VALUES BASED ON THE PROVIDED GEOTECHNICAL (SOILS) REPORT.
- PRIOR TO REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOILS ENGINEER SHALL CERTIFY IN WRITING THAT:
 - THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE SOILS REPORT.
 - THE FOOTINGS EXTEND TO THE PROPER DEPTH OR BEARING STRATA.
 - UTILITY TRENCHES ARE PROPERLY BACKFILLED AND COMPACTED.
 - AND THAT THE CONDITIONS FOUND MATCH THOSE ASSUMED IN THE SOILS REPORT.
- THE OWNER/DEVELOPER AND SUBCONTRACTORS ARE TO REVIEW THE SOILS REPORT PRIOR TO COMMENCING CONSTRUCTION AND VERIFY THE PLANS COMPLY WITH THE CURRENT SOILS REPORT RECOMMENDATIONS. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE SOILS REPORT DATE SHOWN ON SHEET (SCS) DOES NOT MATCH THE CURRENT REPORT DATE. THE OWNER/DEVELOPER IS RESPONSIBLE FOR UPDATING THE STRUCTURAL ENGINEER WITH CURRENT GEOTECHNICAL ENGINEERING REQUIREMENTS.

FOUNDATION NOTES

- INSTALL HOLD-DOWN ANCHOR BOLTS PER 9.SD1. PROVIDE AND INSTALL ALL U.S.P. OR SIMPSON LUMBER CONNECTORS (OR EQUAL) FOUNDATION HARDWARE PER MANUFACTURERS RECOMMENDATIONS. DEEPEN FOOTING WHERE NECESSARY TO PROVIDE ANCHOR EMBEDMENT AT HOLD-DOWN LOCATIONS.
- REFER TO SHEARWALL SCHEDULE 8.SD1 FOR ANCHOR BOLT SPACING AND FOR ANCHOR BOLT INSTALLATION.
- REFER TO DETAIL PACKAGE FOR TYPICAL CONDITIONS NOT SPECIFICALLY CALLED OUT OR NOTED ON PLANS.
- ALL DIMENSIONS SHALL BE PER THE CURRENT APPROVED STAMPED SET OF ARCHITECTURAL PLANS. OUR OFFICE SHOULD BE NOTIFIED IMMEDIATELY IF DISCREPANCIES EXIST BETWEEN THE ARCHITECTURAL & STRUCTURAL PLANS.
- CONSTRUCT CONTINUOUS FOOTINGS AT CORNERS AND INTERSECTIONS PER DETAIL 11.SD1.
- FOUNDATION SIZES, DEPTHS, AND REINFORCEMENT SHOULD BE COORDINATED WITH THE OWNER/DEVELOPER'S SOILS ENGINEER'S REPORT. SOILS ENGINEER REPORT MAY REQUIRE ADDITIONAL ITEMS NOT NOTED ON THE STRUCTURAL PLANS.
- CLIENT/OWNER SHALL ADDRESS CORROSIVE SOIL CONDITIONS. FOR HIGH SULFATE SOIL CONDITIONS, MITIGATE PER A23 TABLE 4.3.1. THE CLIENT/OWNER SHALL HAVE A CORROSION ENGINEER PROVIDE MITIGATION RECOMMENDATIONS FOR ALL OTHER CORROSIVE SOIL CONDITIONS. CLIENT IS RESPONSIBLE TO REVIEW STRUCTURAL PLANS AND DETAILS FOR COMPLIANCE TO CORROSION ENGINEERS RECOMMENDATIONS PRIOR TO CONSTRUCTION.

FOUNDATION LEGEND & SYMBOLS

	CONCRETE SLAB & FOOTING. FOOTING SIZE AND REINFORCING PER DETAIL SHEET SD1
	CONCRETE CURB PER ARCH. FOOTING SIZE AND REINFORCING PER DETAIL SHEET SD1
	INDICATES: DETAIL CUT LOCATION. REFER TO DETAIL # AND STRUCTURAL SHEET NUMBER FOR MORE INFORMATION. TEXT ABOVE BUBBLE INDICATES REVISED HARDWARE OTHER THAN NOTED IN DETAIL.
	INDICATES: WOOD SHEAR WALL LOCATION. REFER TO DETAIL 8.SD1 FOR ANCHOR BOLT SIZE & SPACING AT EACH SHEAR WALL TYPE. PROVIDE 3/4\"/>

SPREAD FOOTING SCHEDULE

FOOTING MARK	CONCRETE FOOTING SIZE		STEEL REINFORCING
	WIDTH X LENGTH	EMBEDMENT	
F24	24' x 24'	12'	(2)-#5 BARS EACH WAY AT TOP & BTM
F36	36' x 36'	12'	(3)-#5 BARS EACH WAY AT TOP & BTM

CONTINUOUS FOOTING SCHEDULE

FOOTING MARK	CONCRETE FOOTING SIZE		STEEL REINFORCING	
	WIDTH X DEPTH	EMBEDMENT	CONTINUOUS LONGITUDINAL BARS	TRANSVERSE BARS
CF20	20' x 12'	12'	(2) #5 T&B	#4 AT 18\"/>

STRUCTURAL OBSERVATION REQUIREMENTS

STRUCTURAL OBSERVATION IS REQUIRED BY THE ENGINEER OF RECORD. OUR OFFICE SHOULD BE NOTIFIED TO PERFORM STRUCTURAL OBSERVATION AT THE FOLLOWING STAGES OF CONSTRUCTION:

- PRIOR TO POUR OF CONCRETE TO OBSERVE REINFORCING & EMBEDS
- WOOD FRAMING OBSERVATION PRIOR TO COVERING W/ FINISH & AFTER ROOF LOAD

FOUNDATION PLAN

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

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL SET OF PLANS



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 PROJECT MANAGER:
 SANDY FONG EXT. 1016
 SANDY@ISEENGINEERS.COM

PROJECT ADMINISTERED BY:
 SAN BERNARDINO COUNTY
 PROJECT & FACILITIES
 MANAGEMENT DEPARTMENT

385 N. ARROWHEAD AVE.
 SAN BERNARDINO, CA 92415

PROJECT NAME:
 SAN BERNARDINO
 COUNTY FIRE
 DEPARTMENT:
 FIRE STATION 227

PROJECT # 10.10.1202
 CIP #22-105
 APN Part of 0154-281-01

180 W. 38TH STREET
 SAN BERNARDINO,
 CA 92405

ISSUE INFORMATION:

DATE:	INFORMATION:
03/07/2025	PLAN CHECK
07/25/2025	BID SET
08-22-25	BID SET

SHEET INFORMATION:
 STK PROJECT NO.: 374-193-24
 SCALE: AS NOTED
 DATE: JULY 2025
 PLOT DATE:
 DRAWING NAME:



SHEET TITLE:
 FOUNDATION PLAN

SHEET NO.:

S1

07/24/2025 10:07AM W:\000 - STK\00031-282 Fire Station 227\02 - Drawing\Plan.dwg



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180 W. 38TH STREET
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DRAWING NAME:

SEAL:



SHEET TITLE:

LOW ROOF FRAMING
PLAN

SHEET NO.:

S2

FRAMING NOTES

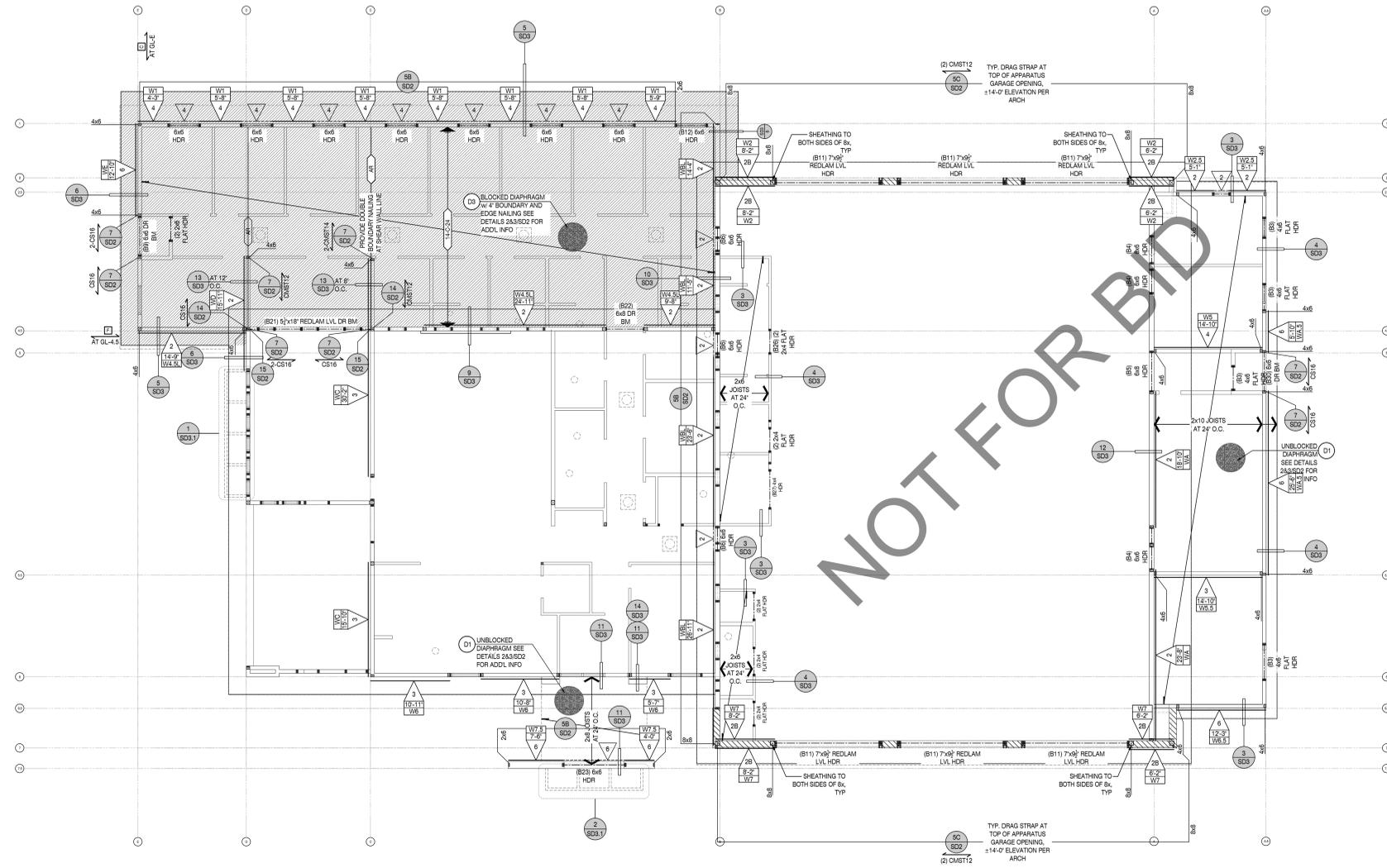
- REFER TO STRUCTURAL GENERAL NOTE SHEET (SN SERIES) AND DETAILS (SD SERIES) FOR INFORMATION NOT SHOWN ON THE MAIN FRAMING PLANS.
- REFER TO MAIN FRAMING PLAN FOR ALL INFORMATION NOT SHOWN ON THE ALTERNATE ELEVATIONS AND OPTIONS.
- FRAMER & TRUSS MANUFACTURER TO COORDINATE JOIST AND TRUSS SPACING WITH M.E.P. DESIGNS. FRAMER TO REVIEW MECH. AND ELECTRIC PLANS BEFORE FINAL PLACEMENT OF JOISTS AND/OR TRUSSES. WHERE ALIGNED JOIST AND/OR TRUSS INTERFERES W/ FUTURE INSTALLATION OF M.E.P., INSTALLATION, CONTACT STRUCTURAL ENGINEER.
- SPlice ALL EXTERIOR WALL AND INTERIOR SHEAR WALL, TOP PLATE BREAKS PER DETAIL 4SD2, TYP.
- ROOF SHOULD BE FULLY LOADED PRIOR TO NAILING THE TOP PLATE HARDWARE TO ROOF TRUSS BOTTOM CHORD.
- SUSPENDED CEILING IS PER THE ARCHITECTURAL DRAWINGS. SUSPENDED CEILING SHALL BE INSTALLED PER ASCE 7-16 SECTION 13.5.6.2.2, AND COMPLY WITH THE FOLLOWING:
A. THE WIDTH OF PERIMETER CLOSURE ANGLE OR CHANNEL SHALL NOT BE LESS THAN 2" UNLESS QUALIFIED PERIMETER SUPPORT CLIPS ARE USED.
B. FOR AREAS EXCEEDING 2,500 SQ. FT. WITH A RATIO OF LESS THAN OR EQUAL TO 4, LONG TO SHORT DIMENSIONS.
- HVAC DUCTWORK IS PER THE MECHANICAL DRAWINGS. HVAC DUCTWORK SHALL BE INSTALLED PER ASCE 7-16 SECTION 13.6.5, UNDER EXCEPTION 2. PROVISIONS ARE MADE TO:
A. AVOID IMPACT WITH OTHER DUCTS OR MECHANICAL COMPONENTS OR TO PROTECT THE DUCTS IN THE EVENT OF SUCH IMPACT.
B. THE DISTRIBUTED SYSTEM IS POSITIVELY ATTACHED TO THE STRUCTURE.
C. HVAC DUCTS HAVE A CROSS SECTIONAL AREA OF LESS THAN 6 SQ. FT. AND WEIGH LESS THAN 20 LB/FT.

FRAMING LEGEND & SYMBOLS

	INDICATES REQUIRED ANCHOR/SPACING AT XX" O.C.
	INDICATES DETAIL # AND STRUCTURAL SHEET NUMBER FOR MORE INFORMATION. TEXT ABOVE BUBBLE INDICATES REVISED HARDWARE OTHER THAN NOTED IN DETAIL.
	INDICATES 2x6 STUD WALL PER PLAN & DETAIL 5SD2. COORDINATE STUD WALL SIZE WITH ARCH. PLANS.
	INDICATES 2x8 STUD WALL PER PLAN & DETAIL 5SD2. COORDINATE STUD WALL SIZE WITH ARCH. PLANS.
	INDICATES 2x8 AT 16" O.C. BEARING WALL W/ 2x4 AT 16" O.C. ROF-OUT WALL PER DETAIL 5SD2. COORDINATE STUD WALL SIZE WITH ARCH. PLANS.
	INDICATES: 1. WALL OPENING HEADER PER PLANS. 2. PROVIDE (1) 2x TRIMMER EACH SIDE U.N.O. ON PLAN 3. PROVIDE KING STUDS EACH SIDE PER DETAIL 5SD2 U.N.O. ON PLAN.
	INDICATES: 1. BEAM AS NOTED ON PLANS 2. PROVIDE BEARING STUDS OR POST EACH END TO MATCH WIDTH OF BEAM AND SUPPORT WALL. U.N.O. 3. (1) 2x WALL STUD ALIGNED AT 1 1/2" WIDE LSL BEAMS IS ACCEPTABLE FLANGE HGR AS NEEDED 4. BEAM SHOULD BE INSTALLED WITH BOTTOM ON TOP PLATE U.N.O.
	INDICATES: BLOCKED ROOF SHEATHING LOCATIONS (HATCHED AREA) PER DETAILS 2 & 3SD2, TYPICAL.
	INDICATES ROOF JOIST SPAN, DIRECTION, DEPTH, SPACING AND TYPE OF FLOOR JOISTS PER TABLE AT RIGHT. REFER TO ROOF JOIST SPECIFICATIONS' ON SHEET S11 FOR MANUF. ALT.
	INDICATES ALIGNED ROOF RAFTER W/ ROOF DIAPHRAGM BOUNDARY NAILING.
	INDICATES SPAN AND DIRECTION OF SAWN LUMBER ROOF RAFTERS. RAFTER SIZE AND SPACING PER PLAN.
	INDICATES: 1. WOOD SHEAR WALL PANEL LOCATION PER PLAN INSTALLED FULL HEIGHT OF WALL. 2. REFER TO DETAIL 1SD2 SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS 3. PROVIDE POST AND STRAP/HOLDOWN EACH END OF WALL MIN AS INDICATED PER PLAN 4. AT UPPER FLOORS WHERE WALL SHEATHING DOES NOT EXTEND AND EDGE NAIL TO FLOOR RIM PROVIDE SILL PLATE NAILING OR SCREWS PER DETAIL 1SD2
	INDICATES: 1. WOOD SHEAR WALL PANEL LOCATION PER PLAN INSTALLED FULL HEIGHT OF WALL AND SHEAR PANEL ABOVE AND BELOW OPENING 2. REFER TO DETAIL 1SD2 SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS 3. PROVIDE POST AND STRAP/HOLDOWN EACH END OF WALL MIN AS INDICATED PER PLAN 4. AT UPPER FLOORS WHERE WALL SHEATHING DOES NOT EXTEND AND EDGE NAIL TO FLOOR RIM PROVIDE SILL PLATE NAILING OR SCREWS PER DETAIL 1SD2 5. REFER TO DETAIL 5SD2 FOR PERFORATED SHEAR WALL CONDITION (SHEAR ABV AND BLW OPENING W/O STRAP) 6. REFER TO DETAIL 5CSD2 FOR FORCE TRANSFER SHEAR WALL CONDITION (SHEAR ABV AND BLW OPENING W/ STRAP)
	INDICATES: DRAG TIE STRAP TO ROOF BLKG LENGTH SHOWN INDICATES STRAP LENGTH OFF WALL.
	INDICATES: DRAG TIE STRAP PER PLAN OR DETAIL SHOWN ON PLANS.
	INDICATES TOP PLATE SPLICE PER SCHEDULE (REF. DETAIL 4SD2) IN THE WALL BELOW AT THE INDICATED GRIDLINE. USE TOP PLATE SPLICE 'A' UNLESS NOTED OTHERWISE IN PLAN.

STRUCTURAL OBSERVATION REQUIREMENTS

- STRUCTURAL OBSERVATION IS REQUIRED BY THE ENGINEER OF RECORD. OUR OFFICE SHOULD BE NOTIFIED TO PERFORM STRUCTURAL OBSERVATION AT THE FOLLOWING STAGES OF CONSTRUCTION:
- PRIOR TO POUR OF CONCRETE TO OBSERVE REINFORCING & EMBEDS
 - WOOD FRAMING OBSERVATION PRIOR TO COVERING W/ FINISH & AFTER ROOF LOAD



LOW ROOF FRAMING PLAN

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL SET OF PLANS

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

P:\4005 EVU DR. 24-8400.32-SD2 - Low Roof Framing Plan.dwg 07/25/2025 10:17 AM

FRAMING LEGEND & SYMBOLS	
	INDICATES DETAIL CUT LOCATION. REFER TO DETAIL # AND STRUCTURAL SHEET NUMBER FOR MORE INFORMATION.
	INDICATES 2x4 STUD WALL PER PLAN & DETAIL 5/SD2. COORDINATE STUD WALL SIZE WITH ARCH. PLANS.
	INDICATES 2x6 STUD WALL PER PLAN & DETAIL 5/SD2. COORDINATE STUD WALL SIZE WITH ARCH. PLANS.
	INDICATES (2) 2x8 AT 16' O.C. STUD WALL PER DETAIL 5/SD2. COORDINATE STUD WALL SIZE WITH ARCH. PLANS.
	INDICATES: 1. WALL OPENING HEADER PER FRAMING SCHEDULE BELOW 2. PROVIDE (1) 2x TRIMMER EACH SIDE U.N.O. ON PLAN 3. PROVIDE KING STUDS EACH SIDE PER DETAIL 5/SD2 U.N.O. ON PLAN.
	INDICATES SPAN AND DIRECTION OF CEILING JOISTS PER SCHEDULE ON DETAIL 16/SD2.



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PROJECT NAME:
SAN BERNARDINO
COUNTY FIRE
DEPARTMENT:
FIRE STATION 227

PROJECT # 10.10.1202
CIP #22-105
APN Part of 0154-281-01

180 W. 38TH STREET
SAN BERNARDINO,
CA 92405

ISSUE INFORMATION:

DATE:	INFORMATION:
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07/25/2025	BID SET
08-22-25	BID SET

SHEET INFORMATION:

STK PROJECT NO.: 374-193-24
SCALE: AS NOTED
DATE: JULY 2025
PLOT DATE:
DRAWING NAME:

SEAL:

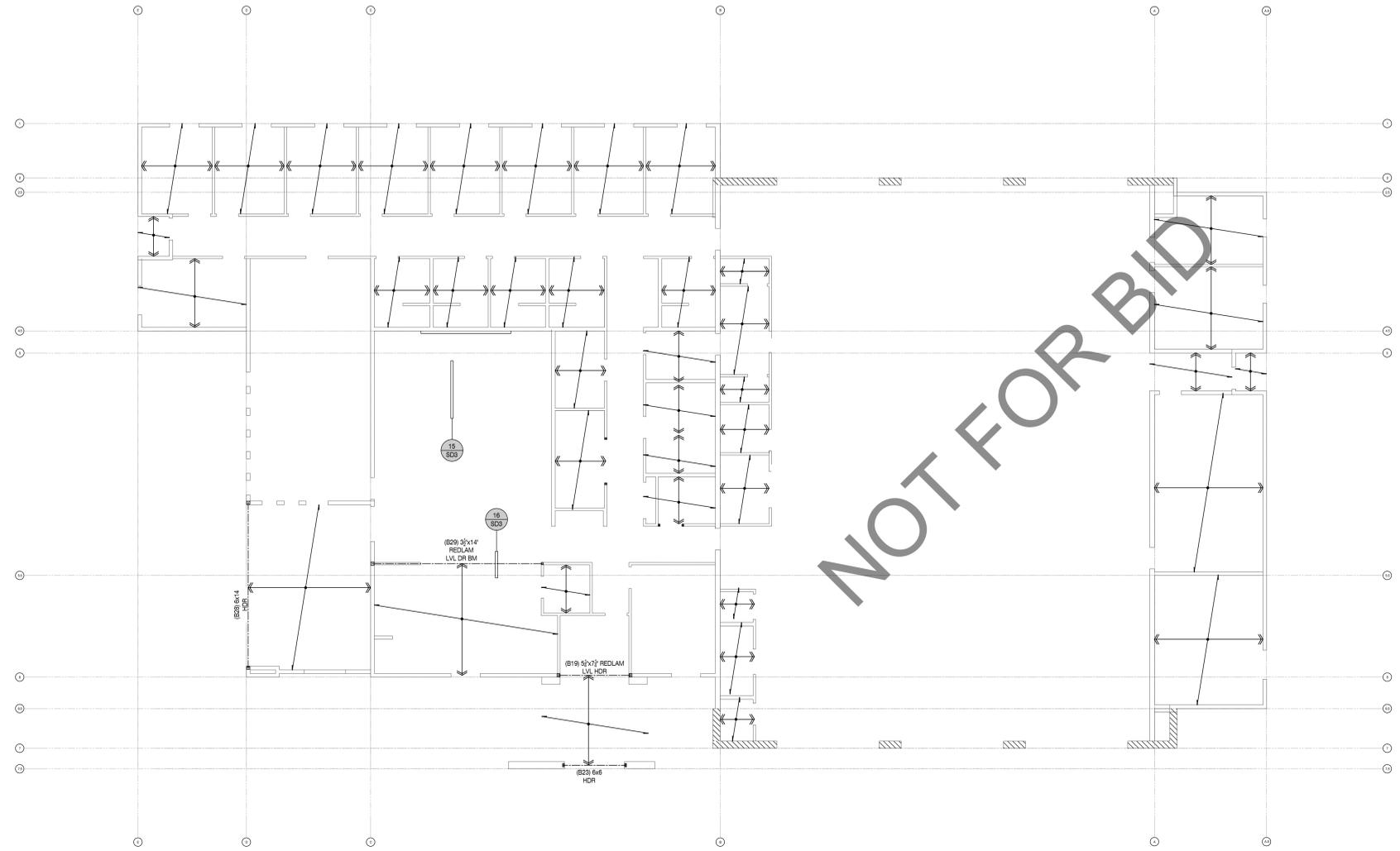


SHEET TITLE:

CEILING FRAMING
PLAN

SHEET NO.:

S4



CEILING FRAMING PLAN

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL SET OF PLANS

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

07/24/2025 8:07PM V:\A000 - STK\A0032-18C-Fire Station 227\20 - Drawing\Title.dwg



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STK PROJECT NO.: 374-193-24
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PLOT DATE:
DRAWING NAME:



SHEET TITLE:
SITE STRUCTURES,
STORAGE BUILDING &
TRASH ENCLOSURE -
ROOF FRAMING &
FOUNDATION PLANS

SHEET NO.:

S5

FRAMING NOTES

- REFER TO STRUCTURAL GENERAL NOTE SHEET (SN SERIES) AND DETAILS (SD SERIES) FOR INFORMATION NOT SHOWN ON THE MAIN FRAMING PLANS.
- FRAMER TO COORDINATE JOIST SPACING WITH M.E.P. DESIGNS. FRAMER TO REVIEW MECH. AND ELECTRIC PLANS BEFORE FINAL PLACEMENT OF JOISTS. WHERE ALIGNED JOIST INTERFERES W/ FUTURE INSTALLATION OF M.E.P., INSTALLATION, CONTACT STRUCTURAL ENGINEER.
- SPLICE ALL EXTERIOR WALL AND INTERIOR SHEAR WALL TOP PLATE BREAKS PER DETAIL 4SD2, TYP.
- ROOF SHOULD BE FULLY LOADED PRIOR TO NAILING THE TOP PLATE HARDWARE TO ROOF JOIST BOTTOM CHORD.
- WATERPROOFING & DRAINAGE SHALL BE PROVIDED BY OTHERS.

FRAMING LEGEND & SYMBOLS

	INDICATES DETAIL CUT LOCATION. REFER TO DETAIL # AND STRUCTURAL SHEET NUMBER FOR MORE INFORMATION. TEXT ABOVE BUBBLE INDICATES REVISED HARDWARE OTHER THAN NOTED IN DETAIL.
	INDICATES 2x6 STUD WALL PER PLAN & DETAIL 5SD2. COORDINATE STUD WALL SIZE WITH ARCH. PLANS.
	INDICATES: 8' CMU (m = 1500 psi) WALL WITH #4 AT 16' O.C. VERTICAL & #4 AT 24' O.C. HORIZONTAL WITH SOLID GROUT. REFER TO PLANS & DETAILS FOR ADDL. INFORMATION.
	INDICATES: 1. WALL OPENING HEADER PER FRAMING SCHEDULE BELOW 2. PROVIDE (1) 2x TRIMMER EACH SIDE U.N.O. ON PLAN. 3. PROVIDE KING STUDS EACH SIDE PER DETAIL 5SD2 U.N.O. ON PLAN.
	INDICATES ALIGNED ROOF RAFTER W/ ROOF DIAPHRAGM EDGE NAILING
	INDICATES SPAN AND DIRECTION OF ROOF RAFTERS. RAFTER SIZE AND SPACING PER PLANS.
	INDICATES: 1. BEAM AS NOTED ON PLANS
	INDICATES METAL ROOF DECK PER PLAN. REFER TO DETAIL 12SD4 FOR ADDITIONAL INFORMATION INCLUDING DECK TYPES.
	INDICATES: 1. WOOD SHEAR WALL PANEL LOCATION PER PLAN INSTALLED FULL HEIGHT OF WALL. 2. REFER TO DETAIL 1SD2 SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS 3. PROVIDE POST AND STRAP/HOLDOWN EACH END OF WALL MIN AS INDICATED PER PLAN 4. AT UPPER FLOORS WHERE WALL SHEATHING DOES NOT EXTEND AND EDGE NAIL TO FLOOR RIM PROVIDE SILL PLATE NAILING OR SCREWS PER DETAIL 1SD2
	INDICATES: 1. WOOD SHEAR WALL PANEL LOCATION PER PLAN INSTALLED FULL HEIGHT OF WALL AND SHEAR PANEL ABOVE AND BELOW OPENING 2. REFER TO DETAIL 1SD2 SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS 3. PROVIDE POST AND STRAP/HOLDOWN EACH END OF WALL MIN AS INDICATED PER PLAN 4. AT UPPER FLOORS WHERE WALL SHEATHING DOES NOT EXTEND AND EDGE NAIL TO FLOOR RIM PROVIDE SILL PLATE NAILING OR SCREWS PER DETAIL 1SD2 5. REFER TO DETAIL 5B/S202 FOR PERFORATED SHEAR WALL CONDITION (SHEAR ABV AND BLW OPENING W/O STRAP) 6. REFER TO DETAIL 5C/S202 FOR FORCE TRANSFER SHEAR WALL CONDITION (SHEAR ABV AND BLW OPENING W/ STRAP)
	INDICATES: DRAG TIE STRAP PER PLAN OR DETAIL SHOWN ON PLANS.

GEOTECHNICAL INFORMATION

- REFER TO STRUCTURAL COVER SHEET (SDS) FOR ASSUMED SOIL VALUES OR VALUES BASED ON THE PROVIDED GEOTECHNICAL (SOILS) REPORT.
- THE OWNER/DEVELOPER AND SUBCONTRACTORS ARE TO REVIEW THE SOILS REPORT PRIOR TO COMMENCING CONSTRUCTION AND VERIFY THE PLANS COMPLY WITH THE CURRENT SOILS REPORT RECOMMENDATIONS. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE SOILS REPORT DATE SHOWN ON SHEET (SDS) DOES NOT MATCH THE CURRENT REPORT DATE. THE OWNER/DEVELOPER IS RESPONSIBLE FOR UPDATING THE STRUCTURAL ENGINEER WITH CURRENT GEOTECHNICAL ENGINEERING REQUIREMENTS.

FOUNDATION NOTES

- INSTALL HOLDOWN ANCHOR BOLTS PER 9SD1. PROVIDE AND INSTALL ALL U.S.P. OR SIMPSON LUMBER CONNECTORS (OR EQUAL) FOUNDATION HARDWARE PER MANUFACTURERS RECOMMENDATIONS. DEEPEN FOOTINGS WHERE NECESSARY TO PROVIDE ANCHOR EMBEDMENT AT HOLDOWN LOCATIONS.
- REFER TO SHEARWALL SCHEDULE 8SD1 FOR ANCHOR BOLT SPACING AND FOR ANCHOR BOLT INSTALLATION.
- REFER TO DETAIL PACKAGE FOR TYPICAL CONDITIONS NOT SPECIFICALLY CALLED OUT OR NOTED ON PLANS.
- ALL DIMENSIONS SHALL BE PER THE CURRENT APPROVED STAMPED SET OF ARCHITECTURAL PLANS. OUR OFFICE SHOULD BE NOTIFIED IMMEDIATELY IF DISCREPANCIES EXIST BETWEEN THE ARCHITECTURAL & STRUCTURAL PLANS.
- CONSTRUCT CONTINUOUS FOOTINGS AT CORNERS AND INTERSECTIONS PER DETAIL 11SD1.
- CENTER CONTINUOUS FOOTINGS UNDER WALLS U.N.O. CENTER DRILLED PIER FOOTINGS UNDER COLUMNS U.N.O.
- FOUNDATION SIZES, DEPTHS, AND REINFORCEMENT SHOULD BE COORDINATED WITH THE OWNER/DEVELOPER'S SOILS ENGINEERS REPORT. SOILS ENGINEER REPORT MAY REQUIRE ADDITIONAL ITEMS NOT NOTED ON THE STRUCTURAL PLANS.
- CLIENT/OWNER SHALL ADDRESS CORROSIVE SOIL CONDITIONS. FOR HIGH SULFATE SOIL CONDITIONS, MITIGATE PER ACI TABLE 19.3.2.1. THE CLIENT/OWNER SHALL HAVE A CORROSION SHEET PROVIDE MITIGATION RECOMMENDATIONS FOR ALL OTHER CORROSIVE SOIL CONDITIONS. CLIENT IS RESPONSIBLE TO REVIEW STRUCTURAL PLANS AND DETAILS FOR COMPLIANCE TO CORROSION ENGINEERS RECOMMENDATIONS PRIOR TO CONSTRUCTION.
- IN NO CASE SHALL PIPES, CONDUITS, OR SLEEVES BE EMBEDDED IN SPREAD FOOTINGS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.

FOUNDATION LEGEND & SYMBOLS

	CONCRETE SLAB & FOOTING. FOOTING SIZE AND REINFORCING PER DETAIL SHEET SD1, U.N.O. PER PLAN.
	INDICATES: CONCRETE, CMU WALL FOOTING. FOOTING SIZE AND REINFORCING PER DETAIL SHEET SD4, U.N.O. PER PLAN.
	INDICATES: CONCRETE, DRILLED PIER FOOTING. FOOTING SIZE AND REINFORCING PER DETAIL SHEET SD4, U.N.O. PER PLAN.
	INDICATES: DETAIL CUT LOCATION. REFER TO DETAIL # AND STRUCTURAL SHEET NUMBER FOR MORE INFORMATION. TEXT ABOVE BUBBLE INDICATES REVISED HARDWARE OTHER THAN NOTED IN DETAIL.

	INDICATES: WOOD SHEAR WALL LOCATION. REFER TO DETAIL 8SD1 FOR ANCHOR BOLT SIZE & SPACING AT EACH SHEAR WALL TYPE. PROVIDE 3" SQ X 0.225" ANGLE SLOTTED PLATE WASHERS AT EACH ANCHOR BOLT. REDUCE BOLT SPACING BY HALF AT DOUBLE SIDED SHEAR WALLS.
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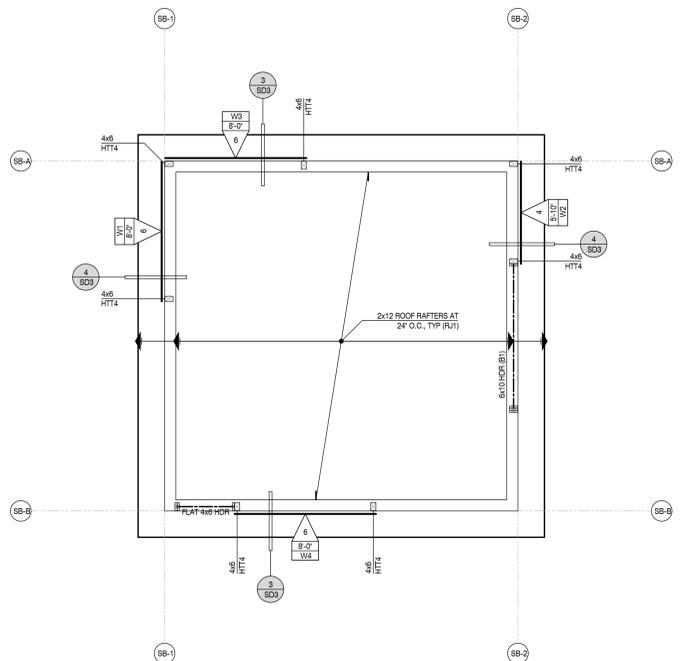
STRUCTURAL OBSERVATION REQUIREMENTS

- STRUCTURAL OBSERVATION IS REQUIRED BY THE ENGINEER OF RECORD. OUR OFFICE SHOULD BE NOTIFIED TO PERFORM STRUCTURAL OBSERVATION AT THE FOLLOWING STAGES OF CONSTRUCTION:
- PRIOR TO POUR OF CONCRETE TO OBSERVE REINFORCING & EMBEDS
 - WOOD FRAMING OBSERVATION PRIOR TO COVERING W/ FINISH & AFTER ROOF LOAD

STORAGE BUILDING (SB) - ROOF FRAMING PLAN

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

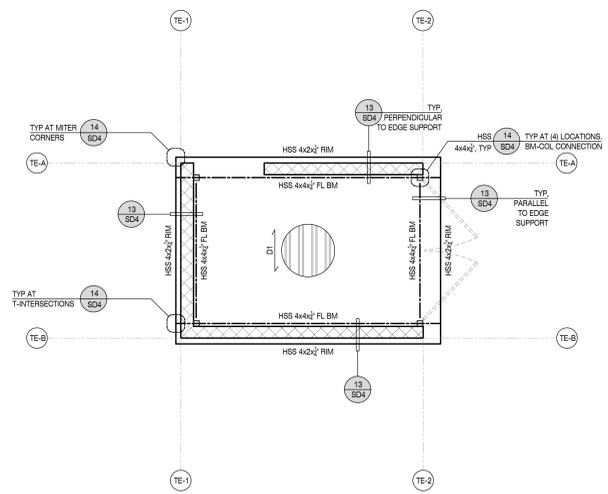
DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL SET OF PLANS



TRASH ENCLOSURE (TE) - ROOF FRAMING PLAN

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

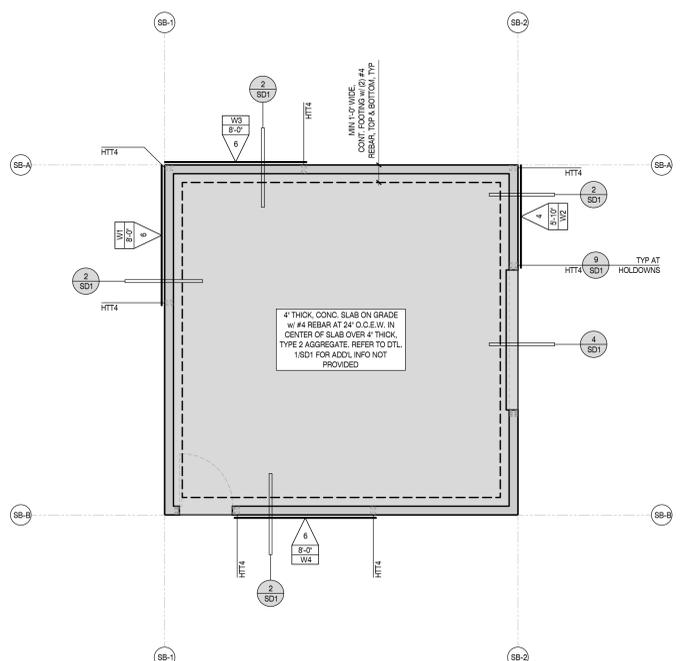
DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL SET OF PLANS



STORAGE BUILDING (SB) - FOUNDATION PLAN

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

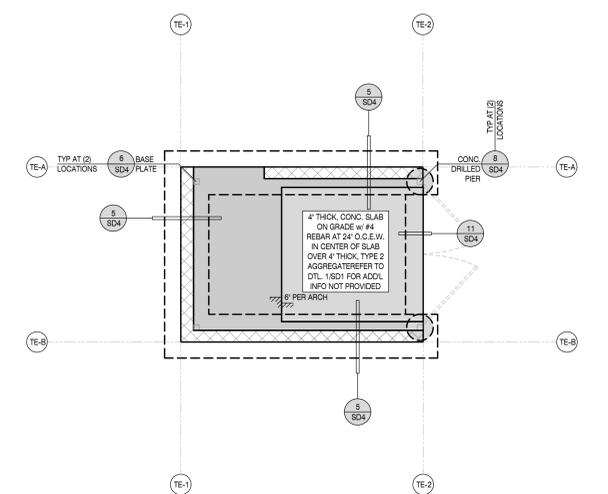
DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL SET OF PLANS



TRASH ENCLOSURE (TE) - FOUNDATION PLAN

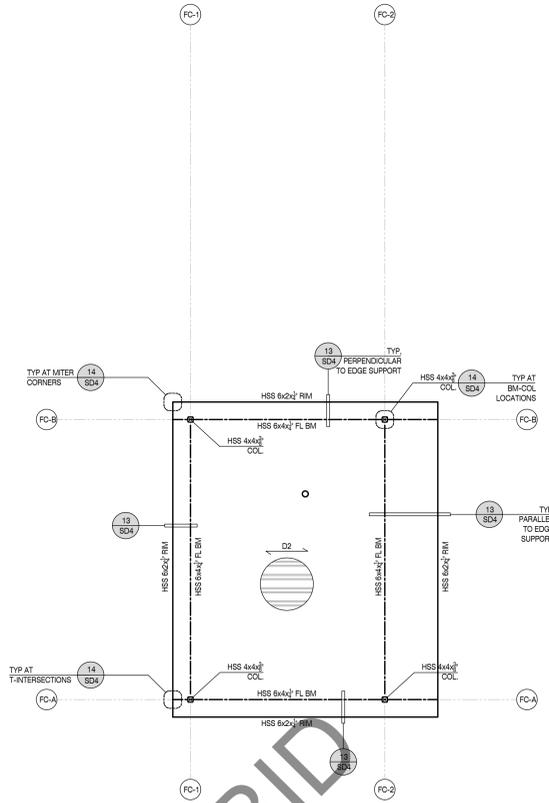
SCALE: 1/4" = 1'-0"

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL SET OF PLANS



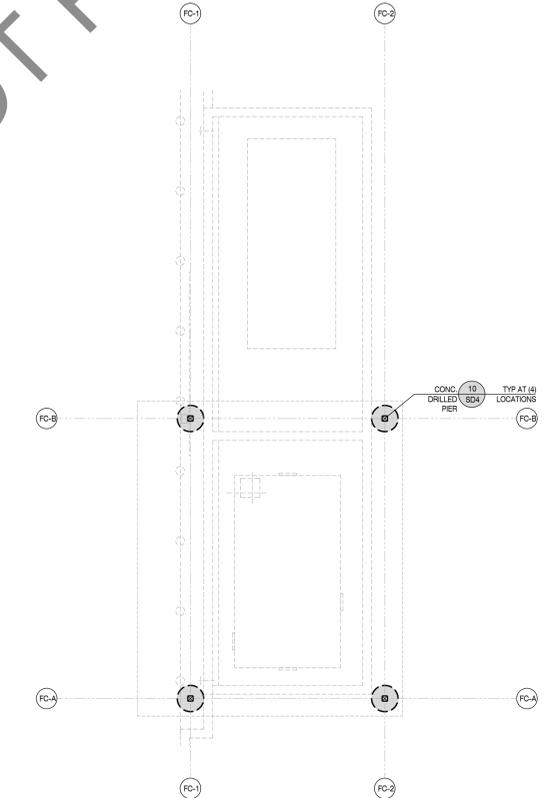
NOT FOR BID

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FUEL CANOPY (FC) - ROOF FRAMING PLAN
 DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL SET OF PLANS

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



FUEL CANOPY (FC) - FOUNDATION PLAN
 DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL SET OF PLANS

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

FRAMING NOTES

- REFER TO STRUCTURAL GENERAL NOTE SHEET (SN SERIES) AND DETAILS (SD SERIES) FOR INFORMATION NOT SHOWN ON THE MAIN FRAMING PLANS.
- FRAMER TO COORDINATE JOIST SPACING WITH M.E.P. DESIGNS. FRAMER TO REVIEW MECH. AND ELECTRIC PLANS BEFORE FINAL PLACEMENT OF JOISTS. WHERE ALIGNED JOIST INTERFERES W/ FUTURE INSTALLATION OF M.E.P. INSTALLATION, CONTACT STRUCTURAL ENGINEER.
- SPLICE ALL EXTERIOR WALL AND INTERIOR SHEAR WALL TOP PLATE BREAKS PER DETAIL 4SD2, TYP.
- ROOF SHOULD BE FULLY LOADED PRIOR TO NAILING THE TOP PLATE HARDWARE TO ROOF JOIST BOTTOM CHORD.
- WATERPROOFING & DRAINAGE SHALL BE PROVIDED BY OTHERS.

FRAMING LEGEND & SYMBOLS

<p>AT XX' O.C. REQUIRED ANCHOR SPACING X - DETAIL # XX - SHEET #</p>	<p>INDICATES DETAIL CUT LOCATION. REFER TO DETAIL # AND STRUCTURAL SHEET NUMBER FOR MORE INFORMATION. TEXT ABOVE BUBBLE INDICATES REVISED HARDWARE OTHER THAN NOTED IN DETAIL.</p>
<p>INDICATES 2x6 STUD WALL PER PLAN & DETAIL 5SD2. COORDINATE STUD WALL SIZE WITH ARCH. PLANS.</p>	<p>INDICATES 8\"/> </p>
<p>INDICATES: 1. WALL OPENING HEADER PER FRAMING SCHEDULE BELOW 2. PROVIDE (1) 2x TRIMMER EACH SIDE U.N.O. ON PLAN. 3. PROVIDE KING STUDS EACH SIDE PER DETAIL 5SD2 U.N.O. ON PLAN.</p>	<p>INDICATES ALIGNED ROOF RAFTER W/ ROOF DIAPHRAGM EDGE NAILING</p>
<p>INDICATES SPAN AND DIRECTION OF ROOF RAFTERS. RAFTER SIZE AND SPACING PER PLANS.</p>	<p>INDICATES: 1. BEAM AS NOTED ON PLANS</p>
<p>INDICATES METAL ROOF DECK PER PLAN. REFER TO DETAIL 12SD4 FOR ADDITIONAL INFORMATION INCLUDING DECK TYPES.</p>	<p>INDICATES METAL ROOF DECK PER PLAN. REFER TO DETAIL 12SD4 FOR ADDITIONAL INFORMATION INCLUDING DECK TYPES.</p>
<p>INDICATES: 1. WOOD SHEAR WALL PANEL LOCATION PER PLAN INSTALLED FULL HEIGHT OF WALL 2. REFER TO DETAIL 1SD2 SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS 3. PROVIDE POST AND STRAP/HOLDOWN EACH END OF WALL MIN AS INDICATED PER PLAN 4. AT UPPER FLOORS WHERE WALL SHEATHING DOES NOT EXTEND AND EDGE NAIL TO FLOOR RIM PROVIDE SILL PLATE NAILING OR SCREWS PER DETAIL 1SD2</p>	<p>INDICATES: 1. WOOD SHEAR WALL PANEL LOCATION PER PLAN INSTALLED FULL HEIGHT OF WALL AND SHEAR PANEL ABOVE AND BELOW OPENING 2. REFER TO DETAIL 1SD2 SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS 3. PROVIDE POST AND STRAP/HOLDOWN EACH END OF WALL MIN AS INDICATED PER PLAN 4. AT UPPER FLOORS WHERE WALL SHEATHING DOES NOT EXTEND AND EDGE NAIL TO FLOOR RIM PROVIDE SILL PLATE NAILING OR SCREWS PER DETAIL 1SD2</p>
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<p>INDICATES DRAG TIE STRAP PER PLAN OR DETAIL SHOWN ON PLANS.</p>	<p>INDICATES DRAG TIE STRAP PER PLAN OR DETAIL SHOWN ON PLANS.</p>

GEOTECHNICAL INFORMATION

- REFER TO STRUCTURAL COVER SHEET (SCS) FOR ASSUMED SOIL VALUES OR VALUES BASED ON THE PROVIDED GEOTECHNICAL (SOILS) REPORT.
- THE OWNER/DEVELOPER AND SUBCONTRACTORS ARE TO REVIEW THE SOILS REPORT PRIOR TO COMMENCING CONSTRUCTION AND VERIFY THE PLANS COMPLY WITH THE CURRENT SOILS REPORT RECOMMENDATIONS. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE SOILS REPORT DATE SHOWN ON SHEET (SCS) DOES NOT MATCH THE CURRENT REPORT DATE. THE OWNER/DEVELOPER IS RESPONSIBLE FOR UPDATING THE STRUCTURAL ENGINEER WITH CURRENT GEOTECHNICAL ENGINEERING REQUIREMENTS.

FOUNDATION NOTES

- INSTALL HOLDOWN ANCHOR BOLTS PER 9SD1. PROVIDE AND INSTALL ALL U.S.P. OR SIMPSON LUMBER CONNECTORS (OR EQUAL) FOUNDATION HARDWARE PER MANUFACTURERS RECOMMENDATIONS. DEEPEN FOOTING WHERE NECESSARY TO PROVIDE ANCHOR EMBEDMENT AT HOLDOWN LOCATIONS.
- REFER TO SHEARWALL SCHEDULE 8SD1 FOR ANCHOR BOLT SPACING AND FOR ANCHOR BOLT INSTALLATION.
- REFER TO DETAIL PACKAGE FOR TYPICAL CONDITIONS NOT SPECIFICALLY CALLED OUT OR NOTED ON PLANS.
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- CONSTRUCT CONTINUOUS FOOTINGS AT CORNERS AND INTERSECTIONS PER DETAIL 11SD1.
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FOUNDATION LEGEND & SYMBOLS

<p>CONCRETE SLAB & FOOTING. FOOTING SIZE AND REINFORCING PER DETAIL SHEET SD1, U.N.O. PER PLAN.</p>	<p>INDICATES: CONCRETE, CMU WALL FOOTING. FOOTING SIZE AND REINFORCING PER DETAIL SHEET SD4, U.N.O. PER PLAN.</p>
<p>INDICATES: CONCRETE, DRILLED PIER FOOTING. FOOTING SIZE AND REINFORCING PER DETAIL SHEET SD4, U.N.O. PER PLAN.</p>	<p>INDICATES: CONCRETE, DRILLED PIER FOOTING. FOOTING SIZE AND REINFORCING PER DETAIL SHEET SD4, U.N.O. PER PLAN.</p>
<p>AT XX' O.C. ANCHOR SPACING X - DETAIL # XX - SHEET #</p>	<p>INDICATES: DETAIL CUT LOCATION. REFER TO DETAIL # AND STRUCTURAL SHEET NUMBER FOR MORE INFORMATION. TEXT ABOVE BUBBLE INDICATES REVISED HARDWARE OTHER THAN NOTED IN DETAIL.</p>
<p>INDICATES: WOOD SHEAR WALL LOCATION. REFER TO DETAIL 8SD1 FOR ANCHOR BOLT SIZE & SPACING AT EACH SHEAR WALL TYPE. PROVIDE 3\"/> </p>	<p>INDICATES: WOOD SHEAR WALL LOCATION. REFER TO DETAIL 8SD1 FOR ANCHOR BOLT SIZE & SPACING AT EACH SHEAR WALL TYPE. PROVIDE 3\"/> </p>

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- STRUCTURAL OBSERVATION IS REQUIRED BY THE ENGINEER OF RECORD. OUR OFFICE SHOULD BE NOTIFIED TO PERFORM STRUCTURAL OBSERVATION AT THE FOLLOWING STAGES OF CONSTRUCTION:
- PRIOR TO POUR OF CONCRETE TO OBSERVE REINFORCING & EMBEDS
 - WOOD FRAMING OBSERVATION PRIOR TO COVERING W/ FINISH & AFTER ROOF LOAD



PROJECT ADMINISTERED BY:
 SAN BERNARDINO COUNTY
 PROJECT & FACILITIES
 MANAGEMENT DEPARTMENT

385 N. ARROWHEAD AVE.
 SAN BERNARDINO, CA 92415

PROJECT NAME:
 SAN BERNARDINO
 COUNTY FIRE
 DEPARTMENT:
 FIRE STATION 227

PROJECT # 10.10.1202

CIP #22-105
 APN Part of 0154-281-01

180 W. 38TH STREET
 SAN BERNARDINO,
 CA 92405

ISSUE INFORMATION:

DATE:	INFORMATION:
03/07/2025	PLAN CHECK
07/25/2025	BID SET
08-22-25	BID SET

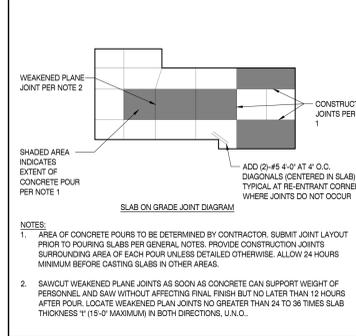
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 DATE: JULY 2025
 PLOT DATE:
 DRAWING NAME:



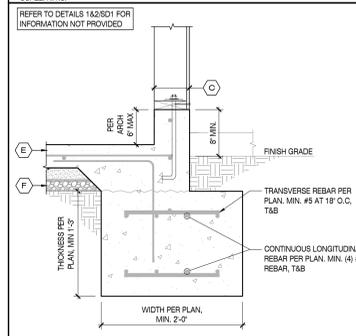
SHEET TITLE:
 SITE STRUCTURES,
 FUEL GENERATOR/TANK
 CANOPY
 - ROOF FRAMING &
 FOUNDATION PLANS

SHEET NO.:

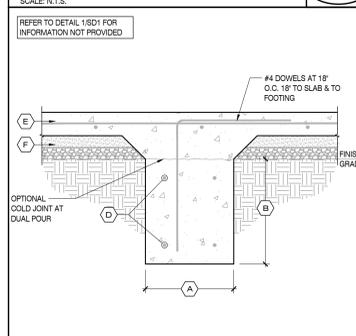
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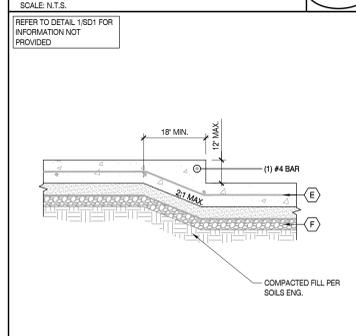
TYPICAL SLAB JOINT DETAIL
SCALE: N.T.S.



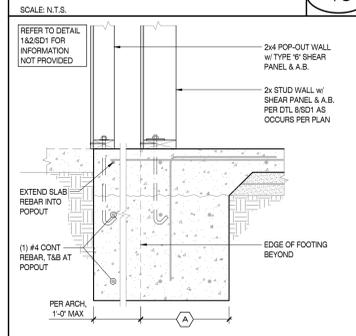
WIDENED FOOTING AT EXTERIOR WALL
SCALE: N.T.S.



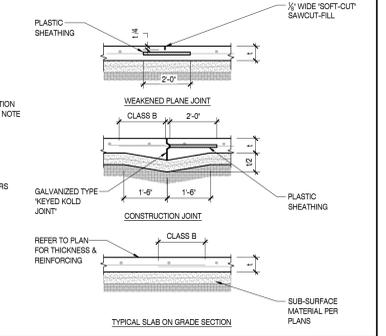
INTERIOR TIE BEAM FOOTING
SCALE: N.T.S.



SLAB DEPRESSION
SCALE: N.T.S.



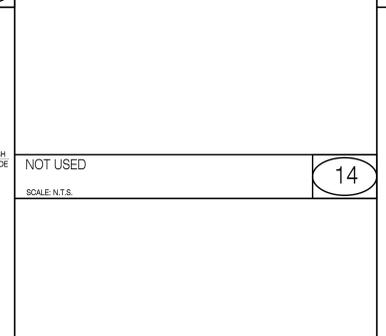
EXTERIOR FOOTING AT 12\"/>



NOT USED
SCALE: N.T.S.



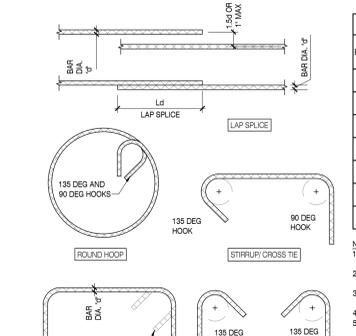
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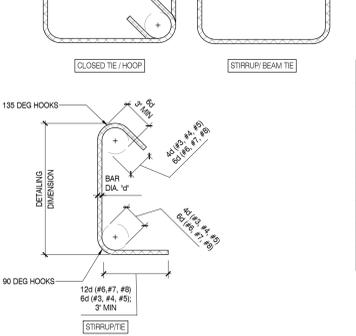
SLAB DEPRESSION
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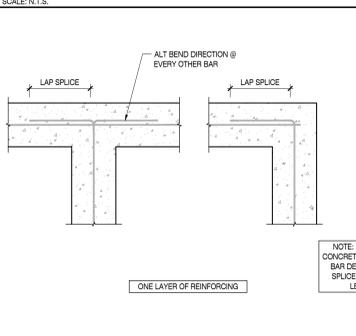
EXTERIOR FOOTING AT 12\"/>



TYPICAL CONCRETE REINFORCING BAR DETAILS
SCALE: N.T.S.



TYPICAL REINFORCING @ FOOTING INTERSECTIONS
SCALE: N.T.S.



FOOTING TRENCH & PIPES THRU FOOTING
SCALE: N.T.S.

$F_c = 2,500$ PSI

BAR SIZE	COVER = 0.75"		COVER = 1.5"		COVER = 2"		COVER = 3"	
	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	15"	12"	15"	15"	15"	15"	15"	15"
#4	19"	15"	19"	19"	19"	19"	19"	19"
#5	24"	19"	24"	24"	24"	24"	24"	24"
#6	29"	24"	29"	29"	29"	29"	29"	29"
#7	34"	29"	34"	34"	34"	34"	34"	34"
#8	39"	34"	39"	39"	39"	39"	39"	39"
#9	44"	39"	44"	44"	44"	44"	44"	44"

NOTES:
1. TABULATED VALUES ARE BASED ON A MINIMUM YIELD STRENGTH OF 60,000 PSI FOR ALL REINFORCING AND NORMAL WEIGHT CONCRETE.
2. SPACING OF REINFORCING BEING SPICED SHALL BE GREATER THAN ONE BAR DIAMETER PLUS TWICE THE CONCRETE COVER.
3. TOP INDICATES A TOP BAR WHICH ARE DEFINED AS HORIZONTAL REINFORCING WITH MORE THAN 12\"/>

TENSION DEVELOPMENT (L_d) AND LAP SPLICE (L_l) LENGTH FOR BARS IN WALLS, SLABS, AND FOOTINGS
SCALE: N.T.S.

BAR SIZE	STANDARD HOOK DEVELOPMENT LENGTH (L_d)
#3	9"
#4	12"
#5	15"
#6	18"
#7	21"
#8	24"
#9	27"

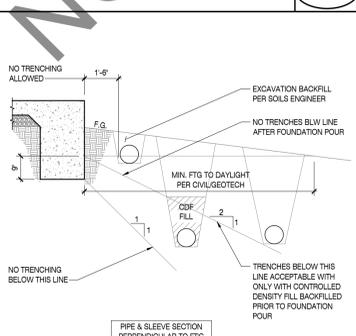
CRITICAL SECTION JOINT FACE AT STD. H/W. OR OUTSIDE OF TIES (CONFINED AREA)

TYPICAL SLIT PLATE ANCHOR BOLT SPECIFICATIONS
SCALE: N.T.S.

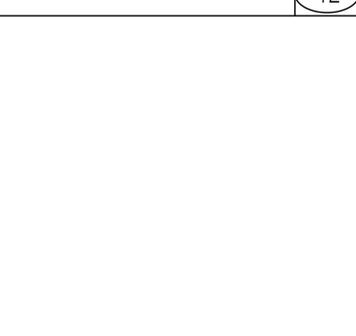
SHEAR WALL TYPE	FOUNDATION ATTACHMENT HARDWARE ALTERNATES (MAXIMUM SPACING (INCHES ON CENTER))	
	SINGLE-SIDED SHEAR WALL	DOUBLE-SIDED SHEAR WALL
NON-SHEAR	5/8" O.A.B.	5/8" O.A.B.
6	72"	72"
4	48"	48"
3	32"	27"
2	24"	21"
1	18"	16"
2A	18"	16"
2B	14"	12"

NOTES:
1. EMBEDMENT ANCHOR BOLTS EMBEDMENT SHALL BE 7" EMBEDMENT INTO CONCRETE. EMBEDMENT SHALL BE FROM TOP OF SLAB AT MONOPOUR. EMBEDMENT SHALL BE AT BE FROM COLD-JOINT AT DUAL POUR CONDITIONS. AT CURB/WALL CONDITION, EMBEDMENT SHALL BE FROM TOP OF CURB/WALL.
2. BOLT NUT & WASHER: ANCHOR BOLTS SHALL BE EITHER L-BOLTS OR HEADED BOLTS. PROVIDE PROPER NUT & STANDARD (ANSI) 1/2" O x 0.100 THICK OUT WASHERS AT ALL BEARING AND NON-BEARING WALL ANCHOR BOLT LOCATIONS. PROVIDE STANDARD (ANSI) 1/2" O x 0.100 THICK OUT WASHERS AND 3" x 3" x 0.229" THICK ANGLE SLOTTED PLATE WASHER AT ALL SHEAR WALL ANCHOR BOLT LOCATIONS.
3. MINIMUM ANCHORS: MINIMUM (2) ANCHOR BOLTS PER PIECE OF SILL PLATE. ANCHOR BOLTS SHALL BE LOCATED WITHIN 7" MIN OR 12" MAX FROM THE END OF ANY SILL PLATE BREAK.
4. EDGE & END DISTANCE: ANCHOR BOLTS SHALL MAINTAIN A MINIMUM 1-1/2" EDGE OF CONCRETE DISTANCE & 1" EDGE OF SILL PLATE DISTANCE. SQUARE WASHER SHALL BE MAXIMUM 1/2" DISTANCE FROM EDGE OF SILL PLATE ON SHEAR SIDE.

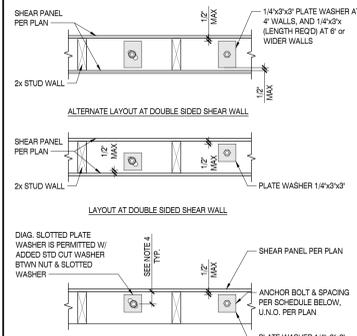
EXTERIOR TIE BEAM FOOTING
SCALE: N.T.S.



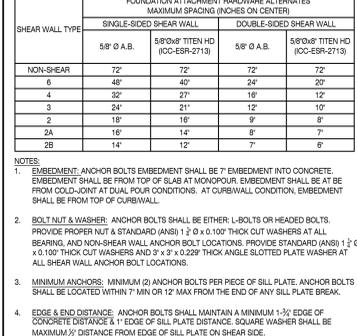
SSBT & SB HOLD-DOWN ROD AT INTERIOR AND EXTERIOR FOOTINGS
SCALE: N.T.S.



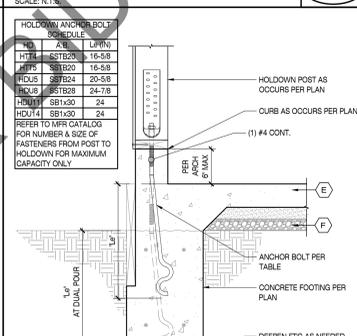
INTERIOR PARTITION WALL CONNECTION
SCALE: N.T.S.



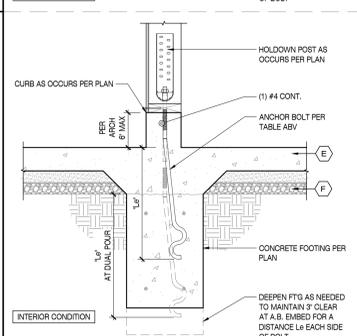
TYPICAL SLIT PLATE ANCHOR BOLT SPECIFICATIONS
SCALE: N.T.S.



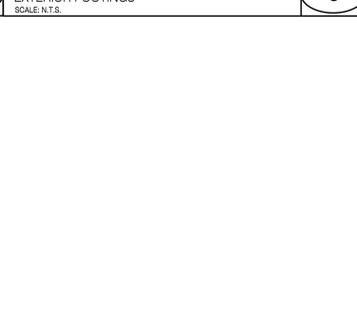
PAD FOOTING
SCALE: N.T.S.



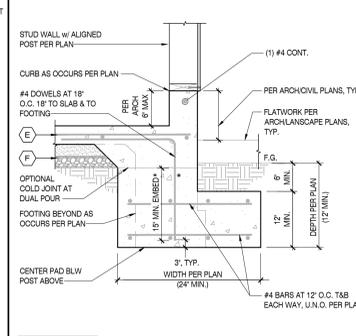
EXTERIOR TIE BEAM FOOTING
SCALE: N.T.S.



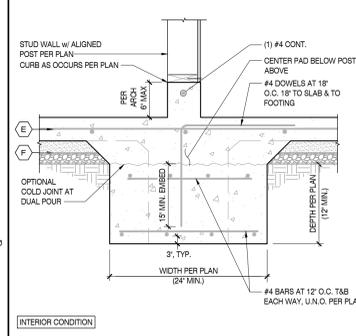
SSBT & SB HOLD-DOWN ROD AT INTERIOR AND EXTERIOR FOOTINGS
SCALE: N.T.S.



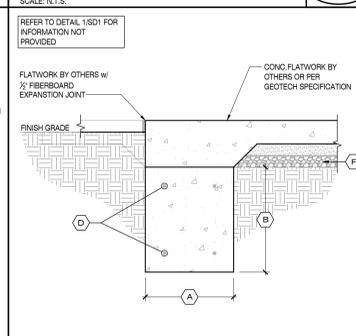
INTERIOR PARTITION WALL CONNECTION
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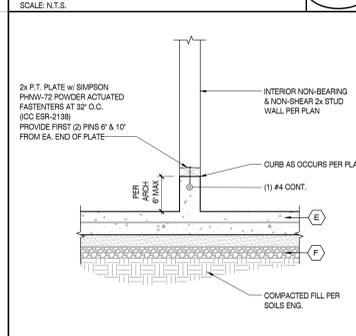
EXTERIOR FOOTING AT OPENING
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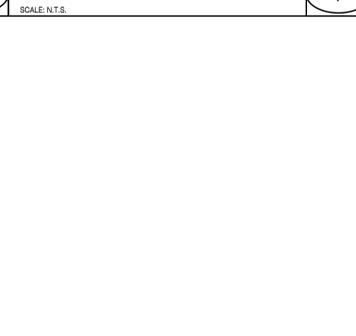
EXTERIOR BEARING OR SHEAR WALL FOOTING W/ CURB
SCALE: N.T.S.



EXTERIOR TIE BEAM FOOTING
SCALE: N.T.S.



SSBT & SB HOLD-DOWN ROD AT INTERIOR AND EXTERIOR FOOTINGS
SCALE: N.T.S.



INTERIOR PARTITION WALL CONNECTION
SCALE: N.T.S.

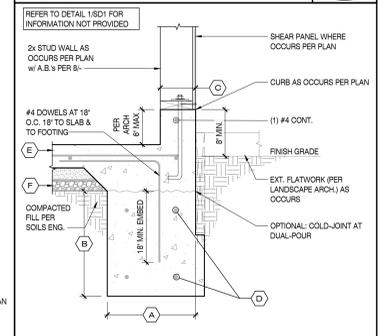
SLAB & FOOTING SPECIFICATIONS FOR LOW EXPANSIVE SOILS

*LOW - PER GEOTECHNICAL ENGINEER

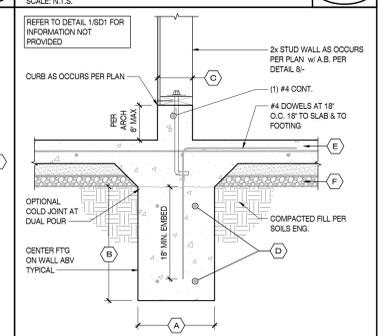
LABEL	1 STORY FOUND.
(A)	15' U.N.O. PER PLAN
(B)	12' BELOW LOWEST ADJACENT GRADE
(C)	#4 (2x WALL PER PLAN) #5 (2x WALL PER PLAN) #5 (2x WALL PER PLAN)
(D)	(2) #5 BAR TOP & BOTTOM, U.N.O. PER PLAN
(E)	PER PLAN
(F)	2" THICK CLEAN SAND OVER 10 MIL VAPOR BARRIER OVER 2" THICK CLEAN SAND BASE

* EXPANSION CATEGORY CLASSIFICATION IS PER CBC 1802.3
** THE CONVENTIONAL FOUNDATION INFORMATION ABOVE IS FOR THIS SPECIFIC PROJECT ONLY WITH A LOW EXPANSION INDEX

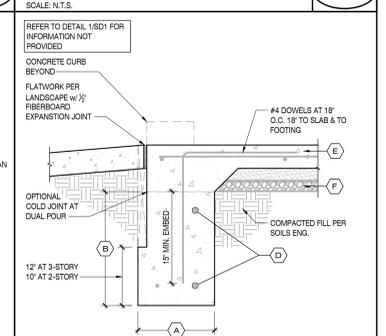
SLAB & FOOTING SPECIFICATIONS
SCALE: N.T.S.



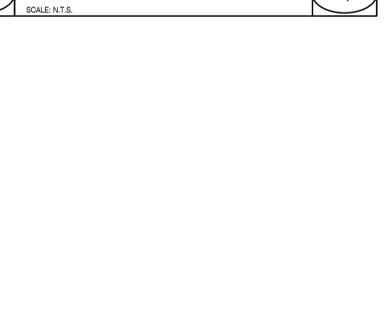
EXTERIOR BEARING OR SHEAR WALL FOOTING W/ CURB
SCALE: N.T.S.



INTERIOR BEARING OR SHEAR WALL FOOTING
SCALE: N.T.S.



EXTERIOR FOOTING AT OPENING
SCALE: N.T.S.



INTERIOR PARTITION WALL CONNECTION
SCALE: N.T.S.



4205 E. 210TH ST., TEMECULA, CALIFORNIA 92590-3760
PHONE: 951.206.9110 FAX: 951.206.9079 EMAIL: STK@STK.COM

CONSULTANT:



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TEL: 951.206.9110
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SOCAL.INCORP.COLOMADO
ISE PROJECT NO.: 24-B400.32

PROJECT ADMINISTERED BY:
SAN BERNARDINO COUNTY
PROJECT & FACILITIES
MANAGEMENT DEPARTMENT

385 N. ARROWHEAD AVE.
SAN BERNARDINO, CA 92415

PROJECT NAME:
SAN BERNARDINO
COUNTY FIRE
DEPARTMENT:
FIRE STATION 227

PROJECT # 10.10.1202
CIP #22-105
APN Part of 0154-281-01

180 W. 38TH STREET
SAN BERNARDINO,
CA 92405

ISSUE INFORMATION:
DATE: 03/07/2025
07/25/2025
08-22-25

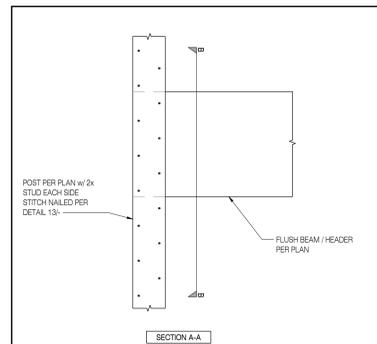
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SCALE: AS NOTED
DATE: JULY 2025
DRAWING NAME:

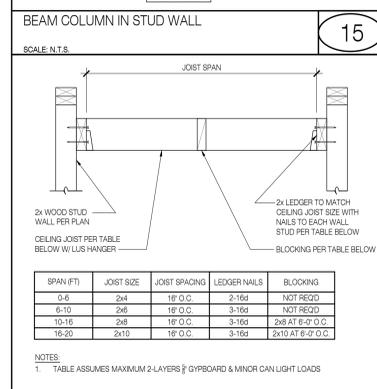
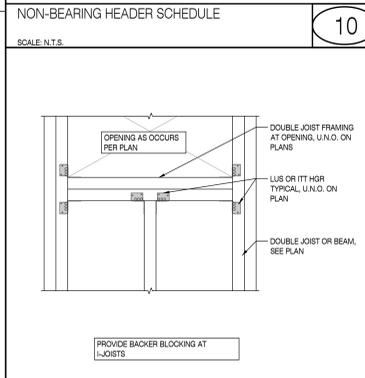
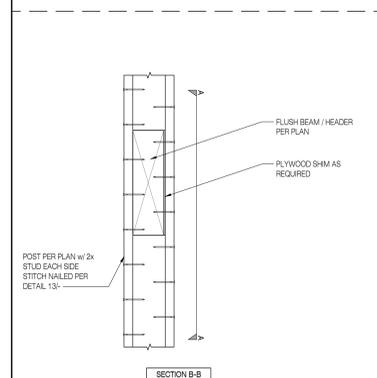
SEAL:
PROFESSIONAL ENGINEER
SANDY FONG
C88965
CIVIL
STATE OF CALIFORNIA

SHEET TITLE:
FOUNDATION
DETAILS

SHEET NO.:
SD1

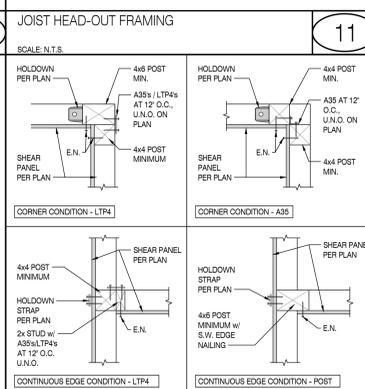


HEADER SIZE	MAXIMUM SPAN (8'-0" WALL ABOVE)	MAXIMUM SPAN (10'-0" WALL ABOVE)
2x4 FLAT	3'-0"	--
4x4 STD & BTR	6'-6"	4'-6"
4x6 DF NO. 2	10'-0"	9'-6"
4x8 DF NO. 2	12'-0"	12'-0"

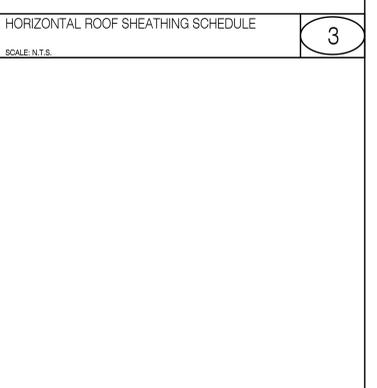
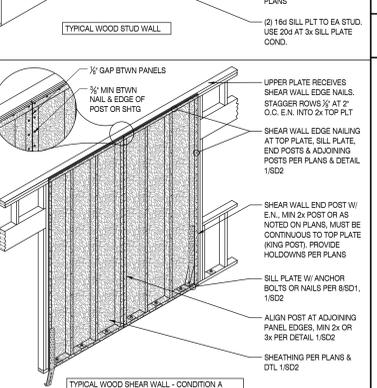
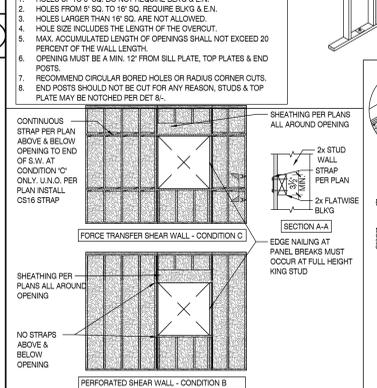
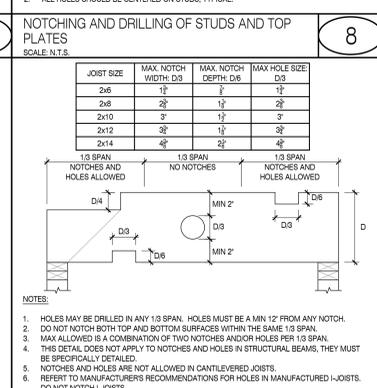
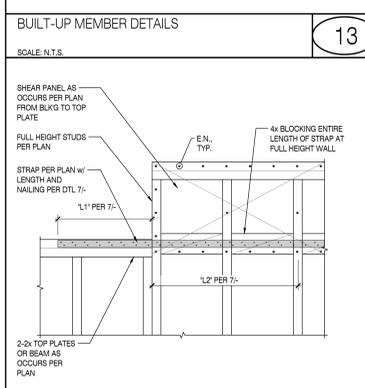
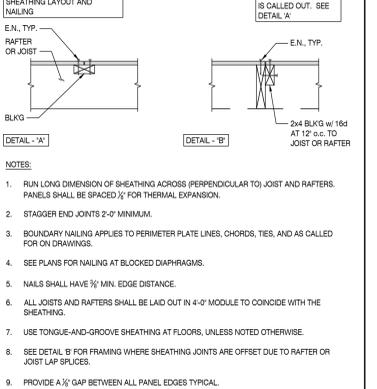
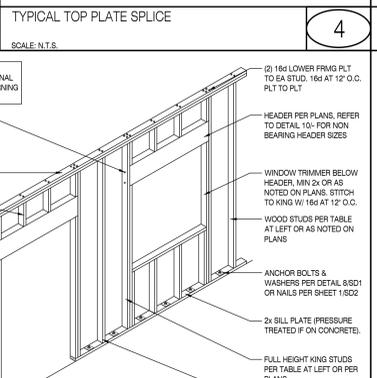
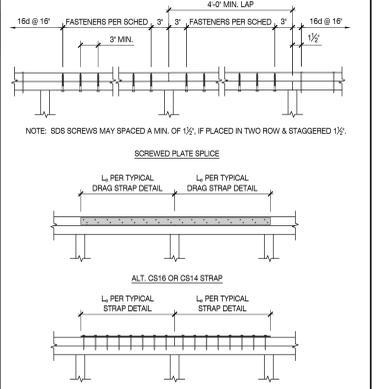
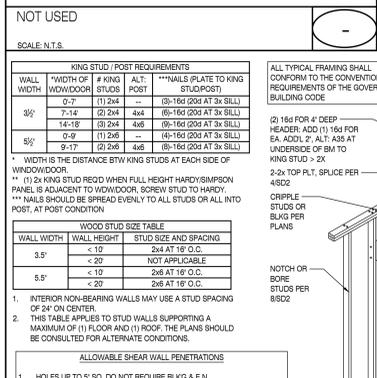
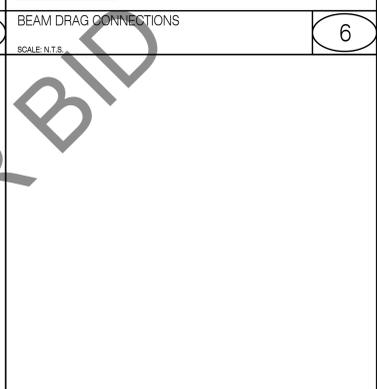
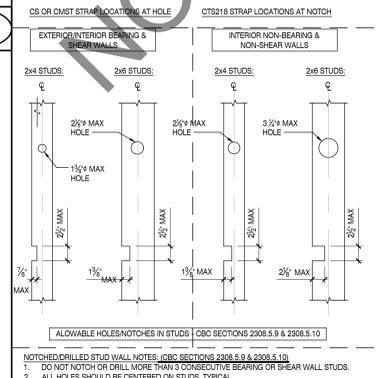


SPAN (FT)	JOIST SIZE	JOIST SPACING	LEDGER NAILS	BLOCKING
0-6	2x4	18" O.C.	2-16d	NOT REQD.
6-10	2x6	18" O.C.	3-16d	NOT REQD.
10-18	2x8	18" O.C.	3-16d	2x8 AT 6'-0" O.C.
18-20	2x10	18" O.C.	3-16d	2x10 AT 6'-0" O.C.

NOTES:
1. TABLE ASSUMES MAXIMUM 2-LAYERS OF GYPSUMBOARD & MINOR CAN LIGHT LOADS



STRAP	DRAG MEMBER	SCAB LENGTH AND NAILING OF SCABS TO DRAG MEMBER	L ¹ LENGTH OF STRAP TO TOP PLTs	L ² LENGTH OF STRAP TO DRAG MEMBER	DRAG CAPACITY (LBS)
(1) CS16	1/2" RIM	N/A	18" WITH (15) 8dS	32" W/ (2) ROWS OF 8dS AT 4 1/2" O.C.	1,705
(2) CS16	3/2" RIM w/ 2x SCAB	4" LONG W/ (2) ROWS OF 16dS AT 6" O.C.	18" WITH (15) 8dS	32" W/ (2) ROWS OF 8dS AT 4 1/2" O.C.	3,410
CMST14	3/2" MIN.	N/A	34" WITH (28) 10dS	12" W/ (2) ROWS OF 10dS AT 3 1/2" O.C.	6,490
CMST12	3/2" MIN.	N/A	44" WITH (49) 10dS	16" W/ (2) ROWS OF 10dS AT 3 1/2" O.C.	9,215



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SOCAL | NORCAL | COLORADO

ISE PROJECT NO.: 24-B400-32

PROJECT ADMINISTERED BY:
SAN BERNARDINO COUNTY PROJECT & FACILITIES MANAGEMENT DEPARTMENT

PROJECT NAME:
SAN BERNARDINO COUNTY FIRE DEPARTMENT: FIRE STATION 227

385 N. ARROWHEAD AVE. SAN BERNARDINO, CA 92415

PROJECT NO.: 10.10.1020

CIP #22-105

APN Part of 0154-281-01

180 W. 38TH STREET SAN BERNARDINO, CA 92405

ISSUE INFORMATION:

DATE: 03/07/2025 INFORMATION: PLAN CHECK

07/25/2025 BID SET

08-22-25 BID SET

SHEET INFORMATION:

STK PROJECT NO.: 374-193-24 SCALE: AS NOTED DATE: JULY 2025

PLOT DATE: DRAWING NAME:

SEAL:



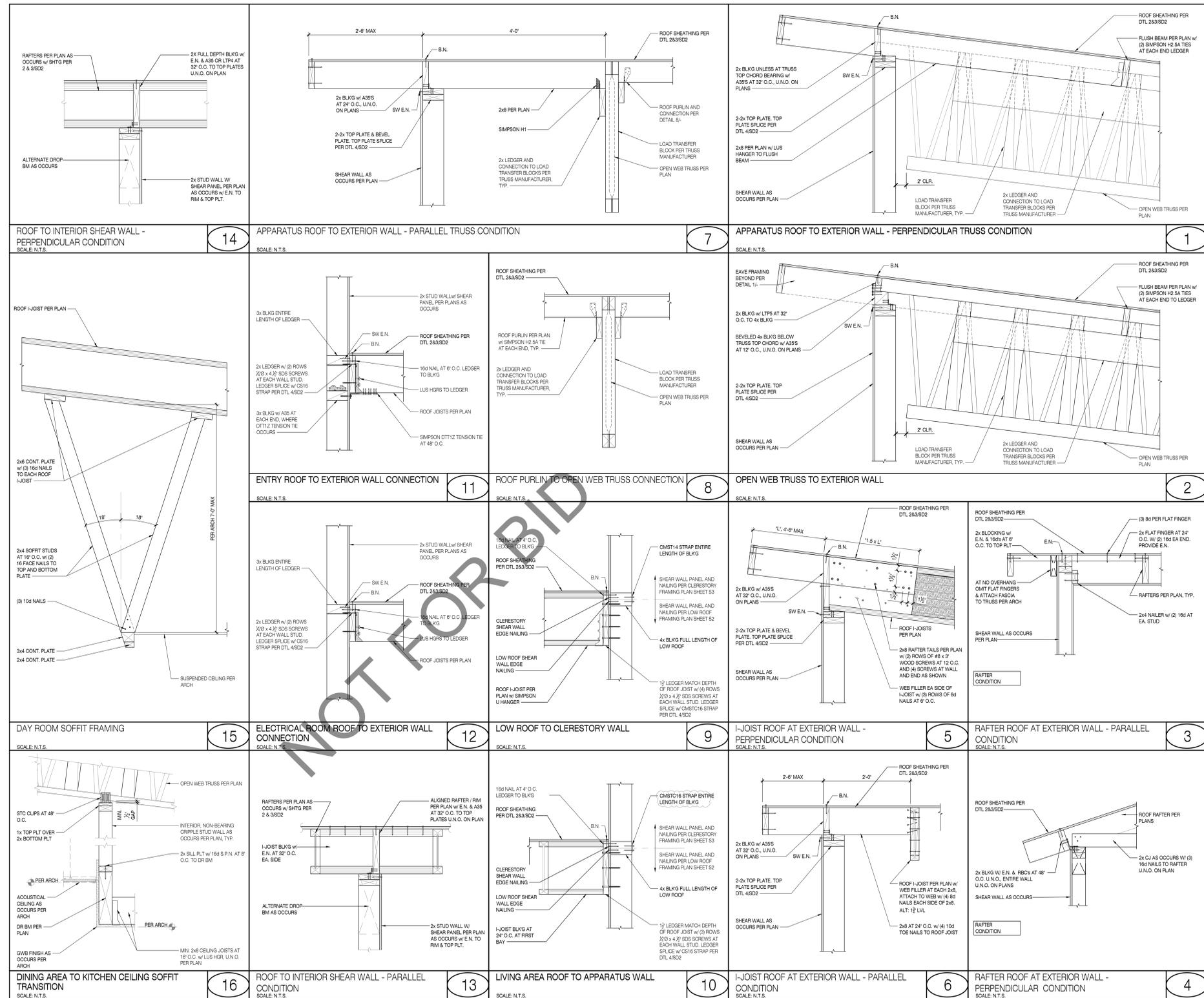
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GENERAL WOOD FRAMING DETAILS

SHEET NO.:

SD2

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ISE PROJECT NO.: 24-8400.32
PROJECT MANAGER:
SANDY FONG EXT. 1016
SANDY@ISEENGINEERS.COM

PROJECT ADMINISTERED BY:
SAN BERNARDINO COUNTY
PROJECT & FACILITIES
MANAGEMENT DEPARTMENT

385 N. ARROWHEAD AVE.
SAN BERNARDINO, CA 92415

PROJECT NAME:
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COUNTY FIRE
DEPARTMENT:
FIRE STATION 227
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180 W. 38TH STREET
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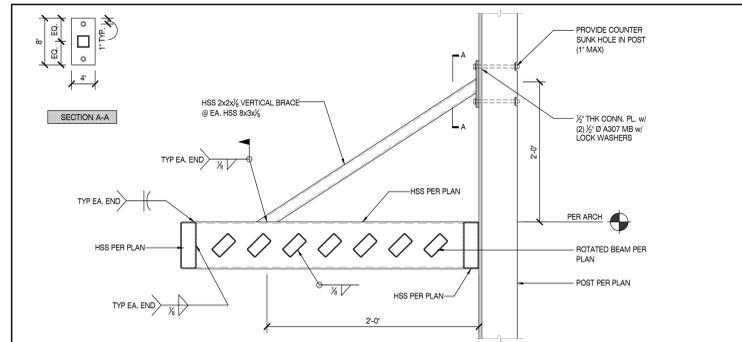
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03/07/2025	PLAN CHECK
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08-22-25	BID SET

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SCALE: AS NOTED
DATE: JULY 2025
PLOT DATE:
DRAWING NAME:
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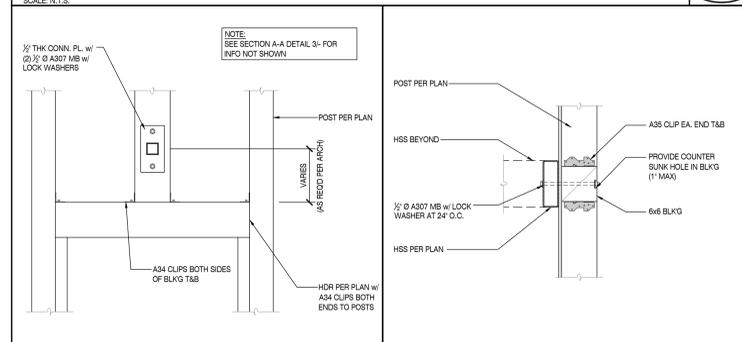


SHEET TITLE:
**ROOF FRAMING
DETAILS**

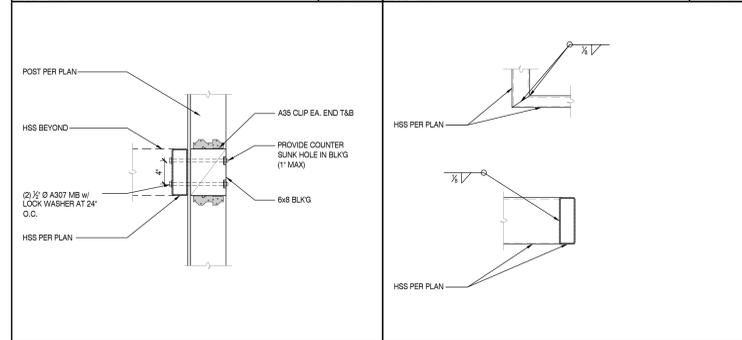
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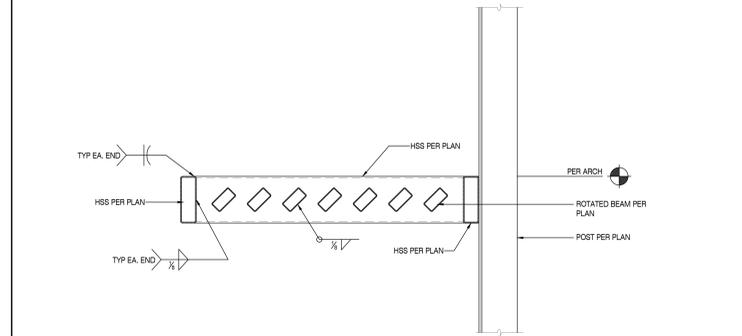
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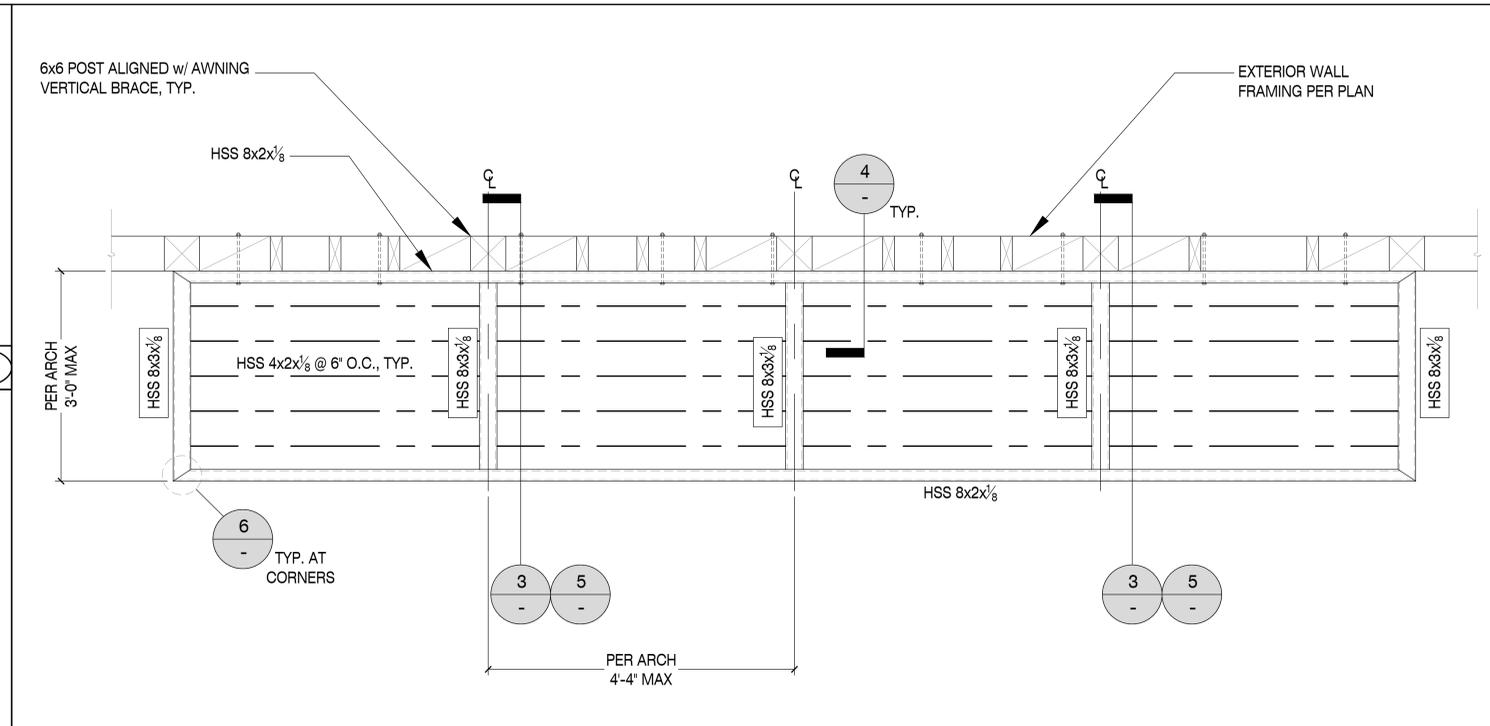
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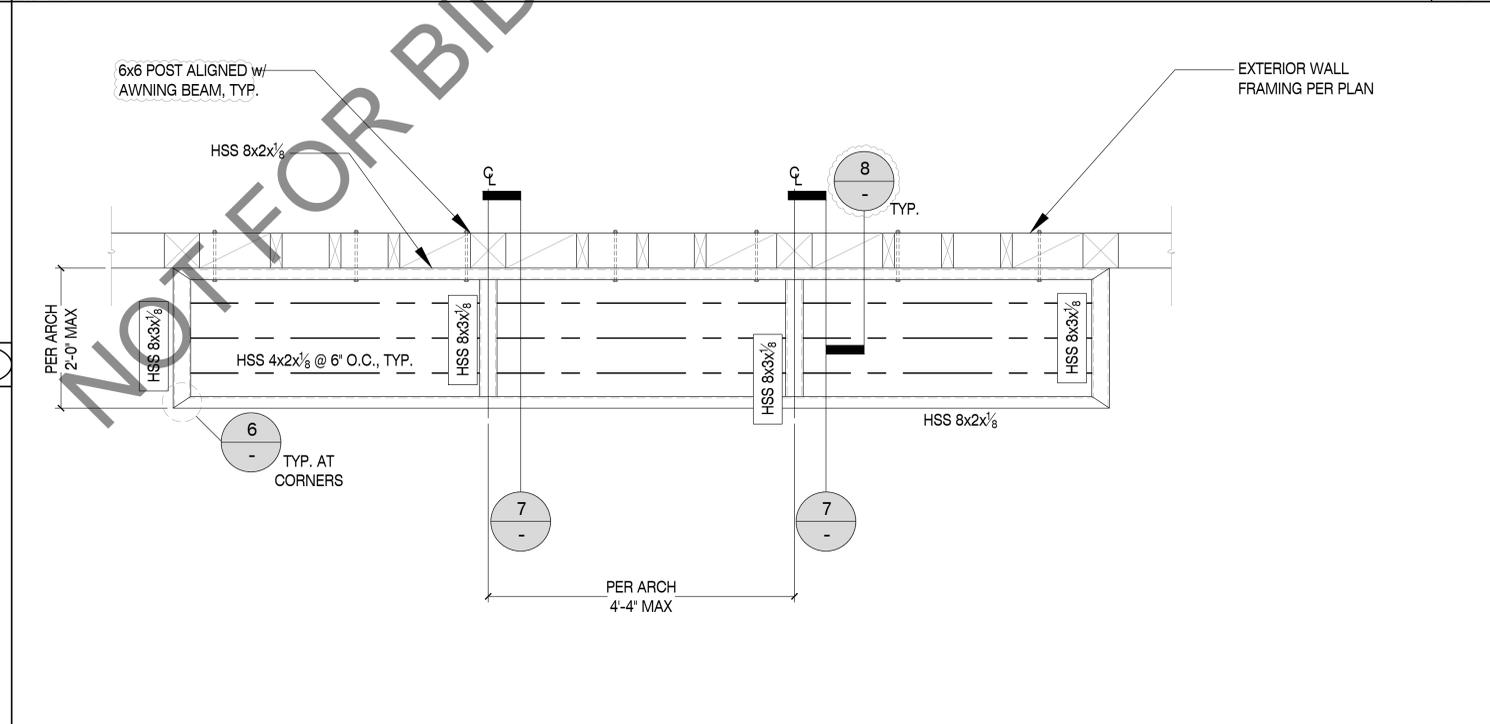
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AWNING SECTION
SCALE: N.T.S.



AWNING FRAMING AT FITNESS CENTER WALL
SCALE: N.T.S.



AWNING FRAMING AT ENTRANCE
SCALE: N.T.S.



CONSULTANT:



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DRAWING NAME:	

SEAL:



SHEET TITLE:

AWNING FRAMING
DETAILS

SHEET NO.:

SD3.1