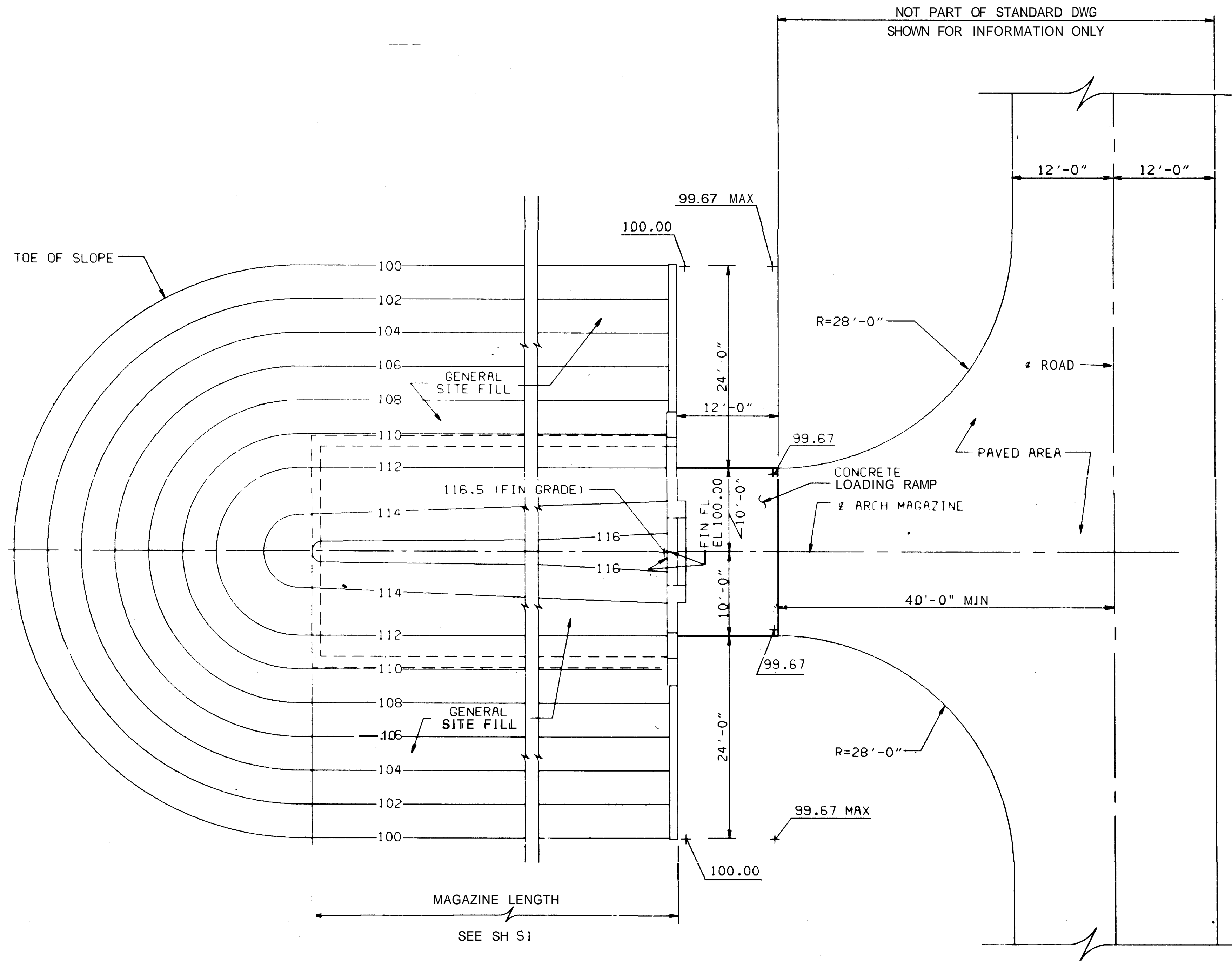


REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED



**SITE PLAN
MAGAZINE AT GRADE-LEVEL**
SCALE: 1/8" = 1'-0"
CONTOUR INTERVAL: 2'

- NOTES:
- SEE GEN NOTE 15, NAVFAC DWG NO. 1404387 FOR REF ELEVATION.
 - CONTOURS SHOWN REPRESENT TYPICAL CONDITIONS FOR SINGLE MAGAZINE. CONTOURS MAY REQUIRE ADJUSTMENT FOR SITING OF MULTIPLE MAGAZINES, OR WHERE SOIL OR DRAINAGE CONDITIONS SO INDICATE.

ABBREVIATIONS

AB	ANCHOR BOLT	LGTH	LARGE, LONG
ABT	ABOUT	LENGTH	LENGTH
ACI	AMERICAN CONCRETE INSTITUTE	LLV	LONG LEG VERTICAL
AHR	ANCHOR	LTGS	LIGHTINGS
AMP	AMPERE	MACH	MACHINE
ASSY	ASSEMBLY	MAG	MAGAZINE
AWG	AMERICAN WIRE GAUGE	MAX	MAXIMUM
BKR	BREAKER	MET	METAL
CJ	CONSTRUCTION JOINT	MIN	MINIMUM
£	CENTERLINE	MS	MILLISECONDS
CND	CONDUIT	NAPEC	NAVAL AMMUNITION PRODUCTION ENGINEERING CENTER
CLR	CLEAR	NAVFAC	NAVAL FACILITIES ENGINEERING COMMAND
CONC	CONCRETE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CONST	CONSTRUCTION	NF	NEAR FACE
CONT	CONTINUOUS	NO	NUMBER
COORD	COORDINATE	OC	ON CENTER
CTR	CENTER	OPNG	OPENING
CY	CUBIC YARDS	OPP	OPPOSITE
DET	DETAIL	PCI	POUNDS PER CUBIC INCH
DIA	DIAMETER	PL	PLATE
DIM	DIMENSION	PROJ	PROJECTION
DN	DOWN	PSF	POUNDS PER SQUARE FOOT
DWG	DRAWING	PSI	POUNDS PER SQUARE INCH
DWLS	DOWELS	PVMT	PAVEMENT
EA	EACH	R	RADIUS
EF	EACH FACE	RCPTS	RECEPTACLES
EJ	EXPANSION JOINT	REF	REFERENCE
EL	ELEVATION	REINF	REINFORCEMENT
ENCL	ENCLOSE, ENCLOSURE	REQD	REQUIRED
EQ	EQUAL	RHW	RUBBER HEAT AND WATER RESISTANT INSULATION
EQUIP.	EQUIPMENT	SECT	SECTION
EW	EACH WAY	SH	SHEET
EXPN	EXPANSION	SNT	SEALANT (JOINT SEALING MATERIAL)
F	FAHRENHEIT	SP	SPACE
FDN	FOUNDATION	SST	STAINLESS STEEL
FF	FAR FACE	STD	STANDARD
FIN	FINISH	STIF	STIFFENER
FXTS	FIXTURES	SYMM	SYMMETRICAL
FL	FLOOR	T&B	TOP AND BOTTOM
FTG	FOOTING	THD	THREADED
GALV	GALVANIZE	THW	THERMOPLASTIC HEAT AND WATER RESISTANT INSULATION
GEN	GENERAL	TOS	TOP OF STEEL
GFCI	GROUND FAULT CURRENT INTERRUPTOR	TYP	TYPICAL
GND	GROUND	UNO	UNLESS NOTED OTHERWISE
GR	GRADE	W	WITH
HEX	HEXAGONAL	W/D	WITHOUT
HP	HORSEPOWER	WFG	WATERPROOFING
HPT	HIGH POINT	WT	WEIGHT
IDS	INTRUSION DETECTION SYSTEM	WWF	WELDED WIRE FABRIC
JT	JOINT		
KSI	KIPS PER SQUARE INCH		
KW	KILOWATT		

NUMBER INDICATES WALL SECTION OR ELEVATION OR DETAIL LETTER INDICATES BUILDING SECTION

SHEET NUMBER WHERE SECTION, DETAIL OR ELEVATION IS TAKEN

SHEET NUMBER WHERE SECTION, DETAIL OR ELEVATION IS DRAWN

NAVFAC STANDARD DRAWINGS PRODUCED BY:
HAYES, SEAY, MATTERN AND MATTERN
ARCHITECTS - ENGINEERS
ROANOKE, VIRGINIA



CHECK GRAPHIC SCALES BEFORE USING

DEPARTMENT OF THE NAVY
NAVFACILITIES ENGINEERING COMMAND
200 STOVALL STREET ALEXANDRIA, VA. 22334

STANDARD
EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE
CIVIL
SITE PLAN AND ABBREVIATIONS
MAGAZINE AT GRADE LEVEL

DESIGNED BY DR. A. CH. 6/24/84
SUPERVISED BY CH. ENGR. 1/2/85
SUBMITTED BY DAVID L. 10/24/84
TITLE: ARCH MAGAZINE
NORTHING: 10000000
EASTING: 10000000
DATE: 1-14-86

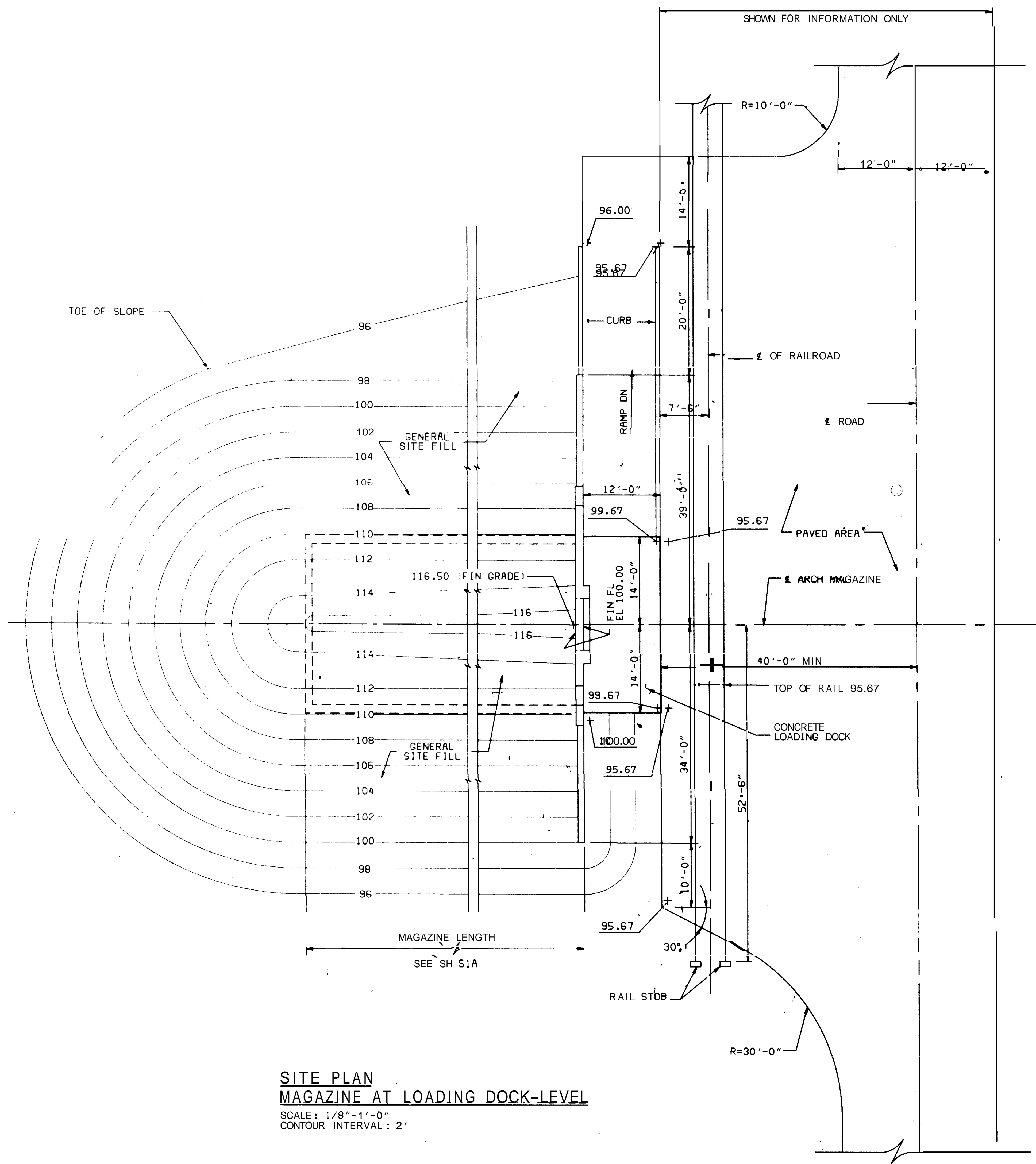
NAVFAC: CR11 7/24/84
APPROVED: [Signature] DATE: 1-14-86
SHEET: 1 OF 1

SIZE: F
CODE IDENT. NO.: 80091
NAVFAC DRAWING NO.: 1404375
CONSTR. CONTR. NO.:
SCALE: AS NOTED
SPEC. NFSS-M21
SHEET C1 OF

REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED

ABBREVIATIONS

AB	ANCHOR BOLT	LGTH	LARGE LONG
ABT	ABOUT	LLV	LENGTH
ACI	AMERICAN CONCRETE INSTITUTE	LLV	LONG LEG VERTICAL
AHR	ANCHOR	LTGS	LIGHTINGS
AMP	AMPERE	MACH	MACHINE
ASSY	ASSEMBLY	MAG	MAGAZINE
AWG	AMERICAN WIRE GAUGE	MAX	MAXIMUM
BKR	BREAKER	MET	METAL
CJ	CONSTRUCTION JOINT	MIN	MINIMUM
CL	CENTERLINE	MS	MILLISECONDS
CND	CONDUIT	NAPEC	NAVAL AMMUNITION PRODUCTION ENGINEERING CENTER
CLR	CLEAR	NAVFAC	NAVAL FACILITIES ENGINEERING COMMAND
CONC	CONCRETE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CONST	CONSTRUCTION	NF	NEAR FACE
CONT	CONTINUOUS	NO	NUMBER
COORD	COORDINATE	OC	ON CENTER
CTR	CENTER	OPNG	OPENING
CY	CUBIC YARDS	OPP	OPPOSITE
DET	DRAWING	PCI	POUNDS PER CUBIC INCH
DIA	DIAMETER	PL	PLATE
DIM	DIMENSION	PROJ	PROJECTION
DN	DOWN	PSF	POUNDS PER SQUARE FOOT
DWG	DRAWING	PSI	POUNDS PER SQUARE INCH
DWLS	DOWELS	PVMT	PAVEMENT
EA	EACH	R	RADIUS
EF	EACH FACE	RCPTS	RECEPTACLES
EJ	EXPANSION JOINT	REF	REFERENCE
EL	ELEVATION	REINF	REINFORCEMENT
ENCL	ENCLOSE, ENCLOSURE	REQD	REQUIRED
EQ	EQUAL	RIBT	RUBBER HEAT AND WATER RESISTANT INSULATION
EQUIP, EQPT	EQUIPMENT	SH	SHEET
EW	EACH WAY	SNT	SEALANT (JOINT SEALING MATERIAL)
EXPN	EXPANSION	SP	SPACE
F	FAHRENHEIT	SST	STAINLESS STEEL
FDN	FOUNDATION	STD	STANDARD
FF	FAR FACE	STIF	STIFFENER
FIN	FINISH	SYMM	SYMMETRICAL
FL	FIXTURES	T&B	TOP AND BOTTOM
FTG	FOOTING	THD	THREADED
GALV	GALVANIZE	THW	THERMOPLASTIC HEAT AND WATER RESISTANT INSULATION
GEN	GENERAL	TOS	TOP OF STEEL
GFCI	GROUND FAULT CURRENT INTERRUPTOR	TYP	TYPICAL
GND	GROUND	UNO	UNLESS NOTED OTHERWISE
GR	GRADE	W	WITH
HEX	HEXAGONAL	W/O	WITHOUT
HP	HORSEPOWER	WPG	WATERPROOFING
HPT	HIGH POINT	WT	WEIGHT
IDS	INTRUSION DETECTION SYSTEM	WVF	WELDED WIRE FABRIC
JT	JOINT		
KSI	KIPS PER SQUARE INCH		
KW	KILOWATT		



SITE PLAN
MAGAZINE AT LOADING DOCK-LEVEL
 SCALE: 1/8"=1'-0"
 CONTOUR INTERVAL: 2'

- NOTES:
- SEE GEN NOTE 15, NAVFAC DWG NO. 1404387 FOR REF ELEVATION.
 - CONTOURS SHOWN REPRESENT TYPICAL CONDITIONS FOR SINGLE MAGAZINE. CONTOURS MAY REQUIRE ADJUSTMENT FOR SITING OF MULTIPLE MAGAZINES, OR WHERE SOIL OR DRAINAGE CONDITIONS SO INDICATE.

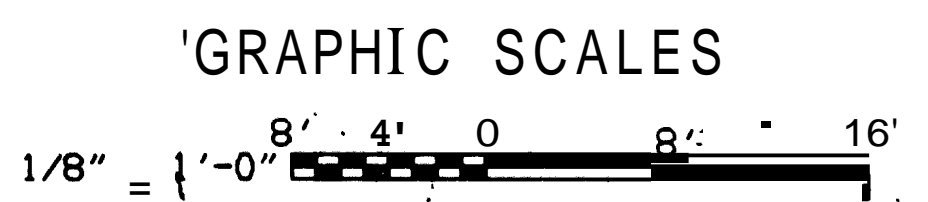
NUMBER INDICATES WALL SECTION OR ELEVATION OR DETAIL LETTER INDICATES BUILDING SECTION

SHEET NUMBER WHERE SECTION, DETAIL OR ELEVATION IS TAKEN

SHEET NUMBER WHERE SECTION, DETAIL OR ELEVATION IS DRAWN

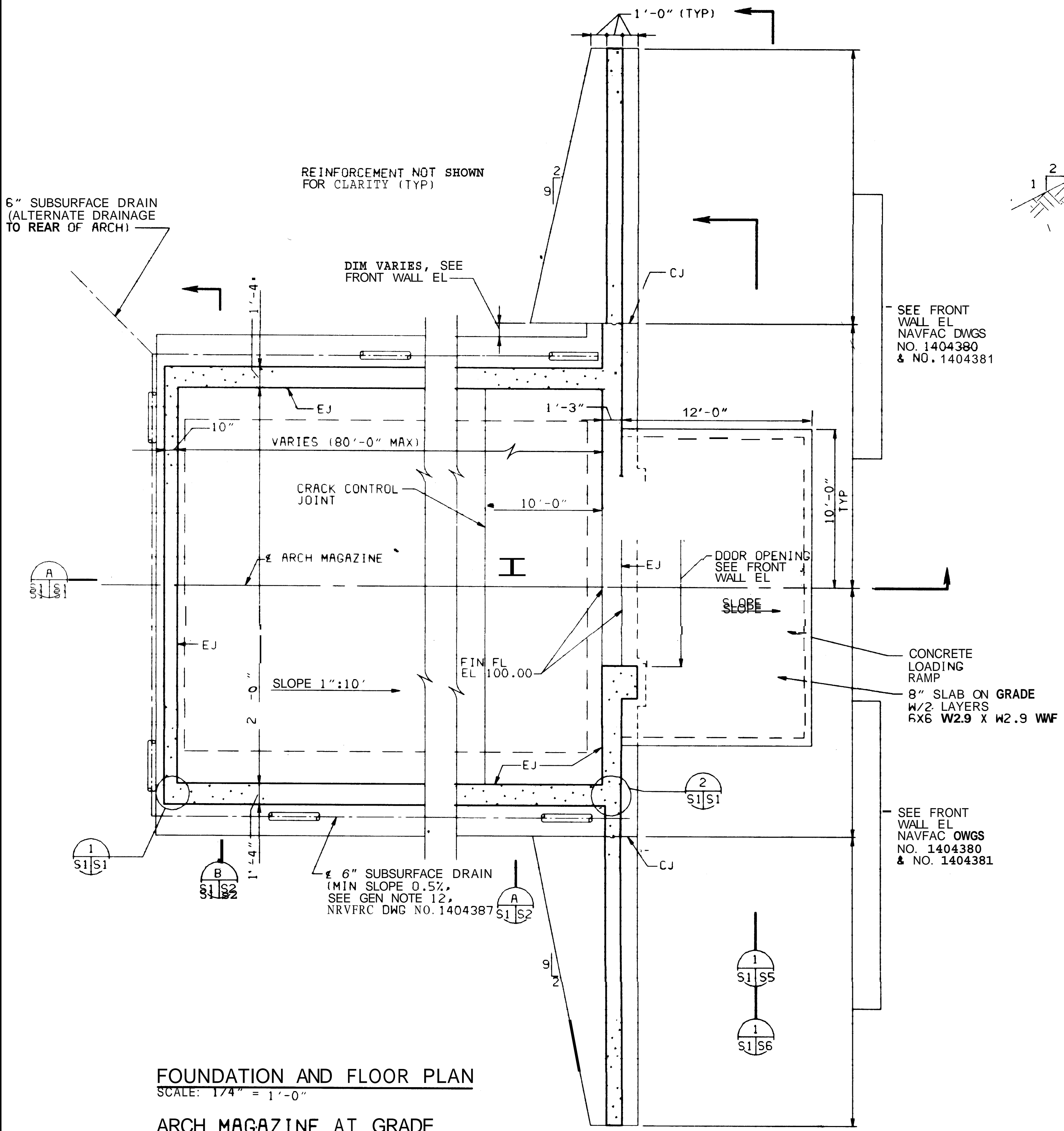
NAVFAC STANDARD DRAWING PRODUCED BY:
 HAYES, SEAY, MATTERN AND MATTERN
 ARCHITECTS - ENGINEERS
 ROANOKE, VIRGINIA

CHECK GRAPHIC SCALES BEFORE USING



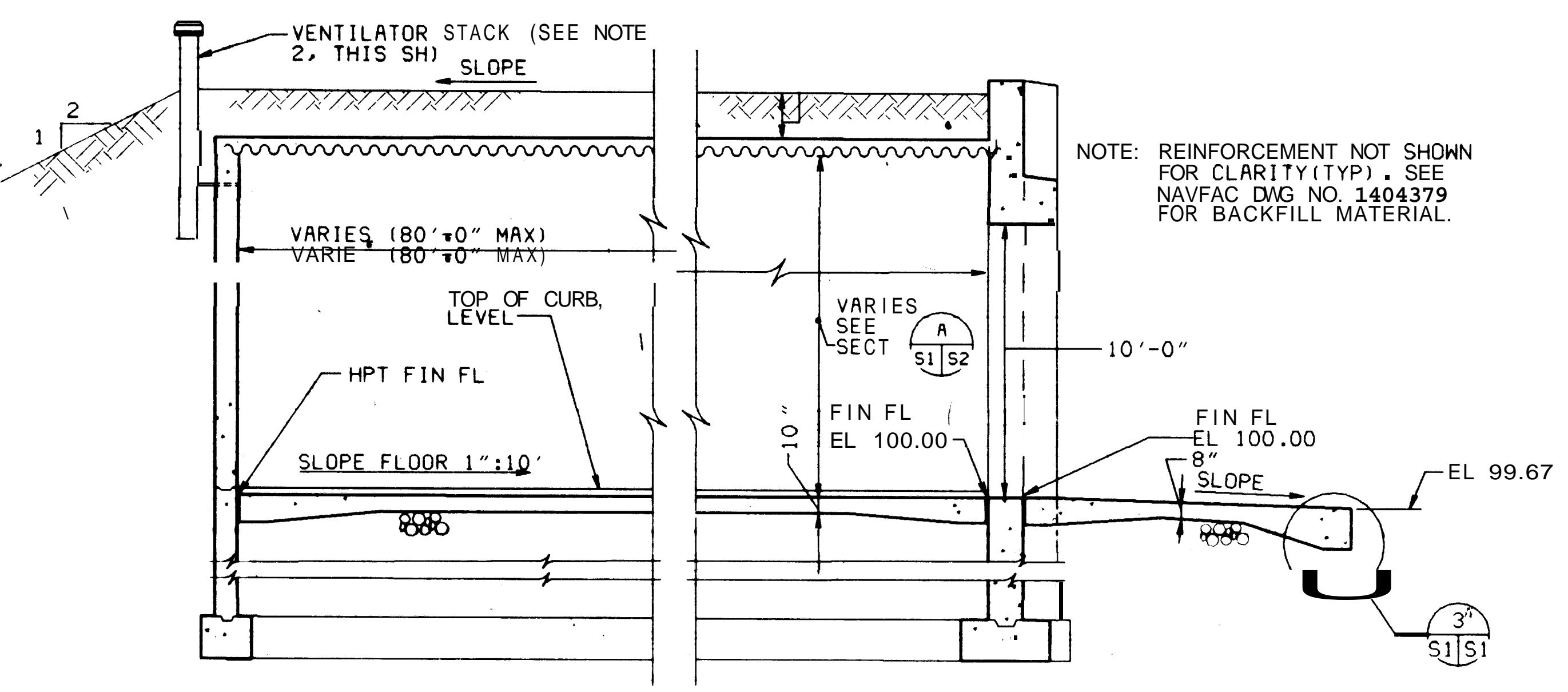
	DSN: <u> </u> DR: <u> </u> CHK: <u> </u> SUPV: <u> </u> CH ENR: <u> </u> SUBMITTED BY: <u> </u> DATE: <u> </u> DRAWN BY: <u> </u> DATE: <u> </u> CHECKED BY: <u> </u> DATE: <u> </u> APPROVED BY: <u> </u> DATE: <u> </u>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND 200 STOVALL STREET ALEXANDRIA, VA. 22304
	STANDARD EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE CIVIL SITE PLAN AND ABBREVIATIONS MAGAZINE AT LOADING DOCK-LEVEL	SIZE CODE IDENT. NO.: NAVFAC DRAWING NO. 1404376 F. 80091 CONSTR. CONTR. NO.
NAVFAC: <u> </u> CUL: <u> </u> FPE: <u> </u> APPROVED: <u> </u> DATE: <u> </u> SCALE AS NOTED	RVD: <u> </u> DATE: <u> </u> SCALE AS NOTED	SHEET C1AOF

REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED

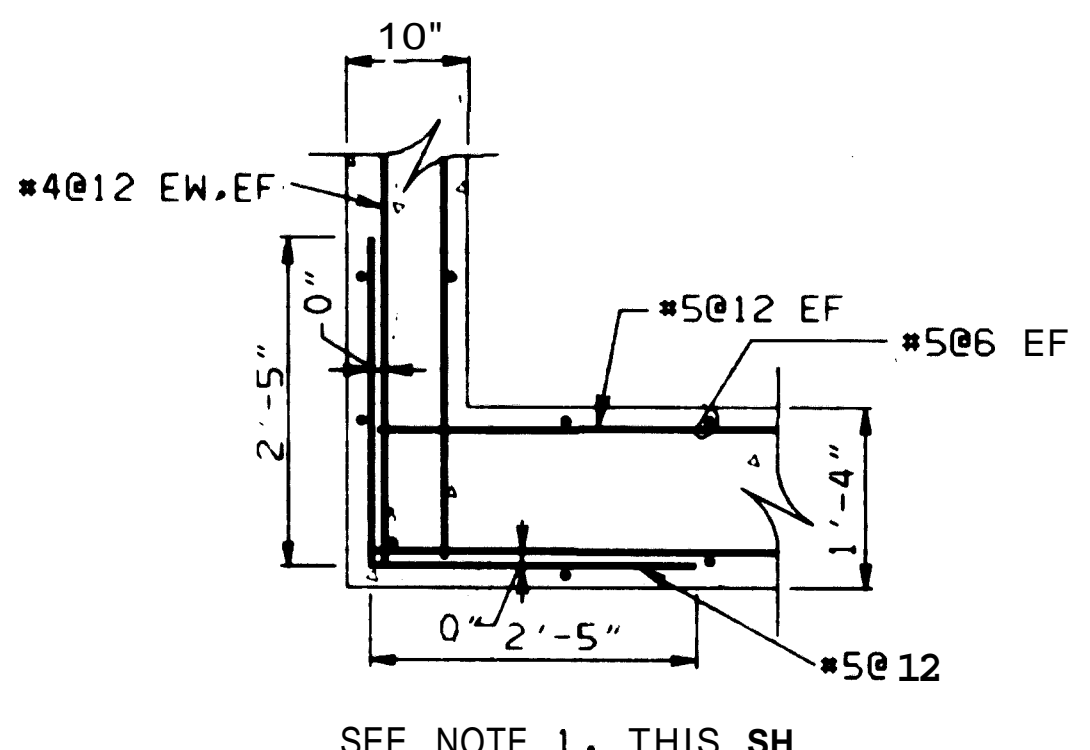


FOUNDATION AND FLOOR PLAN
SCALE: 1/4" = 1'-0"

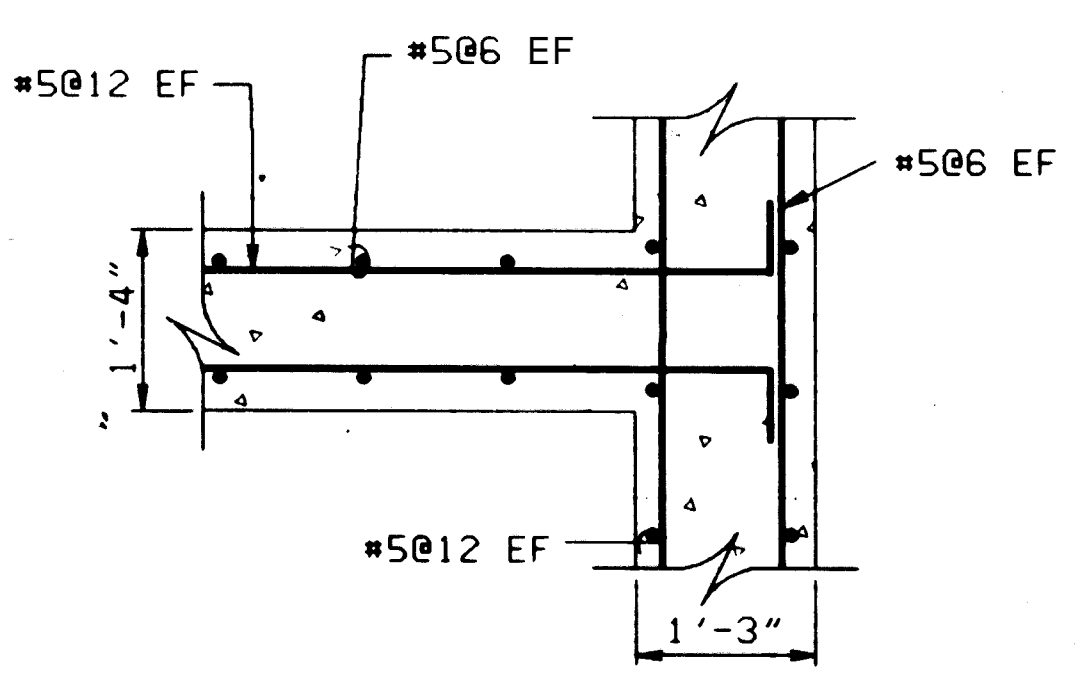
ARCH MAGAZINE AT GRADE



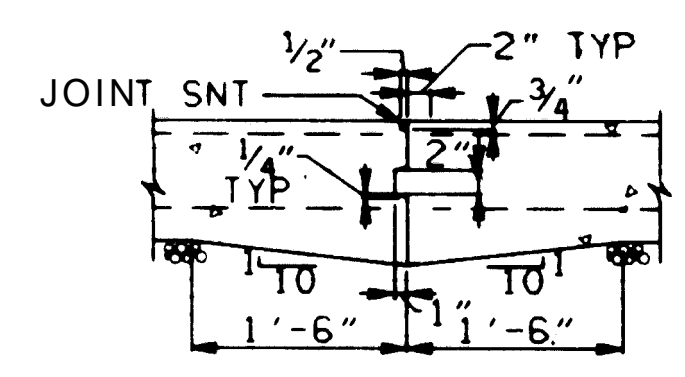
SECTION
SCALE: 1/4" = 1'-0"



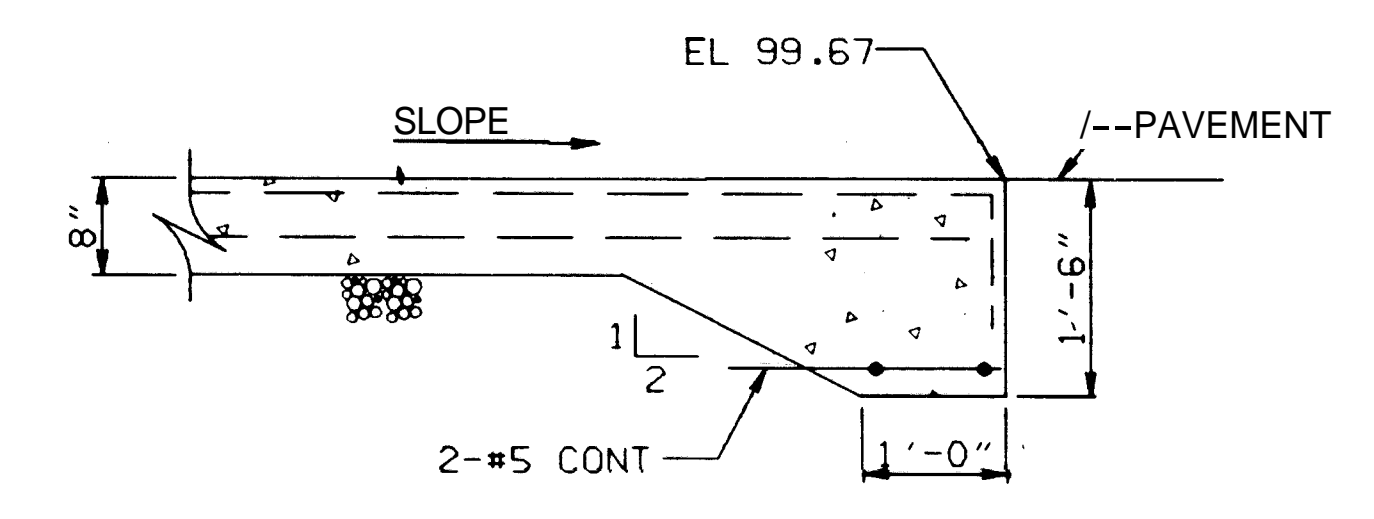
DETAIL 1
SCALE: 3/4" = 1'-0"



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



CONSTRUCTION JOINT
SLAB ON GRADE

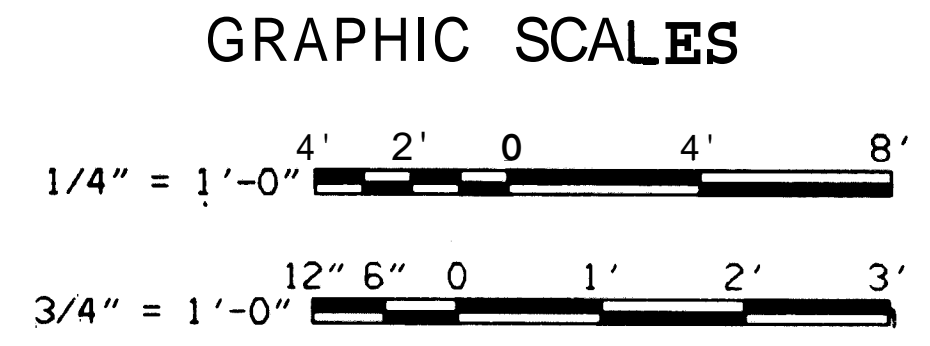


DETAIL 3
SCALE: 3/4" = 1'-0"

- NOTES:
- DET 1 AND DET 2, THIS SHEET, SHOW CONDITIONS BELOW FLOOR SLAB.
 - SEE NAVFAC DWG NO. 1404387 FOR GENERAL NOTES, VENTILATOR SCHEDULE AND WALL CRACK CONTROL JOINT DETAILS

NAVFAC STANDARD DRAWING PRODUCED BY:
HAYES, SEAY, MATTERN AND MATTERN
ARCHITECTS - ENGINEERS
ROANOKE, VIRGINIA

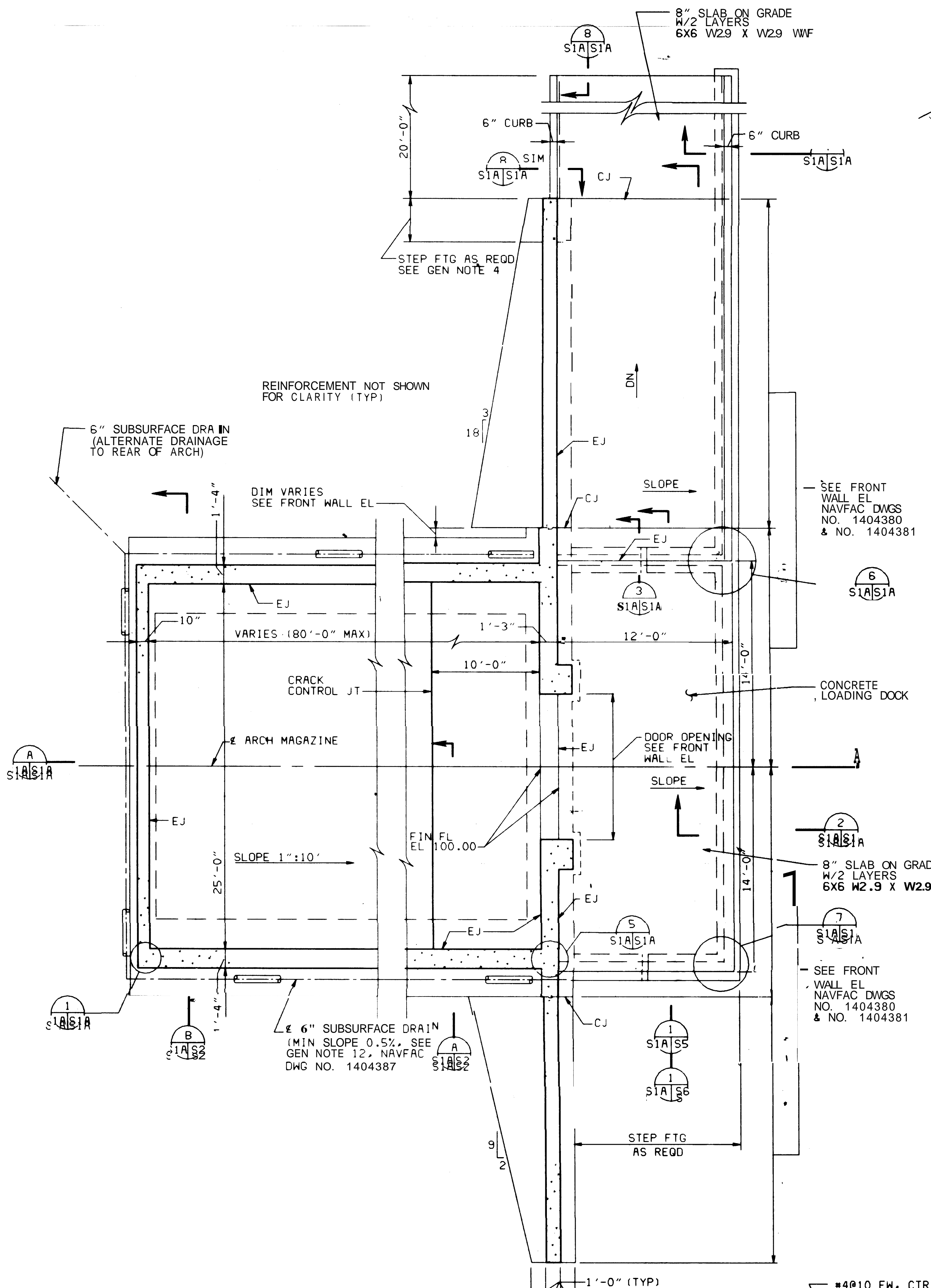
CHECK GRAPHIC SCALES BEFORE USING



	DESIGN BY: DR. [Signature] CHK: [Signature] SUPV. BY: CH. ENGR. [Signature] SUBMITTED BY: [Signature] DATE: 10/24/04 FILE NO.: [Signature] (TYPE) NORTHING: [Signature] HD: [Signature] OR DATE: [Signature] DIR: [Signature]	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND 200 STOVALL STREET ALEXANDRIA, VA. 22332
	NAVFAC: [Signature] RVD: [Signature] CRIT: [Signature]	STANDARD EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE STRUCTURAL FOUNDATION AND FLOOR PLAN LAYOUT SECTIONS MAGAZINE AT GRADE
SATISFACTORY TO DOCSB DATE: 1/21/05 APPROVED: [Signature] DATE: 1-21-05 COMPUTER: NAVFAC/REGION	APPROVED: [Signature] DATE: 1-21-05 CONSTR. CONTR. NO.	SCALE AS NOTED SPEC. NFSS-M21 SHEET S1 OF

LTR	DESCRIPTION	PREP'D BY	DATE	APPROVED

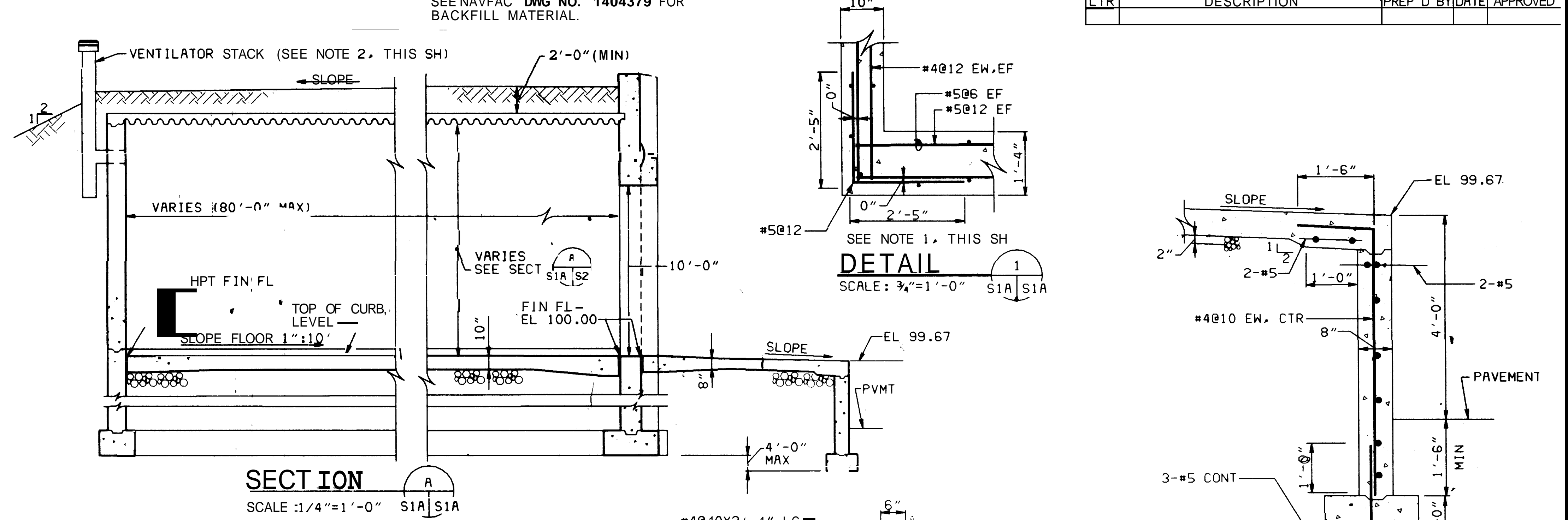
NOTE: REINF NOT SHOWN FOR CLARITY (TYP)
SEE NAVFAC DWG NO. 1404379 FOR
BACKFILL MATERIAL.



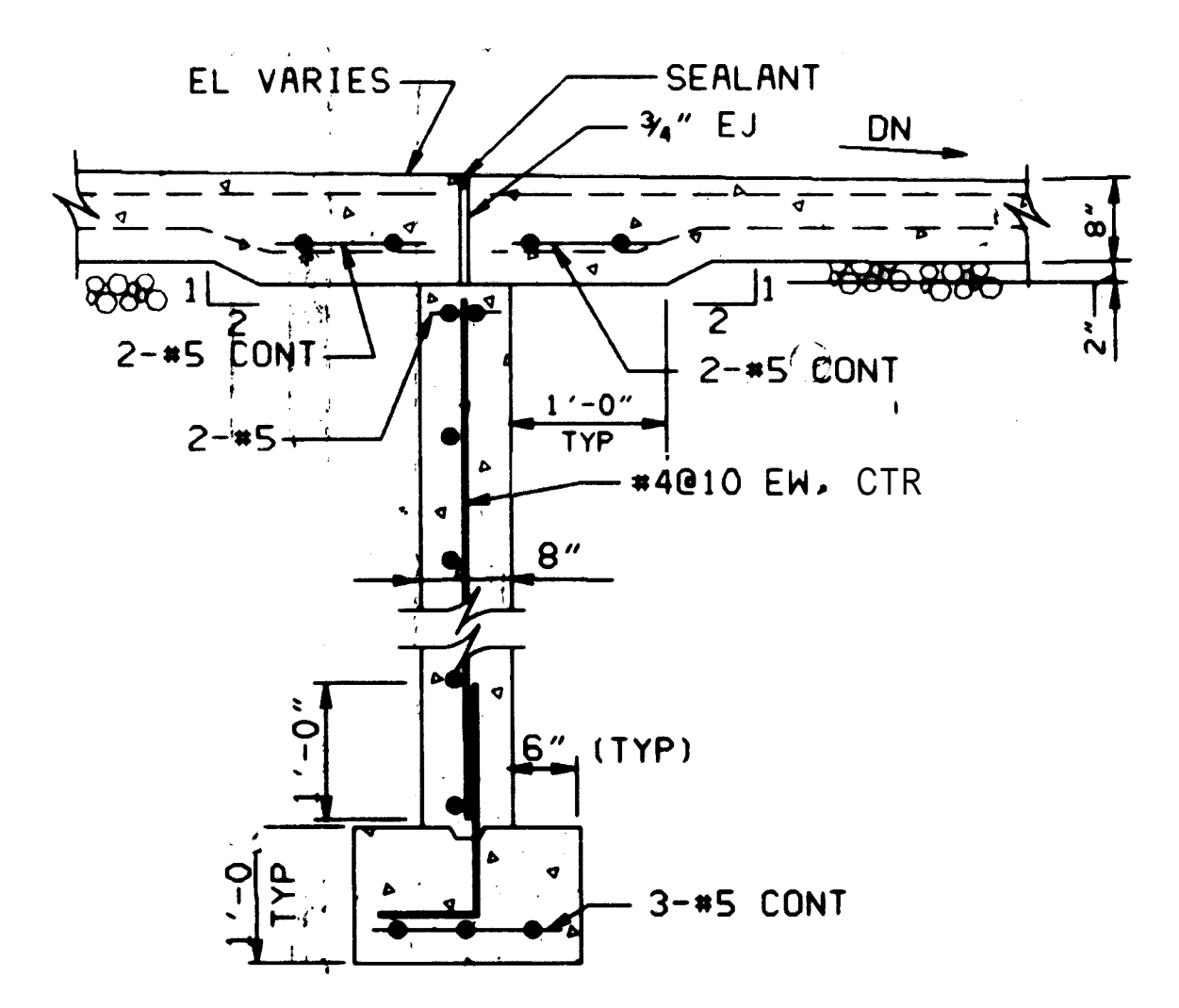
FOUNDATION AND FLOOR PLAN
SCALE: 1/4" = 1'-0"

ARCH MAGAZINE AT LOADING DOCK LEVEL

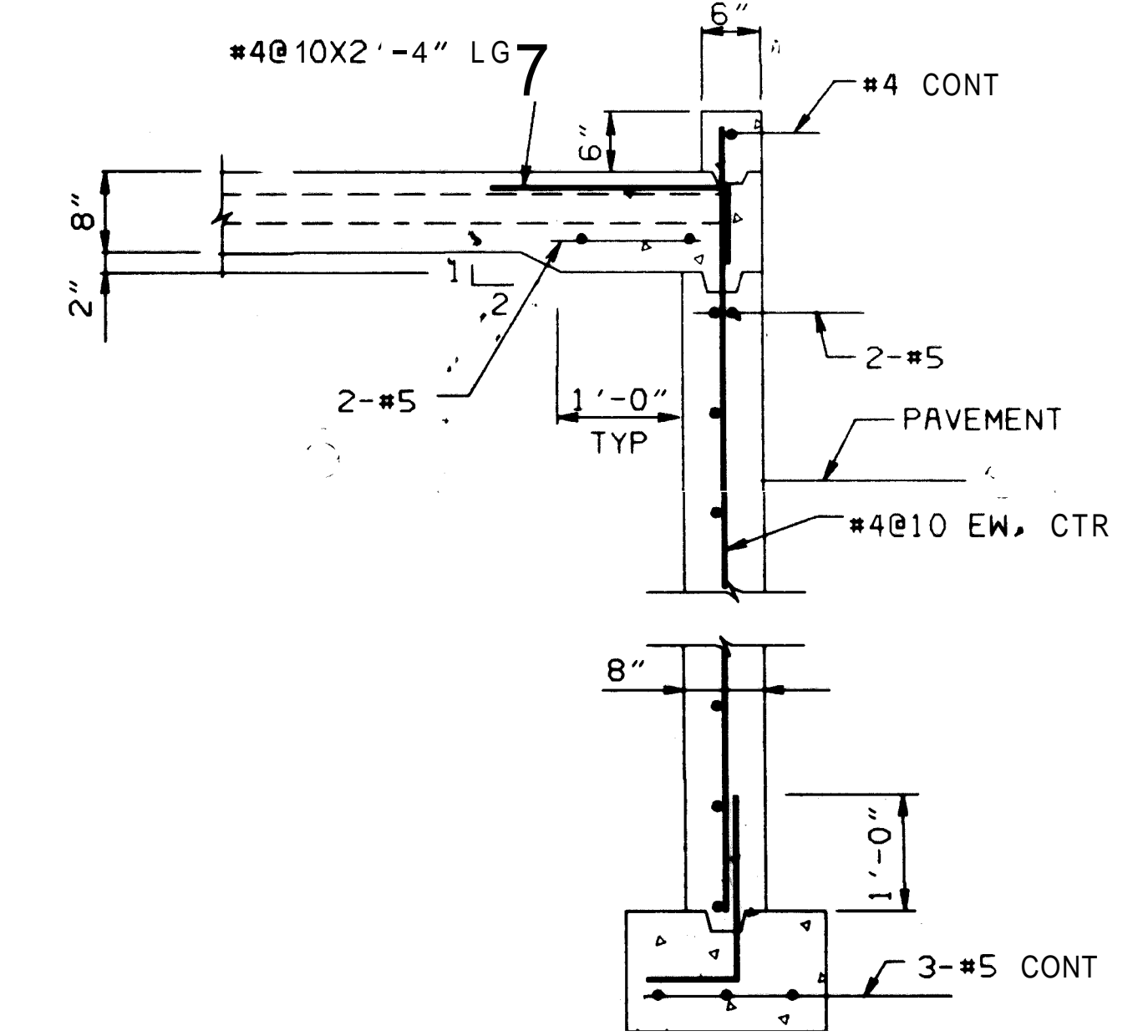
- NOTES:
- DET 1, DET 5, DET 6, DET 7 AND TYPICAL FOOTING STEP DETAIL THIS SHEET, SHOW CONDITIONS BELOW FLOOR SLAB.
 - SEE NAVFAC DWG NO. 1404387 FOR GENERAL NOTES, VENTILATOR SCHEDULE, AND WALL CRACK CONTROL JOINT DETAILS.



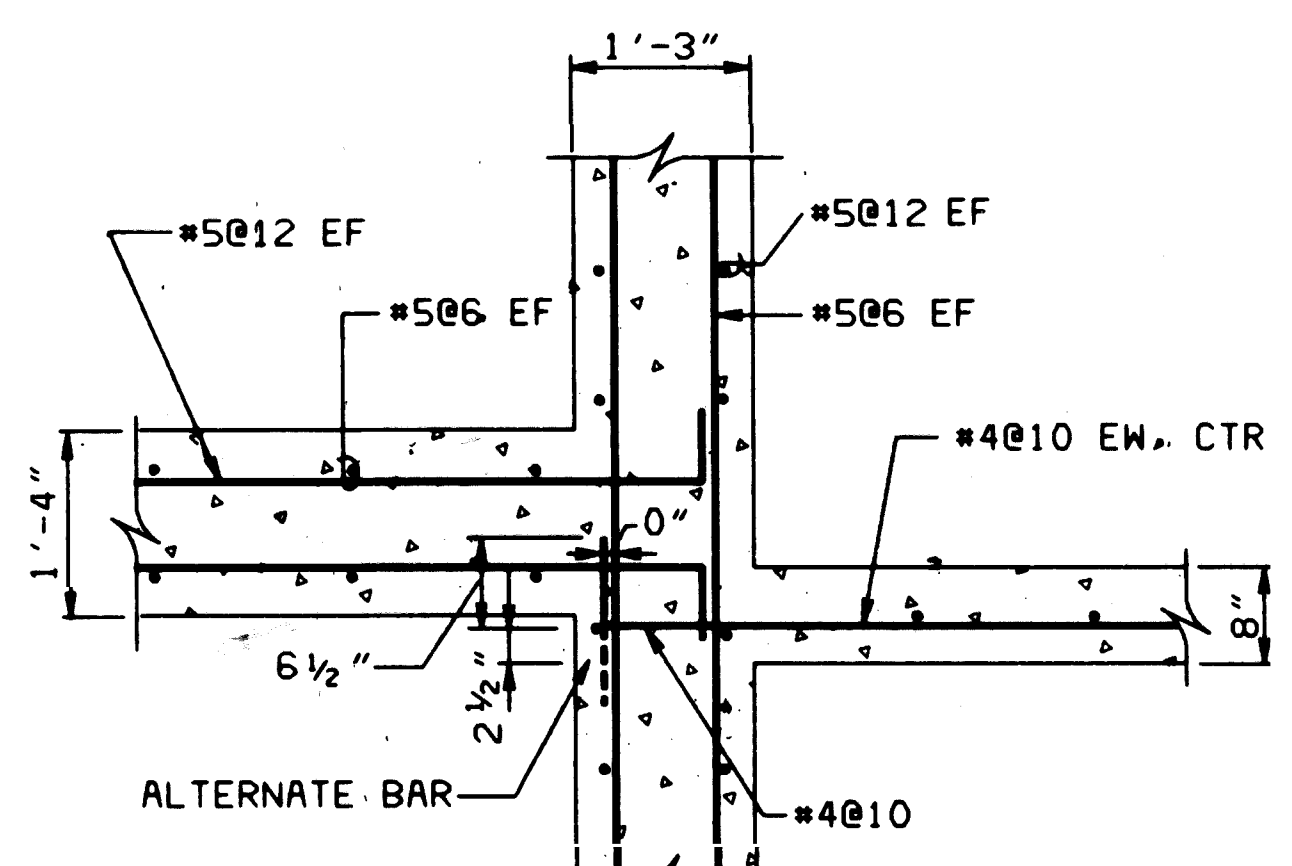
SECTION A
SCALE: 1/4" = 1'-0"



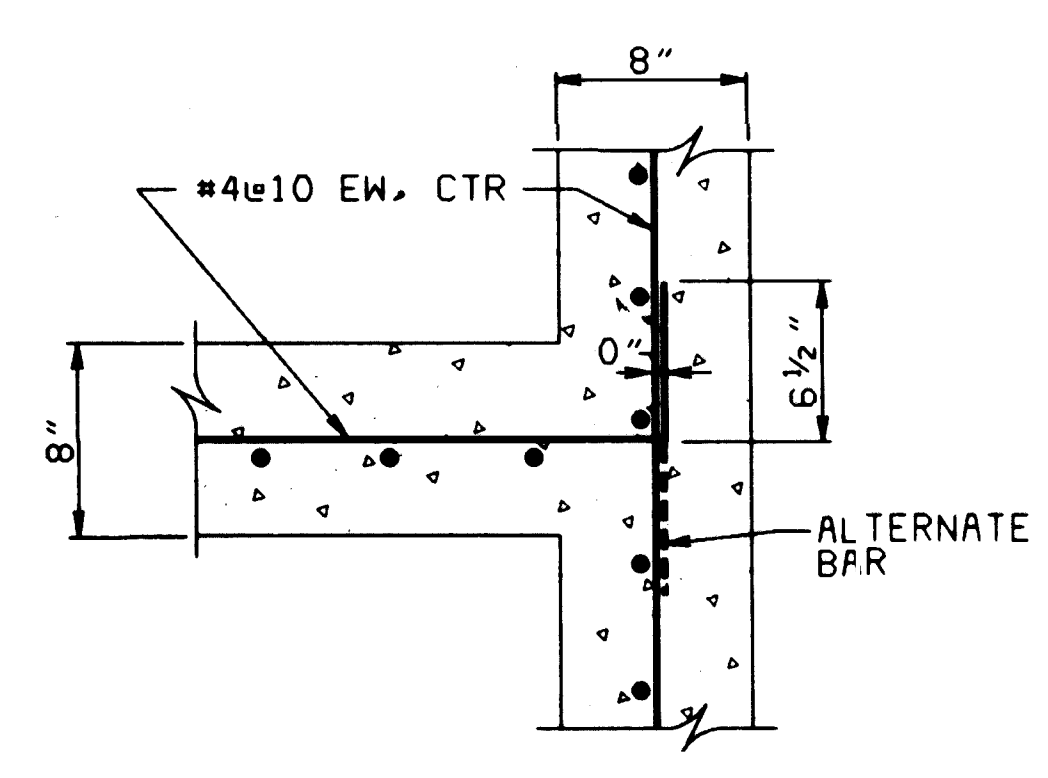
SECTION 2
SCALE: 3/4" = 1'-0"



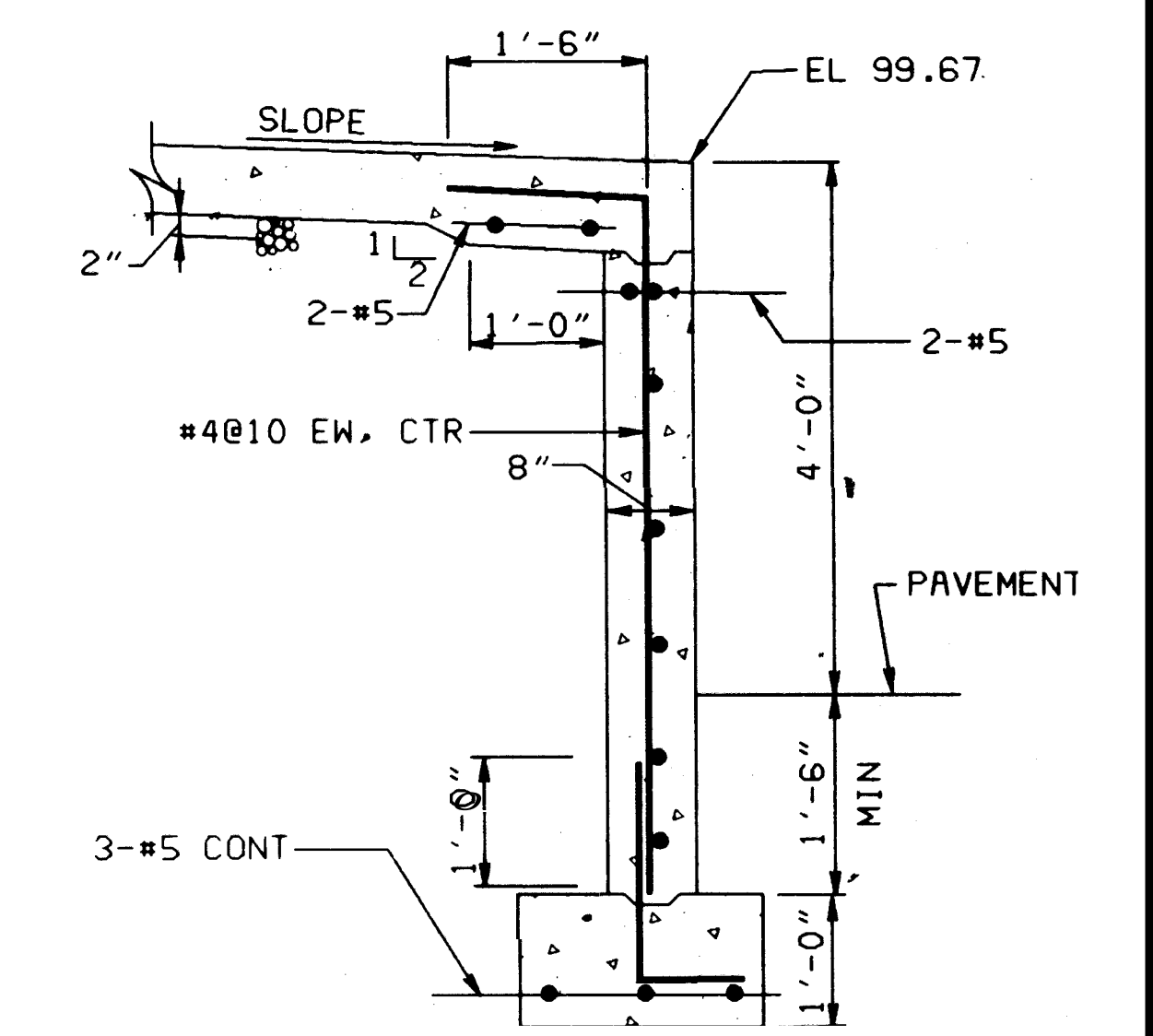
SECTION 3
SCALE: 3/4" = 1'-0"



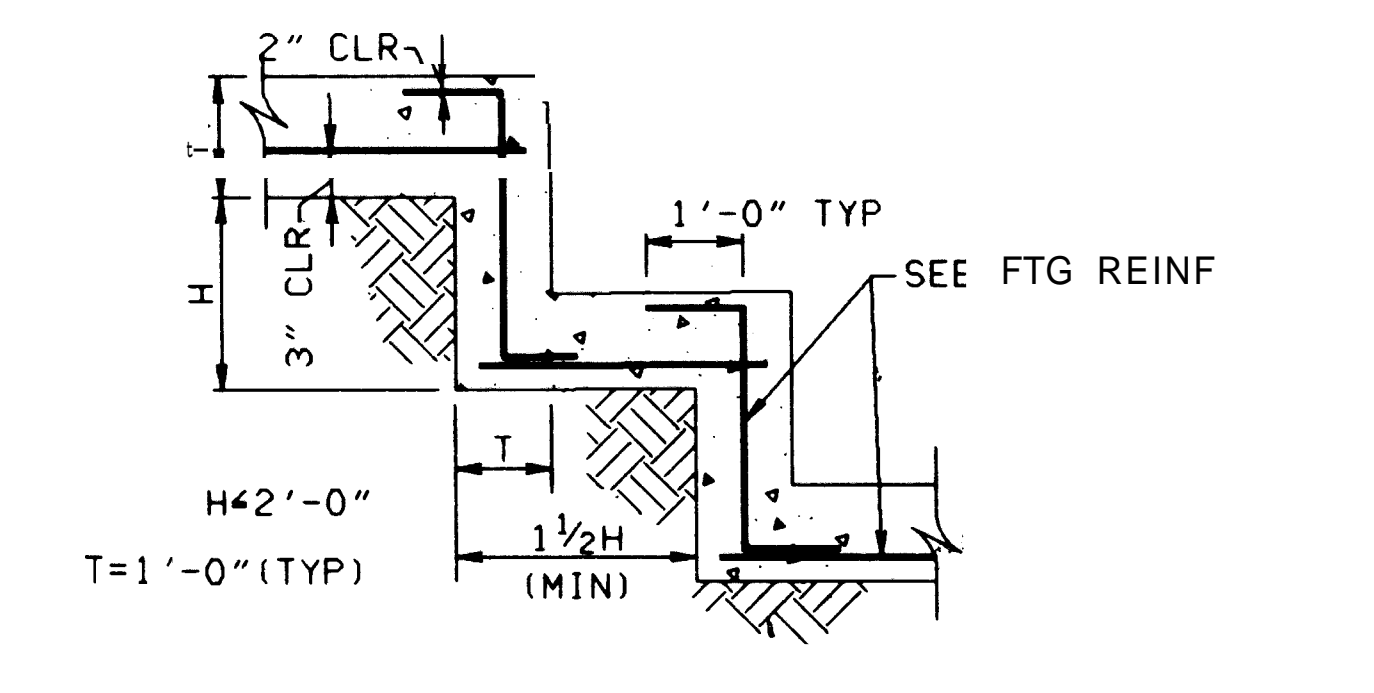
DETAIL C
SCALE: 3/4" = 1'-0"



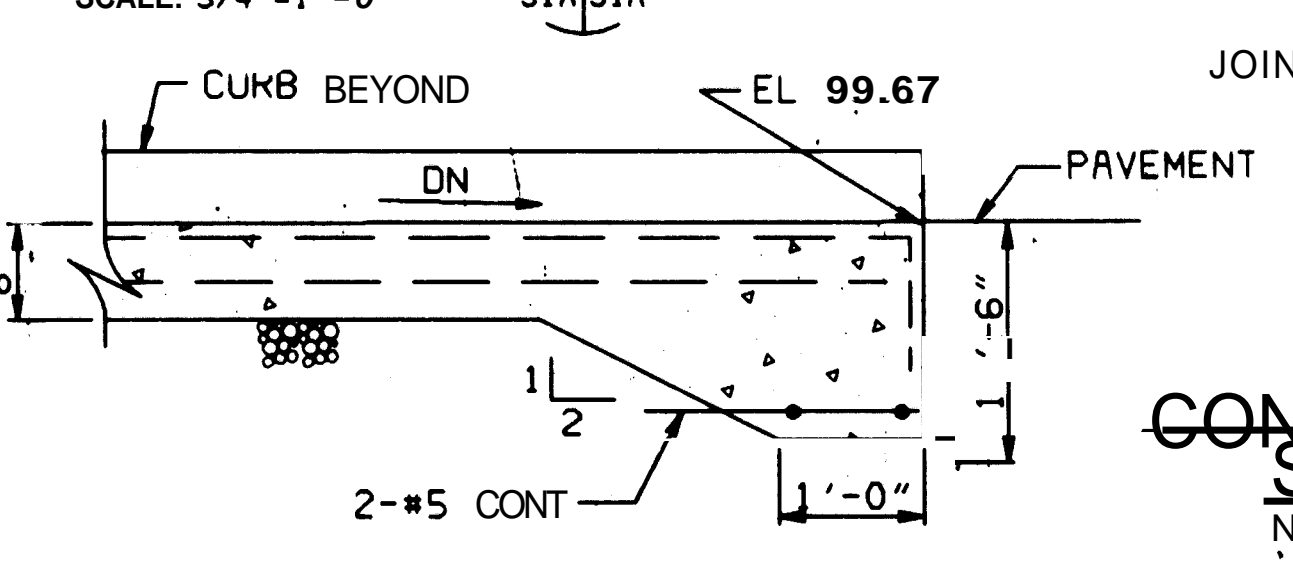
DETAIL D
SCALE: 1 1/2" = 1'-0"



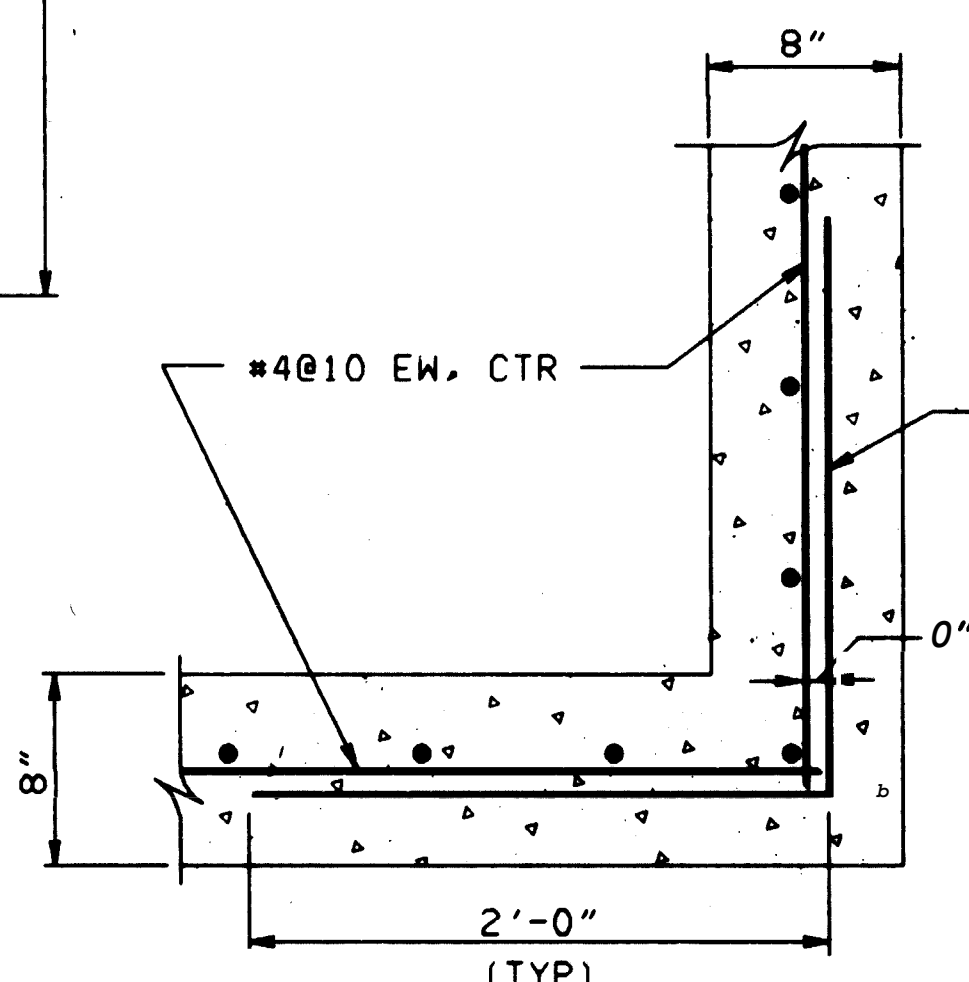
SECTION 1
SCALE: 3/4" = 1'-0"



TYPICAL FOOTING STEP DETAIL
NO SCALE

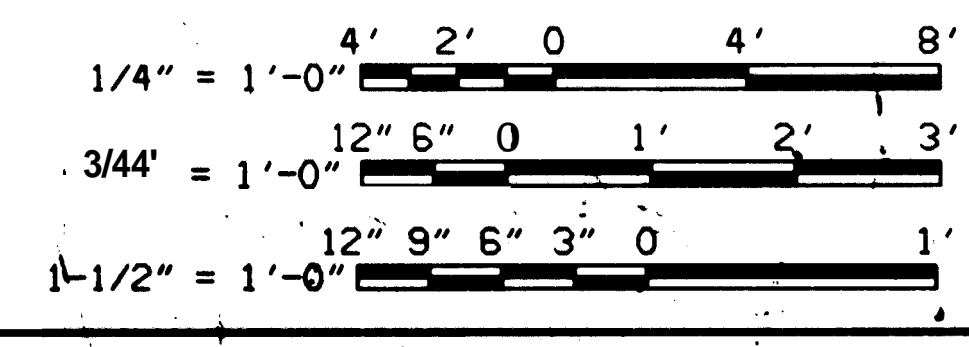


**CONSTRUCTION JOINT
SLAB ON GRADE**
NO SCALE



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

GRAPHIC SCALES

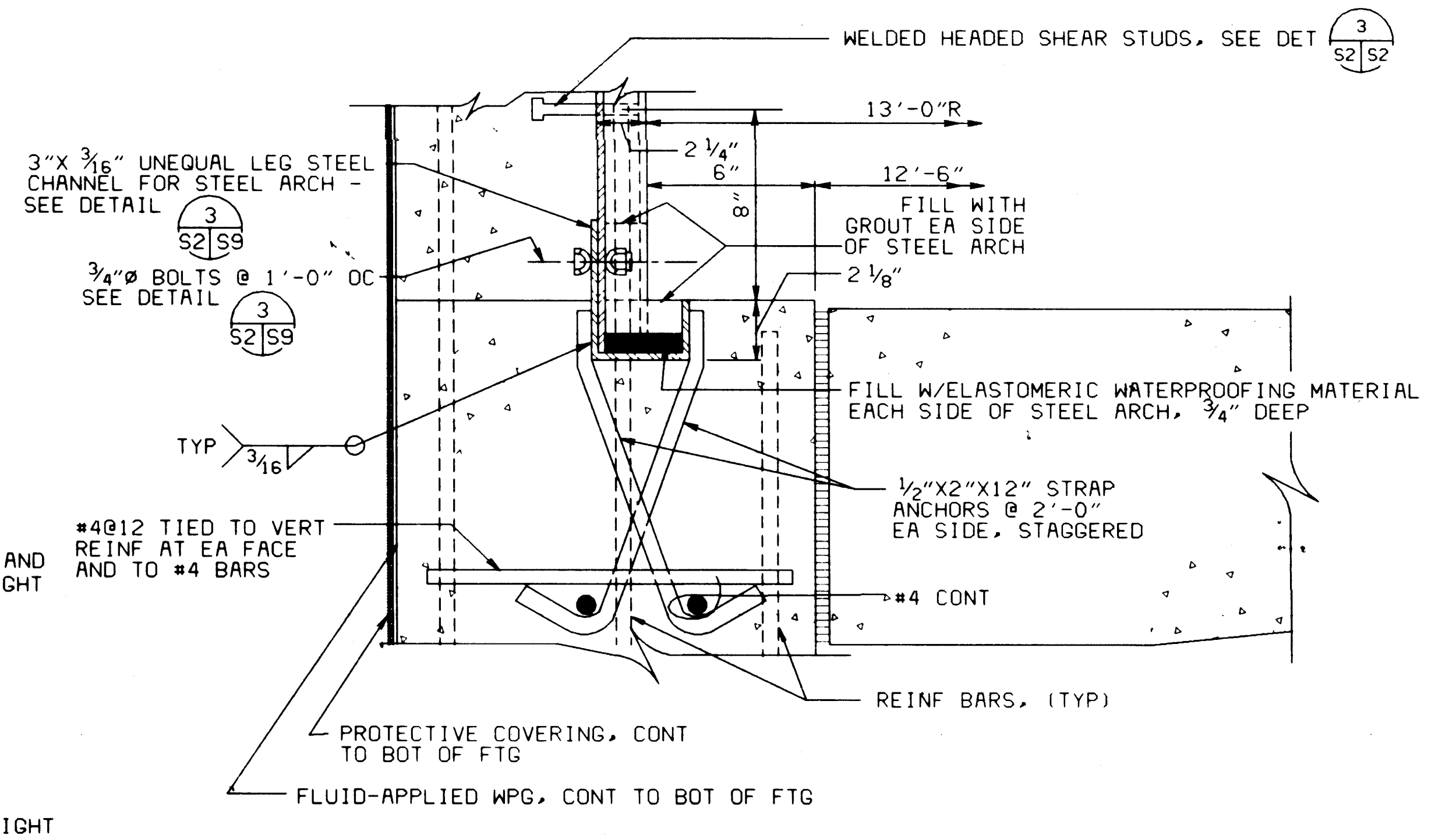
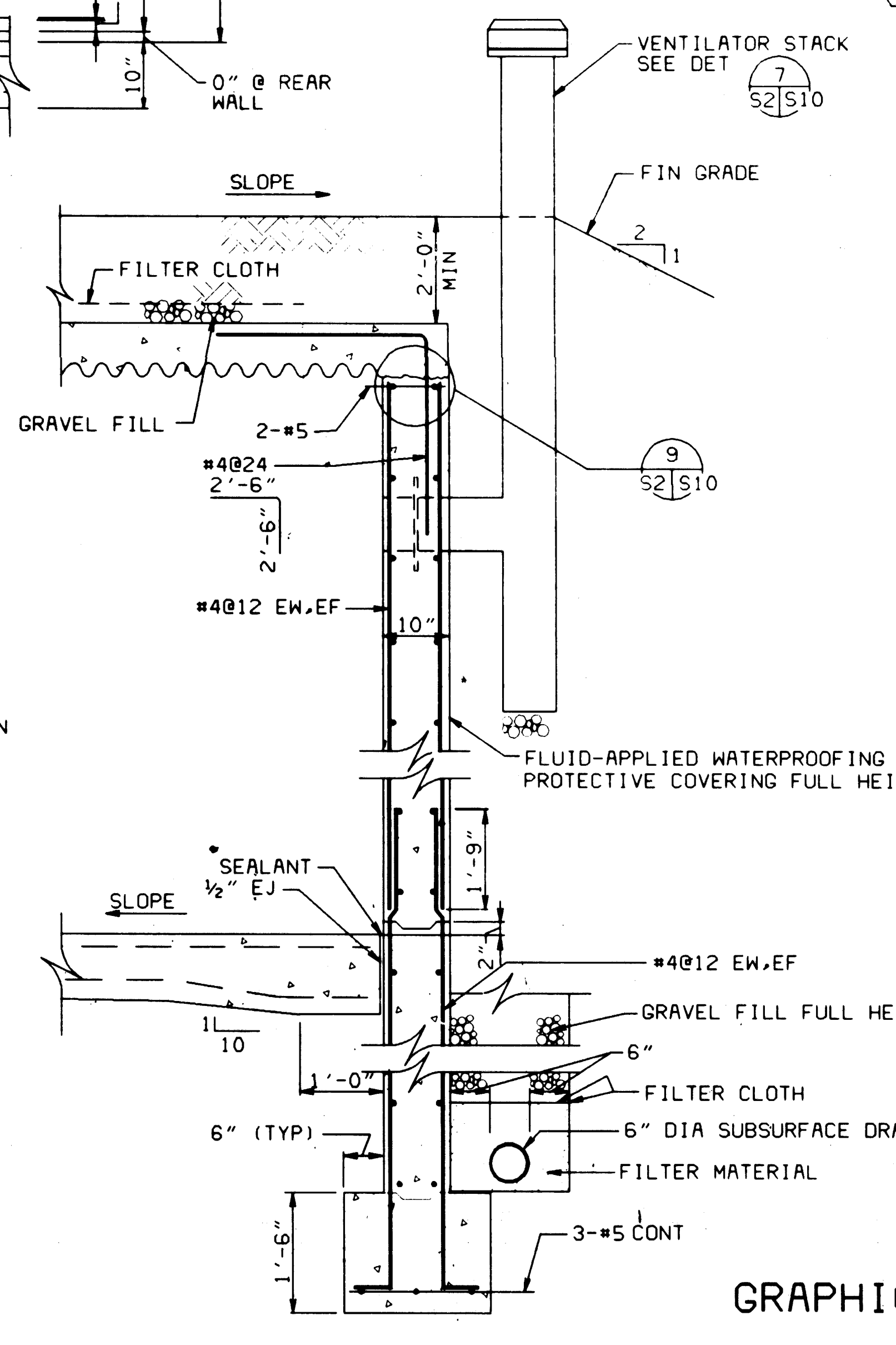
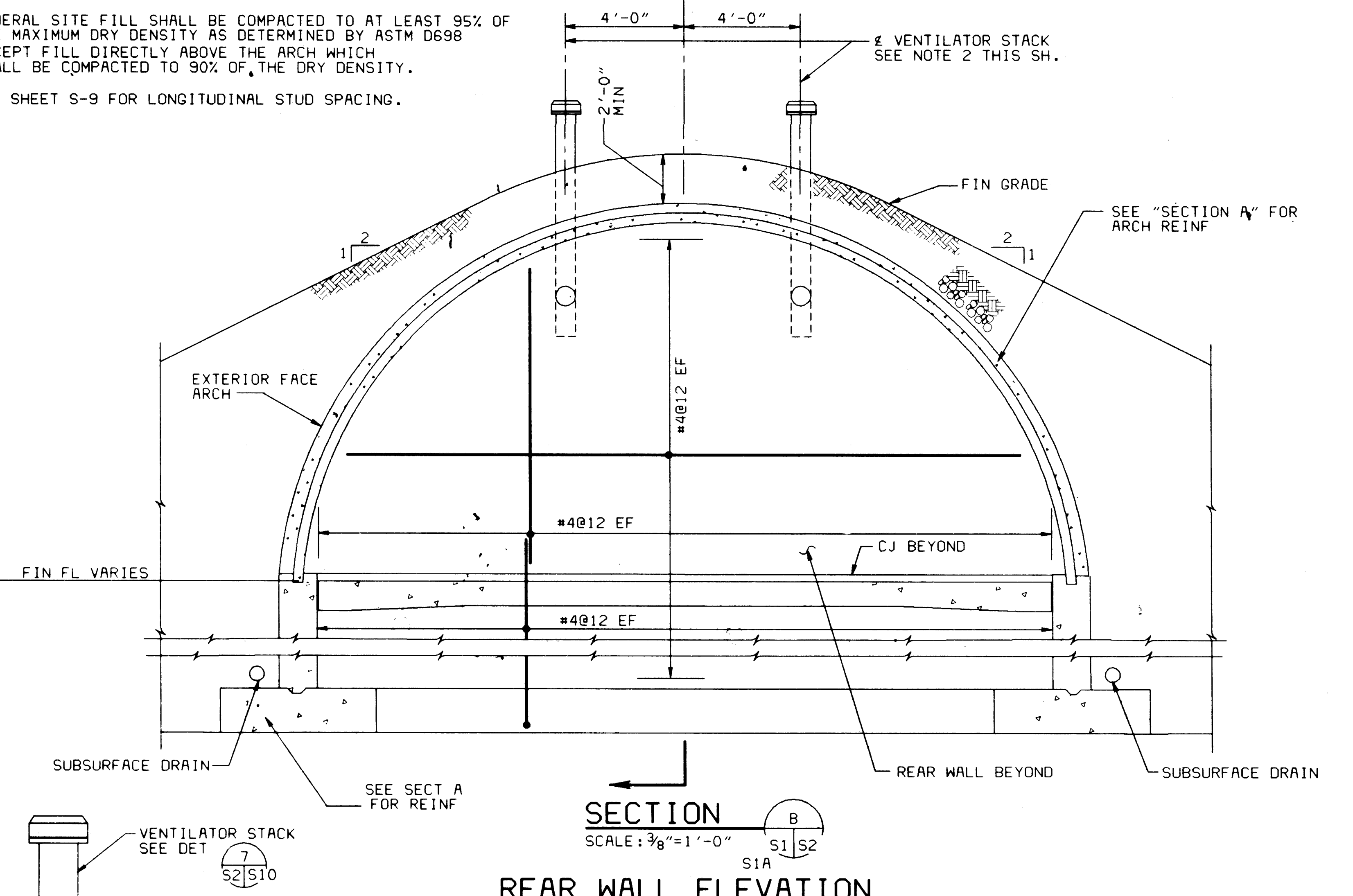
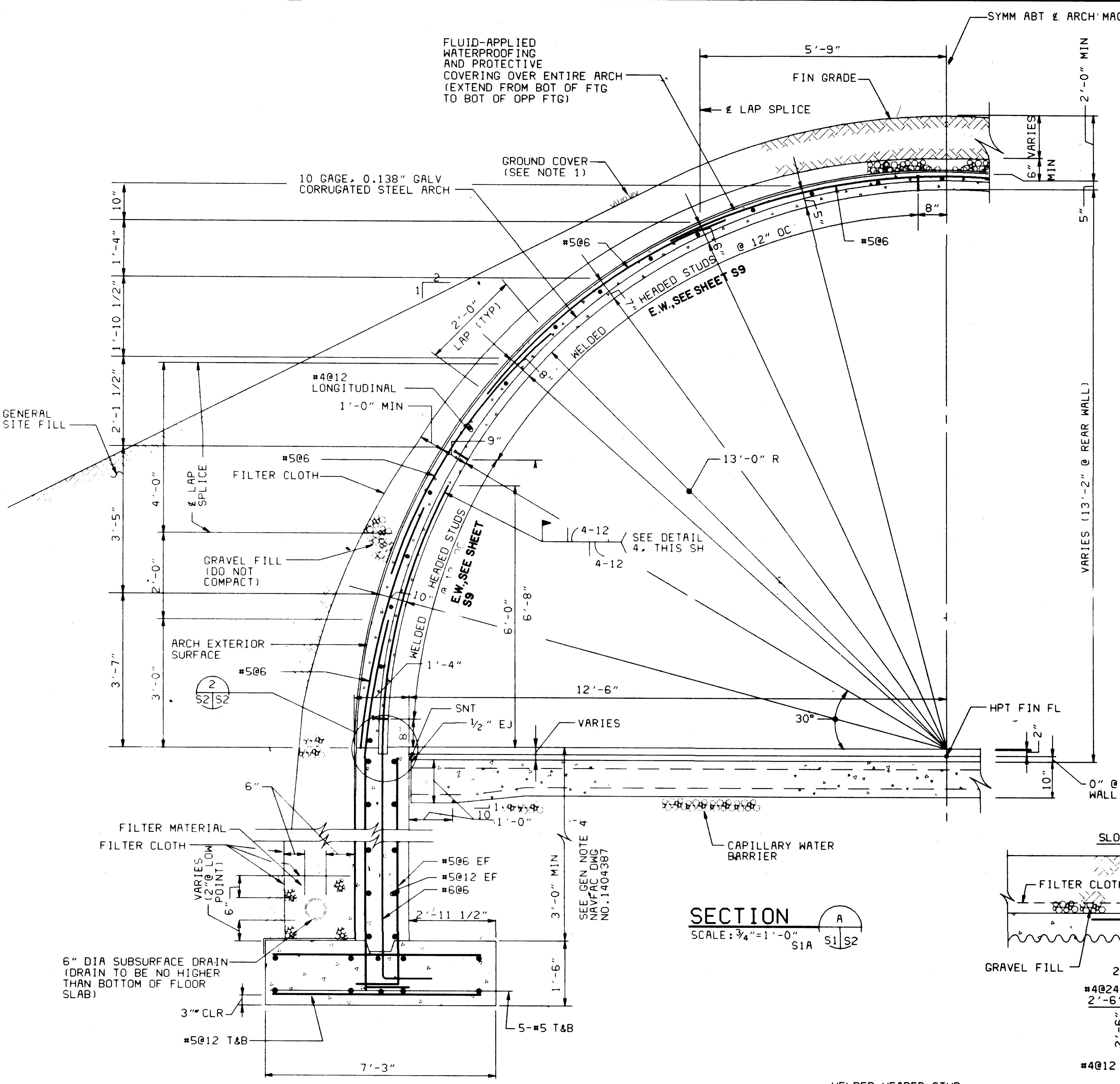


	DSN: [] OR [] SUPV: [] CH ENGR: [] DESIGNED BY: [] CHECKED BY: [] DATE: []	STANDARD EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE STRUCTURAL FOUNDATION AND FLOOR PLAN AND SECTIONS LOADING DOCK LEVEL MAGAZINE
	NAVFAC: [] CR: [] FPE: []	RVD: [] DATE: []

REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE

NOTES:

- GROUND COVER SHALL BE DETERMINED BY GENERAL SITE FILL MATERIAL AND CLIMATIC CONDITIONS. (GROUND COVER MUST BE MAINTAINED AT MAXIMUM 6" HEIGHT) WHEN GRAVEL FILL IS USED NO GROUND COVER IS REQUIRED.
- IF ONE VENTILATOR STACK IS REQUIRED, LOCATE ON CENTER LINE OF ARCH MAGAZINE. SEE VENTILATOR SCHEDULE ON NAVFAC DWG NO. 1404387.
- GENERAL SITE FILL SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 EXCEPT FILL DIRECTLY ABOVE THE ARCH WHICH SHALL BE COMPACTED TO 90% OF THE DRY DENSITY.
- SEE SHEET S-9 FOR LONGITUDINAL STUD SPACING.



- STRUCTURAL PL SHALL BE FULLY CONNECTED AND BOLTS TIGHTENED.
- ALL WELDED HEADED SHEAR STUDS SHALL BE ATTACHED.
- CAST CONCRETE CROWN AND ALLOW TO CURE FOR 7 DAYS OR ACHIEVE A CONCRETE STRENGTH OF 4000 PSI BEFORE APPLYING WATERPROOFING MEMBRANE TO ENTIRE EXTERIOR SURFACE.
- CAST CONCRETE SIDES SIMULTANEOUSLY AND ALLOW TO CURE TO A COMPRESSIVE STRENGTH OF 4000 PSI BEFORE APPLYING WATERPROOFING MEMBRANE TO ENTIRE EXTERIOR SURFACE.
- PLACE GRAVEL FILL AND FILTER CLOTH AROUND SIDES OF ARCH, THEN USE HAND OPERATED COMPACTORS TO COMPACT SOIL OVERBURDEN ALONG SIDES SIMULTANEOUSLY.
- PLACE GRAVEL FILL AND FILTER CLOTH ON TOP OF ARCH, THEN USE HAND OPERATED COMPACTORS TO COMPACT SOIL OVERBURDEN AT TOP

SECTION A
SCALE: 3/4" = 1'-0"
S1A S1 S2

DETAIL 3
SCALE: NO SCALE
S2 S2

DETAIL 4
SCALE: NO SCALE
S2 S2

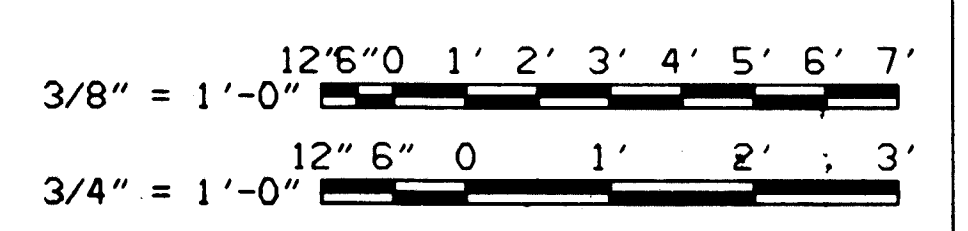
DETAIL 4
SCALE: NO SCALE
S2 S2

SECTION B
SCALE: 3/8" = 1'-0"
S1A S1 S2

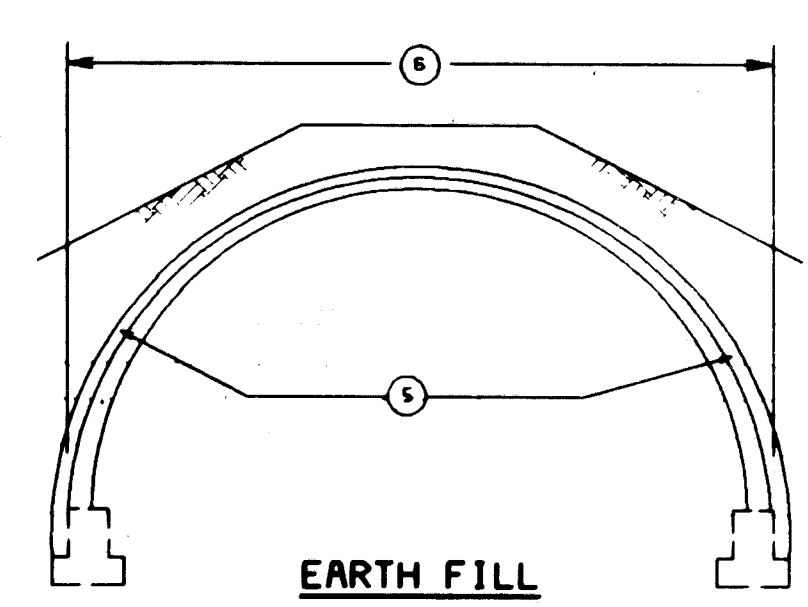
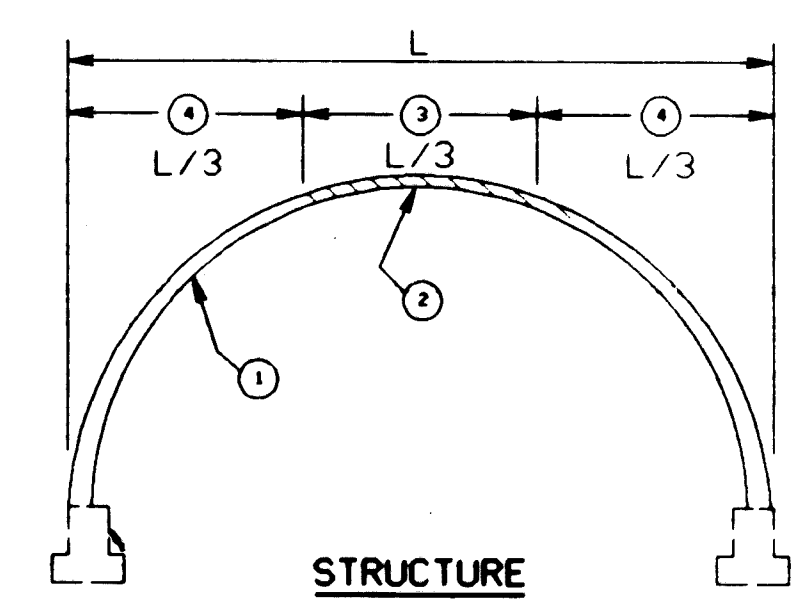
REAR WALL ELEVATION

DETAIL 2
SCALE: 3" = 1'-0"
S2 S2

GRAPHIC SCALES



SECTION 1
SCALE: 3/4" = 1'-0"
S2 S2



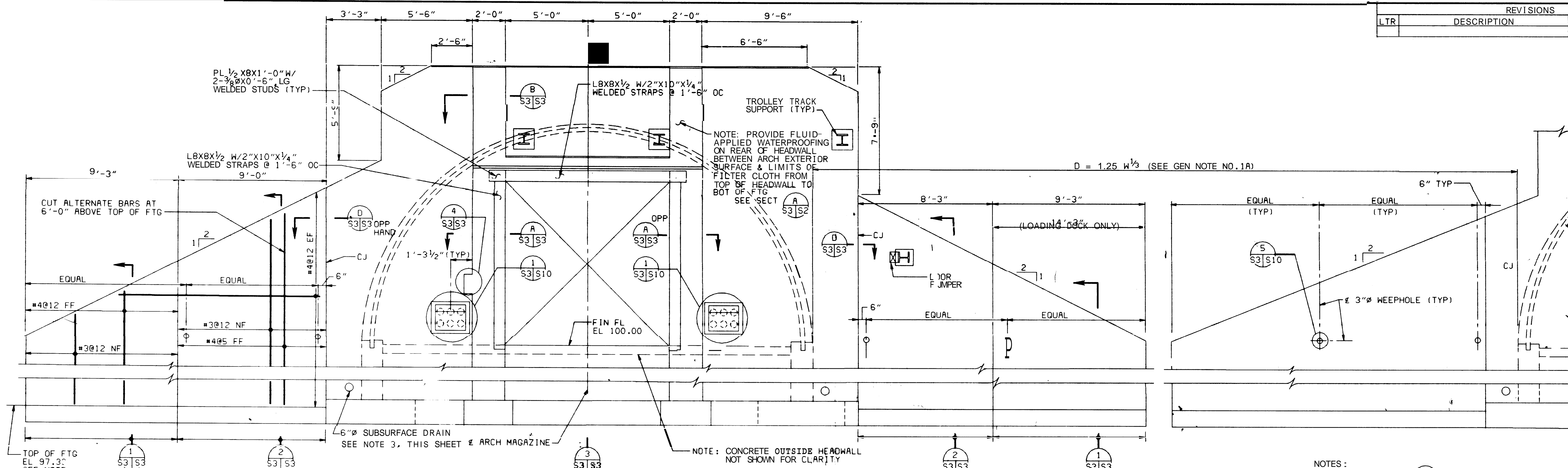
CONSTRUCTION SEQUENCE

NAVFAC STANDARD DRAWING PRODUCED BY:
HAYES, SEAY, MATTERN AND MATERN
ARCHITECTS - ENGINEERS
ROANOKE, VIRGINIA

CHECK GRAPHIC SCALES BEFORE USING

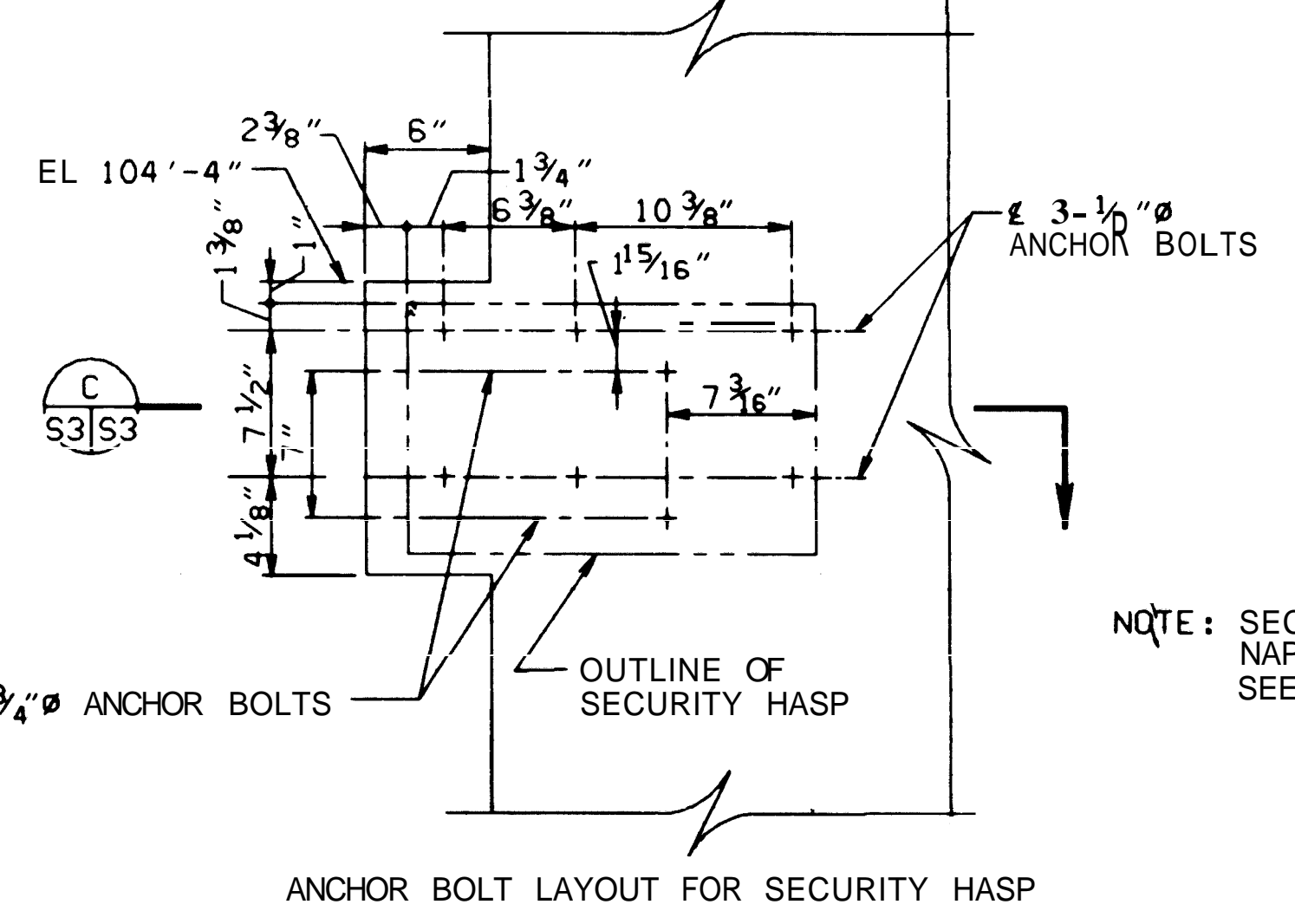
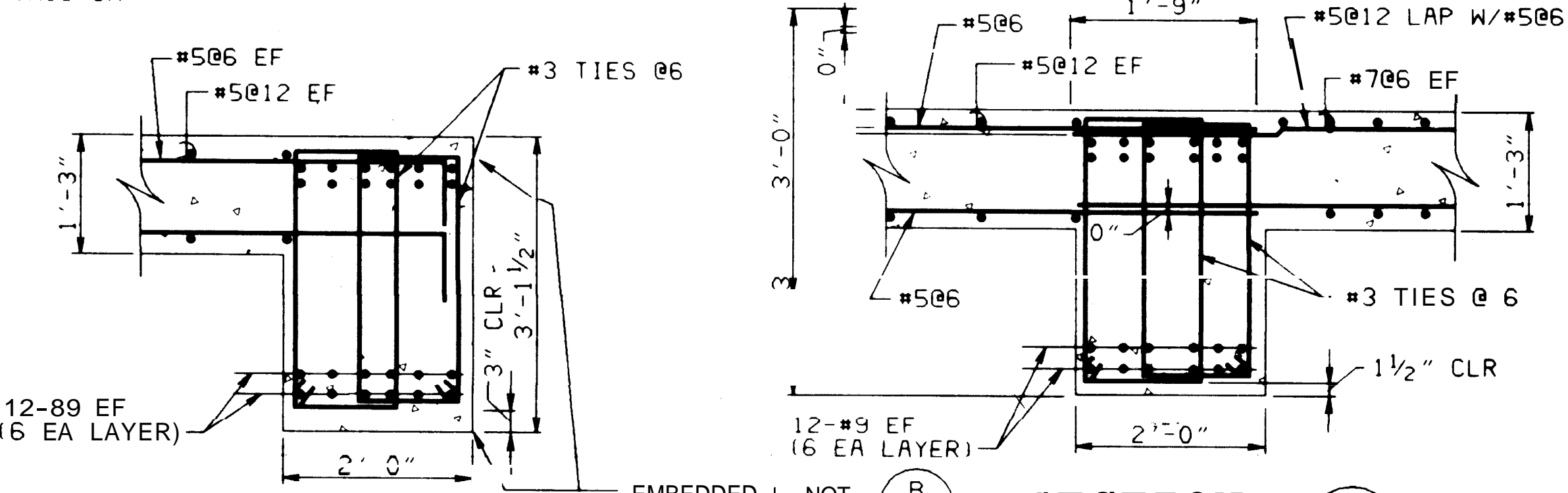
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND 200 STOVALL STREET ALEXANDRIA, VA. 22332	
DSGN: JCDR CMLD CHM BSS SUPV DLT CH ENDR DLT SUBMITTED BY: VP 10/21/80 TITLE: EARTH COVERED CIRCULAR COMPOSITE ARCH MAGAZINE NORTH: 1/4" = 1'-0" CH: DTD DTC:	STANDARD EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE STRUCTURAL ARCH SECTION AND MISCELLANEOUS DETAILS	NAVFAC 1 DLT: R. B. B.	SIZE: CODE IDENT. NO.: NAVFAC DRAWING NO. F 80091 1404379 CONSTR. CONTR. NO.:
APPROVED: [Signature] DATE: 1-14-86		APPROVED: [Signature] DATE:	
Satisfactory to DODSB		SCALE AS NOTED SPEC. NFSS-M21 SHEET S2 OF	

REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE

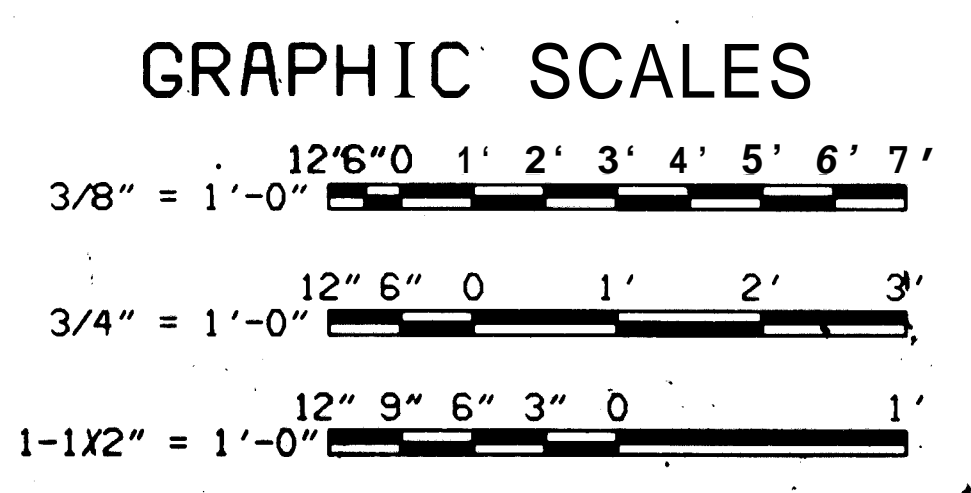
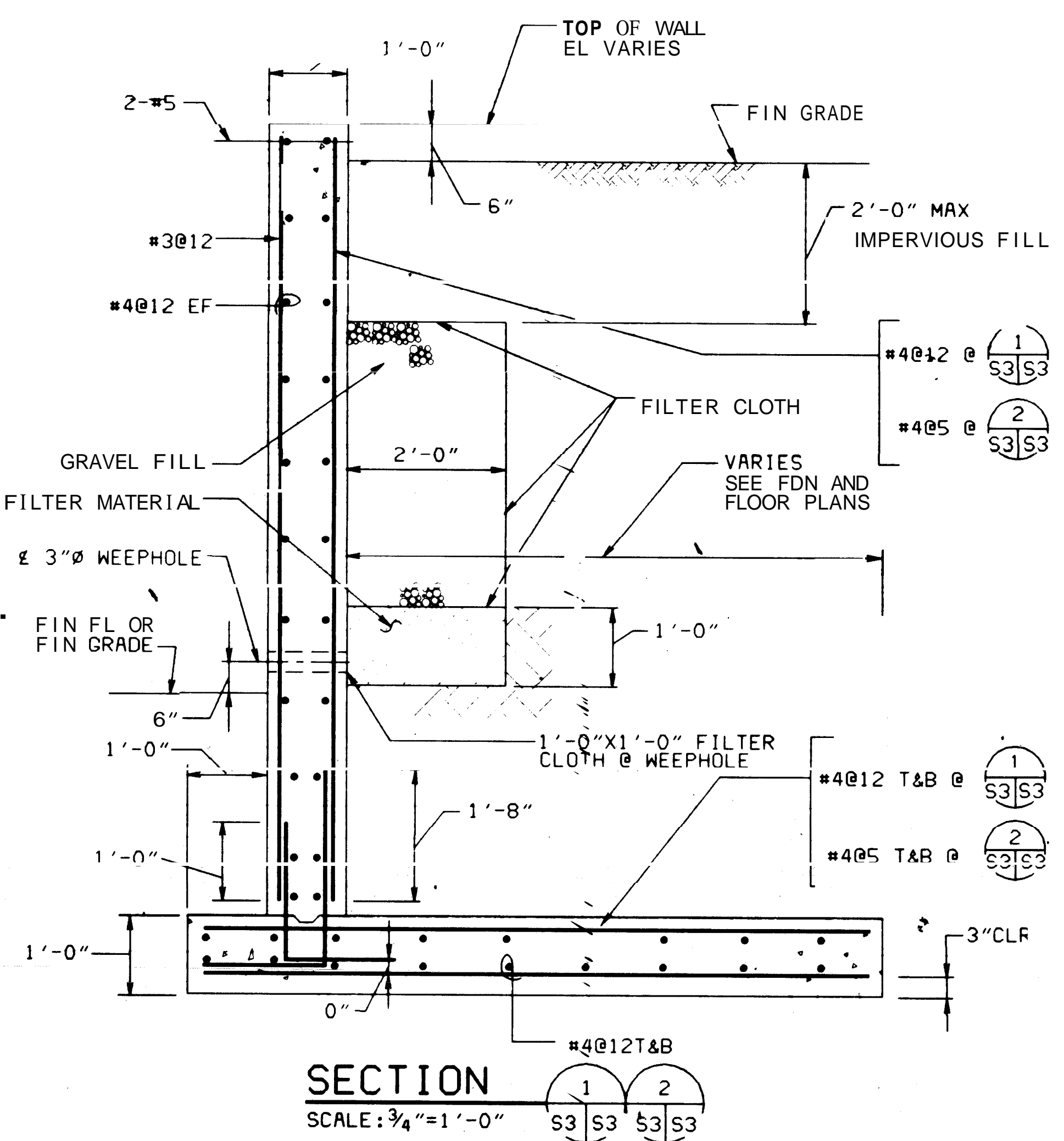
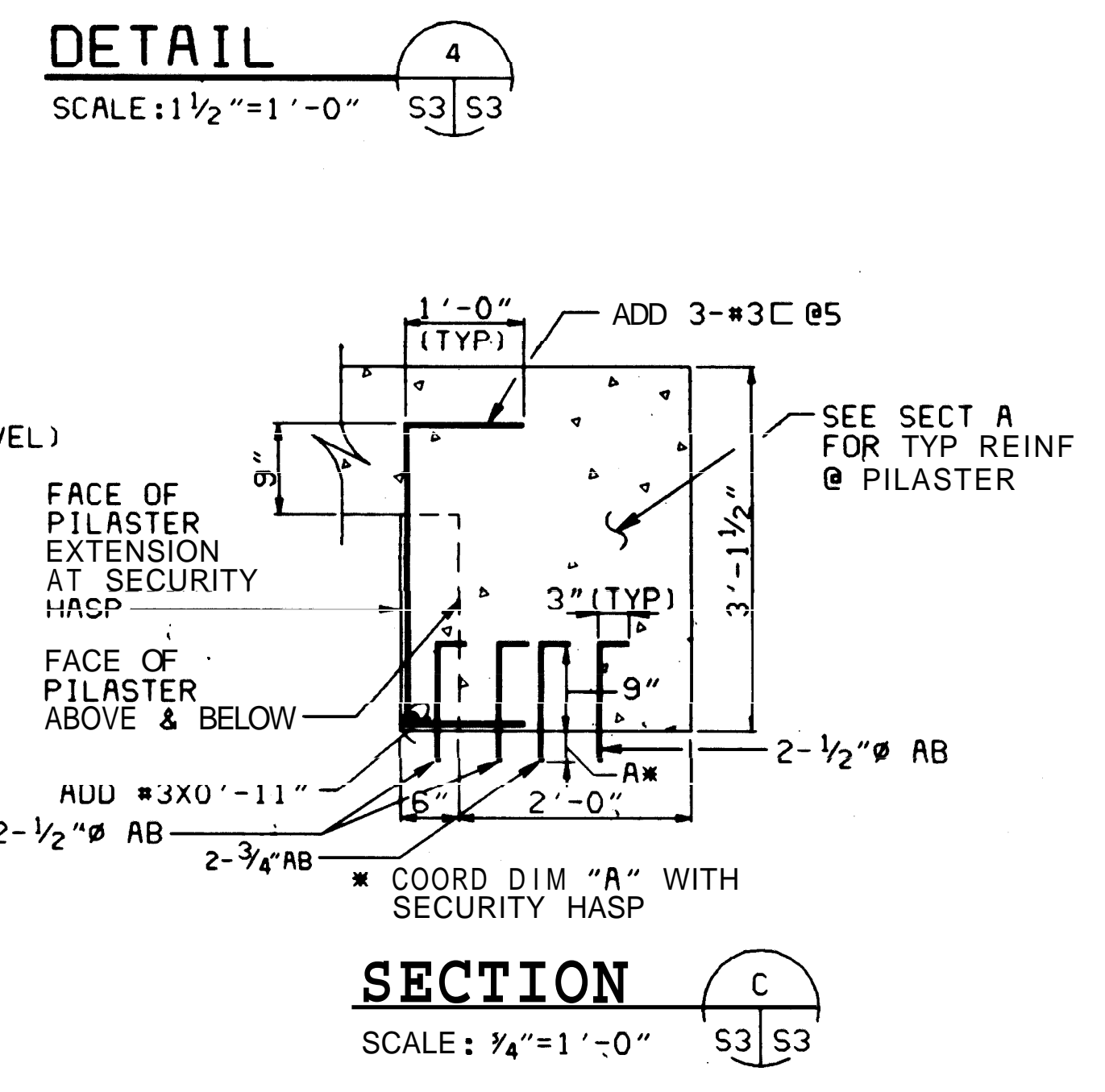
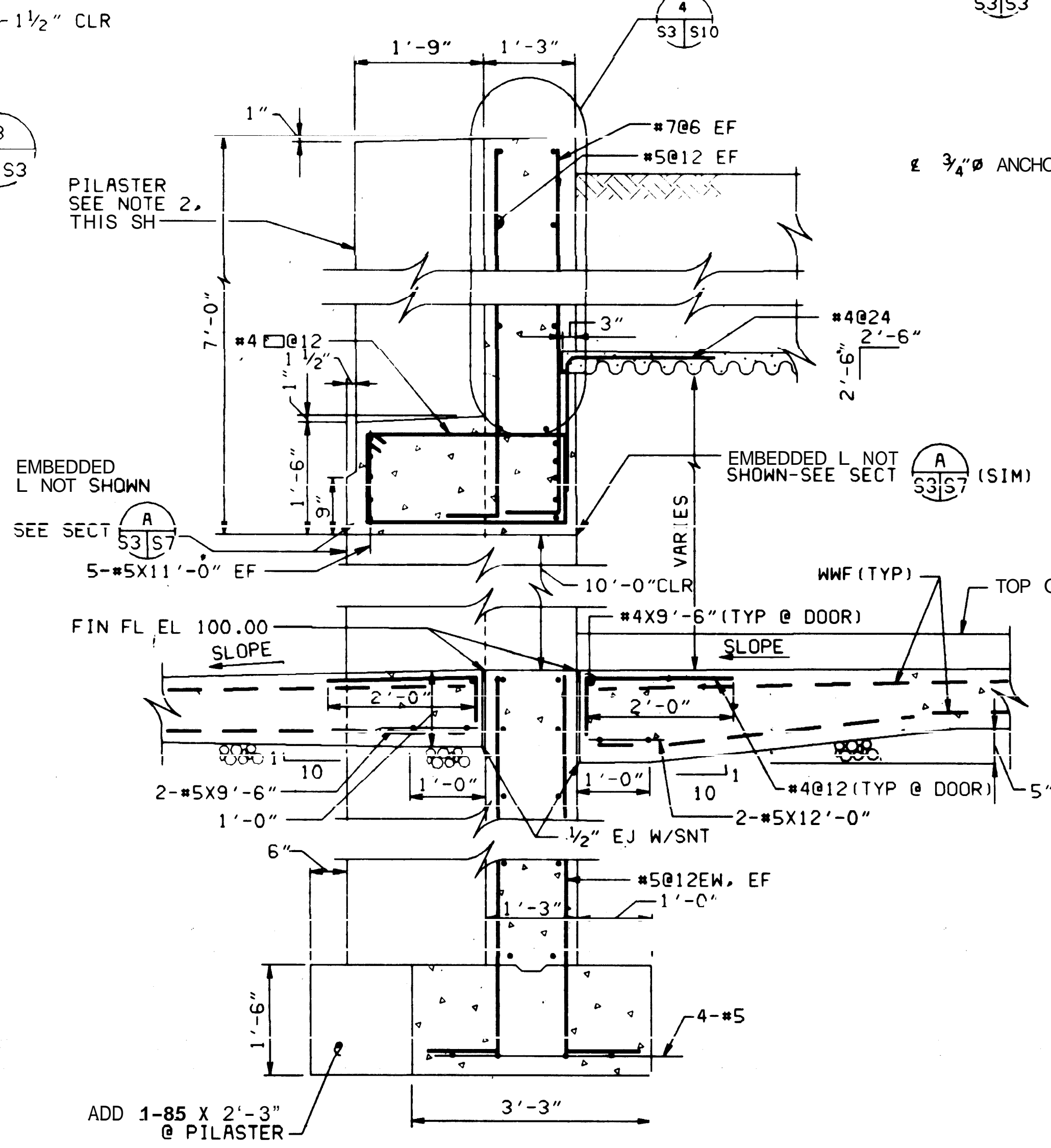
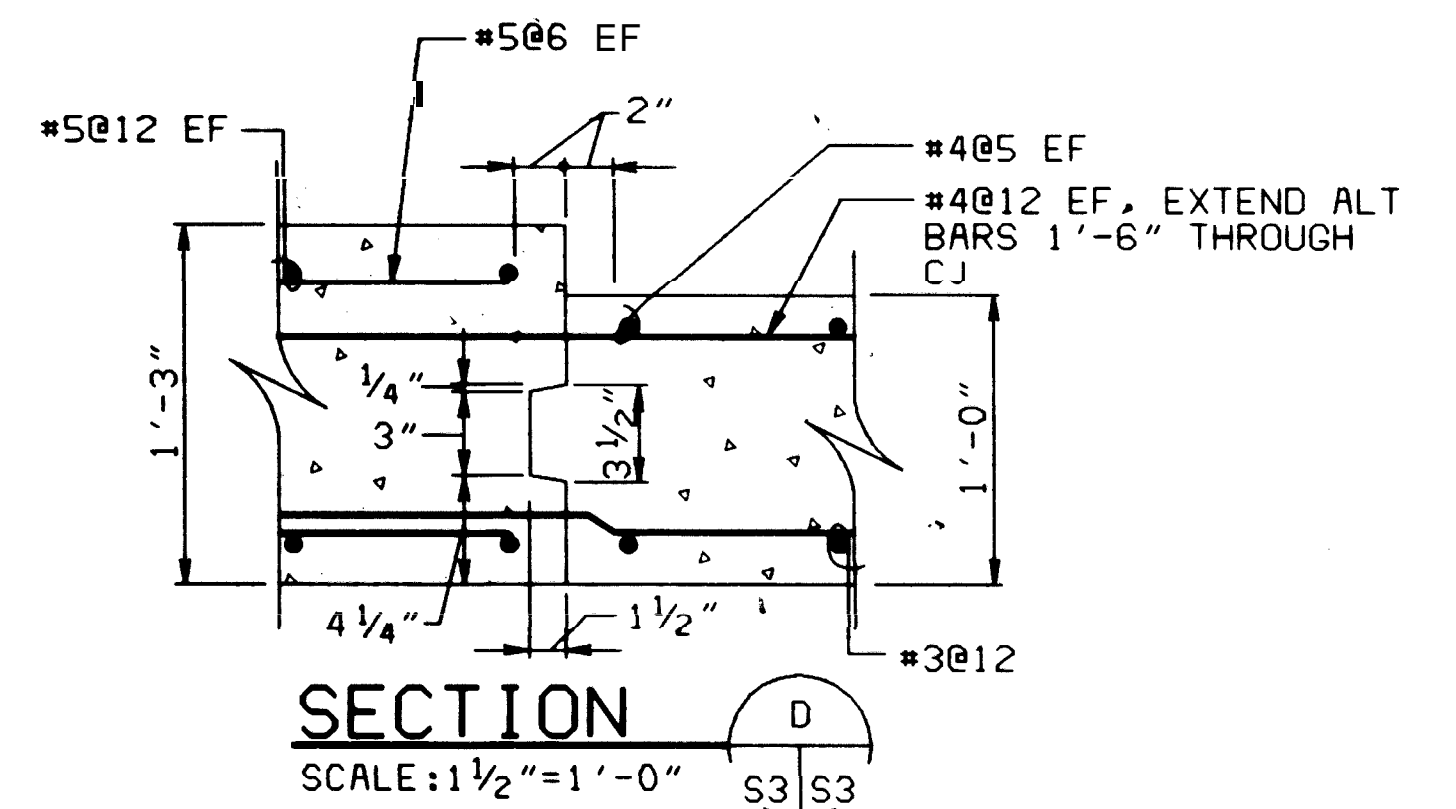


ELEVATION
SCALE: 3/8" = 1'-0"
FRONT WALL ELEVATION
10'-0" WIDE DOOR OPENING

- NOTES:
- SEE ELEVATION (1/51/55) (NAVFAC DWG NO. 14043821 FOR DOOR DETAILS).
 - PILASTER SHALL BE PLUMB. ALLOWABLE DEVIATION FROM VERTICAL SHALL NOT EXCEED 1/4" PER 10 FEET VERTICAL HEIGHT.
 - 6" SUBSURFACE DRAIN PENETRATES HEADWALL FOR DRAINAGE TO FRONT OF MAGAZINE ONLY.
 - VERIFY FOOTING AND RETAINING WALL DESIGN IF FOOTINGS ARE LOWERED. SEE GEN NOTE 4, NAVFAC DWG NO. 1404387.
 - SEE NAVFAC DWG NO. 1404387 FOR WALL CRACK CONTROL JOINT DETAILS, AND GENERAL NOTES.



NOTE: SECURITY HASP WILL BE FURNISHED BY NAPEC WITH INSTALLATION INSTRUCTIONS. CONTRACTOR INSTALL. SEE SH S9 FOR SECURITY HASP DETAILS.

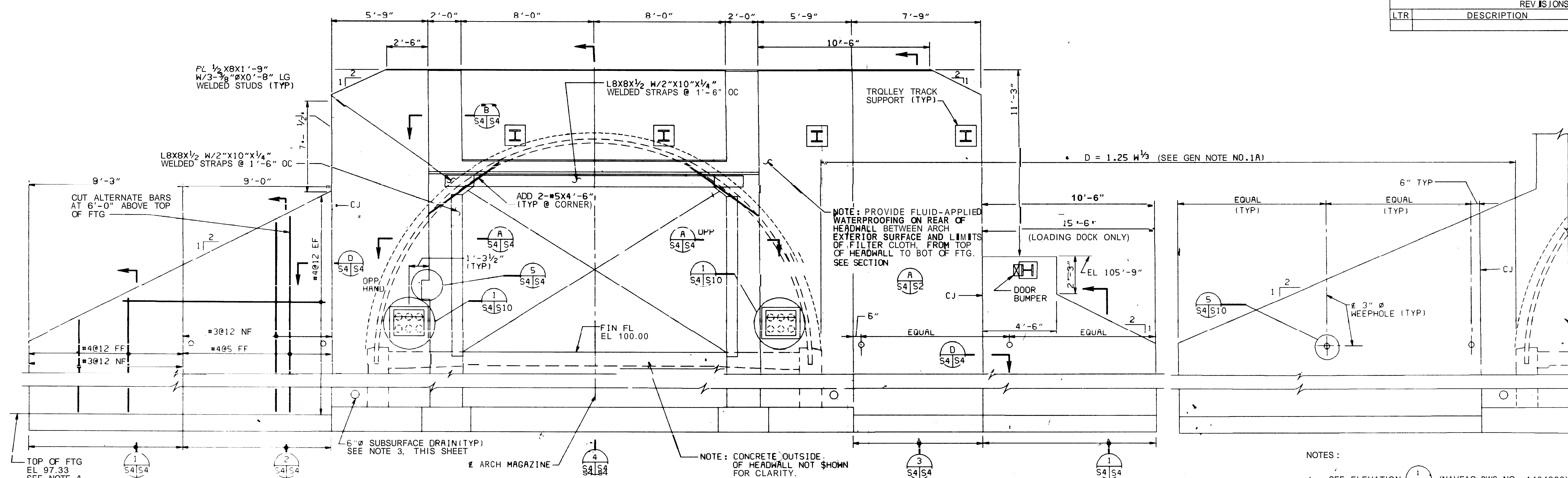


NAVFAC STANDARD DRAWING PRODUCED BY: HAYES, SEAY, MATTERN AND MATTERN ARCHITECTS - ENGINEERS ROANOKE, VIRGINIA

CHECK GRAPHIC SCALES BEFORE USING

	DSN: [] DR. CA: [] CHK: [] SUBMITTED BY: [] DATE: []	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND 200 STODOL STREET ALEXANDRIA, VA. 22332
	NAVFAC: [] DATE: [] FPE: []	STANDARD EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE STRUCTURAL FRONT WALL ELEVATION, SECTIONS AND DETAILS 10'-0" WIDE DOOR OPENING

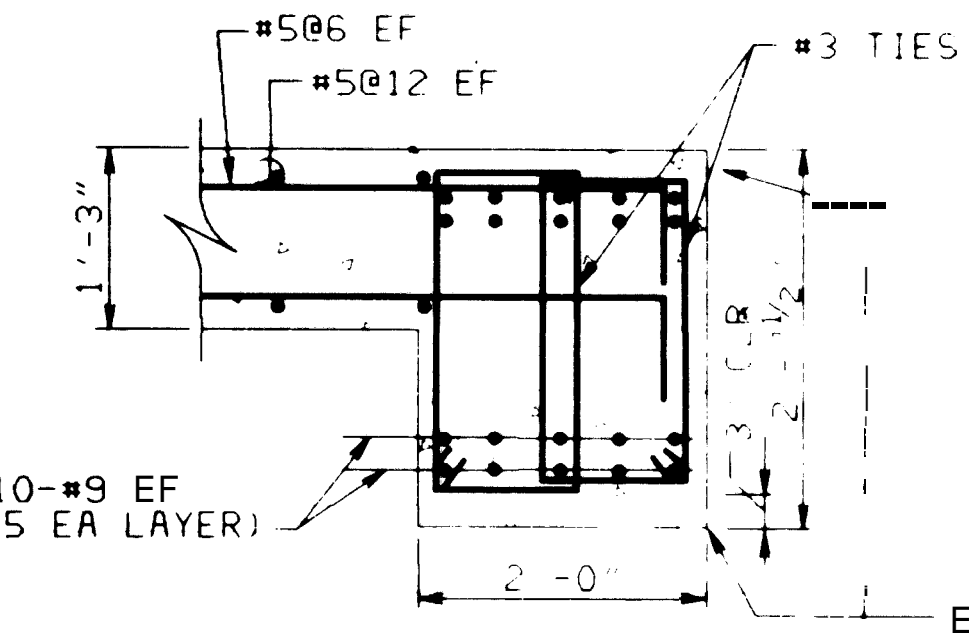
REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED



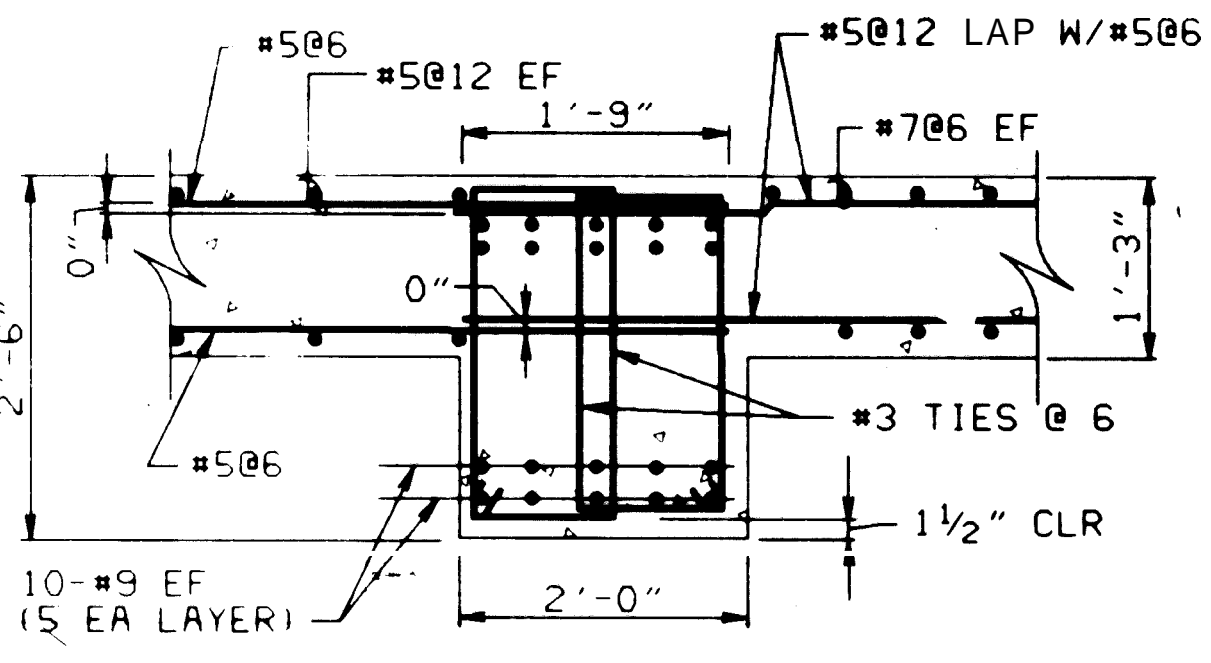
ELEVATION
SCALE: 3/8"=1'-0"
S1A

FRONT WALL ELEVATION
16'-0" WIDE DOOR OPENING

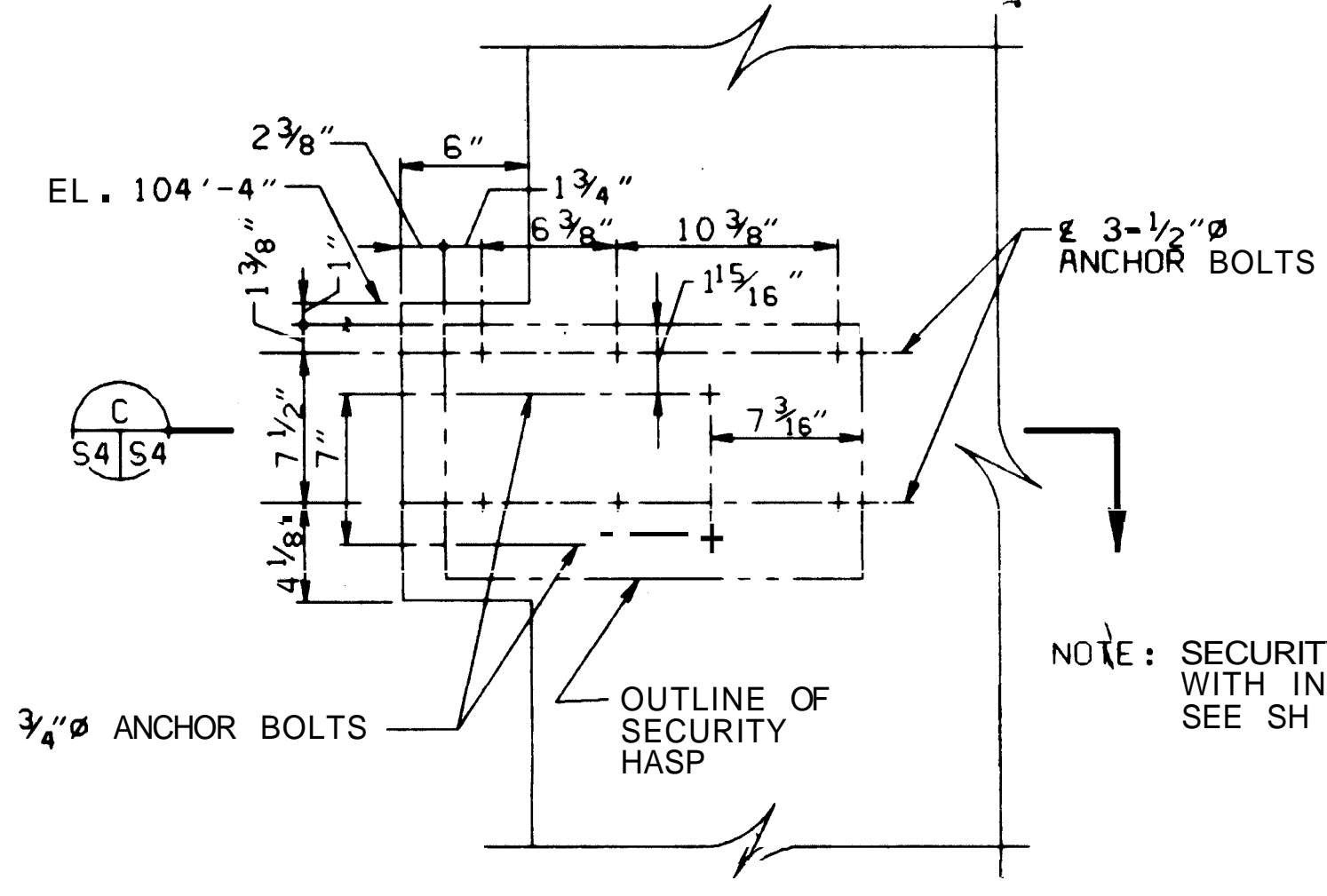
- NOTES:
- SEE ELEVATION (1/51/56) (NAVFAC DWG NO. 1404383) FOR DOOR DETAILS.
 - PILASTER SHALL BE PLUMB. ALLOWABLE DEVIATION FROM VERTICAL SHALL NOT EXCEED 1/4" PER 10 FEET VERTICAL HEIGHT.
 - 6" SUBSURFACE DRAIN PENETRATES HEADWALL FOR DRAINAGE TO FRONT OF MAGAZINE ONLY.
 - VERIFY FOOTING AND RETAINING WALL DESIGN IF FOOTINGS ARE LOWERED. SEE GEN NOTE 4, NAVFAC DWG NO. 1404387.
 - SEE NAVFAC DWG NO. 1404387 FOR WALL CRACK CONTROL JOINT DETAILS, AND GENERAL NOTES.



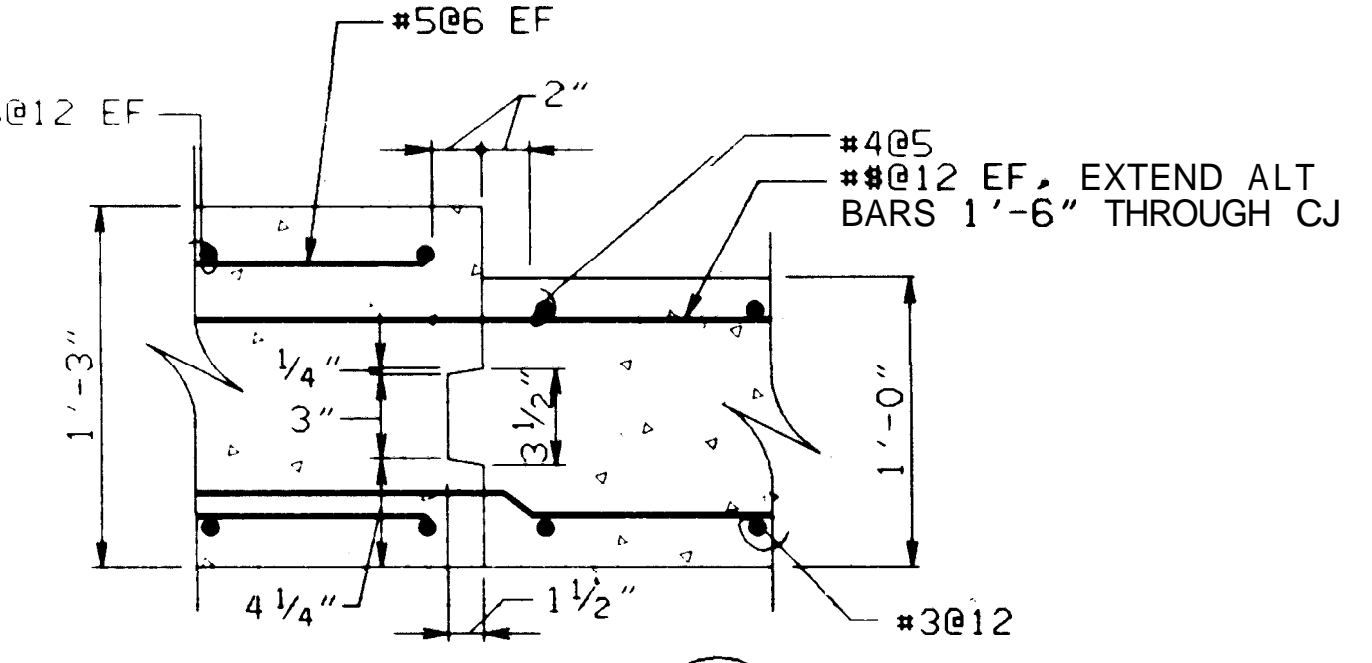
SECTION A
SCALE: 3/4"=1'-0"
S4/S4



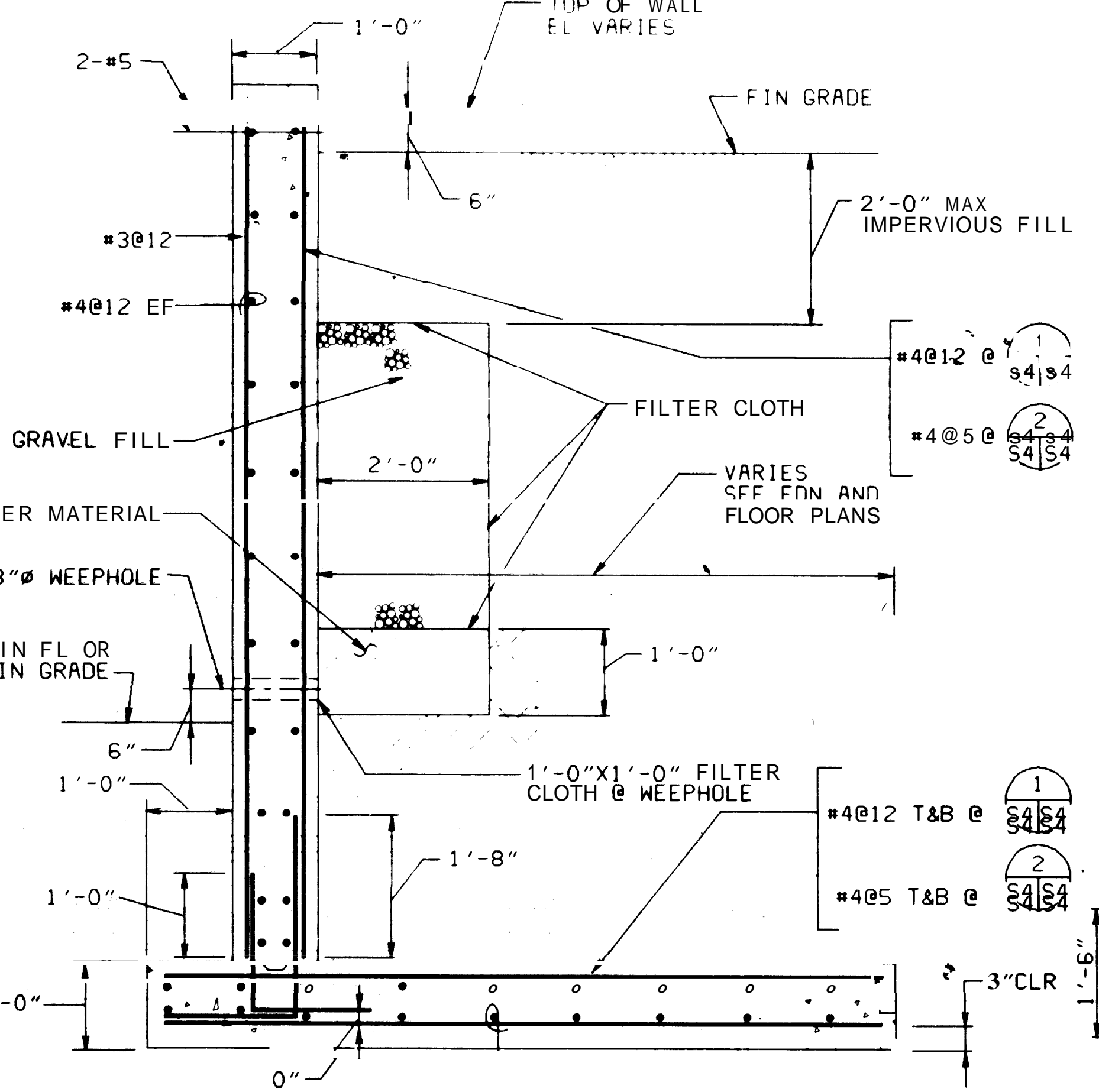
SECTION B
SCALE: 3/4"=1'-0"
S4/S4



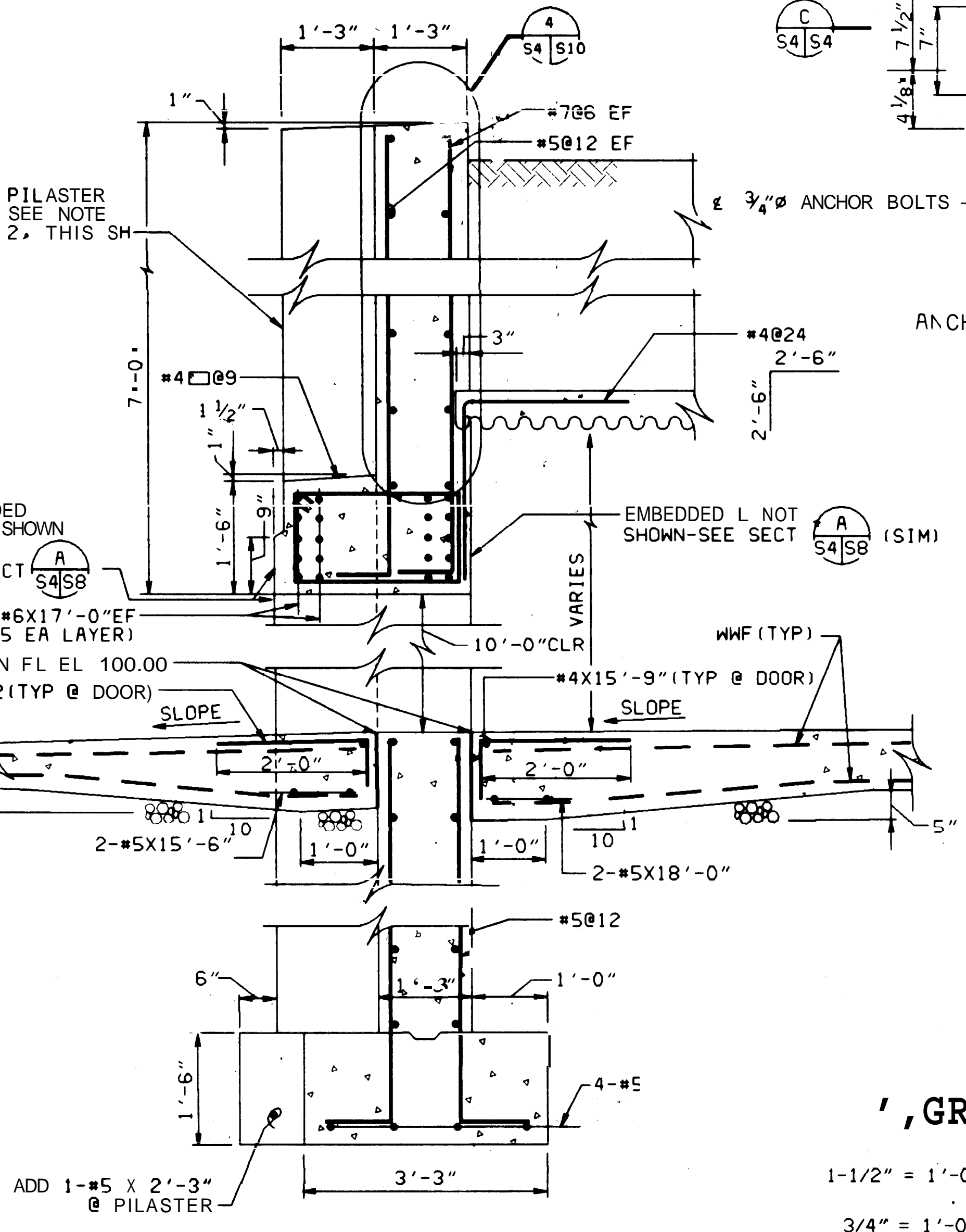
DETAIL 5
SCALE: 1 1/2"=1'-0"
S4/S4



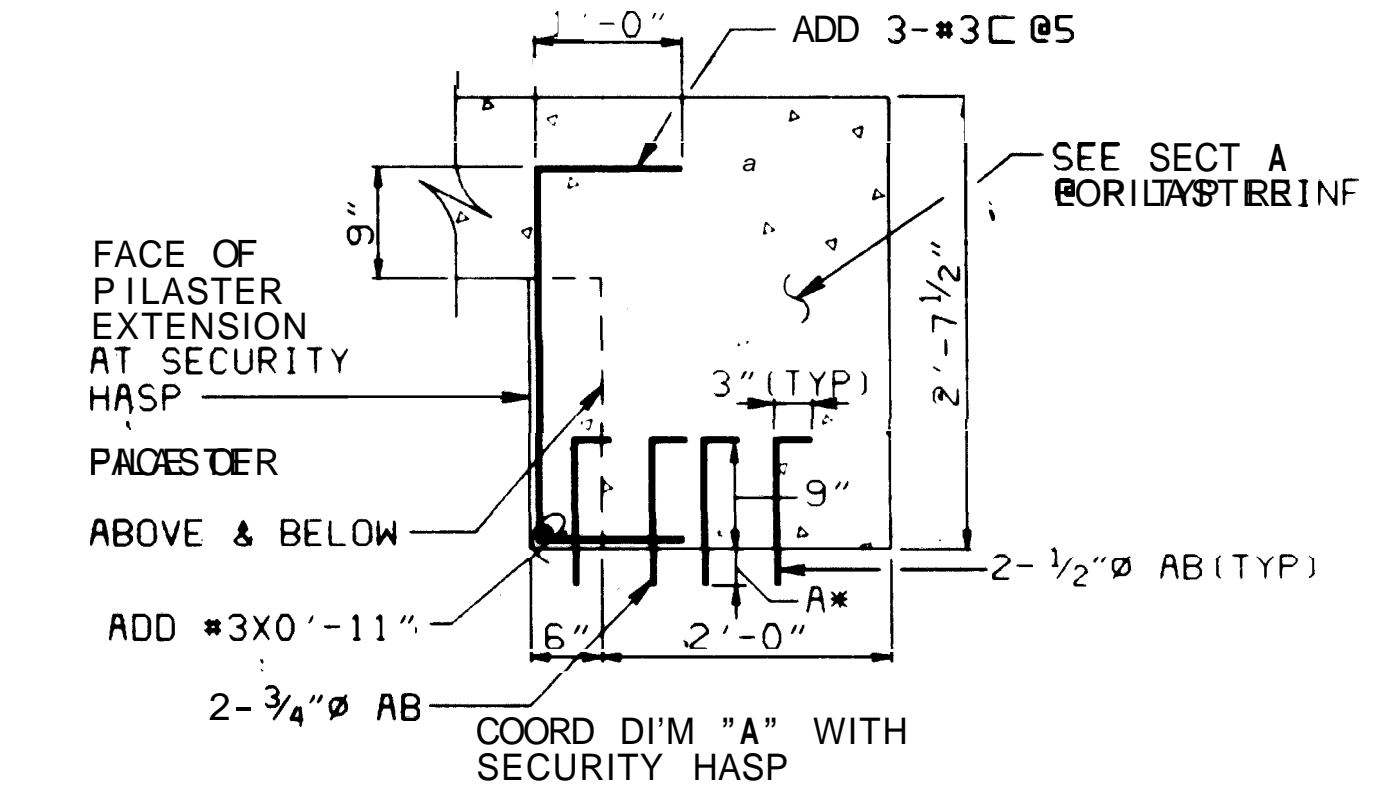
SECTION D
SCALE: 1 1/2"=1'-0"
S4/S4



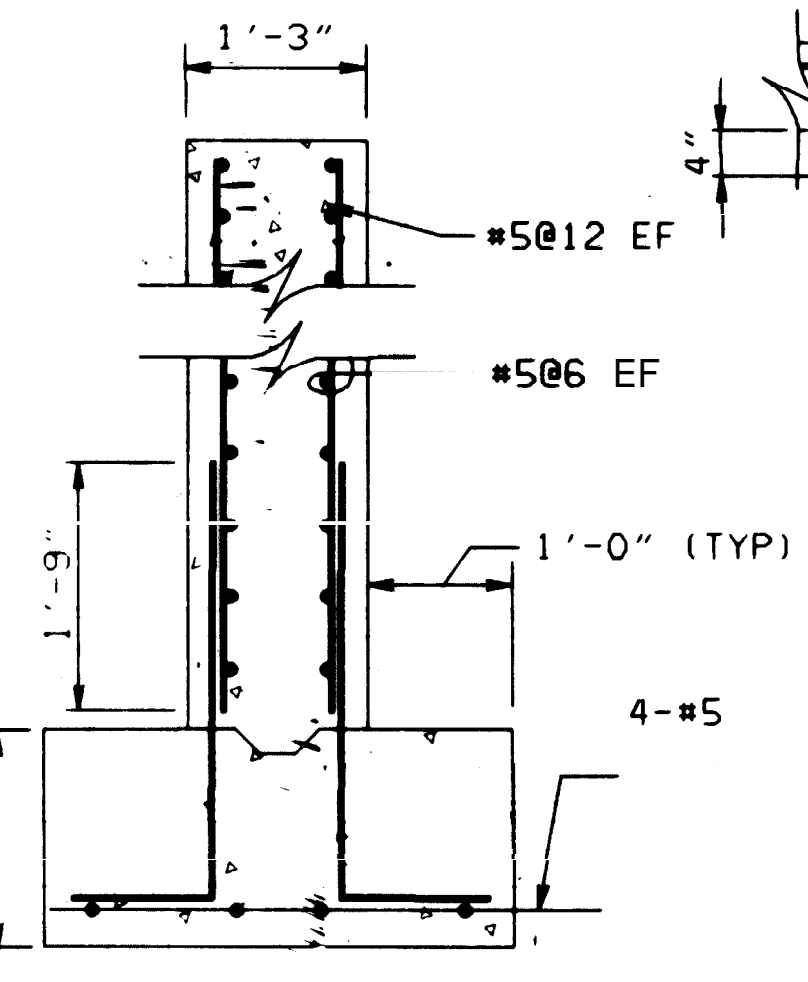
SECTION 1
SCALE: 3/4"=1'-0"
S4/S4



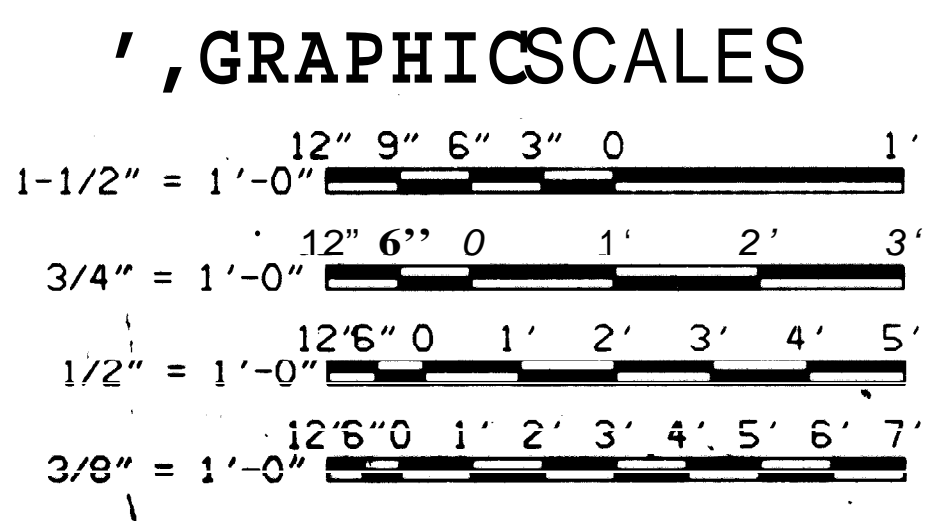
SECTION 2
SCALE: 3/4"=1'-0"
S4/S4



SECTION C
SCALE: 3/4"=1'-0"
S4/S4



SECTION 3
SCALE: 3/4"=1'-0"
S4/S4

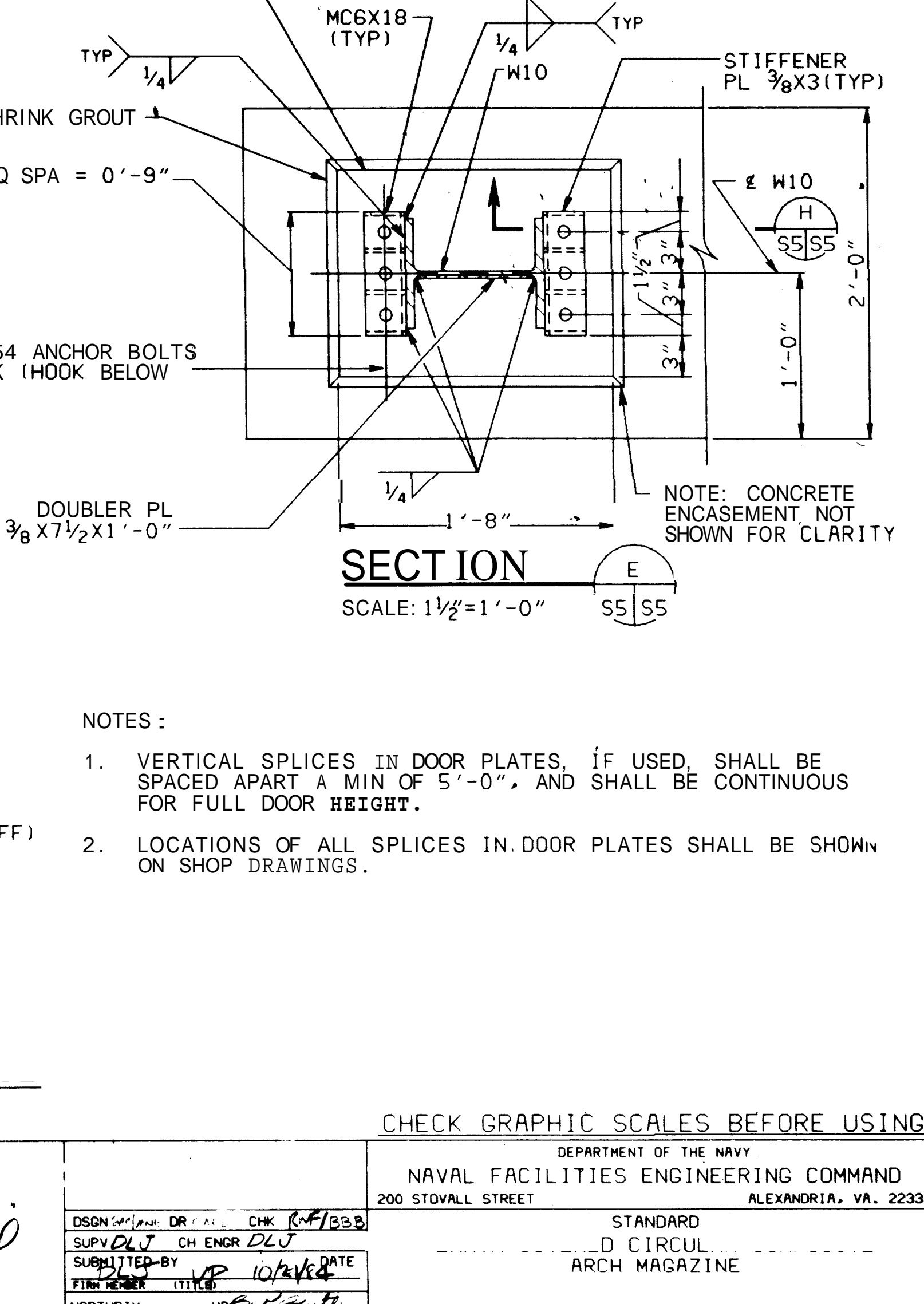
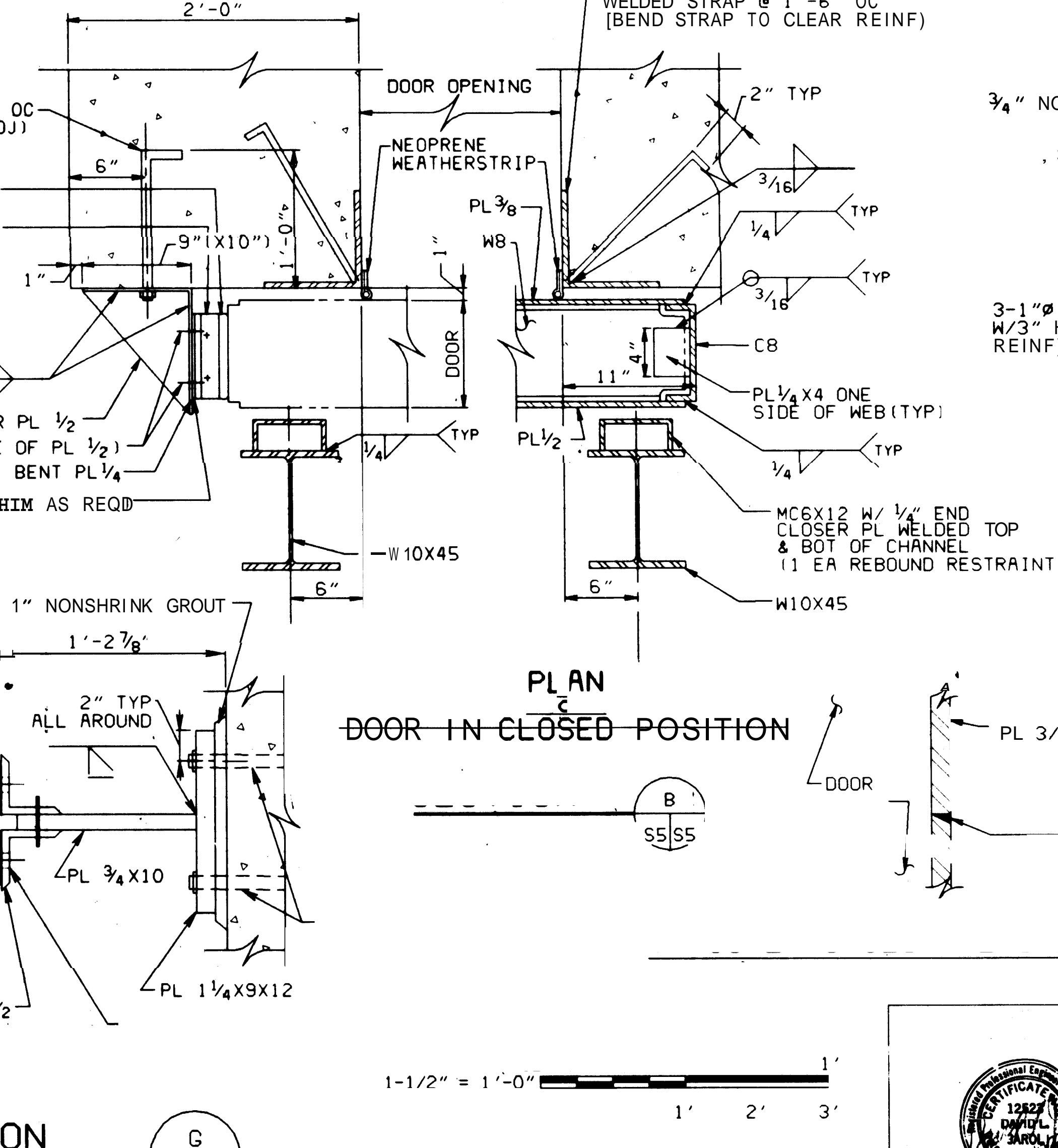
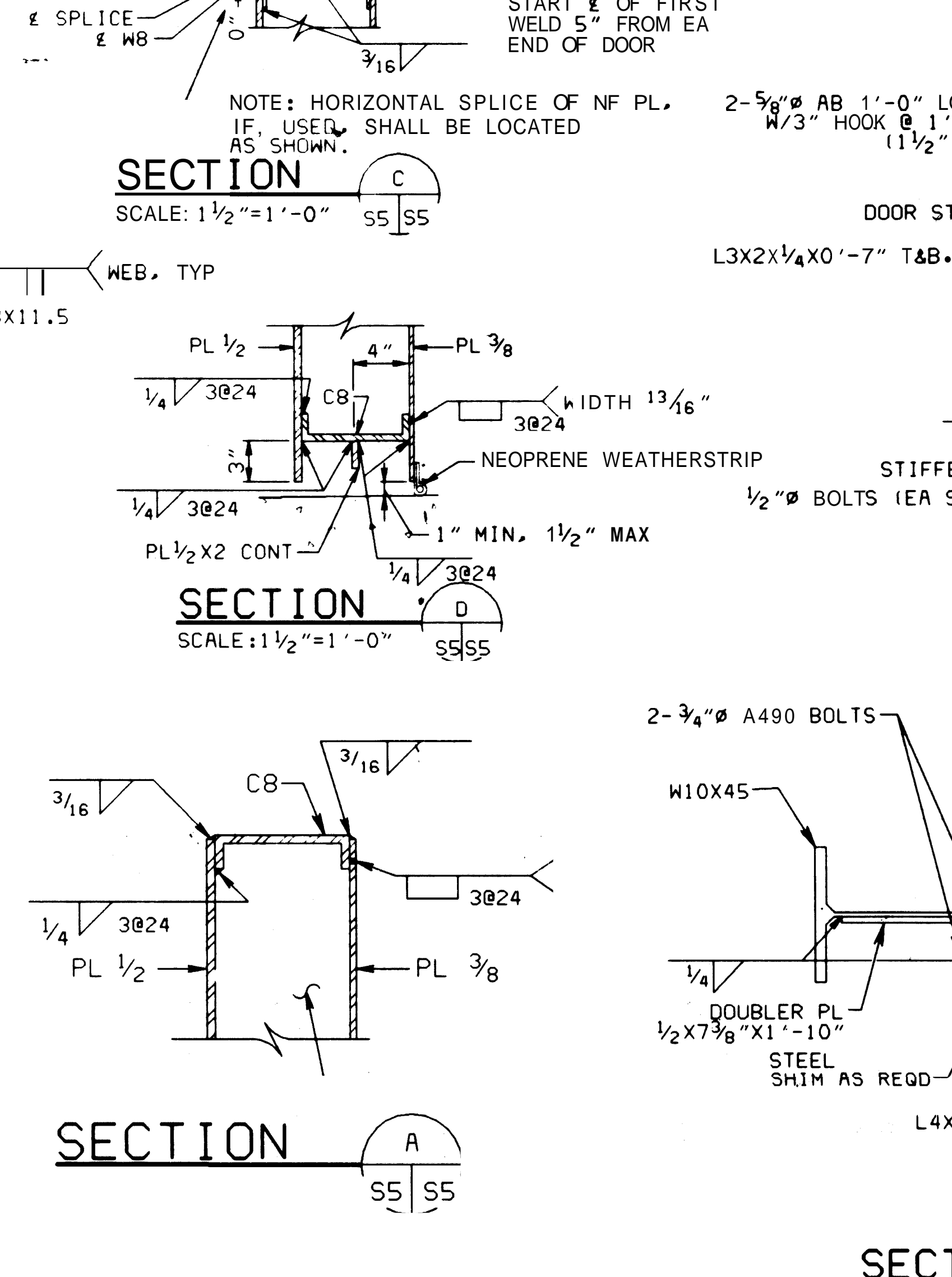
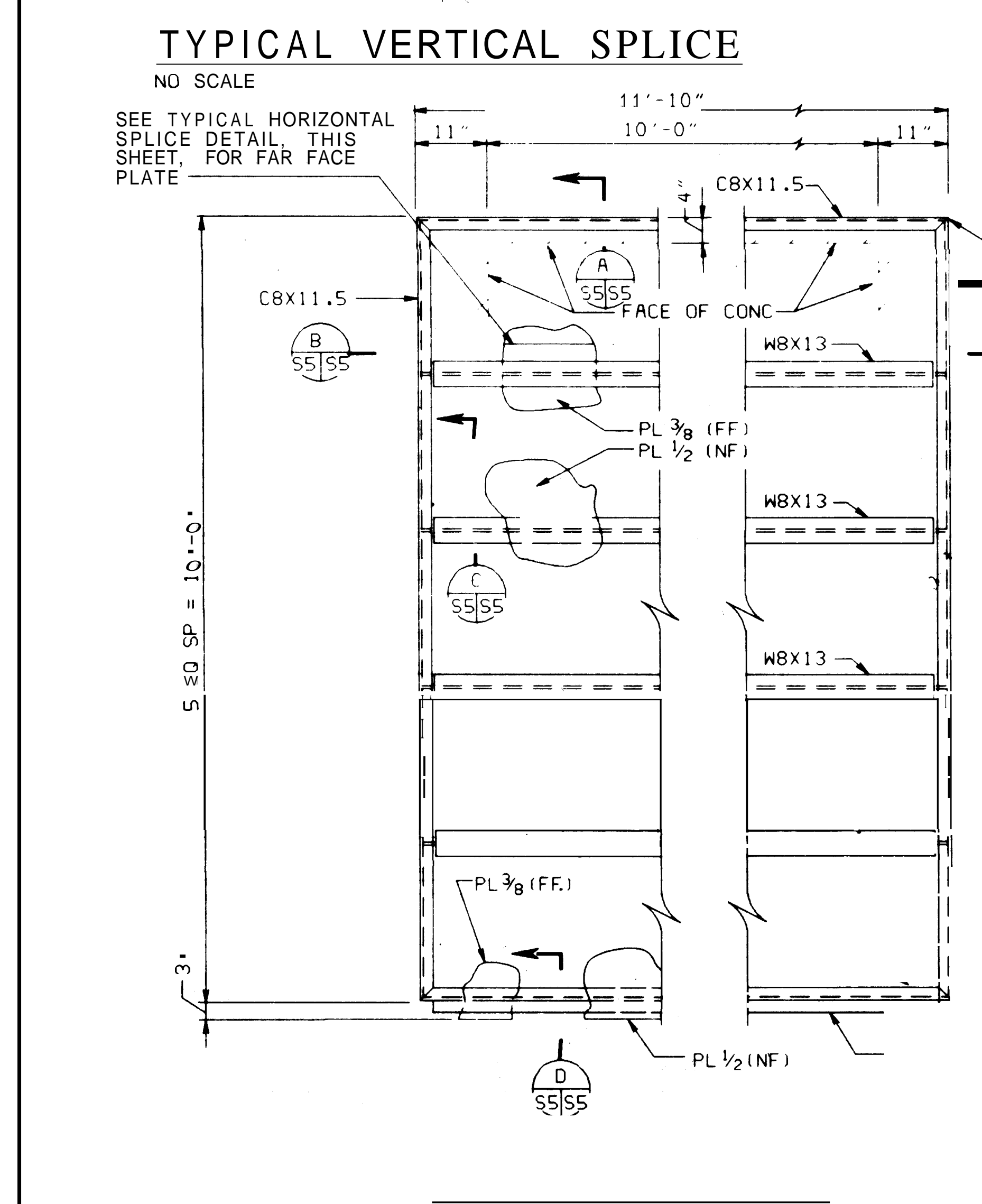
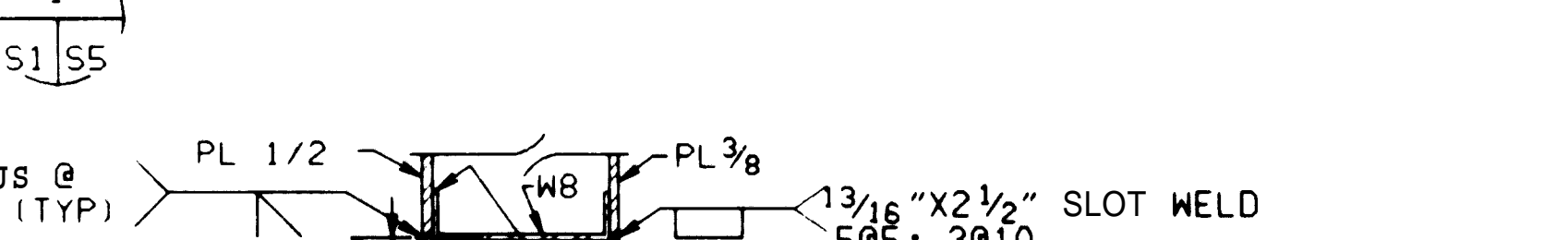
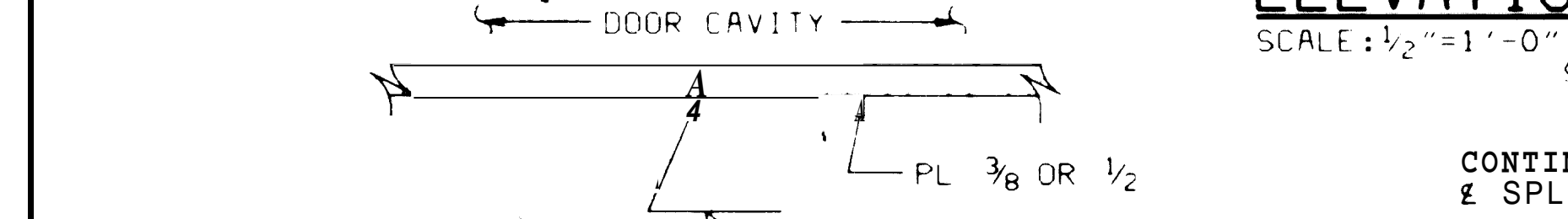
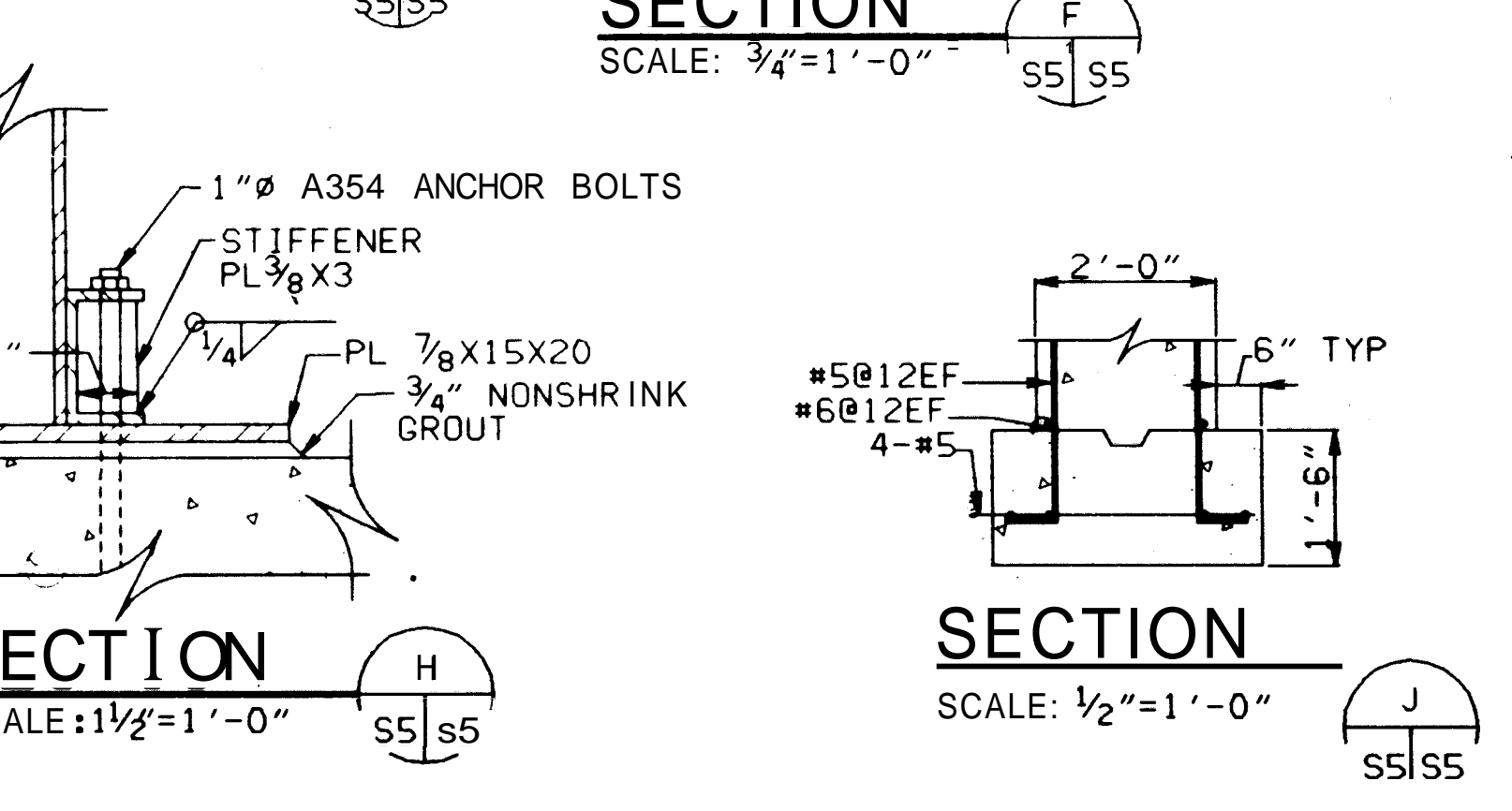
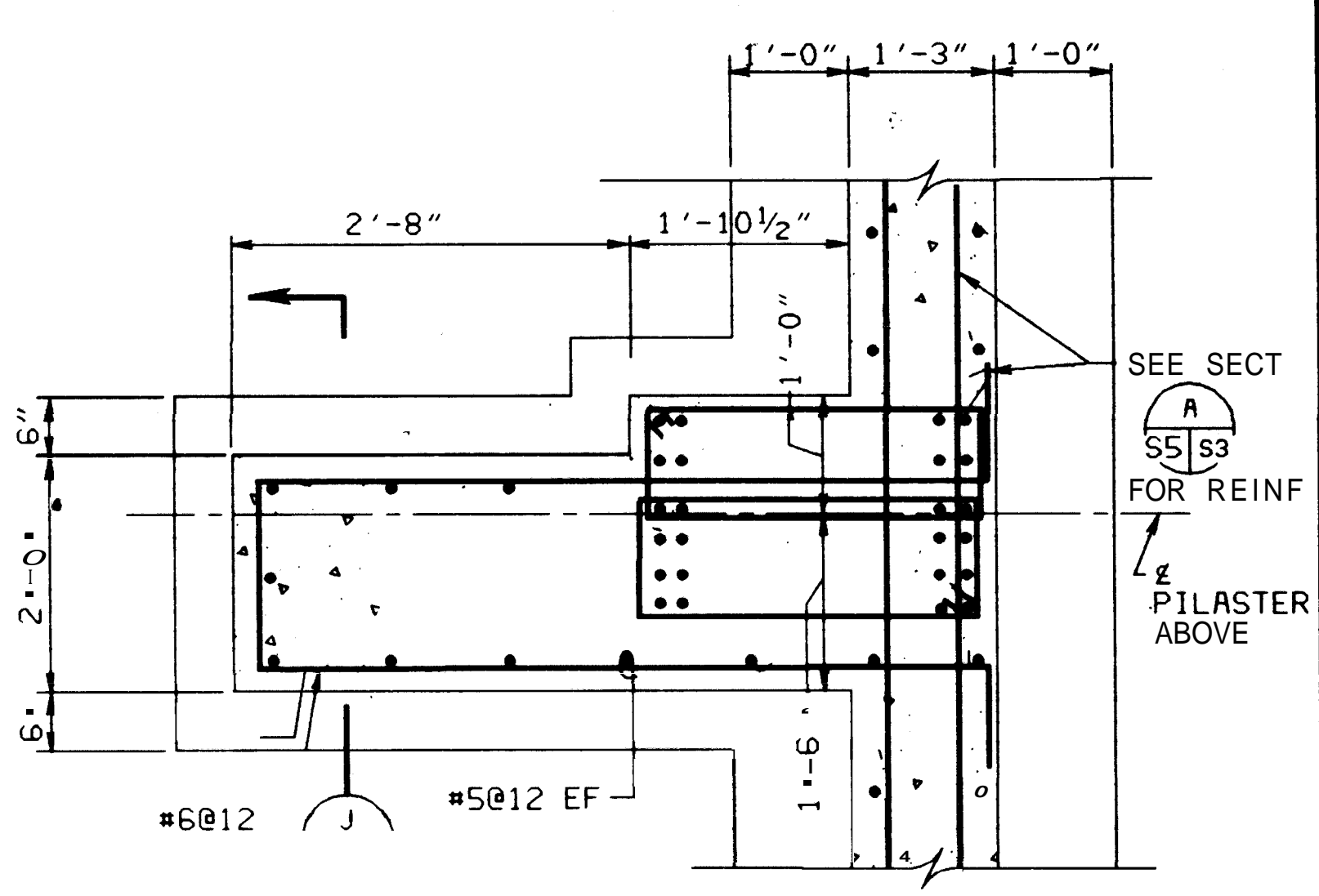
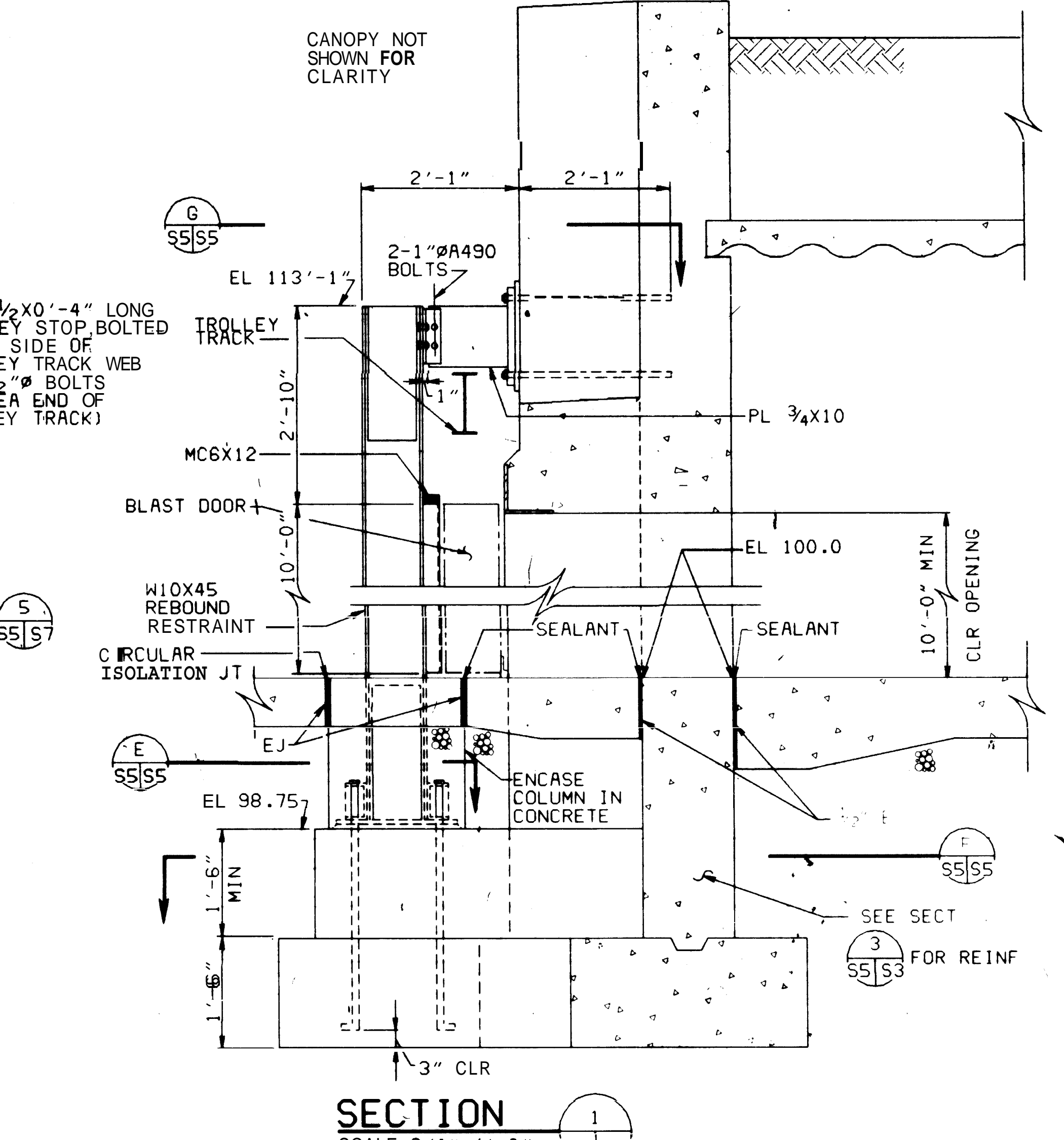
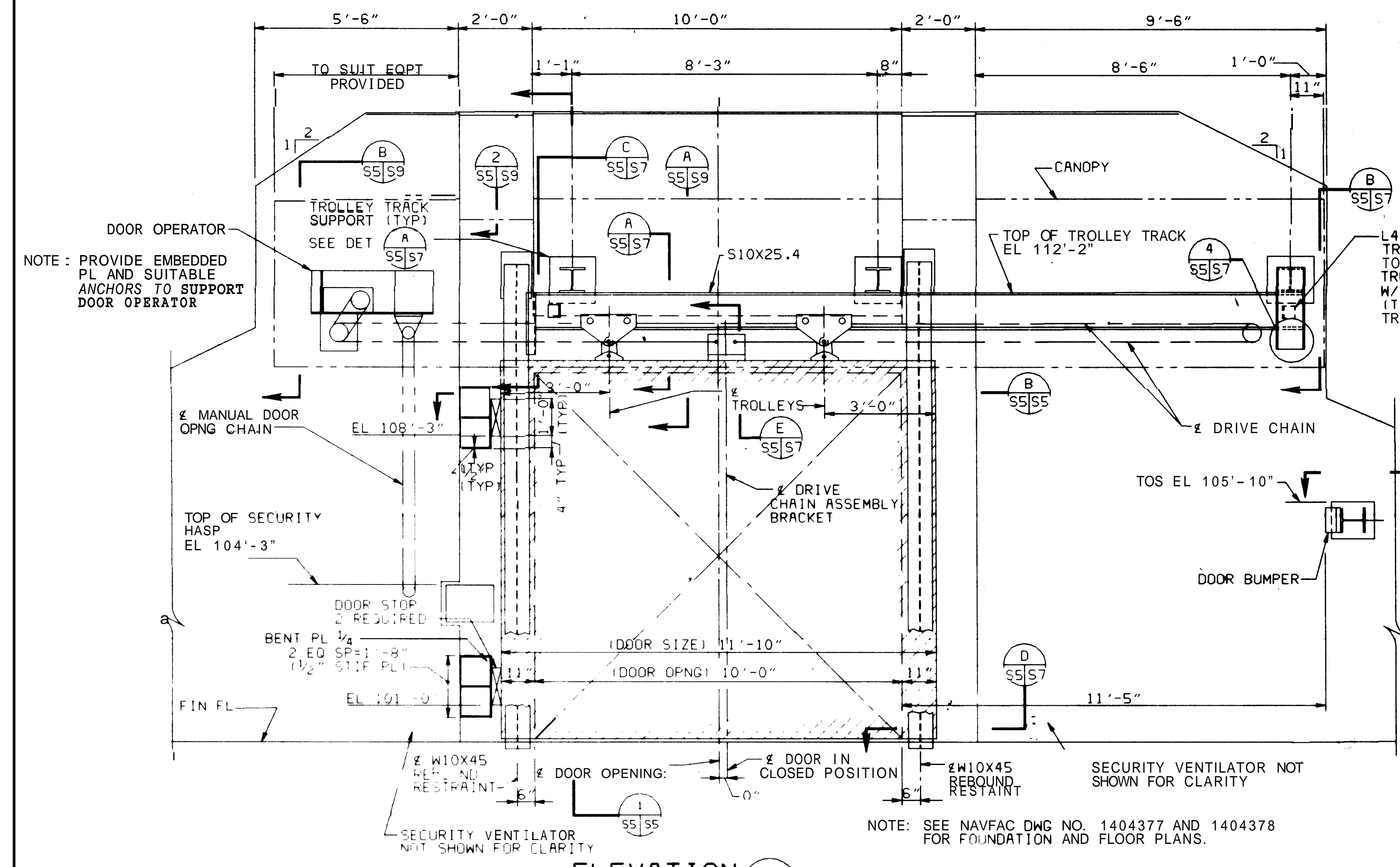


NAVFAC STANDARD DRAWING PRODUCED BY:
HAYES, SEAY, MATTERN AND MATTERN
ARCHITECTS - ENGINEERS
ROANOKE, VIRGINIA

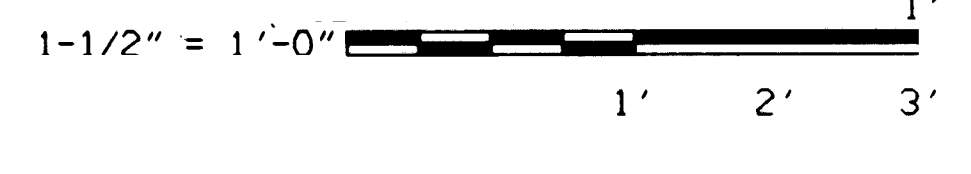
CHECK GRAPHIC SCALES BEFORE USING

DESIGN		SUBMITTED BY		APPROVED	
DESIGN NO. DR. A. CHK. 6/11/84		SUBMITTED BY: CH. ENGR. D.V. CH. ENGR. D.V.		APPROVED: DATE: 1-19-84	
DESIGNER: DATE: 1-19-84		DRAWN: DATE: 1-19-84		CHECKED: DATE: 1-19-84	
NAVFAC: 1404381		NAVFAC: 1404381		NAVFAC: 1404381	
NAVFAC: 1404381		NAVFAC: 1404381		NAVFAC: 1404381	
NAVFAC: 1404381		NAVFAC: 1404381		NAVFAC: 1404381	
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REV IS IONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED



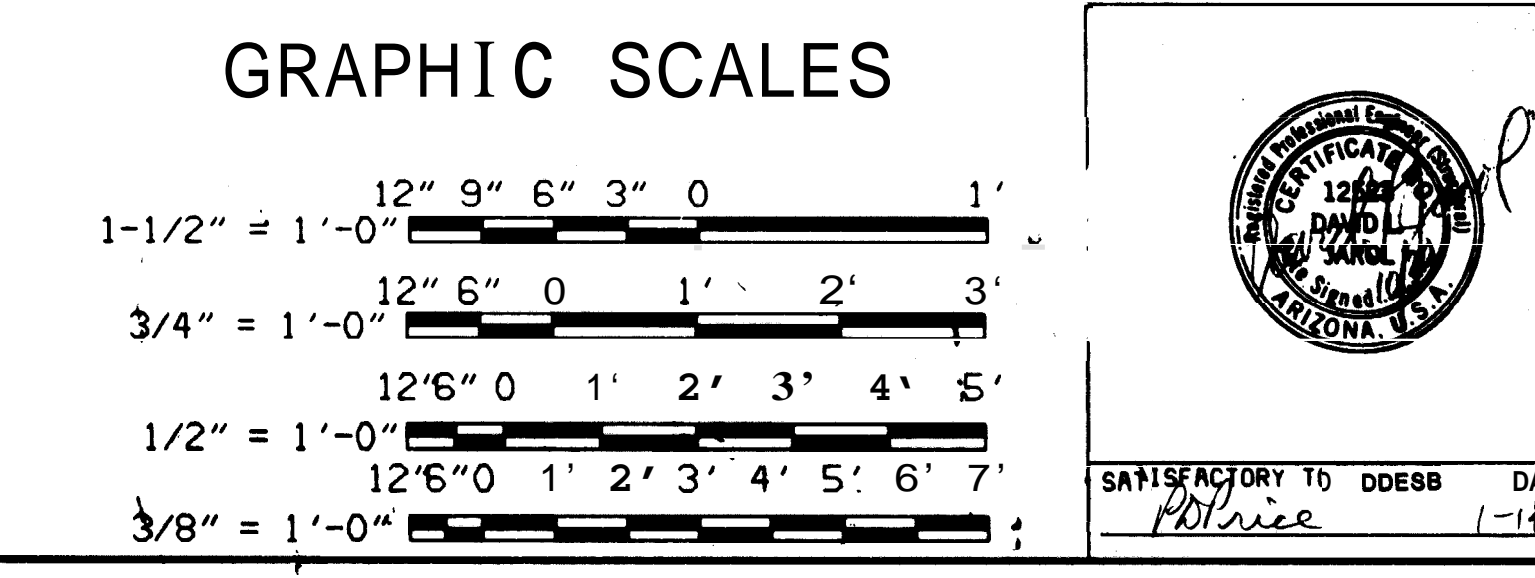
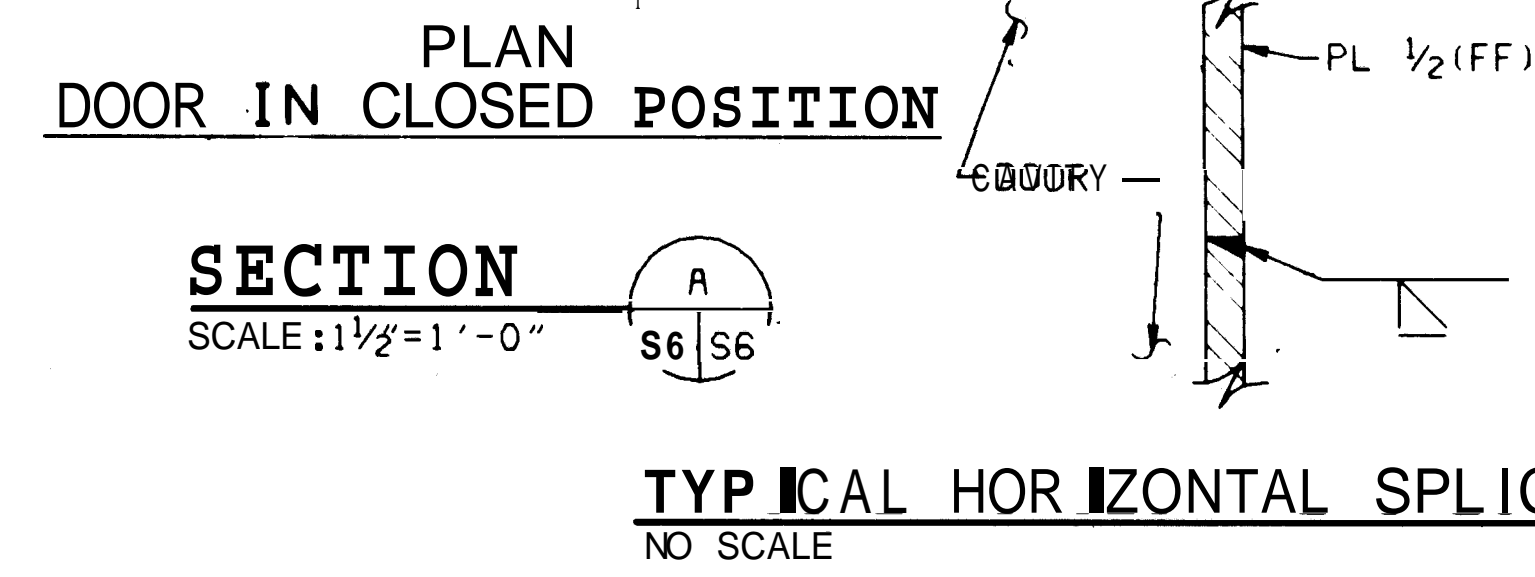
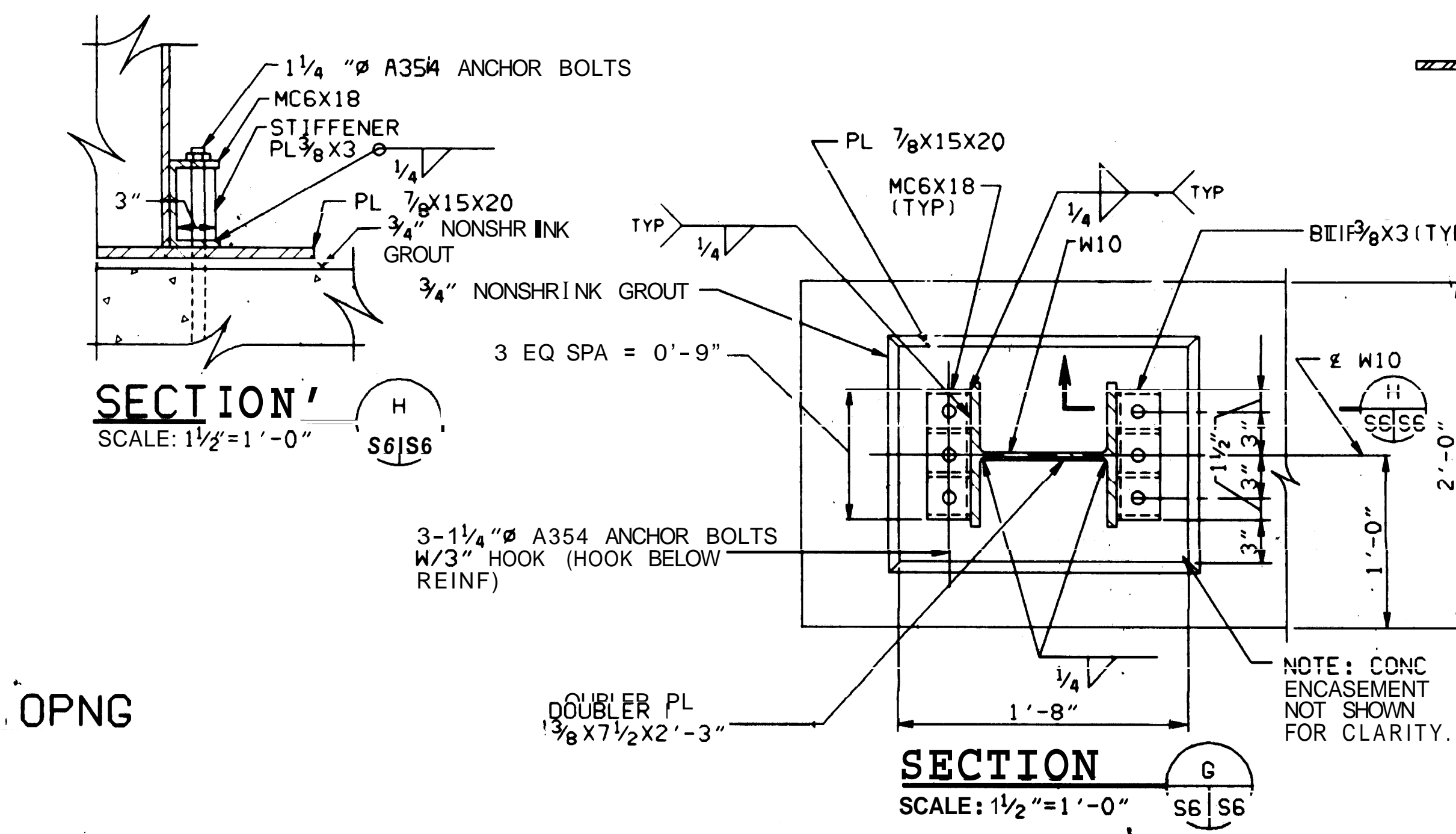
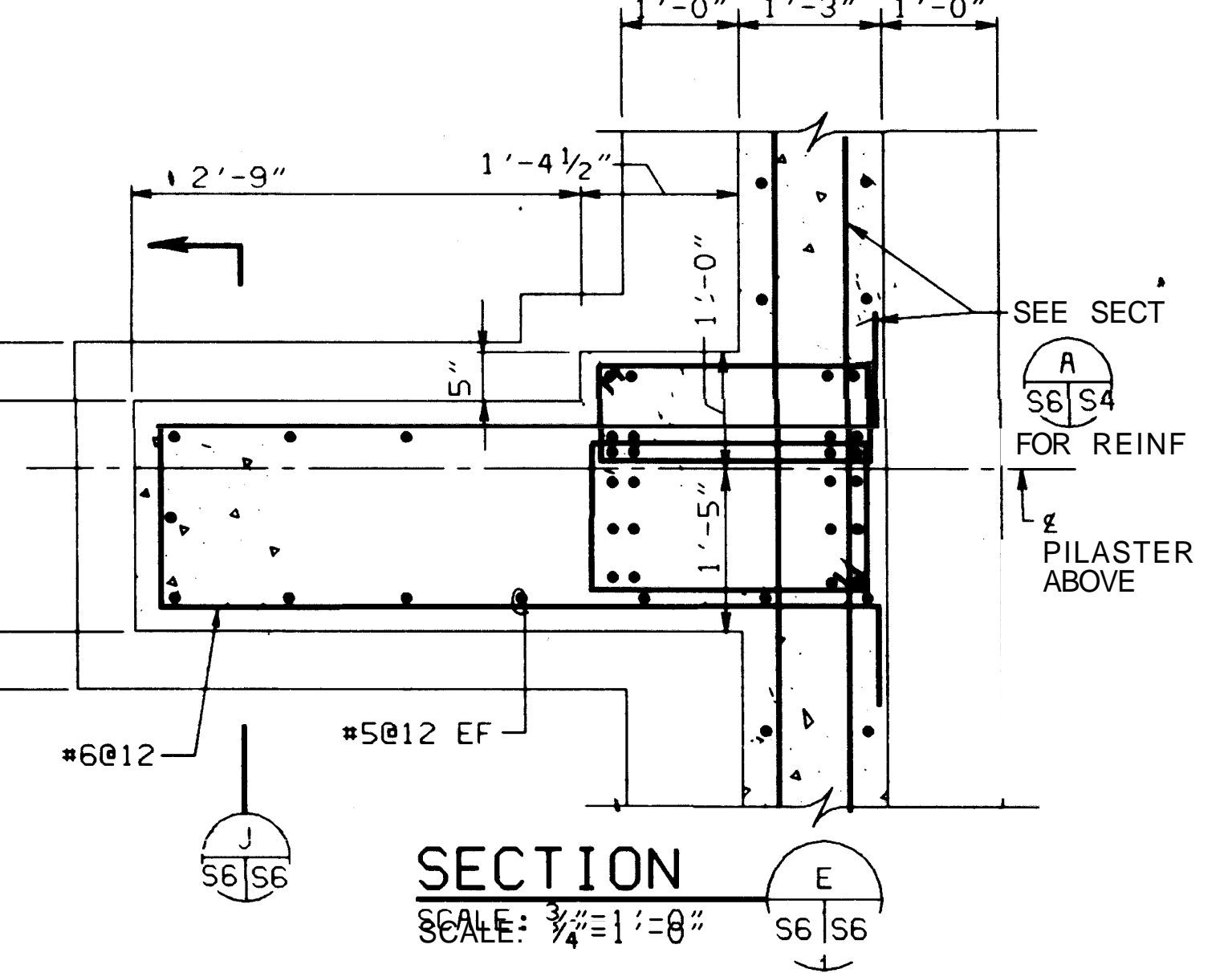
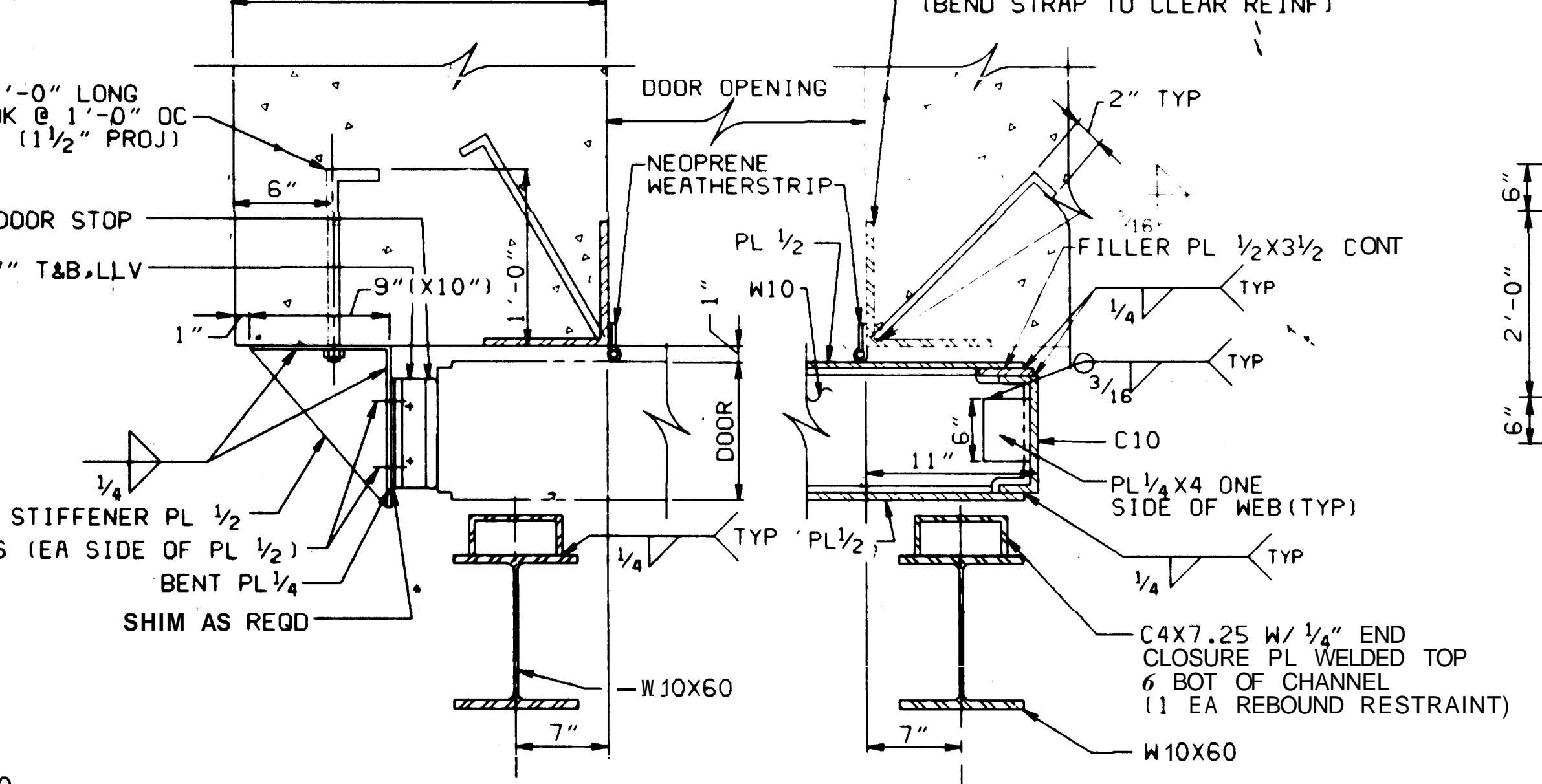
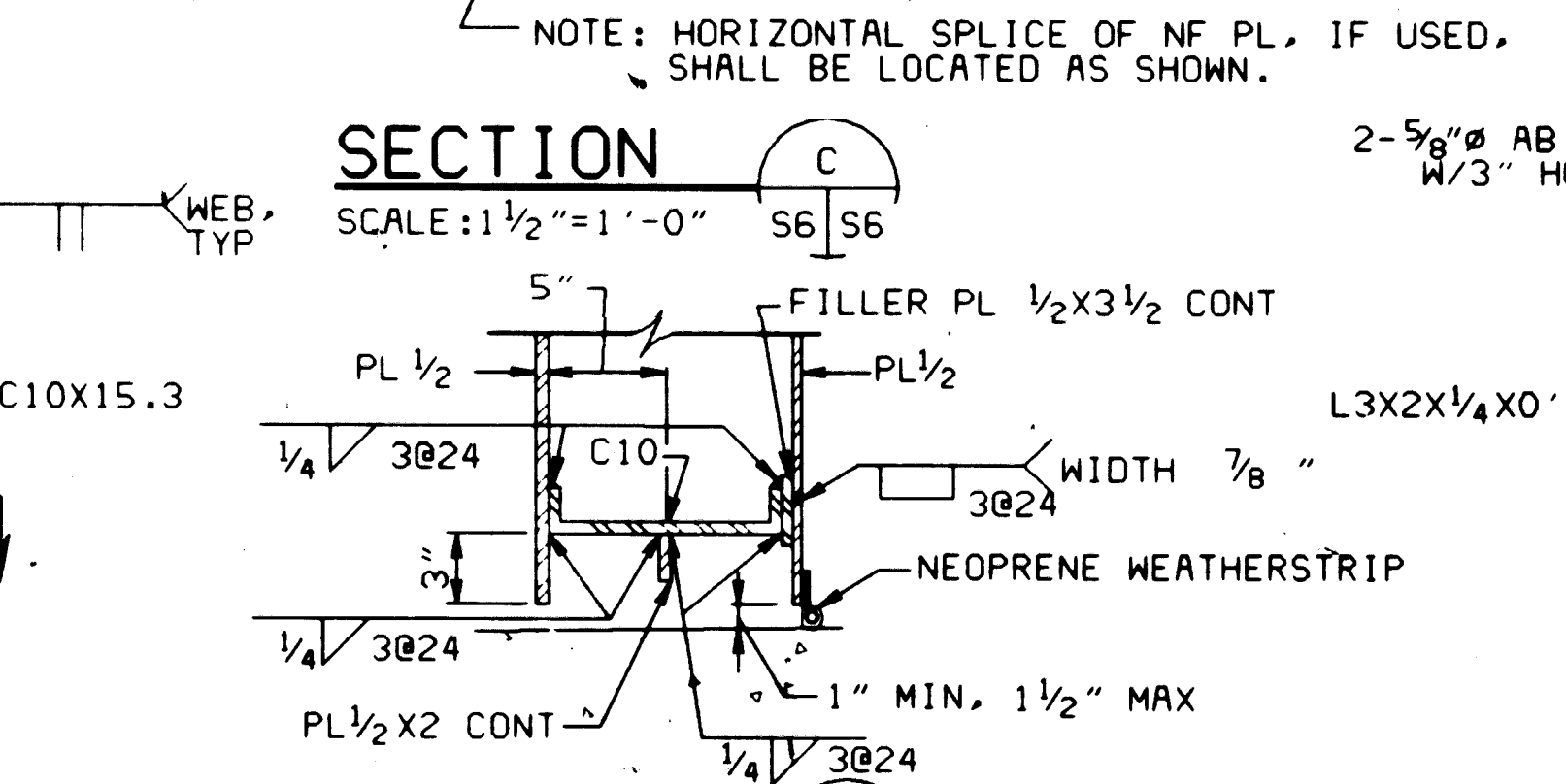
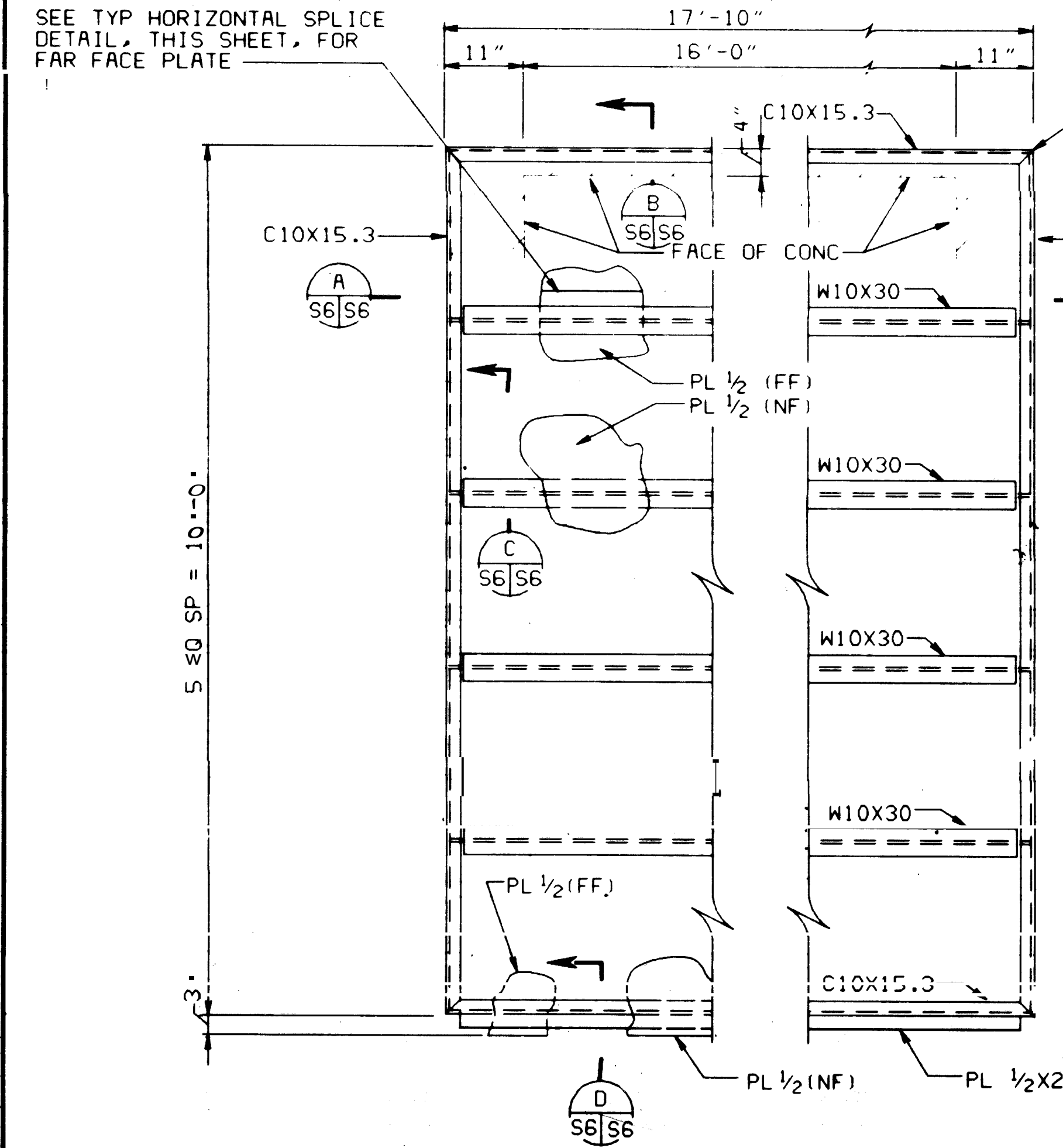
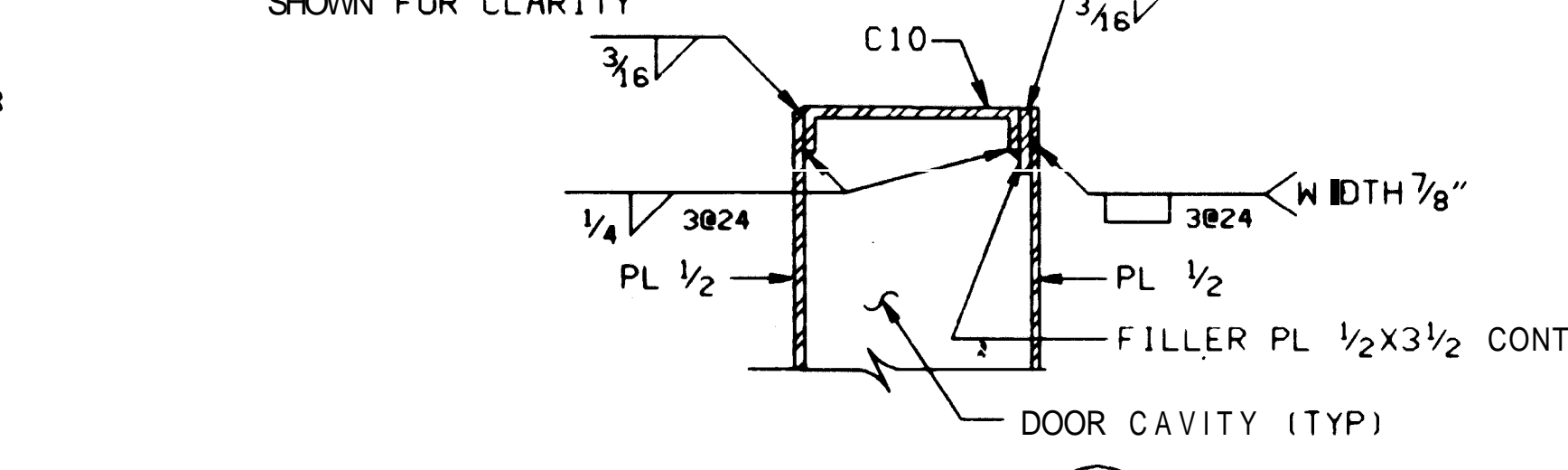
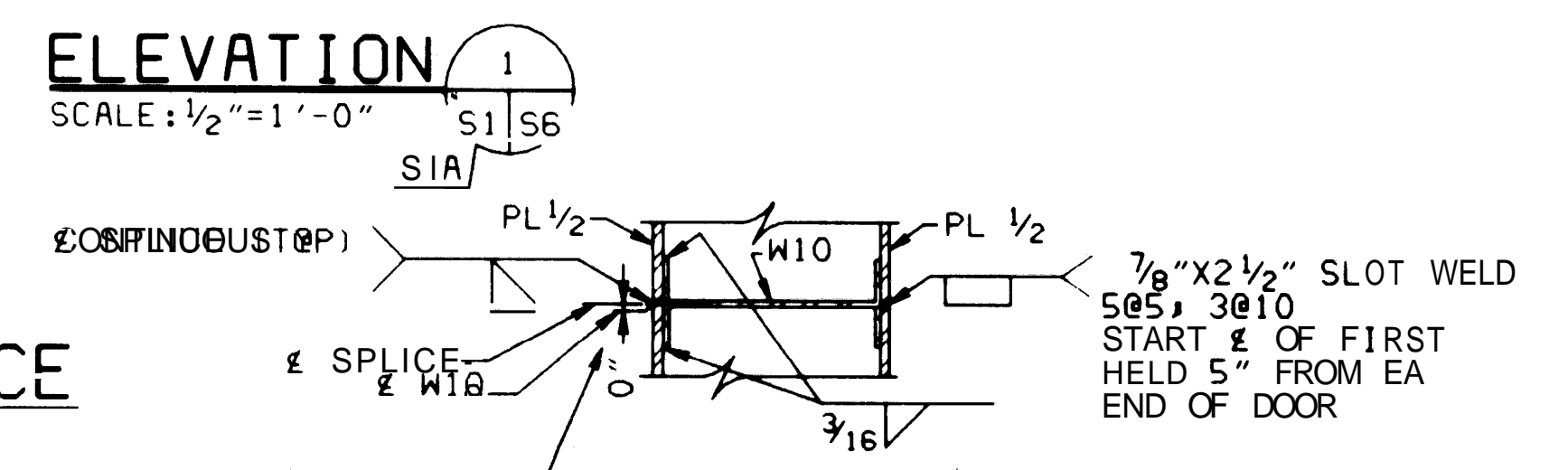
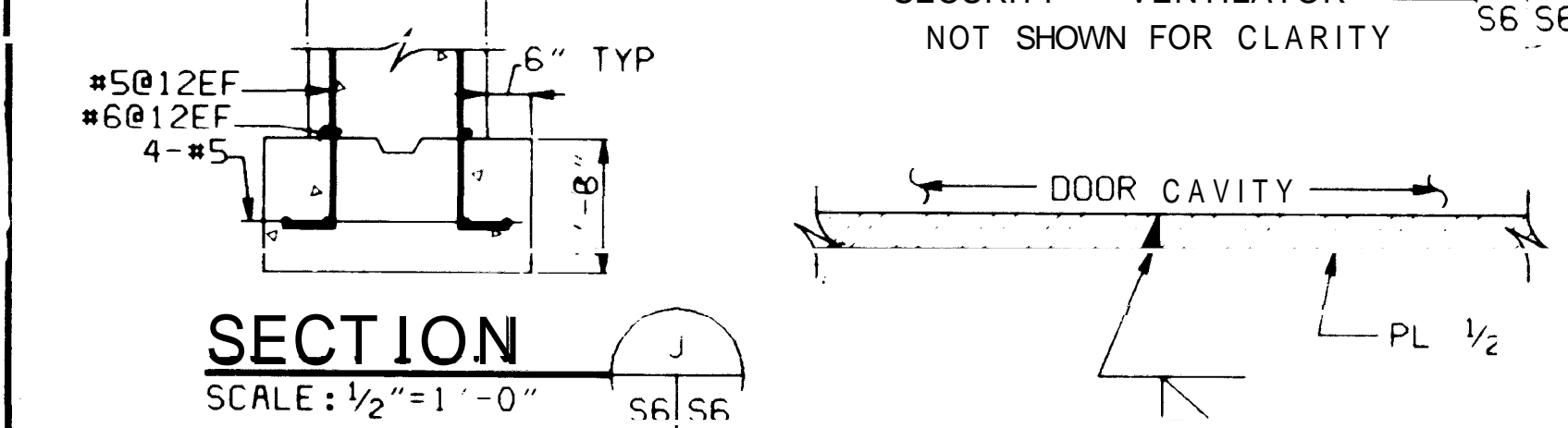
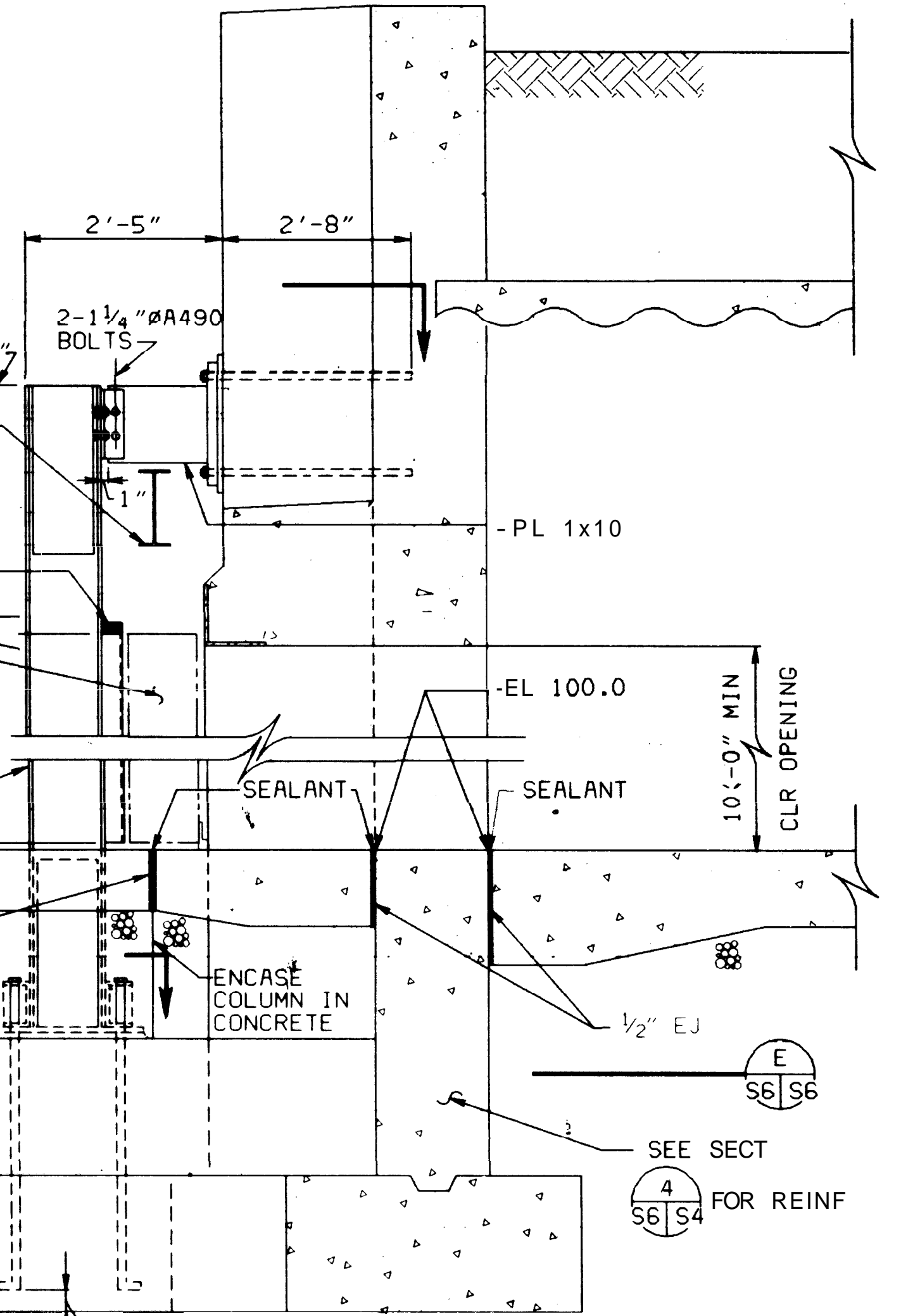
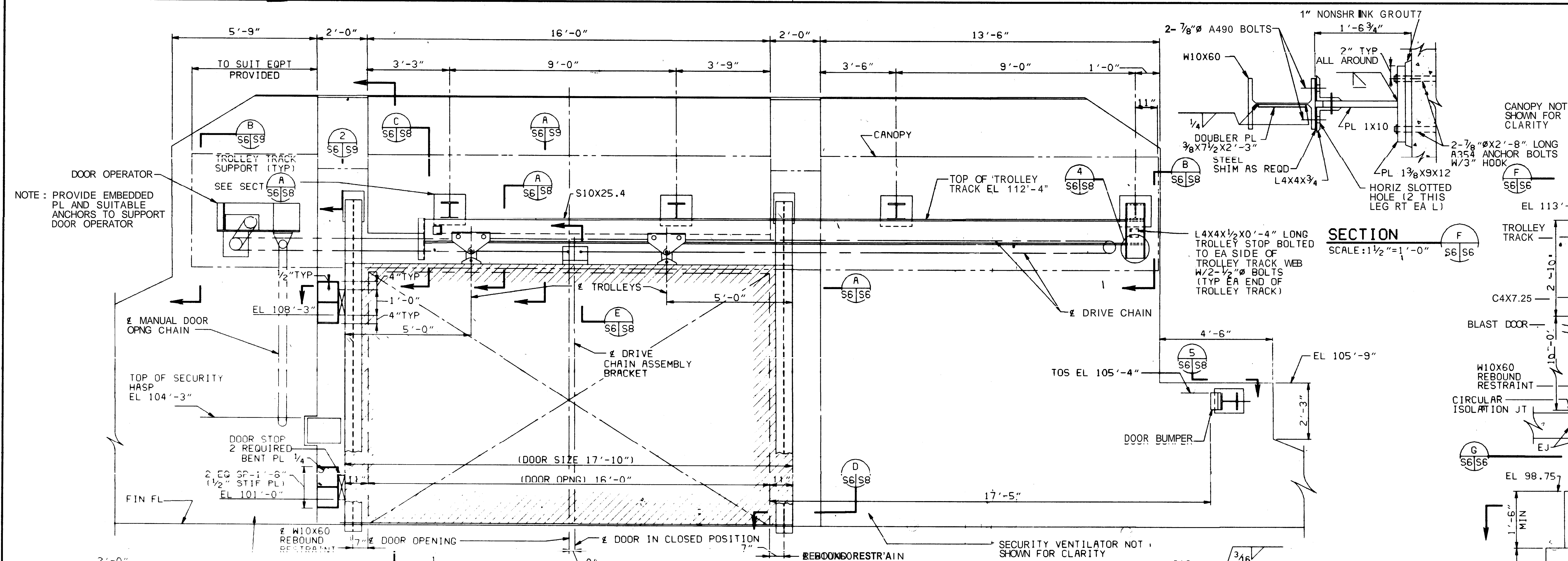
- NOTES:
- VERTICAL SPLICES IN DOOR PLATES, IF USED, SHALL BE SPACED APART A MIN OF 5'-0", AND SHALL BE CONTINUOUS FOR FULL DOOR HEIGHT.
 - LOCATIONS OF ALL SPLICES IN DOOR PLATES SHALL BE SHOWN ON SHOP DRAWINGS.



CHECK GRAPHIC SCALES BEFORE USING

DESIGN		DEPARTMENT OF THE NAVY	
DESIGNED BY	CHK'D BY	NAVAL FACILITIES ENGINEERING COMMAND	
		200 STOVALL STREET ALEXANDRIA, VA. 22332	
SUBMITTED BY		STANDARD	
		D CIRCUL	
DATE		ARCH MAGAZINE	
NORTH		DOOR ELEVATIONS, SECTIONS AND DETAILS	
		REBOUND OPTION FOR 10'-0" WIDE DOOR OPNG	
NAVFAC		SIZE CODE IDENT. NO. NAVFAC DRAWING NO.	
		F 80091	
		1404382	
		CONSTR. CONTR. NO.	
		SCALE AS NOTED SPEC. NFSS-M21 SHEET 55 OF	

REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED



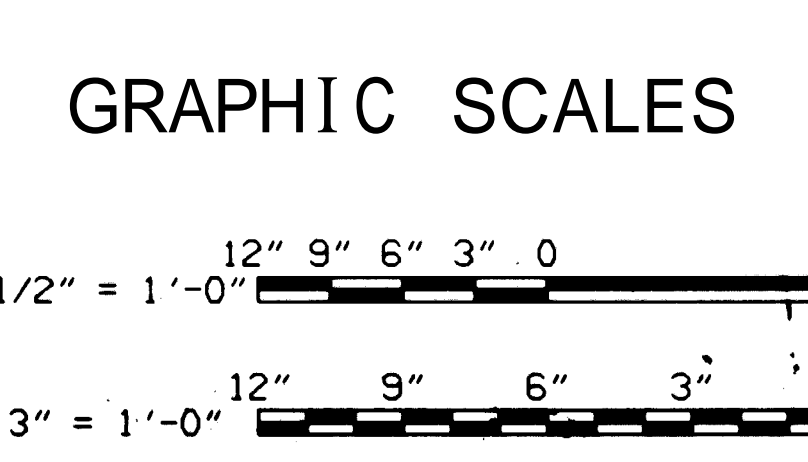
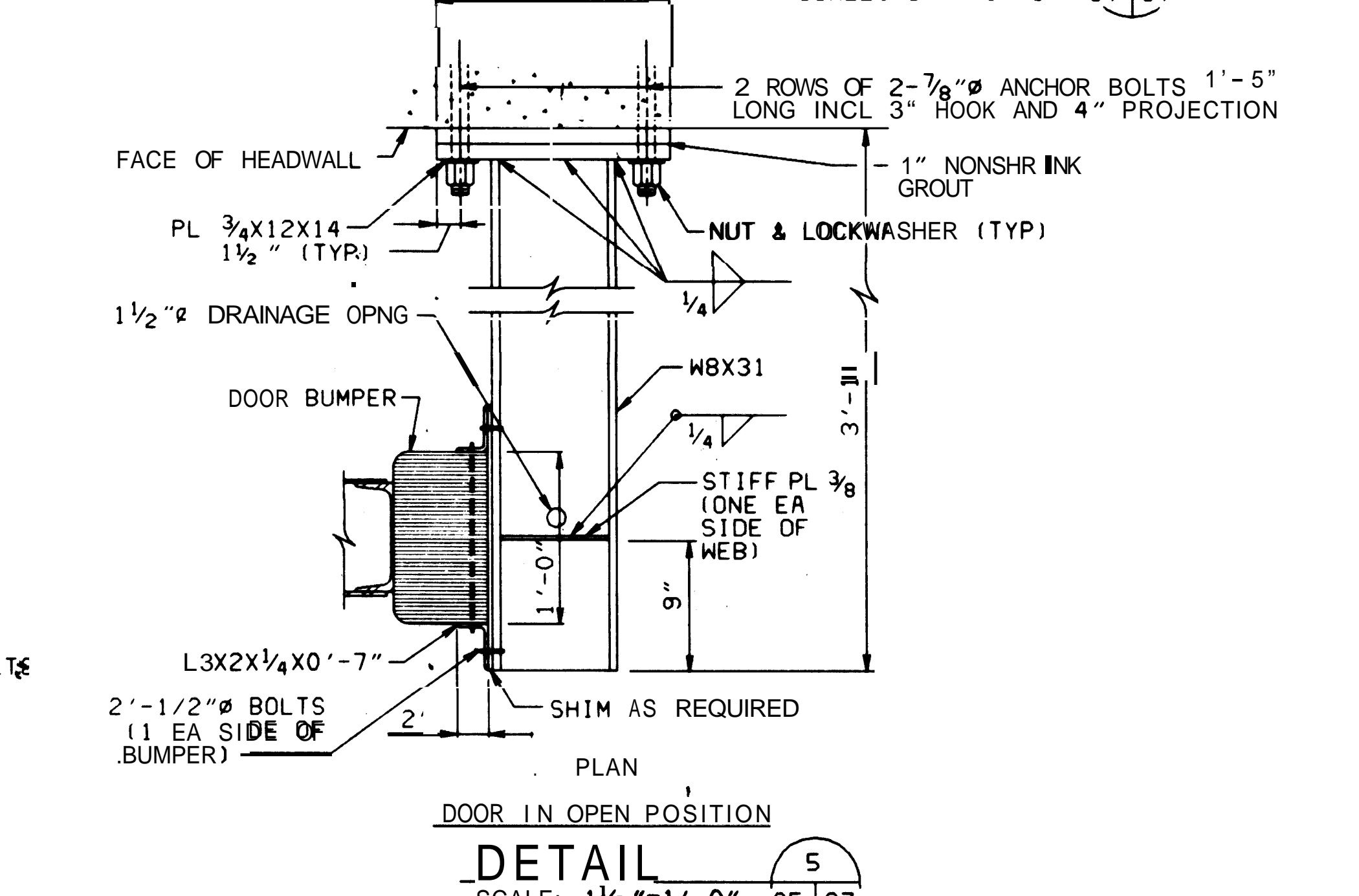
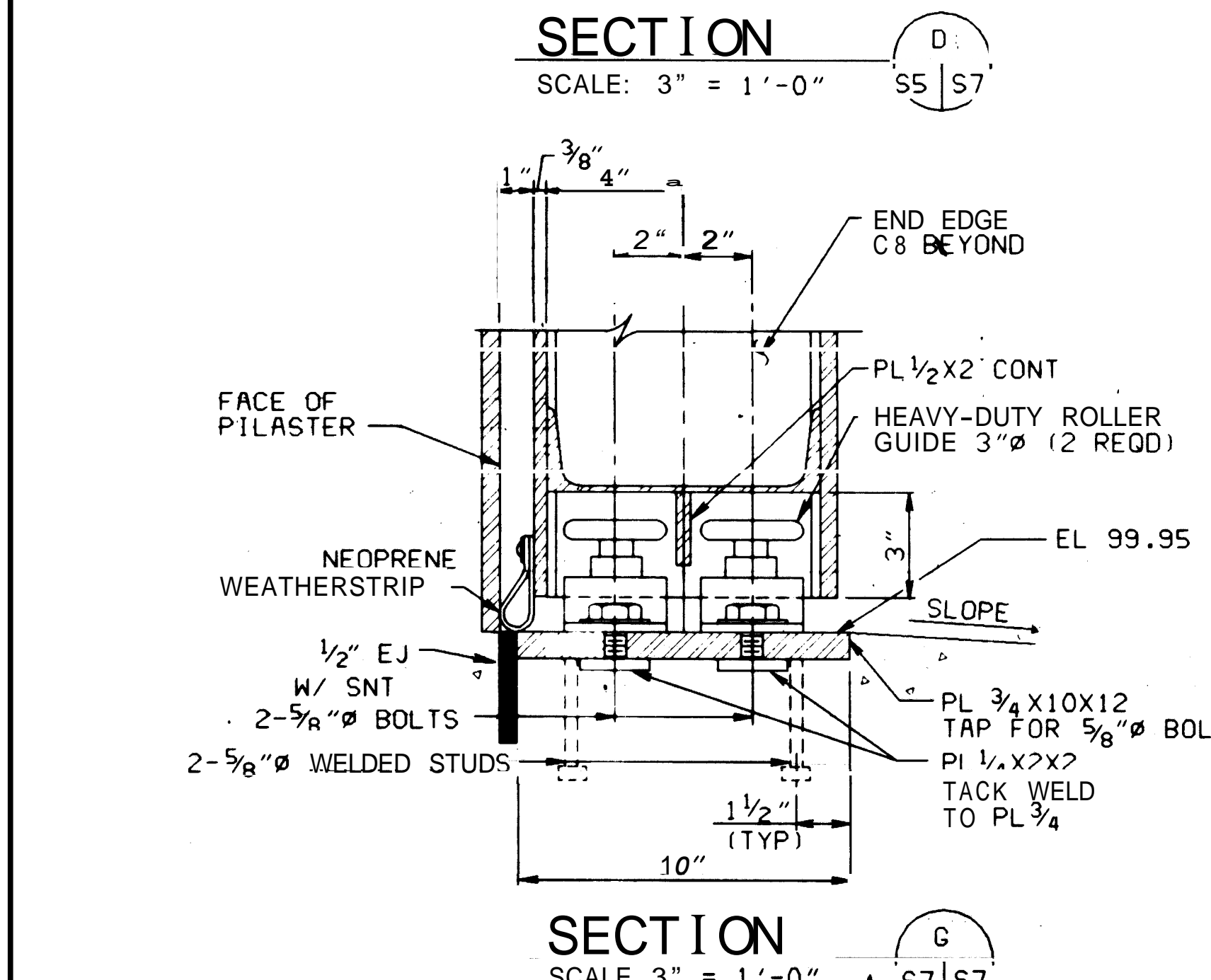
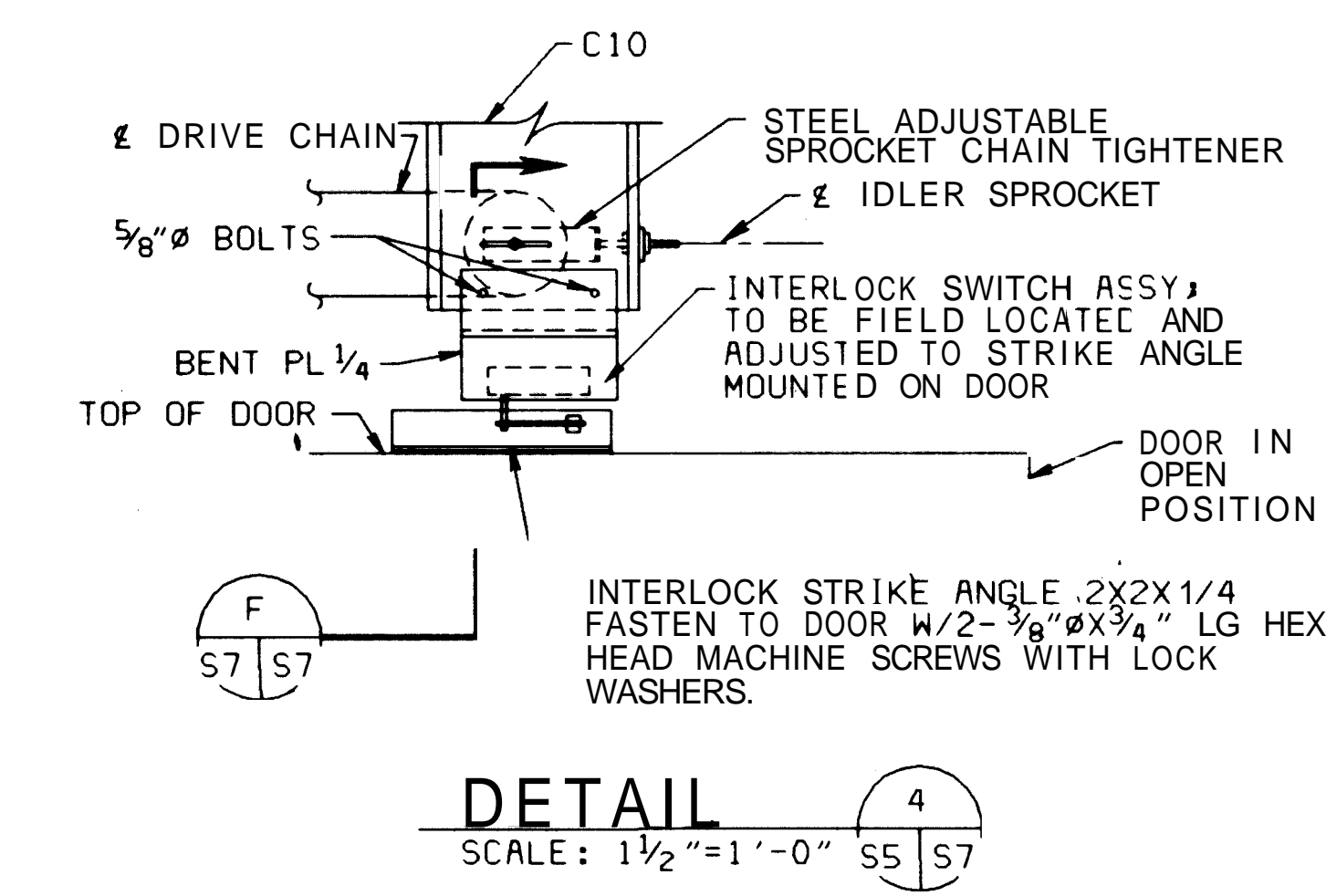
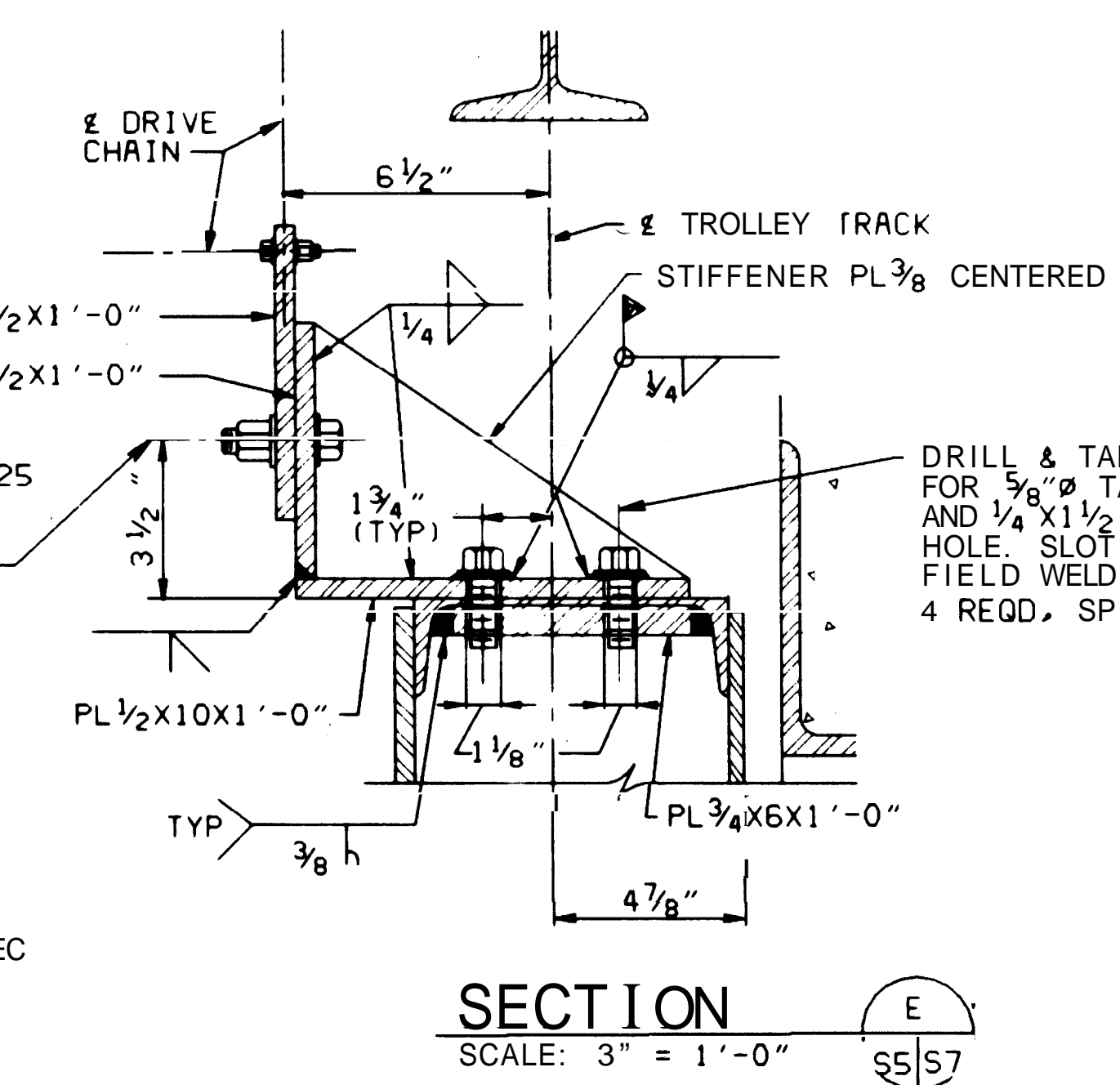
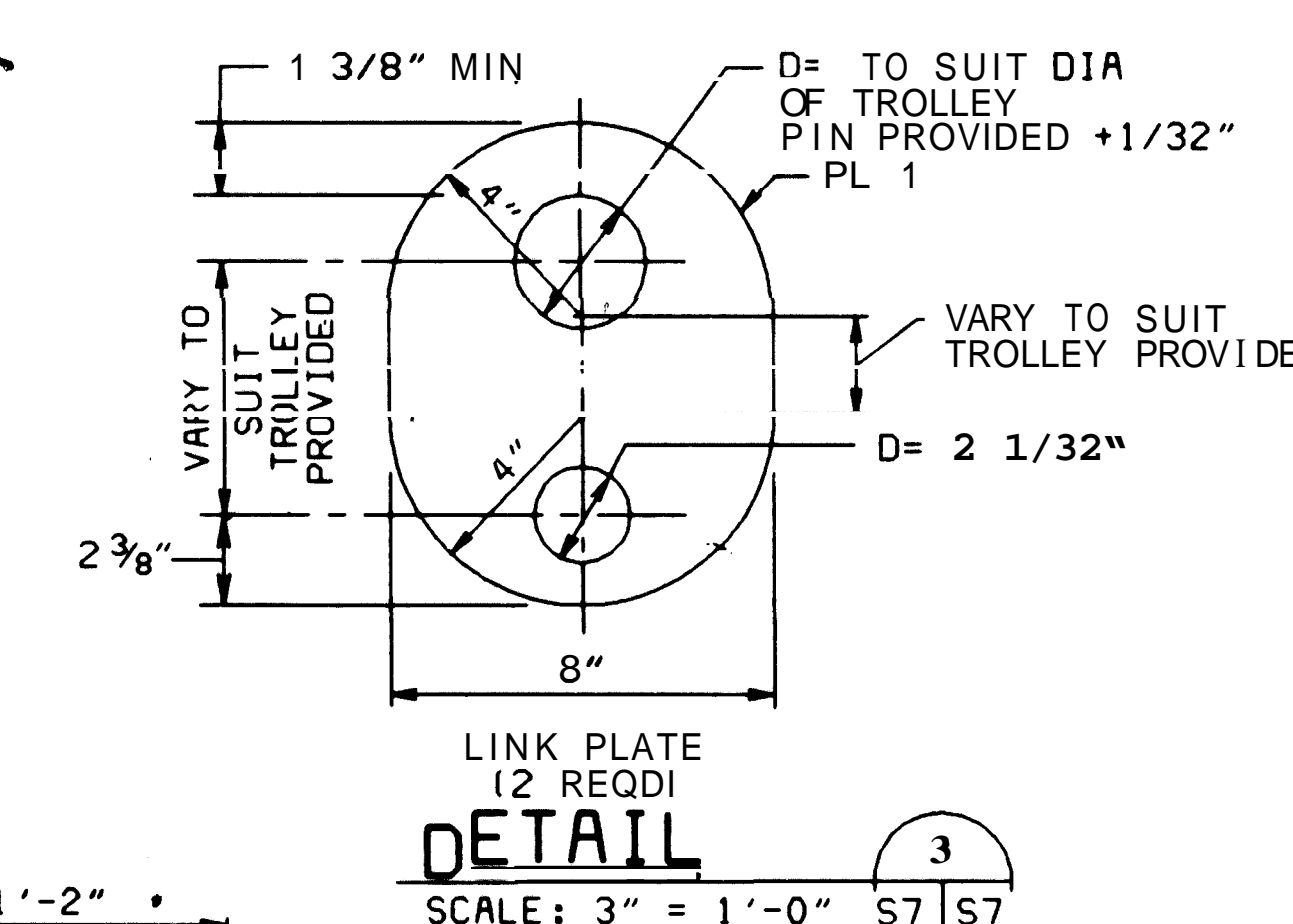
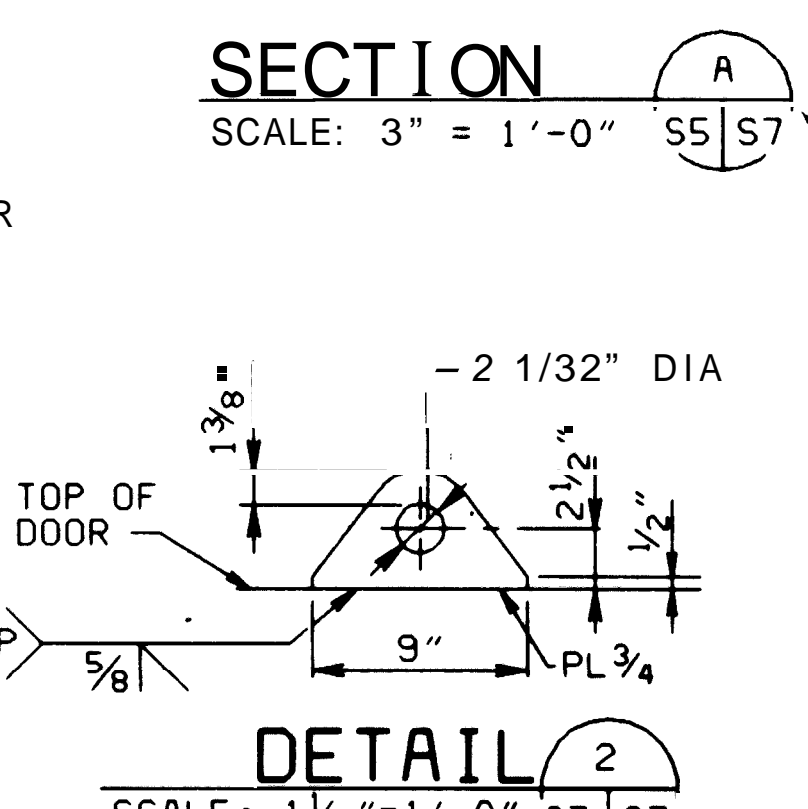
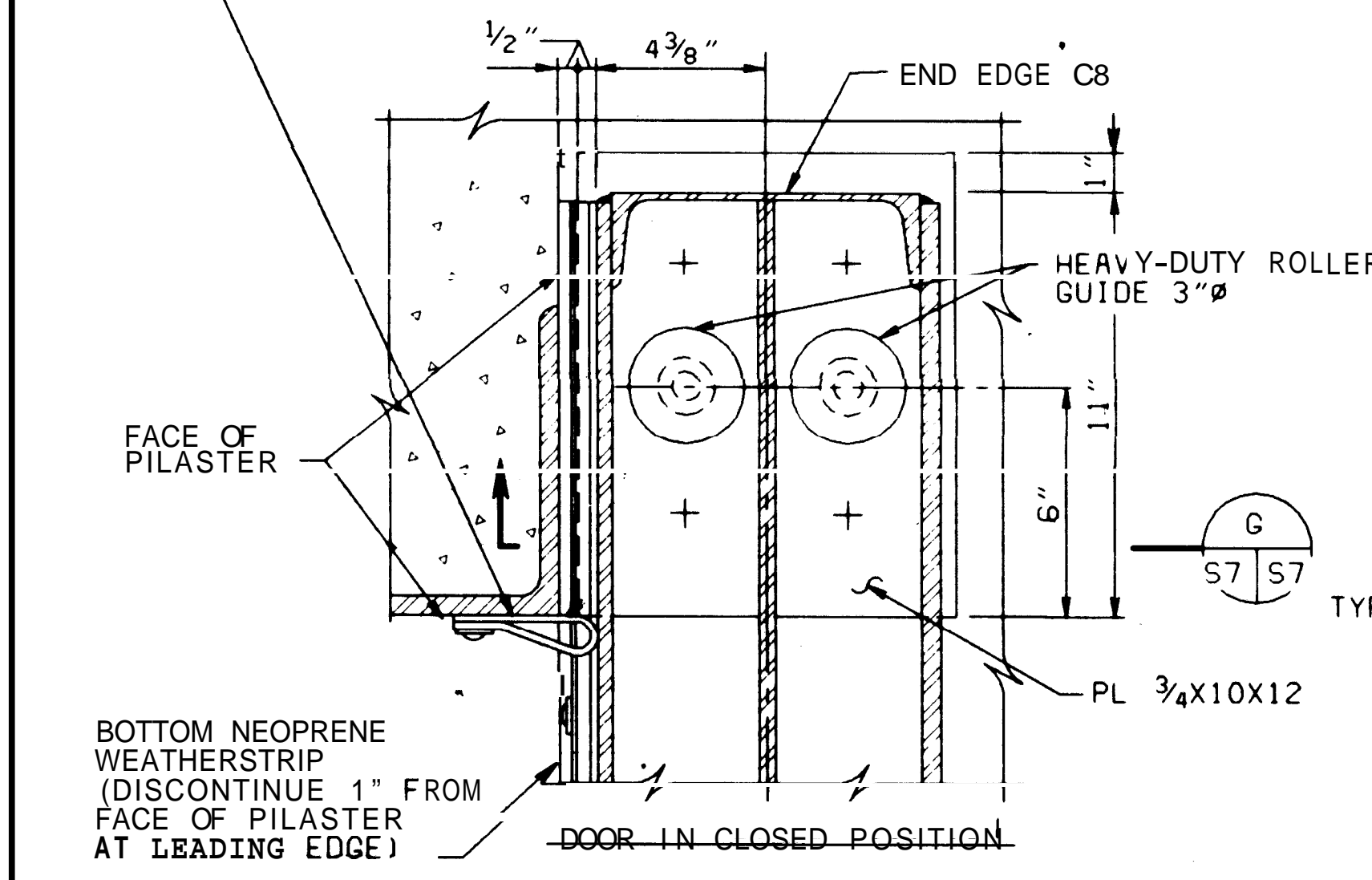
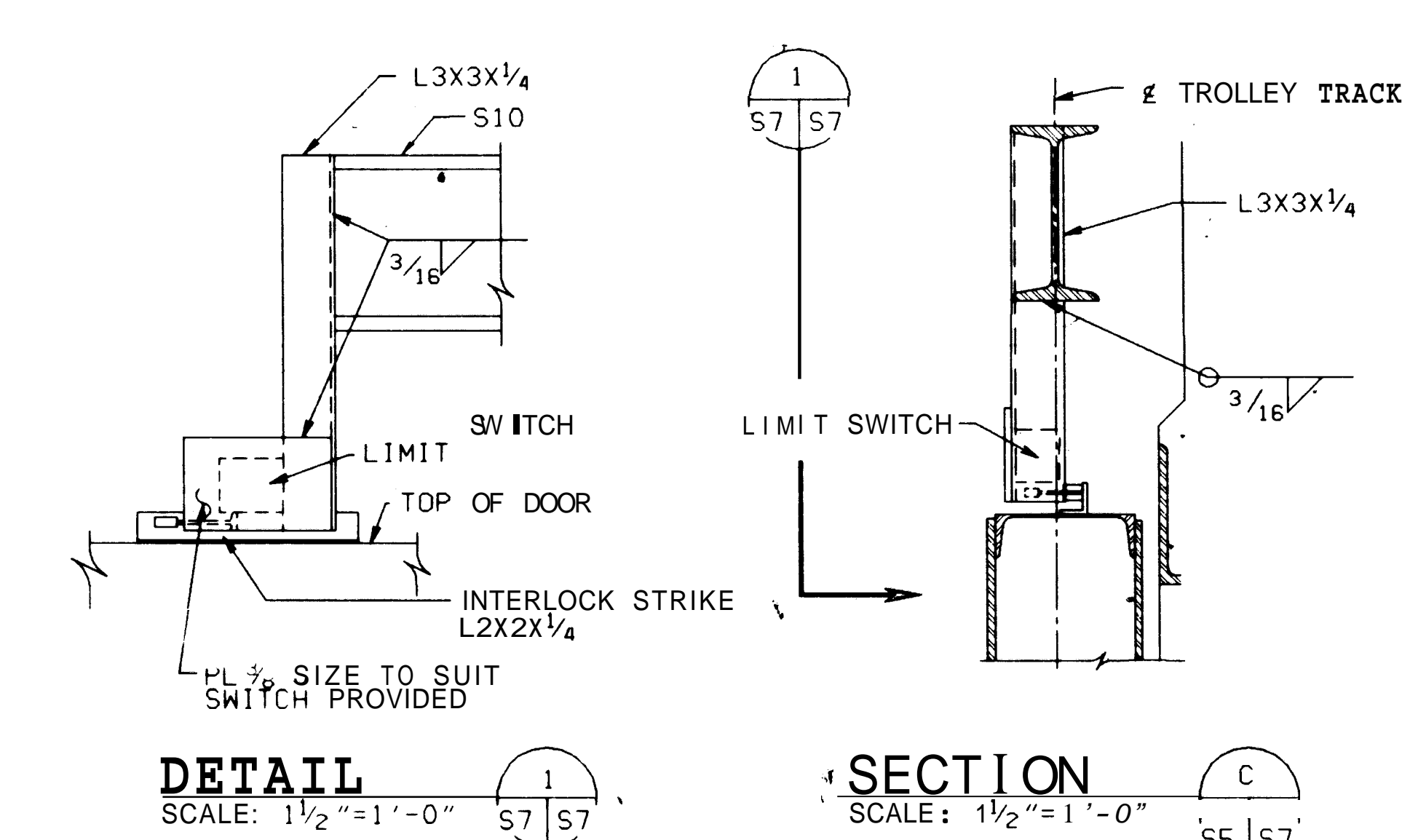
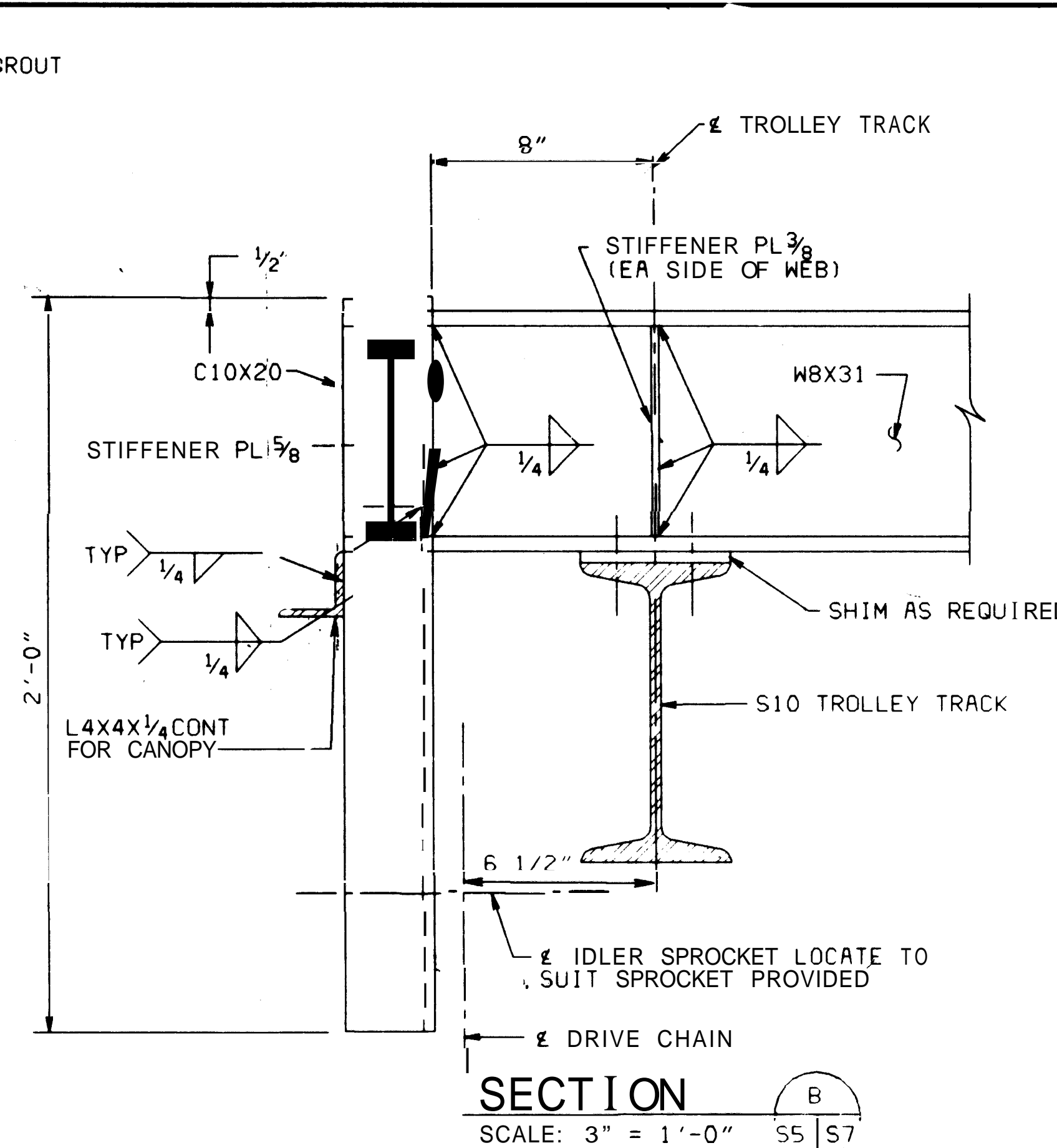
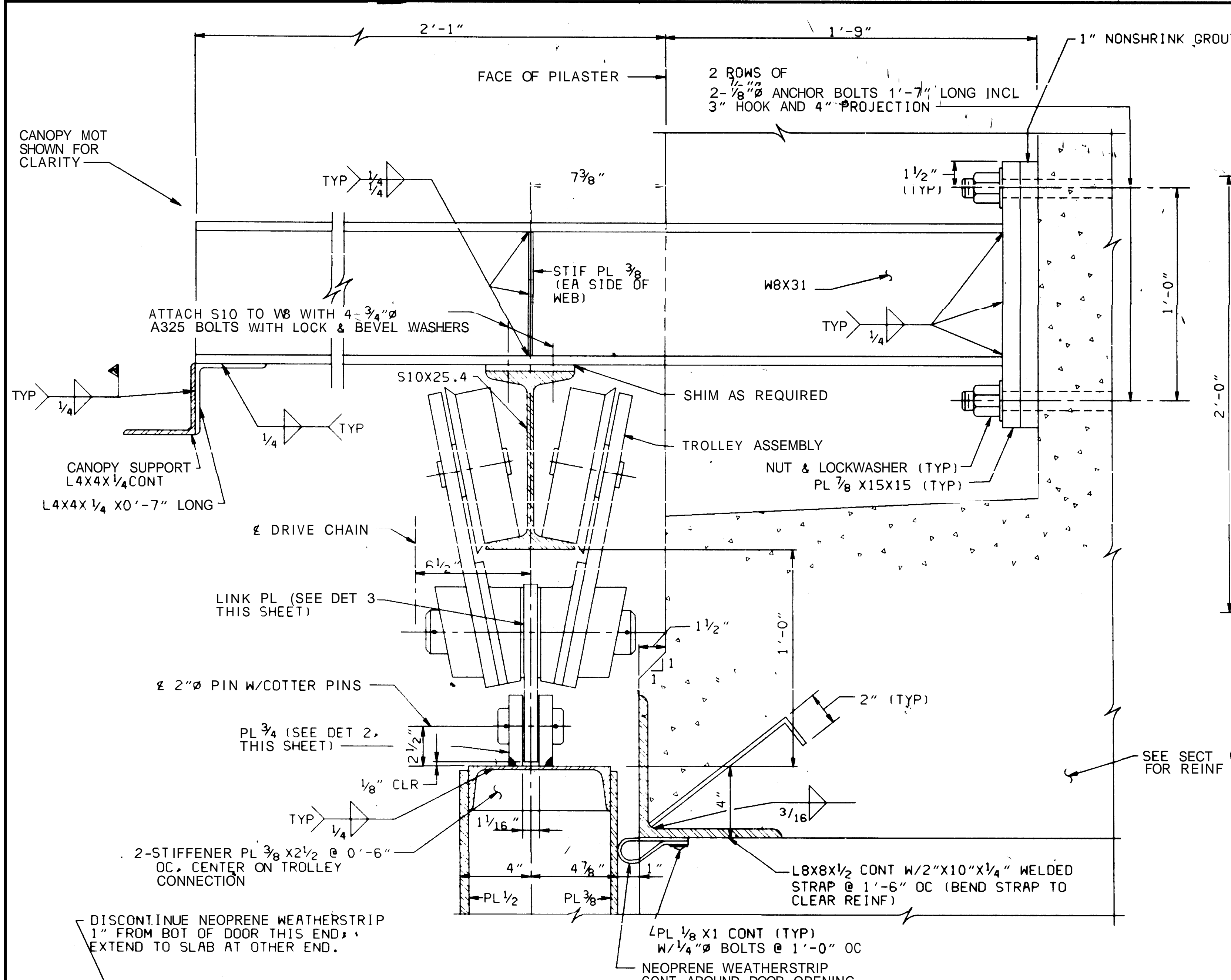
- NOTES:
- VERTICAL SPLICES IN DOOR PLATES, IF USED, SHALL BE SPACED APART A MIN OF 5'-0", AND SHALL BE CONTINUOUS FOR FULL DOOR HEIGHT.
 - LOCATIONS OF ALL SPLICES IN DOOR PLATES SHALL BE SHOWN ON SHOP DRAWINGS.

NAVFAC STANDARD DRAWING PRODUCED BY:
HAYES, SEAY, MATTERN AND MATTERN
ARCHITECTS - ENGINEERS
ROANOKE, VIRGINIA

CHECK GRAPHIC SCALES BEFORE USING

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND 200 STOVALL STREET ALEXANDRIA, VA. 22332		STANDARD EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE STRUCTURAL DOOR ELEVATION, SECTIONS AND DETAILING REBOUND OPTION FOR 16'-0" WIDE	
DESIGNER: DR. A. J. CH. R. 10/28/80	SUPV. DR. CH. ENR. D. J. 10/28/80	DATE: 1-17-81	NO. 1404383
NAVY: 1-17-81	NAVY: 1-17-81	NAVY: 1-17-81	NAVY: 1-17-81
DATE: 1-17-81	DATE: 1-17-81	DATE: 1-17-81	DATE: 1-17-81
SCALE AS NOTED	SPEC. NFSS-M21	SHEET 56 OF	

REVISIONS			
LTR	DESCRIPTION	PREP'D BY/DATE	APPROVED



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
200 STOVALL STREET ALEXANDRIA, VA. 22334

STANDARD
EARTH-COVERED CIRCULAR COMPOSITE
ARCH MAGAZINE
STRUCTURAL
DOOR DETAILS
10'-0" WIDE DOOR OPENING

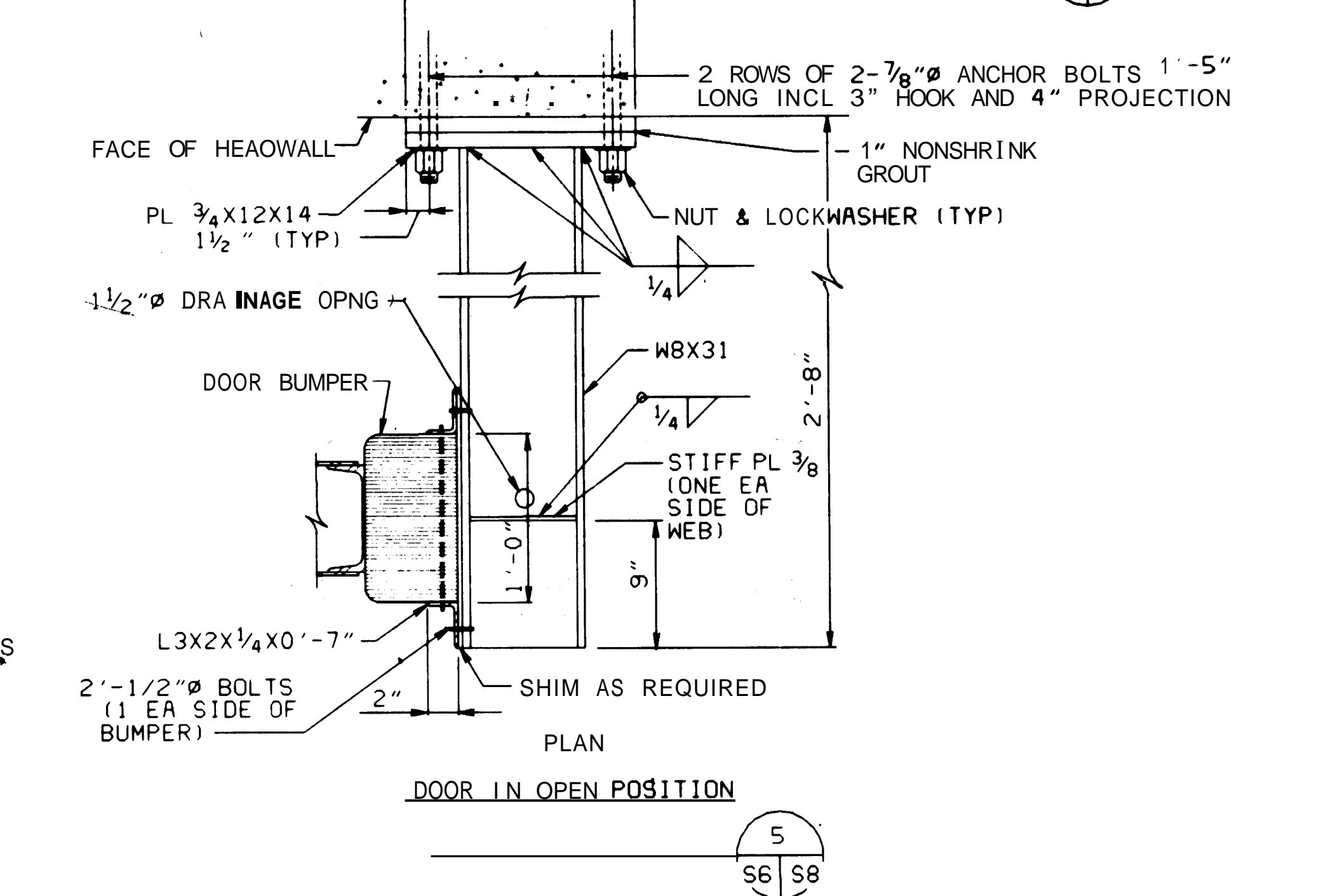
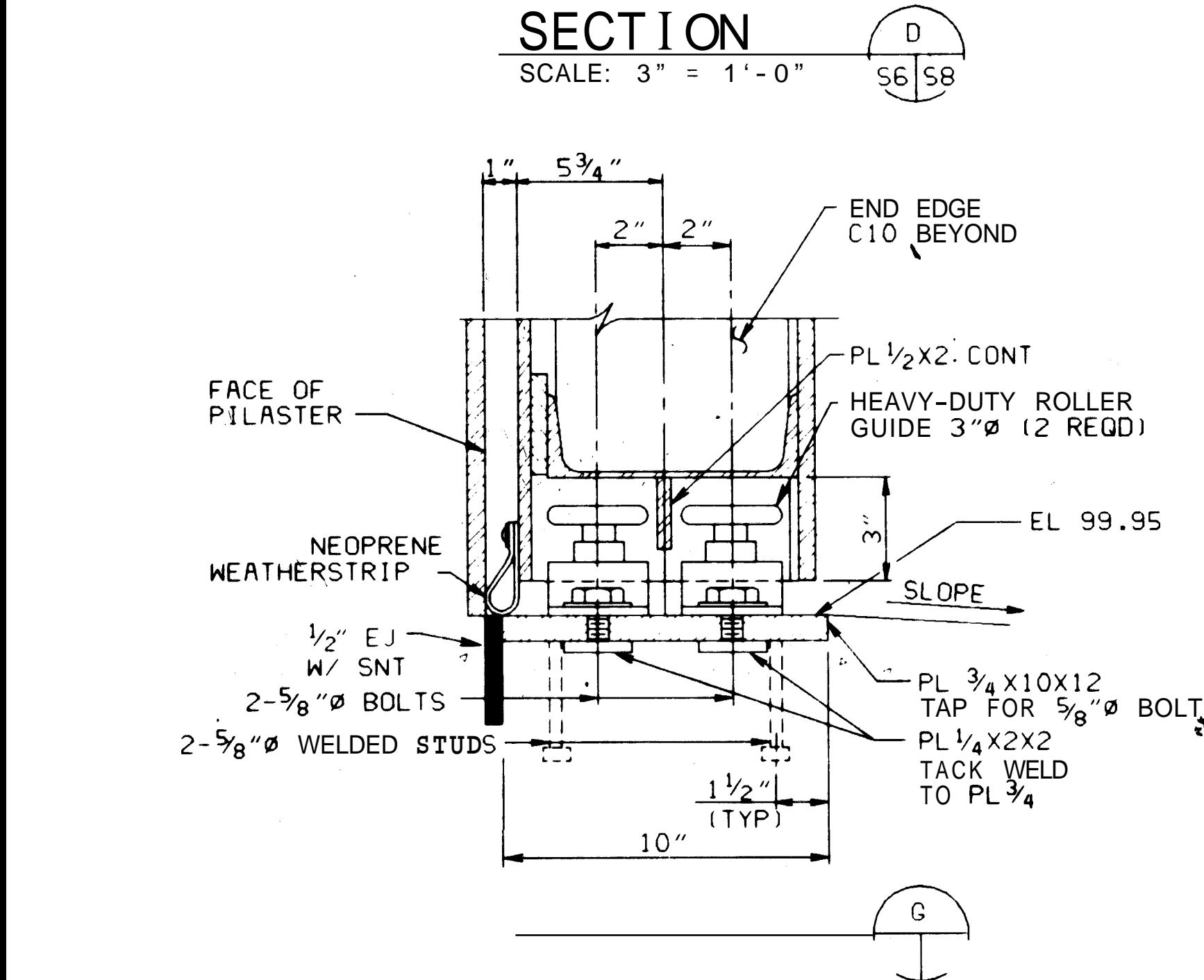
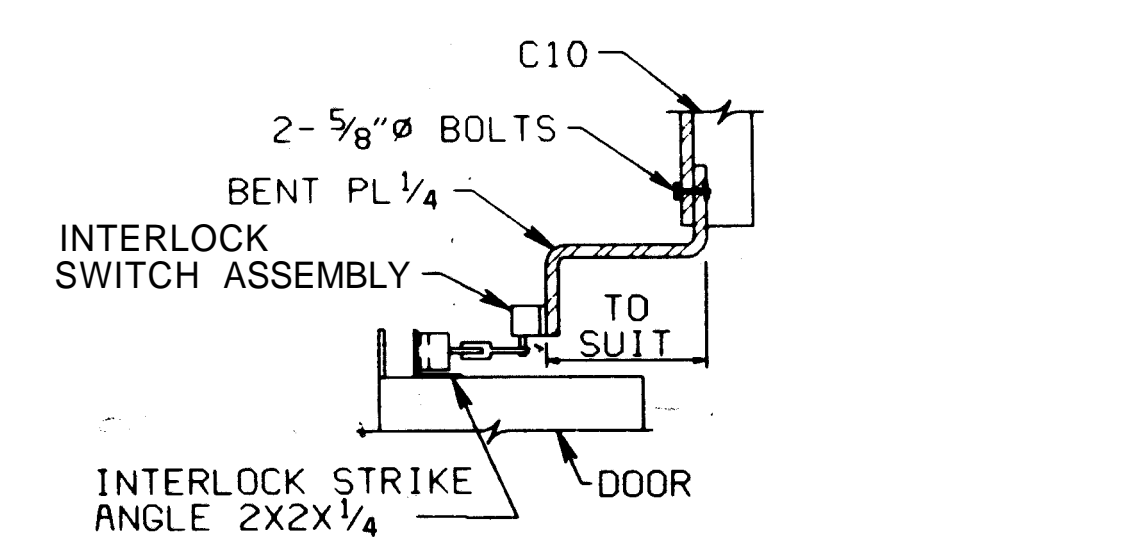
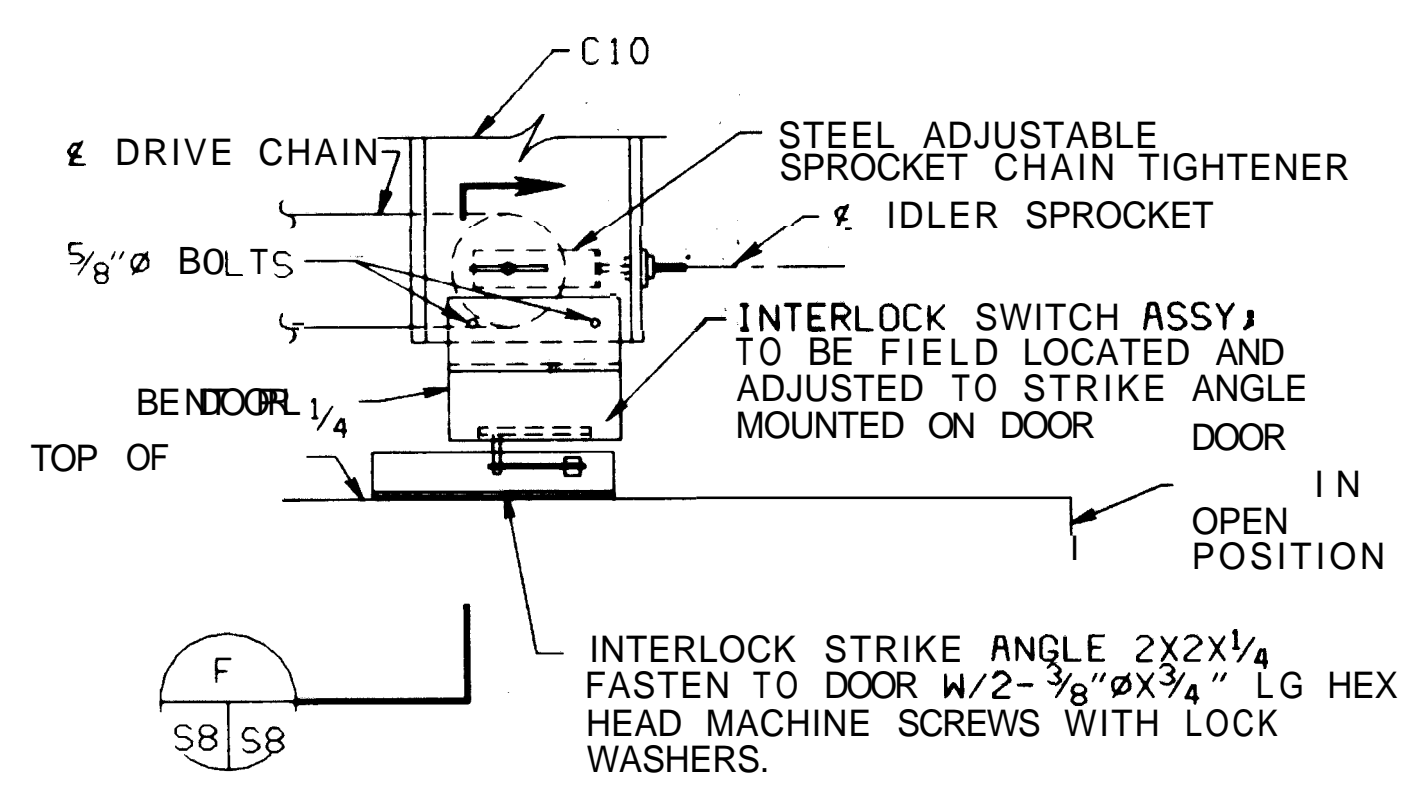
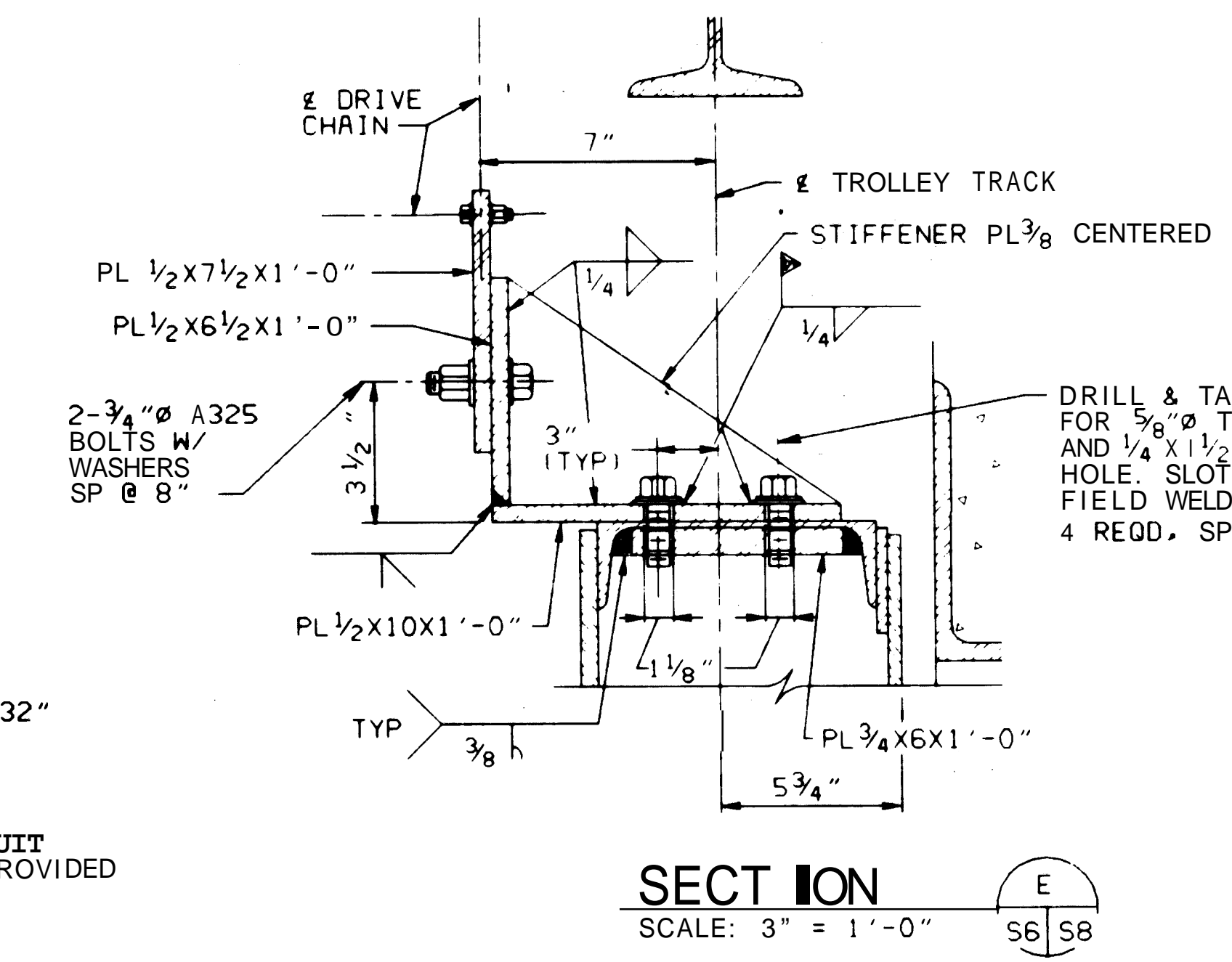
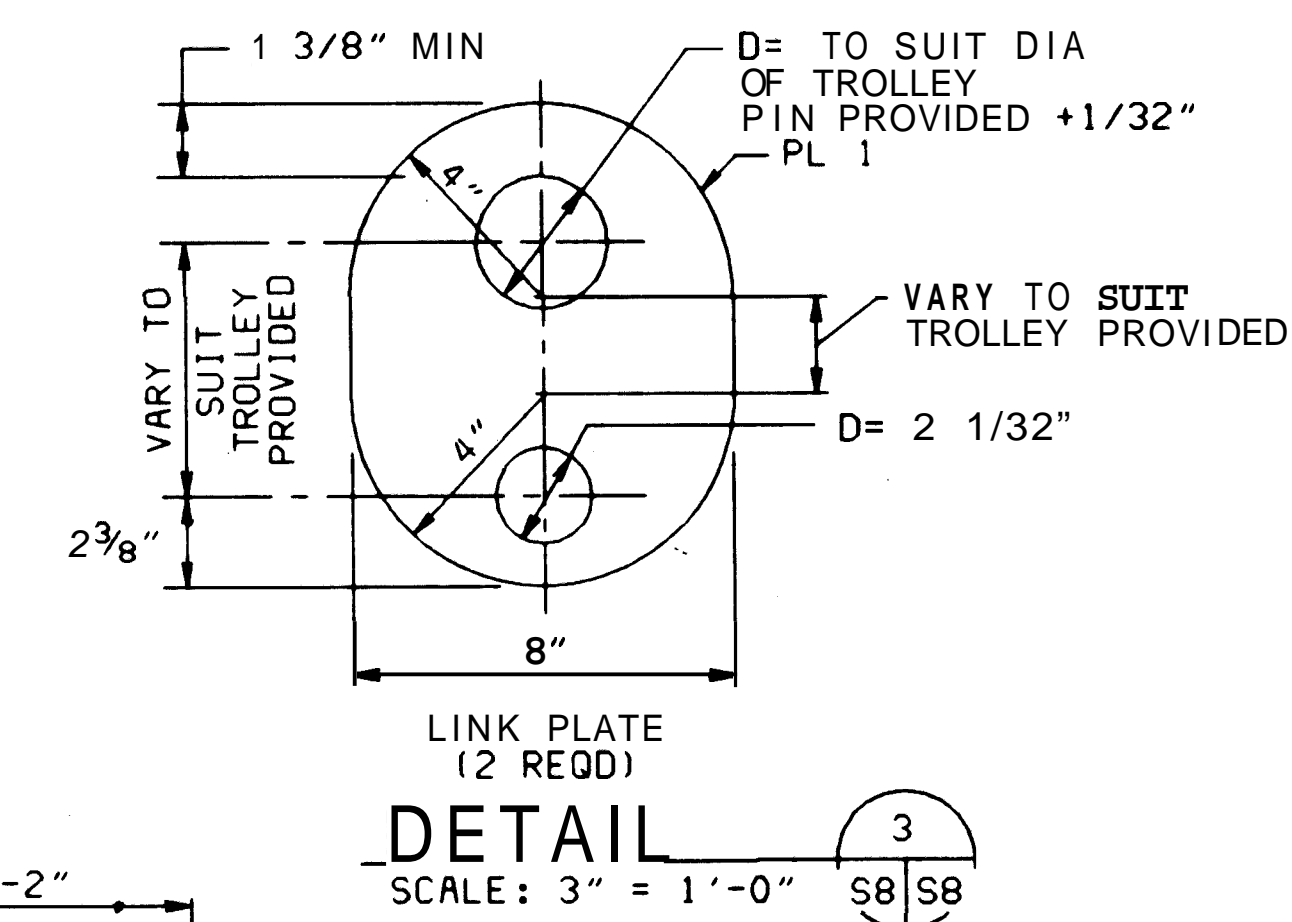
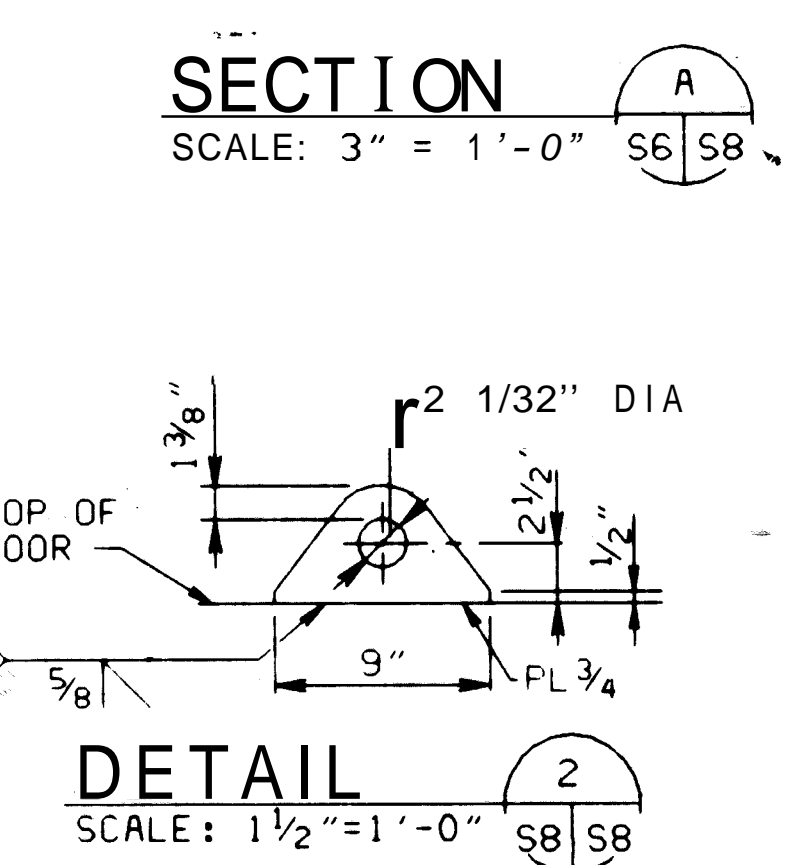
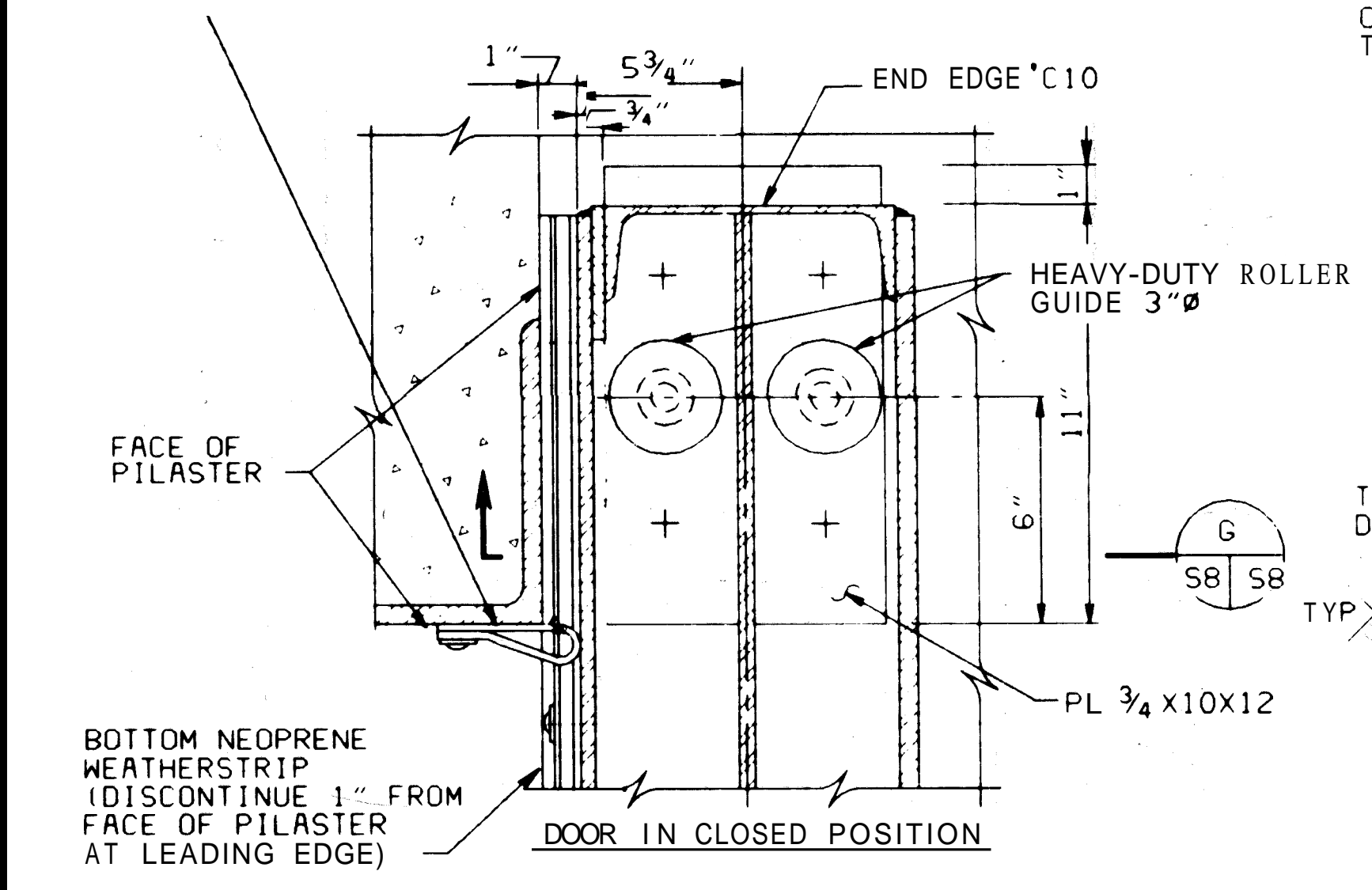
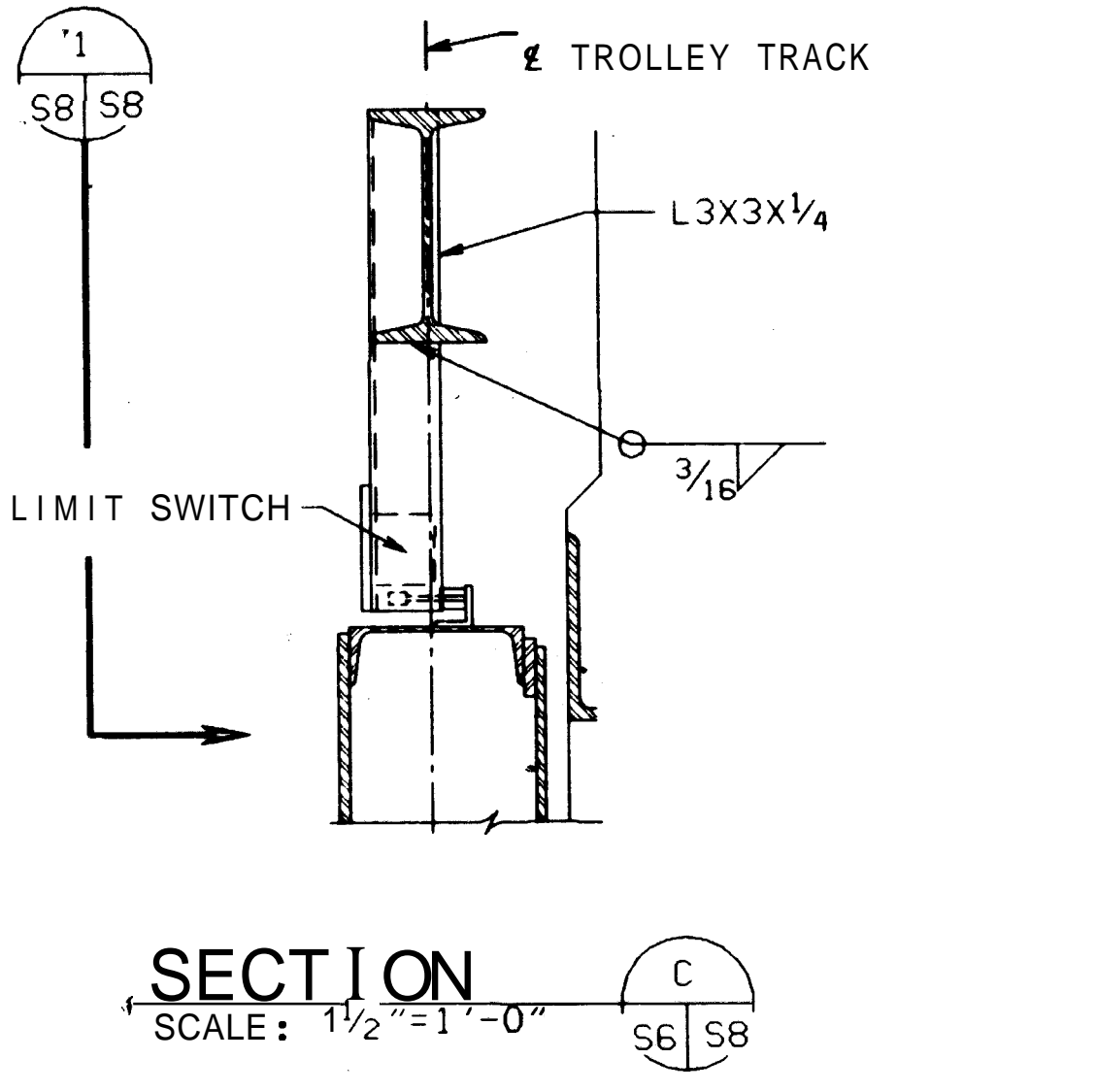
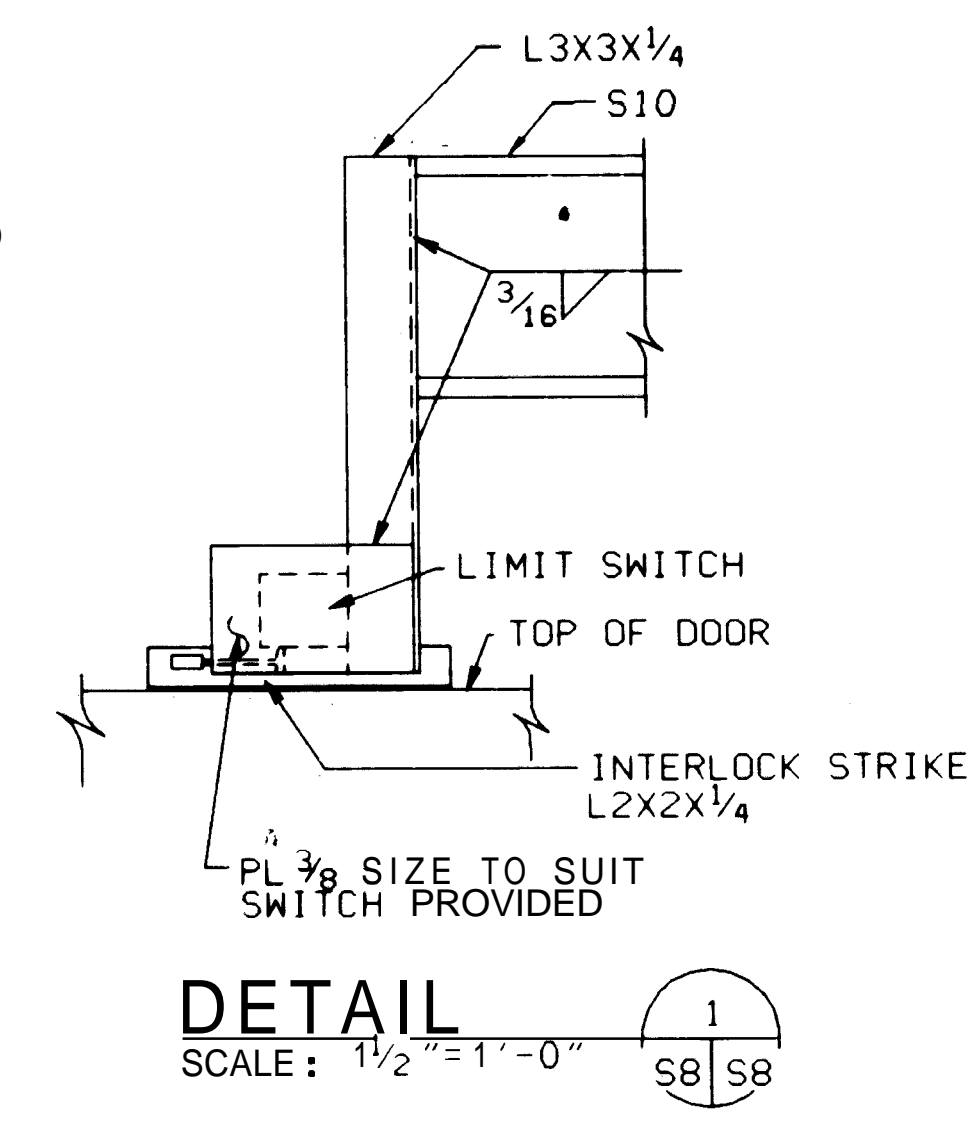
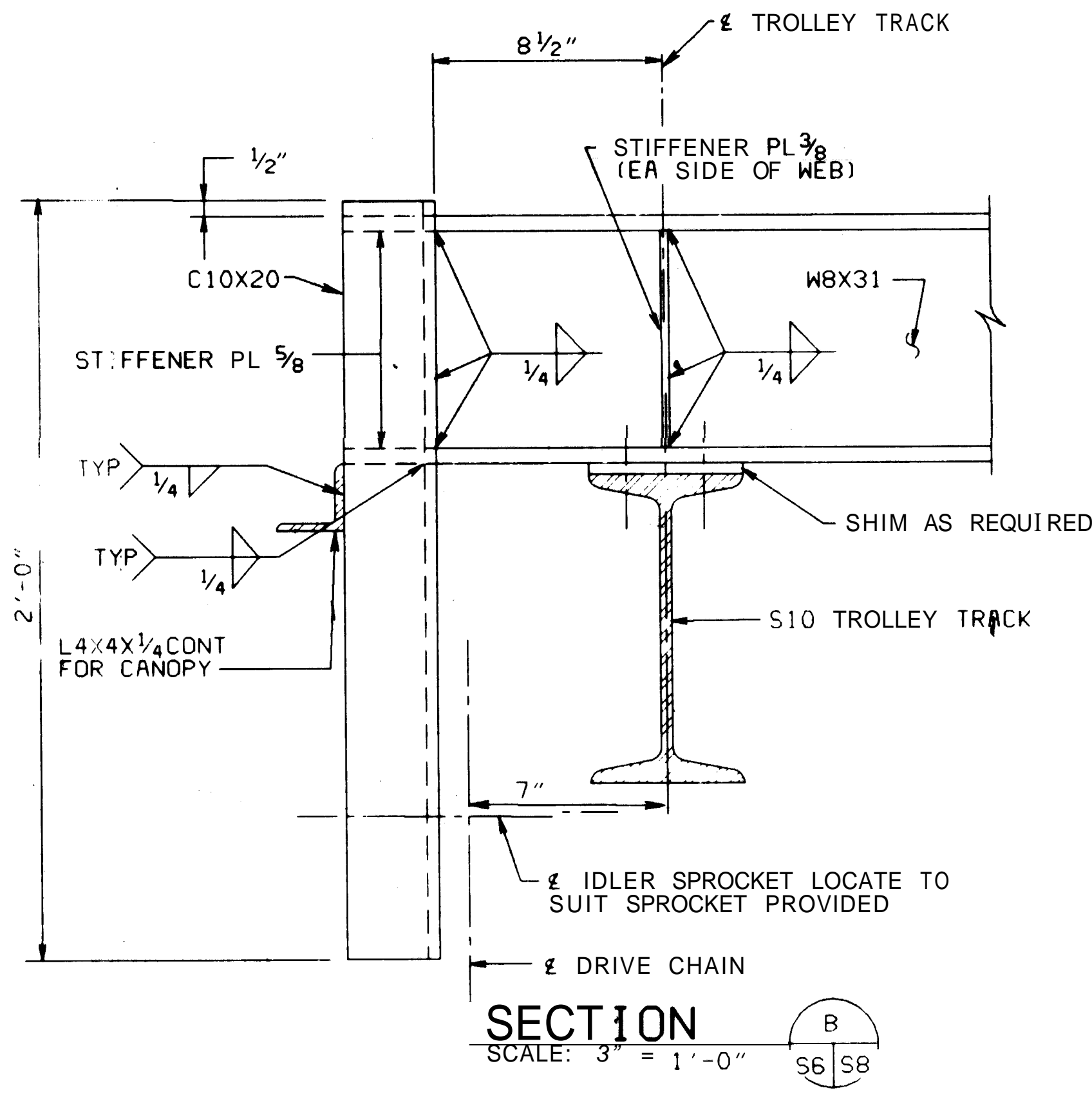
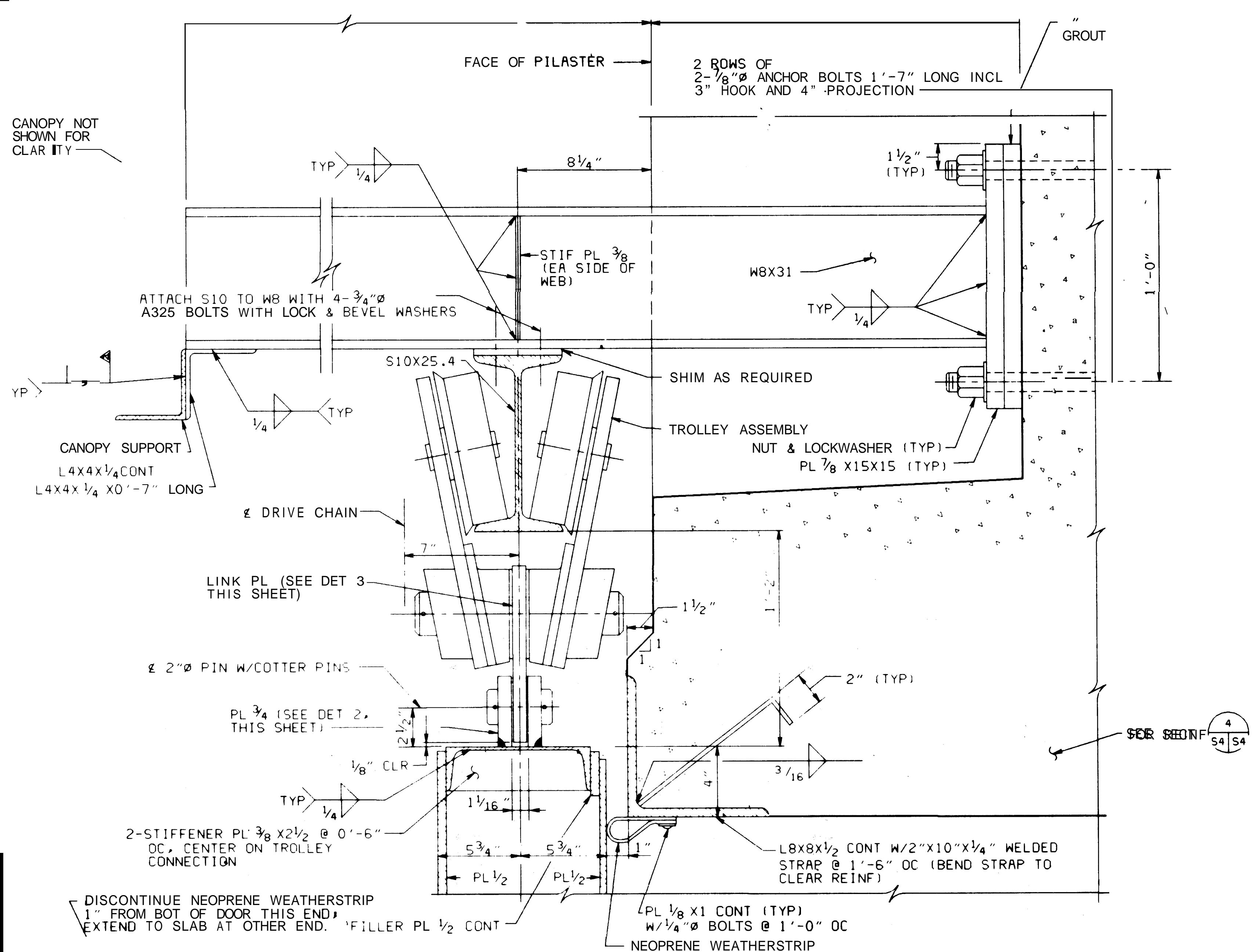
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CONSTR. CONTR. NO. 1404384

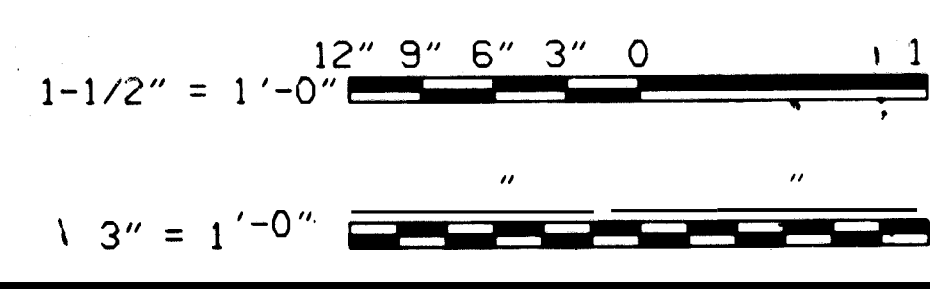
SCALE AS NOTED SPEC. NFS-21 SHEET S7 OF

DESIGN BY: DR. C. ALY CHK. REF. 252
SUBMITTED BY: CH. ENGR. DLT
DATE: 10/24/58
APPROVED: [Signature]
DATE: 1-14-59

REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED

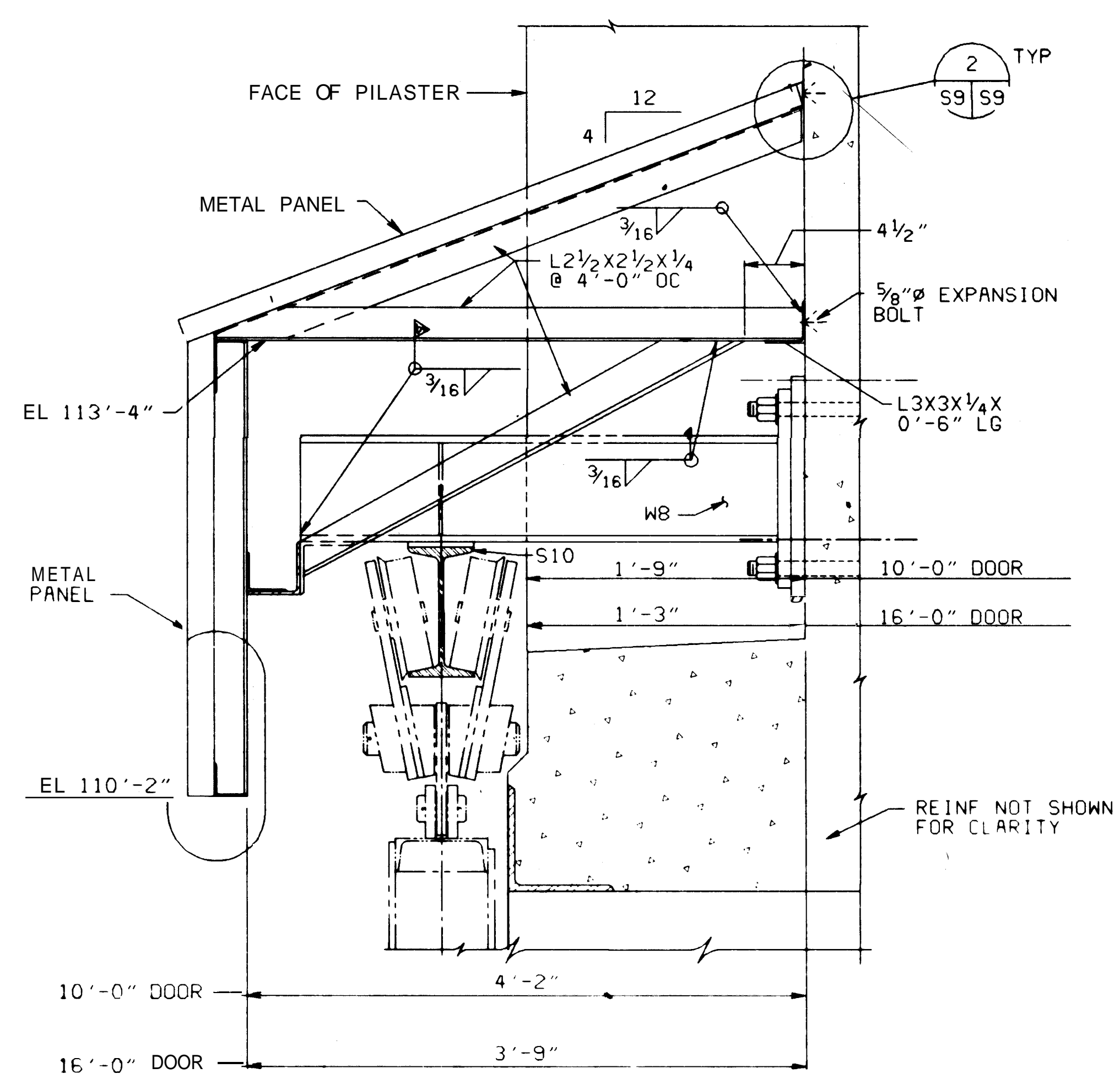


GRAPHIC SCALES

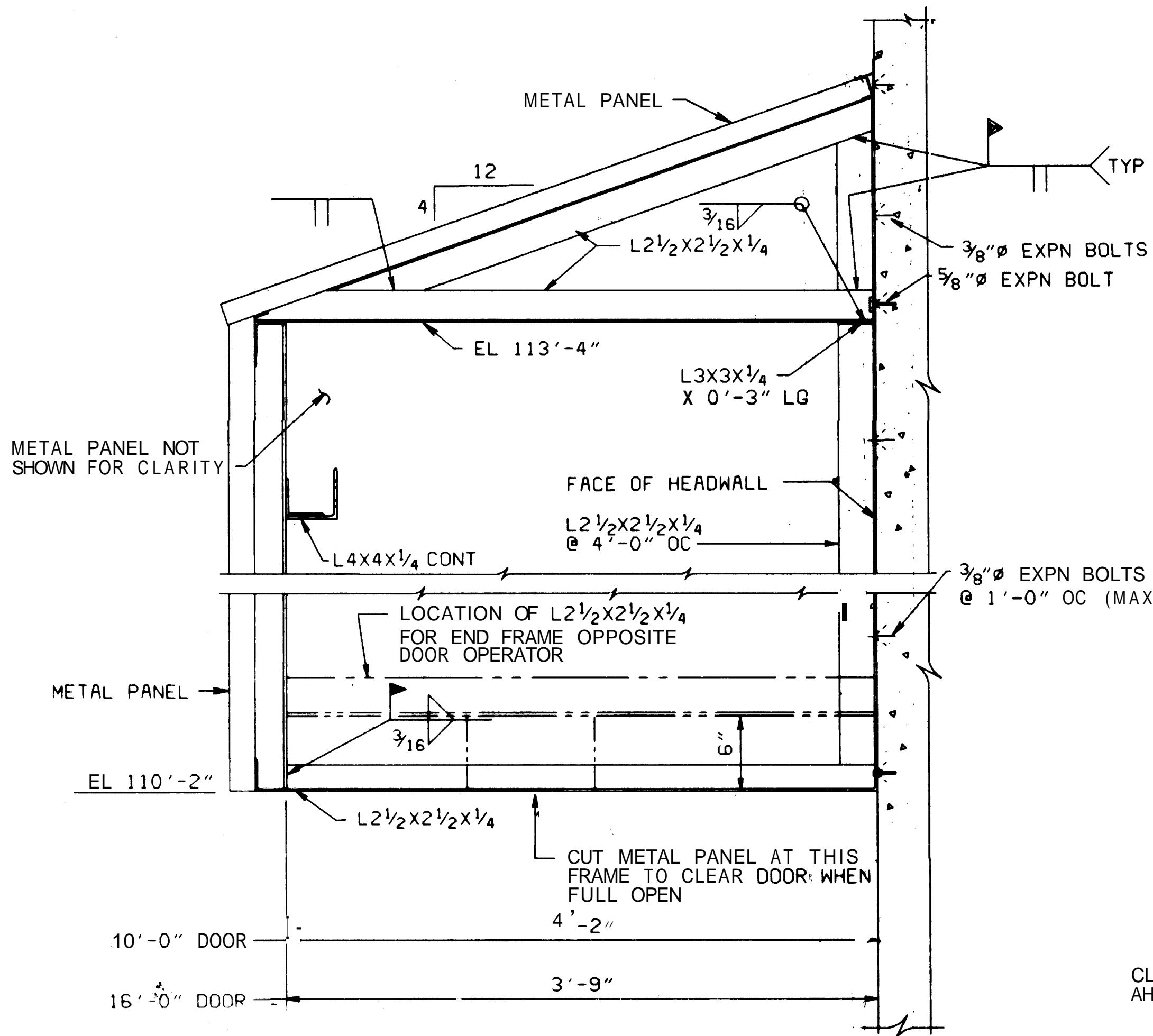


	DSON: <i>DLJ</i> DR: <i>AL</i> CHK: <i>DLJ/BSB</i> SUPV: <i>DLJ</i> CH ENGR: <i>DLJ</i> SUBMITTED BY: <i>VP</i> DATE: <i>10/14/86</i> TITLE: <i>DOOR DETAILS</i> NORTHING: <i>DLJ</i> NO: <i>10/14/86</i> DATE: <i>10/14/86</i>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND 200 STOVALL STREET ALEXANDRIA, VA. 22304	
	NAVFAC: <i>DLJ</i> RVD: <i>DLJ</i> DATE: <i>10/14/86</i>	STANDARD EARTH-COVERED CIRCULAR COMPOSITE AIRSTRUM/BAZARINE	
	APPROVED: <i>DLJ</i> DATE: <i>10/14/86</i> CHECKED: <i>DLJ</i> DATE: <i>10/14/86</i>	DOOR DETAILS 16'-0" WIDE DOOR OPENING SIZE CODE IDENT. NO. NAVFAC DRAWING NO. CONSTR. CONTR. NO. 1404385	
	SATISFACTORY TO DDESB DATE: <i>10/14/86</i> COMMENTS: <i>NAVY RECORD</i>	SCALE AS NOTED SPEC. NFSS-M21 SHEET 58 OF	

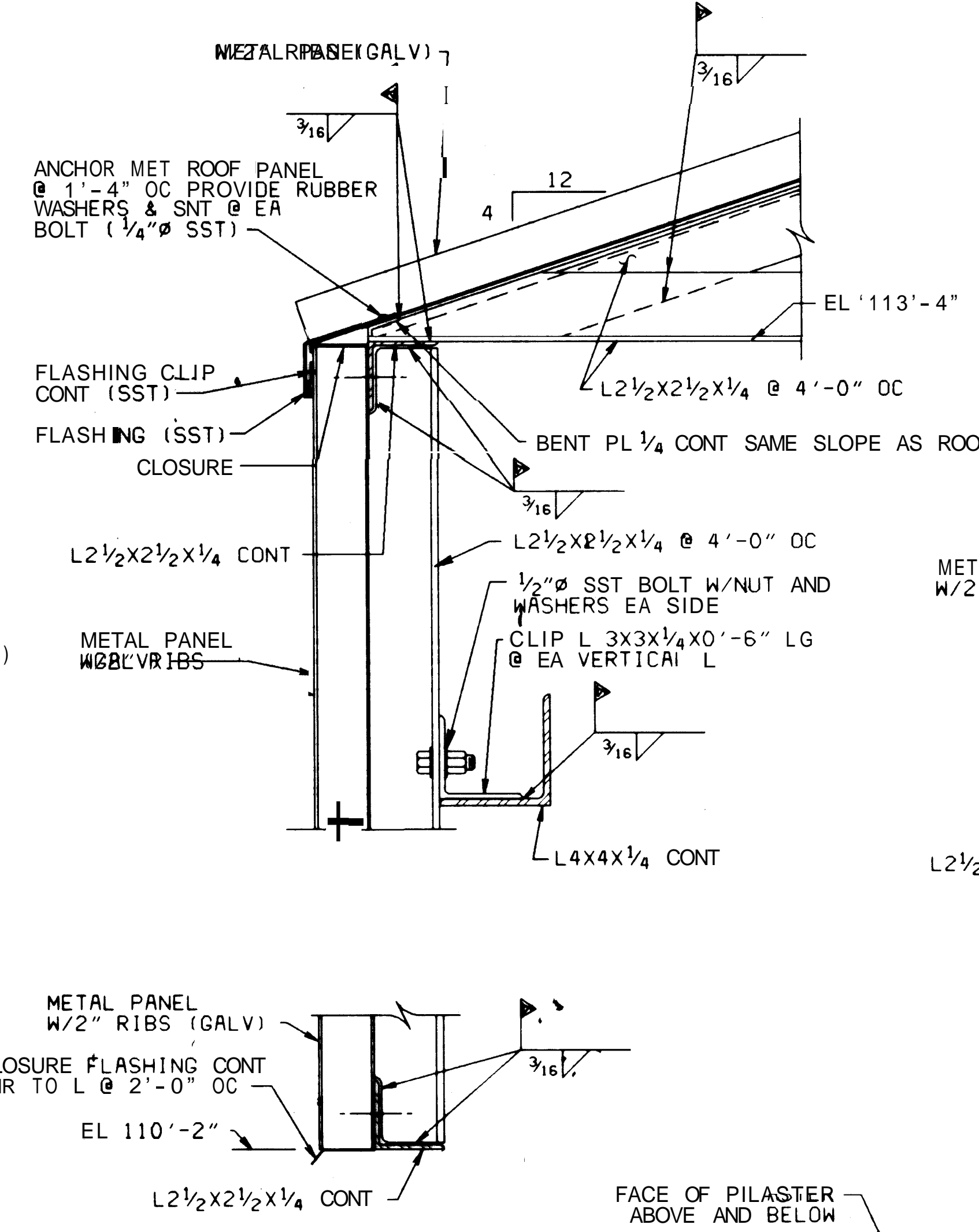
REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED



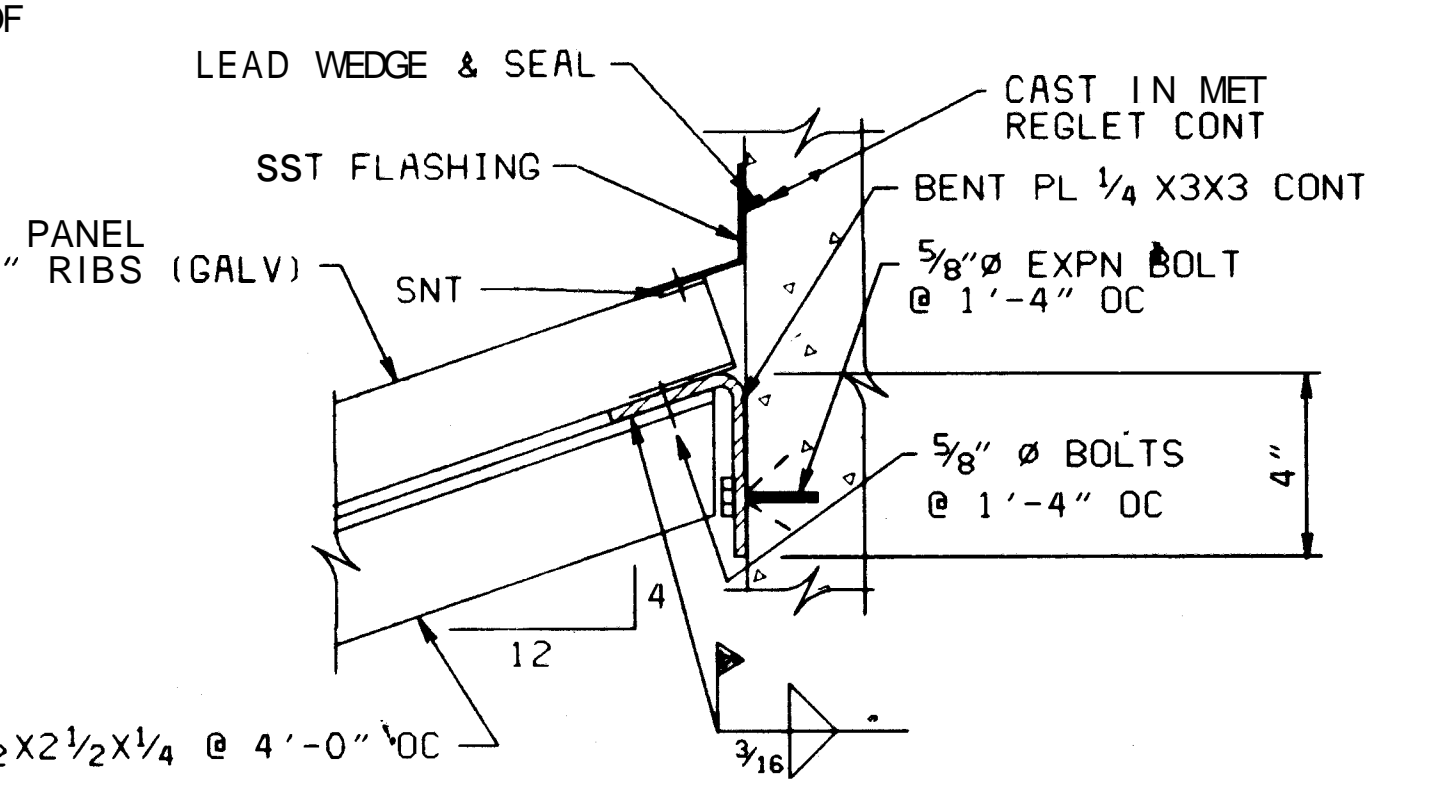
SECTION A
SCALE: 1 1/2"=1'-0"
S5, S9, S6



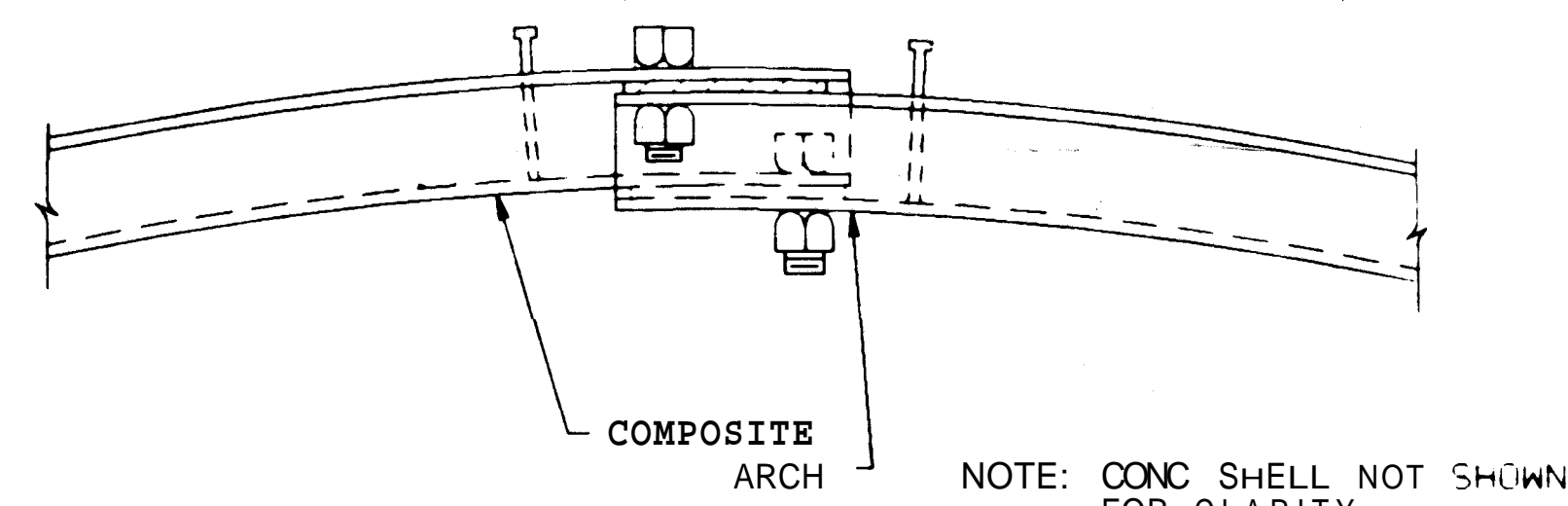
SECTION B
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S5, S9, S6



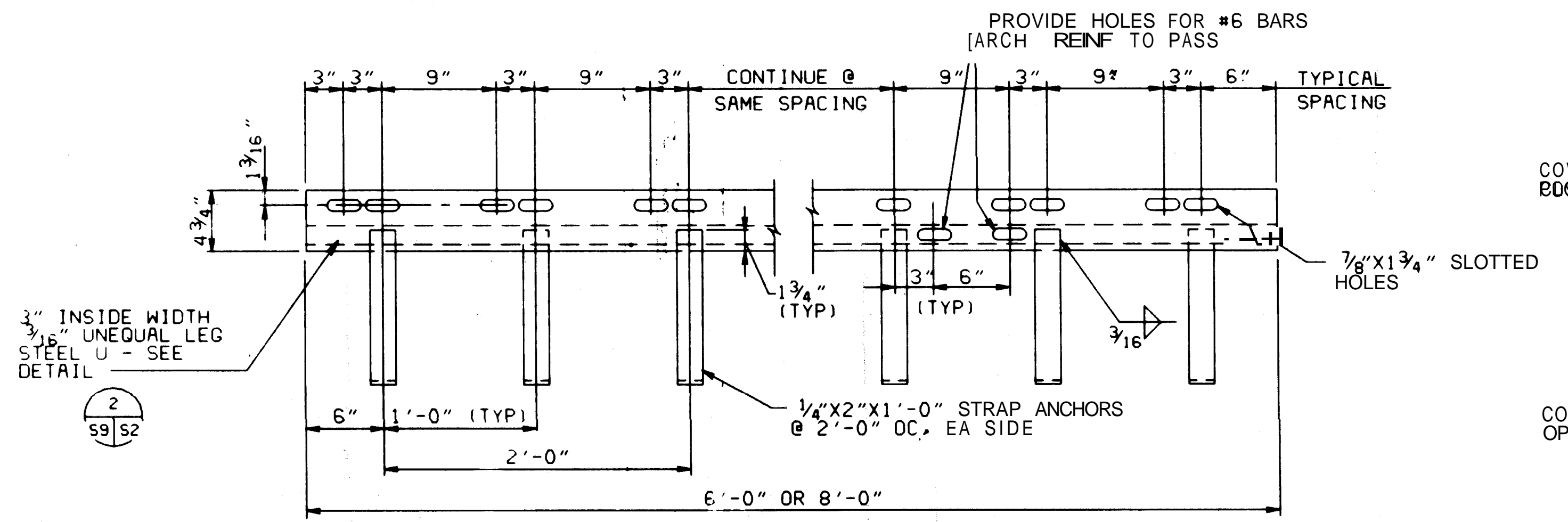
***DETAIL 1**
SCALE: 3"=1'-0"
S9, S9



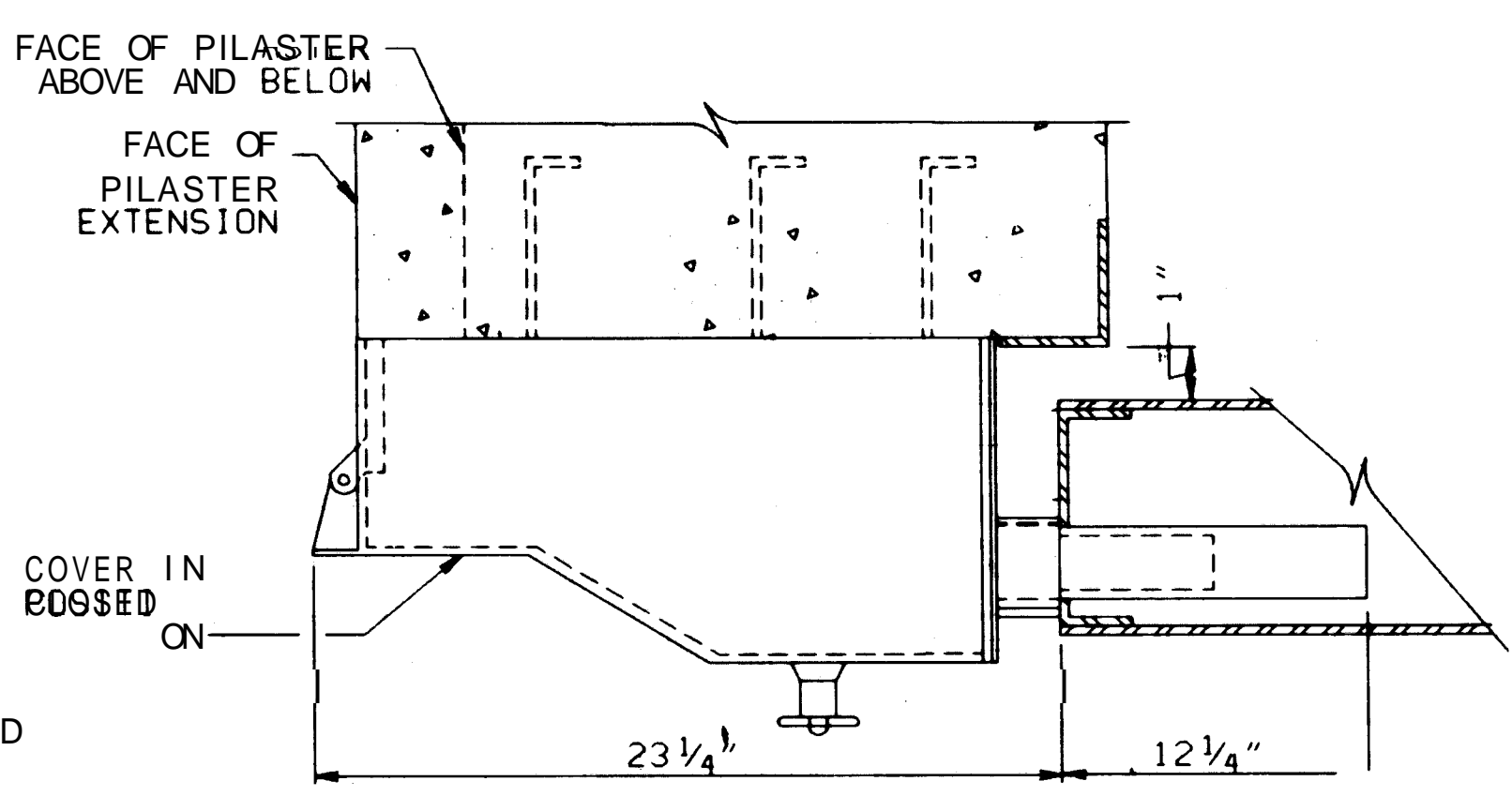
DETAIL 2
SCALE: 3"=1'-0"
S5, S6, S9, S9



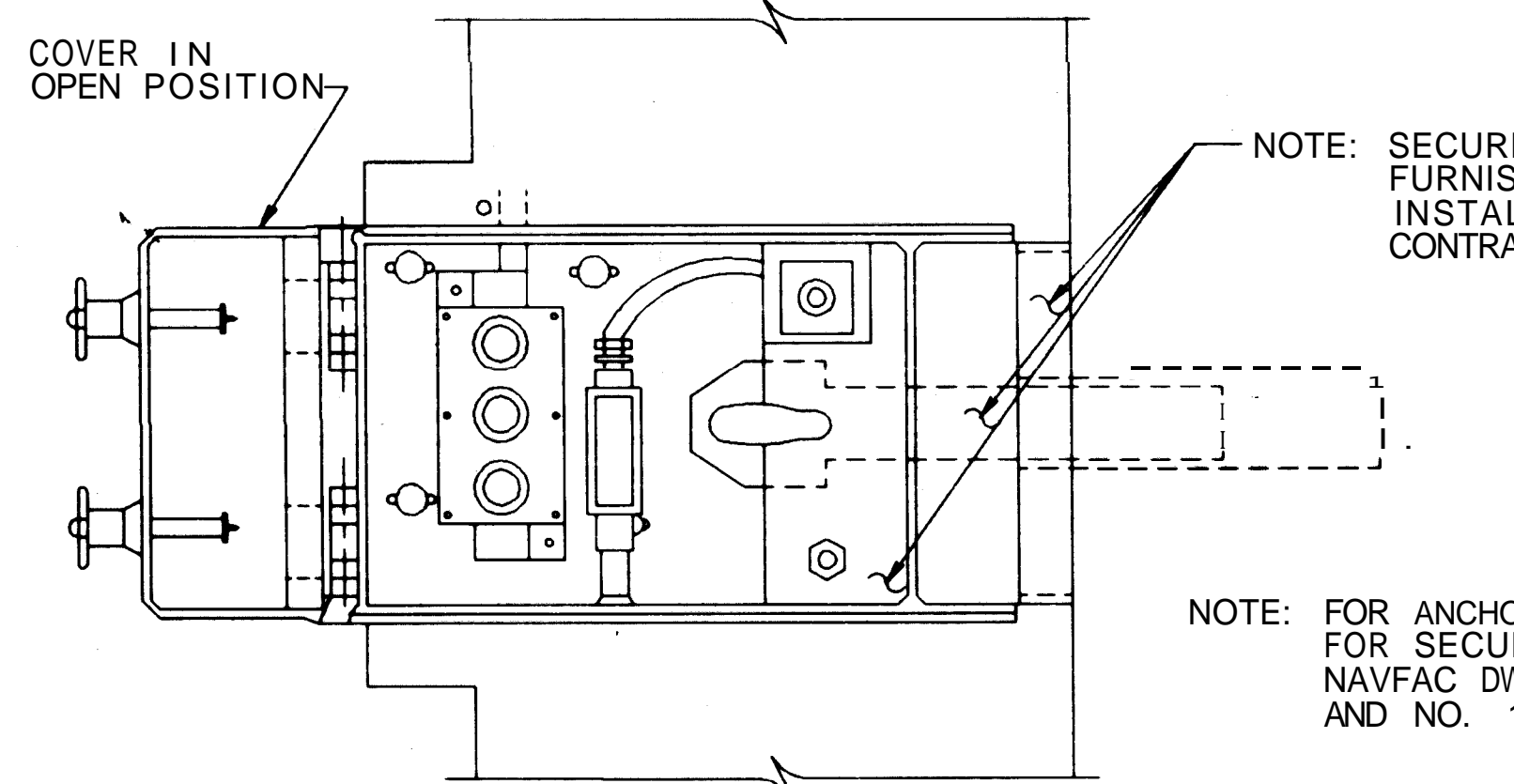
TYPICAL SPLICE DETAIL
NO SCALE



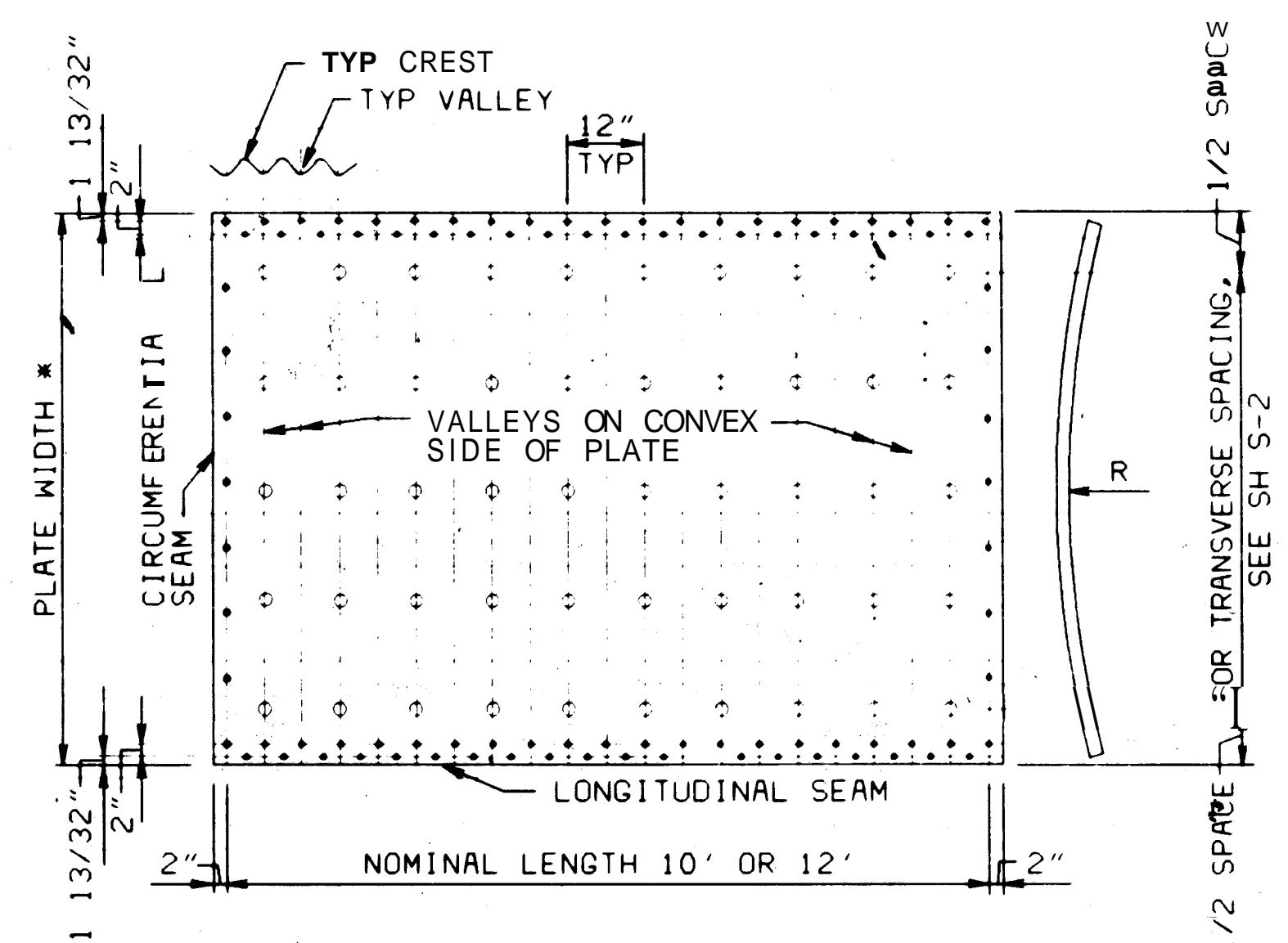
DETAIL 3
SCALE: 1 1/2"=1'-0"
S2, S9



PLAN

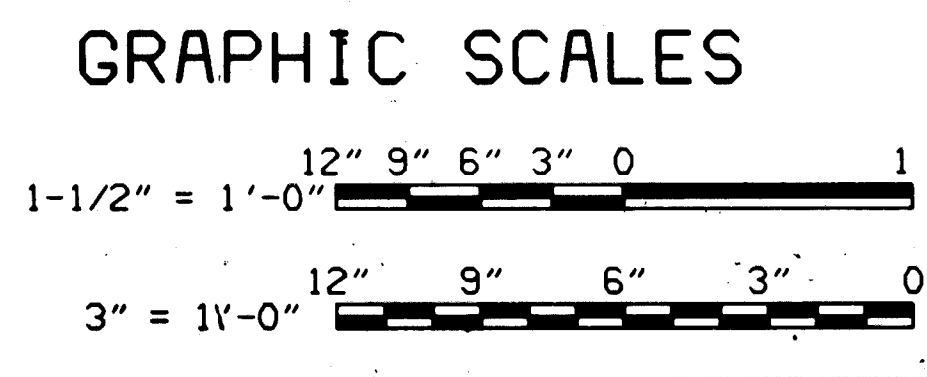


ELEVATION
SLIDING DOOR SECURITY HASP DETAIL
NO SCALE



DETAILS OF STEEL STRUCTURAL PLATES
NO SCALE

- DENOTES 3/4" PLATE ASSEMBLY BOLTS PUNCHED FOR 4 BOLTS PER FOOT OF LONGITUDINAL SEAM AND AS SHOWN FOR CIRCUMFERENTIAL SEAM.
- DENOTES 3/8" x 4" WELDED HEADED SHEAR STUDS.
- * 5 PLATE WIDTHS MAY BE USED:
 - 81 1/2" W/ 8 BOLT SPACES
 - 72" W/ 7 BOLT SPACES
 - 62 3/8" W/ 6 BOLT SPACES
 - 52 3/4" W/ 5 BOLT SPACES
 - 33 5/8" W/ 3 BOLT SPACES



NAVFAC STANDARD DRAWING PRODUCED BY:
HAYES, SEAY, MATTERN AND MATTERN
ARCHITECTS - ENGINEERS
ROANOKE, VIRGINIA

CHECK GRAPHIC SCALES BEFORE USING

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND

	DESIGNED BY: <i>CHM</i> SUPERVISOR: <i>CHM</i> SUBMITTED BY: <i>VP</i> DATE: <i>10/24/74</i>	SIZE: <i>F</i> CODE IDENT. NO.: <i>80091</i> NAVFAC DRAWING NO.: <i>1404386</i>
	NORTH: <i>V</i> DATE: <i>10/24/74</i> APPROVED: <i>[Signature]</i> DATE: <i>10/24/74</i>	CONSTR. CONTR. NO.: SCALE AS NOTED SPEC. NFSS-M21 SHEET 59 OF 59

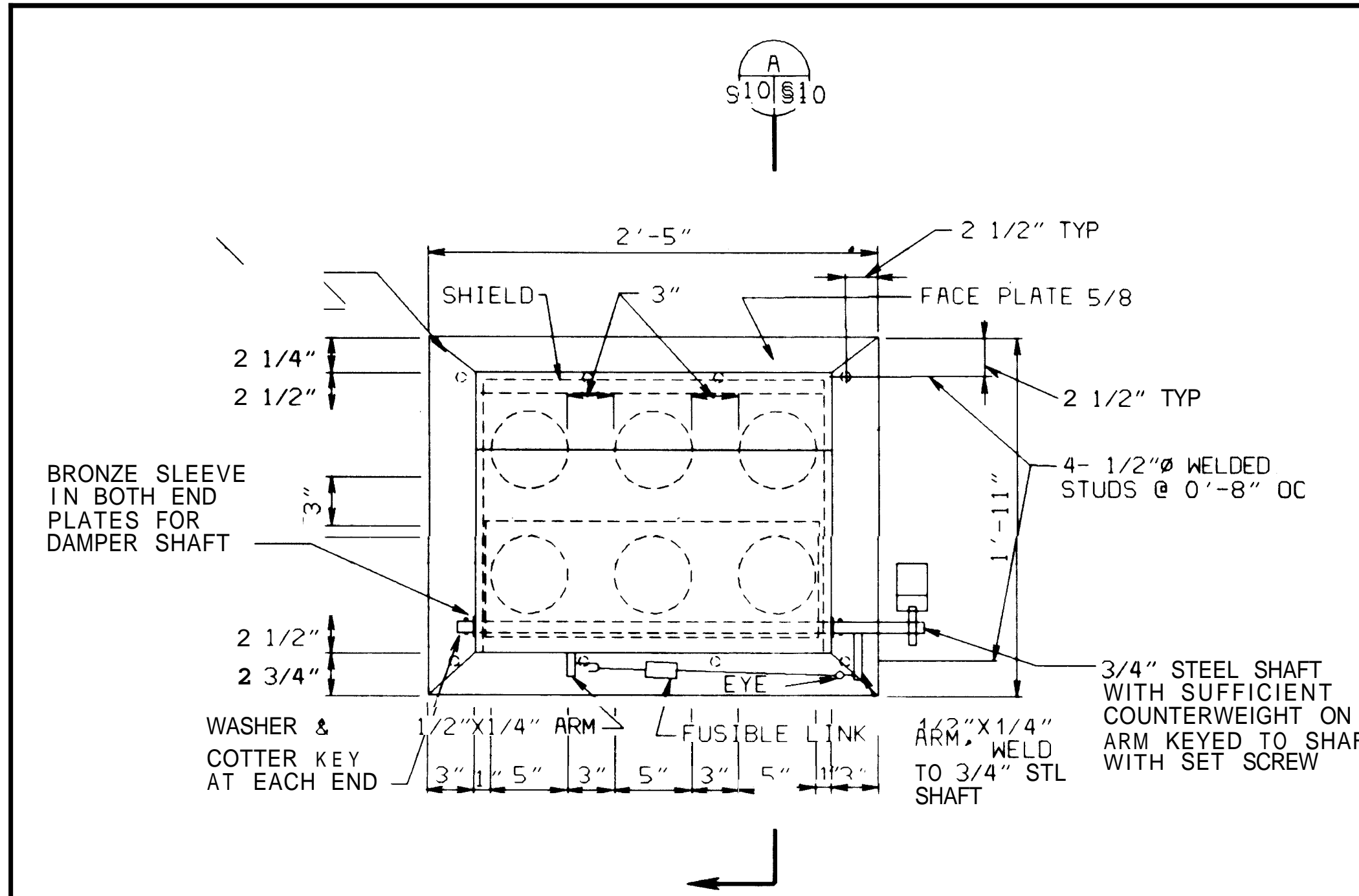
LTR	DESCRIPTION	PREP'D BY	DATE	APPROVED

GENERAL NOTES

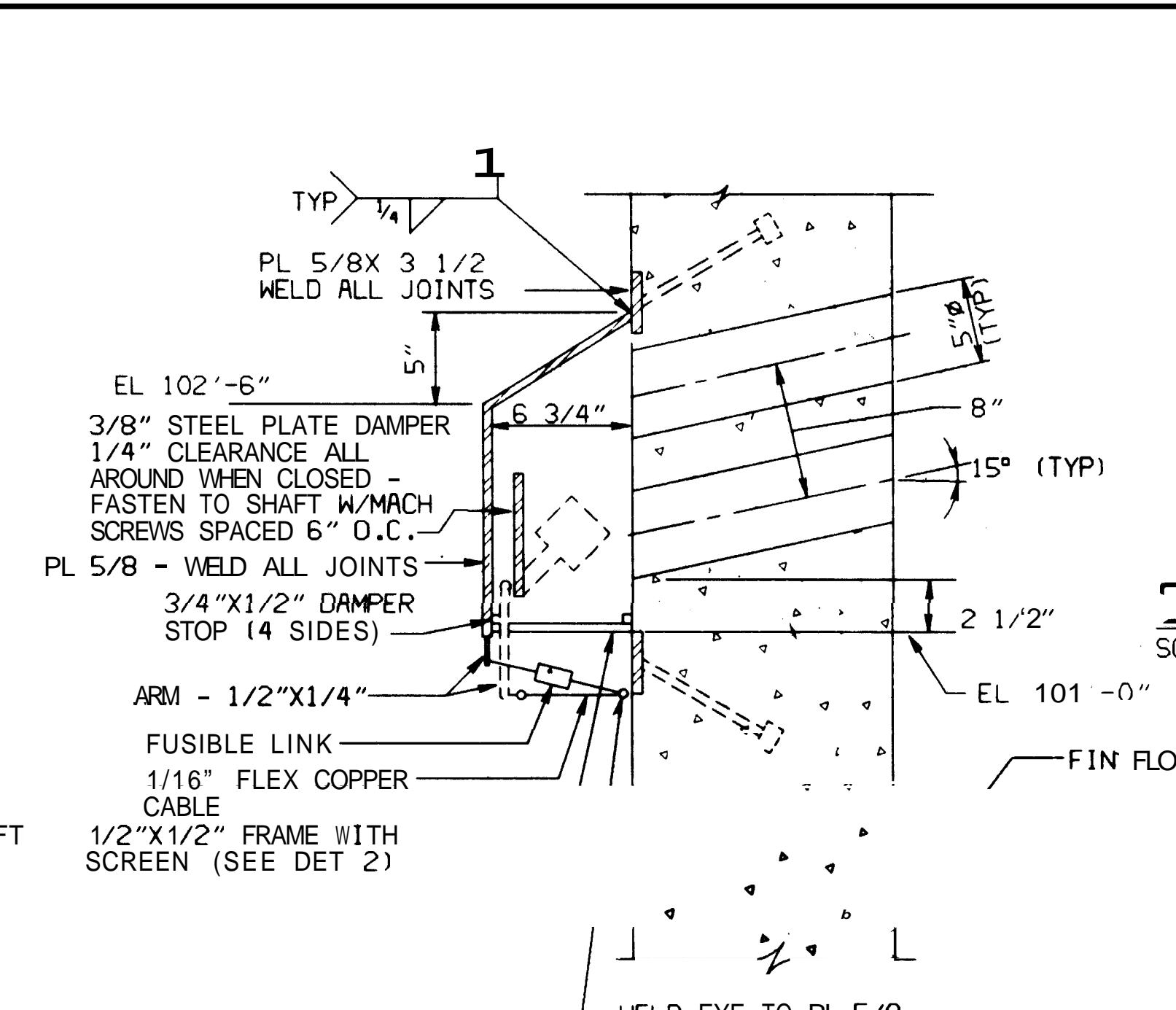
- DESIGN LOADS
 - BLAST LOAD: BASED ON INTERMAGAZINE SEPARATION DISTANCES D FOR A QUANTITY OF HIGH EXPLOSIVE W EQUAL TO 500,000 POUNDS EQUIVALENT TNT, AS FOLLOWS:

(1) SIDE-TO-SIDE	D = 1.25W ^{2/3}	(U.S. UNITS)
(2) FRONT-TO-REAR	D = 2.0W ^{2/3}	(U.S. UNITS)
 - STRUCTURAL ELEMENT
 - DESIGN BLAST OVERPRESSURE
 - TIME DURATION
 - FAILURE CRITERIA
 - DUCTILITY MAXIMUM SUPPORT RATIO
 - ROOF LIVE LOAD (MAINTENANCE EQUIPMENT)
 - ROOF DEAD LOAD (2 FT MIN EARTH FILL)
 - FLOOR LIVE LOAD
 - LOADING RAMP OR LOADING DOCK LIVE LOAD
 - SEISMIC DATA
 - ASSUMED ALLOWABLE SOIL BEARING
 - ASSUMED DYNAMIC RESPONSE (SOIL BEARING)
 - ASSUMED LATERAL SOIL PRESSURE COEFFICIENT
 - ASSUMED COEFFICIENT OF FRICTION (CONC ON SOIL)
 - ASSUMED SUBGRADE MODULUS
- MATERIAL STRENGTHS
 - CONCRETE 28-DAY COMPRESSIVE STRENGTH (UNO) $f'_c = 4000$ PSI
 - REINFORCING STEEL

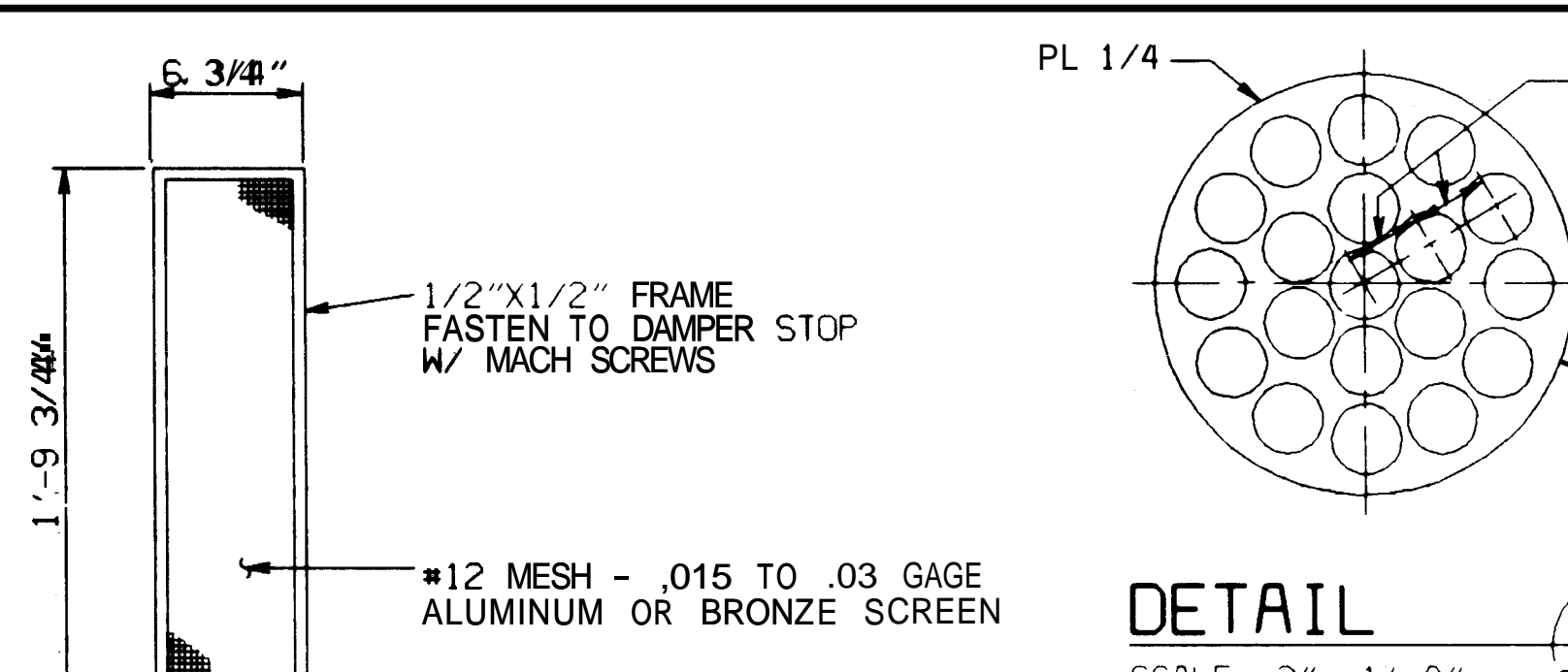
STIRRUPS AND TIES	$f_y = 40$ KSI MIN
ALL OTHER WELDED WIRE FABRIC	$f_y = 60$ KSI
STRUCTURAL STEEL SHAPES & PLATES	$f_y = 36$ KSI
 - THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE STRENGTH DESIGN METHOD OF WILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318) AND THE PROCEDURES AND REQUIREMENTS OF NAVFAC P-397, "STRUCTURES TO RESIST THE EFFECTS OF ACCIDENTAL EXPLOSIONS."
 - ELEVATION OF BOTTOM OF FTG SHALL BE ESTABLISHED BELOW THE DEPTH OF FPOST PENETRATION. FOOTING SHALL BE LOWERED AS REQUIRED TO OBTAIN SUITABLE BEARING. ALL UNSUITABLE FOUNDATION MATERIAL SHALL BE REMOVED WITH FOOTINGS RESTING ON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY OF 4000 PSF. IF AN ALLOWABLE SOIL BEARING OTHER THAN 4000 PSF IS ASSUMED, THEN FOOTINGS MUST BE REDESIGNED.
 - FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, NOVEMBER, 1978."
 - ALL REINFORCEMENT SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH ACI 315-80, UNLESS OTHERWISE SHOWN. MINIMUM SPLICE LENGTHS SHALL BE AS SHOWN IN TABLE-1, THIS SH, UNLESS OTHERWISE INDICATED. ALL HOOKS ARE 90° STANDARD HOOKS, UNLESS NOTED OTHERWISE. PROVIDE DOWELS TO MATCH REINF IN WALLS.
 - UNLESS OTHERWISE SHOWN, REINFORCEMENT AT WALL CORNERS AND INTERSECTIONS SHALL BE IN ACCORDANCE WITH DETAILS SHOWN IN ACI 315-80 AND LAP SPLICES SHALL BE CLASS C.
 - UNLESS OTHERWISE SHOWN, PROVIDE CONCRETE PROTECTION FOR ALL REINFORCING IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-83).
 - UNLESS OTHERWISE SHOWN, FLOOR SLAB ON GRADE SHALL BE 10 INCHES THICK AND SHALL BE REINFORCED WITH TWO LAYERS OF 6x6-W4x4 WELDED WIRE FABRIC. A POLYETHYLENE VAPOR BARRIER AND 4" CAPILLARY WATER BARRIER SHALL BE PLACED BENEATH ALL SLABS ON GRADE.
 - PROVIDE ADEQUATE INSPECTION PANELS IN WALL FORMING TO FACILITATE CONCRETE PLACEMENT, TO INSURE THAT NO VOIDS OCCUR, AND THAT ADEQUATE COMPACTION IS ATTAINED.
 - CONTINUOUS REINFORCING IN WALLS AND FOOTINGS MAY BE SPLICED, AS REQUIRED, PROVIDING BARS ARE OF THE LONGEST PRACTICABLE LENGTH AND SPLICES ARE SHOWN ON THE REINFORCING SHOP DRAWINGS. SEE TABLE-1. THIS SH.
 - SUBSURFACE DRAIN TO BE SITE ADAPTED TO DRAIN TO FRONT OR REAR OF MAGAZINE.
 - WHERE THE WATER TABLE IS NEAR THE ELEVATION OF THE MAGAZINE FLOOR SLAB, THE DETAILS SHALL BE MODIFIED TO PREVENT WATER SEEPAGE INTO THE MAGAZINE (E.G., WATERSTOPS).
 - PROVIDE CRACK CONTROL JOINTS IN SLAB ON GRADE AT 25'-0" ON CENTER (MAX) UNLESS OTHERWISE SHOWN.
 - ALL DRAWINGS ARE REFERENCED TO A FINISHED FLOOR ELEVATION 100'-0". FOR TRUE SITE ELEVATION, SEE GRADING AND DRAINAGE PLANS.



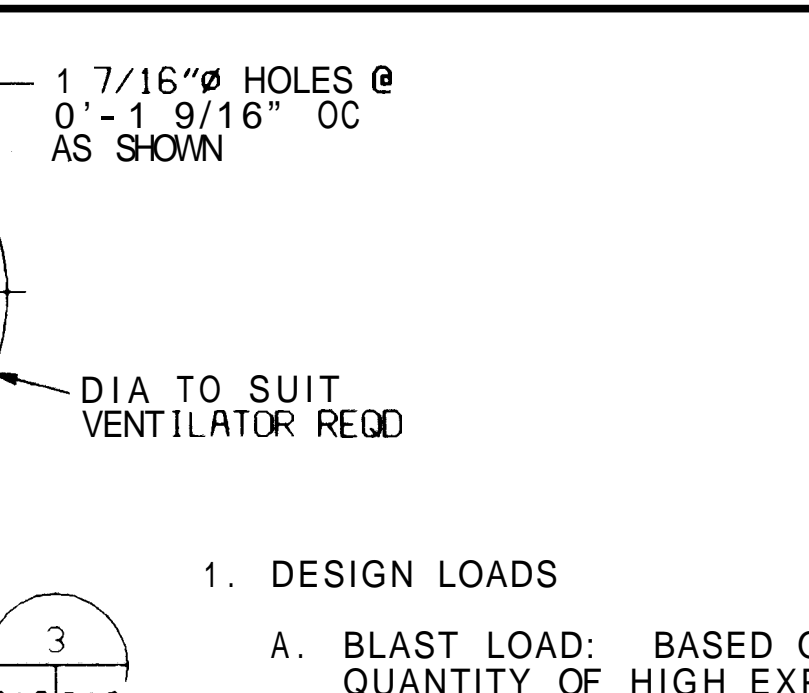
SECURITY VENT
DETAIL 1
SCALE: 1 1/2" = 1'-0"



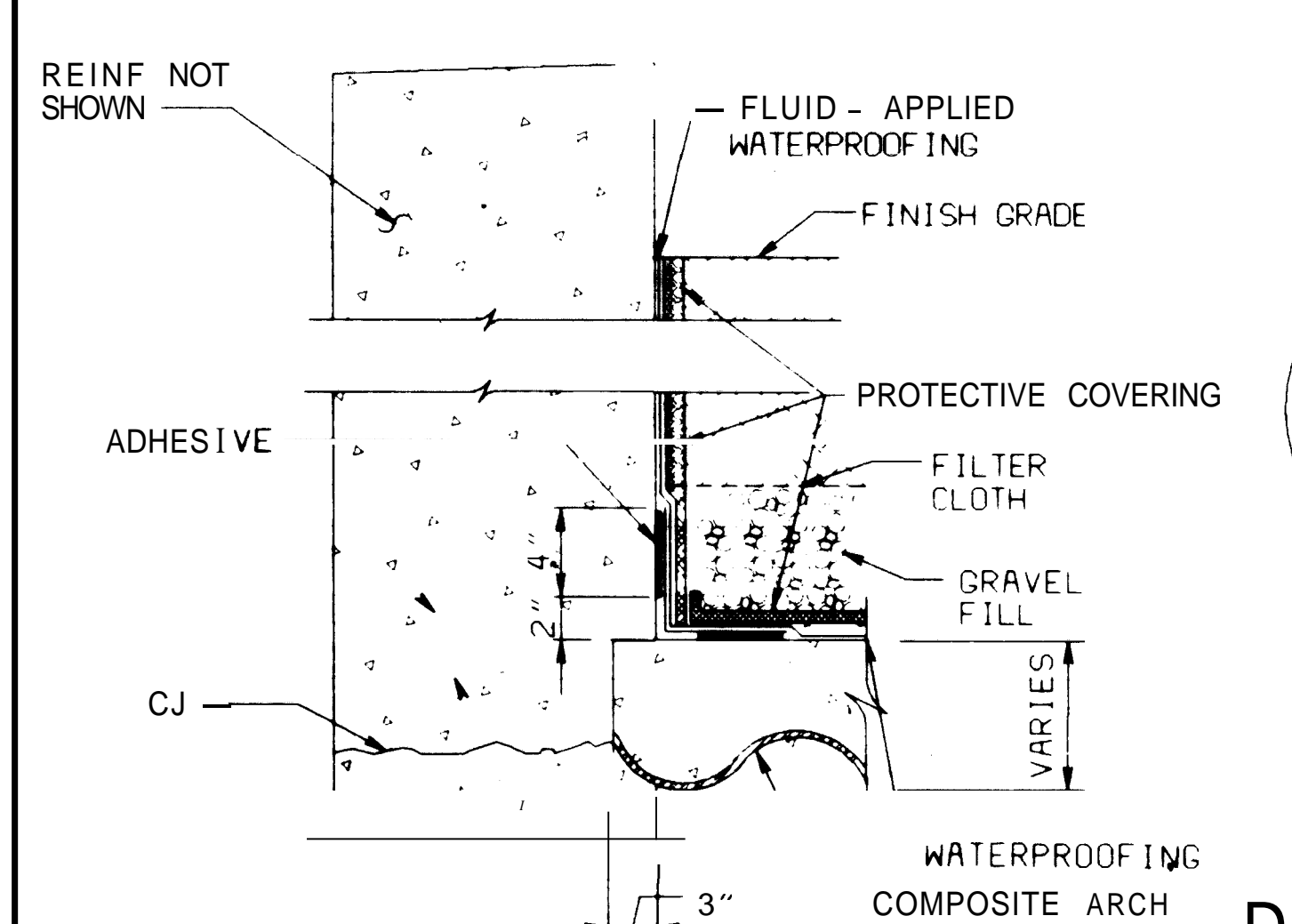
SECTION 1
SCALE: 1 1/2" = 1'-0"



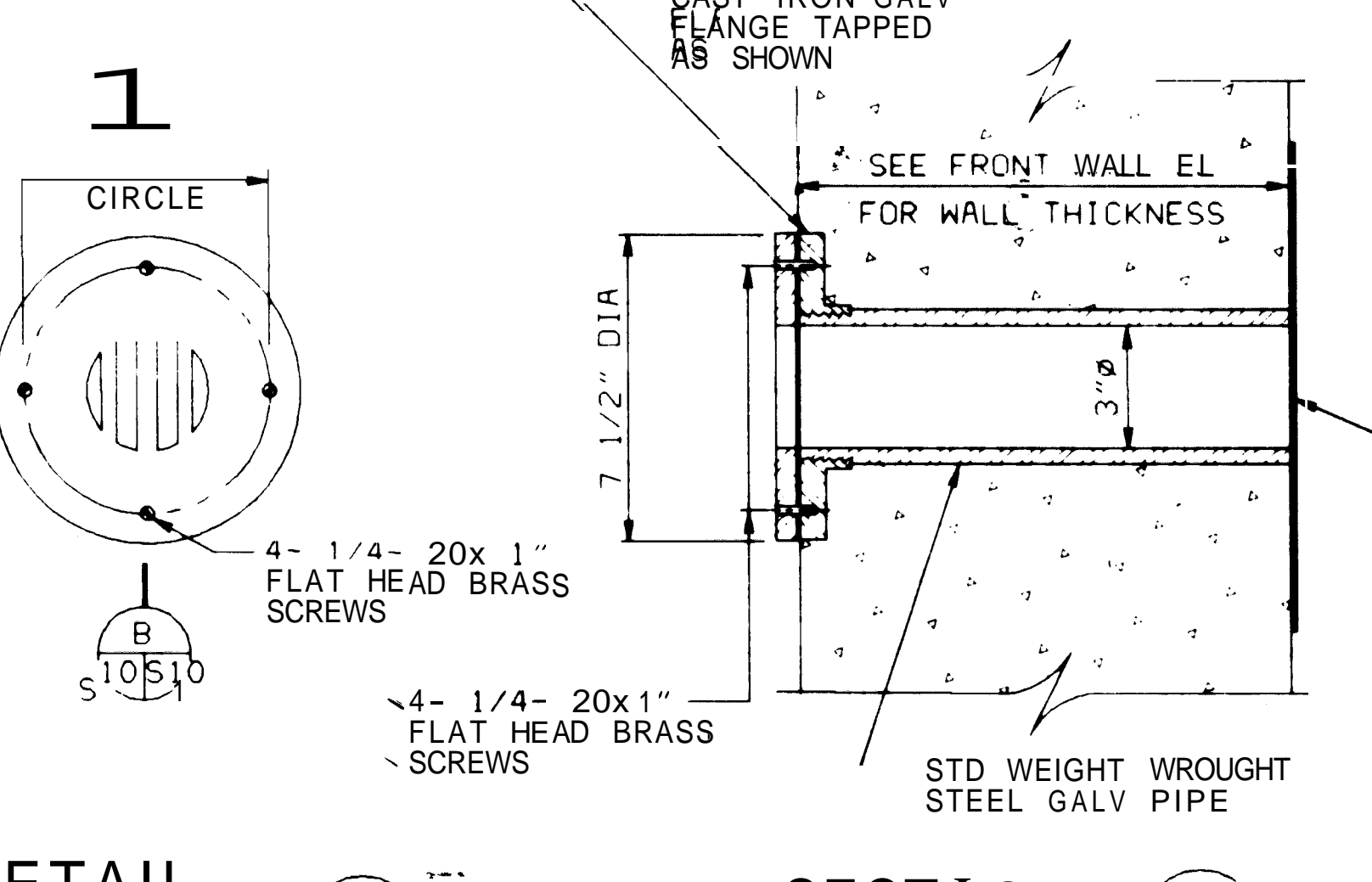
DETAIL 2
SCALE: 1 1/2" = 1'-0"



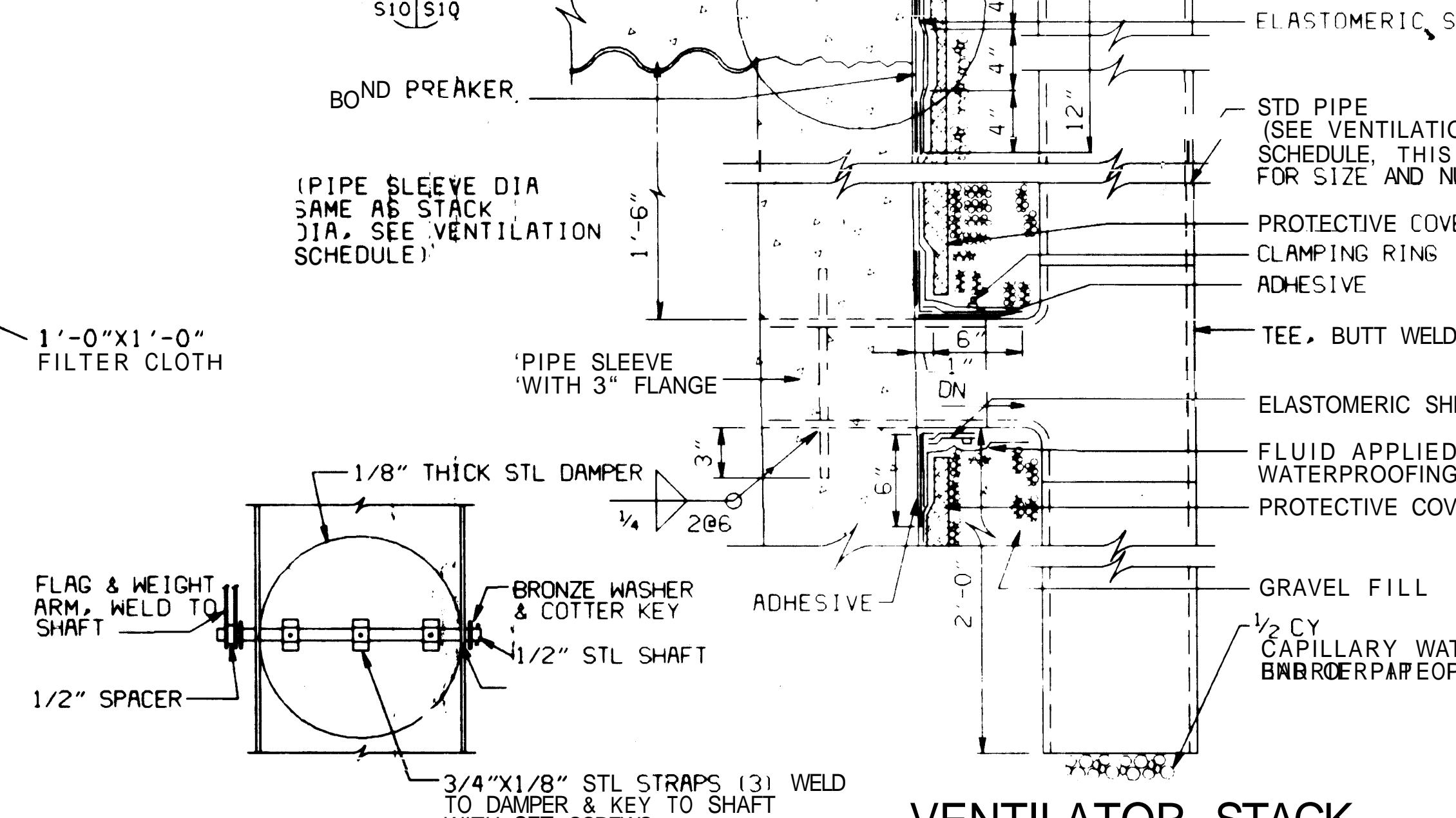
DETAIL 3
SCALE: 3" = 1'-0"



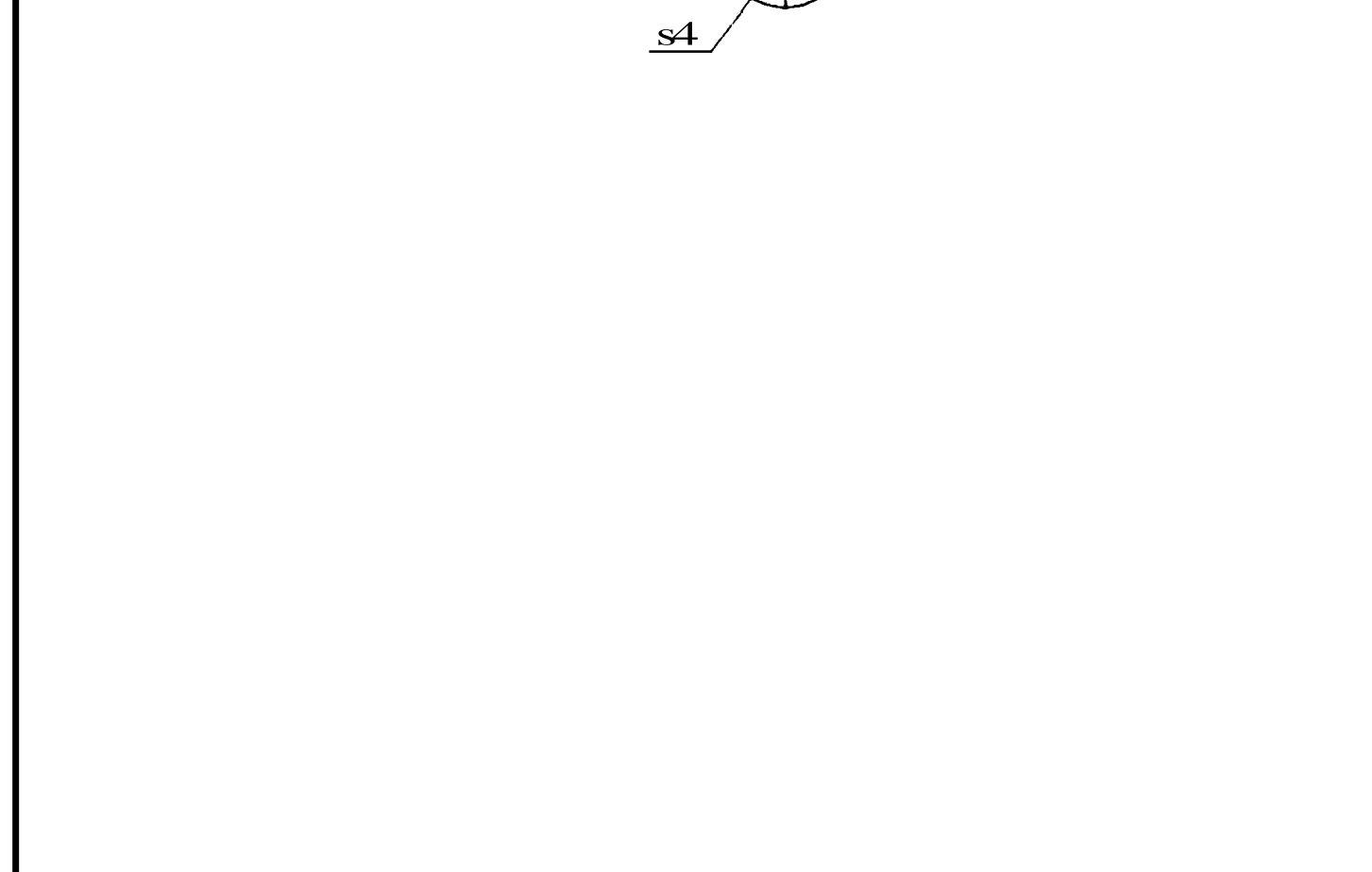
DETAIL 4
SCALE: 1 1/2" = 1'-0"



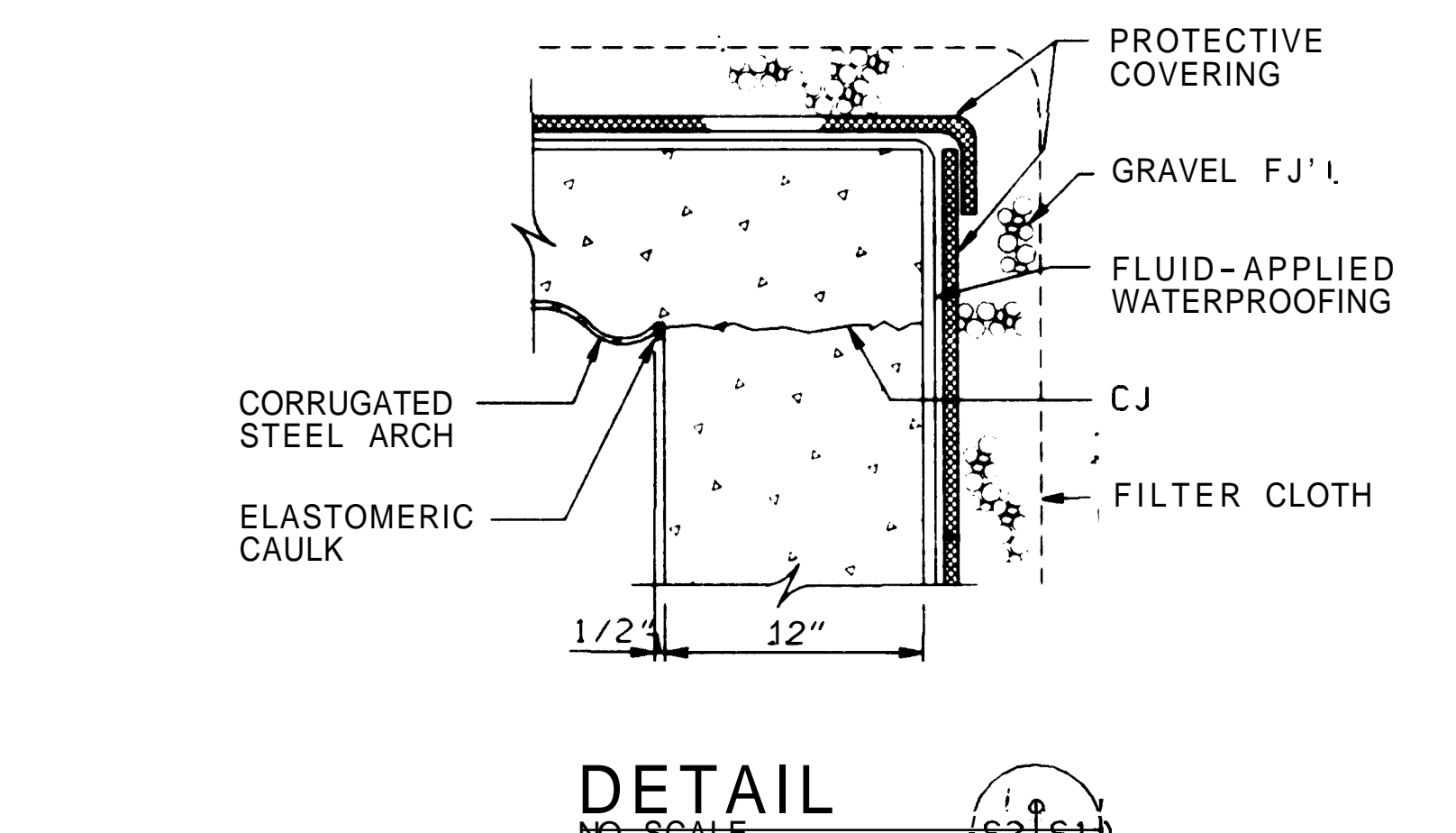
SECTION B
NO SCALE



VENTILATOR STACK
DETAIL 7
SCALE: 1 1/2" = 1'-0"



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



SECTION 2
NO SCALE

FIRE DAMPER

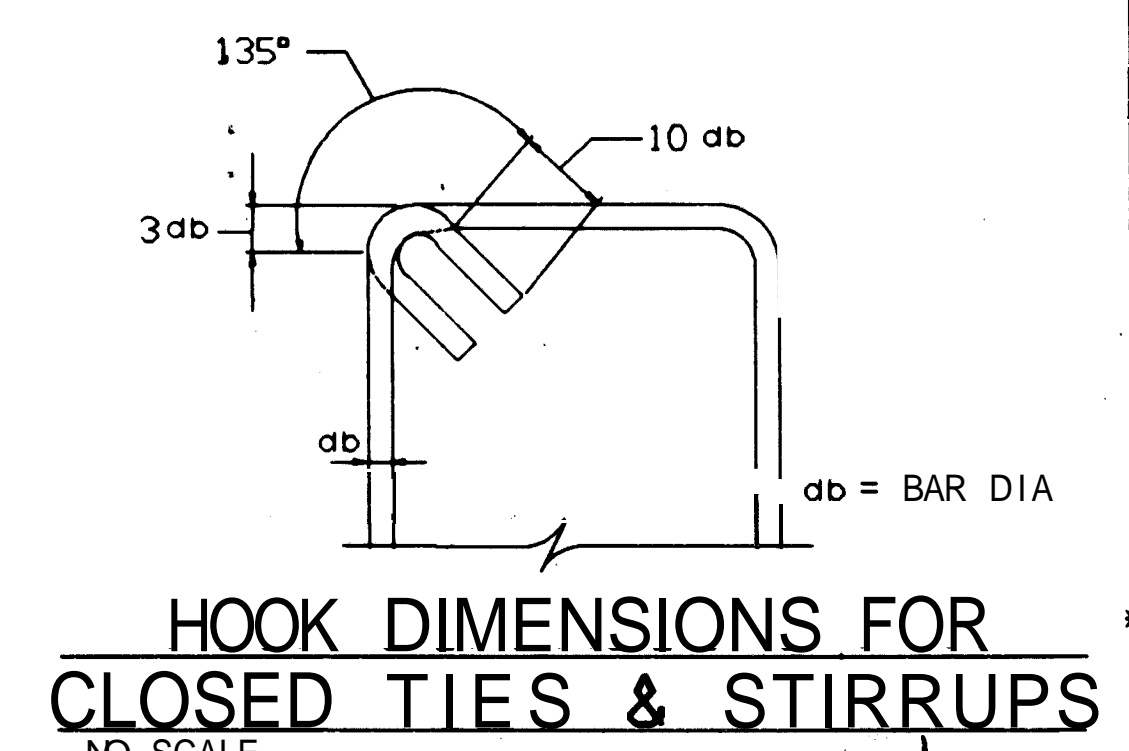
DETAIL 6
SCALE: 1 1/2" = 1'-0"

OUTSIDE DESIGN TEMPERATURE	VENTILATOR SCHEDULE			
	LENGTH OF MAGAZINE		LENGTH OF MAGAZINE	
	50' TO 80'	LESS THAN 50'		
ABOVE 90°F	STACK 0"Ø - 2 EA	8"Ø - 2 EA		
30°F TO 90°F	STACK 8"Ø - 2 EA	10"Ø - 1 EA		
BELOW 30°F	STACK 10"Ø - 1 EA	8"Ø - 1 EA		

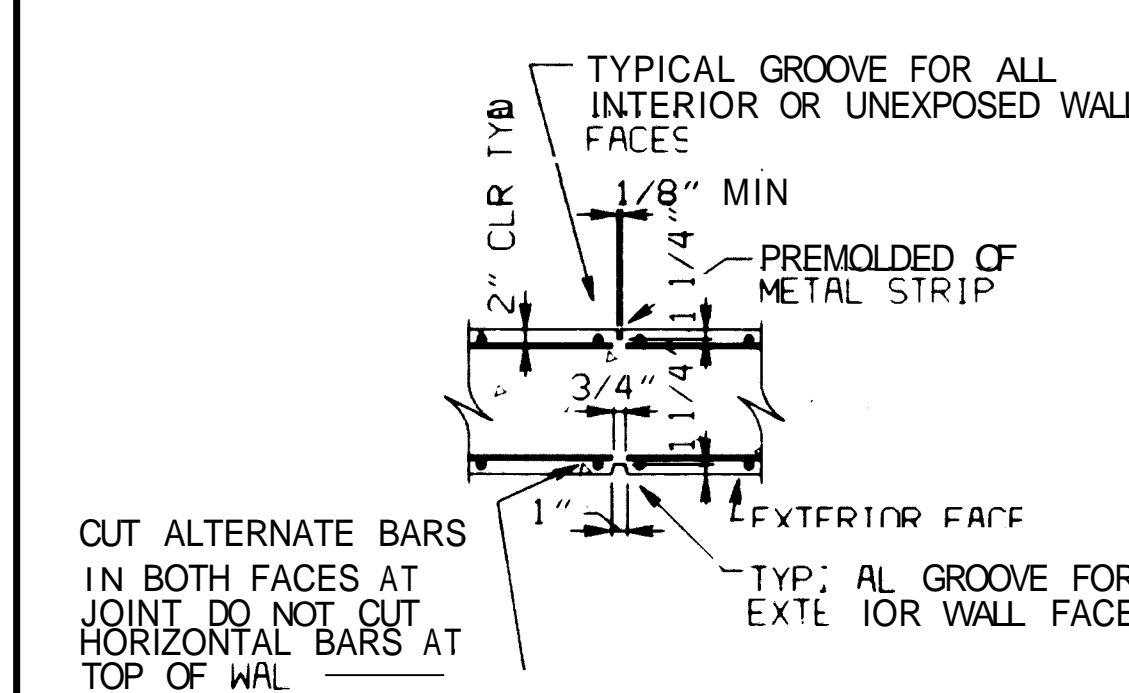
TABLE 1 MINIMUM SPLICE LENGTH*	
BAR SIZE	SPLICE LENGTH** (INCHES)
#3	15
#4	21
#5	26
#6	31
#7	39
#8	51
#9	65

* FOR BARS SPACED 6" OR MORE, MULTIPLY TABLE VALUES BY .8 EXCEPT NO SPLICE LENGTH SHALL BE LESS THAN 12".

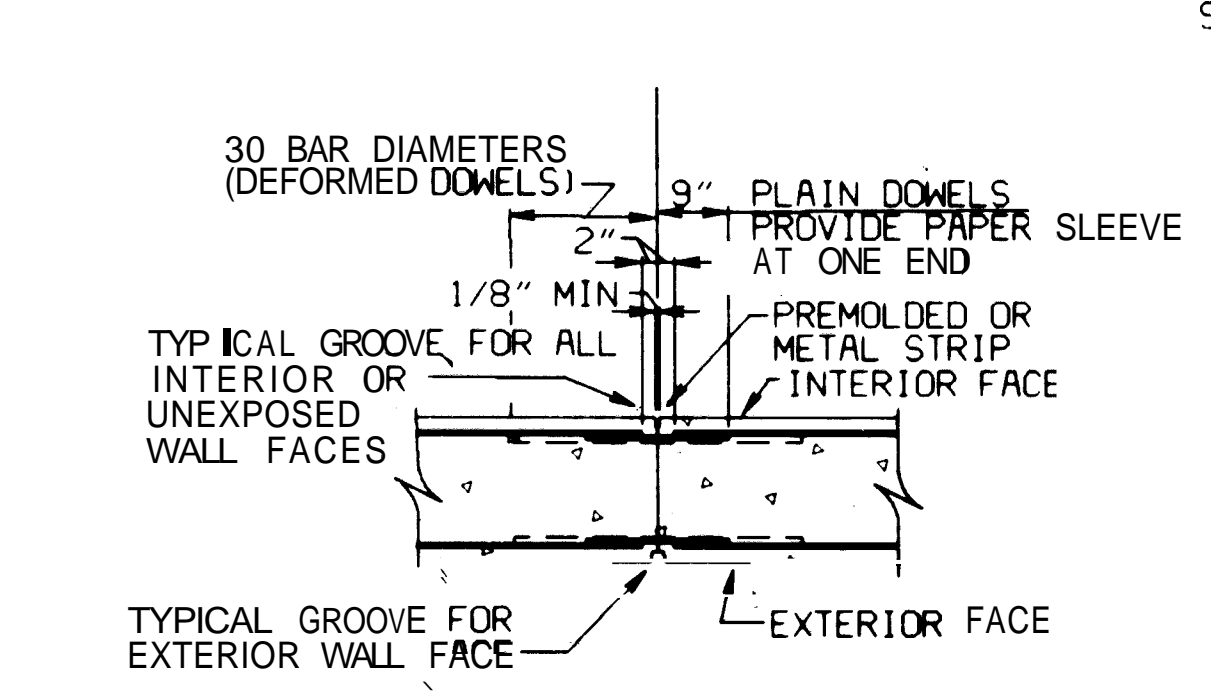
** FOR HORIZONTAL BARS IN THE HEADER BEAM, MULTIPLY THE TABULATED VALUES BY 1.4. (SEE SECT 3/53 AND SECT 3/54)



HOOK DIMENSIONS FOR CLOSED TIES & STIRRUPS
NO SCALE

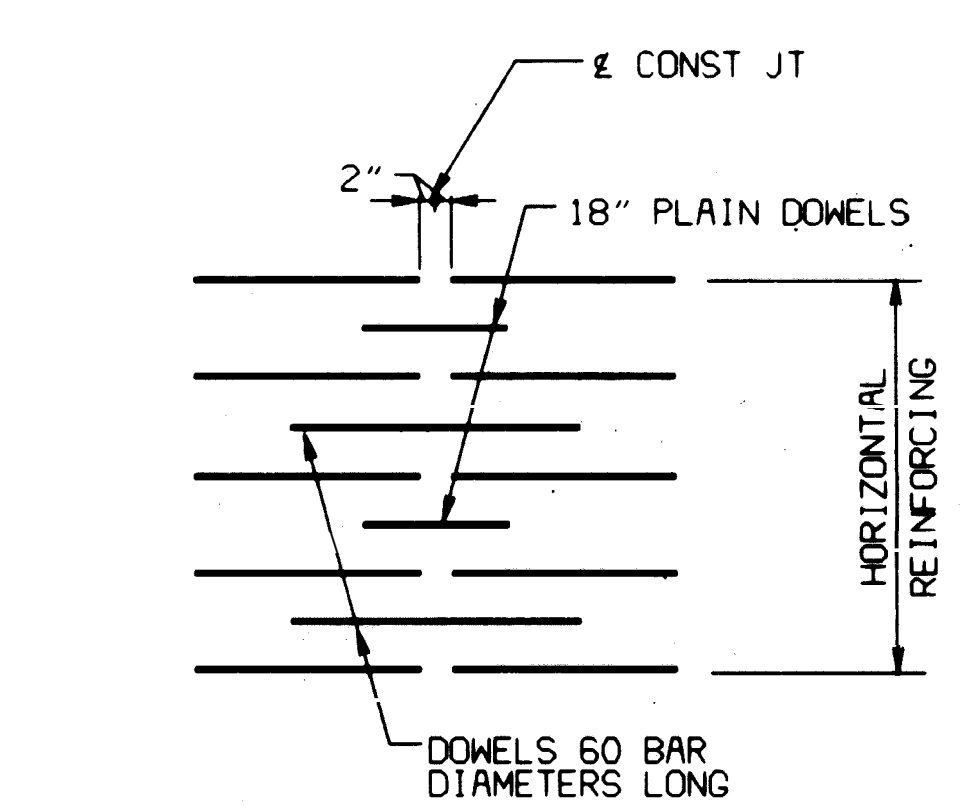


CONTROL JOINT



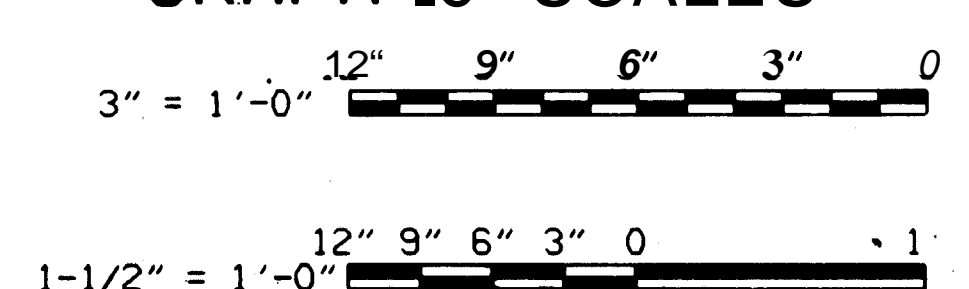
VERTICAL CONSTRUCTION JOINT

CONCRETE WALL JOINT DETAILS
NO SCALE



ELEVATION SHOWING PLACING OF DOWELS

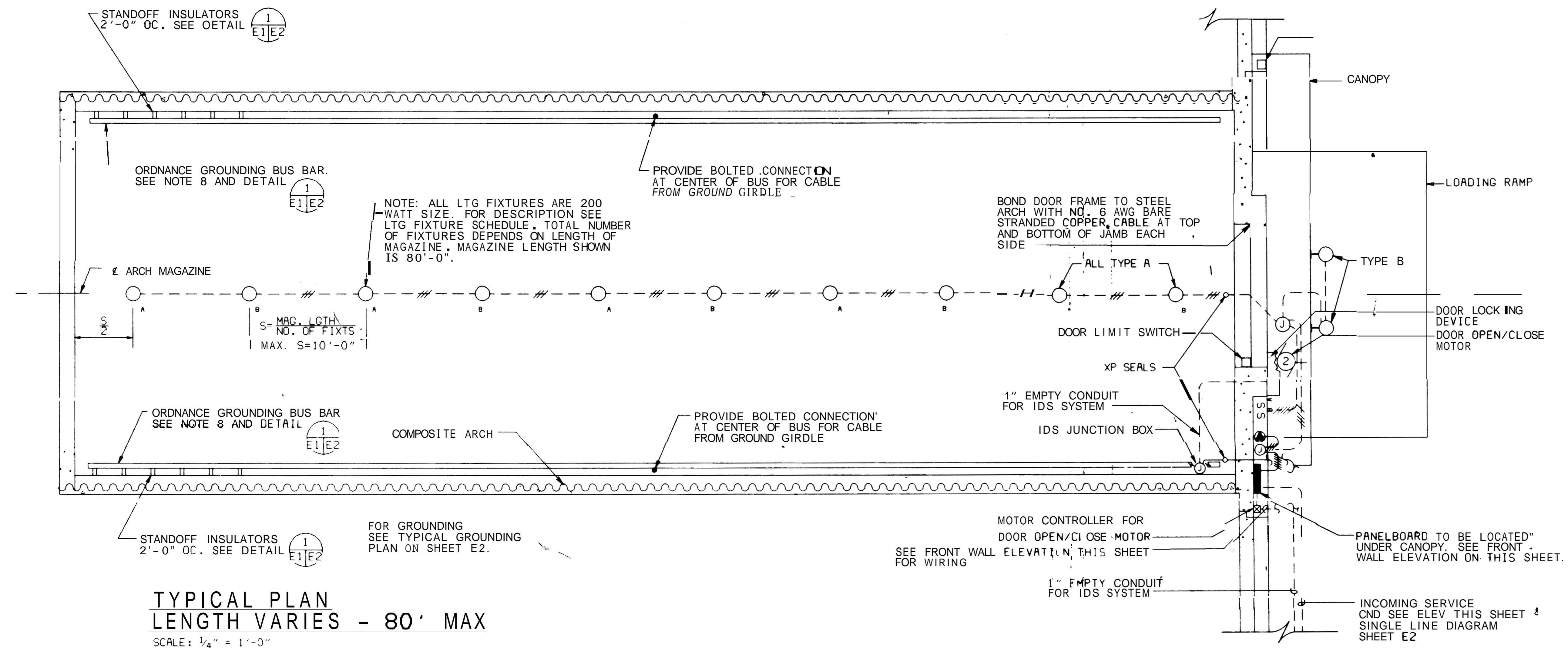
GRAPHIC SCALES



CHECK GRAPHIC SCALES BEFORE USING

	DESIGN BY: [Signature] SUPV. BY: [Signature] SUBMITTED BY: [Signature] DATE: [Date]	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND 200 STOVALL STREET ALEXANDRIA, VA. 22304
	STANDARD EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE STRUCTURAL VENTILATORS, MISCELLANEOUS DETAILS AND GENERAL NOTES	SIZE: F CODE IDENT. NO.: 80091 NAVFAC DRAWING NO.: 1404387 CONSTR. CONTR. NO.:

REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED

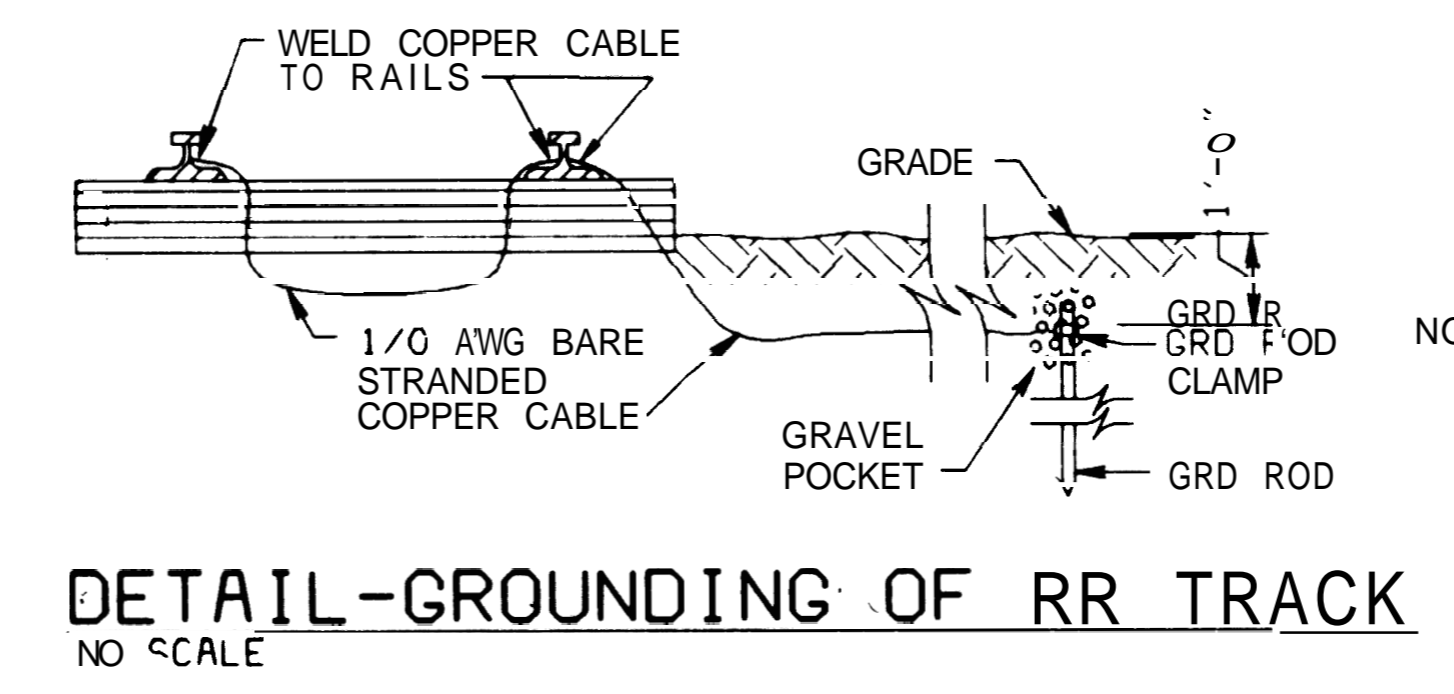
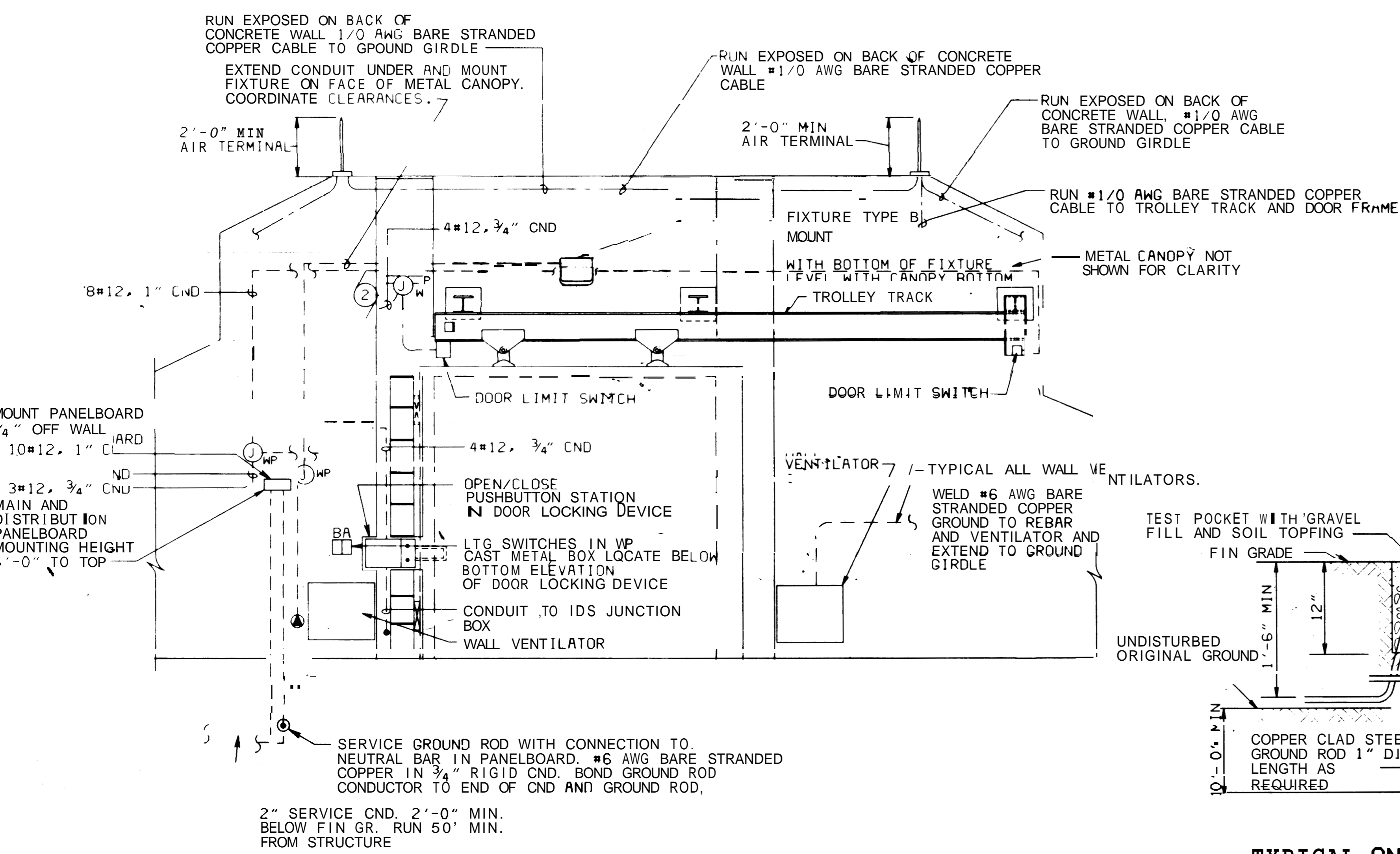


LEGEND

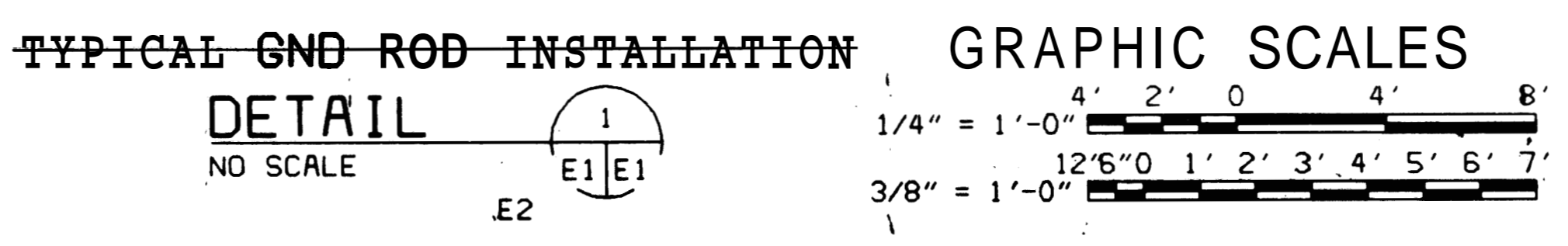
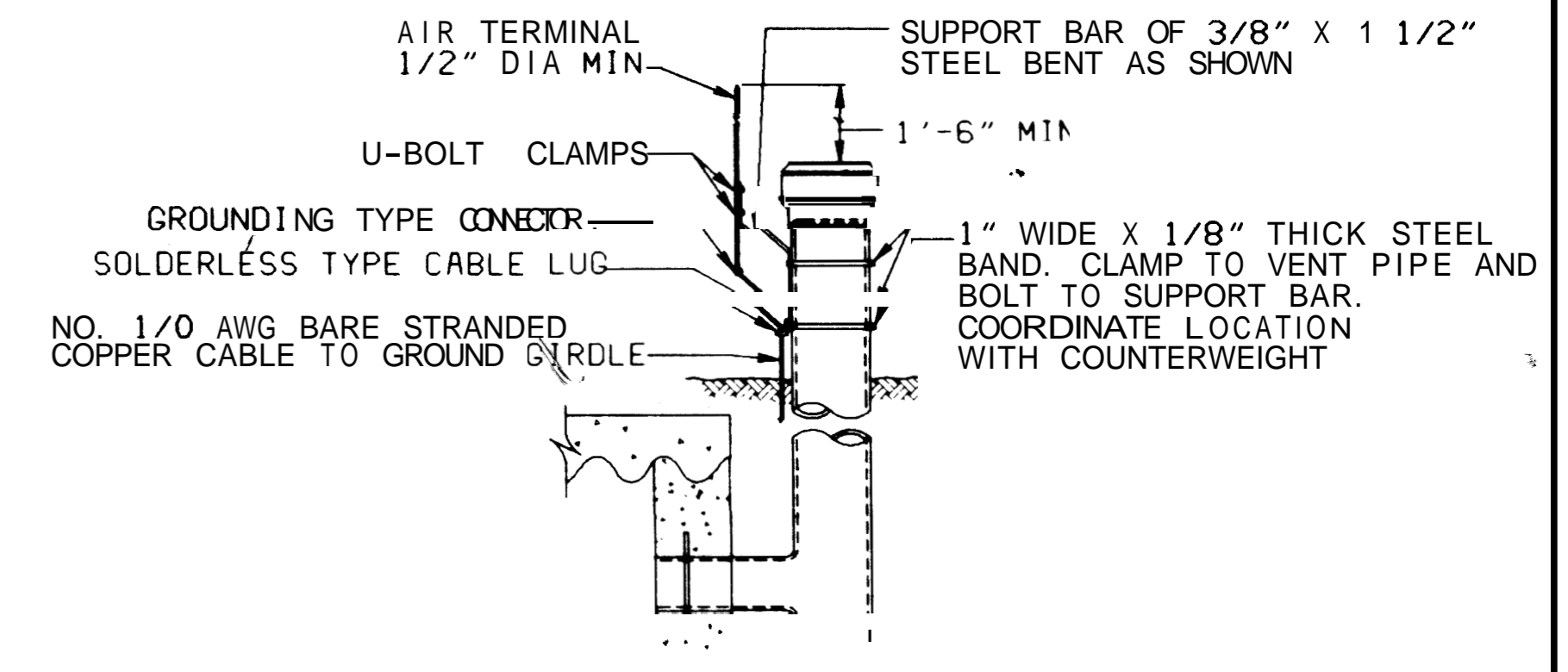
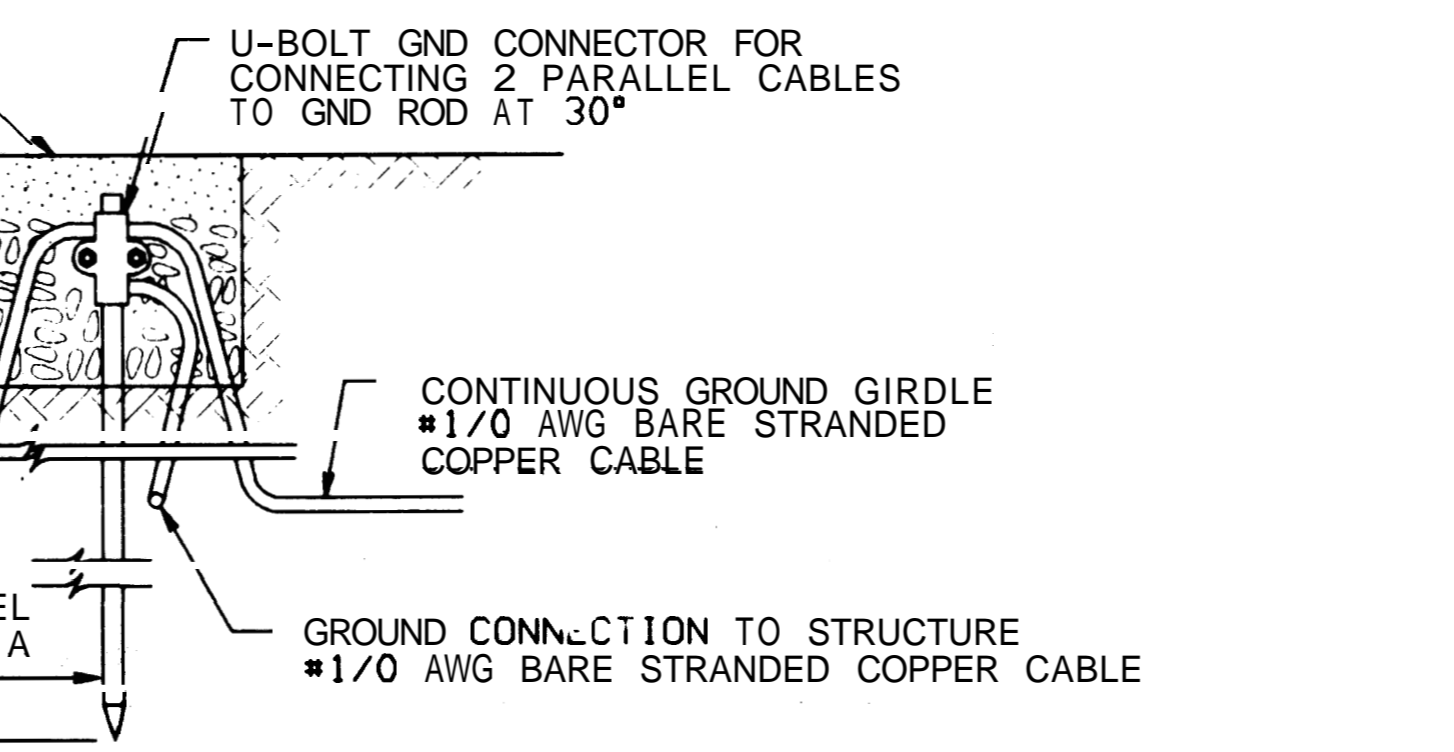
- LIGHTING FIXTURE - CEILING TYPE A
- L LETTER DENOTES SWITCH CONTROL
- B LIGHTING FIXTURE - BRACKET TYPE B
- ⊕ SINGLE RECEPTACLE - GND TYPE - 20A, 125V, 1P, 3W, GFI TYPE
- ⊙ JUNCTION BOX, WALL MOUNTED
- S, A, B LOCAL SWITCH WITH PILOT LIGHT - SP-20A, 120/277V [SUBSCRIPT DENOTES FIXTURE CONTROL]
- ▬ DISTRIBUTION PANELBOARD 120/240V, 1ϕ, 3W, S/N, SOLID GROUND BUS IN NEMA 3R ENCLOSURE
- X- EXPLOSION PROOF SEAL FITTING IN CONDUIT RUN
- W- WIRING IN RIGID CONDUIT - EXPOSED (CROSS MARKS DENOTE NUMBER OF WIRES WHEN OTHER THAN TWO)
- GROUNDING CONDUCTOR AS DESCRIBED (SEE NOTE 5)
- ⊙ GROUND ROD (DRIVEN IN EARTH) W/TEST POCKET
- CONTINUOUS BURIED GND GIRDLE - NO. 1/0 AWG BARE STRANDED COPPER CABLE - 1'-6" MIN. BELOW GRADE EXCEPT 2'-0" MIN. UNDER ROADWAY (SEE NOTE 6)
- XP EXPLOSION PROOF
- WP WEATHER PROOF
- ⊕ MOTOR - NUMBER DENOTES HORSEPOWER
- ▷ CABLE TO CABLE CONNECTION BY EXOTHERMIC WELD PROCESS
- ⊕ MOTOR CONTROLLER

NOTES

1. INTERIOR ELECTRICAL EQUIPMENT AND ITS INSTALLATION SHALL CONFORM TO NATIONAL ELECTRICAL CODE NFPA 70 LATEST REVISION FOR THE TYPE OF HAZARDOUS LOCATION INVOLVED AND AS A MINIMUM CLASS 1, DIVISION 11, GROUP D AND CLASS 11, DIVISION 11, GROUP G.
2. RACEWAY SHALL BE RIGID STEEL, THREADED CONDUIT MIN. SIZE 3/4".
3. CONDUCTORS SHALL BE COPPER WITH RHW OR THW INSULATION (EXCEPT GROUND CONDUCTOR). MINIMUM SIZE NO. 12AWG.
4. GROUND RODS SHALL BE INSTALLED IN UNDISTURBED EARTH AND SHALL NOT BE LOCATED IN OR UNDER PAVING OF ANY KIND OR IN ANY UNPAVED WALK, PATH OR ROADWAY.
5. FOR GENERAL GROUNDING REQUIREMENTS REFER TO NAVFAC STANDARD SPECIFICATION M21
6. WHERE GROUND GIRDLE IS LOCATED UNDER ROADWAY THE CABLE SHALL BE INSTALLED IN HEAVY WALL RIGID PVC CONDUIT FOR PHYSICAL PROTECTION.
7. FOR DETAILS OF STEEL ARCH GROUNDING CONNECTIONS SEE NAVFAC DWG NO. 1404389.
8. ORDNANCE GROUNDING BUS BAR SHALL BE FOR EQUIPMENT GROUNDING ONLY AND SHALL HAVE ONE POINT GROUND CONNECTION TO THE GROUND GIRDLE AS SHOWN, AND SHALL OTHERWISE BE COMPLETELY ISOLATED FROM ALL OTHER METAL PARTS AND/OR GROUND CONNECTIONS OF THE STRUCTURE. BUS BARS ARE REQUIRED IN A LIMITED NUMBER OF MAGAZINES ONLY.
9. HOLES SHALL NOT BE MADE IN COMPOSITE ARCH FOR INSTALLATION OF ELECTRICAL WORK. SUPPORT CONDUIT AT EACH CIRCUMFERENTIAL LAP USING EXTRA LENGTH BOLT WITH DOUBLE NUT INSTALLED DURING ARCH ASSEMBLY.

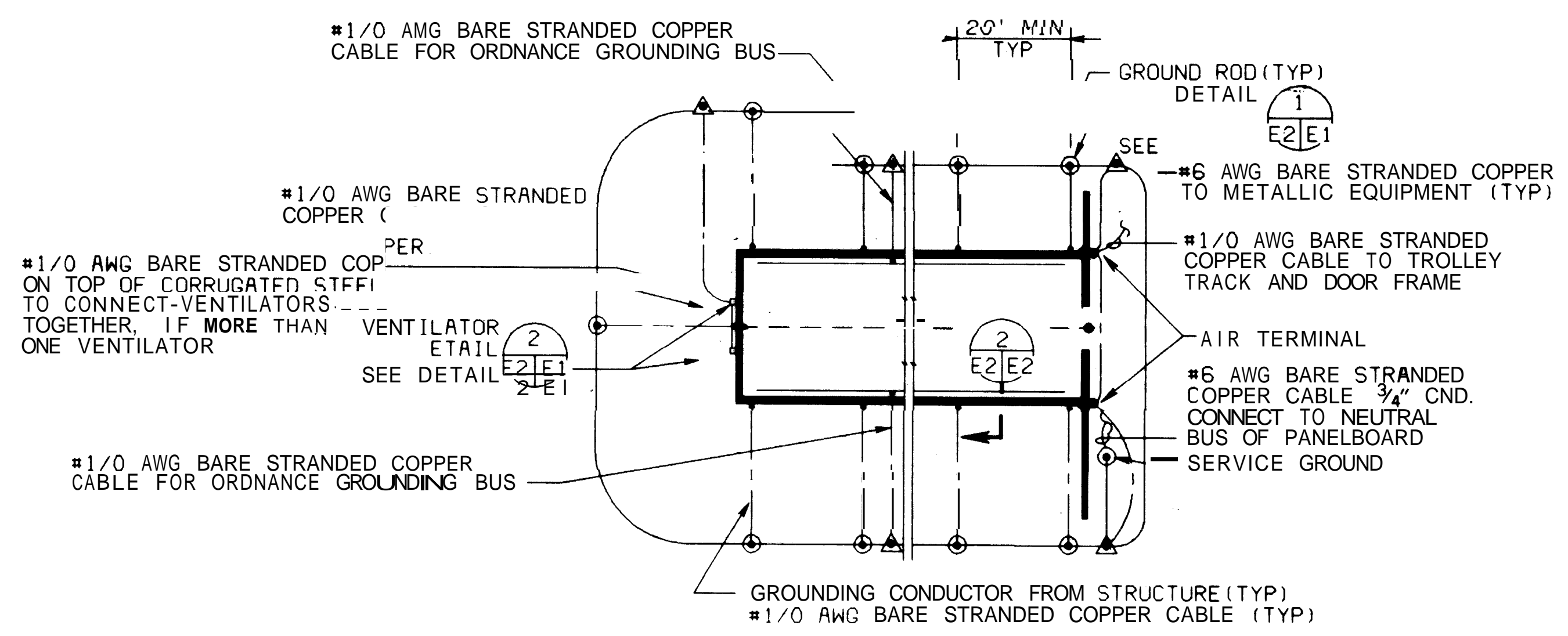


- NOTES - GROUNDING**
1. ALL REINFORCING STEEL IN BUILDING, PLATFORM, RETAINING WALLS, PAVEMENT IN FRONT OF BUILDING, AND ALL METAL PARTS AND EQUIPMENT IN BUILDING SHALL BE BONDED TO GROUND GIRDLE. CONNECTIONS SHALL BE NO. 6 AWG MIN. BARE STRANDED COPPER WIRE OR EQUIVALENT CAPACITY COPPER BRAID STRAP.

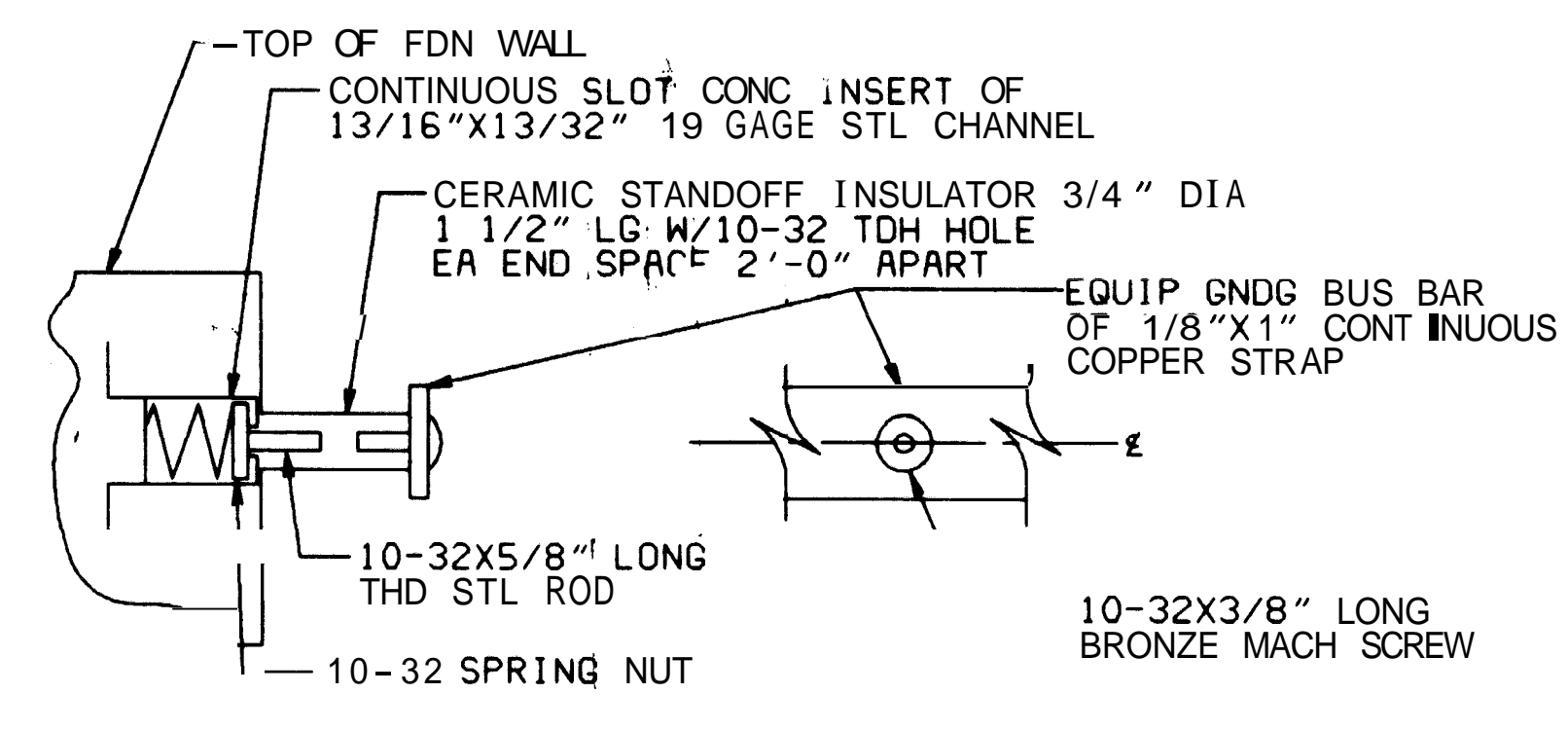


	DSN: <i>111</i> DR: <i> </i> CHK: <i> </i> SUBMITTED BY: <i>VP 10/24/84</i> FILE NO: <i> </i> TITLE: <i> </i> NARRATIVE: <i> </i> DATE: <i> </i> DATE: <i> </i>	CHECK GRAPHIC SCALES BEFORE USING DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND 200 STOVALL STREET ALEXANDRIA, VA. 22304		
	NAVFAC: <i> </i> RVD: <i> </i> CRIT: <i> </i> DATE: <i> </i> APPROVED: <i> </i> DATE: <i> </i> FOR COMMANDER USE ONLY	STANDARD EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE PANELBOARD DETAILS	SIZE: <i> </i> CODE IDENT. NO.: <i> </i> NAVFAC DRAWING NO.: F 80091 1404388	CONSTR. CONTR. NO.: SCALE AS NOTED SPEC. NFSS-M21 SHEET E1 OF <i> </i>
	SATISFACTORY TO DDBB: <i> </i> DATE: <i> </i> APPROVED: <i> </i> DATE: <i> </i>	CONSTRUCTION CONTRACT NO.: <i> </i>	SHEET NO.: <i> </i>	TOTAL SHEETS: <i> </i>
	DATE: <i> </i>	DATE: <i> </i>	DATE: <i> </i>	DATE: <i> </i>

REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED



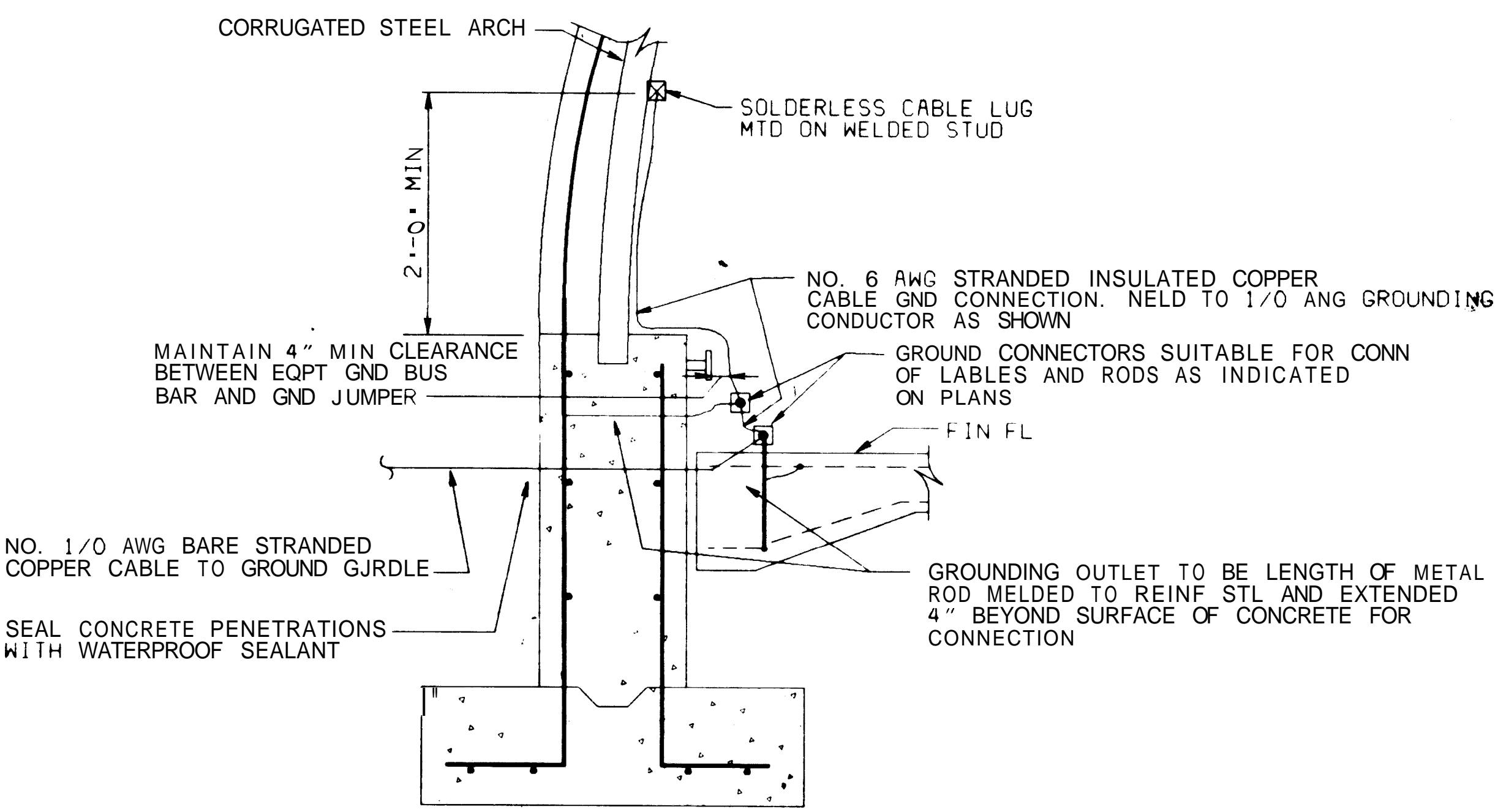
TYPICAL GROUNDING PLAN
SCALE: 1" = 20'-0"



SECTION FRONT VIEW
ORDNANCE GROUNDING BUS BAR

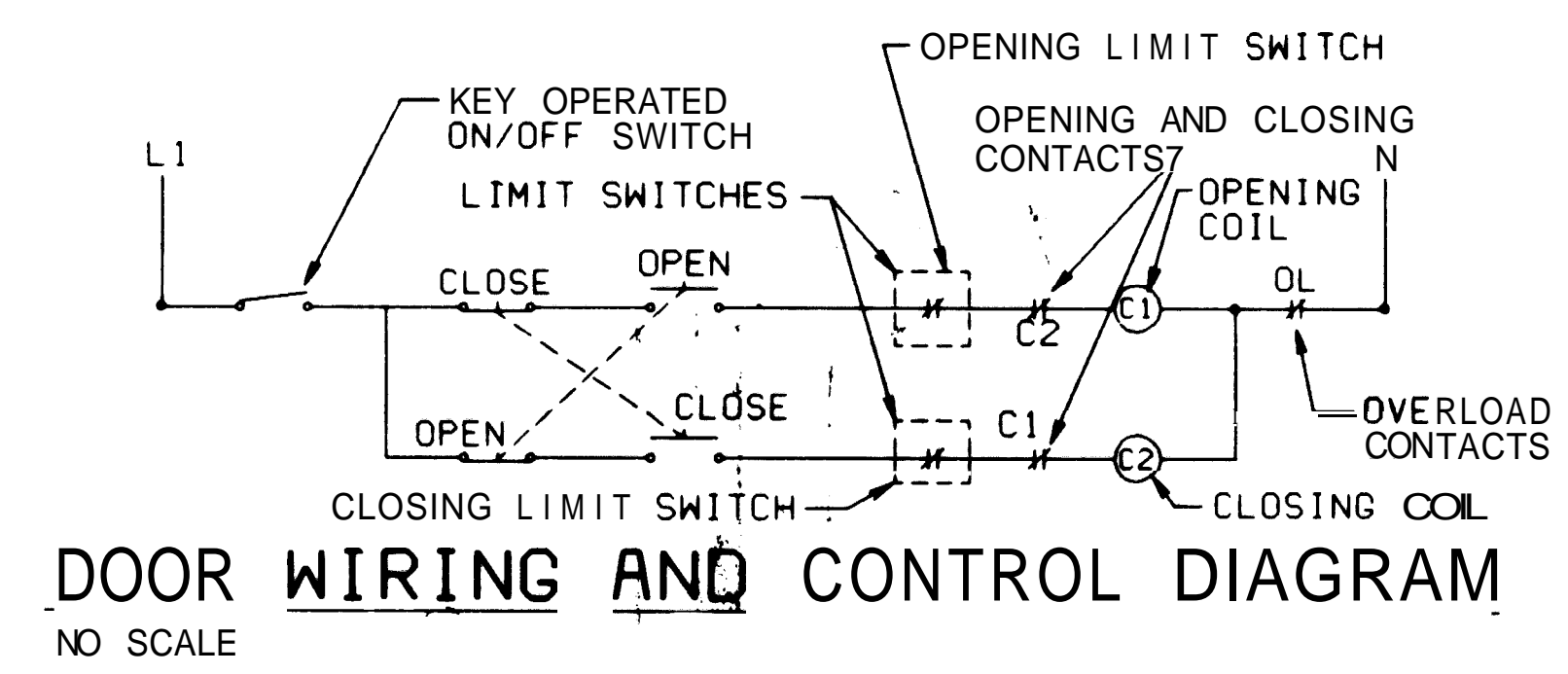
DETAIL
NO SCALE

BRCH TYPE	MAGAZINE SIZE		EXTERIOR		INTERIOR		MOTOR		PANEL TOTAL (1 MAG) (KW) *			
	WIDTH (FT)	LENGTH (FT)	LGT FIX QTY	RECP WATTS	LGT FIX QTY	RECP WATTS	QTY	SIZE				
1	25	80	1	30	1	900	10	200	0	1	2 HP 2880	6
2	25	50	1	100	1	900	5	200	0	1	2 HP 2880	5
* CONNECTED LOAD												

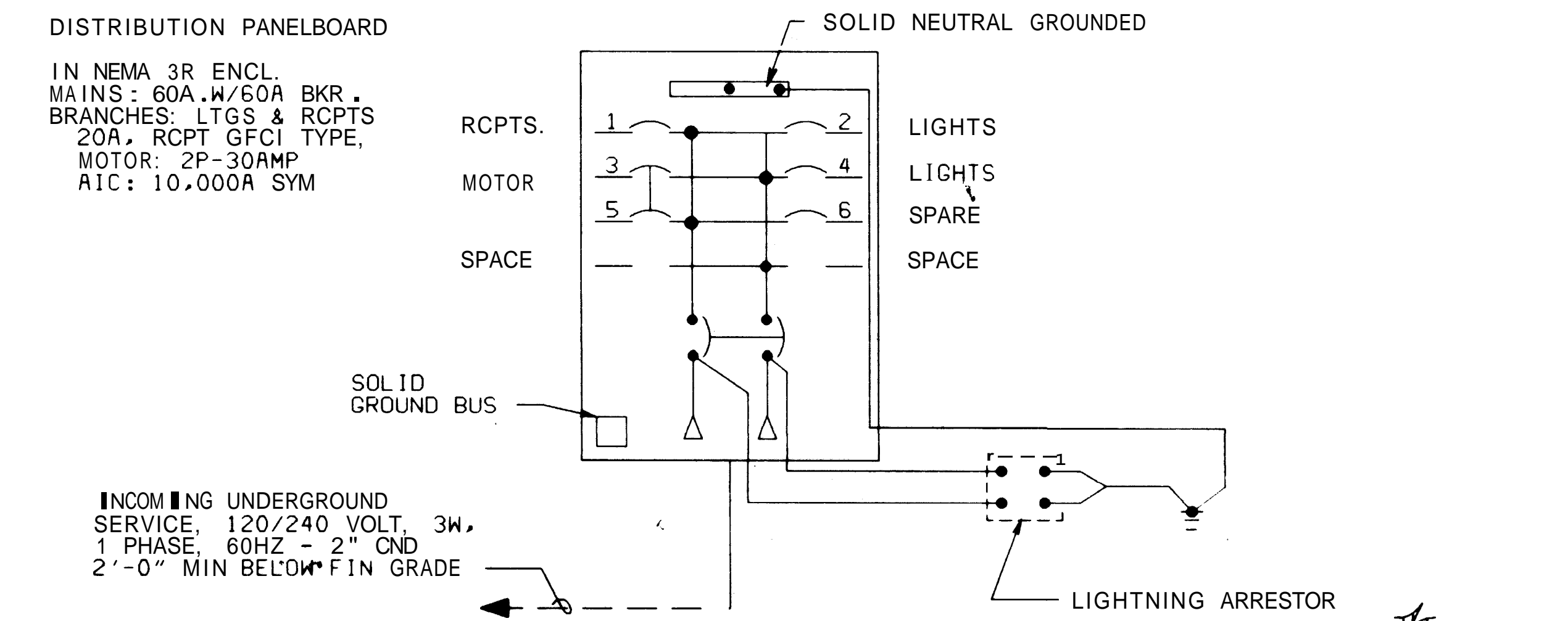


TYPICAL GROUND CONNECTIONS

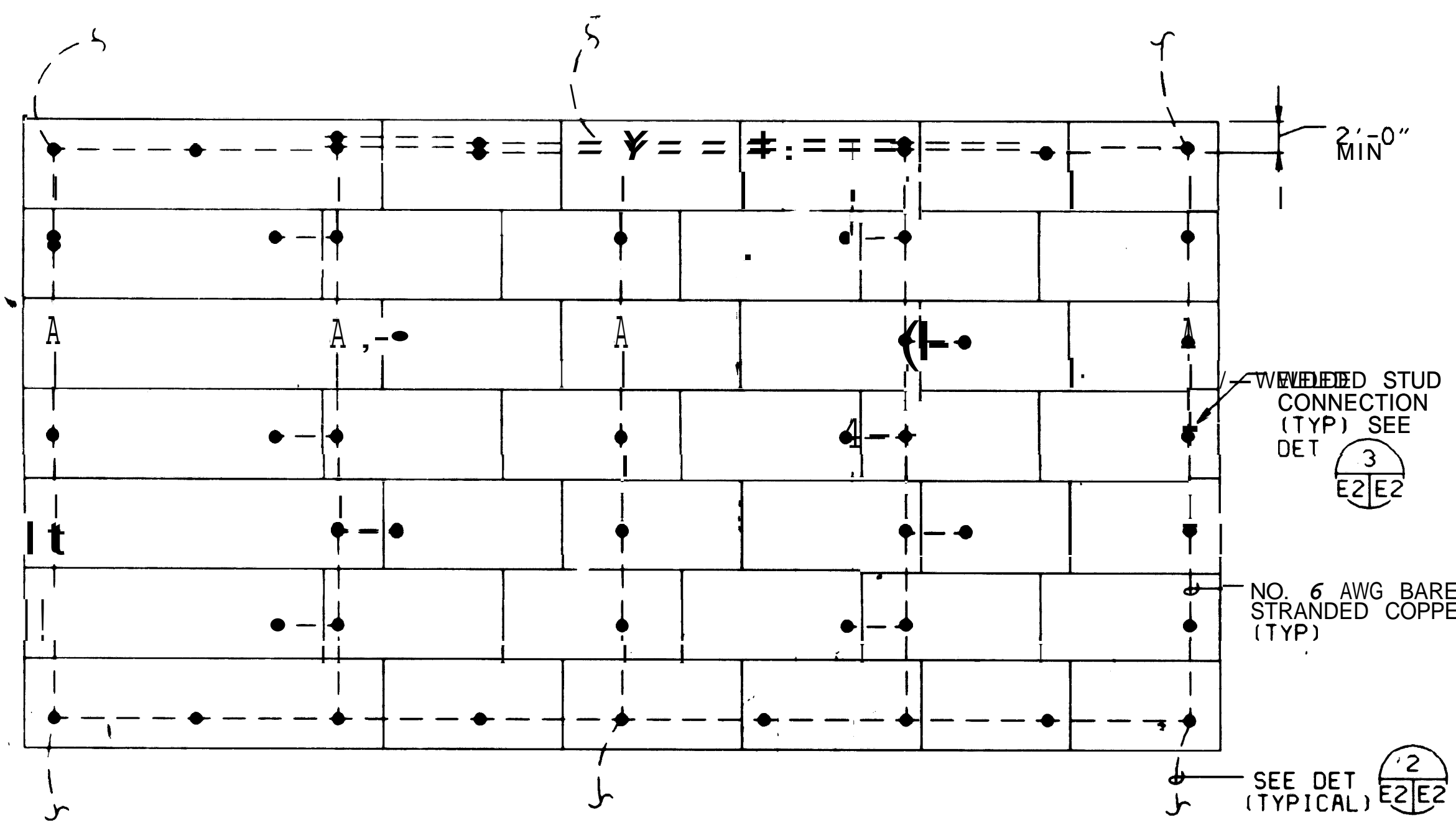
SECTION
NO SCALE



DOOR WIRING AND CONTROL DIAGRAM
NO SCALE



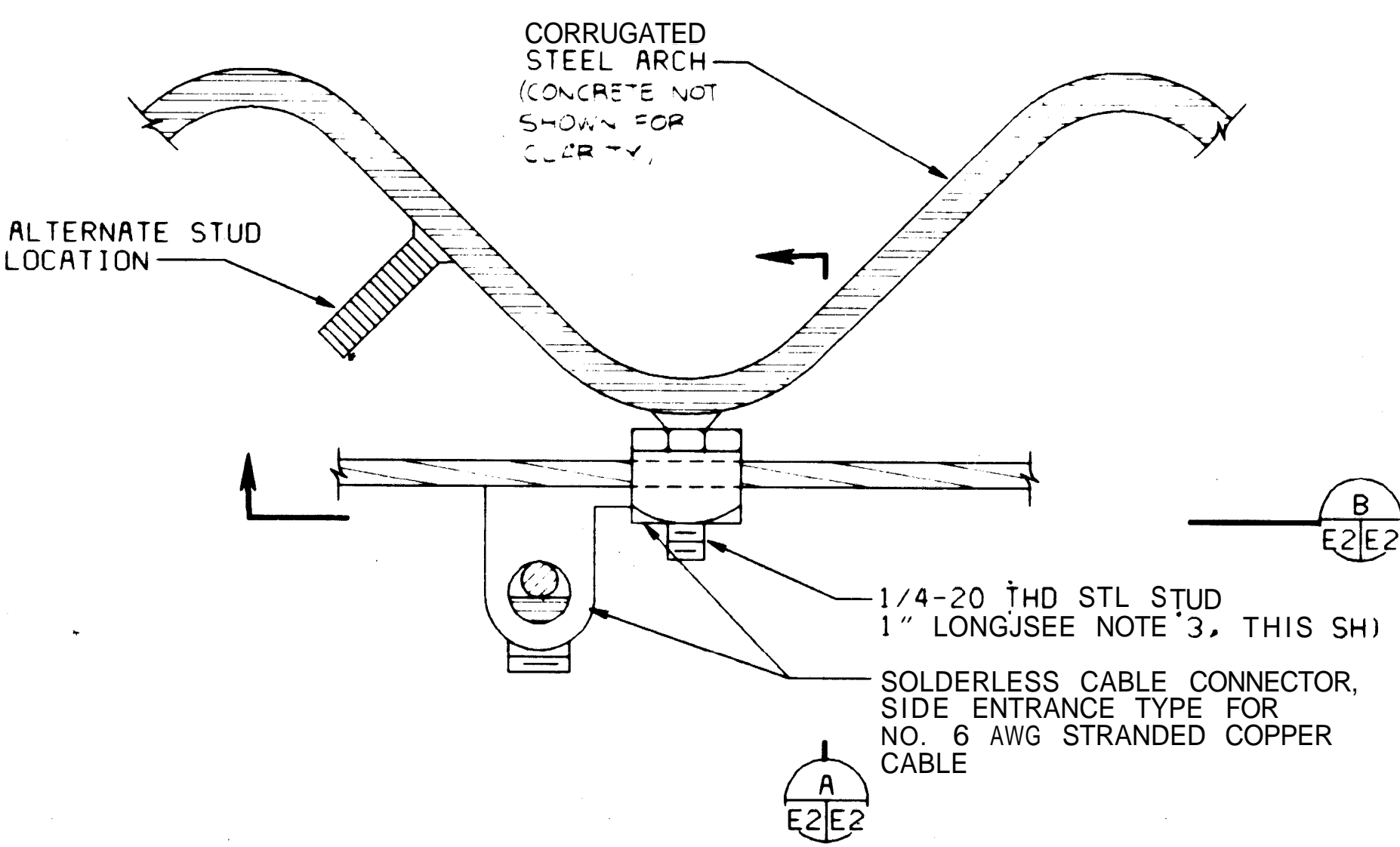
ELECTRICAL SERVICE SINGLE LINE DIAGRAM
NO SCALE



PLAN STEEL ARCH GROUNDING CONNECTIONS
SCALE: 1/8" = 1'-0"

LIGHTING FIXTURE SCHEDULE		
TYPE	DESCRIPTION	SIZE
A	EXPLOSION PROOF INCANDESCENT CEILING MOUNTED ASSEMBLY WITH CLEAR LAMP, GLOBE, GUARD AND DOME REFLECTOR SUITABLE FOR HAZARDOUS LOCATION CLASS I, DIV II, GROUP D AND CLASS II, DIV II, GROUP 6.	200w
B	VAPOR TIGHT HIGH PRESSURE SODIUM WALL MOUNTED FIXTURE ENCLOSED AND GASKETED, WITH CLEAR LAMP, WITH ISOM QUARTZ-EMERGENCY STANDBY LIGHT SYSTEM AND CAST GUARD FOR REFRACTOR TO BE OPERATED BY PHOTO-CELL MOUNTED ABOVE FIXTURE. BALLAST SHALL BE RATED FOR -20°F COLD WEATHER OPERATION.	100w

* NOTE:
LIGHTING FIXTURE FOR LIGHTING THE AREA IN FRONT OF THE IGLOO SHALL BE HIGH PRESSURE SODIUM. ALL EXTERIOR LIGHTS SHALL BE CONNECTED ON THE SAME CIRCUIT TO FACILITATE CONTROL AT THE PANELBOARD.

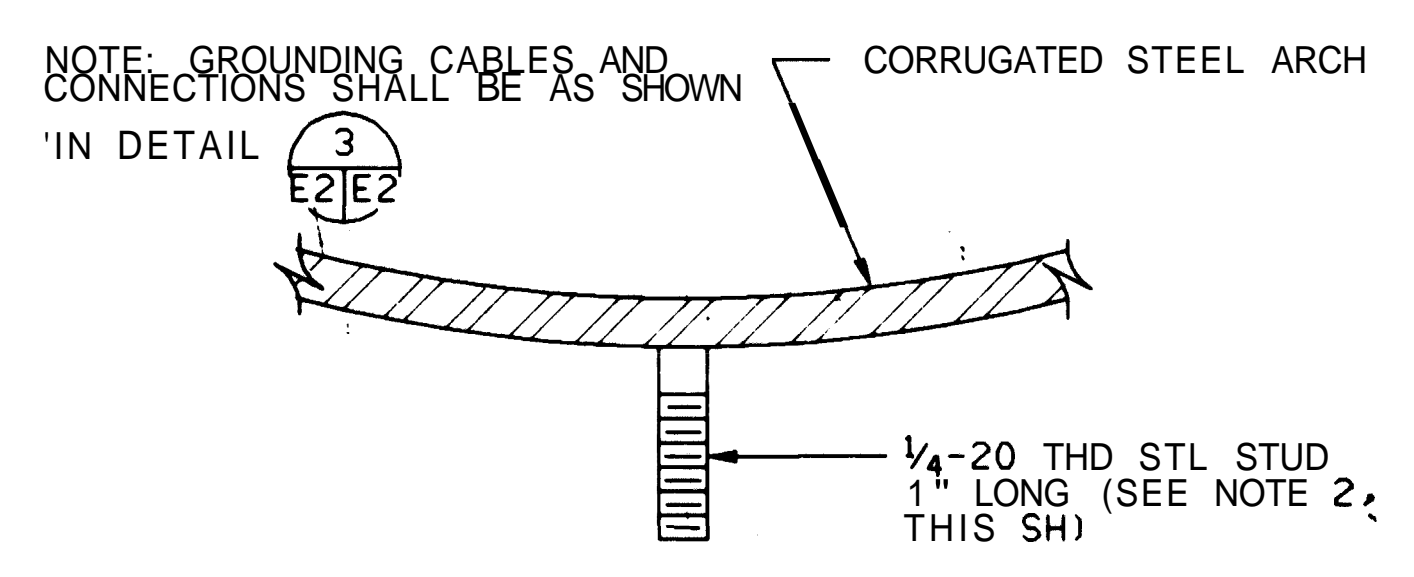


WELDED STUD GROUND CONNECTION

DETAIL
NO SCALE

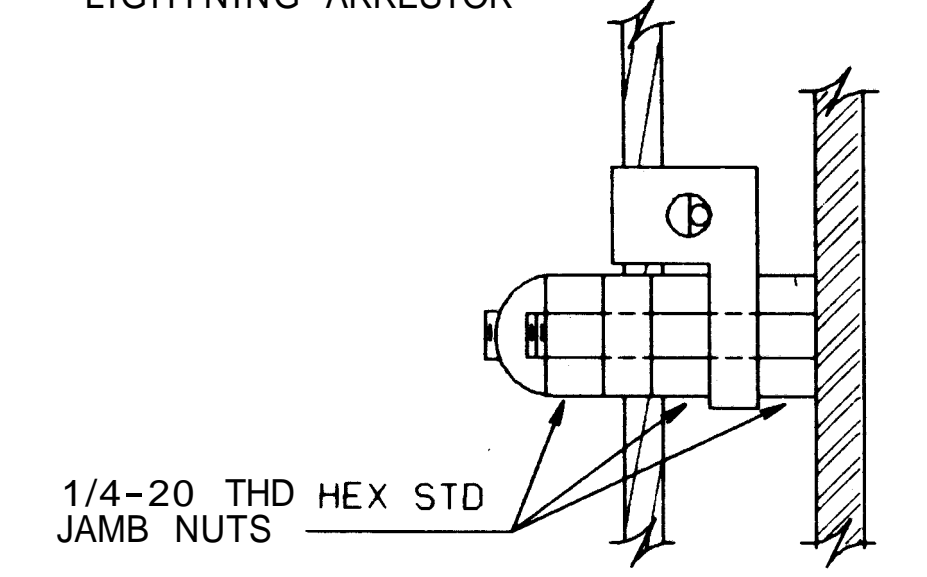
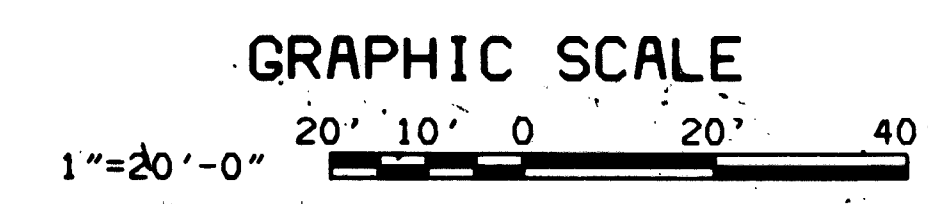
NOTES:

- REQUIREMENT: DUE TO SEALING OF JOINTS AND DAMP-PROOFING REQUIRED BY NAVFAC STANDARD SPECIFICATIONS M21 INDIVIDUAL STEEL ARCH PLATES (OR MODULAR PANELS) ARE EFFECTIVELY ELECTRICALLY ISOLATED FROM EACH OTHER AND FROM THE EARTH. THE GROUNDING CONNECTIONS SHOWN ON THIS DRAWING SHALL BE APPLIED TO MEET THE ELECTRICAL BONDING REQUIREMENTS OF THE STANDARD SPECIFICATIONS
 - CONNECTIONS: THE GROUNDING CONNECTIONS SHOWN SHALL BE INSTALLED ON THE INTERIOR SURFACE OF THE STEEL ARCH. FOR DETAILS OF THE INTERCONNECTIONS BETWEEN STEEL ARCH AND GROUNDING SYSTEM SEE DETAILS THIS SHEET.
 - WELDED STUDS: WELDED STUDS SHALL BE OF THE SIZE AND TYPE SHOWN AND SHALL BE INSTALLED BY THE SHIELDED ELECTRIC ARC OR CAPACITOR-DISCHARGE STUD WELDING PROCESS AS APPROPRIATE FOR MATERIAL THICKNESS. BY MEANS OF MANUAL PORTABLE STUD-WELDING EQUIPMENT DESIGNED FOR THE PURPOSE, STUDS SHALL BE LOCATED AS SHOWN ON THE PLANS WITH A MINIMUM OF ONE STUD PER PLATE OR PANEL AND ADDITIONAL STUDS AS REQUIRED TO PROVIDE ADEQUATE SUPPORT OF THE GROUNDING CONDUCTORS. WHERE THE WELDING PROCESS DESTROYS THE GALVANIZING ON THE ARCH STEEL THE AREAS SHALL BE RECOATED BY ZINC SPRAYING TO PROVIDE PROTECTION AGAINST CORROSION WHILE MAINTAINING ELECTRICAL CONDUCTIVITY.
- ALL REINFORCING STEEL IN BUILDING, PLATFORM, RETAINING WALLS, PAVEMENT IN FRONT OF BUILDING, AND ALL METAL PARTS AND EQUIPMENT IN BUILDING SHALL BE BONDED TO GROUND GIRDLER. CONNECTIONS SHALL BE NO. 6 AWG MIN BARE STRANDED COPPER WIRE OR EQUIVALENT CAPACITY COPPER BRAID STRAP.

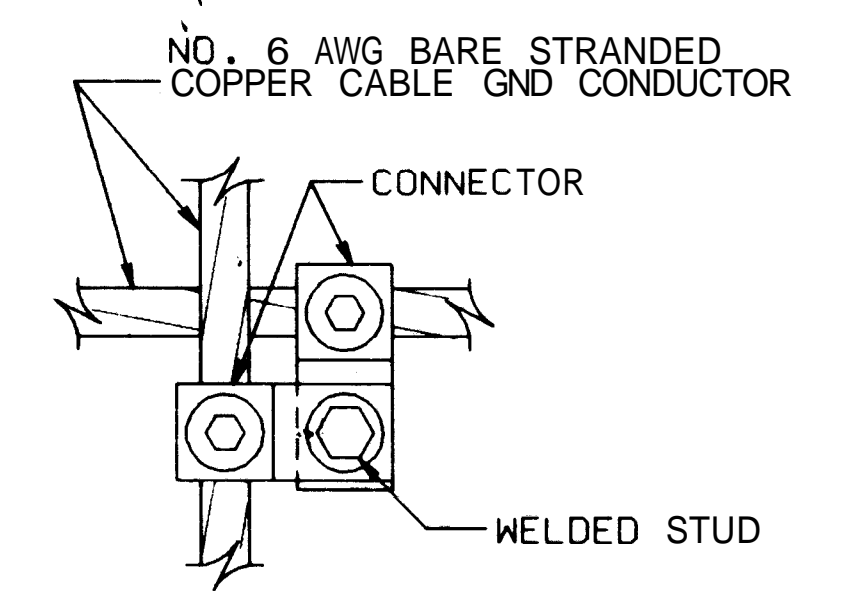


TYPICAL WELDED STUD

DETAIL
NO SCALE



SECTION A
NO SCALE



SECTION B
NO SCALE

NOTE: ARRANGEMENT SHOWN IS TYPICAL FOR BIDIRECTIONAL CABLE RUNS. SINGLE RUNS TERMINATION OF CABLE AND NUMBER OF CONNECTORS SHALL BE AS INDICATED BY PLANS OF STEEL ARCH PLATE (OR MODULAR PANEL). GROUNDING CONNECTIONS SHOWN AT LEFT ON THE DWG.

CHECK GRAPHIC SCALES BEFORE USING

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
200 STOVALL STREET ALEXANDRIA, VA. 22332

STANDARD
EARTH-COVERED CIRCULAR COMPOSITE ARCH MAGAZINE
ELECTRICAL
SCHEDULES AND SINGLE LINE DIAGRAM

SIZE CODE IDENT. NO. NAVFAC DRAWING NO. 1404389
F 80091

CONSTR. CONTR. NO.
SCALE AS NOTED SPEC. NFSS-M21 SHEET 2 OF 2

DATE 1-14-80