CONSTRUCTION DOCUMENTS

JANUARY 3, 2014

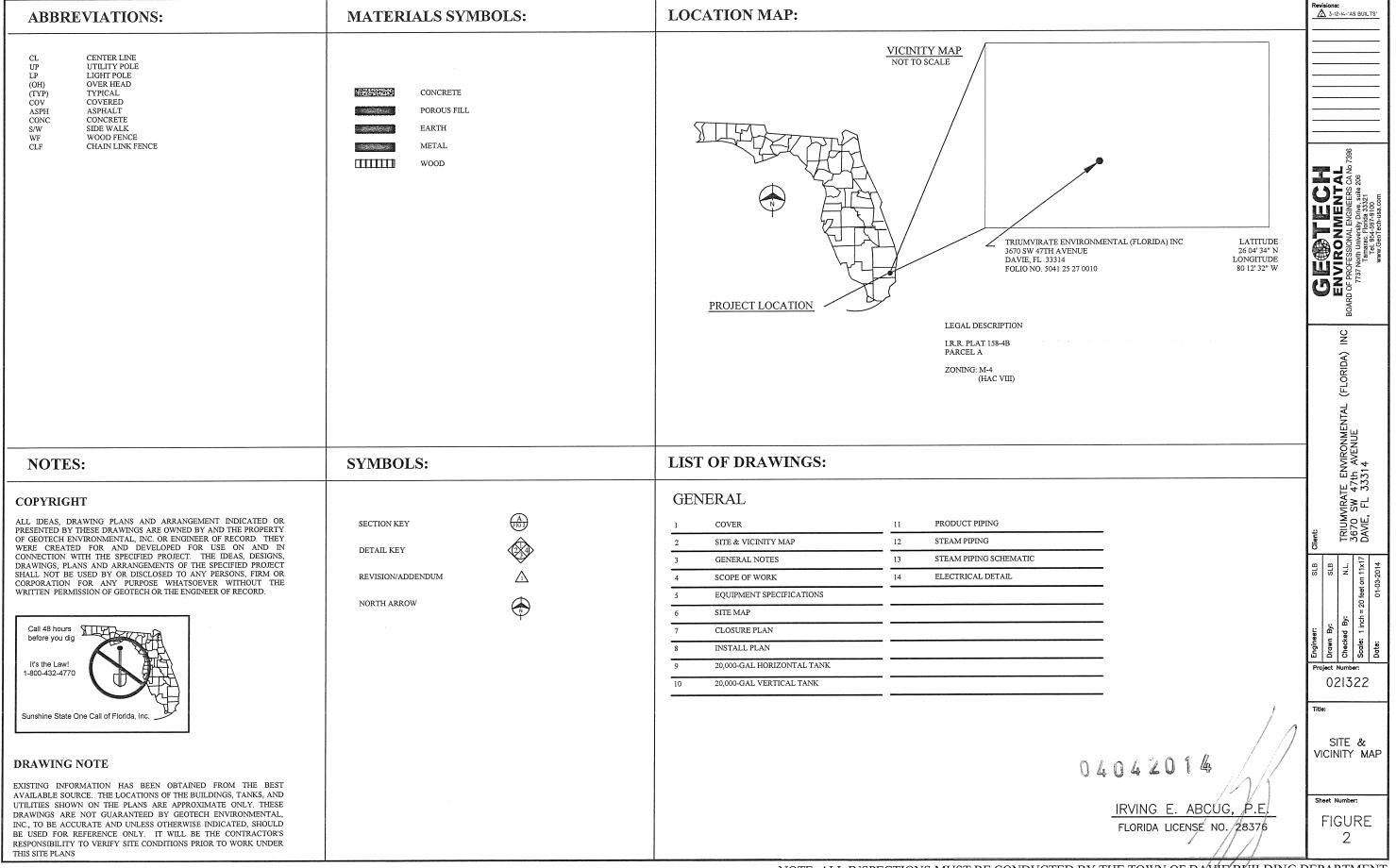
PETROLEUM STORAGE TANK IMPROVEMENT

INSTALLATION OF 20,000-GALLON HORIZONTAL OIL TREAMENT ABOVEGROUND STORAGE TANK (AST) & CLOSURE AND REPLACEMENT OF 20,000 GALLON USED OIL AST

FOR

TRIUMVIRATE ENVIRONMENTAL (FLORIDA), INC.
3670 SW 47 AVENUE, DAVIE, FLORIDA 33314
(BROWARD COUNTY FACILITY NUMBER: 00055)
(FDEP ST FACILITY ID: 069102123)
(FDEP OPERATING PERMIT NUMBER: 77390-HO-008, 77390-SO-009)
(USEPA ID NUMBER: FLD 981 018773)

OWNER:	DESIGNATED TEAM INFORMATION:	REGULATORY AGENCIES:	SUBMISSIONS:
TRIUMVIRATE ENVIRONMENTAL (FLORIDA), INC. 3701 SW 47TH AVE, SUITE 109, DAVIE, FL. 33314 P: 954.583.3795 F: 954.583.8017 CONTACT: JOHN (SHAWN) LENNON, JR., GENERAL MANAGER	GEOTECH ENVIRONMENTAL, INC 7737 N. UNIVERSITY DRIVE, SUITE 206, TAMARAC, FL 33321 P: 954.597.9100 F: 954.597.9191 CONTACT: NEIL LAKHLANI, PROJECT MANAGER (POLLUTANT SYSTEM SPECIALTY CONTRACTOR (PCC NUMBER: PCC1256803) (STATE OF FLORIDA PROFESSIONAL ENGINEERING LICENSE NUMBER 7396) IDEAL MAINTENANCE, INC. (ELECTRICAL	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) BOB MARTINEZ CENTER 2600 BLAIRSTONE ROAD, TALLAHASSEE, FLORIDA 32399-2400 BROWARD COUNTY ENVIRONMENTAL PROTECTION & GROWTH MANAGMENT Storage Tank Division Development Review Services Environmental Review Services 1 North University Drive, 102A Plantation, FL 33324	3-12-14-'AS BUILTS'
	CONTRACTOR) 17731 77 LANE NORTH, LOXAHATCHEE, FL 33470 CONTACT: COGGINS, MICHAEL W	P: 954.357.6666 TOWN OF DAVIE BUILDING DEPARTMENT 6591 Orange Drive, Davie, FL 33314 P:954.797.1111 CONTACT: BRIAN DILLON, BUILDING OFFICIAL	Project No. 021322 Construction Documents Drawing Title: COVER SHEET Sheet No. 1 Date: January 3, 2014



NOTES

- 1. "OWNER" AS USED IN THESE DOCUMENTS REFERS TO:
 TRIUMVIRATE ENVIRONMENTAL (FLORIDA) INC.
 3701 SW 47TH AVE, SUITE 109, DAVIE, FL. 33314
 "CONTRACTOR" AS USED IN THESE DOCUMENTS REFERS TO:
 GEOTECH ENVIRONMENTAL, INC. (GEOTECH)
 7737 N. UNIVERSITY DRIVE, SUITE 206
 TAMARAC, FLORIDA 33321
- 2. ALL WORK SHALL COMPLY WITH APPLICABLE CODES, AMENDMENTS, RULES, REGULATIONS, ORDINANCES, LAWS, ORDERS, APPROVALS, ETC., THAT ARE REQUIRED BY PUBLIC AUTHORITIES IN EFFECT AT THE TIME THE WORK IS PERFORMED. THE CONTRACTOR SHALL COMPLY WITH ALL ACCEPTABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF PUBLIC BODIES HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR TO PROTECT THEM FROM DAMAGE, INJURY, OR LOSS, INCLUDING, WITHOUT LIMITATION, THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (PL-91-595) AND UNDER SECTION 107 OF THE CONTRACT WORK HOURS AND SAFETY STANDARD ACT OF (PL 91-54) AND AMENDMENTS THERE TO. TANKS SHALL COMPLY WITH NFPA 30, AND BE APPROVED BY BCFCC AND BORA.
- 3. ALL WORK WILL BE PERFORMED BY A STATE OF FLORIDA CERTIFIED POLLUTION SYSTEM SPECIALTY CONTRACTOR (PSSC) AND STATE OF FLORIDA LICENSED ENGINEER.
- 4. THE OWNER WILL REIMBURSE THE CONTRACTOR FOR ANY/ALL REQUIRED PERMITS, LICENSES, AND INSPECTION FEES, NECESSARY. OWNER SHALL ORDER AND SCHEDULE THE TANKS, TANK ACCESSORIES, AND BOILER EQUIPMENT DELIVERY IN AMPLE TIME TO AVOID DELAYS IN CONSTRUCTION. IF ANY ITEM IS FOUND TO BE UNAVAILABLE OR HAVE A LONG LEAD TIME, THE OWNER SHALL NOTIFY THE CONTRACTOR IN WRITING IMMEDTAELY.
- 5. THE CONTRACTOR IS FAMILIAR WITH THE CONDITIONS OF THE BUILDING SITE BEFORE CONDUCTING WORK AT THE SITE.
- 6. BEFORE COMMENCEMENT OF WORK, THE CLIENT WILL PROVIDE A CURRENT SURVEY OF THE BUILDING SITE AND WILL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THOSE SHOWN ON THE DRAWINGS.
- 7. THE CONTRACT DOCUMENTS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT/CONTRACTOR WHETHER HE PROJECT FOR WHICH THEY ARE EXECUTED OR NOT. THE CONTRACT DOCUMENTS ARE NOT TO BE USED BY THE OWNER FOR OTHER PROJECTS OR EXTENSIONS TO THE PROJECT NOR ARE THEY TO BE MODIFIED IN ANY MANNER WHATSOEVER EXCEPT B AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATON TO THE ARCHITECT/CONTRACTOR. THE PLANS AND SPECIFICATIONS ARE BASED UPON THE TYPES OF STRUCTURE/S SHOWN IN THE DRAWINGS LISTED IN THE INDEX OF DRAWINGS. IN THE EVENT OF MODIFICATION/S BY THE OWNER, THE CONTRACTOR AND THE SUBCONTRACTOR/S ASSIGNED BY THE CONTRACTOR WILL BE HELD HARMLESS AND ALL PARTIES WAIVE ALL RIGHTS AGAINST THE CONTRACTOR. FURTHER. NO ADDITIONAL CLAIMS WILL BE AUTHORIZED AS A RESULT OF SUCH MODIFICATION. THE CONTRACTOR WILL BE RELEASED FROM ALL LIABILITY ASSOCIATED WITH ANY OF SUCH MODIFICATION. ANY REPRODUCTION OF THIS ENGINEERED DOCUMENT WITHOUT THE PRIOR CONSENT OF THE "ENGINEER OF RECORD" IS STRICTLY PROHIBITED.
- 8. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. WHERE DISCREPANCIES EXIST WITHIN THE DRAWINGS, ENLARGED SCALE DRAWINGS/DETAILS WILL GOVERN OVER SMALLER SCALE DRAWINGS AND

- THE SPECIFICATIONS WILL GOVERN OVER ALL. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERSEDE IN ALL CASES.
- 9. ALL FEATURES NOT LABELED AS "NEW", "PROPOSED", OR "TO BE REMOVED" WILL BE CONSIDERED TO BE "EXISTING TO REMAIN".
- 10. NO EXCAVATION WILL BE PERFORMED ON THIS PROJECT. HOWEVER, SHOULD IT BE NECESSARY, THE CONTRACTOR SHALL NOTIFY "SUNSHINE STATE 1-CALL (1-800-432-4770) 48 HOURS PRIOR TO ANY EXCAVATION ON SITE. ALL UTILITY LOCATIONS ARE APPROXIMATE. OWNER WILL PROVIDE ANY/ALL UTILITY INFORMATION I.E., CONDUITS, ON SITE ELECTRIC, DRAINAGE, PRODUCT PIPING, ETC. PRIOR TO COMMENCEMENT OF ANY EXCAVATION.
- 11. THE CONTRACTOR WILL NOTIFY THE LOCAL AND COUNTY FIRE DEPARTMENT AND BUILDING DEPARTMENT 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY PROPOSED CONSTRUCTION.
- 12. CONTRACTOR SHALL PROVIDE A COMPLETE SET OF "AS BUILT" DRAWINGS TO SCALE DEPICTING PRECISE LOCATIONS OF ALL COMPONENTS INSTALLED (INCLUDING PRODUCT LINE SIZES, LOCATIONS, CONDUCT SIZES, AND LOCATIONS).

CONSTRUCTION GENERAL NOTES:

- 1. CONTRACTOR SHALL COORDINATE ALL WORK WITH DRAWINGS BY ENGINEERS FOR ALL AFFECTED DISCIPLINES.
- 2. THE CONTRACTOR SHALL CHECK AND COORDINATE THE WORK OF VARIOUS TRADES TO PREVENT ANY CONFLICTS.
- 3. THE CONTRACTOR WILL ENSURE THAT ALL MATERIALS AND EQUIPMENT INCORPORATED IN THE WORK WILL BE NEW AND ALL WORK WILL BE OF GOOD QUALITY, FREE FROM FAULTS AND IN CONFORMANCE WITH THE PLANS
- 4. THE STORAGE TANK AND SYSTEM COMPONENTS SHALL BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), STORAGE TANKS, PIPING, AND SYSTEM COMPONENTS WILL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND MANUFACTURER REQUIREMENTS.
- 5. CONTRACTOR SHALL FURNISH AND PLACE PROPER GUARDS FOR PREVENTION OF ACCIDENTS. ALL TRENCH AND EXCAVATION SHORING, SCAFFOLDING, SHIELDING, DUCT/FUME PROTECTION, MECHANICAL/ELECTRICAL PROTECTION, SPECIAL GROUNDING. SAFETY RAILING, BARRIERS OR OTHER SAFETY FEATURES REQUIRED TO SECURE THE SAFETY OF LIFE OR PROPERTY.
- 6. NO EXCAVATION WILL BE PERFORMED ON THIS PROJECT. HOWEVER, SHOULD IT BECOME NECESSARY TO CONDUCT ANY EXCAVATION, THE OWNER SHALL BE RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING ANY AND ALL EROSION CONTROL MEASURES AND SEDIMENT CONTROL DEVICES NECESSARY TO PREVENT SOIL EROSION AND/OR SEDIMENT FROM BEING TRANSPORTED OFF-SITE AND INTO ANY DRAINAGE SYSTEMS, VEGETATED AREAS, AND/OR ROADWAYS.
- 7. THE CONTRACTOR SHALL BE AWARE THAT SOILS AND GROUNDWATER SUBJECT TO THIS SCOPE OF WORK MAY CONTAIN IIAZARDOUS CHEMICAL CONSTITUENTS. ALL MATERIALS EXCAVATED AND REQUIRING OFF-SITE DISPOSAL SHALL BE TESTED AND HANDLED IN ACCORDANCE WHIT RULE 62-780, FLORIDA ADMINISTRATIVE CODE (F.A.C). PERSONAL PROTECTION HIGHER THAN A LEVEL D MAY BE REQUIRED IN PERFORMING A PORTION OR ALL OF THIS SCOPE OF WORK.

- 8. ALL BOLTS, CLIPS, HANGERS ETC. SHALL. BE GALVANIZED (G90 MINIMUM). ALL WOOD SHALL BE PRESSURE TREATED. ALL FORMS SHALL BE WET JUST PRIOR TO PLACING CONCRETE. ALL BOLTS, ANCHIORS, FASTENERS ATTACHMENTS, ETC. SHALL BE TYPE 316L STAINLESS STEEL.
- INSTALL EQUIPMENT AND SYSTEMS IN NEAT AND PROFESSIONAL MANNER: INSTALL EQUIPMENT AND PARTS THAT ARE EASILY ACCESSIBLE FOR INSPECTION, OPERATION, MAINTENANCE AND REPAIR.
- 10. UPON COMPLETION OF ALL INSTALLATION ACTIVITIES, THE CONTRACTOR WILL PERFORM BASIC JOB SITE CLEANUP AS IT RELATES SPECIFICALLY TO THIS PROJECT.

ELECTRICAL GENERAL NOTES:

- 1. ALL ELECTRICAL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE NATIONAL FIRE PROTECTION ASSOCIATION-70 (NFPA-70), NATIONAL ELECTRICAL CODE, AND OTHER APPLICABLE CODES AND STANDARDS. THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR EVALUATING FIELD CONDITIONS BY VISITING THE SITE PRIOR TO COMMENCING/BIDDING WORK. ELECTRICAL CONTRACTOR
- 2. ALL MATERIALS SHALL BE U.L. APPROVED. ALL BRANCH CIRCUITS SHALL BE PROPERLY PHASE BALANCED. ALL EMPTY CONDUITS TO BE PROVIDED WITH NYLON PULL STRINGS. ALL LUMINARIES SHALL BE PROPERLY SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS AND LOCAL CODE REQUIREMENTS.
- 3. THESE DRAWINGS ARE A GUIDE FOR THE INSTALLATION OF ELECTRICAL SERVICE. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A FUNCTIONING SYSTEM.
- 4. ALL CABLES SHALL BE RUN WITHOUT SPLICES EXCEPT OTHERWISE INDICATED. ALL PULL AND JUNCTION BOXES SHALL BE ACCESSIBLE AT ALL TIMES. EXACT POINT AND METHODS OF CONNECTION SHALL BE DETERMINED IN FIELD. ALL PULL AND JUNCTION BOXES SHALL BE ACCESSIBLE AT ALL TIMES. ALL WORK SHALL BE DONE IN A NEAT AND WORKMAN LIKE MANNER.

GENERAL DEMOLITION NOTES:

- 1. SCOPE OF DEMOLITION INVOLVES REMOVAL AND DISPOSAL OF ONE. 12.000 GALLON VEHICULAR DIESEL AND ONE 10,000 GALLON UNLEADED GASOLINE UNDERGROUND STORAGE TANKS. ASSOCIATED PIPING. TWO DISPENSERS. AND ANCILLARY EQUIPMENT.
- 2. THE EXISTING CONDITION/DEMOLITION IS SHOWN IN SHEET No. EE1.6 AND IS INTENDED AS A GENERAL GUIDE TO THE DEMOLITION REQUIRED FOR THIS PROJECT

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CA No 206 ENVIRONMENTA
BOARD OF PROFESSIONAL ENGINEERS CA
7737 North University Drive, suite 208
7737 Nort 2 (FLORIDA) TRIUMVIRATE ENVIRONMENTAL 3670 SW 47th AVENUE DAVIE, FL 33314 021322 GENERAL NOTES Sheet Number **FIGURE** 3

3-12-14-'AS BUILTS'

SCOPE OF WORK

THE WORK DESCRIBED BELOW INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

THE SCOPE OF WORK INVOLVES CLOSURE VIA REMOVAL OF ONE (1) 20,000 GALLON SINGLE WALLED ABOVEGROUND USED OIL-MATERIAL STORAGE TANK (AST) (T-11), INSTALLATION OF ONE (1) EQUIVALENT 20,000 GALLON SINGLE WALLED VERTICAL AST (T-11A), INSTALLATION OF ONE (1) 20,000 GALLON SINGLE WALLED HORIZONTAL CYLINDRICAL AST (T-22), AND APPROVED EQUIPMENT, ASSOCIATED SINGLE WALL STEAM SYSTEMS & FUEL OIL PIPING, AND APPURTENANCES.

THE FACILITY CURRENTLY CONSISTS OF SEVENTEEN (17) TANKS RANGING FROM 1,000 GALLONS TO 20,000 GALLONS AND ONE (1) 100,000 GALLON TANK. THE FACILITY IS AUTHORIZED TO STORE AND USE A TOTAL OF 358,000 GALLONS OF USED OIL IN THE ABOVE GROUND STORAGE TANKS AND RELATED APPURTENANCES CURRENTLY IN USE AT THE FACILITY. THE STORAGE TANK FARMS ARE LOCATED OUTDOORS, FENCED, AND/OR WALLED ON ALL SIDES WITH SEPARATE CONCRETE FLOOR SECONDARY CONTAINMENT STRUCTURES. BASED ON THE CURRENT PERMIT, DATED MAY 7, 2013, THE FACILITY IS AUTHORIZED TO PROCESS USED OIL, OILY WASTEWATER, OILY SOLID WASTE, USED OIL FILTERS, AND COLLECT PETROLEUM CONTACT WATER. NON-HAZARDOUS WASTE WATER IS COLLECTED AND TRANSFERRED INTO A 100,000-GALLON SURGE TANK DESIGNATED AS TANK T-21, THEN FILTERED, THEN HEATED FOR OIL/WATER SEPARATION (WATER FRACTION ONLY), AND THEN TRANSFERRED TO AN OFFSITE INDUSTRIAL WASTE WATER PRE-TREATMENT FACILITY FOR TREATMENT AND DISPOSAL. GEOTECH UNDERSTANDS THAT THE CLIENT HAS A DESIRE TO INCREASE THE PROCESSING OF USED OIL FROM THE EXISTING +/-10,000 GALLON CAPACITY IN THE EXISTING HORIZONTAL TANK T-7 TO A TOTAL OF +/-30,000 GALLON THRESHOLD CAPACITY WHILE UTILIZING THE EXISTING FULTON VERTICAL MULTI-PORT GAS FIRED STEAM BOILER, PARTIAL EXISTING STEAM PIPING, AND USED OIL SUPPLY AND RETURN LINES AT THE FACILITY.

TASK 1 - CLOSURE OF OLD 20,000 GALLON VERTICAL AST (T-11)

T-11 IS A 20,000-GALLON AST (10.5' DIAMETER X 31' HIGH) AND LOCATED IN A SECONDARY CONTAINMENT #1. IT WAS INSTALLED IN CIRCA 1987 AND HAS BEEN OUT OF SERVICE SINCE NOVEMBER 6, 2003. PURSUANT TO PARAGRAPH 62-4.050(4)(S), F.A.C., GEOTECH CONSIDERS REPLACEMENT OF EXISTING TANK WITH NEW TANK OF SAME SIZE AS A MINOR MODIFICATION THAT WILL NOT REQUIRE SUBSTANTIAL TECHNICAL EVALUATION BY THE FDEP, NOR WILL IT REQUIRE A NEW SITE INSPECTION, AND WILL NOT LEAD TO SUBSTANTIALLY DIFFERENT ENVIRONMENTAL IMPACTS AND WILL LESSEN THE IMPACTS OF THE ORIGINAL PERMIT. GEOTECH HAS LEARNED FROM CONVERSATIONS WITH FDEP, THAT A \$250.00 PERMIT FEE WILL BE REQUIRED AS A MINOR MODIFICATION TO THE EXISTING PERMIT BY THE FDEP.

TASK 2 - INSTALLATION OF NEW PERMANENT 20,000 GALLON VERTICAL AST (T-11A)

GEOTECH PROPOSES TO INSTALL ONE (1) 20,000-GALLON ABOVEGROUND SINGLE WALL CYLINDRICAL VERTICAL ATMOSPHERIC STORAGE TANK, FLAT BOTTOM, CONICAL TOP (2/12), STANDARD FITTINGS, 24" ROOF MAN-WAY, 24" SHELL MAN-WAY, WITH (6) HOLD DOWN CHAIRS FOR ANCHORING TO THE EXISTING

CONCRETE, AND PAINTED WITH UNIVERSAL RED PRIMER. THE TANK WILL BE IN THE SAME LOCATION OF THE PREVIOUS TANK AREA AND HAVE SIMILAR AST MAN-WAY, PIPING SIZE AND TYPE, AND FITTING CONFIGURATIONS TO THE OLD AST SYSTEM.

BEFORE BEGINNING WORK, GEOTECH WILL PROVIDE ALL NEW TANK AND EQUIPMENT SPECIFICATION LIST FOR CLIENT REVIEW AND APPROVAL (SEE TABLE 1 IN TASK 5 FOR EQUIPMENT LIST). CLIENT WILL MAKE ALL PAYMENTS FOR THE NEW EQUIPMENT ITEMIZED IN TABLE 1 TO THE SUPPLIERS. CLIENT WILL BE RESPONSIBLE FOR COMMUNICATING WITH THE VENDORS SUPPLYING EQUIPMENT ON PRICING, PAYMENT AND TIMELY DELIVERY SCHEDULE PROPOSED BY GEOTECH. ALL WARRANTIES ON THE LISTED EQUIPMENT ARE BETWEEN VENDOR AND CLIENT. ALL WORK WILL BE CONDUCTED IN ACCORDANCE TO THE PROPOSED ENGINEERING PLANS DISCUSSED IN TASK 2. ALL PHASES OF THE TANK, PRODUCT LINE, AND EQUIPMENT INSTALLATION SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER SPECIFICATIONS AND STANDARDS. THE TANK WILL BE ANCHORED TO THE EXISTING CONCRETE TO MEET THE ENGINEERING PLANS SPECIFICATIONS. EXCEPT AS OTHERWISE SPECIFIED AND ALSO IN TABLE 1, ALL EQUIPMENT SUPPLIED BY GEOTECH WILL BE GUARANTEED TO THE FULLEST EXTENT OF THE MANUFACTURER'S WRITTEN WARRANTY. ALL INSTALLATION WORK WILL BE GUARANTEED AGAINST DEFECTS IN WORKMANSHIP FOR ONE YEAR FROM THE DATE OF START-UP. ELECTRICAL WORK IS NOT PROPOSED FOR THIS PHASE OF TASK 4. TANK LABELING WILL BE CONDUCTED BY THE CLIENT. GEOTECH ASSUMES THAT THE EXISTING CONCRETE STRENGTH IS WITHIN GUIDELINES THAT MEET OR EXCEED THE TANK MANUFACTURER AND REGULATORY REQUIREMENTS. PRODUCT LINE INTEGRITY TESTING WILL BE CONDUCTED AT VARIOUS STAGES DURING INSTALLATION PROCESS.

TASK 3 - INSTALLATION OF NEW PERMANENT 20,000 GALLON HORIZONTAL PROCESS AST (T-22) $\,$

THE PROPOSED AREA FOR THE NEW T-22 AST REQUIRES REMOVAL OF APPROXIMATELY EIGHT (8) EXISTING CONCRETE PADS APPROXIMATELY 5 SQUARE FEET CURRENTLY LOCATED IN SECONDARY CONTAINMENT #4 AND WITHIN THE PROPOSED NEW AST T-22 AREA. THE SCOPE OF WORK WILL INCLUDE PROPER DISPOSAL OF CONCRETE AND ADEQUATELY GRADING OF THE NEW TANK PAD AREA SPECIFIC TO THE TANK SADDLE LOCATION. CONCRETE STRENGTH TESTING IS NOT PROPOSED AND GEOTECH ASSUMES THAT THE EXISTING CONCRETE CONSIST OF AT A MINIMUM, WITHIN THE GUIDELINES THAT MEET OR EXCEED THE TANK MANUFACTURER'S AND REGULATORY REQUIREMENTS.

UPON CONCRETE SLAB REMOVAL, GEOTECH PROPOSES TO INSTALL CLIENT PROVIDED ONE (1) 20,000 GALLON ABOVEGROUND SINGLE WALLED UL-142 CYLINDRICAL ATMOSPHERIC STORAGE TANK, (2) PLATE SADDLES WELDED ON, STANDARD NPT TANK FITTINGS, (3) 24" MAN-WAYS, EPOXY PRIMER WITH A WHITE URETHANE EXTERIOR FINISH. THE TANK WILL INCLUDE A 14-FEET LONG TANK TOP CATWALK WITH STAIRS (ALL ITEMS CONSTRUCTED OF STEEL & HOT DIPPED GALVANIZED). KEY EQUIPMENT LIST IS PROVIDED BELOW IN TABLE 1. AS INDICATED, CLIENT WILL BE RESPONSIBLE FOR TIMELY PAYMENTS TO VENDORS FOR THE NEW EQUIPMENT ITEMIZED IN TABLE 1 AND DELIVERY OF EQUIPMENT TO THE FACILITY. ALL WARRANTIES ON THE LISTED EQUIPMENT ARE BETWEEN VENDOR AND CLIENT. THE TANK MANUFACTURER WILL FABRICATE INSIDE THE TANK WITH APPROXIMATELY +/-275 LINEAR FEET (LF) OF +/-2-INCH DIAMETER SCHEDULE 40 PIPE COIL (STRAIGHT RUNS WITH 180 DEGREES RETURNS EACH SET CONSISTING OF EIGHT (8) RUNS OF

PIPE (EACH PIPE APPROX. 33'-6" LONG) STEAM BOILER PIPING LOCATED AT THE BOTTOM OF THE TANK THAT MEETS THE ASTM SPECIFICATIONS REQUIRED FOR CONNECTION TO THE EXISTING FULTON VERTICAL MULTI-PORT GAS FIRED STEAM BOILER. GEOTECH WILL UTILIZE EXISTING PIPING ALREADY IN PLACE WITHIN SECONDARY CONTAINMENT #4. GEOTECH WILL RETAIN A FLORIDA LICENSED ELECTRICIAN TO PROVIDE ELECTRICAL CONNECTION TO THE NEW STORAGE SYSTEM WHICH SHALL INCLUDE. GEOTECH ASSUMES THAT THE FACILITY HAS SUFFICIENT LOAD AND WILL NOT REQUIRE SEPARATE 120/240 PHASE CIRCUIT PANEL FOR THE NEW TANK EQUIPMENT. ALL ELECTRICAL WORK WILL BE CONDUCTED IN ACCORDANCE TO THE NATIONAL ELECTRICAL CODE, NFPA 70, NATIONAL FIRE PROTECTION ASSOCIATION AND LOCAL CODES. THE ELECTRICAL CONTRACTOR PROPOSES TO CONDUCT THE FOLLOWING:

RUN NEW CONDUITS AND CONDUCTORS FOR THE NEW AST, PUMPS, AND MIXERS $\,$

INSTALL ELECTRICAL RACK AND TIE INTO HOME RUN CONDUITS AT EXISTING ELECTRICAL LOCATION. THE ELECTRICIAN WILL RUN ELECTRICAL WIRES TO EXISTING GUTTER ALREADY IN PLACE FOR THE BOILER AND PULL NEW CONDUCTORS FROM GUTTER TO TANK. PULL NEW CONDUCTORS FOR TANK PUMPS, MOTORS TO BUILDING RELAYS AND PULL NEW POWER FEEDS AS PER SPECIFICATIONS AND NATIONAL ELECTRICAL CODE. MAKE CONNECTIONS AND PROPERLY LABEL CABLES. THE SCOPE OF WORK INCLUDES INSTALLATION OF NEW ISOLATION RELAYS FOR PUMPS AND MOTORS AND WIRE INTO SYSTEM AND CONNECTIONS AS PER SPECIFICATIONS.

TANK AND ALL PRODUCT LINE TESTING WILL BE CONDUCTED AT VARIOUS STAGES DURING INSTALLATION PROCESS. ALL SENSORS TANK GAUGES, AND PUMPS WILL BE VERIFIED FOR PROPER OPERATION. IF ANY EQUIPMENT IS FOUND TO BE FAULTY AND OR DEFECTIVE, CLIENT AT THEIR EXPENSE WILL BE RESPONSIBLE FOR RE ORDERING THE EQUIPMENT. AS A RESULT, ANY DELAYS CAUSED BY CLIENT AT THIS TIME WILL RESULT IN JOB STOPPAGE AND A CHANGE ORDER WILL BE ISSUED. GEOTECH WILL PROVIDE CLIENT "AS-BUILT" INSTALLATION DRAWINGS, AS WELL AS RECOMMENDED TEST PROCEDURES, MAINTENANCE SCHEDULES UPON FIELD VERIFICATION, REGULATORY APPROVALS, AND COMPLETION OF STARTUP.

HAZARD IDENTIFICATION SIGNS

AS REQUIRED BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CODE 704, "STANDARD SYSTEM FOR THE IDENTIFICATION OF THE HAZARDS OF MATERIALS FOR EMERGENCY RESPONSE" CURRENT EDITION: 2007 (NEXT REVISION CYCLE: ANNUAL 2011), CLIENT WILL PROVIDE APPROPRIATE LABELING REQUIREMENTS FOR THE USED OIL (T-11R). TANK WILL ALSO HAVE THE FOLLOWING LABELING IN 3-INCH LETTERING (DECAL). THE LABEL SPECIFICATIONS WILL DESCRIBE EACH TANK BY SIZE, CONTENTS, AND USE. FOR EXAMPLE AN 20,000 GALLON ABOVE GROUND EQUIPMENT USED OIL TANK WILL BE SHOWN AS (20K-AST-UO), ETC. THE PLACARDS SHOWN BELOW WILL BE PLACED ON ALL FOUR SIDES OF THE TANK.

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CA No SE ESTATION IN EN SPROFESSIONAL ENGINEE EN EN BOARD OF PR (FLORIDA) TRIUMVIRATE ENVIRONMENTAL 3670 SW 47th AVENUE DAVIE, FL 33314 021322 SCOPE OF WORK **FIGURE** 4

▲ 3-12-14-'AS BUILTS'

EQUIPMENT SPECIFICATION SHEET								
Nα	Product	Manufacturer	EQ No	No.	Product	Manufacturer	EQ No	
1	20,000 GAL. HORIZONTAL ABOVE GROUND TANK	MODERN WELDING CO.	352					
2	20,000 GAL. VERTICAL ABOVE GROUND TANK	MODERN WELDING CO.	352					
3	ONE OPEN ATMOSHERIC VENT OPW 23-0055	OPW	NA					
4	ONE 10 HP ELECTRIC TRANSFER PUMP	ROPER	NA					
5	TWO 2 HP ELECTRIC MIXERS FGP-200	SHARPE	NA					
6	ONE STEAM PUMP	SPIREX SARCO	NA					
7	3" GALV. SCH. 40 SUPPY & RETURN PIPE	A&B PIPING SUPPLY	NA					
8	PIPE FITTINGS	A&B PIPING SUPPLY	NA					
9	FIRE MARSHALL SIGN - WARNING	NFPA - 30A	NA					
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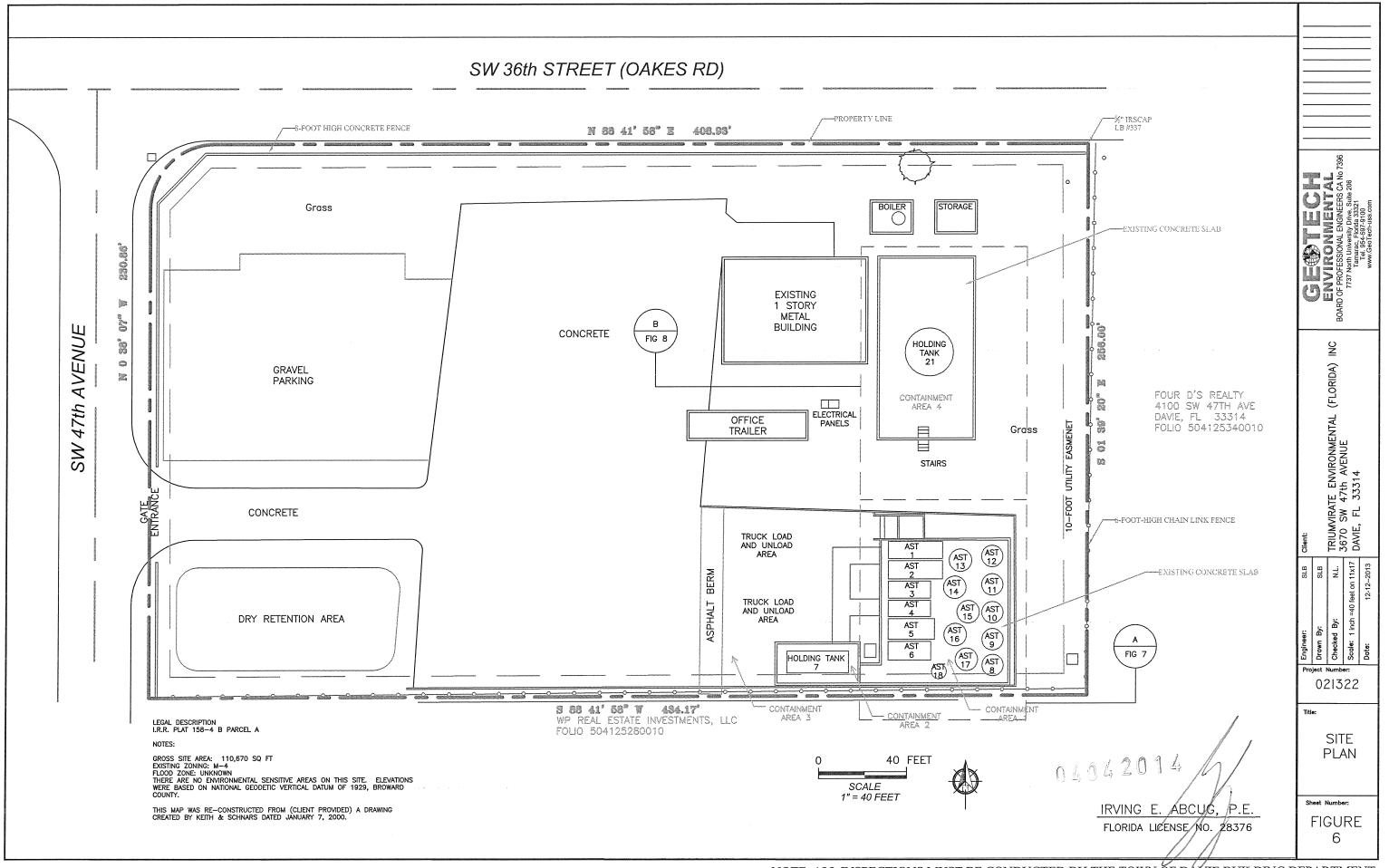
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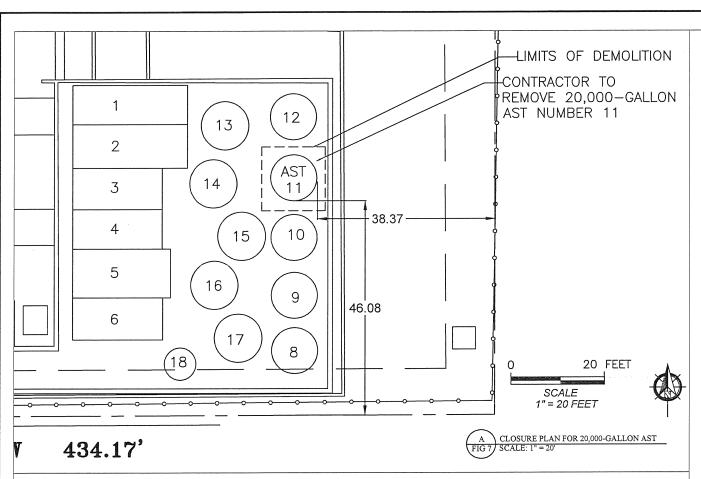
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IRVING E. ABCUG P7E. FLORIDA LICENSE NO. 28376

	3-12	2-14-"A	S BUIL	TS'				
		BOARD OF PROFESSIONAL ENGINEERS CA No 7396	7737 North University Drive, suite 206 Tamarac, Florida 33321	Tel; 954-597-9100 www.GeoTech-usa.com				
SLB Client:		TRIUMVIRATE ENVIRONMENTAL (FLORIDA) INC	JOYUS W 4/th AVENUE					
SLB	SLB	N.L.		01-03-2014				
Engineer: Drawn By: Checked By: Scale: NTS Date:								
Project Number: 021322								
TILIGE: EQUIPMENT SPECIFICATION SHEET								
l	Sheet Number: FIGURE							





Location	Capacity (gals)	Product Stored	Install Date	Tank Diameter & Length	Tank Shell Thickness	Secondary Containment
AST #T1	8,000	Used Oil	01/89	8' x 21.5' H	3/8"	#1
AST #T2	8,000	Used Oil	01/89	8' x 21.5' H	3/8"	#1
AST #T3	6,000	Used Oil	04/89	8' x 16' H	3/8"	#1
AST #T4	6,000	Anti-Freeze	04/89	8' x 16' H	3/8"	#1
AST #T5	10,000	Used Oil	06/87	10' x 18' H	3/8"	#1
AST #T6	9,500	Used Oil	06/87	10.5' x 14.6' H	3/8"	#1
AST #T8	20,000	Used Oil	03/89	10.5' x 31' V	3/8"	#1
AST #T9	20,000	Used Oil/Oily Water	06/87	10.5' x 31' V	3/8"	#1
AST #T10		Used Oil/Diesel	06/87	10.5' x 31' V	3/8"	#1
T11	20,000	Out of Service	03/89	10.5' x 31' V	3/8"	#1
T12	20,000	Used Oil	03/89	10.5' x 31' V	3/8"	#1
T13	20,000	Used Oil	03/89	10.5' x 31' V	3/8"	#1
T14	20,000	Used Oil/Oily Water	04/89	10.5' x 31' V	3/8"	#1
T15	20,000	Used Oil/Oily Water	04/89	10.5' x 31' V	3/8"	#1
T16	20,000	Used Oil/Oily Water	04/89	10.5' x 31' V	3/8"	#1
T17	20,000	Used Oil/Oily Water	04/89	10.5' x 31' V	3/8"	#1
T18 or Mixer**	6,500	Out of Service	01/93	8.5' x 16' V	3/8"	#1
17	10,000	Used Oil/Oily Water	02/92	8' x 26' H	3/8"	#2
T20	1,000	Truck Diesel	01/89	5.33' x 6' H	3/8"	#5
T21	100,000	Used Oil	06/96	20' x 31' V	3/8"	#4
Drums		Haz and non-haz waste, oil filters or other petroleum, and cooking oil	NA.	NA.	NA	#3 and #6
T11R***	************	Used Oil/Oily Water	4	10.5' x 31' V	3/8"	#1
T22****		Process Tank		10' x 34.5' H	3/8"	#4

** T18 or Mixer AST has been out of service since 1989, therefore should not be included in the facility volume calculations

*** T11R is a replacement of T11 with the same volume so there is no net add or loss to the permit volume or secondary containment. **** T22 is a process tank that takes product from tank farm and no net add or loss to the permit volume or secondary containment

GENERAL CLOSURE ACTIVITIES FOR 20,000 GALLON VERTICAL ABOVEGROUND STORAGE TANK 3. A CLOSURE PLAN IS REQUIRED (AST) (T-11)

1. TRIUMVIRATE ENVIRONMENTAL (FLORIDA) INC (TEIFL) IS THE OWNER/OPERATOR OF A USED OIL AND MATERIAL PROCESSING (USED OIL PROCESSOR, TRANSPORETER, OIL FILTER RECYCLER) FACILITY LOCATED AT 3670 SW 47TH AVENUE, DAVIE, FL. 33314. BASED ON THE CURRENT FLORIDA DEPARTMENT ENVIRONMENTAL PROTECTION (FDEP) PERMITS # 77390-HO-008 & 7739-SO-009, DATED MAY 7, 2013, THE FACILITY IS AUTHORIZED TO PROCESS USED OIL, OILY WASTEWATER, OILY SOLID WASTE, USED OIL FILTERS, AND COLLECT PETROLEUM CONTACT WATER. NON-HAZARDOUS WASTE WATER IS COLLECTED FROM VENDORS, FILTERED, HEATED FOR OIL/WATER SEPARATION (WATER FRACTION ONLY), AND THEN TRANSFERRED TO AN OFFSITE INDUSTRIAL WASTE WATER PRE-TREATMENT FACILITY FOR TREATMENT AND DISPOSAL.

THE FACILITY CURRENTLY CONSISTS OF SEVENTEEN (17) ASTS RANGING FROM 1,000 GALLONS TO 20,000 GALLONS AND ONE (1) 100,000 GALLON THE FACILITY IS TANK AUTHORIZED TO STORE AND USE A TOTAL OF 358,000 GALLONS OF USED OIL IN THE ASTS AND RELATED APPURTENANCES CURRENTLY IN USE AT THE FACILITY. THE STORAGE TANK ARE LOCATED OUTDOORS, FENCED, AND/OR WALLED ON ALL SIDES WITH SEPARATE CONCRETE FLOOR SECONDARY CONTAINMENT STRUCTURES (SEE FIGURE 6).

2. THE SCOPE OF WORK INVOLVES CLOSURE VIA REMOVAL OF ONE (1) 20,000 GALLON SINGLE WALLED ABOVEGROUND USED OIL-MATERIAL STORAGE TANK (AST) (T11). T 11 (10.5' DIAMETER X 31' HIGH) IS LOCATED IN A SECONDARY CONTAINMENT #1 AS SHOWN IN FIGURE 6 AND 7, RESPECTIVELY. IT WAS INSTALLED IN JUNE 1987 AND HAS BEEN OUT OF SERVICE SINCE NOVEMBER 6, 2003.

FOR USED OIL PROCESSING FACILITIES WHEN CLOSING THE ENTIRE FACILITY AND IN ACCORDANCE WITH 40 CFR 279.54(H), AND SUBSECTION 62-710.800(3)(5), FLORIDA ADMINISTRATIVE CODE (F.A.C). IN ADDITION WITH THE APPROVED PERMIT, A CLOSURE PLAN DATED MARCH 18, 2003 WAS APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) ON MARCH 31, 2003. THE CLOSURE PLAN DESCRIBES THE MANNER IN THE USED OIL TREATMENT AND STORAGE TANK AREAS OF THE FACILITY WILL BE CLOSED IN ORDER TO SATISFY THE REQUIREMENTS OF THE CLOSURE PERFORMANCE PURSUANT TO RULE 62 710.800(3)(A), F.A.C. PURSUANT PARAGRAPH RIILF TO 62-4.050(4)(S), F.A.C., GEOTECH CONSIDERS REPLACEMENT OF EXISTING TANK WITH NEW TANK OF SAME SIZE AS A MINOR MODIFICATION THAT WILL NOT SUBSTANTIAL REOUIRE TECHNICAL EVALUATION BY THE DIVISION AND FDEP, NOR WILL IT REQUIRE A NEW SITE INSPECTION, AND WILL NOT LEAD TO SUBSTANTIALLY DIFFERENT ENVIRONMENTAL IMPACTS AND WILL LESSEN THE IMPACTS OF THE ORIGINAL PERMIT. FURTHER, TEIFL IS REQUIRED TO CLOSE TIL IN COMPLIANCE WITH AND THE CLOSURE PLAN OF THE PERMIT APPLICATION DATED SEPTEMBER 18, 2012, AND SUPPLEMENTED REVISED. MODIFICATIONS SUBMISSIONS.

4. THE CLOSURE PLAN AT A MINIMUM WILL INCLUDE THE FOLLOWING:

A.TEIFL WILL CONDUCT TESTING OF THE RESIDUE IN TANK T-11. IF THE RESIDUE IS HAZARDOUS. TEIFI WILL FOLLOW THE CLOSURE PLAN IN THE PERMIT APPLICATION REVISED SUPPLEMENTED SUBMISSIONS. B.TEIFL AS A LICENSED LIQUID WASTE CONTRACTOR, WILL TRIPLE RINSE THE TANK,

EQUIPMENT, AND PROPERLY DISPOSE NON-HAZARDOUS RESIDUE AND DOCUMENT THE FINDINGS FOR SUBMITTAL TO FDEP AND THE DIVISION IN THE CLOSURE REPORT. TEIFL WILL EXERCISE CAUTION TO AVOID ANY SPILLAGE TO THE

PIPING, AND ANCILLARY

C.GEOTECH WILL INSPECT THE TANK AND VERIFY THAT IT IS CLEAN AND READY FOR REMOVAL. GEOTECH WILL REMOVE T 11 AND PIPING AND

CONTAINMENT AREA AND THE

PLACE IT ON LEVEL GROUND

FOR GEOTECH ENGINEER AND PSSSC INSPECTION

GROUND

D.TEIFL WILL LOAD AND DISPOSE THE TANK AND PIPING TO A SCRAP STEEL DEALER AND PROVIDE DISPOSAL DOCUMENTATION TO GEOTECH, DIVISION, AND FDEP. THE DOCUMENTATION WILL INCLUDE (1). THE WEIGHT OF #1 HEAVY METAL SCRAP SOLD. (2). THE WEIGHT OF SCRAP DISPOSED AND HOW DISPOSED. (3). AN INVENTORY OF THE VALVES AND FITTINGS THAT WERE RETAINED FOR FUTURE APPLICATION. (4). A STATEMENT THAT THE TANKS AND PIPING HAVE BEEN COMPLETELY REMOVED AND THAT EVERYTHING REMOVED IS INCLUDED IN THE ABOVE LISTING.

E. GEOTECH ENGINEER WILL INSPECT THE EXISTING CONCRETE SLAB TO VERIFY USED OIL HAS NOT CONTAMINATED THE SOIL, SURFACE WATER GROUNDWATER.

ON BEHALF OF TEIFL, GEOTECH WILL SUBMIT A CERTIFICATION OF CLOSURE COMPLETION THAT DEMONSTRATES THAT THE AST WAS CLOSED IN SUBSTANTIAL COMPLIANCE WITH THE CLOSURE PLAN. PURSUANT TO SECTION 376,30701, F.S., THE CERTIFICATION WILL BE SIGNED BY THE OWNER OR OPERATOR OF THE FACILITY.

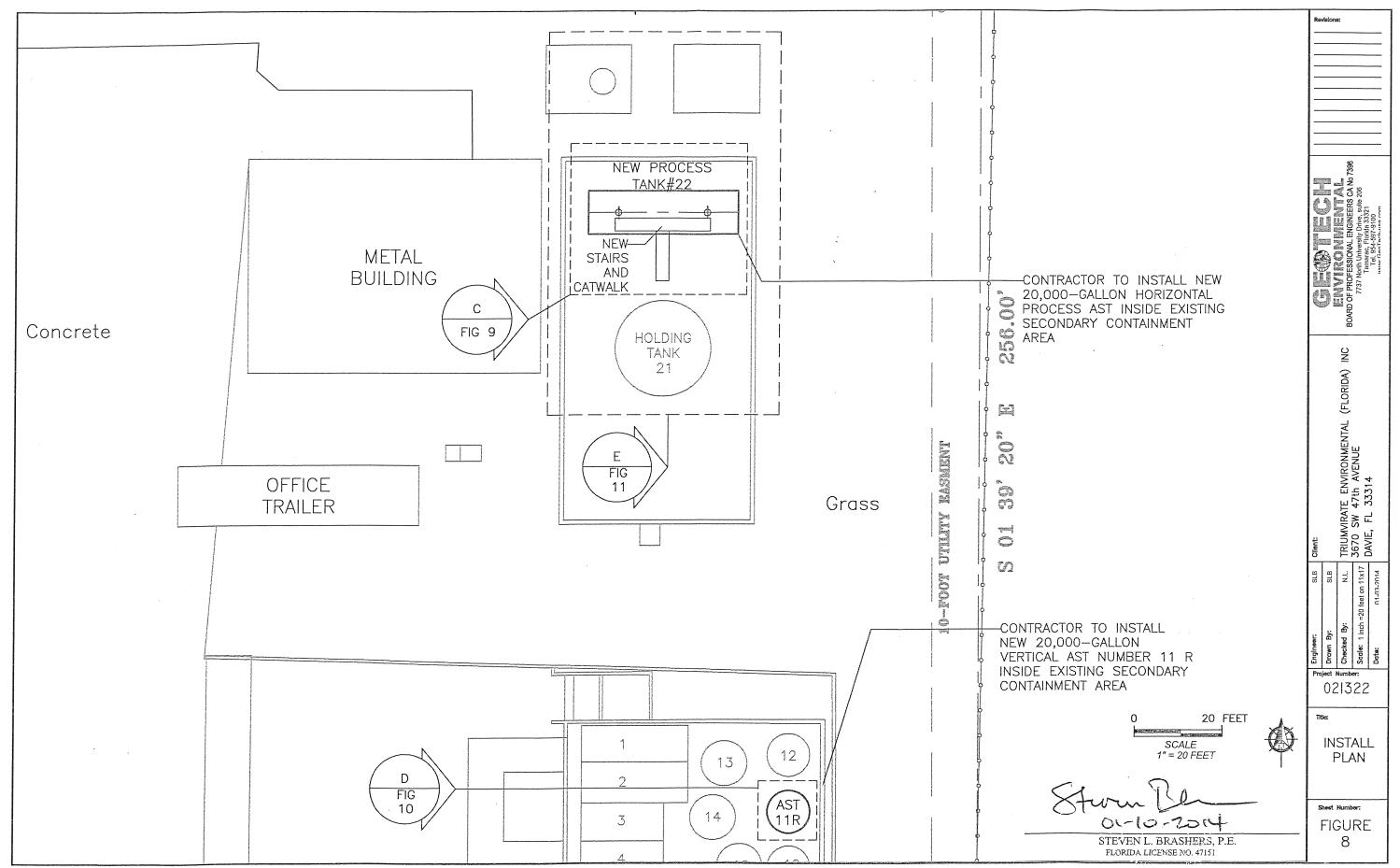
			BOARD OF PROFESSIONAL ENGINEERS CA No 7396	7737 North University Drive, suite 206 Tamarac, Florida 33321	Tel, 954-597-9100 www.GeoTech-usa.com
	SLB Client:		TRIUMVIRATE ENVIRONMENTAL (FLORIDA) INC 3670 SW 47th AVFNIJE	feet on 11x17 DAVIE, FL 33314	
	Engineer: SLB	Drawn By: SLB	Checked By: N.L.	Scale: 1 inch =20 feet on 11x17	Date: 01-03-2014
	Pro	-	213	22	
	Title		OS PL/	UF	RE

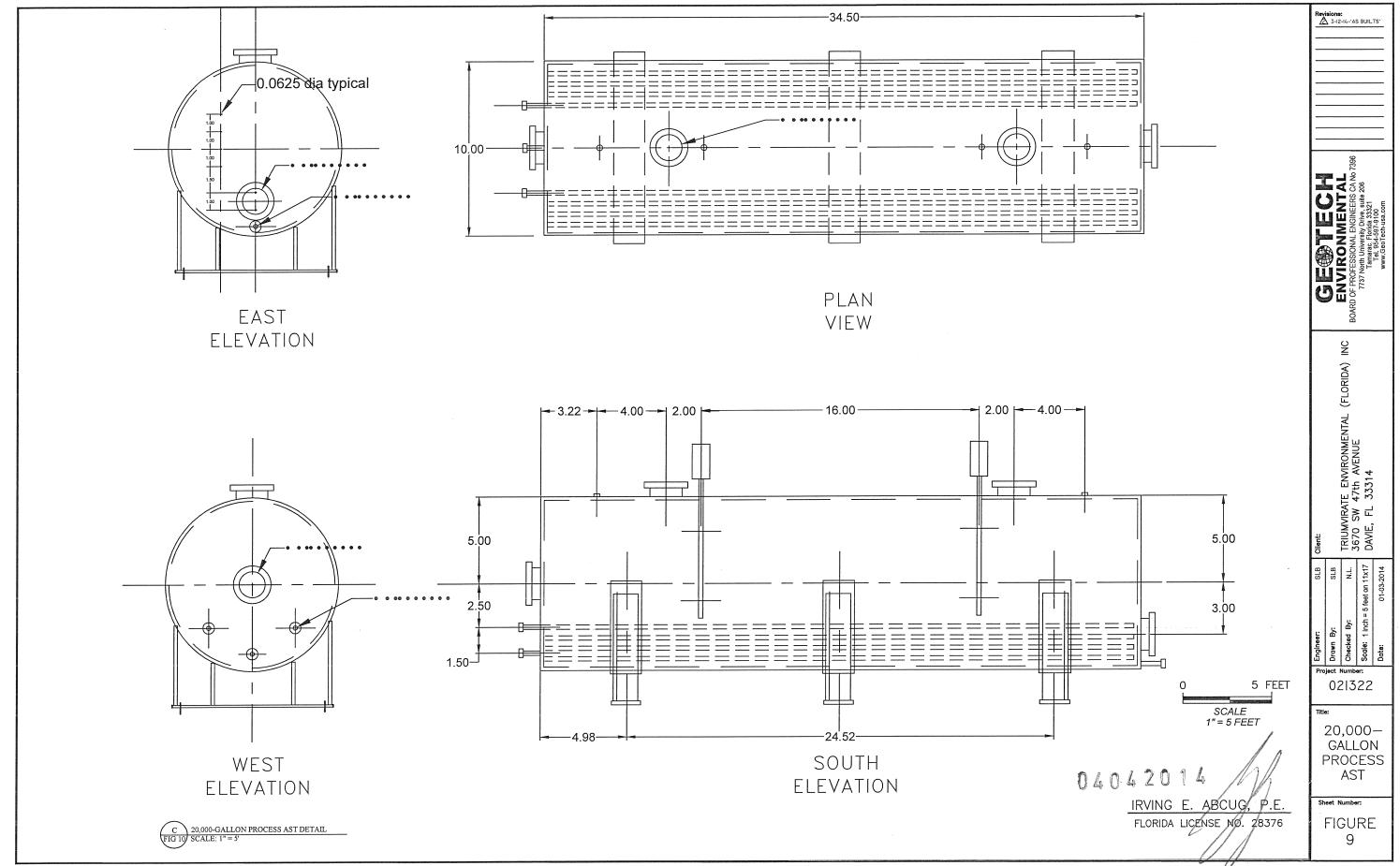
FIGURE

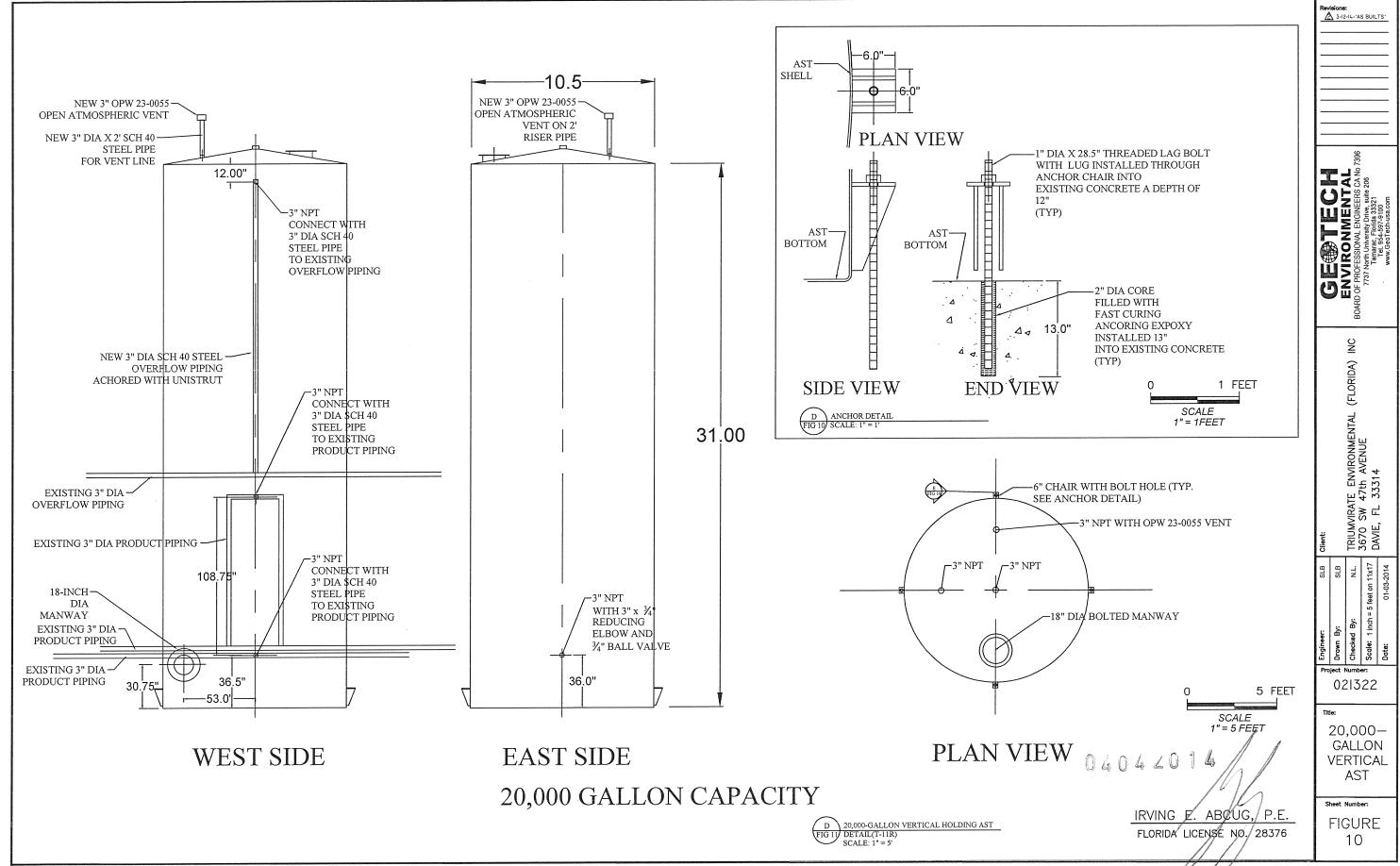
Revisions: 3-12-14-'AS BUILTS'

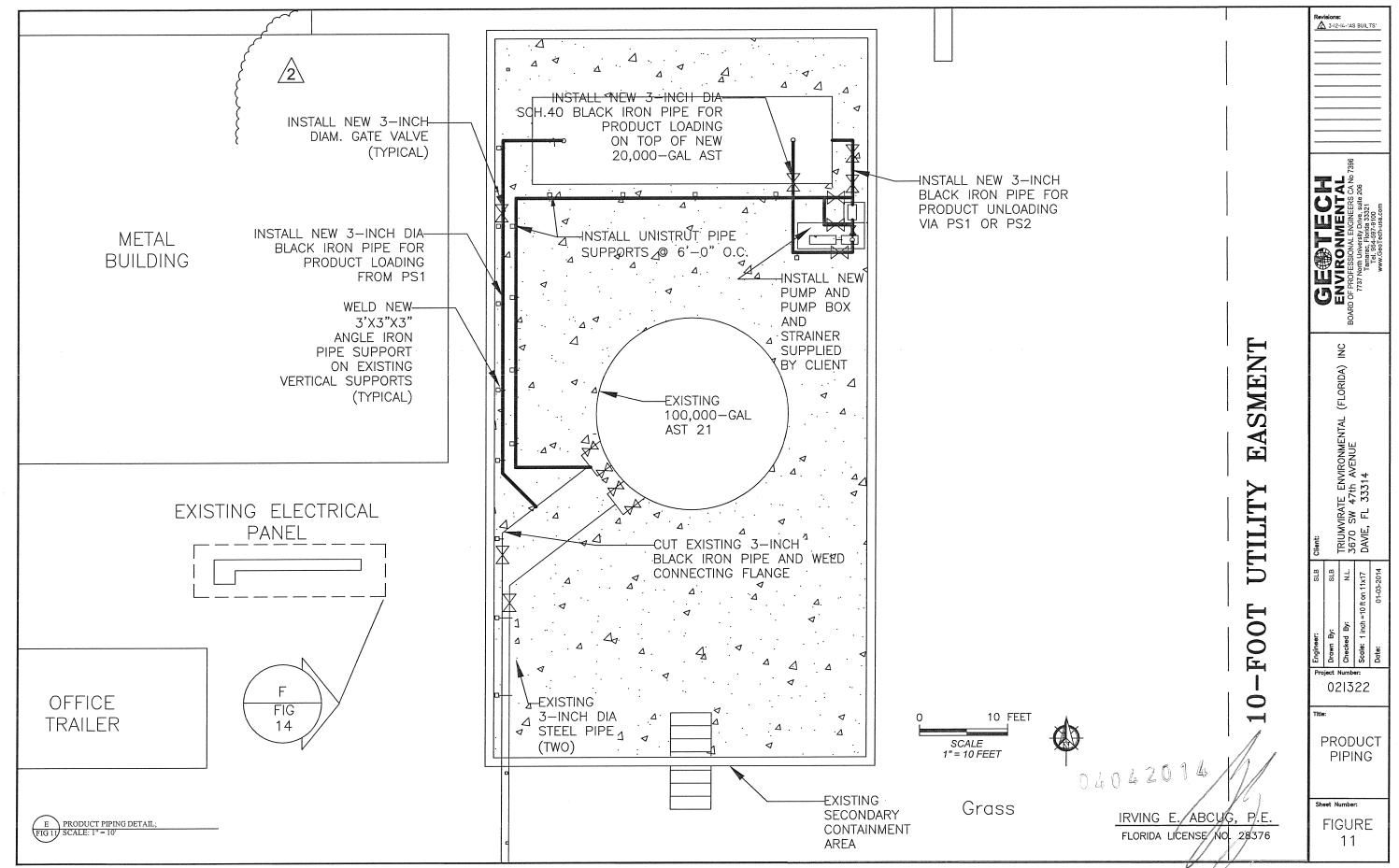
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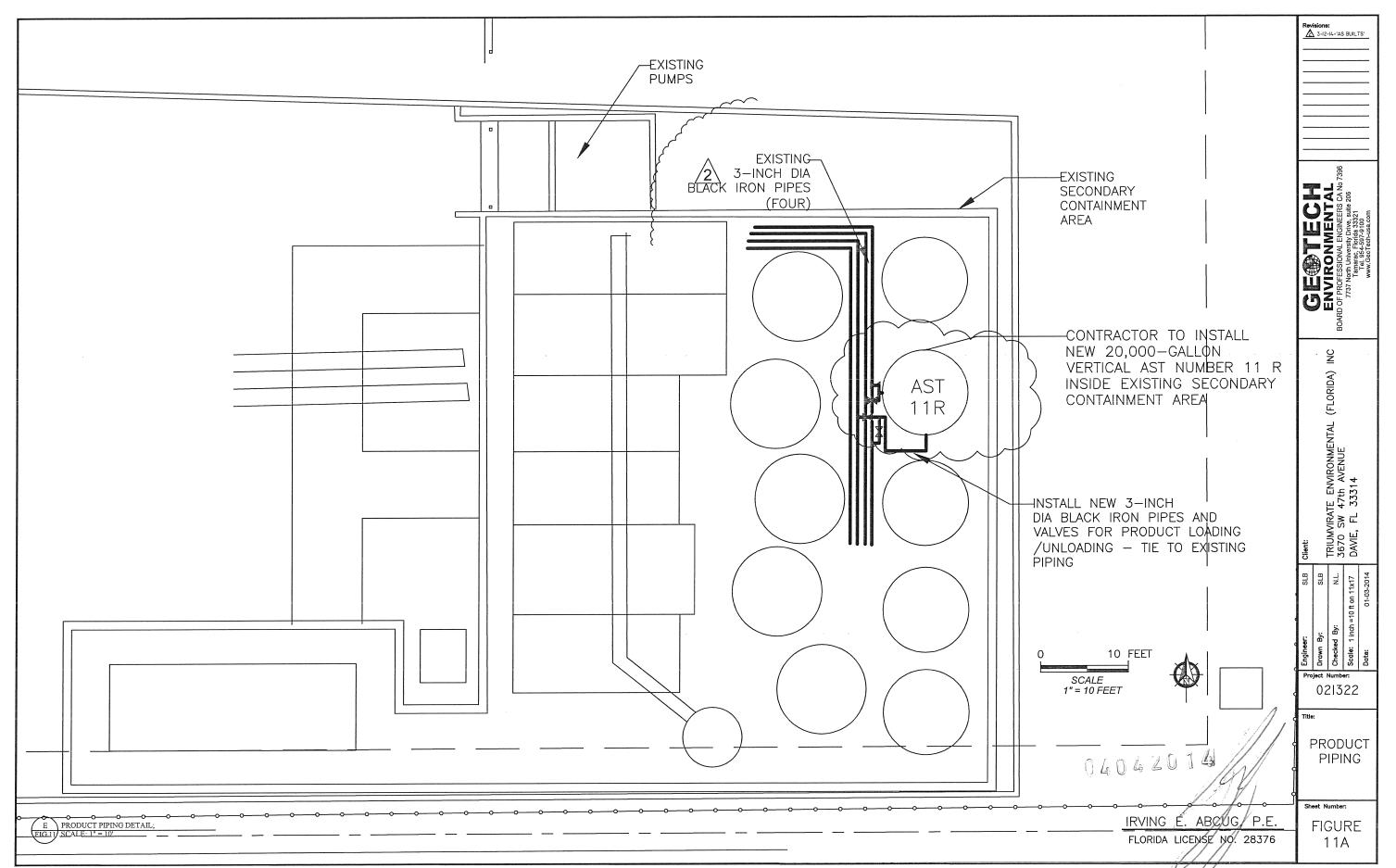
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NOTE: ALL INSPECTIONS MUST BE CONDUCTED BY THE TOWN OF D	A`	VI	B	BUILDING DEPARTMENT

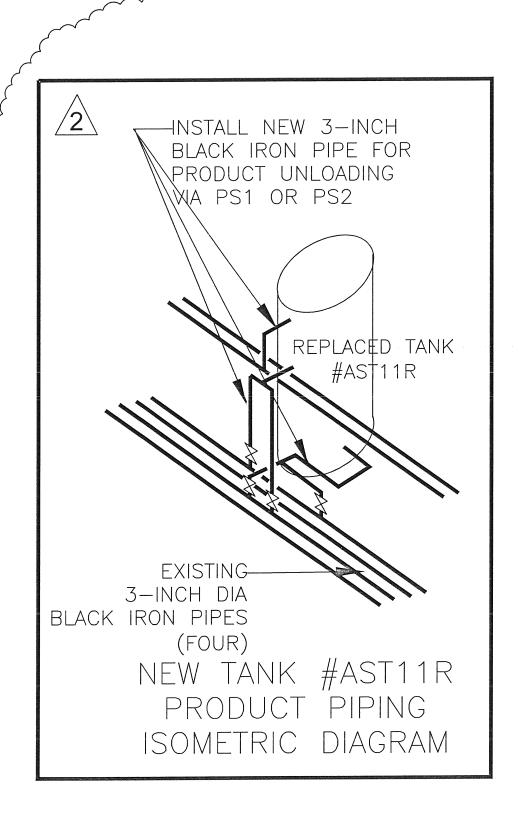


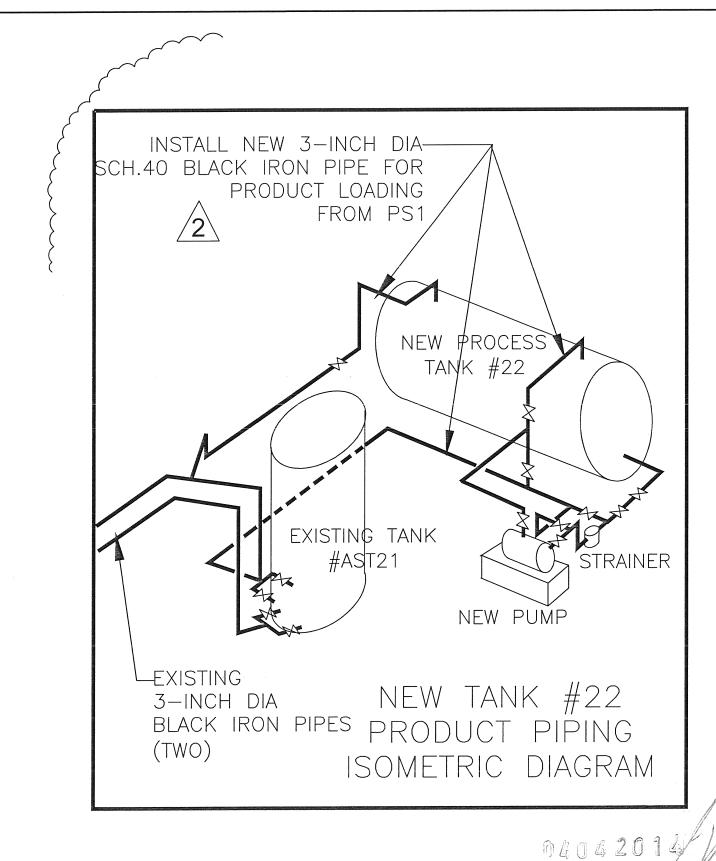












Revisions: 3-12-14-'AS BUILTS'

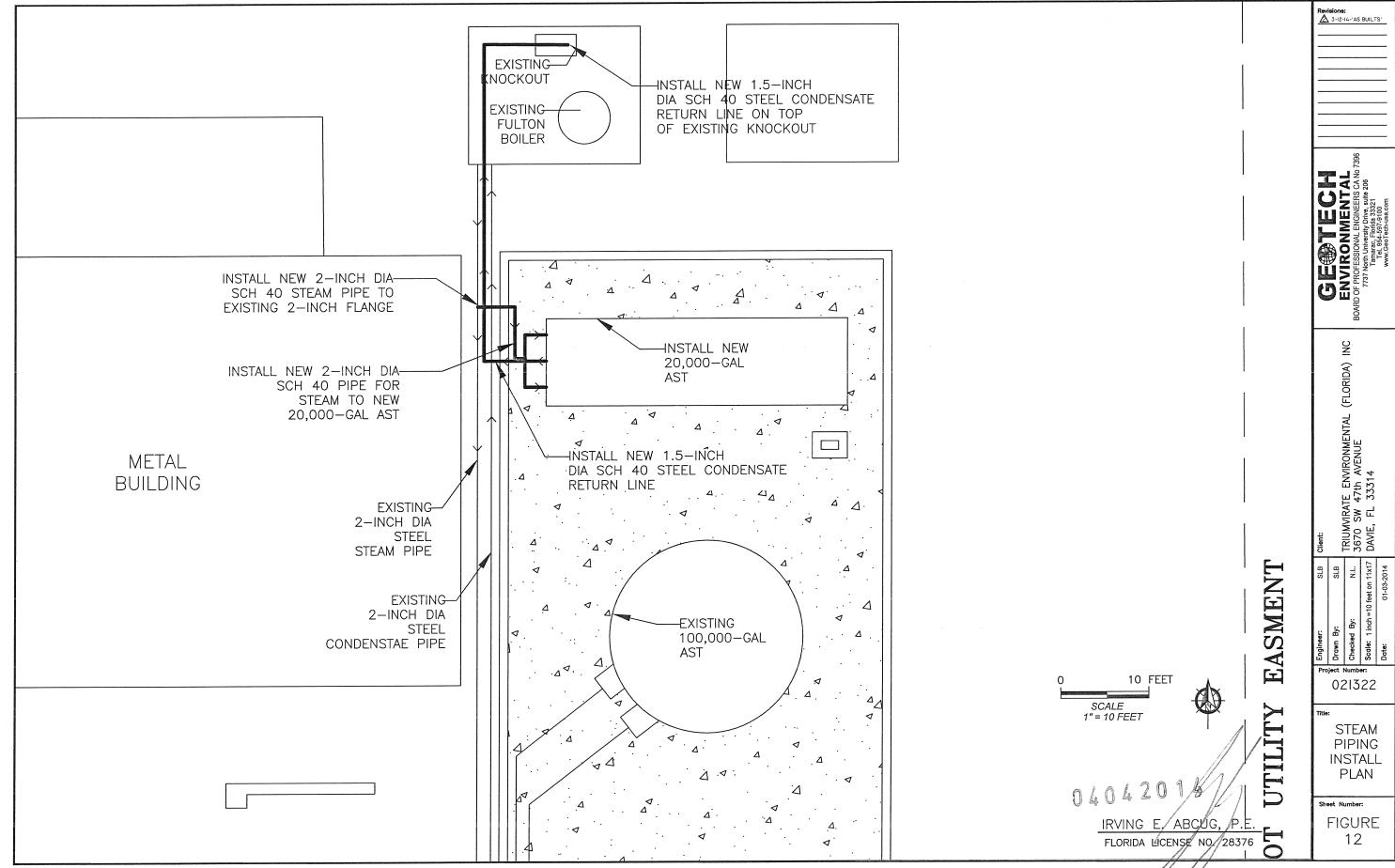
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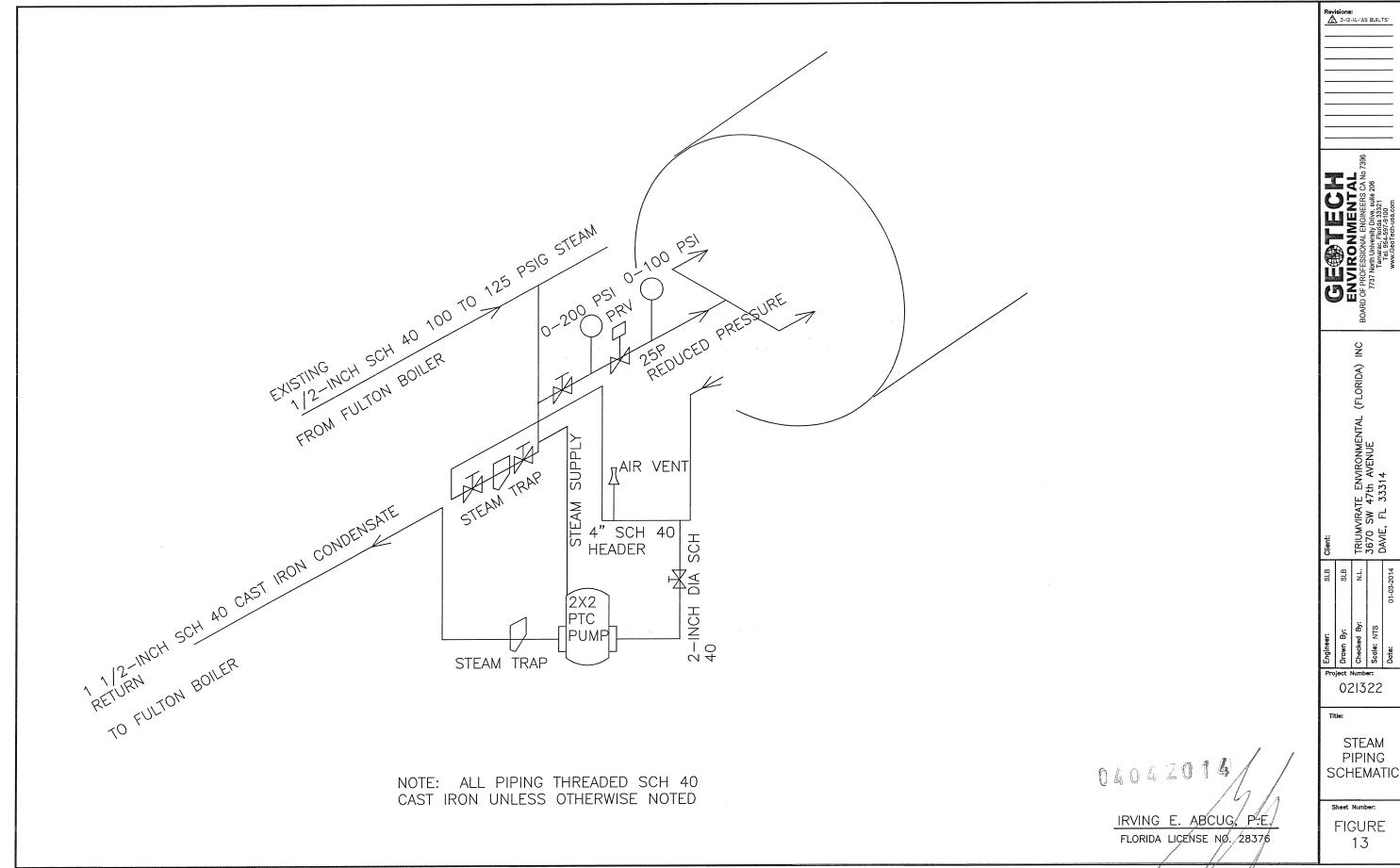
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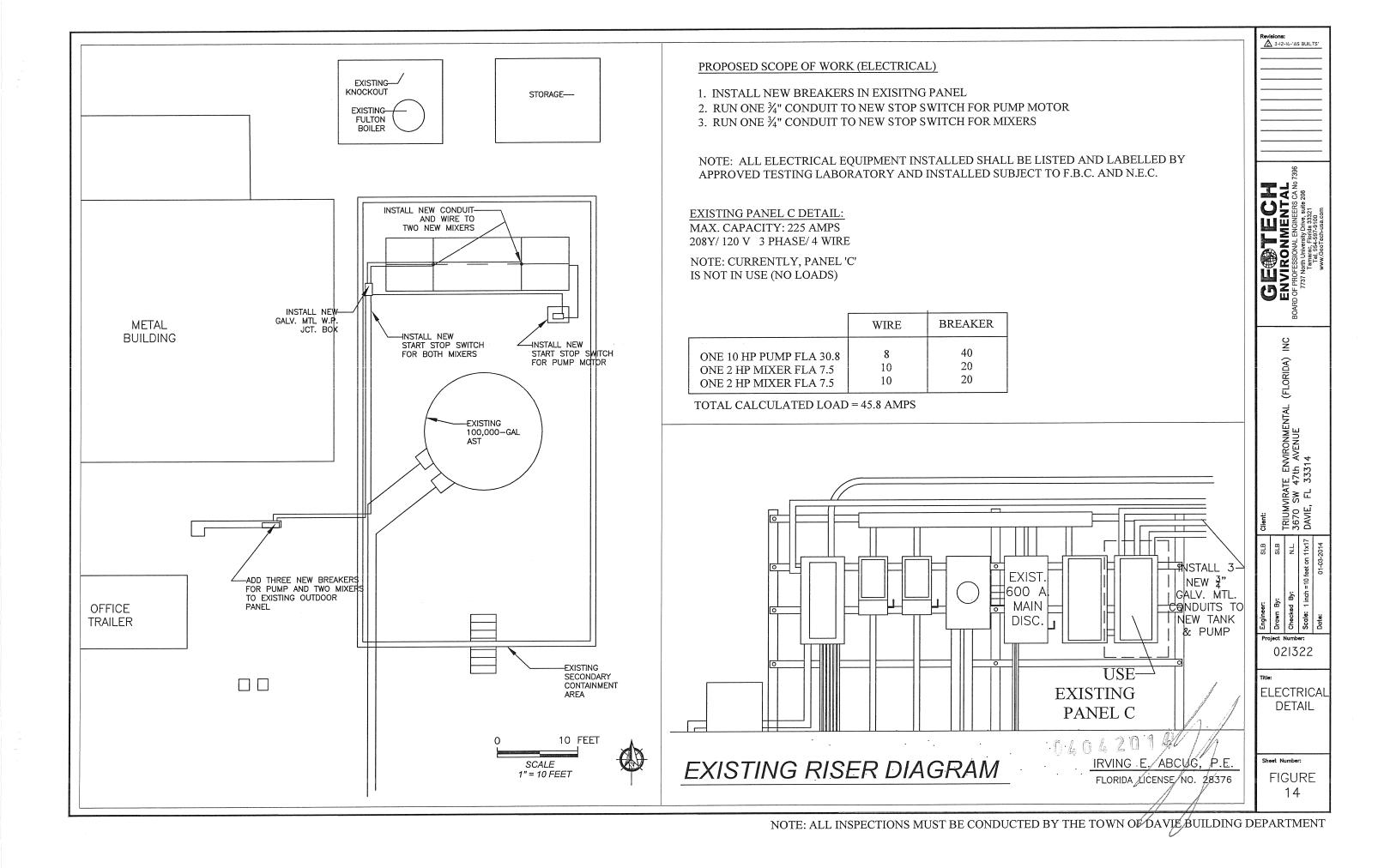
PRODUCT PIPING

Sheet Number:

FIGURE 11B







From: Neil [mailto:neil@geotech-usa.com]
Sent: Tuesday, April 08, 2014 10:22 AM

To: Kothur, Bheem

Cc: Shawn Lennon; James F. Green

Subject: Final As-Built Drawings - Triumvirate Environmental, (Florida), Inc., - 3670 Southwest 47 Ave,

Davie, Florida (Operating Permit #s 77390-HO-008, 77390-SO-009)

Good Morning Mr. Kothur,

On behalf of Triumvirate Environmental (Florida), Inc,. GeoTech wishes to thank you for all your assistance in reviewing and approving the permit modification for the above-mentioned facility. Your efforts is appreciated in making this process a seamless one. GeoTech is also attaching the final "As-Built" drawings in this email. GeoTech will also be mailing you one original signed and sealed copy by our Professional Engineer via US Ground Mail today.

Should you require any additional information, please do not hesitate to call me.

May All Beings Be Happy.

Nilesh "Neil" Lakhlani Project Manager GeoTech Environmental, Inc WoodMont Professional Building 7737 N. University Drive, Ste 206 Tamarac, Florida 33321

Tel: (954) 597 9100 Fax: (954) 597 9191 Cell: (954) 347 8684

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