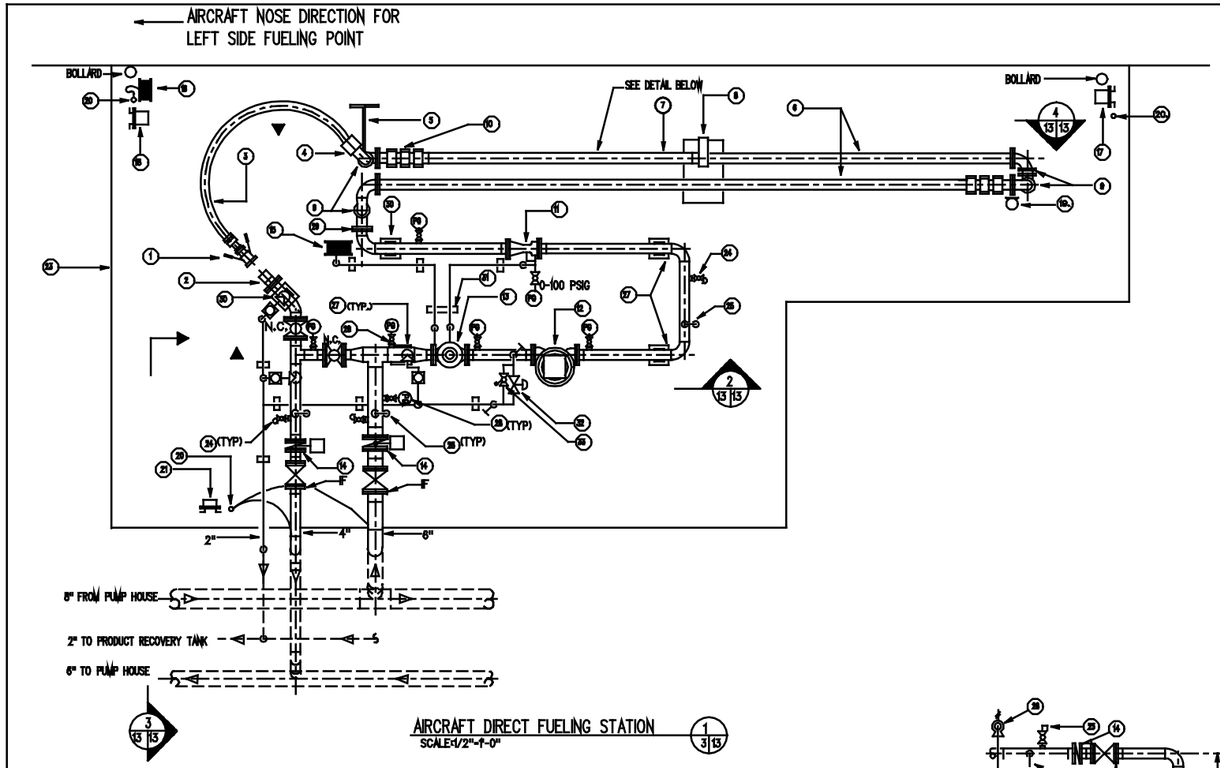
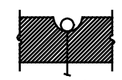
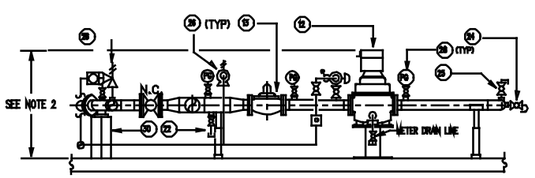


AIRCRAFT DIRECT FUELING STATION (1 / 3|13)
SCALE:1/2"=1'-0"

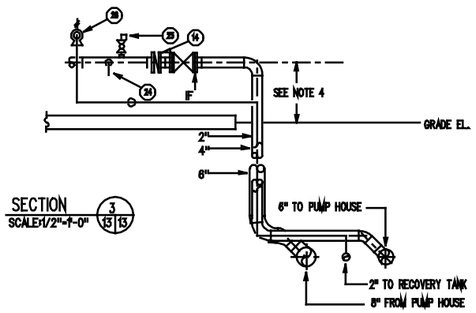


3/4"ø X 10'-0" LONG ZINC COATED STEEL GROUND ROD. ROD SHALL BE TESTED TO READ 10,000 OHMS OR LESS IN RELATIONSHIP TO GROUND.

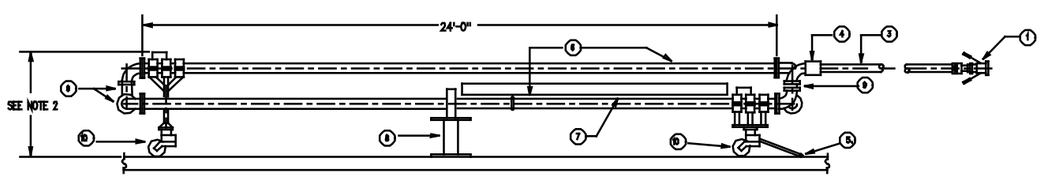
DETAIL (5 / 13|13)
NOT TO SCALE



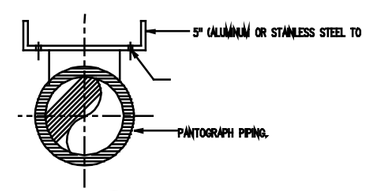
SECTION (2 / 13|13)
SCALE:1/2"=1'-0"



SECTION (3 / 13|13)
SCALE:1/2"=1'-0"



SECTION (4 / 13|13)
SCALE:1/2"=1'-0"



DETAIL (6 / 13|13)
NOT TO SCALE

NUMBERED NOTES:

1. PRESSURE FUELING NOZZLE W/ 40 STRAINER AND DRY BREAK COUPLING
2. 2-1/2" D-1 NOZZLE ADAPTER W/DUST CAP.
3. 3" DIAMETER API 1529 AIRCRAFT FUELING HOSE. NOMINAL 10' LENGTH. HOSE TO HAVE EXTERNALLY WRAPPED COND WIRE FROM HOSE COUPLING TO HOSE COUPLING.
4. SHUT-EMERGENCY BREAKAWAY COUPLING.
5. PULL HANDLE.
6. TWO PIPE SECTION, SS OR ALUMINUM PANTOGRAPH. NOMINAL LENGTH: 24' PER PIPE SECTION. DIAMETER OF PANTOGRAPH PIPING SHALL BE AS SPECIFIED.
7. HOSE TRAY, SEE DETAIL (6 / 13|13)
8. HINGED HOLDING BRACKET W/HASP AND LOCK. TO FOLD AND ALLOW PANTOGRAPH PIPE SECTIONS TO PASS WHEN EXTENDING
9. SWIVEL JOINTS (TYP).
10. ALL TERRAIN WHEELS (TYP FOR 4).
11. FUELING STATION VENTURI.
12. 600 GMP FUELING STATION METER.
13. 4" REFUELING CONTROL VALVE.
14. BUTTERFLY VALVE W/FUSIBLE LINK. SEE NOTE 3
15. HYDRAULIC DEADMAN HOSE REEL.
16. STATIC GROUND HOSE REEL.
17. EMERGENCY STOP PUSHBUTTON STATION, SEE DETAIL (7 / 13|27)
18. CONTROL STATION WITH PUSHBUTTONS FOR START/STOP AND LIGHT FOR INDICATING STATION CONDITION (SCHEME A ONLY). SEE DETAIL (9 / 13|27)
19. STEEL POST W/RESILIENT BUMPER.
20. GROUNDING ROD, SEE DETAIL. (5 / 13|13)
21. CATHODIC PROTECTION TEST STATION.
22. LOW POINT DRAIN.
23. CONCRETE PAD, SEE NOTE 4
24. SAMPLE CONNECTION, SEE DETAIL (5 / 13|12)
25. MANUAL AIR VENT
26. RELIEF VALVE, SEE DETAIL (3 / 13|12)
27. PIPE SUPPORT, SEE DETAIL (6 / 13|12)
28. PRESSURE GAGE, SEE DETAIL (8 / 13|12) SEE FLOW DIAGRAM FOR REQUIRED PRESSURE RANGES
29. PANTOGRAPH CONNECTION POINT. DIRECTION AND/OR ELEVATION FOR POINT OF CONNECTION MAY VARY BASED ON PANTOGRAPH TYPE, AND MAXIMUM ALLOWABLE HEIGHT RESTRICTIONS.
30. PIPE ANCHOR.
31. CHANNEL TYPE PIPE SUPPORT.
32. PANTOGRAPH PRESSURE CONTROL VALVE (PPCV).
33. BALL VALVE WITH DEADMAN SPRING RETURN HANDLE.

NOTE:

1. THE PANTOGRAPH ILLUSTRATED IS NOT AN AIR FORCE DESIGN BUT IS REPRESENTATIVE OF ONE MANUFACTURER AND IS NOT INTENDED TO RESTRICT PRODUCTS OF OTHER MANUFACTURERS SEE SPECIFICATIONS SECTION 15051 FOR ALLOWABLE OPTIONAL DESIGNS. THE PANTOGRAPH MUST BE CERTIFIED BY THE AIR FORCE SYSTEM SAFETY ENGINEERING ANALYSIS (AFSSEA) TEAM.
2. DESIGNER MUST COORDINATE MAXIMUM ALLOWABLE HEIGHT OF PANTOGRAPH AND AIRCRAFT DIRECT FUELING STATION EQUIPMENT, VALVES AND PIPING WITH COMMAND FUEL FACILITIES ENGINEER.
3. CONSULT WITH COMMAND FUEL FACILITIES ENGINEER FOR DIRECTIONS ON USE OF FUSIBLE LINK BUTTERFLY VALVES.
4. CONTAINMENT IN AREA OF PANTOGRAPH SHALL BE IN ACCORDANCE WITH CURRENT STATE, FEDERAL AND LOCAL ENVIRONMENTAL REGULATIONS.

REVISION	DESCRIPTION	DATE	APPROVED

SUPERSEDES PREVIOUS EDITIONS OF THIS DRAWING

Robert and Company
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DR. M. COBB
SUPV. L. HENSLEY CK'D. L. BLUITT
SUBMITTED BY: DATE: 12-7-80

EIC.
BR.HD.
FPE.
APPROVED: DATE: 1/8/81
EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS TAC/DEE
TAC/DEE
ACCEPTED: DATE: 1-22-81
USAF FUEL FACILITIES ENGINEER
APPROVED FOR CHIEF OF STAFF, U.S. AIR FORCE
CHIEF, ENGINEERING DIVISION
DATE: 1-22-81

AIR FORCE STANDARDS
AIRCRAFT DIRECT FUELING SYSTEM
TYPE IV

UNVERIFIED DRAFT

PANTOGRAPH-HOSE END TYPE

SCALE: AS NOTED
SPEC. NO. 78-24-29-00-AF
SHEET 13
DRAWING NO. AF 78-24-29