

OVERALL FOUNDATION PLAN

SCALE: 1/16" = 1'-0"



FOUNDATION NOTES:

- FOR GENERAL NOTES SEE SHEET "SD-0"
- PERIMETER POUR STRIP TO BE POURED AFTER ALL PANELS HAVE BEEN ERECTED.
- PROVIDE GROUT UNDER THE PANELS FOR THE FULL LENGTH OF THE PANELS BEFORE PANELS HAVE BEEN ERECTED, AS AN ALTERNATE FOR CONTINUOUS GROUT, USE 18" SQ. GROUT PADS AT 6'-0" O.C. MAX. THEN GROUT FULL LENGTH OF THE PANEL AFTER PANELS ARE ERECTED.
- SEE ARCHITECTURAL, ELECTRICAL, PLUMBING, MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF SLAB DEPRESSIONS AND OPENINGS REQUIRED FOR DUCTWORK, SLEEVES, ELECTRICAL CONDUITS AND OTHER EMBEDDED IN CONCRETE, UNLESS NOTED OTHERWISE.
- F.O.P. — DENOTES FACE OF CONC. PANEL.
P.J. — DENOTES PANEL JOINTS.
W.P. — DENOTES WORK POINT.
- CONTRACTOR SHALL VERIFY BOTTOM OF PANEL WITH THE LATEST GRADING PLAN.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH THE LATEST ARCHITECTURAL AND STRUCTURAL DRAWINGS BEFORE FORMING OF PRECAST CONCRETE PANELS.
- CONTRACTOR TO COORDINATE LOCATION OF SPRINKLER MAIN RISER W/PIPE PROTECTION DWGS.
- CONTRACTOR TO COORDINATE LOCATION OF ELECTRICAL TRENCH W/ELECTRICAL DWGS. SEE DETAIL "10/SD-1" FOR TYPICAL FOOTING BLOCK-OUT.
- SEE DETAIL "5A/SD-1" FOR TYPICAL EDGE OF SLAB.
- RACK DESIGNERS SHALL SUBMIT THEIR SHOP DRAWINGS AND CALCULATIONS UNDER SEPARATE PERMIT TO JUSTIFY THAT THE STRESSES DUE TO RACK LOADS ARE WITHIN THE LIMITS OF UNREINFORCED CONCRETE.
- FUTURE DOCK LEVELER REFER TO "11/SD-1" SEE ARCHITECTURAL DRAWINGS FOR LOCATION.
- ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER OF RECORD PRIOR TO THE PLACEMENT OF ANY CONCRETE. THE SOILS ENGINEER OF RECORD SHALL APPROVE THE SOILS ENGINEER OF RECORD STATING THE RESULTS OF THE SOILS ENGINEER'S INSPECTION SHALL BE PROVIDED TO THE CITY INSPECTOR PRIOR TO THE PERFORMANCE OF ANY FOUNDATION INSPECTION. EXCAVATION SHALL BE MADE IN COMPLIANCE WITH CAL/OSHA REGULATIONS
- A LINE AND GRADE CERTIFICATION PREPARED BY CIVIL ENGINEER OF RECORD SHALL BE GIVEN TO THE CITY INSPECTOR PRIOR TO THE PERFORMANCE OF ANY FOUNDATION INSPECTION. THIS CERTIFICATION SHALL STATE THAT THE CORRECT LOCATION FOR ALL STRUCTURES IS ESTABLISHED IN ACCORDANCE WITH THE CITY APPROVED PRECISE GRADING PLAN.

LEGEND :

| | |
|--|---|
| | DENOTES WAREHOUSE AREA 6" THK, REINFORCED CONCRETE SLAB FOR ADD. INFO. SEE DETAIL |
| | DENOTES OFFICE AREA 8" THK, REINFORCED CONCRETE SLAB FOR ADD. INFO. SEE DETAIL |
| | 6" CONCRETE APRON SLAB SEE CIVIL DRAWINGS FOR EXTENT SEE DETAIL |

| FOOTING SCHEDULE | | | |
|------------------|-----------------------|-------------------------------|--------|
| MARK | FOOTING (WxLxT) | REINFORCING | DETAIL |
| | 7'-0" x 7'-0" x 24" | 8- #6 E.W. | |
| | 7'-0" x 7'-0" x 24" | 8- #6 E.W. | |
| | 7'-0" x 7'-0" x 24" | 8- #6 E.W. | |
| | 7'-6" x 7'-6" x 24" | 7- #6 E.W. | |
| | 8'-0" x 5'-0" x 24" | 8- #5 LONG 5- #5 SHORT | |
| | 10'-0" x 10'-0" x 24" | 10- #6 E.W. | |

| COLUMN SCHEDULE | | | | |
|-----------------|-------------------|---------|--------------|-----------------------|
| MARK | COLUMN SIZE | HEIGHT | BASE PLATE | |
| | | | SIZE | ANCHOR BOLTS |
| | HSS 8"x 8" x 1/2" | TO ROOF | 14"x14"x3/4" | 4- 7/8" Dia. A.B. |
| | HSS 8"x 8" x 1/2" | TO ROOF | 14"x14"x3/4" | 4- 7/8" Dia. A.B. |
| | HSS 8"x 8" x 1/2" | TO ROOF | 14"x14"x3/4" | 4- 7/8" Dia. A.B. |
| | HSS 8"x 8" x 1/2" | TO ROOF | 14"x14"x3/4" | 4- 7/8" Dia. A.B. |



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BTI JOB#: 15-187

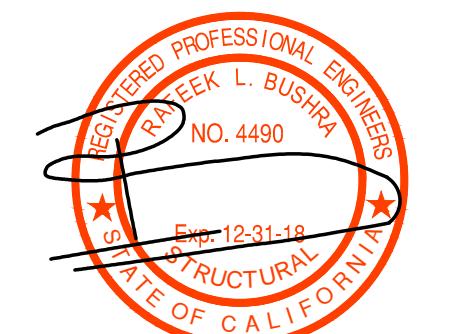
BTI
BUSHRA · TSAI · INCORPORATED
CONSULTING STRUCTURAL ENGINEERS
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Tel : (714) 522-0911 Fax : (714) 522-1148

Dwg. by: VB Eng. by:

Owner:
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Project:
71K DISTRIBUTION
FACILITY

14141 ARBOR PLACE,
CERRITOS, CA 90703

Consultants:

| | |
|-----------------|------------------------|
| CIVIL | Thienes Engineering |
| STRUCTURAL | BTI Engineers |
| MECHANICAL | Orange County Air |
| PLUMBING | Talon Plumbing |
| ELECTRICAL | Current Electric |
| LANDSCAPE | Lewis & Associates |
| FIRE PROTECTION | Active Fire Protection |
| SOILS ENGINEER | Faffer Geological |

Title:
MEZZANINE
FOUNDATION &
FRAMING PLAN

Project Number: 15060

Drawn by: VB

Date: 4-14-2017

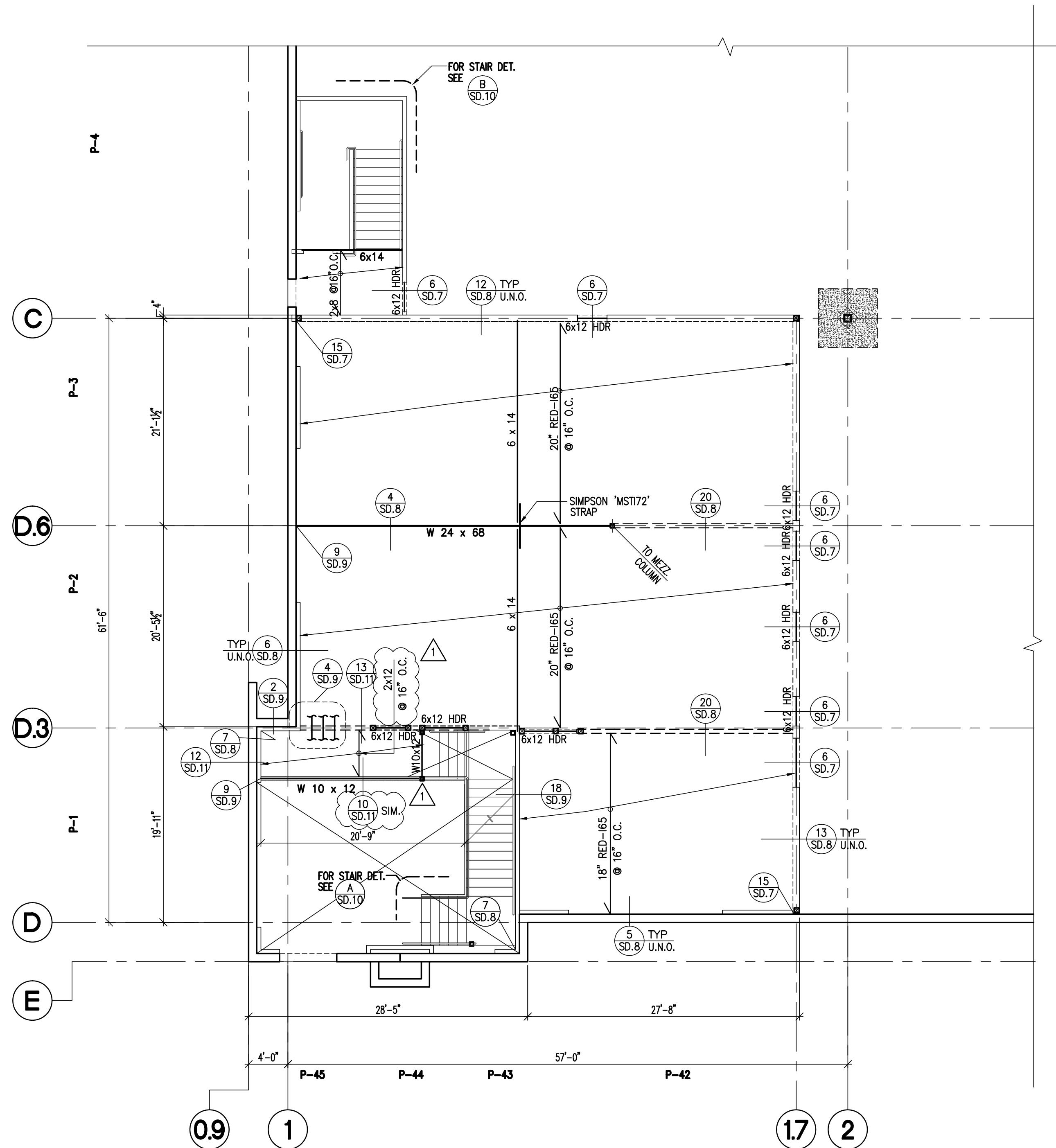
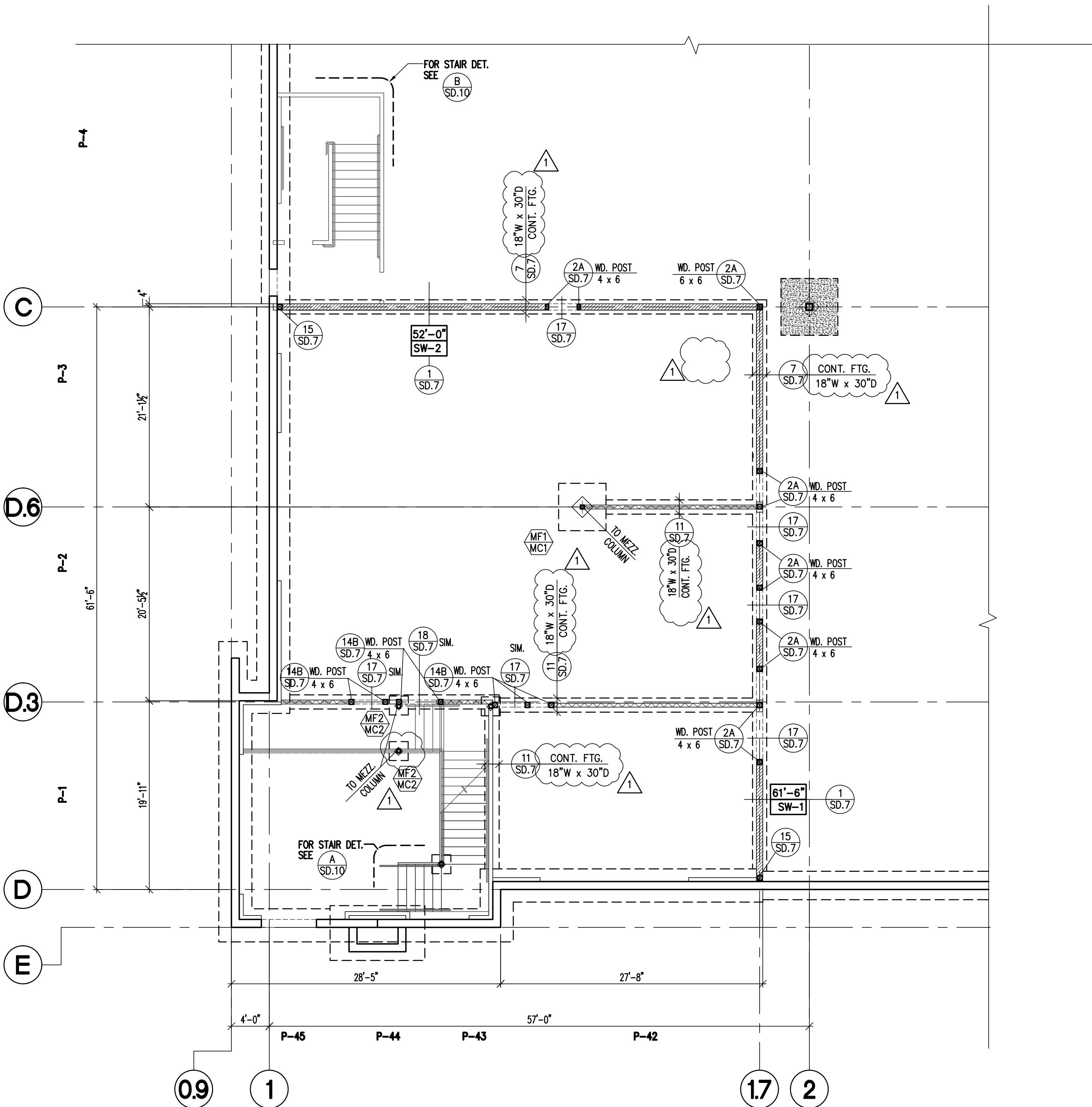
Revision:

PLAN CHECK CORRECTIONS 07-21-17

Sheet:

S-1.2

BID SET 8/10/17

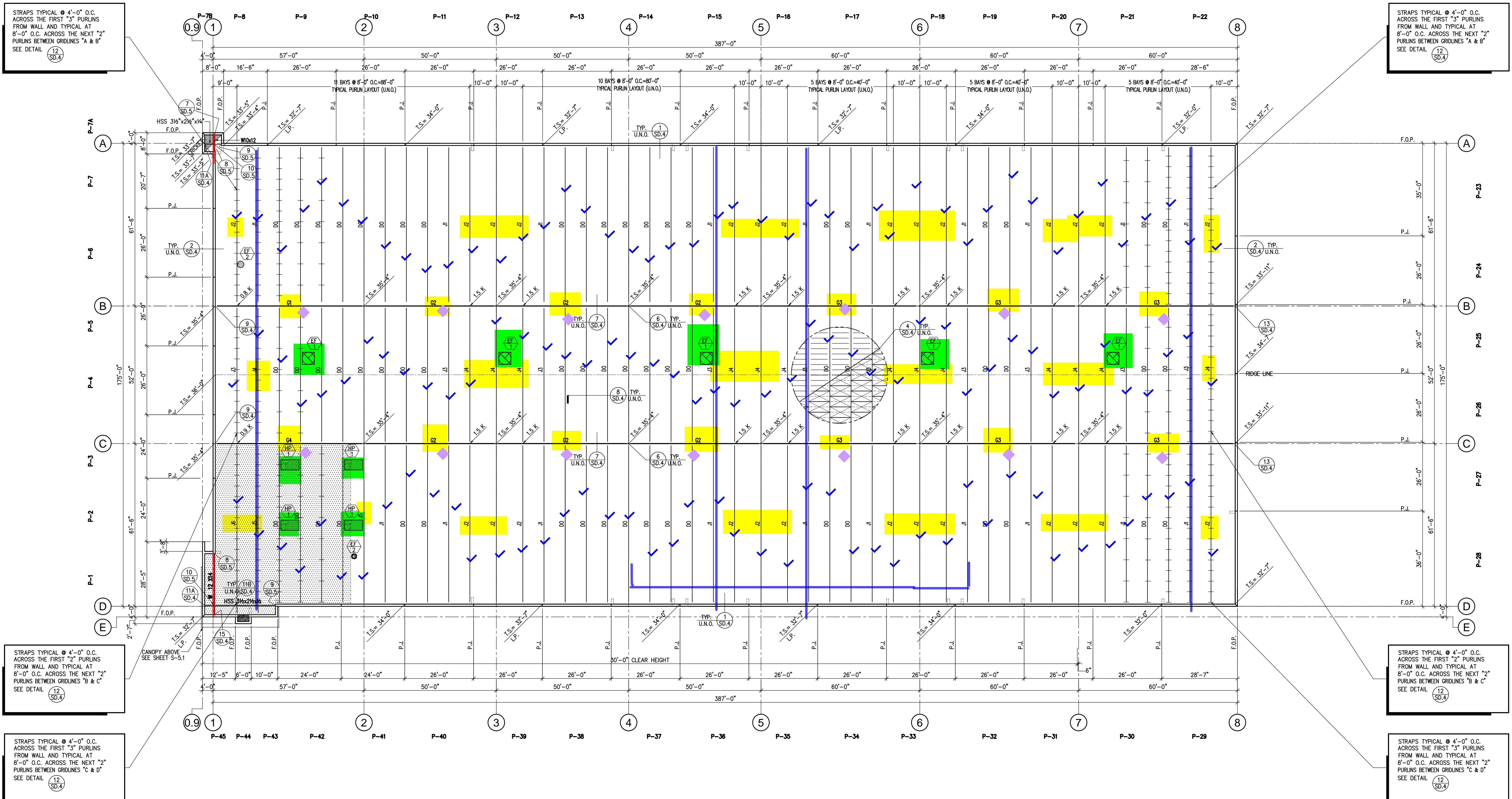


| FOOTING SCHEDULE (FC) | | | |
|-----------------------|---------------------|---------------|--------|
| MARK | W x L x T | REINFORCEMENT | DETAIL |
| MF1 | 4'-6" x 4'-6" x 24" | 5- #5 E.W. | 1 |
| MF2 | 3'-0" x 3'-0" x 24" | 3- #5 E.W. | 1 |

| COLUMN SCHEDULE (MC) | | | | | |
|----------------------|--------------------|----------|------------------|--------------|--------|
| MARK | COLUMN | HEIGHT | BASE PLATE | | |
| | | | SIZE | ANCHOR BOLTS | DETAIL |
| MC1 | HSS 5" x 5" x 1/4" | TO MEZZ. | 11" x 11" x 3/4" | 4- 7/8" A.B. | 1 |
| MC2 | HSS 4" x 4" x 1/4" | TO MEZZ. | 10" x 10" x 3/4" | 4- 7/8" A.B. | 1 |

MEZZANINE FRAMING NOTES:

- USE 1-1/2" GYPCRETE (3000 PSI) OVER 3/4" THICK STRUCTURAL I PLYWOOD WITH 10d x 2 3/8" LONG NAILS. MEMBER OR BLOCKING (2x BLOCKING REQUIRED IN SIMPSON "Z" HANGERS, SPACED PER NAILING SCHEDULE BELOW). BOUNDARY AND CONT. EDGES = 2 1/2" O.C. EDGES = 4" O.C.
- WOOD PLACEMENT DIAPHRAGM AND NAILING TO BE INSPECTED AND APPROVED BY BUILDING DEPARTMENT PRIOR TO COVERING.
- PROVIDE 2 ROWS OF BOUNDARY NAILING ALL AROUND THE OPENINGS.
- STAGGER THE NAILING IN 2 ROWS WHERE NAIL SPACING IS 2 1/2" O.C. AND 3" O.C.
- ON ALL THE MEMBERS WHERE STRAP TIES OCCUR THE PLYWOOD NAILING SHALL BE EDGE NAILING.
- IF THE STRAP IS PLACED OVER THE PLYWOOD, THE STRAP NAILS SHOULD PENETRATE THRU THE PLYWOOD NOT IN THE PLYWOOD JOINT.
- ALL EDGES OF PLYWOOD MUST HAVE EITHER A FRAMING MEMBRANE OR BLOCKING (3 x BLOCKING REQUIRED IN SIMPSON "Z" HANGERS).
- PROVIDE 2 ROWS OF BOUNDARY NAILING ALONG LINES "1," & "C"
- FOR FLOOR NOTES, SEE DETAIL 8
- SUB FLOOR SHEATHING, SEE DETAIL 9
- FOR FLOOR OPENINGS, SEE DETAIL 10
- THE MEZZANINE IS FOR OFFICE USE, AND NOT LIGHT STORAGE.
- OWNER SHALL PROVIDE A PERMANENT SIGN FOR THE MEZZANINE STATING THE MAXIMUM 100 PSF LIVE LOAD ALLOWED.



OVERALL ROOF PLAN

SCALE: 1/16" = 1'-0"

MECH. UNIT SCHEDULE

| UNIT NO. | OPFR. WT. (LBS) |
|----------|-----------------|
| EF 1 | 200 |
| EF 2 | 100 |
| HP 1 | 800 |

NOTE:
VERIFY WEIGHT OF MECH. UNITS
W/ LATEST MECH. & ARCHIT'L DWG'S.

ROOF FRAMING NOTES:

- FOR GIRDER JOIST SCHEDULE, ROOF NAILING DIAGRAM AND NOTES SEE SHEET "S-3.0".
- T.S. = DENOTES TOP OF PLYWOOD SHEATHING
ALL ROOF ELEVATIONS ARE TAKEN DIRECTLY FROM THE FINISH FLOOR RIGHT BELOW REFERENCE POINT
- SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENTS. FOR DETAIL SEE (10 SD.4)
- SEE SPRINKLER DRAWINGS FOR EXACT LOCATION & WEIGHT OF SPRINKLER MAINS.
- SEE ARCHITECTURAL DRAWING FOR SKYLIGHT LOCATION.
FOR OPENING DETAIL SEE (5 SD.4)
- F.O.P.= DENOTES FACE OF PANEL
P.J.= DENOTES PANEL JOINTS.
- PROVIDE PLYWOOD CRICKET AS REQUIRED AT INSIDE CORNERS OF ROOF AND PARAPET LOCATIONS. TYP. FOR LOCATION OF CRICKET SEE ARCHITECTURAL.

LEGEND:

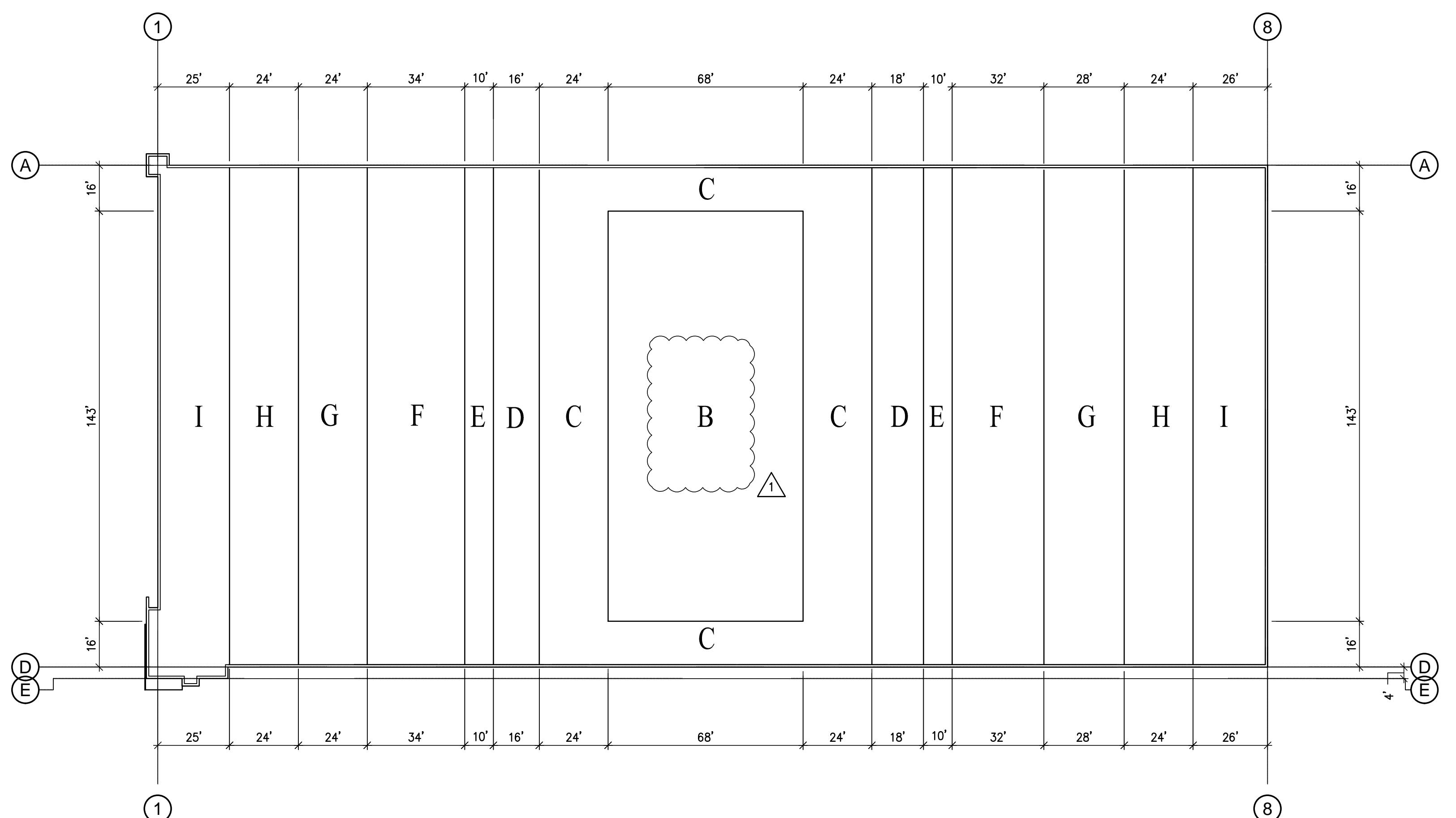
= DENOTES OFFICE AREA

□ = DENOTES EXHAUST FAN
VERIFY LOCATIONS & NO. OF UNITS
W/ LATEST ARCHIT'L DWG'S &
MECH DWG'S. SEE DETAIL (14 SD.4)

GIRDER AND JOIST SCHEDULE

| GIRDER SCHEDULE | |
|-----------------|--------------------------------|
| GIRDER NUMBER | MANUAL SIZE & DESIGN T.L / L.L |
| G1 | 56G 7N 13.7K |
| G2 | 56G 6N 13.7K |
| G3 | 56G 7N 13.7K |
| G4 | 56G 7N 13.7K |

| JOIST SCHEDULE | |
|----------------|--------------------------------|
| JOIST NUMBER | MANUAL SIZE & DESIGN T.L / L.L |
| J1 | 28/44 LH 248/120 |
| J2 | 28/44 LH 280/120 |
| J3 | 24/40 LH 256/128 |
| J4 | 24/40 LH 300/140 |
| J5 | 28/44 LH 280/120 |
| J6 | 28/44 LH 290/120 |



ROOF NOTES:

1. FOR GENERAL NOTES, SEE SHEET "SD-0"

2. T.S. = DENOTES TOP OF SHEATHING

F.O.P. = DENOTES FACE OF CONC. PANEL

P.J. = DENOTES PANEL JOINT

T.L. = DENOTES TOTAL LOAD.

L.L. = DENOTES LIVE LOAD.

D.L. = DENOTES DEAD LOAD.

T.W. = DENOTES TOP OF WALL

C = DENOTES REQUIRED MID-SPAN CAMBER IN INCHES

3. FOR LOCATION AND SIZE OF ROOF OPENINGS, & SKYLIGHT, SEE ARCHITL & SPRINKLER DRAWINGS. FOR FRAMING SEE STRUCTURAL DETAILS

4. ROOF ELEVATIONS NOTED HERE ARE TO TOP OF SHEATHING (T.S.). ALL ROOF ELEVATIONS ARE TAKEN DIRECTLY FROM THE FINISH FLOOR RIGHT BELOW REFERENCE POINT

5. FOR LOCATION OF MECHANICAL UNITS, SEE ARCHITL & SPRINKLER DRAWINGS. FOR FRAMING OF PLATFORM, SEE STRUCTURAL DETAIL SD-4

6. ROOF COMPANY TO DESIGN AND DETAIL SPECIAL STEEL BAR JOISTS TO SUPPORT ALL SPRINKLER MAINS & MECHANICAL EQUIPMENT ON ROOF.

7. BRIDGING AND BRACING FOR JOISTS AND GIRDERS WILL BE DESIGNED AND PROVIDED BY STEEL BAR JOIST COMPANY.

8. STEEL BAR JOIST MANUFACTURER TO SUBMIT SHOP DRAWINGS AND CALCULATIONS, STAMPED/ SIGNED BY A CALIFORNIA LICENSED PROFESSIONAL ENGINEER FOR REVIEW BY BUILDING DEPARTMENT AND APPROVED PRIOR TO THE PREPARATION OF JOISTS. THE ABOVE CALCULATIONS TO INCLUDE ALL LOADING CONDITIONS SHOWN AT DRAWINGS & DETAILS.

9. JOIST MANUFACTURER TO USE THE FOLLOWING LOADING CRITERIA.

A. BAR JOIST:

(a) DEAD LOAD = 12 PSF TYPICAL (WAREHOUSE)

= 16 PSF TYPICAL (AT OFFICE AREA)

LIVE LOAD = 20 PSF (REDUCIBLE PER CODE)

WIND LOAD = -10 PSF NET UPLIFT TYP.

(b) SPRINKLER MAINS AND SWAY BRACES AS SHOWN ON SPRINKLER DRAWING

(c) A.C. UNITS AS SHOWN ON MEC/H & STRUCTURAL DRAWINGS.

(d) ANY ROOF HUNG LOADS SHOWN ON ELECT. & STRUCTL DWGS.

(e) ANY ROOF HUNG LOADS SHOWN ON PLUMBING & STRUCTL DWGS.

(f) SEISMIC AXIAL LOAD = 20 KIPS TYP. FOR JOIST @ 8'-0" O.C.

(g) (i) ADD 500 LBS CONCENTRATED LOAD AT EACH PANEL POINT FOR EACH JOIST IN WAREHOUSE

(ii) ADD 1000 LBS CONCENTRATED LOAD AT ANY PANEL POINT FOR EACH JOIST IN OFFICE.

B. JOIST GIRDERS:

(a) DEAD LOAD = 18 PSF TYP. (WAREHOUSE INCLUDING 4 PSF FOR FUTURE SOLAR PANELS)

= 22 PSF TYP. (OFFICE INCLUDING 4 PSF FOR FUTURE SOLAR PANELS)

LIVE LOAD = 20 PSF (REDUCIBLE PER CODE)

WIND LOAD = -8 PSF NET UPLIFT TYP.

(b) SPRINKLER MAINS AND SWAY BRACES AS SHOWN ON SPRINKLER DRAWING

(c) A.C. UNITS AS SHOWN ON MEC/H & STRUCTURAL DRAWINGS.

(d) ANY ROOF HUNG LOADS SHOWN ON ELECT. & STRUCTL DWGS.

(e) ANY ROOF HUNG LOADS SHOWN ON PLUMBING & STRUCTL DWGS.

(f) SEISMIC AXIAL LOAD = 88 KIPS TYP. (ASD)

(g) (i) ADD 1000 LBS CONCENTRATED LOAD AT EACH PANEL POINT FOR EACH GIRDERS IN WAREHOUSE.

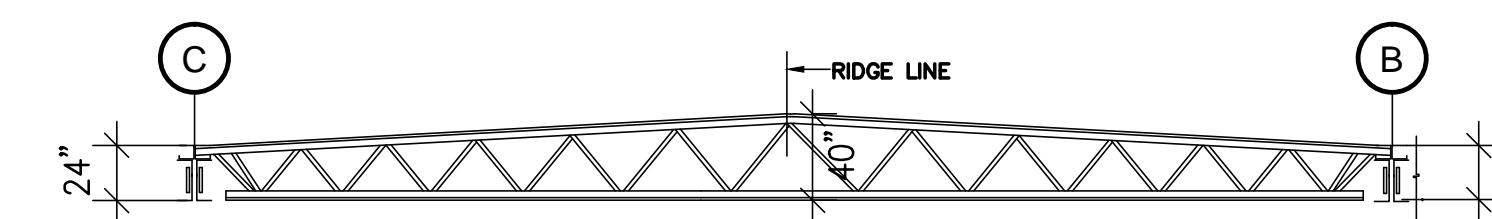
(ii) ADD 2000 LBS CONCENTRATED LOAD AT ANY PANEL POINT FOR EACH GIRDERS IN OFFICE.

NOTE: CONTRACTOR TO PROVIDE A SEPARATE LINE OF PRICING FOR ROOF RAFTERS AND OSB UPGRADE FOR FUTURE SOLAR PANELS AS SHOWN 5/8" THICK (19/32) OSB

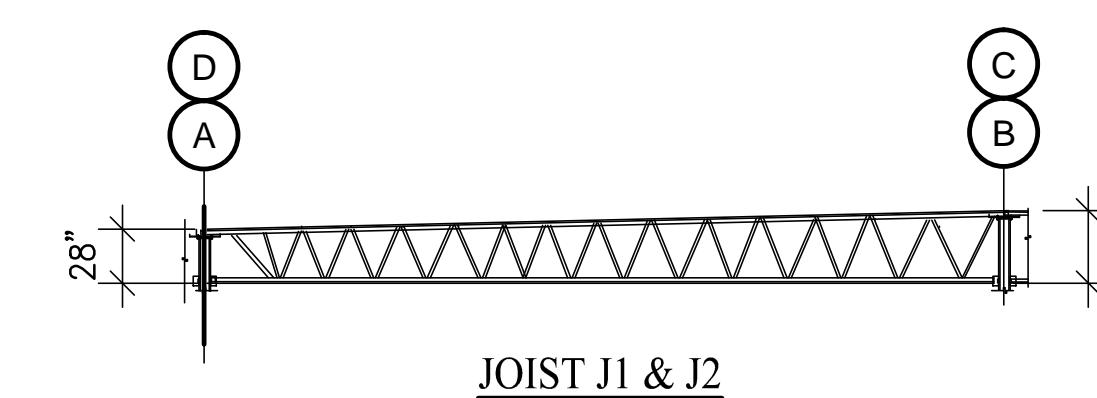
RAFTER @ SOLAR ZONE MAX. SPAN

2 x 6 NO.1 @ 24" O.C. 10'-0"

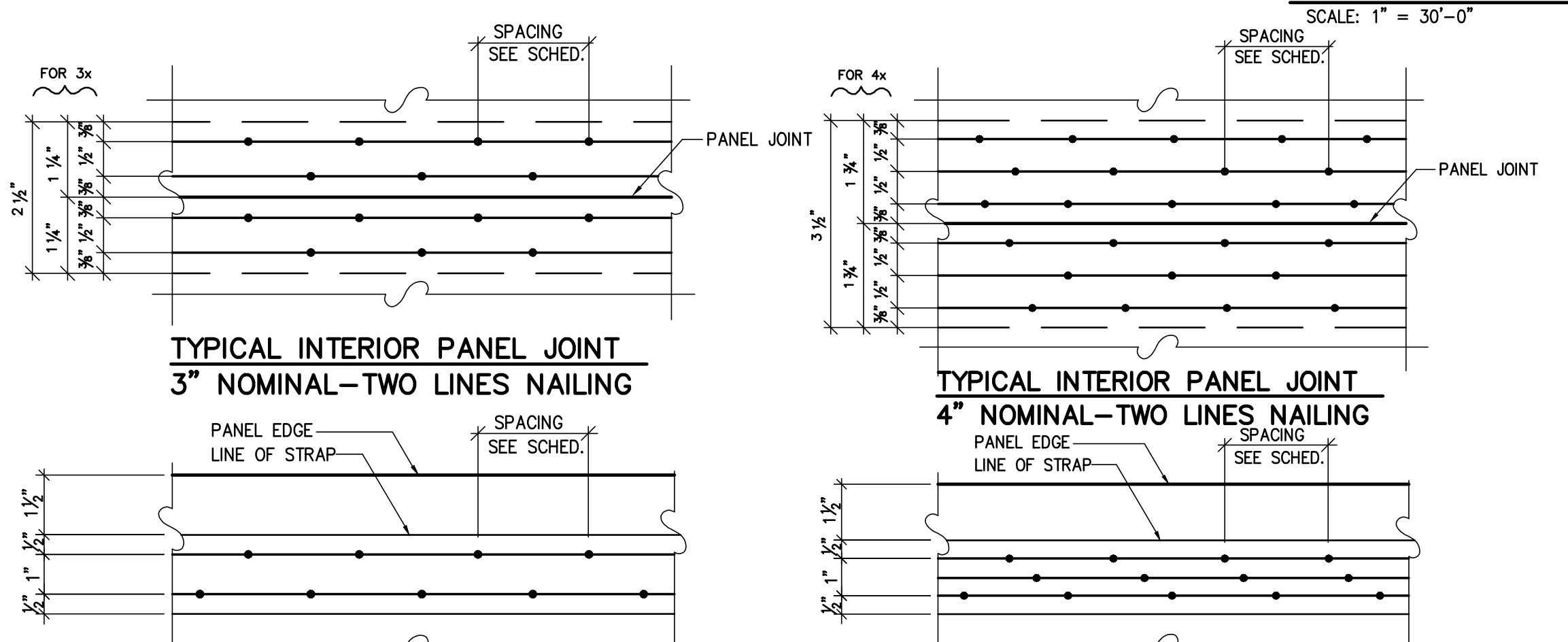
3 x 6 NO.2 @ 24" O.C. 10'-0"



JOIST J3 & J4



JOIST J1 & J2



TYPICAL PANEL EDGE AT BOUNDARY

TYPICAL PANEL EDGE AT BOUNDARY

NOTES:
1. SPACE PANEL END AND EDGE JOINTS 1/8" INCH. REDUCE SPACING BETWEEN LINES OF NAILS AS NECESSARY TO MAINTAIN MINIMUM 3/8" INCH FASTENER EDGE MARGINS. MINIMUM SPACING BETWEEN LINES IS 3/8" INCH.

2. ENGINEER SHALL BE NOTIFIED IF ANY OF THESE REQUIREMENTS ARE NOT MET.

17. 28K 224/128 ETC. DENOTES "W" SERIES OPEN WEB STEEL JOIST AS MANUFACTURED BY VULCRAFT OR APPROVED EQUIVALENT.
DENOTES JOIST LIVE LOAD DESIGN (PLF)
DENOTES JOIST TOTAL DESIGN LOAD (PLF)
DENOTES JOIST DEPTH

18. 4406N9.0K ETC. DENOTES OPEN WEB STEEL JOIST GIRDERS AS MANUFACTURED BY VULCRAFT OR APPROVED EQUIVALENT.
DENOTES TOTAL DESIGN LOAD (KIPS) APPLIED AT EACH GIRDERS POINT.
DENOTES JOIST GIRDERS DEPTH

19. VERIFY LOCATION AND SIZE OF ALL SPRINKLER MAINS AND SWAY BRACE LOADS WITH SPRINKLER DRAWINGS.

20. VERIFY LOCATION AND WEIGHTS OF ALL EXHAUST FANS AND A.C. UNITS ON THE ROOF WITH MECHANICAL DRAWINGS.

21. RAFTER MAX. SPAN
2 x 4 NO.1 @ 24" O.C. 8'-0"
2 x 6 NO.2 @ 24" O.C. 10'-0"
3 x 4 NO.1 @ 24" O.C. 8'-0"
3 x 6 NO.2 @ 24" O.C. 10'-0"

22. ALL RAFTERS HANGERS TO BE HOT DIP GALVANIZED OR "Z" MAX. TRIPLE ZINC COATING BY SIMPSON OR EQUAL.

23. DEFLECTION CRITERIA IS :

L 180' FOR TOTAL LOAD AT WAREHOUSE
L 240' FOR LIVE LOAD AT WAREHOUSE
L 240' FOR TOTAL LOAD AT OFFICE
L 360' FOR LIVE LOAD AT OFFICE

3/4" PLYWOOD (23/32")
1/2" PLYWOOD SHAMMER WITH 10# NAILS AT 12" O.C.
ROOF SHEATHING
USE 2 3/8" LONG NAILS BOTH SIDES

ROOF JOIST
1/4" PLYWOOD SHAMMER WITH 10# NAILS AT 12" O.C.

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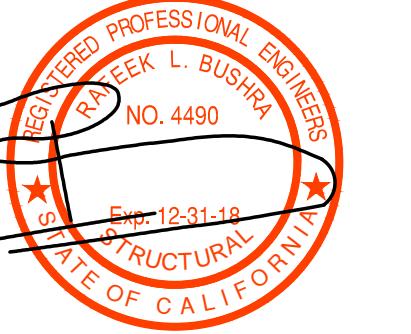
ROOF JOIST
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1/4" PLYWOOD SHAMMER WITH 10# NAILS AT 12" O.C.



Consultants:

| | |
|-----------------|------------------------|
| CIVIL | Thienes Engineering |
| STRUCTURAL | BTI Engineers |
| MECHANICAL | Orange County Air |
| PLUMBING | Tallon Plumbing |
| ELECTRICAL | Current Electric |
| LANDSCAPE | Lewis & Associates |
| FIRE PROTECTION | Active Fire Protection |
| SOILS ENGINEER | Faffer Geological |

Title: PANEL ELEVATIONS

Project Number: 15060

Drawn by: VB

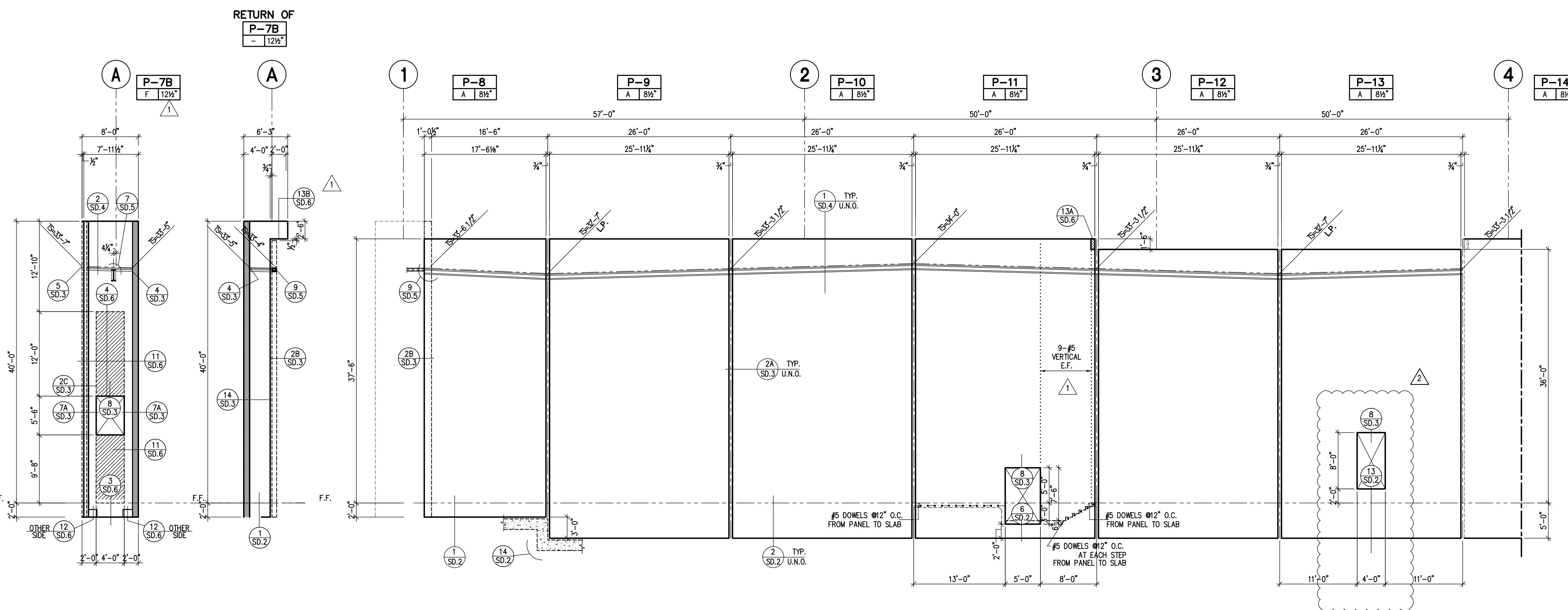
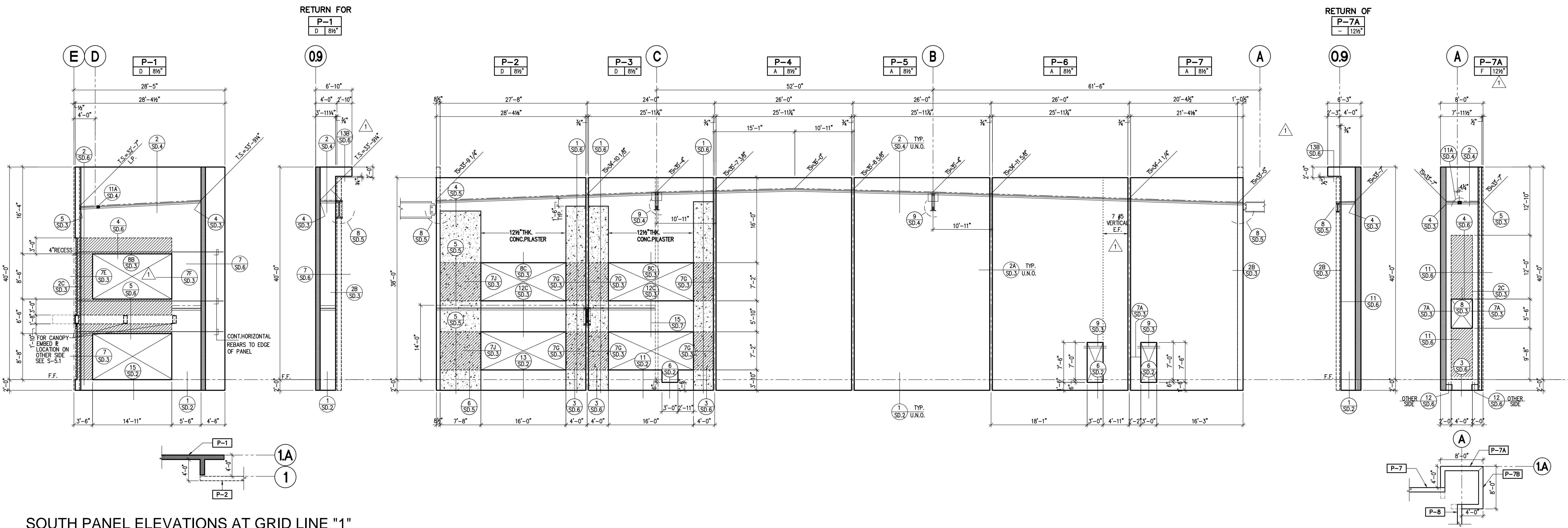
Date: 4-14-2017

Revision:

△ PLAN CHECK CORRECTIONS 07-28-17

△ COORDINATION 07-28-17

Sheet:

**LEGENDS:**

T.P. = TOP OF PANEL ELEVATION.
T.C. = TOP OF CURB ELEVATION.
T.F. = TOP OF FLOOR ELEVATION.
F.L. = FLOW LINE WALL ELEVATION.
F.G. = FINISH OF GRADE (OTHER SIDE).
T.F. = TOP OF FOOTING ELEVATION.

DENOTES = 4" CONCRETE RECESS FROM EXTERNAL SURFACE OF WALL

DENOTES = CONCRETE PILASTER FOR THICKNESS SEE PANEL ELEVATIONS

- FOR GENERAL NOTES SEE SHEET "SD-0"
- FOR TYPICAL PANEL NOTES AND TYPICAL REF. SEE DETAIL "1 SD-1".
- T.S. = DENOTES TOP OF SHEATHING
- FOR REVEALS AND TEXTURES SEE ARCHITECTURAL DRAWINGS.
- ALL ROOF ELEVATIONS ARE TAKEN DIRECTLY FROM FINISH FLOOR RIGHT BELOW REFERENCE POINT.
- DENOTES PANEL NUMBER
- DENOTES PANEL THICKNESS
- DENOTES PANEL TYPE FOR REINFORCEMENT
- PANELS ARE VIEWED FROM INTERIOR.
- FOR TYPICAL PANEL OPENING FOR DOWNSPOUT & OVERFLOW SCUPPER SEE DETAIL "1 SD-1".

- NOTE:**
- CONTRACTOR SHALL VERIFY BOTTOM OF THE PANEL WITH THE LATEST GRADING PLAN.
 - CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH THE LATEST ARCHITECTURAL & STRUCTURAL DRAWINGS BEFORE FORMING OF PRECAST CONCRETE PANELS.
 - CONTRACTOR TO COORDINATE LOCATION OF SPRINKLER MAIN RISER WITH FIRE PROTECTION DWGS. SEE DETAIL "9 SD-1".
 - CONTRACTOR TO COORDINATE LOCATION OF ELECTRICAL & TRENCHING ELECTRICAL DWGS. SEE DETAIL "10 SD-1" FOR TYPICAL FOOTING BLOCK-OUT.
 - CONTRACTOR REFER TO DETAIL "11 SD-1" FOR OPENING OF FUTURE DOCK LEVELER.

- NOTE:**
- CONTRACTOR TO COORDINATE LOCATION OF TRENCHING & CONCRETE ATTACHMENT WITH ARCH TO CLEAR THE OPENING(K.O.). ADJUST THE VERTICAL TRACKS AS NEEDED. THE CONTRACTOR WILL BE RESPONSIBLE FOR BRACE AND BRACKET ATTACHMENT TO CONCRETE WALL.

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BTI JOB #: 15-187

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Project:
**71K DISTRIBUTION
FACILITY**

14141 ARBOR PLACE,
CERRITOS, CA 90703



Consultants:

| | |
|-----------------|------------------------|
| CIVIL | Thienes Engineering |
| STRUCTURAL | BTI Engineers |
| MECHANICAL | Orange County Air |
| PLUMBING | Tallon Plumbing |
| ELECTRICAL | Current Electric |
| LANDSCAPE | Lewis & Associates |
| FIRE PROTECTION | Active Fire Protection |
| SOILS ENGINEER | Faffer Geological |

Title: PANEL ELEVATIONS

Project Number: 15060

Drawn by: VB

Date: 4-14-2017

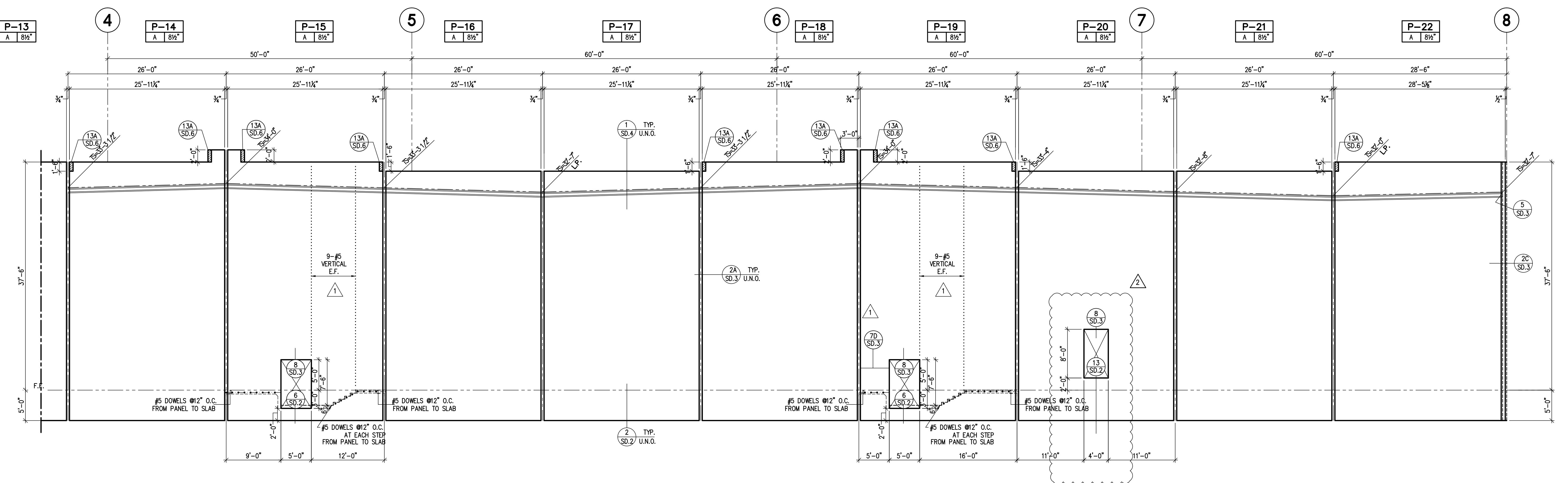
Revision:

△ PLAN CHECK CORRECTIONS 07-20-17

△ COORDINATION 07-28-17

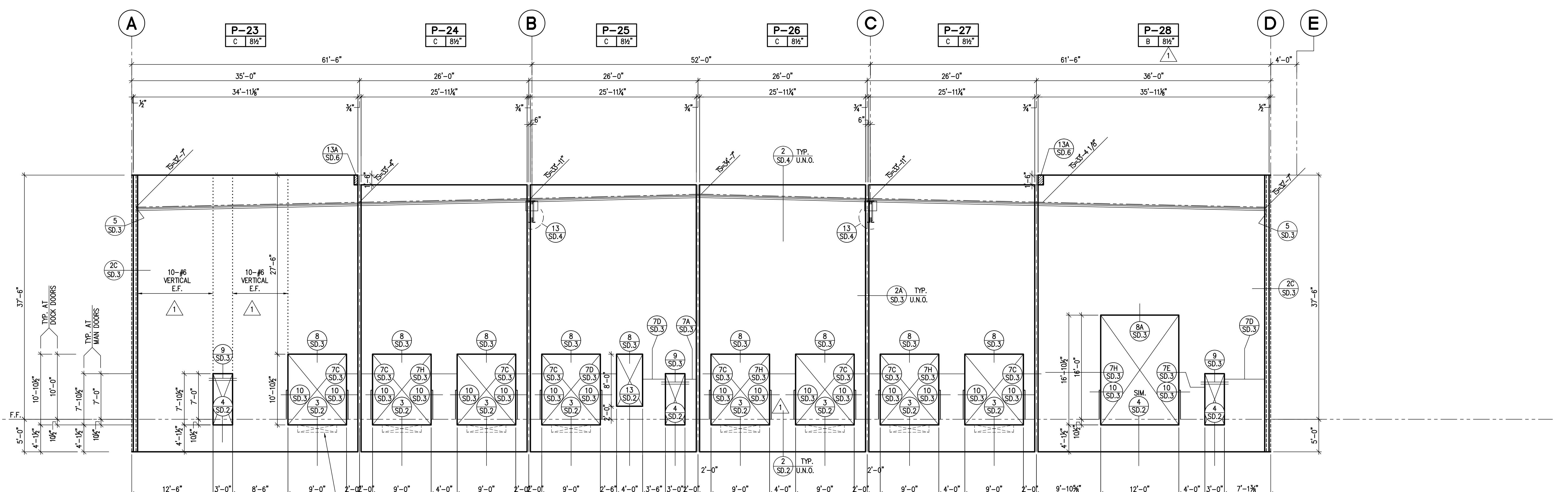
Sheet:

S-4.2
BID SET 8/10/17



WEST PANEL ELEVATIONS AT GRID LINE "1"

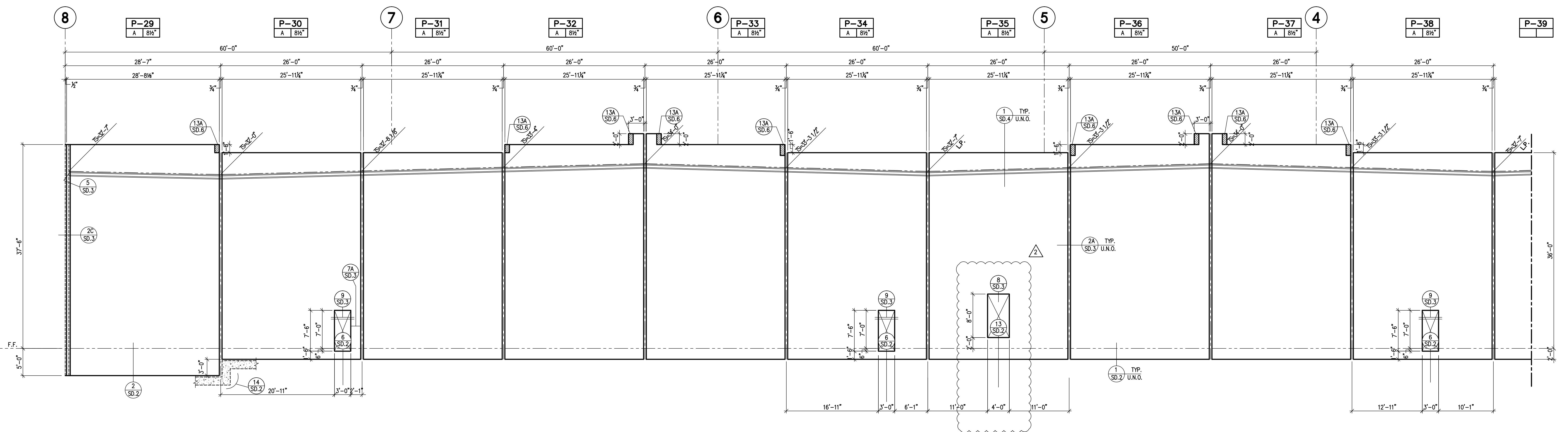
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NORTH PANEL ELEVATIONS AT GRID LINE "8"

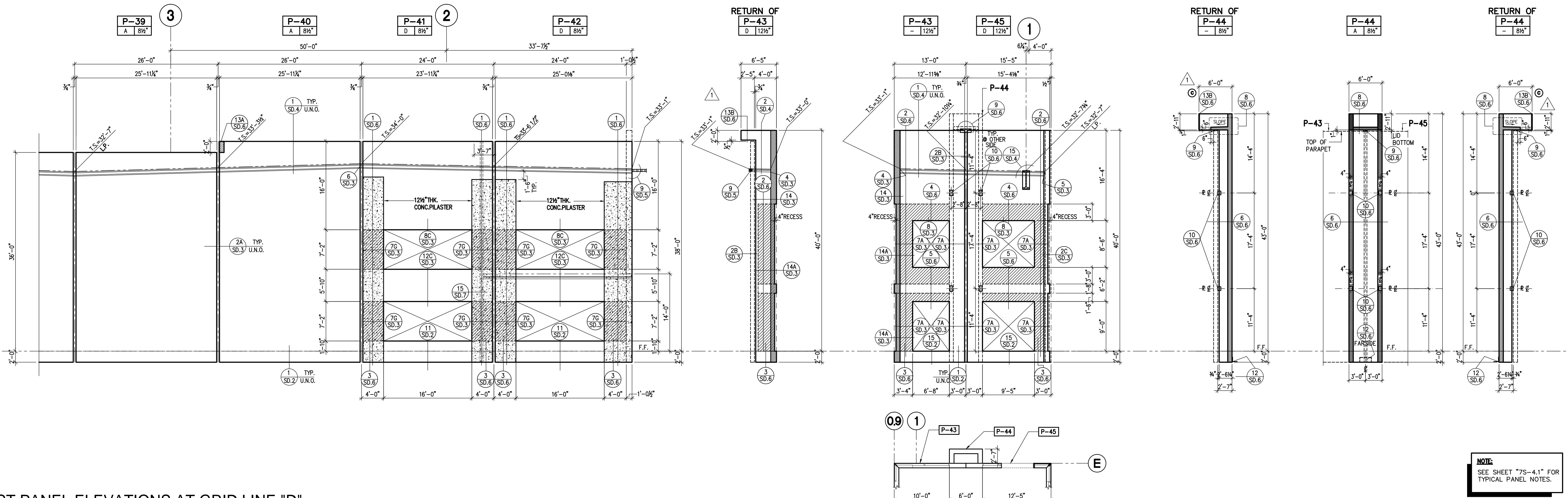
SCALE: 1/8" = 1'-0"

NOTE:
SEE SHEET "7S-4.1" FOR
TYPICAL PANEL NOTES.



EAST PANEL ELEVATIONS AT GRID LINE "D"

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



EAST PANEL ELEVATIONS AT GRID LINE "D"

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

SHEET "7S-4.1" FOR
AL PANEL NOTES.

S-4.3

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Consultants:

CIVIL Thienes Engineering
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MECHANICAL Orange County Air
PLUMBING Tallyn Plumbing
ELECTRICAL Current Electric
LANDSCAPE Lewis & Associates
FIRE PROTECTION Active Fire Protection
SOILS ENGINEER Feffer Geological

Title: RAMP WALLS &
TRASH ENCLOSURE

Project Number: 15060

Drawn by: VB

Date: 4-14-2017

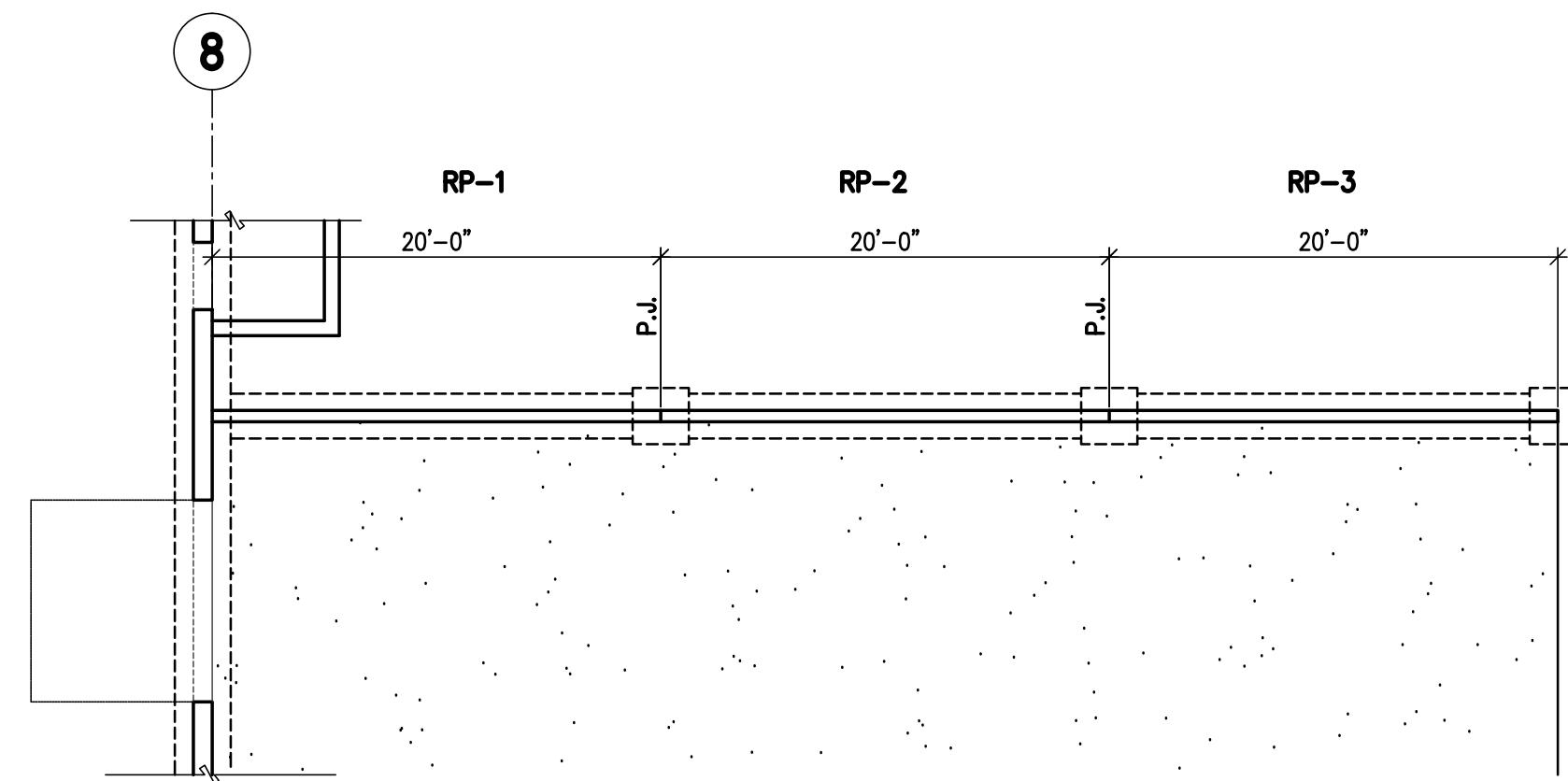
Revision:

PLAN CHECK CORRECTIONS 07-20-17

Sheet:

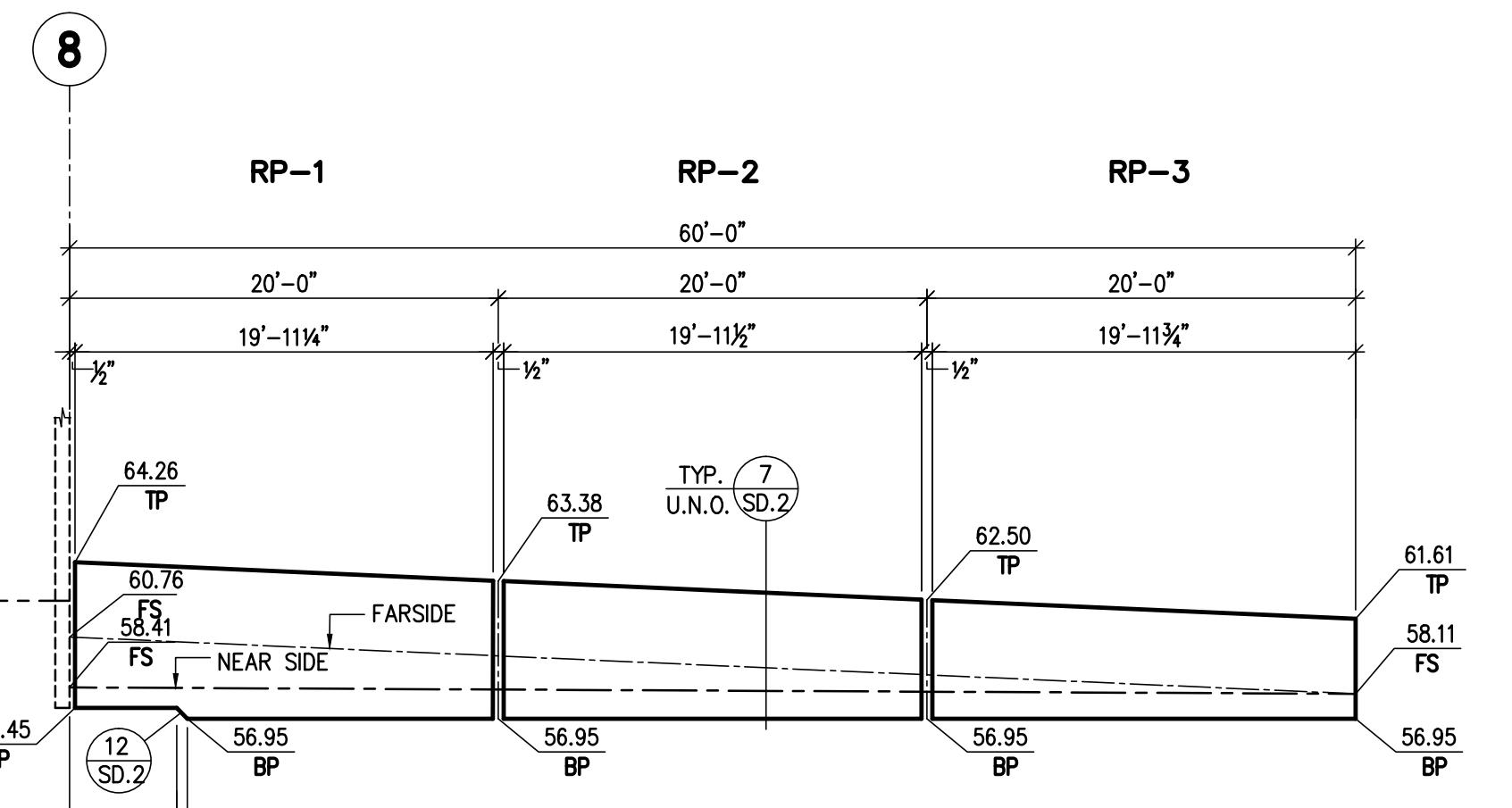
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BID SET 8/10/17



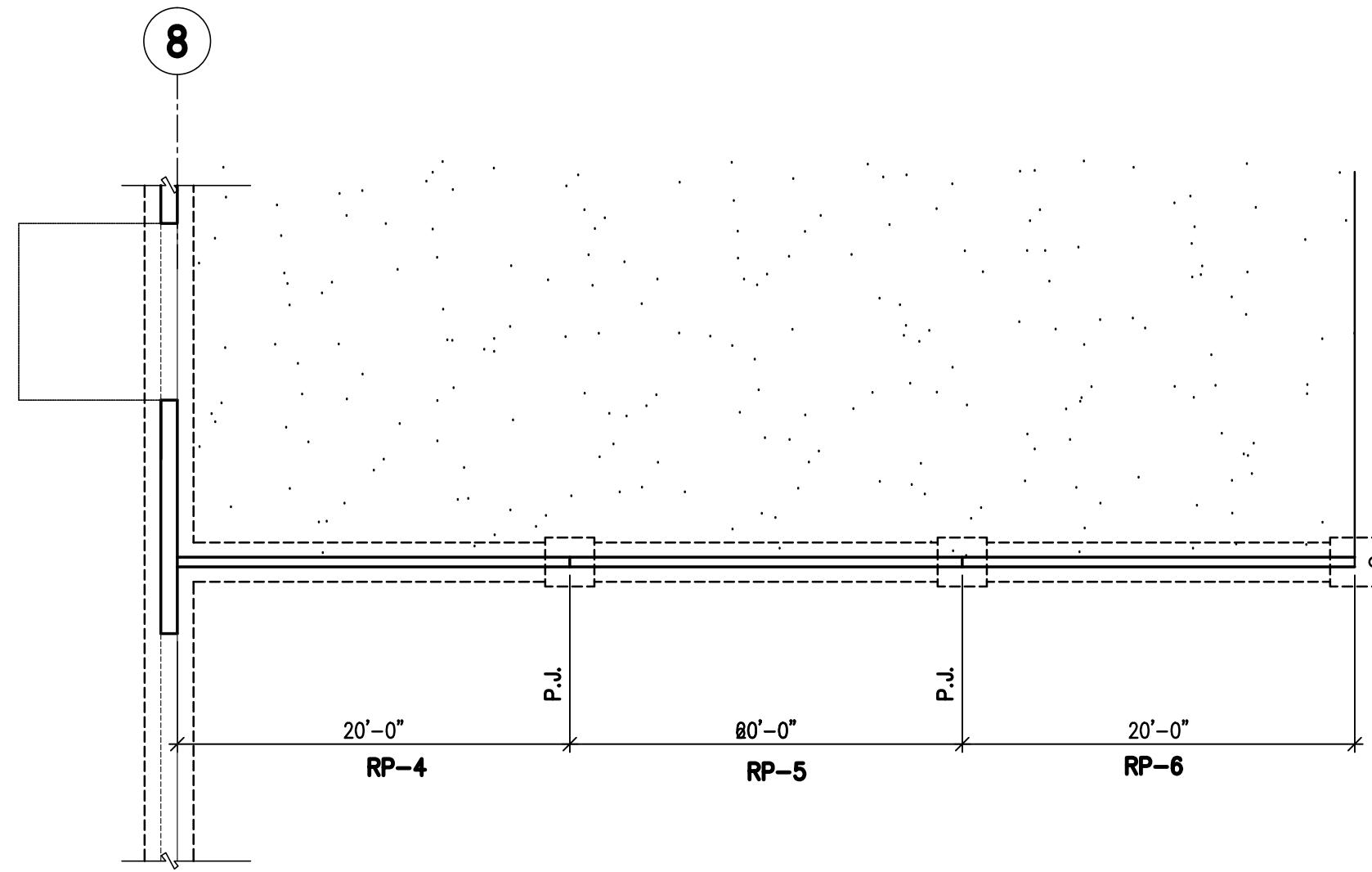
RAMP PANEL PLAN

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



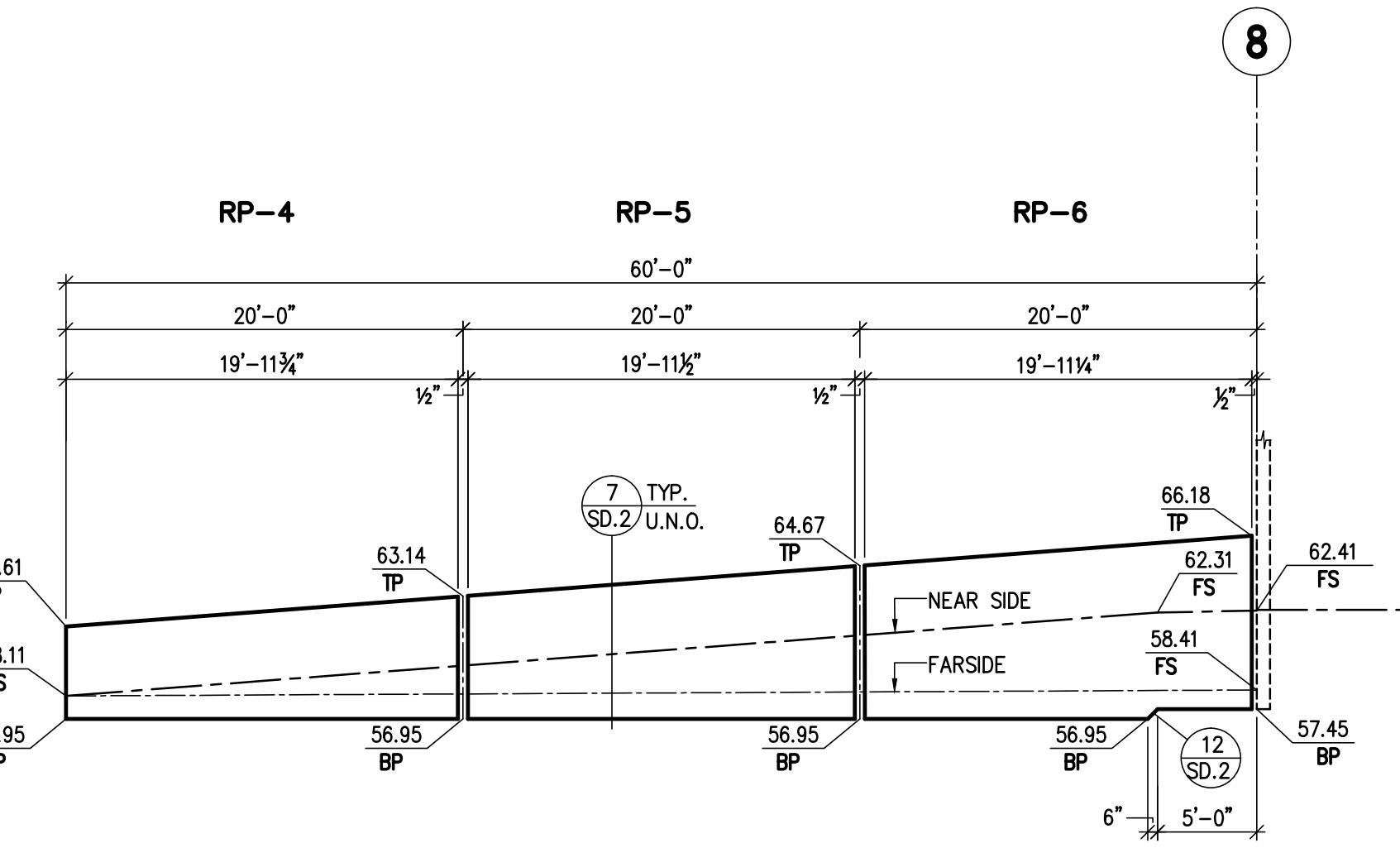
RAMP PANEL ELEVATION

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



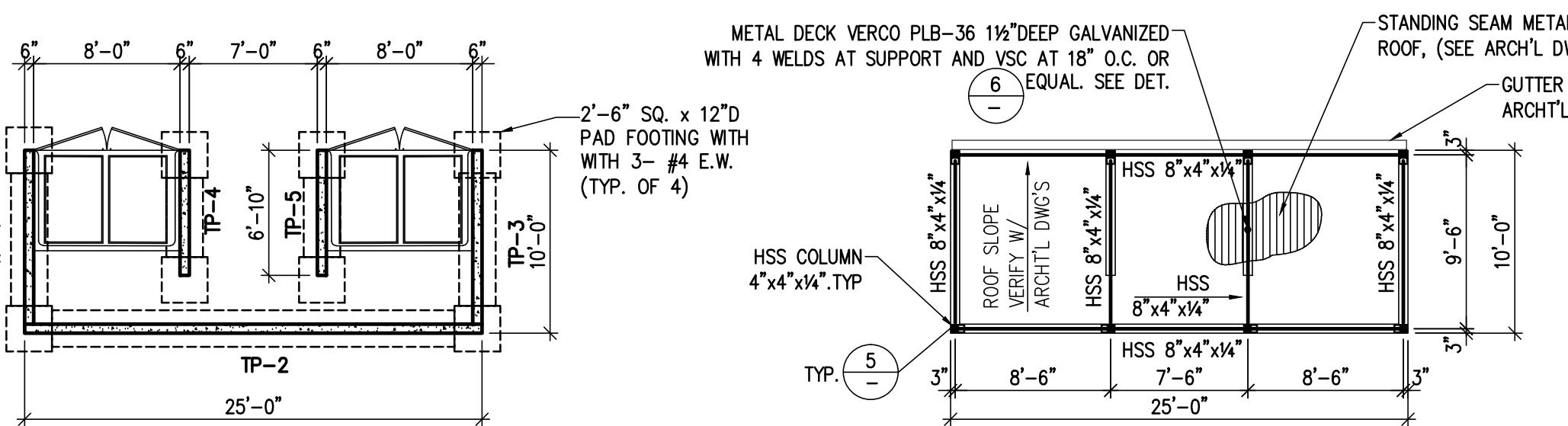
RAMP PANEL PLAN

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



RAMP PANEL ELEVATION

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



TRASH ENCLOSURE PLAN

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

C

D

TRASH ENCLOSURE FRAMING PLAN

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

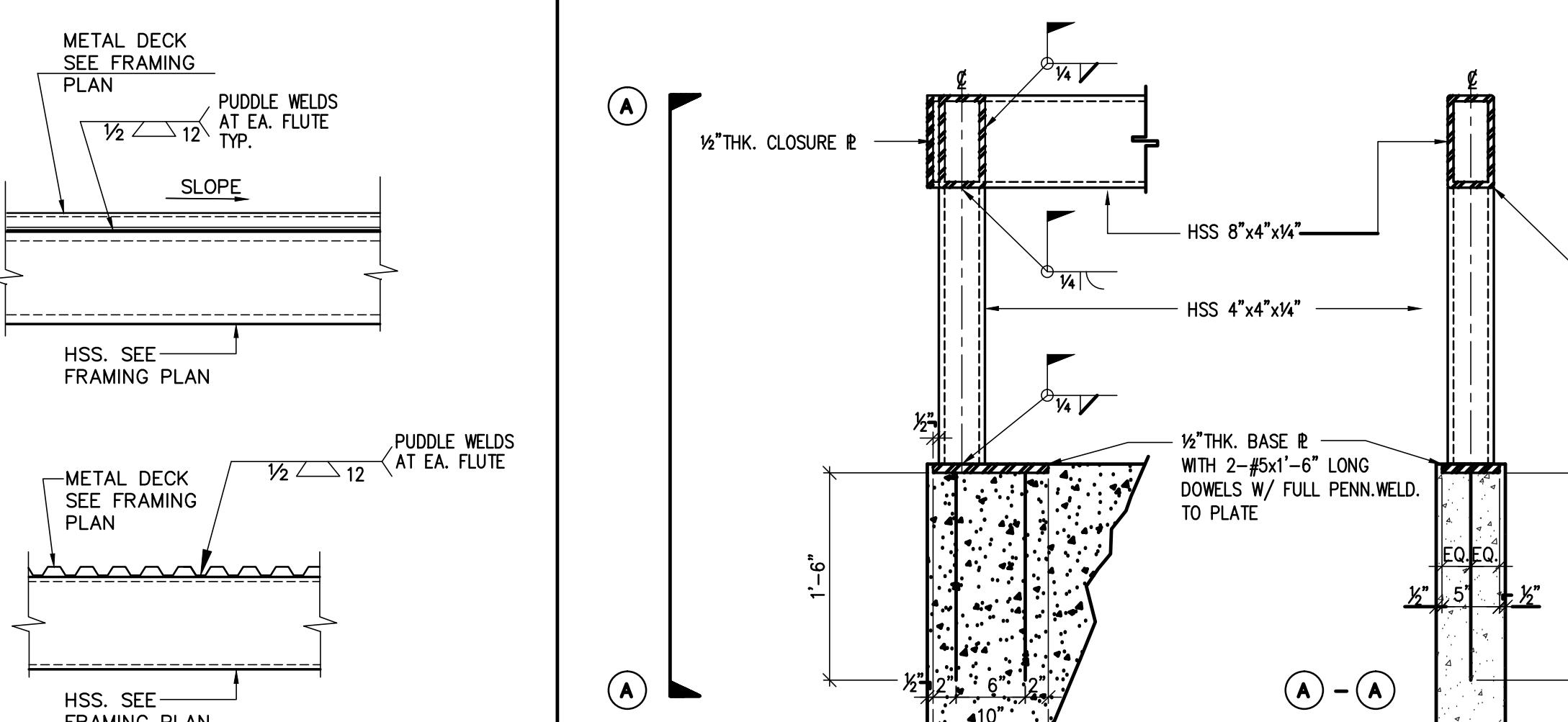
TRASH ENCLOSURE ELEVATION

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

E

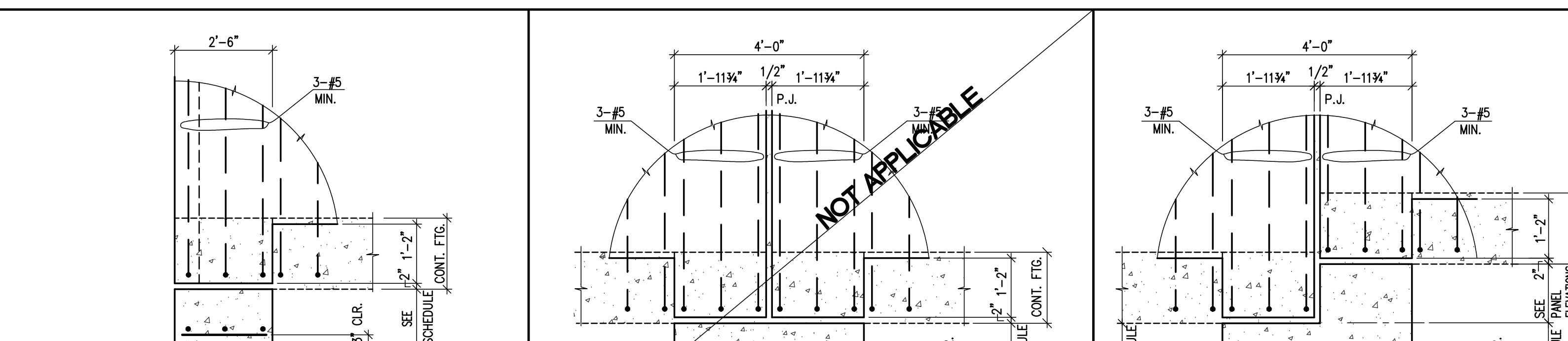
TRASH ENCLOSURE ELEVATION

PANEL THICKNESS = 6" TYP. U.N.O.



DETAIL

5



DETAIL

4

DETAIL

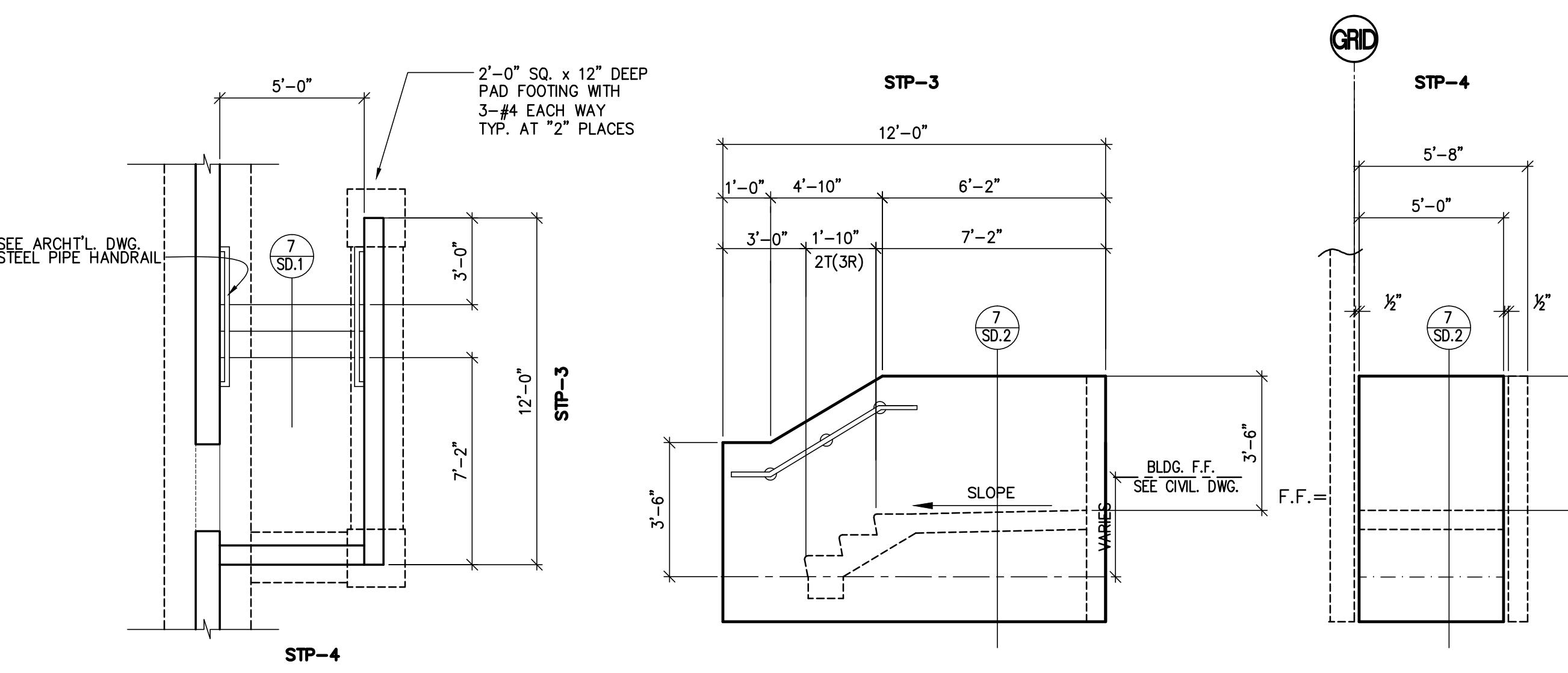
3

DETAIL

2

NOT USED

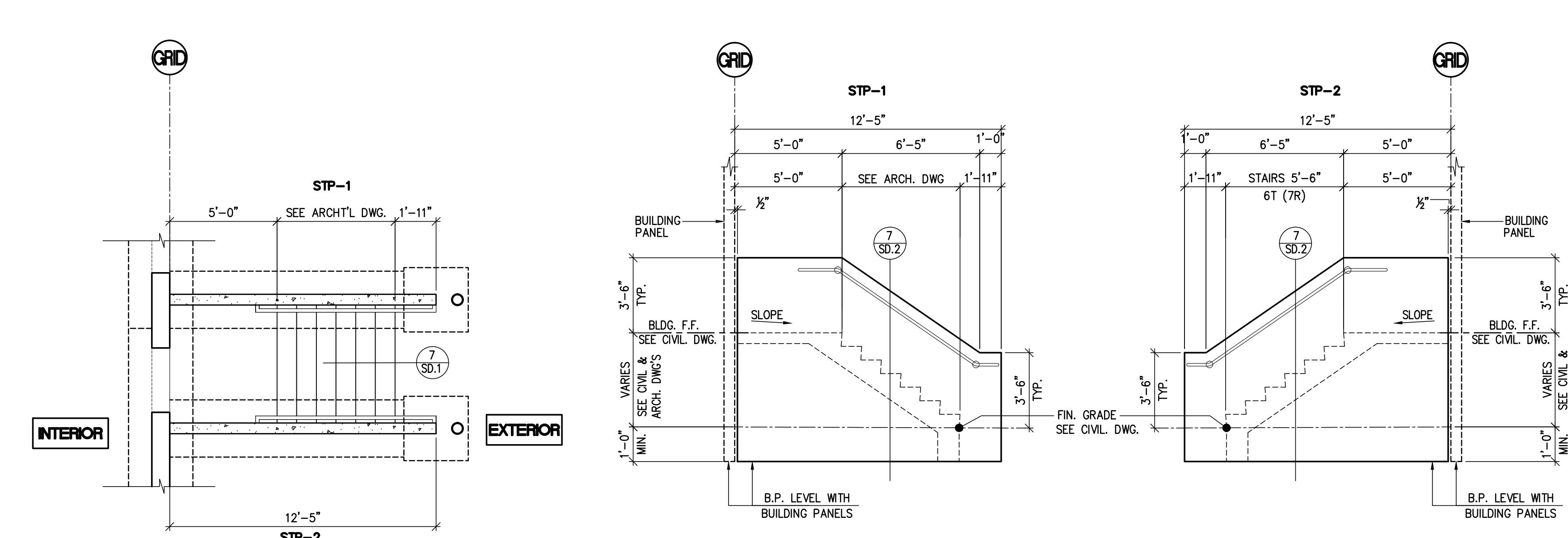
1



EXTERIOR CONCRETE STAIR PLAN AND ELEVATIONS

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

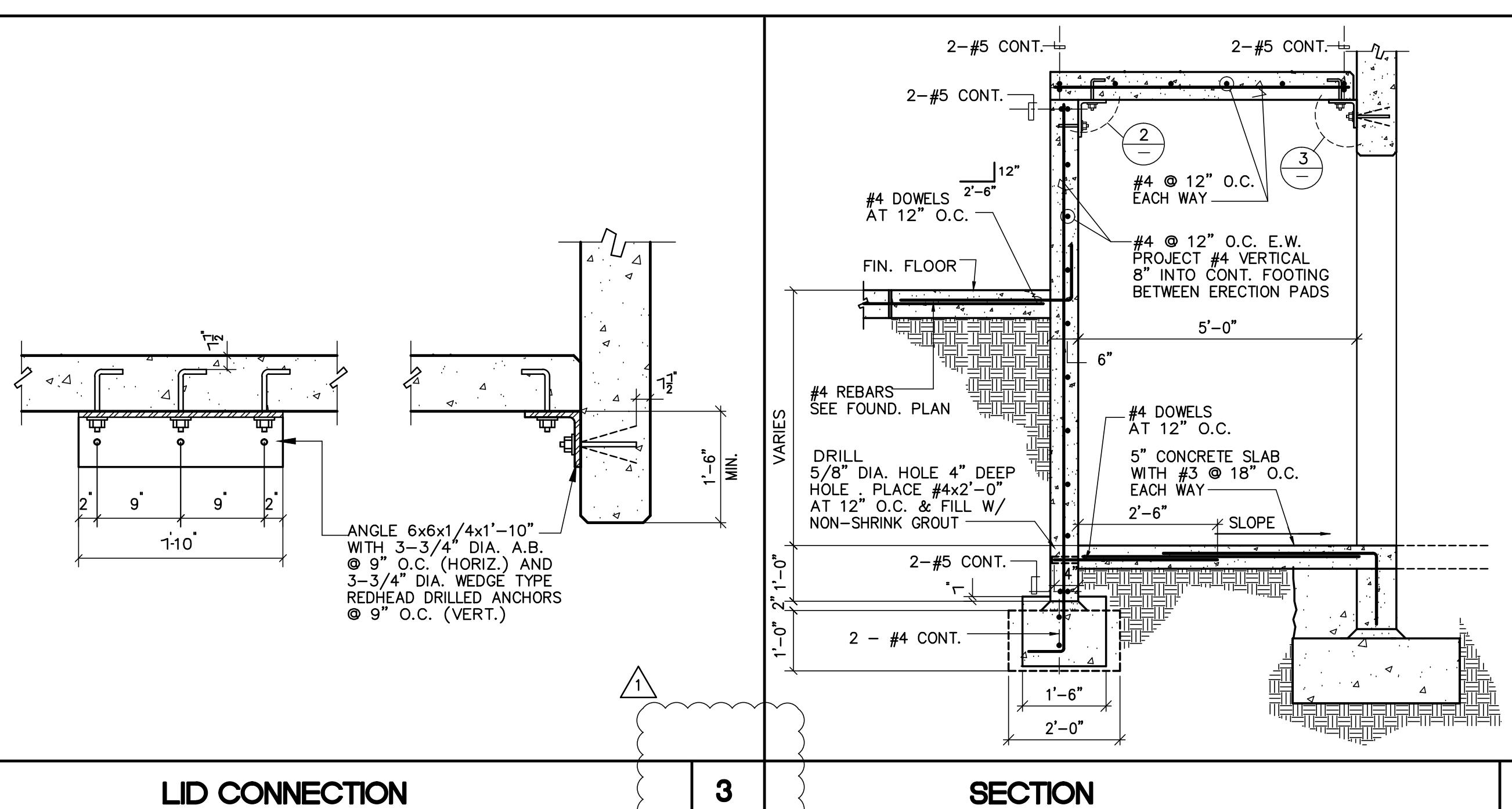
WALL THICKNESS = 6" TYPICAL U.N.O.



EXTERIOR CONCRETE STAIR PLAN AND ELEVATIONS

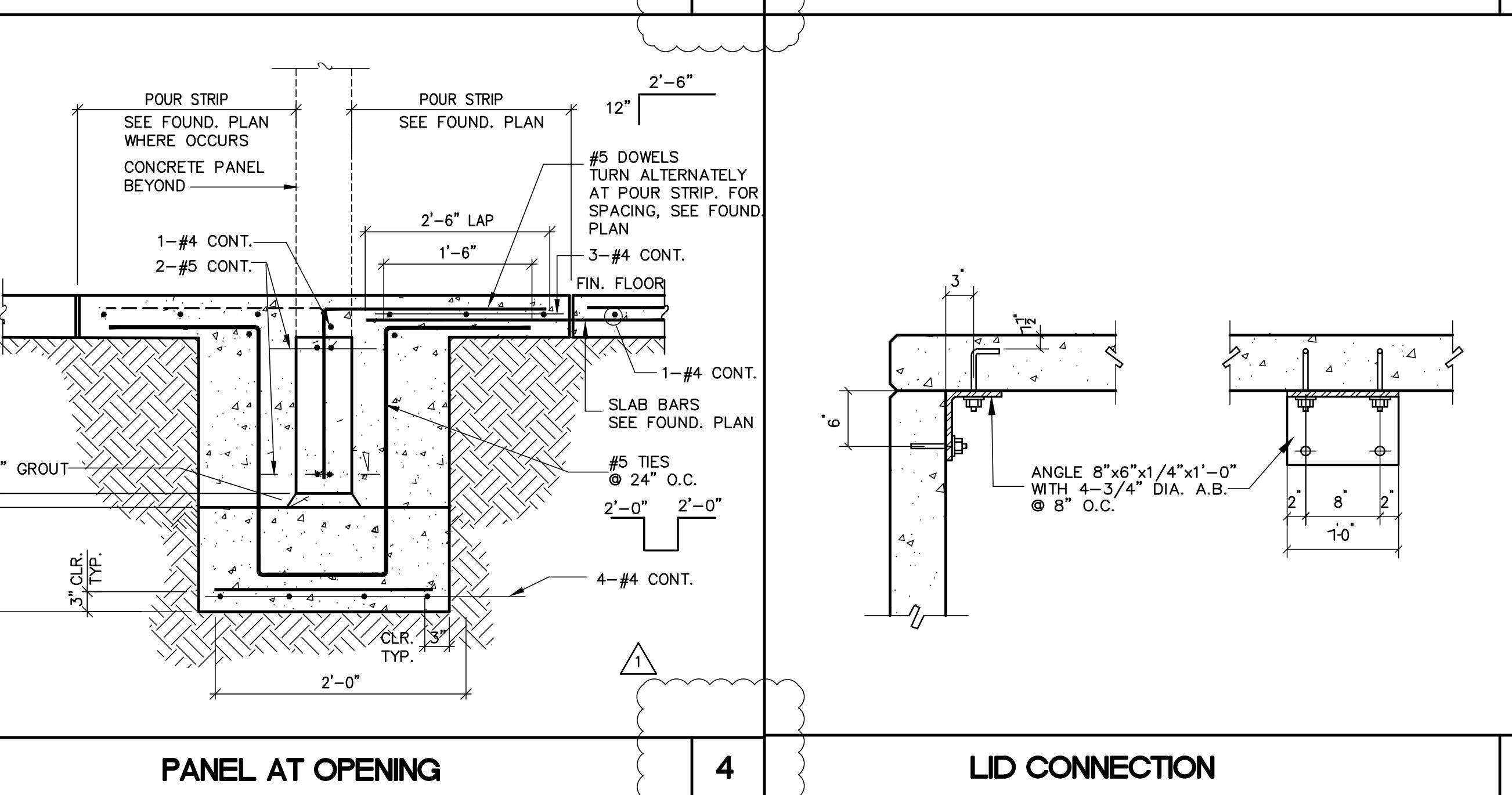
SCALE: 1/4" = 1'-0"

WALL THICKNESS = 6" TYPICAL U.N.O.



LID CONNECTION

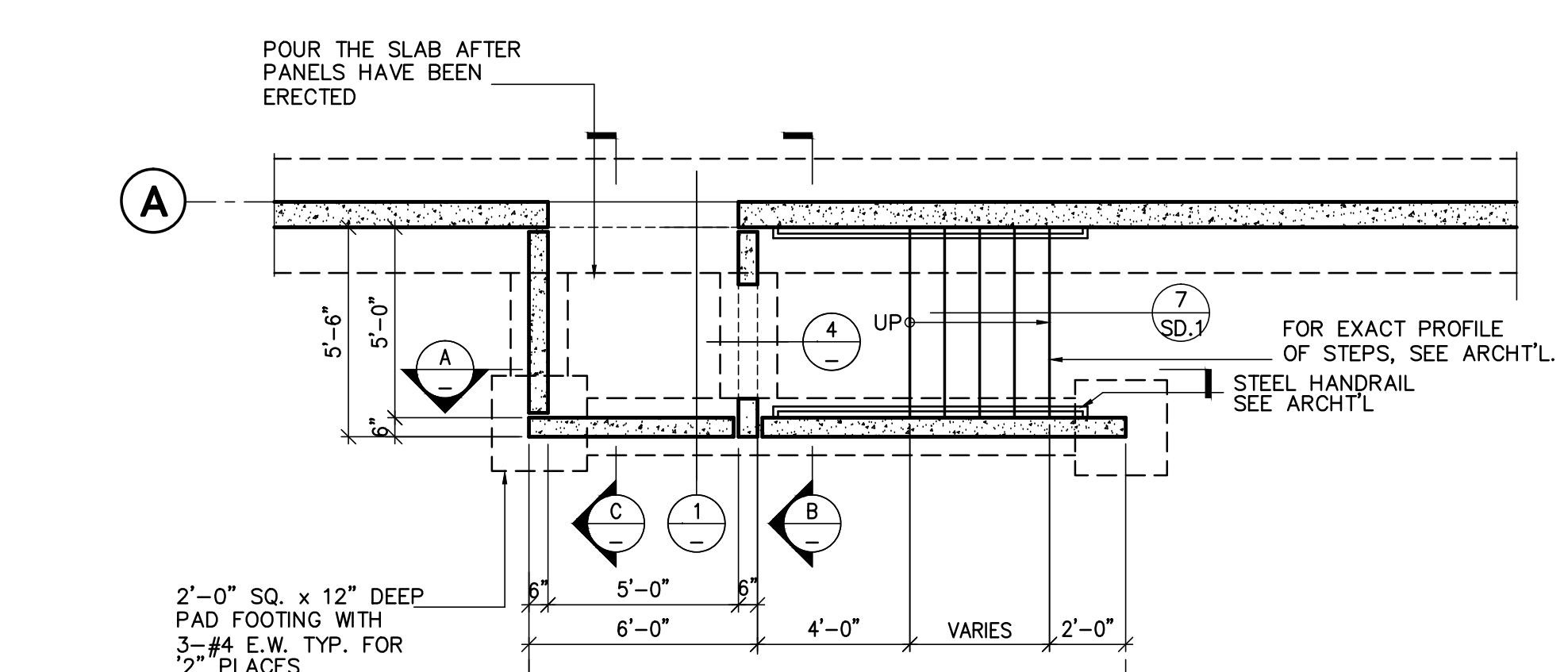
SECTION



PANEL AT OPENING

LID CONNECTION

LID CONNECTION



INTERIOR CONCRETE STAIR PLAN

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

POUR THE SLAB AFTER
PANELS HAVE BEEN
ERECTEDFOR EXACT PROFILE
OF STEPS, SEE ARCH'L.

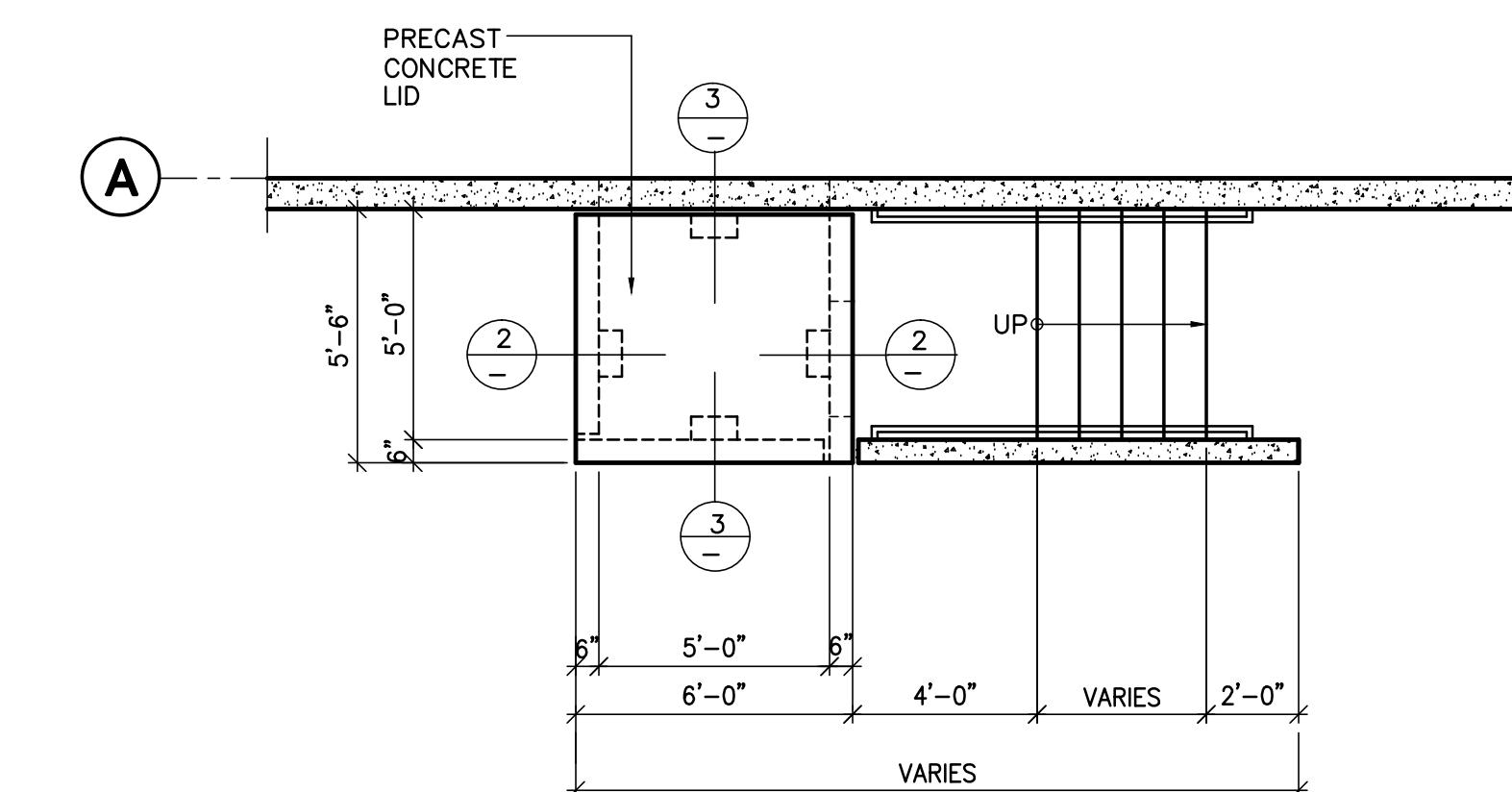
SEE ARCH'L.

STEEL HANDRAIL

SEE ARCH'L

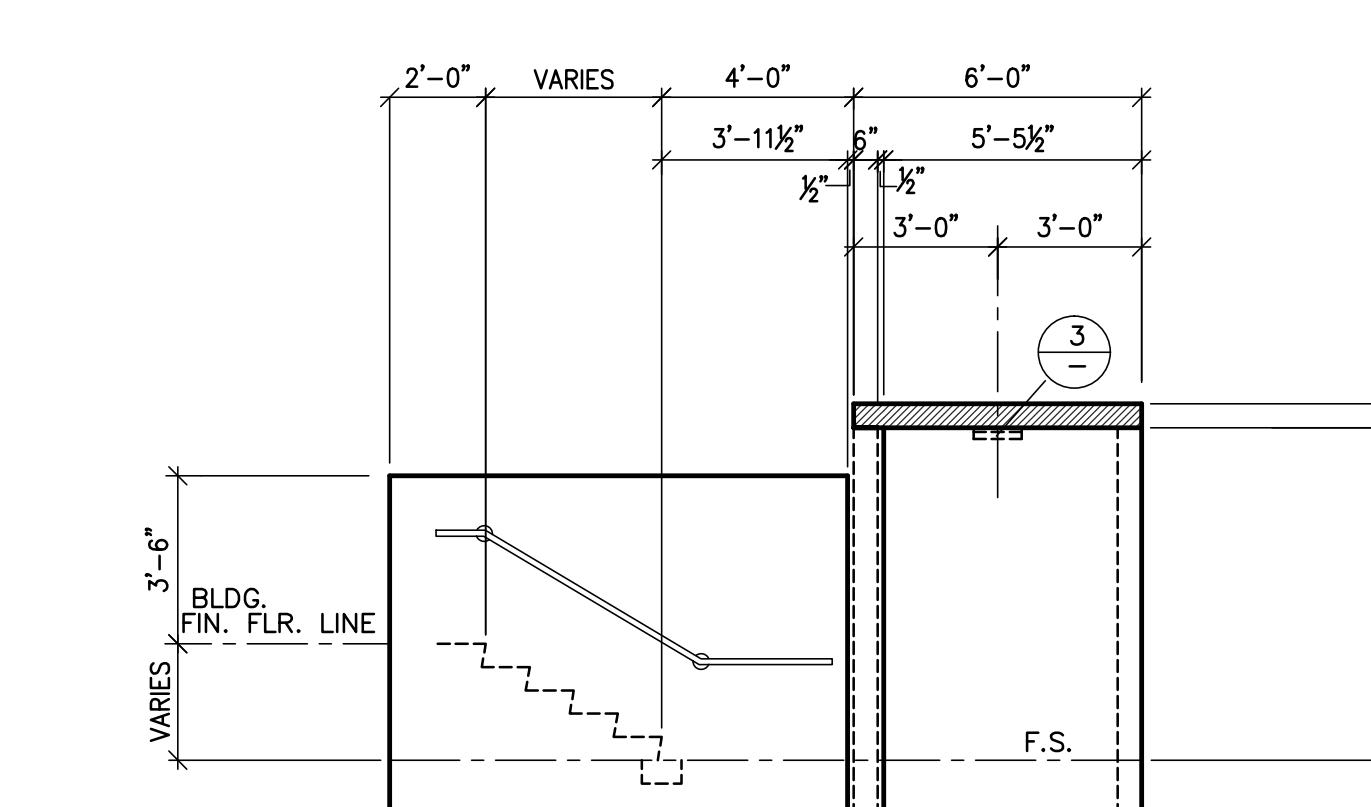
2'-0" SQ. X 12" DEEP
PAD FOOTING WITH
3-#4 EACH WA
TYP. AT 2' PLACESBLDG. F.F.
SEE CIVIL DWG.

F.F. =

FIN. GRADE
SEE CIVIL DWG.B.P. LEVEL WITH
BUILDING PANELS

TOP VIEW

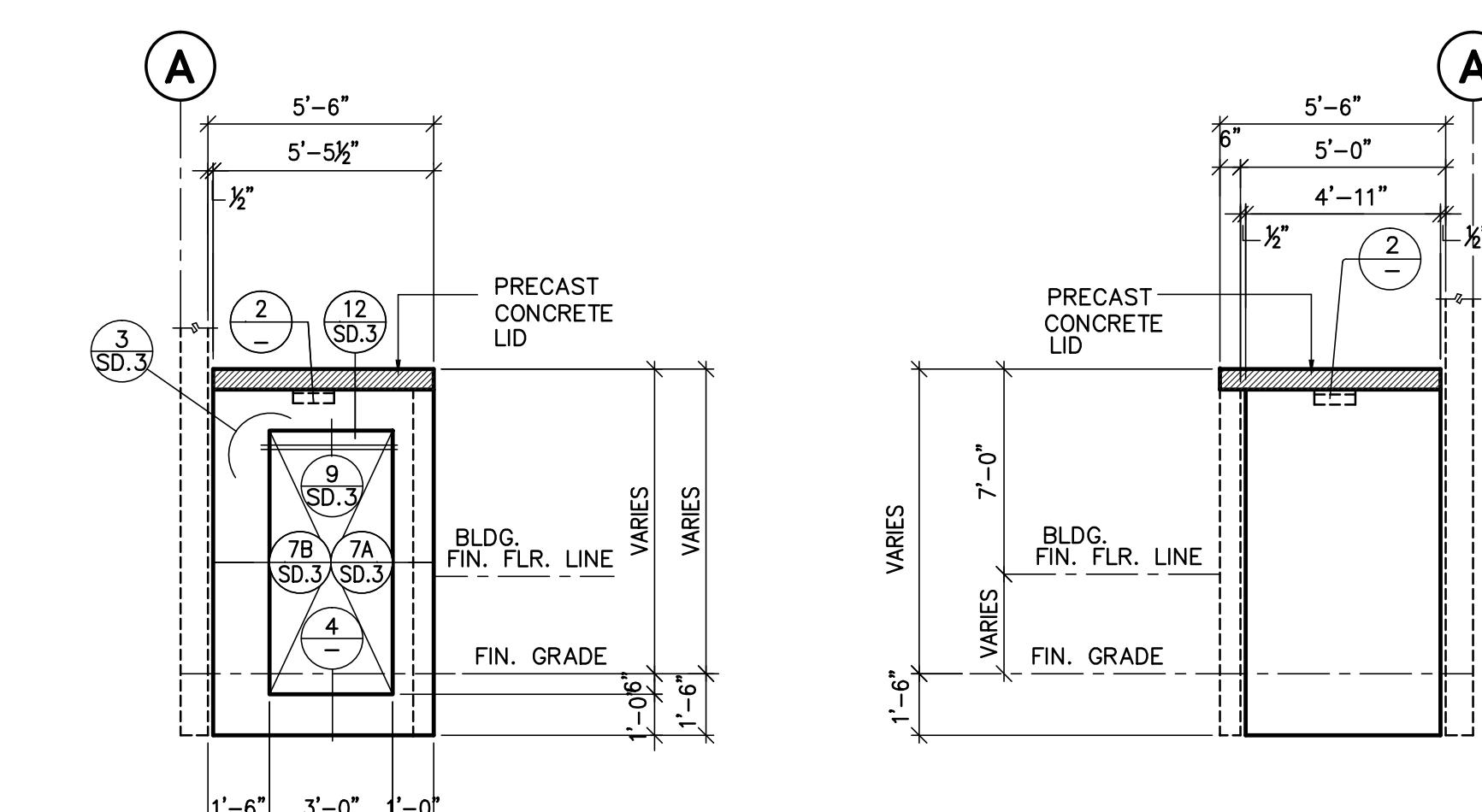
SCALE: 1/4" = 1'-0"



ELEVATION

INTERIOR CONCRETE STAIR PANEL ELEVATIONS

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



ELEVATION

ELEVATION

INTERIOR CONCRETE STAIR PANEL ELEVATIONS

WALL THICKNESS = 6" TYPICAL U.N.O.

SEE FOUND. PLAN

GENERAL

- "CODE" WHERE REFERRED TO HERE IN REFERS TO CALIFORNIA BUILDING CODE 2016 EDITION
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CODE, AND ALL APPLICABLE LOCAL AND STATE CODES AND ORDINANCES.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDINGS DURING CONSTRUCTION AND SHALL PROVIDE ADEQUATE SHORING, BRACING AND GUYS DURING CONSTRUCTIONS. SAFETY AND BRACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS BEFORE COMMENCING WORK AND REPORT ANY DISCREPANCIES.
- SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF ALL OPENINGS REQUIRED FOR DUCTS, PIPES AND FOR ALL PIPE SLEEVES, ELECTRICAL CONDUITS AND OTHER ITEMS TO BE EMBEDDED IN CONCRETE OR OTHERWISE INCORPORATED IN STRUCTURAL WORK.
- IN ALL CASES WHERE A CONFLICT MAY OCCUR WHICH IS BETWEEN TEMPERAMENT IN SPECIFICATIONS AND NOTES ON THE DRAWINGS OR BETWEEN GENERAL NOTES AND SPECIFIC DETAILS, THE ENGINEER SHALL BE NOTIFIED AND HE WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS.
- WHERE CONSTRUCTION MATERIALS ARE TEMPORARILY STORED ON ROOF OR FLOOR FRAMING, THEY SHALL BE DISTRIBUTED SO THAT THE LOAD DOES NOT EXCEED THE DESIGN LIVE LOAD.

FOUNDATION

- THE FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS CONTAINED THE SOIL REPORT NO. 1617-54 DATED: JULY 23, 2015 AND PREPARED BY FEFFER GEOLOGICAL CONSULTING
- ALL THE RECOMMENDATIONS CONTAINED IN THE ABOVE MENTIONED REPORT ARE PART OF THESE SPECIFICATIONS.
- SITE AND BASE PREPARATION SHALL BE AS PER SOIL REPORT RECOMMENDATIONS.
- ALL FOOTINGS EXCAVATIONS SHALL BE INSPECTED BY THE SOIL ENGINEER AND BUILDING DEPARTMENT BEFORE THE CONCRETE IS POURED.
- THE SOIL BEARING VALUE USED FOR DESIGN OF FOOTING UPON UNDISTURBED SOILS AND $\frac{24}{20}$ BELOW LOWEST FINISHED GRADE OR FINISH FLOOR IS: 2000 PSF FOR SPREAD FOOTINGS WITH 24" MIN WIDTH & 2000 PSF FOR CONTINUOUS FOOTINGS WITH 24" MIN. WIDTH.
- SEE SOILS REPORT FOR COMPACTED FILL REQUIRED UNDER ALL THE FOOTINGS.
- PAD PREPARATION SHALL BE IN ACCORDANCE WITH THE SOIL REPORT AND SHALL BE INSPECTED BY THE SOIL ENGINEER PRIOR TO PLACING ANY CONCRETE. THE PAD SHALL BE KEPT MOIST PRIOR TO THE PLACING OF CONCRETE.
- ALL MATERIAL FROM FOOTING EXCAVATIONS TO BE REMOVED AND SHOULD NOT BE USED UNDER THE SLAB ON GRADE.
- A COMPACTION REPORT SHALL BE SUBMITTED TO THE CITY BUILDING INSPECTOR PRIOR TO PRIOR TO FOOTING INSPECTION

CONCRETE

- CEMENT: TYPE II CONFORMING TO A.S.T.M. C-150 AND SHALL BE TESTED.
- ALL CONCRETE AGGREGATES UNLESS OTHERWISE NOTED ON PLANS, WILL BE REGULAR WEIGHT HARD ROCK TYPE (150 LB. CU. FT.) AGGREGATE SHALL CONFORM TO A.S.T.M. C-33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.44% AS PER A.S.T.M. C-157. DO NOT CHANGE SOURCE OF AGGREGATE DURING COURSE OF WORK WITHOUT PRIOR WRITTEN ACCEPTANCE OF THE ARCHITECT.
- STRENGTH: ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE $f_c = * \text{ SEE BELOW}$
- VIBRATION: VIBRATION OF CONCRETE SHALL BE IN ACCORDANCE WITH GENERAL PROVISIONS OUTLINED IN PORTLAND CEMENT ASSOCIATION SPECIFICATION ST26.
- CURING: CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER ITS PLACEMENT FOR CONCRETE OTHER THAN SLAB ON GRADE, APPROVED CURING COMPOUNDS MAY BE IN LIEU OF MOIST CURING IF APPROVED BY THE OWNER AND ARCHITECT.
- STRENGTH TESTS OF CONCRETE SHALL BE REQUIRED AS PER GBC SECTION 1805 AND AS OUTLINED IN SPECIFICATION REPORTS SHALL BE FORWARDED TO THE STRUCTURAL ENGINEER. A MINIMUM OF ONE TEST AT 7 DAYS AND 2 TESTS AT 28 DAYS IS REQUIRED FOR ALL CONCRETE SAMPLES TAKE AT FREQUENCY OF ONCE EVERY 150 CU. YDS. OR 5,000 SQ. FT. WHICHEVER IS MINIMUM.
- ANCHOR BOLTS, DOWELS, INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE.
- LOCATION OF CONSTRUCTION AND POUR JOINTS SHALL BE APPROVED BY THE ARCHITECTS PRIOR TO POURING CONCRETE.
- NO FLY ASH SHALL BE USED IN CONCRETE.
- CONCRETE FORM WORK TOLERANCES SHALL BE IN ACCORDANCE WITH CBC AND A.C.I. STANDARDS
- GROUT UNDER PRECAST CONCRETE PANELS SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 2,000 PSI.

HOT AND COLD WEATHER CONCRETING:

- HOT WEATHER CONCRETING: WHEN THE TEMPERATURE RISES ABOUT 80°F AND SPECIALLY WHEN THE RELATIVE HUMIDITY FALLS BELOW 25 THE CONTRACTOR SHOULD FOLLOW HOT WEATHER CONCRETING IN ACCORDANCE WITH 305-57 DURING HOT WEATHER. BE PREPARED TO USE FOG SPRAY OR OTHER PRECAUTIONS ACCEPTABLE TO ARCHITECT WHEN RATE OF EVAPORATION EQUALS OR EXCEEDS 0.2 POUNDS PER SQUARE FEET PER HOUR. REFER TO SURFACE EVAPORATION CHART TO ESTIMATE RATE OF SURFACE UNDER EVAPORATION.
- COLD WEATHER CONCRETING: ADEQUATE PROTECTION FOR CONCRETE AND ALL CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING AND NEAR FREEZING WEATHER. ALL CONCRETE MATERIALS AND ALL REINFORCEMENT, FILLERS AND GROUT WITH WHICH THE CONCRETE IS TO COME IN CONTACT SHALL BE FREE FROM FROST, FROZEN MATERIAL OR MATERIALS CONTAINING ICE SHALL NOT BE USED. COLD WEATHER CONDITIONS WILL BE DONE IN ACCORDANCE WITH ACI 308 R-78. (LATEST EDITION)

***CONCRETE MIX DESIGN**

| USE | DESIGN | MIX DESIGN | MAX W/C. RATIO | SLUMP | INSPECTION |
|-----------------------------|----------|------------|----------------|------------------------|------------|
| 1 FOOTINGS | 2500 PSI | 3000 PSI | 0.6 | $4^{\circ} \pm 1$ MAX. | NO |
| 2 SLAB ON GRADE (WAREHOUSE) | 4000 PSI | 4000 PSI | 0.45 | $4^{\circ} \pm 1$ MAX. | YES |
| 3 PANELS | 4000 PSI | 4000 PSI | 0.50 | $4^{\circ} \pm 1$ MAX. | YES |
| 4 SCREEN, RAMP PANELS | 3000 PSI | 3000 PSI | 0.6 | $4^{\circ} \pm 1$ MAX. | YES |
| 5 MISCELLANEOUS | 2500 PSI | 3000 PSI | 0.65 | $4^{\circ} \pm 1$ MAX. | NO |
| 6 CONCRETE APRONS | 2500 PSI | 3000 PSI | 0.60 | $4^{\circ} \pm 1$ MAX. | NO |

PRECAST PANELS

- ALL PANELS ARE ELEVATED FROM THE INSIDE OF BUILDINGS U.N.O. ALL PANEL THICKNESSES ARE SHOWN ON PANEL ELEVATION DRAWINGS.
- PANEL REINFORCEMENT IS DETAILED ON SHEET SD-3 FOR TYPICAL PANEL TYPES. ADDITIONAL PANEL REINFORCEMENT MAY BE DETAILED ON THE PANEL ELEVATIONS.
- ADD 2-#5 BARS MINIMUM AROUND ALL OPENINGS TYPICAL U.N.O. EXTEND 2'-0" BEYOND OPENING U.N.O. ALSO ADD 1-#5 E.F. DIAGONAL TIES AT ALL CORNERS OF ALL OPENINGS. SEE DETAIL 3/SU-3.
- THE LENGTH OF PANEL GROUT PADS SHALL BE 30' TYPICAL U.N.O.
- DURING ERECTION OF PANELS SUPPORTED BY CONTINUOUS FOOTINGS THERE MUST BE PADS, SHIMS OR WEDGES NO MORE THAN 6"-0" APART TO PROVIDE A UNIFORM LOADING TO THE CONTINUOUS FOOTING.
- SEE ROOF PLAN AND VERIFY WITH ROOF COMPANY SHOP DRAWINGS PRIOR TO INSTALLATION OF ROOF CONNECTION BOLTS AND SCUPPERS.
- SEE ARCHITECTURAL DRAWINGS FOR ALL DESIGN REVEALS AND FORMLINES. VERIFY ALL REQUIRED OPENINGS WITH RELATED ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.
- REINFORCING STEEL TO BE GRADE 60 DEFORMED BARS CONFORMING TO A.S.T.M. A615. ALL REBAR TO BE WELDED SHALL CONFORM TO A.S.T.M. A706.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO POURING CONCRETE FOR FOOTING AND PANELS.
- PANEL JOINTS SHALL BE SEALED WITH BACK-UP ROD AND SEALANT AT EXTERIOR AND INSIDE FACES EXCEPT INSIDE OF ADJACENT BUILDING.
- FOR BOND PREVENTION USE TECOTE COMPOUND OR APPROVED EQUAL SPREAD EVENLY ON CASTING SLAB.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND PLACEMENT OF ALL LIFTING POINTS, ADDITIONAL SPECIAL REINFORCEMENT AND STRONG BACKS REQUIRED TO ADEQUATELY TILT THE PRECAST CONCRETE PANELS. THE LIFT DESIGN SHALL BE BASED ON THE STRENGTH OF THE CONCRETE SPECIFIED AS EXPERIMENTAL TESTS OR TEST RESULTS FOR CONCRETE STRENGTH PRIOR TO LIFTING MUST BE APPROVED. A MINIMUM OF 7 DAYS AND 70% OF CONCRETE STRENGTH @ 28 DAYS MUST BE MET BEFORE LIFTING PANELS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY BRACING REQUIRED FOR PRECAST PANELS PRIOR TO CONNECTION OF ALL SUPPORTING ELEMENTS SUCH AS ROOF SHEATHING AND FLOOR SLAB.
- PRECAST CONCRETE PANELS ARE DESIGNED IN ACCORDANCE WITH THE PROVISIONS FOR THE MANUFACTURE AND PLACEMENT OF PRECAST CONCRETE IN ACCORDANCE WITH THE COMMENTARY SECT. 7.7 ALL JOB SITE PRECAST CONDITIONS MUST BE EQ TO THAT NORMALLY EXPECTED IN A PLANT.
- CONTINUOUS INSPECTION REQUIRED FOR ALL PRECAST PANELS.
- PROVIDE 1 1/2" CONC. COVER TO ALL VERT. BARS IN DOUBLE CURTAIN REINFORCED PANELS, TYP. U.N.O.

CONCRETE SLAB ON GRADE

- SUBGRADE:
 - TOP 12" OF PAD TO BE COMPAKTED TO 95% OPTIMUM DENSITY WITH MAXIMUM 1% VARIANCE. CERTIFICATION MUST BE SUBMITTED 24 HOURS BEFORE CONCRETE POUR. CONCRETE SUBGRADE SHALL BE TESTED AND SHOWN COMPACTED IN ACCORDANCE WITH THE REPORT RECOMMENDATIONS.
 - FINISH SUBGRADE PAD ELEVATION BEFORE CONCRETE POUR TO BE WITHIN 1/4 INCH ABOVE OR 1/2 INCH BELOW REQUIRED ELEVATION.
 - PAD MUST BE MOST PRIOR TO CONCRETE POUR AND BE FREE OF DEBRIS.
- CONCRETE MIX AND MATERIALS:
 - MIX DESIGNS FOR SLAB CONCRETE SHOULD BE PREPARED BY REGISTERED ENGINEERS PROVIDED BY THE ARCHITECT/ENGINEER. MIX DESIGN SHOULD INCLUDE PROPORTIONS FOR EACH MATERIAL/INGREDIENT.
 - CEMENT SHALL BE TYPE II AND TESTED PER ASTM STANDARDS. TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER/ARCHITECT ALONG WITH MIX DESIGN.
 - (V) WATER SHALL BE USED.
 - CONCRETE MUST BE BATCHED FROM THE SAME CONCRETE BATCHING PLANT AND FROM THE SAME AGGREGATE STOKE FOR ALL SLAB CONCRETE.
 - SLUMP SHALL NOT VARY MORE THAN 1/2 INCH FROM TRUCK TO TRUCK.
 - MAXIMUM SIZE AGGREGATE FOR SLAB ON GRADE TO BE 1 1/2 INCH.

- CONCRETE PLACEMENT:
 - MAXIMUM LENGTH OF ANY ONE SLAB POUR SHALL BE 312 FT. AT POUR BREAKS CONSTRUCTION JOINTS DOWEL DETAIL SHALL BE USED TO SEPARATE POURS.
 - CONCRETE MUST BE PLACED BEFORE 10:00 AM EACH DAY.

- CONCRETE CURING:
 - ALL CURING TO BE DONE SHALL BE WET CURING BY USING BURLINE OR TRANSGUARD FOR A MINIMUM OF 7 DAYS FROM THE TIME CONCRETE IS POURED.

- QUALITY CONTROL:
 - CONCRETE TRUCKS OR CRANES WILL NOT BE PERMITTED ON SLAB AT ANYTIME.
 - WITHIN 2 WEEKS AFTER COMPLETION OF SLAB INSTALLATION, THE TESTING OF CONCRETE FOR POURING COMPLIANCE OF THE FLOOR SLAB INSTALLATION WITH THE SPECIFIED TOLERANCES.

- LOADING BAY POUR STRIP SPECIFICATIONS:
 - SUPPLY AND INSTALL SLURRY (PER STRUCTURAL ENGINEER SPECIFICATIONS) AS THE BACKFILL IN THE ENTIRE LOADING BAY POUR STRIP (BIRDS EYE AND OTHER MATERIAL MAY NOT BE USED).
 - CUT AT EVERY PANEL JOINT, COLUMN LINE, AND SOG CONTROL/CONCRETE JOINTS (MINIMUM).
 - BREAK STEEL AT EVERY GRIDLINE AND INSTALL SLIP DOWELS (PER STRUCTURAL ENGINEER SPECIFICATIONS); AND
 - POUR CONCRETE IN AN ALTERNATING PATTERN @ EVERY GRIDLINE (HOP SCOTCHED).

- ALL EQUIPMENT DURING CONSTRUCTION MILL BE DIAPERED.

- CLEAN OUT CUT JOINTS AT END OF PROJECT.

- NO PERMANENT GREASE PEN PANEL MARKERS ON FLOOR SLAB. NO RED CHALK MARKS ALL COMMENT MARKS TO BE REMOVED BEFORE.

- ALL FLOOR SLAB NAIL OR FRAME BRACER HOLES FILLED WITH APPROVED 2 PAR EPOXY COMPOUND TO MATCH CONCRETE COLOR. PEGA BOND LV 2000, BURKE EPOXY

- SHUREL, LAPIDOLITH OR APPROVED EQUAL FLOOR SEALER APPLIED ONE COAT AT END OF JOB IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.

- HARD STEEL TROWEL BURNISHED FINISH TO FLOOR SLAB.

- ALL SAW CUTS TO BE DONE WITH A "SOFT CUT" G-2000 OR LARGER MACHINE IMMEDIATELY AFTER FINISH TROWELING.

- FLOOR SLAB 1/8"-50 FL-35, OVERALL AVERAGE FF=34, FL=24 LOCAL MINIMUM. APPROXIMATE RECOMMENDED A PER POUR BASIS LOCAL MINIMUM TO APPLY ON EACH TEST RUN WITHIN A POUR. (NOTES: SLAB THICKNESS SPECIFIED ON FOUNDATION PLANS IS MINIMUM THICKNESS REQUIREMENT NOT AVERAGE)

- ALL STRUCTURAL WELDING (INCLUDES DECKING AND WELDED STUDS), EXCEPT WELDING IN APPROVED SHOPS PER CBC 1701.

- ULTRASONIC TEST OF FULL PENETRATION WELD CONNECTIONS AT MOMENT FRAMES, BRACED FRAMES, BEAM SPLICES, AND FIELD WELDS.

- STRUCTURAL LIGHT GAUGE METAL FRAME WELDING

- REINFORCING STEEL WELDING PER CBC 1704.3.

- SEE CBC TABLE 1704.3 BELOW FOR ANY ADDITIONAL REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

- BOLTING:
 - HIGH STRENGTH BOLT A325SC & A490SC (TORQUE VERIFICATION)
 - HIGH STRENGTH BOLT A325 & A490 (SNUG CONTACT OF PLYS)
 - EXPANSION/ADHESIVE ANCHORS CONCRETE OR MASONRY
 - ANCHOR BOLTS IN CONCRETE WALLS AND BRACED FRAMES, (DO NOT INSTALL IN CONCRETE OR CONCRETE PLACEMENT)

- SEE CBC TABLE 1704.3 BELOW FOR ANY ADDITIONAL REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

- INSULATING CONCRETE FILL: TEST CYLINDERS AND INSPECTIONS

- APA SHEATHING DIAPHRAGM WITH AREA "B" TO "G" NAILING INSPECTION OF SHEATHING, NAIL DIAMETER & LENGTH, NAILING LINES, NAIL SPACING, AND FRAMING WIDTH AT ADJOINING EDGES, PANEL EDGES, VERIFY APA STAMP.

- APPROVED FABRICATORS: (MUST SUBMIT CERTIFICATE OF COMPLIANCE) FOR ALL OFF-SITE FABRICATION SUCH AS STRUCTURAL STEEL, GLU-LAMS, PRECAST CONCRETE ETC.

- APPLICATION FOR APPROVAL OF SPECIAL INSPECTOR SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT FOR REVIEW PRIOR TO BUILDING PLAN RELEASE.

- STRUCTURAL LUMBER:
 - STRUCTURAL STEEL AND MISCELLANEOUS IRON SHALL CONFORM TO THE PROVISIONS OF A.S.T.M. A-36 UNLESS OTHERWISE NOTED ON PLANS. STEEL PIPE SHALL CONFORM TO A.S.T.M. A53, GRADE B FY=46 KSI.
 - STRUCTURAL STEEL TUBING SHALL CONFORM TO A.S.T.M. A500, GRADE B FY=46 KSI.
 - STRUCTURAL STEEL SHALL BE COMPLETED BY WELDERS CERTIFIED BY THE FABRICATOR. THE WELDING WILL BE DONE BY ELECTRODE ARC PROCESS (EKA) OR FCAW (FCAW) ELECTRODES AND SHALL BE PERFORMED WITH APPR. ELECTRODES AS REQUIRED PER THE AWS SPECIFICATION. WELDS ARE DESIGNED AT FULL STRESS AND MUST DONE IN THE SHOP OF A LICENSED FABRICATOR EXCEPT WHERE OTHERWISE NOTED ON PLANS. SPECIAL INSPECTION IS REQUIRED FOR FIELD WELDS.
 - STRUCTURAL STEEL IS TO COMPLY WITH AWS D1.1 SPECIFICATIONS AND IS TO BE DONE BY WELDERS CERTIFIED BY THE FABRICATOR. THE WELDING WILL BE DONE BY ELECTRODE ARC PROCESS (EKA) OR FCAW (FCAW) ELECTRODES AND SHALL BE PERFORMED WITH APPR. ELECTRODES AS REQUIRED PER THE AWS SPECIFICATION. WELDS ARE DESIGNED AT FULL STRESS AND



Consultants:

| | |
|-----------------|------------------------|
| CIVIL | Theines Engineering |
| STRUCTURAL | BTI Engineers |
| MECHANICAL | Orange County Air |
| PLUMBING | Tallon Plumbing |
| ELECTRICAL | Current Electric |
| LANDSCAPE | Lewis & Associates |
| FIRE PROTECTION | Active Fire Protection |
| SOILS ENGINEER | Feffer Geological |

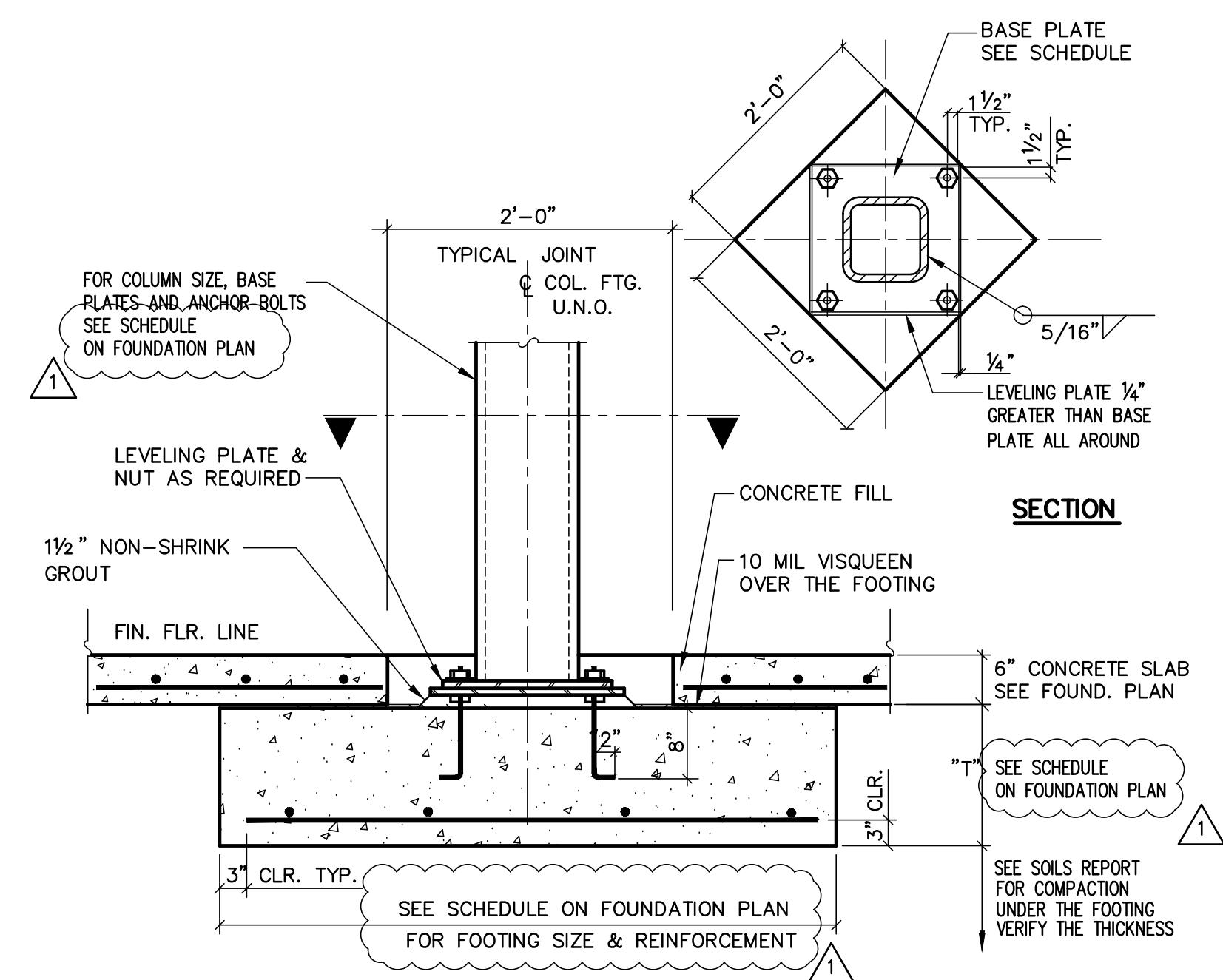
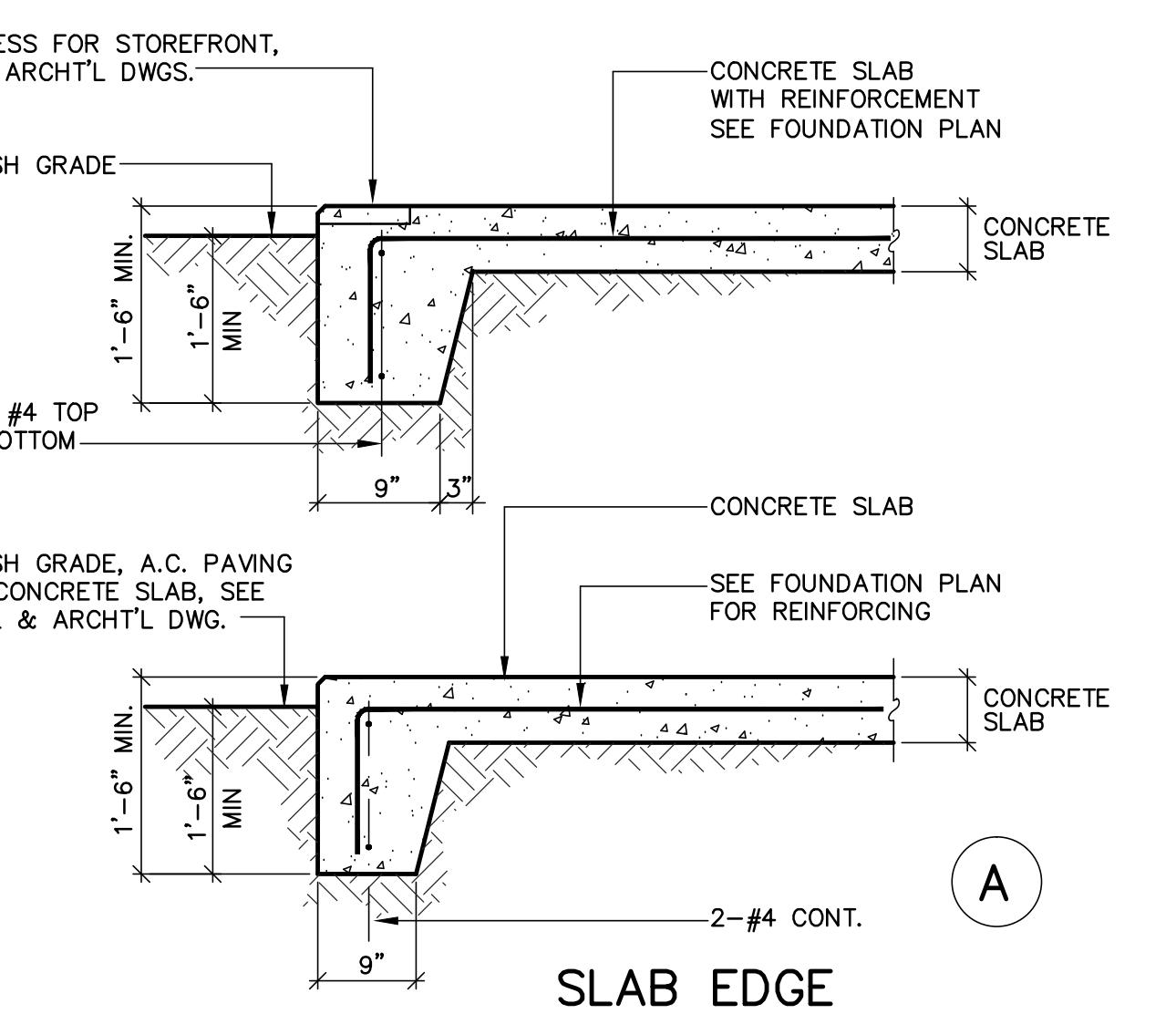
Title:
FOUNDATION AND
SLAB DETAILS

Project Number: 15060
Drawn by: VB
Date: 4-14-2017
Revision: 07-20-17

Sheet:

SD-1

BID SET 8/10/17



NOT IN USE

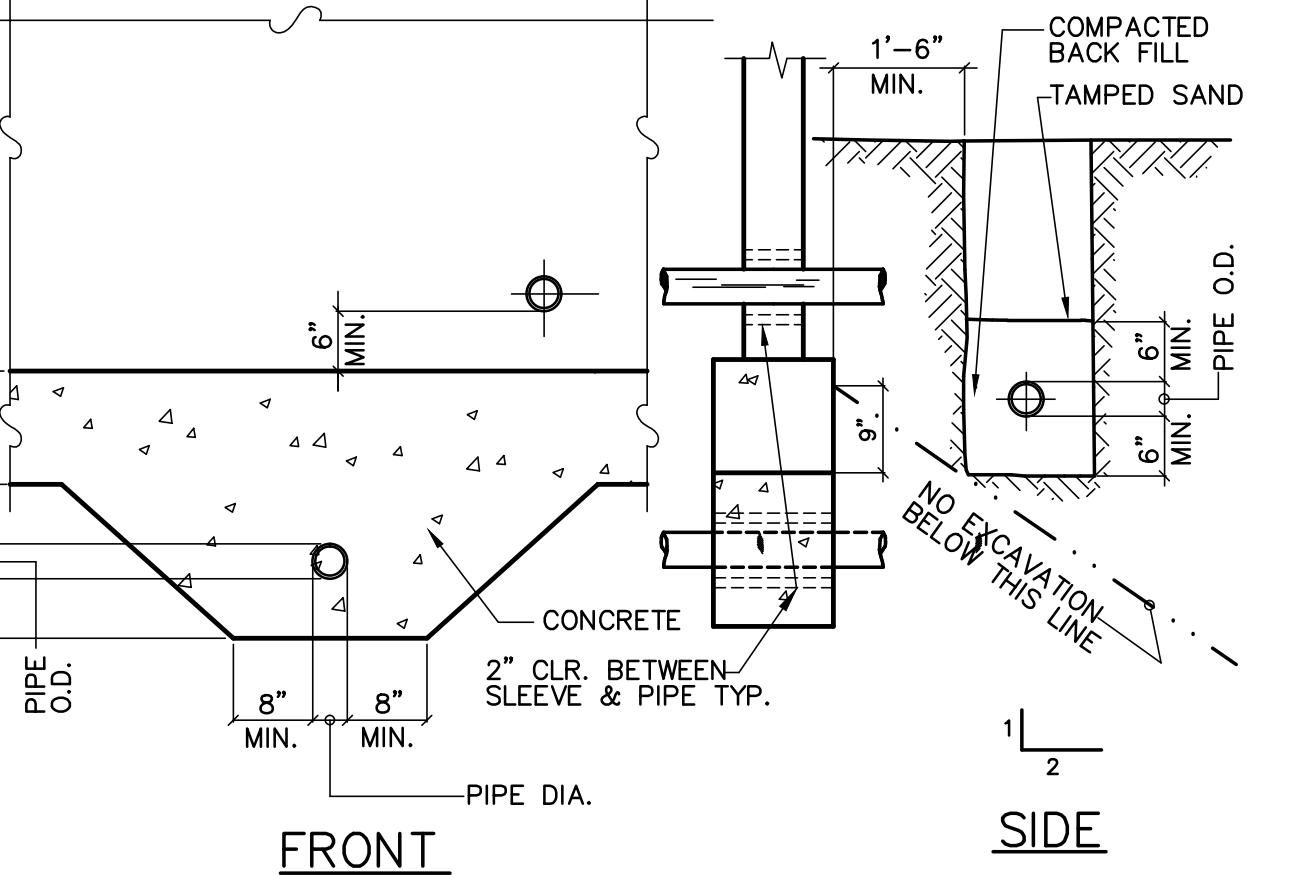
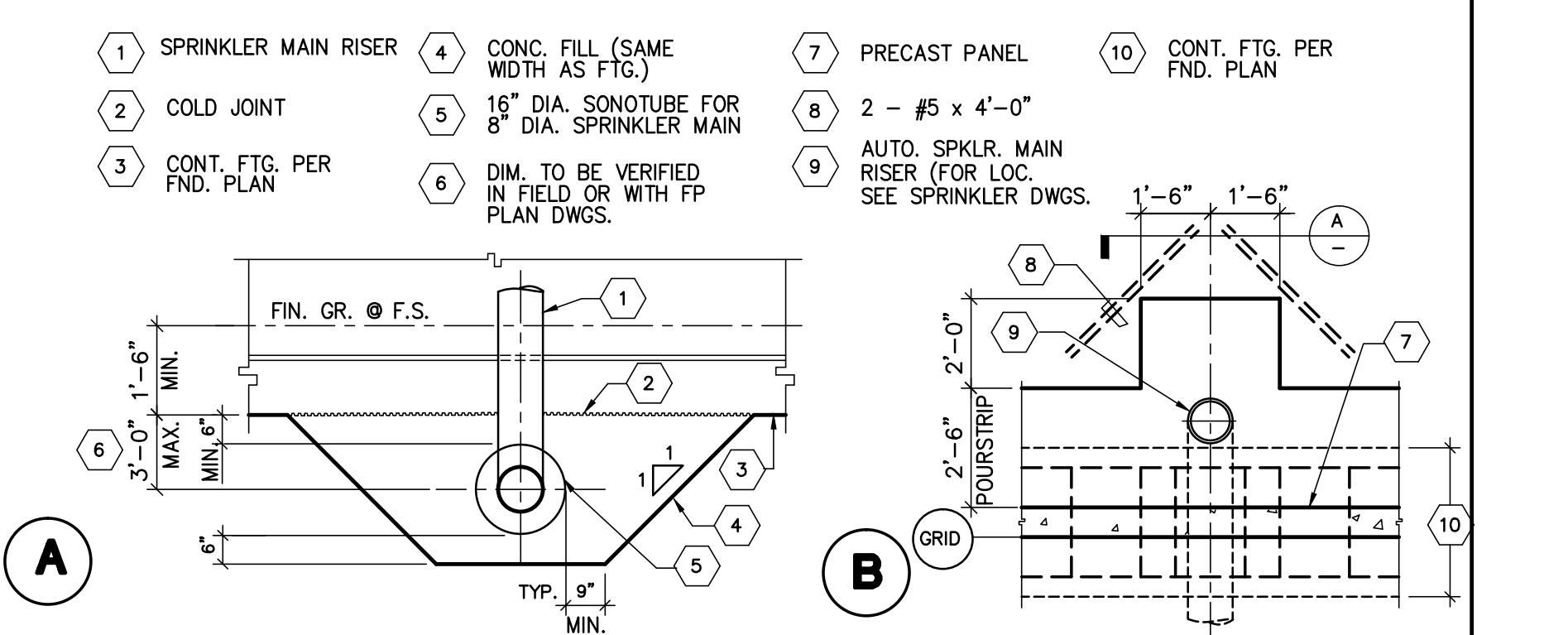
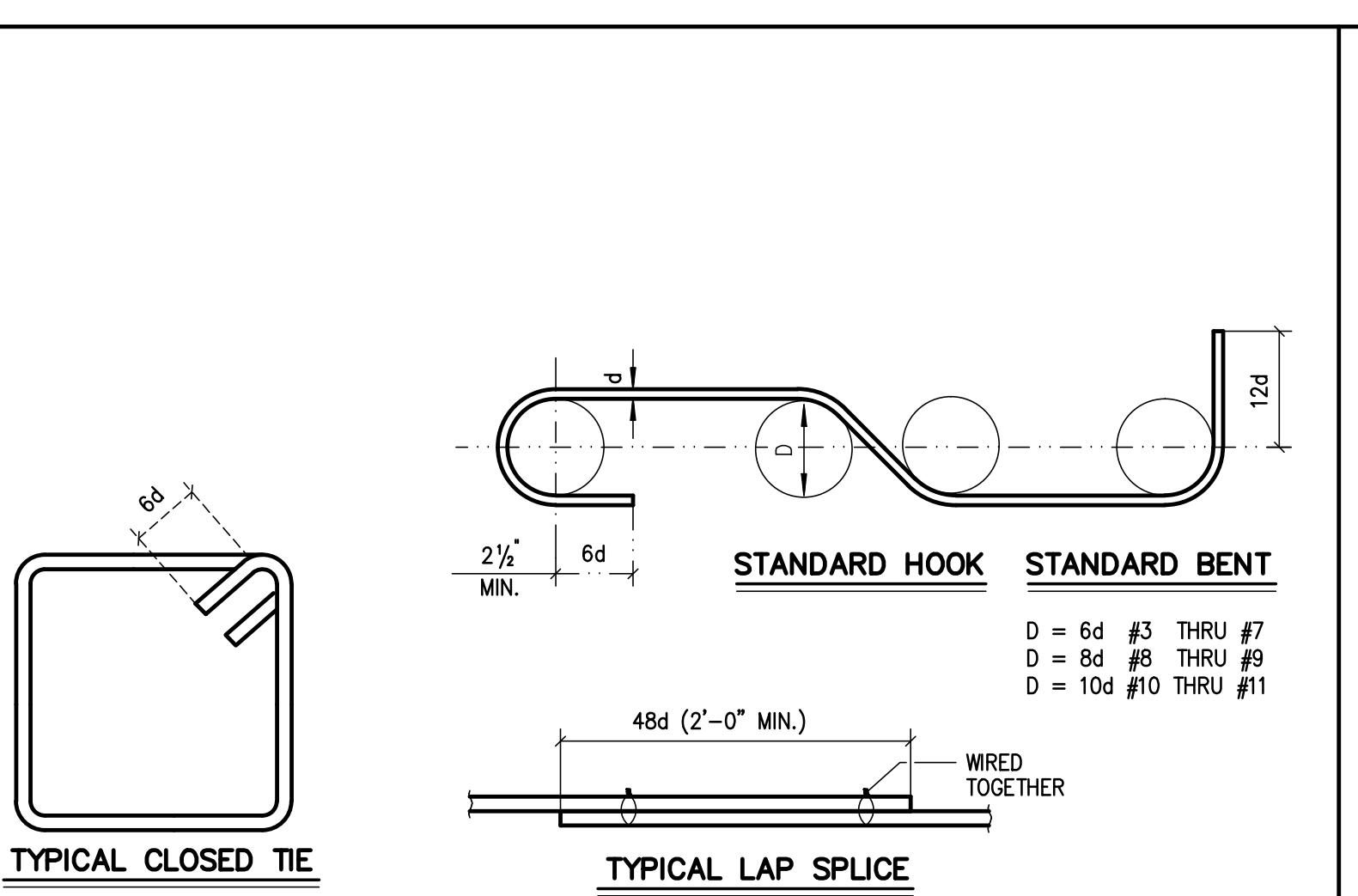
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CONCRETE SLAB EDGE

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COLUMN TO FOOTING

1



DETAIL

12

SPRINKLER MAIN RISER

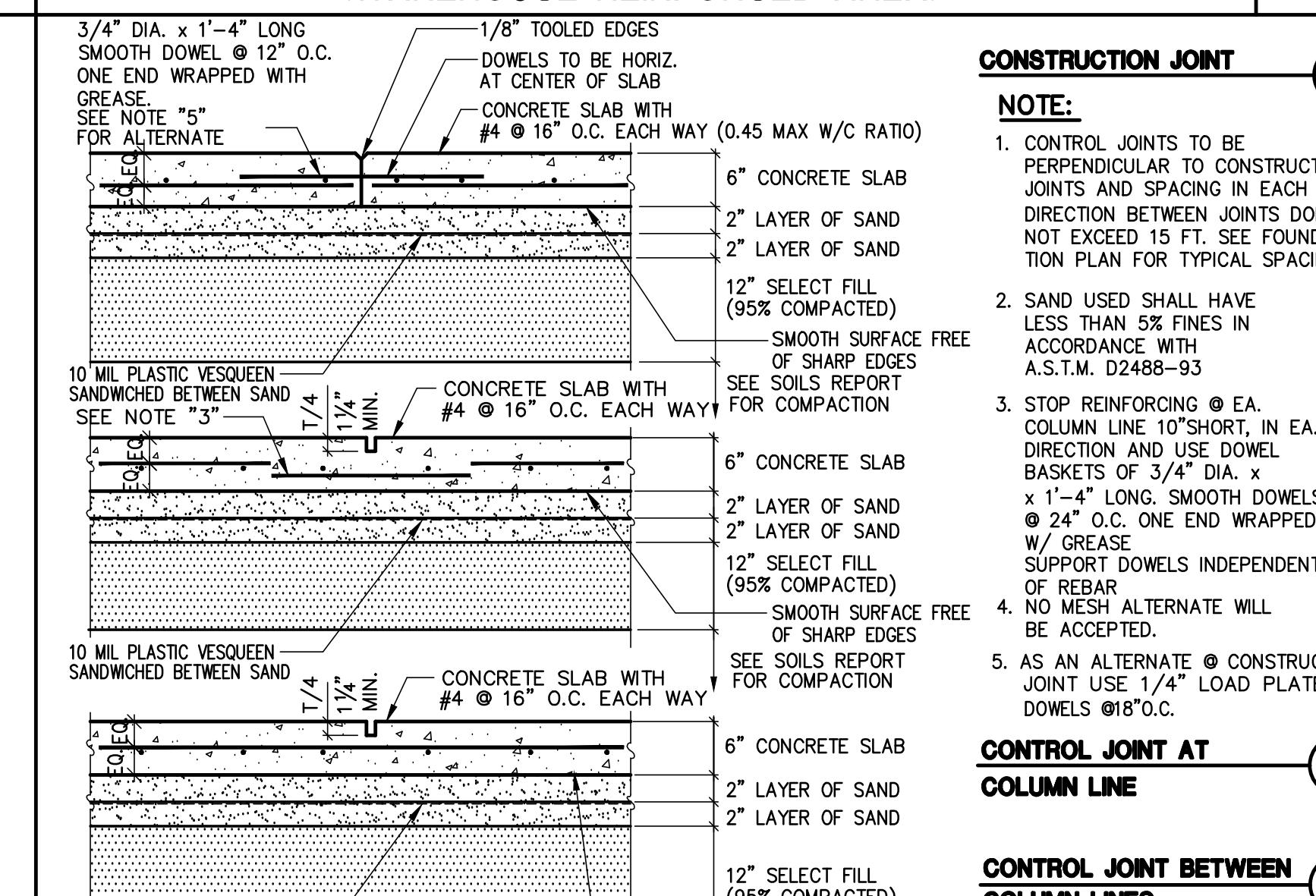
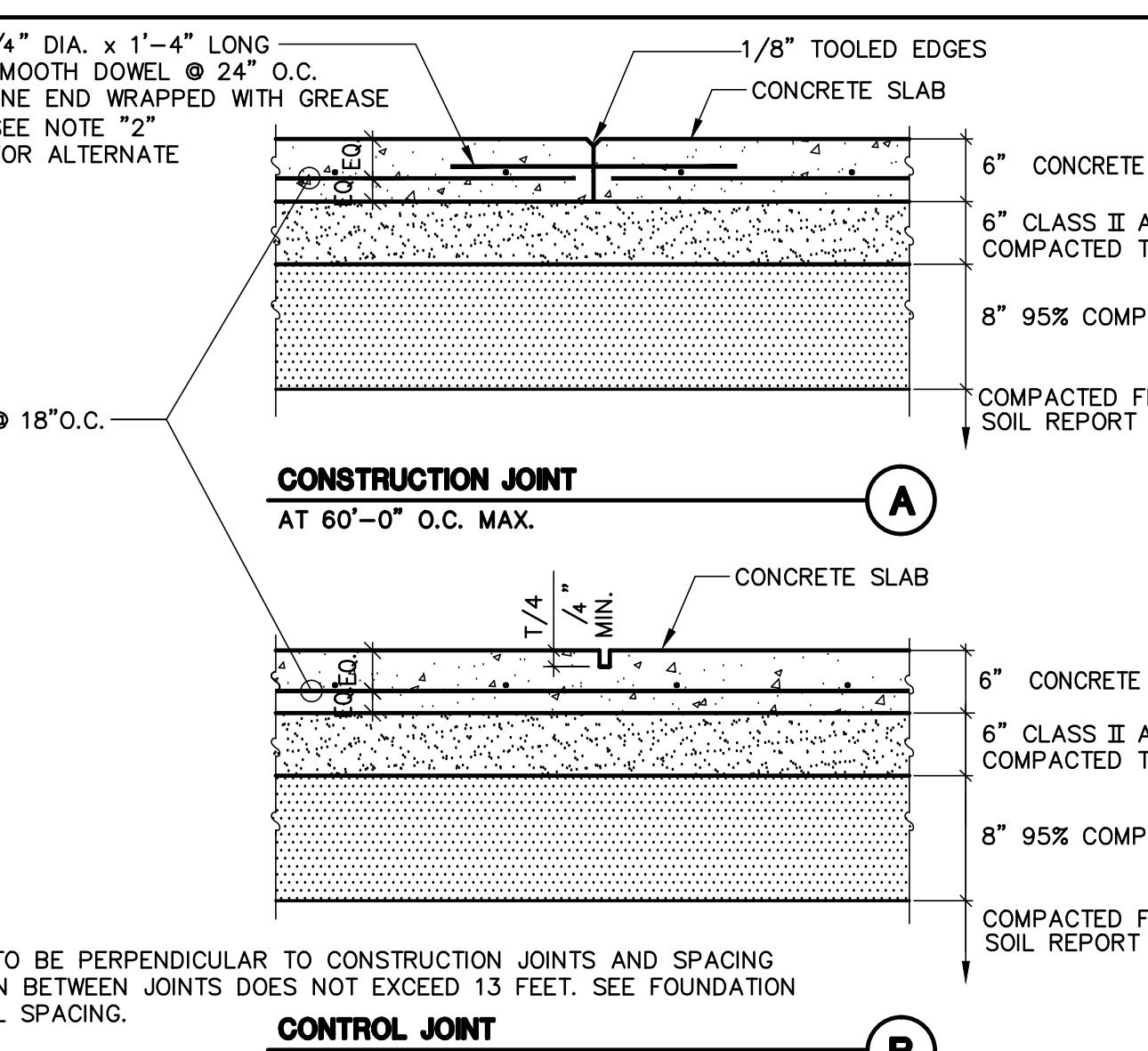
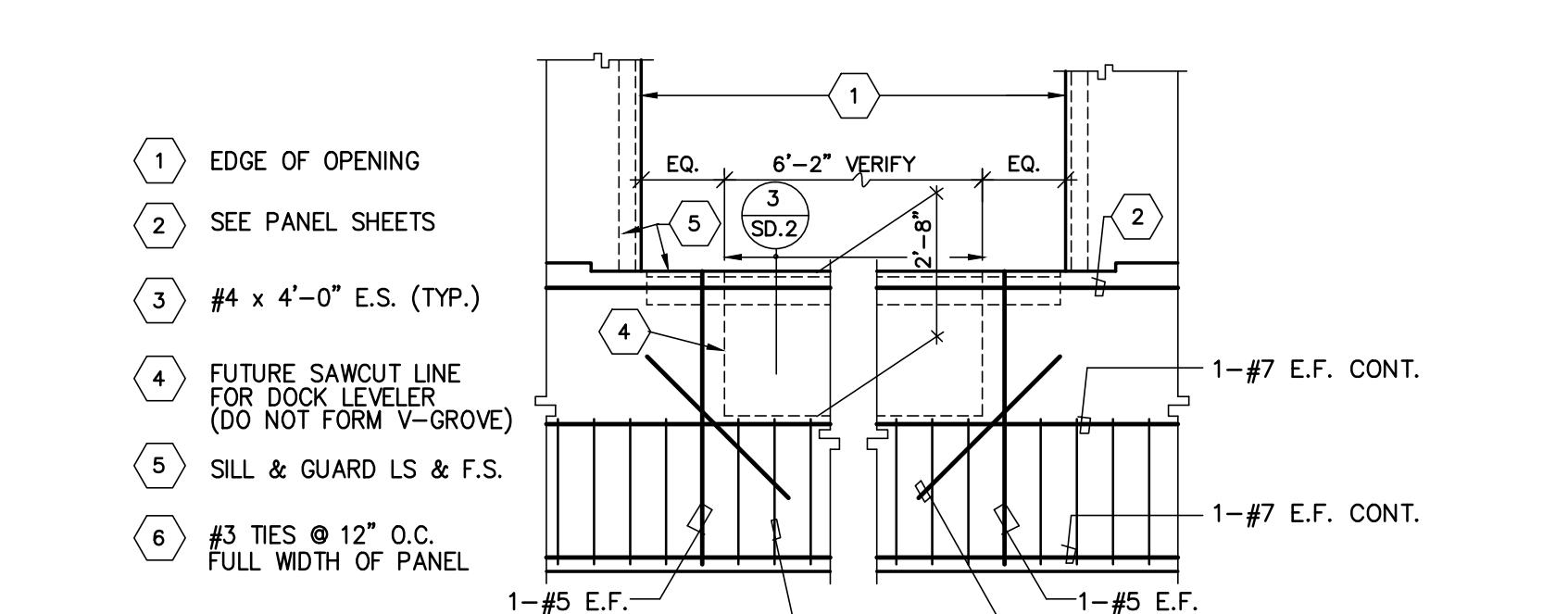
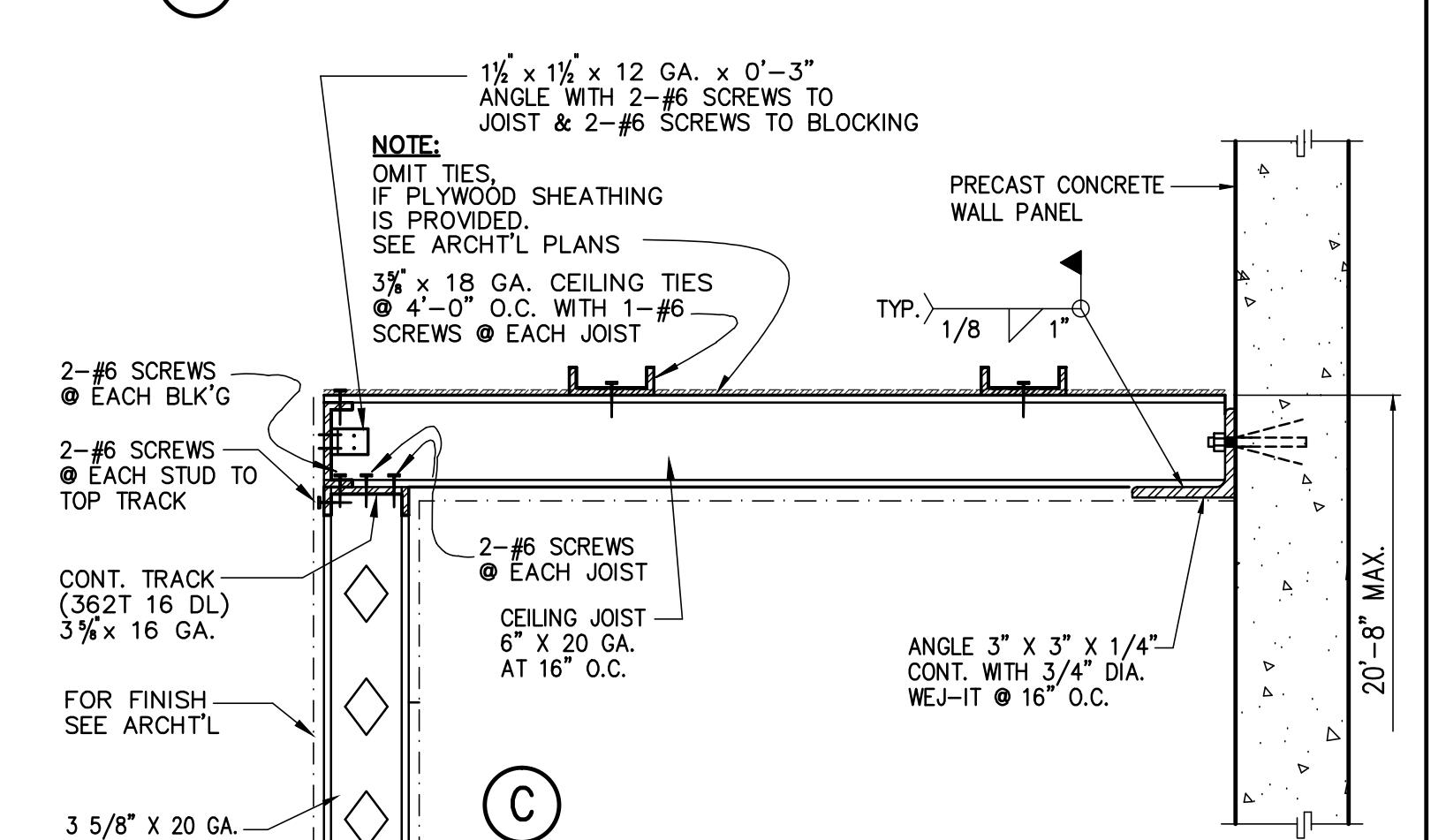
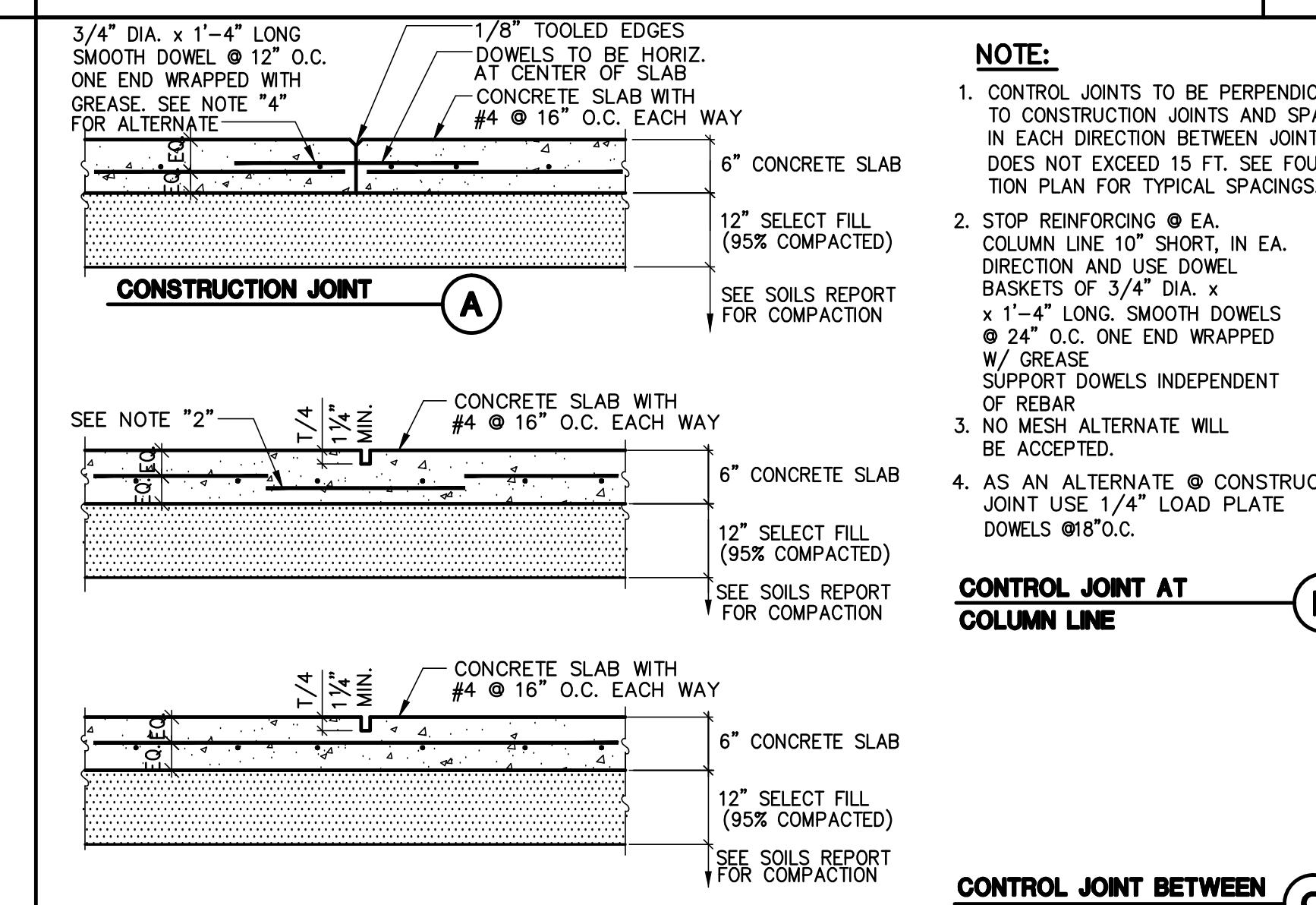
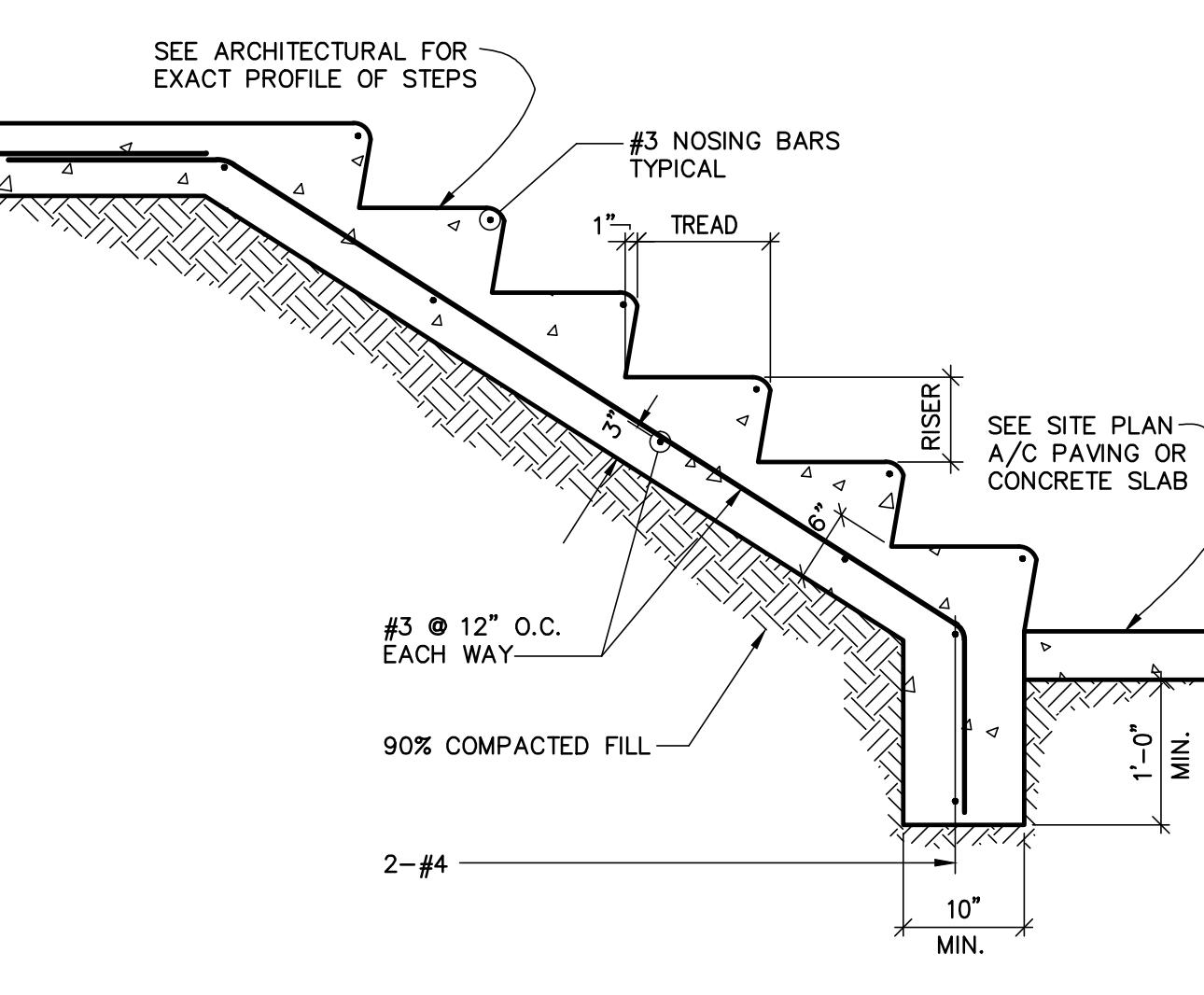
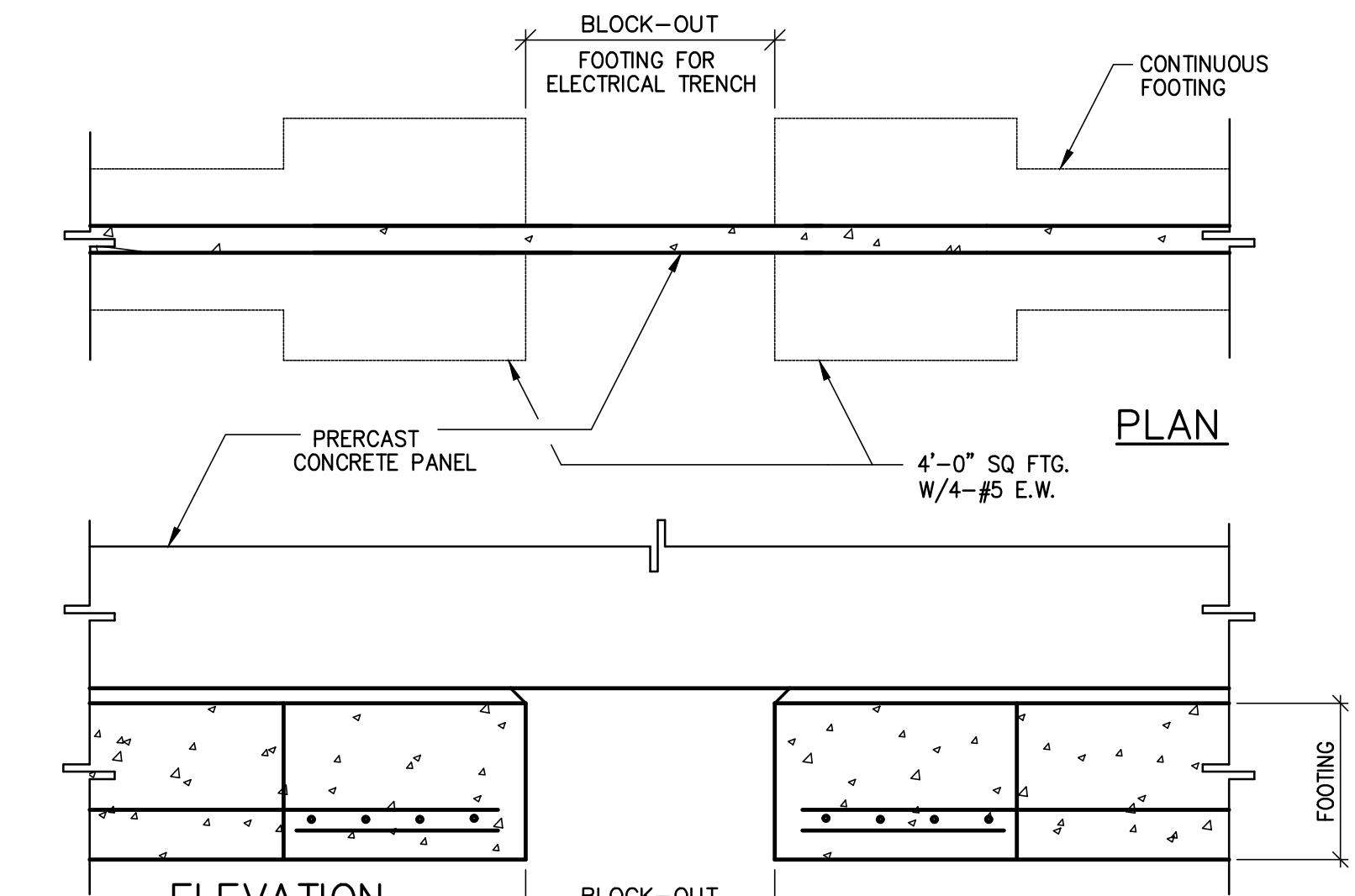
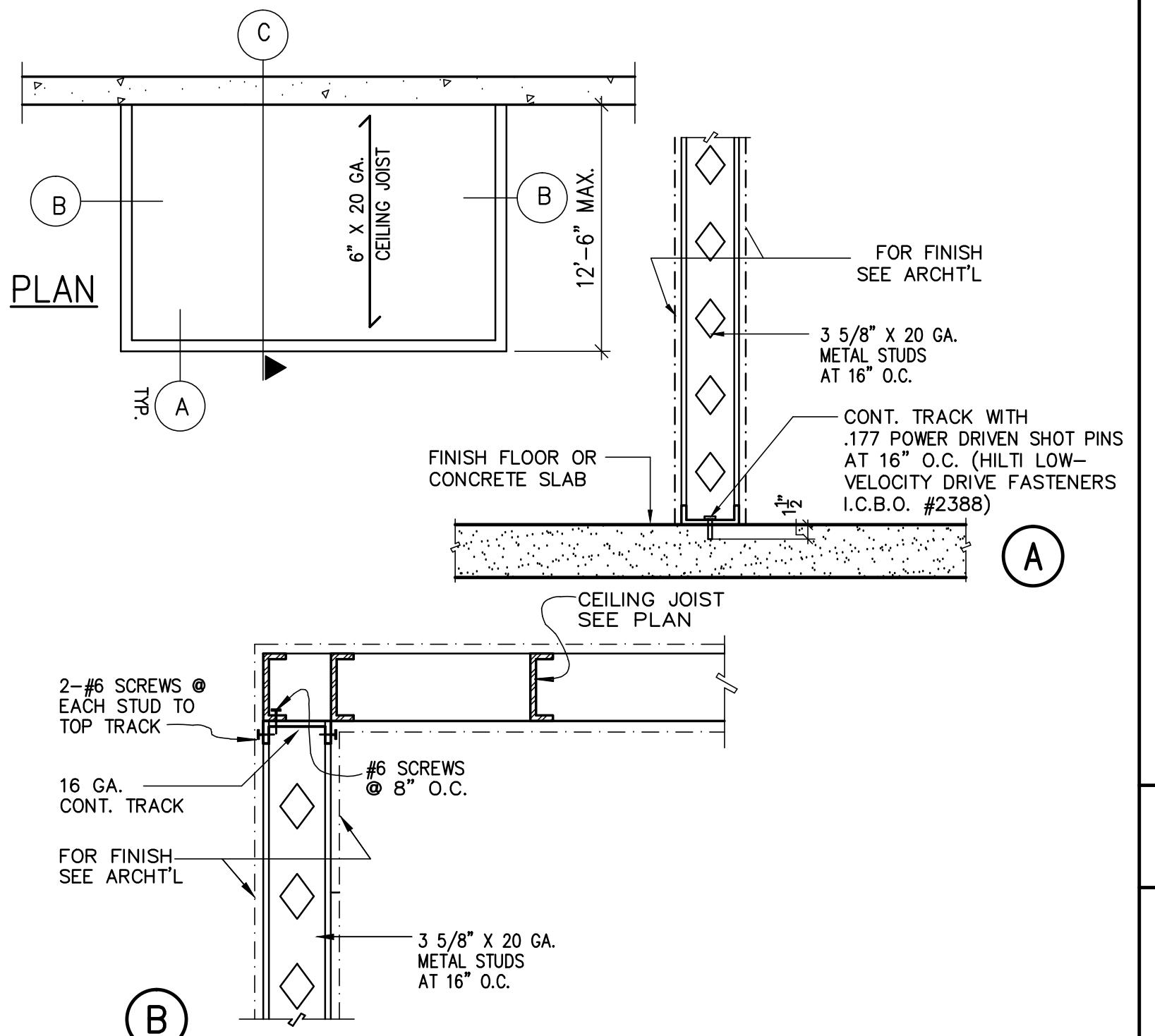
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DETAIL

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NOT USED

2



FRAMING DETAIL

13

OPENING FOR FUTURE DOCK LEVELER

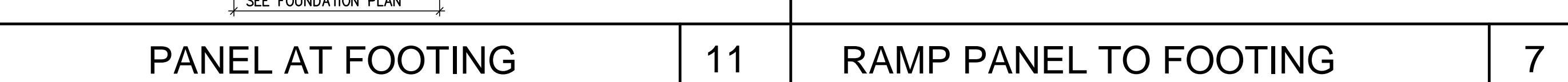
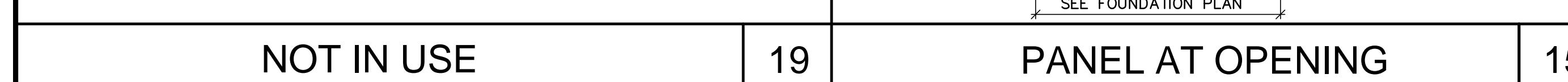
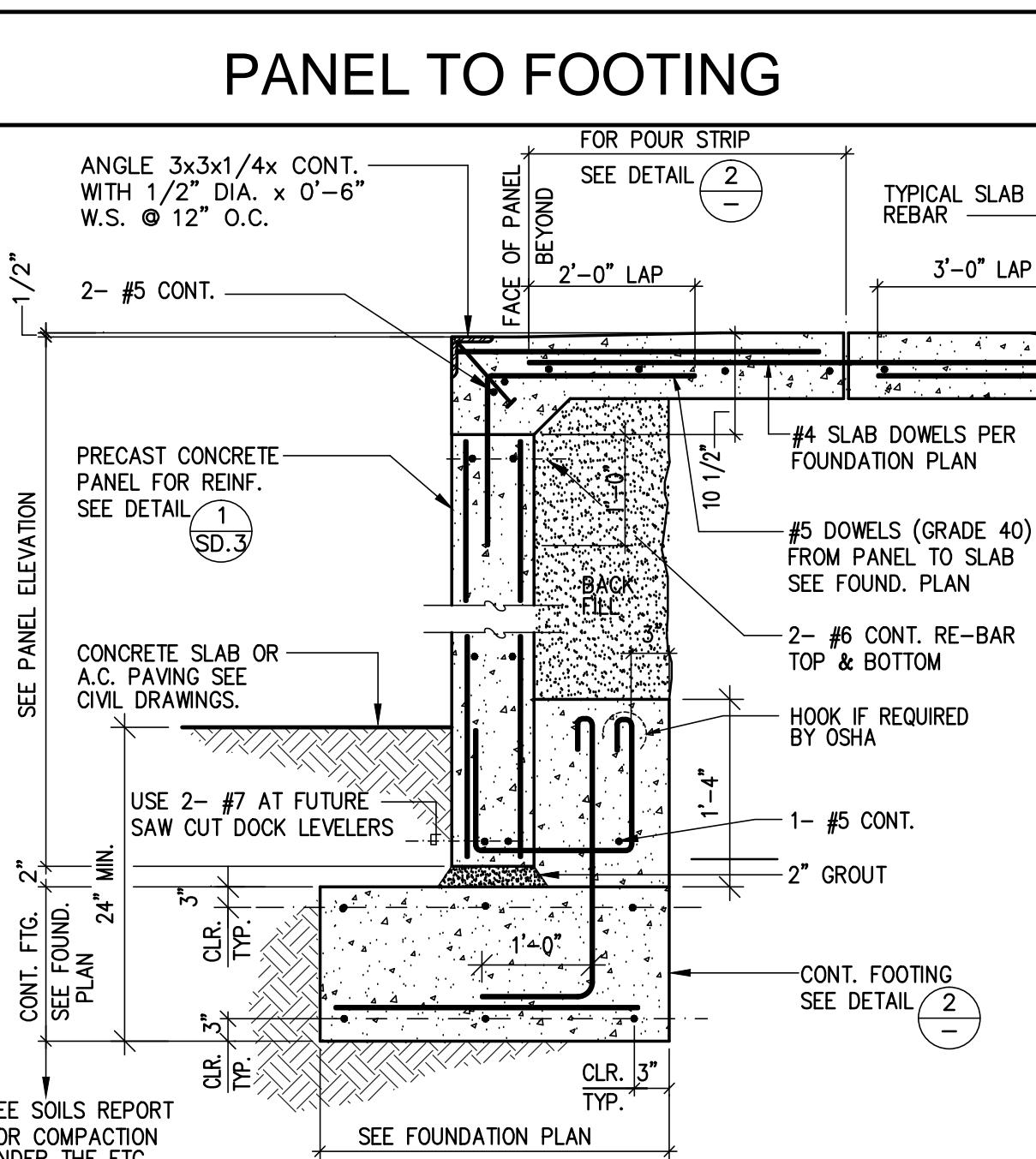
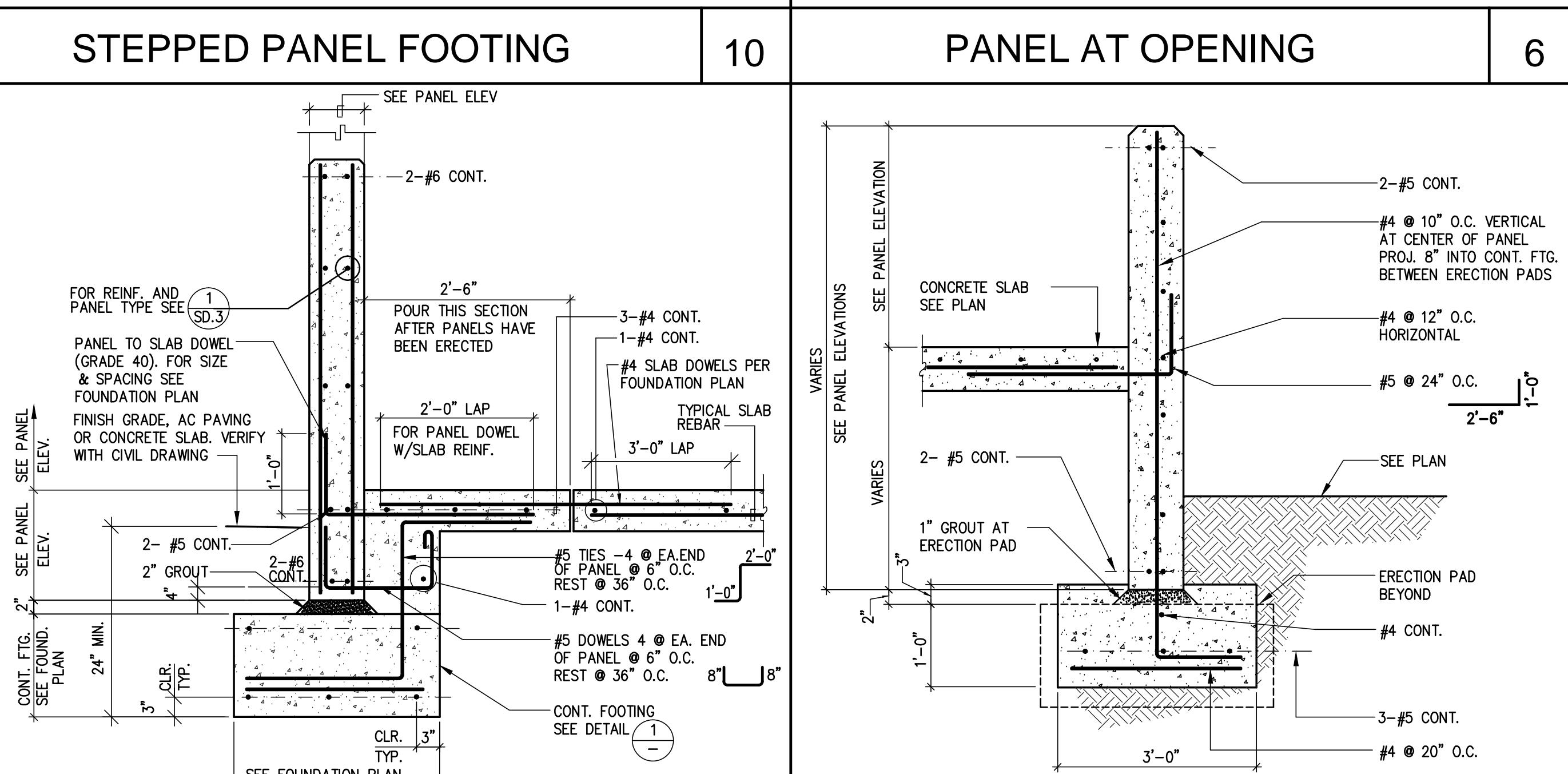
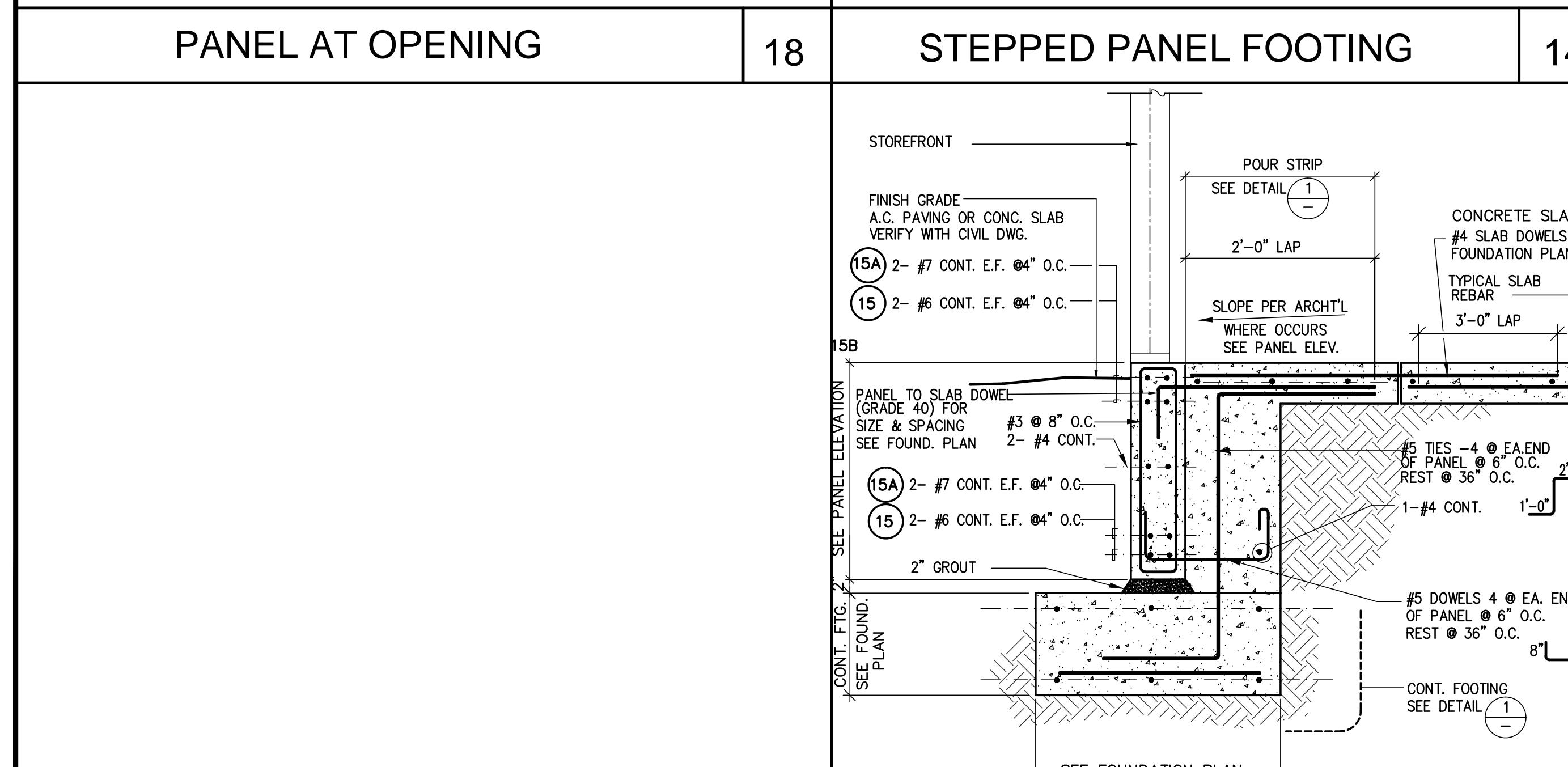
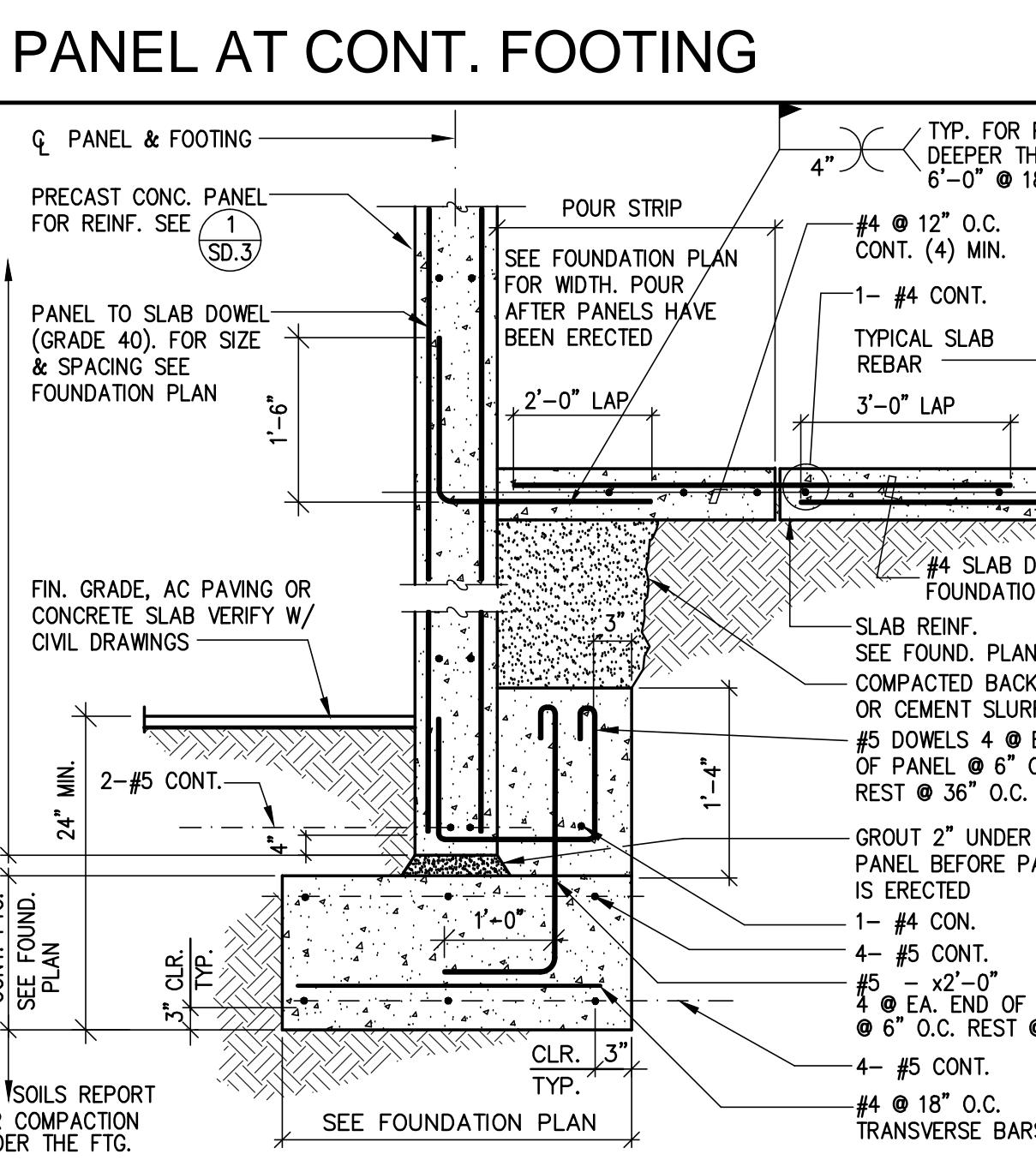
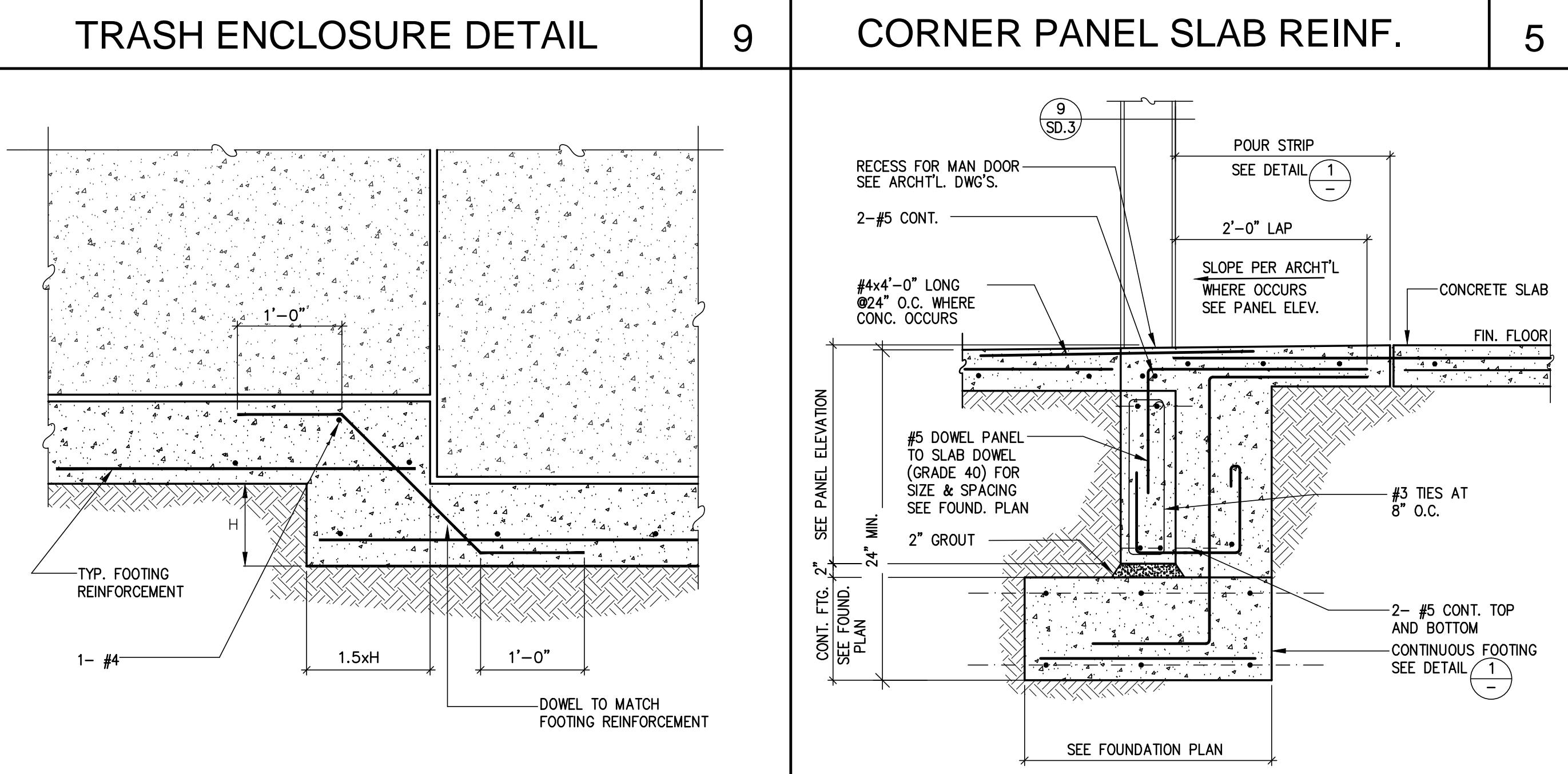
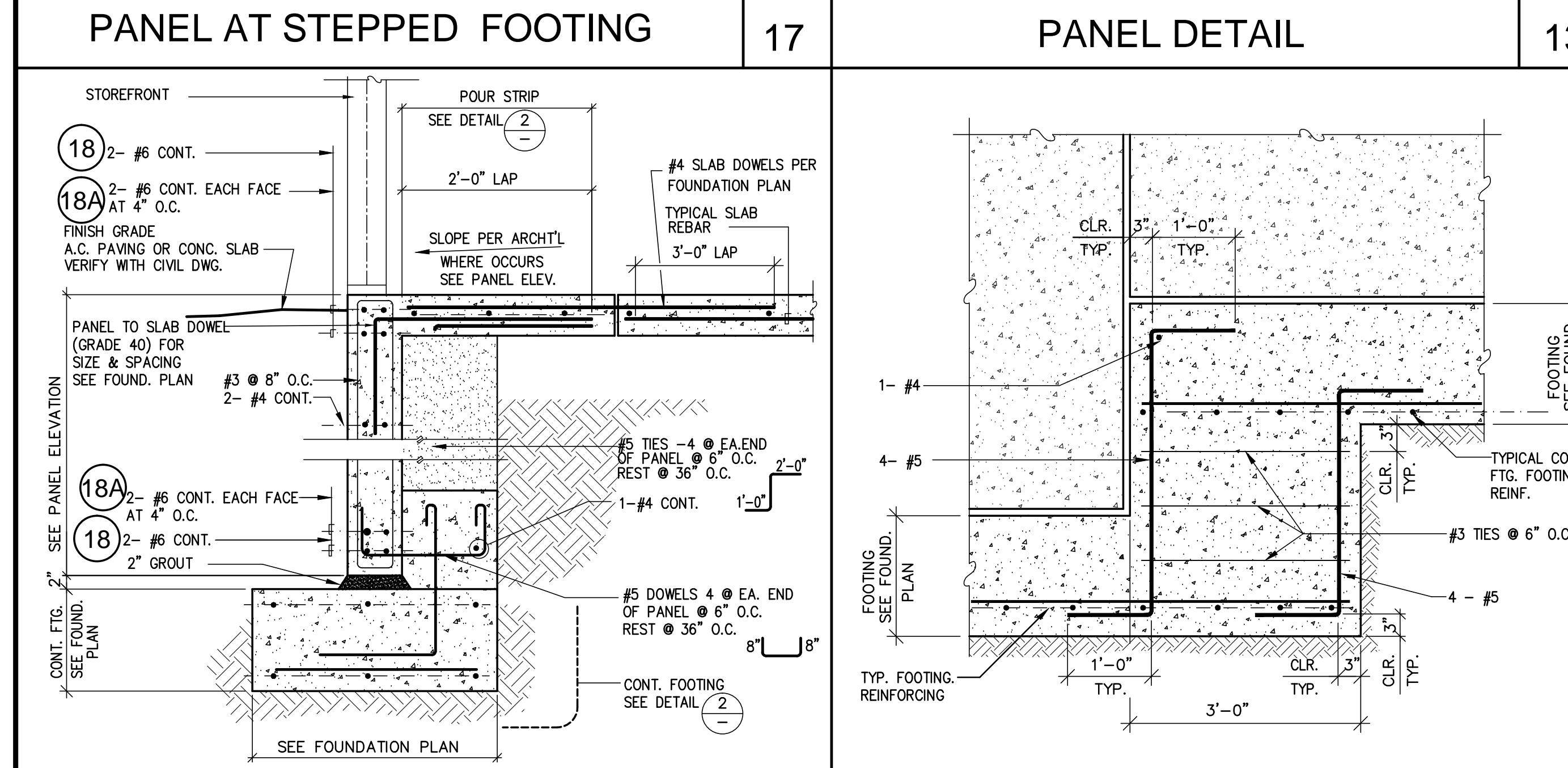
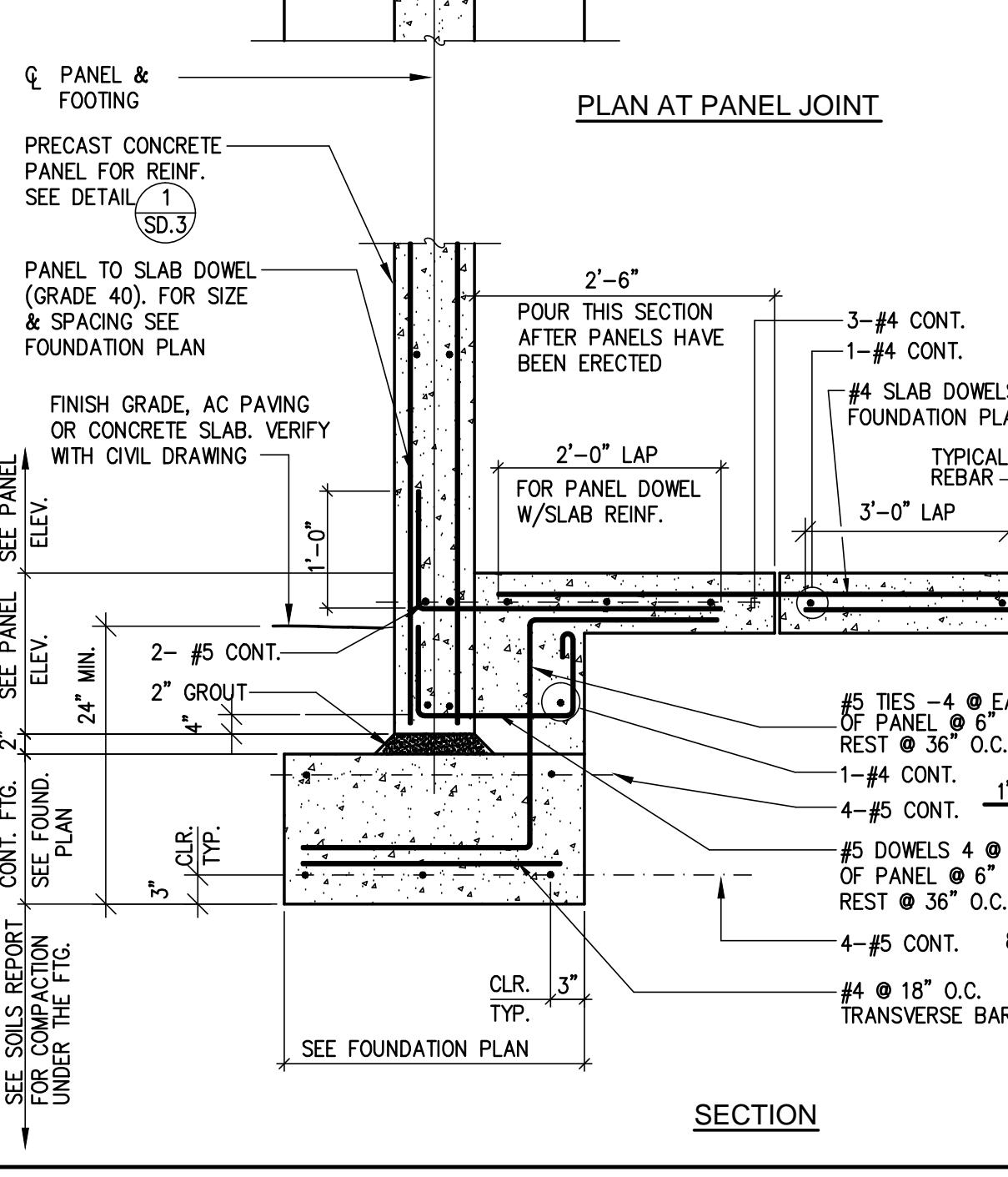
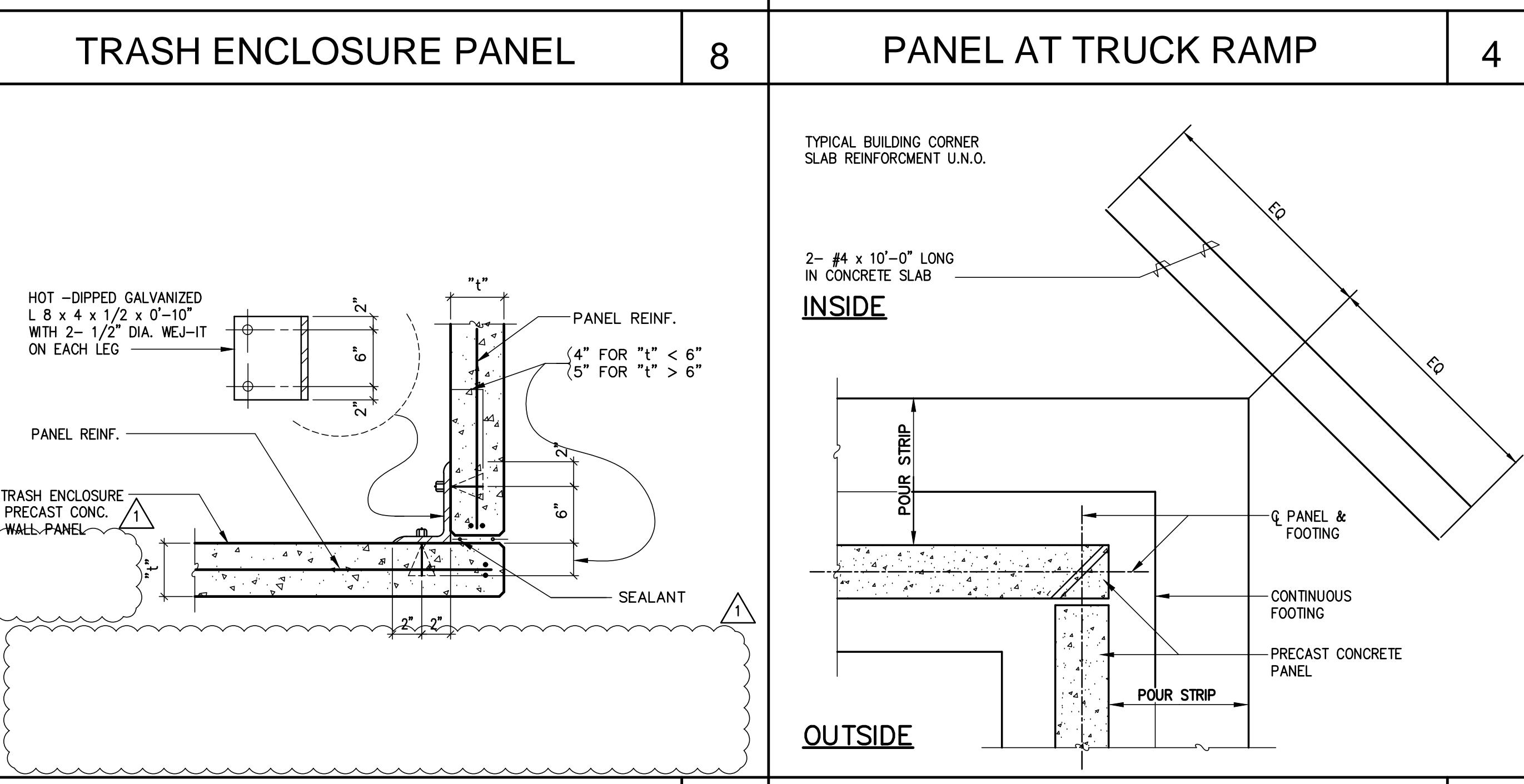
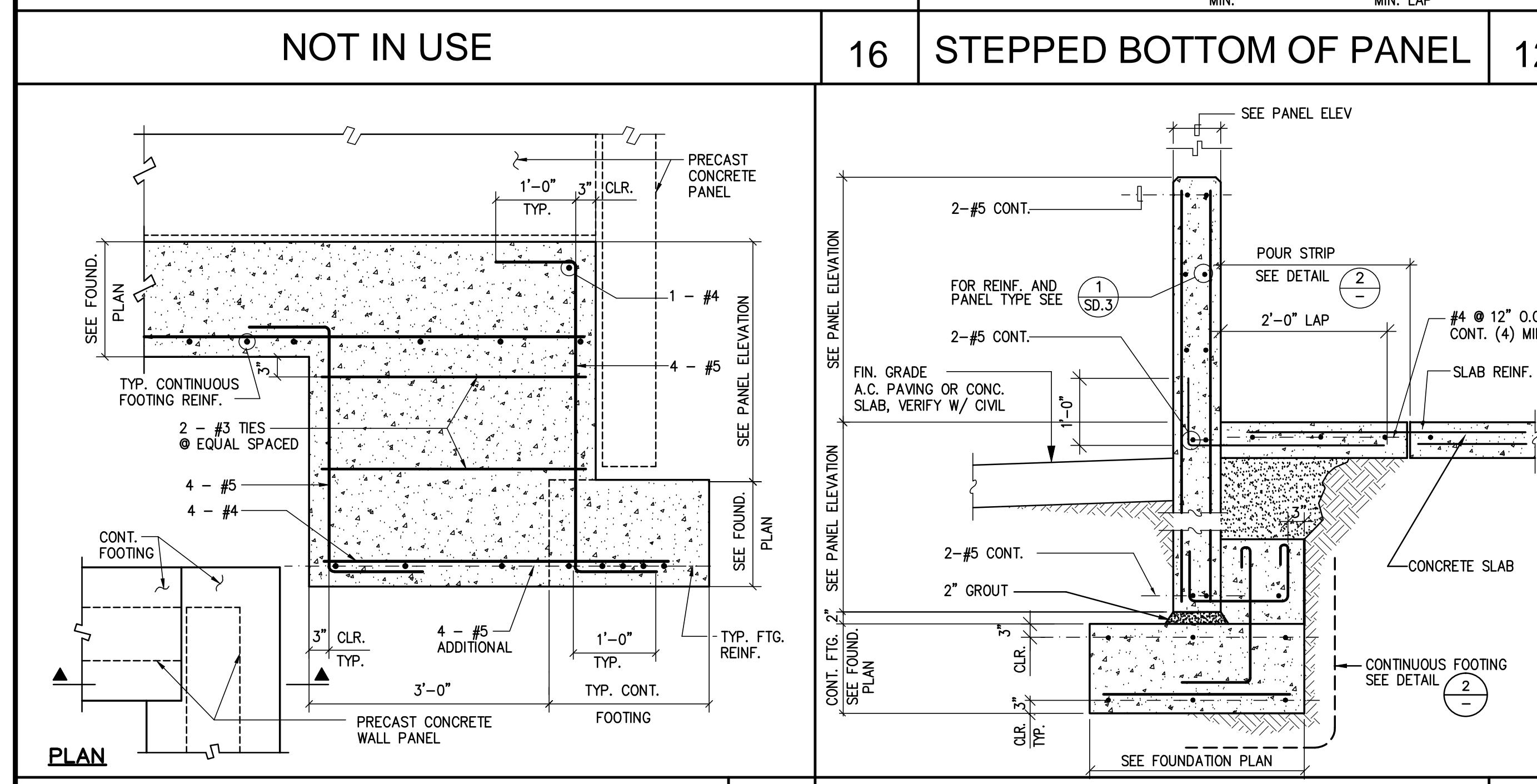
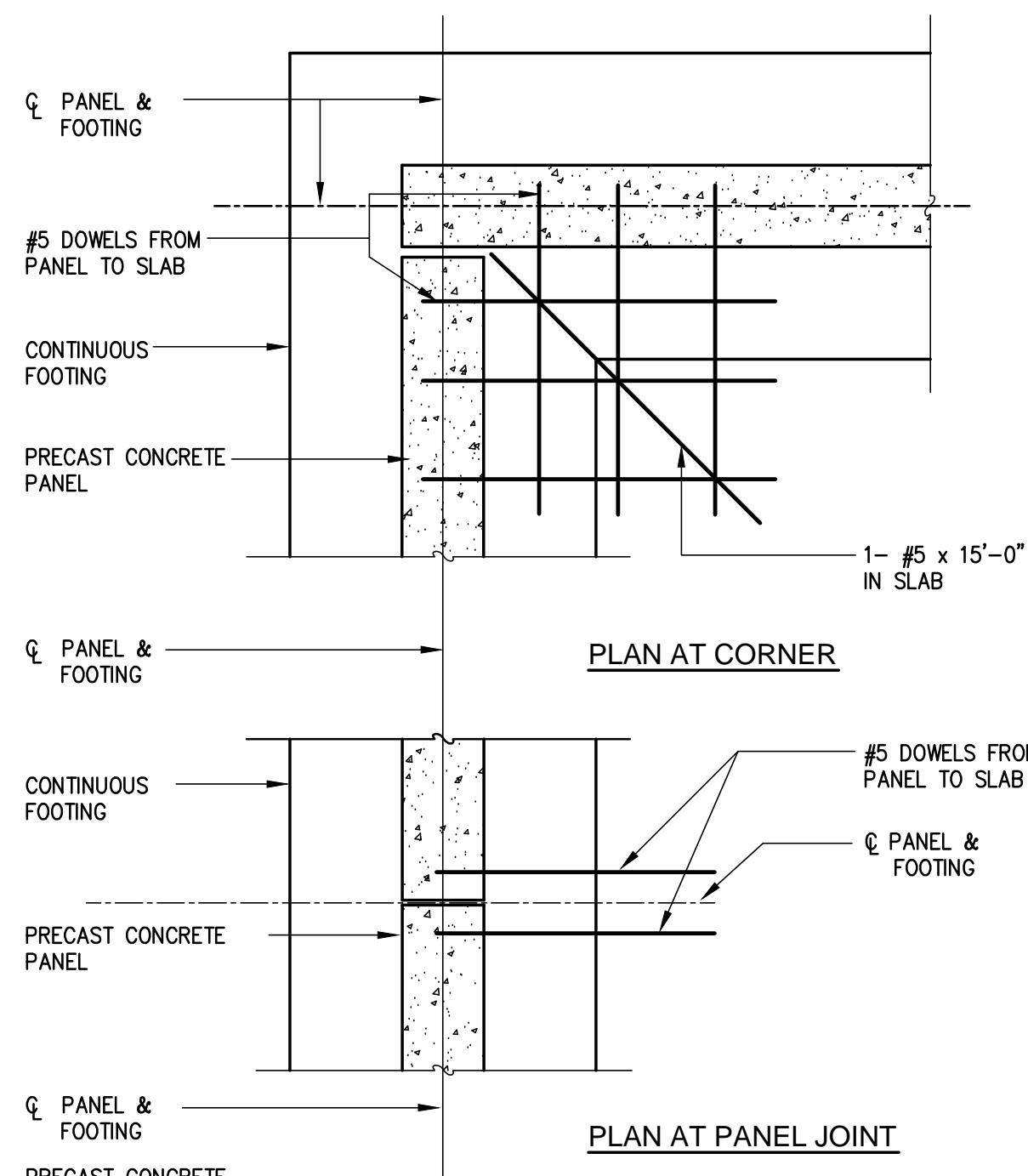
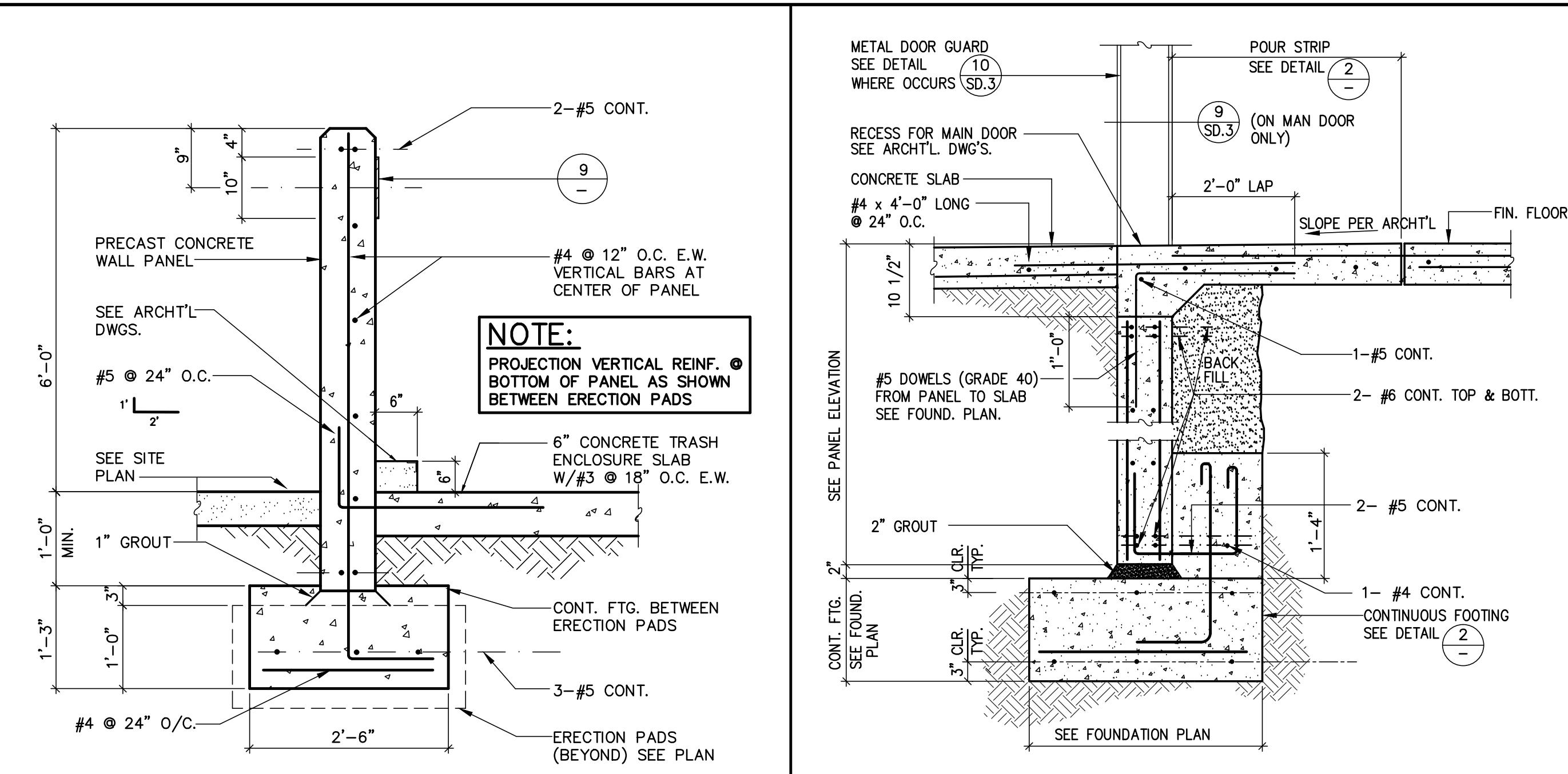
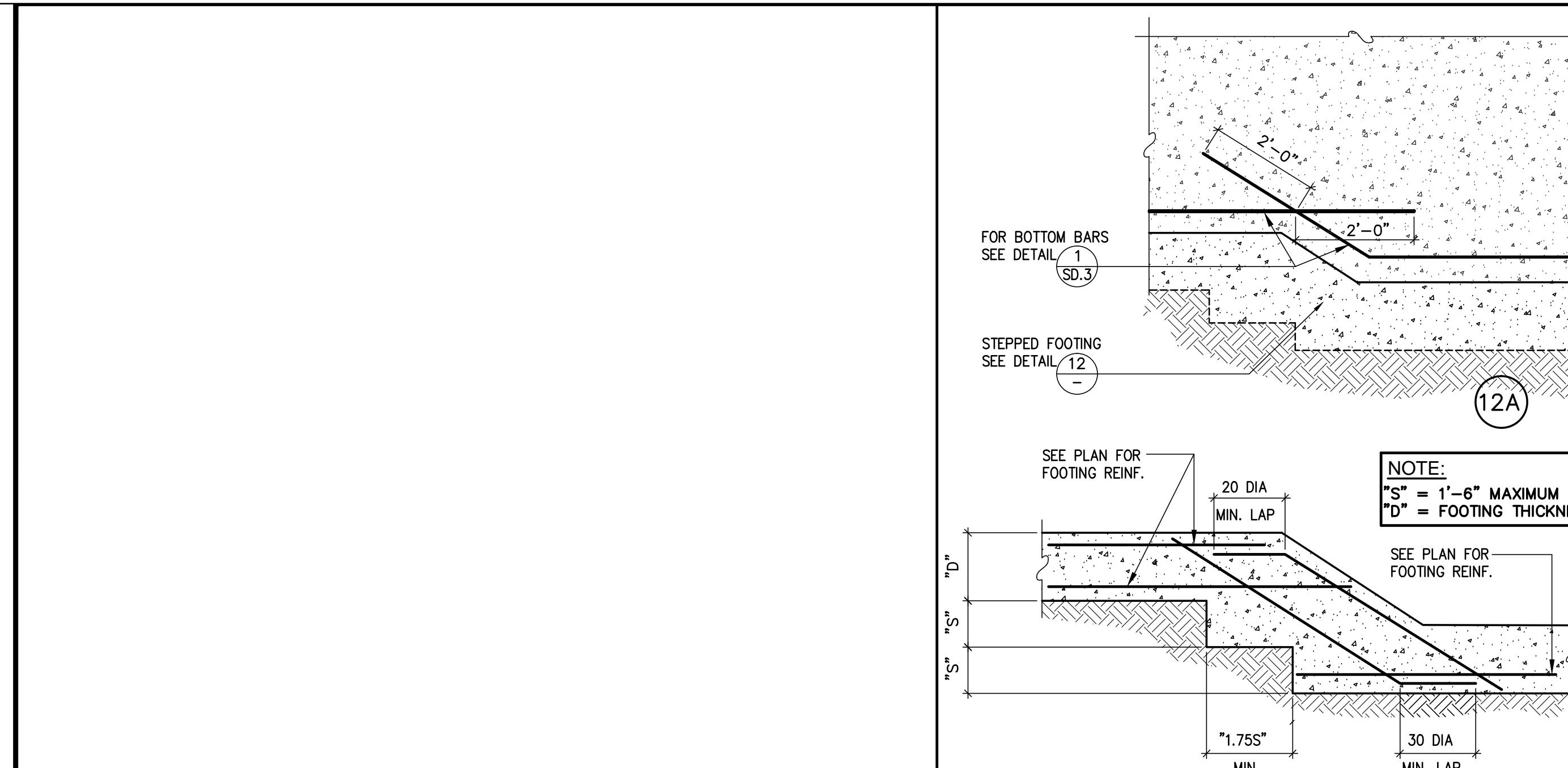
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CONSTRUCTION AND CONTROL JOINTS (APRON SLAB)

8

CONSTRUCTION AND CONTROL JOINTS (OFFICE)

4



Owner:
CROWN
ASSOCIATES
REALTY, INC.

9777 WILSHIRE BLVD, STE#711
BEVERLY HILLS, CA 90212
tel: 310-272-7777
fax: 310-278-0109

Project:
71K DISTRIBUTION
FACILITY

14141 ARBOR PLACE,
CERRITOS, CA 90703



Consultants:
CIVIL Thienes Engineering
STRUCTURAL BTI Engineers
MECHANICAL Orange County Air
PLUMBING Tallon Plumbing
ELECTRICAL Current Electric
LANDSCAPE Lewis & Associates
FIRE PROTECTION Active Fire Protection
SOILS ENGINEER Feffer Geological

Title:
PANEL DETAILS

Project Number: 15060
Drawn by: VB
Date: 4-14-2017
Revision:

△ PLAN CHECK CORRECTIONS 07-20-17

Sheet:

SD-3

BID SET 8/10/17

LINTEL PANEL 12

TYPICAL PANEL REINFORCEMENT AND SCHEDULE 1

PANEL REBAR SCHEDULE

| PANEL TYPE | THICKNESS | CONCRETE* STRENGTH | VERTICAL REBAR | HORIZONTAL REBAR | CLEARANCE TO VERT. BARS |
|------------|------------------|--------------------|--------------------|--------------------|-------------------------|
| A | 8 1/2" | 4000 psi | #5 @ 10" O.C. E.F. | #4 @ 16" O.C. E.F. | 1 1/4" |
| B | 8 1/2" | 4000 psi | #5 @ 18" O.C. E.F. | #4 @ 16" O.C. E.F. | 1 1/4" |
| C | 8 1/2" | 4000 psi | #5 @ 18" O.C. E.F. | #4 @ 16" O.C. E.F. | 1 1/4" |
| D | 8 1/2" - 12 1/2" | 4000 psi | #5 @ 18" O.C. E.F. | #4 @ 12" O.C. E.F. | 1 1/4" |
| F | 12 1/2" | 4000 psi | #5 @ 12" O.C. E.F. | #4 @ 12" O.C. E.F. | 1 1/4" |

TYPICAL PANEL REINFORCEMENT SCHEDULE 7

PANEL JOINT DETAILS 2

TYPICAL LINTEL DETAIL 8

TYPICAL CORNER CONNECTION 5

TYPICAL OPENING 3

KNOCK-OUT PANEL DETAIL 11

TYPICAL DOOR GUARD 10

UNEVEN PANEL THICKNESS 6

LEDGER CHANNEL CONNECTION 4

TYPICAL MAN DOOR OPENING 15

PANEL TYPES "D"

PANEL TYPES "C"

PANEL TYPES "B"

PANEL TYPE "A"

SECTION

PANEL REBAR SCHEDULE

| PANEL TYPE | VERTICAL REINFORCEMENT | TIES AND SPACING AT OPENINGS |
|------------|------------------------|------------------------------|
| 7A | 3-#6 EACH FACE | #3 @ 4" O.C. |
| 7B | 4-#6 EACH FACE | #3 @ 4" O.C. |
| 7C | 5-#6 EACH FACE | #3 @ 4" O.C. |
| 7D | 6-#6 EACH FACE | #3 @ 4" O.C. |
| 7E | 7-#6 EACH FACE | #3 @ 4" O.C. |
| 7F | 8-#6 EACH FACE | #3 @ 4" O.C. |
| 7G | 9-#6 EACH FACE | #3 @ 4" O.C. |
| 7H | 10-#6 EACH FACE | #3 @ 4" O.C. |
| 7J | 11-#6 EACH FACE | #3 @ 4" O.C. |

MITTER JOINT (C)

BUTT JOINT (B)

PLAN BELOW LEDGER (A)

EXTERIOR

INTERIOR

SECTION A

SECTION B

SECTION C

SECTION D

SECTION E

SECTION F

SECTION G

SECTION H

SECTION I

SECTION J

SECTION K

SECTION L

SECTION M

SECTION N

SECTION O

SECTION P

SECTION Q

SECTION R

SECTION S

SECTION T

SECTION U

SECTION V

SECTION W

SECTION X

SECTION Y

SECTION Z

SECTION AA

SECTION BB

SECTION CC

SECTION DD

SECTION EE

SECTION FF

SECTION GG

SECTION HH

SECTION II

SECTION JJ

SECTION KK

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SECTION IIIIII

NOTE: IF THIS SHEET IS NOT 30"X42" IT IS A REDUCED PRINT

GIRDER AT PANEL 13

EXHAUST FAN PLATFORM DETAIL 14

WF BEAM AT PANEL JOINT 15

ROOF FRAMING DETAIL 11

ROOF FRAMING DETAIL 10

BRACING AT BEAM 16

STRAP AT ROOF DETAIL 12

SUB-PURLIN TO JOIST 8

GIRDERS AT CONCRETE PANEL 1

SUB-PURLIN TO CONCRETE PANEL 2

STEEL BAR JOIST TO GIRDERS 7

TYPICAL SKYLIGHT OPENING 5

TYP. ROOF OPENING DETAIL 3

PANELIZED ROOF DETAIL 4



| | | | |
|-----------|-----------|-----------|----------|
| DETAIL 13 | DETAIL 12 | DETAIL 7 | DETAIL 1 |
| | | | |
| DETAIL 13 | DETAIL 12 | DETAIL 7 | DETAIL 1 |
| | | | |
| DETAIL 8 | DETAIL 9 | DETAIL 5 | DETAIL 3 |
| | | | |
| DETAIL 12 | DETAIL 11 | DETAIL 10 | DETAIL 6 |
| | | | |



Consultants:
CIVIL Thienes Engineering
STRUCTURAL BTI Engineers
MECHANICAL Orange County Air
PLUMBING Tallon Plumbing
ELECTRICAL Current Electric
LANDSCAPE Lewis & Associates
FIRE PROTECTION Active Fire Protection
SOILS ENGINEER Feffer Geological

Title:

**FRAMING AND
MISCELLANEOUS DETAILS**

Project Number: 15060

Drawn by: VB

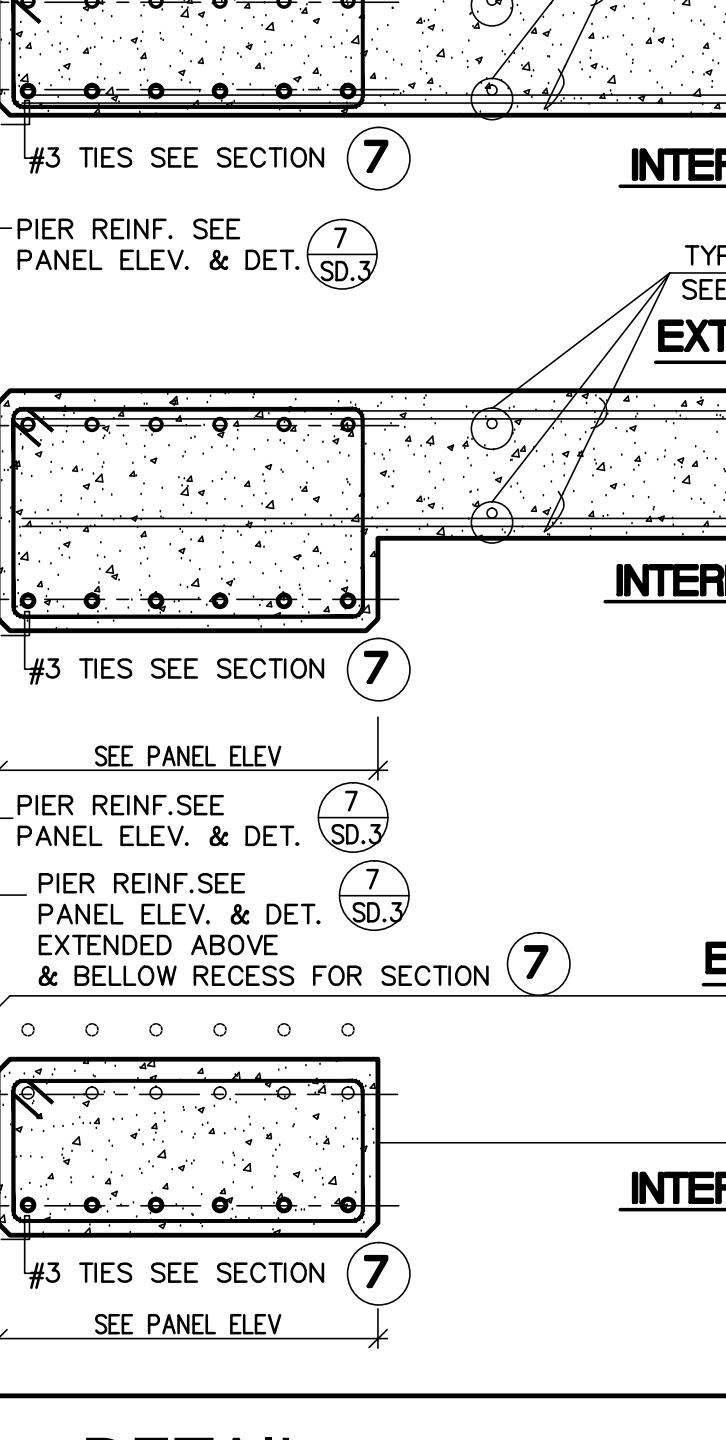
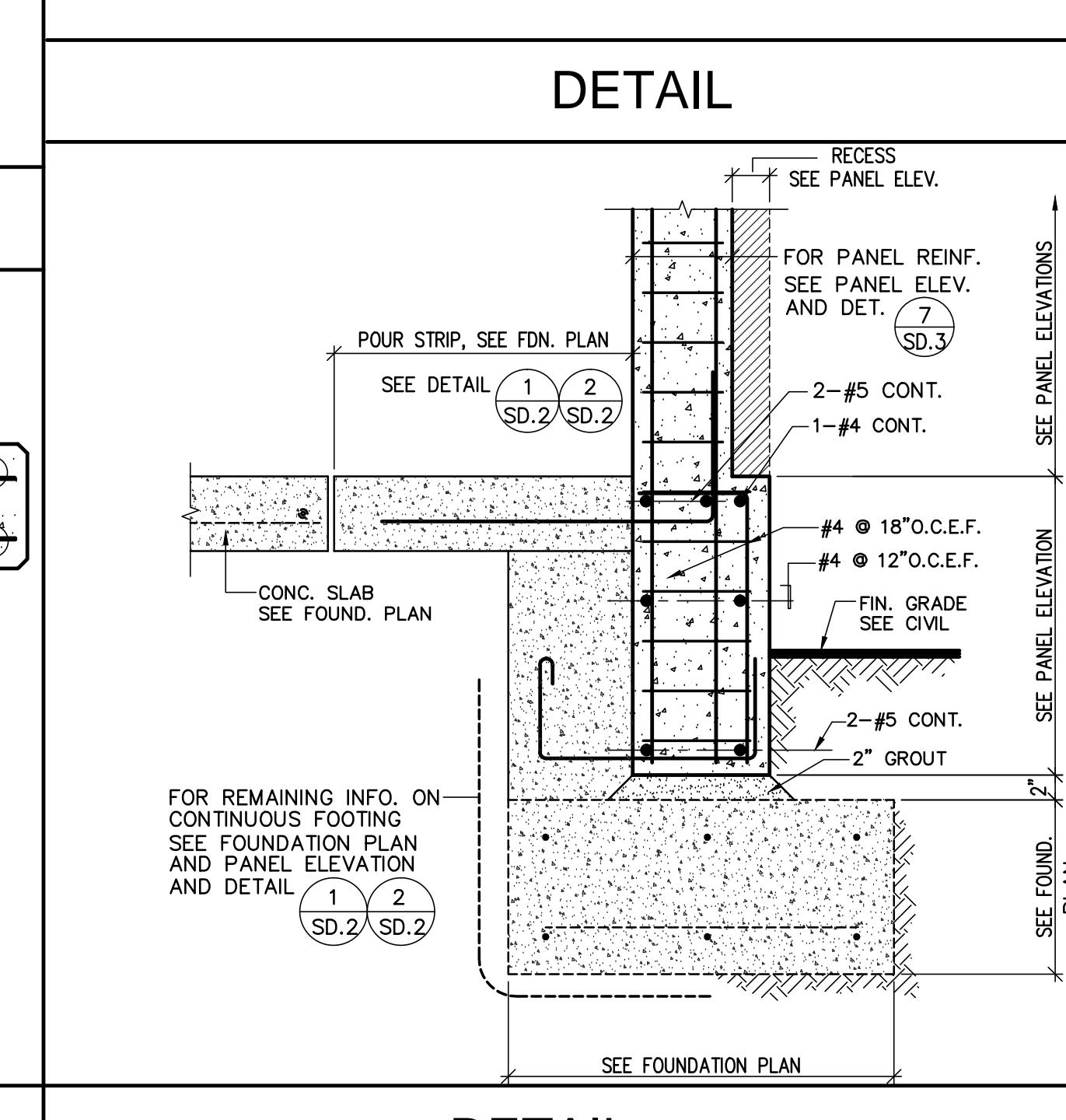
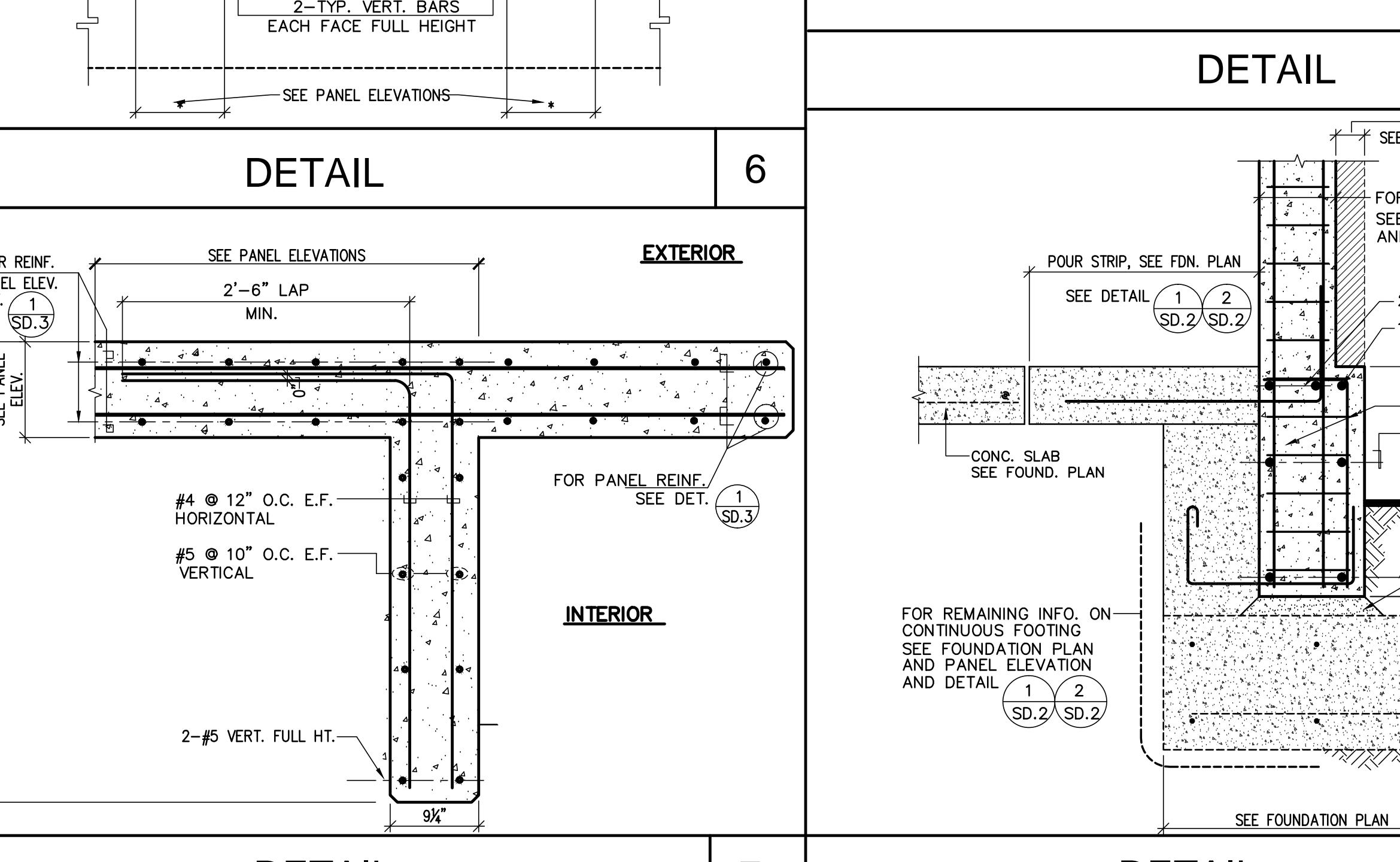
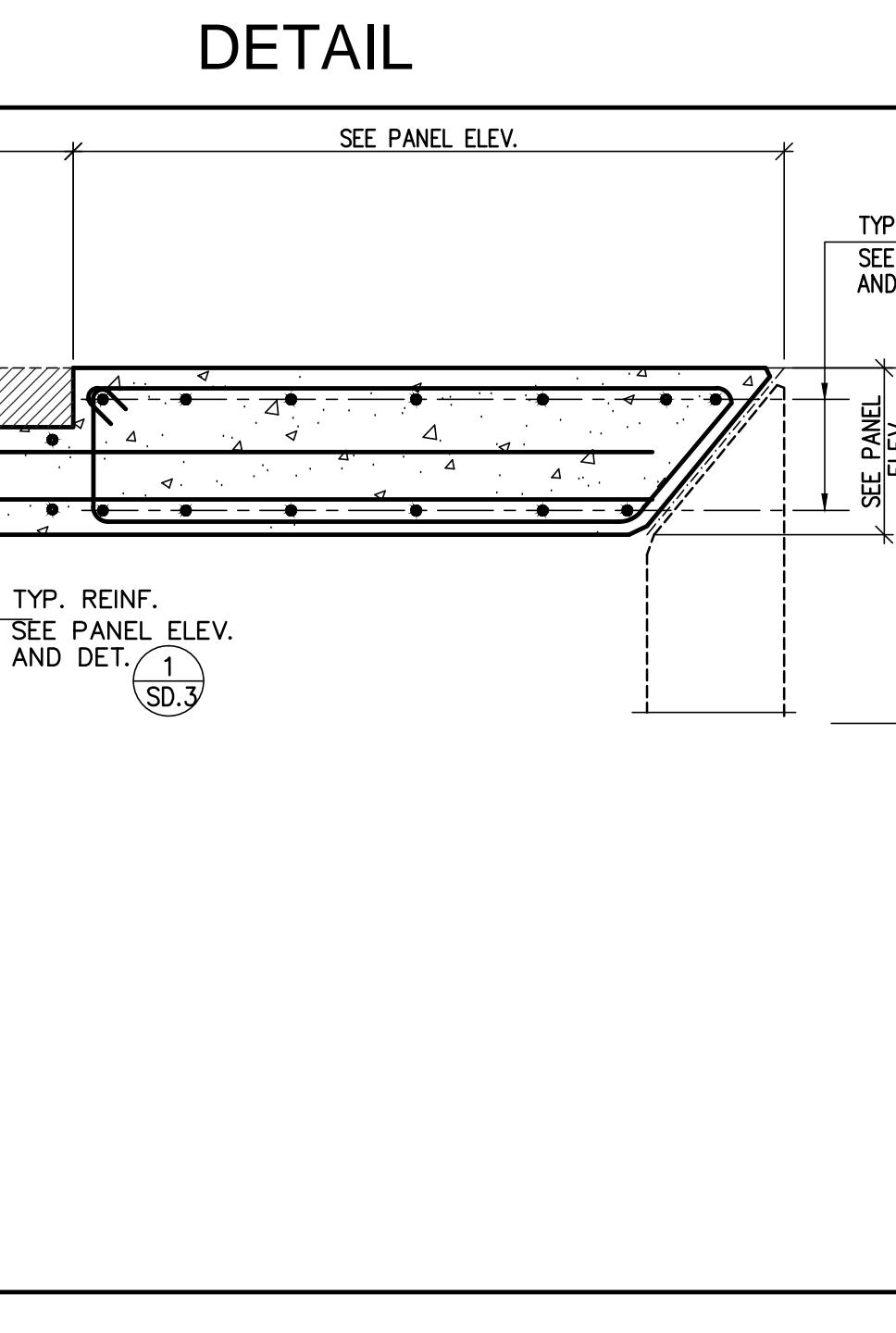
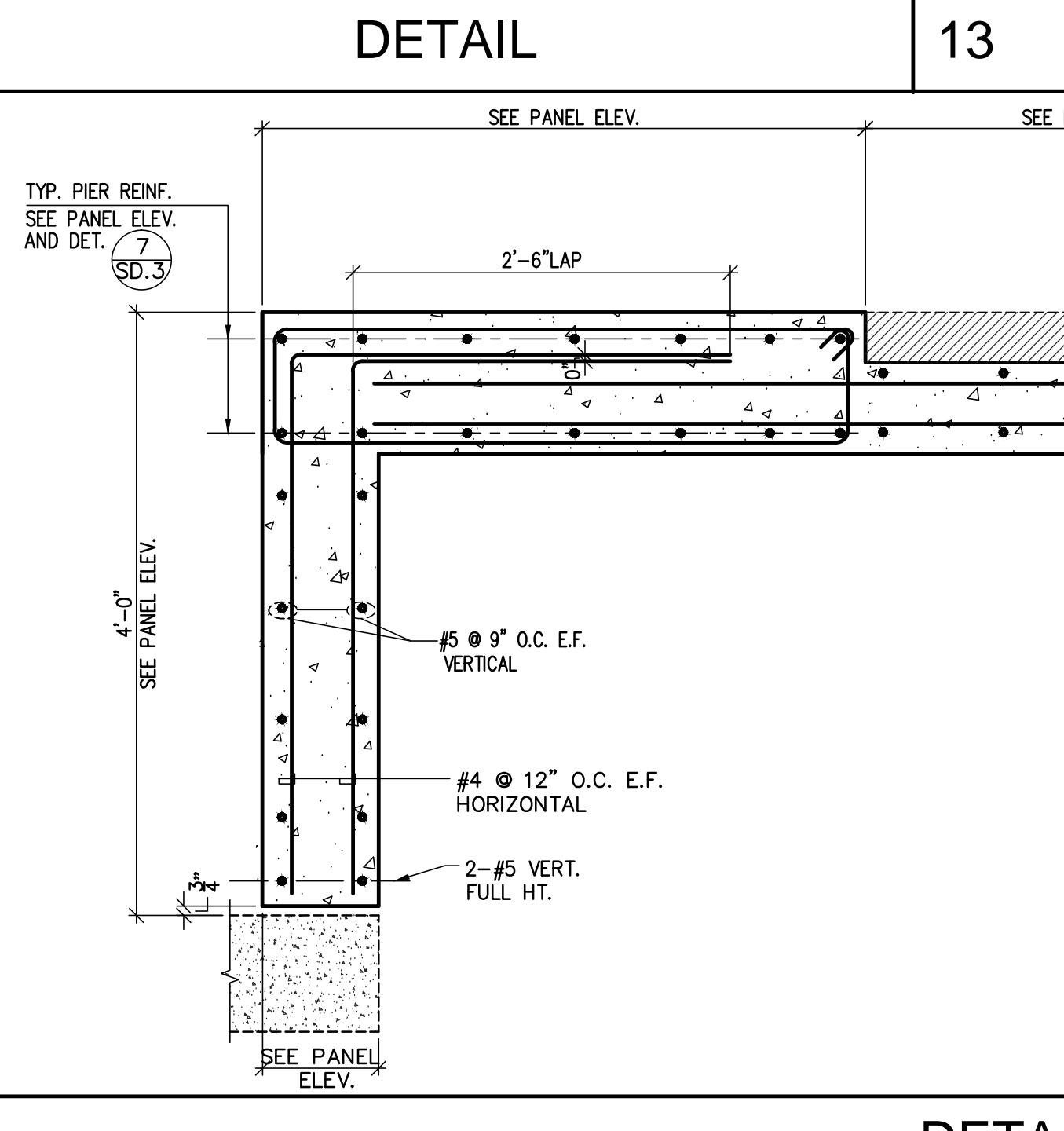
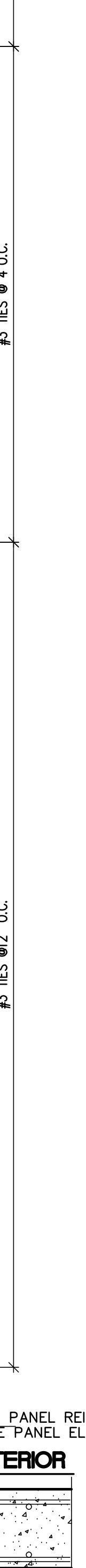
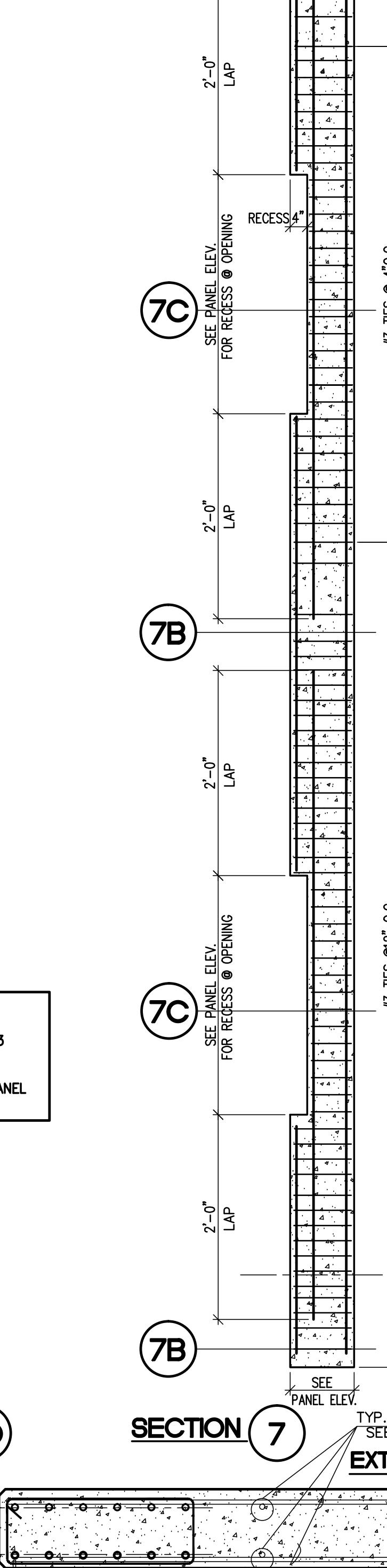
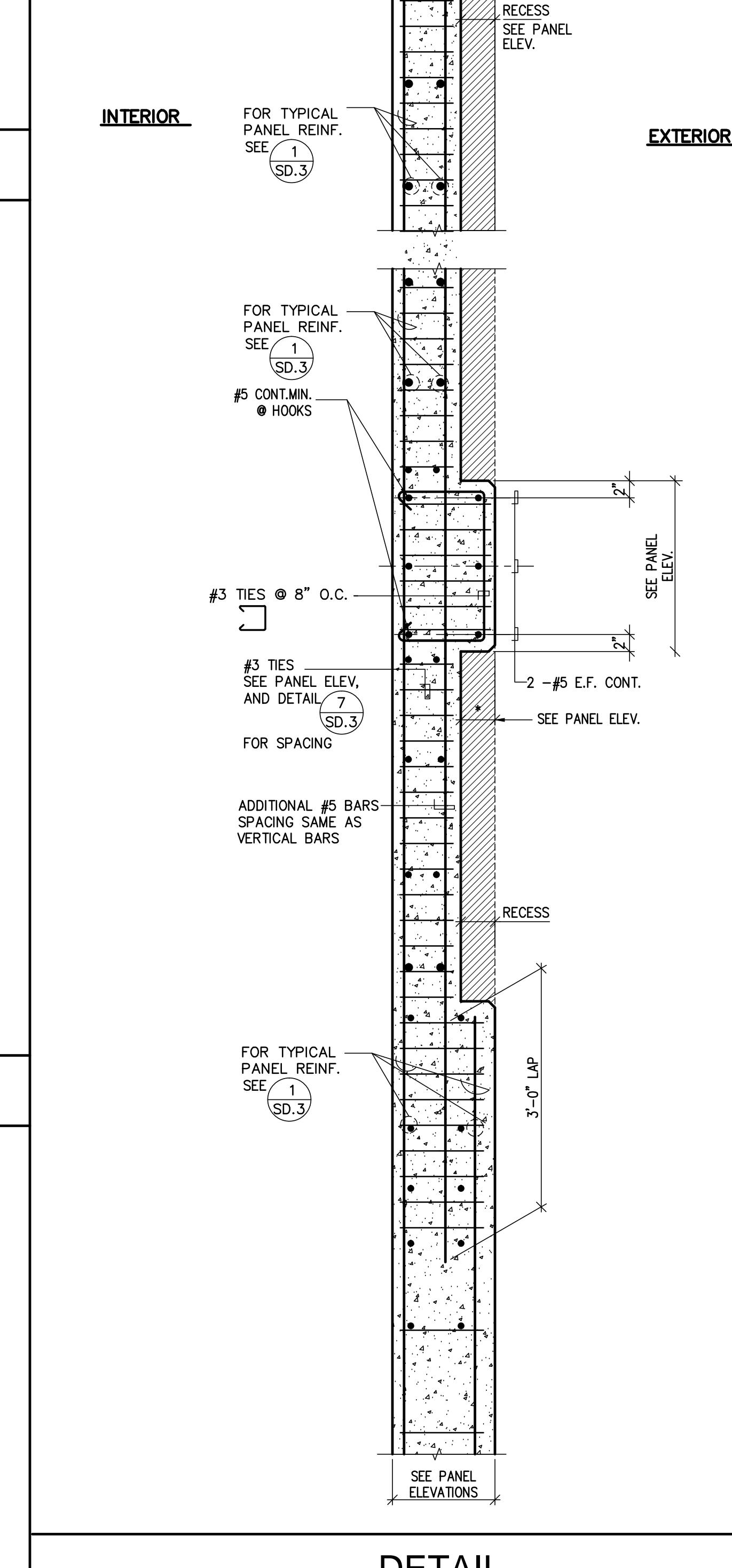
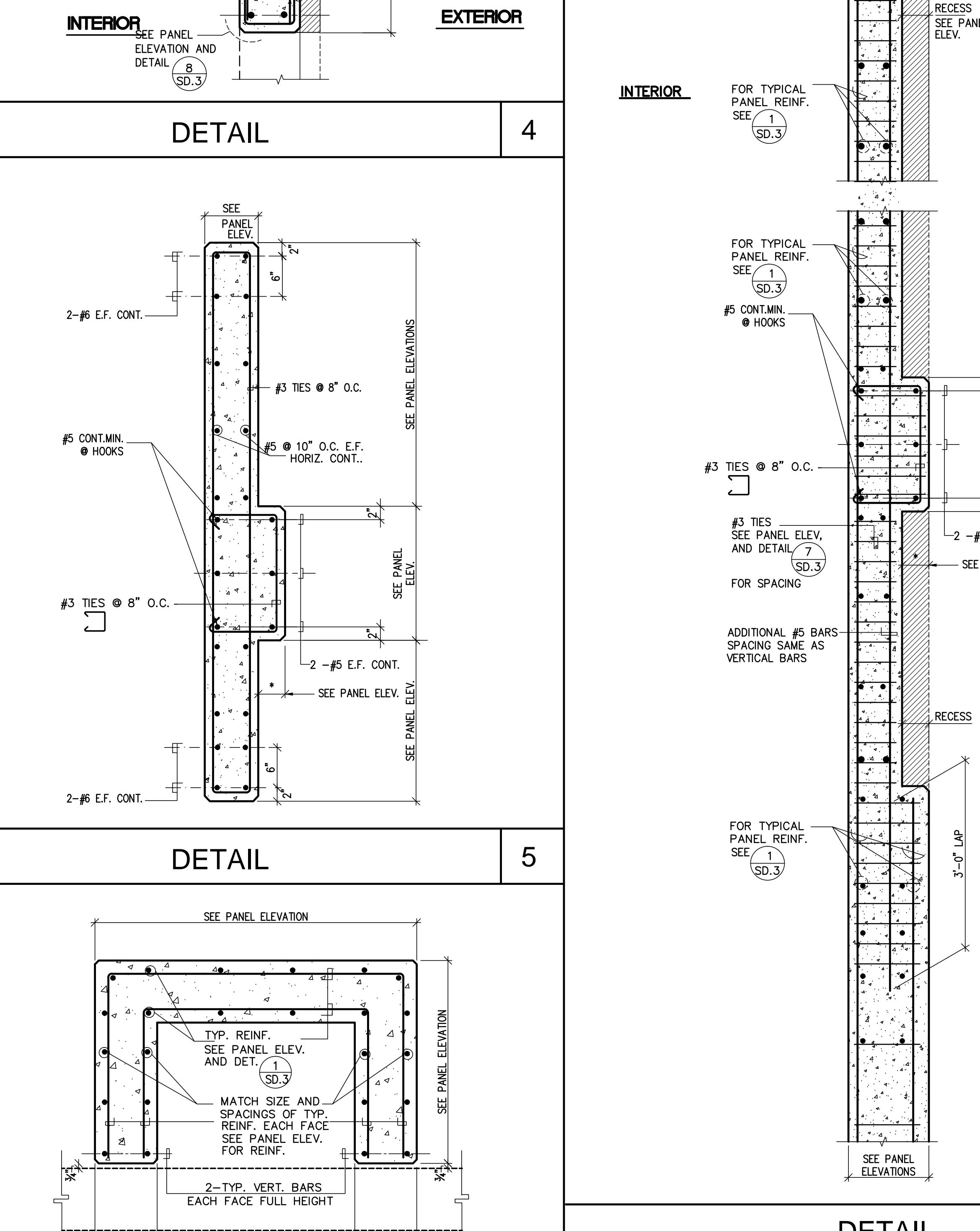
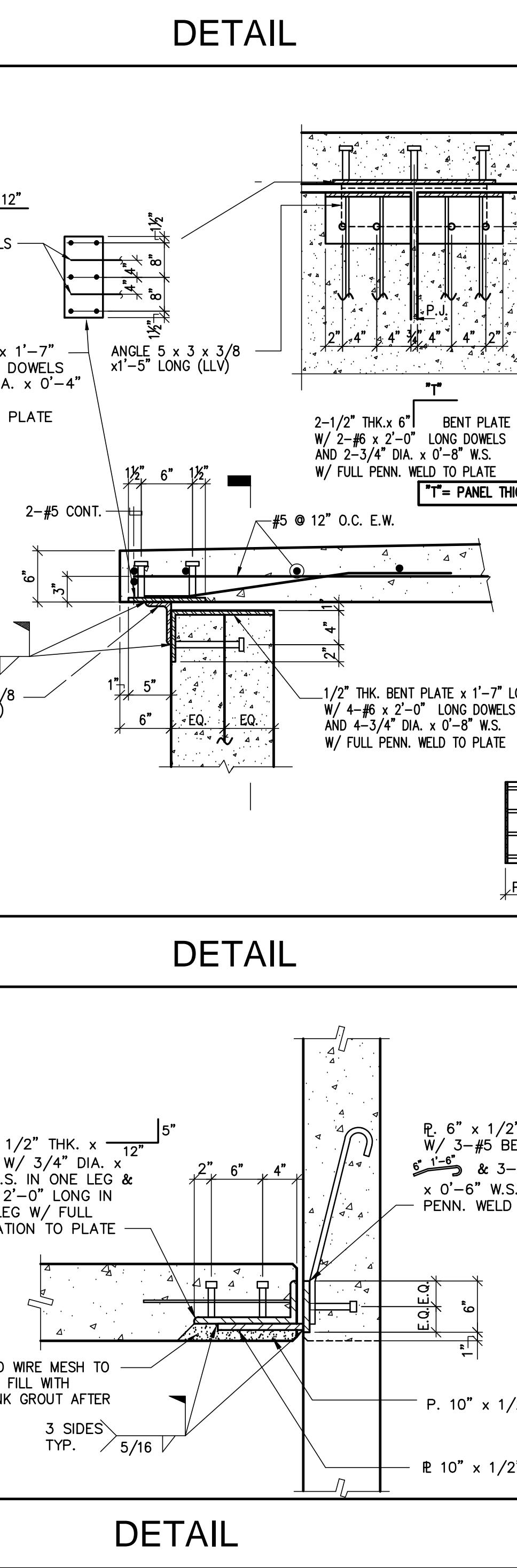
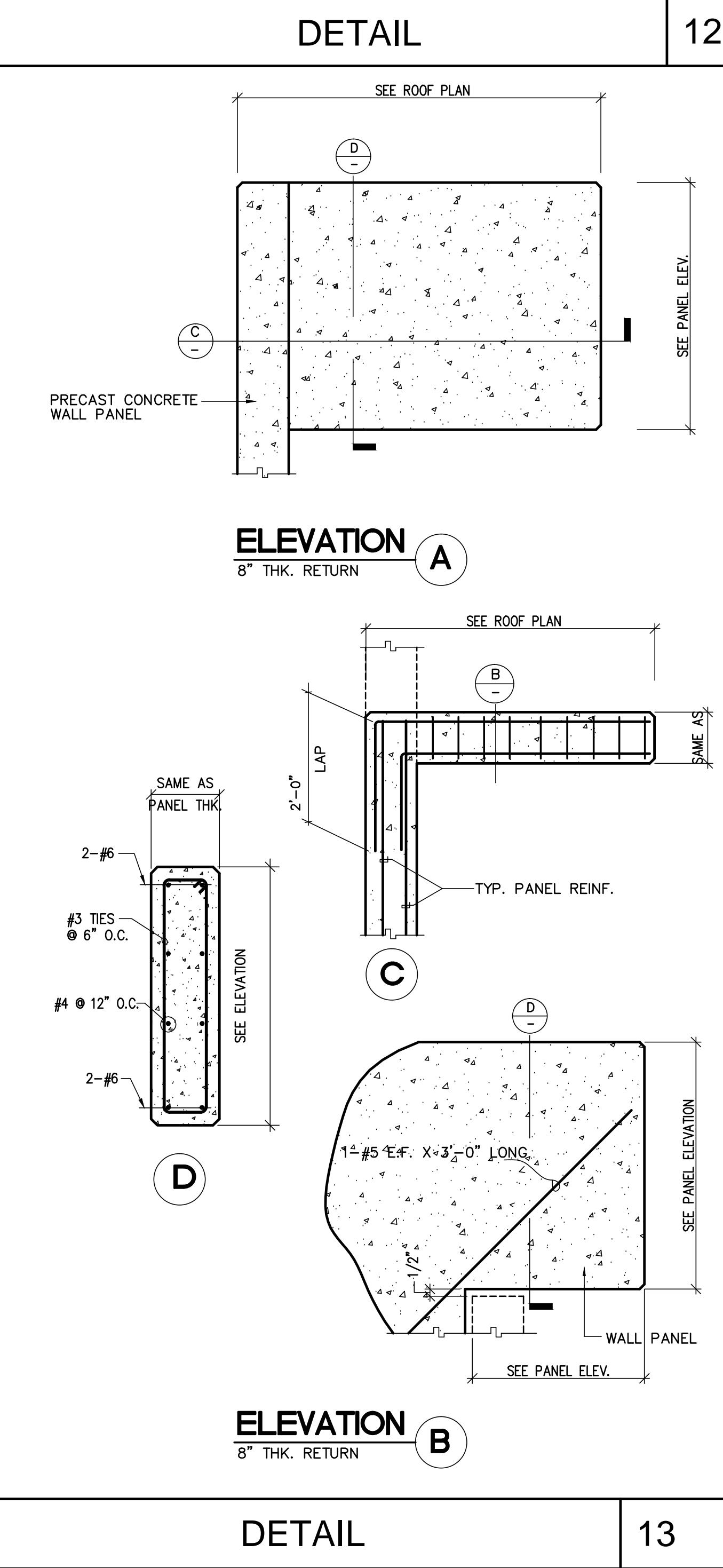
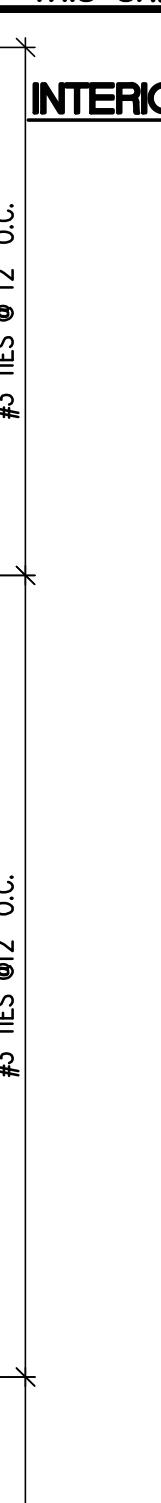
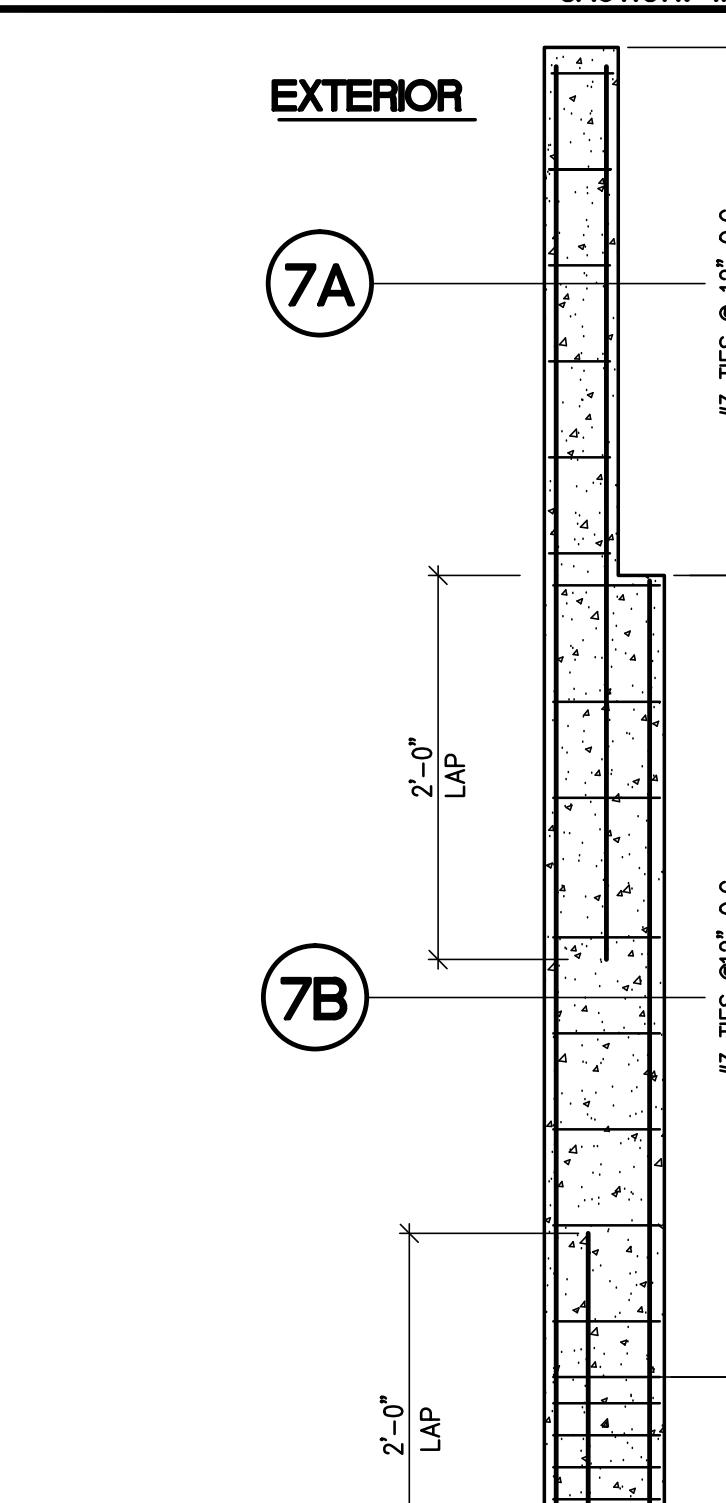
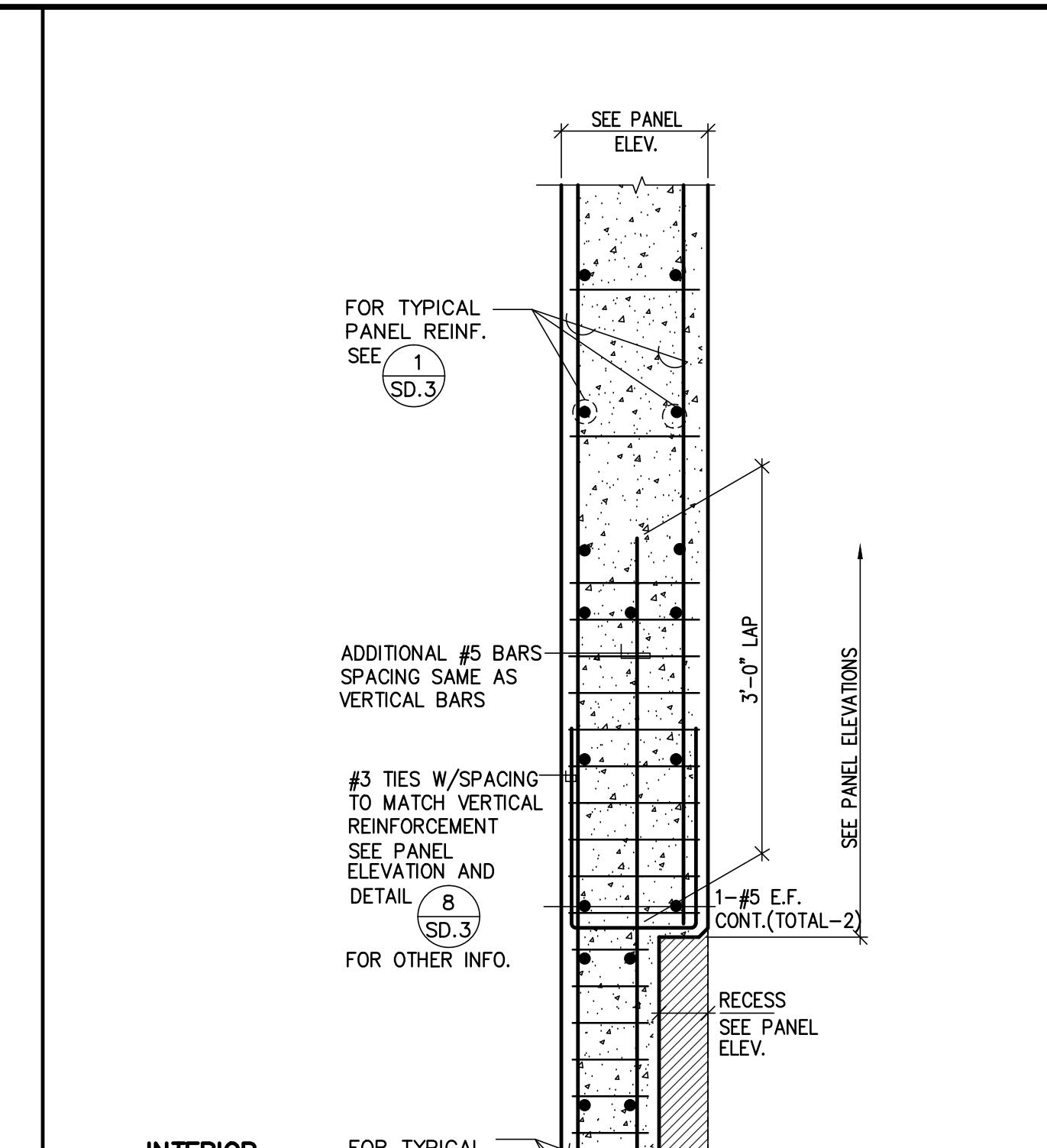
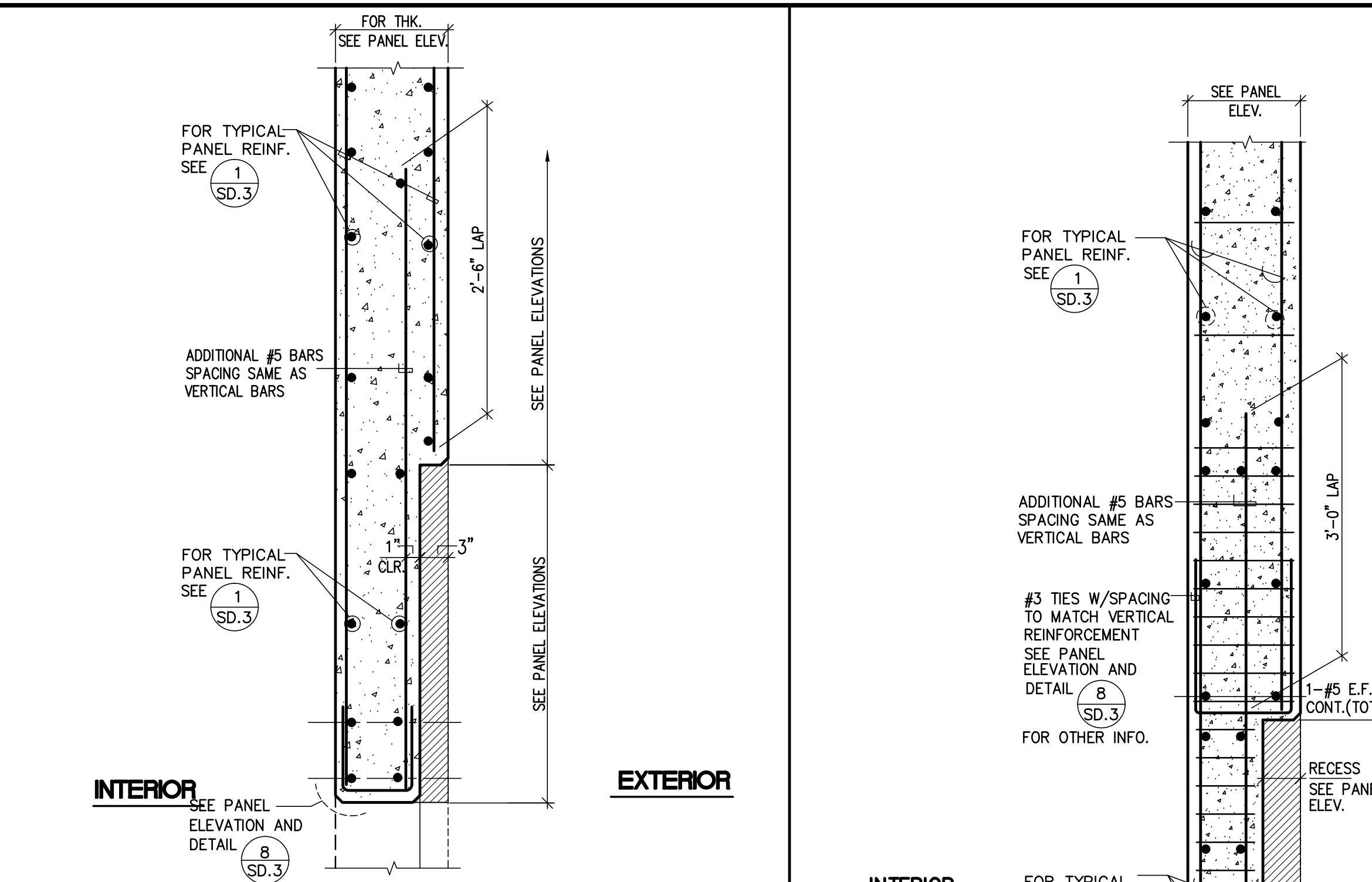
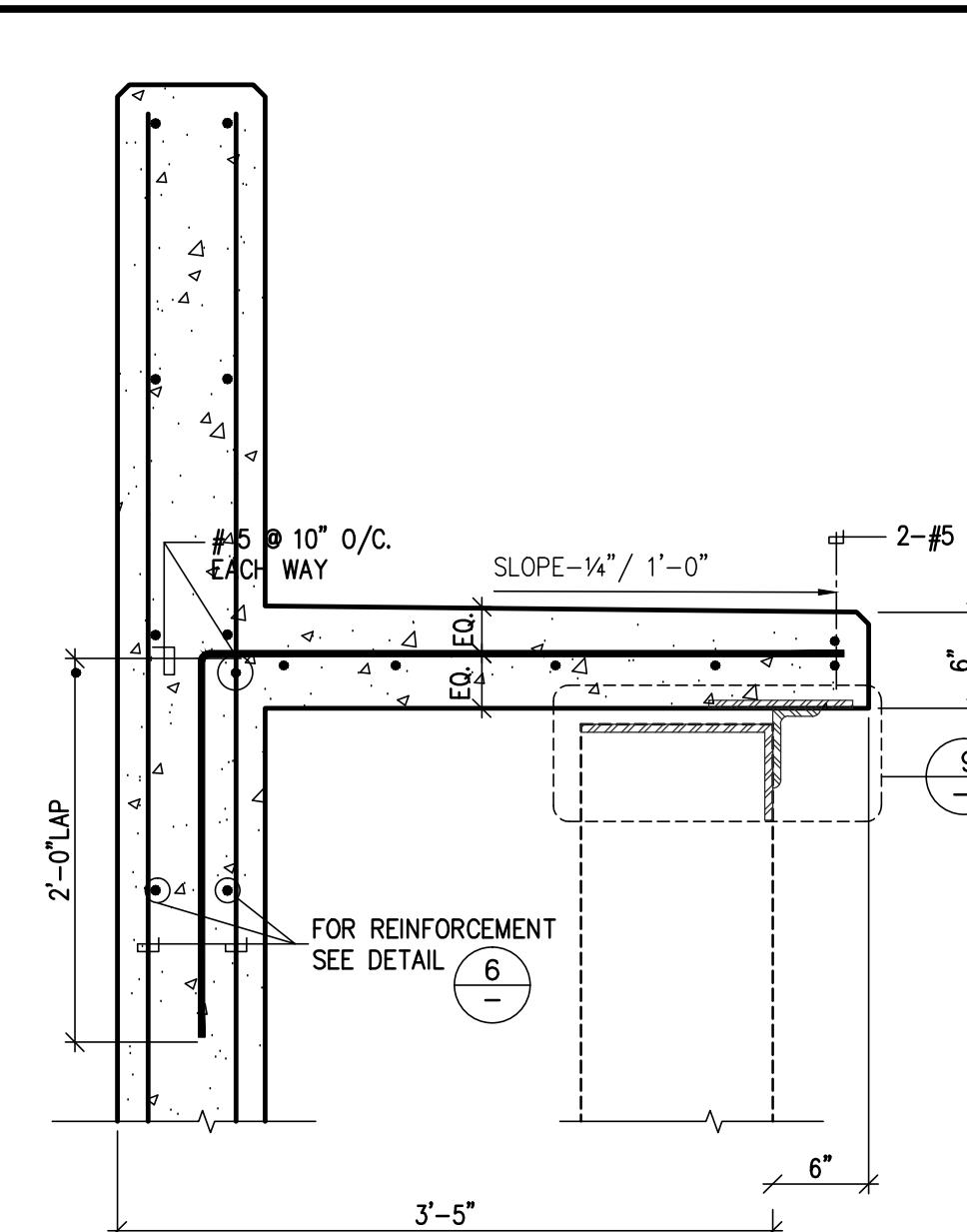
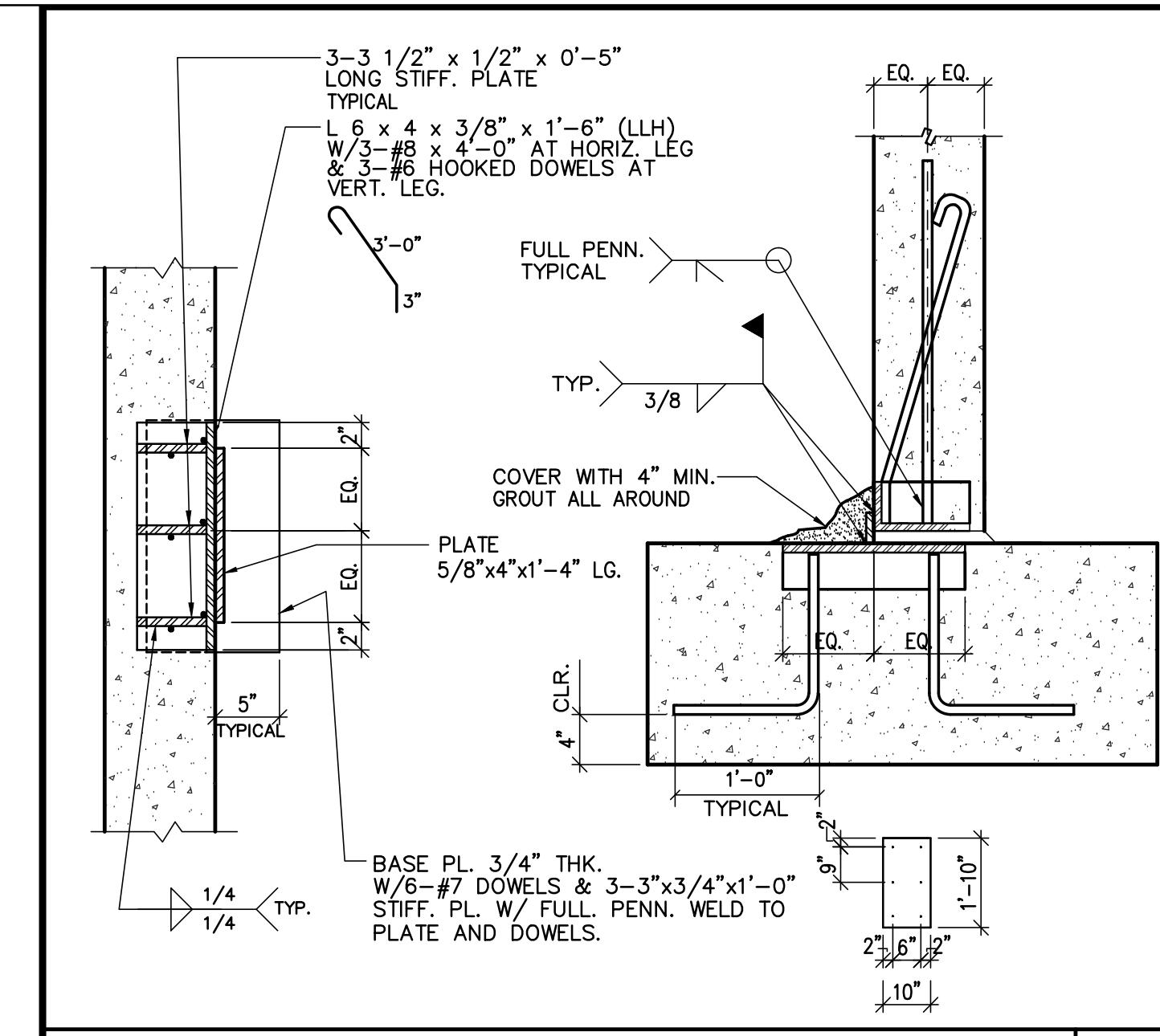
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Revision:

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SD-6

BID SET 8/10/17



DETAIL 11

11

DETAIL 7

7

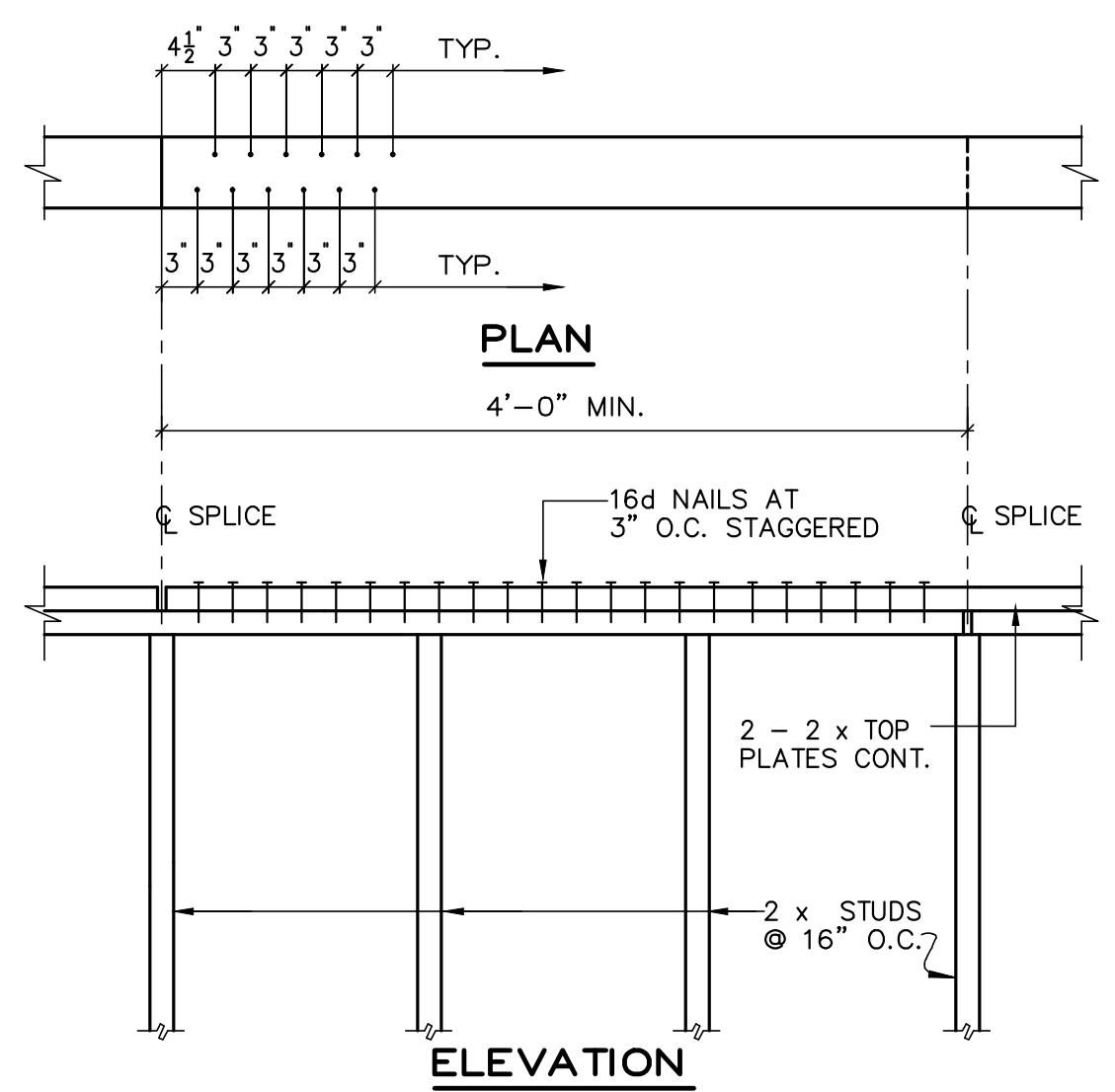
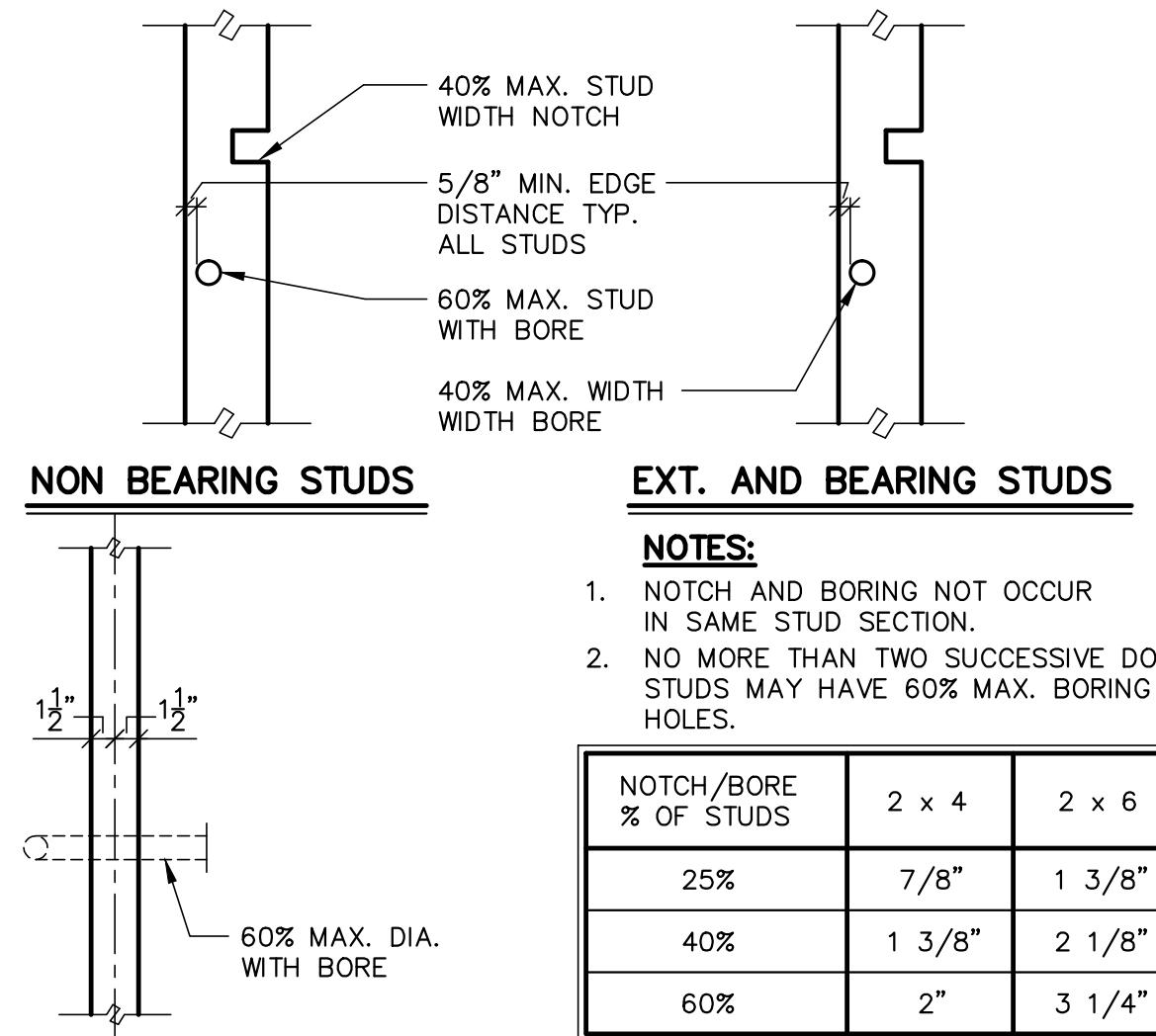
DETAIL 3

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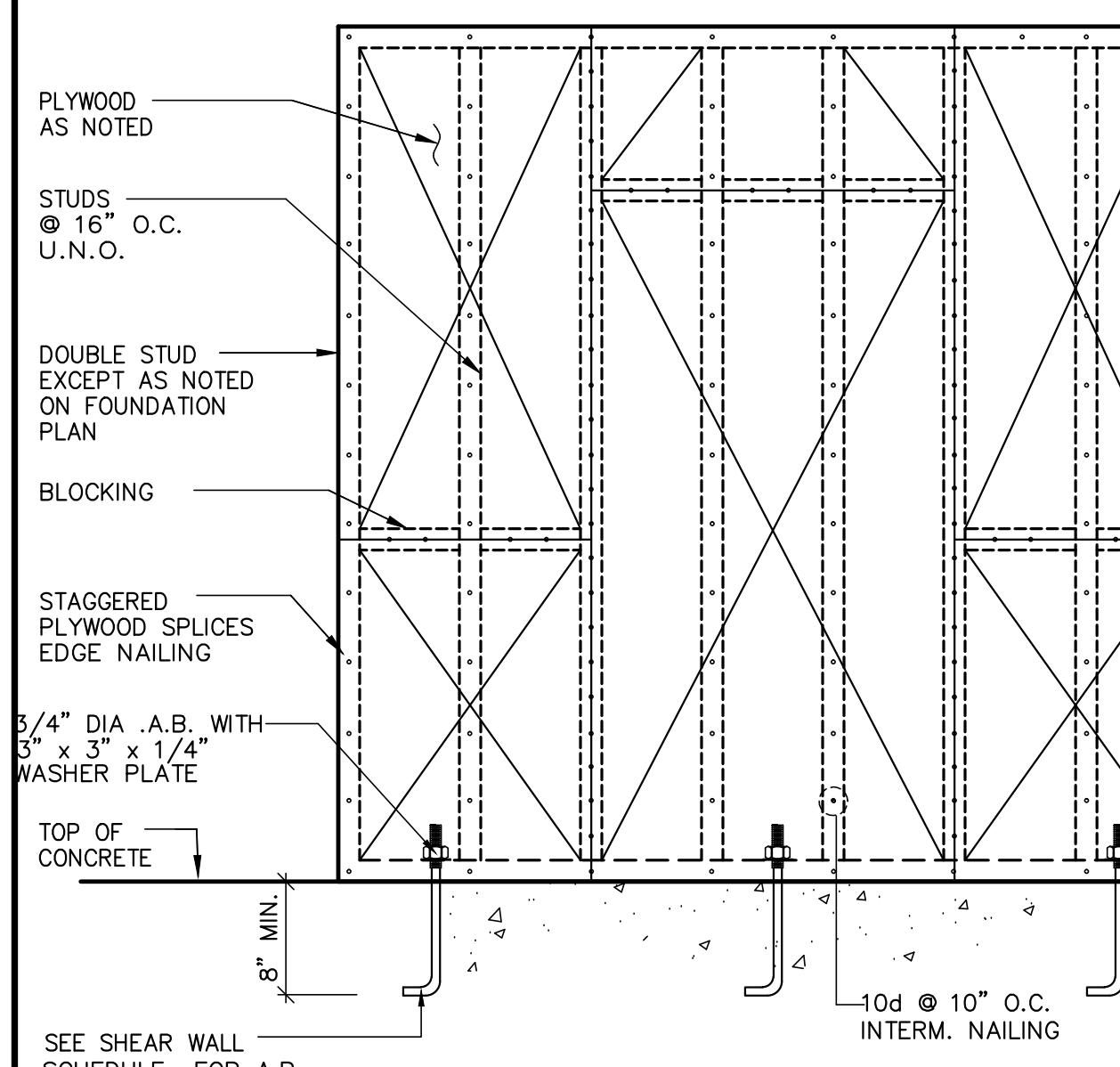
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| NUMBER OF NAILS REQUIRED FOR CONNECTING WOOD MEMBERS UNLESS NOTED OTHERWISE | |
|---|-----------------------|
| CONNECTION | (NAILS BOX OR COMMON) |
| BRIDGING TO JOIST - TOE NAIL | 2 - 8d EACH END |
| JOIST TO SILL OR GIRDER - TOE NAIL | 3 - 18d |
| DOUBLE STUDS, FACE NAIL | 16d @ 24" O.C. |
| DOUBLE TOP PLATES, FACE NAIL | 16d @ 16" O.C. |
| STUD TO PLATE-END NAIL | 2 - 16d |
| STUD TO PLATE-TOE NAIL | 3 - 16d OR 4 - 8d |
| CONT. HEADER TO STUD-TOE NAIL | 4 - 18d |
| TOP PLATE INTERSECTIONS | 2 - 16d |
| TOP PLATE-SPICES | 10 - 16d EX. STUD |
| CEILING JOISTS TO PLATE-TOE NAIL | 2 - 16d |
| CEILING JOISTS LAP OVER PARTITION | 3 - 16d |
| CEILING JOISTS PARALLEL ALT. RAFTER | 4 - 16d |
| RAFTERS WHERE LAPPED OVER BEARING | 2 - 8d |
| CONT. 1" DIAGONAL BRACING | 2 - 16d |
| TWO CUT-IN STUD BRACING | 16d @ 30" O.C. |
| CORNER STUD AND ANGLES | |

| STUDS | MAXIMUM UNSUPPORTED HEIGHT NON-BEARING WALL |
|------------------|--|
| 2 x 4 @ 16" O.C. | 14'- 0" |
| 2 x 4 @ 24" O.C. | 14'- 0" |
| 2 x 6 @ 16" O.C. | 24'- 0" |
| 2 x 6 @ 24" O.C. | 20'- 0" |
| 2 x 8 @ 16" O.C. | 28'- 0" |

NOTE:
1. MAXIMUM DISTANCE BETWEEN FLOOR AND ROOF.
2. STUD SIZES AND HEIGHTS ARE FOR BEARING WALLS
AND PARTITIONS WALLS. ALL SHEAR WALLS ON
FOUNDATION AND MEZZANINE PLANS ARE 3 x 6 @ 16" O.C.

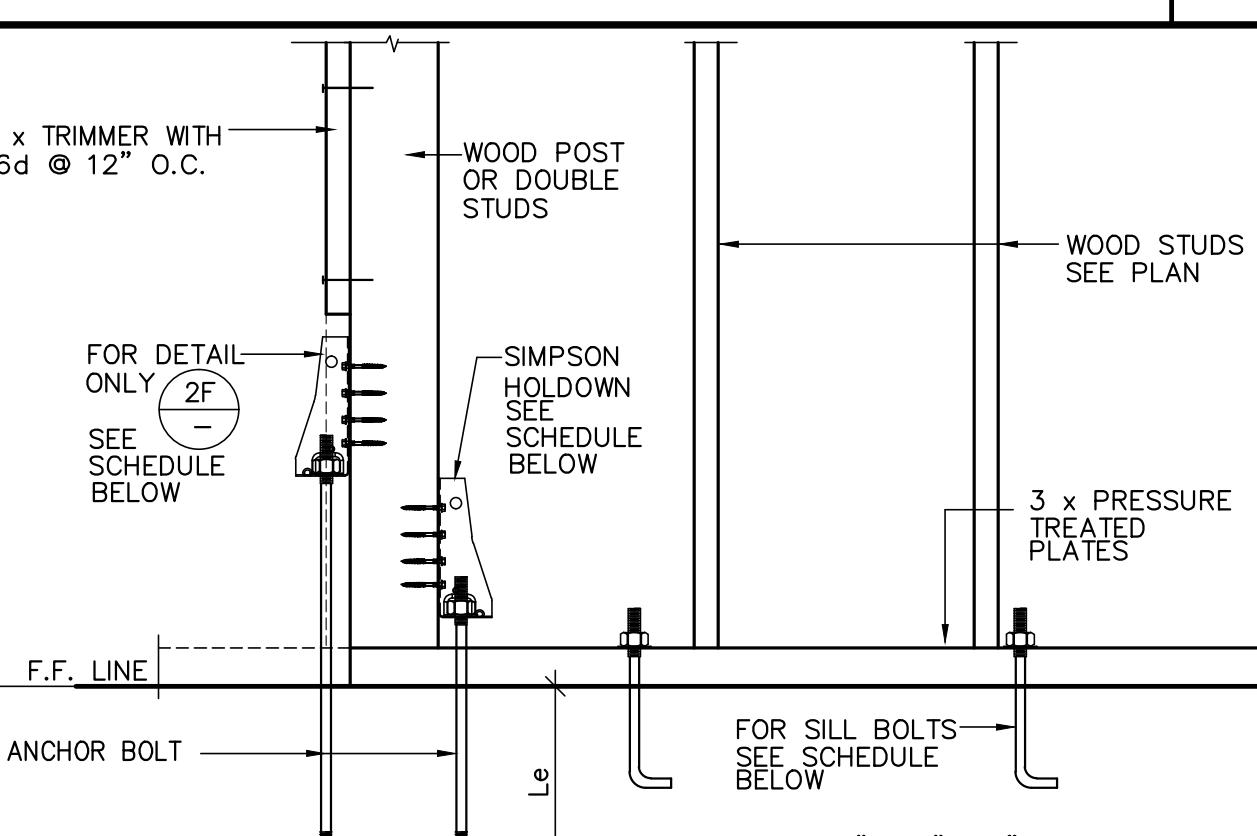


TYPICAL WALL SHEATHING

| SHEAR WALL SCHEDULE | | | | | |
|---------------------|----------------|-------------------|-----------------------|---------------------------|-----------------------|
| MARK NO. | THICK. STRUCT. | PLYWOOD SHEATHING | NAILING: 10% AT EDGES | 3/4" DIA. A.B. SEE DETAIL | ALLOWABLE SHEAR (PLF) |
| SW-1 | 1/2" | ONE SIDE | 3" | 3" | 10" AT 12" O.C. (7) |
| SW-2 | 1/2" | ONE SIDE | 4" | 4" | 10" AT 24" O.C. (7) |
| SW-3 | 1/2" | ONE SIDE | 6" | 6" | 10" AT 24" O.C. (7) |
| *SW-4 | 1/2" | TWO SIDE | 3" | 3" | 10" AT 12" O.C. (7) |
| *SW-5 | 1/2" | TWO SIDE | 2" | 2" | 10" AT 12" O.C. (7) |

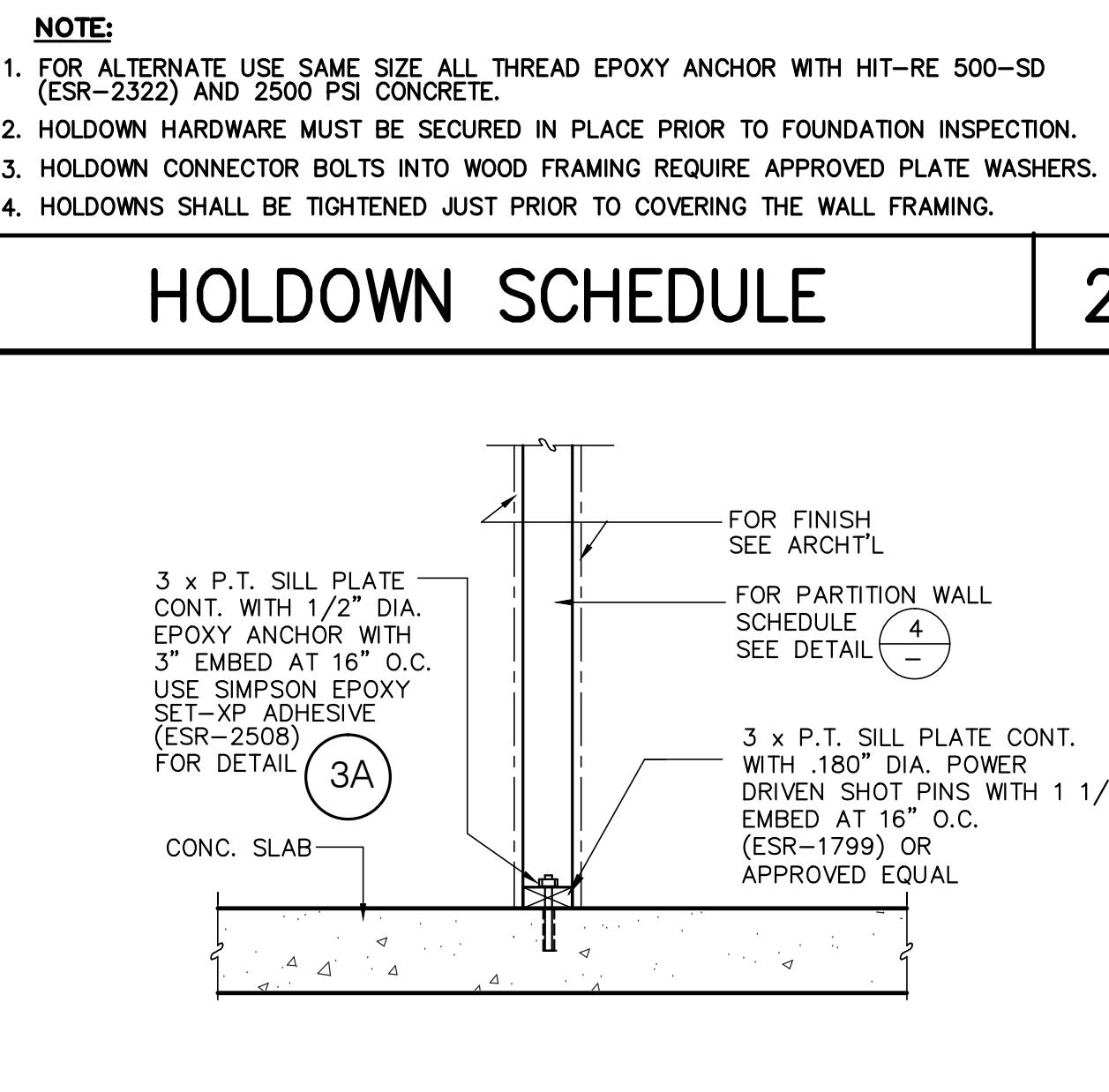
NOTES:
1. SEE FOUNDATION PLAN FOR LOCATIONS.
2. 2 OR 3 X 6 @ 16" O.C. WOOD STUDS AT 16" O.C. TYPICAL U.N.O. AS PER
CALL-OUT ON FOUNDATION PLAN AND MEZZ. FLOOR PLAN.
3. PROVIDE STAGGERED NAILING ON PLYWOOD JOINTS WHERE NAILS
ARE SPACED 3" O.C. OR LESS.
4. WHEN PANELS ARE APPLIED ON BOTH FACES OF A WALL, PANEL JOINTS SHALL BE
OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE
3 - INCH NOMINAL OR THICK & NAILS ON EA. SIDE SHALL BE STAGGERED
* 5. USE 3 x WOOD STUD @ FRAMING RECEIVING PLYWOOD EDGE NAILING
** 6. AS AN ALTERNATE USE SAME SIZE & SPACING ALL THREAD EPOXY
ANCHOR BOLTS WITH MINIMUM 8" EMBEDMENT

SHEAR WALL SCHEDULE 1

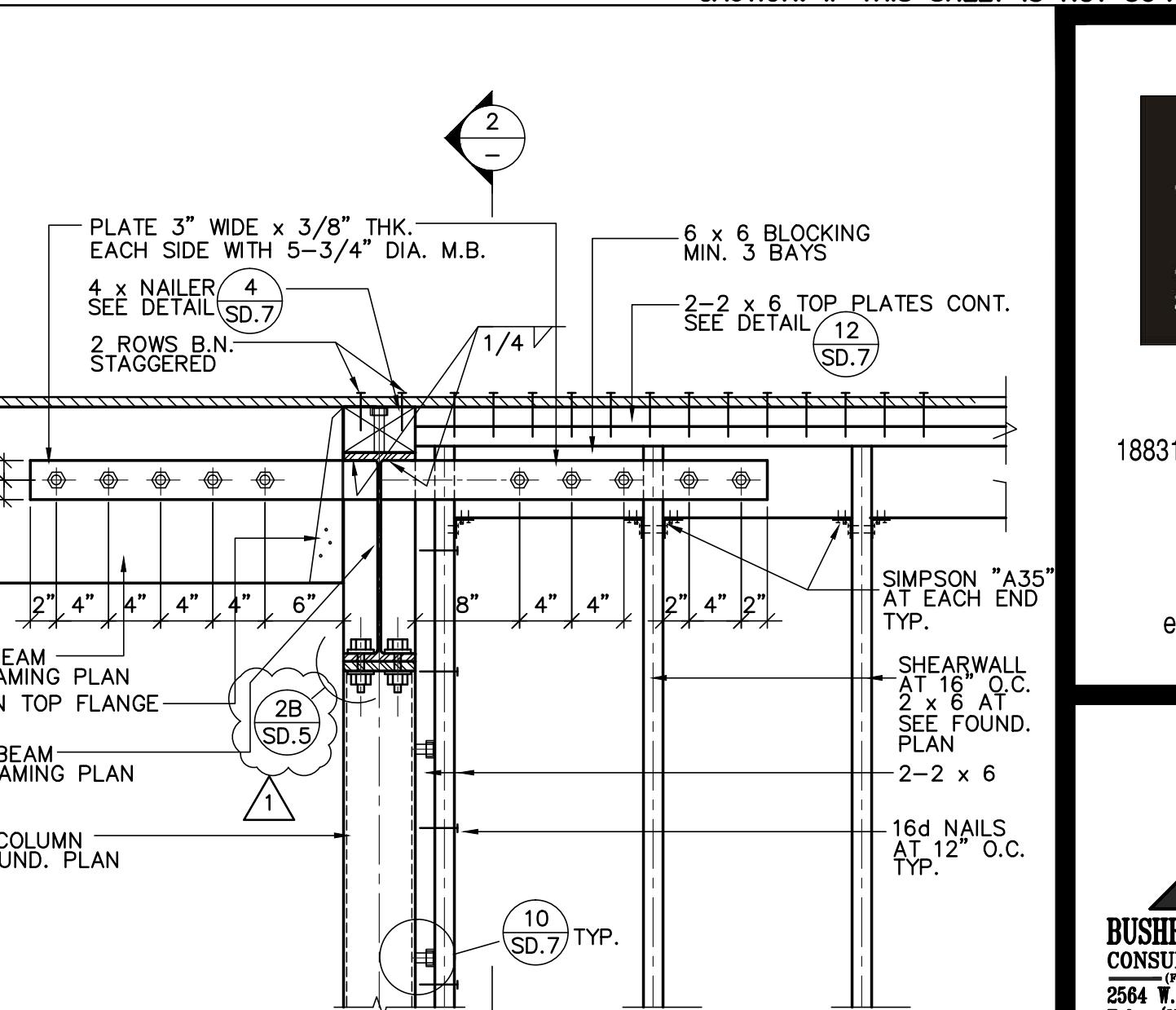
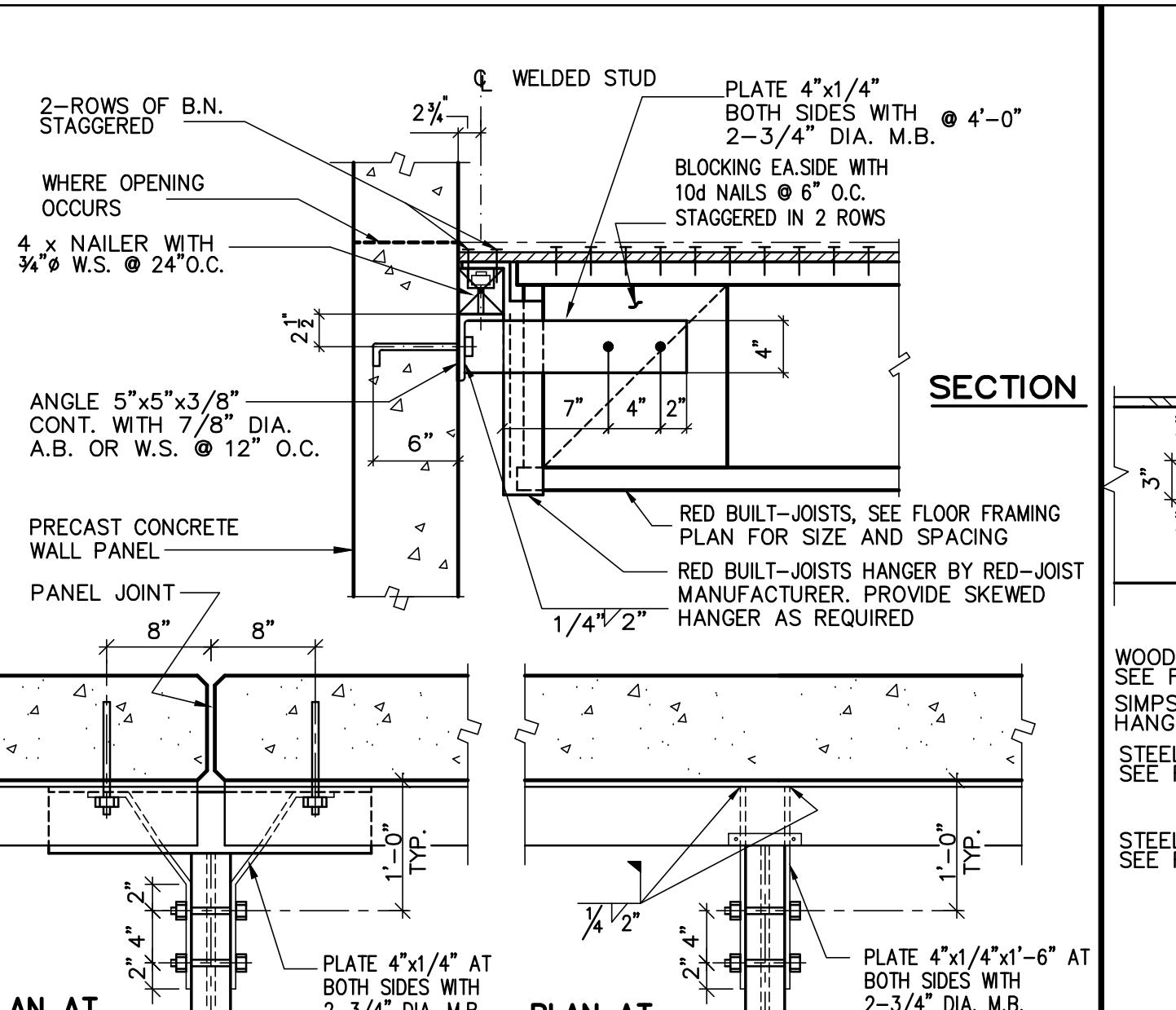
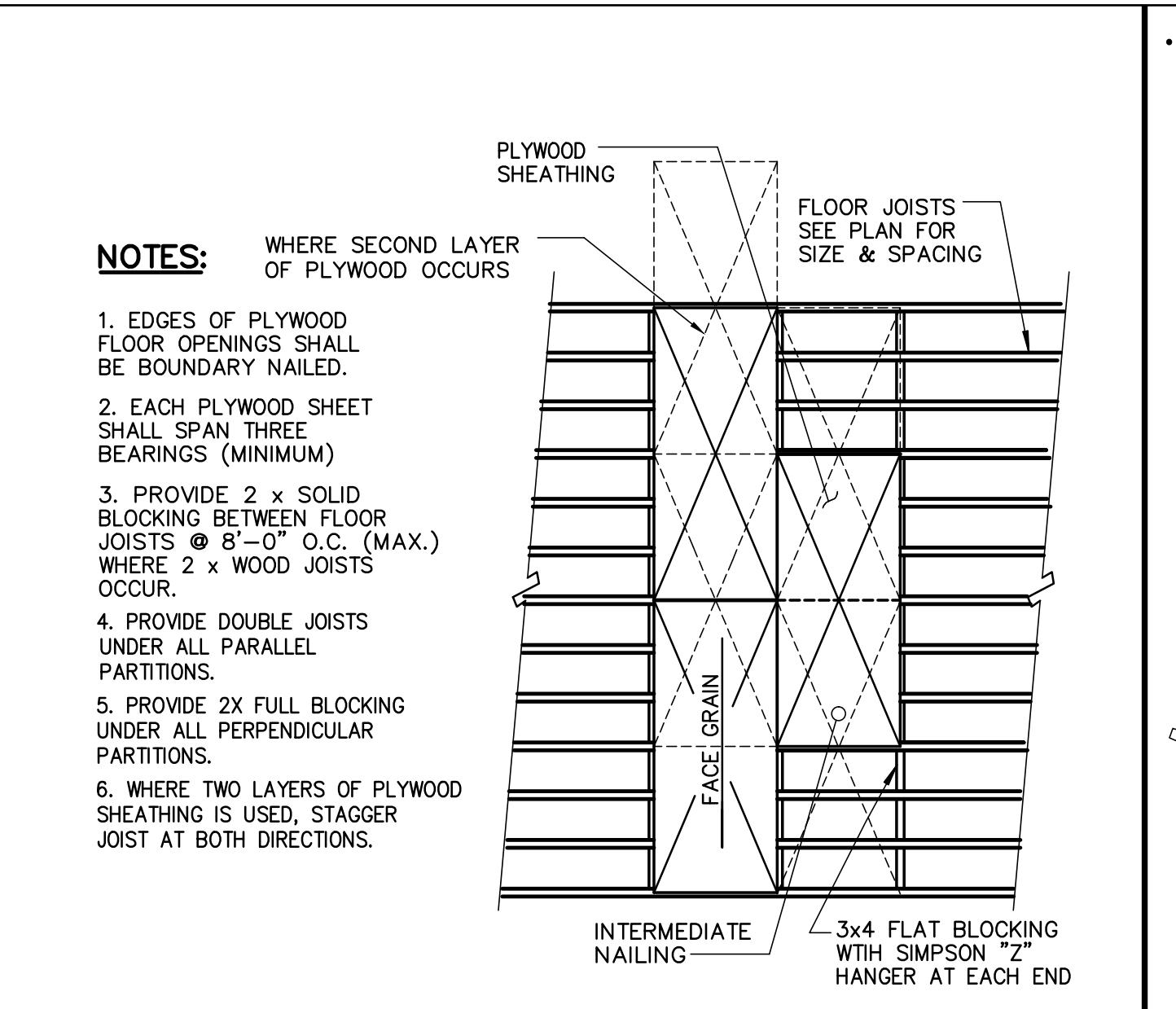
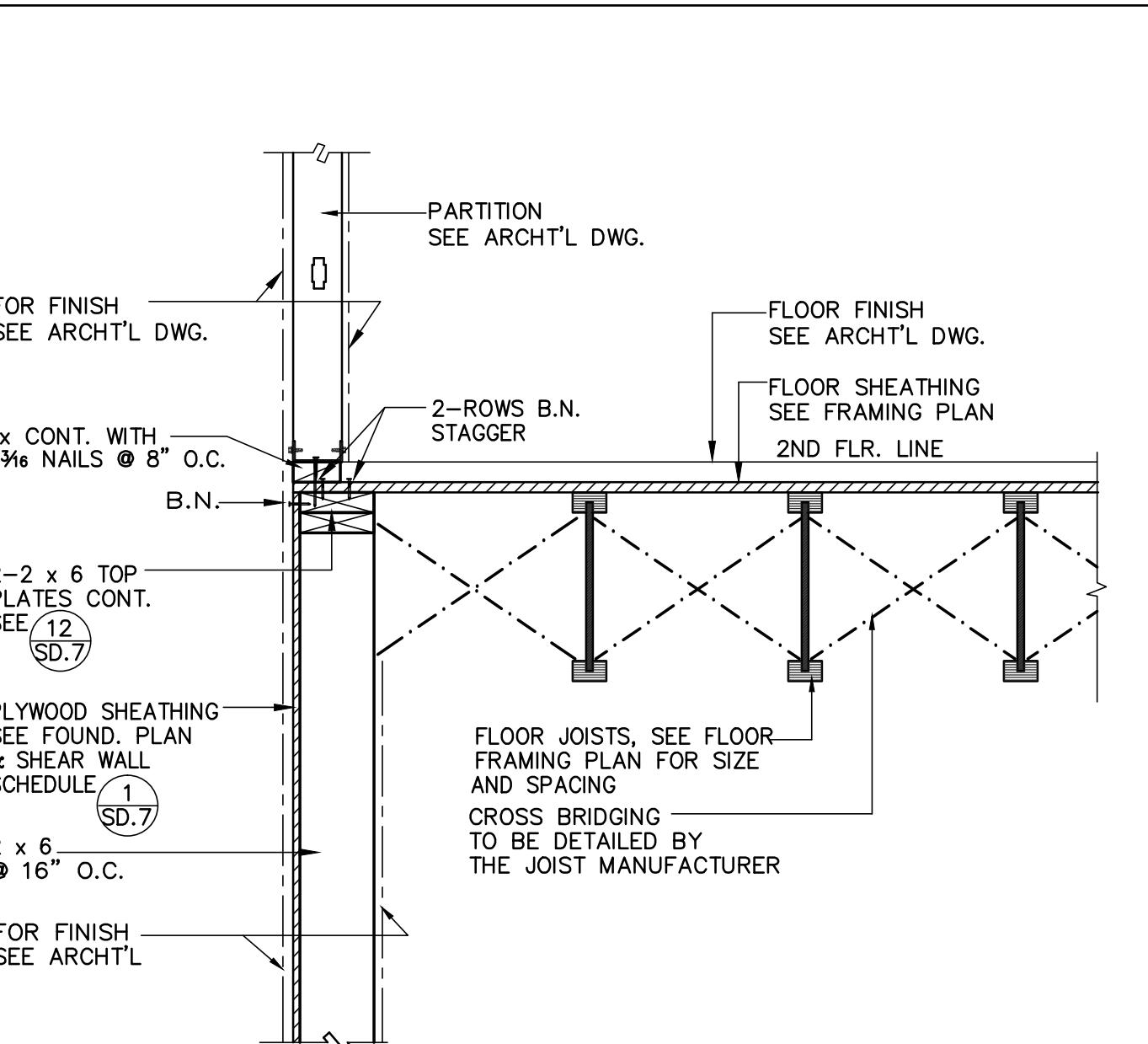
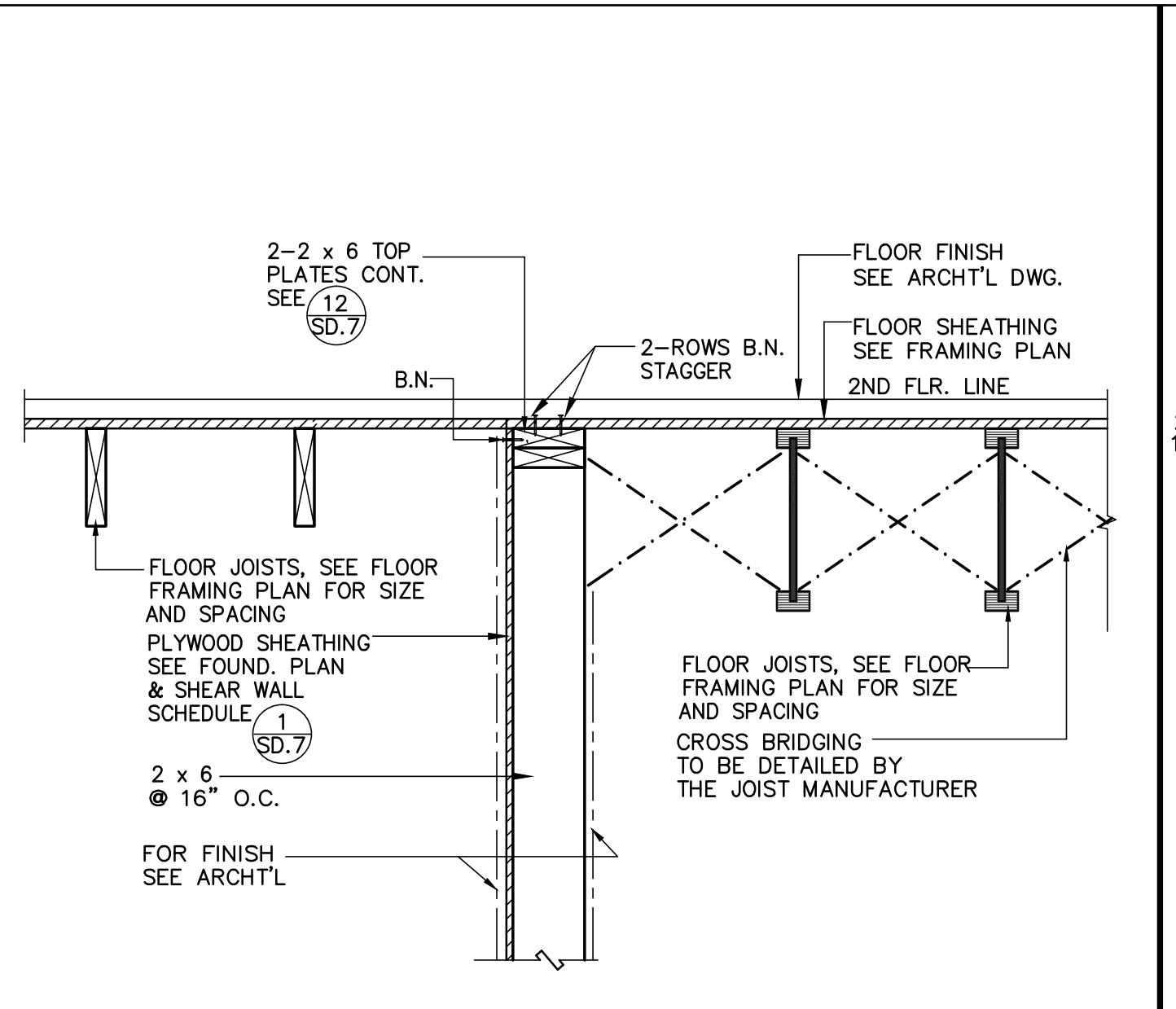


| DETAIL | SIMPSON MODEL NO. | SDS SCREWS TO WOOD MEMBER | A.B. EMBEDMENT, L _e | REMARK |
|--------|-------------------|---------------------------|--------------------------------|--------|
| A | HDU2-SDS2.5 | 6-SDS 1/4" x 21" | 1 - 5/8" DIA. x 12" | |
| B | HDU5-SDS2.5 | 14-SDS 1/4" x 21" | 1 - 5/8" DIA. x 15" | |
| C | HDU8-SDS2.5 | 20-SDS 1/4" x 21" | 1 - 7/8" DIA. x 18" | |
| D | HDU11-SDS2.5 | 30-SDS 1/4" x 21" | 1 - 1" DIA. x 21" | |
| E | HDU14-SDS2.5 | 36-SDS 1/4" x 21" | 1 - 1" DIA. x 21" | |
| F | 2HDU11-SDS2.5 | 60-SDS 1/4" x 21" | 2 - 1" DIA. x 21" | |

HOLDOWN SCHEDULE M.B. AND A.B.



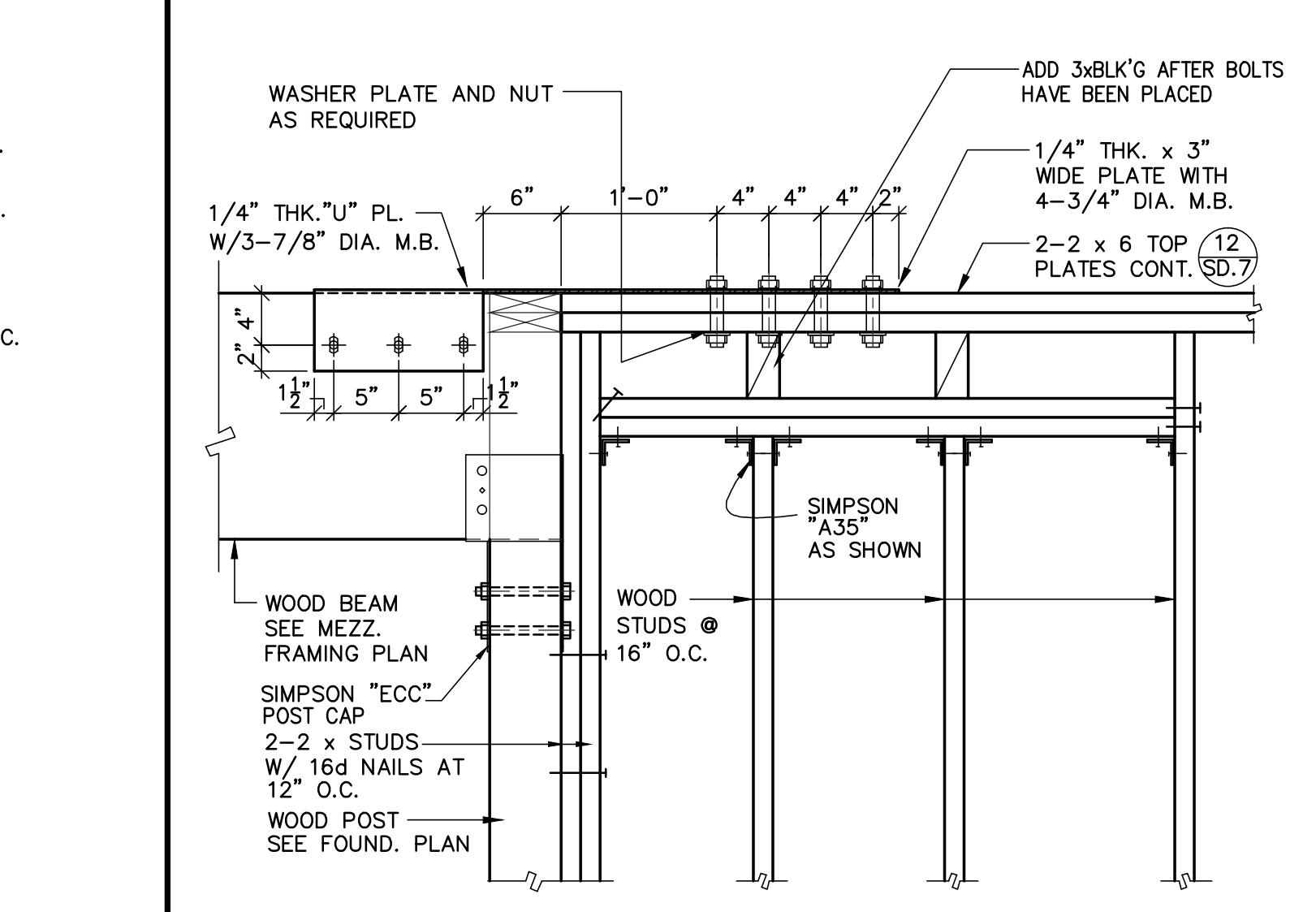
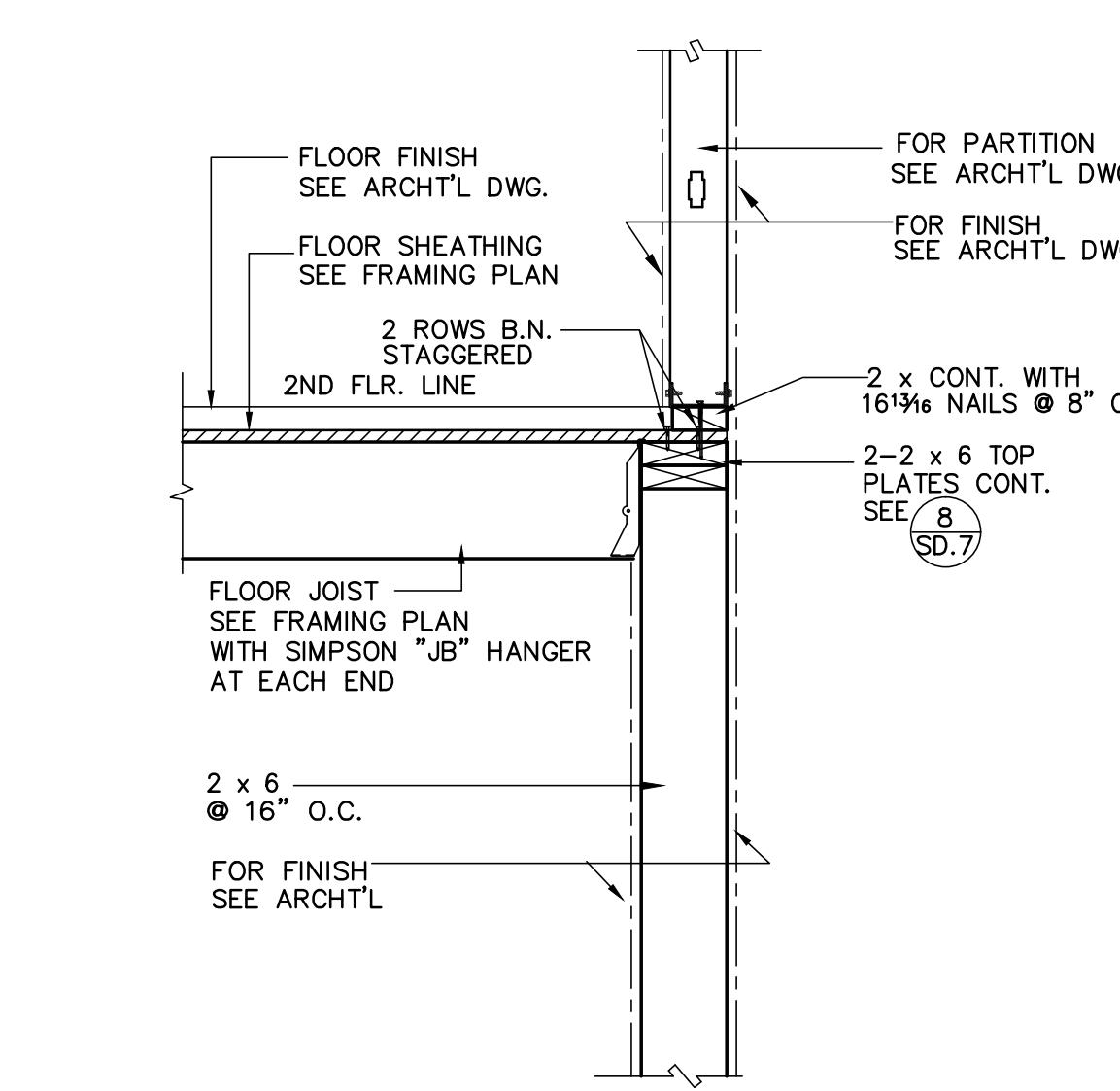
NON-BEARING WALL DETAIL 3



FLOOR JOIST AT SHEARWALL

FLOOR JOIST AT SHEARWALL

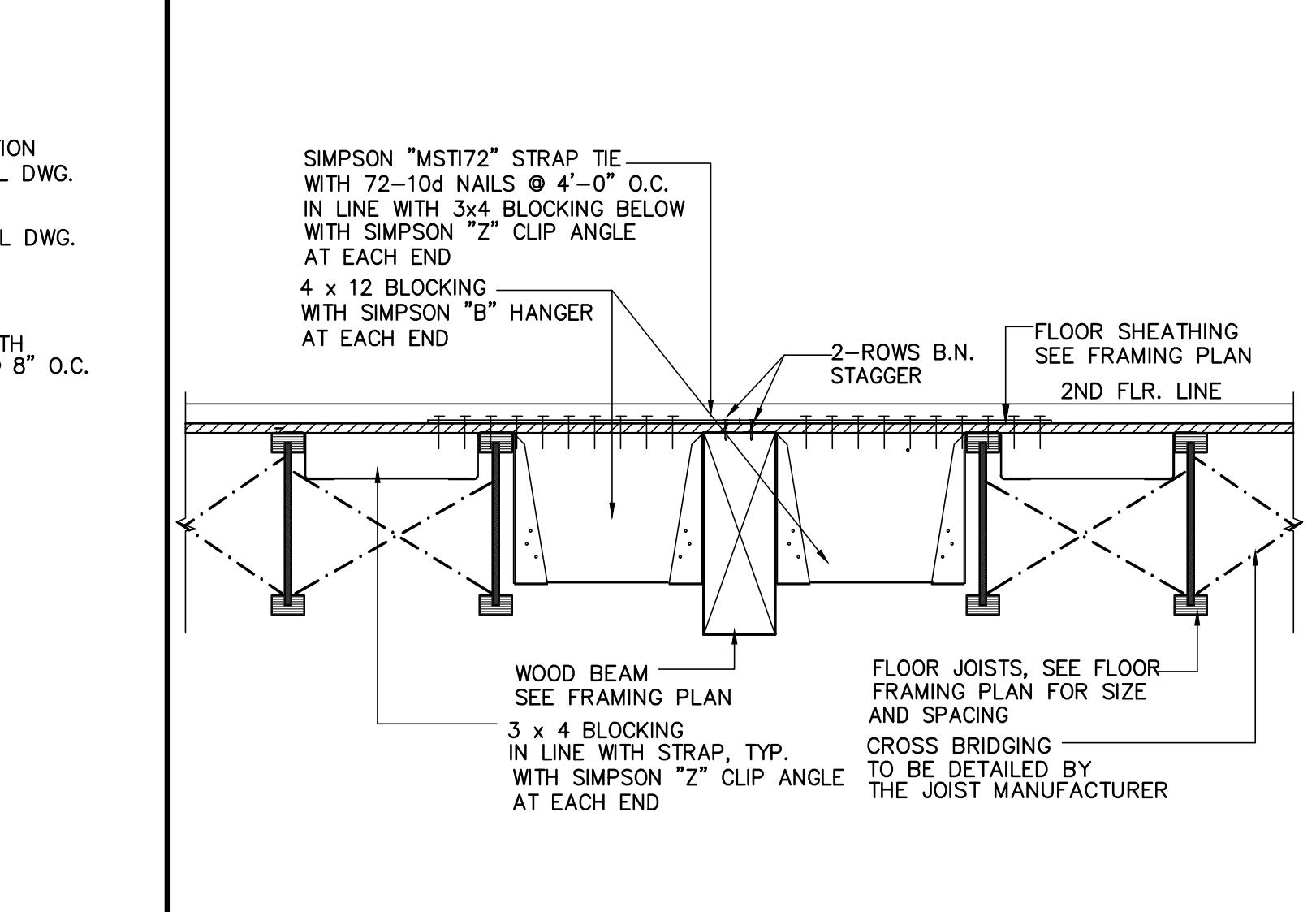
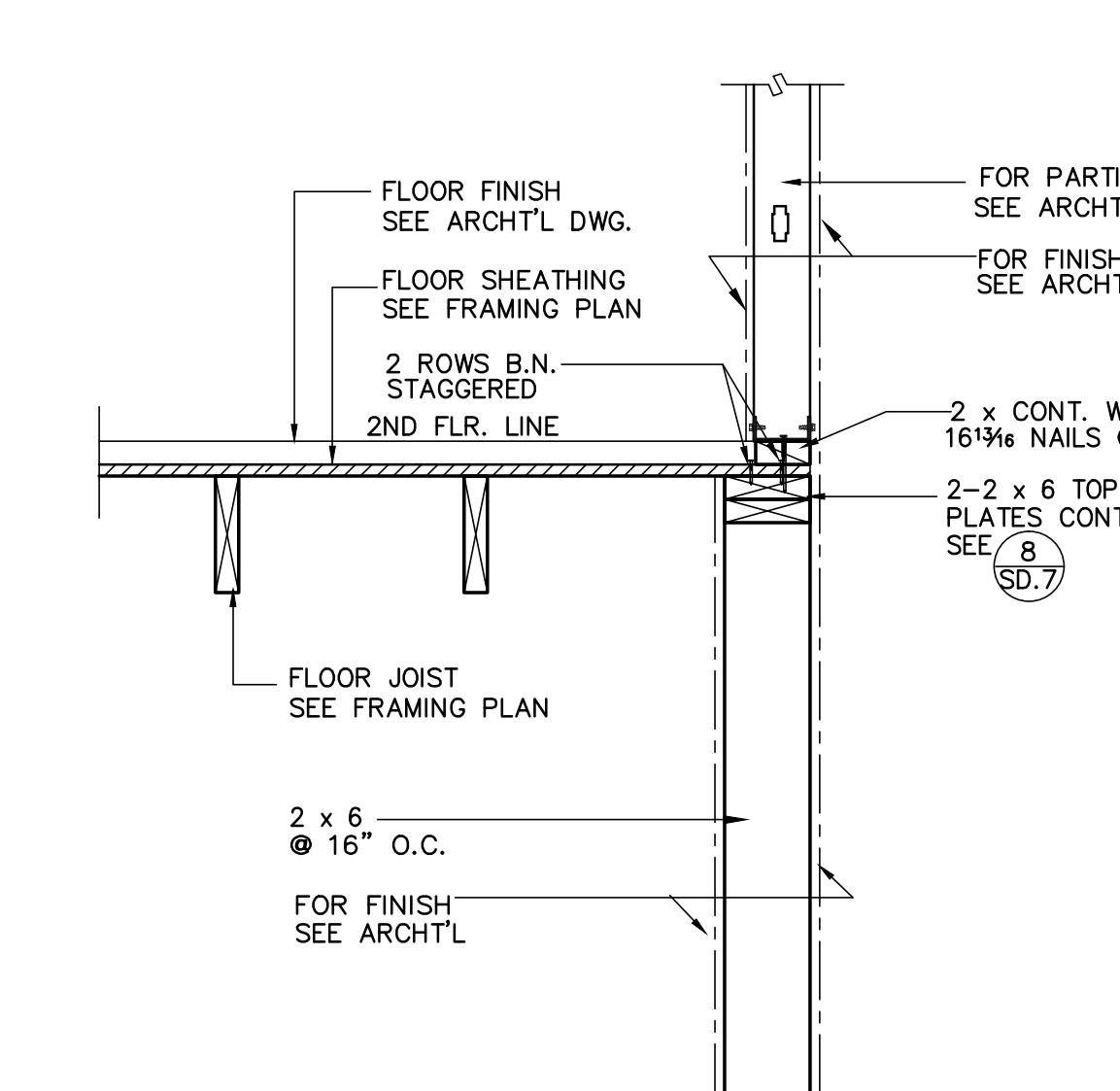
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FLOOR JOIST AT BEARING WALL

WOOD BEAM AT SHEARWALL

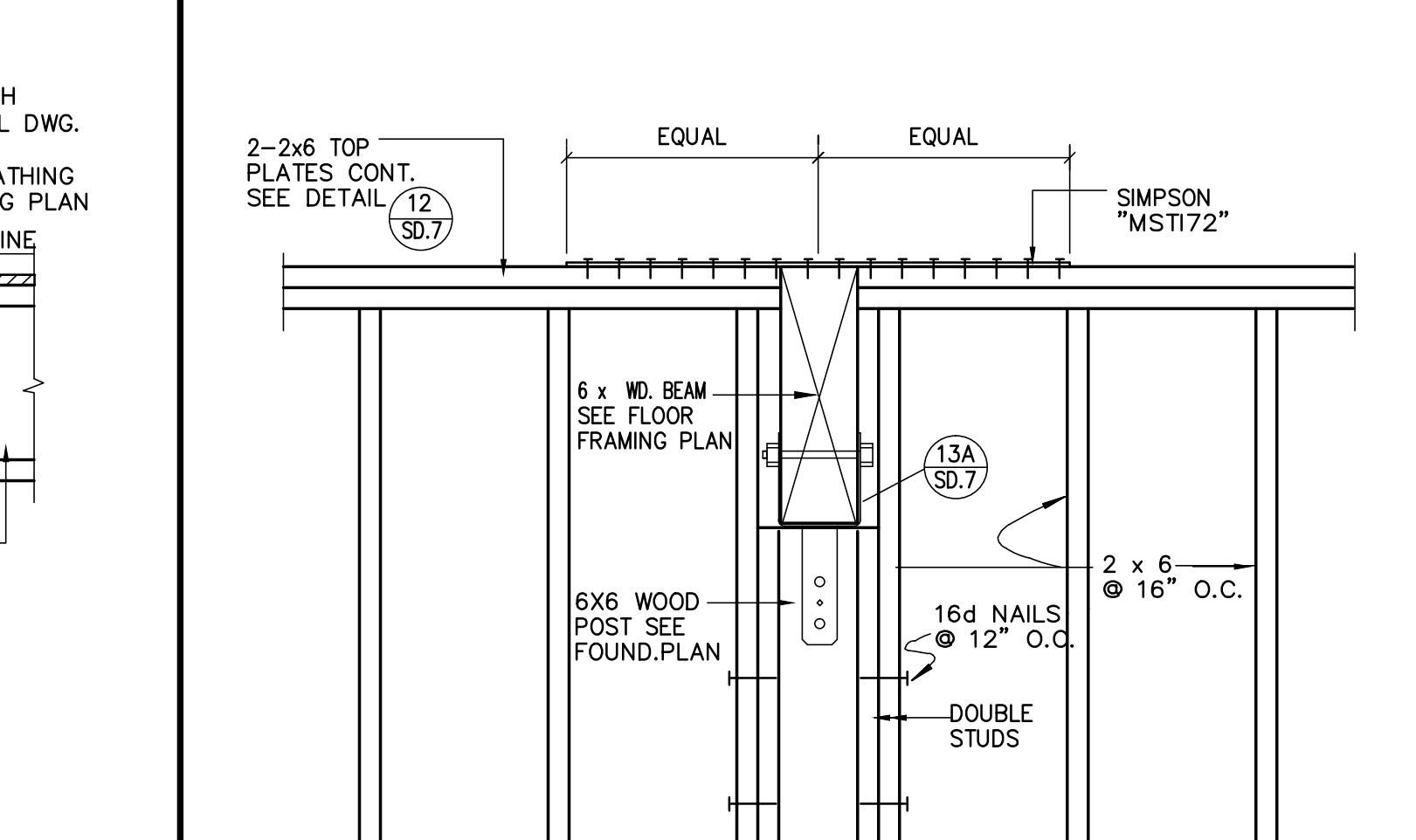
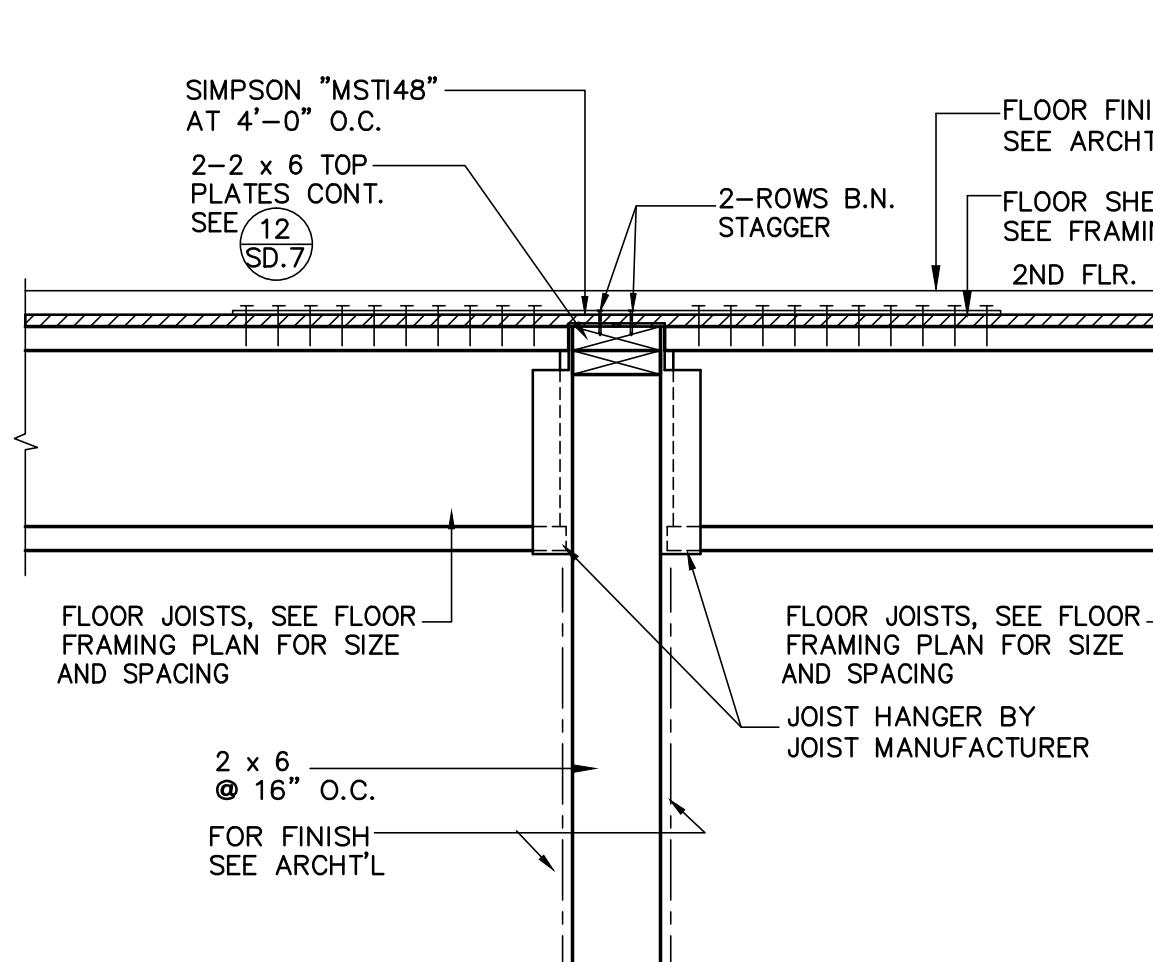
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FLOOR JOIST AT BEARING WALL

FLOOR FRAMING DETAIL

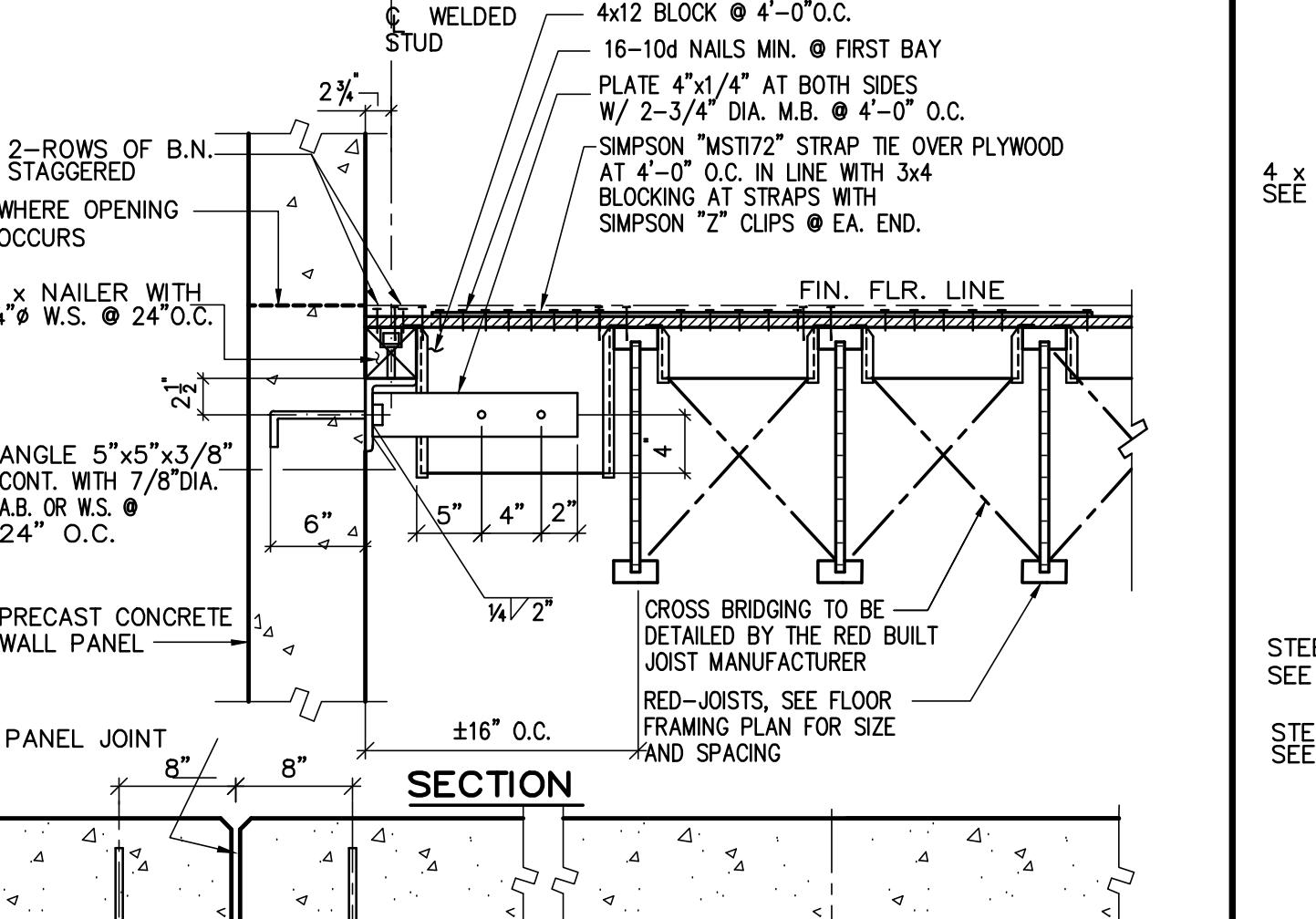
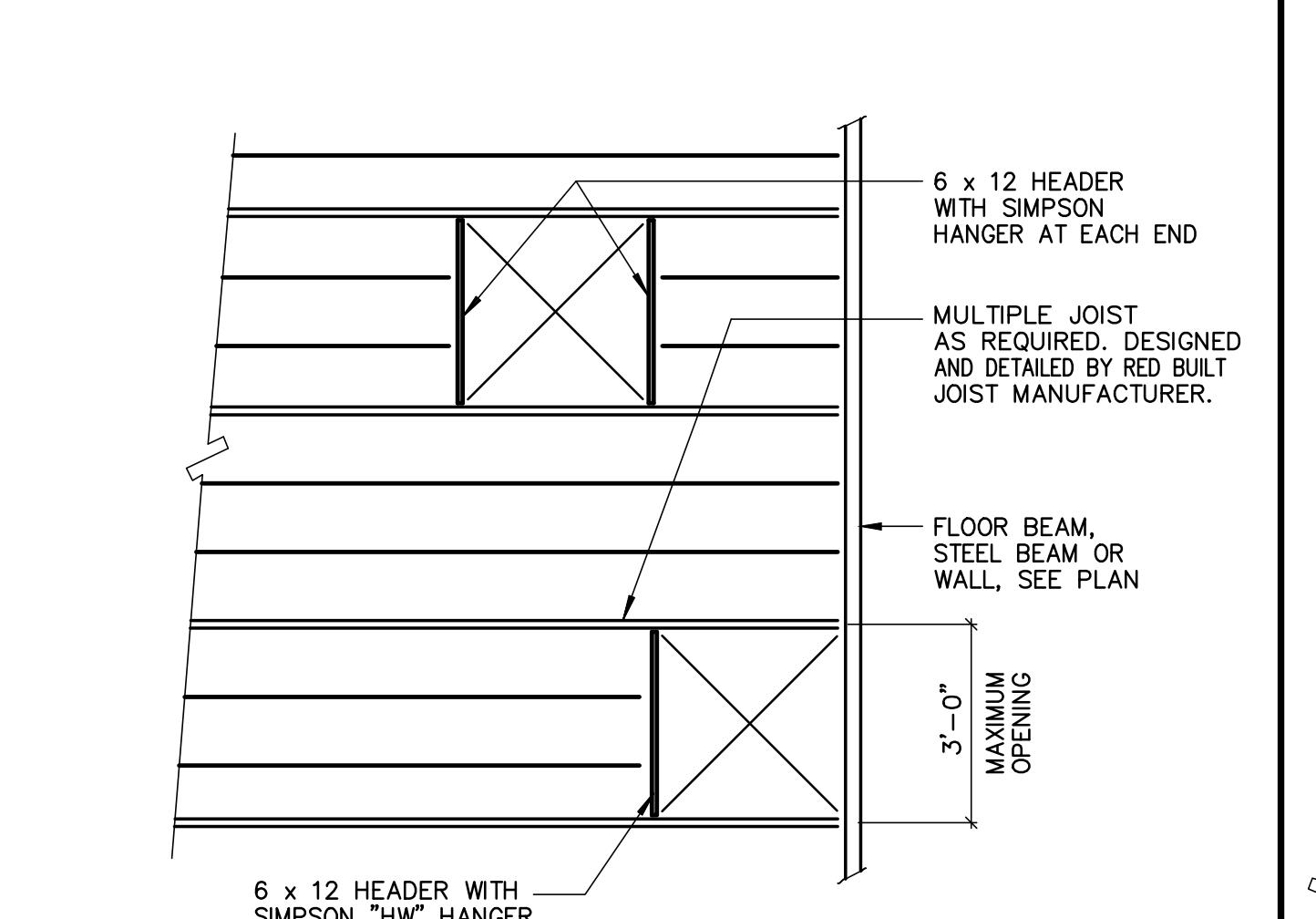
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SUB-FLOOR SHEATHING

FLOOR JOIST TO WALL PANEL

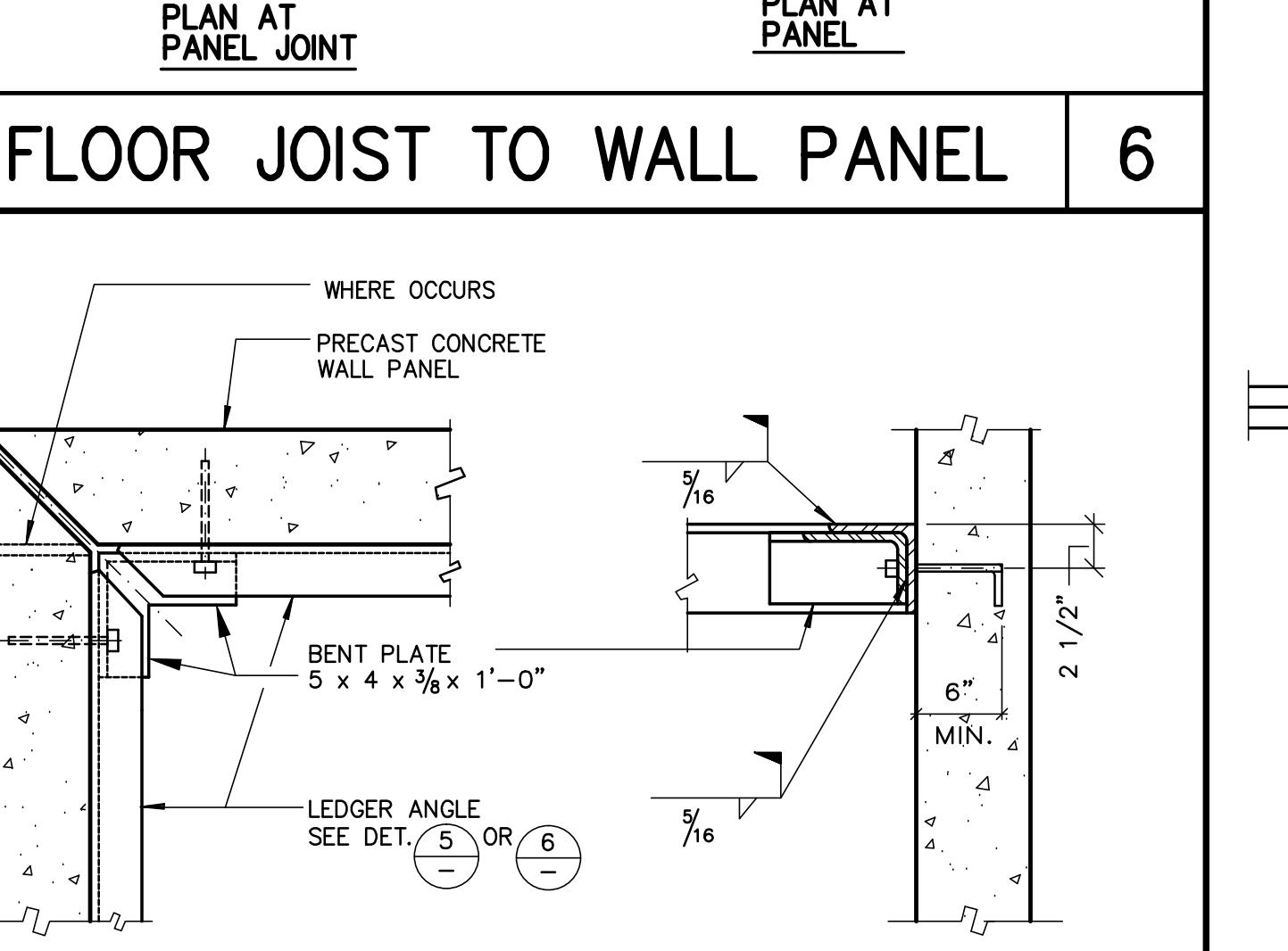
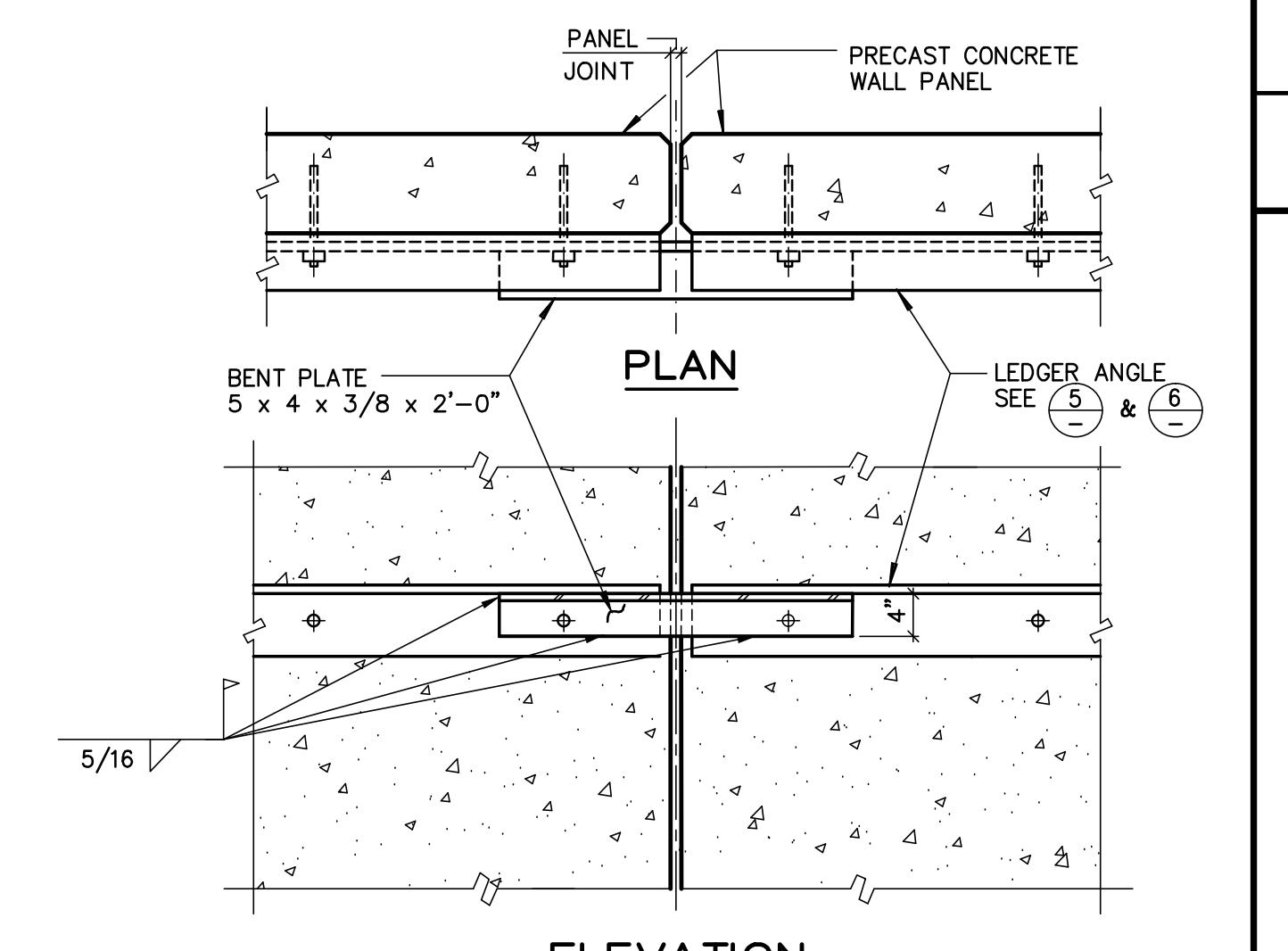
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FLOOR OPENING FRAMING

FLOOR FRAMING DETAIL

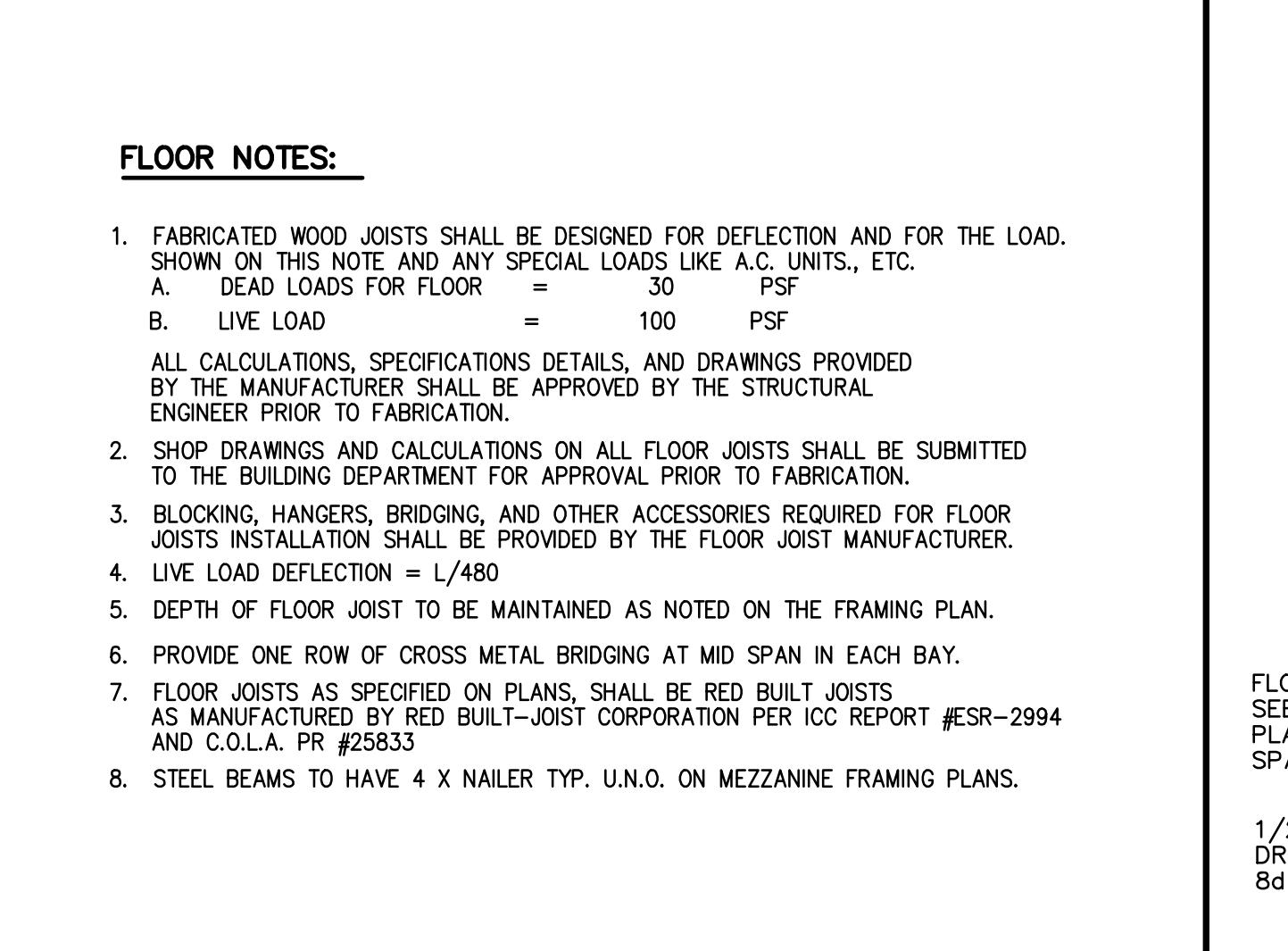
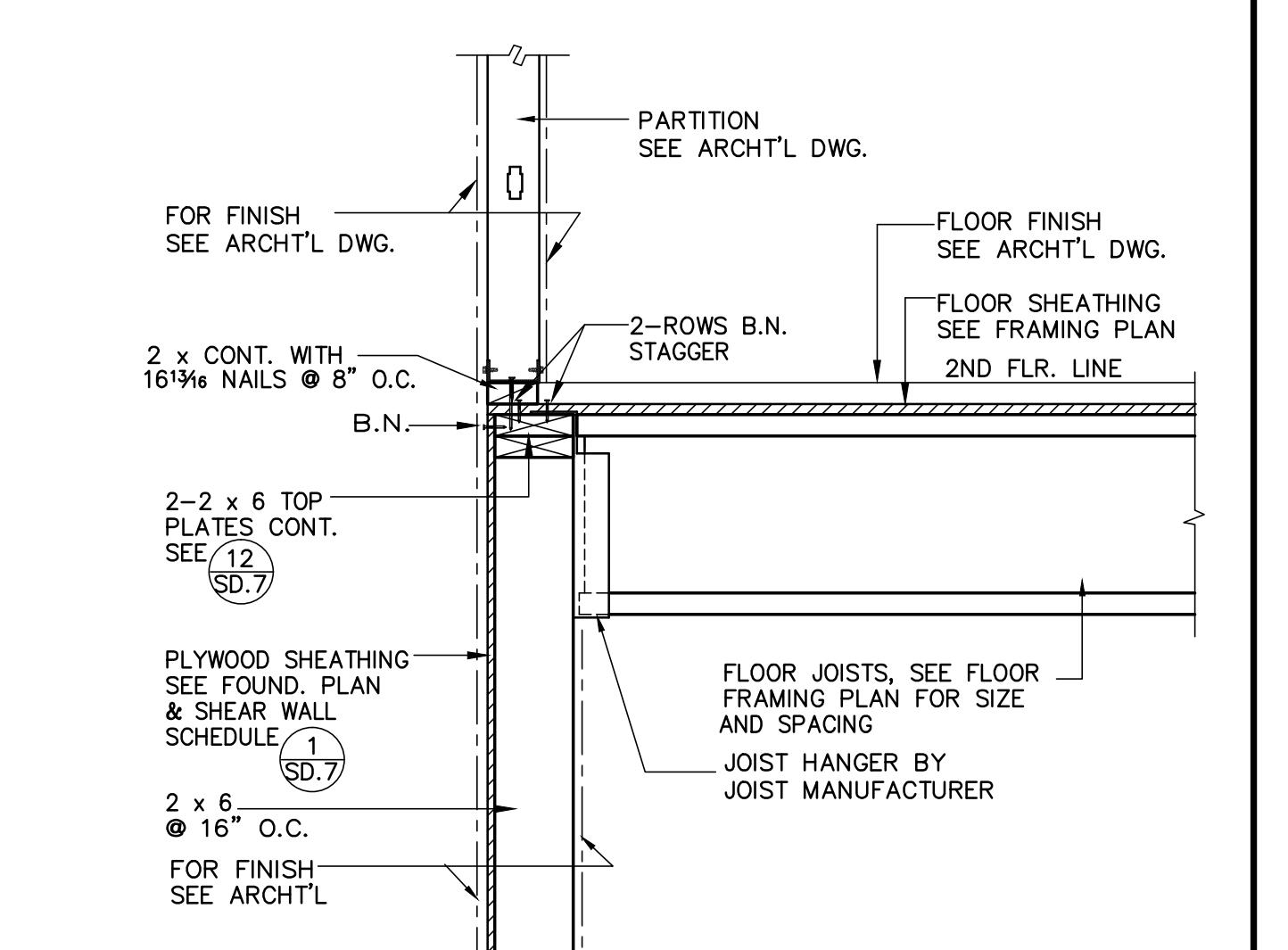
10



ANGLE LEDGER AT PANEL JOINT

FLOOR FRAMING DETAIL

11



FLOOR JOIST SHEARWALL

FLOOR JOIST NOTES

12

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4

FLOOR JOISTS AT BEARING WALL

WOOD BEAM AT SHEARWALL

20

16

12

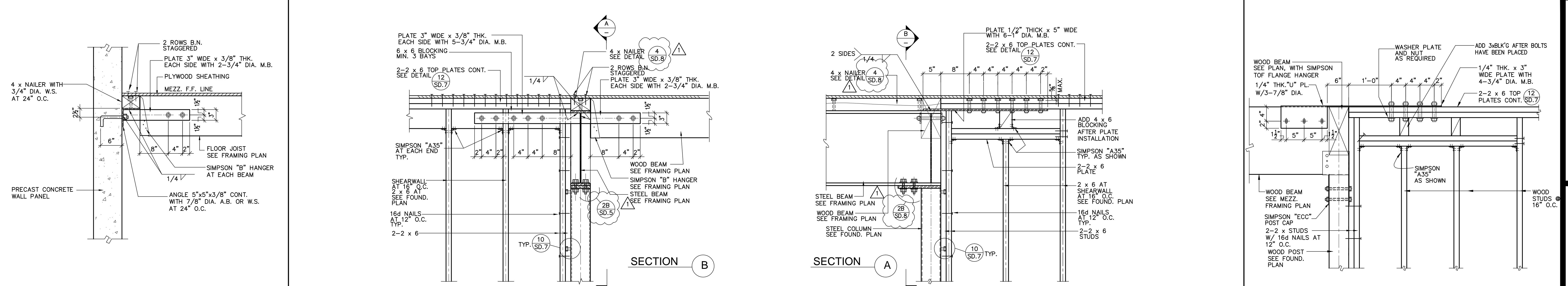
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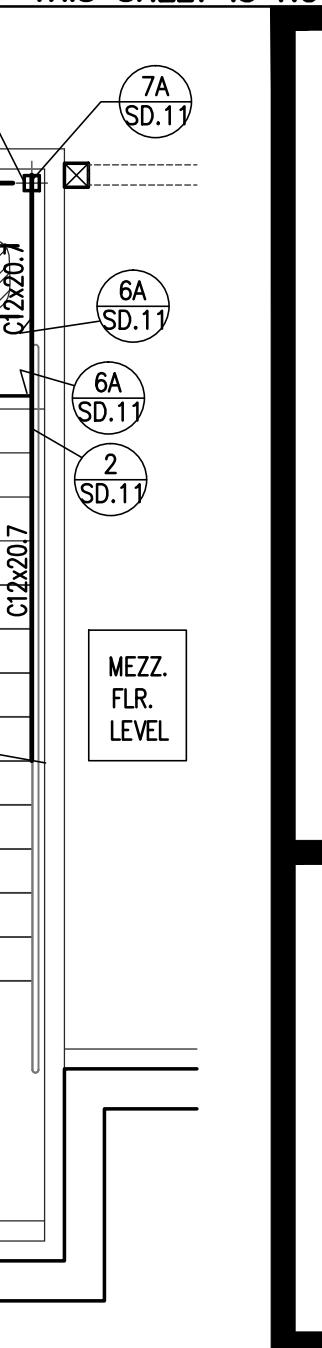
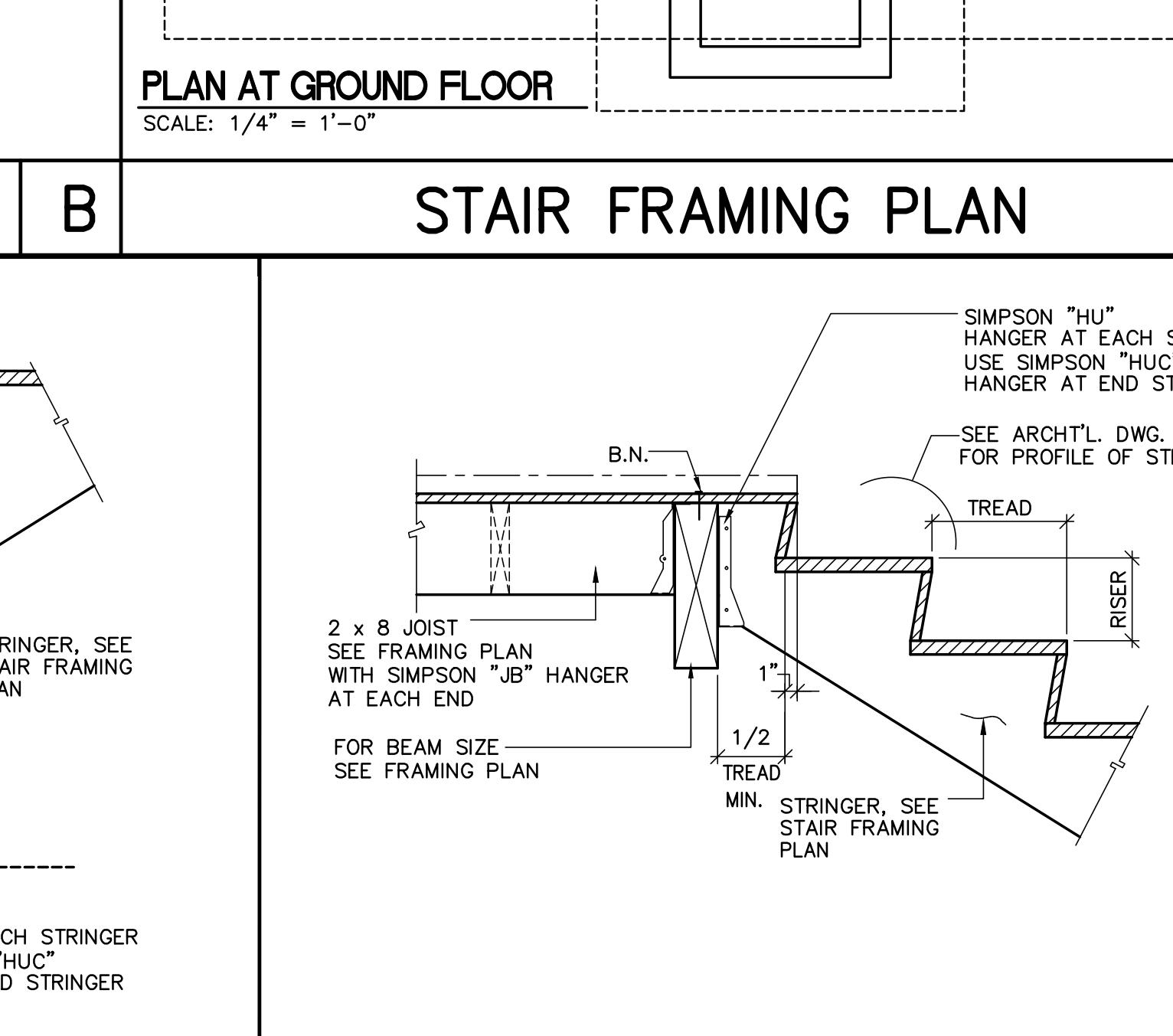
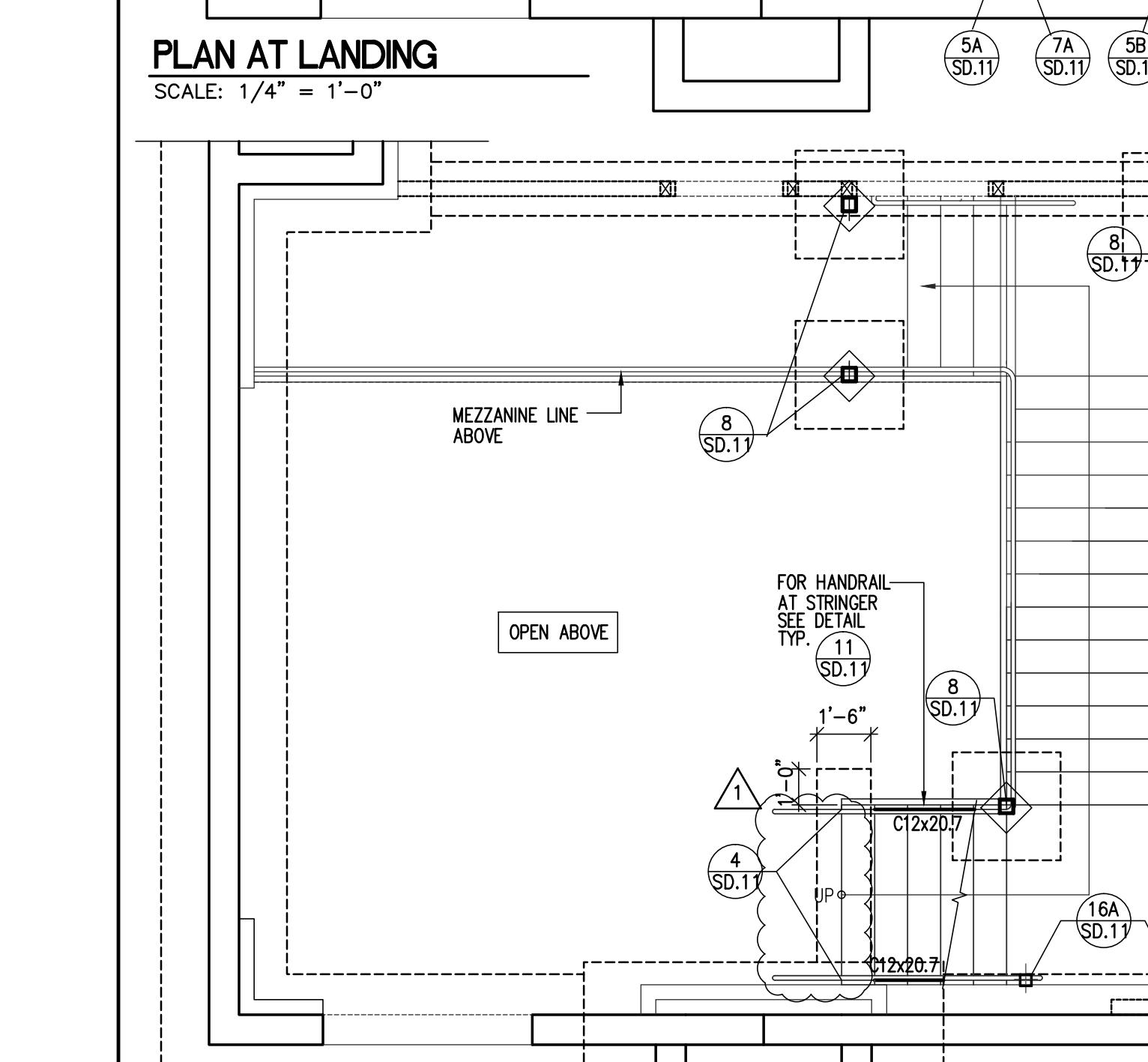
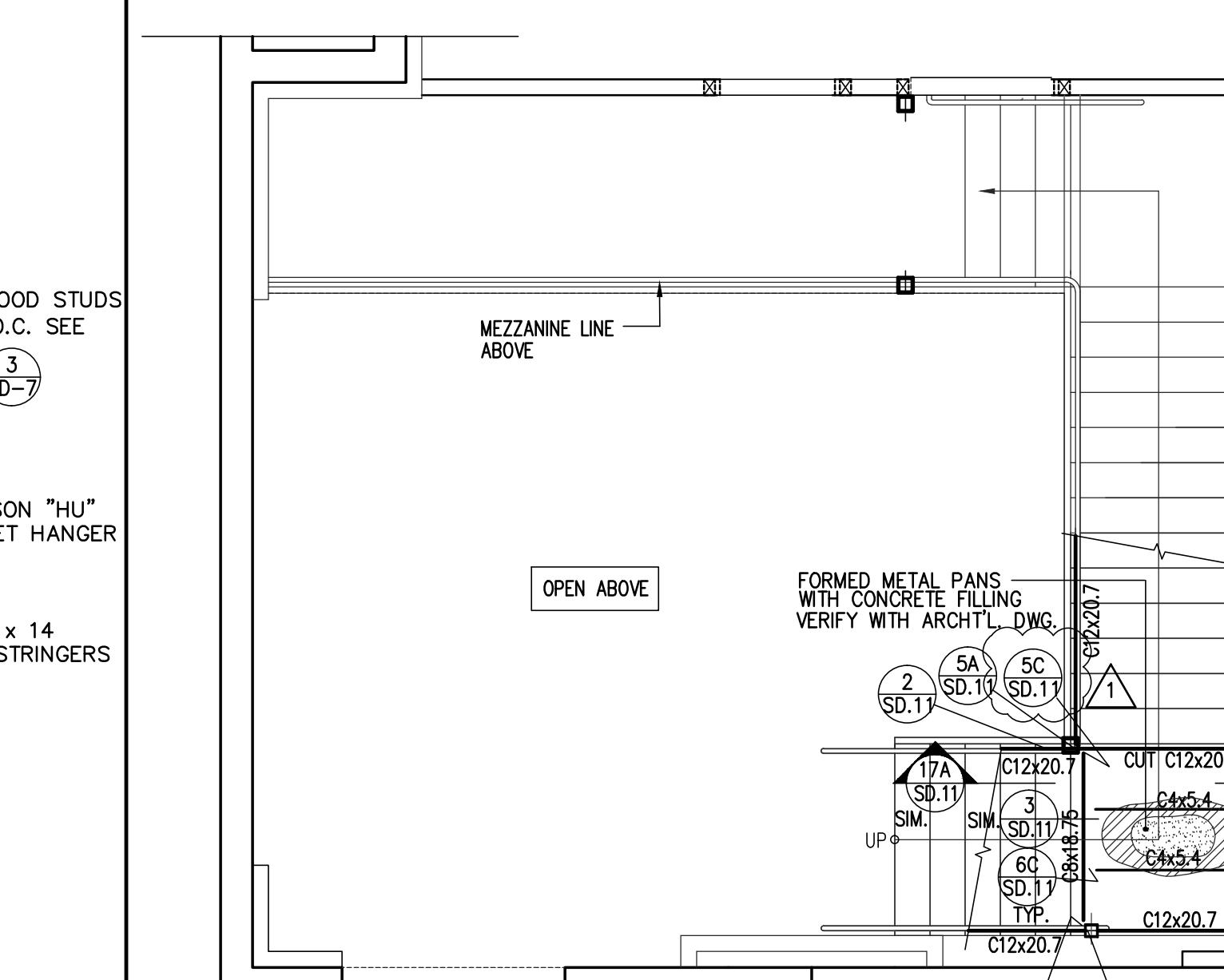
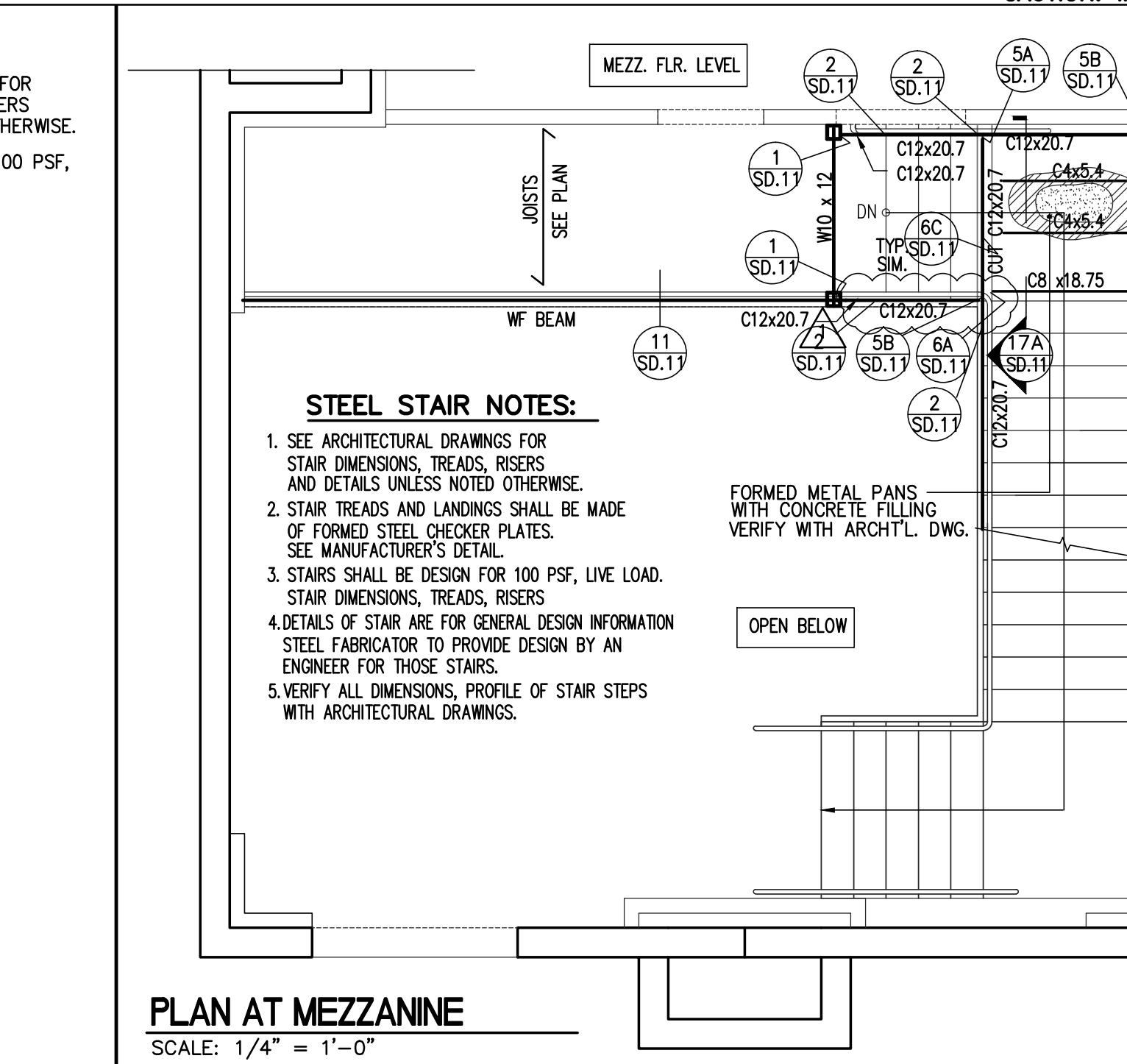
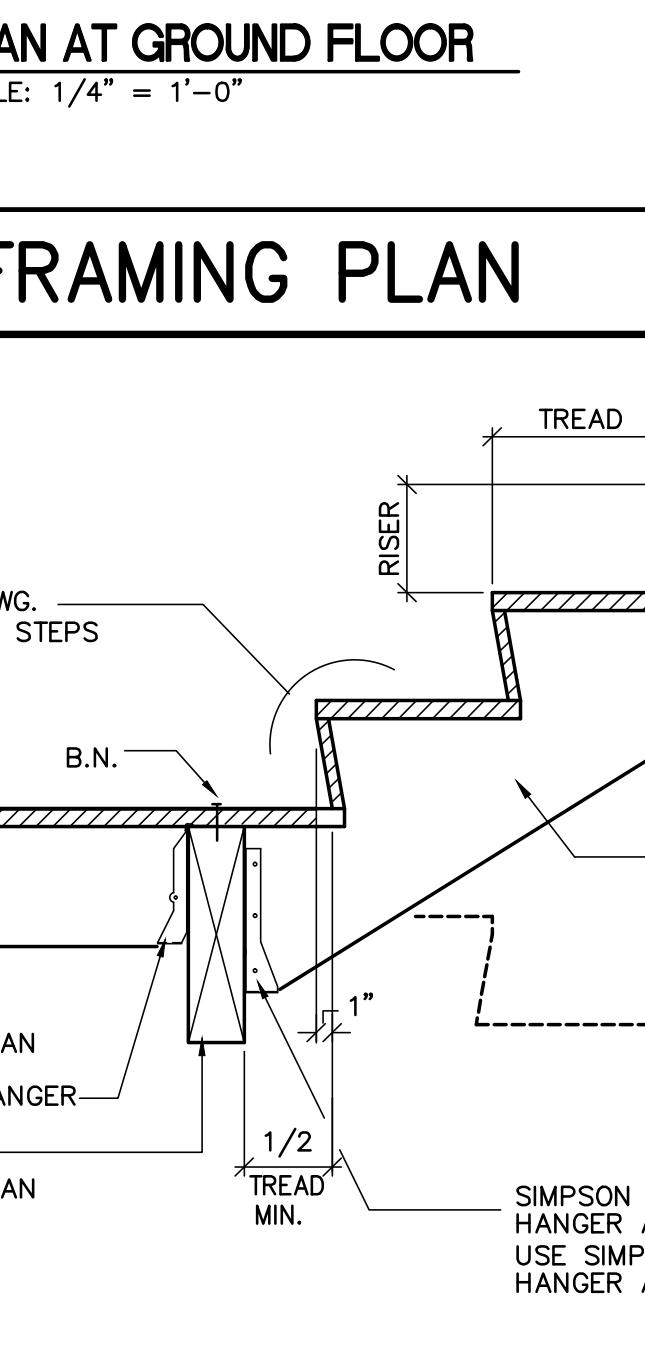
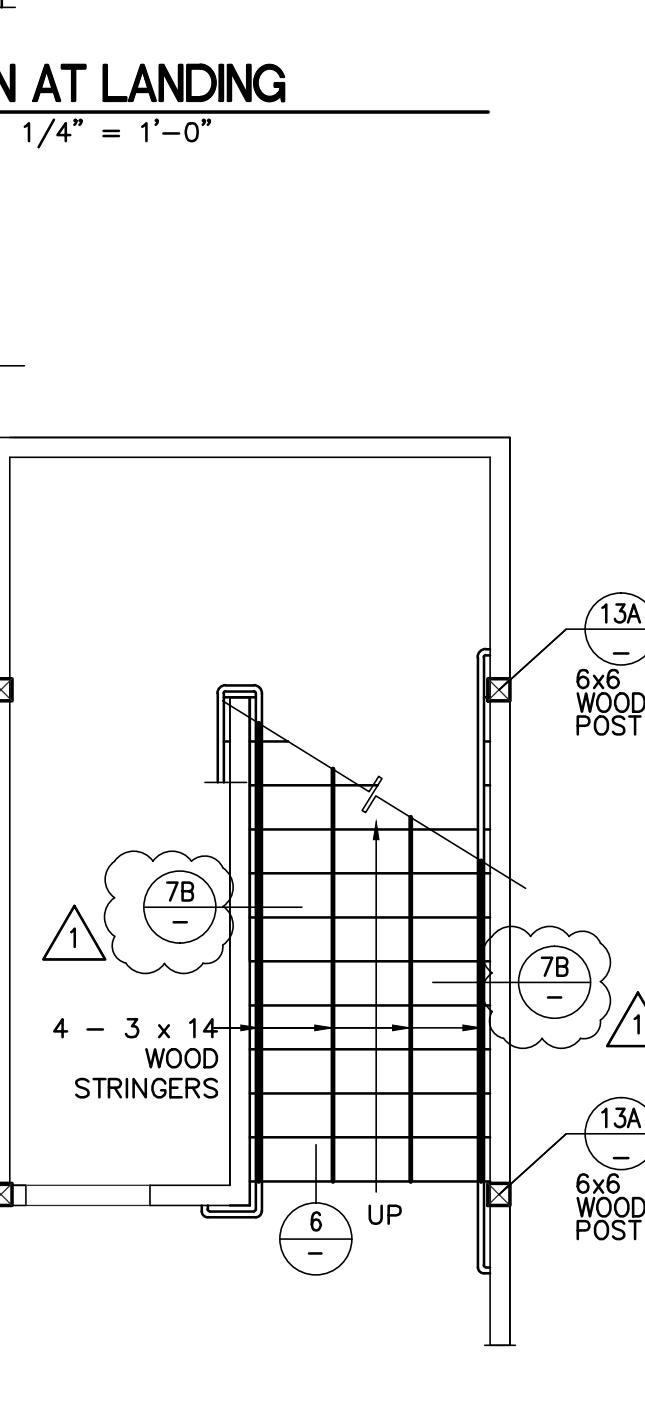
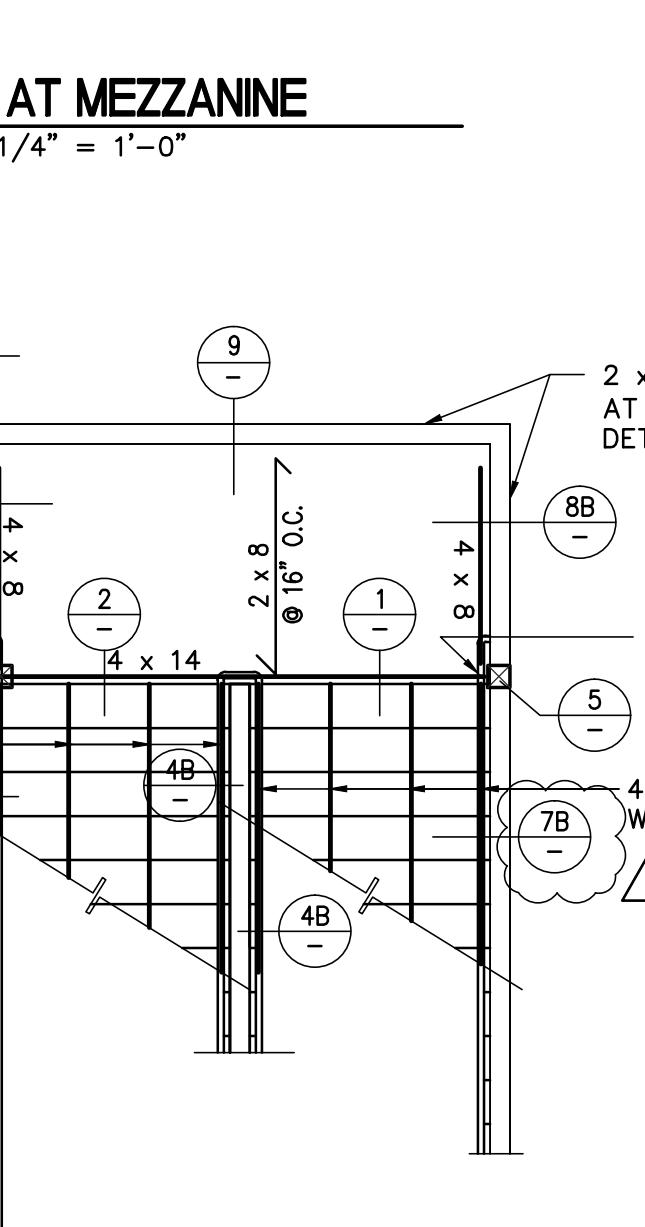
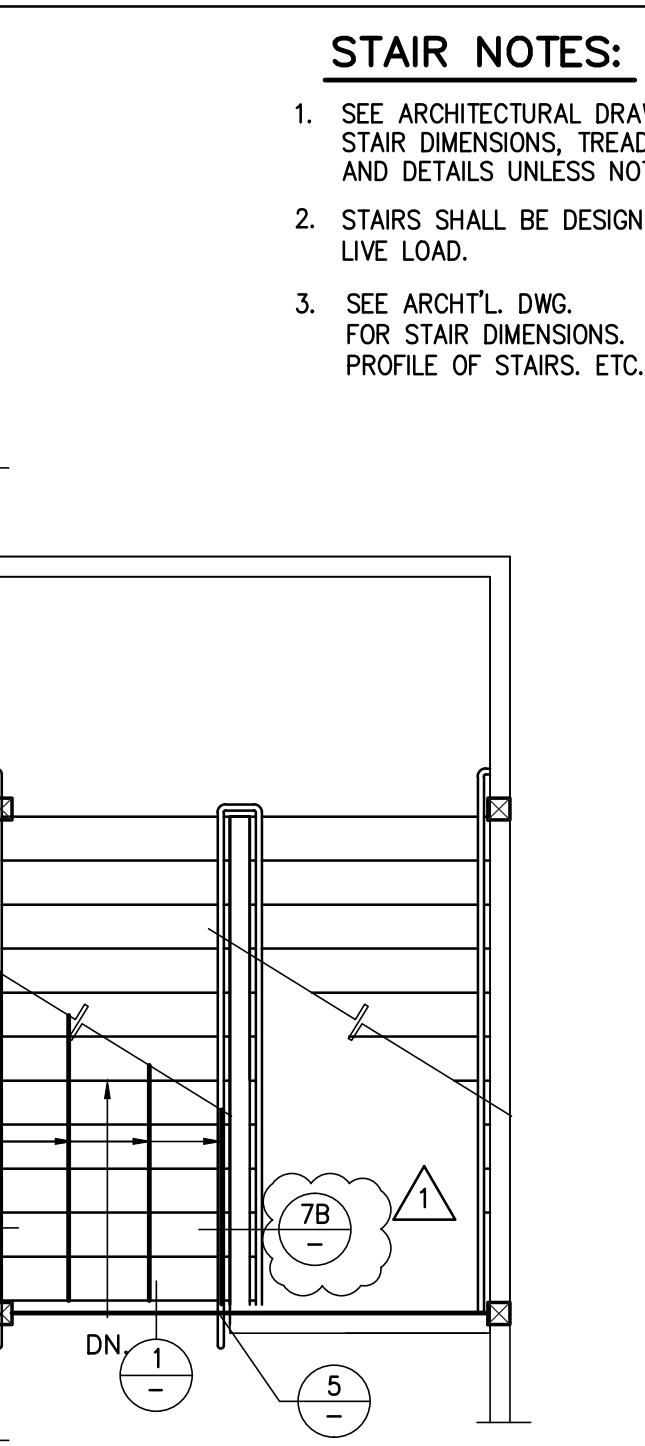
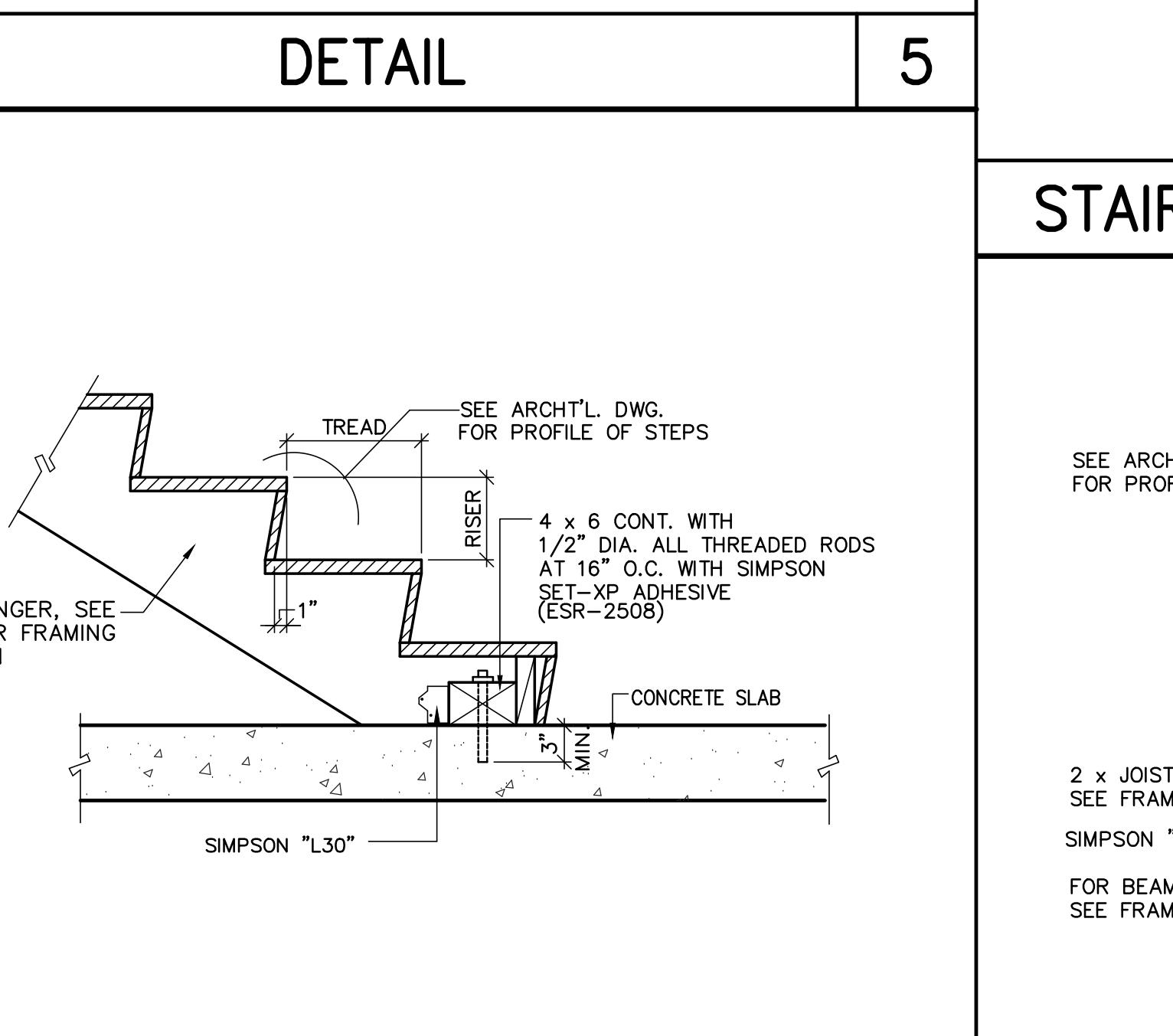
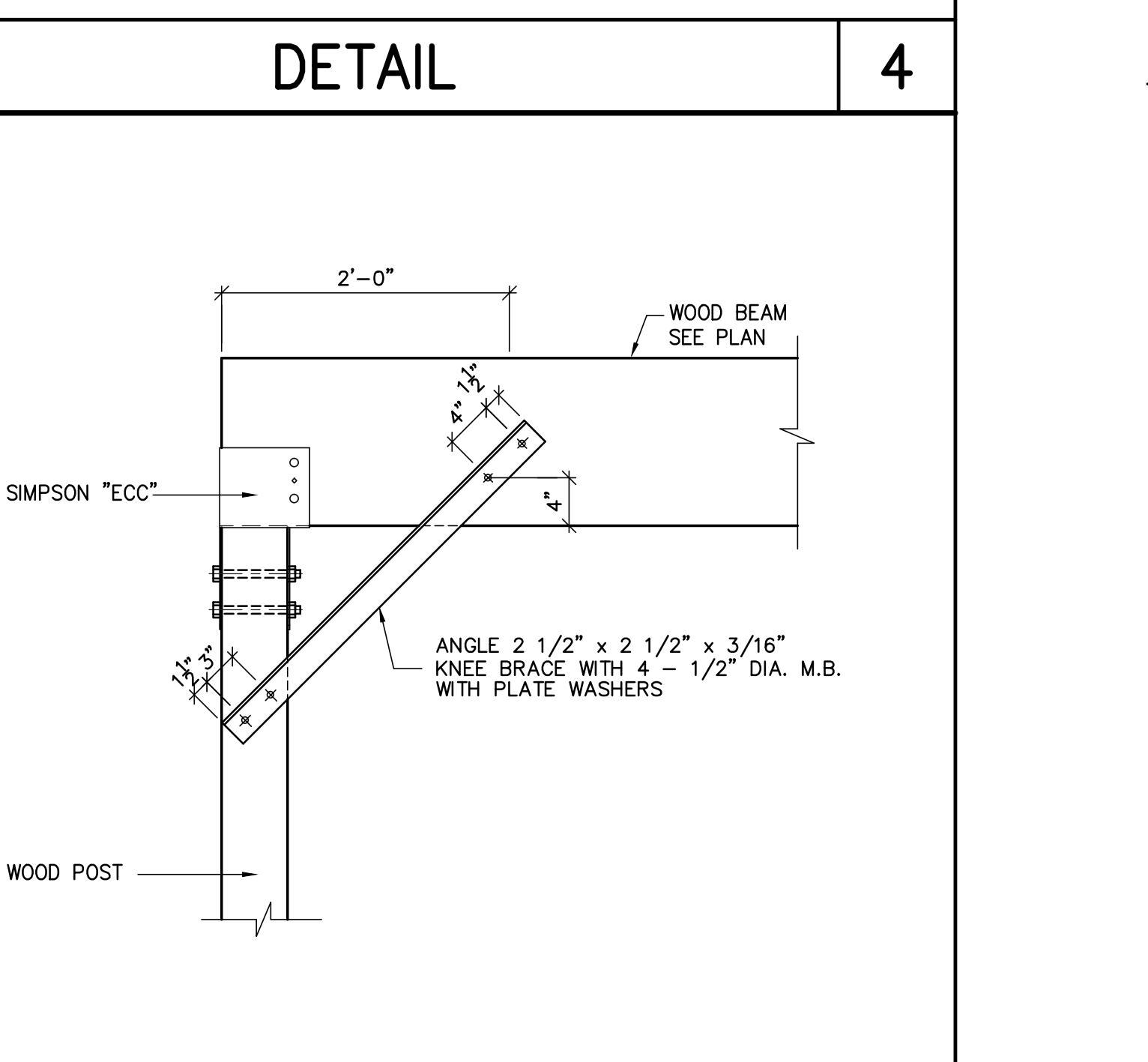
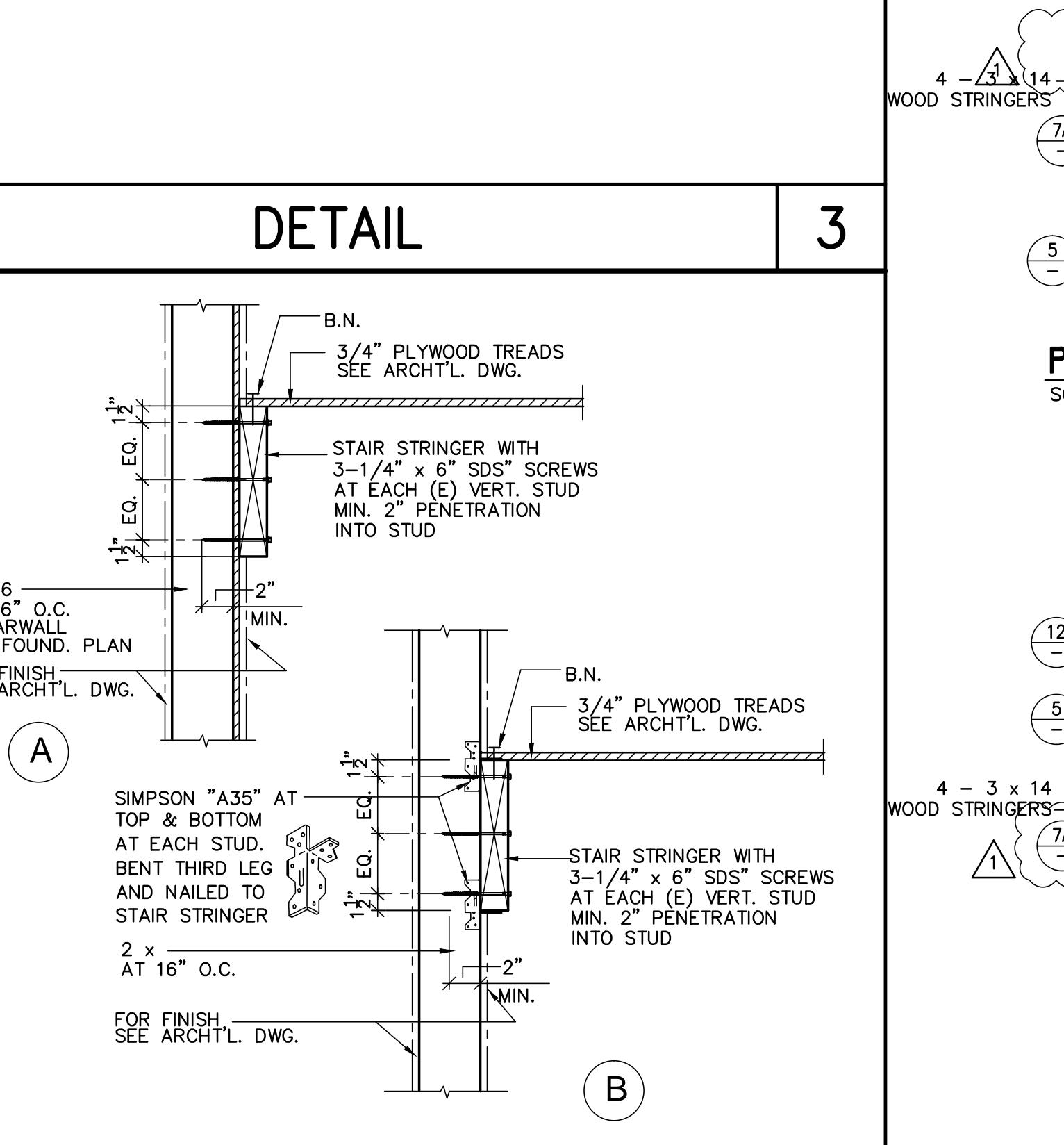
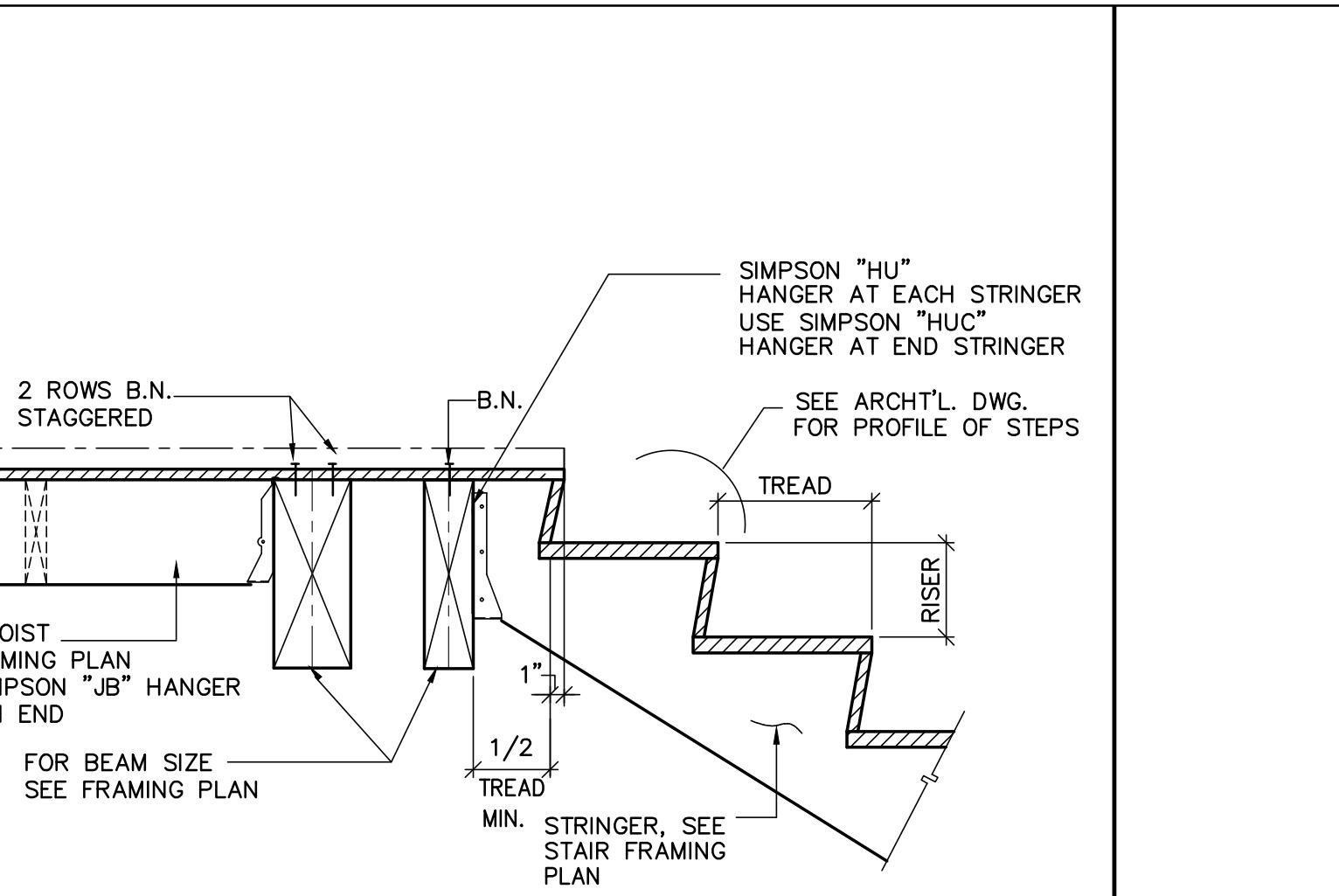
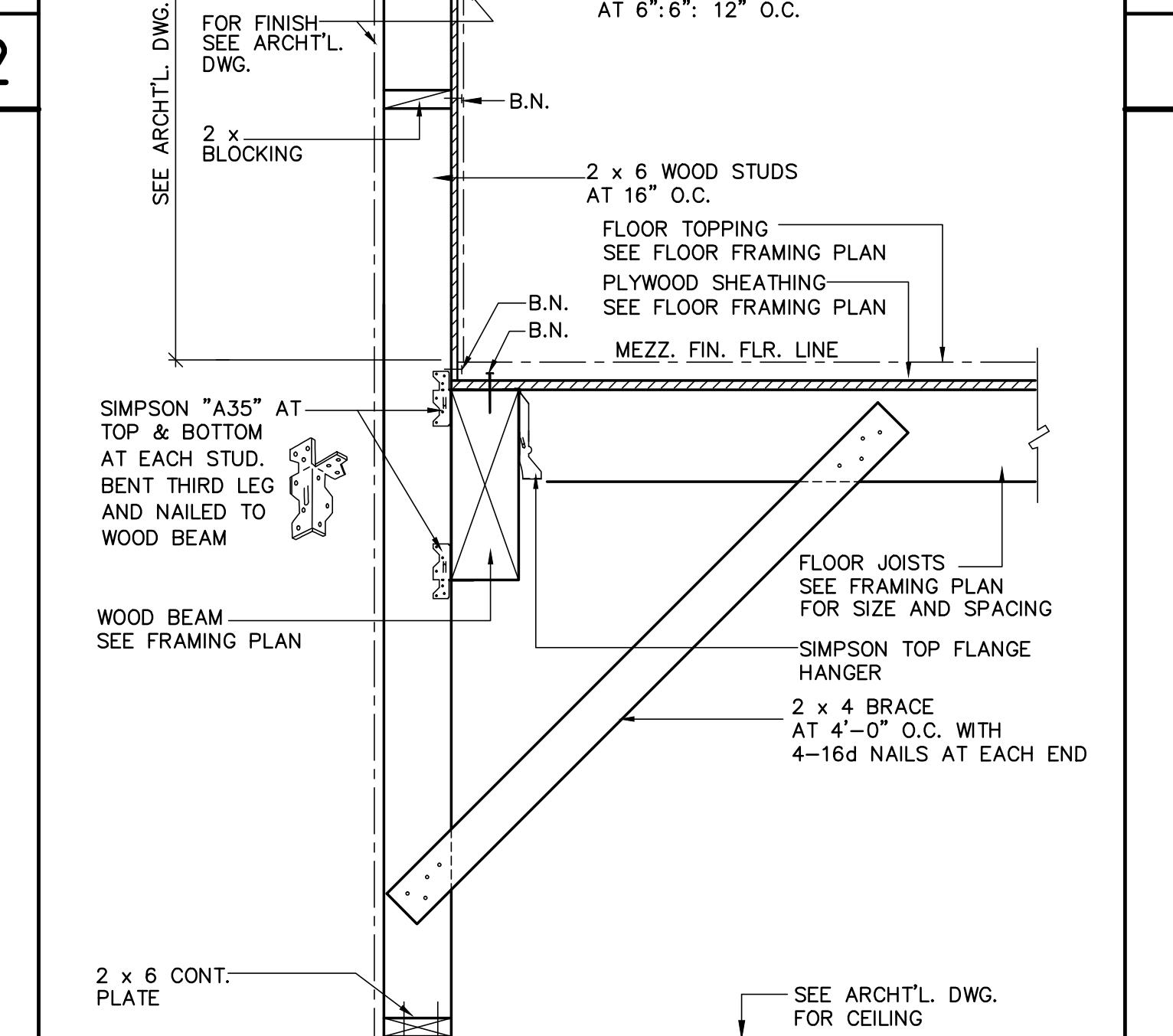
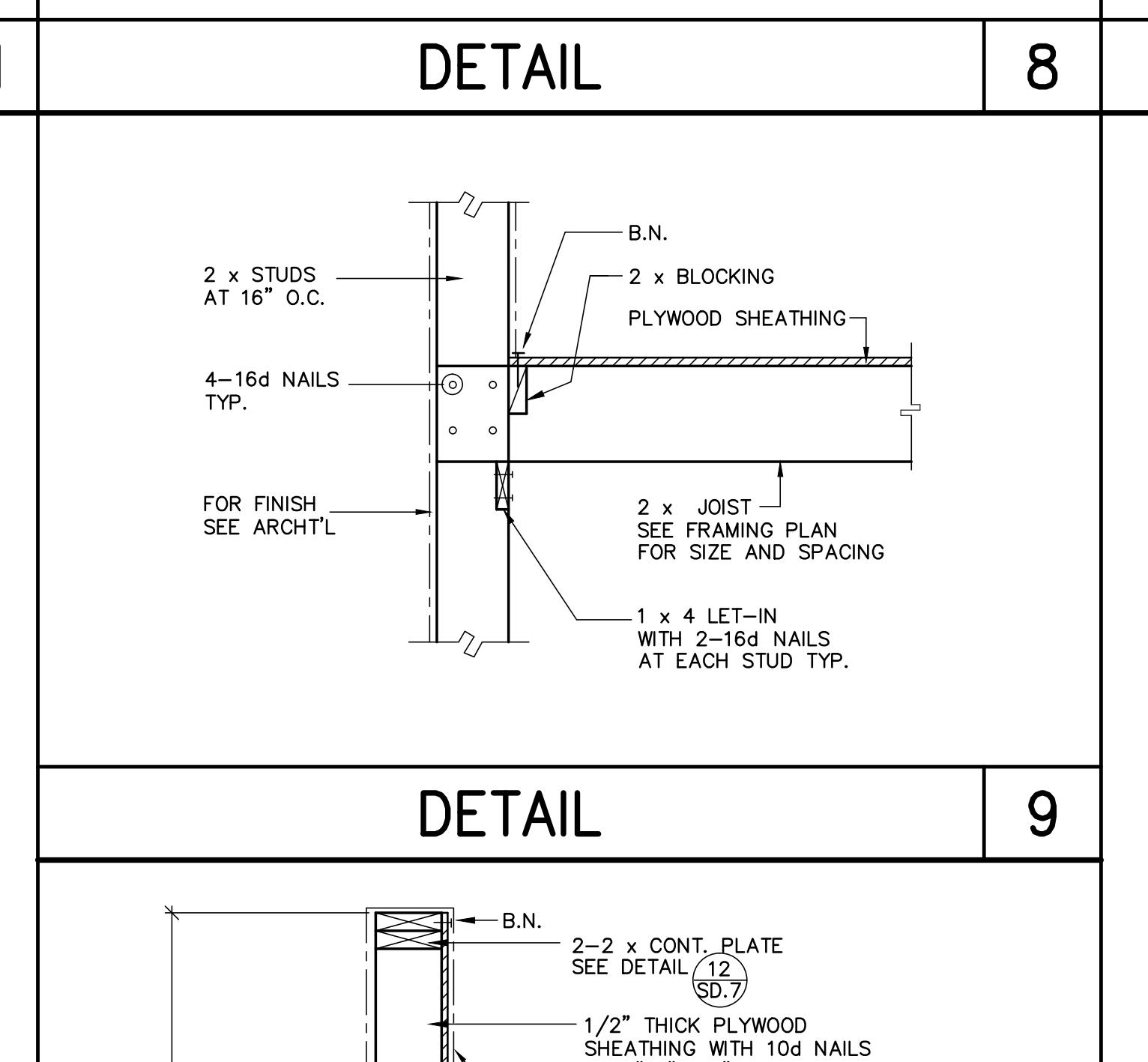
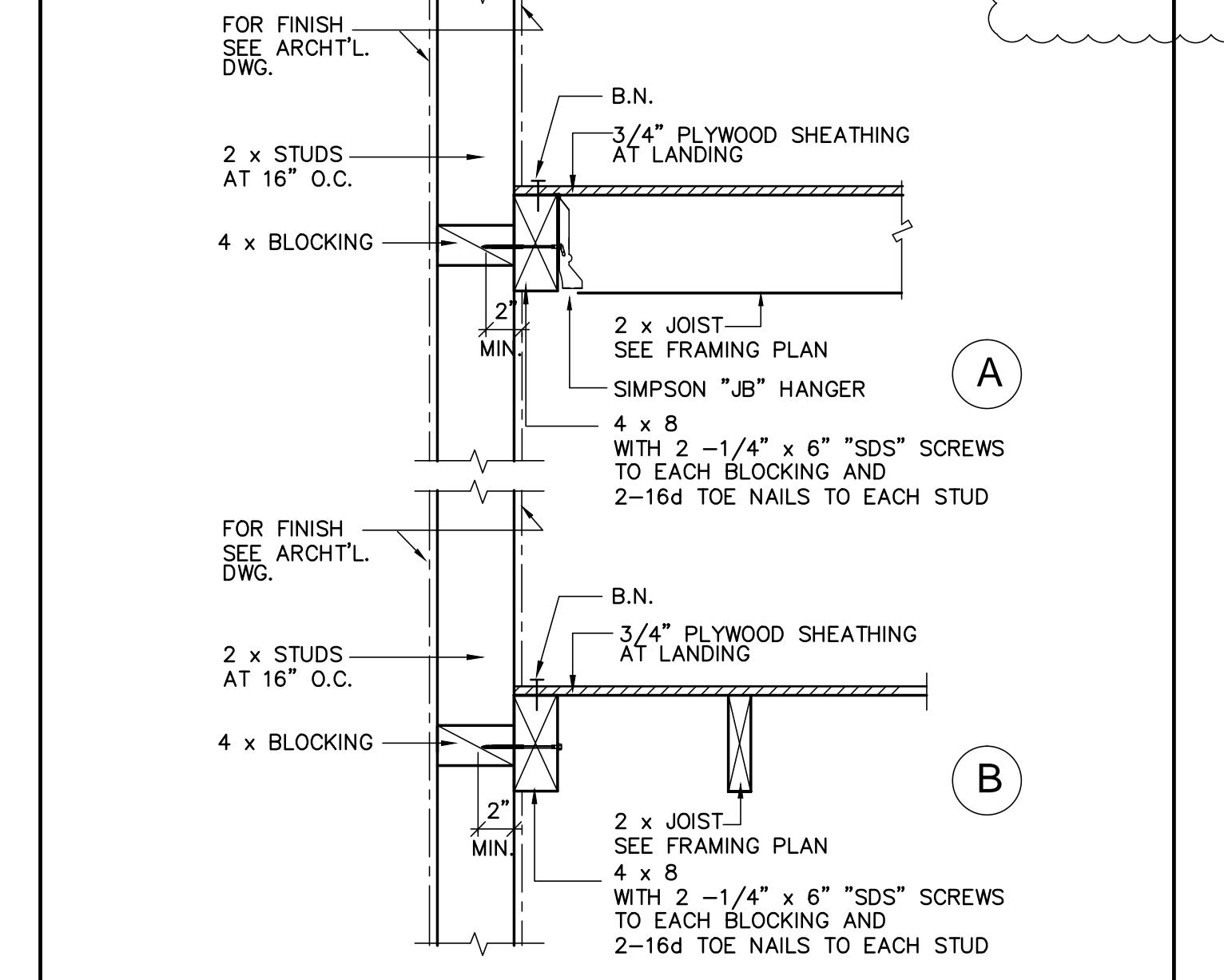
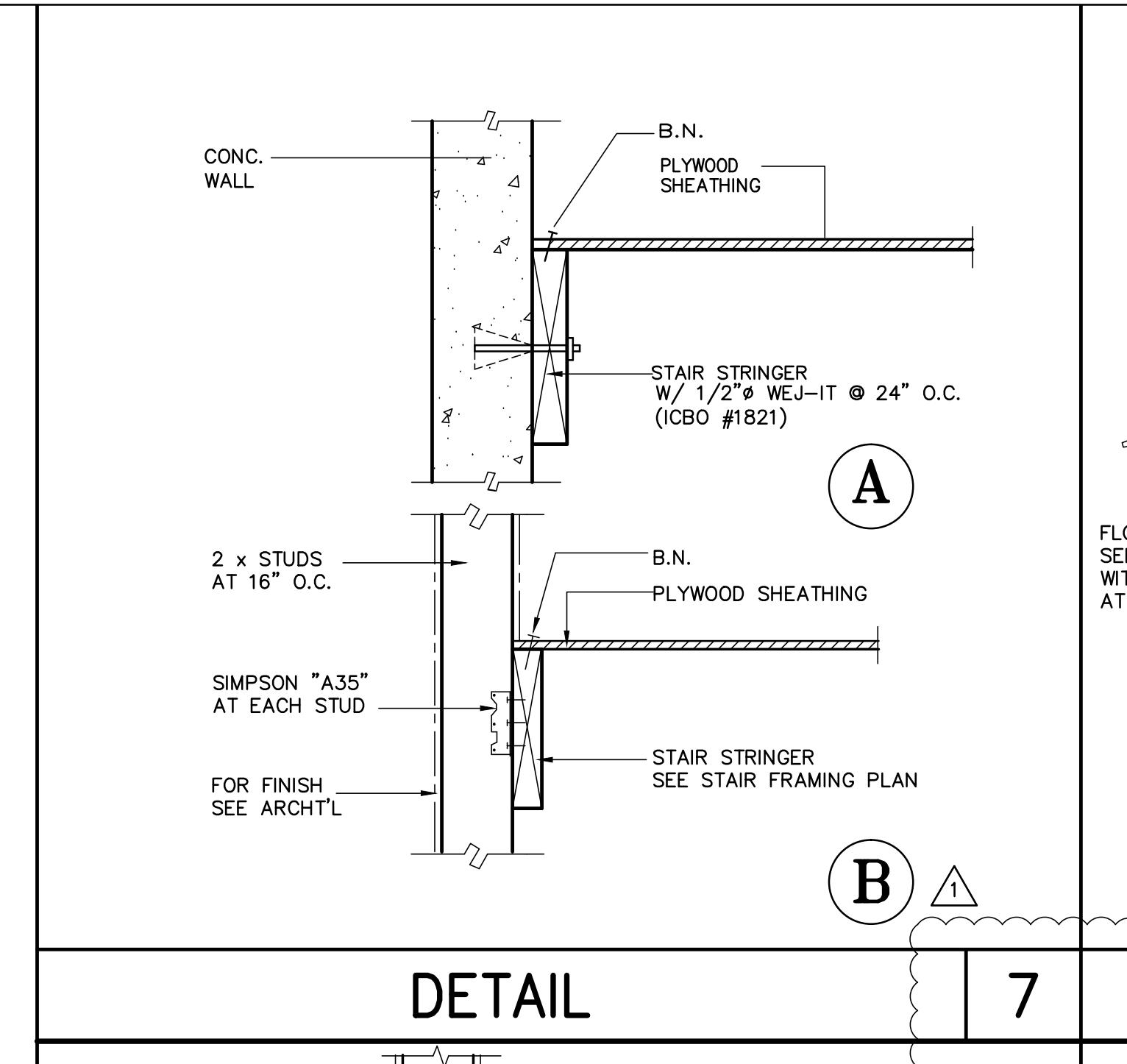
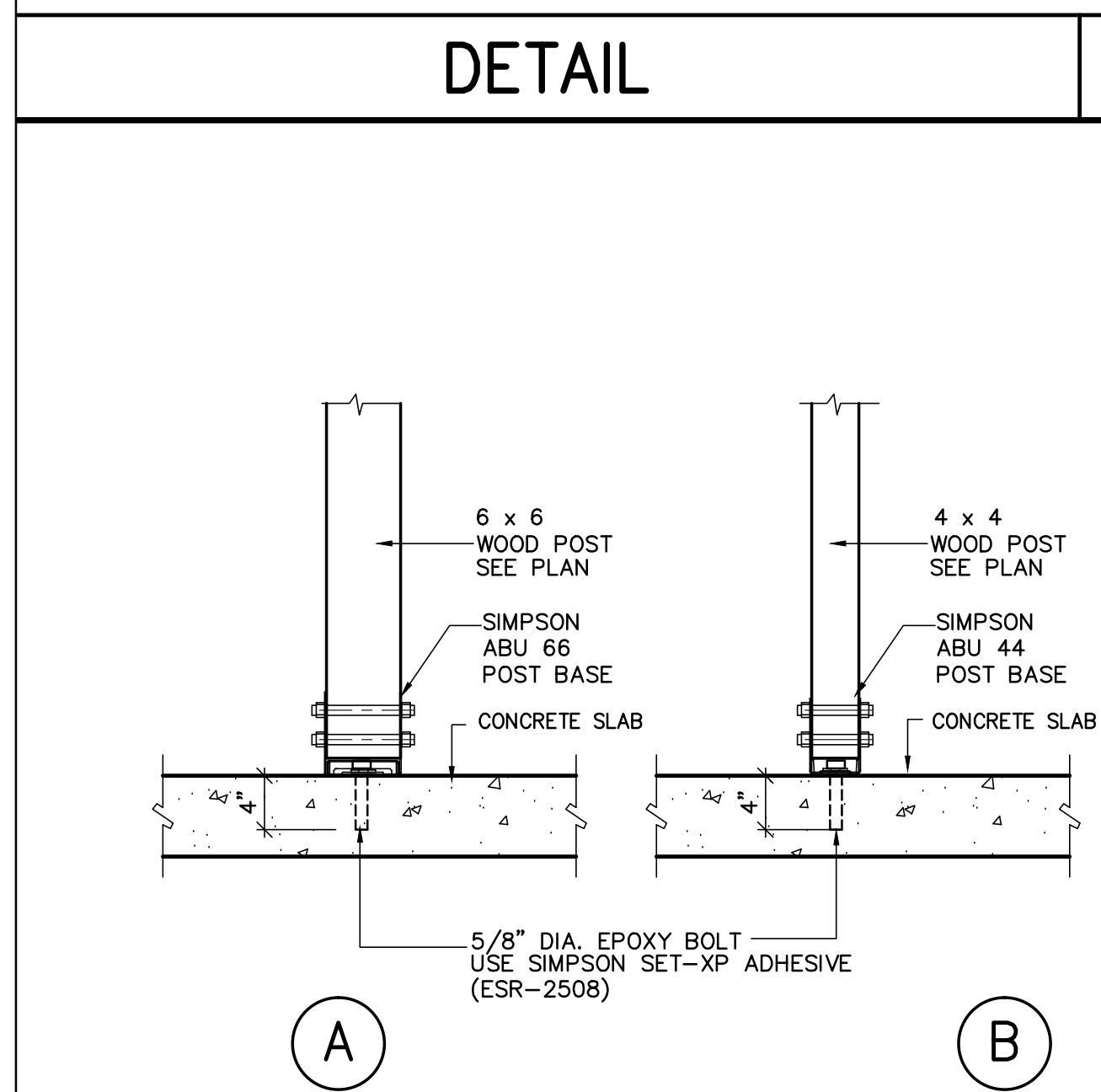
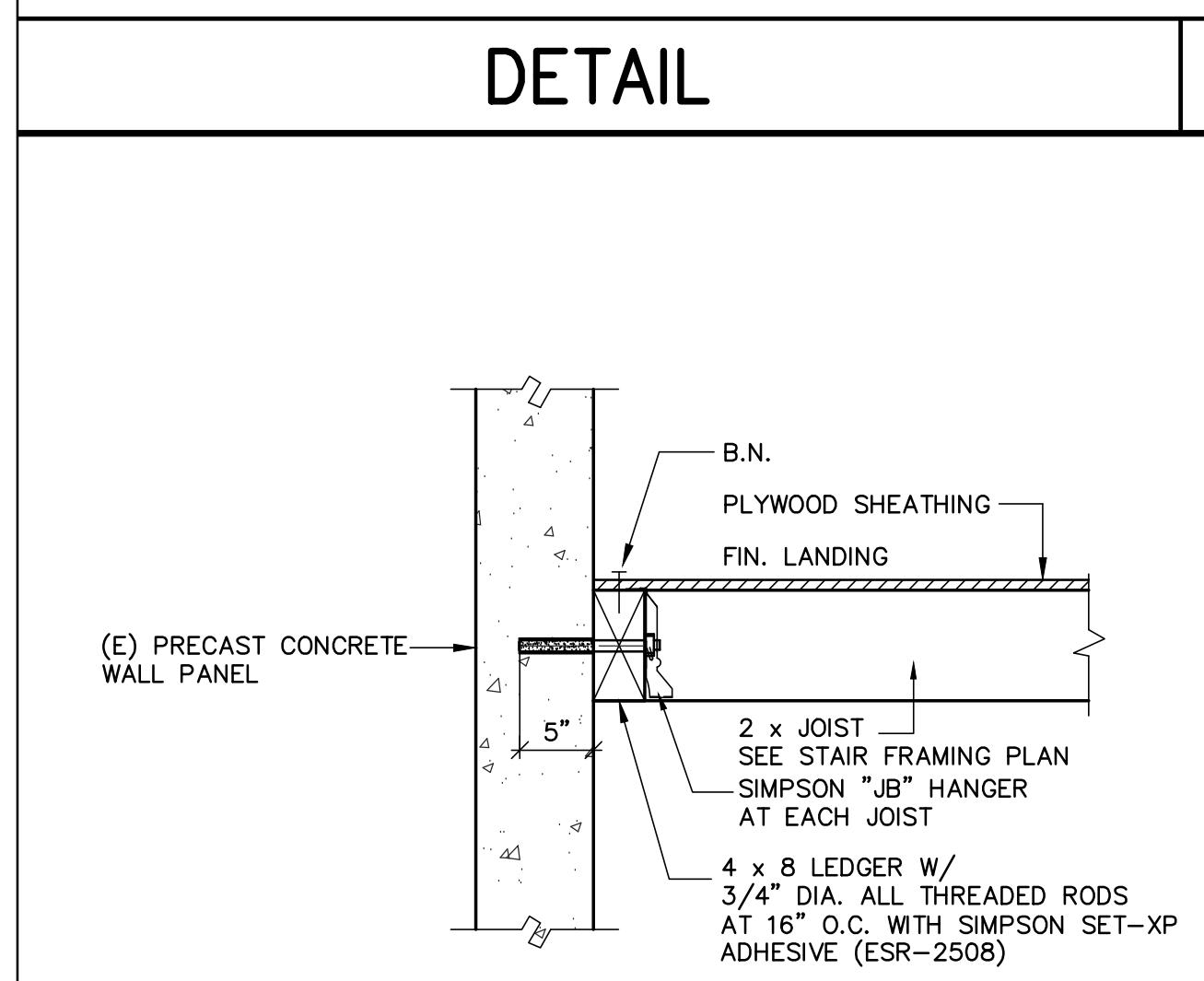
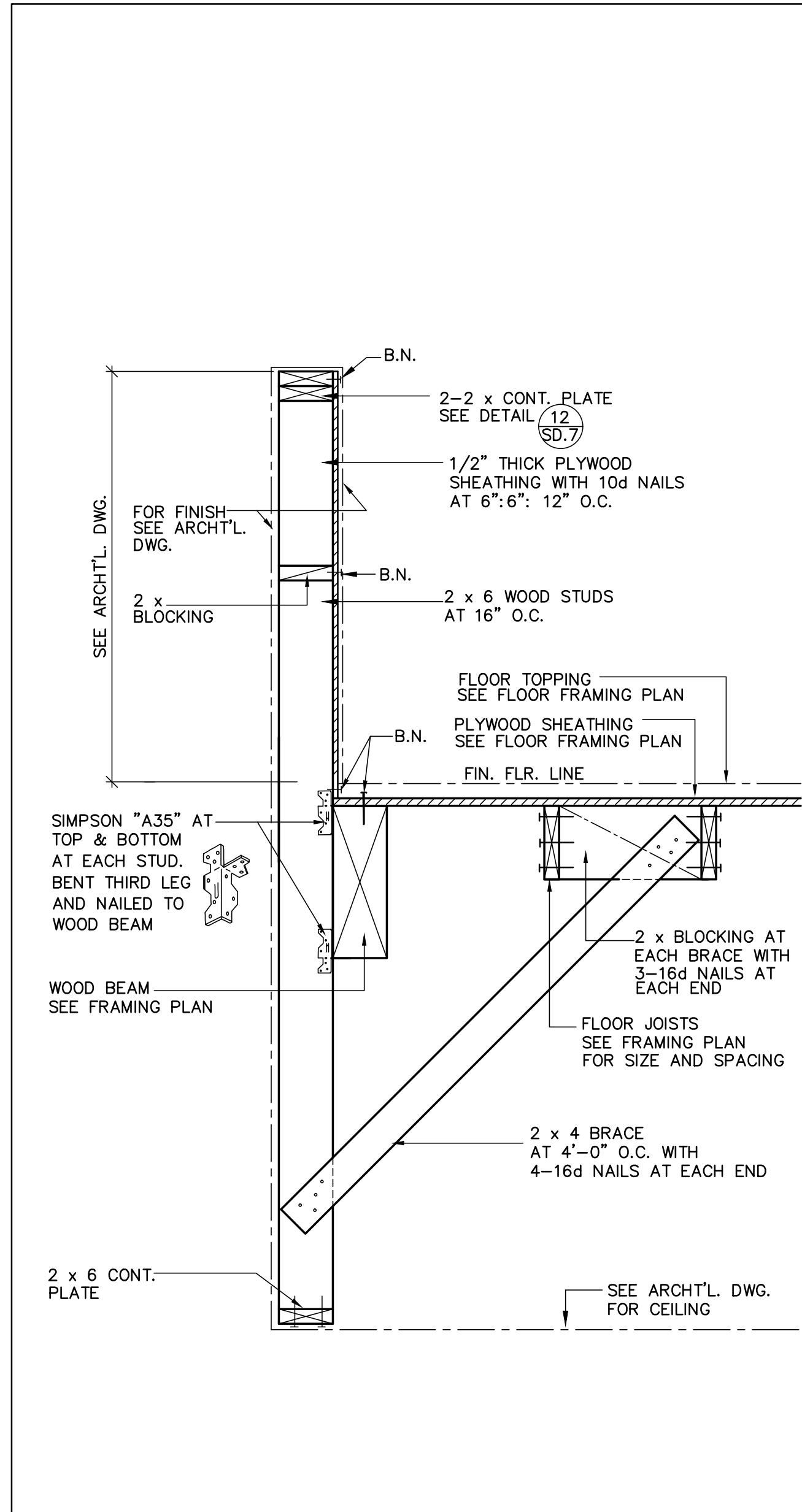
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|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| DETAIL 15 | SECTION B | SECTION A | SECTION C | SECTION D | SECTION E |
| <p>FLOOR FRAMING DETAIL</p> |
| DETAIL 16 | DETAIL 12 | DETAIL 9 | DETAIL 6 | DETAIL 3 | DETAIL 7 |
| | | | | | |
| DETAIL 17 | DETAIL 13 | DETAIL 10 | DETAIL 8 | DETAIL 4 | DETAIL 18 |
| | | | | | |



OPEN BELOW

MEZZ. FLR. LEVEL

OPEN ABOVE

MEZZANINE LINE ABOVE

OPEN ABOVE

FORMED METAL PANS WITH CONCRETE FILLING VERIFY WITH ARCHTL. DWG.

OPEN ABOVE

MEZZANINE LINE ABOVE

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FORMED METAL PANS WITH CONCRETE FILLING VERIFY WITH ARCHTL. DWG.

OPEN ABOVE

MEZZANINE LINE ABOVE

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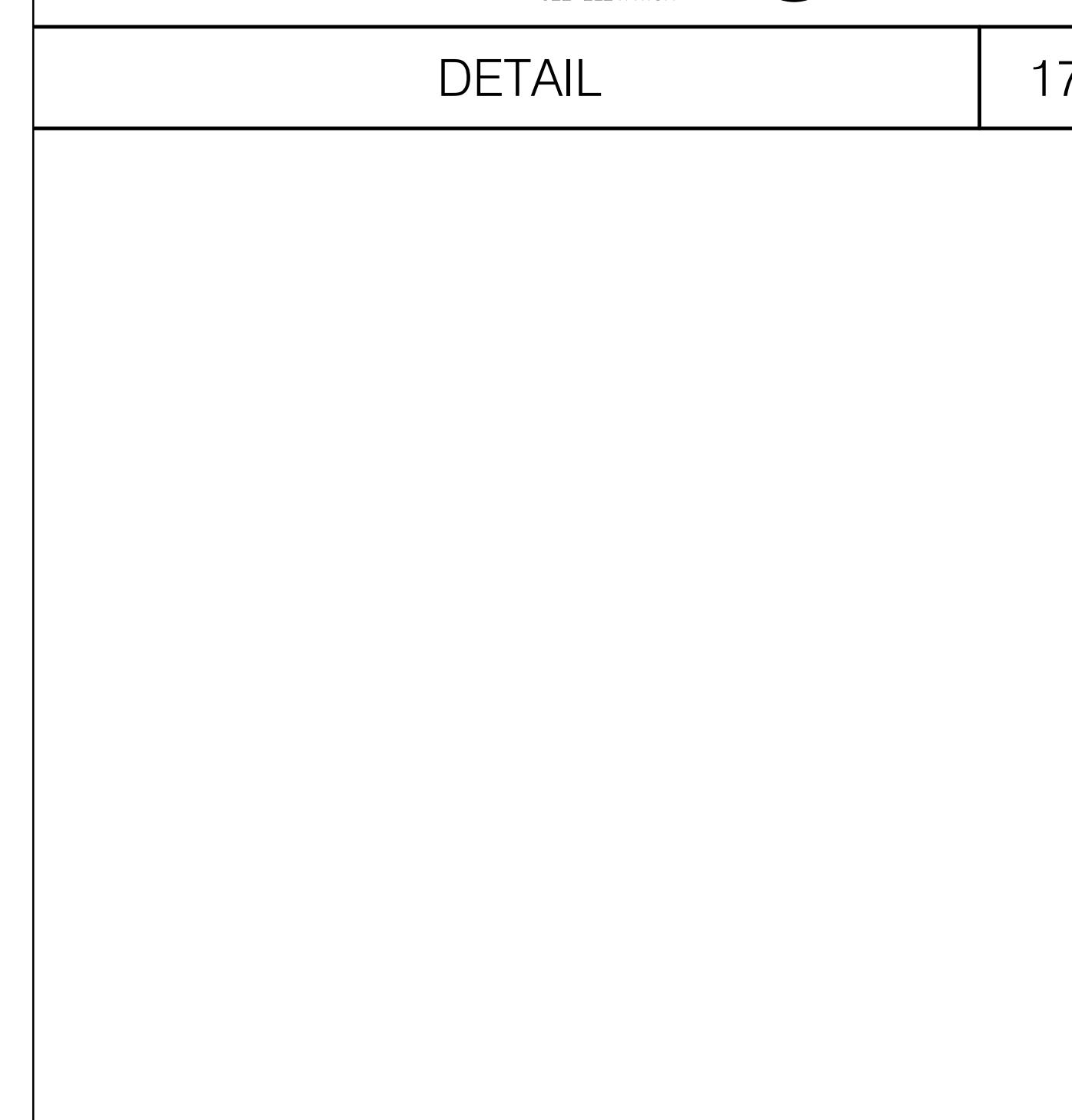
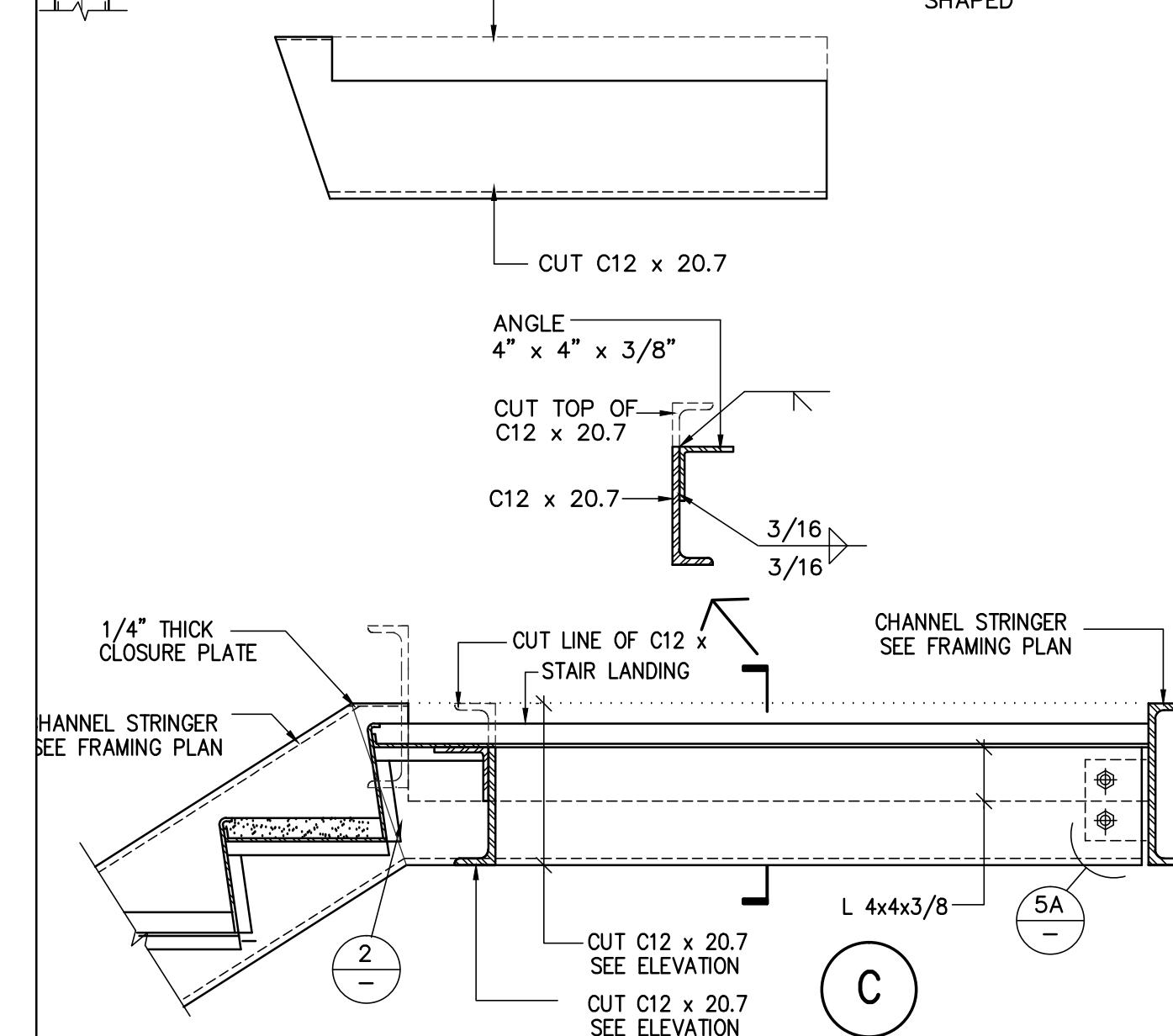
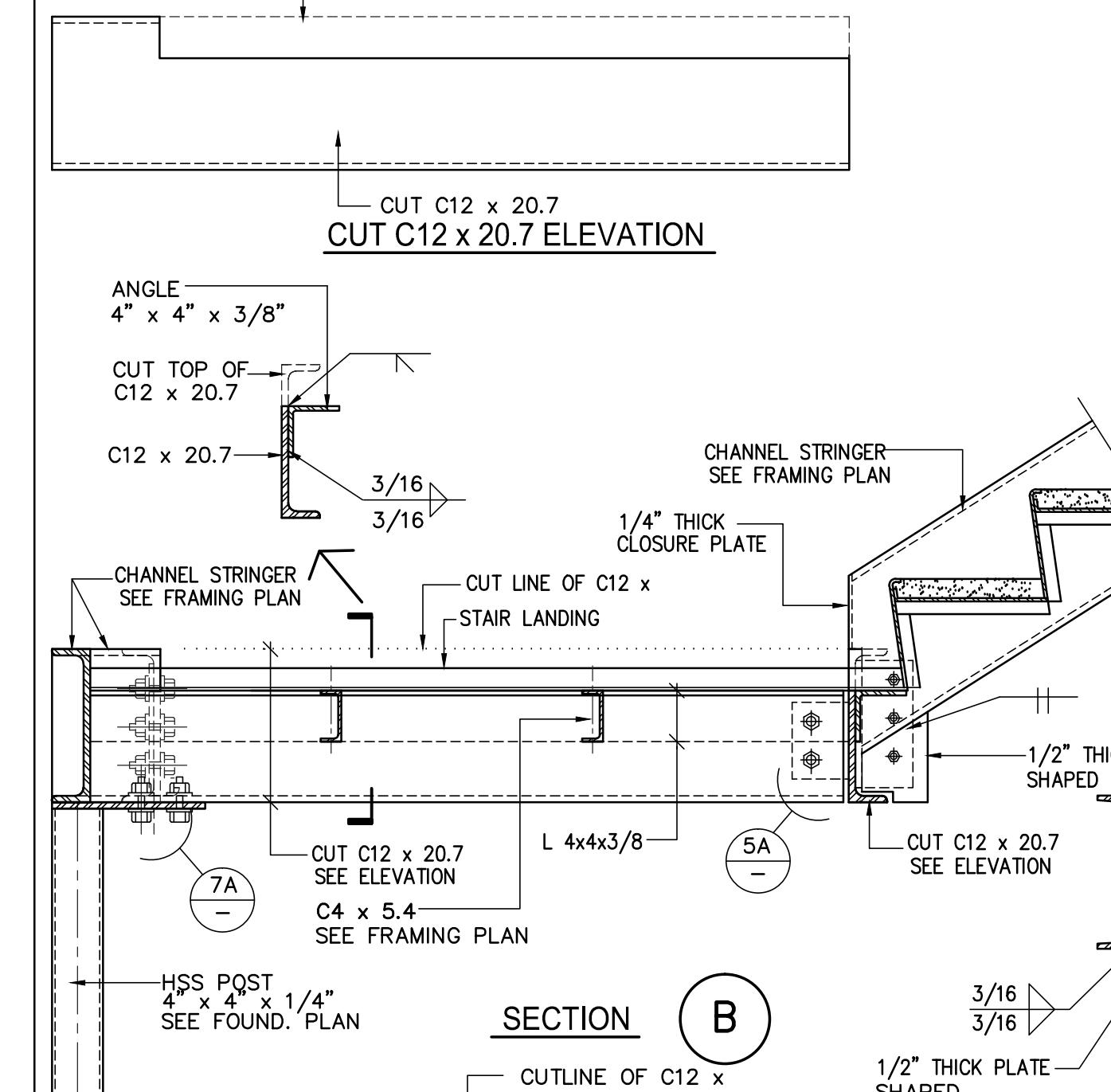
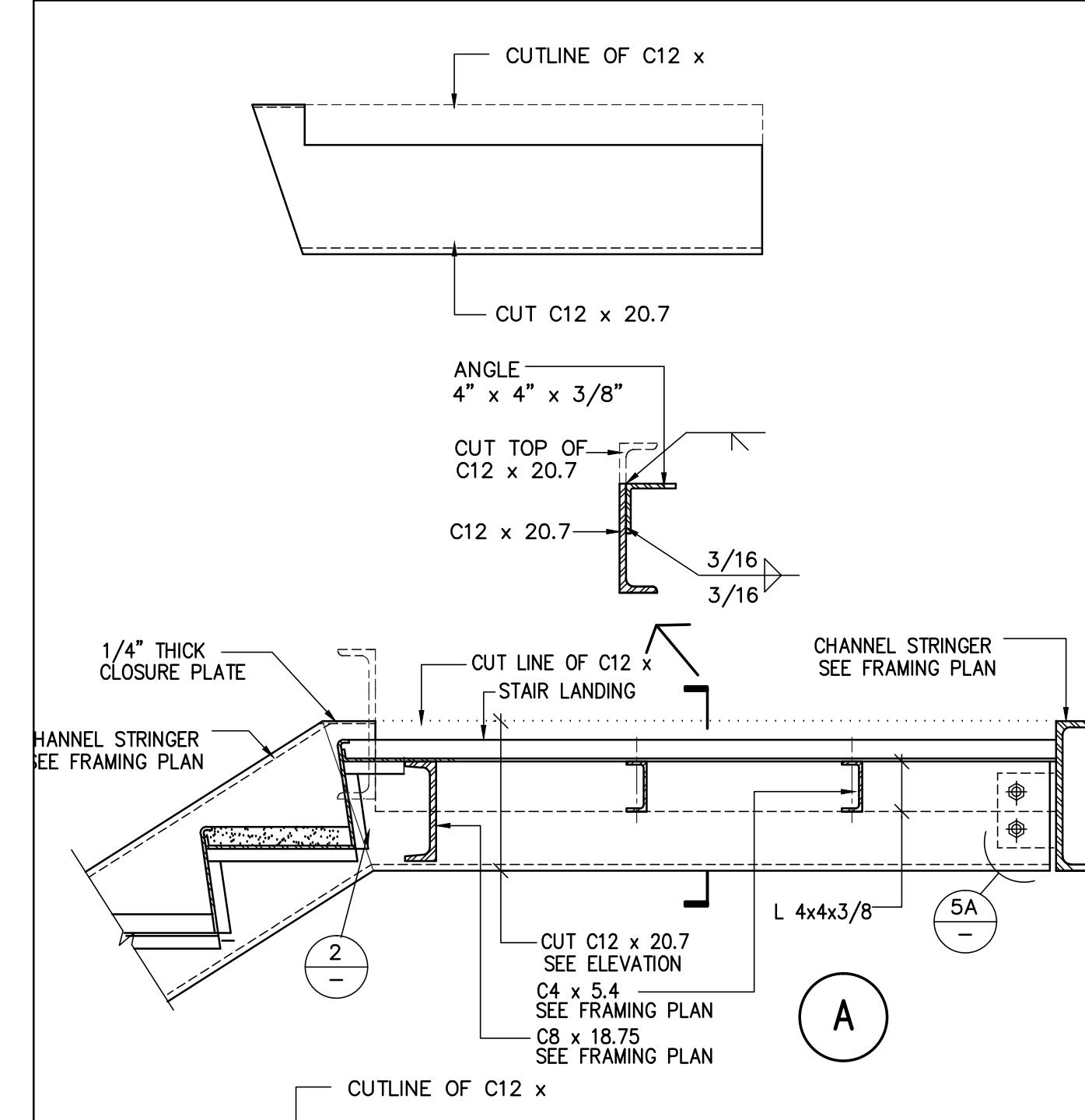
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OPEN ABOVE

MEZZANINE LINE ABOVE

OPEN ABOVE

FORMED METAL PANS WITH CONCRETE FILLING VERIFY WITH ARCHTL. DWG.



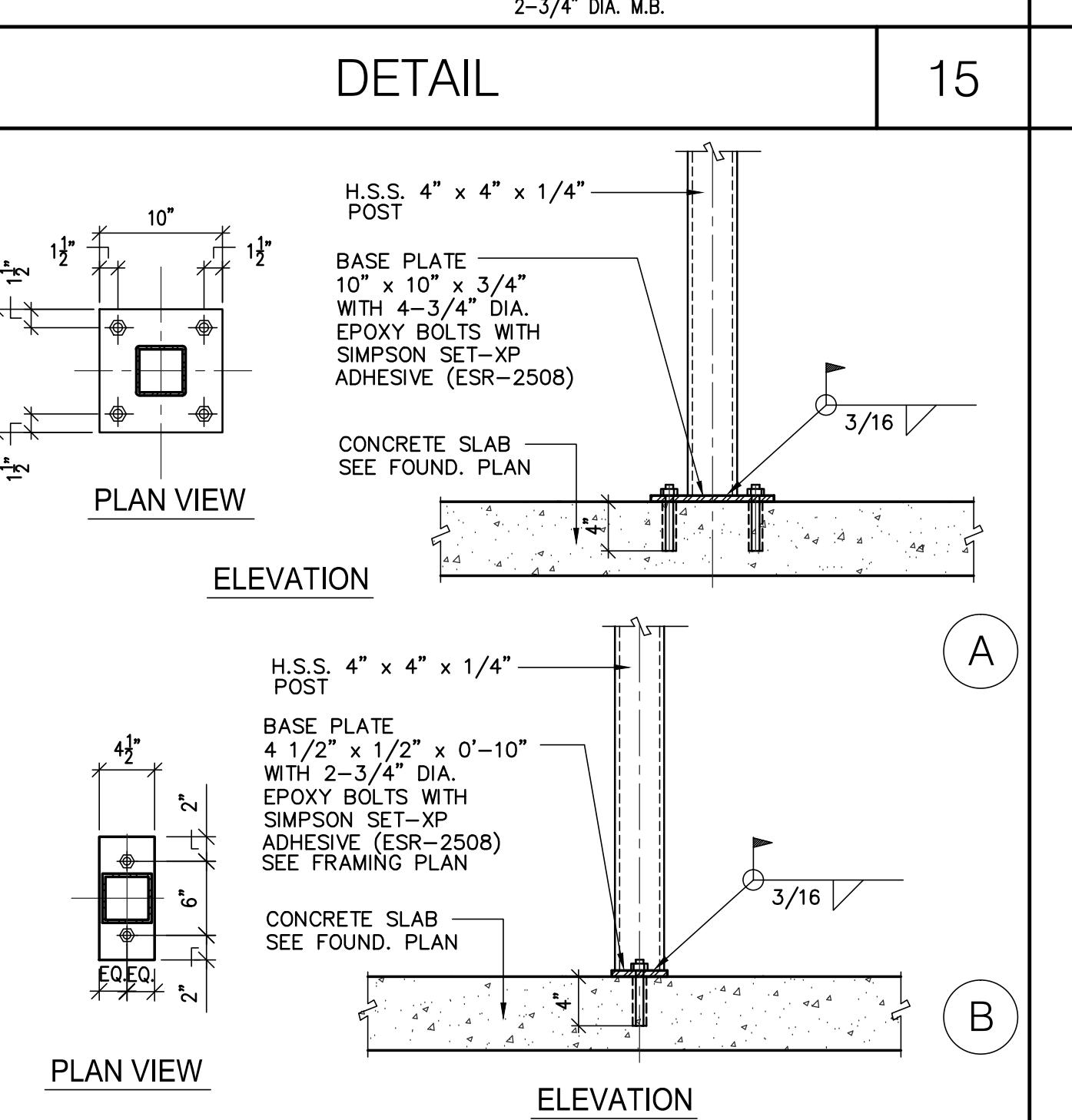
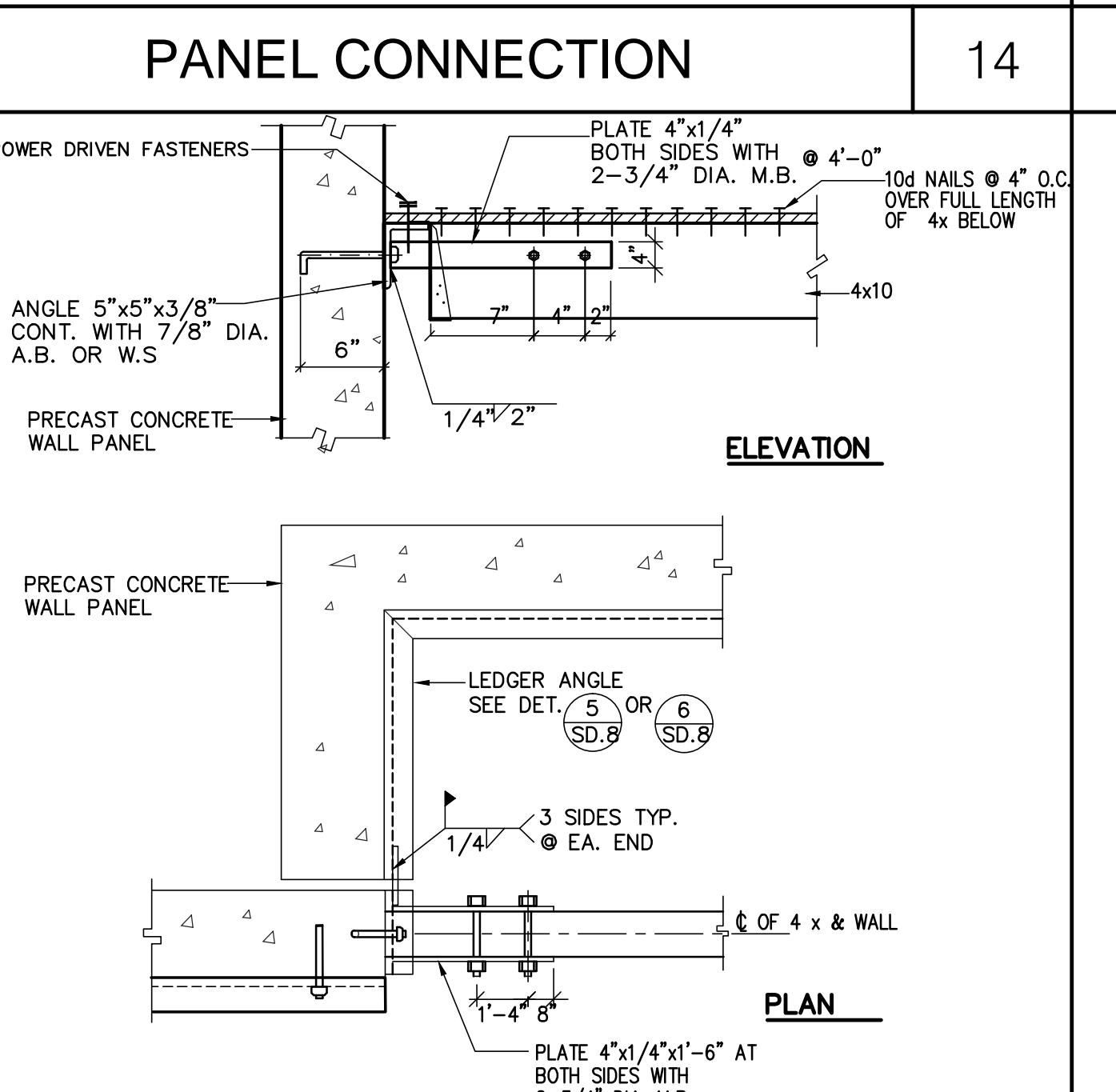
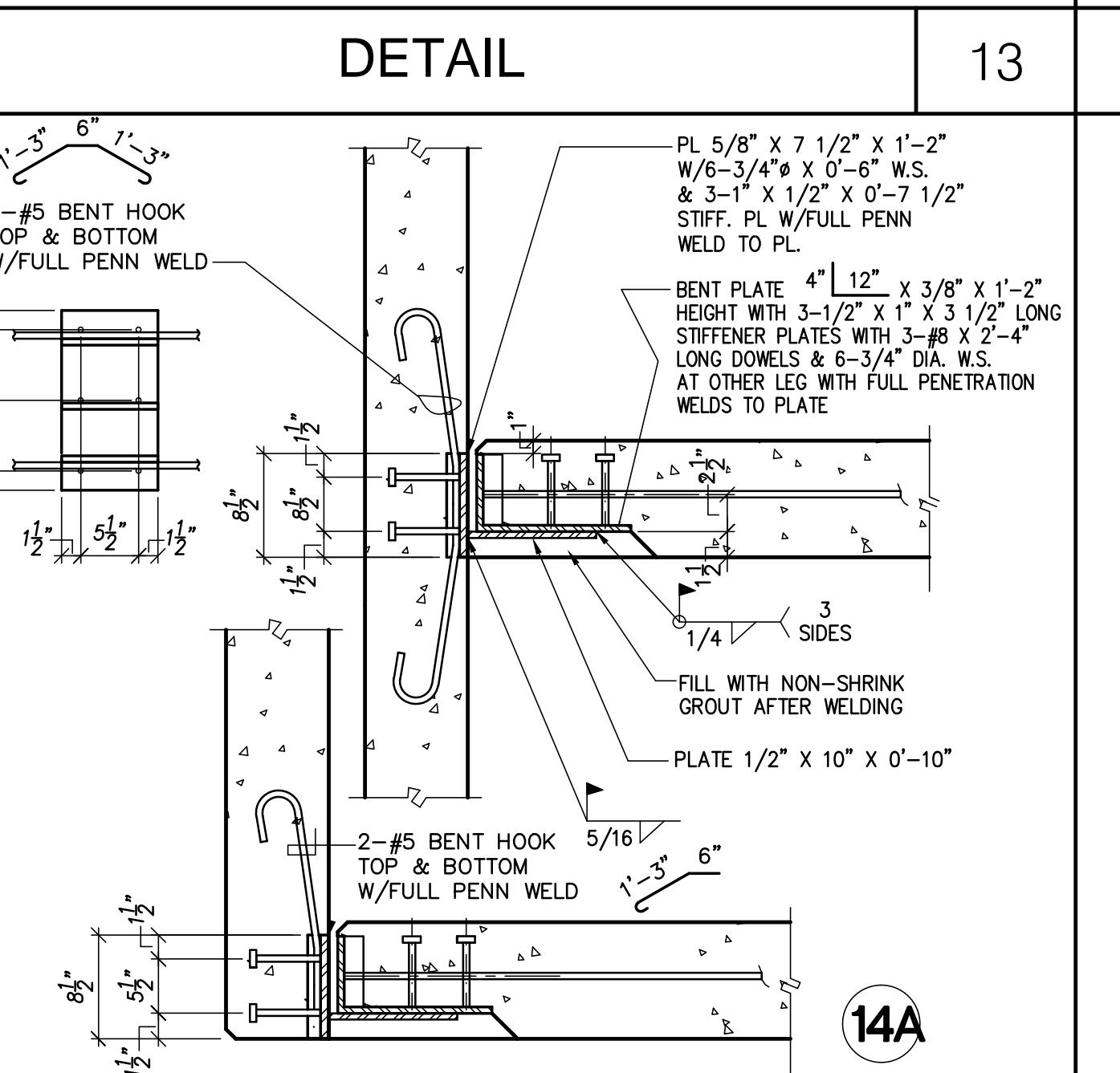
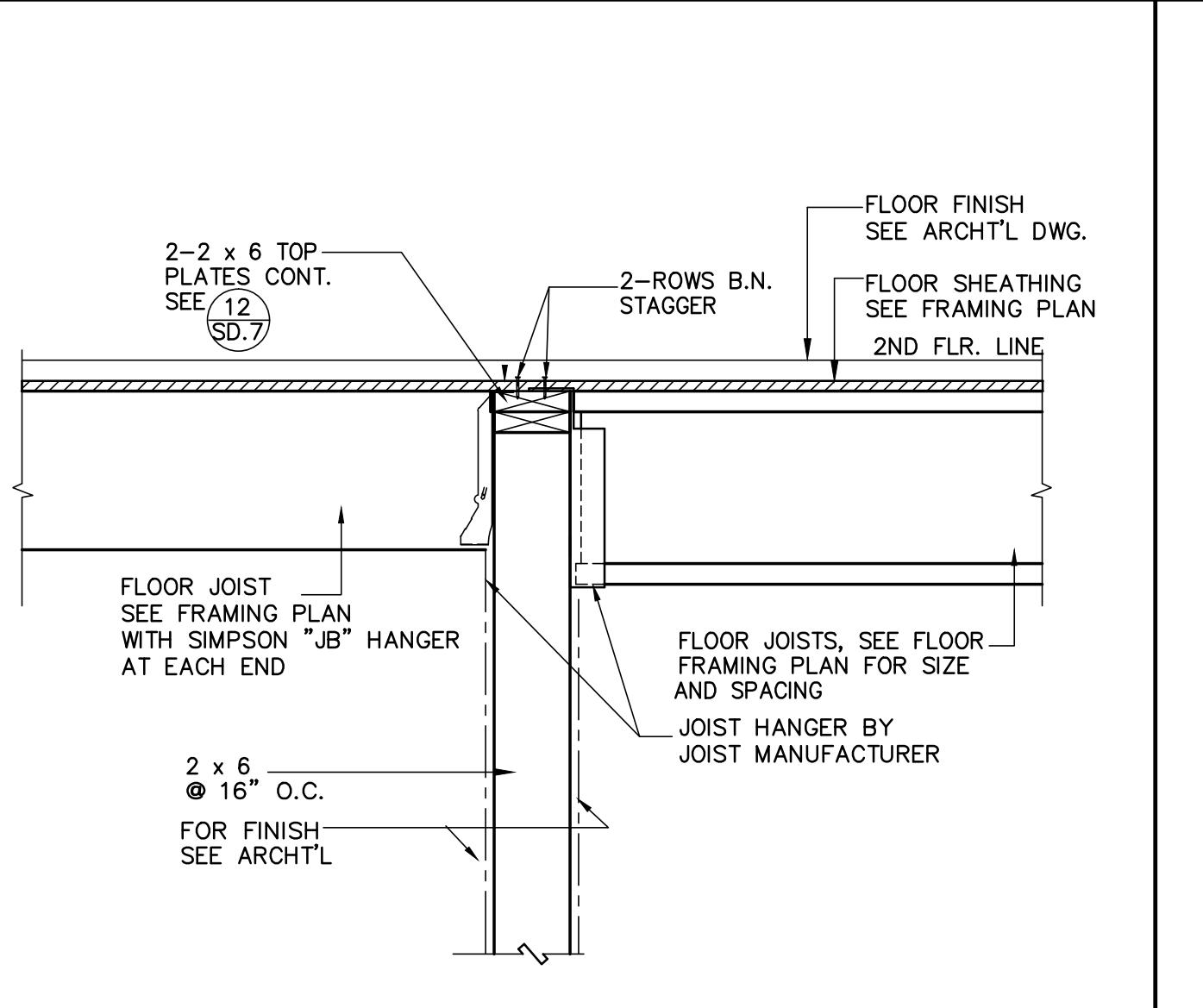
DETAIL 18

DETAIL 16

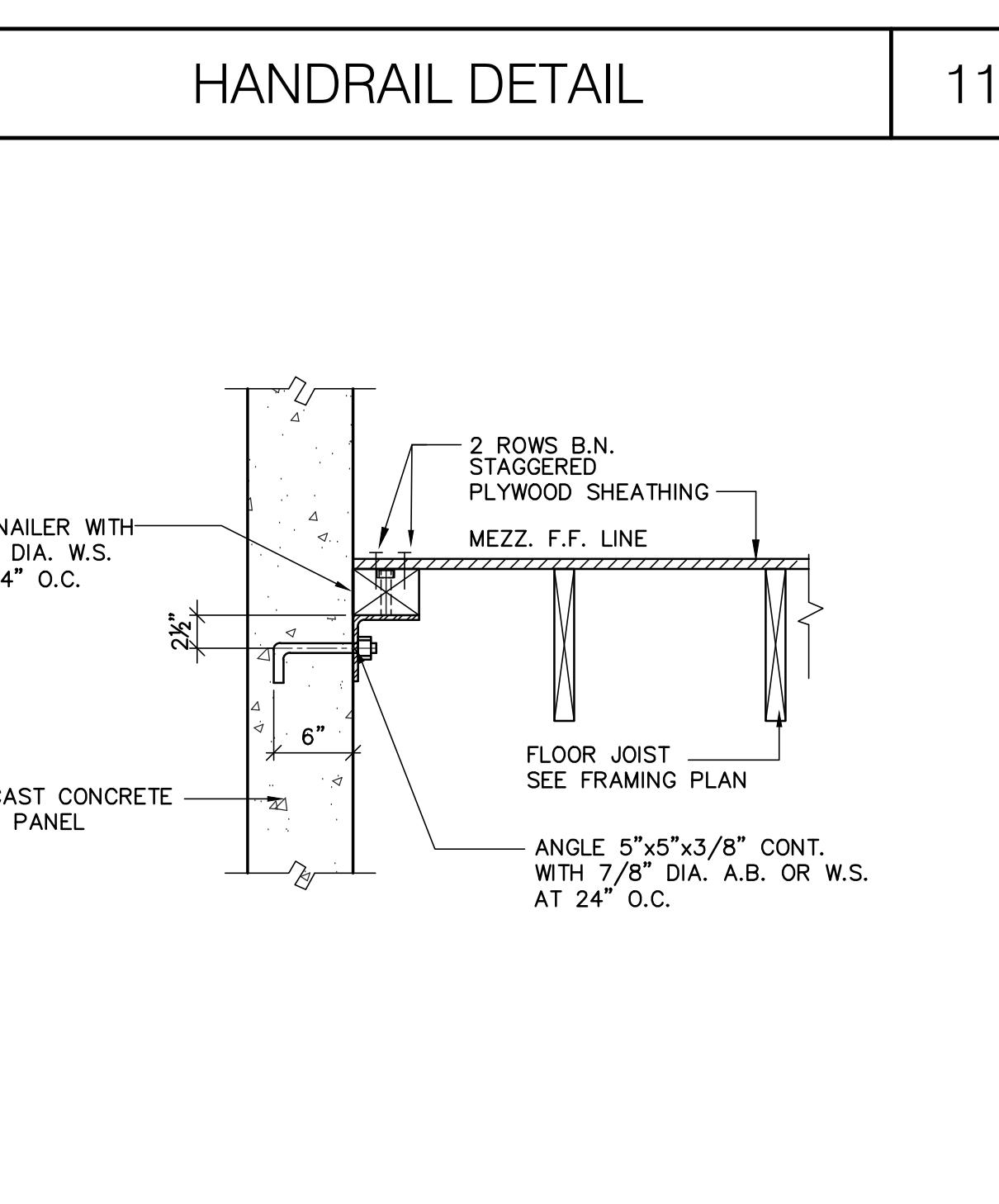
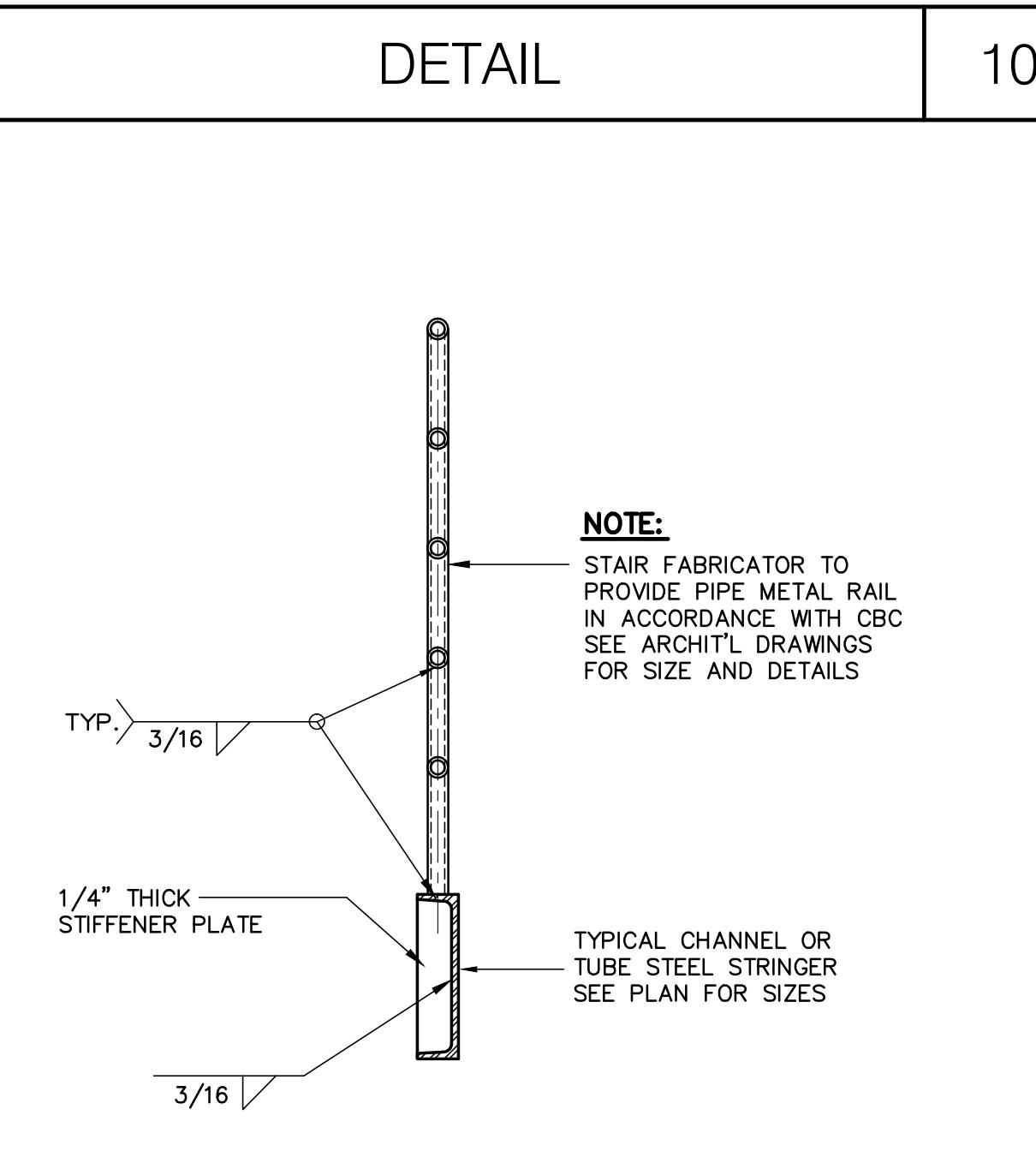
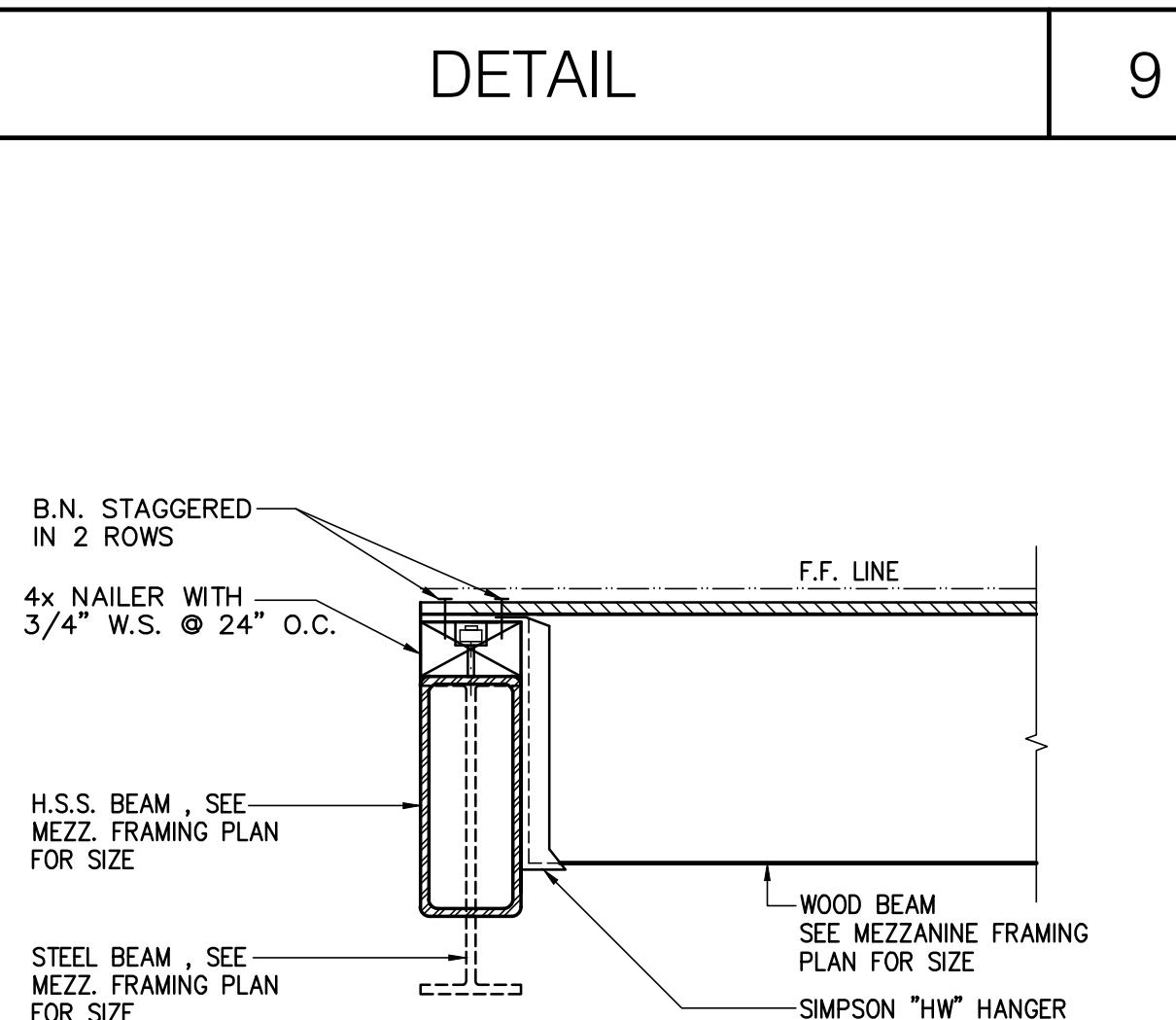
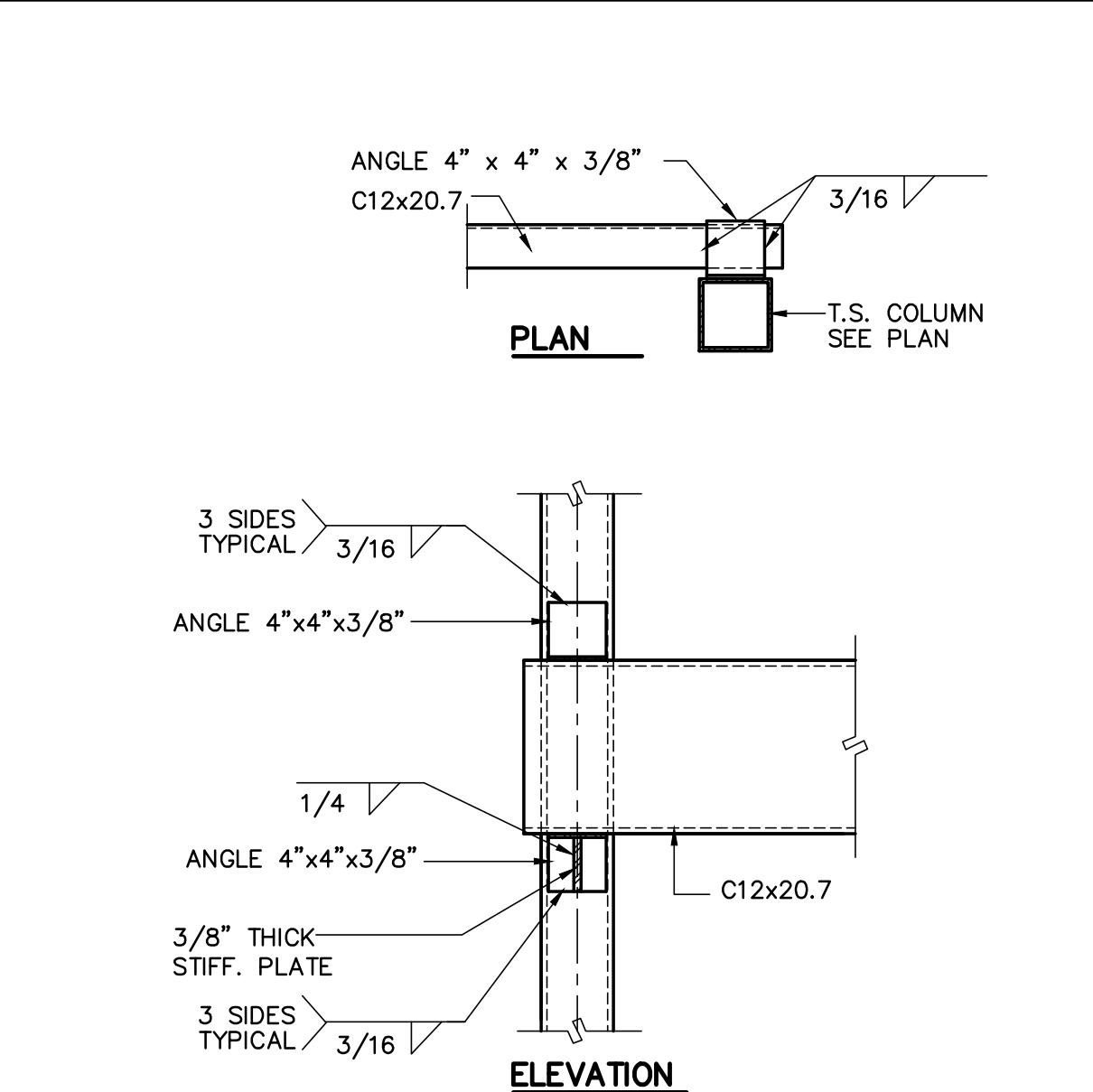
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DETAIL 8

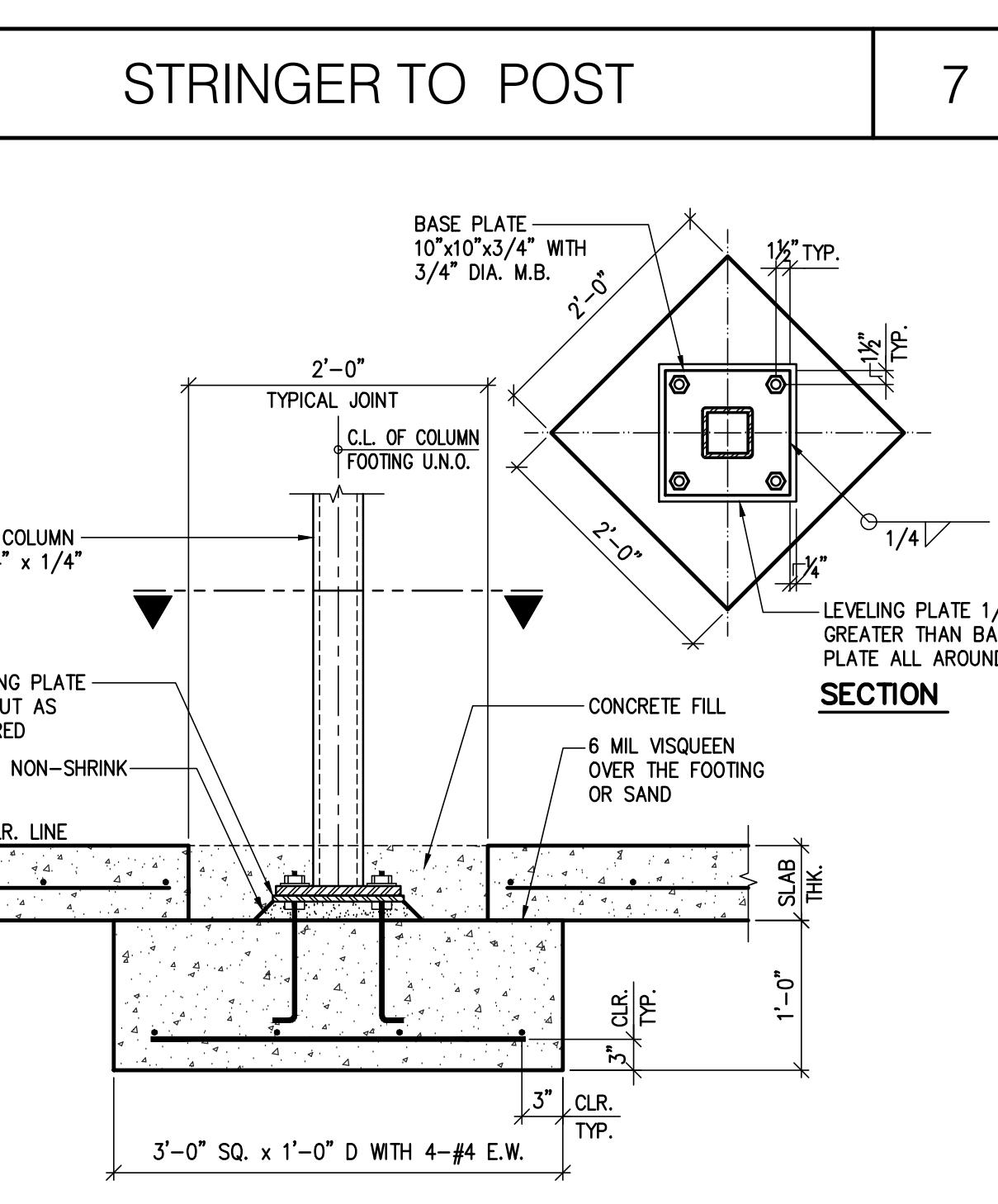
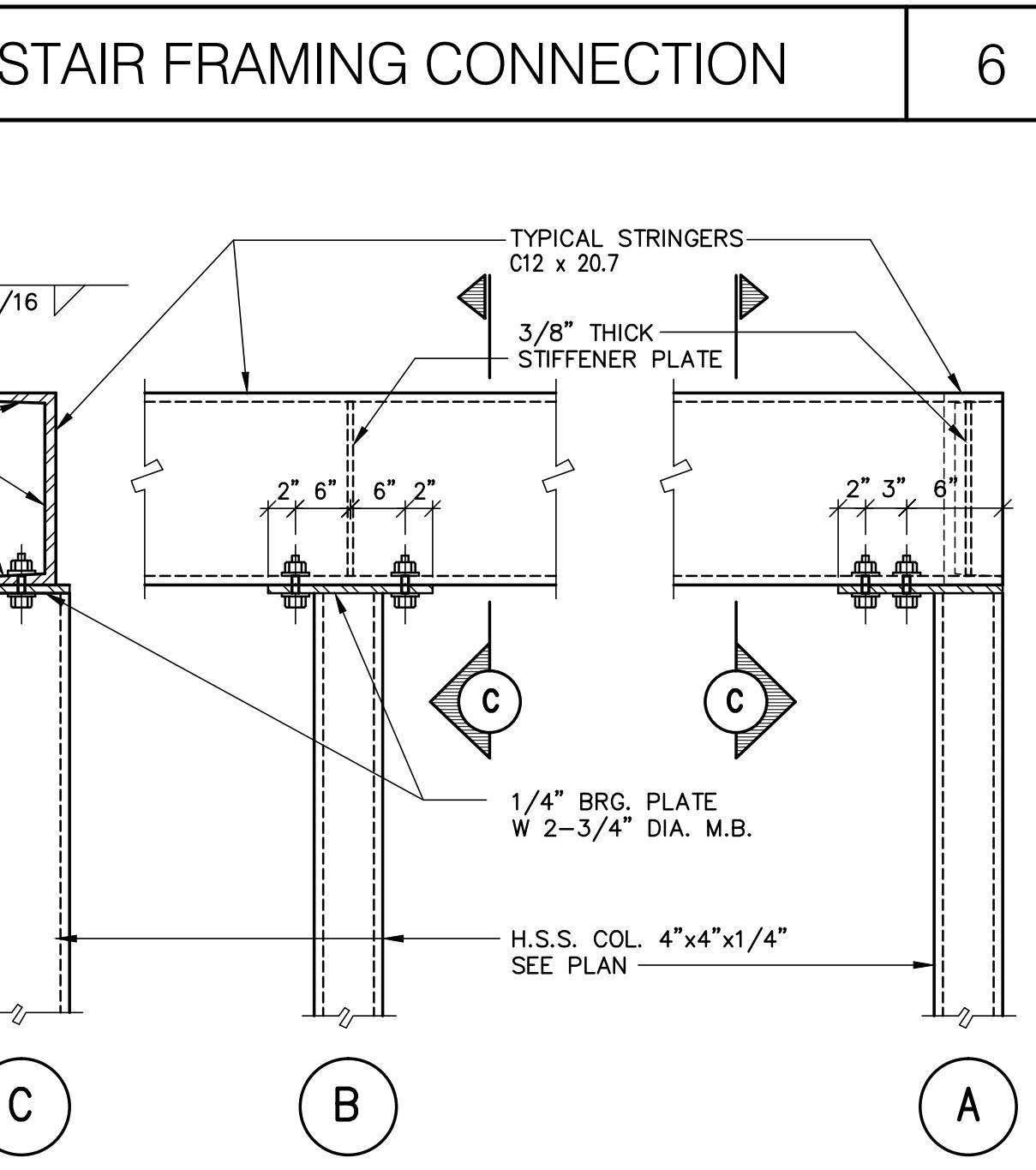
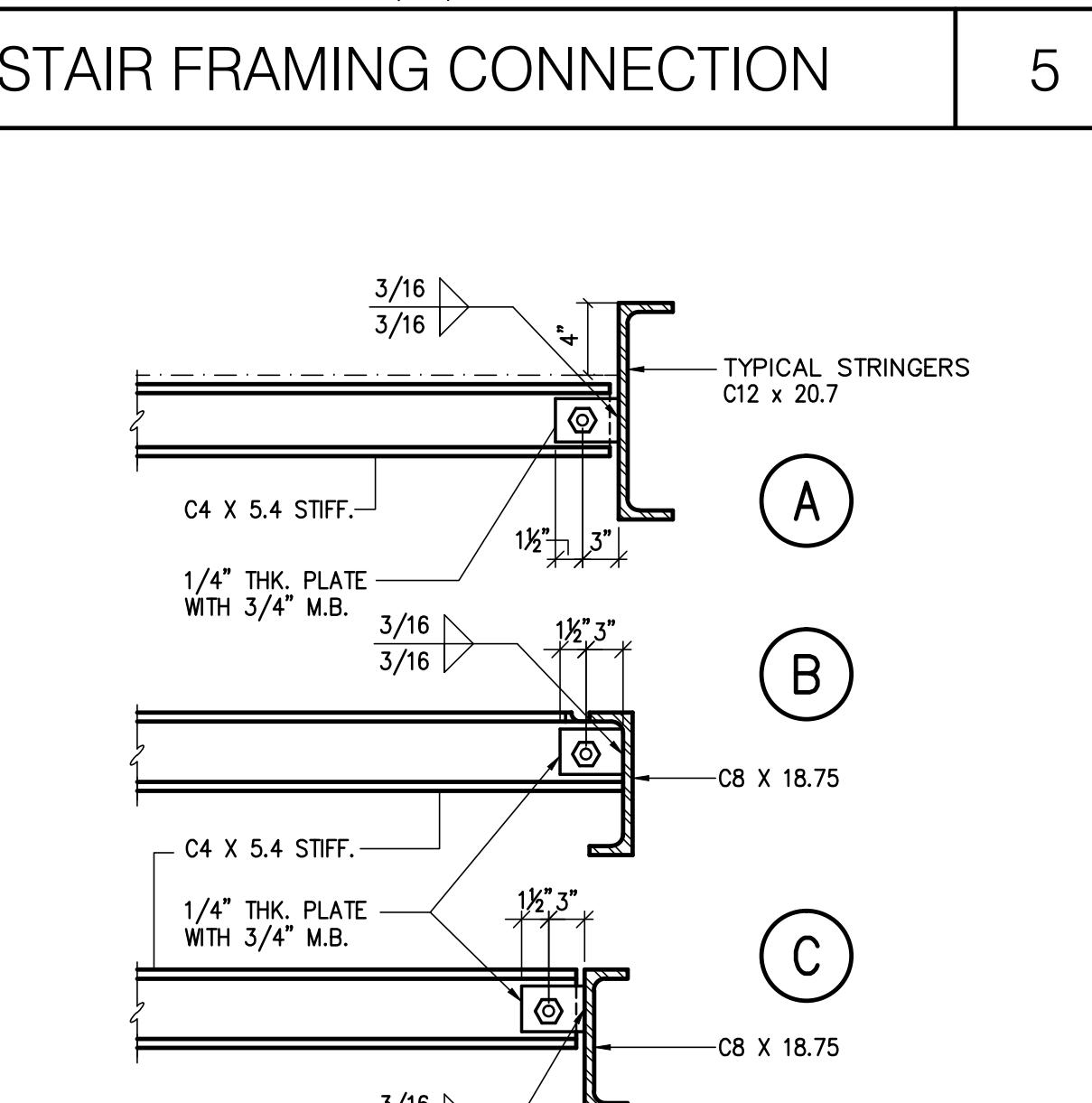
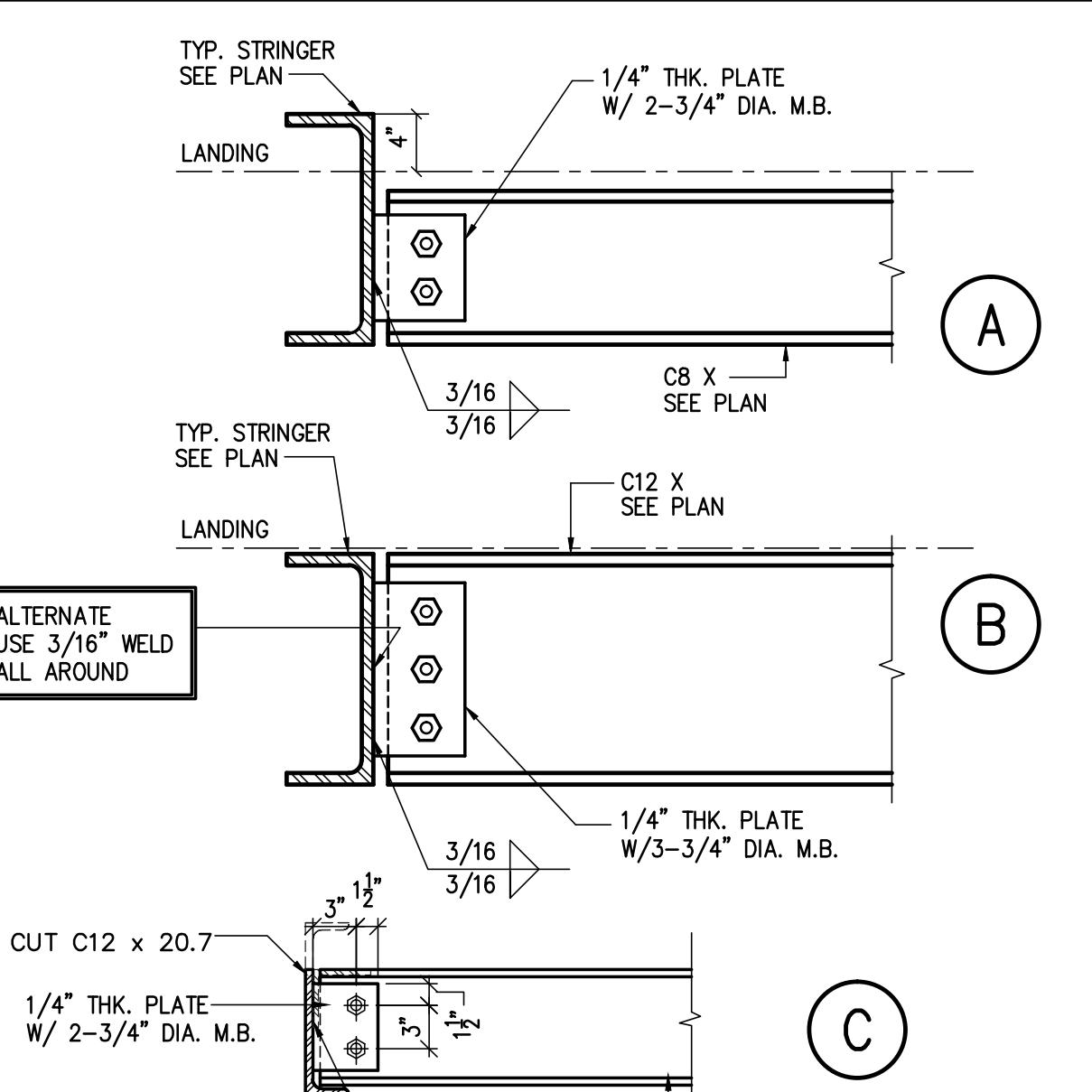
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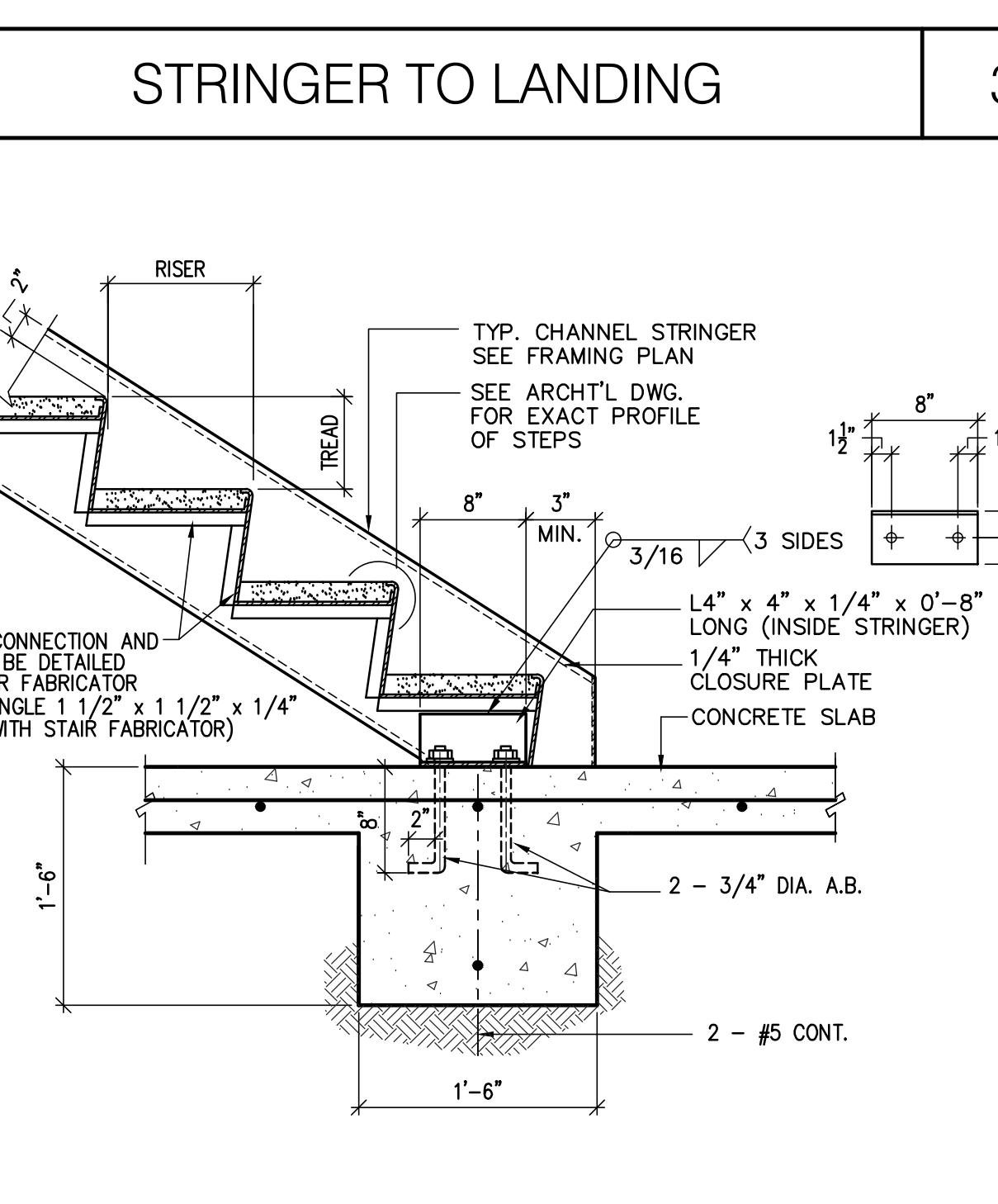
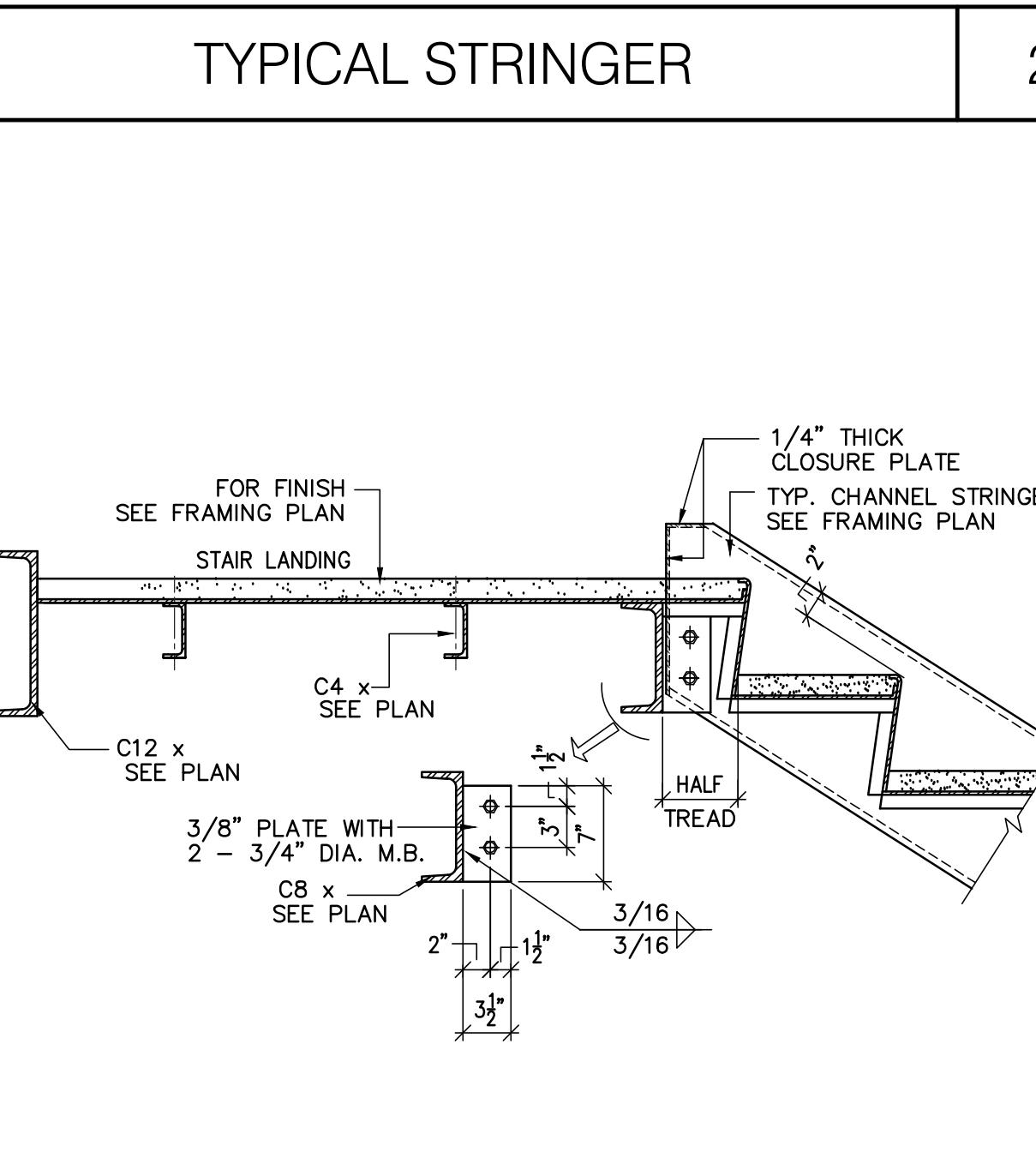
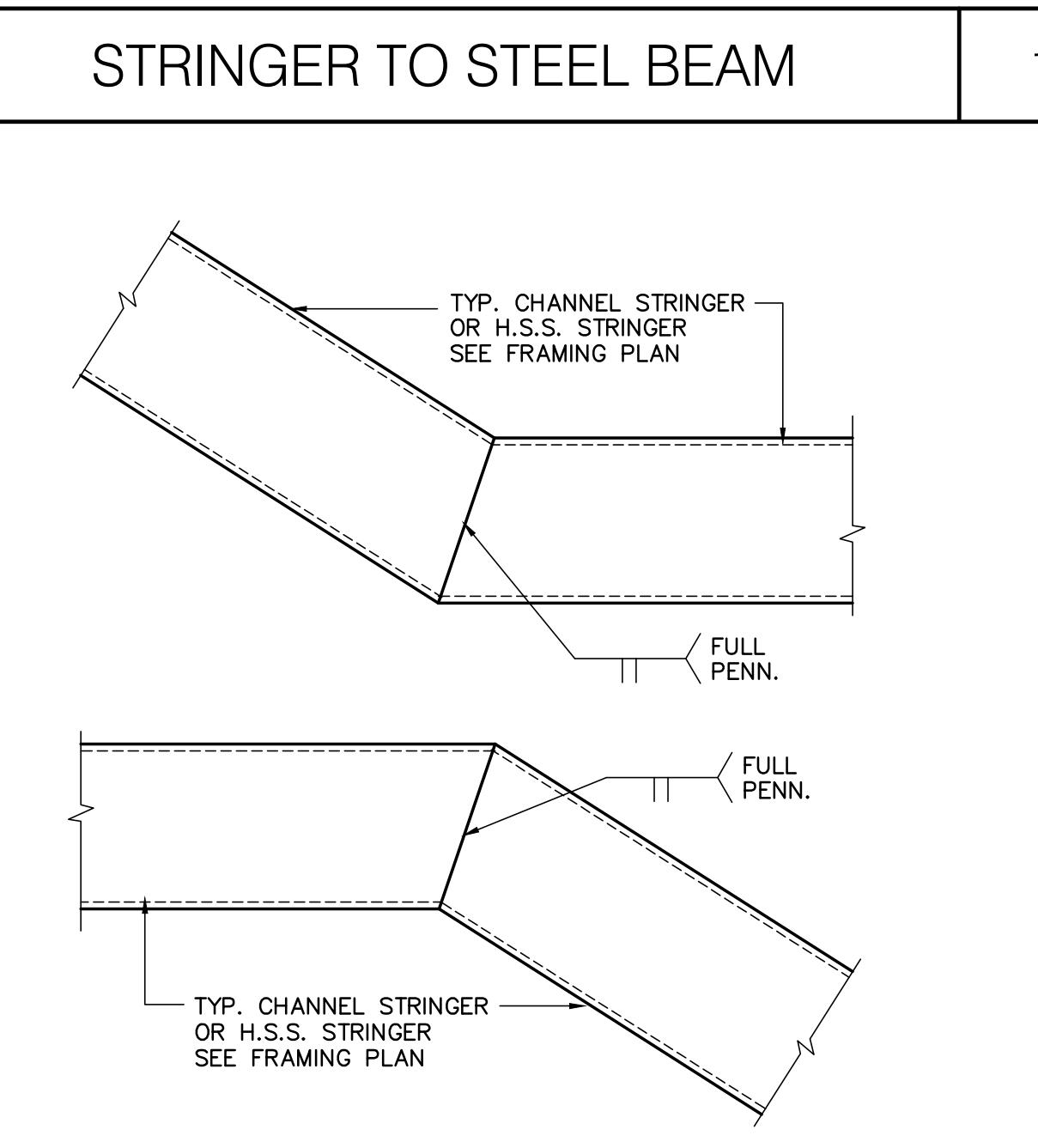
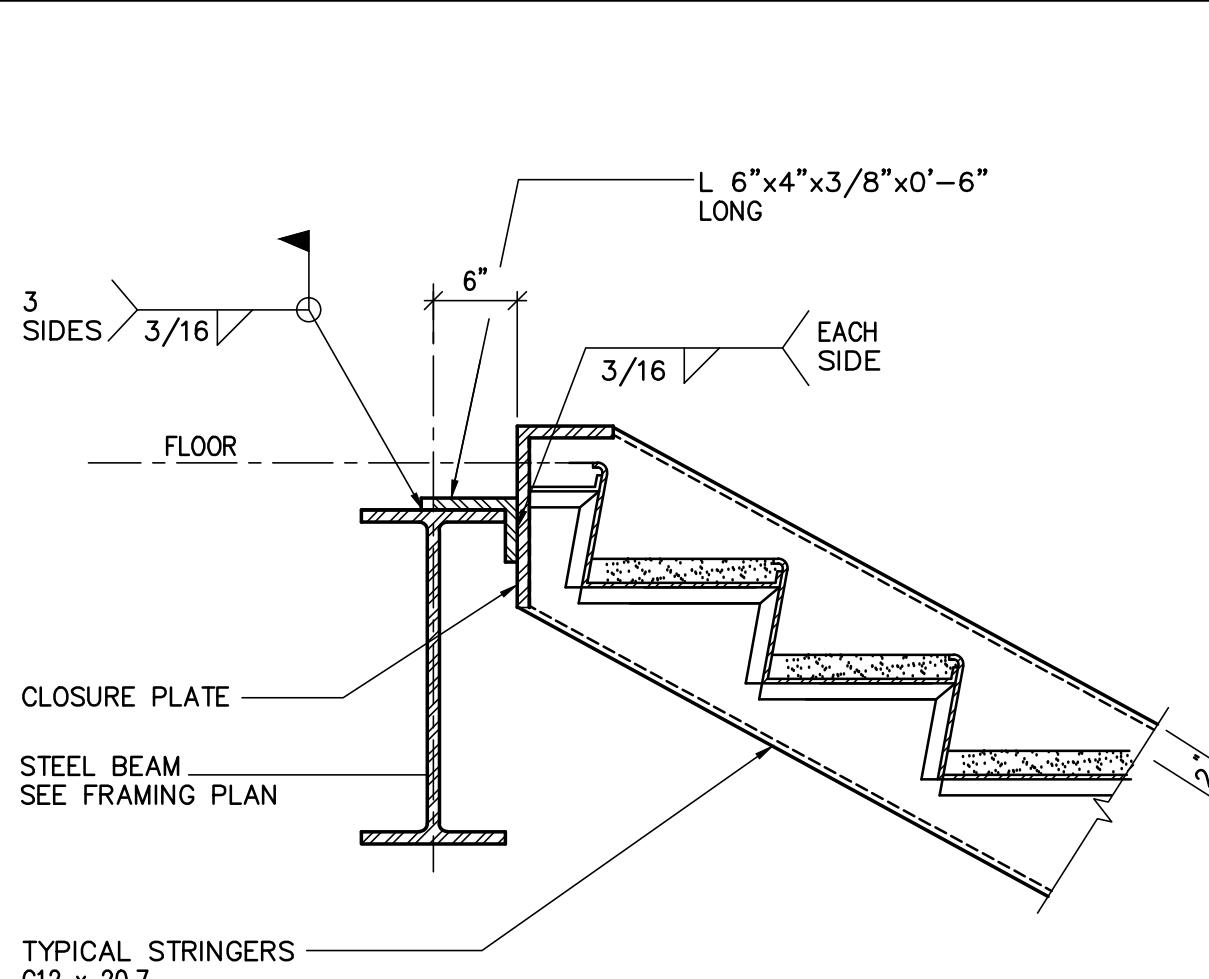
DETAIL 15



DETAIL 11



DETAIL 3



DETAIL 4

- The responsibility of the owner to properly maintain the fire protection system is on the contractor at all times.
- The fire protection contractor will provide the owner with the necessary instruction manuals for the upkeep of the system, as well as a copy of NFPA 25.
- Only new sprinklers shall be employed in the installation of the sprinkler system.
- The system shall only employ the use of approved materials and devices.
- Fire protection plans shall be approved prior to the installation of any pipe. A set of approved plans shall be maintained at all times at the job site.
- An appointment shall be made a minimum of two working days in advance, with the appropriate Fire Prevention Division regional office for all inspections and tests.
- Underground valves and piping connections shall be flushed or indicated in the piping to the overhead piping. The piping shall continue until the water is clear. Flushing should be performed at the time of the hydrostatic test, and shall be witnessed by a Fire Prevention Division inspector.
- System piping shall be hydrostatically tested at 200 psi for two hours or 50 psi above the maximum system operating pressure, whichever is greater.
- Fire department connections shall be located on the address side of the building facing the street, be visible and accessible, have NFT female nuts, turnouts, and include a listed/approved check valve located in the main line (as close to the inlet as possible).
- All valves and fire department connections shall have permanently affixed signs, indicating their function.
- A stock of spare sprinklers of each style, type, and temperature rating along with a wrench shall be located at the main riser.
- Any portion of a wet fire protection system exposed to freezing temperatures shall be adequately protected (heat tape is not an acceptable method of protection).
- Melting shall be performed per NFPA 25 requirements.
- Automatic sprinkler systems shall be supervised by a listed/approved central, proprietary, or remote station, or a local alarm when approved by the chief, which will give an audible signal at a constantly attended location when the number of sprinklers is 100 or more.

C-16
807598STATE OF CALIFORNIA
DIVISION OF FIRE PROTECTION AND FIRE ALARMSFIRE PROTECTION
AND FIRE ALARMS

CITY OF LOS ANGELES

FIRE DEPARTMENT

FIRE DE

| | |
|-----|------|
| 5% | 0.35 |
| 10% | 0.40 |
| 15% | 0.50 |
| 20% | 0.60 |
| 30% | 0.70 |
| 40% | 0.80 |
| 50% | 0.90 |
| 60% | 0.95 |

0.35 OF LESS

0.40

0.50

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0.70

0.80

0.90

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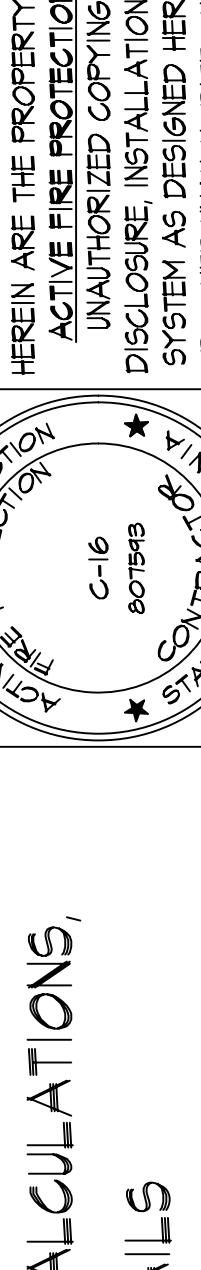
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SECTION 4.3.5
SEISMIC SWAY BRACE CALCULATIONS,
NOTES AND DETAILS

SECTION 4.3.5
SEISMIC SWAY BRACE CALCULATIONS,
NOTES AND DETAILS

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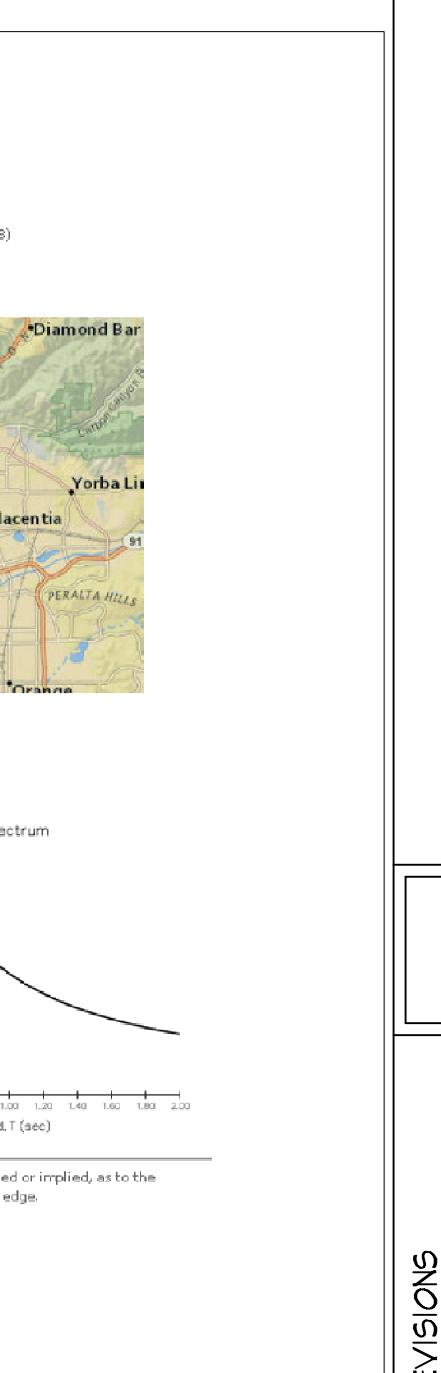
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NOTES AND DETAILS



BID SET
7-20-2017

REVISIONS
REV. DATE BY
T-10-17 CK

APPROVALS
APPROVED BY
L.A. COUNTY FIRE DEPARTMENT
WATER DEPT.

HAZARD PER NFPA 13-2016 Ed.
160-2016 Ed.

ACTIVE
FACILITY
1441 ARBOR PLACE
CERRITOS, CA 90703
FACILITY ADDRESS
TELE: 714-630-2889
FAX: 714-630-2775

DRAWN BY: CK
DATE: 5-25-2017
SCALE: AS NOTED
JOB #: 17-144
SHEET #: 2 OF 6

BID SET 8/10/17

RE: NFPA 13, 2016 EDITION
4.3.5.1 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.2 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.3 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.4 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.5 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.6 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.7 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.8 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.9 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.10 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.11 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.12 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.13 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.14 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.15 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.16 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.17 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.18 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.19 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.20 LATERAL SWAY BRACINGS
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RE: NFPA 13, 2016 EDITION
4.3.5.21 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.22 LATERAL SWAY BRACINGS
NOTES AND DETAILS

RE: NFPA 13, 2016 EDITION
4.3.5.23 LATERAL SWAY BRACINGS
NOTES AND DETAILS

AP #: 1003-03-003

FACILITY
1441 ARBOR PLACE
CERRITOS, CA 90703
FACILITY ADDRESS
TELE: 714-630-2889
FAX: 714-630-2775

OWNER:
CROWN ASSOCIATES REALTY, INC.
#111 MILLSHIRE BLVD STE #111
BEVERLY HILLS, CA 90212
LIC #239-272-TTTT

APPROVALS
APPROVED BY
L.A. COUNTY FIRE DEPARTMENT
WATER DEPT.

DATE: 5-24-2017
REV. DATE BY
T-10-17 CK

SCALE: AS NOTED
JOB #: 17-144
SHEET #: 2 OF 6

DRAWN BY: CK
DATE: 5-25-2017
SCALE: AS NOTED
JOB #: 17-144
SHEET #: 2 OF 6

DRAWN BY: CK
DATE: 5-25-2017
SCALE: AS NOTED
JOB #: 17-144
SHEET #: 2 OF 6

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SHEET #: 2 OF 6

DRAWN BY: CK
DATE: 5-25-2017
SCALE: AS NOTED
JOB #: 17-144

C-16
07/08

STATE OF CALIFORNIA
ACTIVE FIRE PROTECTION

CONTRACT NO. 1441

EXPIRATION DATE: 07/08/2018

RENEWAL DATE: 07/08/2019

ISSUE DATE: 07/08/2018

EXPIRATION DATE: 07/08/2019

RENEWAL DATE: 07/08/2020

ISSUE DATE: 07/08/2019

EXPIRATION DATE: 07/08/2020

RENEWAL DATE: 07/08/2021

ISSUE DATE: 07/08/2020

EXPIRATION DATE: 07/08/2021

RENEWAL DATE: 07/08/2022

ISSUE DATE: 07/08/2021

EXPIRATION DATE: 07/08/2022

RENEWAL DATE: 07/08/2023

ISSUE DATE: 07/08/2022

EXPIRATION DATE: 07/08/2023

RENEWAL DATE: 07/08/2024

ISSUE DATE: 07/08/2023

EXPIRATION DATE: 07/08/2024

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EXPIRATION DATE: 07/08/2062

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EXPIRATION DATE: 07/08/2065

RENEWAL DATE: 07/08/2066

ISSUE DATE: 07/08/2065

EXPIRATION DATE: 07/08/2066

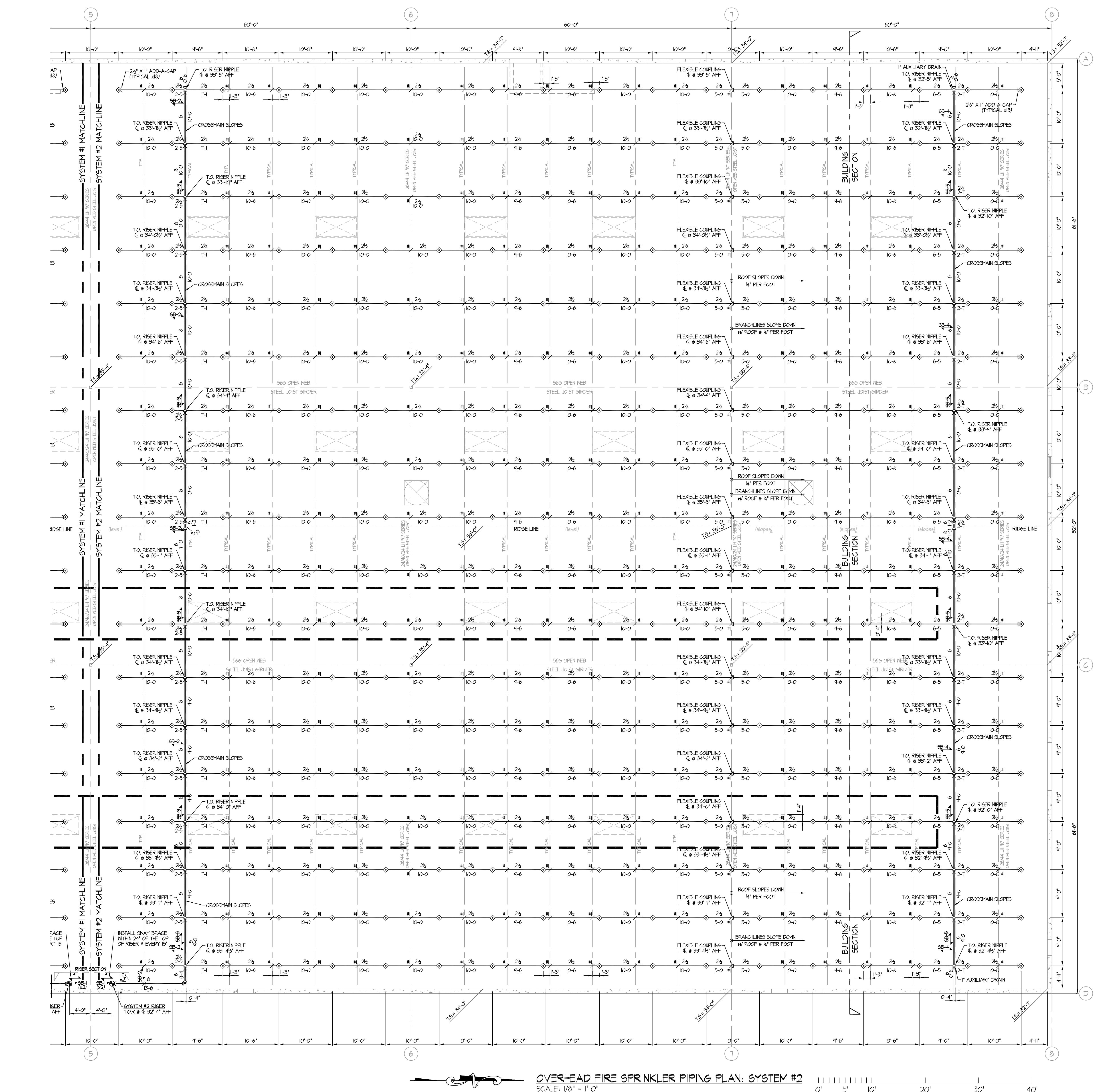
RENEWAL DATE: 07/08/2067

ISSUE DATE: 07/08/2066

EXPIRATION DATE: 07/08/2067

RENEWAL DATE: 07/08/2068

ISSUE DATE: 07/08/2067



SPRINKLER HEAD LEGEND - ROOF, SYSTEM #2

| SYM. | MANUFACTURER | MODEL | SIN | TYPE | TEMP. (F) | ORIFICE K-FACTOR | N.P.T. | FINISH | ESC | TEMP. (F) | QTY. |
|------|--------------|---------|--------|-----------------|-----------|------------------|--------|--------|-------|-----------|------------------------------|
| ◇ | TYCO | ESFR-25 | TY9226 | IN-LINE PENDANT | 214° | N/A | 252 | 1" | BRASS | NONE | 324 |
| | | | | | | | | | | | TOTAL SPRINKLERS (SYSTEM #2) |
| | | | | | | | | | | | 324 |

OVERHEAD FIRE SPRINKLER PIPING PLAN: SYSTEM #2

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

0' 5' 10' 20' 30' 40'

SYSTEM # 2

HYDRAULIC DATA PLATE

| | | | |
|-----------------------------|-------------------------------|-----------------------|------------------------------|
| Project: | TIK DISTRIBUTION FACILITY | Date: | 5-21-2017 |
| Location: | CERRITOS | System: | SYSTEM #2 |
| Contractor: | Active Fire Protection | Zone: | 12 HEAD CALC |
| Address: | 14141 ARBOR PLACE | Area: | TO1416 Sq.Ft. |
| Hazard, Light: | OR-1 (8) | OR-2 (12) | Other |
| NFPA Standard: | NFPA 13, 2016 Edition | NFPA 24, 2016 Edition | System type: |
| Density / Area: | 12 HEAD CALC | gpm / over: | N/A |
| Area / Sprinkler: | N/A | sq. ft. area | |
| Mfg: | TYCO Fire Protection Products | Model: | TY9226 |
| Sprinklers Flowing: | 12 | Sprinkler Type: | 1-factor 252 k. Degrees 214° |
| | | Hose: | 250 |
| | | gpm allowance: | |
| TOTAL SPRINKLERS ON SYSTEM: | 324 Total Heads in System #2 | | |

GENERAL OVERHEAD FIRE SPRINKLER NOTES:

1. All pipe, fittings, and equipment shall conform with NFPA 13, 2016 Edition.
- a. 6" pipe to be Bull Moose Tube Schedule 10.
- b. 10" pipe to be Bull Moose Tube Eddy Flow (Sch. 1).
- c. 14" pipe to be Bull Moose Tube Eddythread 40 (Sch. 30).
- d. Screen fittings to be D1 or C1, 4 FM Listed.
- e. Brackets to be U-shaped.
- f. Staged groundings (UNCO) fittings to be UL 4 FM Listed.
2. All piping installation shall conform with NFPA 13, 2016 Edition.
3. All ladders (4 installation) for piping shall conform with NFPA 13, 2016 Edition.
4. All Earthquake / Seismic sway bracing (4 installation) shall conform with NFPA 13, 2016 Edition.
5. New fire sprinkler system is wet and hydraulically calculated.
6. Fire alarm supervisory system is the responsibility of the building owner / tenant and not of the fire protection contractor.
7. Exterior bell to be located on the wall adjacent to the riser, but not necessarily on the street side of the building.
8. Underground to be hydrostatically tested and flushed prior to connection to the overhead line sprinkler system.

SPRINKLER SYMBOL LEGEND

- ◇ = DENOTES TYCO MODEL ESFR-TY9226, 25.2k-FACTOR, IN-LINE PENDANT SPRINKLER
- ◇ = DENOTES TYCO MODEL IT-B, TY425, 8k-FACTOR, UPRIGHT SPRINKLER IN 1" X 1" SPRG UP
- ◇ = DENOTES TYCO MODEL IT-FRB, TY123, 6k-FACTOR, PENDANT SPRINKLER
- ◇ = DENOTES TYCO MODEL IT-B, TY315, 5k-FACTOR, UPRIGHT SPRINKLER
- ▼ = DENOTES IT PLUG
- × = DENOTES FIRE SPRINKLER CROSSMAN AND BRANLINE PIPING
- * = DENOTES CROSSMAN PIPING HANGER AT THE ROOF
- * = DENOTES BRANLINE PIPING HANGER #1 AT THE ROOF
- * = DENOTES CROSSMAN PIPING HANGER UNDER THE MEZZANINE
- * = DENOTES CROSSMAN OR BRANLINE HANGER OPTION UNDER THE MEZZANINE
- * = DENOTES BRANLINE PIPING HANGER UNDER THE MEZZANINE
- * = DENOTES SEISMIC SWAY BRACE LOCATIONS (ROOF + MEZZANINE)

See SHEET FP-2 for Sway Bracing Calculations/
details. See SHEET FP-3 for Hanger Details

ABBREVIATIONS

| | |
|------------|----------------------|
| AFF..... | ABOVE FINISHED FLOOR |
| B.B.D..... | BELOW BOTTOM OF DECK |
| B.F..... | BELOW FINISHED FLOOR |
| B.O.S..... | BOTTOM OF SHEATHING |
| B.O.B..... | BOTTOM OF BEAM |
| D.D..... | DROP DOWN |
| (E)..... | EXISTING |
| (N)..... | NEW |
| O.C..... | ON CENTER |
| R.U.P..... | RISE UP |
| R.N..... | RISER LINE |
| T.O.B..... | TOP OF BEAM |
| T.O.S..... | TOP OF SHEATHING |
| T.Y.P..... | Typical |

WALL LEGEND

- ===== = DENOTES NEW SHEAR WALL / FULL-HEIGHT METAL STUD WALL TO BOTTOM OF ROOF DECK / STRUCTURE
- - - = DENOTES NEW METAL STUD PARTITION WALL w/ 1/2" GYPSUM BOARD TO 12' ABOVE FINISHED CEILING
- ===== = DENOTES NEW METAL STUD PARTITION WALL w/ 1/2" GYPSUM BOARD TO 12' ABOVE FINISHED CEILING w/ MALL INSULATION
- - - = DENOTES EXTERIOR CONCRETE TILT-UP WALL

SYSTEM # 2

MISC. ROOF PIPING NOTES

- 1. ALL CROSSMANS @ 12' BELOW BOTTOM OF SHEATHING & 1/2" GYPSUM BOARD
 - 2. ALL BRANCHLINES @ 8' BELOW BOTTOM OF ROOF SHEATHING (% VARY SEE PLAN)
 - 3. ALL RISER NIPPLES TO BE 25" X 1" (BACK-TO-BACK GOL)
- UNLESS OTHERWISE NOTED

AP #: 1003-03-003

FACILITY

ACTIVE

CUT

PROTECTION

FILE

BID SET
7-20-2017

REV. DATE BY REVISIONS

1-0-17 CK

RE: IRIDIUM LOCATOR THERMOTIMER LAMP

WATER DEPT.

14141 MILLSHIRE BLVD STE #111

BEVERLY HILLS CA 90212

TEL: 740-630-2880

FAX: 740-630-2755

WEB: 1323-272-7771

E-MAIL: PER NFPA 13 & 24, 2016 Ed.

DRAWN BY: CK

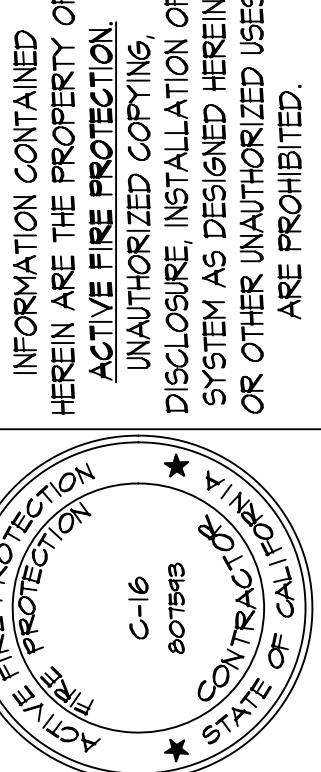
DATE: 5-25-2017

SCALE: AS NOTED

JOB #: 17-1744

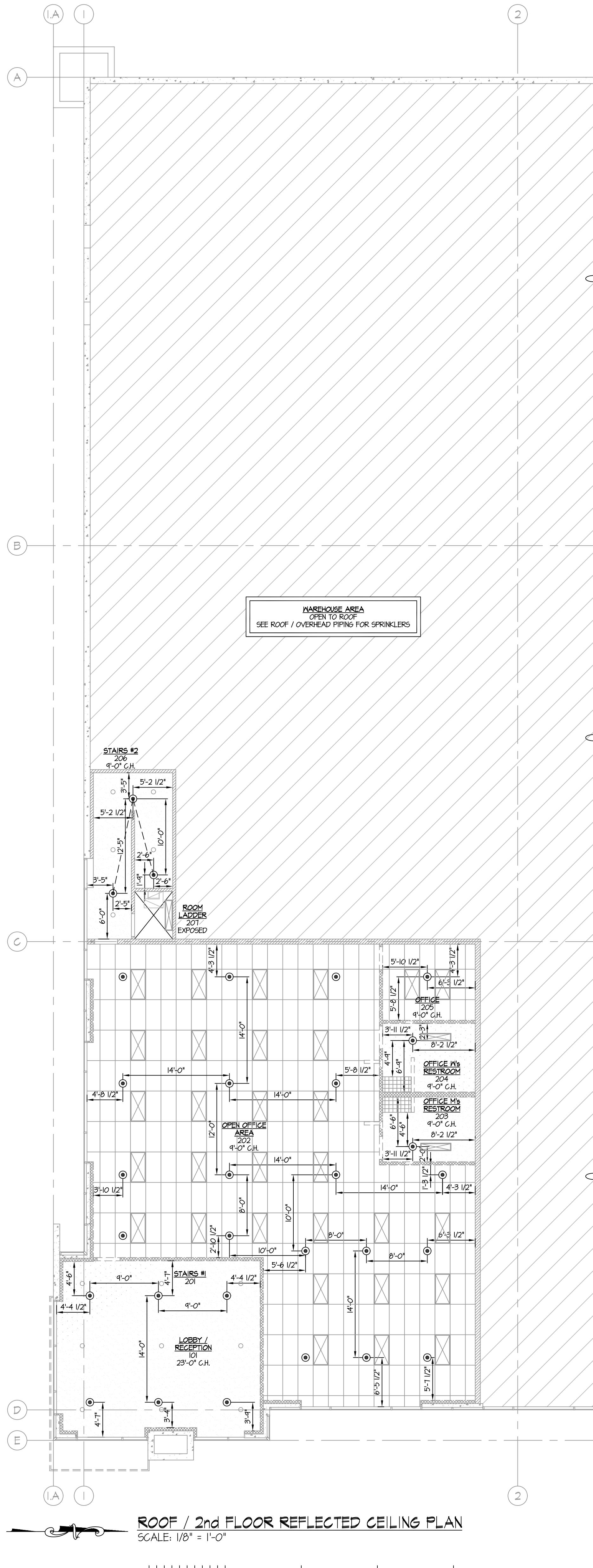
SHEET #: 5 OF 6

BID SET 8/10/17



OVERHEAD FIRE SPRINKLER PIPING PLAN

NOTES, & DETAILS



| ABBREVIATIONS | |
|---------------|----------------------|
| A.F.F. | ABOVE FINISHED FLOOR |
| B.B.D. | BELOW BOTTOM OF DECK |
| B.F.F. | BELOW FINISHED FLOOR |
| B.G. | BOTTOM OF SHEATHING |
| B.O.B. | BOTTOM OF BEAM |
| D.D.N. | DROP DOWN |
| (E) | EXISTING |
| (N) | NEW |
| O.C. | ON CENTER |
| R.U.P. | RISE UP |
| R.N. | RISER NIPPLE |
| T.O.B. | TOP OF BEAM |
| T.O.S. | TOP OF SHEATHING |
| T.Y.P. | TOPICAL |

GENERAL OVERHEAD FIRE SPRINKLER NOTES:

- All pipe, fittings, and equipment shall conform with NFPA 13, 2016 Edition.
- a. 6'-0" pipe to be Bill Moore Tube Schedule 10.
- b. 10'-3" pipe to be Bill Moore Tube Eddy Flow (Sch. 7).
- c. Screen fittings to be D1 or C1, UL & FM Listed.
- d. Headed outlets to be UL & FM Listed.
- e. Ridged grooved couplings (UNI) & fittings to be UL & FM Listed.
- f. All piping installation shall conform with NFPA 13, 2016 Edition.
- g. All piping support for piping shall conform with NFPA 13, 2016 Edition.
- h. All Earthquake / Seismic sway bracing (if installed) shall conform with NFPA 13, 2016 Edition.
- i. New fire sprinkler system is wet and hydraulically calculated.
- j. Fire alarm supervisory system is the responsibility of the building owner / tenant and not that of the fire protection contractor.
- k. Exterior bell to be located on the wall adjacent to the riser, but not necessarily on the street side of the building.
- l. Underground to be hydraulically tested and flushed prior to connection to the overhead fire sprinkler system.

SPRINKLER SYMBOL LEGEND

- ◆ = DENOTES TYCO MODEL EFR, T1426, 25K-FACTOR, IN-LINE PENDENT SPRINKLER
- = DENOTES TYCO MODEL TY-B, T1425, 60K-FACTOR, IN-LINE PENDENT SPRINKLER
- ☒ = DENOTES TYCO MODEL TY-B, T1425, 60K-FACTOR, IN-LINE PENDENT SPRINKLER ON 1" X 1"-1/2" SPRUE UP
- = DENOTES TYCO MODEL TY-FRB, T1923, 56K-FACTOR, PENDENT SPRINKLER
- = DENOTES TYCO MODEL TY-B, T135, 56K-FACTOR, UPRIGHT SPRINKLER
- ▼ = DENOTES 1" PLUG
- = DENOTES FIRE SPRINKLER CROSSMAIN AND BRANCHLINE PIPING
- X = DENOTES CROSSMAIN PIPING HANGER AT THE ROOF
- ✓ = DENOTES BRANCHLINE PIPING HANGER #1 AT THE ROOF
- ✗ = DENOTES BRANCHLINE PIPING HANGER #2 AT THE ROOF
- ✗✗ = DENOTES CROSSMAIN OR BRANCHLINE HANGER UNDER THE MEZZANINE
- ✗✗✗ = DENOTES CROSSMAIN OR BRANCHLINE HANGER OPTION UNDER THE MEZZANINE
- ✓✓ = DENOTES BRANCHLINE PIPING HANGER UNDER THE MEZZANINE
- ✗✗✗✗ = DENOTES SEISMIC SWAY BRACE LOCATIONS (ROOF & MEZZANINE)

See SHEET FP-2 for Sway Bracing Calculations/ details. See SHEET FP-3 for Hanger Details

MISC. MEZZANINE PIPING NOTES

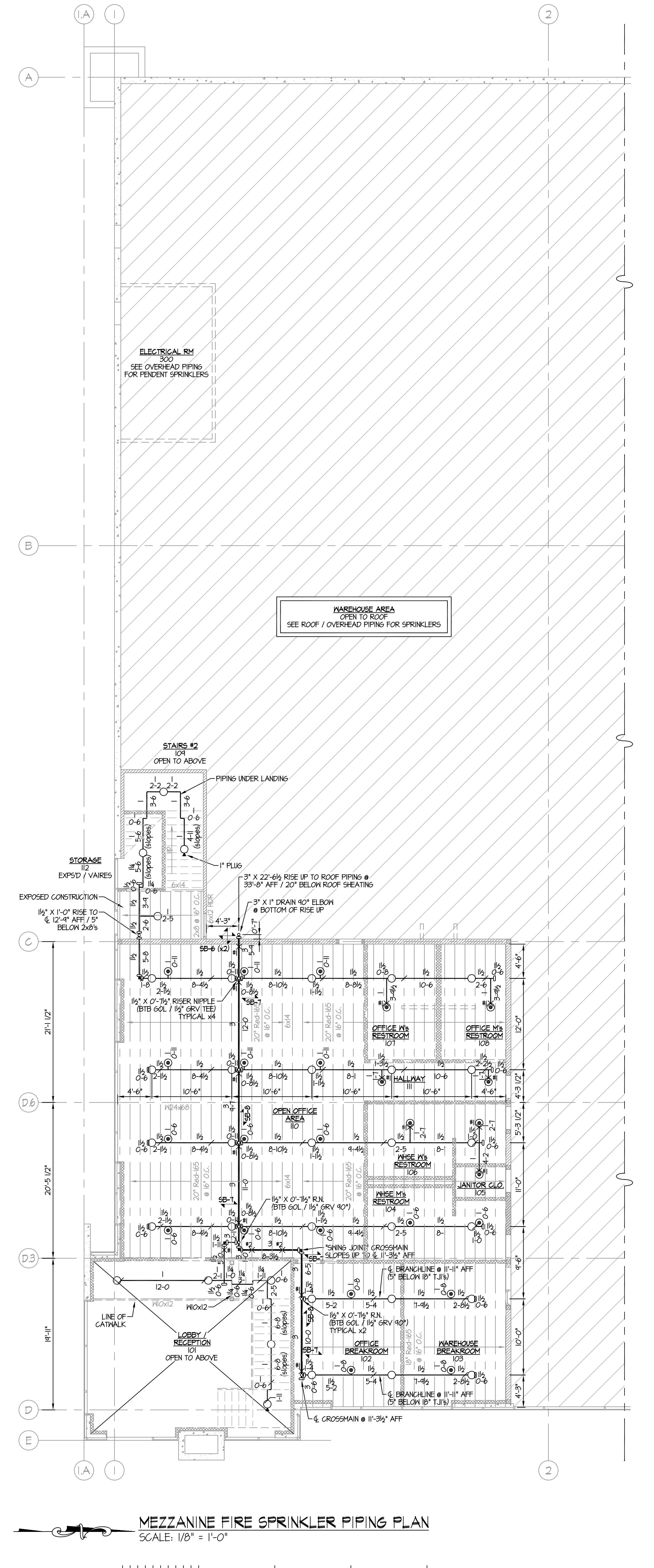
- ALL CROSSMAINS @ 1/2" BELOW BOTTOM OF CEIL. IN HALLS
- ALL BRANCHLINES @ 1/2" BELOW BOTTOM OF CEIL. IN HALLS
- ALL RISER NIPPLES TO BE 10'-0" X 0'-1/2"
- ALL PENDENT DROPS TO BE 1' X 1"-1/2" W/ 1/2" RD. UNLESS OTHERWISE NOTED

WALL LEGEND

- + DENOTES NEW SHEAR WALL / FULL-HEIGHT METAL STUD WALL TO BOTTOM OF ROOF DECK / STRUCTURE
- + DENOTES NEW METAL STUD PARTITION WALL w/ 1/2" GYP. BOARD TO 12" ABOVE FINISHED CEILING IN WALL INSULATION
- = DENOTES EXTERIOR CONCRETE TILT-UP WALL

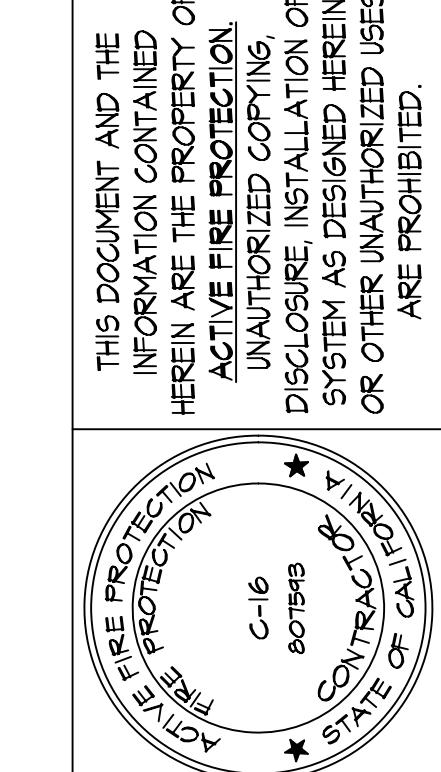
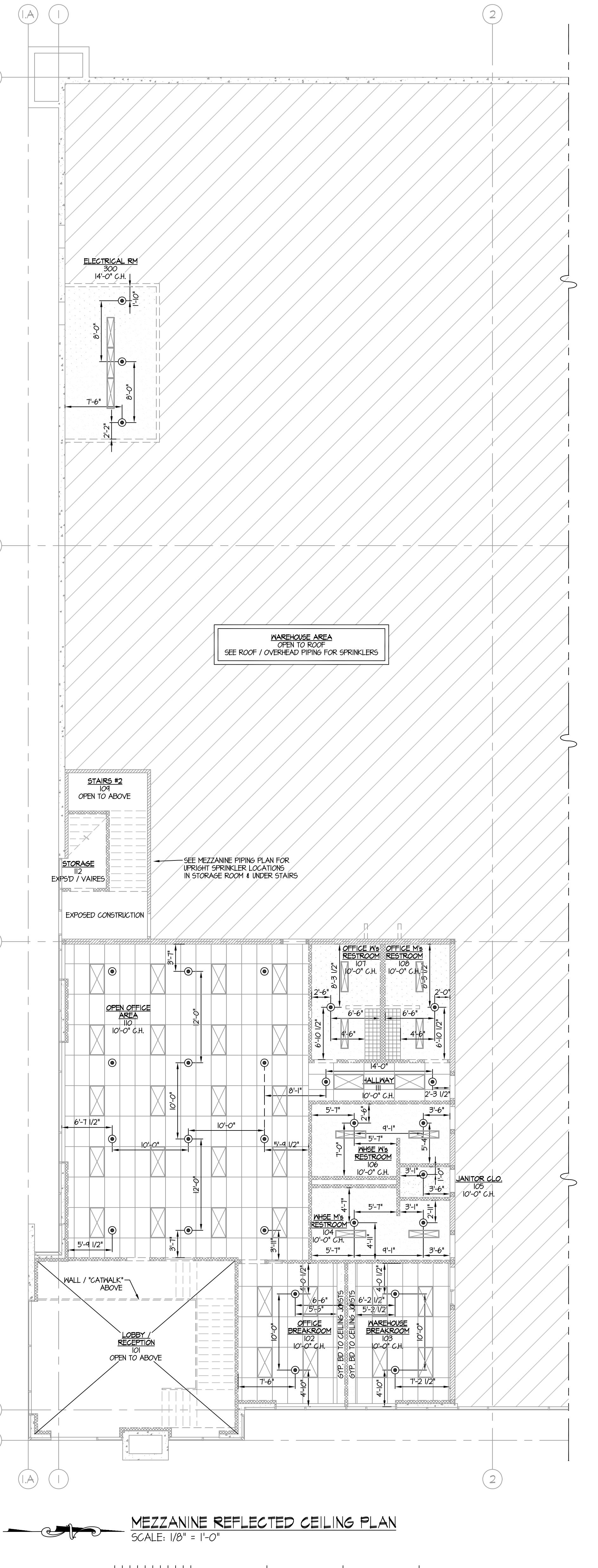
RE: NFPA 13, 2016 EDITION

- 8.6.3.1 The distance from sprinklers to walls shall not exceed one-half of the allowable distance between sprinklers as indicated in Table 8.6.2.2(1) through Table 8.6.2.2(6).
- 8.6.3.2 The distance from the wall to the sprinkler shall be measured perpendicular to the wall.



| SPRINKLER HEAD LEGEND - MEZZANINE SYSTEM #1 | | | | | | | | | |
|---|--------------|--------|-------|--------------|-----------|------------------|--------|--------|----------|
| SYM | MANUFACTURER | MODEL | SIN | TYPE | TEMP. (F) | ORIFICE K-FACTOR | N.P.T. | FINISH | ESC |
| ○ | TYCO | TY-B | T135 | UPRIGHT | 200° | 1/2" | 5.6 | BRASS | NONE |
| ○ | TYCO | TY-FRB | T1923 | REC. PENDENT | 155° | 1/2" | 5.6 | CHROME | STYLE 20 |

TOTAL SPRINKLERS (MEZZANINE) = 60



2nd FLOOR / ROOF REFLECTED CEILING PLAN
MEZZANINE PIPING & REFLECTED CEILING PLAN
& NOTES

BID SET
7-20-2017

AP #: 1003-03-003
TICK DISTRIBUTION
FACILITY
1414 ARBOR PLACE
CERRITOS CA 90703
905 South Arbo Dr.
Tel: 714-630-2880
Fax: 714-630-2755
ACTIVE FIRE PROTECTION
STATE OF CALIFORNIA
WATER DEPT.

DRAWN BY:
DATE: 5-25-2017
SCALE: AS NOTED
JOB #: 17-144
SHEET #: 6 OF 6
BID SET 8/10/2017