

- ALL WORK SHALL BE IN ACCORDANCE WITH COUNTY OF SAN BERNARDINO MUNICIPAL CODE, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK) LATEST EDITION, AND ALL SUPPLEMENTS. THE PRELIMINARY SOILS REPORT DATED AND ANY SPECIAL REQUIREMENTS OF THE PERMIT.
2. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OR OF THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES WITHIN THE LIMITS OF THIS PROJECT.
3. DUST SHALL BE CONTROLLED BY WATERING.
4. FINISH GRADING WILL BE COMPLETED AND APPROVED BEFORE PLACEMENT OF EQUIPMENT.
5. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE FROM DIRT AND/OR DEBRIS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED IN STREET CLEANING NECESSITATED BY HIS OPERATION.
6. NO GRADING IN EXCESS OF 5,000 CY SHALL BE STARTED WITHOUT FIRST NOTIFYING THE ENGINEER. A PRE-GRADING MEETING AT THE SITE IS REQUIRED BEFORE THE START OF GRADING WITH THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, SUPERVISING CIVIL ENGINEER, SOILS ENGINEER AND/OR GEOLOGIST,
7. NO FILL TO BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS AND INSTALLATION OF SUB-DRAINS, IF ANY, HAS BEEN INSPECTED AND APPROVED BY THE SOILS ENGINEER.
8. NO ROCK OR SIMILAR MATERIAL GREATER THAN 6" IN DIAMETER WILL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVING BEEN SUBMITTED BY THE SOILS ENGINEER.
9. ALL EXISTING FILLS SHALL BE APPROVED BY THE SOILS ENGINEER OR REMOVED BEFORE ANY ADDITIONAL FILLS ARE ADDED.
10. FILLS SHALL BE BENCHED IN COMPETENT MATERIAL AS REQUIRED IN SOILS REPORT.
11. AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND APPROVED BY THE SOILS ENGINEER PRIOR TO THE PLACING OF FILL.
12. THE CONTRACTOR SHALL COMPLY WITH THE GRADING CODE REQUIREMENTS WHEN AN EXCESS OF 1,000 CY IS MOVED ON PUBLIC ROADWAYS FROM THE SITE OF AN EARTH GRADING OPERATION. (15.04-210, 5.04.545, 15.38)
13. THE SOILS ENGINEER SHALL BE RESPONSIBLE FOR THE OBSERVATION AND APPROVAL CONCERNING THE PREPARATION OF GROUND TO RECEIVE FILLS, TESTING FOR REQUIRED COMPACTION, STABILITY OF ALL FINISH SLOPES AND THE DESIGN OF BUTTRESS FILLS, WHERE REQUIRED, INCORPORATING DATA SUPPLIED BY THE ENGINEERING GEOLOGIST AND INSURE COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND CODE WITHIN THEIR PURVIEW.
14. THE DESIGN CIVIL ENGINEER SHALL EXERCISE SUFFICIENT SUPERVISORY CONTROL DURING GRADING AND CONSTRUCTION TO INSURE COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND CODE WITHIN HIS PURVIEW.
15. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
16. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
17. EXPORT SOIL MUST BE TRANSPORTED TO A LEGAL DUMP SITE.
18. IN THE EVENT THAT SOIL CONTAMINATION IS DISCOVERED DURING EXCAVATION, WORK SHALL BE STOPPED UNTIL A SITE ASSESSMENT AND MITIGATION PLAN HAS BEEN PREPARED, SUBMITTED AND APPROVED BY HCA/ENVIRONMENTAL HEALTH.
19. THE CONTRACTOR SHALL KEEP EACH EXISTING FUEL SERVICE SITE IN OPERATION AS LONG AS POSSIBLE. GOAL IS 2-3 WORKING DAYS, PER SITE.
20. PROPOSED PAVEMENT TO BE PLACED TO MATCH EXISTING SURFACE FLOW DRAINAGE PATTERN.  
(AC/AB AT 1.5% MIN.)  
(PCC AT 0.5% MIN.)
21. PLACE ELECTRICAL CONDUITS IN SLAB AT TANK LOCATIONS.
22. INSTALLATION CONFIGURATION TO MATCH EXISTING BALDY MESA FILL SITE, UNLESS NOTED OTHERWISE (LOCATED AT 12394 SYCAMORE ST. VICTORVILLE, CA 92392)
23. ALL NEW TANKS TO BE CONNECTED TO EMERGENCY GENERATOR

CAUTION:  
THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR UNAUTHORIZED CHANGES TO OR USE OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

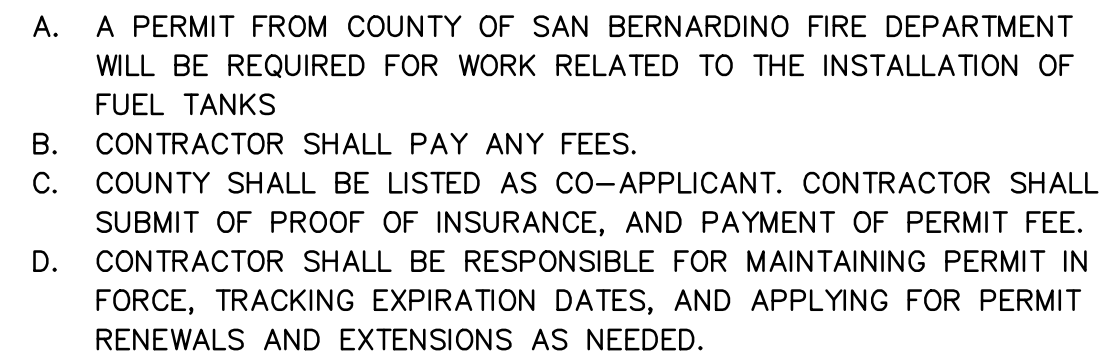
ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA, WHILE DUE CARE WAS TAKEN IN PREPARATION OF THIS INFORMATION, THE ENGINEER CANNOT AND DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE INFORMATION.

IT SHALL BE THE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE OR NON-EXISTENCE OF SUCH UTILITIES AND TO PROTECT THEM IN PLACE.

IN THE EVENT UNKNOWN UTILITIES OR UNKNOWN STRUCTURES ARE FOUND, OR KNOWN FACILITIES ARE FOUND DURING CONSTRUCTION AT UNEXPECTED ELEVATIONS OR LOCATIONS, THE ENGINEER IS TO BE NOTIFIED OF SUCH CONDITIONS AT ONCE. THE ENGINEER WILL ADVISE THE OWNER OF ANY REQUIRED DESIGN CHANGES AND THE CONTRACTOR AGREES TO COMPLETE THE WORK INCLUDING REPAIRS REQUIRED IN AN EXPEDITIOUS MANNER.

THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

PSOMAS IS NOT RESPONSIBLE FOR ANY INFORMATION SHOWN ON THIS DRAWING PROVIDED BY OTHERS.





Aug 23, 2021 - 10:24AM - M:\2096010100\ENGR\SHEETS\FUEL SITE LAYOUT PLANS\PL-VICTORVILLE\_02\_CN\_MATRIX.DWG



COUNTY OF  
SAN BERNARDINO

ARCHITECTURE &  
ENGINEERING DEPARTMENT

385 NORTH ARROWHEAD AVENUE  
SAN BERNARDINO, CA 92415-0184

Project Title:

FUEL TANK  
INFRASTRUCTURE  
PHASE III

CIP NUMBER: 20-030

Project No:

1010.0857

Project Address:

Fuel Site  
15000 Tokay Street, Victorville CA 92395

**P S O M A S**

5 Hutton Centre Drive  
Suite 300  
Santa Ana, CA 92707  
(714) 751-7373 Fax(714) 545-8883



NOTE	CONSTRUCTION ITEM:	QUANTITY	UNIT
①	PROTECT IN PLACE (ITEMS NOTED)	1	LS
②	INSTALL FUEL TANK PER DETAILS 2, 2B & 2C ON SHT. 5 AND DETAILS 2D & 2E ON SHT. 6	2	EA
③	INSTALL FUEL TANKS LAYOUT PER DETAIL 3 ON SHT. 4	2	LS
④	INSTALL WAYNE RELIANCE S1 DISPENSER (MODEL NUMBER /G66101D/27AJK/W1) PER DETAIL 4 ON SHT. 5	2	EA
⑤	CONSTRUCT 10" PCC CONCRETE PAVEMENT PER DETAIL 5 ON SHT. 4	432	SF
⑥	CONSTRUCTION 6" CONTAINMENT CURB (TYPE A1-6) PER APWA STD. PLAN 120-2. SEE DETAIL 6 ON SHT. 4	126	LF
⑦	INSTALL BOLLARD PER DETAIL 7 ON SHT. 4	38	EA
⑧	INSTALL 4" WIDE CROSS STRIPING FOR "NO PARKING"	309	LF
⑨	ADJUST TO GRADE (ITEMS NOTED)	1	LS
⑩	REMOVE EXISTING AC PAVEMENT	1,422	SF
⑪	CONSTRUCT 12" PCC CONCRETE PAD PER DETAIL 11 ON SHT. 4	990	SF
⑫	CONSTRUCT GENERATOR FOUNDATION SLAB PER SHT. 7	66	SF
⑬	INSTALL 60kW DIESEL STANDBY GENERATOR PER SHT. 11	1	EA

No.	REVISION	DATE

Drawing Title:

PRECISE GRADING PLAN

CONSTRUCTION NOTES  
MATRIX

Project No: 2OBR010100

Scale:

Drawn By: MS

Reviewd By: HN

Date: 08/23/2021

Drawing Size: 24 x 36

Drawing Number

C0.20

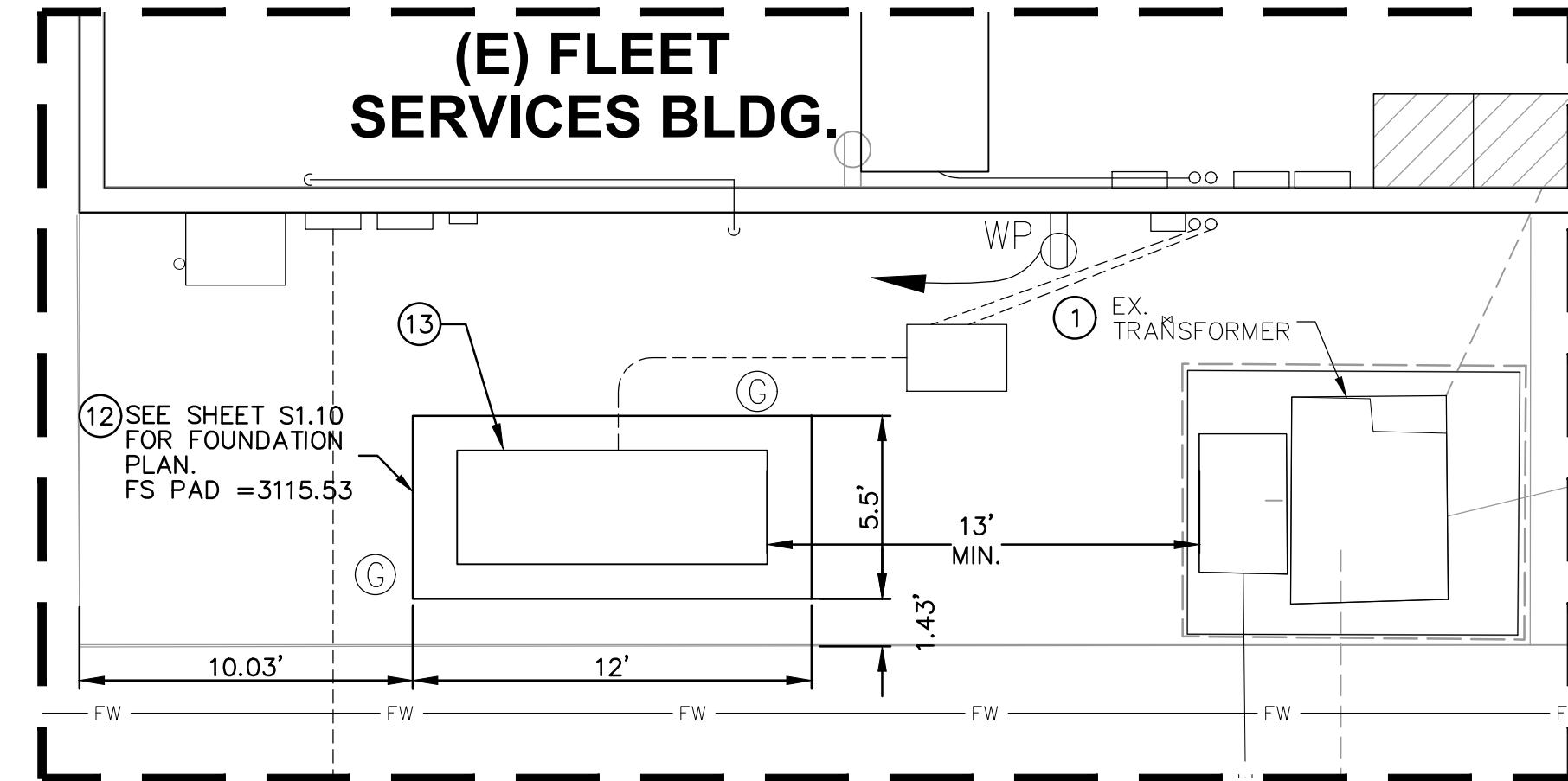
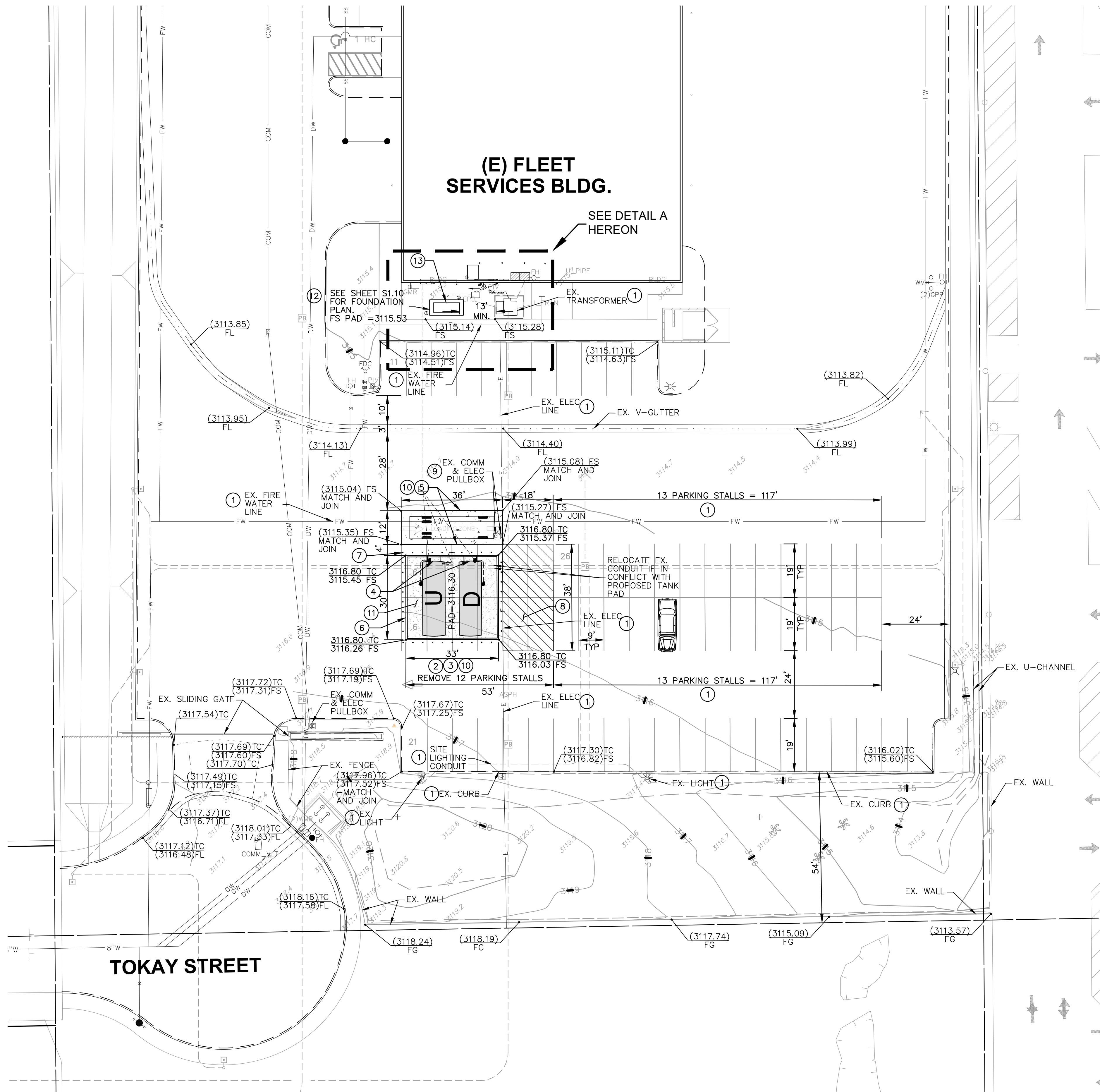
02 of 14 Sheets

CONSTRUCTION NOTES MATRIX

NOTE: THIS IS BEING BID AS LUMP SUMP SO UNIT QUANTITIES ARE PROVIDED FOR REFERENCE ONLY.

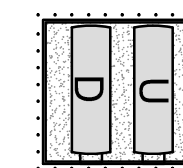


Aug 23, 2021 - 10:25AM - M:\20BR010100\ENGR\SHEETS\FUEL SITE LAYOUT PLANS\PL-VICTORVILLE\_03\_SIT.DWG



DETAIL A  
SCALE: 1" = 5'

### LEGEND



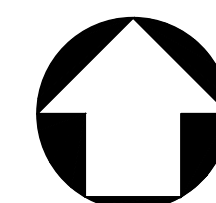
LAYOUT "A"  
PROPOSED FUEL TANKS / DISPENSERS LAYOUT  
D = DIESEL GASOLINE  
U = UNLEADED GASOLINE

### GENERAL NOTES

- ADD CONDUIT FOR FUEL CONTROLLER AT DISTRIBUTION LOCATION.
- CONTRACTOR TO RE-USE / EXTEND EXISTING POWER.
- CONTRACTOR TO PROVIDE CONDUIT FOR DATA LINE FROM EJ WARD TERMINAL (PROVIDED BY COUNTY) AT EACH DISPENSER LOCATION AT TANKS.
- LOCATION NEW FUEL TANKS AS INDICATED.
- CONNECT TO POWER SOURCE PER ELECTRICAL ENGINEER.
- SEE PAGE E.4 FOR CONDUIT LAYOUT.

### CONSTRUCTION NOTES

- PROTECT IN PLACE (ITEMS NOTED)
- INSTALL FUEL TANK PER DETAILS 2, 2B & 2C ON SHT. 5 AND DETAILS 2D & 2E ON SHT. 6
- INSTALL FUEL TANKS LAYOUT PER DETAIL 3 ON SHT. 4
- INSTALL WAYNE RELIANCE S1 DISPENSER (MODEL NUMBER /G66101D/27AJK/W1) PER DETAIL 4 ON SHT. 5
- CONSTRUCT 10" PCC CONCRETE PAVEMENT PER DETAIL 5 ON SHT. 4
- CONSTRUCTION 6" CONTAINMENT CURB (TYPE A1-6) PER APWA STD. PLAN 120-2. SEE DETAIL 6 ON SHT. 4
- INSTALL BOLLARD PER DETAIL 7 ON SHT. 4
- INSTALL 4" WIDE CROSS STRIPING FOR "NO PARKING"
- ADJUST TO GRADE (ITEMS NOTED)
- REMOVE EXISTING AC PAVEMENT
- CONSTRUCT 12" PCC CONCRETE PAD PER DETAIL 11 ON SHT. 4
- CONSTRUCT GENERATOR FOUNDATION SLAB PER SHT. 7
- INSTALL 60KW DIESEL STANDBY GENERATOR PER SHT. 11



20' 10' 0' 20' 40'

GRAPHIC SCALE  
Note: For reduced sized prints, original scale is in inches

NOTE: FOR ELECTRICAL LAYOUTS, NOTES AND DETAILS.  
SEE ELECTRICAL PLANS, SHEETS 08 - 13

100% CONSTRUCTION DOCUMENTS



## COUNTY OF SAN BERNARDINO

ARCHITECTURE &  
ENGINEERING DEPARTMENT

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FUEL TANK  
INFRASTRUCTURE  
PHASE III

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# PSOMAS

5 Hutton Centre Drive  
Suite 300  
Santa Ana, CA 92707  
(714) 751-7373 Fax(714) 545-8883



No.	REVISION	DATE

Drawing Title:

PRECISE GRADING PLAN

PRECISE GRADING PLAN

Project No: 20BR010100

Scale: 1" = 20'

Drawn By: MS

Reviewed By: HN

Date: 08/23/2021

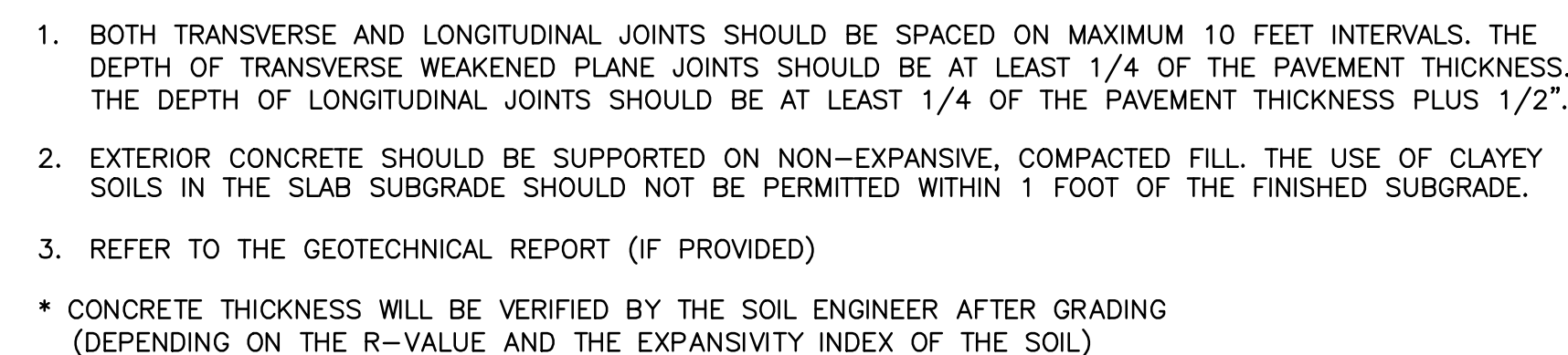
Drawing Size: 24 x 36

Drawing Number

# C1.10

03 of 14 Sheets





NTS



1. CONCRETE  $f_c' = 3000$  PSI @ 28 DAYS
2. PLACE BOLLARDS AT 3.5-FT O.C. (MAX).

NOT TO SCALE



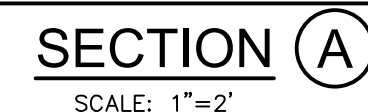
NOT TO SCALE



1. BOTH TRANSVERSE AND LONGITUDINAL JOINTS SHOULD BE SPACED ON MAXIMUM 10 FEET INTERVALS. THE DEPTH OF TRANSVERSE WEAKENED PLANE JOINTS SHOULD BE AT LEAST 1/4 OF THE PAVEMENT THICKNESS. THE DEPTH OF LONGITUDINAL JOINTS SHOULD BE AT LEAST 1/4 OF THE PAVEMENT THICKNESS PLUS 1/2".
2. EXTERIOR CONCRETE SHOULD BE SUPPORTED ON NON-EXPANSIVE, COMPACTED FILL. THE USE OF CLAYEY SOILS IN THE SLAB SUBGRADE SHOULD NOT BE PERMITTED WITHIN 1 FOOT OF THE FINISHED SUBGRADE.
3. REFER TO THE GEOTECHNICAL REPORT (IF PROVIDED)

\* CONCRETE THICKNESS WILL BE VERIFIED BY THE SOIL ENGINEER AFTER GRADING  
(DEPENDENT ON THE R-VALUE AND THE EXPANSIVITY INDEX OF THE SOIL)

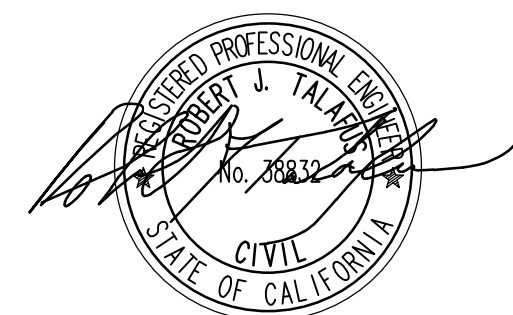
NTS



DOUBLE WALLED TANK WILL SATISFY SECONDARY CONTAINMENT REQUIREMENTS.  
THE TRINARY CONTAINMENT CURB ONLY ADDRESS THE RAINFALL STORAGE.

- ④ INSTALL WAYNE RELIANCE S1 DISPENSER (MODEL NUMBER /G66101D/27AJK/W1) PER DETAIL 4 ON SHT. 5
- ⑥ CONSTRUCTION 6" CONTAINMENT CURB (TYPE A1-6) PER APWA STD. PLAN 120-2. SEE DETAIL 6 HEREON
- ⑦ INSTALL BOLLARD PER DETAIL 7 ON HEREON
- ⑪ CONSTRUCT 12" PCC CONCRETE PAD PER DETAIL 11 HEREON.

SCALE: 1"=10'



	BID ADDENDUM #2	08/23/20
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Drawing Title

## PRECISE GRADING PLAN

Project No:	20BR010100
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Project No.	ZOBR010100

Drawn By:	MS
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Reviewed By:	HN
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Date:	08/23/2021
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Drawing Size:	24 x 36
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Drawing Number

04 of 14 Sheets





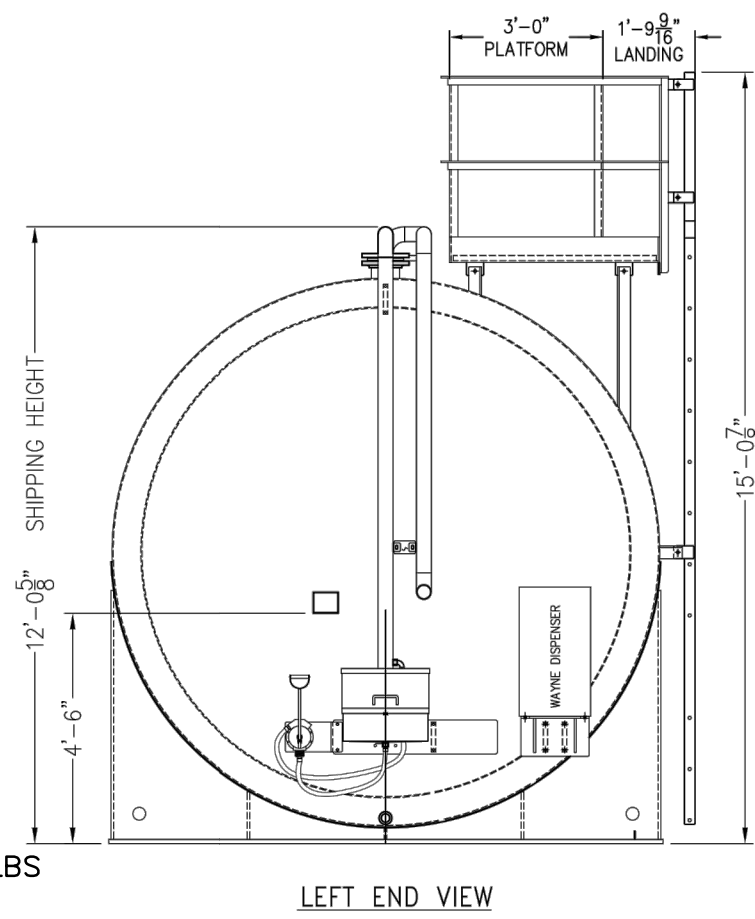
## STANDARD TANK TOP PLATFORM AND LADDER



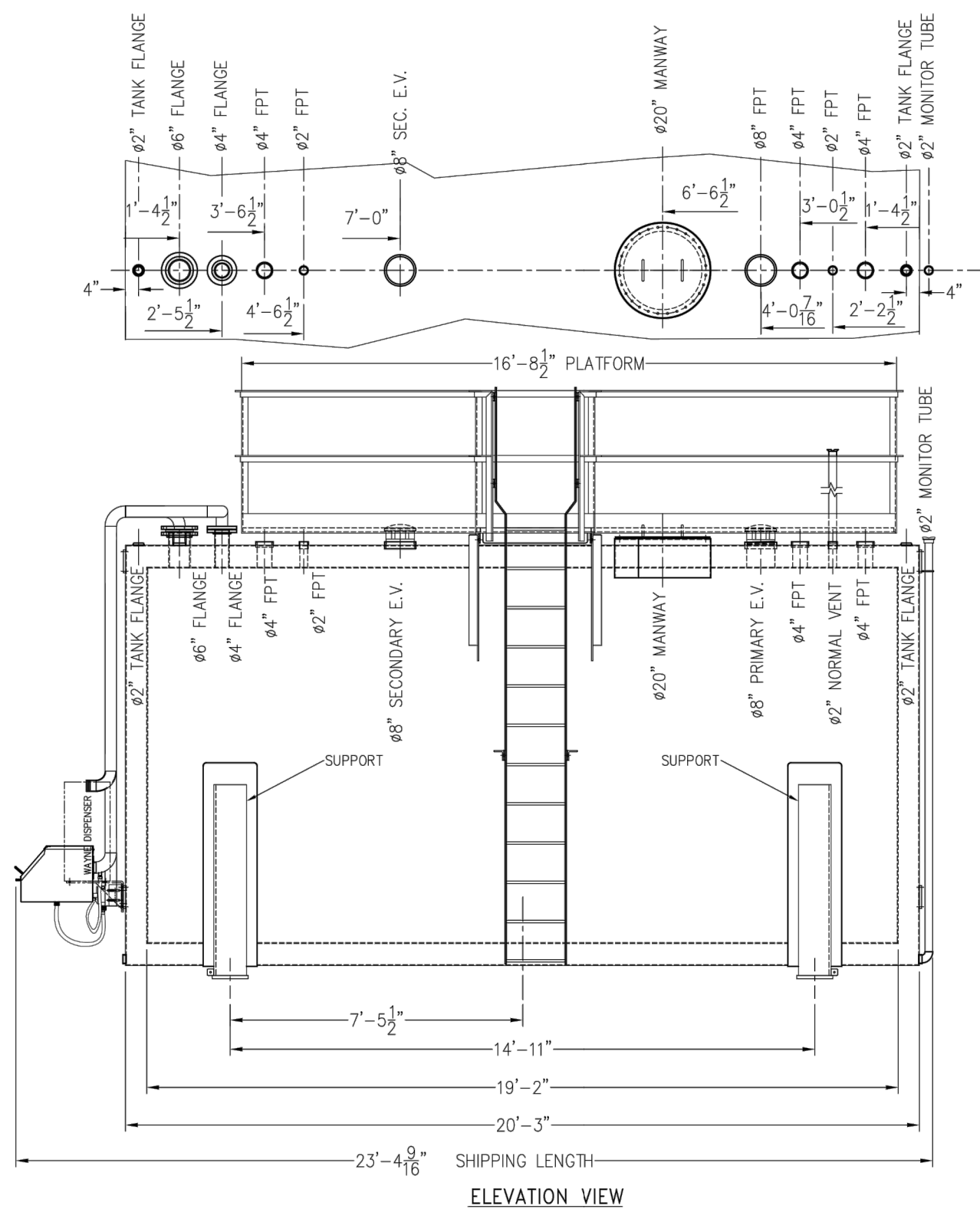
NOTE:  
PROVIDE GROUND LEVEL FILLING TO TOP OF TANK, WITH VENT.

NOT TO SCALE

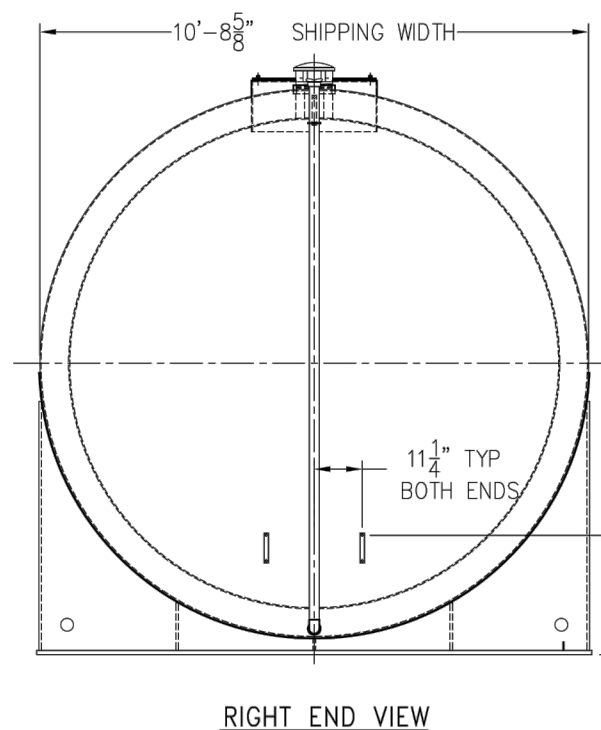
133-MHC-1000	10,000 GALLON CYLINDRICAL TANK SUPER VAULT
16SVEQ1005	2" MORRISON AUTOMATIC SHUTOFF VALVE EVR
16SVGF30015	HINGED GROUND LEVEL FILL SPILL PAN WITH HAND PUMP
16SVGF10503	MHC 3" D5 NON-CARB GROUND LEVEL FILL SYSTEM
16SVGF20503	MHC 3" D5 CARB GROUND LEVEL FILL SYSTEM
SVEQ80160	GASOLINE PHASE I & II DISPENSING PACKAGE WITH SUCTION PUMP & W&M WAYNE TANK MOUNTED DISPENSER
L&P10KD5	RUNG LADDER AND 3'x18" PLATFORM MCF STANDARD - GALVANIZED
TA-732A	SECONDARY ALARM & SENSORS



EMPTY TANK WEIGHT: 45,000 LBS  
FULL TANK WEIGHT WITH DIESEL FUEL (95% CAPACITY): 111,500 LBS  
FULL TANK WEIGHT WITH UNLEADED FUEL (95% CAPACITY): 104,375 LBS



	CUT HOLE	
CONNECTION DIA.	PRIMARY TANK	SECONDARY TANK
ø2" FPT	ø2 1/2"	ø2 7/8"
ø4" FPT	ø5 11/16"	ø5 3/8"
ø6" FPT	ø6 3/4"	ø7 5/8"
ø6" FLNAGE	ø6 3/4"	ø6 3/4"
ø8" SEC. E.V.	—	ø6 3/4"
ø8" PRIM E.V.	ø8 3/4"	ø9 3/4"
ø20" MANWAY	ø25 9/16"	ø25 9/16"



NO.	REQUIRED	(1) ONE	ITEM NO.	NONE
modern custom fabrication fresco california				
P.O. Box 11925 • 2425 E. California Ave. • Fresno, California 93721 Ph: (559) 284-4741 OR 800-800-TANK • Fax: (559) 237-3413				
Prepared by				
<b>MODEL NO. MHC-D5-10000</b>				
<u>SUPERVAULT MH-PROTECTED ABOVE GROUND STORAGE TANK</u>				
DRAWN BY: JAK		SCALE: NTS		
CHECKED BY:		DATE:		
DWG./JOB NO.:				

**VENTING CAPACITY**  
PRIMARY: 372,600 SCFH  
SECONDARY: 410,800 SCFH

NOT TO SCALE

No.	REVISION	DATE
A	BID ADDENDUM #2	08/23/20

Drawing Title

## PRECISE GRADING PLAN

Project No:	2OBR010100
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Scale:	
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Drawn By:	MS
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Reviewd By:	HN
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Date:	08/23/2021
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Drawing Size:	24 x 36
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Drawing Number

# C2.11

05 of 14 Sheets



Model 927/928/735DC Series & 9095A5201

SPECIFICATION SHEET

The Morrison 927 dry disconnect adaptor is installed at the fill point in the fill line of a fuel storage tank system. The internal spring loaded poppet assembly remains closed providing a liquid-tight seal when not connected to a dry disconnect adaptor.

The Morrison 928 dry disconnect coupler is installed on the end of delivery vehicle hose. When coupled, the 927 and 928 provide a liquid-tight connection enabling a dry connection and a dry disconnection.

The 735DC dust cap serves as a protective cover for the 927 adaptor when not in use.



I.D. Number	Size	Description	A	B	C	D	E	Cap Size	Weight (lbs)
927--0150 1A	1½"	Dry disconnect adaptor			A		N		1.63
927--0200 AA	2"	Dry disconnect adaptor, cam style			AA		N		1.68
927--0200AAEVR	2"	Dry disconnect adaptor, alum w/Viton®	2S	2½"	A	V	Y	2½"	1.98
927--0300AAEVR	3"	Dry disconnect adaptor, alum w/Viton®	3N	4	A	V	Y	4"	3.50
927--0400AAEVR	4"	Dry disconnect adaptor, alum w/Viton®	4N	4	A	V	Y	4"	3.50
9095A5201AAEVR	4" x 2"	Dry disconnect adaptor, alum w/Viton®	4N	2½"	A	V	Y	2½"	2.50
927B--0200 AA	2"	Dry disconnect adaptor, cam/groove style			B				
927S--0150 1A	1½"	Dry disconnect adaptor			SS				
927S--0200 1A	2"	Dry disconnect adaptor			SS				
927S--0300 1A	3"	Dry disconnect adaptor			SS				
928--0150ACEVR	1½"	Dry disconnect coupler, alum with Viton®	1N	2	A	V	Y		4.40
928--0200ACEVR	2"	Dry disconnect coupler, alum with Viton®	2N	2½"	A	V	Y		6.0
928--0300ACEVR	3"	Dry disconnect coupler, alum with Viton®	3N	4	A	V	Y		12.60
735DC-2000ACEVR	2"	Dust cap, use w/ 1½" 927 adaptors			A	B	Y		1.0
735DCA2000ACEVR	2"	Dust cap, use w/ 1½" 927 adaptors			AA	B	Y		1.0
735DC-2500ACEVR	2½"	Dust cap, use w/ 2" 927 adaptors			A	B	Y		1.25
735DCA2500ACEVR	2½"	Dust cap, use w/ 2" 927 adaptors			AA	B	Y		1.25
735DC-3000ACEVR	3"	Dust cap, use w/ 3" adaptors			A	B	Y		1.50
735DCA3000ACEVR	3"	Dust cap, use w/ 3" adaptors			AA	B	Y		1.50
735DC-4000ACEVR	4"	Dust cap, use w/ 3" & 4" 927 adaptors			A	B	Y		2.50
735DCA4000ACEVR	4"	Dust cap, use w/ 3" & 4" 927 adaptors			AA	B	Y		2.50

SPECIFICATION OPTIONS:

A—Threads: 1½" NPT (1N); 2" NPT (2N); 2" NPS (2S); 3" NPT (3N); 4" NPT (4N)  
B—Coupler Size  
C—Body: Hard coated aluminum (A); Anodized aluminum (AA); Brass (B); Stainless steel (SS)  
D—Seals: Viton® (V); Buna-N (B)  
E—EVR: Yes (Y); No (N)

570 E. 7th Street, P.O. Box 238 | Dubuque, IA 52004-0238  
t. 563.583.5701 | 800.553.4840 | f. 563.583.5028  
www.morbro.com

MORRISON BROS. CO.

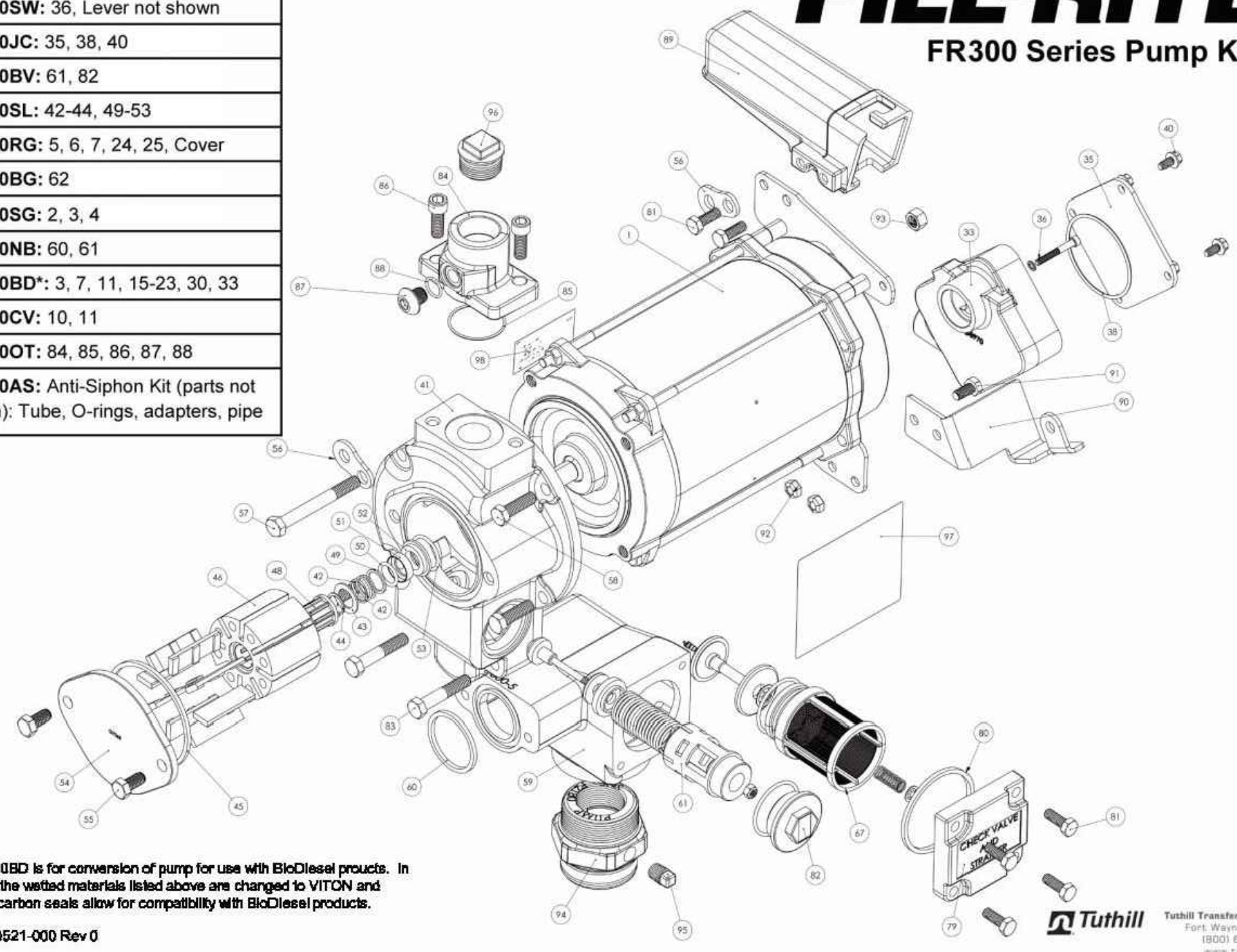
2E MORRISON 927-0200AA 2" VALVE

Repair Kits (kit # / parts included)

KIT300SW: 36, Lever not shown
KIT300JC: 35, 38, 40
KIT300BV: 61, 82
KIT700SL: 42-44, 49-53
KIT300RG: 5, 6, 7, 24, 25, Cover
KIT300BG: 62
KIT300SG: 2, 3, 4
KIT120NB: 60, 61
KIT300BD: 3, 7, 11, 15-23, 30, 33
KIT300CV: 10, 11
KIT300OT: 84, 85, 86, 87, 88
KIT300AS: Anti-Siphon Kit (parts not shown): Tube, O-rings, adapters, pipe

\*KIT300BD is for conversion of pump for use with BioDiesel products. In this kit the wetted materials listed above are changed to VITON and Fluorocarbon seals allow for compatibility with BioDiesel products.  
DC000521-000 Rev 0

FILL-RITE®  
FR300 Series Pump Kits

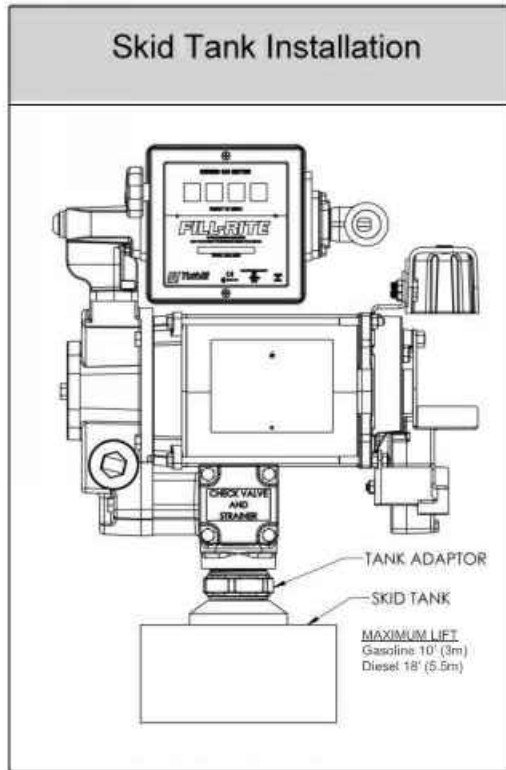


Materials:

- 1-1/4" pipe cut to a length that will terminate at least 3" from the bottom of the tank when installed into the tank adapter with the tank adapter installed into the tank flange (see SKID TANK INSTALLATION diagram).
- Threaded pipe joint sealant appropriate for application.

Installation Procedure:

- Thread the 1-1/4" pipe into the tank adapter. Seal threads liquid tight with appropriate thread sealant.
- Install the tank adapter into the tank flange; seal threads liquid tight with appropriate thread sealant.
- Mount the pump on the adapter; seal threads liquid tight with appropriate thread sealant.
- Fill-Rite recommends installation of our Anti-Siphon Device (see page 7 for detailed information).



FILL-RITE® FR313V Technical Specifications

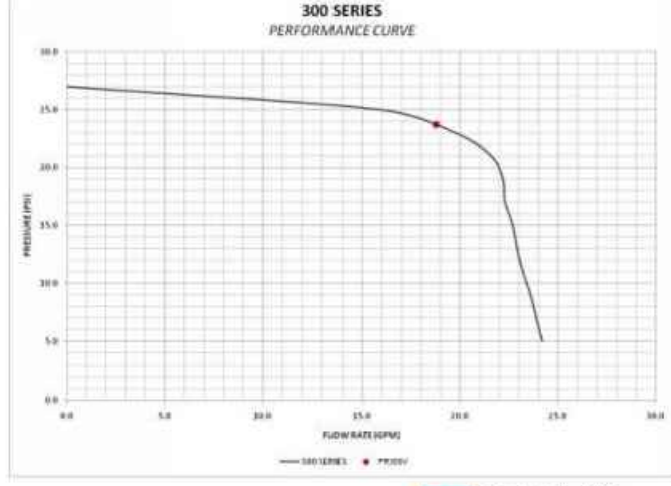
The Most Trusted Name in Pumps and Meters

Motor	
Power-AC	115, 230, 115/230
Hz	50, 60, 50/60
Power - DC	12, 24, 12/24
HP (horsepower) rating	3/4
Power cord length	None
Power cord gauge	N/A
Power cord DC battery connectors	N/A
Amps (FLA)	9.84, 9.11, 4.5/7 A
RPM	1725/1425
Duty cycle	30 min.
Thermal protection switch	Y
Circuit protection fuse	NONE
Certification	UL, cUL
Pump	
Type: rotary, diaphragm, gear, vane	Rotary Vane
GPM in supplied configuration	26.8
GPM open flow - no hose or nozzle	34.3
By-pass pressure rating (psi) - Max	26
Dry vac (in Hg)	14
Head- Max	60.06
Anti-siphon valve	Anti-siphon Ready
Inlet - Size / Thread	1 1/4"
Outlet - Size / Thread	NPT
Mount	Bung (NPT)
Materials of construction - pump housing	Cast Iron
Materials of construction - wetted material	Buna
Rotor materials of construction	80% Iron/20% Copper
Rotor vane material of construction	Carbon
Compatible fluids	Diesel, Gasoline, Bio-Diesel up to B20, E15, Kerosene
Strainer mesh size	40 x 40 x .008"
Warranty (yr)	2 Years
Accessories	
Suction pipe material	None
Suction pipe length- extended/not extended	None
Nozzle- size	None
Nozzle- manual / automatic	None
Hose liquid materials compatibility	None
Hose diameter	None
Hose length	None
Hose static wire (Y/N)	None
Logistics	
UPC	0-89404-07657-6
Length	19
Width	18
Height	18



FR313V

SKU/Kit #s	Small Pump Kits	Consists of
KIT300BD	Bio-Diesel	Special Shaft Seal Assembly, Gasket, Inlet Gasket, Bypass O-ring
KIT300BV	Bypass	Poppet, Spring, O-ring, Clip
KIT300JC	Junction Box	Junction Box Cover, O-Ring, Hardware
KIT300NB	Nozzle Boat	Nozzle Boat, Attaching Hardware
KIT300NR	Nozzle Retainer	Lockable Nozzle Retainer, Hardware
KIT300OT	Outlet	Outlet Flange, O-Ring Seal, hardware
KIT300RG	Rotary Group	Rotor, 8 Vanes, Rotor Key, Gasket, Rotor Cover, 4 Screws
KIT300SW	Switch Lever	Switch Lever, Nut
KIT700AS	Anti-Siphon	Anti-Siphon Hose and Hardware
KIT700BG	Inlet	Inlet Adapter
KIT700SL	Shaft Seal	8 Piece Assembly



Tuthill  
Tuthill Transfer Systems  
8825 Aviation Drive  
Fort Wayne, IN 46809  
(800) 634-2695  
www.tuthill.com

- PUMP TO BE LOCATED AT TOP OF EACH TANK.

2D FILL-RITE 300 SERIES PUMP  
NOT TO SCALE



COUNTY OF  
SAN BERNARDINO

ARCHITECTURE &  
ENGINEERING DEPARTMENT

385 NORTH ARROWHEAD AVENUE  
SAN BERNARDINO, CA 92415-0184

Project Title:

FUEL TANK  
INFRASTRUCTURE  
PHASE III

CIP NUMBER: 20-030

Project No:

1010.0857

Project Address:

Fuel Site  
15000 Tokay Street, Victorville CA 92395

P S O M A S

5 Hutton Centre Drive  
Suite 300  
Santa Ana, CA 92707  
(714) 751-7373 Fax(714) 545-8883



No.	REVISION	DATE

Drawing Title:

PRECISE GRADING PLAN

TANK  
DETAILS

Project No: 20BR010100

Scale:

Drawn By: MS

Reviewed By: HN

Date: 08/23/2021

Drawing Size: 24 x 36

Drawing Number

C2.12

06 of 14 Sheets



POST-INSTALLED ANCHOR NOTES

1. INSTALL ANCHORS PER MANUFACTURER INSTALLATION INSTRUCTIONS.
2. AT DIESEL GENERATOR, PROVIDE POST-INSTALLED ½” DIAMETER HILTI “KB-TZ” SS THREADED ANCHORS IN MIN 3 ¼ ”DEEP HOLES. DRILL DIAMETER = ½”.
3. AT FUEL TANKS, PROVIDE POST-INSTALLED ¾” DIAMETER HILTI “KB-TZ” SS THREADED ANCHORS IN MIN 4 ¾” DEEP HOLES. DRILL DIAMETER = ¾”.
4. SEE ICC-ES EVALUATION REPORT ESR-1917 REVISED JANUARY 2020.

DESIGN DATA

1. CODE: 2019 CBC
2. WIND DESIGN DATA:  
DESIGN METHOD: ASCE 7-16 CHAPTER 29 DIRECTIONAL METHOD  
BASIC WIND SPEED: NOMINAL=85 MPH, ULTIMATE=110 MPH  
WIND EXPOSURE: B  
RISK CATEGORY: II
3. EARTHQUAKE DESIGN DATA:  
ASCE 7-16 15.4.2:  $V = 0.30 \times S_{Ds} \times W \times I_e$   
RISK CATEGORY III,  $I_e = 1.25$   
 $S_s = 1.288$   $S_1 = 0.498$  SITE CLASS D  
 $S_{Ds} = 1.036$   $SD_1 = 0.598$   
SEISMIC DESIGN CATEGORY D  
 $V = 0.388W$   
EQUIVALENT LATERAL FORCE PROCEDURE
4. GEOTECHNICAL DATA:  
ALLOWABLE SOIL BEARING STRESS = 1500 PSF

CONCRETE AND REINFORCING STEEL:

1. MINIMUM CONCRETE F’C = 4000 PSI
2. INSERTS: ALL ITEMS TO BE CAST IN CONCRETE, SUCH AS REINFORCING DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE POSITIONED IN THE FORMS BEFORE PLACING THE CONCRETE.
3. REINFORCING STEEL: ASTM A615 GRADE 60.  
ASTM A706 WHERE WELDED.
4. ALL REINFORCEMENT SHALL BE CONTINUOUS. STAGGER SPLICES WHERE POSSIBLE. LAP LENGTHS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED.  
  
#4: 24” #5: 30” #6: 36” #7: 53” #8: 60”
5. ALL BARS SHALL BE CLEAN OF LOOSE FLAKY RUST, GREASE OR OTHER MATERIALS LIKELY TO IMPAIR BOND.
6. ALL REINFORCING BARS HALL BE ACCURATELY AND SECURELY PLACED BEFORE POURING CONCRETE.
7. MINIMUM CLEAR CONCRETE COVER FOR REINFORCEMENT, UNLESS OTHERWISE NOTED:  
  
CAST AGAINST EARTH: 3 INCHES  
  
CAST IN FORMS AND EXPOSED TO EARTH OR WEATHER:  
#6 BAR AND LARGER 2 INCHES  
#5 BAR AND SMALLER 1 ½ INCHES  
  
NOT EXPOSED TO EARTH OR WEATHER:  
SLABS, WALLS AND JOISTS:  
#11 BAR AND SMALLER ¾ INCH  
#14 BAR AND LARGER 1 ½ INCHES  
  
CLEARANCES ARE TO CLOSEST REINFORCEMENT.
8. ALL CEMENT SHALL CONFORM TO ASTM C-150.
9. FINE AND COURSE AGGREGATE SHALL CONFORM TO ASTM C-33 FOR STANDARD WEIGHT CONCRETE. ALL AGGREGATE SHALL BE PER ASTM C-157 WITH THE AVERAGE DRY SHRINKAGE AT 28 DAYS NOT EXCEEDING 0.04%.
10. DRYPACK SHALL BE COMPOSED OF ONE PART PORTLAND CEMENT TO NOT MORE THAN THREE PARTS SAND.
11. ALL CONCRETE SHALL BE CURED BY KEEPING CONTINUOUSLY WET FOR 10 DAYS OR BY AN APPROVED CURING COMPOUND.

STRUCTURAL INSPECTION AND TESTING:

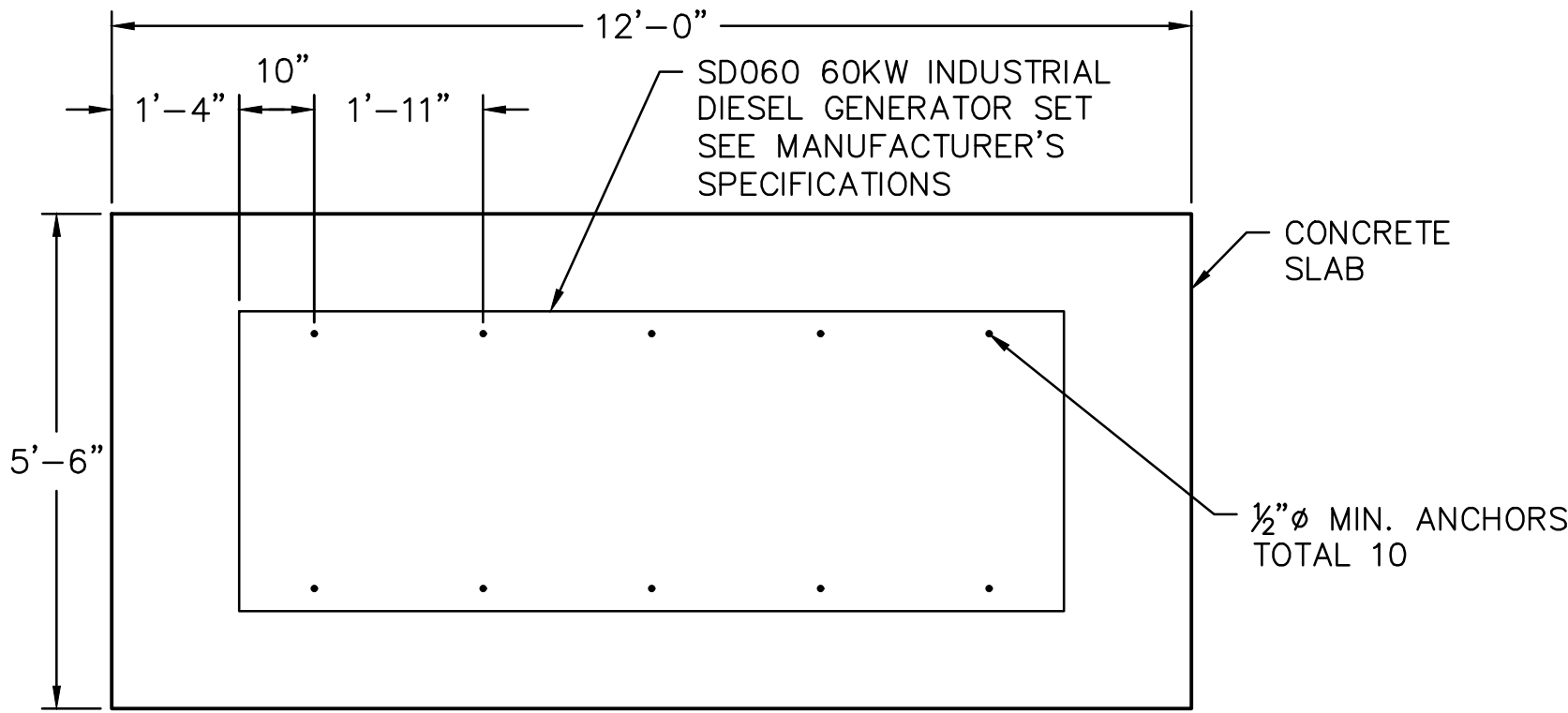
1. SPECIAL INSPECTION AND TESTING ARE REQUIRED IN SECTIONS 1704 AND 1705 OF THE CBC. THE “STATEMENT OF SPECIAL INSPECTIONS” SUBMITTED WITH THE PERMIT APPLICATION INDICATES THE SPECIFIC INSPECTIONS AND TESTS THAT ARE REQUIRED AS WELL AS THE PERSONS OR FIRMS RESPONSIBLE FOR THIS WORK.
2. ALL TESTS AND INSPECTIONS SHALL BE PERFORMED BY A CERTIFIED SPECIAL INSPECTOR FROM AN INDEPENDENT TESTING AGENCY WHO IS EMPLOYED BY THE OWNER (OR AGENT OF THE OWNER) AND NOT THE CONTRACTOR.
  - A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
  - B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT, THE ENGINEER AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.
  - C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR’S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND APPLICABLE STANDARDS OF QUALITY AND WORKMANSHIP OF THE CBC.
3. THE CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING INVOLVING THE ARCHITECT, THE ENGINEER, AND THE SPECIAL INSPECTOR TO DISCUSS THE SPECIFIC REQUIREMENTS OF THIS PROJECT.
4. MATERIAL TESTING REQUIREMENTS ARE INDICATED IN THE SPECIFICATIONS AND/OR THE GENERAL NOTES.
5. ALL EARTHWORK AND GRADING SHOULD BE PERFORMED UNDER THE OBSERVATION OF GROUP DELTA’S REPRESENTATIVE. COMPACTION TESTING OF THE FILL SOILS SHALL BE PERFORMED AT THE DISCRETION OF GROUP DELTA’S REPRESENTATIVE. TESTING SHOULD BE PERFORMED FOR APPROXIMATELY EVERY 2 FEET IN FILL THICKNESS OR 500 CUBIC YARDS OF FILL PLACED, WHICHEVER OCCURS FIRST. IF SPECIFIED COMPACTION IS NOT ACHIEVED, ADDITIONAL COMPACTIVE EFFORT, MOISTURE CONDITIONING OF THE FILL SOILS, AND/OR REMOVAL AND RECOMPACTION OF THE BELOW-MINIMUM COMPACTION SOILS WILL BE REQUIRED.

STATEMENT OF SPECIAL INSPECTIONS:

THE FOLLOWING TESTS AND INSPECTIONS ARE REQUIRED FOR THIS PROJECT. THE TESTS AND INSPECTIONS INDICATED HERE ARE THE RESPONSIBILITIES OF THE OWNER’S SPECIAL INSPECTOR, AS REQUIRED BY SECTION 1704 OF THE CBC.

CAST-IN-PLACE CONCRETE:

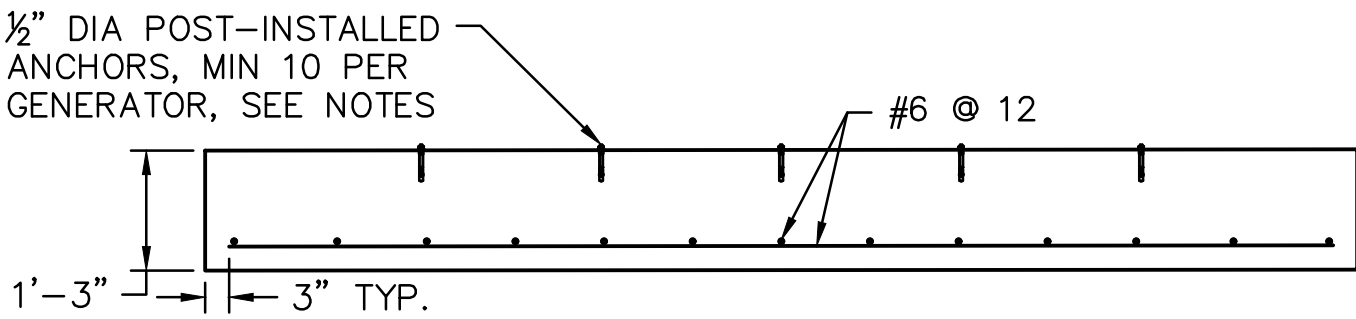
1. PROVIDE PERIODIC INSPECTION OF REINFORCING STEEL AND PLACEMENT.
2. PROVIDE PERIODIC INSPECTION OF ANCHORS CAST IN CONCRETE.
3. VERIFY THE USE OF THE REQUIRED CONCRETE DESIGN MIX.
4. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM CONTINUOUS TESTING FOR SLUMP AND AIR CONTENT, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.
5. PROVIDE PERIODIC INSPECTION OF THE MAINTENANCE OF THE SPECIFIED CURING TEMPERATURE AND TECHNIQUES.
6. PROVIDE PERIODIC INSPECTION OF THE FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.



GENERATOR SLAB PLAN

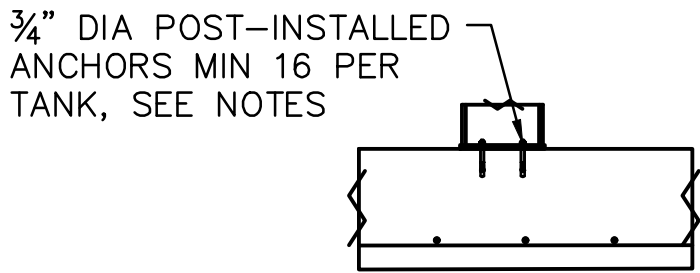
SCALE: ½"=1'

NOTE:  
SEE DETAIL A ON SHEET 3 FOR ENLARGED SITE PLAN



GENERATOR SLAB SECTION

SCALE: ½"=1'



FUEL TANK CONNECTION DETAIL

SCALE: ½"=1'



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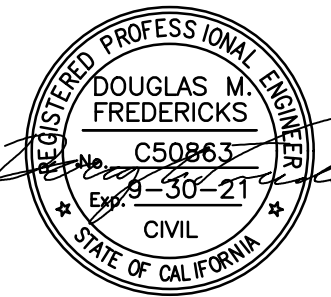
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PRECISE GRADING PLAN

FOUNDATION  
PLAN

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Reviewd By: HN

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Drawing Number

S1.10

07 of 14 Sheets