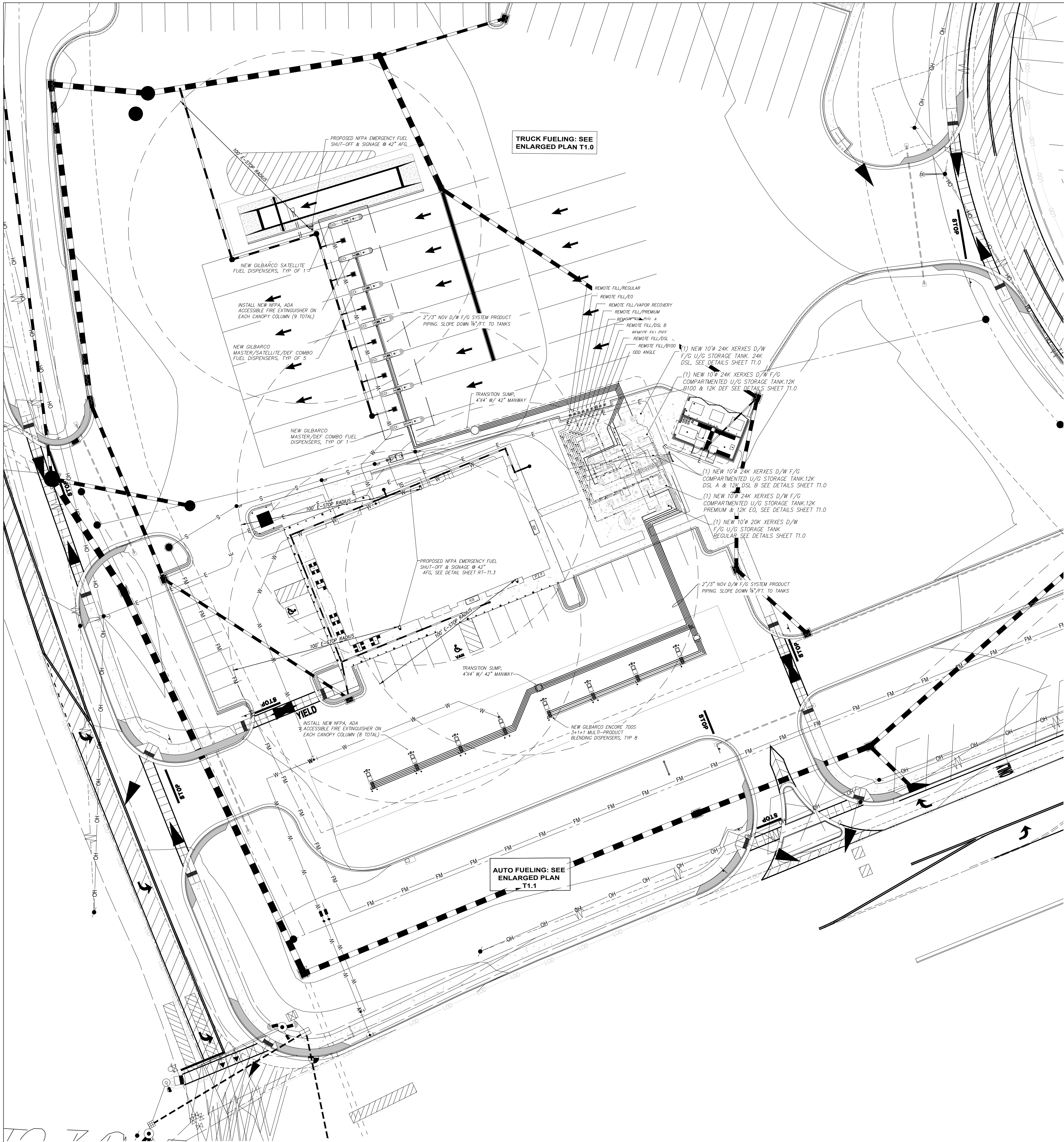


ISSUED FOR CONSTRUCTION



FUEL PIPING PLAN (Travel Center Combined Tank Pit)

SCALE: 1" = 30'-0"



EMERGENCY INSTRUCTIONS

IN CASE OF FIRE OR SPILL:

1. USE EMERGENCY STOP BUTTON.
2. REPORT ACCIDENT BY CALLING (SPECIFY LOCAL FIRE NUMBER) ON THE PHONE. REPORT LOCATION.

NFPA 30A 9.5.3 EMERGENCY INSTRUCTIONS, TYP. EA. DISP.

SIGNS SHALL BE CONSPICUOUSLY POSTED ON SIDES OF EACH DISPENSER IN THE DISPENSING AREA AND INCORPORATE THE ABOVE OR EQUIVALENT WORDING

WARNING

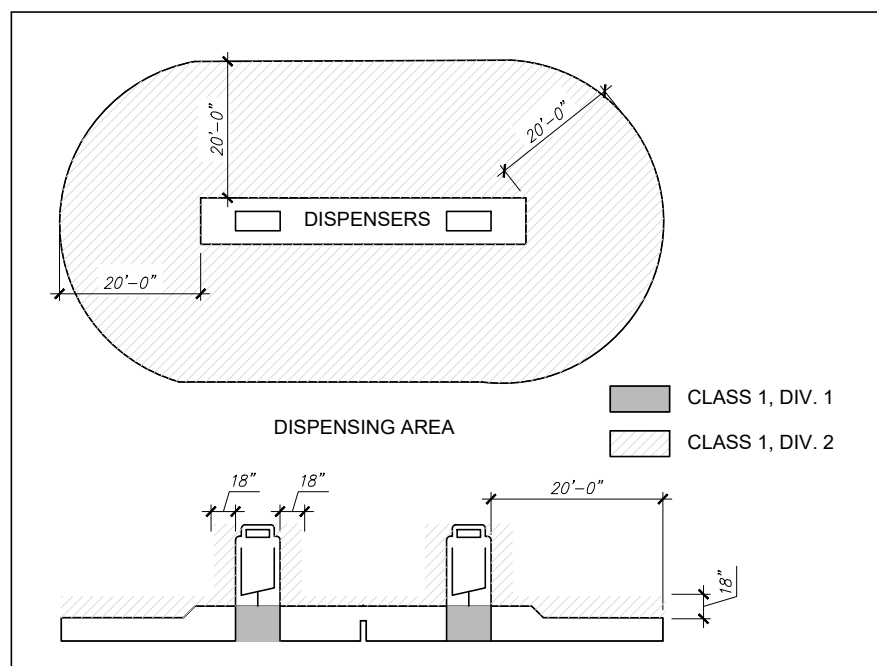
IT IS UNLAWFUL AND DANGEROUS TO DISPENSE GASOLINE INTO UNAPPROVED CONTAINERS.
NO SMOKING.
STOP MOTOR.
NO FILLING OF PORTABLE CONTAINERS IN OR ON A MOTOR VEHICLE.

PLACE CONTAINER ON GROUND BEFORE FILLING.
DISCHARGE YOUR STATIC ELECTRICITY BEFORE FUELING BY TOUCHING A METAL SURFACE AWAY FROM THE NOZZLE.
DO NOT RE-ENTER YOUR VEHICLE WHILE GASOLINE IS PUMPING.

IF A FIRE STARTS, DO NOT REMOVE NOZZLE --- BACK AWAY IMMEDIATELY.
DO NOT ALLOW INDIVIDUALS UNDER LICENSED AGE TO USE THE PUMP.

NFPA 30A 9.2.5.4 WARNING SIGNS, TYP. EA. GASOLINE DISPENSER

SIGNS SHALL BE CONSPICUOUSLY POSTED ON SIDES OF EACH DISPENSER IN THE DISPENSING AREA AND INCORPORATE THE ABOVE OR EQUIVALENT WORDING



NFPA 514.3 CLASSIFIED AREAS

TANK, PIPING & INSTALLATION NOTES:

1. ALL PETROLEUM EQUIPMENT, MATERIALS, AND ACCESSORIES SHALL BE NEW, INSTALLED AND TESTED IN ACCORDANCE WITH APPLICABLE MANUFACTURER'S INSTRUCTIONS.
2. ALL TANK AND PIPING INSTALLATION WORK IS TO BE PERFORMED BY A STATE REGISTERED POLLUTANT STORAGE SPECIALTY CONTRACTOR.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE GA STATE, COUNTY, MUNICIPAL REQUIREMENTS AND THE FOLLOWING REFERENCE STANDARDS:

NATIONAL FIRE PROTECTION ASSOCIATION:
1 FIRE CODE

30 FLAMMABLE AND COMBUSTIBLE LIQUID CODE 2012 EDITION
30A MOTOR FUEL DISPENSING FACILITIES & REPAIR GARAGE 2012
329 UNDERGROUND LEAKAGE OF FLAMMABLE & COMBUSTIBLE LIQUIDS
70 NATIONAL ELECTRIC CODE, 2017 EDITION

AMERICAN PETROLEUM INSTITUTE:
1615 INSTALLATION OF UNDERGROUND PETROLEUM STORAGE SYSTEMS
1604 RECOMMENDED PRACTICE FOR ABANDONMENT OR REMOVAL OF USED U.G. STORAGE TANKS

PETROLEUM EQUIPMENT INSTITUTE:
RP100 RECOMMENDED PRACTICES FOR INSTALLATION OF U.G. LIQUID STORAGE TANKS

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:
CONSTRUCTION SAFETY AND HEALTH REGULATIONS SUBPART P, 1902.50 THRU 1926.653

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING UNDERGROUND UTILITIES IDENTIFICATION BY CONTACTING SUNSHINE ONE CALL (1-800-432-4770) AND APPLICABLE MUNICIPAL JURISDICTION AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GIVING REQUIRED NOTICE(S) AND SCHEDULING APPLICABLE CITY, COUNTY AND/OR STATE INSPECTIONS AS REQUIRED FOR PERMIT CLOSE OUT(S).

ELECTRICAL NOTES:

1. N.E.C. ARTICLE 500 & 514 CONDITIONS FOR HAZARDOUS AREAS AND FUEL DISPENSING FACILITIES APPLY.
2. PROVIDE EXPLOSION PROOF SEALS-OFFS IN ACCORDANCE WITH ARTICLES 500, 501 AND 514 (CLASS 1, DIVISION 1 & 2) NATIONAL ELECTRICAL CODE TYPICAL FOR ALL CONDUITS IN CLASS 1 LOCATIONS, INCLUDING LOW VOLTAGE CONDUITS.
3. ALL CONDUITS IN CLASS 1 LOCATIONS SHALL BE GROUNDED AS PER NEC. 250.100 & 501.30.
4. SEE DETAIL SHEETS T1.2 & T1.3 ATTACHED AND BUILDING/ELECTRICAL FOR PANEL SCHEDULES, LOAD AND CIRCUIT DETAILS.

N.F.P.A. NOTES:

1. CASHIER/ATTENDANT'S VIEW OF DISPENSING AREA SHALL REMAIN UNOBSTRUCTED & ONE ATTENDANT SHALL BE ON DUTY AT ALL TIMES PER NFPA 30A, 9.4.2.
2. NEW NOZZLES TO BE EQUIPPED WITH AUTOMATIC SHUT-OFFS PER NFPA 30A, 9.4.2.
3. NFPA 30A, 9.2.5.2/NFPA 10 HIGH FLOW FIRE EXTINGUISHER; AMEREX MODEL NO. 760, 4A:60B:C, 20 LBS CAPACITY OR EQUAL, ARE PROVIDED WITHIN 100 FT OF ALL DISPENSING PUMPS & FILL PIPE OPENINGS.
4. EMERGENCY CONTROLS ARE PROVIDED AT LOCATION AS PER NFPA 30A, 6.7 (NOT MORE THAN 100 FT FOR ATTENDED SELF-SERVICE DISPENSING AREA & MORE THAN 20 FT BUT LESS THAN 100 FT FOR UNATTENDED).
5. NFPA 30A, 9.2.5.4: "WARNING" SIGNAGE IS PROVIDED @ EA. FUEL ISLAND, SEE DETAIL THIS SHEET.
6. NFPA 30A, 9.5.3: "EMERGENCY INSTRUCTIONS" SIGNAGE IS PROVIDED @ EA. FUEL ISLAND, SEE DETAIL THIS SHEET.
7. THE AUTHORITY HAVING JURISDICTION SHALL BE GIVEN ADVANCE NOTIFICATION OF THE TIME AT WHICH ACCEPTANCE TESTS FOR ALL SAFETY-RELATED PRODUCT CONTROL EQUIPMENT ARE TO BE PERFORMED SO THAT THE AUTHORITY CAN WITNESS THE TEST, PER NFPA 1, 4.5.8.6.

PIPING NOTES:

1. NEW UNDERGROUND PRODUCT PIPING TO BE SMITH RED THREAD II A D/W F/G, U.N.O.
2. PRODUCT LINES AND VENT LINES TO SLOPE MIN. 1/8" PER FOOT DOWN TO UNDERGROUND TANKS.
3. NEW FIBERGLASS PIPING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS FOR PIPE INSTALLATION, DESIGN DETAILS & SPECIFICATIONS AS SHOWN ON THESE DRAWINGS.

TANK NOTES:

1. TANKS TO BE XERKES DOUBLE-WALL FIBERGLASS UL-1316. SEE SHEETS T4.1 FOR CALL-OUT.
2. TANKS TO BE INSTALLED IN ACCORDANCE WITH NFPA 30, CHAPTER 23 AND MANUFACTURER'S REQUIREMENTS FOR INSTALLATION DESIGN DETAILS AS SHOWN ON THESE DRAWINGS.
3. TOP OF TANK TO SET @ 4'-0" (MIN.) BELOW FINISH GRADE.
4. TANKS TO BE ANCHORED W/CONCRETE DEADMEN.
5. OVERFILL PROTECTION: OPW 7150 VALVE SET @95% TANK CAPACITY WITH VEEDEER ROOT AUDIBLE OVERFILL ALARM SET AT 90% TANK CAPACITY SEE DETAILS SHEET T2.0

RaceTrac

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DESIGN PROFESSIONALS

PLANS PREPARED BY:
MDM
engineering • environmental • construction
2101 W HILLSBORO BLVD. STE 101, BERKELEY BEACH, FL 33442
(954) 427-5076
FAX (954) 427-5076

ISSUE/REVISION RECORD

DATE	DESCRIPTION
05/15/21	UPDATED SITE PLAN
	PER LATEST CIVIL
	DWG(S) REMOVED 2
	TRUCK ISLANDS/ADDED
	BLEND SUMP FOR DSL
	A. ACTIVE SPYHON, MISC
	REVS
05/09/22	NEW TANKS
	CONFIGURATION

RaceTrac

RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SE
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANVIL BLOCK

ELLENWOOD
GEORGIA
4443 DUNN COURT

RACETRAC PROJECT NUMBER

1478

PLAN SERIES

2011 BR-RH-M90 0801

PLAN MODIFICATION NOTICE

- NO MODIFICATIONS APPLIED
- MODIFICATIONS APPLY

SPB NO. 0000 DATE 05/09/2007

STANDARD PLAN BULLETINS (SPB) MODIFY THE PLAN SERIES SET NOTED ABOVE. THE SPB GIVEN ABOVE REPRESENTS THE LATEST MODIFICATION INCORPORATED TO THIS PLAN SERIES SET. CONTACT RACETRAC ENGINEERING AND CONSTRUCTION FOR ALL BULLETINS.

PROFESSIONAL SEAL



Richard R Morris
RICHARD R. MORRIS
GA REG # PE013997

PROJECT NUMBER

21056

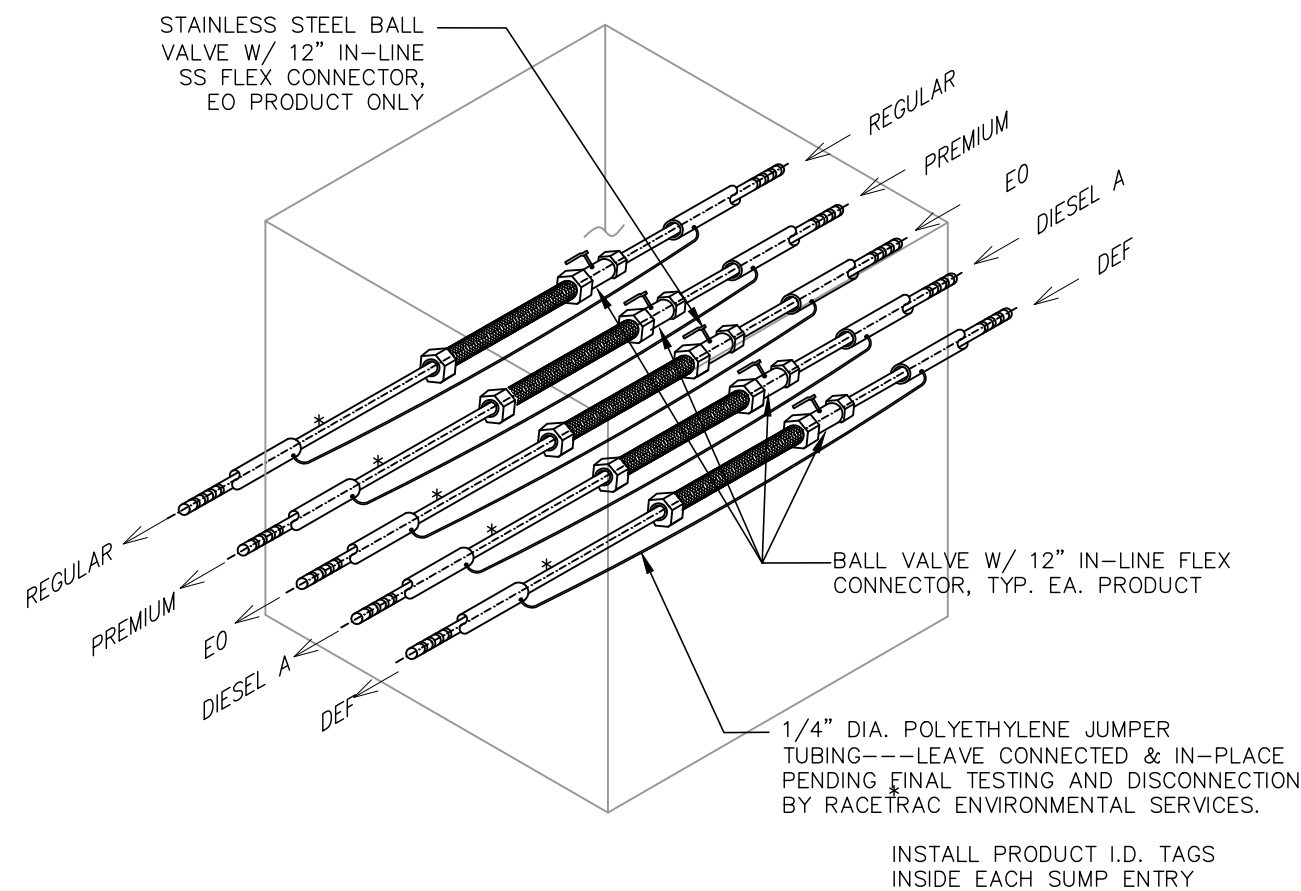
SHEET TITLE & NUMBER

TRUCK
FUELING
SITE PLAN

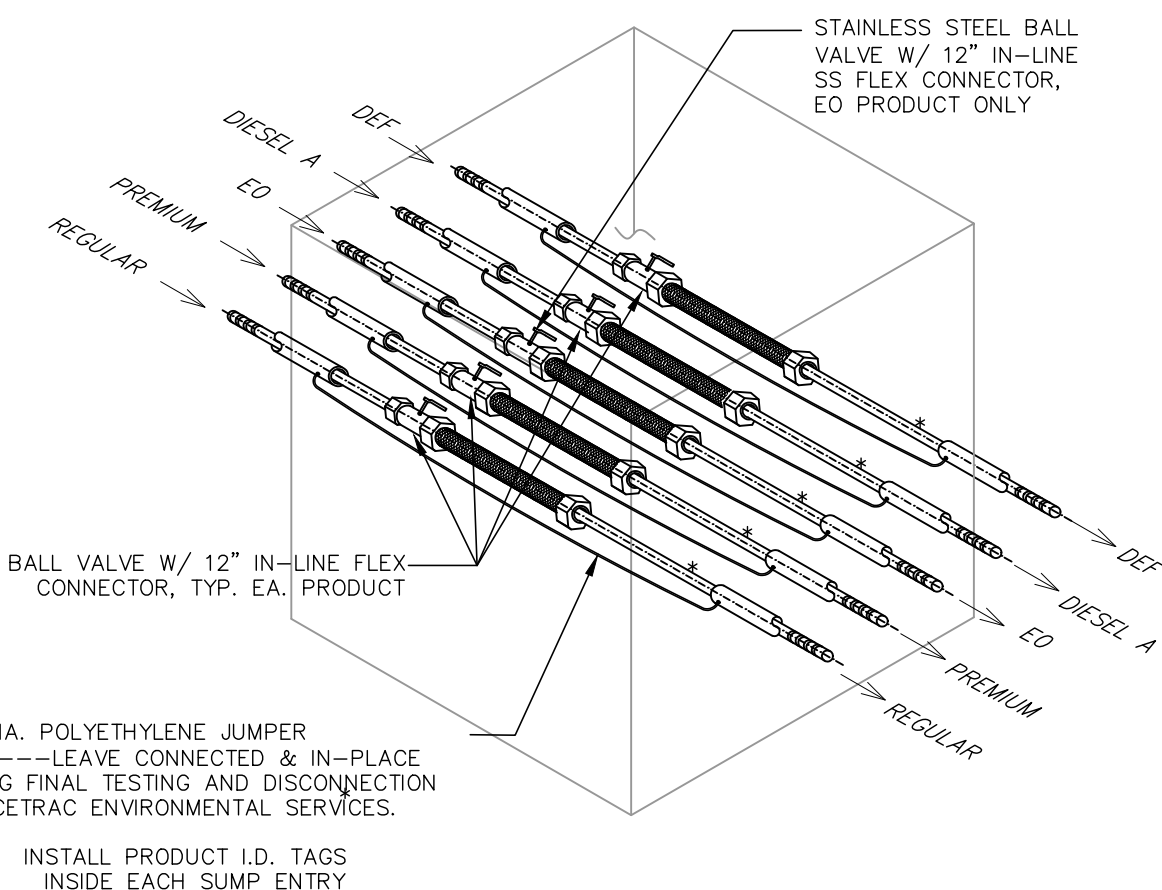
FILE NUMBER

T0.0

ISSUED FOR CONSTRUCTION



E PIPING CROSS @ TRANSITION SUMP
T1 N.T.S.



F PIPING CROSS @ TRANSITION SUMP
T1 N.T.S.

- RFS REMOTE FILL PIPING, 4" S/W F/G
- R REGULAR, 2" 3/8" D/W F/G*
- P PREMIUM, 2" 3/8" D/W F/G*
- EO EO, 2" 3/8" D/W F/G *
- VR VAPOR RECOVERY, 3" S/W F/G
- AS ACTIVE SIPHON, 2" 3/8" D/W F/G *
- FUS FUTURE USE SIPHON, 2" 3/8" D/W F/G *
- V VENT, 3" S/W F/G
- M VAPOR MANIFOLD, 3" S/W F/G
- DA DIESEL, 2" 3/8" D/W F/G *
- DB DIESEL, 2" 3/8" D/W F/G *
- D1 DIESEL, TANK 1, 2" 3/8" D/W F/G *
- D2 DIESEL, TANK 2, 2" 3/8" D/W F/G *
- B100 B-100 DIESEL, TANK 1, 2" 3/8" D/W F/G *
- DEF DEF, 2" 3/8" D/W F/G *
- SAT MASTER/SATELLITE CONNECTOR, 2" 3/8" D/W F/G
- * 2" PRIMARY/3" SECONDARY

- P SUBMERGED TURBINE PUMP
- A ANNULAR SPACE MONITOR
- B UNUSED BUNG
- F DIRECT FILL
- RF REMOTE FILL
- E EXTRACTOR ASSEMBLY
- V STAGE 1 VAPOR RECOVERY STUB
- S MANIFOLD SIPHON
- T TANK LEVEL MONITOR
- M MONITORING WELL (WHERE REQUIRED)
- FE NFPA 30A, 9.2.5.2/NFPA 10 HIGH FLOW FIRE EXTINGUISHER: AMEREX MODEL NO. 760, 4A:60B:C, 20 LBS CAPACITY OR EQUAL, ARE PROVIDED WITHIN 100 FT OF ALL DISPENSING PUMPS & FILL PIPE OPENINGS..
- Full port BALL VALVE (CLOSED)
- Full port BALL VALVE (OPEN)
- UNION

R	REGULAR
M	MID-GRADE (BLENDED, REG/PREM)
P	PREMIUM
EO	NON-ETHANOL (EO)
DA	DSL A (DEF CAPPED AT SHEAR VALVE)

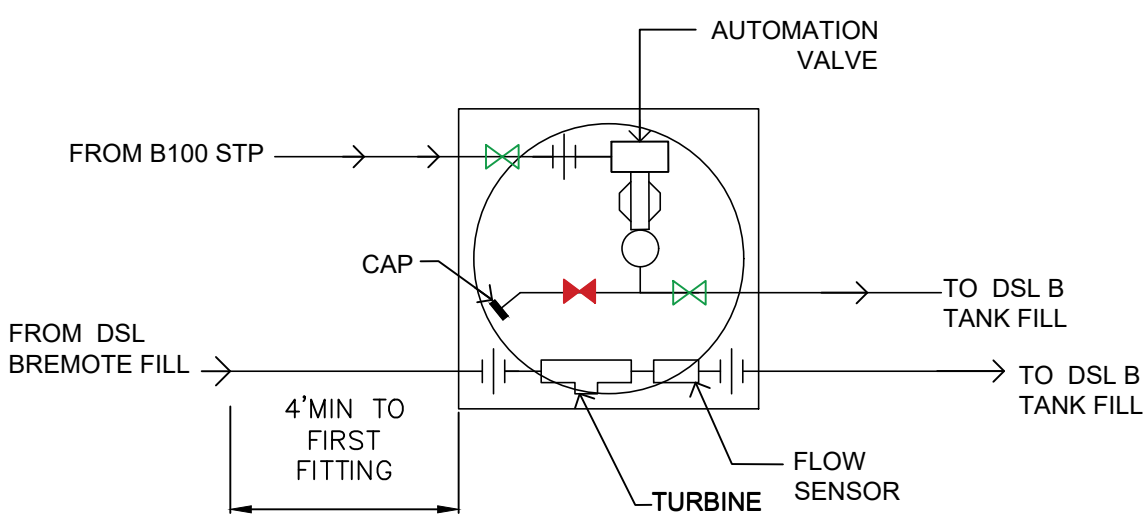
NOTE:

CONTRACTOR TO VERIFY W/RACETRAC REP IF SIPHON TO BE ACTIVE OR FUTURE USE PRIOR TO CONSTRUCTION

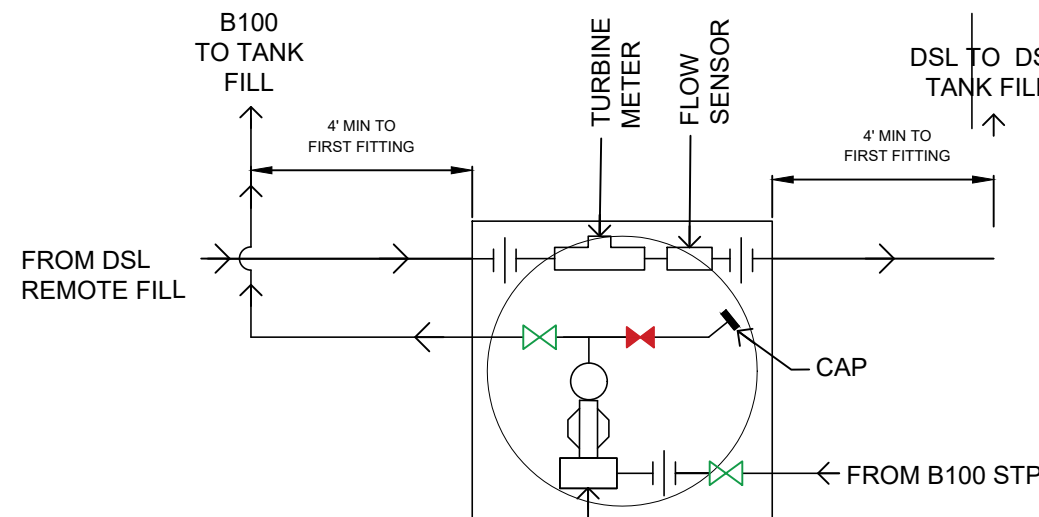
SHIFT TRANSITION SUMPS AS NEEDED TO ALIGN PRODUCT PIPING

PETROLEUM CONTRACTOR MUST PROVIDE AN ACCURATE, DETAILED AS-BUILT OF THE SYSTEM.

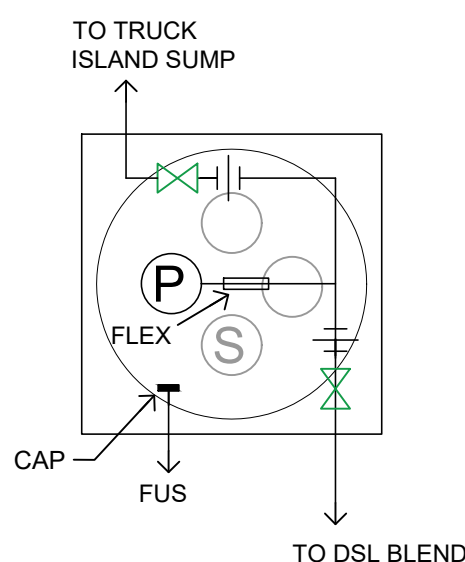
ALL PRODUCT PIPING TO BE NOV FIBERGLASS SYSTEMS RED THREAD IIA 2" 3/8" D/W F/G, U.N.O.



K BLENDER SUMP*
T1.0 DSL A & DSL B
* BLEND SUMP HYDROSTATIC TESTING TO BE COMPLETED PRIOR TO JUNGLE BLEND ISNTALLATION N.T.S.



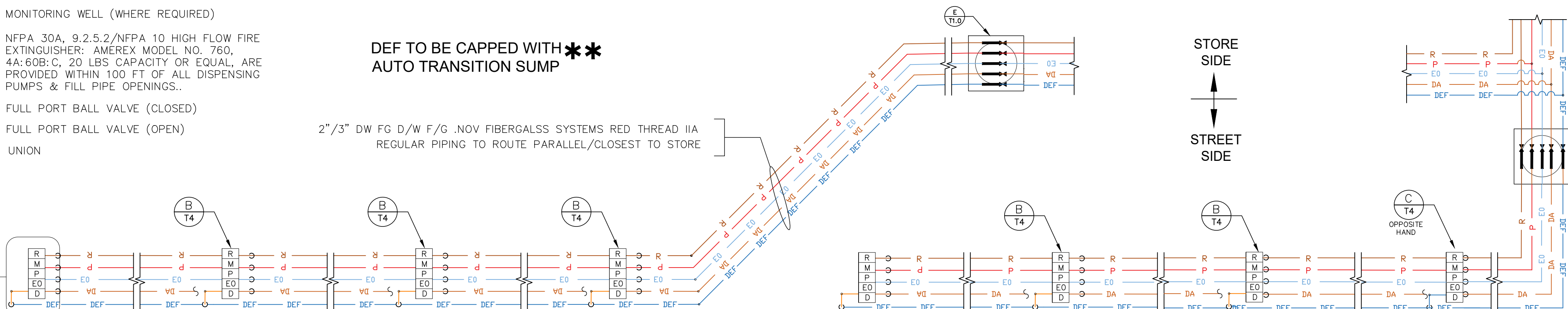
G BLEND SUMP DIESEL*
T1 N.T.S.
* BLEND SUMP HYDROSTATIC TESTING TO BE COMPLETED PRIOR TO JUNGLE BLEND ISNTALLATION



B B100 STP SUMP W/ FUS
T1.0 N.T.S.

DEF TO BE CAPPED WITH**
AUTO TRANSITION SUMP

2" 3/8" DW FG D/W F/G .NOV FIBERGLASS SYSTEMS RED THREAD IIA
REGULAR PIPING TO ROUTE PARALLEL/CLOSEST TO STORE



MATCH LINE SHEET T-1.1

DATE	DESCRIPTION
08/15/21	ADDED BLEND SUMP FOR DSL A, ACTIVE SIPHON, MISC REVS
05/09/22	NEW TANKS CONFIGURATION

PROJECT NAME
ANVIL BLOCK

ELLENWOOD GEORGIA
4443 DUNN COURT

RACETRAC PROJECT NUMBER
1478

PLAN SERIES
2011 BR-RH-M90 0801

PLAN MODIFICATION NOTICE

☐ NO MODIFICATIONS APPLIED
☐ MODIFICATIONS APPLY

SPB NO. N/A DATE N/A

STANDARD PLAN BULLETINS (SPB) MODIFY THE PLAN SERIES SET NOTED ABOVE. THE SPB GIVEN ABOVE REPRESENTS THE LATEST MODIFICATION INCORPORATED TO THIS PLAN SERIES SET. CONTACT RACETRAC ENGINEERING AND CONSTRUCTION FOR ALL BULLETINS.

PROFESSIONAL SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER
No. 013997
RICHARD R. MORRIS
RICHARD R. MORRIS
GA REG # PE013997

PROJECT NUMBER
21056

SHEET TITLE & NUMBER

FUELING TANK & PIPING LAYOUT

FILE NUMBER

T1.0
ISSUED FOR CONSTRUCTION

ISSUE/REVISION RECORD

DATE	DESCRIPTION
06/15/21	ADDED BLEND SUMP FOR DSL A, ACTIVE SYPHON MISC REVS
05/10/22	CLIENT GLOBAL UPDATE NEW TANK CONFIG.

PROJECT NAME

ANVIL BLOCK

ELLENWOOD
GEORGIA
4443 DUNN COURT

RACETRAC PROJECT NUMBER

1478

PLAN SERIES

2011 BR-RH-M90 0801

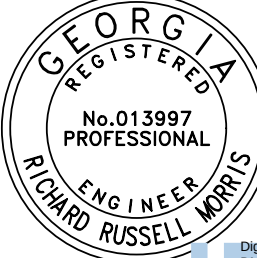
PLAN MODIFICATION NOTICE

- ☒ NO MODIFICATIONS APPLIED
☐ MODIFICATIONS APPLY

SPB NO. N/A DATE N/A

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PROFESSIONAL SEAL



Richard R. Morris

RICHARD R. MORRIS
GA REG # PE013997

PROJECT NUMBER

21056

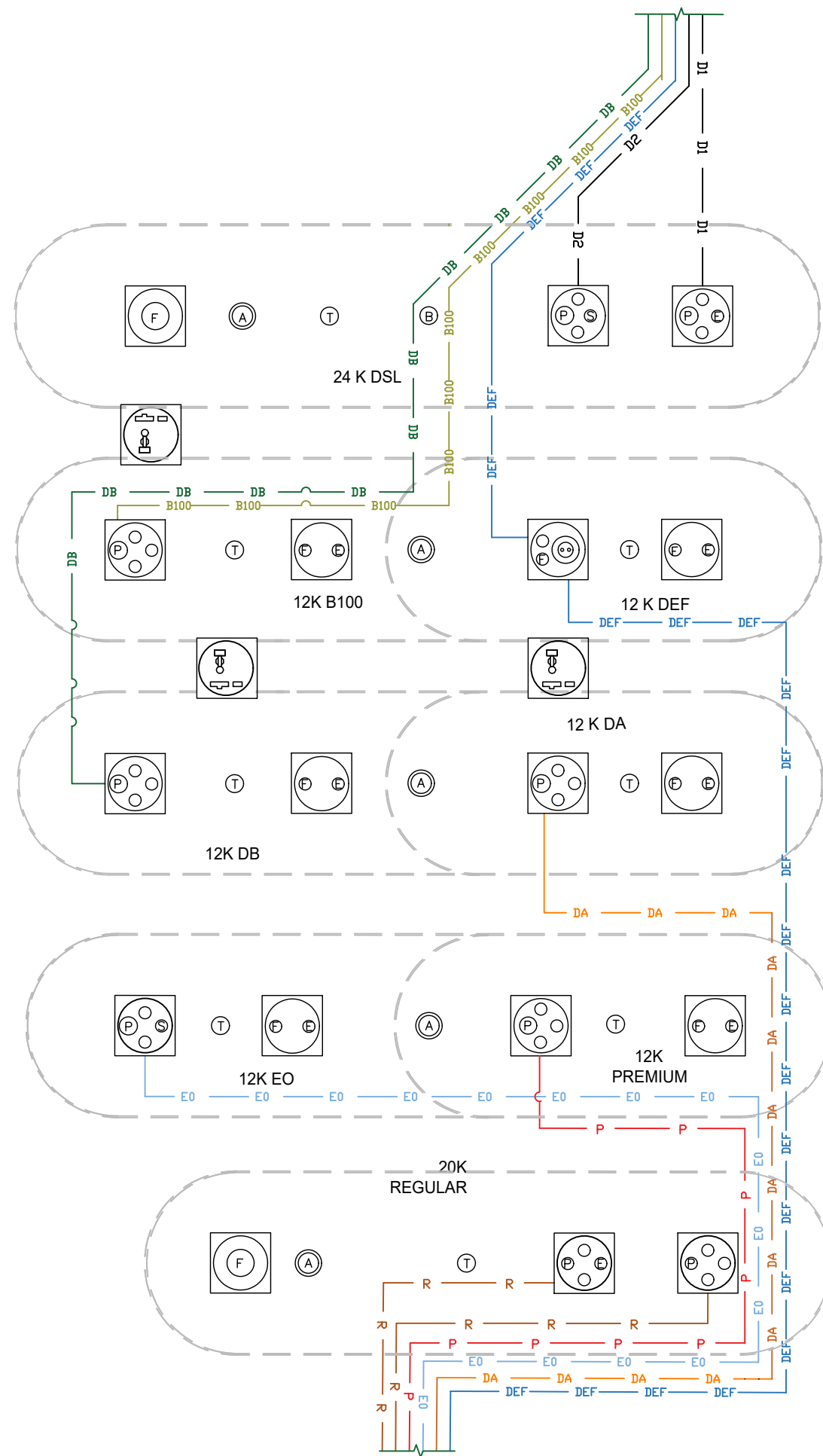
SHEET TITLE & NUMBER

FUELING TANK
& PIPING LAYOUT

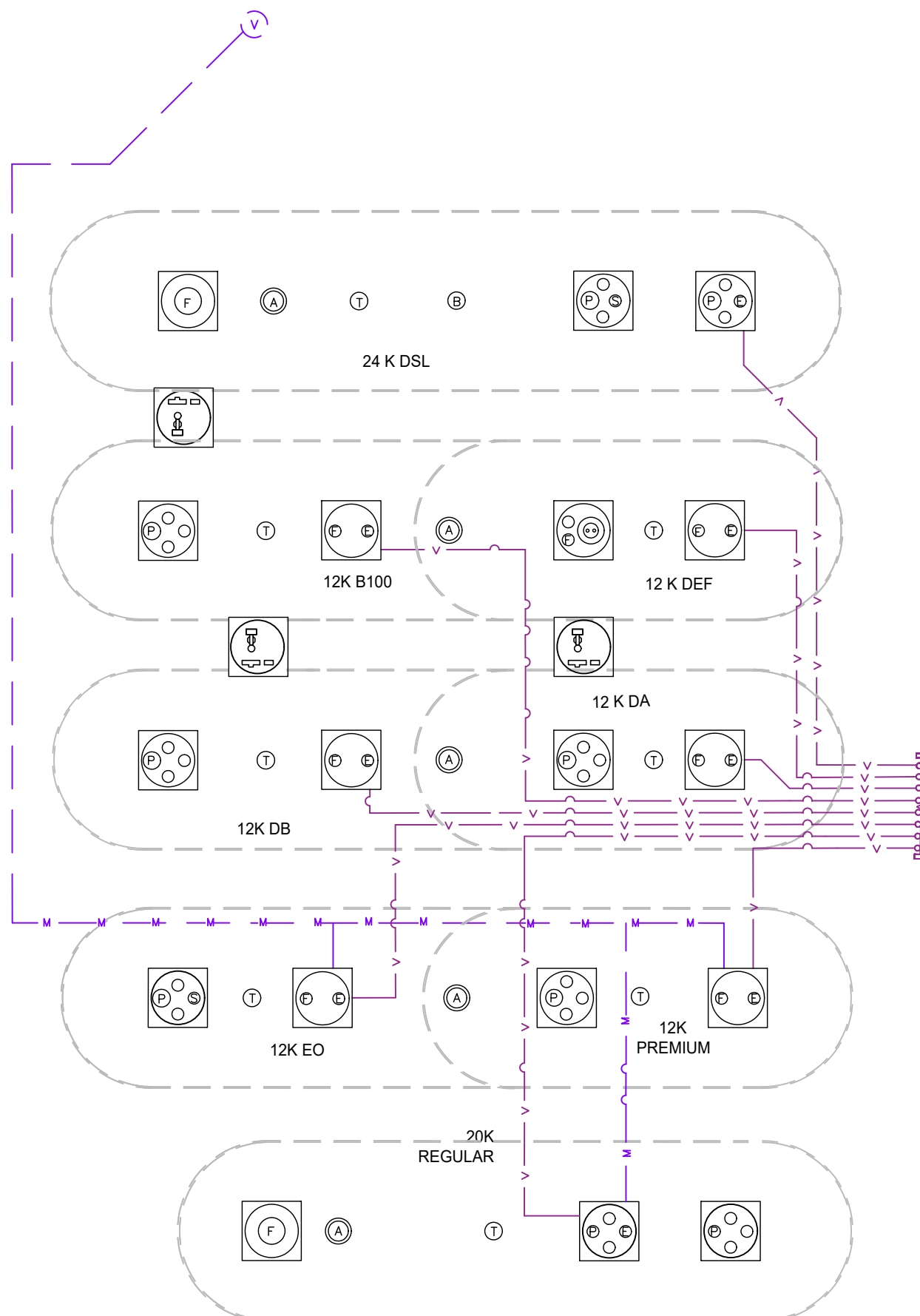
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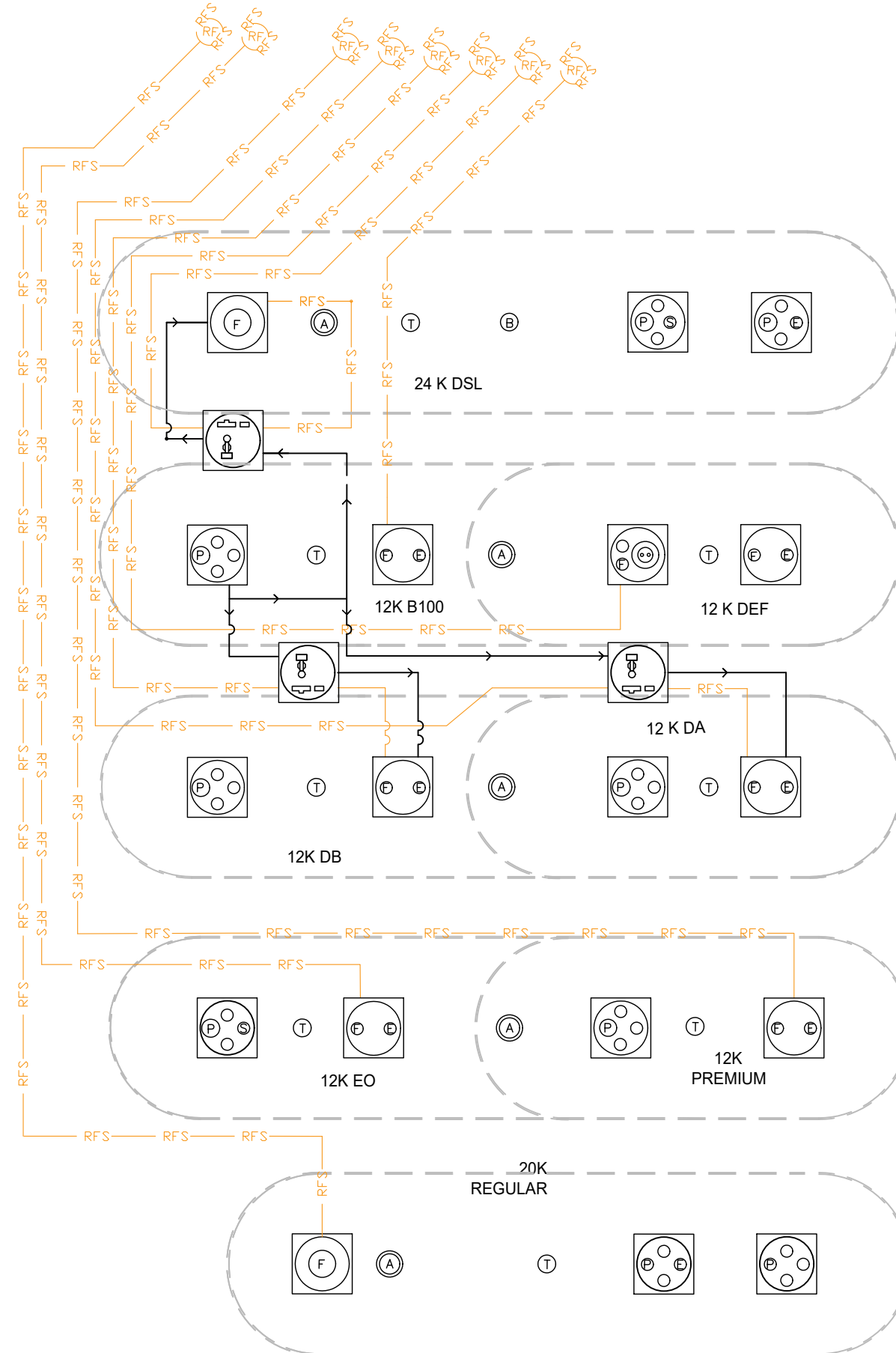
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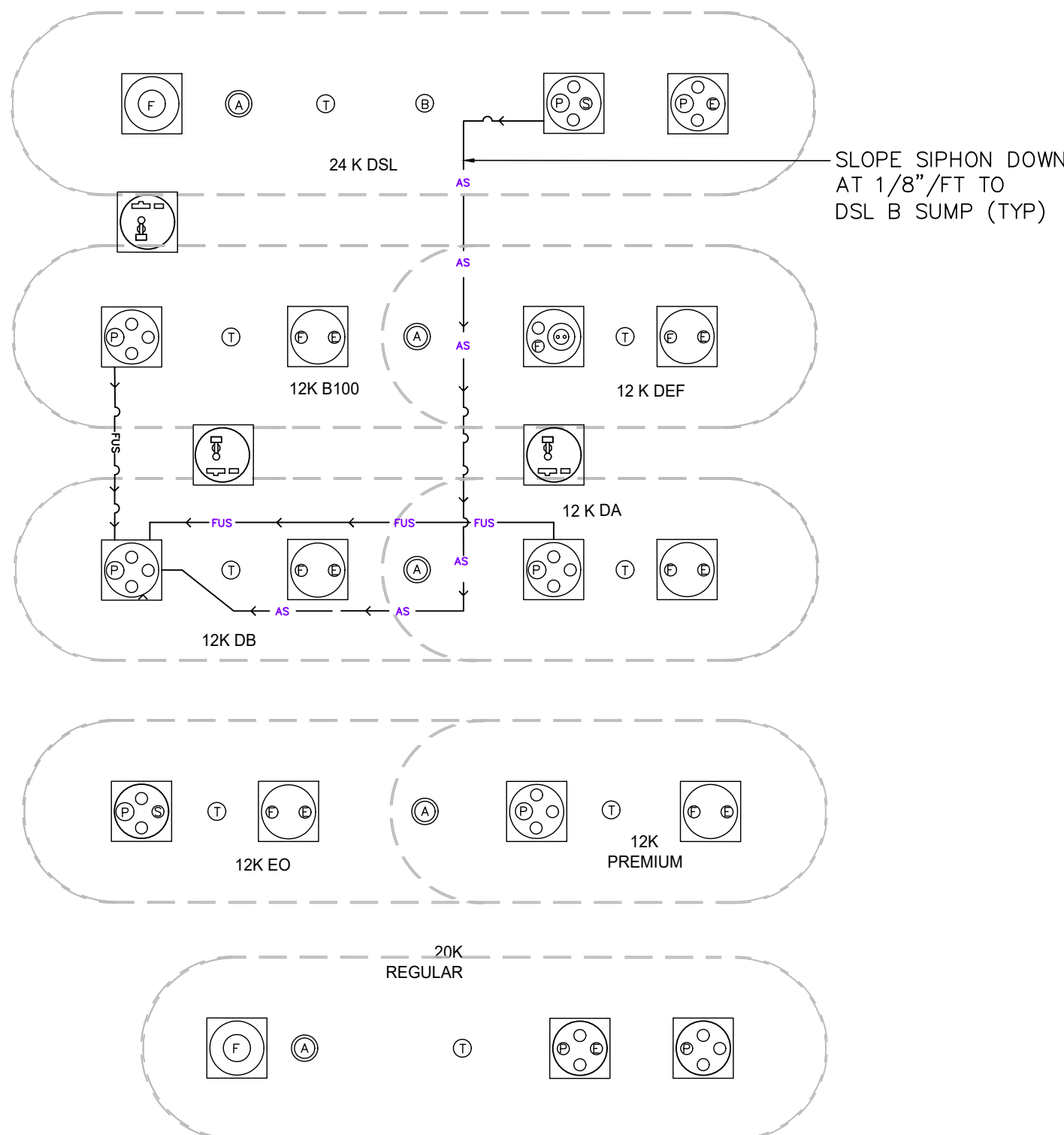
A FUEL PIPING
SCALE: 1/8"=1'-0"



C VENTS & VAPOR & VAPOR MANIFOLD
SCALE: 1/8"=1'-0"



B REMOTE FILLS & BLEND PIPING
SCALE: 1/8"=1'-0"

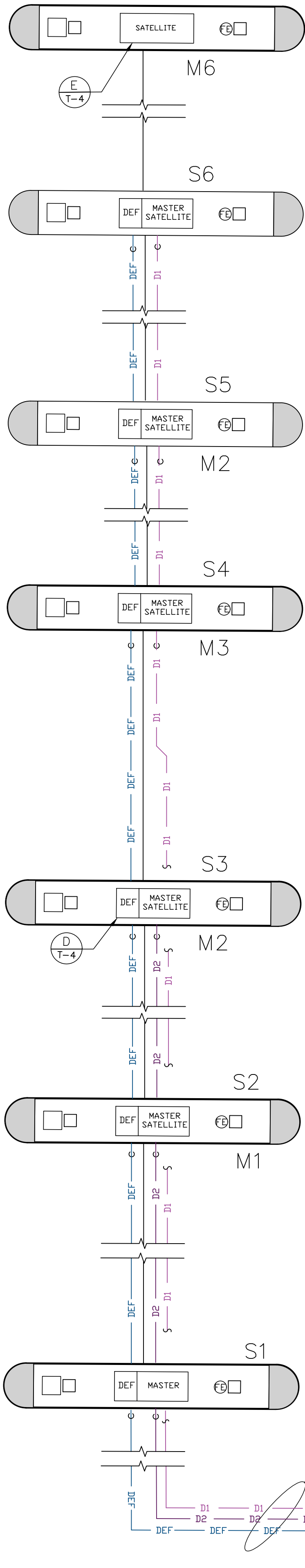


D SIPHON
SCALE: 1/8"=1'-0"



TRUCK DISPENSER LAYOUT / SCHEMATIC PRODUCT PIPING

1/4"=1'-0"



2" / 3" NOV D/W F/G PRODUCT PIPING.
SLOPE DOWN 1/8" / FT. TO TANKS

TRANSITION SUMP #1,
4'X4' W/ 42" MANWAY,
SEE DETAIL THIS SHEET



MATCH SHEET 1.0

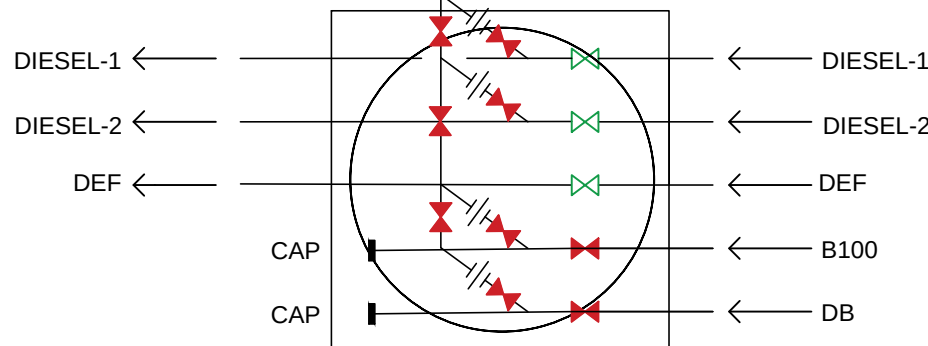
- RFS — REMOTE FILL PIPING, 4" S/W F/G
- R — REGULAR, 2" / 3" D/W F/G *
- P — PREMIUM, 2" / 3" D/W F/G *
- EO — EO, 2" / 3" D/W F/G *
- VR — VAPOR RECOVERY, 3" S/W F/G
- AS — ACTIVE SIPHON, 2 / 3" D/W F/G *
- FUS — FUTURE USE SIPHON, 2 / 3" D/W F/G *
- V — VENT, 3" S/W F/G
- M — VAPOR MANIFOLD, 3" S/W F/G
- DA — DIESEL, 2" / 3" D/W F/G *
- DB — DIESEL, 2" / 3" D/W F/G *
- D1 — DIESEL, TANK 1, 2" / 3" D/W F/G *
- D2 — DIESEL, TANK 2, 2" / 3" D/W F/G *
- B100 — B-100 DIESEL, TANK 1, 2" / 3" D/W F/G *
- DEF — DEF, 2" / 3" D/W F/G *
- SAT — MASTER/SATELLITE CONNECTOR, 2" / 3" D/W F/G
- * 2" PRIMARY / 3" SECONDARY

- (P) SUBMERGED TURBINE PUMP
- (A) ANNULAR SPACE MONITOR
- (B) UNUSED BUNG
- (F) DIRECT FILL
- (RF) REMOTE FILL
- (E) EXTRACTOR ASSEMBLY
- (V) STAGE 1 VAPOR RECOVERY STUB
- (S) MANIFOLD SIPHON
- (T) TANK LEVEL MONITOR
- (M) MONITORING WELL (WHERE REQUIRED)
- (FE) NFPA 30A, 9.2.5.2/NFPA 10 HIGH FLOW FIRE EXTINGUISHER: AMEREX MODEL NO. 760, 4A:60B:C, 20 LBS CAPACITY OR EQUAL, ARE PROVIDED WITHIN 100 FT OF ALL DISPENSING PUMPS & FILL PIPE OPENINGS..
- ✂ FULL PORT BALL VALVE (CLOSED)
- ✂ FULL PORT BALL VALVE (OPEN)
- ⊥ UNION

SHIFT TRANSITION SUMPS AS
NEEDED TO ALIGN PRODUCT PIPING

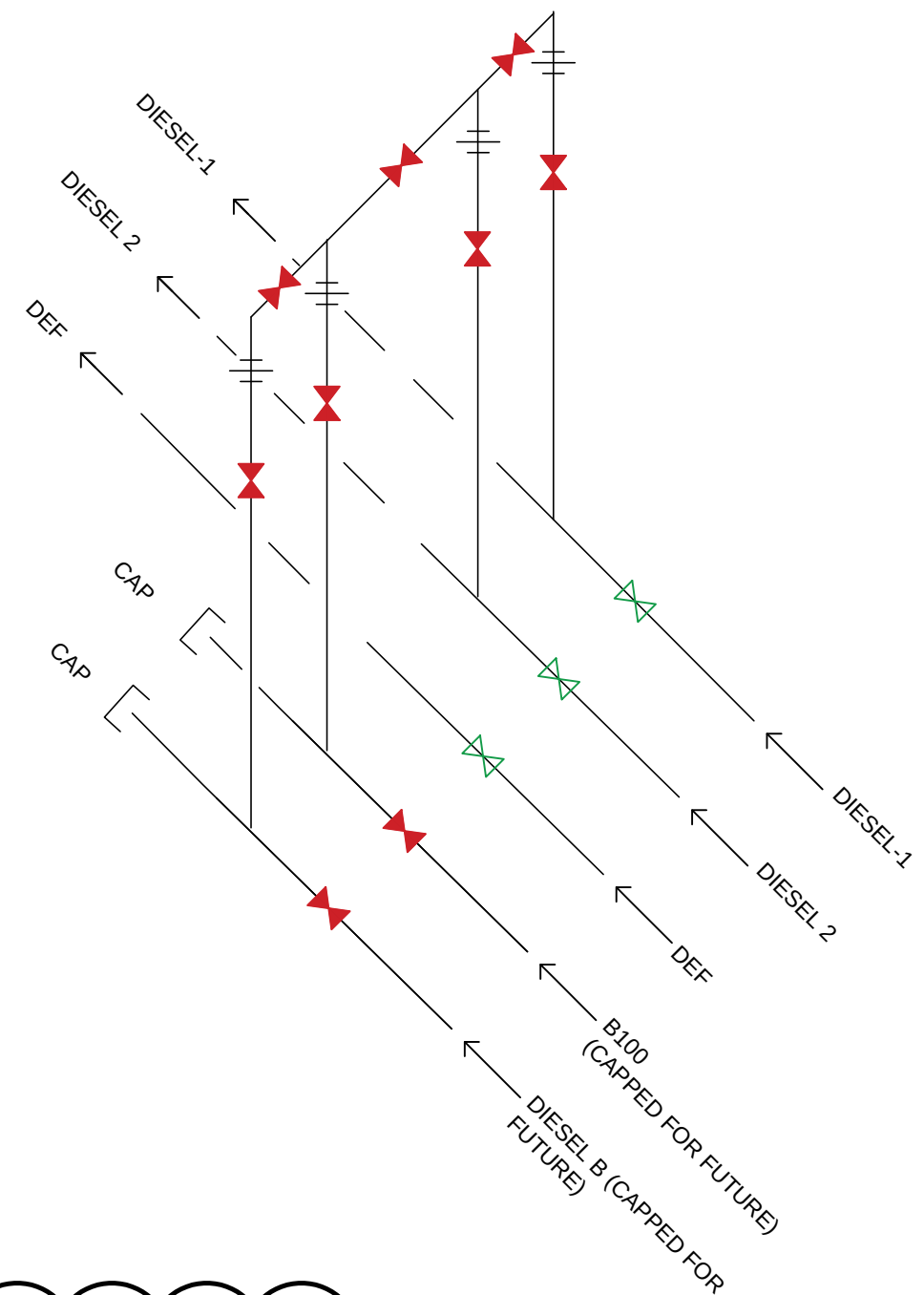
PETROLEUM CONTRACTOR MUST PROVIDE AN
ACCURATE, DETAILED AS-BUILT OF THE SYSTEM.

ALL PRODUCT PIPING TO BE NOV RED THREAD
IIA D/W F/G, U.N.O.



PIPING CROSS @ TRANSITION SUMP

N.T.S.



RaceTrac

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PETROLEUM INC.

DESIGN PROFESSIONALS

MDM

PLANS PREPARED BY:

engineering • environmental • construction
2151 W HILLSBORO BLVD. STE 401 DEERFIELD BEACH, FL 33442
(954) 427-3076
FL CA 000857

ISSUE/REVISION RECORD

DATE	DESCRIPTION
06/15/21	ADDED B1 END SUMP
	FOR DSL A, ACTIVE
	SYPHON MISC REVS
05/10/22	CLIENT GLOBAL UPDATE

RaceTrac

RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SE
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANVIL BLOCK

ELLENWOOD
GEORGIA
4443 DUNN COURT

RACETRAC PROJECT NUMBER

1478

PLAN SERIES

2011 BR-RH-M90 0801

PLAN MODIFICATION NOTICE

NO MODIFICATIONS APPLIED
MODIFICATIONS APPLY
SPB NO. N/A DATE N/A

STANDARD PLAN BULLETINS (SPB) MODIFY
THE PLAN SERIES SET NOTED ABOVE. THE
SPB GIVEN ABOVE REPRESENTS THE
LATEST MODIFICATION INCORPORATED TO
THIS PLAN SERIES SET. CONTACT
RACETRAC ENGINEERING AND
CONSTRUCTION FOR ALL BULLETINS.

PROFESSIONAL SEAL



Richard R Morris

RICHARD R. MORRIS
GA REG # PE013997

PROJECT NUMBER

21056

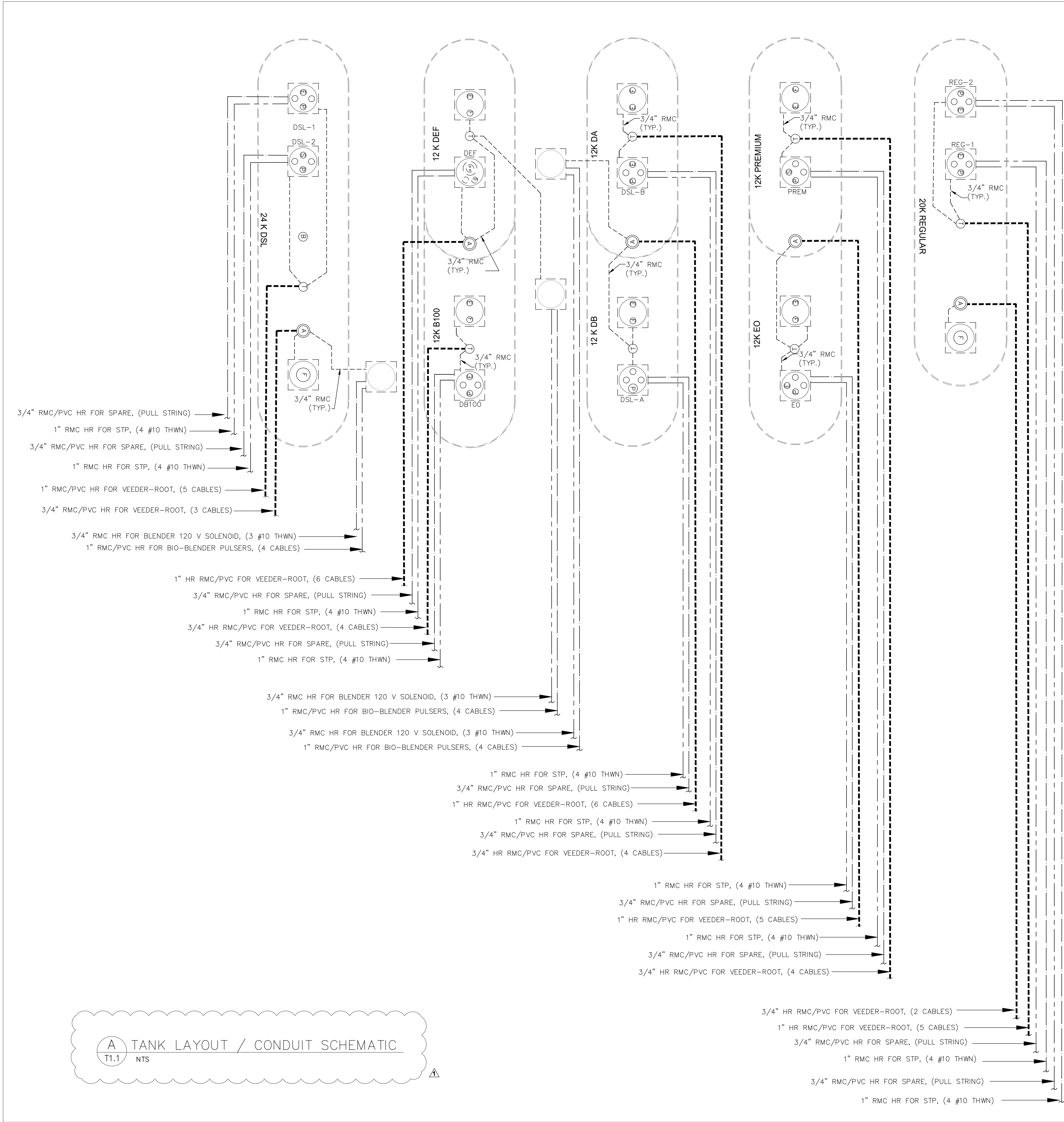
SHEET TITLE & NUMBER

TRUCK FUELING
TANK & PIPING
LAYOUT

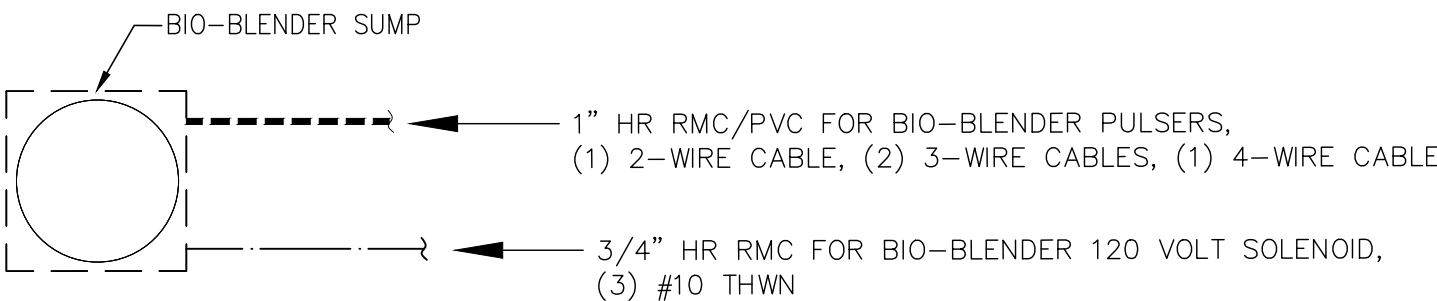
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T1.1

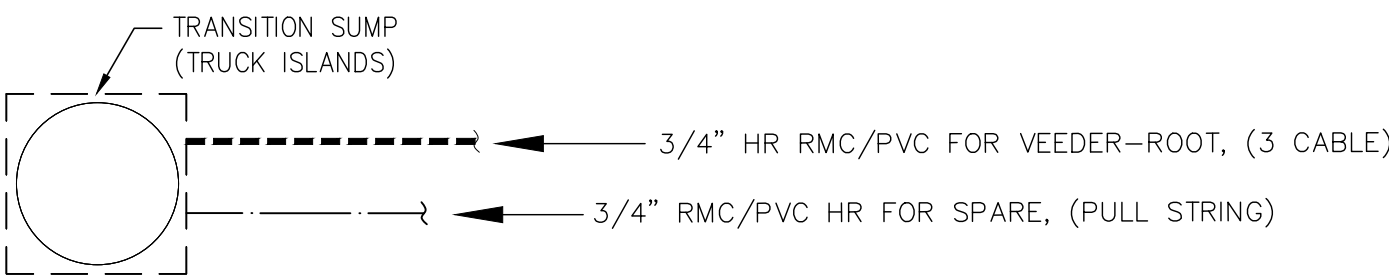
ISSUED FOR CONSTRUCTION



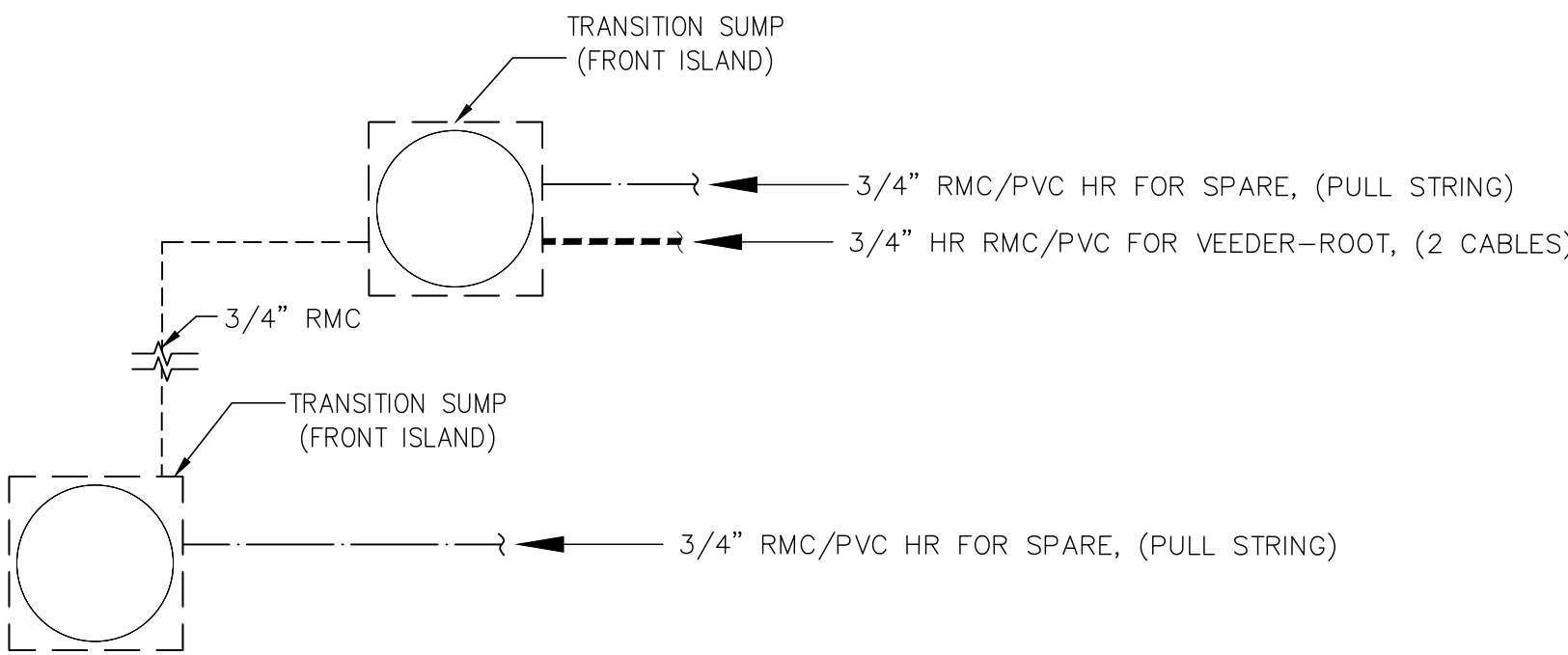
DISPENSER AND TANK WIRE/CABLE REQUIREMENTS			
ALL WIRE AND CABLE TO BE SUPPLIED AND INSTALLED BY CONTRACTOR			
DESCRIPTION		COLOR	* SIZE
STP REGULAR #1	(4 HP STP)	TAN	#10 (MAX. 200')
STP REGULAR #2	(4 HP STP)	BROWN	#10 (MAX. 200')
STP PREMIUM	(2 HP STP)	RED	#10 (MAX. 200')
STP EO	(2 HP STP)	BLUE	#10 (MAX. 200')
STP DSL-A	(2 HP STP)	BLACK	#10 (MAX. 200')
STP DSL-B	(2 HP STP)	PURPLE	#10 (MAX. 200')
STP DSL-1	(4 HP STP)	ORANGE	#10 (MAX. 200')
STP DSL-2	(4 HP STP)	YELLOW	#10 (MAX. 200')
STP B100	(2 HP STP)	PINK	#10 (MAX. 200')
STP DEF	(1.5 HP STP)	LT BLUE	#10 (MAX. 200')
DISPENSER POWER		BLACK, WHITE & GREEN	#12
DISPENSER SPARES		PURPLE & GRAY	#12
SATELLITE DISPENSER LOOP POWER		BLACK, WHITE & GREEN	#12
SATELLITE DISPENSER CONTROL WIRES		AS NEEDED	#14
REGULAR #1 SWITCH LEG		TAN	#14
REGULAR #2 SWITCH LEG		BROWN	#14
PREMIUM SWITCH LEG		RED	#14
EO SWITCH LEG		BLUE	#14
DSL-A SWITCH LEG		BLACK	#14
DSL-B SWITCH LEG		PURPLE	#14
DSL-1 SWITCH LEG		ORANGE	#14
DSL-2 SWITCH LEG		YELLOW	#14
B100 SWITCH LEG		PINK	#14
DEF SWITCH LEG		LT BLUE	#14
DISPENSER DATA		BLACK & RED (DATA)	#18 TWISTED PAIR (12 TWISTS/FT)
DISPENSER DATA		PURPLE & YELLOW (CRIND)	#18 TWISTED PAIR (12 TWISTS/FT)
DISPENSER INTERCOM	(4) #22 SHIELDED, TWISTED, 2-PAIR		SMARTWIRE #FEP-22 2P-EPS
TLS-450 SENSORS	(2) #18 SHIELDED, TWISTED, 2-WIRE		SMARTWIRE #FEP-18-02-OAS
BIO-DIESEL BLENDER (12 VOLT SOLENOID)	(2) #18 SHIELDED, TWISTED, 2-WIRE		SMARTWIRE #FEP-18-02-OAS
BIO-DIESEL BLENDER (TURBO METERS)	(3) #18 SHIELDED, TWISTED, 3-WIRE		SMARTWIRE #FEP-18-03-OAS
BIO-DIESEL BLENDER (12 VOLT PODS)	(4) #18 SHIELDED, TWISTED, 4-WIRE		SMARTWIRE #FEP-18-04-OAS
* MINIMUM WIRE SIZE. INCREASE WIRE SIZE & CONDUIT SIZE AS NEEDED TO MAINTAIN MAX. 3.0% VOLTAGE DROP FOR SITE SPECIFIC LAYOUT/ROUTING CONSISTENT WITH BUILDING ELECTRICAL DESIGN.			



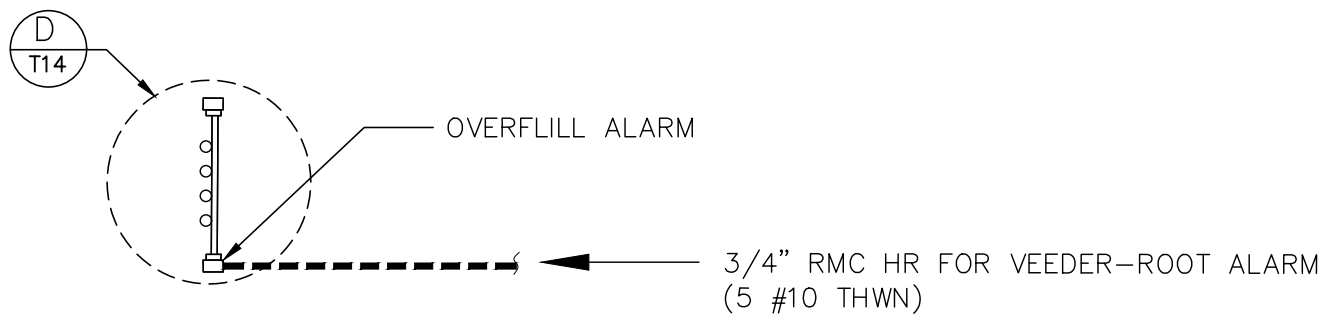
BIO-BLENDER SUMPS – TRUCK ISLANDS
NTS



TRANSITION SUMPS – TRUCK ISLANDS
NTS



TRANSITION SUMPS – AUTO ISLANDS
NTS



VENT RISER – TANK FARM
NTS

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DESIGN PROFESSIONALS

MDM
PLANS PREPARED BY:
engineering • environmental • construction
2151 W HILLSBORO BLVD. STE 401 DEERFIELD BEACH, FL 33442
(561) 427-3076
FL CA #004857

ISSUE/REVISION RECORD

DATE	DESCRIPTION
05/10/22	CLIENT GLOBAL UPDATE NEW TANK CONFIG

RaceTrac

RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SE
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANVIL BLOCK

ELLENWOOD
GEORGIA
4443 DUNN COURT

RACETRAC PROJECT NUMBER

1478

PLAN SERIES

2011 BR-RH-M90 0801

PLAN MODIFICATION NOTICE

NO MODIFICATIONS APPLIED

MODIFICATIONS APPLY

SPB NO. N/A DATE N/A

STANDARD PLAN BULLETINS (SPB) MODIFY
THE PLAN SERIES SET NOTED ABOVE. THE
SPB GIVEN ABOVE REPRESENTS THE
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THIS PLAN SERIES SET. CONTACT
RACETRAC ENGINEERING AND
CONSTRUCTION FOR ALL BULLETINS.

PROFESSIONAL SEAL



Richard R. Morris

RICHARD R. MORRIS
GA REG # PE013997

PROJECT NUMBER

21056

SHEET TITLE & NUMBER

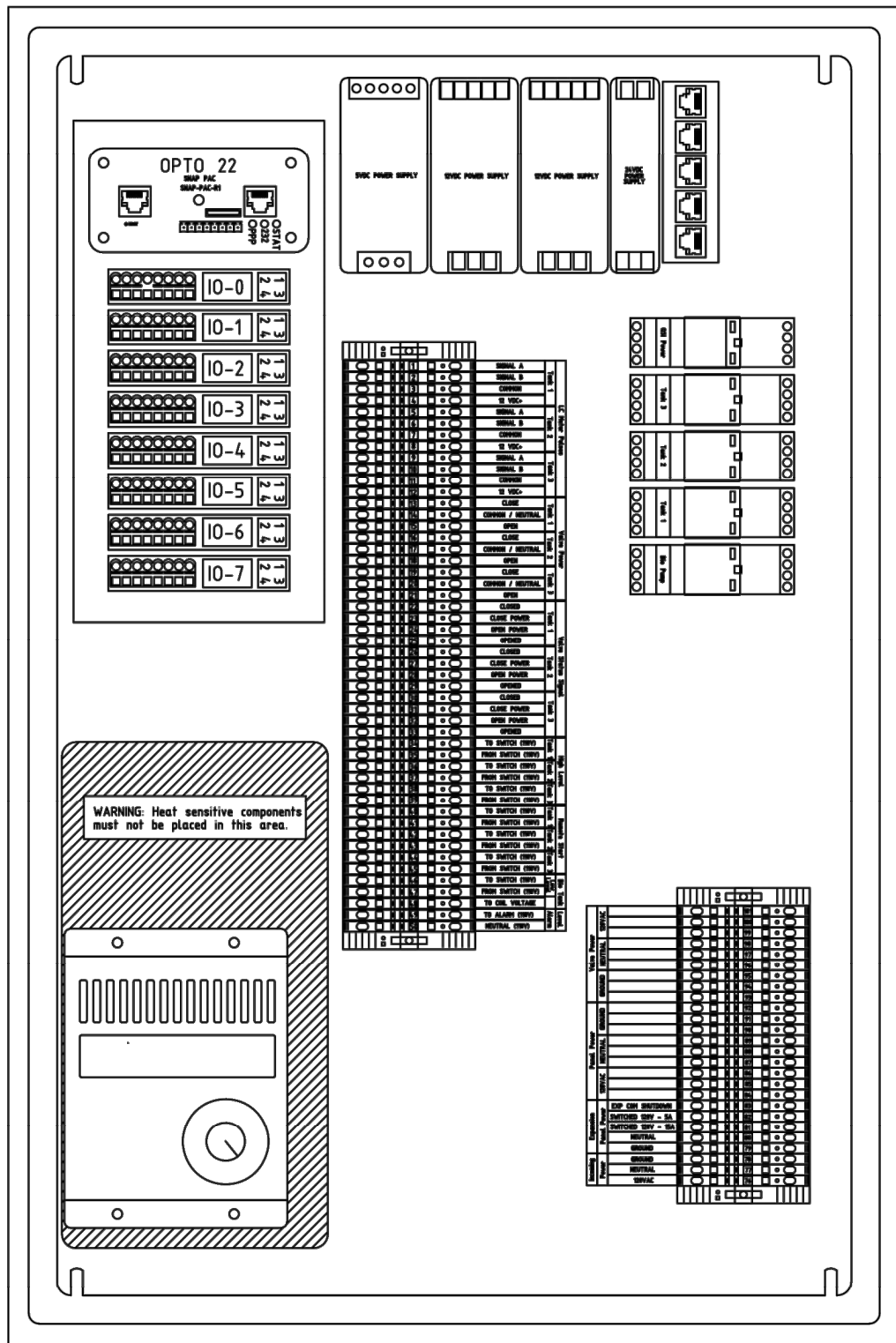
ELECTRICAL
PLAN

FILE NUMBER

T1.2

ISSUED FOR CONSTRUCTION

MAIN PANEL



Terminal	Signal	Notes
1	SIGNAL A	
2	SIGNAL B	
3	COMMON	
4	12 VDC+	
5	SIGNAL A	
6	SIGNAL B	
7	COMMON	
8	12 VDC+	
9	SIGNAL A	
10	SIGNAL B	
11	COMMON	
12	12 VDC+	
13	CLOSE	
14	COMMON / NEUTRAL	
15	OPEN	
16	CLOSE	
17	COMMON / NEUTRAL	
18	OPEN	
19	CLOSE	
20	COMMON / NEUTRAL	
21	OPEN	
22	CLOSE	
23	CLOSE POWER	
24	OPEN POWER	
25	OPENED	
26	CLOSE	
27	CLOSE POWER	
28	OPEN POWER	
29	OPENED	
30	CLOSE	
31	CLOSE POWER	
32	OPEN POWER	
33	OPENED	
34	TO SWITCH (110V)	
35	FROM SWITCH (110V)	
36	TO SWITCH (110V)	
37	FROM SWITCH (110V)	
38	TO SWITCH (110V)	
39	FROM SWITCH (110V)	
40	TO SWITCH (110V)	
41	FROM SWITCH (110V)	
42	TO SWITCH (110V)	
43	FROM SWITCH (110V)	
44	TO SWITCH (110V)	
45	FROM SWITCH (110V)	
46	TO SWITCH (110V)	
47	FROM SWITCH (110V)	
48	TO COIL VOLTAGE	
49	TO ALARM (110V)	
50	NEUTRAL (110V)	

Connection Guide LC POD Pulsar 4-wire 18GA Shielded Cable

	Junge Terminal Block
	Tank 1 Tank 2 Tank 3
20 PWR	4 8 12
21 CH-B	2 6 10
22 CH-A	1 5 9
23 GND	3 7 11

Connection Guide 12VDC Solenoid 2-wire 18GA Shielded Cable

	Junge Terminal Block
	Tank 1 Tank 2 Tank 3
1-RED	15 18 21
2-BLACK	14 17 20

Connection Guide High/Low Level Alarms 14GA THHN Stranded Wire

	TLS 450	Junge Terminal Block	
	UOM	High Level	Low Level
Norm-open		Tank 1 Tank 2 Tank 3	Bio Tank
1 - Out		35	
2 - Out		37	
3 - Out			39
4 - Out			47

Connection Guide Turbine Amplifier Puck 3-wire 18GA Shielded Cable

	Junge Terminal Block
	Tank 1 Tank 2 Tank 3
Count 1/2	Count 1/2 Count 1/2 Count 1/2
# 1	98/101 104/107 110/113
# 2	99/102 105/108 111/114
# 3	100/103 106/109 112/115
# 4	Black Wire from Pickup Coil
# 5	White Wire from Pickup Coil

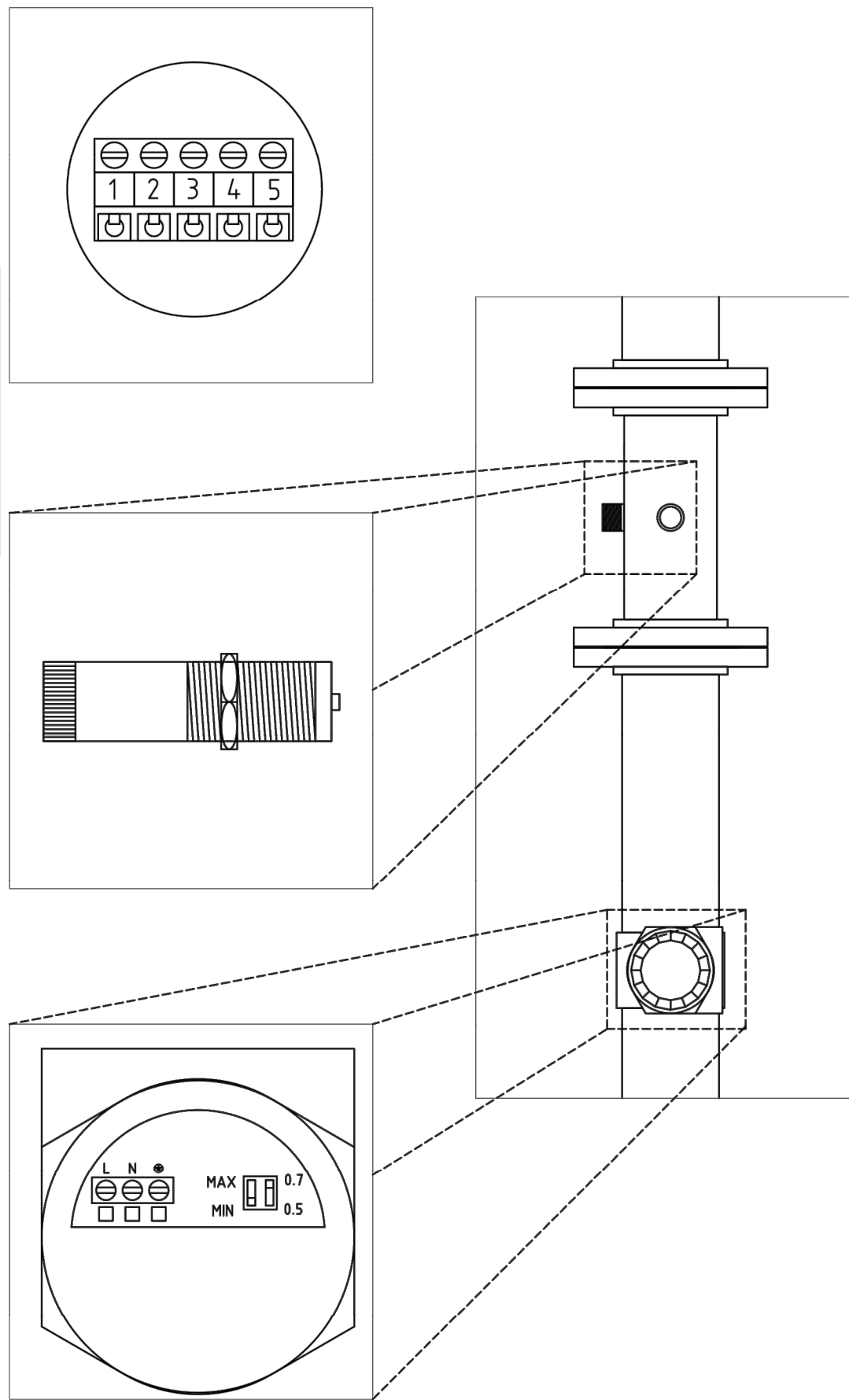
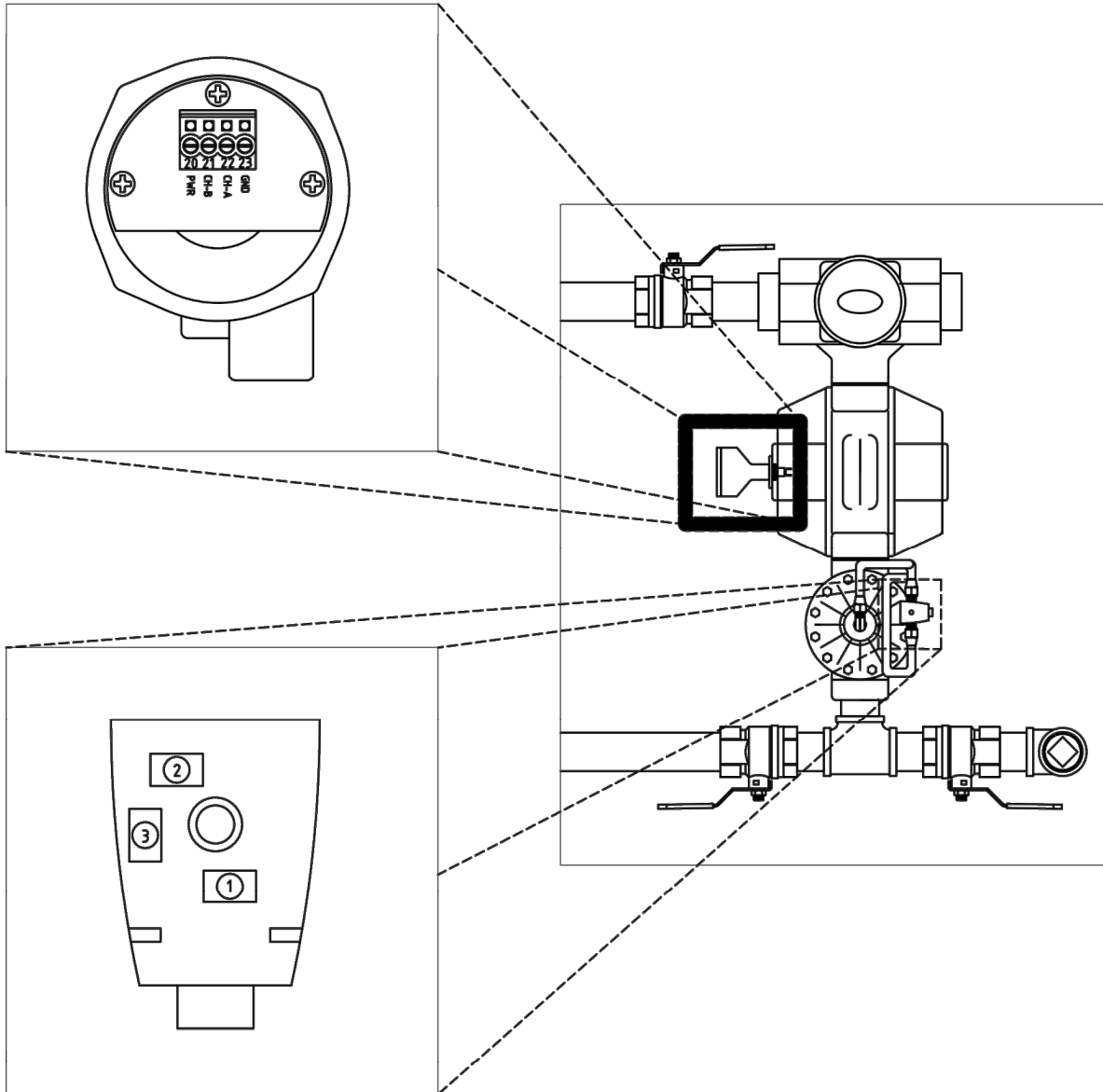
Connection Guide Turbine Pickup Coil 2-wire 18GA Shielded Cable

	Junge Terminal Block
	Tank 1 Tank 2 Tank 3
TO SWITCH (110V)	
FROM SWITCH (110V)	
TO SWITCH (110V)	
FROM SWITCH (110V)	
TO SWITCH (110V)	
FROM SWITCH (110V)	

Connection Guide Remote Fill Flow Switch 14GA THHN Stranded Wire

	Junge Terminal Block
	Tank 1 Tank 2 Tank 3
L	91 93 95
N	90 92 94

Dip-Switches must be set @ MIN & 0.7



Passive system wiring

The Standard Bio Blender always needs to be mounted near the diesel tanks to allow the transport driver to enter drop quantities. The ideal location for the passive panels is also at or near the diesel tanks. This allows for personnel to observe status of blending along with startup and service issues. The passive system may be mounted in the site electrical room. The amount of conduit and wiring is greatly increased and operational testing is more difficult. Depending on the location of the Junge panels, diesel turbine meters and bio meters conduit number routing may vary.

With a flip of a switch the passive system can also revert back to the standard system if needed.

The Junge Passive Bio Blender requires the following wiring connections:

#1 System power. 120vac

#2 A tank monitor high level relay output for each diesel tank and a low level relay output for the bio tank. A single 120vac wire that is switched power is to be connected from the Junge and looped to all relay commons. A wire from each of the diesel high and bio low normally open contacts are returned to Junge panel.

#3 One 120vac bio hook signal back to tank monitor for pump motor activation and pressure line monitoring.

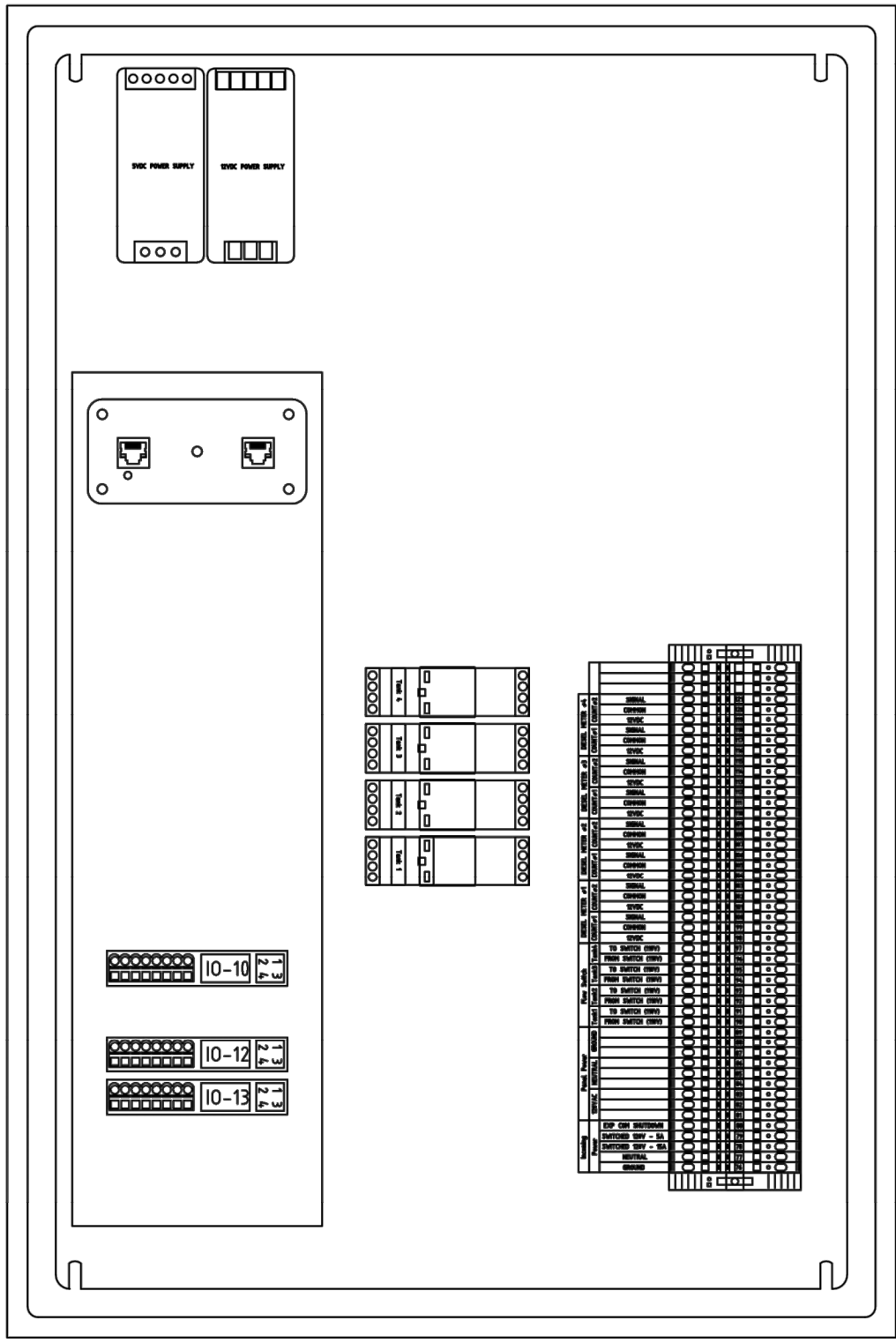
#4 One Cat 5 cable from Junge panel to the sites network switch. Along with transaction data to FTP site the printer also receives transaction data thru the network switch.

#5 Each bio meter requires a 18 gauge 4 conductor shielded cable for the Pod (Pulse Output Device) and a 18 gauge 2 Conductor shielded cable for the 12vdc solenoid valve. These DC cables can be routed in the same conduit.

#6 Each diesel 4" turbine meter requires 2-3 conductor shielded cables. If located in the same sump with the bio meter these cables can be routed with the other Dc cables.

#7 Each diesel remote fill line also has a 120vac flow switch. The flow switch requires 2-14 gauge wires and a ground. These wires need to be in a separate conduit from any Dc cables.

EXPANSION PANEL



Terminal	Signal	Notes
1	SIGNAL A	
2	SIGNAL B	
3	COMMON	
4	12 VDC+	
5	SIGNAL A	
6	SIGNAL B	
7	COMMON	
8	12 VDC+	
9	SIGNAL A	
10	SIGNAL B	
11	COMMON	
12	12 VDC+	
13	CLOSE	
14	COMMON / NEUTRAL	
15	OPEN	
16	CLOSE	
17	COMMON / NEUTRAL	
18	OPEN	
19	CLOSE	
20	COMMON / NEUTRAL	
21	OPEN	
22	CLOSE	
23	CLOSE POWER	
24	OPEN POWER	
25	OPENED	
26	CLOSE	
27	CLOSE POWER	
28	OPEN POWER	
29	OPENED	
30	CLOSE	
31	CLOSE POWER	
32	OPEN POWER	
33	OPENED	
34	TO SWITCH (110V)	
35	FROM SWITCH (110V)	
36	TO SWITCH (110V)	
37	FROM SWITCH (110V)	
38	TO SWITCH (110V)	
39	FROM SWITCH (110V)	
40	TO SWITCH (110V)	
41	FROM SWITCH (110V)	
42	TO SWITCH (110V)	
43	FROM SWITCH (110V)	
44	TO SWITCH (110V)	
45	FROM SWITCH (110V)	
46	TO SWITCH (110V)	
47	FROM SWITCH (110V)	
48	TO COIL VOLTAGE	
49	TO ALARM (110V)	
50	NEUTRAL (110V)	

Connection Guide Turbine Amplifier Puck 3-wire 18GA Shielded Cable

	Junge Terminal Block
	Tank 1 Tank 2 Tank 3
Count 1/2	Count 1/2 Count 1/2 Count 1/2
# 1	98/101 104/107 110/113
# 2	99/102 105/108 111/114
# 3	100/103 106/109 112/115
# 4	Black Wire from Pickup Coil
# 5	White Wire from Pickup Coil

Connection Guide Turbine Pickup Coil 2-wire 18GA Shielded Cable

	Junge Terminal Block
	Tank 1 Tank 2 Tank 3
TO SWITCH (110V)	
FROM SWITCH (110V)	
TO SWITCH (110V)	
FROM SWITCH (110V)	
TO SWITCH (110V)	
FROM SWITCH (110V)	

Connection Guide Remote Fill Flow Switch 14GA THHN Stranded Wire

	Junge Terminal Block
	Tank 1 Tank 2 Tank 3
L	91 93 95
N	90 92 94

Dip-Switches must be set @ MIN & 0.7

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DESIGN PROFESSIONALS

MDM
engineering • environmental • construction
2151 W HILLSBORO BLVD, STE 401, DEERFIELD BEACH, FL 33442
(954) 427-3076

ISSUE/REVISION RECORD

DATE	DESCRIPTION
05/10/22	ADDED SHT TO PLAN SET

RaceTrac

RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SE
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANVIL BLOCK

ELLENWOOD GEORGIA 4443 DUNN COURT

RACETRAC PROJECT NUMBER

1478

PLAN SERIES

2011 BR-RH-M90 0801

PLAN MODIFICATION NOTICE

NO MODIFICATIONS APPLIED
MODIFICATIONS APPLY

SPB NO. N/A DATE N/A

STANDARD PLAN BULLETINS (SPB) MODIFY THE PLAN SERIES SET NOTED ABOVE. THE SPB GIVEN ABOVE REPRESENTS THE LATEST MODIFICATION INCORPORATED TO THIS PLAN SERIES SET. CONTACT RACETRAC ENGINEERING AND CONSTRUCTION FOR ALL BULLETINS.

PROFESSIONAL SEAL

GEORGIA
REGISTERED
No. 013997
PROFESSIONAL
RICHARD R. MORRIS
RICHARD RUSSELL MORRIS

RICHARD R. MORRIS
GA REG # PE013997

PROJECT NUMBER

21056

SHEET TITLE & NUMBER

JUNGE ELECTRICAL DETAILS

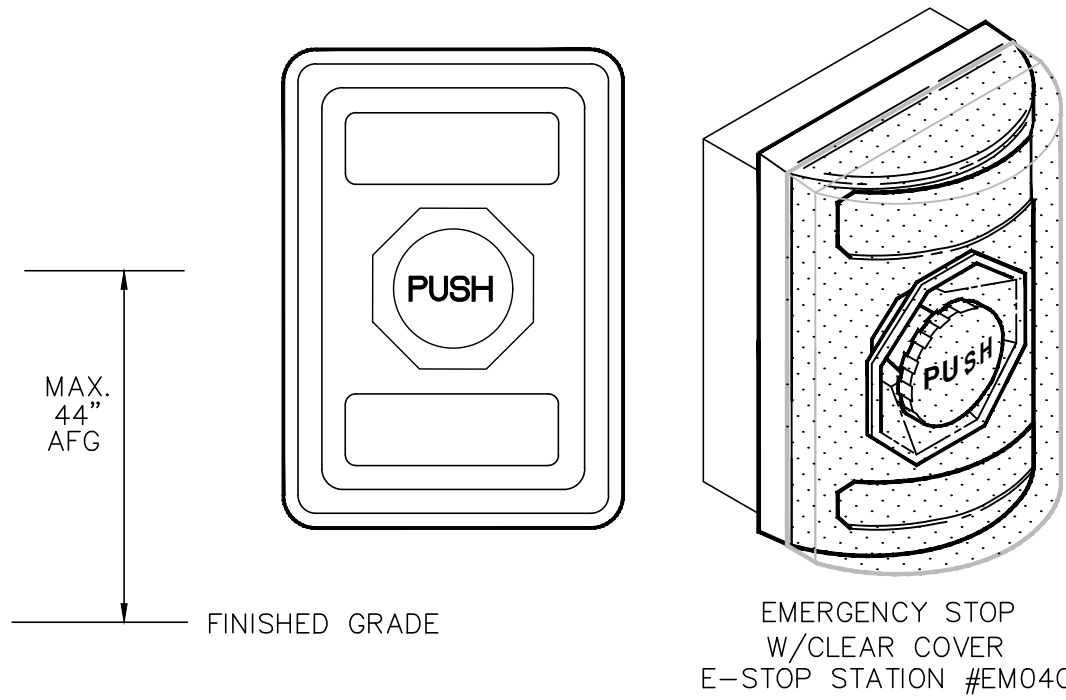
FILE NUMBER

T1.2.1

ISSUED FOR CONSTRUCTION

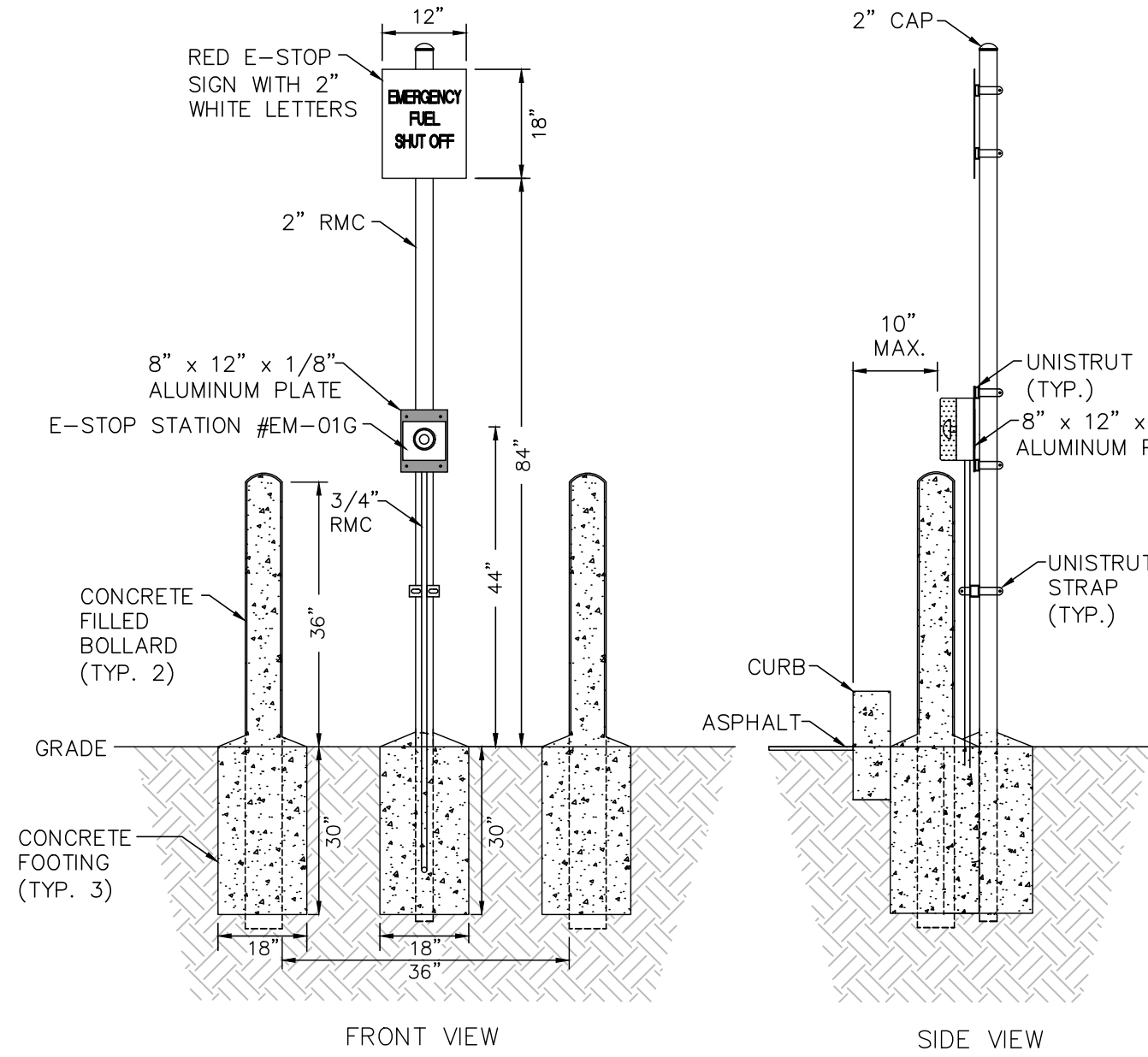
EMERGENCY
FUEL
SHUT OFF

SIGN SHALL HAVE
WHITE LETTERS,
MINIMUM 1" IN HEIGHT,
ON RED BACKGROUND



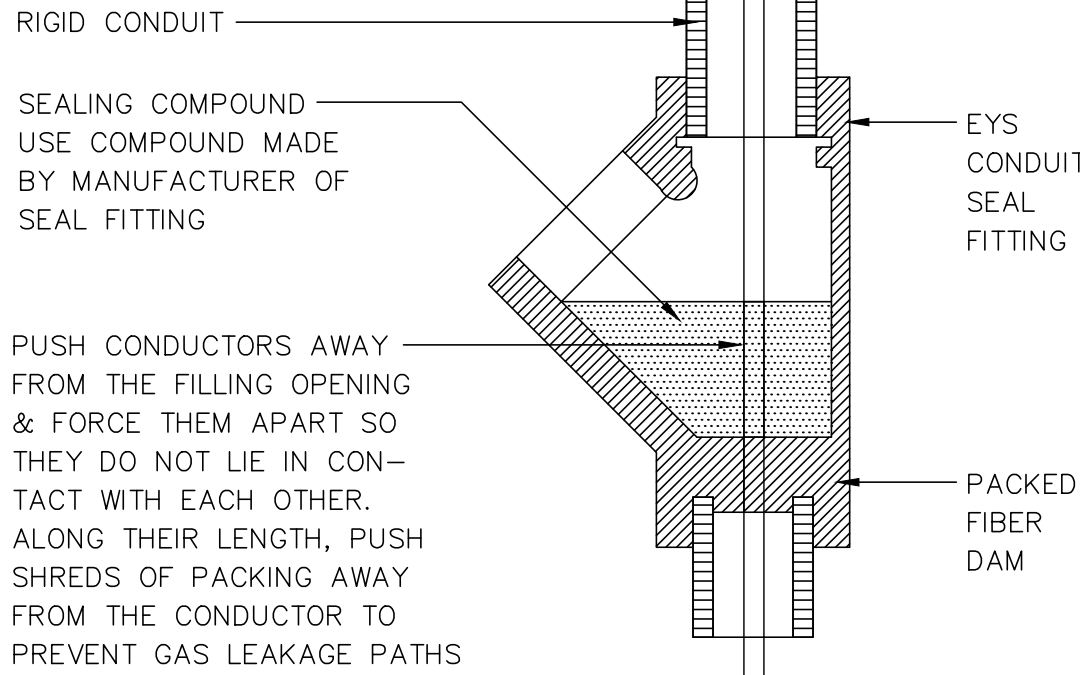
EXTERIOR EMERGENCY FUEL SHUT-OFF

NTS



REMOTE EMERGENCY FUEL SHUT-OFF DETAIL

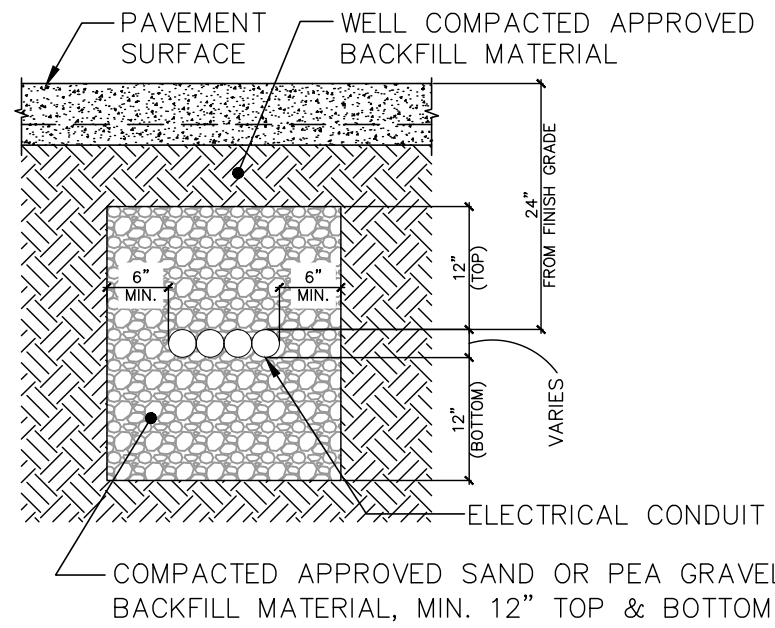
NTS



NOTE: SEAL-OFFS TO BE INSTALLED PER NEC 514.3 AND NEC 514.9(A)&(B)

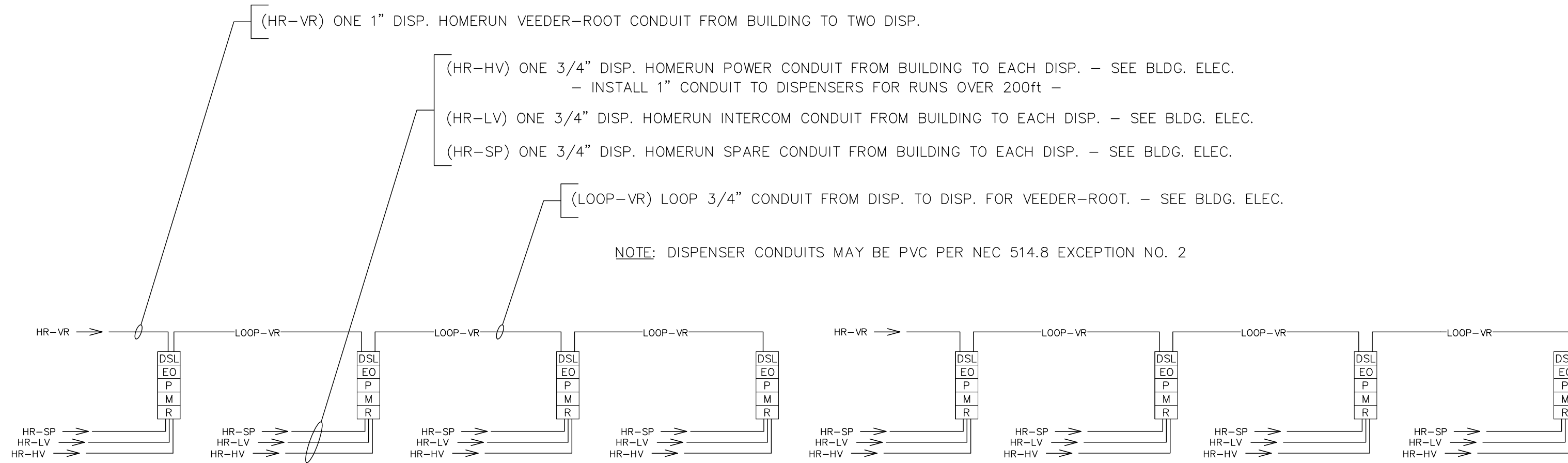
SEAL FITTING INSTALLATION

NTS



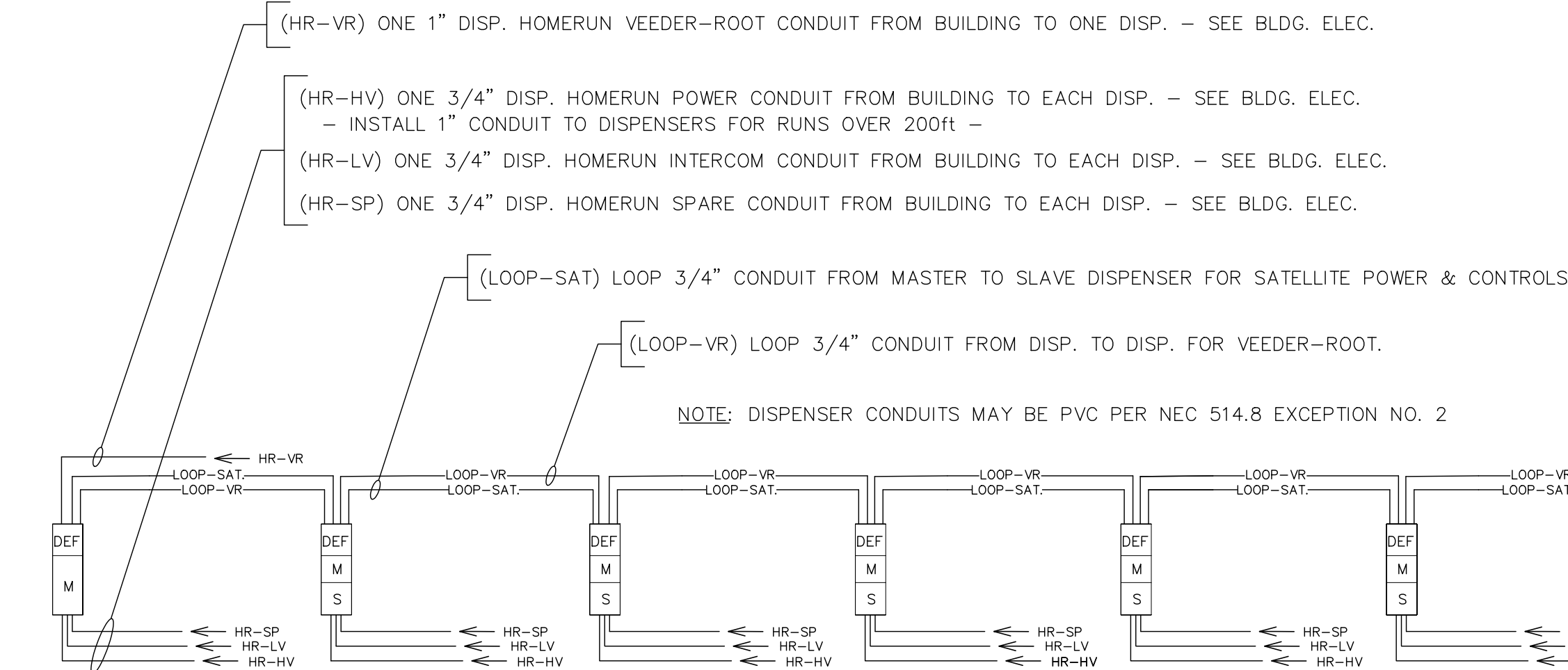
ELECTRICAL CONDUIT SECTION

NTS



A AUTO DISPENSER LAYOUT / CONDUIT SCHEMATIC

T1.3 NTS



B TRUCK DISPENSER LAYOUT / CONDUIT SCHEMATIC

T1.3 NTS

DISPENSER LEGEND

- HV - DISPENSER POWER
- LV - DISPENSER INTERCOM
- VR - DISPENSER VEEDER-ROOT
- SP - DISPENSER SPARE
- FU - DISPENSER FUTURE USE
- HR - HOMERUN FROM BUILDING
- SAT - MASTER/SLAVE LOOP

VEEDER-ROOT AND OVERFILL ALARM NOTES:

- ALL VEEDER-ROOT CONDUITS FOR TANK GAUGE, INTERSTITIAL AND SUMP SENSORS TO RUN DIRECTLY TO INTRINSICALLY SAFE VEEDER-ROOT GUTTER LOCATED INSIDE BUILDING.
- VEEDER-ROOT CONSOLE POWER, PLLD POWER AND RELAY WIRES TO RUN IN AN ISOLATED, SEPARATE CONDUIT.
- INTRINSICALLY SAFE VEEDER-ROOT TANK GAUGE AND LEAK DETECTION CABLES TO BE HOUSTON WIRE # H32400, 18 GAUGE 300 VOLT SHIELDED 1-PAIR CABLE.
- INTRINSICALLY SAFE VEEDER-ROOT TANK GAUGE AND LEAK DETECTION CABLES TO BE INSTALLED IN SEPARATE CONDUIT WITH A #12 THWN GREEN GROUND WIRE. TERMINATE GROUND WIRE AT APPLETON J-BOX(S) AND/OR BUILDING INTRINSICALLY SAFE VEEDER-ROOT GUTTER AS OCCURS.
- INTERCOM CABLES TO BE HOUSTON WIRE # H32600, 22 GAUGE, 300 VOLT SHIELDED 2-PAIR CABLE.
- ALL TANK FARM AND DISPENSER HOMERUN CONDUITS TO BE PVC. THE LAST 10' ON BOTH ENDS OF CONDUIT RUN TO BE RMC (RIGID METAL CONDUIT). VEEDER-ROOT TANK FARM CONDUIT LOOPS BETWEEN TANK GAUGE, ANNULAR SPACE, STP SUMPS AND PIPING SUMPS TO BE RMC.
- ALL TANK FARM, DISPENSER AND SUMP HOMERUN CONDUITS TO HAVE SEAL-OFFS INSTALLED AT BOTH ENDS OF THE RUN. DISPENSER VEEDER-ROOT CONDUIT LOOPS TO BE RMC AND HAVE A SEAL-OFF ON BOTH ENDS. ALL VEEDER-ROOT CONDUIT LOOPS THAT PENETRATE STP AND TRANSITION SUMPS TO HAVE SEAL-OFFS.
- INSTALL (1) APPLETON GRSS-75 J-BOX AT EACH DISPENSER FOR VEEDER-ROOT CONDUIT LOOPS.

CONDUIT NOTES:

- DO NOT EXCEED 360° IN TOTAL BENDS FOR CONDUIT HOMERUNS PER NEC 344.26.
- CONDUIT FOR STP POWER TO BE RUN IN RMC ALL THE WAY FROM THE BUILDING. DO NOT USE PVC.
- PVC MAY BE USED PER NEC 514, EXCEPTION NO. 2 FOR VEEDER-ROOT HOMERUNS, DISPENSER POWER HOMERUNS, DISPENSER INTERCOM HOMERUNS, DISPENSER SPARE HOMERUNS AND DISPENSER FUTURE HOMERUNS.
- ALL CONDUIT LOOPS FOR TANKS AND AND DISPENSERS TO BE RMC. DO NOT USE PVC.
- INSTALL A SEAL-OFF FITTING ON ALL CONDUITS THAT ENTER AND LEAVE A STP SUMPS, TRANSITION SUMPS AND DISPENSER SUMPS.
- CONDUIT FILL SHALL NOT EXCEED 25% OF SEAL-OFF FITTING PER NEC 501.15(C)(6).

EMERGENCY FUEL SHUT-OFF NOTES:

- INSTALL E-STOPS STATIONS WITH-IN 100ft. OF EACH DISPENSERS. SEE SITE PLAN FOR LOCATIONS.
- INSTALL E-STOPS STATIONS #EM04C ON THE BUILDING.
- INSTALL E-STOPS STATIONS #EM01G FOR REMOTE LOCATIONS.

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DESIGN PROFESSIONALS

MDM
engineering • environmental • construction
2151 W HILLSBORO BLVD. STE 401 DEERFIELD BEACH, FL 33442
(561) 427-5076
FL CA 000457

ISSUE/REVISION RECORD

DATE	DESCRIPTION
05/10/22	CLIENT GLOBAL UPDATE

RaceTrac

RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SE
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANVIL BLOCK

ELLENWOOD GEORGIA

4443 DUNN COURT

RACETRAC PROJECT NUMBER

1478

PLAN SERIES

2011 BR-RH-M90 0801

PLAN MODIFICATION NOTICE

NO MODIFICATIONS APPLIED

MODIFICATIONS APPLY

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CONSTRUCTION FOR ALL BULLETINS.

PROFESSIONAL SEAL



Richard R Morris

RICHARD R. MORRIS
GA REG # PE013997

PROJECT NUMBER

21056

SHEET TITLE & NUMBER

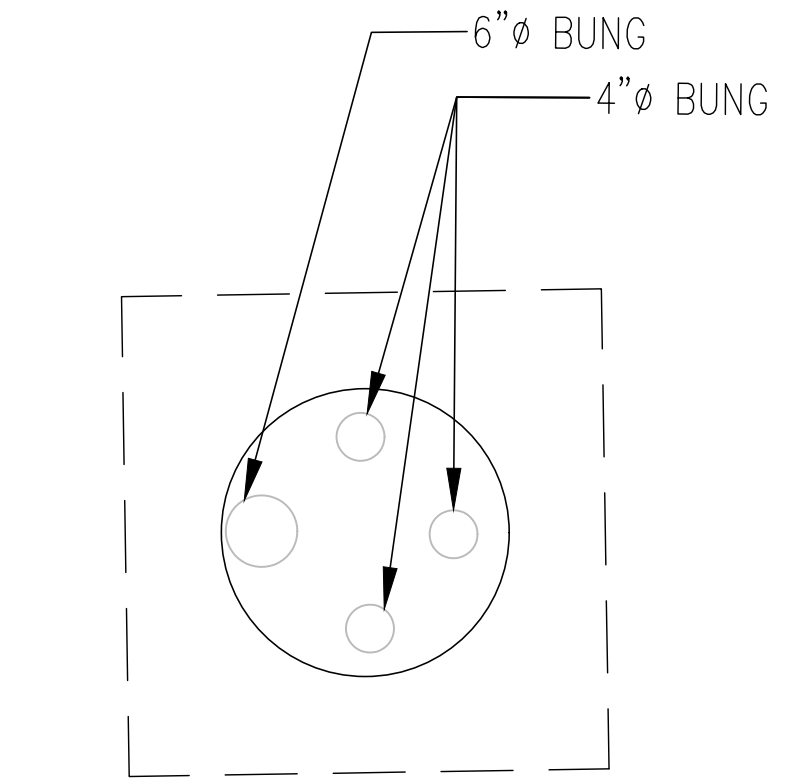
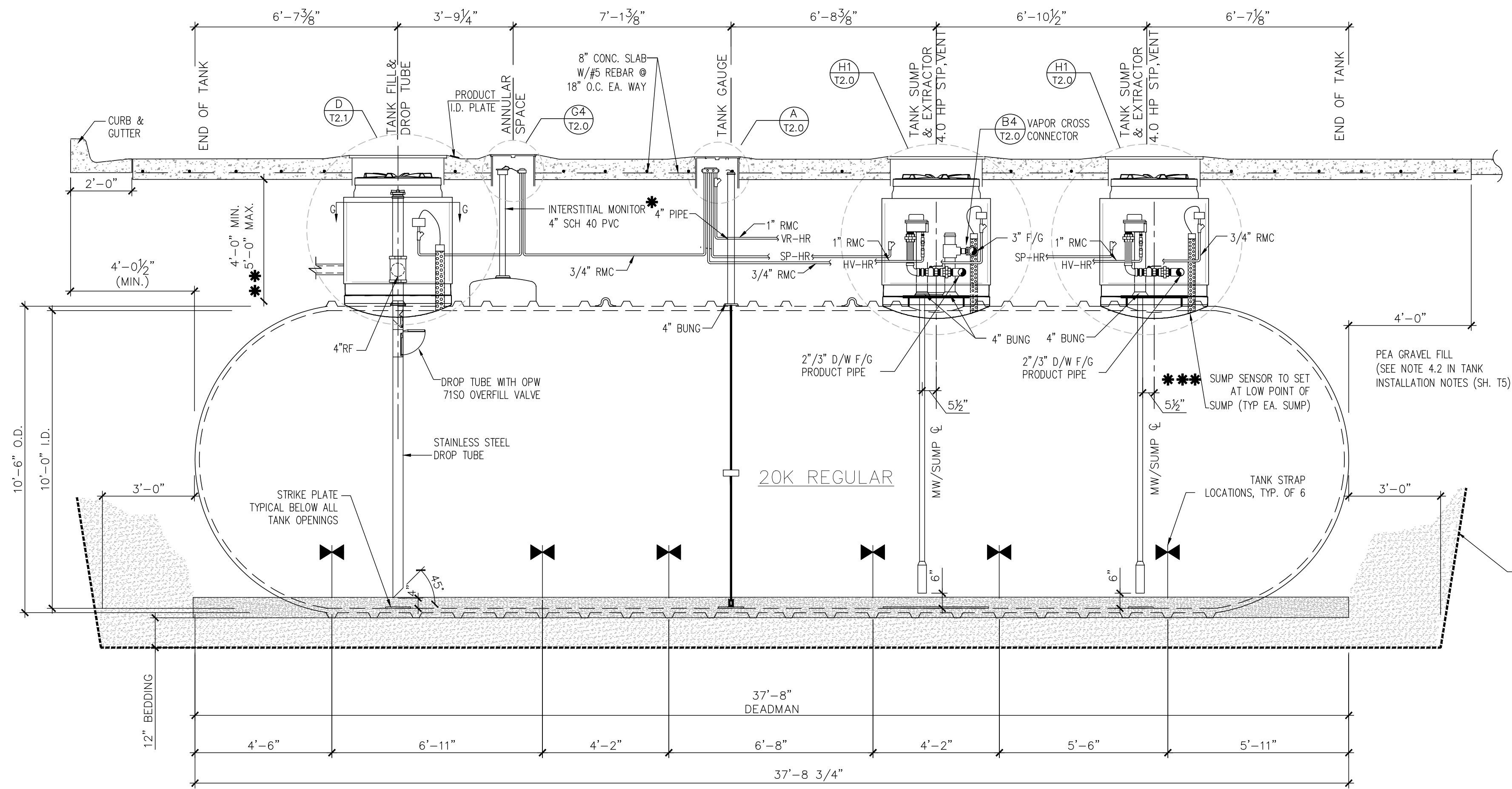
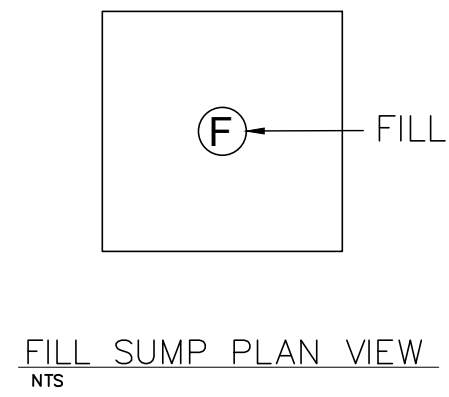
TRUCK FUELING ELECTRICAL PLAN

FILE NUMBER

T1.3

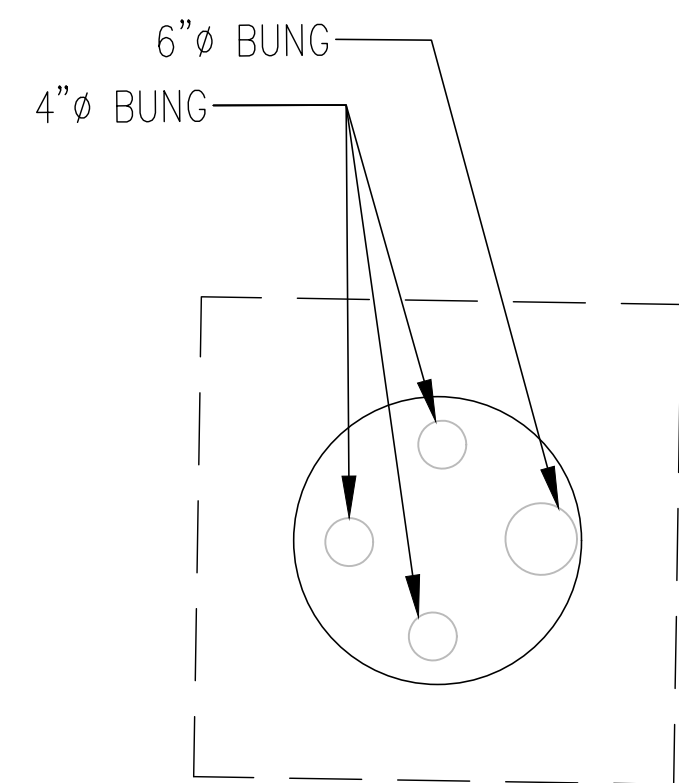
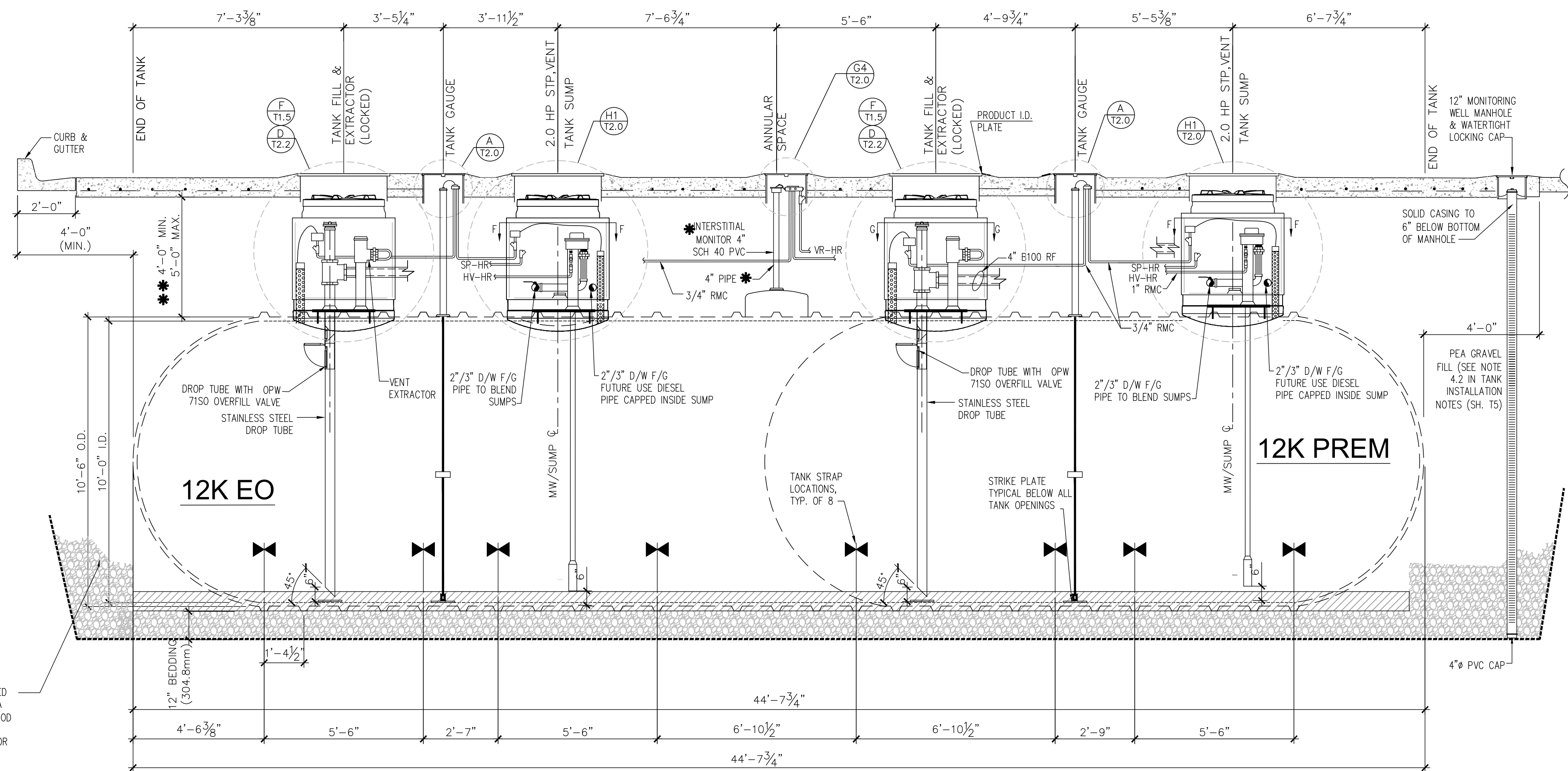
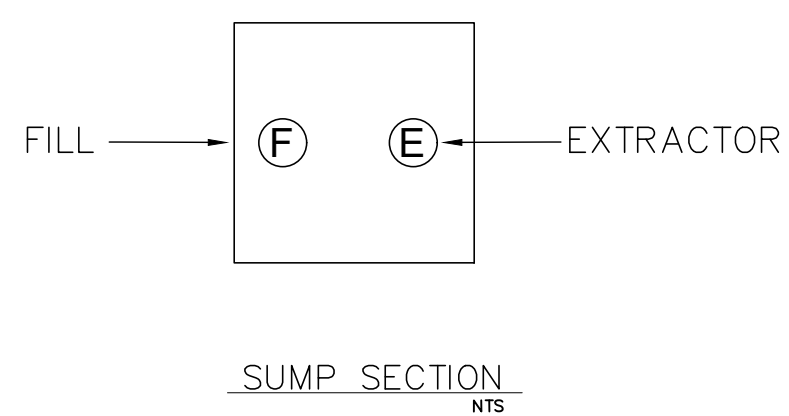
ISSUED FOR CONSTRUCTION

- * ALL RISER PIPES & FITTINGS ARE TO BE COATED WITH A BITUMINOUS COATING AND WRAPPED W/3M TAPE FOR CORROSION PROTECTION---SEE NOTES SHEET RT-T4.0, T4.1, T5.0
- ** CONFIRM BURIAL DEPTH WITH RACETRAC PROJECT MANAGER
- *** ALL TANKS SUMP SENSORS TO SET @ LOW POINT OF SUMP



EXCAVATION TO BE BENCHED IN ACCORDANCE WITH OSHA 29 CFR 1926-950(P) METHOD OF COMPLIANCE TO BE DETERMINED BY CONTRACTOR

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DESIGN PROFESSIONALS

MDM
PLANS PREPARED BY:
engineering • environmental • construction
2151 W HILLSBORO BLVD. STE 401, DEERFIELD BEACH, FL 33442
FL CA 000457 (954) 427-3076

ISSUE/REVISION RECORD	
DATE	DESCRIPTION
08/16/21	ADDED BLEND SUMP FOR DSL
05/10/22	A. ACTIVE SYPHON MISC REVS
	CLIENT GLOBAL UPDATE
	NEW TANK DTLS

RaceTrac
RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SE
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME
ANVIL BLOCK

ELLENWOOD GEORGIA
4443 DUNN COURT

RACETRAC PROJECT NUMBER
1478

PLAN SERIES
2011 BR-RH-M90 0801

PLAN MODIFICATION NOTICE
☐ NO MODIFICATIONS APPLIED
☐ MODIFICATIONS APPLY
SPB NO. N/A DATE N/A

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PROFESSIONAL SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER
No. 013997
RICHARD R. MORRIS
DATE: 2022.05.13 10:02:00
THIS SEAL IS TO BE USED ON ALL DRAWINGS AND SPECIFICATIONS FOR WHICH THE ENGINEER IS RESPONSIBLE AND IS TO BE PLACED IN THE PRESENCE OF THE PROJECT MANAGER.

RICHARD R. MORRIS
GA REG # PE013997

PROJECT NUMBER
21056

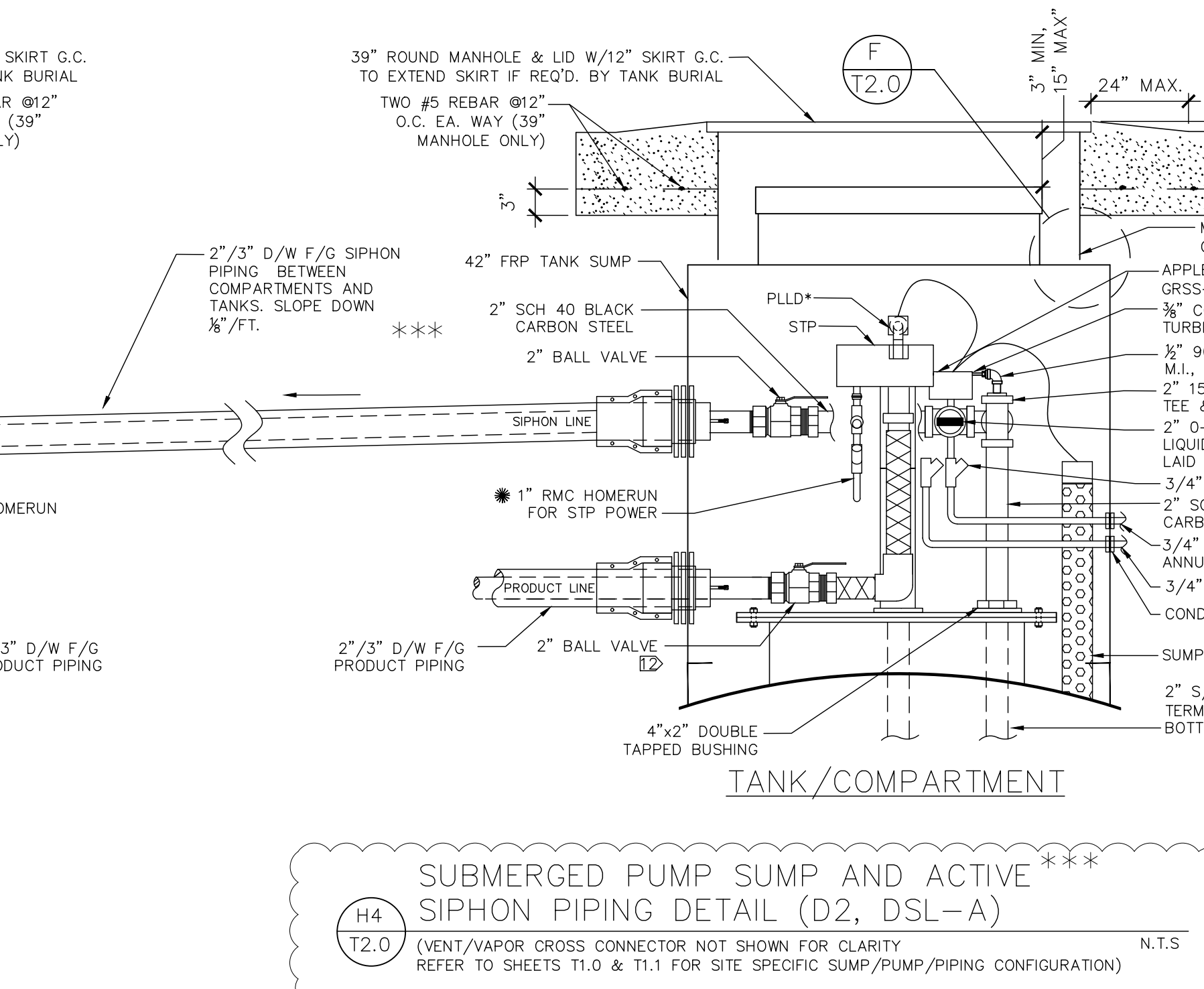
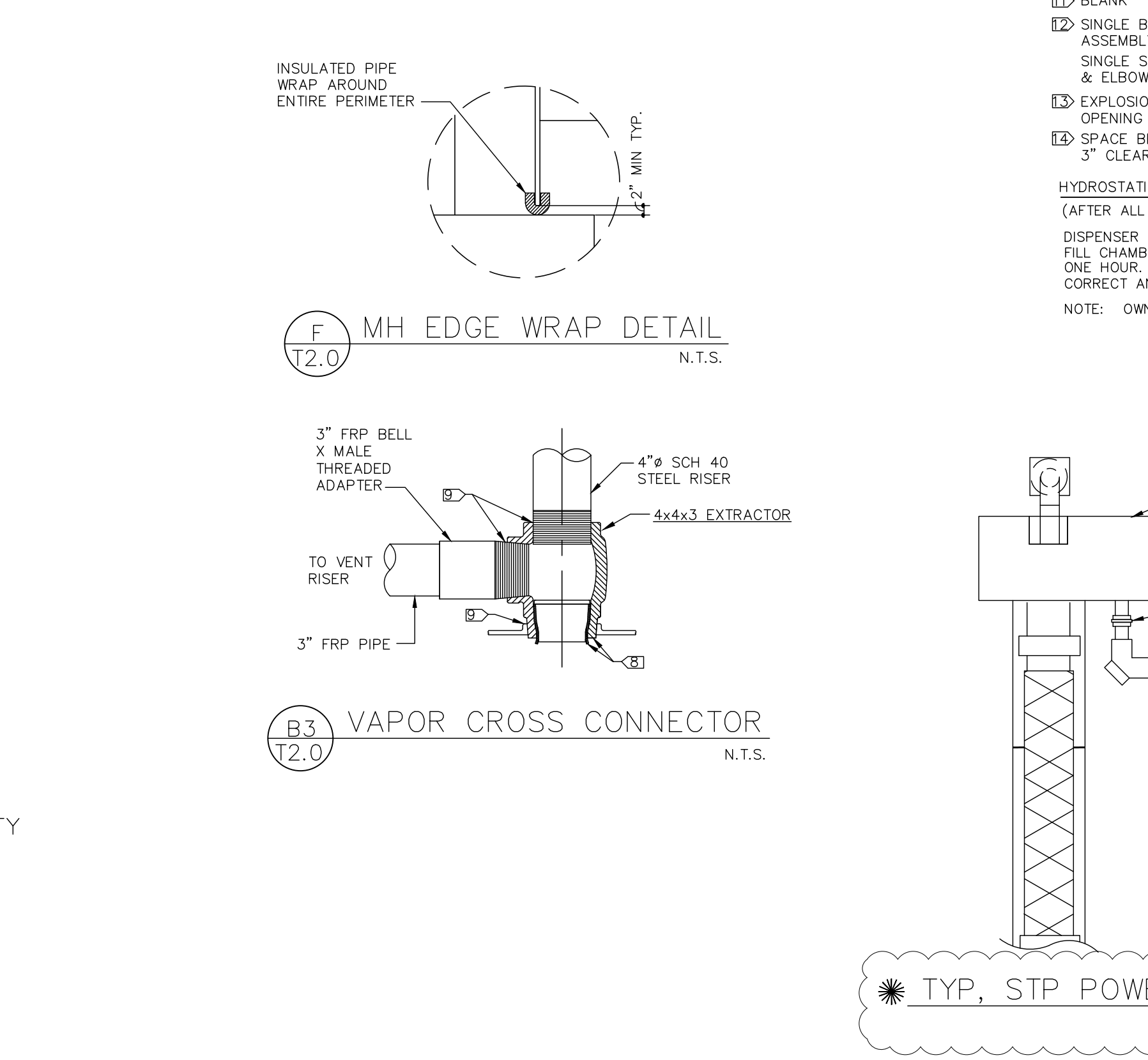
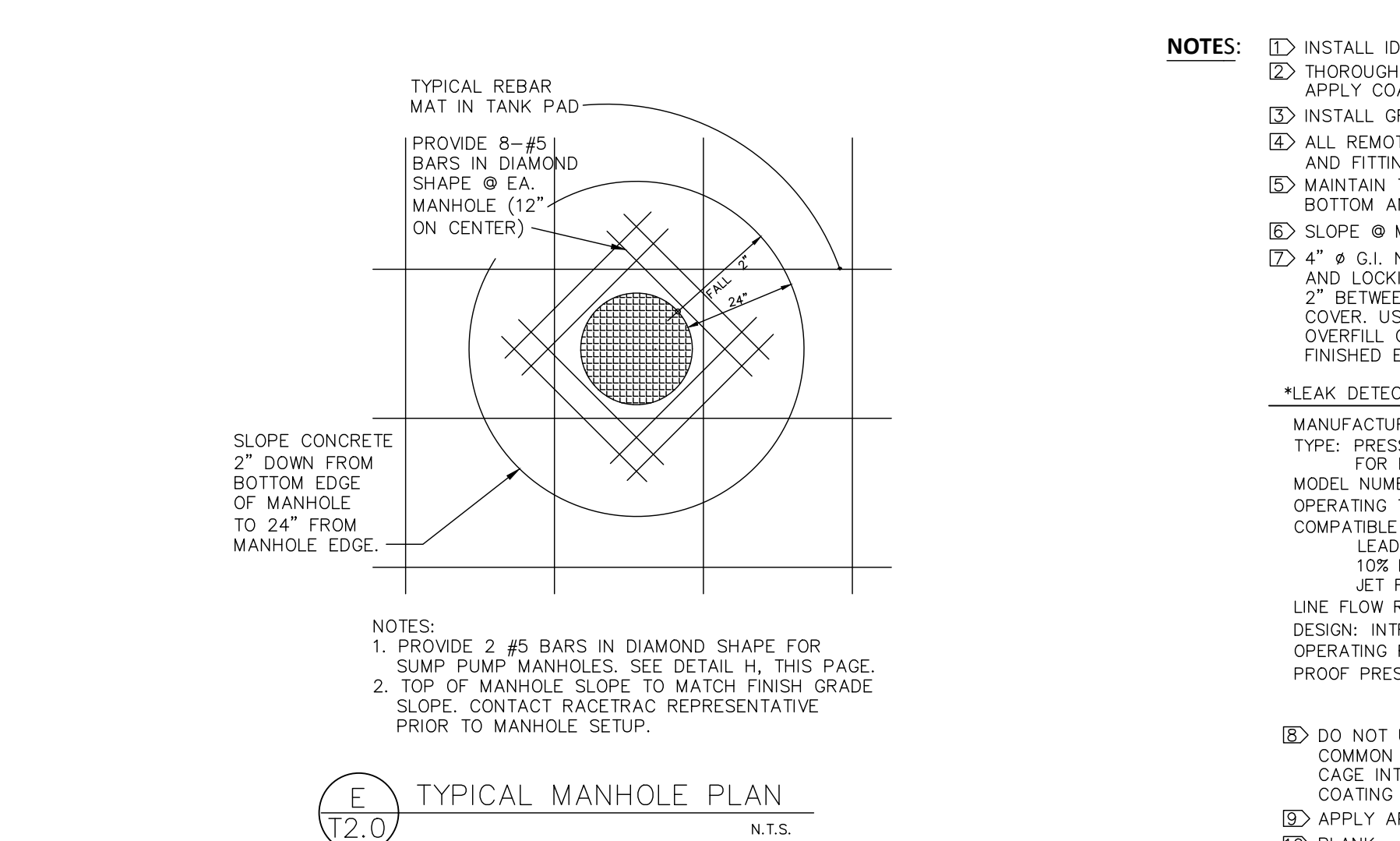
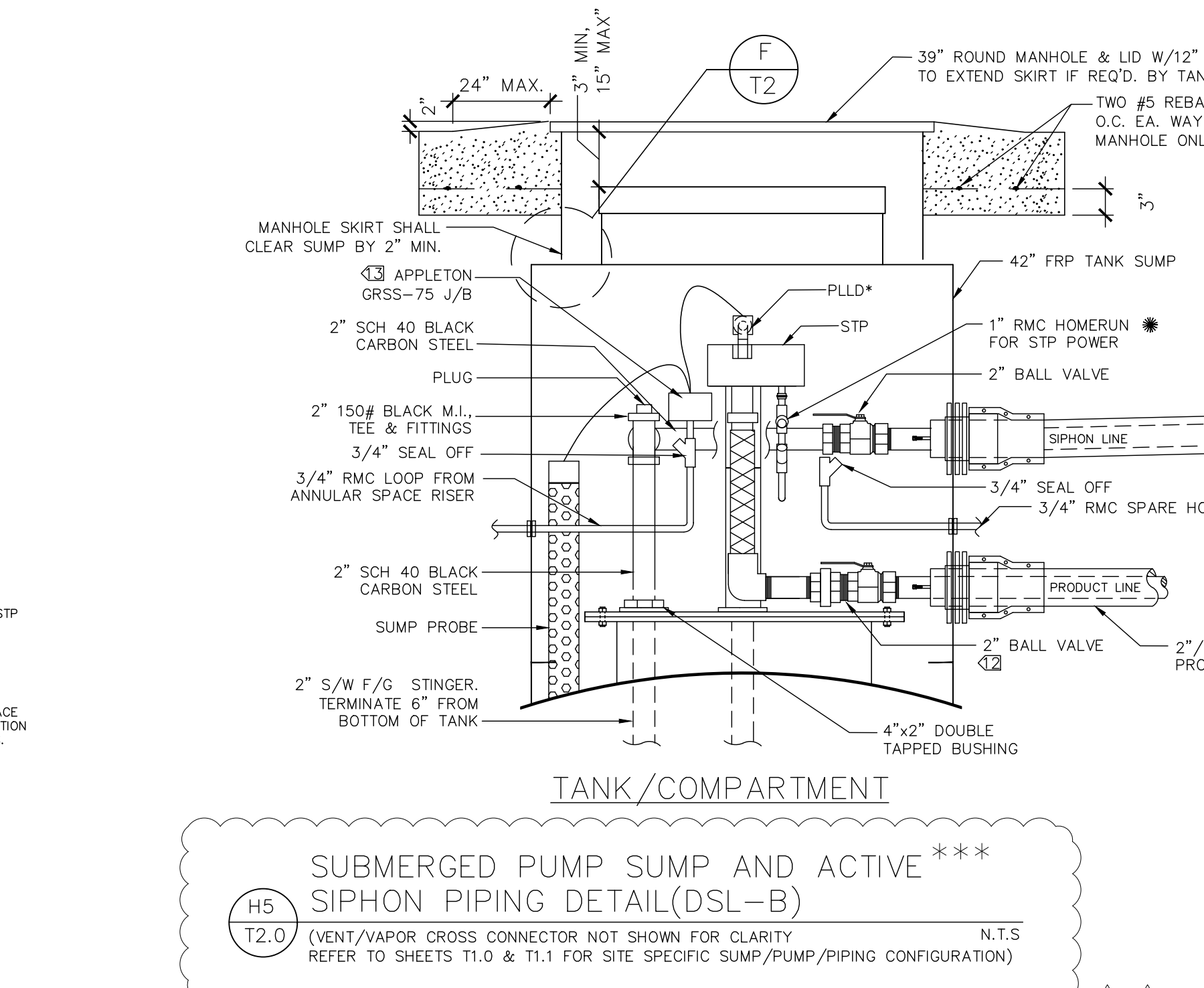
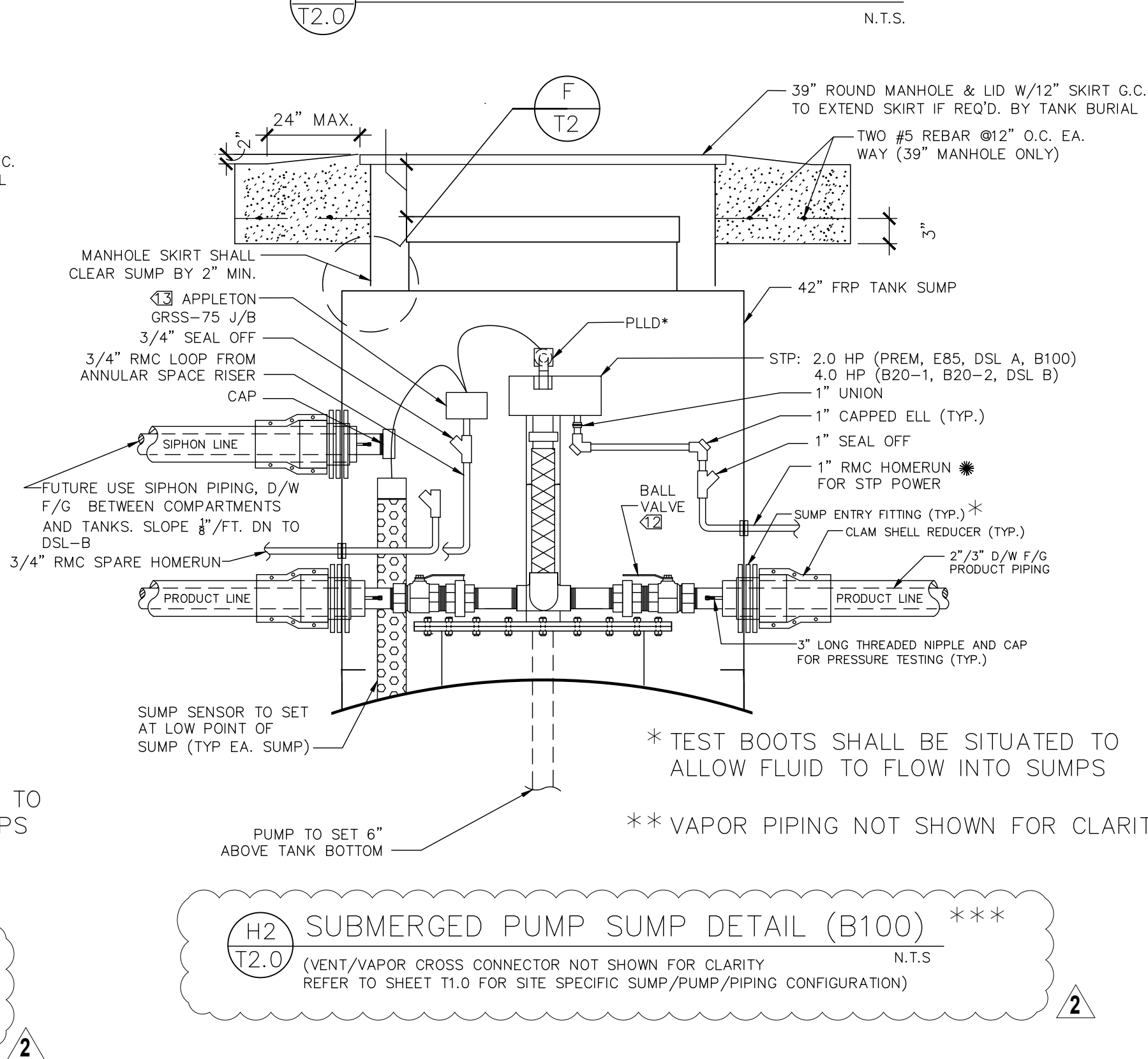
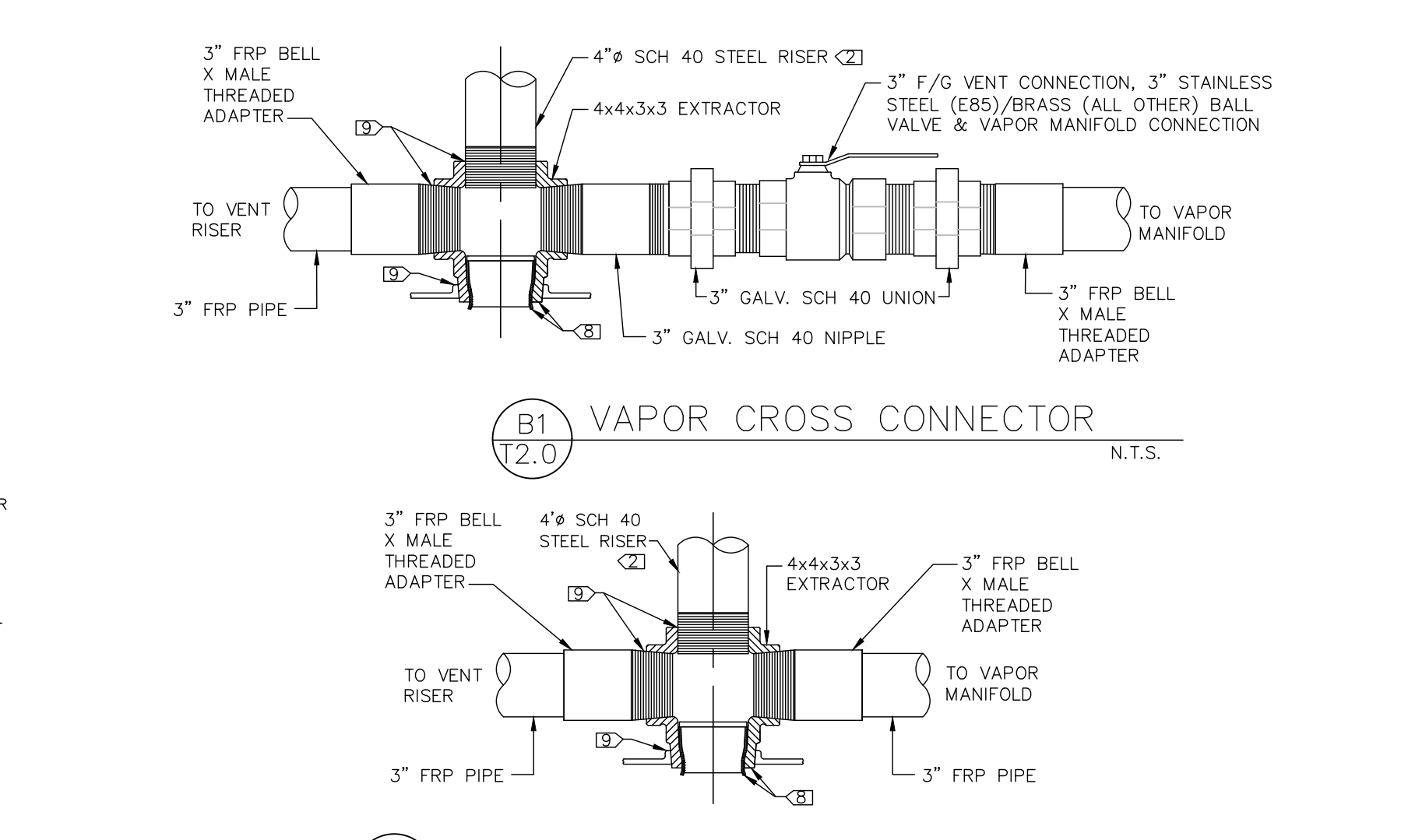
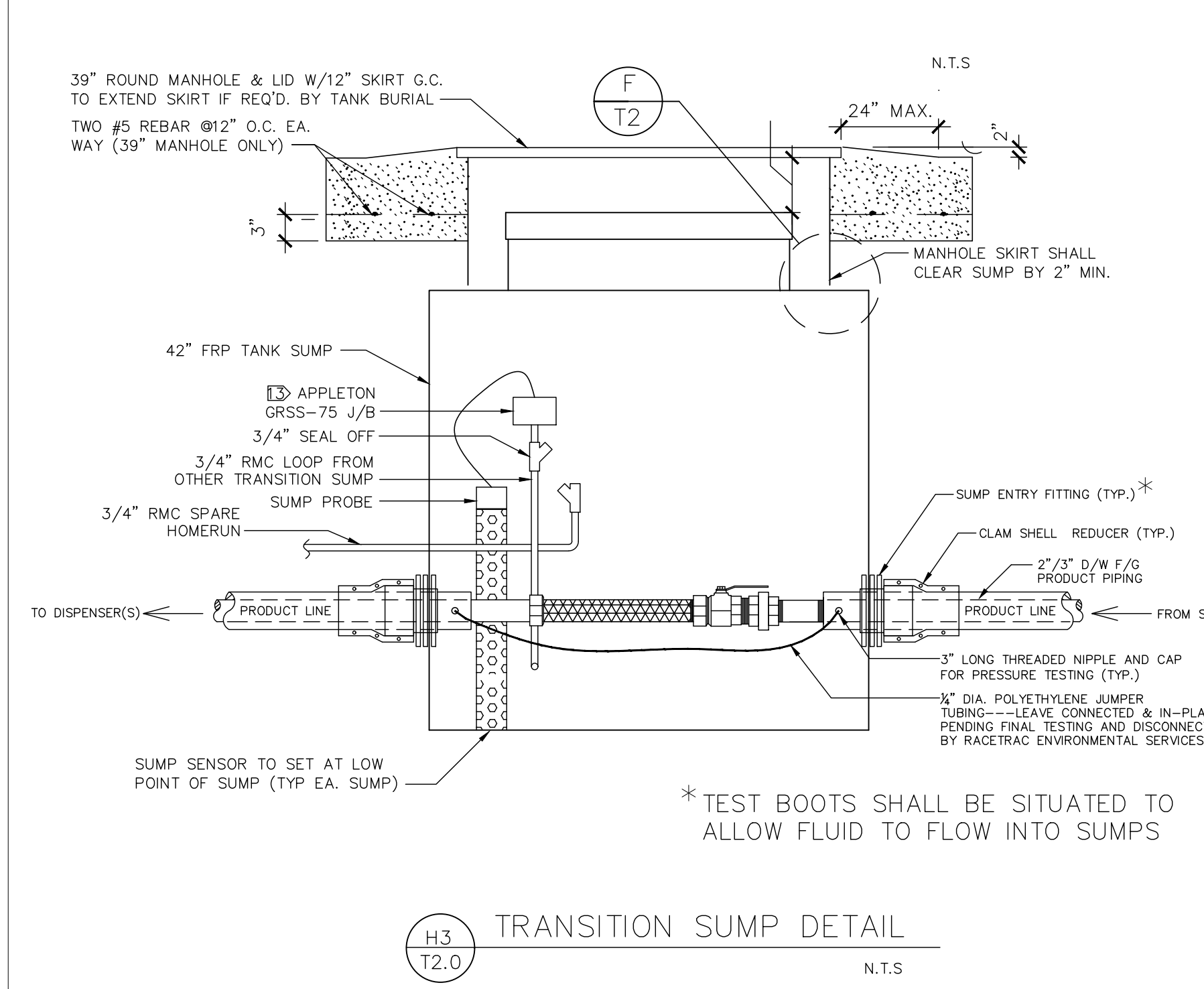
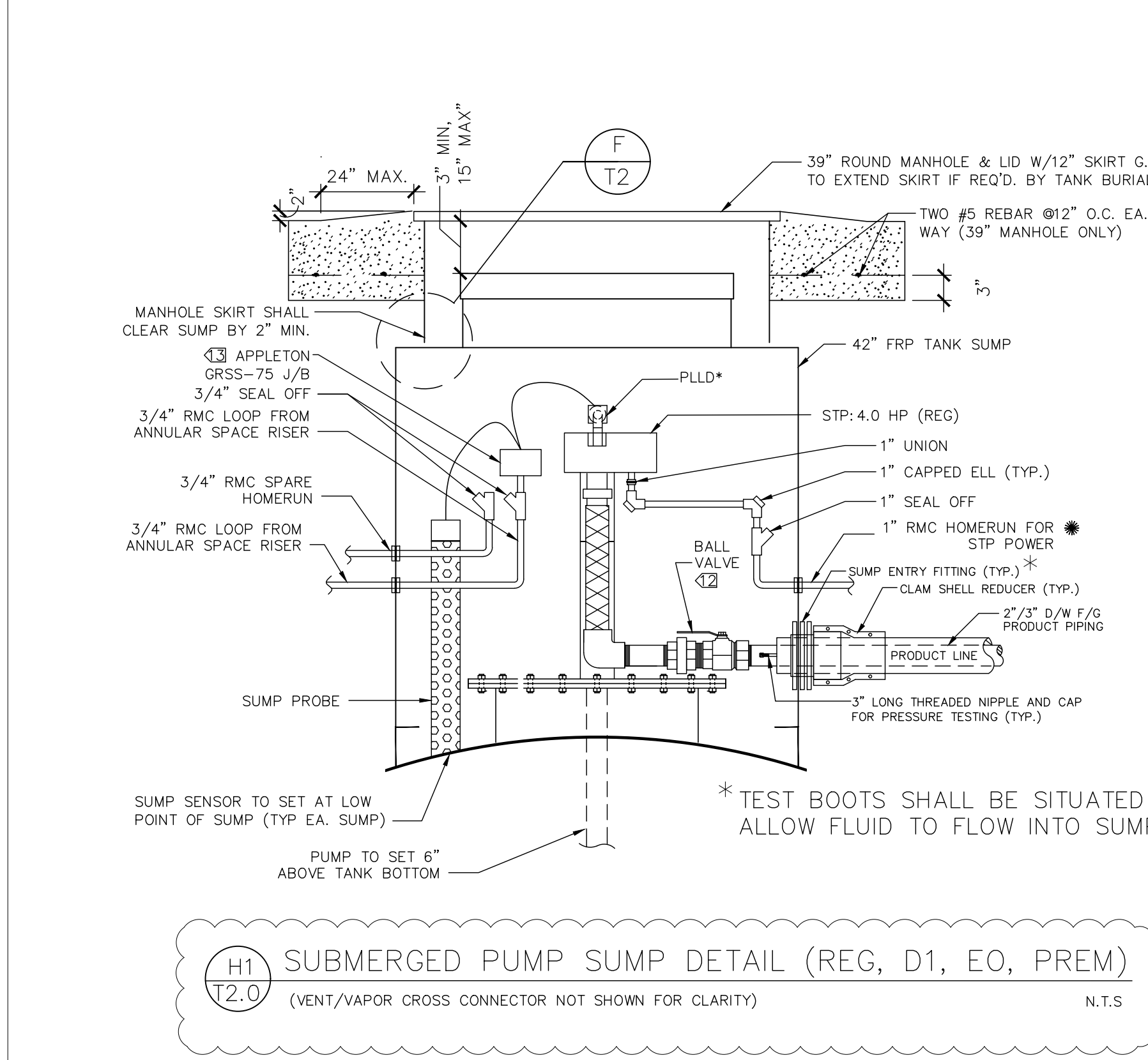
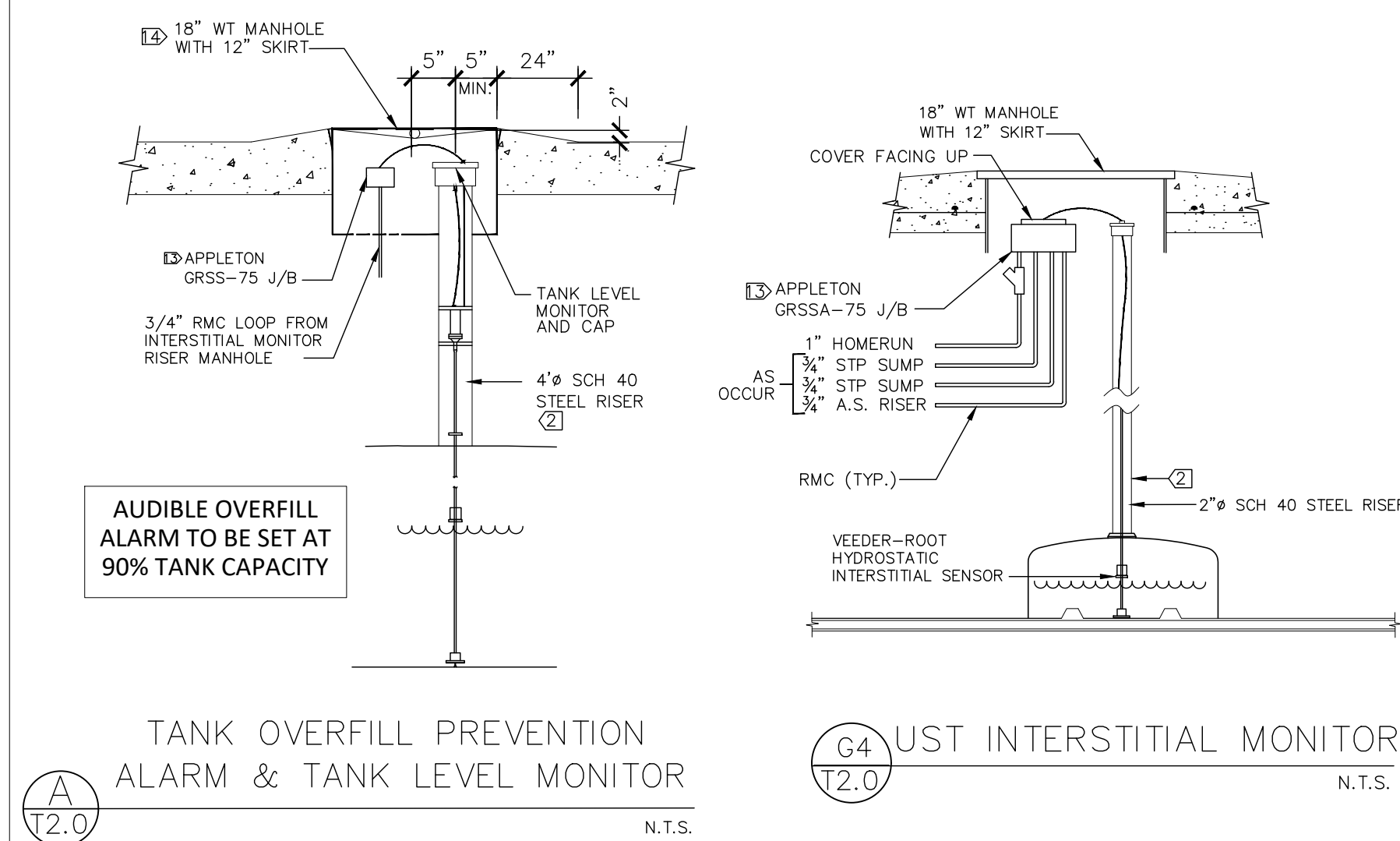
SHEET TITLE & NUMBER

U/G TANK SECTIONS

FILE NUMBER

T1.4

ISSUED FOR CONSTRUCTION



NOTES:

- ① INSTALL IDENTIFICATION MARKER.
- ② THOROUGHLY HAND CLEAN WITH WIRE BRUSH. APPLY COAL TAR WRAP WITH TEST 3M TAPE.
- ③ INSTALL GROUNDING CONNECTOR TO RISER.
- ④ ALL REMOTE STAGE 1 VAPOR RECOVERY PIPE AND FITTINGS SHALL BE FRP.
- ⑤ MAINTAIN 7" MINIMUM COVER BETWEEN SLAB BOTTOM AND TOP OF FRP PIPE/FITTINGS.
- ⑥ SLOPE @ MINIMUM OF 1/8" PER FOOT.
- ⑦ 4" Ø G.I. NIPPLE, STAGE ONE VR DRY BREAK AND LOCKING CAP. MAINTAIN 1 1/2" TO 2" BETWEEN CAP AND OVERFILL CONTAINER COVER. USE STABILIZER BARS SUPPLIED WITH OVERFILL CONTAINER TO ESTABLISH CORRECT FINISHED ELEVATION.

***LEAK DETECTOR SPECIFICATIONS**

MANUFACTURER: VEEDER-ROOT
 TYPE: PRESSURIZED LINE LEAK DETECTOR FOR F.E. PETRO PUMPS
 MODEL NUMBER: 648480-001
 OPERATING TEMP.: -25° TO +130°F
 COMPATIBLE FUELS:
 LEADED GASOLINE,
 10% ETHANOL/90% UNLEADED,
 JET FUEL, AVIATION UNLEADED GASOLINE,
 LINE FLOW RATE: 120 GPM MAX 5% METHANOL/95% UNLEADED,
 DESIGN: INTRINSICALLY SAFE DIESEL, KEROSENE,
 OPERATING RANGE: 0-50 PSI
 PROOF PRESSURE: 200 PSI

⑧ DO NOT USE THREAD SEALANT ON THREADS COMMON TO CAGE & BASE. WHEN INSTALLING CAGE INTO BASE, LUBRICATE THREADS WITH LIGHT COATING OF GREASE. DO NOT OVERTIGHTEN.

⑨ APPLY APPROVED THREAD SEALANT.

⑩ BLANK

⑪ BLANK

⑫ SINGLE BRASS BALL VALVE, FLEX CONNECTOR & ELBOW ASSEMBLY IN EACH REG., PREM. & DSL. STP. SUMP.

⑬ SINGLE STAINLESS STEEL BALL VALVE, FLEX CONNECTOR & ELBOW ASSEMBLY IN E85 STP. SUMP.

⑭ EXPLOSION PROOF BOX MOUNTED SO THAT ACCESS

[illegible]

RaceTrac
RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SE
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANVIL BLOCK

ELLENWOOD
GEORGIA
4443 DUNN COURT

RACETRAC PROJECT NUMBER
1478

PLAN SERIES
2011 BR-RH-M90 0801

PLAN MODIFICATION NOTICE

☒ NO MODIFICATIONS APPLIED
☐ MODIFICATIONS APPLY
SPB NO. N/A **DATE** N/A

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PROFESSIONAL SEAL

[illegible]

PROJECT NUMBER
21056

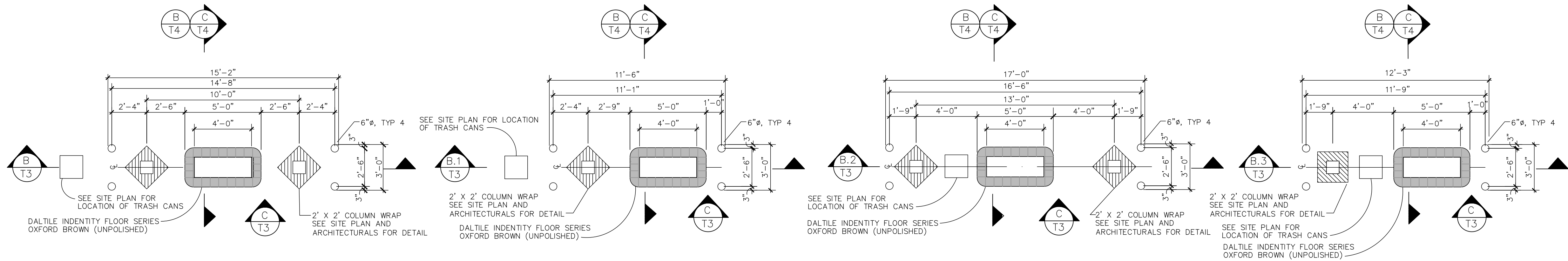
SHEET TITLE & NUMBER

U/G TANK EQUIPMENT

FILE NUMBER

T20

12.0
ISSUED FOR CONSTRUCTION



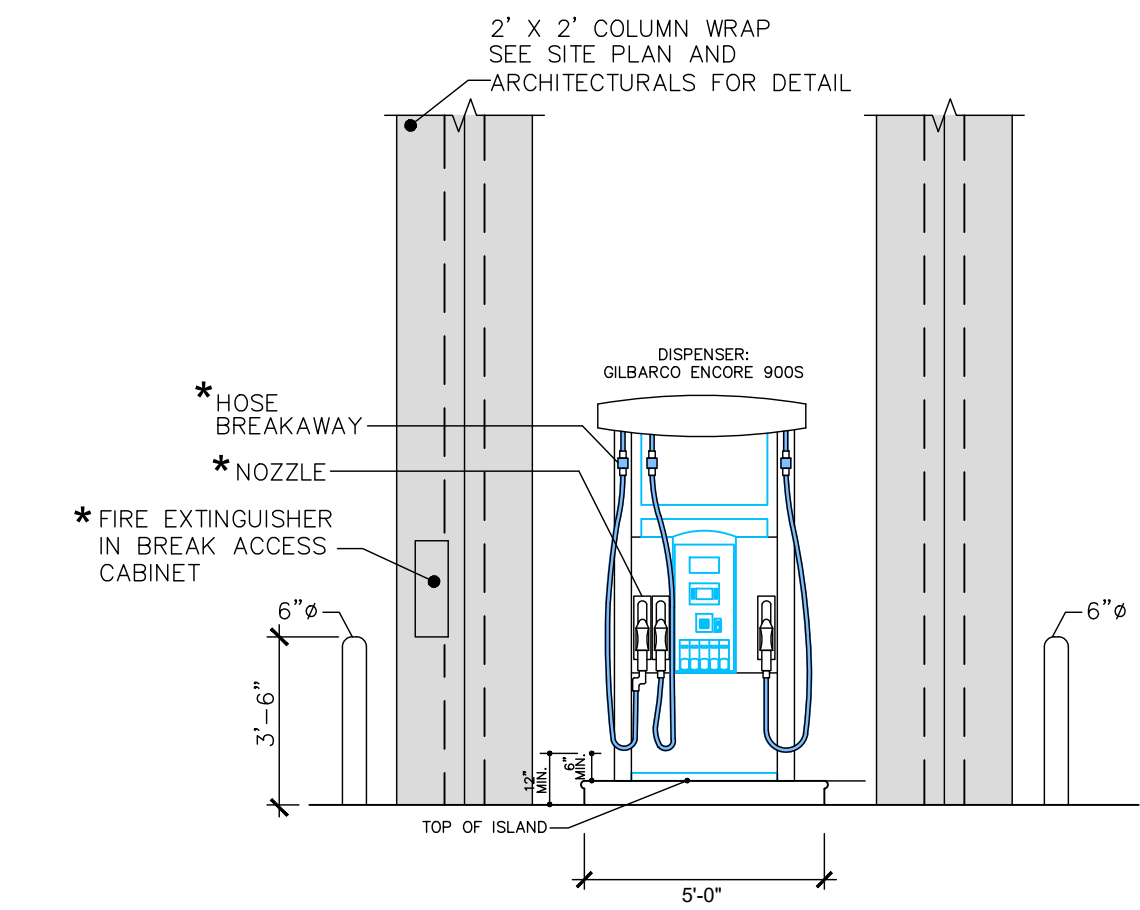
A
T3 PUMP ISLAND DETAIL
1. SEE SITE PLAN FOR SPECIFIC ISLAND LAYOUT(S) N.T.S.

A.1
T3 TYPICAL PUMP ISLAND DETAIL
1. SEE SITE PLAN FOR SPECIFIC ISLAND LAYOUT(S) N.T.S.

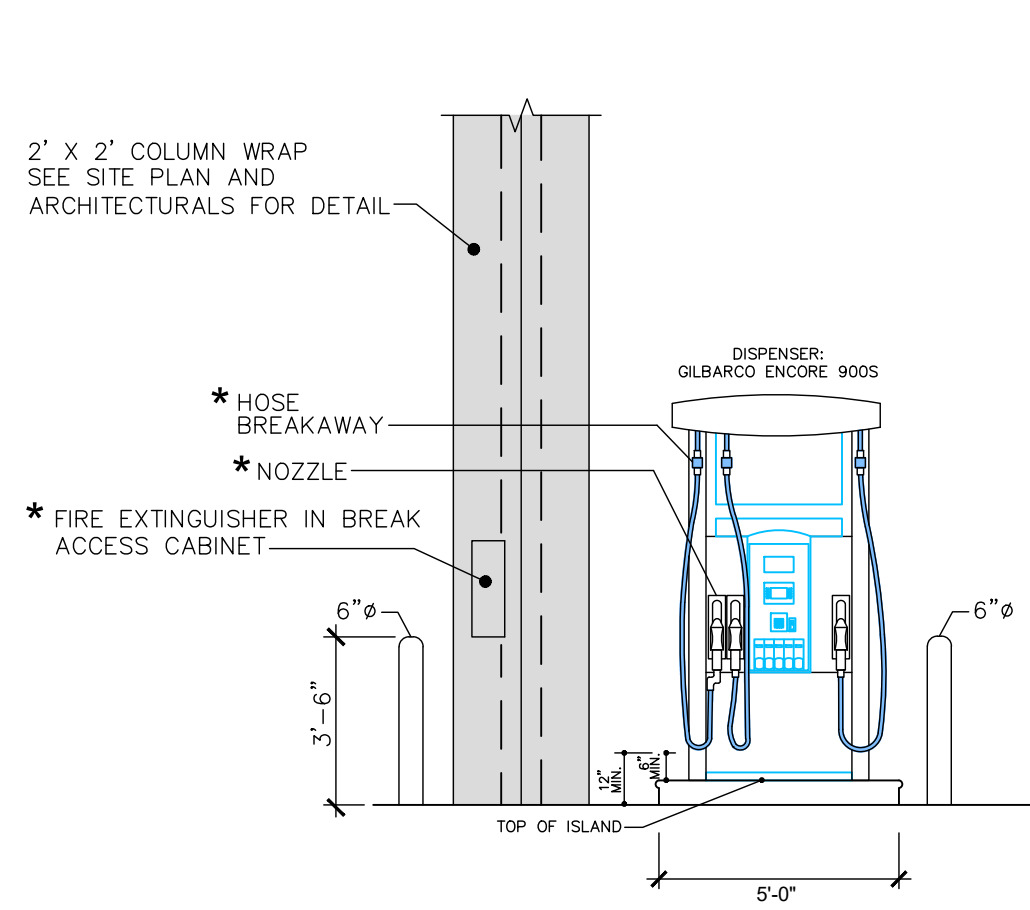
A.2
T3 PUMP ISLAND DETAIL
1. SEE SITE PLAN FOR SPECIFIC ISLAND LAYOUT(S) N.T.S.

A.3
T3 TYPICAL PUMP ISLAND DETAIL
1. SEE SITE PLAN FOR SPECIFIC ISLAND LAYOUT(S) N.T.S.

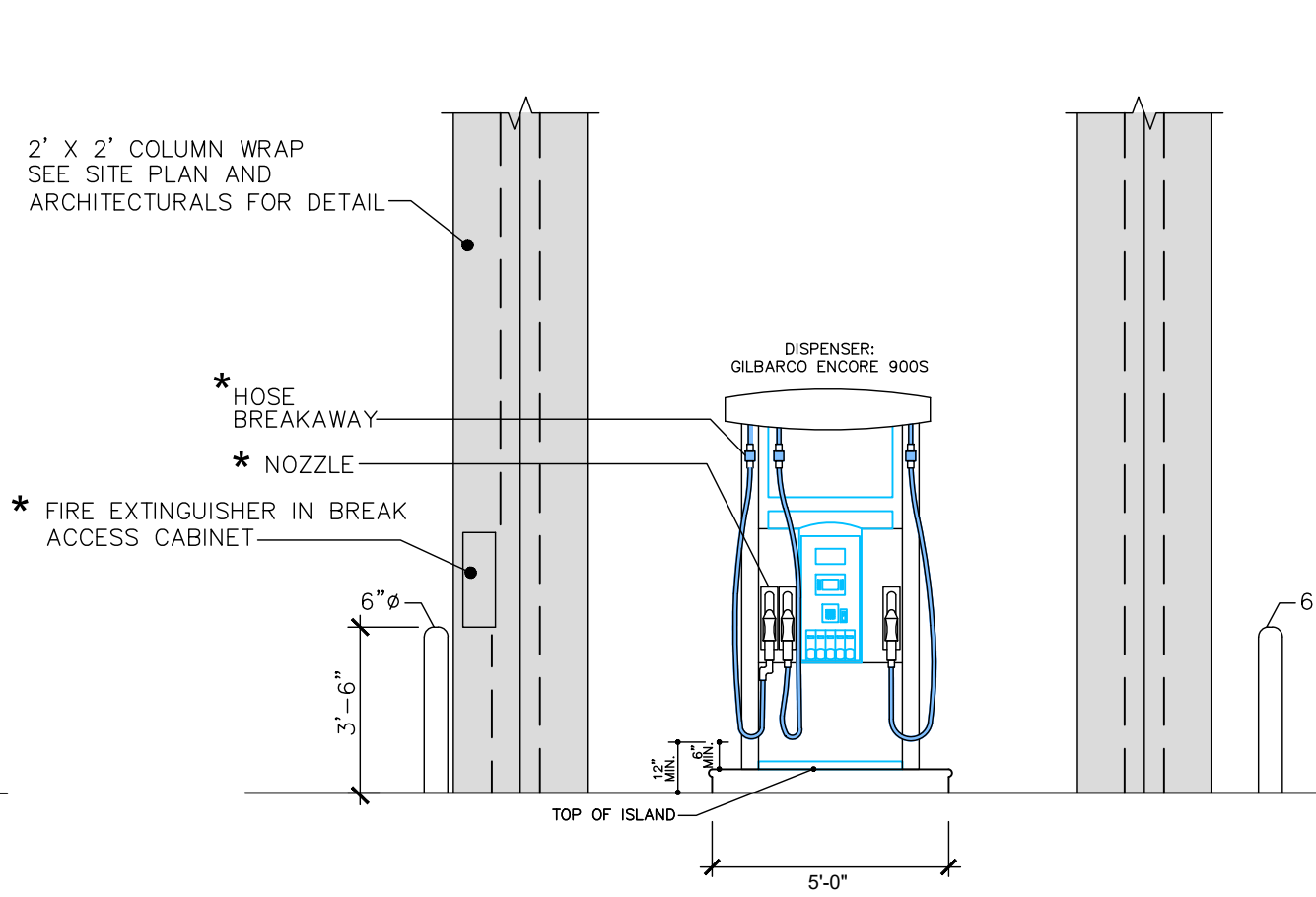
A.4
T3 TRUCK PUMP ISLAND DETAIL
1. SEE SITE PLAN FOR SPECIFIC ISLAND LAYOUT(S) N.T.S.



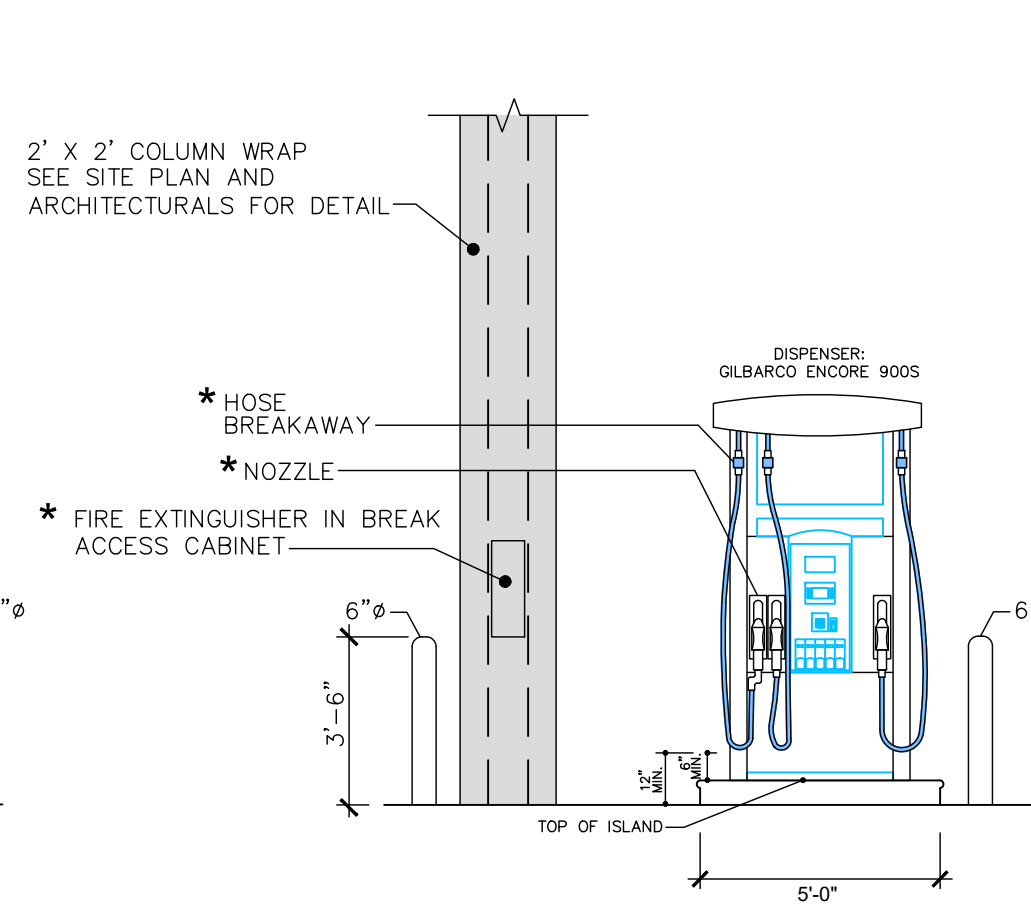
B
T3 PUMP ISLAND ELEVATION, AUTO GILBARCO ENCORE DISPENSER N.T.S.



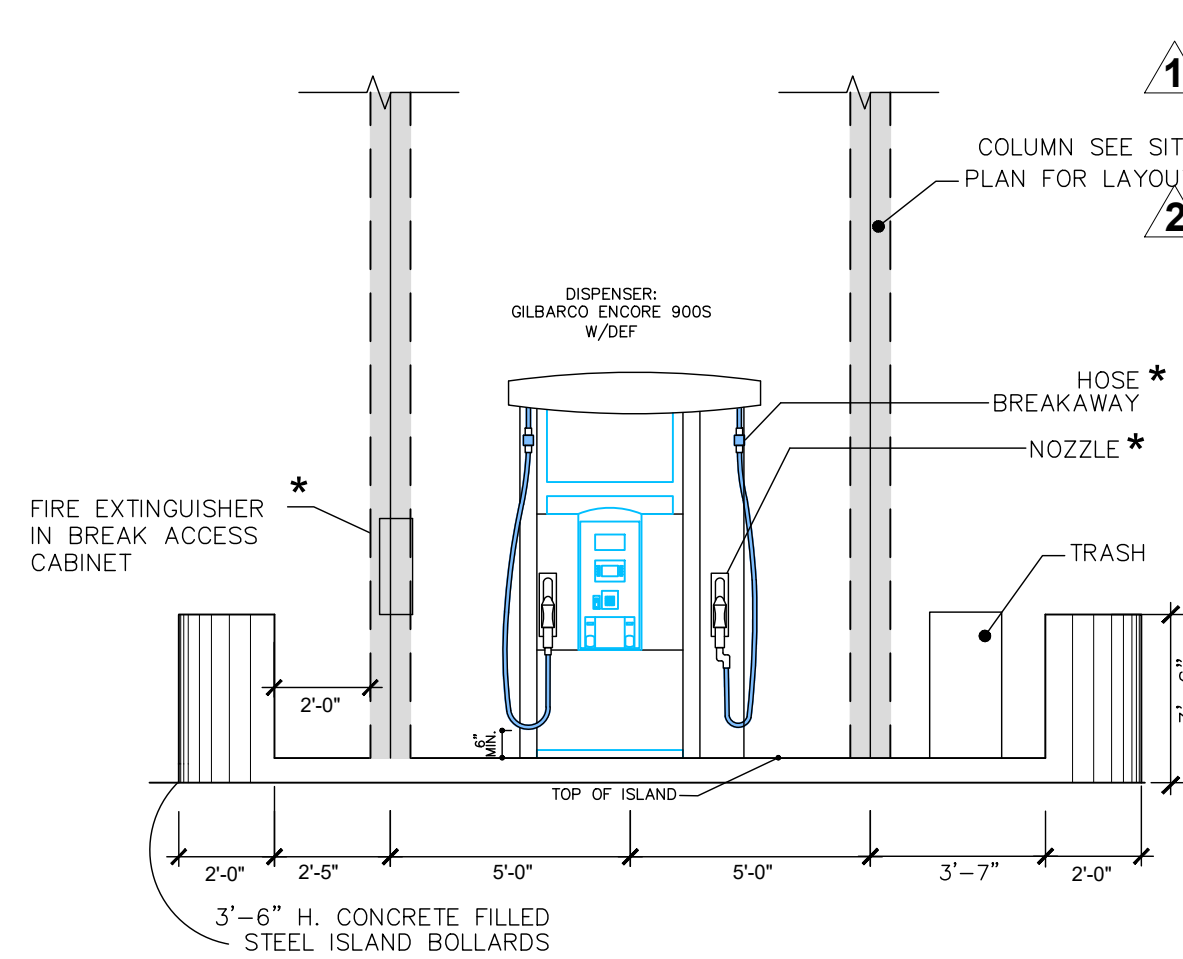
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T3 PUMP ISLAND ELEVATION, AUTO GILBARCO ENCORE DISPENSER N.T.S.



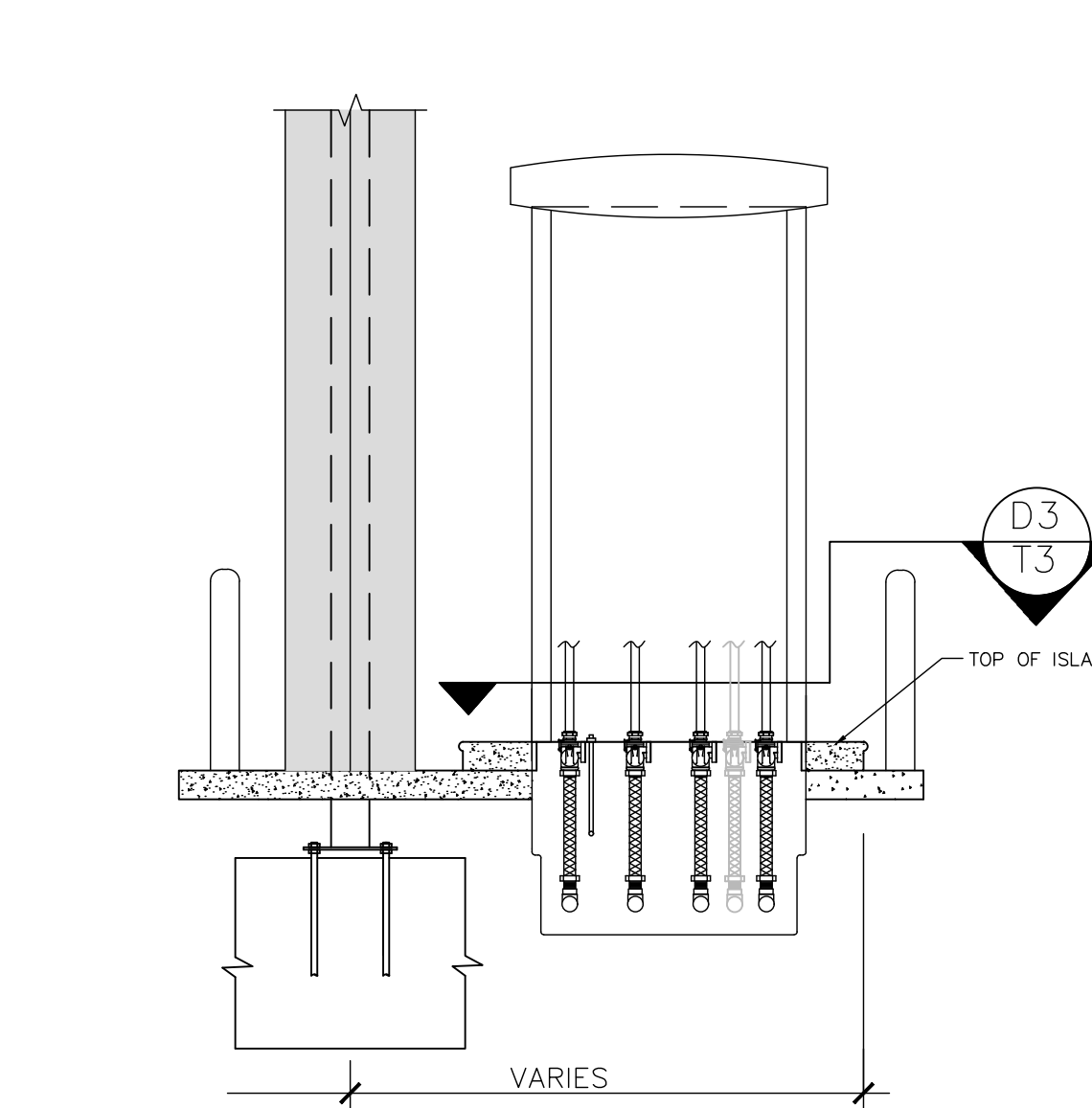
B.2
T3 PUMP ISLAND ELEVATION, AUTO GILBARCO ENCORE DISPENSER N.T.S.



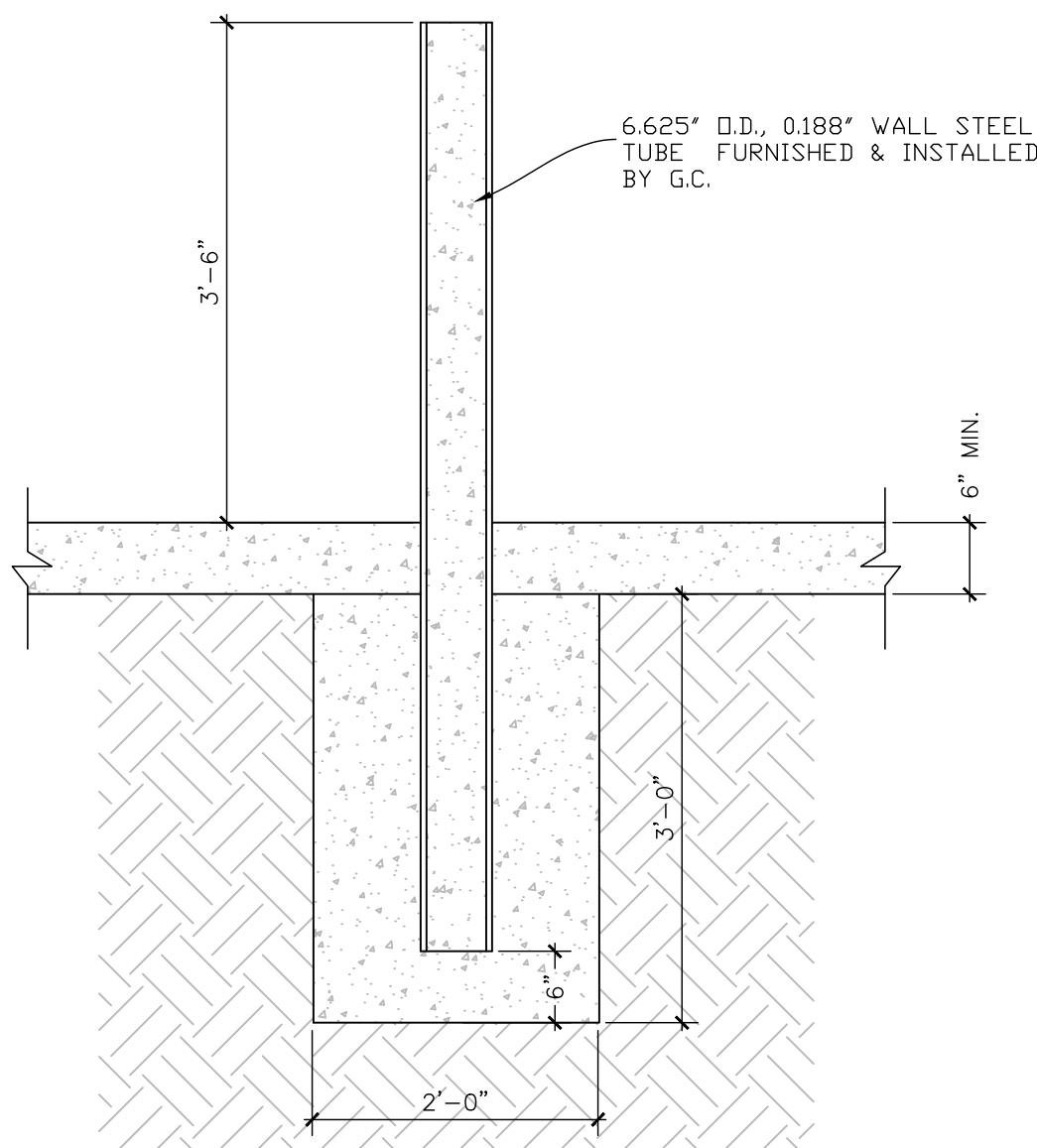
B.3
T3 PUMP ISLAND ELEVATION, AUTO GILBARCO ENCORE DISPENSER N.T.S.



B.4
T3 TRUCK PUMP ISLAND ELEVATION GILBARCO ENCORE MASTER/SATELLITE W/DEF N.T.S.

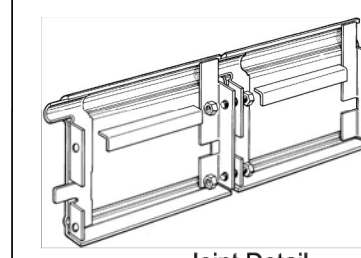
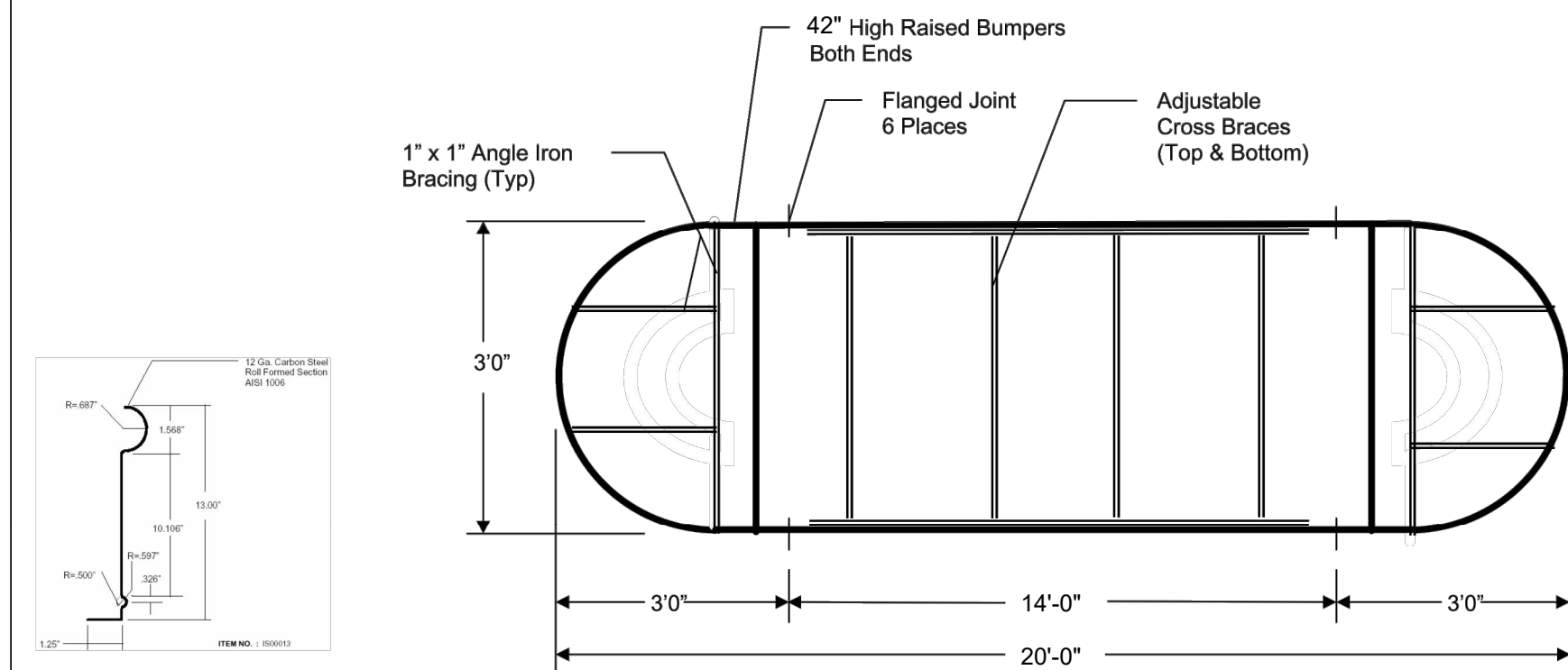


C
T3 TYP. PUMP ISLAND SECTION N.T.S.



D.5
T3 PROTECTIVE BOLLARD DETAIL-AUTO N.T.S.

- NOTES:**
- FUEL NOZZLES TO BE UL LISTED, SEE SPECIFICATION SHEET T-4.
 - FUEL HOSE BREAKAWAYS TO BE UL LISTED, SEE SPECIFICATION SHEET T-4.
 - SHEAR VALVE TO BE RIGIDLY ANCHORED, SEE SPECIFICATION SHEET T-4.
 - FACILITY SHALL BE PROVIDED WITH NFPA 30A, 9.2.5.2/NFPA 10 HIGH FLOW FIRE EXTINGUISHER: AMEREX MODEL NO. 760, 4A:60B; C: 20 LB CAPACITY, OR EQUAL, WITHIN 100 FT OF ALL DISPENSING PUMPS & FILL PIPE OPENINGS.



RIVERSIDE STEEL, INC. 3102 WARREN-SHARON RD. VIENNA, OHIO 44473	
DRAWN BY: JR	SCALE: None
CHK BY: GR	DATE: 01/06/11
MAT'L: 12 Ga. Carbon Steel - 13" High	CUSTOMER:

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DESIGN PROFESSIONALS

MDM
PLANS PREPARED BY:
engineering • environmental • construction
2151 W HILLSBORO BLVD. STE 401 DEERFIELD BEACH, FL 33442
FL CA 000457 (954) 427-3070

ISSUE/REVISION RECORD

DATE	DESCRIPTION
06/03/21	ADDED BLEND SUMP FOR DSL A. ACTIVE
	SYPHON.MISC REVS

05/12/22 CLIENT GLOBAL UPDATE

RaceTrac

RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SE
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANVIL BLOCK

ELLENWOOD
GEORGIA
4443 DUNN COURT

RACETRAC PROJECT NUMBER

1478

PLAN SERIES

2011 BR-RH-M90 0801

PLAN MODIFICATION NOTICE

NO MODIFICATIONS APPLIED

MODIFICATIONS APPLY

SPB NO. N/A DATE N/A

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PROFESSIONAL SEAL

GEORGIA
REGISTERED
PROFESSIONAL
ENGINEER
RICHARD R. MORRIS
No. 013997

RICHARD R. MORRIS
GA REG # PE013997

PROJECT NUMBER

21056

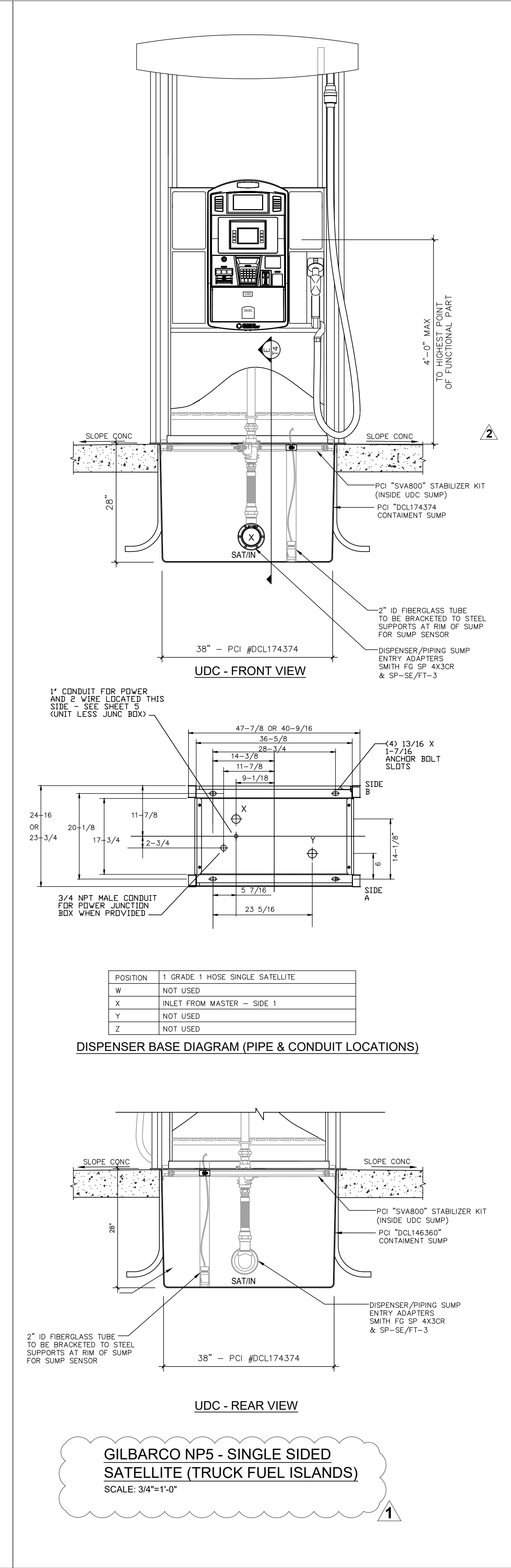
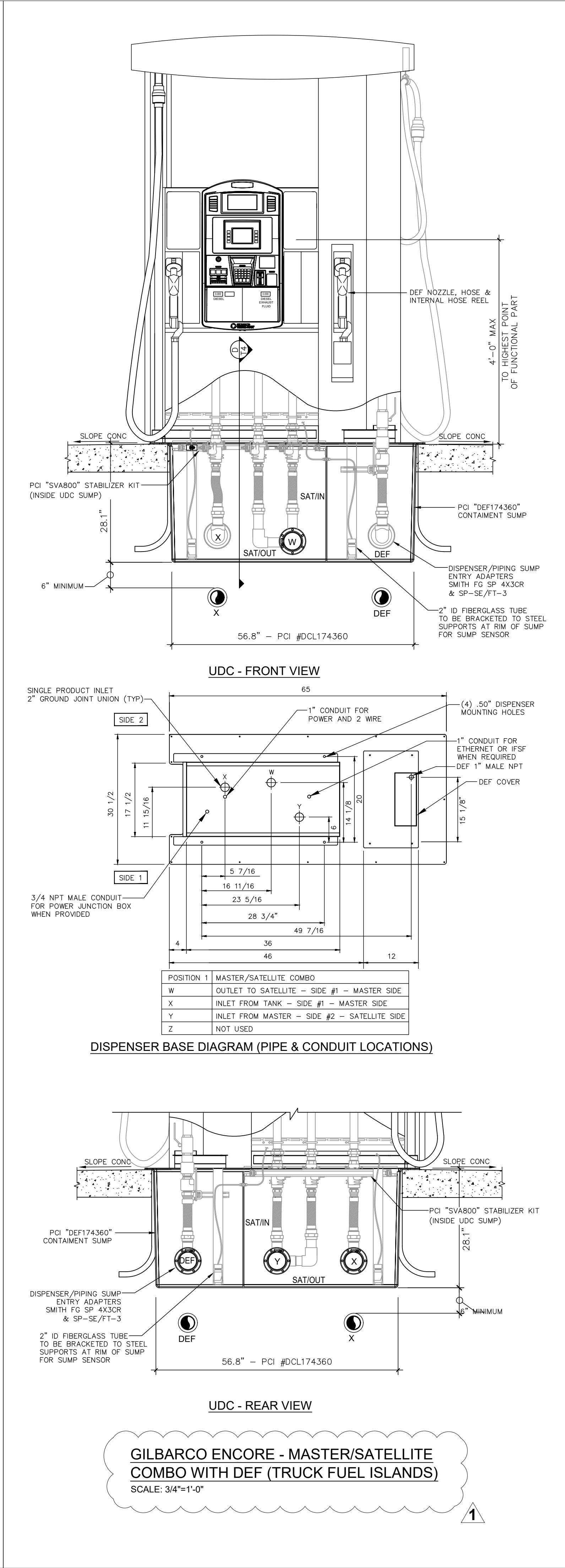
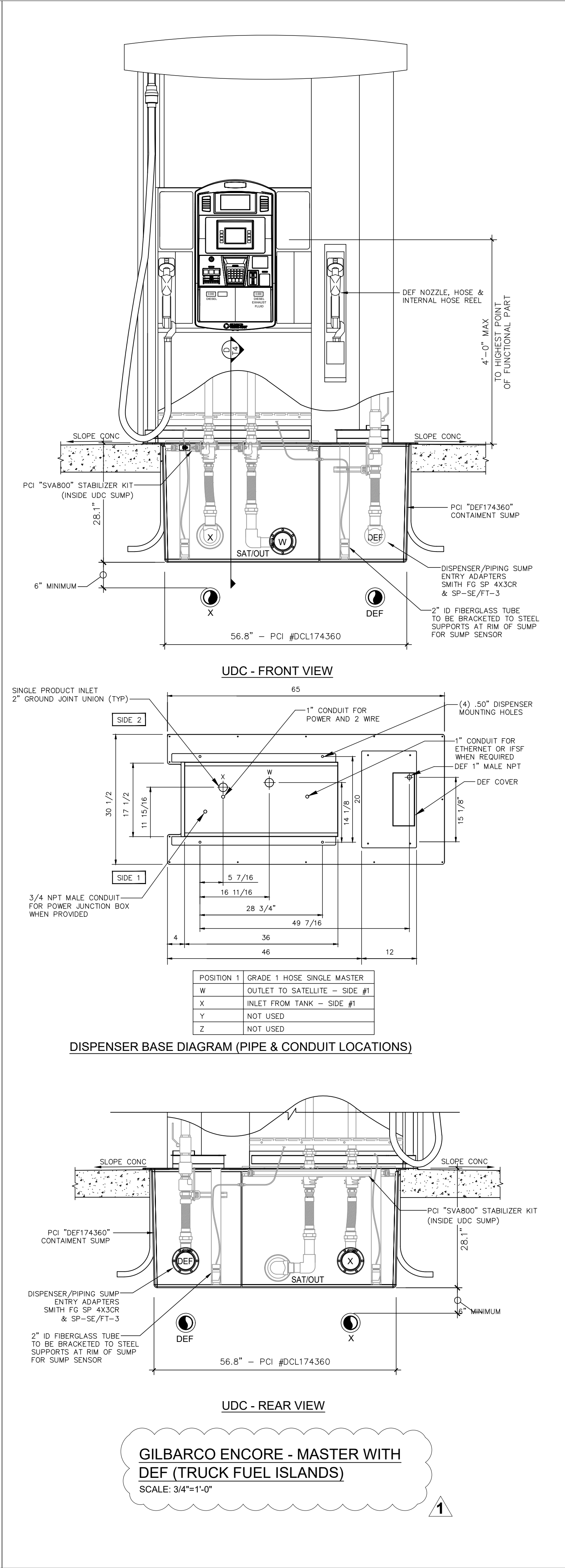
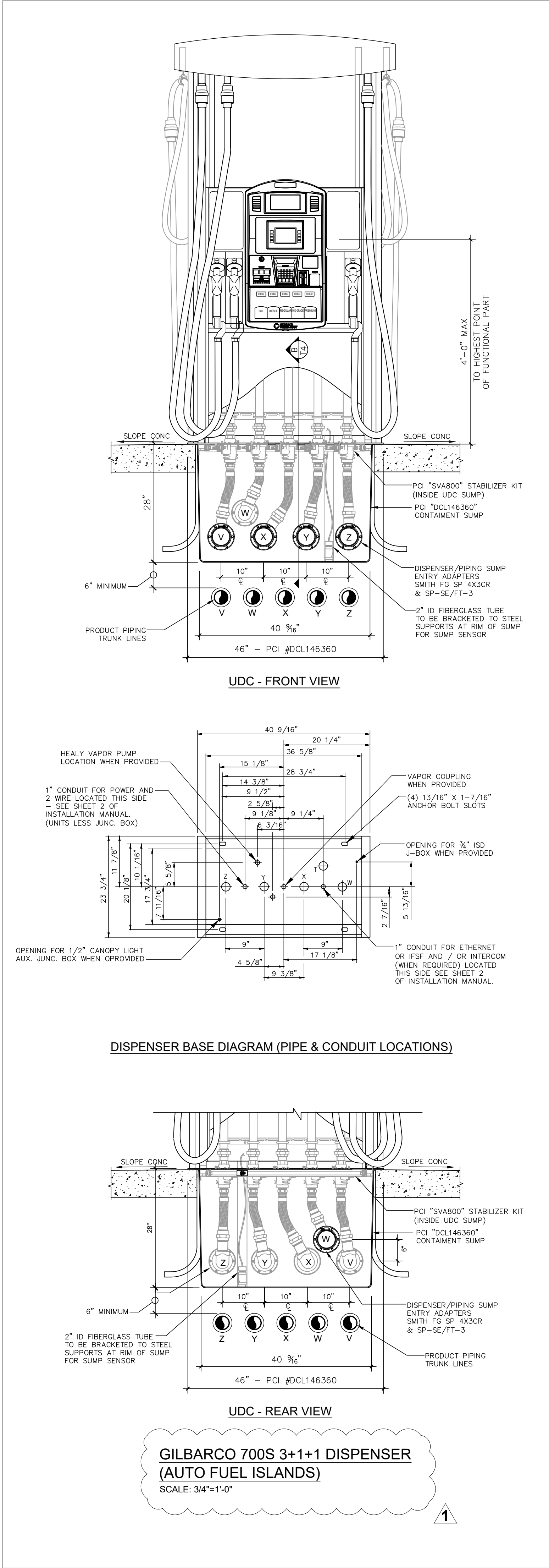
SHEET TITLE & NUMBER

DISPENSER
ISLAND
DETAILS

FILE NUMBER

T3.0

ISSUED FOR CONSTRUCTION



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DESIGN PROFESSIONALS

MDM
engineering • environmental • construction
2151 W HILLSBORO BLVD. STE 401 DEERFIELD BEACH, FL 33442
(561) 427-3076
FL CA 000457

PLANS PREPARED BY:

ISSUE/REVISION RECORD

DATE	DESCRIPTION
08/17/21	CLIENT GLOBAL UPDATE

RaceTrac
RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SE
SUITE 800
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME
ANVIL BLOCK

ELLENWOOD GEORGIA
4443 DUNN COURT

RACETRAC PROJECT NUMBER
1478

PLAN SERIES
2011 BR-RH-M90 0801

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☐ MODIFICATIONS APPLY

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PROFESSIONAL SEAL

GEORGIA
REGISTERED PROFESSIONAL
No. 013997
RICHARD R. MORRIS
DATE: 08/22/2021 10:13:10
THIS SEAL IS VOID IF NOT USED IN ACCORDANCE WITH THE RULES OF THE BOARD OF PROFESSIONAL ENGINEERS AND SURVEYORS OF THE STATE OF GEORGIA

Richard R. Morris
GA REG # PE013997

PROJECT NUMBER
21056

SHEET TITLE & NUMBER
DISPENSER & SUMP ELEVATION DETAILS

FILE NUMBER
T3.1

ISSUED FOR CONSTRUCTION

SHEAR SECTION OF VALVE
 TO BE AT THE SAME ELEV.
 AS TOP OF ISLAND

STEEL STABILIZER
 BAR SUPPLIED W/
 DISPENSER BOX
 TOP OF ISLAND

1/2" STEEL DISPENSER ANCHOR-
 BOLTS MIN. 2 PER SIDE

1 1/2" X 12" TELEFLEX CONNECTOR
 OR 1 1/4" CAP W/ 1/4" AIR BLEED PLUG
 ON FUTURE DIESEL STUBS.

SUMP SENSOR

3"-0" MAXIMUM
 SUMP ENTRY FITTING

CLAM SHELL
 REDUCER

FIBERGLASS
 PIPING

SECONDARY
 CONTAINMENT

DIESEL PRODUCT

MASTER SATELLITE
 DISPENSER TYP.

SEALED W/BLACK SILICONE
 CAULK ALL SIDES

**SEE SHEAR VALVE ANCHOR
 DETAIL THIS SHEET**

IMPACT/SHEAR VALVE BOLTED TO SUMP
 STABILIZER BAR W/ 3/8" FLUSH MOUNTED
 SCREWS. SHEAR VALVE NEEDS TO BE
 CLOSED DURING PRESSURE TEST

SEE NOTE 3B

1 1/2" SHOULDER
 NIPPLE

2" X 1 1/2"
 REDUCING BUSHING

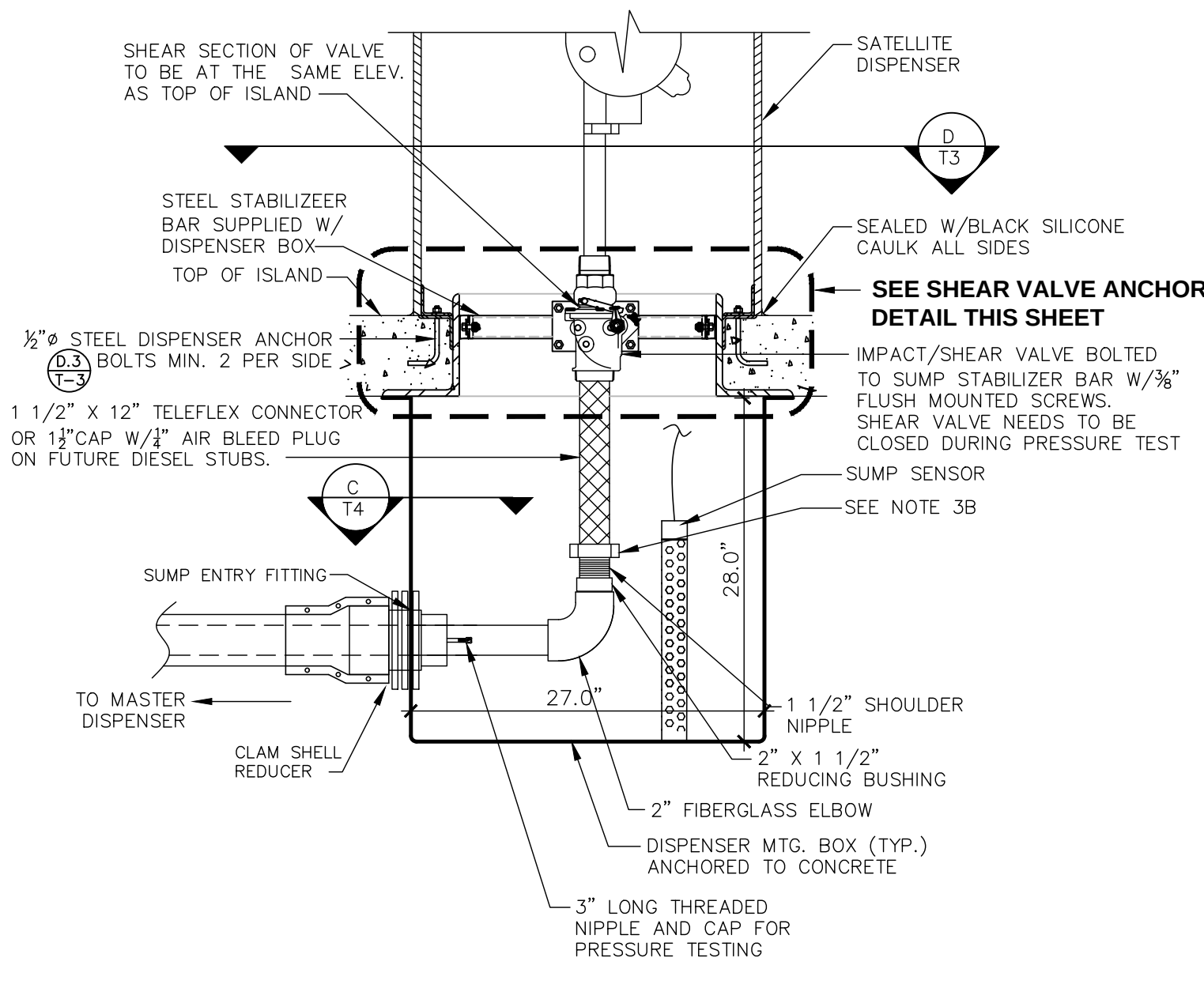
2" FIBERGLASS ELBOW

DISPENSER MTG. BOX (TYP.)
 ANCHORED TO CONCRETE

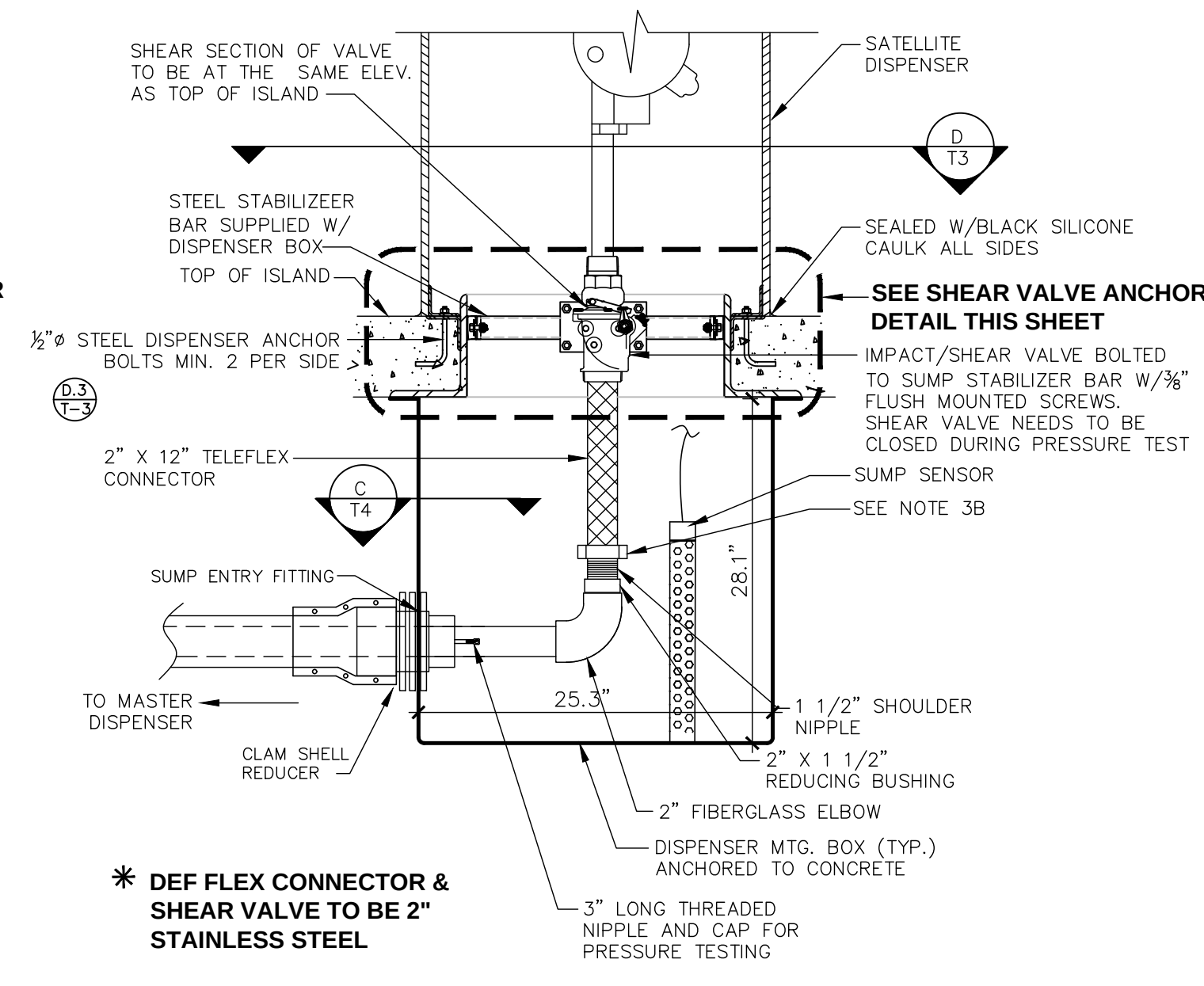
3" LONG THREADED
 NIPPLE AND CAP FOR
 PRESSURE TESTING

TO SATELLITE
 DISPENSER

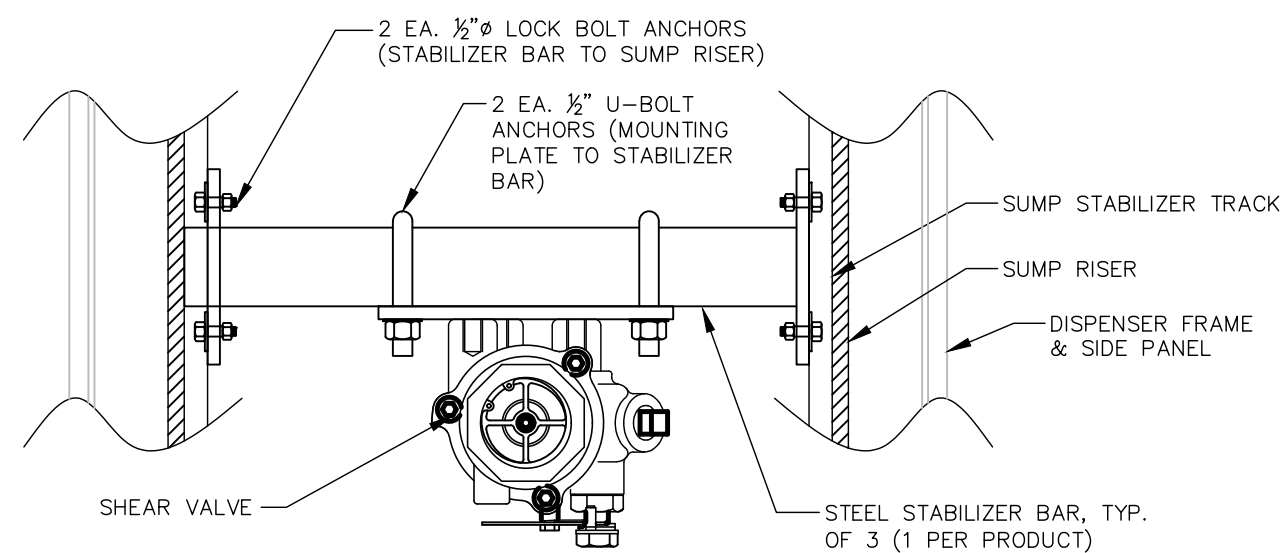
D
T4.0
 INTERMEDIATE DISPENSER CONNECTION DETAIL – TRUCK ISLANDS *
 * SEE NOTES, SHEET RT-T4.1 & T5.0 N.T.S.



E
T4.0
 END DISPENSER CONNECTION DETAIL – TRUCK ISLANDS
 * SEE NOTES, SHEET RT-T4.1 & T5.0 N.T.S.

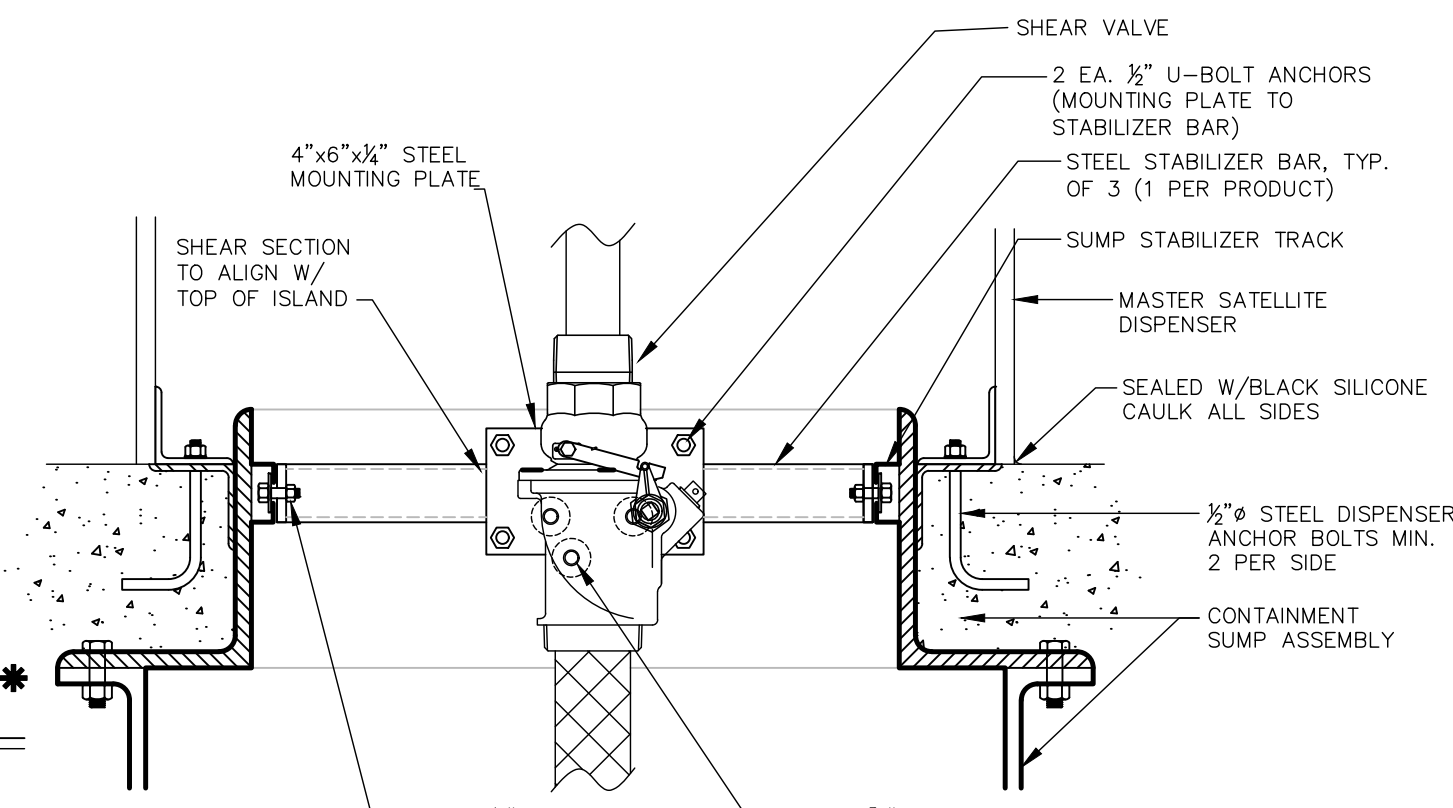


E.1 DEF DISPENSER CONNECTION DETAIL* - TRUCK ISLANDS
T4.0 * SEE NOTES, SHEET RT-T4.1 & T5.0 N.T.S.

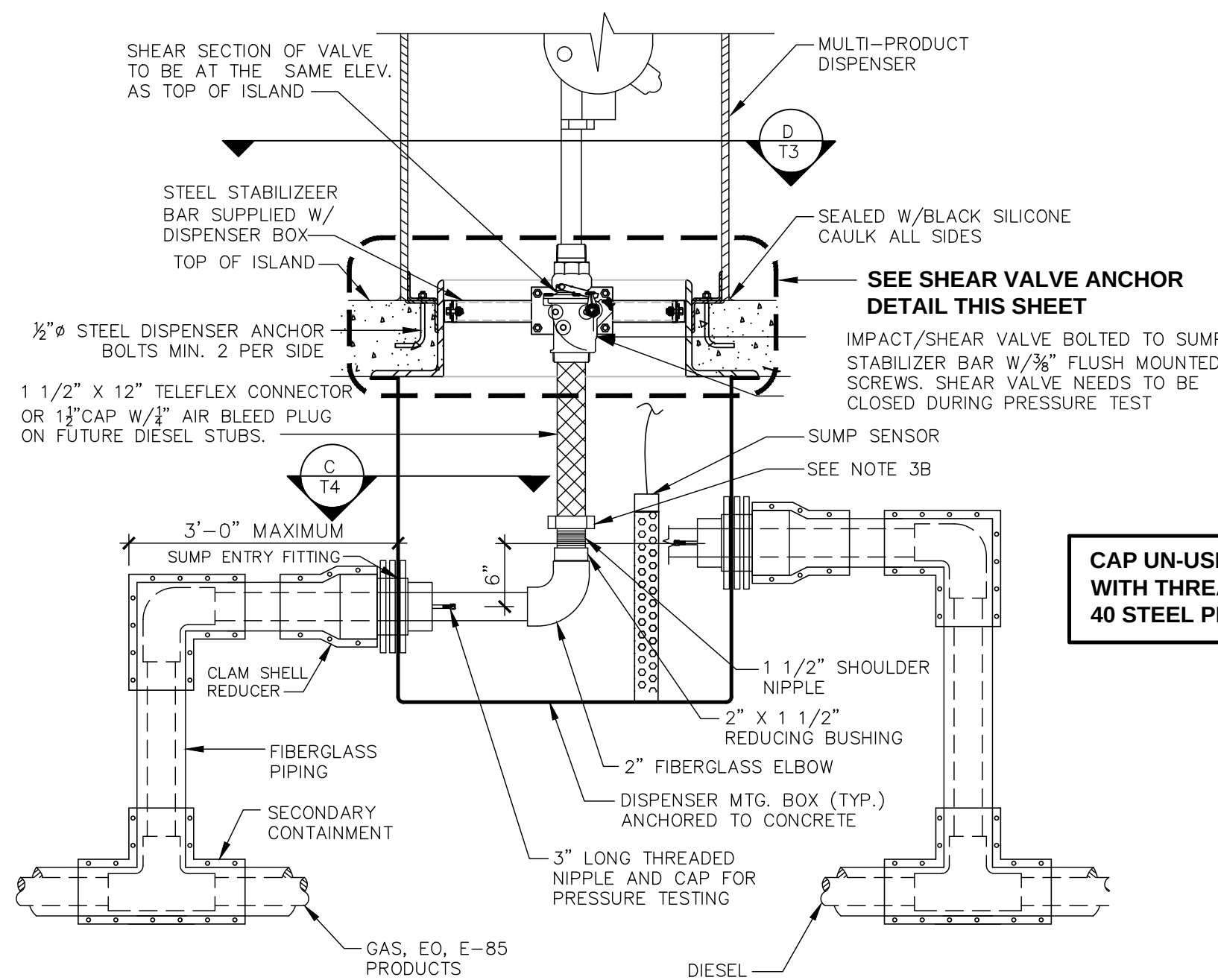


SHEAR VALVE ANCHOR DETAIL – PLAN – TRUCK ISLANDS

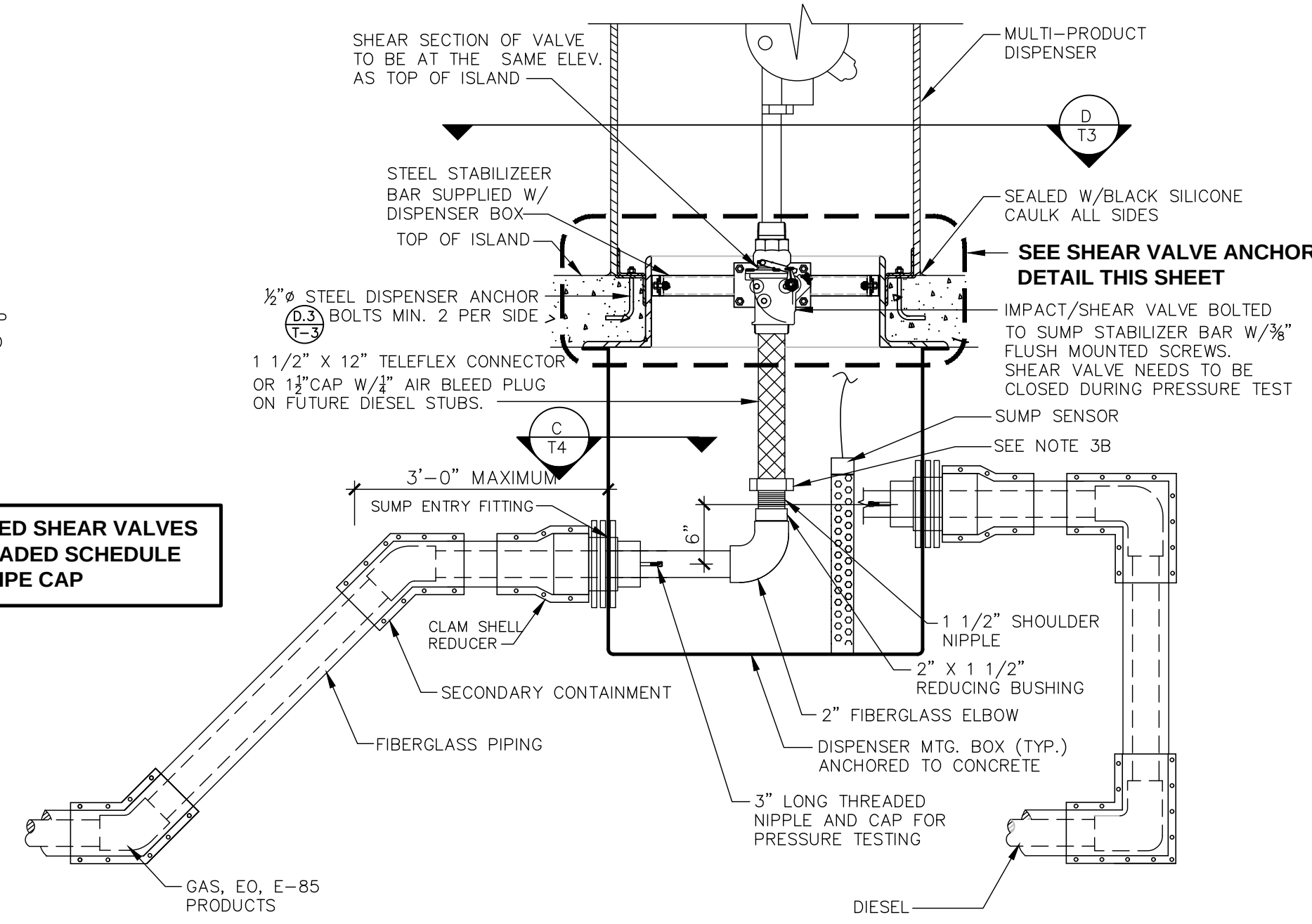
N.T.S.



SHEAR VALVE ANCHOR DETAIL – ELEVATION – TRUCK ISLANDS

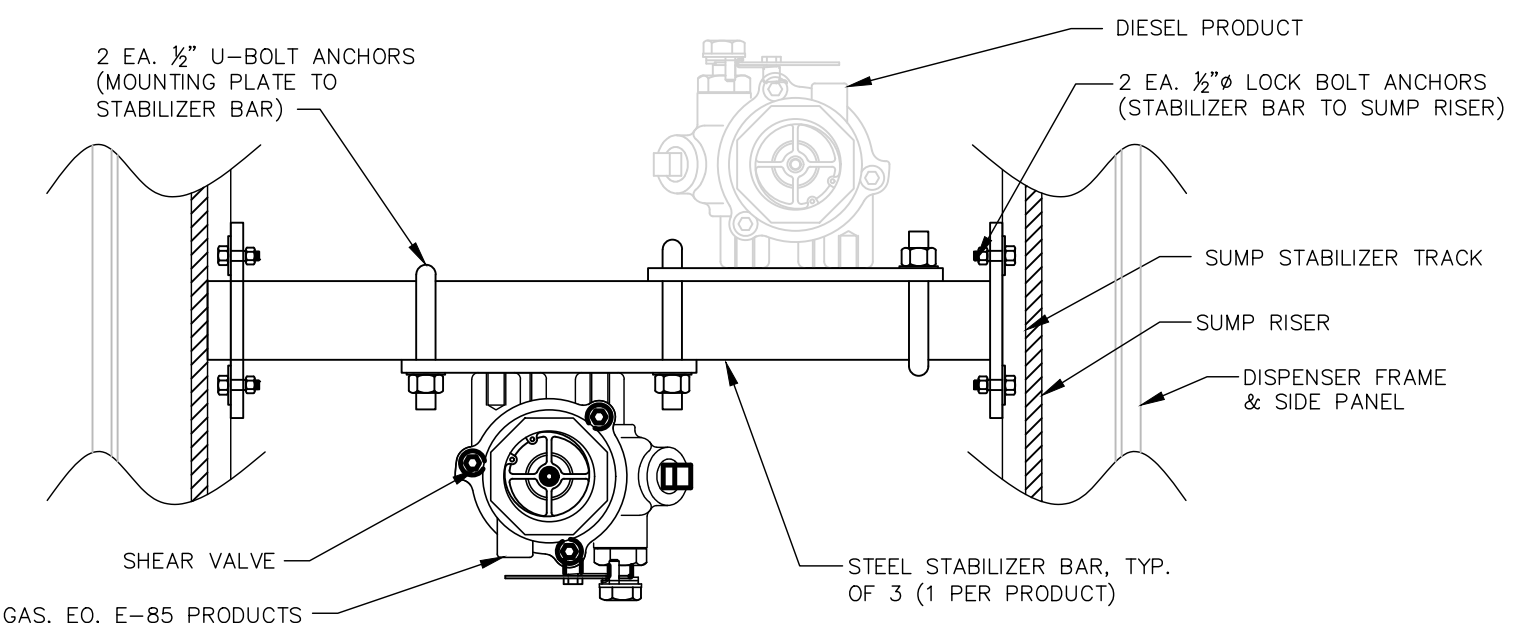



 INTERMEDIATE DISPENSER CONNECTION DETAIL – AUTO ISLANDS *
 * SEE NOTES, SHEET RT-T4.1 & T5.0 N.T.S.



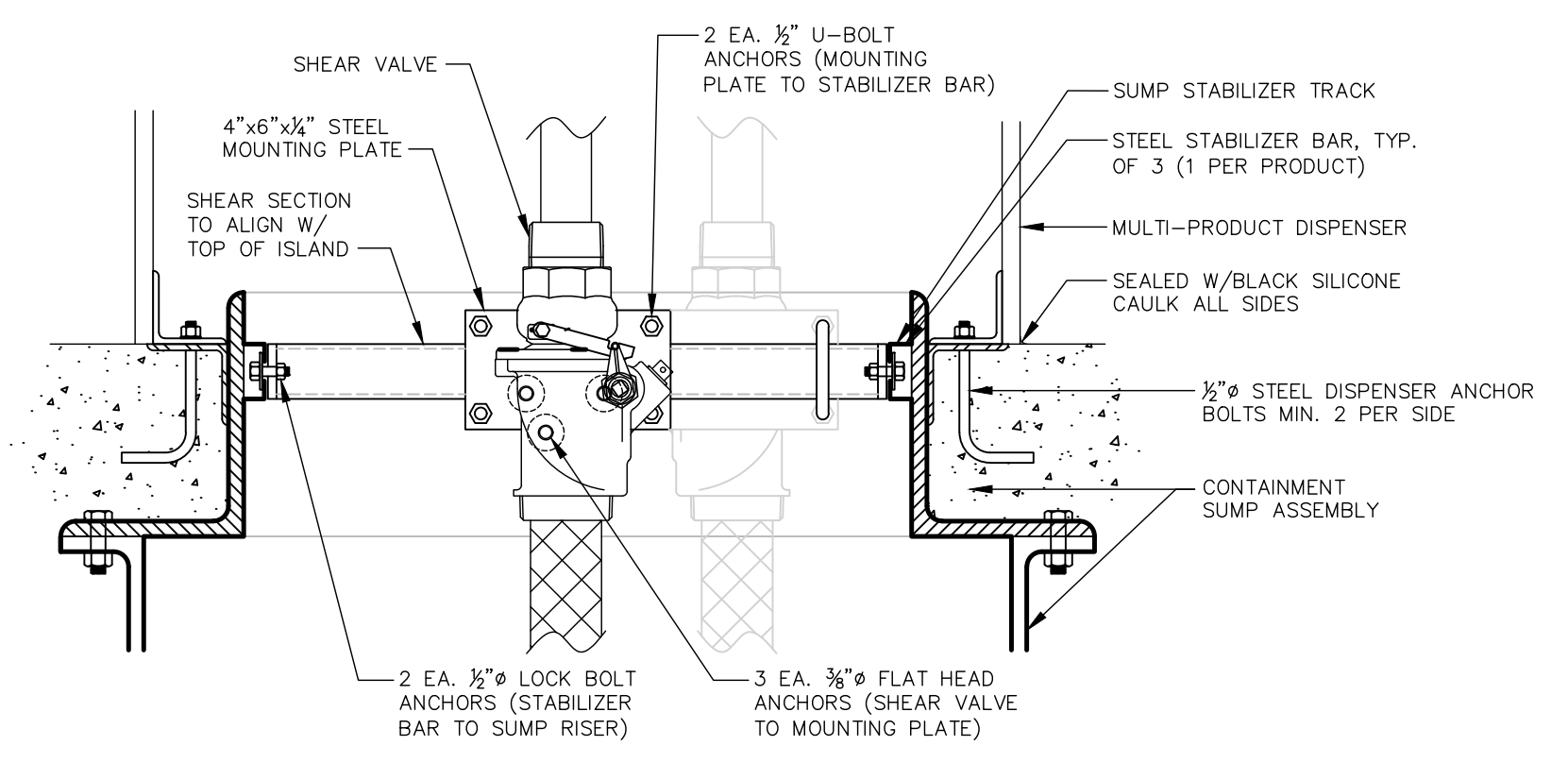
C
 END DISPENSER CONNECTION DETAIL – AUTO ISLANDS

T4.0
 * SEE NOTES, SHEET RT-T4.1 & T5.0
 N.T.S.



SHEAR VALVE ANCHOR DETAIL – PLAN – AUTO ISLANDS

N.T.S.



SHEAR VALVE ANCHOR DETAIL – ELEVATION – AUTO ISLANDS

[illegible]

3. ALL CLAMPS ON SECONDARY CONTAINMENT TO BE TORQUED TO 60 FT. LBS.
2. SEE SITE PLAN FOR SPECIFIC TANK AND DISPENSER QUANTITIES, LOCATIONS, CAPACITIES, ETC.
- 3A. ALL THREADED METAL PIPE CONNECTIONS TO BE MADE UP WITH GASOLA-E-SEAL FOR GASOLINE LINES AND JOMAR "THE HEAVYWEIGHT" FOR DIESEL LINES. NO SUBSTITUTIONS WILL BE ACCEPTED.
- 3B. ALL CONNECTIONS OF FIBER GLASS PIPE THREADED COUPLINGS TO METAL PIPE SHALL BE DONE USING 7000 OR 8000 SERIES ADHESIVE.
4. CONTRACTOR TO CHECK ALL FACTORY CONNECTIONS ON DISPENSER MOUNTING BOXES FOR ADEQUATE SEALING OF PRODUCT.
5. ALL FIBERGLASS PIPING & FITTINGS TO BE A.O. SMITH RED THREAD II FIBERGLASS
6. ALL PIPING (PRODUCT, STAGE TWO VAPOR RECOVERY, SECONDARY CONTAINMENT) TO SLOPE 1/8" PER FOOT BACK TO TANK.
7. USE ONLY 8000 OR 7000 SERIES ADHESIVES TO JOIN PRIMARY PRODUCT AND SECONDARY CONTAINMENT PIPE AND FITTINGS (DS-8014, DS-8024, DS-8055, DS-8069, DS-7014, DS-7024, OR DS-7069 ADHESIVE KITS) FOR ALCOHOLS AND ALCOHOL-GASOLINE MIXTURES. WHEN JOINING SECONDARY CONTAINMENT FITTINGS, A SPECIAL FILLER FROM SMITH FIBERGLASS PRODUCTS MUST BE ADDED TO THE 8000 AND 7000 SERIES ADHESIVES. WHEN USING THESE ADHESIVES, FOLLOW THE INSTRUCTIONS PACKAGED WITH EACH ADHESIVE KIT.
8. ALL DISPENSER BOX PENETRATIONS TO BE TESTED WITH WATER FOR LEAKS PRIOR TO BACKFILLING AROUND BOX.
9. ALL STAGE TWO VAPOR RECOVERY LINES TO BE BLOCK TESTED BY G.C. PRIOR TO PAVING OVER PIPING.
10. G.C. RESPONSIBLE FOR PAINTING ALL EXPOSED METAL ON VENT RISERS AND SUPPORTS.
11. ALL GALVANIZED RISER PIPE & FITTINGS THAT COMES IN CONTACT WITH BACKFILL SOIL OR PEA GRAVEL IS TO BE COATED WITH A BITUMINOUS COATING AND WRAPPED W/3M TAPE FOR CORROSION PROOFING.
2. ACCESS TO SECONDARY IS OPEN IN AT LEAST ONE FITTING IN THE SUMP.
14. ALL PUMP AND ELECTRICAL INSTALLATIONS MUST CONFORM TO ALL APPLICABLE REGULATIONS INCLUDING NFPA30, FLAMMABLE & COMBUSTIBLE LIQUIDS CODE; NFPA30A, AUTOMOTIVE & MARINE SERVICE STATION CODE; NFPA70, NATIONAL ELECTRICAL CODE. DO NOT "DAISY CHAIN" THE DISPENSER POWER CIRCUIT TO ANY OTHER EQUIPMENT.
15. SLOPE PIPING FROM TANK TO DISPENSER UPWARDS, AVOIDING AIR OR LIQUID TRAPS.
16. USE UNIVERSAL JOINTS AT DISPENSER TO ALLOW FOR GROUND MOVEMENT.
17. USE ANY OR ALL CONDUIT TAPS SHOWN TO MAKE ELECTRICAL CONNECTIONS TO DISPENSER.
18. FIRMLY MOUNT DISPENSER TO THE ISLAND USING THE ANCHOR BOLT LOCATIONS SHOWN.
19. BREAKAWAY DEVICES ARE EXAMPLES OF REQUIREMENTS STATED IN THE NFPA30A AUTOMOTIVE & MARINE SERVICE STATION CODE. THESE, AS WELL AS ANY OTHER SAFETY DEVICES REQUIRED BY NFPA30 & 30A, MUST BE INSTALLED AND MAINTAINED PER THE MANUFACTURER'S INSTRUCTIONS.
20. SPEAKER INSTALLATION WIRING IS LOCATED IN JUNCTION BOX. CONNECT INTERCOM CIRCUIT TO A LISTED CLASS 2 POWERED INTERCOM ONLY WITH BELDEN #88723, 22GA, 2-PAIR, 300 VOLT, SHIELDED CABLE. WIRES BACK TO INTERCOM CONSOLE MUST BE RUN IN SEPARATE DEDICATED CONDUIT.



ovGC

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PLANS PREPARED BY:

MDM

engineering • environmental • construction
2151 W. HILLSBORO BLVD., STE. 401, DUFFERIELD BEACH, FL 33442
(954) 427-3076
FL CA #004857

[illegible]

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ATLANTA, GEORGIA 30339
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ANVIL BLOCK

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 Digitally signed by Richard R Morris
DN:
c=US, o=Richard R Morris, ou=Richard R Morris
Service Inc, cn=Richard R Morris
e=rrm@rrm-se.com, c=US
Date: 2022.05.13 10:03:29-0400

RICHARD R. MORRIS
GA REG # DF013997

21056

VENT RISER, EQUIPMENT LIST AND NOTES

T4.1

- 1.0 REFERENCE TO GENERAL CONTRACTOR IS DENOTED BY G.C.
- 2.0 THE WORK COMPLETED UNDER THESE SECTION(S) WILL INCLUDE ALL TANK(S), PIPING, EQUIPMENT AND RELATED INSTALLATION WORK NECESSARY FOR A COMPLETE AND OPERATING PETROLEUM PRODUCT STORAGE, HANDLING AND DISPENSING SYSTEM. THE REQUIREMENTS SPECIFIED HEREIN SHALL SUPPLEMENT THOSE SPECIFIED BY THE OWNER'S "REQUIREMENTS FOR GENERAL CONSTRUCTION". REFER TO THE SCOPE OF WORK, PLANS OR INSTRUCTIONS FROM THE OWNER'S REPRESENTATIVE FOR SITE SPECIFIC DETAILS AND REQUIREMENTS.
- 3.0 ALL WORK SHALL BE PERFORMED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH FEDERAL "UNDERGROUND STORAGE TANKS: TECHNICAL REQUIREMENTS" (40CFR PART 280), STATE AND MUNICIPAL REQUIREMENTS, AND MOST CURRENT EDITIONS OF THE APPLICABLE NPRA, PEI, AND API REFERENCE STANDARDS.
- 4.0 G.C. SHALL KEEP SITE FREE OF WASTES AND RUBBISH AT ALL TIMES.
- 5.0 G.C. SHALL ENSURE COMPLIANCE WITH O.S.H.A. AND ALL OTHER REGULATIONS AND RACETRAC'S CONTRACTUAL REQUIREMENTS. ASSOCIATED COMPLIANCE EXPENSES, EXCEPT AS DESCRIBED IN B-1,3, SHALL BE G.C. RESPONSIBILITY.
- 6.0 WHERE INSTALLATIONS ARE MADE AT AN EXISTING STATION OR STORE, WORK SHALL BE SCHEDULED AND PERFORMED SO AS TO MINIMIZE INTERFERENCE WITH THE OPERATION OF THOSE FACILITIES. ALL DEBRIS EXCESS EXCAVATED MATERIALS, MACHINERY, AND EQUIPMENT SHALL BE REMOVED DAILY AND MAINTAINED CLEAR OF OPEN DRIVEWAYS AT ALL TIMES. LIGHTED SAFETY BARRICADES SHALL BE PROVIDED FOR THE PUBLIC'S PROTECTION. WHEN IT BECOMES NECESSARY TO CLOSE A DRIVEWAY, OWNERS REPRESENTATIVE SHALL BE NOTIFIED 72 HRS PRIOR TO CLOSURE.
- 7.0 ALL EQUIPMENT, MATERIALS, PIPING, TANKS AND ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE MANUFACTURER'S INSTRUCTIONS.
- 8.0 ALL LOCAL REGULATIONS MUST BE FOLLOWED.

- 1.0 EVACUATE PRODUCT FROM TANKS AND LINES.
- 1.1 FOR STP SYSTEM, DRAIN LINES INTO TANK BY REMOVING STP CHECK VALVE AND OPENING SAFETY VALVE TEST PORT. DISCONNECT STP UNION / SWING AND DRAIN PRODUCT INTO AN APPROVED CONTAINER.
- 1.2 DO NOT BLOW OUT LINES WITH COMPRESSED AIR. USE NITROGEN. PRODUCT REMOVED FROM LINES BECOMES PROPERTY OF G.C. AND MAY BE USED AS MOTOR FUEL.
- 1.3 REMOVE LIQUID & TANK BOTTOMS USING A VACUUM TRUCK IN LIEU OF ON-SITE STORAGE CONTAINERS. DEPENDING ON LOCAL REGULATIONS, RECOVERED MATERIAL MAY BE MANAGED AS OFF-SPEC PRODUCT, SOLID INDUSTRIAL OR HAZARDOUS WASTE. IF MATERIAL MUST BE MANAGED AS A HAZARDOUS WASTE, FOLLOW OWNER'S ENVIRONMENTAL REQUIREMENTS FOR HANDLING, MANIFESTING AND DISPOSAL. ONLY OWNER APPROVED HAZARDOUS WASTE DISPOSAL FACILITIES SHALL BE USED. CONSULT THE APPROPRIATE ENVIRONMENTAL ENGINEERING CONTACT FOR PROCESSING ASSISTANCE IN ALL CASES.
- 1.4 EXCAVATE TO TANK TOP. REMOVE ALL TANK APPURTENANCES, PLUG ALL OPENINGS, REMOVE TANK AND PLACE IN A SECURE LOCATION. ONE TANK PLUG MUST HAVE AN 1/8" HOLE IN PLUG FOR VENTING.
- 3.0 REPEAT B-1.3 THROUGH ALL TANK FITTINGS TO REMOVE REMAINING RESIDUE. RESIDUE SHALL BE MANAGED PER B-1.3.
- 4.0 DECREASE TANK TO LESS THAN 10% OF THE LOWER EXPLOSION LIMIT (LEL) PER THE FOLLOWING.

C. EXCAVATION

1.0 SIDES OF TANK HOLE EXCAVATION SHALL BE SLOPED IN ACCORDANCE WITH O.S.H.A. "CONSTRUCTION SAFETY & HEALTH REGULATIONS", SUPPORT P-EXCAVATIONS, TRENCHING 1562560 19U 12R6653, RECOMMENDATIONS. FILTER FABRIC CLOTH SHALL BE USED TO LINE BOTTOM AND SIDES OF TANK HOLE PRIOR TO GRAVEL BACKFILL. FILTER FABRIC CLOTH SHALL ALSO LAP TOP OF TANKS TO PREVENT INFILTRATION OF EARTH INTO TANK AREAS.

2.0 EXCAVATION SHALL BE SIZED TO PROVIDE A MINIMUM 1FT TANK BED, 3FT BETWEEN TANKS AND 2FT BETWEEN TANK SIDES/ENDS AND EXCAVATION WALLS.

3.0 OWNER RESERVES THE RIGHT TO DESIGN AND/OR CONSTRUCT SHORING UNDER AN AMENDED AGREEMENT WITH G.C. OR SEPARATELY WITH ANOTHER COMPANY. IF OWNER ENGAGES G.C., G.C. SHALL SUBMIT SHORING DESIGN TO OWNER'S ENGINEER FOR APPROVAL. SUPPLEMENTAL JOB SCOPE AND COST SHALL BE AGREED TO IN TERMS OF A CONTRACT ADDENDUM PRIOR TO COMMENCING WORK. SHORING SHALL BE REMOVED PRIOR TO INSTALLING PRODUCT PIPING. DO NOT ABANDON SHORING IN PLACE.

- 1.0 TANK MANUFACTURER'S INSTALLATION CHECKLIST SHALL BE INITIALED/SIGNED BY G.C AND OWNER'S ENGINEER, AS APPROPRIATE, AS EACH STEP IS COMPLETED
- 2.0 THE GENERAL CONTRACTOR SHALL FOLLOW ALL TESTING PROCEDURES OUTLINED IN THE XERXES INSTALLATION MANUAL FOR BRINE-FILLED DOUBLE-WALL TANKS AND PROVIDE DOCUMENTATION TO THE OWNER. ALSO, THE GENERAL CONTRACTOR SHALL MAINTAIN A DAILY LOG OF THE STICK READINGS FORM THE BRINE RESERVOIR.
- 3.0 N/A, NOT USED

- 4.1 INSTALLING CONTRACTOR SHALL BE CERTIFIED BY TANK MANUFACTURE.
- 4.2 BEDDING AND BACKFILL MATERIAL SHALL BE WELL WASHED AND FREE OF ICE AND SNOW AND MUST MEET ASTM D-44B, ASTM C-33 AND AASHTO M-43 QUALITY AND SOUNDNESS. G.C. SHALL PROVIDE SIEVE ANALYSIS ACCEPTABLE TO OWNER'S ENGINEER. THE FOLLOWING MATERIALS MAY BE USED:
 - 4.2.1 PEA GRAVEL WITH PARTICLE SIZE NOT LESS THAN 1/8" OR MORE THAN 3/4" DIAMETER WITH NO MORE 3% PASSING A NO. 8 SIEVE.
 - 4.2.2 CRUSHED STONE WITH PARTICLE SIZE NOT LESS THAN 1/8" OR MORE THAN 1/2" DIAMETER WITH NO MORE THAN 3% PASSING A NO. 8 SIEVE.
- 4.3 STANDARD INSTALLATION
 - 4.3.1 ALL TANKS SHALL BE PLACED AT A MINIMUM OF 48 INCHES BELOW FINISHED GRADE OR AS REQUIRED TO ACCOMMODATE PRODUCT PIPING SLOPE REQUIREMENTS, AND SET ON A 12 INCH THICK (MINIMUM) BED OF APPROVED BACKFILL MATERIAL. TANK OPENINGS SHALL BE ALIGNED VERTICALLY WITHIN A PLANE PERPENDICULAR TO THE TANKS LONGITUDINAL AXIS.
 - 4.3.2 SET TANKS LEVEL ON BEDDING MATERIAL. USE ALL LIFTING LUGS PROVIDED AND GUIDE ROPES AT EACH TANK END. (DO NOT SET TANKS DIRECTLY ON DEADMAN IF USED).
 - 4.3.3 PLACE 12" BACKFILL MATERIAL EVENLY AROUND TANKS. USE WOODEN DOWEL PROBE TO WORK BACKFILL COMPLETELY UNDER TANK.
 - 4.3.4 REPEAT D-4.3.3 FOR NEXT 12" PROBING TO FILL ALL VOIDS.
 - 4.3.5 FREELY ADD ADDITIONAL BACKFILL TO TANK TOPS. (ADDITIONAL PROBING NOT REQUIRED).
- 4.4 ALTERNATE INSTALLATION (NOT ALLOWED).

4.5.1 G.C. SHALL BE RESPONSIBLE TO EVACUATE WATER FROM EXCAVATION. IF CONDITIONS REQUIRE SHORING, CONSULT OWNER'S ENGINEER. METHOD MUST BE APPROVED BY OSHA AND OWNER'S ENGINEER.

4.5.2 MINIMIZE SURFACE WATER ENTERING EXCAVATION BY CONSTRUCTING DIVERSION DAMS AROUND TANK FIELD EXCAVATION AND PIPING TRENCHES.

4.5.3 A CONTINGENCY PLAN SHALL BE DEVELOPED BY G.C. OUTLINING EMERGENCY PROCEDURES FOR OBTAINING THE NECESSARY EQUIPMENT AND/OR PERSONNEL TO HANDLE UNEXPECTED WATER ENTRY INTO THE TANK FIELD EXCAVATION OR PIPING TRENCHES. WHEN WATER MAY CONTAIN HYDROCARBONS CONSULT OWNER'S ENVIRONMENTAL ENGINEER.

4.5.4 INSTALL TANKS PER 4.3

4.6.1 TANK ANCHORING, WHERE REQUIRED BY EXISTING GROUNDWATER CONDITIONS, SHALL BE ACCOMPLISHED USING STRAPS AND TURNBUCKLE ASSEMBLIES BY THE TANKS MANUFACTURER AND INSTALLED IN STRICT ACCORDANCE WITH THE TANK MANUFACTURER'S REQUIREMENTS. ALL TURNBUCKLE ASSEMBLY HARDWARE TO BE COATED WITH KOPPERS 300M EPOXY APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

5.1 PRIOR TO COMPLETION OF BACKFILL AND AFTER PRESSURE TESTING TANK, COAT ALL CORRODIBLE COMPONENTS EXPOSED TO BACKFILL WITH COAL TAR EPOXY AND WRAP WITH FELT OR 3M TAPE. ALL COMPONENTS SHALL BE CLEAN AND CORROSION FREE BEFORE APPLYING COATING. EXTEND COATING 3" ONTO ADJACENT FRP COMPONENTS.

6.1 WATER BALLASTING - GC TO BALLAST TANKS

6.1.1 ATTACH ONLY STP RISER AND MANIFOLD HOUSING TO TANK. G.C. SHALL PROTECT AND STORE REMAINING STP COMPONENTS. COVER TOP OF STP MANIFOLD WITH PLYWOOD SECURED THROUGH EXISTING BOLT HOLES.

6.1.2 WATER TO BE PROVIDED BY CONTRACTOR. G.C. TO ASSUME RESPONSIBILITY FOR COMPLETE REMOVAL AND DISPOSAL OF WATER BALLAST AND SCHEDULING GASOLINE DELIVERY PRIOR TO PRODUCT PIPING PURGE, DISPENSER, START-UP, CALIBRATION, ETC.

7.1 G.C. SHALL CONTACT R.T. OWNERS ENGINEER TO HAVE PRECISION TEST ON PRIMARY TANK AFTER PAVING IS COMPLETE. WHEN THE PRODUCT HAS BEEN PLACED IN TANKS, DISPENSERS HAVE BEEN INSTALLED, AND PRIOR TO FINAL PROJECT ACCEPTANCE.

- 1.0 PIPE MANUFACTURER'S INSTALLATION CHECKLIST SHALL BE INITIALED AND SIGNED BY G.C. AND OWNER'S ENGINEER APPROPRIATE, AS EACH STEP IS COMPLETED.
- 2.0 ALL MATERIAL WORKMANSHIP AND INSTALLATION PRACTICES SHALL BE IN ACCORDANCE WITH NFPA APPLICABLE CODES.

3.1 ALL VENT VAPOR RETURN SHALL BE NOV FIBERGLASS SYSTEMS RED THREAD II FIBERGLASS PIPING

3.2 ALL REMOTE FILL PIPING SHALL BE NOV FIBERGLASS SYSTEMS RED THREAD II FIBERGLASS PIPING

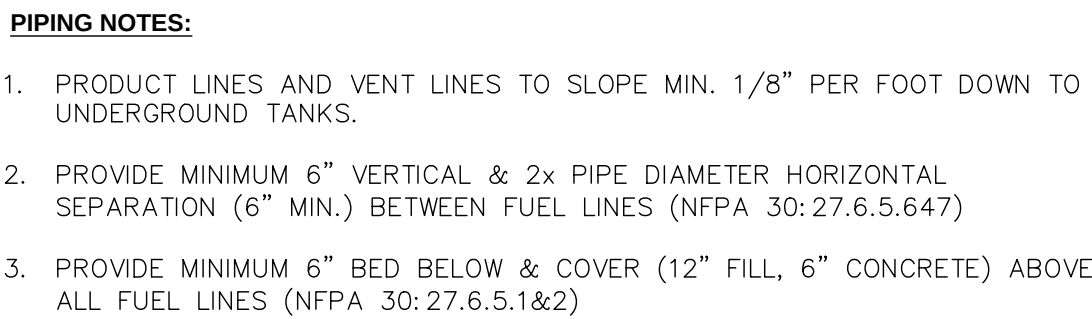
3.3 ALL PRODUCT PIPING SHALL BE NOV FIBERGLASS SYSTEMS RED THREAD II FIBERGLASS WITH SECONDARY CONTAINMENT

3.4 TANK RISER SHALL BE SCHEDULE 40 (ASTM=5-120) GALVANIZED IRON PIPES. FITTING SHALL BE 300 PSI GALVANIZED ALLEABLE IRON. ALL COUPLINGS AND FITTINGS SHALL BE SHOULDER STYLE. NO STREET COUPLINGS OR FITTING SH THE USE OF CLOSE, CONTINUOUSLY THREADED STEEL PIPE NIPPLES SHALL NOT BE PERMITTED.

3.5 ALL THREADED CONNECTIONS SHALL BE TREATED WITH GASOLIA E-SEAL OR JOMAR 100 "THE HEAVY WEIGHT." (100

3.6 G.C. SHALL DEMONSTRATE TO OWNER'S ENGINEER ALL INSTALLED MATERIALS ARE NEW AND CONFORM TO ABOVE SP

- 4.1 INSTALLATION CONTRACTOR SHALL BE CERTIFIED BY PIPING MANUFACTURER.
- 4.2 CORRODIBLE COMPONENTS SHALL BE USED ONLY WHERE SPECIFIED AND IN THE ARRANGEMENT SHOWN IN THESE DETAILS.
- 4.3 BEDDING AND BACKFILL MATERIAL SHALL BE THE SAME AS THE TANK FIELD. SAND SHALL NOT BE USED UNDER AN PRODUCT LINE TRENCH SUB-GRADE SHALL BE COMPACTED TO 95% PROCTER DENSITY PRIOR TO INSTALLING BEDDING BACKFILL MATERIAL.
- 4.4 PIPING SHALL BE MINIMIZED, NOT PLACED UNDER BUILDINGS AND SHALL BE INSTALLED WITH MINIMUM SPACING AND CLEARANCES SHOWN BELOW. IF PIPING ROUTING IS NOT SPECIFIED, G.C SHALL INSTALL IN THE MOST DIRECT ROUTE TO APPROVAL BY OWNER'S ENGINEER.
- 4.5 PRODUCT LINE SHALL SLOPE CONTINUOUSLY UPWARD FROM STP SUMP A MINIMUM OF 1/8" PER FT. STAGE I AND VAPOR RECOVERY LINES AND VENT LINES SHALL SLOPE CONTINUOUSLY UPWARD FROM VAPOR MANIFOLD A MINIMUM PER FT.



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- 5.1.1 THREADS SHALL BE CLEAN OF ALL SAND AND THREAD CUTTING OIL PRIOR TO JOINING.
- 5.1.2 APPLY THREAD SEALANT PER E-3.4. START ALL THREADED CONNECTIONS BY HAND. SECURE FRP COMPONENTS USING ONLY A STRAP WRENCH. DO NOT FORCE THREADS. IF CONNECTION BINDS REMOVE AND RECLEAN.
- 5.1.3 DO NOT OVERTIGHTEN. TORQUE FRP TO STEEL CONNECTIONS TO 75FT. LBS. WHEN USING POWER TONGS.
- 5.2 FRP BONDED CONNECTIONS:
 - 5.2.1 TAPER ESCORT PIPE ENDS PER PIPE MANUFACTURER'S INSTRUCTIONS. CLEAN BONDING SURFACE USING ONLY PIPE MANUFACTURER'S APPROVED CLEANER. DO NOT ALLOW CLEANER TO COME INTO CONTACT WITH TANK SURFACE OR SUMP SEALING DEVICES.
 - 5.2.2 MIX AND APPLY ADHESIVES PER MANUFACTURER'S INSTRUCTIONS. AVOID SKIN CONTACT WITH CLEANER, ADHESIVES AND HARDENER DO NOT INHALE FUMES.
 - 5.2.3 JOIN COMPONENTS PER MANUFACTURER'S INSTRUCTIONS. CURE CONNECTION PER PIPE MANUFACTURER'S SPECIFICATIONS USING FRP PIPE MANUFACTURER APPROVED ELECTRIC HEATING COLLAR OR CHEMICAL HEAT PACK WHEN TEMPERATURE IS BELOW OR WILL BE BELOW 60°F PRIOR TO CURING. HEAT GUNS ARE STRICTLY PROHIBITED.

5.3.1 INSTALL FLEXIBLE LINE CONNECTORS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

5.3.2 IMMEDIATELY AFTER INSTALLING FLEX LINE COUPLING, PLACE CAP OR PLUG ON COUPLINGS TO PREVENT DEBRIS FROM ENTERING LINES.

CAUTION: NITROGEN FROM A GROUNDED SOURCE SHALL BE USED IN LIEU OF AIR FOR TESTING IF LINES HAVE BEEN EXPOSED TO GASOLINE. NOTE: OWNER'S ENGINEER SHALL WITNESS ALL LINE TESTING

6.1 G.C. SHALL NOTIFY OWNER'S ENGINEER TWO DAYS PRIOR TO TESTING.
CAUTION: CAP FLEX CONNECTOR OR FLEXIBLE LINE AT STP PRIOR TESTING. APPLY & RELEASE PRESSURE SLOWLY.

6.2 PRODUCT LINE SHALL BE TESTED FROM STP TO SHEAR VALVE.

6.3 VENT/VAPOR SYSTEM SHALL BE TESTED FROM TOP OF VENT, THROUGH MANFOLD, EXTRACTOR BASE AND RISER, STAGE I CONTAINMENT MANHOLES, STAGE II VAPOR LINES TO ISLAND & STAGE II FLEX CONNECTORS AT DISPENSER'S. REPLACE FLOAT CDS ON STAGE I & REPLACE STAGE I VAPOR RECOVERY SPILL CONTAINERS. DRAIN VALVES W/ NO PLUG, CAUTION : ENGINEER AND G.C. SHALL VERIFY EXTRACTOR PLUG INSTALLED AND CAP IS REMOVED FROM TANK MONITOR RISER PRIOR TO PRESSURE TESTING VENT/ VAPOR SYSTEM.

- 6.4.1 SLOWLY PRESSURIZE PRODUCT LINES AND VENT/ VAPOR LINES TO 50 PSI. SOAP TEST ENTIRE PIPE SURFACES INCLUDING JOINTS AND FITTINGS. CORRECT ANY LEAKS AND RETEST.
- 6.4.2 IMMEDIATELY LOWER PRESSURE FROM VAPOR/ VENT SYSTEM TO 5 PSI REMOVE EXTRACTOR PLUGS. REDUCE PRIMARY LINE PRESSURE TO 30 PSI. MONITOR DAILY UNTIL ALL PAVING IS COMPLETE.
- 6.4.3 ASSEMBLE SECONDARY SYSTEM AND PRESSURIZE TO 5 PSI. SOAP TEST ENTIRE PIPE SURFACES INCLUDING JOINTS AND FITTINGS. CORRECT ANY LEAKS AND RETEST. MONITOR DAILY UNTIL ALL PAVING IS COMPLETE.
- 6.4.4 AFTER TESTING HAS BEEN SATISFACTORILY COMPLETED AND PRIOR TO BACKFILL, ALL EXPOSED GALVANIZED PIPE THREADS, JOINTS, WRENCH MARKS AND ANODE CONNECTIONS ARE TO BE COATED WITH COAL TAR & 3M TAPE, EPOXY APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
- 6.5 RACETRAC SHALL PERFORM PRECISION TEST ON PRODUCT LINES AFTER PAVING IS COMPLETE, PRODUCT HAS BEEN PLACED IN TANKS, DISPENSERS HAVE BEEN INSTALLED, AND LINES HAVE BEEN PURGED PRIOR TO FINAL PROJECT ACCEPTANCE.

- 1.0 DISPENSER SHALL BE SECURELY ATTACHED TO ANCHOR BOLTS WHICH SHALL BE SET IN CONCRETE ISLAND. QUANTITY AND SIZE OF ANCHOR BOLTS SHALL BE AS SPECIFIED IN DISPENSER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 2.0 DISPENSER SHALL BE ACTIVATED ONLY IN PRESENCE OF AN AUTHORIZED DISPENSER REPRESENTATIVE. G.C. HAS SOLE RESPONSIBILITY FOR DAMAGE TO DISPENSER IF THIS INSTRUCTION IS NOT FOLLOWED.
- 3.0 PURGING AIR:
 - 3.1 ACTIVATE ANY DISPENSER, DO NOT OPEN A NOZZLE. LEAVE DISPENSER ON FOR 5 MINUTES. TURN DISPENSER OFF AND ALLOW TO STAND FOR 5 MINUTES.
 - 3.2 ACTIVATE DISPENSER MOST REMOTE FROM STP AND DISPENSE (150 GALLONS FROM THE FARTHEST TWO DISPENSERS AND 50 GALLONS FROM ALL OTHERS) INTO A GROUNDED CONTAINER APPROVED FOR STORAGE AND HANDLING OF CLASS I FLAMMABLE LIQUIDS. REPEAT FOR EACH HOSE AND DISPENSER. MOVING PROGRESSIVELY CLOSER TO STP, REPLACE PRODUCT USED FOR LINE PURGE INTO RESPECTIVE TANK.

- 4.1 TURN OFF ALL STP CIRCUIT BREAKERS.
- 4.2 CONFIRM ALL NOZZLES ARE IN THEIR BOOTS.
- 4.3 VERIFY ALL STP'S ARE OFF.
- 4.4 TURN ON CIRCUIT BREAKER FOR ONE STP. ONE HOSE AT A TIME FOR PRODUCT GRADE MATCHING ACTIVATED STP, PERFORM THE FOLLOWING AT EACH DISPENSER:
 - 4.4.1 REMOVE NOZZLE
 - 4.4.2 ACTIVATE OPERATING HANDLE AND DISPENSE PRODUCT INTO AN APPROVED GROUNDING CONTAINER.
 - 4.4.3 VERIFY ONLY CORRECT STP TURNS ON.
 - 4.4.4 VERIFY BRAND PANELS ON EACH SIDE OF DISPENSER MATCHES PRODUCT BEING DISPENSED BY STP.
 - 4.4.5 VERIFY CORRECT NOZZLE TYPE IS INSTALLED. REPEAT F-4.4 FOR EACH PRODUCT GRADE.

- 5.0 ACTIVATE ALL STP CIRCUIT BREAKERS ONE HOSE AT A TIME. FOLLOW F-4.4.2 AND F-4.4.3 FOR EACH HOSE.
- 6.0 IF MISCONNECTIONS OR OTHER PROBLEMS ARE DETECTED, MAKE CORRECTIONS AND REPEAT ENTIRE DISPENSER CHECK-OUT PROCEDURE.

NOTE. SUCCESSFUL COMPLETION OF F-4.0 AND F-5.0 WILL CONFIRM COMPLETE INTEGRITY AND CONTINUITY OF DISPENSING ELECTRICAL AND PIPING SYSTEMS.

- 7.0 DISPENSER CALIBRATION: SUBSEQUENT TO START UP OF NEW DISPENSER BY THE OWNERS AUTHORIZED SERVICE REPRESENTATIVE, THE G.C. SHALL PROVIDE A STATE CERTIFIED 5 GALLON CALIBRATION CAN AND ADJUST CALIBRATION OF EACH DISPENSER HOSE TO ZERO TOLERANCE FOR EACH 5 GALLONS OF PRODUCT DISPENSED, ON BOTH FAST AND SLOW RUNS, OR AS DIRECTED BY LOCAL WEIGHTS AND MEASURES AUTHORITY. PRODUCT USED FOR CALIBRATION OF DISPENSERS SHALL BE RETURNED TO ITS RESPECTIVE STORAGE TANK. REPLACE ALL METER SEALS. FURNISH OWNER WITH CALIBRATION REPORT SHOWING FINAL CALIBRATION TO ZERO TOLERANCE, BEFORE STORE STOCKING.
- 8.0 INSTALL NEW DISPENSER FILTERS AFTER COMPLETING ALL LIQUID TESTING. ACTIVATE EACH PRODUCT AND EACH DISPENSER AND INSPECT FILTER FOR LEAKS. RECHECK PRIMARY LINE CONNECTIONS AT DISPENSER BASE AND STP FOR LEAKS. CALIBRATION TEST SHALL BE GIVEN TO RACETRAC ENGINEER PRIOR TO STOCKING STORE.

- 4.1 SET ALL TANK SLAB MANHOLES AND STREET BOX ELEVATIONS 2" ABOVE FINISHED GRADE. SLOPE (1 5/16 INCH PER FOOT) CONCRETE AWAY FROM RIM TO MEET SLAB GRADE.
- 4.2 PRIOR TO INSTALLATION, CONTRACTOR SHALL SET SUBMERGED TURBINE LENGTH SO THAT MOTOR IS 6" OFF OF TANK BOTTOM.
- 4.3 UNLESS OTHERWISE INDICATED, ALL CONTROL AND ELECTRICAL WIRING SHALL BE RUN IN 3/4" GALVANIZED CONDUIT IN ACCORDANCE WITH NFPA 70 CLASS 1, GROUP D REQUIREMENT.
- 4.4 PRODUCT DISPENSERS (MPD'S) TO BE SET AND CONNECTED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. INSTALL HOSES, BREAKAWAYS, SWIVELS AND NOZZLES AND CHECK FOR PROPER OPERATION. REMOVE ALL PACKAGING MATERIALS, TAPE. TAPE RESIDUE AND THOROUGHLY CLEAN EACH DISPENSER TO REMOVE DUST, FINGERPRINTS, SMUDGES, ETC.
- 4.5 PRESSURE LINE LEAK DETECTORS- ALL (NEW AND EXISTING) PRESSURE LINE LEAK DETECTORS SHALL BE CHECKED AND TESTED FOR PROPER OPERATION. LEAK DETECTOR CHECKS AND TEST SHALL BE WITNESSED BY THE OWNERS REPRESENTATIVE.

I. AS-BUILT DRAWINGS

1.0 G.C. SHALL PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS TO SCALE DEPICTING PRECISE LOCATION OF ALL COMPONENTS INSTALLED (INCLUDING PRODUCT/ VAPOR LINE SIZES AND LOCATIONS, CONDUIT SIZES AND LOCATIONS ETC.) PRIOR TO OWNER'S ENGINEER PROJECT ACCEPTANCE.

