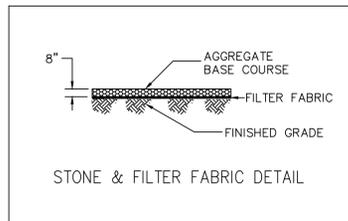


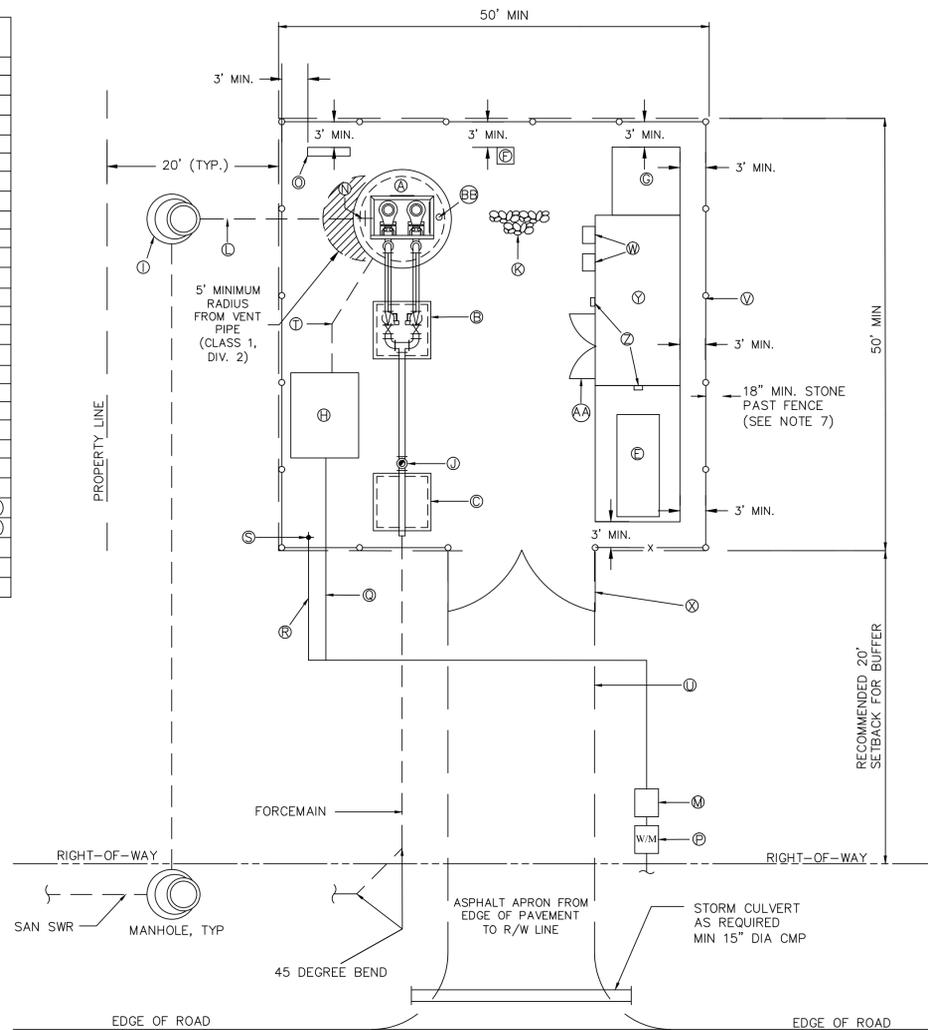
| PUMP STATION COMPONENTS | |
|-------------------------|---|
| A | WET WELL |
| B | VALVE VAULT - 6'x6'x6' MIN. (SEE NOTE 12) |
| C | METERING VAULT - 6'x6'x6' MIN. (SEE NOTE 14) |
| D | CONTROL PANEL (SEE DETAIL SHEET 3) |
| E | GENERATOR PAD AND STANDBY GENERATOR |
| F | AREA LIGHT ON POLE |
| G | ANTENNA PAD (SEE NOTE 11) |
| H | ODOR CONTROL UNIT AND PAD (SEE NOTE 15) |
| I | 5' RECEIVING MANHOLE |
| J | EMERGENCY PUMP OUT |
| K | 8" ABC (SEE DETAIL THIS SHEET) |
| L | INFLUENT SANITARY SEWER LINE |
| M | APPROVED BACKFLOW PREVENTION DEVICE |
| N | 6" VENT |
| O | JUNCTION BOX RACK ASSEMBLY (SEE DETAIL) |
| P | 3" IRRIGATION METER |
| Q | 1" WATER SERVICE TO ODOR CONTROL UNIT |
| R | 1" WATER SERVICE TO YARD HYDRANT |
| S | 4" FREEZE-PROOF YARD HYDRANT WITH 2" REDUCER |
| T | VENT PIPE TO ODOR CONTROL UNIT (SEE NOTE 15) |
| U | 16" ALL-WEATHER GRAVEL DRIVE |
| V | CHAIN LINK FENCE (SEE DETAIL) |
| W | PUMP DISCONNECTS |
| X | DOUBLE SWING GATES 2 @ 7', TOTAL 14' (SEE INSET) |
| Y | ELECTRICAL BUILDING 220 SF (BUILDING PERMIT REQ.) |
| Z | WALL MOUNTED LIGHTS |
| AA | 3' DOUBLE DOORS (OPEN OUTWARD) |
| BB | ULTRASONIC LEVEL TRANSDUCER WELL |



| | REQUIRED | NOT REQUIRED |
|-------------------|----------|--------------|
| ODOR CONTROL UNIT | | |
| METERING VAULT | | |

NOTE FOR ALL PUMP STATIONS:

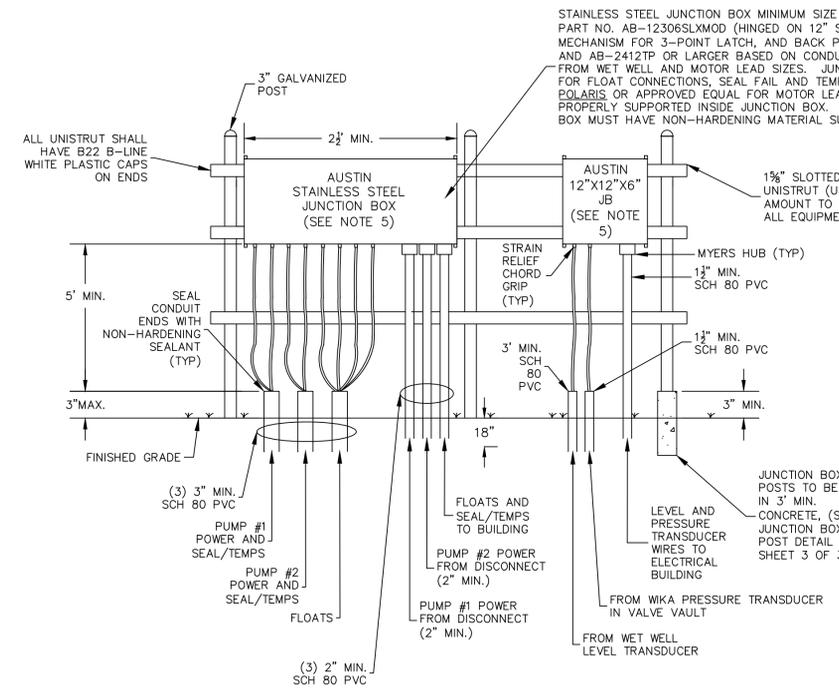
THE ODOR CONTROL SLAB, VENT PIPING FROM WETWELL, WATER SERVICE, AND ELECTRICAL CONDUIT FROM BUILDING IS REQUIRED EVEN IF THE ODOR CONTROL UNIT IS NOT.



PUMP STATION SITE DETAIL
LARGER THAN 50 HP PUMP STATION

NOTES:

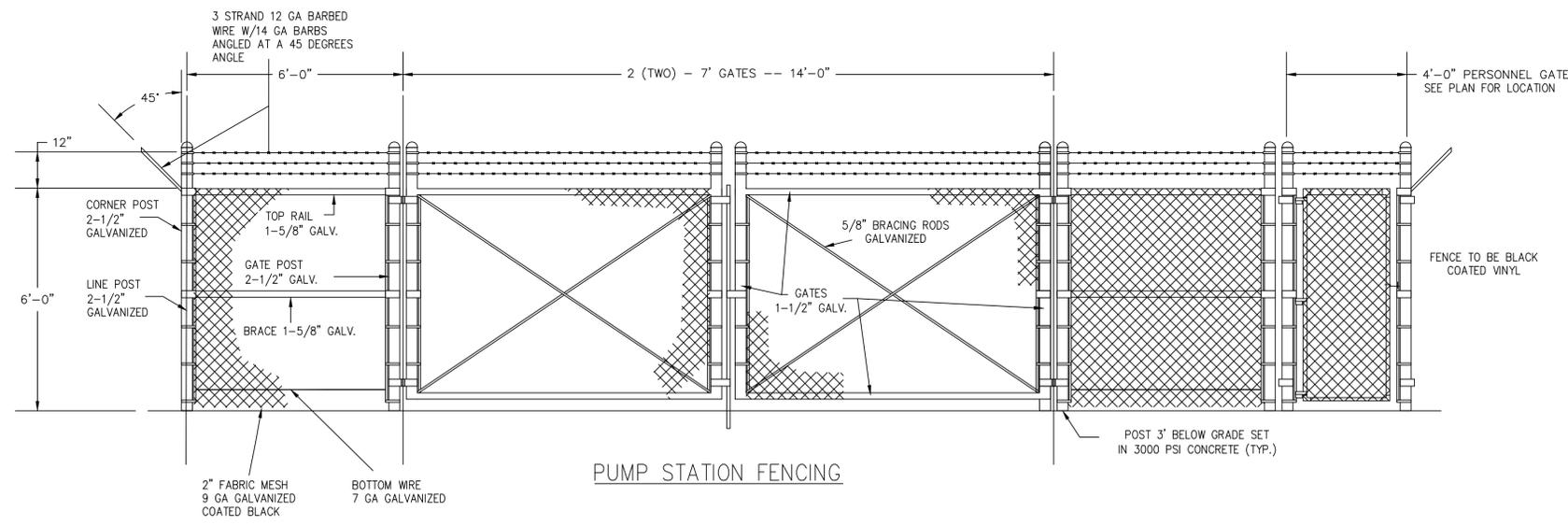
- WET WELL INTERIOR TO RECEIVE MIN 120 MILS RAVEN 405 HIGH SOLIDS EPOXY OR APPROVED EQUAL.
- WET WELL VENT OUTLET TO HAVE ODORHOG CHARCOAL FILTER OR APPROVED EQUAL.
- THE PUMP STATION SITE SHALL BE A MINIMUM OF 50 FEET BY 50 FEET. THE PLAN HEREIN SHOWS A RECOMMENDED 20 FOOT BUFFER FROM THE PROPERTY LINE TO THE FENCED AREA. SEE APPLICABLE JURISDICTION'S ZONING ORDINANCE FOR REQUIRED BUFFERS.
- THE PUMP STATION SITE SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE WET WELL. NO STORM DRAINAGE SHALL ENTER PUMP STATION SITE.
- THE ACCESS ROAD SHALL BE #57 STONE AT A MINIMUM 8" THICK. THE ROAD SHALL BE A MINIMUM OF 16' WIDE.
- THE ACCESS ROAD AND ENTIRE AREA WITHIN PUMP STATION FENCE SHALL BE A MINIMUM OF 2 FEET ABOVE THE 100 YEAR WATER SURFACE ELEVATION. THE PUMP STATION SHALL HAVE STONE EXTENDING 18" PAST THE FENCE LINE IN ALL DIRECTIONS.
- WET WELL LEVEL AND ALARMS SHALL BE PRIMARILY CONTROLLED BY AN ULTRASONIC LEVEL TRANSMITTER SYSTEM PER BRUNSWICK COUNTY STANDARD SPECIFICATIONS. IN THE EVENT OF FAILURE OF THE ULTRASONIC LEVEL TRANSMITTER SYSTEM THE WET WELL FLOATS WILL CONTROL THE PUMP STATION. REFER TO BRUNSWICK COUNTY PUMP STATION TECHNICAL SPECIFICATIONS AND SCADA SPECIFICATIONS.
- LOCAL PUMP DISCONNECTS ARE REQUIRED ON THE BUILDING AS SHOWN.
- BUILDING PLANS TO BE SUBMITTED TO BRUNSWICK COUNTY ENGINEERING DEPARTMENT AND BUILDING INSPECTIONS DEPARTMENT FOR REVIEW AND PERMITTING.
- SEE ROHN ANTENNA DETAIL SHEET FOR ANTENNA DETAILS.
- VALVE VAULT MINIMUM SIZE IS 6'x6'x6'. ACTUAL REQUIRED MINIMUM SIZE DEPENDS UPON ACTUAL DISCHARGE PIPING SIZES. ALL PIPING CONNECTIONS INSIDE VALVE VAULT SHALL BE EASILY ACCESSIBLE FOR MAINTENANCE AND REPAIR.
- NUT OPERATED PLUG VALVES IN VAULT MUST BE POSITIONED SO THAT THEY CAN BE OPERATED FROM ABOVE THE VAULT THROUGH THE HATCH WITH A STANDARD VALVE WRENCH.
- IF REQUIRED, METERING VAULT MINIMUM SIZE IS 6'x6'x6'. ACTUAL REQUIRED MINIMUM SIZE DEPENDS UPON ACTUAL DISCHARGE PIPING SIZES. ALL PIPING CONNECTIONS INSIDE VALVE VAULT SHALL BE EASILY ACCESSIBLE FOR MAINTENANCE AND REPAIR. A 4" DRAIN LINE WITH BACK FLOW TO WET WELL SHALL BE REQUIRED.
- PROVIDE A MINIMUM OF 3 (THREE), 10' LONG, 3/4" DIAMETER, COPPER CLAD GROUND RODS SPACED A MINIMUM OF 10' APART, EXOTHERMICALLY WELDED AND BONDED TOGETHER WITH INSPECTION WELLS AT EACH CONNECTION. ONE GROUND ROD AT:
 - A) ANTENNA TOWER
 - B) ELECTRIC METER
 - C) GENERATOR
- IF APPLICABLE, ODOR CONTROL UNIT REQUIREMENTS:
 - A) CONCRETE SLAB - 10'x8'x2'. TO BE INSTALLED SO THAT 12" OF SLAB ARE ABOVE FINISHED GRADE.
 - B) INLET PIPE FROM WET WELL - 8" PVC MINIMUM
 - C) CORE AND BOOT WET WELL FOR 8" PVC VENT PIPE TO ODOR CONTROL UNIT.
 - D) SIEMENS WATER TECHNOLOGIES, ZABOCS MODEL 5000/6000 - CONTACT BRUNSWICK COUNTY PUBLIC UTILITIES FOR DETAILS
 - E) ELECTRICAL POWER TO UNIT IS REQUIRED FROM ELECTRICAL RACK.
 - F) WET WELL VENT IS CAPPED IF ODOR CONTROL UNIT IS UTILIZED
- IF BRUNSWICK COUNTY REQUIRES AN ODOR CONTROL UNIT (SLAB PLACEMENT IS SHOWN), A 2" MIN. SCH. 80 PVC CONDUIT WILL BE REQUIRED FROM THE ELECTRICAL BUILDING TO THE UNIT.
- IF BRUNSWICK COUNTY REQUIRES A FLOW METER (METER VAULT IS SHOWN), A METERING ENCLOSURE WILL BE REQUIRED ON THE ELECTRICAL RACK. A 1" MIN. SCH. 80 PVC CONDUIT FROM THE METER VAULT TO THE METERING ENCLOSURE WILL ALSO BE REQUIRED.
- MINIMUM ELECTRICAL BUILDING SIZE SHALL BE 10'x22', OR 220 SQ FT.
- VARIABLE FREQUENCY DRIVES SHALL BE MOUNTED ON INNER WALL OF BUILDING BACK-TO-BACK OF OUTSIDE-MOUNTED PUMP DISCONNECTS.



ELECTRICAL JUNCTION BOX DETAIL

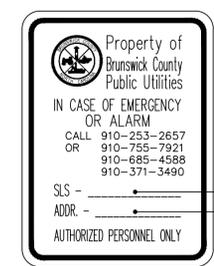
NOTES:

- DISCONNECTS SHALL BE NEMA 4X, STAINLESS STEEL, MANUAL KNIFE BLADE DISCONNECTS.
- SIZE CONDUIT AS REQUIRED.
- ALL PVC CONDUIT STUBS TO BE FILLED WITH NON-HARDENING DUCT SEALANT.
- ALL CONDUITS SHALL BE INSTALLED TO HAVE A MINIMUM 18" COVER.
- JUNCTION BOXES MUST BE A MINIMUM OF 5' HORIZONTAL FROM WET WELL VENT AND A MINIMUM OF 5' ABOVE CONDUIT TERMINATIONS FROM WET WELL AS SHOWN.
- BOTH THE LEVEL TRANSDUCER AND PRESSURE TRANSDUCER CORDS MUST PASS THROUGH THE 12"x12"x6" JUNCTION BOX UNSPLICED FROM WET WELL/VALVE VAULT TO ELECTRICAL BUILDING - NO EXCEPTIONS.
- IF BRUNSWICK COUNTY REQUIRES A FLOW METER, A METERING ENCLOSURE WILL BE REQUIRED ON THE ELECTRICAL RACK. A 1" MIN. SCH. 80 PVC CONDUIT FROM THE METERING VAULT TO THE METERING ENCLOSURE WILL ALSO BE REQUIRED.



PUMP STATION FENCING

BCPU PUMP STATION SIGN SPECIFICATIONS
 MATERIAL: ANODIZED ALUMINUM, #5052, .080 THICK
 SIZE: 18" WIDE X 24" HIGH WITH 1.5" RADIUS ON ALL CORNERS
 BACKGROUND: 3-M ENGINEER GRADE SCOTCHLITE REFLECTIVE FILM
 ALL COPY AND BORDER IS 3-M SCOTCHCAL VINYL FILM, SAPPHIRE BLUE WITH THE EXCEPTION OF THE PHONE NUMBER AND "AUTHORIZED PERSONNEL ONLY" WHICH ARE 3-M SCOTCHCAL, CARDINAL RED. THE ENTIRE SIGN IS OVERLAIN WITH FLEXCON EVL 400 VINYL #V-29, LAMINATED AT 40 PSI. ALL LETTERING IS STANDARD BOLD CONDENSED.



PUMP STATION SIGN

Revisions

| | |
|-----|--|
| 1.1 | - DATED 5/29/2013 |
| | Modified PS Sign |
| 1.2 | - DATED 10/15/2013 |
| | Modified Note 13 |
| 1.3 | - DATED 10/28/2015 |
| | Mod. Note 15 and Item H, and Table and Note for OC and MV Requirement. |
| 1.4 | - DATED 5/02/2016 |
| | Mod. Note 16, panel Note 7 |
| | Chng. stone detail to ABC |



PUMP STATION DETAILS
FOR
BRUNSWICK COUNTY
NORTH CAROLINA

Date: 05-30-12
 Scale: NTS
 Drawn By: JDM
 Checked By: WLP