

LEGEND-INSTRUMENTATION

	LOCAL INSTRUMENT NUMBER INDICATES LOOP		MECHANICAL CONNECTION TO PIPING OR PROCESS LINE		SWITCH HIGH L, F, P, T		PILOT LIGHT RED, AMBER, OR GREEN
	AUXILIARY PANEL MOUNTED INSTRUMENT OR DEVICE		HYDRAULIC OPERATED VALVE		SWITCH LOW, LOW L, F, P, T	F	FLOW
	INSTRUMENT MOUNTED INSIDE AUXILIARY PANEL		BALL VALVE		ALARM LOW	L	LEVEL
	MAIN CONTROL PANEL MOUNTED INSTRUMENT OR DEVICE		GATE VALVE		ALARM HIGH	P	PRESSURE
	INSTRUMENT MOUNTED INSIDE MAIN CONTROL PANEL		VENTURI FLOW ELEMENT		ALARM - LOW, LOW	T	TEMPERATURE
	ELECTRIC SIGNAL		POSITION SWITCH		ALARM Q	Q	EVENT, OR STATUS
	ELECTROMAGNETIC OR SONIC SIGNAL		HAND SWITCH OR PUSHBUTTON		PRIMARY ELEMENT OR SENSOR	Y	SPECIAL FUNCTION
	TELEMETRY OR LEASED TELEPHONE LINE		TELEMETRY TRANSMITTER L, F, Y, Q		INDICATING TRANSMITTER L, F, P, T	FBO	FURNISHED BY OTHERS
	INTERLOCK		TELEMETRY RECEIVER L, F, Y, Q		INDICATING RECORDER L, F, P, T	E	EXISTING INSTRUMENT
	PIPING OR PROCESS LINE		SWITCH LOW L, F, P, T		INDICATOR L, F, P, T		

INSTRUMENT LIST

TAG NO.	DESCRIPTION	LOOP SPAN	UNITS	REMARKS
LI-1A	ELEV TANK LEVEL INDICATOR	0 - 40	FEET	
LE-1A	ELEV TANK LEVEL ELEMENT			
LIT-1A	ELEV TANK LEVEL TRANSMITTER	0 - 40	FEET	
LE-2B	ELEV TANK LEVEL ELEMENT			
LIT-2B	ELEV TANK LEVEL TRANSMITTER	0 - 40	FEET	
LTT-1CE	ELEV TANK LEVEL TELEMETRY TRANSMITTER			
LTT-2E	SURVEYOR GSR LEVEL TELEMETRY TRANSMITTER			
FTT-3E	SURVEYOR PS FLOW TELEMETRY TRANSMITTER			
QTT-HE	STATUS TELEMETRY TRANSMITTER			
LTT-4E	CELESTIAL GSR LEVEL TELEMETRY TRANSMITTER			
FTT-6E	CELESTIAL PS FLOW TELEMETRY TRANSMITTER			
LTT-1BE	ELEV TANK LEVEL TELEMETRY TRANSMITTER			
FTR-6E	CELESTIAL PS FLOW TELEMETRY RECEIVER			
LTR-4E	CELESTIAL GSR LEVEL TELEMETRY RECEIVER			
QTR-GE	STATUS TELEMETRY RECEIVER			
LTT-1AE	ELEV TANK LEVEL TELEMETRY TRANSMITTER			
QTR-PE	STATUS TELEMETRY RECEIVER			
FTR-3E	SURVEYOR PS FLOW TELEMETRY RECEIVER			
LTR-2E	SURVEYOR GSR LEVEL TELEMETRY RECEIVER			
QTT-F	STATUS TELEMETRY TRANSMITTER			
LTR-1F	ELEV TANK LEVEL TELEMETRY RECEIVER			
LTT-2F	SURVEYOR GSR LEVEL TELEMETRY TRANSMITTER			
FTT-3F	SURVEYOR PS FLOW TELEMETRY TRANSMITTER			
LIR-1A	ELEV TANK LEVEL RECORDER/CONTROLLER	0 - 40	FEET	EXISTING INSTRUMENT, 7 DAY CHART
LY-1	ELEV TANK LEVEL SIGNAL CONVERTER			
LE-2	SURVEYOR GSR LEVEL ELEMENT			EXISTING INSTRUMENT
LIT-2	SURVEYOR GSR LEVEL TRANSMITTER	0 - 25	FEET	EXISTING INSTRUMENT
LIR-2	SURVEYOR GSR RECORDER	0 - 25	FEET	EXISTING INSTRUMENT, 7 DAY CHART
LY-2	SIGNAL CONVERTER			
FE-3	SURVEYOR PS FLOW ELEMENT			EXISTING INSTRUMENT
FT-3	SURVEYOR PS FLOW TRANSMITTER	0 - 12	MGD	EXISTING INSTRUMENT
FIR-1	SURVEYOR PS FLOW RECORDER	0 - 12	MGD	EXISTING INSTRUMENT, 7 DAY CHART
FE-1	DALLAS WATER UTILITY FLOW ELEMENT			DALLAS WATER UTILITY'S INSTRUMENT
FI	DALLAS WATER UTILITY FLOW TRANSMITTER/CONTROLLER			DALLAS WATER UTILITY'S INSTRUMENT
4	DALLAS WATER UTILITY FLOW RECORDER - SURVEYOR PS			EXISTING INSTRUMENT, 7 DAY CHART
1G	ELEV TANK LEVEL TELEMETRY RECEIVER			
G	STATUS TELEMETRY TRANSMITTER			
1G	CELESTIAL GSR LEVEL TELEMETRY TRANSMITTER			
1G	CELESTIAL PS FLOW TELEMETRY TRANSMITTER			
-1B	ELEV TANK LEVEL RECORDER	0 - 40	FEET	
-4	CELESTIAL GSR LEVEL ELEMENT			DALLAS WATER UTILITY'S INSTRUMENT
4A	CELESTIAL GSR LEVEL TRANSMITTER	0 - 24	FEET	DALLAS WATER UTILITY'S INSTRUMENT
4B	CELESTIAL GSR LEVEL 1/1 TRANSMITTER & ISOLATOR			DALLAS WATER UTILITY'S INSTRUMENT
-4A	CELESTIAL GSR LEVEL RECORDER	0 - 24	FEET	7 DAY CHART
5	CELESTIAL GSR LOW LEVEL CUTOFF SWITCH			
6	CELESTIAL PS FLOW ELEMENT			
6A	CELESTIAL PS FLOW TRANSMITTER	0 - 40	MGD	
-6A	CELESTIAL PS FLOW RECORDER	0 - 40	MGD	7 DAY CHART
6	CELESTIAL PS FLOW TELEMETRY RECEIVER			
7	CELESTIAL PS PUMP CONTROLLER/ALTERNATOR			PROGRAMMABLE CONTROLLER
1C-7A	LEVEL SETPOINT CONTROLLER A			
1C-7B	LEVEL SETPOINT CONTROLLER B			
1C-7C	LEVEL SETPOINT CONTROLLER C			
1C-7D	LEVEL SETPOINT CONTROLLER D			
FE-15	DALLAS WATER UTILITY FLOW ELEMENT			DALLAS WATER UTILITY'S INSTRUMENT
FT-15	DALLAS WATER UTILITY FLOW TRANSMITTER/CONTROLLER			DALLAS WATER UTILITY'S INSTRUMENT
YT-15	DALLAS WATER UTILITY CURRENT-TO-CURRENT ISOLATOR			DALLAS WATER UTILITY'S INSTRUMENT
FIR-15	DALLAS WATER UTILITY FLOW RECORDER - CELESTIAL PS	5 - 20	MGD	DALLAS WATER UTILITY'S INSTRUMENT
PI-14	WATER PUMP NO.1 PRESSURE INDICATOR	0 - 150	PSI	
PI-16	WATER PUMP NO.3 PRESSURE INDICATOR	0 - 150	PSI	
PI-18	WATER PUMP NO.5 PRESSURE INDICATOR	0 - 150	PSI	
FTR-3H	SURVEYOR PS FLOW TELEMETRY RECEIVER			
LTR-2H	SURVEYOR GSR LEVEL TELEMETRY RECEIVER			
LTR-1H	ELEV TANK LEVEL TELEMETRY RECEIVER			
LTR-4H	CELESTIAL GSR LEVEL TELEMETRY RECEIVER			
FTR-6H	CELESTIAL PS FLOW TELEMETRY RECEIVER			
QTR-H	STATUS TELEMETRY RECEIVER			
FIR-3B	SURVEYOR PS FLOW RECORDER	0 - 12	MGD	
LI-2	SURVEYOR GSR LEVEL INDICATOR	0 - 25	FEET	
LIR-1C	ELEV TANK LEVEL RECORDER	0 - 40	FEET	
LI-4	CELESTIAL GSR LEVEL INDICATOR	0 - 24	FEET	
FIR-6B	CELESTIAL PS FLOW RECORDER	0 - 40	MGD	

ANNUNCIATOR SCHEDULE CELESTIAL ROAD PUMP STATION				
R.C	1ST LINE	2ND LINE	3RD LINE	COMMENTS
1.1	WATER PUMP	NO. 1	FAIL	
2.1	WATER PUMP	NO. 2	FAIL	
3.1	WATER PUMP	NO. 3	FAIL	
4.1	WATER PUMP	NO. 4	FAIL	
1.2	WATER PUMP	NO. 5	FAIL	
2.2	GROUND STORAGE	RESERVOIR	HIGH LEVEL	
3.2	GROUND STORAGE	RESERVOIR	LOW LEVEL	
4.2	GROUND STORAGE	RESERVOIR	LOW LEVEL CUTOFF	
1.3	ELEVATED	TANK	HIGH LEVEL	
2.3	ELEVATED	TANK	LOW LEVEL	
3.3	POWER	FAILURE		
4.3	ELEVATED TANK	TELEMETRY	FAIL	
1.4	PROGRAMMABLE	CONTROLLER	FAIL	
2.4	CELESTIAL PS	INTRUSION		
3.4	CELESTIAL PS	FIRE		
4.4				SPARE ALARM MODULE

ANNUNCIATOR SCHEDULE SURVEYOR ROAD PUMP STATION				
R.C	1ST LINE	2ND LINE	3RD LINE	COMMENTS
1.1	WATER PUMP	NO. 1	FAIL	
2.1	WATER PUMP	NO. 2	FAIL	
3.1	WATER PUMP	NO. 3	FAIL	
4.1				SPARE ALARM MODULE
1.2				SPARE ALARM MODULE
2.2	GROUND STORAGE	RESERVOIR	HIGH LEVEL	
3.2	GROUND STORAGE	RESERVOIR	LOW LEVEL	
4.2	GROUND STORAGE	RESERVOIR	LOW LEVEL CUTOFF	
1.3	ELEVATED	TANK	HIGH LEVEL	
2.3	ELEVATED	TANK	LOW LEVEL	
3.3	POWER	FAILURE		
4.3	ELEVATED TANK	TELEMETRY	FAIL	
1.4	PROGRAMMABLE	CONTROLLER	FAIL	
2.4				SPARE ALARM MODULE
3.4				SPARE ALARM MODULE
4.4				SPARE ALARM MODULE

No.	Revision	By	Date
TOWN OF ADDISON DALLAS COUNTY, TEXAS CELESTIAL ROAD PUMPING STATION			
CHARLES R. MCCREARY & ASSOCIATES		CONSULTING ENGINEERS SUITE 217 8330 LBJ FREEWAY DALLAS, TEXAS 75240	INSTRUMENTATION SCHEDULES
GINN, INC. Consulting Engineers Dallas, Texas			
Designed - JK	Drawn - JW	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet 12 of 1

Joseph J. Kotula
 2-18-87