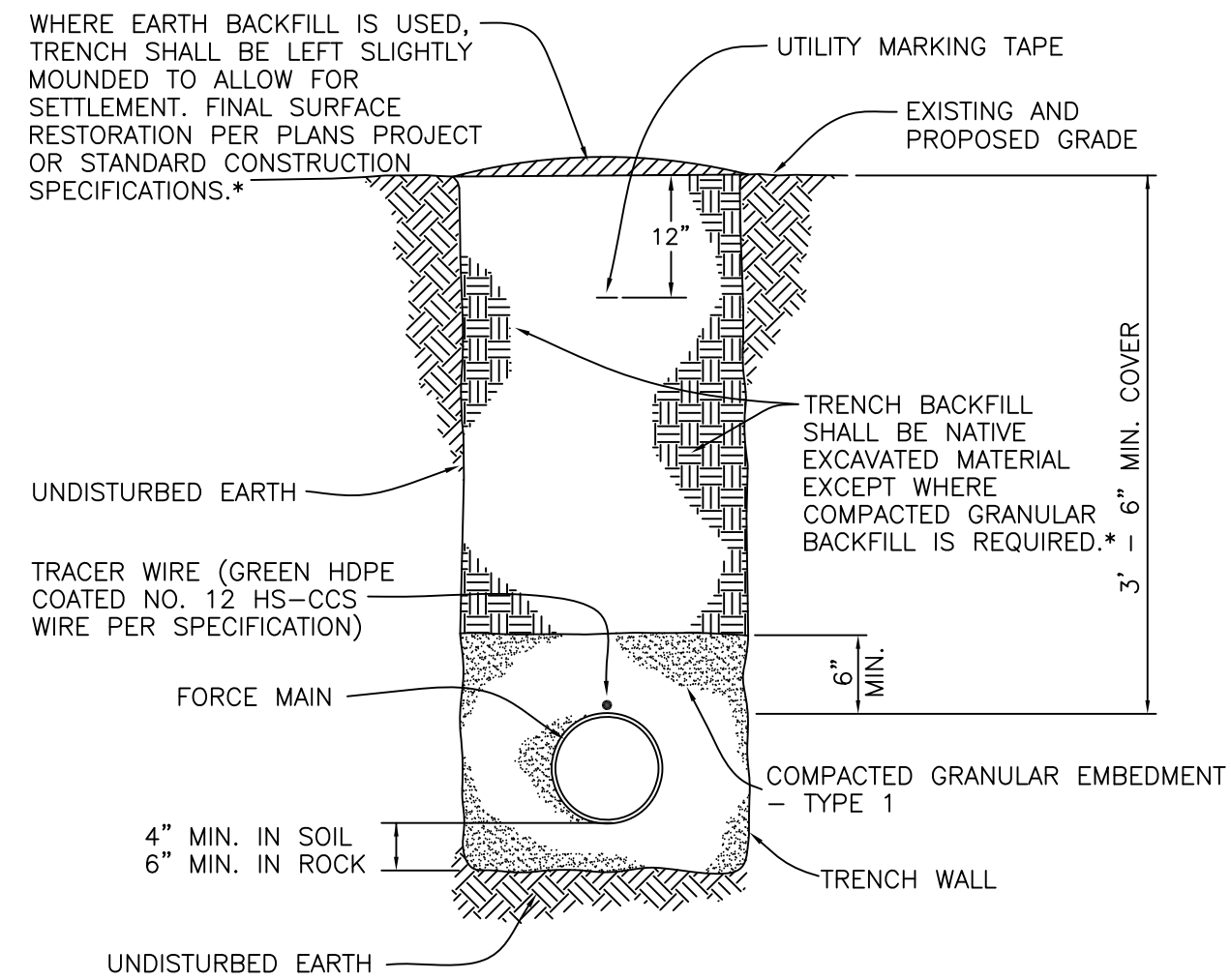


* - REFER TO "CITY OF JACKSON SANITARY SEWERAGE FACILITIES STANDARD CONSTRUCTION SPECIFICATIONS" FOR TRENCH EXCAVATION/BACKFILL, PIPE BEDDING, AND SURFACE RESTORATION



FORCE MAIN INSTALLATION

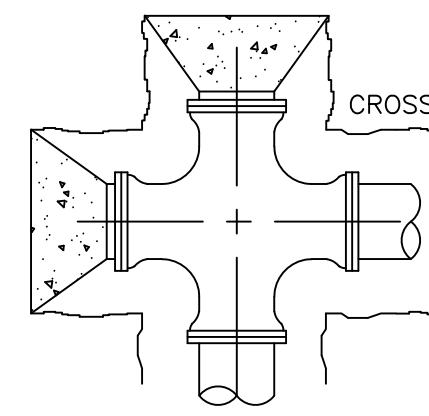
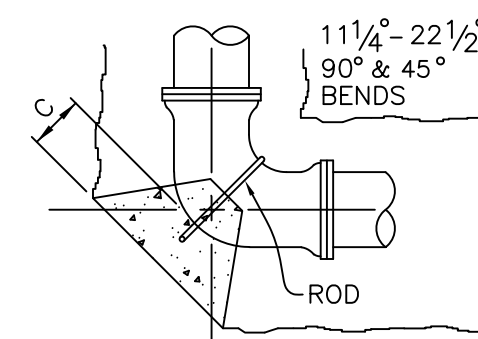
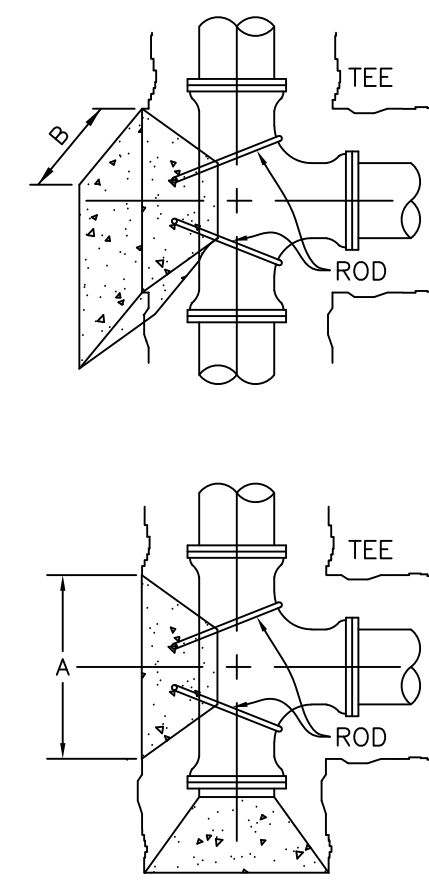


TABLE A

BEND	SIZE				
	4" & 6"	8"	10"	12"	16"
90°	A 1'-8"	3'-2"	3'-6"	4'-2"	5'-5"
	B 1'-2"	1'-4"	1'-6"	1'-0"	2'-6"
	C 8"	9"	10"	11-10"	1'-2"
45°	A 8"	9"	8"	8"	11-3"
	B 1'-2"	1'-4"	1'-6"	1'-8"	2'-0"
	C 8"	9"	10"	11"	1'-2"
11 1/4°	A 8"	9"	8"	8"	9"
	B 1'-2"	1'-4"	1'-5"	1'-10"	2'-8"
	C 8"	9"	10"	11"	1'-2"
114°	A 1'-3"	2'-3"	2'-8"	3'-2"	4'-1"
	B 1'-2"	1'-4"	1'-6"	1'-10"	2'-6"
	C 8"	9"	10"	11"	1'-2"
114°	A 2'-3"	3'-7"	5'-0"	5'-10"	7'-7"
	B 1'-2"	1'-4"	1'-6"	1'-10"	2'-6"
	C 8"	9"	10"	11-0"	1'-2"

- NOTES:
- ALL B&C DIMENSIONS TO BE AS REQUIRED TO REACH UNDISTURBED EARTH BUT NOT LESS THAN LISTED ON THRUST BLOCK TABLE.
 - CAST-IN-PLACE CONCRETE SHALL BE IN ACCORDANCE WITH THE "CITY OF JACKSON STANDARD CONSTRUCTION SPECIFICATIONS FOR SANITARY SEWERAGE FACILITIES," PART 5, CLASS "A" CONCRETE.
 - DIMENSIONS A, B, C, APPLY TO ALL BEND CONDITIONS SHOWN.
 - INSTALL PLUGS AT ALL RUNS OR BRANCHES DISCONTINUED FOR FUTURE SERVICES.
 - ALL BENDS, TEES, PLUGS, FITTINGS OR OTHER SIGNIFICANT CHANGES SHALL BE BRACED WITH POURED CONCRETE THRUST BLOCK AS SHOWN ON THIS DETAIL.
 - ALL PLUGS SHALL BE SEPARATED FROM THE CONCRETE THRUST BLOCK BY A 5 MIL LAYER OF PLASTIC SHEETING.



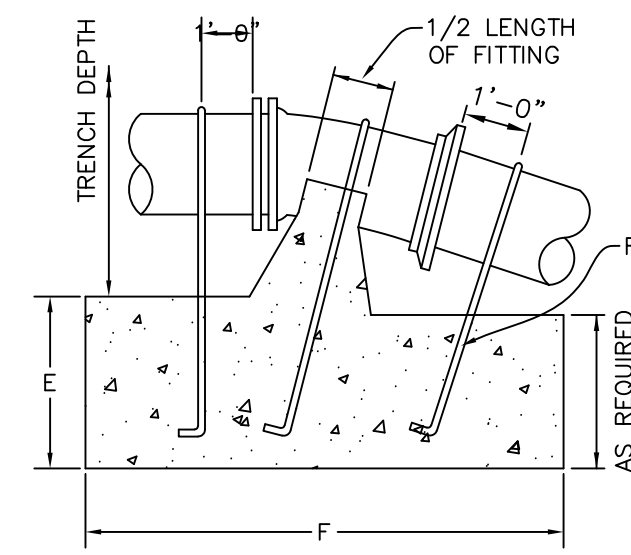
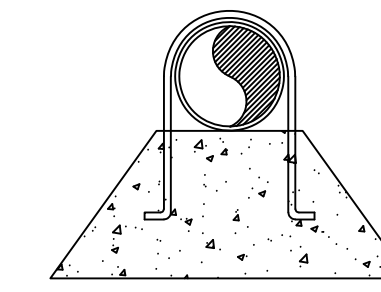
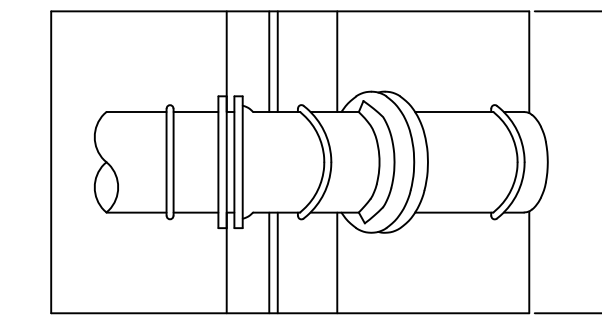
FOR HORIZONTAL ALIGNMENT

HORIZONTAL THRUST BLOCK

BEND	SIZE				
	4" & 6"	8"	10"	12"	16"
90°	A 1'-6"	1'-9"	2'-0"	3'-0"	3'-6"
	B 1'-3"	1'-6"	1'-9"	2'-0"	2'-3"
	C 2'-0"	2'-6"	2'-9"	3'-0"	4'-0"
45°	A 2'-0"	3'-4"	3'-8"	4'-0"	4'-4"
	B 1'-9"	2'-3"	2'-6"	2'-6"	2'-6"
	C 2'-6"	2'-8"	3'-10"	4'-0"	5'-6"
114°	A 2'-6"	3'-0"	4'-0"	4'-6"	5'-2"
	B 2'-6"	2'-9"	3'-0"	3'-6"	4'-0"
	C 3'-0"	4'-0"	4'-6"	4'-9"	6'-6"

PIPE SIZE	ROD SIZE (IN)			NO. REQ'D.
	45°	22 1/2°	11 1/4°	
4" & 6"	1/2"	1/2"	1/2"	3
8"	1/2"	1/2"	1/2"	3
10"	3/4"	3/4"	3/4"	3
12"	3/4"	3/4"	3/4"	3
16"	3/4"	3/4"	3/4"	3

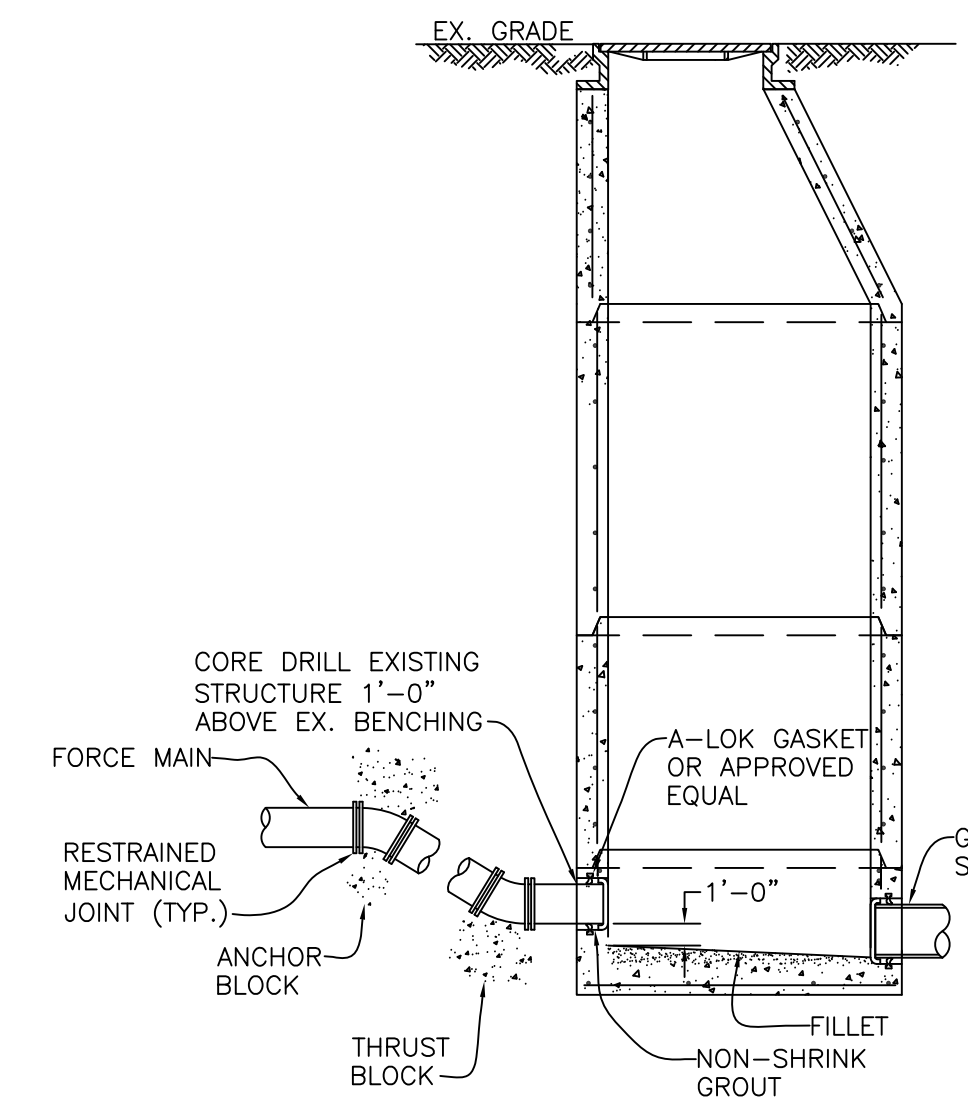
THIS TABLE APPLIES TO VERTICAL & HORIZONTAL THRUST BLOCKS.



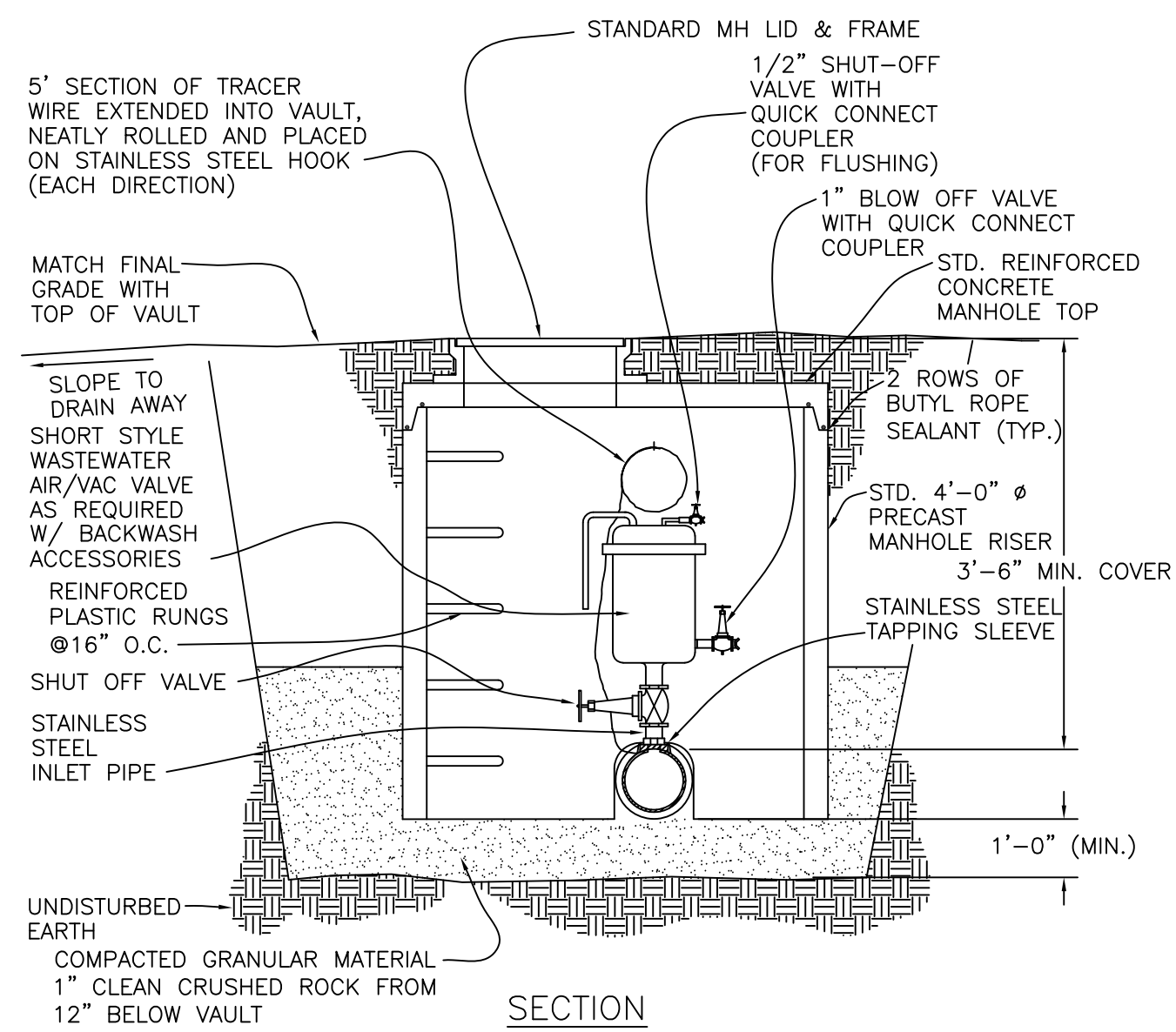
- NOTES:
- ALL POURED CONCRETE SHALL BE PLACED ON UNDISTURBED EARTH AFTER EXCAVATION ACCORDING TO DIMENSIONS INDICATED ON THRUST BLOCK DIMENSION TABLE OR IT SHALL BE LAID THE FULL WIDTH OF TRENCH FROM UNDISTURBED WALL BUT NOT LESS THAN LISTED ON THRUST BLOCK TABLE.
 - ALL POURED CONCRETE SHALL BE IN ACCORDANCE WITH "CITY OF JACKSON STANDARD CONSTRUCTION SPECIFICATIONS FOR SANITARY SEWERAGE FACILITIES", PART 5, CLASS "A" CONCRETE.
 - ALL RODS TO BE 316 OR 304 STAINLESS STEEL.

FOR VERTICAL ALIGNMENT

VERTICAL THRUST BLOCK

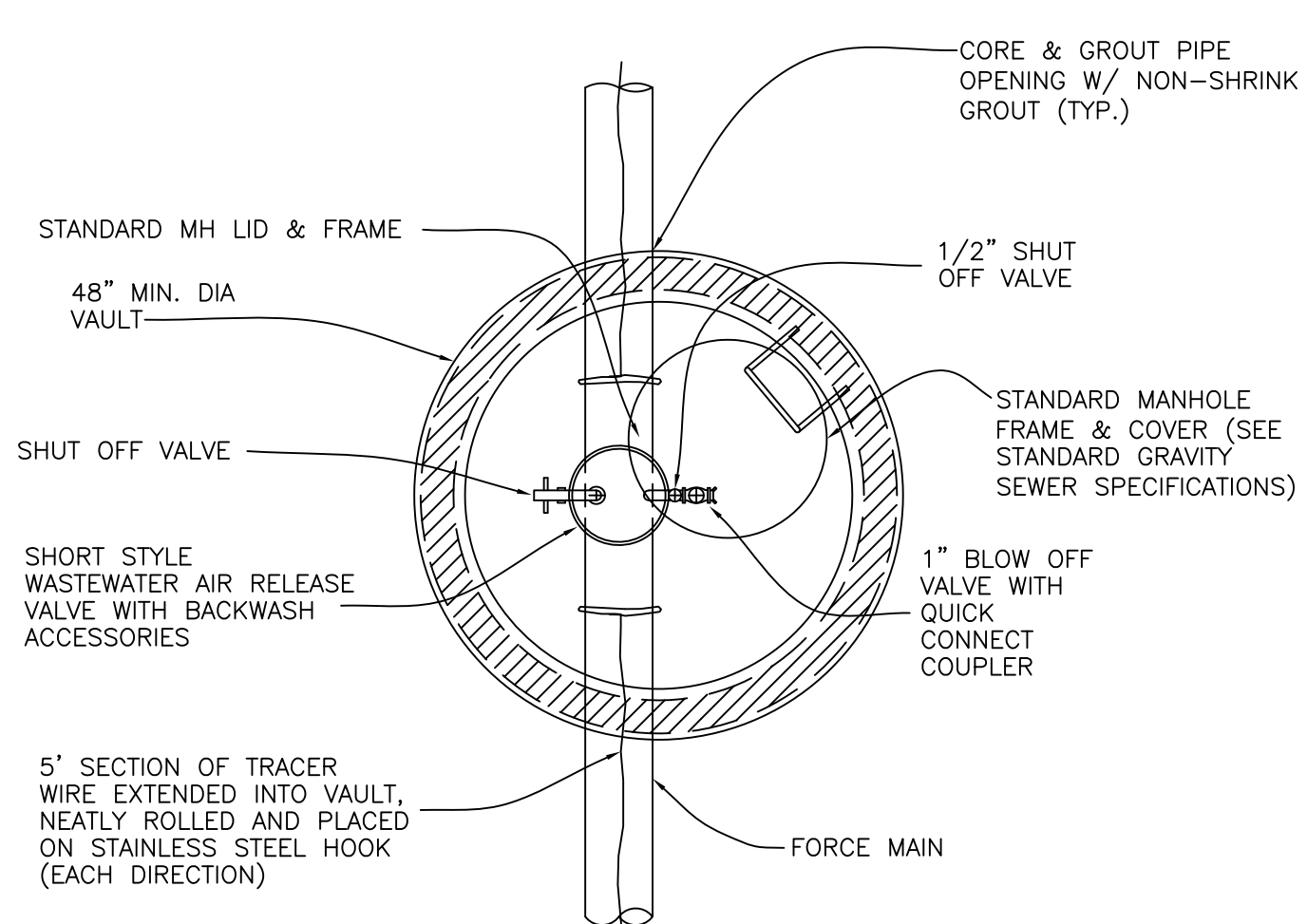


FORCE MAIN TERMINATION

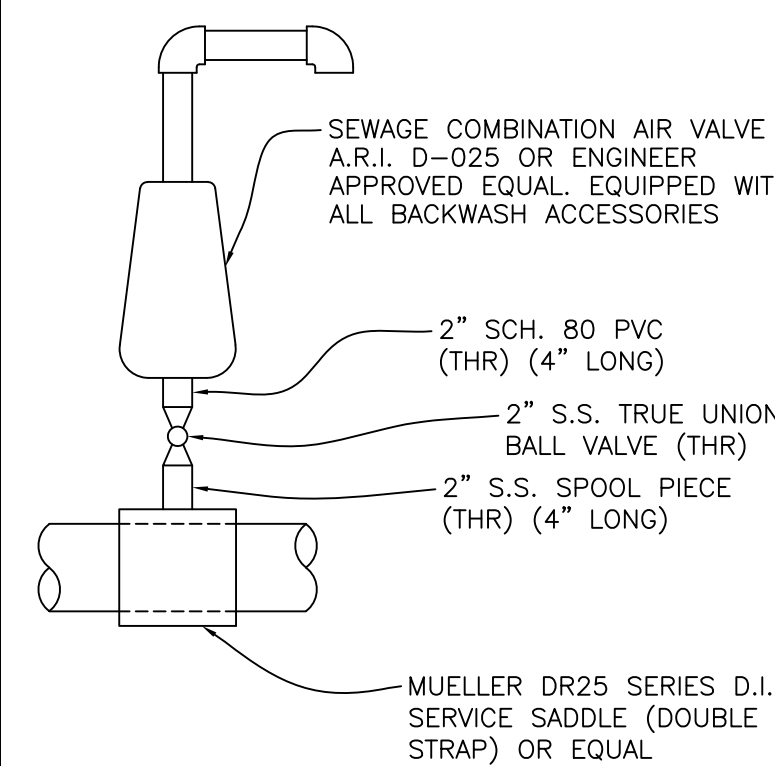


- NOTES:
- AIR RELEASE VALVE SHALL BE SEWAGE COMBINATION AIR VALVE A.R.I. D-025 OR ENGINEER APPROVE EQUAL. VALVE SHALL BE EQUIPPED WITH ALL BACKWASH ACCESSORIES.
 - VALVE SHALL BE EQUIPPED WITH 2" S.S. BALL VALVE (THREADED) FOR ISOLATION OF AIR RELEASE. BALL VALVE SHALL BE FULL PORT TRUE UNION WITH DOUBLE O-RING STEM SEALS AS MANUFACTURED BY HAYWARD, SPEARS, OR ASAHI.

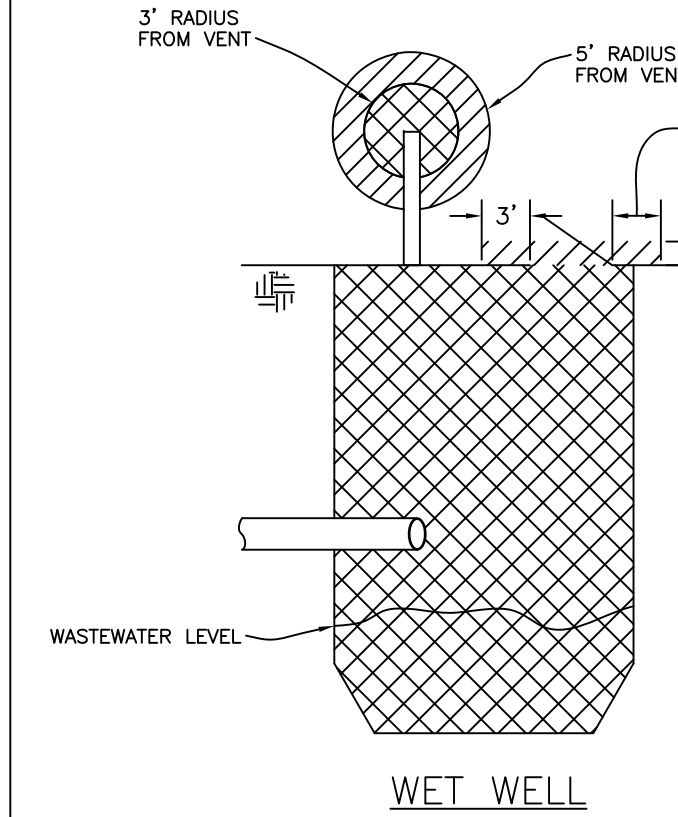
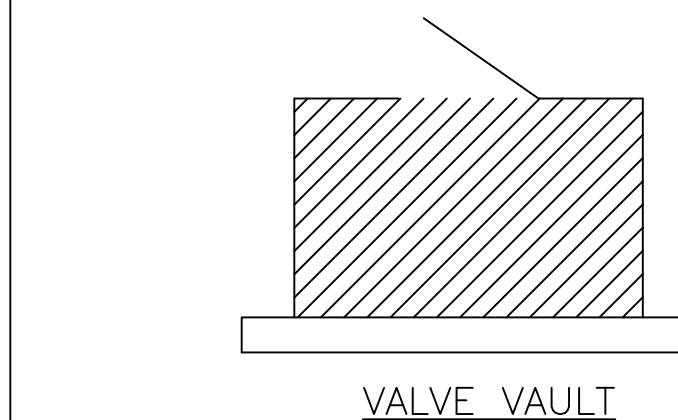
AIR RELEASE VALVE VAULT (SECTION VIEW)



AIR RELEASE VALVE VAULT (PLAN VIEW)

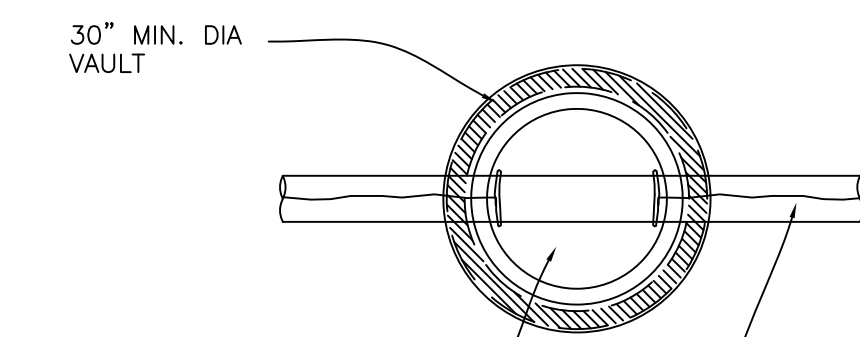
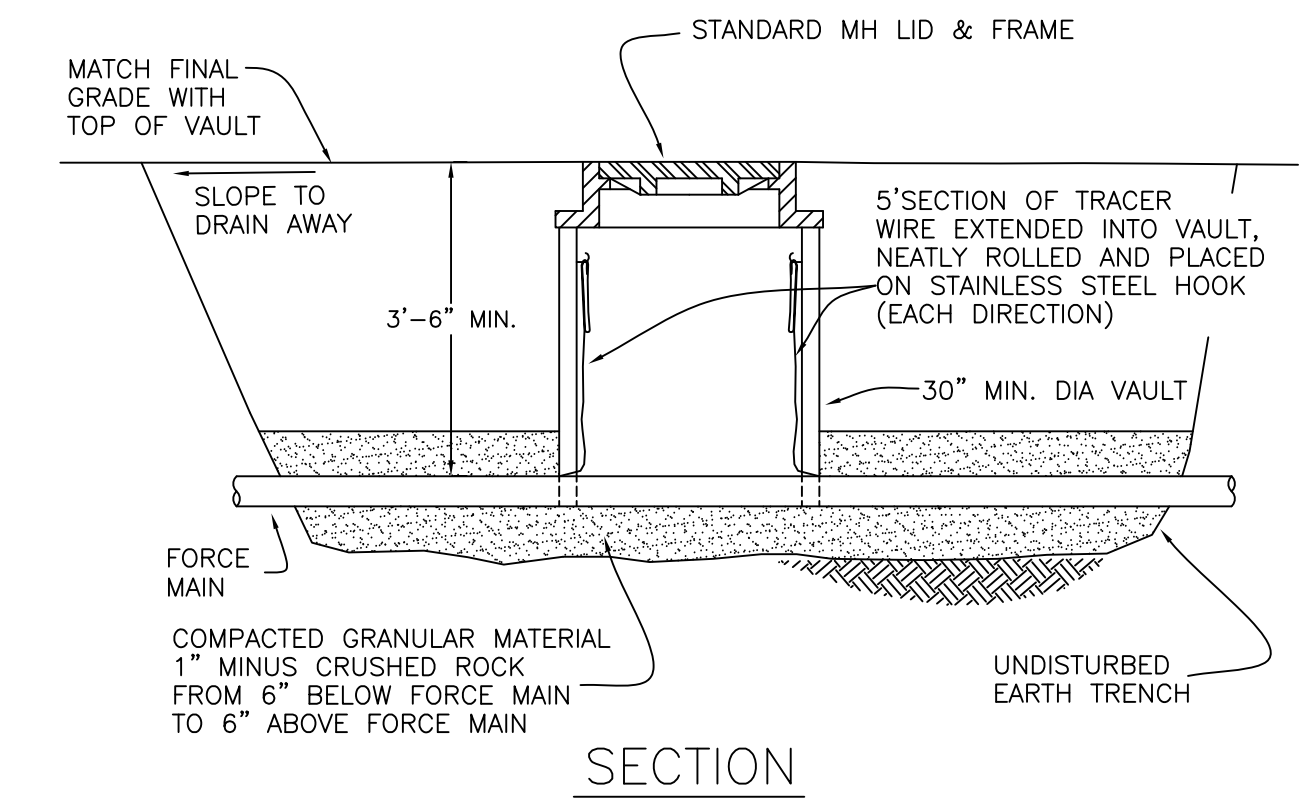


AIR RELEASE VALVE DETAIL



WET WELL & VALVE VAULT ELECTRICAL CLASSIFICATION

- CLASS 1, DIVISION 1, GROUP D CLASSIFIED AREA
- CLASS 1, DIVISION 2, GROUP D CLASSIFIED AREA



TRACER WIRE ACCESS VAULT

NO.	DATE	REVISIONS	BY

CHECKED BY: KAP DATE: 4/18/16
SCALE: HORIZ. NONE VERT. NONE

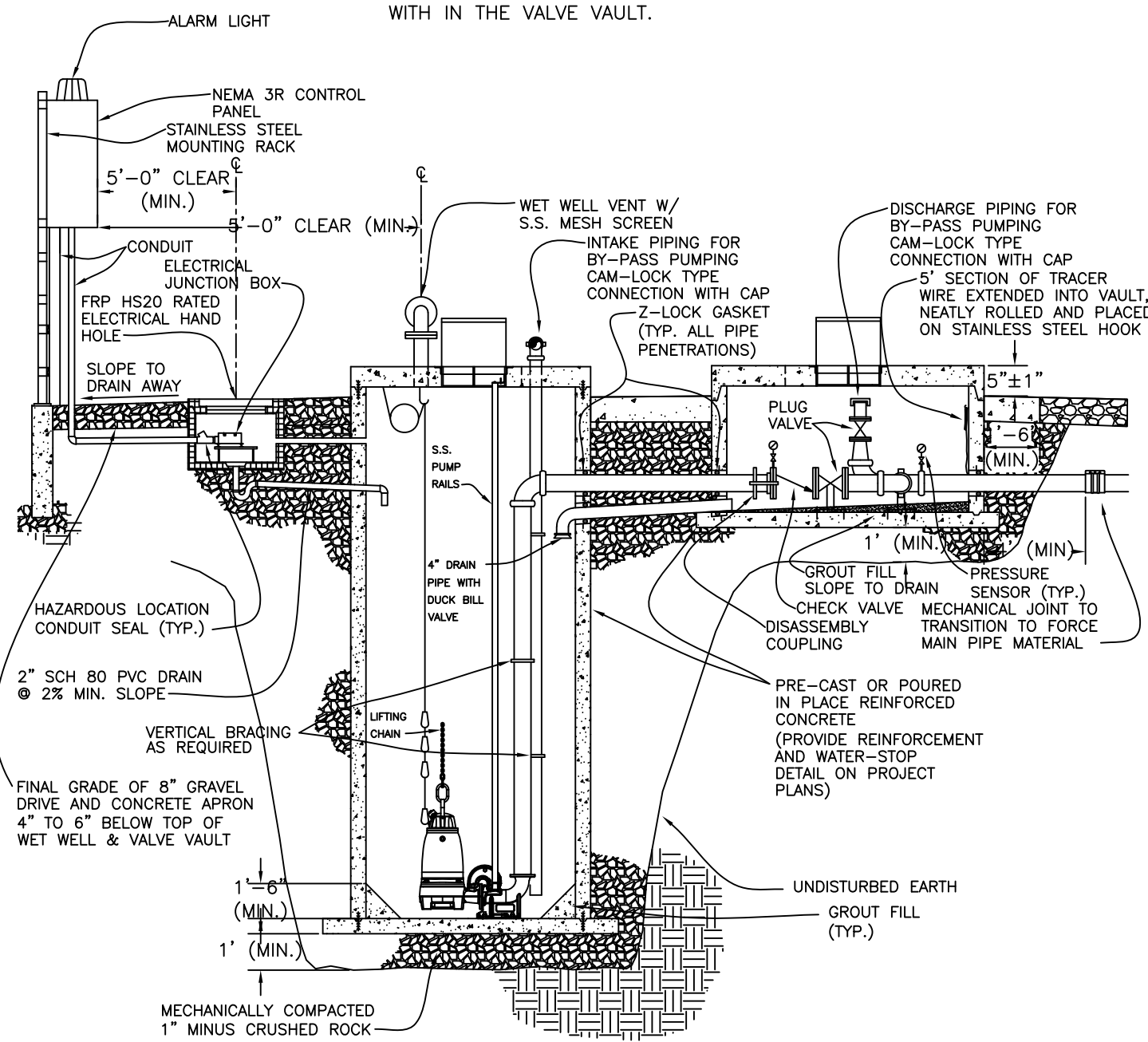
CITY OF JACKSON
101 COURT STREET, JACKSON, MISSOURI
WASTEWATER DIVISION

CITY OF JACKSON LIFT STATION AND FORCE MAIN STANDARDS

SHEET NUMBER: A1

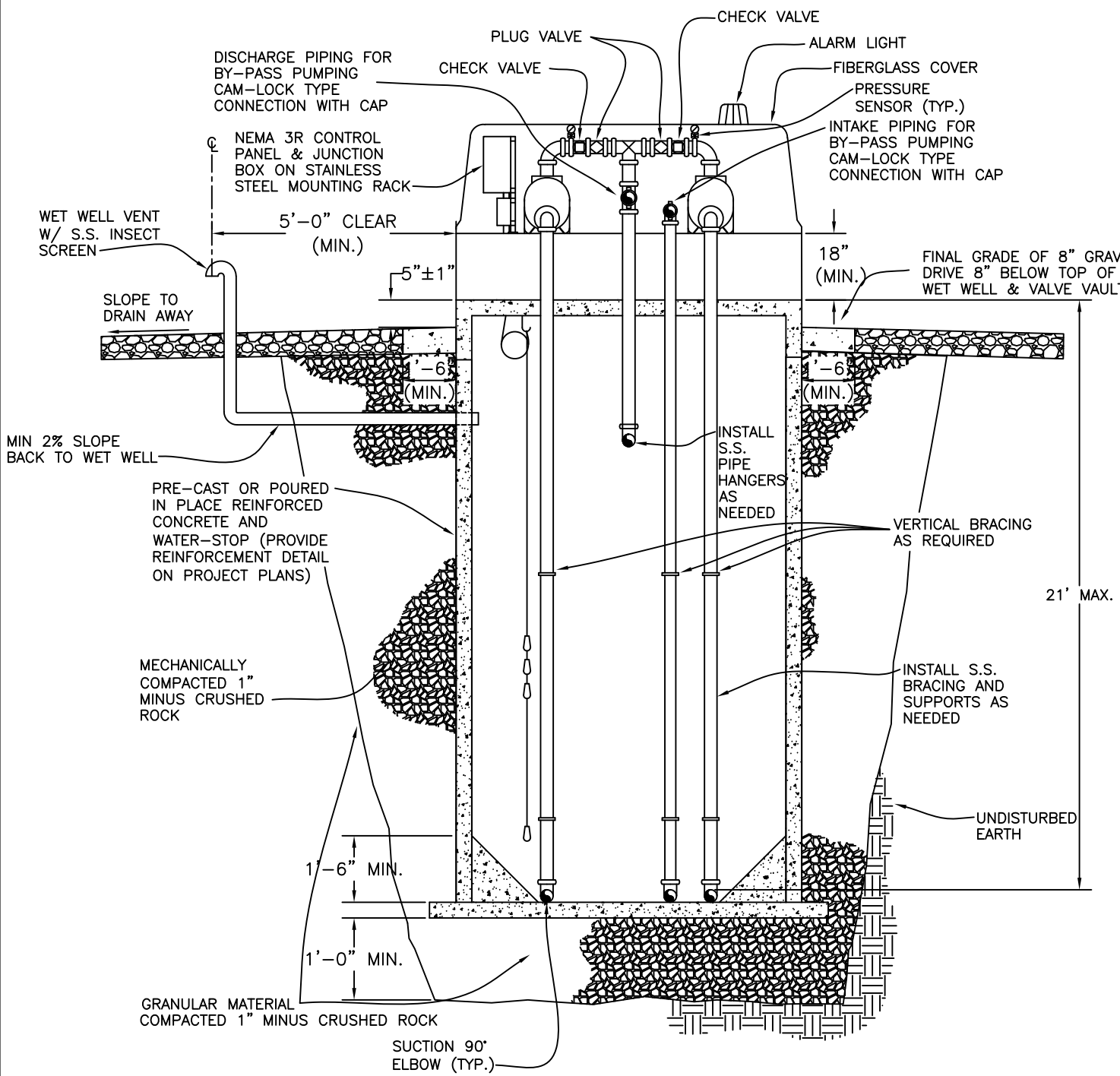
NOTE:

1. THE VALVE VAULT & WET WELL ARE TO BE EITHER REINFORCED PRECAST CONCRETE STRUCTURES OR CAST-IN-PLACE STRUCTURES. ALL STRUCTURAL DESIGN DATA AND DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL AS PER SECTION 8.0 - STRUCTURAL REQUIREMENTS OF THE SPECIFICATIONS. STRUCTURES SHALL CONFORM TO THE CITY OF JACKSON PUMP STATION DESIGN REQUIREMENTS.
2. PRECAST JOINTS SHALL BE LOCATED A MINIMUM OF 6" FROM ALL PIPE PENETRATIONS. PRECAST SECTION SHOULD BE MINIMIZED TO REDUCE NUMBER OF JOINTS.
3. PROVIDE A MINIMUM OF 1'-0" CLEAR AROUND ALL FITTINGS AND VALVES WITH IN THE VALVE VAULT.



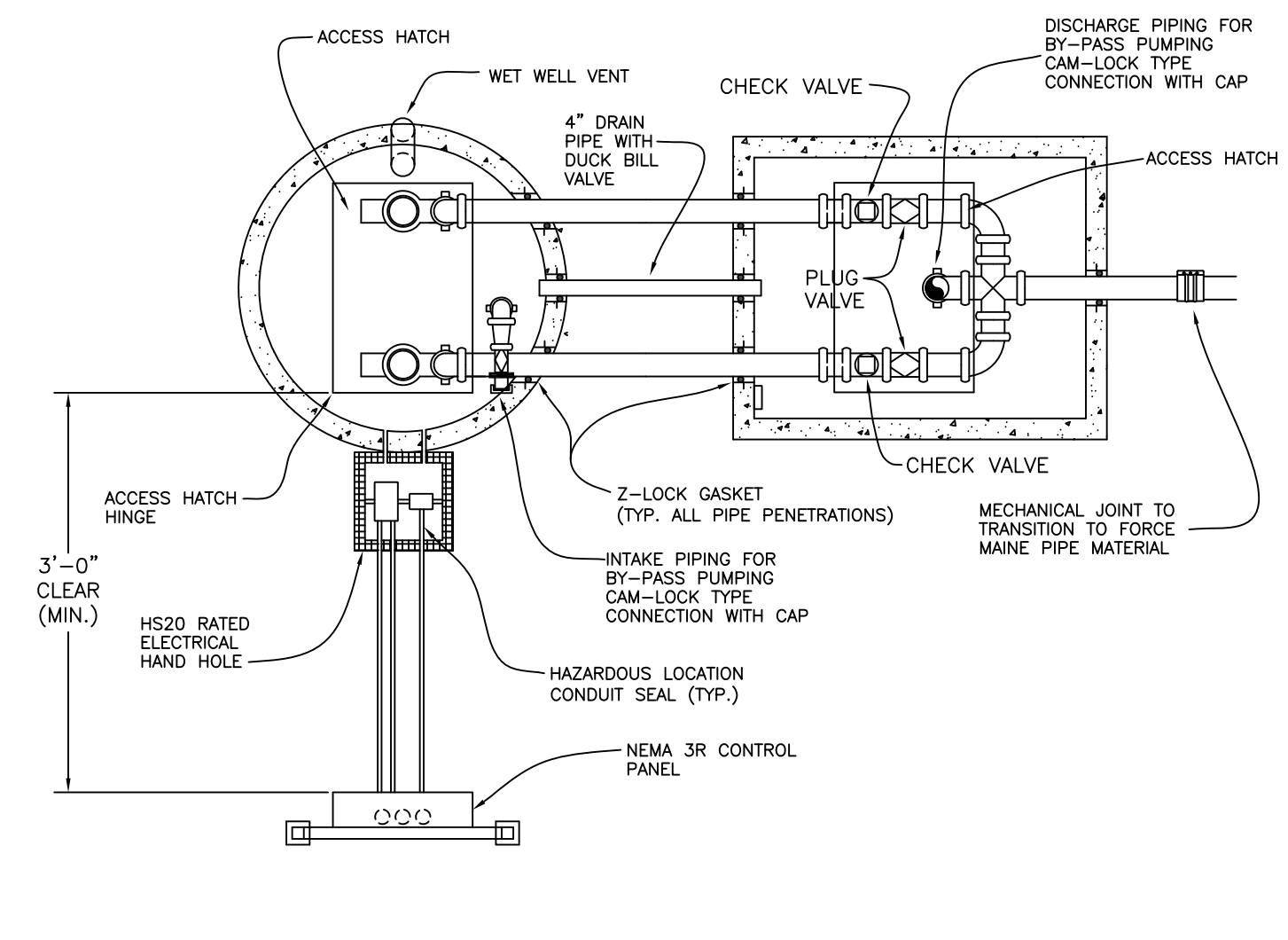
NOTE: DETAILED DESIGN REQUIRED FOR SITE PLANS

SUBMERSIBLE LIFT STATION - SECTION



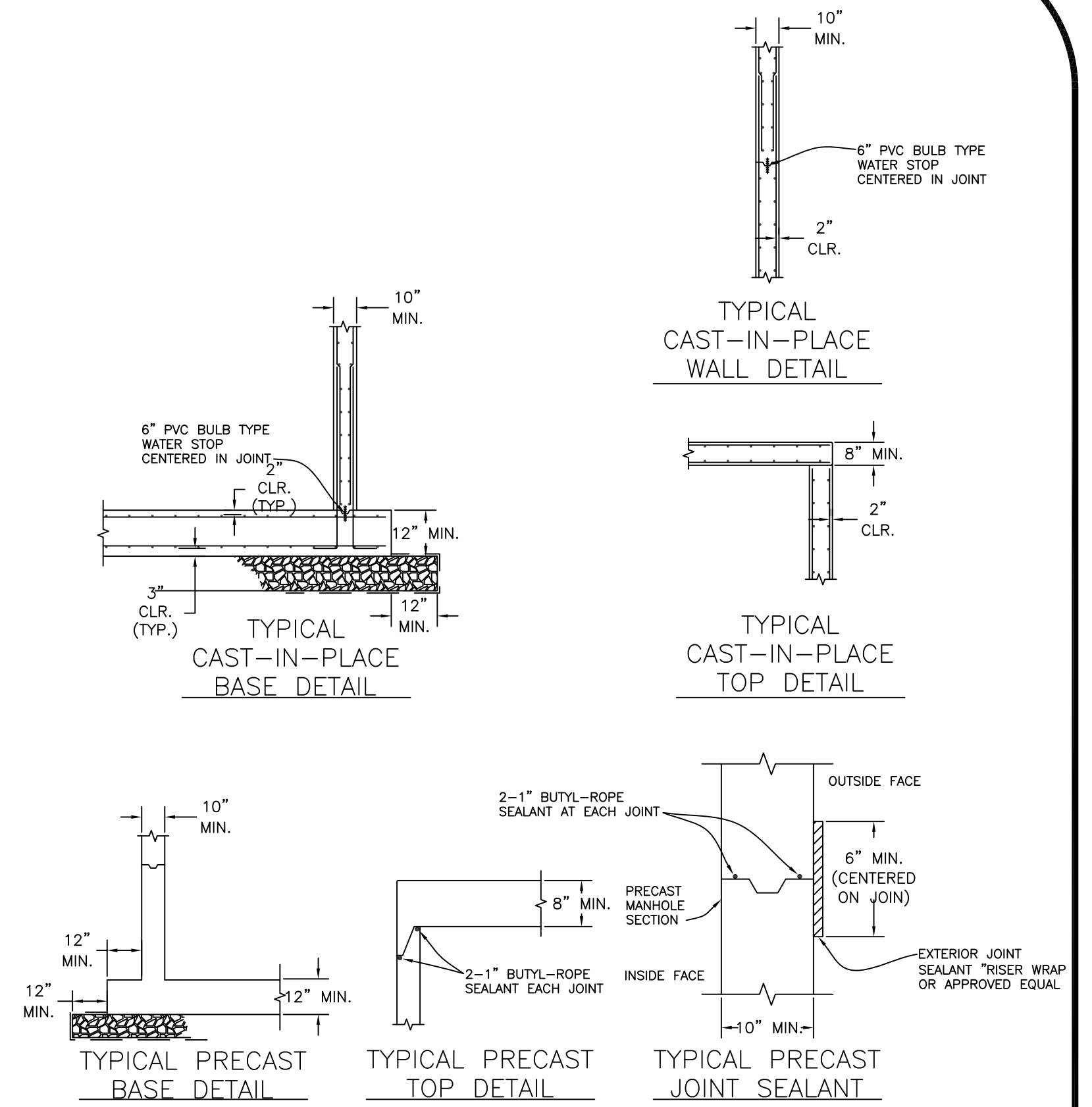
NOTE: DETAILED DESIGN REQUIRED FOR SITE PLANS

ALTERNATE SUCTION-LIFT LIFT STATION - SECTION

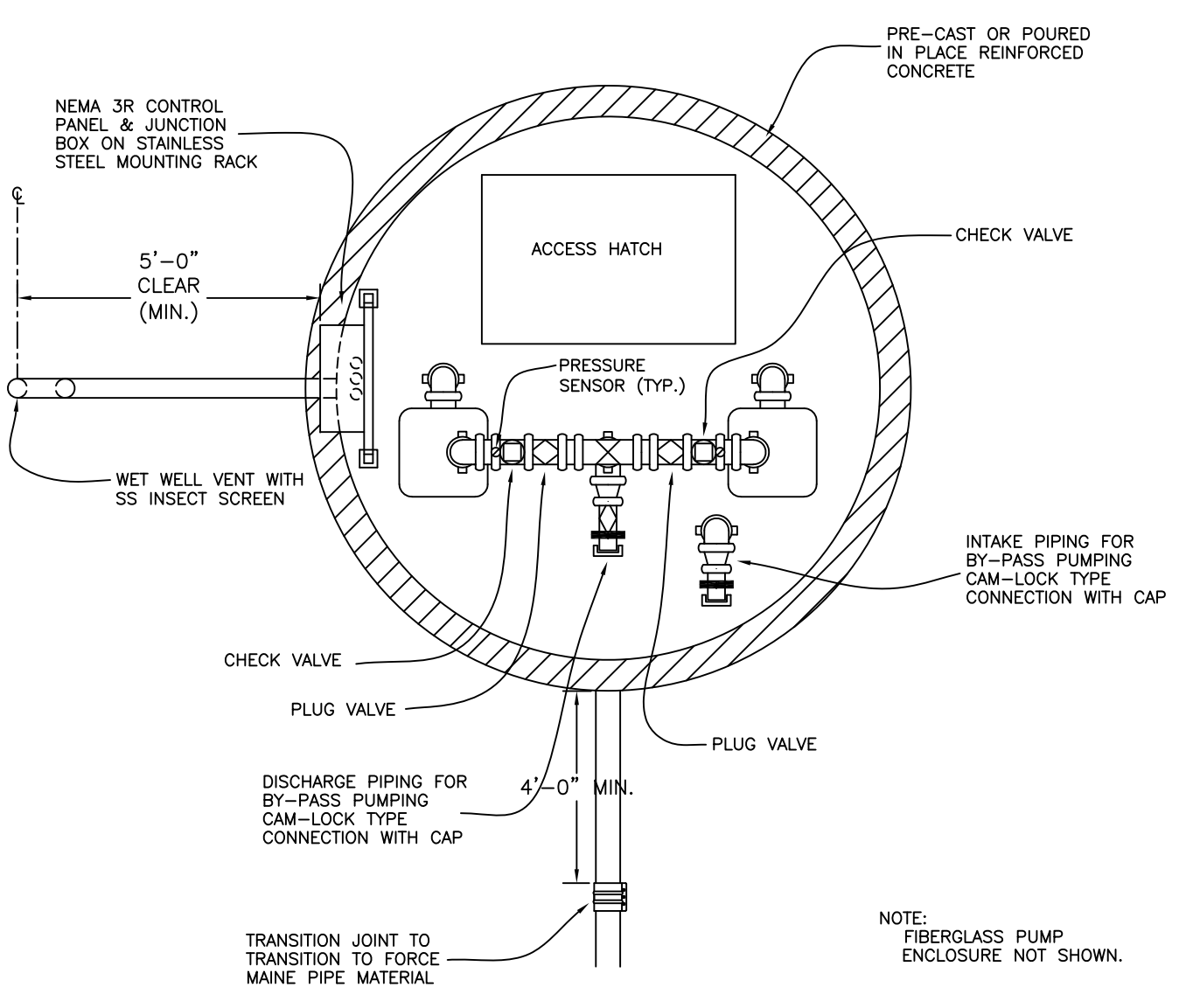


NOTE: DETAILED DESIGN REQUIRED FOR SITE PLANS

SUBMERSIBLE LIFT STATION - PLAN

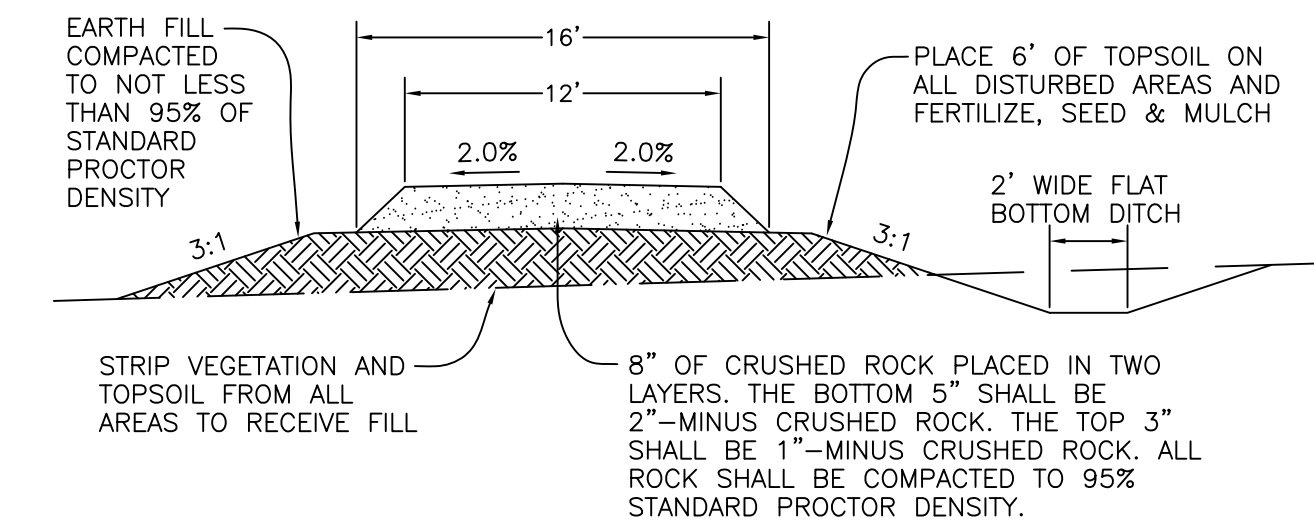


TYPICAL LIFT STATION STRUCTURAL DETAILS



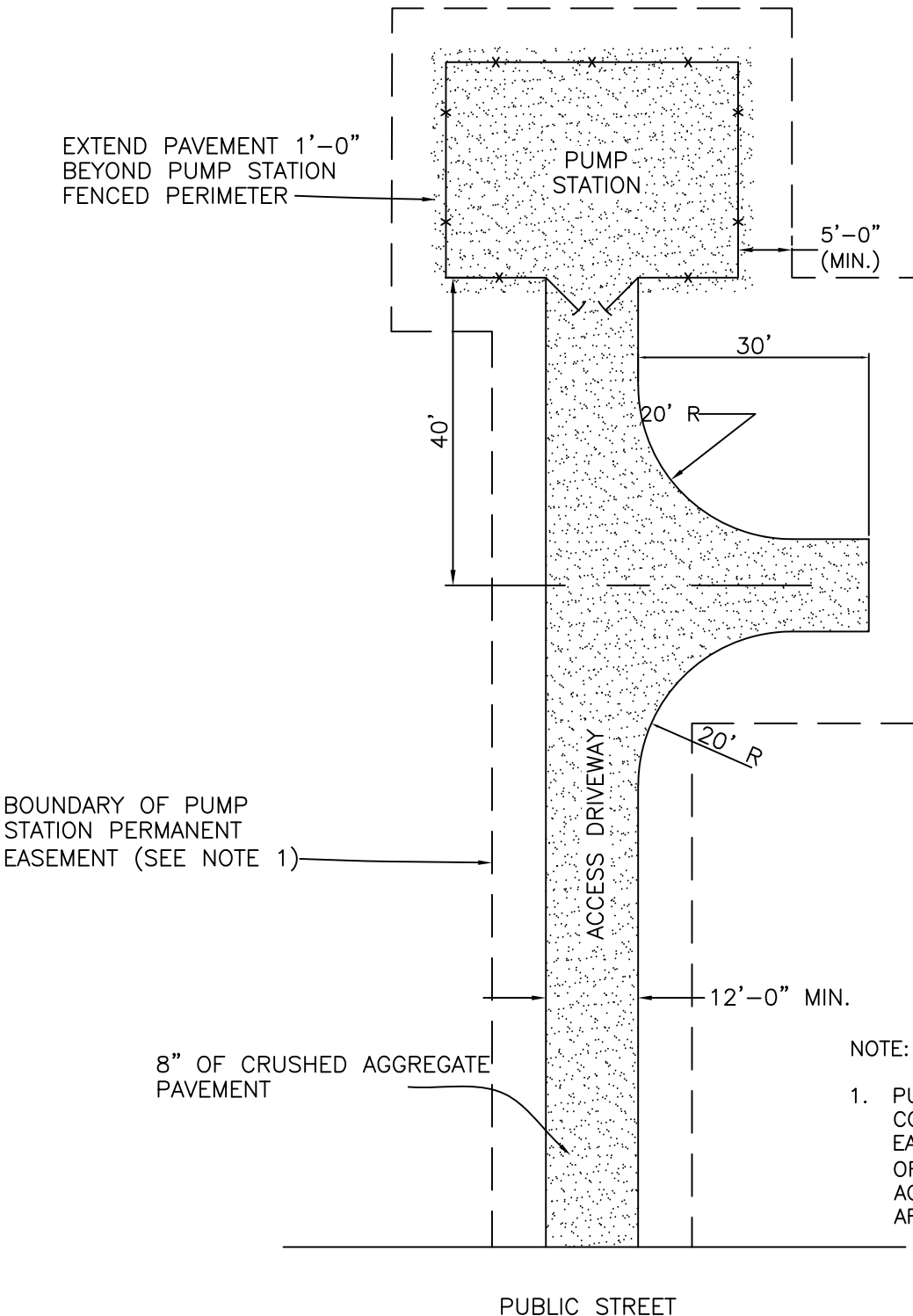
NOTE: DETAILED DESIGN REQUIRED FOR SITE PLANS

ALTERNATE SUCTION-LIFT LIFT STATION - PLAN



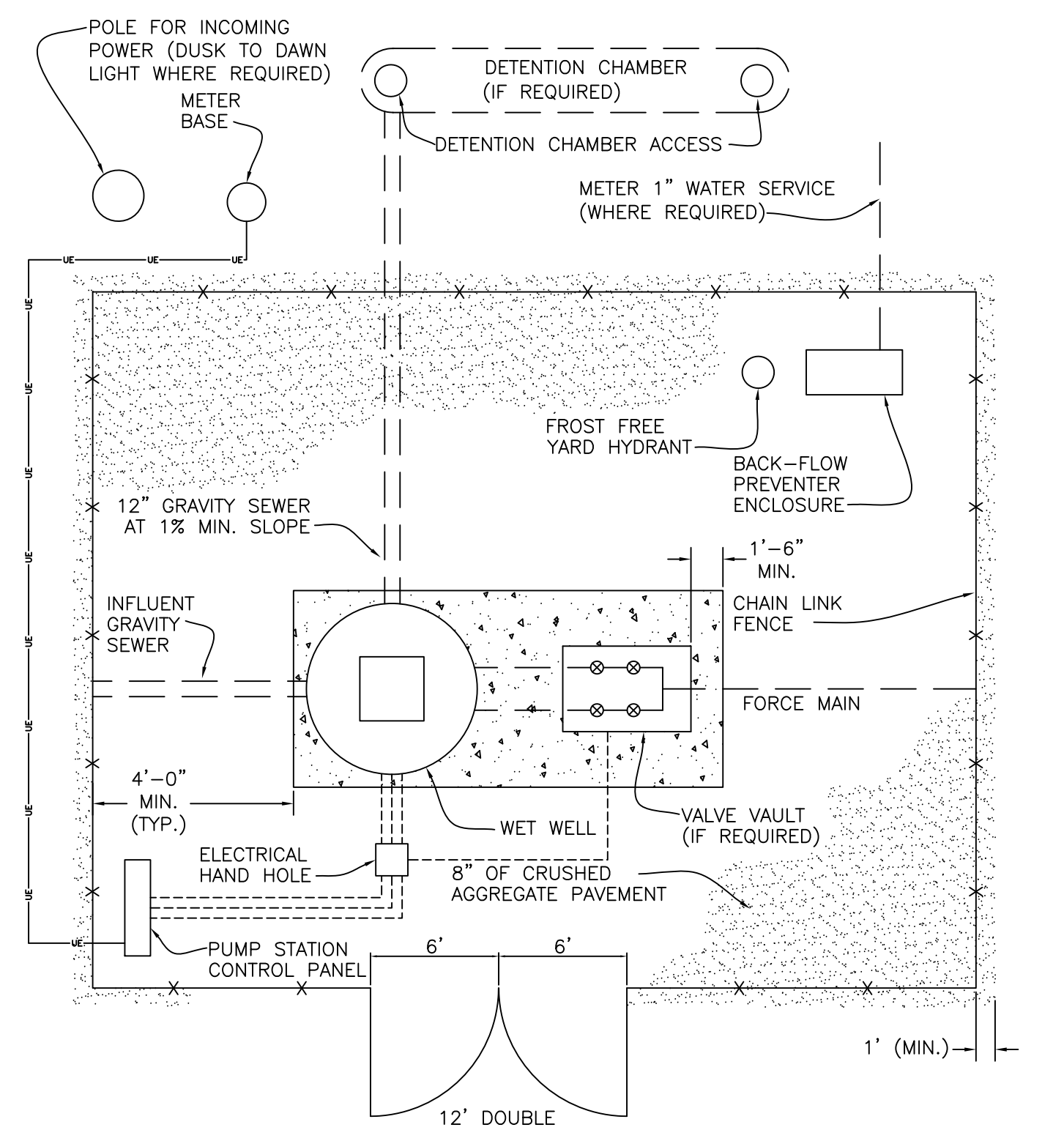
CONSTRUCTION OF PUMP STATION ACCESS DRIVE SHALL COMPLY WITH ALL APPLICABLE SECTIONS OF THE CITY OF JACKSON STREET AND STORMWATER SPECIFICATIONS AND STANDARDS.

PUMP STATION ACCESS DRIVEWAY CROSS SECTION



NOTE:
1. PUMP STATION SHALL BE CONSTRUCTION WITH PERMANENT EASEMENTS EXTENDING A MINIMUM OF 5' BEYOND THE PUMP STATION, ACCESS DRIVEWAY, AND TURN AROUND.

ACCESS DRIVEWAY & TURN AROUND AREA

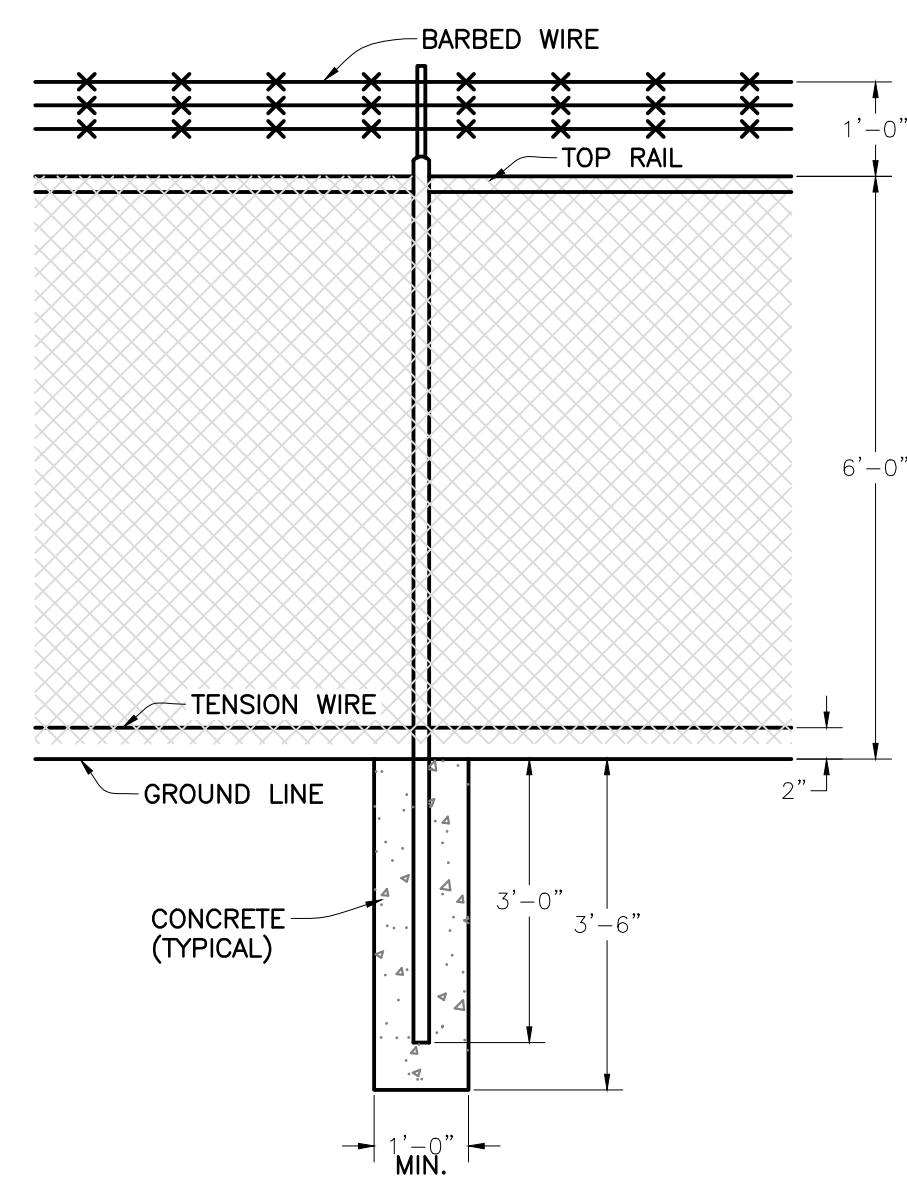


NOTE:
1. EXTEND PUMP STATION FENCED PERIMETER A MINIMUM OF 4'-0" BEYOND PUMP STATION STRUCTURES

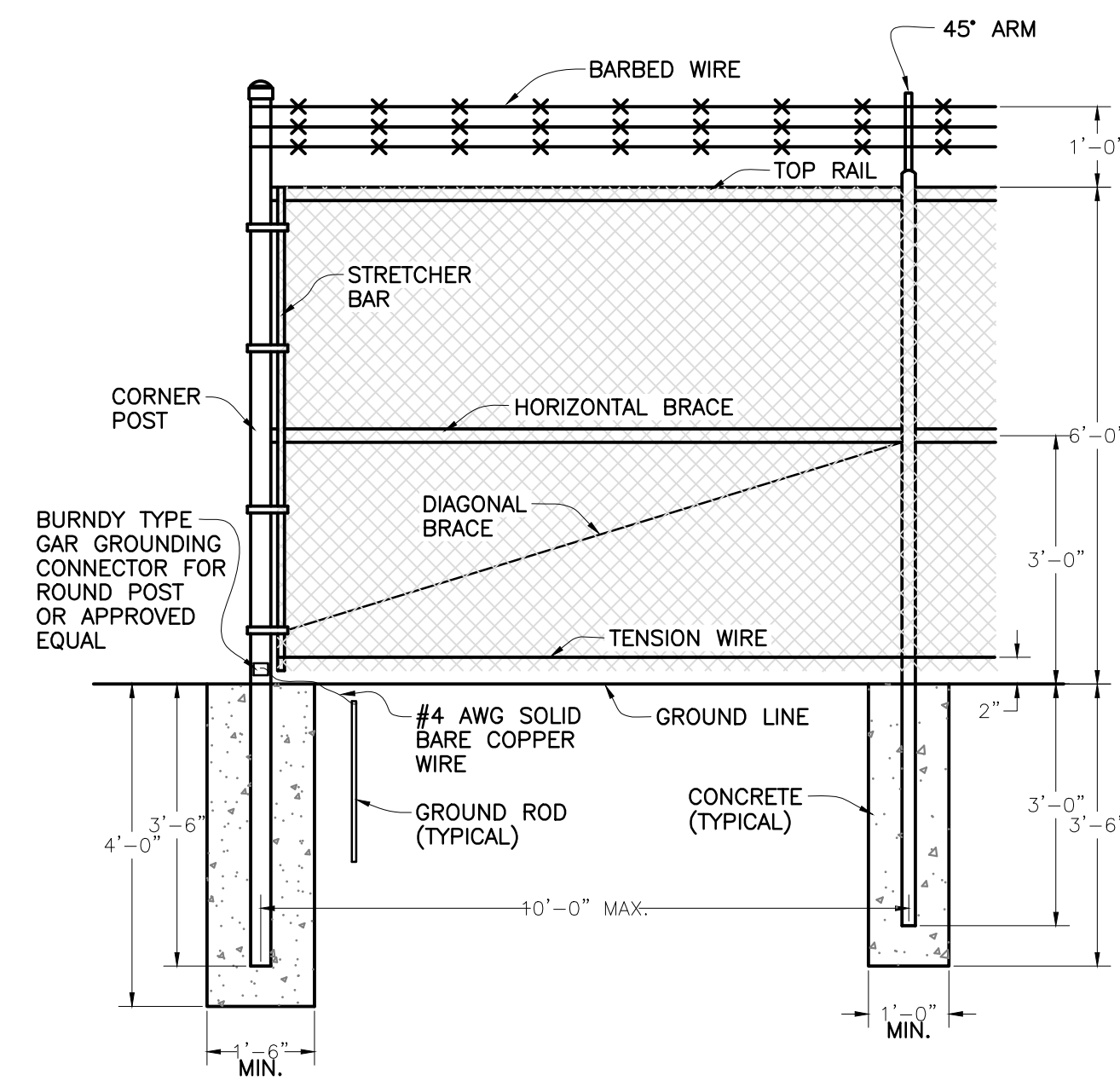
TYPICAL PUMP STATION SITE PLAN

NO.	DATE	REVISIONS	BY

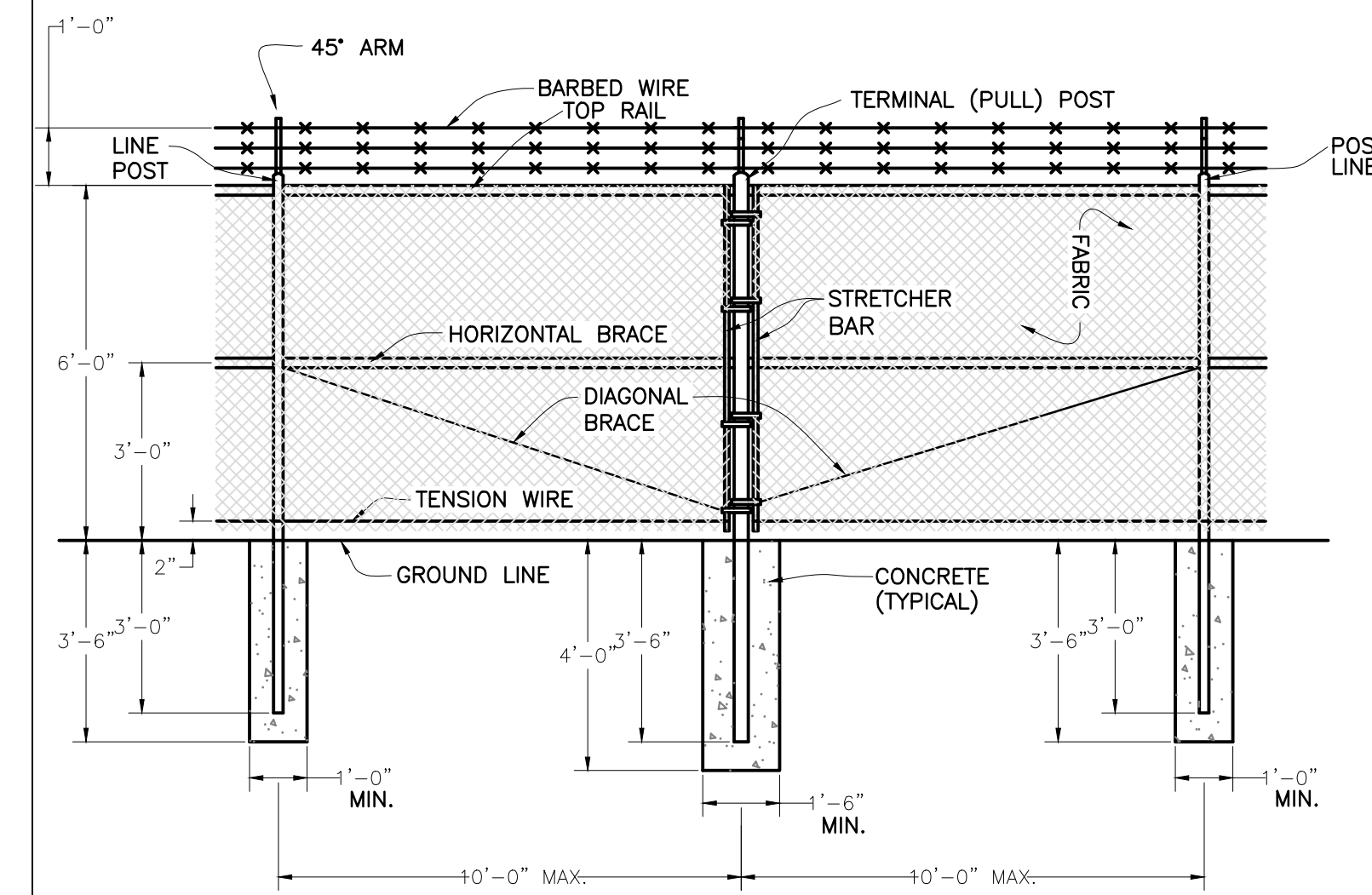
CHECKED BY: KAP DATE: 4/18/16
SCALE: HORIZ. NONE VERT. NONE



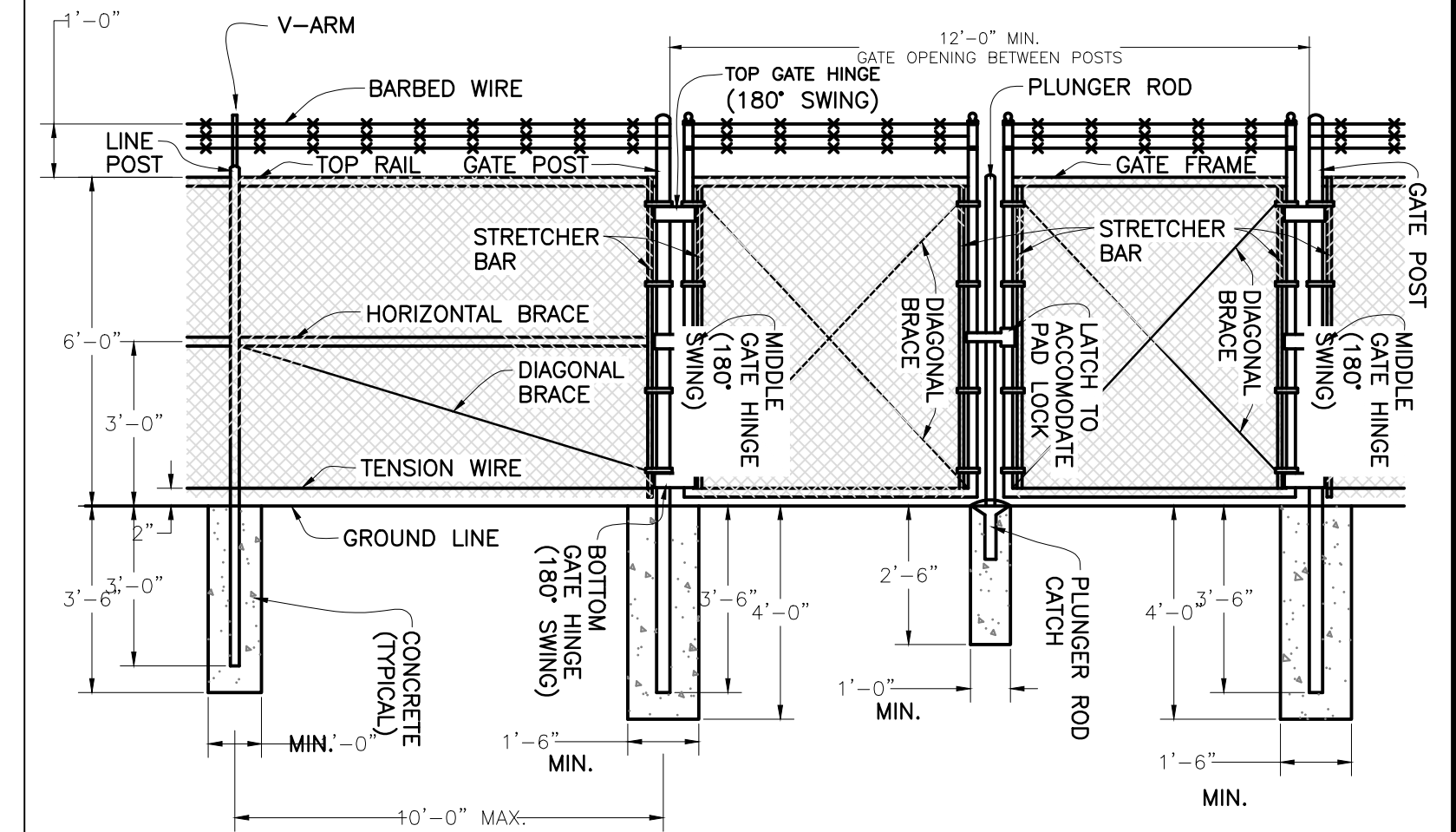
FENCING -
STANDARD LINE POST



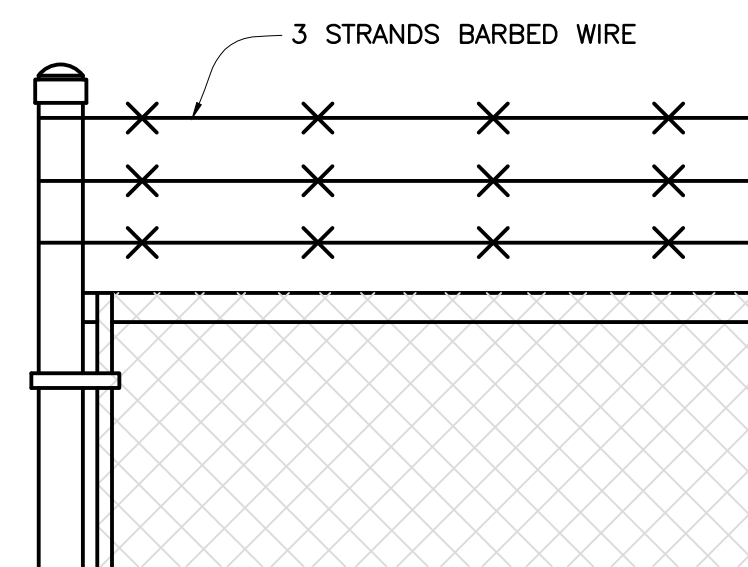
FENCING -
STANDARD CORNER



FENCING -
STANDARD PULL POST



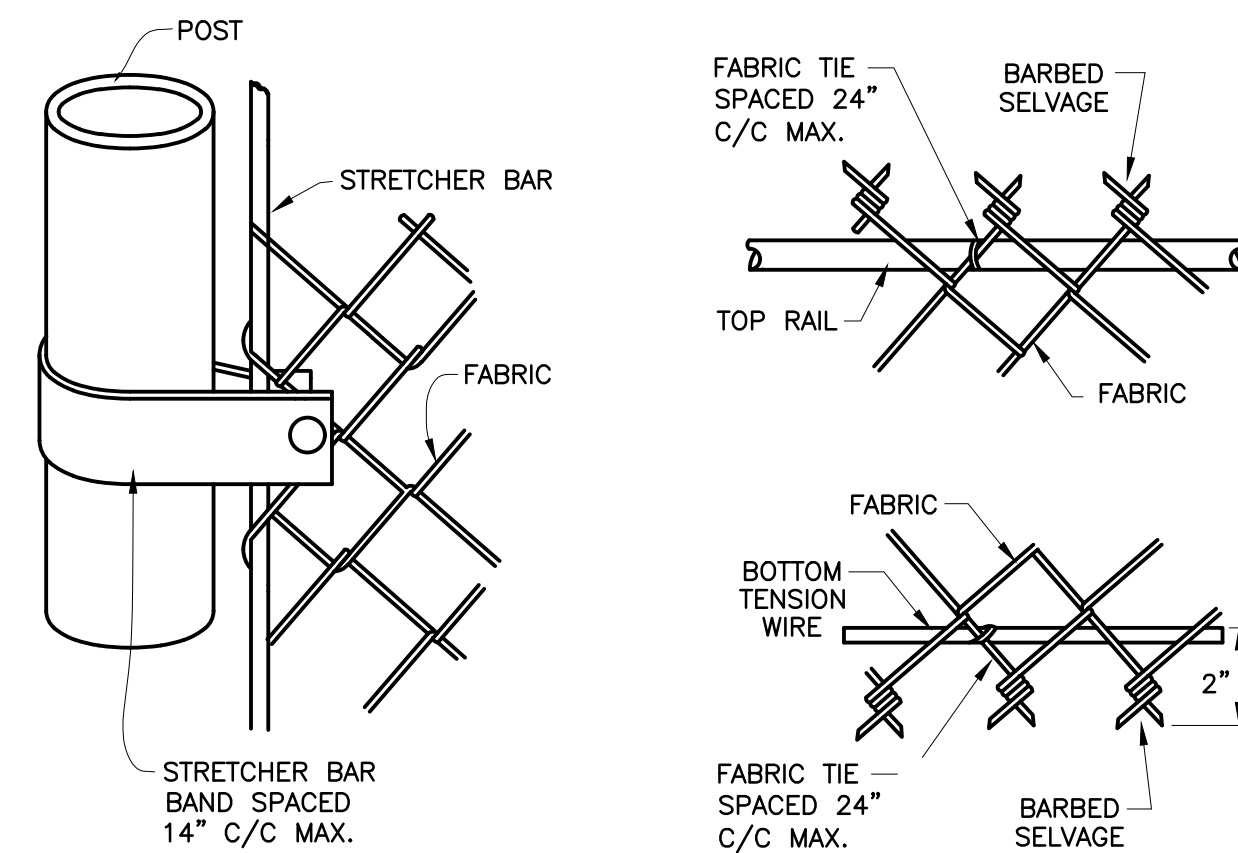
FENCING -
STANDARD GATE



BARBED WIRE - 3 STRANDS, 12 1/2 GAUGE WIRE WITH 14 GAUGE 4 POINT BARBS SPACED APPROXIMATELY 6 INCHES APART. ALL WIRE SHALL BE ALUMINUM COATED WITH A MINIMUM COATING OF 0.25 OUNCES PER SQUARE FOOT OF SURFACE AREA.

BARBED WIRE SHALL BE DIRECTLY ATTACHED TO EACH CORNER AND GATE POST. BARBED WIRE SHALL BE ATTACHED TO EACH LINE POST AND PULL POST WITH A SUPPORTING ARM. SUPPORTING ARM SHALL SLOPE TO THE OUTSIDE OF THE FENCE AT A 45° ANGLE.

FENCING -
BARBED WIRE



METHOD OF FASTENING
STRETCHER BAR TO POST

METHOD OF TYING
FABRIC TO TENSION WIRES

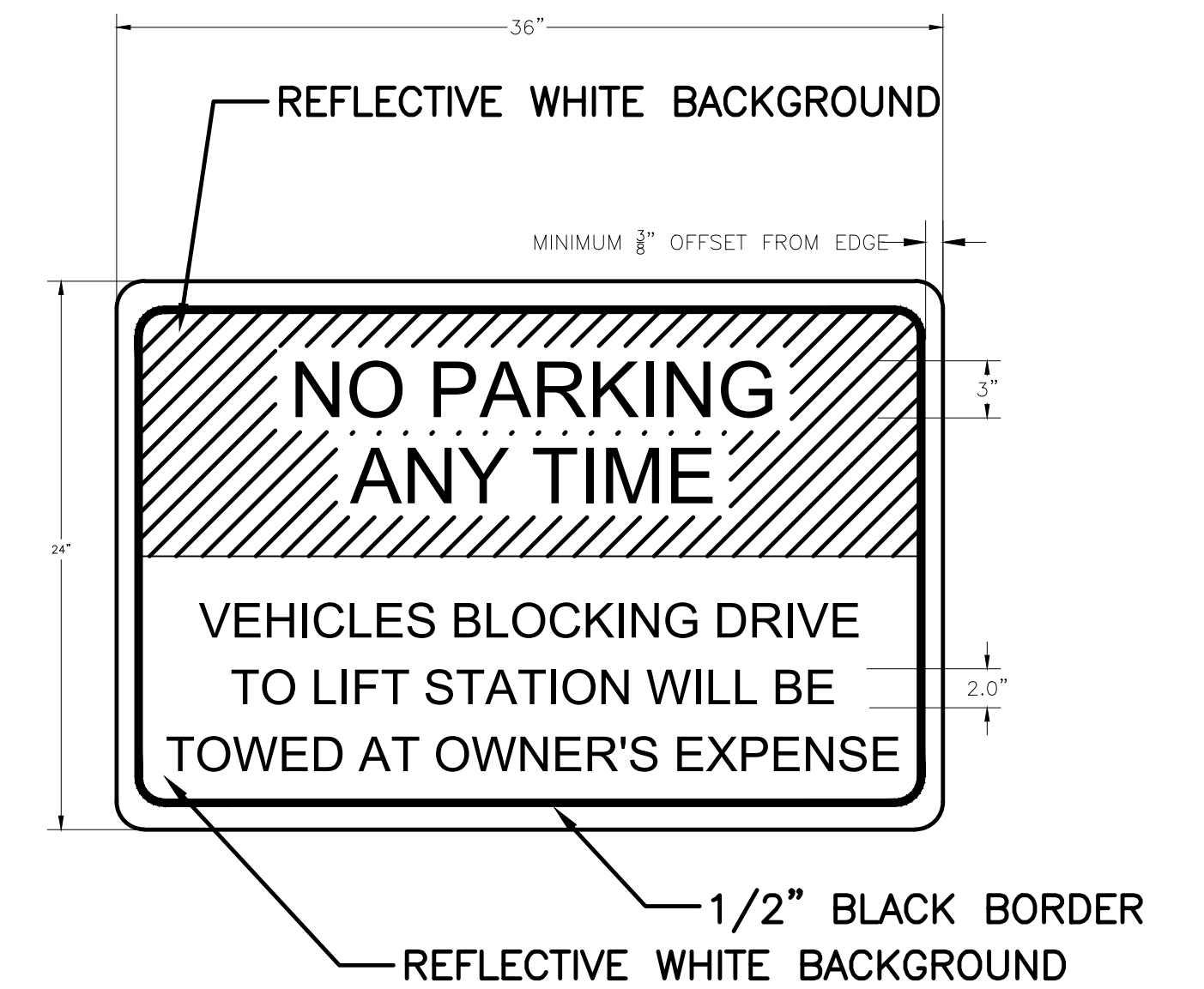
FENCING -
FASTENING & TYING



SIGN DATA:

- BLOCK BLACK LETTERS ON WHITE REFLECTIVE BACKGROUND.
- SIGN PANEL SHALL BE 1/8" THICK ALUMINUM SHEET.
- SIGN SHALL BE FIELD LOCATED ON GATE.

LIFT STATION SIGN



SIGN DATA:

- BLOCK WHITE LETTERS ON REFLECTIVE RED BACKGROUND TOP HALF OF SIGN.
- BLOCK LETTERS ON WHITE REFLECTIVE BACKGROUND BOTTOM HALF OF SIGN.
- SIGN PANEL SHALL BE 1/8" THICK ALUMINUM SHEET.
- SIGN SHALL BE FIELD LOCATED ON GATE.

NO PARKING SIGN

NO.	DATE	REVISIONS	BY

CHECKED BY: KAP
SCALE: HORIZ. NONE
DATE: 4/18/16
VERT. NONE

CITY OF JACKSON
101 COURT STREET, JACKSON, MISSOURI
WASTEWATER DIVISION

CITY OF JACKSON LIFT STATION AND FORCE MAIN STANDARDS

SHEET NUMBER: A3