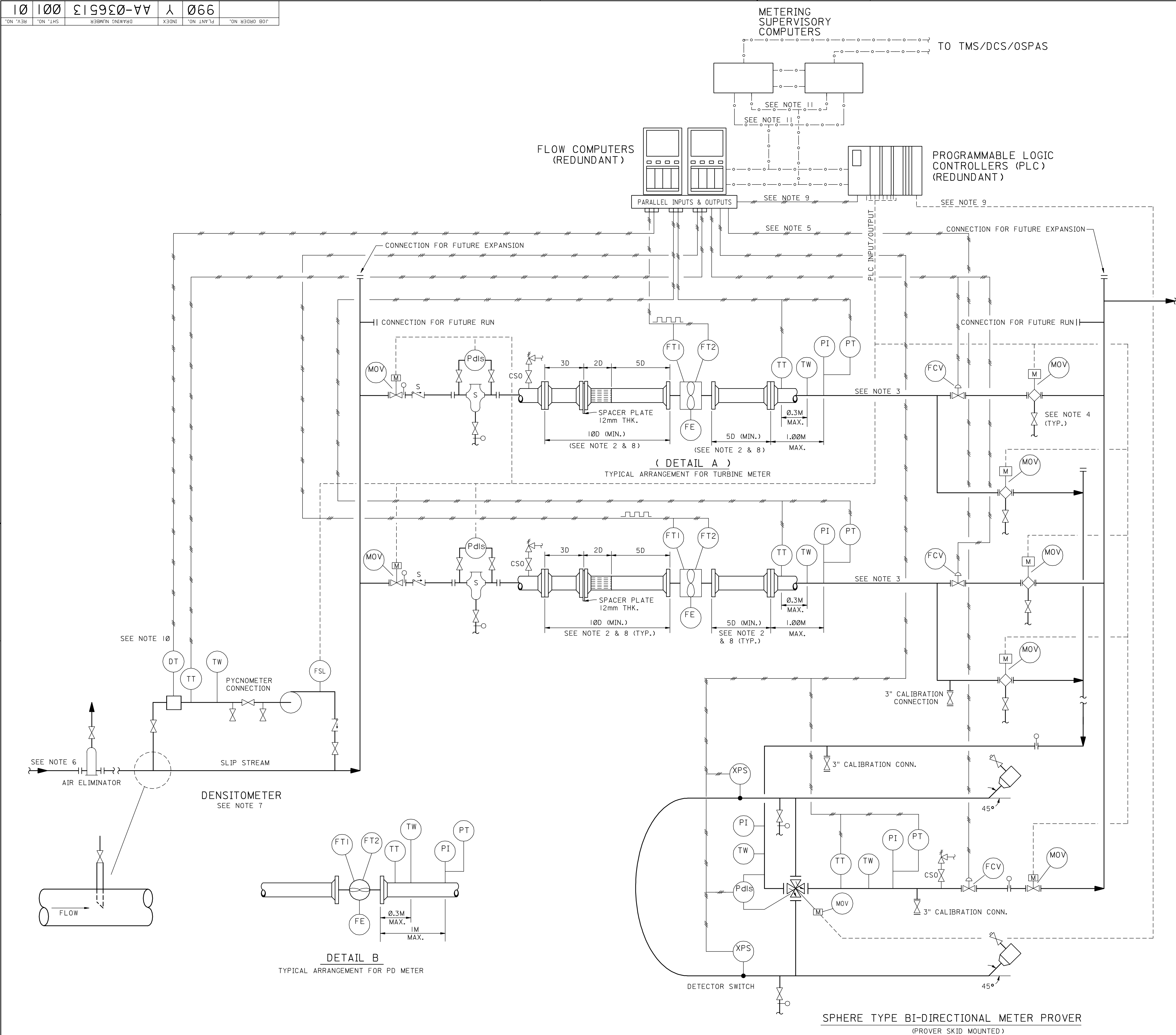


10	100	13	AA-036513	Y	099	
JOB ORDER NO.	PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.	



- NOTES
- BASIC REFERENCES:
 - SAES-J-103, CUSTODY METERING OF HYDROCARBON LIQUIDS.
 - API MANUAL OF PETROLEUM MEASUREMENT STANDARDS (MPMS) CHAPTERS 4, 5, 6, 7, 8, 11, 12 AND 14.
 - STRAIGHTENING VANE ASSEMBLY & STRAIGHT RUN AS SHOWN ARE REQUIRED FOR TURBINE METERS ONLY (DETAIL A1 REFER TO API MPMS CHAPTER 5 SECTION 3. A SPACER PLATE OR FLANGE JACK SCREWS SHALL BE PROVIDED TO FACILITATE REMOVAL OF STRAIGHTENING VANES.
 - INSTALL VENTS AT HIGH POINTS OF EQUIPMENT AND PIPING TO ELIMINATE TRAPPED AIR OR VAPOUR.
 - FOR DETAILS OF INSTRUMENT INSTALLATION REFER TO THE APPLICABLE DRAWING OF SAES-J-006, STANDARD DRAWINGS.
 - IN CASES WHEN MORE THAN ONE PAIR OF FLOW COMPUTERS IS INSTALLED, A RELAY CONTROLLED BY THE PROGRAMMABLE LOGIC CONTROLLER SHALL BE PROVIDED TO PERMIT SELECTION OF THE PROVER FCV CONTROL SIGNAL FOR THE METER ON PROOF AND TO ISOLATE ALL OTHERS.
 - AIR ELIMINATOR REQUIRED FOR MARINE UNLOADING ONLY.
 - SLIP STREAM AND DENSITOMETER REQUIRED FOR MARINE UNLOADING AND BATCHED PIPELINE METERING SYSTEMS ONLY.
 - FOR POSITIVE DISPLACEMENT METERS, USE DETAIL B.
 - HARDWIRE LINK FROM FLOW COMPUTERS TO PROGRAMMABLE LOGIC CONTROLLERS TO OPERATE 4-WAY VALVE.
 - SINUSOIDAL SIGNAL.
 - EACH PROGRAMMABLE LOGIC CONTROLLERS, FLOW COMPUTERS AND METERING SUPERVISORY COMPUTERS MUST HAVE A DUAL COMMUNICATION LINK.

- LEGENDS & ABBREVIATIONS
- TT : TEMPERATURE TRANSMITTER
TW : THERMOWELL
PT : PRESSURE TRANSMITTER
PI : PRESSURE INDICATOR
PDls : PRESSURE DIFFERENTIAL INDICATING SWITCH
FT1, FT2 : PULSE TRANSMITTER
DT : DENSITY TRANSMITTER
FSL : FLOW SWITCH LOW
FE : FLOW ELEMENT
XPS : DETECTOR SWITCH
MOV : MOTOR OPERATED VALVE
FCV : FLOW CONTROL VALVE
- PLC CONNECTIONS
===== FLOW COMPUTER CONNECTIONS
-o-o-o-o- DATA LINKS
PULSE OUTPUT

DRAWING RESPONSIBILITY:						ROYALTY AND CUSTODY MEASUREMENTS STANDARDS COMMITTEE											
REV. NO.	DATE	MAQ	CHANGED INDEX FROM 'J' TO 'Y' DWG. RESPONSIBILITY														
01	AUG98	MAQ															
FOR			BY			DESCRIPTION			CHKD.			CERT.			APPD.		
FOR ARABIAN AMERICAN OIL COMPANY																	
DRAWN BY: MNL/DMC CHECKED BY: SCALE:																	
DATE STARTED 03/30/96 DATE COMPLETED																	
OPR'G. DEPT. ENG. DEPT.																	
APP'D. FOR CONST.																	
THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED									CERTIFIED DATE								
CUSTODY TRANSFER																	
METERING AND PROVING STATION (LIQUID)																	
TYPICAL SCHEMATIC																	
STD. DWG. METRIC																	
PLANT NO.		INDEX		DRAWING NUMBER						SHT. NO.		REV. NO.					
990		Y		AA-036513						001		01					