TRI-CITY MEDICAL CENTER PARKING STRUCTURE
4002 Vista Way, Oceanside, CA 92506

SCOPE OF WORK

THE PROJECT CONSISTS OF A NEW THREE-LEVEL OPEN PARKING STRUCTURE AND SITE IMPROVEMENTS WITH A LIMITED EXTENSION FROM THE EXTERIOR PERIMETER OF THE PARKING STRUCTURE.

THE PARKING FACILITY IS DESIGNED WITH CAST-IN-PLACE CONCRETE COLUMNS AND CAST-IN-PLACE POST-TENSIONED CONCRETE SLABS AND BEAMS OF TYPE IB CONSTRUCTION.

SERVING ALL THREE LEVELS ARE TWO ELEVATORS AT THE SOUTHEAST CORNER; TWO OPEN STAIRS AT THE NORTHEAST AND NORTHWEST CORNERS; AND ONE OPEN STAIRS AT THE SOUTHWEST CORNER.

VEHICULAR ACCESS IS PROVIDED AT GROUND AND SECOND LEVELS. ACCESSIBLE PARKING IS PROVIDED AT ALL LEVELS.

SOLAR PANELS WILL NOT BE PROVIDED AS PART OF THIS PROJECT. PROVISIONS FOR FUTURE INSTALLATION ARE BEING FURNISHED AS REQUIRED BY CBC.

GENERAL NOTES

1. All work shall conform to 2016 edition Title 24, California Code of Regulations (CCR). Title 24, Parts 1–5 must be kept on site during construction.

2. All plan dimensions indicated are to column centerline, to face of concrete, to face of masonry or to face of studs unless otherwise noted.

3. Floor elevations indicated are to top of structural or grade slab not including curbs or crickets unless noted otherwise. For thickened slab edges, add 2" on top of structural slab elevation.

4. Contractor shall be responsible for verifying all dimensions in the field, and in the event of discrepancy, reporting such discrepancy to the Architect.

5. Temporary fence and canopy for the protection of pedestrians shall be provided as required. Comply with 2016 California Fire Code, Article 87 and Owner Safety Requirements during all phases of work.

6. All new or replaced street paving, curbs, gutters, sidewalks and driveways in public ways shall be constructed as per the standards and requirements of the Building Department.

7. Temporary on-site toilet facilities shall be provided.

8. All typical parking spaces shall be double striped using 4" wide paint lines.

9. The vertical dimension from the finish floor to the underside of any structural element, piping, electrical fixture, etc., shall be 8'-2" minimum in accessible areas and 7'-0" elsewhere. No horizontal piping shall occur below bottom of beams.

10. 6'-8" minimum headroom shall be provided at all exit stairs. 7'-0" min. @ landing

11. All stair railings and guardrails shall have maximum division rails spacing to reject a 4" ø ball. All guard rails shall be 3'-6" high, min.

12. Parking spaces shall not obstruct required exits. Aisles leading to required exits shall have a minimum width of 44".

13. Provide exit signs and directional exit signs with a minimum 6" high by ¾" stroke block letters on contrasting background.

14. Exit signs shall be electrically illuminated and the two lamps shall be energized from separate circuits. Illumination shall normally be provided by the premises wiring system. In the event of failure of this system, illumination shall be automatically provided from an emergency system.

15. Deck coating on traffic decks at floor areas over equipment/storage rooms, over construction joints at roof level, etc. shall consist of elastomeric coating, see specifications.

16. Provide ABC fire extinguisher and fire extinguisher cabinets as shown on the drawings (FEC) and as may be required by the State Fire Marshal and local fire inspector. Minimum size is 4A60BC. Fire extinguisher cabinet opening hardware shall be 48" AFF maximum. U-shape pull and latch force shall be less than 5 lbs. per CBC 11B-309.4.

17. All vertical pipe risers shall be held tight to face of column or wall clear of legal parking stall. Risers passing through slab shall have a pipe sleeve that extends 1" above finish floor and sealed watertight.

18. Top of floor drains shall be set 1/4" (max.) lower than surrounding concrete finish surface. See specs for requirements to achieve positive drainage to drain.

19. All horizontal piping shall be held tight to decks.

20. Grading plans, drainage improvements, road and access requirements and environmental health requirements shall comply with all local ordinances.

21. Floor elevations shown in sections and elevations are at the building perimeter unless noted otherwise in other drawings such as floor plans and , except at entry, where noted. Contractor is responsible to confirm actual elevations to be used.

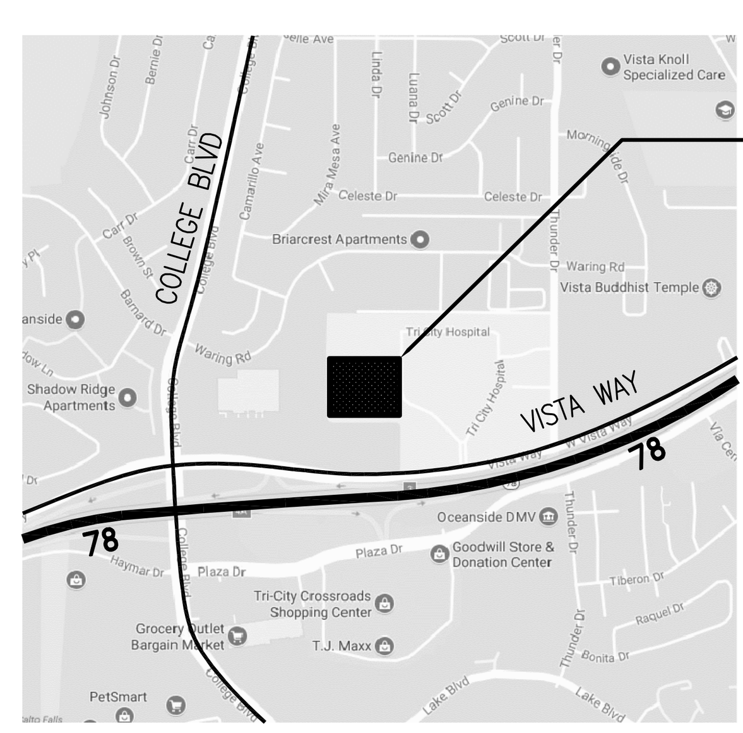
22. Installation of Deferred Approval items shall not be started until Contractor's Drawings, Specifications and Engineering calculations for the actual systems to be installed have been approved and signed by the Architect and Structural Engineer and approved by the Building Department.

23. Grading plans, drainage improvements, road and access requirements and environmental health consideration shall comply with all local ordinances.

ABBREVIATIONS

@	AT
A.D.	AREA DRAIN
A.F.F.	ABOVE FINISHED FLOOR
ALUM.	ALUMINUM
ANOD.	ANODIZED
AP	ACCESSIBLE PARKING
APPROX.	APPROXIMATELY
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BM.	BEAM
B.W.	BACK OF WALK
CAVPEV	CLEAN AIR/VANPOOL/ELECTRIC VEHICLE
C.B.	CATCH BASIN
C.G.	CENTER OF GRAVITY
C.I.P.	CAST IN PLACE
C.J.	CONTROL JOINT
C.L.	CENTER LINE
CLR.	CLEAR
CMU	CONCRETE MODULAR UNIT
COL.	COLUMN
CONC.	CONCRETE
CSP	COMBINATION STANDPIPE
DBL.	DOUBLE
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
DSA	DIVISION OF STATE ARCHITECT
D.S.P.	DRY STANDPIPE
DWG's	DRAWINGS
EA.	EACH
E.F.D.	EMERGENCY FLOOR DRAIN
EFDR	EMERGENCY FLOOR DRAIN RISER
EIFS	EXTERIOR INSULATION FINISH SYSTEM
ELEC.	ELECTRICAL
EQ.	EQUAL
EXIST.	EXISTING
EXT.	EXTERIOR
F.D.C.	FIRE DEPT. CONNECTION (INLET)
F.D.O.	FIRE DEPT. OUTLET (2 1/2" VALVE SEE MECHANICAL DWG.)
F.E.C.	FIRE EXTINGUISHER CABINET
FIN.FL.	FINISH FLOOR
F.H.C.	FIRE HOSE CABINET
FIN.	FINISHED
F.G.	FINISH GRADE
F.L.	FLOW LINE
FLR.	FLOOR
F.O.C.	FACE OF CONCRETE
F.O.S.	FACE OF STUD
F.O.M.	FACE OF MASONRY
F.S.	TOP OF FINISH SLAB
GA.	GAUGE
GALV.	GALVANIZED
GEN.	GENERAL
G.I.	GALVANIZED IRON
GYP.	GYPSUM
G.V.	GLOBE VALVE
HT.	HEIGHT
H.B.	HOSE BIBB
H.P.	HIGHPOINT
HORIZ.	HORIZONTAL
I.D.	INSIDE DIAMETER
INT.	INTERIOR
LAV.	LAVATORY
LLH.	LONG LEG HORIZONTAL
LLV.	LONG LEG VERTICAL
MANUF.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM
MECH.	MECHANICAL
M.H.	MANHOLE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
MTL.	METAL
N.I.C.	NOT IN CONTRACT
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER or OVERFLOW DRAIN
ODR	OVERFLOW DRAIN RISER
OPG.	OPENING
OPP.	OPPOSITE
P.A.	PLANTING AREA
P.L.	PROPERTY LINE
P.P.	POWER POLE
PR.	PAIR
R.D.	ROOF DRAIN
REINF.	REINFORCED (ING)
REQ'D	REQUIRED
R.O.	ROUGH OPENING
	STALL WIDTH
SCD	SEE CIVIL DRAWINGS
SCHED.	SCHEDULE
S.D.	STORM DRAIN
SDR	STORM DRAIN RISER
SECT.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SLD	SEE LANDSCAPE DRAWINGS
SP	SPRINKLER RISER
SPECS.	SPECIFICATIONS
S/S	SERVICE SINK
S.S.	TOP OF STRUCTURAL SLAB
SED	SEE ELECTRICAL DRAWING
SPD	SEE PLUMBING DRAWING
SMD	SEE MECHANICAL DRAWING
SSD	SEE STRUCTURAL DRAWING
STD.	STANDARD
STL.	STEEL
STRUCT.	STRUCTURAL
T.C.	TOP OF CURB
TEL.	TELEPHONE
T.O.C.	TOP OF CONCRETE
T.O.S.	TOP OF STEEL
T.S.	TOP OF SPANDREL
T.W.	TOP OF WALK, WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
W/	WITH
W.C.	WATER CLOSET
W.S.P.	WET STANDPIPE
W.S.R.	WET STANDPIPE RISER
W.W.M.	WELDED WIRE MESH
W.P.	WATERPROOF
W.R.	WATER RESISTANT
θ	ANGLE OF PARK

VICINITY MAP



PROJECT SITE

BUILDING ADDRESS:
VISTA WAY
OCEANSIDE, CA 92056

N

MATERIALS

- CONCRETE
- STEEL
- CONCRETE BLOCK
- INSULATION
- PLASTER
- GYPSUM BOARD
- ASPHALT CEMENT PAVING
- RIGID INSULATION

SYMBOLS

- COLUMN OR WALL REFERENCE LINE
- DETAIL REFERENCE / SHEET REFERENCE
- BLDG. SECTION REFERENCE / SHEET REFERENCE
- WALL SECTION REFERENCE / SHEET REFERENCE
- EXIT — EXIT SIGN
- WALL REFERENCE / ELEVATION REFERENCE / SHEET REFERENCE (A, B, C, D)
- (101) — DOOR SCHEDULE / DOOR NUMBER
- 000.00 — TOP OF STRUCTURAL SLAB ELEVATION
- S-1, SG-1, CG-1 — SIGN DESIGNATION NO. SEE SIGN AND GRAPHIC SCHEDULE

DIRECTORY

OWNER:
TRI-CITY MEDICAL CENTER
4002 VISTA WAY
OCEANSIDE, CA 92056

ARCHITECT:
CUNINGHAM GROUP ARCHITECTURE, INC.
1030 G STREET
SAN DIEGO, CA 92101
PHONE: 619-849-1080

PARKING STRUCTURE ARCHITECT:
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ENCINO, CA 91436
PHONE: 818-986-1494
FAX: 818-906-8697

MECHANICAL/PLUMBING:
DUFOE CONSULTING ENGINEERS
9665 CHESAPEAKE DRIVE, SUITE 320
SAN DIEGO, CA 92123
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FAX: 866-517-3293

CIVIL:
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SAN DIEGO, CA 92123
PHONE: 619-299-5550

ELECTRICAL:
RANDALL LAMB
4757 PALM DRIVE
LA MESA, CA 91942
PHONE: 619-713-5700

STRUCTURAL:
CULP & TANNER
55 INDEPENDENCE CIRCLE, SUITE 201
CHICO, CA 95973
PHONE: 530-895-3518
FAX: 530-895-3544

LANDSCAPE:
JAMES P. BENEDETTI LANDSCAPE ARCHITECT
4403 MANCHESTER AVENUE, SUITE 201
ENCINITAS, CA 92024
PHONE: 760-479-0644
FAX: 760-479-0645

DEFERRED APPROVALS

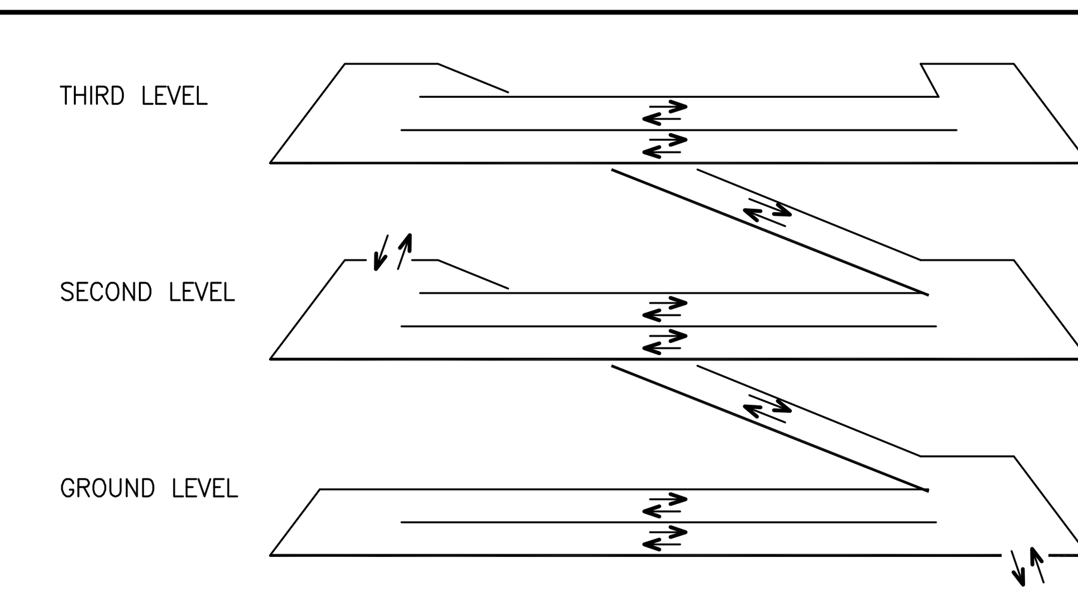
Installation of the items listed below shall not be started until detailed plans and specifications are approved by the Building Department:

1. Storefront system
2. Metal Stairs, Handrails, Guardrails and Landings
3. Cable barriers
4. Installation of elevator guide rails and support brackets.

NOTE:

1. Installation of elevator guide rails and brackets shall be in compliance with ASME 17.1-1996; CBC Part 2, Chapter 30; CCR, Title 8

EXPANDED VIEW



SHEET INDEX

PROPERTY DESCRIPTION

LEGAL DESCRIPTION: "PARCEL 1 & 3 OF PARCEL MAP 5632, CITY OF OCEANSIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, MARCH 2, 1977 AS INSTRUMENT NO. 77-077587"

GENERAL USE DENOMINATION:PC
ZONING:CP
LAND USE:MEDICAL CENTER
APN:166-010-3100 ; 166-010-4300
LOT SIZE:30.97 ACRES
ADDRESS:4002 VISTA WAY, OCEANSIDE, CA, 92056

2018.05.29 BIDSET

CUNINGHAM GROUP

Cuningham Group Architecture, Inc.
1030 G Street
San Diego, CA 92101
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Consultant

International Parking Design, Inc.
Architecture / Engineering / Consulting
www.ipd-global.com

Revisions

No.	Date	Description

LICENSED ARCHITECT SHAHIN AZMOUDEH No. C-32674 10-07-19 RENEWAL DATE STATE OF CALIFORNIA

Document Phase:	Backcheck #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	VC
Checked By:	DV
Comm. No.:	-

Project Title
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title
COVER SHEET

Sheet Number
A0.01

OPEN AIR CALCULATIONS

LEVEL: GROUND

ELEVATION	LIN. FOOT WALL	REQ'D LIN. FT. OPG.(40%)*	PROVIDED LIN. FT. OPG.	WALL AREA	REQ'D WALL OPG.(20%)*	PROVIDED OPENING	REMARKS
NORTH	309.50	123.80	46.50	3,379.74	675.95	340.85	
SOUTH	309.50	123.80	249.00	3,379.74	675.95	1,220.64	
WEST	188.00	75.20	110.54	2,052.96	410.59	242.13	
EAST	188.00	75.20	114.18	2,052.96	410.59	1,168.99	
TOTAL:	995.00	398.00	**520.22**	10,865.40	2,173.08	**2,972.60**	
			52.28%			**27.36%**	

LEVEL: SECOND

ELEVATION	LIN. FOOT WALL	REQ'D LIN. FT. OPG.(40%)*	PROVIDED LIN. FT. OPG.	WALL AREA	REQ'D WALL OPG.(20%)*	PROVIDED OPENING	REMARKS
NORTH	309.50	123.80	254.75	3,379.74	675.95	1,905.35	
SOUTH	309.50	123.80	262.00	3,379.74	675.95	1,789.40	
WEST	188.00	75.20	176.68	2,052.96	410.59	1,281.12	
EAST	188.00	75.20	120.18	2,052.96	410.59	861.69	
TOTAL:	995.00	398.00	**813.61**	10,865.40	2,173.08	**5,837.56**	
			81.77%			**53.73%**	

PARKING SPACE AND AREA SUMMARY

S = 8'-6" X 18'-0" Ø = 90° BUILDING SIZE = 309'-6" X 188'

AREA	ON-GRADE SLAB (SF)	ELEVATED SLAB (SF)	NUMBER OF SPACES: VAN	ACCESSIBLE	STANDARD	TOTAL	SF / SPACE
1A	19,970		2	2	48	52	384.04
1B	19,270			3	53	56	344.11
1C	19,410				60	60	323.50
2A		19,595		1	61	62	316.05
2B		19,190			62	62	309.52
2C		19,270			65	65	296.46
3A		19,490		1	62	63	309.37
3B		19,190			65	65	295.23
3C		4,365			10	10	436.50
Totals =	58,650	101,100	2	7	486	495	
		58,650					
Gross Floor Area (SF) =		159,750					
Total Spaces =						495	
Design Efficiency =		159,750	÷	495	=		322.73

ACCESSIBLE SPACE REQUIREMENTS

	CODE REFERENCE	REQUIRED	PROVIDED
ACCESSIBLE SPACES (AS):	TABLE 11B-208.2	7	7
VAN ACCESSIBLE SPACES (VAS)	ONE FOR EVERY 6 OR FRACTION OF 6 PARKING SPACES PER SECTION 11B-208.2.4	2	2
TOTAL ACCESSIBLE SPACES	TABLE 11B-208.2	9	9

CLEAN AIR VEHICLE REQUIREMENTS

	CODE REFERENCE	REQUIRED	PROVIDED	COMMENT
CLEAN AIR VEHICLE SPACES:	8% OF TOTAL PARKING SPACES PER TABLE 5.106.5.2	8% x 495 = 39.6	40	TOTAL NUMBER OF CLEAN AIR VEHICLE INCLUDES THE TOTAL NUMBER OF FUTURE E.V. SPACES PER SECTION 5.106.5.3.5
FUTURE ELECTRICAL VEHICLE CHARGING SPACES:	6% OF TOTAL PARKING SPACES PER TABLE TABLE 5.106.5.3.3 & TABLE 11B-228.3.2.1	6% x 495 = 29.7	30	TOTAL NUMBER INCLUDES ONE (1) FUTURE STANDARD, ONE (1) FUTURE VAN ACCESSIBLE EVCS, ONE (1) AMBULATORY SPACE

BICYCLE PARKING REQUIREMENTS

	CODE REFERENCE	REQUIRED	PROVIDED
LONG-TERM BICYCLE PARKING:	5% OF TOTAL PARKING SPACES PER SECTION 5.106.4.1.2	5% x 495 = 24.75	25

2018.05.29 BIDSET

CUNINGHAM GROUP

Cuningham Group Architecture, Inc.

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Consultant

IPD

International Parking Design, Inc.
Architecture / Engineering / Consulting
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Revisions

No.	Date	Description

LICENSED ARCHITECT
SHAHIN AZMOUDEH
No. C-32674
10-07-19
RENEWAL DATE
STATE OF CALIFORNIA

Document Phase:	Backcheck #1
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PIC / AIC:	-
Drawn By:	VC
Checked By:	DV
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

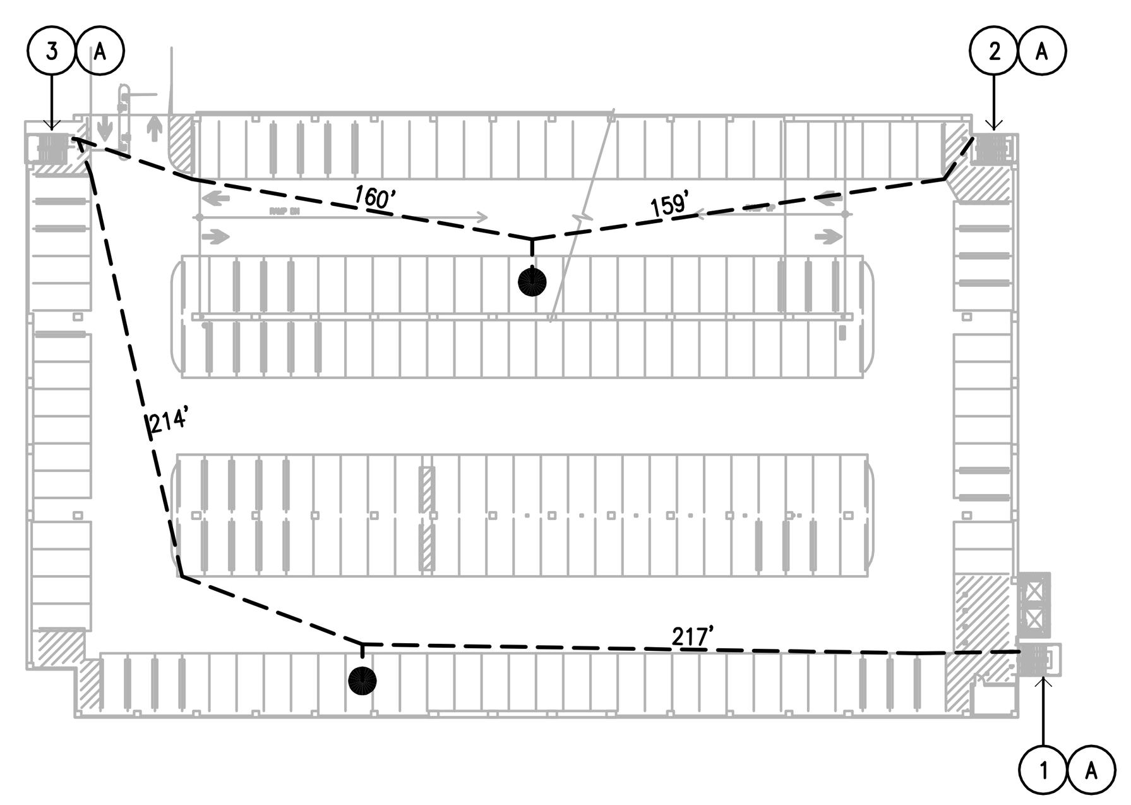
PARKING ANALYSIS

Sheet Number

A0.02

OCCUPANT LOAD AND EGRESS CALCULATIONS

	CODE REFERENCE	REQUIRED	PROVIDED
OCCUPANT LOAD:	TABLE 1004.1.2		58,650 SF/200 = 293.25
TOTAL EGRESS (STAIRWAYS) WIDTH:	SECTION 1005.3.1	293.25 x .3 = 87.98" PER LEVEL	148.5" PER LEVEL
TOTAL NUMBER OF EXIT (STAIRWAYS) PER LEVEL:	TABLE 1006.3.1	2 MIN.	3
EXIT ACCESS TRAVEL DISTANCE:	TABLE 1017.2	300' MAXIMUM	300' MAXIMUM



STAIR WIDTH

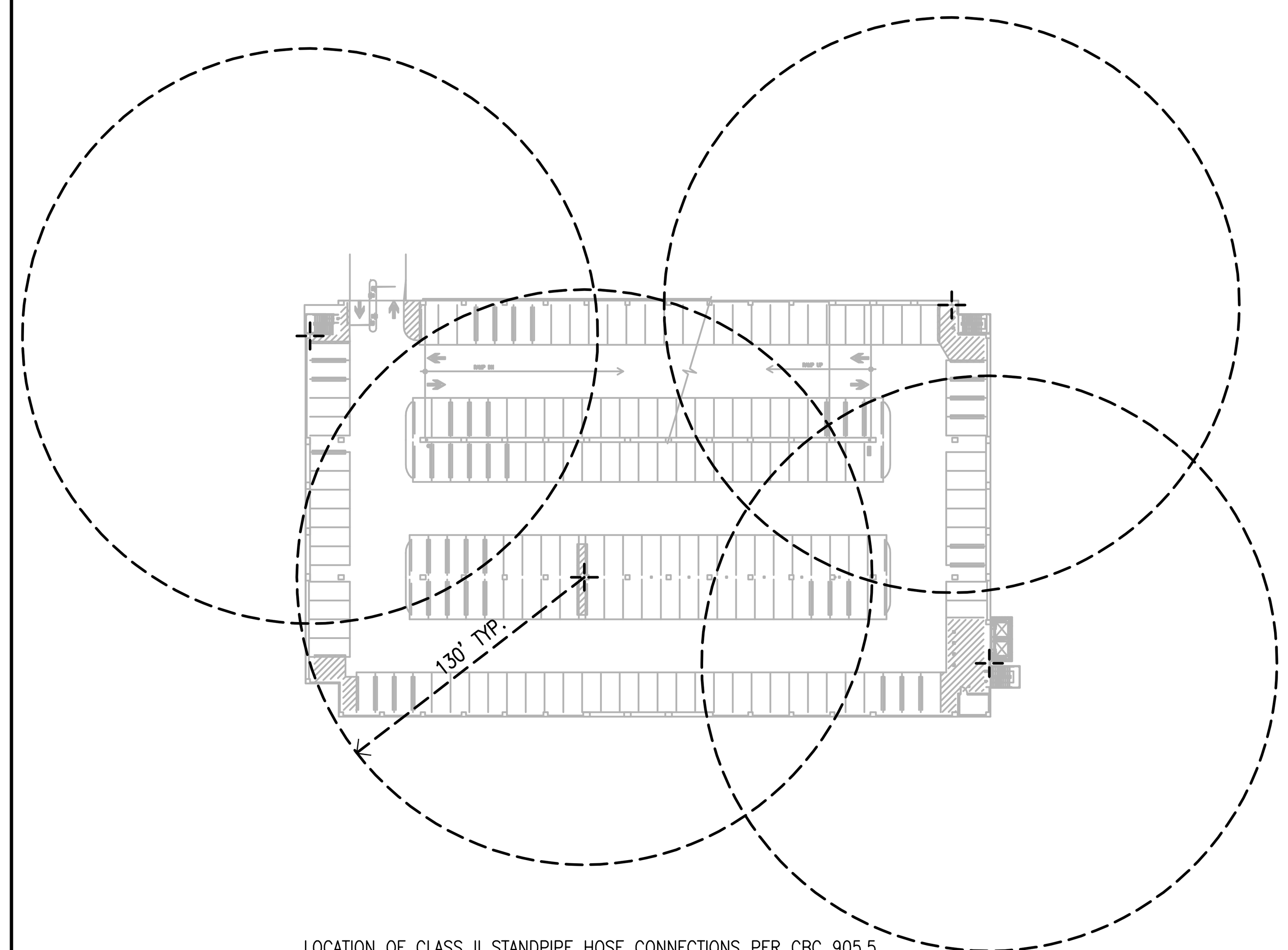
1 STAIR WIDTH 4'-5 1/2"
2 STAIR WIDTH 3'-11 1/2"
3 STAIR WIDTH 3'-11 1/2"
TOTAL STAIR WIDTH 12'-4 1/2" = 148.5"

AREA

TCMC PARKING STRUCTURE 58,055 SF

A OPEN STAIRWAYS PER CBC SECTION 1019.3, EXCEPTION 6

STANDPIPE LOCATIONS



LOCATION OF CLASS II STANDPIPE HOSE CONNECTIONS PER CBC 905.5

CODE SUMMARY

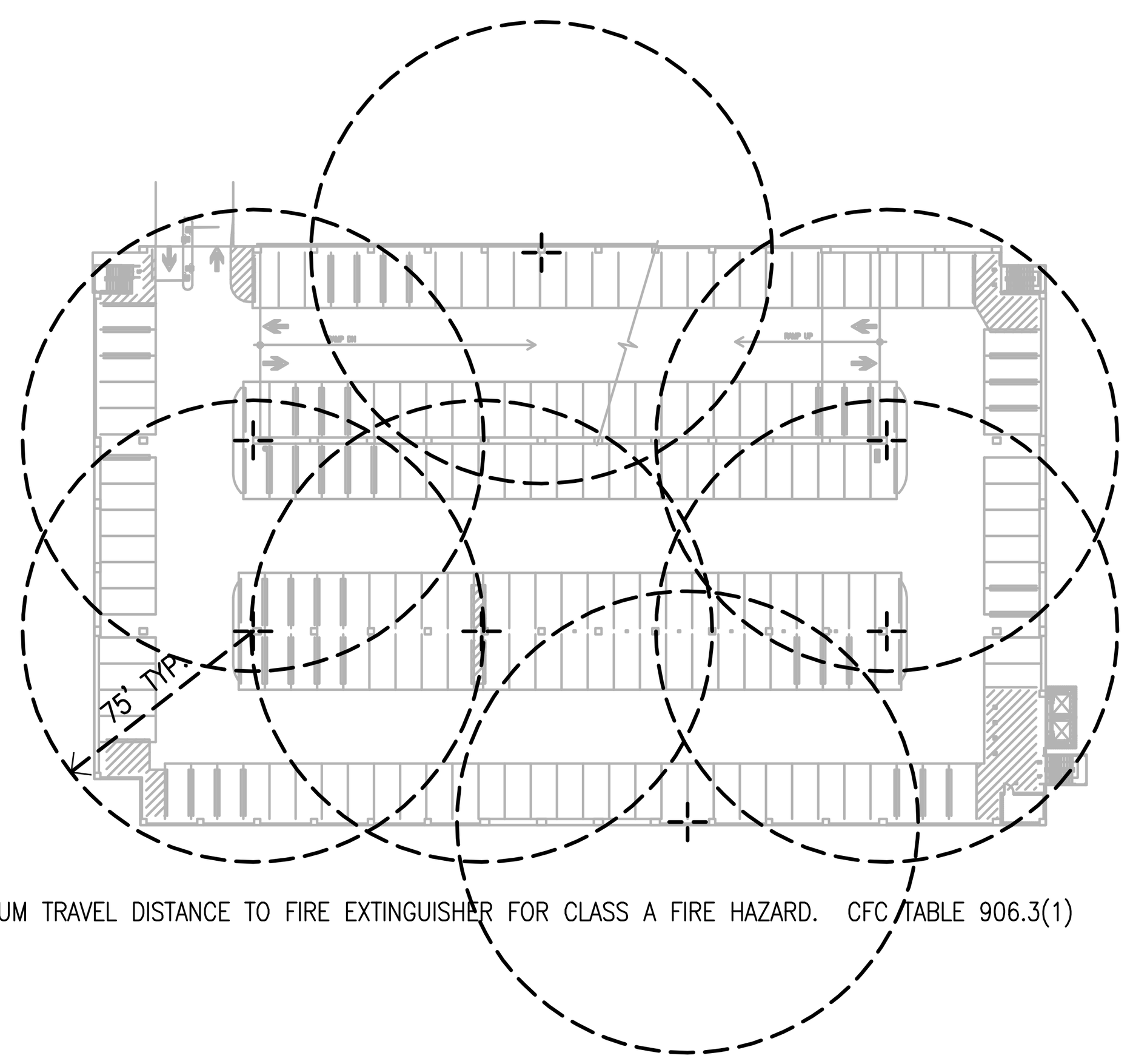
OCCUPANCY CLASSIFICATION: S-2 (Per Section 311.3), OPEN PARKING STRUCTURE
TYPE OF CONSTRUCTION: IB (Per Table 601 & Section 602.2)
FIRE PROTECTION: STANDPIPE SYSTEM
MAX FLOOR AREA ALLOWANCE PER OCCUPANT: 200 (Per Table 1004.1.2)
ROOF COVERING CLASSIFICATION: B (Per Table 1505.1)
ELEVATOR HOISTWAY ENCLOSURE: 2 HRS. (Per Section 713.4)

	CODE REFERENCE	ALLOWABLE/ REQUIRED	PROVIDED
BUILDING TIERS:	TABLE 406.5.4	12 TIERS	2 TIERS
BUILDING AREA PER TIER:	TABLE 406.5.4	UL	58,650 SQUARE FEET
FIRE RESISTANCE RATING FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE:	TABLE 602, FOOTNOTE d	NOT REQUIRED BETWEEN 10'≤ X < 30'	NOT APPLICABLE
EXTERIOR OPENING PROTECTION:	TABLE 705.8, FOOTNOTE g	NO OPENING LIMITATIONS FOR 10' OR GREATER	NO OPENING LIMITATIONS

FIRE RESISTIVE REQUIREMENTS FOR TYPE IB NON-COMBUSTIBLE MATERIALS

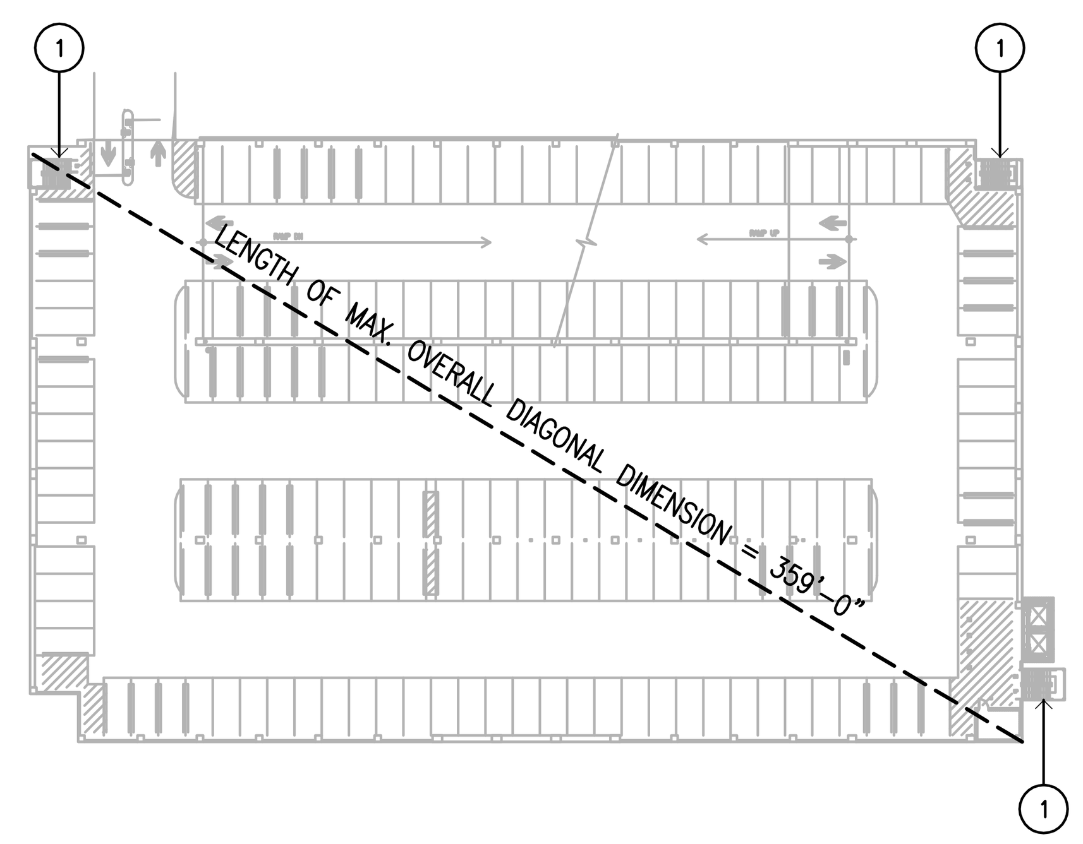
	REQUIRED	PROVIDED
BUILDING ELEMENT:	PRIMARY STRUCTURAL FRAME	1. REINFORCED CONCRETE COLUMNS, BEAMS, GIRDERS 2. UNBONDED POST-TENSIONED TENDONS CONCRETE BEAMS & GIRDERS
HOURLY:	2 HOURS	1. 2-HOURS 2. 2-HOURS
CODE REFERENCE:	TABLE 601	1. TABLE 721.1(1), 5-1.1 2. TABLE 721.1(1), 4-1.2
BUILDING ELEMENT:	BEARING WALLS -EXTERIOR -INTERIOR	THERE ARE NO EXTERIOR/INTERIOR BEARING WALLS
HOURLY:	2 HOURS	-
CODE REFERENCE:	TABLE 601	-
BUILDING ELEMENT:	NONBEARING WALLS & PARTITIONS -EXTERIOR	CONCRETE MASONRY UNITS (8" MIN THICK CMU)
HOURLY:	NOT REQUIRED BETWEEN 10'≤ X <30'	10' OR GREATER NONE REQUIRED
CODE REFERENCE:	TABLE 602, FOOTNOTE d	-
BUILDING ELEMENT:	NONBEARING WALLS & PARTITIONS -INTERIOR	CONCRETE MASONRY UNITS (8" MIN. THICK CMU)
HOURLY:	0 HOURS	-
CODE REFERENCE:	TABLE 601	TABLE 721.1(2), 3-1.4
BUILDING ELEMENT:	FLOOR CONSTRUCTION & ASSOCIATED SECONDARY MEMBERS	5" SLAB (P.T. & REINFORCED CONCRETE SLAB)
HOURLY:	2 HOURS	2 HOURS
CODE REFERENCE:	TABLE 601	TABLE 721.1(3), 1-1.1
BUILDING ELEMENT:	ROOF CONSTRUCTION & ASSOCIATED SECONDARY MEMBERS	THERE ARE NO ROOF CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS
HOURLY:	1 HOUR	-
CODE REFERENCE:	TABLE 601	-

MAXIMUM TRAVEL DISTANCE TO FIRE EXTINGUISHER



MAXIMUM TRAVEL DISTANCE TO FIRE EXTINGUISHER FOR CLASS A FIRE HAZARD. CFC TABLE 906.3(1)

DISTANCE APART BETWEEN TWO STAIRS

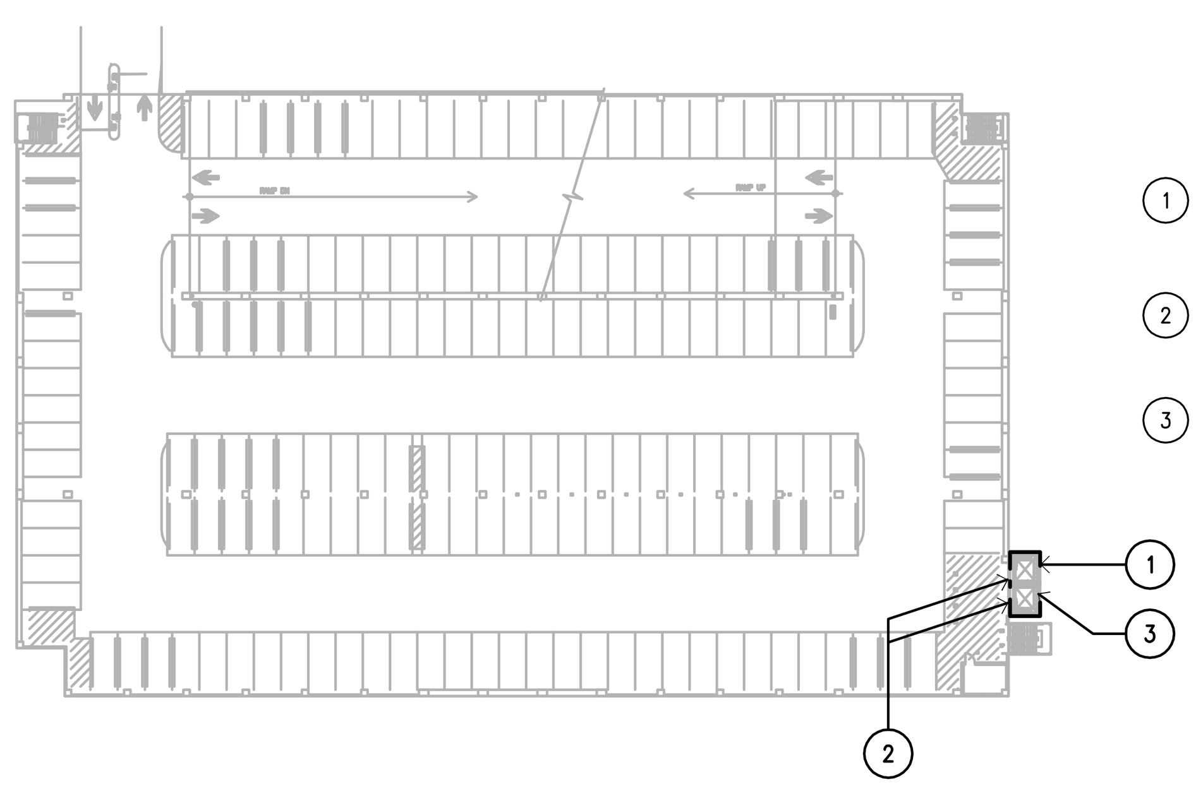


1 OPEN STAIRWAYS

DISTANCE APART FOR AT LEAST TWO EXITS IS MORE THAN ½ OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING PER CBC SECTION 1007.1.1 AND 1007.1.1.1

DIAGONAL 359'-0" ÷ 2 = 179'-6"
STAIR DISTANCE = 359'-0"

FIRE RESISTANCE RATING

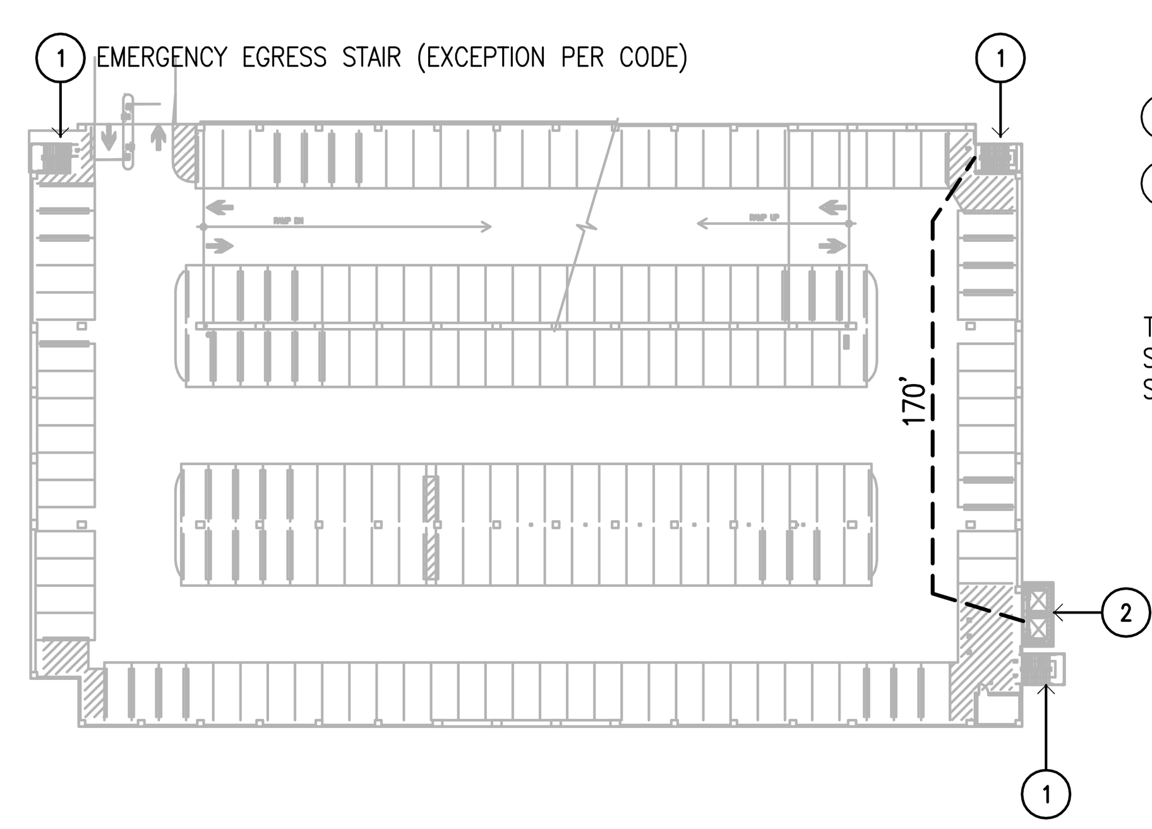


1 2 HR. FIRE RESISTANCE RATING FOR ELEVATOR HOISTWAY ENCLOSURE PER CBC SECTION 713.4

2 1 ½ HR FIRE RESISTANCE RATING FOR DOORS PER CBC TABLE 716.5

3 NO REQUIRED PROTECTION OPENINGS PER CBC SECTION 713.6 AND TABLE 705.8, FOOT NOTE g

ELEVATOR DISTANCE TO STAIRS



1 OPEN STAIRWAY

2 PASSENGER ELEVATOR(S)

TRAVEL WITHIN 200' BETWEEN STAIR AND ELEVATOR PER CBC SECTION 11B-206.2.3.2

2016 CALIFORNIA CODE OF REGULATION

APPLICABLE CODES AS OF JANUARY 1, 2017 NOT LIMITED TO:

1. 2016 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, CCR TITLE 24
2. 2016 CALIFORNIA BUILDING CODE, PART 2, VOLUMES 1 & 2, CCR TITLE 24
3. 2016 CALIFORNIA ELECTRICAL CODE, PART 3, CCR TITLE 24
4. 2016 CALIFORNIA MECHANICAL CODE, PART 4, CCR TITLE 24
5. 2016 CALIFORNIA PLUMBING CODE, PART 5, CCR TITLE 24
6. 2016 CALIFORNIA ENERGY CODE, PART 6, CCR TITLE 24
7. 2016 CALIFORNIA FIRE CODE, PART 9, CCR TITLE 24
8. 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, CCR TITLE 24
9. 2016 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, CCR TITLE 24

PARTIAL LIST OF APPLICABLE STANDARDS

1. NFPA 14 STANDPIPE SYSTEMS 2016 EDITION
2. NFPA 17 DRY CHEMICAL EXTINGUISHING SYSTEMS 2016 EDITION
3. NFPA 17a WET CHEMICAL SYSTEMS 2016 EDITION
4. NFPA 72 NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) 2016 EDITION
   NOTE: SEE UL STANDARD 1971 FOR "VISUAL DEVICES"
5. NFPA 2001 CLEAN AGENT FIRE EXTNGUISHING SYSTEMS 2016 EDITION
   REFERENCE CODE SECTION FOR NFPA SGTANDARS - 2016 CBC (SFM) 3504.1

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TCMC PARKING STRUCTURE AND MAIN ENTRY

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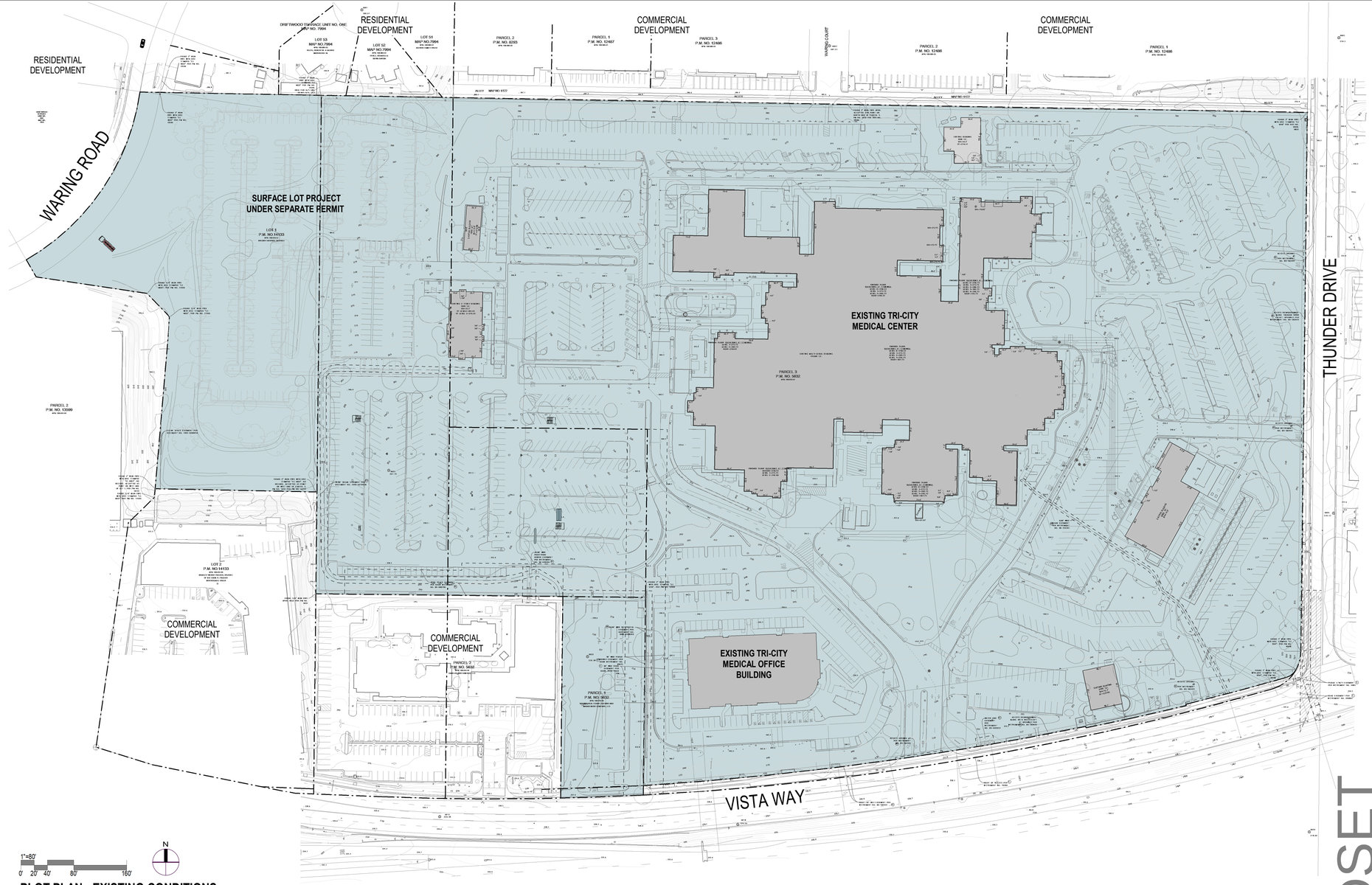
CODE ANALYSIS

Sheet Number

A0.03



PLOT PLAN - EXISTING CONDITIONS

1" = 80'-0"

Aerial Map

12" = 1'-0"

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TCMC PARKING STRUCTURE AND MAIN ENTRY

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PLOT PLAN - EXISTING CONDITIONS

Sheet Number

A0.04

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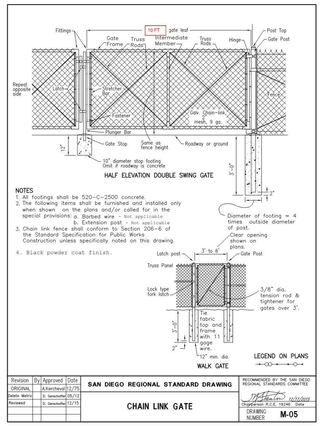
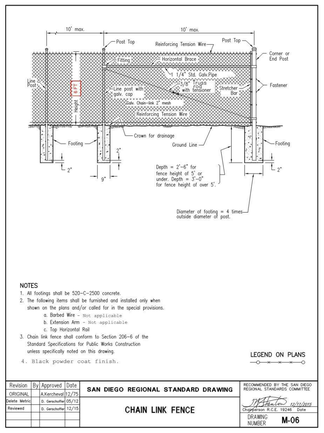


4 A0.05 **CHAINLINK FENCE SAN DIEGO REGIONAL STANDARD DETAIL M-05**

NTS



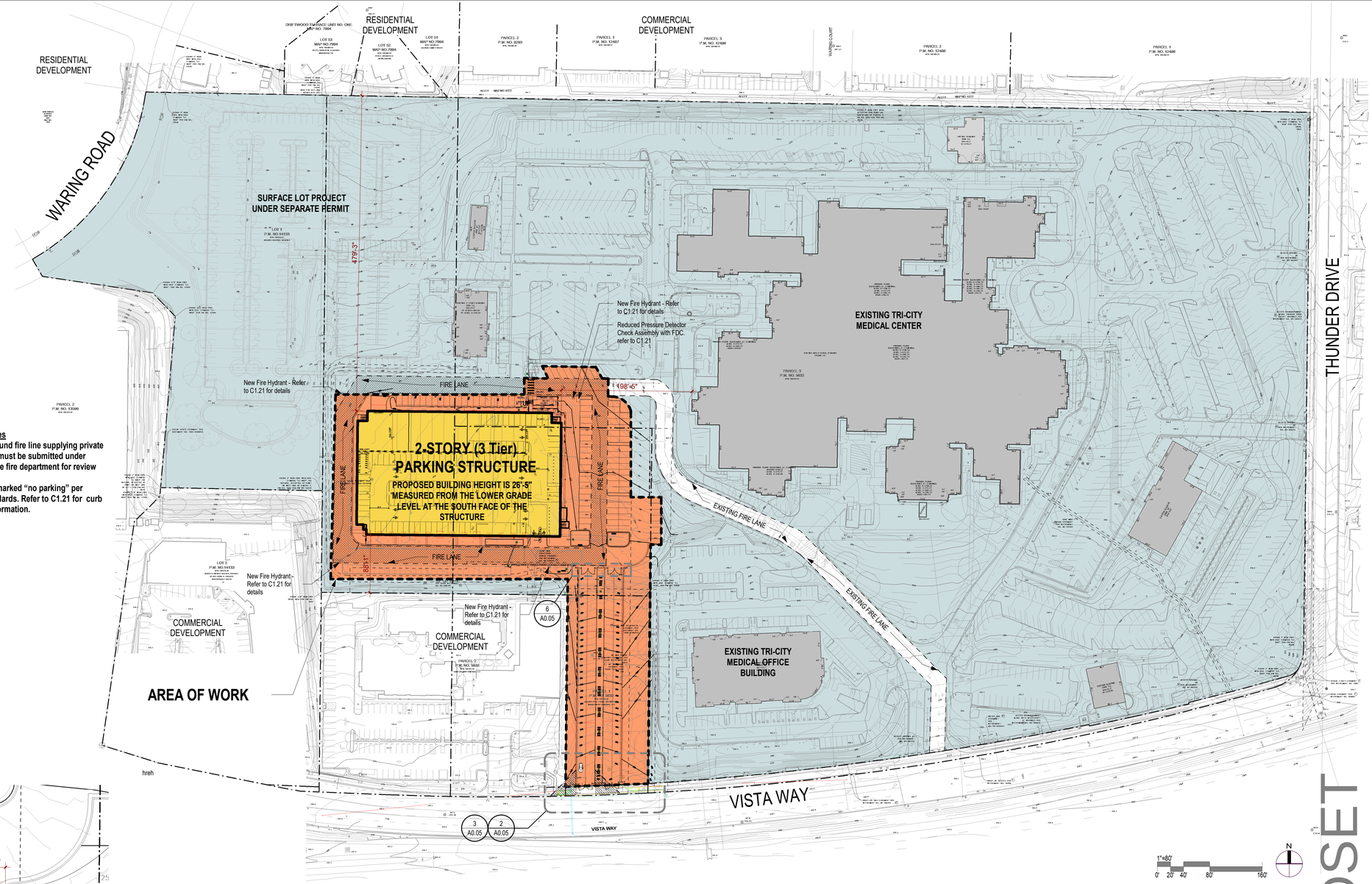
5 A0.05 **CHAINLINK FENCE SAN DIEGO REGIONAL STANDARD DETAIL M-06**

NTS

Fire Department Notes

1.Plans for underground fire line supplying private hydrants and DCDA must be submitted under separate permit to the fire department for review prior to installation.

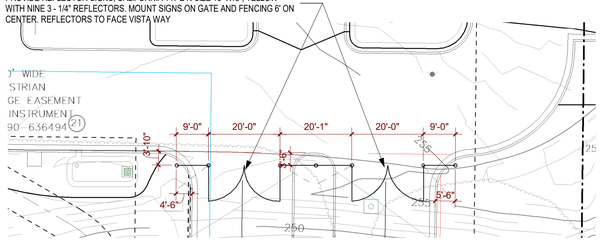
2.Fire lane must be marked "no parking" per Oceanside Fire standards. Refer to C1.21 for curb marking detailed information.



PLOT PLAN - PROPOSED PARKING STRUCTURE

1" = 80'-0"

EXIT GATE FOR CONSTRUCTION TRAFFIC ONLY.
PROVIDE REFLECTOR SIGNS, CALIFORNIA TYPE N SIZE 18" X18", YELLOW WITH NINE 3 - 1/4" REFLECTORS. MOUNT SIGNS ON GATE AND FENCING 6' ON CENTER. REFLECTORS TO FACE VISTA WAY

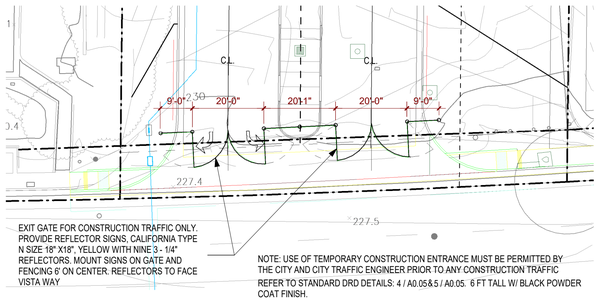


REFER TO STANDARD DRD DETAILS:
4 / A0.05&.5 / A0.05. 6 FT TALL W/ BLACK POWDER COAT FINISH.

NOTE: USE OF TEMPORARY CONSTRUCTION ENTRANCE MUST BE PERMITTED BY THE CITY AND CITY TRAFFIC ENGINEER PRIOR TO ANY CONSTRUCTION TRAFFIC

6 A0.05 **TEMPORARY CONSTRUCTION NORTH GATE**

1" = 20'-0"



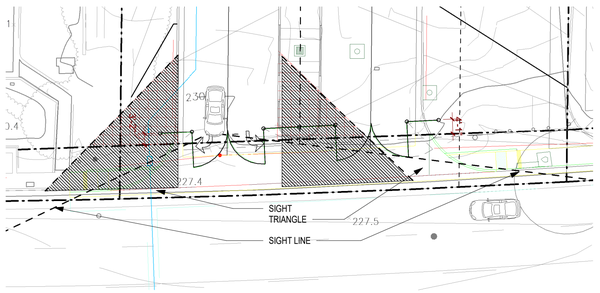
EXIT GATE FOR CONSTRUCTION TRAFFIC ONLY.
PROVIDE REFLECTOR SIGNS, CALIFORNIA TYPE N SIZE 18" X18", YELLOW WITH NINE 3 - 1/4" REFLECTORS. MOUNT SIGNS ON GATE AND FENCING 6' ON CENTER. REFLECTORS TO FACE VISTA WAY

NOTE: USE OF TEMPORARY CONSTRUCTION ENTRANCE MUST BE PERMITTED BY THE CITY AND CITY TRAFFIC ENGINEER PRIOR TO ANY CONSTRUCTION TRAFFIC

REFER TO STANDARD DRD DETAILS: 4 / A0.05&.5 / A0.05. 6 FT TALL W/ BLACK POWDER COAT FINISH.

3 A0.05 **TEMPORARY CONSTRUCTION SOUTH GATE**

1" = 20'-0"



2 A0.05 **SIGHT LINES**

1" = 20'-0"

TRI-CITY MEDICAL CENTER PARKING REQUIREMNT AND PROPOSAL TABLE

LAND USE	SQUARE FOOTAGE	PARKING REQUIREMENT	AVAILABLE	PROPOSAL
HOSPITAL	400,000 380 BEDS	1.5 SPACES PER BED (1.5 X 380) = 570	700	700 (Existing)
MEDICAL OFFICE	59,940	1/250 SQ. FT 59,940/250 = 238	368	368 (Existing)
OFFICE SPACE	21,535	1/300 SQ.FT. 21,535 / 300 = 72	203	203 (Existing)
SURFACE PARKING LOT (ADP17-00002)	NA	NA	Under Construction at the Time of this Submittal	209 (Under Construction)
2-STORY (3 TIER) PARKING STRUCTURE *	159,750 SF	NA	NA	495 PROPOSED
TOTALS	138,475	880	NA	2,056

*** 2-STORY (3 TIER) PARKING STRUCTURE PARKING SPACE AND AREA SUMMARY**

S = 8'-6" X 18'-0" | Ø = 90° | BUILDING SIZE = 309'-6" X 188'

AREA	ON-GRADE SLAB (SF)	ELEVATED SLAB (SF)	NUMBER OF SPACES VAN	ACCESSIBLE	STANDARD	TOTAL	SF / SPACE
1A	19,970		2	2	48	52	384.04
1B	19,270			3	53	56	344.11
1C	19,410				60	60	323.50
2A		19,595		1	61	62	316.05
2B		19,190			62	62	309.52
2C		19,270			65	65	296.46
3A		19,490		1	62	63	309.37
3B		19,190			65	65	295.23
3C		4,365			10	10	436.50
Totals =	58,650	101,100	2	7	486	495	
Gross Floor Area (SF) =		159,750					
Total Spaces =		58,650				495	
Design Efficiency =		159,750	÷ 495	=			322.73

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TCMC PARKING STRUCTURE AND MAIN ENTRY

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PLOT PLAN - PROPOSED PARKING STRUCTURE

Sheet Number

A0.05

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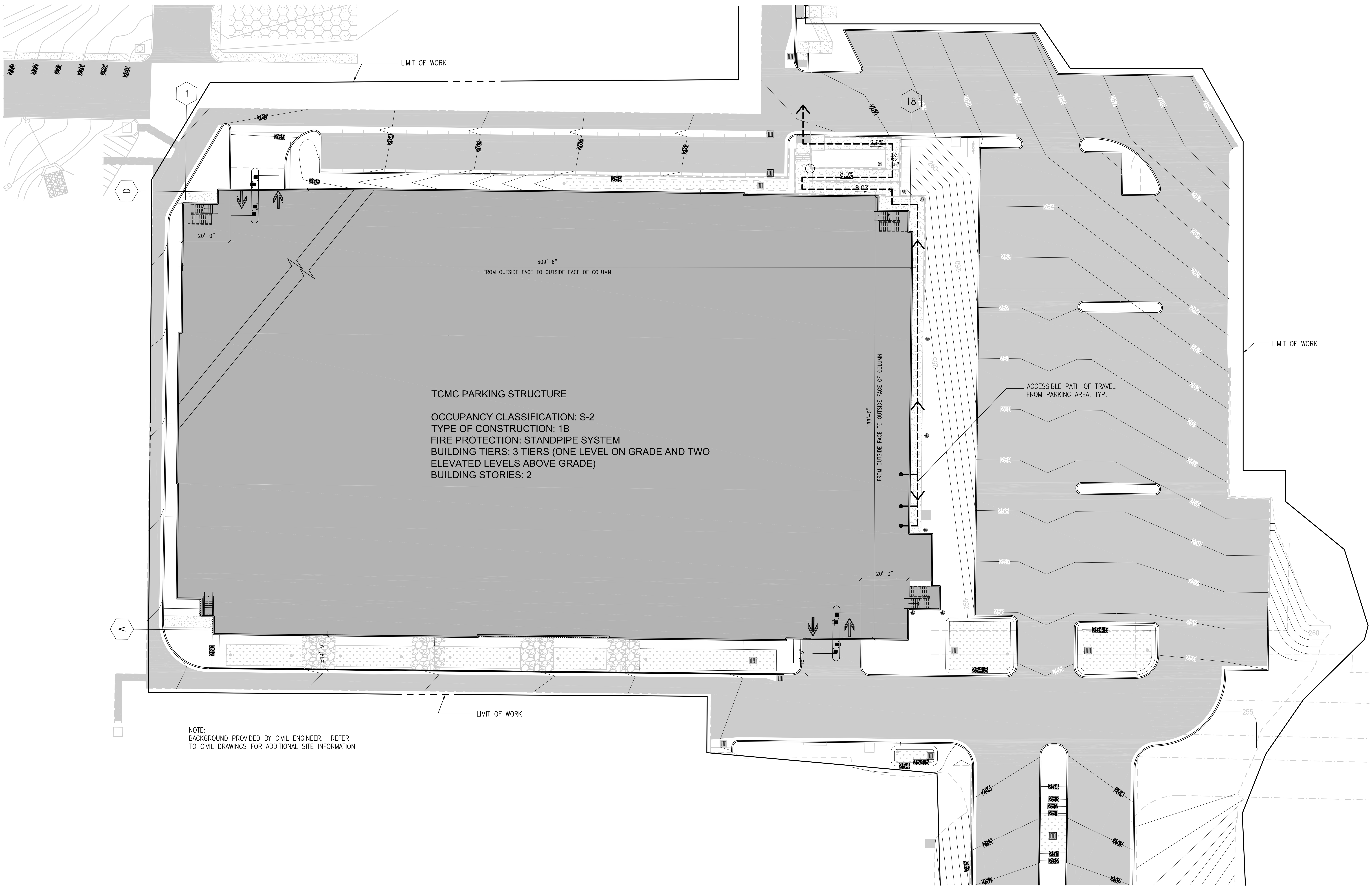

NOTE:
BACKGROUND PROVIDED BY CIVIL ENGINEER. REFER TO CIVIL DRAWINGS FOR ADDITIONAL SITE INFORMATION

SITE PLAN (1)

SCALE: 1"= 20'-0"

N

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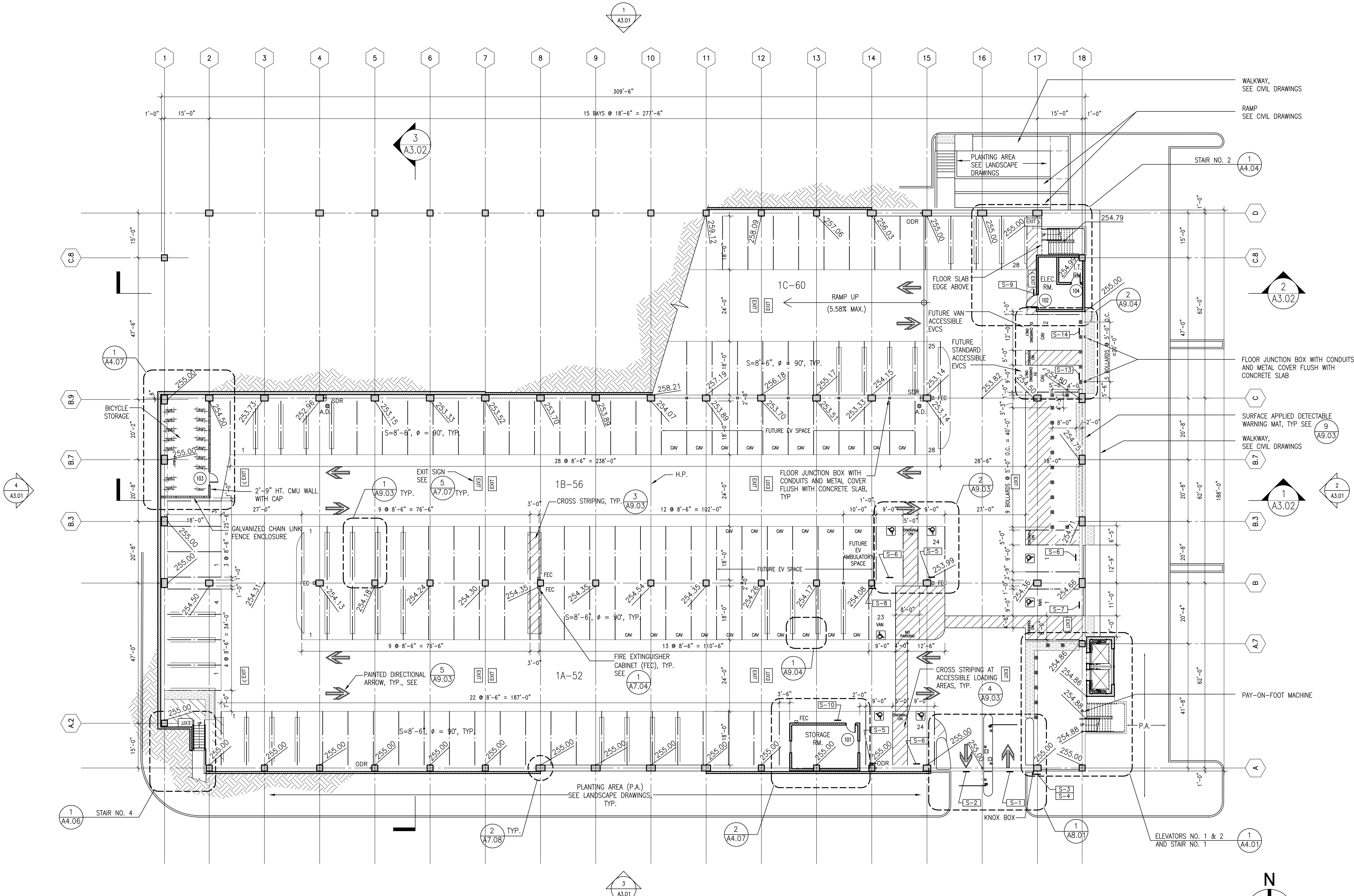
SITE PLAN

Sheet Number

A1.01



GROUND LEVEL PLAN

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

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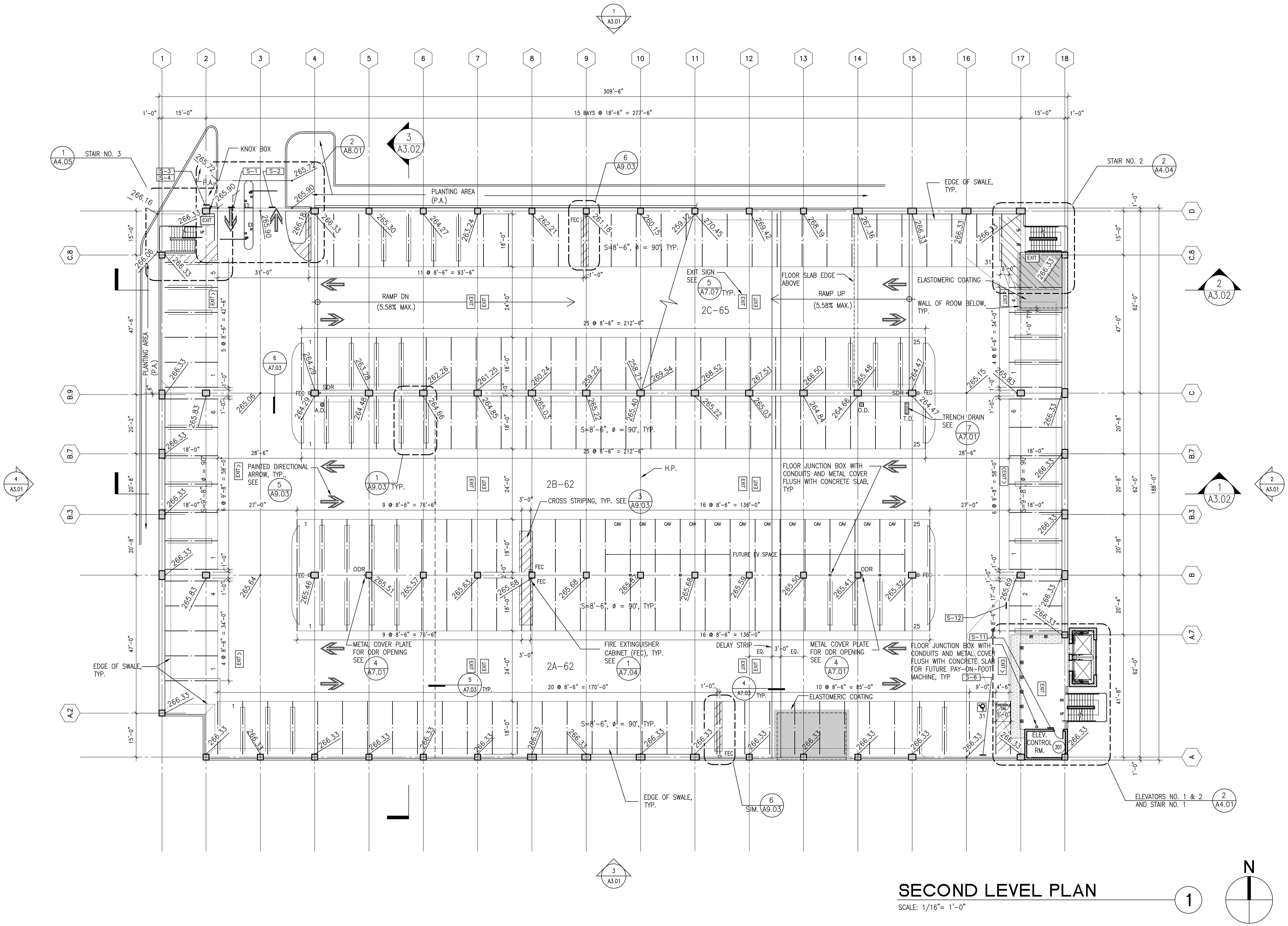
GROUND LEVEL PLAN

Sheet Number

A2.01



SECOND LEVEL PLAN

1

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

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SECOND LEVEL PLAN

Sheet Number

A2.02

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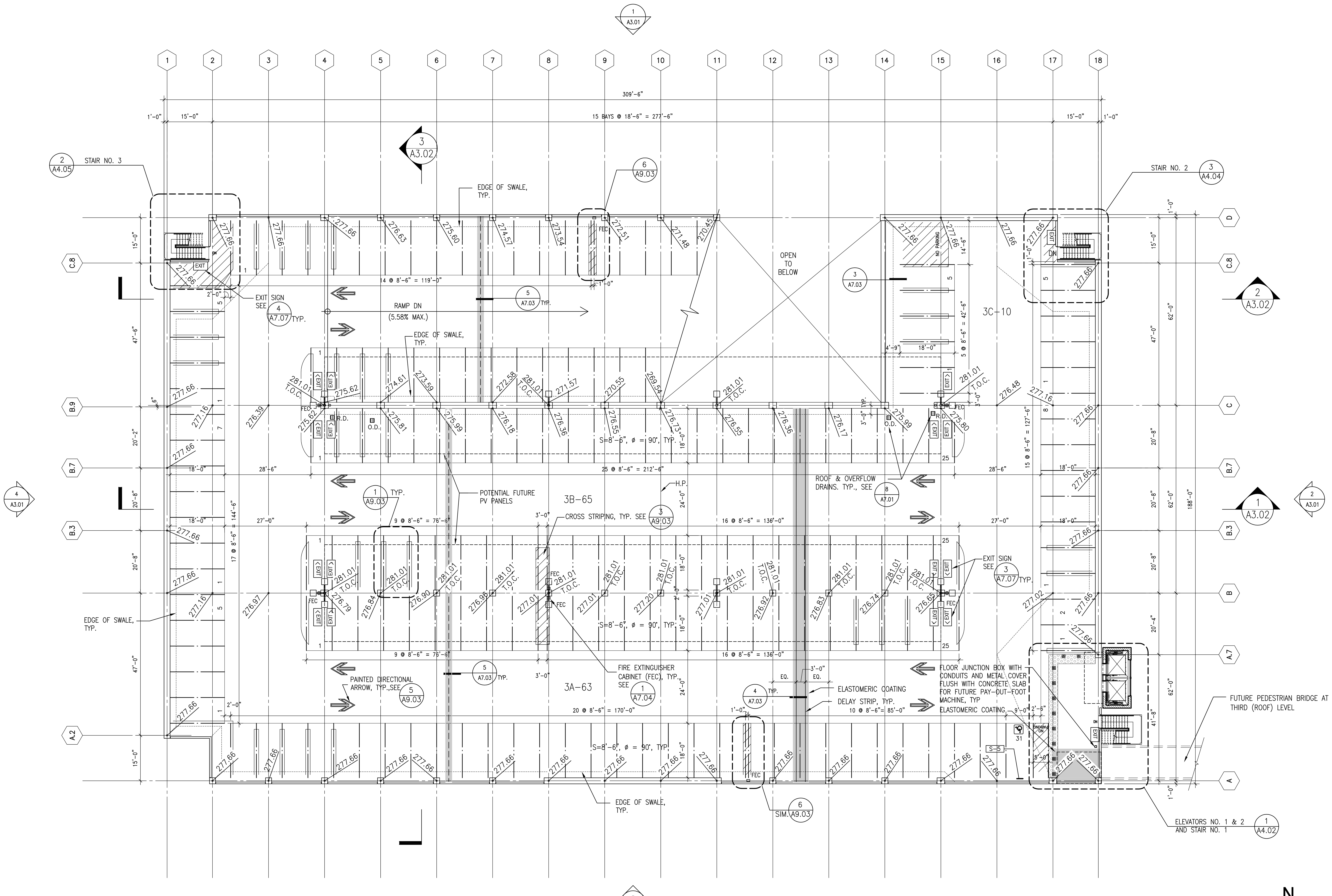

THIRD (ROOF) LEVEL PLAN 1
SCALE: 1/16"= 1'-0"

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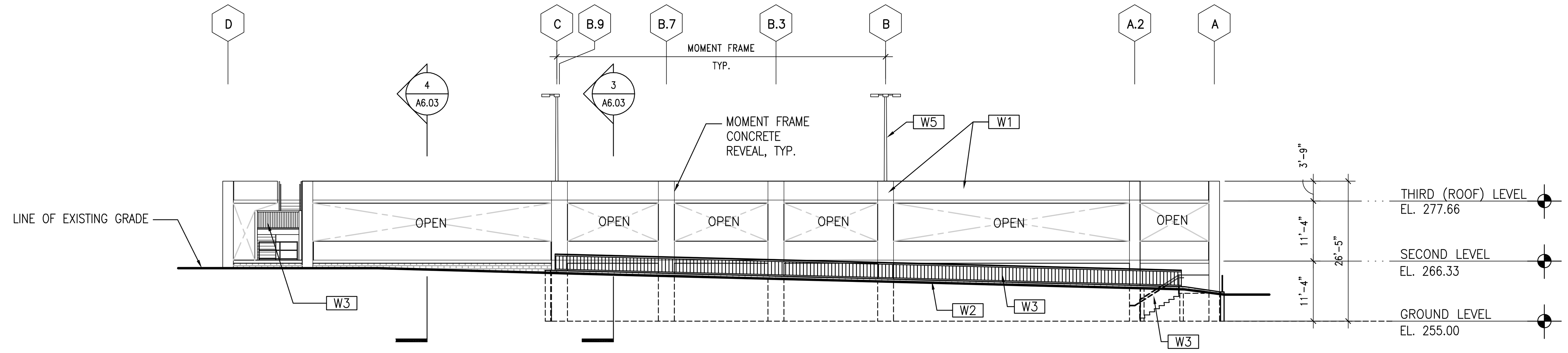
THIRD (ROOF) LEVEL PLAN

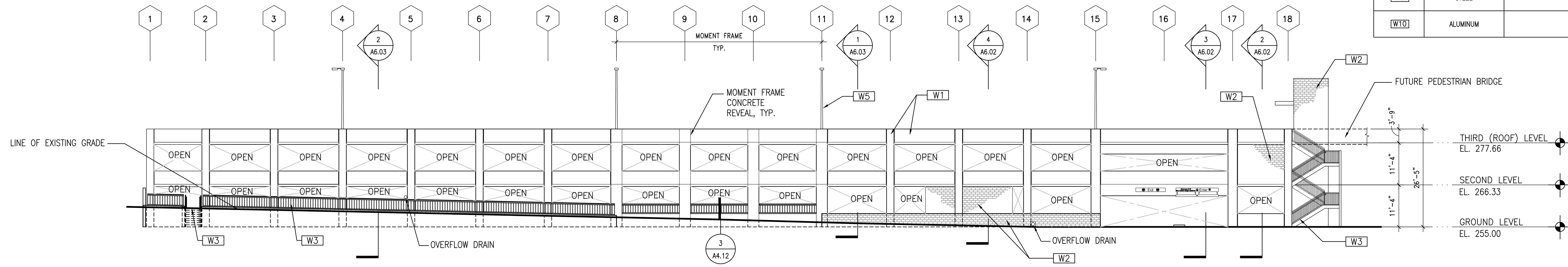
Sheet Number

A2.03



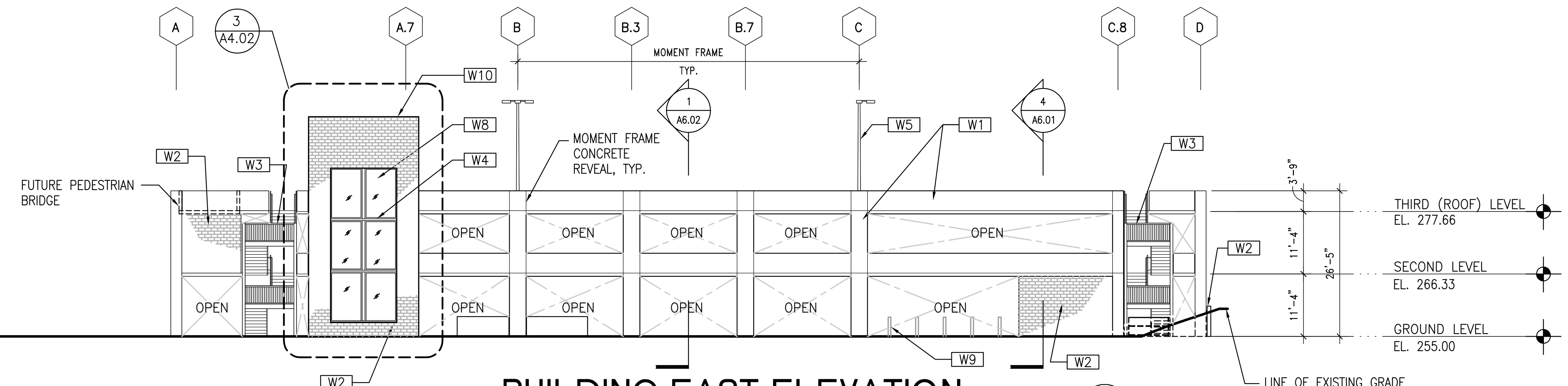
BUILDING WEST ELEVATION (4)

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



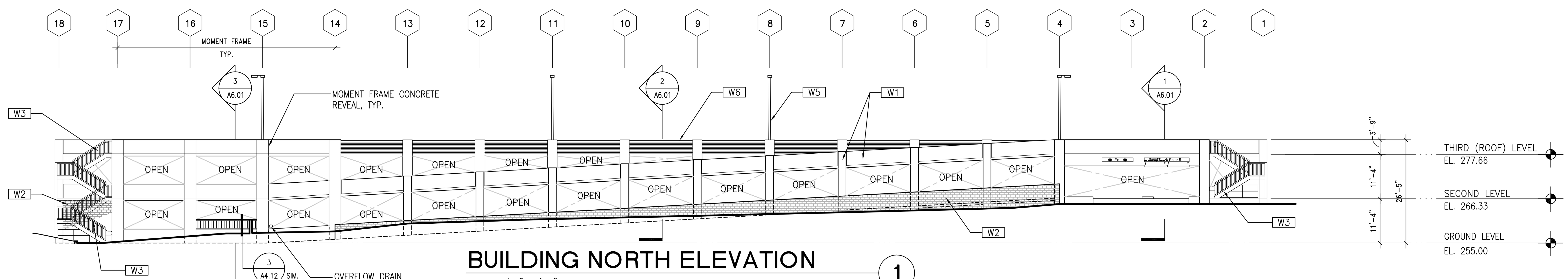
BUILDING SOUTH ELEVATION (3)

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



BUILDING EAST ELEVATION (2)

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



BUILDING NORTH ELEVATION (1)

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

EXTERIOR MATERIALS & FINISHES

DESIGNATION	MATERIAL	REMARKS	FINISH	DESCRIPTION
W1	CAST-IN-PLACE CONCRETE		PAINT	
W2	CMU		PAINT	PRECISION STANDARD GRAY
W3	METAL	DEFERRED SUBMITTAL	METAL COATING SYSTEM	HOT DIPPED GALVANIZED STAIRS AND RAILING
W4	ALUMINUM-FRAMED STOREFRONT	DEFERRED SUBMITTAL	FLUOROCARBON COATING	70% DVDF KYNAR 500/ HYLAR 5000
W5	LIGHTING FIXTURE		METAL COATING SYSTEM	SEE ELECTRICAL DRAWINGS
W6	STEEL	DEFERRED SUBMITTAL		GALVANIZE CABLE BARRIER
W7	NOT USED	NOT USED	NOT USED	NOT USED
W8	GLASS		TINTED	LAMINATED SAFETY GLASS
W9	STEEL		METAL COATING SYSTEM	HOT DIPPED GALVANIZE BOLLARDS
W10	ALUMINUM		KYNAR	.080 METAL COPING

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TCMC PARKING STRUCTURE AND MAIN ENTRY

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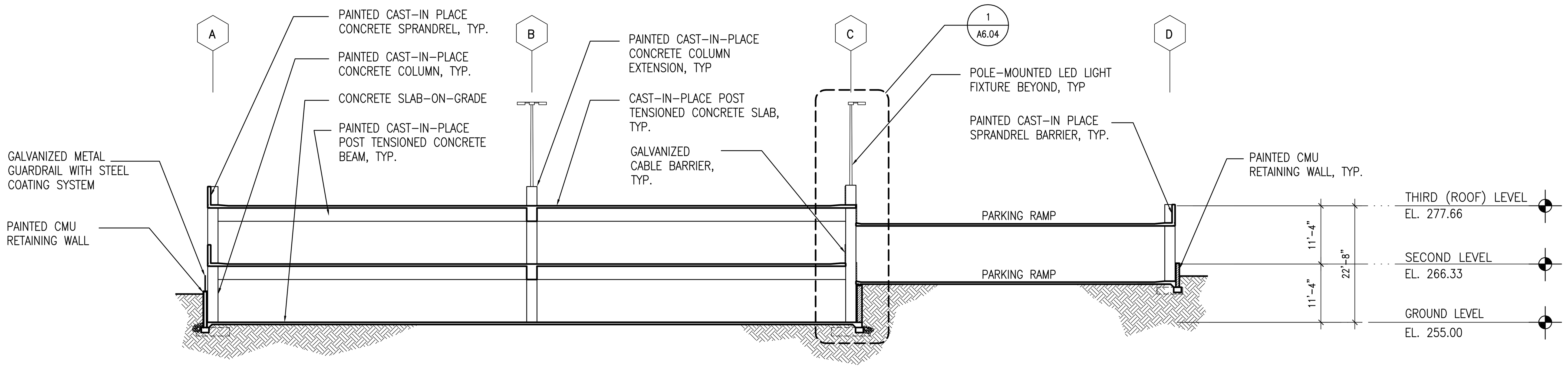
Sheet Title

BUILDING ELEVATIONS

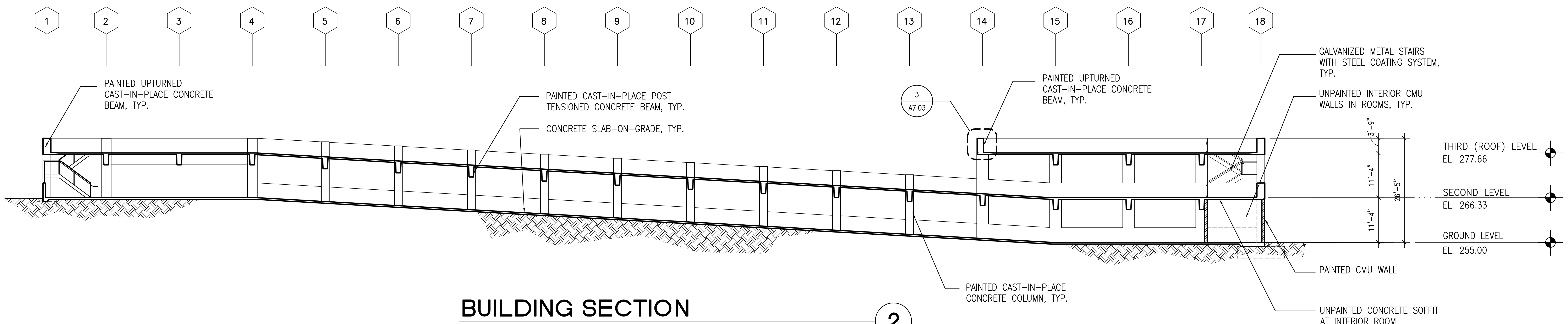
Sheet Number

A3.01



BUILDING SECTION 3

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



BUILDING SECTION 2

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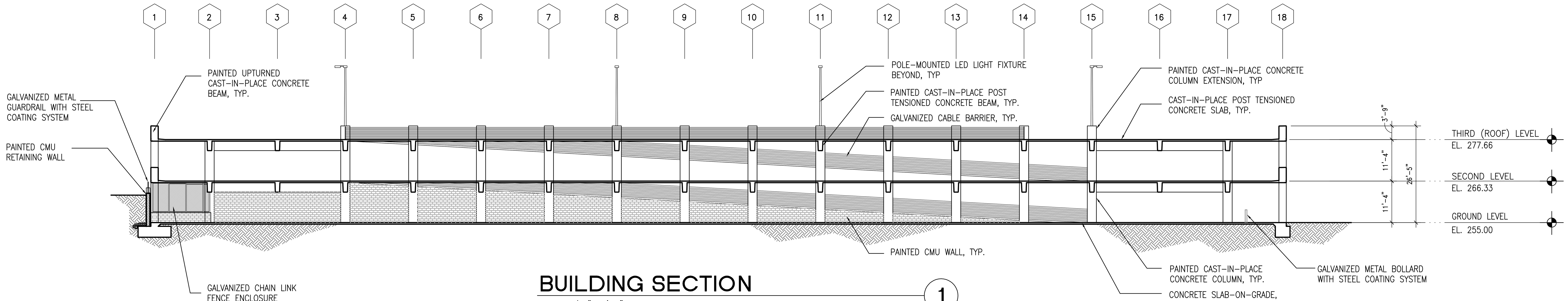

BUILDING SECTION 1

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

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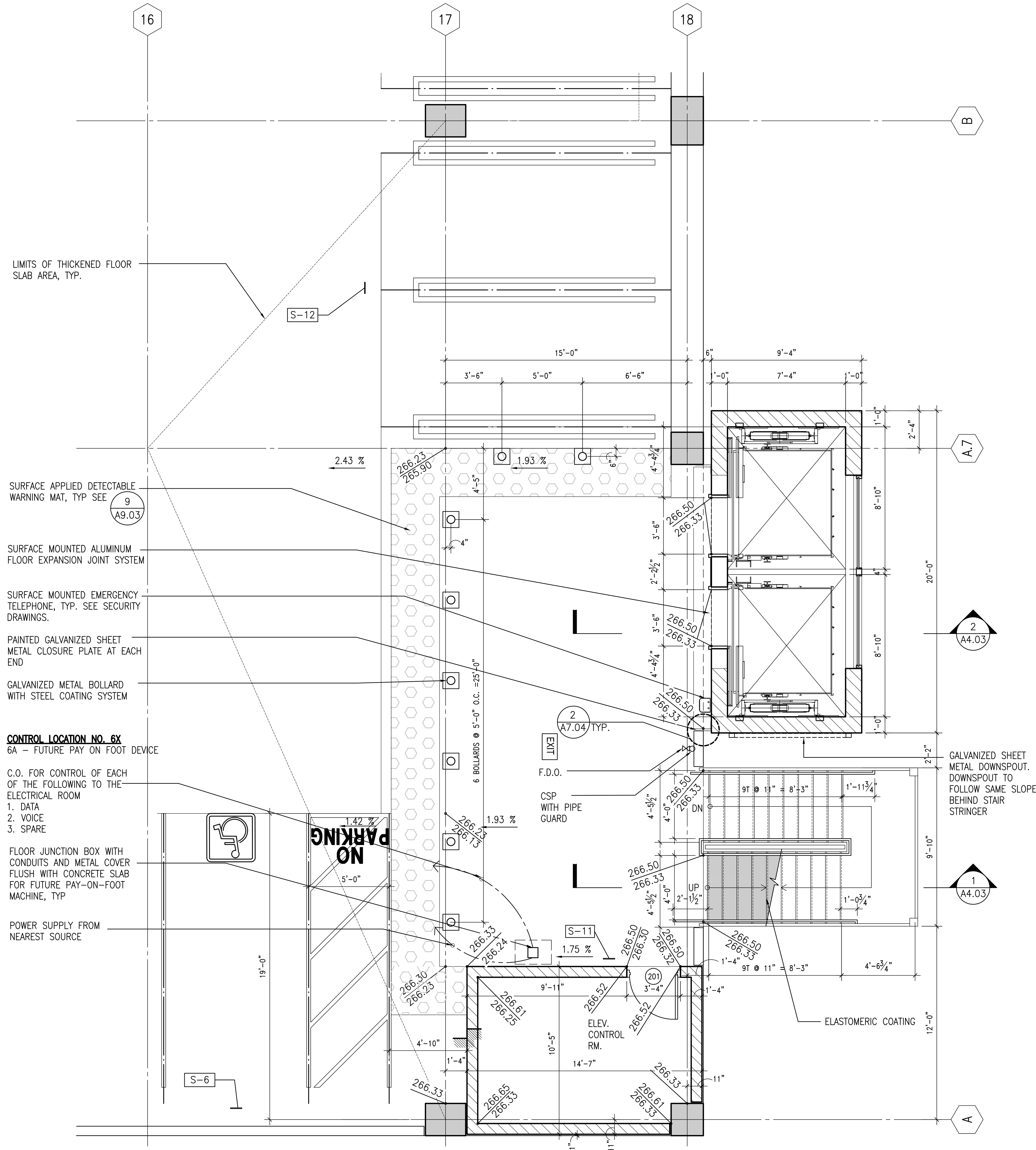
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

BUILDING SECTIONS

Sheet Number

A3.02

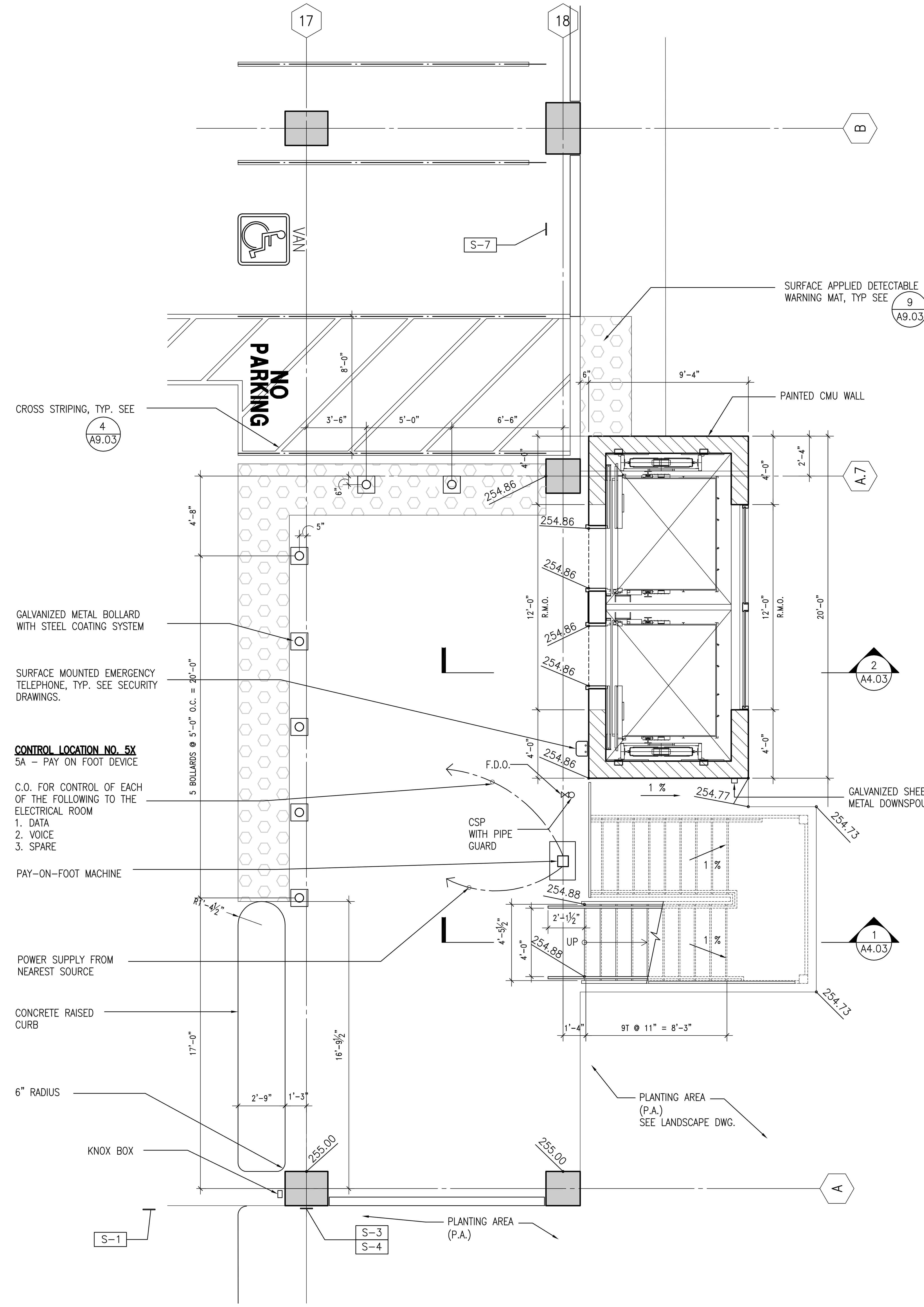


ELEVATOR NO.1 & 2 AND STAIR NO. 1 SECOND LEVEL

2

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

N



ELEVATOR NO.1 & 2 AND STAIR NO. 1 GROUND LEVEL

1

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

N

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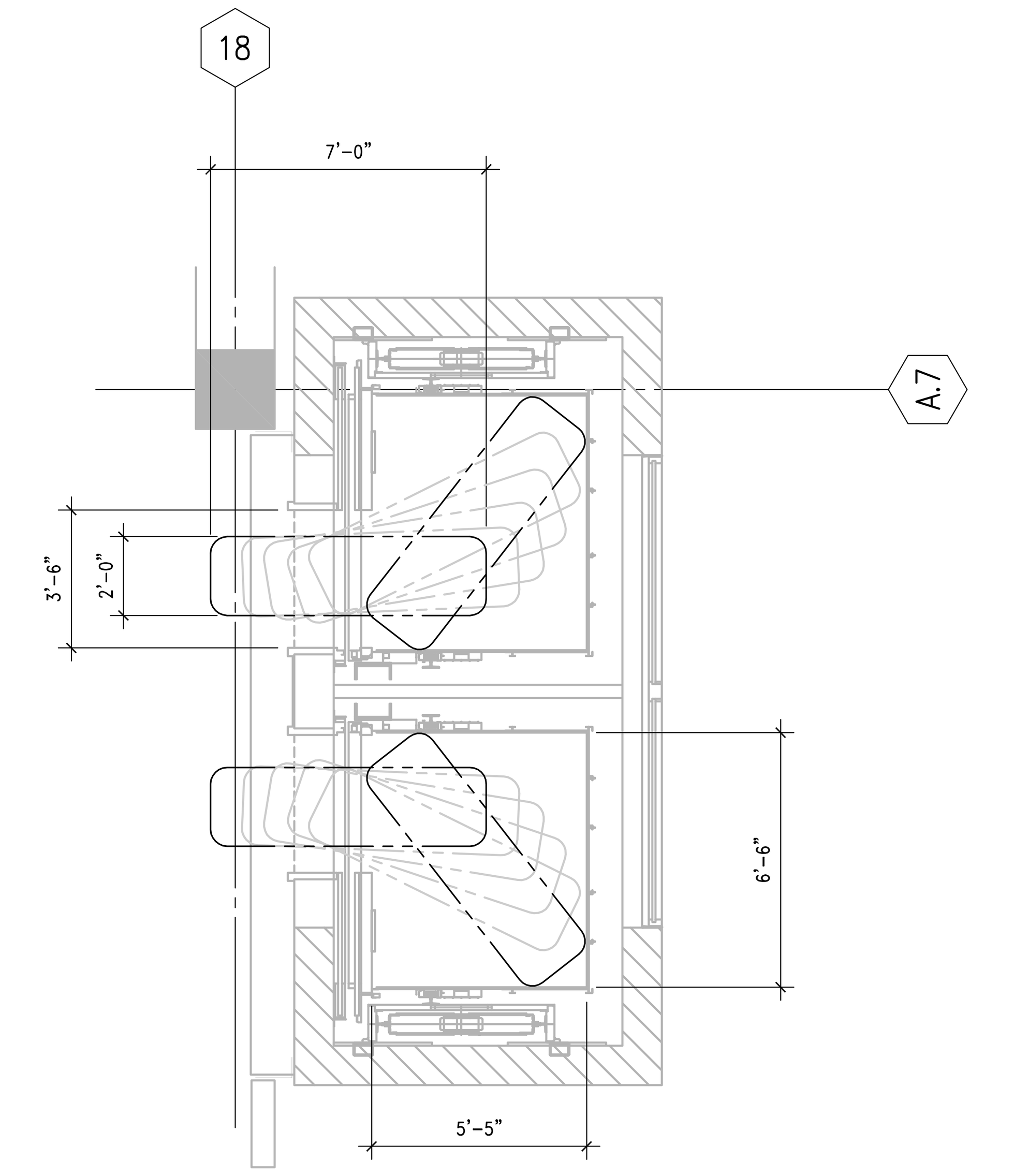
ELEVATORS NO. 1 & 2 AND STAIR NO. 1 PLANS

Sheet Number

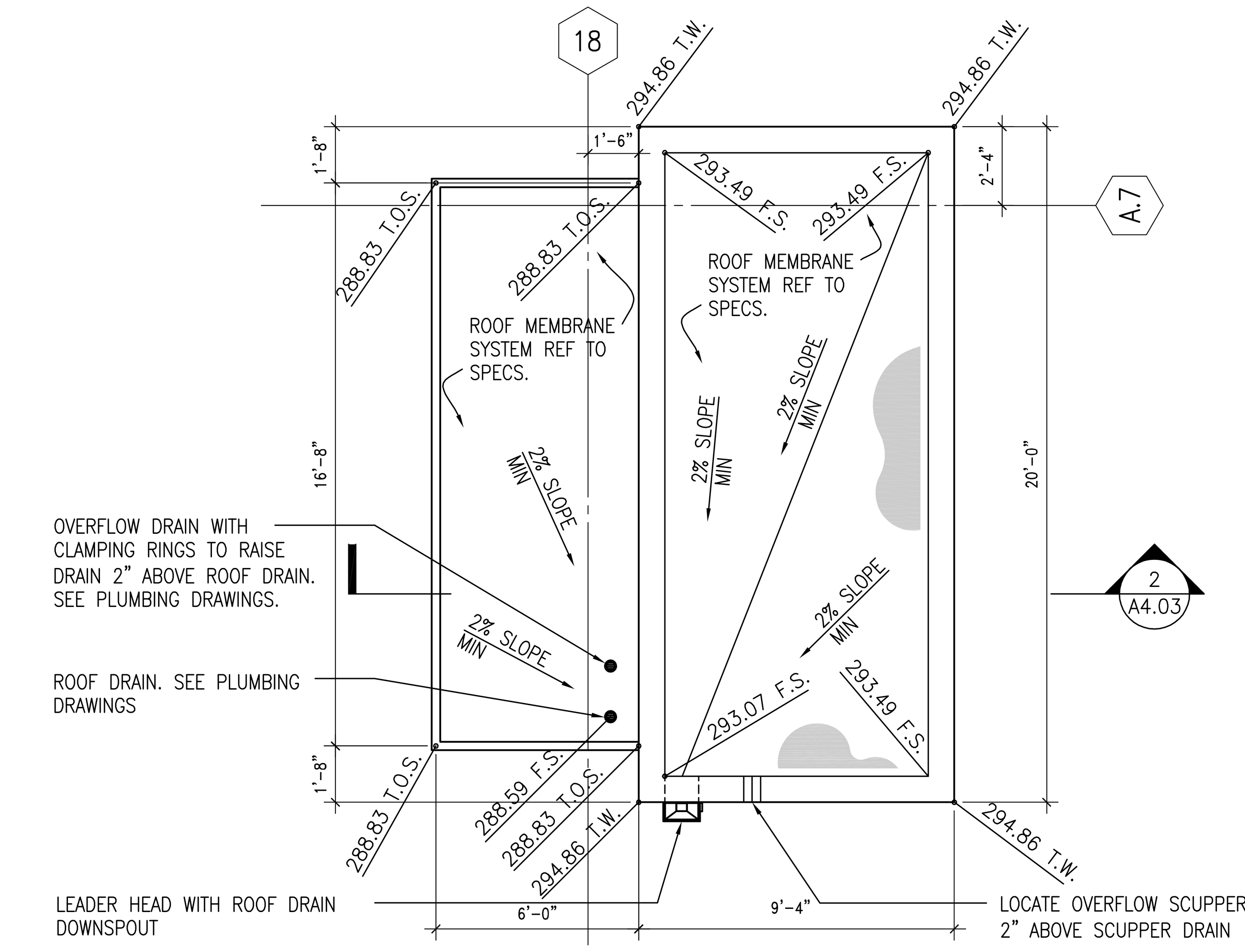
A4.01



GURNEY LAYOUT AT ELEVATOR CAB

5

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

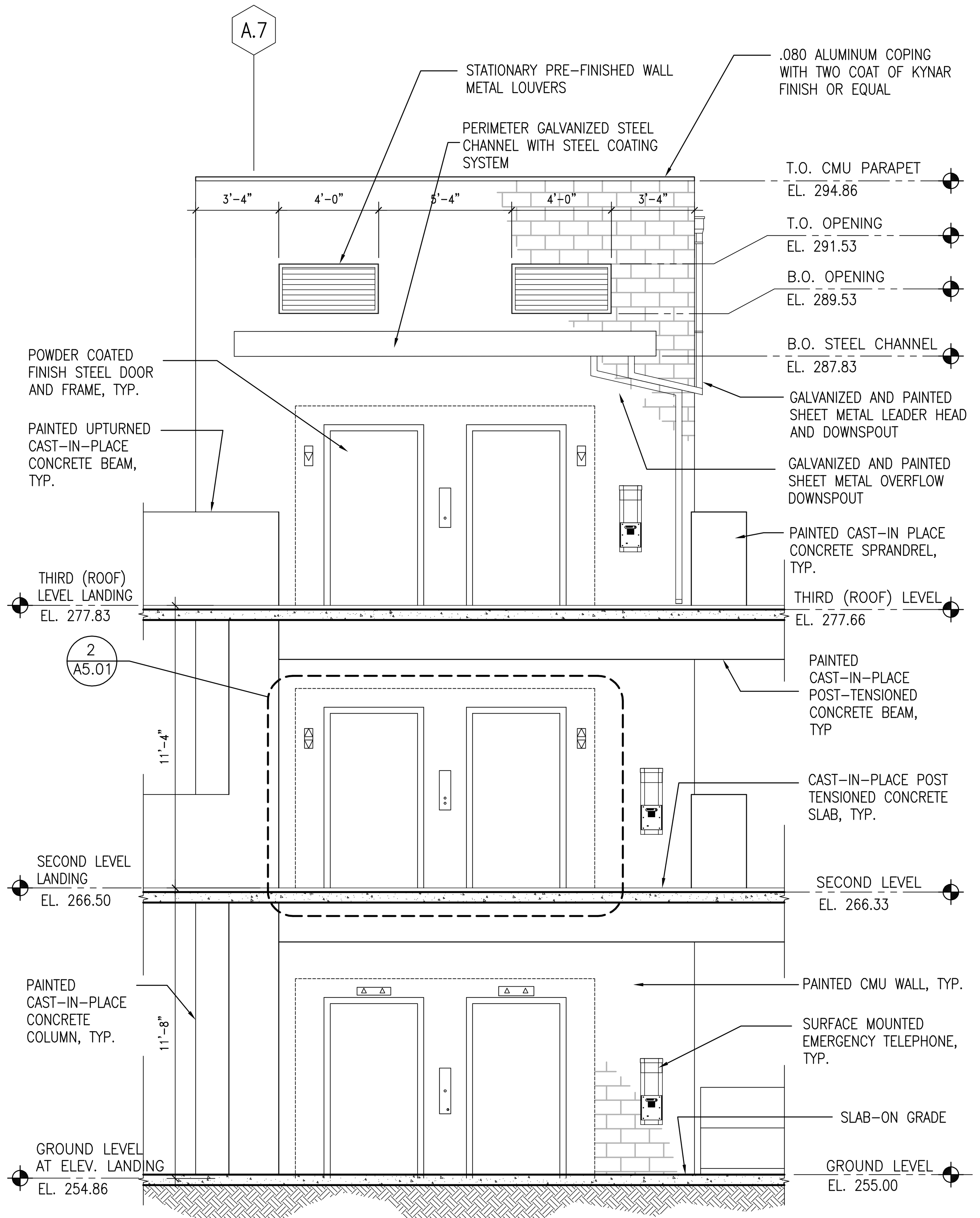


ELEVATOR NO.1 & 2 AND STAIR NO. 1 ROOF LEVEL

2

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

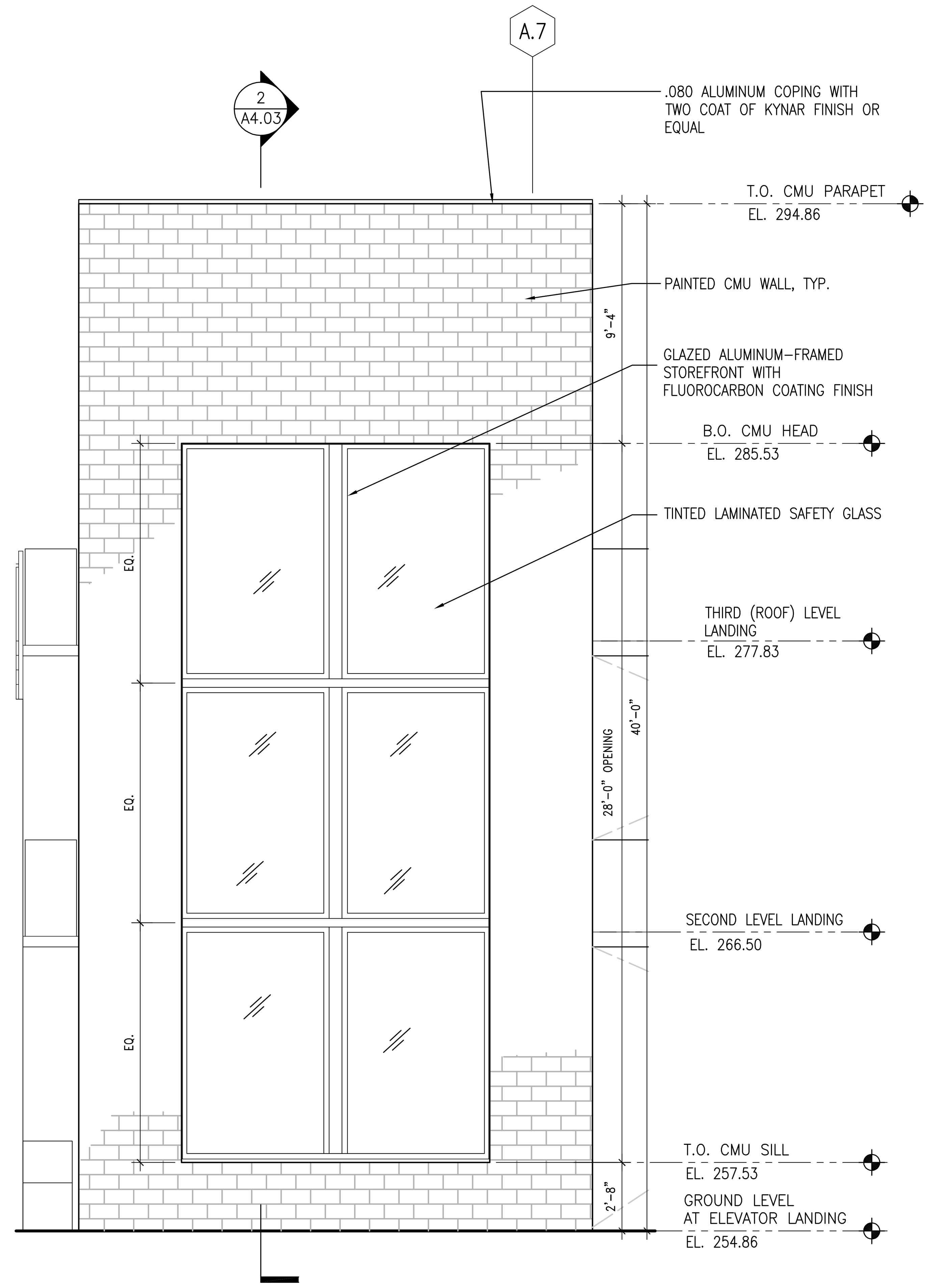
N



ELEVATOR NO. 1 & 2 ELEVATION

4

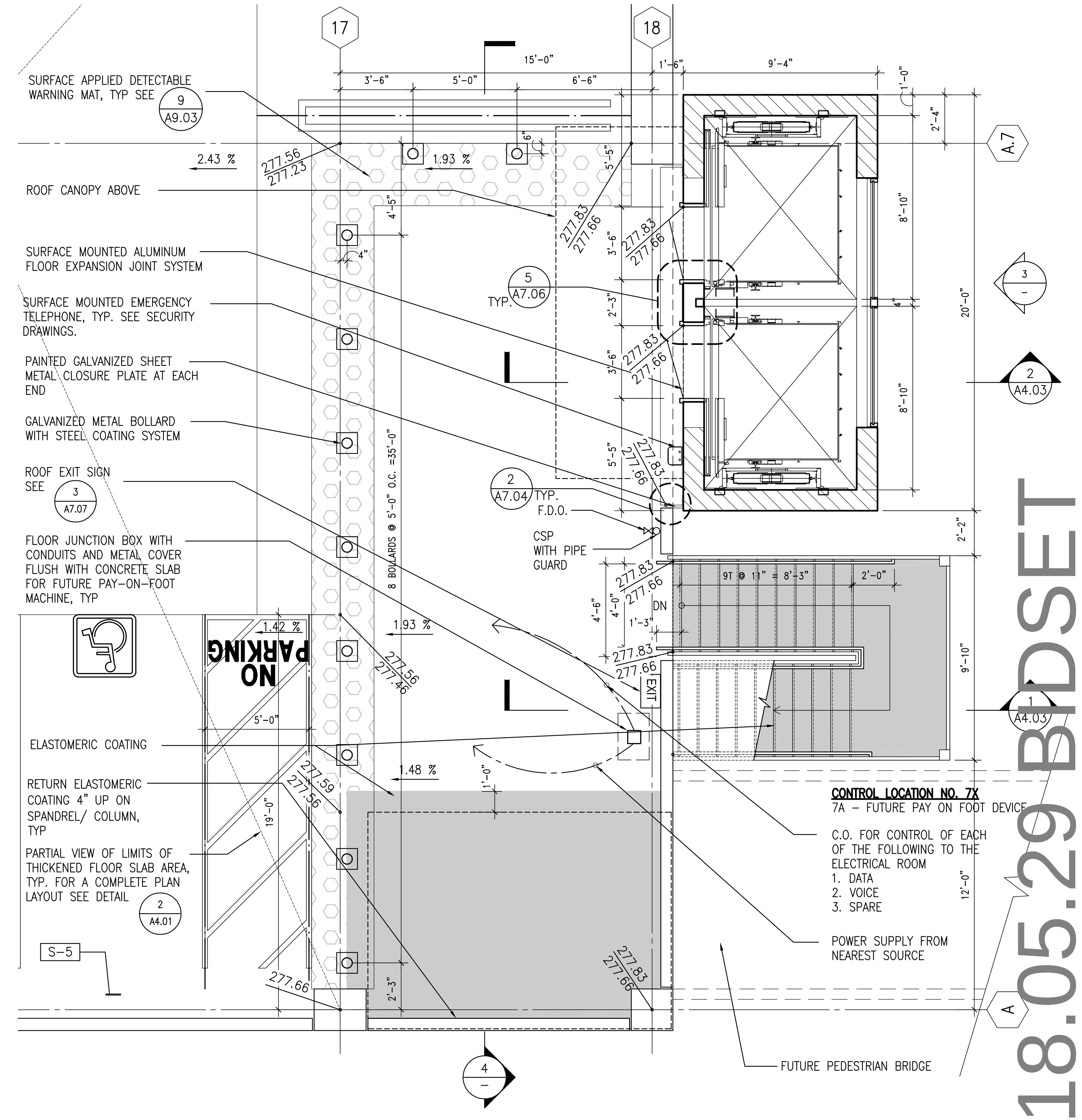
SCALE: 1/4"= 1'-0"



ELEVATOR NO. 1 & 2 ELEVATION

3

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



ELEVATOR NO. 1 & 2 AND STAIR NO. 1 THIRD (ROOF) LEVEL

1

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

N

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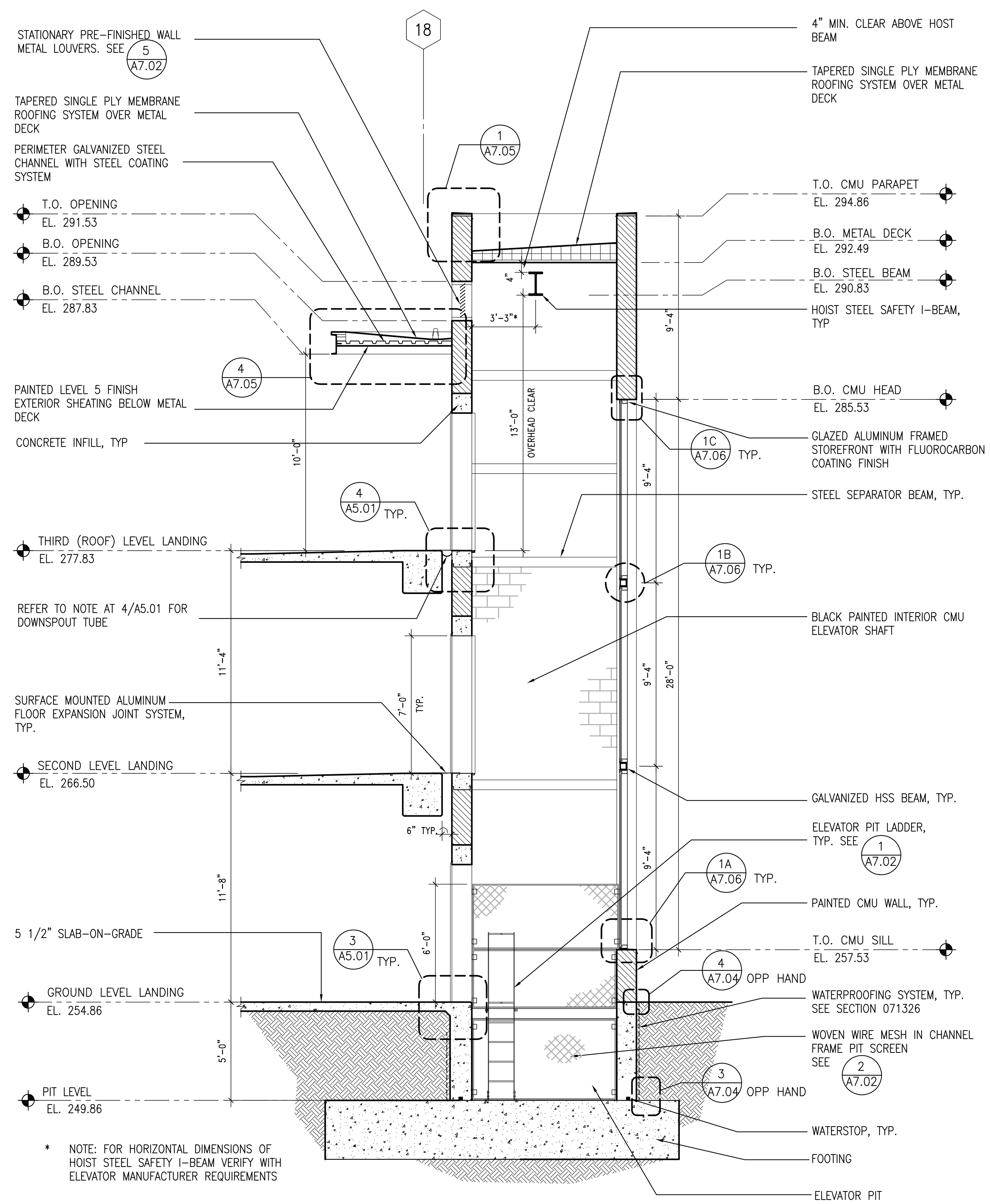
ELEVATORS NO. 1 & 2 AND STAIR NO. 1 PLANS AND ELEVATION

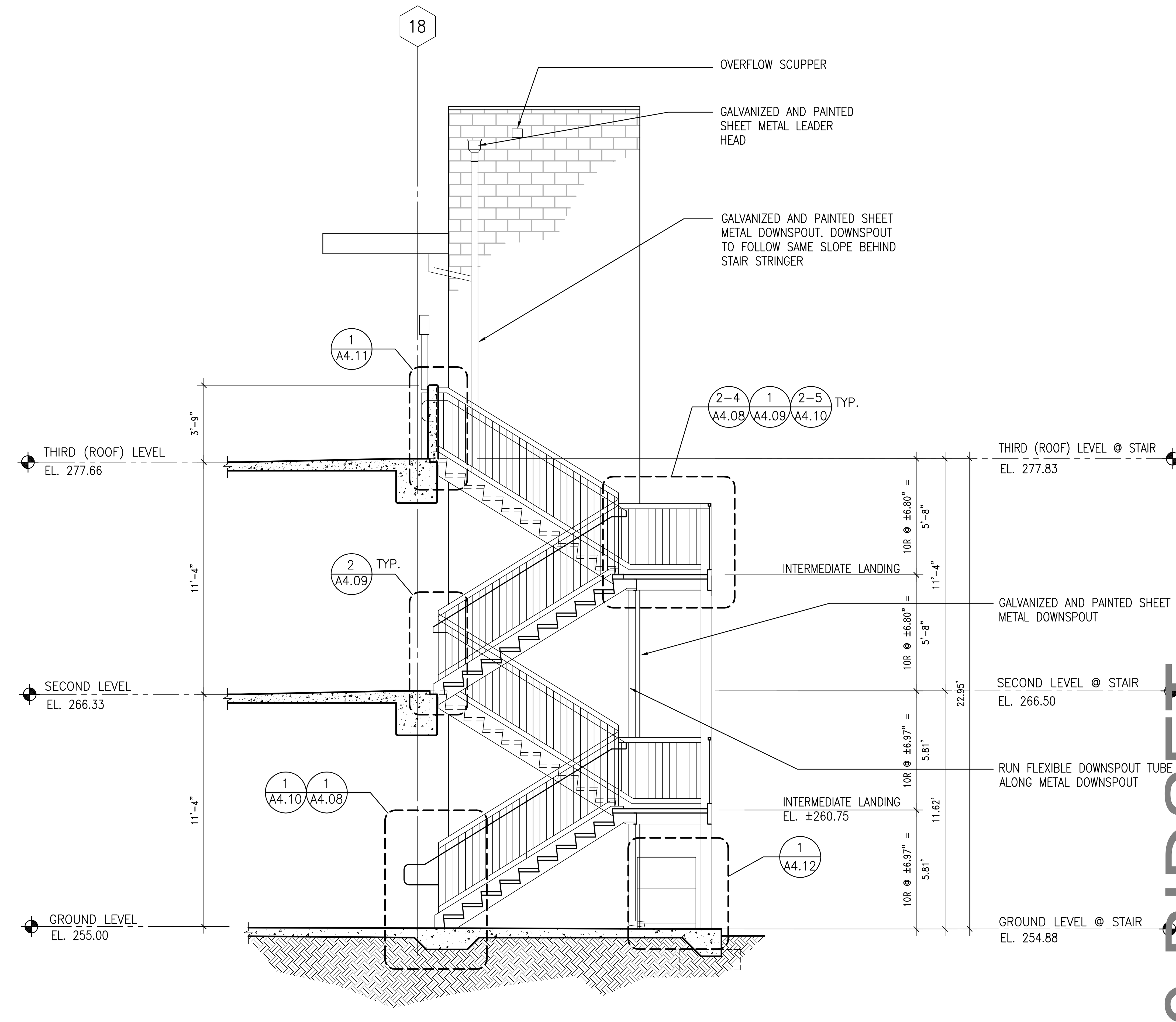
Sheet Number

A4.02



ELEVATOR NO.1 & 2 SECTION 2

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



STAIR NO.1 SECTION 1

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

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Project Title

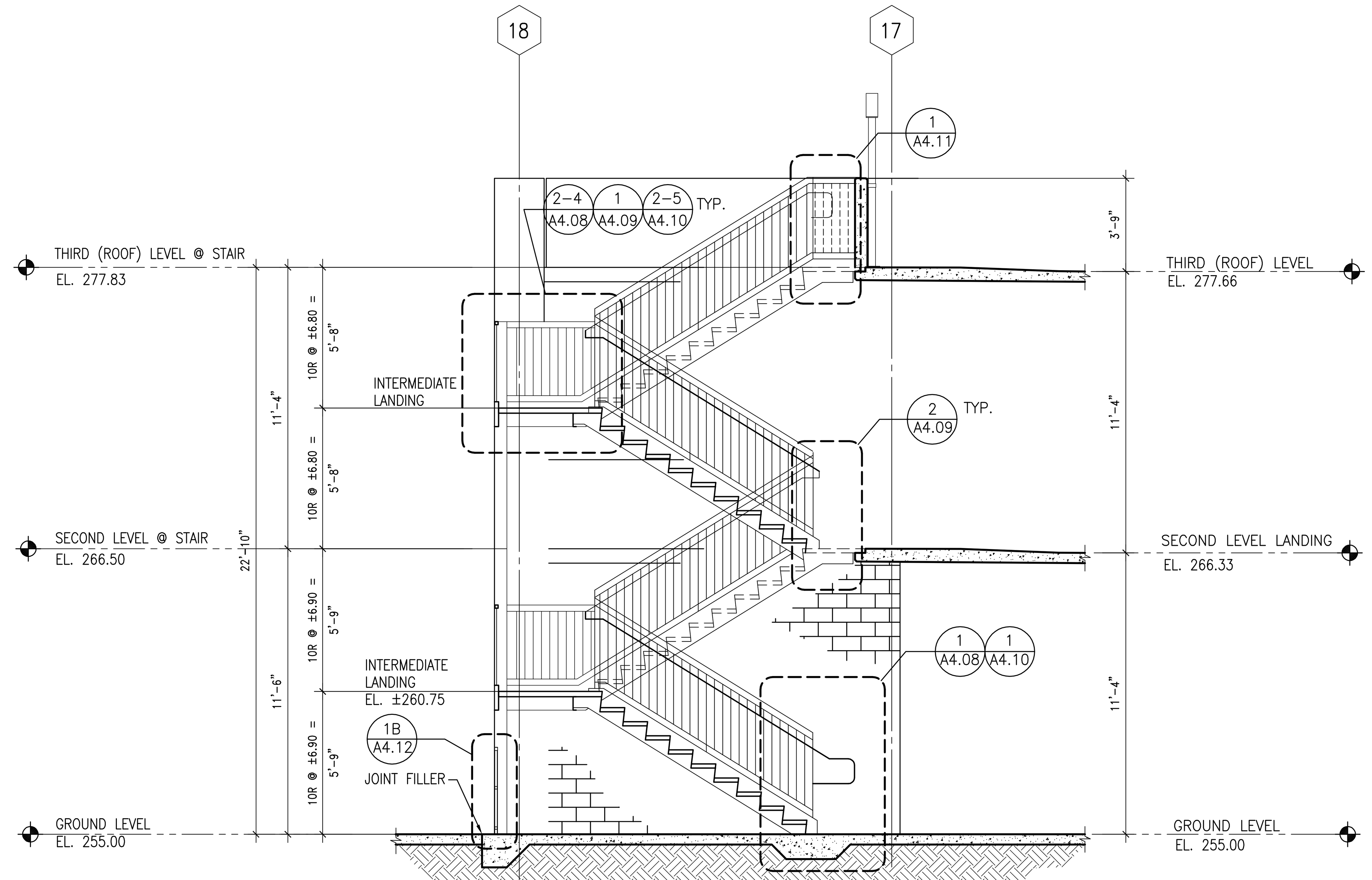
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

ELEVATORS NO. 1 & 2 AND STAIR NO. 1 SECTIONS

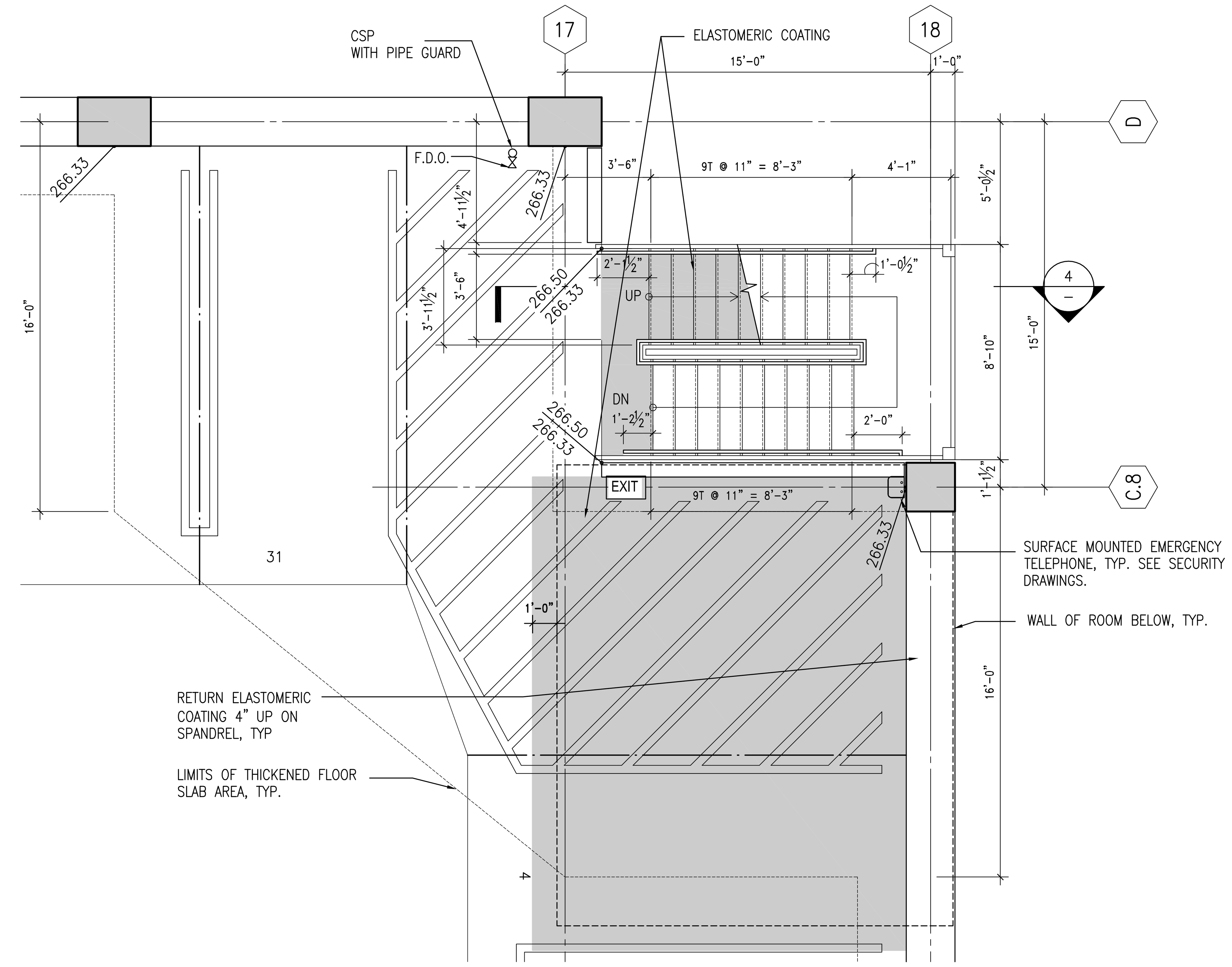
Sheet Number

A4.03



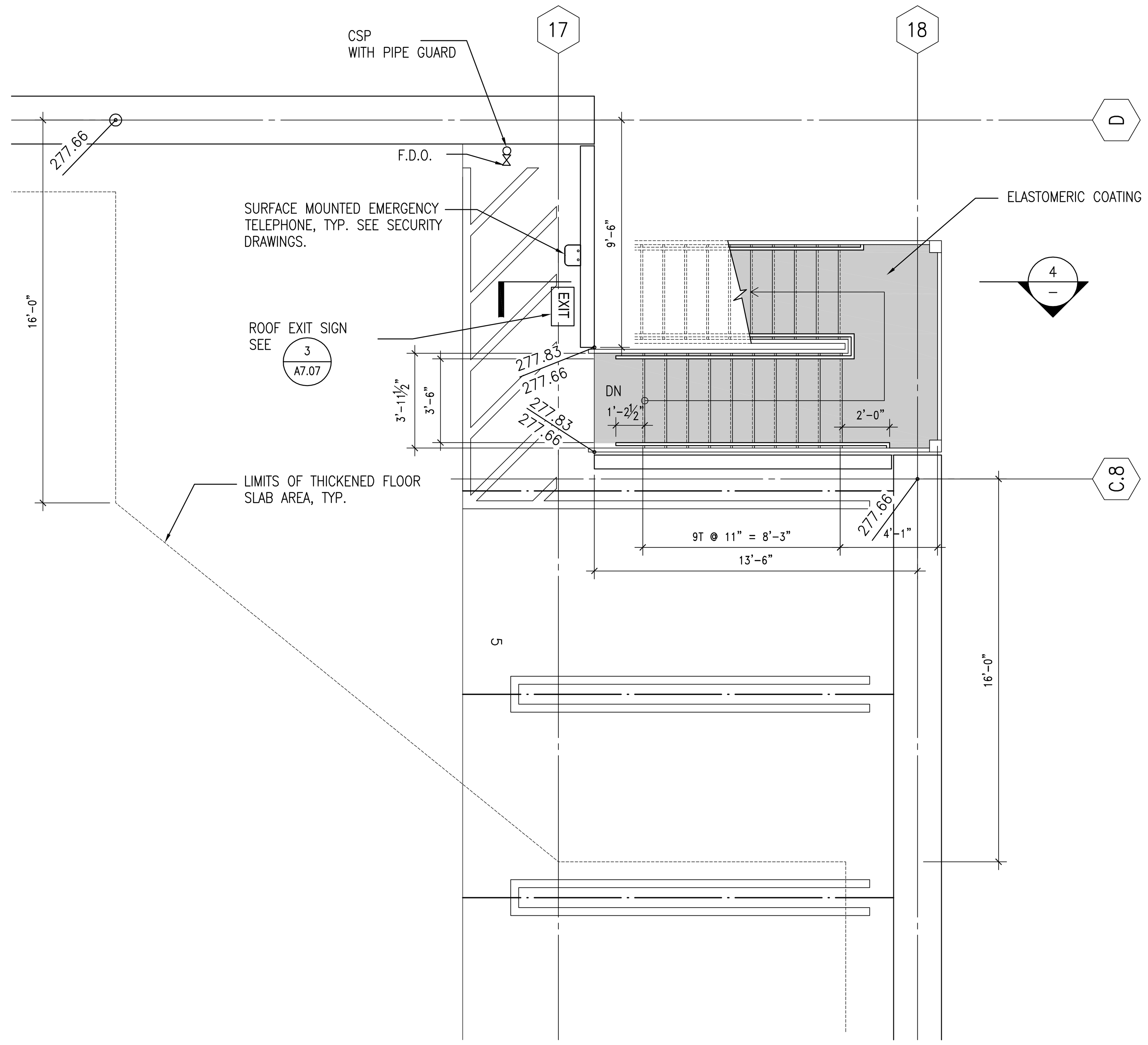
STAIR NO.2 SECTION (4)

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



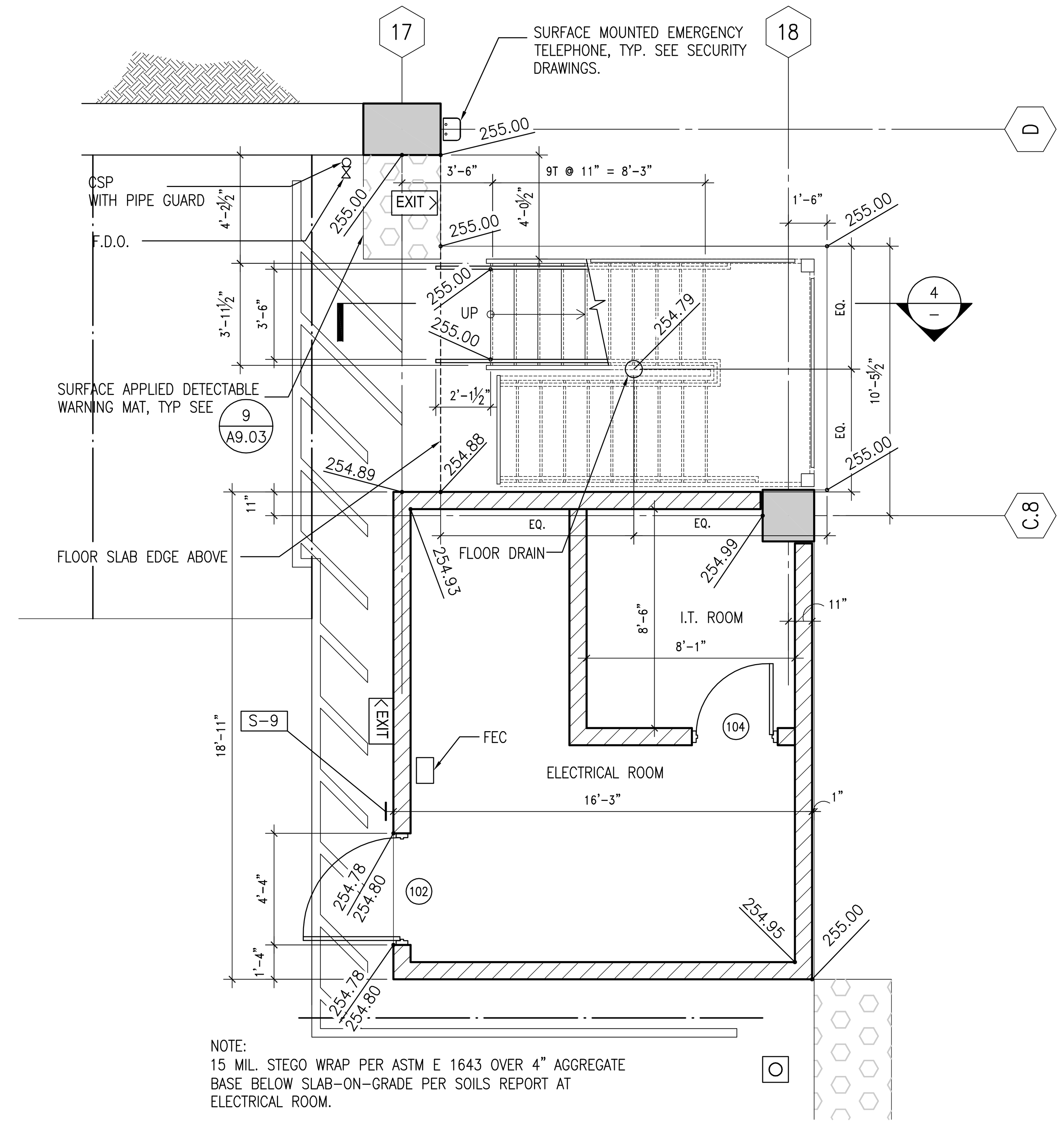
STAIR NO.2 SECOND LEVEL (2)

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



STAIR NO.2 THIRD (ROOF) LEVEL (3)

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



STAIR NO.2 GROUND LEVEL (1)

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

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San Diego, CA 92101
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Consultant

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Revisions

No.	Date	Description

LICENSED ARCHITECT
SHAHIN AZMOUDEH
No. C-32674
10-07-19
RENEWAL DATE
STATE OF CALIFORNIA

Document Phase:	Backcheck #1
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Comm. No.:	-

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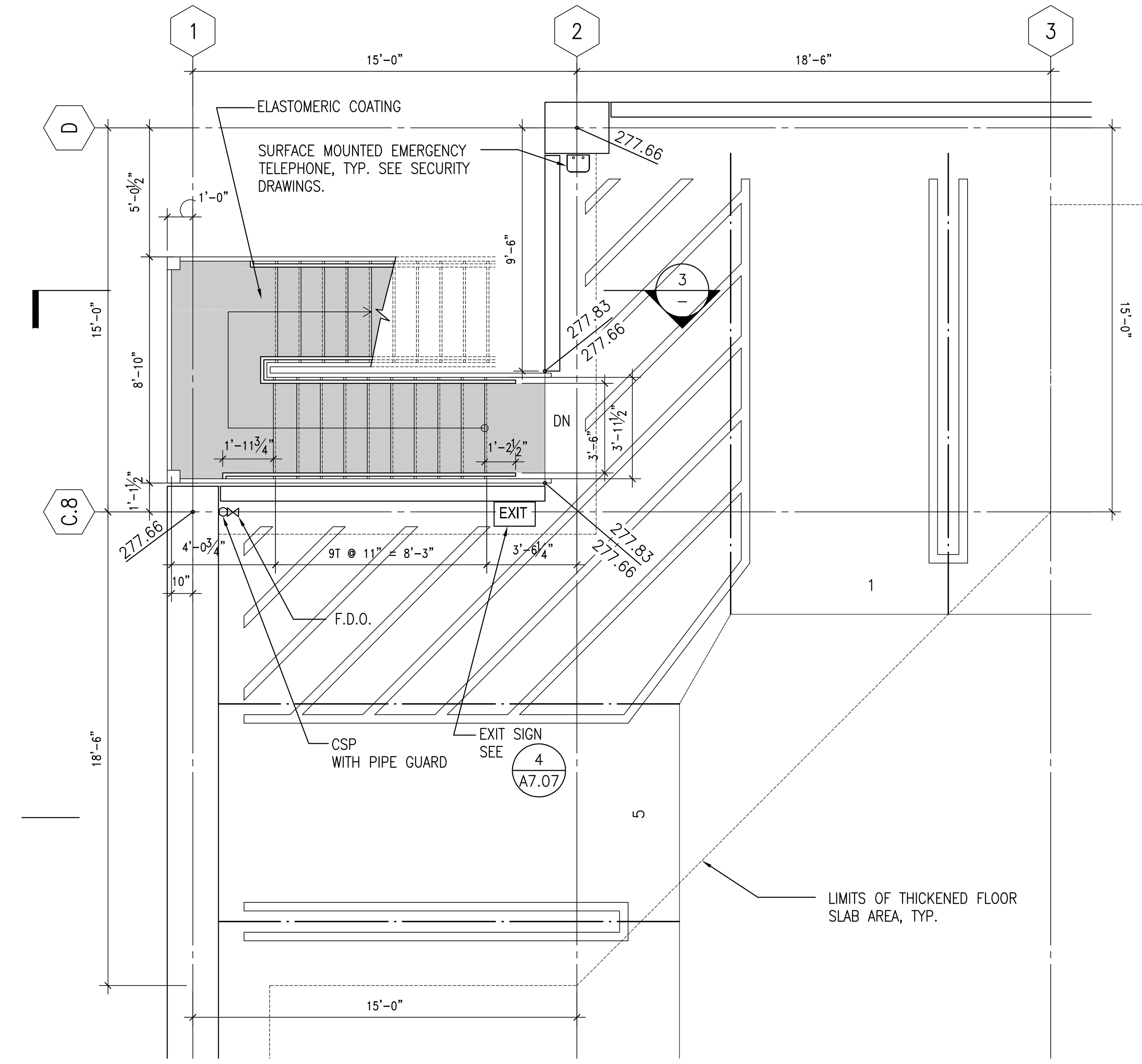
STAIR NO. 2 PLANS AND SECTION

Sheet Number

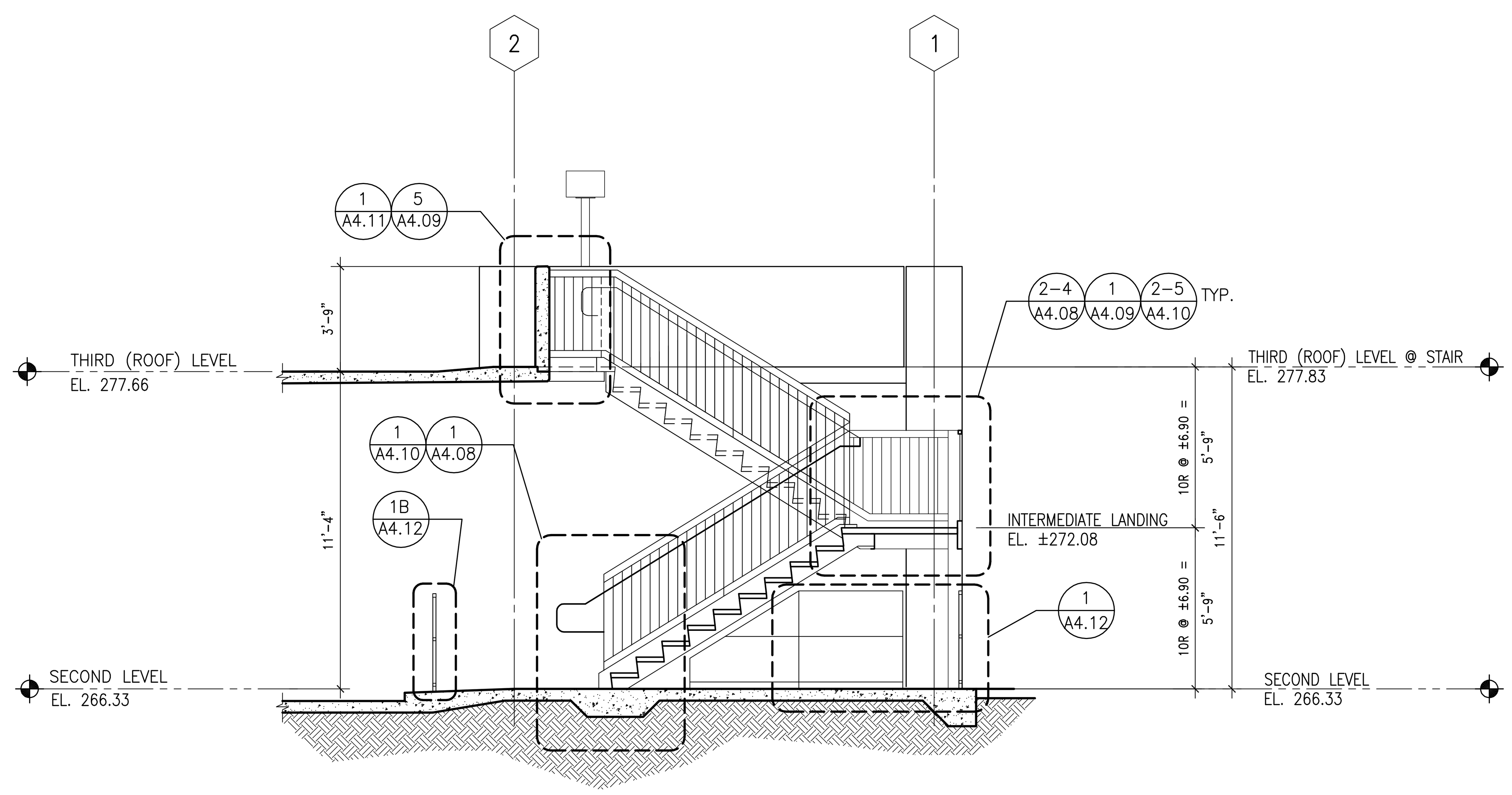
A4.04



STAIR NO. 3 THIRD LEVEL

2

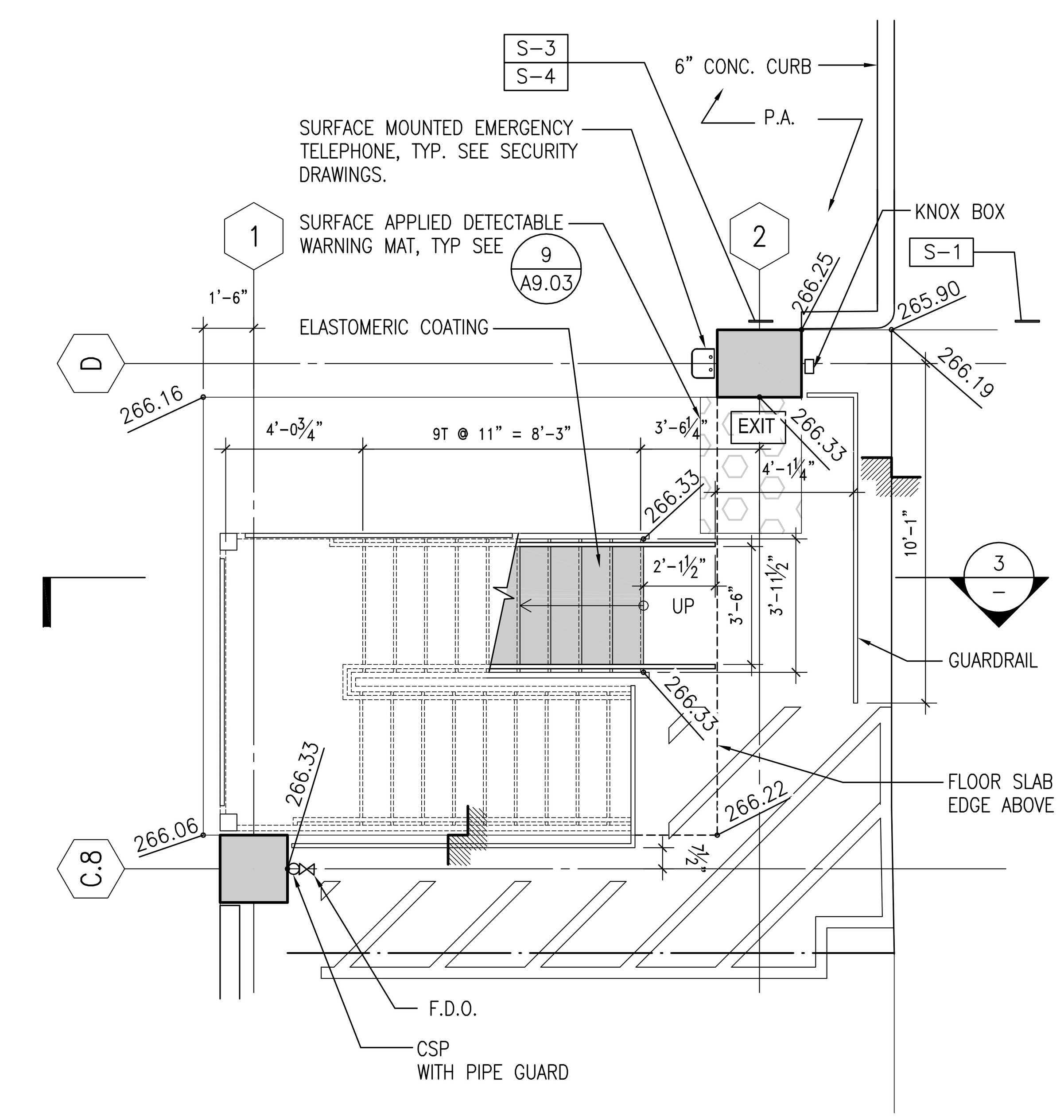
SCALE: 1/4"= 1'-0"



STAIR NO. 3 SECTION

3

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



STAIR NO. 3 SECOND LEVEL

1

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

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TCMC PARKING STRUCTURE AND MAIN ENTRY

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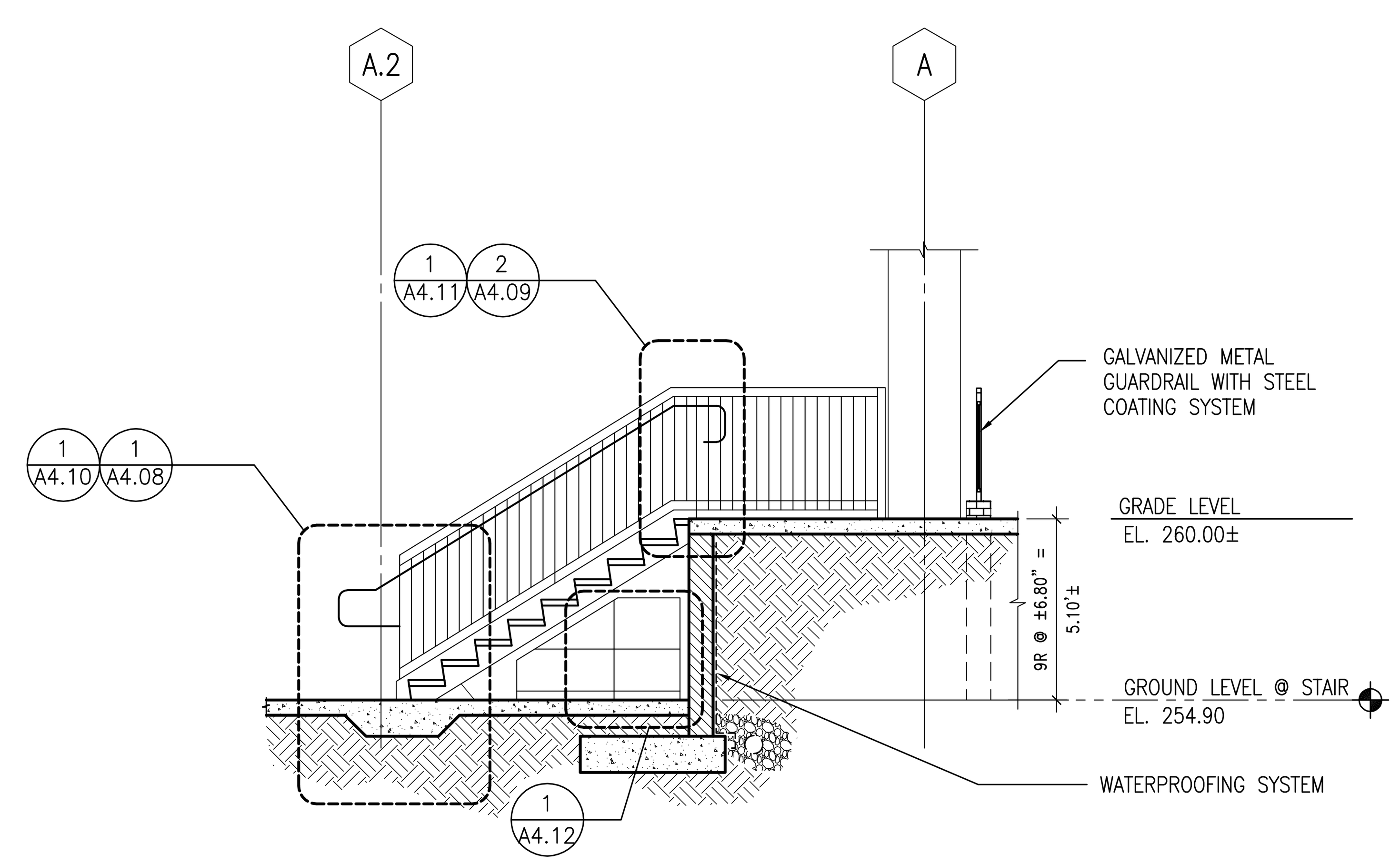
STAIR NO. 3 PLANS AND SECTION

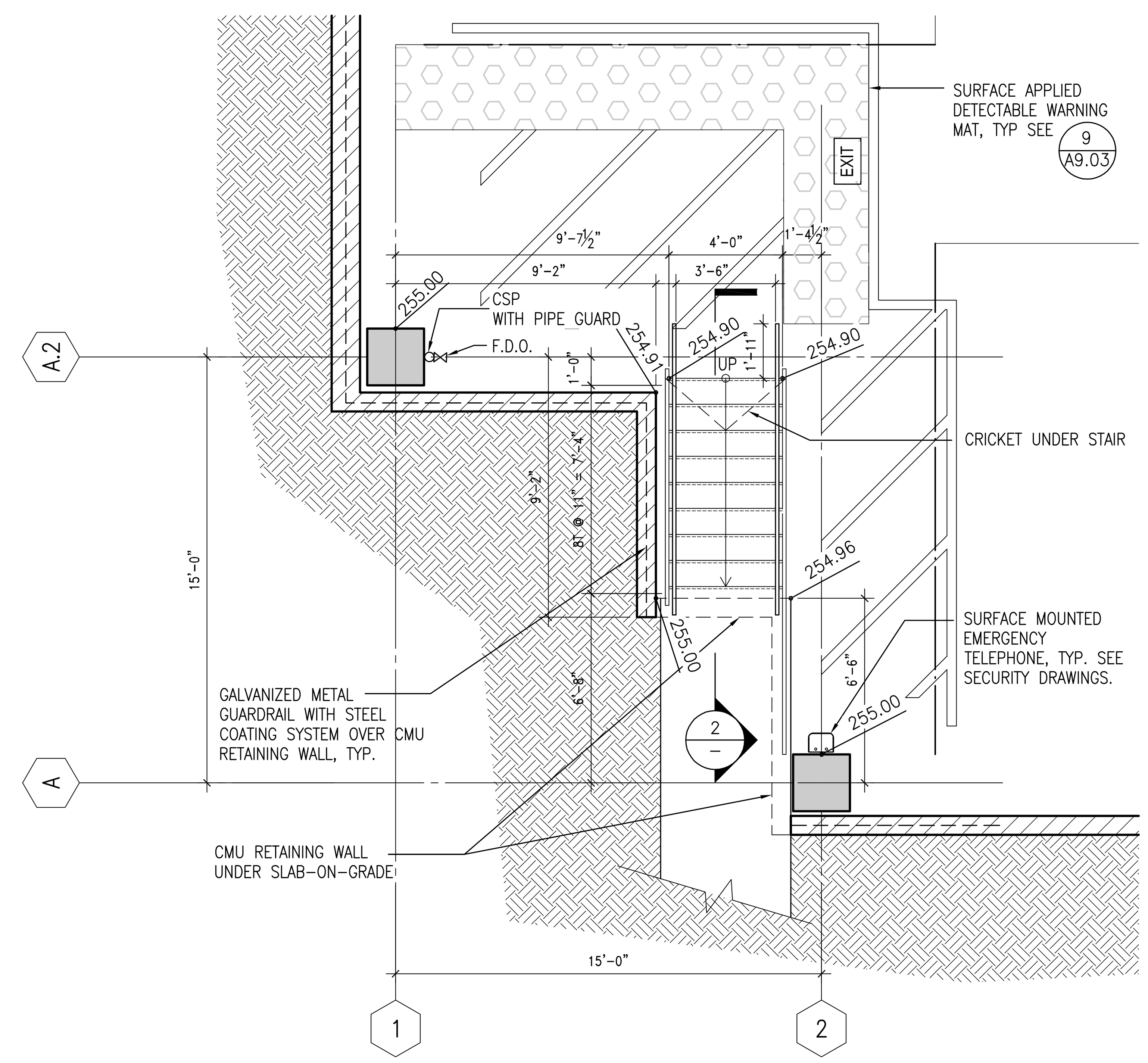
Sheet Number

A4.05



STAIR NO. 4 SECTION 2

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



STAIR NO. 4 GROUND LEVEL 1

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

N

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Comm. No.:	-

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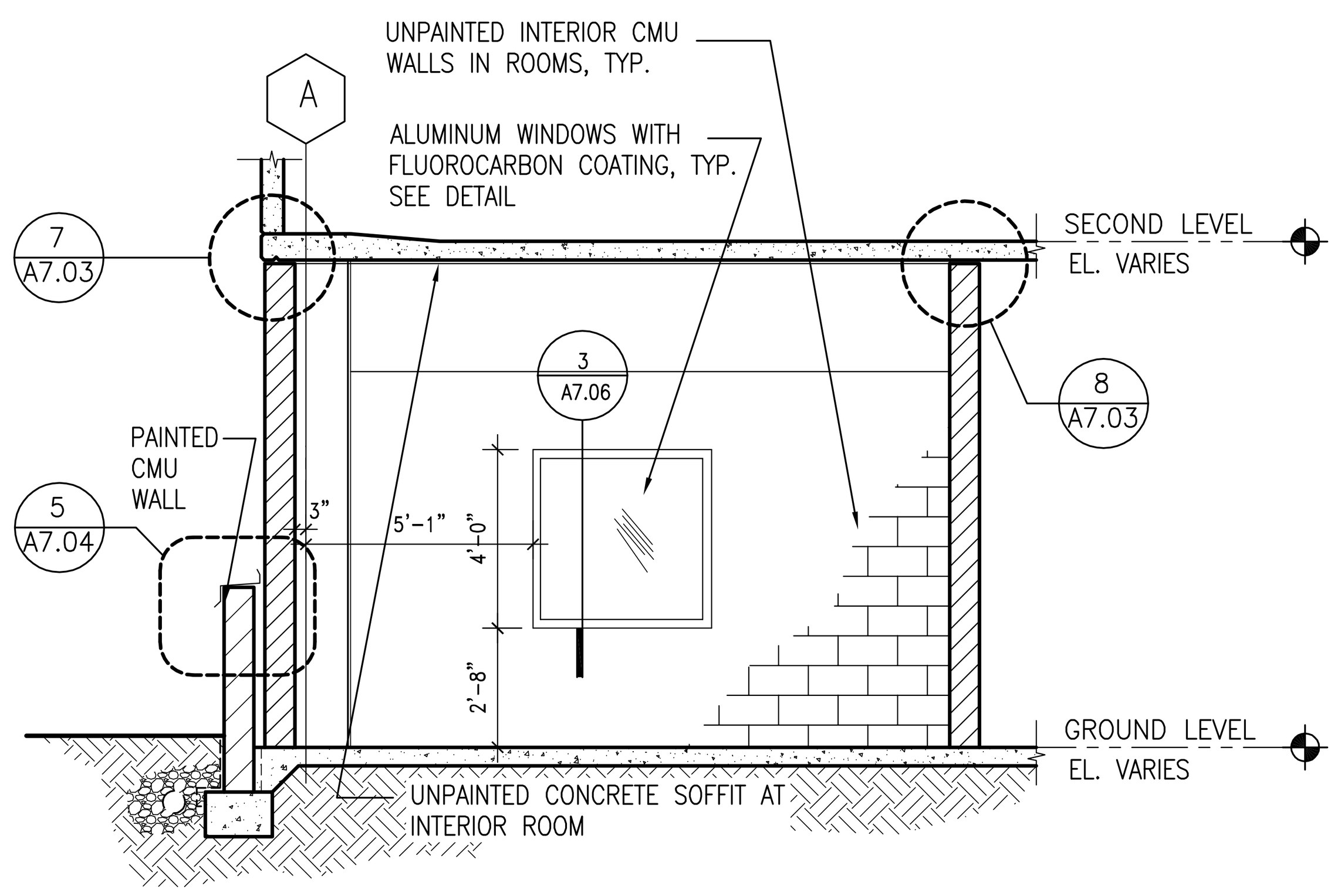
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

STAIR NO. 4 PLANS AND SECTION

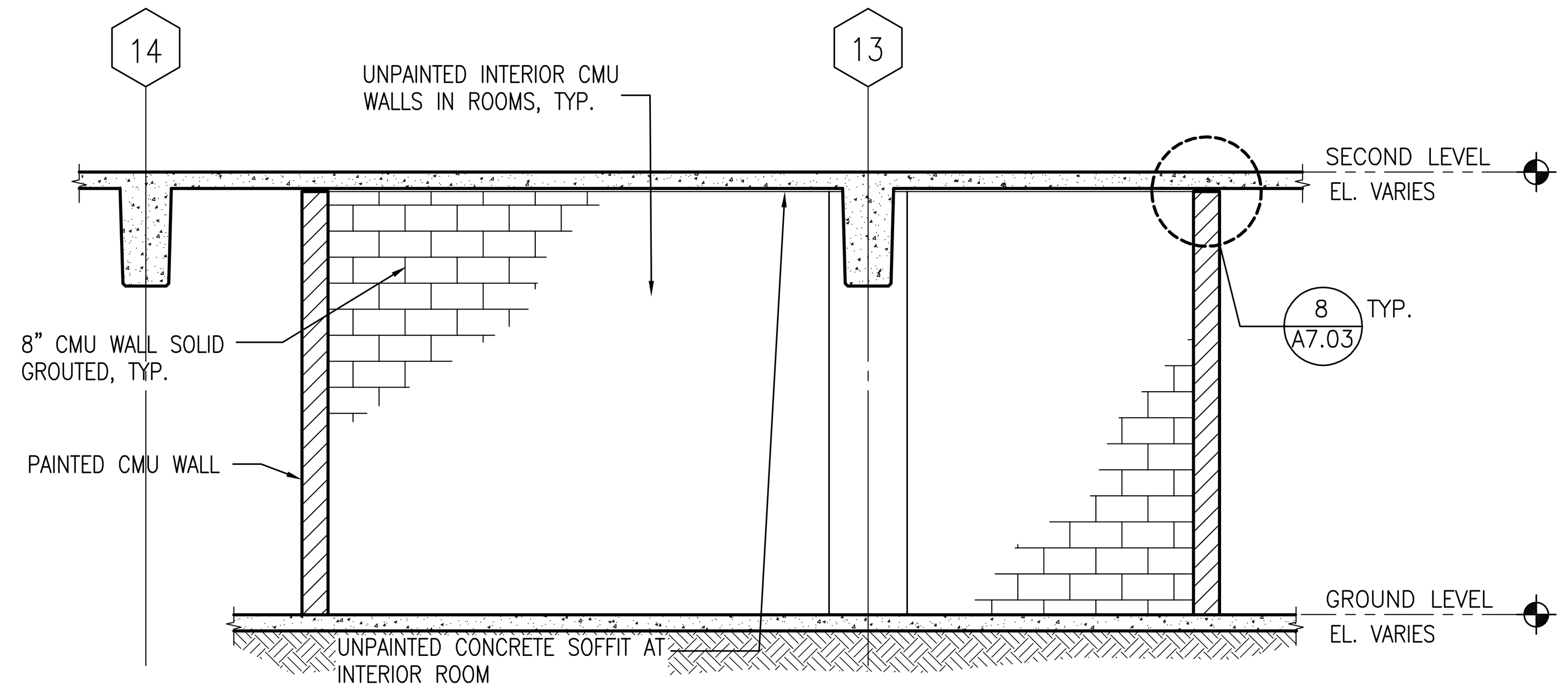
Sheet Number

A4.06



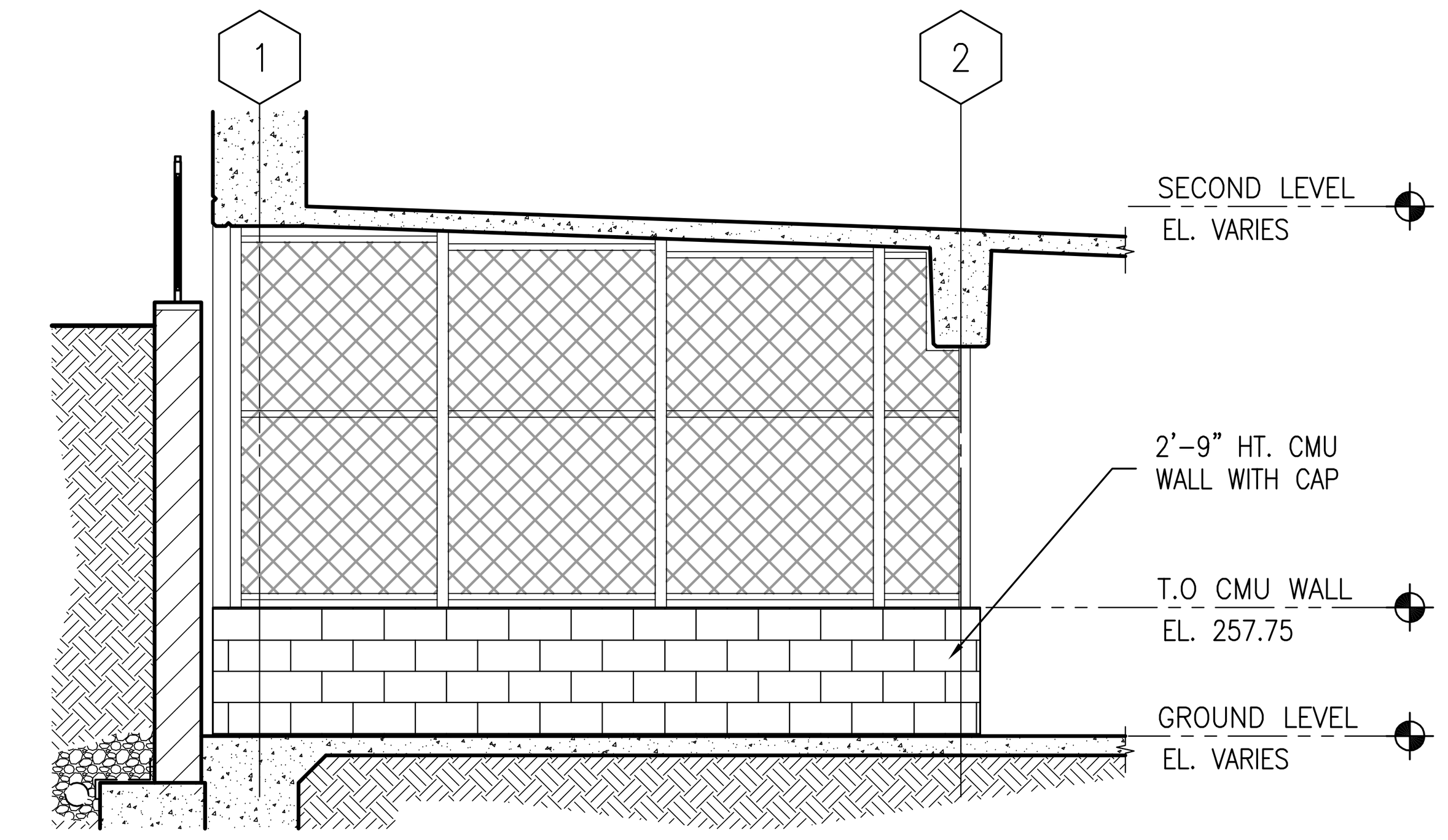
ELEVATION W

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



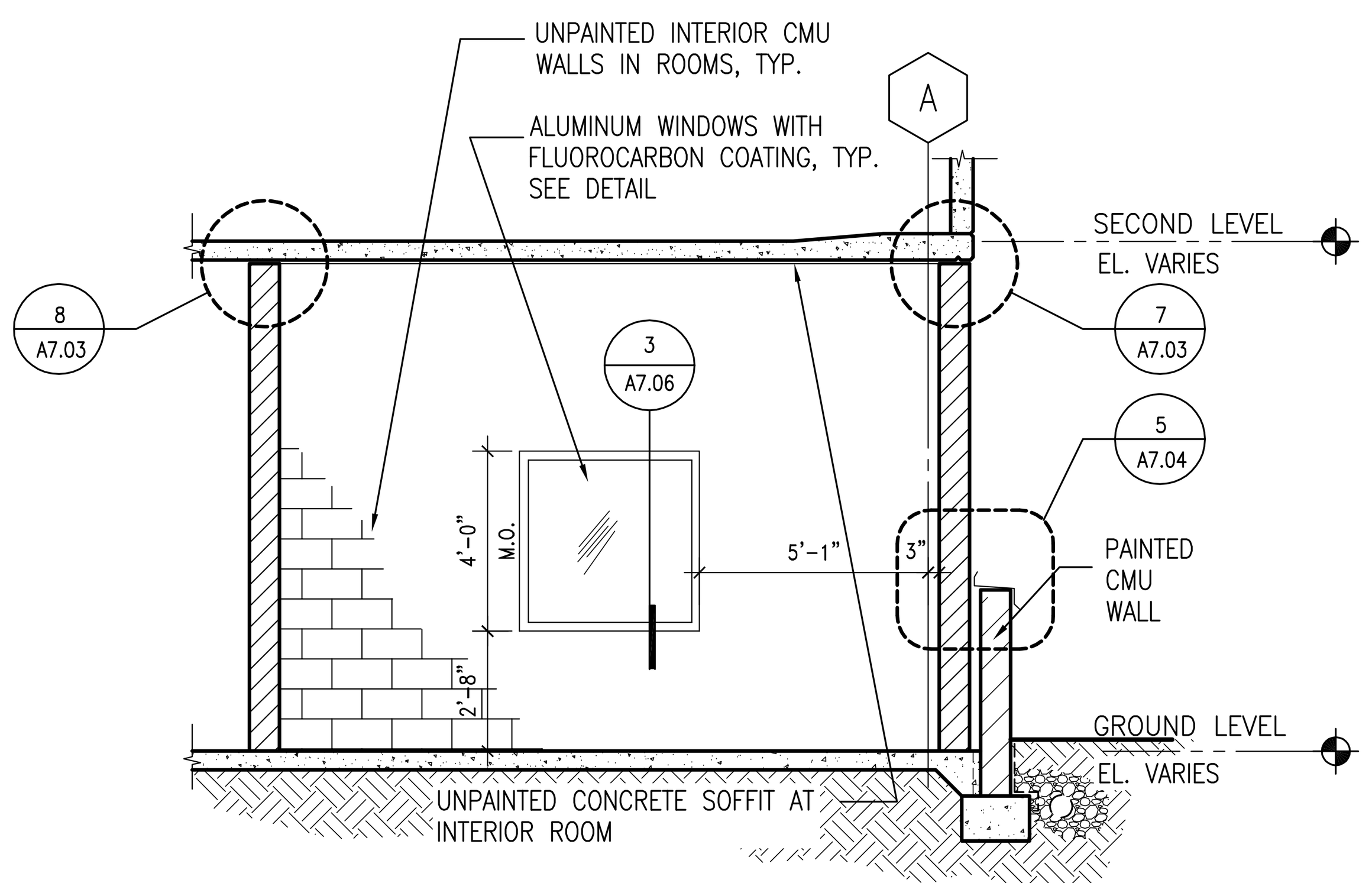
ELEVATION S

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



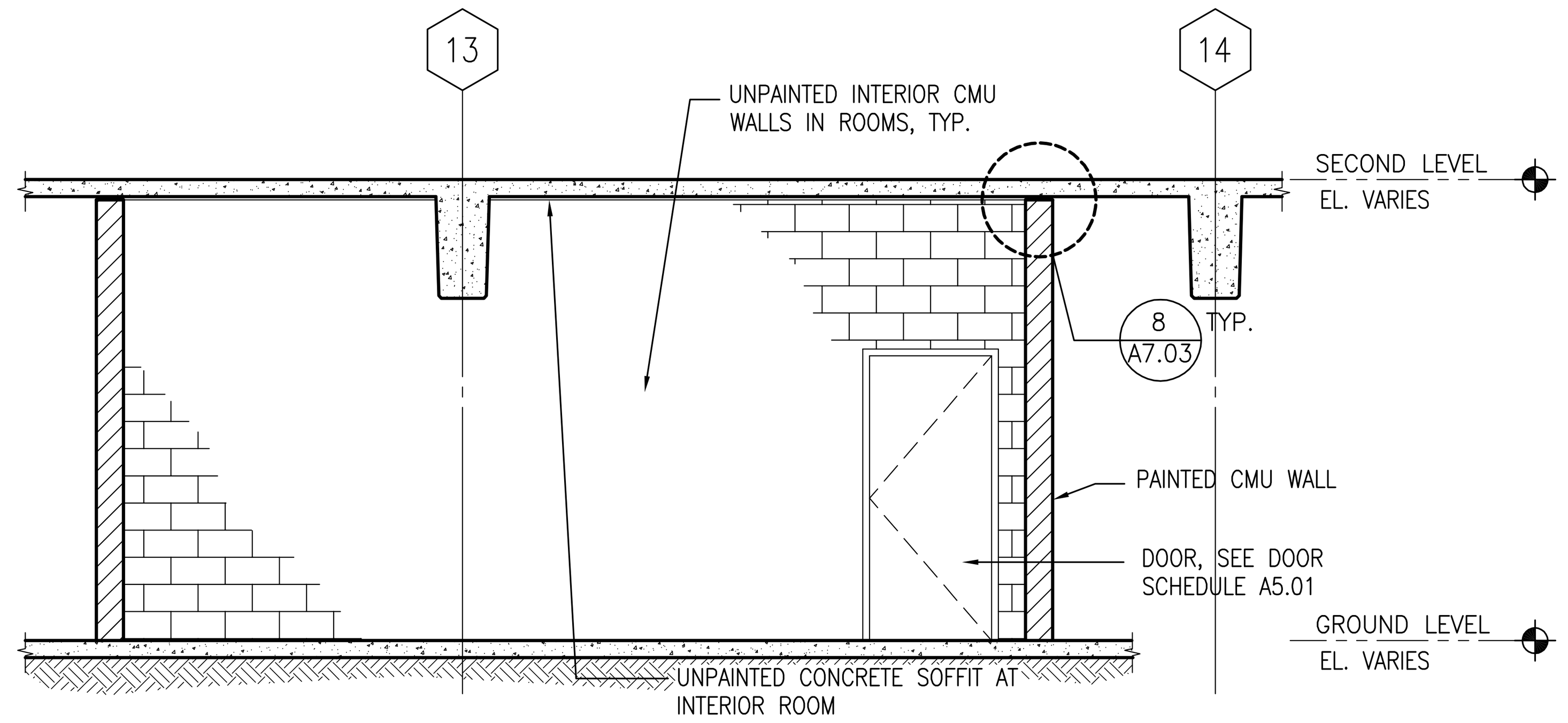
SOUTH ELEVATION 1B

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



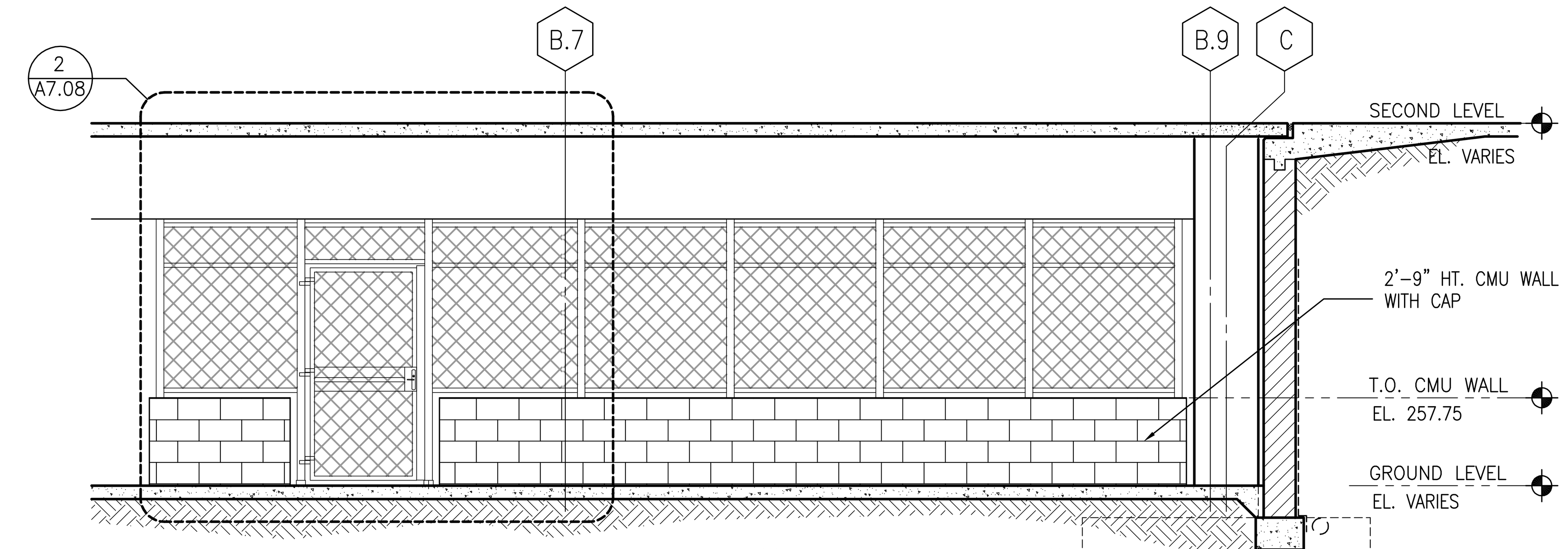
ELEVATION E

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



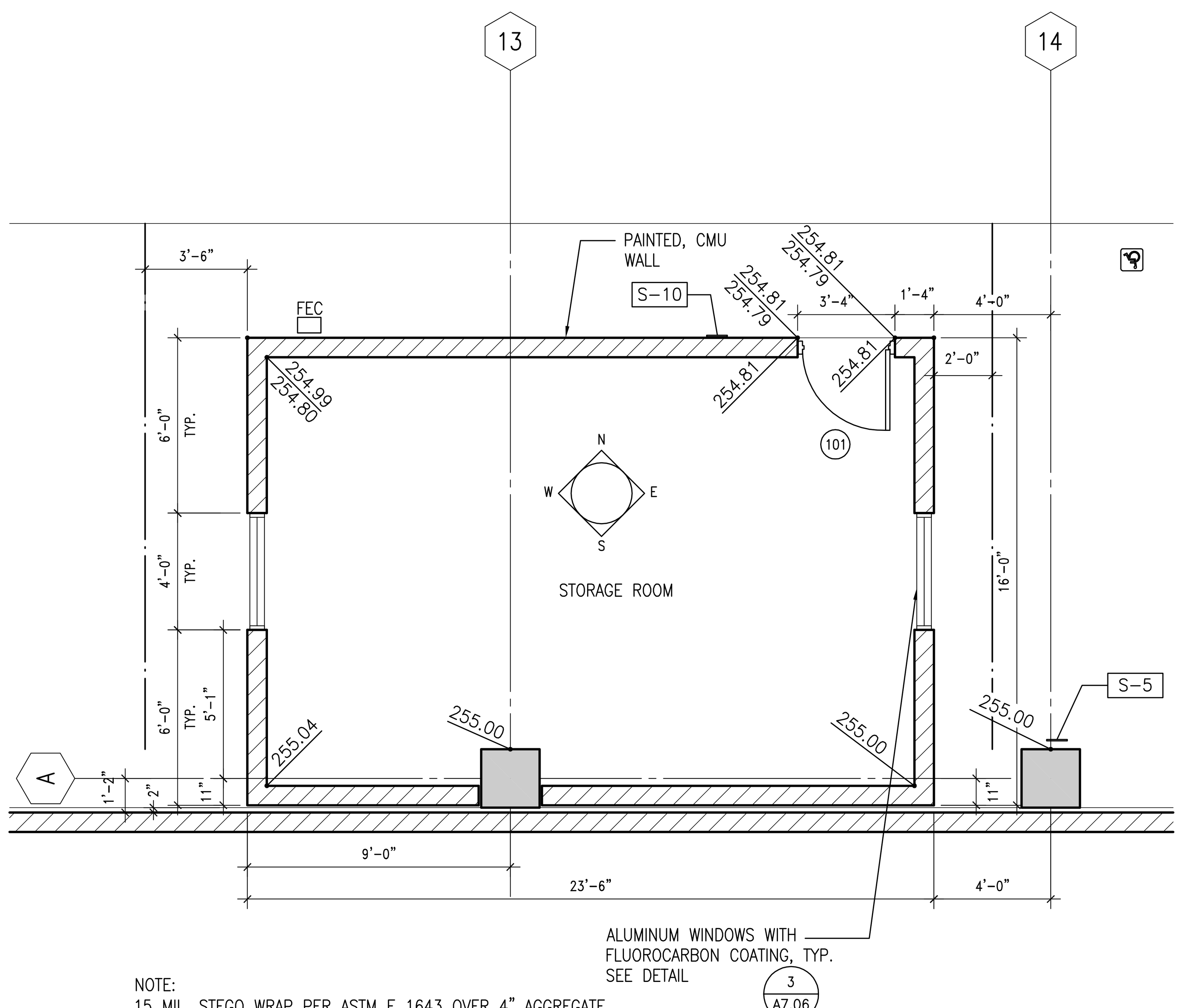
ELEVATION N

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



EAST ELEVATION 1A

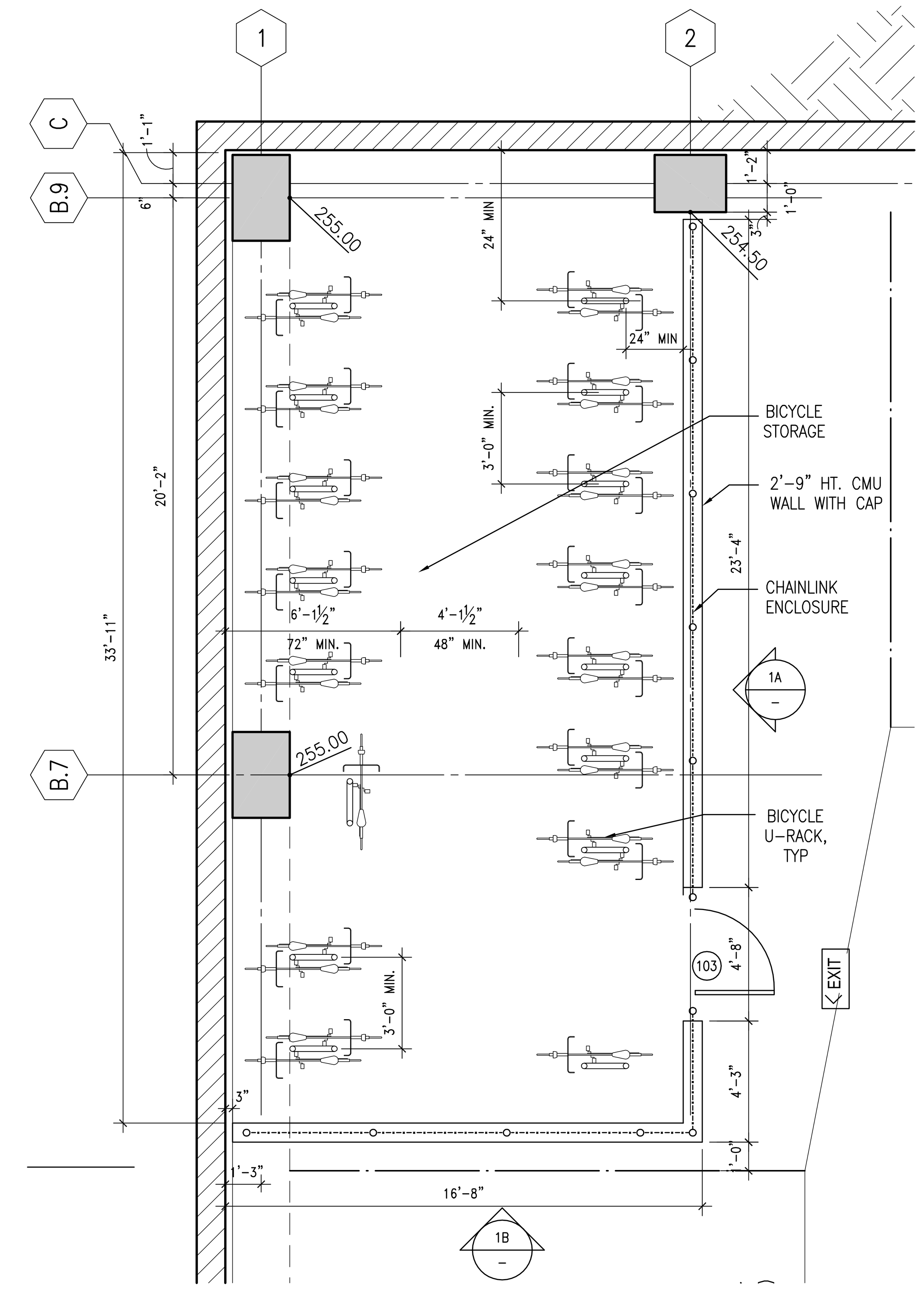
SCALE: 1/4"= 1'-0"



NOTE:
15 MIL. STEGO WRAP PER ASTM E 1643 OVER 4" AGGREGATE BASE BELOW SLAB-ON-GRADE PER SOILS REPORT AT STORAGE ROOM

STORAGE ROOM 2

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



BICYCLE RACK 1

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

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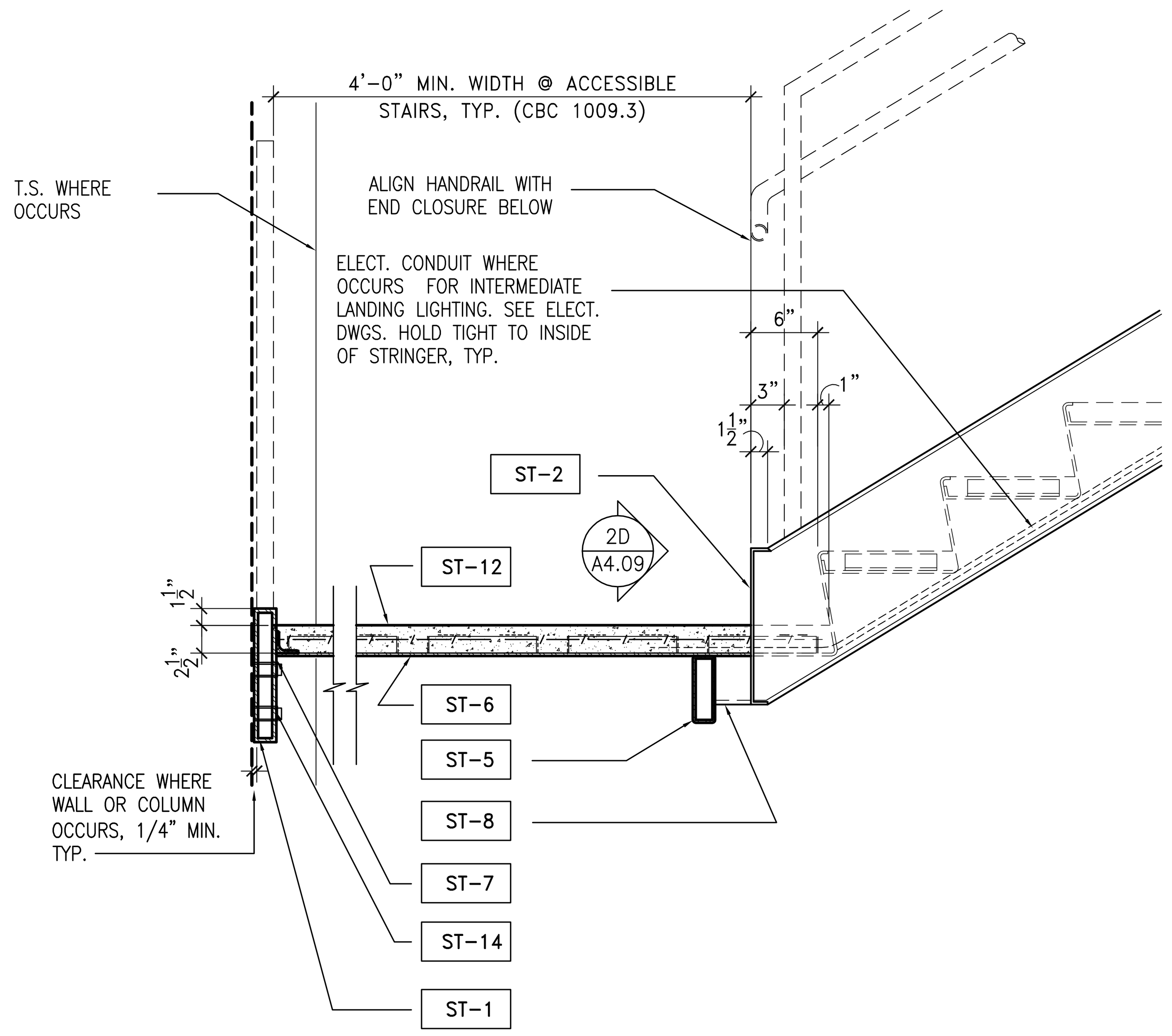
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

ENLARGED MISC. ROOM PLAN

Sheet Number

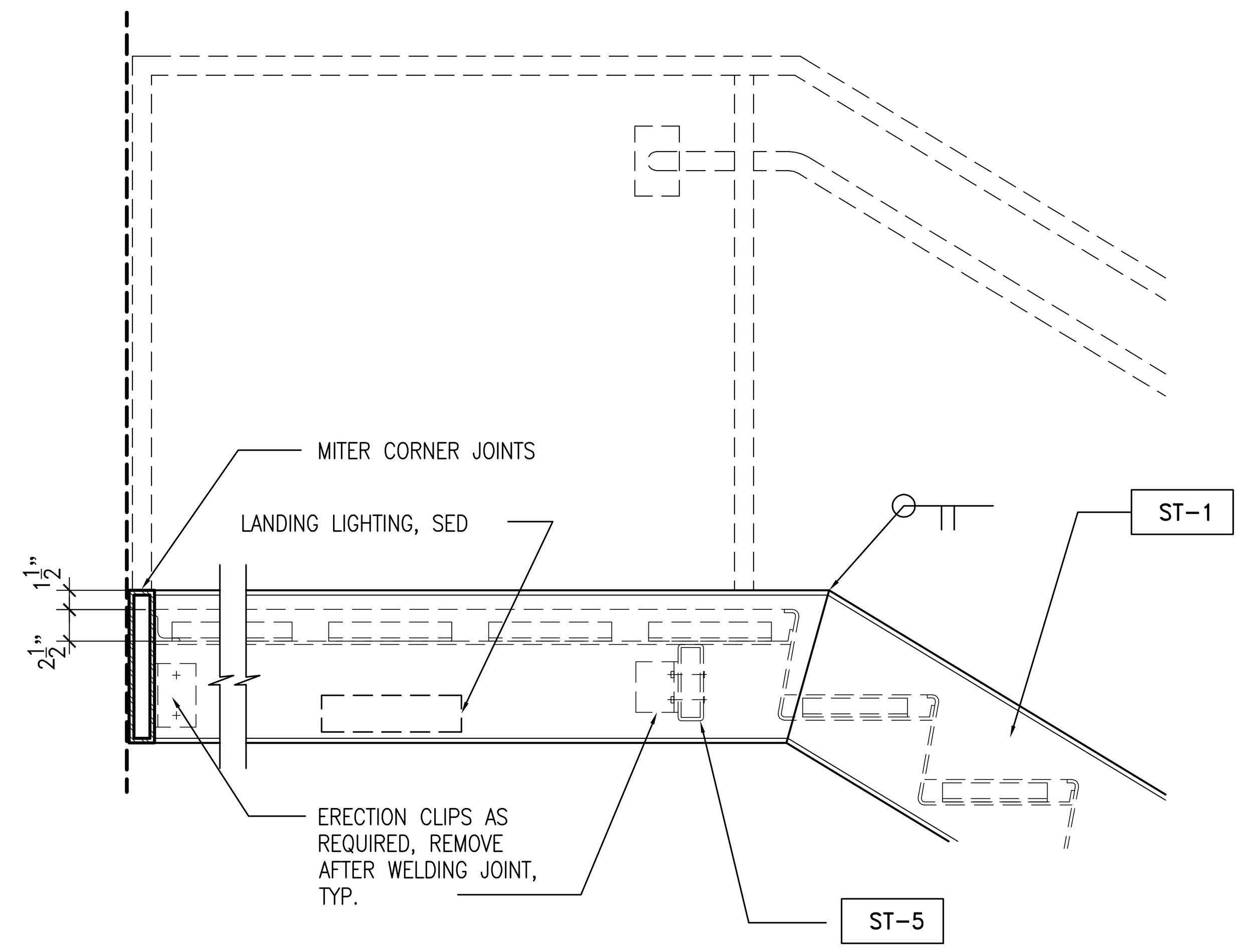
A4.07



INTERMEDIATE LANDING (INTERIOR STRINGER, UPFLIGHT) DETAIL

SCALE: 1" = 1'-0"

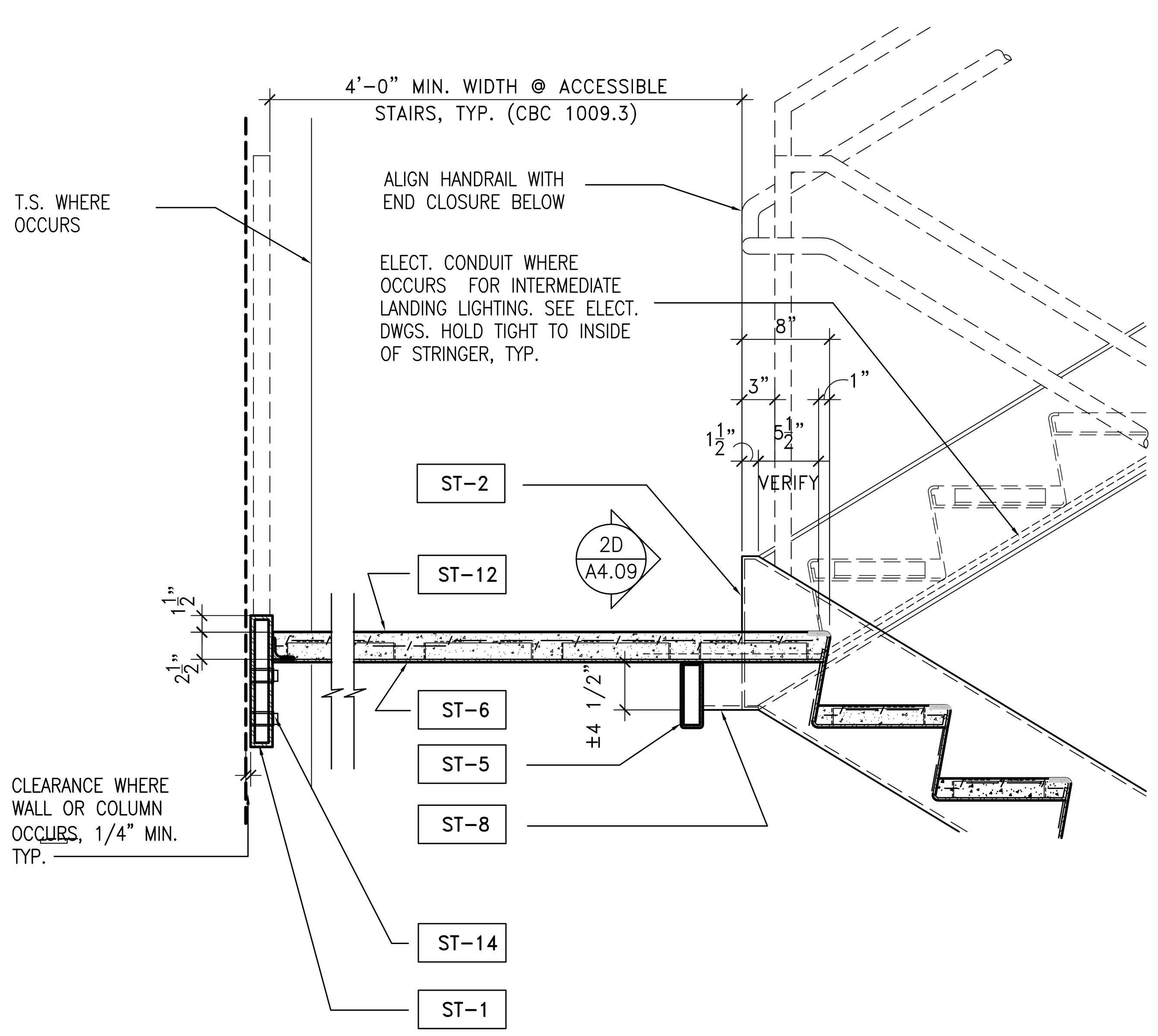
4



INTERMEDIATE LANDING (EXTERIOR STRINGER, DOWNFLIGHT) DETAIL

SCALE: 1" = 1'-0"

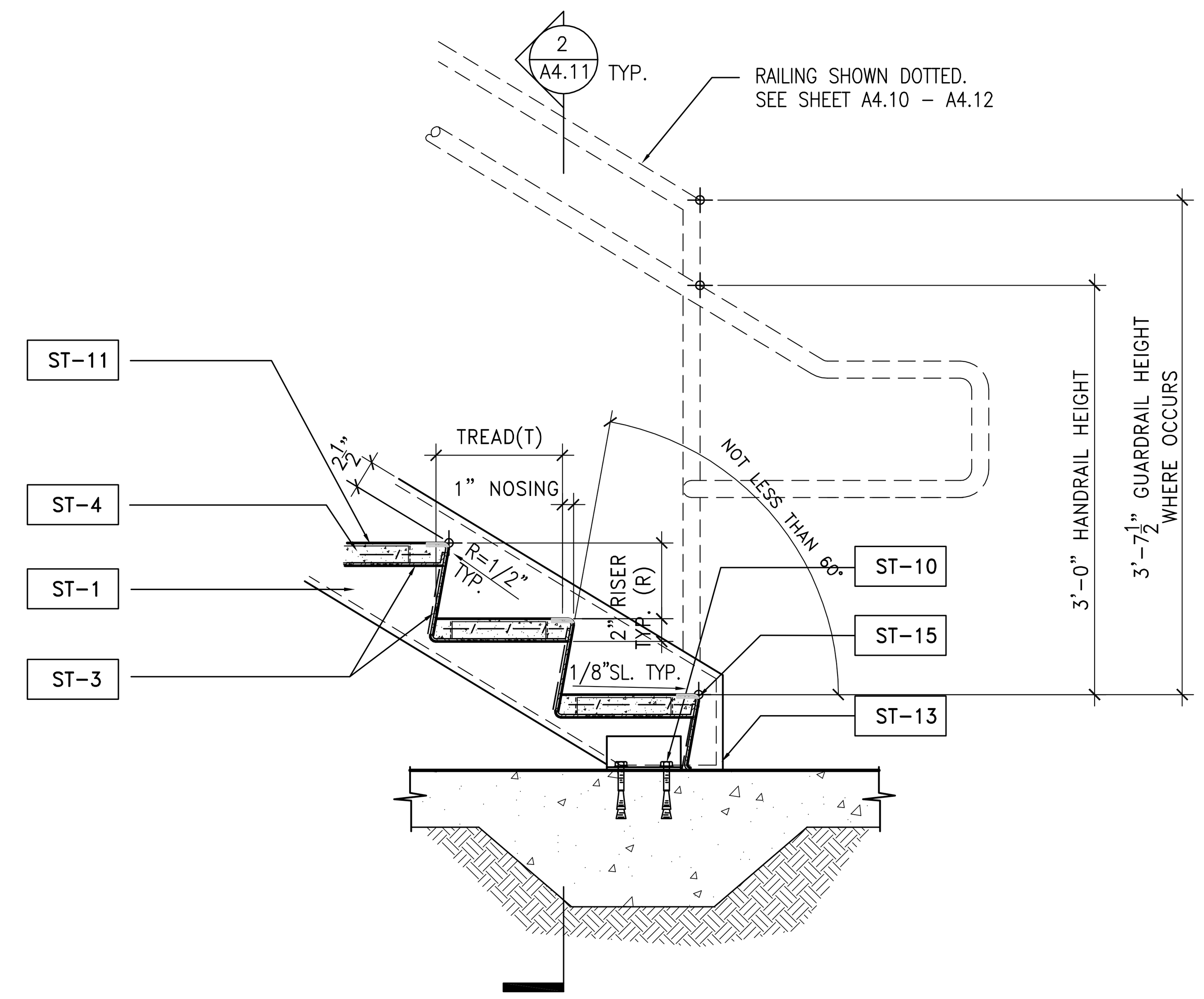
2



INTERMEDIATE LANDING (INTERIOR STRINGER, DOWNFLIGHT) DETAIL

SCALE: 1" = 1'-0"

3



GROUND LEVEL DETAIL

SCALE: 1" = 1'-0"

1

STAIR SCHEDULE

DESIGNATION	ITEM	REMARKS	FINISH
ST-1	STRINGER	HSS 12 X 2 X 5/16	STEEL COATING SYSTEM
ST-2	END CLOSURE	1/4" STEEL PLATE, BENT TO CHANNEL SHAPE AS SHOWN	STEEL COATING SYSTEM
ST-3	TREAD & RISER PAN	12 GA. STEEL	STEEL COATING SYSTEM
ST-4	TREAD LEDGER	ANGLE 1 1/2" X 1 1/2" X 1/8" (INVERTED)	STEEL COATING SYSTEM
ST-5	CROSS BEAM(LANDING)	HSS 6 X 2 X 1/4	STEEL COATING SYSTEM
ST-6	LANDING PAN	12 GA. STEEL	STEEL COATING SYSTEM
ST-7	LANDING LEDGER, INVERTED	ANGLE 2" X 2" X 1/4" (INVERTED)	STEEL COATING SYSTEM
ST-8	STRINGER EXTENSION	MC 10 X ___ (1 1/2" FLANGE). CUT & ADD 1/4" WELDED PLATE	STEEL COATING SYSTEM
ST-9	FLOOR LEDGER	ANGLE 5" X 5" X 3/8" W/ 2#4 (A706) X 2'-0" @ 6" - END STRINGER, 3#4 X 2'-0" @ 6" O.C. @ CENTER STRINGERS. BALANCE @ 12" O.C.. WELD TO ANGLE.	STEEL COATING SYSTEM
ST-10	FLOOR ANCHOR	2 ½" ø x 6" EMBED AB AT 3'-0" O.C. WITH WASHER PL ⅜" X 5" X 3'-8" CENTER IN 5"ø HOLES IN PL ½".	STEEL COATING SYSTEM
ST-11	CONCRETE FILL, TREAD	2" TH. W/ 6 X 6 W2.1 X W2.1 WWM	STEEL COATING SYSTEM
ST-12	CONCRETE FILL, LANDING	2 1/2" TH. W/ 6 X 6 W2.1 X W2.1 WWM	STEEL COATING SYSTEM
ST-13	MISC. CLOSURE PLATES	5/16" STEEL PLATE	STEEL COATING SYSTEM
ST-14	WALL ANCHOR	2-3/4"ø X 5" EMBEDMENT ANCHOR BOLT 6" FROM ENDS & 24" O.C. MAX W/ PIPE SPACERS	STEEL COATING SYSTEM
ST-15	NOSING STRIP	SEE GENERAL STAIR NOTE #1	STEEL COATING SYSTEM

GENERAL STAIR NOTES

1. STAIR STRIPING FOR THE VISUALLY IMPAIRED: ALL TREADS OF ALL STAIRS SHALL BE MARKED BY A STRIPE OF CLEARLY CONTRASTING COLOR AT LEAST 2" WIDE PARALLEL TO AND NOT MORE THAN 1" FROM THE NOSE OF THE STEP OR LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIPE SHALL BE OF MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE REMAINDER OF THE STAIR TREAD MATERIAL. SEE DETAIL 3/A4.09 AND SPECIFICATIONS 05 50 00, 3.03R.
2. SLOPE LANDINGS, PROVIDE CRICKETS TO DRAIN WATER AND PREVENT PONDING AND "BIRD BATHS", SEE PLANS.
3. PROVIDE 6'-8" MINIMUM HEADROOM AT STAIRS, 7'-0" MINIMUM HEADROOM AT LANDINGS, COORDINATE WITH STRUCTURAL DRAWINGS TO MAINTAIN THIS REQUIREMENT.
4. PROVIDE GUARDRAILS UNDER OPEN LANDINGS TO MAINTAIN 7'-0" MINIMUM HEADROOM UNDERNEATH, SEE PLANS.
5. NOT USED
6. PROVIDE ADDITIONAL CALCULATIONS, AND ADJUST AS NEEDED. FABRICATE STAIRS TO MEET CODE REQUIREMENTS. SEE SPECIFICATION SECTION 05 50 00.
7. 3/16" THK. WELD AND GRIND SMOOTH ALL WELD JOINTS.
8. FOR FINISHES AND SURFACE PREPARATION, SEE SPECIFICATIONS SECTIONS 05 50 00 AND 09 97 13.
9. AT STAIR STRINGER/HANDRAIL POST CONNECTIONS, PROVIDE STAIR STIFFENER PLATES AS REQUIRED.
10. PROVIDE WATER REPELLING ADMIXTURE AS INDICATED IN THE SPECIFICATIONS.
11. PRE FINISH MEMBERS THAT ARE NOT ACCESSIBLE FOR APPLYING FINISH WHERE STAIRS ADJOIN ENCLOSING WALLS & STRUCTURE. FIELD CONNECTIONS SHALL BE TOUCHED UP TO MATCH.
12. NOT USED
13. PROVIDE WATERPROOF COATING @ CONCEALED PORTION OF CONCRETE FILLED STAIR PANS & LANDINGS PRIOR TO CONCRTE FILL, PROVIDE 2 WEEP HOLES EACH END/SIDE FOR DRAINAGE. SEE SPECIFICATION SECTION 07 14 16.
14. PROVIDE ELASTOMETRIC COATING OVER THE CONCRETE FILL TREADS AND LANDINGS FOR THE STAIR FLIGHTS BETWEEN THE ROOF LEVEL AND THE LEVEL BELOW. SEE SPECIFICATION SECTION 07 18 00.
15. HOT-DIPPED GALVANIZE AFTER FABRICATION

2018.05.29 BIDSET

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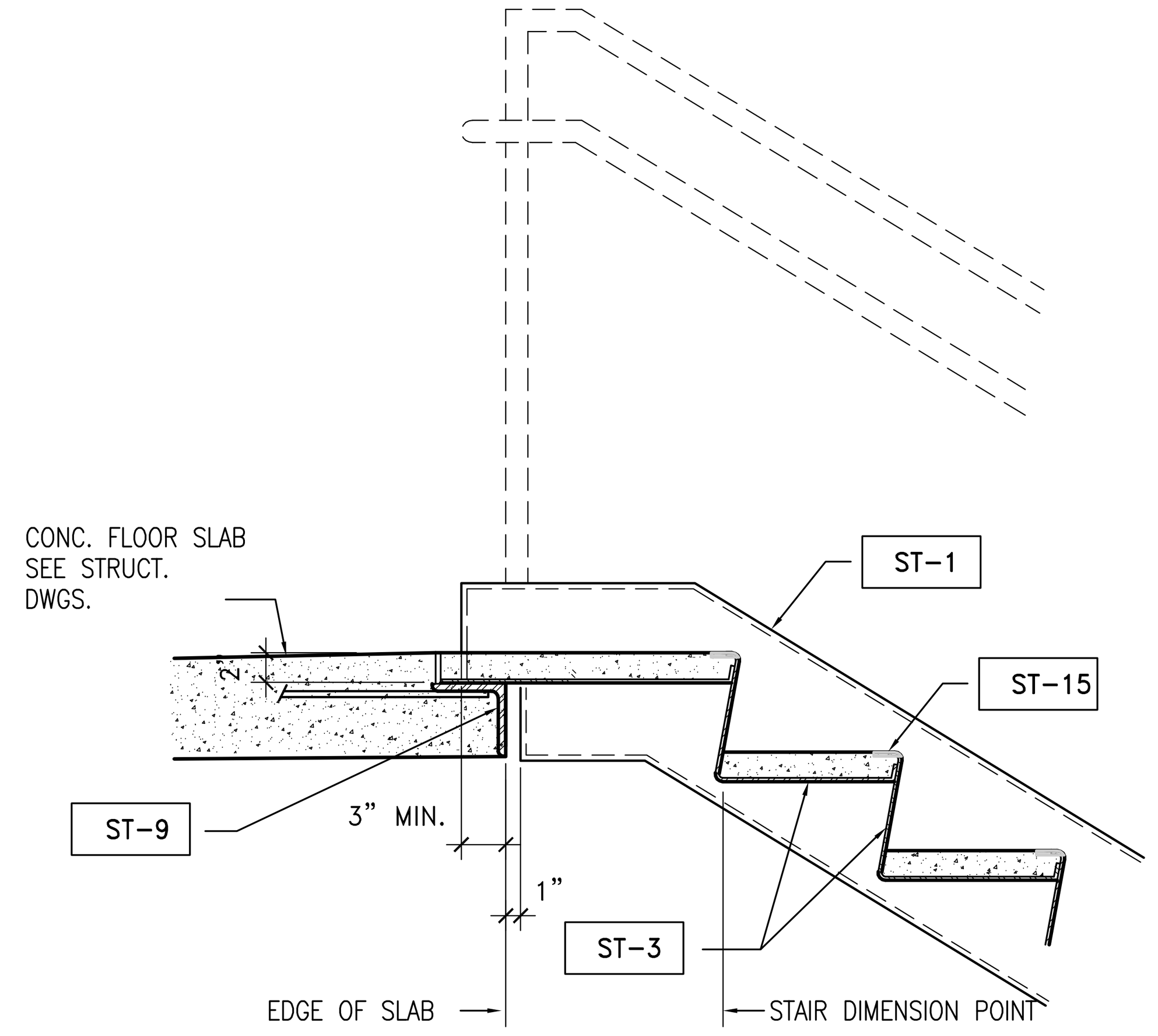
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

TYPICAL STAIR DETAILS

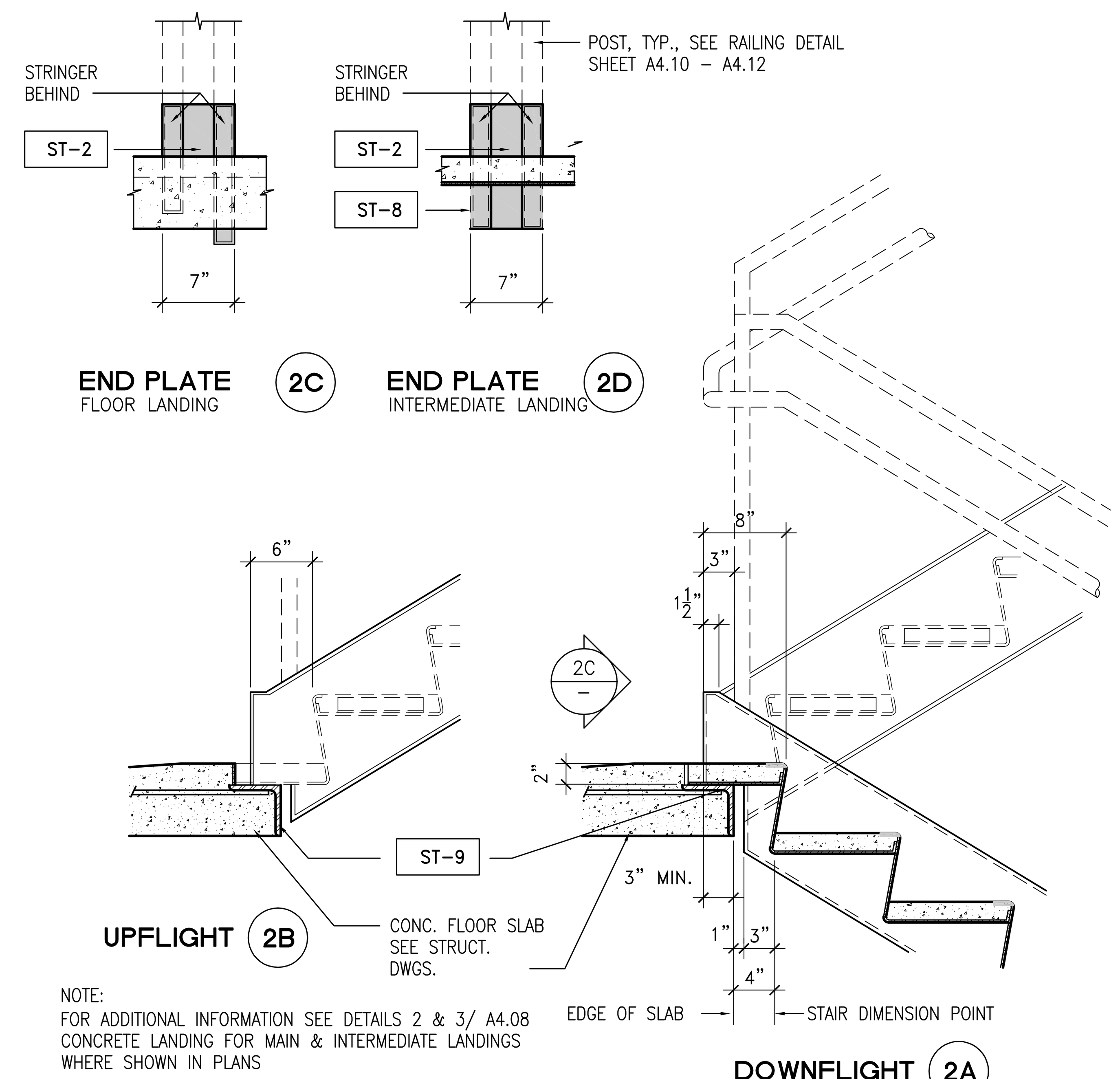
Sheet Number

A4.08



FLOOR LANDING DETAIL 5

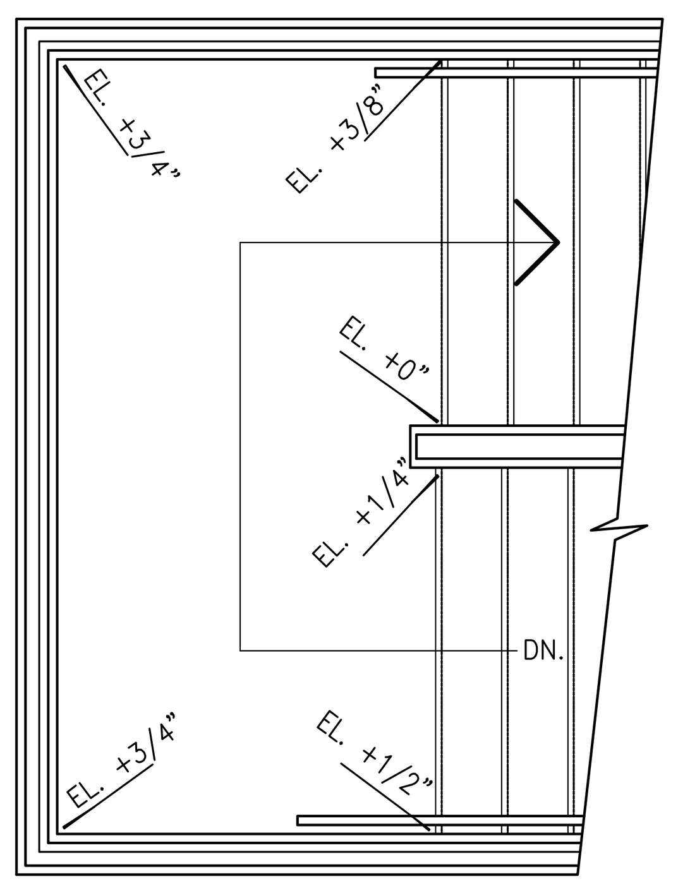
SCALE: 1" = 1'-0"



NOTE:
FOR ADDITIONAL INFORMATION SEE DETAILS 2 & 3/ A4.08
CONCRETE LANDING FOR MAIN & INTERMEDIATE LANDINGS
WHERE SHOWN IN PLANS

FLOOR LANDING DETAIL 2

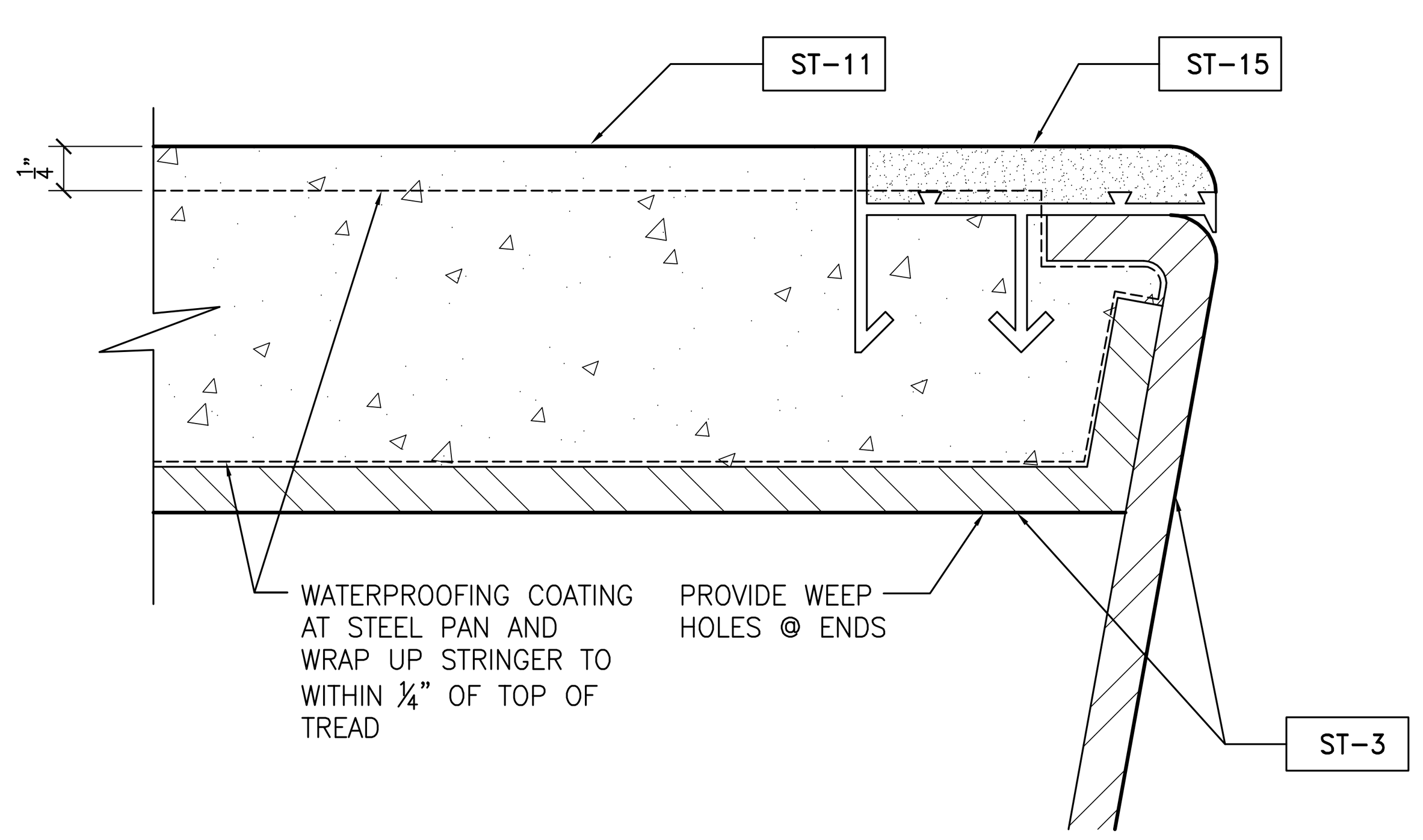
SCALE: 1" = 1'-0"



NOTE:
EL. +0" = ACTUAL LANDING ELEVATION.
SEE STAIR PLANS FOR ACTUAL ELEVATION

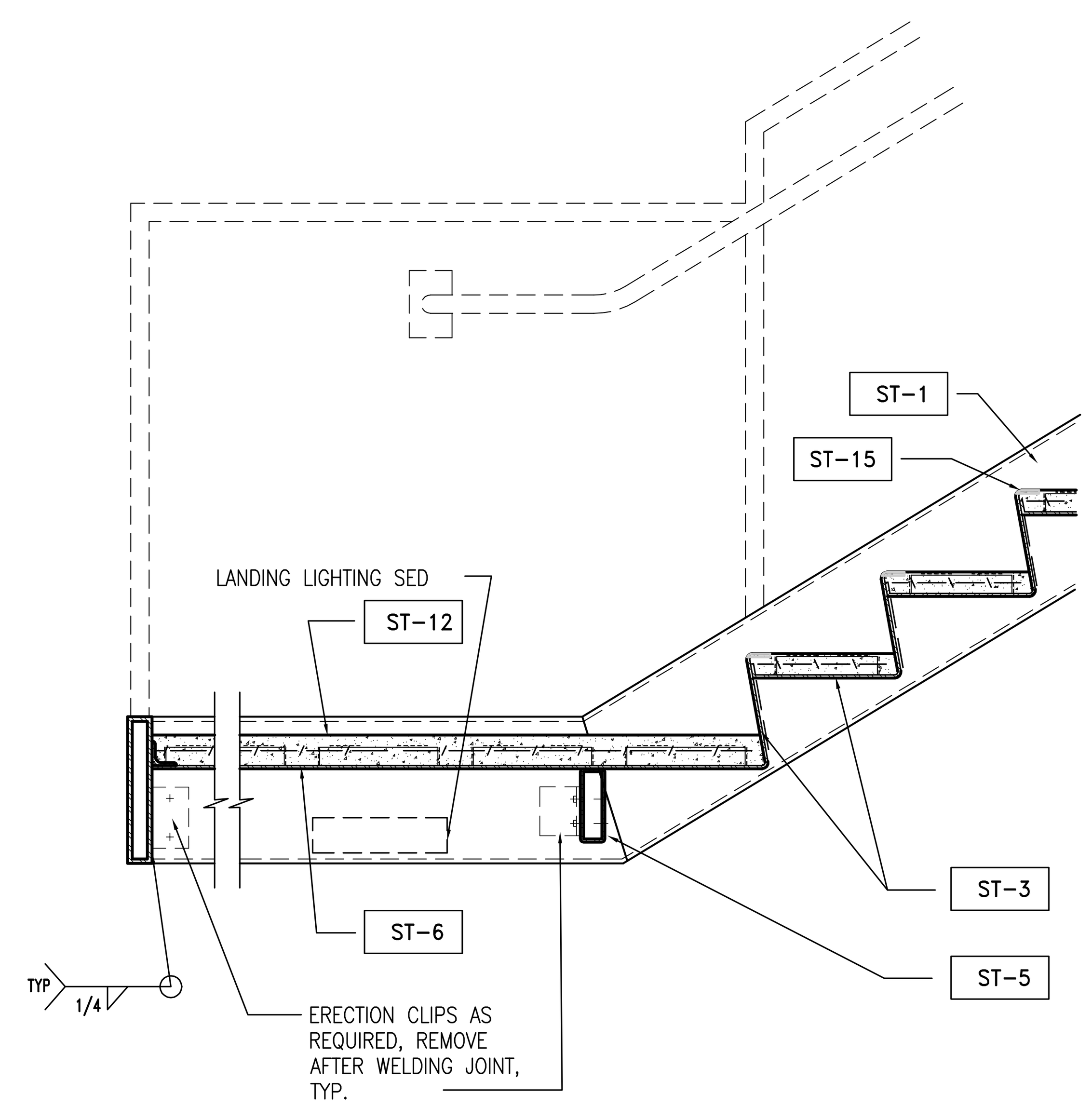
INTERMEDIATE LANDING SPOT ELEVATIONS 4

SCALE: NO SCALE



NOSING STRIP DETAIL 3

SCALE: FULL



INTERMEDIATE LANDING (EXTERIOR STRINGER, UPFLIGHT) DETAIL 1

SCALE: 1" = 1'-0"

STAIR SCHEDULE

DESIGNATION	ITEM	REMARKS	FINISH
ST-1	STRINGER	HSS 12 X 2 X 5/16	STEEL COATING SYSTEM
ST-2	END CLOSURE	1/4" STEEL PLATE, BENT TO CHANNEL SHAPE AS SHOWN	STEEL COATING SYSTEM
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ST-4	TREAD LEDGER	ANGLE 1 1/2" X 1 1/2" X 1/8" (INVERTED)	STEEL COATING SYSTEM
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ST-6	LANDING PAN	12 GA. STEEL	STEEL COATING SYSTEM
ST-7	LANDING LEDGER, INVERTED	ANGLE 2" X 2" X 1/4" (INVERTED)	STEEL COATING SYSTEM
ST-8	STRINGER EXTENSION	MC 10 X ___ (1 1/2" FLANGE). CUT & ADD 1/4" WELDED PLATE	STEEL COATING SYSTEM
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ST-10	FLOOR ANCHOR	2 ½" ø x 6" EMBED AB AT 3'-0" O.C. WITH WASHER PL ⅜" X 5" X 3'-8" CENTER IN 5"ø HOLES IN PL ½".	STEEL COATING SYSTEM
ST-11	CONCRETE FILL, TREAD	2" TH. W/ 6 X 6 W2.1 X W2.1 WWM	STEEL COATING SYSTEM
ST-12	CONCRETE FILL, LANDING	2 1/2" TH. W/ 6 X 6 W2.1 X W2.1 WWM	STEEL COATING SYSTEM
ST-13	MISC. CLOSURE PLATES	5/16" STEEL PLATE	STEEL COATING SYSTEM
ST-14	WALL ANCHOR	2-3/4"ø X 5" EMBEDMENT ANCHOR BOLT 6" FROM ENDS & 24" O.C. MAX W/ PIPE SPACERS	STEEL COATING SYSTEM
ST-15	NOSING STRIP	SEE GENERAL STAIR NOTE #1	STEEL COATING SYSTEM

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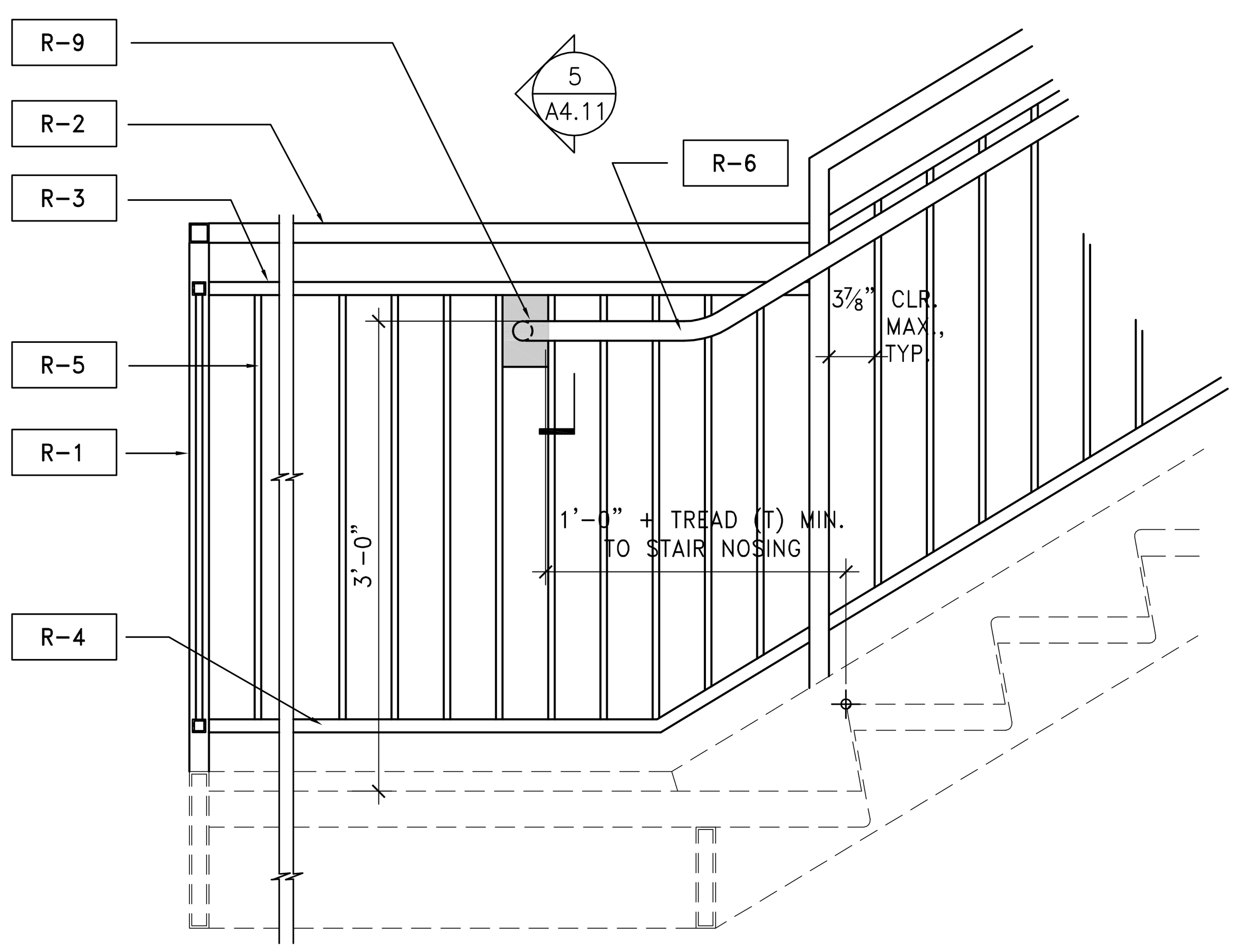
Sheet Title
TYPICAL STAIR DETAILS

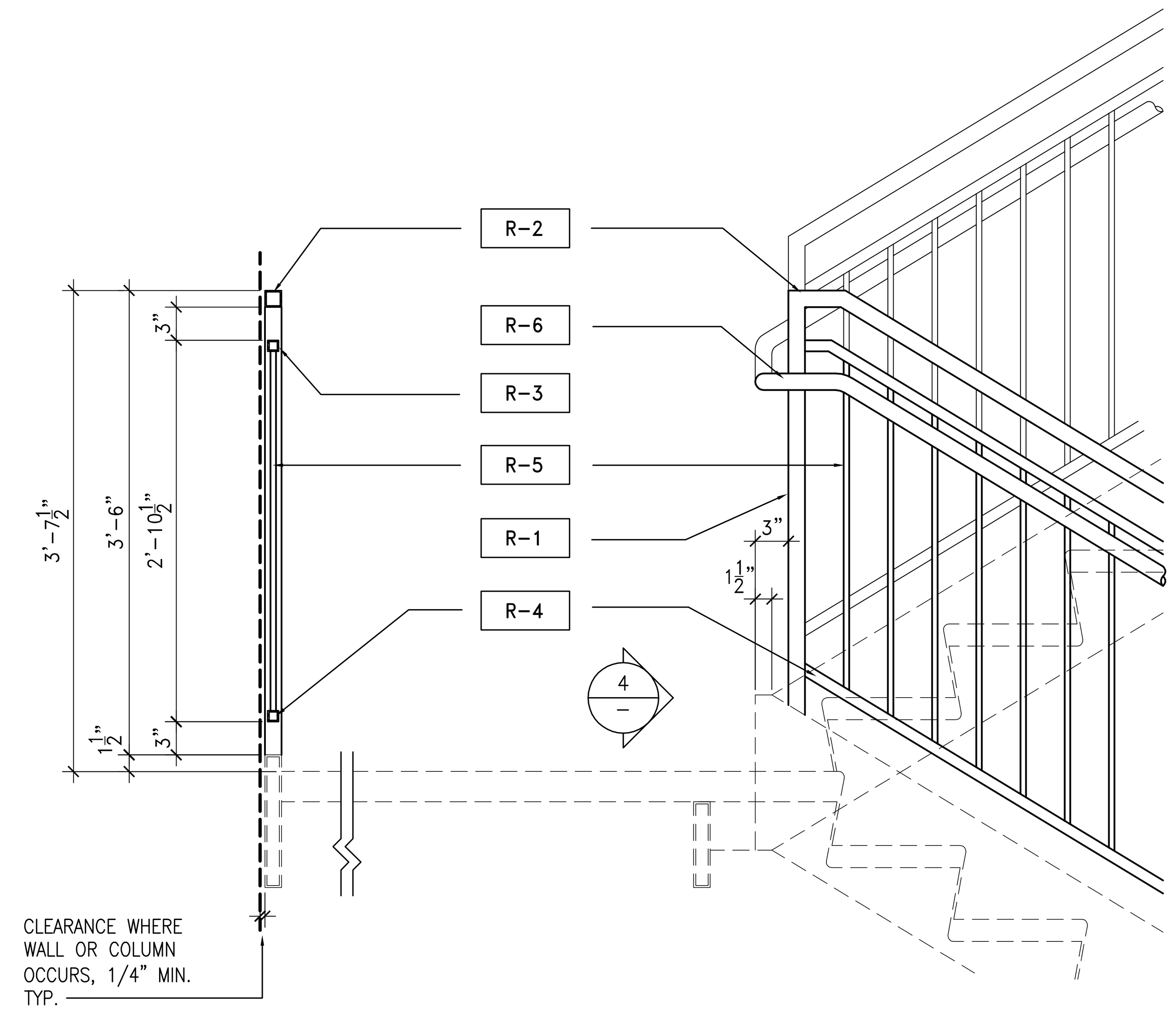
Sheet Number
A4.09



DETAIL @ INTERMEDIATE LANDING (EXTERIOR, UPFLIGHT)

5

SCALE: 1" = 1'-0"



DETAIL @ INTERMEDIATE LANDING (INTERIOR)

3

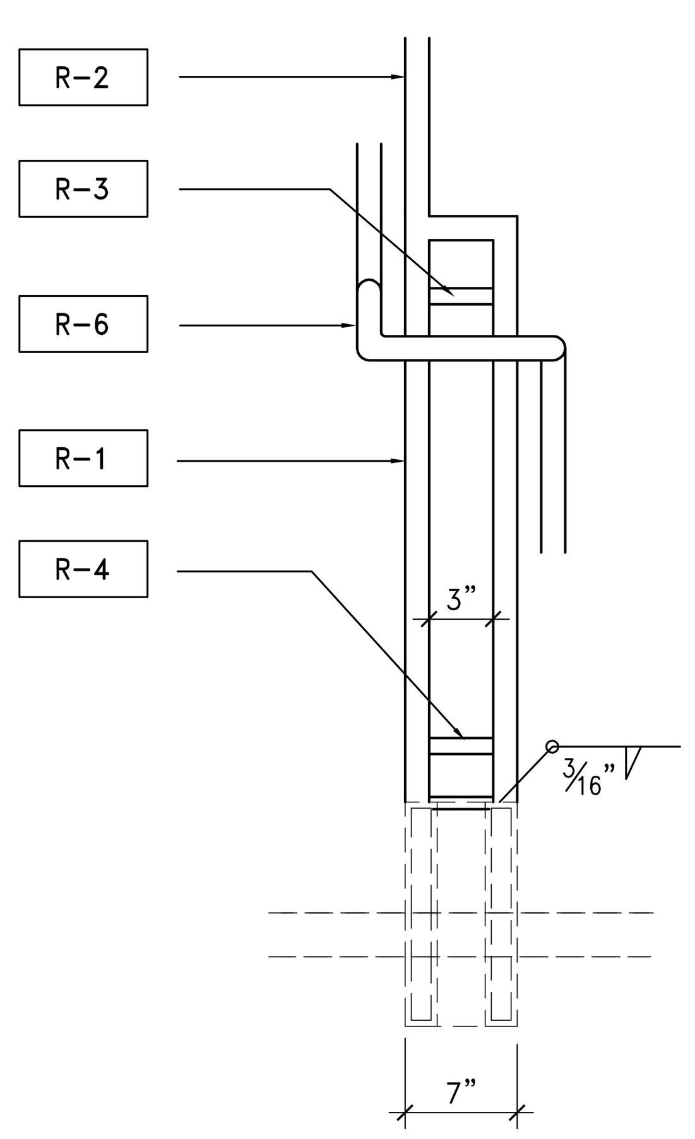
SCALE: 1" = 1'-0"

RAIL SCHEDULE

DESIGNATION	ITEM	REMARKS	FINISH
R-1	POST	1 1/2" X 1 1/2" X .180 STEEL TUBE EQUALLY SPACED @ 4'-0" O.C. MAX.	STEEL COATING SYSTEM. SEE SPECS.
R-2	TOP RAIL @ GUARDRAIL	1 1/2" X 1 1/2" X .180 STEEL TUBE	STEEL COATING SYSTEM. SEE SPECS.
R-3	TOP INTERMEDIATE RAIL	1" X 1" X .120 STEEL TUBE	STEEL COATING SYSTEM. SEE SPECS.
R-4	BOTTOM INTERMEDIATE RAIL	1" X 1" X .120 STEEL TUBE	STEEL COATING SYSTEM. SEE SPECS.
R-5	INFILL PICKETS	1/2" X 1/2" X .065 STEEL TUBES EQUALLY SPACED BETWEEN VERTICAL POSTS WITH LESS THAN 4" SPACE BETWEEN PICKETS	STEEL COATING SYSTEM. SEE SPECS.
R-6 1.	HANDRAIL	1 1/4"ø NOMINAL (1 5/8"ø O.D.) STEEL PIPE (CBC 1133B.4.2.6.1)	STEEL COATING SYSTEM. SEE SPECS.
R-7	HANDRAIL CONNECTOR @ POST	5/8"ø STEEL ROD. PROVIDE @ EACH POST. SEE DETAIL 9C	STEEL COATING SYSTEM. SEE SPECS.
R-8	HANDRAIL CONNECTOR @ WALL	5/8"ø STEEL ROD. SEE DETAIL 9A OR 9B	STEEL COATING SYSTEM. SEE SPECS.
R-9	MOUNTING PLATE	1/8" STEEL PLATE	STEEL COATING SYSTEM. SEE SPECS.

GENERAL RAIL NOTES

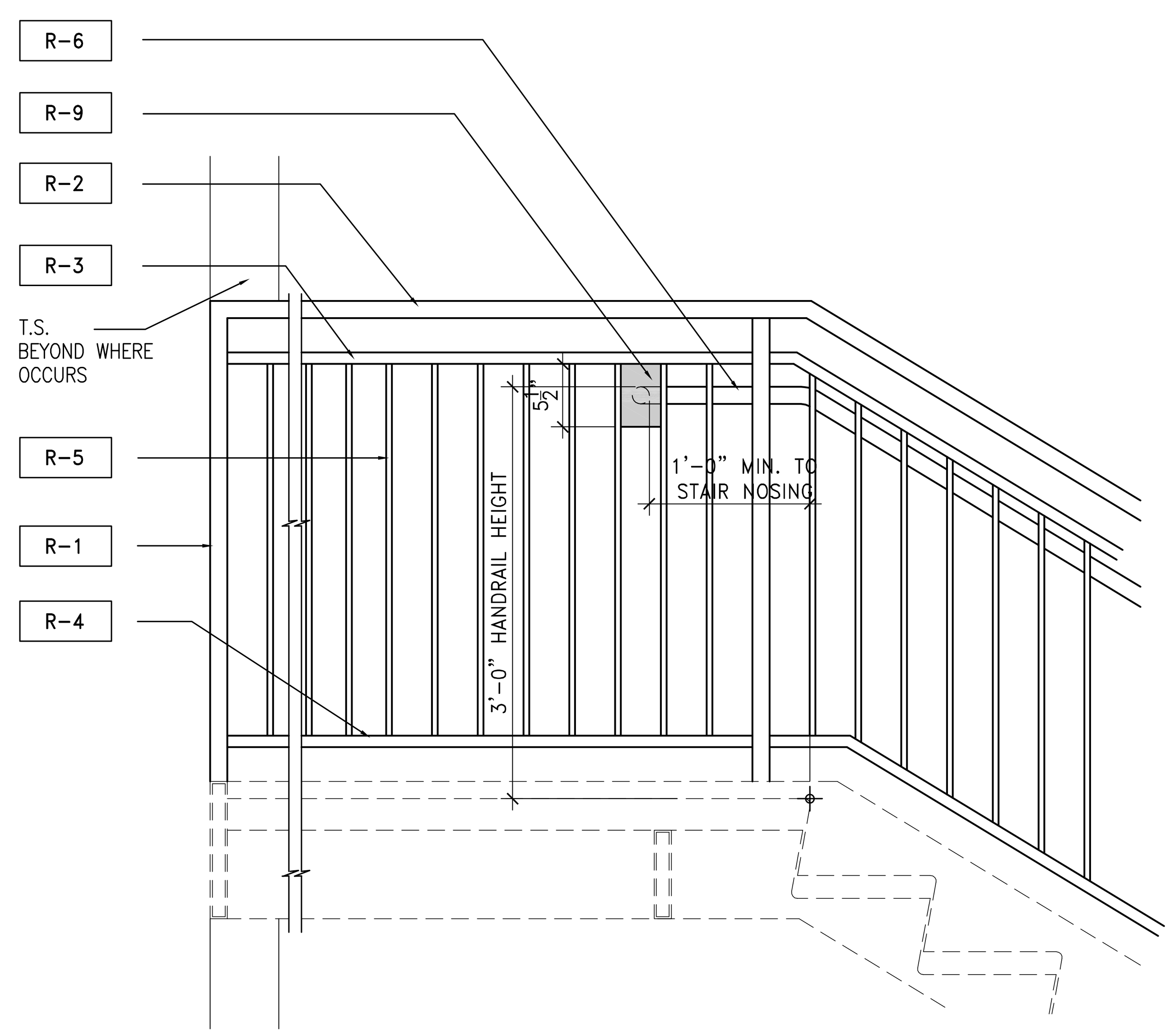
1. WELD & GRIND SMOOTH ALL JOINTS & SHARP EDGES BEFORE APPLYING FINISH.
2. MAINTAIN CIRCULAR CROSS SECTION @ PIPE RAIL BENDS.
3. HOT-DIPPED GALVANIZE AFTER FABRICATION



DETAIL @ LANDING (END)

4

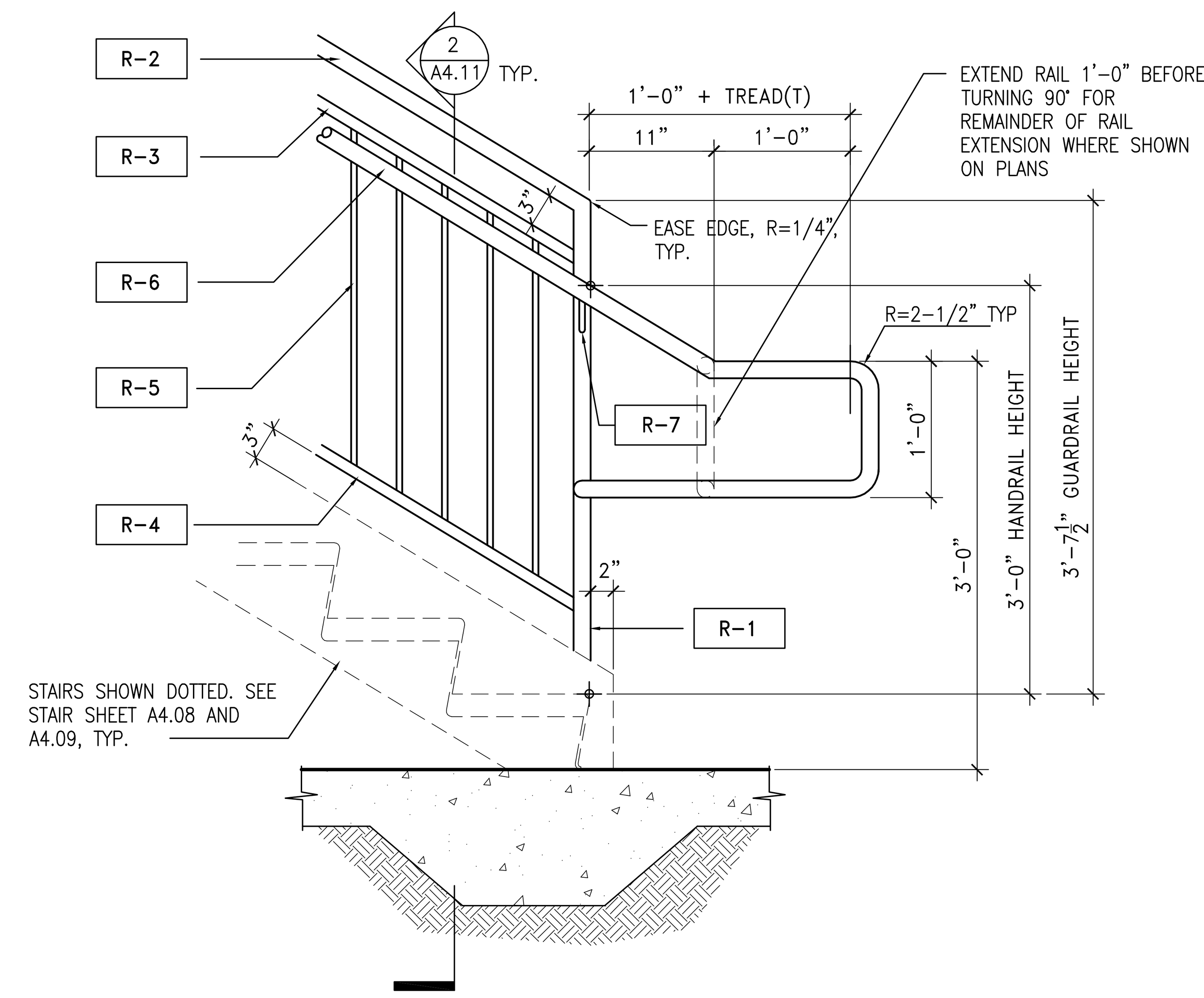
SCALE: 1" = 1'-0"



DETAIL @ INTERMEDIATE LANDING (EXTERIOR, DOWNFLIGHT)

2

SCALE: 1" = 1'-0"



DETAIL @ GROUND LEVEL

1

SCALE: 1" = 1'-0"

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LICENSED ARCHITECT
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No. C-32674
10-07-19
RENEWAL DATE
STATE OF CALIFORNIA

Document Phase:	Backcheck #1
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PIC / AIC:	-
Drawn By:	VC
Checked By:	DV
Comm. No.:	-

Project Title

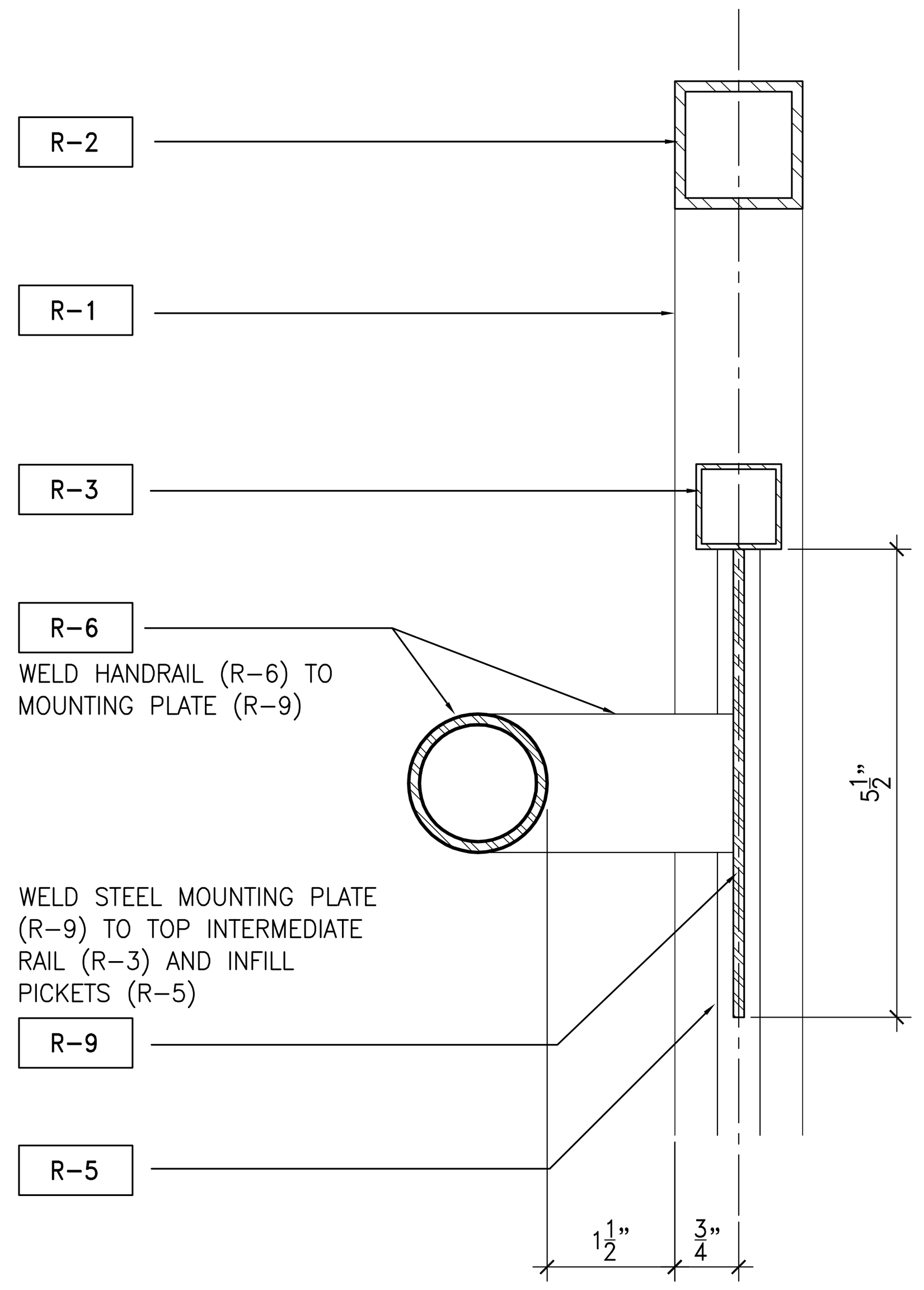
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

TYPICAL STAIR RAIL DETAILS

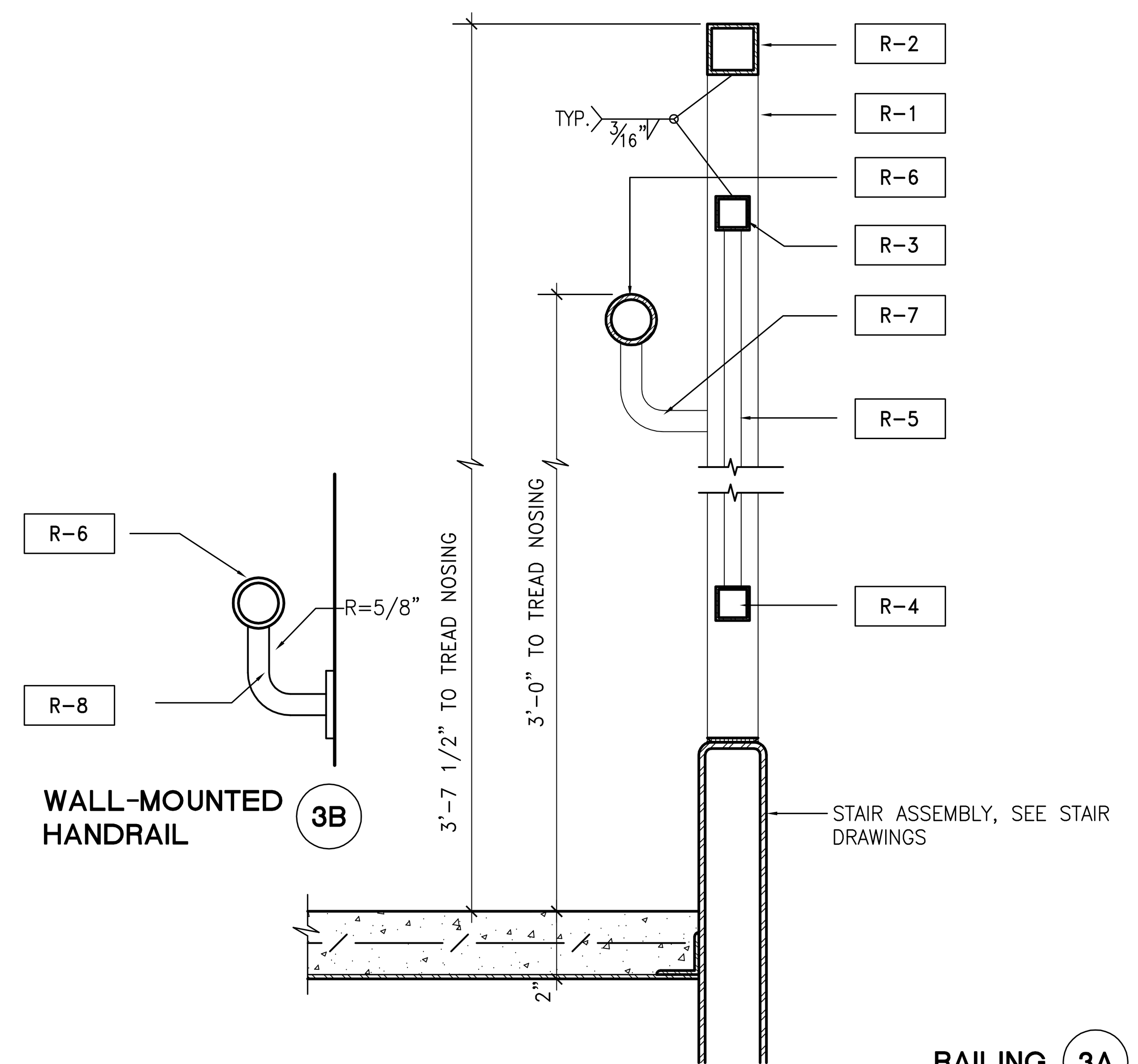
Sheet Number

A4.10



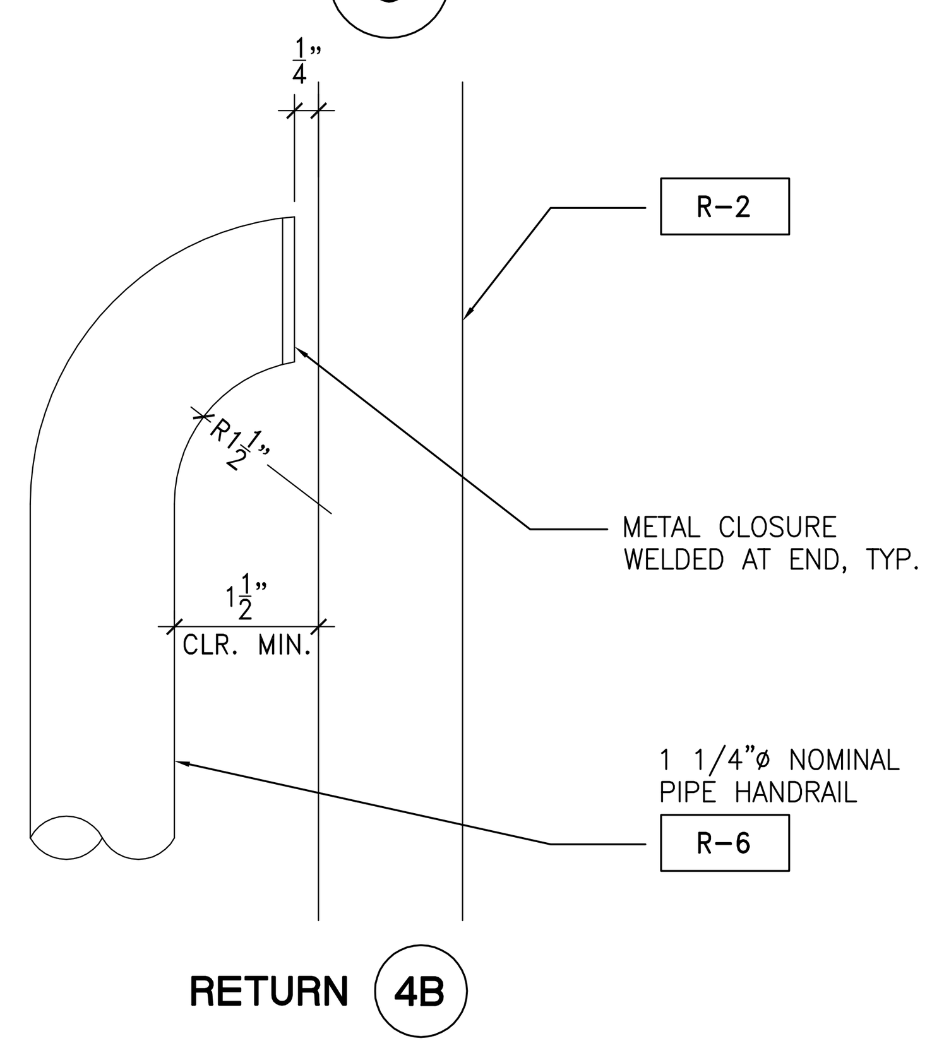
HANDRAIL DETAIL 5

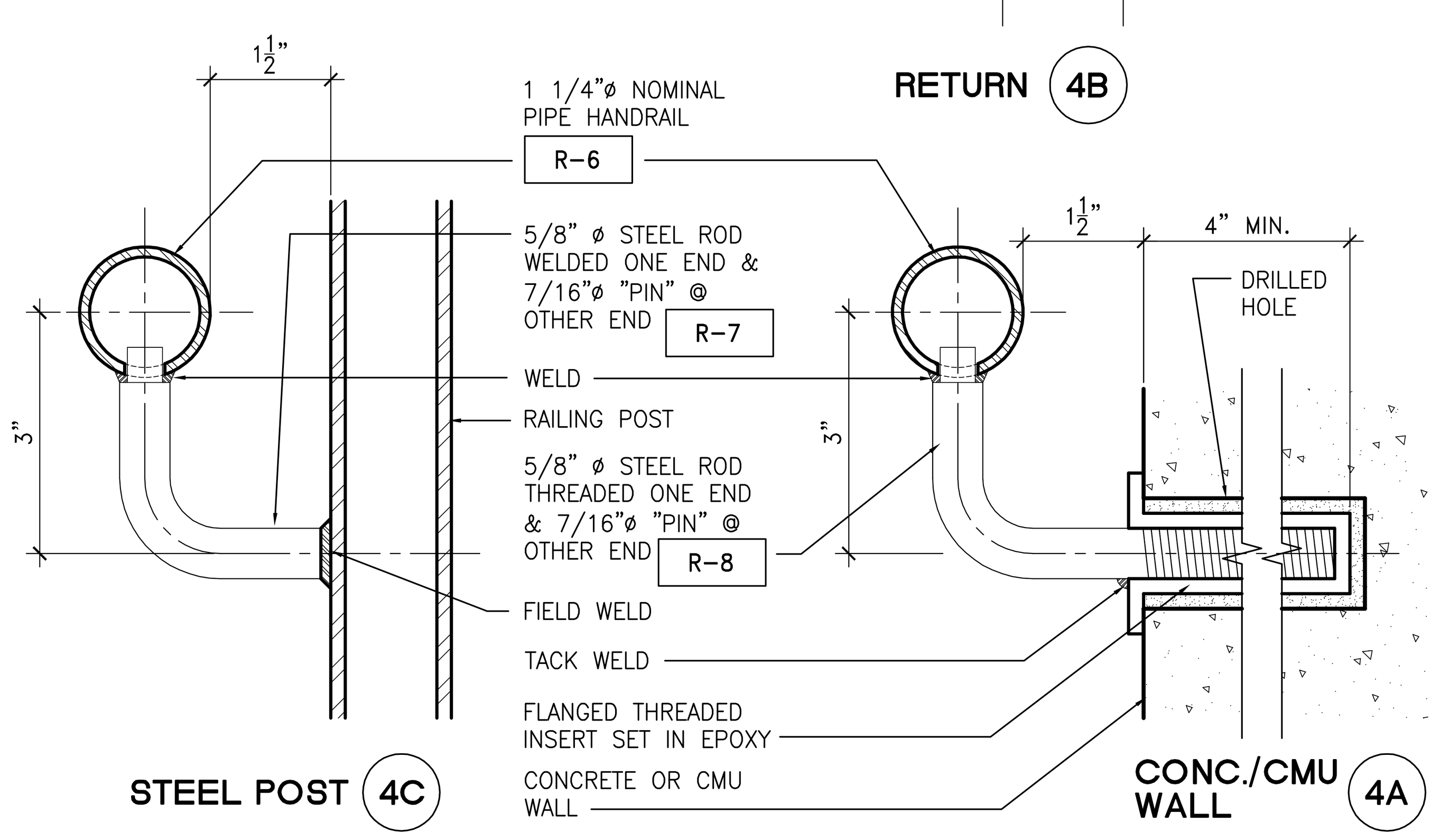
SCALE: HALF



RAILING DETAIL 3

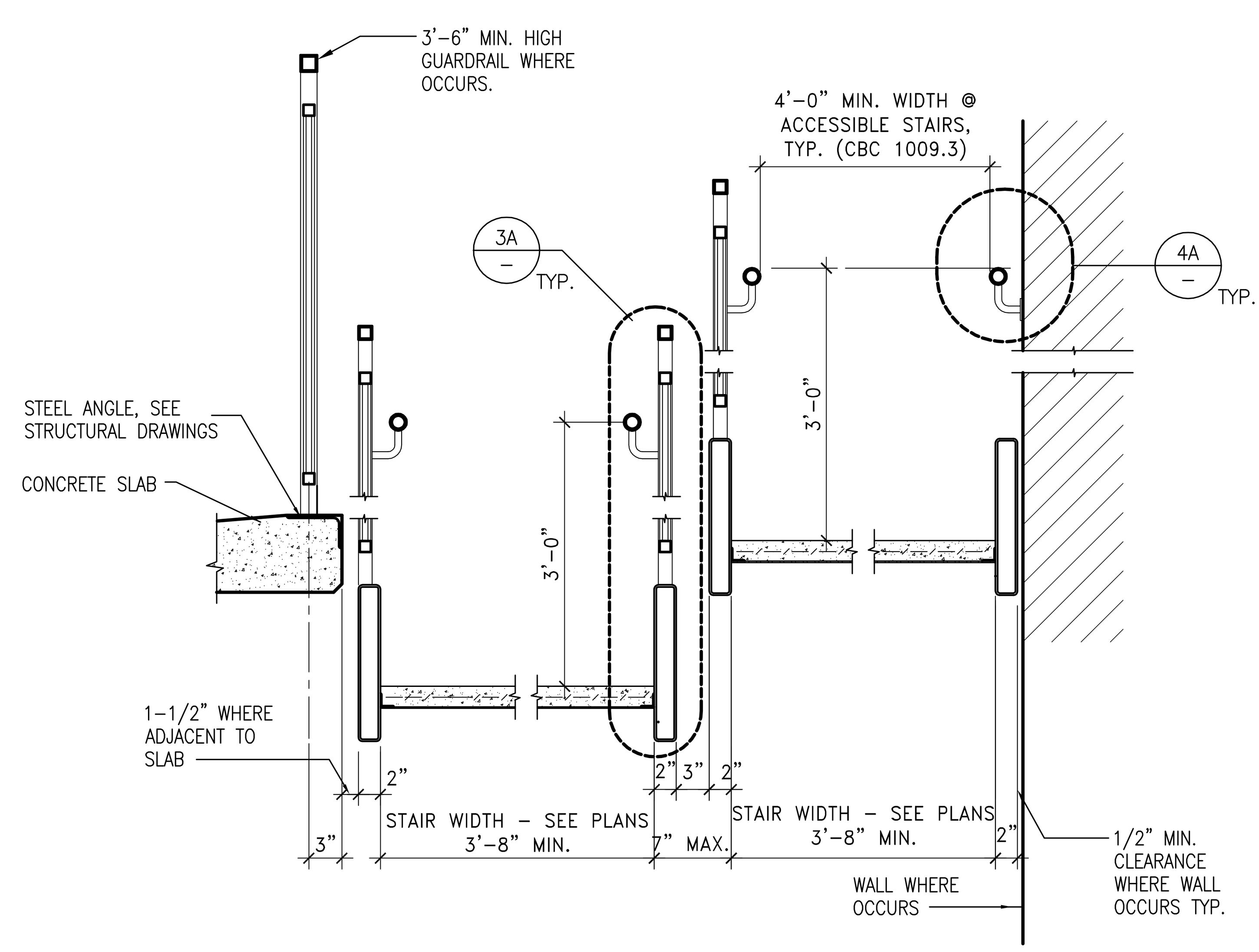
SCALE: 3" = 1'-0"





HANDRAIL DETAIL 4

SCALE: HALF



CROSS SECTION THROUGH STAIR & RAIL 2

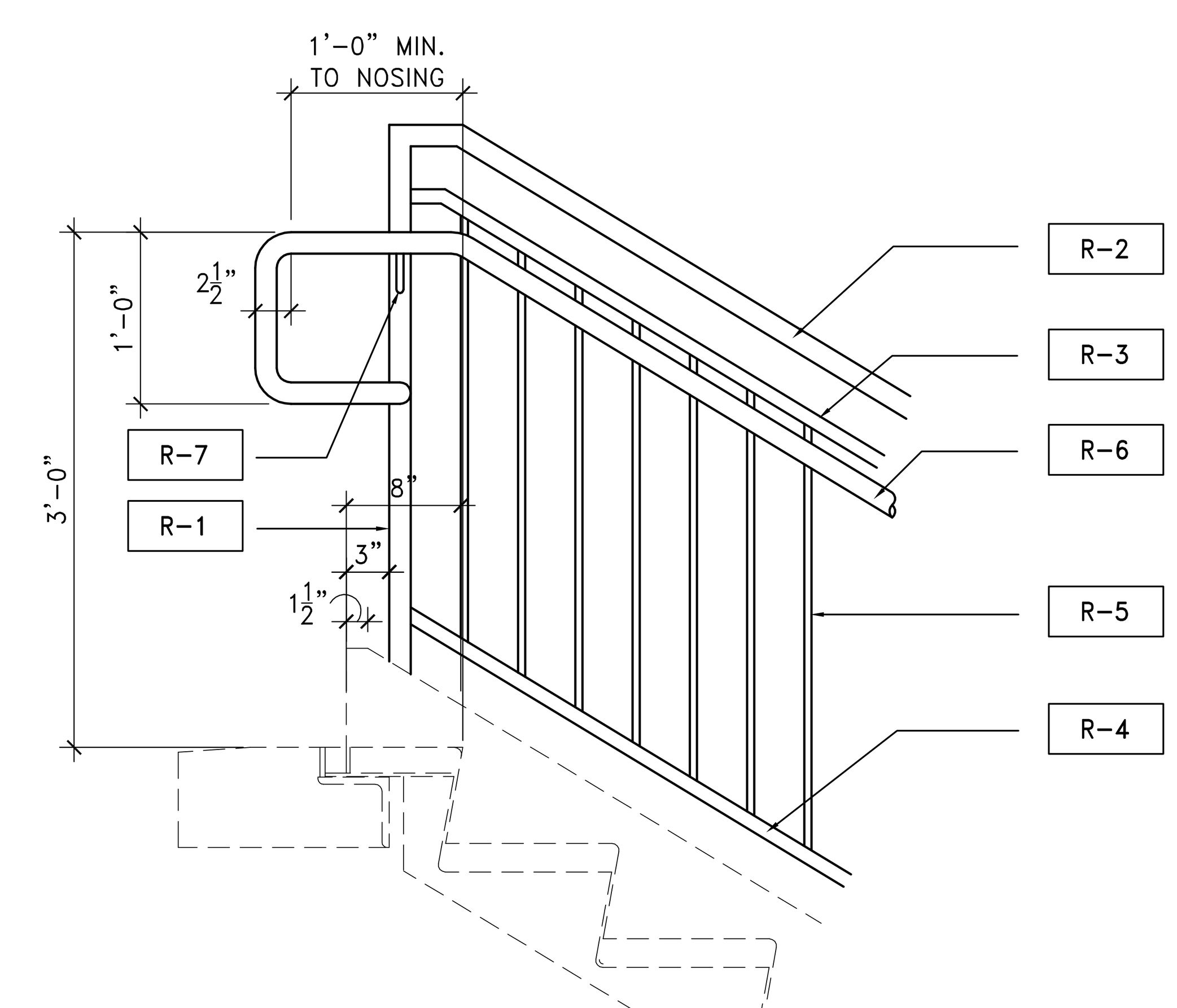
SCALE: 1" = 1'-0"

RAIL SCHEDULE

DESIGNATION	ITEM	REMARKS	FINISH
R-1	POST	1 1/2" X 1 1/2" X .180 STEEL TUBE EQUALLY SPACED @ 4'-0" O.C. MAX.	STEEL COATING SYSTEM. SEE SPECS.
R-2	TOP RAIL @ GUARDRAIL	1 1/2" X 1 1/2" X .180 STEEL TUBE	STEEL COATING SYSTEM. SEE SPECS.
R-3	TOP INTERMEDIATE RAIL	1" X 1" X .120 STEEL TUBE	STEEL COATING SYSTEM. SEE SPECS.
R-4	BOTTOM INTERMEDIATE RAIL	1" X 1" X .120 STEEL TUBE	STEEL COATING SYSTEM. SEE SPECS.
R-5	INFILL PICKETS	1/2" X 1/2" X .065 STEEL TUBES EQUALLY SPACED BETWEEN VERTICAL POSTS WITH LESS THAN 4" SPACE BETWEEN PICKETS	STEEL COATING SYSTEM. SEE SPECS.
R-6 1.	HANDRAIL	1 1/4"ø NOMINAL (1 5/8"ø O.D.) STEEL PIPE (CBC 1133B.4.2.6.1)	STEEL COATING SYSTEM. SEE SPECS.
R-7	HANDRAIL CONNECTOR @ POST	5/8"ø STEEL ROD. PROVIDE @ EACH POST. SEE DETAIL 9C	STEEL COATING SYSTEM. SEE SPECS.
R-8	HANDRAIL CONNECTOR @ WALL	5/8"ø STEEL ROD. SEE DETAIL 9A OR 9B	STEEL COATING SYSTEM. SEE SPECS.
R-9	MOUNTING PLATE	1/8" STEEL PLATE	STEEL COATING SYSTEM. SEE SPECS.

GENERAL RAIL NOTES

1. WELD & GRIND SMOOTH ALL JOINTS & SHARP EDGES BEFORE APPLYING FINISH.
2. MAINTAIN CIRCULAR CROSS SECTION @ PIPE RAIL BENDS.
3. HOT-DIPPED GALVANIZE AFTER FABRICATION



DETAIL @ ROOF 1

SCALE: 1" = 1'-0"

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Drawn By:	VC
Checked By:	DV
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

TYPICAL STAIR RAIL DETAILS

Sheet Number

A4.11

RAIL SCHEDULE

DESIGNATION	ITEM	REMARKS	FINISH
R-1	POST	1 1/2" X 1 1/2" X .180 STEEL TUBE EQUALLY SPACED @ 4'-0" O.C. MAX.	STEEL COATING SYSTEM. SEE SPECS.
R-2	TOP RAIL @ GUARDRAIL	1 1/2" X 1 1/2" X .180 STEEL TUBE	STEEL COATING SYSTEM. SEE SPECS.
R-3	TOP INTERMEDIATE RAIL	1" X 1" X .120 STEEL TUBE	STEEL COATING SYSTEM. SEE SPECS.
R-4	BOTTOM INTERMEDIATE RAIL	1" X 1" X .120 STEEL TUBE	STEEL COATING SYSTEM. SEE SPECS.
R-5	INFILL PICKETS	1/2" X 1/2" X .065 STEEL TUBES EQUALLY SPACED BETWEEN VERTICAL POSTS WITH LESS THAN 4" SPACE BETWEEN PICKETS	STEEL COATING SYSTEM. SEE SPECS.
R-6 1.	HANDRAIL	1 1/4"ø NOMINAL (1 5/8"ø O.D.) STEEL PIPE (CBC 1133B.4.2.6.1)	STEEL COATING SYSTEM. SEE SPECS.
R-7	HANDRAIL CONNECTOR @ POST	5/8"ø STEEL ROD. PROVIDE @ EACH POST. SEE DETAIL 9C	STEEL COATING SYSTEM. SEE SPECS.
R-8	HANDRAIL CONNECTOR @ WALL	5/8"ø STEEL ROD. SEE DETAIL 9A OR 9B	STEEL COATING SYSTEM. SEE SPECS.
R-9	MOUNTING PLATE	1/8" STEEL PLATE	STEEL COATING SYSTEM. SEE SPECS.

GENERAL RAIL NOTES

1. WELD & GRIND SMOOTH ALL JOINTS & SHARP EDGES BEFORE APPLYING FINISH.
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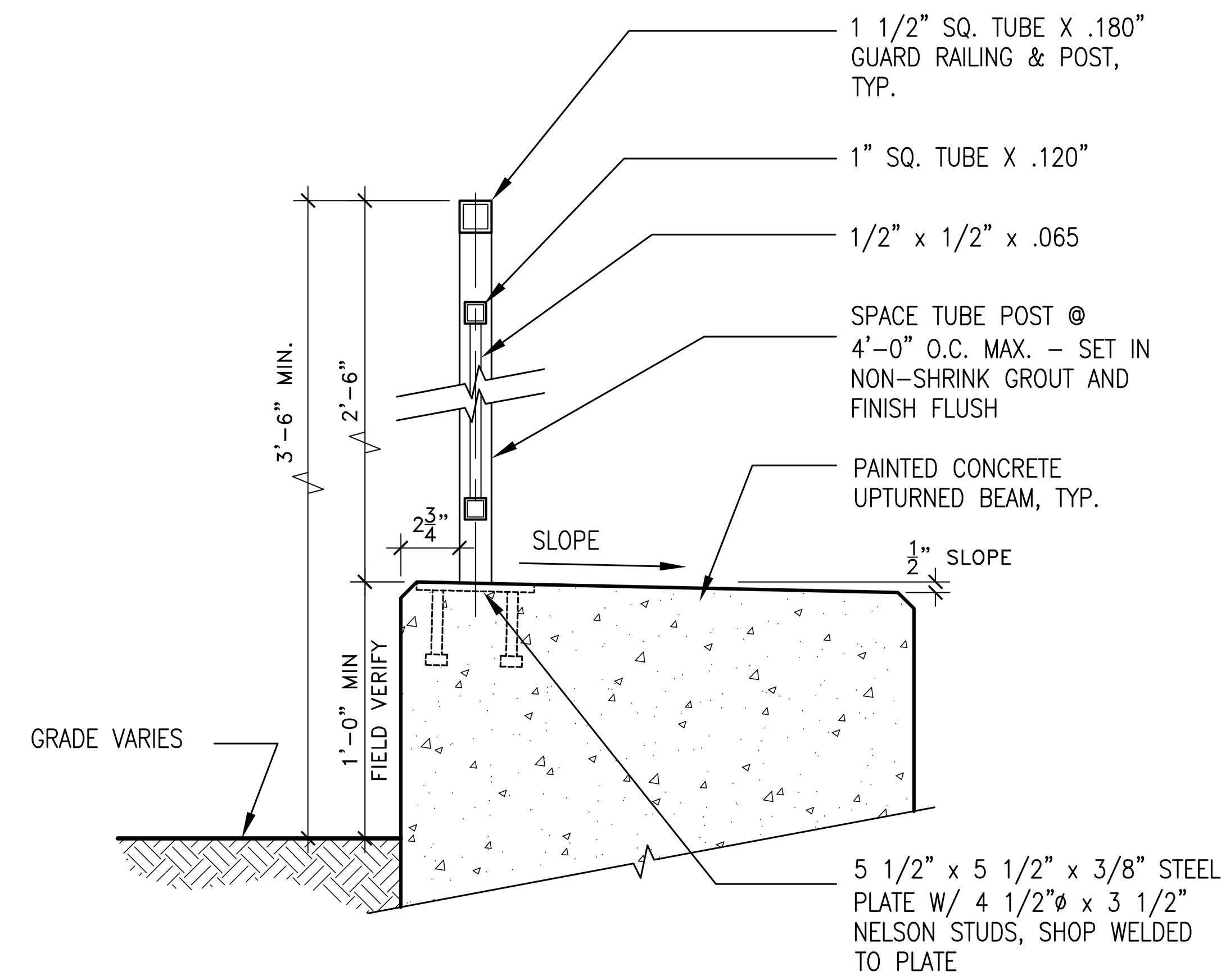
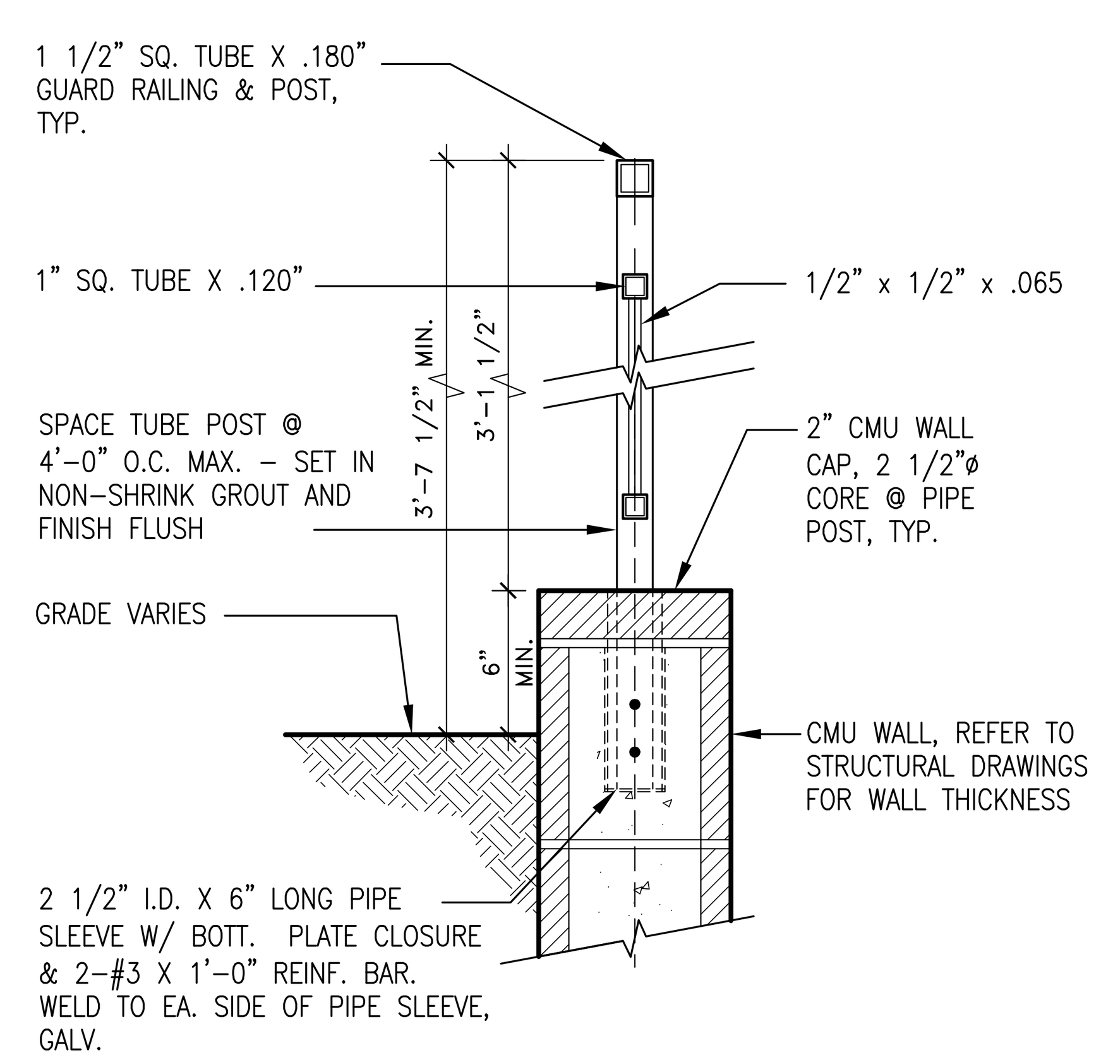
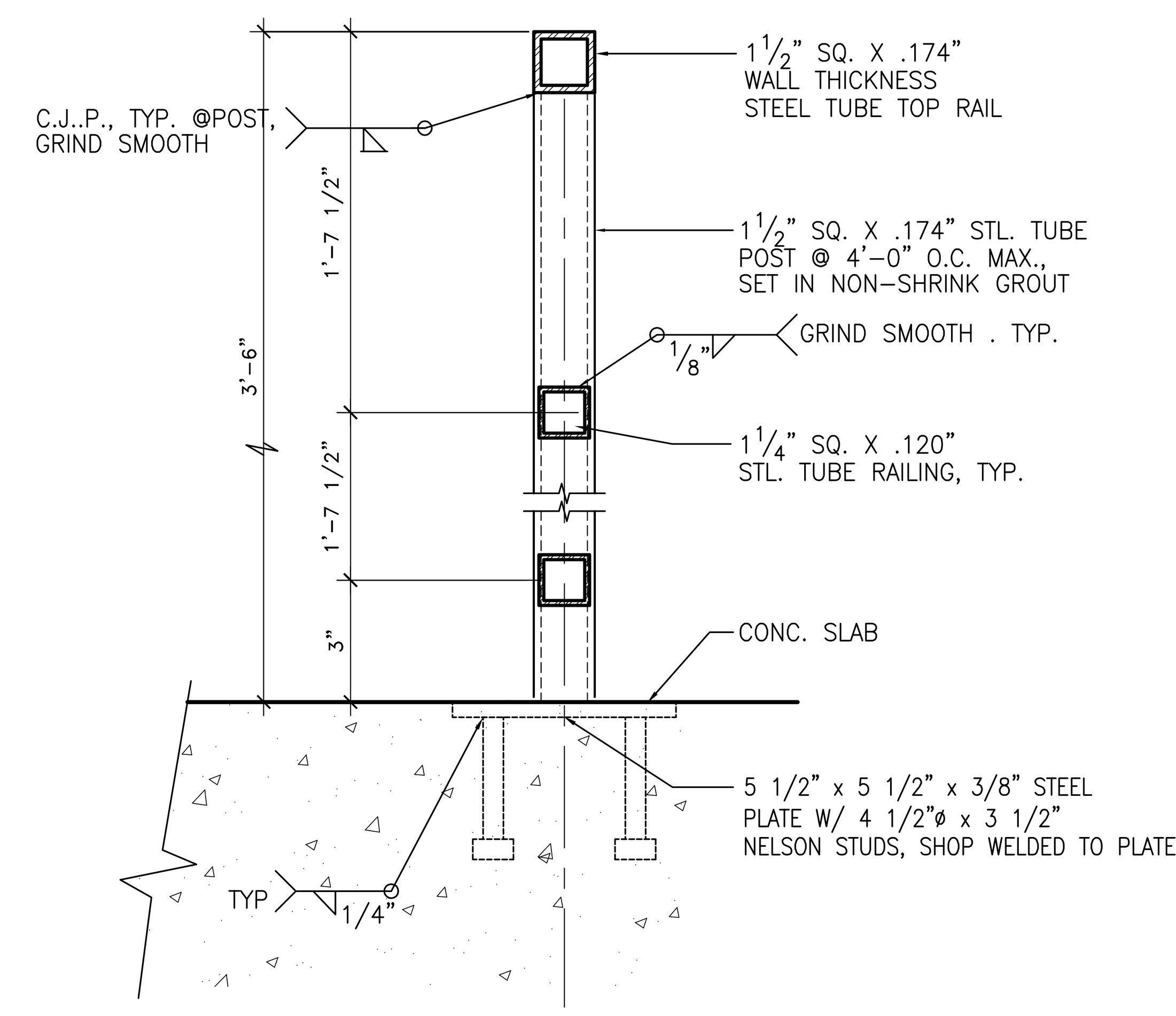
3. HOT-DIPPED GALVANIZE AFTER FABRICATION



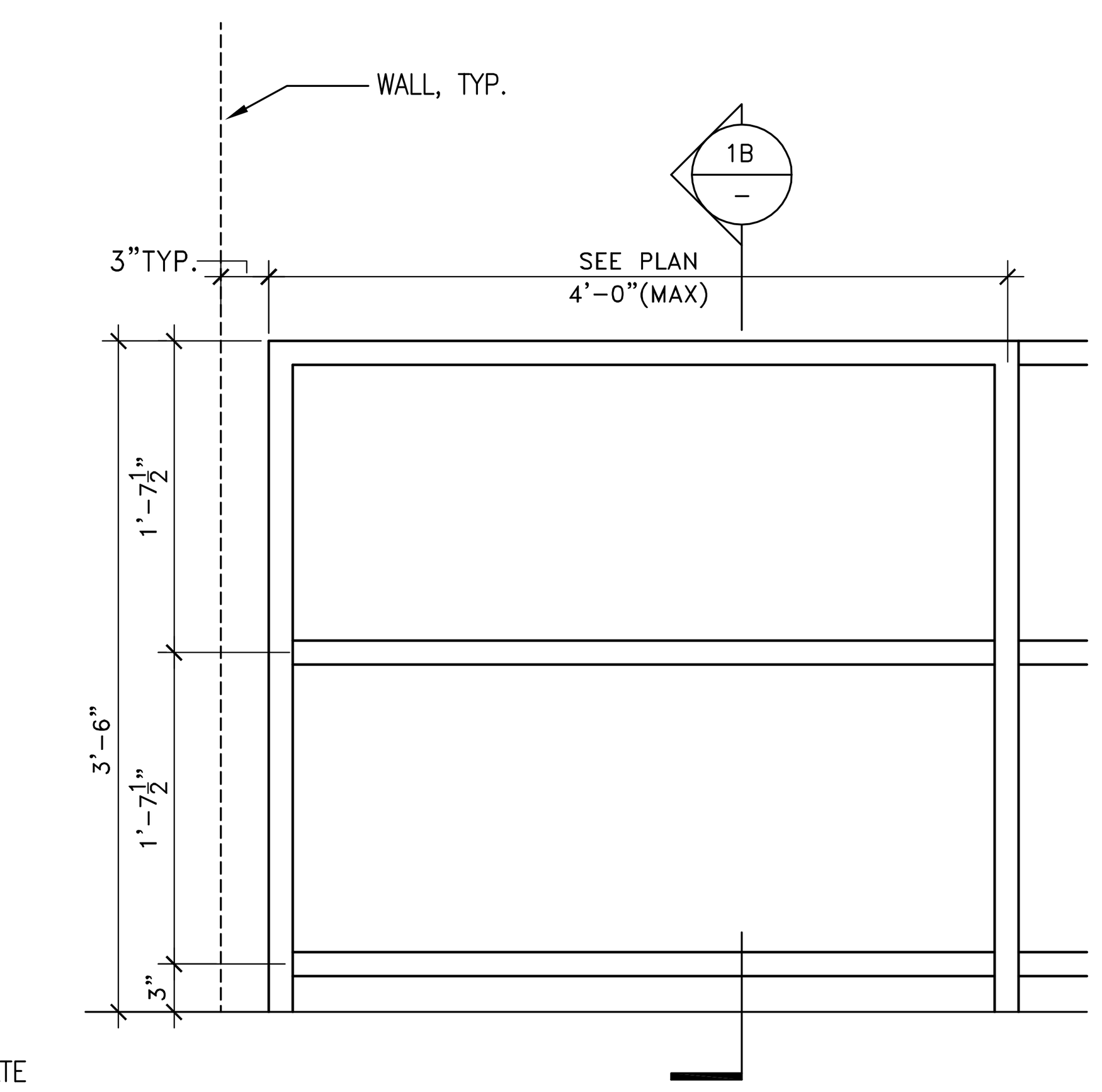
PIPE DETAIL (3)
SCALE: 1 1/2"=1'-0"



PIPE SLEEVE DETAIL (2)
SCALE: 1 1/2"=1'-0"



SECTION (1B)
SCALE: 3"=1'-0"



ELEVATION (1A)
SCALE: 1" = 1'-0"

STEEL GUARDRAIL AT GROUND LEVEL (1)
SCALE: AS SHOWN

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PIC / AIC:	-
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Checked By:	DV
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Project Title

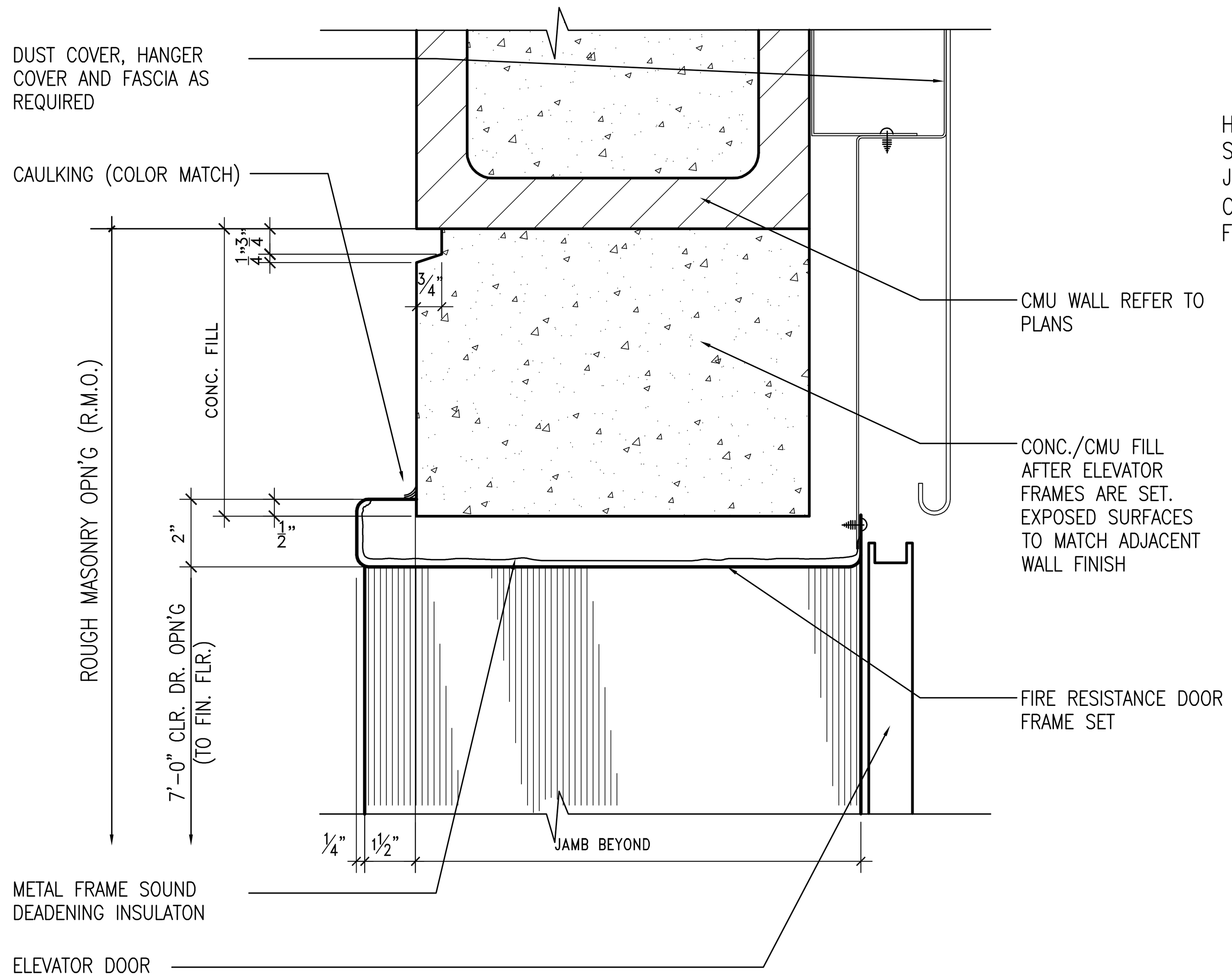
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

TYPICAL STAIR RAIL DETAILS

Sheet Number

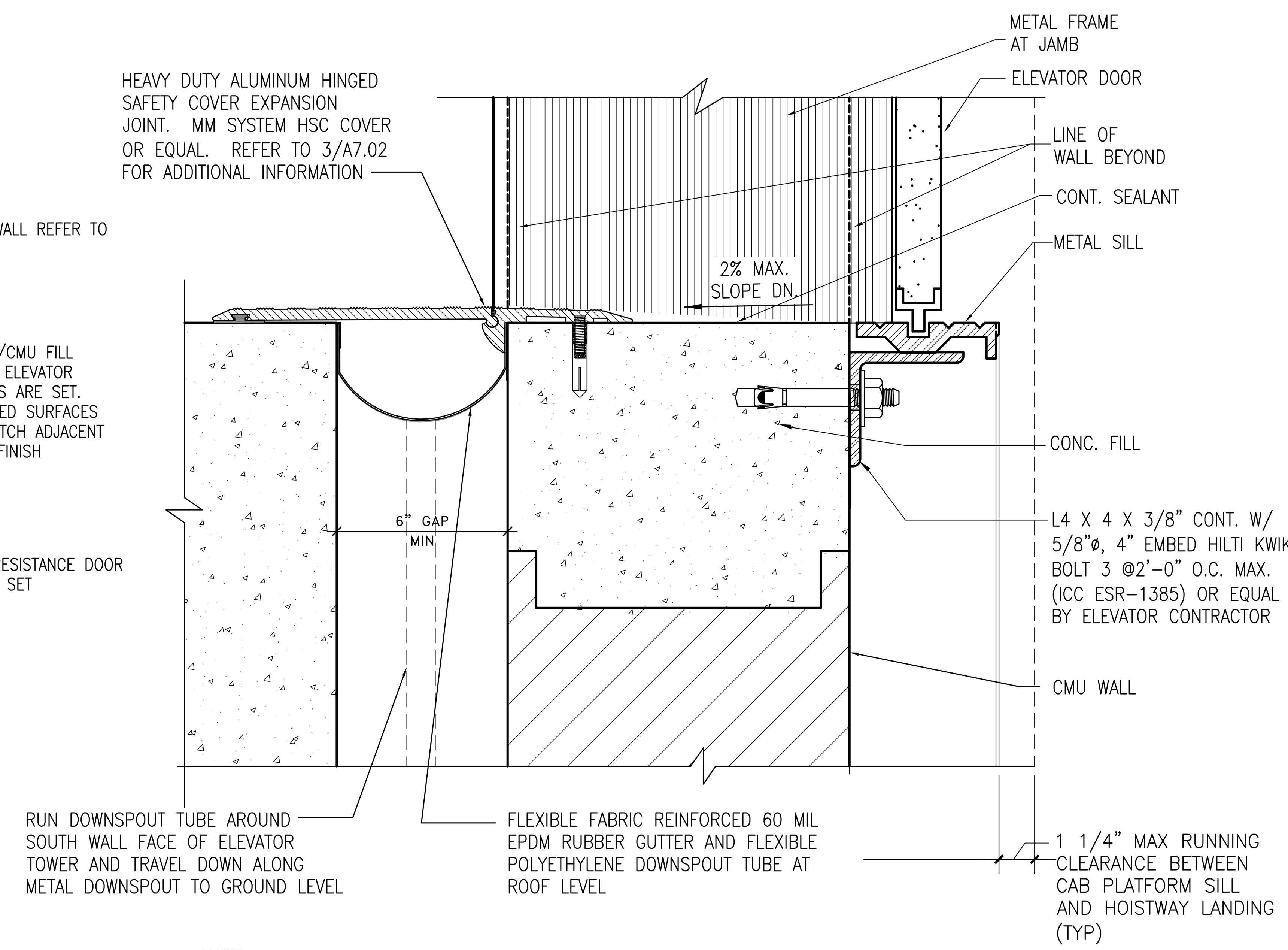
A4.12



NOTE:
1 ½ HR FIRE RESISTANCE DOOR FRAME SET RATING BY ELEVATOR MANUFACTURER WITH A MINIMUM ½" CONCRETE FILL ENCROACHMENT
FOR BRICK SYSTEM & CONNECTIONS REFER TO DETAIL 2/A7.11

ELEVATOR DOOR FRAME (HEAD DETAIL) — 6

SCALE: 3"=1'-0"



NOTE:
1. VERIFY SILL INSTALLATION REQUIREMENTS WITH ELEVATOR INSTALLER

ELEVATOR DOOR FRAME EXP. JOINT AT SILL — 4

SCALE: 3"=1'-0"

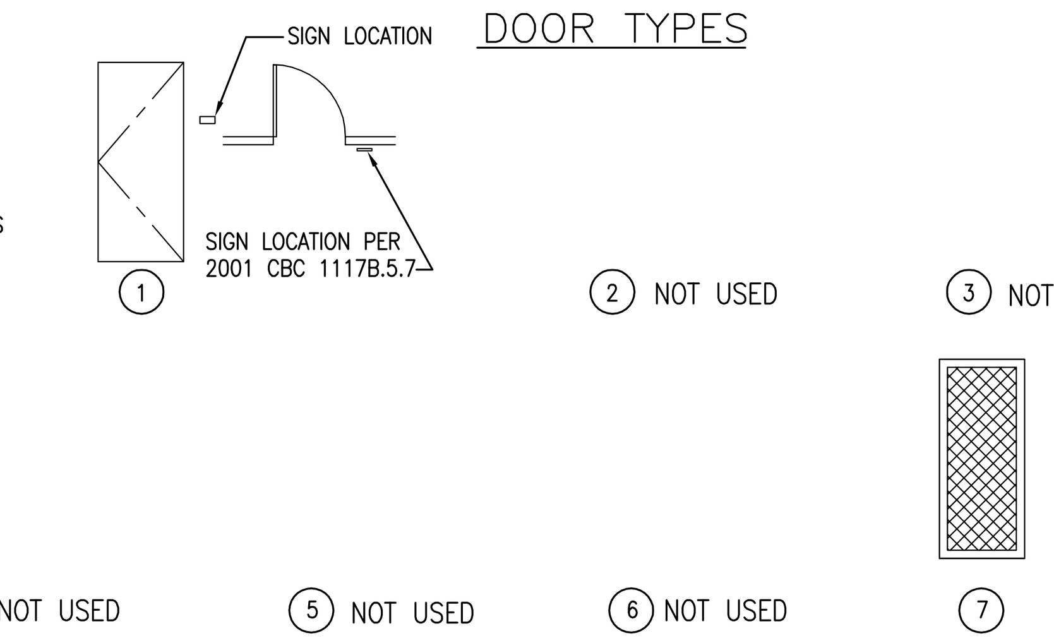
DOOR SCHEDULE

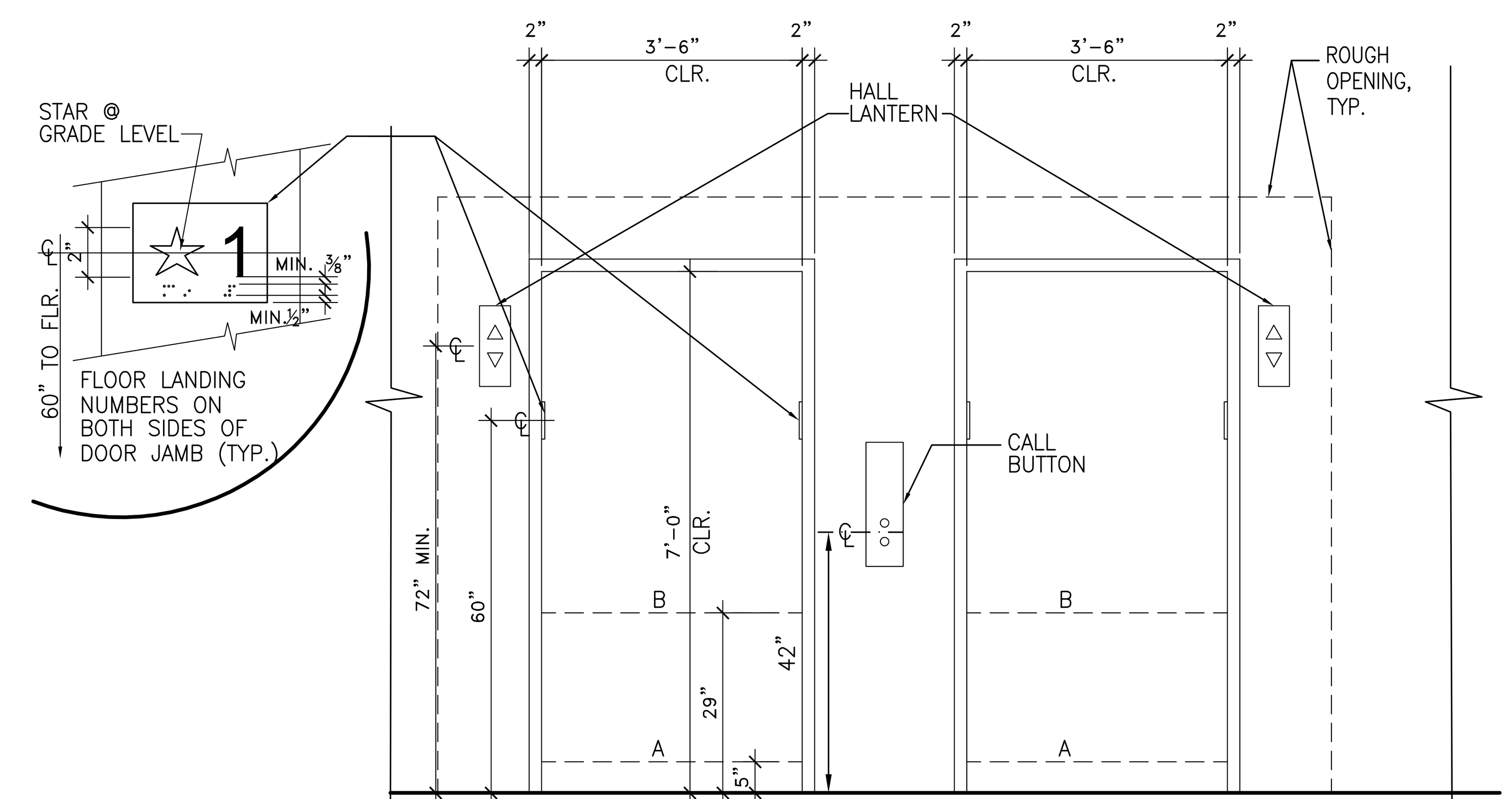
DESIGNATION	LOCATION	DOOR TYPE	DOOR MAT'L	DOOR THK.	FRAME OPN'G DIM. WIDTH	FRAME OPN'G DIM. HEIGHT	MAT'L FRM.	MAT'L TRM.	DETAILS JAMB	DETAILS HEAD	DETAILS MUL.	DETAILS SILL	HARDWARE GROUP *	PANIC HDW.	CLOSER	LABEL (HR)	LOUVER MAT'L	REMARKS
101	STORAGE ROOM	1	HM	1 3/4"	3'-0"	7'-0"	MTL.	–	1	1			01		HD	–	–	
102	ELECTRICAL ROOM	1	HM	1 3/4"	4'-0"	7'-0"	MTL.	–	1	1			02	SEE SPEC'S	HD	–	–	
103	BIKE ROOM	7	CL	–	3'-0"	7'-0"	STL						03			–	–	
104	I.T. ROOM	1	HM	1 3/4"	3'-0"	7'-0"	MTL.	–	1	1			04		HD	–	–	
201	ELEVATOR CONTROL ROOM	1	HM	1 3/4"	3'-0"	7'-0"	MTL.	–	1	1			05		HD	–	–	

LEGEND

AL – ALUMINUM
CL – CHAIN LINK
HM – HOLLOW METAL
MTL – METAL
STL – STEEL
* – SEE SPECIFICATIONS

DOOR TYPES

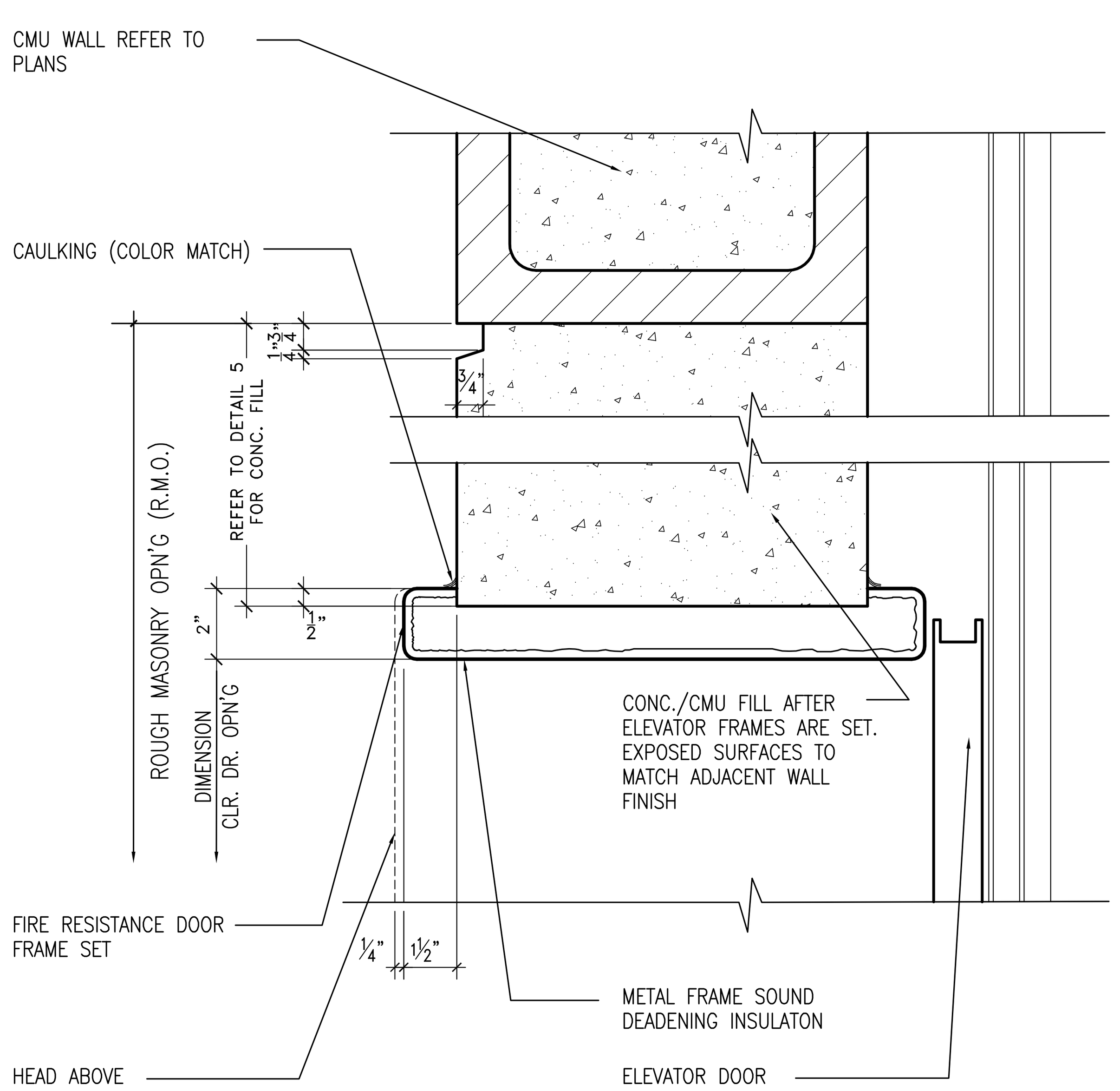




NOTE:
•THE AUTOMATIC DOOR REOPENING DEVICE IS ACTIVATED IF AN OBJECT PASSES THROUGH EITHER LINE "A" OR LINE "B". LINE "A" AND LINE "B" REPRESENT THE VERTICAL LOCATION OF THE MIN. DOOR REOPENING DEVICE NOT REQUIRING CONTACT.
•REFER TO SPECIFICATIONS & OTHER DRAWINGS FOR ADD'L SPECIFIC REQUIREMENTS
•THIS DIAGRAM ILLUSTRATES ONLY MINIMUM ADA AND ACCESSIBLE CODE REQUIREMENTS AND IT IS INTENDED ONLY AS AID FOR BUILDING DESIGN AND CONSTRUCTION. REFER TO SPECIFICATIONS & OTHER DRAWINGS FOR ADDITIONAL SPECIFIC REQUIREMENT.

HOISTWAY AND ELEVATOR ENTRANCE - ELEVATION — 2

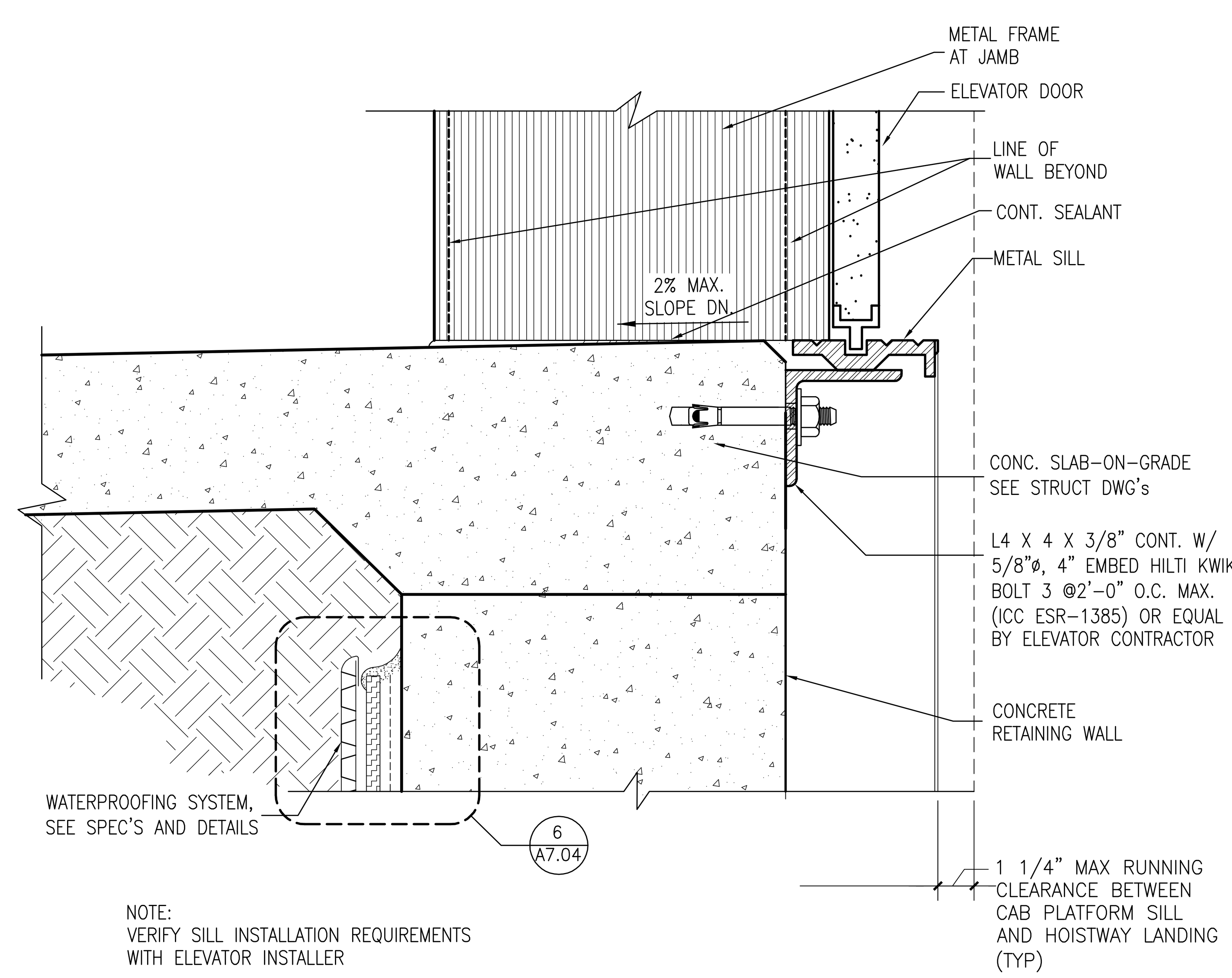
SCALE: 1/2"=1'-0"



NOTE:
1 ½ HR FIRE RESISTANCE DOOR FRAME SET RATING BY ELEVATOR MANUFACTURER WITH A MINIMUM ½" CONCRETE FILL ENCROACHMENT
FOR BRICK SYSTEM & CONNECTIONS REFER TO DETAIL 4/A7.08

ELEVATOR DOOR FRAME (JAMB DETAIL) — 5

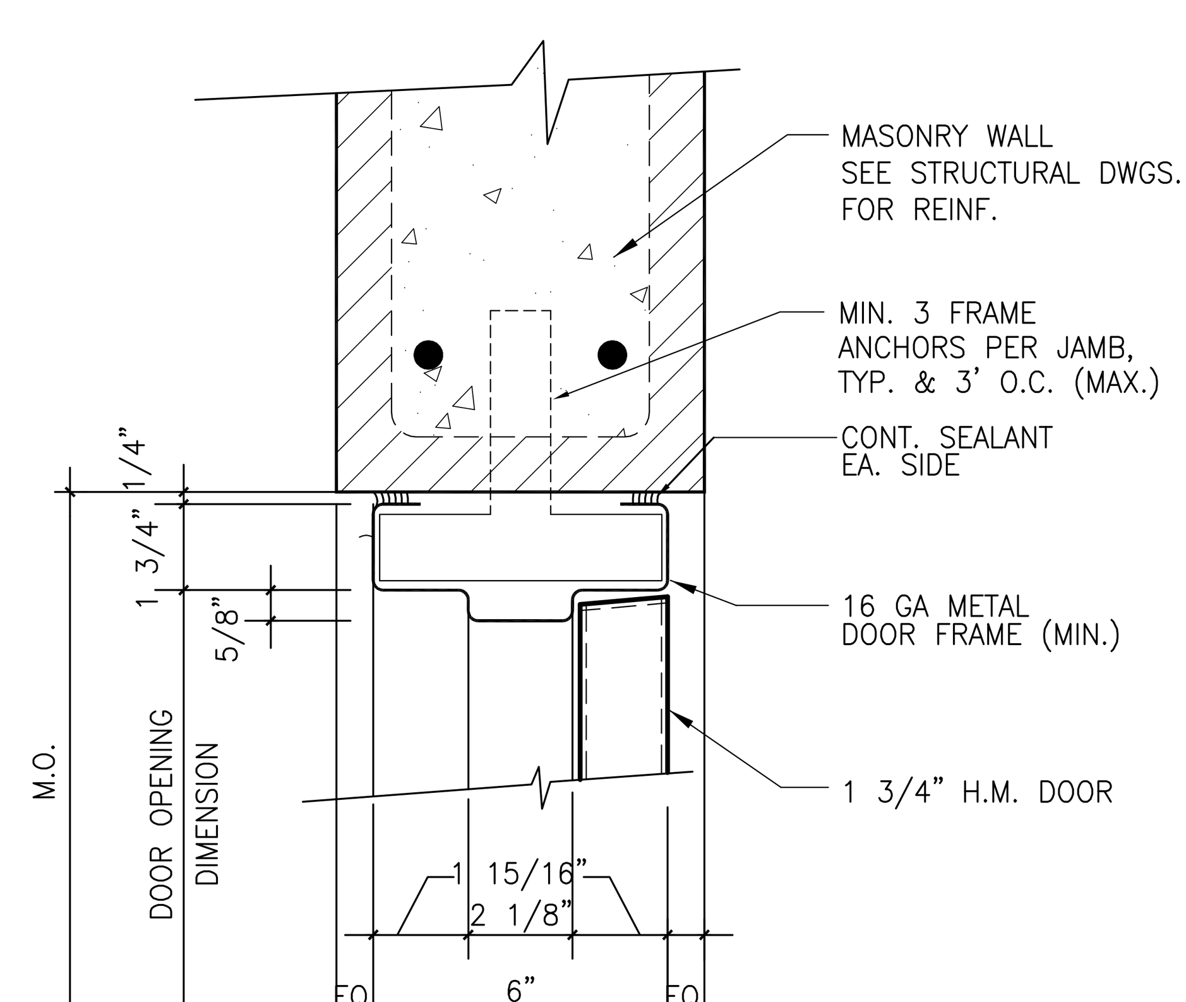
SCALE: 3"=1'-0"



NOTE:
VERIFY SILL INSTALLATION REQUIREMENTS WITH ELEVATOR INSTALLER

ELEVATOR DOOR FRAME (SILL DETAIL) — 3

SCALE: 3"=1'-0"



DOOR JAMB DETAIL (HEAD SIM.) — 1

SCALE: 3" = 1'-0"

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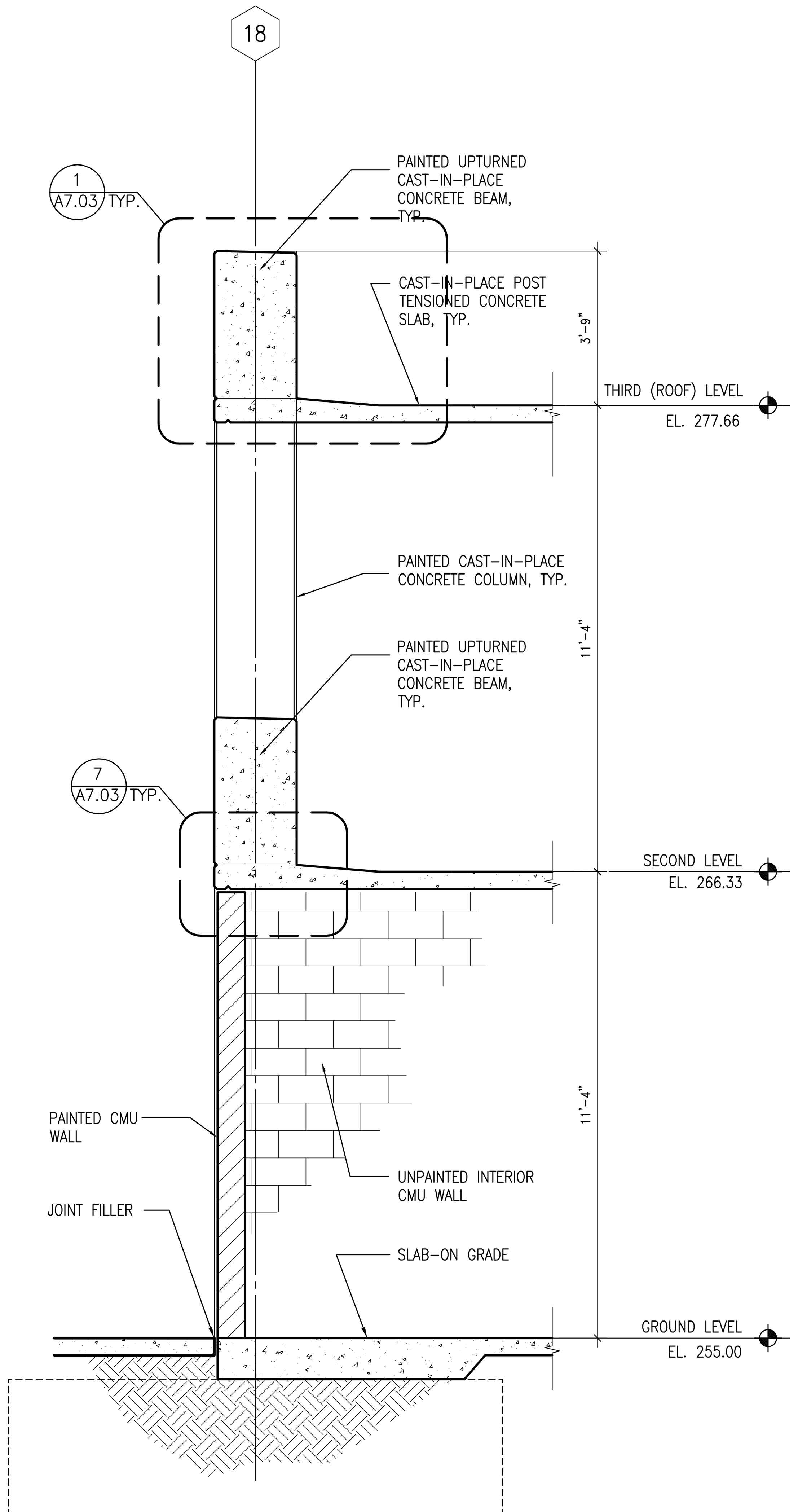
Project Title
TCMC PARKING STRUCTURE AND MAIN ENTRY

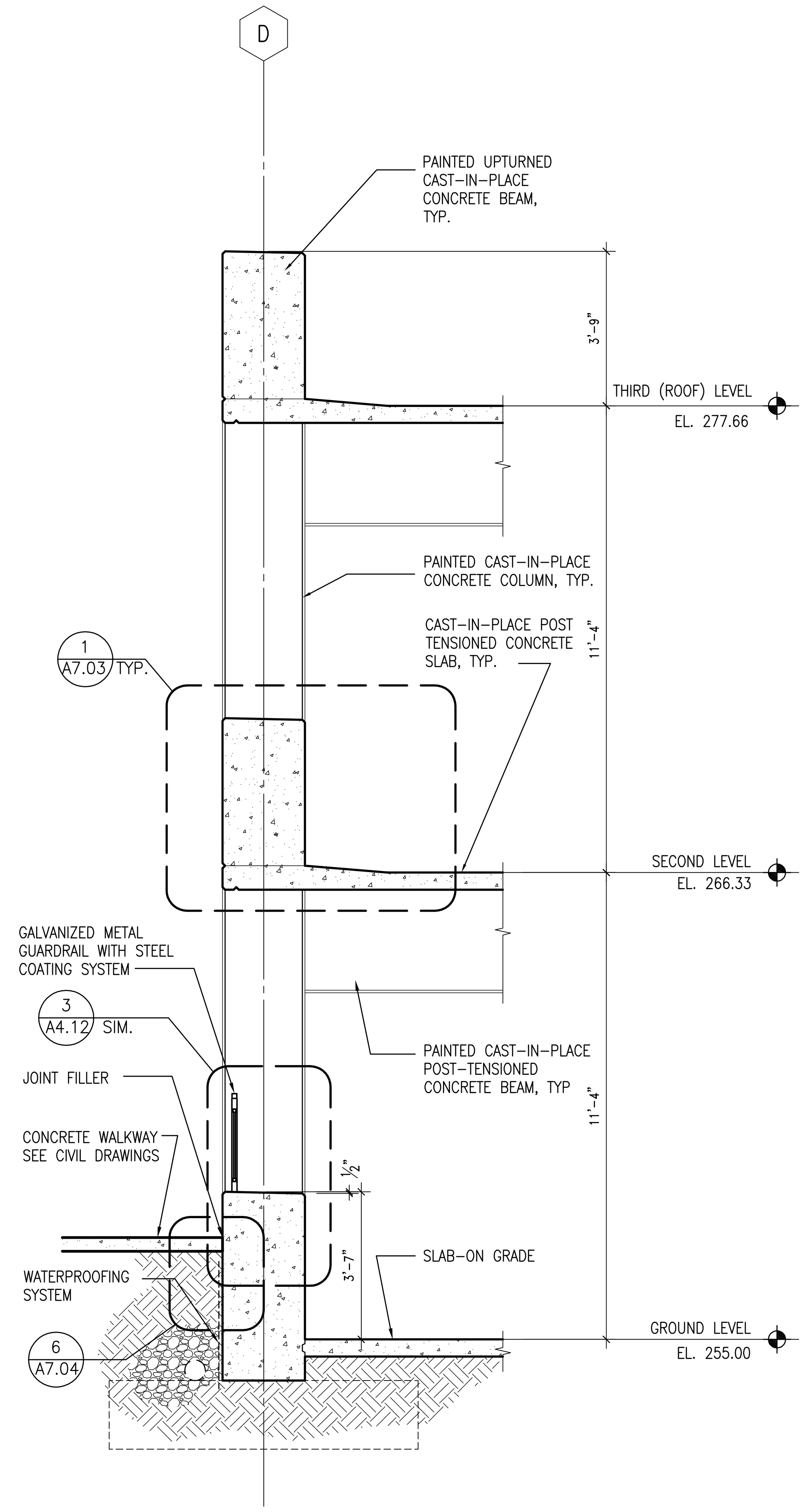
Sheet Title
DOOR SCHEDULE AND DETAILS

Sheet Number
A5.01



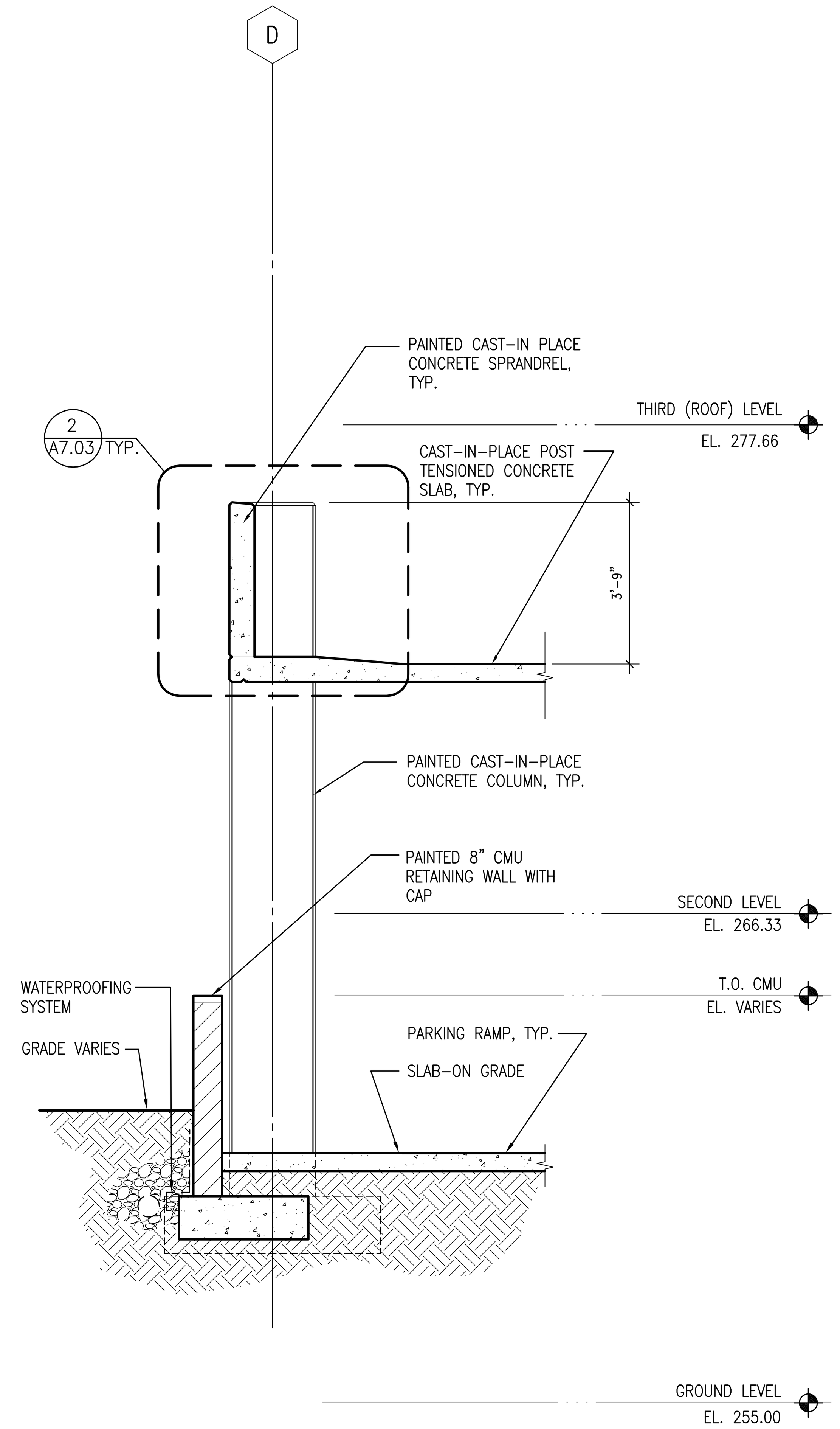
WALL SECTION (EAST SIDE BETWEEN GRIDLINES C & D) 4

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



WALL SECTION (NORTH SIDE BETWEEN GRIDLINES 15 & 16) 3

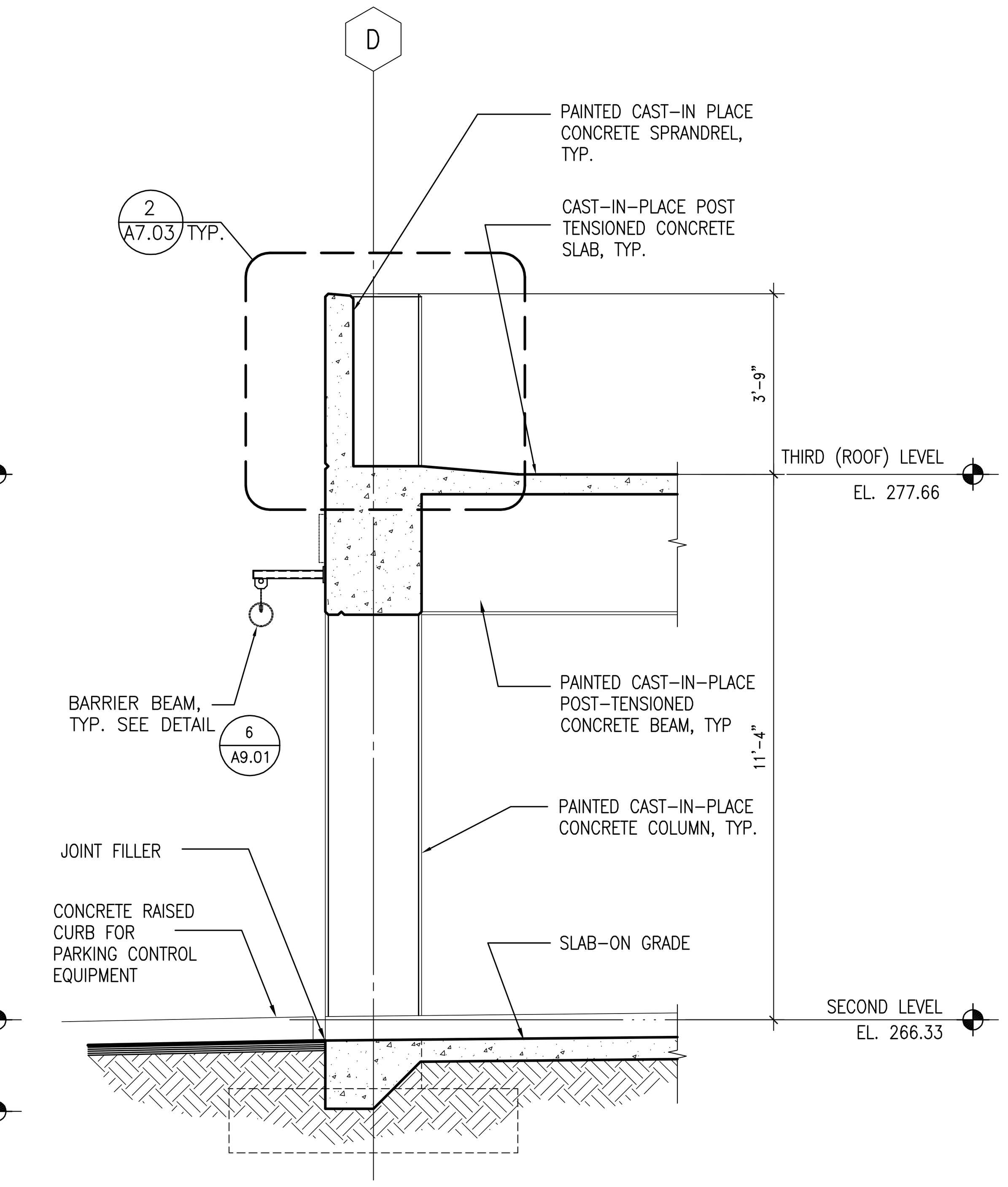
SCALE: 3/8"= 1'-0"



NOTE:
RETAINING WALL FOLLOWS SLOPE OF GRADE

WALL SECTION (NORTH SIDE BETWEEN GRIDLINES 9 & 10) 2

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



WALL SECTION (NORTH SIDE BETWEEN GRIDLINES 2 & 3) 1

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

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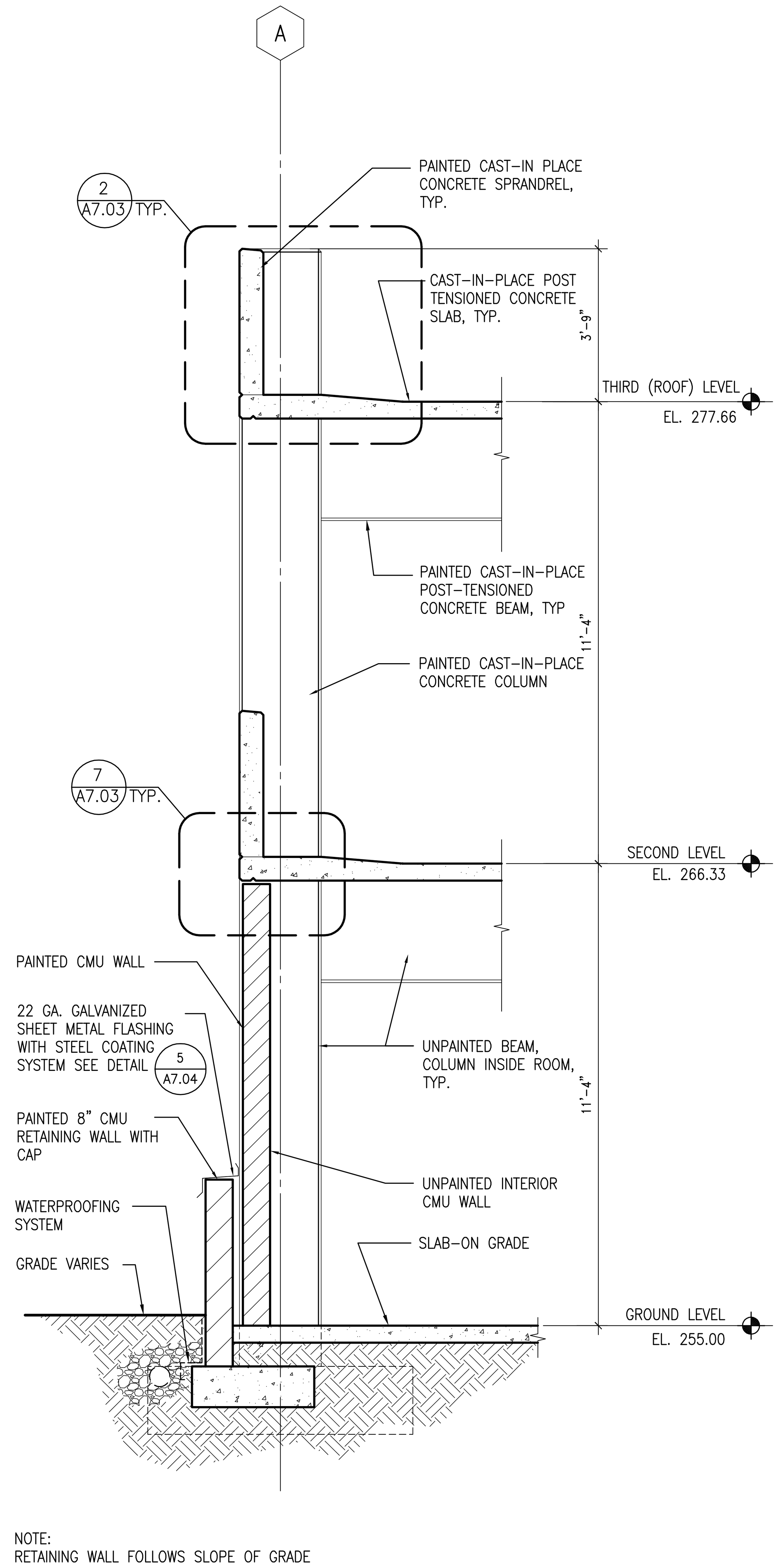
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

WALL SECTIONS

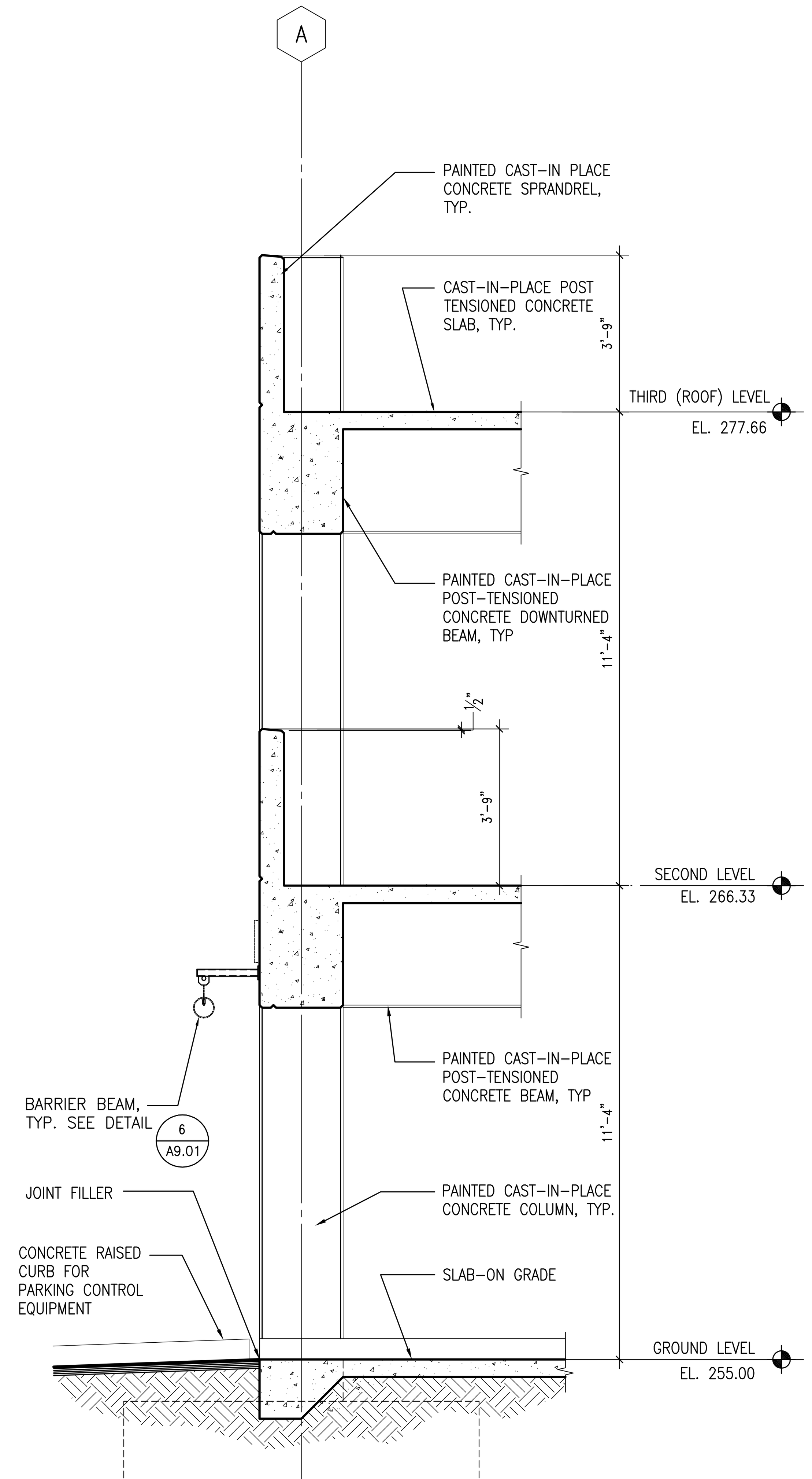
Sheet Number

A6.01



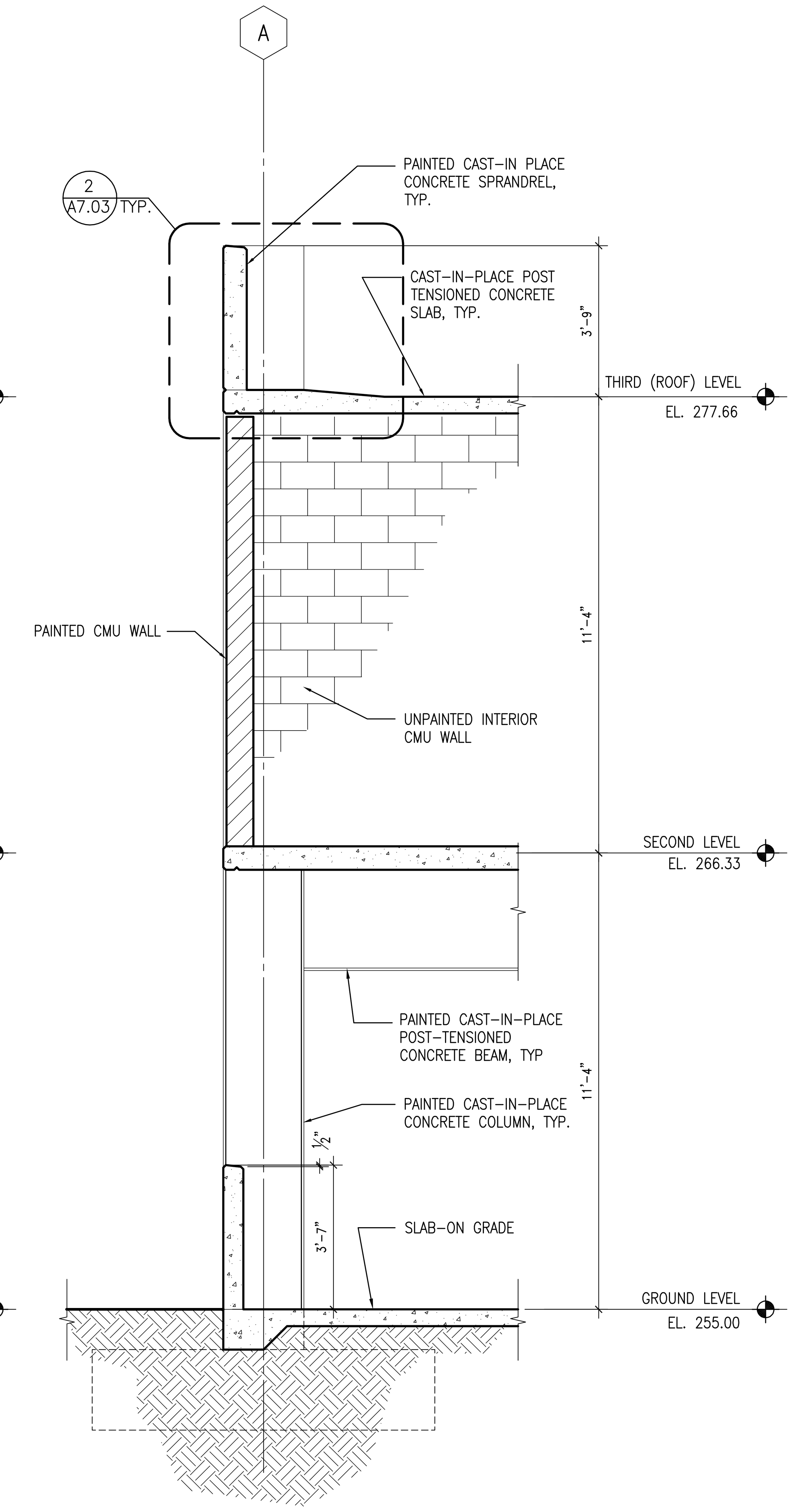
WALL SECTION (SOUTH SIDE BETWEEN GRIDLINES 13 & 14 — 4

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



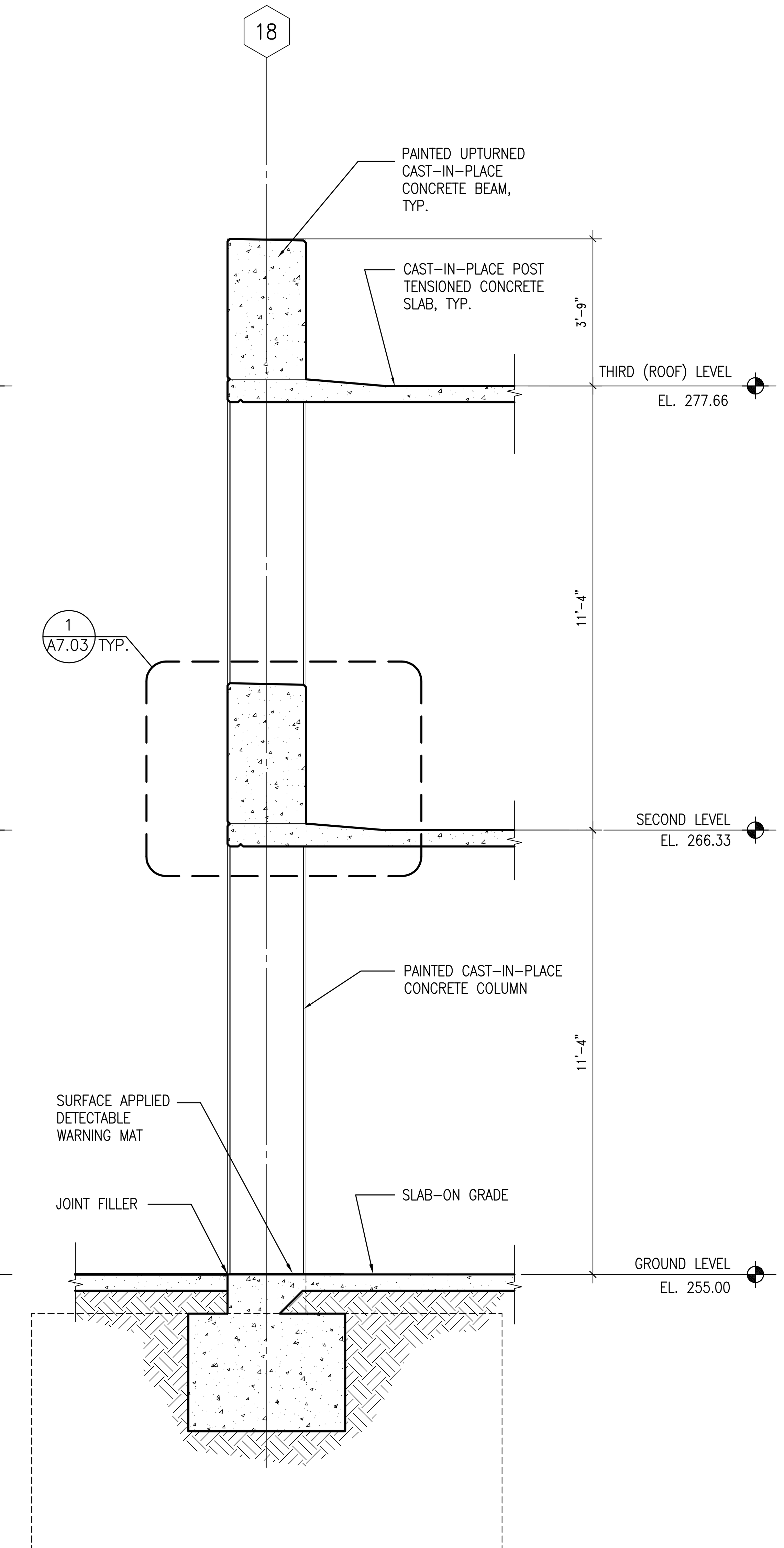
WALL SECTION (SOUTH SIDE BETWEEN GRIDLINES 16 & 17 — 3

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



WALL SECTION (SOUTH SIDE BETWEEN GRIDLINES 17 & 18 — 2

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



WALL SECTION (EAST SIDE BETWEEN GRIDLINES C & B — 1

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

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Comm. No.:	-

Project Title

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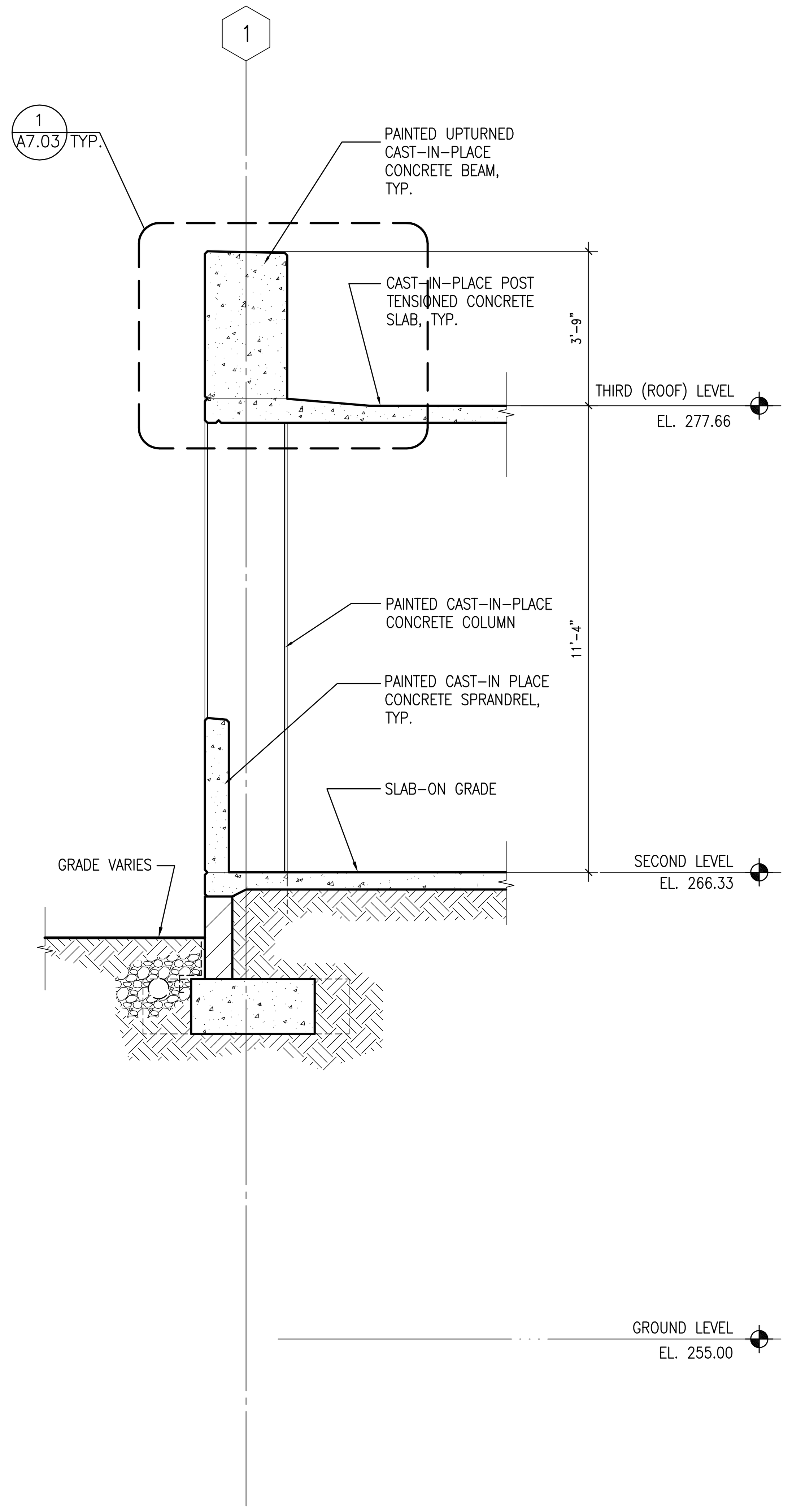
Sheet Title

WALL SECTIONS

Sheet Number

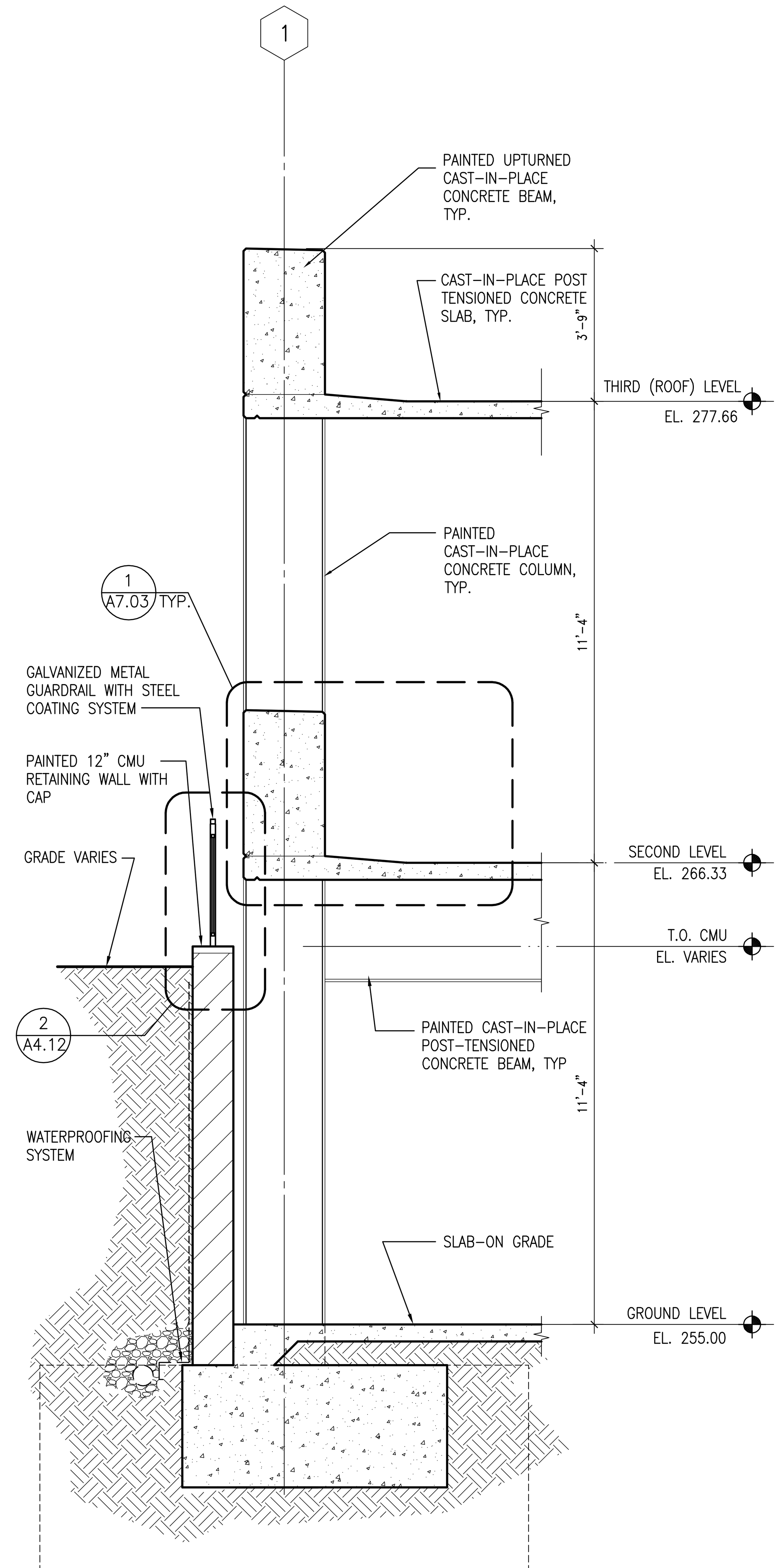
A6.02



WALL SECTION (WEST SIDE BETWEEN GRIDLINES C & D

4

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

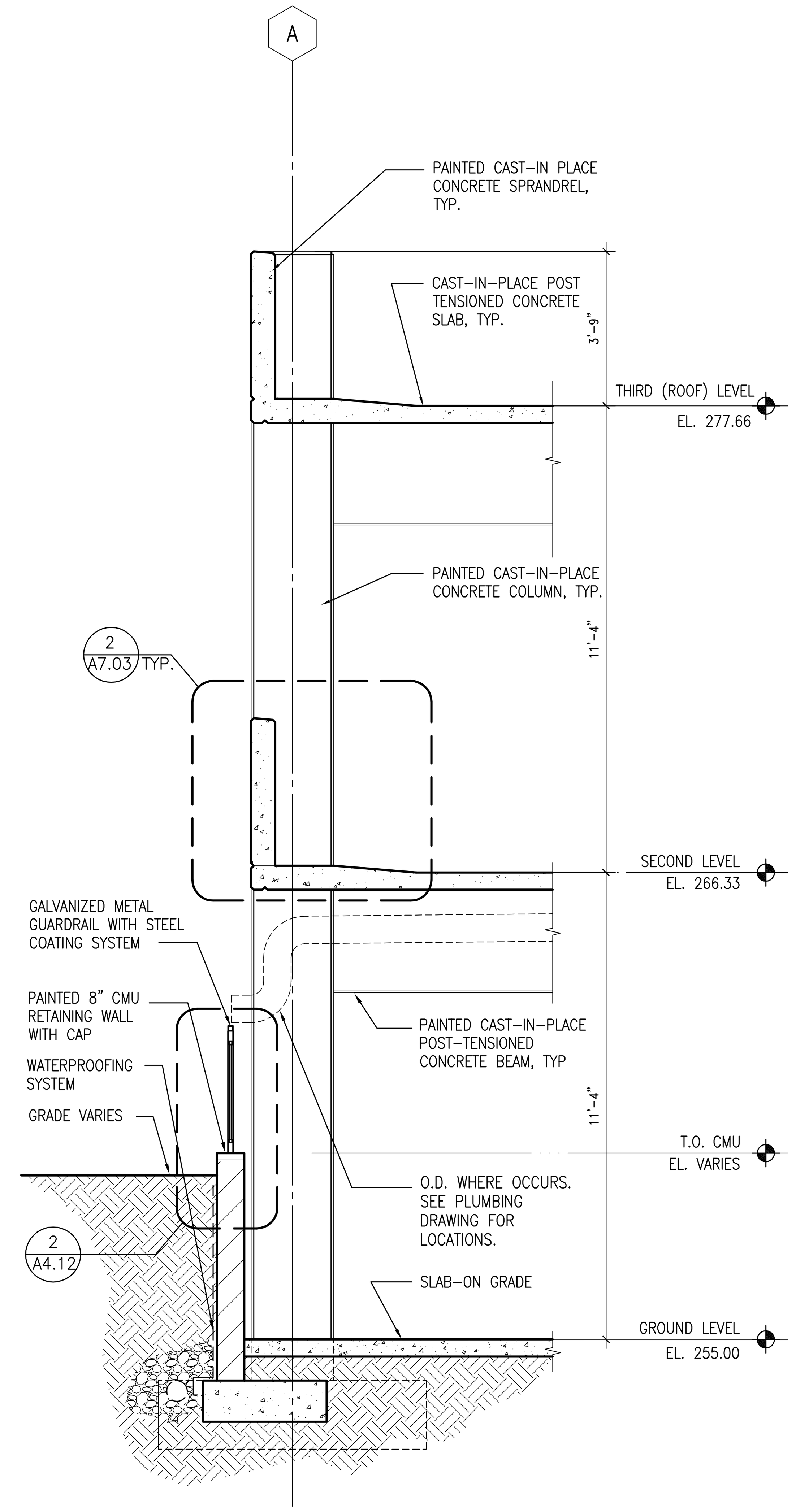


NOTE:
RETAINING WALL FOLLOWS SLOPE OF GRADE

WALL SECTION (WEST SIDE BETWEEN GRIDLINES C & B

3

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

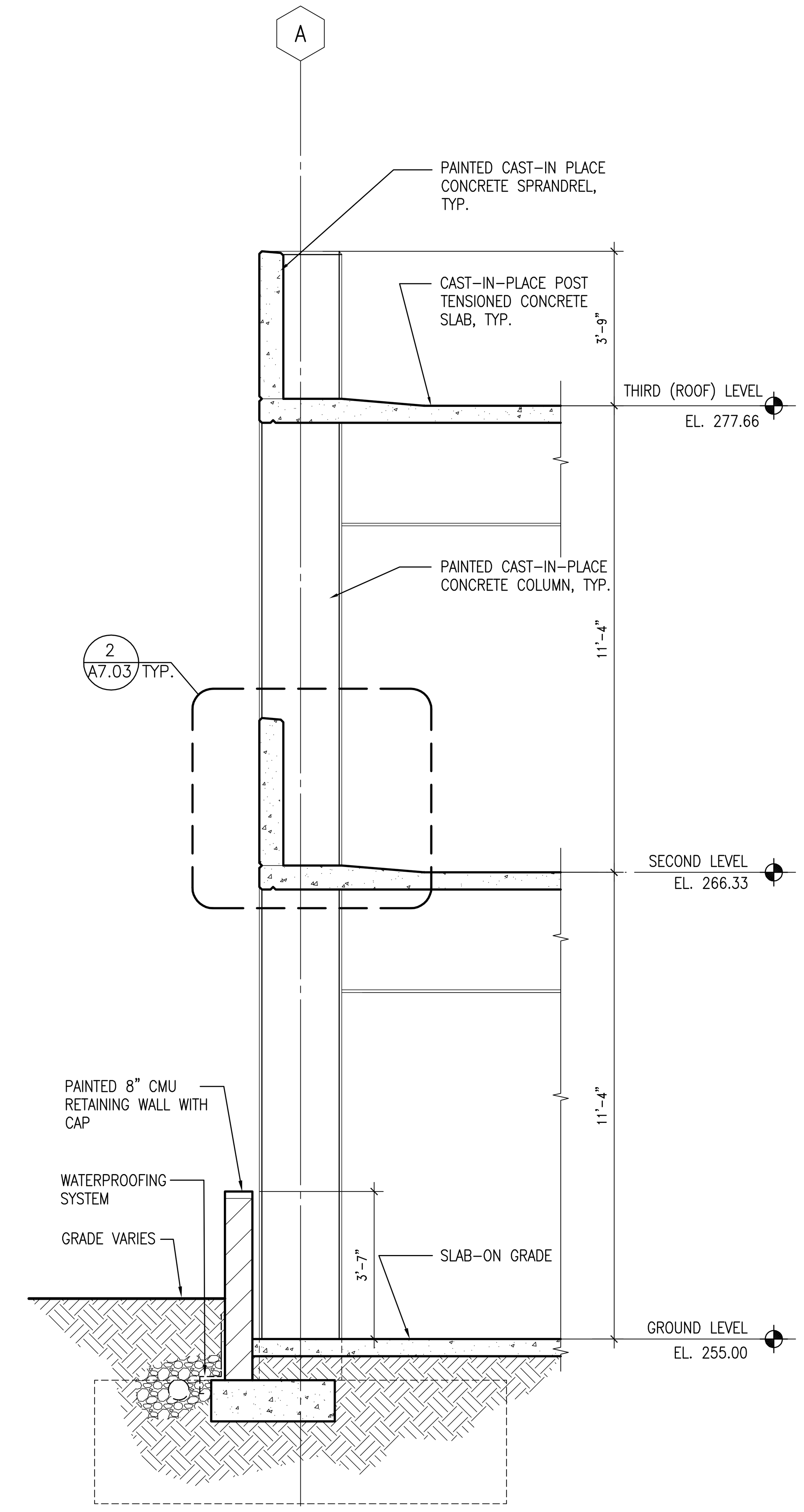


NOTE:
RETAINING WALL FOLLOWS SLOPE OF GRADE

WALL SECTION (SOUTH SIDE BETWEEN GRIDLINES 4 & 5

2

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



WALL SECTION (SOUTH SIDE BETWEEN GRIDLINES 11 & 12

1

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

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No.	Date	Description

LICENSED ARCHITECT
SHAHIN AZMOUDEH
No. C-32674
10-07-19
RENEWAL DATE
STATE OF CALIFORNIA

Document Phase:	Backcheck #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	VC
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Comm. No.:	-

Project Title

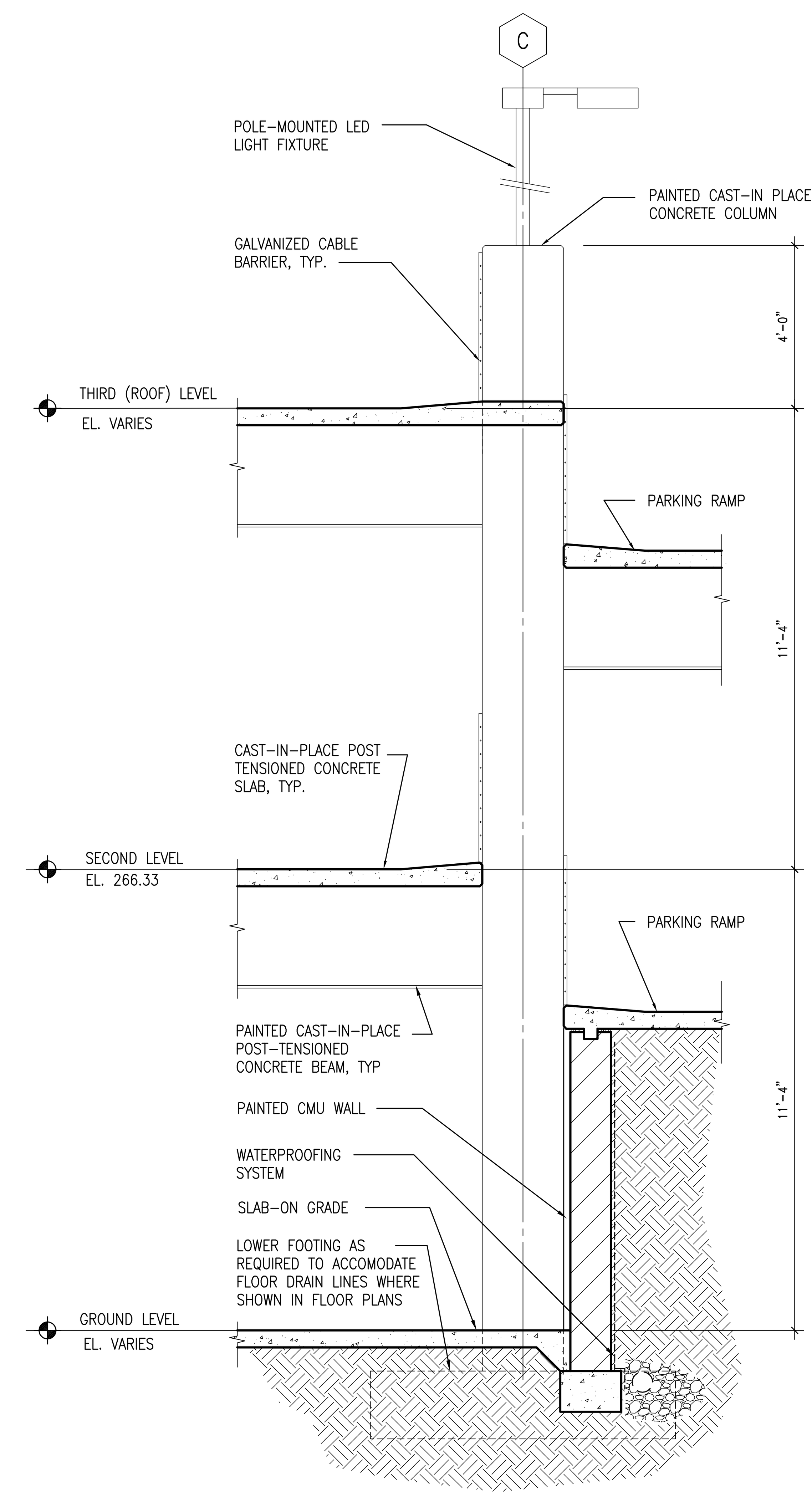
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

WALL SECTIONS

Sheet Number

A6.03



WALL SECTION - RAMP SPLIT (1)

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

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Drawn By:	VC
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Project Title

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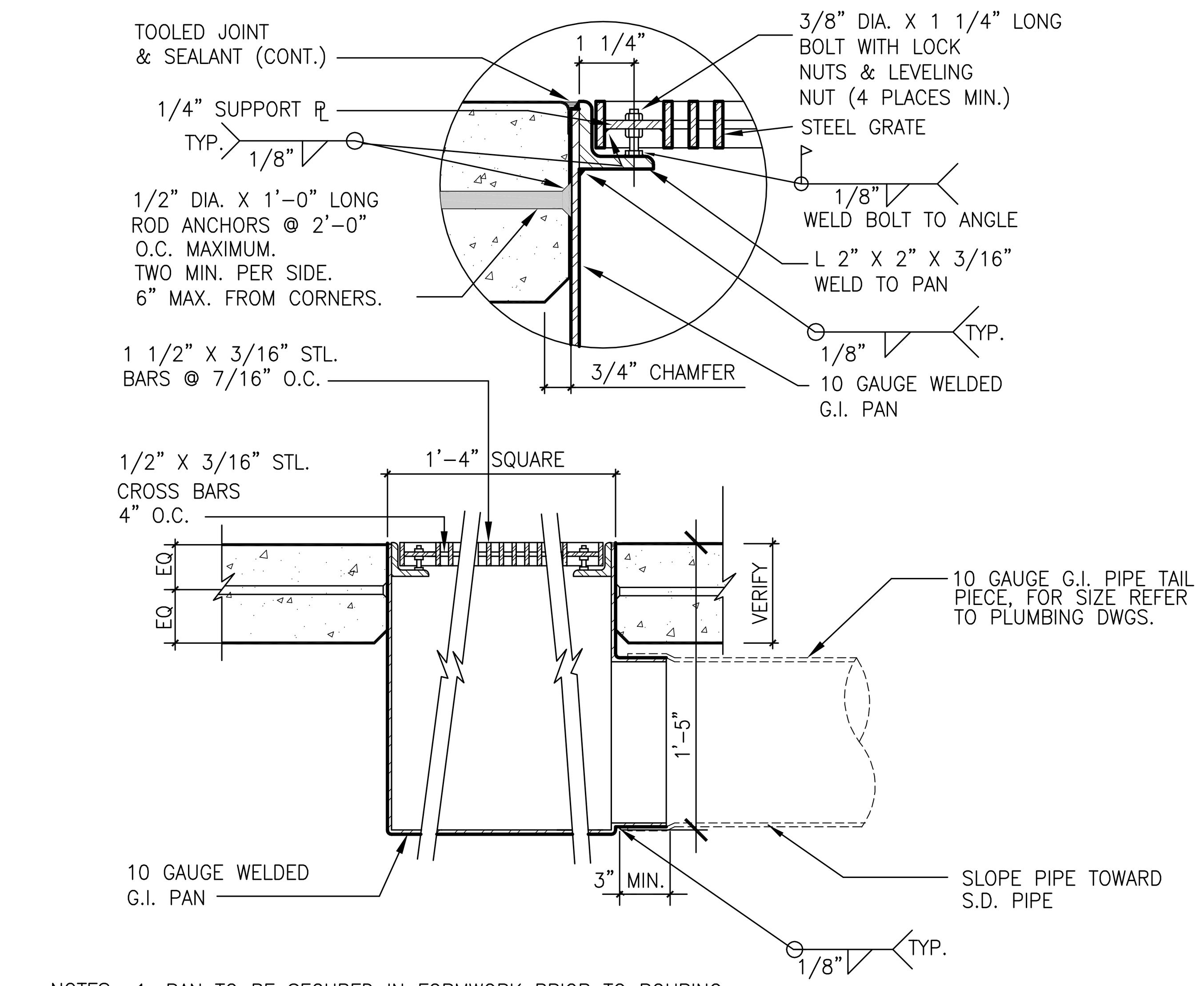
Sheet Title

WALL SECTIONS

Sheet Number

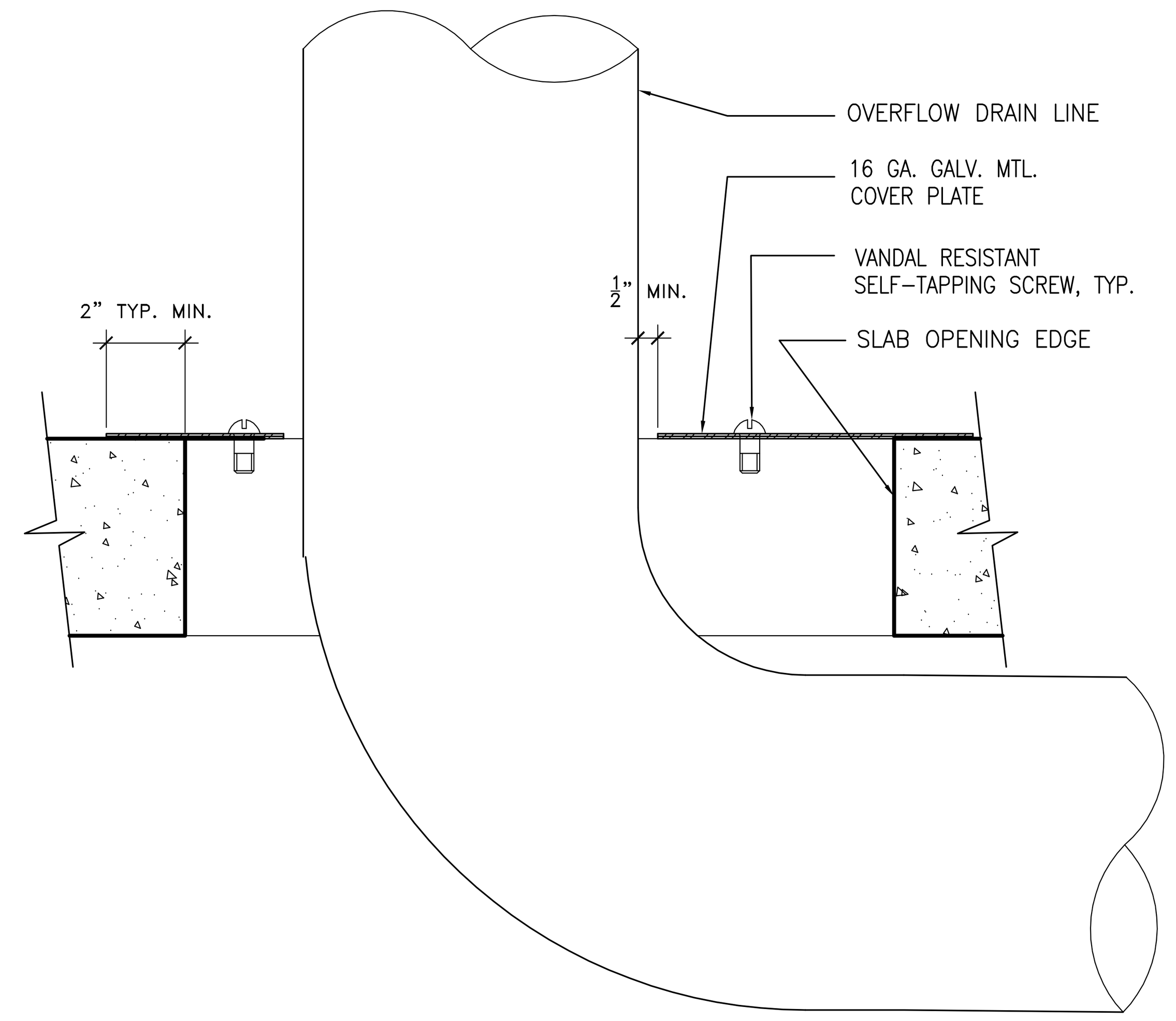
A6.04



NOTES:
1. PAN TO BE SECURED IN FORMWORK PRIOR TO POURING.
2. GALVANIZE AFTER FABRICATION.
3. BERM TO DIVERT WATER TO DRAIN WHERE INDICATED OR REQUIRED.
4. GRATING PAN SIZE: 1'-4" X 1'-4" UNLESS OTHERWISE NOTED. (SEE PLANS FOR SIZE AND LOCATION).
5. CO-ORDINATE WITH PLUMBING DWGS. PRIOR TO FABRICATION.
6. REFER TO ROOF LEVEL (A2.04) FOR PLAN VIEW LOCATIONS

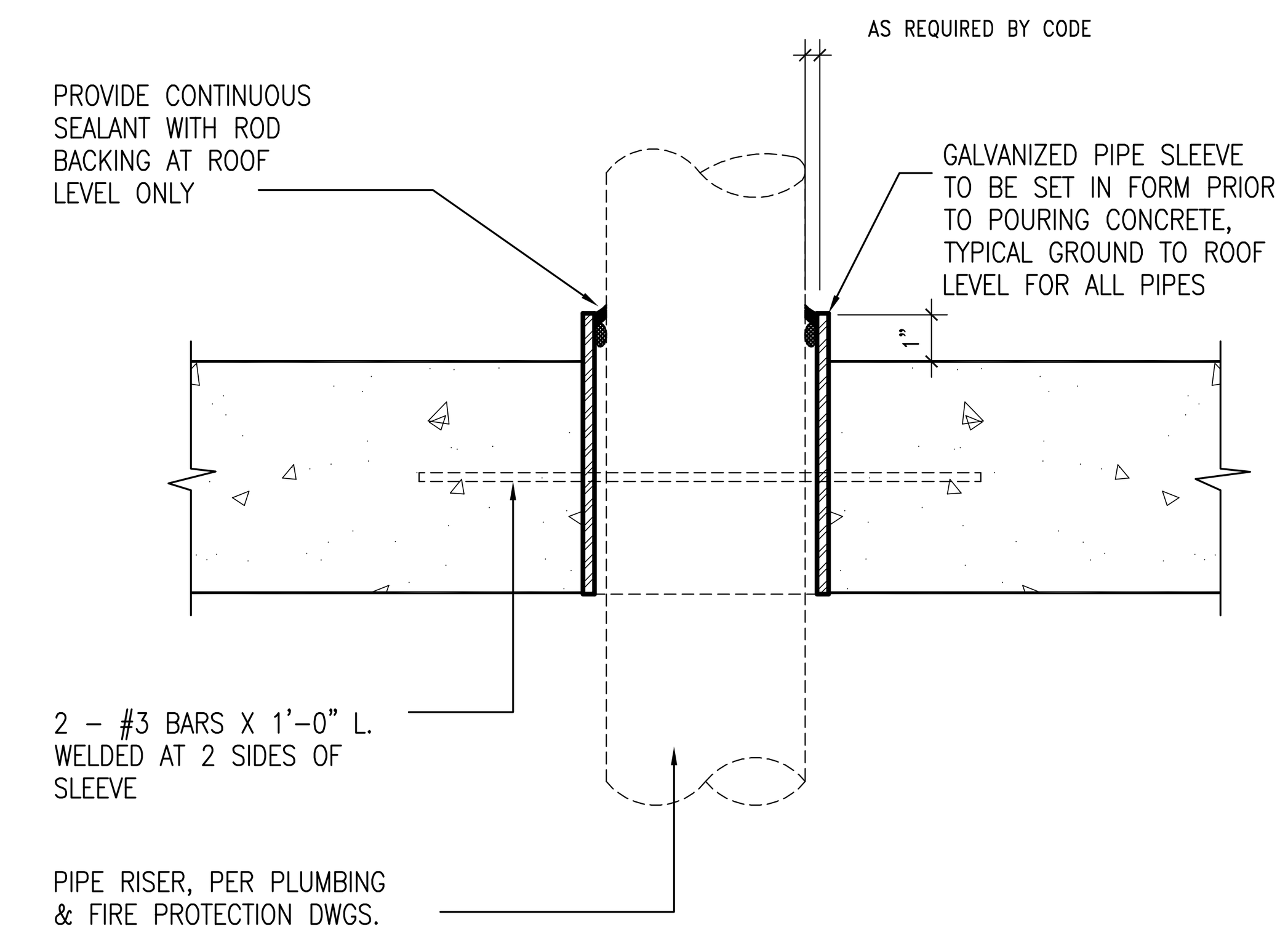
ROOF AND OVERFLOW DRAIN (8)

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



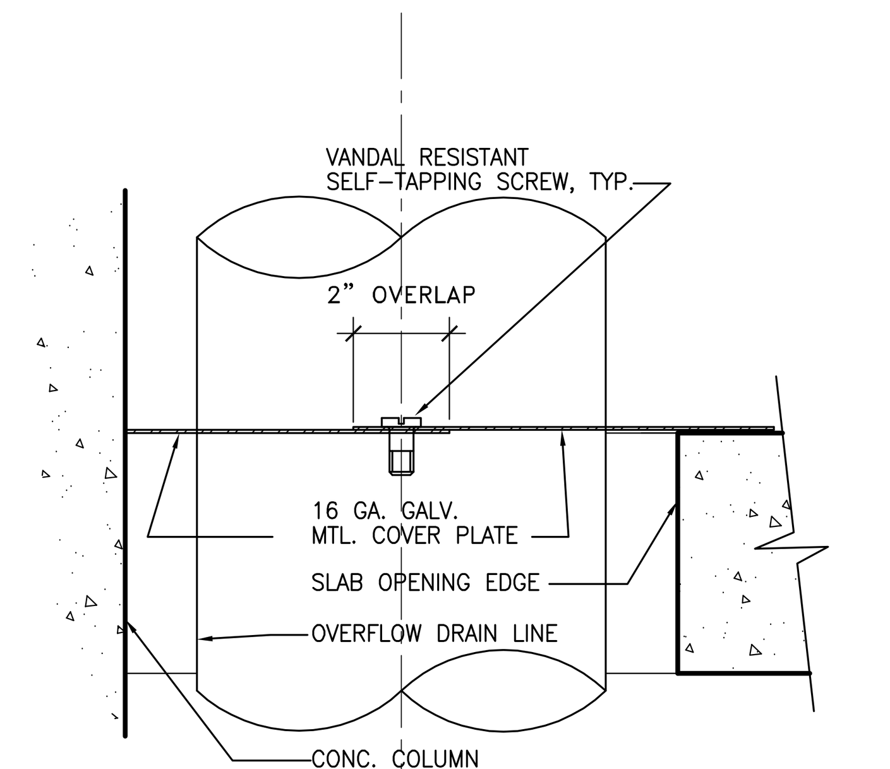
METAL COVER PLATE (6)

SCALE: 3" = 1'-0"



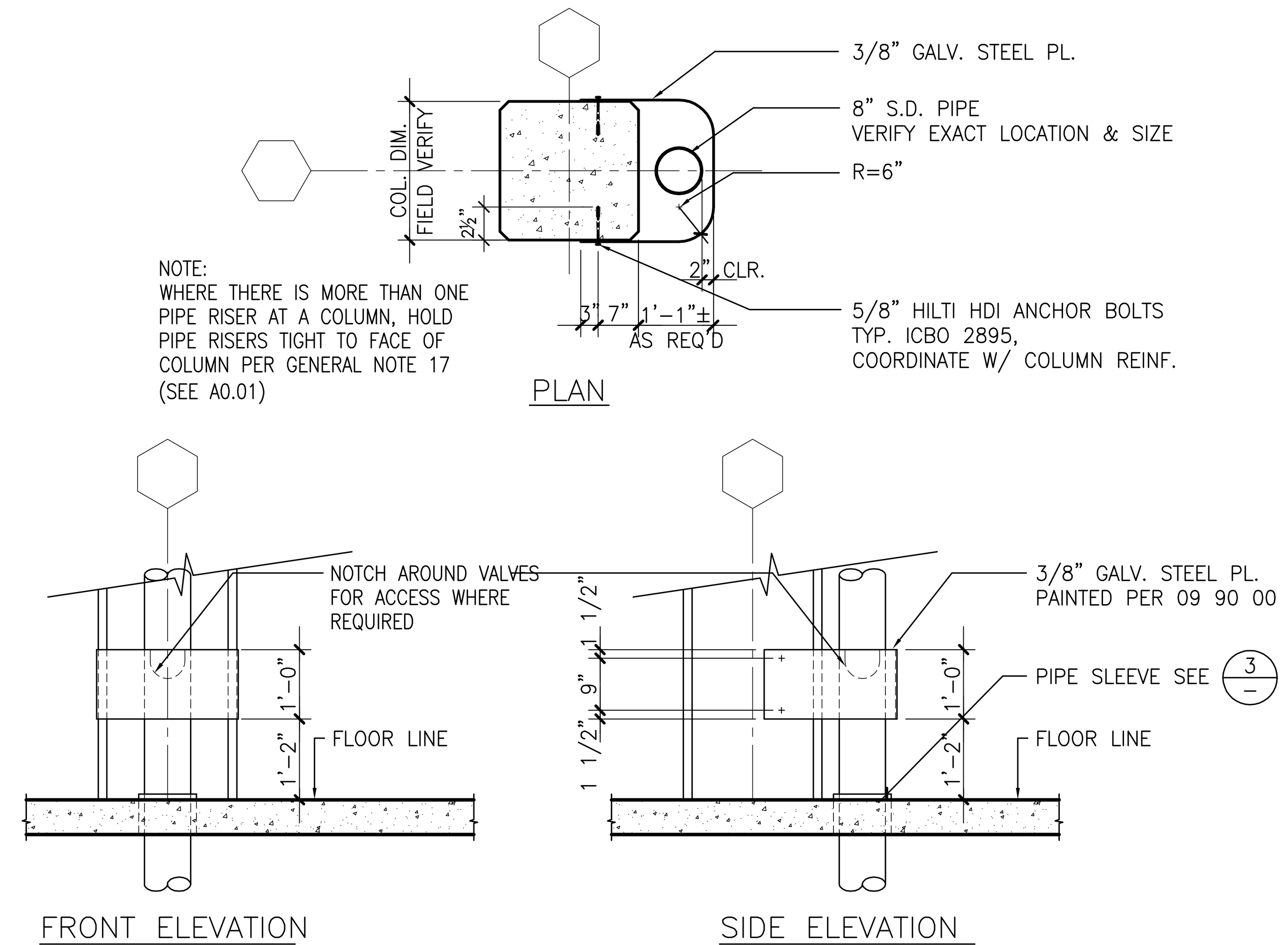
PIPE SLEEVE DETAIL (3)

SCALE: 3" = 1'-0"



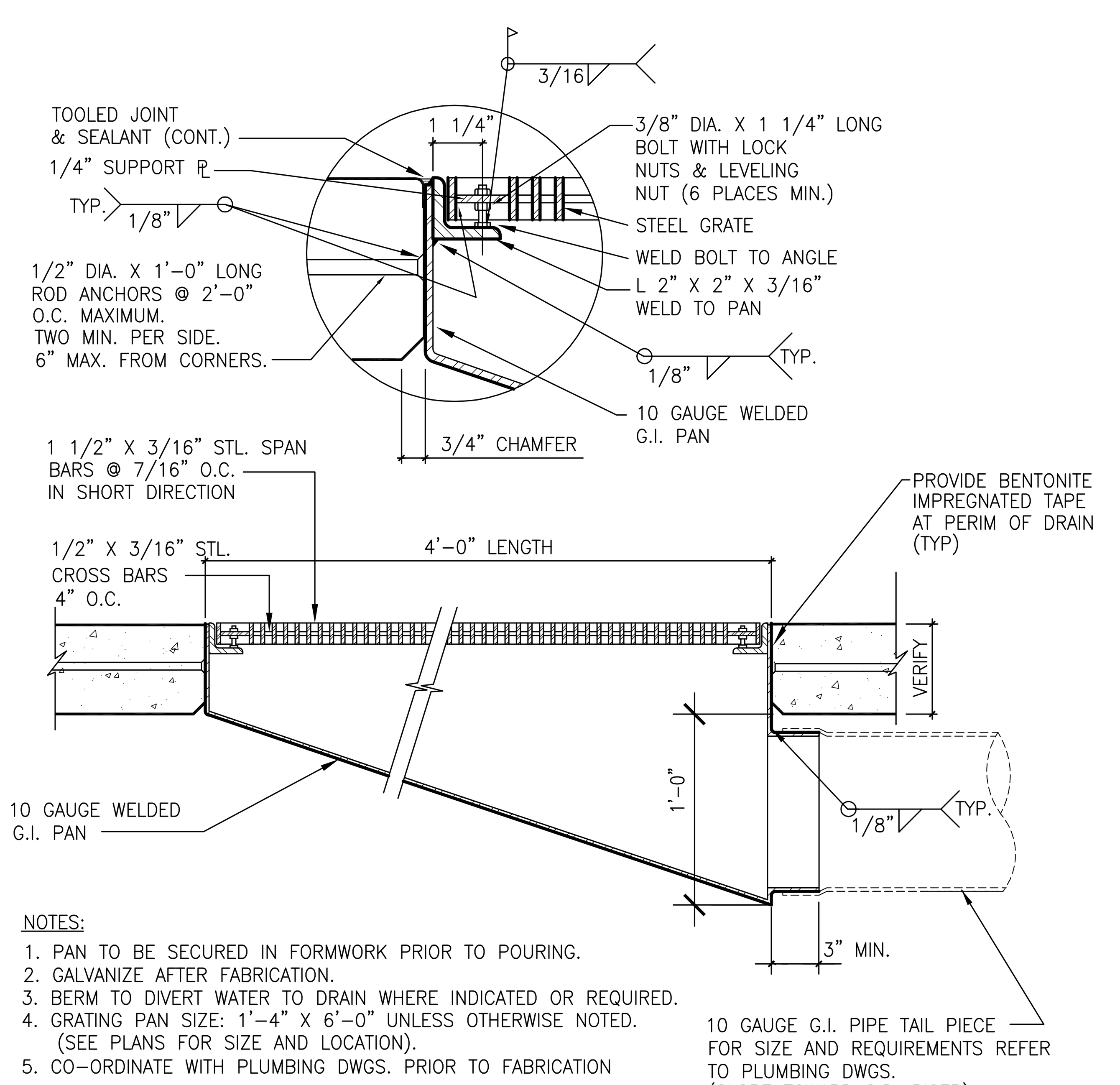
METAL COVER PLATE (5)

SCALE: 3" = 1'-0"



PIPE GUARD DETAIL (2)

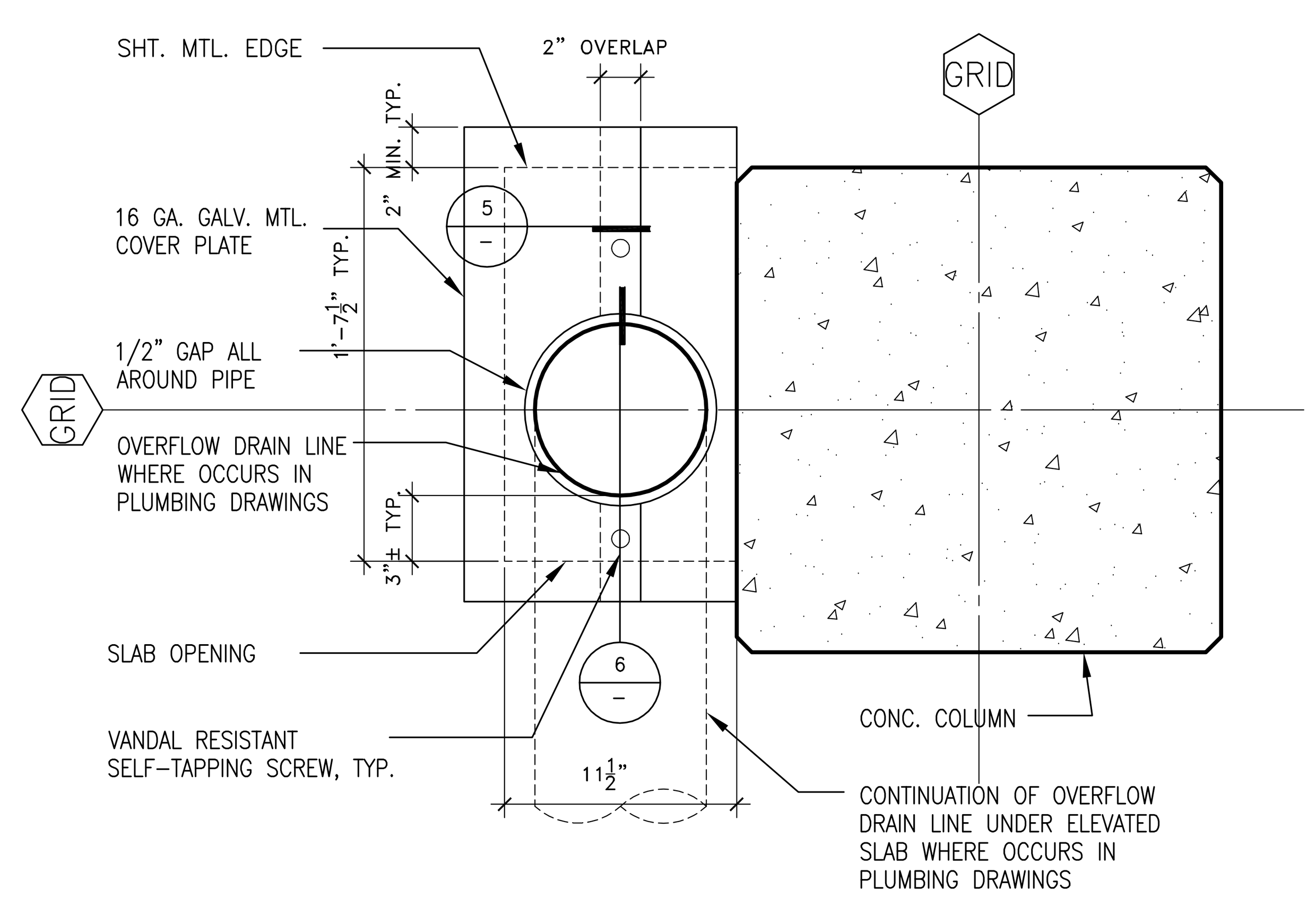
SCALE: 1/2" = 1'-0"



NOTES:
1. PAN TO BE SECURED IN FORMWORK PRIOR TO POURING.
2. GALVANIZE AFTER FABRICATION.
3. BERM TO DIVERT WATER TO DRAIN WHERE INDICATED OR REQUIRED.
4. GRATING PAN SIZE: 1'-4" X 6'-0" UNLESS OTHERWISE NOTED. (SEE PLANS FOR SIZE AND LOCATION).
5. CO-ORDINATE WITH PLUMBING DWGS. PRIOR TO FABRICATION

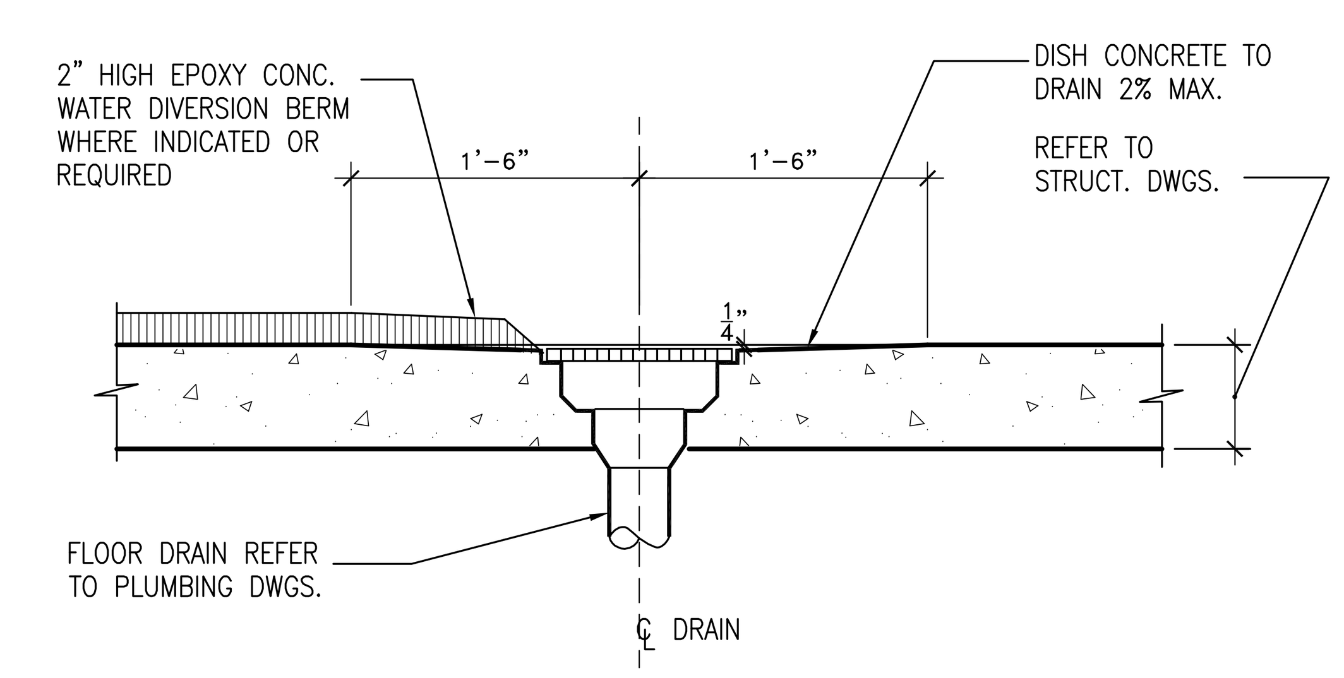
INTERIOR TRENCH DRAIN AT ELEVATED SLAB DETAIL (7)

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



METAL COVER PLATE (4)

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



AREA DRAIN DETAIL (1)

SCALE: 1" = 1'-0"

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Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

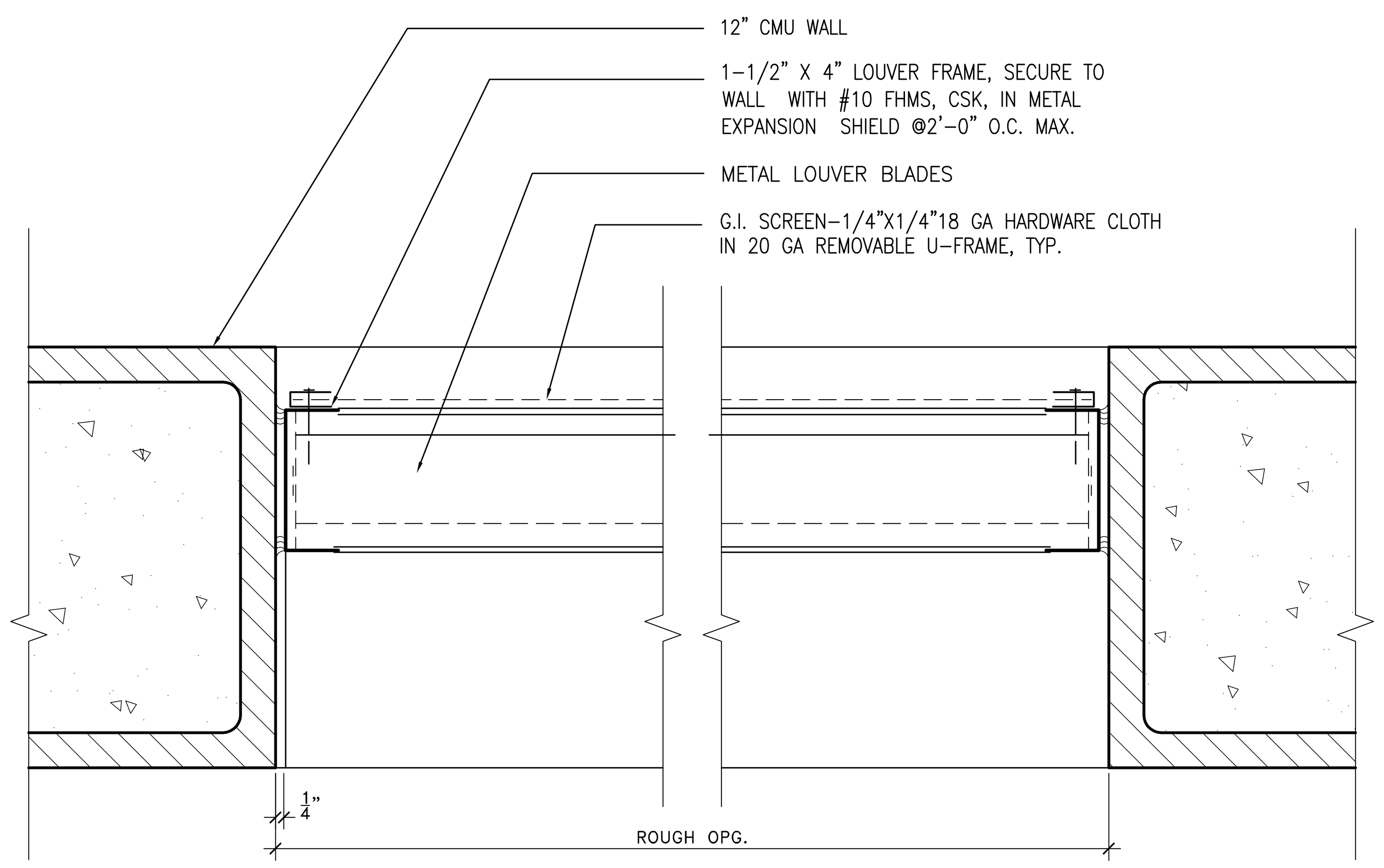
Sheet Title

TYPICAL DETAILS

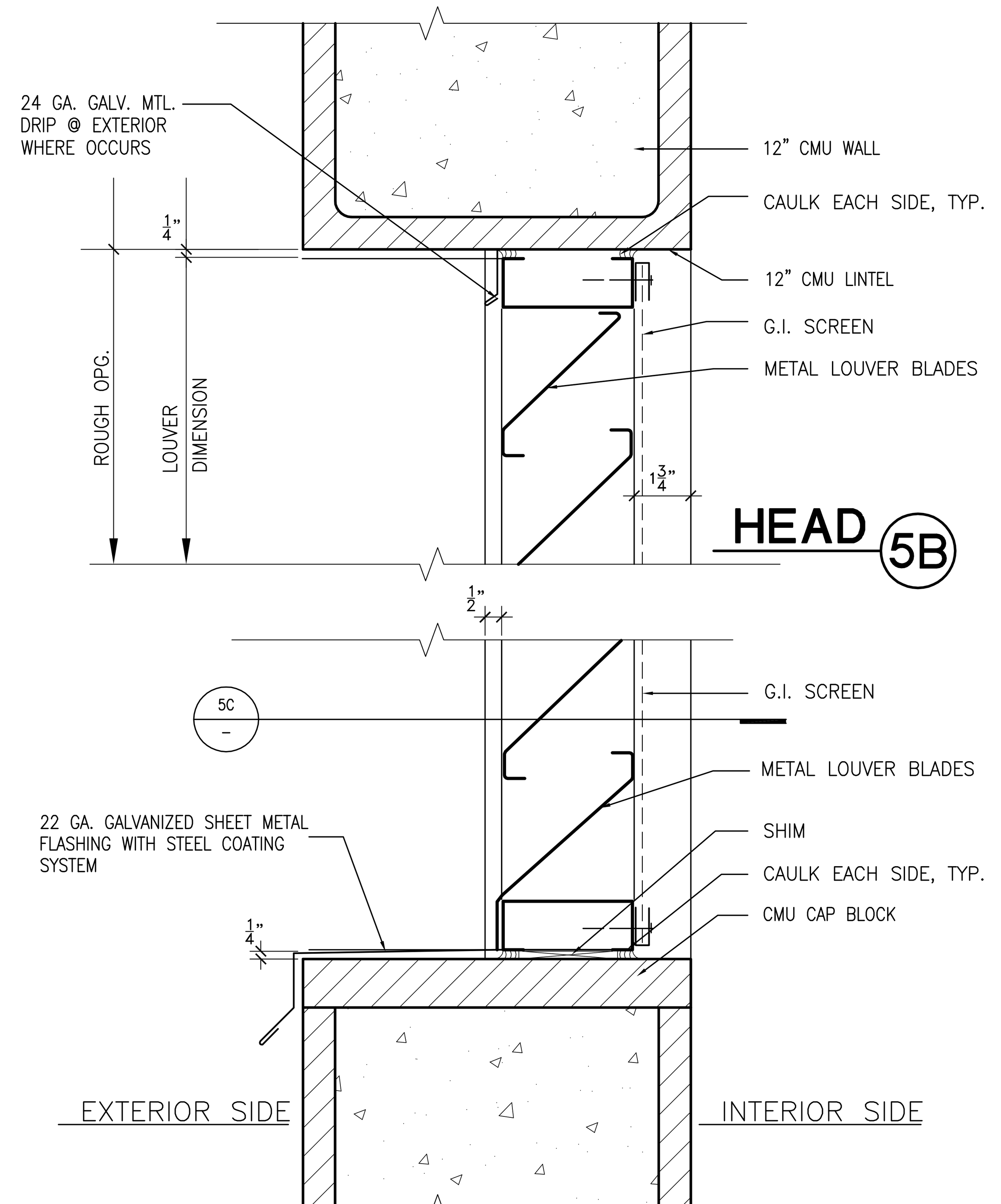
Sheet Number

A7.01

2018.05.29 BIDSET

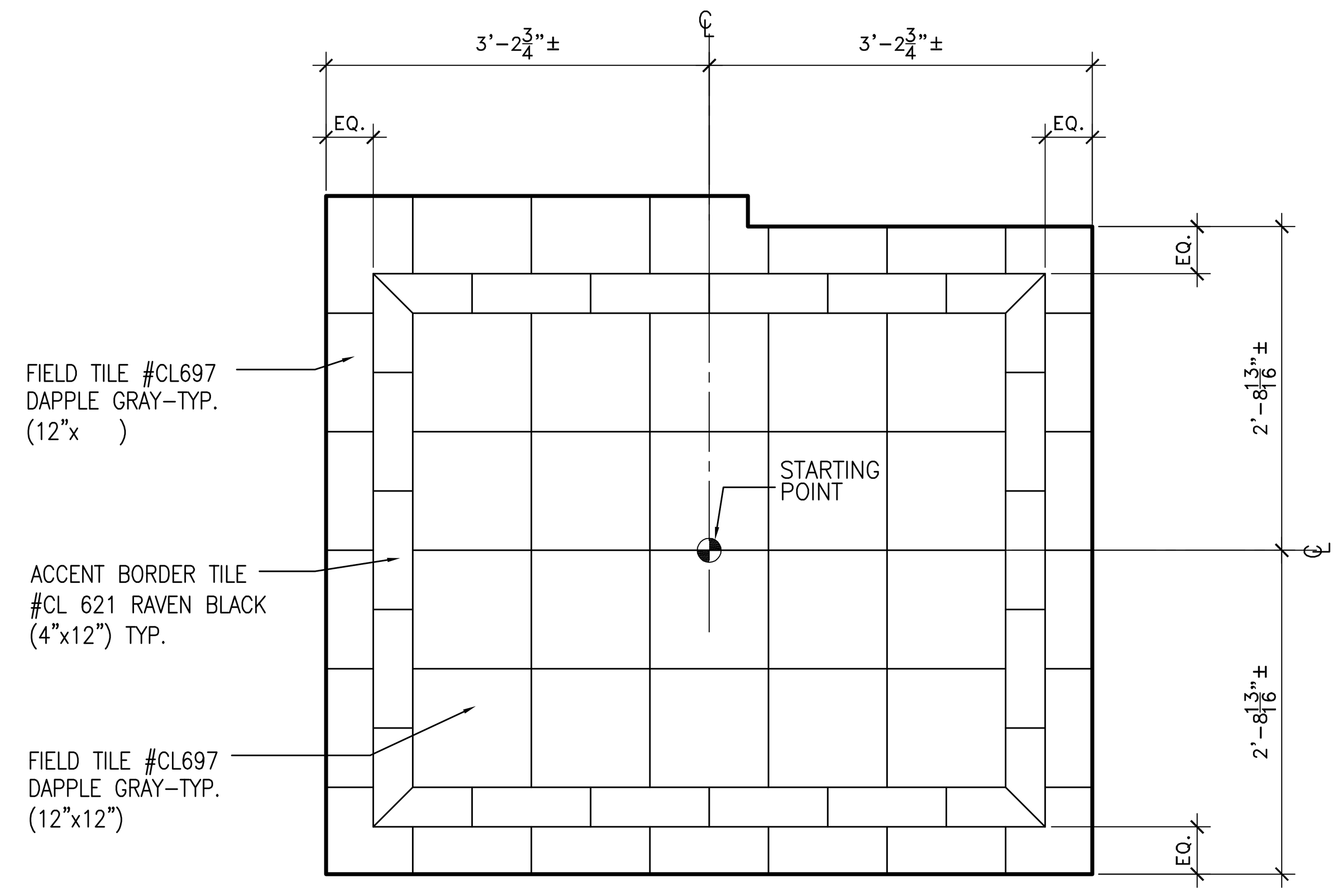


JAMB 5C



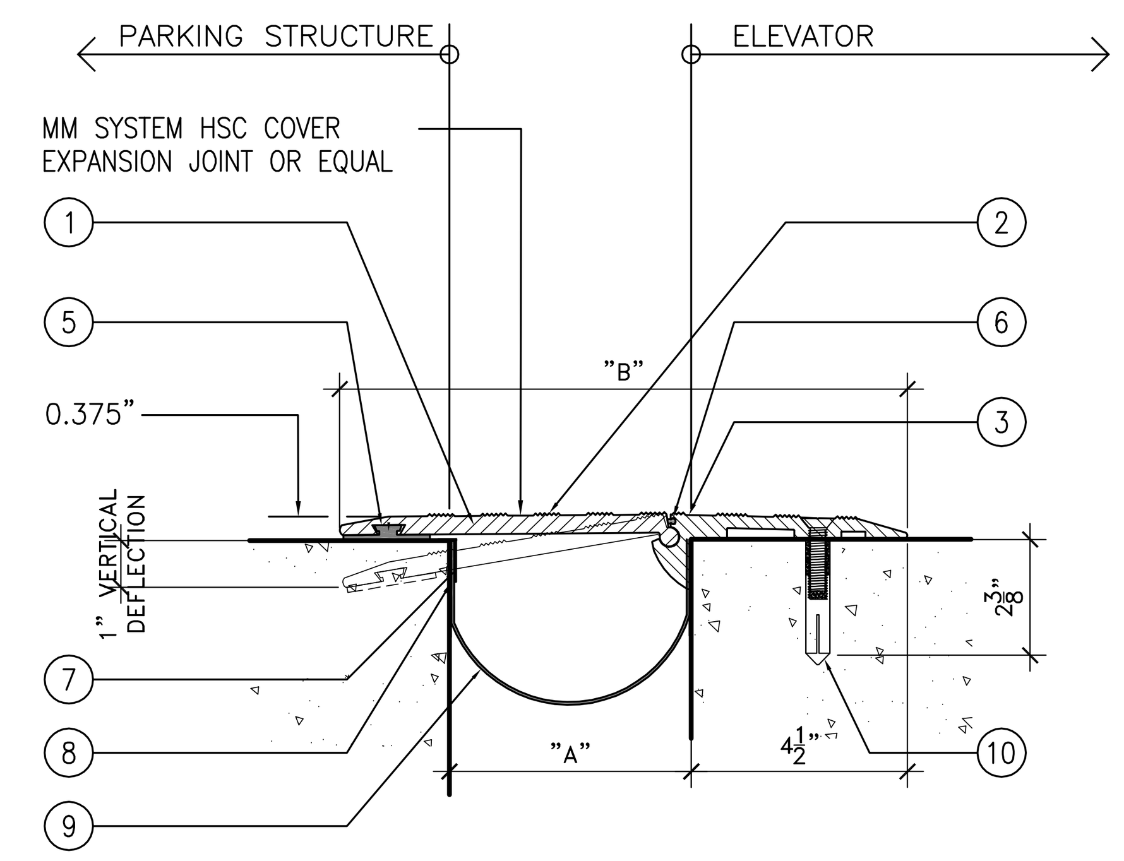
METAL LOUVER DETAILS 5

SCALE: 3"=1'-0"



ELEV. CAB FLOOR TILE LAYOUT 4

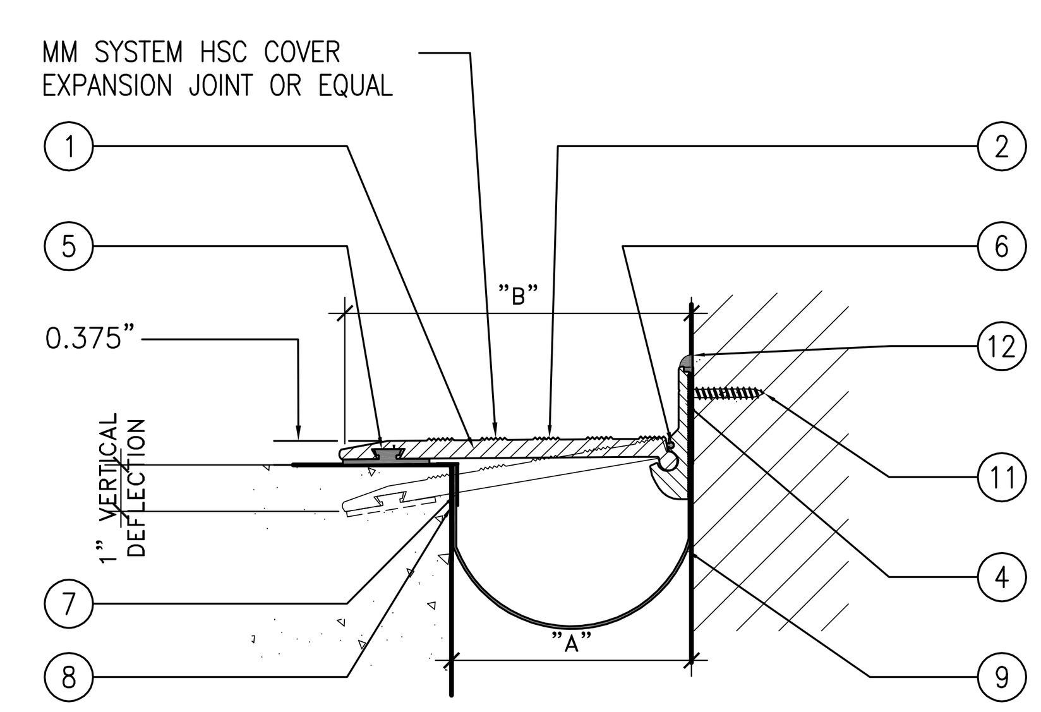
SCALE: 3/4"=1'-0"



SLAB-TO-SLAB 3B

SCALE: 3"=1'-0"

MODEL	DIMENSION: SYSTEM WIDTH (B)	DIMENSION: JOINT OPENING (A)	LEVEL
HSC-800	17 3/4"	6"	SECOND
HSC-800	17 3/4"	6"	THIRD



SLAB-TO-WALL 3A

SCALE: 3"=1'-0"

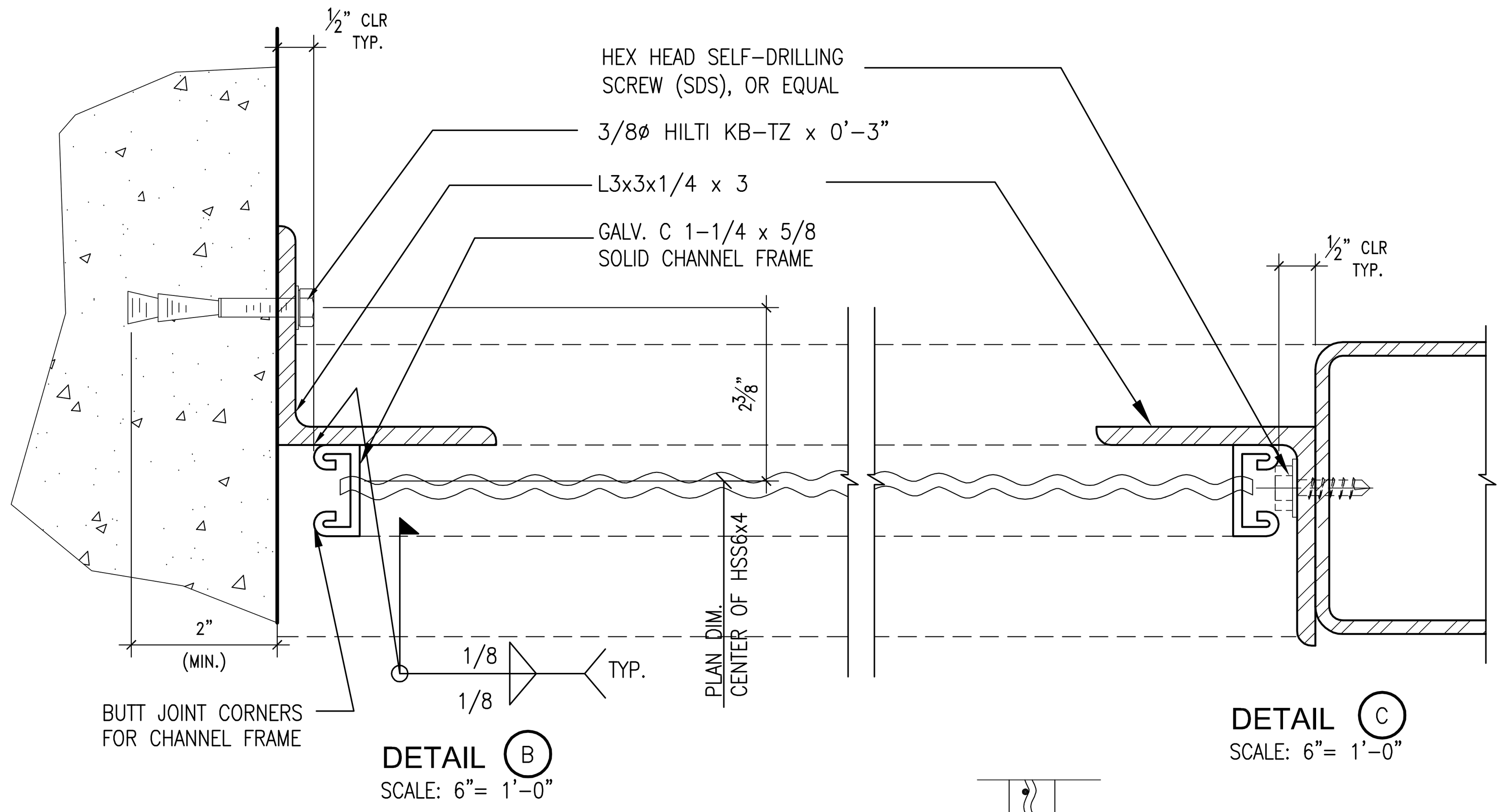
MODEL	DIMENSION: SYSTEM WIDTH (B)	DIMENSION: JOINT OPENING (A)	LEVEL
HSC-C 800	13 1/4"	6"	SECOND
HSC-C 800	13 1/4"	6"	THIRD

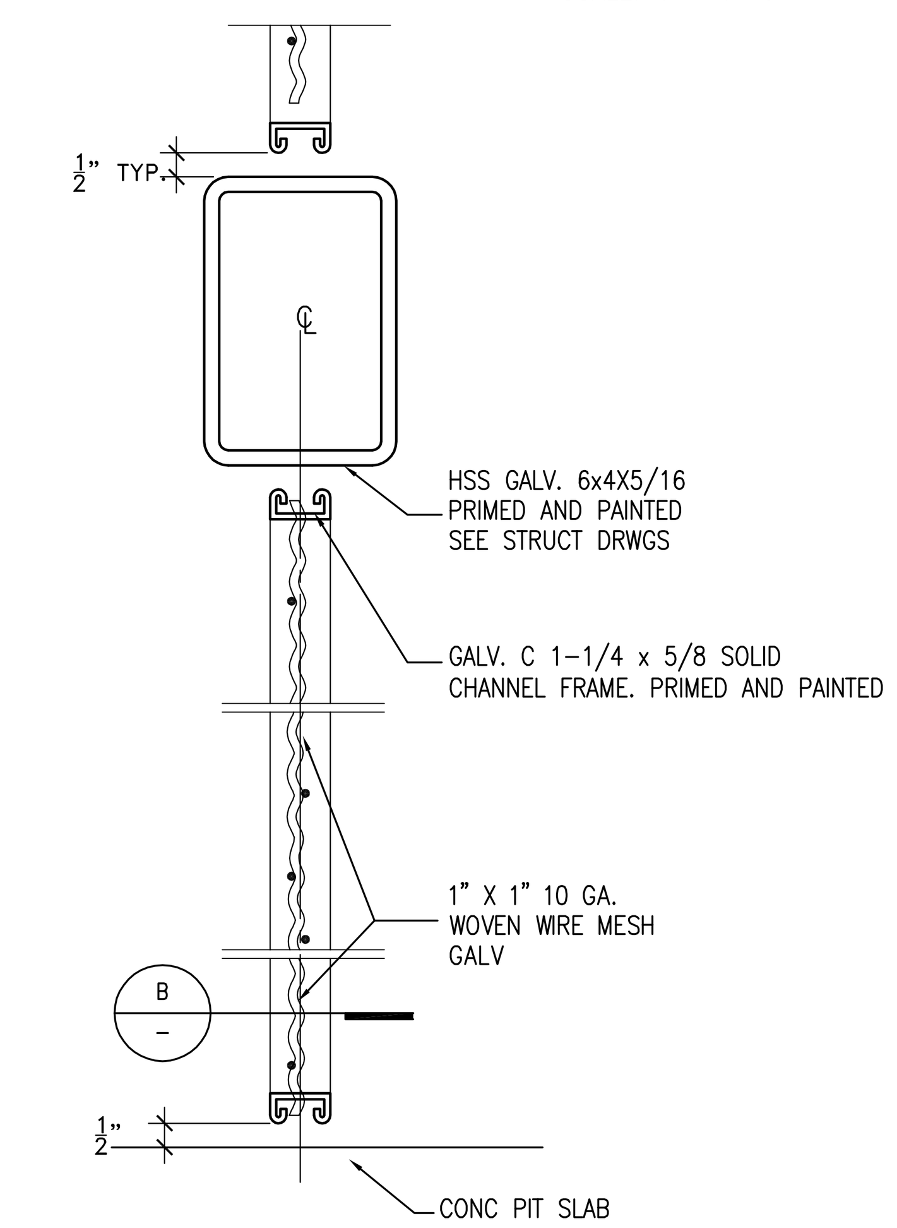
KEYNOTES

1. HEAVY DUTY 0.375" ALUMINUM HINGED SAFETY COVER
2. SLIP RESISTANT RAISED PROFILE
3. HEAVY DUTY ALUMINUM ANCHOR PLATE
4. HEAVY DUTY WALL MOUNT FRAME
5. IMPACT/SOUND DAMPER
6. RUBBER ANTI-VIBRATION GASKET
7. 35 MIL X 2" MICROSEALANT WATERPROOFING TAPE SINGLE SIDED
8. 30 MIL X 2" MICROSEALANT WATERPROOFING TAPE DUAL SIDED (BOTH SIDES)
9. FLEXIBLE FABRIC REINFORCED 60 MIL EPDM RUBBER GUTTER
10. 0.375" STAINLESS STEEL EPOXY INSERT ANCHOR @ 18" O.C.
11. 0.25" X 1.75" CONCRETE ANCHOR @ 18" O.C.
12. SEALANT

PEDESTRIAN EXPANSION JOINT COVER 3

SCALE: 3"=1'-0"

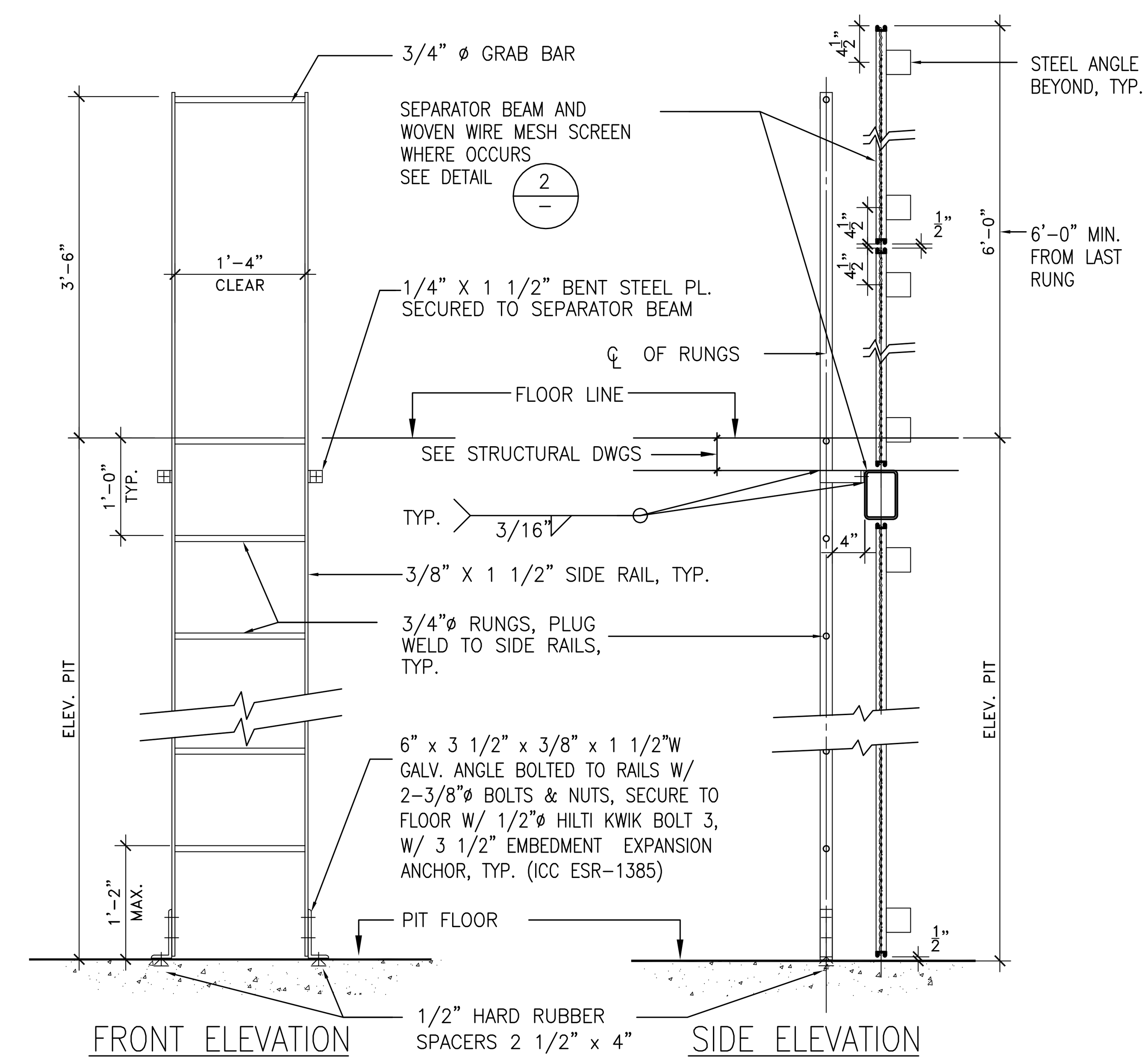




SECTION A

DETAIL OF WWM SCREEN 2

SCALE: 3" = 1'



ELEVATOR PIT LADDER DETAIL 1

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

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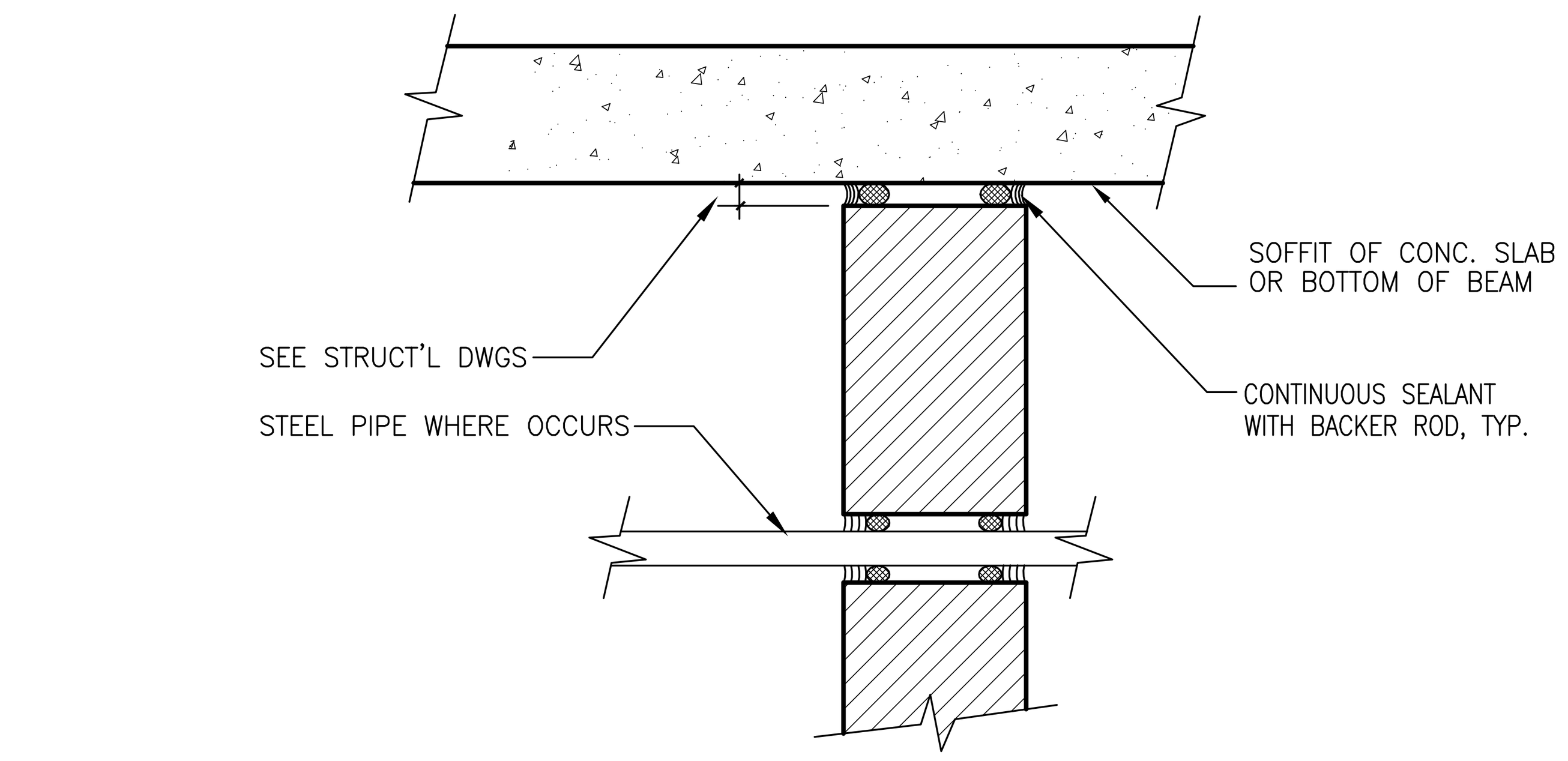
Project Title
TCMC PARKING STRUCTURE AND MAIN ENTRY

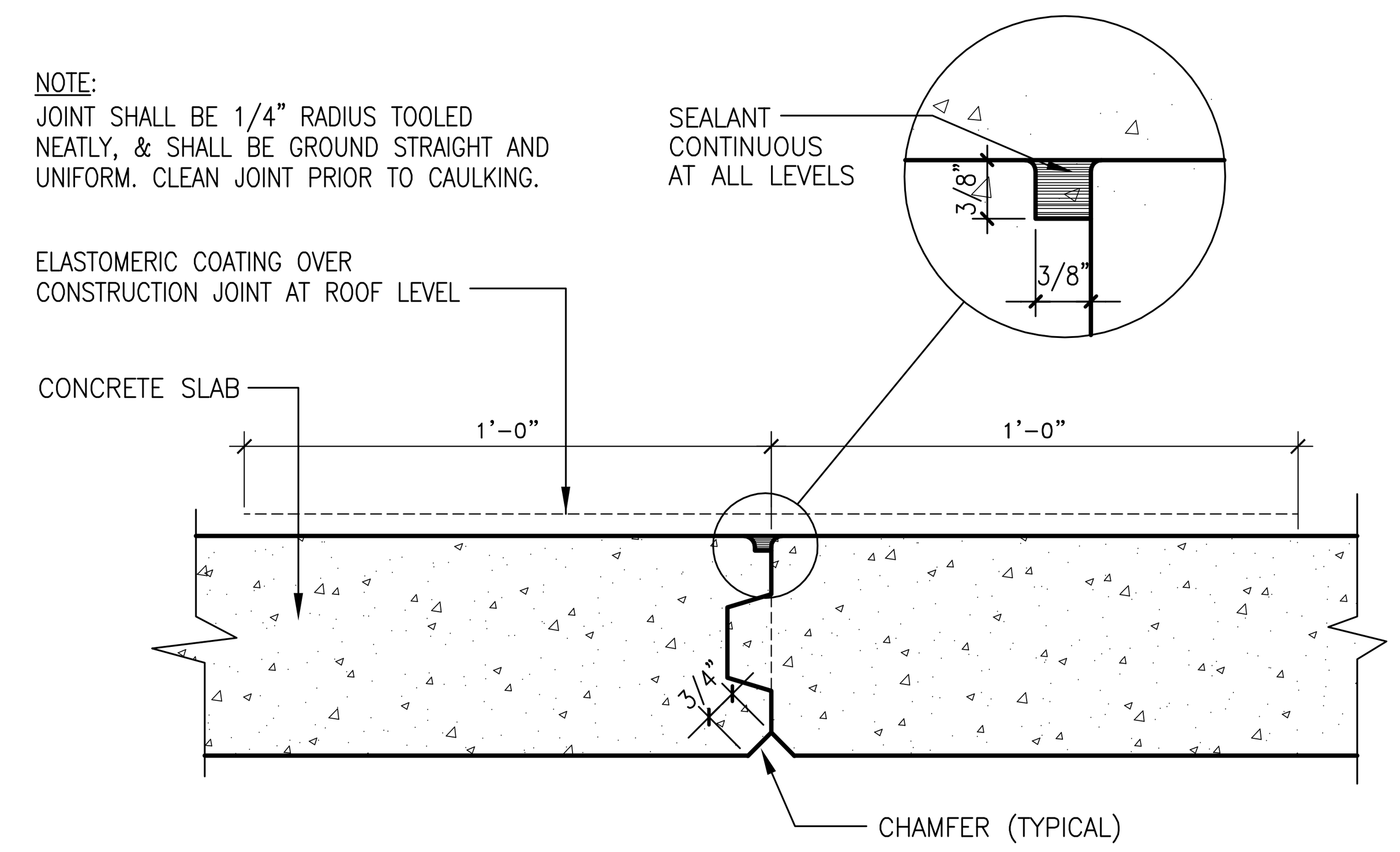
Sheet Title
TYPICAL DETAILS

Sheet Number
A7.02



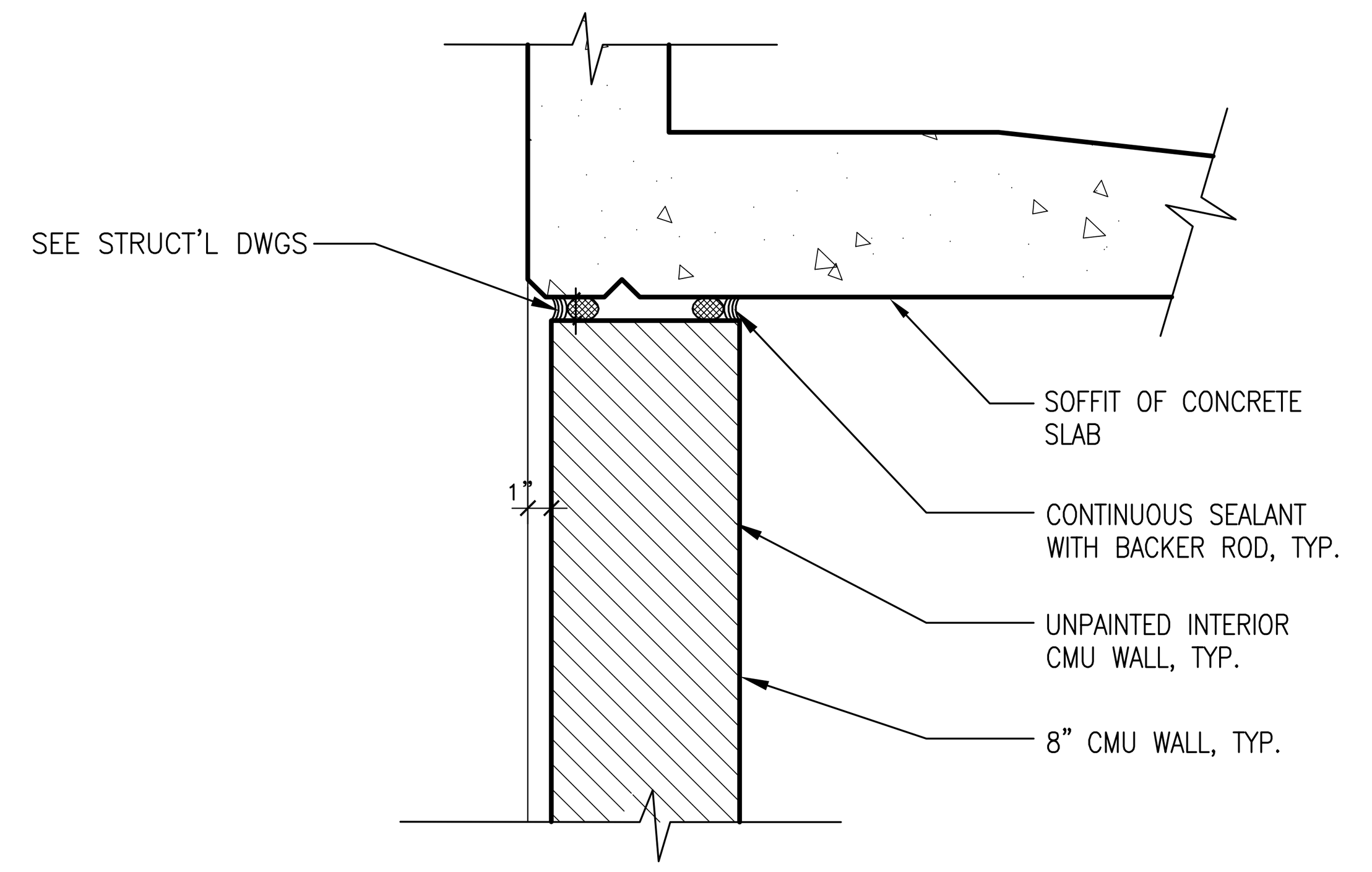
WALL DETAIL (8)

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



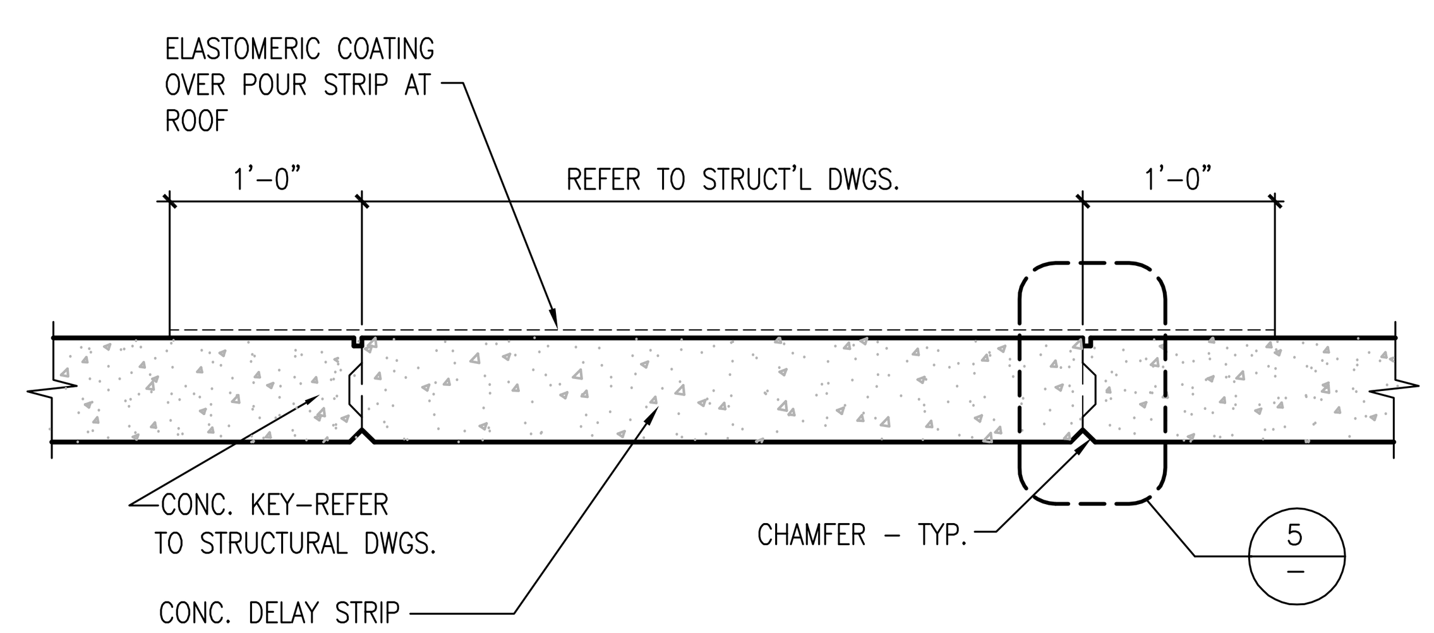
CONST. JOINT DETAIL (5)

SCALE: 3" = 1'-0"



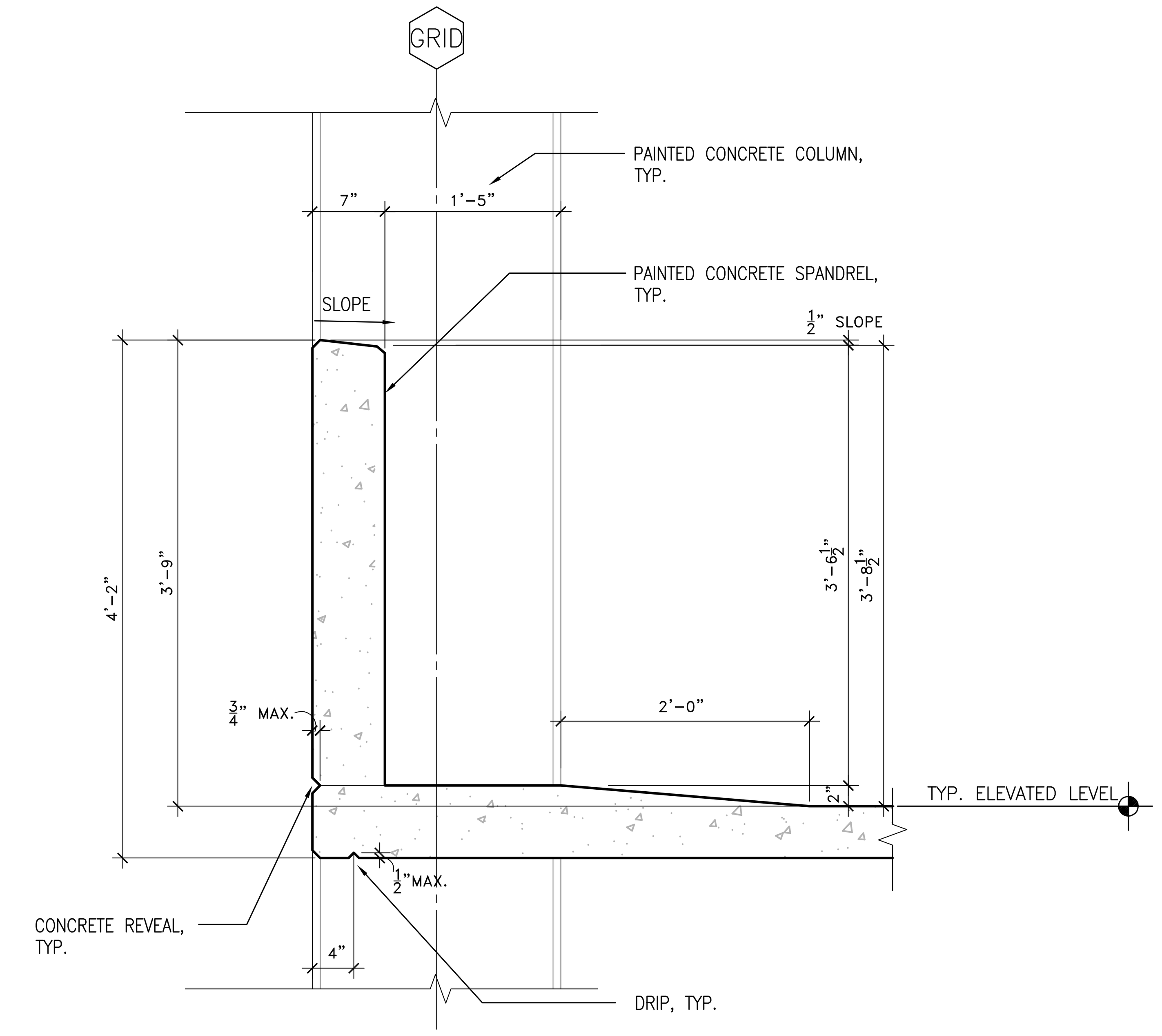
WALL DETAIL (7)

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



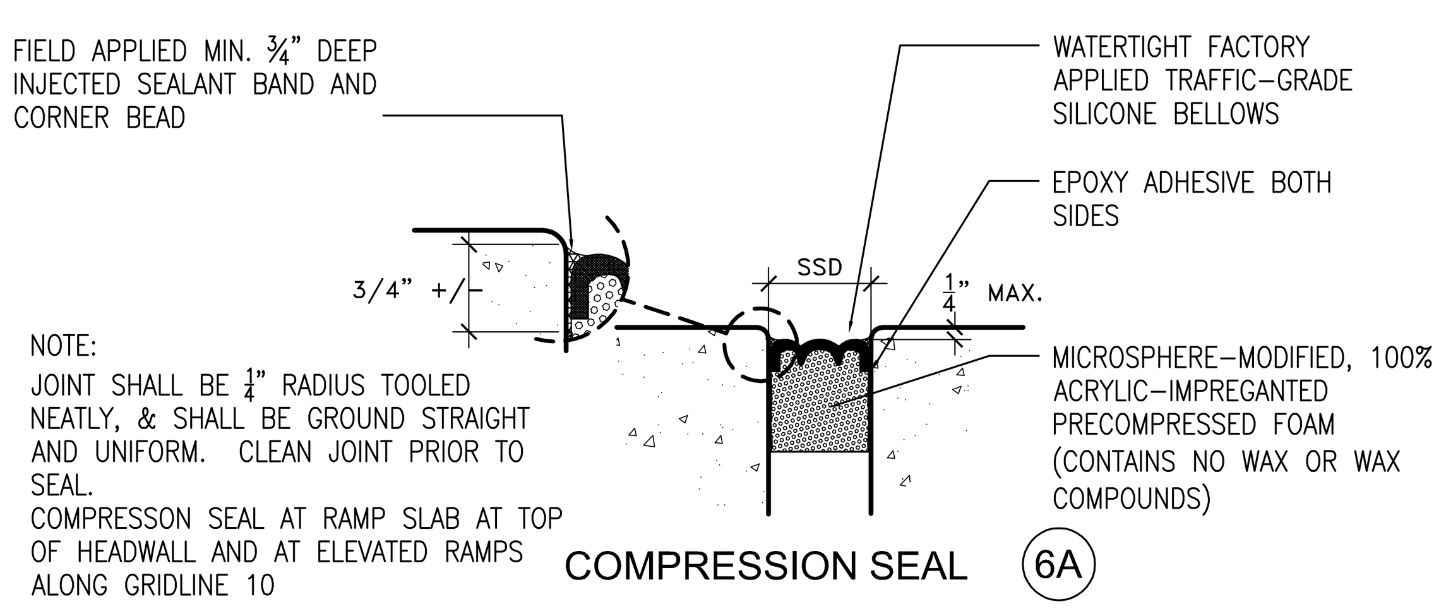
DELAY STRIP (4)

SCALE: 1"=1'-0"

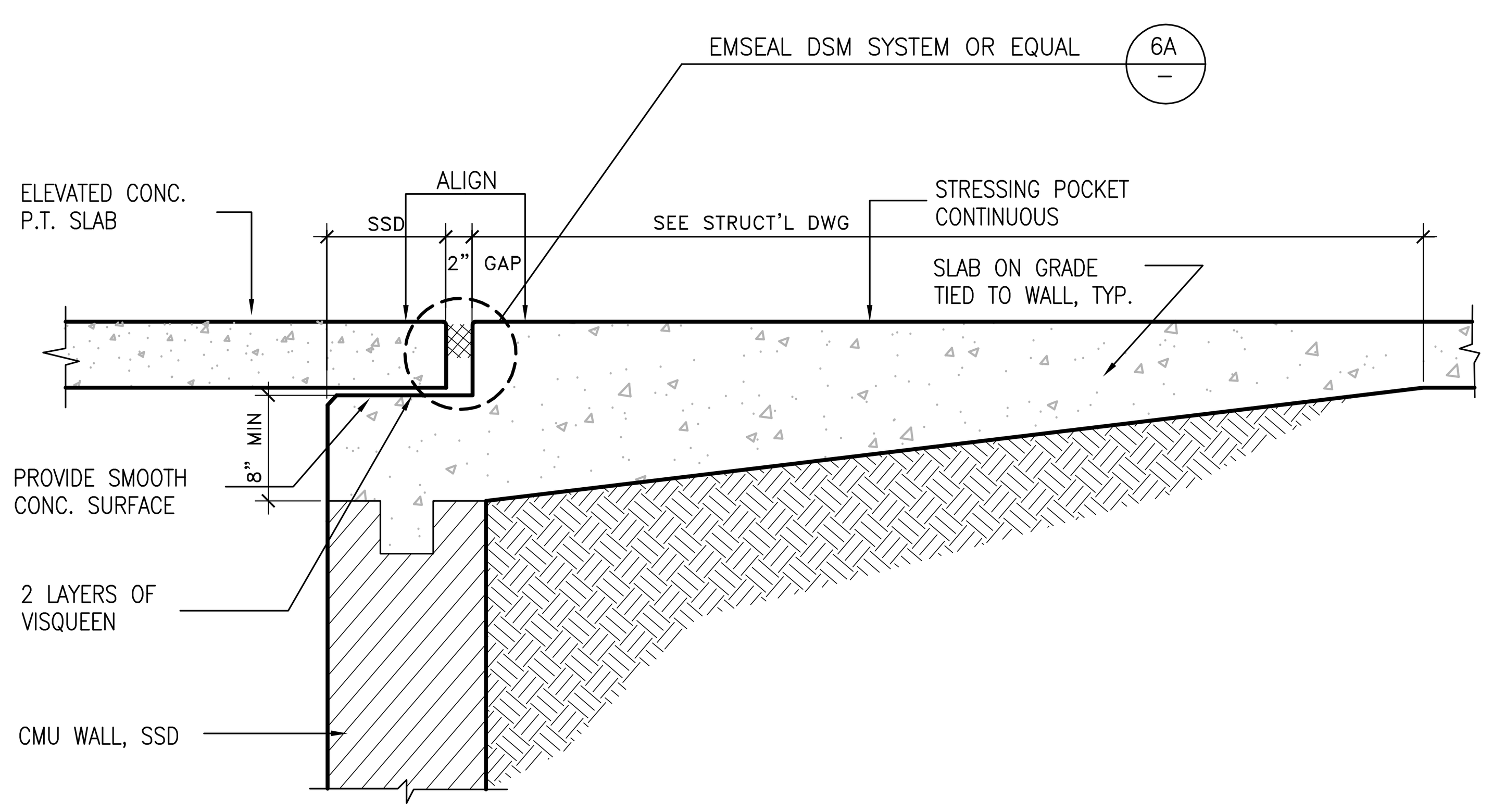


C.I.P. CONCRETE SPANDREL (2)

SCALE: 1"= 1'-0"

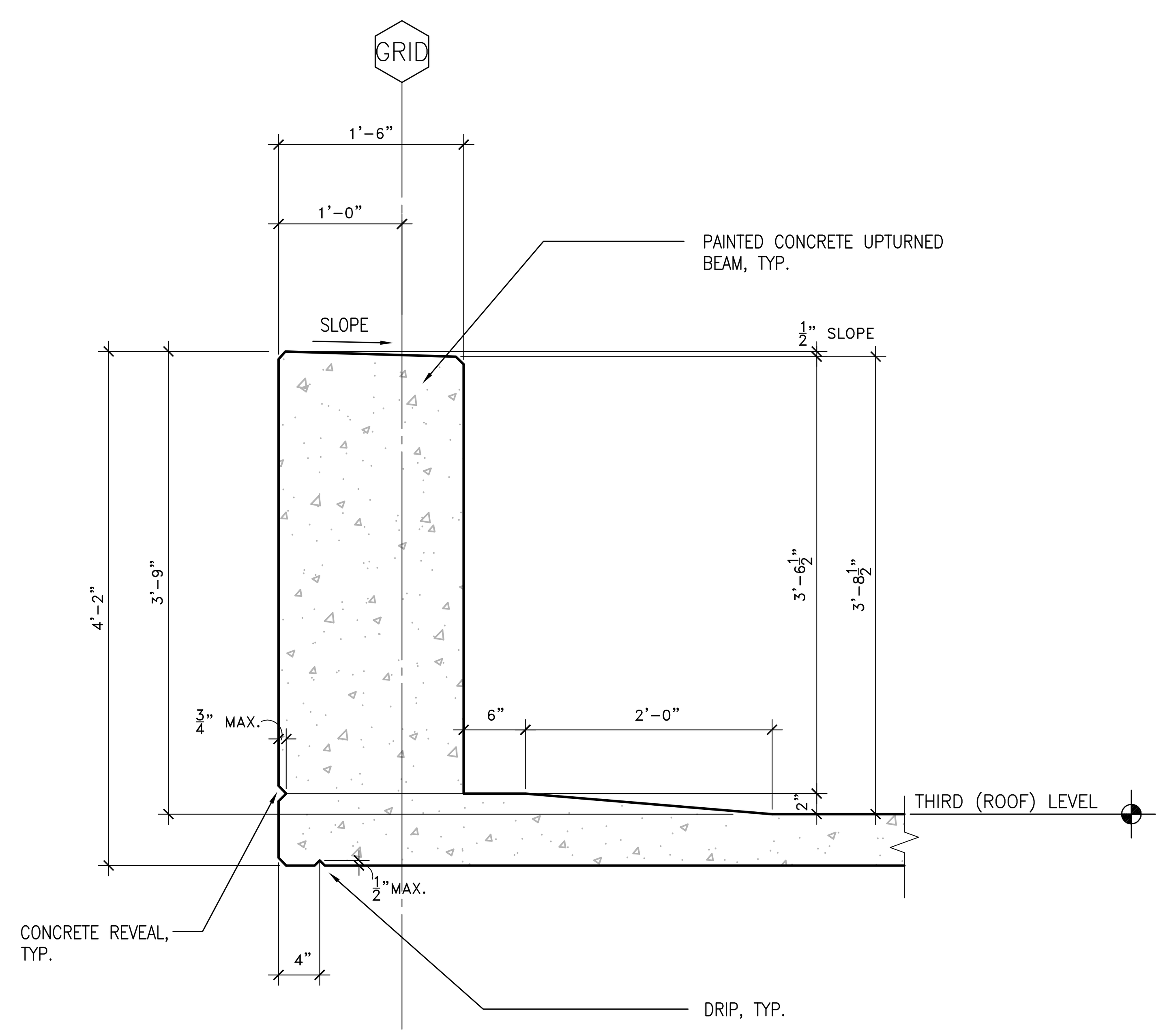


COMPRESSION SEAL (6A)



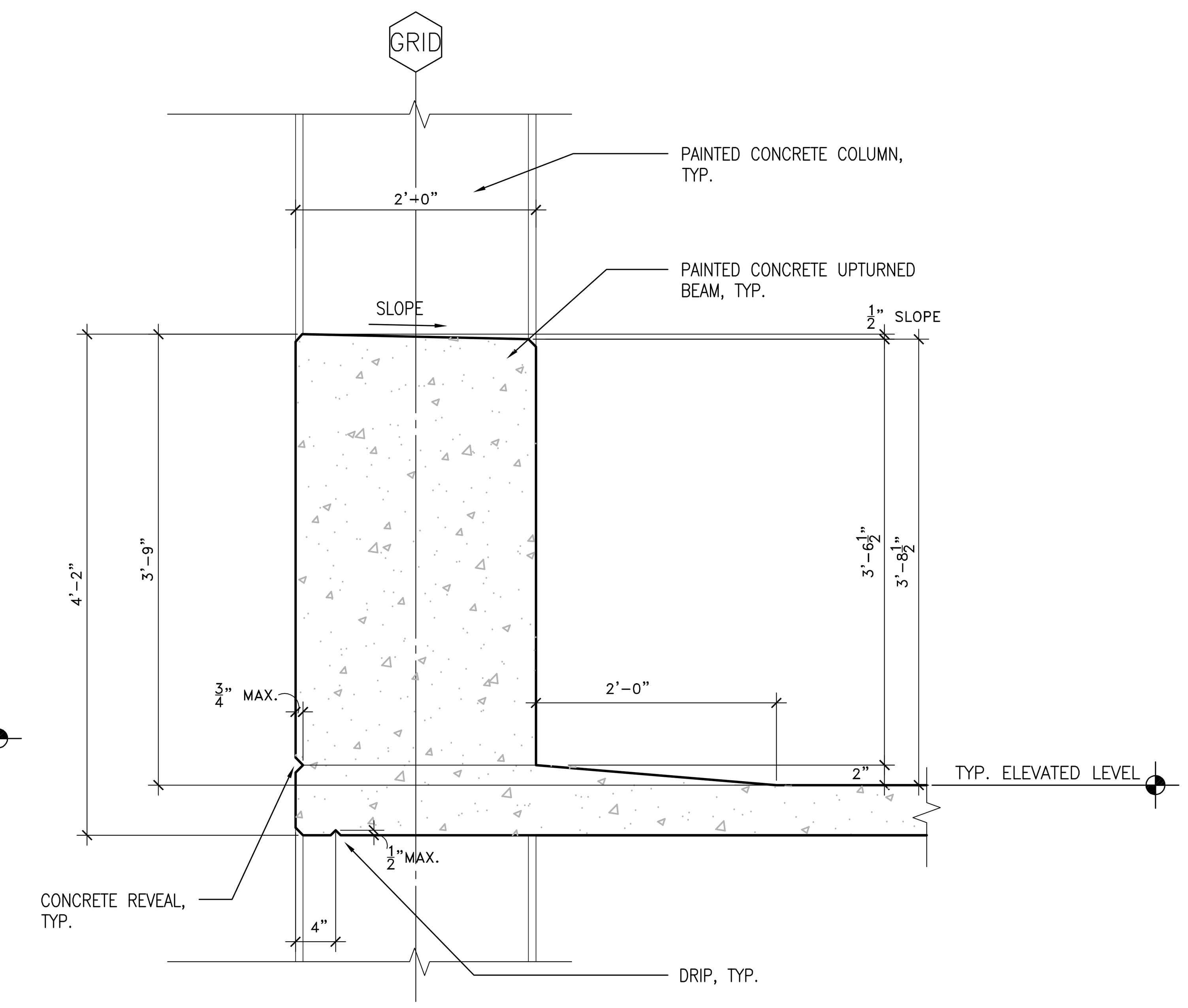
SEPARATION JOINT W/ POUR STRIP DETAIL (6)

SCALE: 1"=1'-0"



C.I.P. CONCRETE UPTURNED BEAM (3)

SCALE: 1"= 1'-0"



C.I.P. CONCRETE UPTURNED BEAM (1)

SCALE: 1"= 1'-0"

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Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

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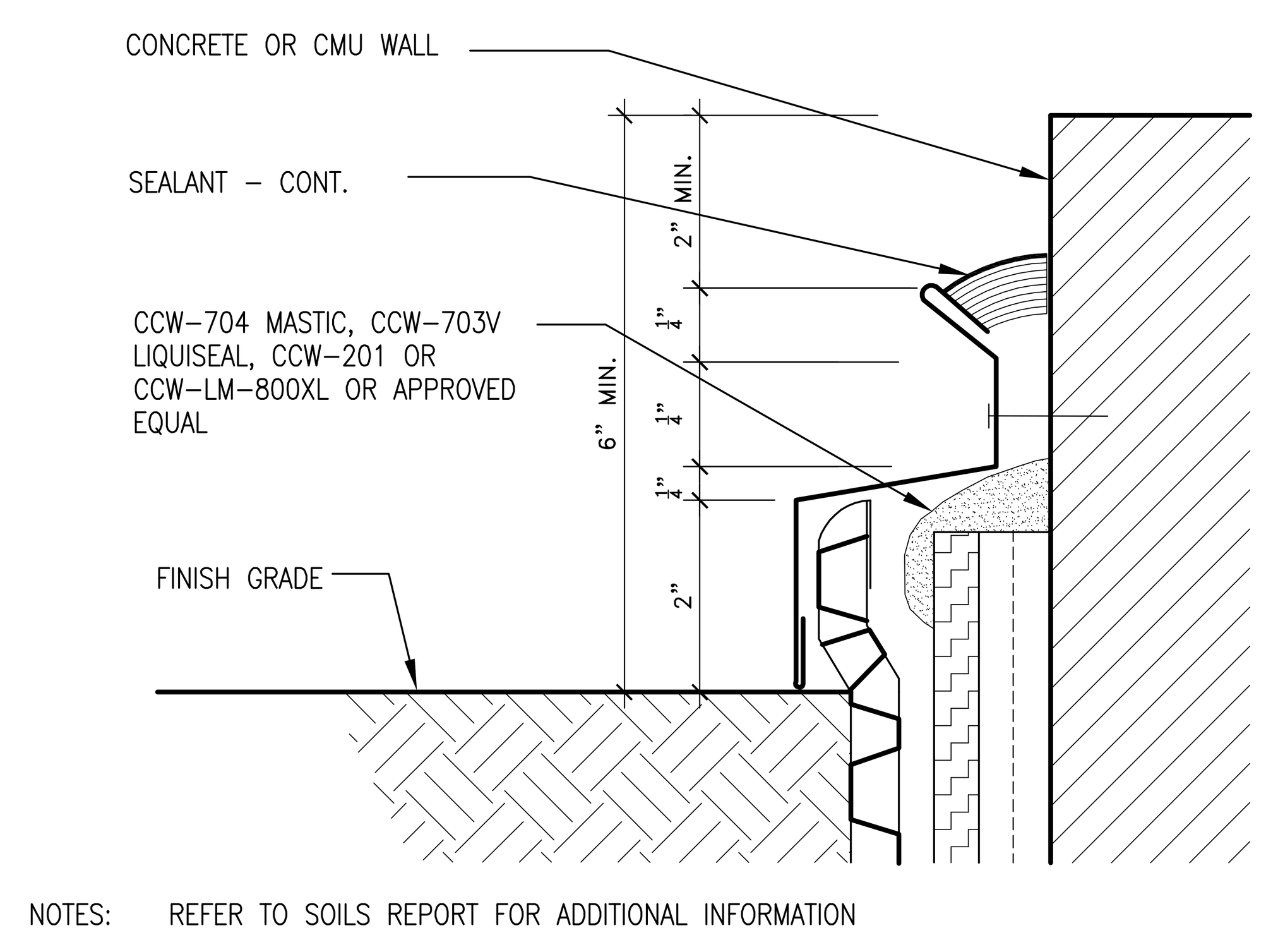
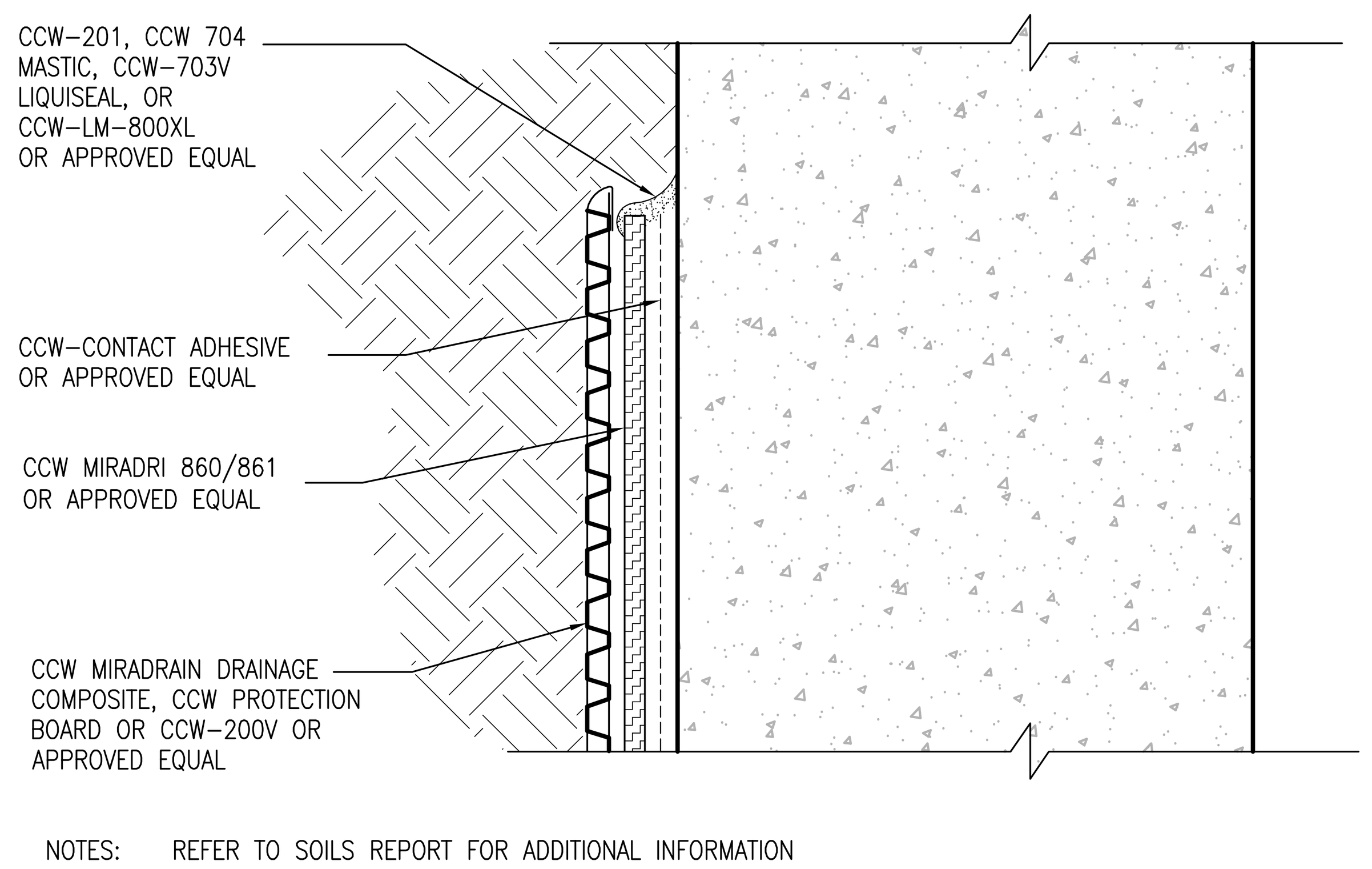
TYPICAL DETAILS

Sheet Number

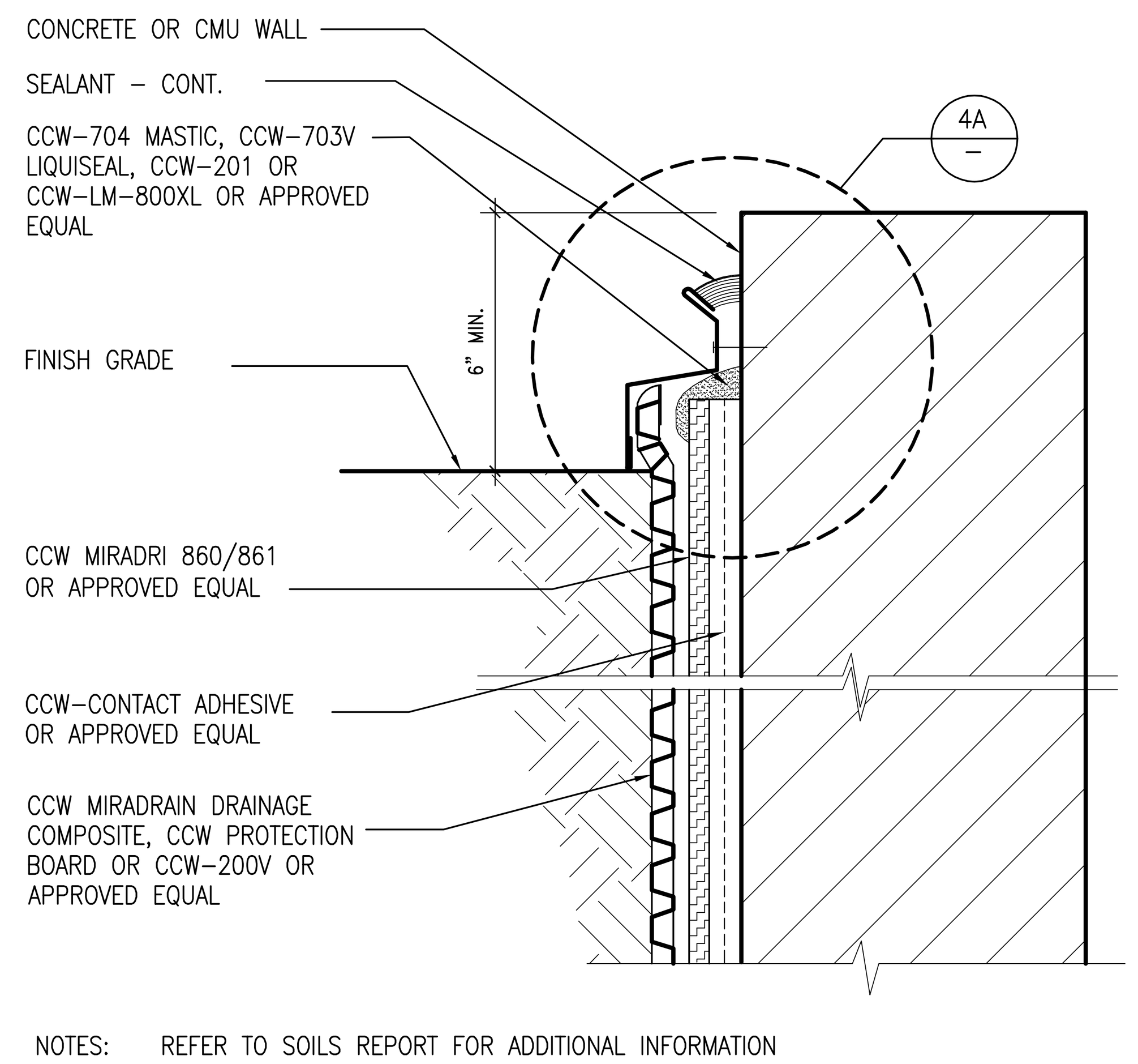
A7.03



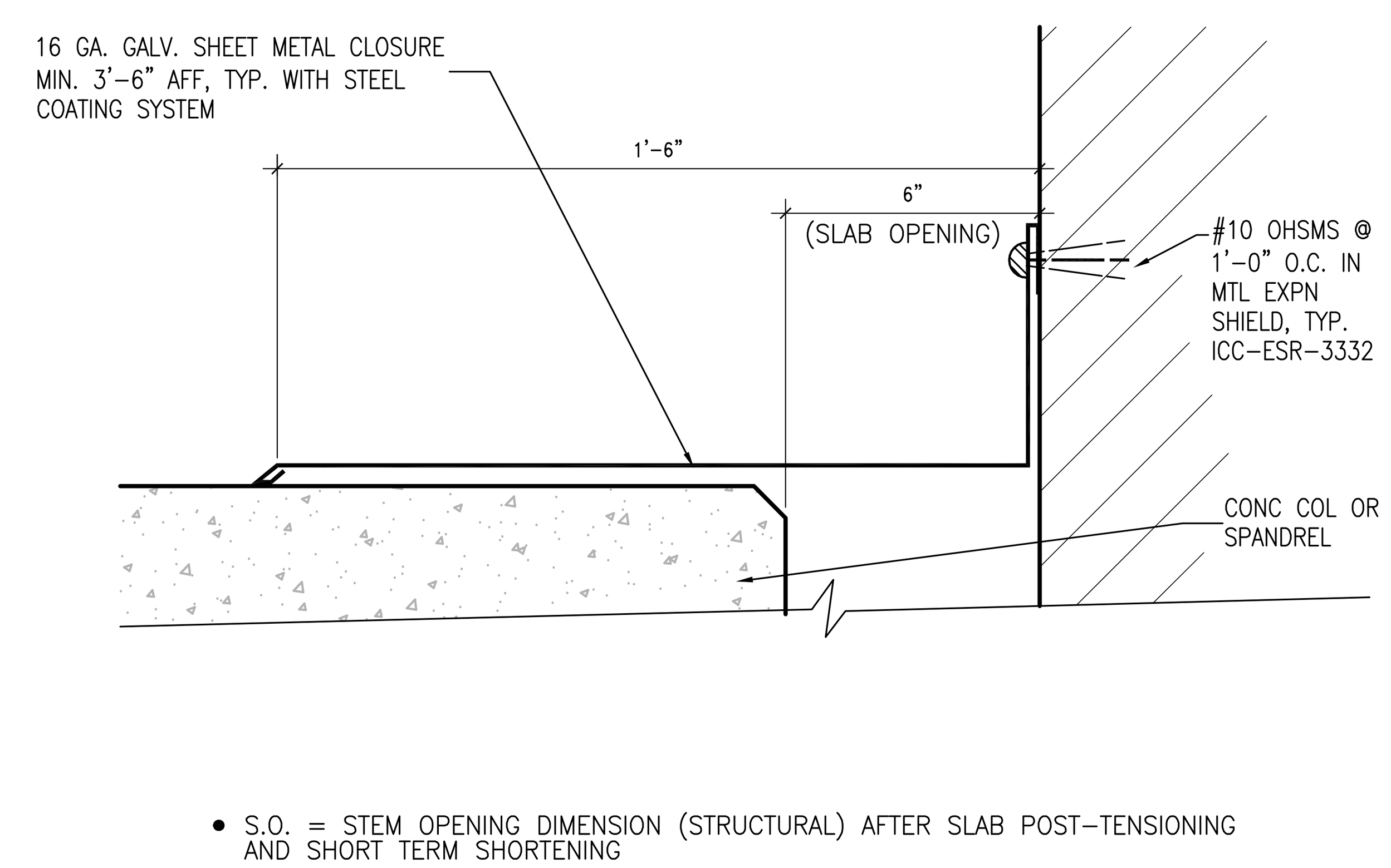
DETAIL (4A)
SCALE: 6"=1'-0"



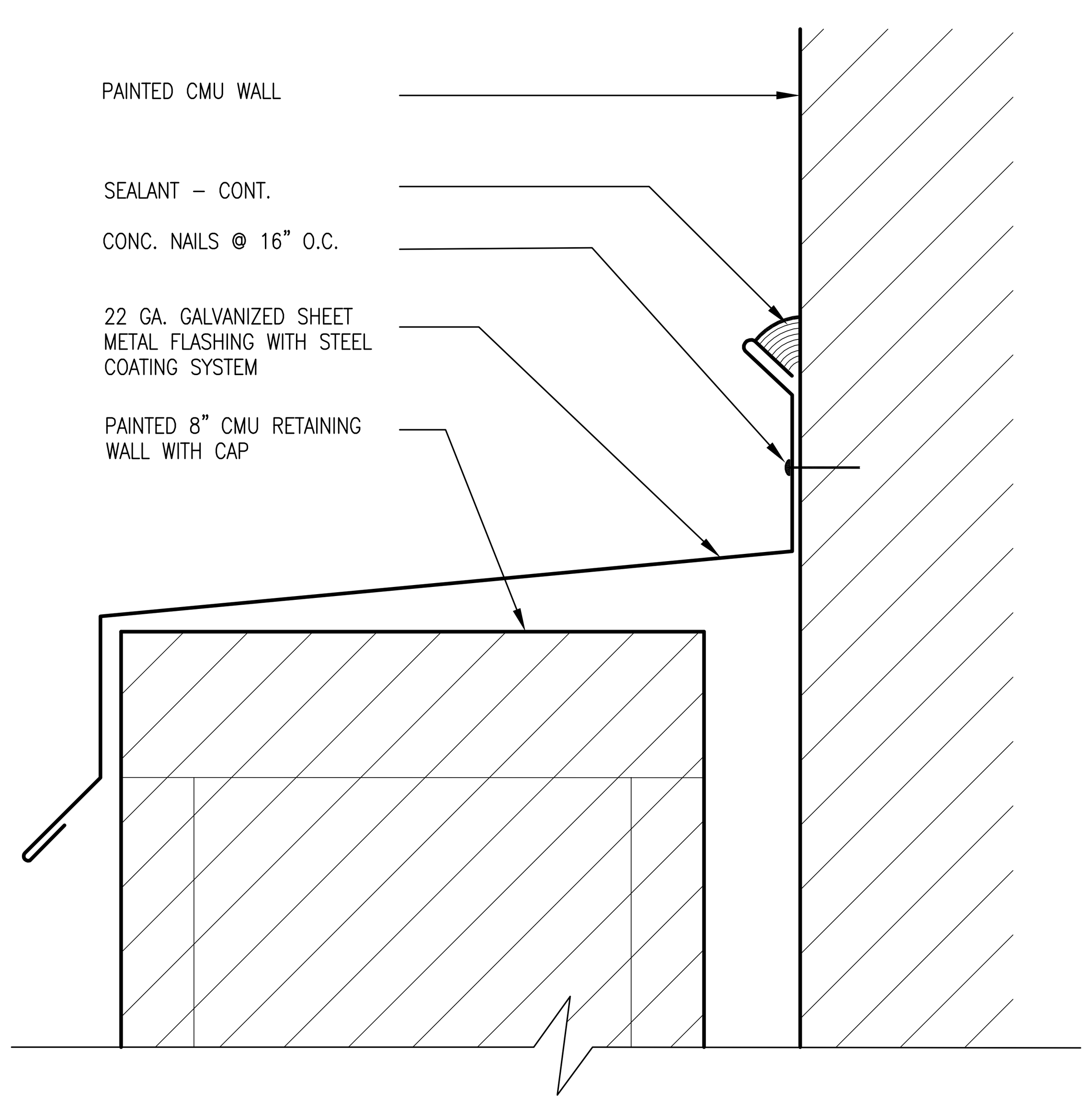
WATERPROOFING DETAIL (6)
SCALE: 3"=1'-0"



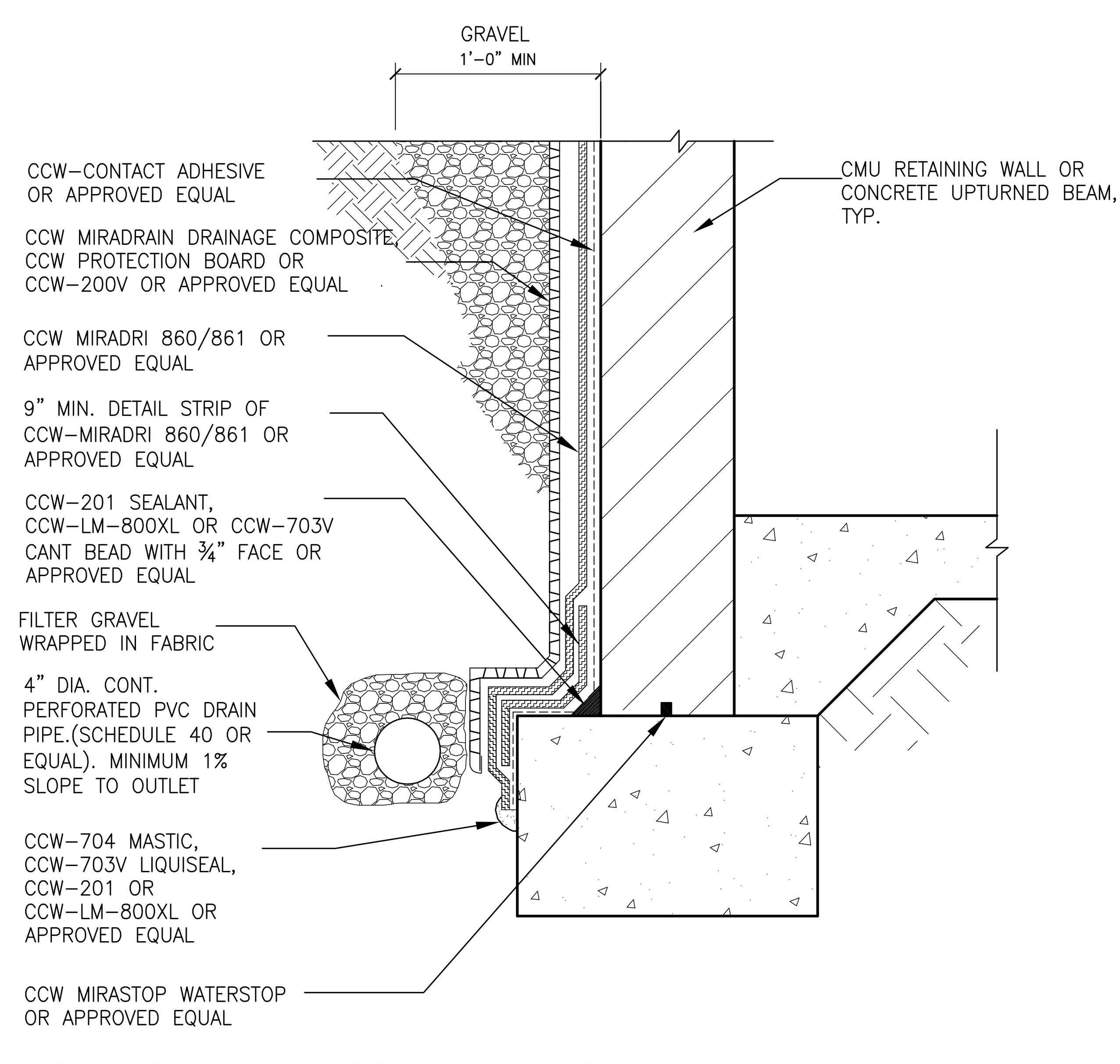
WATERPROOFING DETAIL (4)
SCALE: 3"=1'-0"



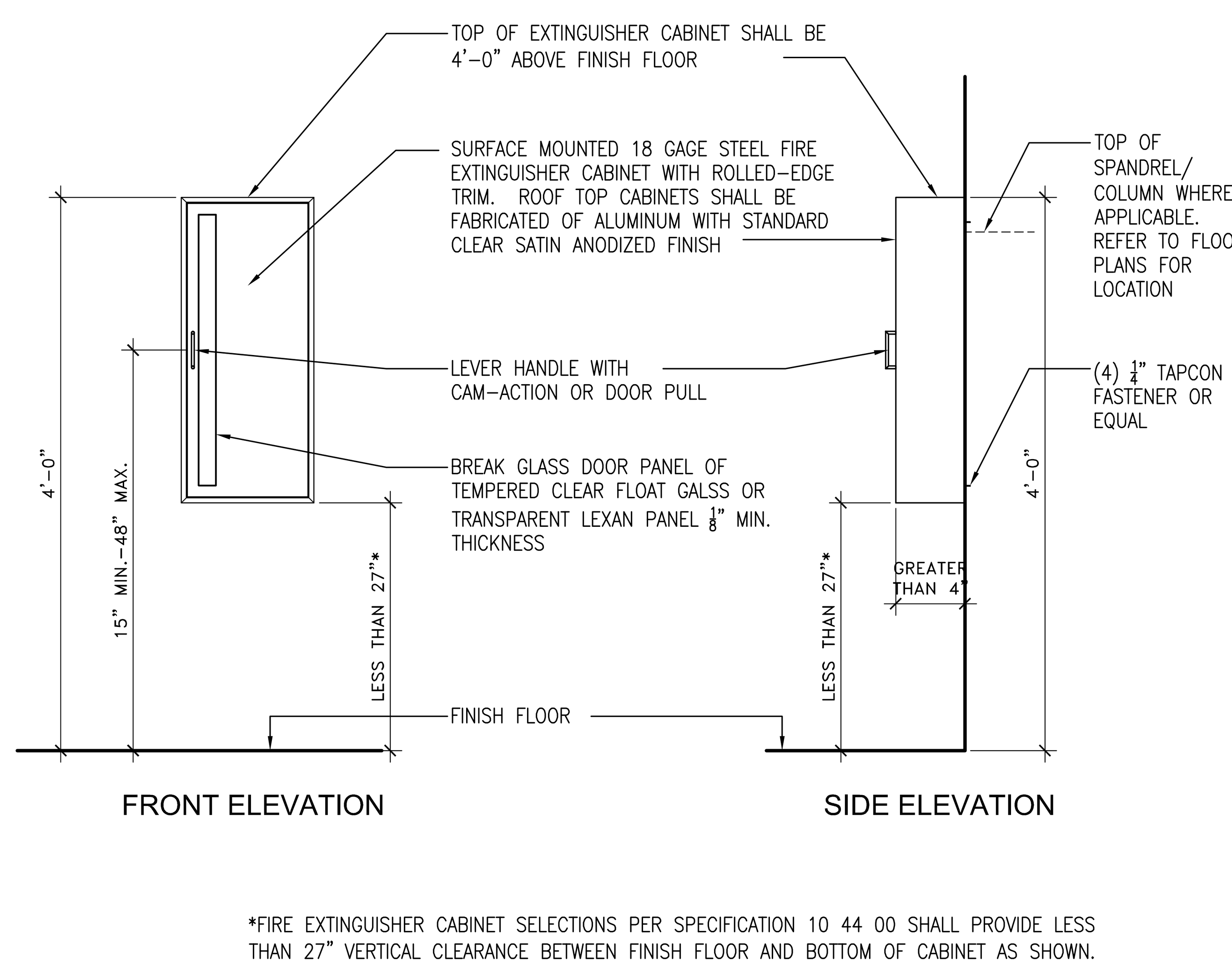
VERT. CLOSURE PANEL AT EXPN JT (2)
SCALE: 3"=1'-0"



WORKING DRAWING SYMBOLS (5)
SCALE: 6"=1'-0"



WATERPROOFING DETAIL (3)
SCALE: NTS



FIRE EXTINGUISHER CABINET (1)
SCALE: 1" = 1'-0"

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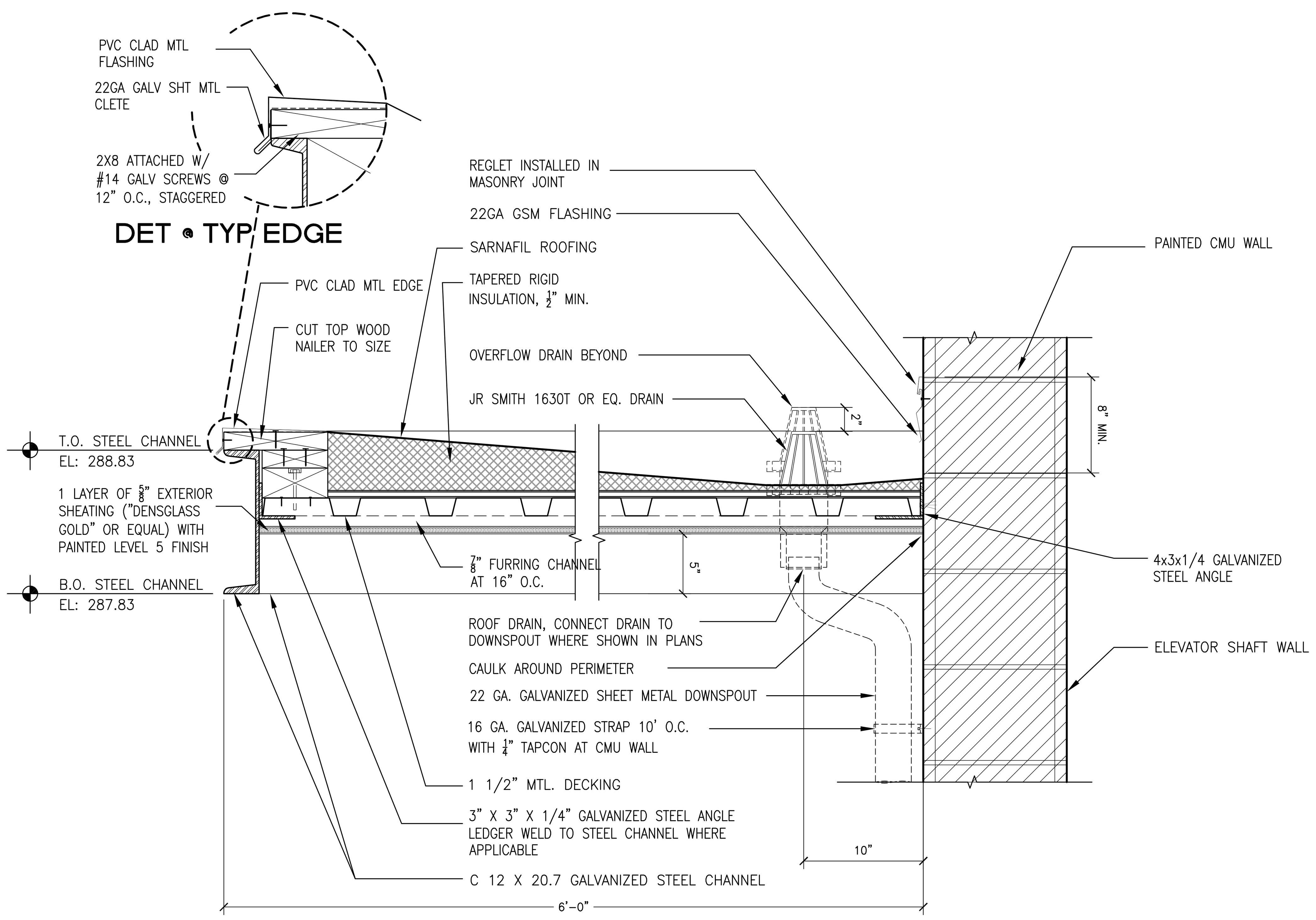
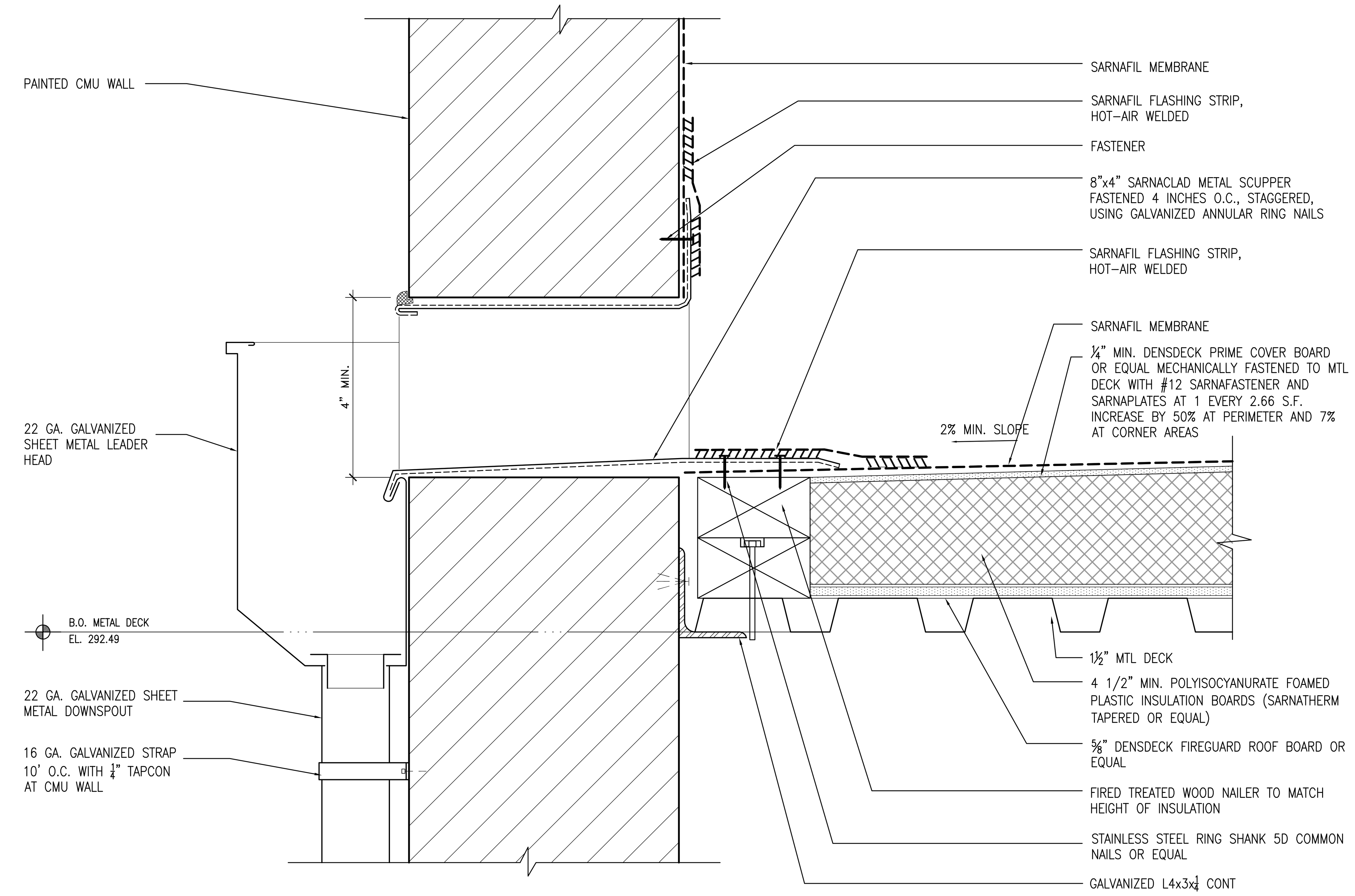
A7.04



CANOPY DETAIL AT ELEVATOR No. 1 &2 (4)

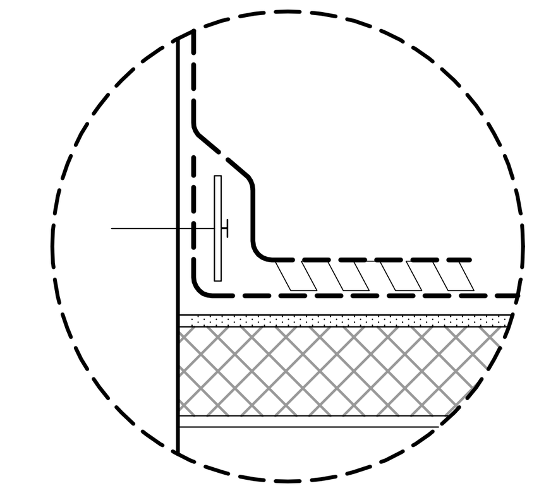
SCALE: 1 1/2"=1'-0"



NOTES:
1) NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A FORCE OF 300 POUNDS PER LINEAL FOOT IN ANY DIRECTION.

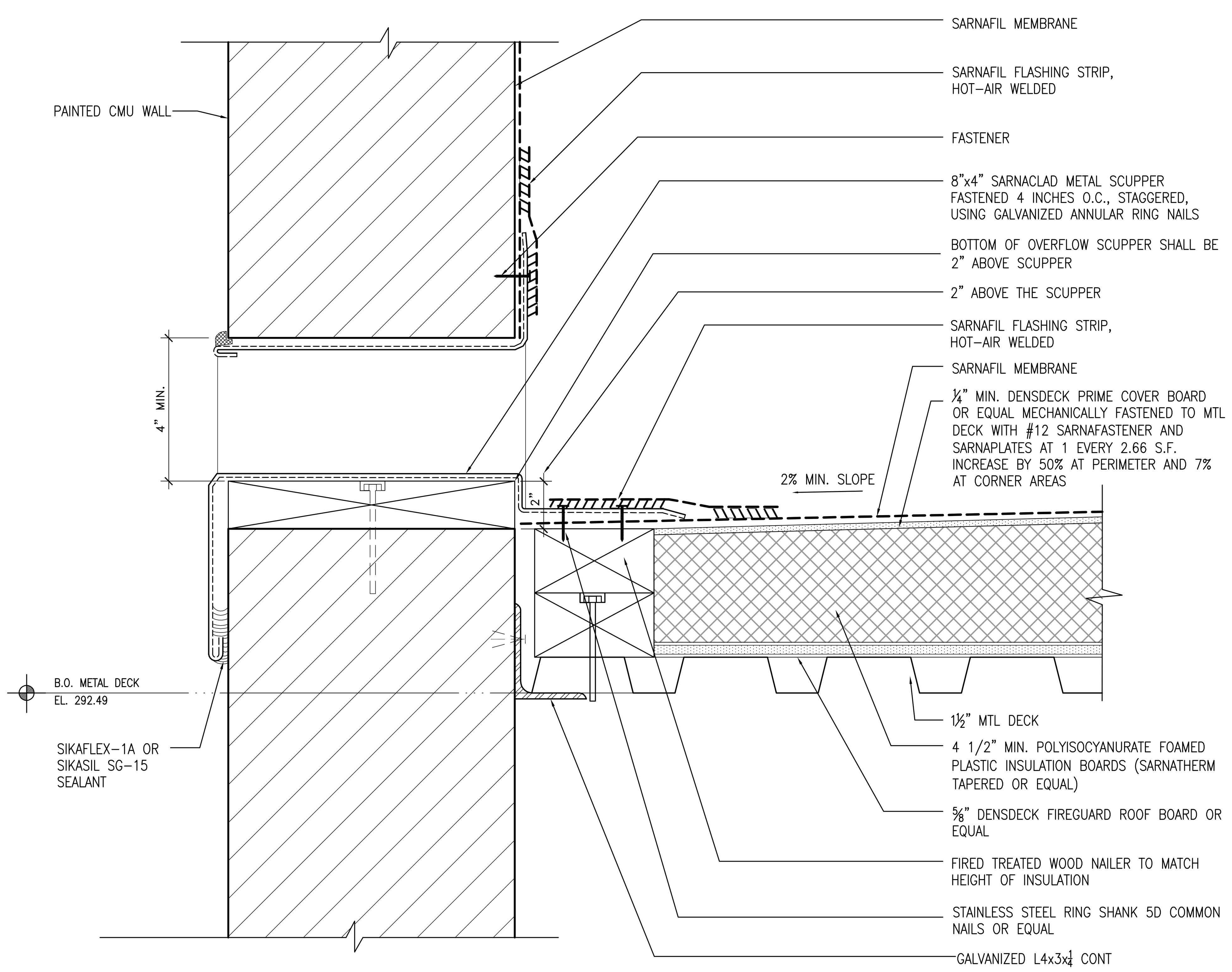
SCUPPER/LEADER HEAD AND DOWNSPOUT (2)

SCALE: 3"= 1'-0"



SARNASTOP FASTENED AT BASE OF WALL OR CURB

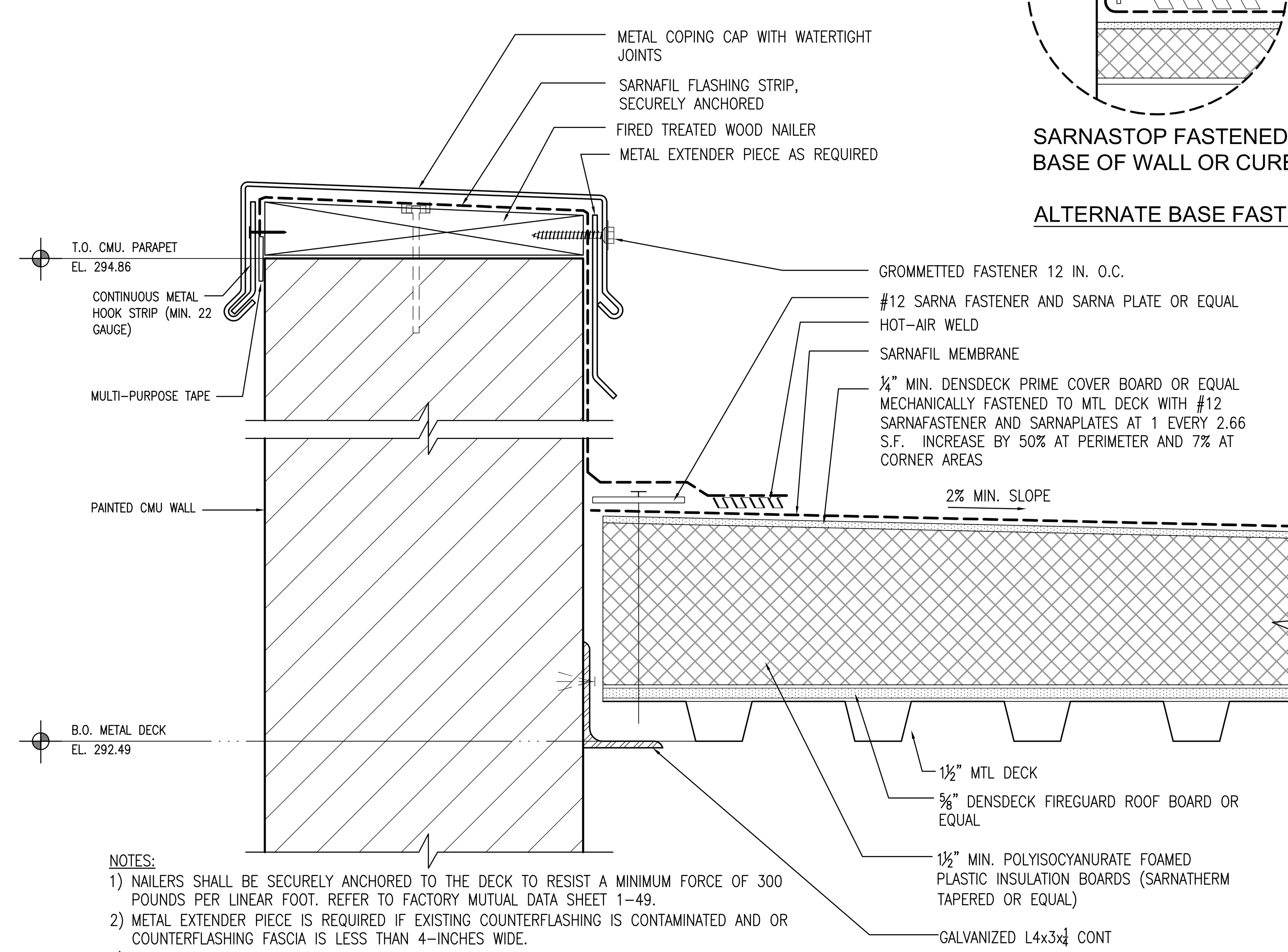
ALTERNATE BASE FASTENING



NOTES:
1) NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A FORCE OF 300 POUNDS PER LINEAL FOOT IN ANY DIRECTION.

THRU-WALL OVERFLOW SCUPPER (3)

SCALE: 3"= 1'-0"



NOTES:
1) NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A MINIMUM FORCE OF 300 POUNDS PER LINEAR FOOT. REFER TO FACTORY MUTUAL DATA SHEET 1-49.
2) METAL EXTENDER PIECE IS REQUIRED IF EXISTING COUNTERFLASHING IS CONTAMINATED AND OR COUNTERFLASHING FASCIA IS LESS THAN 4-INCHES WIDE.
3) VAPOR BARRIER SHALL BE SEALED AT EDGES.

PARAPET WALL WITH METAL COPING CAP (1)

SCALE: 3"= 1'-0"

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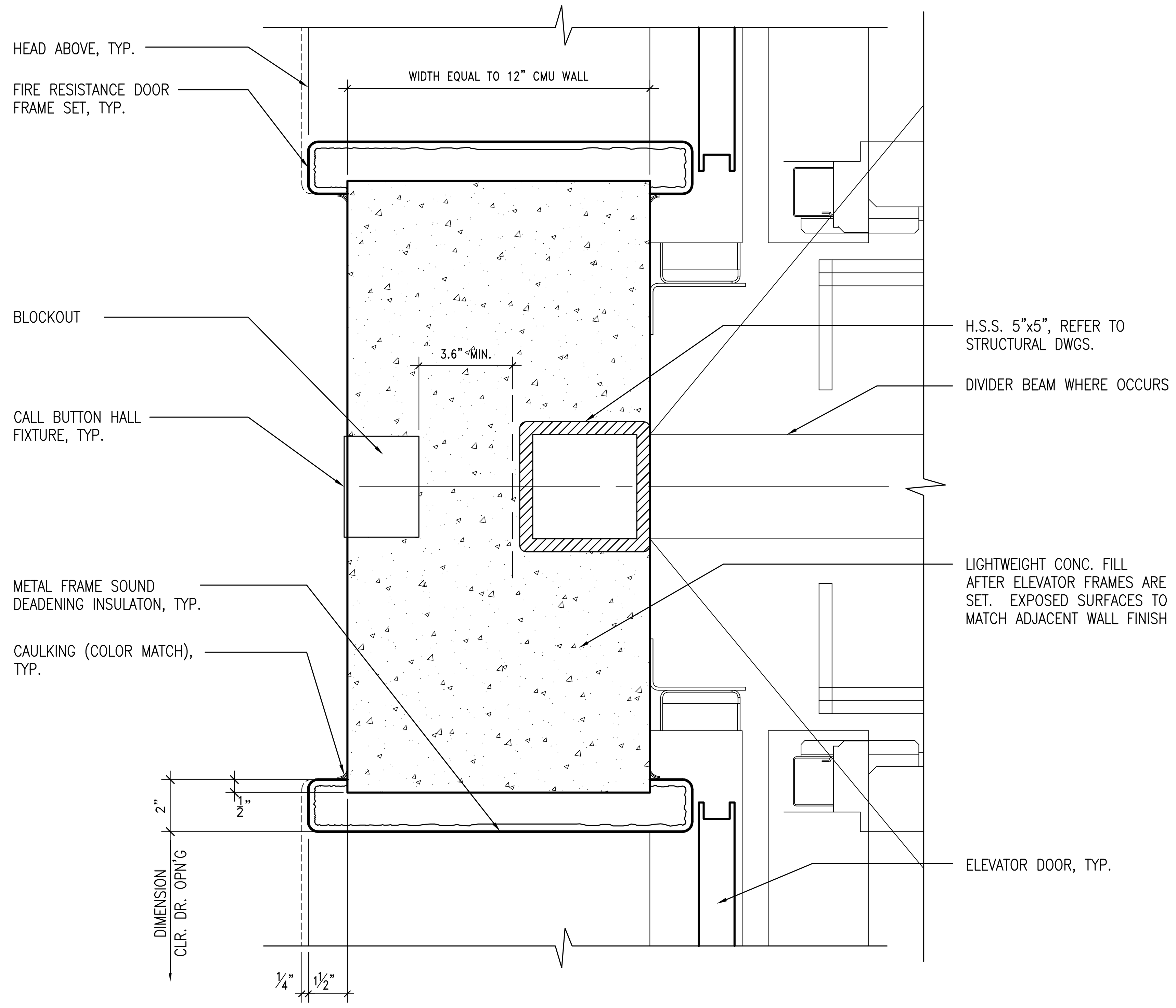
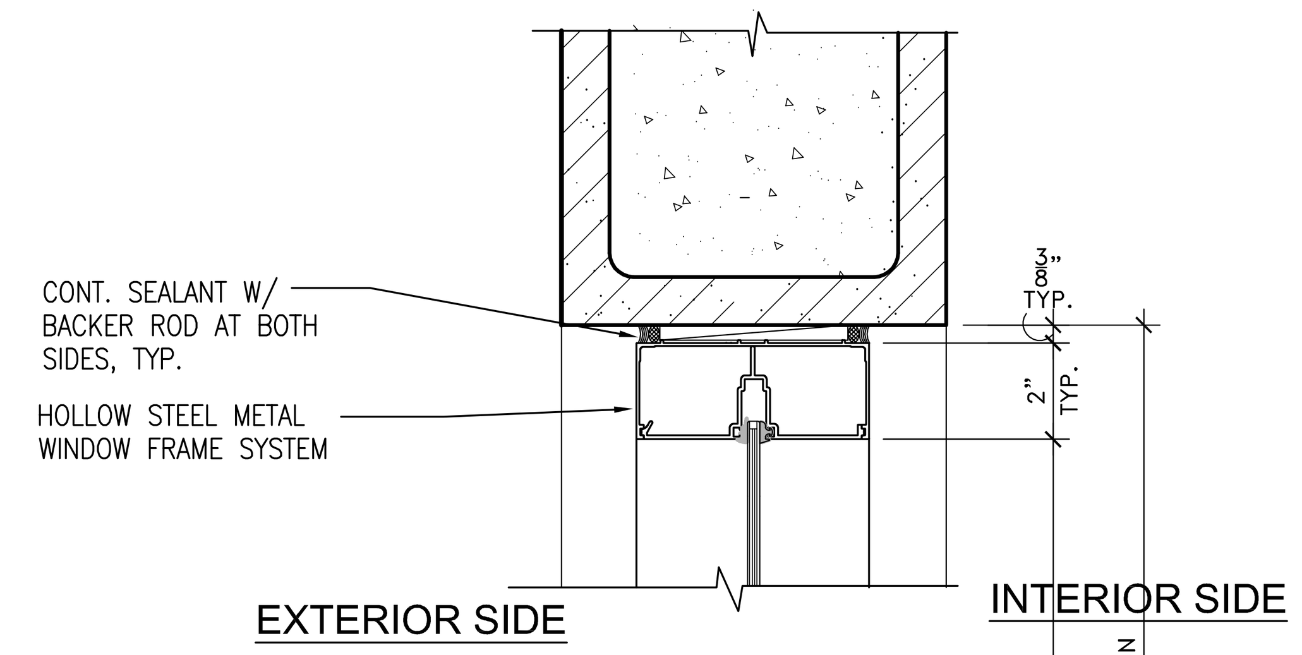


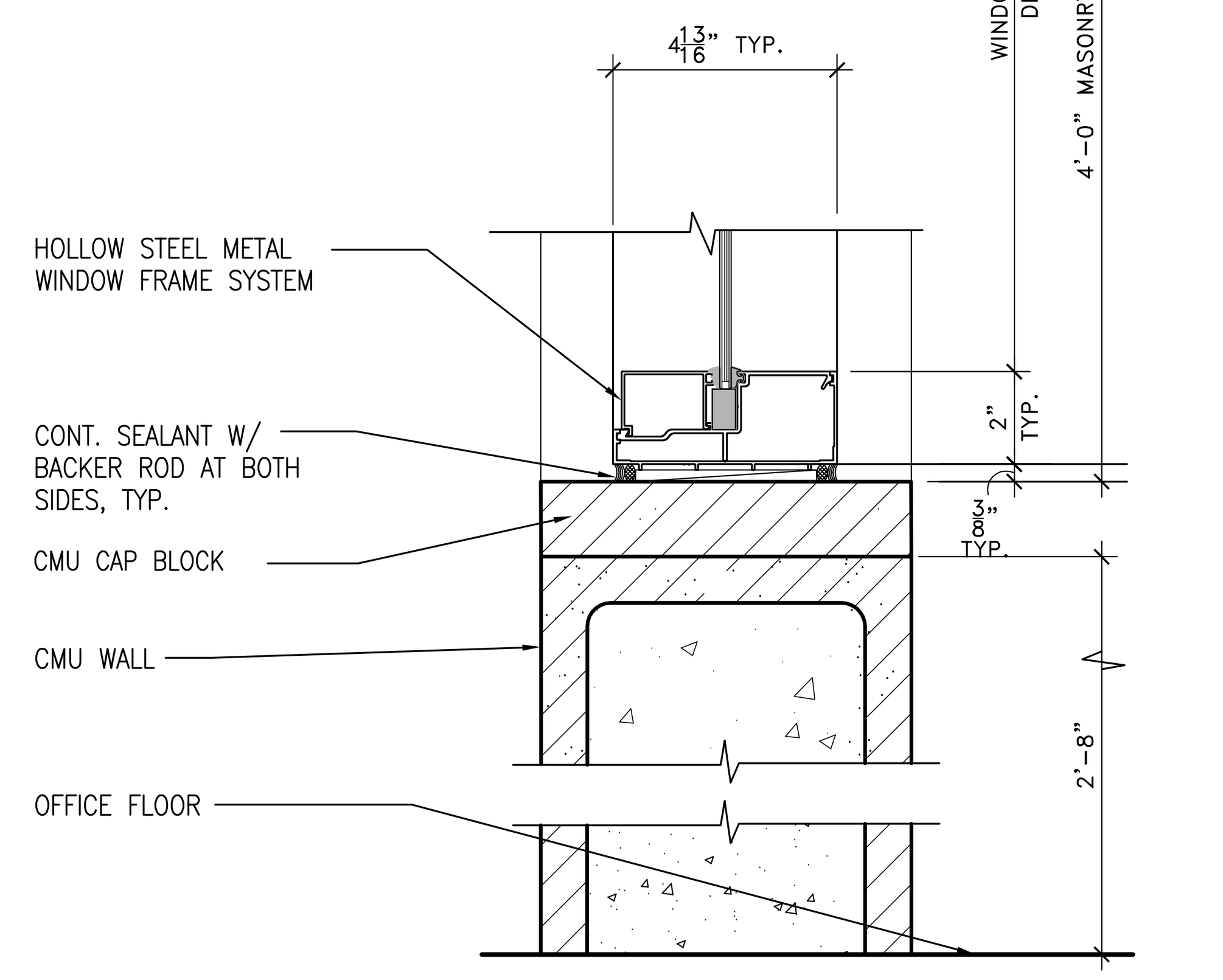
NOTE:
1. MAINTAIN A MINIMUM LIGHTWEIGHT CONCRETE THICK COVERAGE OF 3.6" FOR A 2 HR RATING PER CBC TABLE 721.1(2), ITEM NUMBER 4-1.1.

ELEVATOR DOOR FRAME (JAMB DETAIL) 5

SCALE: 3"=1'-0"



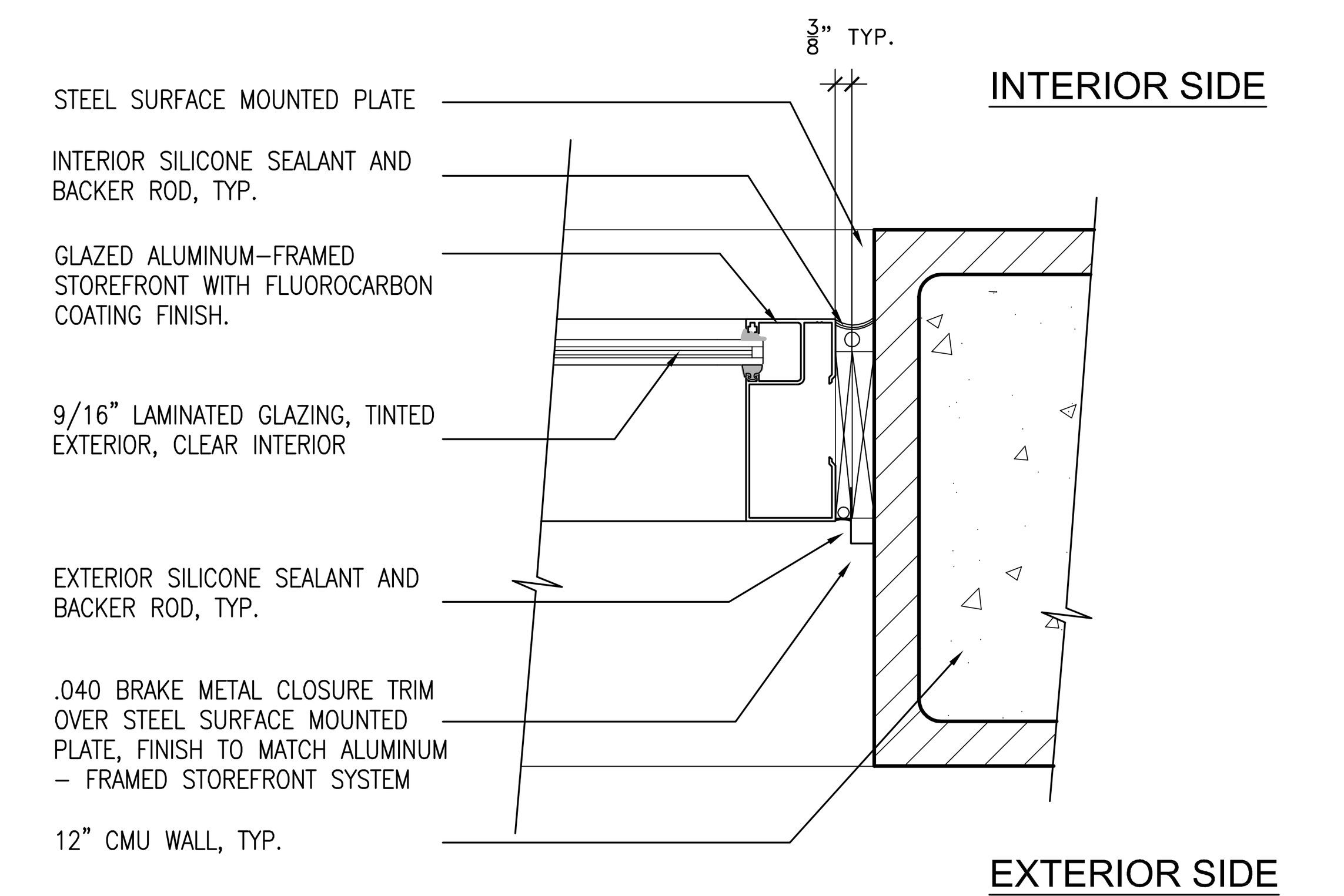
HEAD DETAIL A



SILL DETAIL B

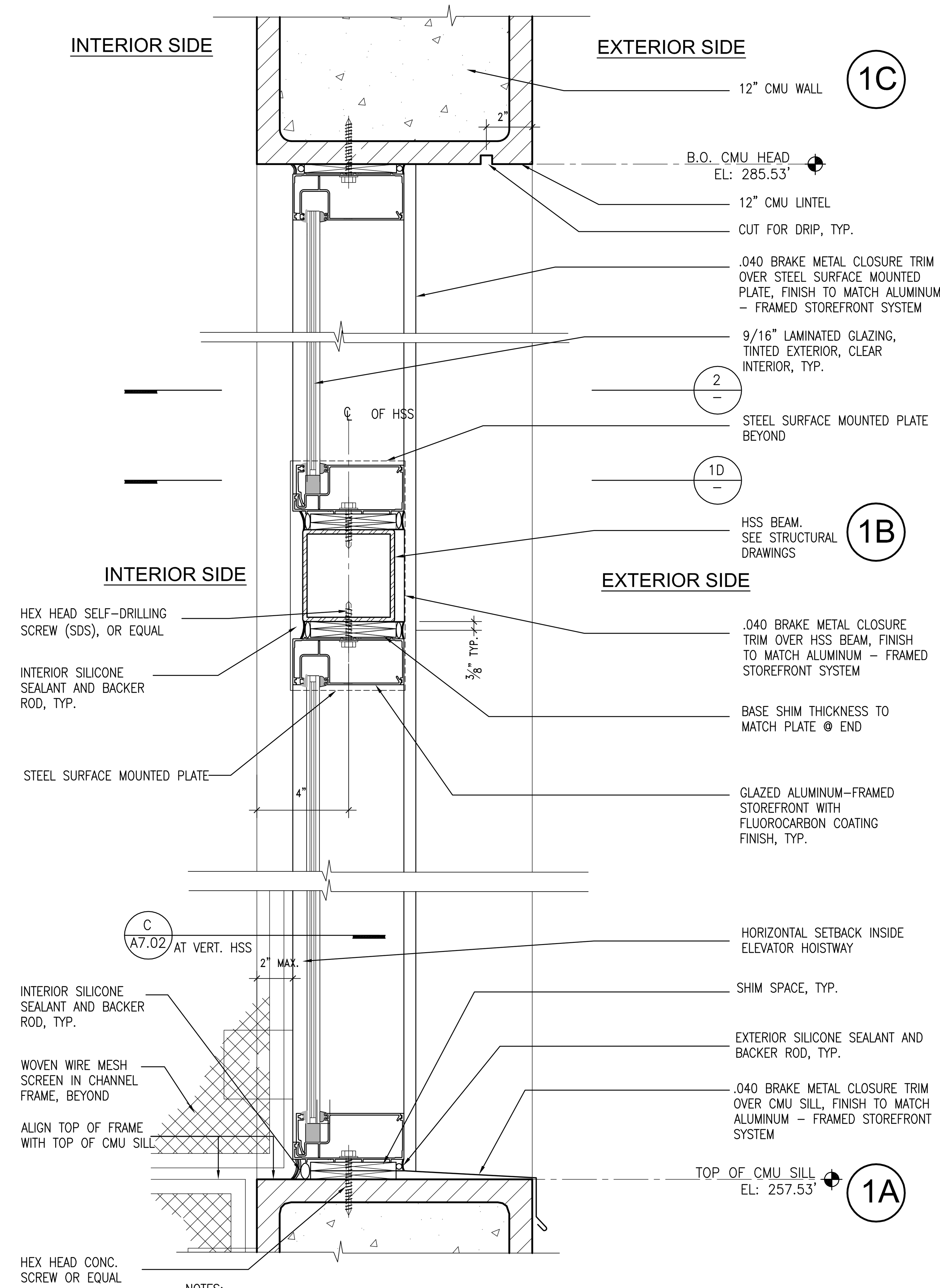
WINDOW DETAIL 3

SCALE: 3"=1'-0"



WINDOW FRAME DETAIL 1D

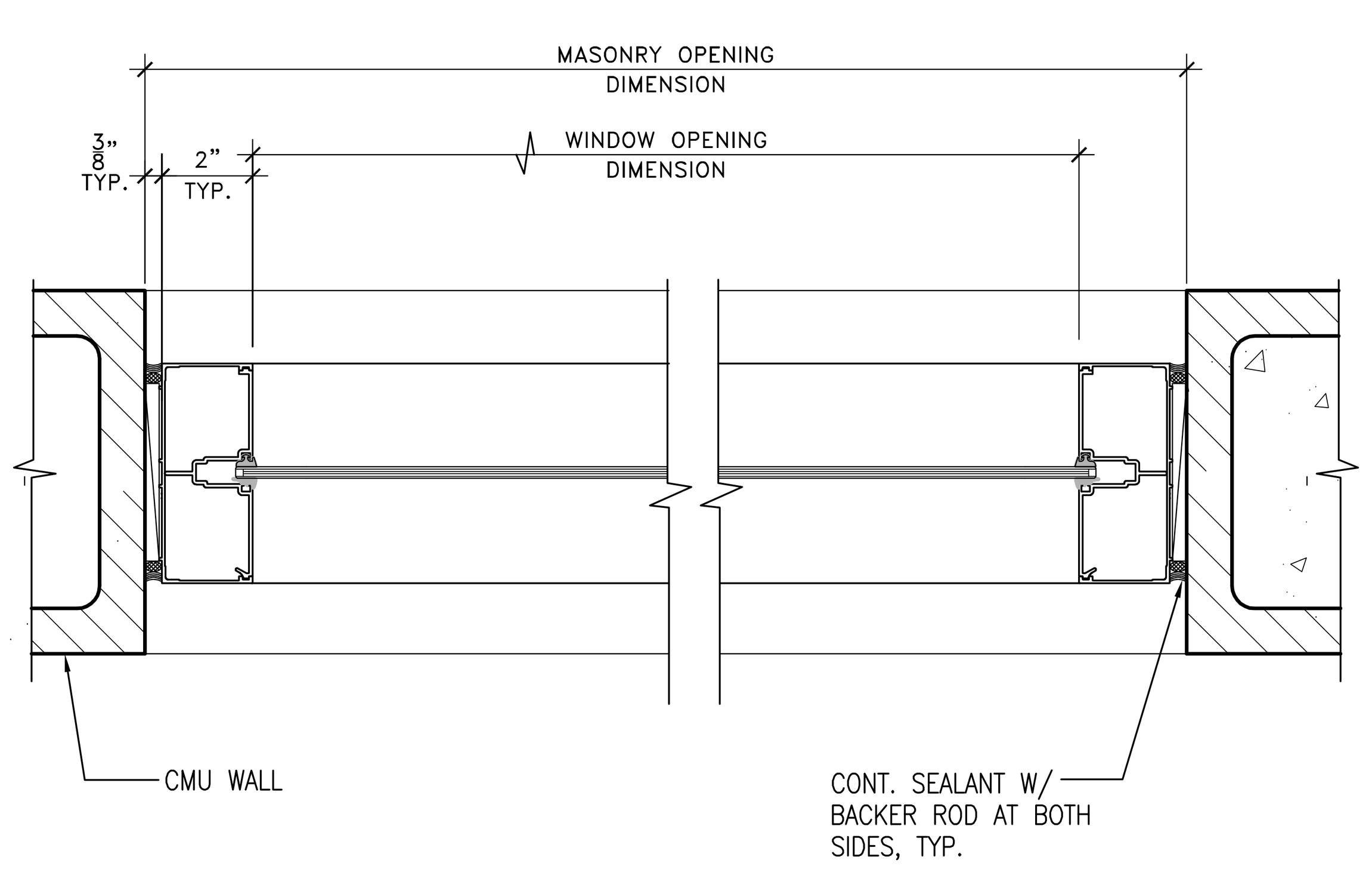
SCALE: 3" = 1'-0"



NOTES:
1. ALUMINUM-FRAME STOREFRONT IS A DEFERRED SUBMITTAL. CONTRACTOR IS TO DESIGN SYSTEM INCLUDING ANCHORAGE OF WINDOW SYSTEM

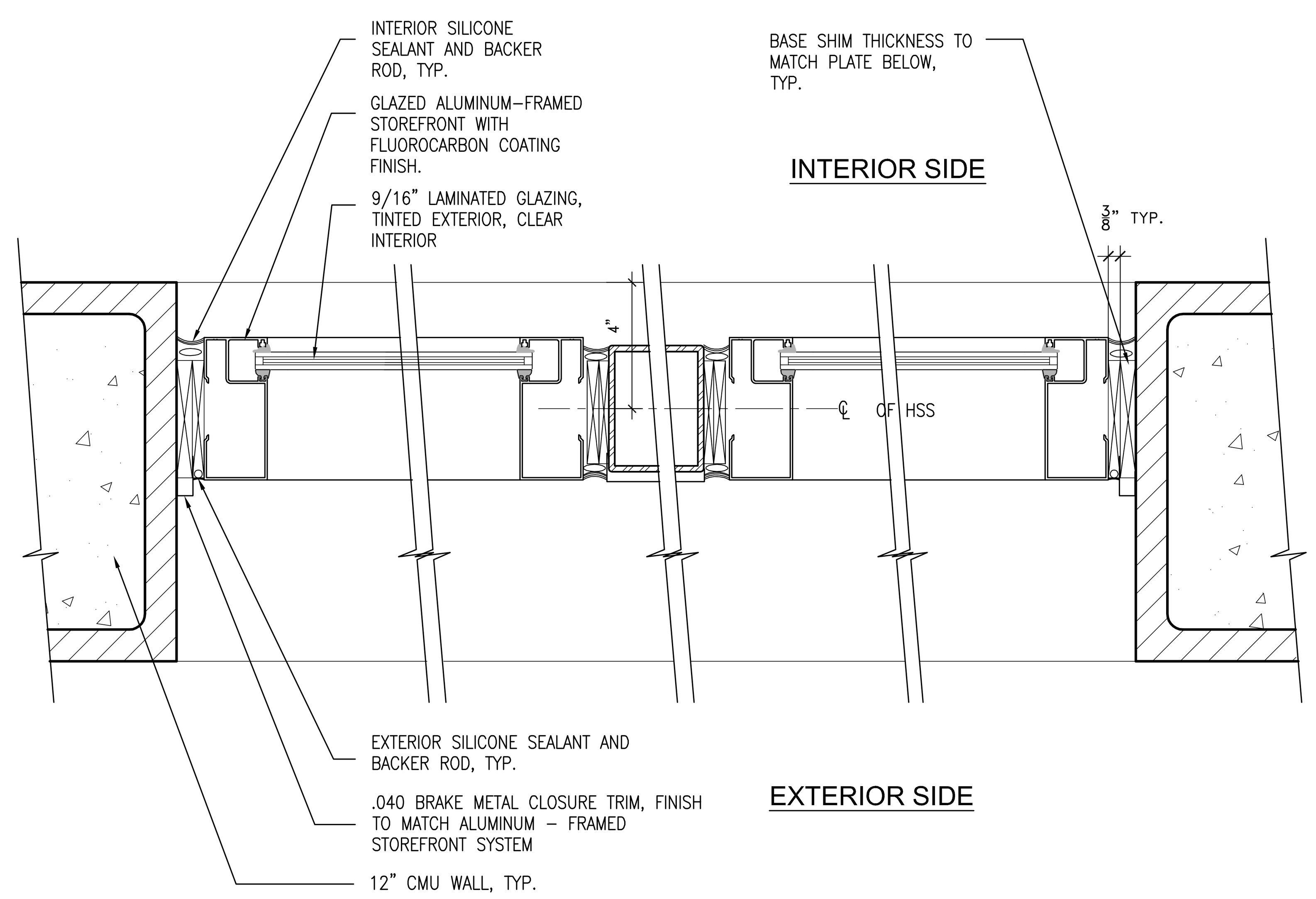
ELEVATOR STOREFRONT SYSTEM DETAIL 1

SCALE: 3" = 1'-0"



WINDOW JAMB DETAIL 4

SCALE: 3"=1'-0"



WINDOW FRAME DETAIL 2

SCALE: 3" = 1'-0"

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LICENSED ARCHITECT
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No. C-32674
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Document Phase:	Backcheck #1
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PIC / AIC:	-
Drawn By:	VC
Checked By:	DV
Comm. No.:	-

Project Title

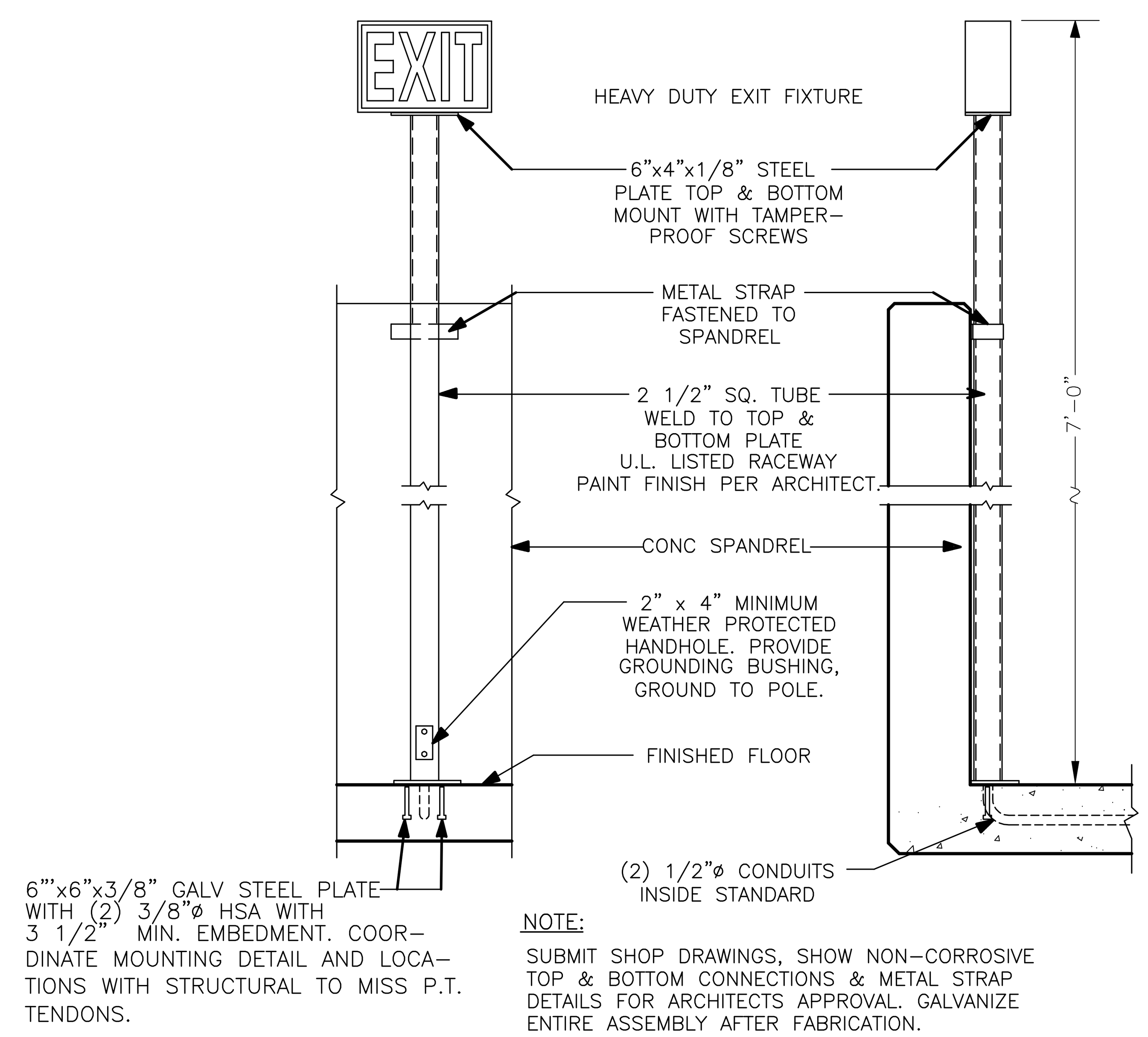
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

TYPICAL DETAILS

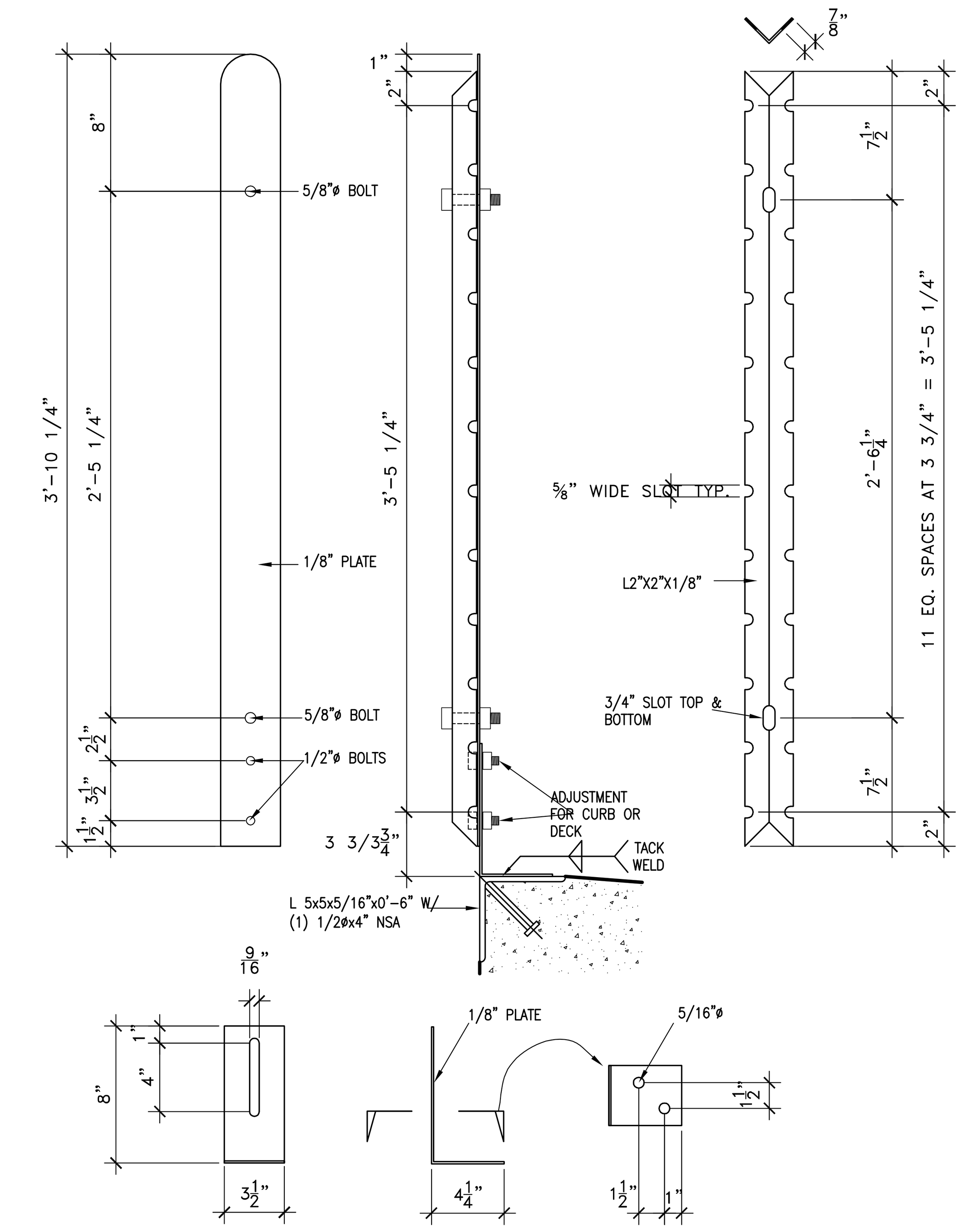
Sheet Number

A7.06



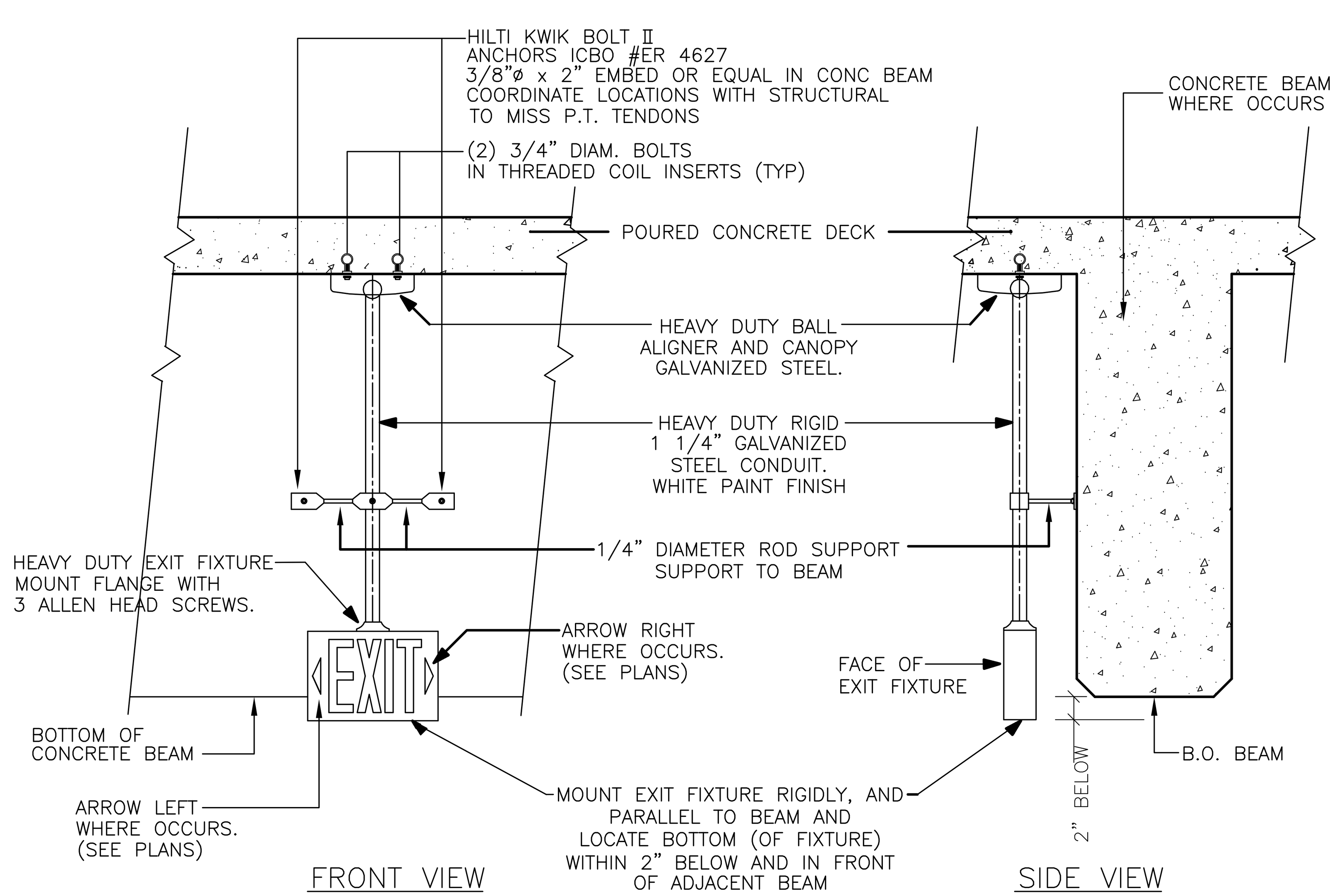
EXIT SIGN AT RAILING (4)

SCALE: NO SCALE



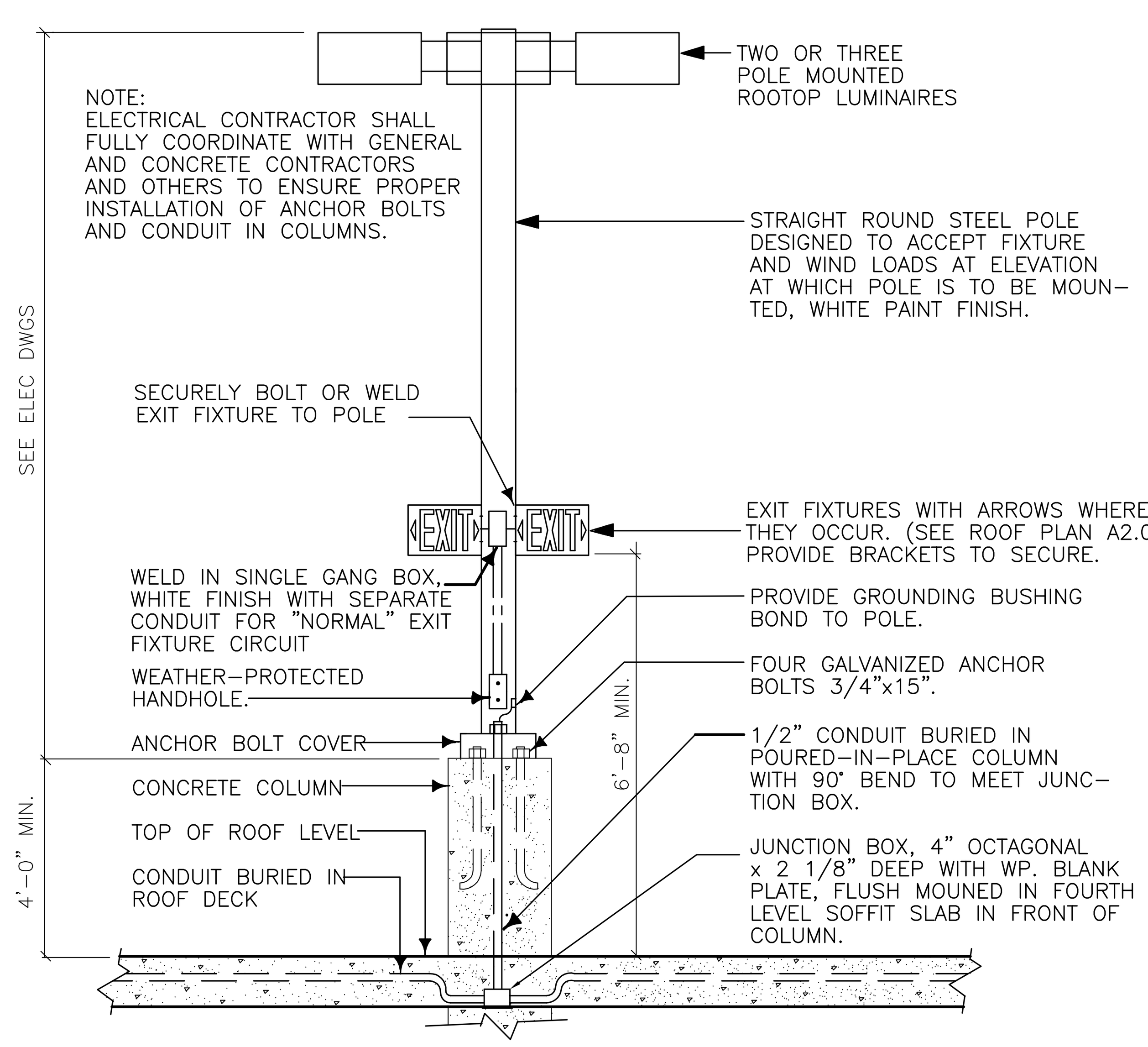
CABLE BARRIER RAIL SUPPORT AT MIDSPAN (2)

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



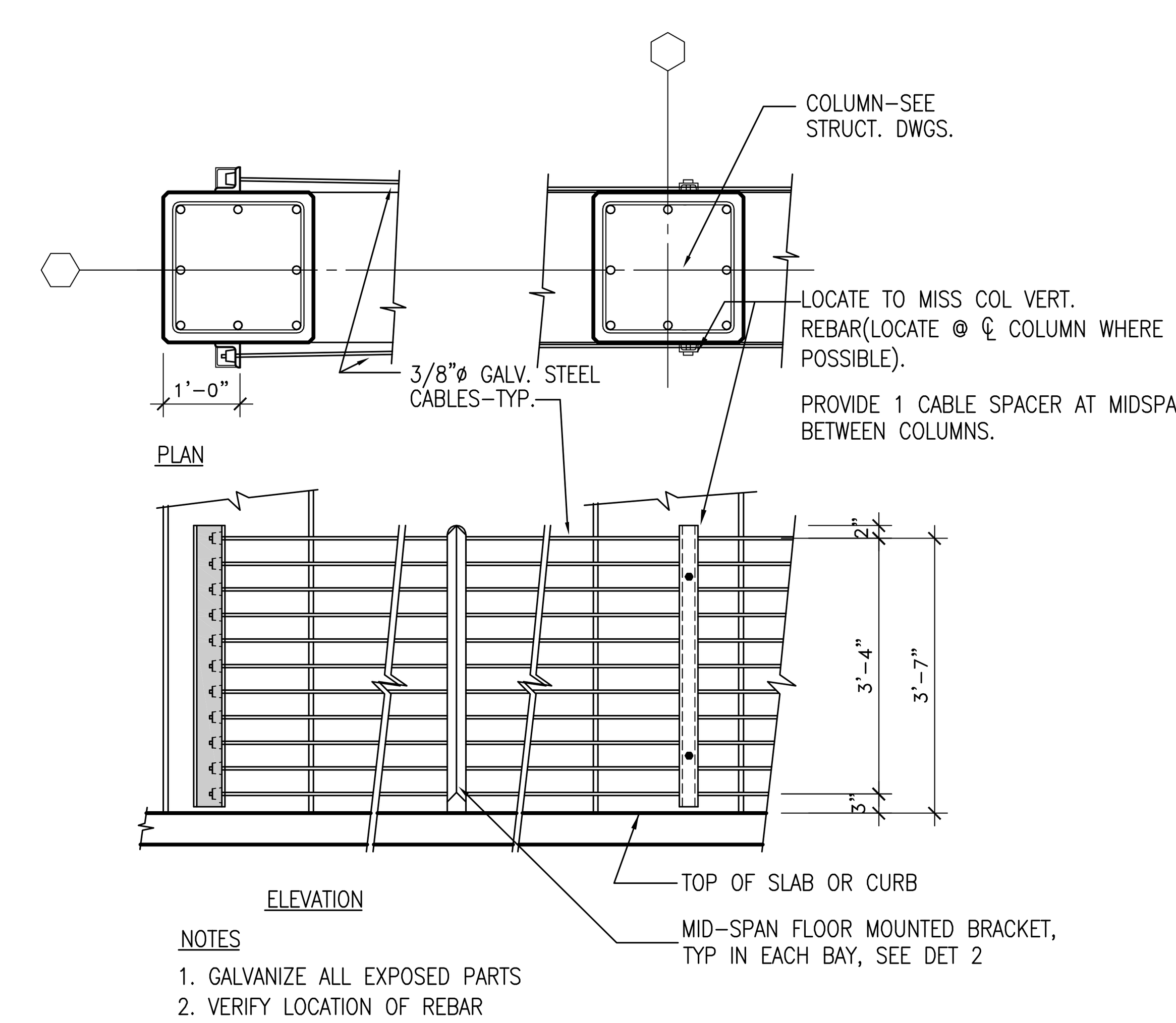
EXIT SIGN AT BEAM (5)

SCALE: NO SCALE



LIGHT POLE BASE (3)

SCALE: NO SCALE



CABLE RAILING @ RAMP (1)

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

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Drawn By:	VC
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Project Title

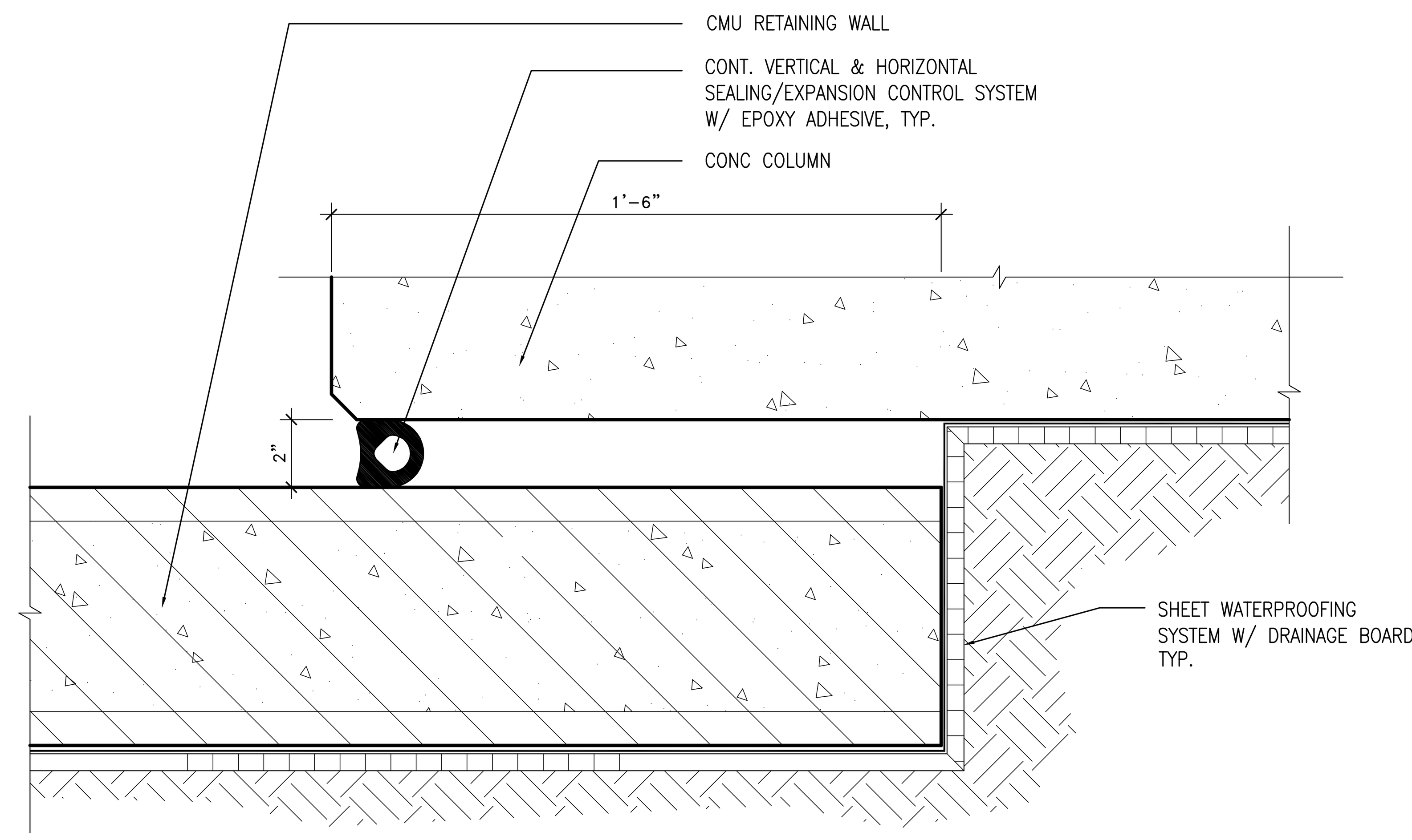
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

TYPICAL DETAILS

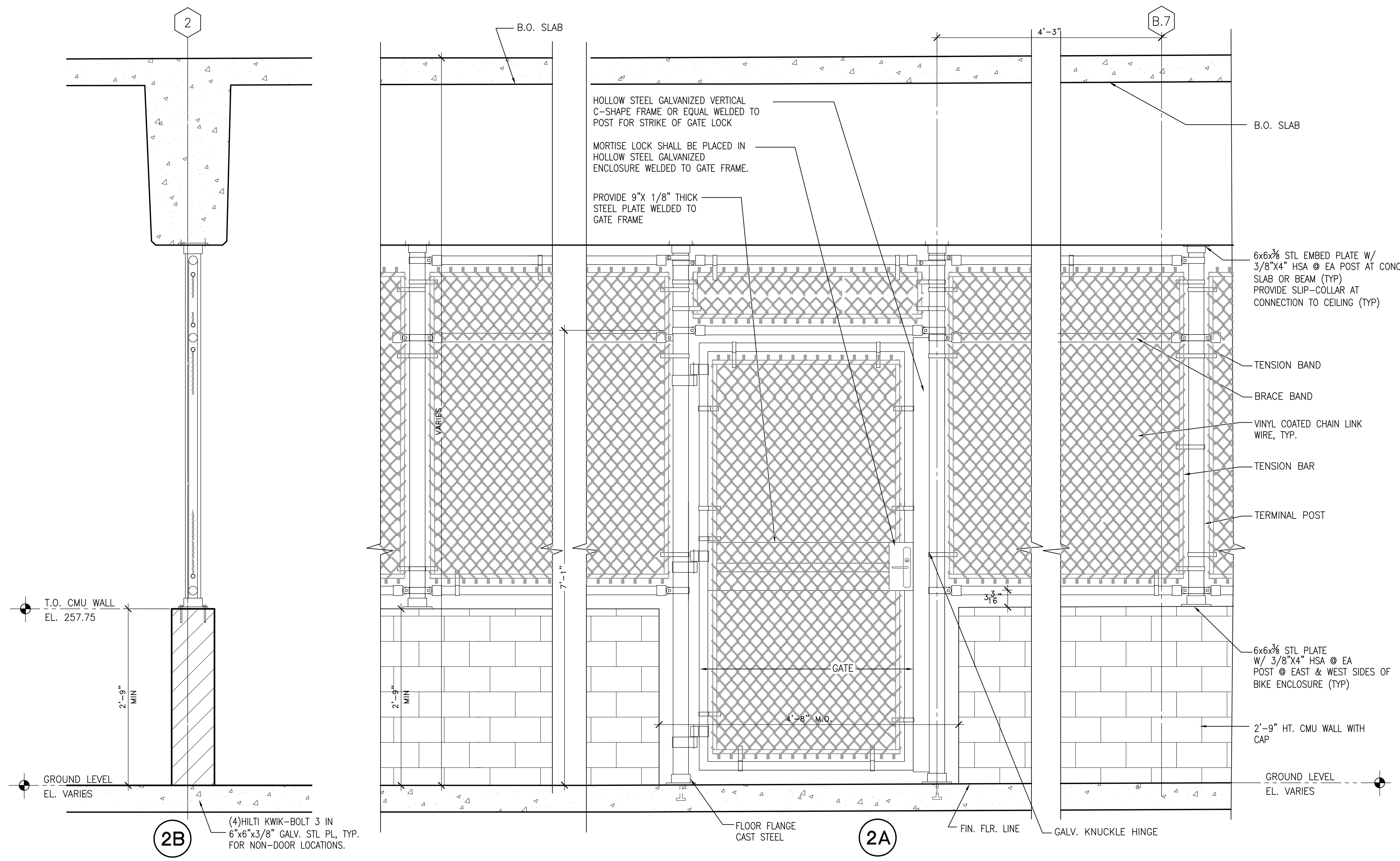
Sheet Number

A7.07



PLAN VIEW
FLASHING AT CMU WALL (2)

SCALE: 3" = 1'-0"



CHAIN LINK FENCE & GATE (1)

SCALE: 1"= 1'-0"

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Project Title

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Sheet Number

A7.08

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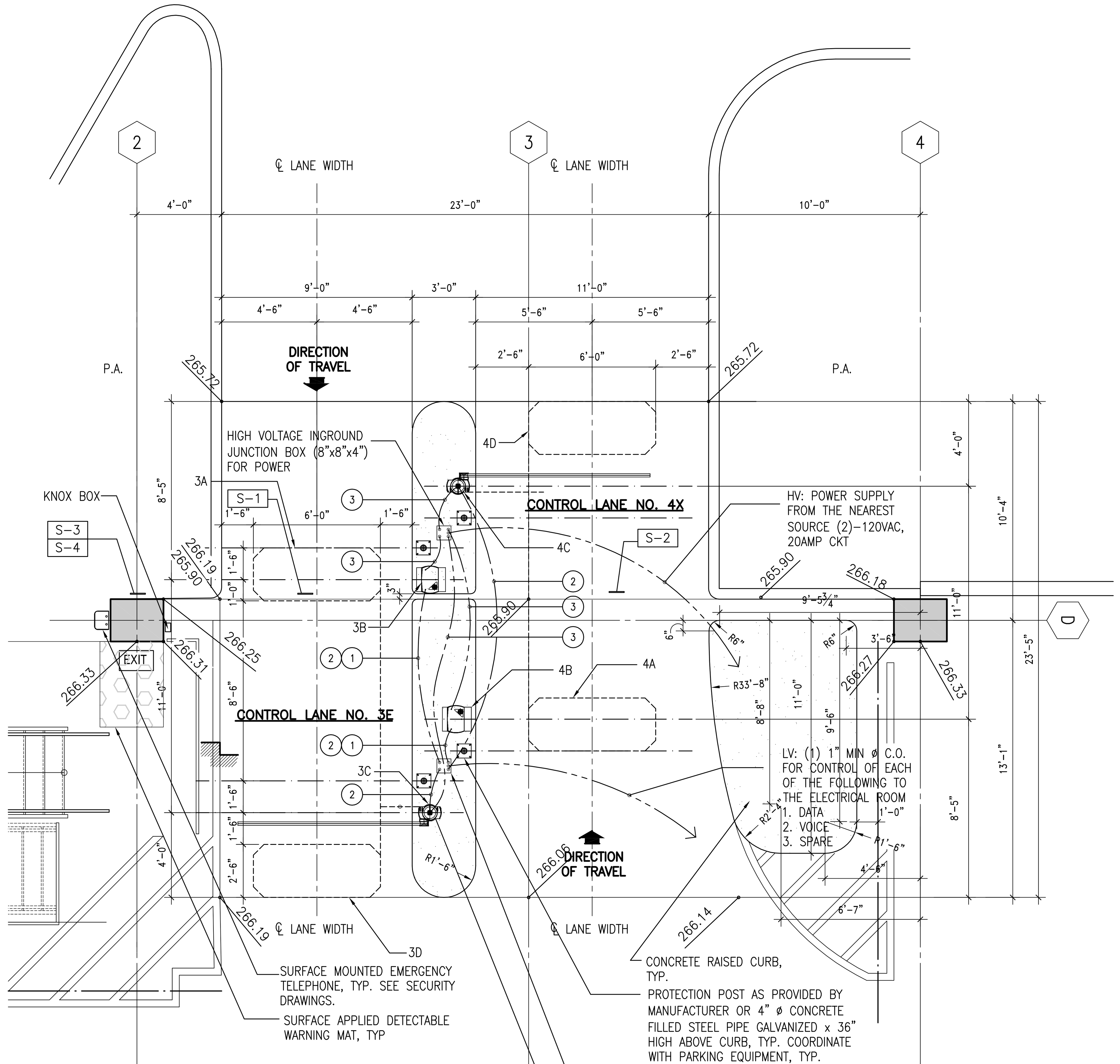
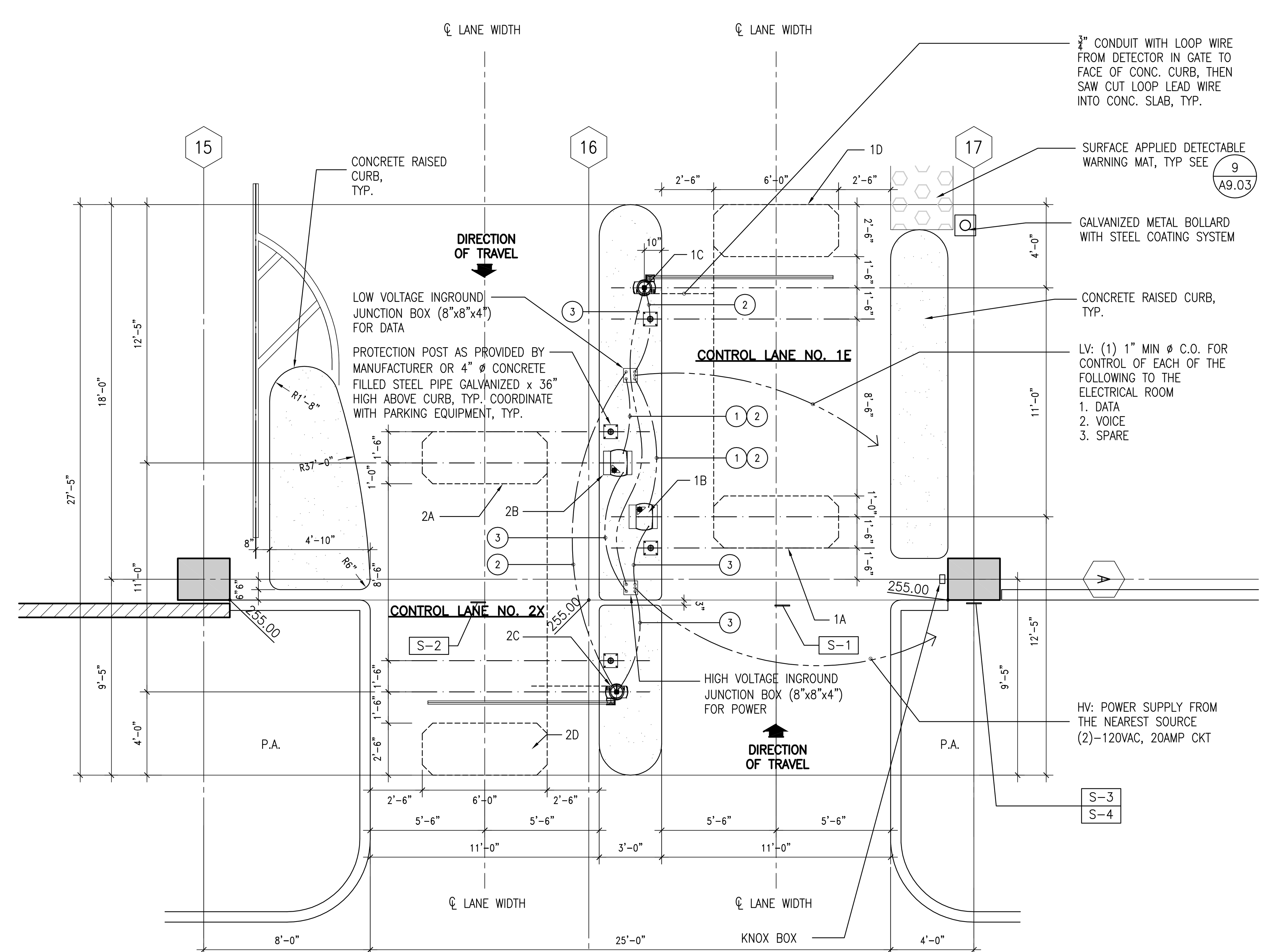


1. 22/4 CAT3, PVC (VOICE)
2. ¾" ø C.O., 22/8 CABLE O.S., PVC (DATA)
3. ONE (1) 115VAC, 20AMP CIRCUIT (POWER)

NOTE:
1. SUPPLY VOLTAGE: 120VAC/60 HZ @ 20AMP (EACH DEVICE)
2. POWER CONSUMPTION: MAX. 250 W (EACH DEVICE)
3. FOR CLARITY PAINTED DIRECTIONAL ARROWS PER A2.01 ARE NOT SHOWN IN THIS ENLARGED LAYOUT

CONTROL LANE NO. 3E AND NO. 4X (2)

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



1. 22/4 CAT3, PVC (VOICE)
2. ¾" ø C.O., 22/8 CABLE O.S., PVC (DATA)
3. ONE (1) 115VAC, 20AMP CIRCUIT (POWER)

NOTE:
1. SUPPLY VOLTAGE: 120VAC/60 HZ @ 20AMP (EACH DEVICE)
2. POWER CONSUMPTION: MAX. 250 W (EACH DEVICE)
3. FOR CLARITY PAINTED DIRECTIONAL ARROWS PER A2.01 ARE NOT SHOWN IN THIS ENLARGED LAYOUT

CONTROL LANE NO. 1E AND NO. 2X (1)

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

PARKING CONTROL EQUIPMENT LIST:

CONTROL LANE NO. 3E

3A – LOOP DETECTOR ASSEMBLY (PRESENCE LOOP)
3B – ENTRY STATION W/ COMBINATION TICKET DISPENSER, PROXIMITY CARD READER, & INTERCOM
3C – GATE WITH REMOTE OPERATION
3D – LOOP DETECTOR ASSEMBLY (CLOSING LOOP)

CONTROL LANE NO. 4X

4A – LOOP DETECTOR ASSEMBLY (PRESENCE LOOP)
4B – EXIT STATION W/ CREDIT CARD PAY, PROXIMITY CARD READER, & INTERCOM
4C – GATE WITH REMOTE OPERATION
4D – LOOP DETECTOR ASSEMBLY (CLOSING LOOP)

CONTROL LANE GENERAL NOTES

1. THIS DRAWING IS NOT TO BE USED FOR ELECTRICAL CIRCUITRY. REFER TO ELECTRICAL DRAWINGS.
2. ———— — — ———— DENOTES CONDUIT AND WIRE FOR POWER OR PULL WIRE FOR CONTROLS BY ELECTRICAL CONTRACTOR.
3. ———— — ———— DENOTES CONDUIT AND WIRE BY PARKING EQUIPMENT INSTALLER.
4. C.O. (CONDUIT ONLY) DENOTES CONDUIT AND PULL WIRE.
5. STUB-UP CONDUIT 8" ABOVE TOP OF CONCRETE ISLAND PLUS 3'-0" OF WIRE FOR PARKING EQUIPMENT SUPPLIER.
6. LOCATION OF FLOOR CUT-OUT FOR ELECTRICAL STUB-UPS SHALL BE VERIFIED WITH EQUIPMENT SUPPLIER PRIOR TO RUNNING ANY ELECTRICAL CONDUIT WITH WIRES (POWER SUPPLY).
7. ELECTRICAL CONTRACTOR SHALL VERIFY WITH PARKING EQUIPMENT SUPPLIER AS TO THE ACTUAL POWER REQUIREMENTS TO EACH LOCATION BEFORE START OF WORK.
8. ELECTRICAL CONTRACTOR SHALL VERIFY WITH INTERCOM SYSTEM SUPPLIER AS TO THE ACTUAL CONDUIT SIZE REQUIRED BEFORE START OF WORK.
9. CONCRETE CURBS SHALL BE 6" HIGH UNO.
10. FOR ADDITIONAL PARKING EQUIPMENT REQUIREMENTS, REFER TO SPECS.
11. COORDINATE WITH ELECTRICAL DRAWINGS.
12. ENTRY & EXIT STATIONS ARE SKIDATA POWER.GATE OR EQUAL. REFER TO SPECS.
12. PROTECTION POSTS ARE SKIDATA PP AND PP OFFSET (TOP) PROTECTION POTS OR EQUAL.

PARKING CONTROL EQUIPMENT LIST:

CONTROL LANE NO. 1E

1A – LOOP DETECTOR ASSEMBLY (PRESENCE LOOP)
1B – ENTRY STATION W/ COMBINATION TICKET DISPENSER, PROXIMITY CARD READER, & INTERCOM
1C – GATE WITH REMOTE OPERATION
1D – LOOP DETECTOR ASSEMBLY (CLOSING LOOP)

CONTROL LANE NO. 2X

2A – LOOP DETECTOR ASSEMBLY (PRESENCE LOOP)
2B – EXIT STATION W/ CREDIT CARD PAY, PROXIMITY CARD READER, & INTERCOM
2C – GATE WITH REMOTE OPERATION
2D – LOOP DETECTOR ASSEMBLY (CLOSING LOOP)

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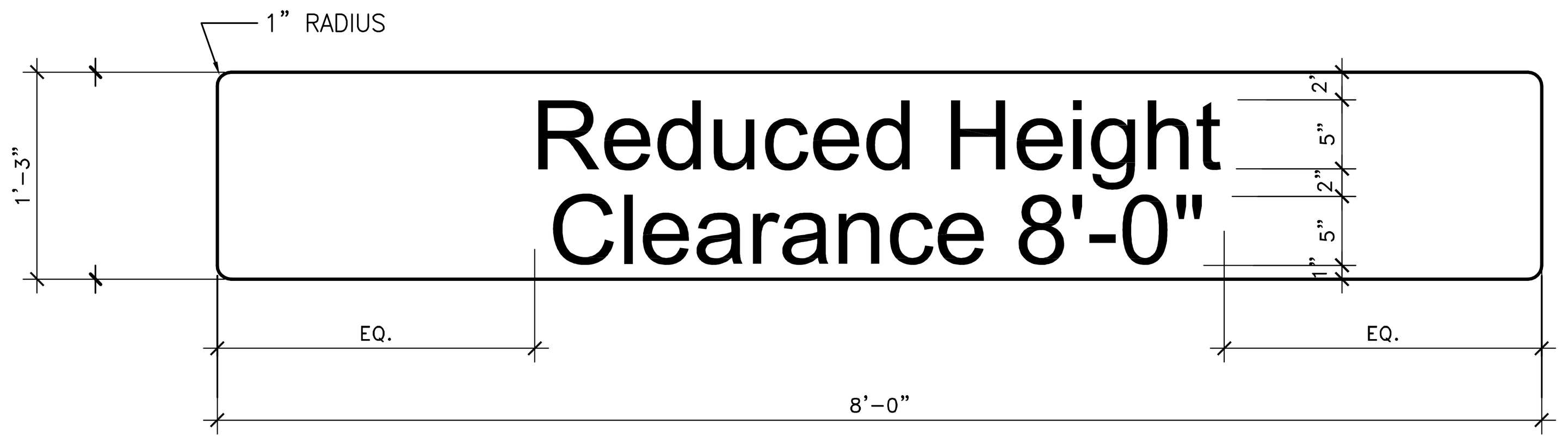
Comm. No.:	-

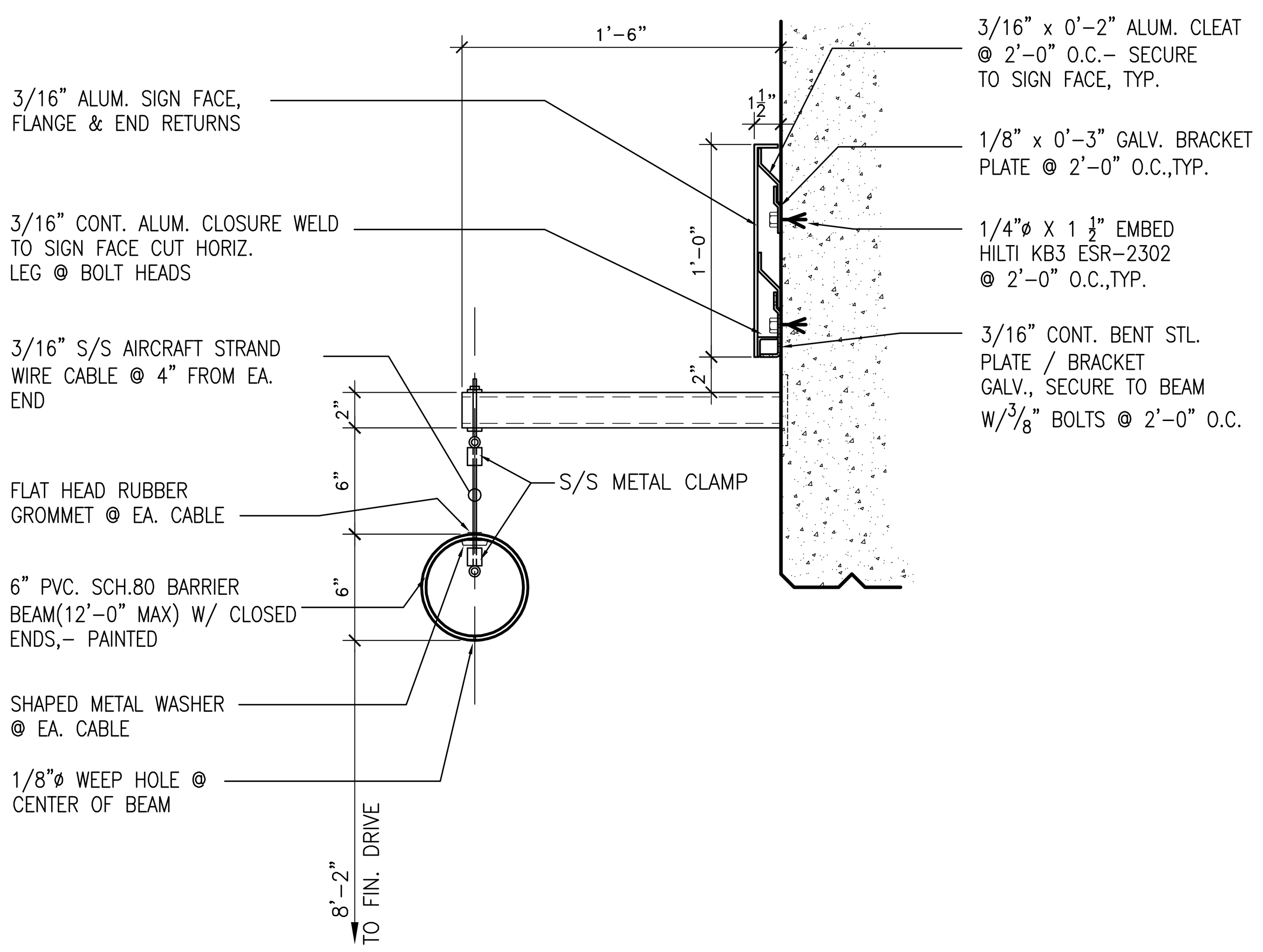
Project Title
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title
PARKING CONTROL LANE PLAN

Sheet Number
A8.01



SIGN DETAIL 7
SCALE: 1"= 1'-0"



BARRIER BEAM DETAIL 6
SCALE: 1 1/2" = 1'-0"

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

SIGNAGE AND GRAPHICS SCHEDULE

SIGN/GRAPHIC DESIGNATION	PLAN LOCATION (CONTRACTOR USE)	MESSAGE	DETAIL REFERENCE	BACKGROUND MATERIAL	BACKGROUND FINISH	SIZE	TYPE FACE	TYPE FACE MATERIAL/FINISH	COLOR: BACKGROUND	COLOR: MESSAGE/TEXT	COLOR: LEVEL COLOR CODING	COLOR: PICTOGRAPH	MOUNT	MOUNTING DETAIL	REMARKS
S-1		Clearance 8'-2" Max. Vehicle Weight 6,000 lbs. ↓ ENTER ♿	1/–	AL	P	11'-6" X 1'-0"	HM	V	DG	W	–	W/BL	SM	6/–	
S-2		⊖ EXIT ⊖	2/–	AL	P	8'-0" X 1'-0"	HM	V	DG	W	–	W/R	SM	6/–	
S-3		Unauthorized Vehicles Parked ..., – FOR MESSAGE REFER TO DETAIL	3/–	AL	P	2'-0" X 2'-0"	HM	V	W	B	–	_	SM	–	
S-4		WARNING AUTOMOBILE FUEL, – FOR MESSAGE REFER TO DETAIL	4/–	AL	P	1'-4" X 1'-2"	HM	SC	DG	W	–	–	SM	–	
S-5		ACCESSIBLE SIGN, – FOR MESSAGE REFER TO DETAIL	1/A9.02	AL	P	1'-0" x 2'-0"	HC	V	BL	W	–	W	SM	–	
S-6		ACCESSIBLE SIGN, – FOR MESSAGE REFER TO DETAIL	1/A9.02	AL	P	1'-0" x 2'-0"	HC	V	BL	W	–	W	C-BR-H	3/A9.02	
S-7		VAN ACCESSIBLE SIGN, – FOR MESSAGE REFER TO DETAIL	2/A9.02	AL	P	1'-0" x 2'-0"	HC	V	BL	W	–	W	C-BR-H	3/A9.02	
S-8		VAN ACCESSIBLE SIGN, – FOR MESSAGE REFER TO DETAIL	2/A9.02	AL	P	1'-0" x 2'-0"	HC	V	BL	W	–	W	SM	–	
S-9		ELECTRICAL ROOM	5/–	MPL	P	1'-0" X 5"	HM	RI	DG	W	–	–	SM	–	
S-10		STORAGE ROOM	5/–	MPL	P	1'-0" X 5"	HM	RI	DG	W	–	–	SM	–	
S-11		ELEVATOR CONTROL ROOM	5/–	MPL	P	1'-0" X 6 1/2"	HM	RI	DG	W	–	–	SM	–	
S-12		REDUCED HEIGHT CLEARANCE 8'-0"	7/–	AL	P	8'-0" X 1'-3"	HM	V	DG	W	–	–	SM	–	
S-13		ACCESSIBLE SIGN, – FOR MESSAGE REFER TO DETAIL	4/A9.02	AL	P	1'-0" x 1'-5 1/2"	HC	V	BL	W	–	W	C-BR-H	3/A9.02	
S-14		VAN ACCESSIBLE SIGN, – FOR MESSAGE REFER TO DETAIL	5/A9.02	AL	P	1'-0" x 1'-5 1/2"	HC	V	BL	W	–	W	C-BR-H	3/A9.02	

(A) MATERIAL TYPES/FINISH:
- AL/MTL – ALUMINIUM/METAL, GALV.
- C – CONCRETE
- FB – FIBERBOARD, EXTERIOR TYPE
- FG – FIBERGLASS
- MP – METAL PAINTED
- MPL – MELAMINE PLASTIC LAMINATE
- P – PAINTED SURFACE
- PF – PAINTED FRISKET METHOD
- RI – RAISED, INTEGRAL
- SC – SILK SCREENED
- STL [– STEEL CHANNEL
- STL – STEEL PRIMED
- V* – DIE CUT VINYL

(B) BACKGROUND/TEXT/COPY

B	BLACK	R	RED	R	RED
BL	BLUE	W	WHITE	W	WHITE
BR	BROWN	Y	YELLOW	DG	DARK GREEN

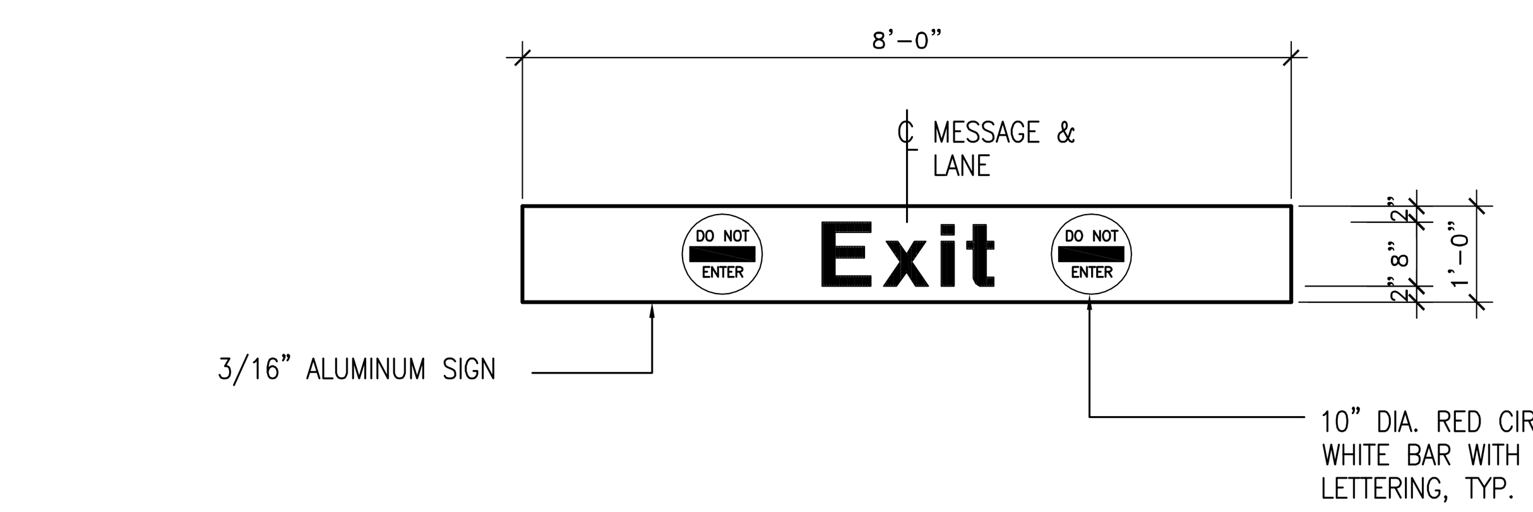
(C) TYPE FACE:
- HB – HELVETICA BOLD
- HC – HELVETICA COMPACT
- HM – HELVETICA MEDIUM

(D) MOUNT:
- C-CH-H – CEILING CHAIN HUNG
- C-CA-H – CEILING CABLE HUNG
- C-BR-H – CEILING BRACKET HUNG
- PM – POST MOUNTED
- SM – SURFACE MOUNTED

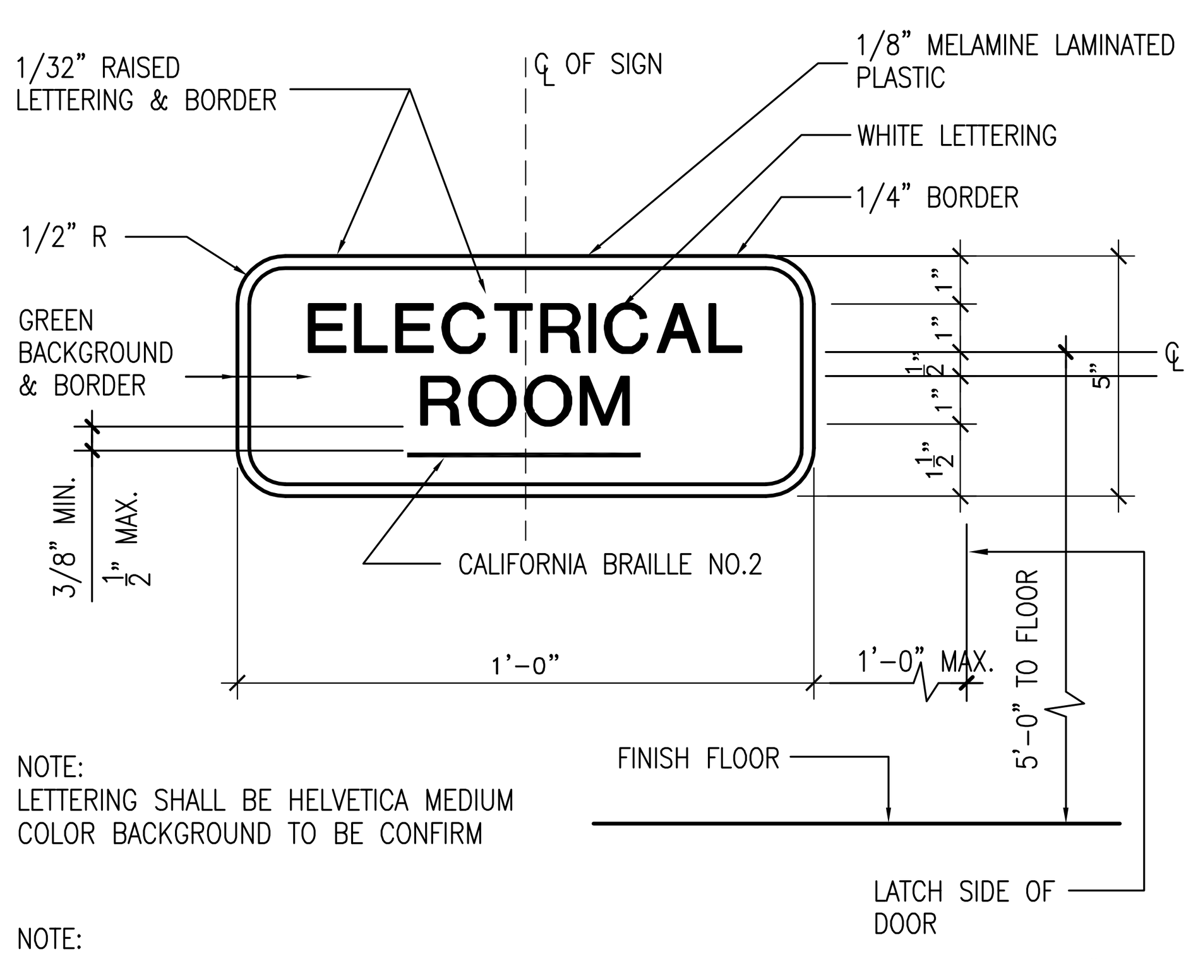
(E) LEGEND:
- FOR SIGN & GRAPHIC LOCATIONS REFER TO FLOOR PLANS
- S-1 — INDICATES SIGN DESIGNATION

(F) • PROJECT COLORS: ALL COLORS SHALL BE CONFIRMED & APPROVED BY THE OWNER PRIOR TO EXECUTION OF ANY FINISH WORK. COLORS MAY BE CHANGED PRIOR TO FABRICATION/EXECUTION OF WORK.

(G) *NOTE:
* 1. COPY SHALL BE 3M SCOTCH CAL SELF-ADHERING DIE-CUT VINYL OR APPROVED EQUAL.
2. FOR ADDITIONAL INFORMATION REFER TO SPECIFICATION.
3. 70 % MIN. CONTRAST VALUE FOR 2 COLOR SIGNS.
4. ALL BLUE BACKGROUNDS FOR ACCESSIBLE SIGNS SHALL BE FEDERAL BLUE (COLOR #15090 PER STANDARD 595B TYP.)
5. ALL BRAILLE ON SIGNS SHALL BE CALIFORNIA BRAILLE NO. 2
6. FINAL GRAPHIC CONSULTANT SHALL CONFIRM AND APPROVE FINAL SIGN DESIGN INCLUDING COLOR, TYPEFACE, MATERIAL, SIZE PRIOR TO EXECUTION OF ANY FINISH WORK.



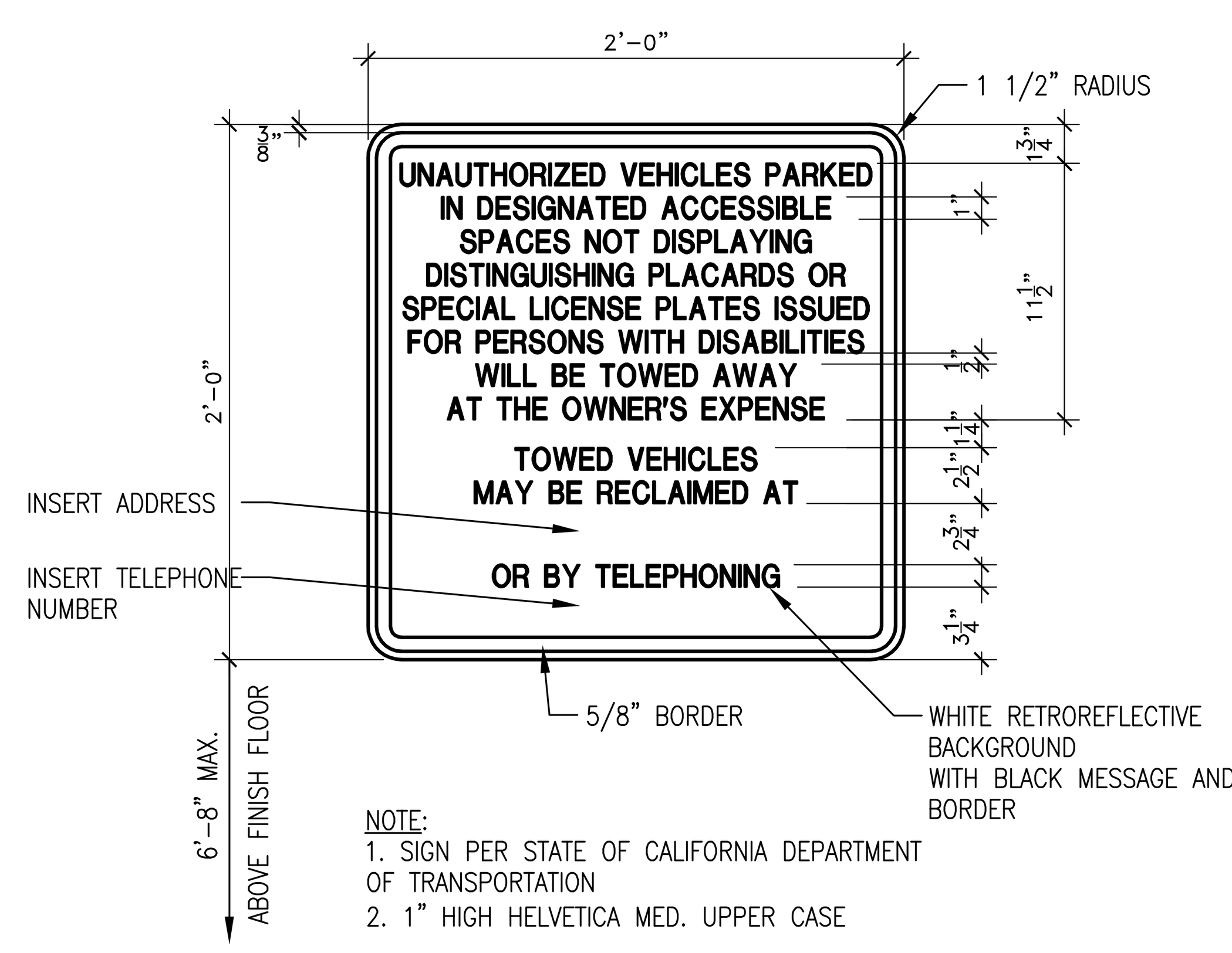
CLEARANCE BARRIER SIGN DETAIL AT EXIT 2
SCALE: 1/2"=1'-0"



NOTE:
LETTERING SHALL BE HELVETICA MEDIUM
COLOR BACKGROUND TO BE CONFIRM

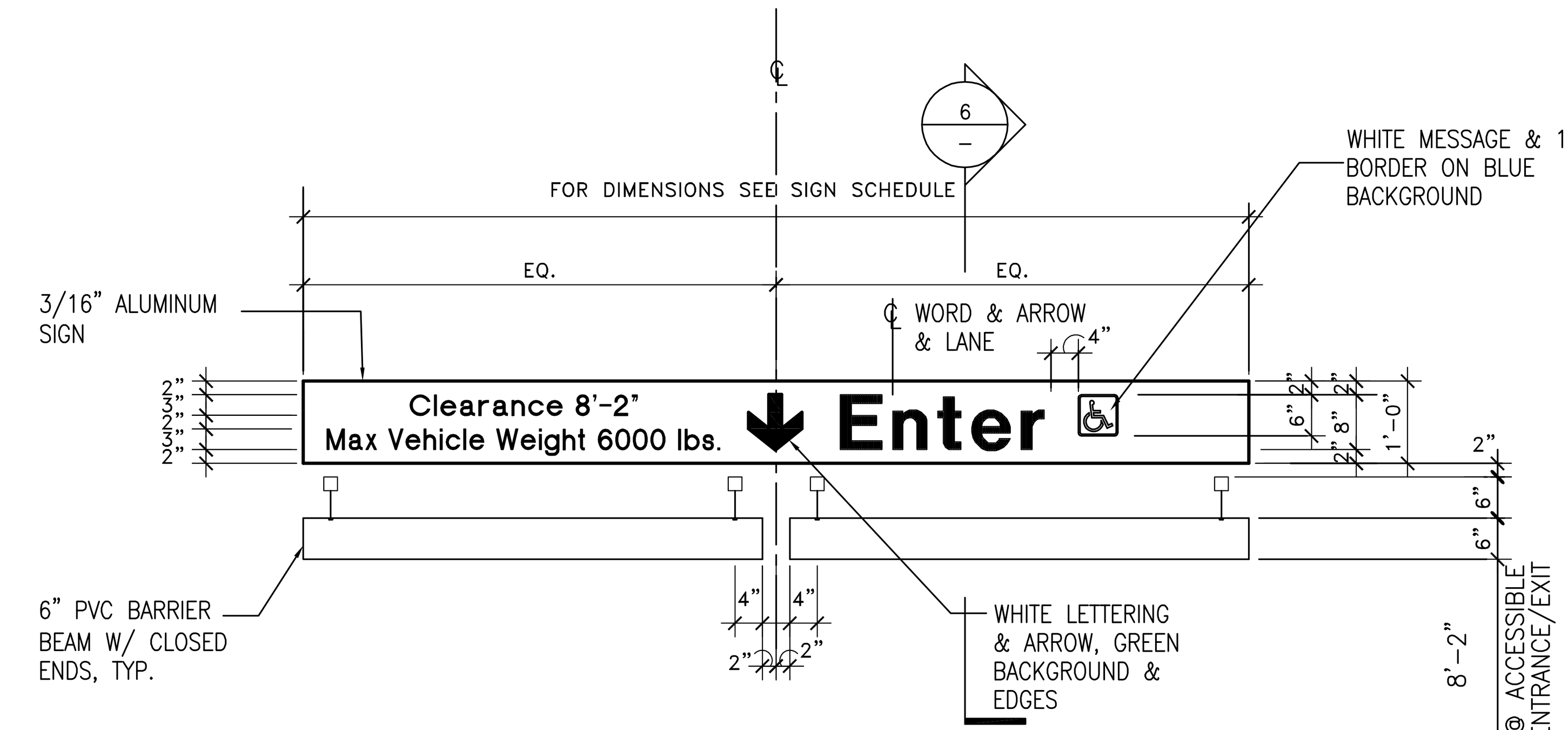
NOTE:
TACTILE SIGNS MUST BE INSTALLED ADJACENT TO SPECIFIC DOOR THEY IDENTIFY, AT 60" ON CENTER AFF. SIGN MUST NOT BE INSTALLED BEHIND AN OBSTRUCTION, AND READER MUST BE ABLE TO APPROACH SIGN WITHIN 3" WITHOUT BEING HIT BY SWING OF DOOR.

SIGN DETAIL 5
SCALE: 3"=1'-0"



NOTE:
1. SIGN PER STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
2. 1" HIGH HELVETICA MED. UPPER CASE

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



CLEARANCE BARRIER SIGN DETAIL AT ENTRY 1
SCALE: 1/2"=1'-0"

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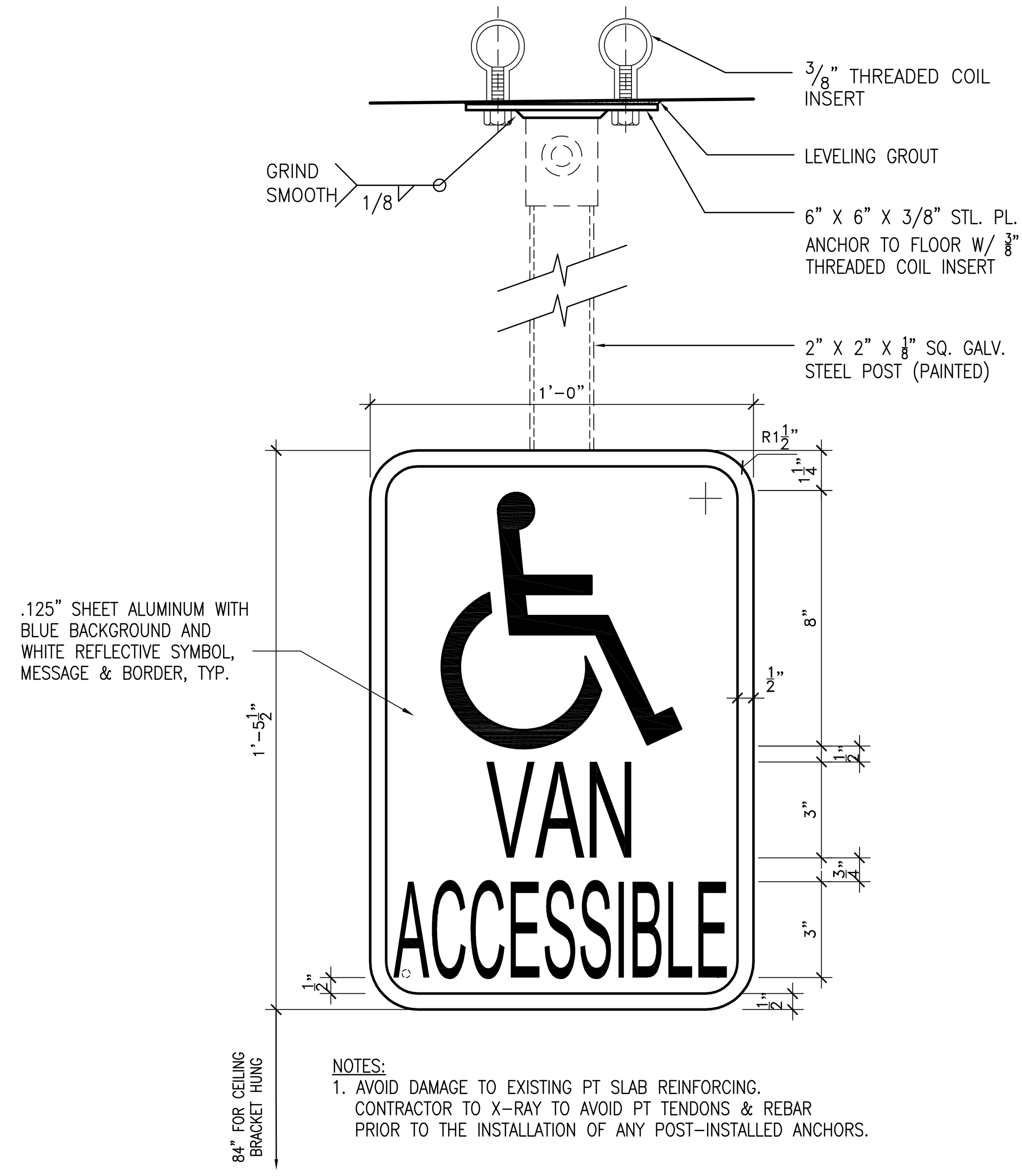
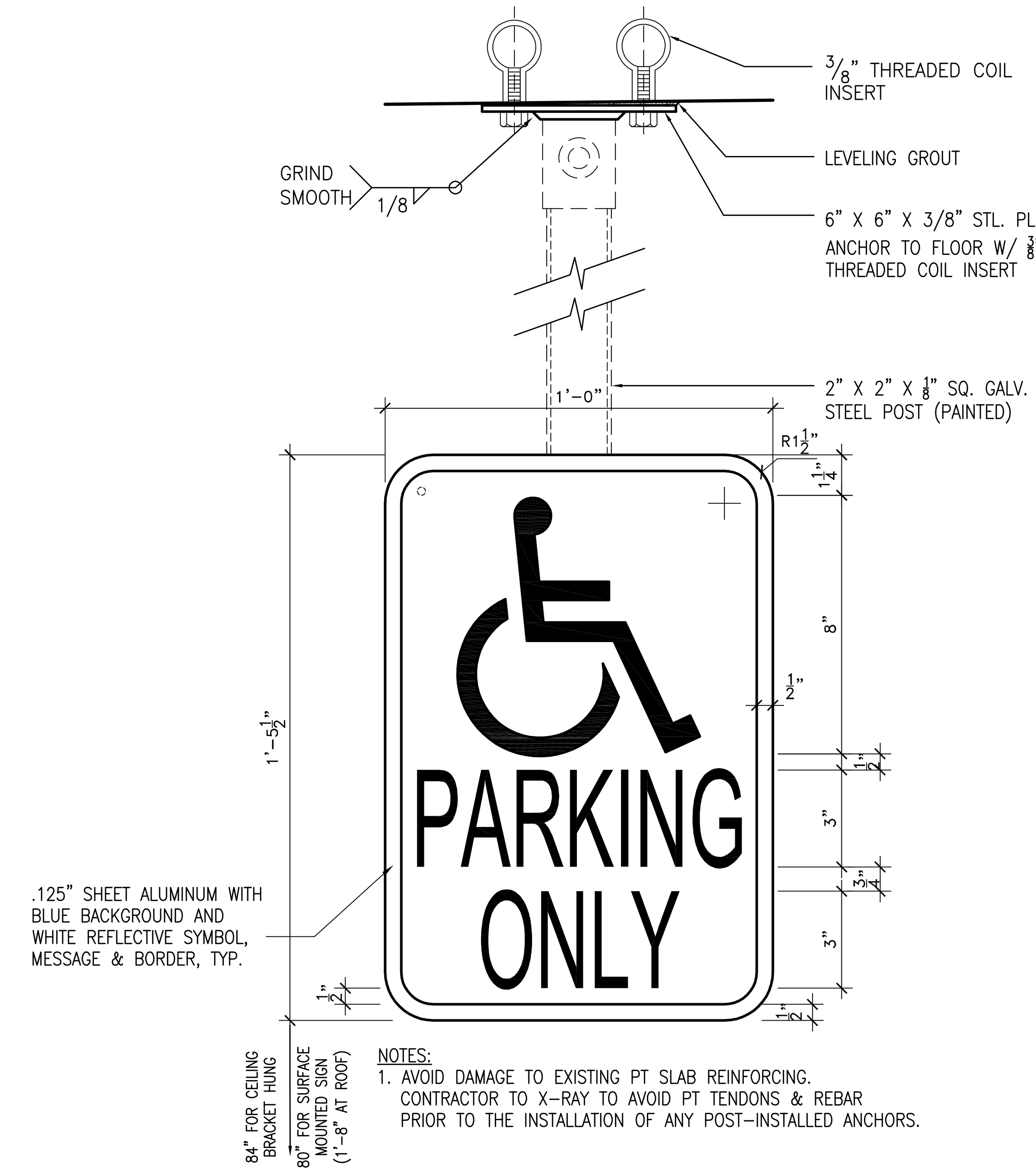
Sheet Title
SIGNAGE & GRAPHICS SCHEDULE

Sheet Number
A9.01



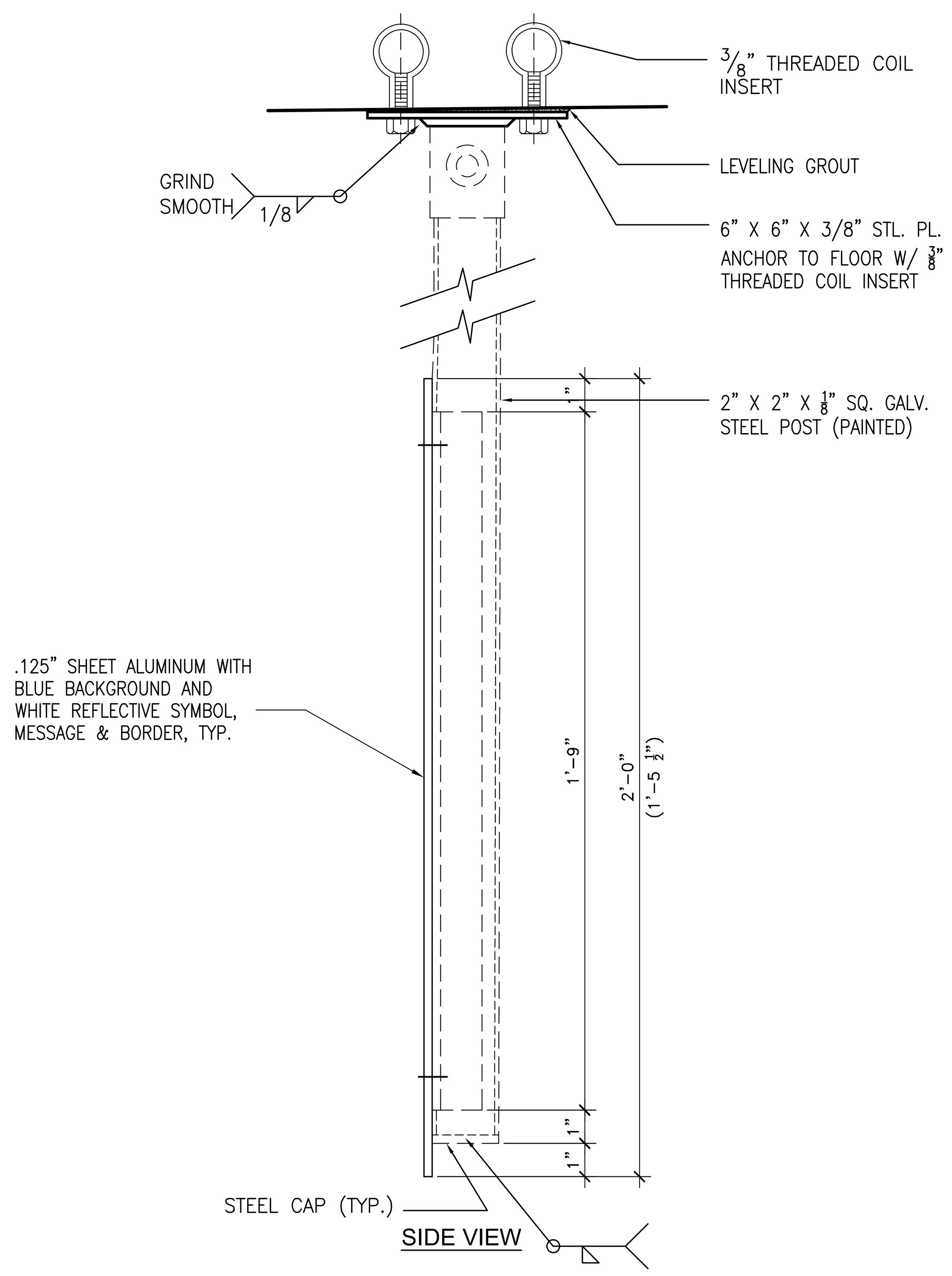
VAN ACCESSIBLE SIGN DETAIL (5)

SCALE: 3"=1'-0"



ACCESSIBLE SIGN DETAIL (4)

SCALE: 3"=1'-0"



SIGN DETAIL (3)

SCALE: 3"=1'-0"

VAN ACCESSIBLE SIGN DETAIL (2)

SCALE: 3"=1'-0"

ACCESSIBLE SIGN DETAIL (1)

SCALE: 3"=1'-0"

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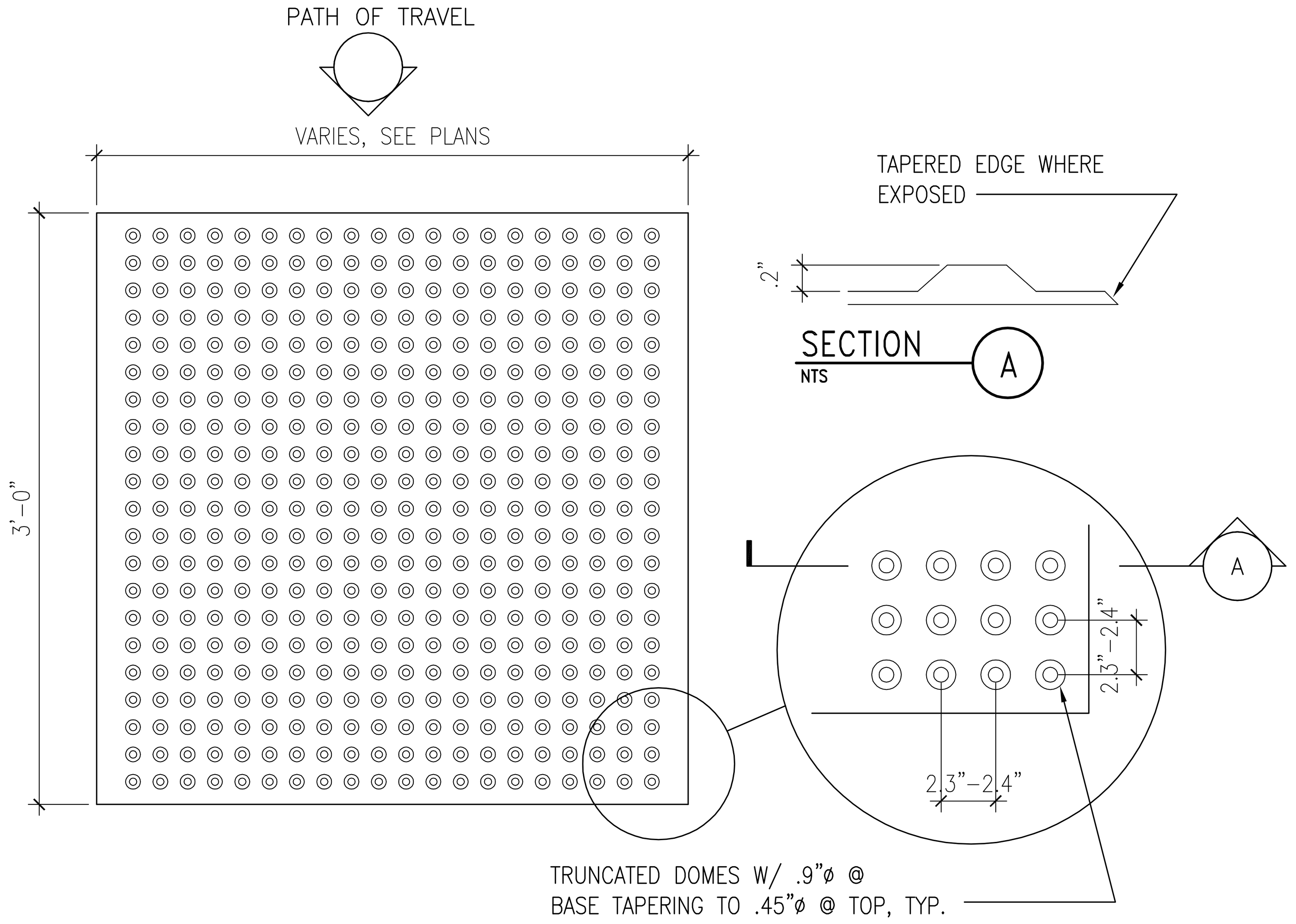
Sheet Title

SIGNAGE DETAILS

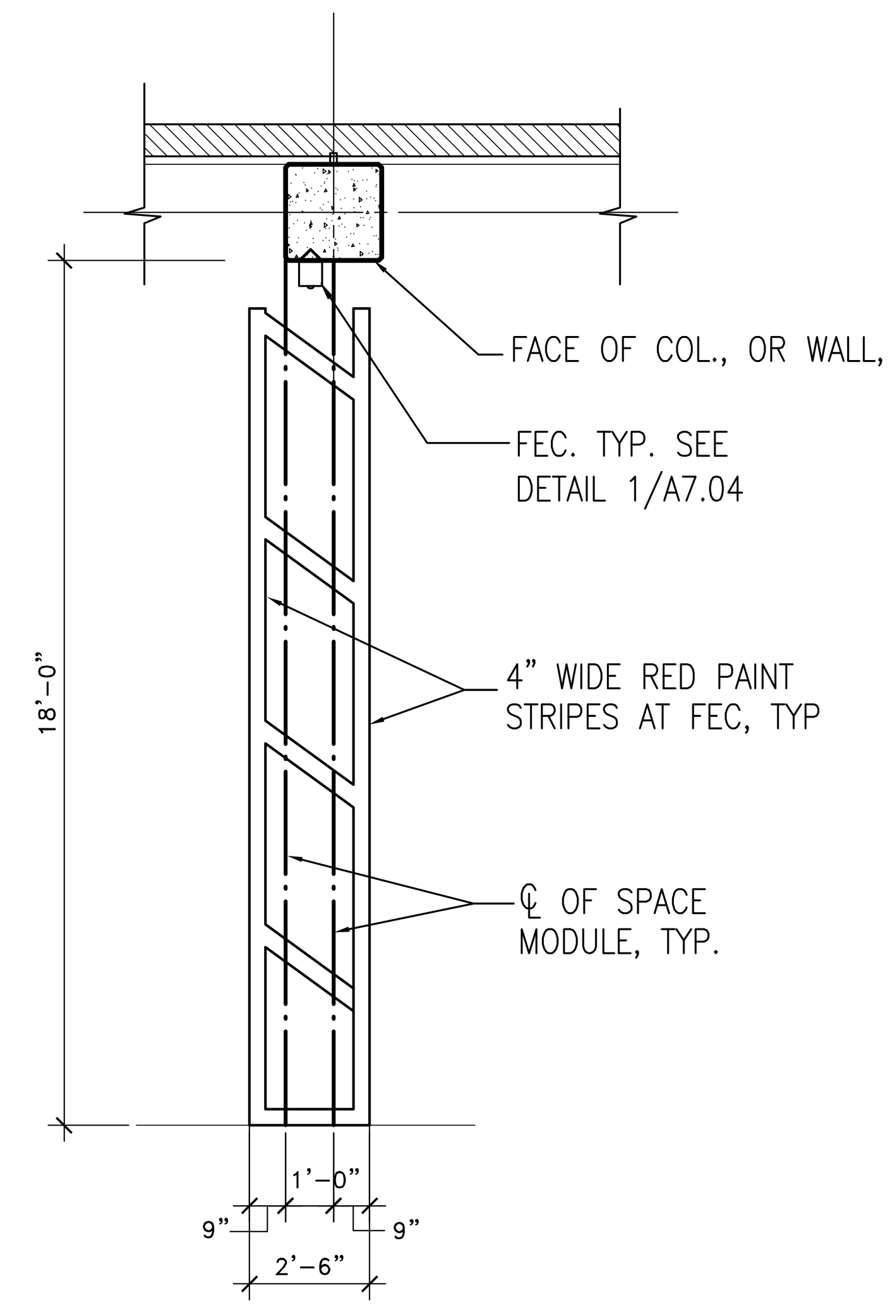
Sheet Number

A9.02



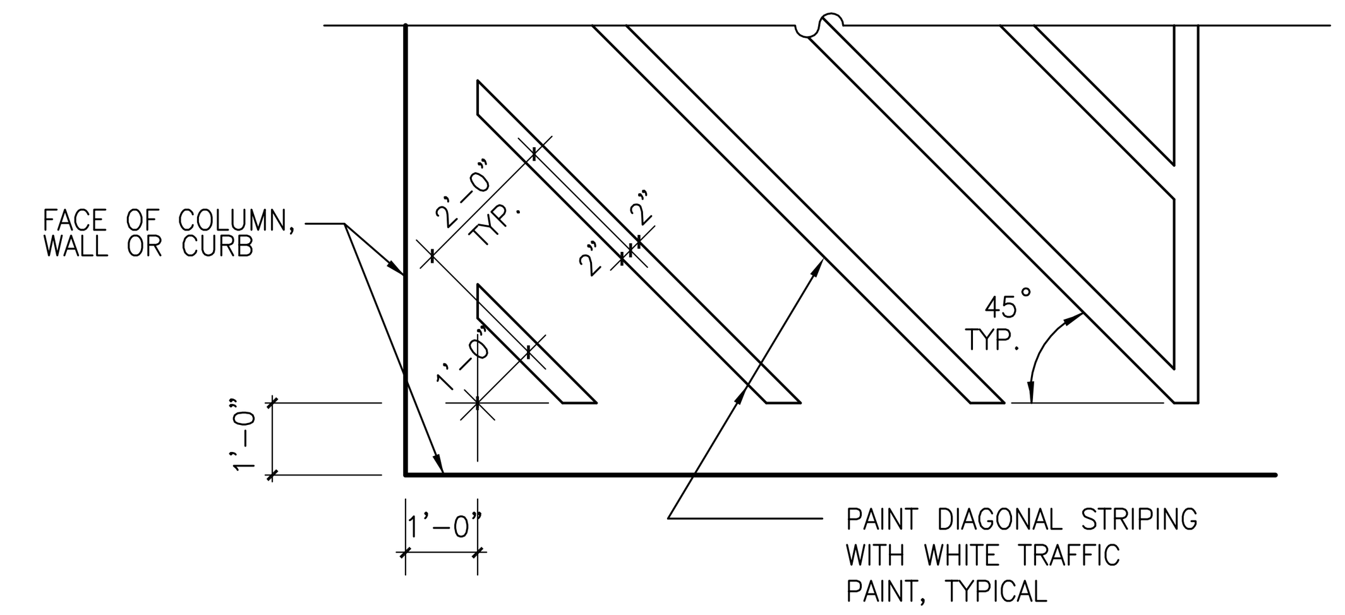
TRUNCATED DOMES 9

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



DOUBLE LINE STRIPING @ FIRE EXTINGUISHER CABINET 6

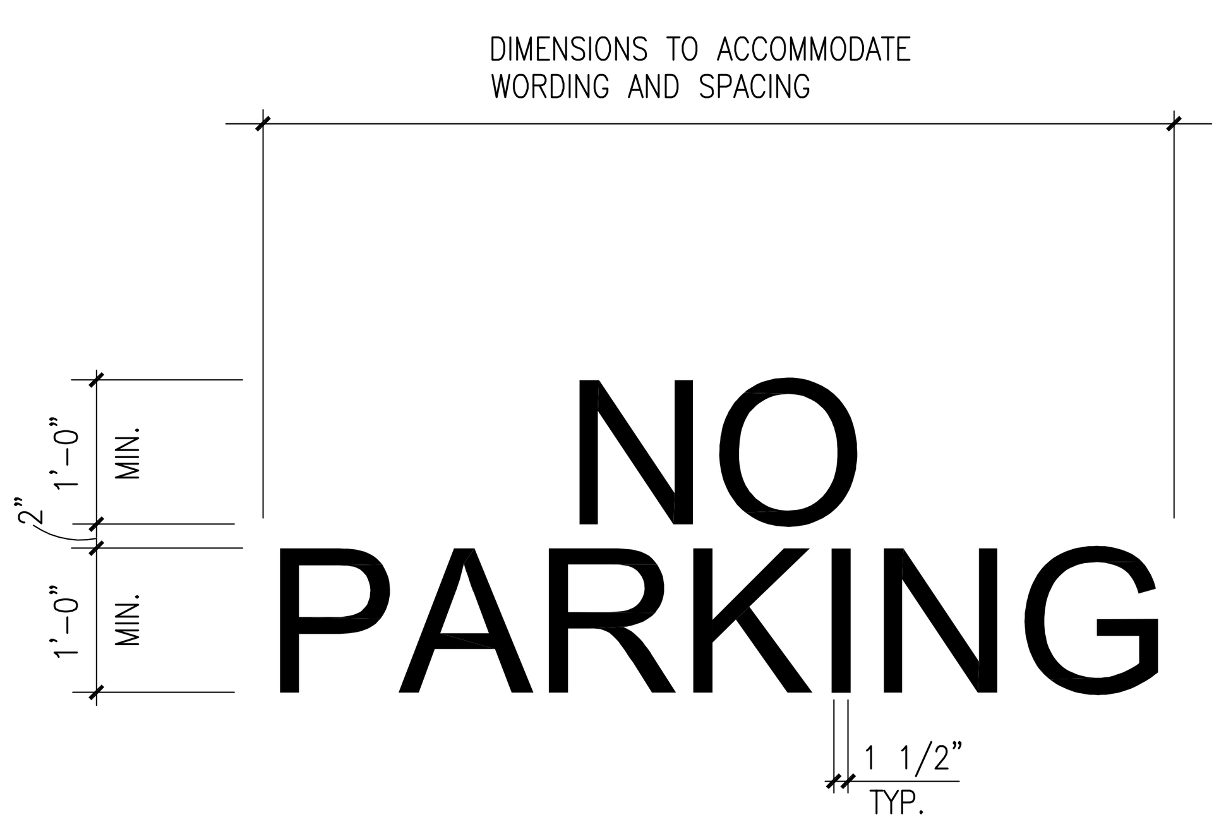
SCALE: 1/4"=1'-0"



NOTE: PAINT STRIPING BLUE @ ACCESSIBLE AREAS

TYPICAL DIAGONAL STRIPING 3

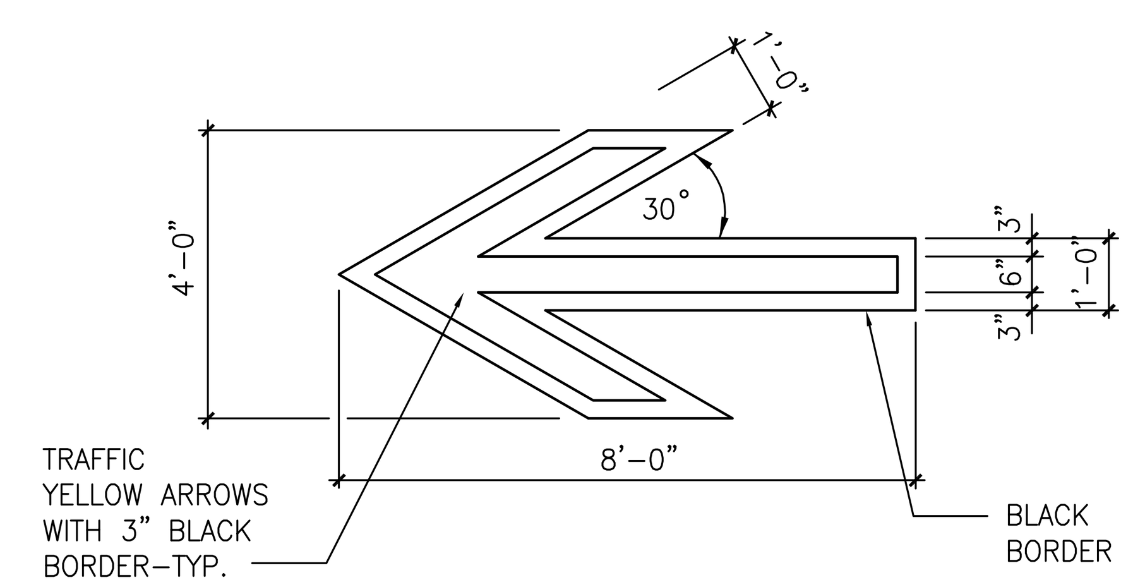
SCALE: 3/8" = 1'-0"



STENCIL PAINT MESSAGE DIRECTLY ON FLOOR SLAB WITH "TRAFFIC WHITE" REFLECTORIZED PAINT

"No Parking" LETTERING DETAIL 8

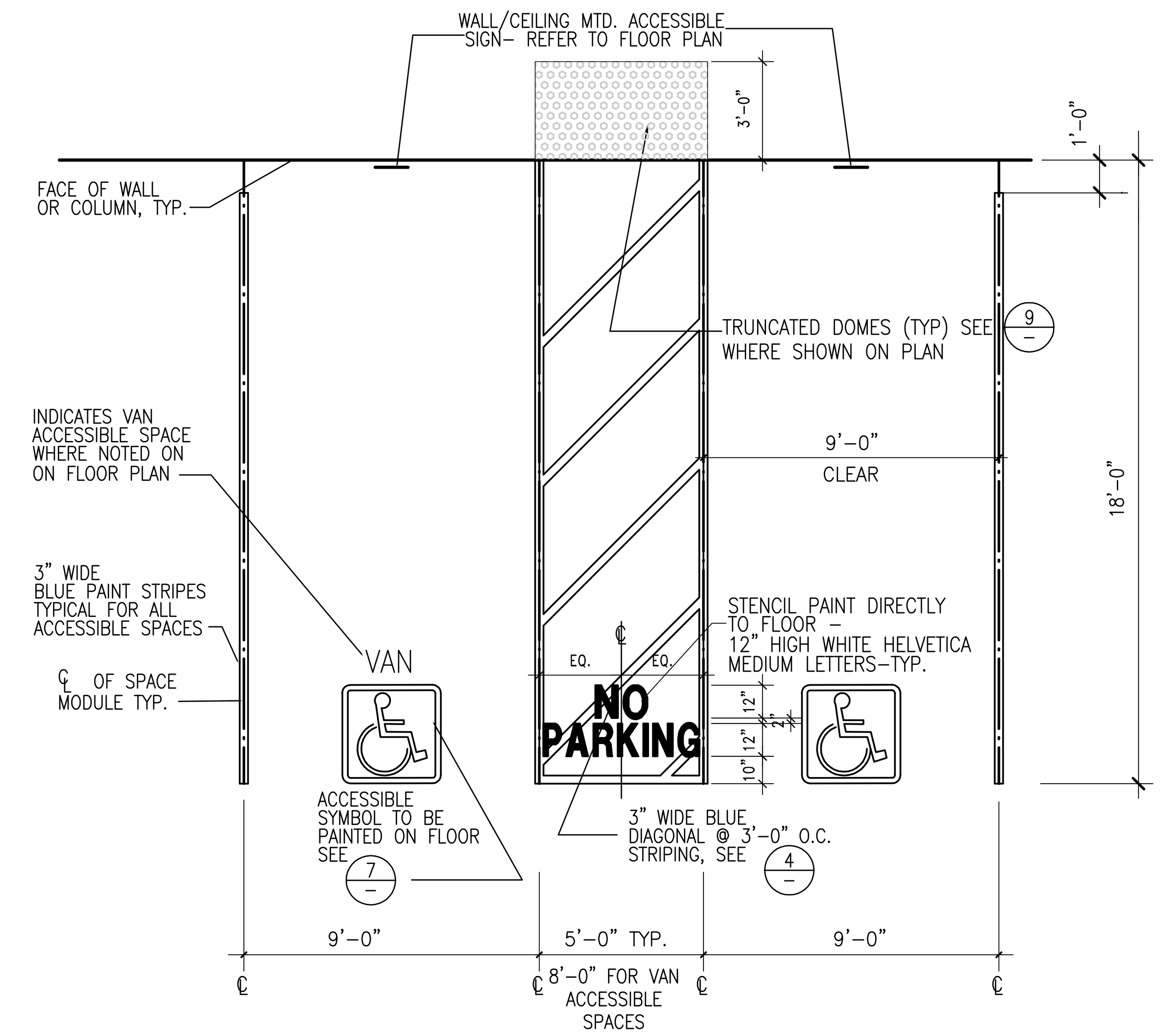
SCALE: 3/4" = 1'-0"



NOTE: STENCIL PAINT DIRECTLY ON FLOOR SLAB W/ REFLECTORIZED PAINT

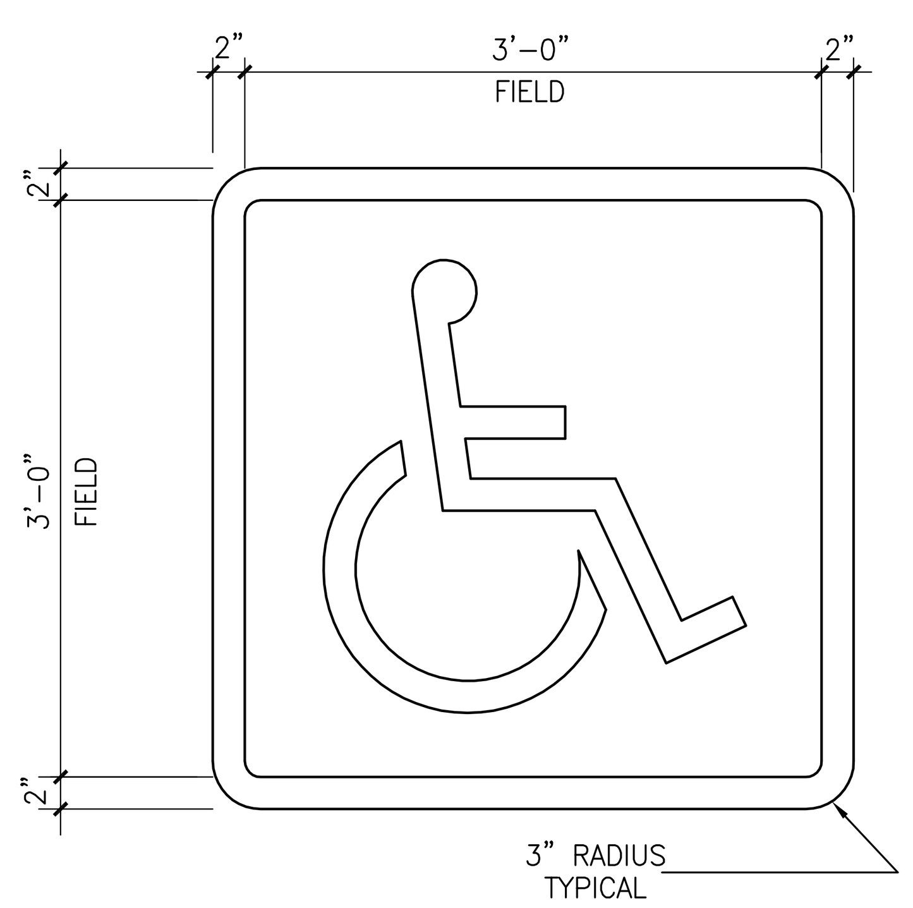
PAINTED DIRECTIONAL ARROWS 5

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



ACCESSIBLE SPACE STRIPING @ 90° 2

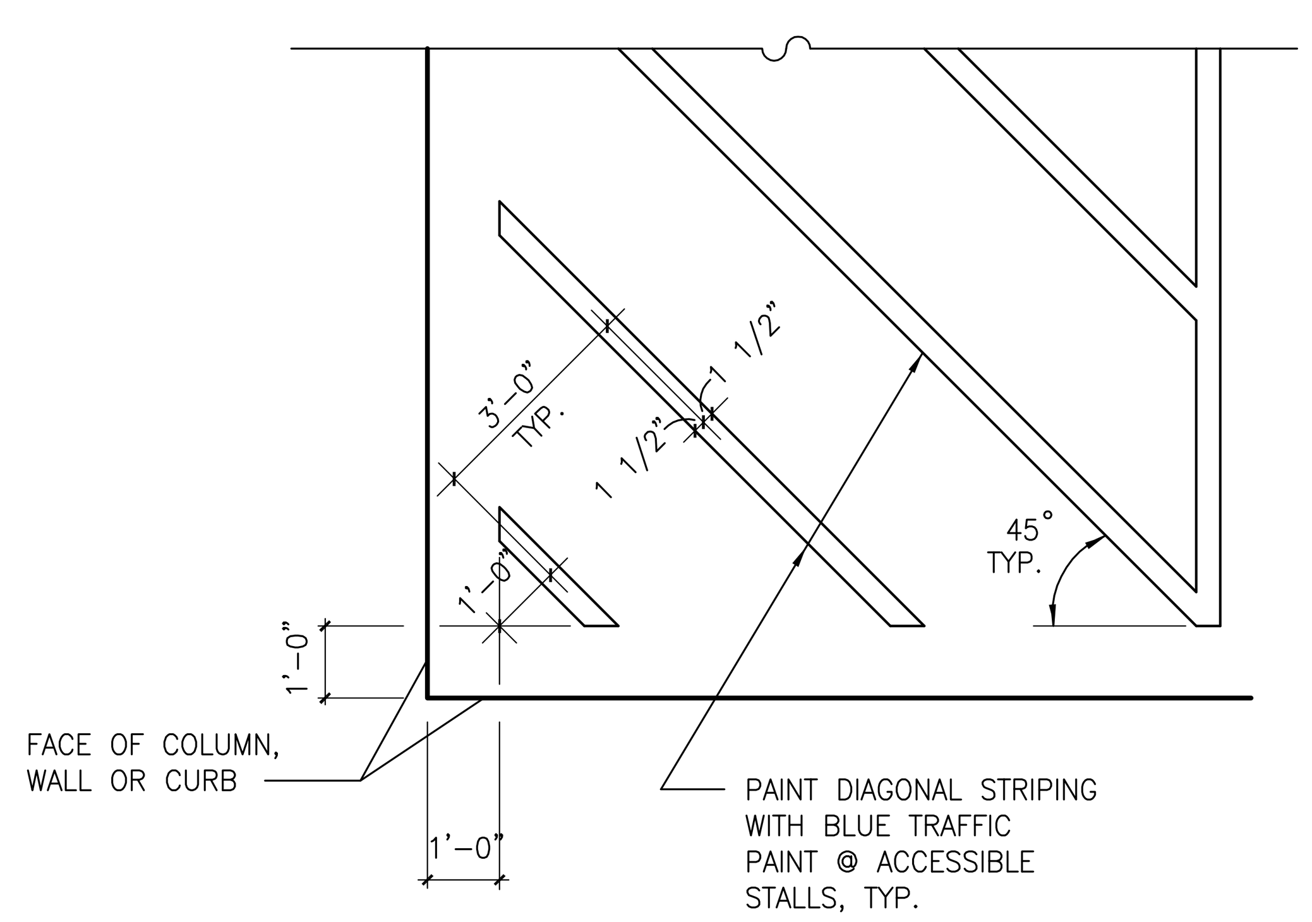
SCALE: 1/4" = 1'-0"



- BORDER AND IMAGE TO BE STENCIL PAINTED WITH WHITE RE-FLECTORIZED TRAFFIC PAINT
- BACKGROUND TO BE BLUE

ACCESSIBLE FLOOR SYMBOL 7

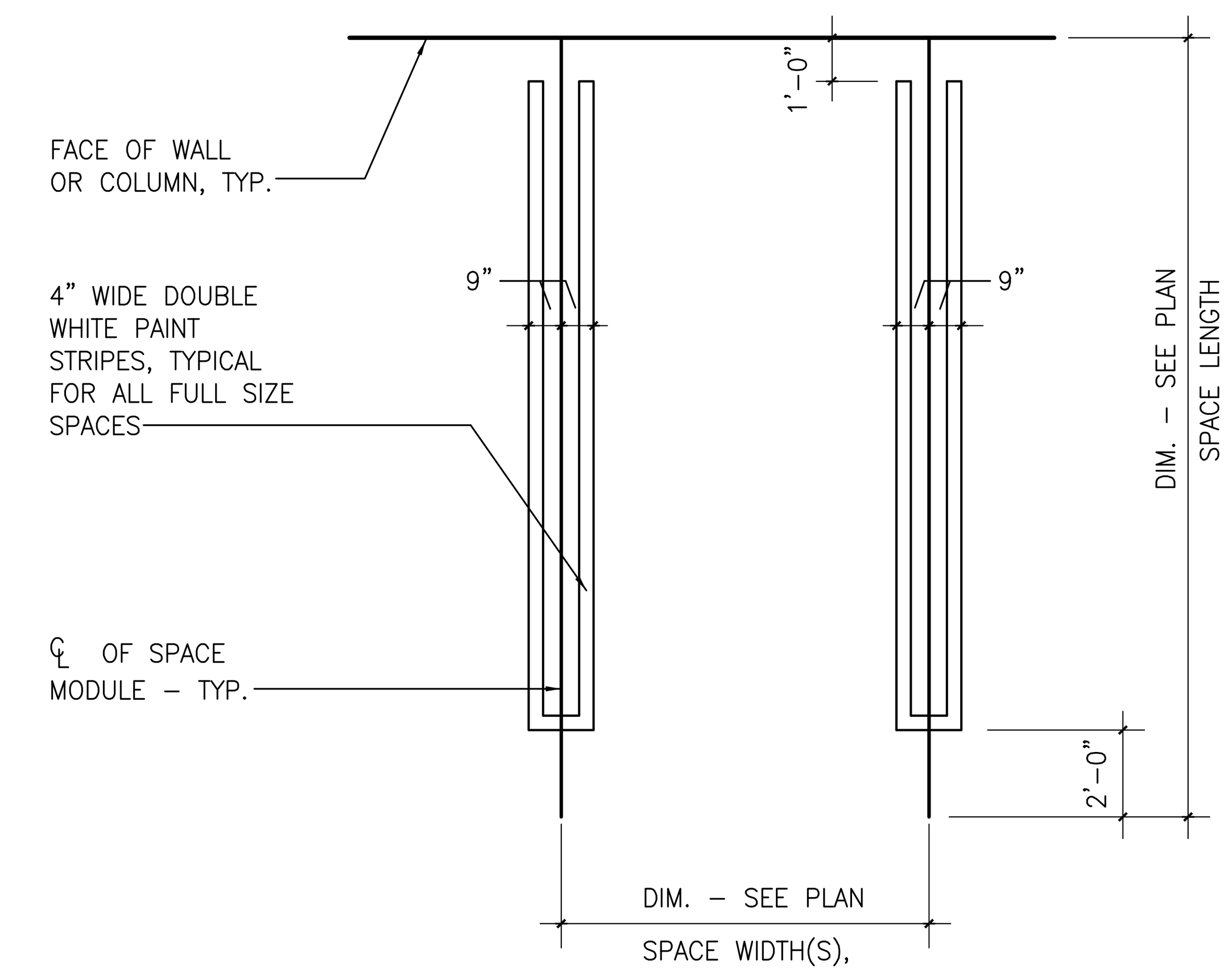
SCALE: 1" = 1'-0"



BLUE TRAFFIC PAINT SHALL BE COLOR #15090 per FEDERAL STANDARD 595B

TYPICAL ACCESSIBLE DIAGONAL STRIPING 4

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



DOUBLE LINE STRIPING AT 90 1

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

2018.05.29 BIDSET

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Revisions

No.	Date	Description

LICENSED ARCHITECT SHAHIN AZMOUDEH No. C-32674 10-07-19 RENEWAL DATE STATE OF CALIFORNIA

Document Phase:	Backcheck #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	VC
Checked By:	DV
Comm. No.:	-

Project Title

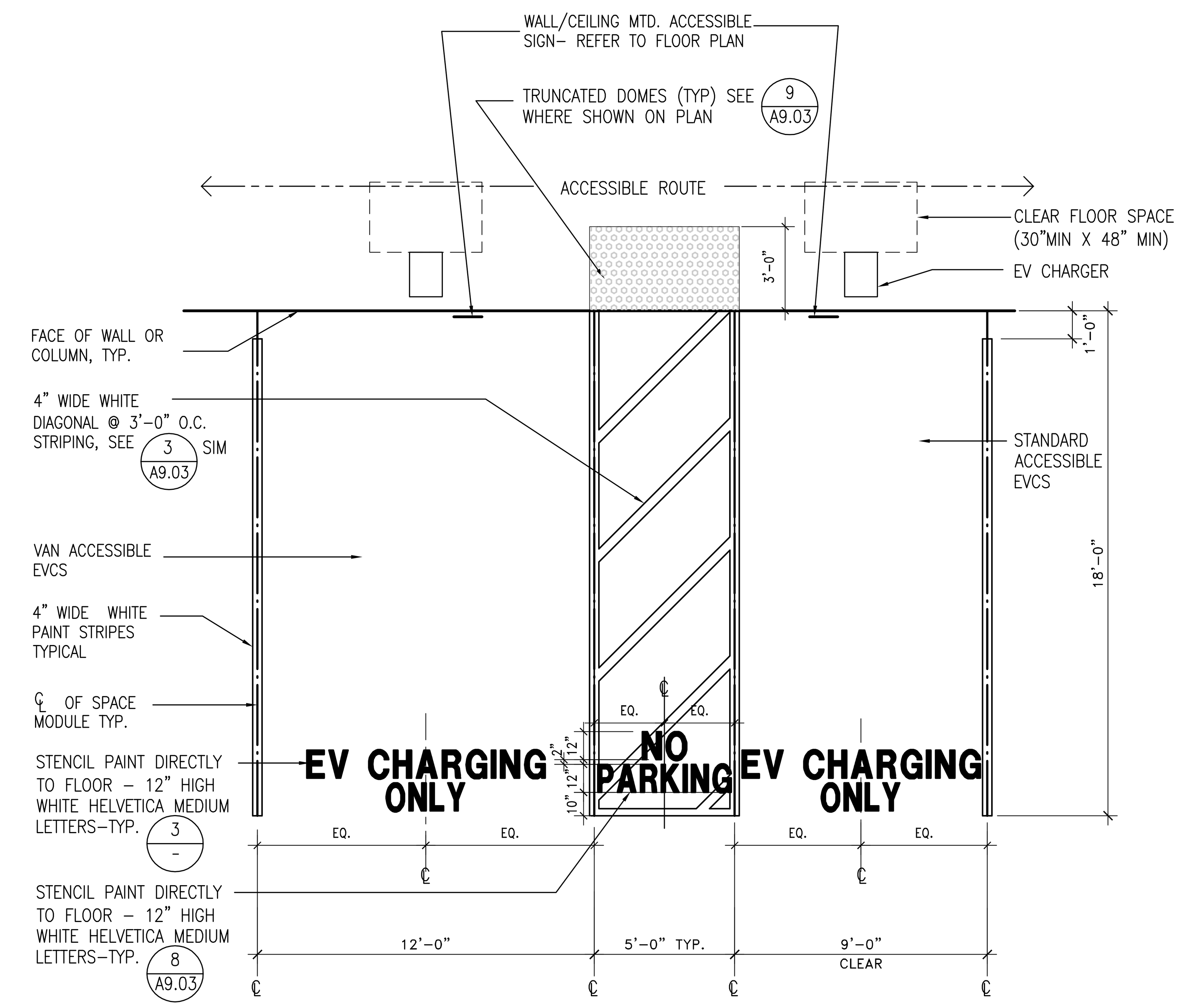
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

TYPICAL STRIPING DETAILS

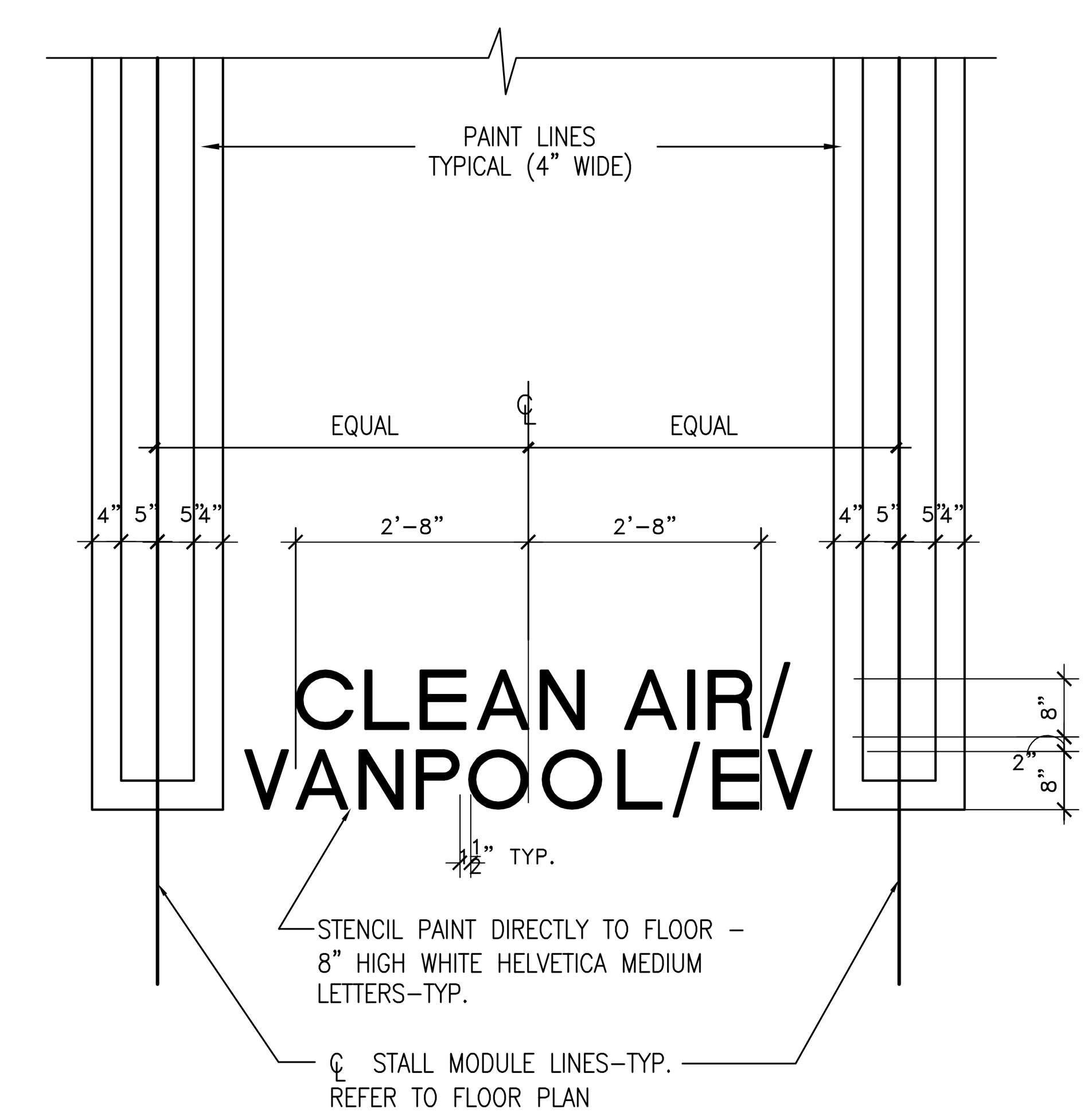
Sheet Number

A9.03



ACCESSIBLE EVCS SPACE STRIPING @ 90° (2)

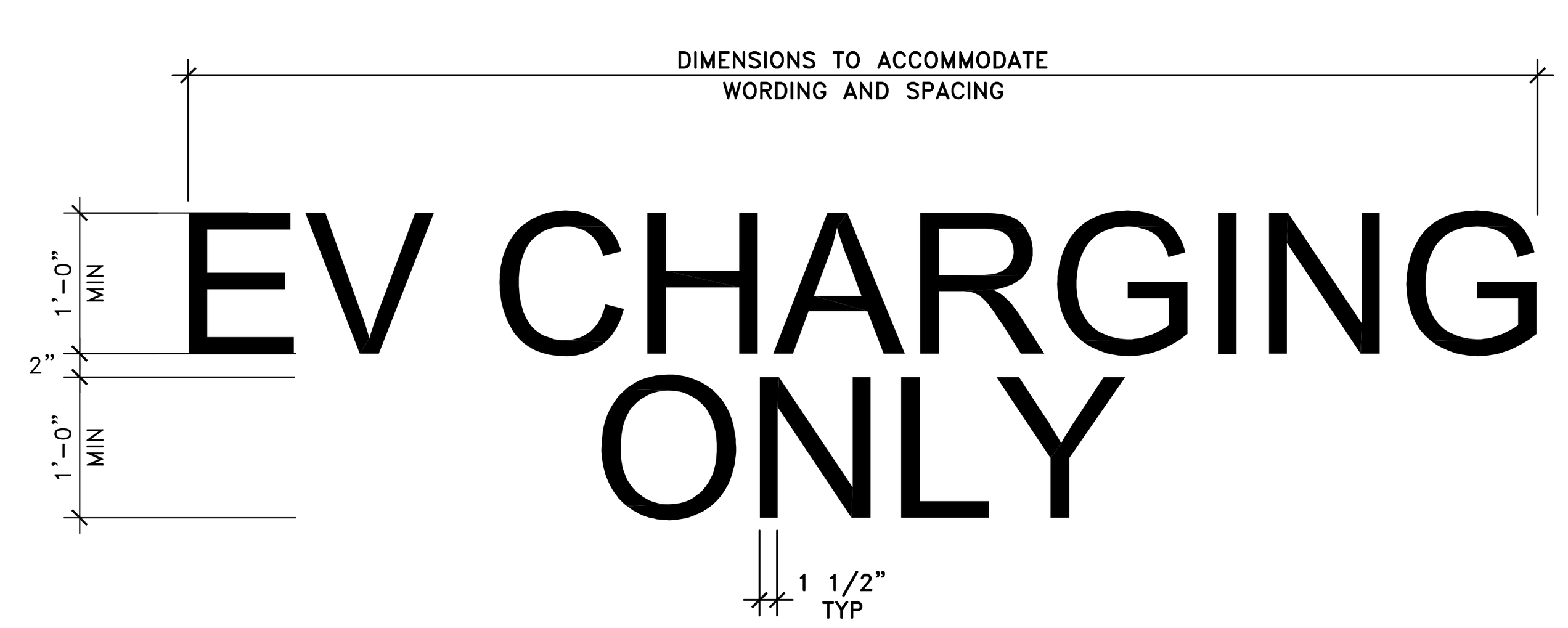
SCALE: 1/4" = 1'-0"



NOTE:
1. PROVIDE THIS LETTERING AT REAR OF EACH CAV STALL TYPICAL. CENTER LETTERING.

"CLEAN AIR/VANPOOL/EV" LETTERING DETAIL - "CAV" (1)

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



STENCIL PAINT MESSAGE DIRECTLY ON FLOOR SLAB
WITH "TRAFFIC WHITE" REFLECTORIZED PAINT

"EV CHARGING ONLY" LETTERING DETAIL (3)

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

2018.05.29 BIDSET

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Revisions

No.	Date	Description

LICENSED ARCHITECT — SHAHIN AZMOUDEH — No. C-32674 — 10-07-19 — RENEWAL DATE — STATE OF CALIFORNIA

Document Phase:	Backcheck #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	VC
Checked By:	DV
Comm. No.:	-

Project Title

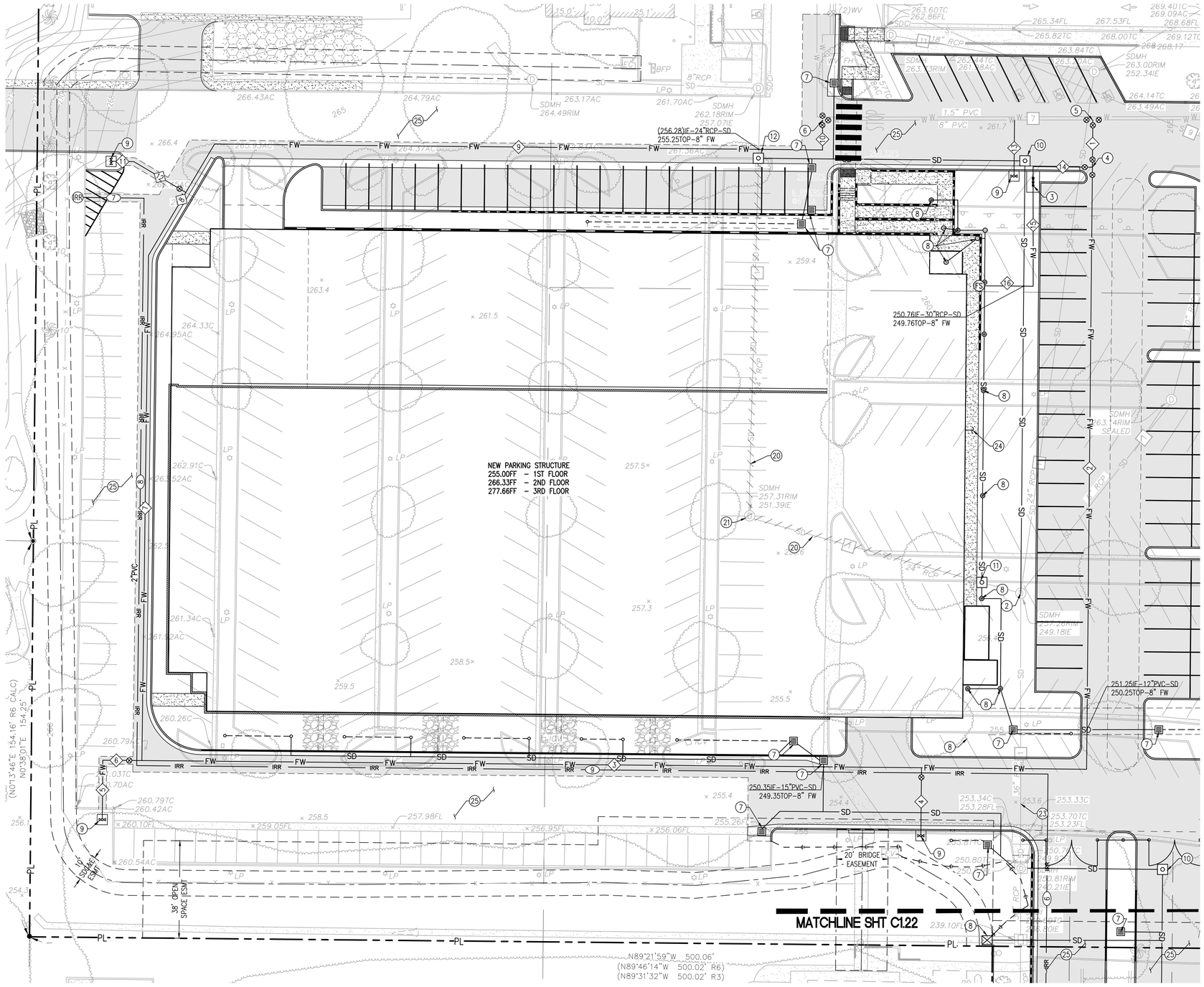
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

TYPICAL STRIPING DETAILS

Sheet Number

A9.04



WORK TO BE DONE:

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS THE PROJECT SPECIFICATIONS, THE SPECIFICATIONS AND STANDARD DRAWINGS OF THE CITY OF OCEANSIDE.

CONSTRUCTION OF NEW WATER MAINS, FIRE HYDRANTS, BACKFLOW PREVENTER, FIRE DEPARTMENT CONNECTION, & FIRE SERVICES.

UTILITY NOTES:

1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON OBSERVATION OF VISIBLE ABOVE GROUND STRUCTURES AND REVIEW OF RECORD DRAWINGS PROVIDED TO THE SURVEYOR. THE DEPICTED LOCATIONS, SIZES AND TYPES OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM THE RECORD DRAWINGS AND/OR ACTUAL AS–BUILT LOCATIONS. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES.
2. BWE MAKES NO CLAIM AS TO THE ACCURACY OF UNDERGROUND UTILITIES SHOWN HEREON. THE USER OF THIS DRAWING SHALL CONDUCT INDEPENDENT PHYSICAL INSPECTION OF EACH UNDERGROUND UTILITY PRIOR TO EXCAVATION OR CONSTRUCTION.
3. THE PROPOSED STORM DRAINS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY. SEE SEPARATE GRADING PLAN FOR CONSTRUCTION OF STORM DRAINS.
4. FOR OVERALL SITE MAP INDICATING LOCATIONS OF EXISTING WATER SYSTEM CONNECTIONS TO PUBLIC MAINS SEE A/C1.22.

LEGEND

ITEM	STANDARD DRAWINGS	SYMBOL
NEW FIRE HYDRANT	OSD M–13 & W–01	
NEW TYPE A SDCO	PER GRADING PLAN	
NEW 24"x24" CATCH BASIN	PER GRADING PLAN	
NEW ATRIUM DRAIN	PER GRADING PLAN	
NEW GATE VALVE	OSD W–23	
NEW REDUCED PRESSURE DETECTOR CHECK ASSEMBLY	OSD W–29	
NEW STORM DRAIN	PER GRADING PLAN	SD
NEW FIRE SERVICE		FW
NEW DOMESTIC WATER LINE		W
DEMO EX UTILITY LINE		– / – / –

UTILITY KEYNOTES

- (FS) FIRE SERVICE POINT OF CONNECTION AT 5' FROM FACE OF BUILDING. REFER TO PLUMBING AND FIRE PROTECTION DWGS FOR CONTINUATION INTO BUILDING.
- (IRR) CONNECT TO EXISTING STUBOUT FOR SURFACE LOT IRRIGATION SYSTEM PER IRRIGATION PLANS
- (2) CONNECT NEW 18" PVC SD TO EX MANHOLE PER GRADING PLAN
- (3) CONSTRUCT 6" REDUCED PRESSURE DETECTOR CHECK ASSEMBLY WITH FDC PER OSD W–29
- (4) CONNECT NEW 6" PVC FIRE SERVICE TO NEW 8" PVC WATER
- (5) CONNECT NEW 8" PVC WATER TO EX 8" PVC WATER WITH NEW TEE AND VALVES
- (6) CONNECT NEW 8" PVC WATER TO EX 8" PVC WATER WITH NEW TEE AND VALVES
- (7) CONSTRUCT 24"X24" CATCH BASIN PER GRADING PLAN
- (8) CONSTRUCT STORM DRAIN INLET PER GRADING PLANS
- (9) CONSTRUCT FIRE HYDRANT PER OSD M–13 & W–01
- (10) CONSTRUCT NEW TYPE A SD CLEANOUT PER GRADING PLAN
- (11) CONNECT TWO (2) 6" PVC SD TO EX 24" RCP SD W/NEW CLEANOUT PER GRADING PLAN
- (12) CONNECT NEW 24" PVC SD TO EX 24" RCP SD WITH NEW TYPE A CLEANOUT PER GRADING PLAN
- (20) REMOVE EX 24" CMP PER GRADING PLAN
- (21) REMOVE EX SD MANHOLE PER GRADING PLAN
- (23) PROTECT EXISTING STORM DRAIN
- (24) 1" FIRE WATER RISER DRAIN PIPE DISCHARGE LOCATION
- (25) PAINT ALL CURBS ALONG FIRE ACCESS ROADWAY RED WITH WHITE 3" LETTERING STATING "FIRE LANE – NO PARKING", 30' ON CENTER

FIRE WATER DATA				
NO	BEARING/DELTA	RADIUS	LENGTH	SIZE/TYPE (CLASS)
1	N00°37'42"E	––	18.28'	8" PVC C–900
2	N00°37'42"E	––	234.61'	8" PVC C–900
3	N89°23'56"W	––	367.96'	8" PVC C–900
4	N00°36'04"E	––	26.50'	6" PVC C–900
5	N00°36'04"E	––	23.17'	6" PVC C–900
6	N89°23'56"W	––	15.23'	6" PVC C–900
7	N00°48'43"E	––	196.85'	8" PVC C–900
8	N30°45'29"E	––	50.48'	8" PVC C–900
9	N89°22'23"W	––	236.83'	8" PVC C–900
10	N00°00'00"E	––	11.57'	8" PVC C–900
11	N89°22'23"W	––	8.87'	6" PVC C–900
12	N59°14'31"W	––	23.54'	6" PVC C–900
13	N00°36'04"E	––	21.87'	6" PVC C–900
14	N89°22'18"W	––	23.11'	6" PVC C–900
15	N00°00'00"E	––	45.46'	6" PVC C–900
16	N89°24'16"W	––	20.25'	6" PVC C–900

IRRIGATION WATER DATA				
NO	BEARING/DELTA	RADIUS	LENGTH	NOTE
6	N00°37'42"E	––	337.15'	2" PVC
7	N89°11'17"W	––	23.74'	2" PVC
8	N00°48'43"E	––	221.13'	2" PVC
9	N89°23'56"W	––	354.96'	2" PVC

10 0 20 40
SCALE IN FEET
1 inch = 20 ft.

REGISTERED PROFESSIONAL ENGINEER
AMBROSE T. WONG
No. C68963
Exp. 12–31–17
CIVIL
STATE OF CALIFORNIA

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Revisions

No.	Date	Description

Document Phase:	Backcheck # 1
Date:	MAY 24th, 2018
PIC / AIC:	PS
Drawn By:	-
Checked By:	-
Comm. No.:	PR17-0311

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

UTILITY PLAN

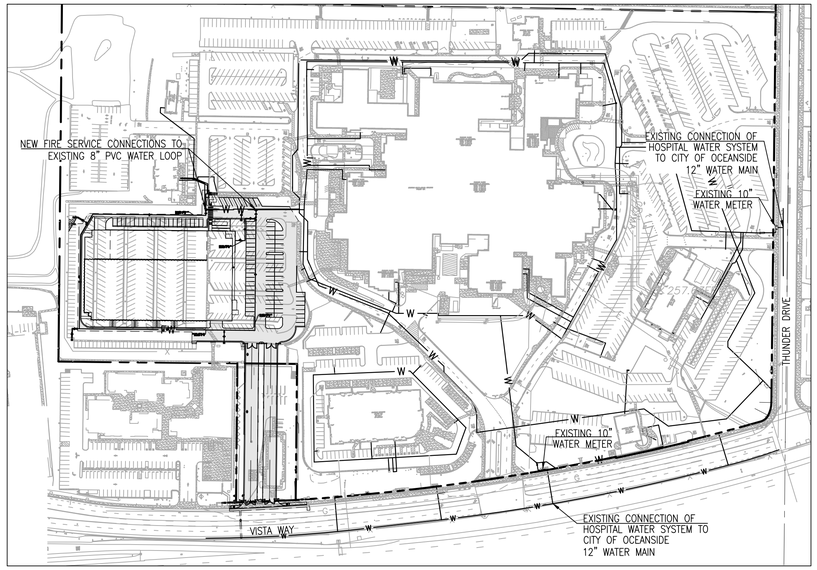
Sheet Number

C1.21

2018.05.29 BIDSET

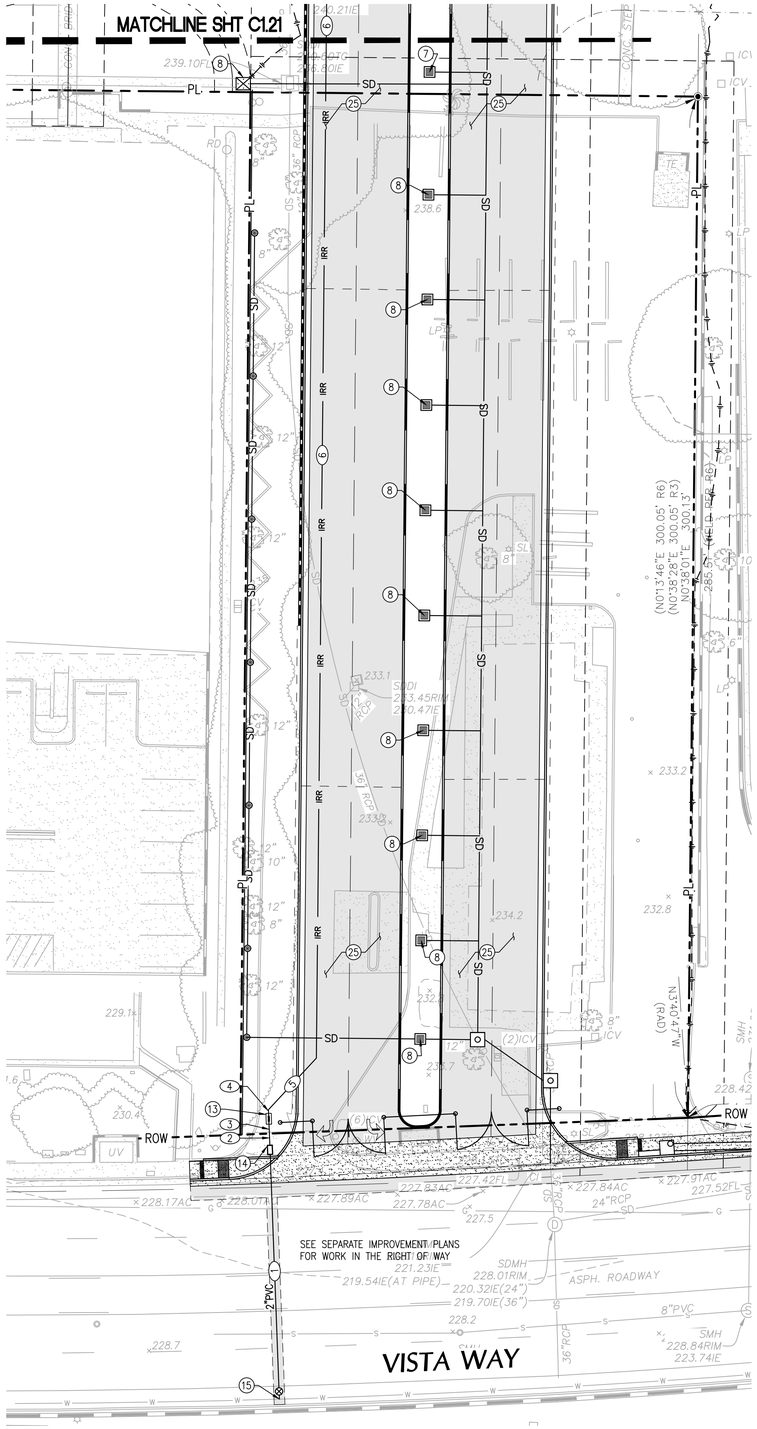
FOR REFERENCE ONLY - SEE GRADING PLAN FILE NO. G180001

M:\PROJECTS\12500\12524U.3.00 TCMC–PARKING STRUCTURE\DWGS\SHEET_DWGS\12524U.3.00 UTIL.DWG (05–25–18 1:14:37PM)



NOTE:
BOTH THE THUNDER DRIVE AND VISTA WAY 10" WATER METERS ARE MAINTAINED BY THE CITY OF OCEANSIDE WATER UTILITIES DEPARTMENT

A C1.22 EXISTING WATER LINE REFERENCE MAP
SCALE: 1"=150'



UTILITY NOTES:

1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON OBSERVATION OF VISIBLE ABOVE GROUND STRUCTURES AND REVIEW OF RECORD DRAWINGS PROVIDED TO THE SURVEYOR. THE DEPICTED LOCATIONS, SIZES AND TYPES OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM THE RECORD DRAWINGS AND/OR ACTUAL AS-BUILT LOCATIONS. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES.
2. BWE MAKES NO CLAIM AS TO THE ACCURACY OF UNDERGROUND UTILITIES SHOWN HEREON. THE USER OF THIS DRAWING SHALL CONDUCT INDEPENDENT PHYSICAL INSPECTION OF EACH UNDERGROUND UTILITY PRIOR TO EXCAVATION OR CONSTRUCTION.
3. THE PROPOSED STORM DRAINS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY. SEE SEPARATE GRADING PLAN FOR CONSTRUCTION OF STORM DRAINS.

UTILITY KEYNOTES

(7) CONSTRUCT 24"X24" CATCH BASIN PER GRADING PLAN
(8) CONSTRUCT STORM DRAIN INLET PER GRADING PLANS
(13) NEW 2" IRRIGATION TO EXISTING 12" ACP WATER MAIN PER CITY OF OCEANSIDE STANDARD DRAWING RW-5. SEE PUBLIC IMPROVEMENT PLAN SET
(14) NEW 2" IRRIGATION METER PER CITY OF OCEANSIDE STANDARD DRAWING RW-5. SEE PUBLIC IMPROVEMENT PLAN SET
(15) NEW 2" REDUCED PRESSURE PRINCIPLE ASSEMBLY PER CITY OF OCEANSIDE STANDARD DETAIL W-12
(25) PAINT ALL CURBS ALONG FIRE ACCESS ROADWAY RED WITH WHITE 3" LETTERING STATING "FIRE LANE - NO PARKING", 30' ON CENTER

IRRIGATION WATER DATA				
NO.	BEARING/DELTA	RADIUS	LENGTH	NOTE
1	N02°05'26"W	--	65.25'	2" PVC
2	N02°05'26"W	--	3.23'	2" PVC
3	N02°22'17"W	--	3.12'	2" PVC
4	N02°05'26"W	--	1.50'	2" PVC
5	N42°54'34"E	--	19.71'	2" PVC
6	N00°37'42"E	--	337.15'	2" PVC

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Revisions

No.	Date	Description

2018.05.29 BIDSET

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Document Phase:	Backcheck # 1
Date:	MAY 24th, 2018
PIC / AIC:	PS
Drawn By:	-
Checked By:	-
Comm. No.:	PR17-0311

Project Title
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title
UTILITY PLAN

Sheet Number
C1.22

10 0 20 40
SCALE IN FEET
1 inch = 20 ft.

M:\PROJECTS\12500\12524U.3.00 TCMC-PARKING STRUCTURE\DWGS\SHEET_DWGS\12524U.3.00 UTIL.DWG (05-25-18 1:15:29PM)

GENERAL STRUCTURAL NOTES

SECTION 1: GENERAL

1-1 THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE PRIOR TO STARTING CONSTRUCTION AND THE ARCHITECT/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES WITH ANY WORK SO INVOLVED.

1-2 ALL PHASES OF THE WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE LATEST EDITION OF THE 2016 CALIFORNIA BUILDING CODE.

1-3 THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, FORMS AND SCAFFOLDING, AND SHORING OF RETAINING WALLS.

1-4 OPENINGS, POCKETS, ETC., SHALL NOT BE PLACED IN SLABS, BEAMS, COLUMNS, WALLS, ETC., UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.

1-5 ALL ASTM SPECIFICATIONS NOTED ON THESE DRAWINGS SHALL BE OF THE LATEST REVISION.

1-6 IN ACCORDANCE WITH CBC SECTION 1705, THE OWNER OR OWNER'S AGENT SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE FOLLOWING TYPES OF WORK:

A. CONCRETE
B. BOLTS INSTALLED IN CONCRETE
C. POST-INSTALLED ANCHORS
D. REINFORCING STEEL AND PRESTRESSING TENDONS
E. STRUCTURAL WELDING
F. HIGH STRENGTH BOLTING
G. STRUCTURAL MASONRY
H. SPECIAL GRADING, EXCAVATION AND FILLING

INSPECTIONS SHALL BE PROVIDED ON AN ONGOING FULL-TIME BASIS IN AN ORGANIZED AND SYSTEMATIC MANNER IN ORDER TO MINIMIZE POTENTIAL CONSTRUCTION DELAYS REQUIRED TO CORRECT ENCOUNTERED DEFICIENCIES. SEE SHEET S1.05 FOR INSPECTION PROGRAM.

1-7 WHERE REQUIRED BY THE BUILDING OFFICIAL OR OTHER PROVISIONS OF CBC SECTION 1704.6, THE OWNER SHALL EMPLOY AN ENGINEER ACCEPTABLE TO THE ENGINEER OF RECORD & BUILDING OFFICIAL TO PERFORM STRUCTURAL OBSERVATION AS DEFINED IN CBC SECTION 202 AND IN COMPLIANCE WITH CBC SECTION 1704.6.

CONSTRUCTION STAGES AND ELEMENTS TO BE OBSERVED:

A. IN-PLACE REINFORCING FOR THE FOLLOWING:

1. FIRST FOOTINGS AND GRADE BEAMS SUPPORTING THE SEISMIC FORCE RESISTING MOMENT FRAME COLUMNS.
2. FIRST LIFT OF SEISMIC FORCE RESISTING MOMENT FRAME COLUMNS.
3. FIRST POUR OF ELEVATED SLAB AND SEISMIC FORCE RESISTING MOMENT FRAME BEAMS.
4. COMPLETED STRUCTURE.

1-8 IN THE EVENT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON DRAWINGS OR CALLED FOR IN THE NOTES OR SPECIFICATIONS, THEN THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR CALLED FOR AND SHALL BE REVIEWED BY THE ARCHITECT.

1-9 EXISTING CONDITIONS DEPICTED ON THESE DRAWINGS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR AS THEY ARE UNCOVERED DURING CONSTRUCTION. IN THE EVENT EXISTING CONDITIONS ARE DIFFERENT THAN SHOWN, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER IMMEDIATELY AND AWAIT FURTHER INSTRUCTION BEFORE PROCEEDING WITH CONSTRUCTION.

1-10 PRIOR TO ANY DRILLING, CORING, OR CUTTING OF CAST CONCRETE, THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER FOR REVIEW, THE PROPOSED SIZES AND LOCATIONS OF ALL HOLES. THE CONTRACTOR SHALL TAKE WHATEVER STEPS THAT ARE NECESSARY TO LOCATE AND AVOID ALL REINFORCEMENT.

1-11 FOR TYPICAL DETAILS SEE SHEET S1.02, S5.01, S5.02 & S5.03.

SECTION 2: FOUNDATION

2-1 FOUNDATION DESIGN BASED ON SOIL INVESTIGATION BY: CONSTRUCTION TESTING & ENGINEERING, INC.

CTE JOB NUMBER: 10-13000G DATED: 9/29/16

IN COMPLIANCE WITH THE ABOVE REFERENCED GEOTECHNICAL REPORT:

1. MINIMUM FOOTING WIDTH SHALL BE 24" AND MINIMUM BOTTOM OF FOOTING EMBEDMENT BELOW LOWEST ADJACENT GRADE SHALL BE 24" AND THE CORRESPONDING ALLOWABLE SOIL BEARING PRESSURE IS 2500 psf.
2. ALLOWABLE SOIL BEARING PRESSURE MAY BE INCREASED 500 psf FOR EACH ADDITIONAL FOOT OF WIDTH AND 500 psf FOR EACH ADDITIONAL FOOT OF EMBEDMENT, NOT TO EXCEED A MAXIMUM ALLOWABLE SOIL BEARING PRESSURE OF 4500 psf.

2-2 ALL SITE WORK AND GRADING SHALL BE DONE IN COMPLIANCE WITH THE SOIL INVESTIGATION REPORT.

2-3 THE SOILS ENGINEER SHALL REVIEW ALL SITE WORK AND FOOTING EXCAVATIONS BEFORE ANY CONCRETE IS CAST, AND SUBMIT A LETTER OF COMPLIANCE TO THE ARCHITECT.

2-4 THE SOILS ENGINEER SHALL REVIEW ALL BACKFILL MATERIALS PRIOR TO PLACEMENT AND OBSERVE BACKFILL OPERATIONS. A LETTER OF COMPLIANCE SHALL BE SUBMITTED TO THE ARCHITECT STATING THAT FILLS HAVE BEEN CONSTRUCTED PER THE RECOMMENDATIONS OF THE SOILS ENGINEER AND WILL PERFORM SATISFACTORILY.

SECTION 3: CONCRETE

3-1 CONCRETE MIXES TO BE DESIGNED BY A RECOGNIZED TESTING LABORATORY AND COPIES OF DESIGN SENT TO THE ARCHITECT. COMPRESSIVE STRENGTH TEST REPORTS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND ARCHITECT. ALL CONCRETE SHALL USE A POLYMER BASED WATER REDUCING ADMIXTURE. ADMIXTURES CONTAINING CHLORIDES SHALL NOT BE USED.

3-2 PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE II OR II-LOW ALKALI. AGGREGATE FOR STONE CONCRETE SHALL CONFORM TO ASTM C33, AND AGGREGATE FOR LIGHT-WEIGHT CONCRETE SHALL CONFORM TO ASTM C330. AGGREGATE SIZE FOR ALL CONCRETE SHALL CONFORM TO ASTM C33 SIZE NUMBER 57 (1" MAXIMUM SIZE). AGGREGATE SIZE FOR FOOTINGS AND SLABS-ON-GRADE MAY CONFORM TO ASTM C33 SIZE NUMBER 467 (1 1/2" MAXIMUM SIZE) AT CONTRACTOR'S OPTION. WHERE CONCRETE IS TO BE IN DIRECT CONTACT WITH THE SOIL OR IRRIGATION WATER, CEMENT SHALL BE TYPE V OR EQUIVALENT, WATER TO CEMENT RATIO SHALL BE .50 MAXIMUM AND 28-DAY COMPRESSIVE STRENGTH SHALL BE 4000 psi MINIMUM.

3-3 WATER ADDITIONS AFTER LEAVING THE BATCH PLANT SHALL NOT BE MADE EXCEPT AS ALLOWED BY ASTM C94/94M. WATER ADDITIONS DURING TRANSIT SHALL BE PERMITTED ONLY FOR REDI-MIX TRUCKS EQUIPPED WITH AN ONBOARD AUTOMATED SLUMP AND WATER MONITORING SYSTEM IN COMPLIANCE WITH ASTM C94/94M.

3-4 FOR WALLS, SLABS ON GRADE, AND ELEVATED SLABS AND BEAMS, DRY CURING SHRINKAGE AT 28 DAYS SHALL NOT EXCEED 0.045%. SHRINKAGE TESTS SHALL COMPLY WITH ASTM C157, AS MODIFIED BY SEAOC AND SHALL BE PERFORMED BY AN INDEPENDENT LABORATORY. SPECIFIED SHRINKAGE LIMITS ARE FOR LABORATORY PREPARED AND CURED SPECIMENS. FOR CONCRETE TO BE PLACED IN SLABS ON GRADE AND ELEVATED SLABS AND BEAMS, PROVIDE SHRINKAGE TEST RESULTS 2 WEEKS MINIMUM, PRIOR TO PLACING CONCRETE.

3-5 ALL REINFORCING BARS, ANCHOR BOLTS, PRESTRESSING TENDONS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.

3-6 THE MAXIMUM SLUMP SHALL NOT EXCEED THE FOLLOWING:

A. PRIOR TO THE ADDITION OF A HIGH RANGE WATER REDUCING AGENT: 4" ± 1"

B. AFTER ADDITION OF A HIGH RANGE REDUCING AGENT: 8" ± 1"

3-7 MINIMUM ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS (UNO) SHALL BE AS FOLLOWS:
(MINIMUM 470 POUNDS OF CEMENTITIOUS MATERIALS PER CUBIC YARD)

A. FOOTINGS & SOG: 4000 psi

B. UPTURNED BEAMS INCLUDING @ GRADE LEVEL: 4000 psi TYPICAL EXCEPT 5000 psi WHERE SHOWN ON FRAME ELEVATIONS

C. COLUMNS: 4000 psi TYPICAL EXCEPT 5000 psi WHERE NOTED ON COLUMN SCHEDULE

D. ELEVATED SLABS & DOWNTURNED BEAMS: 3000 psi @ 3 DAYS & 4500 psi @ 28 DAYS

E. ELEVATOR DOOR FRAME 3000 psi LIGHTWEIGHT CONCRETE

F. ALL OTHER CONCRETE: 4000 psi UNO ON PLANS

3-8 ALL CONCRETE FOR ROOF DECKS (ALL DECKS EXPOSED TO WEATHER) SHALL CONTAIN 1.5 POUNDS PER CUBIC YARD OF FIBERMESH 300 SYNTHETIC FIBERS.

3-9 SAMPLES FOR TESTING SHALL BE REQUIRED AS OUTLINED BY ACI 318-14 SECTION 26.12 CONCRETE EVALUATION AND ACCEPTANCE. A SAMPLE SHALL CONSIST OF A MINIMUM OF FOUR 6" x 12" OR FIVE 4" x 8" CYLINDERS, ONE TO BE TESTED AT 7 DAYS, TWO 6" x 12" OR THREE 4" x 8" CYLINDERS TO BE TESTED AT 28 DAYS AND ONE TO BE TESTED AT 56 DAYS IF AVERAGE REQUIRED STRENGTH AT 28 DAYS IS BELOW ACCEPTABLE LIMITS. FOR POST-TENSIONED MEMBERS, A 3-DAY TEST MAY BE USED IN LIEU OF THE 7-DAY TEST TO FACILITATE STRESSING OPERATIONS. ALL TEST CYLINDERS SHALL BE NUMBERED SEQUENTIALLY AS THEY PERTAIN TO THIS PROJECT. TEST REPORTS SHALL ALSO INCLUDE THE TEST RESULTS FOR SLUMP AND IF APPLICABLE, PERCENTAGE OF AIR.

3-10 PROJECTING CORNERS OF BEAMS, COLUMNS, ETC. SHALL BE FORMED WITH 3/4" CHAMFER UNLESS DETAILED OTHERWISE.

3-11 CONDUIT OR PIPE SIZE (OD) SHALL NOT EXCEED 30% OF SLAB THICKNESS UNLESS SPECIFICALLY DETAILED OTHERWISE AND SHALL BE LOCATED IN MIDDLE 1/3 OF SLAB. CLEAR SPACING BETWEEN ADJACENT CONDUITS OR PIPES SHALL BE THREE TIMES THE LARGER O.D. MINIMUM, UNLESS NOTED OTHERWISE ON PLANS. FOR CONDUITS OR PIPES IN COLUMNS SEE J/S3.10.

3-12 ALL CONCRETE CONSTRUCTION JOINTS SHALL HAVE 1/4" ± AMPLITUDE ROUGHNESS OR KEYED JOINTS, UNLESS NOTED OTHERWISE.

3-13 LIGHTWEIGHT CONCRETE SHALL HAVE A MAXIMUM DENSITY OF 115 pcf.

3-14 FLY ASH SHALL CONFORM TO ASTM C618 CLASS F, EXCEPT AS NOTED. FLY ASH SHALL NOT EXCEED 25% OF CEMENTITIOUS MATERIAL BY WEIGHT. FLY ASH USED SHALL NOT EXPERIENCE A LOSS ON IGNITION OF GREATER THAN 2%.

3-15 IF CONCRETE IS PUMPED, PROVIDE HORSES OR OTHER SUITABLE MEANS TO SUPPORT THE HOSE SO THAT IT DOES NOT RIDE ON THE TENDONS OR ON THE MILD REINFORCING STEEL.

SECTION 5: MASONRY

5-1 BLOCK MASONRY UNITS SHALL BE SINGLE OR DOUBLE OPEN END BOND BEAM UNITS CONFORMING TO ASTM C90, LATEST REVISION. THE FIRST COURSE OF BLOCK FOR BLOCK LIFTS EXCEEDING 5'-0" SHALL HAVE CLEANOUTS CONSISTING OF DOUBLE OPEN END BOND BEAM BLOCK. SEE DETAIL A/S5.03.

5-2 MINIMUM f'm = 1500 psi UNO. MINIMUM f'm = 2000 psi @ ELEVATOR HOISTWAY WALLS.

5-3 f'm SHALL BE DETERMINED PER THE ACI 530.1-13 SECTION 1.4. PROVIDE SUBMITTALS, TESTING AND INSPECTIONS AS REQUIRED BY ACI 530-13 TABLE 3.1.2.

5-4 IN NO CASE SHALL COMPRESSIVE STRENGTH OF BLOCK UNITS BE LESS THAN 125% OF SPECIFIED f'm. IN NO CASE SHALL GROUT FOR THE BLOCK UNITS HAVE A COMPRESSIVE STRENGTH LESS THAN 2000 psi AND 125% OF SPECIFIED f'm AT 28 DAYS. MORTAR SHALL BE TYPE "S" OR "M".

5-5 MINIMUM LAP OF REINFORCING STEEL SHALL BE PER C/S5.03.

5-6 GROUT POURS SHALL BE TO THE FULL HEIGHT OF THE BLOCK LIFT. MAXIMUM GROUT POUR HEIGHT SHALL COMPLY WITH ACI 530-13 SECTION 3.2. GROUT POURS EXCEEDING 5'-0" IN HEIGHT SHALL CONSIST OF MULTIPLE GROUT LIFTS OF 5'-0" OR LESS IN HEIGHT. CONSOLIDATE AND RECONSOLIDATE EACH GROUT LIFT BY MEANS OF MECHANICAL VIBRATION IN COMPLIANCE WITH ACI 530.1 SECTION 3.5.E. A GROUT LIFT SHALL NOT BE PERMITTED TO SET PRIOR TO PLACEMENT AND CONSOLIDATION OF SUBSEQUENT GROUT LIFT.

5-7 HORIZONTAL CONSTRUCTION JOINTS BETWEEN GROUT POURS SHALL BE LOCATED 1" ± 1/2" BELOW A MORTAR JOINT.

5-8 MINIMUM GROUTING: FILL ALL CELLS.

5-9 ALL BOLTS IN MASONRY SHALL BE CENTERED IN CELLS ± 2 INCHES.

SECTION 6: REINFORCING STEEL

6-1 LONGITUDINAL REINFORCING STEEL IN ALL CONCRETE COLUMNS AND BEAMS SHALL BE ASTM A706, GRADE 60.

6-2 ALL OTHER REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 OR ASTM A706, GRADE 60, UNO.

6-3 REINFORCING STEEL THAT IS TO BE WELDED SHALL BE ASTM A706, GRADE 60. REBAR WELDED TO REBAR SHALL BE WELDED USING E80XX LOW-HYDROGEN ELECTRODES.

6-4 CLEAR COVERAGE OF CONCRETE OVER OUTER REINFORCING BARS SHALL BE AS FOLLOWS UNO:

A. CAST-IN-PLACE CONCRETE (NONPRESTRESSED):

1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
2. CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 THROUGH #18 BARS: 2"
   #5 BAR, W31 OR D31 WIRE, AND SMALLER: 1 1/2"
3. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
   SLABS, WALLS, JOISTS:
   #14 AND #18 BARS: 1 1/2"
   #11 BAR AND SMALLER: 3/4"
   BEAMS, COLUMNS:
   PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS: 1 1/2"

B. CAST-IN PLACE CONCRETE (PRESTRESSED) -
PRESTRESSED AND NON-PRESTRESSED REINFORCEMENT, DUCTS, AND END FITTINGS:

1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
2. CONCRETE EXPOSED TO EARTH OR WEATHER:
   WALL PANELS, SLABS, JOISTS: 1"
   OTHER MEMBERS: 1 1/2"
3. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
   SLABS, WALLS, JOISTS: 3/4"
   BEAMS, COLUMNS:
   PRIMARY REINFORCEMENT: 1 1/2"
   TIES, STIRRUPS, SPIRALS: 1 1/2"

6-5 SMOOTH WIRE MESH SHALL CONFORM TO ASTM A1064, AND SHALL BE LAPPED SUCH THAT THE DISTANCE BETWEEN OUTER MOST CROSS WIRES IS NOT LESS THAN 1 1/2 SPACES (9" MIN). DEFORMED WELDED WIRE REINFORCEMENT IN SLABS ON GRADE AND FOR STIRRUPS IN BEAMS AND GIRDERS SHALL CONFORM TO ASTM A1064 AND MINIMUM YIELD STRESS f y = 80 ksi. WELDED WIRE IN ELEVATED SLABS SHALL CONFORM TO ASTM A1064 AND MINIMUM YIELD STRESS f y = 60 ksi.

6-6 ALL FIELD BENDING OR STRAIGHTENING OF REINFORCING BARS SHALL BE MADE PER ACI 301 SECTION 3.3.2.B.

6-7 REINFORCING BARS SHALL BE SPLICED AS SHOWN ON DRAWINGS. ANY ADDITIONAL SPLICING SHALL REQUIRE REVIEW FROM THE ENGINEER.

6-8 MECHANICAL COUPLERS SHALL HAVE AN EVALUATION REPORT DEMONSTRATING COMPLIANCE WITH THE REQUIREMENTS OF A TYPE 2 CONNECTOR PER THE LATEST EDITION OF ACI 318.

6-9 CONTRACTOR SHALL NOT PLACE ANY REINFORCING UNTIL SHOP DRAWINGS REVIEWED BY THE ENGINEER ARE RECEIVED ON THE JOB. SHOP DRAWINGS SHALL CONSIST OF BOTH 'CUT' AND PLACING SHEETS. PLACING SHEETS SHALL CONTAIN ALL INFORMATION NECESSARY TO POSITION ALL REINFORCING STEEL IN THE FIELD WITHOUT HAVING TO REFER TO THE STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL NOT CONTAIN ANY REPRODUCTIONS OF THE

ABBREVIATIONS

THIS LIST IS FOR INFORMATION ONLY - OTHER ABBREVIATIONS MAY BE USED.
ABBREVIATIONS THAT ARE UNCLEAR SHOULD BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER FOR CLARIFICATION.

AB	ANCHOR BOLT
ADDL	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ANC	ANCHOR
ARCH	ARCHITECT
ASSY	ASSEMBLY
B	BOTTOM
BC	BARRIER CABLE
BFF	BELOW FINISH FLOOR
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BMD	BOTTOM OF METAL DECK
BOF	BOTTOM OF FOOTING
BOT	BOTTOM
BP	BUTTON PUNCH
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
C	CHANNEL or CAMBER
CA	COLUMN ABOVE
CB	COLUMN BELOW
CFM	COLD FORMED METAL
CGS	CENTER OF GRAVITY OF SECTION
CIP	CAST-IN-PLACE CONCRETE
CJ	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
COND	CONDITION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATION, -ATE
CR	CHORD REINF
D	DEEP
d_b	REINFORCING BAR DIAMETER
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DBO	DESIGN BY OTHERS
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DK	DECK
DL	DEAD LOAD
DTL	DETAIL
DTS	DIAGONAL TENSION STRAP
DWG	DRAWING
E	EAST
(E)	EXISTING CONDITION
EA	EACH
EB	EXPANSION BOLT
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEV	ELEVATOR
ENGR	ENGINEER
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	EACH SIDE
EW	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
(F)	FUTURE CONDITION
f'c	MIN ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE
f'm	MIN ULTIMATE COMPRESSIVE STRENGTH OF MASONRY
FD	FLOOR DRAIN
FDN	FOUNDATION
FDS	FULL DEPTH STIFFENER
FF	FINISH FLOOR or FAR FACE
FG	FINISH GRADE
FIN	FINISH
FLR	FLOOR
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FRMG	FRAMING
FS	FAR SIDE
FT	FOOT or FEET
FTG	FOOTING
FTST	FINGER TIGHTEN NUT & STAKE THREADS
FTTW	FINGER TIGHTEN NUT & TACK WELD
G	GROUND LEVEL
GA	GAGE or GAUGE
GALV	GALVANIZED
GR	GRADE
HA	HANGER ABOVE
HB	HANGER BELOW
HCA	HEADED CONCRETE ANCHOR
HDR	HEADER
HGR	HANGER
HORIZ	HORIZONTAL
HS	HORIZONTAL SLOT
HSB	HIGH-STRENGTH BOLT
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
ID	INSIDE DIAMETER
IN	INCH
INFO	INFORMATION
INT	INTERIOR
ISF	INSIDE FACE
J	JOIST
JH	JOIST HANGER
JT	JOINT
k	KIPS
k/f	KIPS PER FOOT
ksf	KIPS PER SQUARE FOOT
ksi	KIPS PER SQUARE INCH
L	ANGLE or ANGLE IRON
LB	POUND
LL	LIVE LOAD
LLBB	LONG LEGS BACK TO BACK
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LP	LIGHT POLE
LSL	LONG-SLOTTED HOLE
LT	LIGHT
LW	LONG WAY
LWC	LIGHT-WEIGHT CONCRETE
MACH	MACHINE
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
oc	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
OSF	OUTSIDE FACE
OVS	OVERSIZE ROUND HOLE
OWG	OPEN WEB GIRDER
OWJ	OPEN WEB JOIST
PC	PRECAST CONCRETE
pcf	POUNDS PER CUBIC FOOT
PDF	POWER-DRIVEN FASTENER
PEN	PENETRATION
PERP	PERPENDICULAR
PL	PLATE or PROPERTY LINE
PLCs	PLACES
plf	POUNDS PER LINEAR FOOT
PLYD	PLYWOOD
psf	POUNDS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
PT	POST-TENSION, -ED, -ING or POST-TENSION TENDONS
QTY	QUANTITY
R	ROOF, RISER or RADIUS
RD	ROOF DRAIN
REF	REFER, or REFERENCE
REINF	REINFORCING
REQD	REQUIRED
REV	REVISED, or REVISION
RM	ROOM
RO	ROUGH OPENING
S	STEP or WELD SIZE or SOUTH
SC	SLIP CRITICAL CONNECTION
SCHED	SCHEDULE
SCW	SLIP CRITICAL CONN w/WELD
SE	STRUCTURAL ENGINEER
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SJ	SCORED JOINT
SLBB	SHORT LEGS BACK TO BACK
SLTD	SLOTTED
SLV	SHORT LEG VERTICAL
SMRF	SPECIAL MOMENT RESISTING FRAME
SOG	SLAB ON GRADE
SP	STD PIPE or SPACES, SPACING
SPEC	SPECIFICATION
SQ	SQUARE
SSL	SHORT-SLOTTED HOLE
STAG	STAGGER
STD	STANDARD
STHG	SHEATHING
STIF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL
SW	SHORT WAY
SYM	SYMMETRICAL
T	TOP or TREAD
T&B	TOP AND BOTTOM
T&S	TEMPERATURE AND SHRINKAGE
THD	THREAD or THREADED
THK	THICK or THICKNESS
TN	TOE NAIL
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL (NOT DECK)
TOW	TOP OF WALL
TRANS	TRANSVERSE
TSA	THREADED STUD ANCHOR
TYP	TYPICAL
UNIF	UNIFORM
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VS	VERTICAL SLOT
VSC	VERTICAL SLIDE CLIP
W	WIDE FLANGE or WEST
w/	WITH
W/C	WATER-CEMENT RATIO
w/o	WITHOUT
WDO	WINDOW
WP	WORK POINT or WATERPROOF
WWF	WELDED WIRE FABRIC
XP	EXTRA STRONG PIPE
XXP	DBL EXTRA STRONG PIPE
>	GREATER THAN
<	LESS THAN
(x)	HEADED STUD QUANTITY
Δ	TENDON ELONGATION

SHEET INDEX

PROGRESS DESIGN DEVELOPMENT 11-08-17	DESIGN DEVELOPMENT 11-17-17	50% CD 12-20-17	PLAN CHECK SUBMITTAL 3-12-18	BACK CHECK #1 5-24-18		
●	●	●	●	●	S1.00	STRUCTURAL COVER SHEET
●	●	●	●	●	S1.01	STRUCTURAL COVER SHEET CONTINUED
●	●	●	●	●	S1.02	POST TENSIONING NOTES & DETAILS
●	●	●	●	●	S1.05	SPECIAL INSPECTION NOTES
●	●	●	●	●	S2.01	GROUND LEVEL FOUNDATION PLAN
●	●	●	●	●	S2.02	SECOND LEVEL FRAMING PLAN
●	●	●	●	●	S2.03	THIRD (ROOF) LEVEL FRAMING PLAN
		●	●	●	S2.10	PARTIAL PLANS
●	●	●	●	●	S3.10	COLUMN SCHEDULE & DETAILS
●	●	●	●	●	S3.11	COLUMN DETAILS
			●	●	S3.15	FRAME COLUMN SCHEDULE & DETAILS
	●	●	●	●	S3.40	FRAME ELEVATIONS
	●	●	●	●	S3.41	FRAME ELEVATIONS
	●	●	●	●	S3.50	GIRDER ELEVATIONS & DETAILS
	●	●	●	●	S3.60	BEAM ELEVATIONS
●	●	●	●	●	S3.85	BEAM DETAILS
●	●	●	●	●	S3.90	SLAB SECTIONS
●	●	●	●	●	S3.91	SLAB SECTIONS
●	●	●	●	●	S3.92	SLAB SECTIONS
●	●	●	●	●	S3.93	SLAB SECTIONS
		●	●	●	S4.01	ELEVATOR TOWER WALL ELEVATIONS & DETAILS
		●	●	●	S4.02	ELEVATOR TOWER WALL DETAILS
				●	S4.03	ELEVATOR TOWER WALL DETAILS
●	●	●	●	●	S5.01	CONCRETE DETAILS
●	●	●	●	●	S5.02	CONCRETE DETAILS
●	●	●	●	●	S5.03	CONCRETE DETAILS
		●	●	●	S5.04	CONCRETE DETAILS
			●	●	S5.10	CONCRETE DETAILS

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Revisions

No.	Date	Description

REGISTERED PROFESSIONAL ENGINEER RODNEY ROTTSCHALK No. 2563 STATE OF CALIFORNIA

May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

STRUCTURAL COVER SHEET

Sheet Number

S1.00

1721 S100 & S101

2018.05.29 BIDSET

G:\1-JOBS\Tri-City Medical Center PS\DRAFTING\1721 S100 & S101.dwg, 5/24/2018 11:13:35 AM, RICH

GENERAL STRUCTURAL NOTES CONTINUED

STRUCTURAL DRAWINGS.

SECTION 7: STRUCTURAL STEEL

7-1 STRUCTURAL STEEL WIDE FLANGE SECTIONS SHALL CONFORM TO ASTM A572 GRADE 50 OR ASTM A992, UNLESS NOTED OTHERWISE. ALL OTHER STEEL SHALL CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE. ALL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE AS AMENDED TO DATE.

7-2 PIPE SHALL CONFORM TO ASTM A53, GRADE B.

7-3 HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM 500, GRADE B.

7-4 ALL BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325 UNLESS NOTED OTHERWISE ON DRAWINGS. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GRADE 36 UNLESS NOTED OTHERWISE ON DRAWINGS. MACHINE BOLTS SHALL CONFORM TO ASTM A307.

7-5 INSTALLATION AND INSPECTION OF HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF THE FOURTEENTH EDITION AISC SPECIFICATIONS. HOLES FOR HIGH STRENGTH BOLTS SHALL BE BOLT DIAMETER + 1/16", UNO.

7-6 SLIP CRITICAL (SC) TYPE BOLTS SHALL BE INSTALLED AT ALL MOMENT CONNECTIONS AND WHERE NOTED ON PLANS AND DETAILS. SLIP CRITICAL BOLTS SHALL BE INSTALLED PER THE AISC SPECIFICATIONS AND MANUFACTURERS RECOMMENDATIONS. CONTACT FACES OF STEEL AT CONNECTIONS SHALL NOT BE PAINTED WHERE BOLTS ARE SPECIFIED AS "SC" TYPE.

7-7 BEARING (N) TYPE CONNECTIONS SHALL BE USED AT ALL SIMPLE SHEAR CONNECTIONS, UNLESS NOTED OTHERWISE.

7-8 THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP AND ERECTION DRAWINGS OF ALL STEEL FOR ENGINEER REVIEW BEFORE FABRICATION. ALL STEEL FABRICATION TO BE DONE IN A SHOP ACCEPTABLE TO THE BUILDING DEPARTMENT. CONTRACTOR SHALL NOT ERECT ANY STRUCTURAL STEEL UNTIL THE SHOP DRAWINGS REVIEWED BY THE ENGINEER ARE RECEIVED AT THE JOB SITE. SHOP AND ERECTION DRAWINGS SHALL CONTAIN ALL INFORMATION NECESSARY TO ERECT ALL STRUCTURAL STEEL IN THE FIELD WITHOUT HAVING TO REFER TO THE STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL NOT CONTAIN ANY REPRODUCTIONS OF THE STRUCTURAL DRAWINGS.

7-9 ALL WELDING SHALL BE DONE BY EXPERIENCED WELDERS USING AN ELECTRIC ARC WELDING PROCESS. WELDERS SHALL ALSO MEET THE QUALIFICATION REQUIREMENTS OF AWS D1.1 FOR THE TYPES AND POSITIONING OF WELDS TO BE PERFORMED. FILLER WELD METAL SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 ksi, UNO. FILLER WELD METAL FOR METAL DECKING SHALL HAVE A MINIMUM TENSILE STRENGTH OF 60 ksi. ALL COMPLETE PENETRATION GROOVE WELD METAL SHALL HAVE A MINIMUM CVN TOUGHNESS OF 20 ft-lbs AT 40° F. OPEN WEB JOISTS SHALL BE WELDED PER THE STEEL JOIST INSTITUTE SPECIFICATIONS. ALL WELDING SHALL CONFORM TO AISC AND AWS STANDARDS.

7-10 EXCEPT WHERE ENCASED IN CONCRETE, MASONRY OR SPRAYED-ON FIREPROOFING, ALL STEEL IN UNCONDITIONED SPACES SHALL BE HOT-DIPPED GALVANIZED UNLESS NOTED OTHERWISE ON THE DRAWINGS. WELDS OF GALVANIZED STEEL SHALL BE GALVANIZED OR PAINTED WITH A ZINC BASED PAINT TO PROTECT AGAINST CORROSION.

7-11 STRUCTURAL STEEL FRAMING MEMBERS SHALL BE SUPPORTED DURING FIELD WELDING, EXCEPT WELDING OF METAL DECK, STEEL STUDS, ETC. SUPPORTS SHALL REMAIN IN PLACE UNTIL STEEL TEMPERATURE HAS RETURNED TO AIR TEMPERATURE.

7-12 OPENINGS SHALL NOT BE PLACED IN STEEL MEMBERS UNLESS SPECIFICALLY DETAILED, STEEL MEMBERS SHALL BE SHORED WHEN PERMISSIBLE HOLES ARE CUT WITH A TORCH AFTER STEEL IS ERECTED. THE SHORES SHALL REMAIN IN PLACE UNTIL STEEL TEMPERATURE HAS RETURNED TO AIR TEMPERATURE.

7-13 STIFFENERS SHALL HAVE THE SAME WIDTH AS THE FLANGES OF THE STEEL MEMBERS UNLESS DETAILED OTHERWISE. BEARING STIFFENERS SHALL HAVE CLOSE BEARING AGAINST FLANGES.

7-14 BASE PLATES SHALL BE FINISHED PER AISC SPECIFICATIONS, SECTION M2-8. COLUMN ENDS SHALL BE FINISHED PER CODE OF STANDARD PRACTICE, SECTION 6.2.2.

7-15 ALL WELDS NOT SPECIFIED SHALL BE CONTINUOUS FILLET WELDS. SIZE OF WELD SHALL BE BASED ON AISC STANDARDS FOR THICKER PART JOINED.

7-16 STRUCTURAL STEEL SHALL BE DELIVERED TO THE JOB SITE FREE OF EXCESSIVE RUST, MILL SCALE, GREASE, ETC. OR ANY OTHER SUBSTANCE WHICH MAY IMPAIR PROPER ADHESION OF THE FIREPROOFING.

7-17 ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL HAVE NON-DESTRUCTIVE TESTING PERFORMED BY EITHER ULTRASONIC TESTING OR RADIOGRAPHY. THE BASIC RATE OF TESTING SHALL BE 100% BUT MAY BE REDUCED AS ALLOWED BY AISC 341-10 SECTIONS J6.2g AND J6.2h.

7-18 BASE METAL THICKER THAN 1 1/2" INCHES, WHEN SUBJECTED TO THROUGH-THICKNESS WELD SHRINKAGE STRAINS, SHALL BE ULTRASONICALLY INSPECTED FOR DISCONTINUITIES AFTER JOINT COMPLETION AS REQUIRED BY AISC 341-10 SECTION J6.2c.

7-19 HEADED CONCRETE ANCHORS (HCA), THREADED STUD ANCHORS (TSA) AND DEFORMED BAR ANCHORS (DBA) SHALL BE AS MANUFACTURED BY NELSON STUD WELDING, INC. OR EQUIVALENT. HCA'S, TSA'S AND DBA'S SHALL BE INSTALLED WITH A STUD WELDING GUN ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. ALTERNATE WELDING PROCESSES MUST BE REVIEWED IN ADVANCE BY THE ENGINEER.

7-20 ALL STRUCTURAL STEEL EMBEDS SHALL BE PROVIDED WITH 3/16" DIAMETER NAIL HOLES AT 12" O.C. MAXIMUM SPACING EACH WAY AND 3 HOLES MINIMUM PER EMBED. THESE NAIL HOLES SHALL BE UTILIZED BY THE INSTALLER TO SECURELY FASTEN THE EMBED TO THE CONCRETE FORMWORK.

7-21 WHERE SHORT SLOTTED HOLES ARE USED IN AN OUTER PLY, A STANDARD WASHER SHALL BE PROVIDED. WHERE HIGH STRENGTH BOLTS ARE USED, SUCH WASHERS SHALL BE HARDENED. THE WASHERS SHALL BE OF SUFFICIENT SIZE TO COMPLETELY COVER THE HOLE AFTER INSTALLATION.

7-22 WHERE LONG SLOTTED HOLES ARE USED IN AN OUTER PLY, PLATE WASHERS OR A CONTINUOUS BAR WITH STANDARD HOLES, HAVING A SIZE SUFFICIENT TO COMPLETELY COVER THE SLOT AFTER INSTALLATION, SHALL BE PROVIDED. IN HIGH STRENGTH BOLTED CONNECTIONS, SUCH PLATES OR CONTINUOUS BARS SHALL NOT BE LESS THAN 5/16" THICK AND SHALL BE ASTM A36 MATERIAL. IF HARDENED WASHERS ARE REQUIRED FOR USE, THEY SHALL BE PLACED OVER THE PLATE WASHER OR BAR.

SECTION 8: METAL DECK

8-1 METAL DECK SHALL BE VERCO METAL DECK OR EQUIVALENT. PROVIDE VENT TABS PER MANUFACTURER'S SPECIFICATIONS WHERE CONCRETE FILL IS PLACED OVER DECK.

8-2 METAL DECK SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A653 SS, WITH G60 GALVANIZED COATING. UNITS SHALL BE FASTENED TO ALL FRAMING BY 3/4" DIA. PUDDLE WELDS (1/2" DIA. NET) AT INTERVALS INDICATED ON STRUCTURAL DRAWINGS. SIDELAP OF ADJACENT UNITS SHALL BE CONNECTED AS INDICATED ON STRUCTURAL DRAWINGS.

8-3 LIGHT GAGE CLOSURE ANGLES SHALL BE PROVIDED BY DECKING CONTRACTOR FOR ALL CONCRETE FILLED DECKS.

8-4 CONDUIT IN CONCRETE SLABS ON METAL DECK:

A. THE STRUCTURAL ENGINEER SHALL REVIEW PROPOSED CONDUIT LOCATIONS, SIZES AND SPACINGS PRIOR TO INSTALLATION.

B. THE DIAMETER OF CONDUIT PLACED ON THE TOP OF THE DECKING SHALL NOT EXCEED 1/3 THE THICKNESS OF THE CONCRETE ABOVE THE TOP OF THE DECK. THE SPACING BETWEEN INDIVIDUAL CONDUIT RUNS SHALL BE 6'oc MINIMUM.

C. CONDUIT RUNNING PARALLEL TO THE FLUTES MAY BE PLACED IN THE BOTTOM OF THE FLUTES PROVIDED A MINIMUM OF 1" CLEAR IS MAINTAINED FROM THE RIBBED WEBS (VERTICAL SIDES) AND BETWEEN ADJACENT PIPES IN THE SAME FLUTE.

8-5 METAL DECKING SHALL BE WELDED USING E60XX ELECTRODES, MINIMUM.

SECTION 9: STRUCTURAL STEEL STUDS

9-1 ALL STUDS, TRACKS AND BRIDGING SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE MANUFACTURED PER THE STEEL STUD MANUFACTURER'S ASSOCIATION STANDARDS COMPLYING WITH ICC ESR-3064P OR EQUAL, AND BE OF THE TYPE, SIZE AND GAGE AS SHOWN ON THE STRUCTURAL DRAWINGS. MATERIALS USED TO FABRICATE THE STUDS, TRACKS, AND BRIDGING SHALL BE AS SPECIFIED BY THE MANUFACTURER. BRIDGING (WHERE NOT SHOWN) SHALL SATISFY THE RECOMMENDATION OF THE STEEL STUD MANUFACTURER. TRACKS (WHERE NOT SHOWN) SHALL BE 14 GAGE DEEP LEG TRACK.

SECTION 20: MISCELLANEOUS

20-1 NON-SHRINK GROUT OR DRY PACK SHALL BE A PREMIXED NON-METALLIC FORMULA HAVING THE FOLLOWING CHARACTERISTICS: NO SHRINKAGE AFTER PLACEMENT OR EXPANSION (ASTM C827) AFTER SET, ONE DAY COMPRESSIVE STRENGTH OF AT LEAST (ASTM C109) 3000 psi AND INITIAL SET TIME OF NOT LESS THAN 45 MINUTES (ASTM C191). PROVIDE "SUPREME GROUT", FROM U.S. GROUT CORP.; "5 STAR GROUT", FROM BURKE CO.; "324", FROM CLIFFORD HILL, OR EQUIVALENT. MINIMUM f'c AT 28 DAYS = 5,000 psi.

20-2 THE STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS:

A. ROOFS: 20 psf REDUCIBLE
B. PARKING FLOORS: 40 psf REDUCIBLE
C. STAIRS: 100 psf REDUCIBLE
D. VEHICLE BARRIER: 6000 lbs PER CBC 1607.8.3

20-3 THE STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING LATERAL LOADS:

A. WIND
BASIC WIND SPEED: 110 MPH
RISK CATEGORY: II
EXPOSURE: C
INTERNAL PRESSURE COEFFICIENT: GCpi = 0.18

SEE SCHEDULE THIS SHEET FOR DESIGN WIND PRESSURES FOR EXTERNAL COMPONENTS AND CLADDING.

B. SEISMIC
SHORT PERIOD SPECTRAL ACCELERATION: S_S = 1.12
1-SECOND PERIOD SPECTRAL ACCELERATION: S_1 = 0.352
SOIL SITE CLASS: C
SHORT PERIOD SPECTRAL COEFFICIENT: S_{DS} = 0.747
1-SECOND PERIOD SPECTRAL COEFFICIENT: S_{D1} = 0.340
RISK CATEGORY: II
SEISMIC DESIGN CATEGORY: D
IMPORTANCE FACTOR: I = 1.00
RESPONSE MODIFICATION COEFFICIENT:
SPECIAL MOMENT FRAMES: R = 8
SEISMIC RESPONSE COEFFICIENT: C_S = 0.093

ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE ANALYSIS

20-4 VERTICAL DEFORMATION COMPATIBILITY BETWEEN FLOORS: DESIGN AND ATTACHMENT OF ELEMENTS TO THE PRIMARY STRUCTURAL SYSTEM SHALL BE CAPABLE OF ACCOMMODATING VERTICAL MEMBER DEFLECTION WITHOUT STRUCTURAL OR COSMETIC DAMAGE. CONNECTIONS TO PRIMARY STRUCTURAL SYSTEM SHALL NOT BE MADE UNTIL ALL STRUCTURAL WORK SHOWN ON THE DRAWINGS IS COMPLETE, UNLESS SPECIFICALLY AUTHORIZED BY THE STRUCTURAL ENGINEER. SUPERIMPOSED LOAD DEFLECTION IS LIMITED TO THE LESSER OF 3/4" OR SPAN/360 FOR BUILDING EDGE BEAMS AND SPAN/360 FOR ALL OTHER BEAMS.

20-5 LATERAL DEFORMATION COMPATIBILITY BETWEEN FLOORS: DESIGN AND ATTACHMENT OF ELEMENTS TO THE PRIMARY STRUCTURAL SYSTEM SHALL BE GOVERNED BY ASCE 7 - SECTION 12.12.5, 13.5.2, 13.5.3 AND 13.5.4, AND LIMITED TO THE FOLLOWING:

A. ELASTIC INTER-STORY DRIFT LIMIT: MEMBERS, CONNECTIONS, AND FINISHES SHALL BE CAPABLE OF ACCOMMODATING 3/4" LATERAL INTER-STORY DISPLACEMENT IN ANY DIRECTION WITHOUT STRUCTURAL OR COSMETIC DAMAGE.

B. INELASTIC INTER-STORY DRIFT LIMIT: MEMBERS, CONNECTIONS, AND FINISHES SHALL BE CAPABLE OF ACCOMMODATING 2" OF LATERAL INTER-STORY DISPLACEMENT IN ANY DIRECTION WITHOUT STRUCTURAL FAILURE OR COLLAPSE.

SECTION 22: DEFERRED SUBMITTAL ITEMS & REQUIREMENTS

22-1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PERMITS FOR ALL DEFERRED SUBMITTAL ITEMS.

22-2 THE CONTRACTOR SHALL PREPARE THE DEFERRED SUBMITTAL DOCUMENTS: CALCULATIONS, SHOP DRAWINGS, MATERIAL SPECIFICATIONS AND DATA SHEETS, ALL OF WHICH SHALL BE WET-STAMPED AND WET-SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA. THE PREPARER OF THE DEFERRED SUBMITTAL DOCUMENTS IS SOLELY RESPONSIBLE FOR THEIR DESIGN.

22-3 DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD, WHO SHALL REVIEW THEM AND RETURN THEM TO THE CONTRACTOR WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

22-4 CULP AND TANNER'S REVIEW OF DEFERRED SUBMITTAL DOCUMENTS IS LIMITED TO VERIFICATION THAT THE DESIGN COMPLIES WITH THE PROJECT DESIGN INTENT, AND THAT THE PRIMARY STRUCTURAL SYSTEM DETAILED ON THE CULP AND TANNER DRAWINGS IS CAPABLE OF SUPPORTING THE IMPOSED LOADS AT CONNECTION POINTS. CULP AND TANNER IS NOT RESPONSIBLE FOR VERIFICATION OF CODE COMPLIANCE OF DEFERRED SUBMITTAL ITEMS.

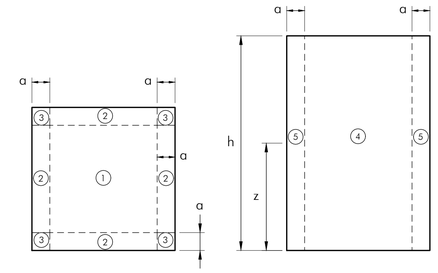
22-5 THE CONTRACTOR SHALL SUBMIT THE DEFERRED SUBMITTAL DOCUMENTS AND ANY OTHER SUPPORTING DOCUMENTATION REQUIRED TO THE BUILDING DEPARTMENT AND RESOLVE ALL PLAN CHECK CORRECTIONS REQUIRED TO OBTAIN A PERMIT FOR DEFERRED SUBMITTAL ITEMS. FABRICATION AND INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT PROCEED UNTIL A PERMIT FOR THE ITEMS HAS BEEN OBTAINED BY THE CONTRACTOR.

22-6 THE CONTRACTOR SHALL COORDINATE ALL DEFERRED SUBMITTAL ITEMS WITH OTHER TRADES, THE ARCHITECT, AND OTHER CONSULTANTS. DESIGN SHALL INCLUDE THE DESIGN OF THE ELEMENT AND ITS CONNECTION TO THE STRUCTURE. EMBEDS REQUIRED BY DEFERRED SUBMITTAL CONTRACTORS SHALL BE FURNISHED, LAID OUT AND INSTALLED BY THAT SUBCONTRACTOR.

22-7 DEFERRED SUBMITTAL ITEMS SHALL BE DESIGNED TO SPAN HORIZONTALLY AND VERTICALLY TO STRUCTURAL SUPPORT MEMBERS. METAL ROOF DECK AND METAL DECK WITH CONCRETE FILL SHALL NOT BE CONSIDERED STRUCTURAL SUPPORT MEMBERS FOR DEFERRED SUBMITTAL ITEMS UNLESS SPECIFICALLY AUTHORIZED IN WRITING BY THE ENGINEER OF RECORD.

22-8 ITEMS NOT DESIGNED BY CULP AND TANNER THAT MAY REQUIRE DEFERRED SUBMITTAL BY THE BUILDING DEPARTMENT INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

A. EXTERIOR & INTERIOR METAL STUDS.
B. WINDOW WALL, LOUVER, GLAZING AND SKYLIGHT SYSTEMS.
C. STAIRS, HANDRAILS, GUARDRAILS, CABLE BARRIERS, AND LANDINGS.
D. LIGHT STANDARD POLES, BASES AND ANCHORAGES.
E. SUPPORTS AND CONNECTIONS FOR PIPES, SPRINKLER AND WASTE LINES, DUCTS, CONDUITS, SUSPENDED CEILINGS, SOFFITS, LIGHTS, CABLE TRAYS, ELECTRICAL, PLUMBING, AND MECHANICAL EQUIPMENT.
F. LADDERS, GATES, AND METAL GRATING.
G. ELEVATORS, ELEVATOR GUIDE RAILS, MACHINE BEAMS AND HOIST BEAMS.
H. SIGNAGE.
I. VENEERS, FACADES, AND RELATED ANCHORAGE SYSTEMS.
J. ANY STRUCTURE THAT IS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT IS REQUIRED BY OTHER DISCIPLINES, SUCH AS ARCHITECTURAL, MECHANICAL, ELECTRICAL, LANDSCAPE, ETC.



ROOF PLAN WALL ELEVATION

COMPONENT AND CLADDING WIND PRESSURES @ MEAN ROOF HEIGHT

ZONE	AREA = 10 ft²		AREA = 20 ft²		AREA = 50 ft²		AREA = 100 ft²		AREA = 200 ft²		AREA = 500 ft²	
	+p(psf)	-p(psf)	+p(psf)	-p(psf)	+p(psf)	-p(psf)	+p(psf)	-p(psf)	+p(psf)	-p(psf)	+p(psf)	-p(psf)
1	16.0	-28.9	16.0	-28.1	16.0	-27.1	16.0	-26.4	16.0	-26.4	16.0	-26.4
2	28.9	-48.4	27.6	-43.3	25.8	-36.4	24.5	-31.3	23.2	-31.3	21.5	-31.3
3	28.9	-48.4	27.6	-43.3	25.8	-36.4	24.5	-31.3	23.2	-31.3	21.5	-31.3
4	28.9	-31.3	27.6	-30.0	25.8	-28.3	24.5	-27.0	23.2	-25.7	21.5	-24.0
5	28.9	-38.6	27.6	-35.9	25.8	-32.5	24.5	-30.1	23.2	-27.4	21.5	-24.0
TYP PARAPET	70.5	-52.9	63.9	-50.2	55.1	-46.7	48.5	-44.0	47.1	-41.3	45.4	-37.8
CORNER PAPAPET	70.5	-60.5	63.9	-56.4	55.1	-51.1	48.5	-47.2	47.1	-43.1	45.4	-37.8

NOTES:
1. POSITIVE SIGNS SIGNIFY PRESSURES ACTING TOWARD THE EXTERIOR SURFACE. NEGATIVE SIGNS SIGNIFY PRESSURES ACTING AWAY FROM THE EXTERIOR SURFACE. POSITIVE AND NEGATIVE FORCES DO NOT ACT CONCURRENTLY.
2. α (ft) = 9.20

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Revisions

No.	Date	Description

REGISTERED PROFESSIONAL ENGINEER
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No. 2543
STATE OF CALIFORNIA

May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

2018.05.29 BIDSET

Sheet Title

STRUCTURAL COVER SHEET CONTINUED

Sheet Number

S1.01

1721 S100 & S101

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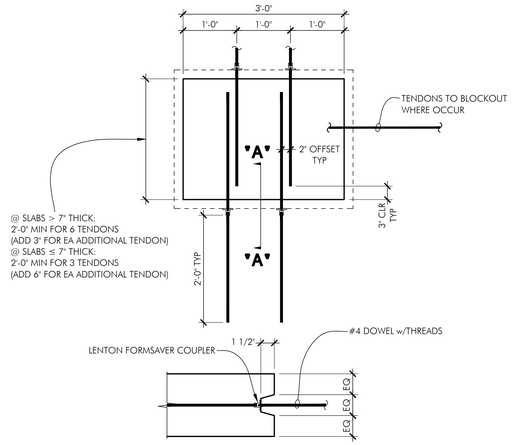

SECTION "A-A"

TYPICAL SLAB STRESSING BLOCKOUT PLAN (G)

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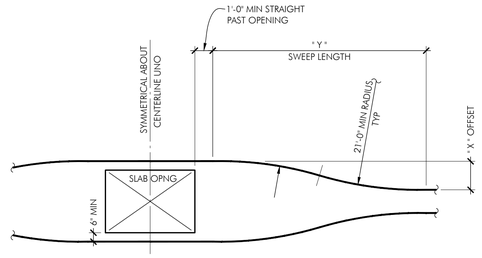

MINIMUM SWEEP LENGTHS IN FEET

" X " OFFSET	0.5'	1'	1.5'	2'	2.5'	3'	3.5'	4'	4.5'	5'	5.5'	6'	6.5'
" Y " SWEEP	6.5'	9'	11'	13'	14'	15.5'	17'	18'	19'	20'	21'	21.5'	22'

WHERE LIMITS ARE EXCEEDED SEE E/S1.02

MINIMUM RADIUS = 21' -0"

TYPICAL TENDON SWEEPS AND BENDS (D)

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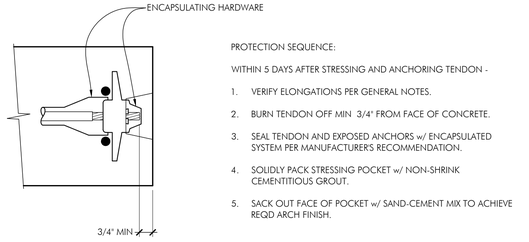


PROTECTION SEQUENCE:

WITHIN 5 DAYS AFTER STRESSING AND ANCHORING TENDON -

1. VERIFY ELONGATIONS PER GENERAL NOTES.
2. BURN TENDON OFF MIN 3/4" FROM FACE OF CONCRETE.
3. SEAL TENDON AND EXPOSED ANCHORS w/ ENCAPSULATED SYSTEM PER MANUFACTURERS RECOMMENDATION.
4. SOLIDLY PACK STRESSING POCKET w/ NON-SHRINK CEMENTITIOUS GROUT.
5. SACK OUT FACE OF POCKET w/ SAND-CEMENT MIX TO ACHIEVE REQD ARCH FINISH.

NOTE: PRIOR TO CONCRETE PLACEMENT ANCHORS SHALL BE SECURELY FASTENED TO FORM w/ NON-CORROSIVE SYSTEM.

TYPICAL TENDON PROTECTION AT ENCAPSULATED ANCHORS (A)

NO SCALE TCD7000D 3

POST TENSIONING NOTES

SECTION 10: PRESTRESSING STEEL

10-1 PRESTRESSING STEEL SHALL BE SEVEN-WIRE LOW RELAXATION STRAND FOR PRESTRESSED CONCRETE, MANUFACTURED IN ACCORDANCE WITH ASTM A-416, FREE FROM CORROSION, HAVING A GUARANTEED MINIMUM ULTIMATE TENSILE STRENGTH OF 270 ksi, NOMINAL DIAMETER EQUAL TO 1/2", AND AN AREA EQUAL TO 0.153 SQUARE INCHES.

10-2 ALL STRANDS SHALL BE ENCASED IN EXTRUDED SHEATHING AND PT GREASE TO PREVENT BONDING TO THE CONCRETE.

10-3 FOR TYPICAL POST-TENSIONING DETAILS, SEE THIS SHEET S1.02.

SECTION 11: ANCHORAGE AND TENDON PLACEMENT

11-1 ALL ANCHORING HARDWARE SHALL BE ENCAPSULATED AND MEET THE MINIMUM REQUIREMENTS SET FORTH IN ACI 318-14, SECTION 25.8.

11-2 ANCHOR CASTING WITH PLASTIC POCKET FORMER SHALL BE USED AT ALL STRESSING ENDS WHERE ANCHORAGE MUST BE RECESSED IN CONCRETE IN ORDER TO ACHIEVE REQUIRED COVER.

11-3 WHERE TENDONS INTERFERE WITH EACH OTHER, ONE TENDON MAY BE MOVED HORIZONTALLY IN ORDER TO AVOID THIS INTERFERENCE. WHERE THERE IS INTERFERENCE BETWEEN TENDONS AND ANY KIND OF CONDUIT OR REBAR, THE TENDON PROFILE GOVERNS.

11-4 MAXIMUM TENDON SPACING SHALL NOT EXCEED 48 INCHES UNLESS NOTED OTHERWISE.

11-5 TENDONS SHALL CLEAR OPENINGS AND DRAINS PER DETAIL D/S1.02.

11-6 ALL SUPPORT STEEL AND POST-TENSIONING TENDONS SHALL BE FIRMLY SECURED IN FORMS TO OBTAIN DIMENSIONS AND LOCATIONS SHOWN ON PLACING DRAWINGS.

11-7 SUFFICIENT BAR CHAIRS SHALL BE PROVIDED AS REQUIRED TO HOLD THE TENDONS IN TRUE VERTICAL POSITION. TENDONS SHALL BE CHAIRED AT EACH INTERSECTION OF SUPPORT BARS.

11-8 SUPPORT BARS, WHERE USED, SHALL BE #4 OR LARGER AND SPACED NOT MORE THAN 4'-0" ON CENTER. LAP CONTINUOUS SUPPORT BARS 2'-0" MINIMUM. SEE SLAB SECTIONS FOR TYPICAL SUPPORT STEEL LAYOUT.

11-9 CONCRETE SHALL BE PLACED IN SUCH A MANNER AS NOT TO DISTURB THE TENDON PROFILES. WORKMEN MUST BE CAUTIONED AGAINST WALKING ON TENDONS OR SUPPORT BARS. ANY TENDON DISPLACED DURING CONCRETE PLACEMENT MUST BE RESTORED TO ITS ORIGINAL PROFILE BEFORE CONCRETE SETS.

11-10 WHERE 4 OR MORE TENDONS ARE ANCHORED WITHIN A WIDTH OF 3'-0" OR LESS, ADDED SLAB REINFORCING PER DETAILS H/S1.02 & J/S1.02 SHALL BE PROVIDED.

11-11 BEAM AND GIRDER TENDONS SHALL BE BUNDLED. MEMBER SECTIONS DISPLAYING BUNDLES SHALL BE SHOWN ON SHOP DRAWINGS FOR APPROVAL.

SECTION 12: STRESSING

12-1 THE STRESSING OPERATION SHALL BE UNDER THE IMMEDIATE CONTROL OF A PERSON EXPERIENCED IN THIS TYPE OF WORK WHO SHALL CLOSELY CHECK AND RIGIDLY CONTROL ALL OPERATIONS. THE STRESSING SHALL NOT COMMENCE UNTIL CONCRETE TEST CYLINDERS, CURED UNDER JOB SITE CONDITIONS, HAVE BEEN TESTED AND INDICATE THAT THE CONCRETE HAS REACHED A MINIMUM STRENGTH OF 3000 PSI.

12-2 ALL PRESTRESSING STEEL SHALL BE STRESSED BY MEANS OF HYDRAULIC JACKS EQUIPPED WITH ACCURATE READING CALIBRATED HYDRAULIC PRESSURE GAUGES. A CALIBRATION SHEET SHALL ACCOMPANY EACH JACK-PUMP COMBINATION. MEASURED ELONGATIONS SHALL BE WITHIN 7% OF CALCULATED ELONGATIONS. IF INCONSISTENCIES BETWEEN THE MEASURED ELONGATION AND THE JACK GAUGE READING OCCUR, THE JACK-GAUGE-PUMP UNIT SHALL BE RECALIBRATED.

12-3 THE JACKING FORCE SHALL BE 80% OF THE ULTIMATE FORCE OF THE TENDON (270 X .153 X .80 = 33.0 KIPS). TENDONS SHALL BE ANCHORED AT 70% OF THE ULTIMATE FORCE OF THE TENDON (270 X .153 X .70 = 28.9 KIPS).

12-4 FOR POST TENSIONING DESIGN:

WOBBLE COEFFICIENT = 0.0012
CURVATURE FRICTION COEFFICIENT = 0.07

12-5 TENDON ELONGATIONS AND IMMEDIATE LOSSES DUE TO FRICTION SHALL BE CALCULATED BY THE POST-TENSIONING CONTRACTOR AND LOSS CALCULATIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. WOBBLE AND CURVATURE FRICTION COEFFICIENTS USED IN FRICTION LOSS CALCULATIONS SHALL BE VERIFIED DURING TENDON STRESSING OPERATIONS AND APPROPRIATE ADJUSTMENTS TO THE CALCULATED TENDON ELONGATIONS SHALL BE MADE AS REQUIRED.

12-6 TENDONS STRESSED FROM ONE END ONLY SHALL BE INDICATED ON THE PLACING DRAWINGS. TENDONS THAT ARE STRESSED FROM BOTH ENDS NEED NOT BE STRESSED FROM BOTH ENDS SIMULTANEOUSLY. THESE TENDONS MAY HAVE MORE ELONGATION AT ONE END THAN AT THE OPPOSITE END. ELONGATIONS FROM BOTH ENDS SHALL TOTAL THE ELONGATIONS SHOWN ON PLACING DRAWINGS. TENDONS STRESSED FROM BOTH ENDS SHALL HAVE FULL GAUGE PRESSURE ATTAINED AT EACH END.

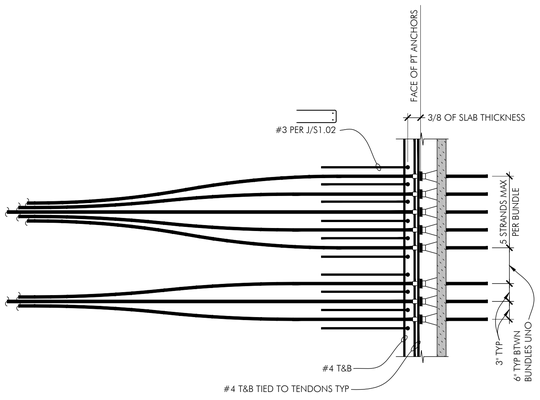
12-7 STRESSING SEQUENCE SHALL BE AS FOLLOWS:

A. ALL SLAB TENDONS PERPENDICULAR TO LONG SPAN BEAMS.
B. ALL BEAM TENDONS AND BALANCE OF SLAB TENDONS.
C. ALL GIRDER TENDONS.

12-8 TAKE SAFETY PRECAUTIONS AS NECESSARY; DO NOT PERMIT ANYONE TO BE BEHIND JACKS WHILE STRESSING TENDONS.

12-9 NO ANCHORAGE OF ANY TYPE SHALL BE SHOT OR DRILLED IN THE POST-TENSIONED SLAB AFTER CONCRETE IS PLACED WHERE DAMAGE OR CONTACT MAY OCCUR TO THE POST-TENSIONED TENDON. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE THE LOCATIONS OF ALL SUCH ANCHORAGES.

12-10 THE PRESTRESSING SUPPLIER SHALL FURNISH TENDON LAYOUT AND SUPPORT BAR SHOP DRAWINGS TO THE ENGINEER PRIOR TO FABRICATION. PLACING SHEETS SHALL CONTAIN ALL INFORMATION NECESSARY TO POSITION ALL PRESTRESSING AND SUPPORT REINFORCING IN THE FIELD WITHOUT HAVING TO REFER TO THE STRUCTURAL DRAWINGS. CONTRACTOR SHALL NOT PLACE ANY PRESTRESSING AND SUPPORT REINFORCING UNTIL SHOP DRAWINGS REVIEWED BY THE ENGINEER ARE RECEIVED ON THE JOB SITE.



NOTE: REINFORCEMENT TO BE ADDED @ BOTH DEAD & LIVE END ANCHORAGES.

TYPICAL FLARE AT SLAB PT ANCHORS (H)

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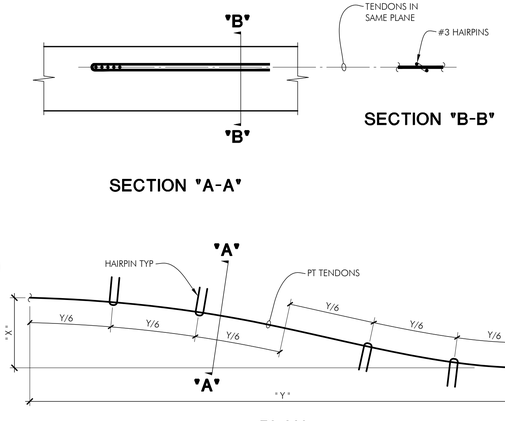

SECTION "B-B"

SECTION "A-A"

PLAN

TYPICAL FLARE AT PT TENDONS (E)

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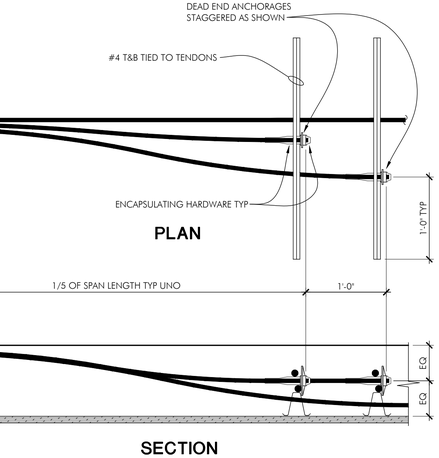

SECTION

TYPICAL PT DETAIL AT ADDED ENCAPSULATED STRANDS (B)

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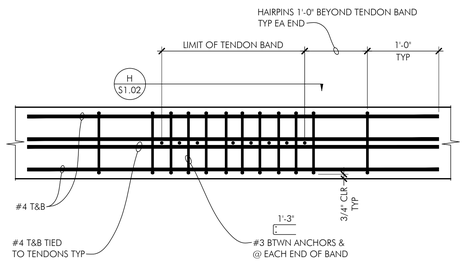

TYP REINF OF TENDON BANDS AT ANCHORAGE (J)

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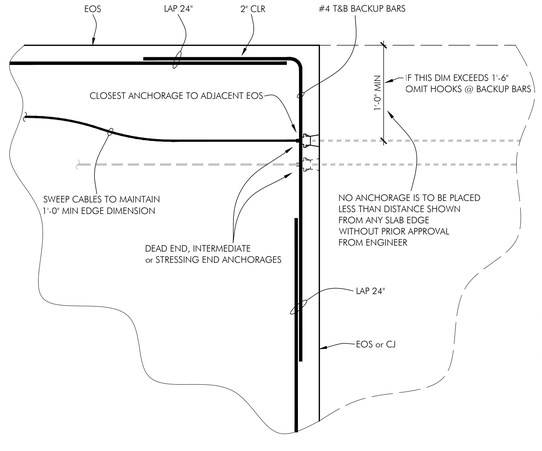

TYP ANCHORAGE PLAN LAYOUT AT SLAB CORNERS & CJ'S (F)

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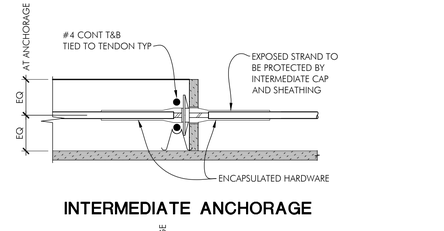
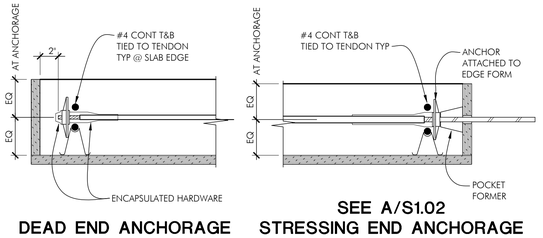


INTERMEDIATE ANCHORAGE



DEAD END ANCHORAGE

SEE A/S1.02
STRESSING END ANCHORAGE

TYPICAL ENCAPSULATED PT ANCHORS (C)

NO SCALE TCD7010A 112

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Revisions

No.	Date	Description

REGISTERED PROFESSIONAL ENGINEER RORY ROTTSCHALK No. 2543 STATE OF CALIFORNIA

May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

2018.05.29 BIDSET

Sheet Title

POST TENSIONING NOTES & DETAILS

Sheet Number

S1.02

1721 S102

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SPECIAL INSPECTION NOTES

SECTION 24: STATEMENT OF SPECIAL INSPECTIONS

24-1 SPECIAL INSPECTIONS AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, THIS STATEMENT AND CBC SECTIONS 1704 & 1705.

24-2 SEE GENERAL NOTE 1-6 FOR TYPES OF WORK REQUIRING SPECIAL INSPECTIONS.

24-3 SEE THE APPLICABLE TABLE ON THIS SHEET FOR THE FREQUENCY OF INSPECTIONS AND REFERENCE FOR CRITERIA. INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360. INTERIM REPORTS AND A FINAL REPORT SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH CBC SECTION 1704.2.4.

24-4 THE BUILDING SEISMIC FORCE RESISTING SYSTEM CONSISTS OF HORIZONTALLY SPANNING FLOOR AND ROOF DIAPHRAGMS SUPPORTED BY SPECIAL MOMENT FRAMES.

24-5 SEE CBC SECTIONS 1705.11, 1705.12 AND 1705.13 FOR ADDITIONAL ITEMS REQUIRING SPECIAL INSPECTION AND TESTING FOR WIND AND THE SEISMIC DESIGN CATEGORY SPECIFIED IN GENERAL NOTE 20-3.

24-6 CERTIFIED MILL TEST REPORTS SHALL BE SUBMITTED FOR EACH SHIPMENT OF DEFORMED REINFORCING TO BE USED IN BEAMS, COLUMNS AND WALLS WHICH ARE PART OF THE SEISMIC FORCE RESISTING SYSTEMS.

24-7 TESTING CONTAINED IN THE STRUCTURAL STEEL FABRICATORS QUALITY ASSURANCE PLAN SHALL BE AS REQUIRED BY AISC 341.

24-8 SEISMIC CERTIFICATION OF NON-STRUCTURAL COMPONENTS SHALL COMPLY WITH CBC SECTION 1705.13.2.

24-9 EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, INSTALLATION OF EQUIPMENT/COMPONENTS REQUIRING SPECIAL SEISMIC CERTIFICATION, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED IN NOTE 24-4 SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN SPECIAL INSPECTION NOTE SECTION 24.

Table 4 — Level B Quality Assurance

MINIMUM TESTS				
Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Article 1.5 B.1.b.3 for self-consolidating grout				
Verification of f'_m and f'_{AAC} in accordance with Article 1.4 B prior to construction, except where specifically exempted by the Code.				
MINIMUM SPECIAL INSPECTION				
Inspection Task	**Frequency [a]**		**Reference for Criteria**	
	Continuous	Periodic	TMS 402/ ACI 530/ ASCE 5	TMS 602/ ACI 530.1/ ASCE 6
1. Verify compliance with the approved submittals		X		Art. 1.5
2. As masonry construction begins, verify that the following are in compliance:				
a. Proportions of site-prepared mortar		X		Art. 2.1, 2.6 A
b. Construction of mortar joints		X		Art. 3.3 B
c. Grade and size of prestressing tendons and anchorages		X		Art. 2.4 B, 2.4 H
d. Location of reinforcement, connectors, and prestressing tendons and anchorages		X		Art. 3.4, 3.6 A
e. Prestressing technique		X		Art. 3.6 B
f. Properties of thin-bed mortar for AAC masonry	X[b]	X[c]		Art. 2.1 C
3. Prior to grouting, verify that the following are in compliance:				
a. Grout space		X		Art. 3.2 D, 3.2 F
b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages		X	Sec. 6.1	Art. 2.4, 3.4
c. Placement of reinforcement, connectors, and prestressing tendons and anchorages		X	Sec. 6.1, 6.2.1, 6.2.6, 6.2.7	Art. 3.2 E, 3.4, 3.6 A
d. Proportions of site-prepared grout and prestressing grout for bonded tendons		X		Art. 2.6 B, 2.4 G.1.b
e. Construction of mortar joints		X		Art. 3.3 B

Table 4 — Level B Quality Assurance (Continued)

MINIMUM SPECIAL INSPECTION				
Inspection Task	**Frequency [a]**		**Reference for Criteria**	
	Continuous	Periodic	TMS 402/ ACI 530/ ASCE 5	TMS 602/ ACI 530.1/ ASCE 6
4. Verify during construction:				
a. Size and location of structural elements		X		Art. 3.3 F
b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction		X	Sec. 1.2.1(e), 6.1.4.3, 6.2.1	
c. Welding of reinforcement	X		Sec.8.1.6.7.2, 9.3.3.4 (c), 11.3.3.4(b)	
d. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F (4.4°C)) or hot weather (temperature above 90°F (32.2°C))		X		Art. 1.8 C, 1.8 D
e. Application and measurement of prestressing force	X			Art. 3.6 B
f. Placement of grout and prestressing grout for bonded tendons is in compliance	X			Art. 3.5, 3.6 C
g. Placement of AAC masonry units and construction of thin-bed mortar joints	X[b]	X[c]		Art. 3.3 B.9, 3.3 F.1.b
5. Observe preparation of grout specimens, mortar specimens, and/or prisms		X		Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4

(a) Frequency refers to the frequency of Special Inspection, which may be continuous during the task listed or periodic during the listed task, as defined in the table.
(b) Required for the first 5000 square feet (465 square meters) of AAC masonry.
(c) Required after the first 5000 square feet (465 square meters) of AAC masonry.

TABLE 1705.2.3
REQUIRED SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD[a]
1. Installation of open-web steel joists and joist girders.			
a. End connections – welding or bolted.	—	X	SJI specifications listed in Section 2207.1.
b. Bridging – horizontal or diagonal.	—		
1. Standard bridging.	—	X	SJI specifications listed in Section 2207.1.
2. Bridging that differs from the SJI specifications listed in Section 2207.1.		X	

For SI: 1 inch = 25.4 mm.
a. Where applicable, see also Section 1705.12, Special inspections for seismic resistance.

TABLE 1705.3
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD[a]	IBC REFERENCE
1. Inspect reinforcement, including prestressing tendons, and verify placement.	—	X	ACI 318 Ch. 20, 25.2, 25.3, 26.5.1-26.5.3	1908.4
2. Reinforcing bar welding:				
a. Verify weldability of reinforcing bars other than ASTM A706;	—	X		
b. Inspect single-pass fillet welds, maximum $^5/_{16}$"; and		X	AWS D1.4 ACI 318: 26.5.4	—
c. Inspect all other welds.	X			
3. Inspect anchors cast in concrete.	—	X	ACI 318: 17.8.2	—
4. Inspect anchors post-installed in hardened concrete members.[b]				
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X		ACI 318: 17.8.2.4	—
b. Mechanical anchors and adhesive anchors not defined in 4.a.		X	ACI 318: 17.8.2	
5. Verify use of required design mix.	—	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	—	ASTM C172 ASTM C31 ACI 318: 26.4.5, 26.12	1908.10
7. Inspect concrete and shotcrete placement for proper application techniques.	X	—	ACI 318: 26.4.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.	—	X	ACI 318: 26.4.7-26.4.9	1908.9
9. Inspect prestressed concrete for:				
a. Application of prestressing forces; and	X	—	ACI 318: 26.9.2.1	—
b. Grouting of bonded prestressing tendons.	X	—	ACI 318: 26.9.2.3	
10. Inspect erection of precast concrete members.	—	X	ACI 318: Ch. 26.8	—
11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	—	X	ACI 318: 26.10.2	—
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	—	X	ACI 318: 26.10.1(b)	—

For SI: 1 inch = 25.4 mm.
a. Where applicable, see also Section 1705.12, Special inspections for seismic resistance.
b. Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

TABLE 1705.6
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	—	X
2. Verify excavations are extended to proper depth and have reached proper material.	—	X
3. Perform classification and testing of compacted fill materials.	—	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	—
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	—	X

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Revisions

No.	Date	Description

REGISTERED PROFESSIONAL ENGINEER RORY ROTTSCHALK No. 2563 STATE OF CALIFORNIA

May 23 2018

Document Phase: BACK CHECK #1
Date: MAY 24, 2018
PIC / AIC: -
Drawn By: ND
Checked By: RR
Comm. No.: -

Project Title
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title
SPECIAL INSPECTION NOTES

Sheet Number
S1.05

217021 1721 S105

2018.05.29 BIDSET

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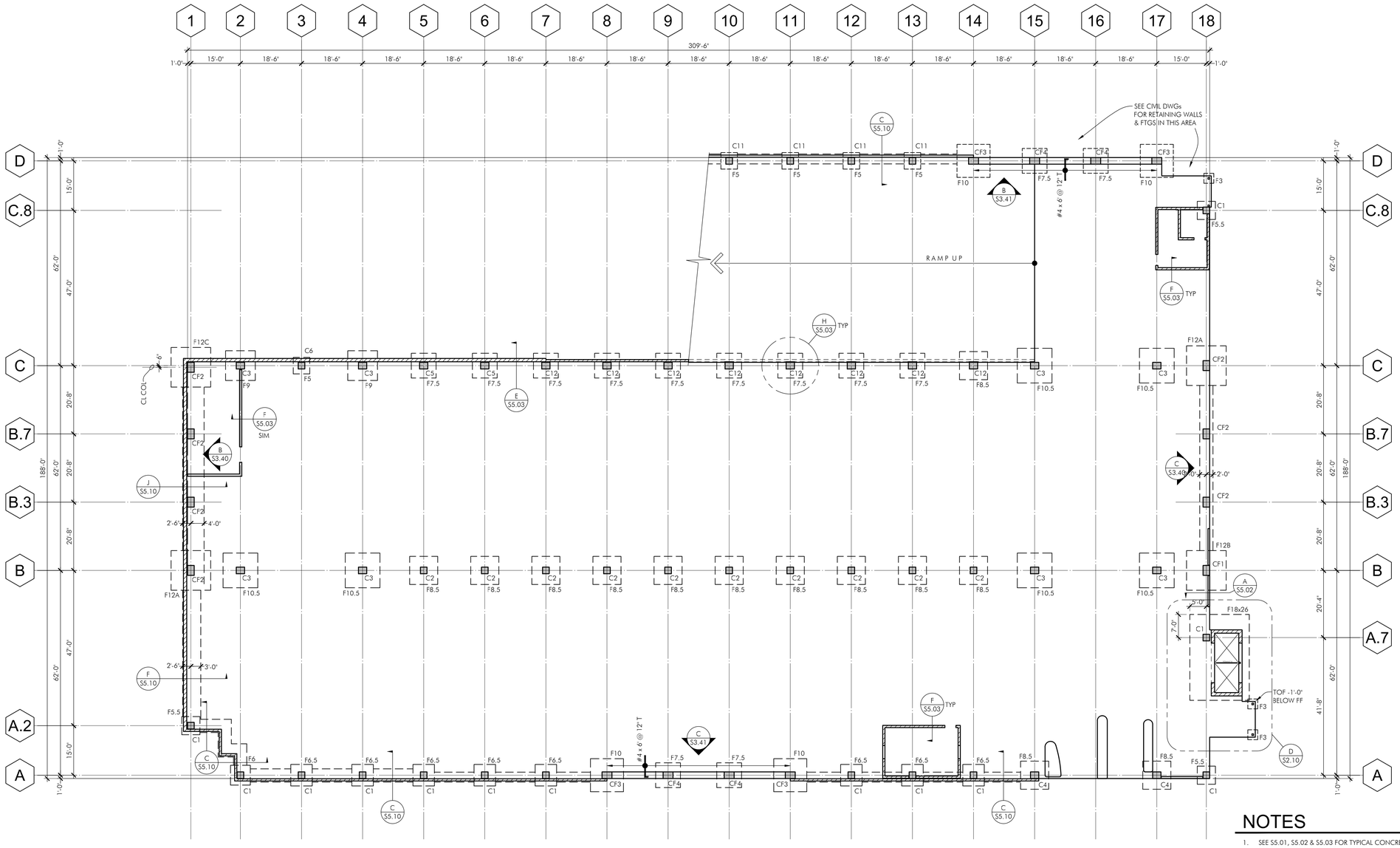

FOOTING SCHEDULE

TCN2000

MARK	PLAN SIZE	THICKNESS	REINF EW BOT UNO
F3	3'-0" SQ	1'-0"	4-#4
F5	5'-0" SQ	1'-4"	6-#5
F5.5	5'-6" SQ	1'-4"	7-#5
F6	6'-0" SQ	1'-4"	7-#5
F6.5	6'-6" SQ	1'-8"	7-#6
F7.5	7'-6" SQ	1'-8"	8-#6
F8.5	8'-6" SQ	2'-0"	11-#6
F9	9'-0" SQ	2'-0"	11-#6
F10	10'-0" SQ	3'-0"	9-#6 EW TOP 18-#6 EW BOT
F10.5	10'-6" SQ	2'-4"	15-#6
F12A	12'-0" SQ	3'-6"	9-#7 EW TOP 18-#7 EW BOT
F12B	12'-0" SQ	6'-0"	16-#7 EW T&B
F12C	12'-0" SQ	5'-0"	13-#7 EW T&B
F18x26	18'-0" x 26'-0"	2'-6"	#6 @ 16" EW TOP #6 @ 8" EW BOT

NOTES:
1. LOCATE FOOTINGS CENTERED UNDER COLUMN(S) EACH WAY, UNO.

GROUND LEVEL FOUNDATION PLAN

1/16" = 1'-0"

NOTES

1. SEE S5.01, S5.02 & S5.03 FOR TYPICAL CONCRETE DETAILS.
   SEE S6.01 FOR TYPICAL STEEL DETAILS.
2. "Fx" INDICATES FOOTING MARK - SEE SCHEDULE THIS SHEET.
   "Cx" INDICATES CONCRETE COLUMN MARK - SEE SCHED ON S3.10.
   "CFx" INDICATES CONCRETE FRAME COLUMN MARK - SEE SCHED ON S3.15.
   "HSSxxxx" INDICATES HOLLOW STRUCTURAL STEEL COLUMN - SIZE AS NOTED
   "Wxxxxx" INDICATES WIDE FLANGE COLUMN - SIZE AS NOTED
   "Px" INDICATES PIPE COLUMN - SIZE AS NOTED.
3. SLABS ON GRADE SHALL BE 5 1/2" THICK UNO, w/ #4 @ 16'oc EW UNO. SEE GEOTECHNICAL REPORT, ARCHITECT AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. SLABS ON GRADE SPECIFIED ON THE STRUCTURAL DRAWINGS ARE DIAPHRAGMS AND PART OF THE LATERAL FORCE RESISTING SYSTEM.
4. HOOK ALL SLAB ON GRADE REINFORCEMENT AT EDGE OF SLAB.
5. REFER TO SOILS REPORT(S) FOR ADDITIONAL INFORMATION.
6. VERIFY ALL TOP OF SLAB, WALL AND STEP ELEVATIONS AND LOCATIONS, AND OPENING SIZES AND LOCATIONS WITH ARCHITECT.
7. REBAR LENGTHS NOTED ON PLAN DO NOT INCLUDE HOOK LENGTH, IF ANY.
8. PROVIDE MISC CONNECTION ITEMS AT STAIRS, ELEVATORS, EXTERIOR WALL SYSTEMS AND ELEC & MECH EQUIPMENT AS REQUIRED BY MANUFACTURERS AND ARCHITECT. EXTERIOR WALL SYSTEMS ARE DESIGNED BY OTHERS.

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Revisions

No.	Date	Description

REGISTERED PROFESSIONAL ENGINEER
RORY ROTTSCHALK
No. 2563
STATE OF CALIFORNIA

May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

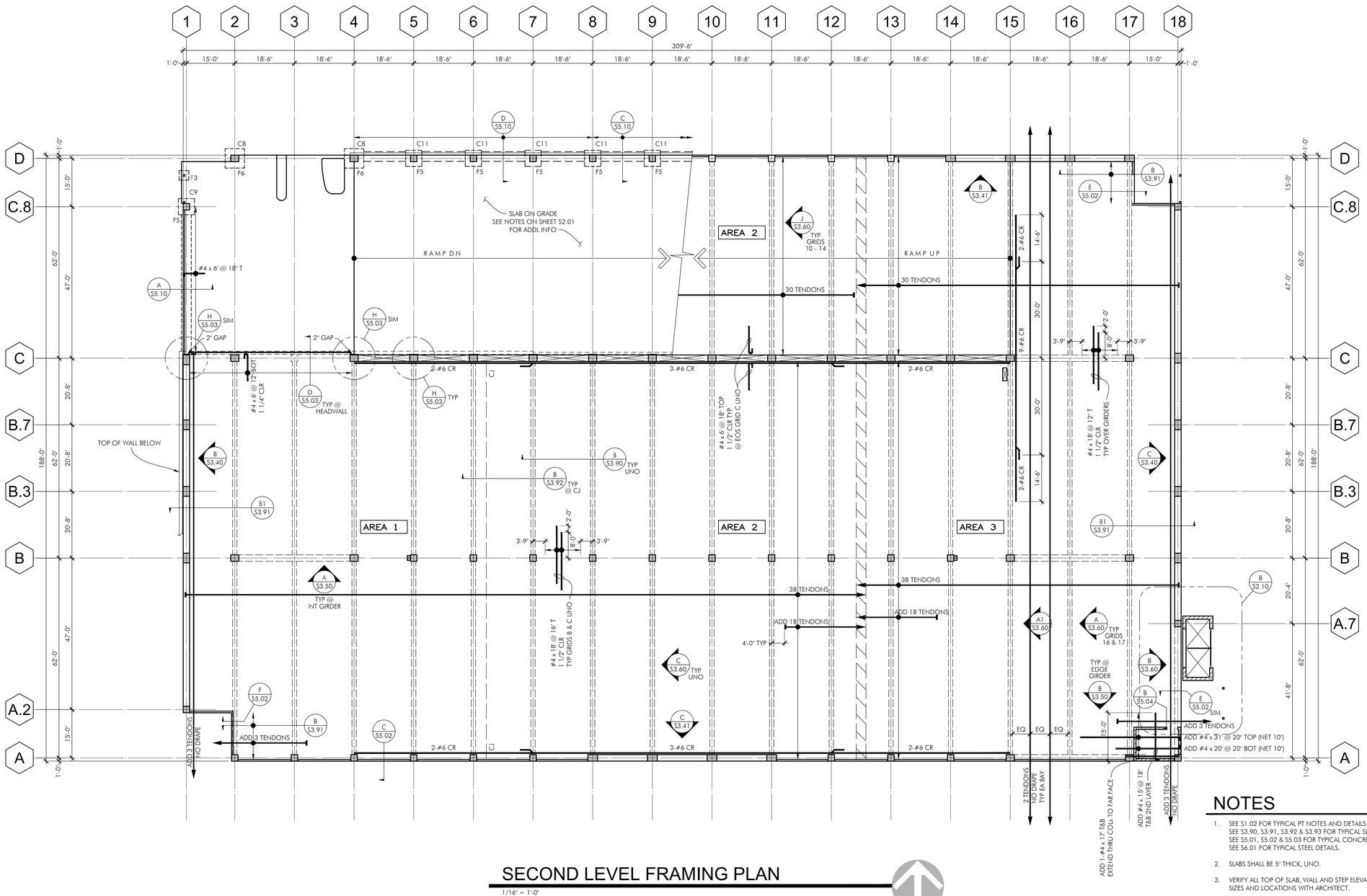
Project Title
TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title
GROUND LEVEL FOUNDATION PLAN

Sheet Number
S2.01

1721 PLAN

2018.05.29 BIDSET



SECOND LEVEL FRAMING PLAN

1/16" = 1'-0"

NOTES

1. SEE S1.02 FOR TYPICAL PT NOTES AND DETAILS.
   SEE S3.90, S3.91, S3.92 & S3.93 FOR TYPICAL SLAB SECTIONS & DETAILS.
   SEE S5.01, S5.02 & S5.03 FOR TYPICAL CONCRETE DETAILS.
   SEE S6.01 FOR TYPICAL STEEL DETAILS.
2. SLABS SHALL BE 5" THICK, UNO.
3. VERIFY ALL TOP OF SLAB, WALL AND STEP ELEVATIONS AND LOCATIONS, AND OPENING SIZES AND LOCATIONS WITH ARCHITECT.
4. PROVIDE 1" CLR TYP TO TOP SLAB REINFORCING UNO.
5. TYP PT TENDON ORDINATES ARE AS FOLLOWS, UNO:
   A. AT STRESSING AND ANCHORAGE ENDS - AT MID DEPTH OF SLAB
   B. OVER SUPPORTS - AT 1 1/4" BELOW TOP OF SLAB
   C. AT MID SPAN - AT 1" ABOVE BOTTOM OF SLAB
   D. ORDINATES SHOWN ON PLAN ARE MEASURED FROM SOFFIT OF SLAB UNLESS NOTED * WHICH INDICATES AS MEASURED FROM BOTTOM OF BEAM OR DROP
   E. ** INDICATES TENDON ORDINATE VARIES LINEARLY ALONG LINE SHOWN.
6. SEE NOTE 12-9 ON SHEET S1.02 FOR ANCHORS DRILLED OR SHOT INTO POST-TENSIONED CONCRETE.
7. HOOK ALL REINF BARS AT SLAB EDGES.
8. REBAR LENGTHS NOTED ON PLAN DO NOT INCLUDE HOOK LENGTH, IF ANY.
9. PROVIDE 1-#4 CONT T&B ALONG ALL SLAB EDGES, UNO AND EXTEND 4'-0" BEYOND INSIDE CORNERS UNO. SPACE ALL TRIM BARS @ 4'oc WHERE MULTIPLE BARS OCCUR.
10. " CR " INDICATES CHORD REINFORCING. LAP SPLICE @ SLAB CLOSURES. DO NOT LAP SPLICE WHERE CROSSING PERPENDICULAR CHORD REINFORCING. LOCATE CHORD REINFORCING @ 6'oc AND PROVIDE 2" MIN CLEAR COVER @ LAPS UNO.
11. PROVIDE MISC CONNECTION ITEMS AT STAIRS, ELEVATORS, EXTERIOR WALLS AND ELEC & MECH EQUIPMENT AS REQUIRED BY MANUFACTURERS. EXTERIOR WALL SYSTEMS ARE DESIGNED BY OTHERS.
12. " SRx " INDICATES STUDRAIL CONFIGURATION MARK - SEE SCHEDULE THIS SHEET.
13. SEE SHEET S2.01 FOR FOUNDATION NOTES & FOOTING SCHEDULE.

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May 23 2018

Document Phase:	BACK CHECK #1
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PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

2018.05.29 BIDSET

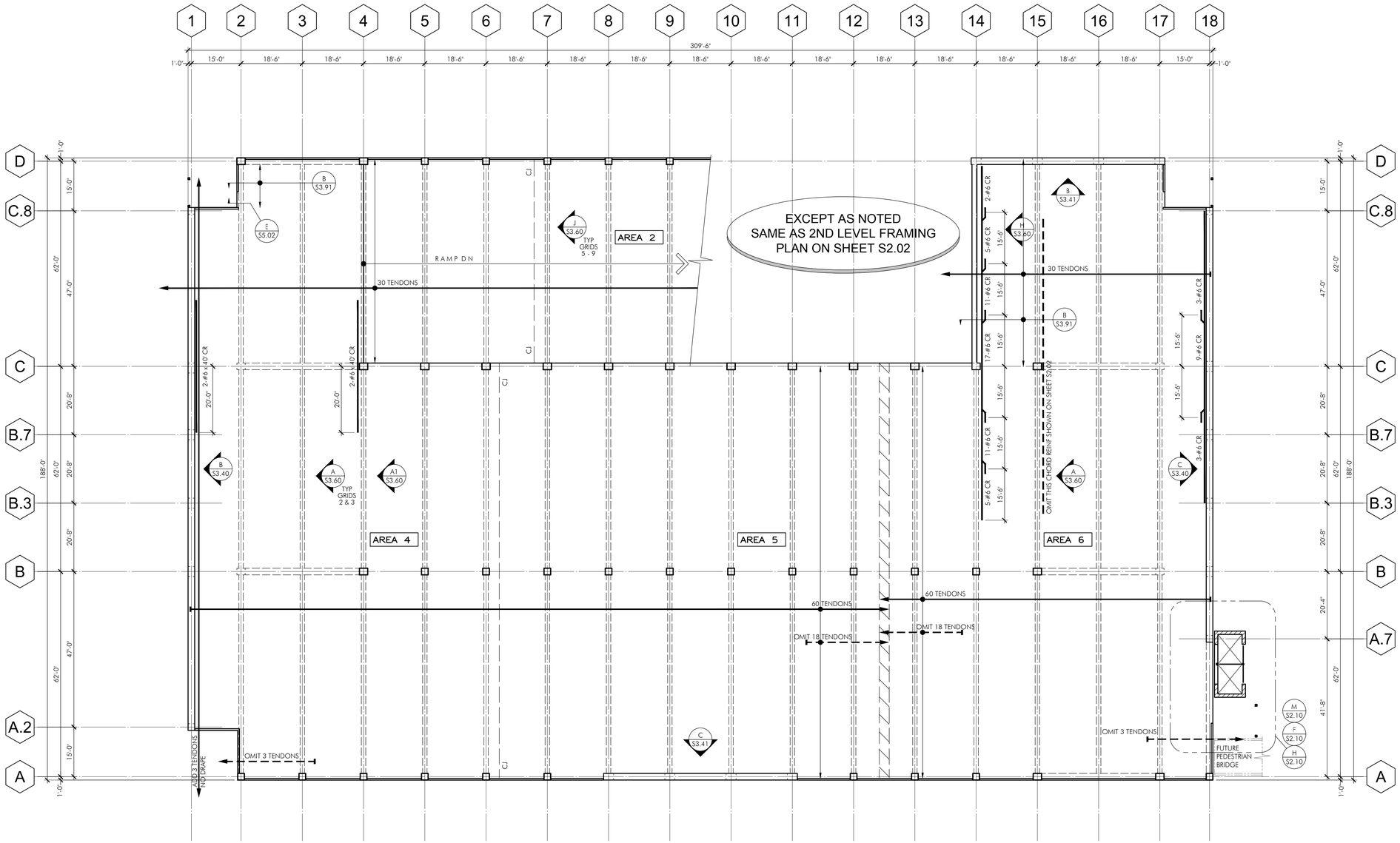
Sheet Title

SECOND LEVEL FRAMING PLAN

Sheet Number

S2.02

1721 PLAN



THIRD (ROOF) LEVEL FRAMING PLAN

1/16" = 1'-0"

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May 23 2018

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PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

THIRD (ROOF) LEVEL FRAMING PLAN

Sheet Number

S2.03

1721 PLAN

2018.05.29 BIDSET

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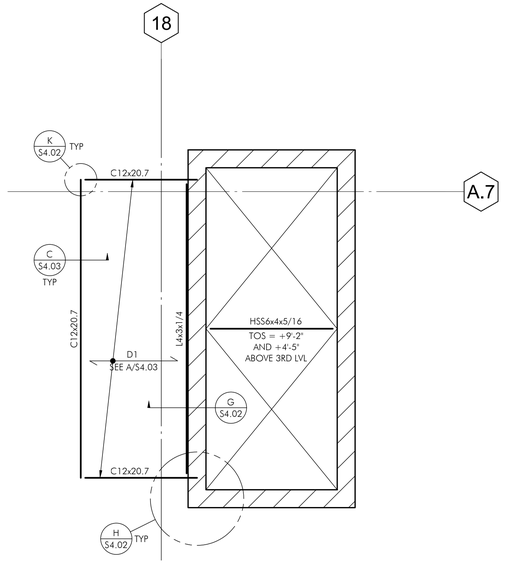
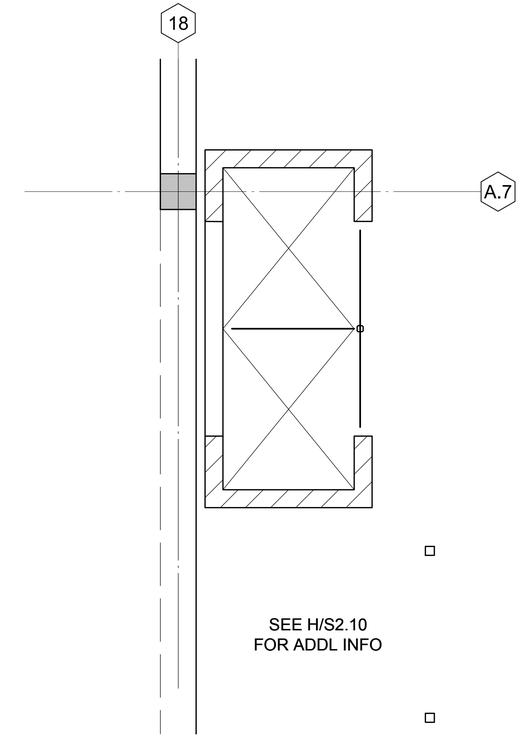


SEE H/S2.10
FOR ADDL INFO

ELEV. CANOPY FRAMING PLAN F

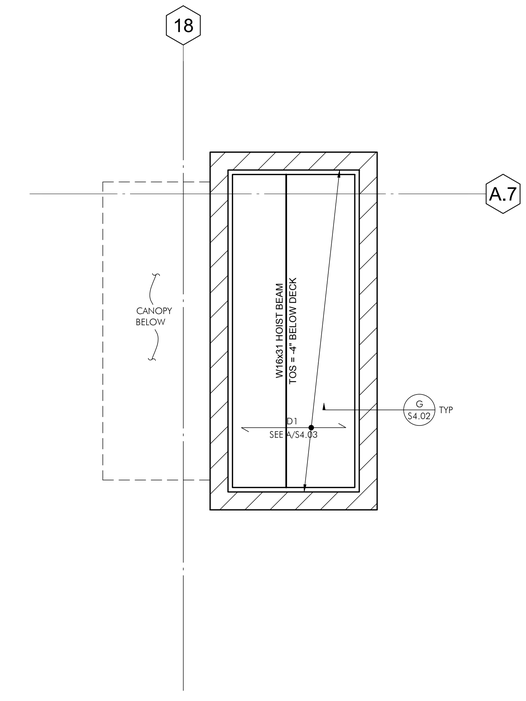
1/4" = 1'-0" . 14



SEE H/S2.10
FOR ADDL INFO

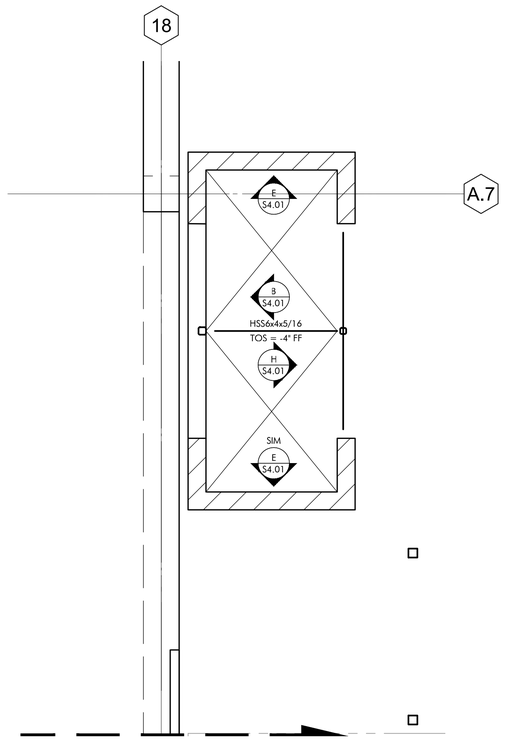
ELEVATOR SHAFT @ SECOND LVL B

1/4" = 1'-0" . 14



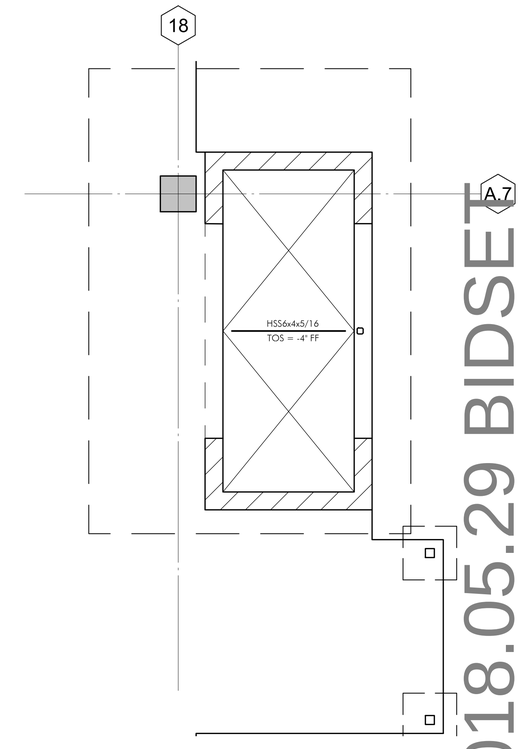
ELEVATOR ROOF FRAMING PLAN M

1/4" = 1'-0" . 14



ELEVATOR SHAFT @ THIRD LVL H

1/4" = 1'-0" . 14



ELEVATOR SHAFT @ GROUND LVL D

1/4" = 1'-0" . 14

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Revisions

No.	Date	Description

REGISTERED PROFESSIONAL ENGINEER
RORY ROTTSCHALK
No. 2543
STATE OF CALIFORNIA

May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

2018.05.29 BIDSET

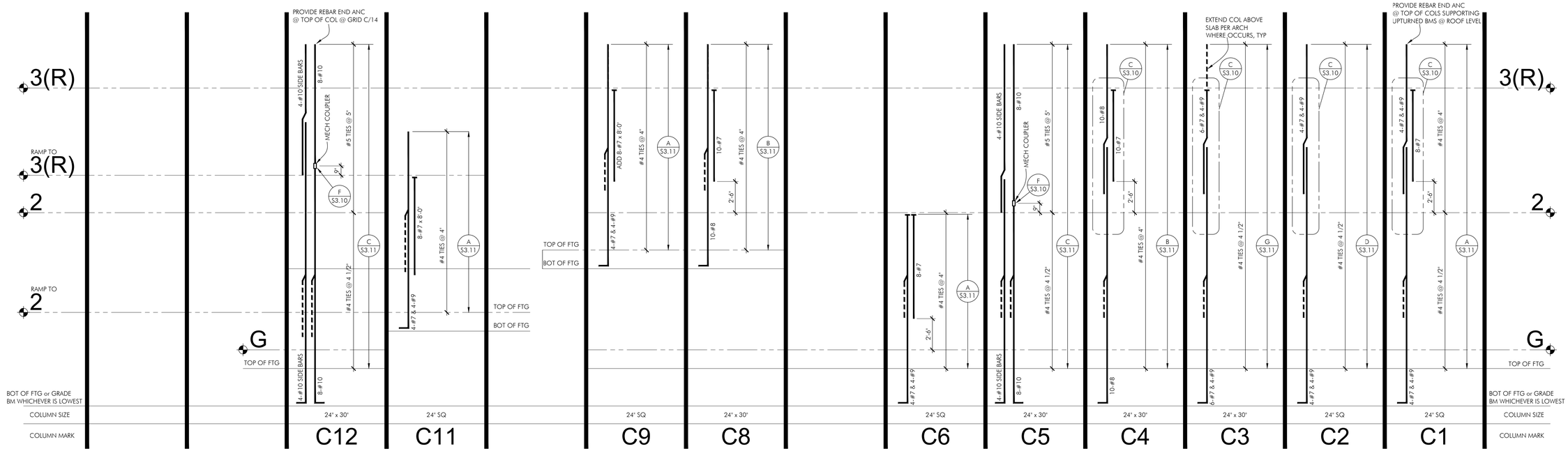
Sheet Title

THIRD (ROOF) LEVEL FRAMING PLAN

Sheet Number

S2.10

1721 PLAN



COLUMN REINF LAP SCHEDULE

SMALLER BAR SIZE	LARGER BAR SIZE	MIN LAP LENGTH
#6	#6 - #8	31"
#6	#9	35"
#6	#10	39"

SMALLER BAR SIZE	LARGER BAR SIZE	MIN LAP LENGTH
#6	#11	43"
#7	#7 - #9	35"
#7	#10	39"

SMALLER BAR SIZE	LARGER BAR SIZE	MIN LAP LENGTH
#7	#11	43"
#8	#8 - #10	40"
#8	#11	43"

SMALLER BAR SIZE	LARGER BAR SIZE	MIN LAP LENGTH
#9	#9 - #11	45"
#10	#10 - #11	50"
#11	#11	55"

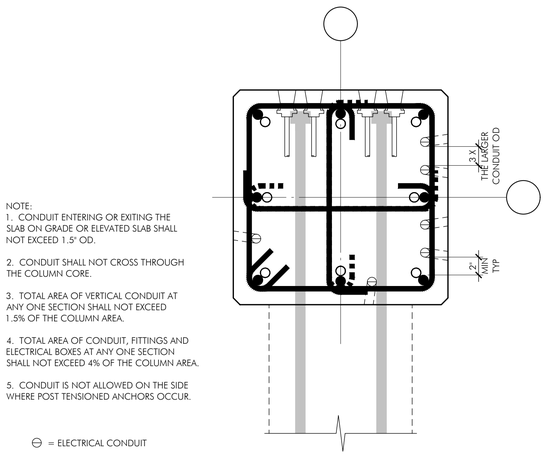
COLUMN NOTES

1. REBAR SPICES SHOWN DASHED DEPICT AN OPTIONAL SPLICE PATTERN WHICH MAY BE USED IN LIEU OF THE SPLICE PATTERN SHOWN.
2. LAP LENGTHS IN THE COLUMN REINFORCING LAP SCHEDULE SHALL BE INCREASED BY 20% OR 33% WHERE 3 OR 4 BARS ARE BUNDLED TOGETHER RESPECTIVELY.
3. PROVIDE 2-#4 TIES @ 3" @ TOP OF COLUMNS.

COLUMN SCHEDULE

NO SCALE CS63x3b 2 18b 35d 5st IBC06 Mpr S23 50r 35t 60h GRAVITY JD

14 B



NOTE:
1. CONDUIT ENTERING OR EXITING THE SLAB ON GRADE OR ELEVATED SLAB SHALL NOT EXCEED 1.5" OD.

2. CONDUIT SHALL NOT CROSS THROUGH THE COLUMN CORE.

3. TOTAL AREA OF VERTICAL CONDUIT AT ANY ONE SECTION SHALL NOT EXCEED 1.5% OF THE COLUMN AREA.

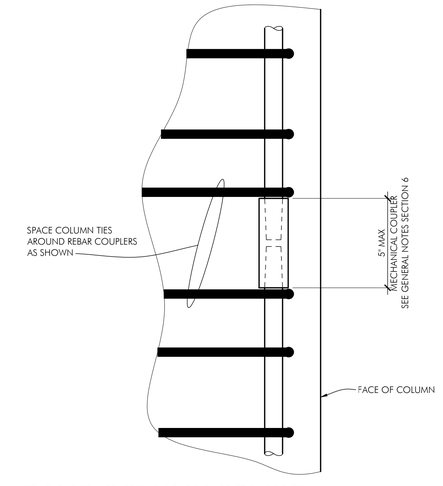
4. TOTAL AREA OF CONDUIT, FITTINGS AND ELECTRICAL BOXES AT ANY ONE SECTION SHALL NOT EXCEED 4% OF THE COLUMN AREA.

5. CONDUIT IS NOT ALLOWED ON THE SIDE WHERE POST TENSIONED ANCHORS OCCUR.

⊖ = ELECTRICAL CONDUIT

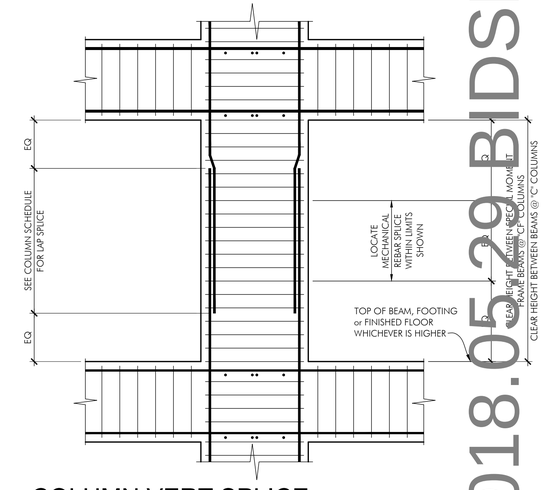
CONDUIT IN COL PLAN SECTION

1 1/2" = 1'-0" CPD1101 112 J



RAMP COLUMN SPLICE

3" = 1'-0" CPD1001 3 F



COLUMN VERT SPLICE

NO SCALE TCD8500 38 G

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May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

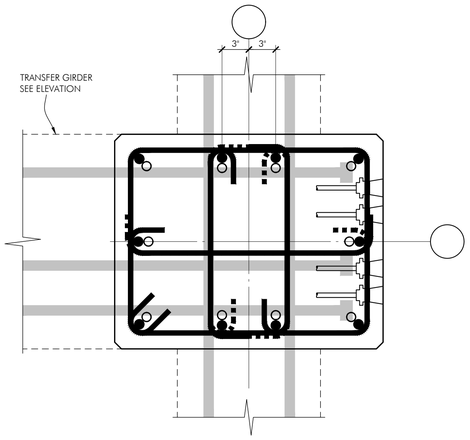
COLUMN SCHEDULE & DETAILS

Sheet Number

S3.10

217021 1721 S310

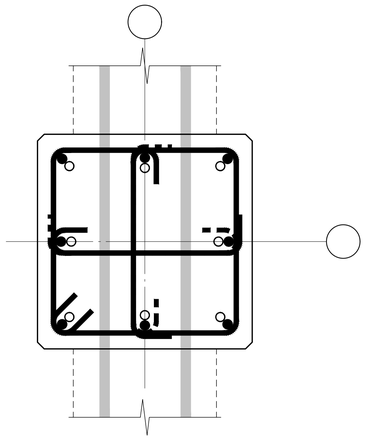
2018.05.29 BIDSET



SEE A/S3.11 FOR ADDL INFO

PLAN SECTION

NO SCALE CPD CDG 24x30 10 I 112 **G**



SEE A/S3.11 FOR ADDL INFO

PLAN SECTION

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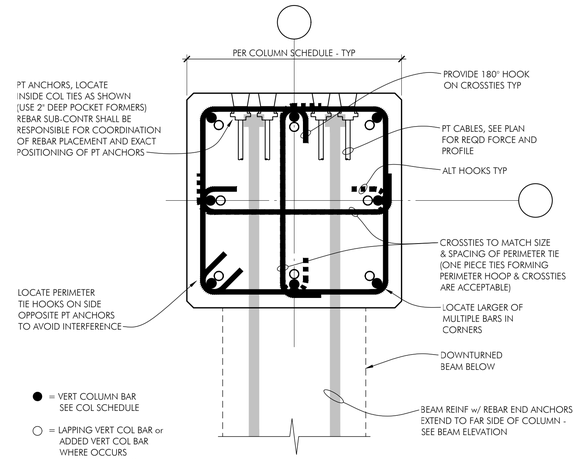

NOTE: SEE J/S3.10 FOR CONDUIT PLACEMENT.

PLAN SECTION

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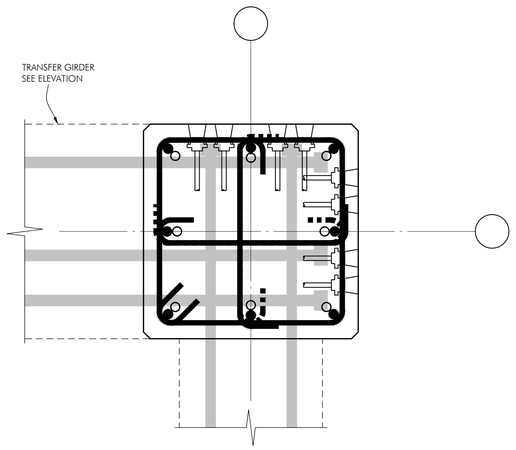

SEE A/S3.11 FOR ADDL INFO

PLAN SECTION

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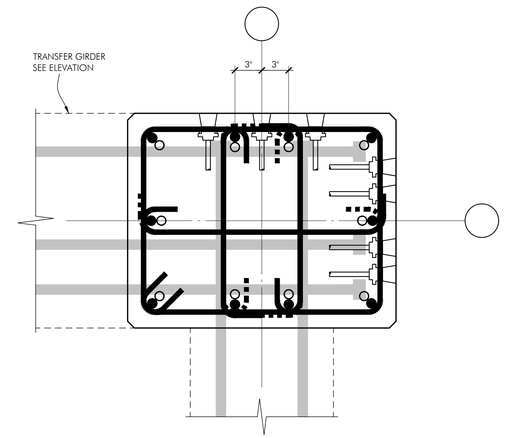

SEE A/S3.11 FOR ADDL INFO

PLAN SECTION

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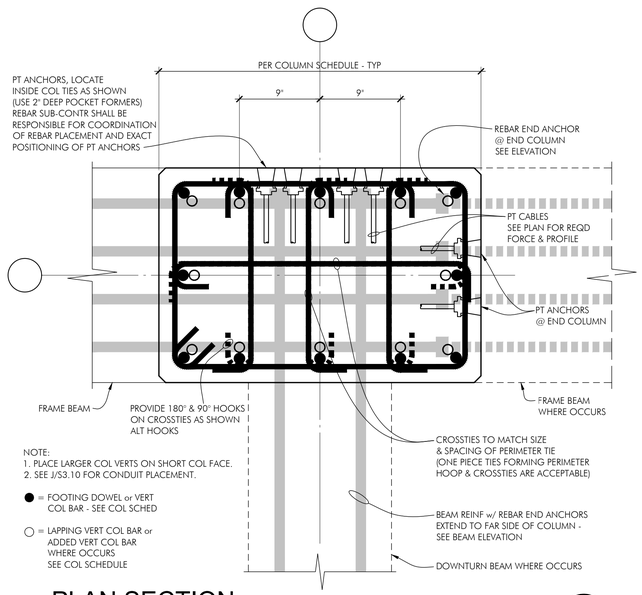

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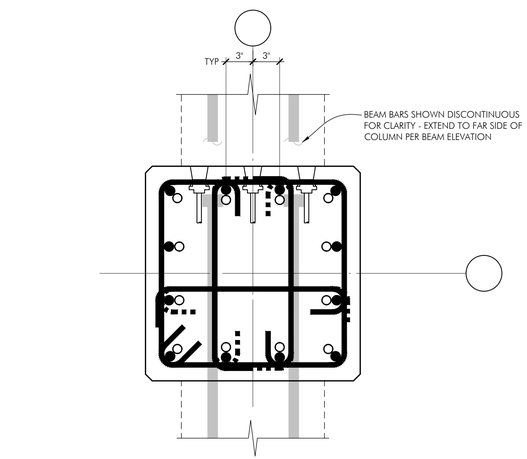

SEE A/S3.11 FOR ADDL INFO

PLAN SECTION

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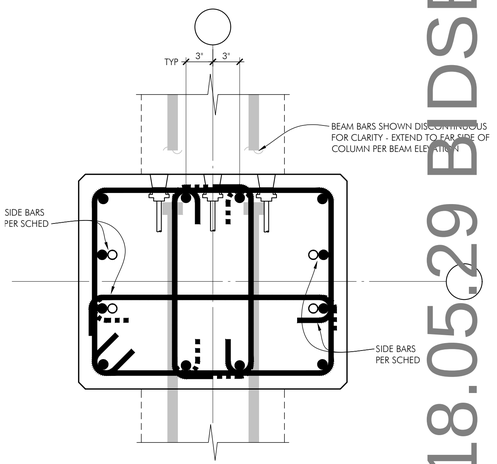

SEE A/S3.11 FOR ADDL INFO

PLAN SECTION

NO SCALE CPD CDR 24x30 12 I 112 **B**

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No.	Date	Description

REGISTERED PROFESSIONAL ENGINEER
RORY ROTTSCHALK
No. 2563
EXP. 12-31-19
STATE OF CALIFORNIA

May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

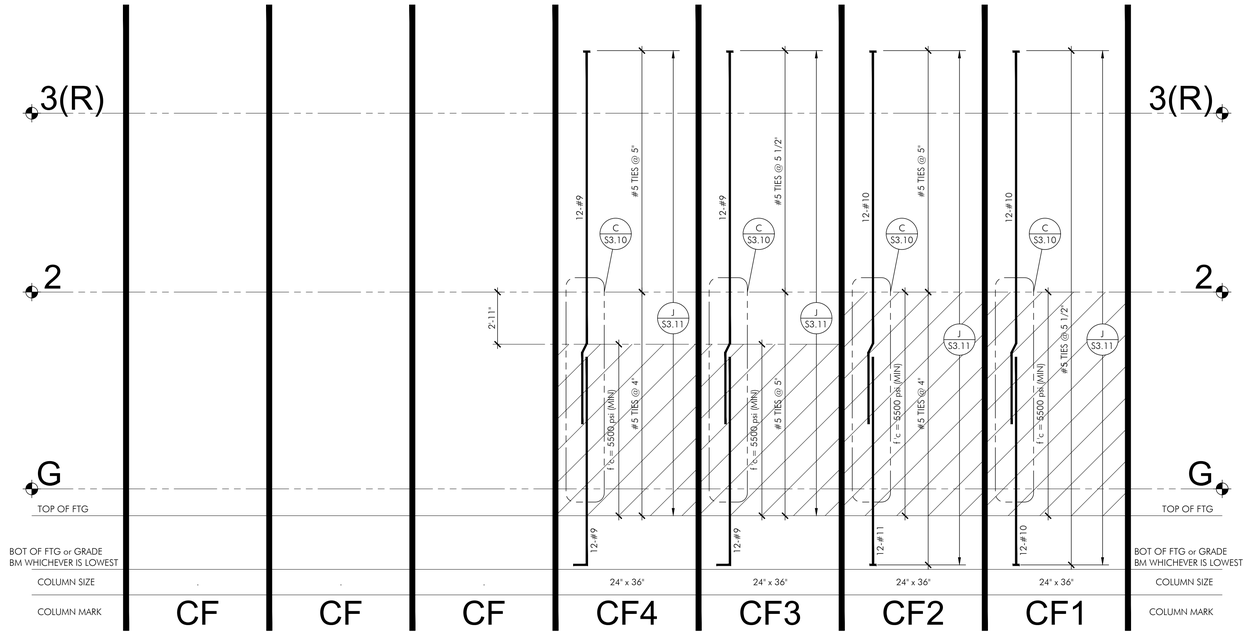
COLUMN DETAILS

Sheet Number

S3.11

217021 1721 S311

2018.05.29 BDSET



COLUMN REINF LAP SCHEDULE

SMALLER BAR SIZE	LARGER BAR SIZE	LAP LENGTH
#6	#6 - #8	31"
#6	#9	35"
#6	#10	39"

SMALLER BAR SIZE	LARGER BAR SIZE	LAP LENGTH
#6	#11	43"
#7	#7 - #9	35"
#7	#10	39"

SMALLER BAR SIZE	LARGER BAR SIZE	LAP LENGTH
#7	#11	43"
#8	#8 - #10	40"
#8	#11	43"

SMALLER BAR SIZE	LARGER BAR SIZE	LAP LENGTH
#9	#9 - #11	45"
#10	#10 - #11	50"
#11	#11	55"

COLUMN NOTES

1. EXTEND COLUMN TIES TO BOTTOM OF GRADE BEAM WHERE OCCUR.

FRAME COLUMN SCHEDULE

NO SCALE C563x3b 2 18b 35d 5st IBC06 Mpr 50r 35t 60h FRAME 14

B

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Sheet Title

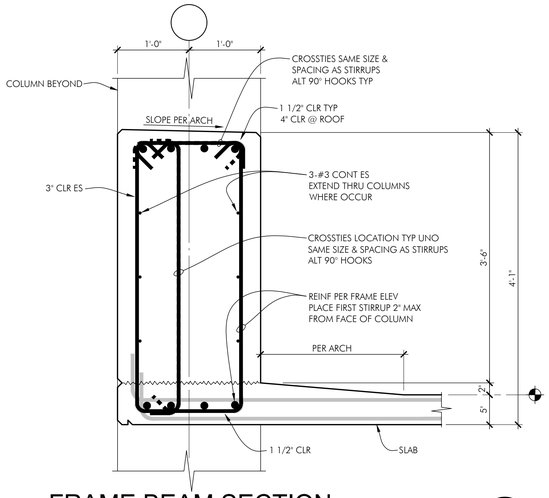
FRAME COLUMN SCHEDULE & DETAILS

Sheet Number

S3.15

217021 1721 S315

2018.05.29 BIDSET



FRAME BEAM SECTION K

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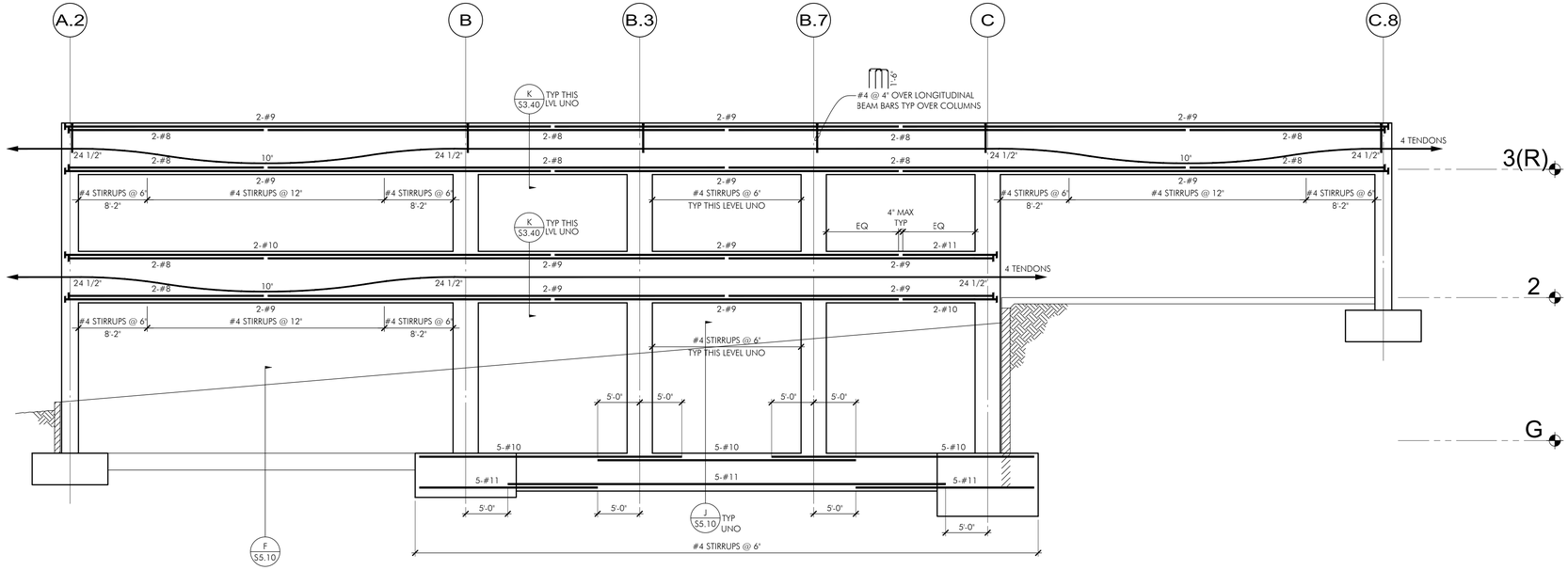
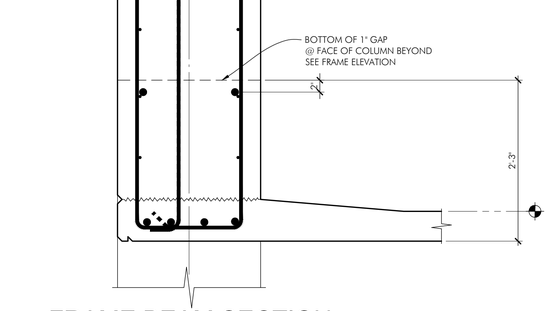


FRAME ELEVATION @ GRID 1

1/8" = 1'-0" - 18 B



SEE K/S3.40 FOR ADDL INFO

FRAME BEAM SECTION L

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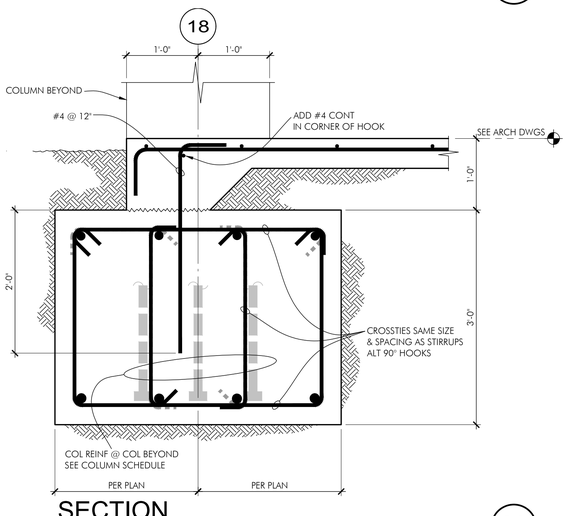
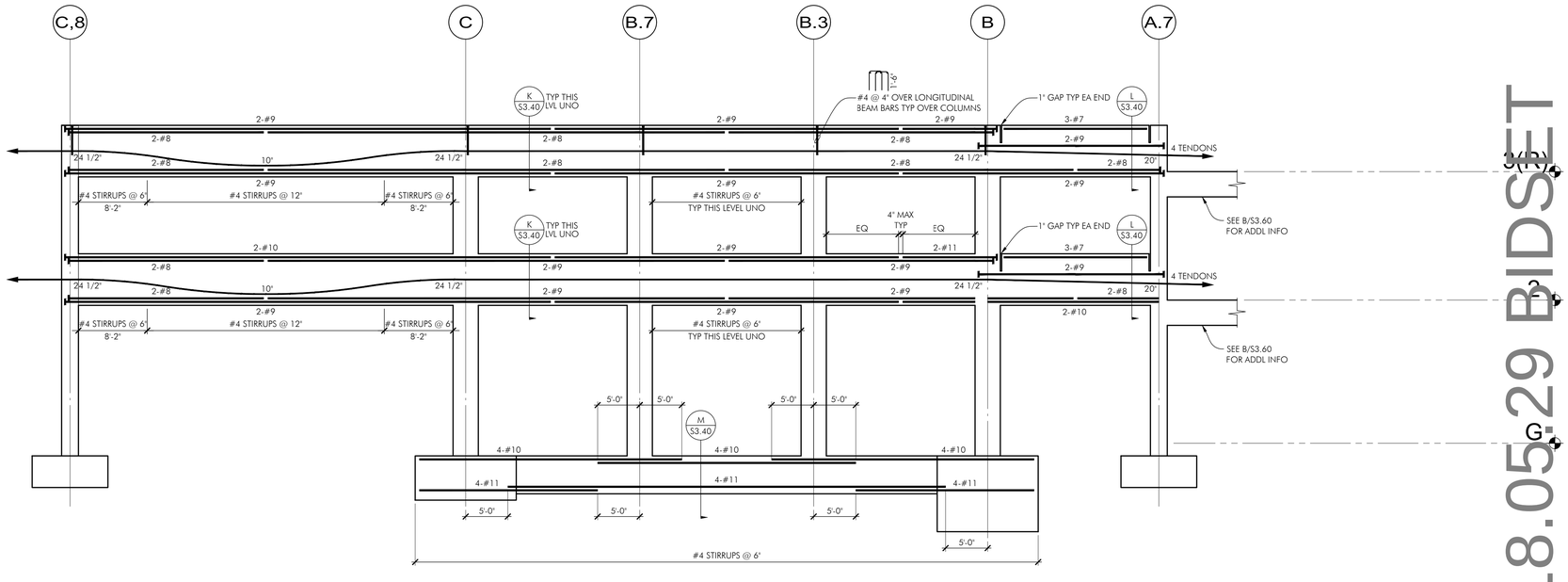


SECTION M

NO SCALE ENGJ13 1



FRAME ELEVATION @ GRID 18

1/8" = 1'-0" - 18 C

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PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

2018.05.29 BIDSET

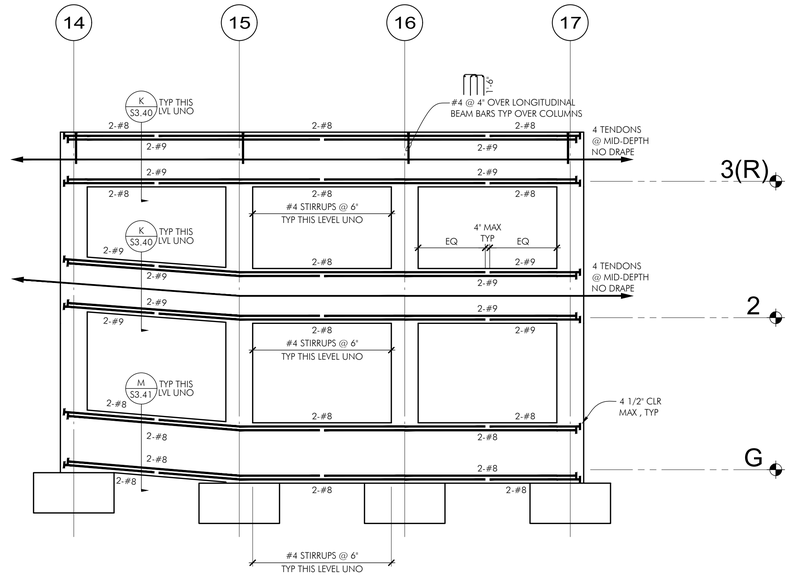
Sheet Title

FRAME ELEVATIONS

Sheet Number

S3.40

217021 1721 S340

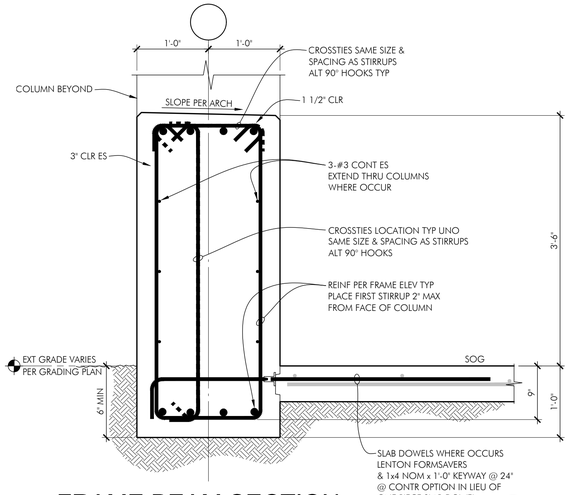


FRAME ELEVATION @ GRID D

1/8" = 1'-0"

18

B



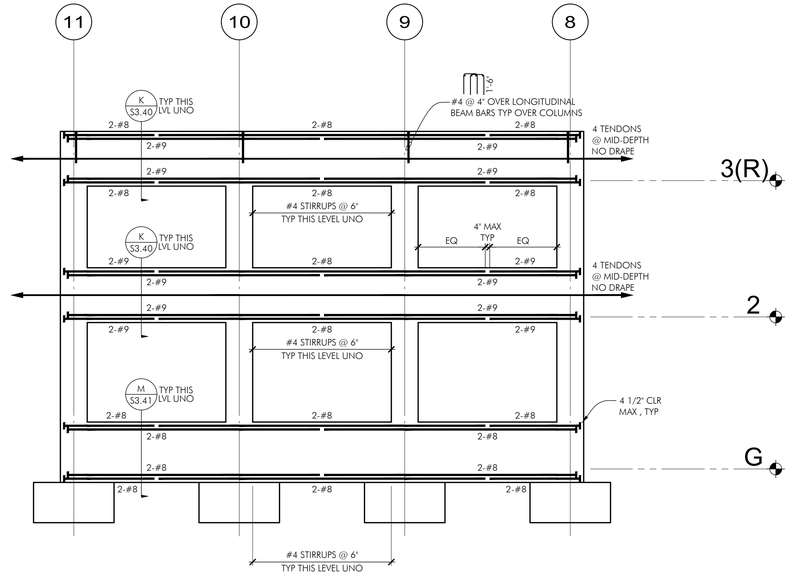
FRAME BEAM SECTION

NO SCALE

ENGJ9

1

M



FRAME ELEVATION @ GRID A

1/8" = 1'-0"

18

A

G:\1JOBS\Tri-City Medical Center PS\DRAFTING\1721 S341.dwg, 5/24/2018 11:14:10 AM, RICH

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Comm. No.:	-

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TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

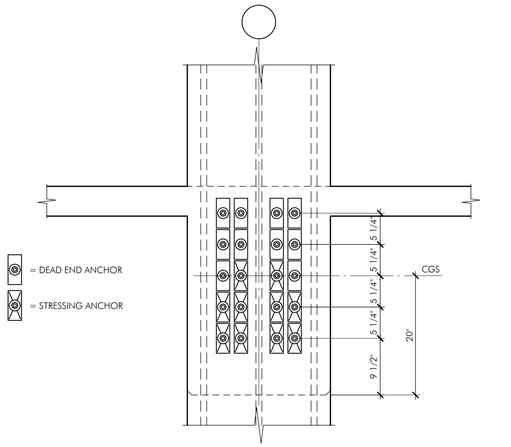
FRAME ELEVATIONS

Sheet Number

S3.41

217021 1721 S341

2018.05.29 BIDSET



GIRDER PT ANCHORAGE DETAIL

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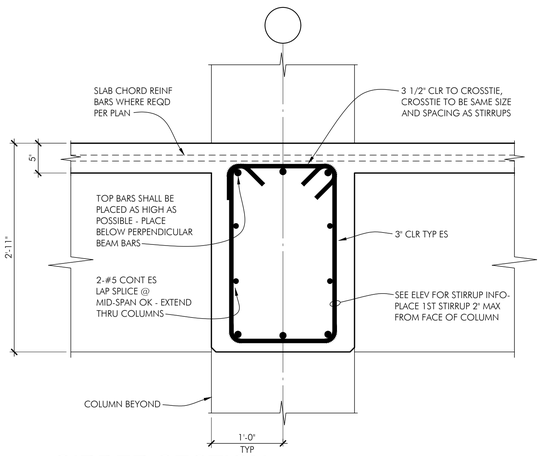

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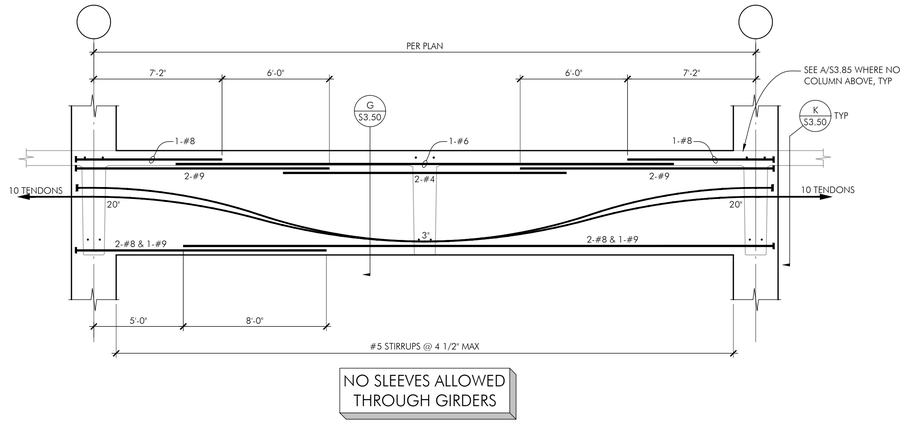

GIRDER ELEVATION

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GIRDER PT ANCHORAGE DETAIL

NO SCALE CPD GA 24x35 12 MOD 1 — L

GIRDER SECTION

NO SCALE CPD GD 24x35 E R MOD 1 — H

GIRDER ELEVATION

NO SCALE GE37x64bs 1s 18.5b 35d 5st IBC09 MPR 40u JD 14 — B1

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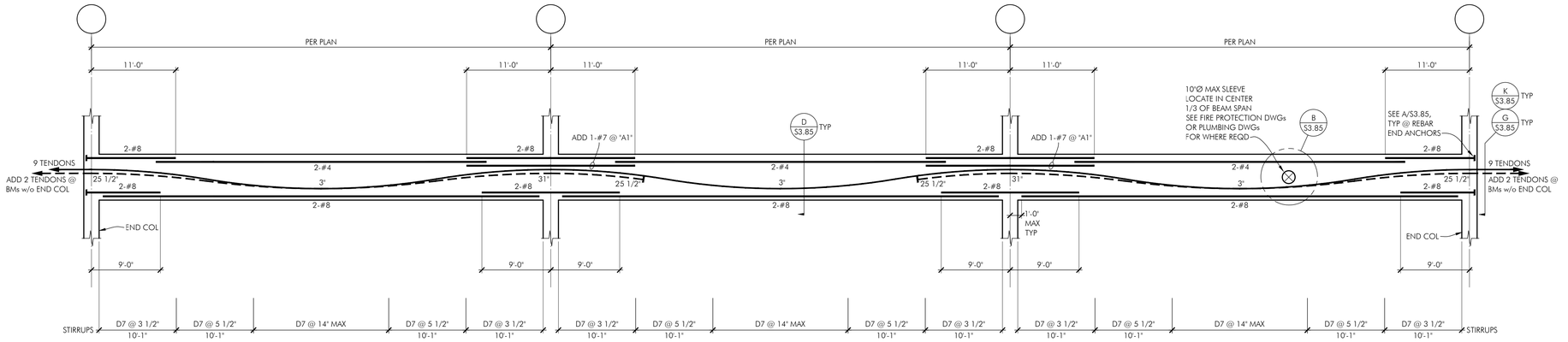
GIRDER ELEVATIONS & DETAILS

Sheet Number

S3.50

217021 1721 S350

2018.05.29 BIDSET



BEAM ELEVATION

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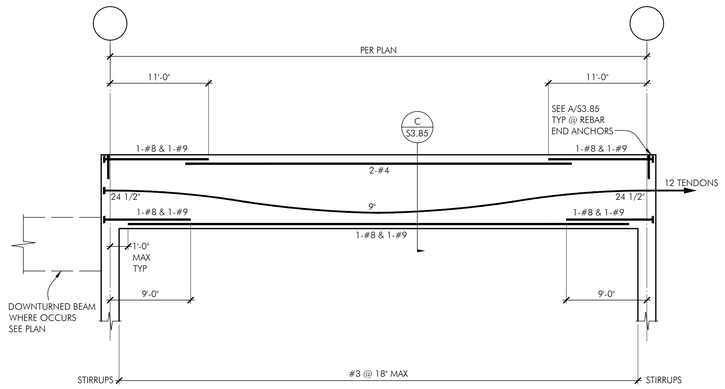
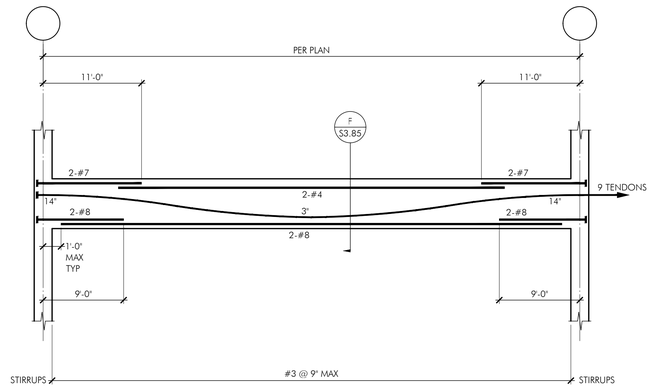
18 A A1



BEAM ELEVATION

1/8" = 1'-0" ENGD5

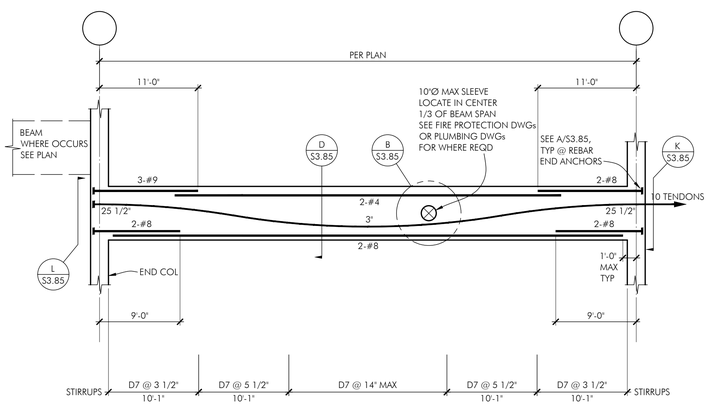
18 H



BEAM ELEVATION

1/8" = 1'-0" ENGD9

18 B



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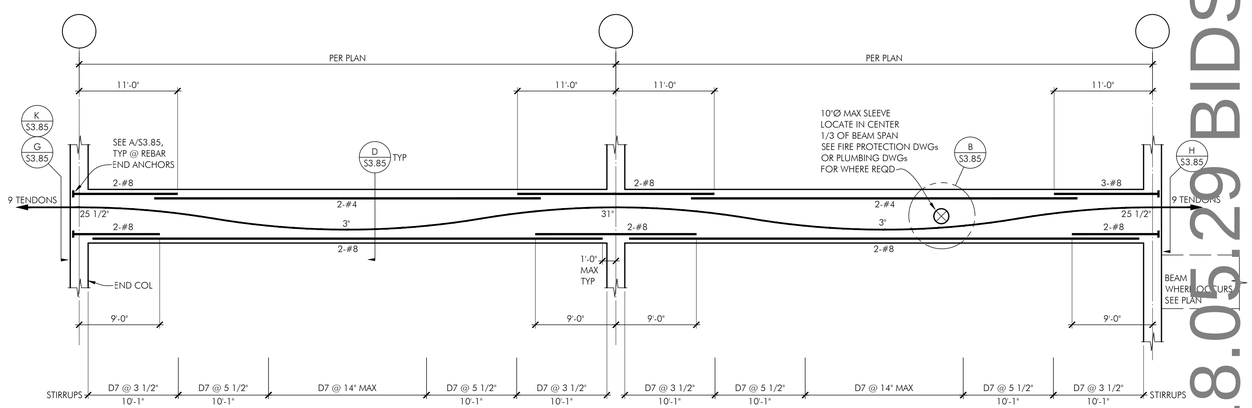
18 J



BEAM ELEVATION

NO SCALE BD62x3b xFF 18b 35d 5st Typ IBC09 MPR 40u 35t 60h JD

18 E

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May 23 2018

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Checked By:	RR
Comm. No.:	-

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TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

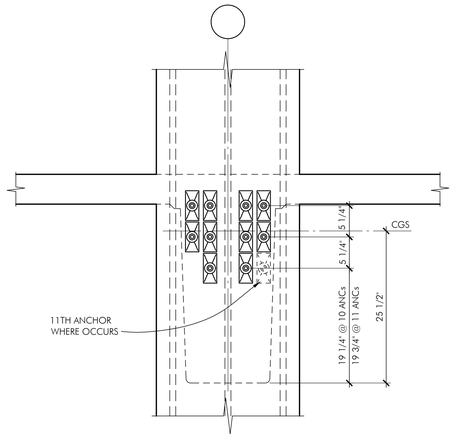
BEAM ELEVATIONS

Sheet Number

S3.60

217021 1721 S360

2018.05.29 BIDSET



BEAM PT ANCHORAGE DETAIL — K

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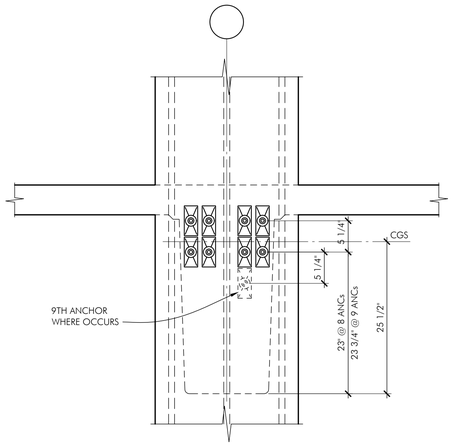

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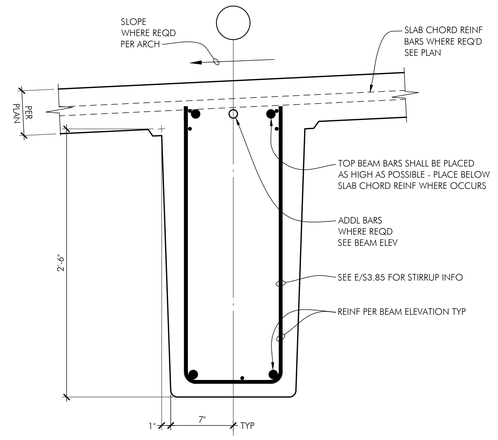

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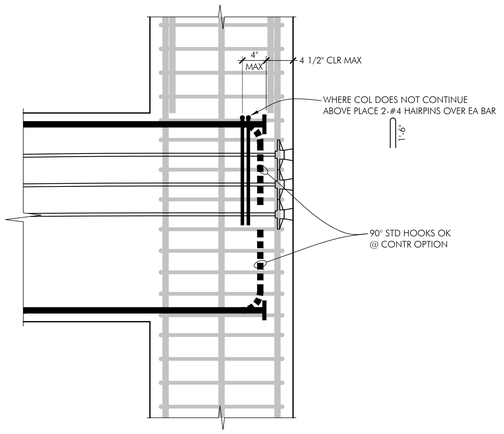

REBAR END ANCHOR DETAIL — A

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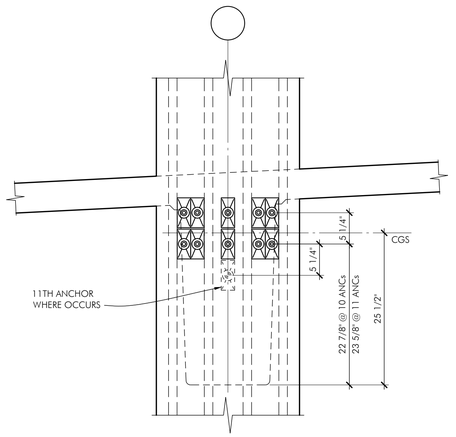

BEAM PT ANCHORAGE DETAIL — L

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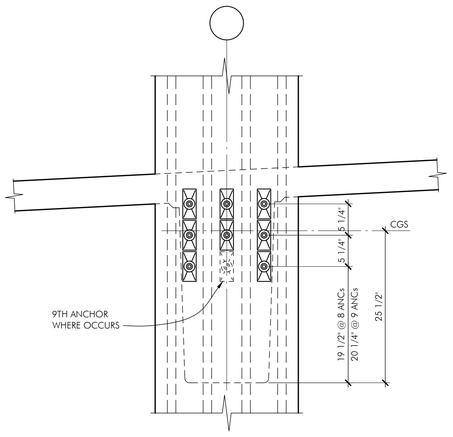

BEAM PT ANCHORAGE DETAIL — H

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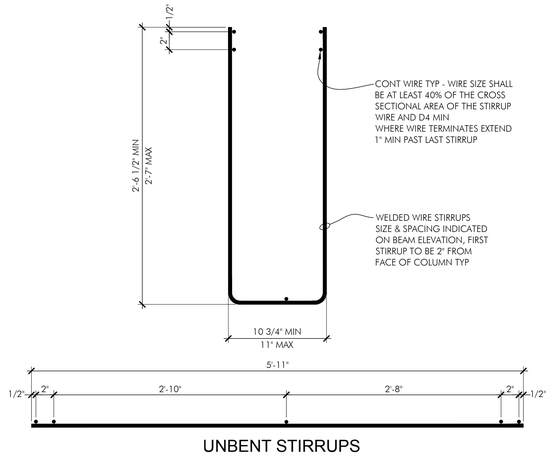

UNBENT STIRRUPS

BEAM STIRRUP DETAIL — E

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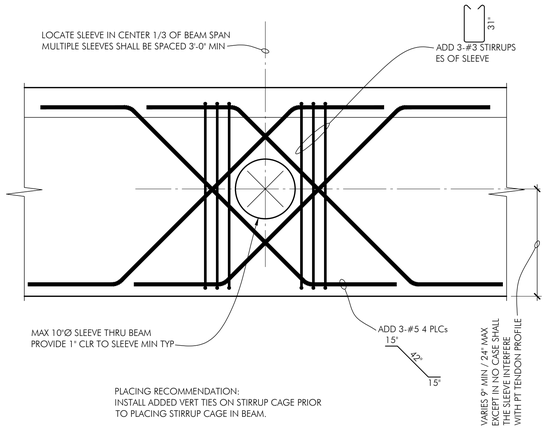

SLEEVE THRU BEAM DETAIL — B

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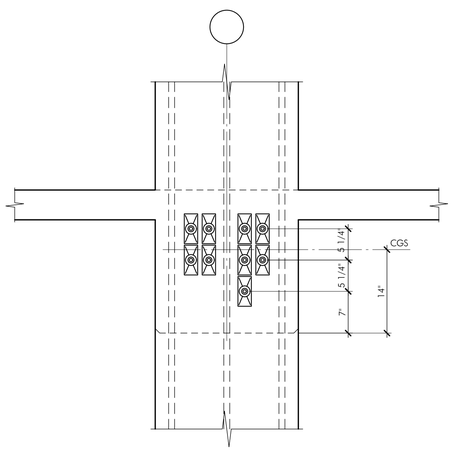
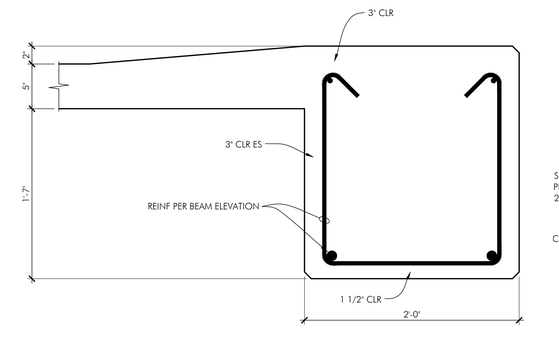


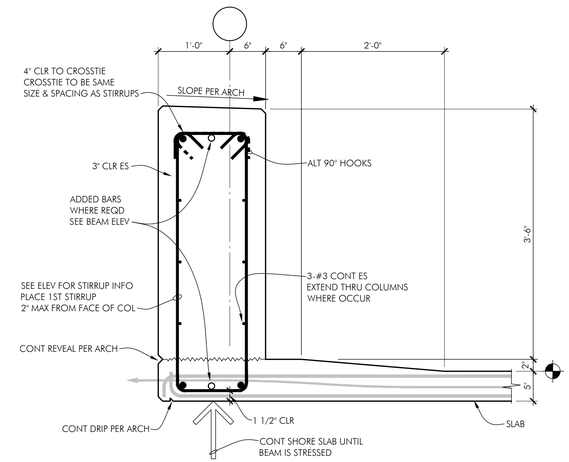
BEAM PT ANCHORAGE DETAIL — J

NO SCALE CPD BA 16x35 8 E 1



BEAM SECTION — F

1 1/2" = 1'-0" ENGD8 1 1/2



BEAM SECTION — C

NO SCALE ENGD6 1

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May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
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Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

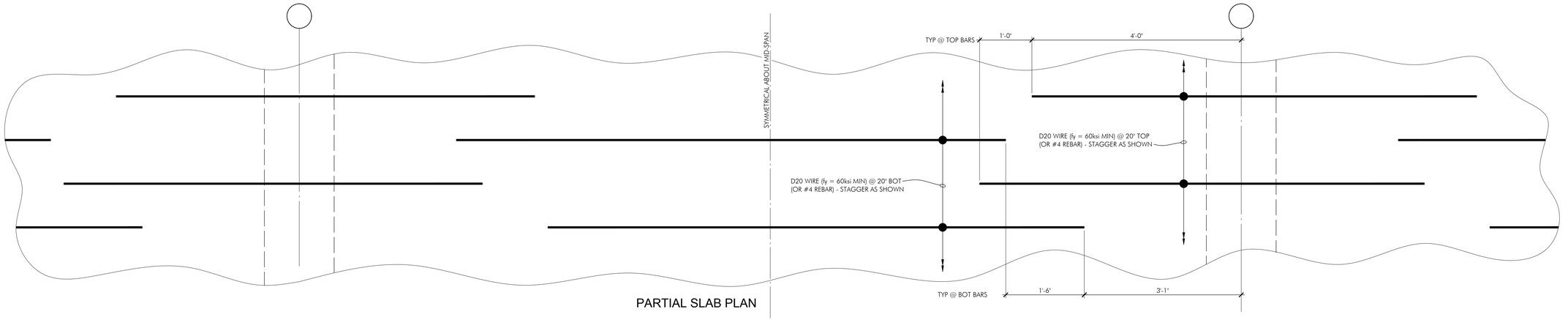
BEAM DETAILS

Sheet Number

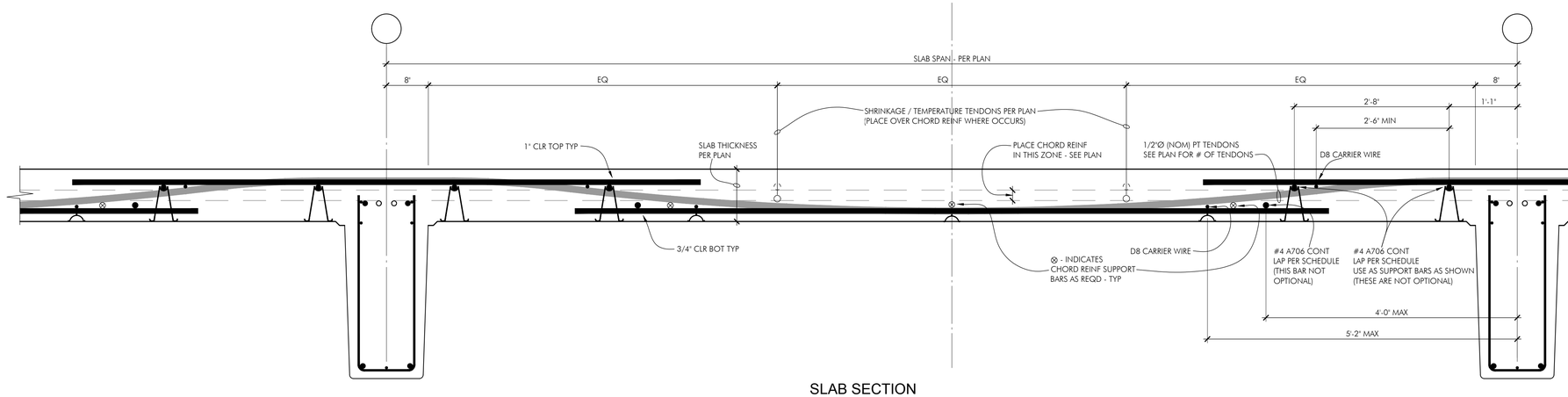
S3.85

1721 S385

2018.05.29 BIDSET



PARTIAL SLAB PLAN



SLAB SECTION

SUGGESTED PLACING SEQUENCE

1. BEAM STIRRUPS AND BEAM BOTTOM BARS
2. BEAM POST-TENSIONING TENDONS
3. BEAM TOP BARS
4. SLAB BOLSTERS
5. BOTTOM SLAB REINFORCING
6. #4 A706 CONTINUOUS BOTTOM
7. WHERE SLAB CHORD REINFORCING OCCURS, PLACE CHORD REINFORCING SUPPORT BARS EXCEPT @ MIDSPAN
8. CHORD REINFORCING BARS WHERE OCCUR
9. #4 A706 CONTINUOUS TOP @ 1'-1" FROM BEAM CL
10. SLAB POST-TENSIONING TENDONS
11. MIDSPAN CHORD REINFORCING SUPPORT BAR
12. REMAINING #4 A706 CONT TOP
13. SLAB SHRINKAGE/TEMPERATURE TENDONS
14. TOP SLAB REINFORCING

TYPICAL SLAB SECTION

NO SCALE S115-19 5st STD IBC06 40u

1 2 B

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TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

SLAB SECTION

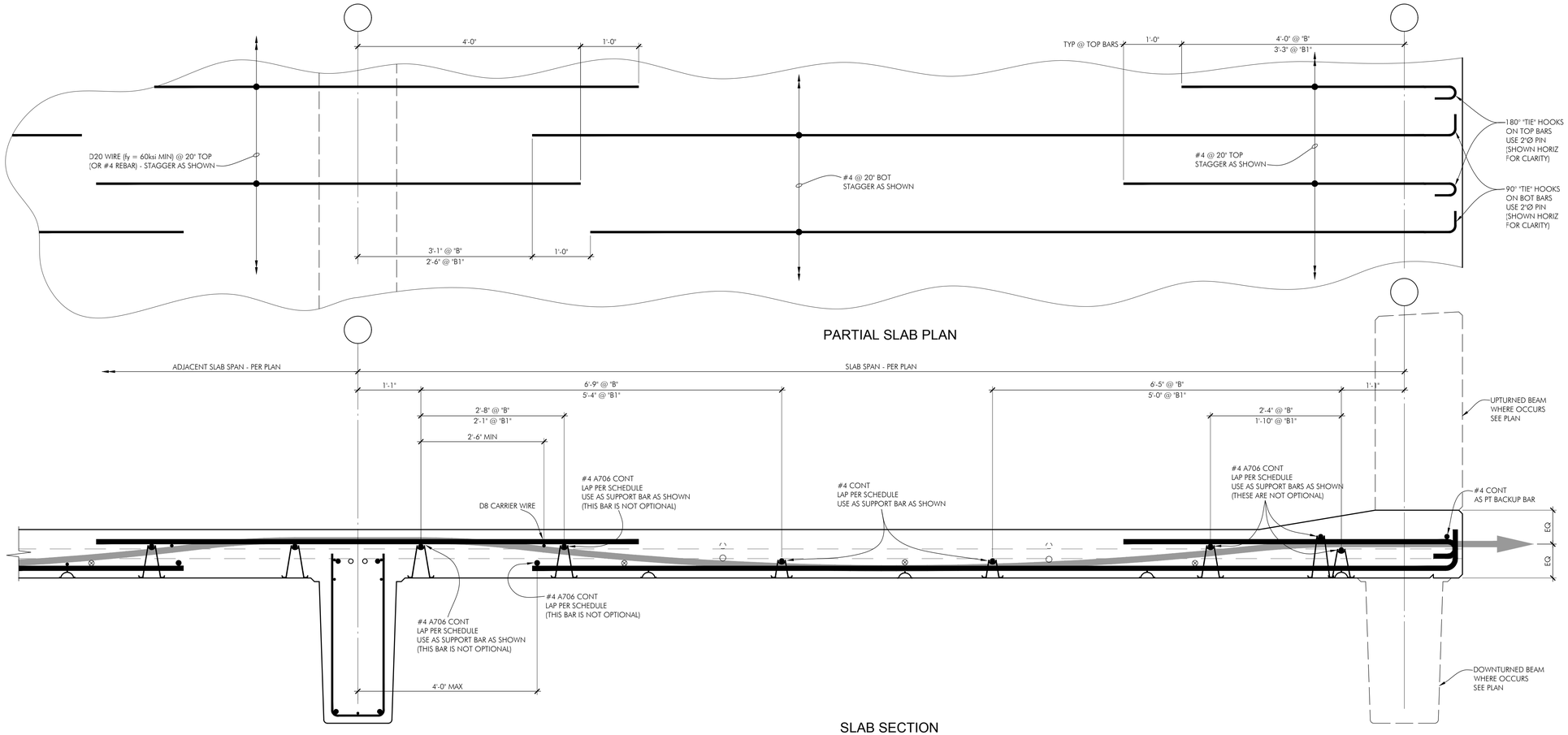
Sheet Number

S3.90

1721 S390

2018.05.29 BIDSET

G:\1-JOBS\1\In-City Medical Center PS\DRAFTING\1721 S390.dwg, 5/24/2018 11:14:23 AM, RICH



PARTIAL SLAB PLAN

SLAB SECTION

EXCEPT AS SHOWN, SAME AS TYP SLAB SECTION B/S3.90

SLAB SECTION @ END BAY

NO SCALE SE13-19 5st STD IBC06 40u

1 2 B B1

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TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

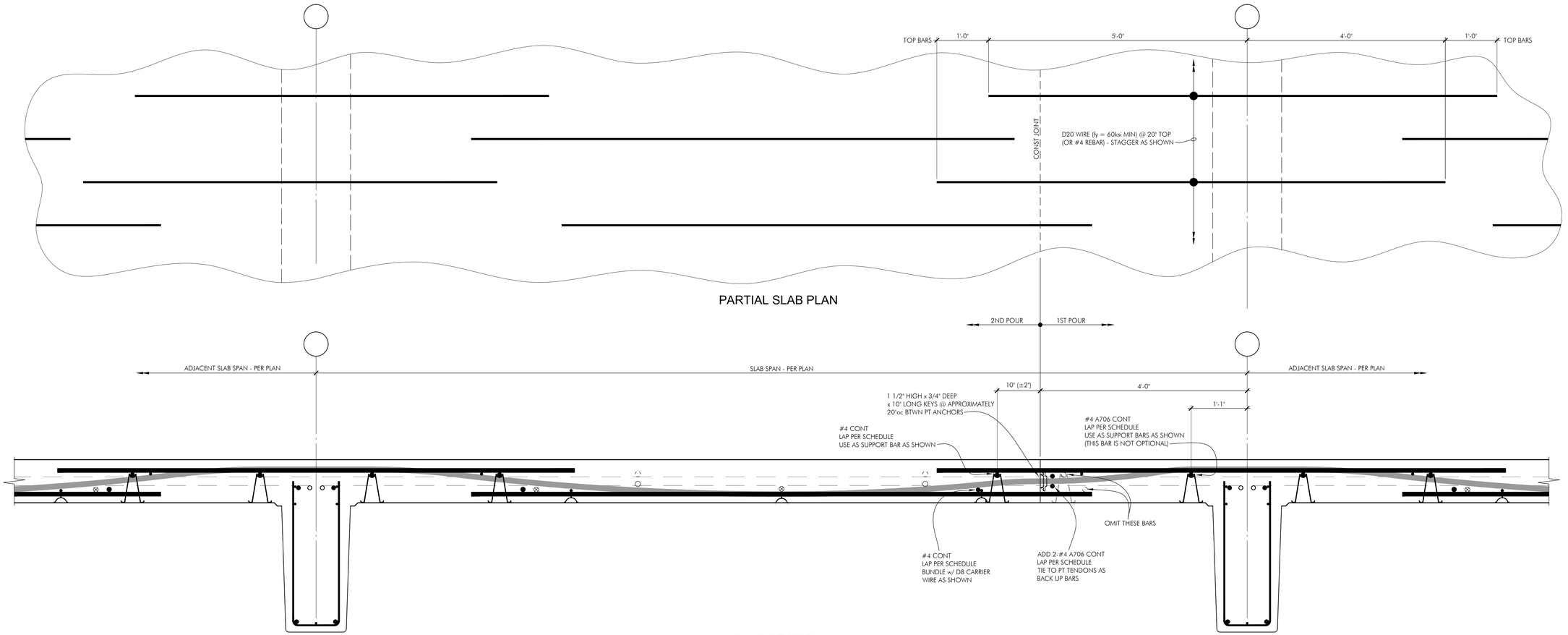
SLAB SECTION

Sheet Number

S3.91

1721 S391

2018.05.29 BIDSET



PARTIAL SLAB PLAN

SLAB SECTION

EXCEPT AS SHOWN, SAME AS TYP SLAB SECTION B/S3.90

SLAB SECTION @ CONSTRUCTION JOINT

NO SCALE SI15-19 CJ 5st STD IBC06 40u

1 2 B

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Comm. No.:	-

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TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

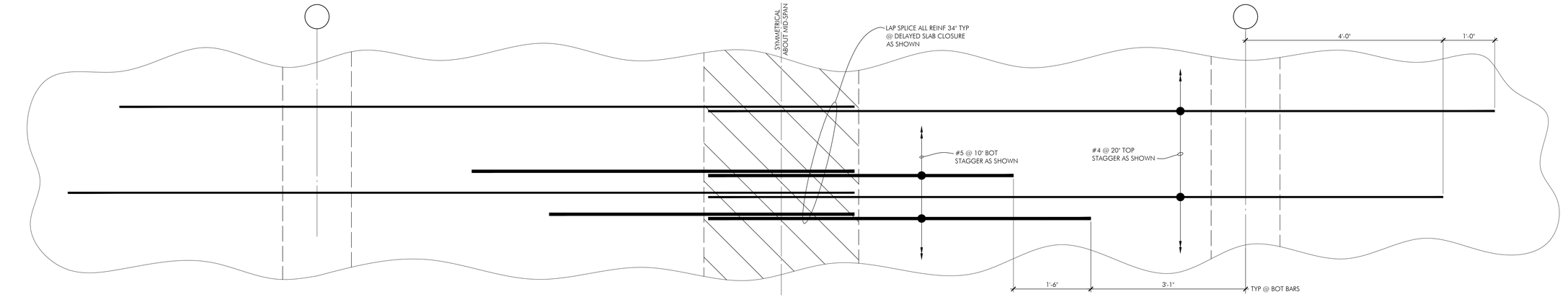
SLAB SECTION

Sheet Number

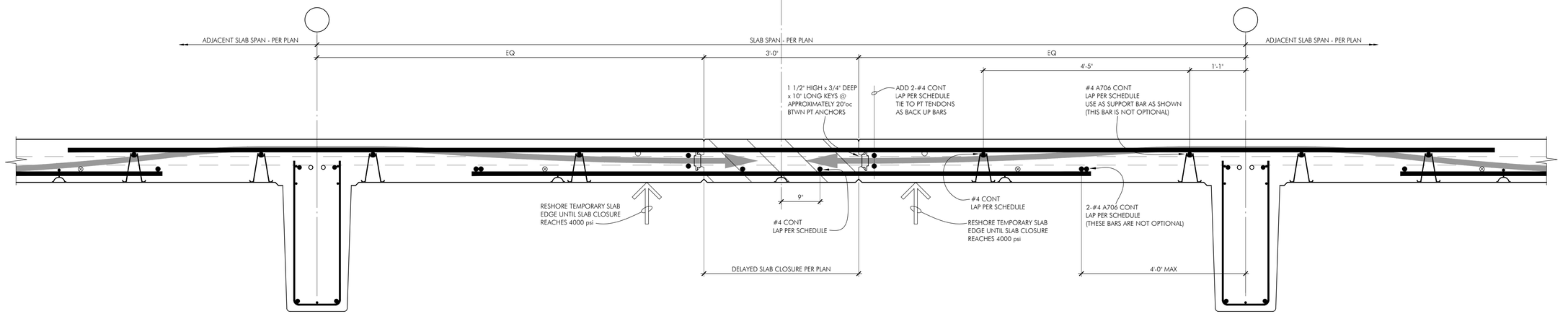
S3.92

1721 S392

2018.05.29 BIDSET



PARTIAL SLAB PLAN



SLAB SECTION

EXCEPT AS SHOWN, SAME AS TYP SLAB SECTION B/S3.90

SLAB SECTION @ DELAY STRIP

NO SCALE ENGD3 1 2 B

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Sheet Title

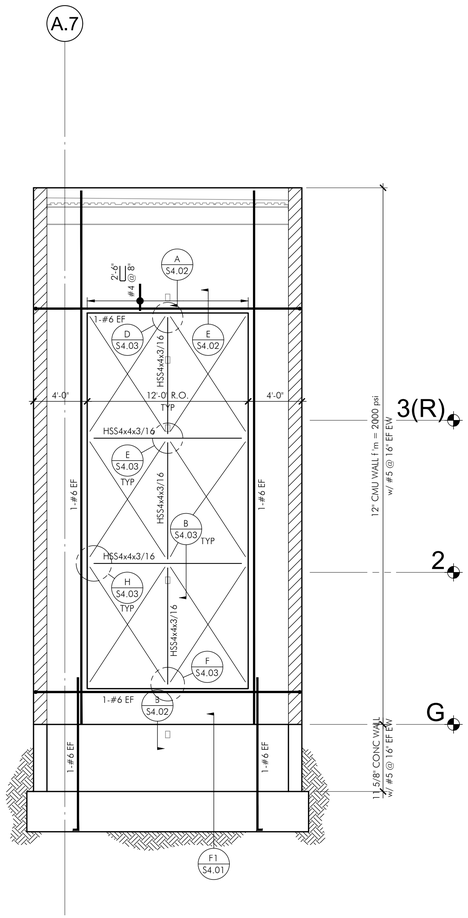
SLAB SECTION

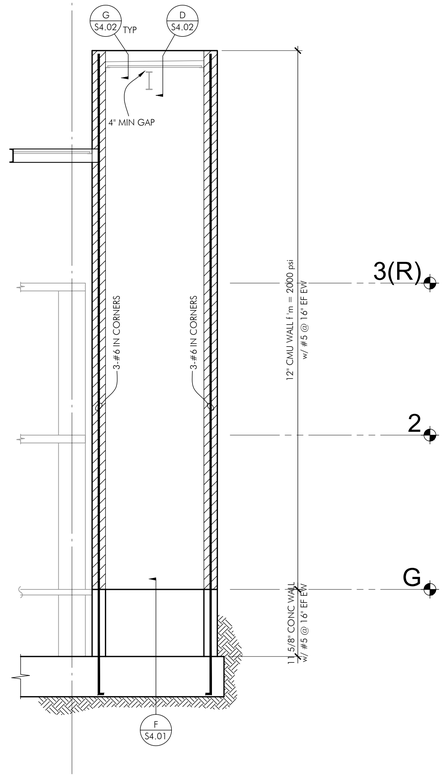
Sheet Number

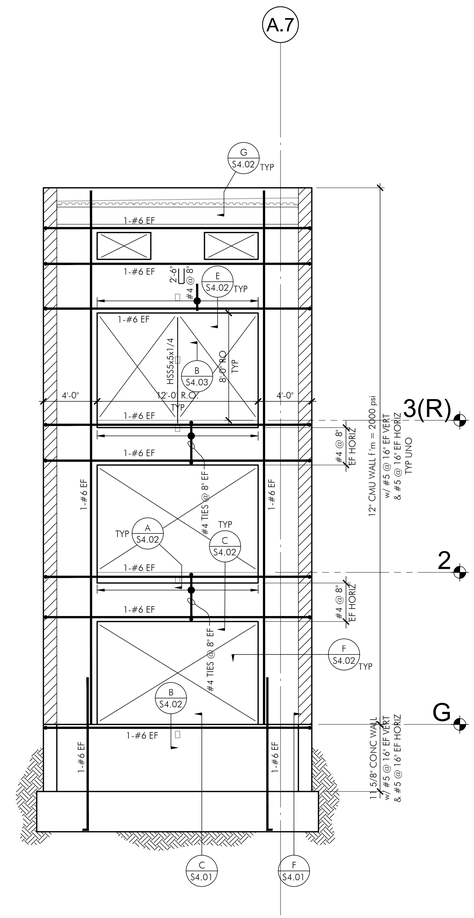
S3.93

1721 S393

2018.05.29 BIDSET





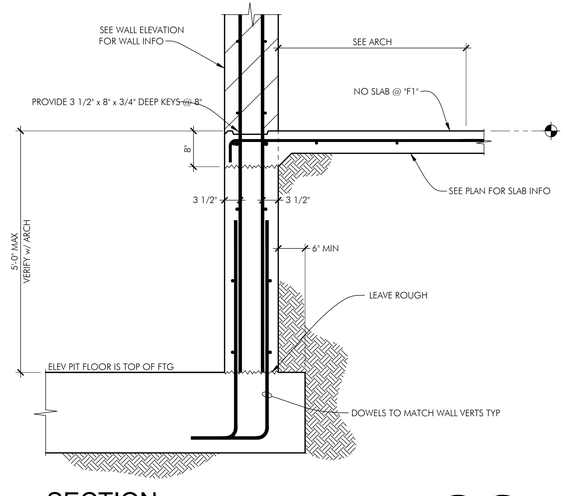


ELEVATION

3/16" = 1'-0" - 316 H

ELEVATION

3/16" = 1'-0" - 316 E

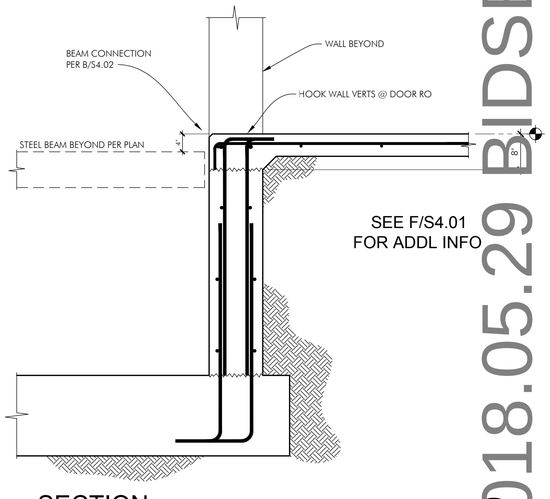


SECTION

3/4" = 1'-0" - 34 F F1

ELEVATION

3/16" = 1'-0" - 316 B1



SECTION

3/4" = 1'-0" - 34 C

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Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

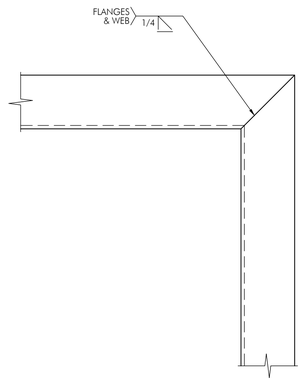
Sheet Title

ELEVATOR TOWER WALL ELEVATIONS & DETAILS

Sheet Number

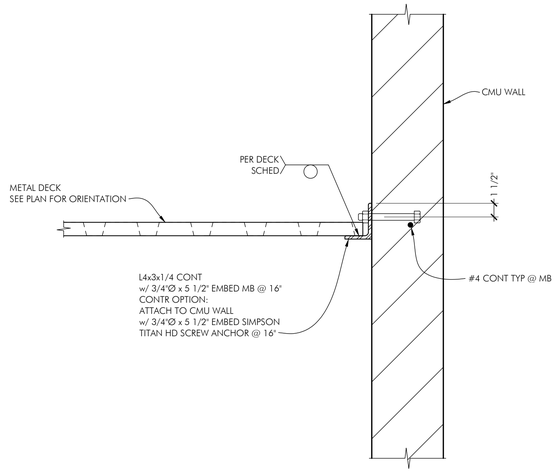
S4.01

217021 1721 S401



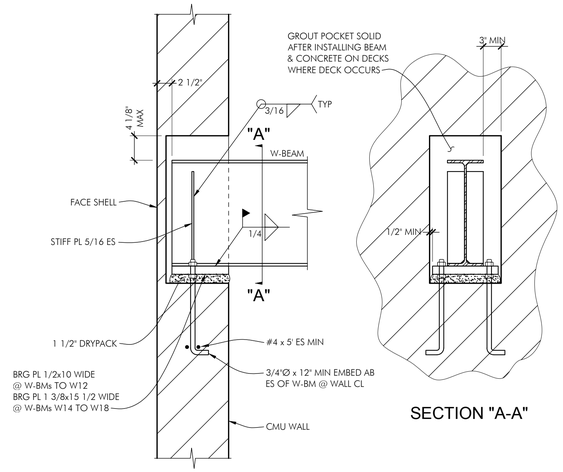
PLAN SECTION

3" = 1'-0" ENGJ1 3 K



SECTION

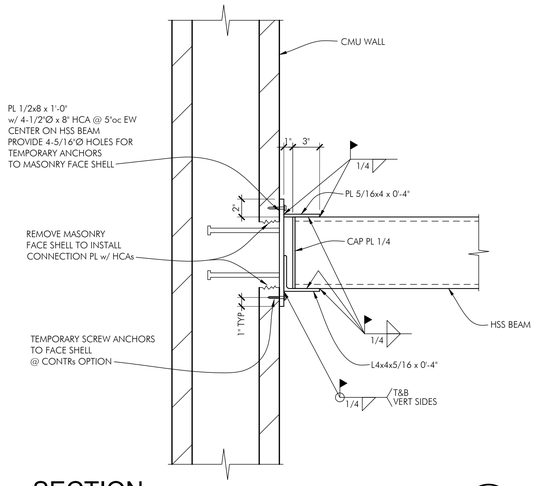
1 1/2" = 1'-0" - 112 G



SECTION "A-A"

SECTION

1" = 1'-0" - 1 D



SECTION

1 1/2" = 1'-0" MOD 112 A

SEE F/S4.02 FOR ADDL INFO

SEE A/S4.02
FOR ADDL
CONNECTION INFO

PLAN SECTION

1 1/2" = 1'-0" ENGJ3 112 H

SECTION

1 1/2" = 1'-0" - 112 J

SECTION

1 1/2" = 1'-0" - 112 E

SECTION

1 1/2" = 1'-0" - 112 F

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Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

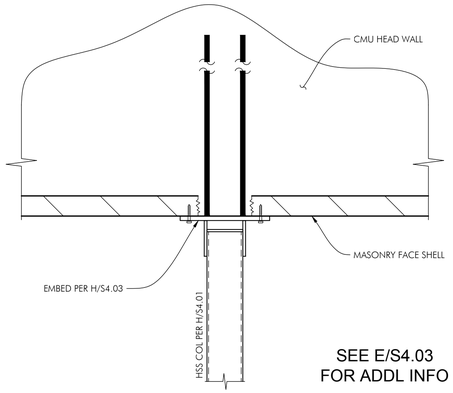
ELEVATOR TOWER WALL DETAILS

Sheet Number

S4.02

217021 1721 S402

2018.05.29 BIDSET



SECTION

1 1/2" = 1'-0" ENGJ23 112 D

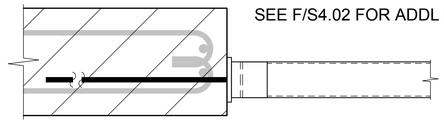
DECK MARK	GALVANIZED (G60) VERCO DECK TYPE	DECK GAGE	MIN SPANS (1)	SIDE LAPS: PUNCH LOK SPACING	SIDE LAPS: TOP SEAM WELD SPACING	WELDS TO SUPPORTS (2): WELD SPACING PARALLEL TO FLUTES	WELDS TO SUPPORTS (2): WELDS PER SHEET PERPENDICULAR TO FLUTES	CONCRETE FILL: NET THICKNESS " LW " = LT WT (115 pcf MAX)	CONCRETE FILL: TOTAL THICKNESS	CONCRETE FILL: REINFORCING (3)	CONCRETE FILL: STUD LENGTH (4)
D1	PLB-36	18	1	12"	---	6"	7	---	---	---	---

NOTES:

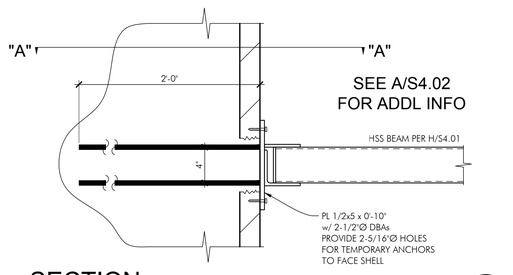
1. SPAN AS INDICATED ON PLAN, CONTINUOUS OVER NUMBER OF SPANS INDICATED, UNO. WHERE MINIMUM NUMBER OF SPANS NOT ATTAINABLE INCREASE DECK GAGE AS REQUIRED SO DECK DOES NOT REQUIRE SHORING.
2. PROVIDE 3/4"Ø (1/2"Ø NET) PUDDLE WELDS AS INDICATED.
3. SEE GENERAL STRUCTURAL NOTES FOR ADDL INFO, " A " = 6x6-W1.4xW1.4 WWF MIN, UNO ON PLAN.
4. PROVIDE 3/4"Ø STUDS AS INDICATED IN QUANTITIES AS SHOWN IN ( ) ON PLAN, EQUALLY SPACED ALONG RESPECTIVE SUPPORT MEMBERS. WHERE DECK WELDING COINCIDES WITH STUD SPACING, DECK WELDS MAY BE OMITTED.
5. ALL INFO SHOWN HERE IS TYPICAL UNO ON PLANS or DETAILS.
6. DO NOT HANG PIPES, DUCTS OR EQUIPMENT FROM METAL DECK. SEE GENERAL NOTE 22-7.

METAL DECK SCHEDULE

ENGJ17 1 A

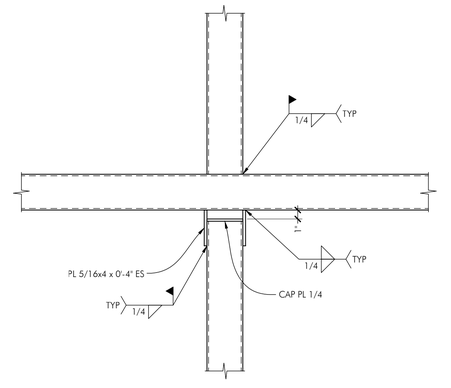


PLAN SECTION "A-A"



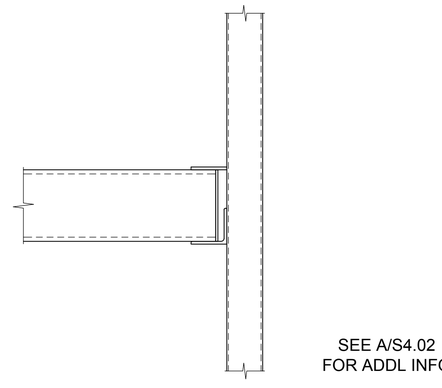
SECTION

1 1/2" = 1'-0" ENGJ21 112 H



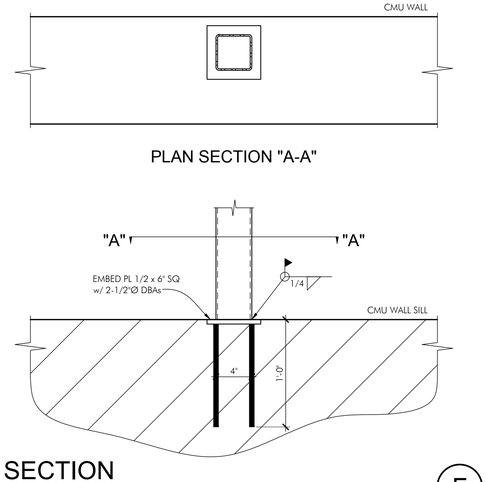
SECTION

1 1/2" = 1'-0" ENGJ19 112 E



SECTION

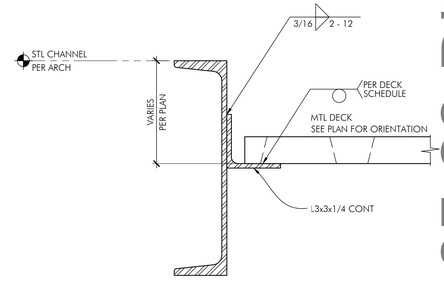
1 1/2" = 1'-0" ENGJ20 112 B



PLAN SECTION "A-A"

SECTION

1 1/2" = 1'-0" ENGJ22 112 F



SECTION

3" = 1'-0" ENGJ18 3 C

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TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

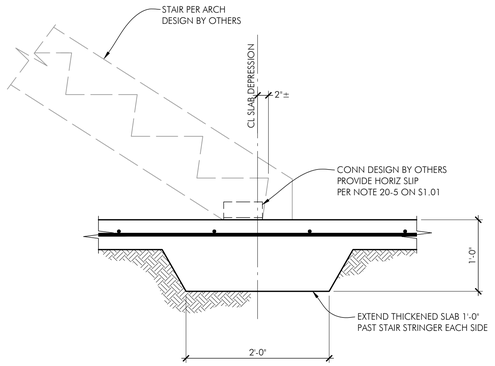
ELEVATOR TOWER WALL DETAILS

Sheet Number

S4.03

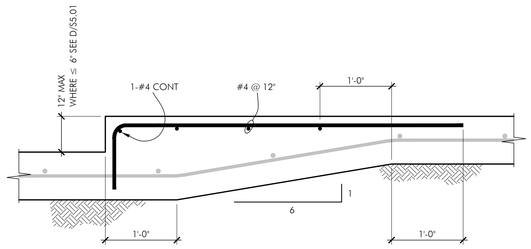
217021 1721 S403

2018.05.29 BIDSET



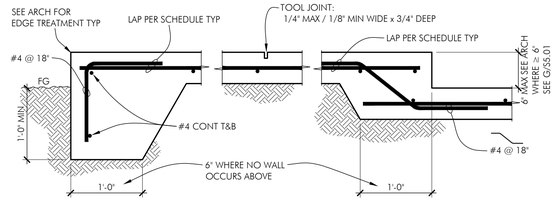
TYP FOOTING AT STEEL STAIR

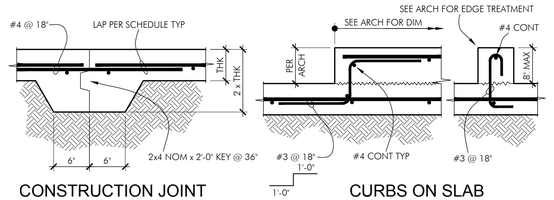
NO SCALE TCD1050 1 — K



TYP STEP IN SLAB ON GRADE

NO SCALE TCD1101 1 — G





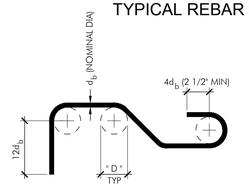
NOTES:
1. SLABS SHALL BE ON PREPARED SUBGRADE PER SOILS REPORT.
2. MINIMUM SLAB REINF SHALL BE #4 @ 18" EW OR 18x18 / D15 x D15 80GR WWR IN SLABS & CURBS, UNO.
3. GEN CONTRACTOR SHALL PROVIDE LAYOUT PLAN SHOWING CONTROL AND CONSTRUCTION JOINTS. LOCATE CONTROL JOINTS APPROX 12'-0"oc EW.

TYP SLAB ON GRADE DETAILS

NO SCALE TCD1100RPS 1 — D

REBAR END ANCHORS SHALL HAVE
AN EVALUATION REPORT DEMONSTRATING
COMPLIANCE WITH THE CURRENT ACCEPTANCE
CRITERIA UNDER THE REFERENCED DESIGN CODE

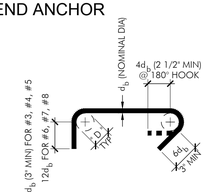
TYPICAL REBAR END ANCHOR



90° 180°

BAR SIZE	INSIDE DIA " D "
#3 - #8	$6d_b$
#9, #10, #11	$8d_b$
#14, #18	$10d_b$

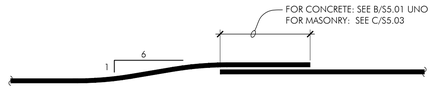
TYPICAL HOOKS & BENDS



90° 135° or 180°

BAR SIZE	INSIDE DIA " D "
#3 - #5	$4d_b$
#6, #7, #8	$6d_b$

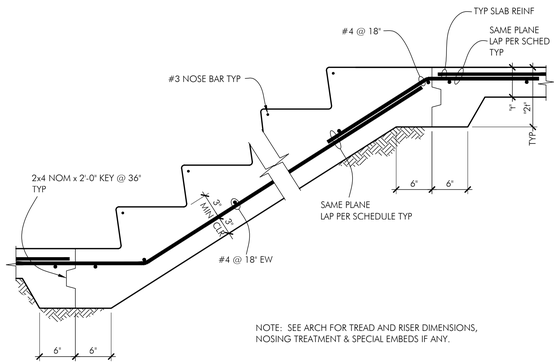
TYPICAL STIRRUPS & TIES



TYPICAL OFFSETS AND SPLICES

TYPICAL REBAR DETAIL

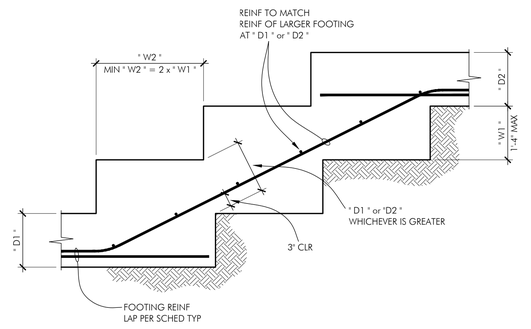
NO SCALE TCD0000 112 — A



NOTE: SEE ARCH FOR TREAD AND RISER DIMENSIONS, NOSING TREATMENT & SPECIAL EMBEDS IF ANY.

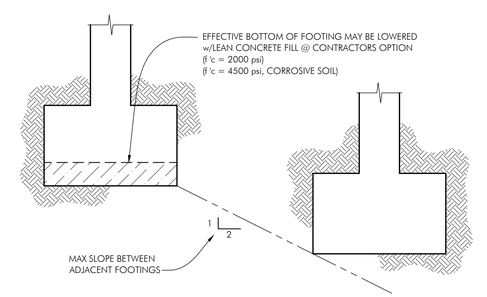
TYPICAL STEPS ON GRADE

NO SCALE TCD1105 1 — L



TYP STEPPED FOOTING DETAIL

NO SCALE TCD1010 34 — H



TYPICAL ADJACENT FOOTING DETAIL

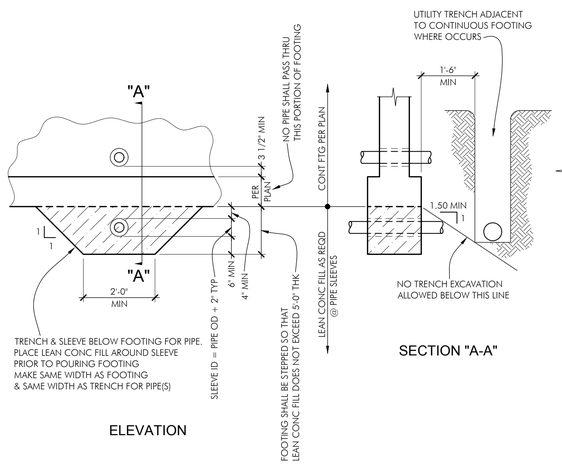
NO SCALE TCD1000A 112 — E

BAR SIZE ASTM (METRIC)	CONCRETE STRENGTH f 'c psi 3,000	3,500	4,000	4,500	5,000	5,500	6,000 & GREATER	
#3 (10)	17	16	15	14	13	13	12	TOP BARS (3) TYP
	13	12	12	12	12	12	12	OTHER BARS TYP
#4 (13)	28	26	24	23	22	21	20	
	22	20	19	18	17	16	16	
#5 (16)	41	38	36	34	32	31	29	
	32	30	28	26	25	24	23	
#6 (19)	56	52	49	46	43	42	40	
	43	40	37	35	34	32	31	
#7 (22)	81	75	71	67	63	60	58	
	63	58	54	51	49	47	45	
#8 (25)	93	86	81	76	72	69	66	
	72	66	62	59	56	53	51	
#9 (29)	105	97	91	86	81	78	74	
	81	75	70	66	63	60	57	
#10 (32)	118	109	102	96	92	87	84	
	91	84	79	74	70	67	64	
#11 (36)	131	121	113	107	102	97	93	
	101	93	87	82	78	75	71	

NOTES:
1. LAP LENGTHS SHOWN ARE IN INCHES.
2. INCREASE LAP LENGTHS 33% FOR LIGHTWEIGHT CONCRETE (110 pcf), 20% FOR 3 BAR BUNDLES (WHERE 1 BAR LAPS WITH 2 OTHER BARS), AND 33% AT 4 BAR BUNDLES (WHERE 2 BARS LAP WITH 2 OTHER BARS).
3. TOP BARS - HORIZ BARS PLACED WITH MORE THAN 12" OF FRESH CONCRETE CAST BELOW THEM.
4. MIN CLEAR COVER > d_b (3/4" MIN) AND CLEAR SPACING > $2d_b$ (1.5" MIN).
5. INCREASE LAP LENGTHS 50% FOR EPOXY COATED BARS.

TYPICAL CONCRETE REBAR LAP SCHEDULE

NO SCALE TCD0005 112 — B

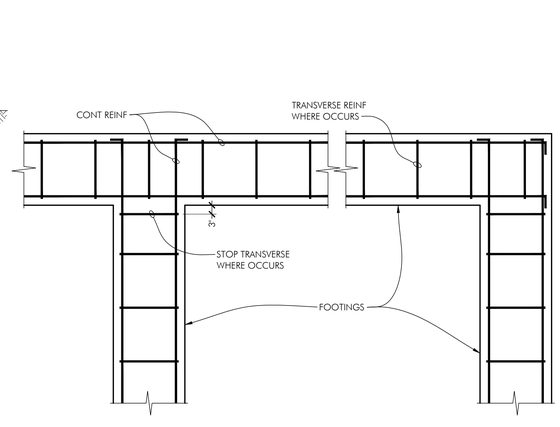


ELEVATION

SECTION "A-A"

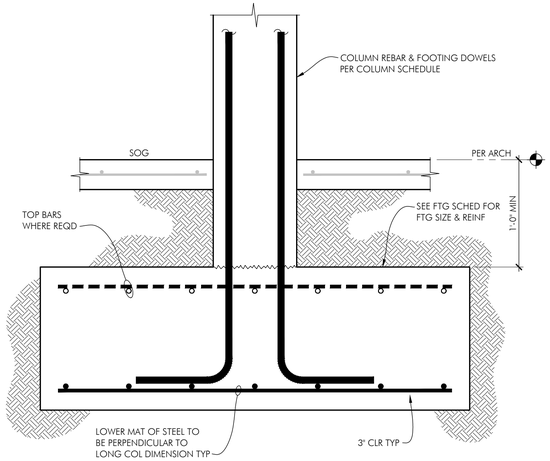
TYPICAL PIPE THRU FOOTING

NO SCALE TCD1005 12 — M



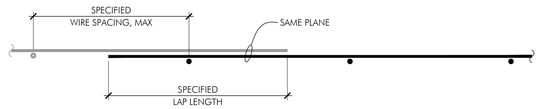
TYP FTG REINFORCING PLAN SECTION AT INTERSECTIONS

NO SCALE TCD1070 12 — J



TYP CONC COL FTG DETAIL

NO SCALE TCD1021 1 — F



WWF SP x SP - D# x D#	WWF LAP LENGTH f 'c = 3000	f 'c = 4000	f 'c = 5000
12 x 12 - D8.3 x D8.3	16	16	16
16 x 16 - D8.3 x D8.3	16	16	16
18 x 18 - D8.3 x D8.3	16	16	16
24 x 24 - D8.3 x D8.3	16	16	16
12 x 12 - D15 x D15	20	18	16
16 x 16 - D15 x D15	20	18	16
18 x 18 - D15 x D15	20	18	16
24 x 24 - D15 x D15	20	18	16
12 x 12 - D23.3 x D23.3	25	22	20
16 x 16 - D23.3 x D23.3	25	22	20
18 x 18 - D23.3 x D23.3	25	22	20

NOTES:
1. LAP LENGTHS ARE IN INCHES.
2. INCREASE LAP LENGTHS 33% FOR LIGHT WEIGHT CONCRETE (110 pcf).
3. INCREASE LAP LENGTHS 30% FOR HORIZONTAL REINFORCEMENT PLACED WITH MORE THAN 12 INCHES OF FRESH CONCRETE PLACED BELOW THE SPLICE.
4. INCREASE LAP LENGTH 50% FOR EPOXY COATED BARS.

TYPICAL DEFORMED WWF LAP SCHEDULE

NO SCALE TCD0006 112 — C

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Revisions

No.	Date	Description

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No. 2543
STATE OF CALIFORNIA

May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

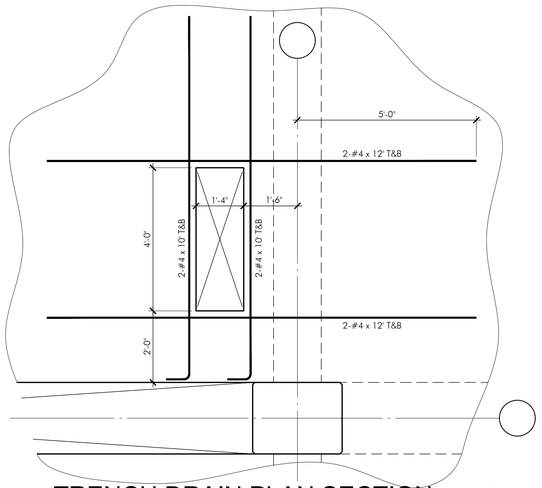
CONCRETE DETAILS

Sheet Number

S5.01

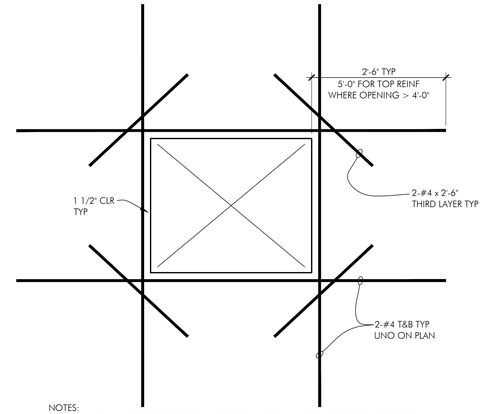
1721 S501

2018.05.29 BIDSET



TRENCH DRAIN PLAN SECTION

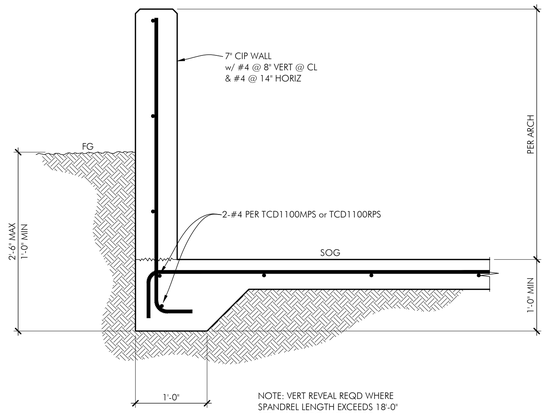
1/2" = 1'-0" CPD7001 12 G



NOTES:
1. OPENING MAY NOT BE CLOSER THAN 3'-0" TO A COLUMN OR SLAB EDGE UNLESS SHOWN OTHERWISE ON THE STRUCTURAL PLANS. THE MINIMUM CLEAR DISTANCE BETWEEN ADJ OPENINGS SHALL NOT BE LESS THAN 2 TIMES THE MAX OPENING DIMENSION.
2. NO REINFORCEMENT IS REQUIRED AROUND OPENINGS SMALLER THAN 1'-6" EW UNO.

TYP SLAB REINFORCING AROUND UNFRAMED FLOOR OPENING

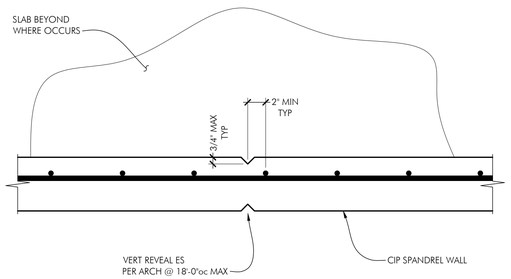
NO SCALE TCD6041 34 D



NOTE: VERT REVEAL REQD WHERE SPANDREL LENGTH EXCEEDS 18'-0" SEE H/S5.02 FOR ADDL INFO

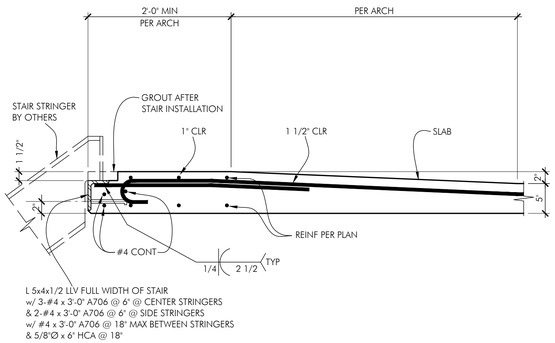
EDGE OF SLAB WALL SECTION

NO SCALE ENGJ16 1 A



PLAN SECTION @ SPANDREL REVEAL

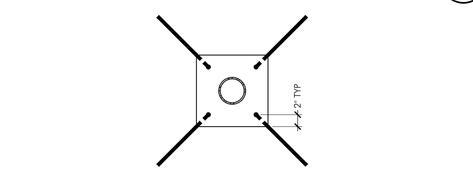
NO SCALE TCD5210 112 H

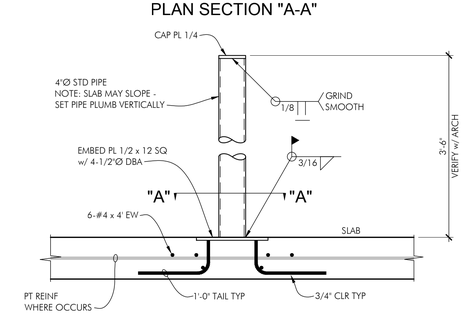


NOTE: WHERE REQD, PROVIDE 3"Ø HOLE CENTERED BETWEEN STRINGERS FOR PT TENDONS.

TYPICAL STEEL STAIR STRINGER ON SLAB EDGE w/ WASH

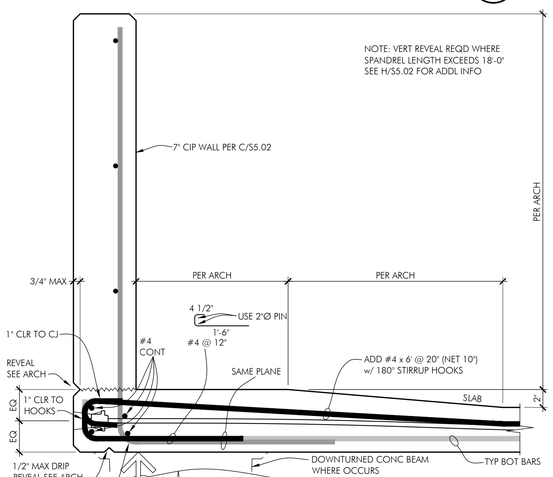
NO SCALE TCD6031 1 E





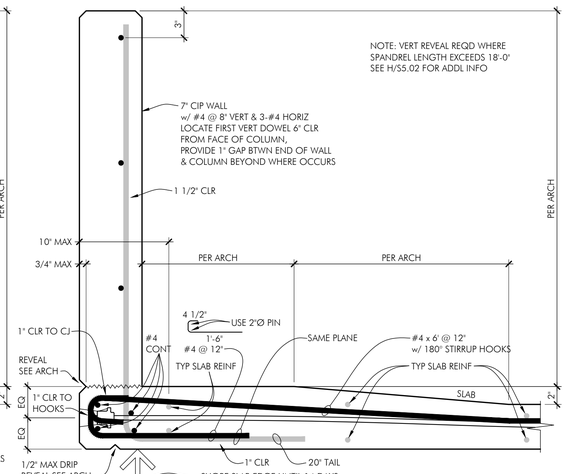
PIPE BOLLARD ON ELEV SLAB

NO SCALE TCD9010 1 J



CONCRETE SPANDREL

NO SCALE TCD5201 112 F



CONCRETE SPANDREL

NO SCALE TCD5200 MOD 112 C

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No.	Date	Description

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No. 2563
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Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

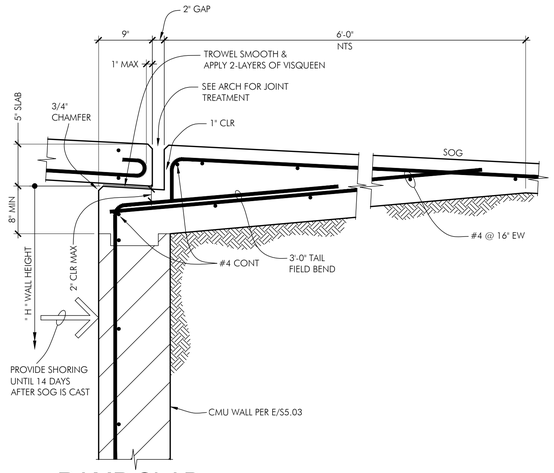
CONCRETE DETAILS

Sheet Number

S5.02

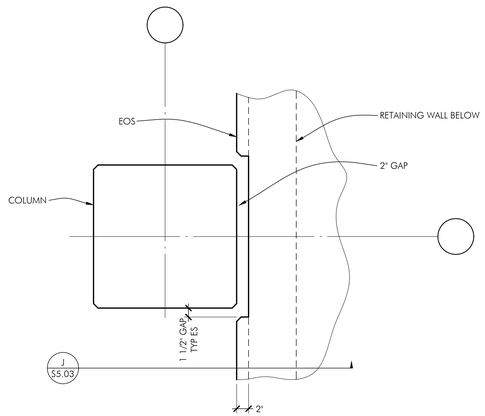
1721 S502

2018.05.29 BIDSET



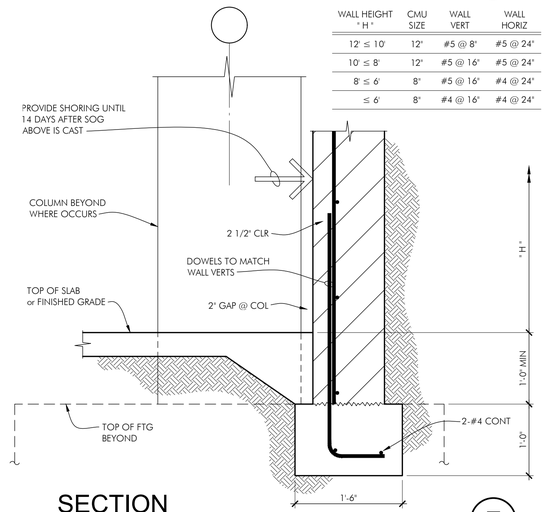
RAMP SLAB AT TOP OF HEADWALL

NO SCALE TMD2206 1 — D



CONC COL / RAMP SLAB ON GRADE INTERFACE PLAN SECTION

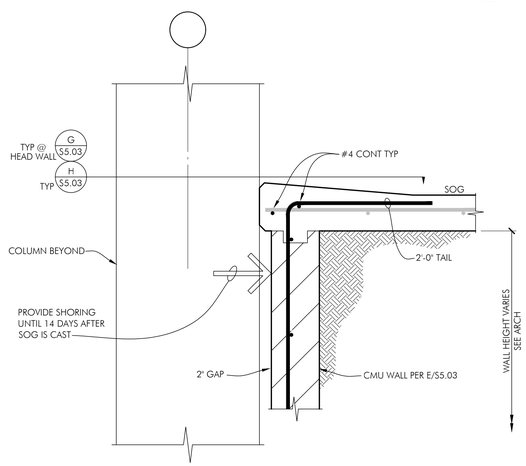
NO SCALE TMD2202 1 — H



WALL HEIGHT " H "	CMU SIZE	WALL VERT	WALL HORIZ
12' ≤ 10'	12"	#5 @ 8"	#5 @ 24"
10' ≤ 8'	12"	#5 @ 16"	#5 @ 24"
8' ≤ 6'	8"	#5 @ 16"	#4 @ 24"
≤ 6'	8"	#4 @ 16"	#4 @ 24"

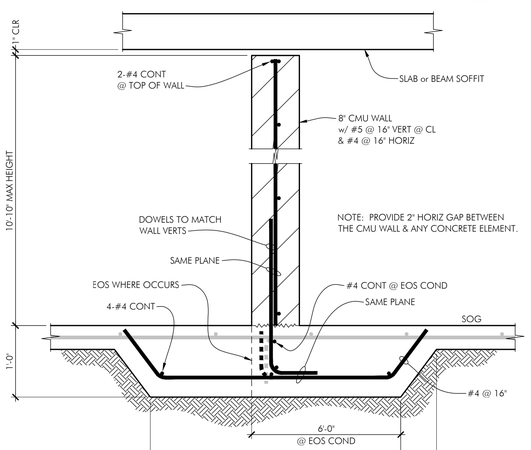
SECTION

NO SCALE TMD2200 1 — E



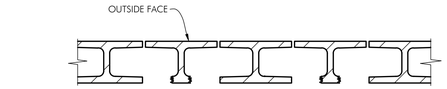
RAMP SLAB ON GRADE AT TOP OF LONGITUDINAL WALL

NO SCALE TMD2201 1 — J

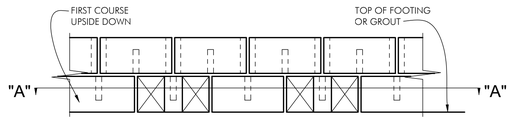


TYPICAL NON-BEARING FULL-HEIGHT CMU WALL SECTION

NO SCALE TMD9010 1 — F



PLAN SECTION "A-A"

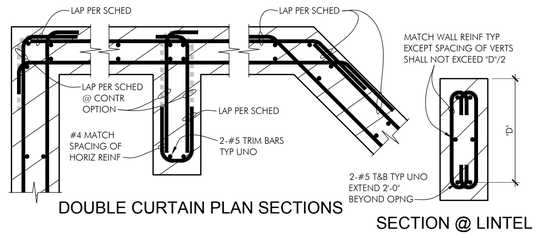


ELEVATION @ FIRST COURSE OF BLOCK

FIRST COURSE OF BLOCK:
USE ONLY DOUBLE OPEN END BOND BEAM UNITS WITH INTERIOR FACES REMOVED AS REQUIRED TO PROVIDE ACCESS TO BOTTOM OF EACH CELL. REMOVE ALL MORTAR AND FOREIGN MATERIAL AND FORM UP FACE OF HOLES AS REQUIRED TO FILL CELLS WITH GROUT AS SPECIFIED.

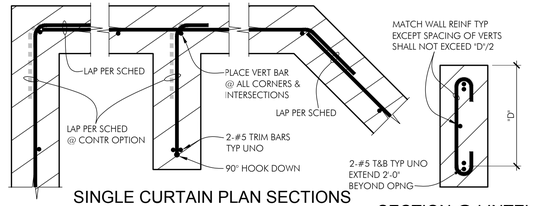
TYPICAL CMU WALL CLEAN-OUT

NO SCALE TMD0000 1 — A



DOUBLE CURTAIN PLAN SECTIONS

SECTION @ LINTEL



SINGLE CURTAIN PLAN SECTIONS

SECTION @ LINTEL

NOTE: SEE SECTIONS AND DETAILS FOR REINF SIZES AND SPACING.

TYP CMU WALL REINFORCING

NO SCALE TMD1001 1 — B

BAR SIZE ASTM (METRIC)	MASONRY STRENGTH f'm, psi				
	1,500	1,800	2,000	2,500	3,000
#3 (10)	16	14	14	12	12
#4 (13)	26	23	22	20	18
#5 (16)	40	36	35	31	28
#6 (19)	54	54	54	54	53
#7 (22)	63	63	63	63	63
#8 (25)	72	72	72	72	72
#9 (29)	82	82	82	82	82

NOTES:
1. LAP LENGTHS SHOWN ARE IN INCHES.
2. WHEN BARS OF DIFFERENT DIAMETERS ARE LAPPED, USE LAP LENGTH OF SMALLER BAR.
3. LAP LENGTHS SHOWN ARE BASED ON MINIMUM CLEAR COVER OF 2".

TYPICAL MASONRY REBAR LAP SCHEDULE

NO SCALE TMD0005 1 — C

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May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

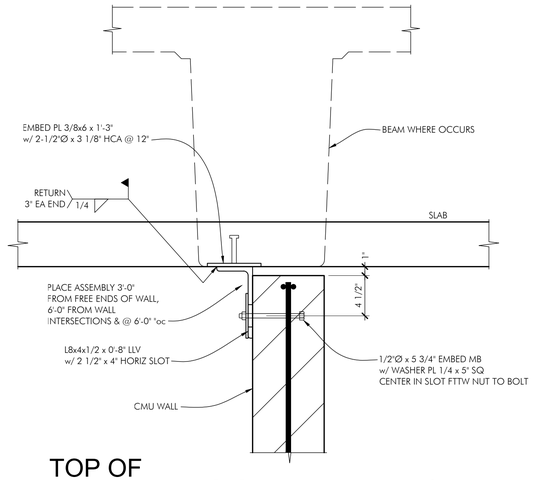
CONCRETE DETAILS

Sheet Number

S5.03

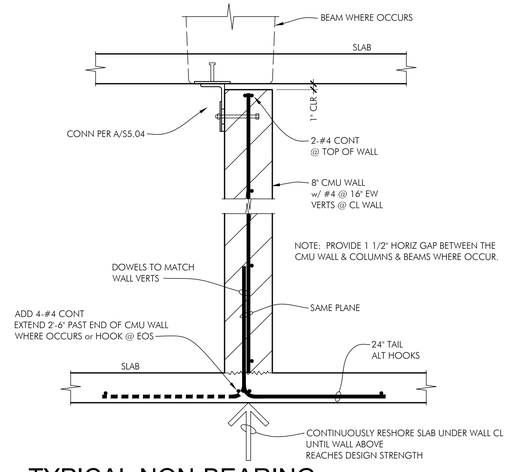
1721 S503

2018.05.29 BIDSET



TOP OF NON-BEARING CMU WALL BRACE — A

NO SCALE ENGD2 112



TYPICAL NON-BEARING FULL-HEIGHT CMU WALL — B

NO SCALE TMD9020 1

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Revisions

No.	Date	Description

REGISTERED PROFESSIONAL ENGINEER
RORY ROTTSCHALK
No. 2543
STATE OF CALIFORNIA

May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

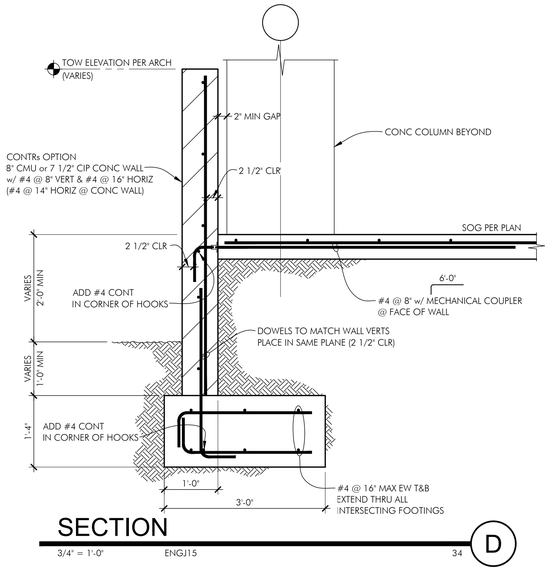
CONCRETE DETAILS

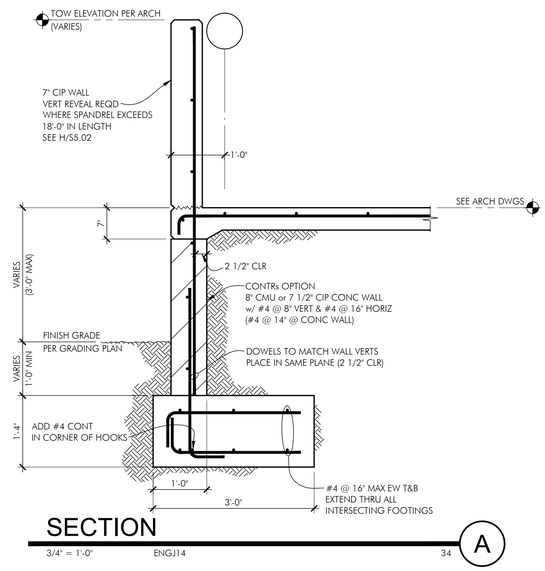
Sheet Number

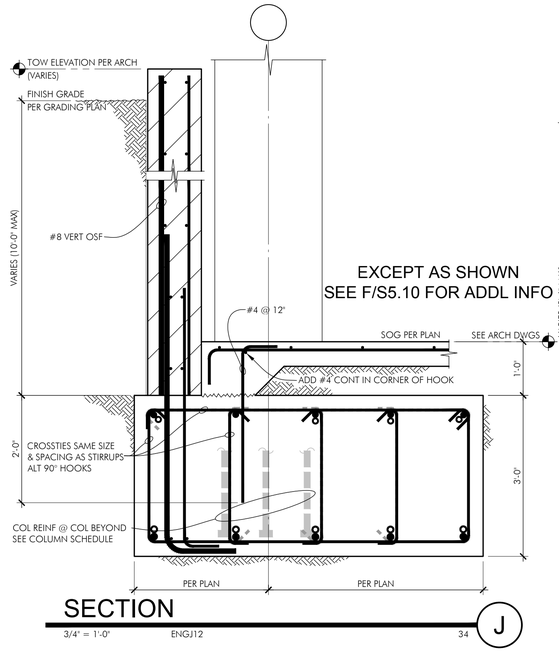
S5.04

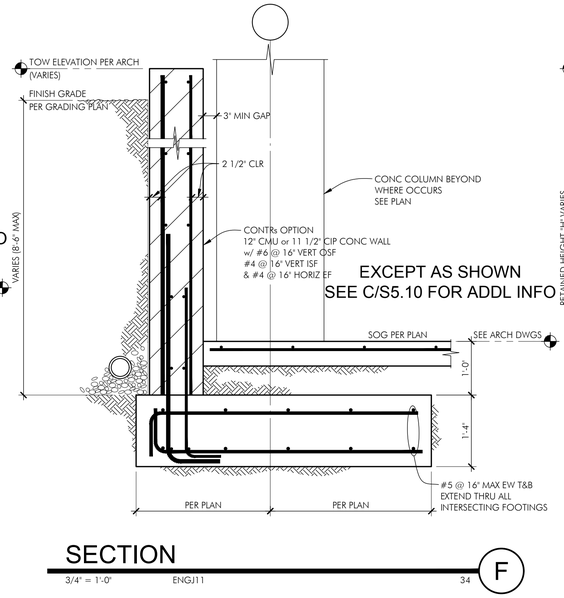
1721 S504

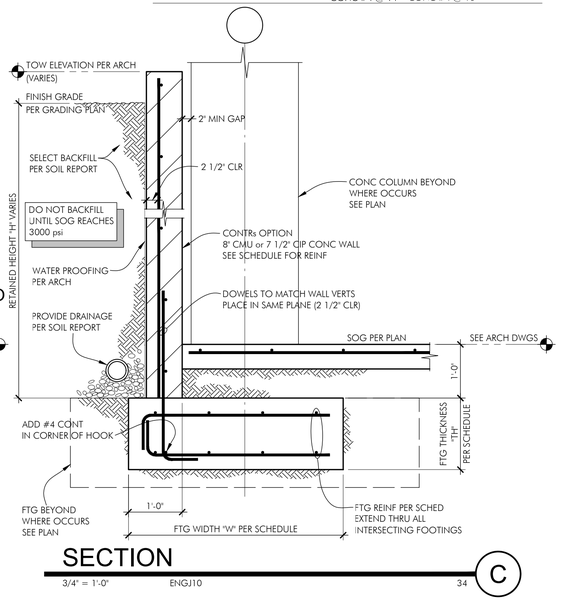
2018.05.29 BIDSET











MAXIMUM RETAINED EARTH HEIGHT " H " MAX	FOOTING WIDTH " W "	FOOTING THICKNESS " B "	WALL REINF VERTICAL BARS	WALL REINF HORIZ BARS	FTG REINF EA WAY T&B
7'-0"	4'-0"	1'-4"	#6 @ 16"	CMU #4 @ 16" CONC #4 @ 13"	#4 @ 12" MAX
6'-0"	4'-0"	1'-0"	#5 @ 16"	CMU #4 @ 16" CONC #4 @ 13"	#4 @ 16" MAX
5'-0"	3'-0"	1'-0"	CMU #4 @ 16" CONC #4 @ 14"	CMU #4 @ 16" CONC #4 @ 13"	#4 @ 16" MAX

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No.	Date	Description

REGISTERED PROFESSIONAL ENGINEER
RORY ROTTSCHALK
No. 2563
CIVIL
STATE OF CALIFORNIA

May 23 2018

Document Phase:	BACK CHECK #1
Date:	MAY 24, 2018
PIC / AIC:	-
Drawn By:	ND
Checked By:	RR
Comm. No.:	-

Project Title

TCMC PARKING STRUCTURE AND MAIN ENTRY

Sheet Title

CONCRETE DETAILS

Sheet Number

S5.10

1721 S510

2018.05.29 BIDSET