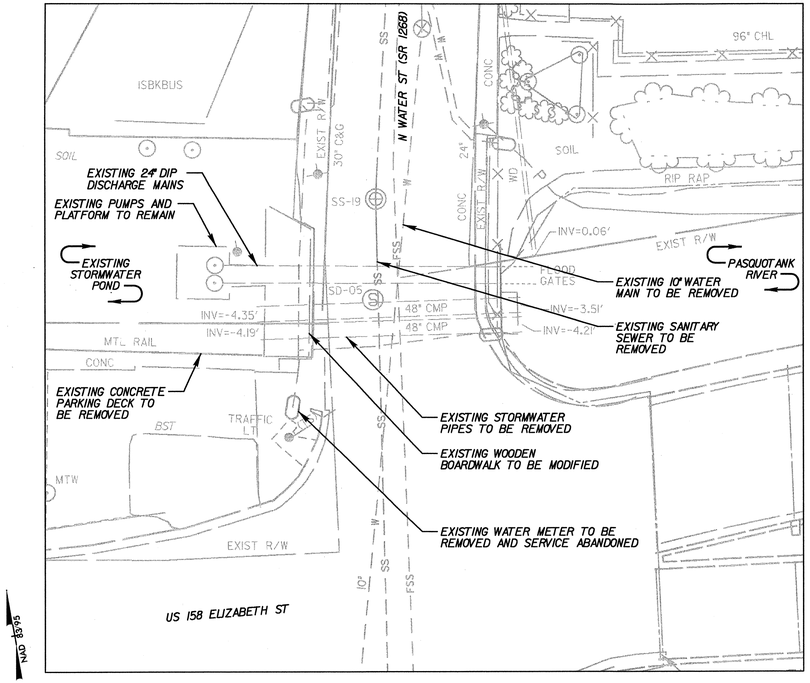
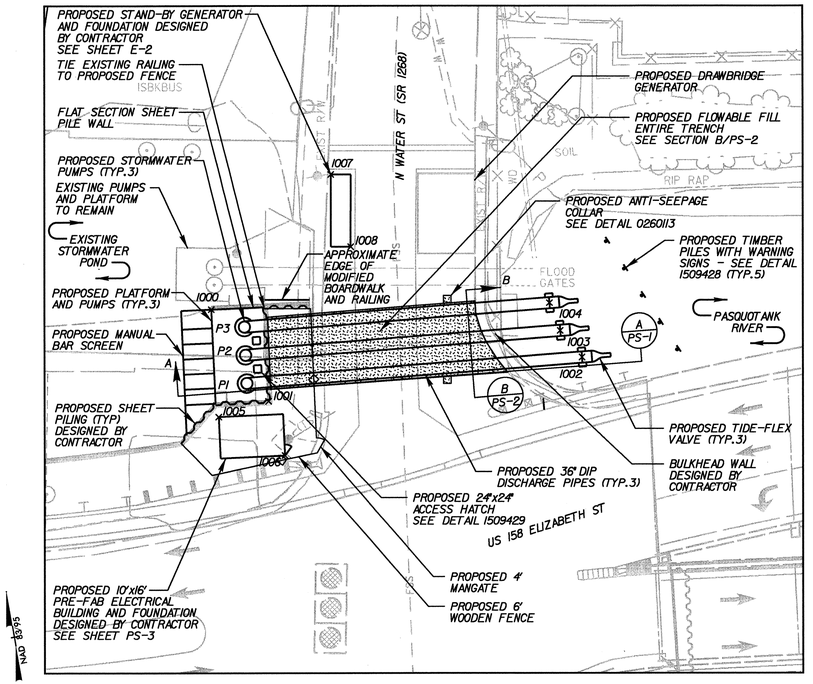
REVISIONS

5-02-2011 - REVISED 60' BENDS TO 45' BENDS



EXISTING SITE PLAN
SCALE: 1"=20'



PROPOSED SITE PLAN
SCALE: 1"=20'

Kimley-Horn and Associates, Inc.

P.O. BOX 33068
RALEIGH, N.C. 27636-3068

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
U-4438	PS-1
R/W SHEET NO.	

NORTH CAROLINA PROFESSIONAL SEAL 033186 ENGINEER GARY G. PURVIS 5-2-11

0 1"

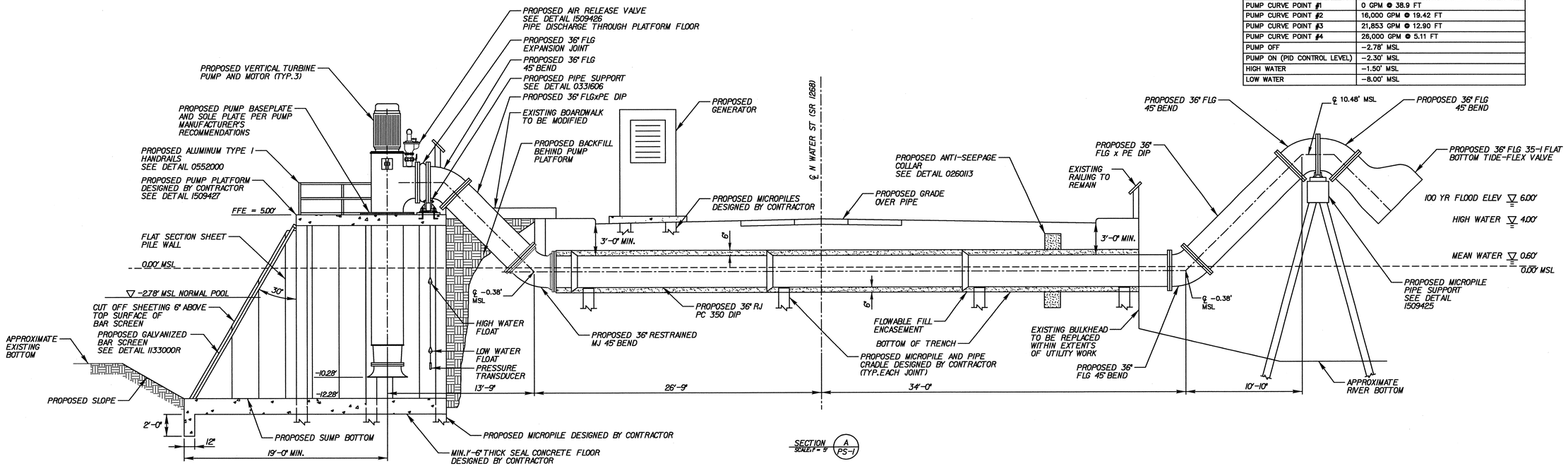
NOTES:
1. EXISTING WATER, SEWER, AND STORM DRAINS SHALL BE REMOVED PRIOR TO STARTING CONSTRUCTION ON PUMP PLATFORM AND PIPING.
2. EXISTING BOARDWALK SHALL BE REMOVED BACK TO CLOSEST JOISTS AND POSTS THAT PROVIDE A MINIMUM OF ONE (1) FOOT SEPARATION BETWEEN SHEET PILING AND EDGE OF BOARDWALK. RAILING AND STRUCTURAL MEMBERS SHALL BE ADDED AS NECESSARY TO MEET ALL APPLICABLE CODES.
3. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED A MINIMUM OF ONE (1) FOOT ABOVE THE 100 YEAR FLOOD ELEVATION OF 6.00' MSL (NGVD 29).
4. BAR SCREEN SHALL NOT PERMIT THE PASSAGE OF SPHERES LARGER THAN 2". JOINTS AND MATING SURFACE SHALL MEET THE SAME REQUIREMENTS.
5. ALL STRUCTURAL COMPONENTS INCLUDING BUT NOT LIMITED TO PILES, BULKHEADS, SLABS, SUPPORTS, BOARDWALK, SHEETING, FILLS, BRACING, FOUNDATIONS, AND BAR SCREEN SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA.
6. BOTTOM OF PUMP PLATFORM SLAB SHALL NOT BE LOWER THAN 0.00' MSL.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY COFFER DAMS AND DEWATERING.
8. ALL DUCTILE IRON PIPE SHALL BE PC 350, EXCEPT FOR FLANGE PIPE WHICH SHALL BE CLASS 54.
9. CONTRACTOR SHALL GRADE AND DESIGN ELECTRICAL BUILDING FOUNDATION SO THAT ELECTRICAL BUILDING FFE IS 7.00' MSL.
10. EXISTING SHEETING SHALL BE REPLACED TO ONE (1) SHEET PAST LIMIT OF EXCAVATION.

PROPOSED COORDINATE TABLE

POINT	NORTHING	EASTING	DESCRIPTION
1000	940169.8615	2819565.5356	NORTHWEST CORNER OF PUMP PLATFORM
1001	940143.2132	2819576.1744	SOUTHEAST CORNER OF PUMP PLATFORM
1002	940140.3065	2819659.6312	P1 TIDE-FLEX FLANGE ℄
1003	940148.2638	2819655.1948	P2 TIDE-FLEX FLANGE ℄
1004	940155.9415	2819653.6619	P3 TIDE-FLEX FLANGE ℄
1005	940141.4218	2819562.5061	NORTHWEST CORNER OF ELECTRICAL BUILDING
1006	940128.2969	2819577.9249	SOUTHEAST CORNER OF ELECTRICAL BUILDING
1007	940199.3962	2819602.8024	NORTHWEST CORNER OF GENERATOR PAD
1008	940179.7720	2819604.6602	SOUTHEAST CORNER OF GENERATOR PAD

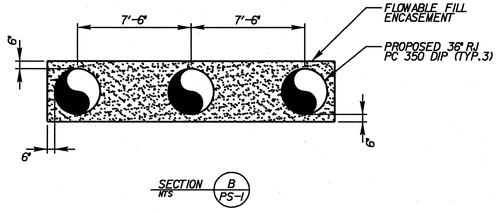
PUMP DATA TABLE

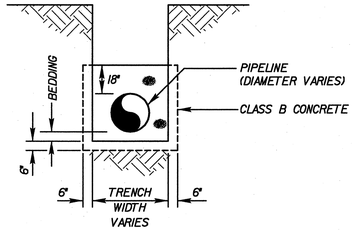
NUMBER OF PUMPS	3
PUMP TYPE	AXIAL FLOW/MIXED FLOW VERTICAL TURBINE
PUMP MANUFACTURER/MODEL	PATTERSON/30 AF-C
NUMBER OF STAGES	1
SPEED	600 RPM
MOTOR HP/VOLTS/PH/HZ	125/480/3/60
SUCTION/DISCHARGE	30"/36"
BOWL SIZE	30"
PUMP CURVE POINT #1	0 GPM @ 38.9 FT
PUMP CURVE POINT #2	16,000 GPM @ 19.42 FT
PUMP CURVE POINT #3	21,853 GPM @ 12.90 FT
PUMP CURVE POINT #4	26,000 GPM @ 5.11 FT
PUMP OFF	-2.78' MSL
PUMP ON (PID CONTROL LEVEL)	-2.30' MSL
HIGH WATER	-1.50' MSL
LOW WATER	-8.00' MSL



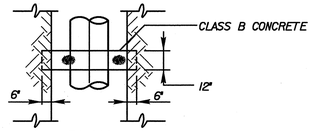
SECTION A (PS-1)
SCALE: 1" = 8'

REVISIONS





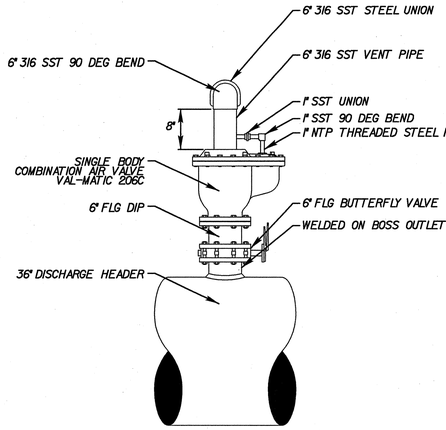
SECTION



PLAN

ANTI-SEEPAGE COLLAR

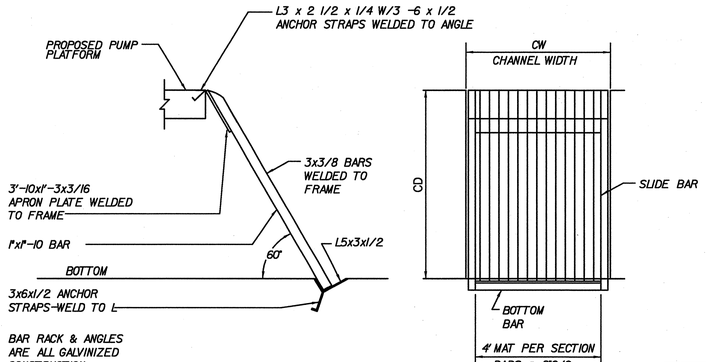
0260113



SINGLE BODY COMBINATION AIR VALVE DETAIL

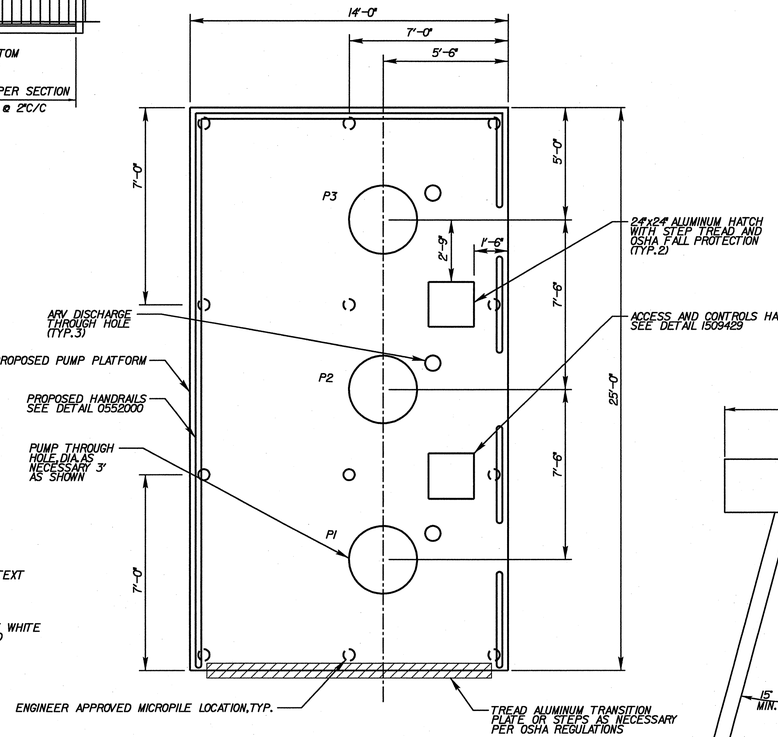
1509426

NOTE:
1. ALL EXPOSED CARBON STEEL,CAST IRON,OR DUCTILE IRON SHALL BE COATED WITH 1 COAT EPOXY POLYAMIDE PRIMER 4-6 MIL DFT AND 2 COATS COAL TAR EPOXY 8-10 MIL DFT PER COAT.



REMOVABLE BAR SCREEN PANEL

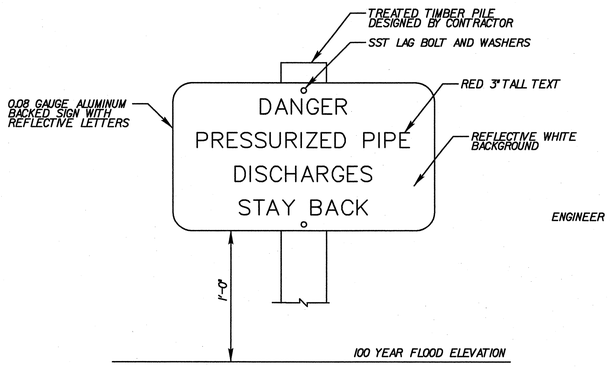
1133000R



NOTE:
PLATFORM STRUCTURAL DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR. DESIGN PILES,SLAB,THROUGH HOLES AND OTHER COMPONENTS AS NECESSARY. PILES PROPOSED TO BE IN LOCATIONS OTHER THAN THE APPROVED LOCATIONS SHOWN SHALL BE APPROVED BY THE ENGINEER.

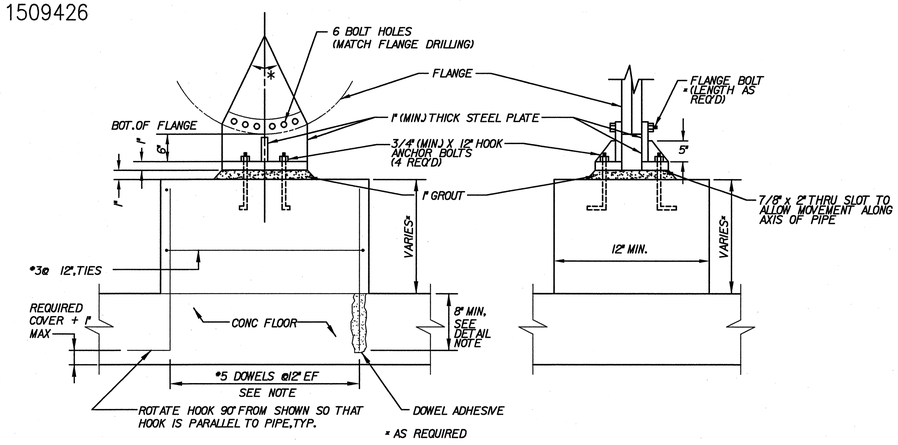
PUMP PLATFORM

1509427



DISCHARGE PIPE WARNING SIGN

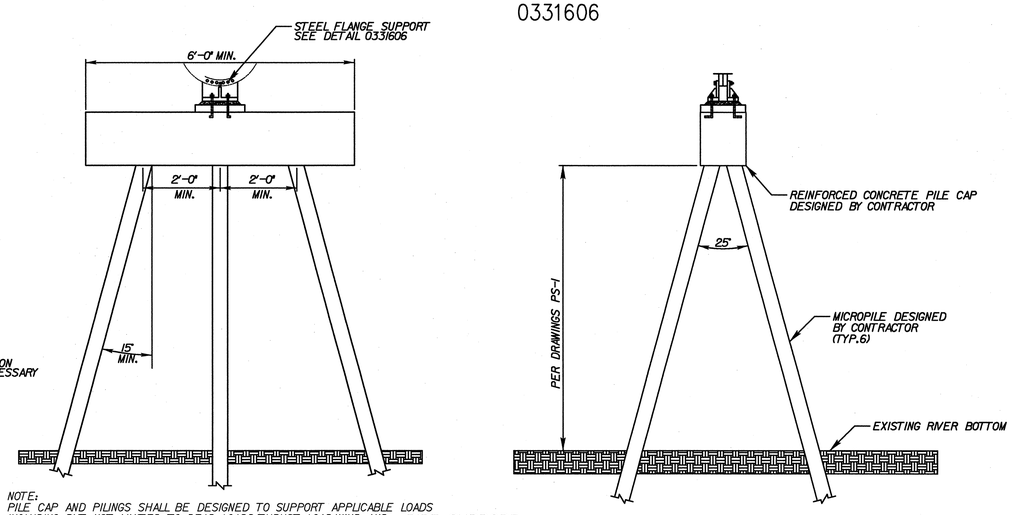
1509428



NOTE: DOWELS MAY BE CAST IN WITH 90° HOOK OR ANCHORED WITH DOWEL ADHESIVE AT CONTRACTORS OPTION.

FLANGE SUPPORT

0331606



NOTE:
PILE CAP AND PILINGS SHALL BE DESIGNED TO SUPPORT APPLICABLE LOADS INCLUDING BUT NOT LIMITED TO DEAD LOADS,THRUST LOAD,WIND AND WAVE LOADS.

PIPE SUPPORT

1509425

Kimley-Horn and Associates, Inc.

P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
U-4438	PS-2
R/W SHEET NO.	

RIGHT-OF-WAY REV.

CONST. REV.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33186 ENGINEER ZACHARY G. PURVIS 1-3-11

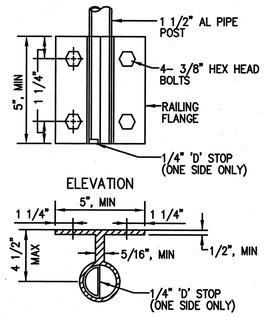
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-4438	PS-3
R/W SHEET NO.	

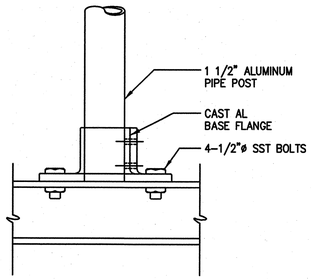
Kimley-Horn and Associates, Inc.
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

RIGHT-OF-WAY REV.
CONST. REV.

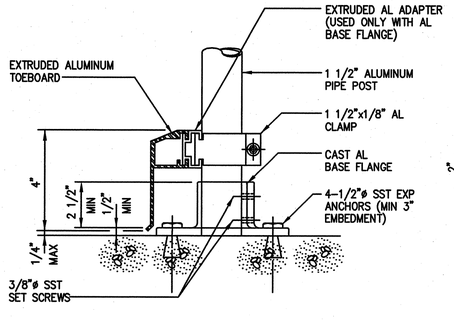
NORTH CAROLINA PROFESSIONAL SEAL 33186 ENGINEER CHARY G PURVIS



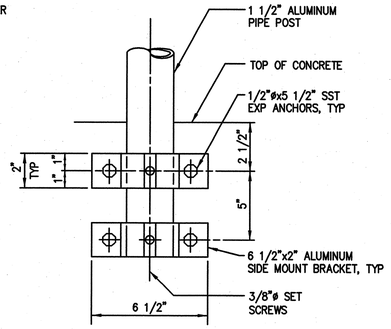
SIDE MOUNT TO METAL



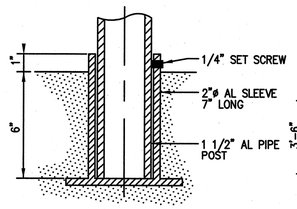
SURFACE MOUNTED TO METAL



SURFACE MOUNTED TO CONCRETE

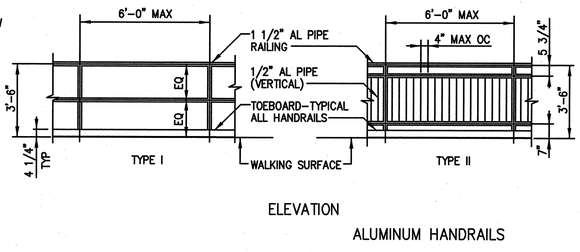


SIDE MOUNT TO CONCRETE

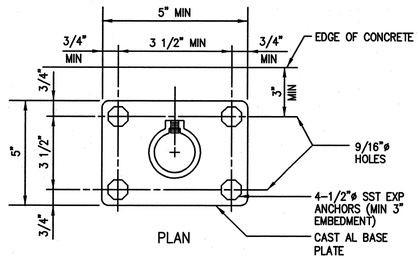


REMOVABLE POST IN CONCRETE

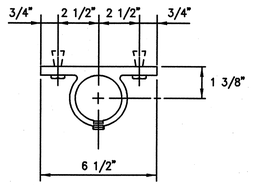
NOTE: UNLESS SHOWN OTHERWISE ON THE CONTRACT DRAWING, HANDRAILS SHALL BE TYPE I.



ELEVATION

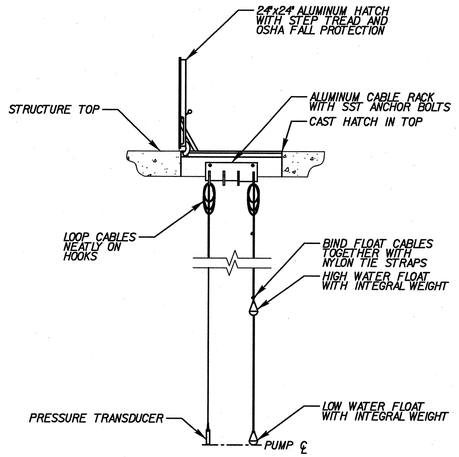


PLAN



PLAN

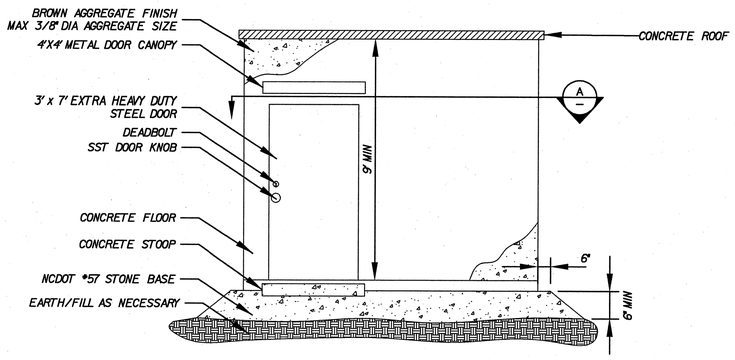
ALUMINUM HANDRAILS
0552000



ACCESS AND CONTROLS HATCH
1509429

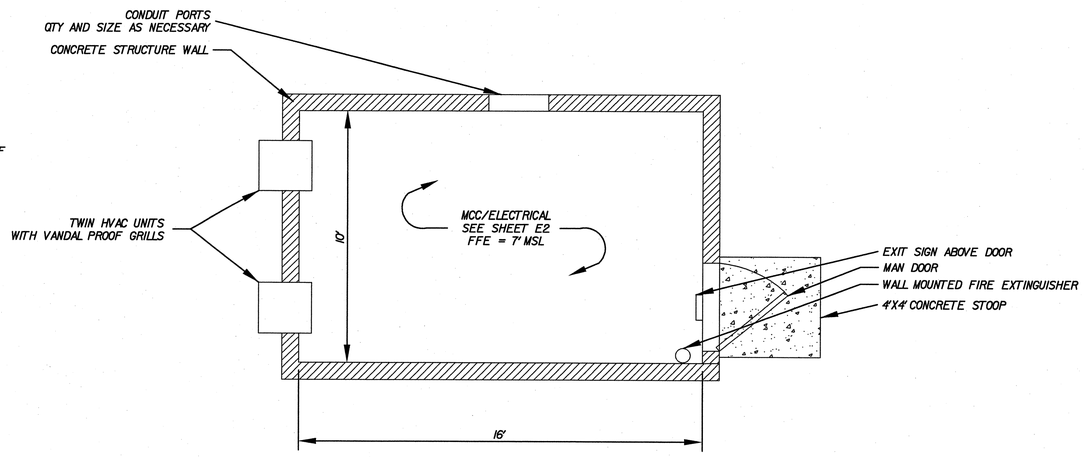
GENERAL BUILDING NOTES:

1. EXCAVATE A MINIMUM 18" BELOW PROPOSED EQUIPMENT FOUNDATIONS OF EXPANSIVE,ORGANIC,UNCONSOLIDATED OR OTHERWISE UNACCEPTABLE MATERIAL AND REPLACE WITH WELL-COMPACTED MATERIAL.
2. PERIMETER FOOTING FOR THE SHELTER FOUNDATION MUST BE A MINIMUM DEPTH OF 24" BELOW FINISH GRADE.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PROTECTING,AND RELOCATING AS REQUIRED ALL UTILITY LINES IN VICINITY OF THE WORK SITE.
4. CONTRACTOR TO CUT/FILL FOUNDATION TO PROVIDE AN AREA AS LEVEL AS POSSIBLE FOR THE EQUIPMENT.ALL FILL AREAS ARE TO BE FILLED WITH SUITABLE MATERIALS.FILL MATERIALS ARE TO BE PLACED,COMPACTED,AND TESTED IN MAXIMUM LAYERS OF 8".COMPACTION OF ALL MATERIALS SHALL ACHIEVE 95% OF MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.ALL TESTS MUST MEET THE MINIMUM SPECIFIED SOIL BEARING CAPACITY.
5. ALL STRUCTURAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS.
6. TOP OF CONCRETE FOUNDATION MUST BE WITHIN 0.02' OF ELEVATION REQUIRED.



NOTE:
CONTRACTOR SHALL DESIGN BUILDING FOUNDATION PER BUILDING MANUFACTURERS SPECIFICATIONS.

ELECTRICAL BUILDING ENTRANCE VIEW
NTS



NOTE:
CONTRACTOR SHALL DESIGN AND PROVIDE A CONCRETE HOUSEKEEPING PAD UNDER ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT.

SECTION A-A
ELECTRICAL BUILDING FLOOR PLAN
NTS