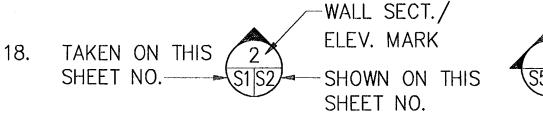
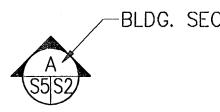
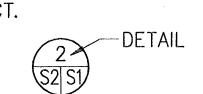
GENERAL NOTES:

- 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, EXCEPT
- 3. CONCRETE AGGREGATE SHALL HAVE A MAXIMUM SIZE OF 3/4 INCH.
- 4. ALL REINFORCING BARS SHALL BE CONTINUOUS IN ANY ONE DIRECTION EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS.
- 5. REINFORCING BARS USED AS WELDED REBAR ANCHORS SHALL CONFORM TO THE SPECIFICATION FOR LOW ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT, ASTM DESIGNATION A 706, GRADE 60.
- 6. NO WELDING OF REINFORCING BARS SHALL BE PERMITTED UNLESS INDICATED ON DRAWINGS.
- 7. ALL STRUCTURAL STEEL, METAL DOORS, EQUIPMENT, ETC. SHALL BE CONNECTED TO GROUND BUSES WITH #2 COPPER GROUND CABLE.
- 8. STRUCTURAL STEEL SHAPES, PLATES AND BARS SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL STEEL, ASTM DESIGNATION A36.
- 9. METAL ROOFING AND SIDING SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL SHEET STEEL, ASTM A446.
- 10. 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.
- 11. 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.
- 12. FOR FILLET WELD SIZES NOT SHOWN ON DRAWINGS, PROVIDE MINIMUM SIZE FILLET WELDS IN ACCORDANCE WITH WELDING CODE AWS D1.1, LATEST EDITION.
- 13. UNLESS SHOWN OTHERWISE, ALL REINFORCING BAR HOOKS SHALL BE STANDARD HOOKS IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS FOR REINFOCRED CONCRETE AC1 318, LATEST EDITION.
- 14. 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-15 & S-16.
- 15. 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.
- 16. 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.
- 17. 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.







SOIL DATA

MAGAZINE:

= 4,000 PSFA. ALLOWABLE SOIL BEARING PRESSURE B. ALLOWABLE DYNAMIC RESPONSE FACTOR (SOIL BEARING) C. ALLOWABLE LATERAL SOIL PRESSURE COEFFICIENT a) MAGAZINE WALLS = 0.5b) WING WALLS = 0.3D. 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 (11/2 FT. EARTH FILL + 6 IN. (GRAVEL) = 200 PSF B. FLOOR LOADS a) UNIFORM STORAGE LIVE LOAD = 2000 PSFb) FORKLIFT WHEEL LOAD: BASED ON DREXEL MODEL NO. SL-88-ESS = 8000 LB MAX LOAD = 26,000 LBSMAXIMUM WHEEL LOAD = 65 SQ. IN. WHEEL CONTACT AREA C. PLATFORM AND RAMP LIVE LOAD = 1000 PSFD. ROOF LIVE LOAD = 100 PSF
- SEISMIC LOADS:

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

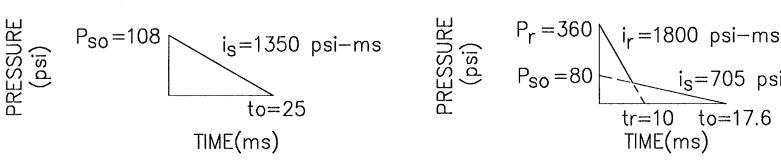
WIND LOADS:

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:

- DONOR MAGAZINE LOCATED AT 2W 1/3 TO THE REAR OF
- THE ACCEPTOR MAGAZINE.
- DONOR MAGAZINE LOCATED AT 2W 1/3 TO THE FRONT OF THE ACCEPTOR MAGAZINE.



ROOF LOADING

HEAD WALL LOADING

TIME(ms)

tr=10 to=17.6

DEFLECTION CRITERIA

C. HEADER BEAM $= 2^{\circ}$

D. PILASTERS $X_M/X_E = 3.0$

E. BLAST DOORS $= 12^{\circ}$

A. ROOF SLAB

B. HEAD WALL

MAXIMUM SUPPORT ROTATIONS OR DUCTILITY RATIO:

= 8°

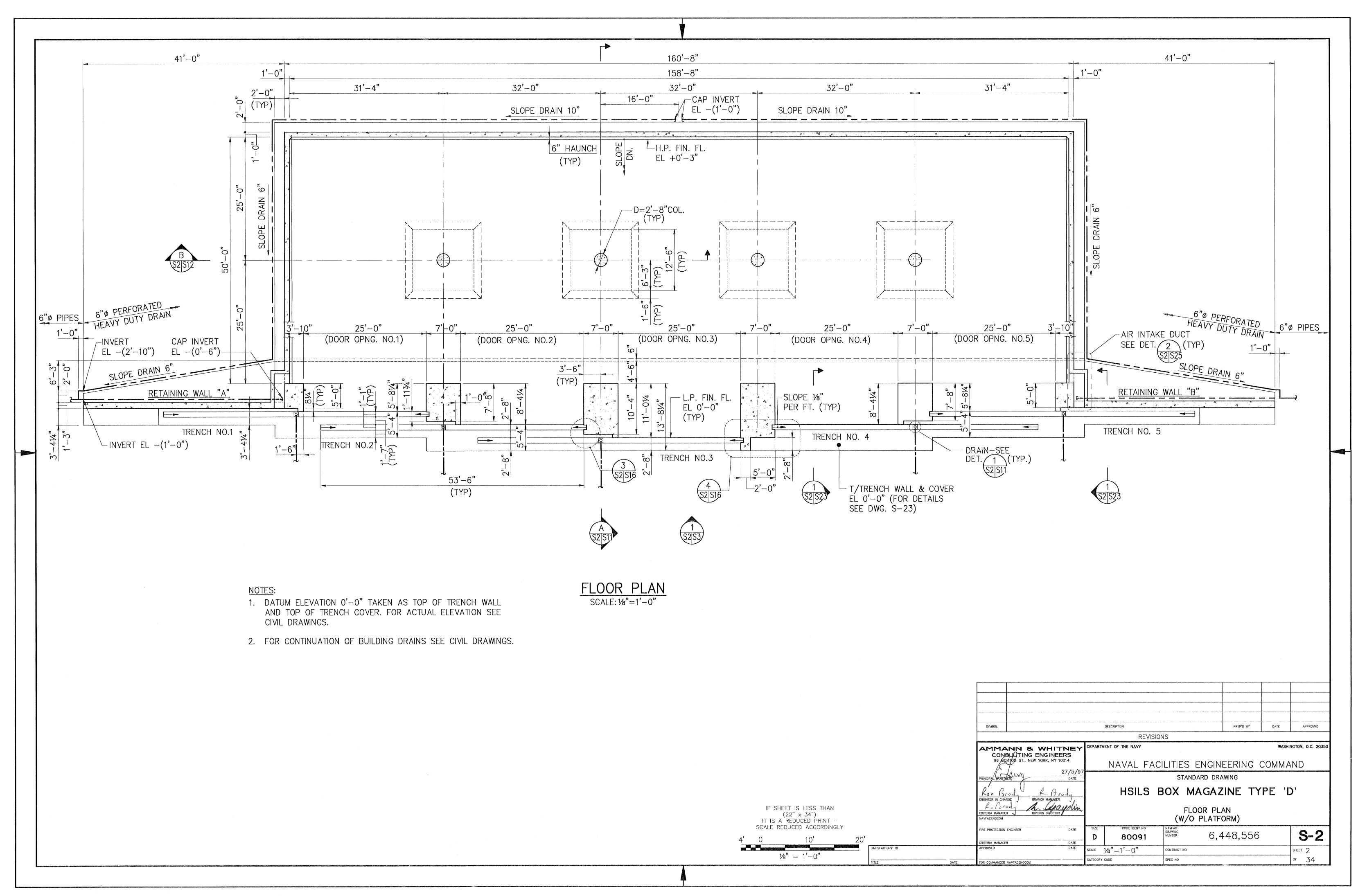
= 6°

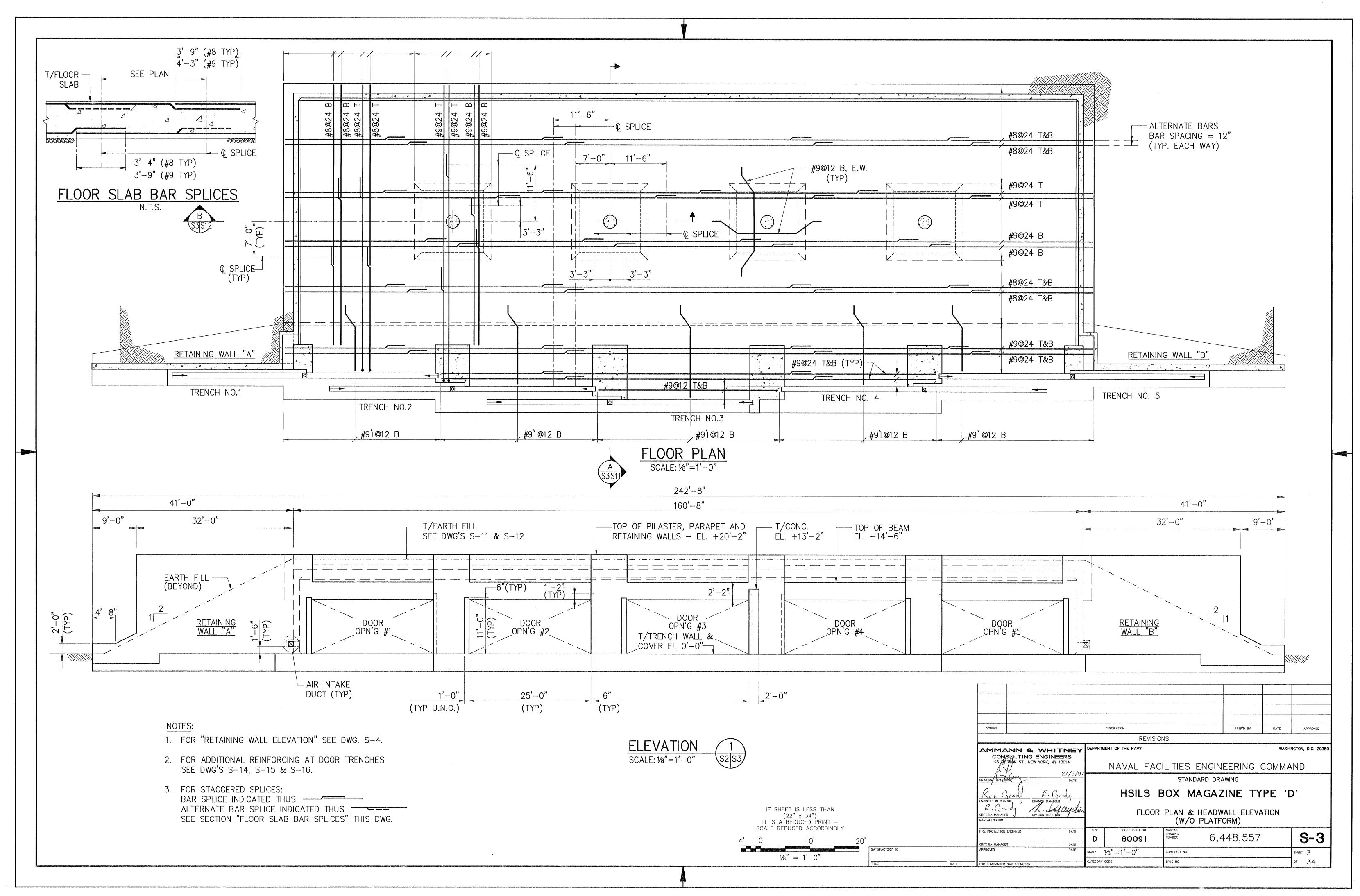
STANDARD DRAWING NOTE:

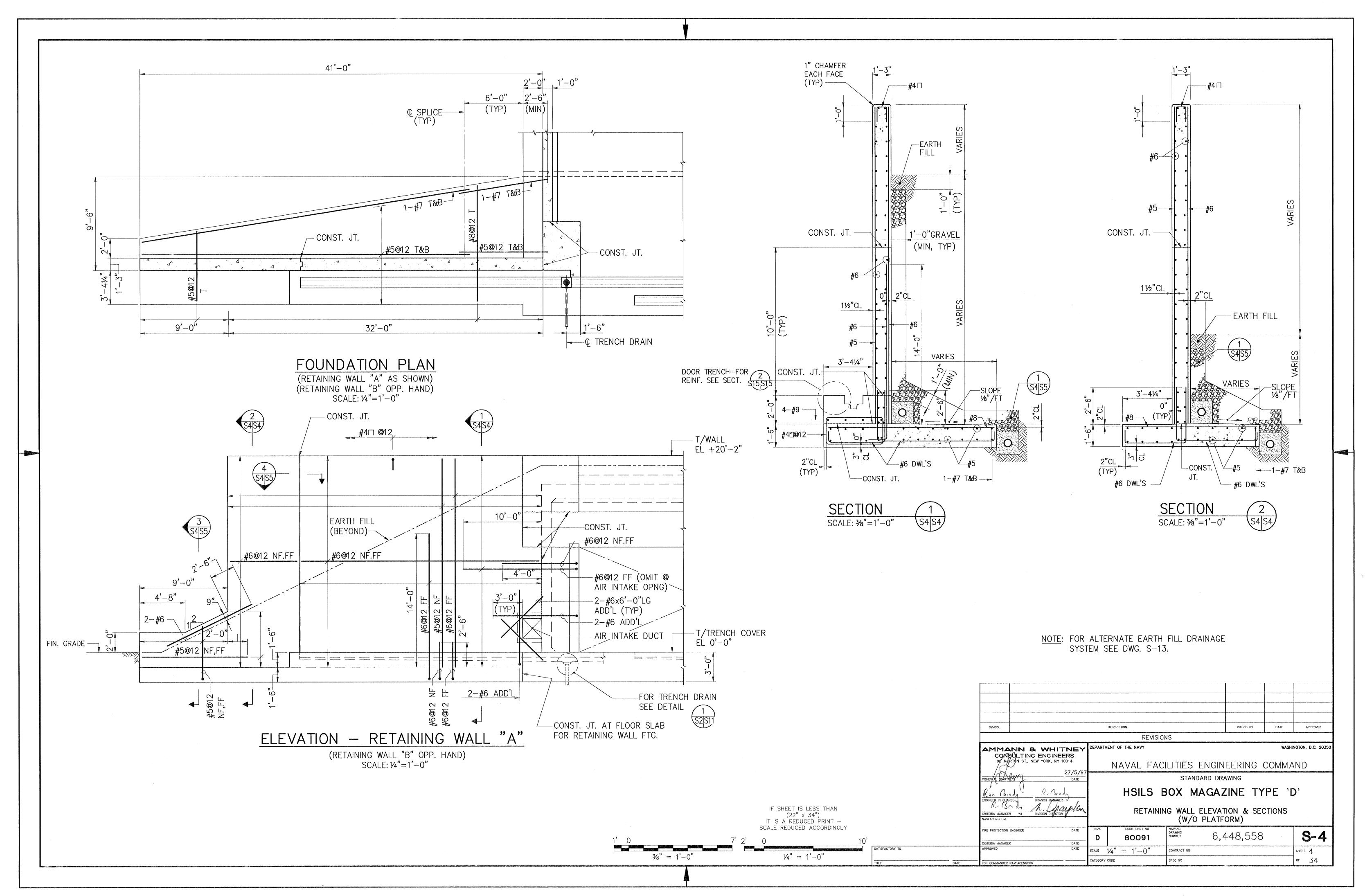
THIS DRAWING SET, NAVFAC DRAWINGS 6448555 THRU 6448588, WAS APPROVED AS THE STANDARD 7-BAR EARTH COVERED MAGAZINE DESIGN FOR THE HSILS TYPE D BOX MAGAZINE 27 MAY 1997.

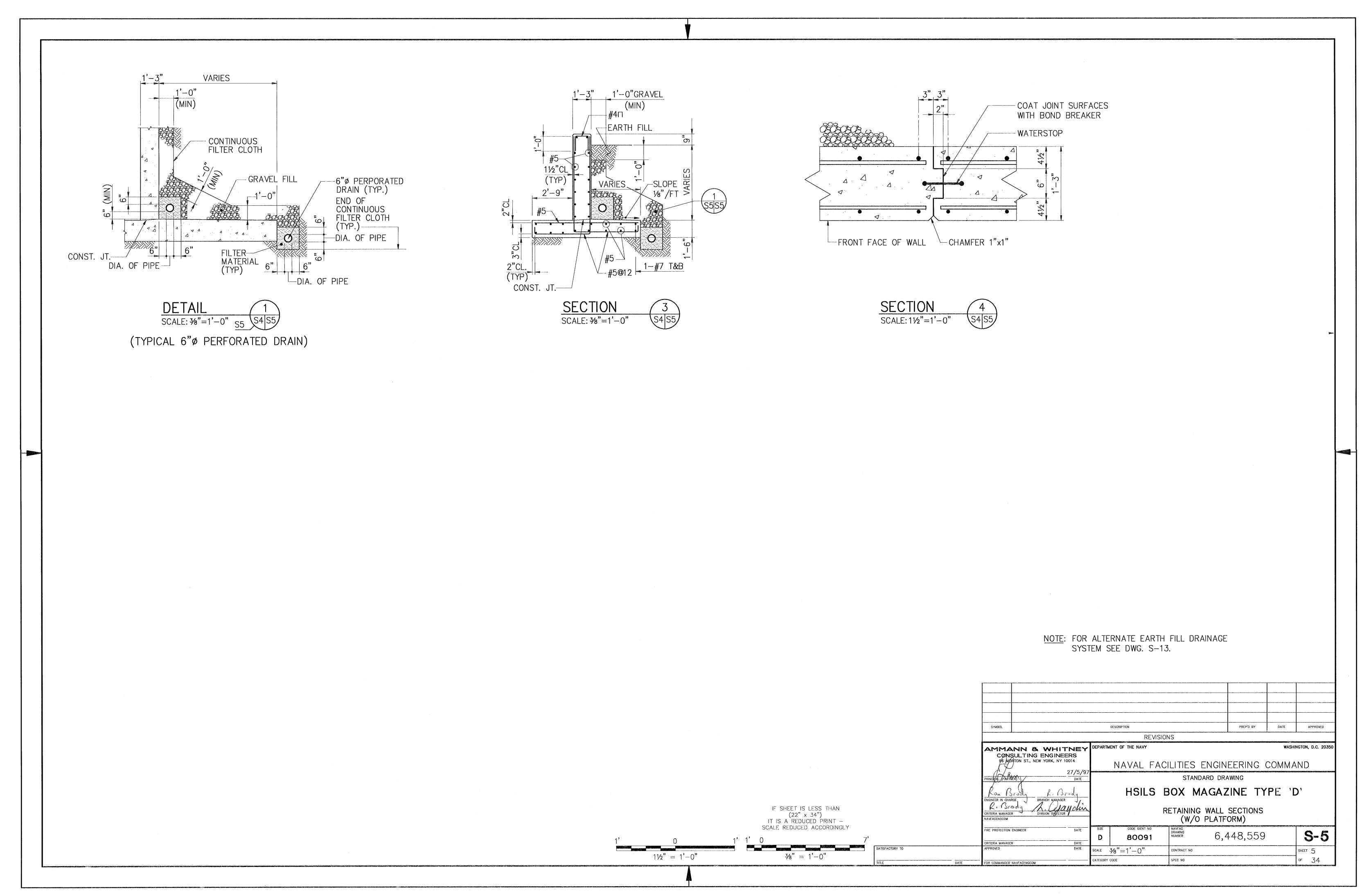
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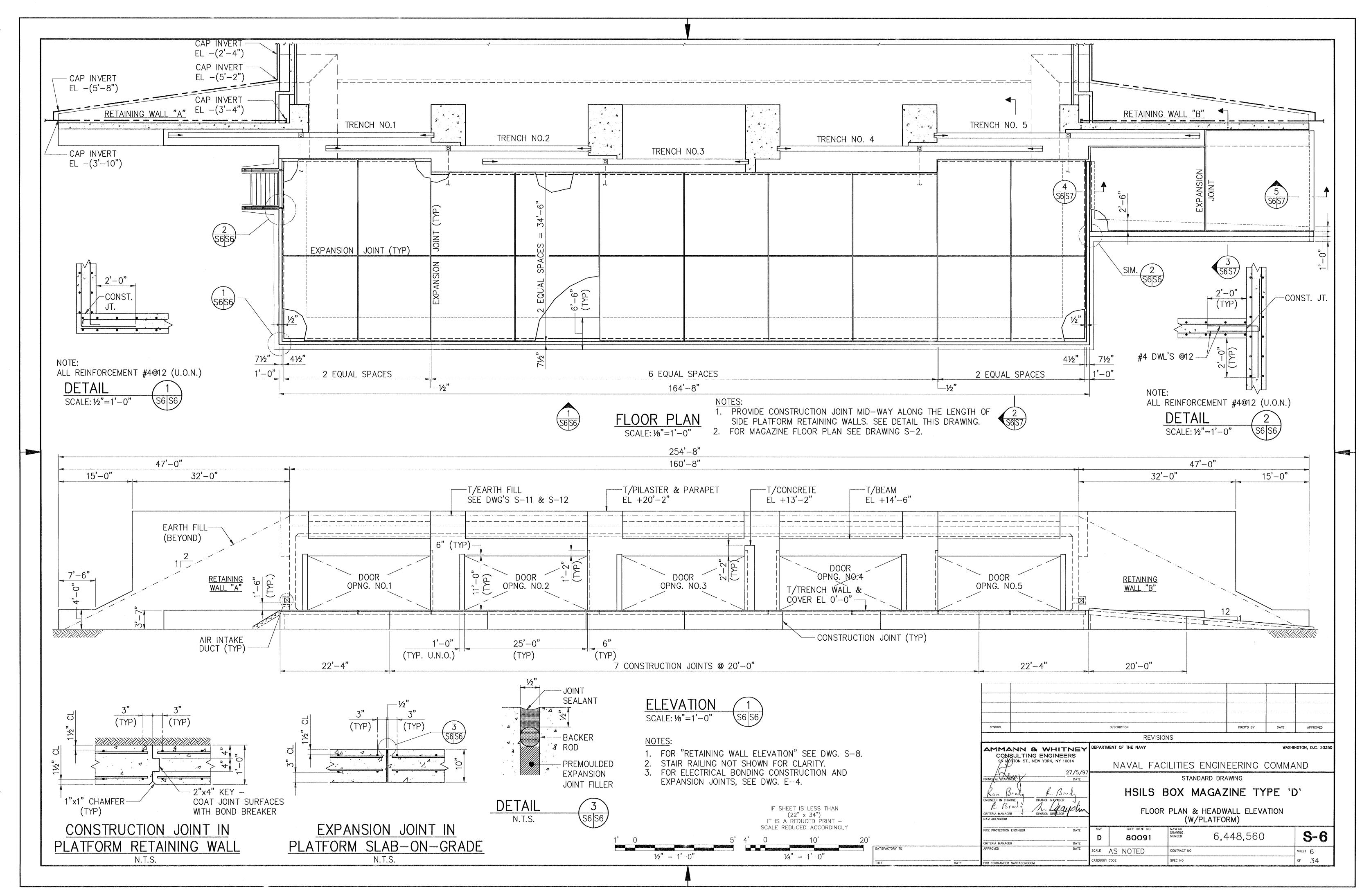
DESCRIPTION DATE APPROVED REVISIONS AMMANN & WHITNEY DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350 CONSULTING ENGINEERS
96 MORTON ST., NEW YORK, NY 10014 NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING HSILS BOX MAGAZINE TYPE 'D' GENERAL NOTES RE PROTECTION ENGINEER S-1 6,448,555 80091 CONTRACT NO SHEET 1 34

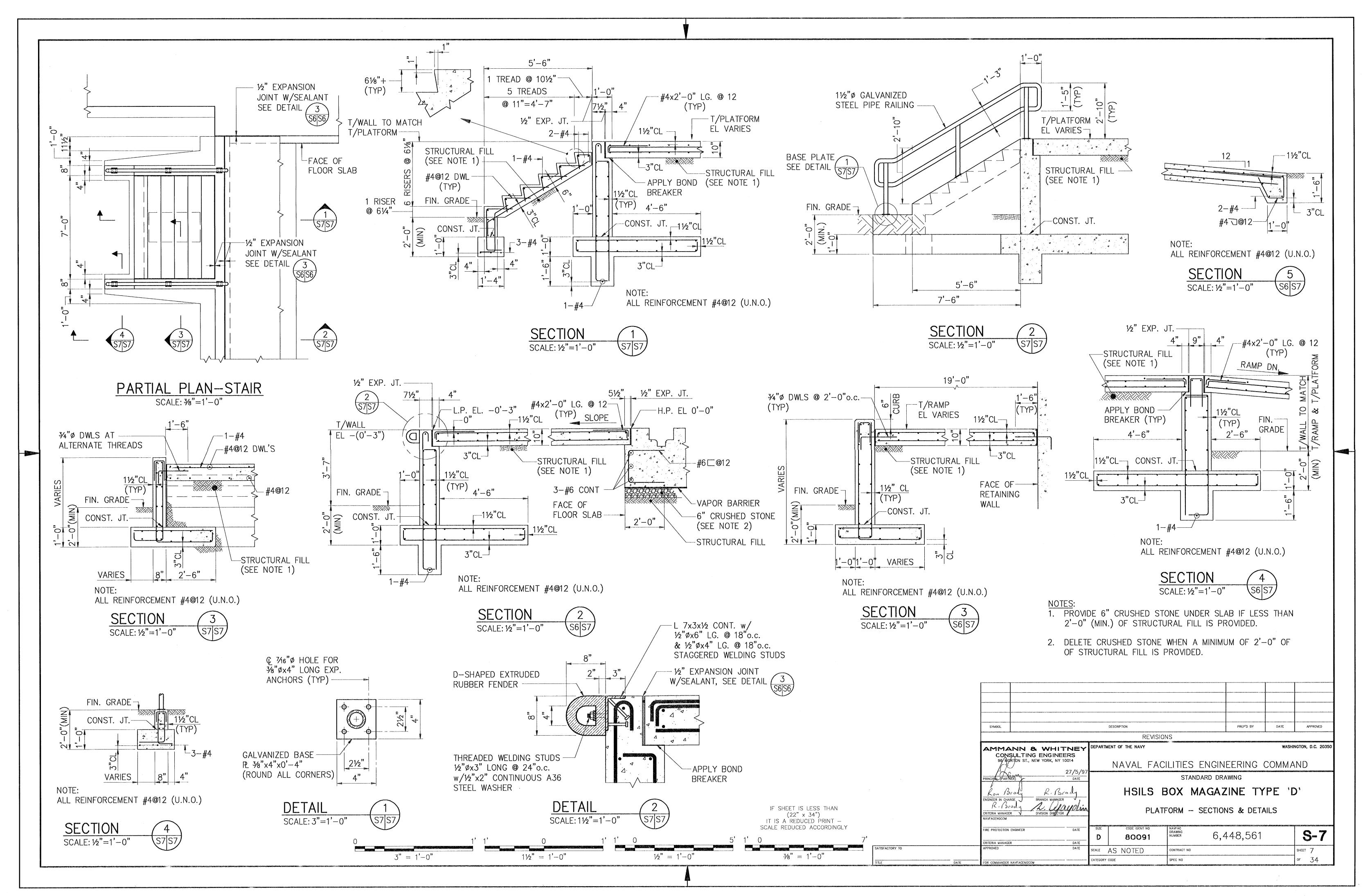


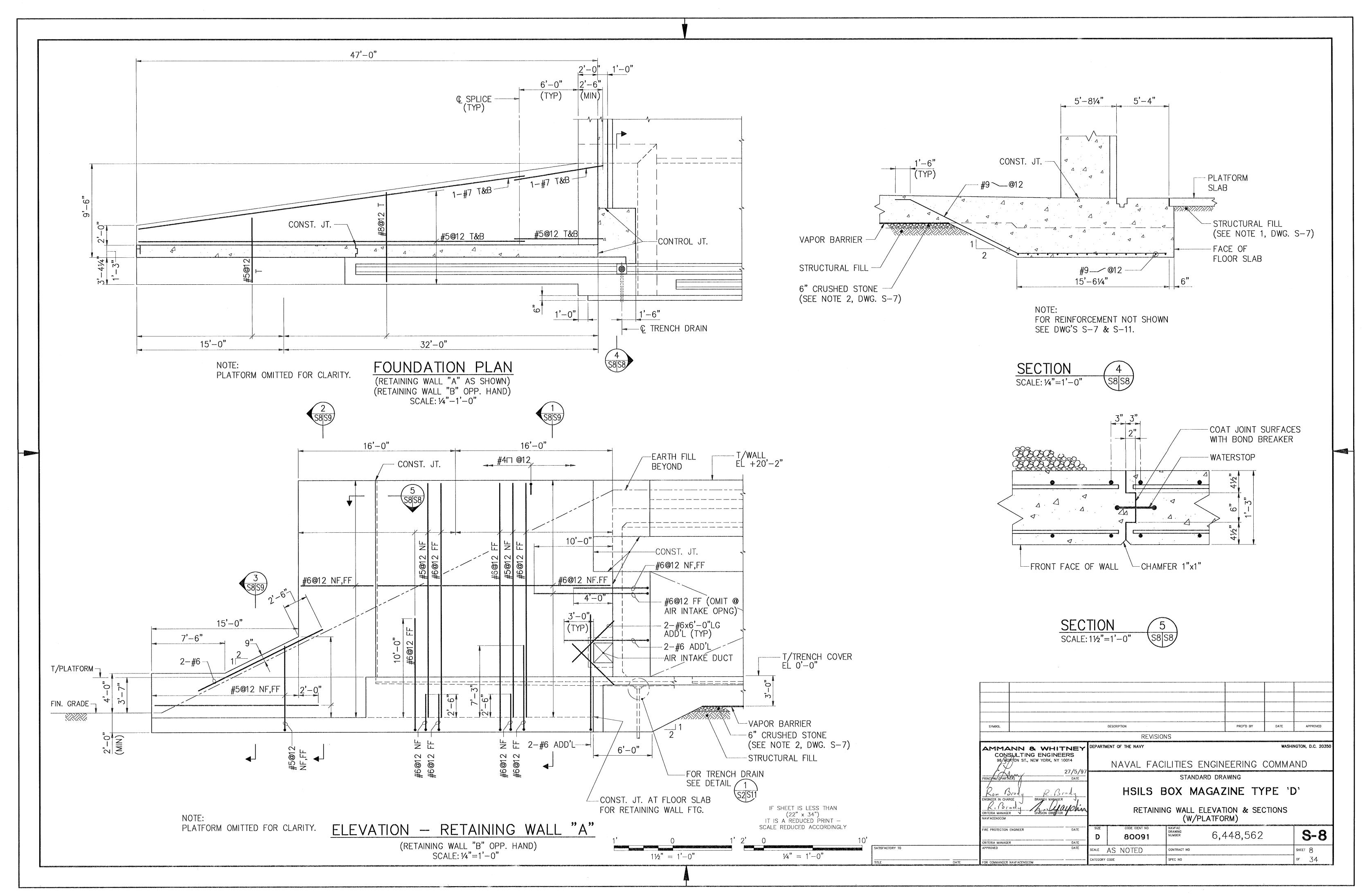


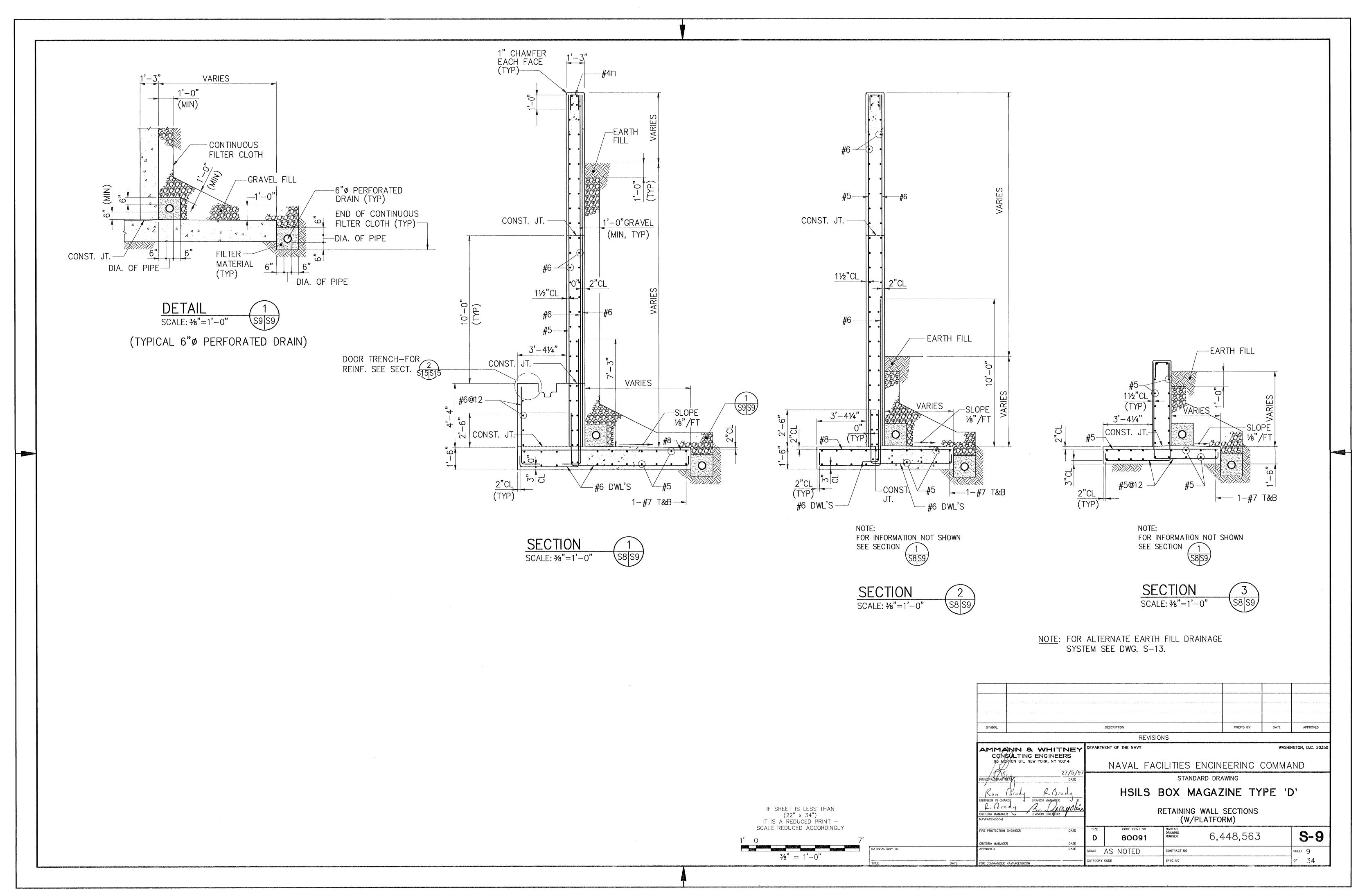


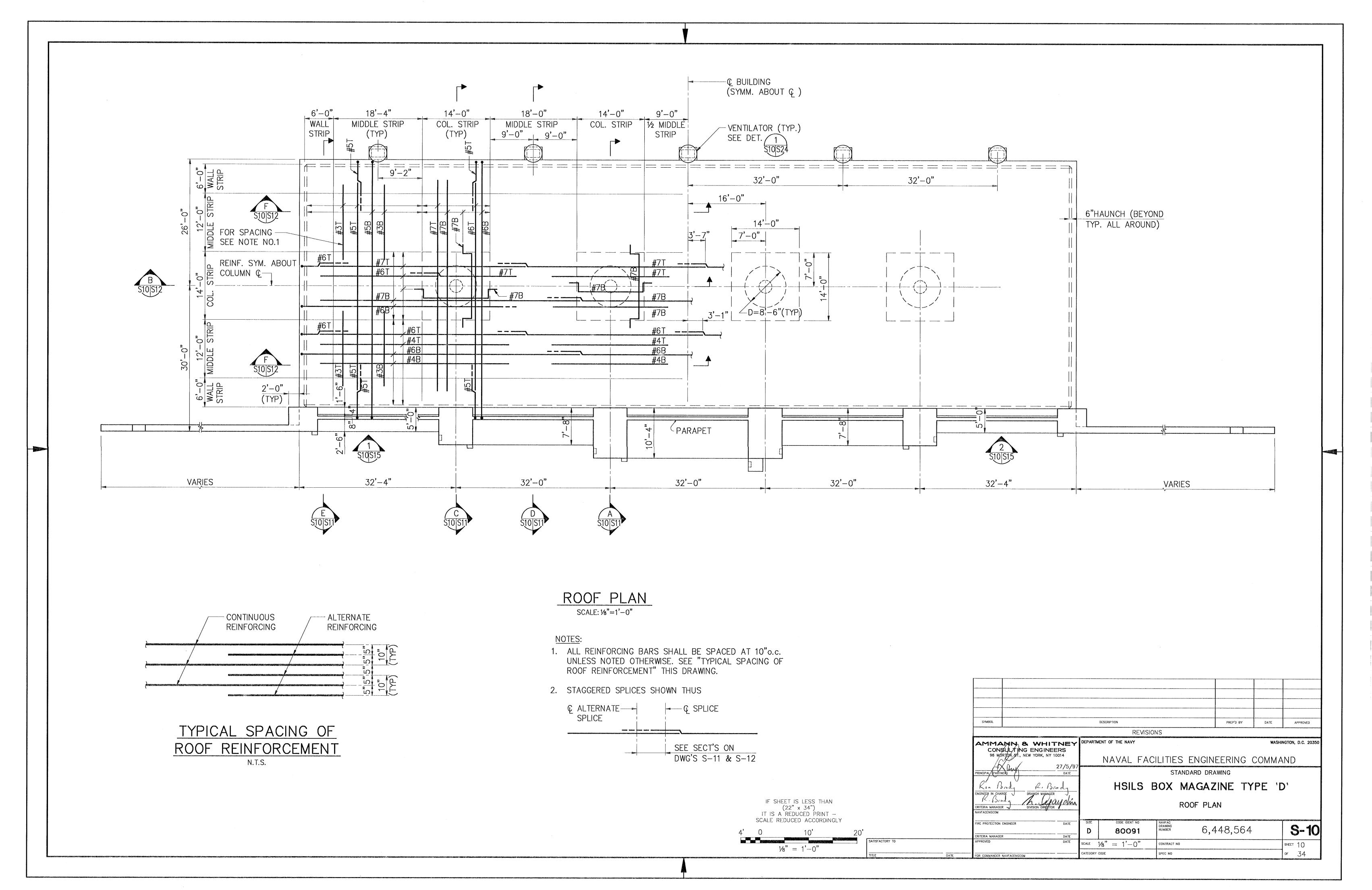


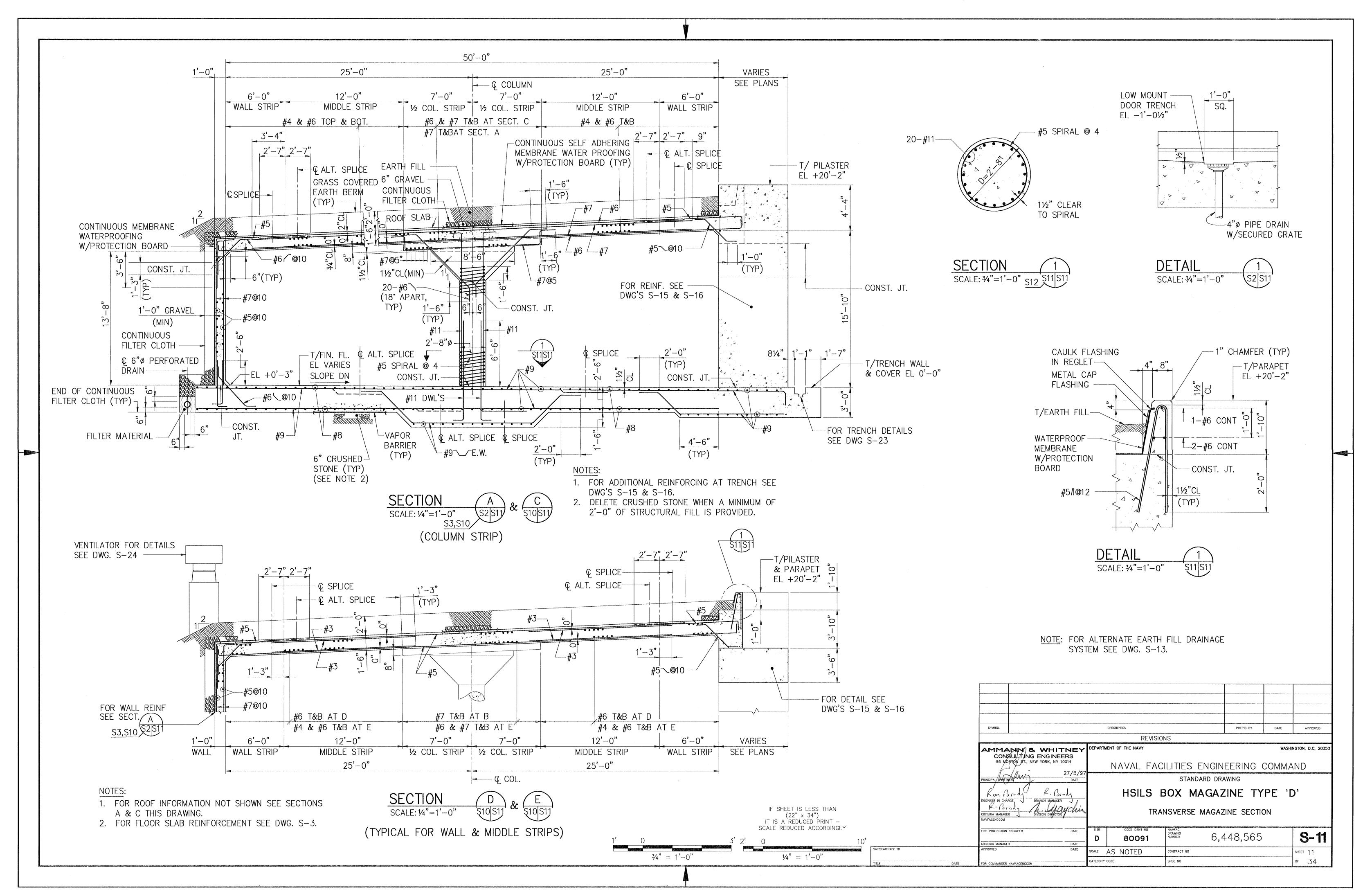


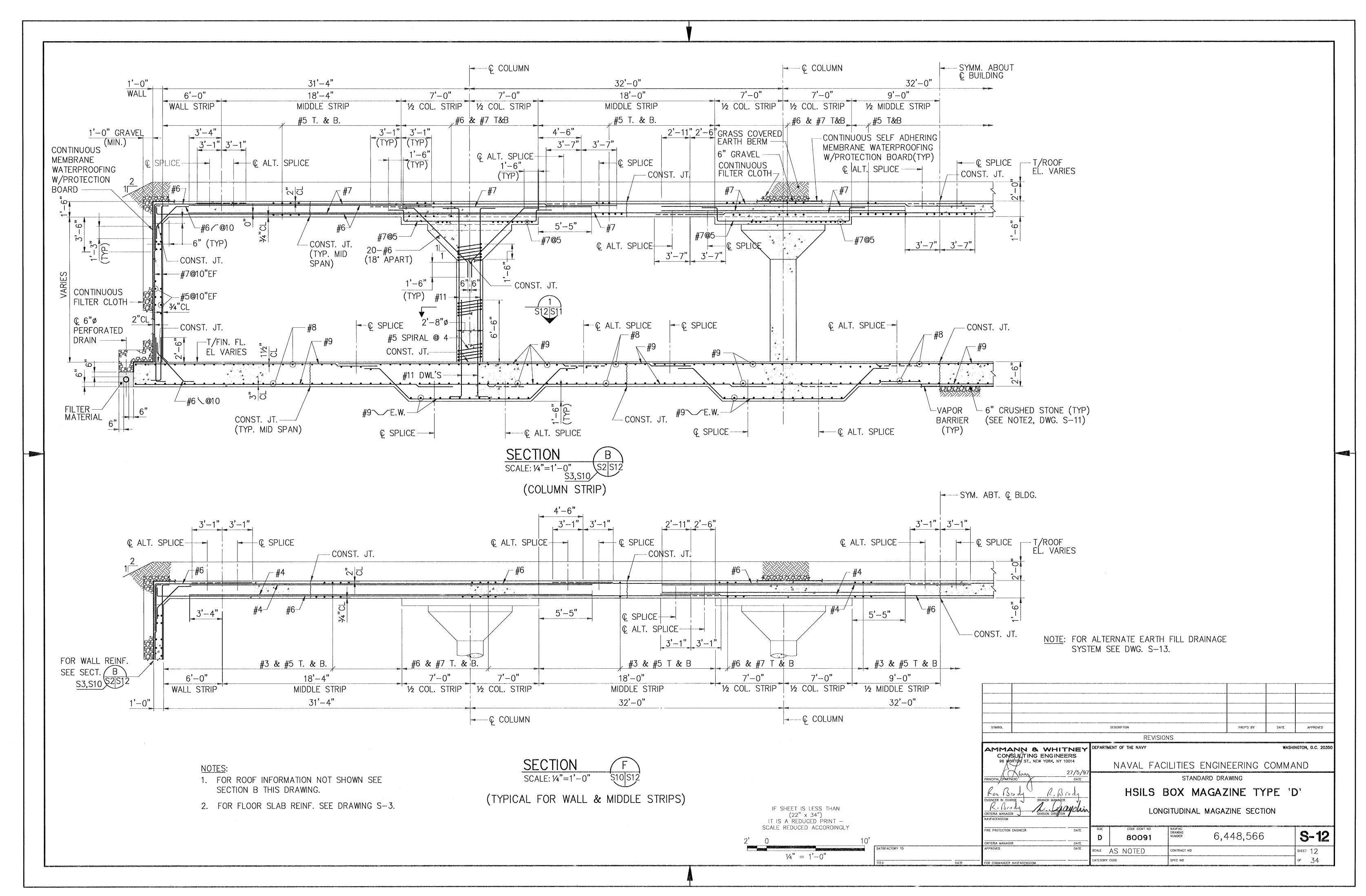


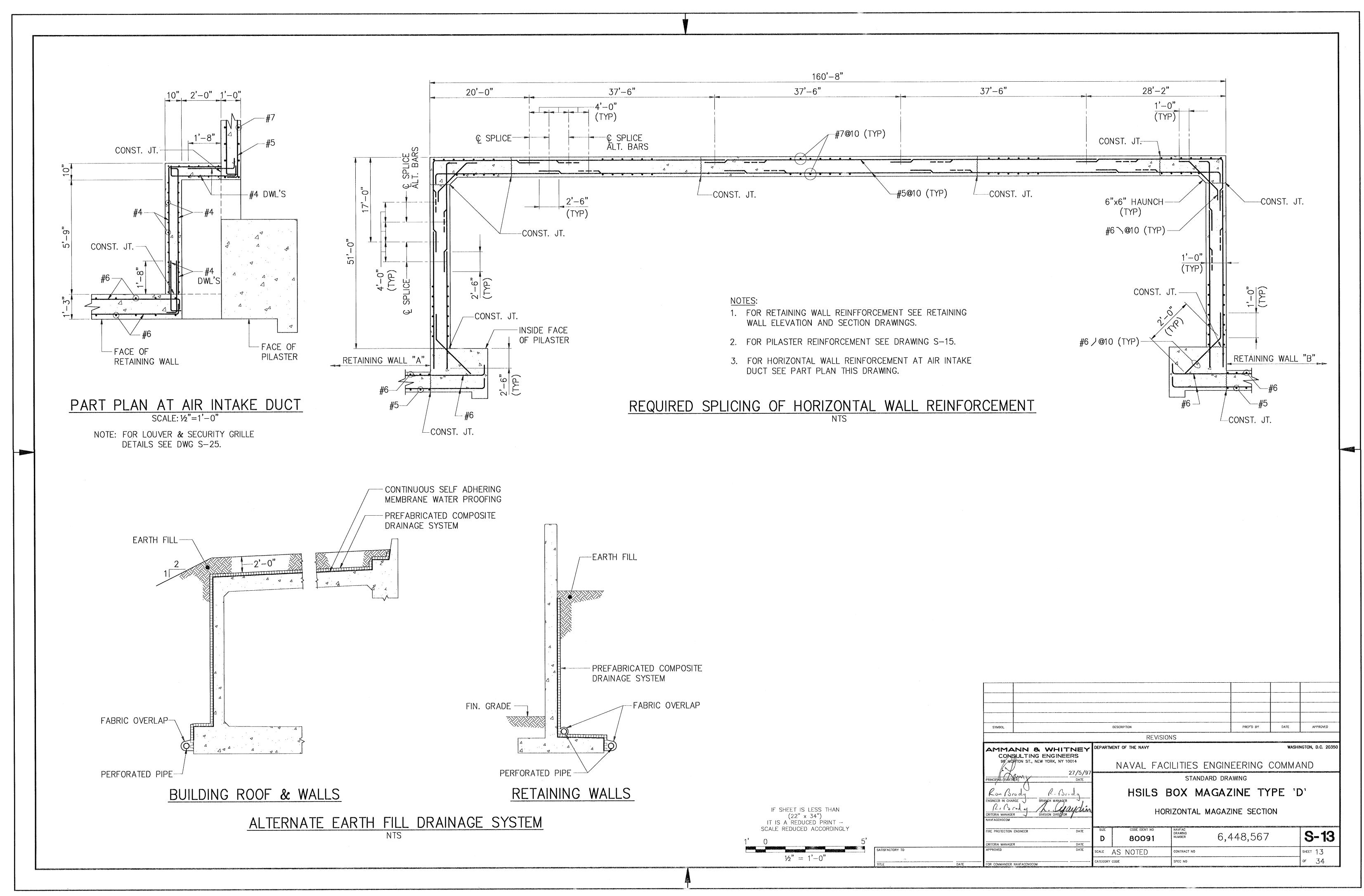


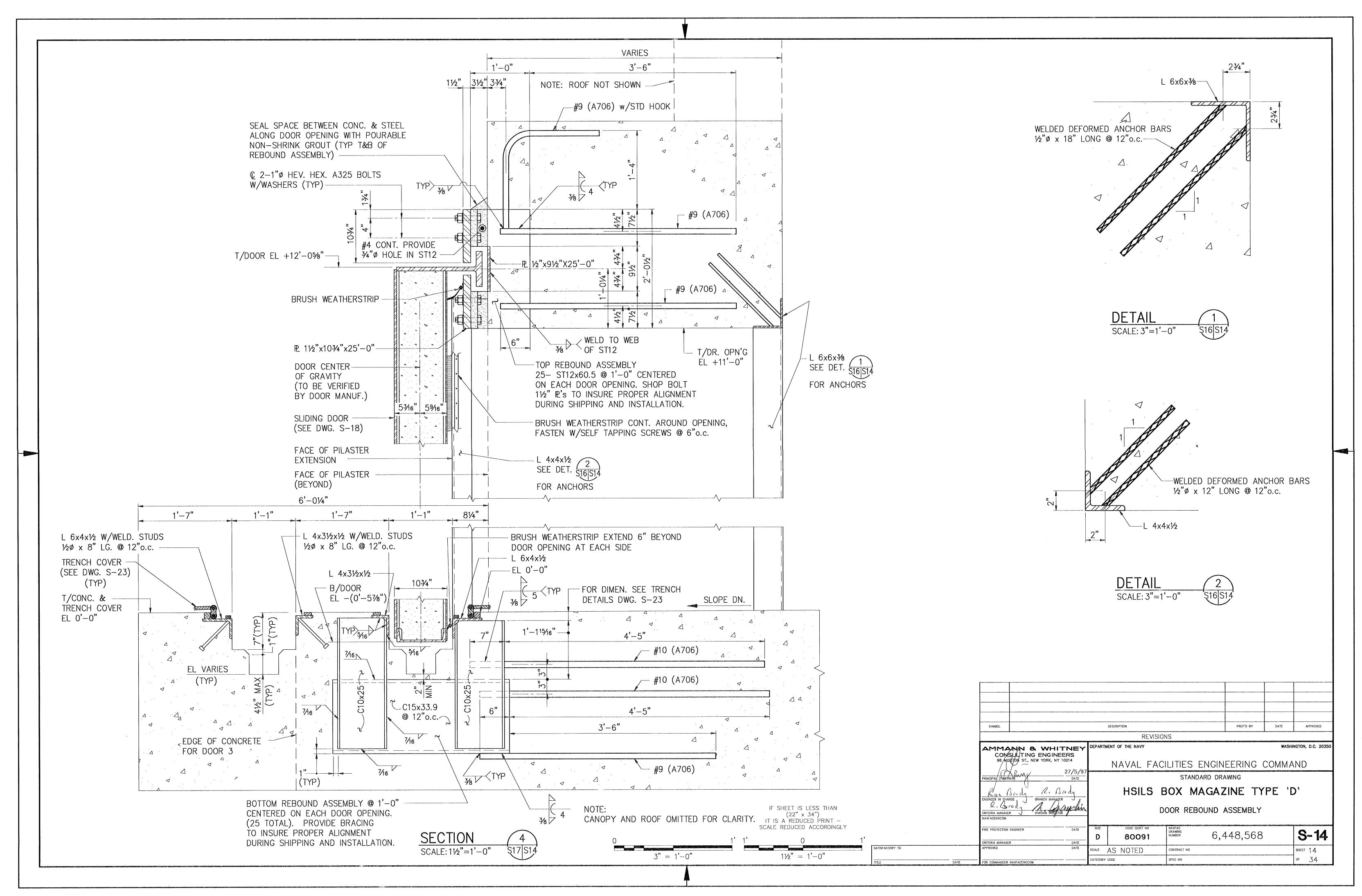


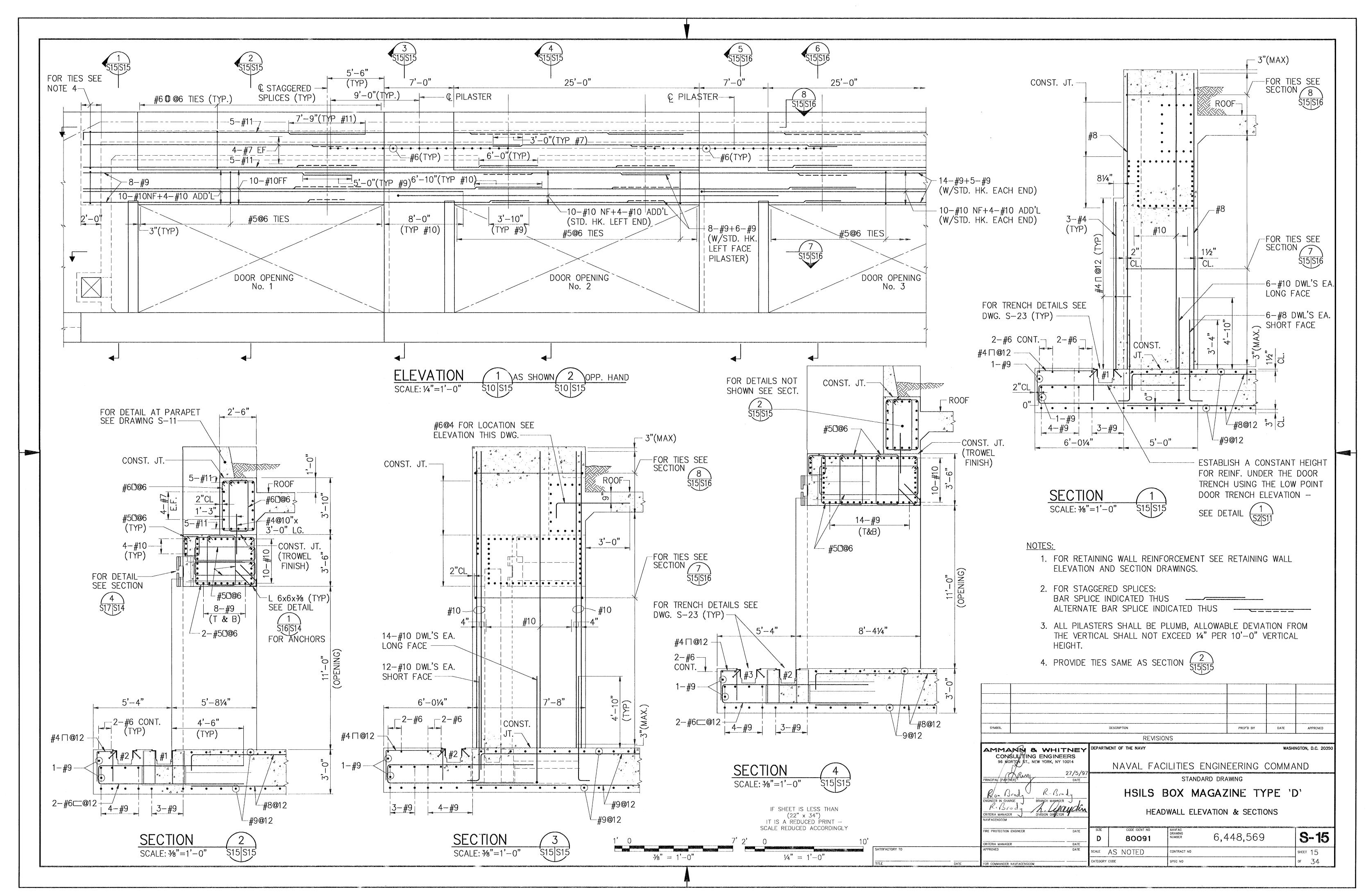


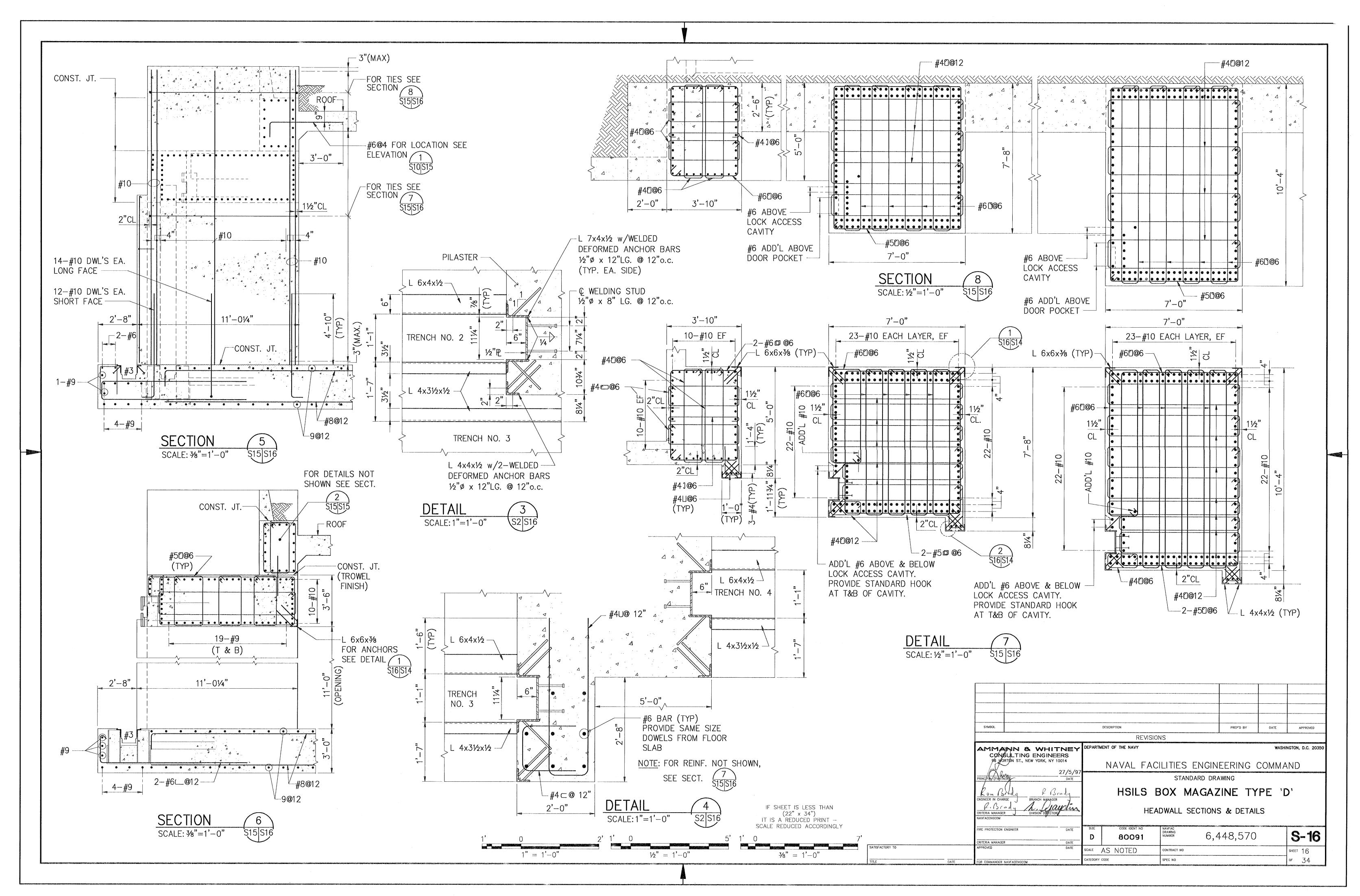


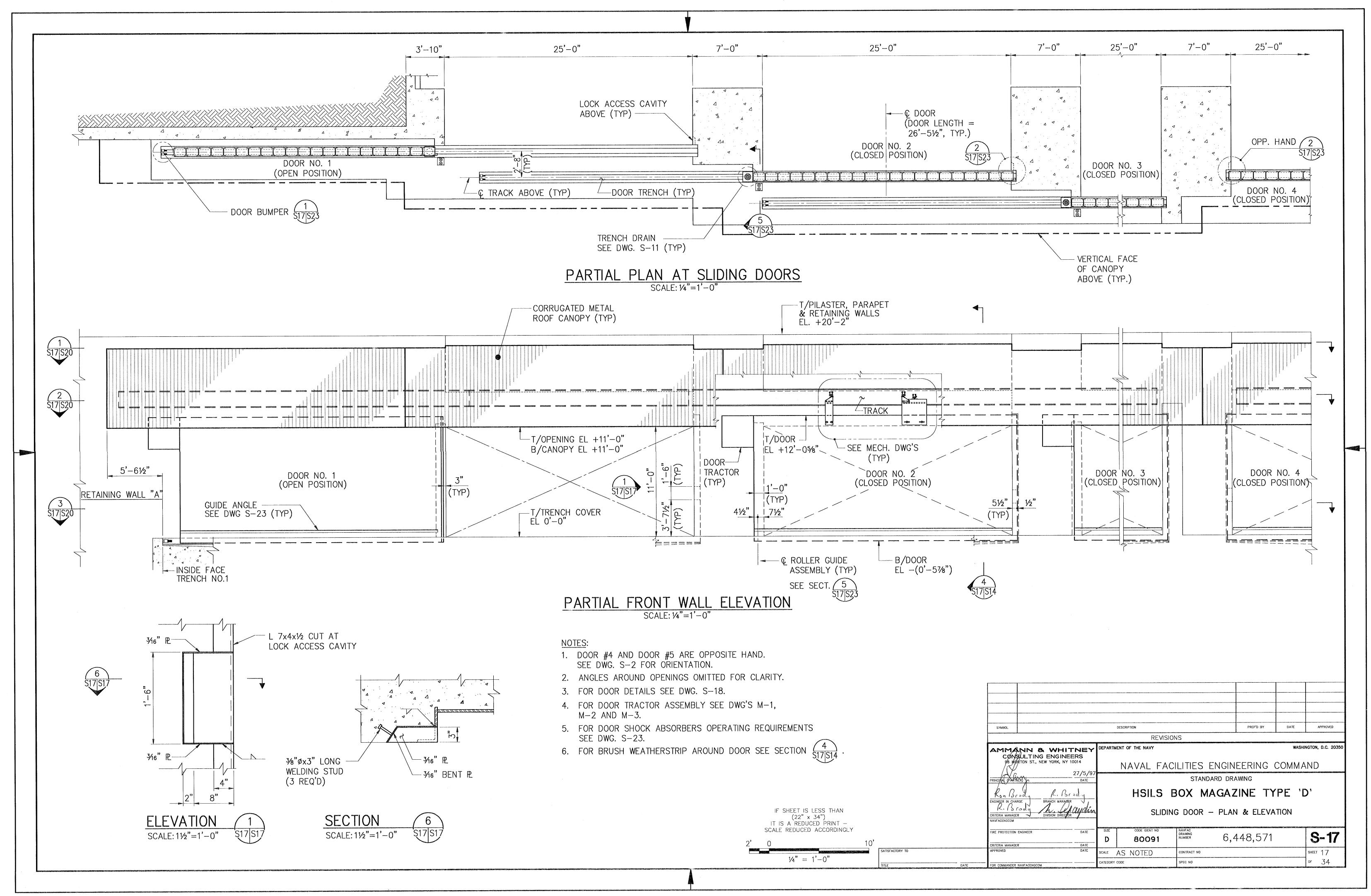


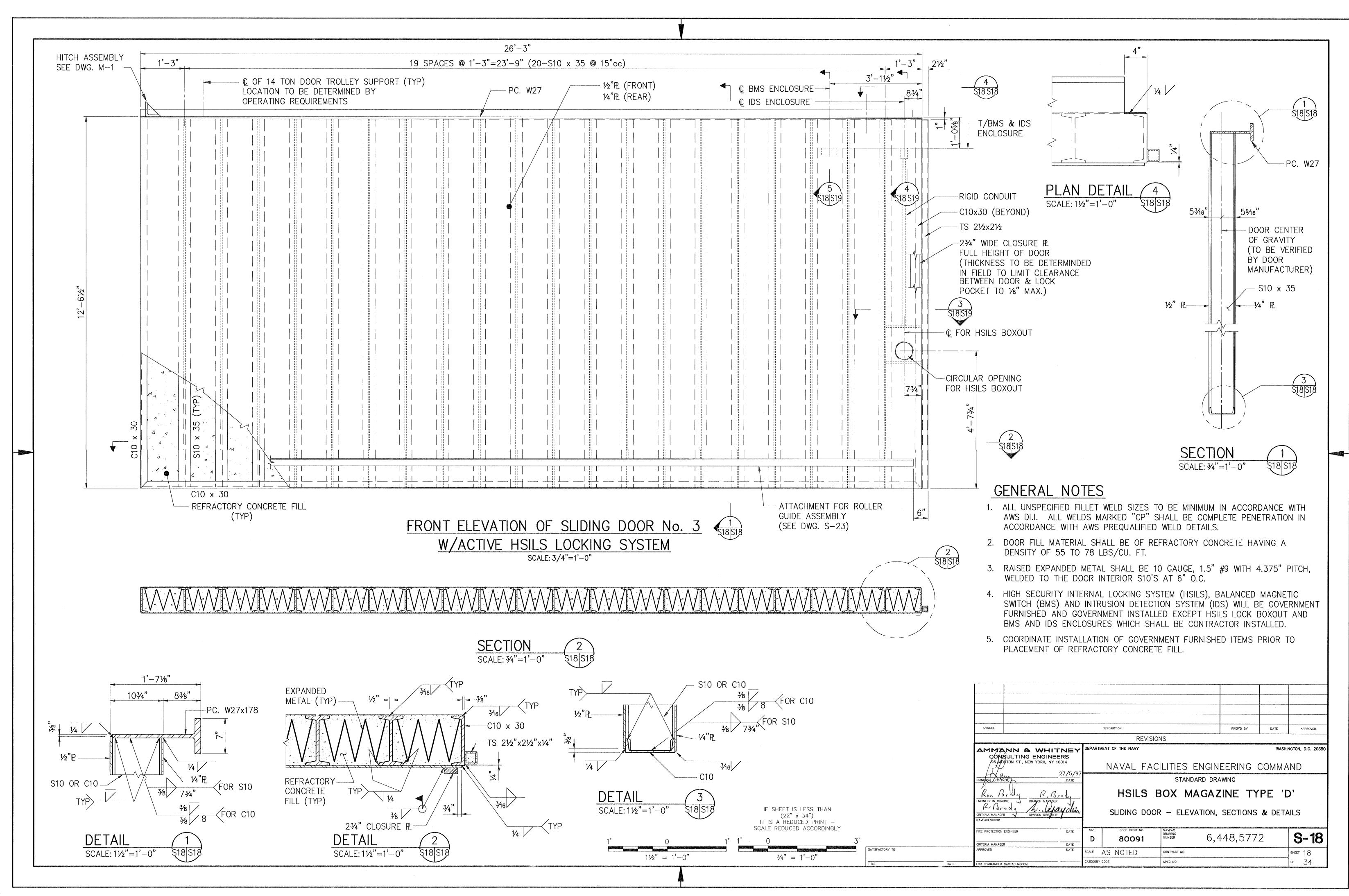


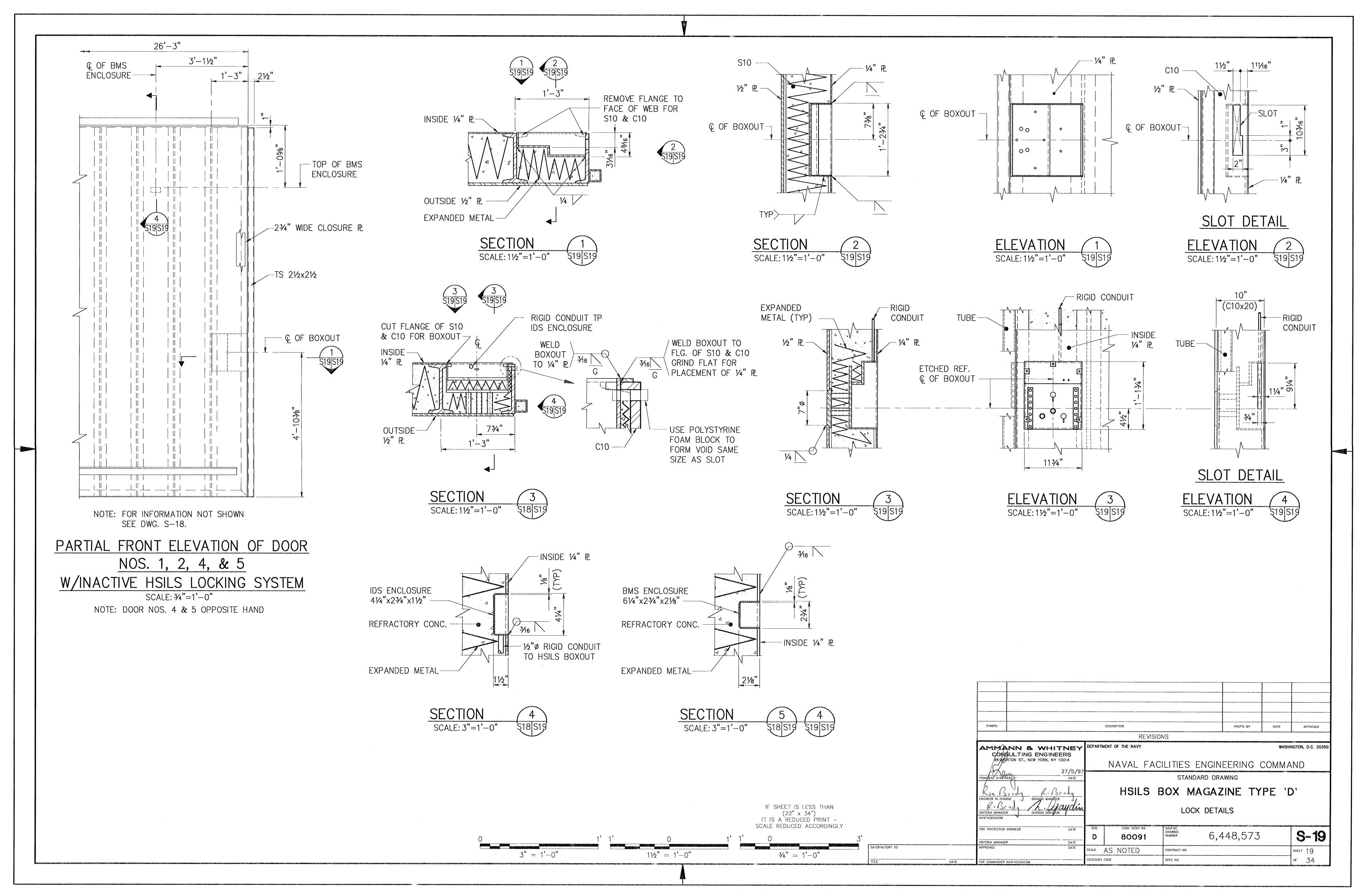


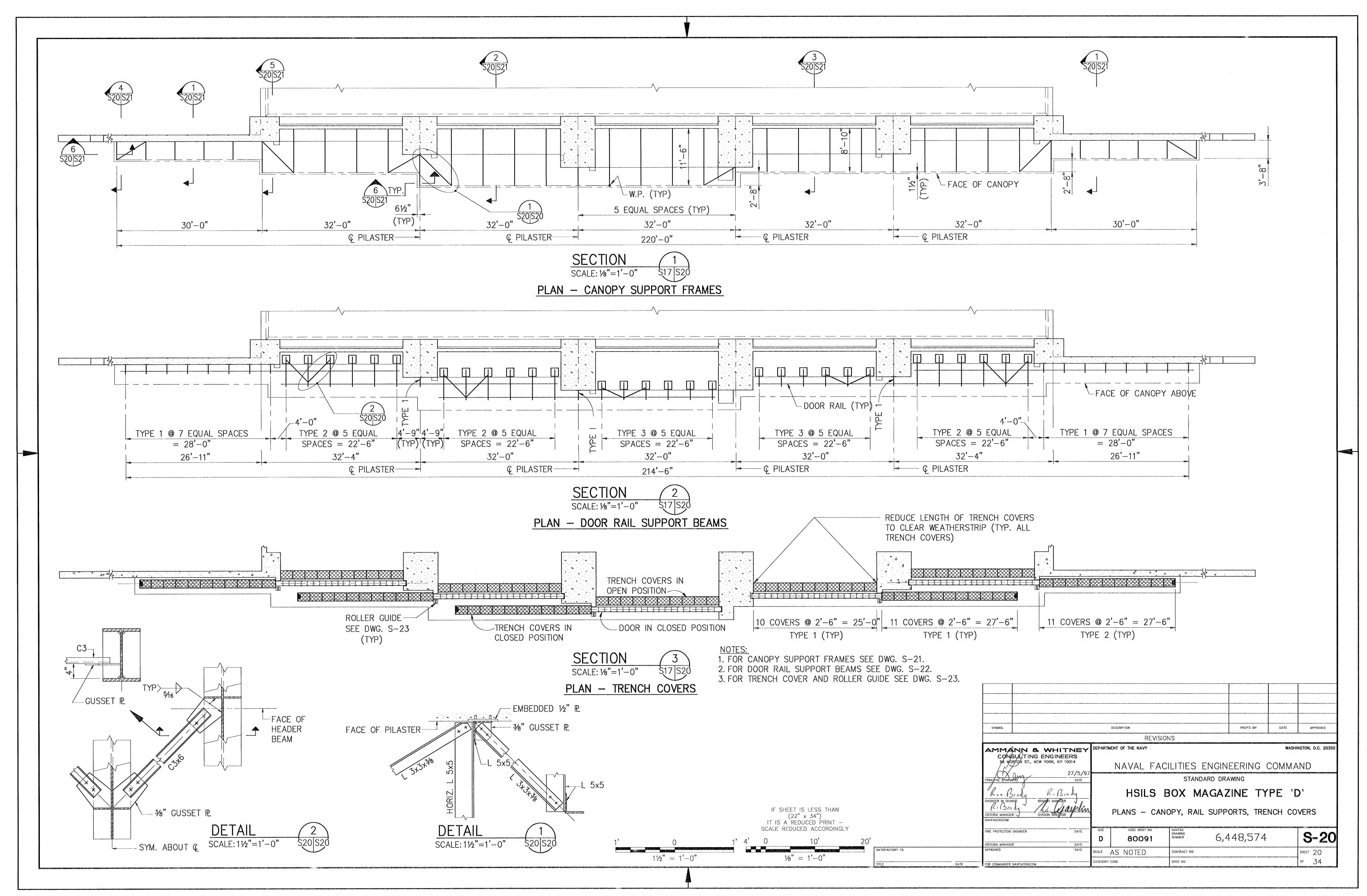


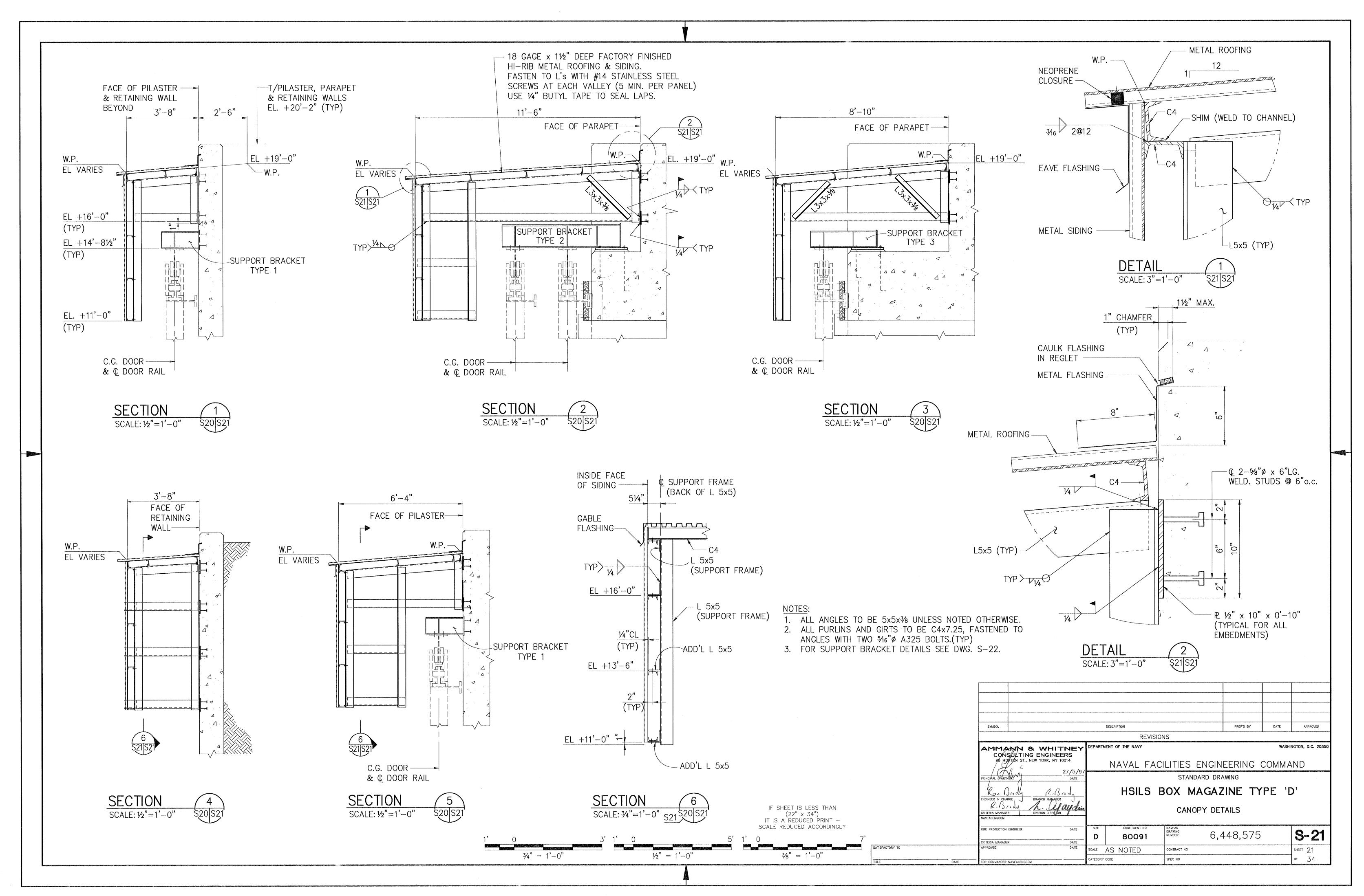


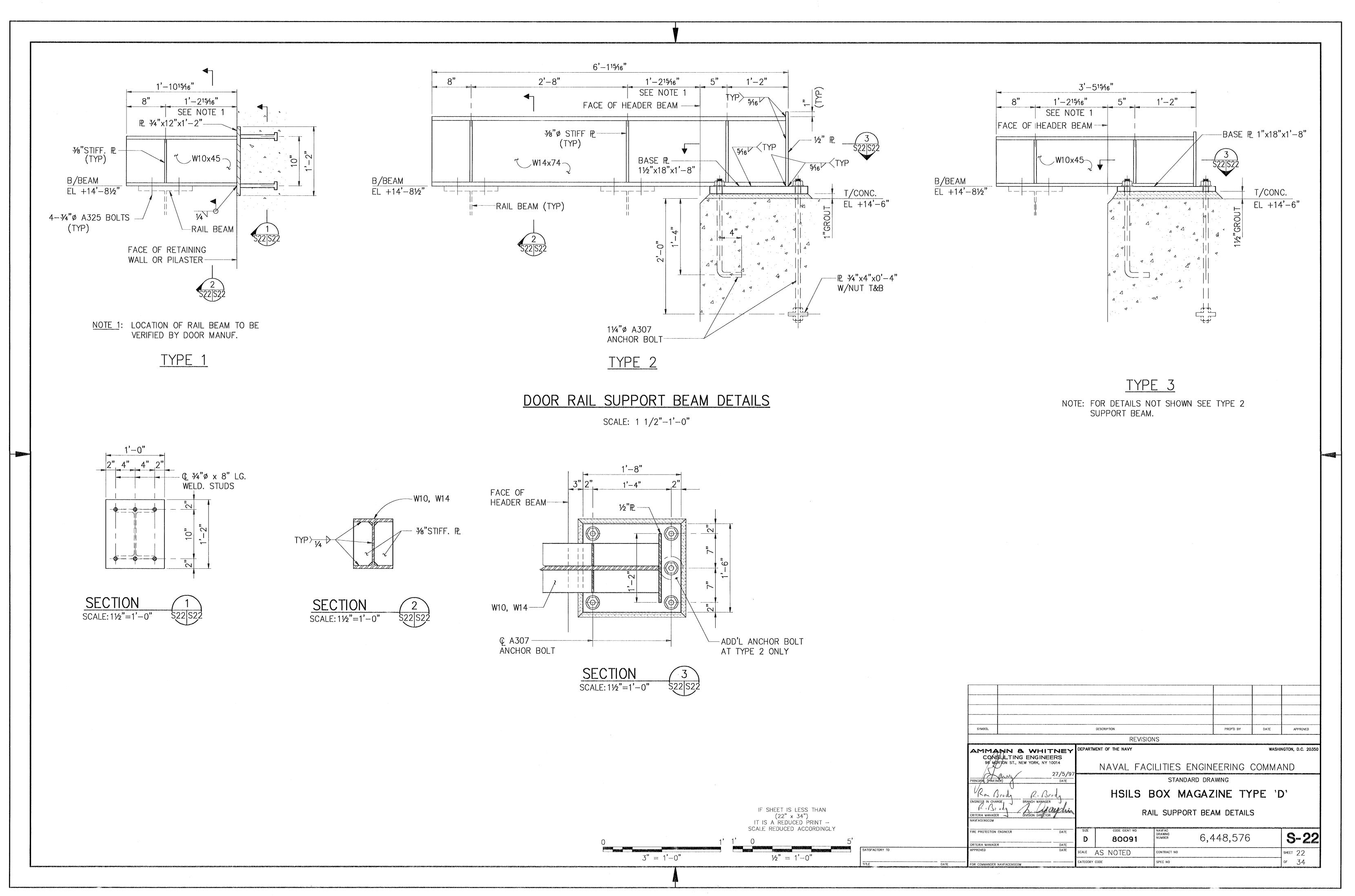


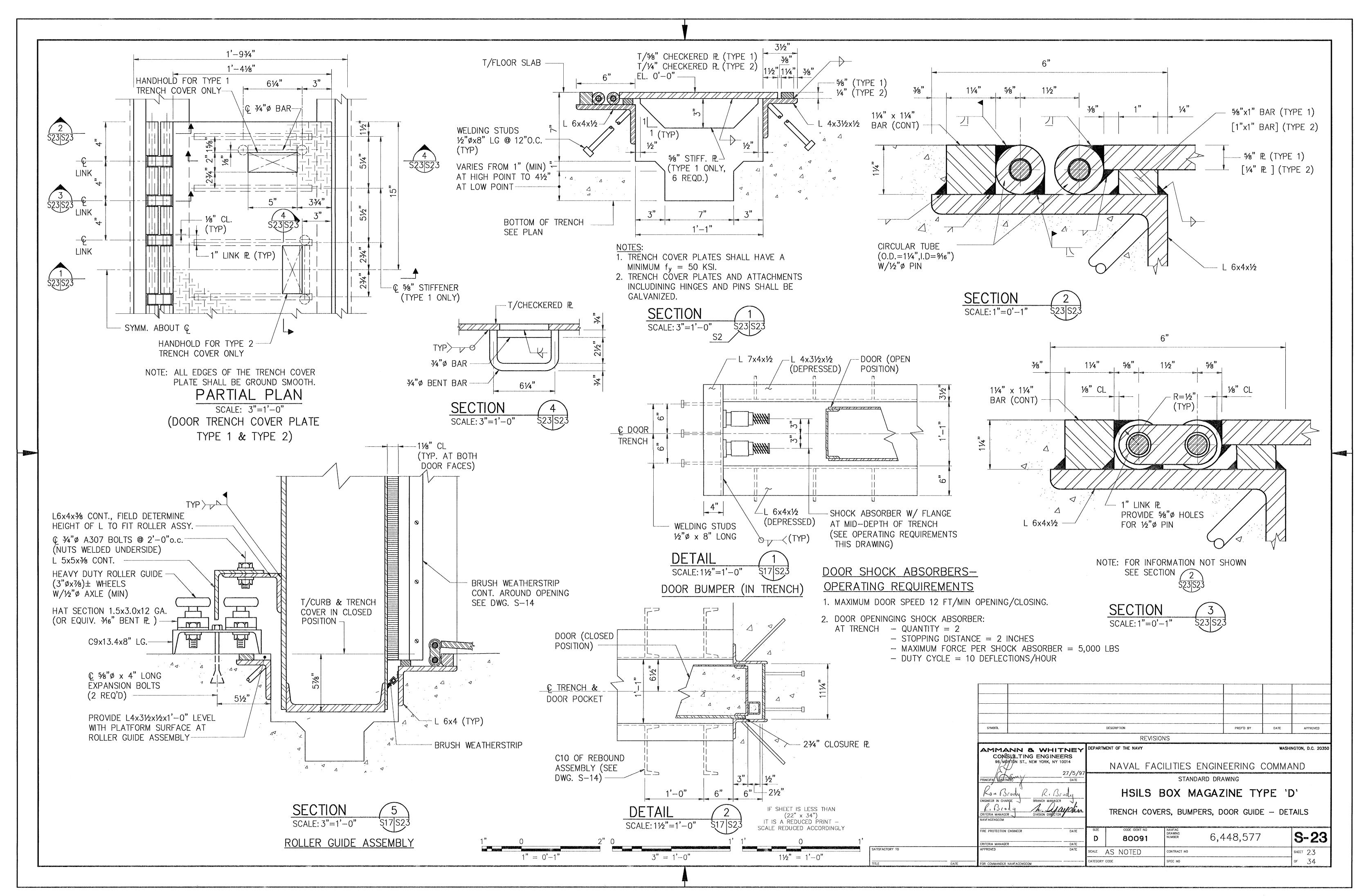


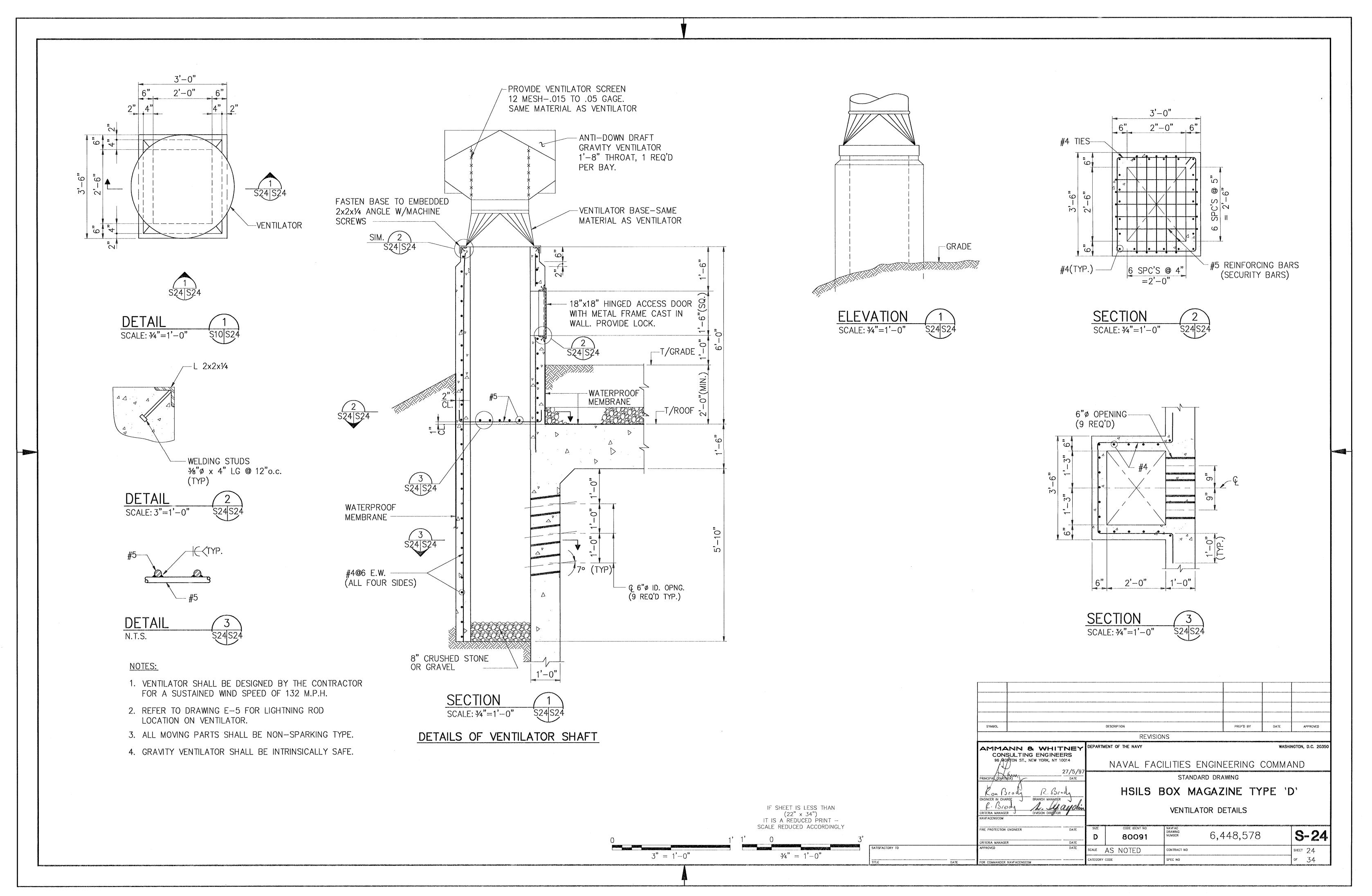


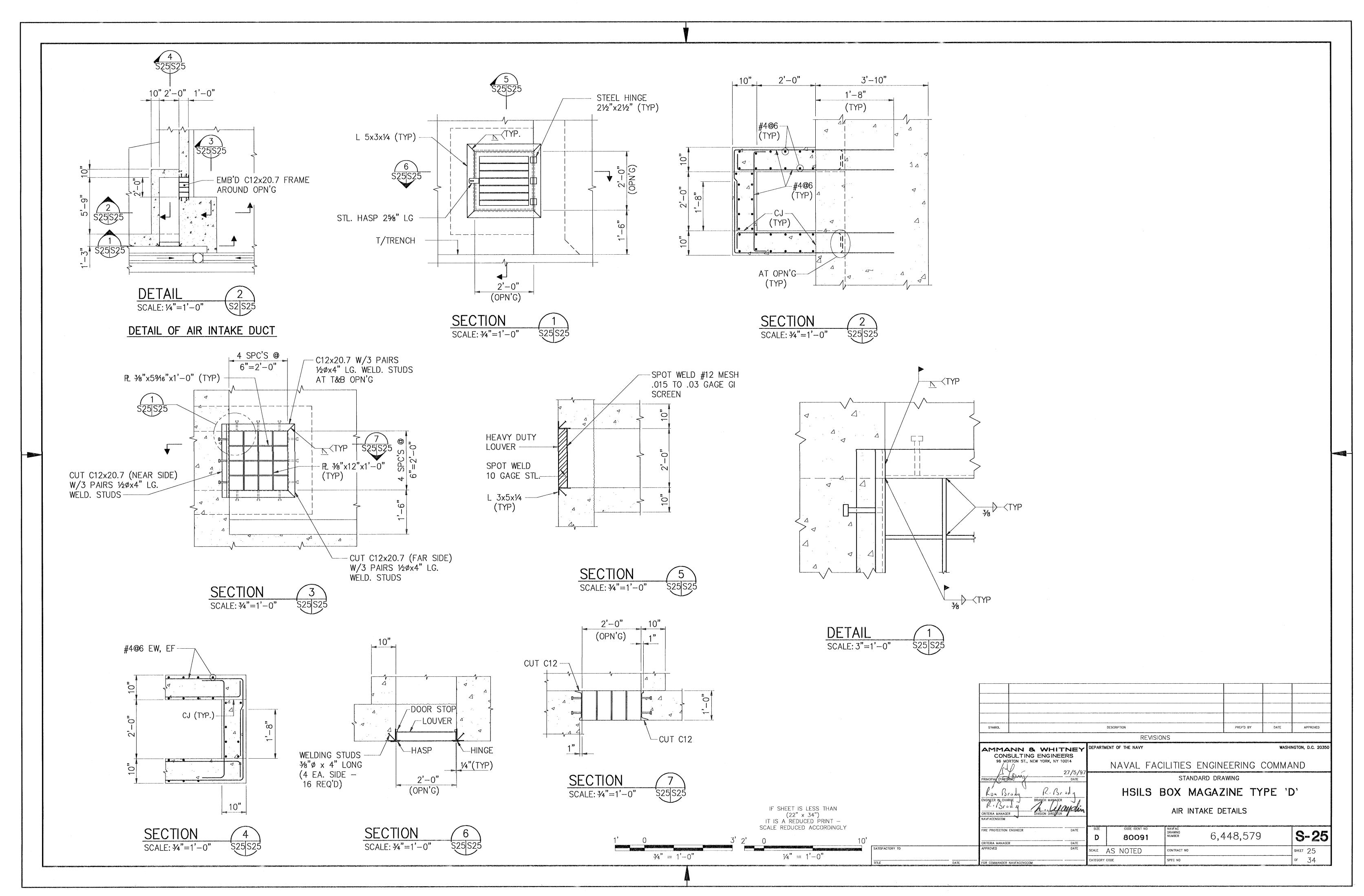


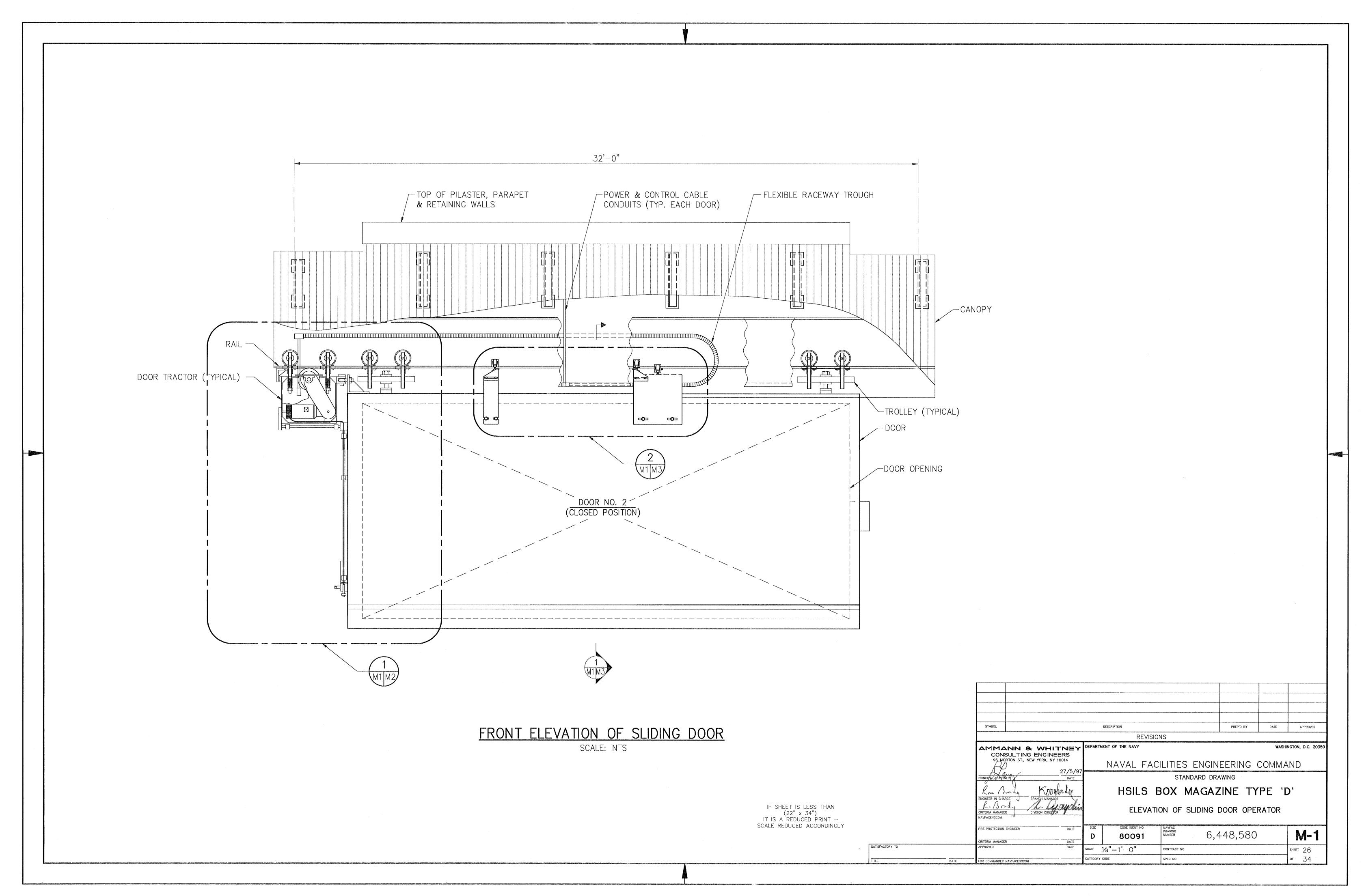


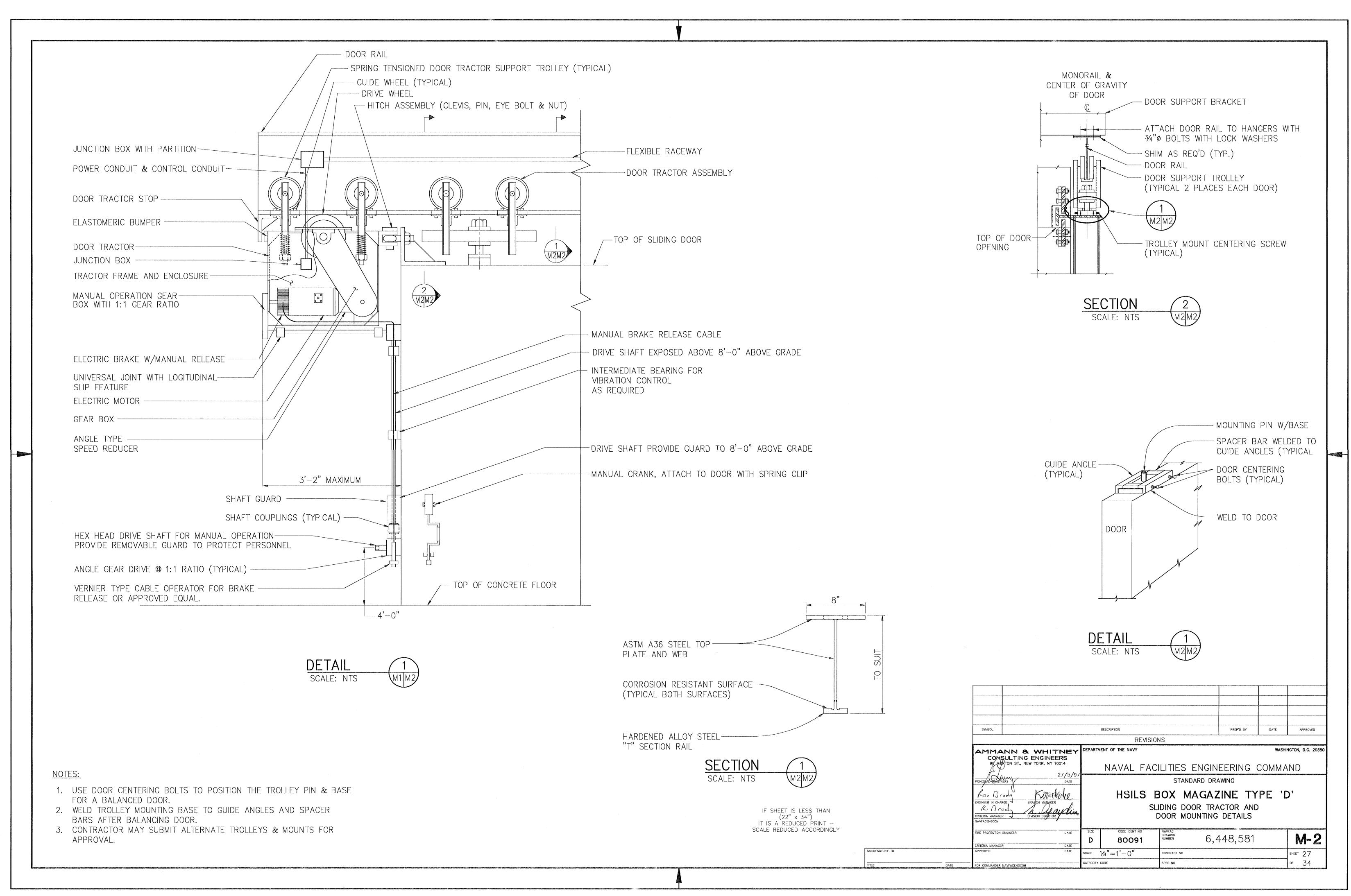


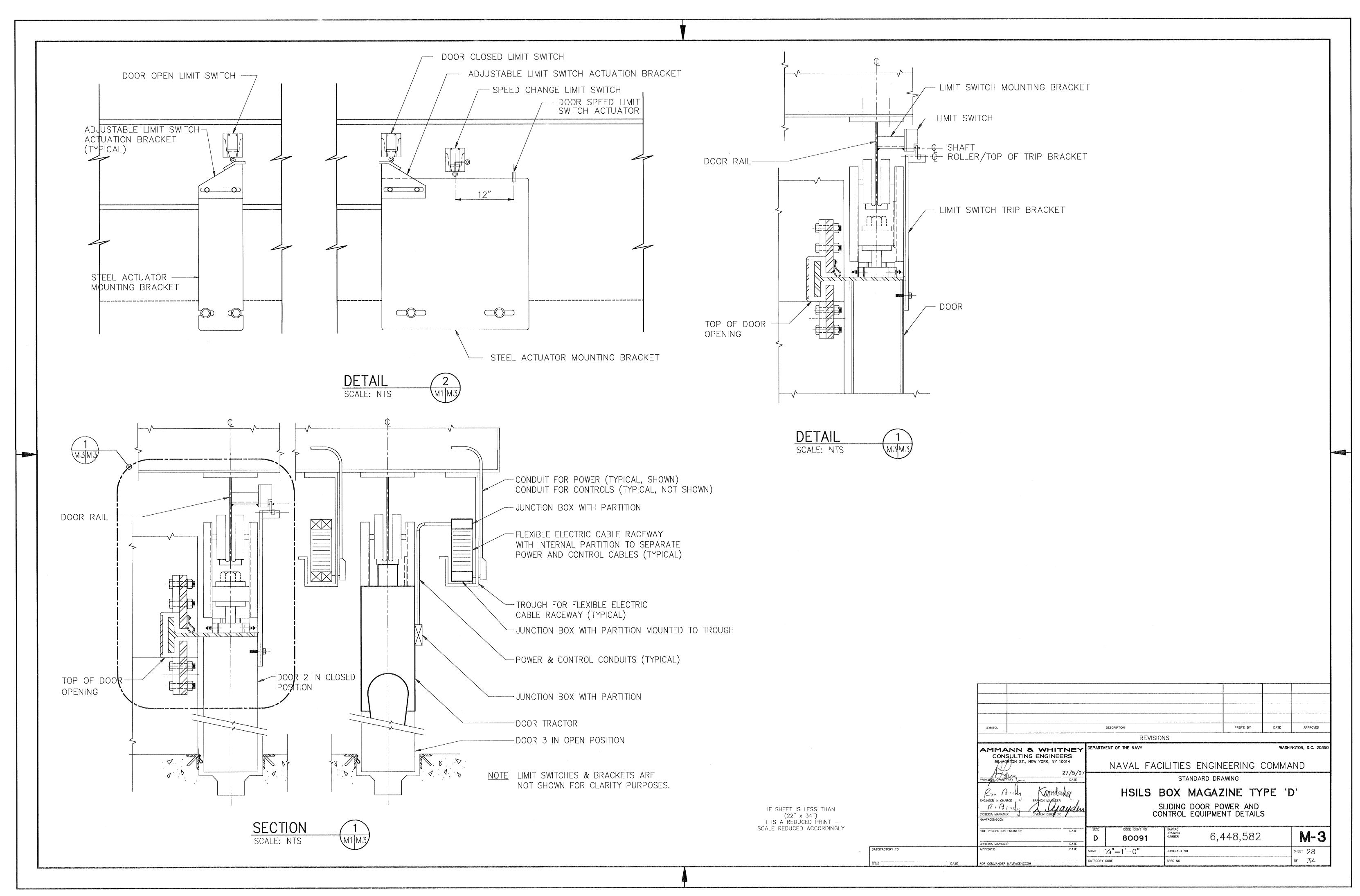












ELECTRICAL LEGEND AND ABBREVIATIONS

ELECTRICAL LEGEND:

ABBREVIATIONS:

A	100W FLUORESCENT LIGHT FIXTURE FOR HAZADOUS LOCATIONS	AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
	(SURFACE MOUNTED)	AFG	ABOVE FINISHED GRADE	MECH.	MECHANICAL
		AWG	AMERICAN WIRE GAGE	MCB	MAIN CIRCUIT BREAKER
→ O+ B	250W HPS OUTDOOR LIGHT FIXTURE (WALL MOUNTED FLOODLIGHT)	AF	AMP FRAME OR AMP FUSE	MCC	MOTOR CONTROL CENTER
		AT ATS	AMP TRIP AUTOMATIC TRANSFER SWITCH	MTD	MOUNTED
=	20A, 125V, 2P, 3W GROUNDING TYPE DUPLEX RECEPTACLE	AMP OR A(S)		MG OR M/G	MOTOR/GENERATOR SET
- \	MTD 1'-6" AFF	AS	AMP SWITCH	MIN	MINIMUM
		APPROX	APPROXIMATELY	MTG	MOUNTING
	MAIN TELEPHONE ID, FA TERMINAL CABINET IN A NEMA 4X ENCLOSURE	BLDG.	BUILDING	NEC	NATIONAL ELECTRICAL CODE
	OFF /400V 74 AW DOWED DANEL IN A NEWA AV ENOLOGISE		CIRCUIT BREAKER	N	NORMAL
<u> </u>	277/480V, 3ø, 4W POWER PANEL IN A NEMA 4X ENCLOSURE		CONDUIT	NON-AUTO	NON-AUTOMATIC
	120/208V, 3ø, 4W LIGHTING PANEL IN A NEMA 4X ENCLOSURE		CIRCUIT COMMUNICATION	NF	NON-FUSED
	120/2004, 39, 44 CIOTTINO I MILLE IN M. MEINT IN CITOLOGONE		CENTERLINE		NORMALLY CLOSED
T	15KVA, 480-120/208V, 3ø, 4W STEP DOWN TRANSFORMER IN A NEMA 4X ENCLOSURE	-	DEEP		NORMALLY OPEN
			DISTRIBUTION	NIC	NOT IN CONTRACT
	EXPOSED GALVANIZED RIGID STEEL CONDUIT-3/4"C MINIMUM. HASH MARKS INDICATE # OF WIRES. LONG HASH INDICATES		DRAWING	N.T.S.	NOT TO SCALE
	NEUTRAL. #12 AWG WIRE MINIMUM.	Ε	EMERGENCY	0.0.	ON CENTER
		EC	EMPTY CONDUIT	PNL.	PANEL
	BURIED IN EARTH OR CONCEALED IN CONCRETE - GALVANIZED		ELECTRICAL	?	PHASE OR DIAMETER
	RIGID STEEL CONDUIT (3/4"C MINIMUM)		EMERGENCY ELECTRIC WATER COOLER	PLATF.	PLATFORM
			ELECTRIC WATER COOLER EYE WASH & SHOWER	Р	POLE
	HOMERUN TO PANEL (3/4"C MINIMUM)	EXH	EXHAUST	PVC	POLY VINYL CHLORIDE
S	20A,125V 1P LIGHT SWITCH FOR HAZADOUS LOCATION		EXISTING	PWR	POWER
5	MTD. 3'-6" AFF.	EXP	EXPLOSION-PROOF FOR HAZADOUS LOCATION	PP	POWER PANEL
M	DOOR OPERATOR TYPE AND LOCATION AS REQUIRED BY DOOR MANUFACTURER	FACP	FIRE ALARM CONTROL PANEL	PB	PULLBOX
[W]	DOOK OF EINATOK THE AND ECCATION AS REQUIRED BY DOOK MANOLACTOREK	FDR(S)	FEEDER(S)	QTY. RMS	QUANTITY ROOT MEAN SQUARED
parameter .			FLUORESCENT	RP	RECEPTACLE PANEL
	600V, 30A, 3P SAFETY DISCONNECT SWITCH	F.A.	FIRE ALARM	R.C.	REMOTE CONTROL
		GFP	GROUND FAULT PROTECTION	S.C.	SHORT CIRCUIT
EXP	DOOR CONTROL PUSHBUTTON STATION FOR HAZADOUS LOCATION MTD +4'-0"	GRS	GALVANIZED RIGID STEEL	SUBSTA.	SUBSTATION
		GFI	GROUND FAULT INTERRUPTER	SW.	SWITCH
	DOOR CONTROL PUSHBUTTON STATION-NEMA 4X ENCLOSURE MTD 4'-0"	HOA	HAND-OFF-AUTOMATIC	SWBD	SWITCHBOARD
processory		HT.	HEIGHT	SWGR	SWITCHGEAR
L	LIMIT SWITCH, TYPE AND LOCATION AS REQUIRED BY DOOR MANUFACTURER	HZ	HERTZ	SYM	SYMMETRICAL
		HID	HIGH INTENSITY DISCHARGE	TRANSF.	TRANSFORMER
∇	SURFACE MOUNTED TELEPHONE OUTLET BOX WITH GASKETED COVER MTD. 1'-6" AFF.	H.P.S. H	HIGH PRESSURE SODIUM HIGH	TEL	TELEPHONE
	000000 0001110 010 7" WDT V 7" 0" LONG V 4 (0" DEED	HP	HORSEPOWER	TYP.	TYPICAL
	COPPER GROUND BUS - 3" WIDE X 3'-0" LONG X 1/2" DEEP	ID	INTRUSION DETECTION	UL	UNDERWRITERS LABORATORY
	JUNCTION BOX.	INCAND.	INCANDESCENT	UON	UNLESS OTHERWISE NOTED
-		JB	JUNCTION BOX	VENT	VENTILATION
\boxtimes	COPPER AIR TERMINAL 5/8" X 24" LONG	KW	KILOWATT	٧	VOLT
•	COPPER WELD SECTIONAL GROUND ROD 3/4" DIAMETER X 10'x0" LONG.	KWH	KILOWATT-HOUR	WM	WATTMISER
O	,	KV	KILOVOLT	WTR	WATER
	EXOTHERMIC WELD	KVA	KILOVOLT AMPERE	WTR HTR	WATER HEATER
		LTG.	LIGHTING DANIEL	Mb	WEATHERPROOF
columnicate of the columns of the co	BARE COPPER GROUND CABLE #2/0 AWG	LP	LIGHTING PANEL	W	WATT, WIRE OR WIDE
	GROUND REEL-SPRING DRIVEN AUTOMATIC RETRIEVAL WITH				
G)⊣	50' 1/C #2AWG COPPER CABLE				

4#2 & 1#8G-4"C (2-4"C - 1 SPARE) SEE NOTE P1 3 PHASE LIGHTNING ARRESTOR 3 RRESTOR 4#80-120/208V 30, 4W 4#6 & 1#10G-1"C

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.

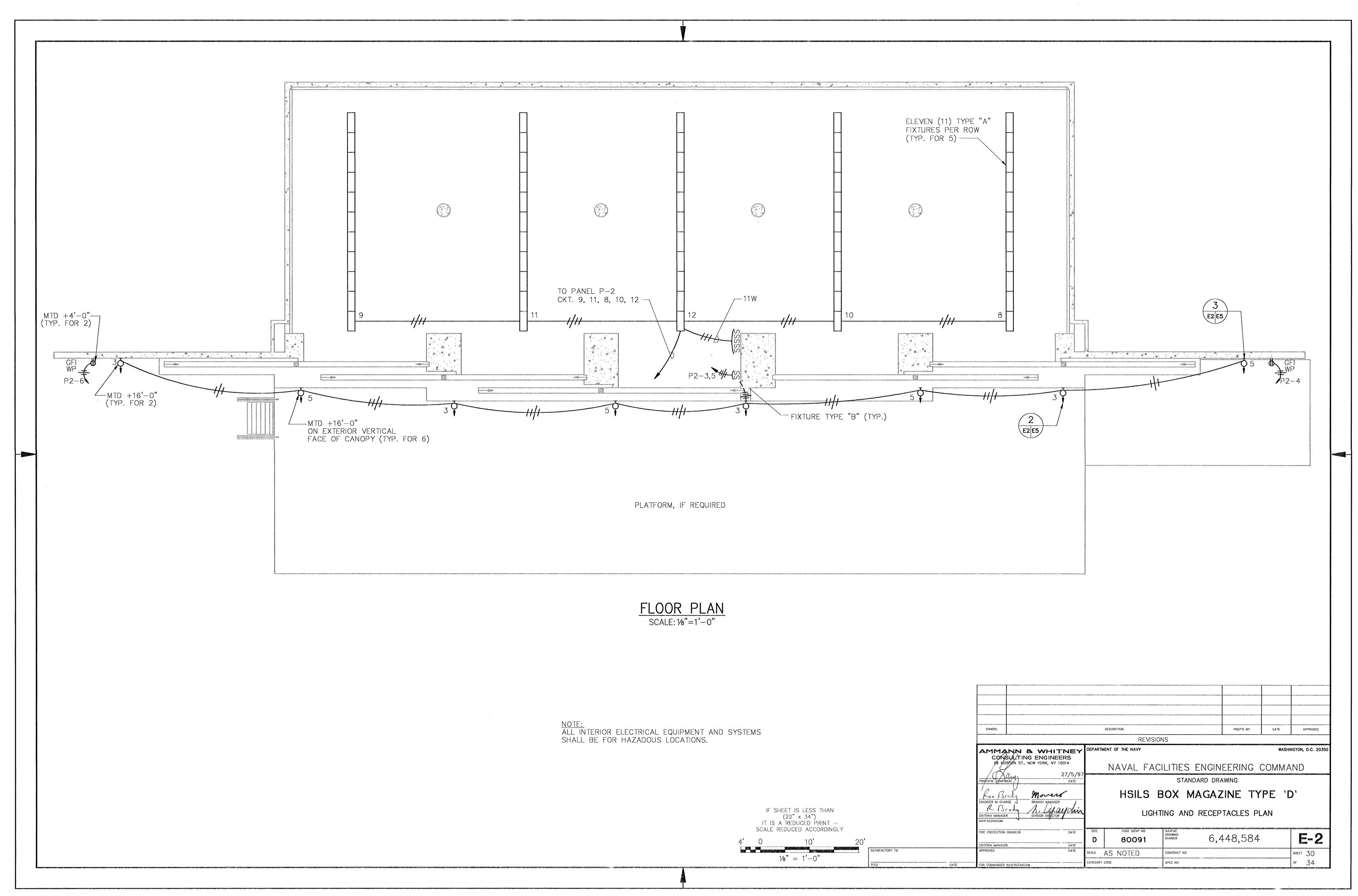
LIGHTING FIXTURE SCHEDULE									
CIVILIDE CVADOL	LAMP	DATA			MTC	REMARKS			
FIXTURE SYMBOL	TYPE	QUANTITY	WATTS	VOLTAGE	MTG.				
A	FLUORESCENT	AS REQUIRED	100	120	SURFACE	REFER TO DRAWING E-5			
~≅-O+ B	HIGH PRESSURE SODIUM	AS REQUIRED	250	120	WALL SURFACE	REFER TO DRAWING E-5			

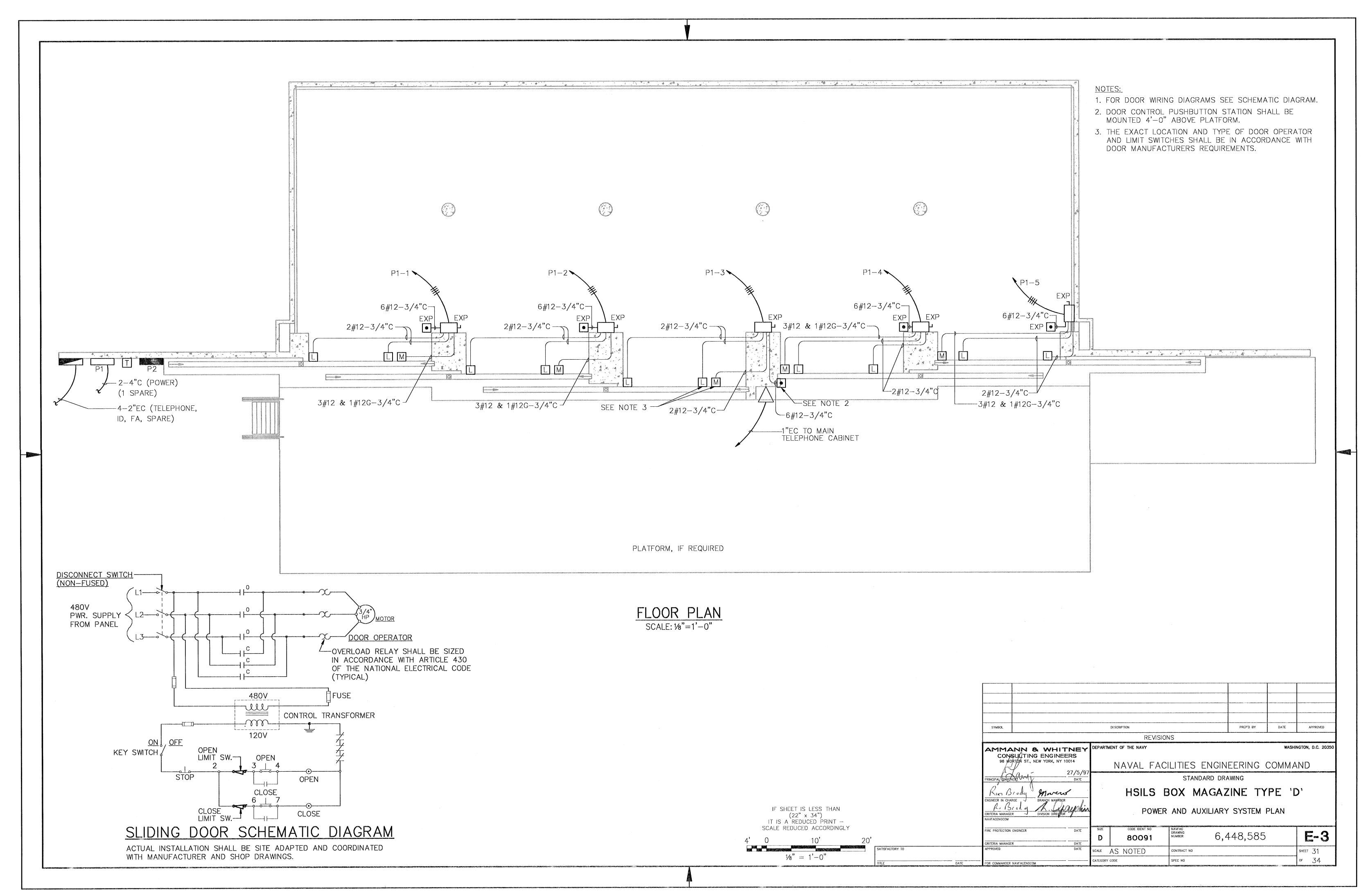
GENERAL NOTES:

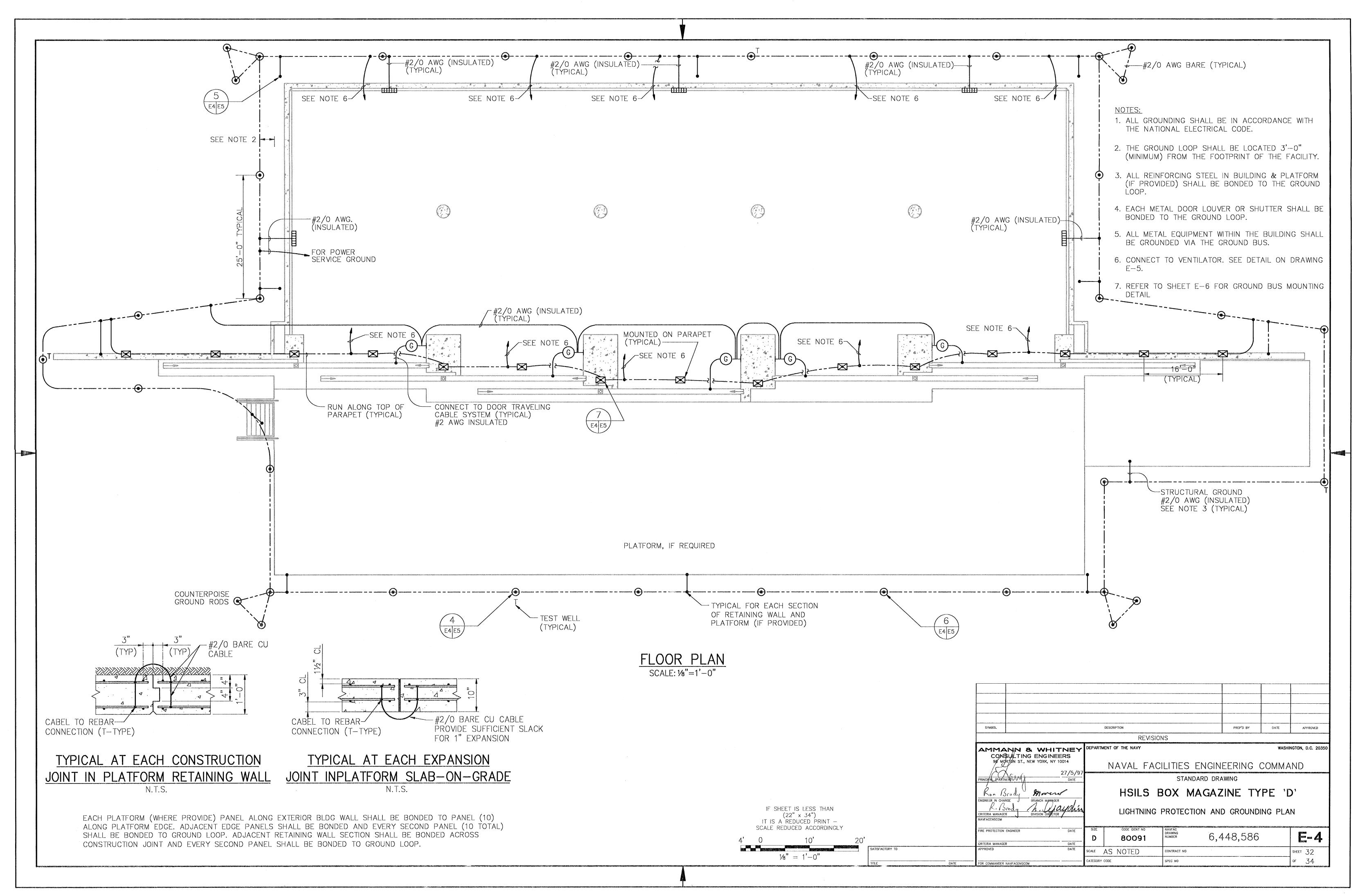
- 1. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- 2. ALL INTERIOR ELECTRICAL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE N.E.C.
 NFPA 70 REQUIREMENTS FOR HAZARDOUS LOCATIONS. EXACT TYPE OF CLASSIFICATION SHALL
 BE DETERMINED FOR EACH SITE.
- 3. PROVIDE SEAL FITTINGS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.
- 4. FOR DOOR CONTROLS SEE PERFORMANCE SPECIFICATIONS.
- 5. 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.
- 6. ALL ARCHITECT/ENGINEERS USING THESE DRAWINGS AS STANDARDS SHALL INCLUDE THE INTERRUPTING CURRENTS OF ALL ELECTRICAL ITEMS ON THEIR DRAWINGS.

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(22" x 34")
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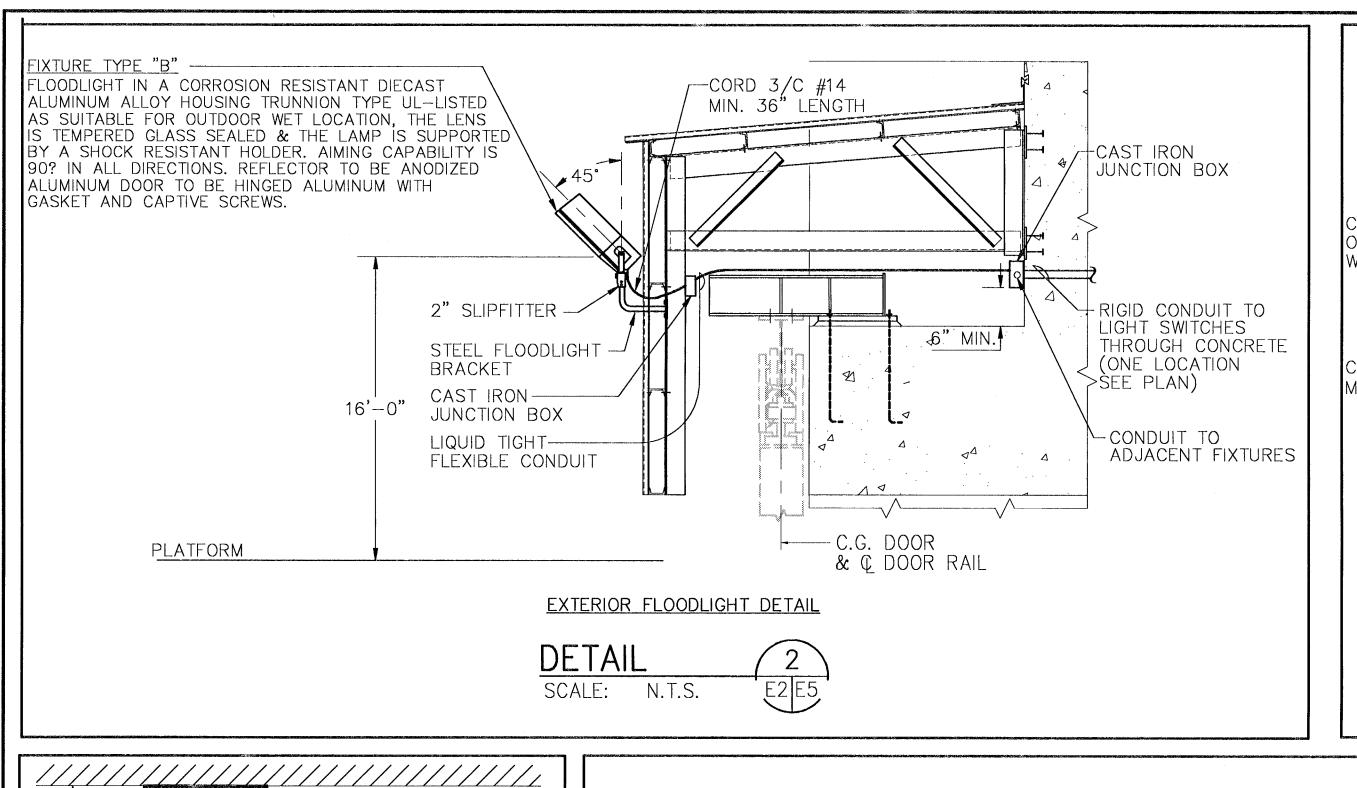
	1					•					
SYMBOL				DESCRIPTION		PREP'D BY	DATE	APPROVED			
				REVIS	SIONS						
AMMA	TIHW & NNA	NEY	DEPART	MENT OF THE NAVY			WASHINGT	TON, D.C. 203			
CONSULTING ENGINEERS 96 MORTON ST., NEW YORK, NY 10014 27/5/97 PRINGPAL (PARTNER) DATE				NAVAL FACILITIES ENGINEERING COMMAND							
				STANDARD DRAWING							
Ran Br	dy Movere			HSILS	BOX I	MAGAZINE TY	PE 'D'				
ENGINEER IN CH CRITERIA MANAG NAVFACENGCOM	ody h. Sega	ydin		LE	•	OTES, ABBREVIATION E LINE DIAGRAM	NS,				
FIRE PROTECTION		DATE	size D	CODE IDENT NO 80091	NAVFAC DRAWNG NUMBER	6,448,583		E-1			
CRITERIA MANAG	ER	DATE		<u> </u>							
APPROVED		DATÉ	SCALE	AS NOTED	CONTRACT NO		SH	EET 29			
			CATEGORY	' CODE	SPEC NO		OF	34			
FOR COMMANDER	R NAVFACENGCOM		5717200111		01 20 110			JT			

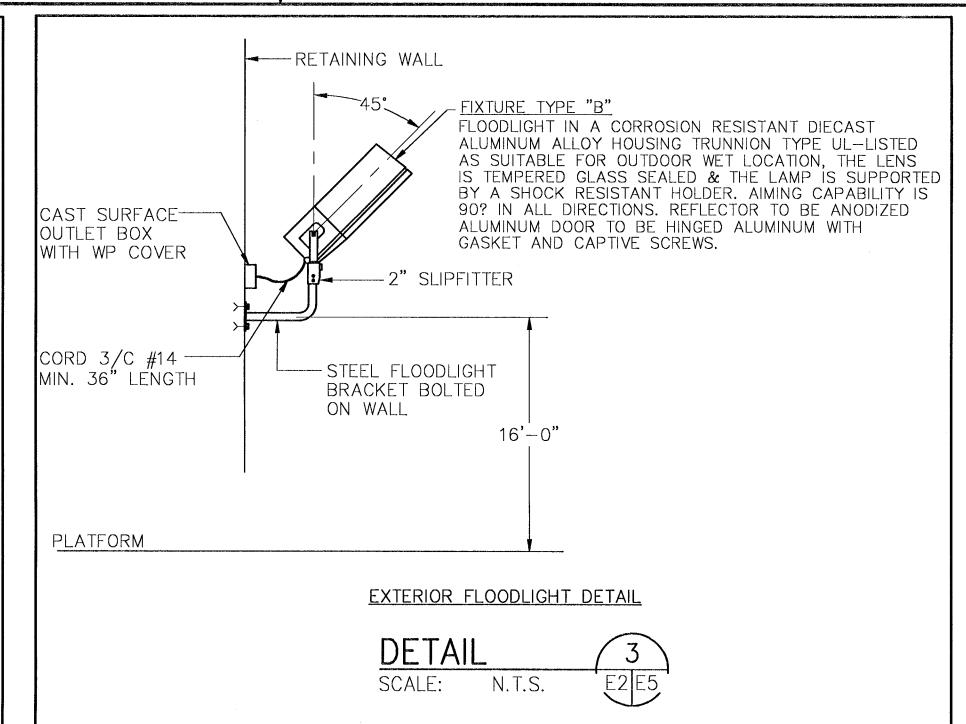


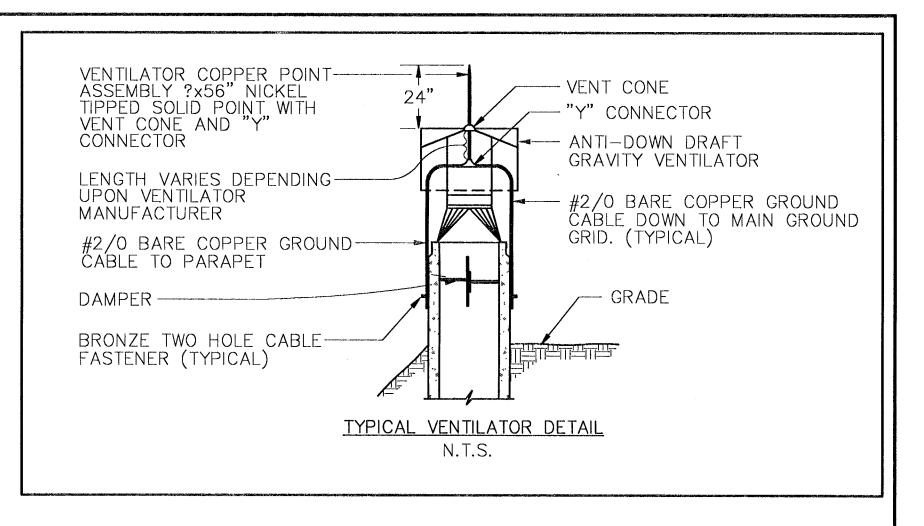


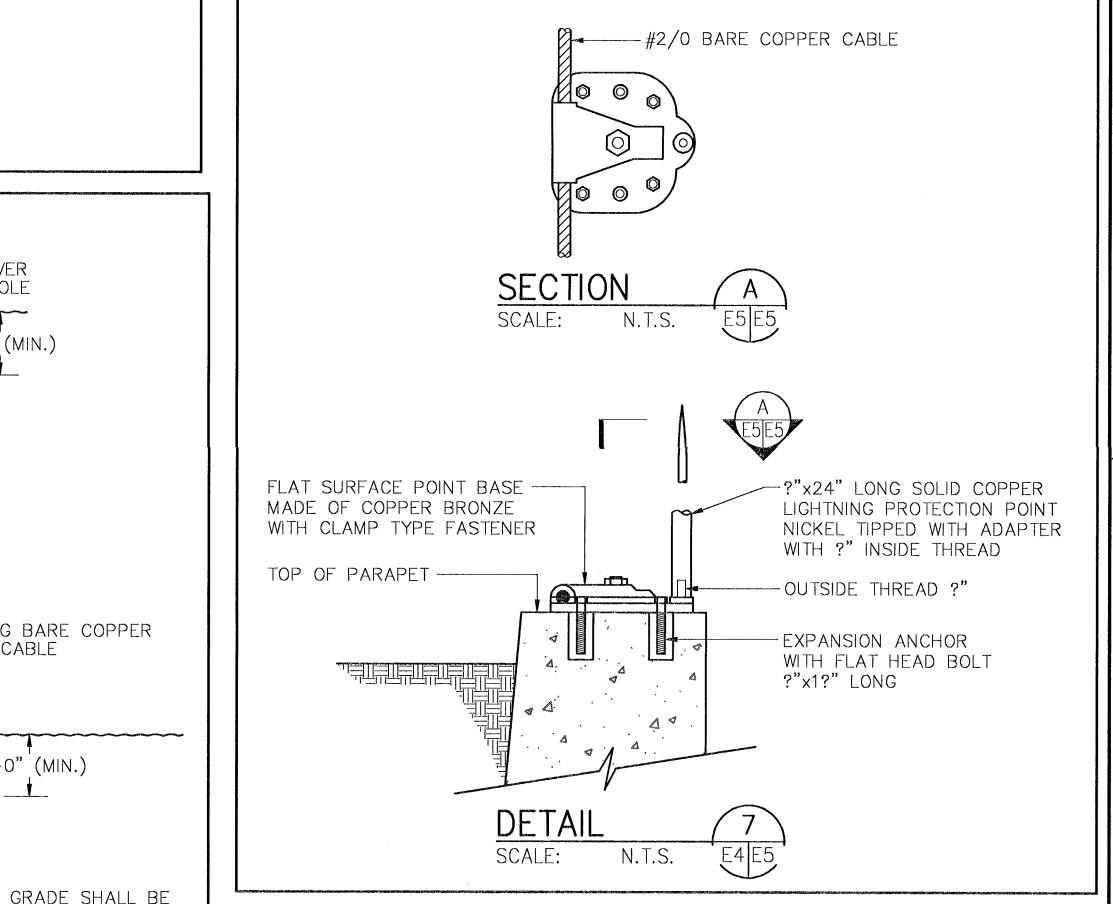


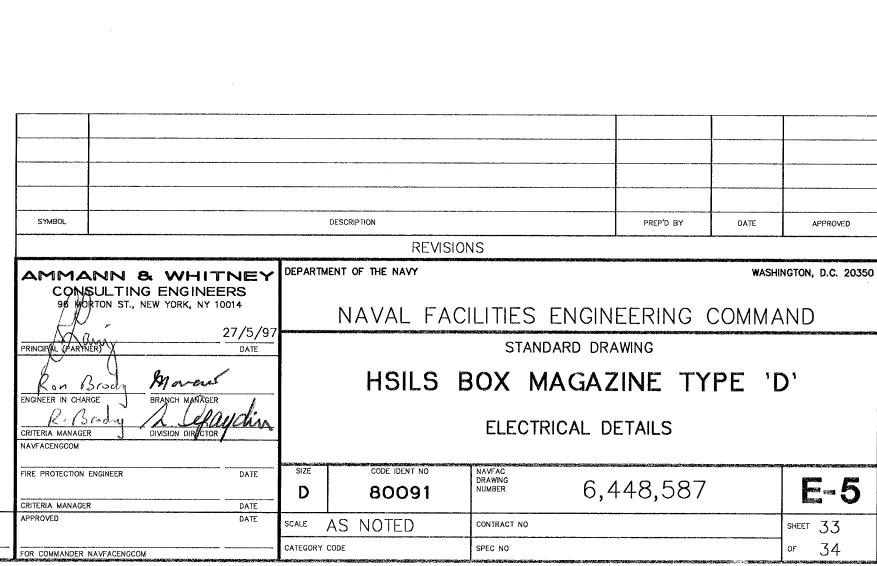
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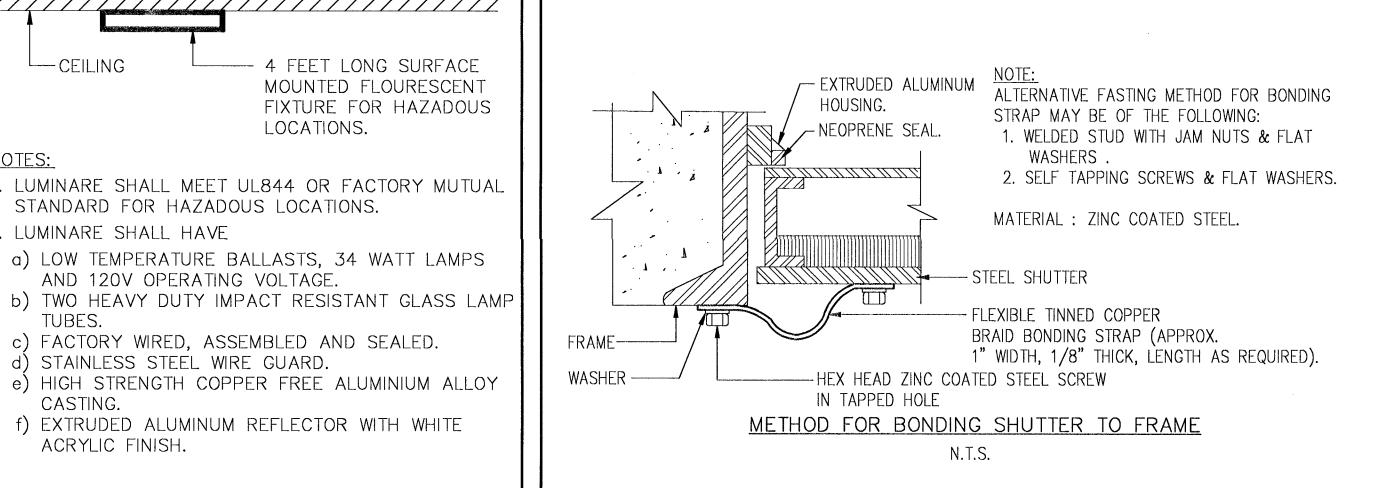


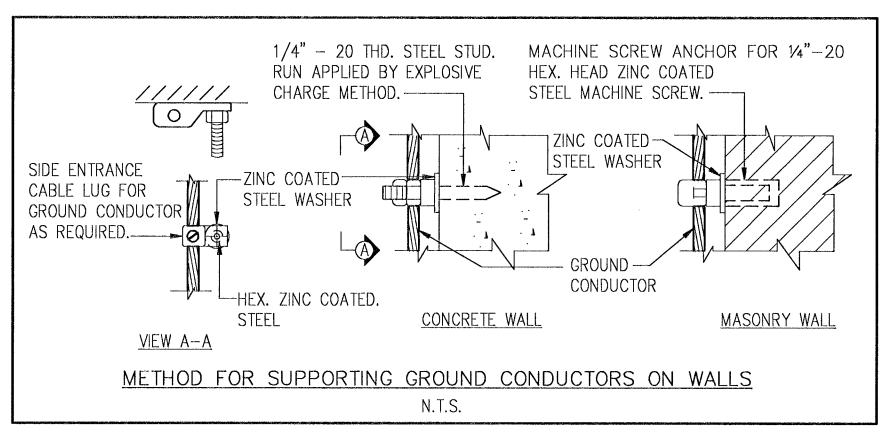


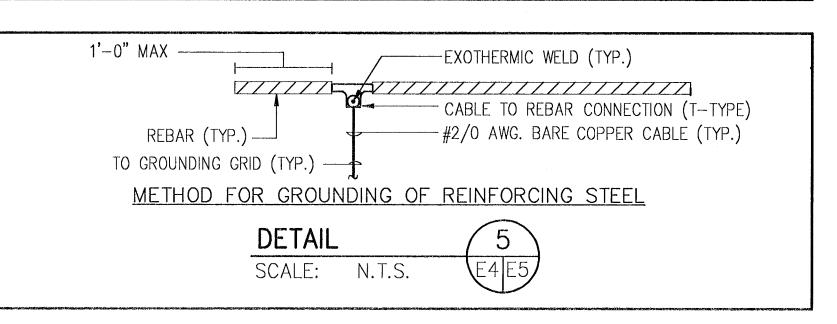


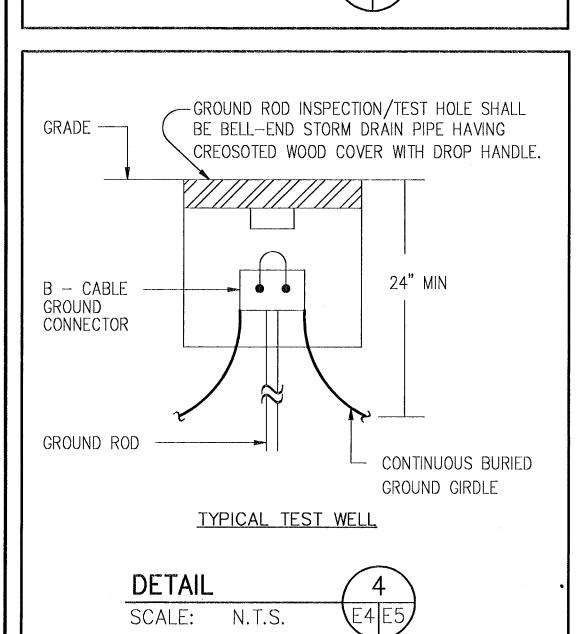












L--- CEILING

LUMINARE SHALL HAVE

ACRYLIC FINISH.

DETAIL

SCALE: N.T.S.

4 FEET LONG SURFACE

MOUNTED FLOURESCENT

LOCATIONS.

. LUMINARE SHALL MEET UL844 OR FACTORY MUTUAL

a) LOW TEMPERATURE BALLASTS, 34 WATT LAMPS

e) HIGH STRENGTH COPPER FREE ALUMINIUM ALLOY

f) EXTRUDED ALUMINUM REFLECTOR WITH WHITE

INTERIOR LIGHTING FIXTURE TYPE "A"

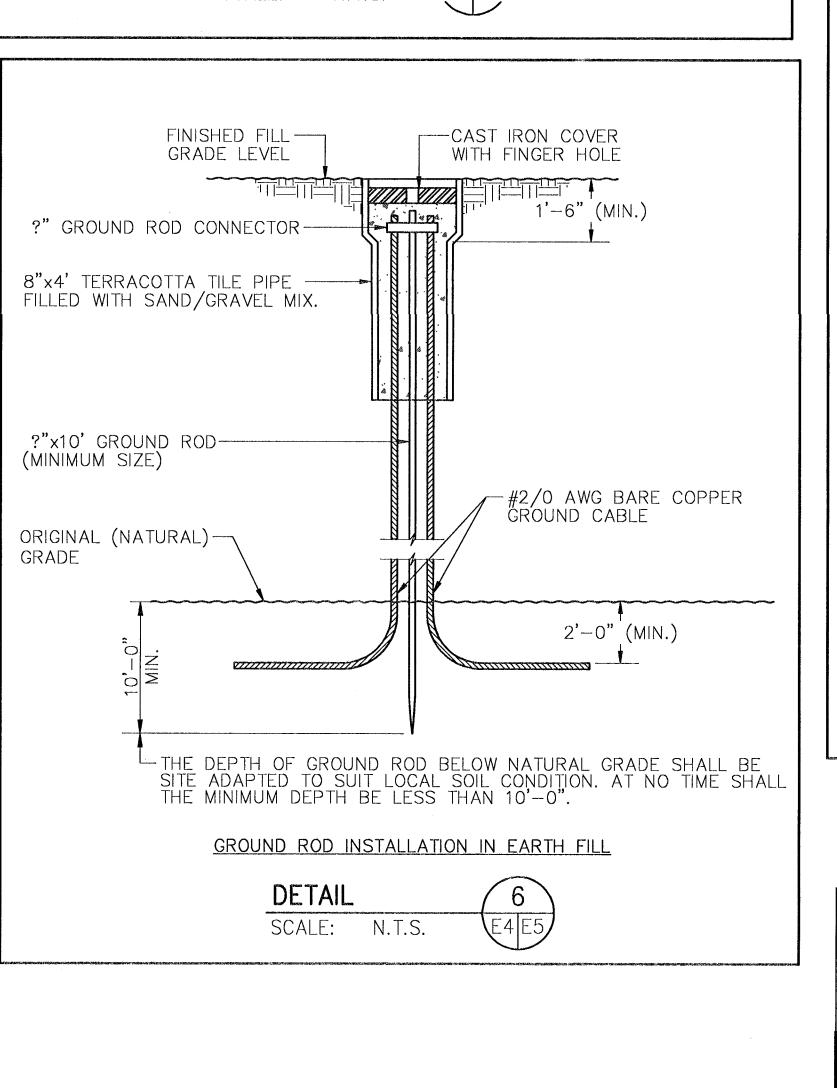
c) FACTORY WIRED, ASSEMBLED AND SEALED.

STANDARD FOR HAZADOUS LOCATIONS.

AND 120V OPERATING VOLTAGE.

d) STAINLESS STEEL WIRE GUARD.

FIXTURE FOR HAZADOUS



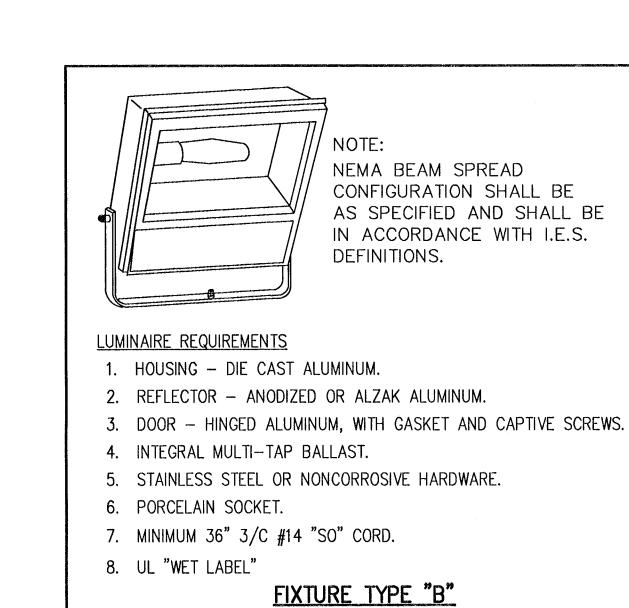
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SATISFACTORY TO

PROVIDE	90A, MCB.	POWE	RF	PAN	EL P1	SCH	HEDUL	
	277/480_VOLT_3	_PHASE	<u>4_</u> v	WIRE S	N. <u>100</u> /	A.BUS A	ND	GND. BUS
	LUG LOCATIONCABINETMIN. S.C							A.SYM.
CIR.					CIRCUIT BREAKER			
NO.	DESCRIPTION OF LOAD	AMPS	KW.	H.P.	FRAME SIZE	trip Size	POLES	REMARKS
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	



FLOODLIGHT DETAIL

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

