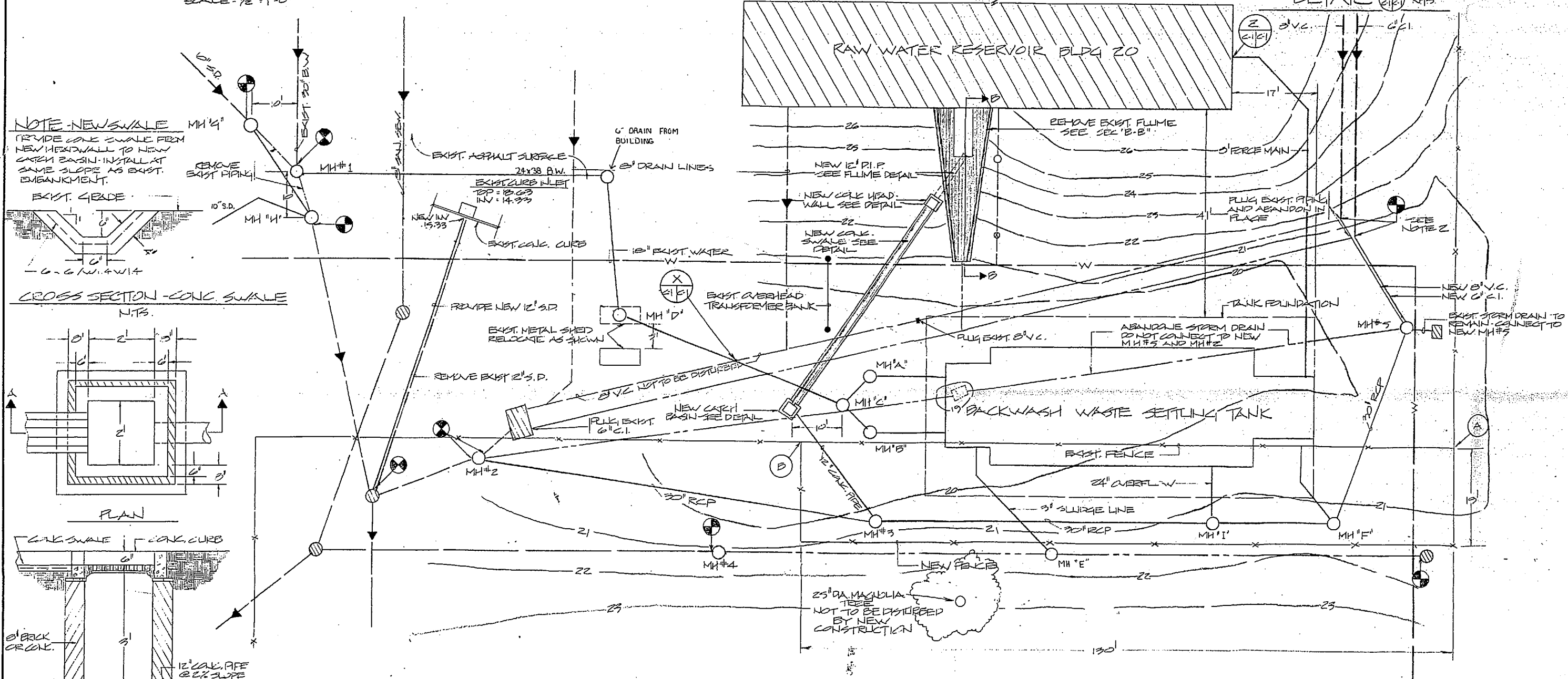


REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED



NOTES:

1. CONTRACTOR SHALL EXCAVATE AND UNCOVER ALL EXIST. UNDERGROUND UTILITIES AND VERIFY THEIR LOCATIONS PRIOR TO CONSTRUCTION. EXIST. STORM DRAIN BUILDING DEANS AND SANITARY SEWERS AFFECTED BY THE TANK CONSTRUCTION SHALL BE MAINTAINED USABLE AT ALL TIMES. EXCAVATE AND UNCOVER EXIST. 12" PIPING, 24" OVERFLOW AND 30" RCP DRAIN LINES AND PROVIDE NECESSARY FITTINGS TO RAISE THESE LINES TO NEW MH#5. INSTALL NEW PIPES AT 2% MIN. SLOPE. INTERFACE LOCATION INDICATED ON PLAN IS APPROXIMATE. THESE ELEVATIONS MUST BE FIELD ADJUSTED.

2. EXCAVATE NEW 24" x 90" ELLIPTICAL BACKWASH LINE TO NEW MH#5. REMOVE EXIST. 30" LINE LEAVING THE EXIST. MANHOLE AND EXIST. 10" DRAIN ENTERING EXIST. MANHOLE. RECONSTRUCT NEW MH#5 DIRECTLY OVER THE EXIST. 10" LINE SUCH AS SHOWN. REMOVE THE REMAINING 10" LINE BETWEEN MH#5 AND MH#1. CONSTRUCT NEW MH#1 DIRECTLY OVER THE EXIST. 30" LINE AS SHOWN. CONSTRUCT NEW 10" DRAIN LINE BETWEEN MH#1 AND MH#2 TO APPROXIMATE ELEVATIONS SHOWN. ELEVATIONS MAY VARY SLIGHTLY FROM THOSE SHOWN IN ORDER TO SUIT FIELD CONDITIONS.

3. NEW MANHOLE #2 SHALL BE 6" DIA. MANHOLE. EXIST. MH#1, #2, AND #5 SHALL BE REMOVED AND NEW 6" DIA. MANHOLES CONSTRUCTED IN THEIR PLACES.

4. EXIST. UTILITIES LOCATED WITHIN AREA OF TANK CONSTRUCTION SHALL BE RELOCATED AS INDICATED TO CLEAR THE CONSTRUCTION AND SHEETING REQUIRED TO CONSTRUCT THE NEW TANK. REMOVE EXIST. 12" STORM DRAIN LOCATED BETWEEN EXIST. CURB INLET AND EXIST. MH. PROVIDE NEW 12" STORM DRAIN TO THE INVERTS SHOWN AND RAISE THE INVERT OF THE CURB INLET, PLUG OLD INVERT.

5. IN ORDER TO MONITOR THE EFFECTS OF GROUNDWATER DRAW-DOWN ON THE EXIST. RAW WATER RESERVOIR DURING CONSTRUCTION OF THE SETTLING TANK, TWO GROUPS OF PRESSURE GAUGES HAVE BEEN PROVIDED FOR THE CONTRACTOR. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A DAILY LOG OF GROUND-WATER LEVELS. IN ADDITION, THE CONTRACTOR SHALL ESTABLISH FULL REFERENCE POINTS ON THE RESERVOIR AS DIRECTED BY THE CONTRACTING OFFICER AND A LOG OF THEIR ELEVATIONS, RECORDED OVER THE CONSTRUCTION PERIOD.

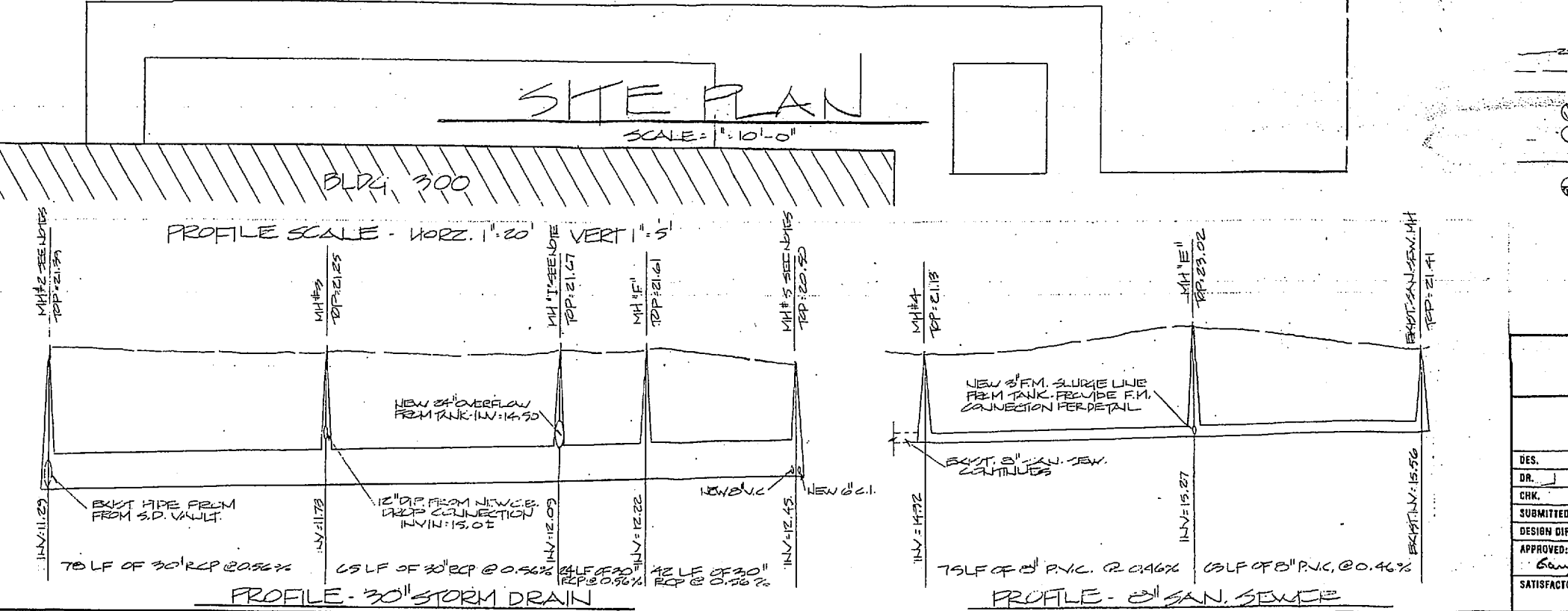
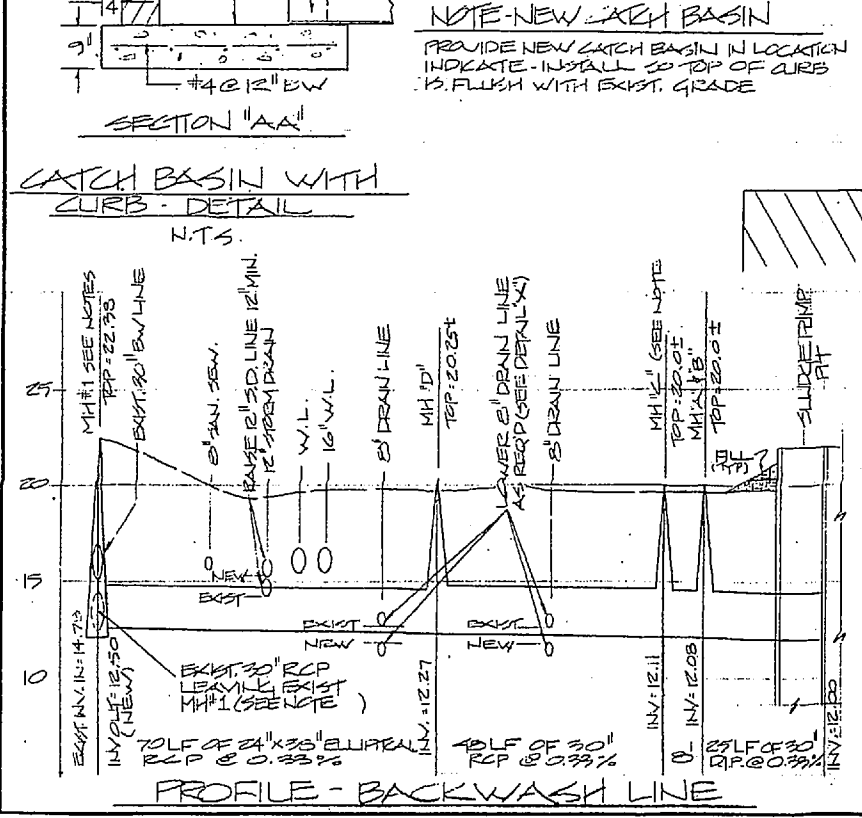
6. PORTIONS OF EIGHT (8) PRE-CAST MANHOLES WILL BE PROVIDED TO THE CONTRACTOR FOR INSTALLATION (SEE SPECIFICATIONS "GOVERNMENT FURNISHED EQUIPMENT" FOR DETAILED LIST OF MANHOLES FURNISHED).

7. MANHOLE FRAMES AND COVERS ARE NOT FURNISHED. PROCUREMENT OF ALL CAST FRAMES AND COVERS FOR MANHOLES IS THE RESPONSIBILITY OF THE CONTRACTOR.

8. REMOVE EXIST. FENCING BETWEEN POINTS @ AND @ AS INDICATED ON PLAN AND PROVIDE NEW FENCING AS SHOWN TO MATCH EXISTING.

9. THE CONTRACTOR WILL MAINTAIN THE SECURITY OF THE WATER TREATMENT FACILITIES THROUGHOUT THE PERIOD OF CONSTRUCTION.

10. THE CONTRACTOR WILL PROVIDE EROSION CONTROL MEASURES FOR ALL DISTURBED AREAS AND AREAS OF SCHEDULED EXCAVATION.



LEGEND

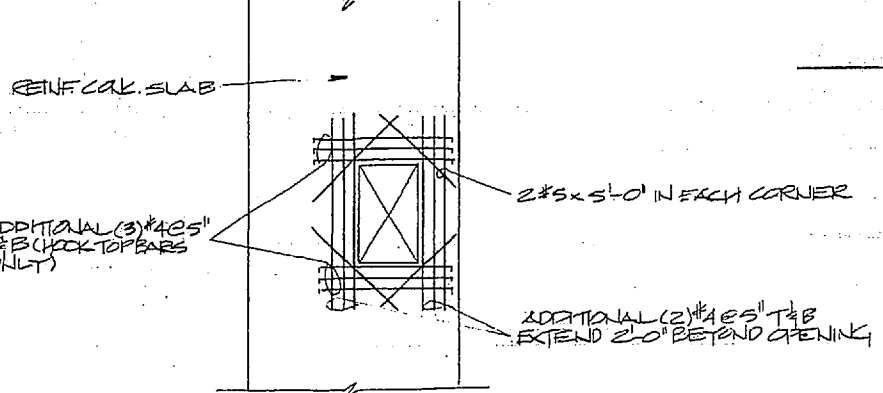
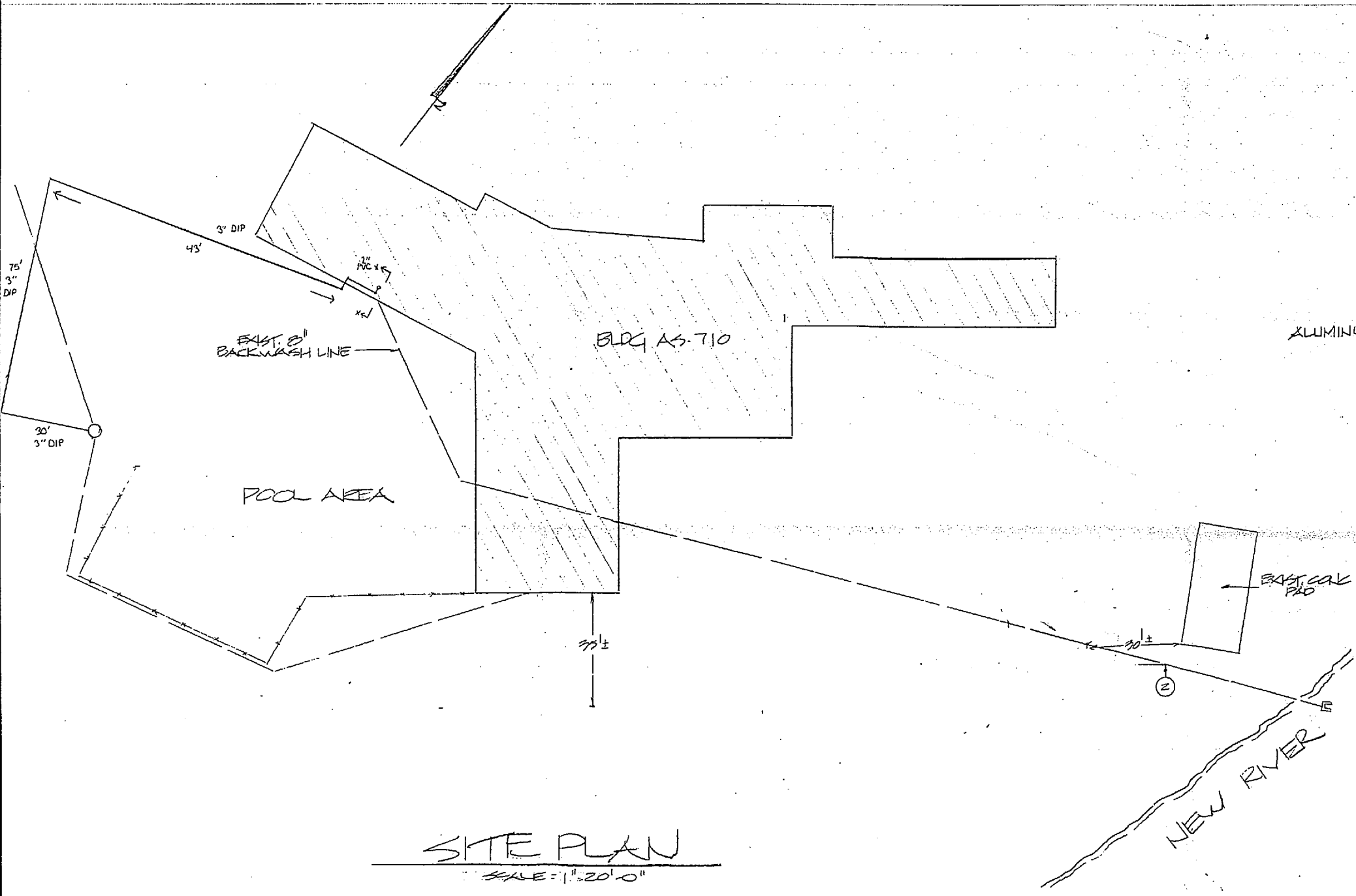
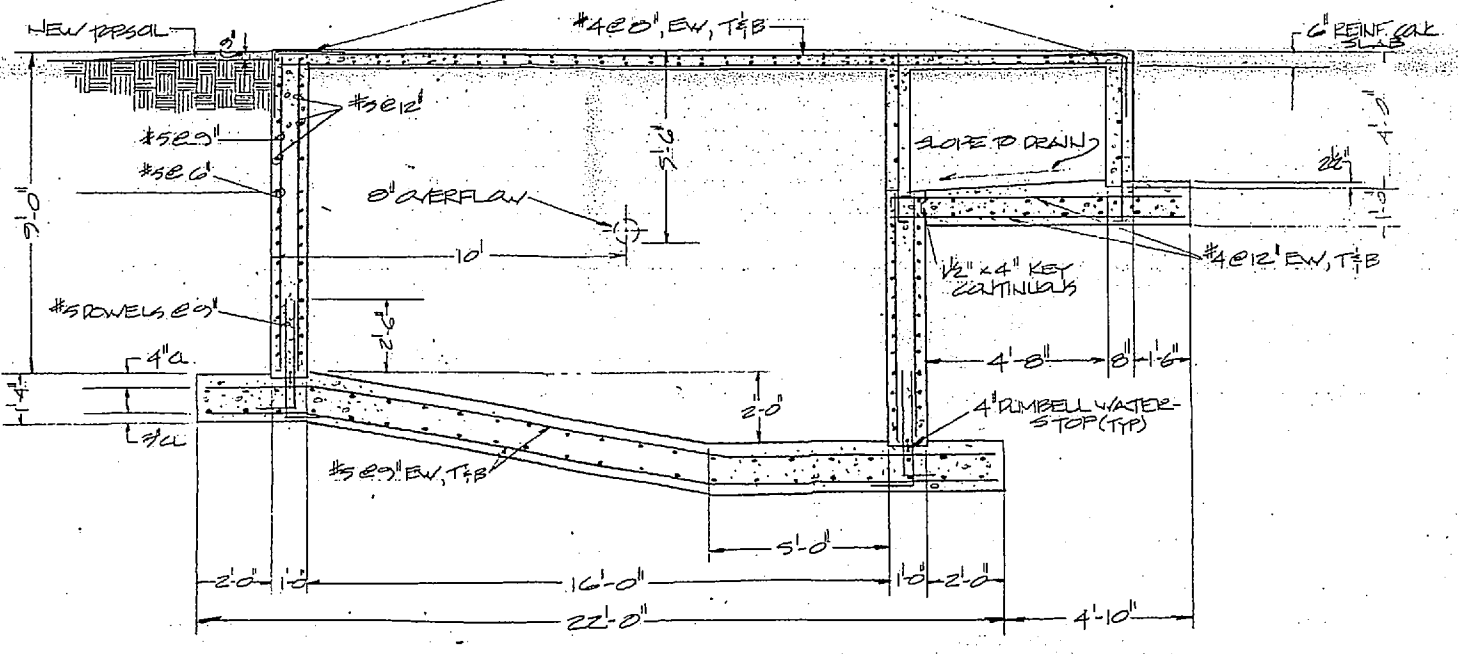
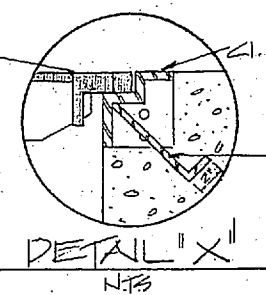
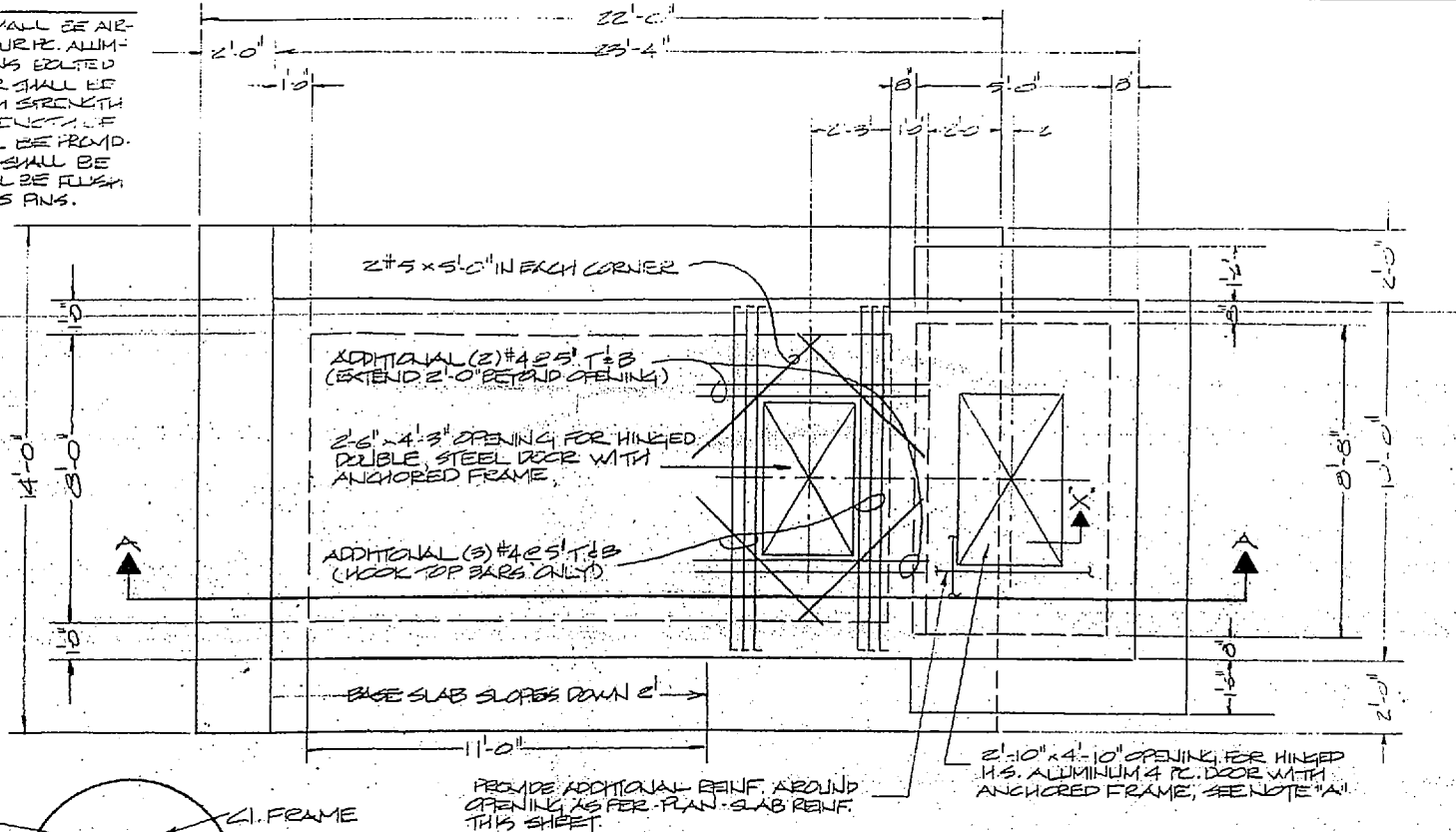
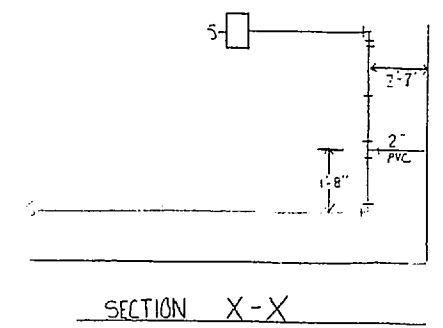
- EXIST. TYPED LINE
- EXIST. PIPING TO REMAIN
- - - EXIST. PIPING TO BE REMOVED/ABANDONED
- EXIST. MANHOLE
- ⊙ NEW MANHOLE
- ⊕ NEW PIPING
- ⊕ INTERFACE NEW WORK WITH EXISTING

AS BUILT 6/10/91		C-1	
DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND			
MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA			
CONSTRUCT BACKWASH WASTE TANKS			
SITE PLAN - VII-3			
DES. DR. J. COTTON	DATE 11/10/83	SIZE F	CODE IDENT. NO. 80091
CHK. [Signature]	DATE 11/15/87	SCALE: NOTED	SPEC.
APPROVED: PWO OR DICO	DATE 11/15/87	NAVY DRAWING NO. 406890	CONSTR. CONTR. NO. NC670-02-B-4679
SATISFACTORY TO: [Signature]	DATE	SHEET 2 OF 12	



REVISIONS			
SVM.	DESCRIPTION	DATE	APPROVED

NOTE A
 ALUMINUM ACCESS DOOR FOR VALVE #1 SHALL BE AIR-LEAK TYPE HINGED CAST IRON FRAME WITH FOUR (4) ALUMINUM JO. FRAME SHALL BE IN FOUR SECTIONS JOINED TOGETHER. A D.I. REMOVABLE SUPPORT BAR SHALL BE PROVIDED IN MIDDLE OF FRAME. FIVE HIGH STRENGTH ALUMINUM LIDS SHALL HAVE DEPTH OF 1 1/2" WITH 1/4" X 1/2" X 225 PSI. D.I. HOLDING CATCHES SHALL BE PROVIDED ON 2 LIDS, AND LIFTS FOR EACH LID SHALL BE TYPE "H" WITH DRAIN HOLE. HINGES SHALL BE RUSH TYPE WITH REMOVABLE CAPS AND BRASS PINS. TOTAL WEIGHT = 900 POUNDS.

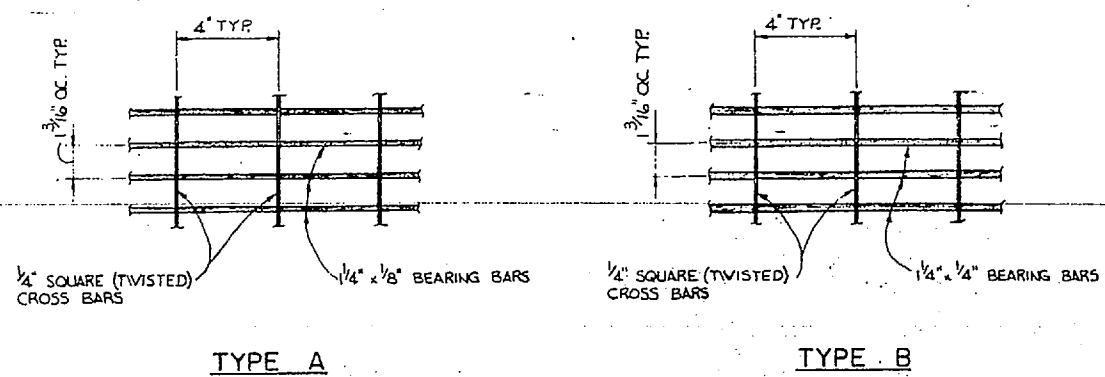


NOTES:
 1. THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATION OF EXIST' B/W LINE PRIOR TO FINAL LAYOUT. THE LOCATION OF THE B/W LINE INDICATED ON THE PLAN IS APPROXIMATE AND THE CONTRACTOR MAY HAVE TO ADJUST THE TANK LOCATION SLIGHTLY TO MEET FIELD CONDITIONS.
 2. CONNECT EXIST' B/W LINE TO NEW TANK AT PT (A).
 3. CONNECT NEW B/W OVERFLOW LINE TO EXIST' B/W LINE AT PT (B).
 4. PROVIDE NEW 3" D.I.P. FORCE MAIN AS INDICATED. INSTALL WITH 3" MIN. COVER.

AS BUILT 6/10/91	C-2
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA	
DES. DR. J. COTTON	CONSTRUCT BACKWASH WASTE TANKS
CHK. [Signature]	SITE PLAN - MCAS-E
APPROVED: PWO OR OICG DATE 4/20/83	MANFAC DRAWING NO. 80091
SATISFACTORY TO: DATE	CONSTR. CONTR. NO. 42270-02-B-4243
SCALE: NOTED	SPEC. SHEET 3 OF 12



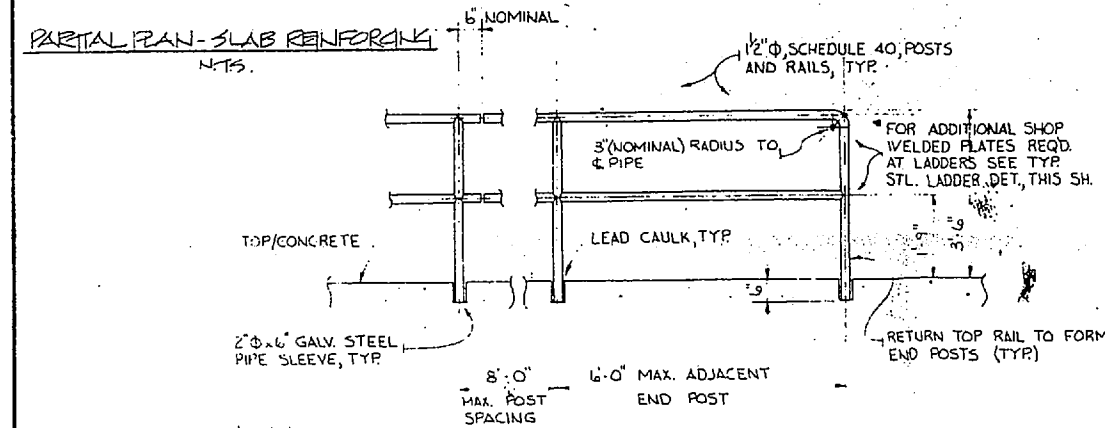
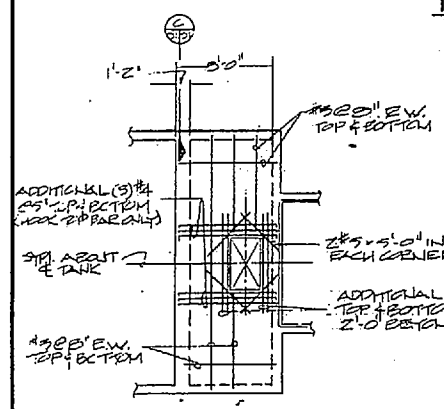
REVISIONS			
SYMBOL	DESCRIPTION	DATE	APPROVED



TYPE A **TYPE B**

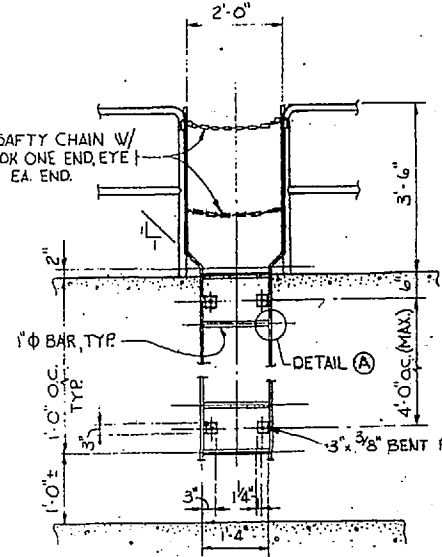
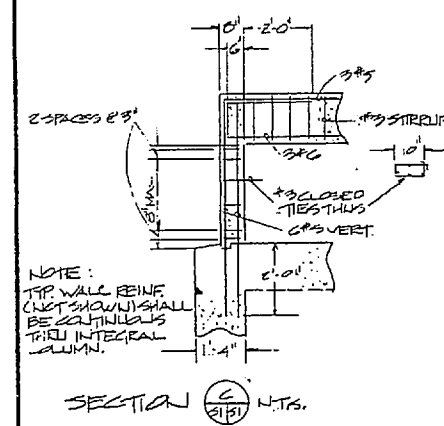
WELDED STEEL GRATING DETAIL
PERSONNEL LOADING ONLY

- NOTES**
1. FURNISH IN SECTIONS OF 2'-0" NOMINAL WIDTH.
 2. GRATING AND PERIMETER SUPPORT ANGLES, HOT DIP GALVANIZED AFTER FABRICATION.
 3. END BANDING BARS NOT REQUIRED.
 4. DESIGN UNIFORM LIVE LOAD 100 PSF WITH MAXIMUM LIVE LOAD DEFLECTION 1/4".



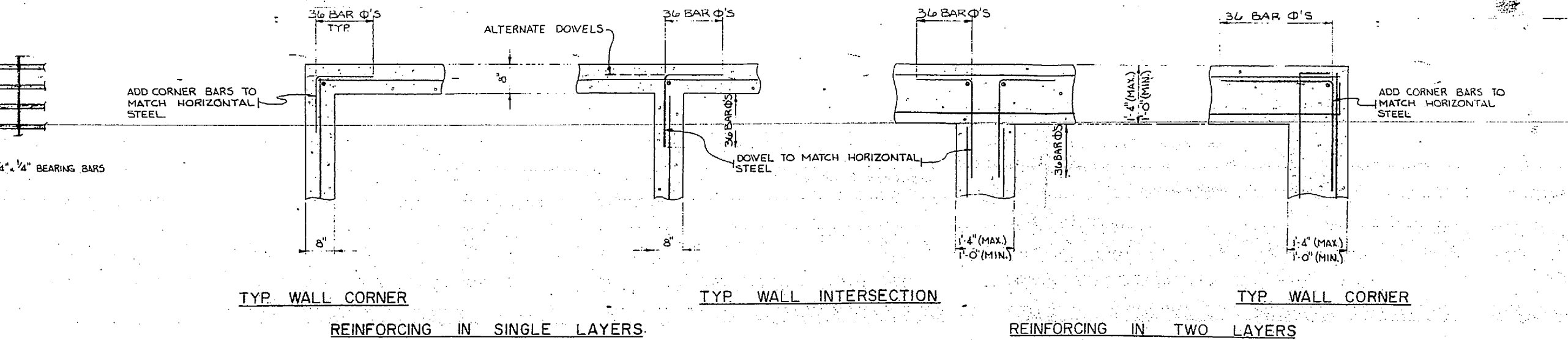
TYPICAL HANDRAIL DETAIL
SCALE: 1/2" = 1'-0"

- NOTES:**
1. POSTS, RAILINGS AND SLEEVES, SHALL BE FABRICATED FROM SCHEDULE 40 STEEL PIPE CONFORMING TO ASTM A-53.
 2. ALL SHOP CONNECTIONS SHALL BE WELDED; FIELD WELDING NOT PERMITTED.
 3. FIELD SPLICES SHALL BE USED ONLY WHERE REQUIRED FOR SHIPPING AND HANDLING NO SPLICES PERMITTED WITHIN 10'-0" OF END POST.
 4. ALL HANDRAIL AND ACCESSORIES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.



TYPICAL STEEL LADDER DETAILS
SCALE: 1/2" = 1'-0"

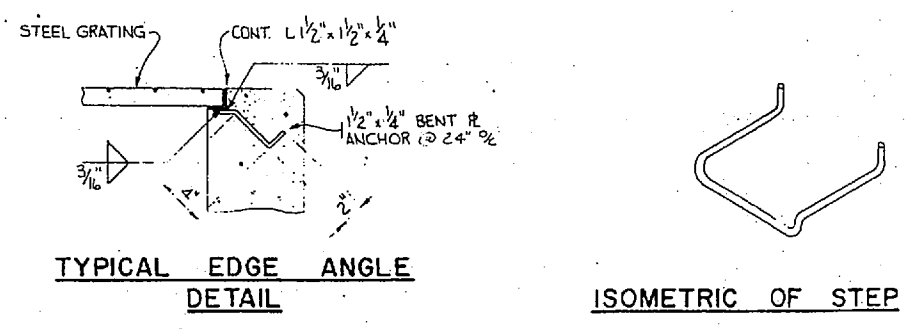
NOTE
HOT DIP GALV. ALL COMPONENTS AFTER FABRICATION.



TYP. WALL CORNER **TYP. WALL INTERSECTION** **TYP. WALL CORNER**

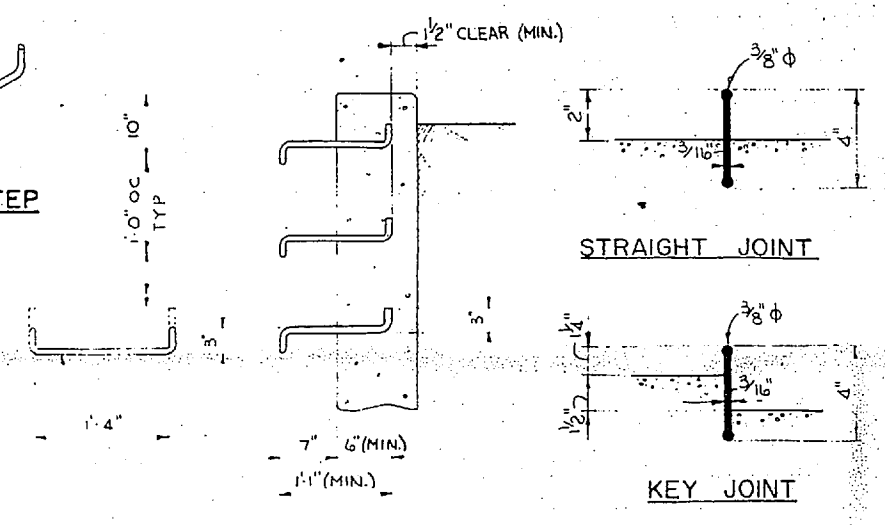
REINFORCING IN SINGLE LAYERS REINFORCING IN TWO LAYERS

TYPICAL WALL REINFORCING DETAILS
SCALE: 3/4" = 1'-0"



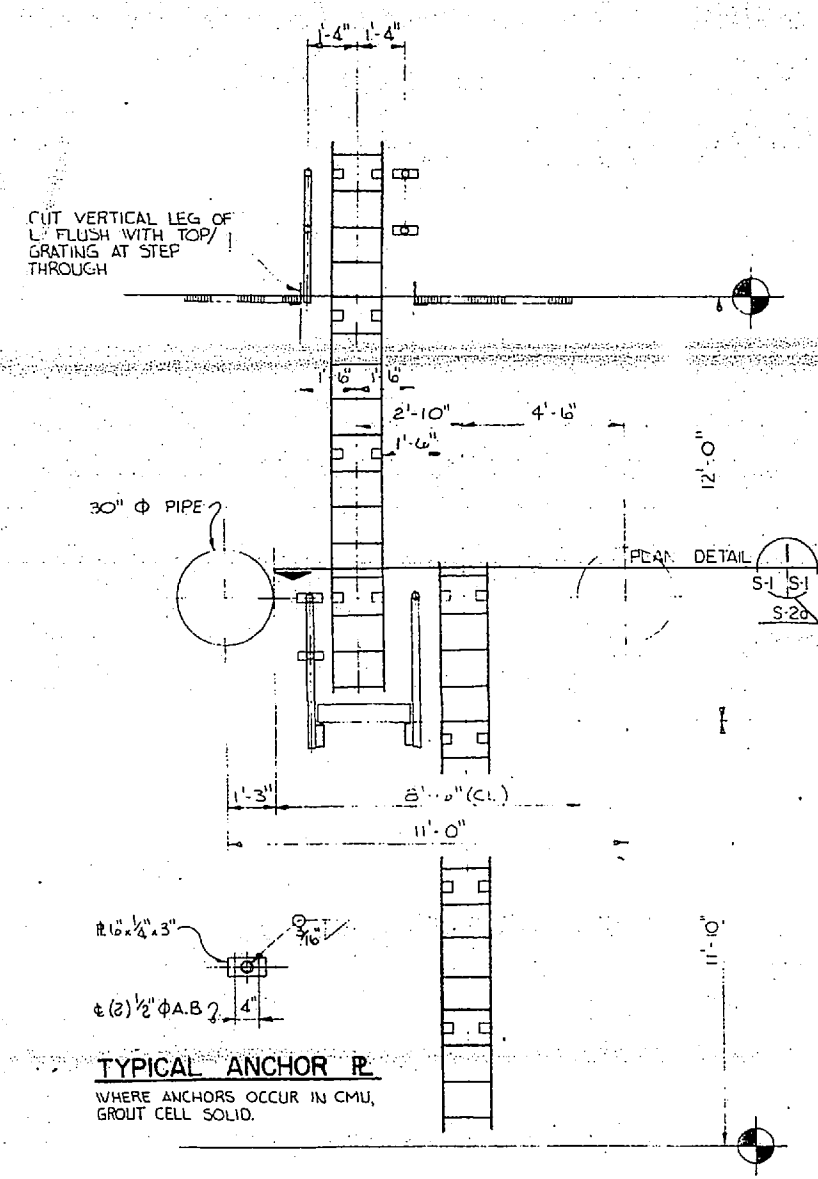
TYPICAL EDGE ANGLE DETAIL

ISOMETRIC OF STEP



TYPICAL STEEL STEP DETAIL
SCALE: 1" = 1'-0"

TYPICAL DUMBBELL WATERSTOP
NO SCALE



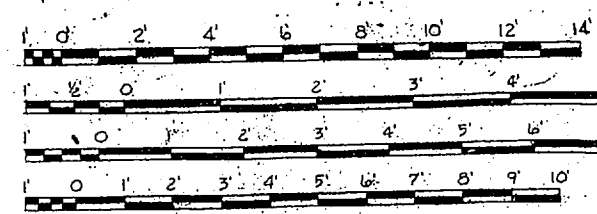
TYPICAL ANCHOR R
WHERE ANCHORS OCCUR IN CMU, GROUT CELL SOLID.

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

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

WALL REINFORCING AT PIPE OPENING
NO SCALE

- 3/8" = 1'-0"
- 1/2" = 1'-0"
- 3/4" = 1'-0"
- 1" = 1'-0"

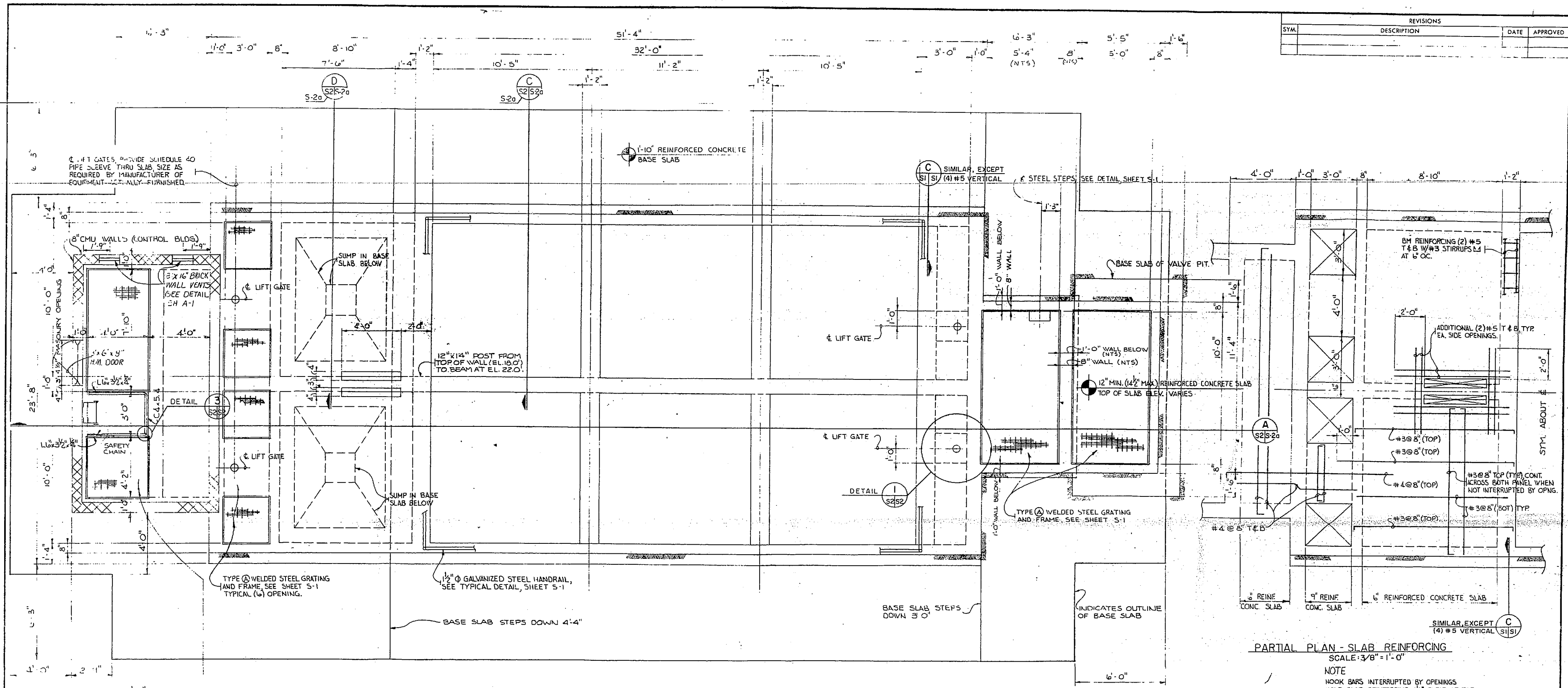


GRAPHIC SCALES

AS BUILT 6/10/91		S-1	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND			
MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA			
CONCRETE BACKWASH WASTE TANKS TYPICAL DETAILS			
DES.:	CHK.:	DATE:	SCALE: NOTED
SUBMITTED BY:	DESIGN DIR.:	DATE:	SPEC.:
APPROVED: PWO OR OICC	DATE:	SIZE:	CODE IDENT. NO.:
DATE:	DATE:	F	80091
SATISFACTORY TO:	DATE:	CONSTR. CONTR. NO.:	NAVAFAC DRAWING NO.:
		16A70-22-B-449	42252
			SHEET 4 OF 12

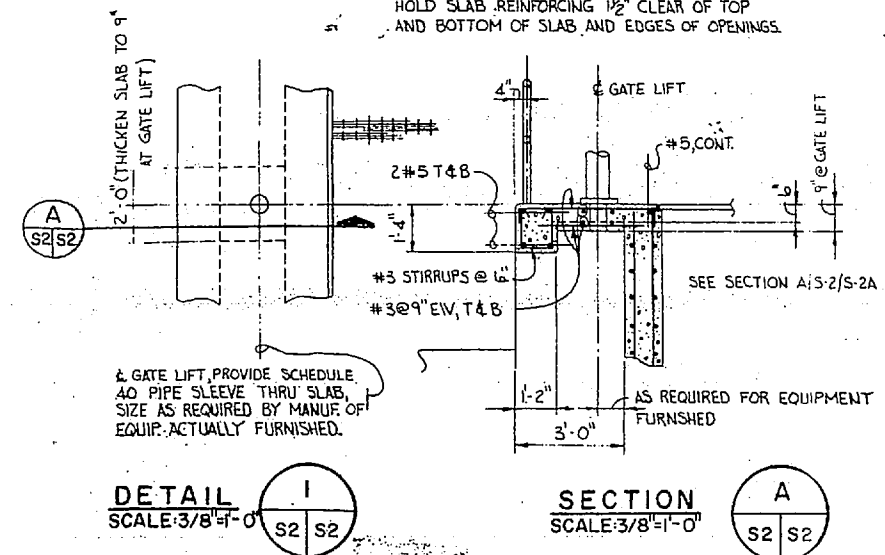


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SYM.	DESCRIPTION	DATE	APPROVED



PARTIAL PLAN - SLAB REINFORCING
SCALE: 3/8" = 1'-0"

NOTE
HOOK BARS INTERRUPTED BY OPENINGS
HOLD SLAB REINFORCING 1/2" CLEAR OF TOP
AND BOTTOM OF SLAB, AND EDGES OF OPENINGS.

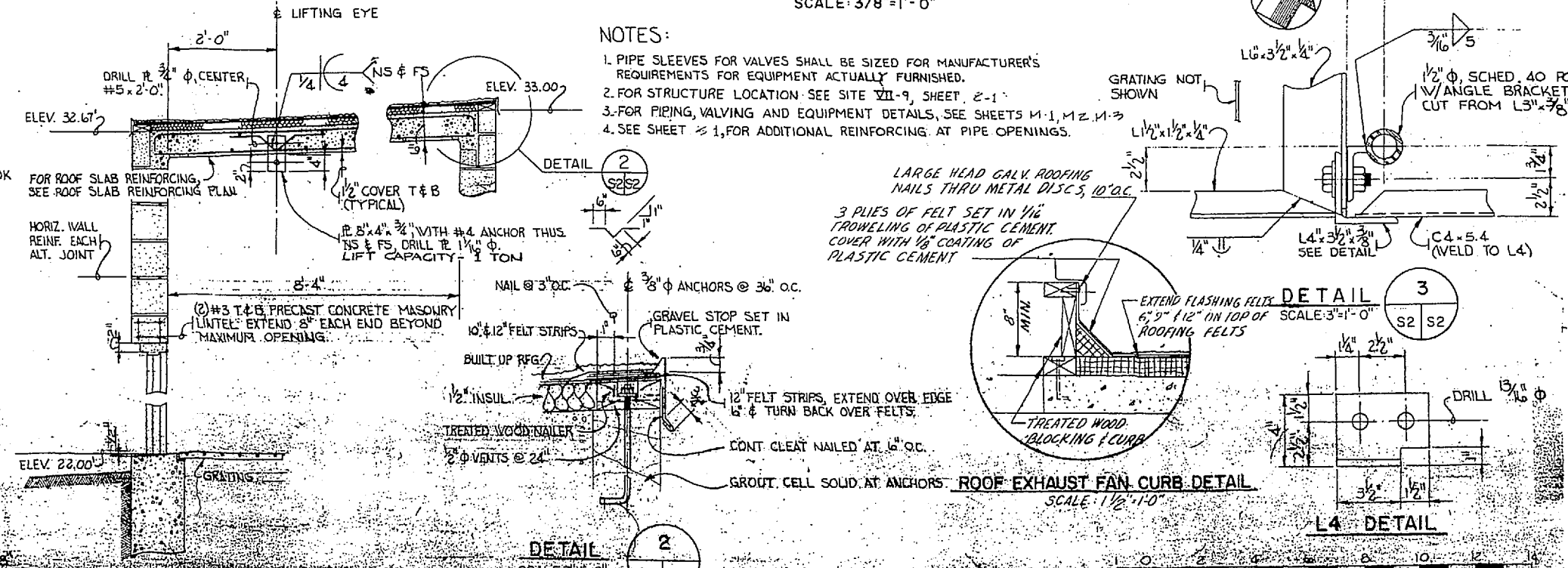


DETAIL 1
SCALE: 3/8" = 1'-0"

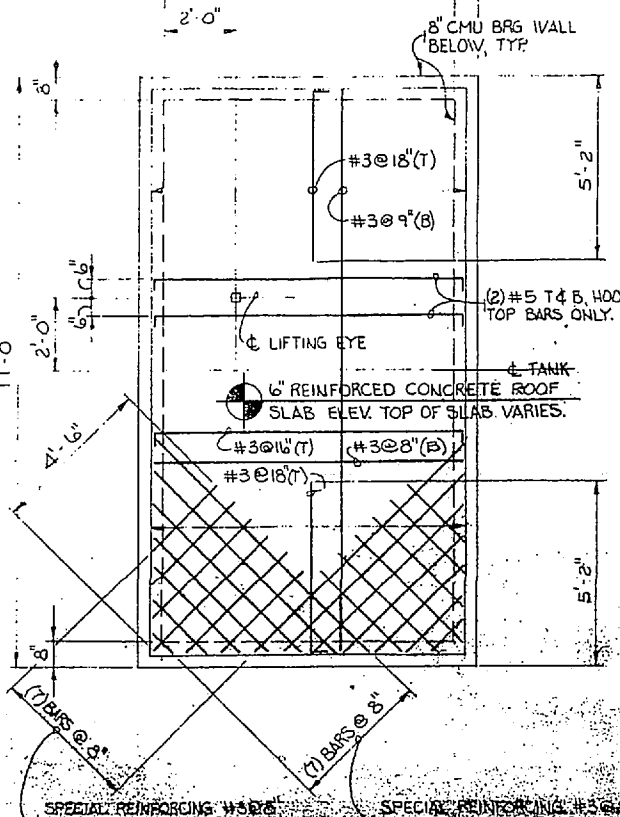
SECTION A
SCALE: 3/8" = 1'-0"

PLAN - BACKWASH WASTE SETTLING TANK
SCALE: 3/8" = 1'-0"

- NOTES:
- PIPE SLEEVES FOR VALVES SHALL BE SIZED FOR MANUFACTURER'S REQUIREMENTS FOR EQUIPMENT ACTUALLY FURNISHED.
 - FOR STRUCTURE LOCATION SEE SITE VII-9, SHEET 2-1.
 - FOR PIPING, VALVING AND EQUIPMENT DETAILS, SEE SHEETS M-1, M-2, M-3.
 - SEE SHEET S-1, FOR ADDITIONAL REINFORCING AT PIPE OPENINGS.



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

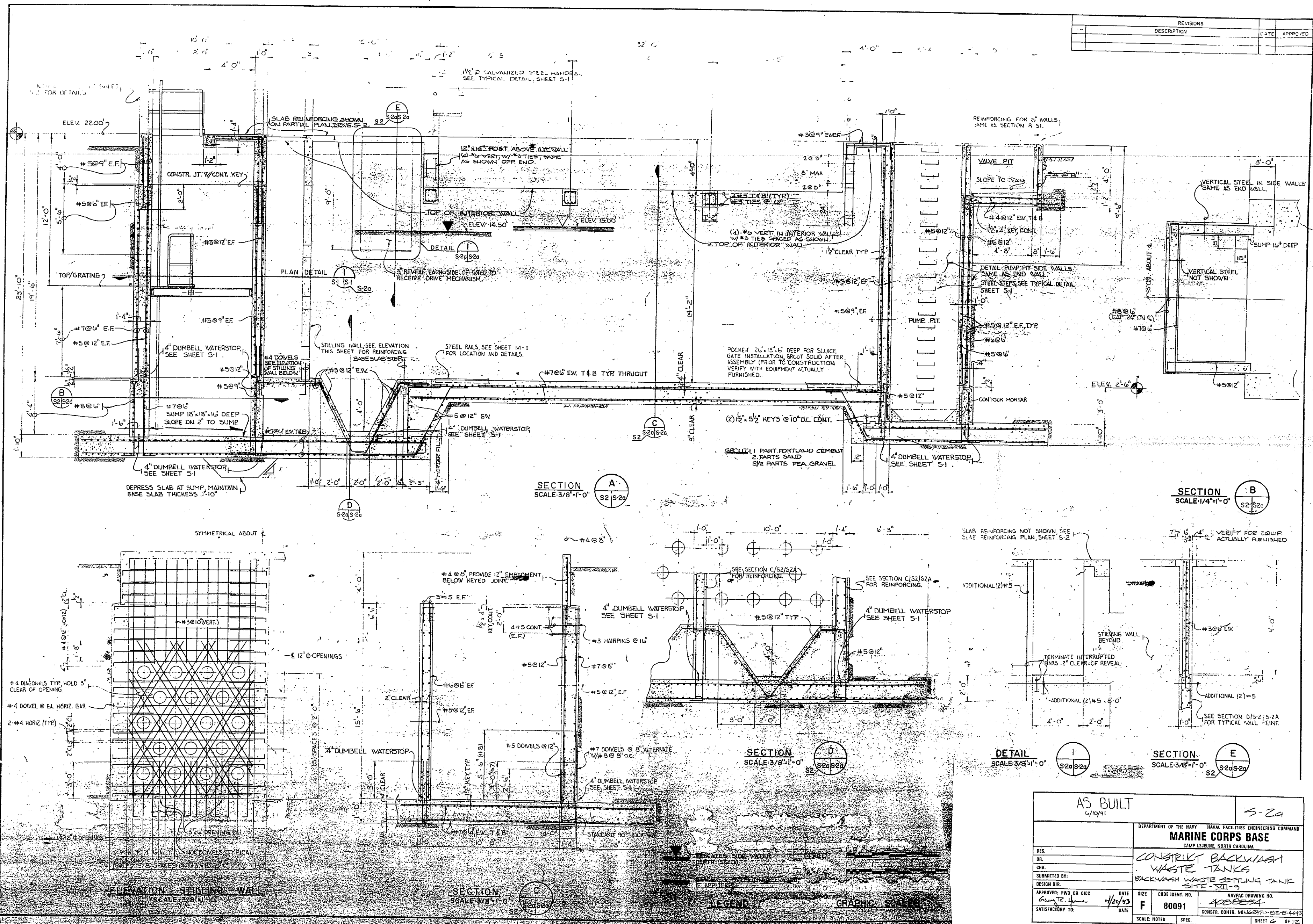


PLAN - ROOF SLAB REINFORCING
SCALE: 3/4" = 1'-0"

AS BUILT 6/10/91		-5-2	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND			
MARINE CORPS BASE			
CAMP LEJEUNE, NORTH CAROLINA			
DESIGN DIR. CONSTRUCTION BACKWASH WASTE TANKS			
SUBMITTED BY: BACKWASH WASTE SETTLING TANK			
DESIGN DIR. SITE VII-9			
APPROVED: PWO OR OIC	DATE	SIZE	CODE IDENT. NO.
6/10/91	7/20/93	F	80091
SATISFACTORY TO:	DATE	CONSTR. CONTR. NO.	NAVY DRAWING NO.
			408853
SCALE: NOTED		SPEC. SHEET 3 OF 12	



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NO.	DESCRIPTION	DATE



AS BUILT 6/10/91		S-2a	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND			
MARINE CORPS BASE			
CAMP LEONARD, NORTH CAROLINA			
DES.	CONSTRUCT BACKWASH		
DR.	WASTE TANKS		
CHK.	BACKWASH WASTE SETTLING TANK		
SUBMITTED BY:	SITE - S11-2		
DESIGN DIR.	DATE	SIZE	NAVFAC DRAWING NO.
APPROVED: PWO OR OICG	4/20/03	F	80091
SUBMITTED BY:	DATE	CONSTR. CONTR. NO.	CONSTR. CONTR. NO.
SATISFACTORY TO:	DATE	SCALE: NOTED	SPEC.

