

GENERAL NOTES:

- 1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF $f'_c=4,000$ PSI AT 28 DAYS AND SHALL HAVE A MINIMUM DENSITY OF 145 PCF.
- 2. ALL REINFORCING BARS SHALL CONFORM TO THE SPECIFICATION FOR DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT, ASTM DESIGNATION A615, GRADE 60.
- 3. CONCRETE AGGREGATE SHALL HAVE A MAXIMUM SIZE OF $\frac{3}{4}$ INCH.
- 4. ALL REINFORCING BARS SHALL BE CONTINUOUS IN ANY ONE DIRECTION EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS.
- 5. NO WELDING OF REINFORCING BARS SHALL BE PERMITTED UNLESS INDICATED ON DRAWINGS.
- 6. ALL STRUCTURAL STEEL, METAL DOORS, EQUIPMENT, ETC. SHALL BE CONNECTED TO GROUND BUSES WITH #2 COPPER GROUND CABLE.
- 7. STRUCTURAL STEEL SHAPES, PLATES AND BARS SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL STEEL, ASTM DESIGNATION A36.
- 8. METAL ROOFING AND SIDING SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL SHEET STEEL, ASTM A446.
- 9. BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE SPECIFICATION FOR LOW CARBON STEEL THREADED STANDARD FASTENERS, ASTM DESIGNATION A307, GRADE A AND HIGH STRENGTH BOLTS FOR STRUCTURAL STEEL JOINTS, ASTM DESIGNATION A325. ALL BOLTS SHALL HAVE THREADS EXCLUDED FROM THE SHEAR PLANE.
- 10. UNLESS NOTED ON DRAWINGS, SPLICE LENGTH OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF AC1 318 (LATEST EDITION) FOR CLASS B SPLICES.
- 11. FOR FILLET WELD SIZES NOT SHOWN ON DRAWINGS, PROVIDE MINIMUM SIZE FILLET WELDS IN ACCORDANCE WITH WELDING CODE AWS D1.1, LATEST EDITION.
- 12. UNLESS SHOWN OTHERWISE, ALL REINFORCING BAR HOOKS SHALL BE STANDARD HOOKS IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS FOR REINFOCRED CONCRETE AC1 318, LATEST EDITION.
- 13. HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED EXCEPT AS SHOWN ON DRAWINGS S-4, S-5, S-6, S-7, S-8, S-9, S-11, S-12, S-13, S-14 & S-15.
- 14. ALL TOPSOIL, ORGANIC MATERIAL AND OTHER UNSUITABLE MATERIALS BENEATH MAGAZINE STRUCTURE SHALL BE REMOVED TO SUITABLE BEARING STRATUM AND REPLACED WITH STRUCTURAL FILL TO THE REQUIRED ELEVATION.
- 15. ALL STRUCTURAL FILL SHALL CONFORM TO ASTM C 33, SIZE 57 & SHALL BE COMPACTED IN ACCORDANCE WITH ASTM D 1557. THE TOP 12 INCHES OF STRUCTURAL FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 6 INCHES & EACH LIFT COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY. BENEATH THE TOP 12 INCHES, STRUCTURAL FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES & EACH LIFT COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY.
- 16. EQUIPMENT WEIGHING MORE THAN 3000 LBS SHALL NOT BE USED ON THE STRUCTURE ROOF NOR WITHIN TEN (10) FEET FROM THE EDGE OF THE FOUNDATIONS.

- 17. TAKEN ON THIS SHEET NO. WALL SECT./ ELEV. MARK SHOWN ON THIS SHEET NO. BLDG. SECT. DETAIL

SOIL DATA

MAGAZINE:

- A. ALLOWABLE SOIL BEARING PRESSURE = 4,000 PSF
- B. ALLOWABLE DYNAMIC RESPONSE FACTOR (SOIL BEARING) = 2.5
- C. ALLOWABLE LATERAL SOIL PRESSURE COEFFICIENT
 - a) MAGAZINE WALLS = 0.5
 - b) WING WALLS = 0.3
- D. ALLOWABLE COEFFICIENT OF FRICTION (CONCRETE ON SOIL) = 0.50
- E. MODULUS OF SUBGRADE REACTION = 150 PCI - 250 PCI

DESIGN LOADS

STATIC LOADS:

- A. ROOF DEAD LOAD ($1\frac{1}{2}$ FT. EARTH FILL + 6 IN. (GRAVEL) = 200 PSF
- B. FLOOR LOADS
 - a) UNIFORM STORAGE LIVE LOAD = 2000 PSF
 - b) FORKLIFT WHEEL LOAD:
 - BASED ON DREXEL MODEL NO. SL-88-ESS = 8000 LB MAX LOAD
 - MAXIMUM WHEEL LOAD = 26,000 LBS
 - WHEEL CONTACT AREA = 65 SQ. IN.
- C. PLATFORM AND RAMP LIVE LOAD = 1000 PSF
- D. ROOF LIVE LOAD = 100 PSF

SEISMIC LOADS:

ADEQUATE FOR SEISMIC LOADS INDUCED BY EARTHQUAKE MOTIONS UP TO ZONE 4.

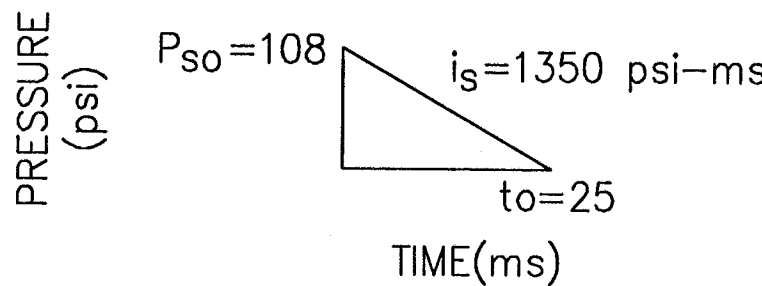
WIND LOADS:

NAVFAC DM-2.02, 132 MPH PEAK VELOCITY

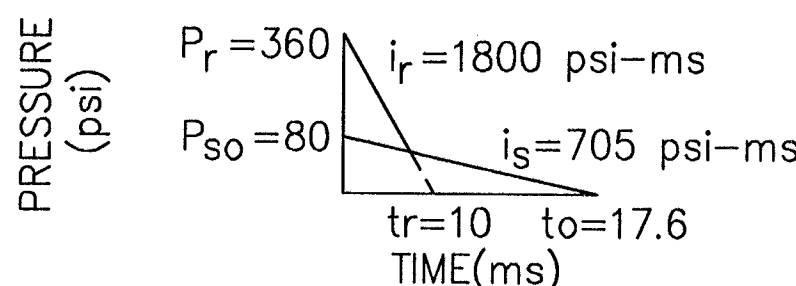
BLAST LOADS:

NAVSEA OP 5
BASED ON INTERMAGAZINE SEPARATION DISTANCES FOR A QUANTITY (W)
OF H.E. EQUAL TO 350,000 LBS AS FOLLOWS:

- A. ROOF: DONOR MAGAZINE LOCATED AT $2W \frac{1}{3}$ TO THE REAR OF THE ACCEPTOR MAGAZINE.
- B. HEADWALL: DONOR MAGAZINE LOCATED AT $2W \frac{1}{3}$ TO THE FRONT OF THE ACCEPTOR MAGAZINE.



ROOF LOADING



HEAD WALL LOADING

STANDARD DRAWING NOTE:
THIS DRAWING SET, NAVFAC DRAWING S 6448522 THRU 6448554, WAS APPROVED AS THE STANDARD 7-BAR EARTH COVERED MAGAZINE DESIGN FOR THE TYPE D BOX MAGAZINE 27 MAY 1997

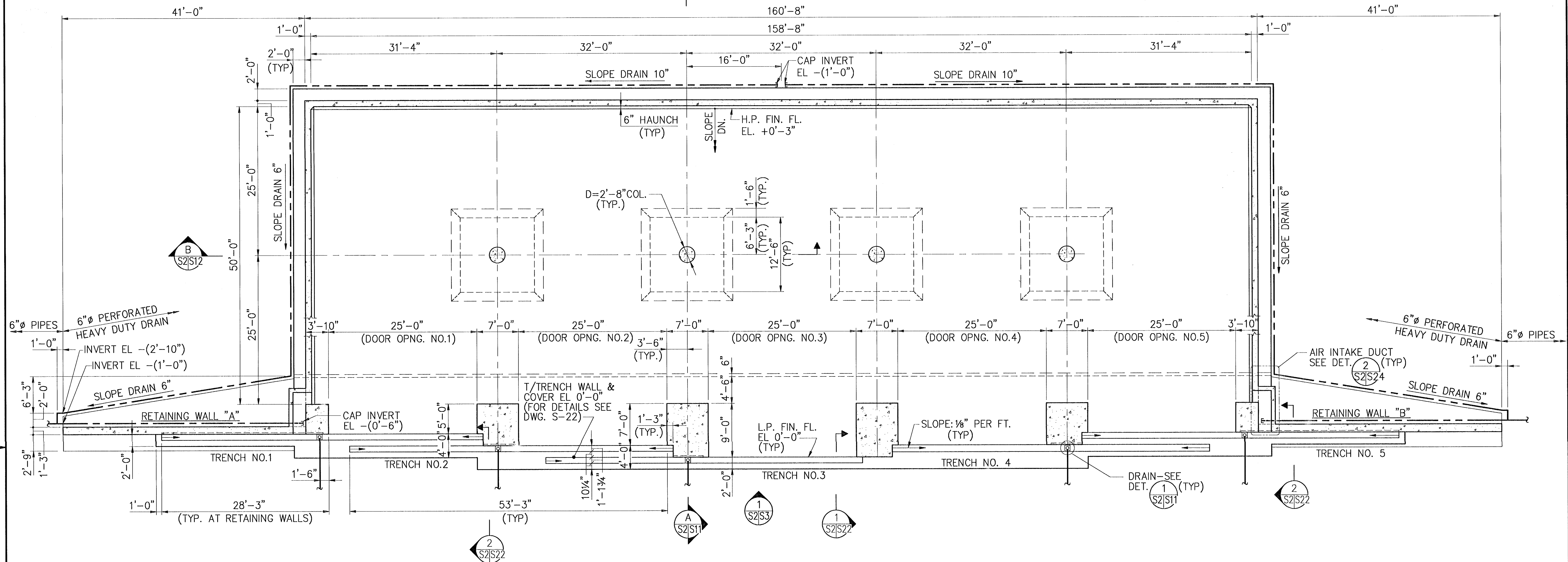
IF SHEET IS LESS THAN (22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY

DEFLECTION CRITERIA

MAXIMUM SUPPORT ROTATIONS OR DUCTILITY RATIO:

- A. ROOF SLAB = 8°
- B. HEAD WALL = 6°
- C. HEADER BEAM = 2°
- D. PILASTERS X_M/X_E = 3.0
- E. BLAST DOORS = 12°

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 95 MORTON ST., NEW YORK, NY 10014 27/5/97 DATE						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350						
NAVAL FACILITIES ENGINEERING COMMAND						
STANDARD DRAWING						
STANDARD BOX MAGAZINE TYPE 'D'						
GENERAL NOTES						
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	S-1			
D	80091	6,448,522				
SCALE	NONE	CONTRACT NO	SHEET 1 OF 33			
CATEGORY CODE	SPEC NO					

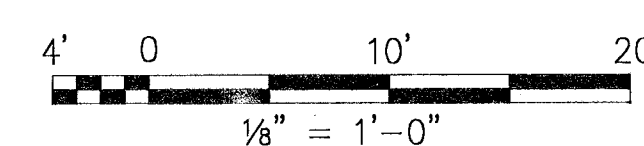


FLOOR PLAN
SCALE: 1/8"=1'-0"

NOTES:

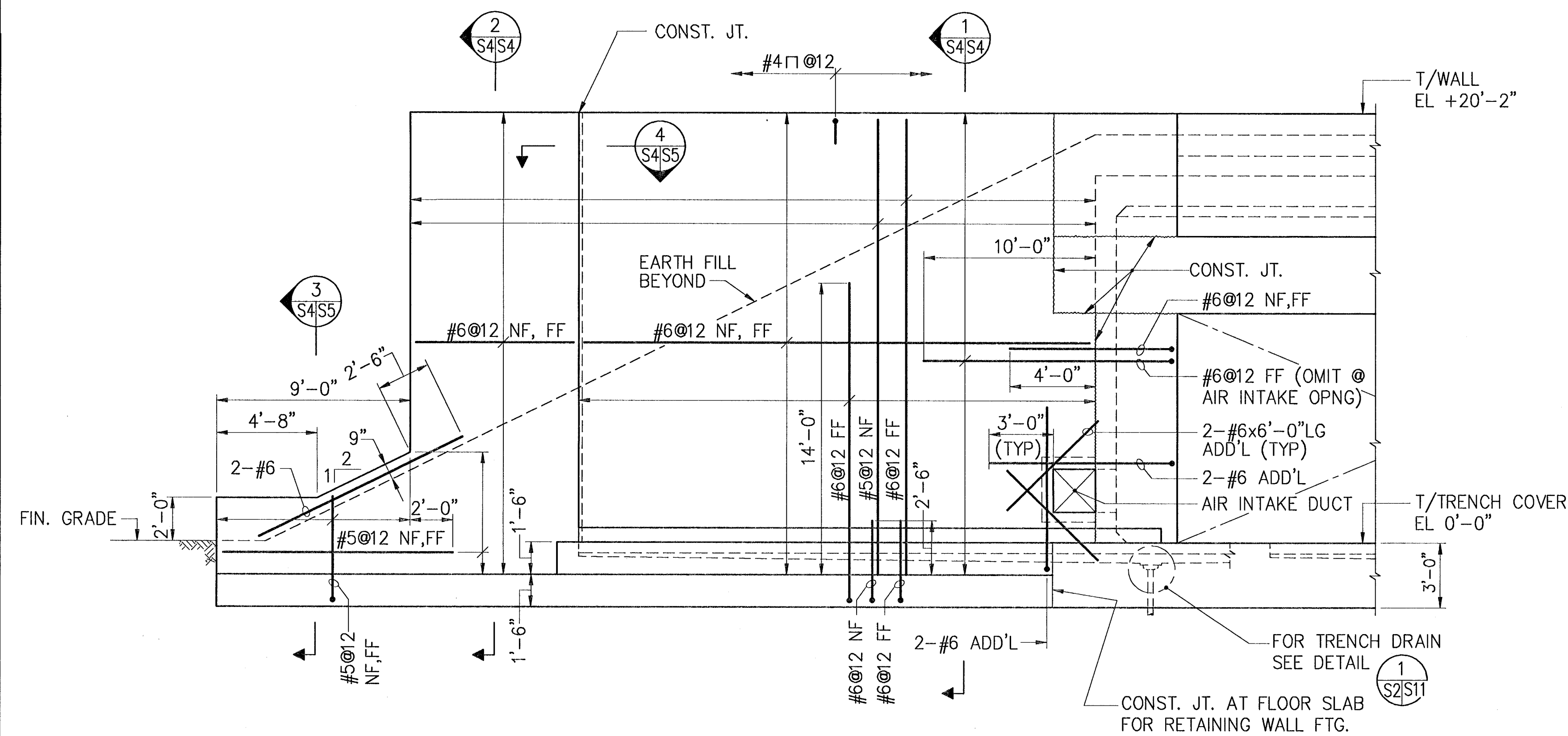
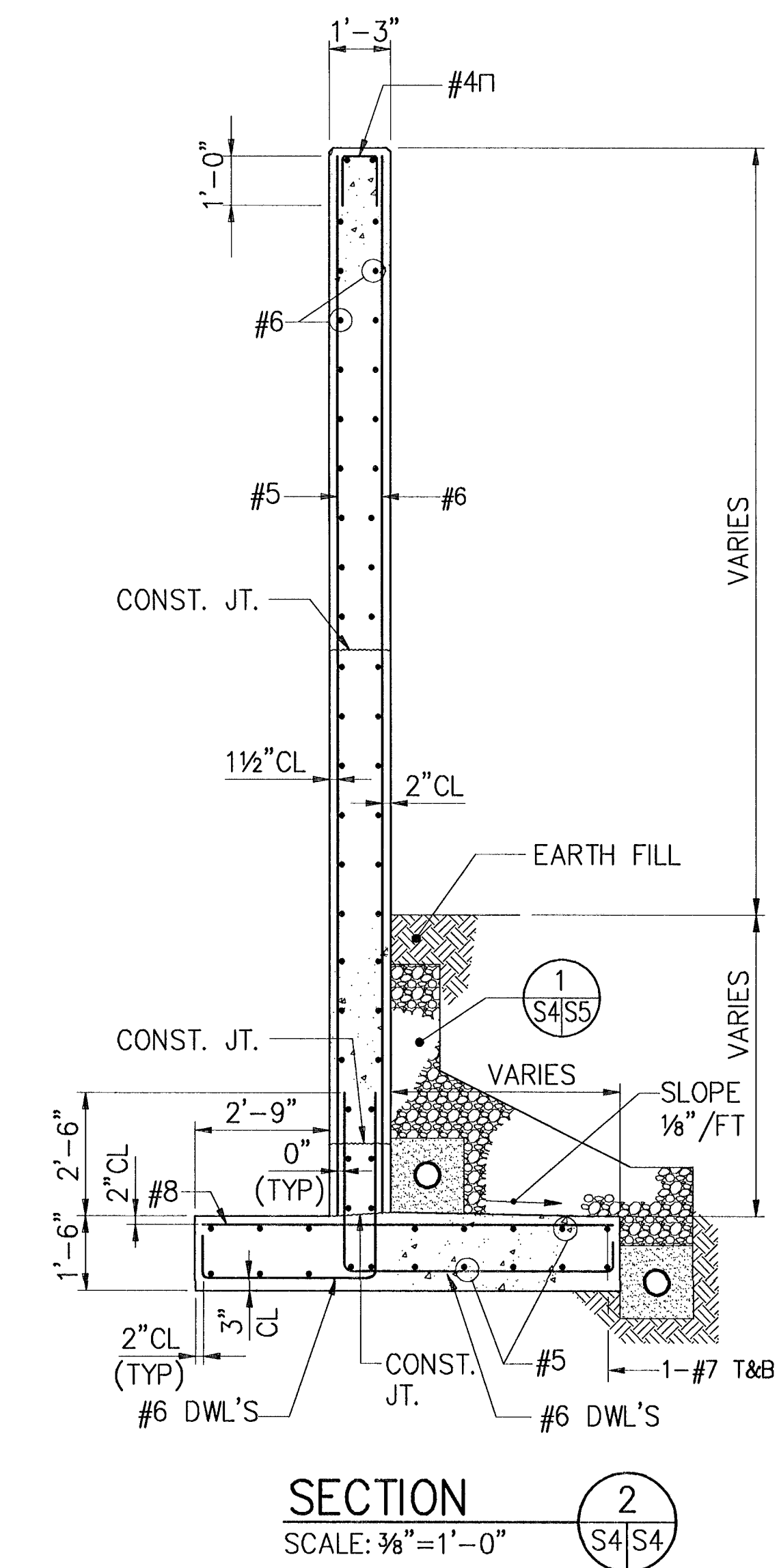
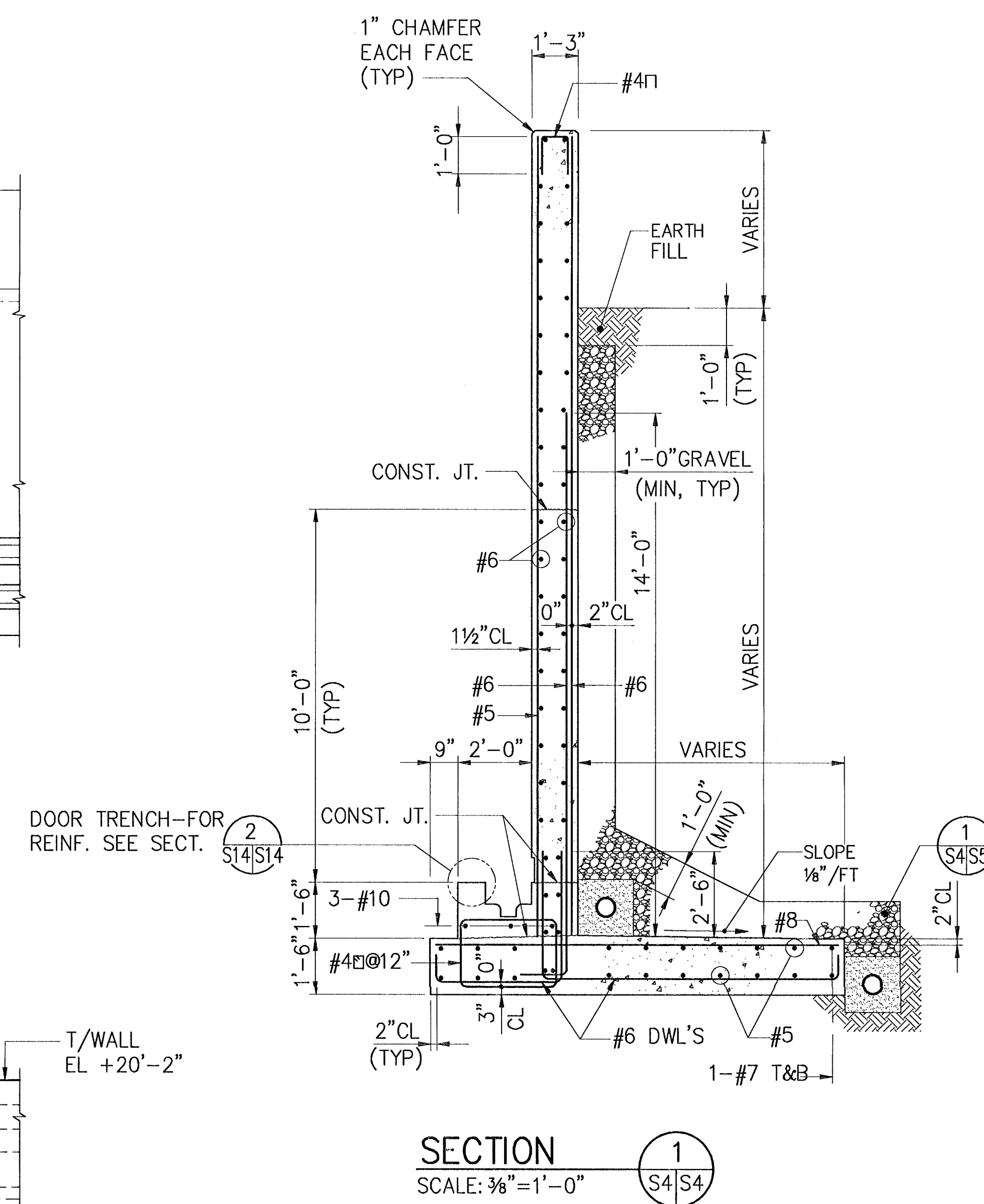
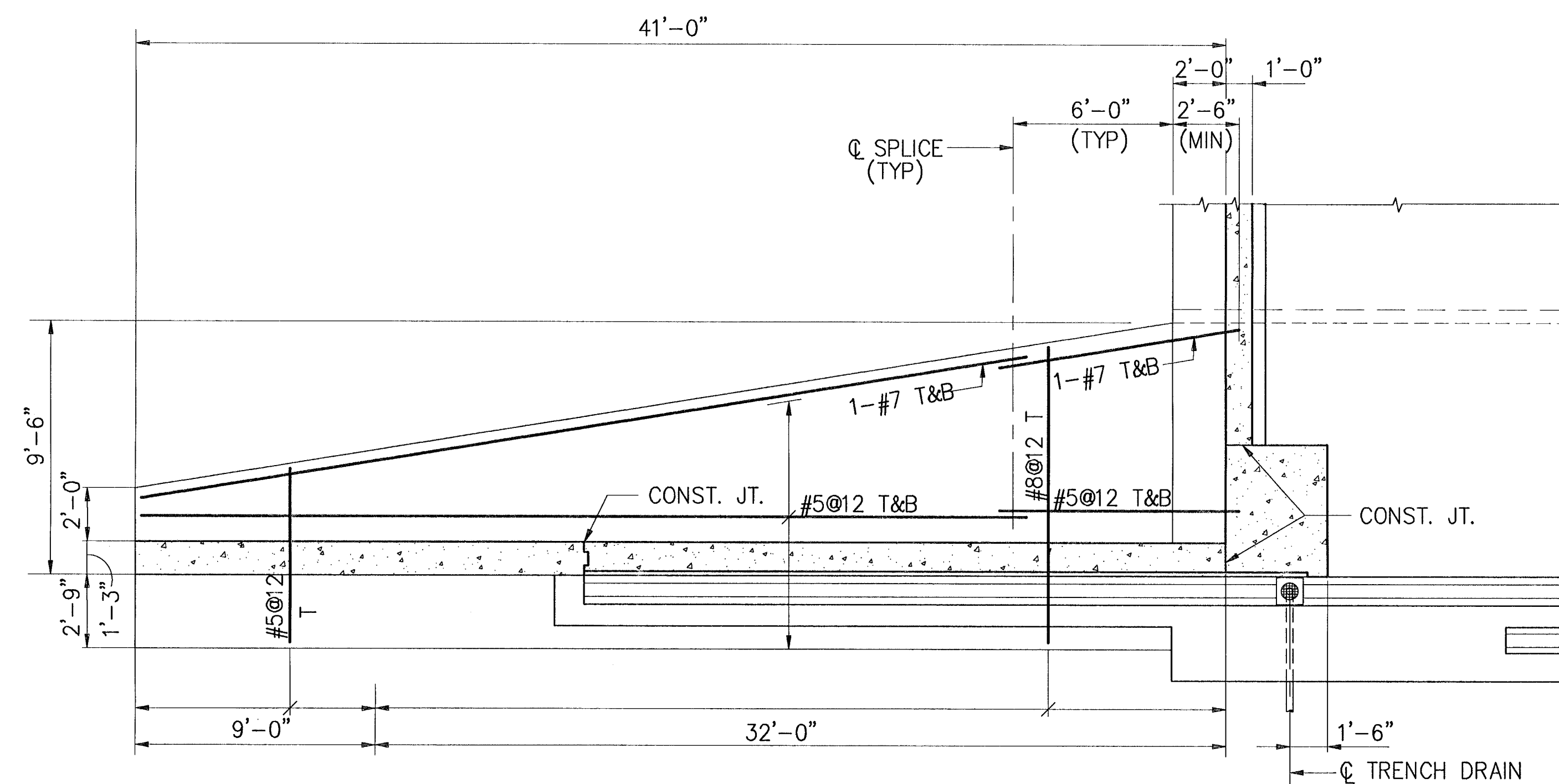
1. DATUM ELEVATION 0'-0" TAKEN AS TOP OF TRENCH WALL AND TOP OF TRENCH COVER. FOR ACTUAL ELEVATION SEE CIVIL DRAWINGS.
2. FOR CONTINUATION OF BUILDING DRAINS SEE CIVIL DRAWINGS.

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(22" x 34")
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SCALE REDUCED ACCORDINGLY



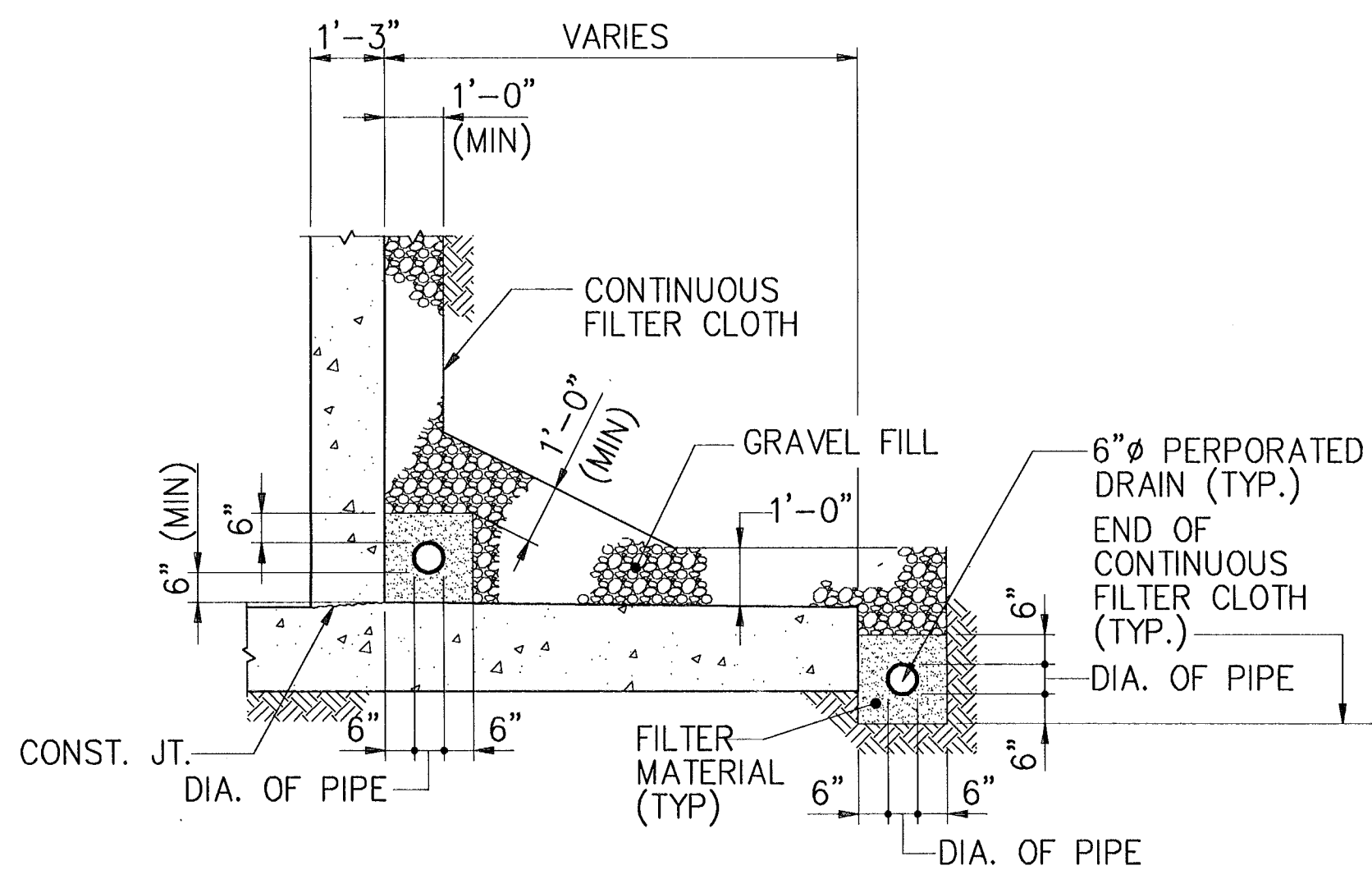
SATISFACTORY TO
DATE

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 96 WORTON ST., NEW YORK, NY 10014 DATE 27/5/97						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350						
NAVAL FACILITIES ENGINEERING COMMAND						
STANDARD DRAWING						
STANDARD BOX MAGAZINE TYPE 'D'						
FLOOR PLAN (W/O PLATFORM)						
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	S-2			
D	80091	6,448,523				
SCALE	AS NOTED	CONTRACT NO	SHEET 2			
CATEGORY CODE		SPEC NO	OF 33			

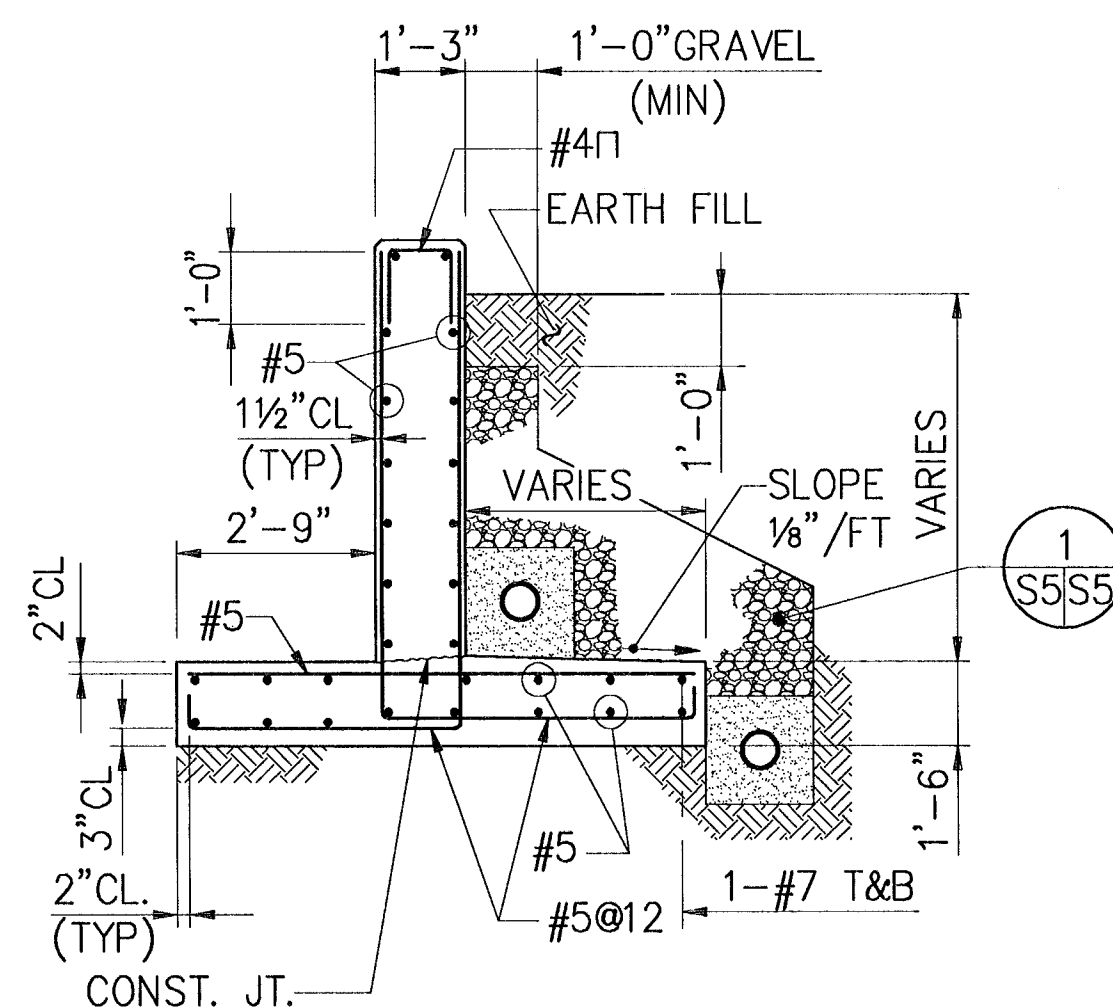


NOTE: FOR ALTERNATE EARTH FILL DRAINAGE SYSTEM SEE DWG. S-13.

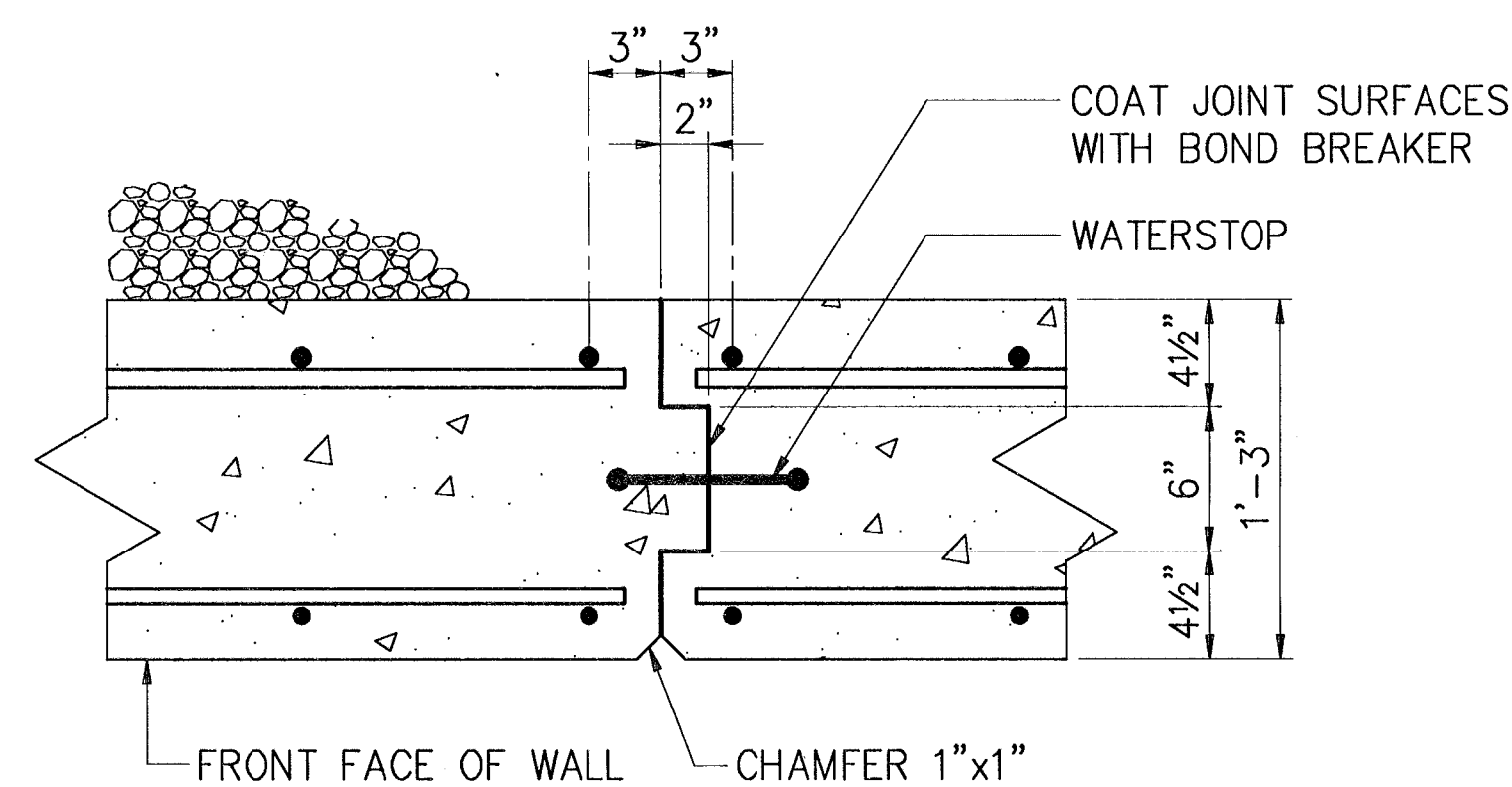
SYMBO.	DESCRIPTION	PREP'D BY	DATE	APPROVED	
REVISIONS					
AMMANN & WHITNEY CONSULTING ENGINEERS 98 MORTON ST., NEW YORK, NY 10014		DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350			
<i>[Signature]</i> PRINCIPAL PARTNER		NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' RETAINING WALL ELEVATION & SECTIONS (W/O PLATFORM)			
27/5/97 DATE					
<i>R. Brody</i> ENGINEER IN CHARGE					
<i>A. Drayton</i> CRITERIA MANAGER					
NAVJAGSCOOM					
FIRE PROTECTION ENGINEER	DATE	SIZE D	CODE IDENT NO. 80091	NAVAID DRAWING NUMBER 6,448,525	S-4
CRITERIA MANAGER	DATE	SCALE AS NOTED			SHEET 4
APPROVED	DATE	CATEGORY CODE	SPEC NO	or 33	



DETAIL 1
SCALE: 3/8"=1'-0" S5 S4 S5
(TYPICAL 6"Ø PERFORATED DRAIN)

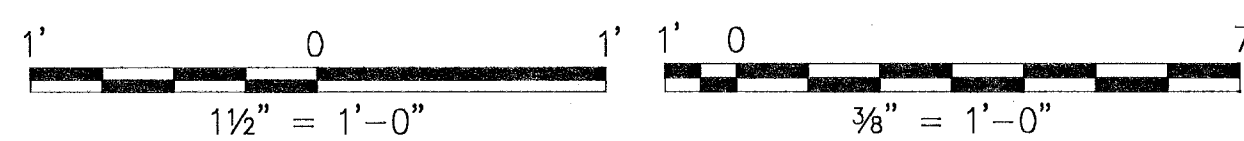


SECTION 3
SCALE: 3/8"=1'-0" S4 S5



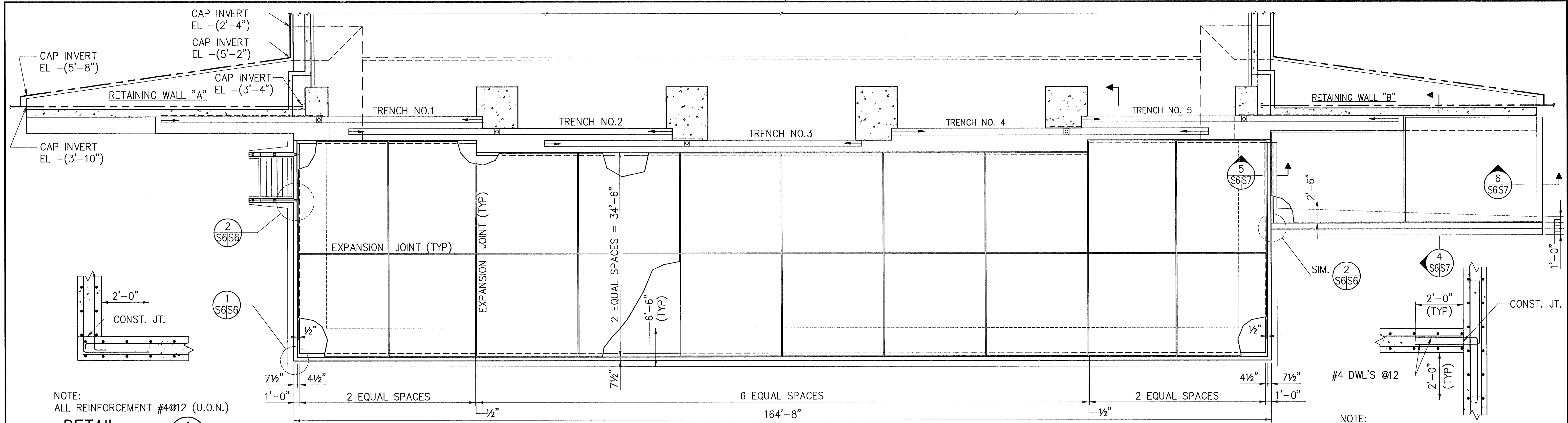
SECTION 4
SCALE: 1 1/2"=1'-0" S4 S5

NOTE: FOR ALTERNATE EARTH FILL DRAINAGE SYSTEM SEE DWG. S-13.



IF SHEET IS LESS THAN
(22" x 34")
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SCALE REDUCED ACCORDINGLY

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 96 WORTON ST., NEW YORK, NY 10014 DATE: 27/5/97 PRINCIPAL ENGINEER: <i>R. Brady</i> ENGINEER IN CHARGE: <i>R. Brady</i> CRITERIA MANAGER: <i>R. Brady</i> NAVFACENCOM FIRE PROTECTION ENGINEER: _____ DATE: _____ CRITERIA MANAGER: _____ DATE: _____ APPROVED: _____ DATE: _____ FOR COMMANDER NAVFACENCOM						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350 NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' RETAINING WALL SECTIONS (W/O PLATFORM)						
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	S-5			
D	80091	6,448,526	SHEET 5 OF 33			
SCALE	AS NOTED	CONTRACT NO	CATEGORY CODE SPEC NO			

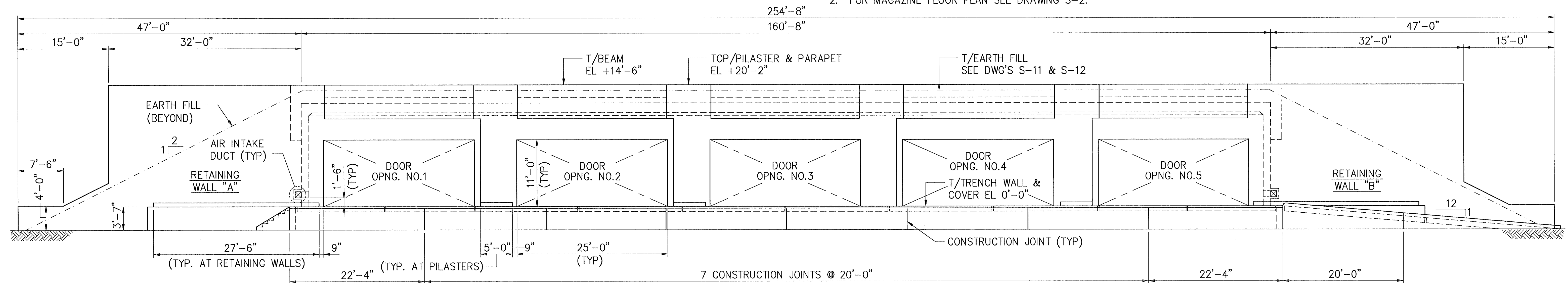


FLOOR PLAN

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

NOTES:

1. PROVIDE CONSTRUCTION JOINT MID-WAY ALONG THE LENGTH OF SIDE PLATFORM RETAINING WALLS. SEE DETAIL THIS DRAWING.
2. FOR MAGAZINE FLOOR PLAN SEE DRAWING S-2.

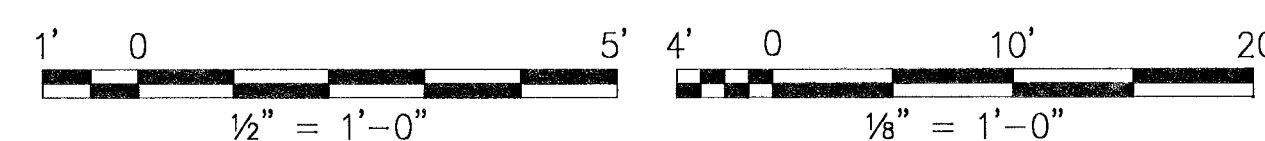
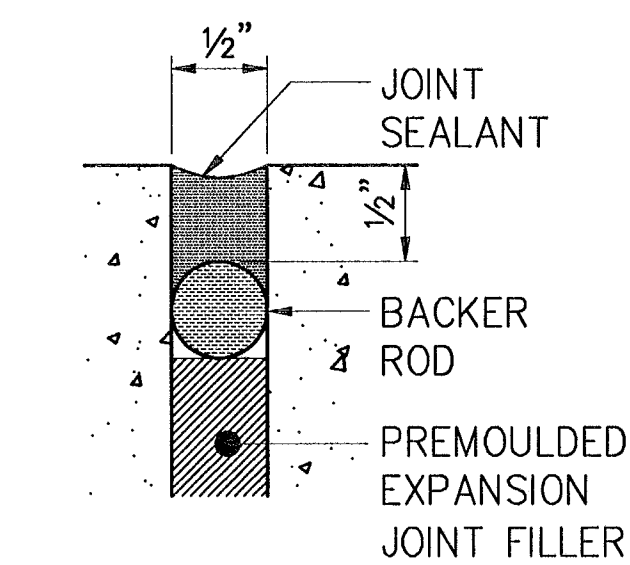
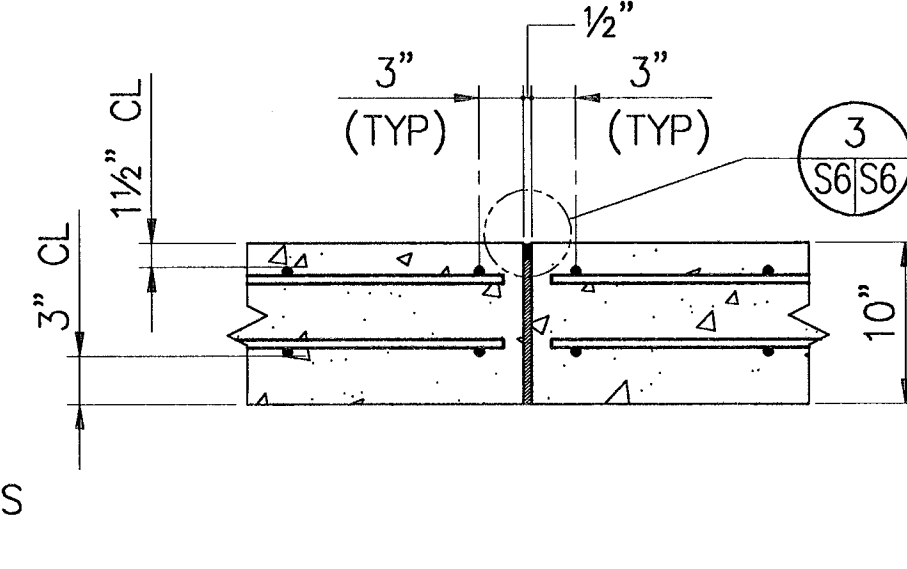
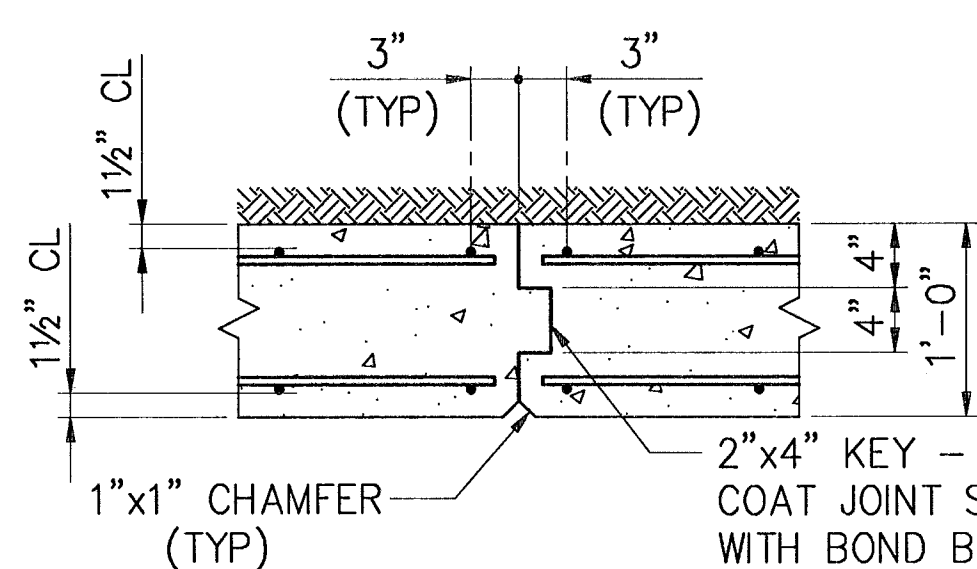


ELEVATION

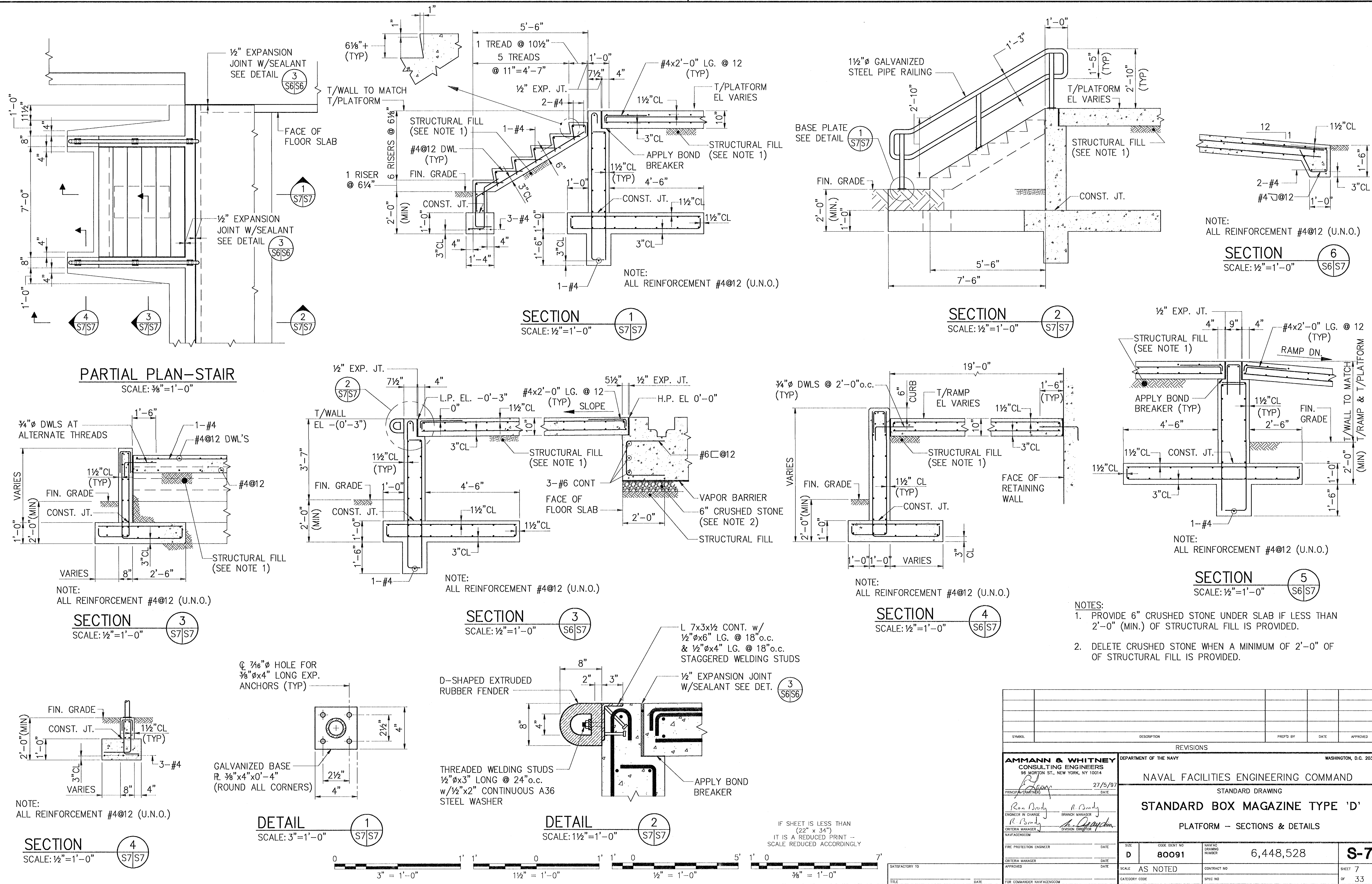
SCALE: 1/8"=1'-0"

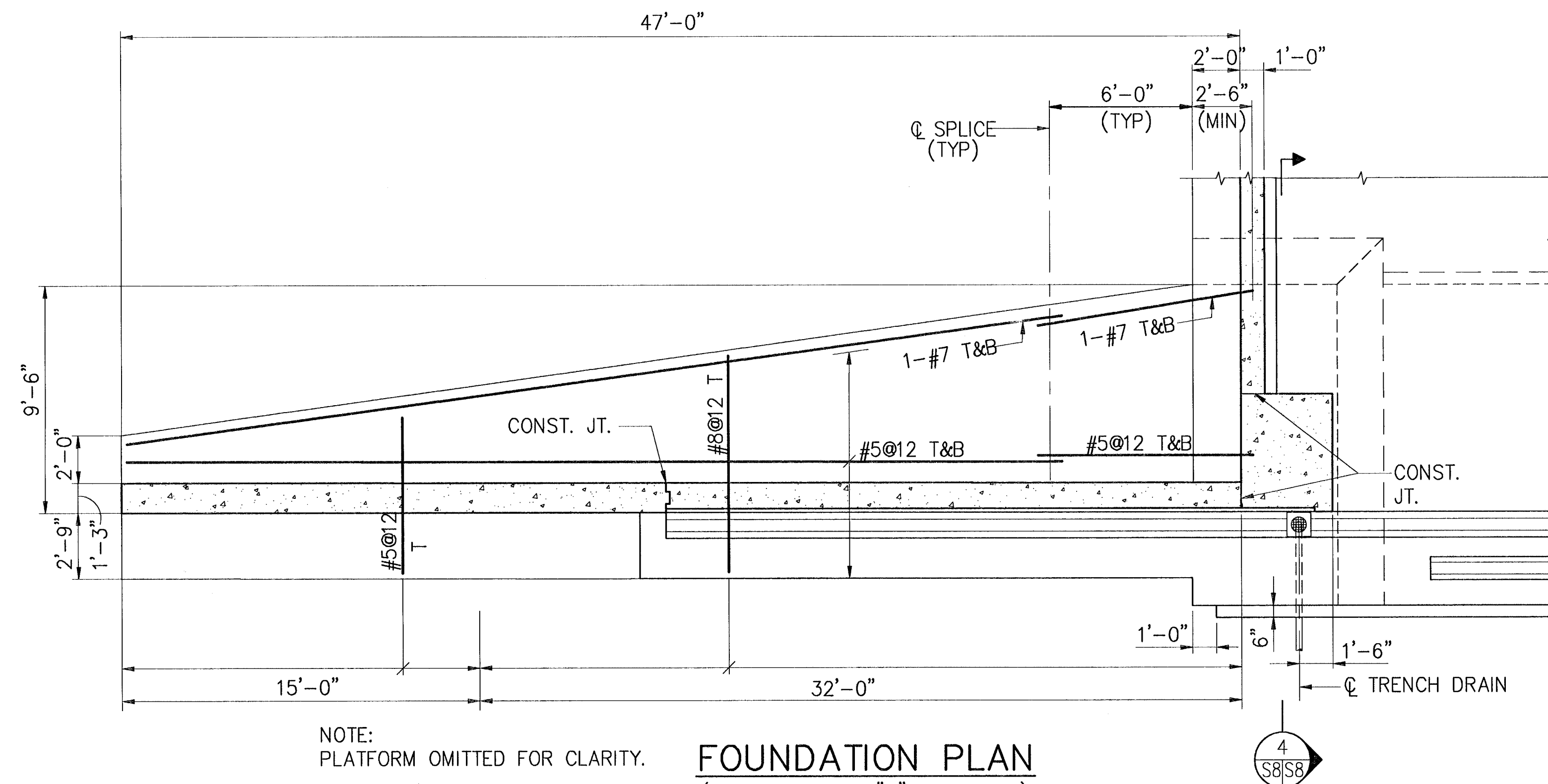
NOTES:

1. FOR "RETAINING WALL ELEVATION" SEE DWG. S-8.
2. STAIR RAILING NOT SHOWN FOR CLARITY.
3. FOR ELECTRICAL BONDING CONSTRUCTION AND EXPANSION JOINTS, SEE DWG. E-4.

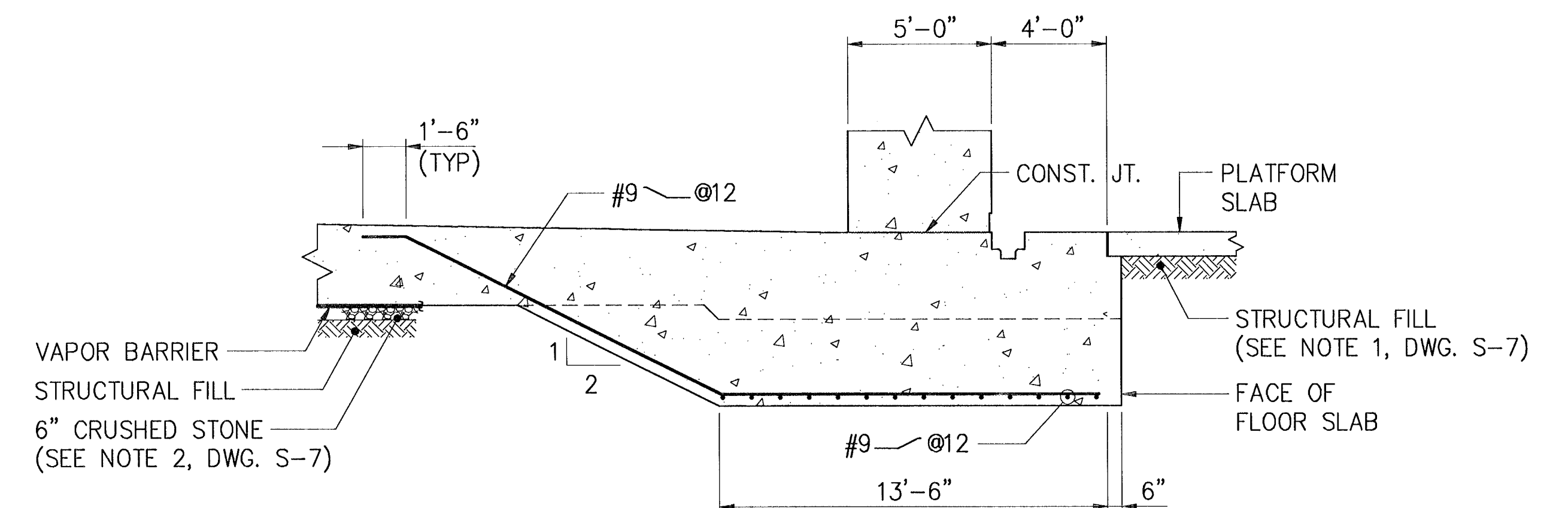


SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 96 MORTON ST., NEW YORK, NY 10014 27/5/97 DATE						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350						
NAVAL FACILITIES ENGINEERING COMMAND						
STANDARD DRAWING						
STANDARD BOX MAGAZINE TYPE 'D'						
FLOOR PLAN & HEADWALL ELEVATION (W/PLATFORM)						
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	S-6			
D	80091	6,448,527	SHEET 6 OF 33			
SCALE	AS NOTED	CONTRACT NO	SHEET 6 OF 33			
CATEGORY CODE		SPIC NO				

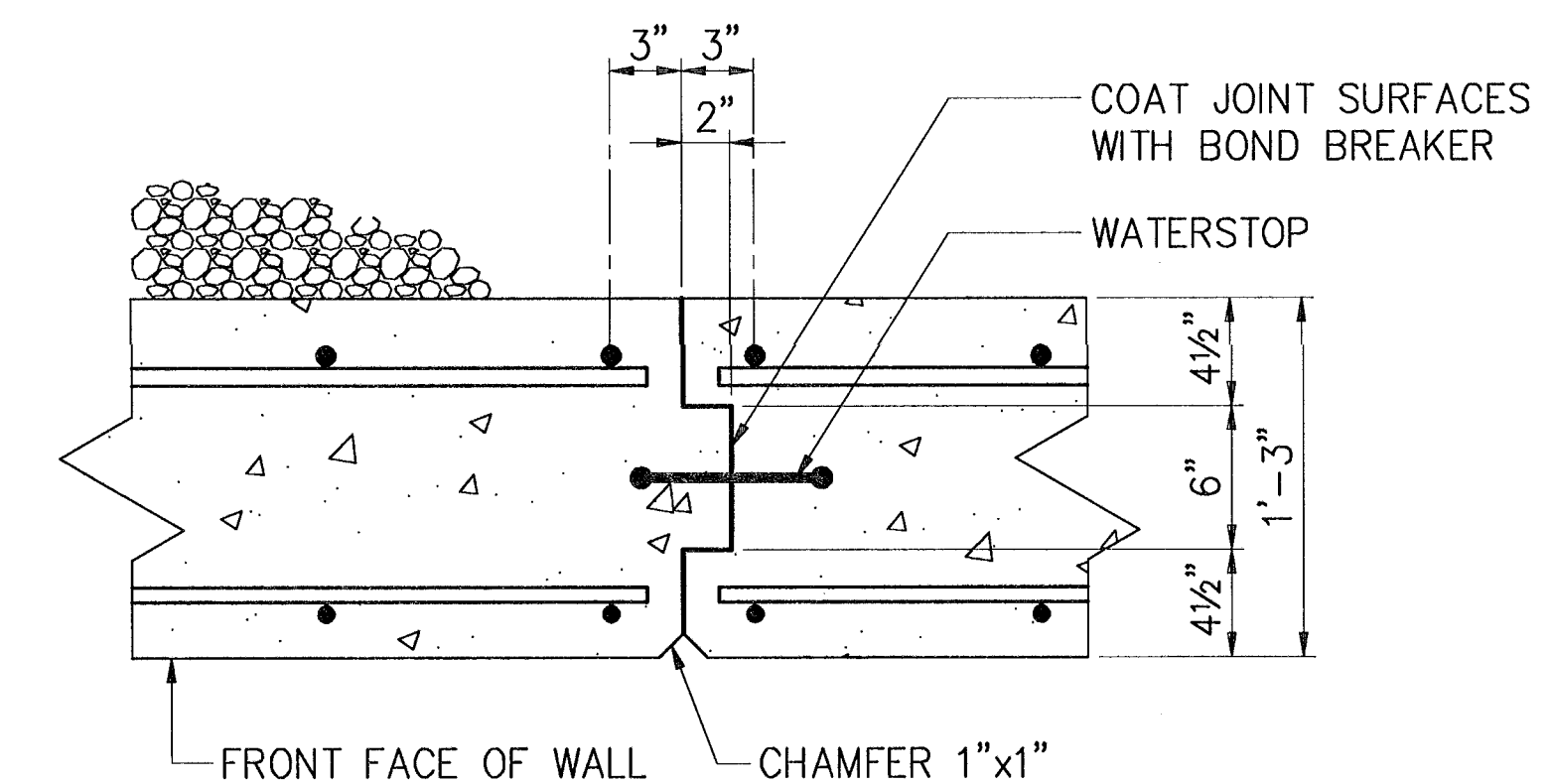




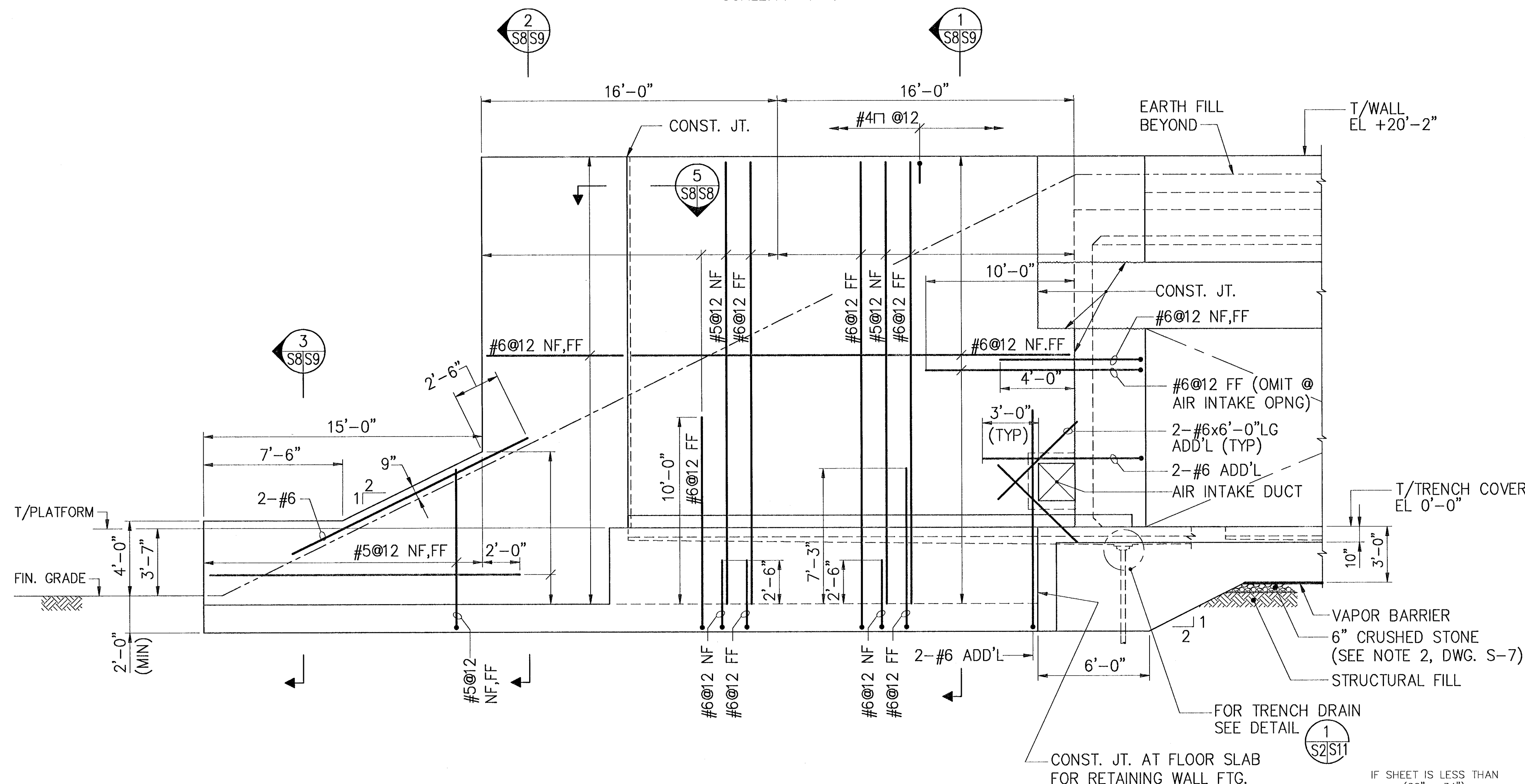
FOUNDATION PLAN
(RETAINING WALL "A" AS SHOWN)
(RETAINING WALL "B" OPP. HAND)
SCALE: 1/4"=1'-0"



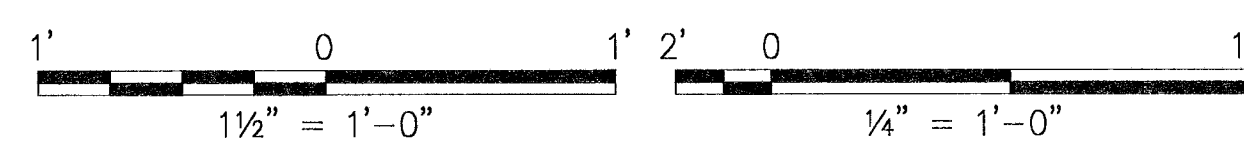
SECTION 4
SCALE: 1/4"=1'-0"



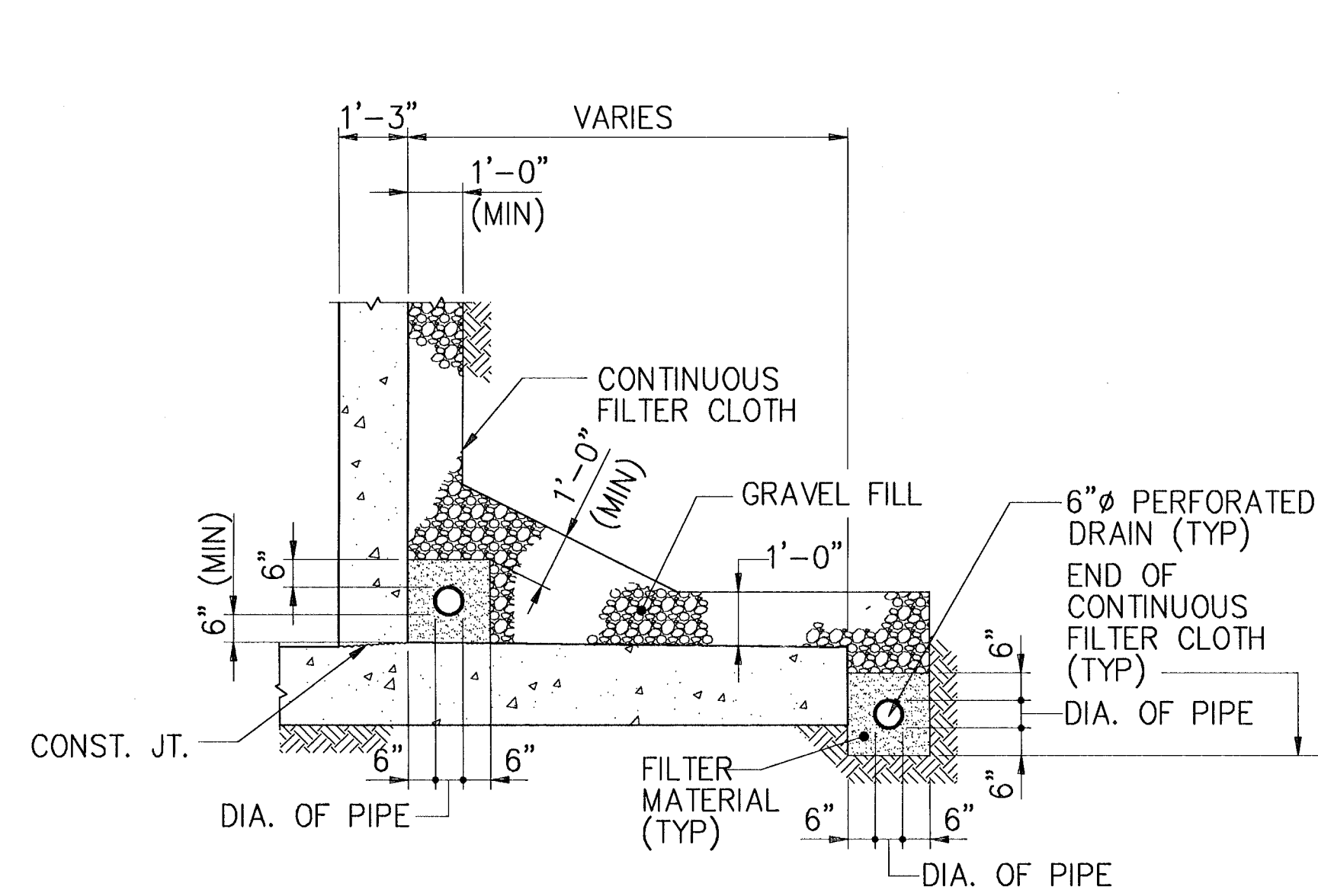
SECTION 5
SCALE: 1 1/2"=1'-0"



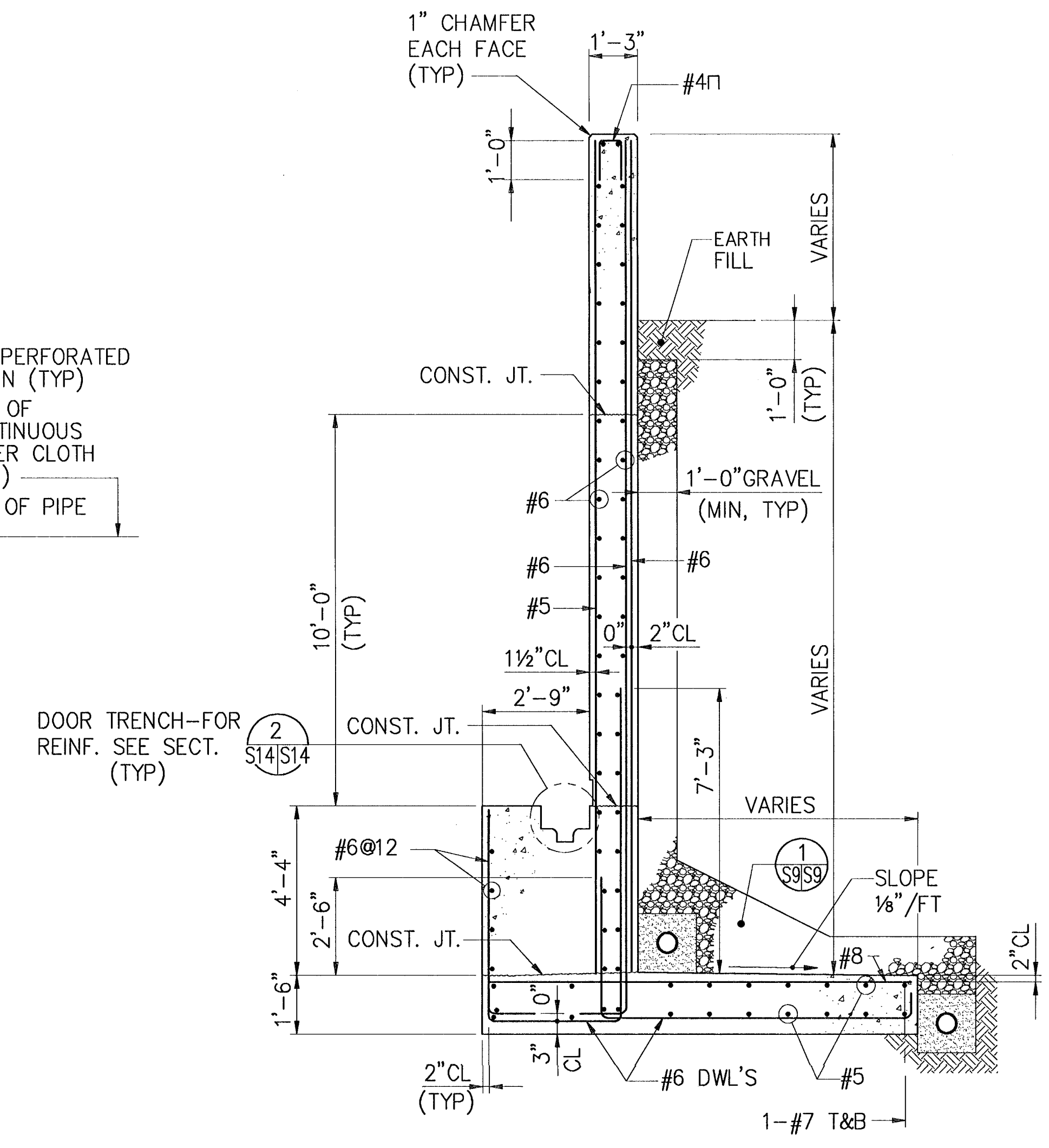
ELEVATION - RETAINING WALL "A"
(RETAINING WALL "B" OPP. HAND)
SCALE: 1/4"=1'-0"



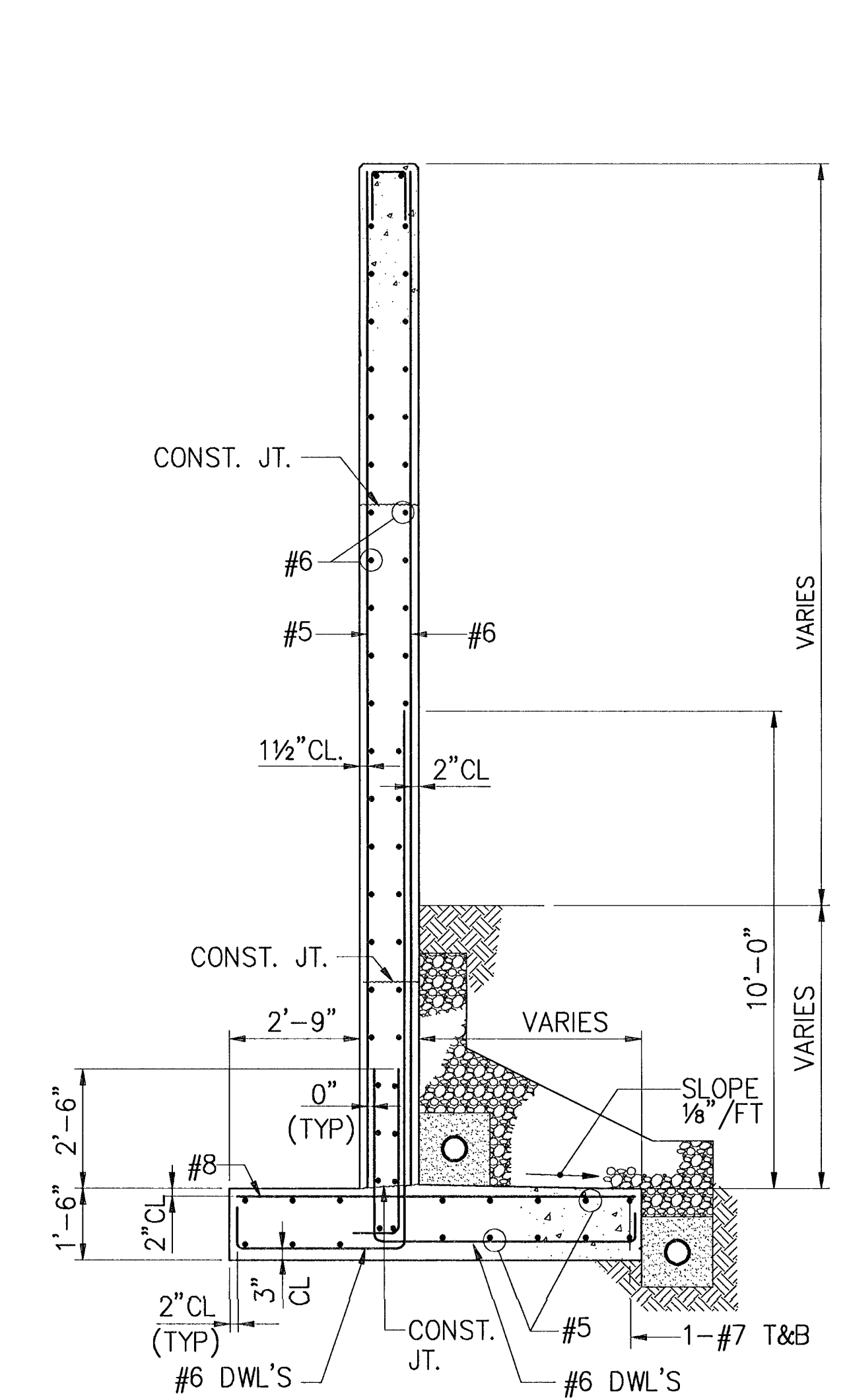
SYMBOL				DESCRIPTION		PREP'D BY		DATE	APPROVED
REVISIONS									
AMMANN & WHITNEY CONSULTING ENGINEERS 96 MONTGOMERY ST., NEW YORK, NY 10014				DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350					
NAVAL FACILITIES ENGINEERING COMMAND									
STANDARD DRAWING									
STANDARD BOX MAGAZINE TYPE 'D'									
RETAINING WALL ELEVATION & SECTIONS (W/PLATFORM)									
PRINCIPAL PARTNER <i>R. Barry</i>		27/5/97		DATE					
ENGINEER IN CHARGE <i>R. Brady</i>		BRANCH MANAGER <i>R. Brady</i>							
CRITERIA MANAGER <i>R. Brady</i>		DIVISION DIRECTOR <i>A. Gwynne</i>							
NAVFACINCOM									
FIRE PROTECTION ENGINEER		DATE		SIZE		CODE IDENT NO		NAVFAC DRAWING NUMBER	
D		80091		6,448,529		S-8			
CRITERIA MANAGER		DATE		SCALE		AS NOTED		CONTRACT NO	
APPROVED		DATE		CATEGORY CODE		SPEC NO		SHEET 8 OF 33	



DETAIL
SCALE: 3/8"=1'-0"
(TYPICAL 6"Ø PERFORATED DRAIN)

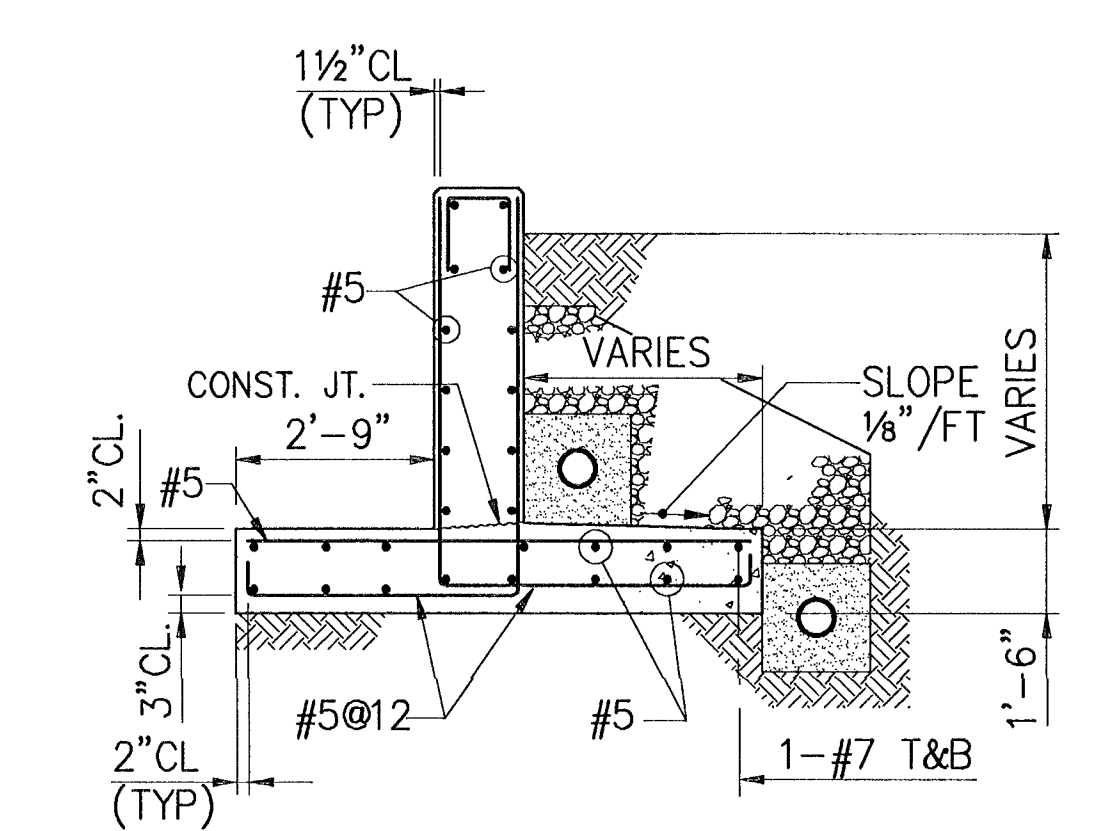


SECTION
SCALE: 3/8"=1'-0"
1
S8/S9



NOTE:
FOR INFORMATION NOT SHOWN
SEE SECTION
1
S8/S9

SECTION
SCALE: 3/8"=1'-0"
2
S8/S9



NOTE:
FOR INFORMATION NOT SHOWN
SEE SECTION
1
S8/S9

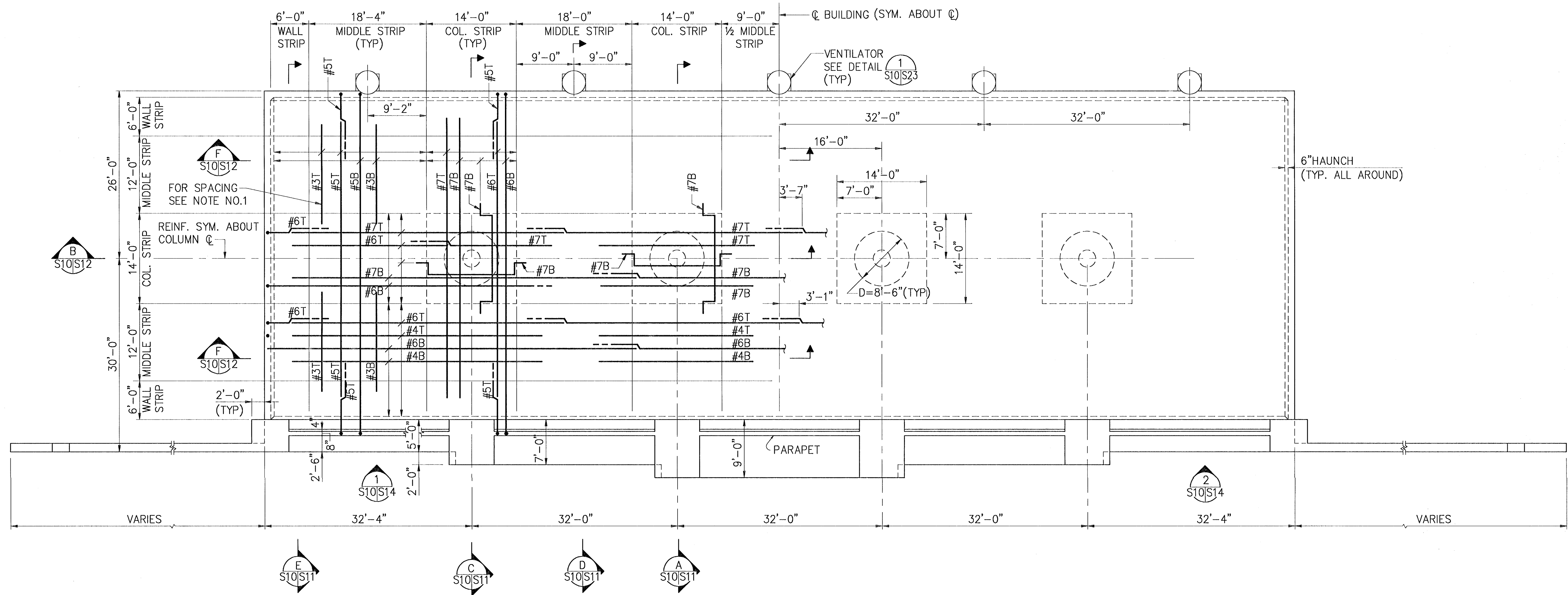
SECTION
SCALE: 3/8"=1'-0"
3
S8/S9

NOTE: FOR ALTERNATE EARTH FILL DRAINAGE SYSTEM SEE DWG. S-13.

IF SHEET IS LESS THAN
(22" x 34")
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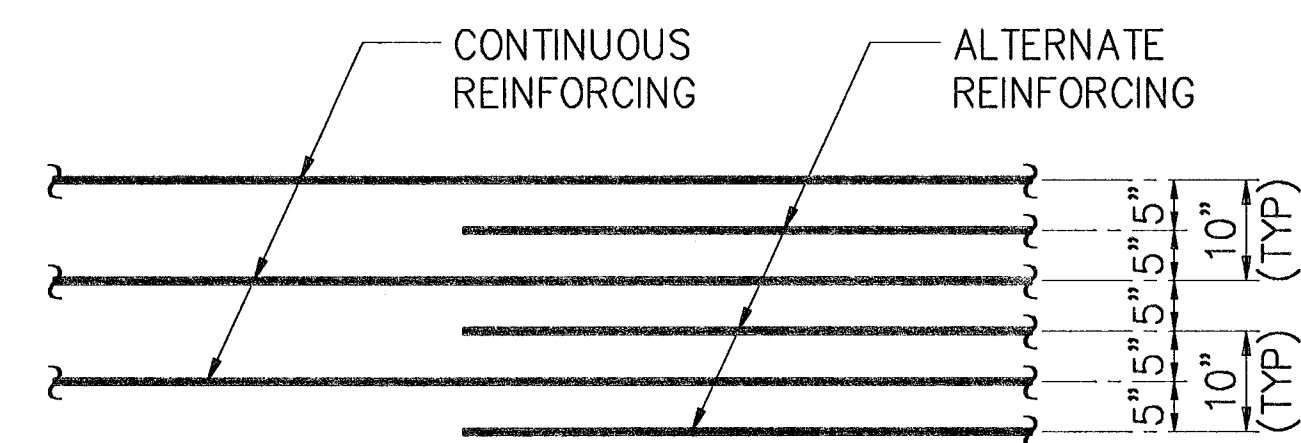
1' 0" 7'
3/8" = 1'-0"

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 86 MORTON ST., NEW YORK, NY 10014		DEPARTMENT OF THE NAVY		WASHINGTON, D.C. 20350		
PRINCIPAL (PARTNER) <i>R. Brady</i> DATE 27/5/97		NAVAL FACILITIES ENGINEERING COMMAND				
ENGINEER IN CHARGE <i>R. Brady</i>		STANDARD DRAWING				
CRITERIA MANAGER <i>R. Brady</i>		STANDARD BOX MAGAZINE TYPE 'D'				
NAVFACNOCOM		RETAINING WALL SECTIONS (W/PLATFORM)				
FIRE PROTECTION ENGINEER	DATE	SIZE	CODE EXENT NO	NAVFAC DRAWING NUMBER	S-9	
CRITERIA MANAGER	DATE	D	80091	6,448,530	SHEET 9 OF 33	
APPROVED	DATE	SCALE	AS NOTED	CONTRACT NO		
FOR COMMANDER NAVFACNOCOM	DATE	CATEGORY CODE		SPEC NO		



ROOF PLAN

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

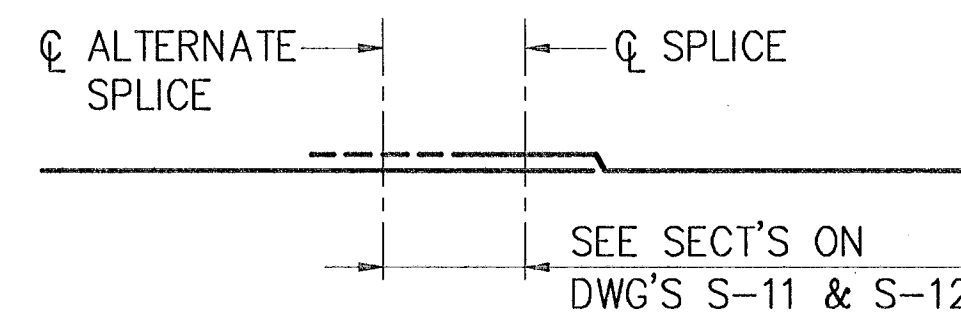


TYPICAL SPACING OF ROOF REINFORCEMENT

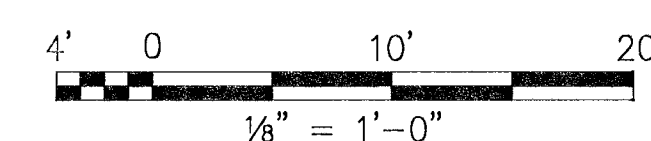
N.T.S.

NOTES:

- ALL REINFORCING BARS SHALL BE SPACED AT 10" o.c. UNLESS NOTED OTHERWISE. SEE "TYPICAL SPACING OF ROOF REINFORCEMENT" THIS DRAWING.
- STAGGERED SPLICES SHOWN THUS

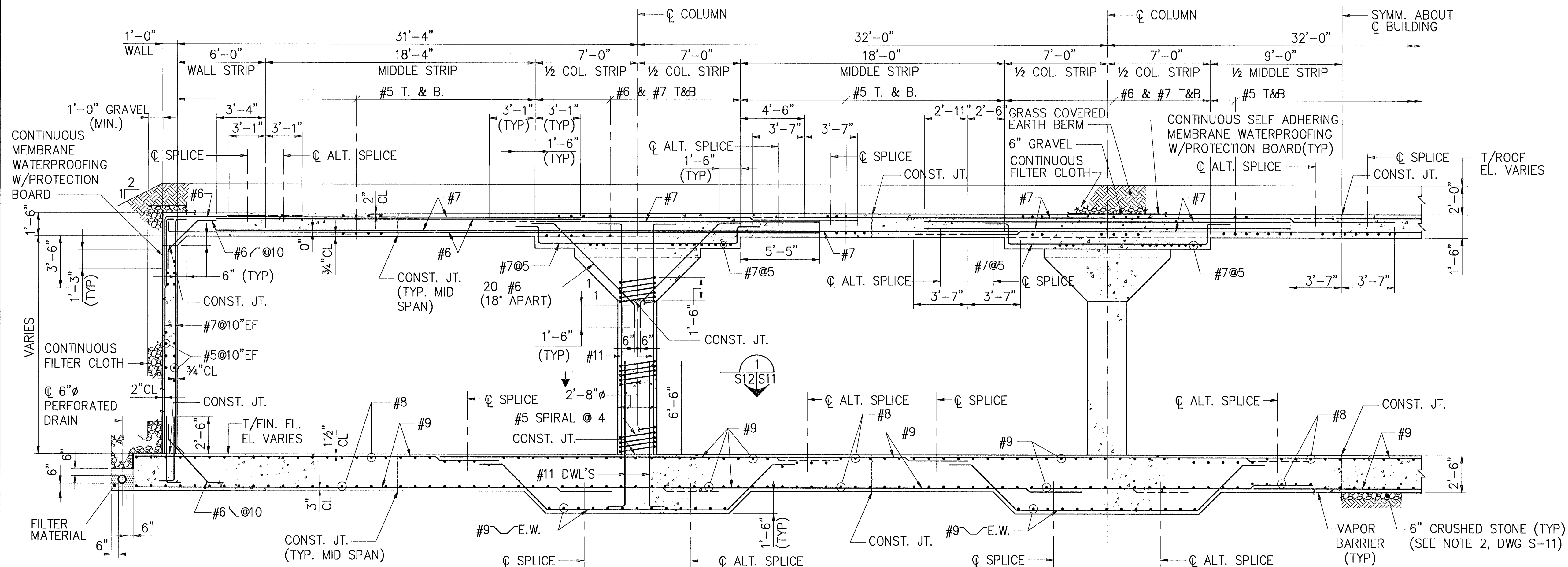


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(22" x 34")
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SCALE REDUCED ACCORDINGLY

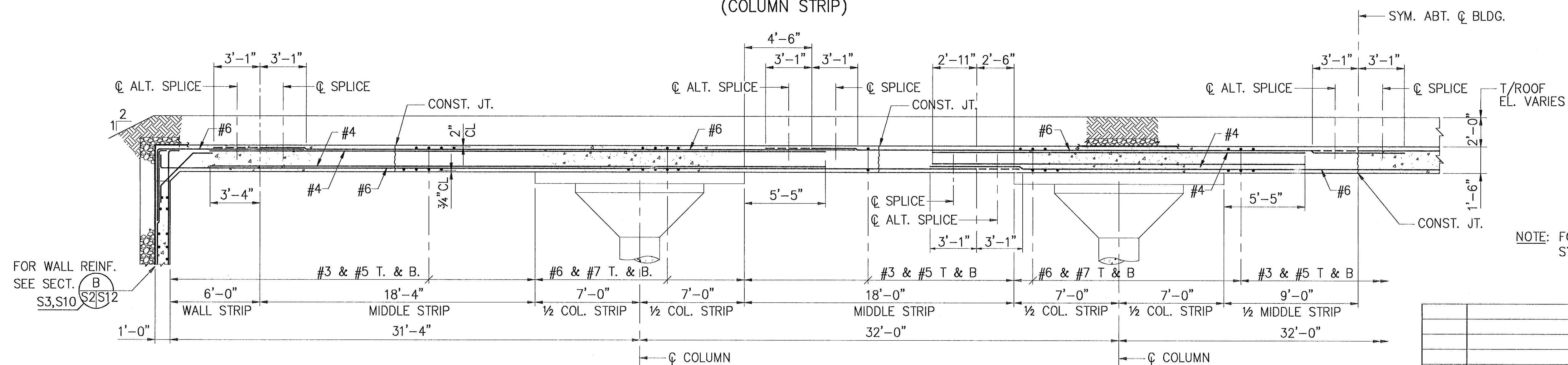


SATISFACTORY TO
DATE

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 96 WILSON ST., NEW YORK, NY 10014						
DEPARTMENT OF THE NAVY						
WASHINGTON, D.C. 20350						
NAVAL FACILITIES ENGINEERING COMMAND						
STANDARD DRAWING						
STANDARD BOX MAGAZINE TYPE 'D'						
ROOF PLAN						
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	6,448,531		S-10	
D	80091					
SCALE	1/8" = 1'-0"	CONTRACT NO			SHEET 10 OF 33	
CATEGORY CODE		SPEC NO				
FOR COMMANDER NAVFACENCOM						



SECTION B
SCALE: 1/4" = 1'-0"
(COLUMN STRIP)

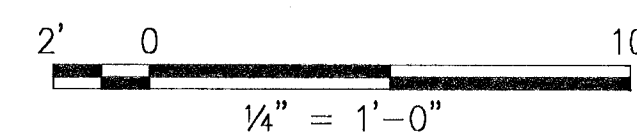


SECTION F
SCALE: 1/4" = 1'-0"
(TYPICAL FOR WALL & MIDDLE STRIPS)

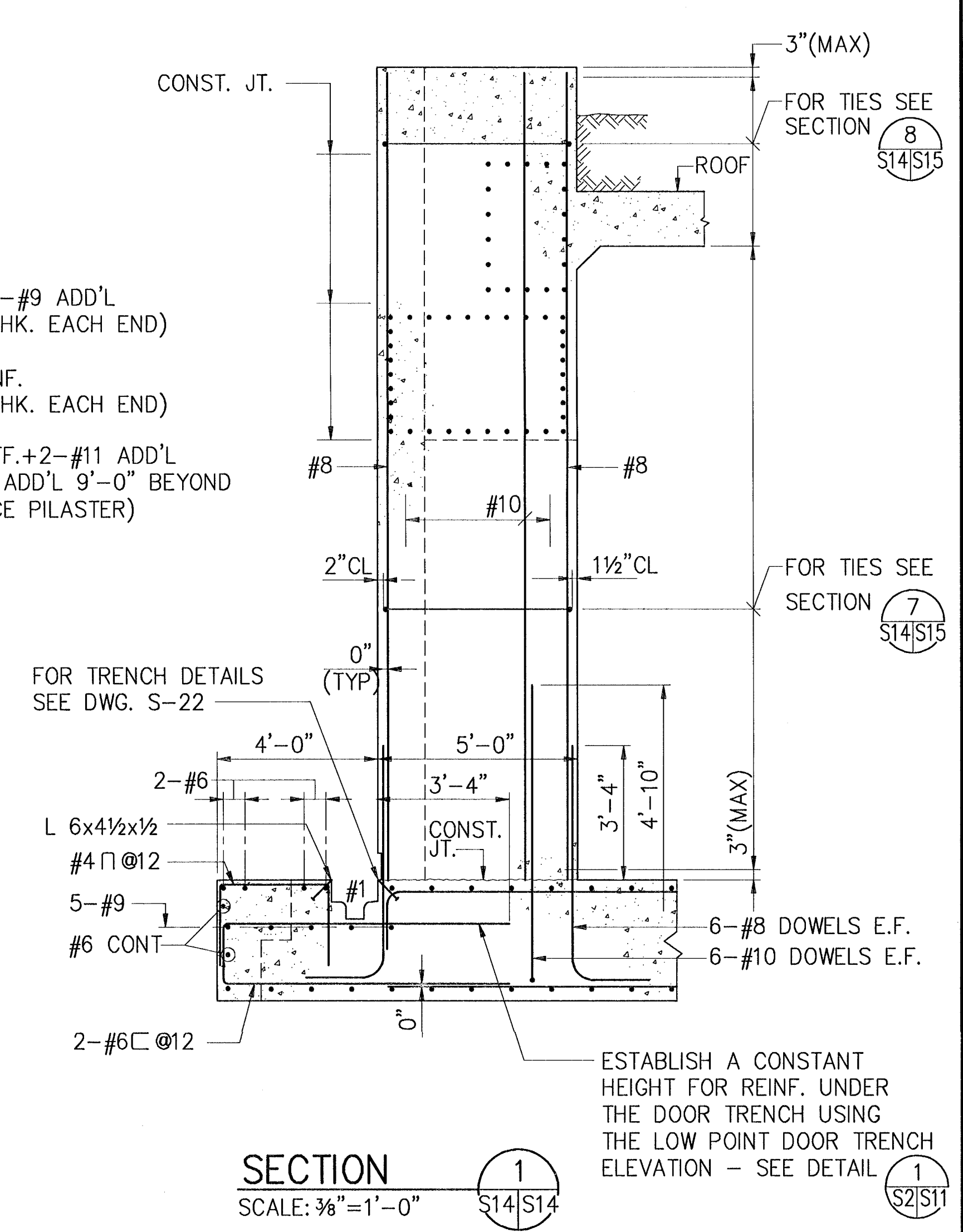
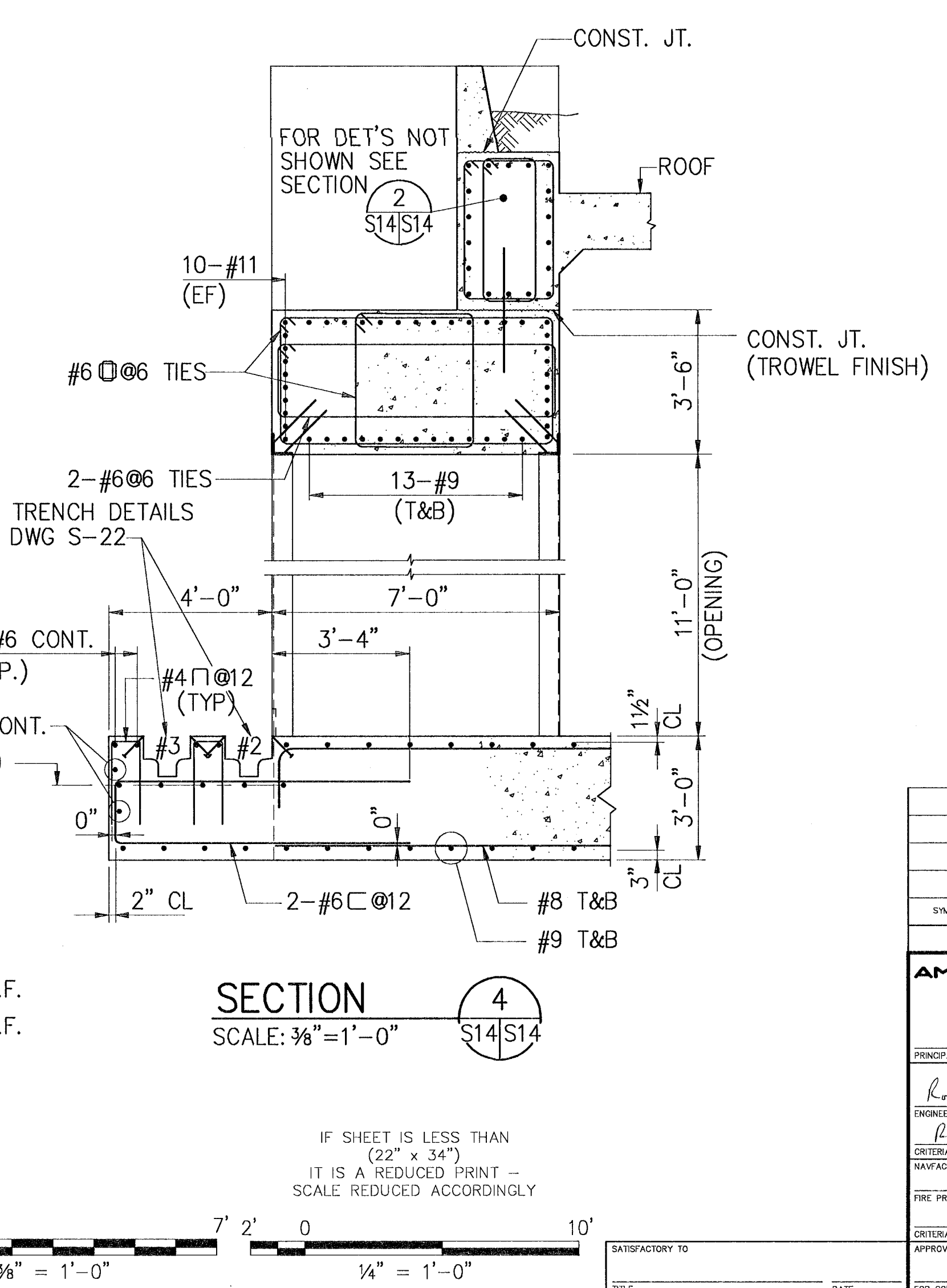
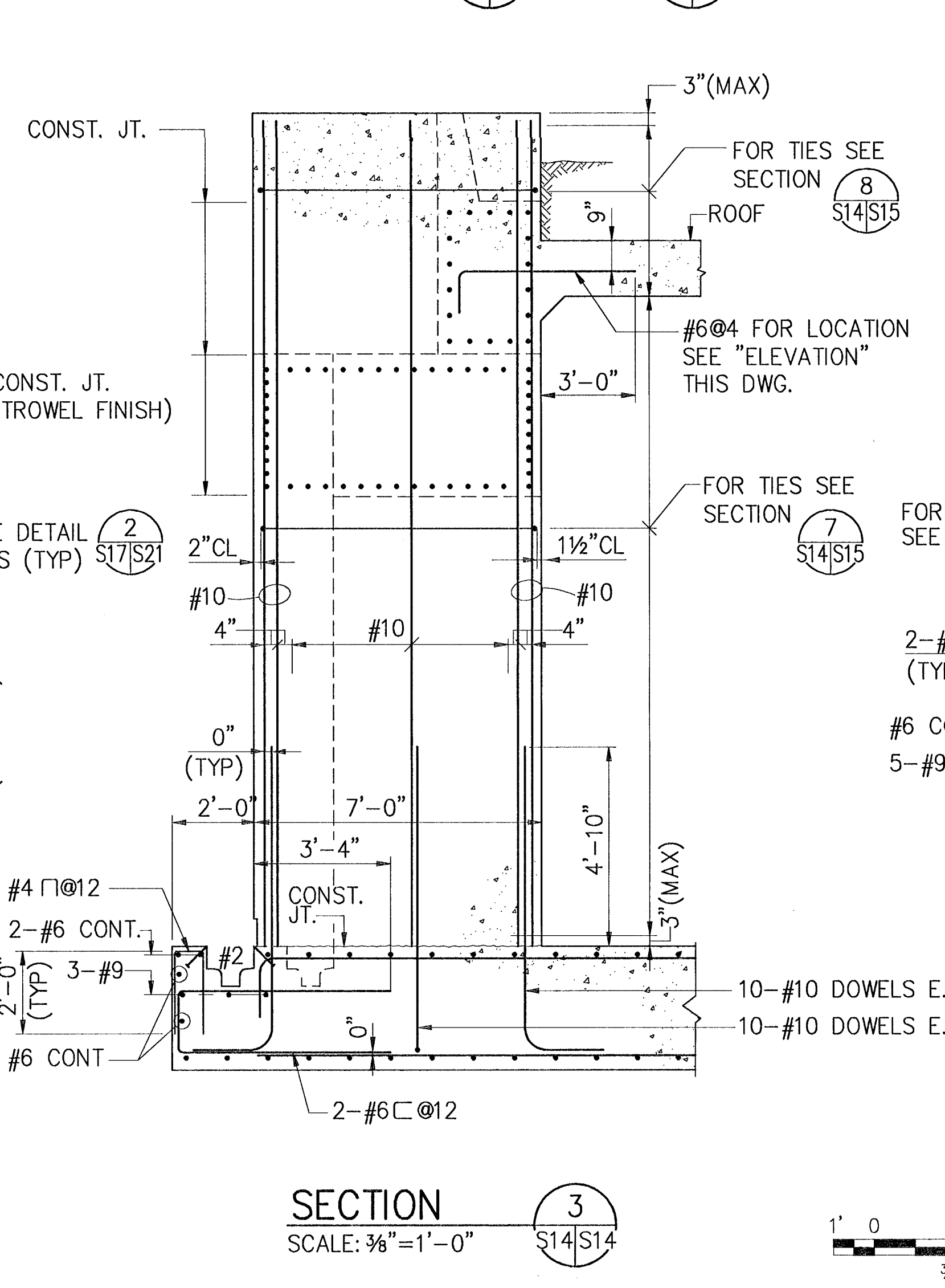
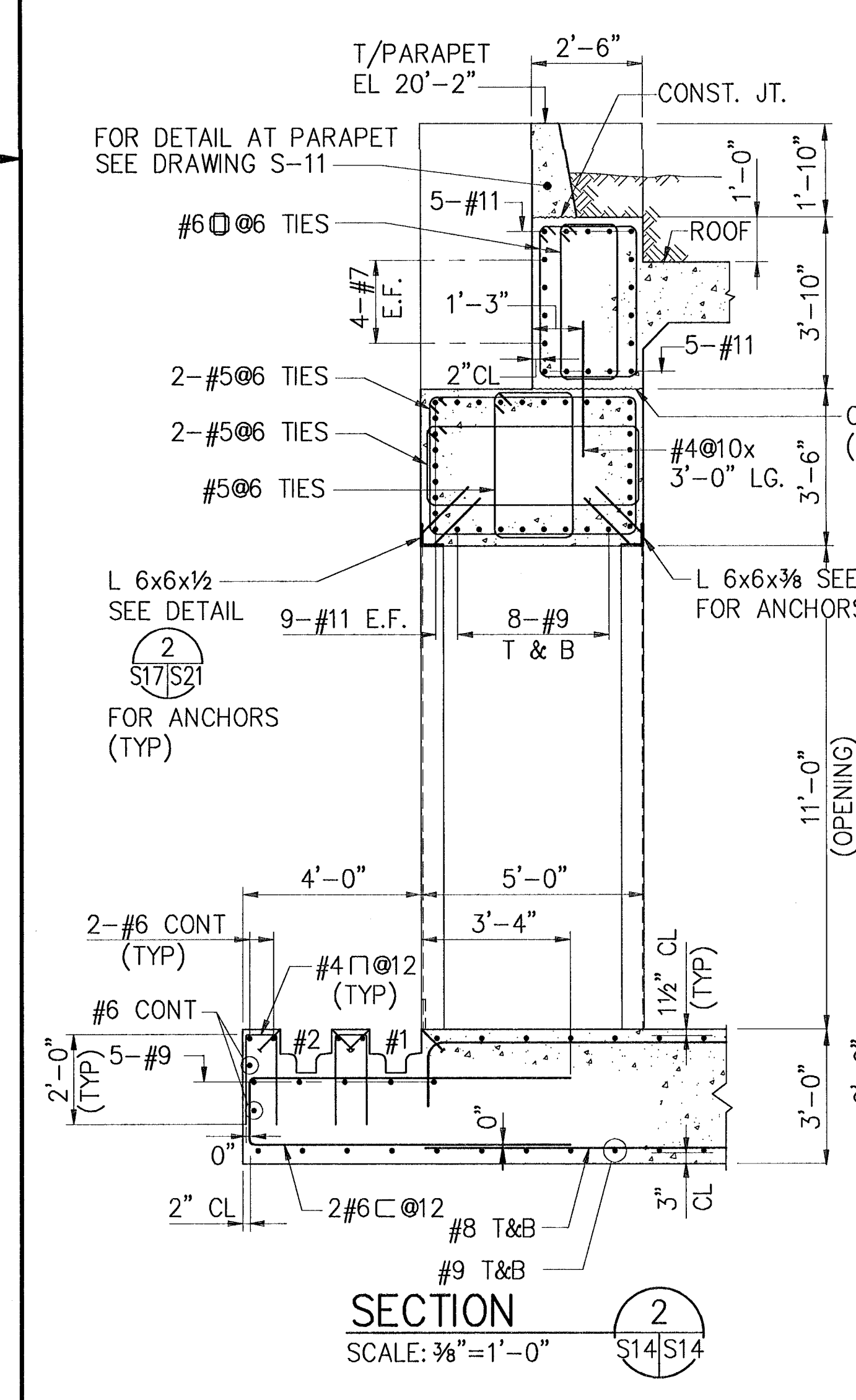
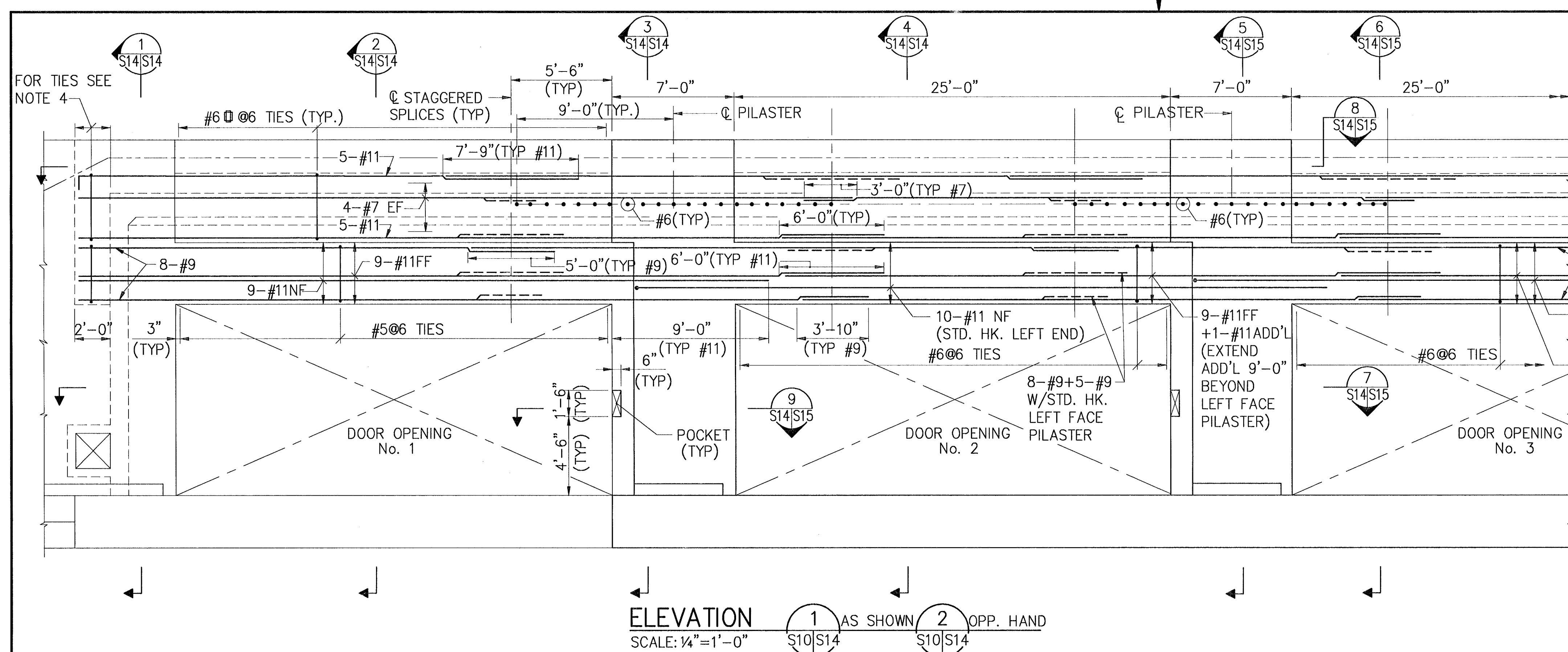
- NOTES:
1. FOR ROOF INFORMATION NOT SHOWN SEE SECTION B THIS DRAWING.
 2. FOR FLOOR SLAB REINF. SEE DRAWING S-3.

NOTE: FOR ALTERNATE EARTH FILL DRAINAGE SYSTEM SEE DWG. S-13.

IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY

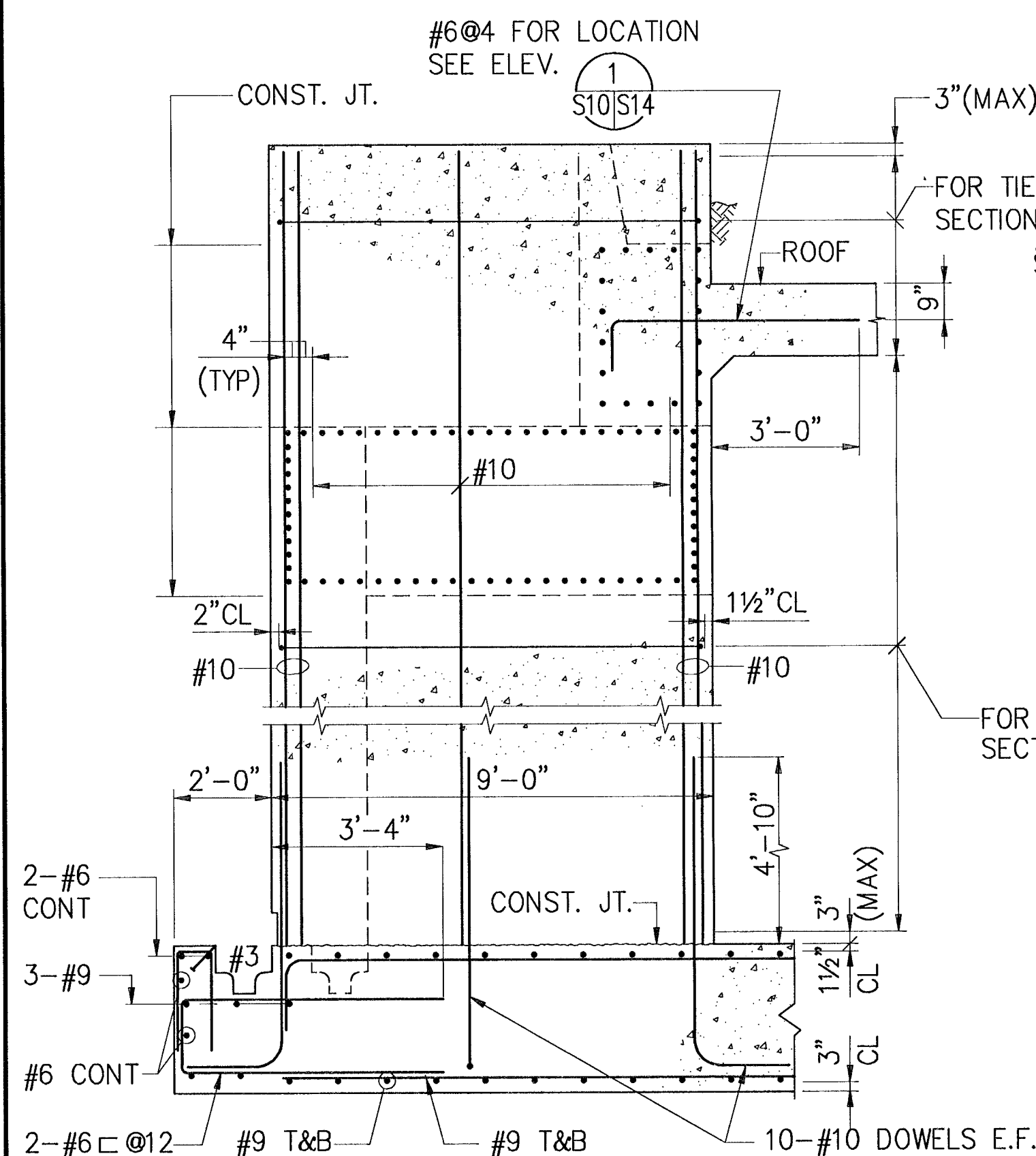


SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 95 MORTON ST., NEW YORK, NY 10014 27/5/97 DATE						
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' LONGITUDINAL MAGAZINE SECTION						
SIZE	D	CODE (BENT NO)	80091	NAVAEC DRAWING NUMBER	6,448,533	S-12
SCALE	AS NOTED	CONTRACT NO		SHEET	12	OF 33
CATEGORY CODE		SPEC NO				

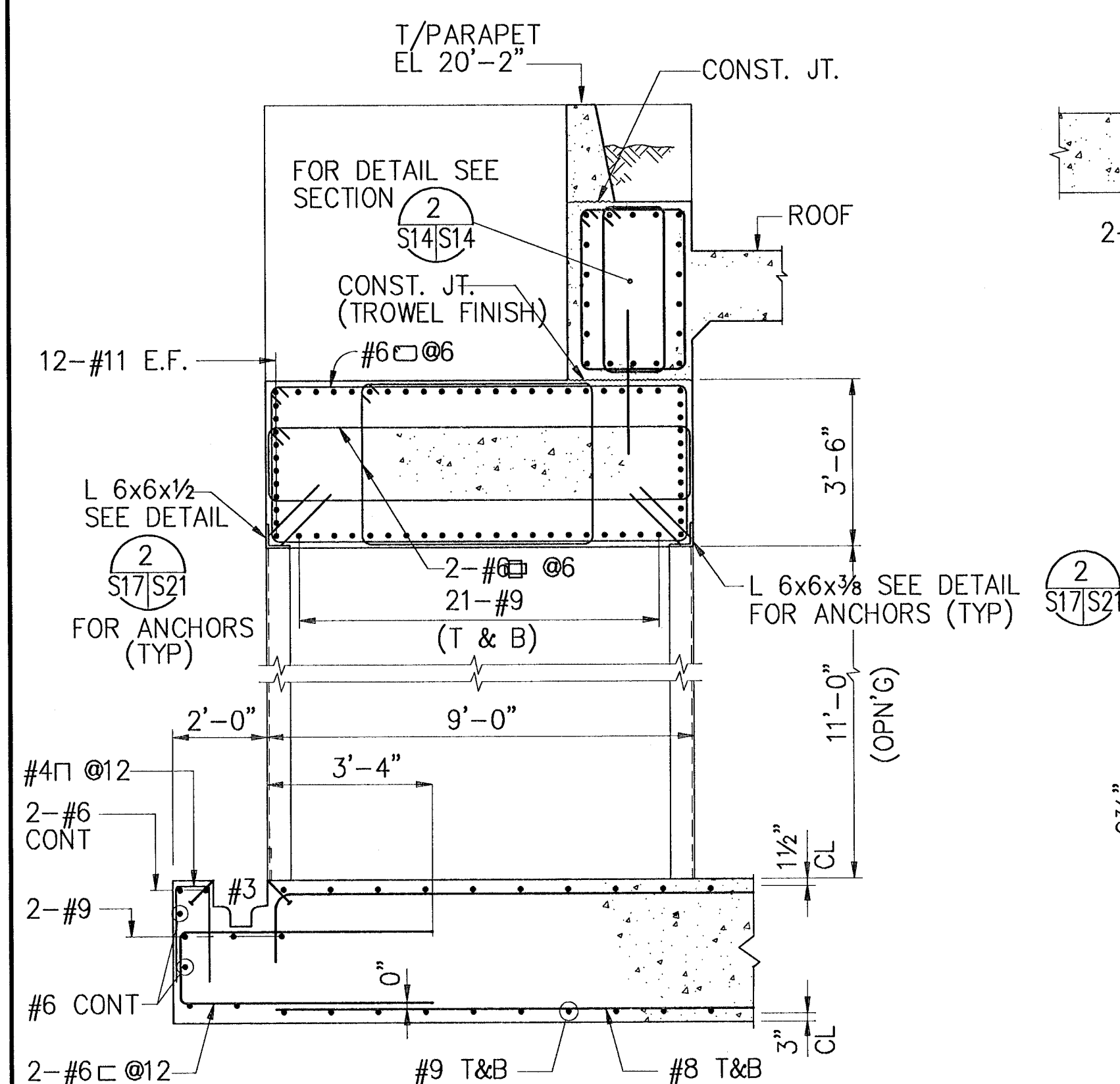


- NOTES:**
1. FOR RETAINING WALL REINFORCEMENT SEE RETAINING WALL ELEVATION AND SECTION DRAWINGS.
 2. FOR STAGGERED SPLICES: BAR SPLICE INDICATED THUS ALTERNATE BAR SPLICE INDICATED THUS
 3. ALL PILASTERS SHALL BE PLUMB, ALLOWABLE DEVIATION FROM THE VERTICAL SHALL NOT EXCEED 1/4" PER 10'-0" VERTICAL HEIGHT.
 4. PROVIDE TIES SAME AS SECTION 2 S14/S14

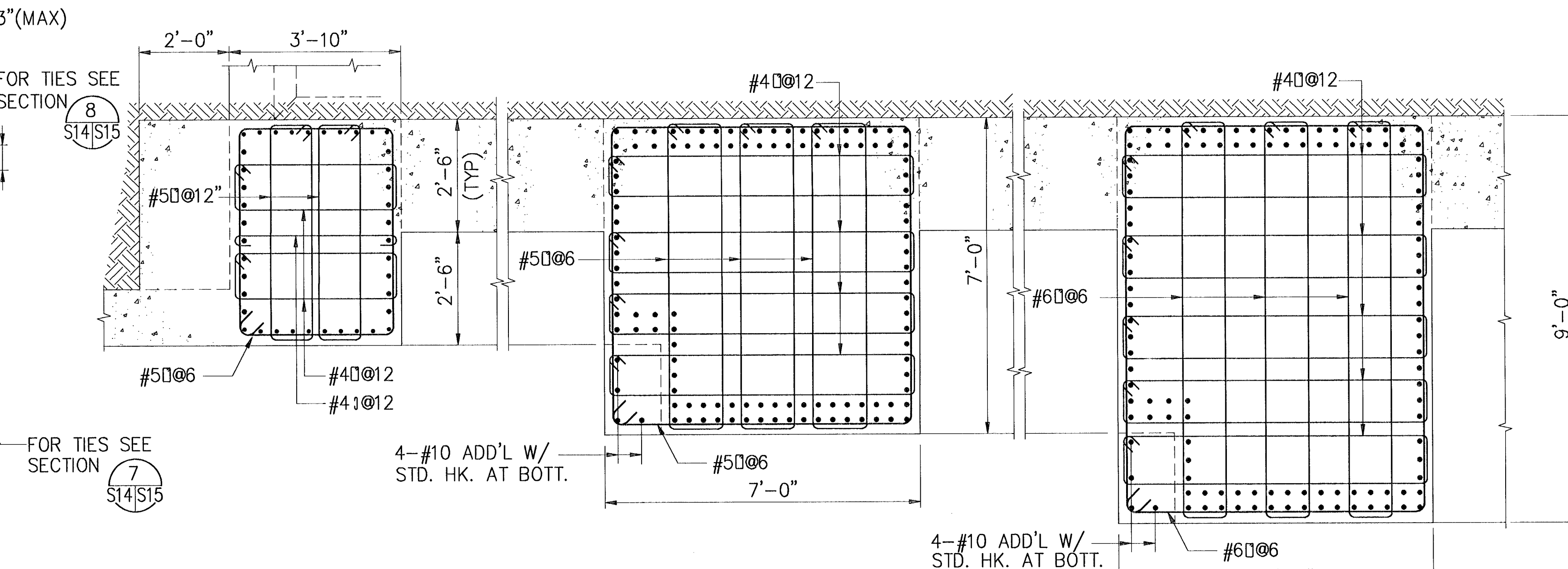
SYMBOL		DESCRIPTION	PREP'D BY	DATE	APPROVED
REVISIONS					
AMMANN & WHITNEY CONSULTING ENGINEERS 98 MORTON ST., NEW YORK, NY 10014 DATE: 27/5/97					
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' HEADWALL ELEVATION & SECTIONS					
ENGINEER IN CHARGE R. Brady	BRANCH MANAGER R. Brady	CHECKER R. Brady	DIVISION DIRECTOR D. Drayton	DATE: 27/5/97	SCALE: AS NOTED
FIRE PROTECTION ENGINEER		DATE:	CODE SENT NO: 80091	NAVFAC DRAWING NUMBER: 6,448,535	SHEET 14 OF 33
CRITERIA MANAGER		DATE:	CONTRACT NO.	SPEC NO.	
APPROVED		DATE:	CATEGORY CODE		
FOR COMMANDER NAVFACENCOM		DATE:			



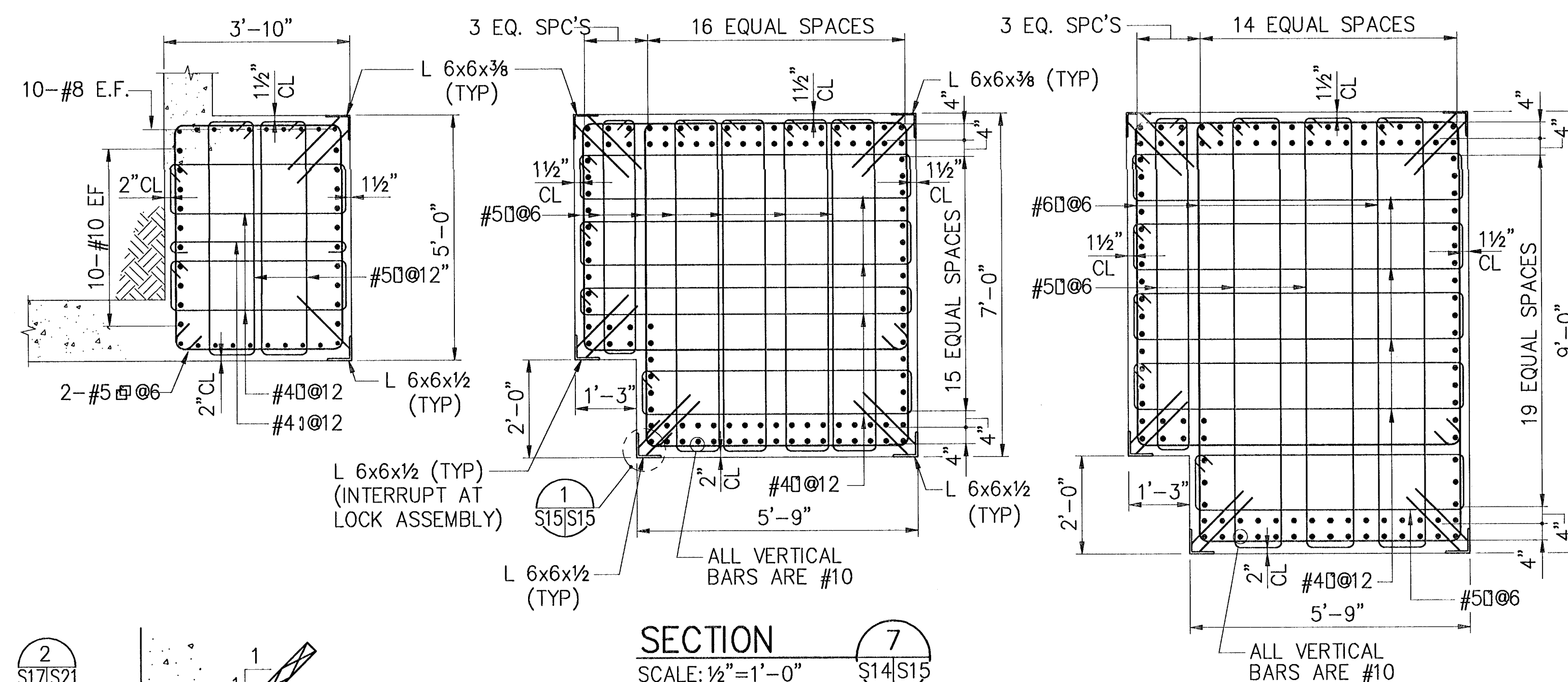
SECTION 5
SCALE: 3/8"=1'-0"



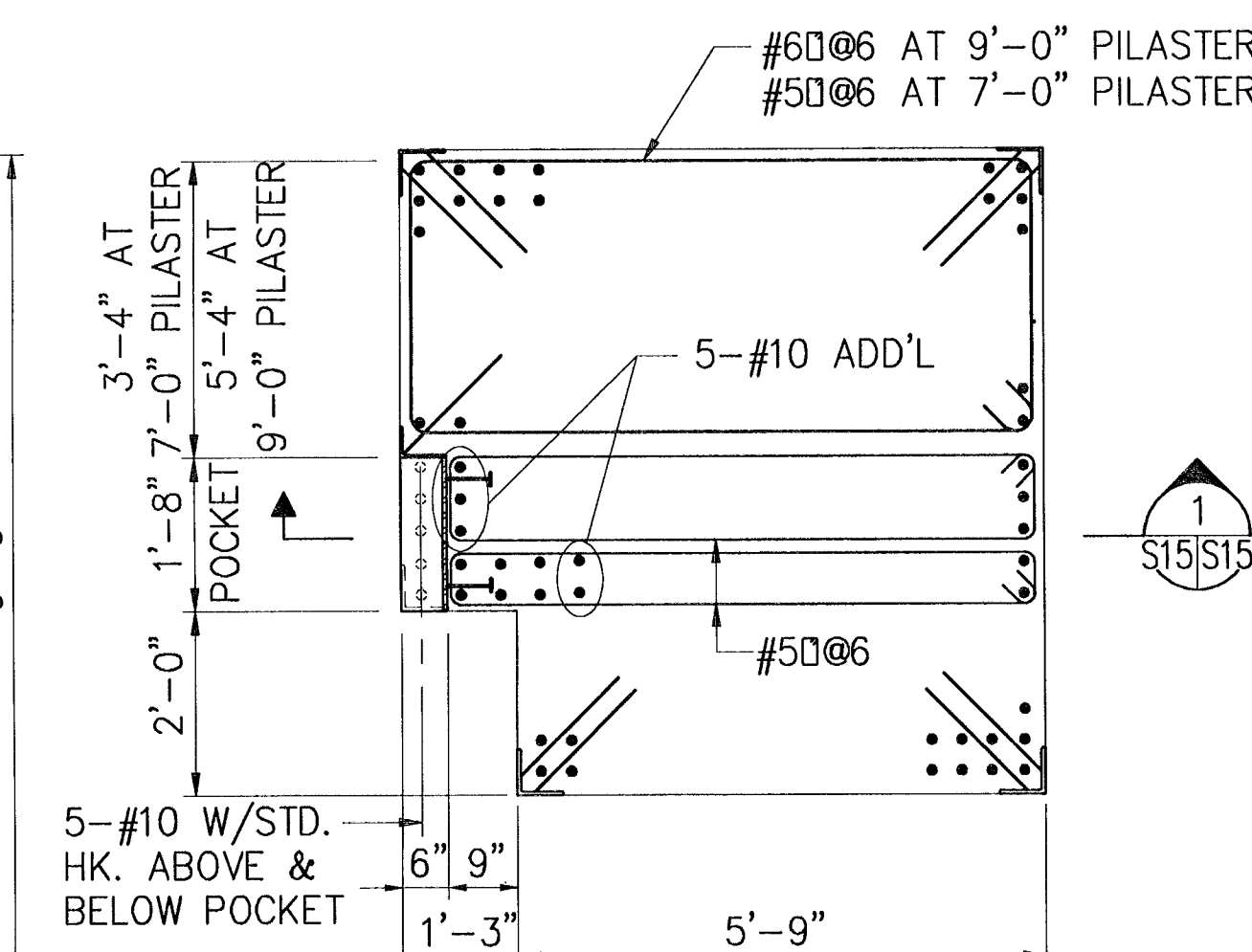
SECTION 6
SCALE: 3/8"=1'-0"



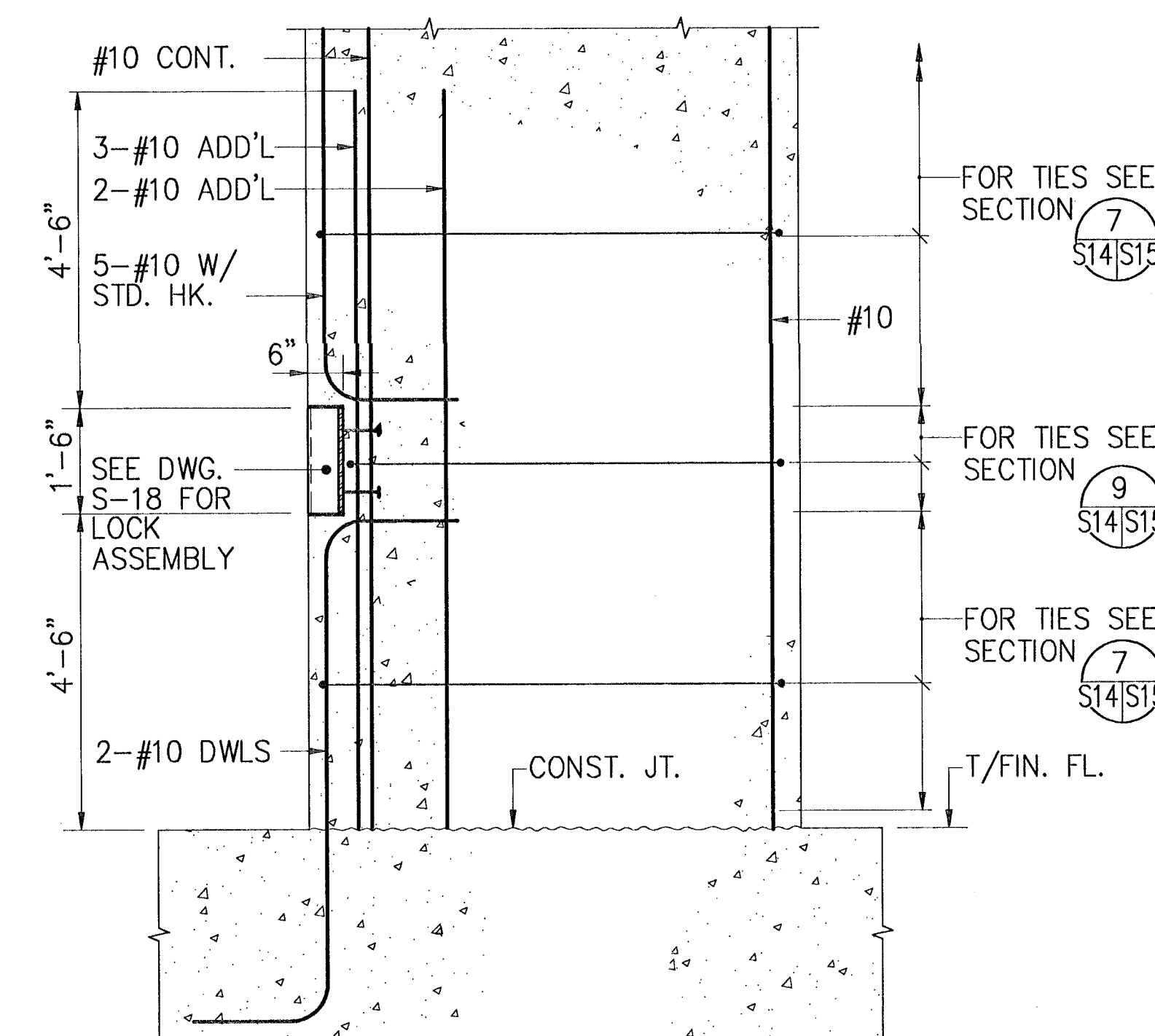
SECTION 8
SCALE: 1/2"=1'-0"



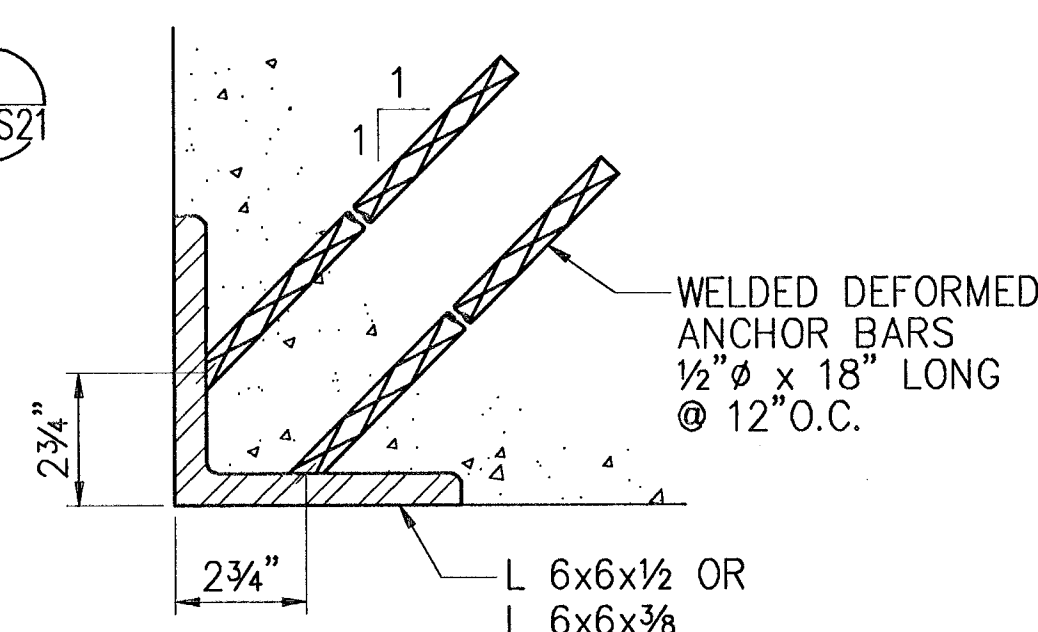
SECTION 7
SCALE: 1/2"=1'-0"



SECTION 9
SCALE: 1/2"=1'-0"

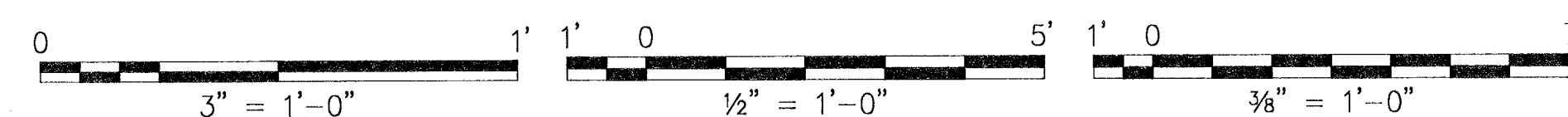


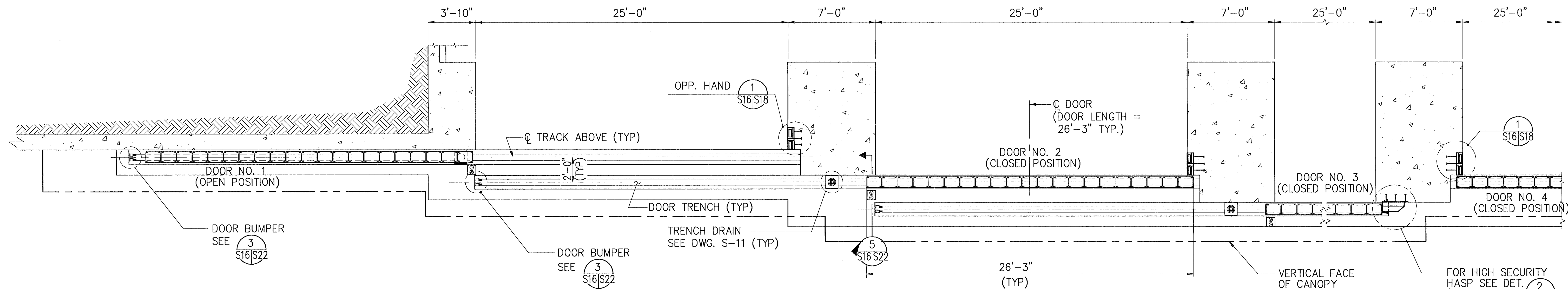
SECTION 1
SCALE: 1/2"=1'-0"



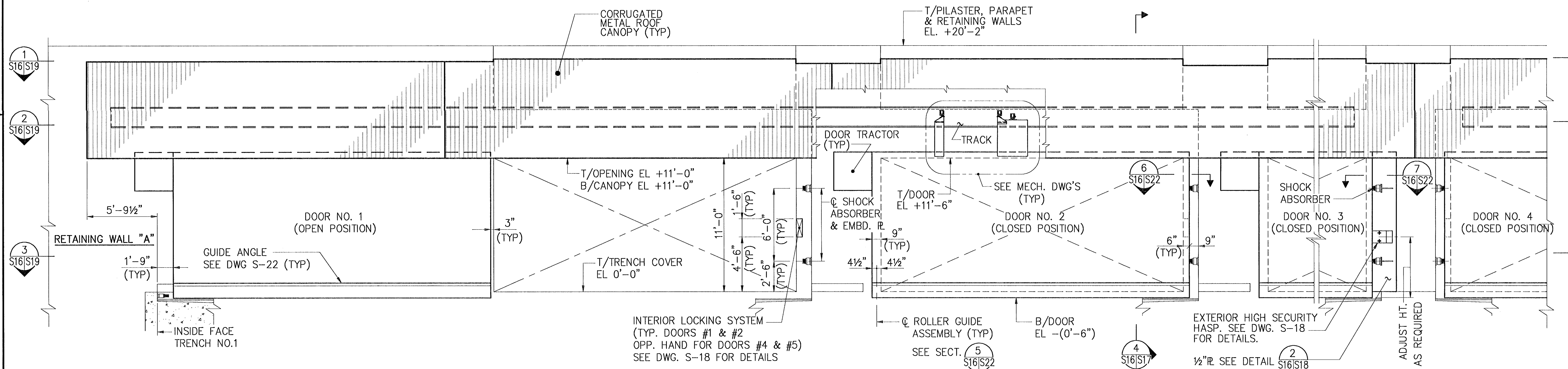
DETAIL 1
SCALE: 3"=1'-0"

IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY





PARTIAL PLAN AT SLIDING DOORS
SCALE: 1/4" = 1'-0"

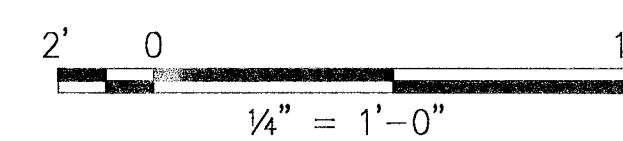


PARTIAL FRONT WALL ELEVATION
SCALE: 1/4" = 1'-0"

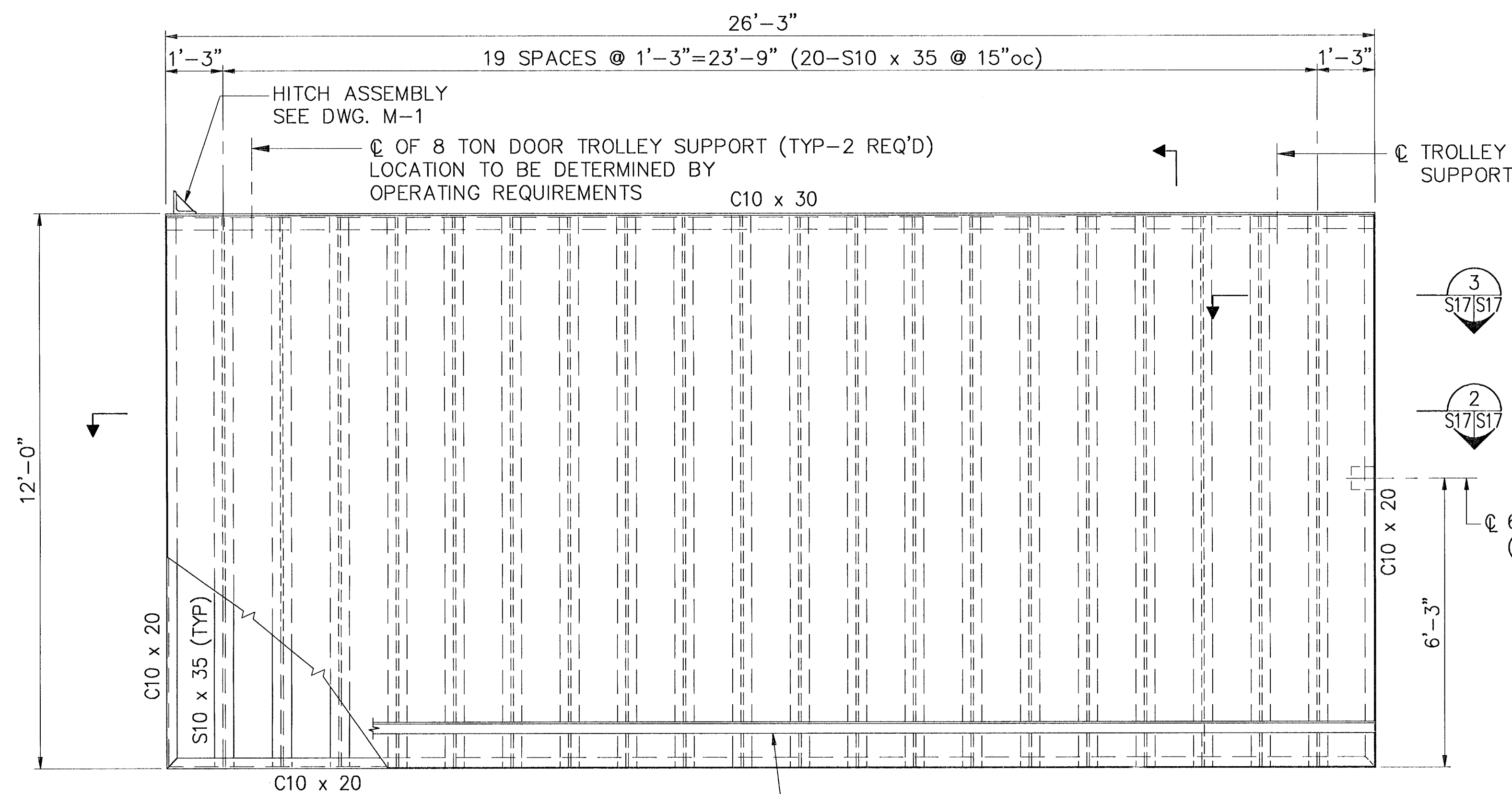
NOTES:

- DOOR #4 AND DOOR #5 ARE OPPOSITE HAND. SEE DWG. S-2 FOR ORIENTATION.
- ANGLES AROUND OPENINGS OMITTED FOR CLARITY.
- FOR DOOR DETAILS SEE DWG. S-17.
- FOR DOOR TRACTOR ASSEMBLY SEE DWG'S M-1, M-2 AND M-3.
- FOR DOOR SHOCK ABSORBERS OPERATING REQUIREMENTS SEE DWG. S-22.
- FOR BRUSH WEATHERSTRIP AROUND DOOR OPENING SEE DETAIL S17/S21 AND SECTION S16/S22

IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE: REDUCED ACCORDINGLY

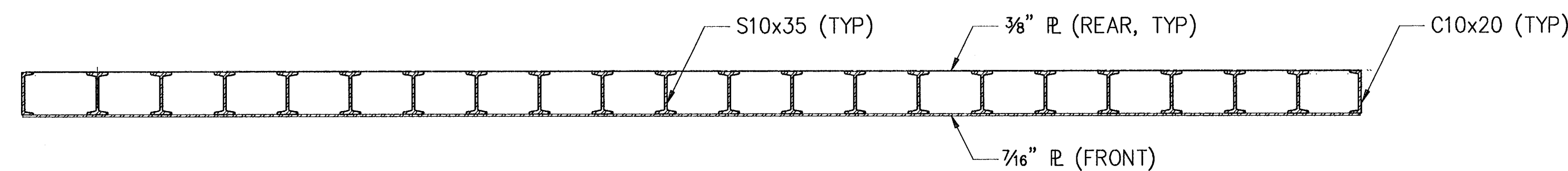


SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 96 WILSON ST., NEW YORK, NY 10014 27/5/97 PRINCIPAL (SIGNED) <i>[Signature]</i> DATE ENGINEER IN CHARGE <i>[Signature]</i> BRANCH MANAGER CRITERIA MANAGER <i>[Signature]</i> DIVISION DIRECTOR NAVFACENSGCOM FIRE PROTECTION ENGINEER DATE CRITERIA MANAGER DATE APPROVED DATE FOR COMMANDER NAVFACENSGCOM						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350 NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' SLIDING DOOR - PLAN & ELEVATION						
SIZE	CODE (BENT NO)	NAVFAC DRAWING NUMBER	SHEET 16 OF 33			
D	80091	6,448,537				
SCALE	1/4" = 1'-0"	CONTRACT NO				
CATEGORY CODE		SPEC NO				



FRONT ELEVATION OF SLIDING DOOR

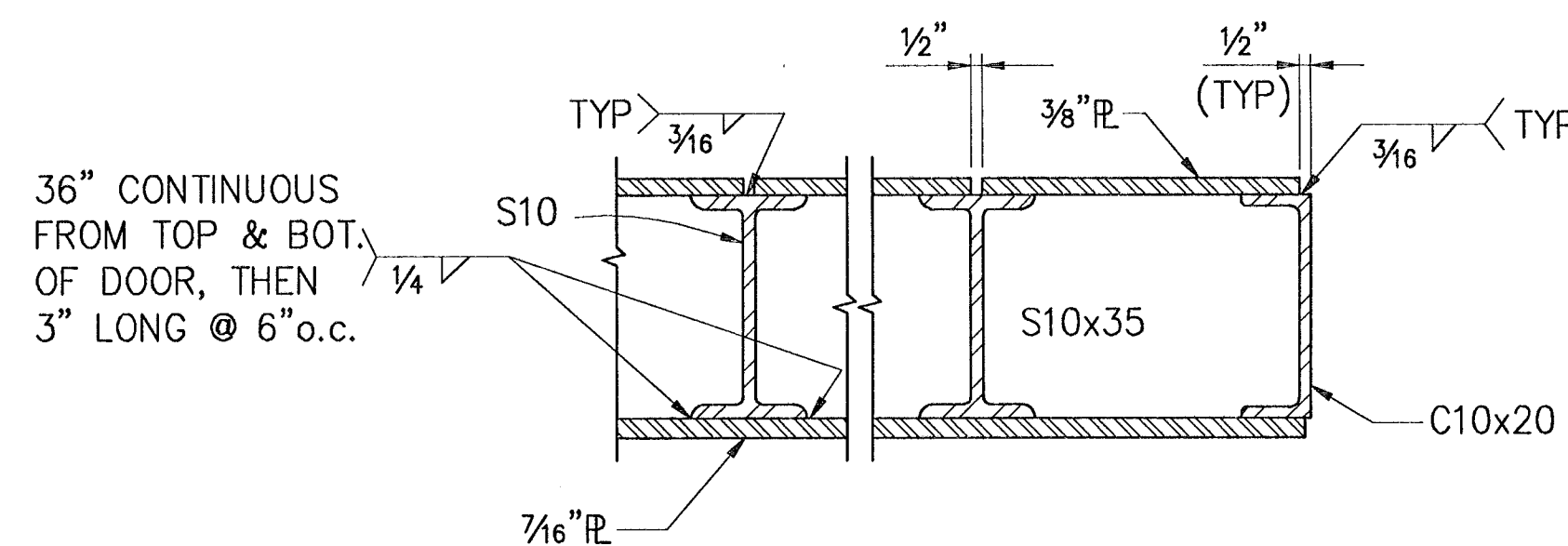
SCALE: 1/2"=1'-0"



SECTION 2

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

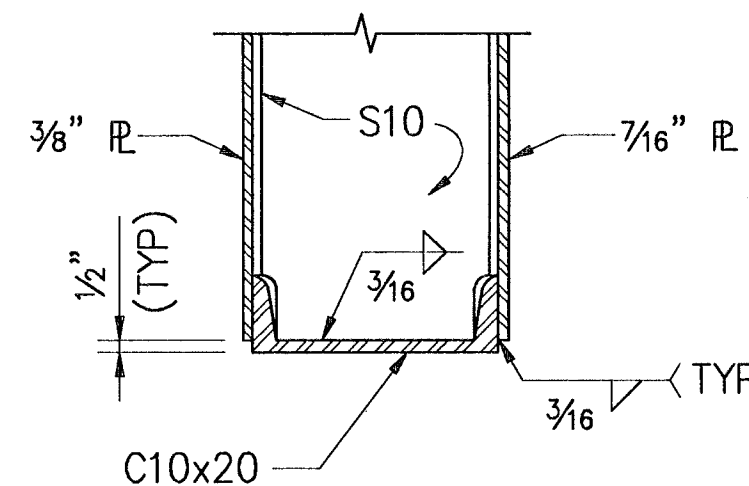
S17/S17



SECTION 3

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

S17/S17



DETAIL 1

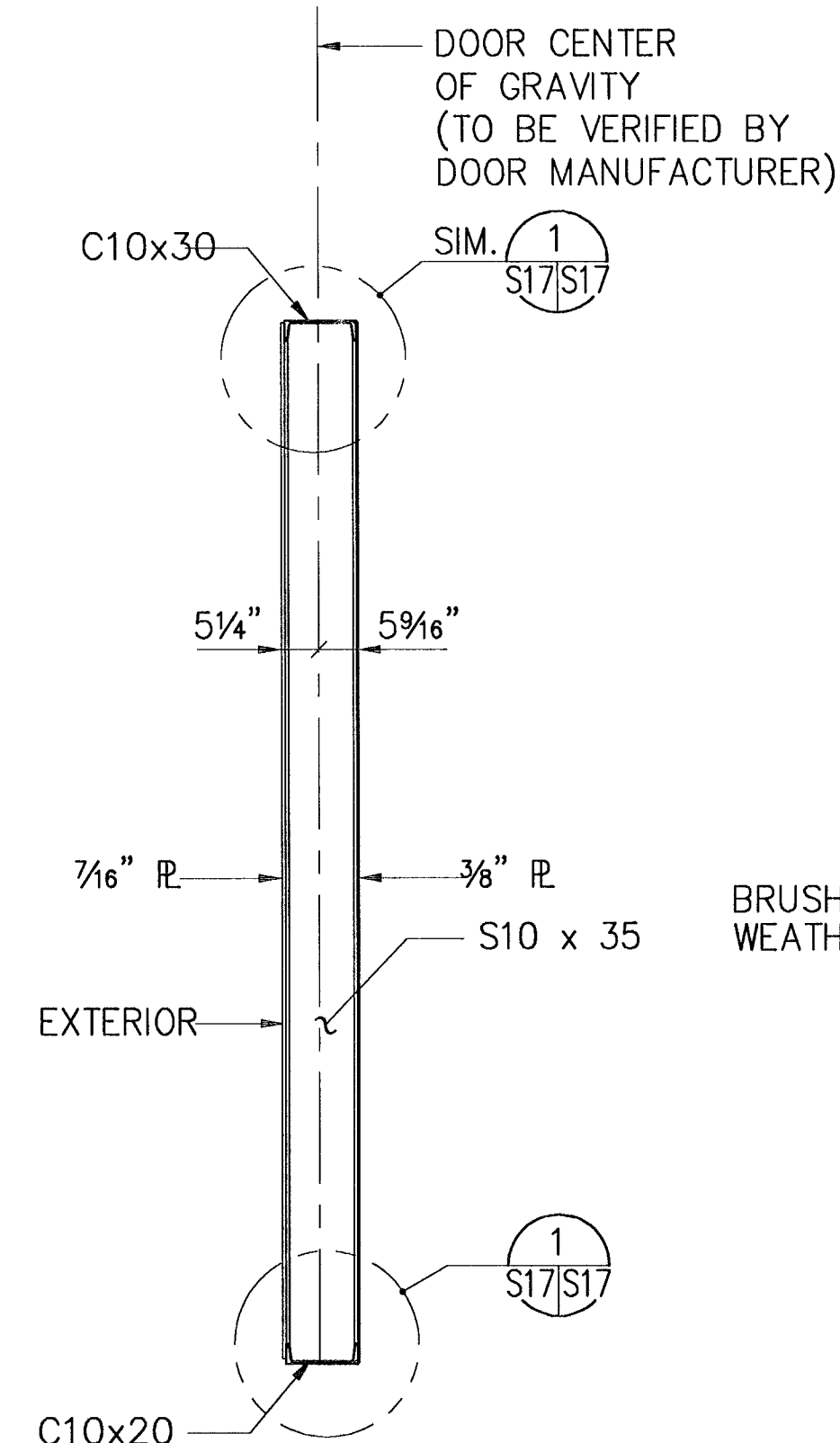
SCALE: 1/2"=1'-0"

S17/S17

NOTES:

- DOOR NO'S 1, 2 AND 3 AS SHOWN. DOOR NO'S 4 AND 5 OPPOSITE HAND.
- PROVIDE 6"x6"x10" STEEL BLOCK AT LEADING EDGE OF DOOR NO'S 1, 2, 4 AND 5 FOR INTERNAL LOCK ASSEMBLY. SEE DETAIL.

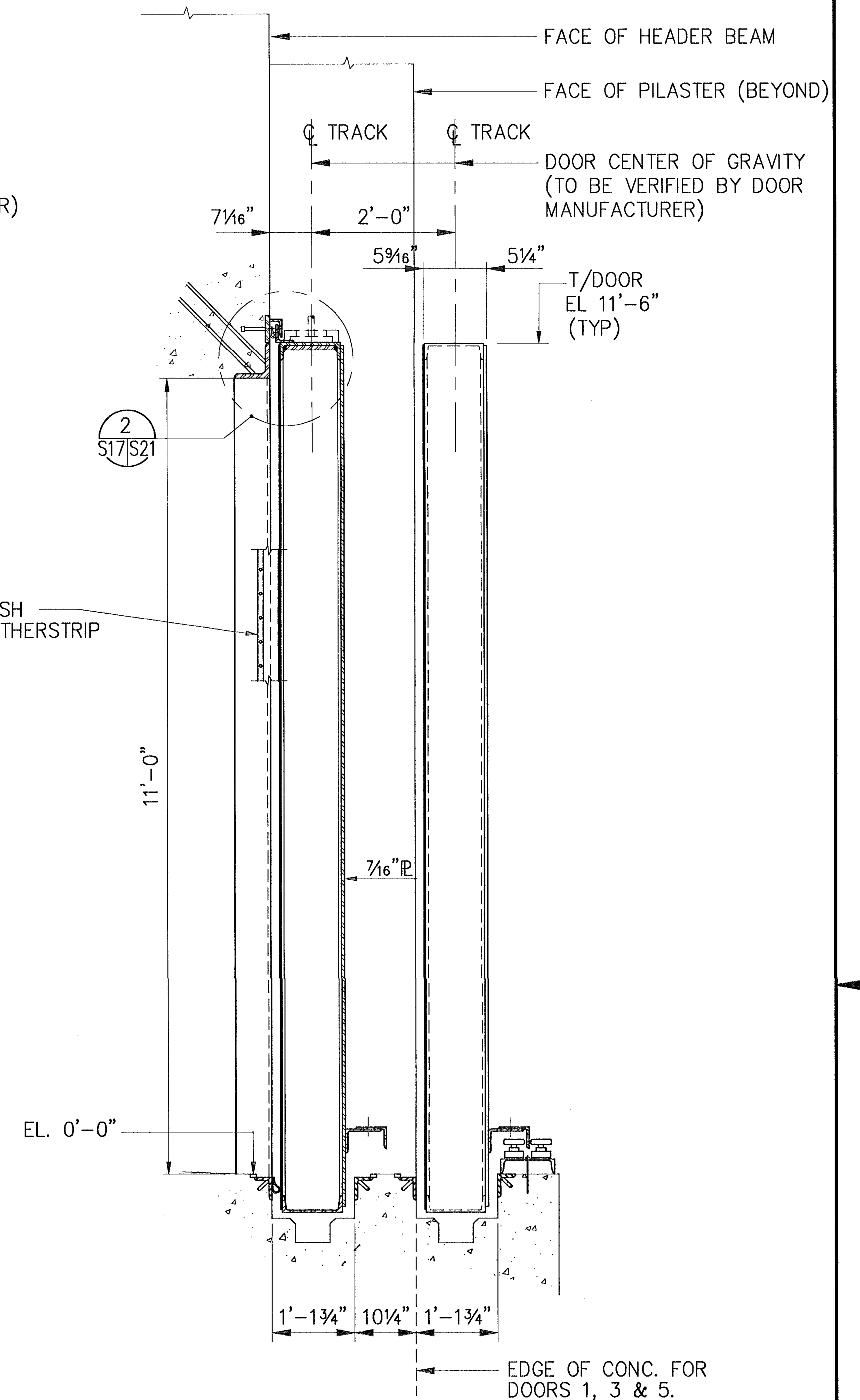
S16/S18



SECTION 1

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

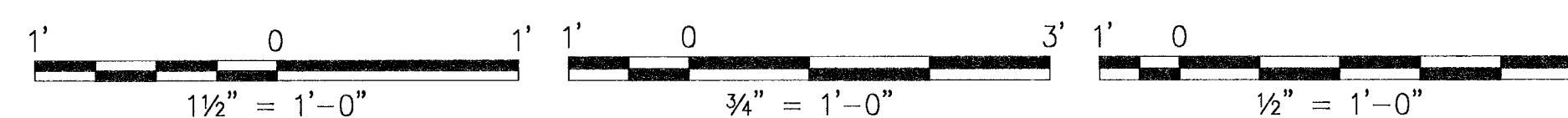
S17/S17



SECTION 4

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

S16/S17

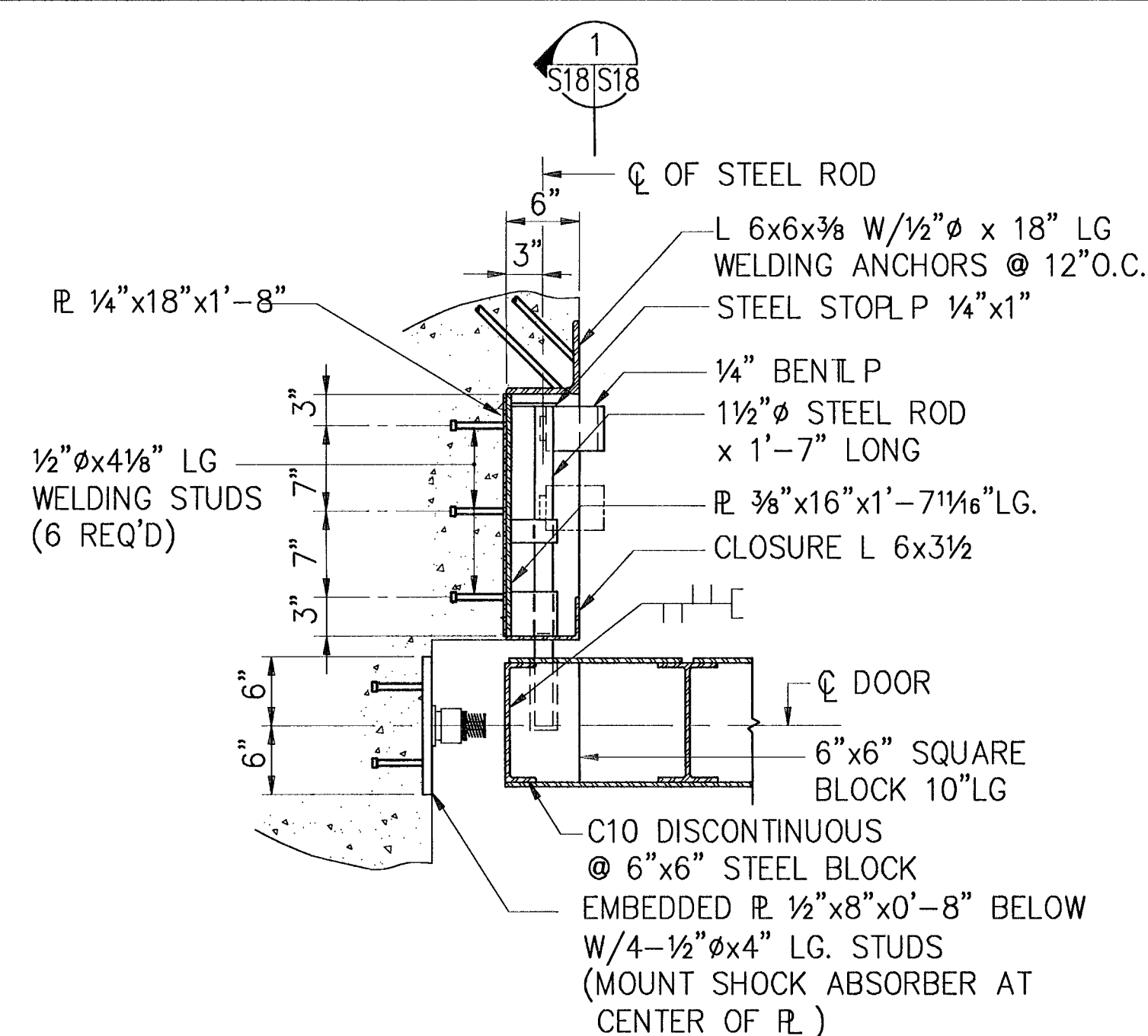


SATISFACTORY TO

TITLE

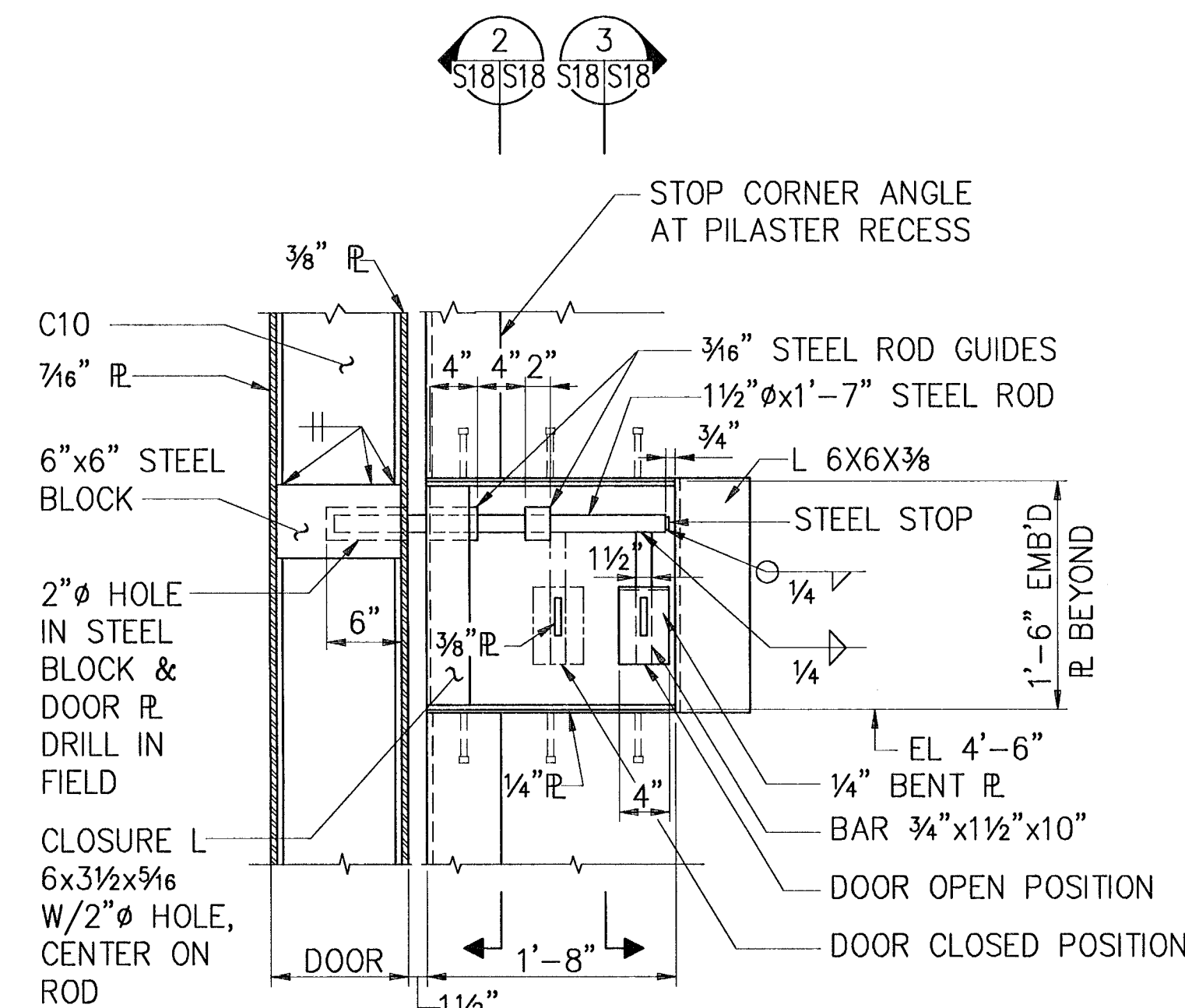
DATE

SYMBOL		DESCRIPTION		PREF'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 96 MORTON ST., NEW YORK, NY 10014						
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' SLIDING DOOR - ELEVATION, SECTIONS & DETAILS						
DATE	27/5/97	WASHINGTON, D.C. 20350				
ENGINEER IN CHARGE	R. Brady	BRANCH MANAGER	R. Brady			
CRITERIA MANAGER	R. Brady	DIVISION DIRECTOR	A. Rayburn			
NAVACENCOM						
FIRE PROTECTION ENGINEER		DATE		SIZE	CODE IDENT NO	NAVAC DRAWING NUMBER
CRITERIA MANAGER		DATE		D	80091	6,448,538
APPROVED		DATE		SCALE	AS NOTED	CONTRACT NO
FOR COMMANDER NAVACENCOM		DATE		CATEGORY CODE		SPEC NO
						SHEET 17 OF 33

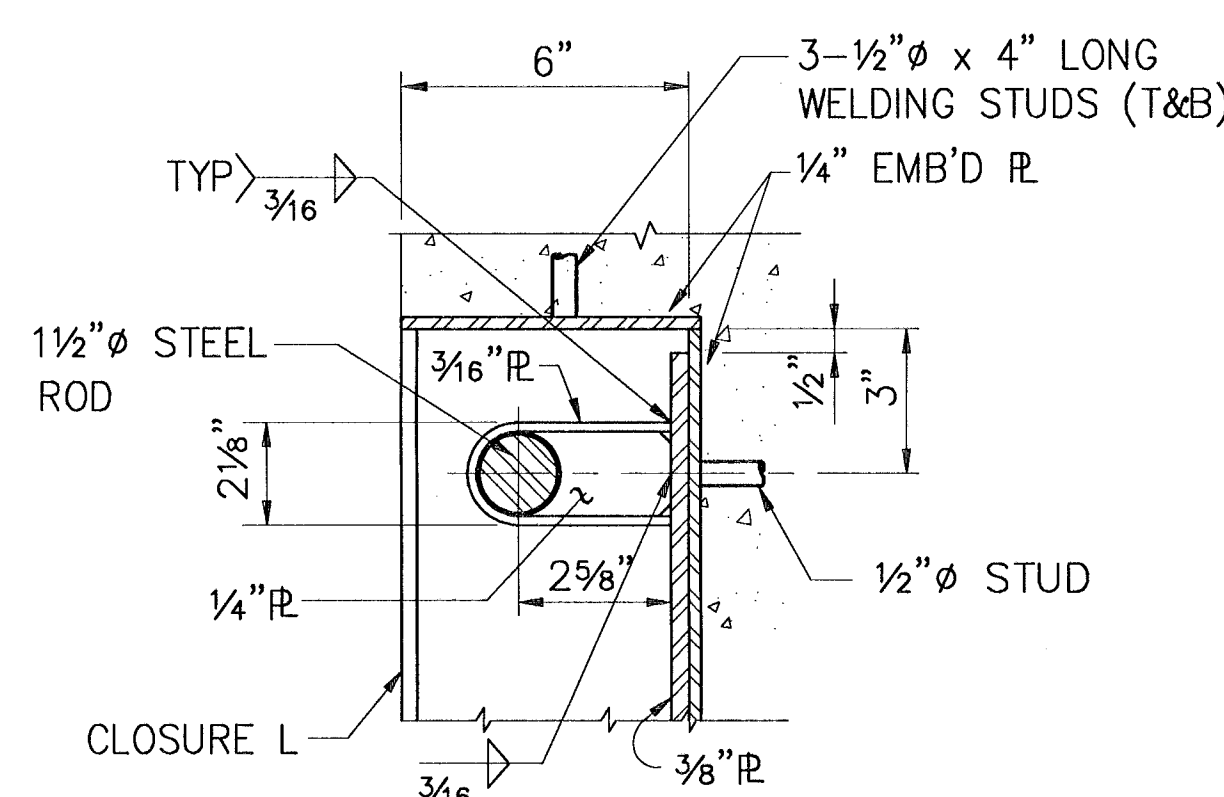


DETAIL 1
SCALE: 1"=1'-0"

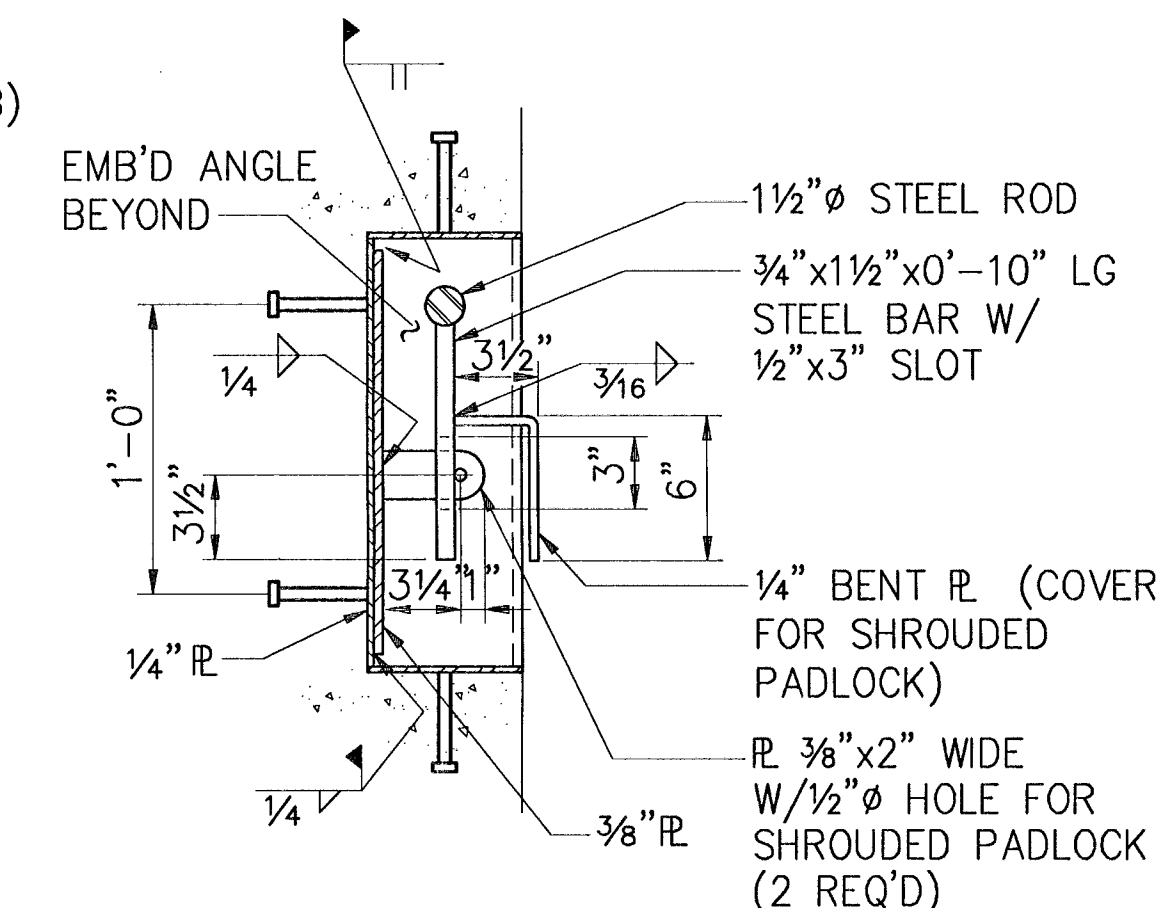
(PARTIAL PLAN OF INTERIOR DOOR LOCK ASSEMBLY-DOORS #1, #2, #4 & #5)



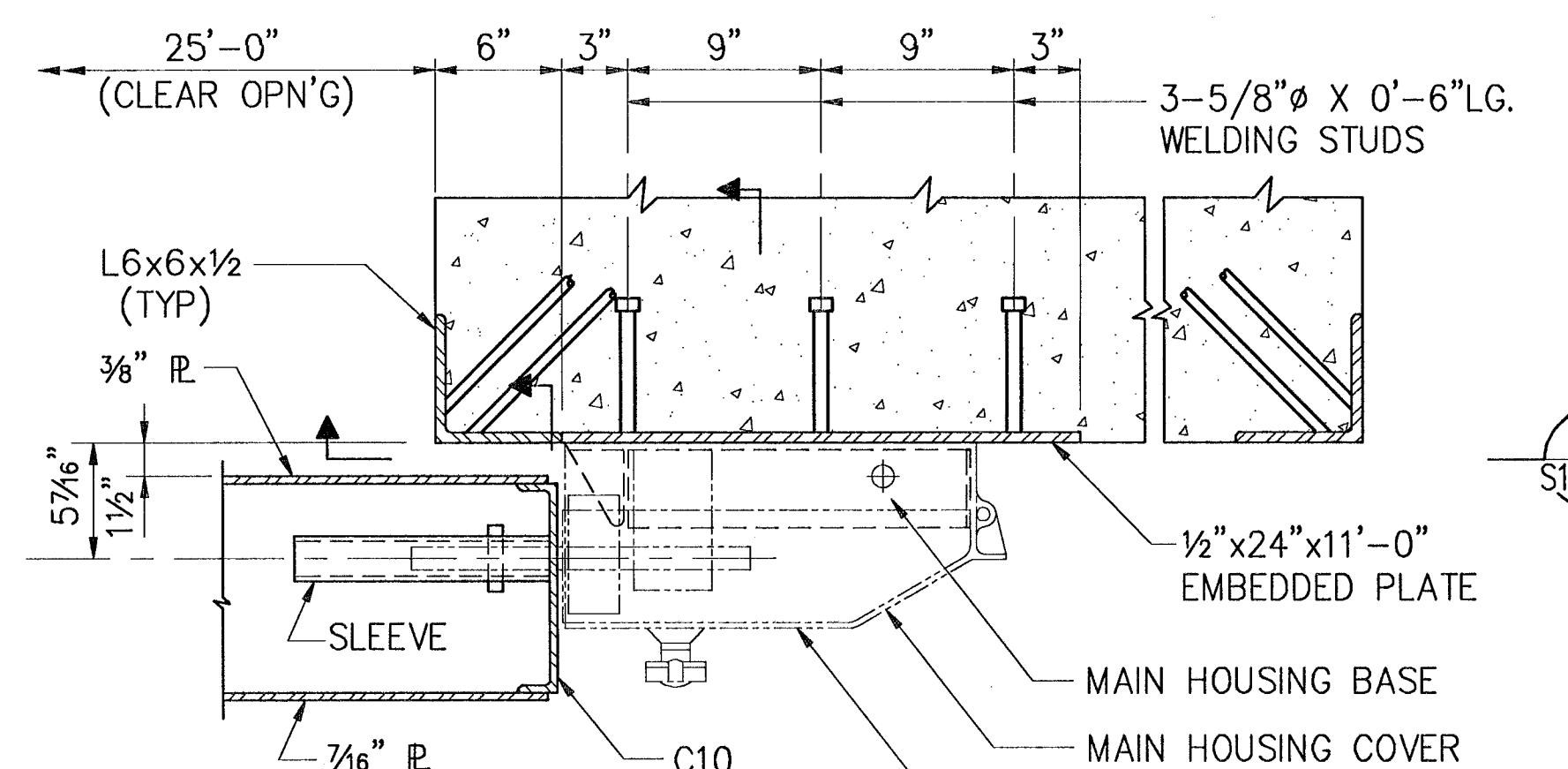
SECTION 1
SCALE: 1"=1'-0"



SECTION 2
SCALE: 3"=1'-0"



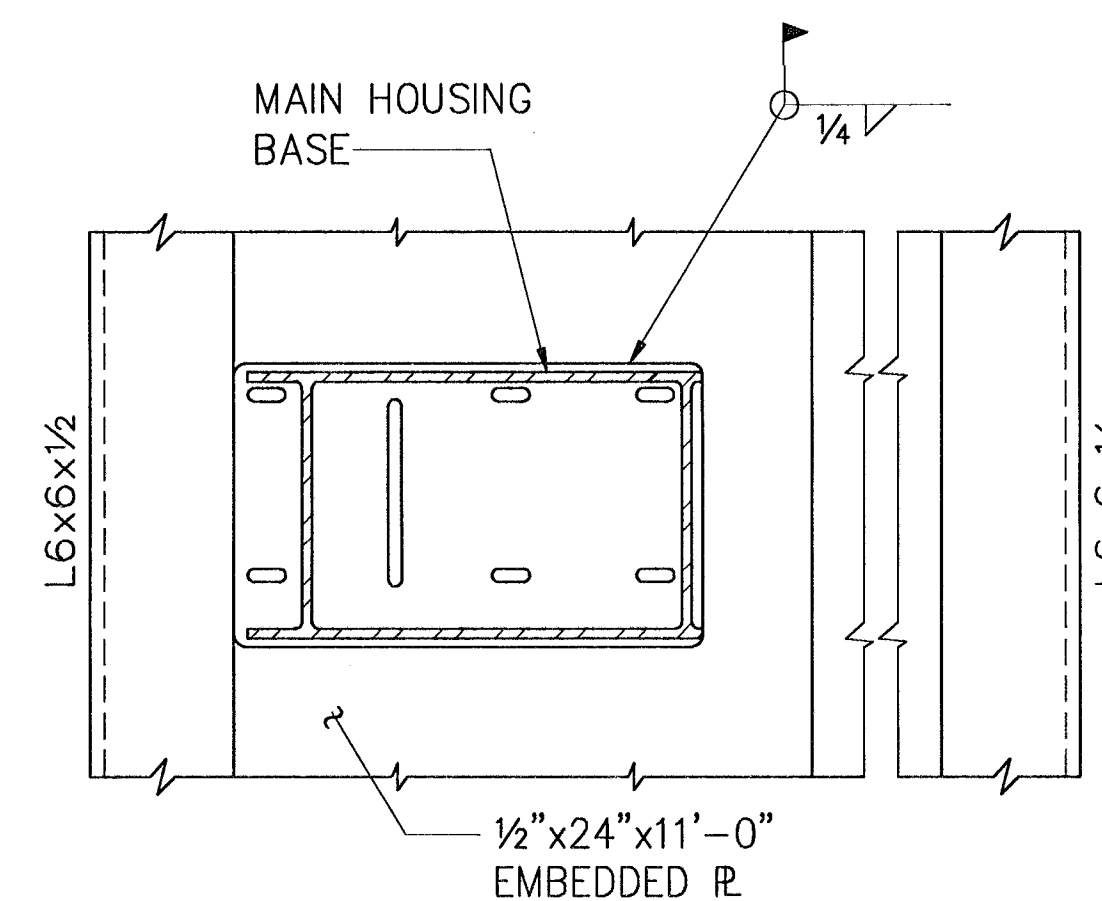
SECTION 3
SCALE: 1 1/2"=1'-0"



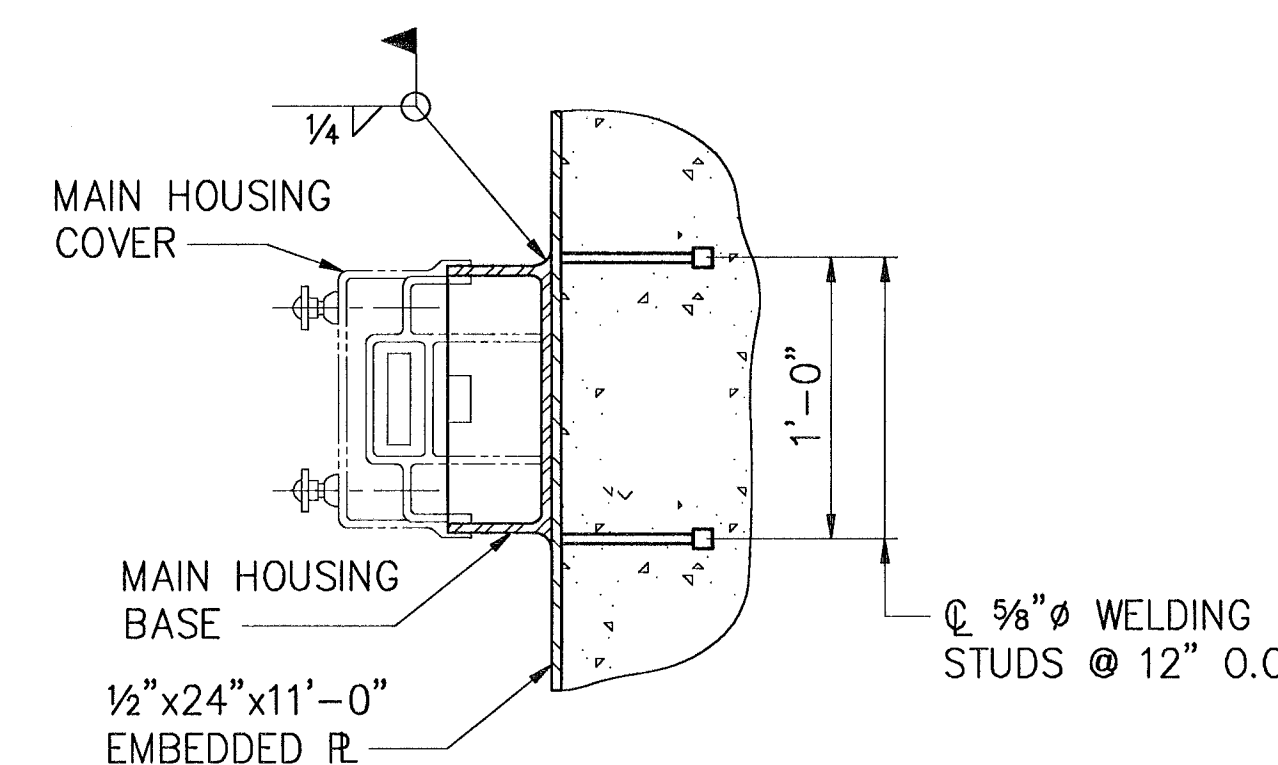
DETAIL 2
SCALE: 1 1/2"=1'-0"

"HIGH SECURITY HASP"
(NAPEC #1332)

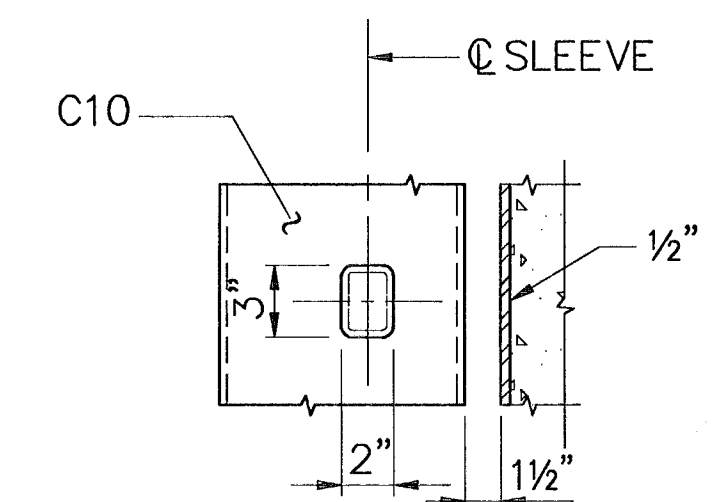
NOTE:
PUSH BUTTON DOOR MOTOR
CONTROL LOCATED INSIDE
THE HASP. SEE NAPEC
DWG. NO. 53711-5532340.



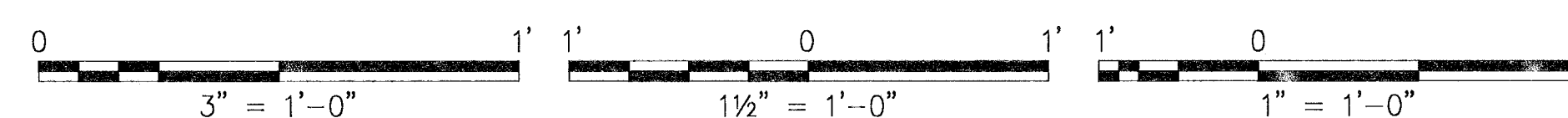
SECTION 4
SCALE: 1 1/2"=1'-0"



SECTION 5
SCALE: 1 1/2"=1'-0"



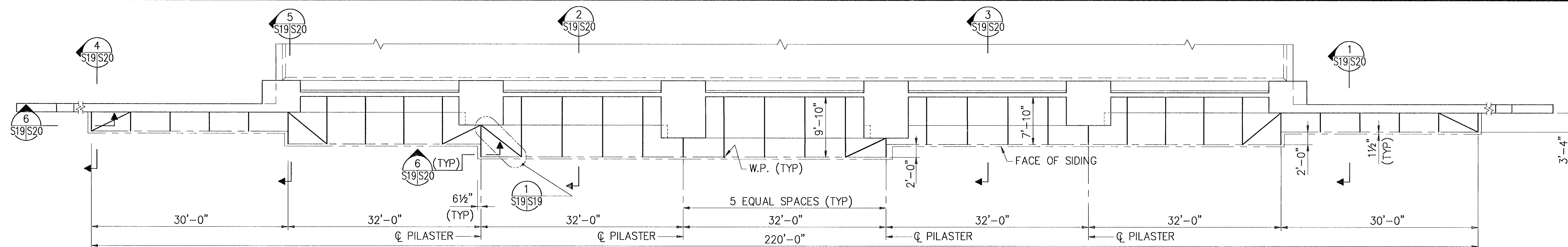
SECTION 6
SCALE: 1 1/2"=1'-0"



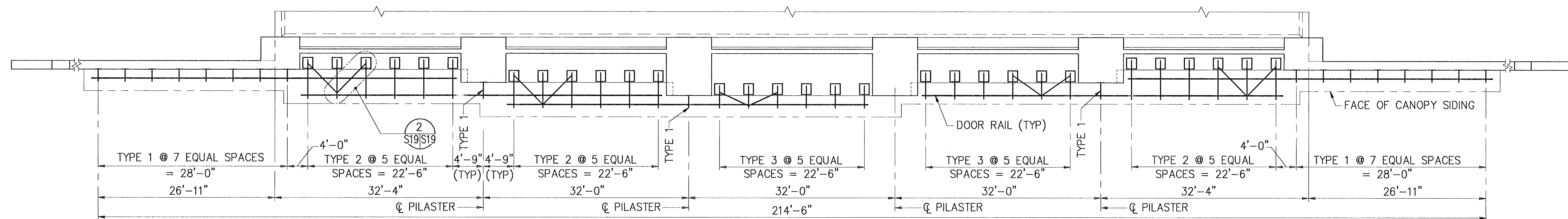
IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY

SATISFACTORY TO
TITLE

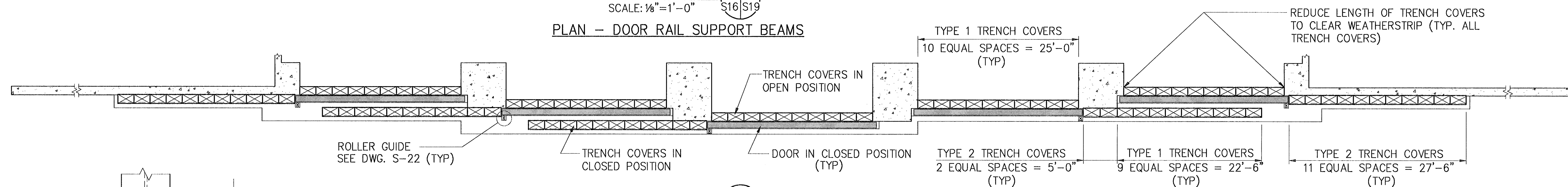
SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 96 WASHINGTON ST., NEW YORK, NY 10014 DATE: 27/5/97						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350						
NAVAL FACILITIES ENGINEERING COMMAND						
STANDARD DRAWING						
STANDARD BOX MAGAZINE TYPE 'D'						
LOCK DETAILS						
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	SHEET 18			
D	80091	6,448,539	33			
SCALE	AS NOTED	CONTRACT NO	SPEC NO			
CATEGORY CODE	FOR COMMANDER NAVFACENCOM					



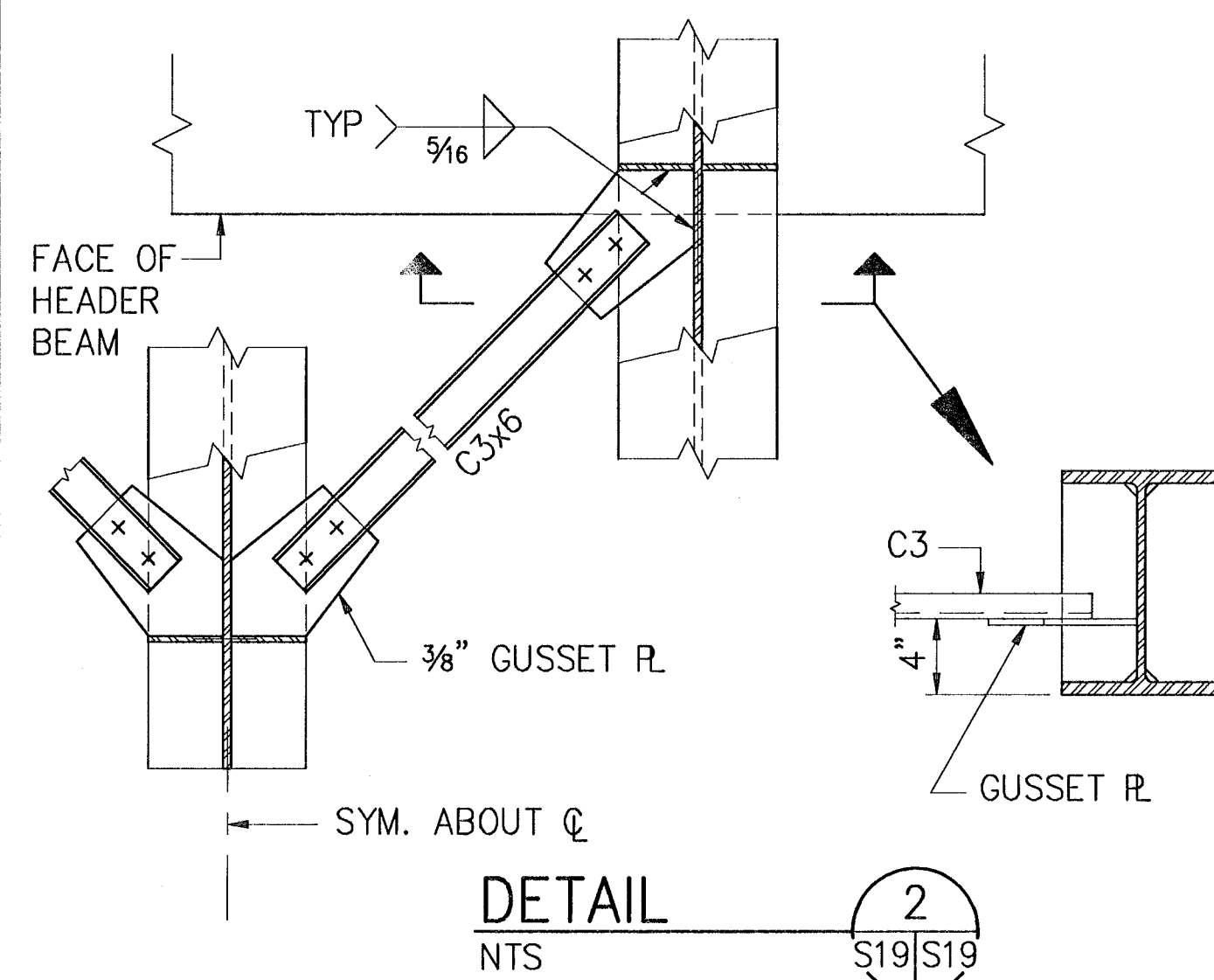
SECTION 1
SCALE: 1/8"=1'-0"
PLAN - CANOPY SUPPORT FRAMES



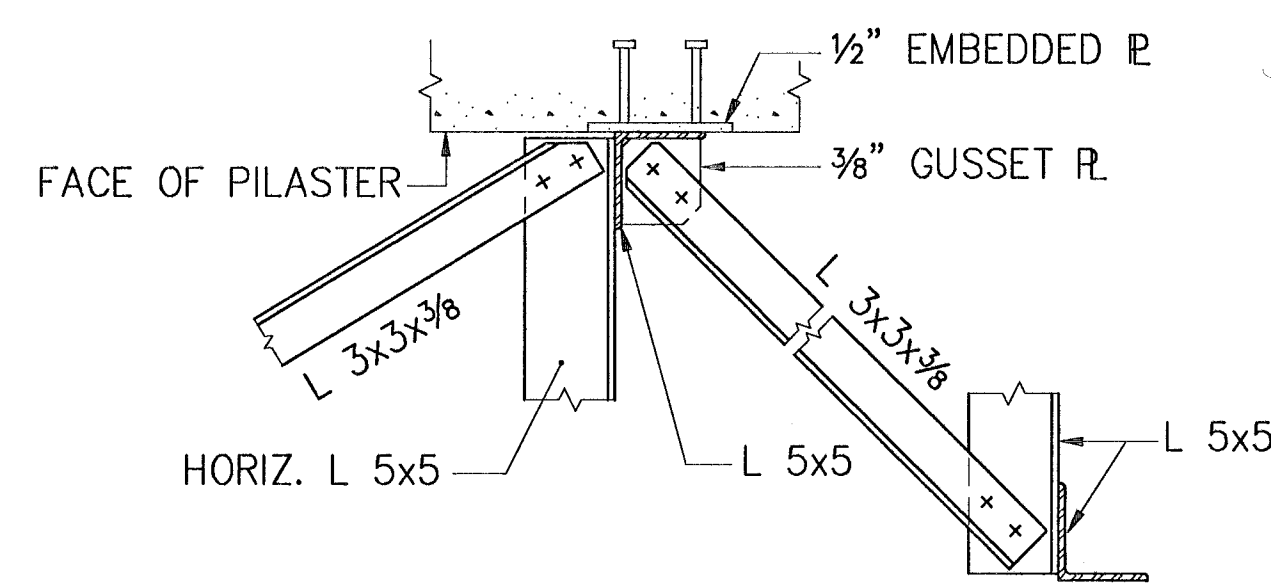
SECTION 2
SCALE: 1/8"=1'-0"
PLAN - DOOR RAIL SUPPORT BEAMS



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

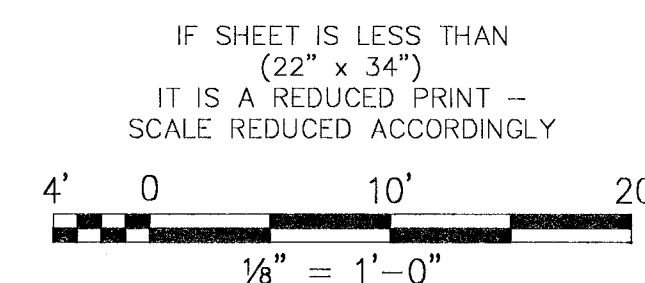


DETAIL 2
NTS
S19/S19

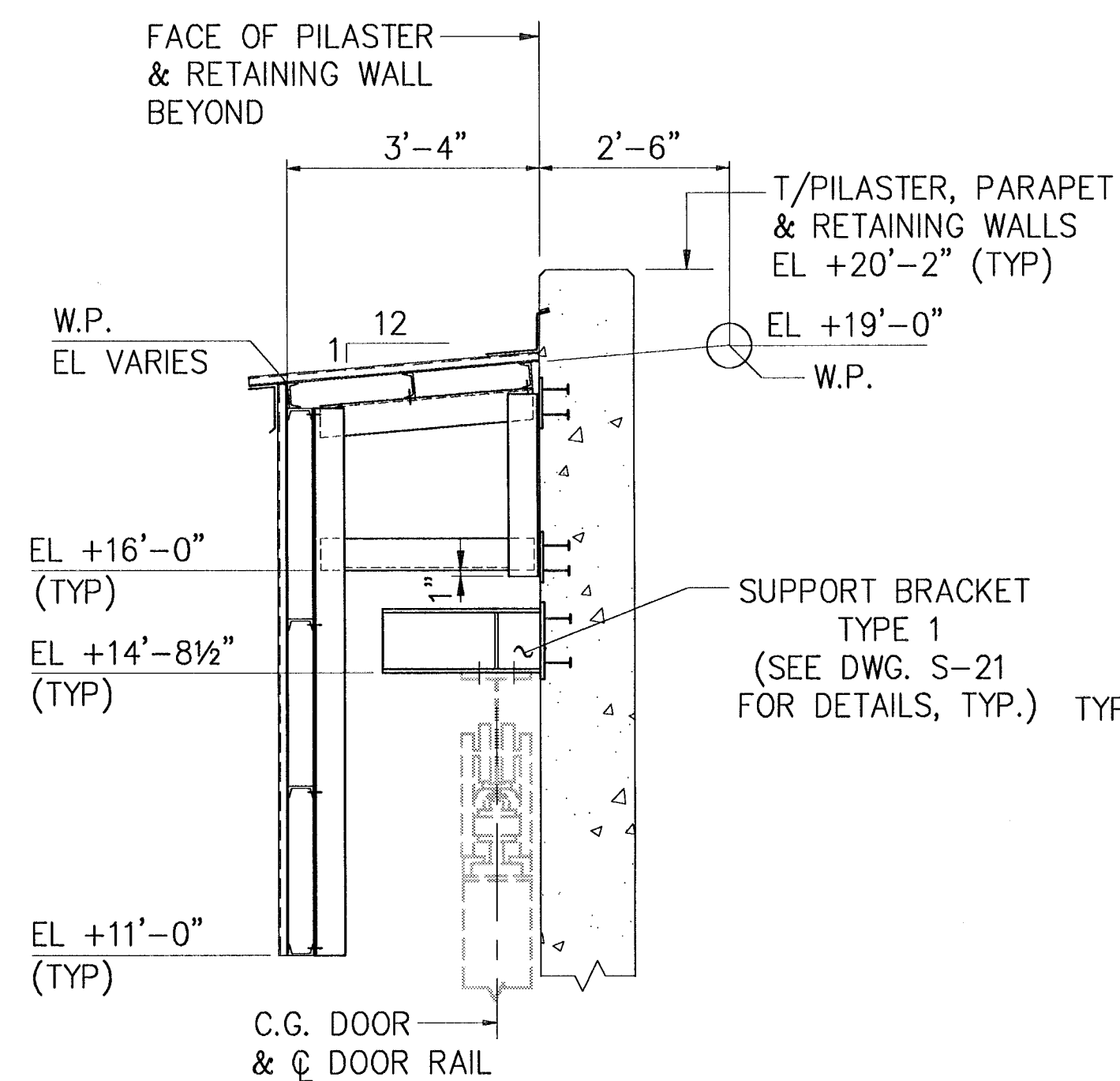


DETAIL 1
NTS
S19/S19

- NOTES:
1. FOR CANOPY SUPPORT FRAMES SEE DWG. S-20.
 2. FOR DOOR RAIL SUPPORT BEAMS SEE DWG. S-21.
 3. FOR TRENCH COVER AND ROLLER GUIDE SEE DWG. S-22.



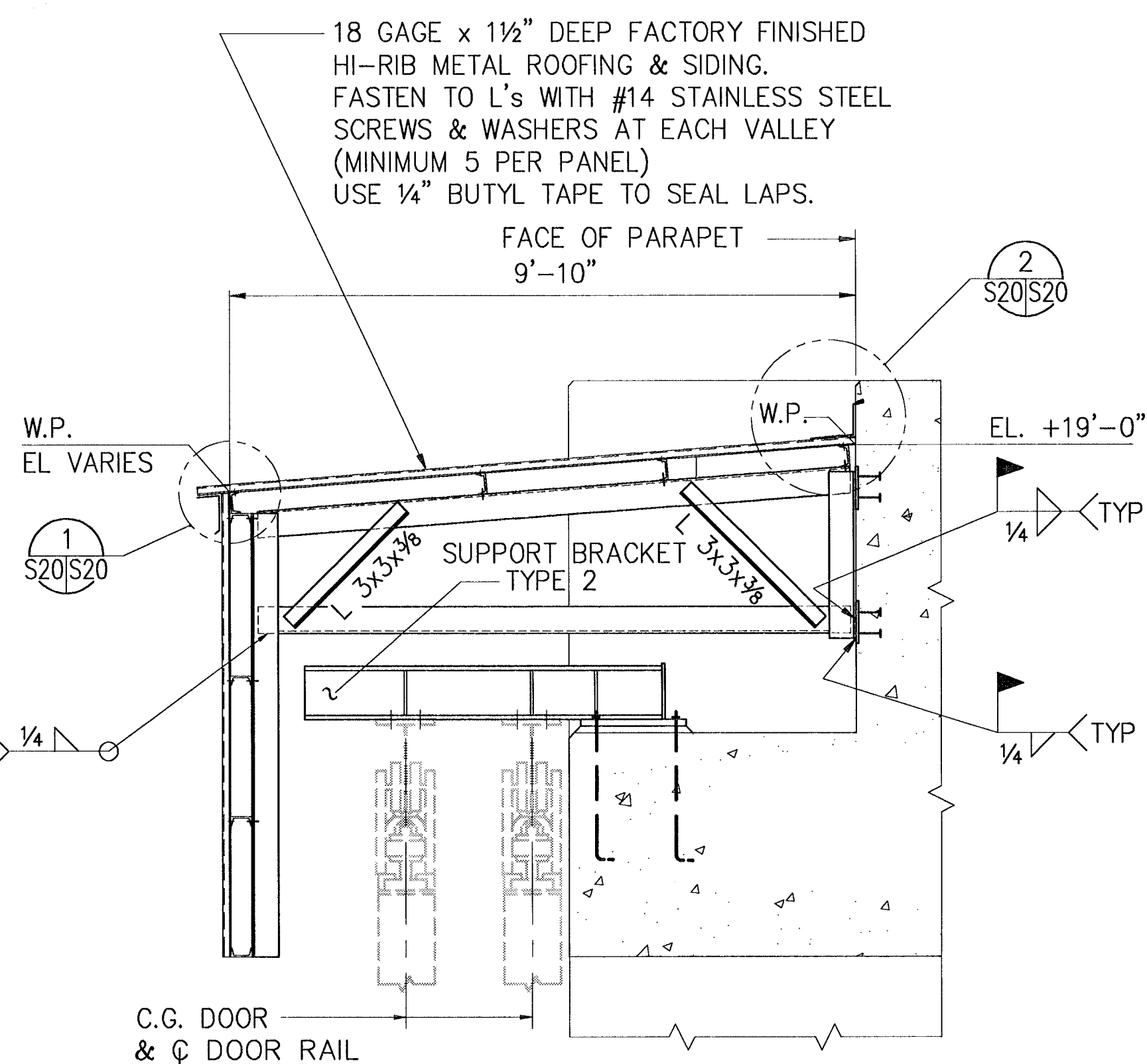
SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 98 MORTON ST., NEW YORK, NY 10014						
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' PLANS - CANOPY, RAIL SUPPORTS, TRENCH COVERS						
ENGINEER IN CHARGE R. Brady	DATE 27/5/97	BRANCH MANAGER R. Brady				
CRITERIA MANAGER R. Brady		DIVISION DIRECTOR A. Drayton				
FIRE PROTECTION ENGINEER	DATE					
CRITERIA MANAGER	DATE					
APPROVED	DATE					
FOR COMMANDER NAVFACENCOM						
SIZE D	CODE IDENT NO 80091	NAFAC DRAWING NUMBER 6,448,540	SHEET 19		OF 33	
SCALE AS NOTED	CONTRACT NO.	SPEC NO.				



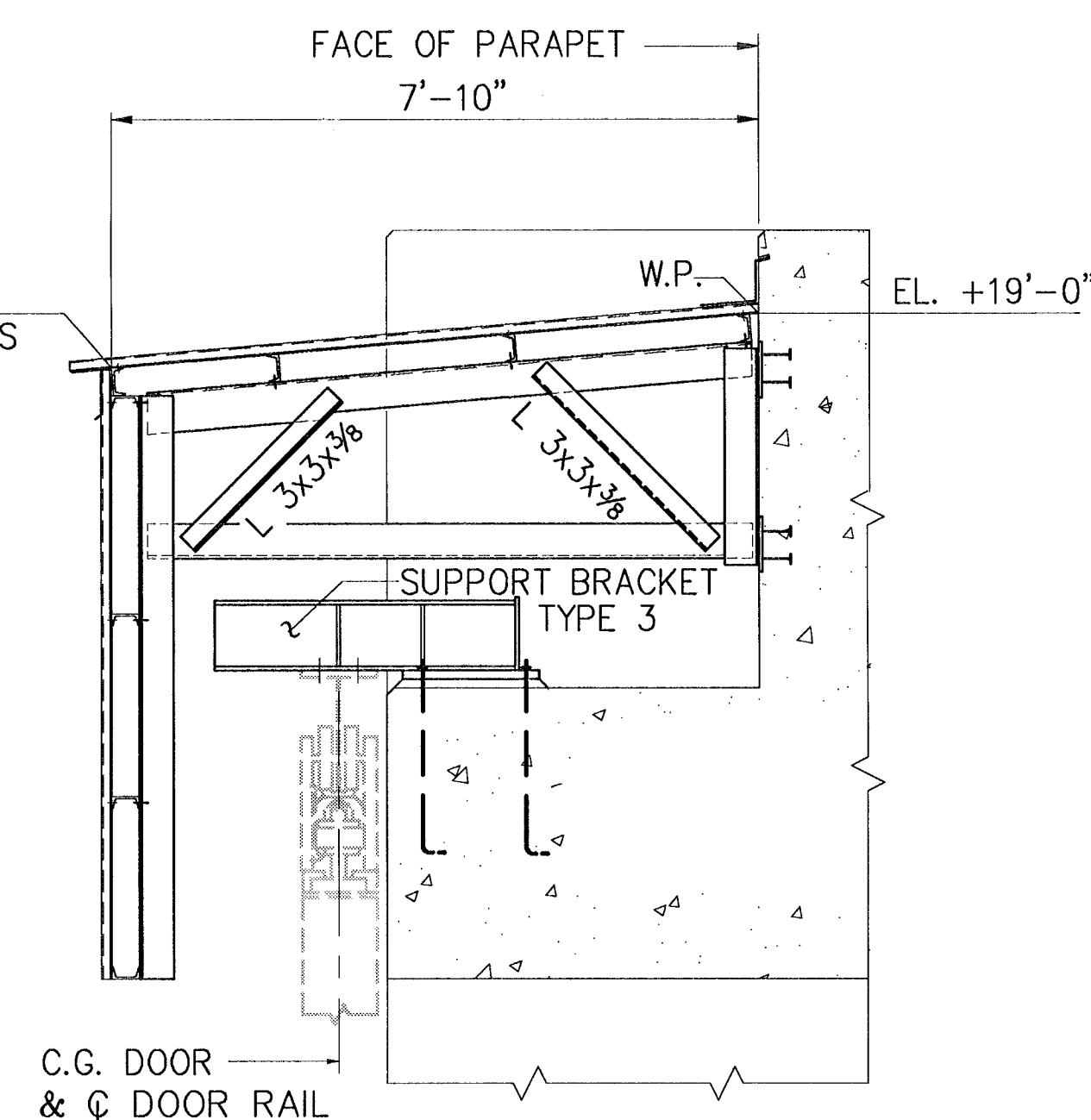
SECTION
SCALE: 1/2"=1'-0"

NOTES:

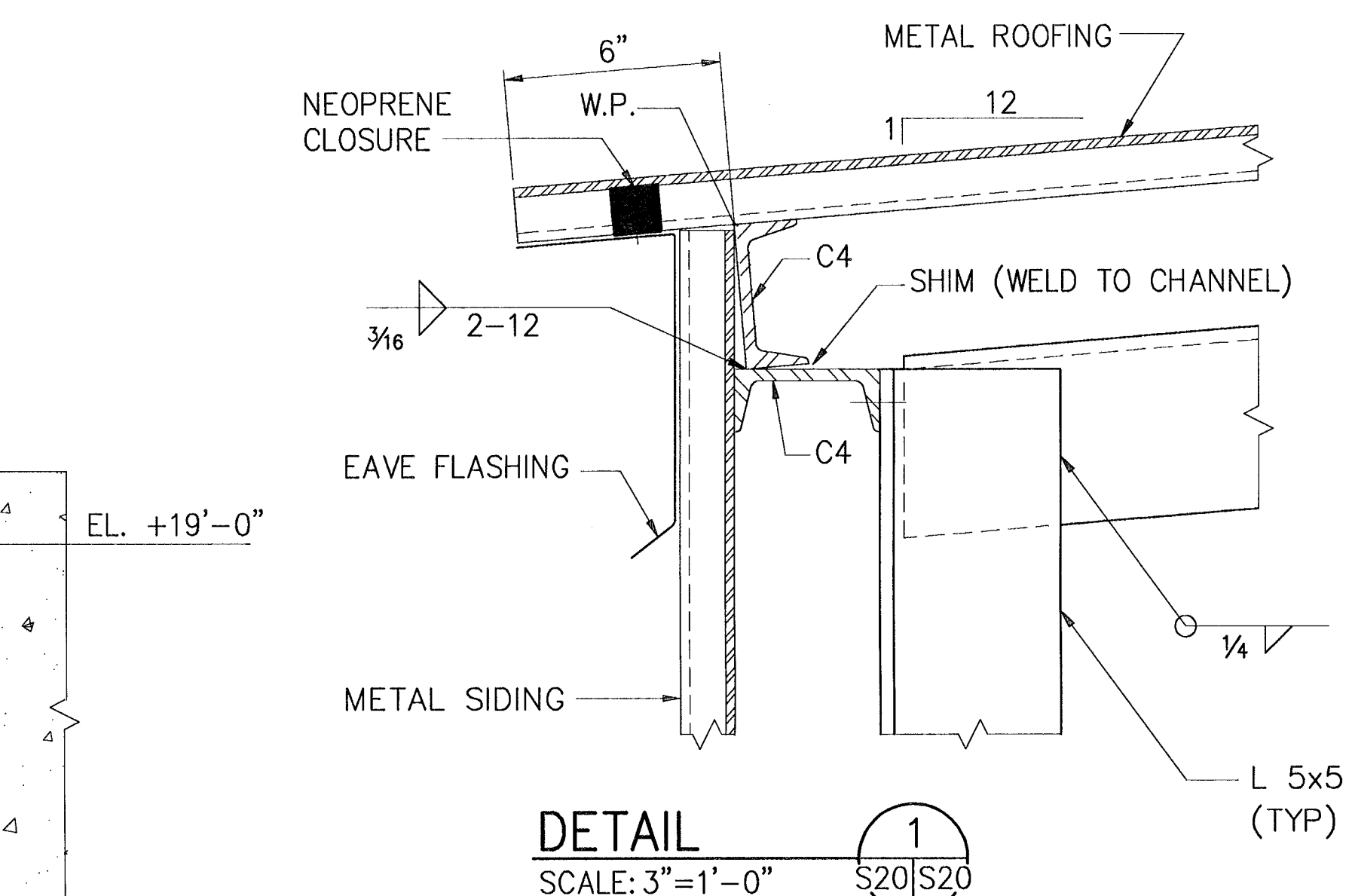
1. ALL ANGLES TO BE 5x5x $\frac{3}{8}$ UNLESS NOTED OTHERWISE.
2. ALL PURLINS AND GIRTS TO BE C4x7.25, FASTENED TO ANGLES WITH TWO $\frac{5}{8}$ " ϕ A325 BOLTS (TYP).
3. FOR SUPPORT BRACKET DETAILS, SEE DWG. S-21.



SECTION 2
SCALE: 1/2"=1'-0" S19 | S20



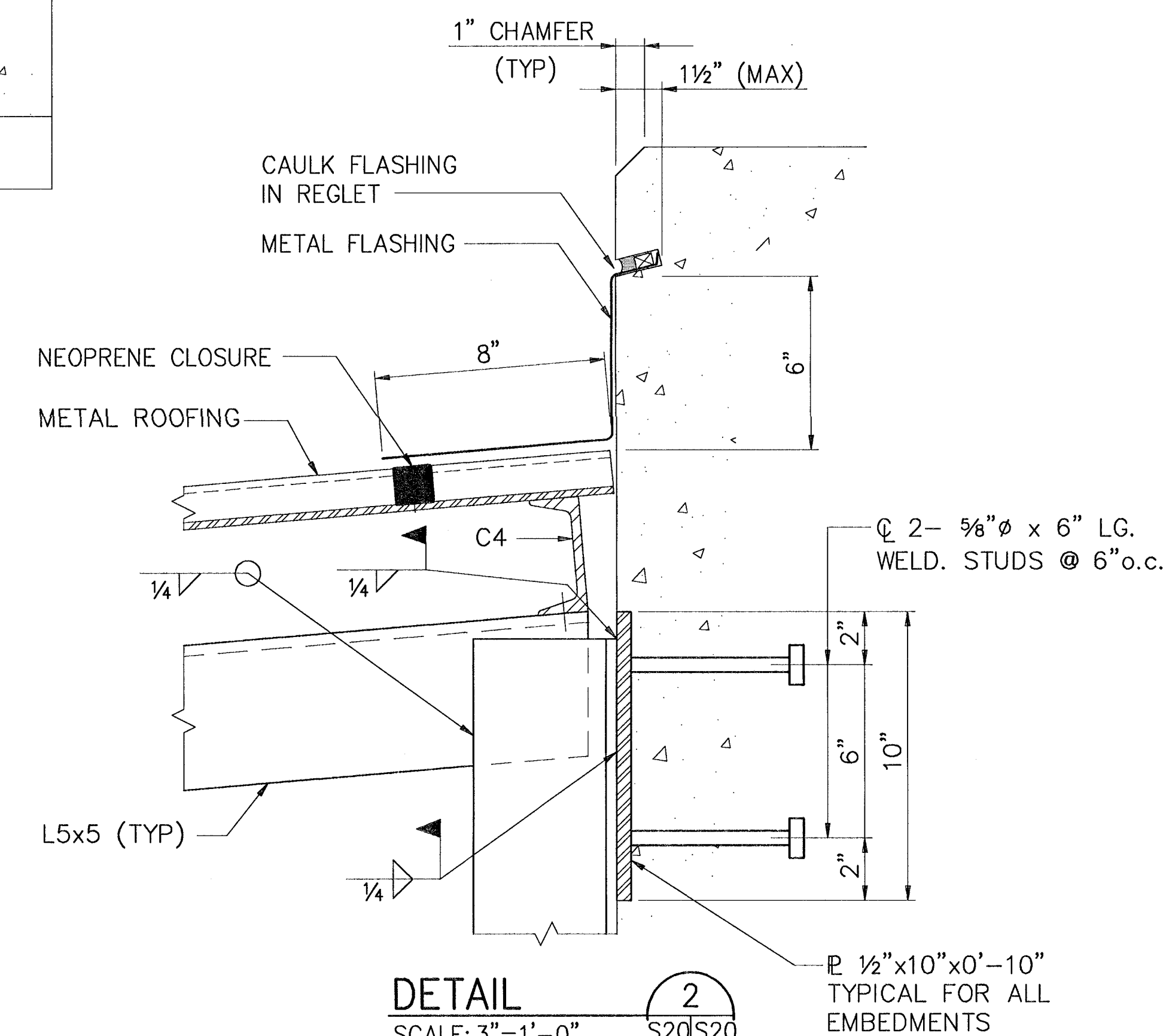
SECTION 3
SCALE: 1/2" = 1'-0" S19 | S20



DETAIL

SCALE: 3"=1'-0"

S20 S20

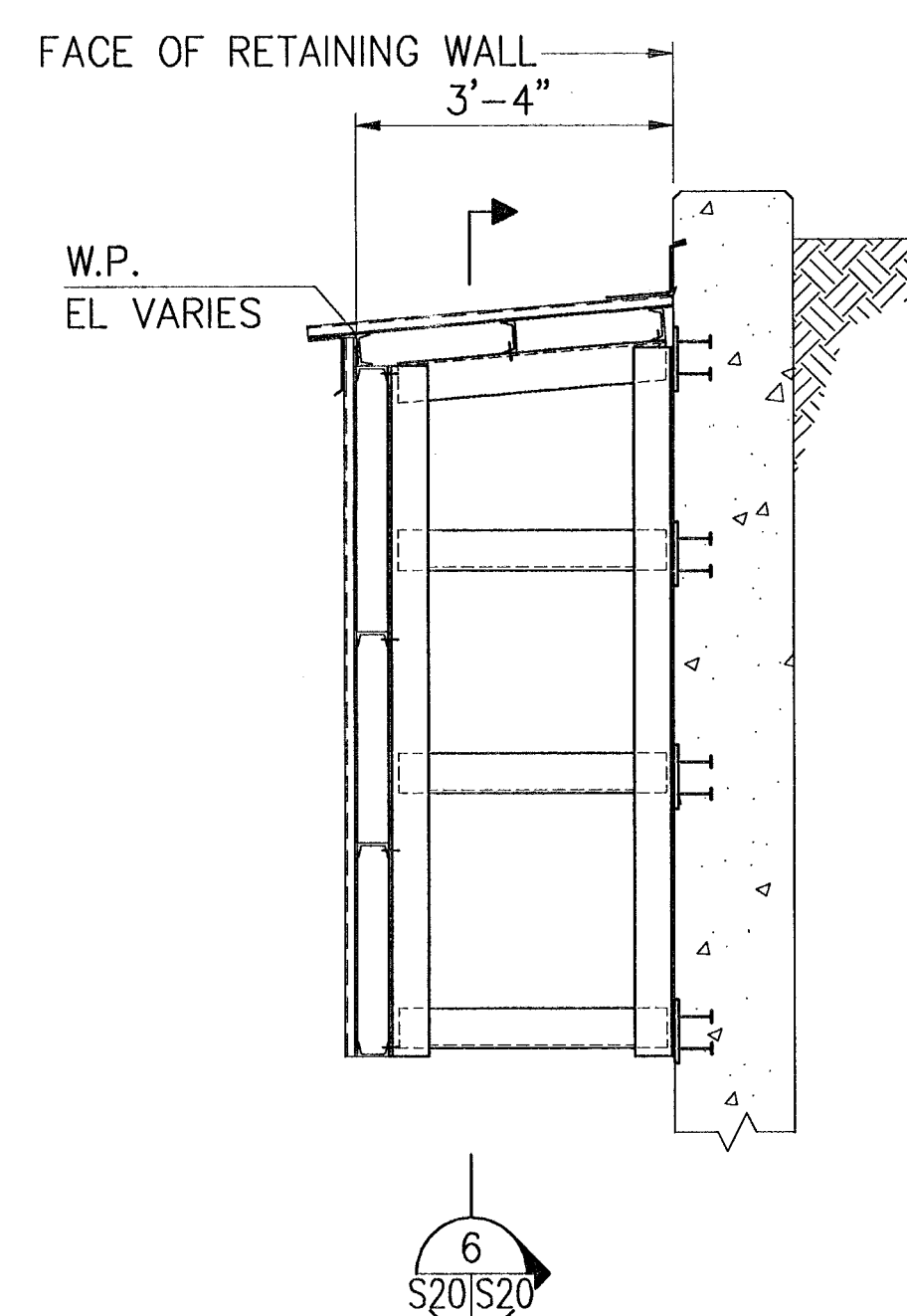



DETAIL

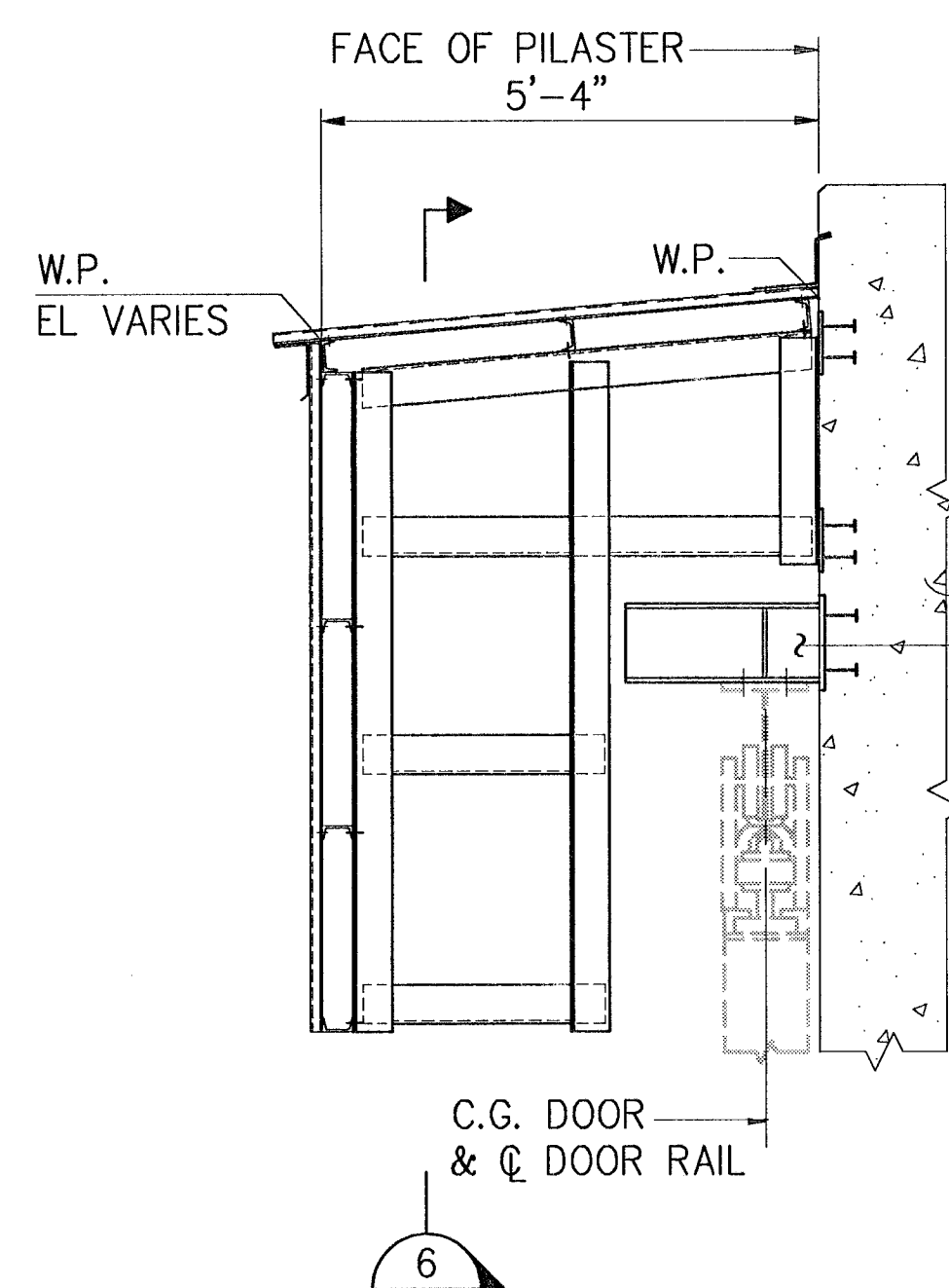
SCALE: 3"=1'-0"


2

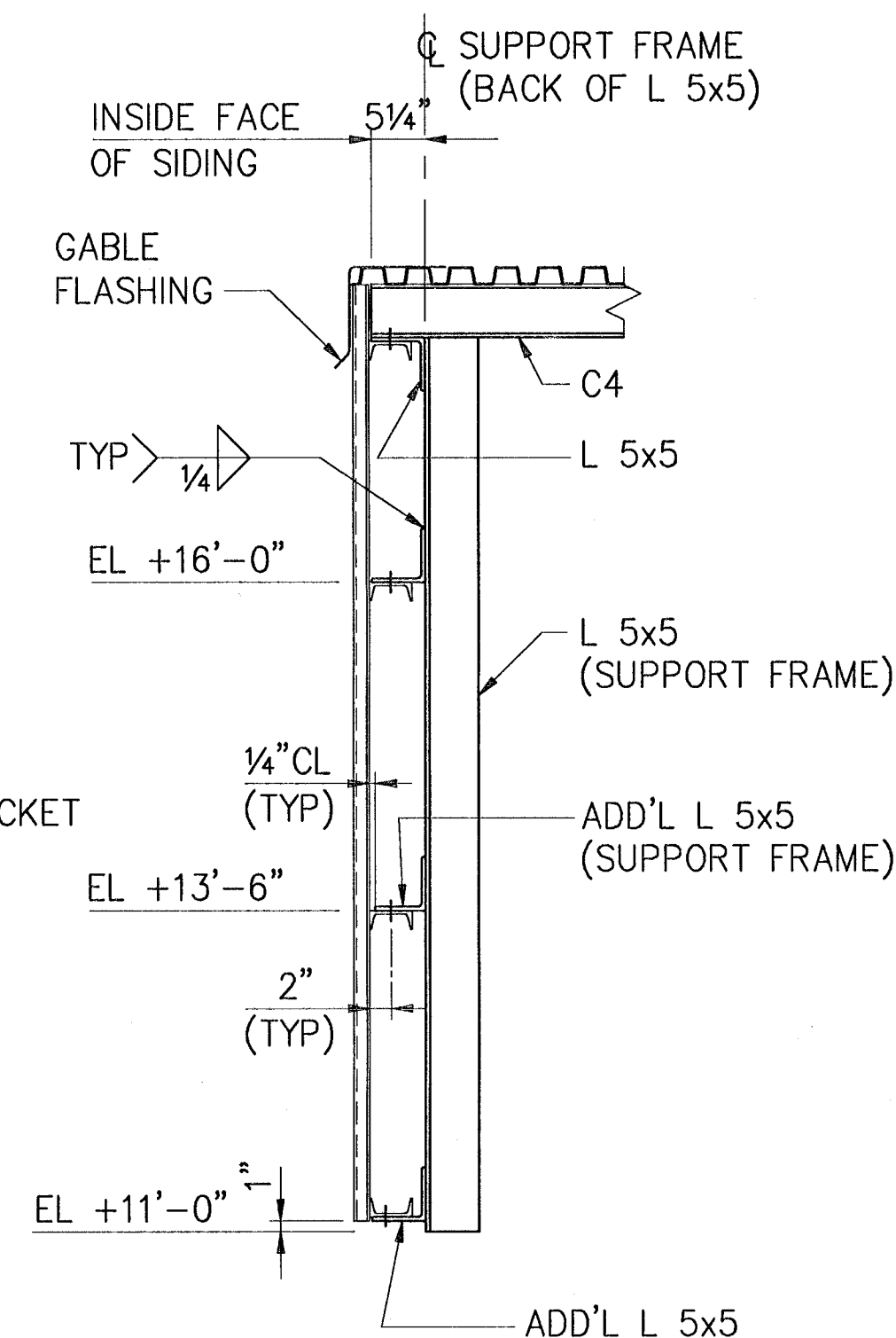
S20 S20



SECTION  4
SCALE: 1/2"=1'-0" S19 S20



SECTION  5
SCALE: 1/2" = 1'-0" S19 | S20



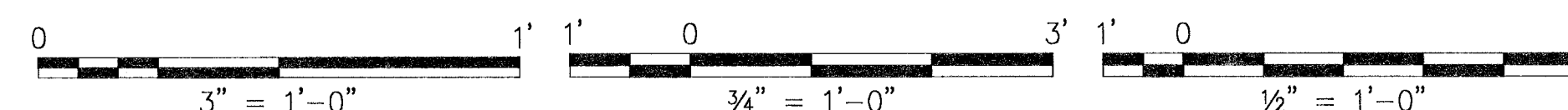
SECTION

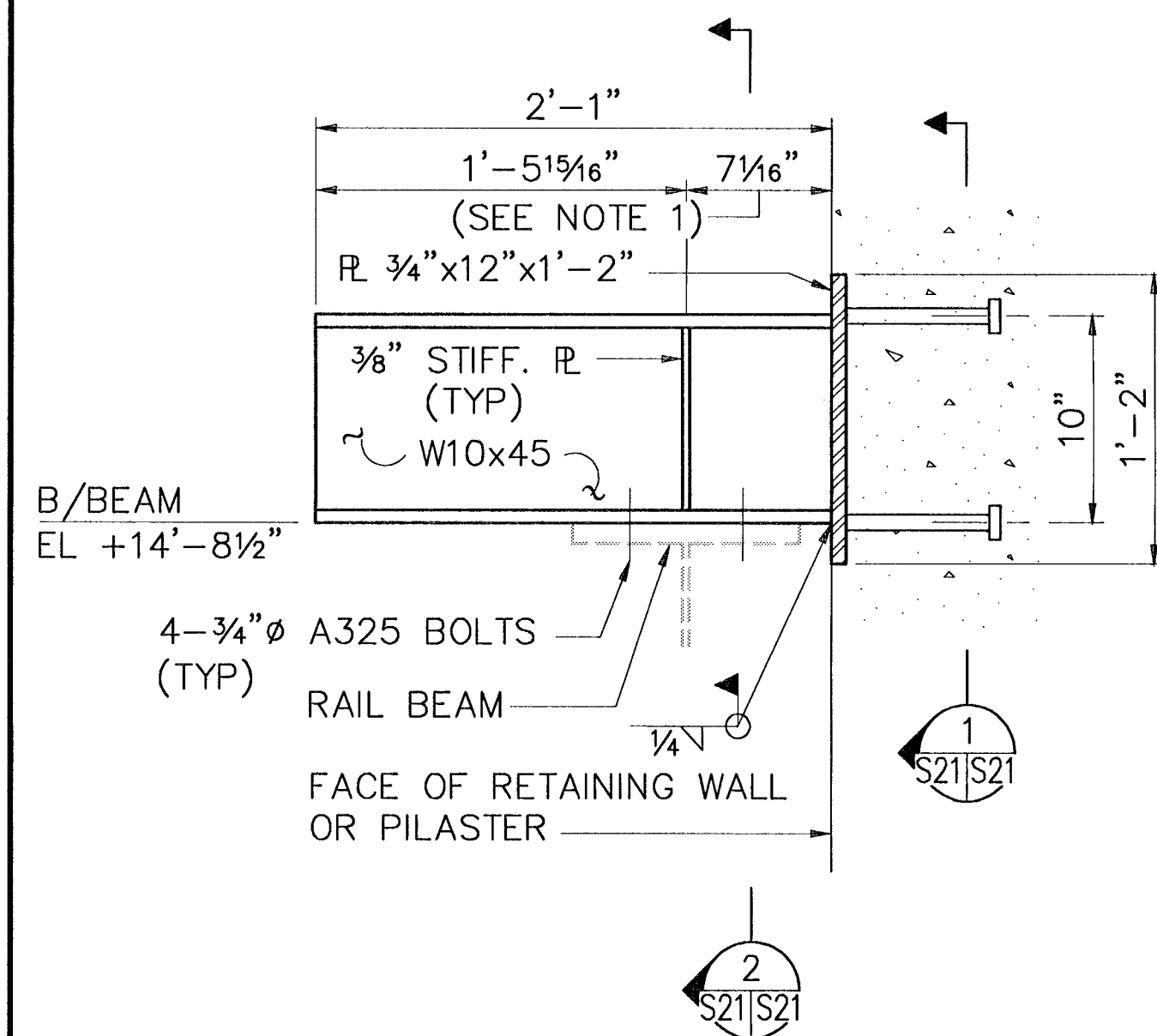
SCALE: $\frac{3}{4}" = 1' - 0"$

S20 S19 S20

6

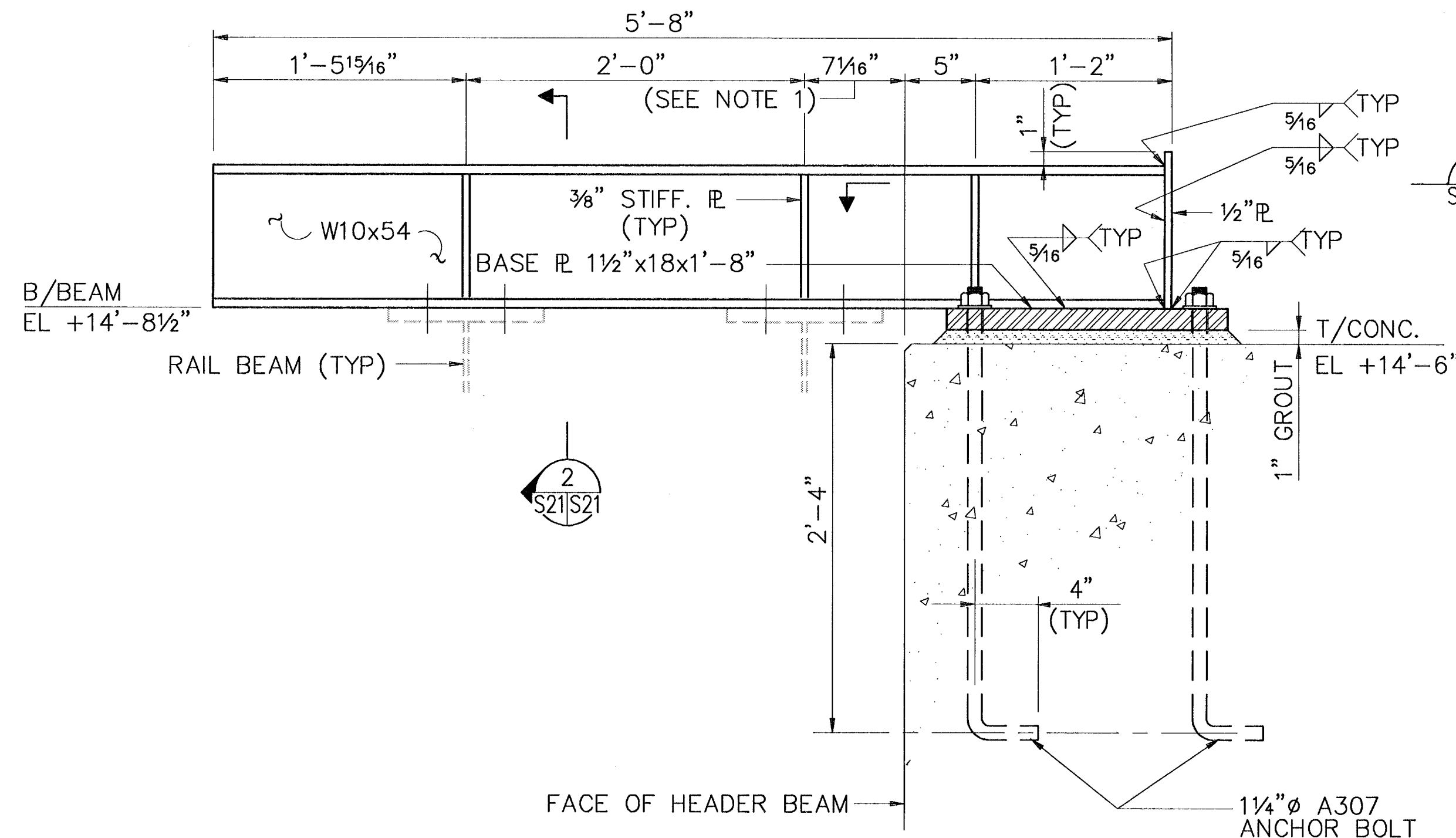
IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY

[illegible]



TYPE 1

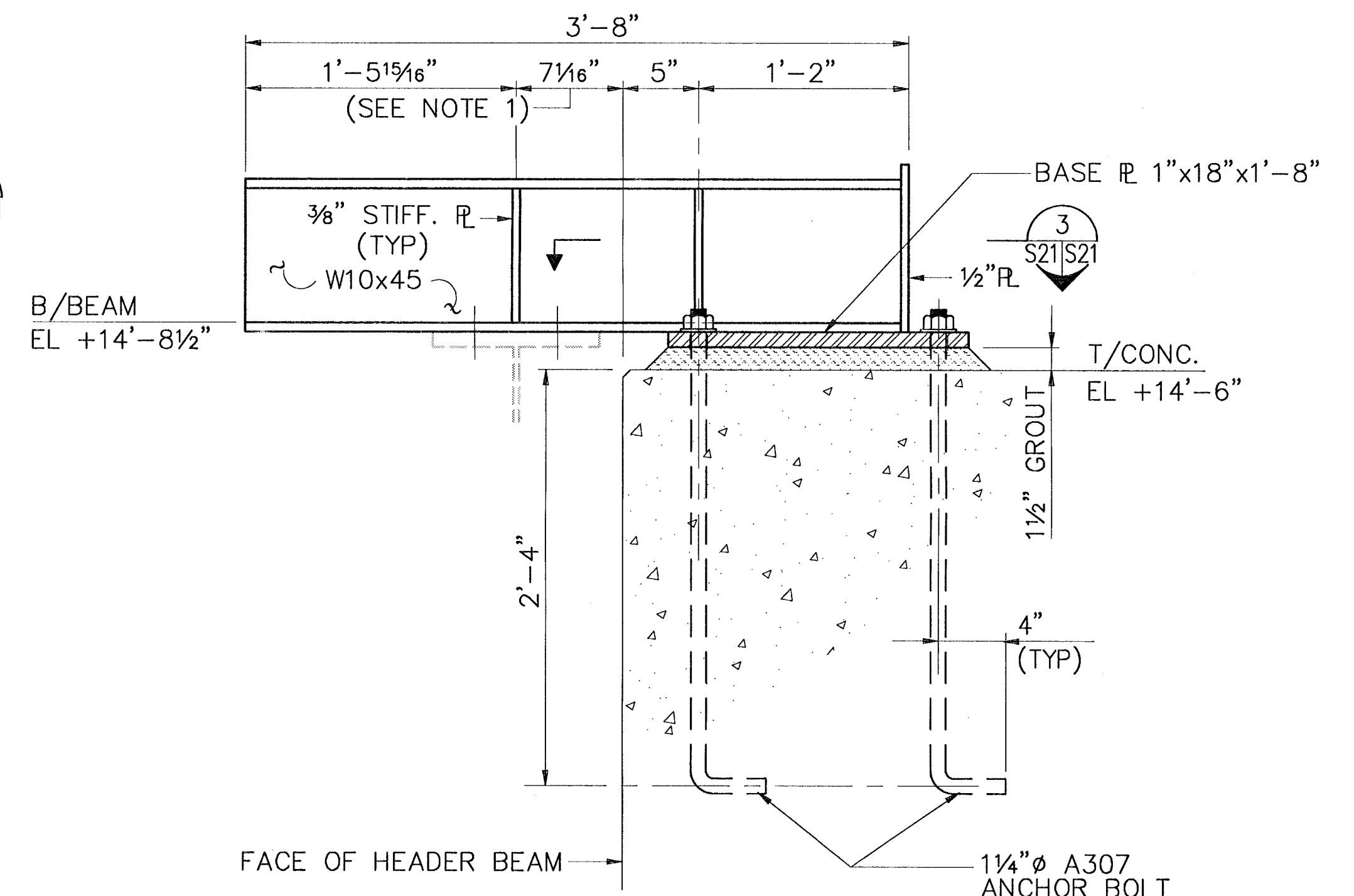
NOTE 1: LOCATION OF RAIL BEAM TO BE VERIFIED BY DOOR MANUF.



TYPE 2

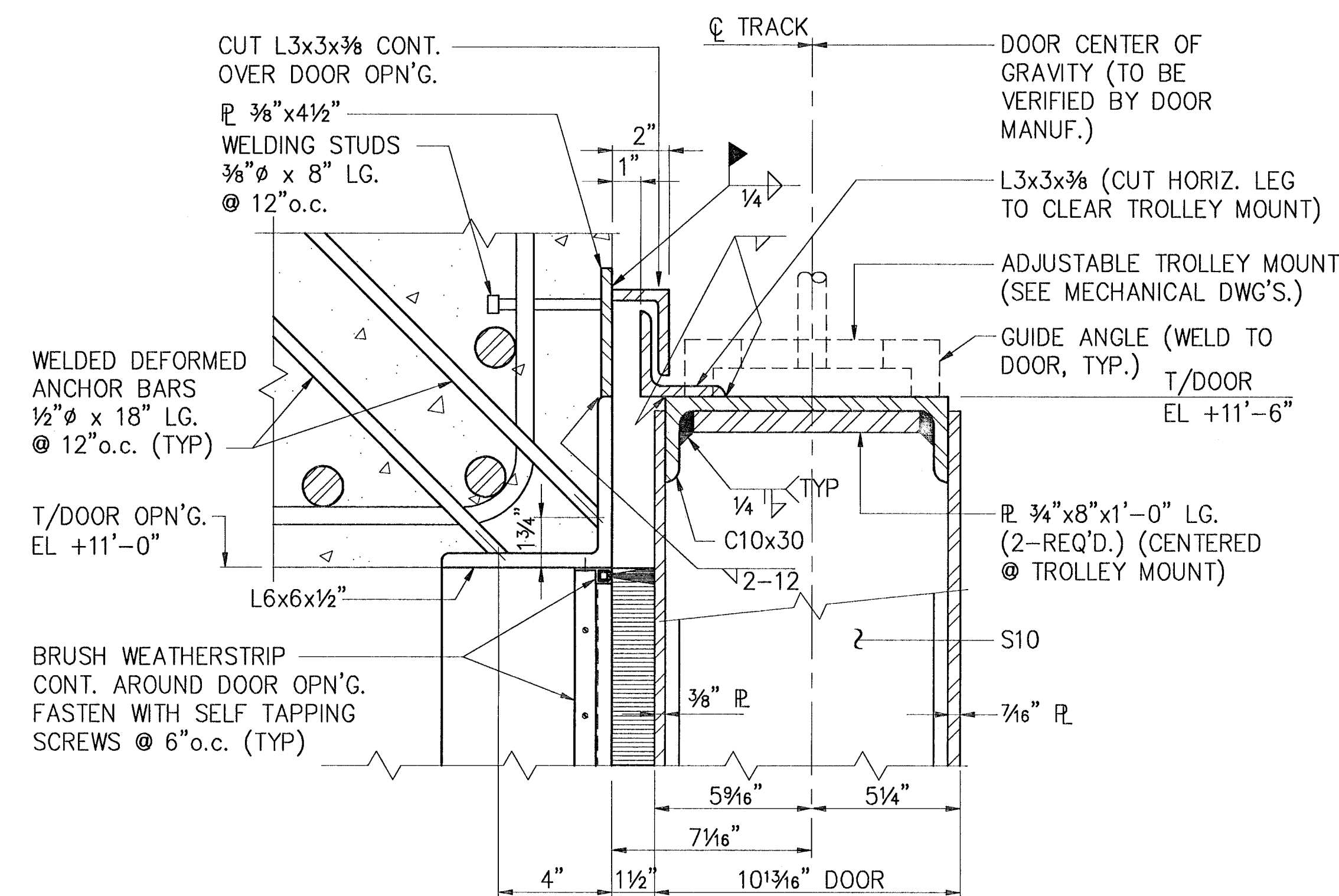
DOOR RAIL SUPPORT BEAM DETAILS

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



TYPE 3

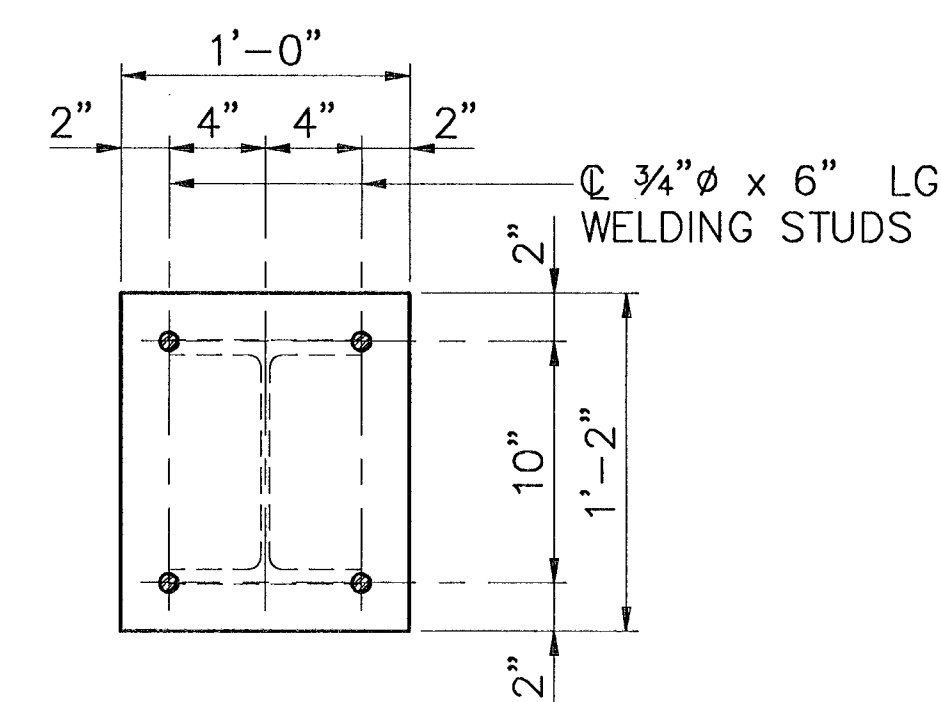
NOTE: FOR DETAILS NOT SHOWN SEE TYPE 2 SUPPORT BEAM.



DETAIL

SCALE: 3" = 1'-0"

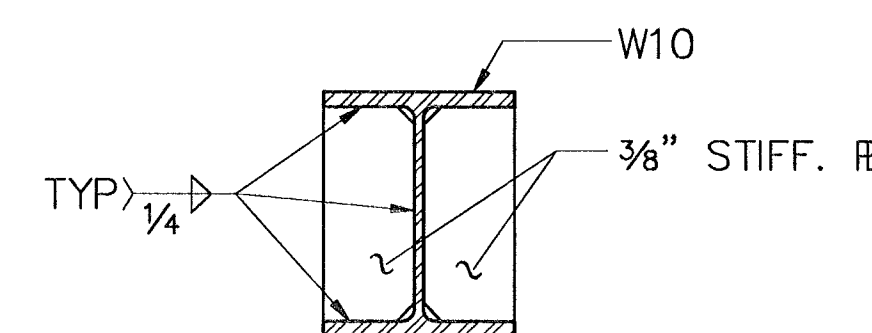
2
S17/S21



SECTION 1

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

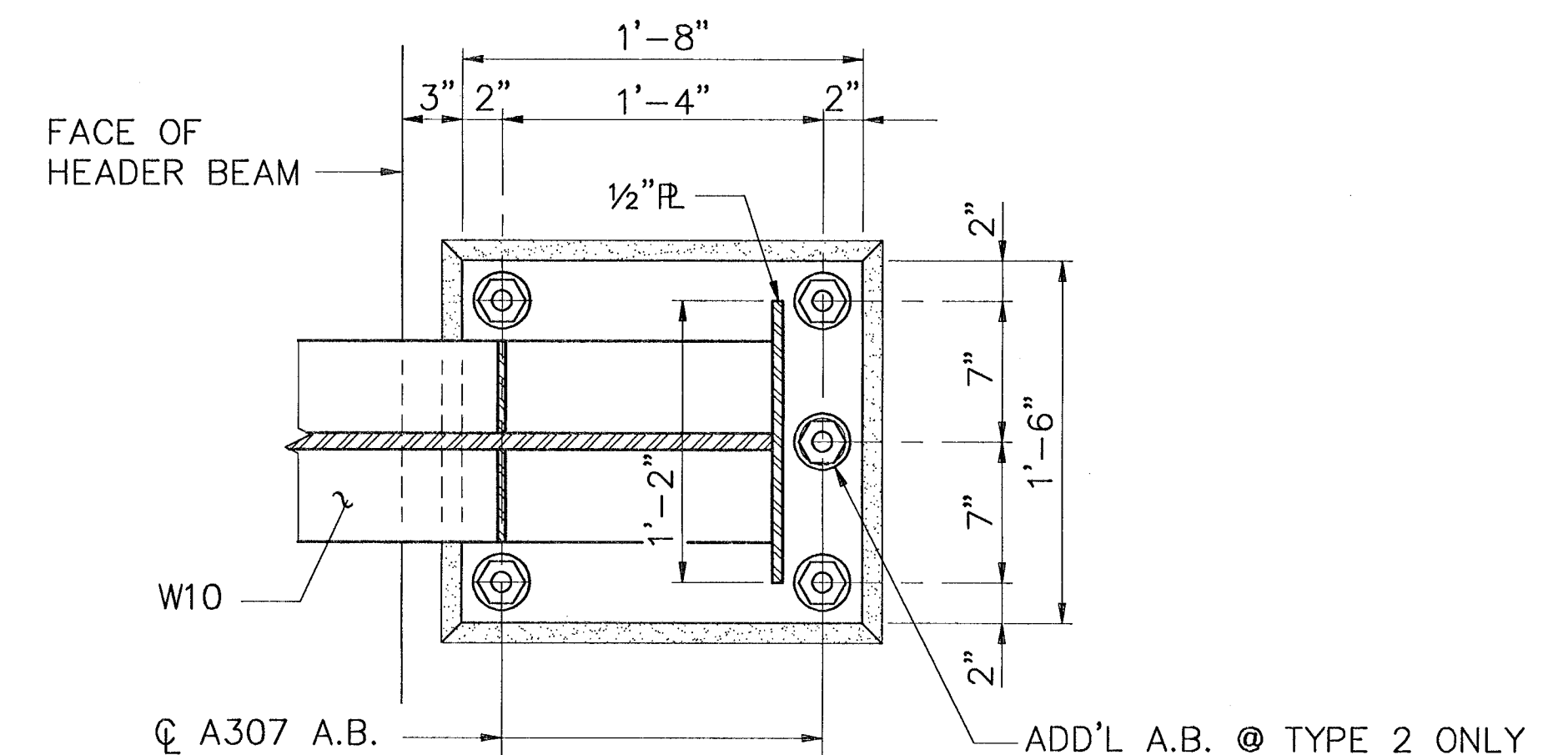
1
S21/S21



SECTION 2

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

2
S21/S21



SECTION 3

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

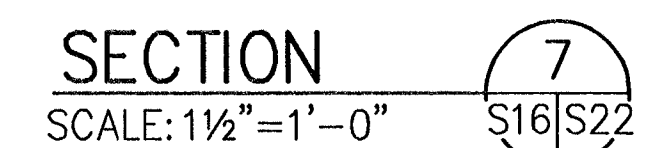
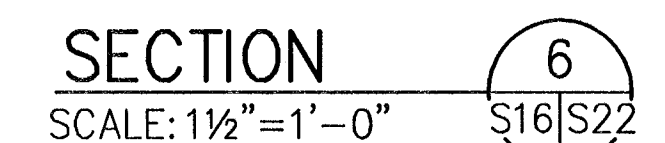
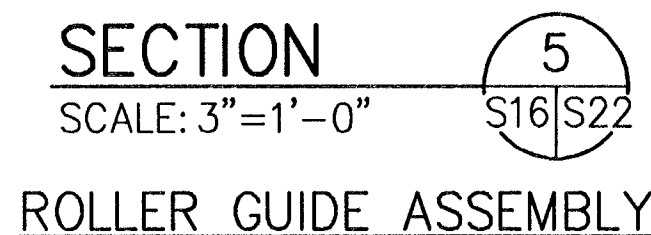
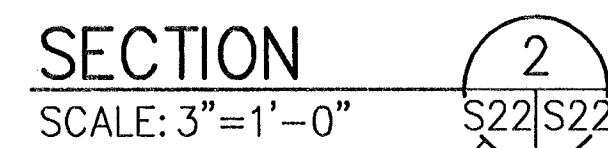
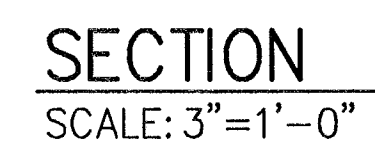
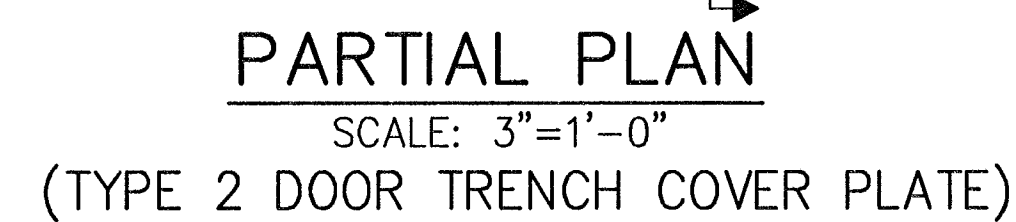
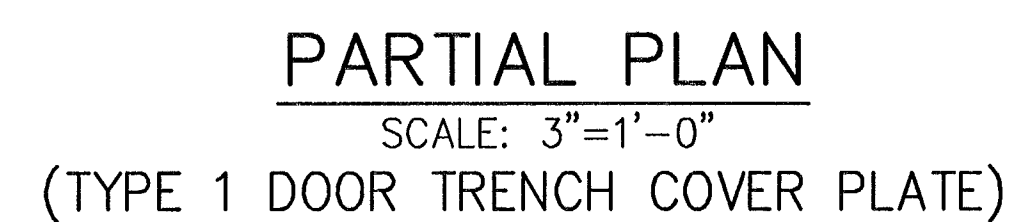
3
S21/S21



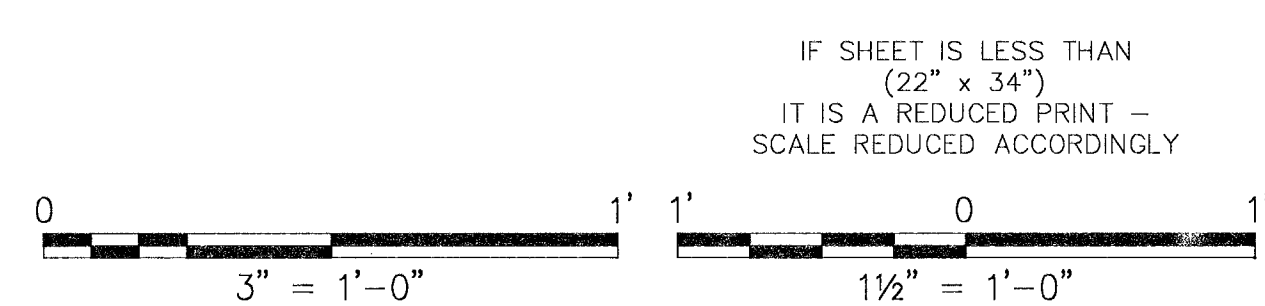
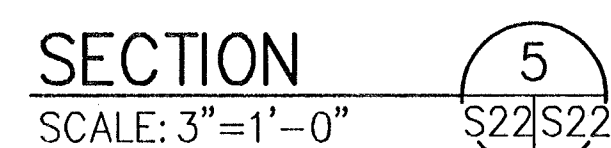
IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY

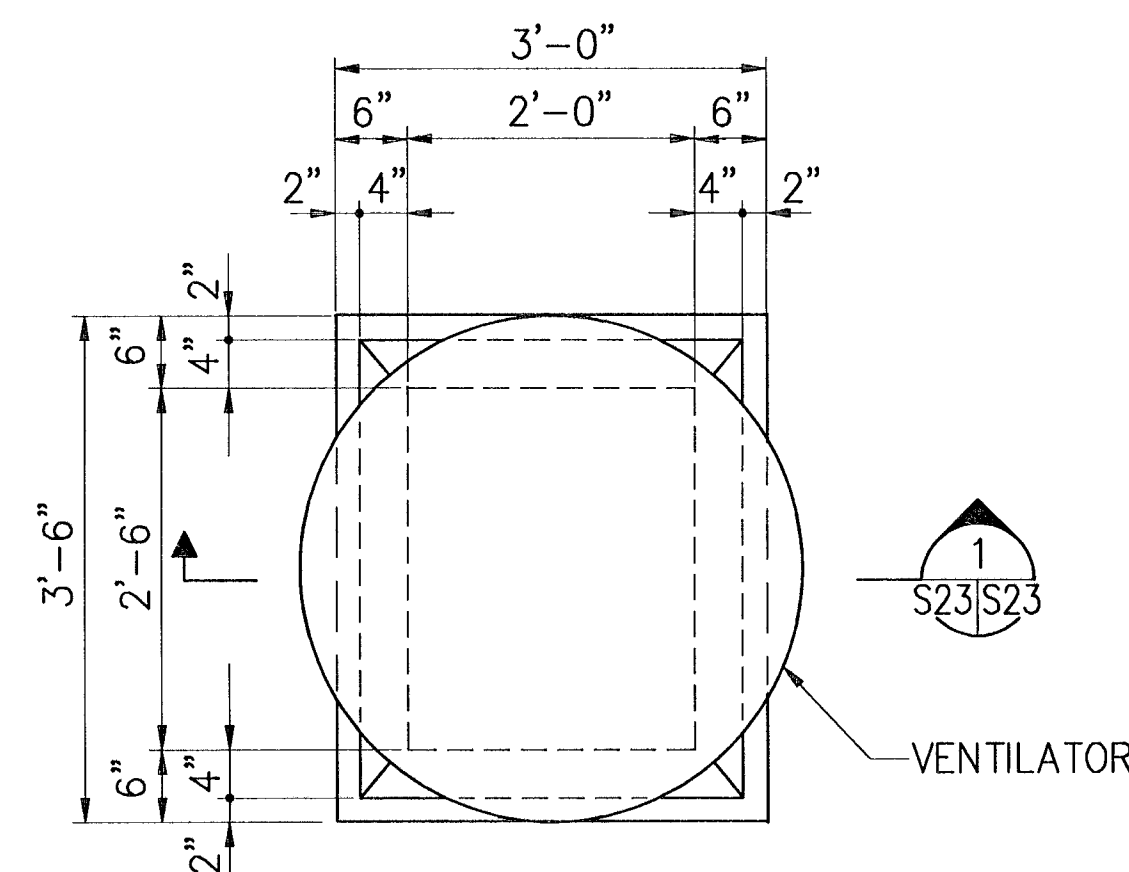
SATISFACTORY TO
DATE

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 85 WESTON ST., NEW YORK, NY 10014 27/5/97 PRINCIPAL PARTNER ENGINEER IN CHARGE CRITERIA MANAGER NAVFACINSGCOM						
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' RAIL SUPPORT BEAM DETAILS						
SIZE	CODE (BENT NO)	NAVFAC DRAWING NUMBER	SHEET 21 OF 33			
D	80091	6,448,542	S-21			
SCALE	AS NOTED	CONTRACT NO	CATEGORY CODE			
DATE	DATE	DATE	DATE			
FOR COMMANDER NAVFACINSGCOM						

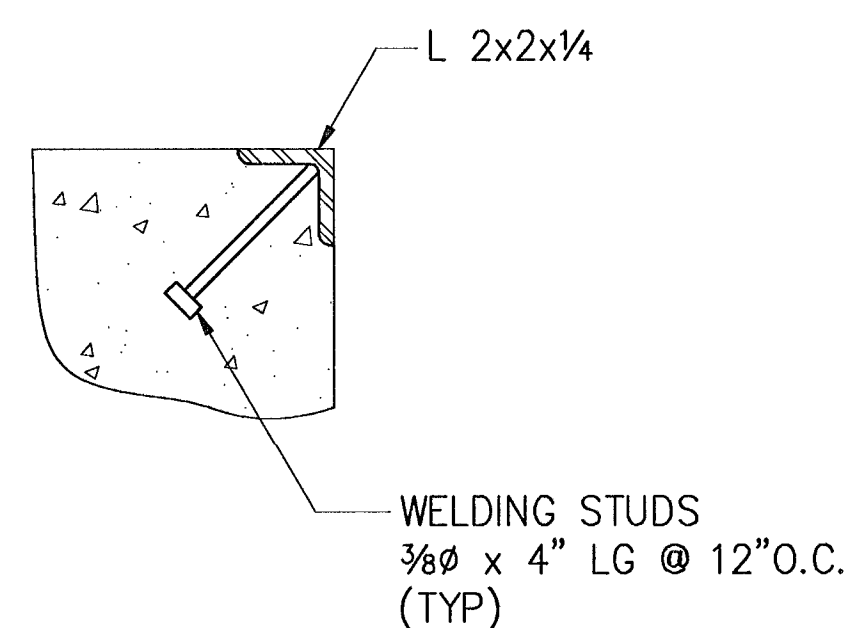


1. MAXIMUM DOOR SPEED 12 FT/MIN OPENING/CLOSING.
2. DOOR CLOSING SHOCK ABSORBER:
 - AT PILASTER - QUANTITY = 2
 - STOPPING DISTANCE = 1 INCH
 - MAXIMUM FORCE PER SHOCK ABSORBER = 10,000 LBS
 - DUTY CYCLE = 10 DEFLECTIONS/HOUR
3. DOOR OPENING SHOCK ABSORBER:
 - AT TRENCH - QUANTITY = 2
 - STOPPING DISTANCE = 2 INCHES
 - MAXIMUM FORCE PER SHOCK ABSORBER = 5,000 LBS
 - DUTY CYCLE = 10 DEFLECTIONS/HOUR

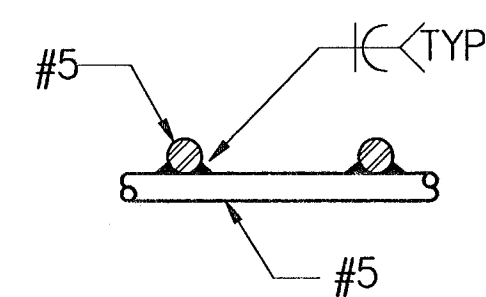




DETAIL 1
SCALE: 3/4" = 1'-0"



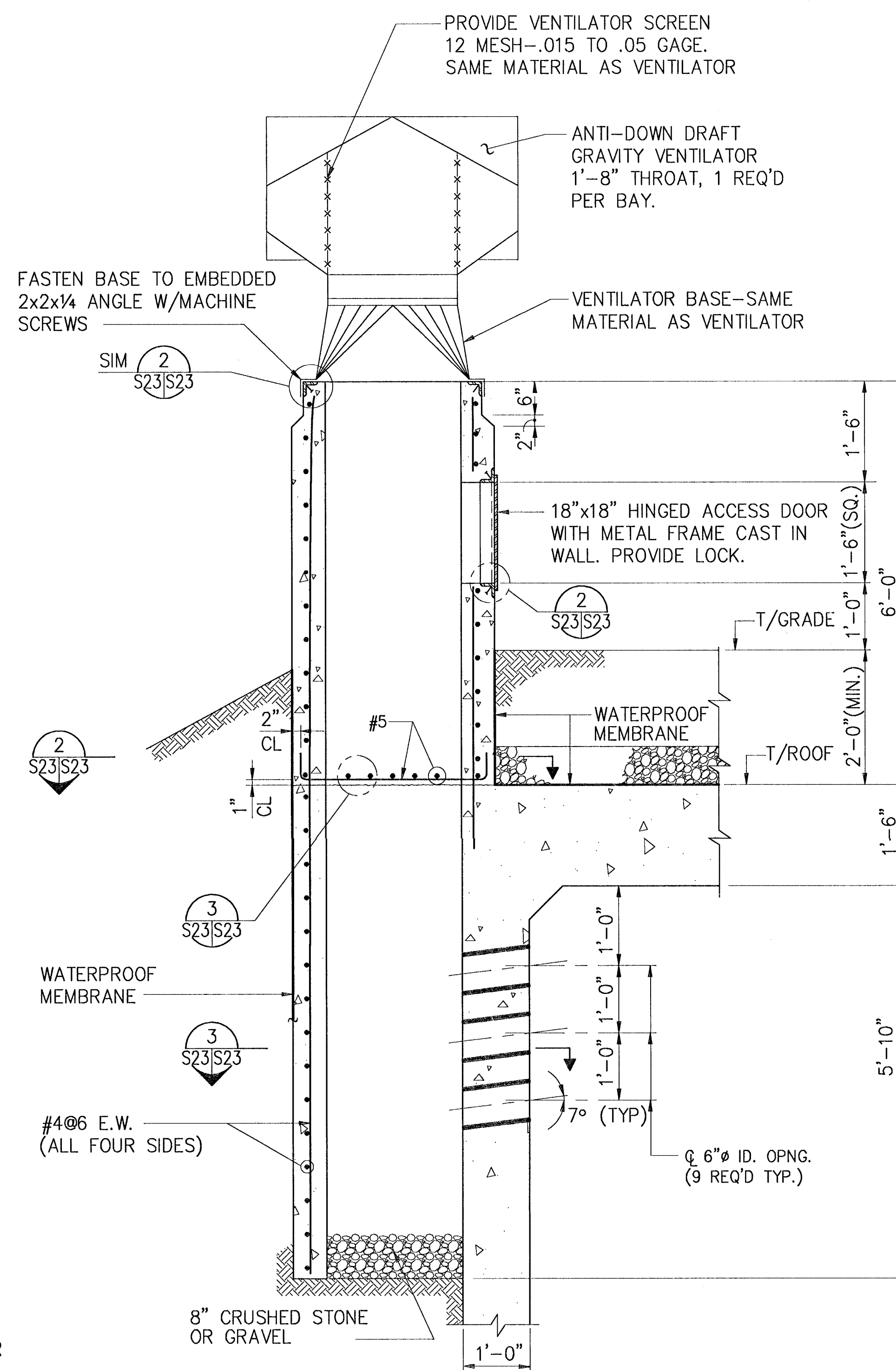
DETAIL 2
SCALE: 3" = 1'-0"



DETAIL 3
N.T.S.

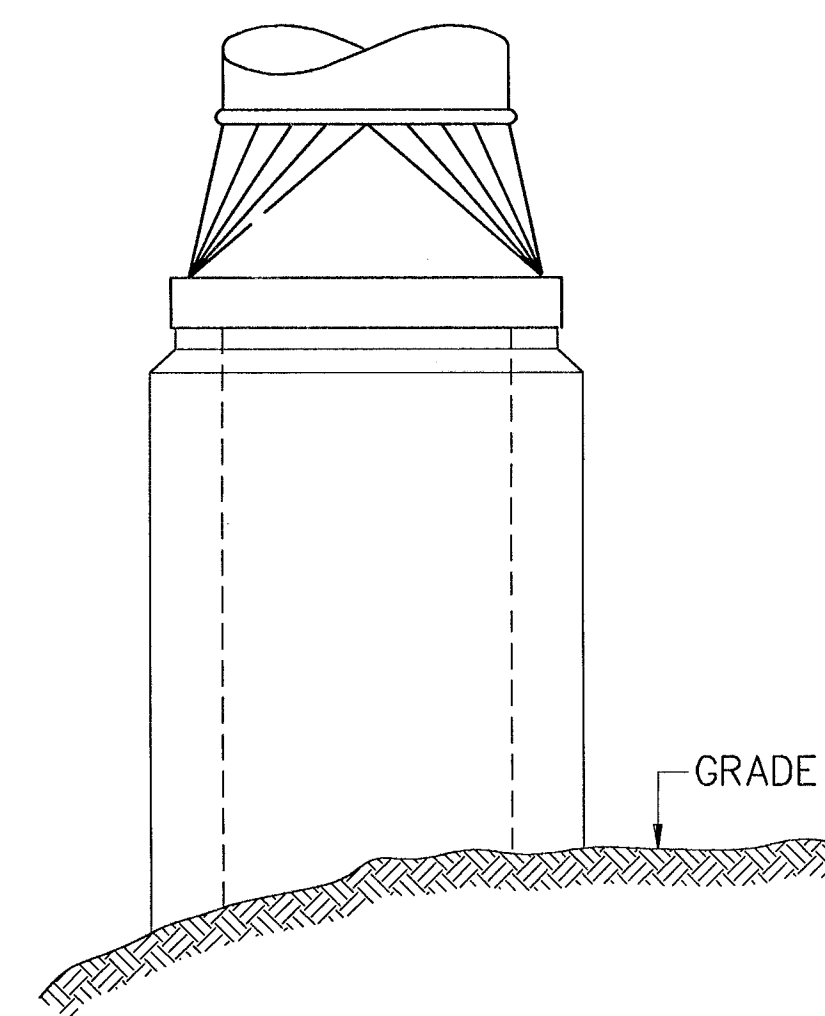
NOTES:

1. VENTILATOR SHALL BE DESIGNED BY THE CONTRACTOR FOR A SUSTAINED WIND SPEED OF 132 M.P.H.
2. REFER TO DRAWING E-5 FOR LIGHTNING ROD LOCATION ON VENTILATOR.
3. ALL MOVING PARTS SHALL BE NON-SPARKING TYPE.
4. GRAVITY VENTILATOR SHALL BE INTRINSICALLY SAFE.

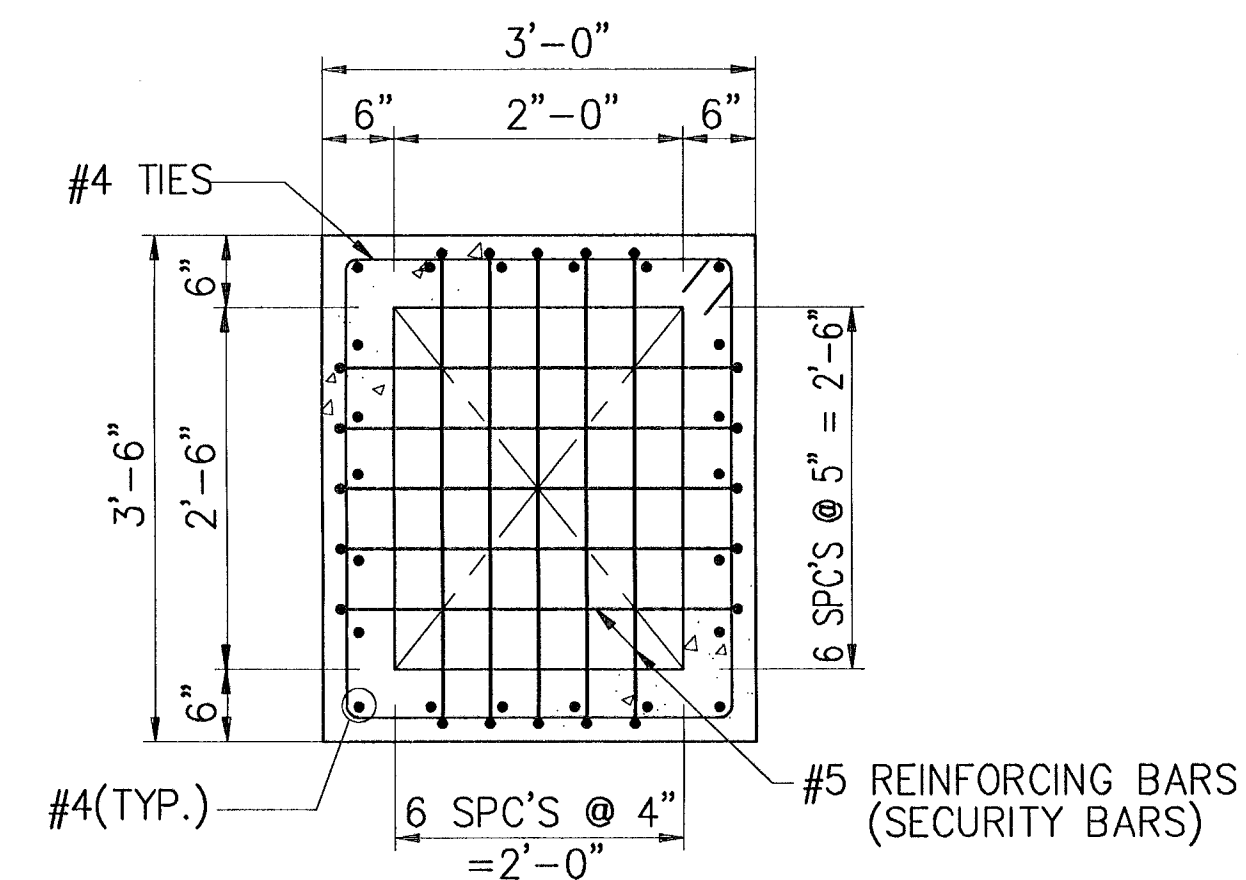


SECTION 1
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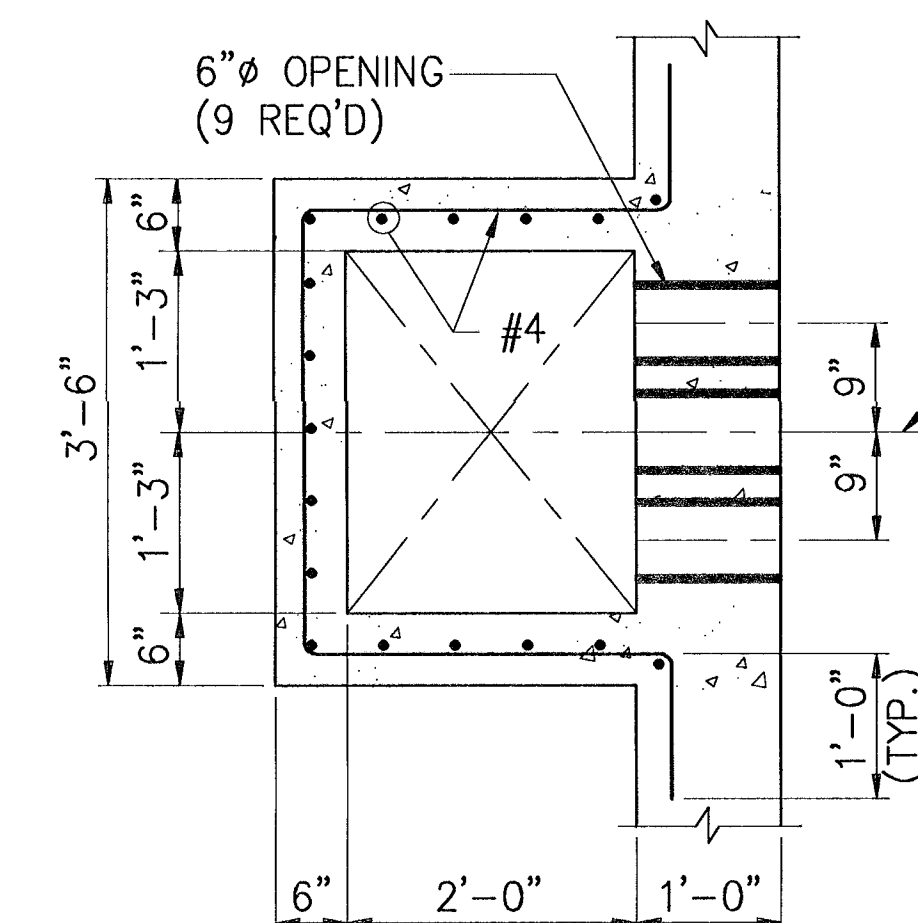
DETAILS OF VENTILATOR SHAFT



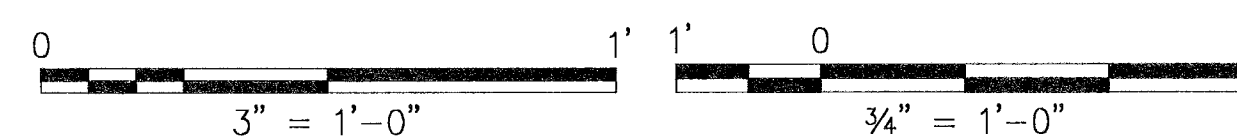
ELEVATION 1
SCALE: 3/4" = 1'-0"



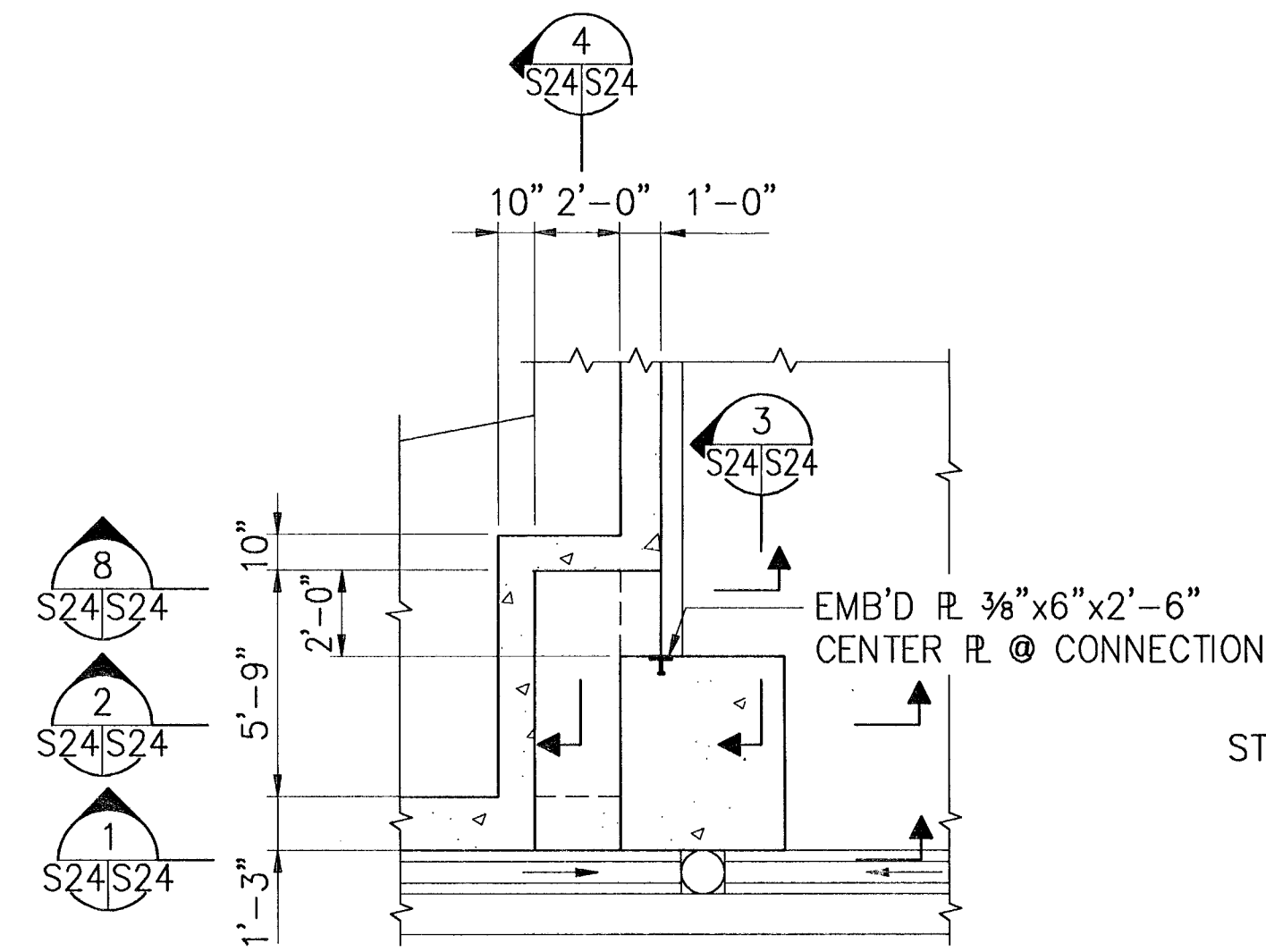
SECTION 2
SCALE: 3/4" = 1'-0"



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

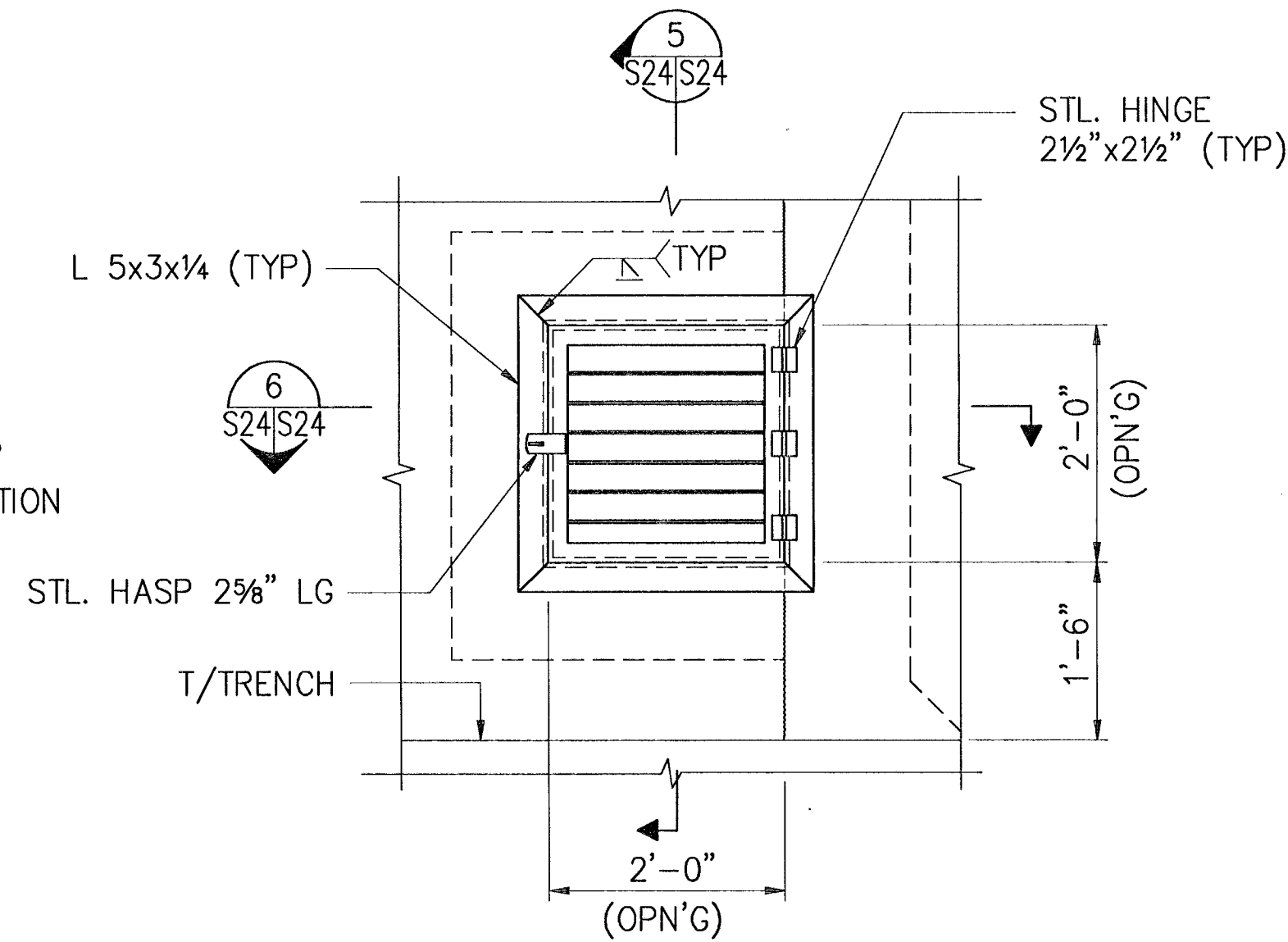


SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
<p>AMMANN & WHITNEY CONSULTING ENGINEERS 96 MORTON ST., NEW YORK, NY 10014</p> <p>27/5/97</p> <p>ENGINEER IN CHARGE: <i>R. Brady</i> BRANCH MANAGER: <i>R. Brady</i> CRITERIA MANAGER: <i>R. Brady</i> DIVISION DIRECTOR: <i>R. Brady</i></p> <p>NAVJAGENCOM</p> <p>FIRE PROTECTION ENGINEER: _____ DATE: _____ CRITERIA MANAGER: _____ DATE: _____ APPROVED: _____ DATE: _____ FOR COMMANDER NAVJAGENCOM</p>						
<p>DEPARTMENT OF THE NAVY</p> <p>NAVAL FACILITIES ENGINEERING COMMAND</p> <p>STANDARD DRAWING</p> <p>STANDARD BOX MAGAZINE TYPE 'D'</p> <p>VENTILATOR DETAILS</p>						
SIZE	CODE IDENT NO	NAVJAG DRAWING NUMBER	<p>WASHINGTON, D.C. 20350</p>			
D	80091	6,448,544	<p>S-23</p>			
SCALE	AS NOTED	CONTRACT NO	<p>SHEET 23</p>			
CATEGORY CODE	SPEC NO	<p>OF 33</p>				

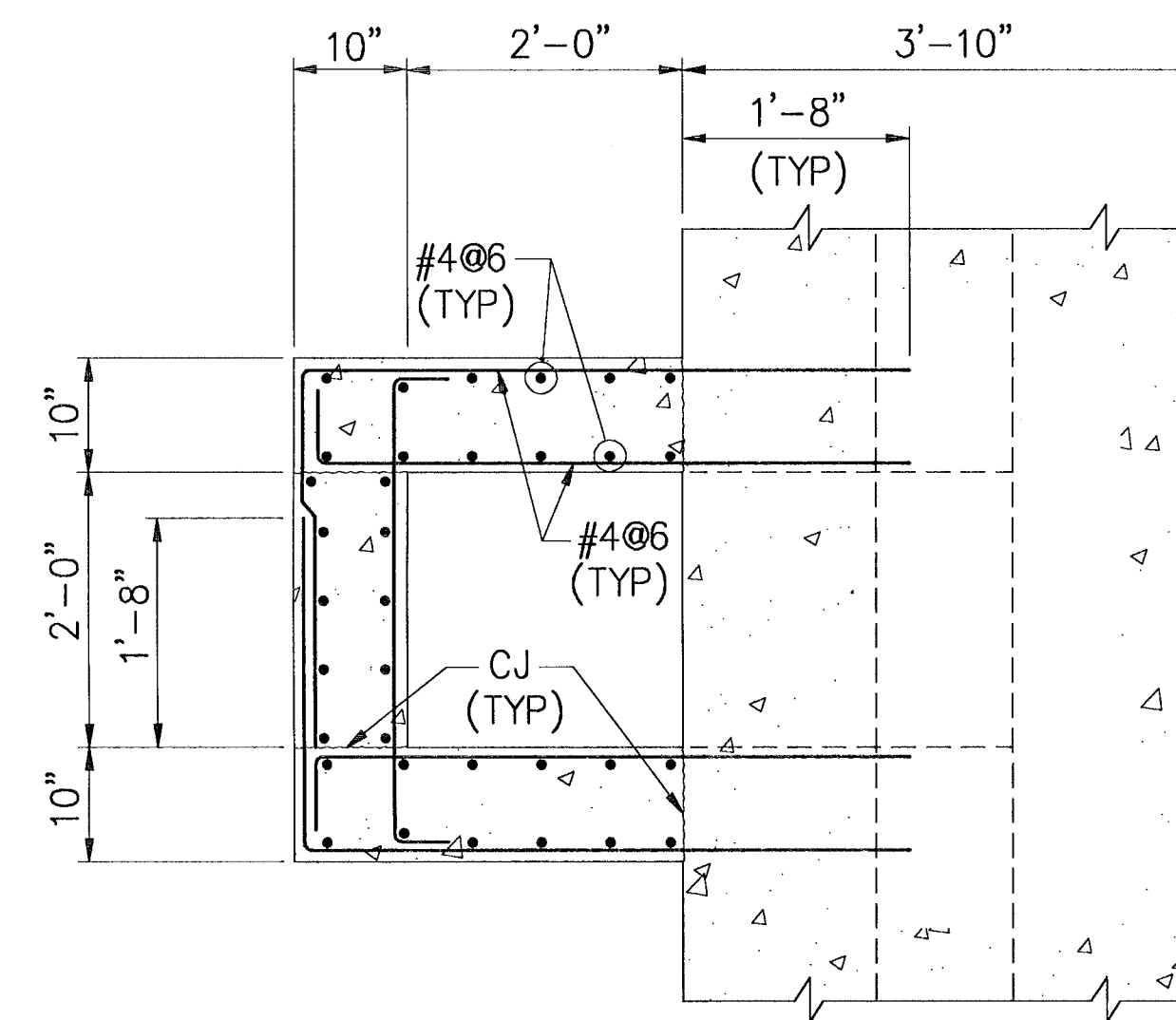


DETAIL 2
SCALE: 1/4"=1'-0"

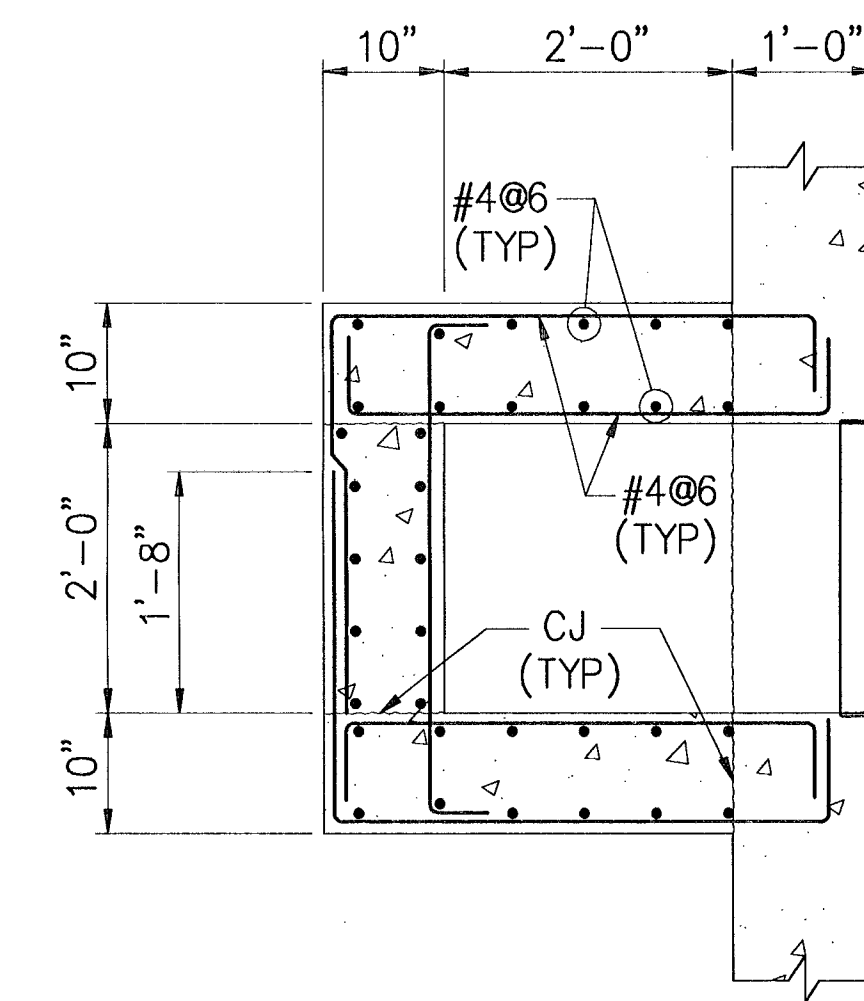
DETAIL OF AIR INTAKE DUCT



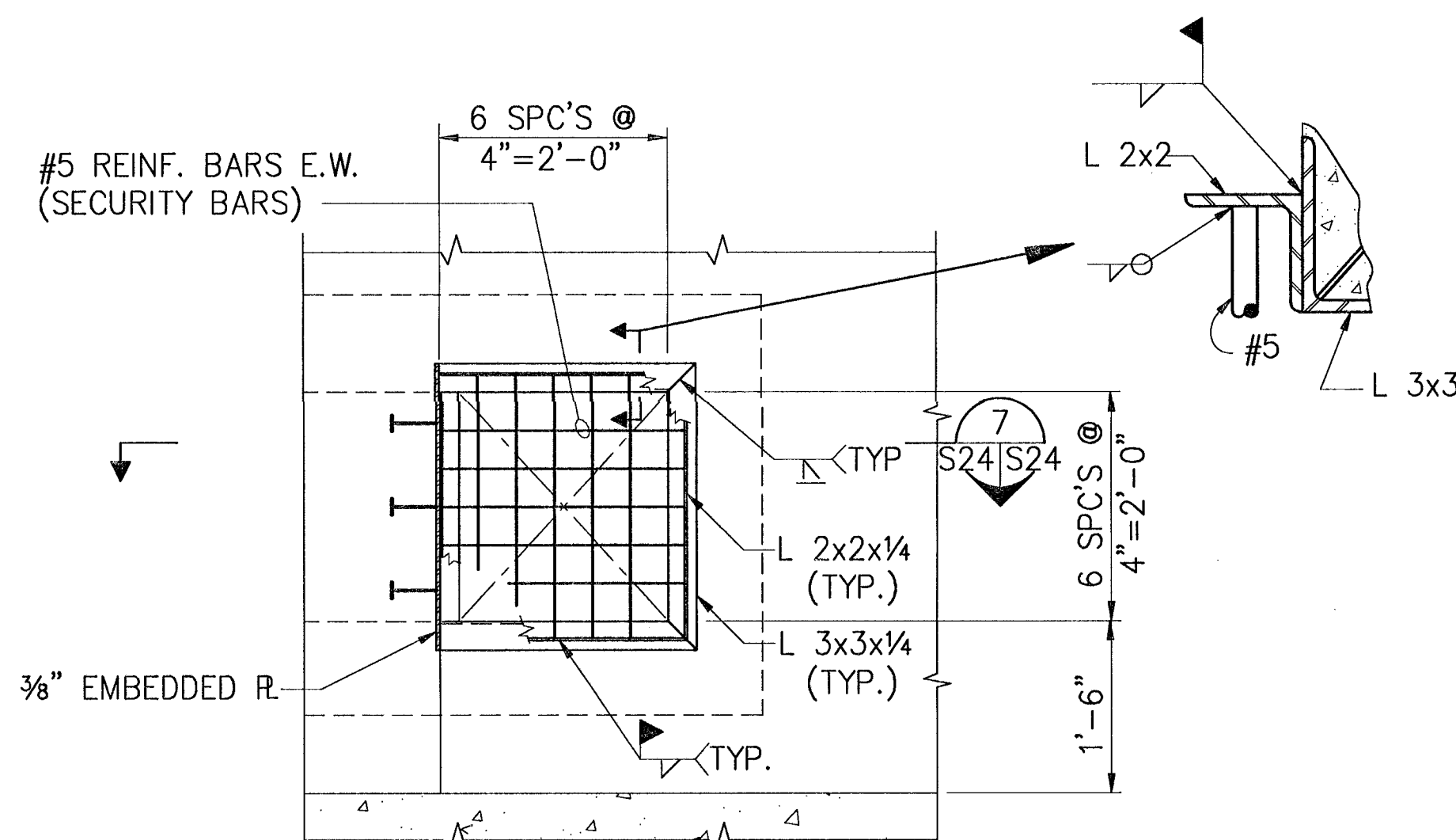
SECTION 1
SCALE: 3/4"=1'-0"



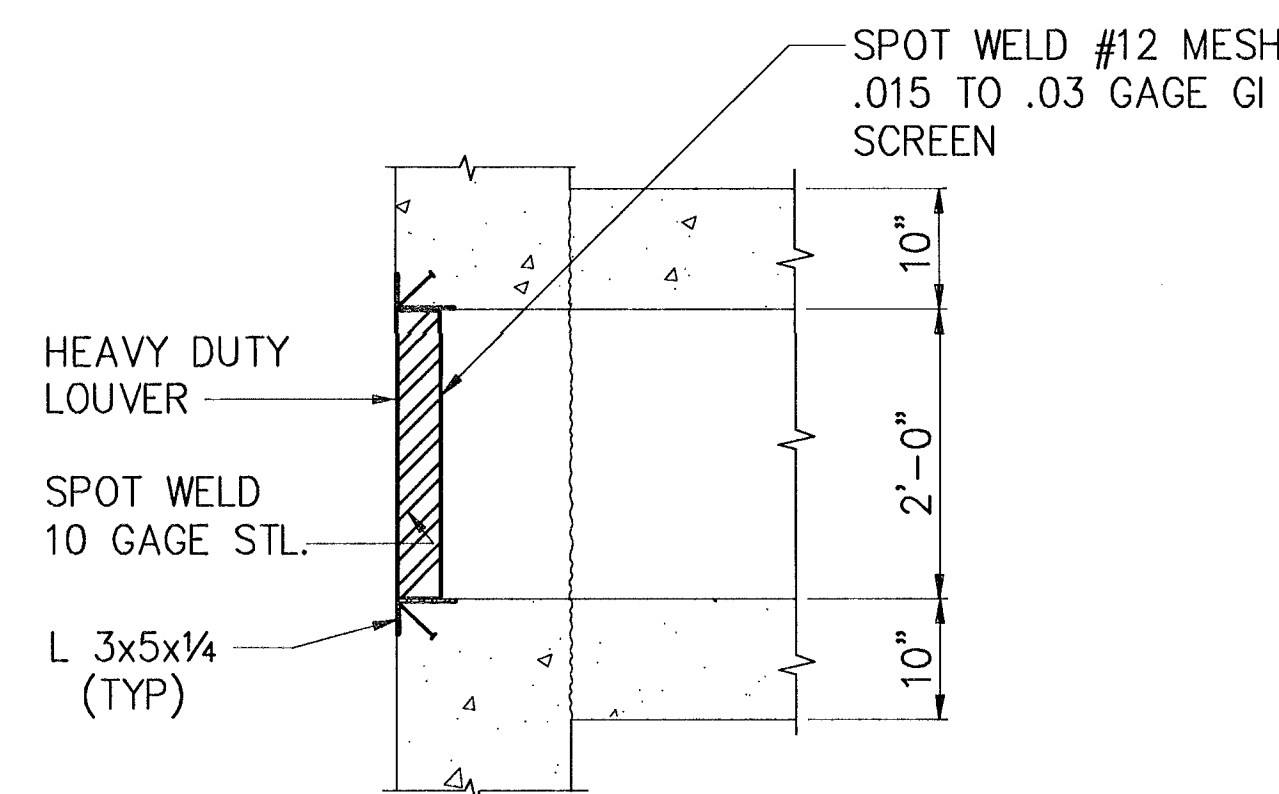
SECTION 2
SCALE: 3/4"=1'-0"



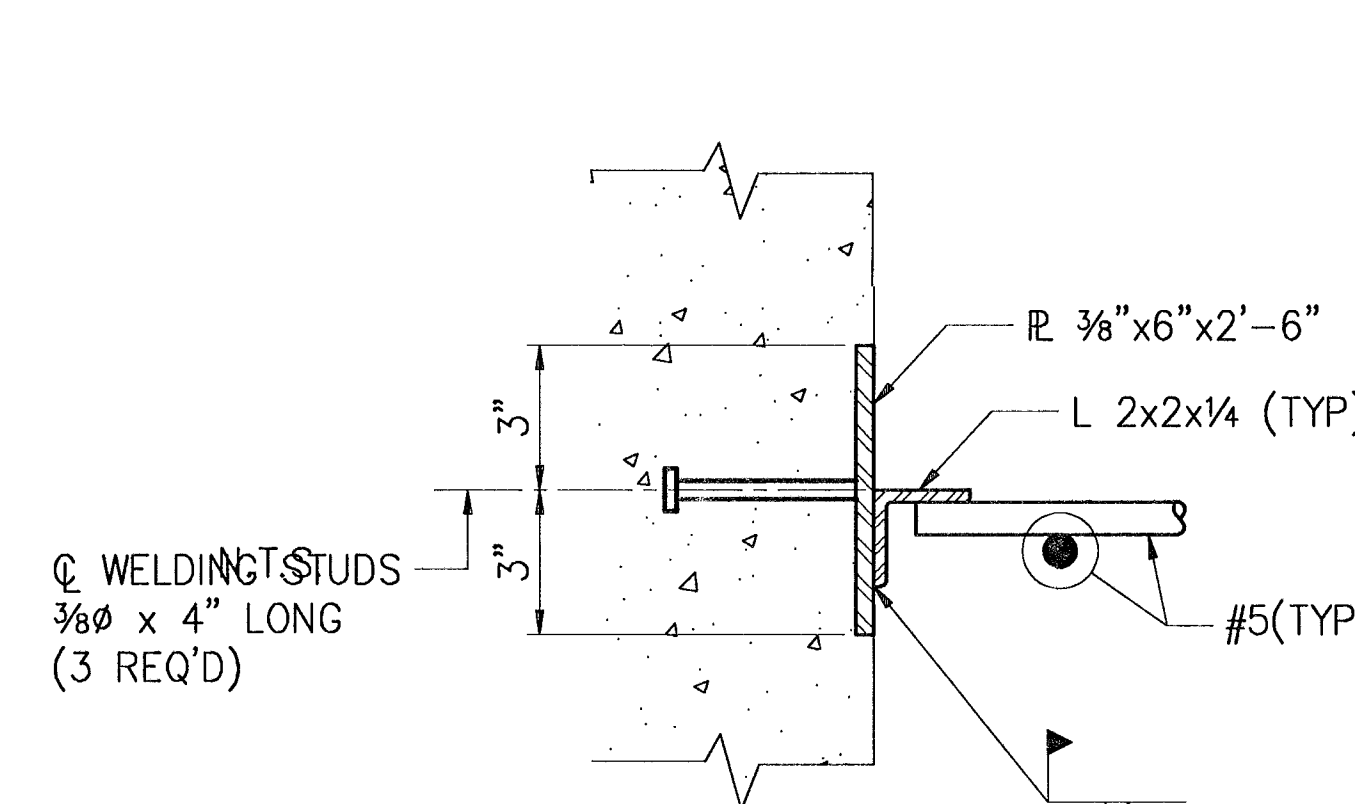
SECTION 8
SCALE: 3/4"=1'-0"



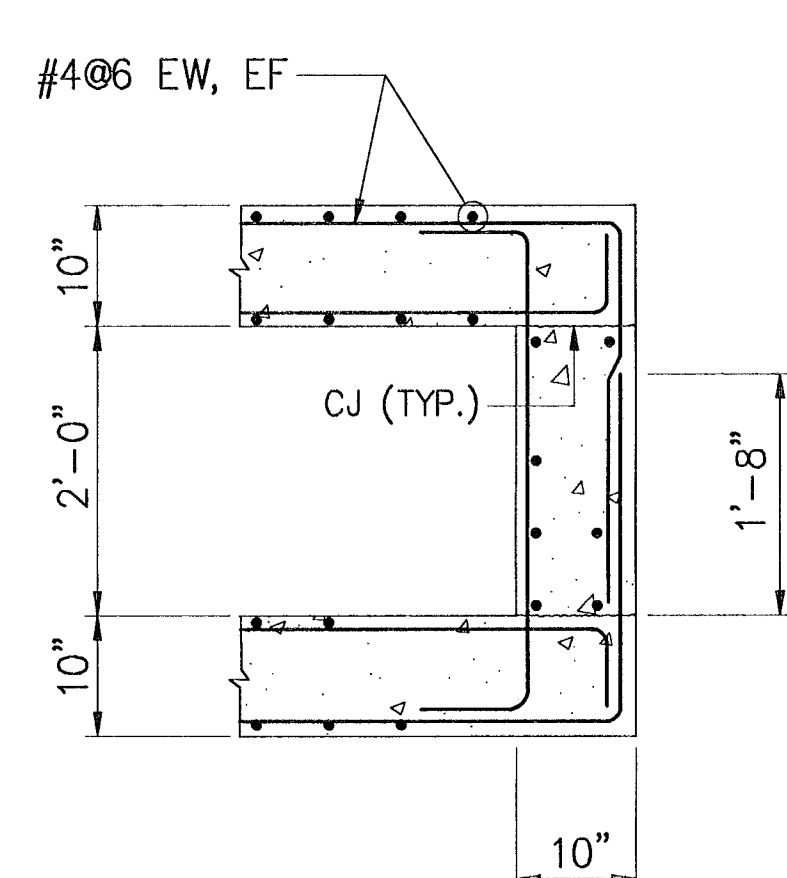
SECTION 3
SCALE: 3/4"=1'-0"



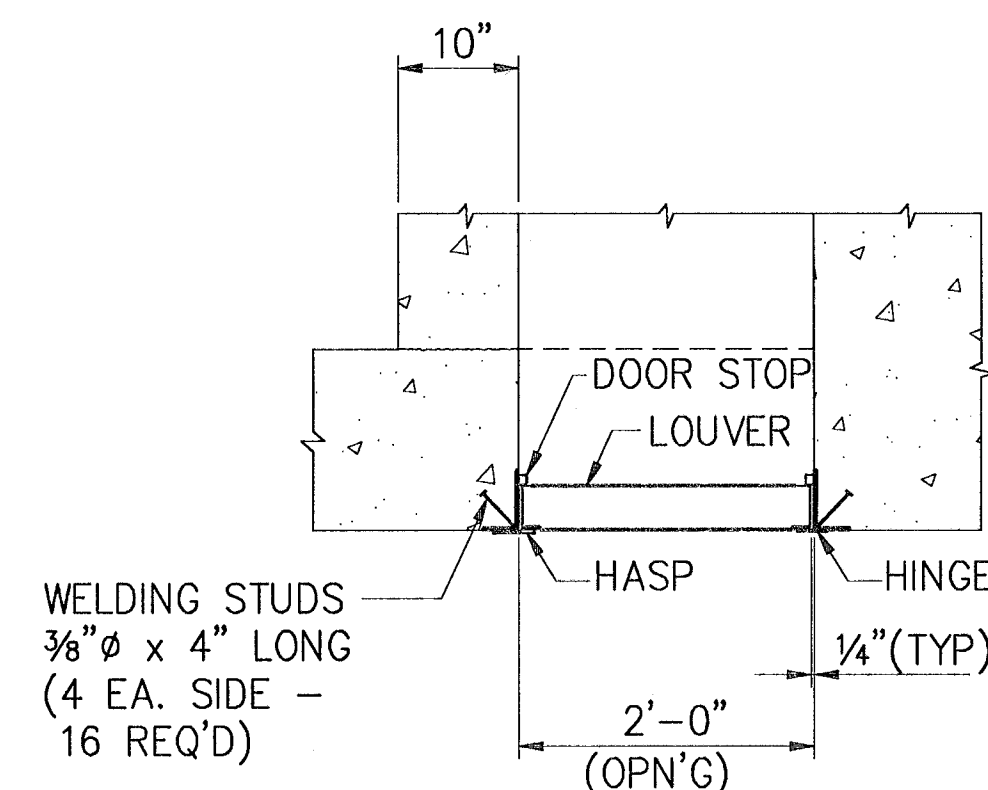
SECTION 5
SCALE: 3/4"=1'-0"



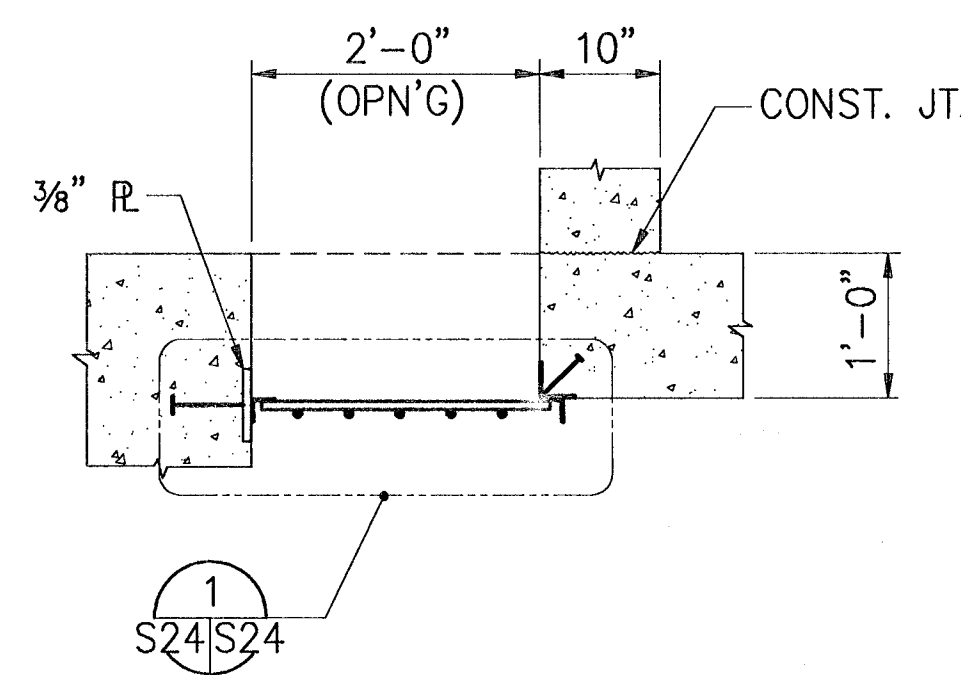
DETAIL 1
SCALE: 3"=1'-0"



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

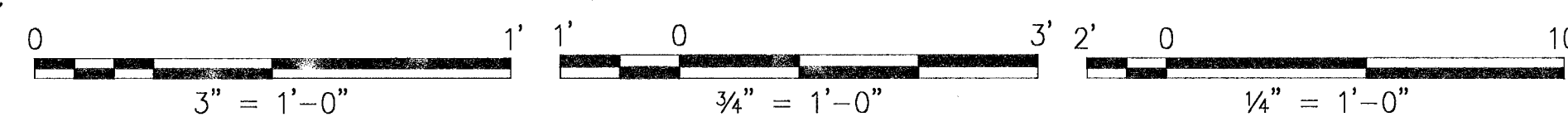


SECTION 6
SCALE: 3/4"=1'-0"

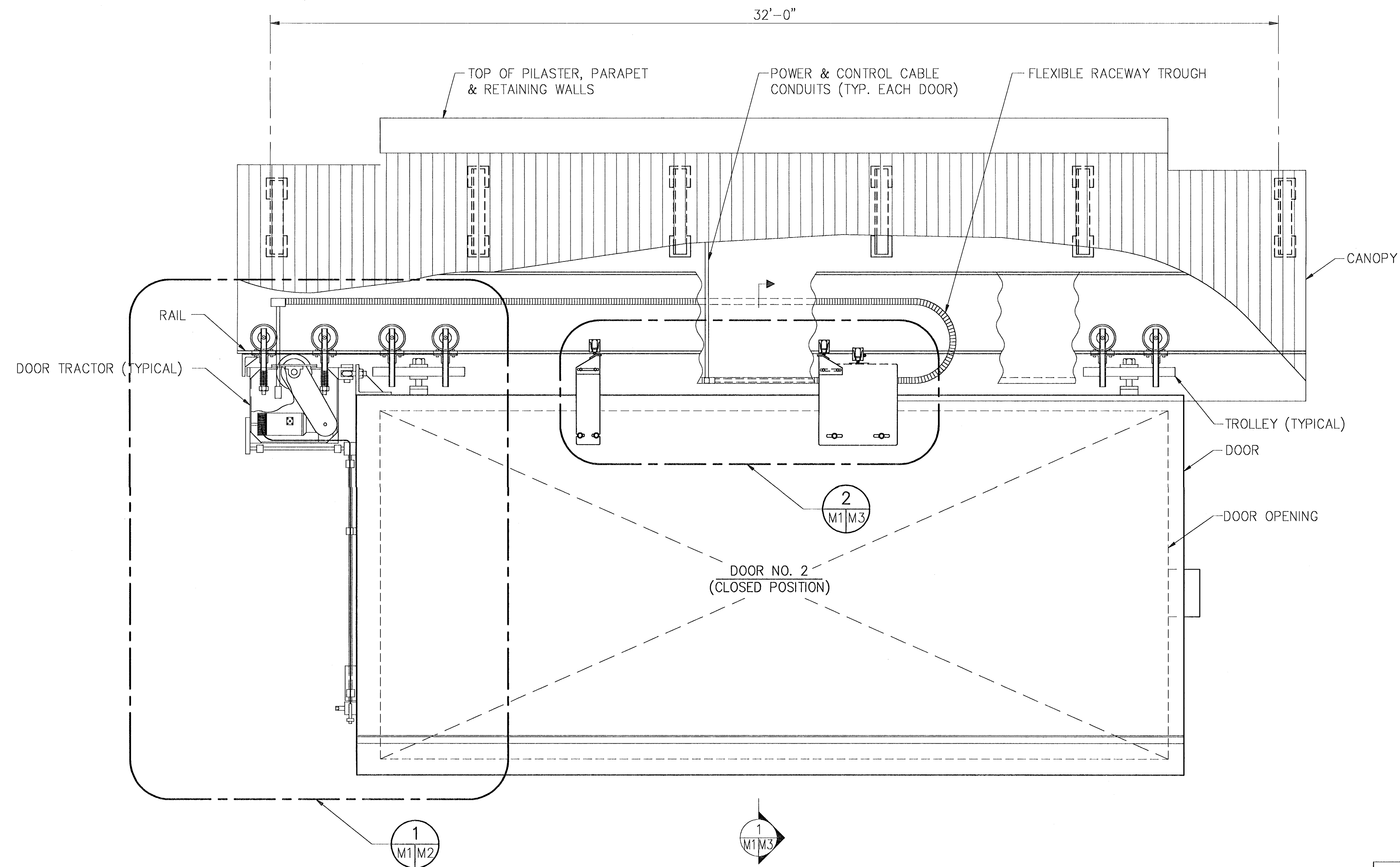


SECTION 7
SCALE: 3/4"=1'-0"

IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY



SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 98 MORTON ST., NEW YORK, NY 10014 DATE: 27/5/97						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350 NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' AIR INTAKE DETAILS						
ENGINEER IN CHARGE	BRANCH MANAGER	DATE	SCALE	CODE IDENT NO	NAVFAC DRAWING NUMBER	SHEET
R. Brady	R. Brady	27/5/97	AS NOTED	80091	6,448,545	24
CITERIA MANAGER	DIVISION DIRECTOR	DATE	CATEGORY CODE	CONTRACT NO	SPEC NO	OF
R. Brady	D. Chapman					33

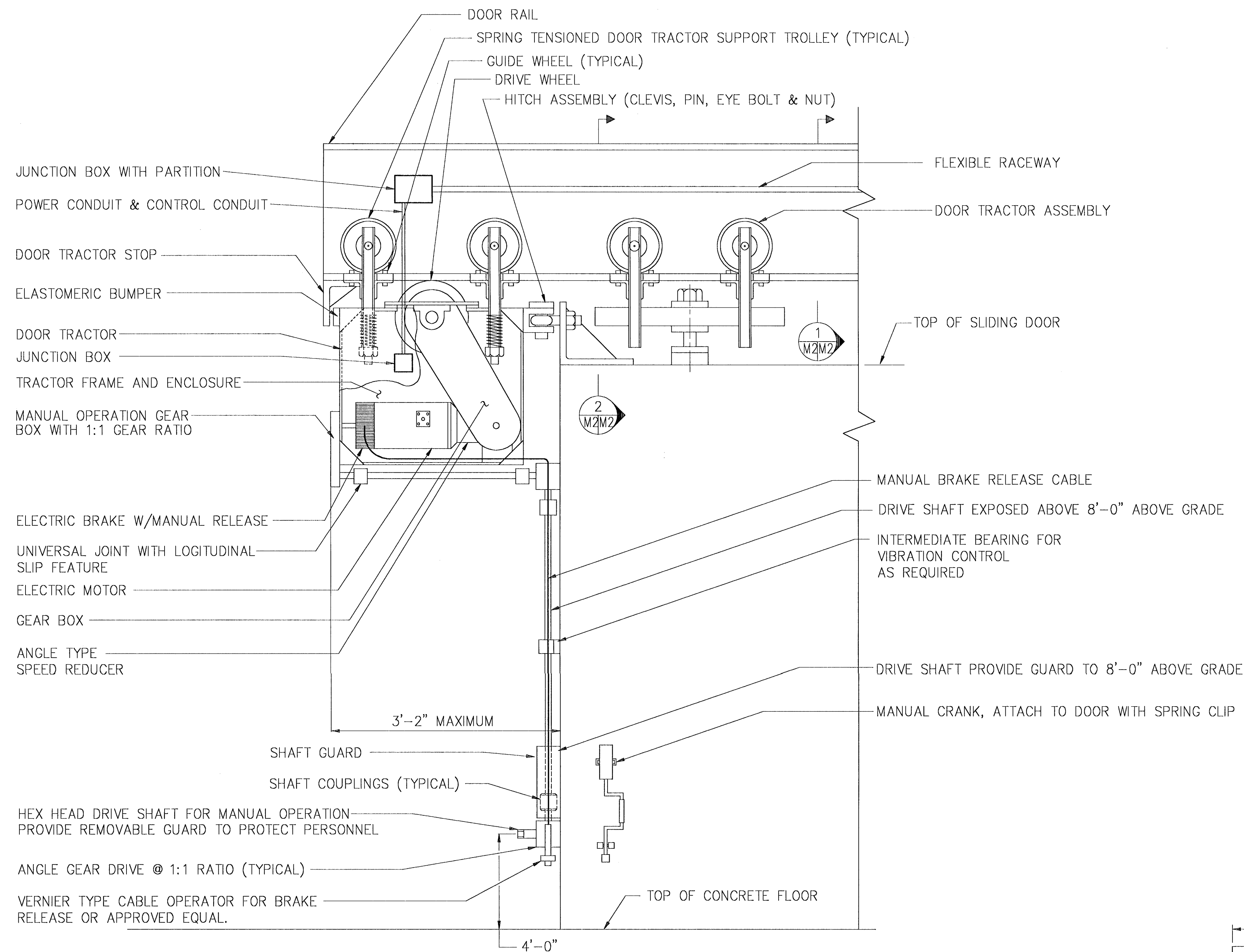


FRONT ELEVATION OF SLIDING DOOR
SCALE: NTS

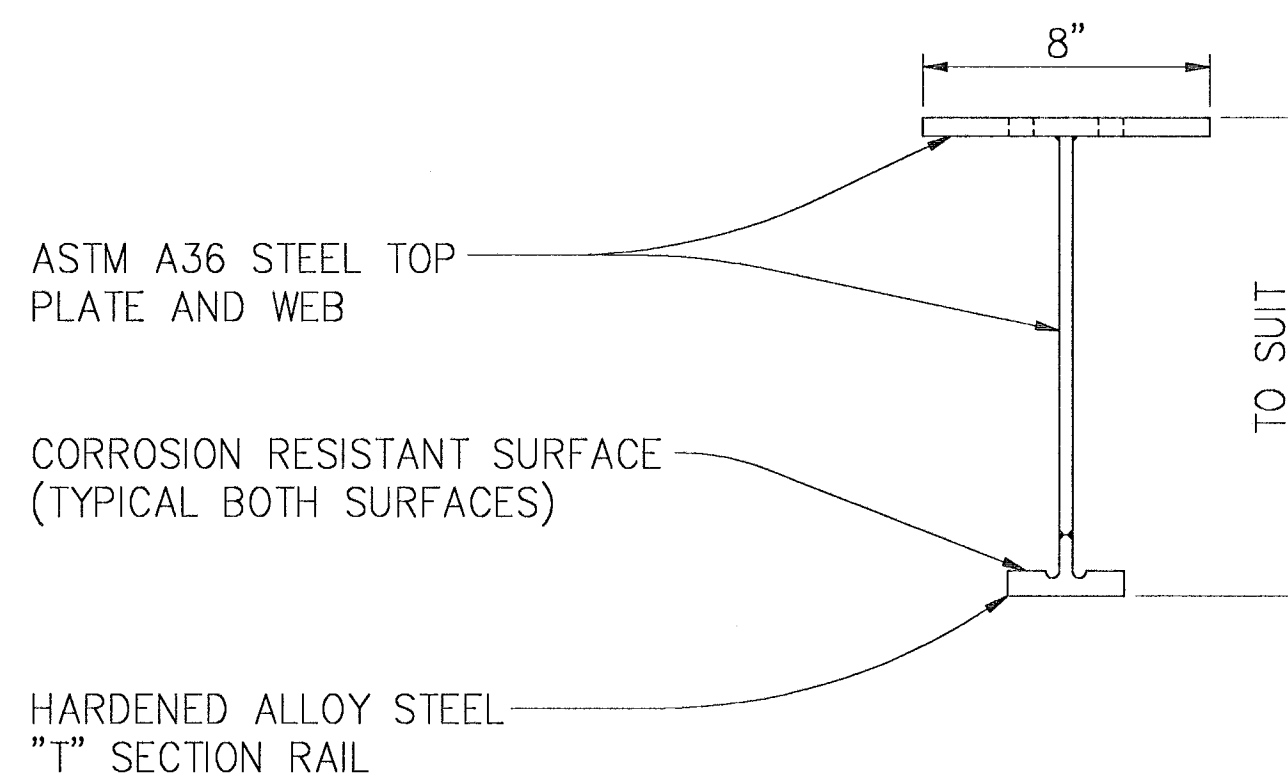
IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY

SATISFACTORY TO _____
TITLE _____ DATE _____

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED																
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REVISIONS																						
AMMANN & WHITNEY CONSULTING ENGINEERS 98 MORTON ST., NEW YORK, NY 10014 PRINCIPAL: <i>[Signature]</i> DATE: 27/5/97 ENGINEER IN CHARGE: <i>[Signature]</i> CRITERIA MANAGER: <i>[Signature]</i> NAVFACENCOM		DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350 NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' ELEVATION OF SLIDING DOOR OPERATOR																				
FIRE PROTECTION ENGINEER _____ DATE _____ CRITERIA MANAGER _____ DATE _____ APPROVED _____ DATE _____ FOR COMMANDER NAVFACENCOM	SIZE: D SCALE: 1/8" = 1'-0" CATEGORY CODE	CODE IDENT NO: 80091 NAVFAC DRAWING NUMBER: 6,448,546 CONTRACT NO. SPEC NO.	M-1 SHEET 25 OF 33																			

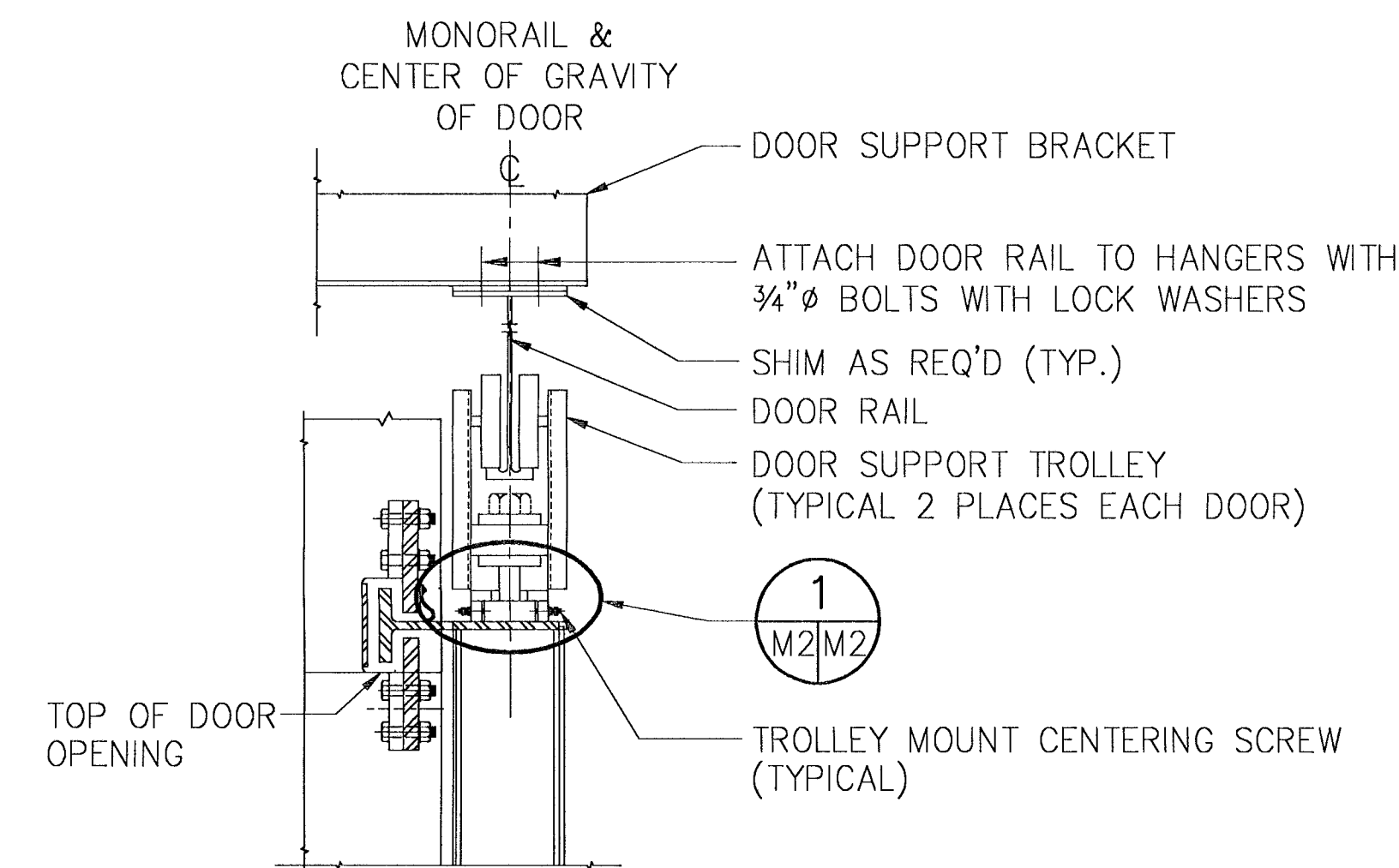


DETAIL 1
SCALE: NTS
M1/M2

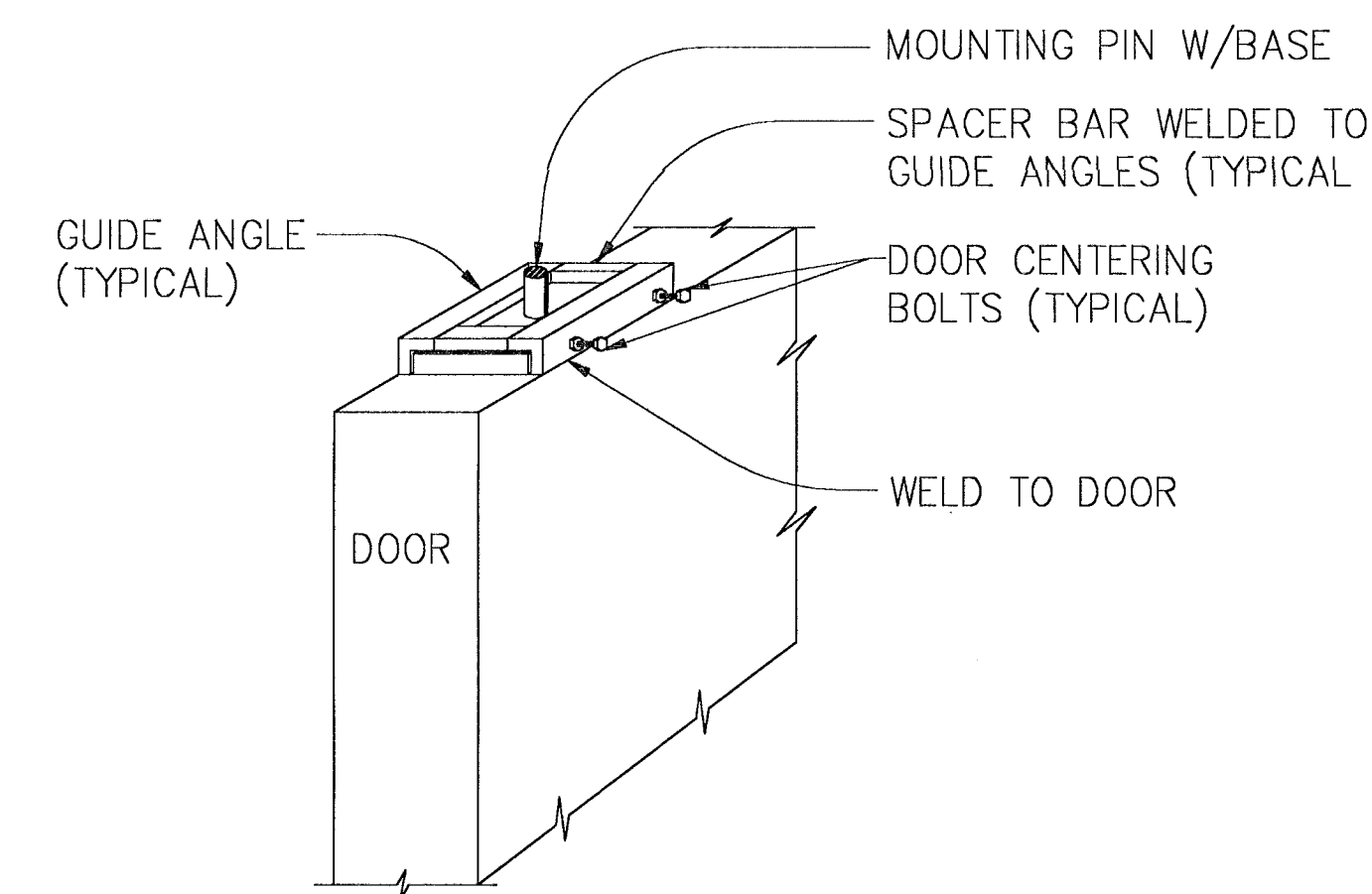


SECTION 1
SCALE: NTS
M2/M2

IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE: REDUCED ACCORDINGLY



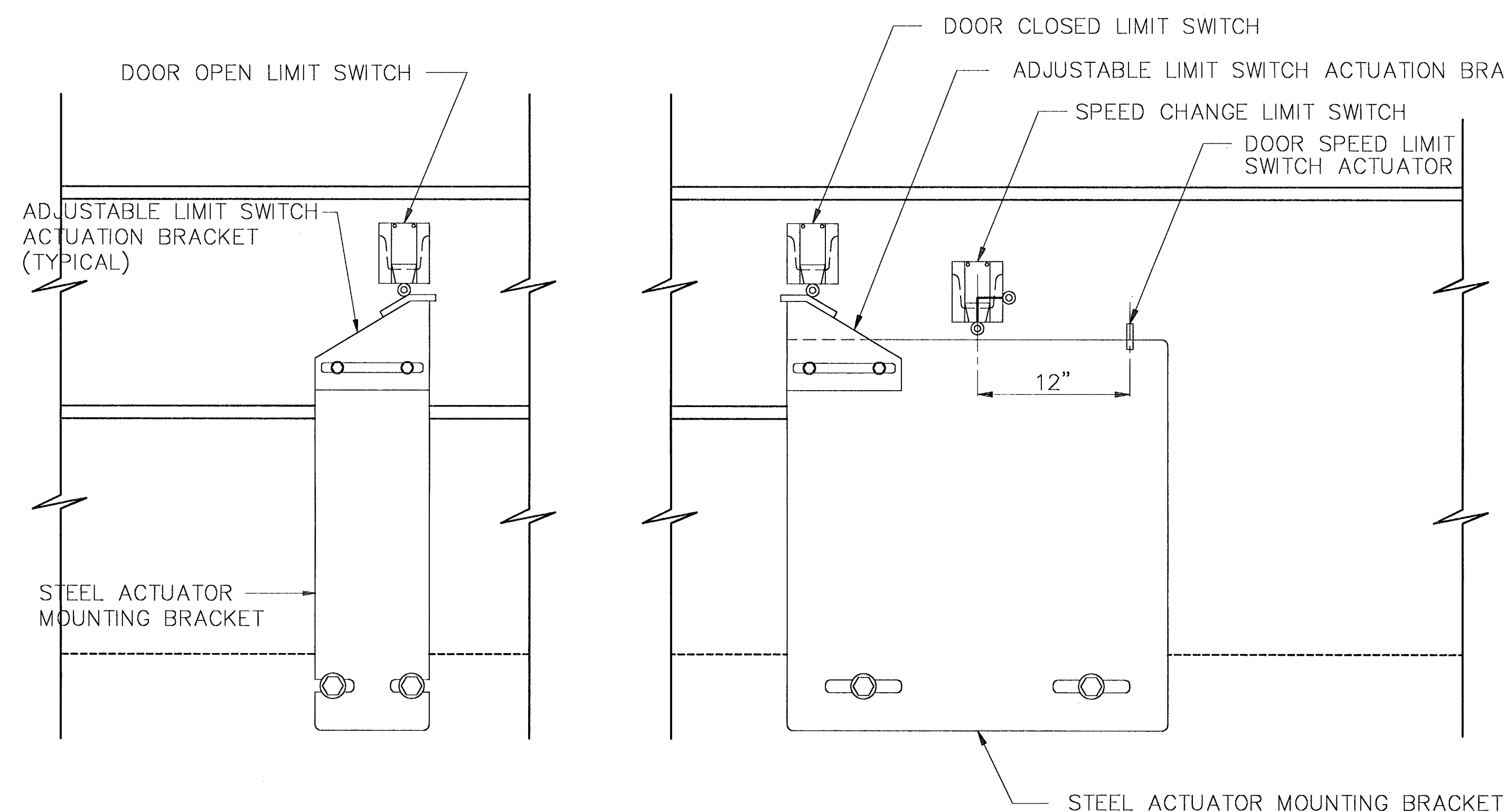
SECTION 2
SCALE: NTS
M2/M2



DETAIL 1
SCALE: NTS
M2/M2

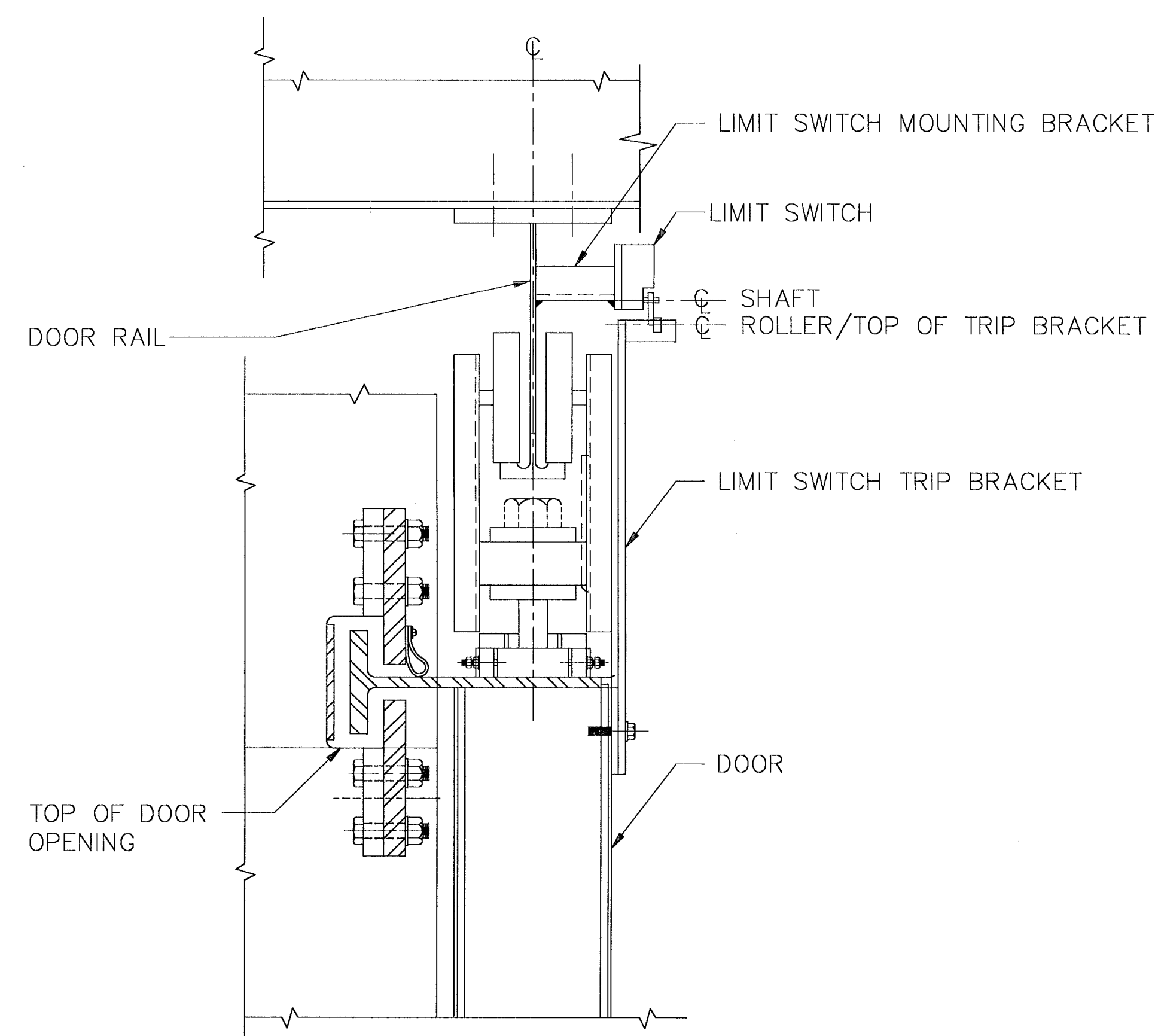
- NOTES:
1. USE DOOR CENTERING BOLTS TO POSITION THE TROLLEY PIN & BASE FOR A BALANCED DOOR.
 2. WELD TROLLEY MOUNTING BASE TO GUIDE ANGLES AND SPACER BARS AFTER BALANCING DOOR.
 3. CONTRACTOR MAY SUBMIT ALTERNATE TROLLEYS & MOUNTS FOR APPROVAL.

SYMBOL		DESCRIPTION	PREP'D BY	DATE	APPROVED
REVISIONS					
AMMANN & WHITNEY CONSULTING ENGINEERS 95 ABERDEEN ST., NEW YORK, NY 10014 DATE: 27/5/97 PRINCIPAL (PARTNER): <i>[Signature]</i> ENGINEER IN CHARGE: <i>[Signature]</i> CRITERIA MANAGER: <i>[Signature]</i> NAVJAG/ENCOM					
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350 NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' SLIDING DOOR TRACTOR AND DOOR MOUNTING DETAILS					
SIZE	CODE IDENT NO	NAVJAG DRAWING NUMBER	M-2		
D	80091	6,448,547			
SCALE	1/8" = 1'-0"	CONTRACT NO	SHEET 26 OF 33		
CATEGORY CODE		SPEC NO			



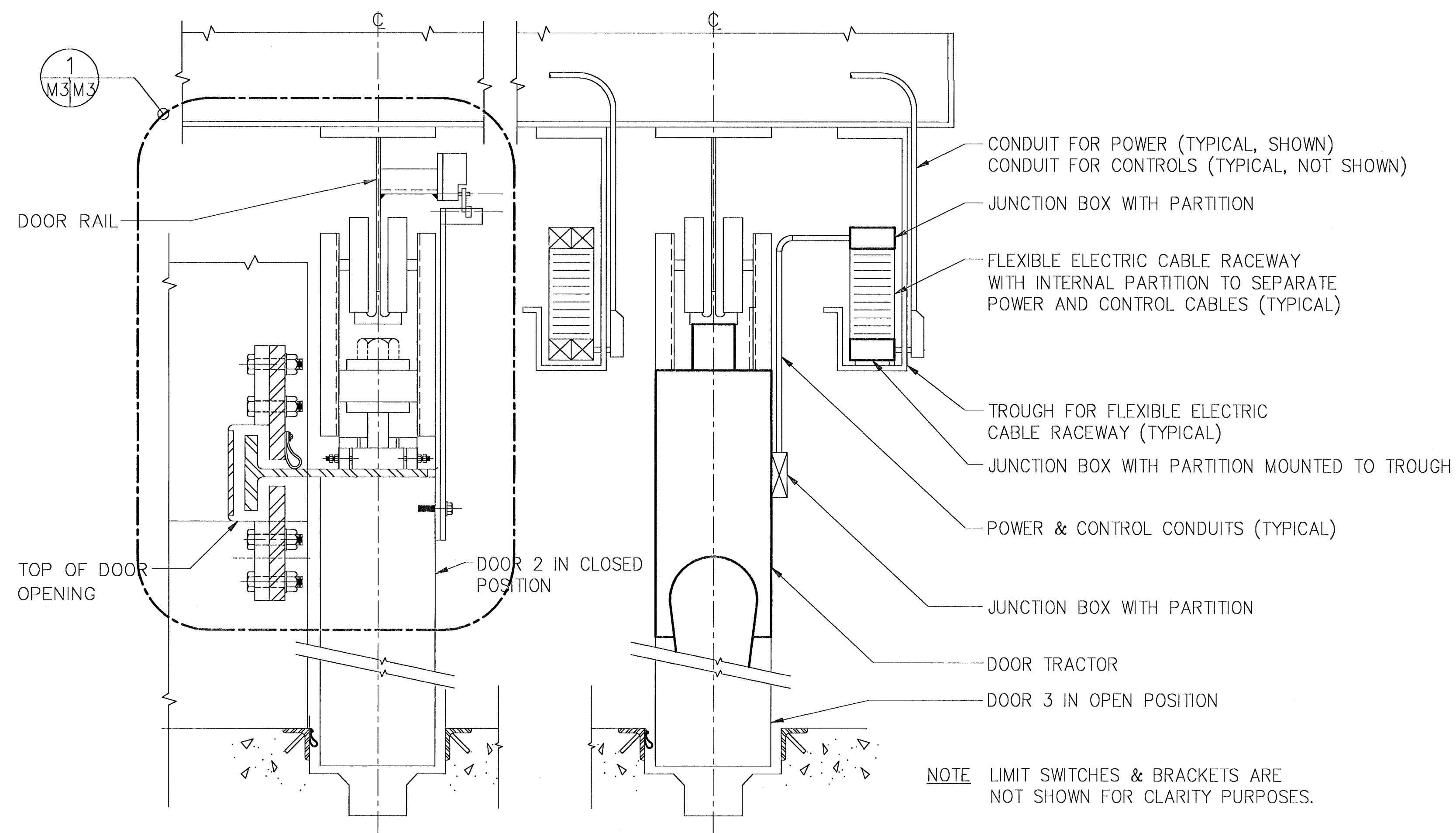
DETAIL
SCALE: NTS

2
M1/M3



DETAIL
SCALE: NTS

1
M3/M3



NOTE LIMIT SWITCHES & BRACKETS ARE NOT SHOWN FOR CLARITY PURPOSES.

SECTION
SCALE: NTS

1
M1/M3


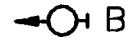





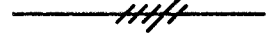

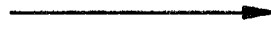












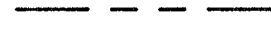

IF SHEET IS LESS THAN
(22" x 34")
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SCALE REDUCED ACCORDINGLY

SATISFACTORY TO
TITLE DATE

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 86 WORTON ST., NEW YORK, NY 10014 DATE: 27/5/97 PRINCIPAL (PARTNER) ENGINEER IN CHARGE: R. Brady CRITERIA MANAGER: R. Brady NAVFACENSGOM DIVISION DIRECTOR: A. Graydon						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350 NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' SLIDING DOOR POWER AND CONTROL EQUIPMENT DETAILS						
SIZE	CODE (NWT) NO	NAVFAC DRAWING NUMBER	M-3			
D	80091	6,448,548				
SCALE	1/8" = 1'-0"	CONTRACT NO	SHEET 27 OF 33			
CATEGORY CODE		SPEC NO				

ELECTRICAL LEGEND AND ABBREVIATIONS

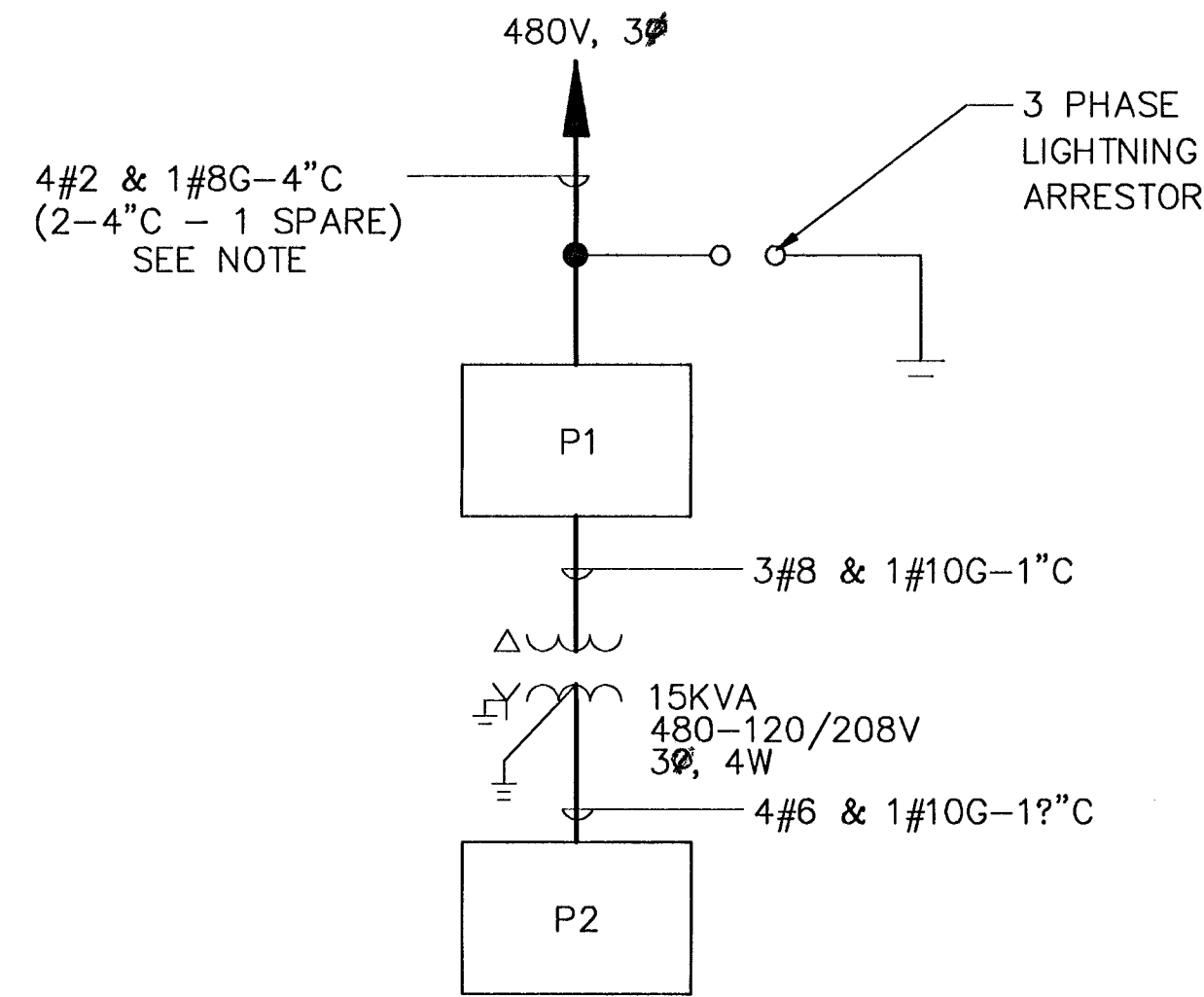
ELECTRICAL LEGEND:

	100W FLUORESCENT LIGHT FIXTURE FOR HAZADOUS LOCATIONS (SURFACE MOUNTED)
	250W HPS OUTDOOR LIGHT FIXTURE (WALL MOUNTED FLOODLIGHT)
	20A, 125V, 2P, 3W GROUNDING TYPE DUPLEX RECEPTACLE MTD 1'-6" AFF
	MAIN TELEPHONE ID, FA TERMINAL CABINET IN A NEMA 4X ENCLOSURE
	277/480V, 3Ø, 4W POWER PANEL IN A NEMA 4X ENCLOSURE
	120/208V, 3Ø, 4W LIGHTING PANEL IN A NEMA 4X ENCLOSURE
	15KVA, 480-120/208V, 3Ø, 4W STEP DOWN TRANSFORMER IN A NEMA 4X ENCLOSURE
	EXPOSED GALVANIZED RIGID STEEL CONDUIT-3/4"C MINIMUM. HASH MARKS INDICATE # OF WIRES. LONG HASH INDICATES NEUTRAL. #12 AWG WIRE MINIMUM.
	BURIED IN EARTH OR CONCEALED IN CONCRETE - GALVANIZED RIGID STEEL CONDUIT (3/4"C MINIMUM)
	HOMERUN TO PANEL (3/4"C MINIMUM)
	20A,125V 1P LIGHT SWITCH FOR HAZADOUS LOCATION MTD. 3'-6" AFF.
	DOOR OPERATOR TYPE AND LOCATION AS REQUIRED BY DOOR MANUFACTURER
	600V, 30A, 3P SAFETY DISCONNECT SWITCH
	DOOR CONTROL PUSHBUTTON STATION FOR HAZADOUS LOCATION MTD +4'-0"
	DOOR CONTROL PUSHBUTTON STATION-NEMA 4X ENCLOSURE MTD 4'-0"
	LIMIT SWITCH, TYPE AND LOCATION AS REQUIRED BY DOOR MANUFACTURER
	SURFACE MOUNTED TELEPHONE OUTLET BOX WITH GASKETED COVER MTD. 1'-6" AFF.
	COPPER GROUND BUS - 3" WIDE X 3'-0" LONG X 1/2" DEEP
	JUNCTION BOX.
	COPPER AIR TERMINAL 5/8" X 24" LONG
	COPPER WELD SECTIONAL GROUND ROD 3/4" DIAMETER X 10'x0" LONG.
	EXOTHERMIC WELD
	BARE COPPER GROUND CABLE #2/0 AWG
	GROUND REEL-SPRING DRIVEN AUTOMATIC RETRIEVAL WITH 50' 1/C #2AWG COPPER CABLE

ABBREVIATIONS:

AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
AFG	ABOVE FINISHED GRADE	MECH.	MECHANICAL
AWG	AMERICAN WIRE GAGE	MCB	MAIN CIRCUIT BREAKER
AF	AMP FRAME OR AMP FUSE	MCC	MOTOR CONTROL CENTER
AT	AMP TRIP	MTD	MOUNTED
ATS	AUTOMATIC TRANSFER SWITCH	MG OR M/G	MOTOR/GENERATOR SET
AMP OR A(S)	AMPERE(S)	MIN	MINIMUM
AS	AMP SWITCH	MTG	MOUNTING
APPROX	APPROXIMATELY	NEC	NATIONAL ELECTRICAL CODE
BLDG.	BUILDING	N	NORMAL
C.B.	CIRCUIT BREAKER	NON-AUTO	NON-AUTOMATIC
C	CONDUIT	NF	NON-FUSED
CKT OR CIR.	CIRCUIT	NC OR N.C.	NORMALLY CLOSED
COMM	COMMUNICATION	NO OR N.O.	NORMALLY OPEN
CL	CENTERLINE	NIC	NOT IN CONTRACT
D	DEEP	N.T.S.	NOT TO SCALE
DIST.	DISTRIBUTION	O.C.	ON CENTER
DWG.	DRAWING	PNL	PANEL
E	EMERGENCY	?	PHASE OR DIAMETER
EC	EMPTY CONDUIT	PLATF.	PLATFORM
ELECT.	ELECTRICAL	P	POLE
EMERG.	EMERGENCY	PVC	POLY VINYL CHLORIDE
EW	ELECTRIC WATER COOLER	PWR	POWER
E & S	EYE WASH & SHOWER	PP	POWER PANEL
EXH	EXHAUST	PB	PULLBOX
EXIST.	EXISTING	QTY.	QUANTITY
EXP	EXPLOSION-PROOF FOR HAZADOUS LOCATION	RMS	ROOT MEAN SQUARED
FACP	FIRE ALARM CONTROL PANEL	RP	RECEPTACLE PANEL
FDR(S)	FEEDER(S)	R.C.	REMOTE CONTROL
FLUOR.	FLUORESCENT	S.C.	SHORT CIRCUIT
F.A.	FIRE ALARM	SUBSTA.	SUBSTATION
GFP	GROUND FAULT PROTECTION	SW.	SWITCH
GRS	GALVANIZED RIGID STEEL	SWBD	SWITCHBOARD
GFI	GROUND FAULT INTERRUPTER	SWGR	SWITCHGEAR
HOA	HAND-OFF-AUTOMATIC	SYM	SYMMETRICAL
HT.	HEIGHT	TRANSF.	TRANSFORMER
HZ	HERTZ	TEL	TELEPHONE
HID	HIGH INTENSITY DISCHARGE	TYP.	TYPICAL
H.P.S.	HIGH PRESSURE SODIUM	UL	UNDERWRITERS LABORATORY
H	HIGH	UON	UNLESS OTHERWISE NOTED
HP	HORSEPOWER	VENT	VENTILATION
ID	INTRUSION DETECTION	V	VOLT
INCAND.	INCANDESCENT	WM	WATTMISER
JB	JUNCTION BOX	WTR	WATER
KW	KILOWATT	WTR HTR	WATER HEATER
KWH	KILOWATT-HOUR	WP	WEATHERPROOF
KV	KILOVOLT	W	WATT, WIRE OR WIDE
KVA	KILOVOLT AMPERE		
LTC.	LIGHTING		
LP	LIGHTING PANEL		

MAX	MAXIMUM
MECH.	MECHANICAL
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MTD	MOUNTED
MG OR M/G	MOTOR/GENERATOR SET
MIN	MINIMUM
MTG	MOUNTING
NEC	NATIONAL ELECTRICAL CODE
N	NORMAL
NON-AUTO	NON-AUTOMATIC
NF	NON-FUSED
NC OR N.C.	NORMALLY CLOSED
NO OR N.O.	NORMALLY OPEN
NIC	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
PNL	PANEL
?	PHASE OR DIAMETER
PLATF.	PLATFORM
P	POLE
PVC	POLY VINYL CHLORIDE
PWR	POWER
PP	POWER PANEL
PB	PULLBOX
QTY.	QUANTITY
RMS	ROOT MEAN SQUARED
RP	RECEPTACLE PANEL
R.C.	REMOTE CONTROL
S.C.	SHORT CIRCUIT
SUBSTA.	SUBSTATION
SW.	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
TRANSF.	TRANSFORMER
TEL	TELEPHONE
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORY
UON	UNLESS OTHERWISE NOTED
VENT	VENTILATION
V	VOLT
WM	WATTMISER
WTR	WATER
WTR HTR	WATER HEATER
WP	WEATHERPROOF
W	WATT, WIRE OR WIDE

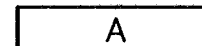



SINGLE LINE DIAGRAM

N.T.S.

NOTE-A/E TO VERIFY INCOMING POWER VOLTAGE AND CABLE SIZES. VOLTAGE DROP CALCULATIONS SHALL BE PERFORMED BASED ON SITE ADAPTED LENGTH OF CABLE RUN.

LIGHTING FIXTURE SCHEDULE

FIXTURE SYMBOL	LAMP DATA				MTG.	REMARKS
	TYPE	QUANTITY	WATTS	VOLTAGE		
	FLUORESCENT	AS REQUIRED	100	120	SURFACE	REFER TO DRAWING E-5
	HIGH PRESSURE SODIUM	AS REQUIRED	250	120	WALL SURFACE	REFER TO DRAWING E-5

GENERAL NOTES:

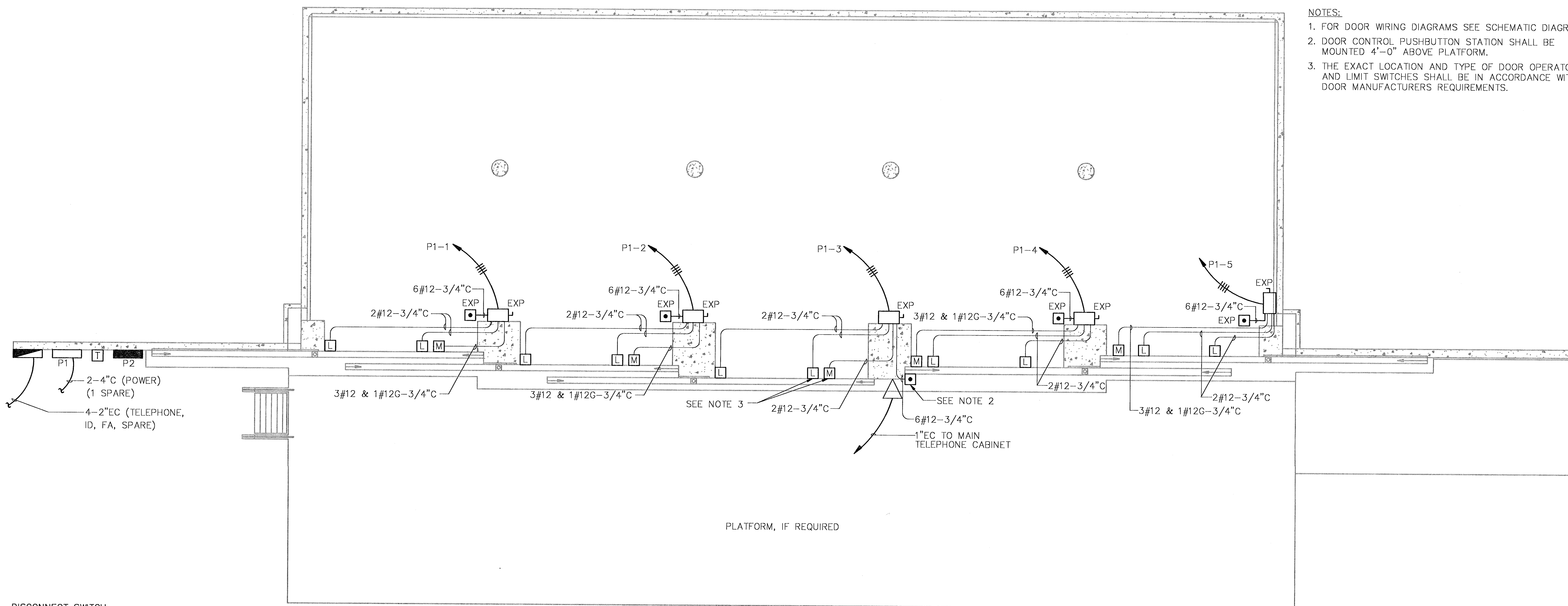
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- ALL INTERIOR ELECTRICAL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE N.E.C. NFPA 70 REQUIREMENTS FOR HAZARDOUS LOCATIONS. EXACT TYPE OF CLASSIFICATION SHALL BE DETERMINED FOR EACH SITE.
- PROVIDE SEAL FITTINGS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.
- FOR DOOR CONTROLS SEE PERFORMANCE SPECIFICATIONS.
- THE EXACT LOCATION AND TYPE OF DOOR OPERATOR, CONTROL STATION AND LIMIT SWITCHES SHALL BE ACCORDANCE WITH DOOR MANUFACTURERS REQUIREMENTS & DRAWINGS M-1, M-2 & M-3.
- ALL ARCHITECT/ENGINEERS USING THESE DRAWINGS AS STANDARDS SHALL INCLUDE THE INTERRUPTING CURRENTS OF ALL ELECTRICAL ITEMS ON THEIR DRAWINGS.

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT - SCALE REDUCED ACCORDINGLY

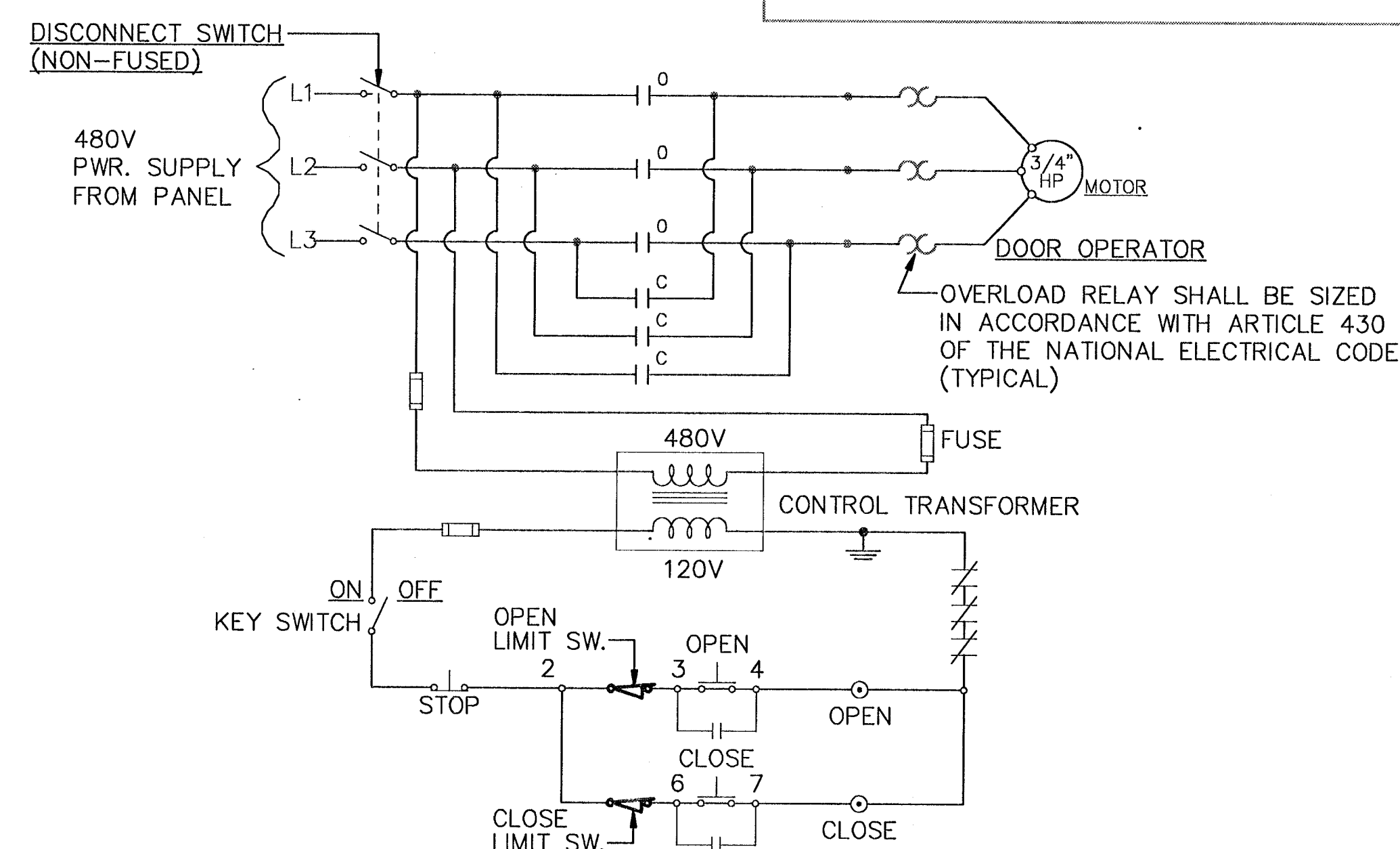
SATISFACTORY TO
TITLE _____ DATE _____

FOR COMMANDER NAVFACINCOM

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 96 MORTON ST., NEW YORK, NY 10014		DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350				
Principal (Signature) 27/5/97 DATE		NAVAL FACILITIES ENGINEERING COMMAND				
Engineer in Charge (Signature) DATE		STANDARD DRAWING				
Criteria Manager (Signature) DATE		STANDARD BOX MAGAZINE TYPE 'D'				
Navfacincom (Signature) DATE		LEGEND, NOTES, ABBREVIATIONS, SINGLE LINE DIAGRAM				
Fire Protection Engineer (Signature) DATE	Criteria Manager (Signature) DATE	Approved (Signature) DATE	Size D	Code BENT NO 80091	NAVFAC DRAWING NUMBER 6,448,549	E-1
Satisfactory To (Signature) DATE			Scale AS NOTED		Contract No	Sheet 28 OF 33
Title (Signature) DATE			Category Code		Spec No	



- NOTES:
1. FOR DOOR WIRING DIAGRAMS SEE SCHEMATIC DIAGRAM.
 2. DOOR CONTROL PUSHBUTTON STATION SHALL BE MOUNTED 4'-0" ABOVE PLATFORM.
 3. THE EXACT LOCATION AND TYPE OF DOOR OPERATOR AND LIMIT SWITCHES SHALL BE IN ACCORDANCE WITH DOOR MANUFACTURERS REQUIREMENTS.



SLIDING DOOR SCHEMATIC DIAGRAM

ACTUAL INSTALLATION SHALL BE SITE ADAPTED AND COORDINATED WITH MANUFACTURER AND SHOP DRAWINGS.

FLOOR PLAN

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

IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY

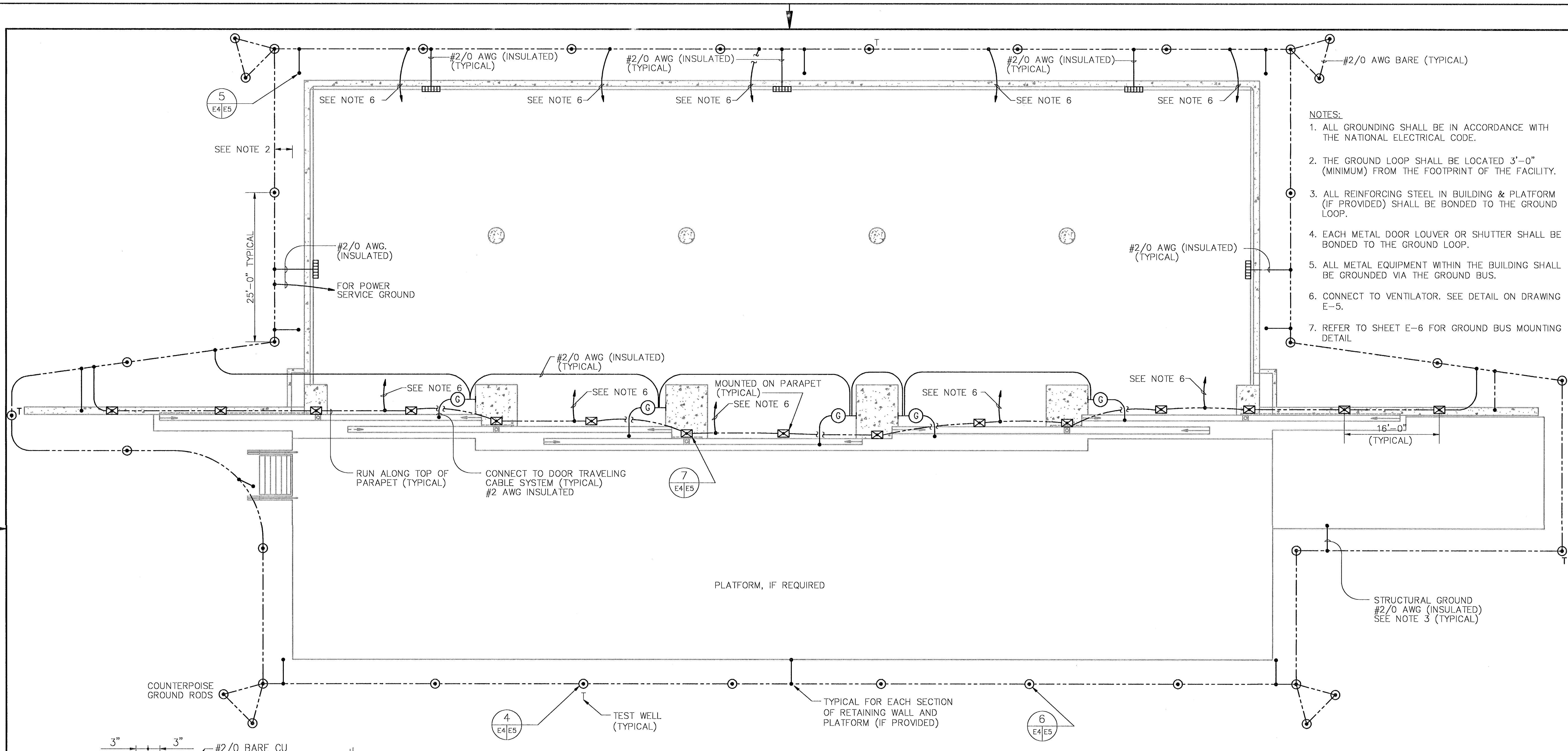
4' 0 10' 20'

1/8" = 1'-0"

SATISFACTORY TO

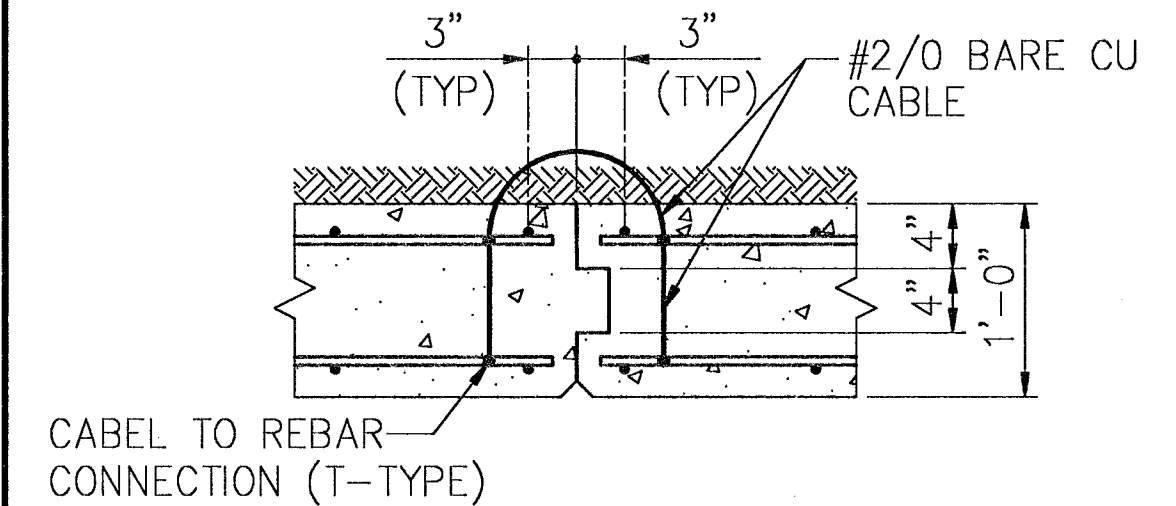
TITLE DATE

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 88 MORTON ST., NEW YORK, NY 10014 DATE: 27/5/97						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350						
NAVAL FACILITIES ENGINEERING COMMAND						
STANDARD DRAWING						
STANDARD BOX MAGAZINE TYPE 'D'						
POWER AND AUXILIARY SYSTEM PLAN						
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	6,448,551		E-3	
D	80091			SHEET 30 OF 33		
SCALE	AS NOTED	CONTRACT NO				
CATEGORY CODE		SPEC NO				

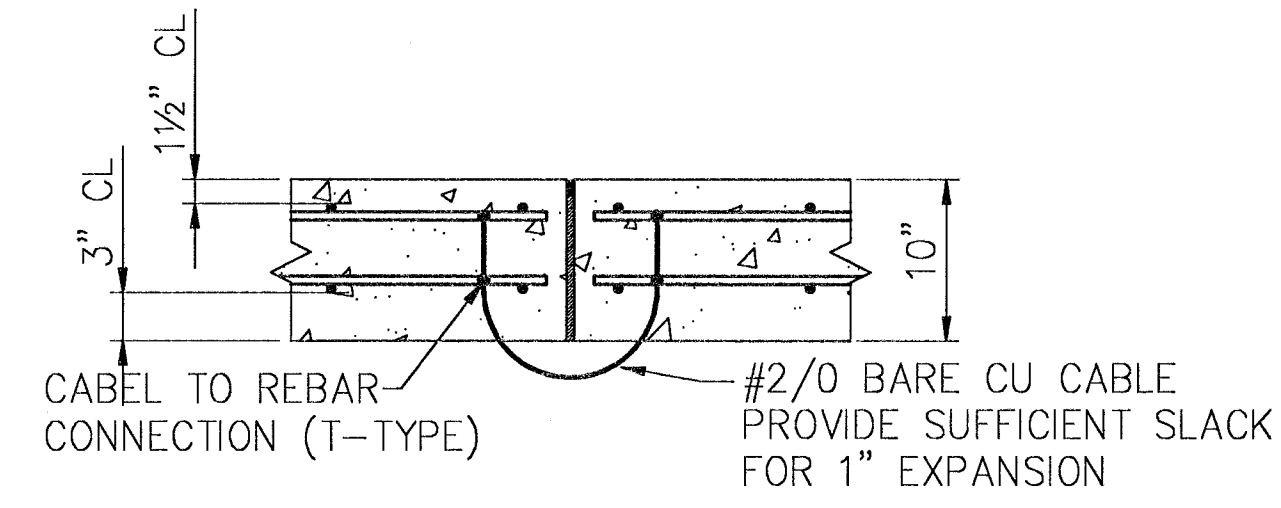


- NOTES:**
1. ALL GROUNDING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
 2. THE GROUND LOOP SHALL BE LOCATED 3'-0" (MINIMUM) FROM THE FOOTPRINT OF THE FACILITY.
 3. ALL REINFORCING STEEL IN BUILDING & PLATFORM (IF PROVIDED) SHALL BE BONDED TO THE GROUND LOOP.
 4. EACH METAL DOOR LOUVER OR SHUTTER SHALL BE BONDED TO THE GROUND LOOP.
 5. ALL METAL EQUIPMENT WITHIN THE BUILDING SHALL BE GROUNDED VIA THE GROUND BUS.
 6. CONNECT TO VENTILATOR. SEE DETAIL ON DRAWING E-5.
 7. REFER TO SHEET E-6 FOR GROUND BUS MOUNTING DETAIL.

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

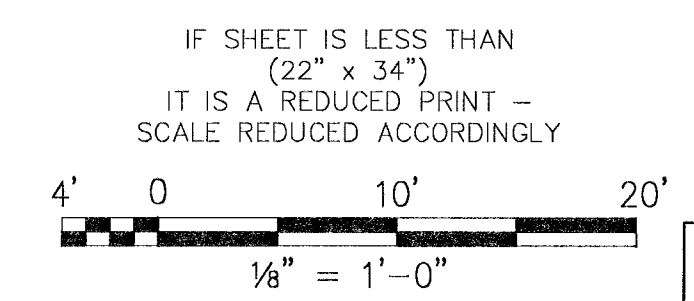


TYPICAL AT EACH CONSTRUCTION JOINT IN PLATFORM RETAINING WALL
N.T.S.



TYPICAL AT EACH EXPANSION JOINT IN PLATFORM SLAB-ON-GRADE
N.T.S.

EACH PLATFORM (WHERE PROVIDED) PANEL ALONG EXTERIOR BLDG WALL SHALL BE BONDED TO PANEL (10) ALONG PLATFORM EDGE. ADJACENT EDGE PANELS SHALL BE BONDED AND EVERY SECOND PANEL (10 TOTAL) SHALL BE BONDED TO GROUND LOOP. ADJACENT RETAINING WALL SECTION SHALL BE BONDED ACROSS CONSTRUCTION JOINT AND EVERY SECOND PANEL SHALL BE BONDED TO GROUND LOOP.

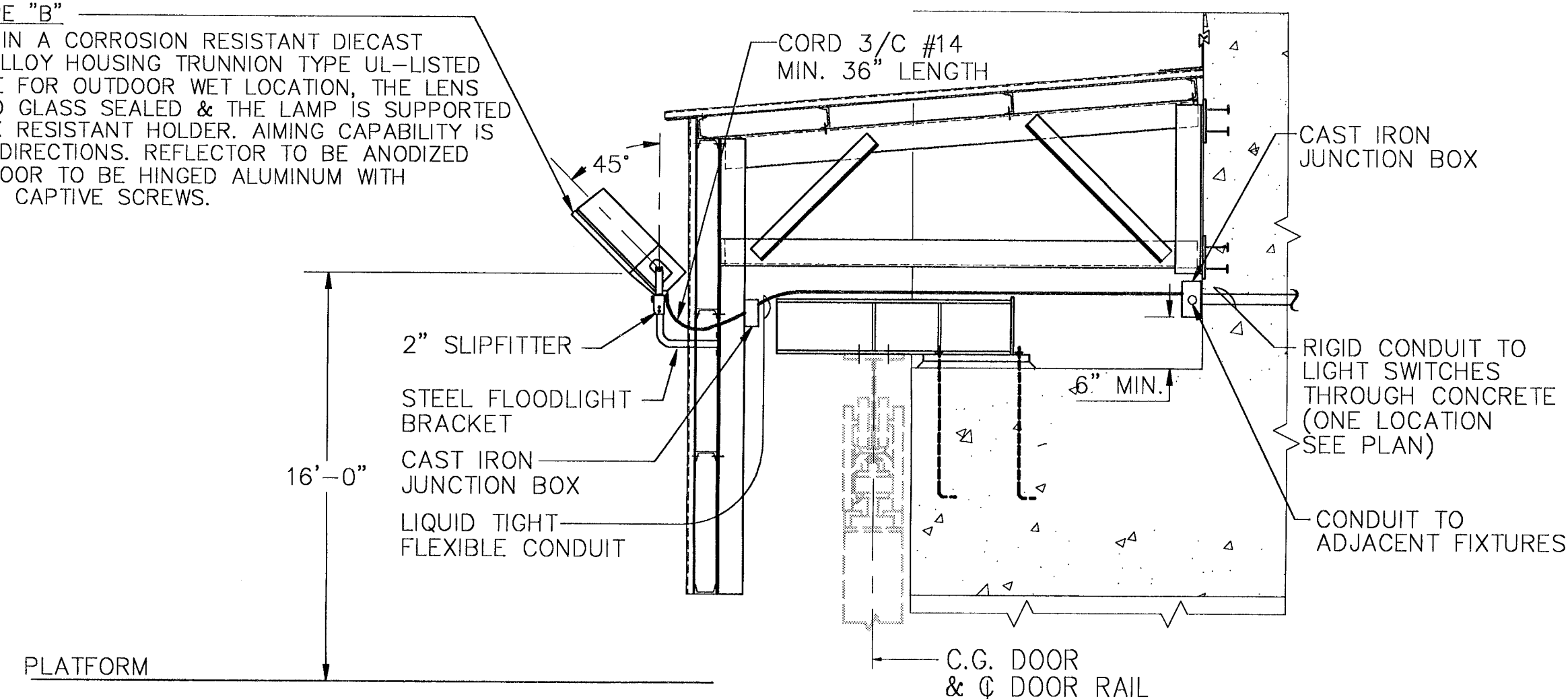


SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
<p align="center">REVISIONS</p> <p align="center">DEPARTMENT OF THE NAVY</p> <p align="center">WASHINGTON, D.C. 20350</p>						
<p align="center">NAVAL FACILITIES ENGINEERING COMMAND</p> <p align="center">STANDARD DRAWING</p> <p align="center">STANDARD BOX MAGAZINE TYPE 'D'</p> <p align="center">LIGHTNING PROTECTION AND GROUNDING PLAN</p>						
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	SHEET 31 OF 33			
D	80091	6,448,552	E-4			
SCALE	AS NOTED	CONTRACT NO	SPEC NO			
CATEGORY CODE						

<p>AMMANN & WHITNEY CONSULTING ENGINEERS 96 MORTON ST., NEW YORK, NY 10014</p>		<p>27/5/97 DATE</p>
<p>PRINCIPAL (PREPARED) <i>[Signature]</i></p>	<p>ENGINEER IN CHARGE <i>R. Brady</i></p>	<p>BRANCH MANAGER <i>M. [Signature]</i></p>
<p>CRITERIA MANAGER <i>R. Brady</i></p>	<p>DIVISION DIRECTOR <i>A. [Signature]</i></p>	
<p>FIRE PROTECTION ENGINEER</p>	<p>DATE</p>	
<p>CRITERIA MANAGER</p>	<p>DATE</p>	
<p>APPROVED</p>	<p>DATE</p>	
<p>FOR COMMANDER NAVFACENCOM</p>		

FIXTURE TYPE "B"

FLOODLIGHT IN A CORROSION RESISTANT DIECAST ALUMINUM ALLOY HOUSING TRUNNION TYPE UL-LISTED AS SUITABLE FOR OUTDOOR WET LOCATION, THE LENS IS TEMPERED GLASS SEALED & THE LAMP IS SUPPORTED BY A SHOCK RESISTANT HOLDER. AIMING CAPABILITY IS 90° IN ALL DIRECTIONS. REFLECTOR TO BE ANODIZED ALUMINUM DOOR TO BE HINGED ALUMINUM WITH GASKET AND CAPTIVE SCREWS.

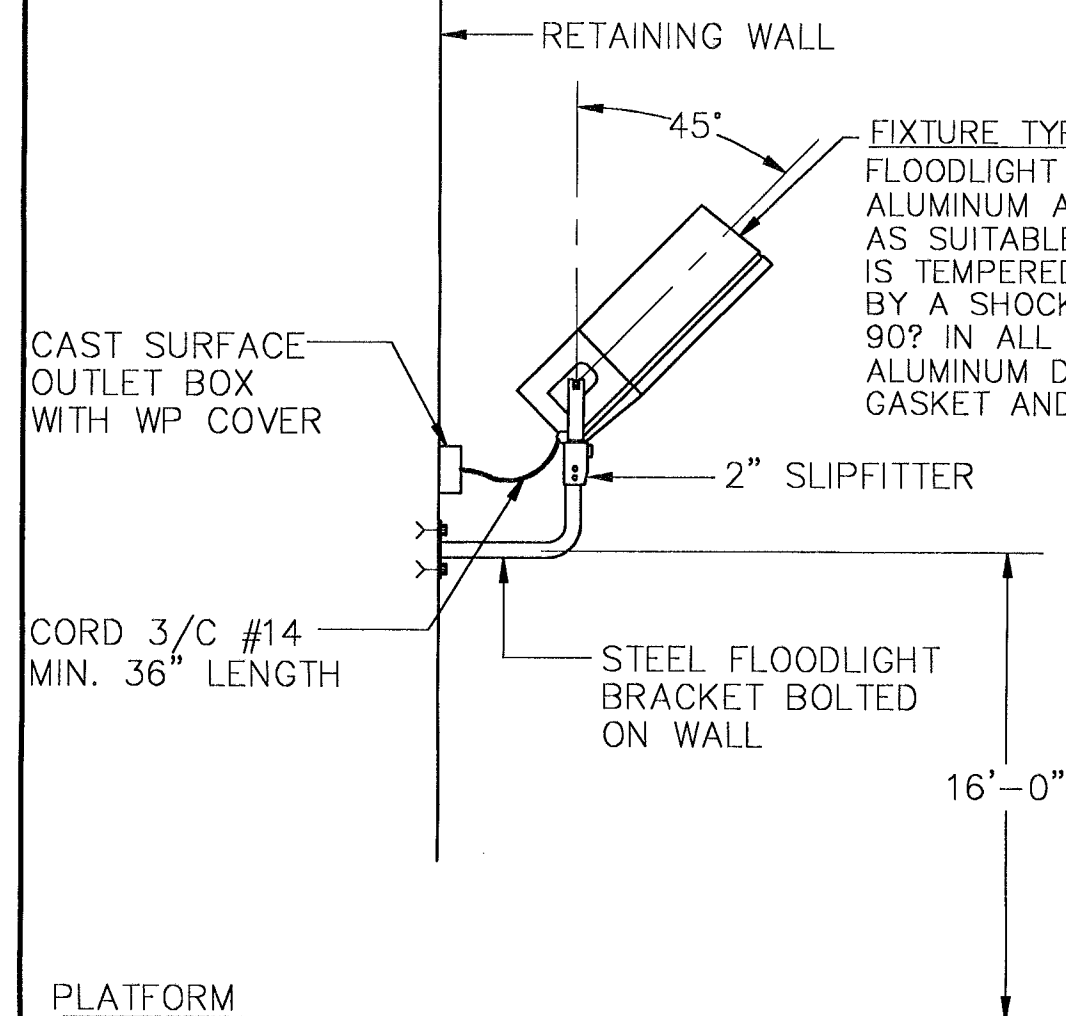


EXTERIOR FLOODLIGHT DETAIL

DETAIL 2
SCALE: N.T.S. E2/E5

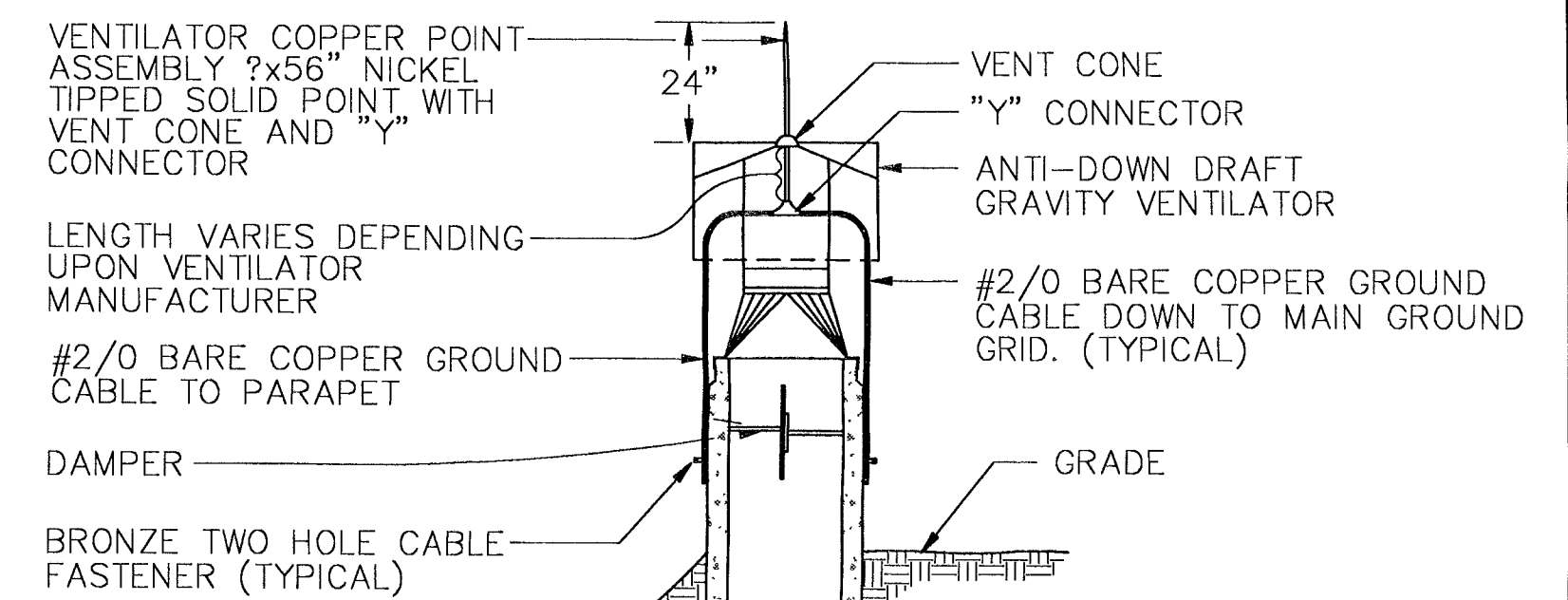
FIXTURE TYPE "B"

FLOODLIGHT IN A CORROSION RESISTANT DIECAST ALUMINUM ALLOY HOUSING TRUNNION TYPE UL-LISTED AS SUITABLE FOR OUTDOOR WET LOCATION, THE LENS IS TEMPERED GLASS SEALED & THE LAMP IS SUPPORTED BY A SHOCK RESISTANT HOLDER. AIMING CAPABILITY IS 90° IN ALL DIRECTIONS. REFLECTOR TO BE ANODIZED ALUMINUM DOOR TO BE HINGED ALUMINUM WITH GASKET AND CAPTIVE SCREWS.

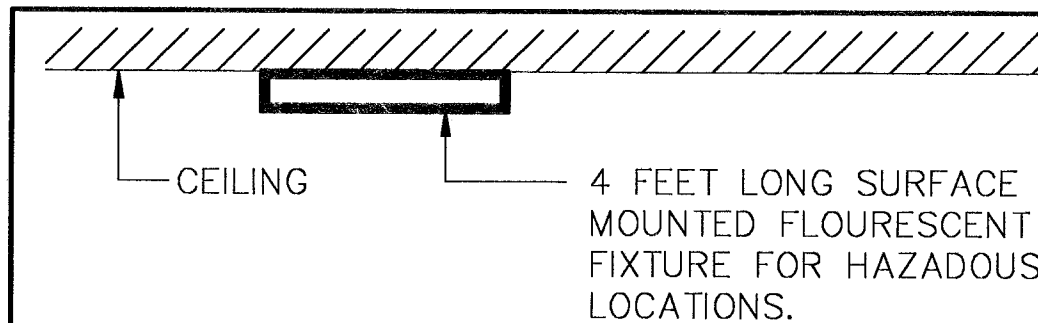


EXTERIOR FLOODLIGHT DETAIL

DETAIL 3
SCALE: N.T.S. E2/E5



TYPICAL VENTILATOR DETAIL
N.T.S.

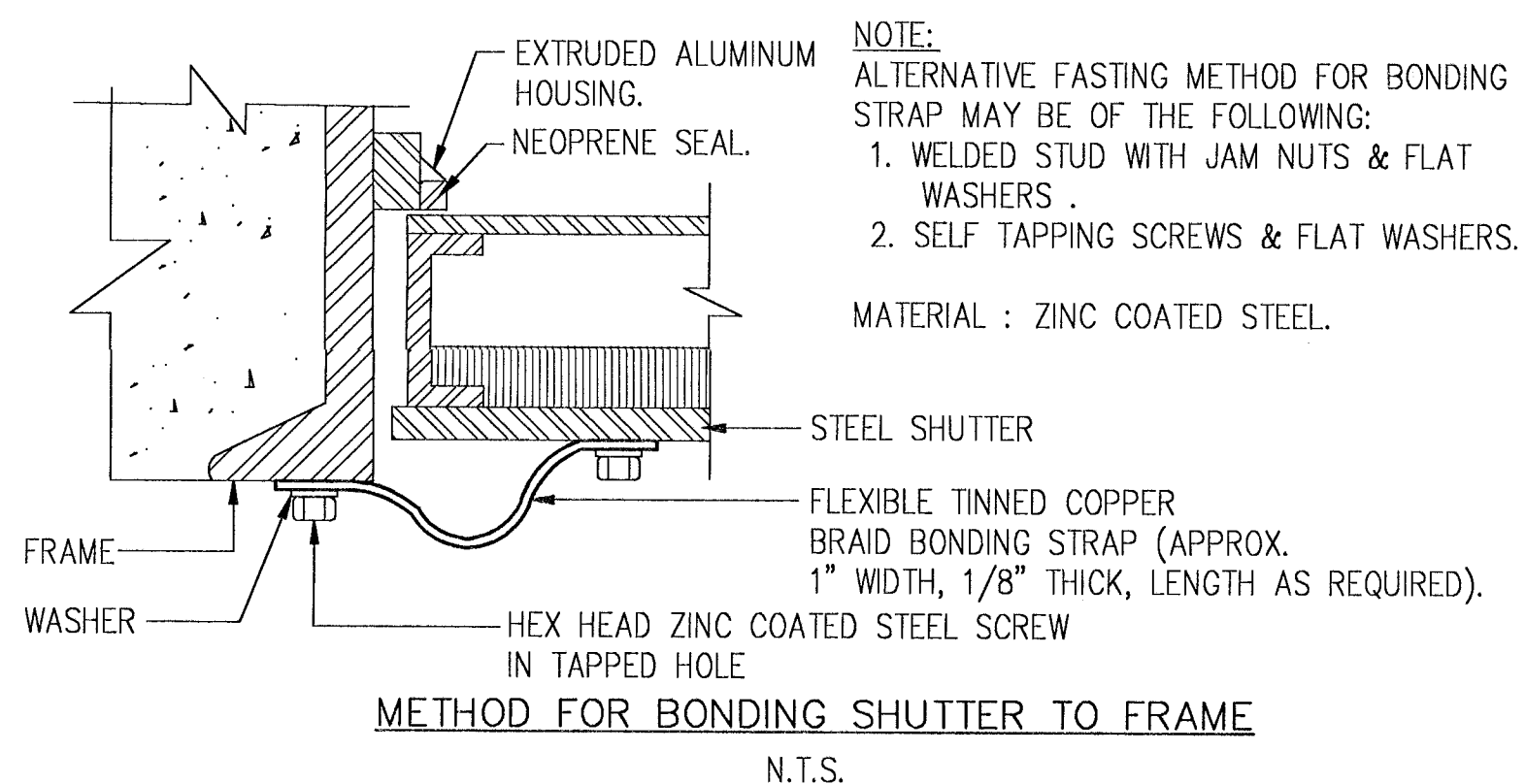


NOTES:

- LUMINARE SHALL MEET UL844 OR FACTORY MUTUAL STANDARD FOR HAZARDOUS LOCATIONS.
- LUMINARE SHALL HAVE
 - LOW TEMPERATURE BALLASTS, 34 WATT LAMPS AND 120V OPERATING VOLTAGE.
 - TWO HEAVY DUTY IMPACT RESISTANT GLASS LAMP TUBES.
 - FACTORY WIRE, ASSEMBLED AND SEALED.
 - STAINLESS STEEL WIRE GUARD.
 - HIGH STRENGTH COPPER FREE ALUMINUM ALLOY CASTING.
 - EXTRUDED ALUMINUM REFLECTOR WITH WHITE ACRYLIC FINISH.

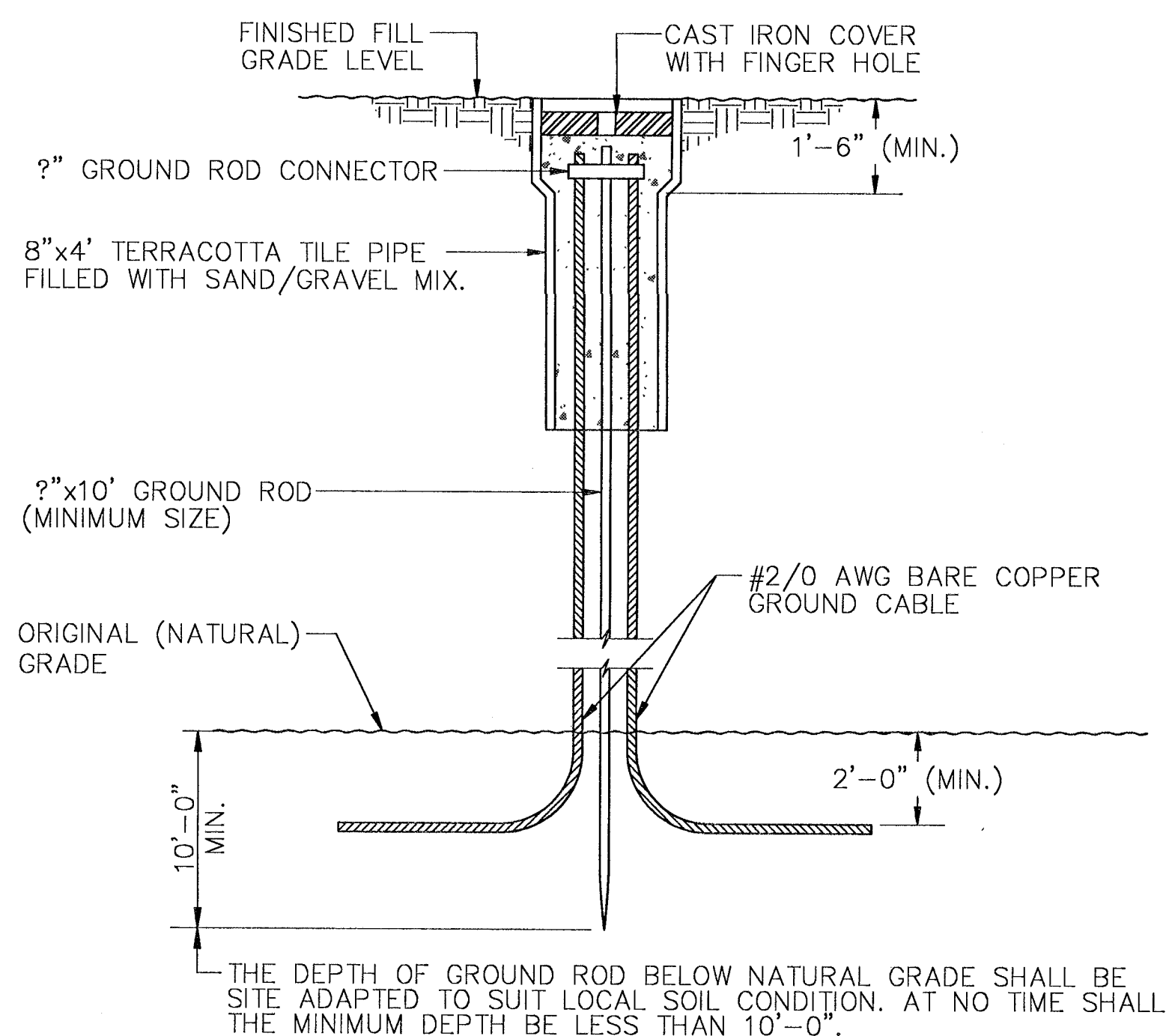
INTERIOR LIGHTING FIXTURE TYPE "A"

DETAIL 1
SCALE: N.T.S. E2/E5



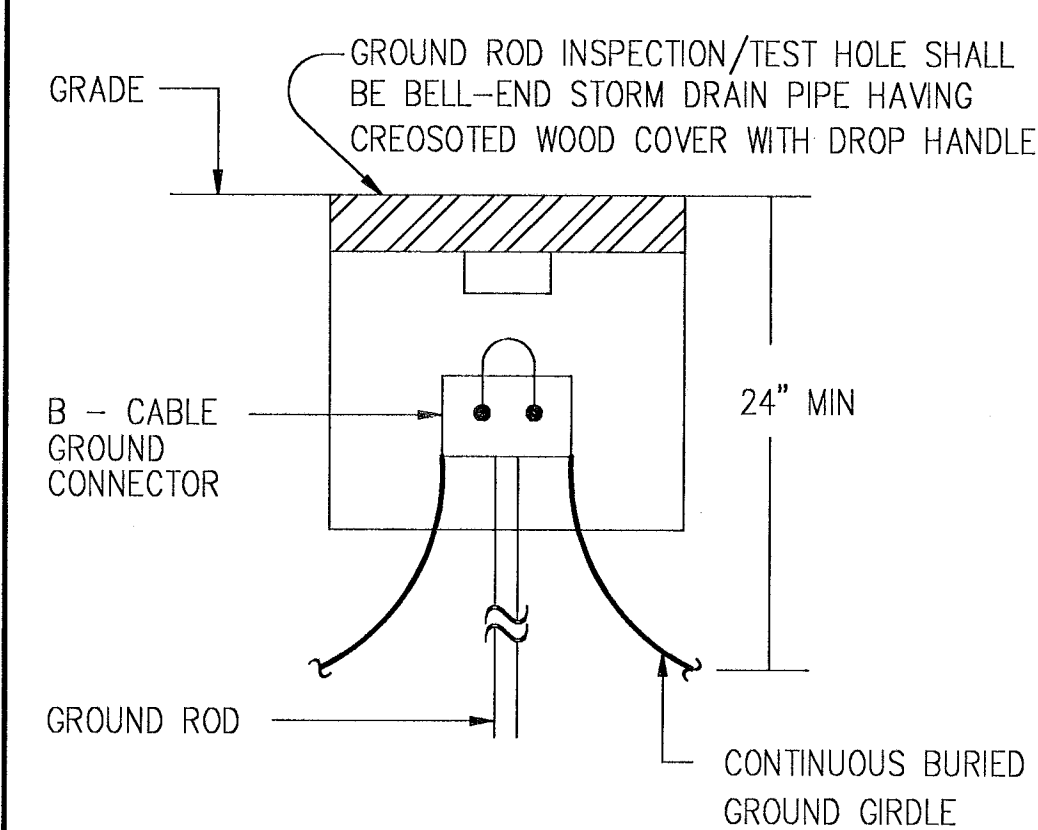
METHOD FOR BONDING SHUTTER TO FRAME

N.T.S.



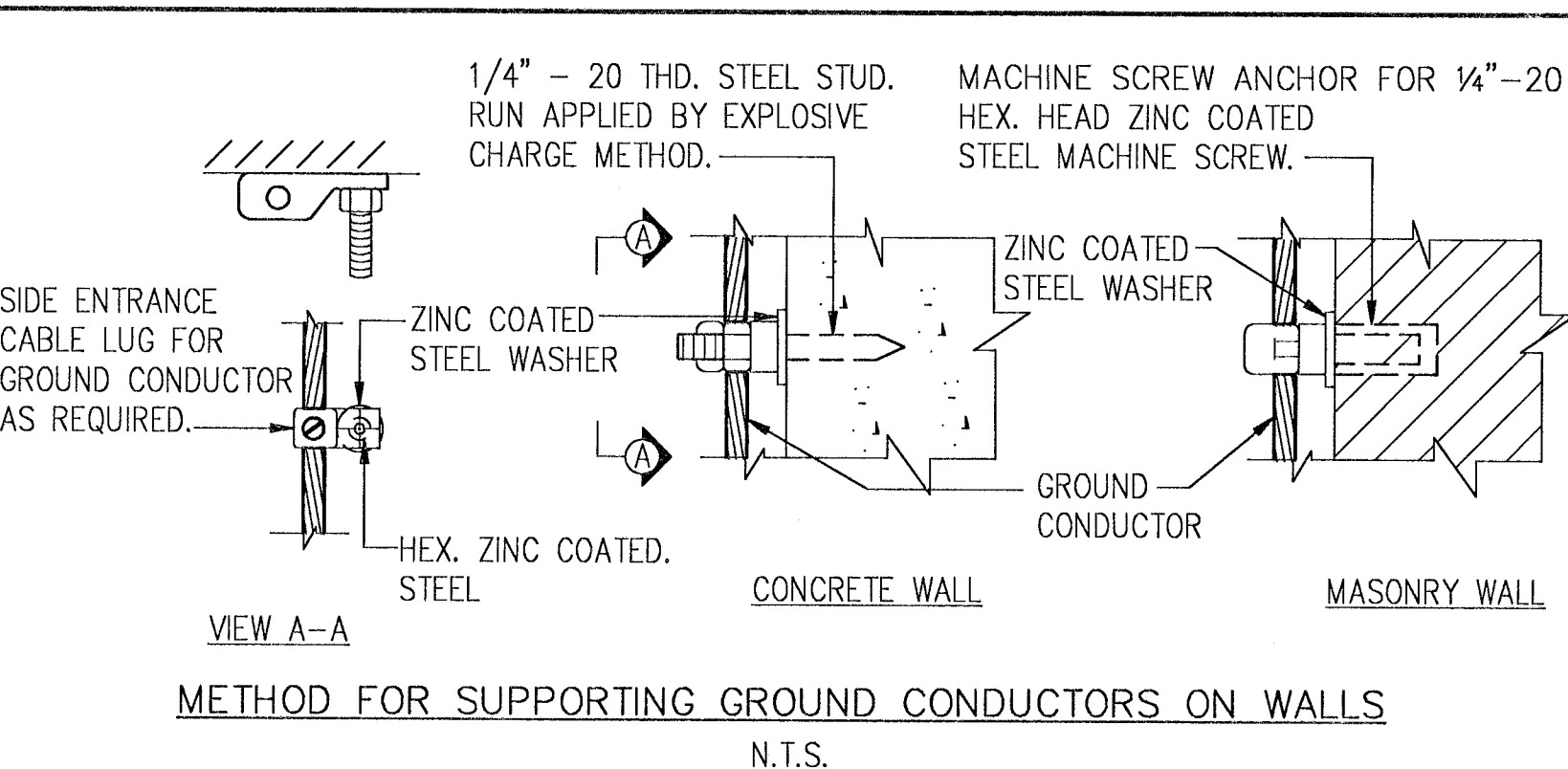
GROUND ROD INSTALLATION IN EARTH FILL

DETAIL 6
SCALE: N.T.S. E4/E5



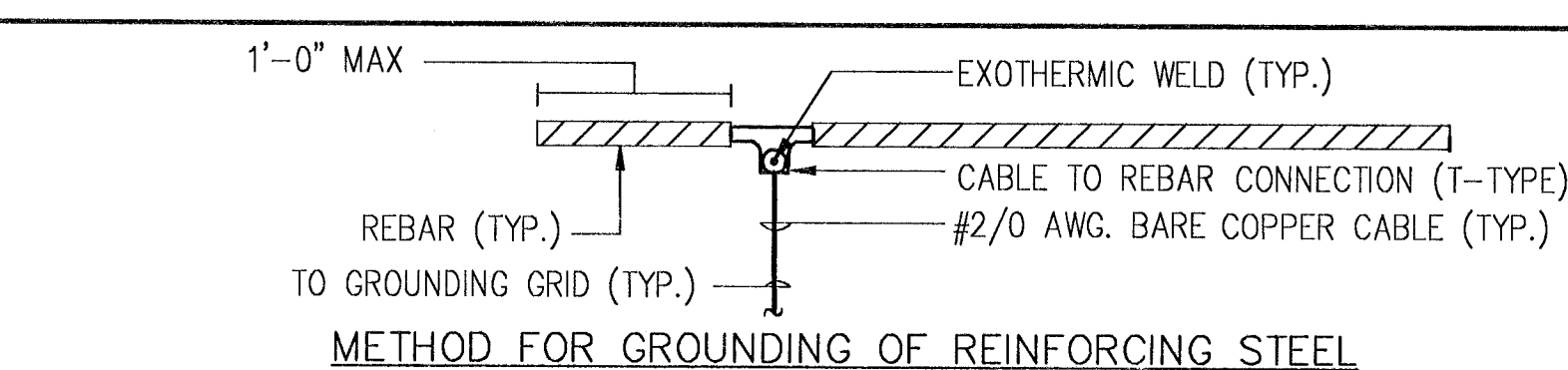
TYPICAL TEST WELL

DETAIL 4
SCALE: N.T.S. E4/E5



METHOD FOR SUPPORTING GROUND CONDUCTORS ON WALLS

N.T.S.

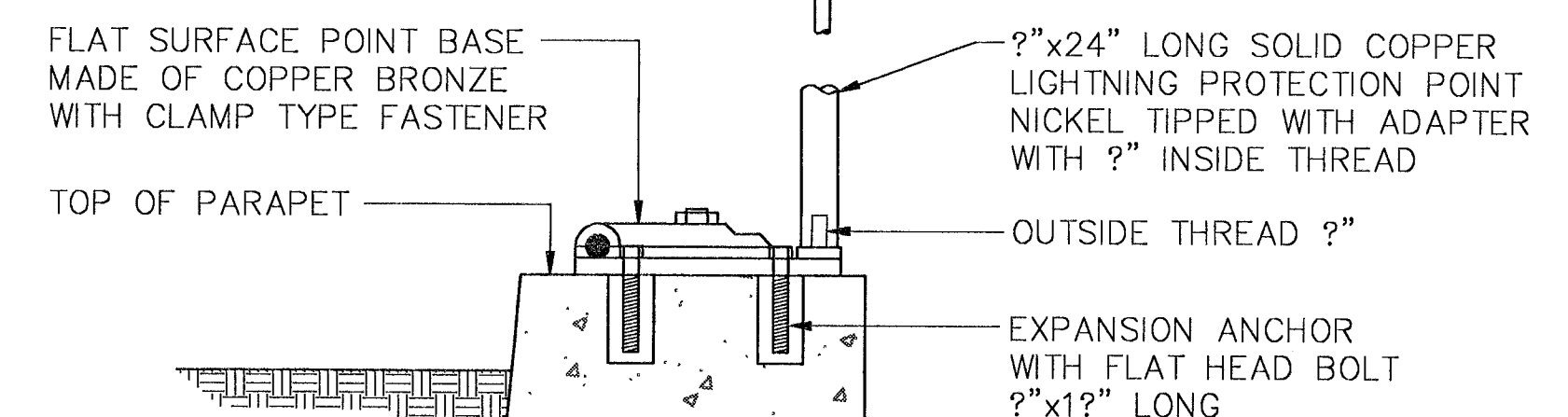


METHOD FOR GROUNDING OF REINFORCING STEEL

DETAIL 5
SCALE: N.T.S. E4/E5

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT - SCALE REDUCED ACCORDINGLY

SECTION A
SCALE: N.T.S. E5/E5



DETAIL 7
SCALE: N.T.S. E4/E5

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 98 MORTON ST., NEW YORK, NY 10014 27/5/97 PRINCIPAL PARTNER ENGINEER IN CHARGE CRITERIA MANAGER NAVFACENGINCOM						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350 NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING STANDARD BOX MAGAZINE TYPE 'D' ELECTRICAL DETAILS						
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	CONTRACT NO		SHEET 32 OF 33	
D	80091	6,448,553	E-5			
SCALE	AS NOTED	CATEGORY CODE	SPEC NO			
SATISFACTORY TO TITLE DATE						

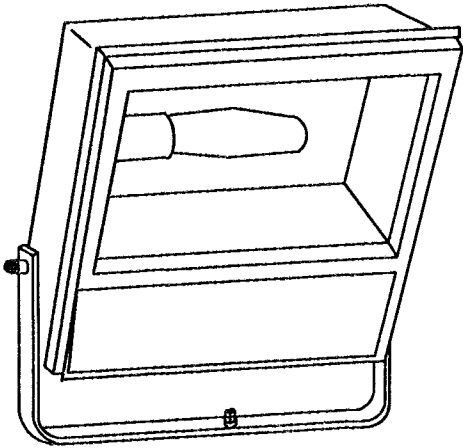
POWER PANEL P1 SCHEDULE

PROVIDE 90A, MCB.

277/480 VOLT 3 PHASE 4 WIRE SN. 100 A.BUS AND GND. BUS

LUG LOCATION CABINET MIN. S.C. A.SYM.

CIR. NO.	DESCRIPTION OF LOAD	AMPS	KW.	H.P.	CIRCUIT BREAKER			REMARKS
					FRAME SIZE	TRIP SIZE	POLES	
1	DOOR #1	4.8		3	100	20	3	
2	DOOR #2	4.8		3	100	20	3	
3	DOOR #3	4.8		3	100	20	3	
4	DOOR #4	4.8		3	100	20	3	
5	DOOR #5	4.8		3	100	20	3	
6	15 KVA XFMR.	18.1	15		100	25	3	
7	SPARE				100	20	3	
8	SPARE				100	20	3	
9	SPARE				100	20	3	
10	SPARE				100	20	3	

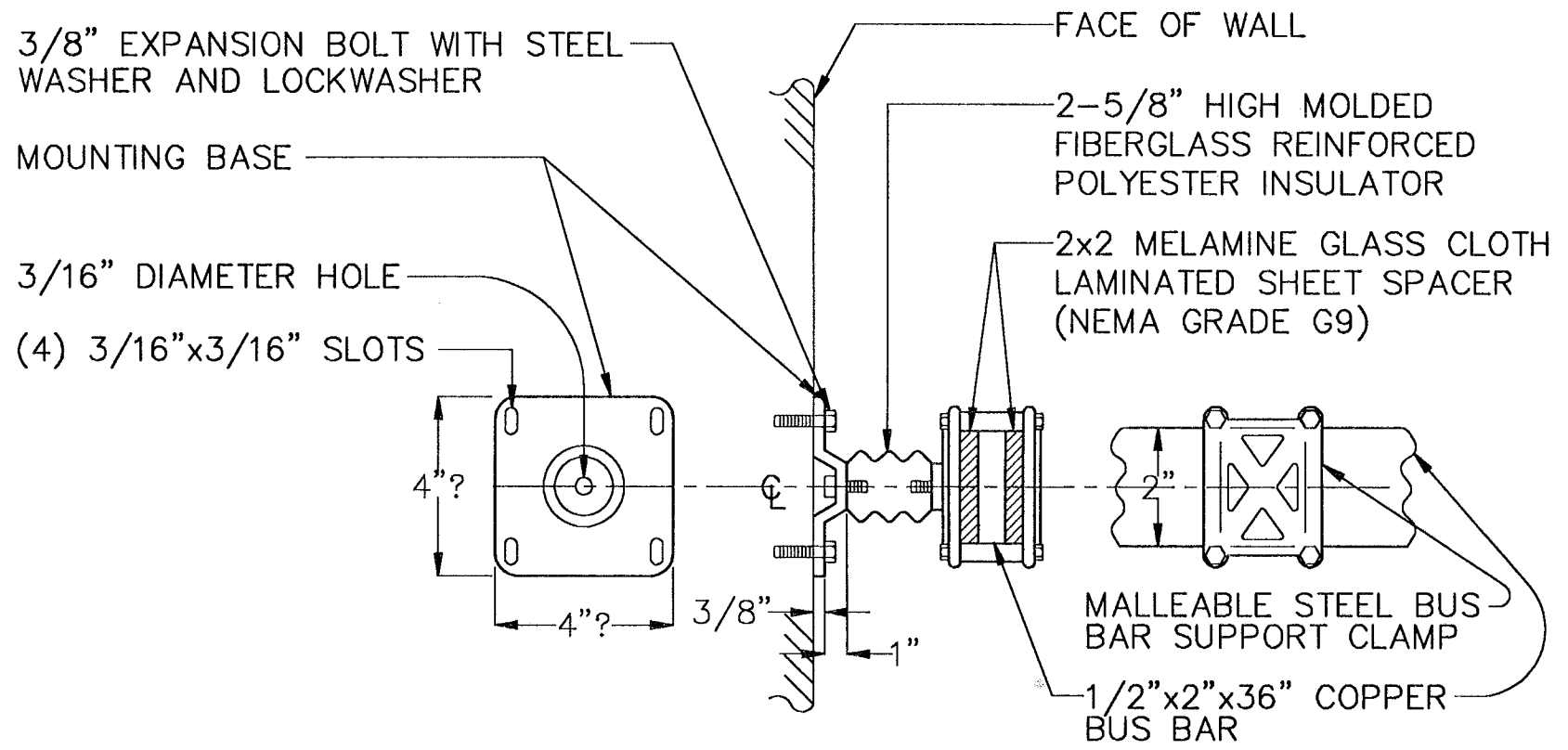


NOTE:
NEMA BEAM SPREAD
CONFIGURATION SHALL BE
AS SPECIFIED AND SHALL BE
IN ACCORDANCE WITH I.E.S.
DEFINITIONS.

LUMINAIRE REQUIREMENTS

1. HOUSING - DIE CAST ALUMINUM.
2. REFLECTOR - ANODIZED OR ALZAK ALUMINUM.
3. DOOR - HINGED ALUMINUM, WITH GASKET AND CAPTIVE SCREWS.
4. INTEGRAL MULTI-TAP BALLAST.
5. STAINLESS STEEL OR NONCORROSIVE HARDWARE.
6. PORCELAIN SOCKET.
7. MINIMUM 36" 3/C #14 "SO" CORD.
8. UL "WET LABEL"

FIXTURE TYPE "B"
FLOODLIGHT DETAIL



TYPICAL GROUND BUS BAR MOUNTING DETAIL
TWO (2) CLAMPS REQUIRED PER BUS BAR

LIGHTING PANEL NO. P2 120/208 V. 3ø 4 W + GRD A. SYM.I.C.								
MAINS 100 AMPS. MAINBREAKER 100 AMPS.								
LOCATION OR DESCRIPTION	LOAD IN WATTS	CKT BKR AMP	CKT NO.		CKT NO.	CKT BKR AMP	LOAD IN WATTS	LOCATION OR DESCRIPTION
SPARE		20	1		2	20		SPARE
EXT. LIGHTING	1200	20	3		4	20	200	EXT. RECEPTS.
EXT. LIGHTING	1200	20	5		6	20	200	EXT. RECEPTS.
SPARE		20	7		8	20	1100	INT. LIGHTING
INT. LIGHTING	1100	20	9		10	20	1100	INT. LIGHTING
INT. LIGHTING	1100	20	11		12	20	1100	INT. LIGHTING

IF SHEET IS LESS THAN
(22" x 34")
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY

4' 0 10' 20'

1/8" = 1'-0"

SYMBOL		DESCRIPTION		PREP'D BY	DATE	APPROVED
REVISIONS						
AMMANN & WHITNEY CONSULTING ENGINEERS 96 MURKIN ST., NEW YORK, NY 10014						
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350						
NAVAL FACILITIES ENGINEERING COMMAND						
STANDARD DRAWING						
STANDARD BOX MAGAZINE TYPE 'D'						
PANEL SCHEDULES & DETAIL						
SIZE	CODE BONT NO	NAVAEC DRAWING NUMBER	6,448,554			
D	80091					E-6
SCALE	AS NOTED	CONTRACT NO	SHEET 33 OF 33			
CATEGORY CODE	SPEC NO					
FOR COMMANDER NAVFACENCOM						