

SEQUENCE OF CONSTRUCTION

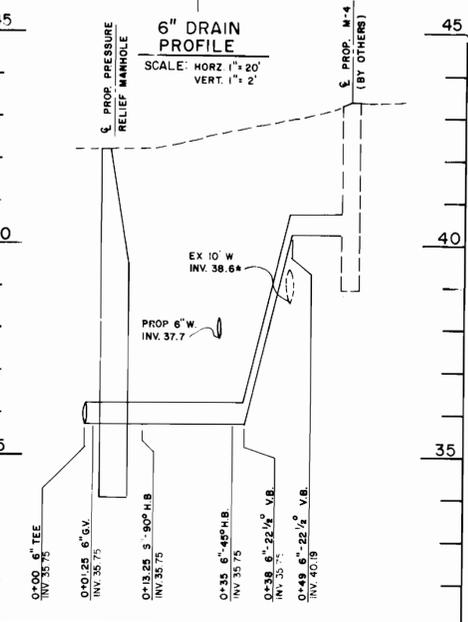
1. INSTALL EROSION & SEDIMENT CONTROL DEVICES AS PER SECTION 219.
2. TEST PIT LOCATION AND DEPTH OF EX. 6" W. AND 10" W.
3. INSTALL PROPOSED PRV VAULT, PRESSURE RELIEF MH AND PIPING. CONNECT TO EX. 10" W. AND 8" W., KEEPING ALL VALVES CLOSED.
4. CONNECT SUMP PUMP DISCHARGE AND PRESSURE RELIEF DISCHARGE TO MH-4 IF COMPLETED.

SIX CONDUITS

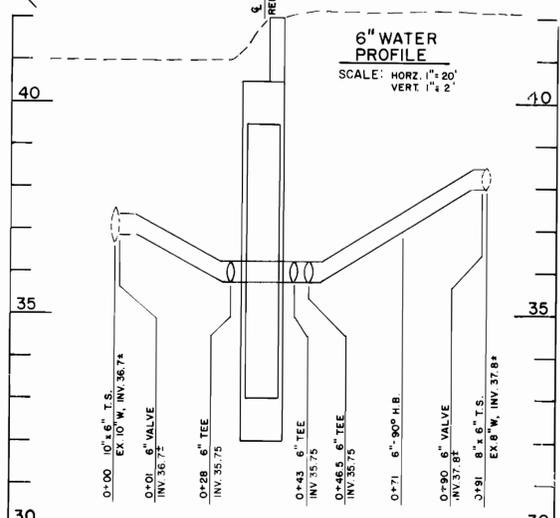
- a) LP-2,3,4: 4" 12B 1" 12 GND. - 3/4" C.
- b) LP-6,8: 3" 12B 1" 12 GND. - 3/4" C.
- c) LP-7: 2" 12B 1" 12 GND. - 3/4" C.
- d) PRESSURE REDUCING VALVE: 8" 14B 1" 12 GND. - 3/4" C.
- e) LOW PRESSURE TRANSMITTER: 2/C #16 SHIELDED CABLE - 3/4" C.
- f) HIGH PRESSURE TRANSMITTER: 2/C #16 SHIELDED CABLE - 3/4" C.

NOTES

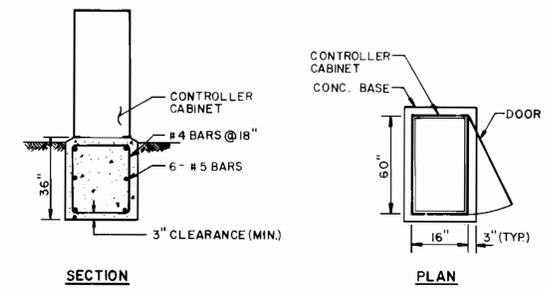
1. CONTRACTOR SHALL TEST PIT LOCATION AND DEPTH OF EX. 10" W. & 8" W. PRIOR TO START OF CONSTRUCTION.
2. CONTRACTOR SHALL CONNECT 6" PRESSURE RELIEF DISCHARGE TO PROP. M-4 AT INV. 40.44
3. PROVIDE WATER TIGHT SEALS ON ALL PIPE PENETRATIONS THRU CONCRETE STRUCTURES.
4. SEE SHEET 3 FOR PRESSURE RELIEF VALVE VAULT ELECTRICAL DETAILS.
5. SEE SHEET 3 FOR PRESSURE REDUCING VALVE VAULT ELECTRICAL DETAILS.



SITE PLAN
SCALE: 1" = 20'

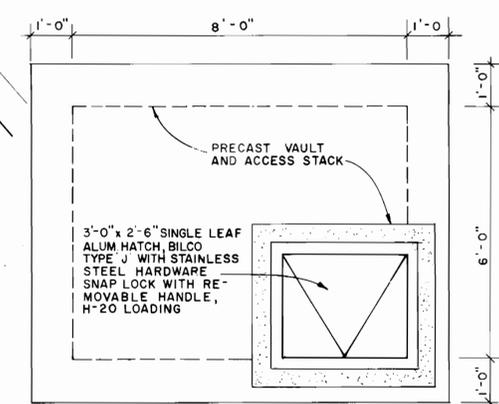


PRESSURE REDUCING VALVE VAULT TOP SLAB
SCALE: 1/2" = 1'-0"

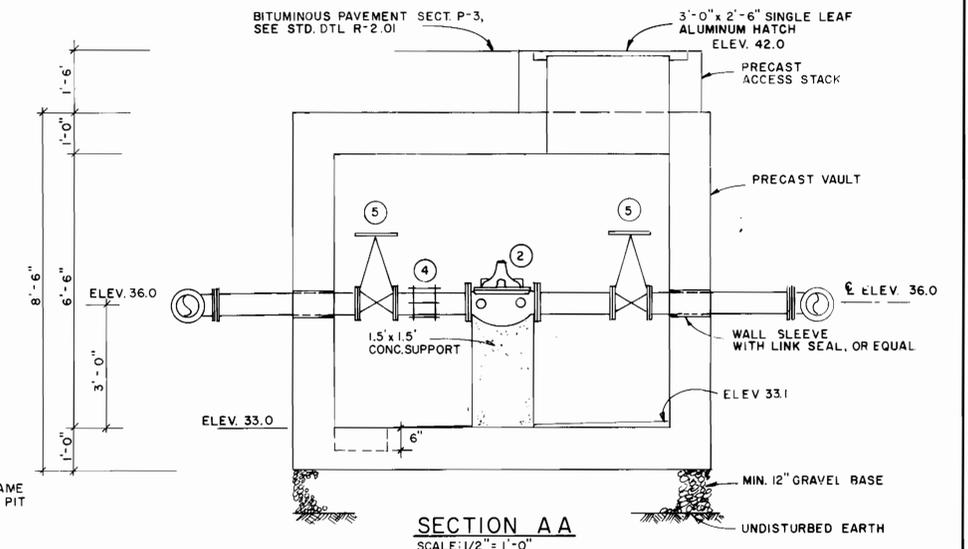
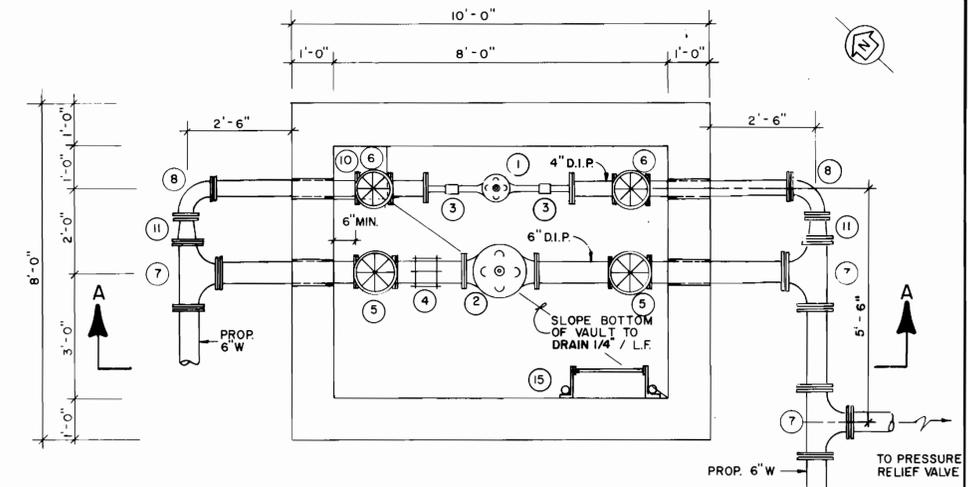


SERVICE EQUIPMENT CONCRETE FOUNDATION - DETAIL
NOT TO SCALE

PRESSURE RELIEF VALVE VAULT - PLAN
SCALE: 1/2" = 1'-0"



PRESSURE REDUCING VALVE VAULT - PLAN
SCALE: 1/2" = 1'-0"



EQUIPMENT SCHEDULE

1. 2" PRESSURE REDUCING VALVE, THREADED ENDS.
2. 6" PRESSURE REDUCING VALVE, 250# FLANGED ENDS.
3. 2" COUPLING, THREADED.
4. 6" DRESSER COUPLING.
5. 6" RESILIENT SEATED GATE VALVE, AWWA C509, 250# FLANGED ENDS, WITH HANDWHEEL OPERATOR.
6. 4" RESILIENT SEATED GATE VALVE, AWWA C509, 250# FLANGED ENDS, WITH HANDWHEEL OPERATOR.
7. 6" TEE, MECHANICAL JOINT ENDS.
8. 4"-90° BEND, MECHANICAL JOINT ENDS.
9. ALUMINUM LADDER. SEE DETAIL SHEET 3.
10. SUMP PIT, 1'-3" x 1'-3" x 6".
11. 6" x 4" REDUCER, PLAIN ENDS, COMPACT FITTING.
12. 6" PRESSURE RELIEF VALVE, 250# FLANGED ENDS.
13. 6"-90° BEND, MECHANICAL JOINT ENDS.
14. 6" RESILIENT SEATED GATE VALVE, AWWA C509 MECHANICAL JOINT ENDS WITH RETAINER GLANDS PER STD. DTL. W-214. PROVIDE 2" SQUARE OPERATING NUT AND VALVE KEY EXTENSION WITH ADJUSTABLE ROADWAY BOX PER STD. DTL. W-3 65.
15. ALUMINUM LADDER, SEE DTL SHEET 3.

- NOTES:**
1. CONC. BASE SHALL BE POURED AGAINST UNDISTURBED GROUND.
 2. ANCHOR BOLTS TO BE PLACED AS SPECIFIED ON SHEET 3.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

3-2-92
DIRECTOR OF PUBLIC WORKS

3-2-92
CHIEF, BUREAU OF UTILITIES

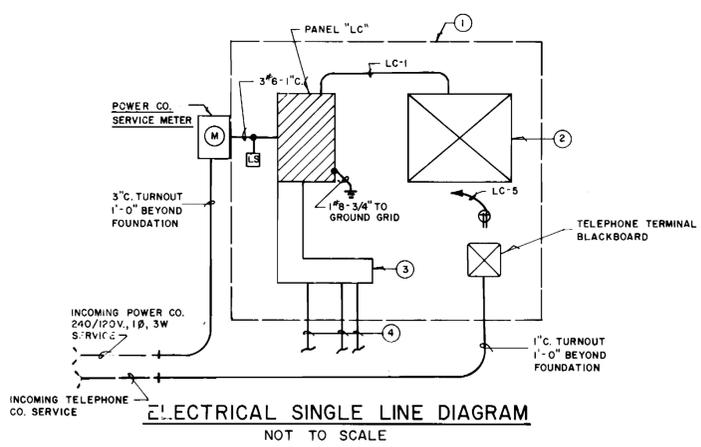
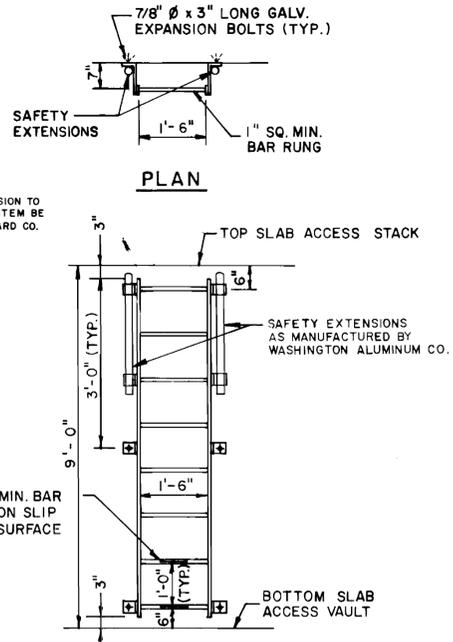
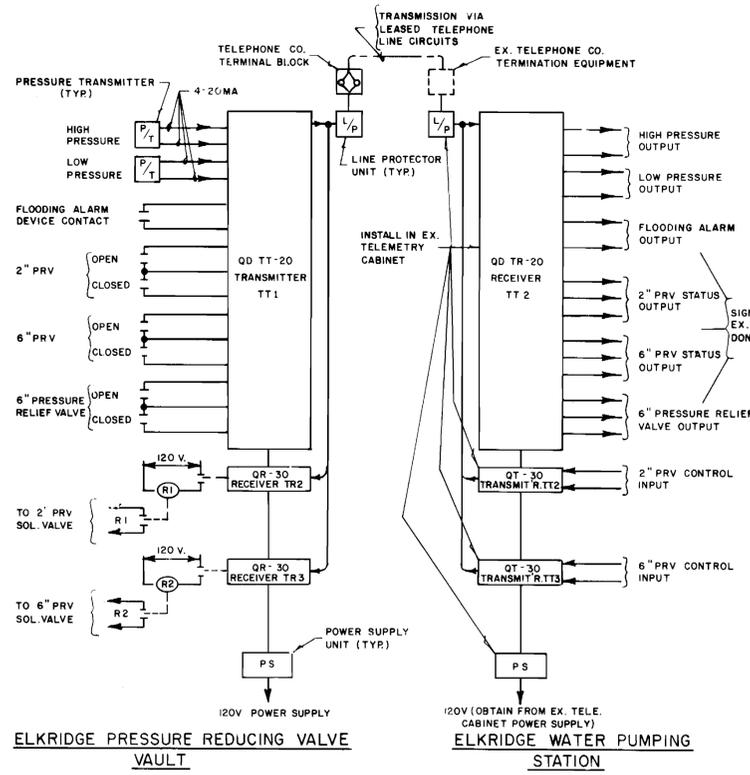
JOHN E. HARMS, JR. & ASSOCIATES INC.
CONSULTING ENGINEERS
P.O. BOX 5
PASADENA, MARYLAND 21122
(301) 647-6000

DES: S.E.S.					
DRN: 'FAL'					
CHK: W.R.G.					
DATE:	BY:	NO.	REVISION	DATE	600' SCALE MAP NO. 38 BLOCK NO.

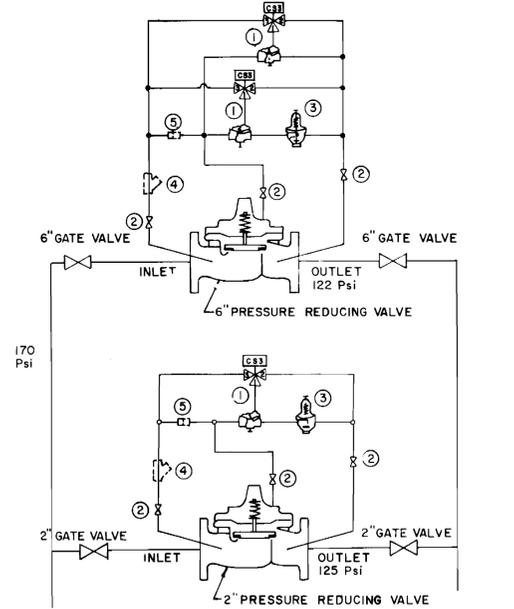
SITE PLAN & DETAILS

ELKRIDGE PRESSURE REDUCING VALVE
CONTRACT NO. 44-3163
CAPITAL PROJECT W-8171
ELECTION DISTRICT ELKRIDGE NUMBER 1

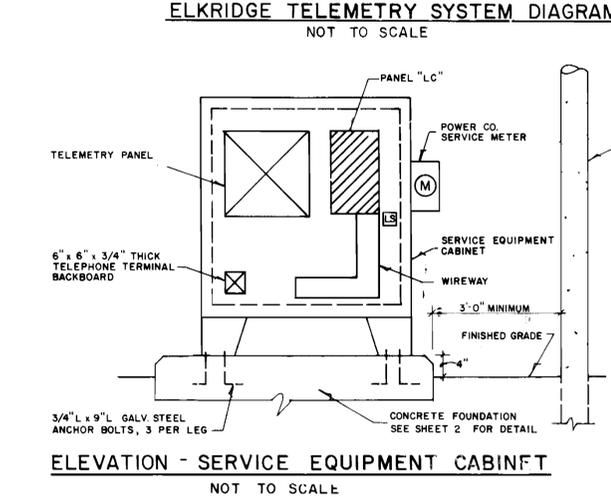
SCALE AS SHOWN
SHEET 2 OF 3



- DRAWING NOTES**
- SERVICE EQUIPMENT CABINET SHALL BE FREE STANDING, DOUBLE DOOR NEMA 12 CONSTRUCTION, 60" H x 60" W x 16" D, WITH FOLLOWING SPECIAL FEATURES TO MAKE CABINET SUITABLE FOR OUTDOOR USE.
 - A. GALVANIZING PRIME OVER WHICH SHALL BE APPLIED A CORROSION RESISTANT MATTE ARMY GREEN FINISH, 3 COATS MINIMUM.
 - B. STAINLESS STEEL HINGE PINS AND DRIP SHIELD.
 - C. RUST PROTECTED DRAIN HOLES IN BOTTOM OF CABINET WITH SCREENING FOR VERMIN PROTECTION.
 - D. RAIN PROTECTED LOUVERS (EACH SIDE) WITH INTERIOR MOUNTED SCREEN FOR BUG PROTECTION.
 - TELEMETRY PANEL - SEE DIAGRAMS THIS SHEET.
 - 6" x 6" x 24" L SHAPED NEMA 1 ENCLOSED WIREWAY.
 - SEE VAULT PLAN FOR POWER WIRING FROM PRESSURE REDUCING VALVE VAULT. PROVIDE 1" CONDUIT TO PRESSURE RELIEF VAULT FOR STATUS.



- 3-WAY SOLENOID OPERATED CONTROL VALVE
- BALL COCK - ISOLATION VALVES
- PRESSURE REDUCING CONTROL VALVE
- "Y" STRAINER
- RESTRICTION TUBE FITTING

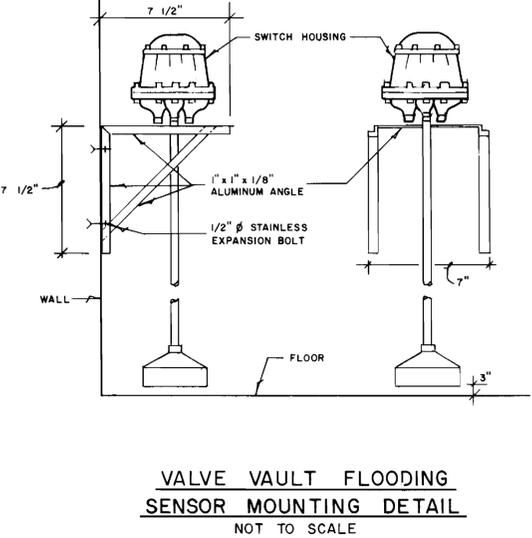
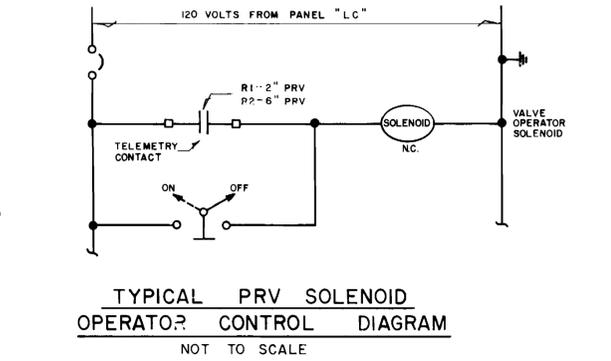
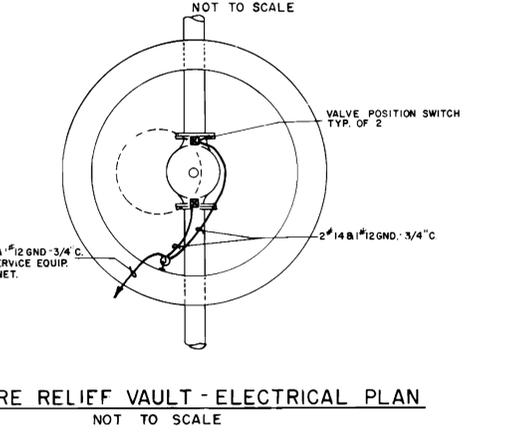


- NOTES:**
- LADDER SHALL BE FABRICATED OF 6061-T6 ALUMINUM WITH STANDARD MILL FINISH. CONFORM TO OSHA/ANSI A14.3

ELECTRICAL LEGEND

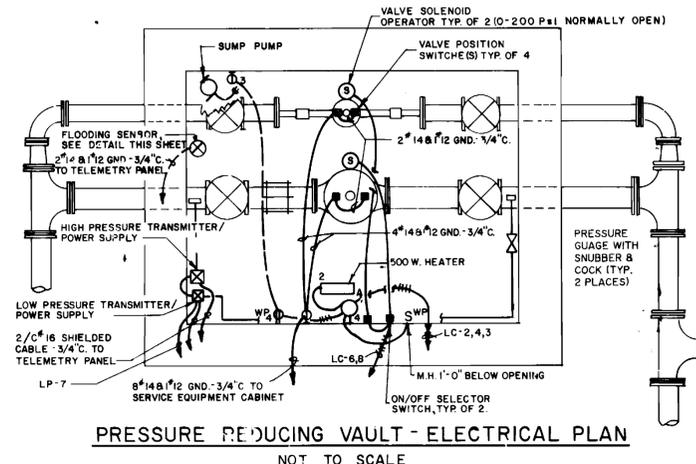
ABBREVIATIONS		SYMBOLS	
A	AMPERE (S)	HO	FIXTURE - INCANDESCENT M.H. 6"-0"
C	CONDUIT	SD	SPECIAL DEVICE OR EQUIPMENT AS NOTED
GND	GROUND	M	SERVICE METER
PVC	POLYVINYL CHLORIDE	⊕	DENOTES REFERENCE TO DRAWING NOTE
M.H.	MOUNTING HEIGHT - TO CENTER OF DEVICE OR EQUIPMENT UNLESS OTHERWISE NOTED	—	CONDUIT - ON CEILING WALLS } 2" 1/2 & 1" 1/2 GND. IN 3/4" C UNLESS OTHERWISE NOTED
SCH.	SCHEDULE	---	CONDUIT - UNDER SLAB OR UNDERGROUND
P	POLE (S)	S	SWITCH - SINGLE POLE, M.H. AS NOTED
Ø	PHASE	⊙	RECEPTACLE - 20A, 125V, SINGLE LOCKING TYPE, DUPLEX, GFI TYPE - M.H. 1'-6" UNLESS OTHERWISE INDICATED.
V	VOLT (S)	→	HOMERUN TO PANEL - NO. OF ARROWS INDICATE NO. CIRCUITS & NO. OF CROSSINGS INDICATE NO. OF #12 CONDUCTORS
WP	WEATHERPROOF	LA	LIGHTNING SURGE SUPPRESSOR
TH	THICK	⊕	JUNCTION BOX
GFI	GROUND FAULT INTERRUPTING	⊙	SOLENOID

PRESSURE REDUCING VALVE CONTROL DIAGRAM



PANEL SCHEDULE: "LC" 240/120V, 1Ø, 3W

CIRC. NO.	FOR	BRANCH BRKR'S.			CIRC. NO.	FOR	BRANCH BRKR'S.		
		FRAME	POLES	TRIP			FRAME	POLES	TRIP
1	TELEMETRY CABINET	100	1	20	2	HEATER - PRV VAULT	100	1	20
3	REC. - SUMP PUMP	100	1	20	4	LIGHT & REC PRV VAULT	100	1	20
5	REC - SERVICE EQ. CABINET	100	1	20	6	SOLENOID 2" PRV	100	1	20
7	HIGH & LOW PRESSURE TRAN	100	1	20	8	SOLENOID 6" PRV	100	1	20
9	SPARE	100	1	20	10	SPARE	100	1	20
11	SPARE	100	1	20	12	SPARE	100	1	20



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE 3-2-92
CHIEF, BUREAU OF UTILITIES DATE

CHIEF, BUREAU OF ENGINEERING DATE 2-21-92
CHIEF, UTILITY DESIGN DIVISION DATE 2-21-92

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ELECTRICAL DETAILS

600' SCALE MAP NO. 38 BLOCK NO. _____

ELKRIDGE PRESSURE REDUCING VALVE
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SCALE AS SHOWN
SHEET 3 OF 3