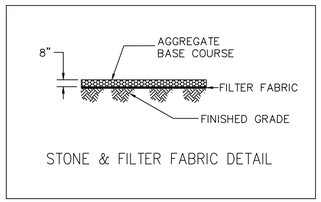
PUMP STATION COMPONENTS	
A	WET WELL
B	VALVE VAULT – 6'X6'X6' MIN. (SEE NOTE 10)
C	METERING VAULT – 6'X6'X6' MIN. (SEE NOTE 12 & 19)
D	CONTROL PANEL (SEE DETAIL SHEET 3)
E	GENERATOR PAD AND STANDBY GENERATOR
F	AREA LIGHT ON POLE
G	ANTENNA PAD (SEE NOTE 9)
H	ODOR CONTROL PAD AND UNIT (SEE NOTE 15 & 18)
I	5' DIAMETER 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	¾" IRRIGATION METER
Q	1" WATER SERVICE TO ODOR CONTROL UNIT
R	1" WATER SERVICE TO YARD HYDRANT
S	1" FREEZE-PROOF YARD HYDRANT
T	VENT PIPE TO ODOR CONTROL UNIT (SEE NOTE 15)
U	16' ALL-WEATHER GRAVEL DRIVE (SEE NOTE 5)
V	CHAIN LINK FENCE (SEE DETAIL)
W	DOUBLE SWING GATES 2 @ 7', TOTAL OPENING 14' (SEE DETAIL)

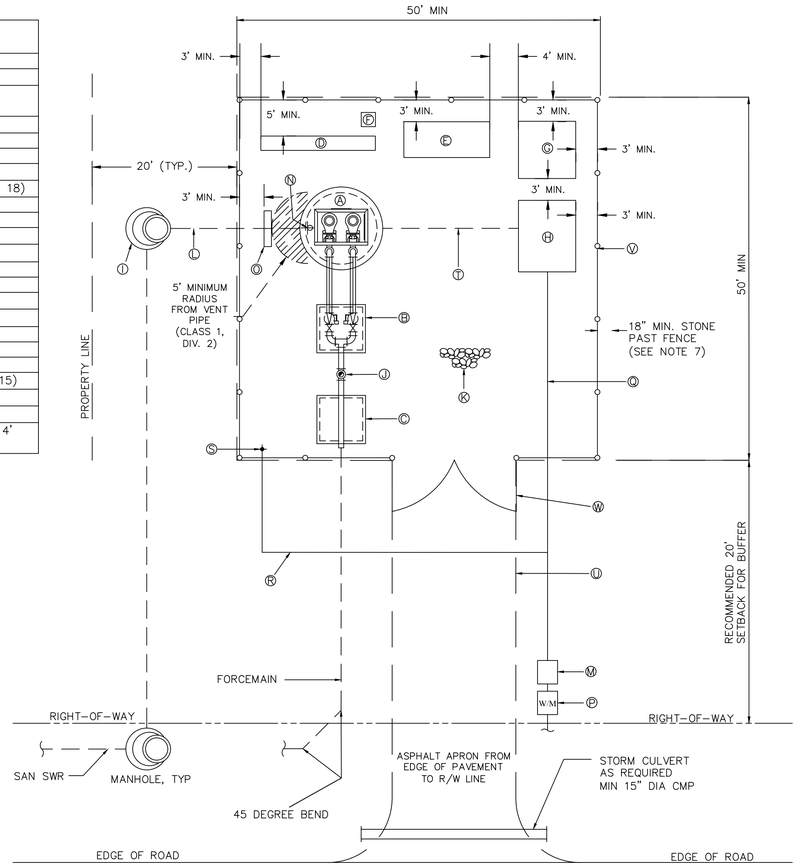


STONE & FILTER FABRIC DETAIL

	REQUIRED	NOT REQUIRED
ODOR CONTROL UNIT		
METERING VAULT		

NOTE FOR ALL PUMP STATIONS:

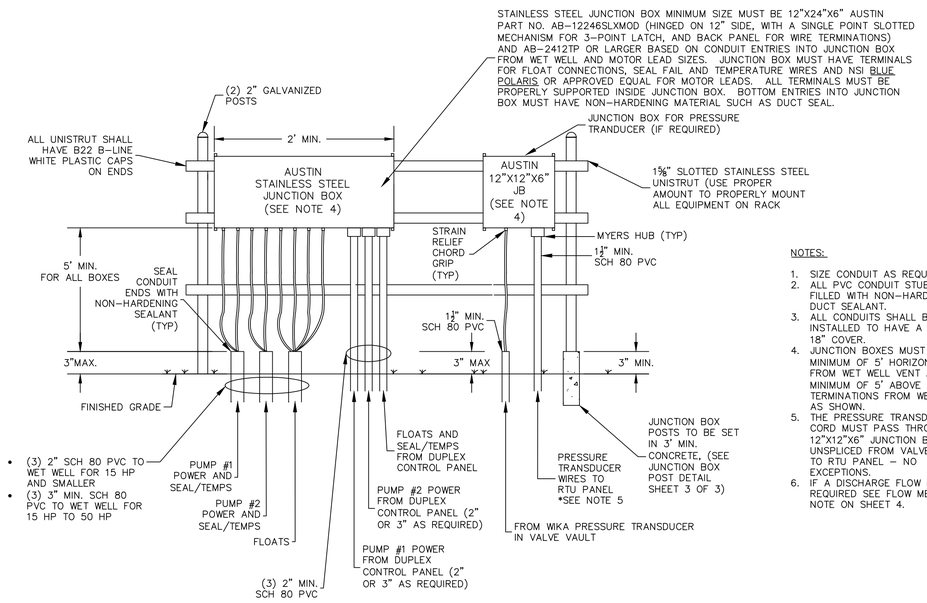
THE ODOR CONTROL SLAB, VENT PIPING FROM WETWELL, WATER SERVICE, AND ELECTRICAL CONDUIT FROM BUILDING OR ELECTRICAL RACK IS REQUIRED EVEN IF THE ODOR CONTROL UNIT IS NOT.



PUMP STATION SITE DETAIL
50 HP OR SMALLER PUMP STATION

NOTES:

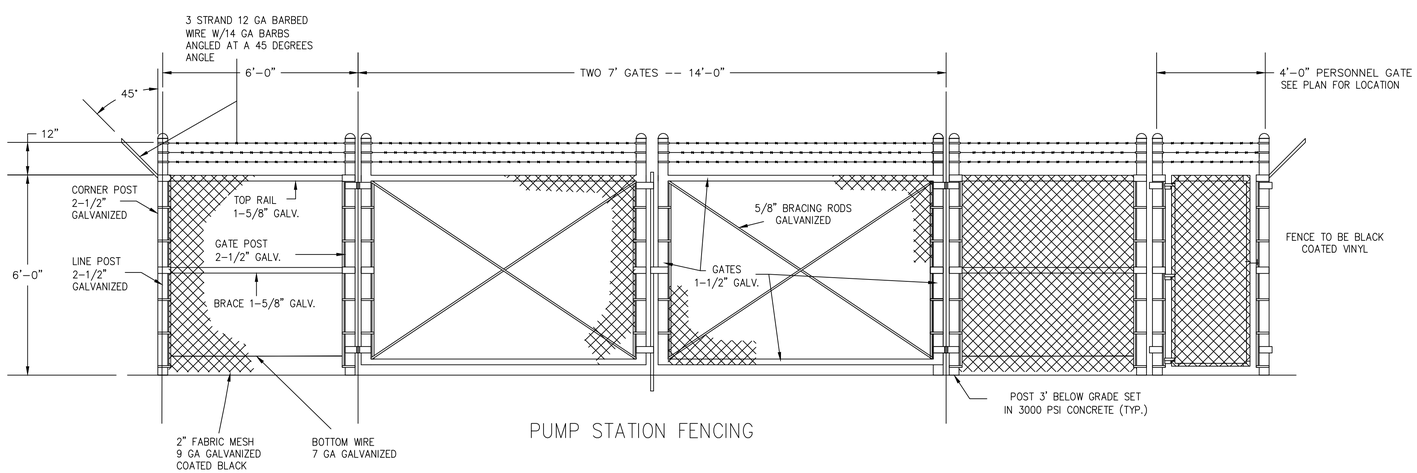
1. NEW WET WELLS AND NEW RECEIVING MANHOLES ARE TO BE POLYCRETE PER TECHNICAL SPECIFICATION 023.01. EXISTING WET WELLS INTERIOR TO RECEIVE MIN 120 MILS RAVEN 405 HIGH SOLIDS EPOXY OR APPROVED EQUAL.
2. WET WELL VENT OUTLET TO HAVE ODORHOG CHARCOAL FILTER OR APPROVED EQUAL.
3. THE PUMP STATION SITE SHALL 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.
4. THE PUMP STATION SITE SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE WET WELL. NO STORM DRAINAGE SHALL ENTER PUMP STATION SITE.
5. THE ACCESS ROAD SHALL BE ABC STONE AT A MINIMUM 8" THICK. THE ROAD SHALL BE A MINIMUM OF 12' WIDE.
6. THE ACCESS ROAD AND ENTIRE AREA WITHIN PUMP STATION FENCE SHALL BE A MINIMUM OF 2 FEET ABOVE THE 100 YEAR WATER SURFACE ELEVATION.
7. THE PUMP STATION SHALL HAVE STONE EXTENDING 18" PAST THE FENCE LINE IN ALL DIRECTIONS.
8. THE PUMP CONTROL PANEL MUST BE INSTALLED SUCH THAT IT FACES THE WET WELL.
9. SEE ROHN ANTENNA DETAIL SHEET FOR ANTENNA DETAILS.
10. VALVE VAULT MINIMUM SIZE IS 6'X6'X6'. ACTUAL REQUIRED MINIMUM SIZE DEPENDS ON ACTUAL DISCHARGE PIPING SIZES. ALL PIPING CONNECTIONS INSIDE VALVE VAULT SHALL BE EASILY ACCESSIBLE FOR MAINTENANCE AND REPAIR.
11. 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.
12. IF REQUIRED, METERING VAULT MINIMUM SIZE IS 6'X6'X6'. ACTUAL REQUIRED MINIMUM SIZE DEPENDS ON ACTUAL DISCHARGE PIPING SIZES. ALL PIPING CONNECTIONS INSIDE METERING VAULT SHALL BE EASILY ACCESSIBLE FOR MAINTENANCE AND REPAIR. IF A METERING VAULT IS REQUIRED, A SEPARATE METERING ENCLOSURE WILL BE REQUIRED. A DRAIN LINE WITH BACK FLOW TO THE WET WELL WILL BE REQUIRED.
13. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ELECTRIC POWER COMPANY FOR PLACEMENT OF POWER COMPANY EQUIPMENT AND ANY REQUIRED CONCRETE SLABS, CONDUIT, ETC., NEEDED TO SERVE PUMP STATION. ELECTRIC COMPANY EQUIPMENT PLACEMENT SHALL NOT OBSTRUCT ACCESS DRIVE, GATES, GRAVITY SEWER MAIN, MANHOLES, DISCHARGE FORCE MAIN, OR ANY OTHER PUMP STATION EQUIPMENT.
15. 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
16. ALL PUMP STATION WORK BY CONTRACTOR SHALL BE OF ADEQUATE QUALITY AND WORKMANSHIP FOR ACCEPTANCE BY BRUNSWICK COUNTY.
17. GENERATOR TO HAVE ENGINE EXHAUST SILENCER, WEATHER PROTECTIVE ENCLOSURE, AND SOUND ATTENUATION. REFER TO STANDBY EMERGENCY GENERATOR TECHNICAL SPECIFICATIONS FOR FURTHER DETAILS.
18. ODOR CONTROL – SEE 'NOTE FOR ALL PUMP STATIONS' THIS SHEET.
19. IF BRUNSWICK COUNTY REQUIRES A FLOW METER (METER VAULT IS SHOWN), A METERING ENCLOSURE WILL BE REQUIRED. A 1.5" MIN. SCH. 80 PVC CONDUIT FROM THE METER VAULT TO THE METERING ENCLOSURE WILL ALSO BE REQUIRED.
20. PROVIDE A MINIMUM OF 3 (THREE), 10' LONG, ¾" DIAMETER, COPPER CLAD GROUND RODS SPACED A MINIMUM OF 20' APART, EXOTHERMICALLY WELDED AND BONDED TOGETHER WITH INSPECTION WELLS AT EACH CONNECTION. ONE GROUND ROD AT :
    A) ANTENNA TOWER
    B) ELECTRIC METER
    C) GENERATOR



ELECTRICAL JUNCTION BOX DETAIL

NOTES:

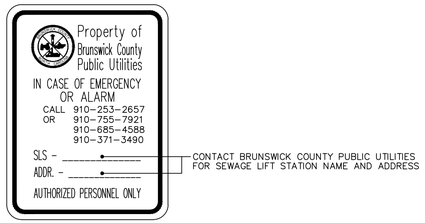
1. SIZE CONDUIT AS REQUIRED.
2. ALL PVC CONDUIT STUBS TO BE FILLED WITH NON-HARDENING DUCT SEALANT.
3. ALL CONDUITS SHALL BE INSTALLED TO HAVE A MINIMUM 18" COVER.
4. JUNCTION BOXES MUST BE A MINIMUM OF 5' HORIZONTAL FROM WET WELL VENT AND A MINIMUM OF 5' ABOVE CONDUIT TERMINATIONS FROM WET WELL AS SHOWN.
5. THE PRESSURE TRANSDUCER CORD MUST PASS THROUGH THE 12"X12"X6" JUNCTION BOX UNSPLICED FROM VALVE VAULT TO RTU PANEL – NO EXCEPTIONS.
6. IF A DISCHARGE FLOW METER IS REQUIRED SEE FLOW METER NOTE ON SHEET 4.



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 OVERLAID WITH FLEXCON EVL 400 VINYL #V-29, LAMINATED AT 40 PSI. ALL LETTERING IS STANDARD BOLD CONDENSED.



PUMP STATION SIGN

Revisions

1.01 - DATED 5/29/2013
1.02 - DATED 10/15/2013
1.03 - DATED 10/30/2015
1.04 - DATED 5/01/2016
1.05 - DATED 3/28/2017
1.06 - DATED 5/1/2017
1.07 - DATED 8/9/2017
1.08 - DATED 5/22/2019
1.09 - DATED 12/5/2019
1.10 - DATED 4/13/2020
Modify Pump Station Components

COUNTY OF BRUNSWICK

PUMP STATION DETAILS
50HP OR SMALLER PUMP STATION
FOR
BRUNSWICK COUNTY
NORTH CAROLINA

Date: 04-23-12
Scale: NTS
Drawn By: JDM
Checked By: WLP