

ISSUE DATE NOVEMBER 1st, 2011

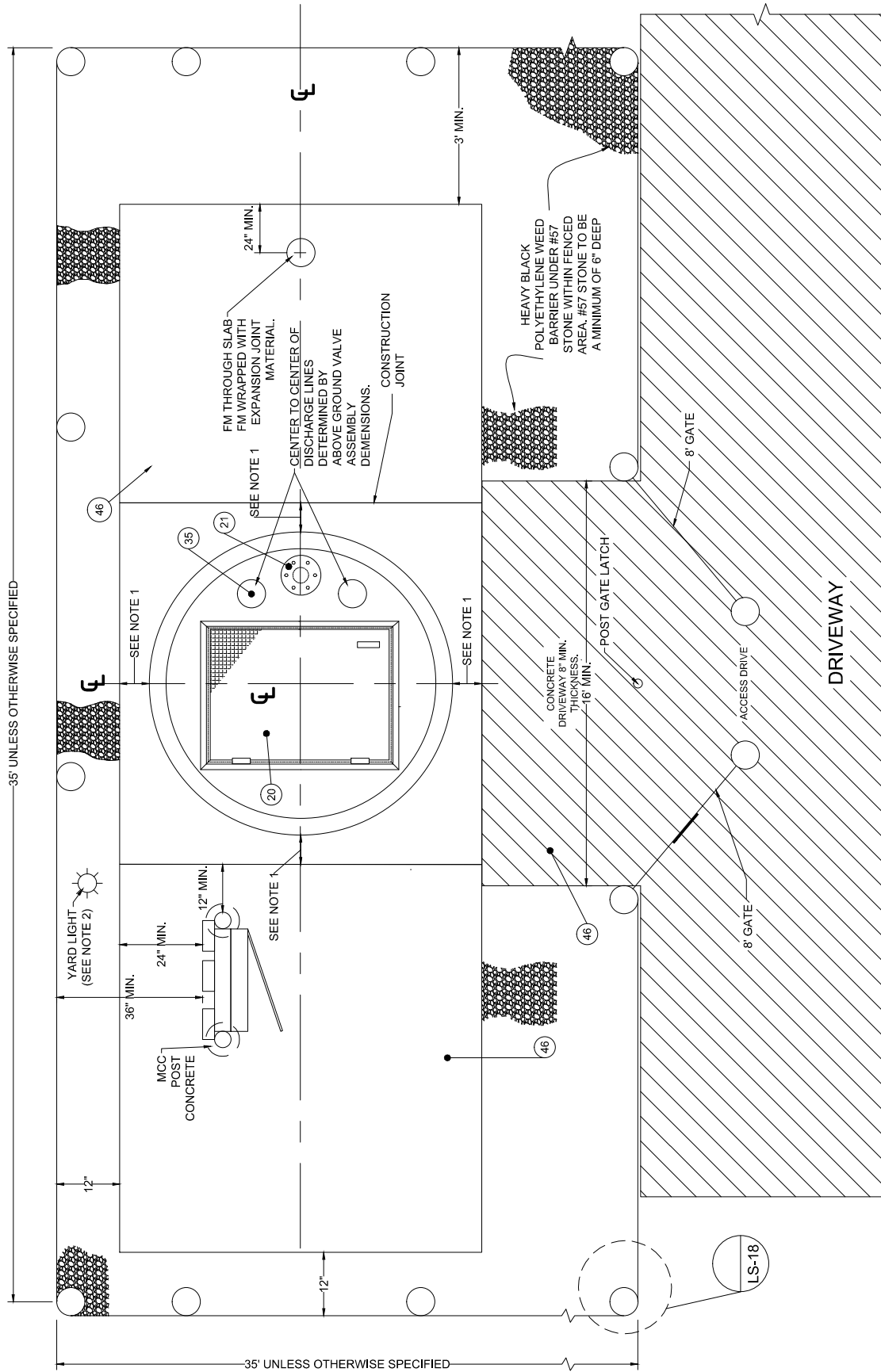


SECTION 4 LIFT STATIONS

(Revised 8-29-24)

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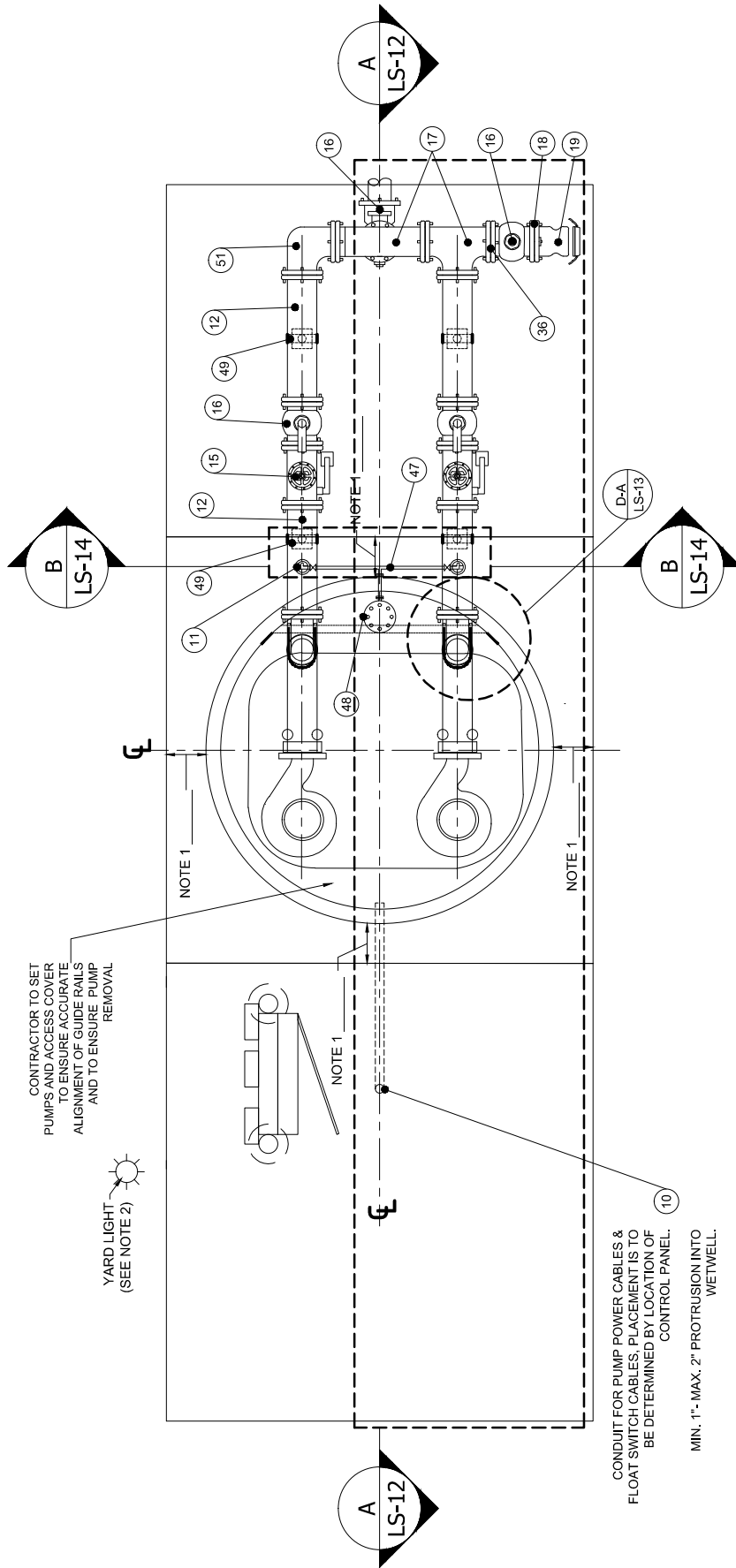
- NOTES:**
1. DISTANCE (12" MINIMUM) BASED ON WETWELL OUTSIDE DIAMETER.
 2. YARD LIGHT AND CONDUIT TO BE INSTALLED AS SHOWN ON ENGINEERING DRAWINGS.



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**SITE PLAN-ABOVE GROUND
VALVE- LIFT STATION
CHARLOTTE COUNTY UTILITIES**

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LS-10
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- NOTES:**
1. DISTANCE (12" MINIMUM) BASED ON WET WELL OUTSIDE DIAMETER.
 2. YARD LIGHT AND CONDUIT TO BE INSTALLED AS SHOWN ON ENGINEERING DRAWINGS.

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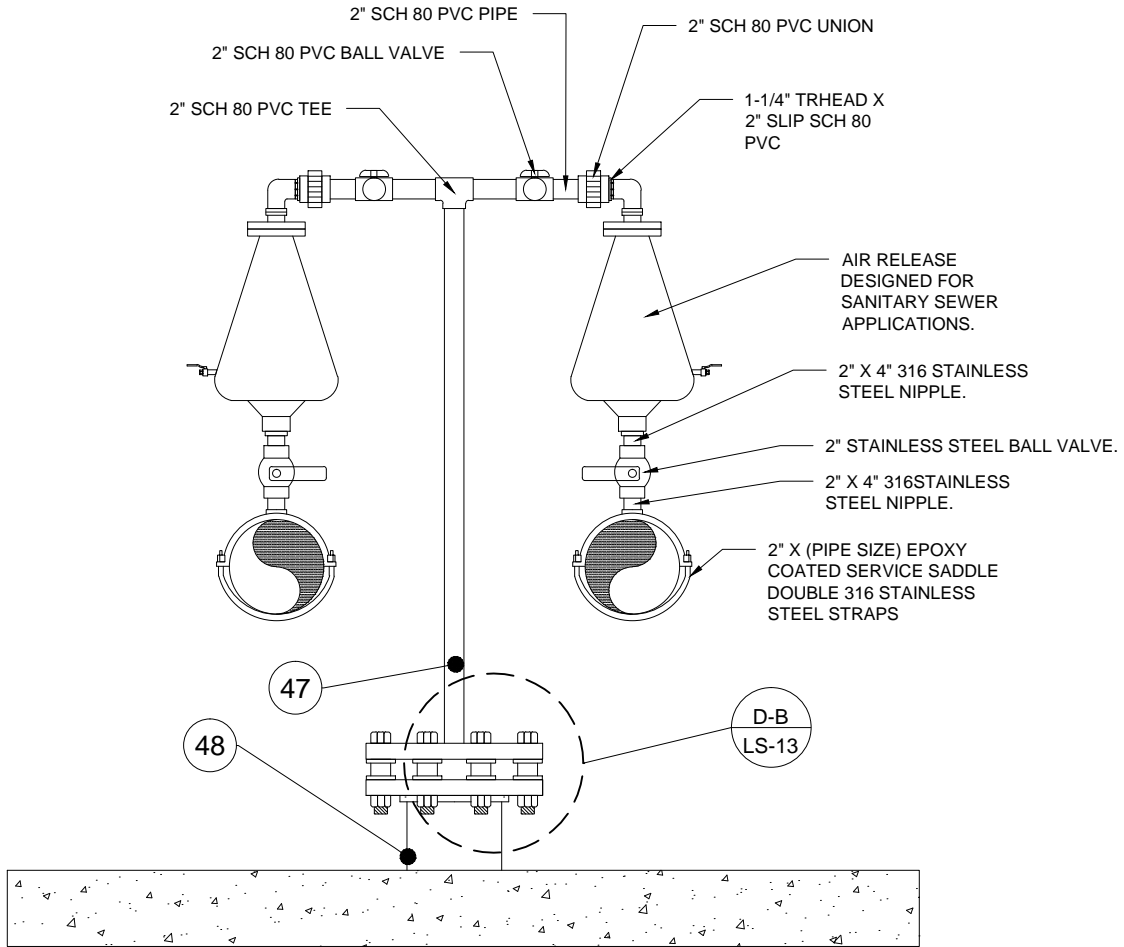
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**PIPING PLAN-ABOVE GROUND
VALVES- STANDARD LIFT STATION
CHARLOTTE COUNTY UTILITIES**

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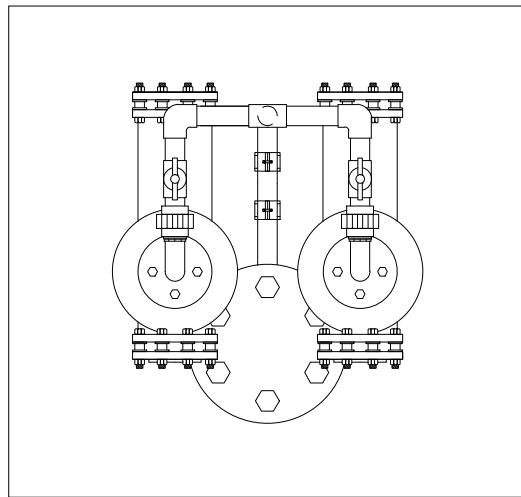
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8" AND LARGER

SECTION B-B



4" AND 6" PIPING

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SECTION B-B / ABOVE GROUND VALVES- STANDARD LIFT STATION

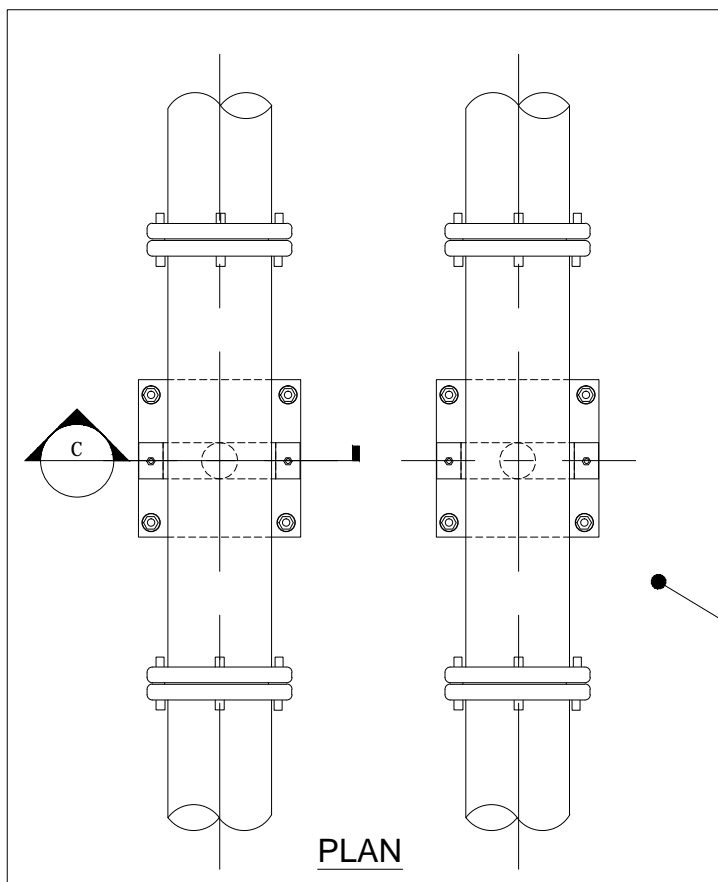
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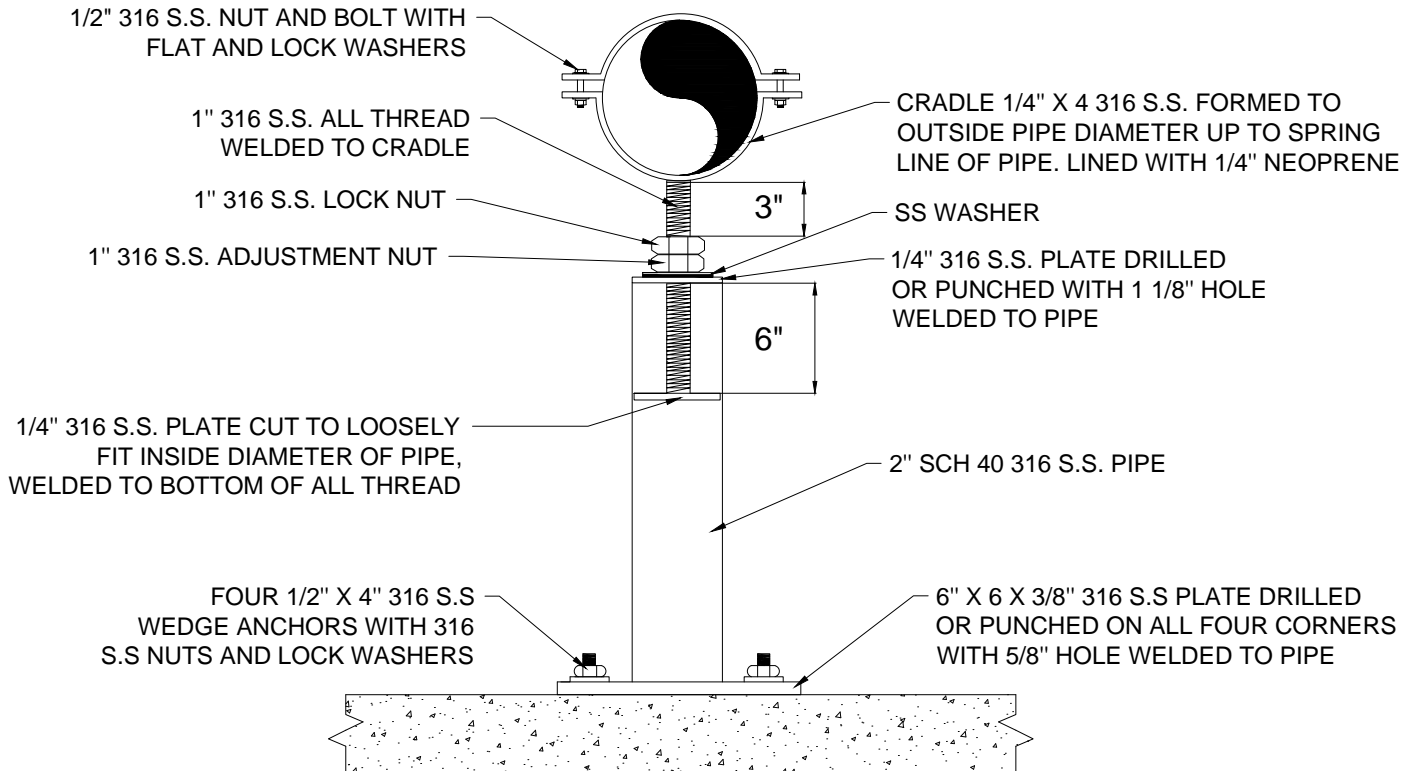
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NOTE:
 MAXIMUM HEIGHT FROM BOTTOM
 OF PIPE TO TOP OF SLAB 24"

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**DISCHARGE PIPE SUPPORT DETAIL
 ABOVE GROUND VALVES
 STANDARD LIFT STATION
 CHARLOTTE COUNTY UTILITIES**

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LS-15
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DRAWING LEGEND

1. CENTRIFUGAL NON-CLOG SUBMERSIBLE PUMP - TYPE _____, MODEL NO. _____, IMPELLER NO. _____, _____ VOLTS, H.P., _____ GPM @ _____ TDH, (2 REQUIRED).
2. CCU APPROVED MANUFACTURER COMPATIBLE _____" STANDARD DISCHARGE CONNECTION (2 REQ'D). ADJUST FOR PUMP TO WETWELL BOTTOM CLEARANCE AS REQUIRED BY PUMP MANUFACTURER WITH 4000 PSI TYPE II CONCRETE.
3. _____" DIAMETER SCH 40 WELDED STAINLESS STEEL PIPE TYPE 316, MUST BE WITHIN 1/4" TOLERANCE OF FITTING INTO GUIDE RAIL BRACKETS AS PER MFG. (4 REQUIRED)
4. _____" CLASS 53 D.I. EPOXY LINED PIPE, PLAIN END BY FLANGE END. (AS NEEDED)
5. PUMP POWER CABLE (2 REQUIRED).
6. PUMP LIFTING CHAIN (2 REQUIRED).
7. LIQUID LEVEL SENSOR, EACH SENSOR CABLE SHALL BE CONTINUOUS (NO SPLICES) AND A MINIMUM OF 40 FEET IN LENGTH (5 REQUIRED).
8. LIQUID LEVEL SENSOR CABLE HOLDER TYPE 316SS WITH PUMP LIFTING CABLE RING. FURNISH WITH NOT LESS THAN 6 PRONGS.
9. _____" D.I.P.S. SDR 11 HDPE 90 DEGREE ELBOW WITH FUSED FLANGE W/ STAINLESS STEEL BACK UP RING AT SPOOL PIECE.
10. 2" CONDUIT FOR CABLES (3 REQUIRED). FROM TOP OF SWEEP TO MCC TO BE 316 STAINLESS STEEL & FROM TOP OF SWEEP TO INSIDE OF WET WELL TO BE PVC SCH. 80. END AT WET WELL TO BE SEALED WITH DUXSEAL. CLAMP CONDUIT TO BOTTOM STRUT OF MCC. (SEE SECTION A-A OF WET WELL DETAIL.)
11. 2" FLANGED AUTOMATIC AIR-RELEASE VALVE D-020, MANUFACTURED BY A.R.I. ON LINE OR APPROVED EQUAL. WITH _____" EPOXY COATED STAINLESS STEEL STRAP SADDLE.
12. _____" x 24" LONG FLANGE BY FLANGE DI PIPE.
13. _____" HDPE FUSION COUPLER (IF NEEDED)
14. _____"x _____" MJ REDUCER (IF NEEDED)
15. _____" MUELLER-A-2602-6-01-E193 OR M&H "QUIET CLOSING SWING CHECK" WITH WEIGHT AND LEVER.
16. _____" PLUG VALVE (3 REQ'D).
17. _____" DI TEE.
18. _____" x _____" D.I. COMPANION FLANGE.
19. 6" COUPLER.
20. ACCESS COVER. INSTALLED PER MFG. ACTUAL HATCH SIZE TO ACCOMMODATE PUMPS (MIN. 36x48)
21. STATION VENT - (SEE DETAIL "B" SHEET LS-13).
22. _____" PVC 90° ELBOW RESTRAINED.
23. #5 REBAR AT 12" ON CENTER EACH WAY.
24. WRAP
25. UPPER GUIDE RAIL BRACKETS (2 REQUIRED)
26. FOR GUIDE RAILS OVER 15 FT INSTALL INTERMEDIATE GUIDE RAIL BRACKETS (2 REQUIRED) (SEE DETAIL "A" SHEET LS-13)
27. 1" CONDUIT FOR CABLE FROM TOP OF SWEEP TO MCC, TO BE 316 SS; FROM TOP OF SWEEP TO BOTTOM OF SLAB TO BE SCH. 80 TO YARD LIGHT

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LEGEND ONE
ABOVE GROUND VALVES
STANDARD LIFT STATION
CHARLOTTE COUNTY UTILITIES

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LS-16

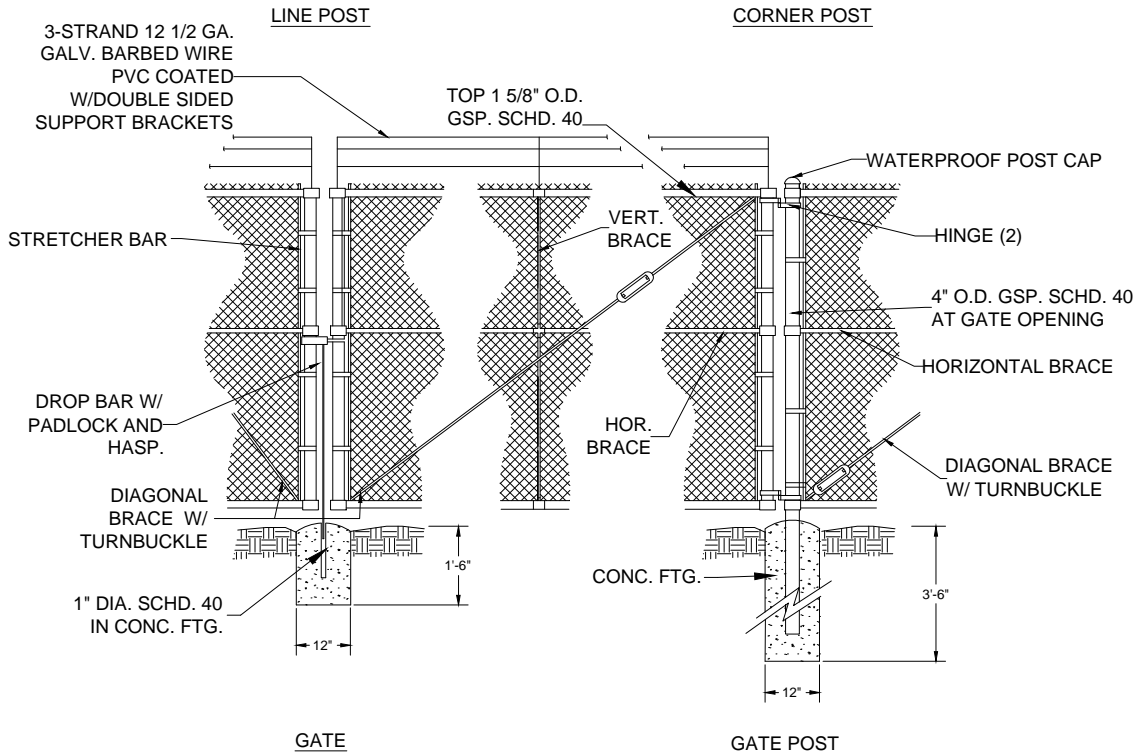
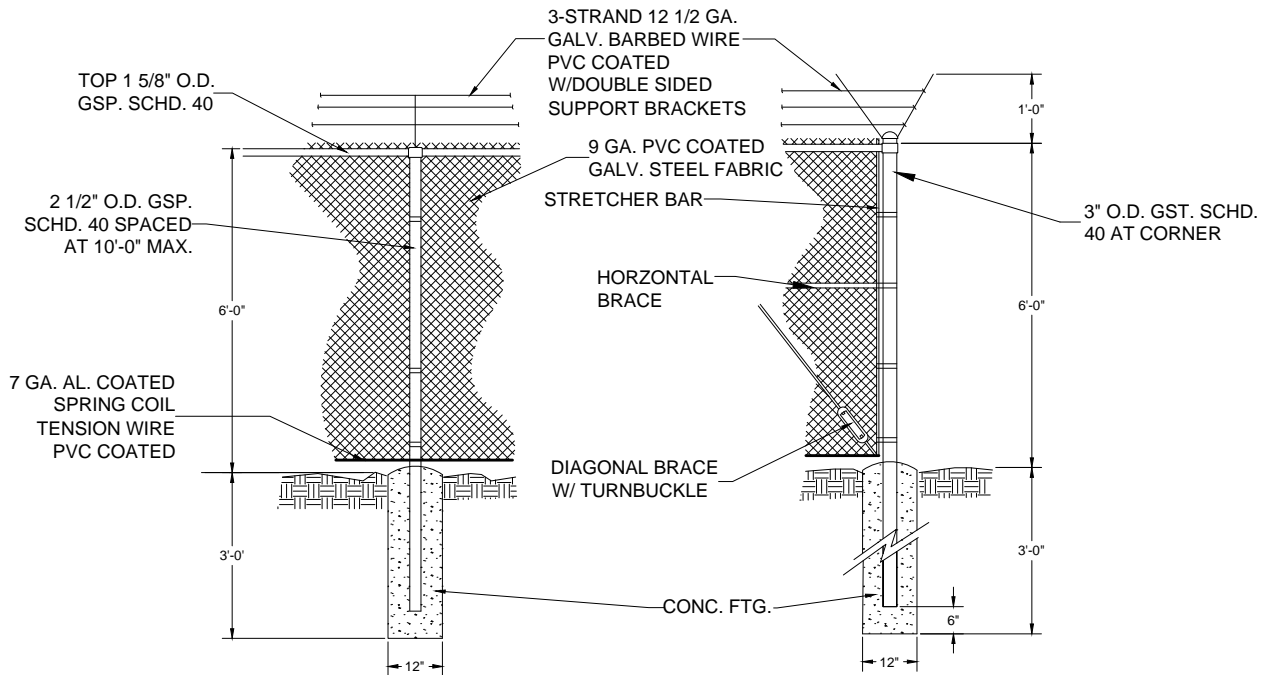
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DRAWING LEGEND CONTINUED

- 28. ANCHOR BOLTS 4 PER PUMP
- 29. _____ " CLASS 53 DI EPOXY LINED SOLID SLEEVE - RESTRAINED JOINT.
- 30. TONGUE AND GROOVE JOINT WITH SEAL.
- 31. PROVIDE 12 INCHES OF COMPACTED CRUSHED STONE OR PEA GRAVEL LEVELING COURSE. COMPACT TO STABILIZE. WET WELL SHALL BE PLACED ON UNDISTURBED SUB-BASE OR 100% COMPACTED CLEAN FILL.
- 32. ELASTOMERIC GASKET BOOT.
- 33. _____ " 316 STAINLESS STEEL INSERT
- 34. _____ " HDPE DIPS SDR-11 FUSED 90° ELBOW
- 35. "LINK SEAL" MODEL S-316 FOR D.I.P.S. / CAST OR CORE BIT DRILLED HOLE, TYPE WALL SLEEVE PIPE SUPPORTS W/ S.S. BOLTS (2).
- 36. ALL GASKETS SHALL BE 1/8" THICK SBR AS MANUFACTURED BY: U.S. PIPE "FLANGE - TYPE" OR AMERICAN CAST IRON PIPE "TORUSEAL".
- 37. _____ " MJ GATE VALVE .
- 38. 1-5/8"x 1-5/8" SLOTTED 12 GAUGE CHANNEL STRUT . TO BE PLACED AT 6' INTERVALS ON PIPE LONGER THAN 10 FEET (SEE DETAIL "A" SHEET LS-13). IF LESS THAN 10 FEET, PLACE AT MIDPOINT OF PIPE.
- 39. _____ " x _____ " D.I. FLANGED REDUCER (IF REQUIRED)
- 40. _____ " D.I.P.S. SDR 11 HDPE WITH FUSED FLANGE W/ STAINLESS STEEL BACK UP RING, (USE BENDS AS NECESSARY)
- 41. NOT USED
- 42. 5/8" x 6" 316 S.S. RED HEAD WITH WASHER AND NUT. (2 REQUIRED) (SEE DETAIL "A" SHEET LS-13)
- 43. PRECAST CONCRETE WET WELL TOP, WITH BROOM FINISH.
- 44. PRECAST CONCRETE WET WELL AND BASE.
- 45. WET WELL LINING
- 46. 8" MINIMUM POURED IN PLACE CONCRETE SLAB EVEN WITH WET WELL TOP AND TO HAVE A BROOM FINISH.
- 47. 1" OR 2" (MATCH A.R.V. DISCHARGE) PVC SCH. 80. DISCHARGE LINE FROM A.R.V.'s, WITH FITTINGS. (FROM A.R.V.'S TO TOP OF WET WELL SLAB)
- 48. CAST PVC SCH 80 A.R.V. PIPE INTO PROPOSED SLAB, EXTEND 2" BELOW BOTTOM OF EXISTING SLAB. PROTECT FROM PLUGGING DURING LINER APPLICATION.
- 49. STAINLESS STEEL SUPPORT CRADLE (SEE DETAIL SHEET LS-14) (4 REQUIRED)
- 50. _____ " x 90° EPOXY LINED MJ BEND. (RESTRAINED JOINT AND THRUST BLOCK AS REQUIRED) (2 REQUIRED)
- 51. _____ " x 90° EPOXY LINED DI FLANGED BEND

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DATE: 11/01/2011	<p>LEGEND TWO</p> <p>ABOVE GROUND VALVES</p> <p>STANDARD LIFT STATION</p> <p>CHARLOTTE COUNTY UTILITIES</p>	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
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NOTES:

1. DOUBLE GATE TO BE 16'-0" CLEAR OPENING OR AS SPECIFIED.
2. PVC COATED GALVANIZED STEEL WOVEN WIRE FABRIC TO BE STRETCHED TAUT W/STRETCHER BARS AND STRAPS AND FASTENED TOP & BOTTOM AND AT POSTS WITH GALV. PVC COATED PIG RING TIES. AS TO COMPLY WITH ASTM-392, CLASS II.
3. EACH GATE TO BE SECURED OPEN WITH A GATE STOP SET IN CONCRETE.
4. ALL HARDWARE, PIPE AND ACCESSORIES TO COMPLY TO ASTM 1-120,123,153 AND TO BE PVC COATED AND MATCH IN COLOR.
5. COLOR OF FENCING, POSTS, HARDWARE AND BARBED WIRE SHALL BE PVC COATED BLACK. UNLESS APPROVED BY CCU.

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**SECURITY FENCE-ABOVE GROUND
VALVES- STANDARD LIFT STATION
CHARLOTTE COUNTY UTILITIES**

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LS-18

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