

**ADDENDUM NO. 2
SEPTEMBER 5, 2025**

**PROJECT: PECOS COUNTY WCID #1
WELLS, PUMP STATION AND GROUND STORAGE TANK IMPROVEMENTS**

BID DATE: SEPTEMBER 25, 2025, AT 1:30 PM

The following changes and/or additions shall be made to the Plans, Specifications, and Contract Documents for the above referenced project. Bidder shall acknowledge receipt of this Addendum by signing below and returning this Addendum with the Bid.

1) GENERAL

For contractors interested in viewing project sites, Pecos County WCID #1 personnel will be providing a tour on September 10 at 10:30 AM. Contractors shall meet at the Pecos County WCID #1 office located at 4375 FM 1053, Fort Stockton, TX 79735.

2) PLAN SHEETS

Sheet 19 containing “200,000 GROUND STORAGE TANK PLAN” is hereby revised to include a 4” Gate Valve callout.

Sheet 27 is hereby revised to contain a 2” Flush Valve detail.

Turbine Flow Meters shall be in accordance with the latest edition of AWWA Standard C701 and shall be Neptune, Sensus, Badger, or an approved equal. Turbine flow meter is contained on Sheet 11 of the plans. No revisions to Sheet 11 are included.

Wye strainers shall be a one-piece cast body Series 77F-DI-250 Ductile Iron, Flanged, Wye-Pattern Strainers with a wye-pattern, ductile iron body, Class 250 flanged connections, stainless steel screen, bolted and tapped iron retainer cap with graphite gasket, and iron blow-down plug or approved equal. Maximum Pressure (non-shock): 500psi (34.5 bar) at 150°F (66°C) WOG, 250psi (17.2 bar) at 406°F (208°C) WSP. Wye Strainers are contained on Sheets 07, 11, 24 of the plans. No revisions to the plans are included.

Revised Sheets 19 and 27 are attached.

3) SPECIFICATIONS

Stripe coat for the tank interior coating system is shown as Tnemec Series N140 Pota-Pox Plus brushed and scrubbed into weld seams. It is acceptable for the contractor to use Tnemec Series 22 Epoxoline sprayed and back rolled wet on wet with the finish coat for stripe coating. The full coating system must be submitted as required in this specification.

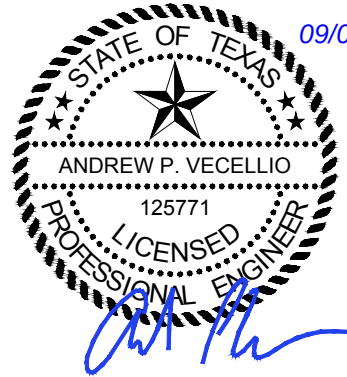
Section 11 05 02 SUBMERSIBLE PUMP: Item 2.1 – H “CHECK VALVE” of the specifications is hereby revised. Revised specification section 11 05 02 is attached.

Bidder's Acknowledgment

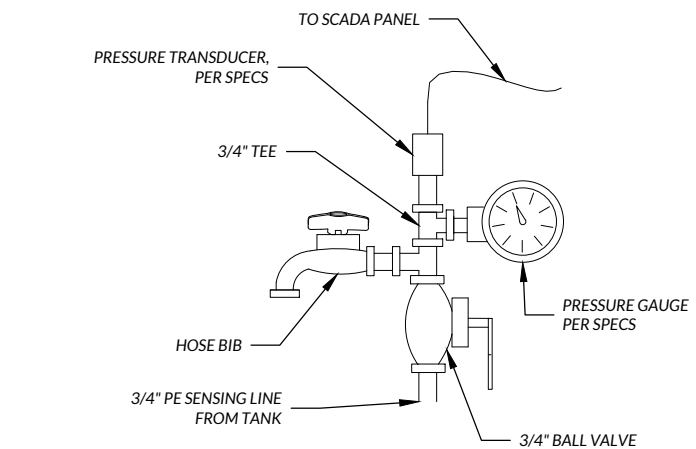
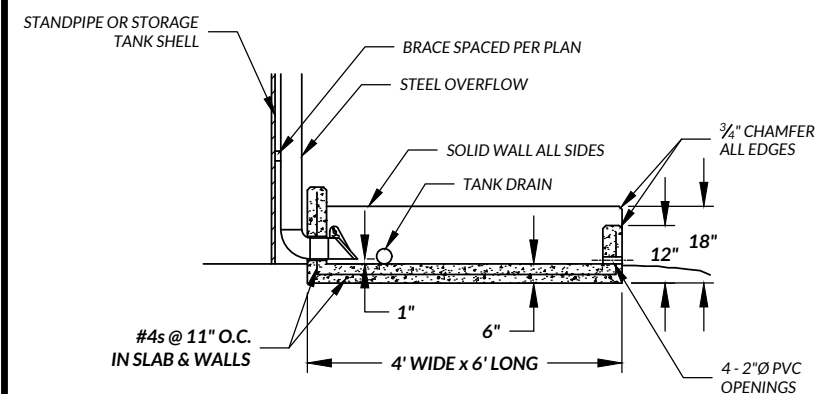
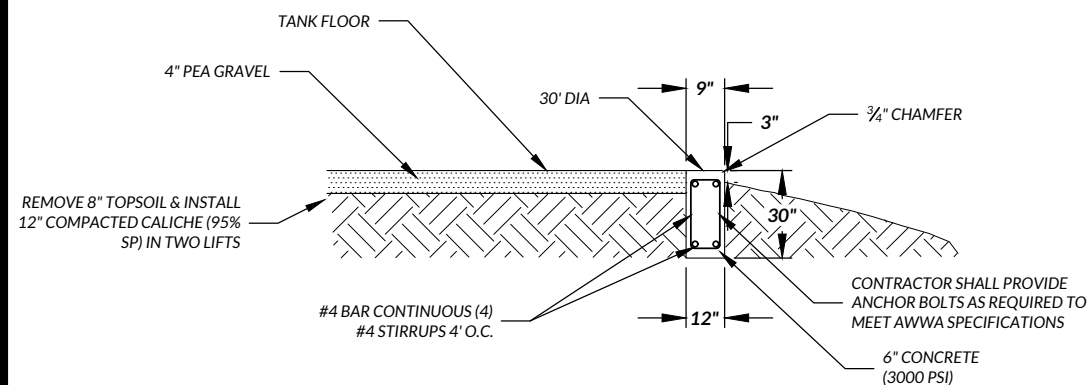
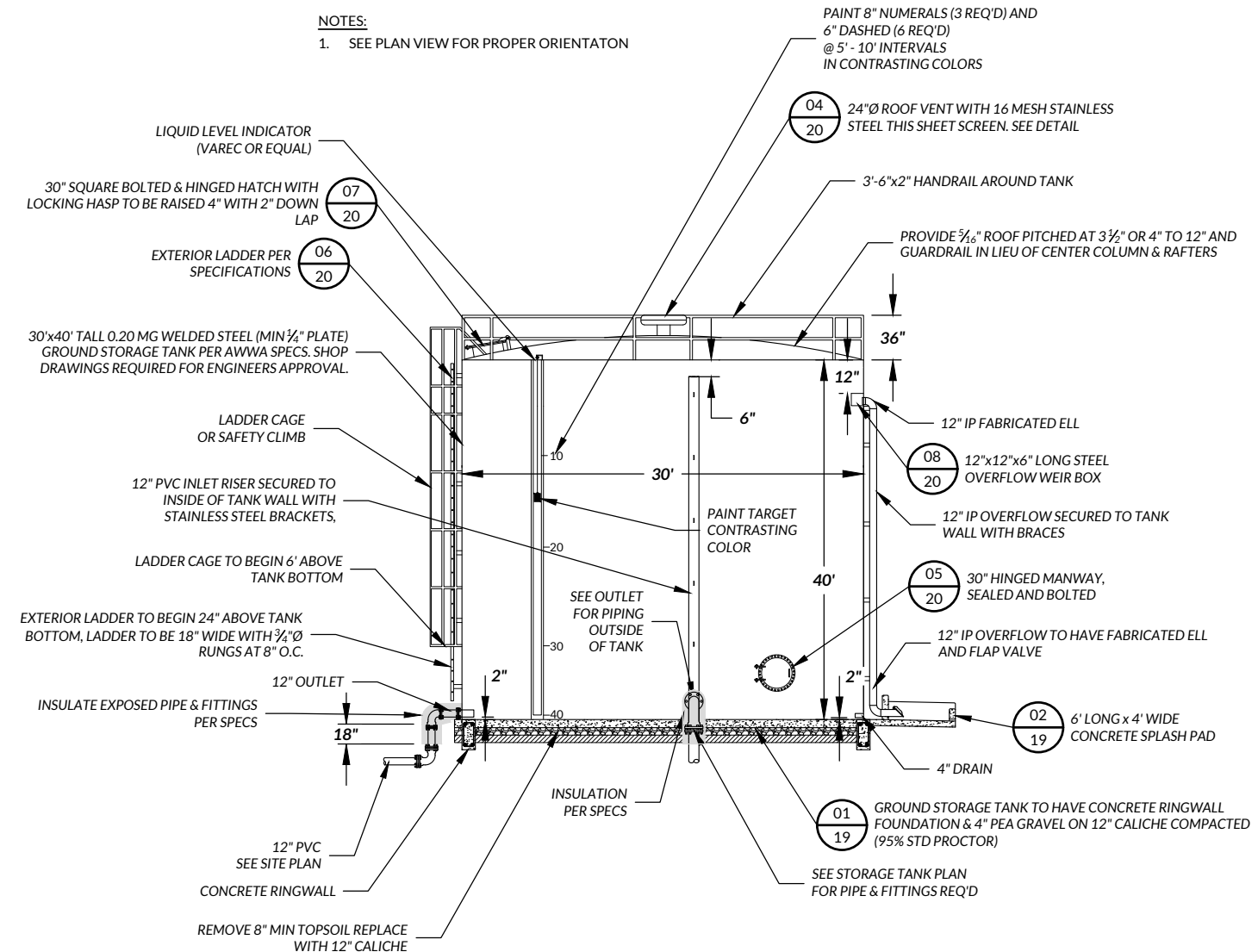
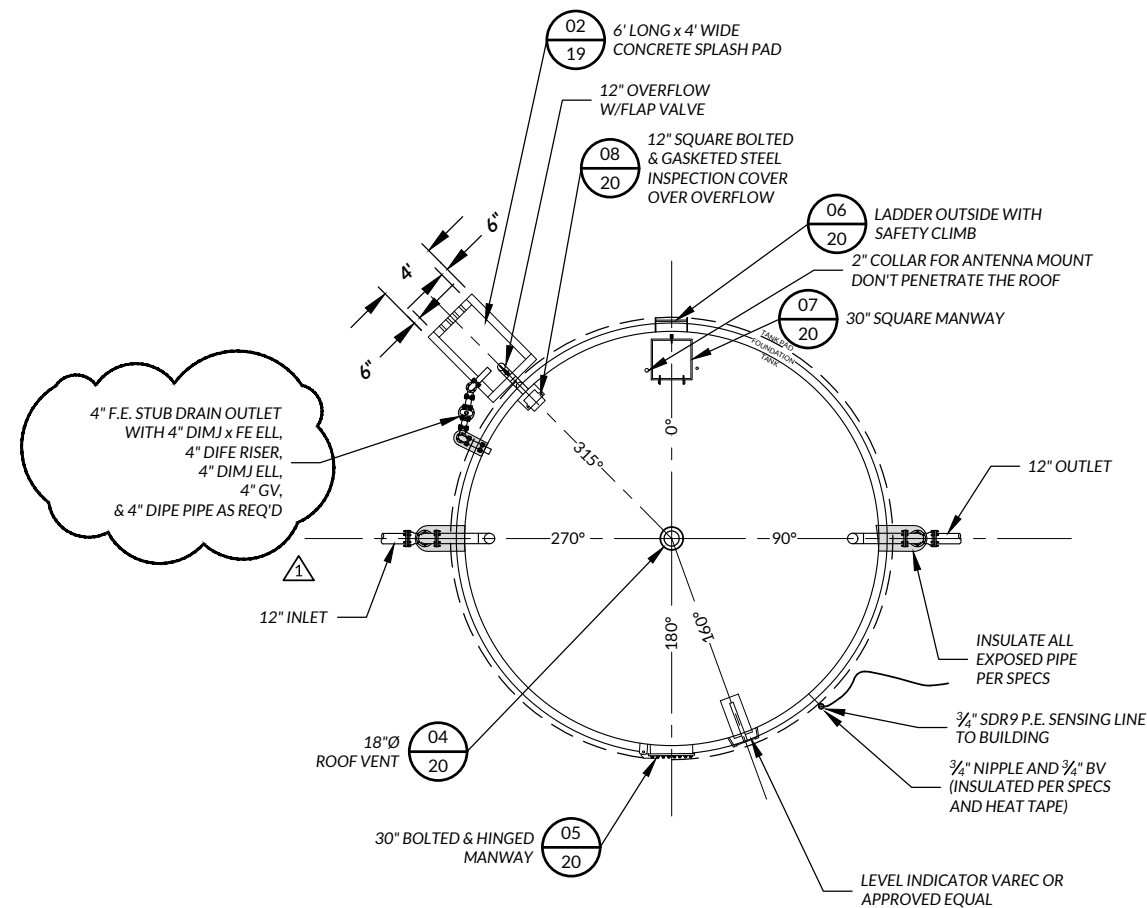
Date

Prepared by:

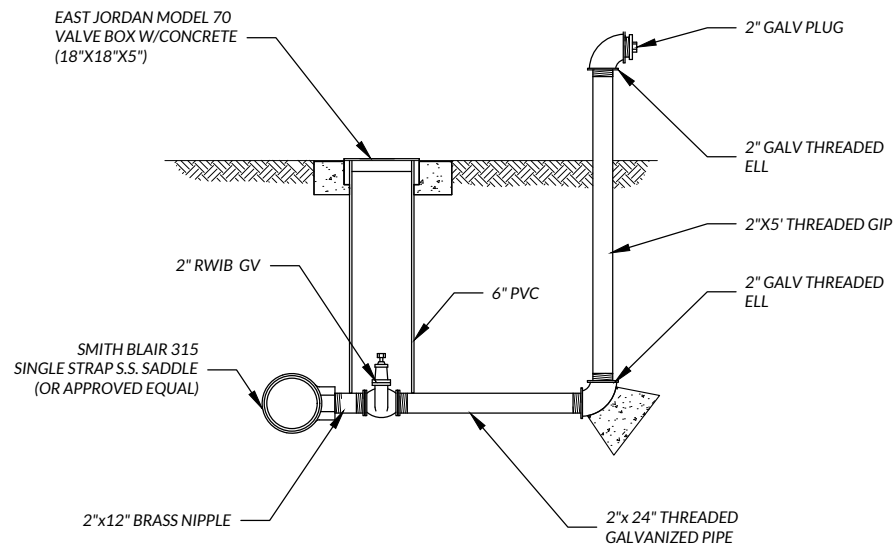
JACOB | MARTIN
TBPE Firm No. 2448



09/05/25



X:\WS_FOWD\19254-Water System Improvements\Drafting\Plans\C-Civil\2 PUMP STATIONS, WELLS & GST\SHEET 27 WATER DETAILS (2).dwg



2" FLUSH VALVE
NTS

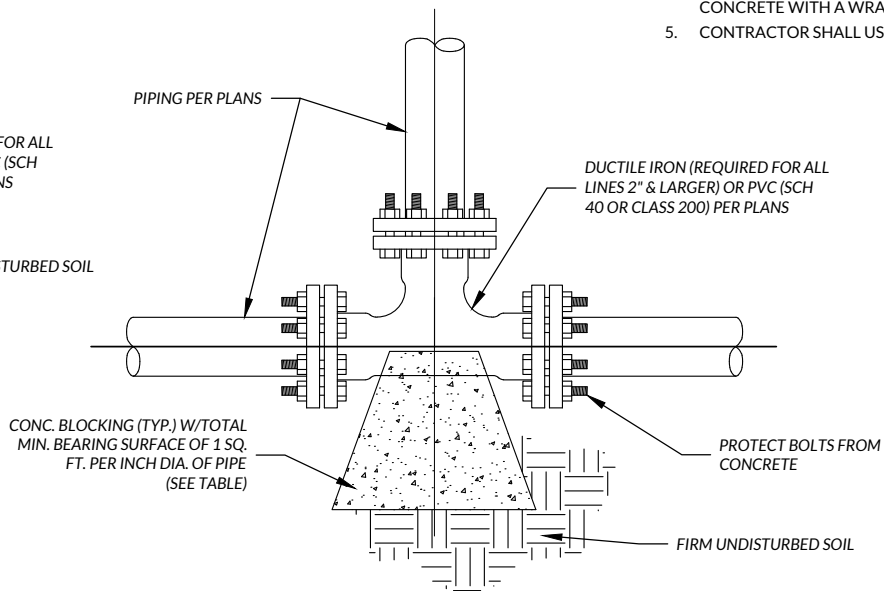
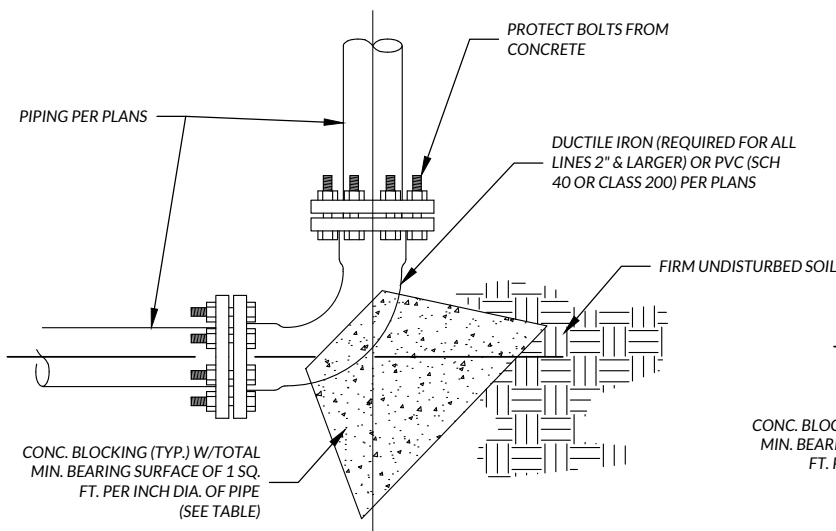
NOTE:
FOR FLUSH VALVES INSTALLED IN TxDOT OR COUNTY ROW, GATE VALVE & RISER SHALL BE EXTENDED TO EDGE OF ROW WITH SDR11 HDPE FROM TAPPING SADDLE TO GATE VALVE.

NOTE:
MEGALUGS SHALL BE USED ON FIRE HYDRANT TEE, GATE VALVE, FIRE HYDRANT & ALL FITTINGS, EXCEPT AS NOTED.

NOTE:
PROVIDE VALVE OPERATOR EXTENSIONS FOR ALL VALVES DEEPER THAN 4'.

NOTES:

1. BLOCKING REQ'D. ON ALL FITTINGS 2" & LARGER.
2. ALL REQUIRED BENDS & FITTINGS MAY NOT BE LABELED ON THE PLANS.
3. PIPE MAY BE CURVED UP TO 75% OF MANUFACTURER'S RECOMMENDED MAXIMUM CURVATURE WITHOUT A BEND AS APPROVED BY OWNER & ENGINEER.
4. ALL DUCTILE IRON FITTINGS AND VALVES TO BE PROTECTED FROM CONCRETE WITH A WRAPPING OF 8 MIL POLYETHYLENE PER SPECS.
5. CONTRACTOR SHALL USE MEGA LUG RESTRAINTS FOR ALL FITTINGS.



TYPICAL BLOCKING DETAILS
NTS

DIMENSIONS FOR CONCRETE THRUST BLOCKS			
PIPE DIA. SIZE (INCHES)	MINIMUM SOIL BEARING AREA REQUIRED (SQUARE FEET)	TYPICAL DIMENSIONS OF BEARING AREA IN INCHES (A X B)	TYPICAL VOLUME OF CONC. REQUIRED (CUBIC FEET) *
2	2.0	12" x 24"	3.0
2 1/2	2.5	15" x 24"	4.0
3	3.0	16" x 27"	4.5
4	4.0	18" x 32"	6.0
6	6.0	24" x 36"	9.0
8	8.0	29" x 40"	12.0
10	10.0	30" x 48"	15.0
12	12.0	36" x 48"	18.0
14	14.0	36" x 56"	21.0
16	16.0	39" x 59"	24.0
18	18.0	42" x 62"	27.0

* VARIES CONSIDERABLY W/DISTANCE BETWEEN PIPE AND BEARING POINT



ISSUED FOR REVIEW



PECOS COUNTY WCID #1
WELLS, PUMP STATION, AND GROUND
STORAGE TANK IMPROVEMENTS

WATER DETAILS (2)

NO.	REVISION	DATE	PROJECT #	SCALE	AS SHOWN
1	SEE ADDENDUM 2	09/05/2025	19254	SCALE	AS SHOWN
DATE			BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. CHECK SCALE AND ADJUST ACCORDINGLY.		
SEQ.	SHEET		27		
27	48		27		

SUBMERSIBLE PUMP

SECTION 11 05 02 - SUBMERSIBLE PUMP

PART 1 GENERAL

1.1 GENERAL

The CONTRACTOR shall furnish, completely installed, including connection to the motor starter, five (5) vertical turbine submersible pumps at five separate well sites and shall meet the requirements herein or as shown on the drawings or approved equal. Concrete foundations, piping beyond the pump discharge, and wiring beyond the motor starter will be provided by others.

1.2 INFORMATION REQUIRED IN THE PROPOSAL

- A. Data Sheet completely filled in.
- B. Performance curve showing accepted performance at design point. Curve will show head, capacity, efficiency, and horsepower based on bowl performance and shall cover the complete operation range of the pump from zero capacity to the maximum capacity.
- C. Drawings of the proposed equipment giving general dimensions sufficient to determine how the equipment is to be supported and if it will fit within the space available.
- D. Any additional information such as descriptive literature, manufacturer's specifications, and other data to demonstrate compliance with these specifications.

PART 2 PRODUCTS

2.1 DETAILED REQUIREMENTS

- A. PUMP BOWLS
Intermediate bowls and discharge bowls shall be of cast iron enameled, free of foundry imperfection, and other detrimental defects. Bowls may be either flanged or threaded type.
- B. IMPELLERS
The impellers shall be of aluminum bronze of the enclosed type and statically balanced. They shall be securely fastened to the impeller shaft with tapered split collets.
- C. IMPELLER SHAFT
Impeller shaft shall be of 416 stainless steel. Shaft shall be of ample size for the horsepower required and shall be supported by bronze bearings on each side of each impeller.
- D. SUCTION CASE
Suction case shall be of cast iron and be provided with a bearing to stabilize shaft, insure accurate alignment between pump shaft and motor shaft and to avoid radial thrust on motor bearing. Suction case shall also incorporate suction screen having minimum open area of 4 times the eye area of the impeller. Flange for connection of the motor must provide accurate rabbet fit to insure positive alignment of pump and motor.
- E. DROP PIPE
Pipe size shall be such that friction loss shall not exceed 5' per 100' of drop pipe and velocity shall not be less than 3.5 ft./sec. based on rated capacity of the pump. The pipe may be furnished in random lengths of approximately 20' per length. Pipe shall be coupled with threaded sleeve type couplings. Pipe and couplings must be 3/4 NPT type threads.
- F. SURFACE PLATE
The surface discharge assembly shall be of fabricated steel. It shall be of ample strength to support the motor, bowl assembly, drop pipe, cable, and column of water. The surface discharge plate shall incorporate suitable watertight openings to accommodate the cable, well vent connection, and water level measuring device. Cable entry shall terminate in watertight

SUBMERSIBLE PUMP

conduit box located approximately 12" above the top of the surface plate. Discharge shall be provided with a flanged elbow.

G. CABLE

The cable shall consist of three or more separate conductors (or) a single jacketed three conductor cable assembly. Each conductor shall be insulated with synthetic rubber or plastic suitable for continuous immersion in the liquid being pumped. The cable must be protected by a suitable shield or guard when it passes the bowl section to prevent damage in installation or operation. Cable size shall be such that voltage drop will not exceed 5% under rated operating conditions.

H. CHECK VALVE

When total head exceeds 200', a drop pipe check valve is to be used and installed approximately 20' above bowl section.

I. MOTOR

The motor shall be designed for operation, completely submerged. The motor shall not be loaded in excess of 115% of name plate rating under any operating condition.

Motor will operate on 3-phase, 60-cycle, 460-volt electric current and shall be suitable for operation with this power supply. Motor thrust bearing rating must be ample to carry the thrust load imposed by the pump when operating under the maximum anticipated pumping head. With the motor in the "shaft up" position, direction of thrust shall be downward. Motor thrust bearing must be capable of operating with rotation in either direction, and thrust capacity, when operated in reverse rotation, shall not be less than 75% of rated thrust capacity.

An expansion chamber diaphragm shall be provided to relieve thermal expansion of internal motor fluid due to temperature variation and shall provide motor internal and external pressure balance under all conditions of temperature and pressure.

Shaft shall be Type 416 stainless steel or equivalent corrosion resistant material. Outer shell shall be of material to resist corrosion.

2.2 PERFORMANCE

Each of the pumping units shall meet the following conditions:

A. Well No. 12 Pump

Quantity	1
Minimum Horsepower (HP) (Total)	150
Grundfos Pump Model	1100S1250
Design Point #1 Capacity, GPM	1000
Design Point #1 Head (TDH), Feet	370
Design Point #1 Efficiency, Percent	79%
Minimum Shutoff Head, Feet	550
Stages	3
Bowl Diameter, Inch	7.56
Pump Column and Discharge Pipe Size, Inch	8

B. Well No. 13 Pump

Quantity	1
Minimum Horsepower (HP) (Total)	150
Grundfos Pump Model	1100S1250
Design Point #1 Capacity, GPM	1100
Design Point #1 Head (TDH), Feet	370

SUBMERSIBLE PUMP

Design Point #1 Efficiency, Percent	80%
Minimum Shutoff Head, Feet	550
Stages	3
Bowl Diameter, Inch	7.56
Pump Column and Discharge Pipe Size, Inch	8

C. Well No. 15 Pump

Quantity	1
Minimum Horsepower (HP) (Total)	60
Grundfos Pump Model	625S600-3A
Design Point #1 Capacity, GPM	650
Design Point #1 Head (TDH), Feet	245
Design Point #1 Efficiency, Percent	74.9%
Minimum Shutoff Head, Feet	350
Stages	3
Bowl Diameter, Inch	8.31
Pump Column and Discharge Pipe Size, Inch	6

D. Well No. 7.1 Pump

Quantity	1
Minimum Horsepower (HP) (Total)	25
Grundfos Pump Model	230S200-6
Design Point #1 Capacity, GPM	250
Design Point #1 Head (TDH), Feet	245
Design Point #1 Efficiency, Percent	73.1%
Minimum Shutoff Head, Feet	380
Stages	6
Bowl Diameter, Inch	5.83
Pump Column and Discharge Pipe Size, Inch	4

E. Well No. 7.2 Pump

Quantity	1
Minimum Horsepower (HP) (Total)	40
Grundfos Pump Model	300S400-9
Design Point #1 Capacity, GPM	250
Design Point #1 Head (TDH), Feet	413
Design Point #1 Efficiency, Percent	73.0%
Minimum Shutoff Head, Feet	620
Stages	6
Bowl Diameter, Inch	5.83
Pump Column and Discharge Pipe Size, Inch	4

PART 3 EXECUTION

3.1 NOT USED

-- END OF SECTION --