FUEL GUIDELINES

XERXES - ONE (1) 20,000/ONE (1) 20,000 (12/8 SPLIT)/ONE (1) 10,000 GALLON TANKS

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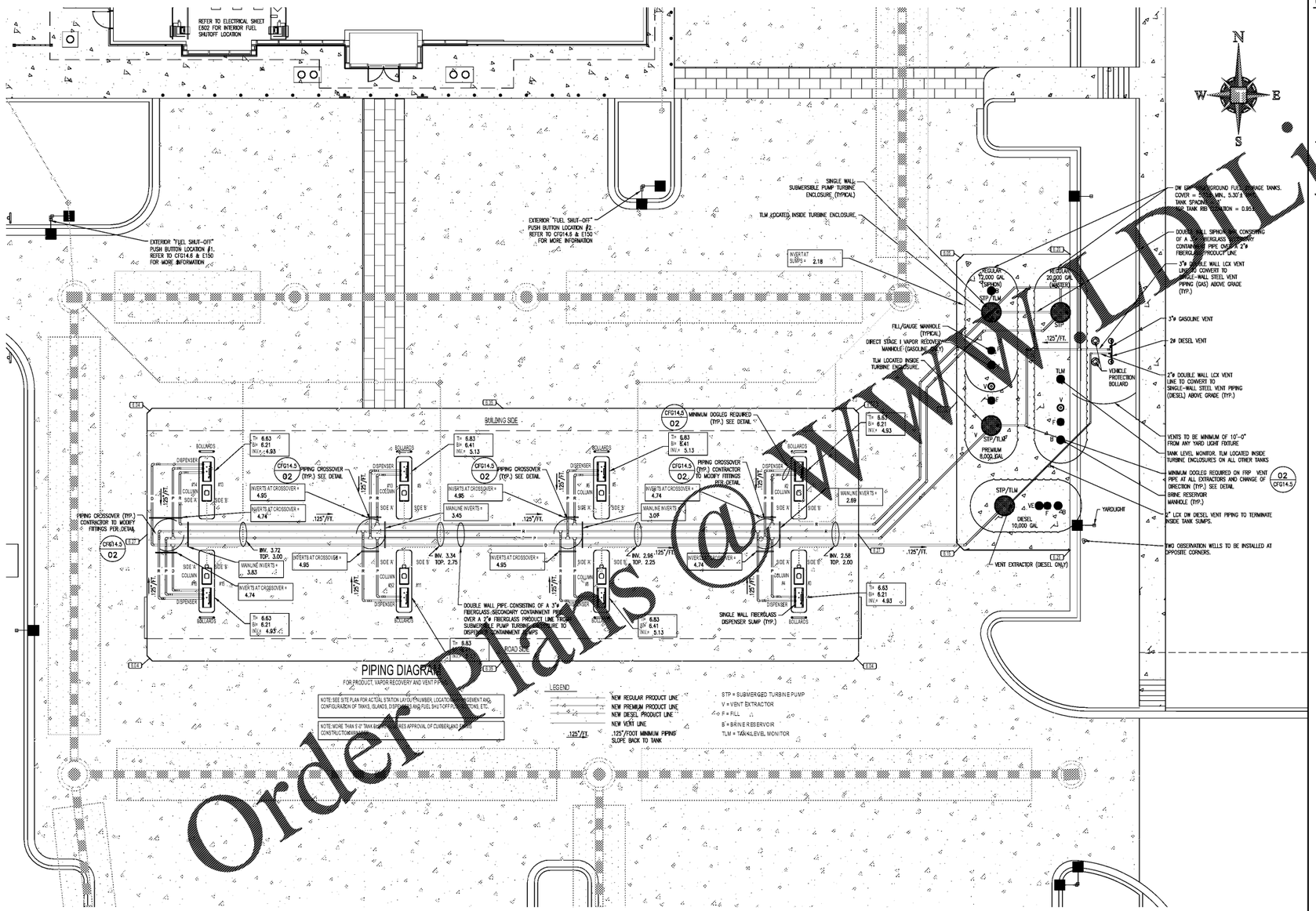

02 CFG14.0 — TYPICAL TANK & PIPING LAYOUT - STACK OPTION

SCALE: 1"=10'

GENERAL UST SYSTEM NOTES:

1. THE UNDERGROUND STORAGE SYSTEM WILL BE TESTED BY A CERTIFIED TANK INSTALLER PRIOR TO BACKFILLING AS FOLLOWS:

A. PRODUCT PIPING & SIPHON LINE (NOV-RED THREAD II)
THE FOLLOWING TESTS SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION.

PRIMARY LINE:
VISUALLY INSPECT ALL JOINTS FOR PROPER INSERTION AND ADHESIVE CURE PRIOR TO PRESSURIZING THE SYSTEM. A GAP BETWEEN THE ADHESIVE BEAD AND THE FITTING SHOULDER INDICATES THAT THE POSSIBILITY OF JOINT FAILURE EXISTS. MAKE ANY NECESSARY REPAIRS BEFORE PRESSURIZING THE PIPING SYSTEM. CHECK THE INTEGRITY OF THE JOINTS BY PRESSURIZING THE SYSTEM TO 25 PSIG AND HOLDING THE PRESSURE FOR A MINIMUM OF ONE MINUTE. SOAP ALL JOINTS TO TEST FOR LEAKS. IF THERE ARE NO LEAKS, RAISE THE LINE PRESSURE IN THE SYSTEM TO A MAXIMUM OF 50 PSIG. AGAIN, HOLD THE PRESSURE FOR AT LEAST ONE HOUR AND SOAP ALL JOINTS TO CHECK FOR LEAKS. AFTER THE PIPING HAS PASSED THE 50 PSIG PRESSURE TEST, REDUCE THE PRESSURE TO 25 PSIG AND MAINTAIN UNTIL ASPHALT HAS BEEN COMPLETED.

SECONDARY LINE:
PRESSURE TEST TO 150 PSIG AND MAINTAIN THE PRESSURE FOR A MINIMUM PERIOD OF ONE HOUR, OR LONG ENOUGH TO SOAP ALL JOINTS, BEFORE BACKFILL. THE CONTRACTOR SHALL MAINTAIN THE REQUIRED PRESSURE FOR A PERIOD OF 2 HOURS AFTER THE BACKFILL PROCESS HAS BEEN COMPLETED. THE RESULTS OF THIS POST BACKFILL TEST SHALL BE CERTIFIED BY THE INSTALLER AND RESULTS SHALL BE SUBMITTED TO THE OWNER WITHIN 30 DAYS OF THE TEST.

NOV 3000/LCX PIPE TESTING CONSIDERATIONS:
PNEUMATIC TESTING AT APPROXIMATELY 10 PSI (0.069 MPA) IS RECOMMENDED AND IS THE PREFERRED METHOD OF TESTING CONTAINMENT PIPING. IF IS RECOMMENDED THAT AFTER THE INITIAL SYSTEM TEST HAS BEEN COMPLETED, A LOW PRESSURE (25 PSIG MAXIMUM) BE KEPT ON TESTED PIPE DURING THE COMPLETION OF THE INSTALLATION. IF PRESSURE LOSS OCCURS, REPAIRS CAN BE ACCOMPLISHED BEFORE SYSTEM GOES INTO SERVICE.

B. TANKS (XERXES)
EACH NEW TANK SHALL BE PRECISION TIGHTNESS TESTED AT 10 PSIG FOR 30 MINUTES BY A QUALIFIED TECHNICIAN IN ACCORDANCE WITH THE XERXES INSTALLATION MANUAL AND STATE REGULATIONS.

C. VENT PIPING (NOV DUALOY LCX 3000)

PNEUMATIC TESTING AT APPROXIMATELY 10 PSI (0.069 MPA) IS RECOMMENDED AND IS THE PREFERRED METHOD OF TESTING CONTAINMENT PIPING. IF IS RECOMMENDED THAT AFTER THE INITIAL SYSTEM TEST HAS BEEN COMPLETED, A LOW PRESSURE (25 PSIG MAXIMUM) BE KEPT ON TESTED PIPE DURING THE COMPLETION OF THE INSTALLATION. IF PRESSURE LOSS OCCURS, REPAIRS CAN BE ACCOMPLISHED BEFORE SYSTEM GOES INTO SERVICE.

CONTRACTOR TO FOLLOW MANUFACTURER INSTALLATION AND TESTING STANDARDS AS SPECIFIED IN PUBLICATION INS 1284 OR OTHER APPLICABLE STANDARDS PROVIDED.

THE FOLLOWING TEST SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION.

VISUALLY INSPECT ALL JOINTS FOR PROPER INSERTION AND ADHESIVE CURE PRIOR TO PRESSURIZING THE SYSTEM. A GAP BETWEEN THE ADHESIVE BEAD AND THE FITTING SHOULDER INDICATES THAT THE POSSIBILITY OF JOINT FAILURE EXISTS. MAKE ANY NECESSARY REPAIRS BEFORE PRESSURIZING THE PIPING SYSTEM. CHECK THE INTEGRITY OF THE JOINTS BY PRESSURIZING THE SYSTEM TO 25 PSIG AND HOLDING THE PRESSURE FOR A MINIMUM OF ONE MINUTE. SOAP ALL JOINTS TO TEST FOR LEAKS. IF THERE ARE NO LEAKS, RAISE THE LINE PRESSURE IN THE SYSTEM TO A MAXIMUM OF 50 PSIG. AGAIN, HOLD THE PRESSURE FOR AT LEAST ONE HOUR AND SOAP ALL JOINTS TO CHECK FOR LEAKS. AFTER THE PIPING HAS PASSED THE 50 PSIG PRESSURE TEST, REDUCE THE PRESSURE TO 25 PSIG AND MAINTAIN UNTIL ALL PAVING HAS BEEN COMPLETED.

WARNING: DO NOT AIR TEST LINES THAT HAVE CONTAINED HAZARDOUS, FLAMMABLE, OR COMBUSTIBLE LIQUIDS OR VAPORS UNLESS THEY ARE PURGED AND MADE SAFE BEFOREHAND. IF PURGING IS NOT FEASIBLE, AN INERT GAS SUCH AS NITROGEN OR HELIUM MAY BE USED TO PRESSURIZE THE PIPING.

D. DISPENSER SUMPS AND TANK SUMPS
THE FOLLOWING TEST SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION.

NEW TANK SUMPS (XERXES):
HYDROSTATICALLY TESTING SUMPS IS REQUIRED TO ENSURE THAT ALL SUMP PENETRATIONS ARE TIGHT. THE FOLLOWING TEST SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION. THE NEW SUMPS SHALL BE HYDROSTATICALLY TESTED FOR TIGHTNESS AS FOLLOWS:

1. AFTER ALL SEAMS AND FITTINGS HAVE BEEN COMPLETED AND ALL PIPING AND CONDUITS HAVE BEEN INSTALLED;
2. AT A LEVEL THAT IS WITHIN ONE INCH OF THE TOP OF THE SUMP;
3. BY RECORDING THE LIQUID LEVEL MEASUREMENTS AT THE BEGINNING AND END OF THE TEST;
4. FOR A MINIMUM OF 3 HOURS; AND
5. WITH NO ADDITION OF LIQUID TO THE SUMP.

A PASSING HYDROSTATIC TEST SHALL HAVE NO LOSS OF LIQUID OR OBSERVED LEAKS AFTER THE COMPLETE DURATION OF THE TEST.

NEW DISPENSER SUMPS (GRAVO):
HYDROSTATICALLY TESTING SUMPS IS REQUIRED TO ENSURE THAT ALL SUMP PENETRATIONS ARE TIGHT. THE FOLLOWING TEST SHALL BE CERTIFIED BY THE INSTALLER PRIOR TO BACKFILLING AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE OWNER AT THE TIME OF BACKFILL INSPECTION. THE NEW SUMPS SHALL BE HYDROSTATICALLY TESTED FOR TIGHTNESS AS FOLLOWS:

1. AFTER ALL SEAMS AND FITTINGS HAVE BEEN COMPLETED AND ALL PIPING AND CONDUITS HAVE BEEN INSTALLED;
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5. WITH NO ADDITION OF LIQUID TO THE SUMP.

A PASSING HYDROSTATIC TEST SHALL HAVE NO LOSS OF LIQUID OR OBSERVED LEAKS AFTER THE COMPLETE DURATION OF THE TEST.

E. SPILL CONTAINMENT EQUIPMENT (EMCO WHEATON)

THE FOLLOWING TESTS SHALL BE CERTIFIED BY THE INSTALLER AND RESULTS SHALL BE PROVIDED AT THE TIME OF BACKFILL INSPECTION.

EMCO WHEATON DOUBLE SPILL CONTAINMENT MANHOLES ARE VACUUM TESTED, BOTH PRIMARY AND SECONDARY, PRIOR TO SHIPMENT. TO ENSURE THAT NO DAMAGE HAS INCURRED DURING SHIPMENT OR INSTALLATION, THE FOLLOWING TESTS ARE QUICK, ON-SITE METHODS TO VERIFY THE INTEGRITY OF THE PRIMARY (E1) AND SECONDARY (E2) CONTAINMENTS.

E1. PRIMARY HYDROSTATIC TESTING PROCEDURE:

1. FILL THE SPILL BUCKET WITH WATER UNTIL THE LEVEL IS 1" BELOW THE UPPER LIP OF THE SNAP FLOW RING.
2. AFTER 1 HOUR, IF THERE IS NO DETECTABLE DROP IN WATER LEVEL, THE SPILL BUCKET HAS PASSED THE TEST

E2. SECONDARY INTEGRITY TEST (VACUUM):
1. REMOVE THE GAUGE FROM THE INSPECTION PORT AND INSTALL THE TEST ADAPTER P/N 494343 (INCLUDED WITH THE VACUUM APPARATUS).
2. ATTACH AIR PRESSURE SOURCE TO AIR PRESSURE REGULATOR ON VACUUM APPARATUS.
3. SLOWLY APPLY VACUUM OF 30" WC TO THE INTERSTITIAL SPACE; WAIT 30 SECONDS. REAPPLY 30" WC.
4. ENSURE SWITCH IS IN OFF (CENTER) POSITION, START TIMER AND RECORD REMAINING VACUUM AFTER 1 MINUTE.
5. IF THE REMAINING VACUUM AFTER 1 MINUTE IS 28" WC (1.9" MERCURY) OR GREATER, BOTH THE PRIMARY AND THE SECONDARY CONTAINMENT VESSELS ARE TIGHT.
6. IF THE TEST FAILS, PERFORM PRESSURE TEST.
7. REPLACE COMPONENTS OR REPAIR AS NECESSARY.
8. REINSTALL GUAGE (OR PUSH BUTTON TEST PORT ASSEMBLY, IF CM SENSOR MODEL)

F. OVERFILL PREVENTION VALVE – EVR CERTIFIED (EMCO WHEATON 1100EVR GUARDIAN)

F1. ONCE THE SEAL-ALL SEALANT HAS CURED FOR A MINIMUM OF 24 HOURS AND BEFORE INSTALLING THE A1100EVR OVERFILL PREVENTION VALVE INTO THE UNDERGROUND STORAGE TANK, A LEAK TIGHTNESS INTEGRITY TEST MUST BE PERFORMED.
F2. BEGIN BY SEALING BOTH ENDS OF THE A1100EVR OVERFILL PREVENTION VALVE WITH INFLATABLE PLUMBER'S PLUGS. APPLY A MAXIMUM PRESSURE OF 2 INCHES OF WATER COLUMN. SHOULD THE LEAK RATE EXCEED THE ALLOWABLE LIMIT OF 0.17 CFH, LOCATE THE LEAK POINT BY SPRAYING SOAP SOLUTION ALONG THE OUTSIDE OF THE A1100EVR OVERFILL PREVENTION VALVE.
F3. DO NOT EXCEED THE MAXIMUM PRESSURE OF 2 INCHES OF WATER COLUMN. THIS WILL DAMAGE THE A1100 OVERFILL PREVENTION VALVE AND RESULT IN VOIDING THE WARRANTY.

2. THE CONTRACTOR SHALL CALL DIGSAFE AT 811 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
3. ALL CONSTRUCTION AND EQUIPMENT MUST CONFORM TO THE APPLICABLE REGULATIONS AND CODES OF THE MUNICIPALITY, STATE, AND THE NFPA.
4. CONTRACTOR SHALL PROVIDE AT LEAST 5 DAYS ADVANCE NOTICE TO THE STATE, THE LOCAL FIRE DEPARTMENT, AND THE ENGINEER TO INSPECT THE INSTALLATION PRIOR TO FINAL BACKFILL.
5. CONTRACTOR TO VERIFY WITH OWNER THE PRODUCT PIPING LAYOUT AS SHOWN ON THIS PLAN PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL ADJUST GRADES AS REQUIRED OVER THE TANK MAT TO ENSURE THAT STORMWATER RUNOFF SHEDS AWAY FROM ALL SURFACE MANHOLES.
7. ALL NEW RISERS SHALL BE COATED WITH 1/8" MIN. FIBERGLASS COATING OR 1/8" EPOXY RESIN COATING. THE USE OF PVC 10 MIL PIPE WRAP IS NOT PERMITTED.
8. ALL PIPING SYSTEMS SHALL PROVIDE FLEXIBILITY FOR MOVEMENT AT THE TANK END, DISPENSER END, AND AT PIPING DIRECTION CHANGES TO RELIEVE STRESS. CONTRACTOR TO PROVIDE FLEXIBILITY ON ALL FIBERGLASS LINES BY PROVIDING 4' MIN. DOGLEG FOR ALL PIPE. CHANGES IN DIRECTION NOT ATTACHED TO A RIGID CONNECTION SHALL NOT HAVE A STRAIGHT RUN OF LESS THAN 4' ON ONE SIDE OF THE CONNECTION.
9. PER NFPA 30A (2015) 6.7, EMERGENCY ELECTRICAL DISCONNECTS ARE REQUIRED FOR FUEL DISPENSING SYSTEMS. SUCH DEVICES OR DISCONNECTS SHALL BE INSTALLED IN APPROVED LOCATIONS BUT NOT LESS THAN 20' OR MORE THAN 100' FROM THE FUEL DISPENSING DEVICES THEY SERVE. (SEE SHEET CFG14.6 FOR REMOTE FUEL SHUT-OFF DETAIL)

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REVISIONS			
NO.	DATE	REV. BY.	DESCRIPTION
1	5/15/19	MTK	90% PLAN SUBMITTAL
2	6/25/19	MTK	100% PLAN SUBMITTAL

V# n/a
Store# n/a
Gas Station# n/a
Sunrise Blvd. &
NE 4th Avenue
Fort Lauderdale, FL

XERXES – DOUBLE WALL FIBERGLASS TANK INSTALLATION FOR:
ONE (1) 20,000/ONE (1) 20,000 (12/8 SPLIT)/ONE (1) 10,000 GAL. TANKS

CUMBERLAND FARMS, INC.
100 Crossing Boulevard
Framingham, MA 01702

SCALE: AS NOTED
DATE: January 7, 2015
FILE: C:\T(1)\0k-(2)\20k_CFG14.0
DRAWN BY: T.M.R.

UST COVER SHEET

CFG14.0