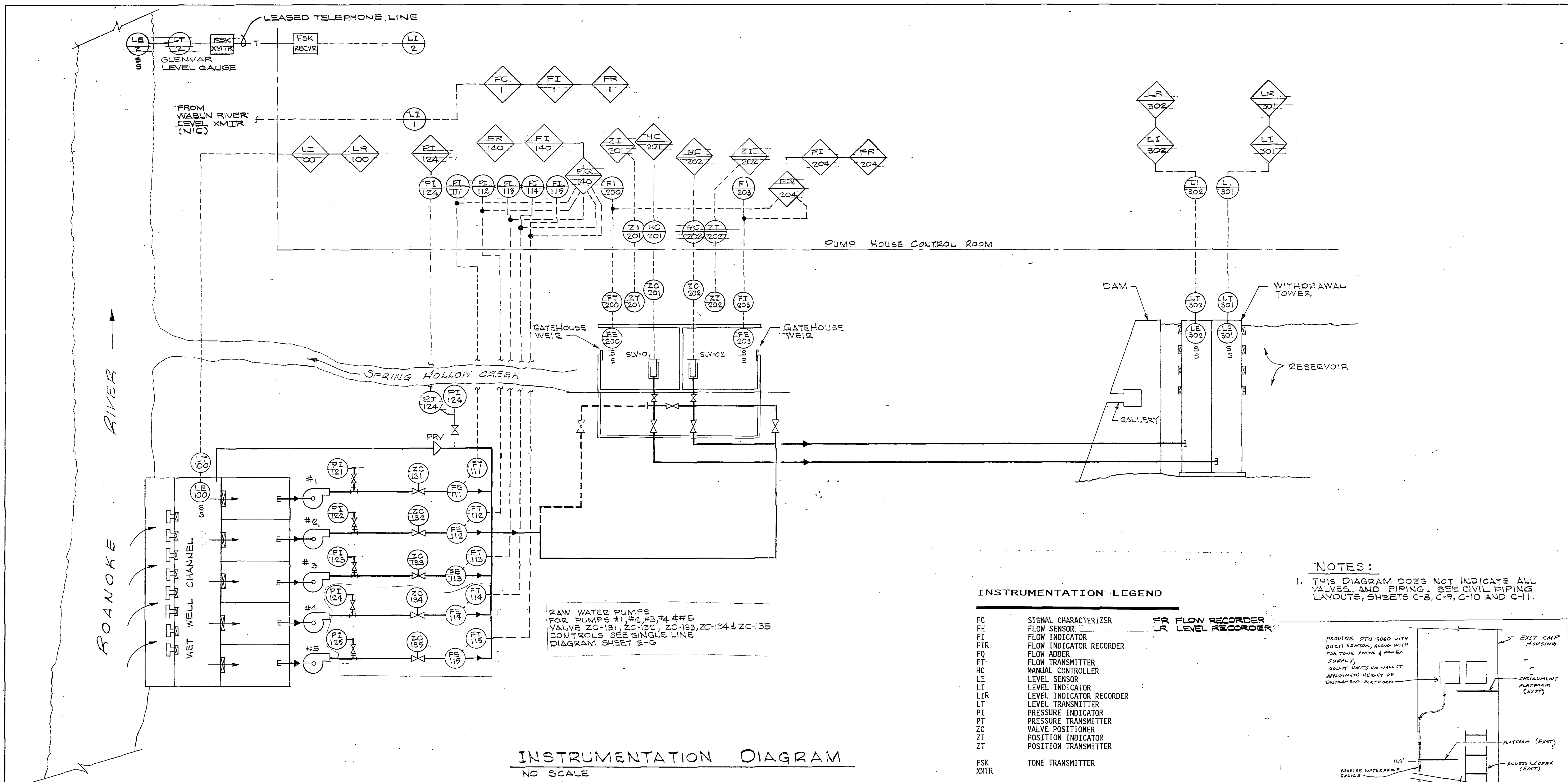




INSTRUMENTATION DIAGRAM
NO SCALE

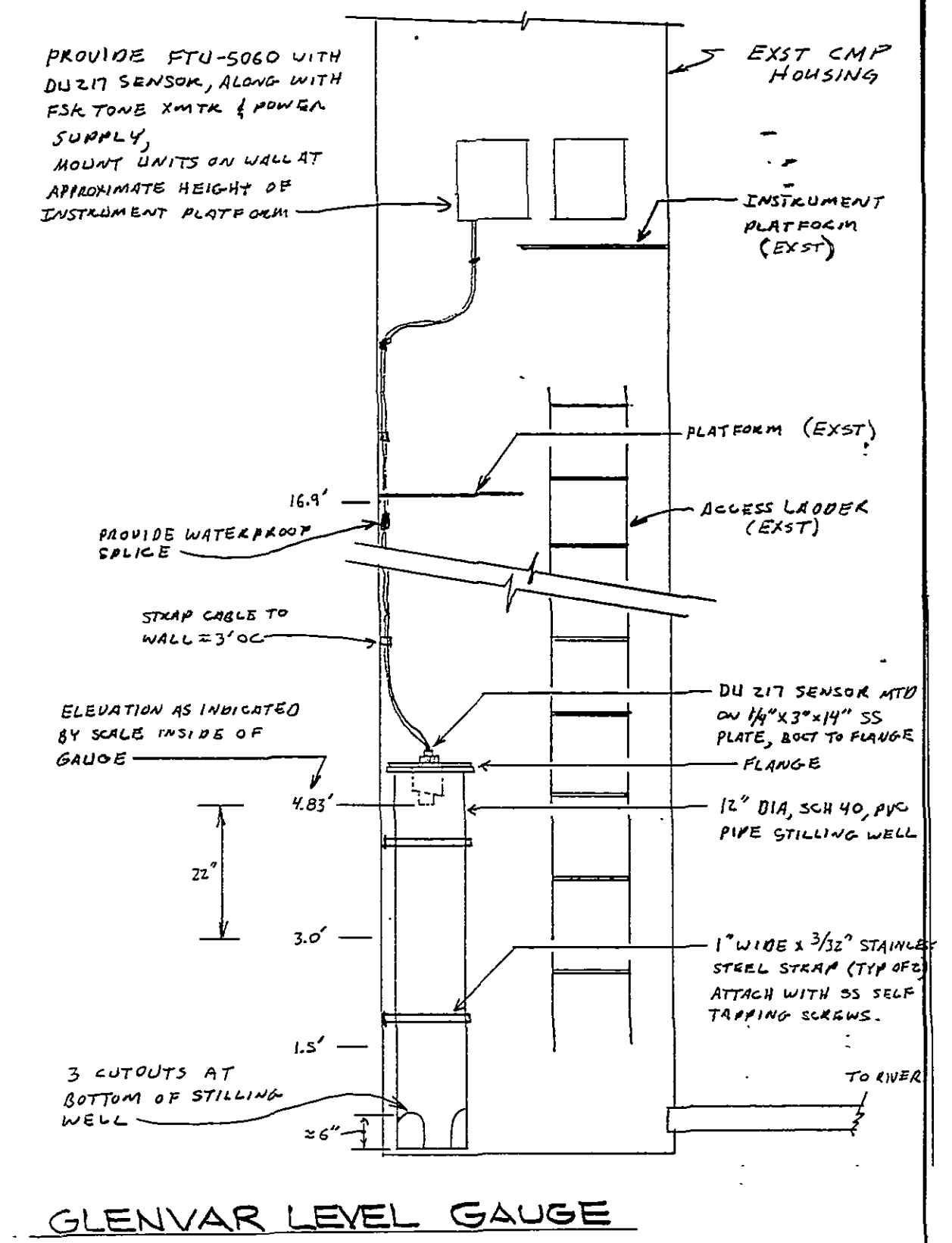
RAW WATER PUMPS FOR PUMPS #1, #2, #3, #4, #5
VALVE ZC-131, ZC-132, ZC-133, ZC-134 & ZC-135
CONTROLS SEE SINGLE LINE DIAGRAM SHEET E-C

INSTRUMENTATION LEGEND

- | | | | |
|---|---|----|----------------|
| FC | SIGNAL CHARACTERIZER | FR | FLOW RECORDER |
| FE | FLOW SENSOR | LR | LEVEL RECORDER |
| FI | FLOW INDICATOR | | |
| FIR | FLOW INDICATOR RECORDER | | |
| FQ | FLOW ADDER | | |
| FT | FLOW TRANSMITTER | | |
| HC | MANUAL CONTROLLER | | |
| LE | LEVEL SENSOR | | |
| LI | LEVEL INDICATOR | | |
| LIR | LEVEL INDICATOR RECORDER | | |
| LT | LEVEL TRANSMITTER | | |
| PI | PRESSURE INDICATOR | | |
| PT | PRESSURE TRANSMITTER | | |
| ZC | VALVE POSITIONER | | |
| ZI | POSITION INDICATOR | | |
| ZT | POSITION TRANSMITTER | | |
| FSK XMTR | TONE TRANSMITTER | | |
| FSK RECVR | TONE RECEIVER | | |
| SLV-01 | SLEEVE VALVE 1 | | |
| SLV-02 | SLEEVE VALVE 2 | | |
| Valve Symbol | VALVE | | |
| Electrical Signal Symbol | ELECTRICAL SIGNAL | | |
| Ultrasonic Signal Symbol | ULTRASONIC SIGNAL | | |
| Process Water Flow Symbol | PROCESS WATER FLOW | | |
| Field Mounted Instrument Symbol | INDICATES A FIELD MOUNTED INSTRUMENT | | |
| Future Process Water Flow Symbol | FUTURE PROCESS WATER FLOW | | |
| Instrument Mounted in Control Room Symbol | INDICATES AN INSTRUMENT MOUNTED IN THE CONTROL ROOM | | |
| Future Valve Symbol | FUTURE VALVE | | |
| Pressure Reducing Valve Symbol | PRESSURE REDUCING VALVE | | |

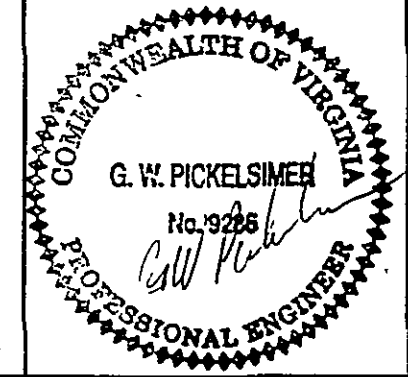
NOTES:

- THIS DIAGRAM DOES NOT INDICATE ALL VALVES AND PIPING. SEE CIVIL PIPING LAYOUTS, SHEETS C-8, C-9, C-10 AND C-11.

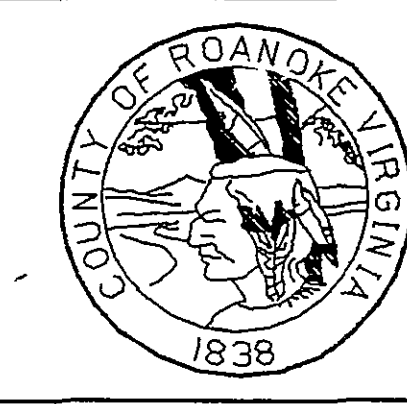


RECORD DRAWINGS
THESE DRAWINGS RECORD ON THE BASIS OF INFORMATION FURNISHED BY THE CONTRACTOR OR SPECIFICALLY KNOWN TO HSM. NO OTHER REPRESENTATIONS ARE MADE OR IMPLIED.
Date: 6-5-95

DESIGNED	ESC	DATE	3/30/90
DRAWN	BGS	DATE	3/30/90
CHECKED	AMW	DATE	3/30/90
APPROVED	RH2	DATE	8/4/91
ISSUED	JPD	DATE	8/21/91



REVISIONS				
DATE	BY	DESCRIPTION	DATE	BY
8-15-94	BA	PER CONTR RECORD DWG		
6-5-95	JPD	ISSUED TO VA-DAM SAFETY		
3-31-97	RWF	RECORD DRAWING		



SPRING HOLLOW RESERVOIR
ROANOKE COUNTY, VIRGINIA
HAYES, SEAY, MATTERN & MATTERN, INC.
ARCHITECTS - ENGINEERS - PLANNERS
ROANOKE, VIRGINIA

INSTRUMENTATION INSTRUMENTATION DIAGRAM L&N MICROMAX CONTROL SYSTEM				
SCALE	DATE	COMM	SHEET	DWG
NONE	8/4/91	4194E	1-1	26