

# 3,000 GALLON TANK OPERATION SCHEMATIC SCALE: NTS

# <u>NOTES</u>

- SYSTEM REPRESENTATIONS ON THIS SHEET ARE SCHEMATIC. SEE TANK PROCUREMENT SPECIFICATIONS AND TANK DETAIL SHEETS FOR MORE SPECIFIC INFORMATION.
- 2. NOT ALL TANK APPURTENANCES ARE SHOWN ON THIS SHEET. SEE TANK DETAIL SHEETS AND SHOP DRAINGS FOR ADDITIONAL INFORMATION.
- 3. THIS SHEET SHOWS THE DESIRED FUNCTIONALITY AND GENERAL LAYOUT OF THE PROPOSED SYSTEMS. THE INTENT IS NOT TO SHOW EVERY REQUIRED COMPONENT BUT TO PROVIDE THE CONTRACTOR WITH SUFFICIENT INFORMATION TO FINALIZE THE DESIGN AND PREPARE SHOP DRAWINGS FOR FINAL REVIEW AND APPROVAL PRIOR TO FABRICATION. IT IS ASSUMED THAT THE CONTRACTOR HAS IN—HOUSE DESIGNS AND TECHNIQUES FOR FABRICATING INTEGRAL TANK / DISPENSING SYSTEMS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLEMENT THE SCHEMATIC DRAWINGS AS NECESSARY TO PROVIDE A FULLY FUNCTIONAL, CODE COMPLIANT SYSTEM.
- 4. CONTRACTOR IS NOT RESPONSIBLE FOR ELECTRICAL WIRING OF THE TANK/SKID MOUNTED COMPONENTS.
- 5. CONTRACTOR SHALL INTEGRATE REQUIRED SUPPORTS, STAND OFFS, ETC AS NECESSARY TO FACILITATE THE FIELD INSTALLATION OF ELECTRICAL CONDUIT, CONDUCTOR, AND DEVICES REQUIRED TO POWER THE SYSTEMS. FIELD INSTALLATION OF CONDUIT AND CONDUCTOR BY OTHERS.

# OPERATIONAL NARRATIVE

### FILLING TANK FARM FROM FUEL TRUCK:

- PRIOR TO FILLING, TURN OFF ENGINE, CHOCK WHEELS AND CONNECT STATIC GROUNDING CABLE.
- THE DISPENSING TANKS WILL BE FILLED VIA FILL POINTS LOCATED ON THE TOP OF THE TANKS.
- LINE PRESSURE WILL BE SUPPLIED BY THE FUEL TRUCK PUMPING SYSTEM.
- THE TANK FARM OPERATOR WILL MONITOR THE FILLING PROCESS VIA CLOCK GAUGES AND A GAUGING ROD AT EACH TANK.

  AT THE CONCLUSION OF FILLING, CLOSE ISOLATION VALVES AND
- DISCONNECT FILL HOSE.

   IF TANK LEVEL REACHES 95% FULL THE OVER FLOW PREVENTION VALVE (FLV) WILL ACTIVATE, STOPPING FLOW.
- IF TANK LEVEL REACHES 97% FULL THE HIGH LEVEL FLOAT WILL ACTIVATE AUDIBLE AND VISUAL ALARMS.

# RETAIL SALES DISPENSER OPERATION:

SELF SERVICE RETAIL SALES WILL BE AVAILABLE DURING SET

- CUSTOMERS WILL INTERFACE WITH THE POINT OF SALE SYSTEM AT THE DUAL PRODUCT DISPENSER.
- SELF SERVICE SALES WILL BE LIMITED TO CREDIT CARD PURCHASES ONLY.
- CUSTOMERS WILL INSERT THEIR CREDIT CARDS AND FOLLOW PROMPTS ON THE DISPENSER SCREEN TO COMPLETE THE DISPENSING PROCESS.
- IF THE TANK LEVEL FALLS BELOW 5% FULL THE LOW LEVEL WILL LOCKOUT THE SUBMERSIBLE PUMP.

### HEATING FUEL HOSE REEL DISPENSER OPERATION:

THE HOSE REEL IS INTENDED TO FACILITATE BULK TRANSFER TO THE CITY-OWNED HEATING FUEL DELIVERY VEHICLE.

- PRIOR TO FILLING, TURN OFF ENGINE, CHOCK WHEELS AND CONNECT STATIC GROUNDING CABLE.
- OPEN ISOLATION VALVE, INPUT DESIRED FUEL VOLUME INTO METER, SET SPRING-LOADED MECHANICAL VALVE AND DEPRESS PUMP START BUTTON TO PRESSURIZE HOSE.
- UNWIND HOSE, PLACE NOZZLE IN APPROVED FUEL CONTAINER AND DEPRESS TRIGGER TO INITIATE FLOW.
- PROVIDE CONTINUOUS MONITORING DURING FUELING PROCESS. FLOW WILL AUTOMATICALLY STOP AT PRE—SET VOLUME, BUT PUMP WILL CONTINUE TO RUN.
- WHEN FUELING IS COMPLETE, DEPRESS PUMP STOP BUTTON, WIND HOSE ONTO REEL, HANG UP NOZZLE, AND NOTE VOLUME OF FUEL DISPENSED.







TANK PROCUREMENT DRAWINGS KASAAN OPERATING SCHEMATIC

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Date 1/20/20
Designed \_\_\_\_\_
Drawn \_\_\_\_
Approved \_\_\_\_

Sheet No.

T1.1

# SPECIFIC NOTES:

1 3" FPT - PRESSURE VACUUM VENT W/ WHISTLE ALARM

2 6" FLANGED - EMERGENCY VENT

3 8" FLANGED - EMERGENCY VENT

4 4" FPT - SUBMERSIBLE PUMP

5 24" MANHOLE

6 3" FLANGED - FLOATS (BY OTHERS)

7 2" FPT - WATER DRAW

8 2" FPT - SPARE

9 2" FPT - CLOCK GAUGE

10 4" FPT - 6 GALLON FILL BUCKET W/ FILL LIMITER AND

DROP TUBE

11 4" FPT - SPARE

12> 2" CAPPED FLANGED (NOT USED)

13> 2" FPT - GAUGE HATCH

14 2" SCHEDULE 80 STEEL PIPING

15> SKID EXTENSIONS

16> DISPENSER FLOOR PLATE

17> DUAL PRODUCT DISPENSER

18> DISPENSER CONNECTIVE PIPING

19> CONTAINMENT SUMP

20> PIPE SUPPORT (NOT USED)

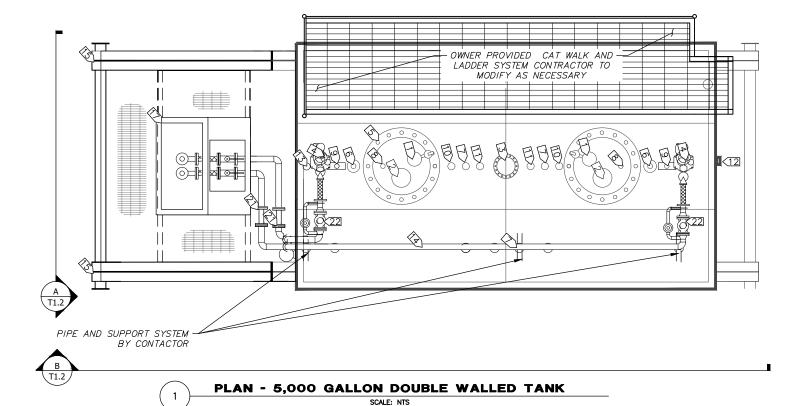
21> 2" STRAINER

22 2" BALL VALVE WITH 1" PRV

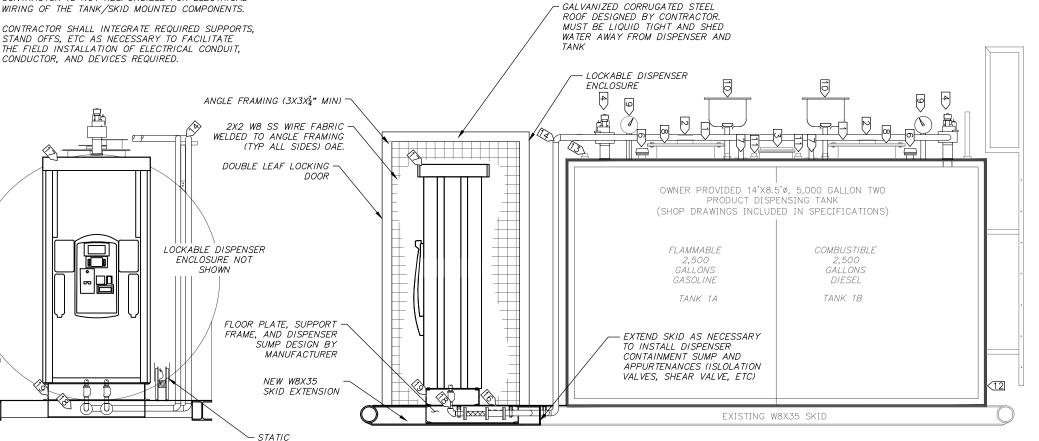
# NOTES:

- 1. 5.000 GALLON TANK SHOWN ON THIS SHEET IS IS OWNER PROVIDED ( SEE ATTACHED SHOP DRAWINGS). ALL OTHER OTHER COMPONENTS SHOWN ON THIS SHEET ARE CONTRACTOR PROVIDED.
- 2. THIS SHEET SHOWS THE DESIRED FUNCTIONALITY AND GENERAL LAYOUT OF THE PROPOSED SYSTEMS. THE INTENT IS NOT TO SHOW EVERY REQUIRED COMPONENT BUT TO PROVIDE THE CONTRACTOR WITH SUFFICIENT INFORMATION TO FINALIZE THE DESIGN AND PREPARE SHOP DRAWINGS FOR FINAL REVIEW AND APPROVAL PRIOR TO FABRICATION. IT IS ASSUMED THAT THE CONTRACTOR HAS IN-HOUSE DESIGNS AND TECHNIQUES FOR FABRICATING INTEGRAL TANK / DISPENSING SYSTEMS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLEMENT THE SCHEMATIC DRAWINGS AS NECESSARY TO PROVIDE A FULLY FUNCTIONAL, CODE COMPLIANT SYSTEM.
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GROUNDING REEL



SECTION - 5,000 GALLON DOUBLE WALLED TANK







DRAWINGS PROCUREMENTS

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ALASKA

KASAAN,

Plot Date

Sheet No.

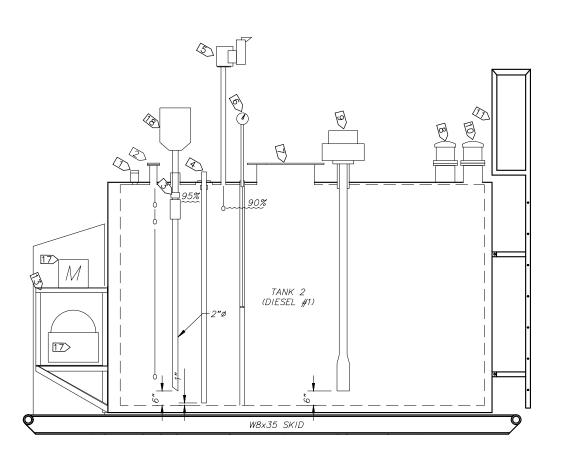
END VIEW

SCALE: NTS

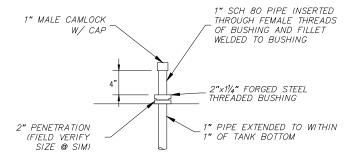
T1.2

# PLAN - 3,000 GALLON DOUBLE **WALLED TANK**

SCALE: NTS



SECTION - 3,000 GALLON DOUBLE WALLED TANK



**WATER DRAW DETAIL** 2 SCALE: NTS

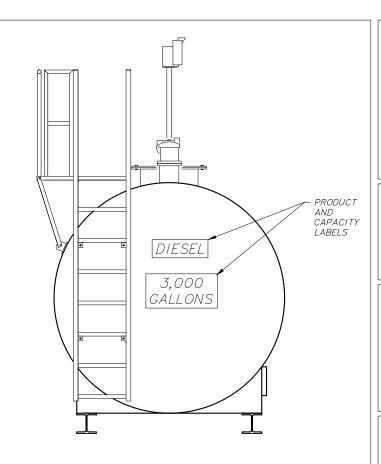
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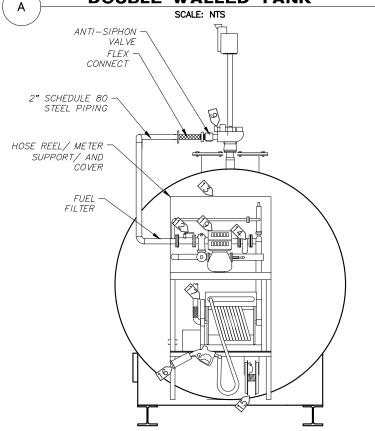
# SPECIFIC NOTES:

- 2" FTP GAUGE HATCH INSTALLED ON 2"x4" NIPPLE (SECONDARY TANK MONITOR)
- 2 3" FLANGED FLOATS (BY OTHERS)
- 3> 4" FPT FILL
- $\boxed{4}$  2" FPT WATER DRAW  $\left(\frac{2}{\text{T1.3}}\right)$
- 5 3" FPT PRESSURE VACUUM VENT W/ WHISTLE ALARM
- 6 2" FPT CLOCK GAUGE AND STILLING WELL
- 7> 24" MANHOLE
- 8 8" FLANGED EMERGENCY VENT
- 9 4" FPT SUBMERSIBLE PUMP
- 10 8" FLANGED SECONDARY EMERGENCY VENT
- SHOP FABRICATED BOLT ON LADDER AND CATWALK 11> SHUF THE ASSEMBLY
- 12> 2" BALL VALVE
- 13> HOSE REEL SUPPORT SYSTEM
- 14> FILTER
- 15> STATIC GROUNDING REEL (BOND TO GROUND SYSTEM)
- 16> NOZZLE RETENTION/HANG UP ASSEMBLY
- 17> HOSE REEL
- 18> 6 GALLON FILL BUCKET W/ FILL LIMITER AND DROP TUBE

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# **SECTION - 3,000 GALLON DOUBLE WALLED TANK**



**SECTION - 3,000 GALLON DOUBLE WALLED TANK** SCALE: NTS



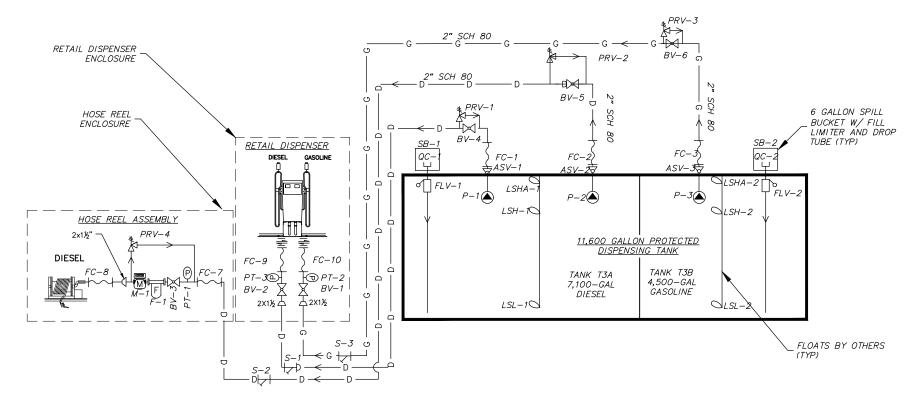


ALASKA **MENTS** 

Sheet No

T1.3

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ANTI-SIPHON VALVE PROPERTY BOUNDARY  $\bowtie$ CENTERLINE BALL VALVE MOTOR ACTUATED BALL VALVE **CULVERT** ======N CHECK VALVE EDGE OF WATER GATE VALVE DITCH LINE/DRAINAGE SWALE PRESSURE RELIEF VALVE W/ FLOW DIRECTION DRAINAGE DIRECTION & SLOPE SHEAR VALVE TRAVELED WAY PRESSURE TEST TAP FILL SLOPE M METER CUT SLOPE F FILTER FLEXIBLE CONNECTOR  $\sim$ FENCE LINE WYE STRAINER (MESH SIZE) FIRE EXTINGUISHER FILL LIMITER GROUND ELEVATION CONTOURS

BOLL ARD QUICK COUPLING POWER POLE SUBMERSIBLE PUMP (9) INFORMATION / WARNING SIGN VERTICAL PIPE TRANSITION 5 SHEET NOTE REDUCER

TEST PIT XXX FINISH GRADE ELEVATION

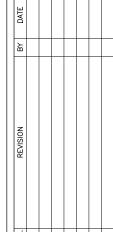
DIAMETER

SURVEY MONUMENT

SYMBOL LEGEND

LEVEL FLOAT SWITCH HOSE REEL

DRAWINGS SCHEMATIC ALASKA PROCUREMENTS OPERATING TATITLEK,



T2.1

11,600 GALLON TANK OPERATING SCHEMATIC NTS

# TANK FARM OPERATIONAL NARRATIVE

# FILLING TANK FROM FUEL TRUCK

TANK T3 IS FILLED VIA BARGE TRANSPORTED FUEL TRUCK:

- 1. BEFORE BEGINNING THE FILL PROCESS THE OPERATOR SHALL CONFIRM SUBMERSIBLE PUMPS ARE OFF AND BALL ALVES ARE
- 2. CONNECT THE TRUCK GROUNDING SYSTEM AND ATTACH TRUCK SUPPLIED FUEL TRANSFER HOSE TO CAMLOK LOCATED INSIDE TANK MOUNTED SPILL BUCKET.
- 3. BULK TANK SHOULD BE FILLED ONE AT A TIME.
- LINE PRESSURE WILL BE SUPPLIED BY THE FUEL TRUCK PUMPING
- 5. THE TANK FARM OPERATOR WILL MONITOR THE FILLING PROCESS VIA CLOCK GAUGES AND GAUGING ROD AT EACH TANK.
- 6. AT THE CONCLUSION OF FILLING, STOP PUMP, DISCONNECT FILL HOSE AND SECURE CAMLOK CAP AND SPILL BUCKET COVER.

BULK TRANSFER/HOSE REEL OPERATION HOSE REEL HR-1 IS INTENDED TO FACILITATE THE FILLING OF NVT VEHICLES/HEAVY EQUIPMENT & BULK TRANSFERS.

- PRIOR TO FILLING, TURN OFF ENGINE, CHOCK WHEELS AND CONNECT STATIC GROUNDING CABLE.
- OPEN ISOLATION VALVE, INPUT DESIRED FUEL VOLUME INTO PRE—SET METER, SET SPRING LOADED MECHANICAL VALVE AND DEPRESS PUMP START BUTTON TO PRESSURIZE HOSE.
- UNWIND HOSE, PLACE NOZZLE IN APPROVED FUEL CONTAINER AND DEPRESS TRIGGER TO INITIATE FLOW.
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- WHEN FUELING IS COMPLETE, DEPRESS PUMP STOP BUTTON, WIND HOSE ONTO REEL, HANG UP NOZZLE, AND NOTE VOLUME OF FUEL

# RETAIL SALES DISPENSER OPERATION

RETAIL FUEL CREDIT/DEBIT CARD SALES TRANSACTIONS WILL BE CONDUCTED VIA ELECTRONIC CARD READER LOCATED AT THE RETAIL DISPENSER. THE ELECTRONIC POINT OF SALE SYSTEM WILL BE LOCATED AT THE OLD CLINIC BUILDING (NEW OFFICE). CASH SALES WILL REQUIRE AN ATTENDANT AND WILL BE INITIATED FROM THE POS 2 2" FPT - WATER DRAW

3 3" FLANGED - FLOATS (BY OTHERS

4> 2" FPT - CLOCK GAUGE

5) 2" FLANGED - PRESSURE VACUUM VENT WITH WHISTLE ALARM. VENT MUST BE 12' ABOVE FINISHED GRADE. FEED CABLE THROUGH PIPE PRIOR TO CONNECTING TO TANK. SET WHISTLE TO ALARM AT 90% FULL.

6 2" FLANGED - GAUGE HATCH

7> 2" FPT - GAUGE HATCH

8> 6" FLANGED - E VENT

9>8" FLANGED - EVENT

10> 4" FPT - SUBMERSIBLE PUMP

13> OUTER TANK HEAD (NOT USED)

11 8" FPT - FLANGED SECONDARY E VENT

12> 4" T.F - INNER TANK HEAD (NOT USED)

14> 24" MANHOLE

15 TANK MOUNT LIGHT POLE BASE (NOT USED)

16> 2" BALL VALVE

17> 1" PRV

18> 2" STRAINER

19 2" SCHEDULE 80 STEEL PIPING

20 SKID EXTENSIONS

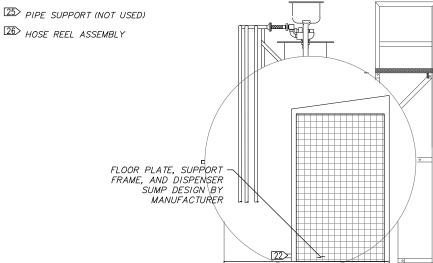
DISPENSER FLOOR PLATE AND 4" RISER

22> DUAL PRODUCT DISPENSER

23 DISPENSER CONNECTIVE PIPING

24 CONTAINMENT SUMP

26 HOSE REEL ASSEMBLY



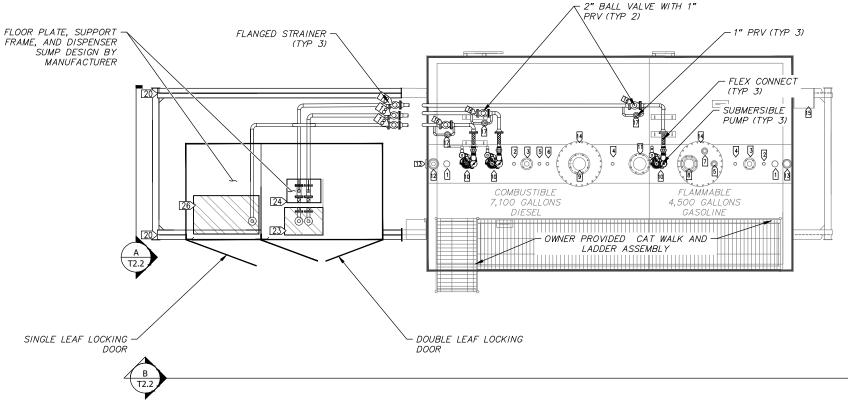
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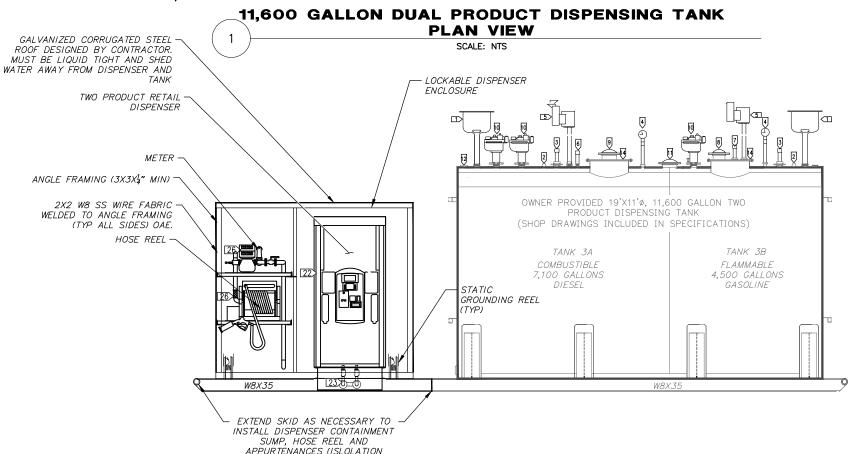
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VALVES, SHEAR VALVE, ETC)

**END VIEW** 

11,600 GALLON DUAL PRODUCT DISPENSING TANK **ELEVATION VIEW** SCALE: NTS





DRAWINGS DET. GALLON 11,600

ALASKA

TATITLEK,

T2.2