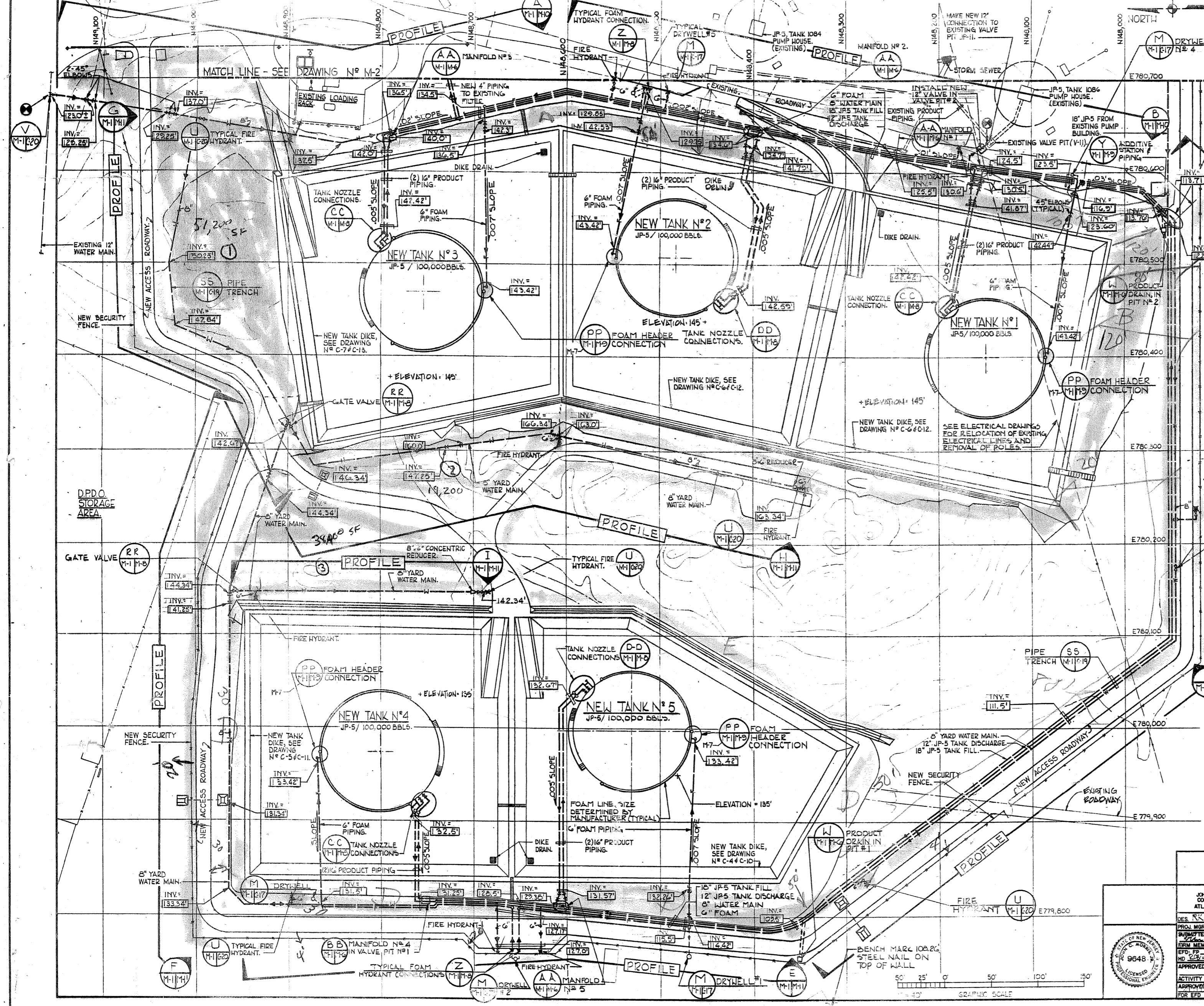


REV	DESCRIPTION	DATE	APPROVED

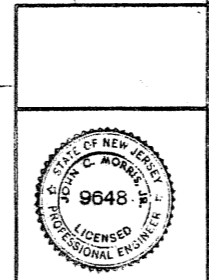


LEGEND

SYMBOL	DESCRIPTION
(Symbol)	VALVE
(Symbol)	FLOW DIRECTION
(Symbol)	FIRE HYDRANT
(Symbol)	FOAM HYDRANT
(Symbol)	FOAM RISER
(Symbol)	EXISTING UNDERGROUND PIPING
(Symbol)	NEW UNDERGROUND PIPING
(Symbol)	NEW ABOVEGROUND PIPING
(Symbol)	YARD WATER MAIN
(Symbol)	FOAM PIPING
(Symbol)	SECURITY FENCE
(Symbol)	CONNECTION-NEW TO EXISTING

NOTE:
MINIMUM OPERATING PRESSURE AT FOAM CHAMBER INLET IS 50 PSI.

CHECK GRAPHIC SCALES BEFORE SCALING



JOHN C. MORRIS ASSOC.
CONSULTING ENGINEERS
ATLANTIC HIGHLANDS N.J.

DES. R.K. DR. E.J.S. CHK. R.H.
PROJ. MGR. L.W.J. E. CHL. ENR. M.C.
FORWARDED BY: DATE: 2/1/58
DIR. MEMBER: R.V.D. PRINCIPAL
HD. S.P. S. AS. DIR. J.L.B.

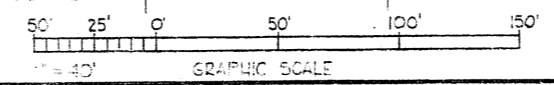
APPROVED: DATE: 2/1/58
ACTIVITY SATISFACTORY TO: DATE: 2/1/58
FOR EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND
ATLANTIC DIVISION
NAVAL STATION
NORFOLK, VIRGINIA

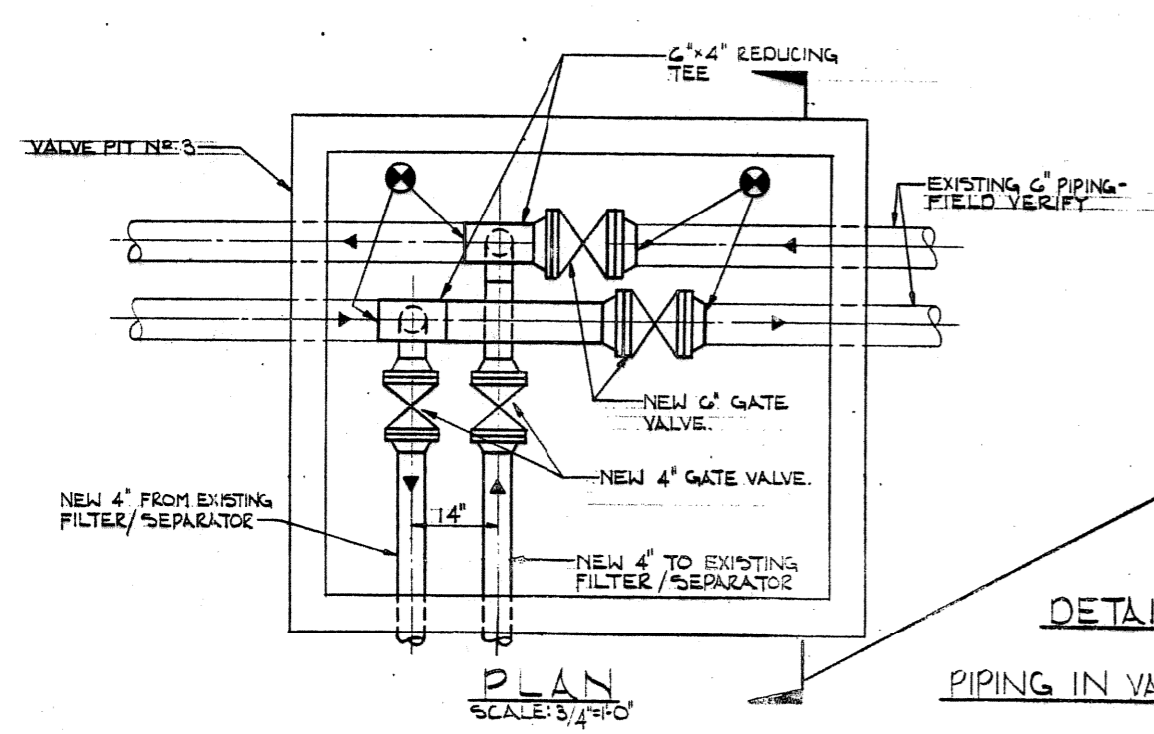
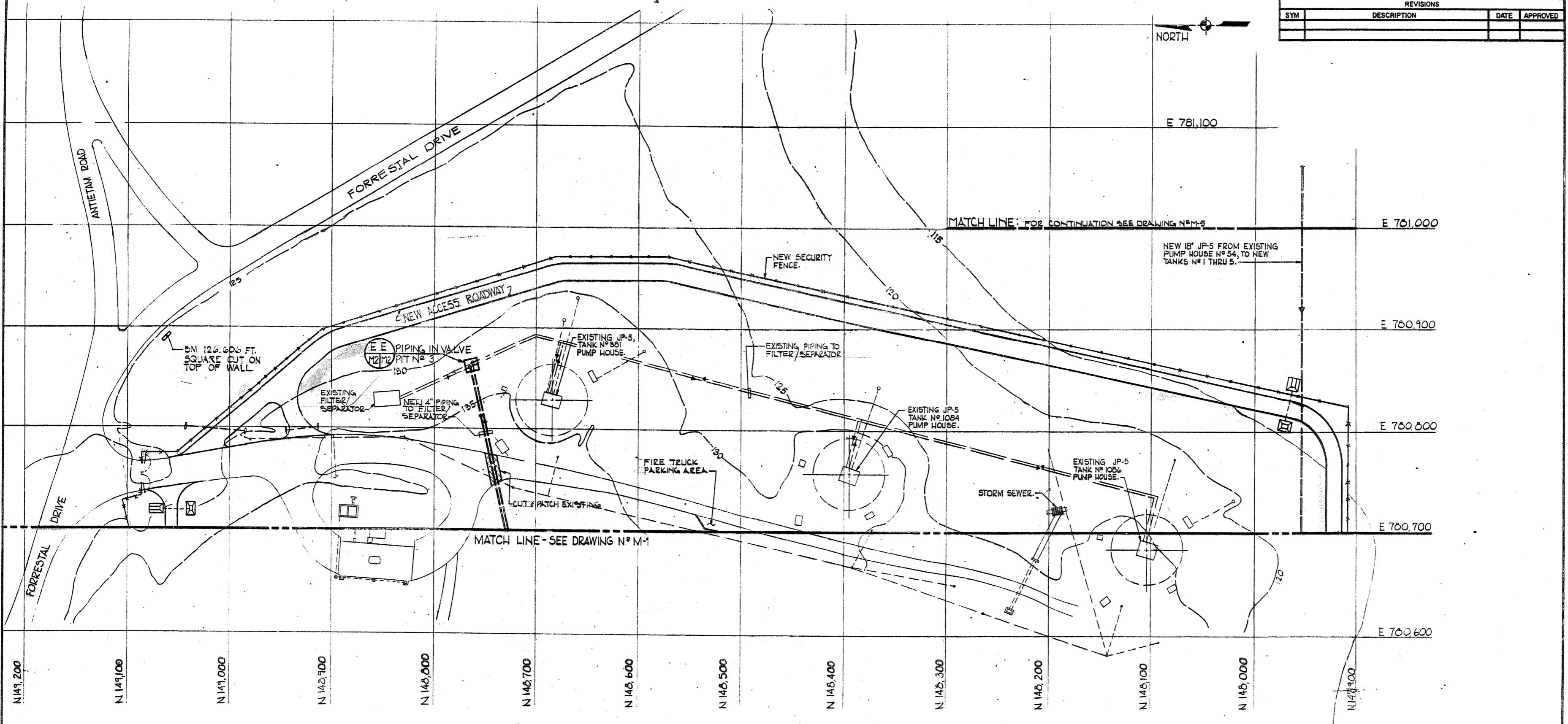
U.S. NAVAL STATION - ROOSEVELT ROAD, PUERTO RICO
FUEL STORAGE
DEFENSE FUEL SUPPORT POINT
FIRE, FOAM, FUEL SYSTEMS - 'A'

SIZE: F
CODE IDENT NO.: 80091
NAVFAC DRAWING NO.: 4125059
CONSTR. CONTR. NO.: N62470-83-B-3354

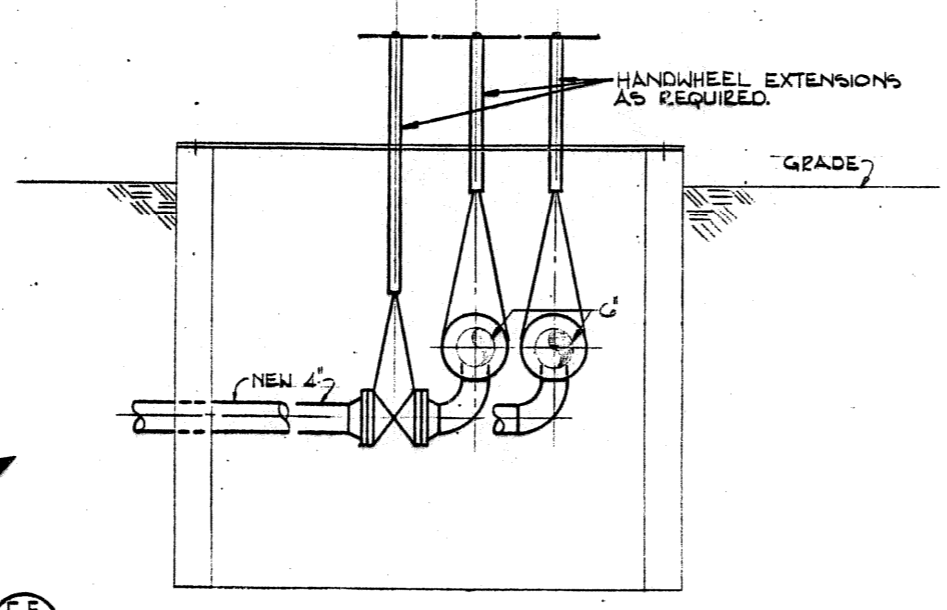
SCALE: 1"=40'
SPEC: 05-83-3354
SHEET 25 OF 46
EFD DWG. NO. 225059



REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED

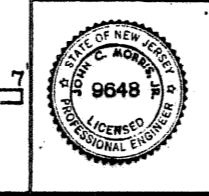
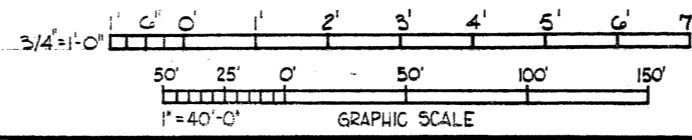


PLAN
SCALE: 3/4"=1'-0"



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

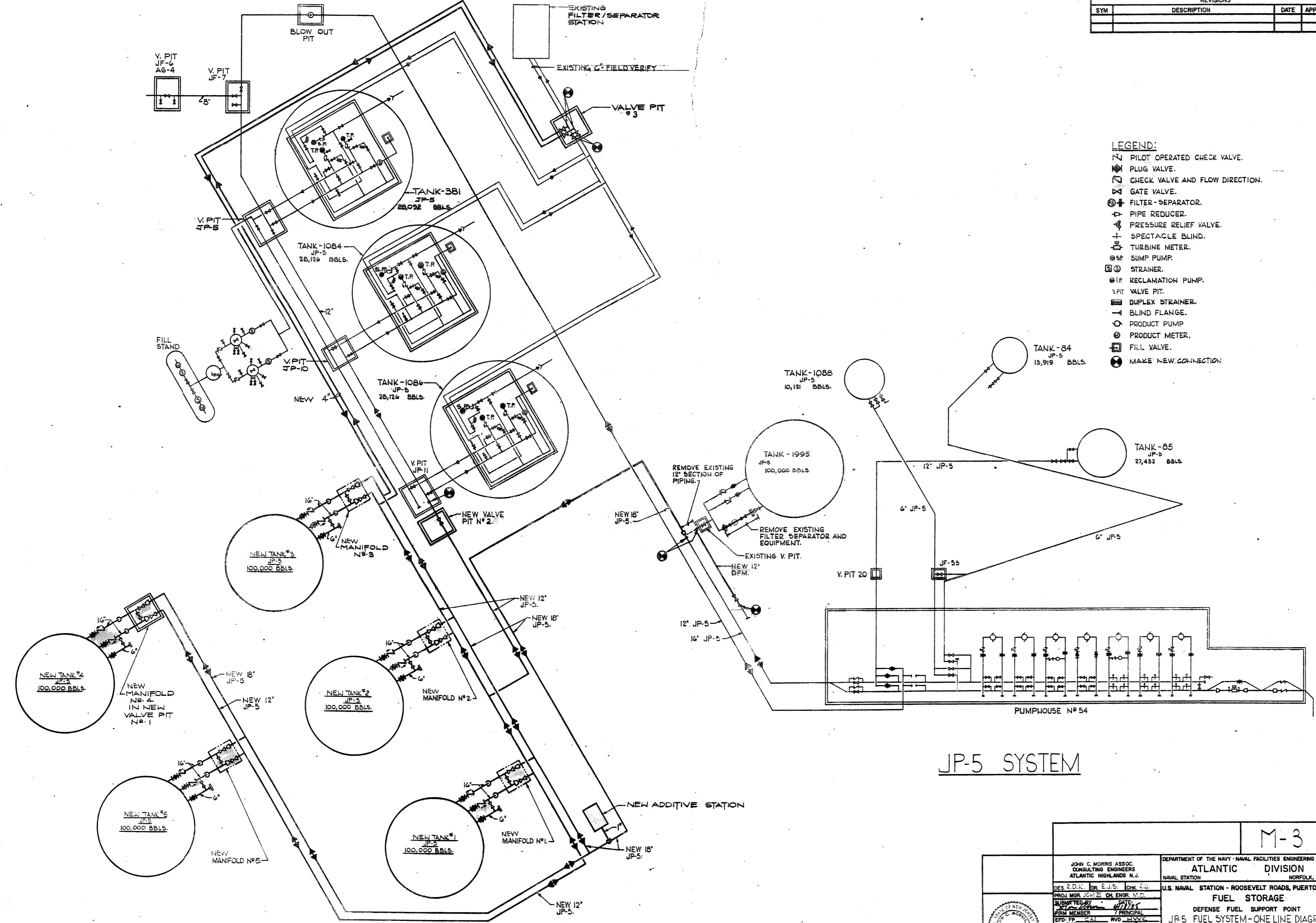
DETAIL EE
PIPING IN VALVE PIT # 3



CHECK GRAPHIC SCALES BEFORE SCALING

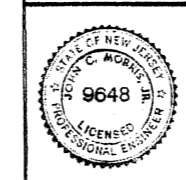
M-2	
JOHN C. MORRIS ASSOC. CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.J.	DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA
U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO	
FUEL STORAGE	
DEFENSE FUEL SUPPORT POINT	
FIRE, FOAM, FUEL SYSTEMS - B	
DES. R.K. OR E.S. CHK. E.H. PROJ. MGR. J.C.M. CH. ENGR. W.D. SUBMITTED BY: [Signature] DATE: 1/18/83 FIRM MEMBER: [Signature] PRINCIPAL EPD: PP (C-8) RVO (C-1) [Signature] HD 22-1201 DIR. 11/82	SIZE: F CODE IDENT NO: 80091 NAVFAC DRAWING NO: 4125050 CONSTR. CONTR. NO. NS2470-83-B-3354
APPROVED: [Signature] DATE: 1/20/83 ACTIVITY SATISFACTORY TO: [Signature] APPROVED: [Signature] DATE: 1/20/83 FOR EPD FOR COMMANDER NAVFAC	SCALE NOTED: SPEC. 05-83-3354 SHEET 26 OF 46 EPD DWG. NO. 225050

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED



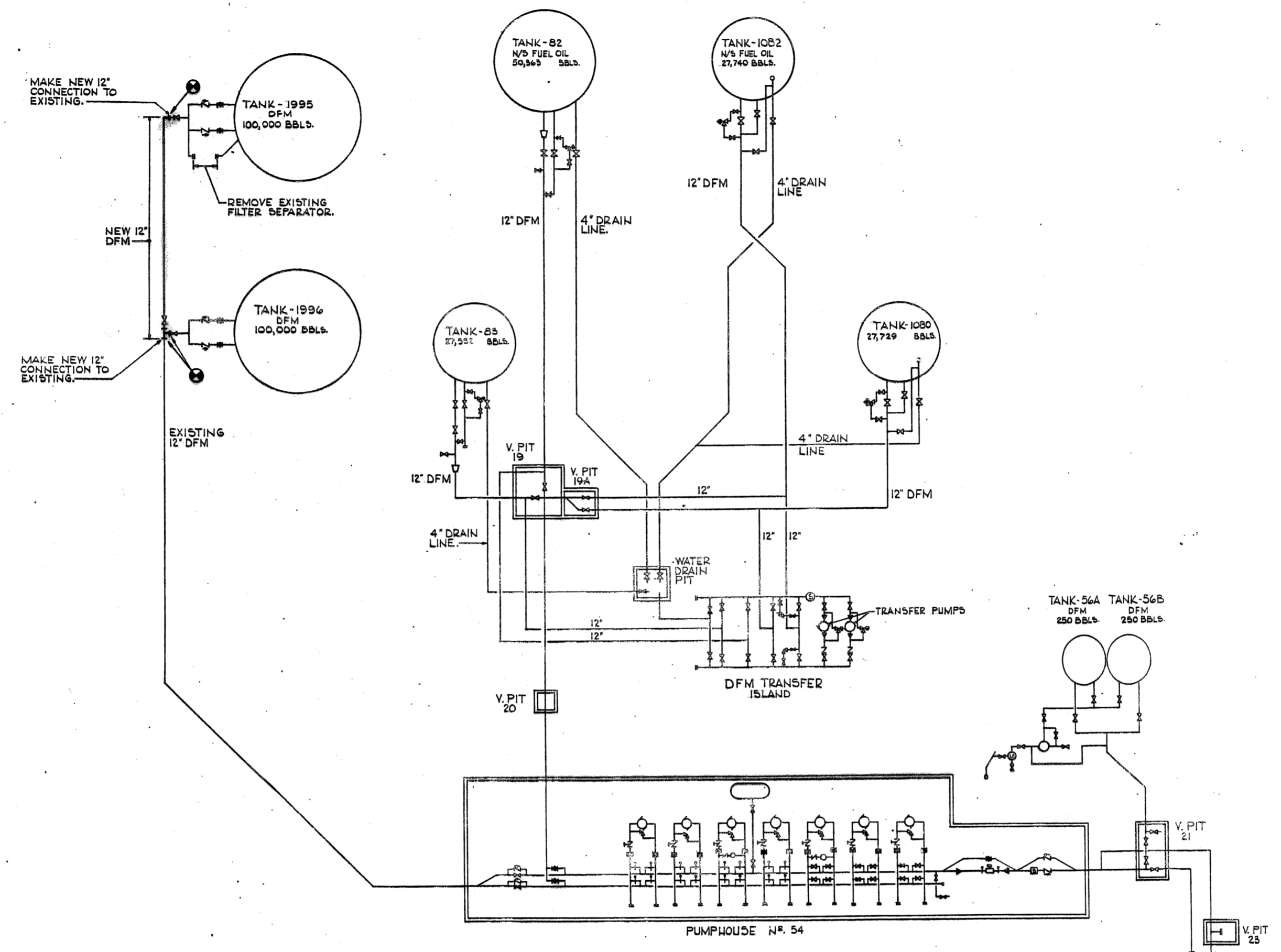
JP-5 SYSTEM

JOHN C. MORRIS ASSOC. CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.J.		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA	
		U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO FUEL STORAGE DEFENSE FUEL SUPPORT POINT JP-5 FUEL SYSTEM-ONE LINE DIAGRAM	
DES. R.D.K. OR E.J.S. CHK. R.H. PROJ. MGR. J.E.M. CH. ENGR. M.C.	SUBMITTED BY: [Signature] DATE: 4/1/85 PRM MEMBER: [Signature] DATE: 4/1/85 EFD. FR. [Signature] RVD. H.V.V.C. DIR. J.H.S.	APPROVED DATE: [Signature] ACTIVITY SATISFACTORY TO: [Signature] APPROVED DATE: [Signature] FOR EFD FOR COMMANDER NAVFAC	SIZE CODE IDENT NO. NAVFAC DRAWING NO. F 80091 4125061
SCALE NONE SPEC. 05-83-3354 SHEET 27 OF 46		EFD DWG. NO. 225061	



M-3

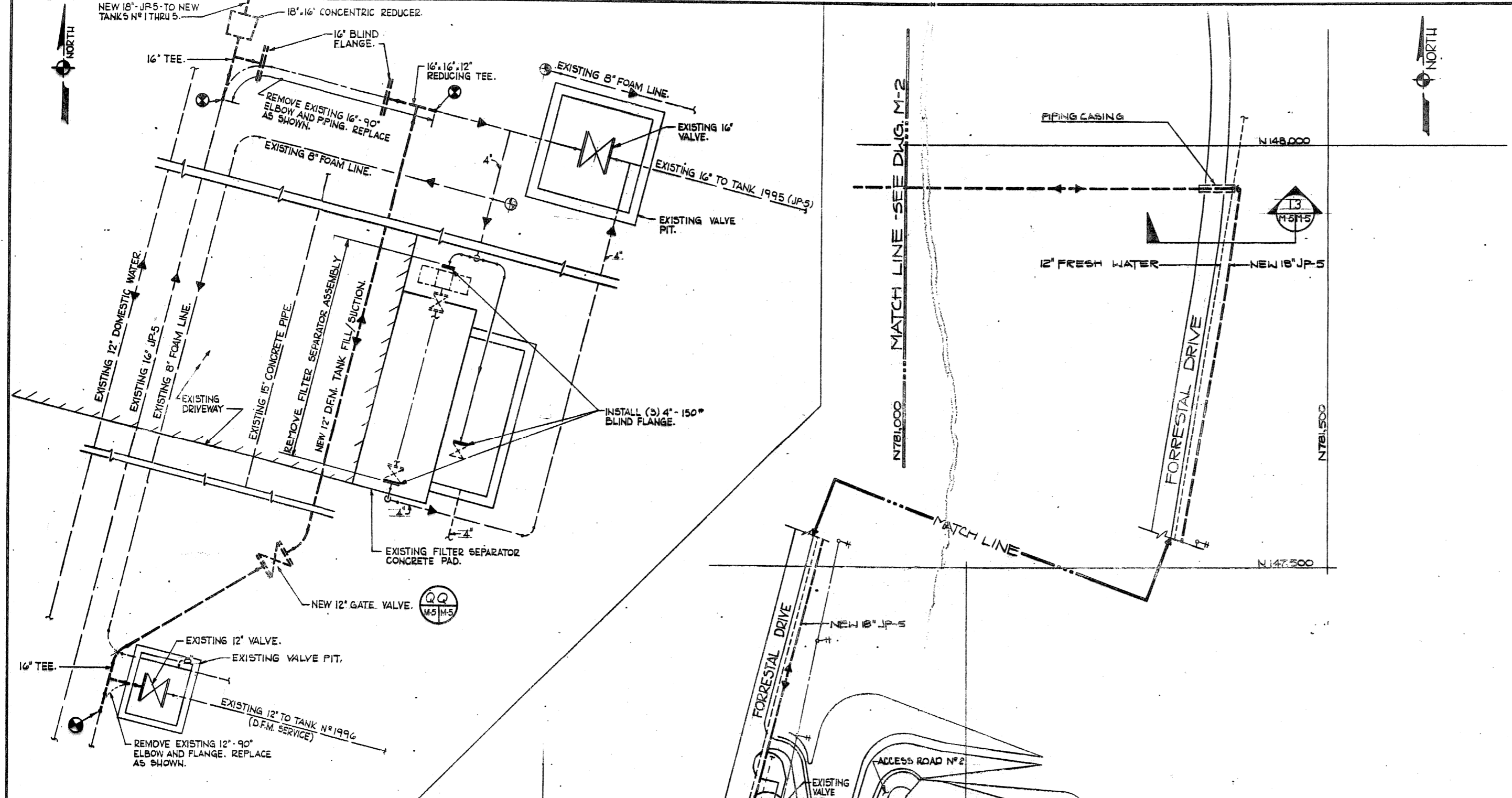
REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED



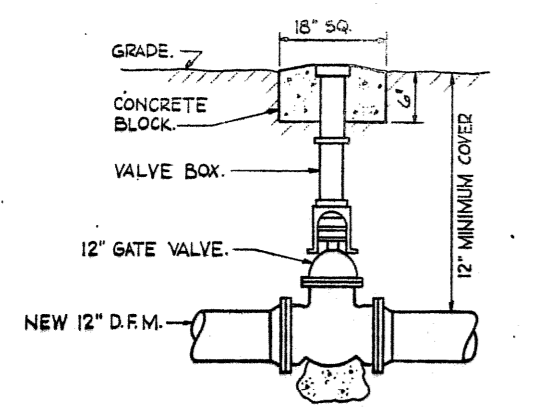
DFM SYSTEM

JOHN C. MORRIS ASSOC CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.J.		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA	
		U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO FUEL STORAGE DEFENSE FUEL SUPPORT POINT DFM. FUEL SYSTEM - ONE LINE DIAGRAM	
DES. R.D.K. DR. E.J.S. CHK. R.H. PROJ. MGR. J.C.M. CH. ENGR. N.D. SUBMITTED DATE 11/15 FRM MEMBER PRINCIPAL EPD. FP 643 RVD HW/C HD 025(82) DIR 1023	APPROVED DATE 11/23 ACTIVITY SATISFACTORY TO APPROVED DATE 11/23 FOR EPD FOR COMMANDER NAVFAC	SIZE CODE IDENT NO. F 80091	NAVFAC DRAWING NO. 4125062 CONSTR. CONTR. NO. NS2470-B-3354 SPEC. 05-83-3354
SHEET 28 OF 46 EPD DWG. NO. 225062		M-4	

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED

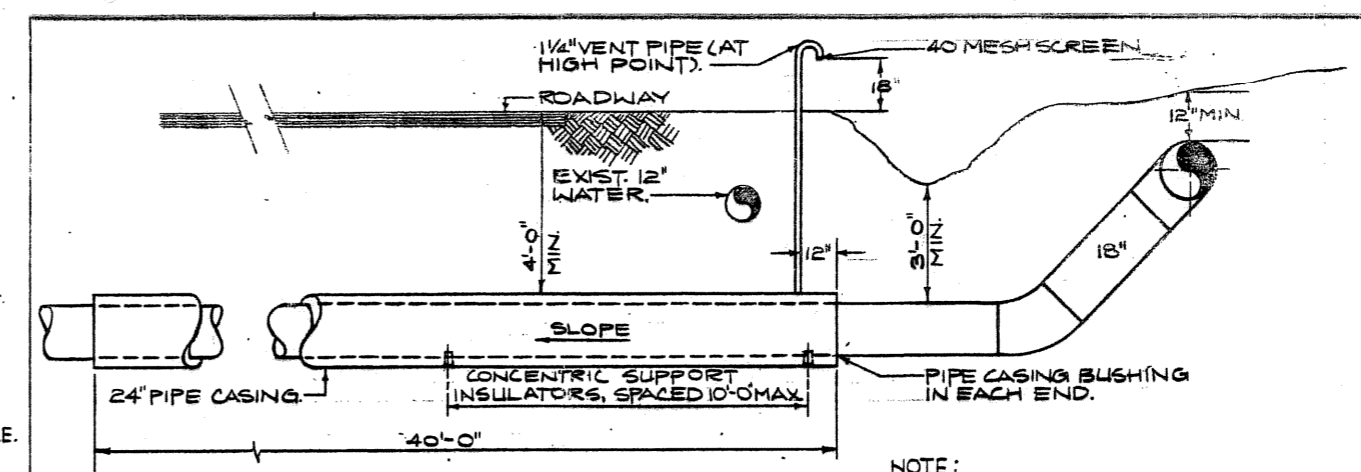


DETAIL FF
SCALE: 3/8" = 1'-0"
M5/M5



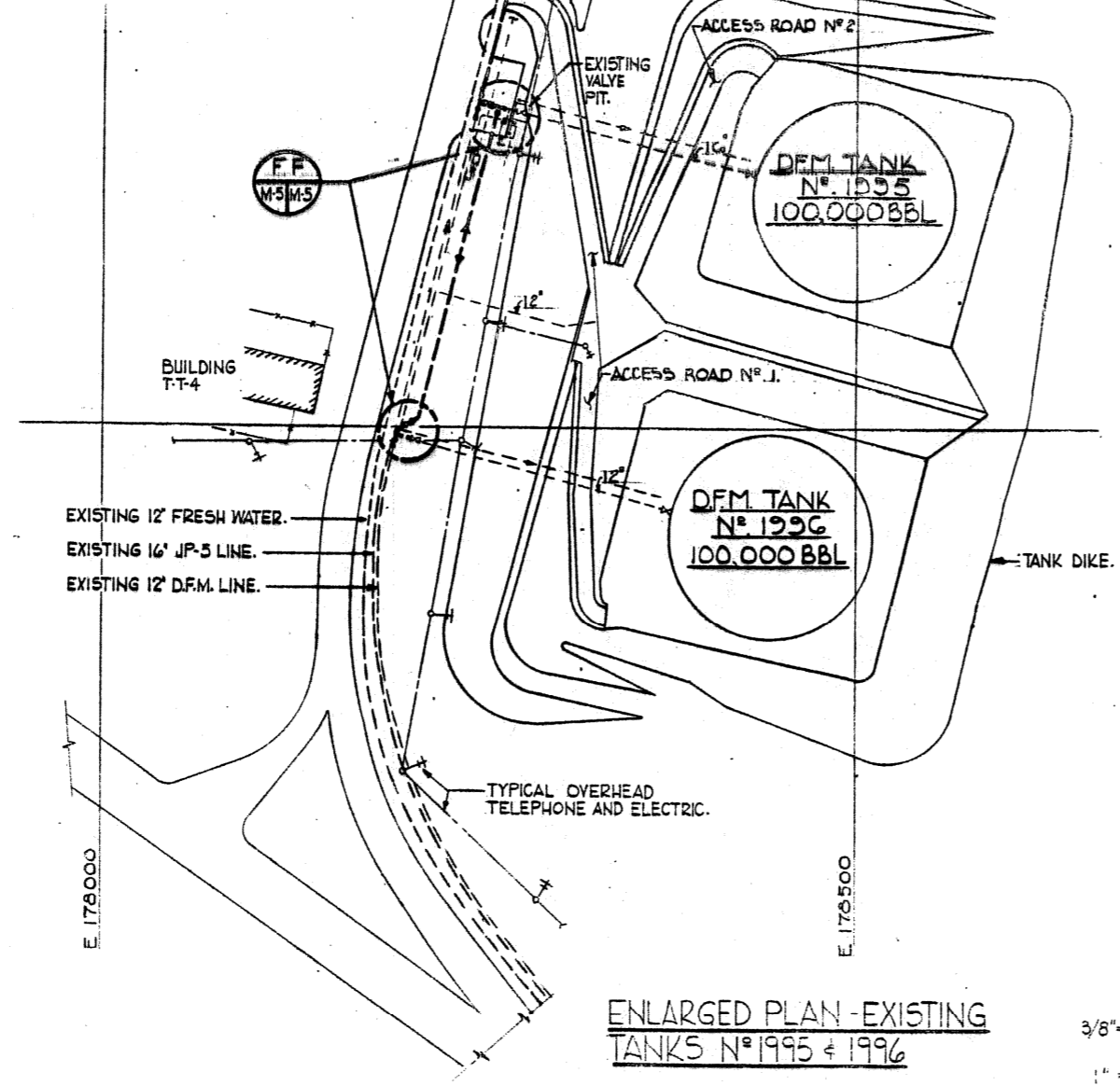
DETAIL QQ
NO SCALE
M5/M5

VALVE BOX FOR UNDERGROUND VALVE

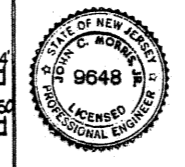
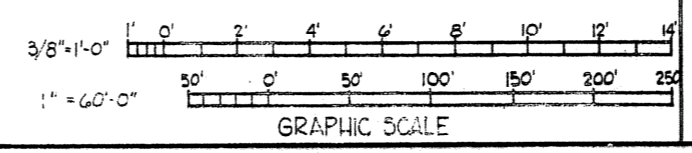


SECTION 13
NO SCALE
PIPE CASING & VENT

NOTE:
INSTALL IN ACCORDANCE WITH A.P.I. RP-1102
RECOMMENDED PRACTICE FOR LIQUID
PETROLEUM PIPELINE CROSSING RAILROADS
AND HIGHWAYS.



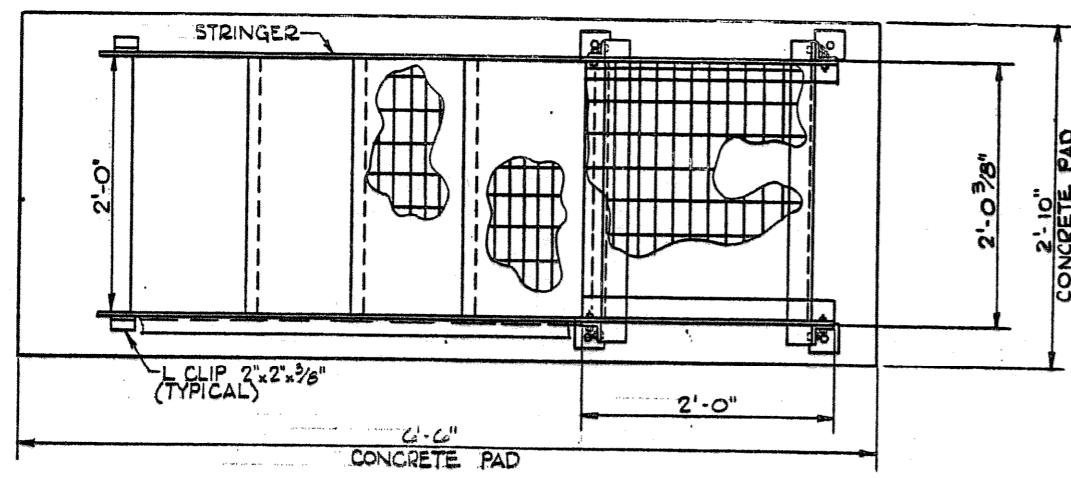
**ENLARGED PLAN - EXISTING
TANKS N° 1995 + 1996**



JOHN C. MORRIS ASSOC. CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.J.		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA	
DES. P.D.K.	DR. R.H.	CHK. E.J.S.	U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO
PROJ. MGR. J.C.M.	CH. ENGR. M.D.		FUEL STORAGE
SUBMITTED BY			DEFENSE FUEL SUPPORT POINT
MEMBER		PRINCIPAL	TANKS 1995 + 1996 - PLAN & DETAILS
APPROVED	DATE	SIZE	CODE IDENT NO.
		F 80091	NAVJAC DRAWING NO. 4125063
ACTIVITY SATISFACTORY TO	DATE	CONSTR. CONTR. NO. N62470-83-B-3354	SHEET 29 OF 46
FOR EPD FOR COMMANDER NAVJAC		SCALE: NOTED SPEC. 05-83-3354	EPD Dwg. No. 228063

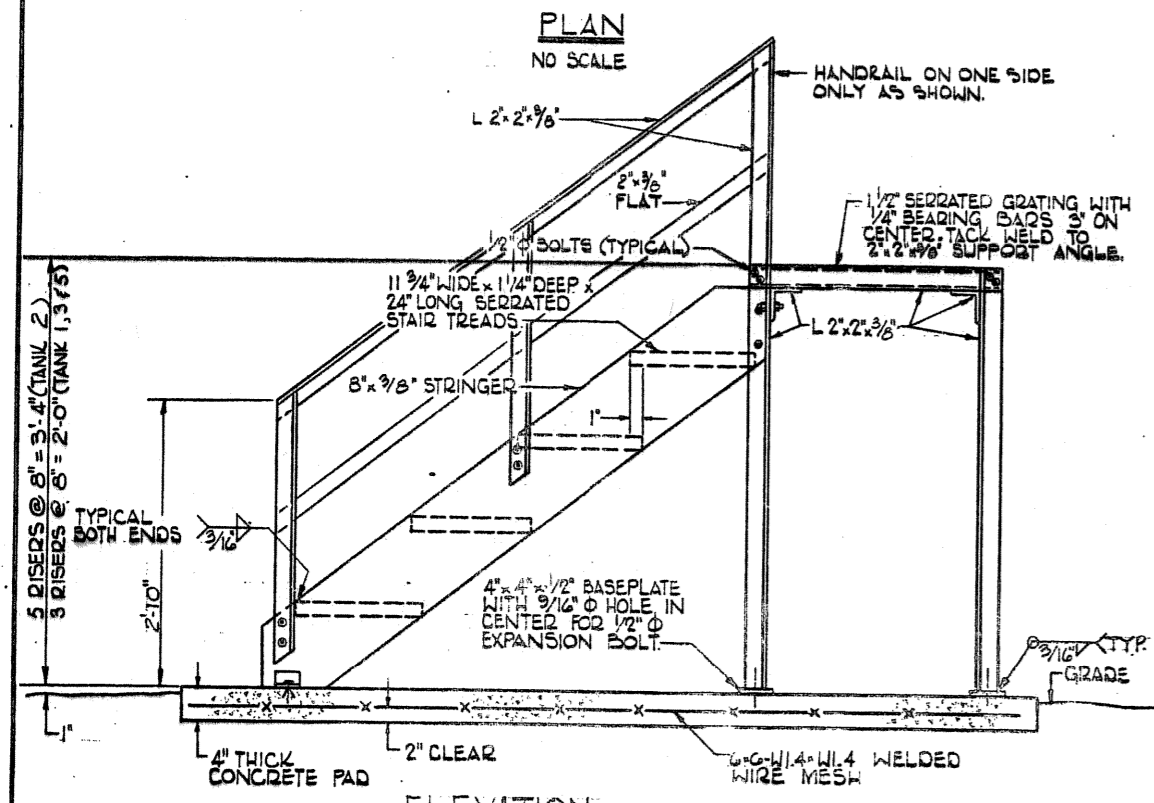
CHECK GRAPHIC SCALES BEFORE SCALING

M-5



PLAN

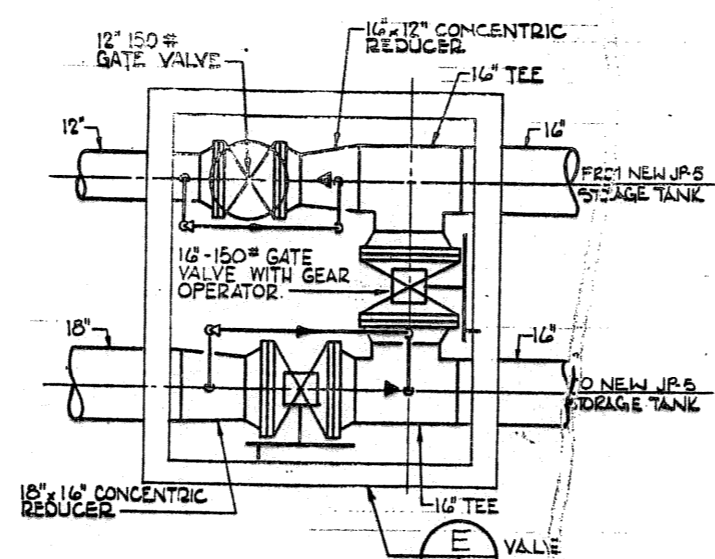
NO SCALE



ELEVATION

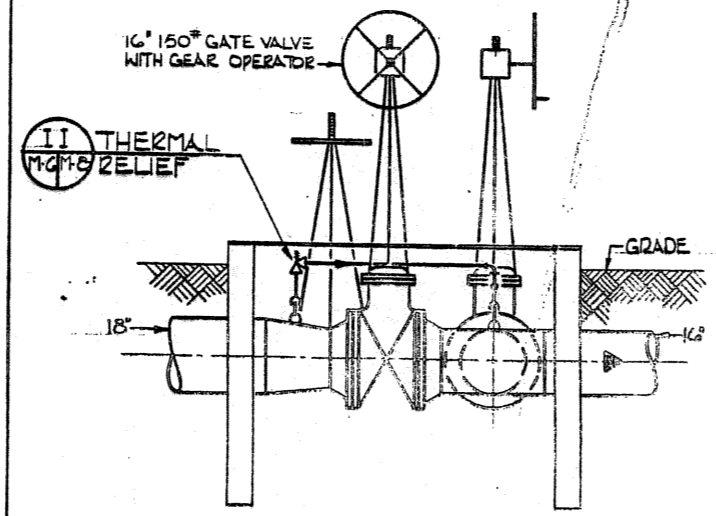
HH

DETAIL
ACCESS PLATFORM
NEW TANK VALVE
MANIFOLD N° 1, 2, 3 & 5
NO SCALE



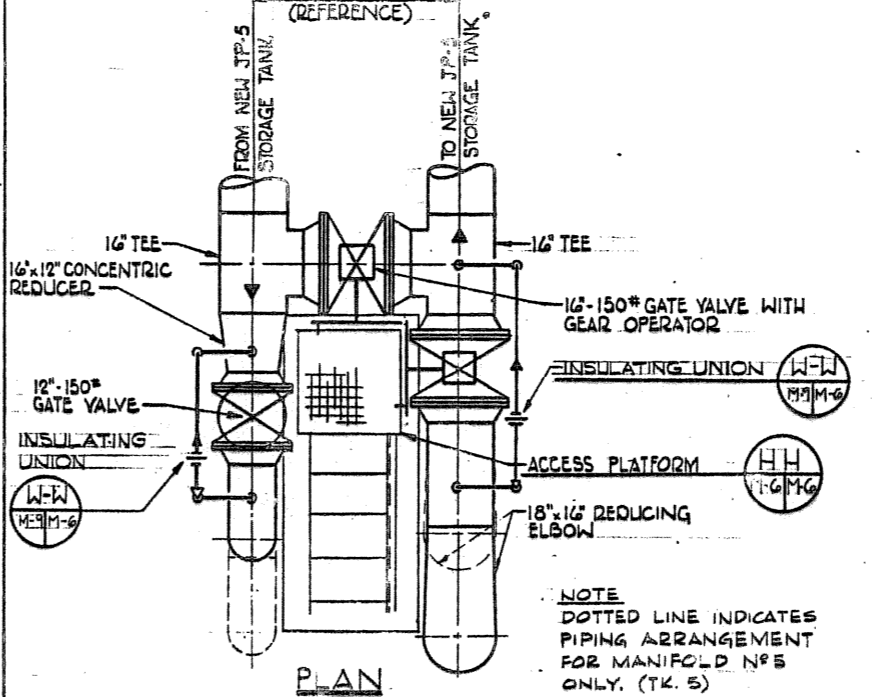
PLAN

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



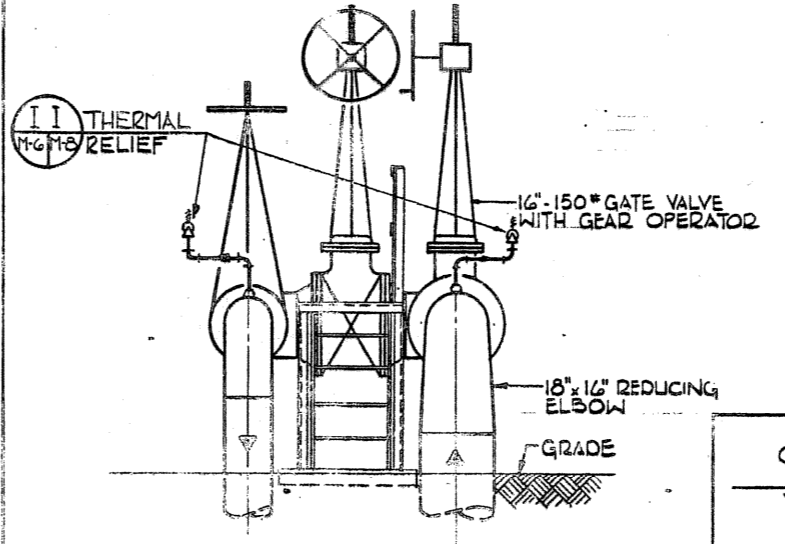
BB

DETAIL
NEW TANK VALVE
MANIFOLD N° 4
SCALE: 1/2" = 1'-0"



PLAN

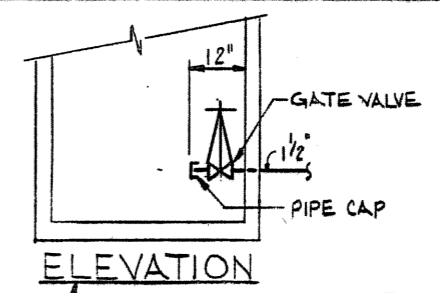
SCALE: 1/2" = 1'-0"



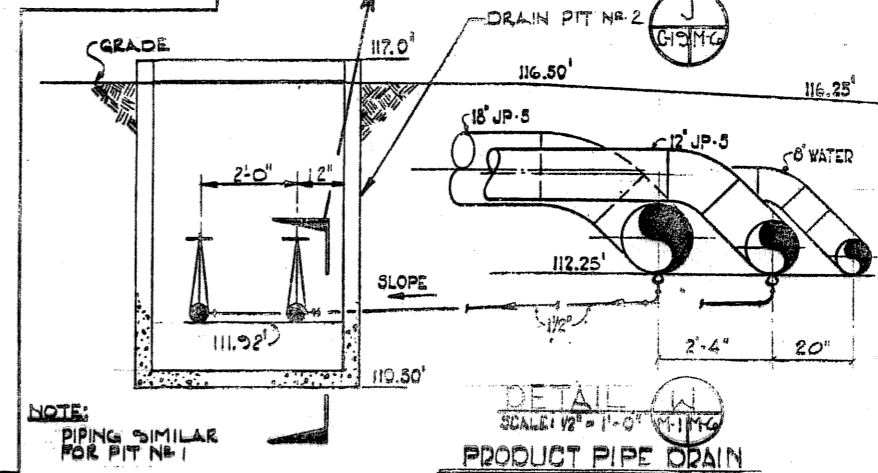
ELEVATION

AA
DETAIL
NEW TANK VALVE
MANIFOLD N° 1, 2, 3 & 5
SCALE: 1/2" = 1'-0"

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED

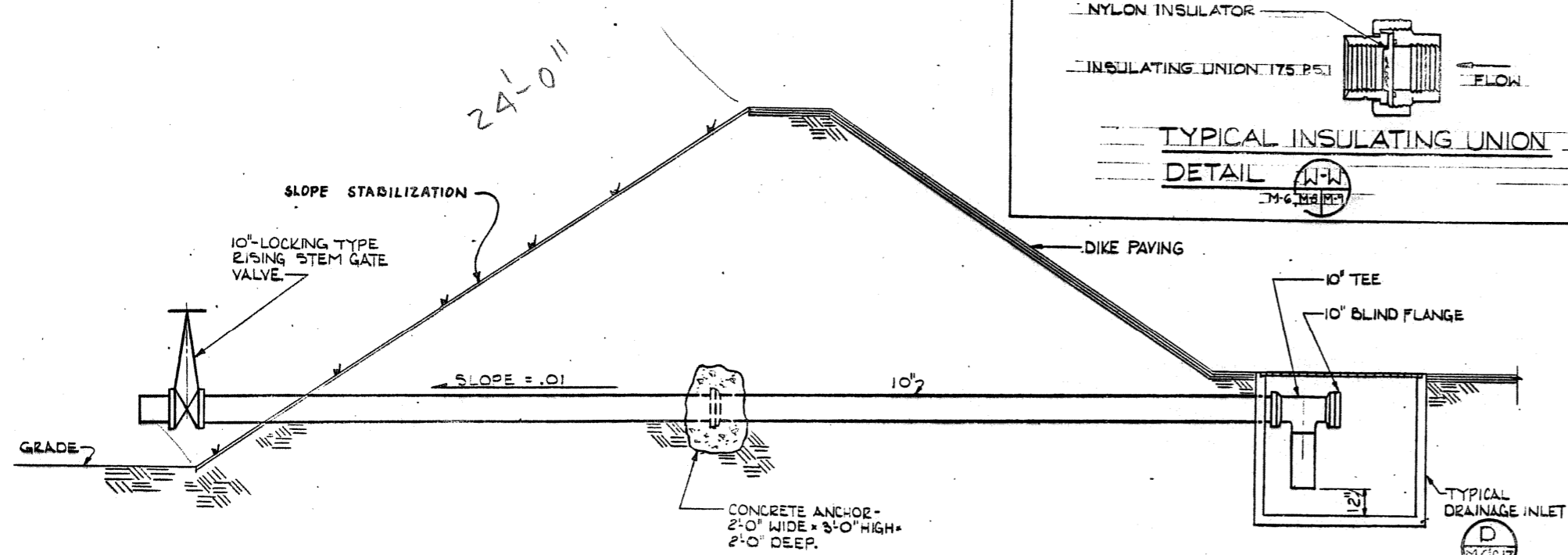


ELEVATION



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

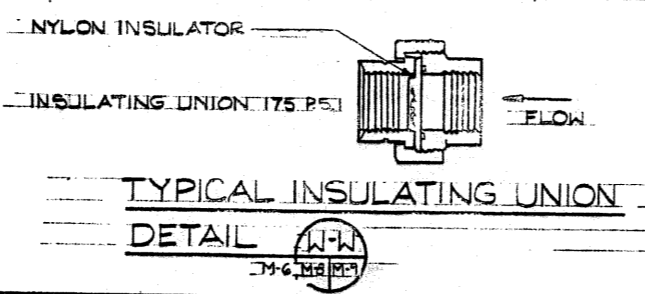
NOTE:
PIPING SIMILAR
FOR PIT N° 1



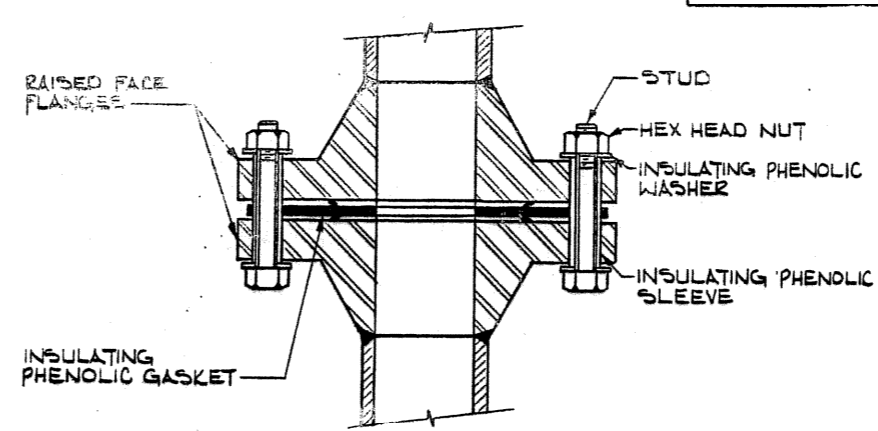
12 SECTION

C-17
SCALE: 3/8" = 1'-0"

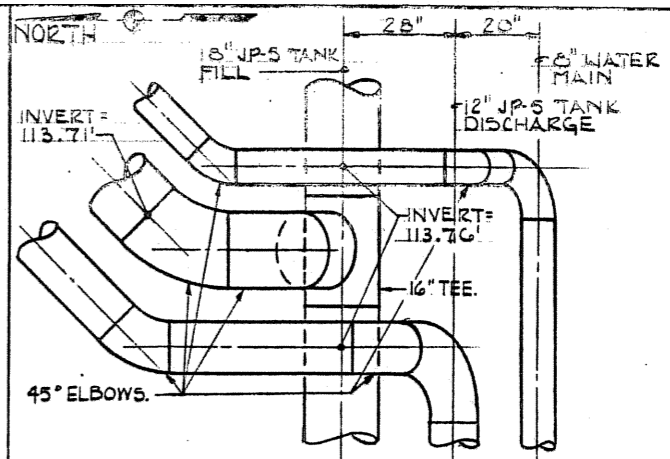
NOTE:
FOR INVERT ELEVATIONS
SEE DRAWINGS C-4 THRU C-7.



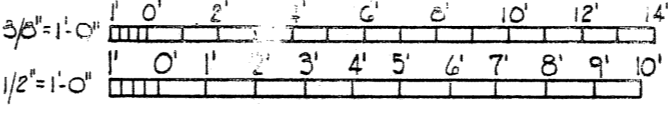
DETAIL
TYPICAL INSULATING UNION



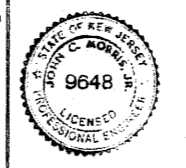
DETAIL
INSULATING FLANGE KIT



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

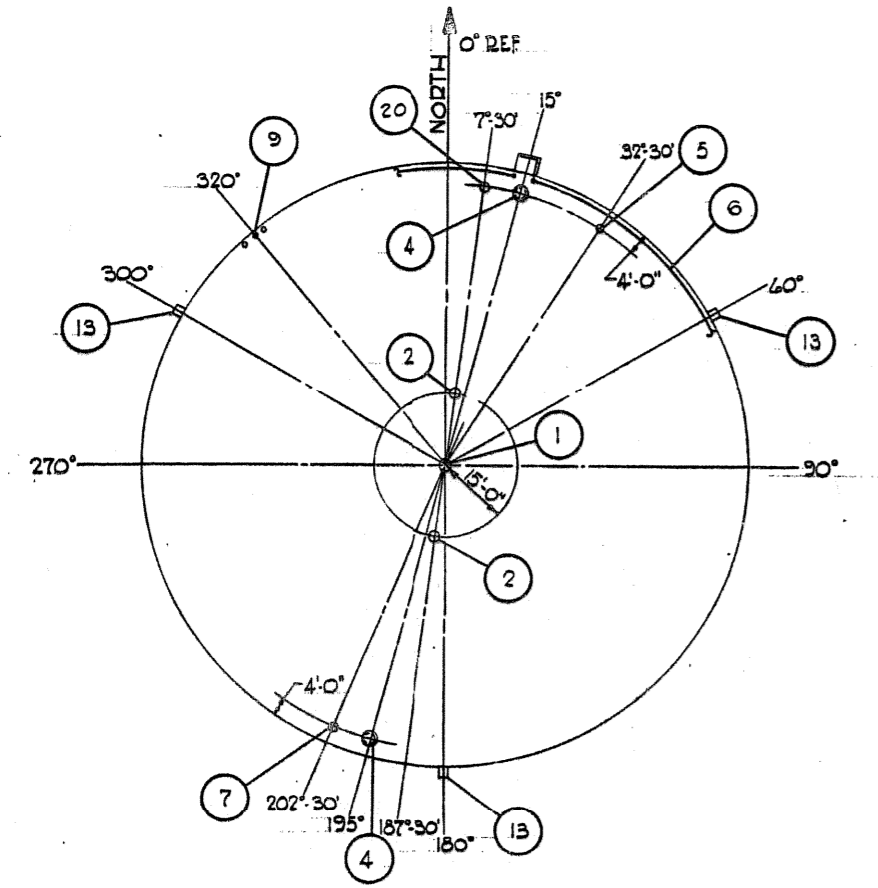


GRAPHIC SCALE

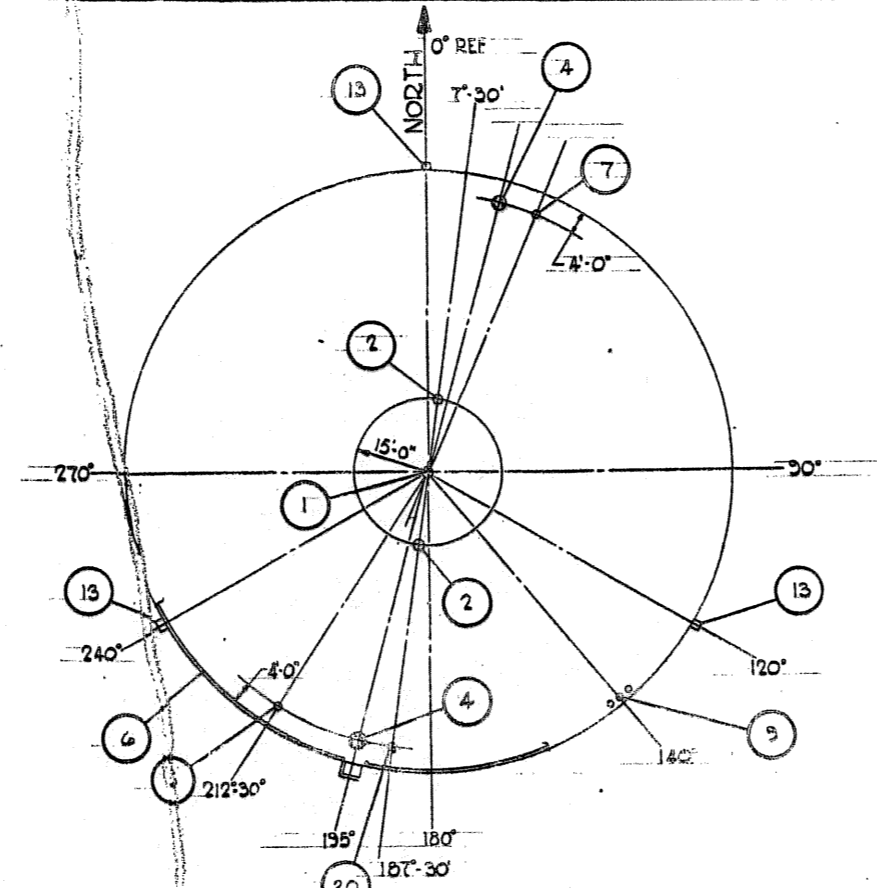


JOHN C. MORRIS ASSOC. CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.J.		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA	
DES. K.H. DR. K.A.S. CHK. C.L.		U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO	
PROJ. MGR. J.C.M. HIGH ENGR. M.D.		FUEL STORAGE DEFENSE FUEL SUPPORT POINT PIPING DETAILS	
SUBMITTED BY: J.C.M. DATE: 4/27/55		FIRM MEMBER: PRINCIPAL	
EFD: PP: C.A.C. RVD: H.V.G.		SIZE: CODE IDENT NO.: NAVFAC DRAWING NO.: 4125064	
HD: S.A. (S) DIR: J.W.S.		ACTIVITY SATISFACTORY TO: CONSTR. CONTR. NO. N62470-83-B-3354	
APPROVED: DATE: 5/1/55		SCALE NOTED: SPEC. 05-83-3354 SHEET 30 OF 46	
FOR EFD FOR COMMANDER NAVFAC		EFD DWG. NO. 225064	

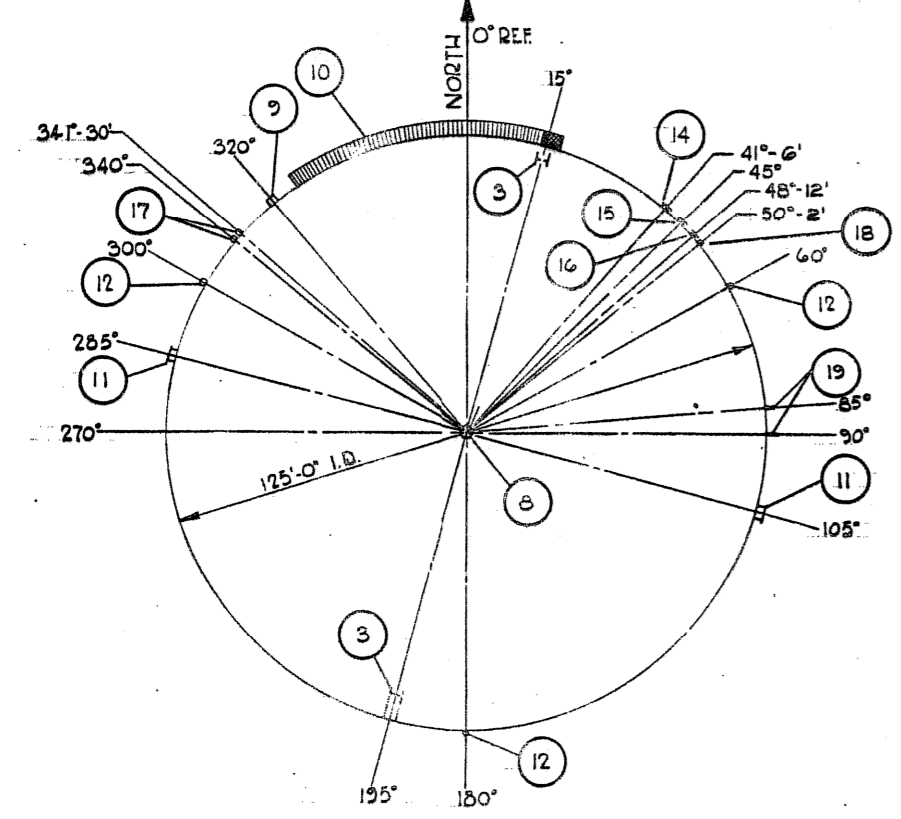
REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED



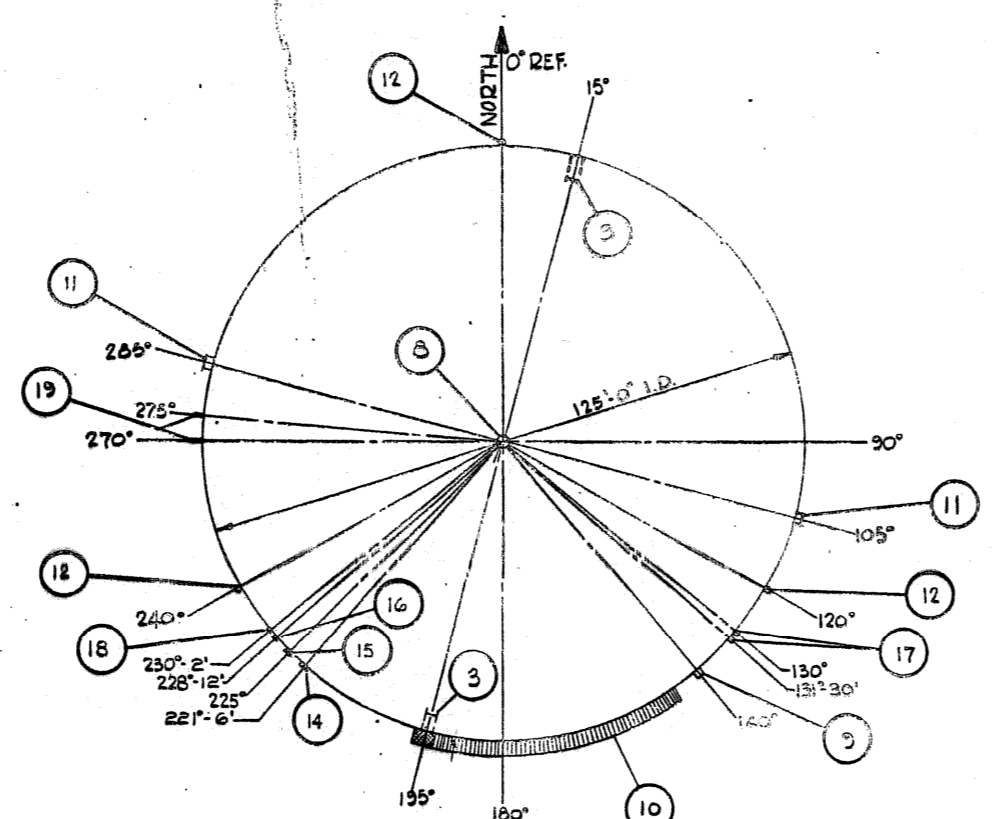
ROOF PLAN - TANKS N^o 1, 3 & 5
SCALE: 1" = 20'-0"



ROOF PLAN - TANKS N^o 2 & 4
SCALE: 1" = 20'-0"

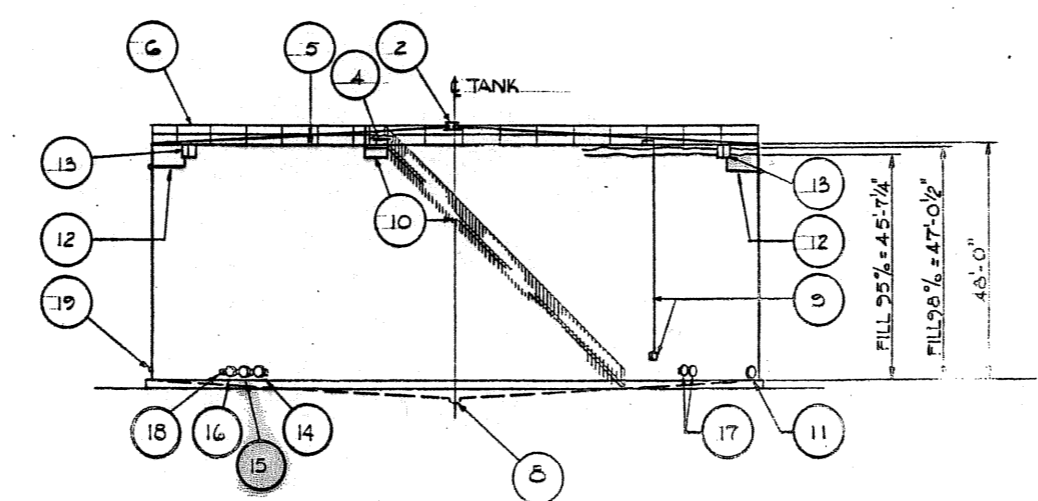
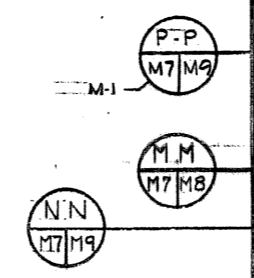


SHELL PLAN - TANKS N^o 1, 3 & 5
SCALE: 1" = 20'-0"



SHELL PLAN - TANKS N^o 2 & 4
SCALE: 1" = 20'-0"

ITEM	DESCRIPTION	SIZE	QUANTITY	LOCATION
1	SCAFFOLD CABLE SUPPORT	—	1	ROOF
2	PRESSURE VACUUM VENT	—	2	ROOF
3	INTERIOR LADDER	24" DIA.	2	ON SHELL INTERIOR
4	ROOF ACCESS MANHOLE	24" DIA.	2	ROOF
5	HIGH LEVEL ALARM FLANGE	4"	1	ROOF
6	ROOF RAILING	—	1	AROUND PERIMETER OF ROOF
7	SPARE 1/2 BLIND FLANGE	8"	1	ROOF
8	DRAIN SUMP	24" DIA.	1	ON TANK BOTTOM
9	AUTOMATIC GAGE W/ALARM CONTACTS	—	1	ROOF
10	SPIRAL STAIRS & PLATFORM	—	1	ON SHELL EXTERIOR
11	MANHOLE	30" DIA.	2	ON SHELL
12	FOAM PIPING HEADS	—	2	ON SHELL
13	FOAM CHAMBER	12" DIA.	3	ON SHELL
14	INLET NOZZLE (FILL)	16"	1	ON SHELL
15	OUTLET NOZZLE (SUCTION)	16"	1	ON SHELL
16	LOW SUCTION	6"	1	ON SHELL
17	THERMOWELLS	1"	2	ON SHELL
18	WATER DRAW-OFF	1"	1	ON SHELL
19	GROUNDING LUG	—	2	ON SHELL
20	GAGE HATCH & STILLING WELL	6"	1	ON SHELL INTERIOR



ELEVATION
SCALE: 1" = 20'-0"
GRAPHIC SCALE

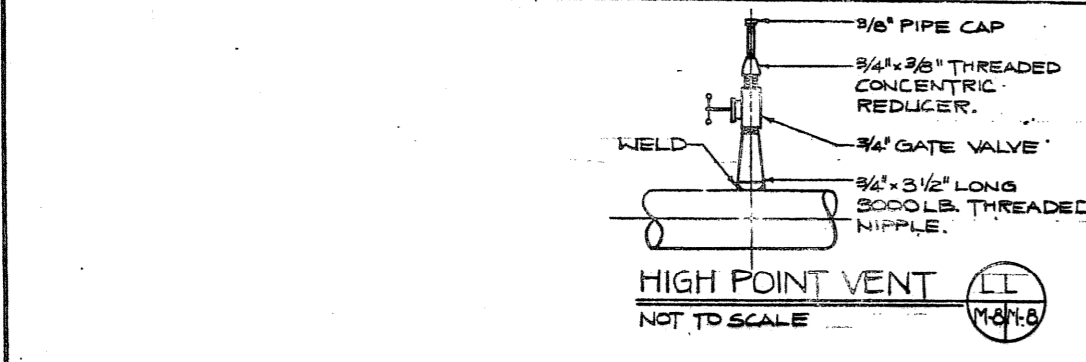
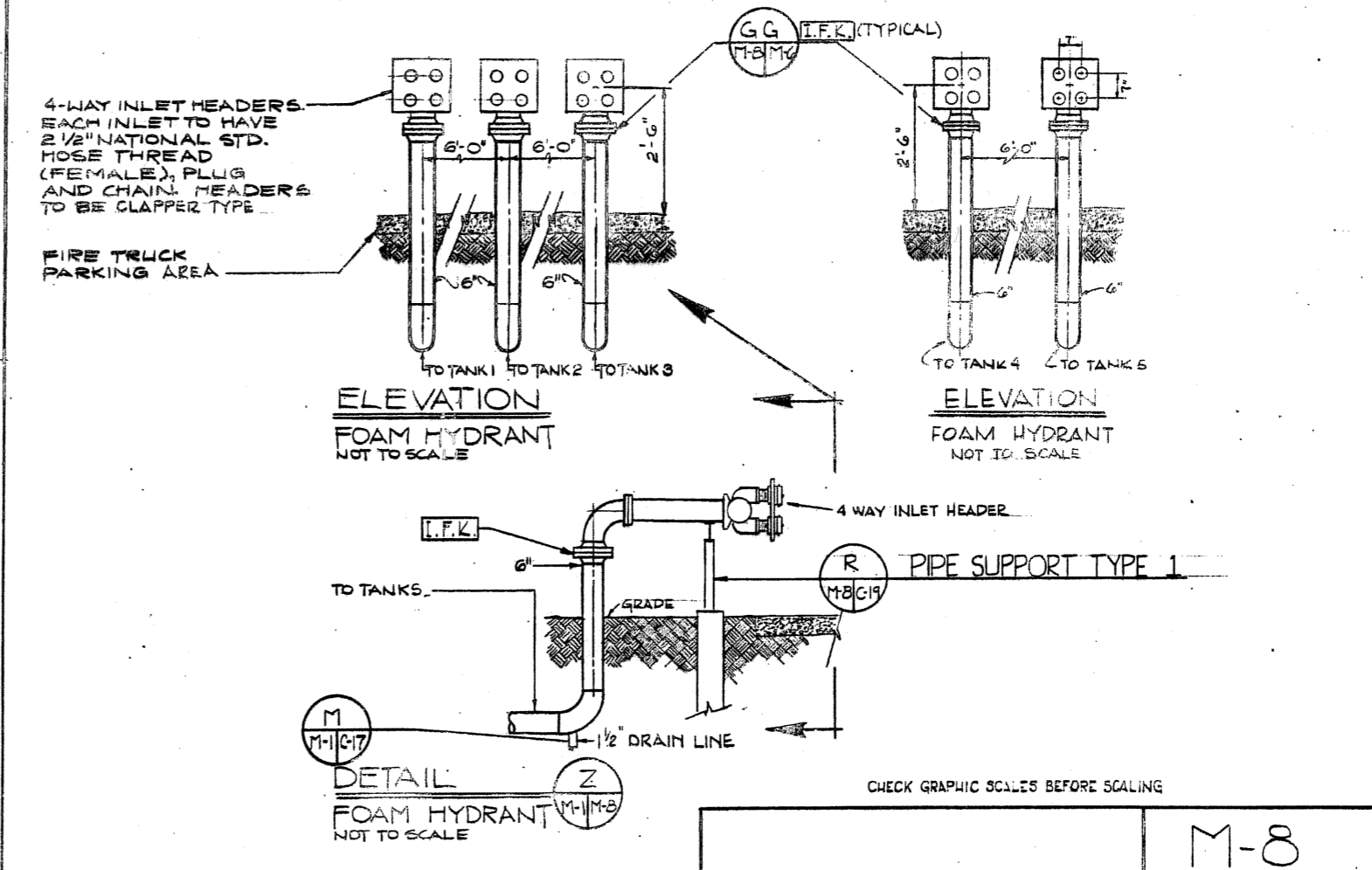
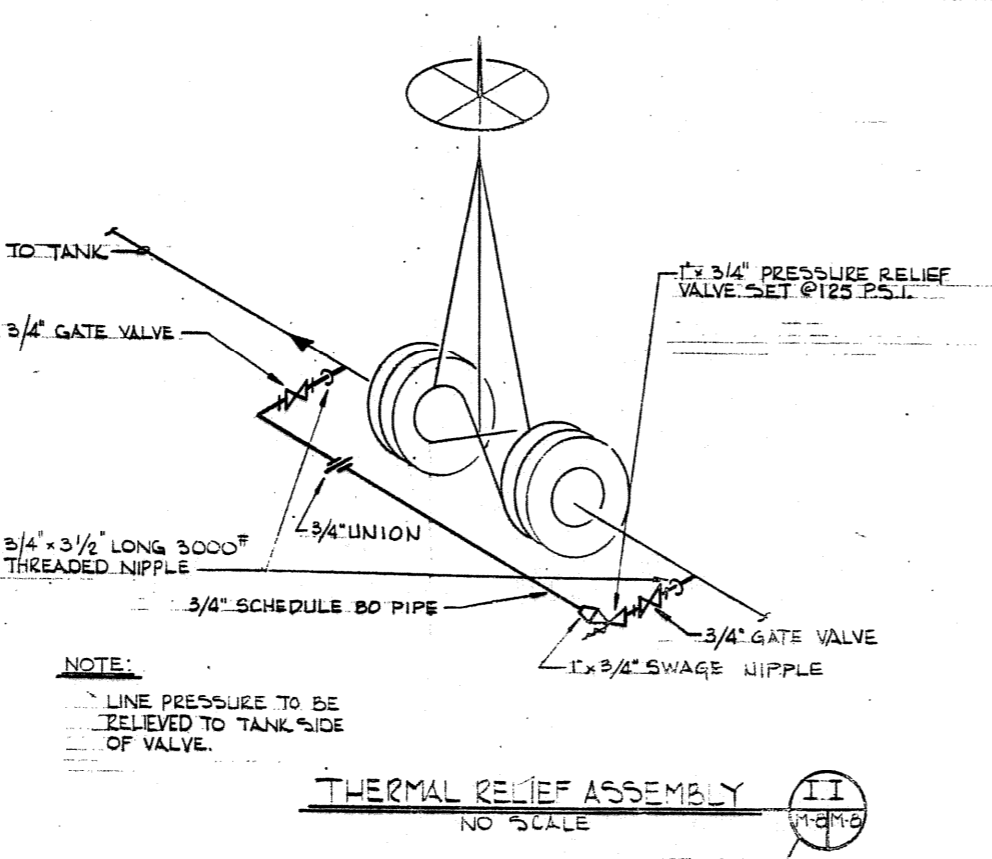
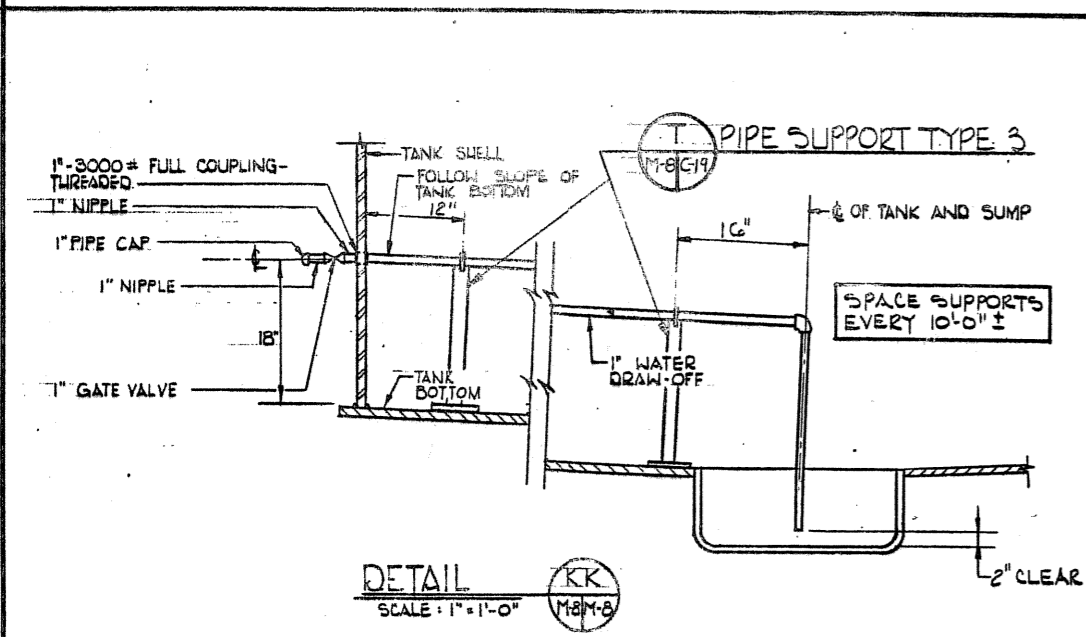
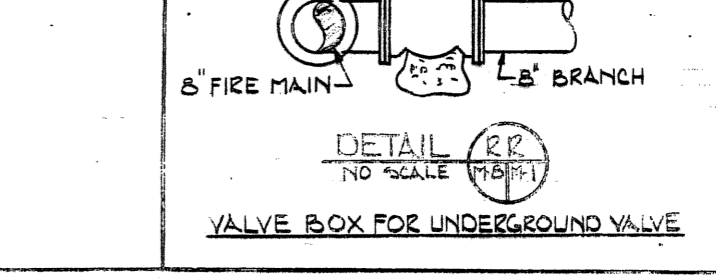
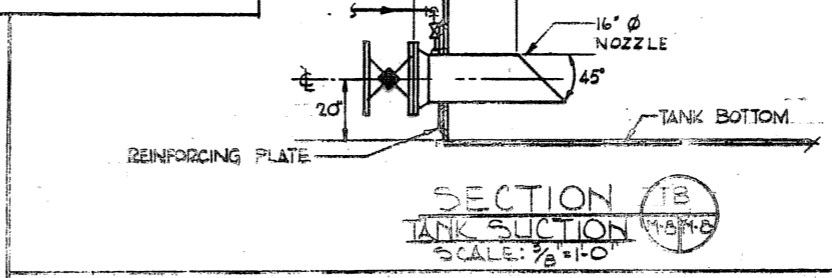
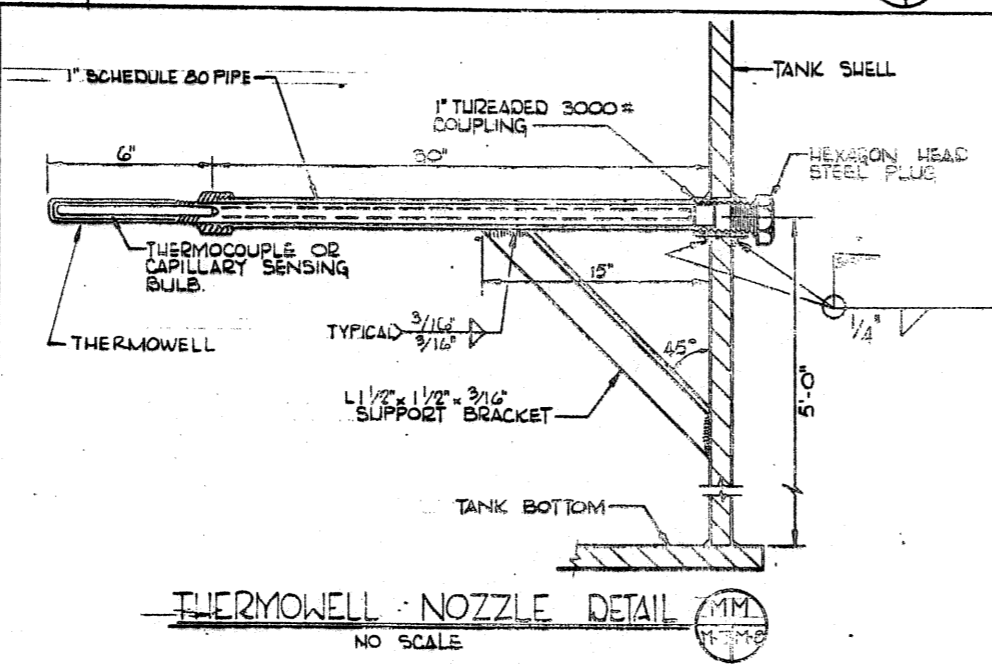
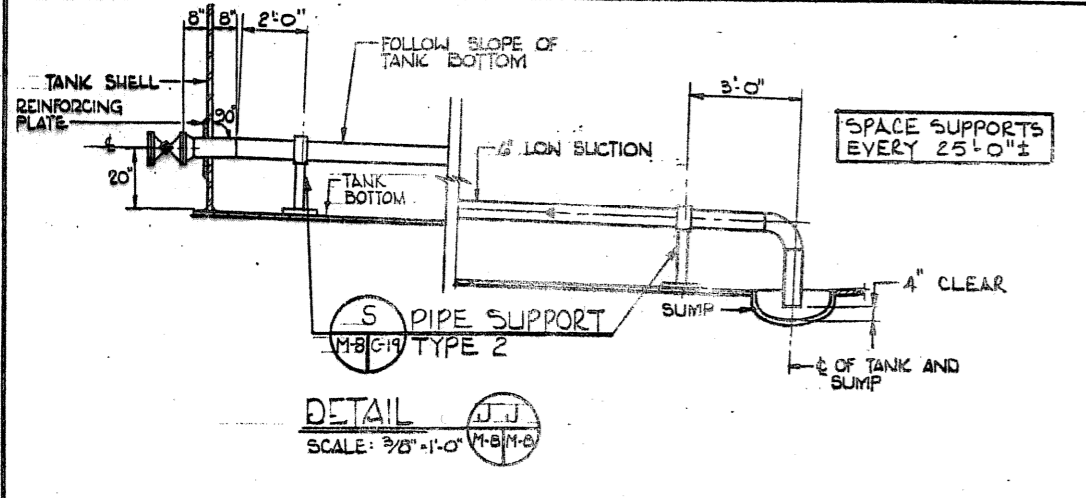
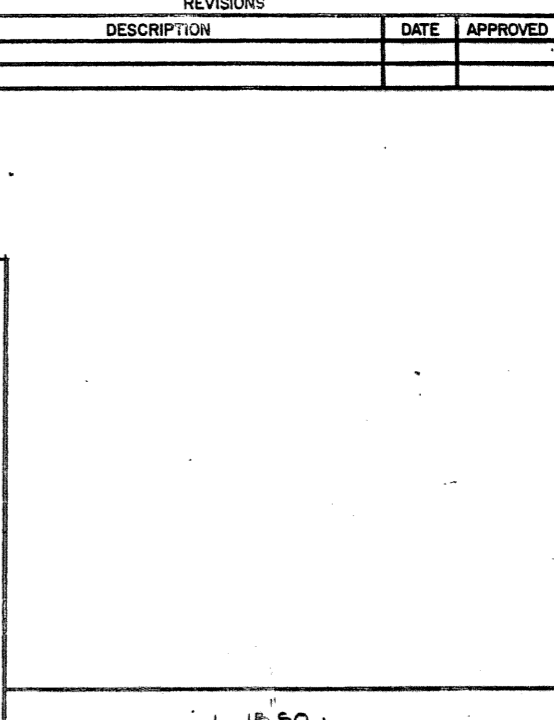
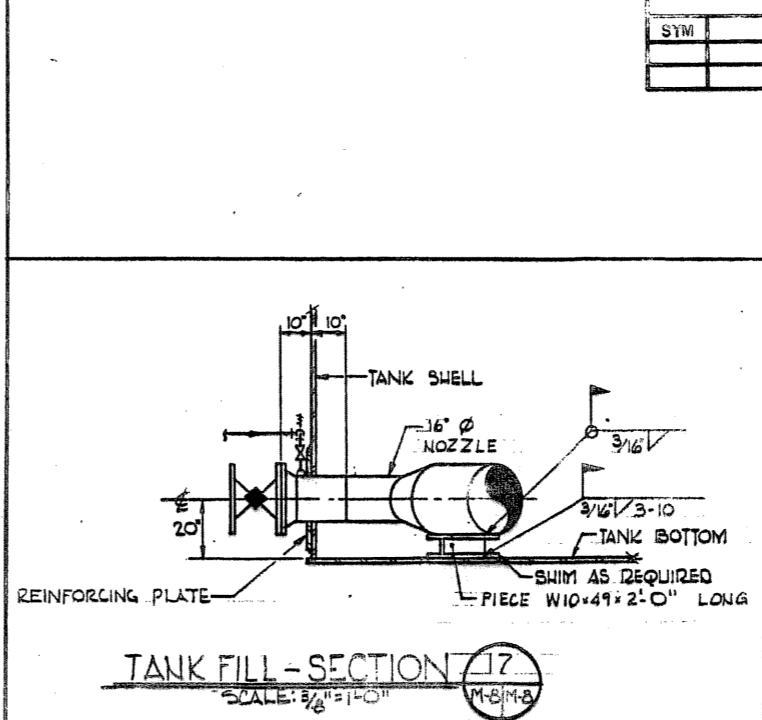
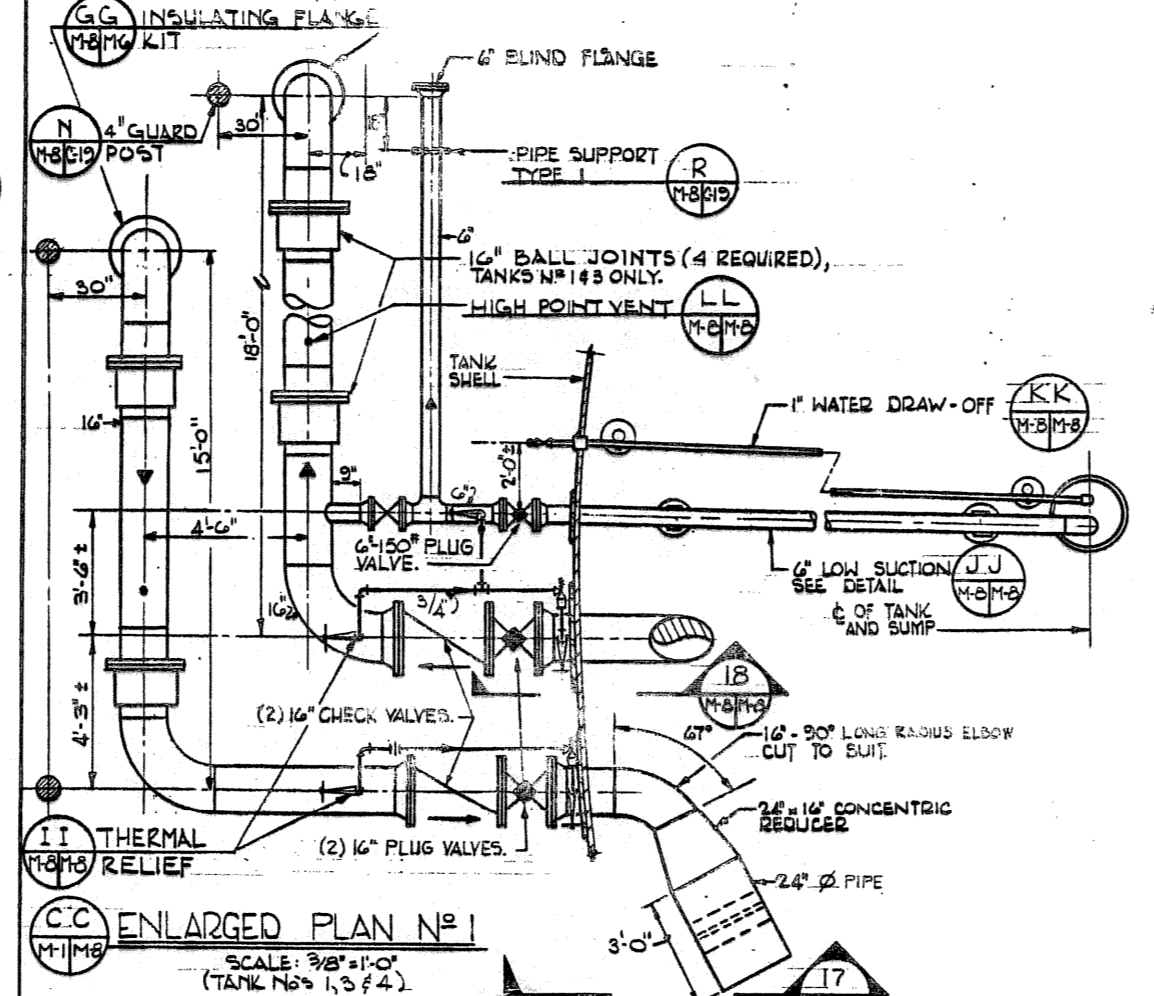
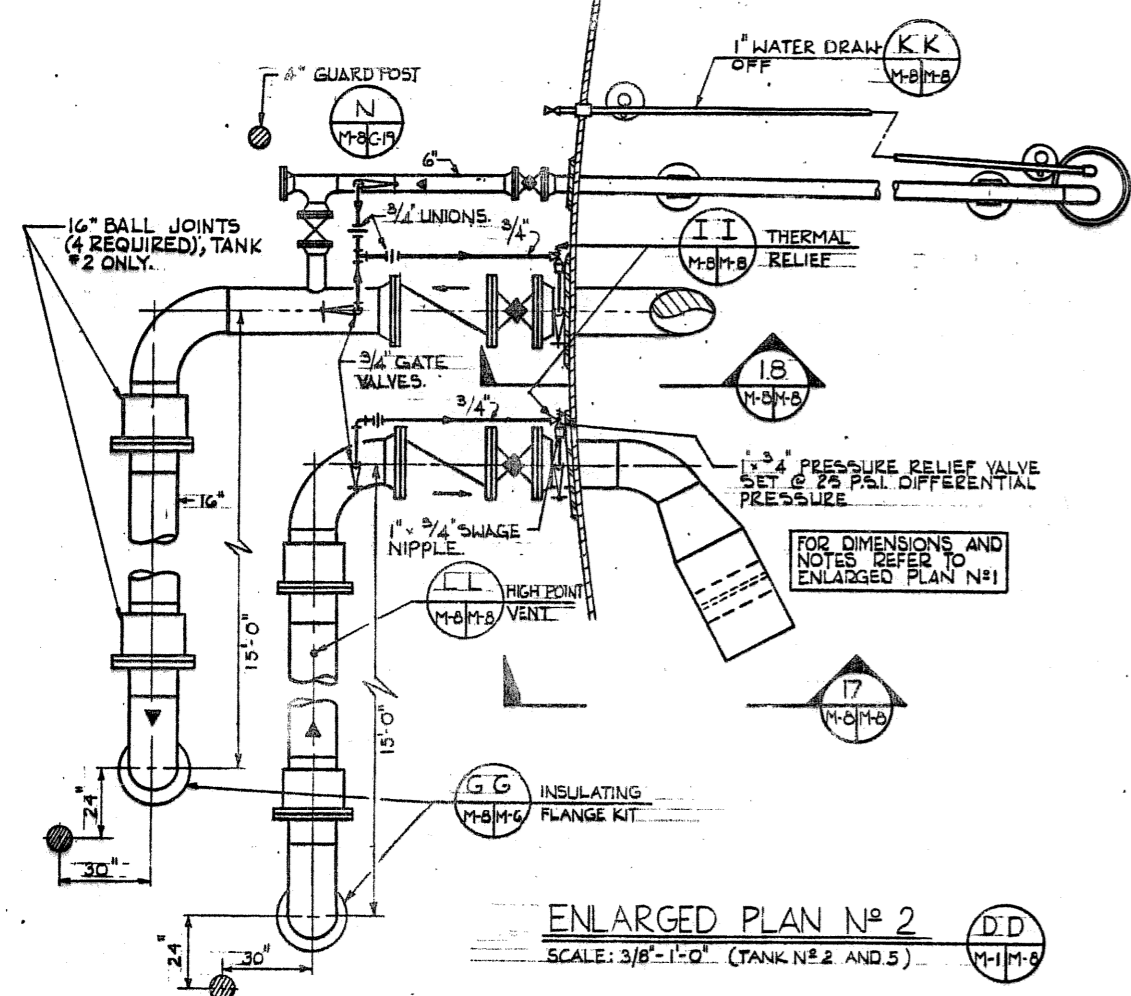
CHECK GRAPHIC SCALES BEFORE SCALING

M-7

JOHN C. MORRIS ASSOC. CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.J.	DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA
DES. BY: [Signature] PROJ. MGR.: [Signature] SUBMITTED BY: [Signature] FIRM MEMBER: [Signature] EFD: [Signature] APPROVED: [Signature] DATE: [Date]	U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO FUEL STORAGE DEFENSE FUEL SUPPORT POINT TANKS # 1 - 5 PLAN & ELEVATION NAVFAC DRAWING NO. 4125065 CONSTR. CONTR. NO. NS2470-93-B-3354 SCALE: 1" = 20' SPEC. 05-83-3354 SHEET 31 OF 46

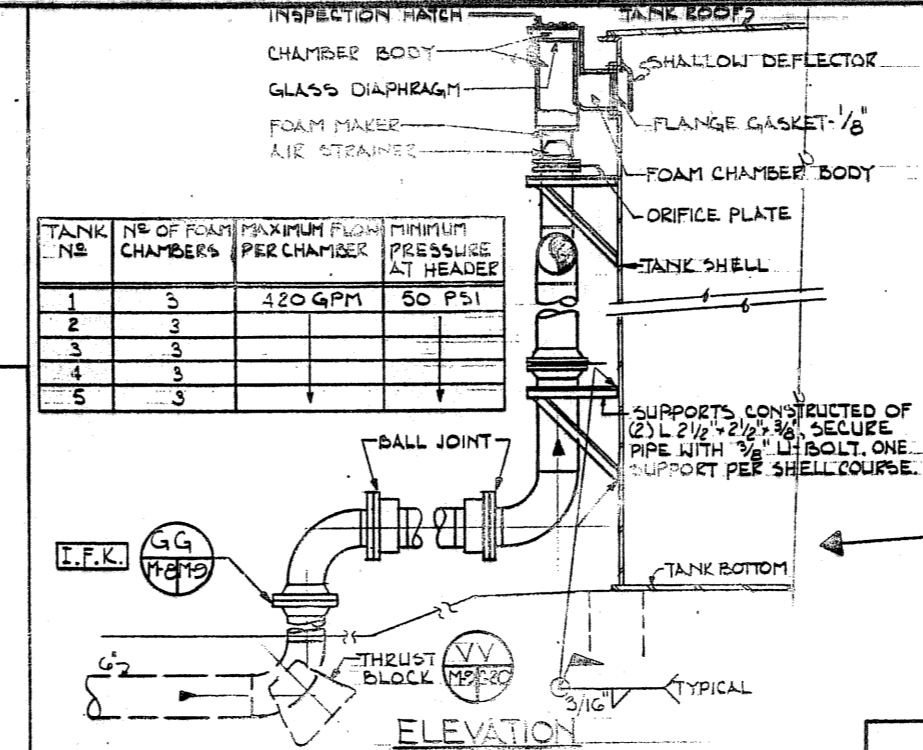
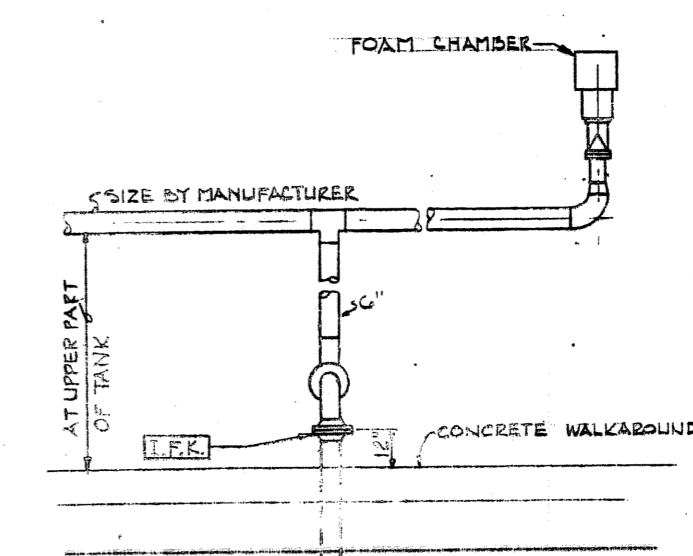
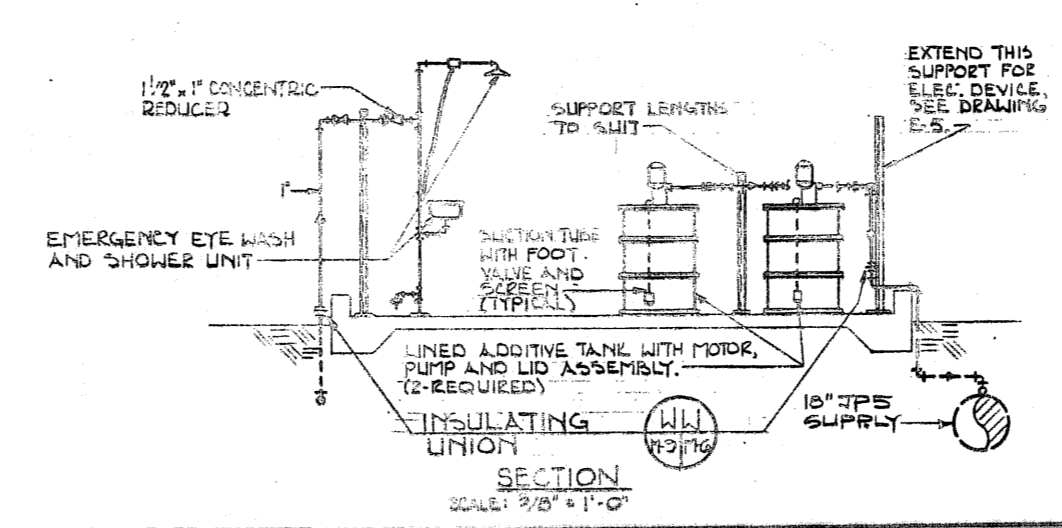
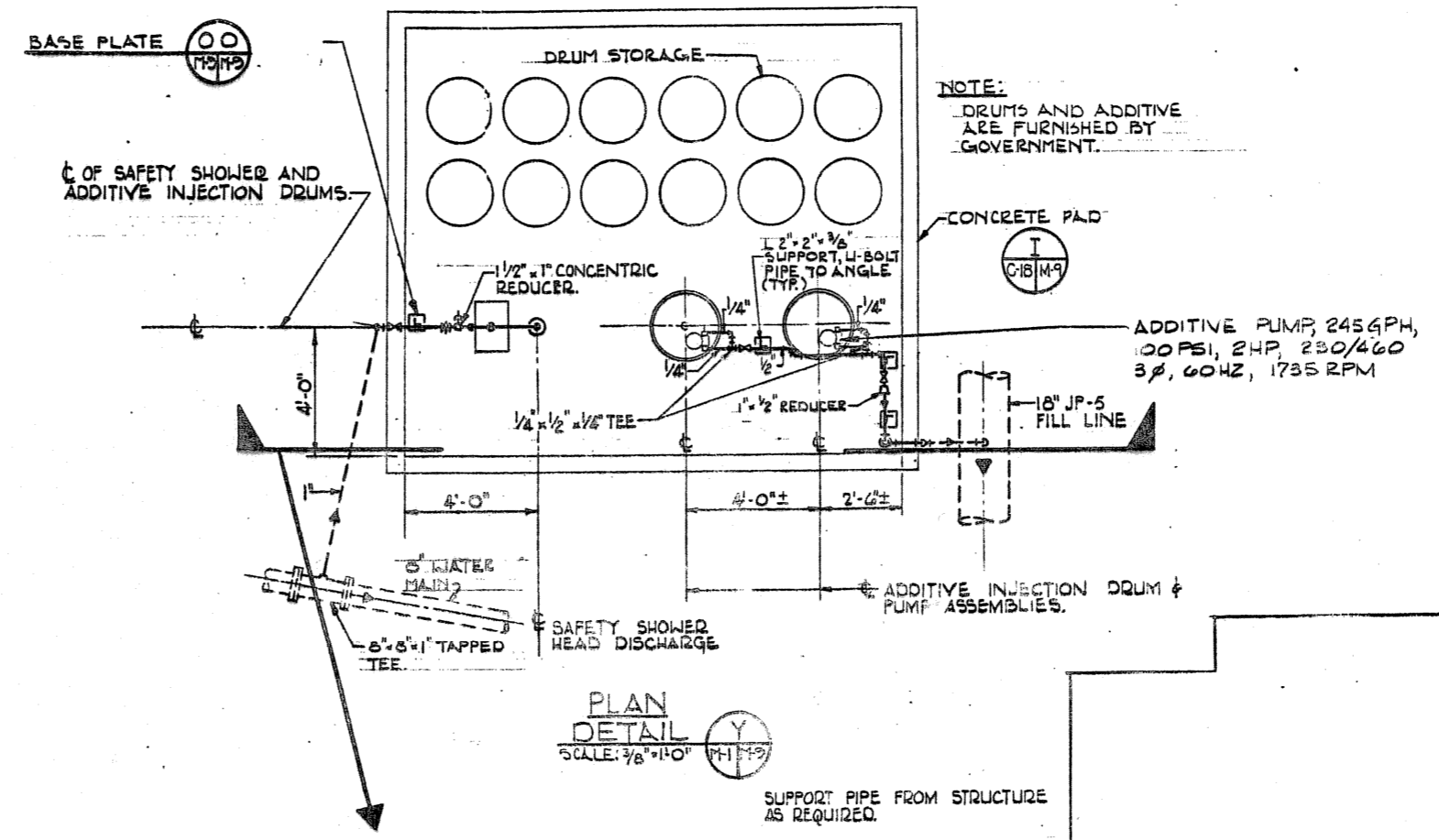
EFD DWG. NO. 225065

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED

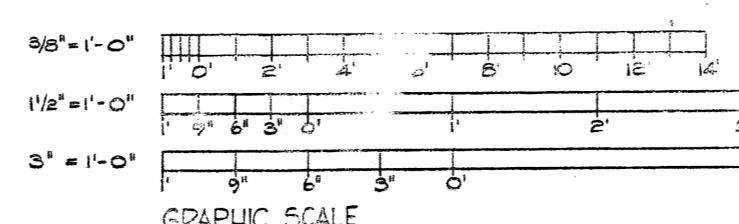
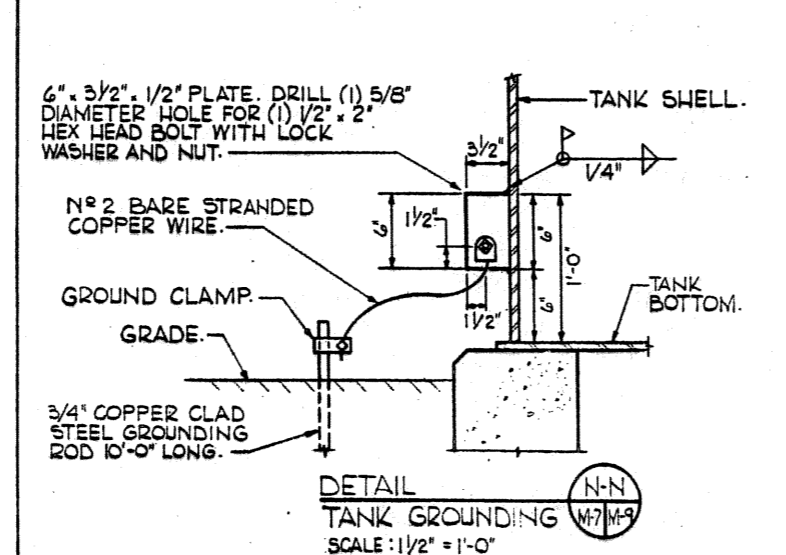
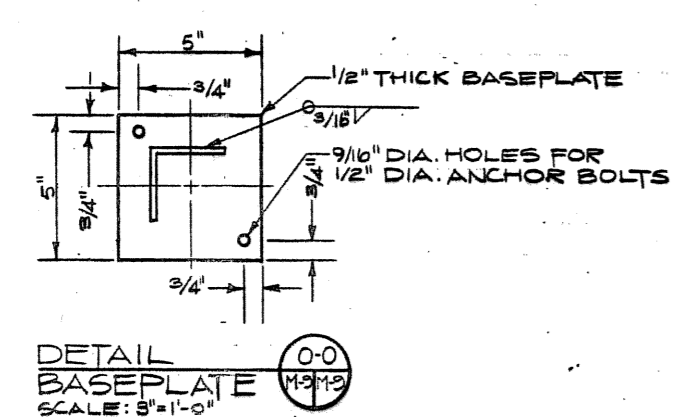
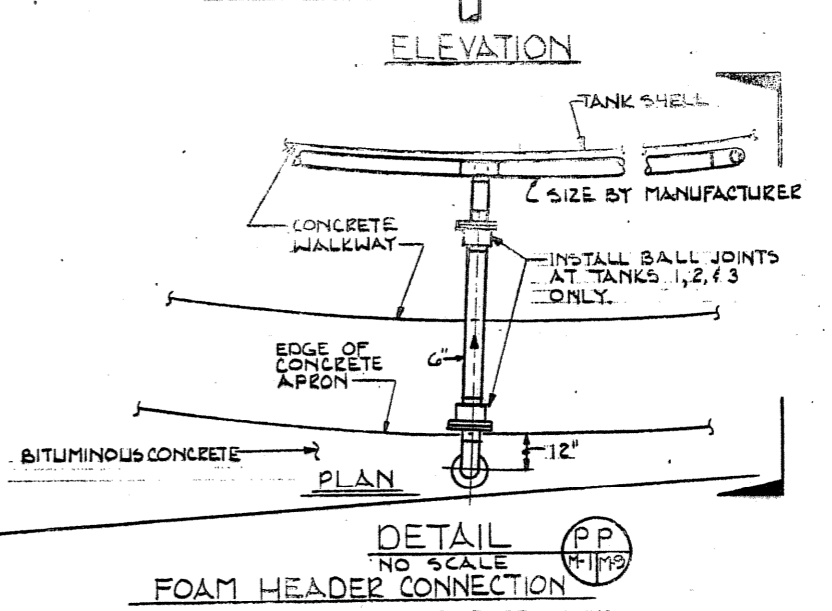


JOHN C. MORRIS ASSOC. CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.H.		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVY STATION NORFOLK, VIRGINIA	
		U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO	
DES. BY: J.C.M. (M-8) CHECKED BY: J.C.M. (M-8)		FUEL STORAGE DEFENSE FUEL SUPPORT POINT TANK # MISCELLANEOUS DETAILS	
SUBMITTED BY: J.C.M. (M-8) DATE: 4/21/55 FIRM MEMBER: J.C.M. (M-8) EPD: J.C.M. (M-8) RVD: J.C.M. (M-8) HD: J.C.M. (M-8) DIR: J.C.M. (M-8)		SIZE: F CODE IDENT NO: 80091	NAVFAC DRAWING NO: 4125066 CONSTR. CONTR. NO: N62470-83-B-3354 SHEET 32 OF 46
APPROVED: J.C.M. (M-8) DATE: 4/21/55 ACTIVITY SATISFACTORY TO: J.C.M. (M-8) APPROVED: J.C.M. (M-8) DATE: 4/21/55 FOR EPD FOR COMMANDER NAVFAC		SCALE: NONE SPEC: 05-83-3354	EFD DWG. NO. 225066

REV	DESCRIPTION	DATE	APPROVED



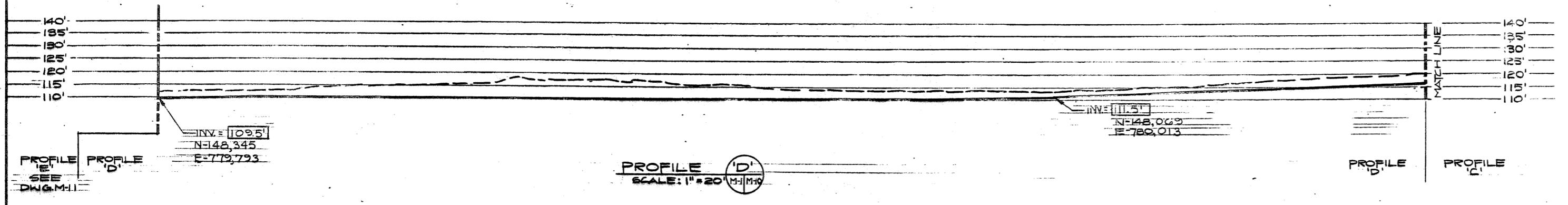
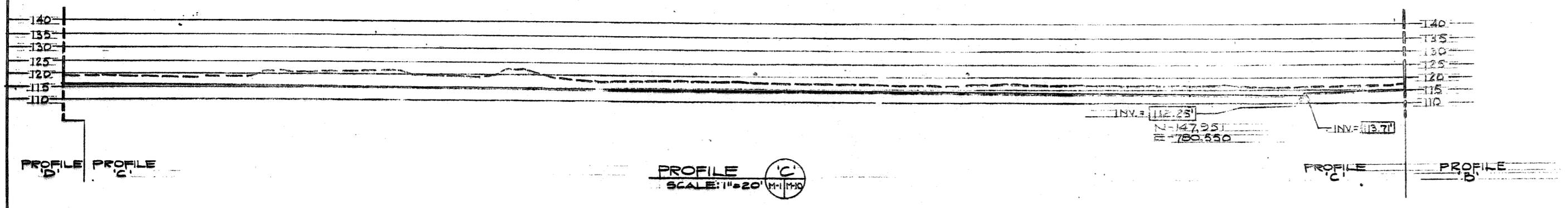
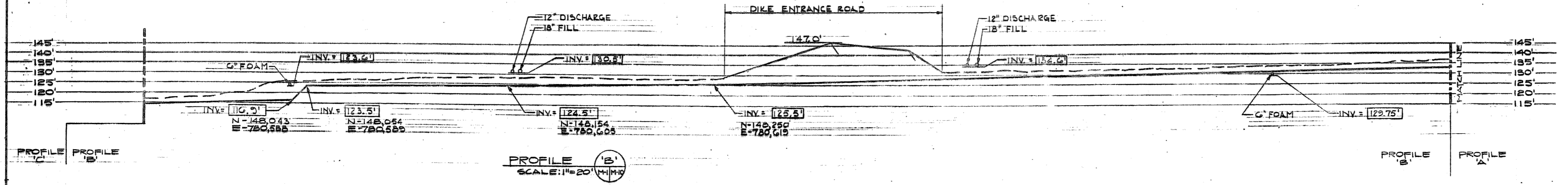
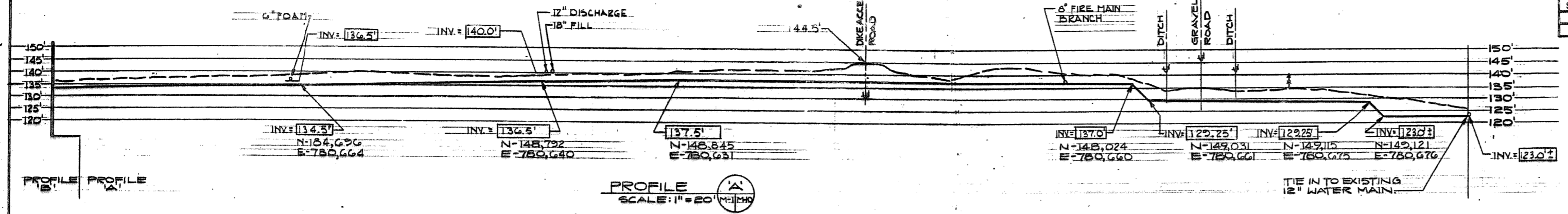
TANK NO.	NO OF FOAM CHAMBERS	MAXIMUM FLOW PER CHAMBER	MINIMUM PRESSURE AT HEADER
1	3	420 GPM	50 PSI
2	3		
3	3		
4	3		
5	3		



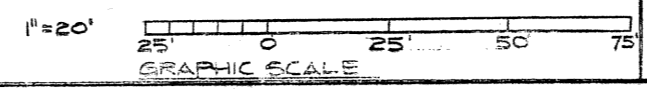
M-9

JOHN C. MORRIS ASSOC. CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.J.	DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA
DESIGNER: J.C.M. / CHECKER: J.S.	U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO
PROJ. MGR.: J.C.M. / CH. ENGR.: J.S.	FUEL STORAGE
SUBMITTED BY: J.C.M. / DATE: 11/18/55	DEFENSE FUEL SUPPORT POINT
FIRM MEMBER: J.C.M. / PRINCIPAL: J.S.	ADDITIVE INJECTION STATION & DETAILS
APP'D: J.C.M. / DATE: 11/18/55	SIZE: CODE IDENT NO. NAVFAC DRAWING NO. 4125067
ACTIVITY SATISFACTORY TO	F 80091 CONSTR. CONTR. NO. N62470-63-B-3354
APPROVED BY: J.C.M. / DATE: 11/18/55	SCALE: 1" = 20' SPEC. 05-63-3354 SHEET 33 OF 46
FOR EFD FOR COMMANDER NAVFAC	EFD DWS. NO. 225067

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED



PROFILE LEGEND
 --- EXISTING GRADE.
 - - - NEW GRADE.
 ——— NEW FIRE WATER MAIN.



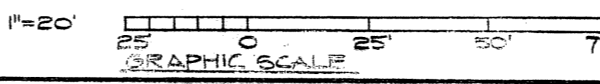
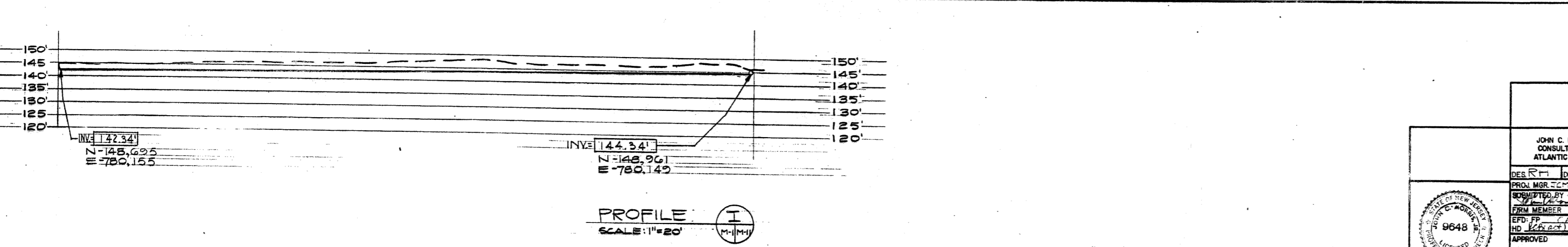
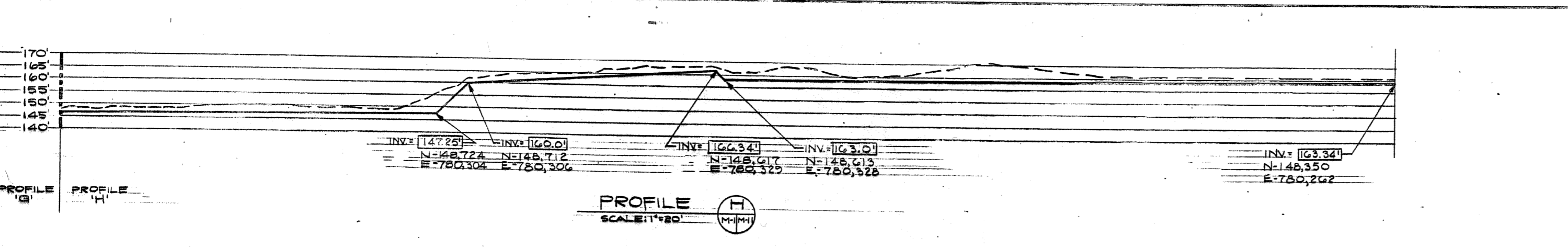
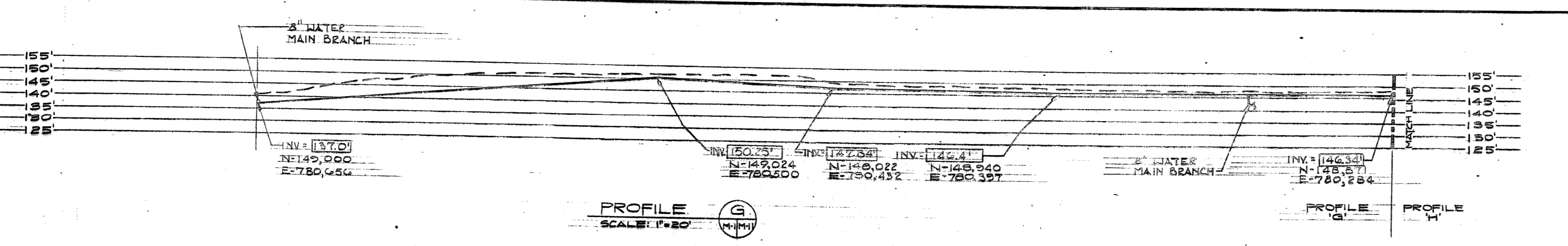
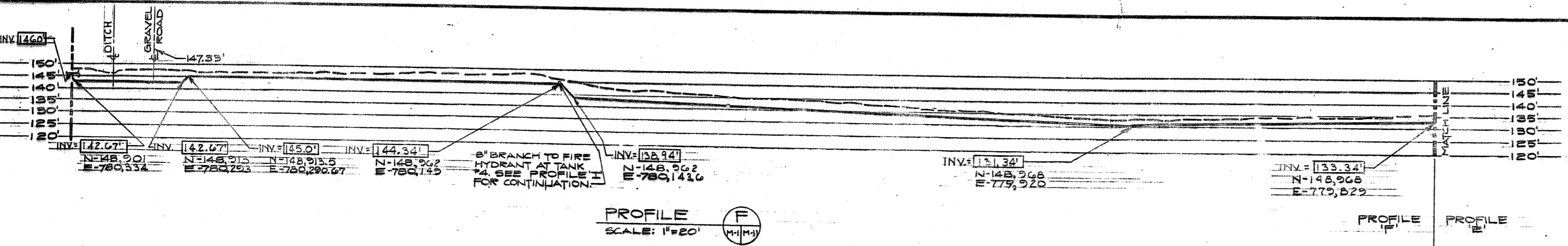
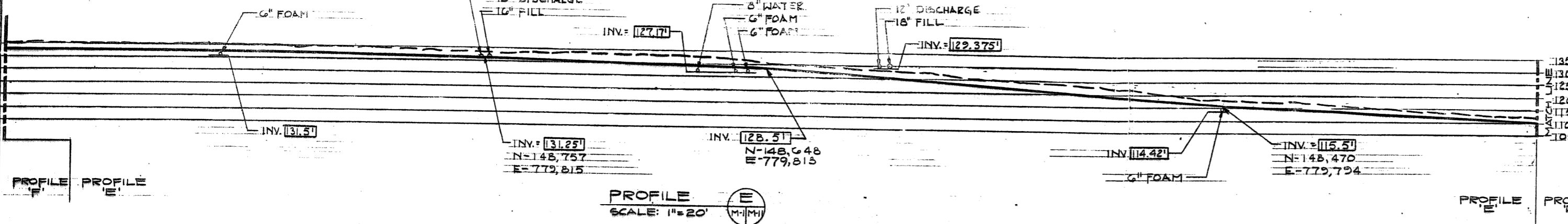
CHECK GRAPHIC SCALE BEFORE SCALING

M-10

JOHN C. MORRIS ASSOC. CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.J.		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA	
DESIGNER: JCM DRAWN: JCM CHECKED: JCM		U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO	
PROJECT: DEFENSE FUEL SUPPORT POINT		FUEL STORAGE	
SUBMITTED BY: JCM DATE: 4/12/55		DEFENSE FUEL SUPPORT POINT	
FIRM MEMBER: JCM		PIPING PROFILES A, B, C, D	
EFD: FP		NAVFAC DRAWING NO. 4125068	
APPROVED: JCM		SIZE: F 80091	
ACTIVITY SATISFACTORY TO: JCM		CONSTR. CONTR. NO. N62470-83-9-3354	
APPROVED: JCM		SCALE: 1"=20'	
FOR EFD FOR COMMANDER NAVFAC		SPEC. 05-83-3354	

SHEET 34 OF 46
EFD DWG. NO. 225068

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED



CHECK GRAPHIC SCALE BEFORE SCALING

		M-11	
JOHN C. MORRIS ASSOC. CONSULTING ENGINEERS ATLANTIC HIGHLANDS N.J.		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA	
DESIGNED BY: [Signature] DATE: 4/12/83 DRAWN BY: [Signature] DATE: 4/12/83 CHECKED BY: [Signature] DATE: 4/12/83 PROJECT: DEFENSE FUEL STORAGE PIPING PROFILES E,F,G,H,I		U.S. NAVAL STATION - ROOSEVELT ROADS, PUERTO RICO FUEL STORAGE DEFENSE FUEL SUPPORT POINT PIPING PROFILES E,F,G,H,I	
APPROVED: [Signature] DATE: 4/12/83 ACTIVITY SATISFACTORY TO: [Signature] DATE: 4/12/83 FOR EFD FOR COMMANDER NAVFAC		SIZE: F CODE IDENT NO: 80091 NAVFAC DRAWING NO: 4125069 CONSTR. CONTR. NO: N62470-83-B-3354 SCALE: 1"=20' SPEC: 05-83-3354 SHEET 35 OF 46	

EFD DWG. NO. 225069