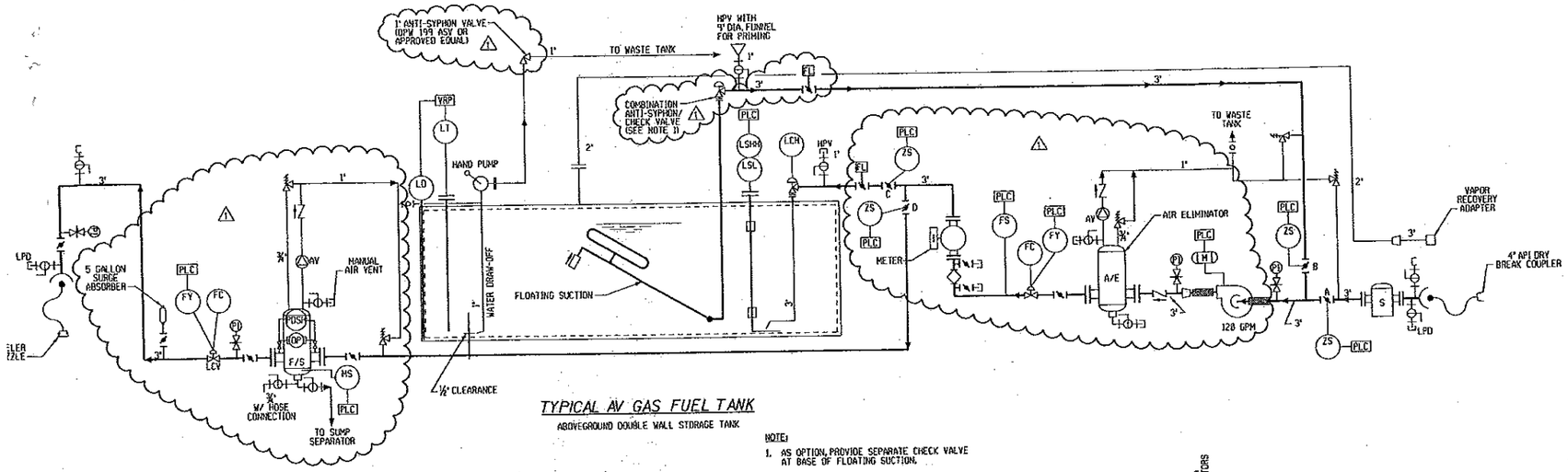
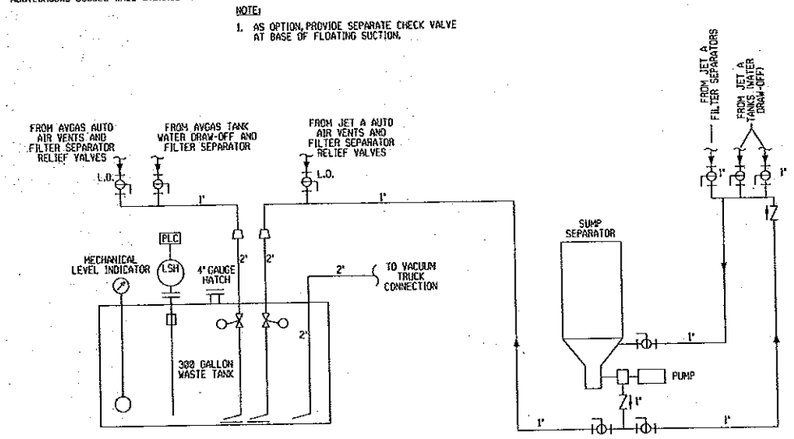


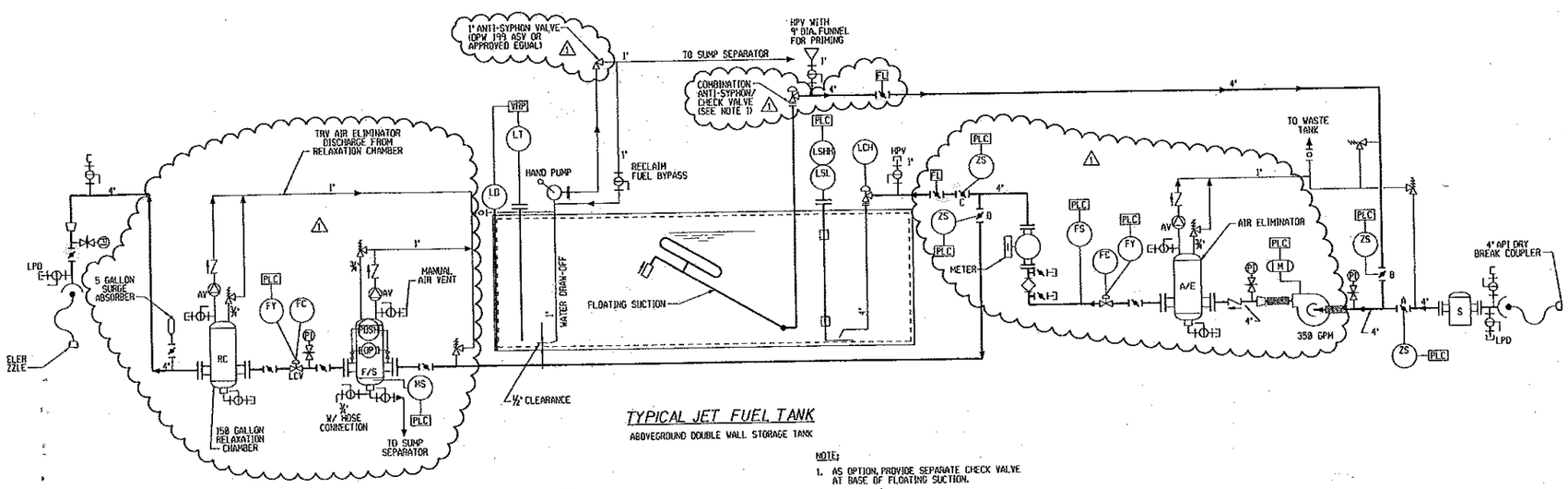
TYPICAL AV GAS FUEL TANK

ABOVEGROUND DOUBLE WALL STORAGE TANK

NOTE:
1. AS OPTION, PROVIDE SEPARATE CHECK VALVE AT BASE OF FLOATING SUCTION.



FUEL RECLAIM AND WASTE



TYPICAL JET FUEL TANK

ABOVEGROUND DOUBLE WALL STORAGE TANK

NOTE:
1. AS OPTION, PROVIDE SEPARATE CHECK VALVE AT BASE OF FLOATING SUCTION.

PIPE LINE FITTINGS, EQUIPMENT & ACCESSORIES

- AV — AUTOMATIC AIR VENT
- BALL VALVE
- BLIND FLANGE
- BUTTERFLY VALVE
- CHECK VALVE
- COUPLER
- DBB PLUG VALVE
- DIAPHRAGM OPERATED CONTROL VALVE
- LCH — HIGH LEVEL SHUT-OFF CONTROL VALVE
- DIELECTRIC UNION
- DP — DIFFERENTIAL PRESSURE GAUGE ASSEMBLY
- EV — EMERGENCY VENT
- FS — FILTER/SEPARATOR
- FLANGE
- FLEX HOSE
- FLOAT OPERATED OVERFILL PREVENTION VALVE
- FS — FLOW SWITCH
- FOOT VALVE
- FUEL SAMPLE CONNECTION
- FL — FUSIBLE LINK
- HPV — HIGH POINT VENT
- HOSE AND COUPLER ASSEMBLY
- INSTRUMENT VALVE
- LCV — LOADING CONTROL VALVE
- LM — LOADING METER
- L.O. — LOCK OPEN
- METER
- M — MOTOR
- N.O. — NORMALLY OPEN
- PIPE TURN DOWN
- PIPE TURN UP
- PI — PRESSURE GAUGE ASSEMBLY
- PRESSURE/THERMAL RELIEF VALVE
- PRESSURE VACUUM VENT
- P — PUMP
- QUICK COUPLING
- REDUCER
- RC — RELAXATION CHAMBER
- SIGHT FLOW INDICATOR
- S — STRAINER
- SURGE ABSORBER
- VENT FITTING
- WELD CAP

INSTRUMENT INDENTIFICATION KEY

- CONTROL/INTERLOCK SCHEME
- LD — LEAK DETECTION
- PLC — PROGRAMMABLE CONTROLLER INPUTS
- VRP — VEEDER ROOT PANEL

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OF PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME				
C	CONDUCTIVITY (ELECTRICAL)			CONTROL	
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL			
E	VOLTAGE (EMF)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FRACTION)			
G	GAUGING (DIMENSIONAL)		GLASS		
H	HAND (MANUALLY INITIATED)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER				
K	TIME			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOISTURE OR HUMIDITY				MIDDLE OR INTERMEDIATE
N					
O			ORIFICE (RESTRICTION)		
P	PRESSURE OR VACUUM			POINT (TEST CONNECTION)	
Q	QUANTITY OR EVENT	INTEGRATE OR TOTALIZE			
R	RADIOACTIVITY		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VISCOSITY			VALVE DAMPER OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED		UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	USER'S CHOICE			RELAY OR COMPUTER	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

* ANY DEVIATIONS TO THE KEY ARE LISTED AS MECHANICAL ABBREVIATIONS.

FM-1

DGN NA

$DATE

ISSUED FOR BID STAGE OF PLANS — APP.

ADD - FUEL — DGN NA — CADD FILE NO. 27514-000.00E20

NO.	DATE	DESCRIPTION
1	03/22/05	REVISED EQUIPMENT LAYOUT

Burns & McDonnell SINCE 1898

Washington Group International — Integrated Engineering, Construction, and Management Solutions

ADDISON AIRPORT
ADDISON, TEXAS

BULK FUEL STORAGE AND DISPENSING SYSTEM
P&ID
FUEL TANKS AND EQUIPMENT

DESIGNER J.H.B. — CADD TECH. W.D.L. — PROJ. LEAD J.H.B. — CHECKED R.A.P. — APPROVED J.H.B.

DATE: OCTOBER 25, 2004

SHEET 27 OF 33