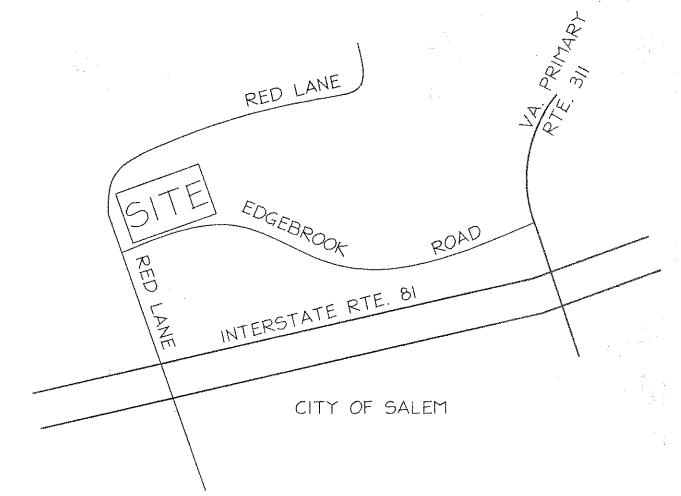
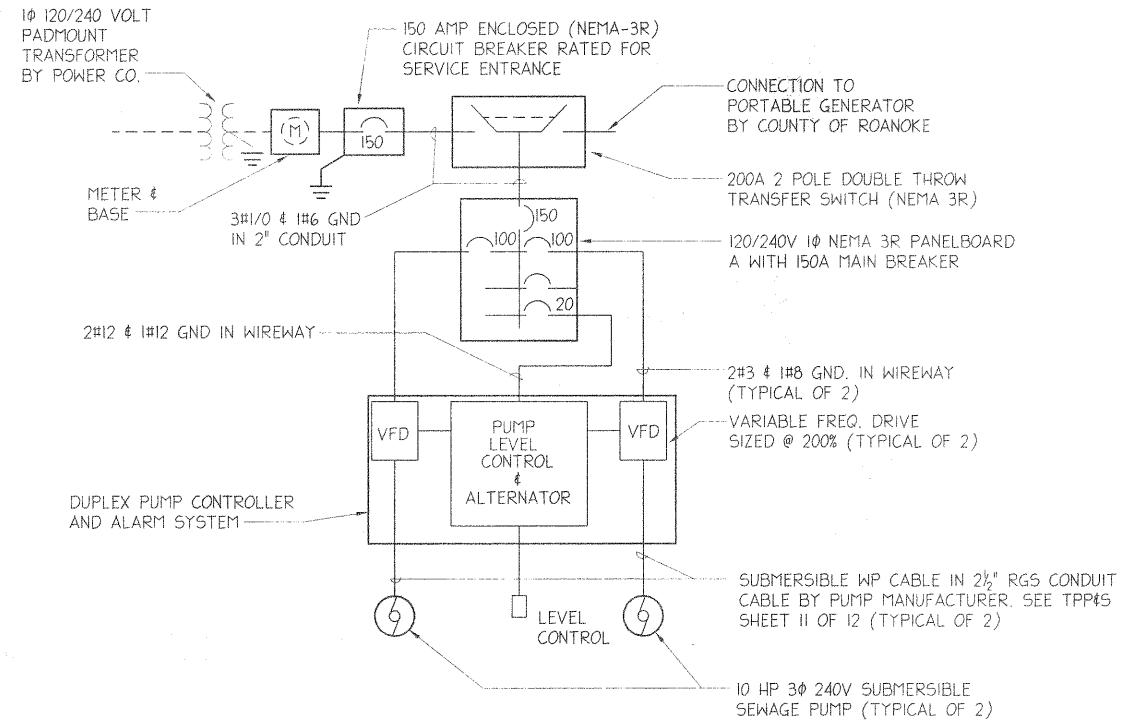
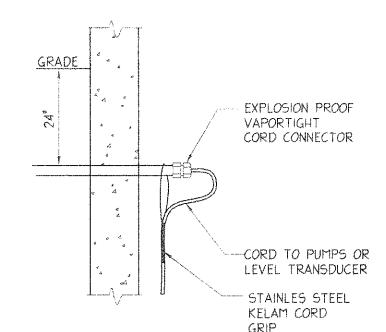


PANEL A	150A M. 120/240 SURFAC	V.]φ _r	3 WIRE						MIN. RATING 10 KAIC FEED FROM TRANSFER SWITCH						
LOAD SERVED		LOAD A	(KVA) B	BKR. TRIP	WIRE SIZE	CKT. NO,		5	5	CKT, NO.	WIRE SIZE	BKR. TRIP	LOAD(A	(KVA) B	LOAD SERVED
PUMP #I	AMERICAN PERSONAL PROPRIES	4.6	111	100			1	STANON.		2	—	100	4.6	///	PUMP #2
PUMP #I	**************************************	111	4.6	_	_		人		人	<u> </u>			////	4.6	PUMP #2
RECEPTACLE	GFCI	0.5	///	20	#12	5	$\overline{\lambda}$		一一	6	#12	20	0.5		BATT CHARGER ALARM
PUMP CONTROLLER			0,5	20	#12	7	\sim	-	-	8	#12	20		0.5	AUTODIALER ∉ TEL. ■
LIGHTING		0.1	777	20	#12	9	7	ļ	-	10	_	-	-		5/0
SPARE			1 -	20	-					12	-	_	////		5/0
TOTAL	·····	5.2	5.1				A Pl	-IAS	B E		-		5.1	5,1	TOTAL
rageni-kiritainen virrainent Uotti mait teksandeni-altiitiin ta Okaadakakirin valttiisäität vastitiin 1900 til		TOTA	L CONI	NECTED	LOA) A:	10.3	В	: 10.2	= 20.	5 KVA	23	3 = 89:	AMPS	e generatiya ani organi maniyaayiniyi kaliina qaan mirimiy kalanna gilamaan va maanda ener merka maan)
S/O = SPACE ONLY S = LOCK-ON DEVICE		TOTA	L CONI	NECTEE	LOAE) A:	10.3	В	: 10.2	= 20.	5 KVA	23	3 = 89:	AMPS	



VICINITY MAP

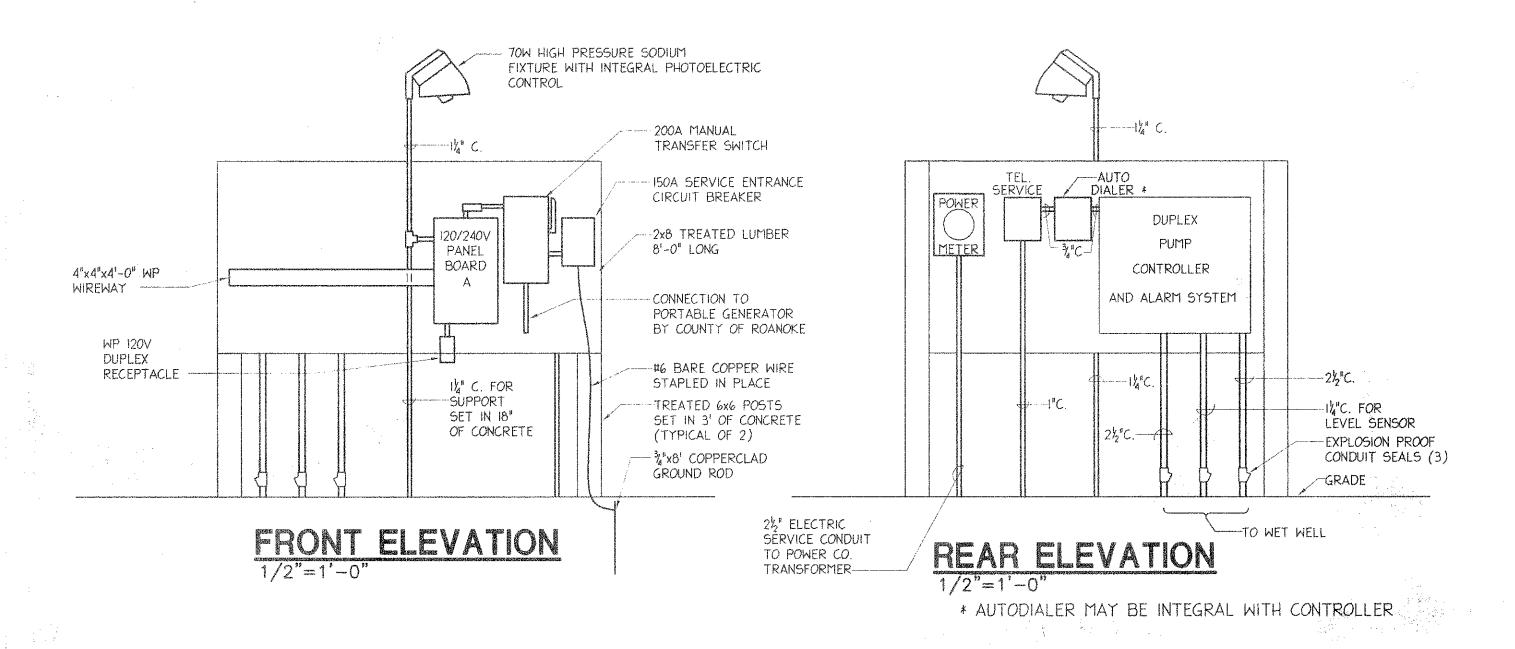




TYPICAL TRANSITION FROM CONDUIT TO CORD AT THE WET WELL

1/2"=1'-0"

ONE LINE DIAGRAM SCHEMATIC



SPECIFICATIONS.

ENCLOSED CIRCUIT BREAKER: 150AMP, 250 VOLT 2 POLE CIRCUIT BREAKER IN A NEMA 3R ENCLOSURE WITH MINIMUM 18 KAIC, SOLID NEUTRAL, GROUND BAR AND PROVISION FOR PAD LOCKING. SHALL BE SUITABLE FOR SERVICE ENTRANCE

MANUAL TRANSFER SWITCH: 200 AMP, 250 VOLT, 2 POLE DOUBLE THROW SAFETY SWITCH IN A NEMA-3R ENCLOSURE WITH SOLID NEUTRAL, GROUND BAR AND LOCK ON PROVISIONS.

PANELBOARD A: 120/240 VOLT, SINGLE PHASE PANELBOARD WITH 150 AMP, 2 POLE MAIN CIRCUIT BREAKER AND PROVISIONS FOR MINIMUM OF 12 CIRCUITS. PANEL SHALL BE RATED 10 KAIC AND BE PROVIDED WITH NEMA-3R ENCLOSURE, PAD LOCKABLE HANDLES FOR CIRCUITS I \$ 2, PADLOCKABLE DOOR, ALL BOLT-ON BREAKERS AS SCHEDULED AND ALL COPPER BUSES, PROVIDE WITH SECONDARY SURGE ARRESTER.

VARIABLE FREQUENCY DRIVES (VFD): VFD SHALL BE PROVIDED TO CONVERT 240 VOLT AC SINGLE PHASE TO 240 VOLT THREE PHASE AND TO PROVIDE MOTOR OVERLOAD PROTECTION AND STARTING. MOTORS WILL OPERATE AT FULL SPEED. VFD SHALL RAMP-UP MOTORS AT START TO INCREASE MOTOR & PUMP LIFE AND EFFICIENCY. VFD SHALL BE MAGNETEK GPD 506 SERIES OR EQUAL BY ABB OR SEIMENS, VFD'S SHALL BE OVERSIZED FOR 200% OF ACTUAL MOTOR SIZE. PROVIDE WITH, HOA SWITCH, PILOT LIGHT AND INTERGRAL CIRCUIT BREAKER DISCONNECT. INSTALL IN DUPLEX PUMP CONTROLLER CABINET.

DUPLEX PUMP CONTROLLER: NEMA 4X PUMP CONTROLLER SHALL HAVE CONTROLS AS REQUIRED TO PROVIDE 2 STAGE PUMP CONTROL WITH AUTOMATIC LEAD PUMP ALTERNATION. PUMPS AND ALARMS SHALL BE CONTROLLED BY THE FOLLOWING LEVEL. POSITIONS:

LOW-LOW LEVEL - LOW LEVEL ALARM

LOW LEVEL - BOTH PUMPS OFF LEVEL I

- LEAD PUMP ON-LAG PUMP OFF*

- BOTH PUMPS ON (BOTH PUMPS WILL RUN UNTIL LOW LEVEL IS REACHED) LEVEL 2 HIGH LEVEL - BOTH PUMPS ON AND HIGH LEVEL ALARM

*IF LEAD PUMP FAILS TO RUN, LAG PUMP WILL BE SWITCHED TO LEAD.

ALARMS WILL BE INITIATED FOR.

LOW LEVEL

HIGH LEVEL

POWER FAILURE PUMP #1 FAILURE

PUMP #2 FAILURE

PUMP #1 SEAL FAILURE PUMP #2 SEAL FAILURE

NOTE: LOW LEVEL, HIGH LEVEL AND POWER FAILURE SHALL INITIATE A PROGRAMMED

TELEPHONE MESSAGE TO BE SENT VIA AUTODIALER ALARM MONITOR & AUTODIALER SHALL HAVE BATTERY BACKUP.

LIGHT FIXTURE: FIXTURE SHALL BE 70W HIGH PRESSURE SODIUM WITH GUARD, REFLECTOR, PRISMATIC GLASS GLOBE, DIE CAST ALUMINUM HOUSING, HIGH POWER FACTOR BALLAST AND INTEGRAL PHOTO ELECTRIC CONTROL. STANCHION MOUNT, 120V. SUITABLE FOR WET LOCATION, CROUSE-HINDS VMVSJ SERIES OR EQUAL.

MANUFACTURERS: CIRCUIT BREAKER, MANUAL TRANSFER SWITCH, PANELBOARD & WIREWAY SHALL BE SQUARE D OR EQUAL. DUPLEX PUMP CONTROLLER SHALL BE FLYGT OR EQUAL.

GENERAL NOTES:

* ALL WIRING SHALL BE XHHW INSULATED COPPER.

* PROVIDE EACH PUMP WITH AN HOUR RUN METER.

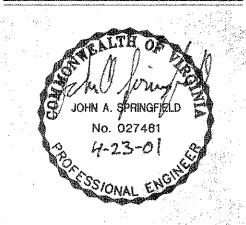
« CONTROL CIRCUIT VOLTAGE SHALL NOT BE ABOVE 120 VOLTS · SHOP DRAWINGS SHALL BE SUBMITTED ON ALL ITEMS LISTED ABOVE.

McKINNEY AND COMPANY engineers and architects

MAIN OFFICE 100 SOUTH RAILROAD AVE. ASHLAND, VIRGINIA 23005 (804) 798-1451 (804) 798-7072 FACSIMILE

WILLIAMSBURG OFFICE 485 MCLAWS CIRCLE SUITE 2 WILLIAMSBURG, VA. 23185 (757) 220-5400

(757) 229-6301 FACSIMILE



PROJECT MANAGER J. MANN

DESIGNED: G. WILLIAMS

DRAWN: N. BULLARD

CHECKED: J. SPRINGFIELD

APRIL 23, 2001

REVISIONS:

No. of Concession, Name of Street, or other Persons, Name of Street, or other Persons, Name of Street, Original Persons, Original Person

CAD NO. 722E-1

SHEET

