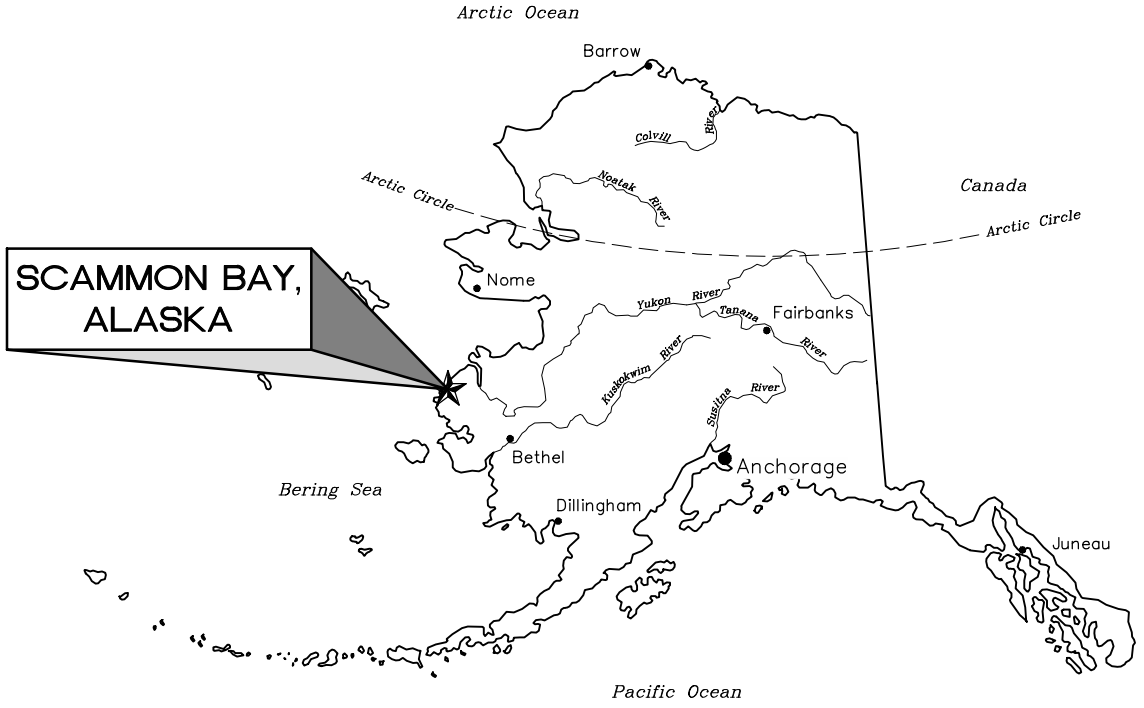


SCAMMON BAY BULK FUEL UPGRADES

SCAMMON BAY, ALASKA

CONSTRUCTION DRAWINGS

SCAMMON BAY,
ALASKA

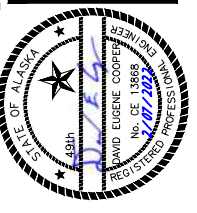


LOCATION MAP



VICINITY MAP

| REVISIONS | MARK | DATE | DESCRIPTION |
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SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
 SCAMMON BAY, ALASKA

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| SHEET TITLE COVER SHEET | |
| SHEET G1.01 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

REVISED 11-28-2023

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DATE TIME
11/30/2023 11:25 AM

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| DRAWING INDEX | |
|---------------|--|
| Sheet Number | Sheet Title |
| GENERAL | |
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| C3.03 | TYPICAL TANK APPURTENANCE DETAILS |
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| C4.02 | DISPENSER ENCLOSURE SECTIONS AND DETAILS |
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| DRAWING INDEX | |
|---------------|---|
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| ARCHITECTURAL | |
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| A2.01 | EXT ELEVATIONS BUILDING SECTIONS & FINISH LEGEND |
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| P1.01 | PROCESS DIAGRAM |
| ELECTRICAL | |
| E1.0 | ELECTRICAL LEGENDS AND ABBREVIATIONS |
| E2.0 | ELECTRICAL SITE PLAN |
| E2.1 | BULK FUEL TANK FARM ELECTRICAL PLAN |
| E2.2 | BULK FUEL TANK FARM LIGHTING PLAN |
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| E6.0 | ELECTRICAL DETAILS |
| E6.1 | ELECTRICAL DETAILS |

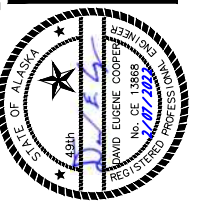
TESTING, START-UP, AND COMMISSIONING

- TANK FARM:**
1. PERFORM SYSTEM TESTING, START-UP, AND COMMISSIONING IN ACCORDANCE WITH THE FOLLOWING PROCEDURES:
 - A. PRESSURE TEST ALL PIPING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. DELIVER ORIGINAL TEST RESULTS TO PROJECT MANAGER AND PROVIDE A COPY TO THE ENGINEER.
 - B. UPON FILLING OF TANKS, VERIFY PRODUCT LEVEL WITH GAUGING STICK AND CALIBRATE ALL TANK GAUGES.
 - C. CHECK ALL PUMPS FOR PROPER ROTATION. PRIOR TO OPERATING CENTRIFUGAL PUMPS, PRIME THE PUMP CAVITY WITH FUEL. ON INITIAL STARTUP, WARM PUMP BODY IF AMBIENT TEMPERATURE IS BELOW 40°F.
 - D. CHECK ALL CONTROL AND ALARM FUNCTIONS. MANIPULATE FLOATS TO SIMULATE LOW AND HIGH LEVEL CONDITIONS. SET TIMING RELAYS FOR 30 SECONDS AND VERIFY TIME-OUT FUNCTION. RE-SET TIMERS TO VALUES INDICATED. VERIFY LATCHING AND RESET FUNCTIONS. EMERGENCY STOP FUNCTION, AND OPERATION OF ALL SIGNAL LAMPS AND HORNS. OBSERVE OPERATION OF ACTUATED VALVES. CHECK AREA LIGHTING AND VERIFY OPERATION OF PHOTOCCELL CONTROLS.
 - E. FILL AND DISPENSING TANKS: REMOVE AND CLEAN STRAINER SCREENS UPON COMPLETION OF INITIAL FILLING OF TANKS. REPLACE FILTER AT DISPENSER AFTER FIRST 100 GALLONS OF PRODUCT HAS BEEN PUMPED THROUGH DISPENSER.
 - F. TEST ALL FUEL TRANSFER FUNCTIONS.
 - G. VERIFY ALL SIGNS, PLACARDS, AND VALVE TAGS ARE PROPERLY LOCATED. VERIFY PROPER COLOR CODE AND LABELING FOR ALL PRODUCTS.

GENERAL

1. TOPOGRAPHIC AND PLANIMETRIC INFORMATION SHOWN IN THESE DRAWINGS WAS PROVIDED BY A FIELD SURVEY PERFORMED BY HDL ENGINEERING CONSULTANTS, LLC (HDL), SEPTEMBER, 2020.
2. CONTRACTOR SHALL VERIFY SITE CONDITIONS, DIMENSIONS, AND DETAILS PRIOR TO THE START OF CONSTRUCTION. IF ANY DISCREPANCIES AND/OR UNKNOWN CONDITIONS WHICH AFFECT THE PROJECT ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE MINOR LAYOUT CHANGES IN THE FIELD, SUBJECT TO APPROVAL BY THE ENGINEER.
3. NOT ALL UTILITIES MAY BE SHOWN ON THE PLANS. CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITIES BEFORE CONSTRUCTION. CONTRACTOR SHALL PROTECT UTILITIES AT ALL TIMES DURING CONSTRUCTION, AND REPAIR DAMAGES IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES REQUIREMENTS.
4. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL SIGNS, BARRICADES, WARNING LIGHTS, AND OTHER PROTECTIVE DEVICES NECESSARY FOR SAFETY.
5. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL FIRE CODE (IFC), STATE AND FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS (OSHA), U.S. ENVIRONMENTAL PROTECTION AGENCY, ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (ADEC) AND ALL OTHER STATE, FEDERAL, AND LOCAL LAWS AND REGULATIONS PERTAINING TO THIS PROJECT. ANY WORK PERFORMED BY THE CONTRACTOR CONTRARY TO SUCH LAWS OR REGULATIONS SHALL BE AT THE CONTRACTORS SOLE RISK AND EXPENSE.
6. IN CASES OF CONFLICT IN THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SUCH CONFLICT SHALL BE RECONCILED BY THE ACCEPTANCE OF THE FOLLOWING ORDER OF PRECEDENCE FOR THE VARIOUS CONTRACT DOCUMENTS: (1) THE CONTRACT; (2) THE BID; (3) SPECIAL CONDITIONS; (4) DIVISION 1-16 OR THE CONTRACT DOCUMENTS; (5) THE DRAWINGS; (6) THE STANDARD GENERAL PROVISIONS; AND (7) SPECIFICATIONS INCORPORATED BY REFERENCE IN ANY OF THE ABOVE.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK WITH OTHER CONTRACTORS, HIS SUBCONTRACTORS, THE OWNER, AND STATE AND FEDERAL AUTHORITIES.
8. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS NOT PROVIDED BY THE OWNER INCLUDING BUT NOT LIMITED TO ROW PERMITS, DEWATERING PERMITS, LANDFILL PERMITS, AND ADEC PERMITS.
9. ALL ITEMS SHOWN ARE NEW UNLESS SPECIFICALLY INDICATED AS EXISTING. INSTALL ALL MATERIAL AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, INSTRUCTIONS, AND INSTALLATION DRAWINGS UNLESS INDICATED OTHERWISE.
10. WORK SHALL BE PERFORMED WITH SKILLED CRAFTSMEN SPECIALIZING IN THE REQUIRED WORK. INSTALL ALL MATERIALS IN A NEAT, ORDERLY, AND SECURE FASHION, AS REQUIRED BY THESE DRAWINGS AND COMMONLY RECOGNIZED STANDARDS OF GOOD WORKMANSHIP.
11. THE PURPOSE OF SPECIFYING A NAME BRAND PRODUCT, OR EQUAL, IS TO ESTABLISH THE LEVEL OF QUALITY OF MATERIALS AND EQUIPMENT REQUIRED AND IS NOT A PRODUCT ENDORSEMENT. SUBMIT SUBSTITUTIONS IN WRITING FOR REVIEW AND APPROVAL.
12. PROVIDE MARKED UP DESIGN DRAWINGS TO REFLECT FIELD CHANGES THROUGHOUT CONSTRUCTION. TURN OVER "RED LINE" CONSTRUCTION DRAWINGS TO ENGINEER AT COMPLETION OF THE PROJECT.
13. CONTRACTOR SHALL PROTECT ALL ITEMS NOT SCHEDULED FOR DEMOLITION DURING CONSTRUCTION. DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION.
14. DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW ALL FEATURES OF THE REQUIRED WORK, PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED FOR A COMPLETE, AND CODE COMPLIANT SYSTEM. VERIFY EXISTING FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION. IMMEDIATELY CONTACT THE ENGINEER FOR CLARIFICATION OF QUESTIONABLE ITEMS OR APPARENT CONFLICTS.
15. ALL CONSTRUCTION SURVEYING AND LAYOUT SHALL BE PROVIDED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
16. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING AN APPROVED PROJECT SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS.
17. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL HAVE SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS, SUBCONTRACTORS, SUPPLIERS, AND PROPERTY. THIS SHALL PERTAIN TO MATERIALS STAGED WHERE THE CONTRACTORS IS NOT ACTIVELY WORKING, STAGING AREAS, AND HAUL ROUTES. THIS SHALL INCLUDE CLEARING SNOW DRIFTS AND MAINTAINING ACCESS TO EXISTING EQUIPMENT AND FACILITIES AT ALL TIMES. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS.
18. CONTRACTORS WORKS SHALL NOT IMPACT OR RESTRICT VEHICLE MOVEMENT ON TRAVELED WAYS OUTSIDE OF THE PROJECT AREA.
19. NO GROUND DISTURBING ACTIVITIES SHALL OCCUR BEYOND THE LIMITS OF THE EASEMENTS, EXCEPT NOTED OTHERWISE.
20. CONTRACTOR SHALL PREPARE AND IMPLEMENT AN APPROVED TRAFFIC CONTROL PLAN (TCP) SPECIFIC TO THEIR HAUL ROUTES AND SITE ACCESS. TCP SHALL NOT PREVENT OR HINDER THE FLOW OF VEHICLE OR PEDESTRIAN TRAFFIC IN THE COMMUNITY AND PROVIDE UNFETTER MOVEMENT BY EMERGENCY VEHICLES AT ALL TIMES. THE TCP SHALL CONFORM TO THE STANDARDS IN THE LATEST EDITION OF PART VI OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND SHALL ALSO CONFORM TO THE REQUIREMENTS IN THE LATEST EDITION AND SUPPLEMENTS OF THE ALASKA TRAFFIC MANUAL (ATM) PREPARED BY THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES.
21. INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, INSTRUCTIONS, INSTALLATION MANUALS, AND DRAWINGS.
22. NO BARGE LANDING AREAS, HAUL ROUTES, MATERIAL SOURCES, OR STOCKPILE AND STAGING AREAS ARE PROVIDED BY THE OWNER OUTSIDE OF THE PROJECT FOOTPRINT. THESE AREAS AND MATERIALS ARE TO BE CONTRACTOR-PROVIDED. CONTRACTORS SHALL MAKE THEIR OWN ARRANGEMENTS FOR BARGING, HAULING, MATERIAL PROCUREMENT, AND STOCKPILE AND STAGING AREAS SPECIFIC TO THEIR OWN MEANS AND METHODS AND OBTAIN ALL REQUIRED PERMITS, AUTHORIZATIONS, AND APPROVALS FOR THE USE OF THESE ROUTES AND AREAS AT NO ADDITIONAL COST TO THE OWNER. PAY ALL ROYALTIES FOR MATERIALS AND PROVIDE THE OWNER WITH A COPY OF ALL PERMITS, AGREEMENTS, AND APPROVALS. THE CONTRACTOR SHALL VERIFY THE CONDITION OF LOCAL ROADS AND TRADITIONAL BARGE LANDINGS PRIOR TO USE DETERMINE THEIR SUITABILITY TO MEET THEIR NEEDS. CONTRACTOR SHALL TAILOR THEIR OPERATIONS AND EQUIPMENT AS NEEDED TO DELIVER THE SPECIFIED MATERIAL TO THE PROJECT SITE.
23. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL BARGE LANDING AND HAUL ROUTES AND RETURNING THESE AREAS TO THEIR PRE-PROJECT CONDITION AFTER USE.

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SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
 SCAMMON BAY, ALASKA

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| SHEET TITLE DRAWING INDEX GENERAL NOTES | |
| SHEET G1.02 | |
| DRAWN BY: HDL | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: NONE |
| JOB NUMBER: 20-017 | |

DRAWING LOCATION
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DATE TIME
11/26/2023 4:29 PM

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G1.03

LEGEND

- EXISTING PROPERTY LINE
 - NEW PROPERTY LINE
 - EXISTING EASEMENT
 - ROAD/TRAIL CENTERLINE
 - EXISTING EDGE OF ROAD
 - EXISTING CONTOUR
 - NEW FILL
 - GRADE BREAK
 - EXISTING CHAIN LIKE FENCE
 - NEW CHAINLINK FENCE
 - VERTICAL PIPE TRANSITION
 - EXISTING UNDERGROUND ELECTRIC
 - EXISTING UNDERGROUND TELEPHONE
-
- UNDISTURBED GROUND
 - EROSION CONTROL AGGREGATE
 - TOPSOIL AND SEED
 - STRUCTURAL FILL
 - CONCRETE
 - DRAINAGE ROCK
 - CEMENT STABILIZED FILL
-
- FLAG NOTES PER SHEET
 - DETAIL CALLOUT
 - SECTION CUT
 - SIGN CALLOUT
 - GEOGRID WITH CEMENT STABILIZED FILL

ABBREVIATIONS

- AAC ALASKA ADMINISTRATIVE CODE
- ACI AMERICAN CONCRETE INSTITUTE
- ADEC ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
- APS FIBER EXPANSION JOINT MANUFACTURER
- ASME AMERICAN SOCIETY MECHANICAL ENGINEERS
- ASTM AMERICAN SOCIETY FOR TESTING & MATERIALS
- AWPA AMERICAN WOOD PROTECTION ASSOCIATION
- ALUM ALUMINUM
- CMP CORRUGATED METAL PIPE
- CP CATHODIC PROTECTION
- CU COPPER
- ELEV ELEVATION
- E.W. EACH WAY
- EXIST EXISTING
- FG FINISHED GROUND
- FPT FEMALE PIPE THREAD
- GA GAUGE
- GALV GALVANIZED
- HDPE HIGH DENSITY POLYETHYLENE
- IBC INTERNATIONAL BUILDING CODE
- IFC INTERNATIONAL FIRE CODE
- L LENGTH
- MAX MAXIMUM
- ME MATCH EXISTING
- MIN MINIMUM
- MPT MALE PIPE THREAD
- NFPA NATIONAL FIRE PROTECTION ASSOCIATION
- OC ON CENTER
- OD OUTSIDE DIAMETER
- OSHA OCCUPATIONAL SAFETY AND HAZARD ADMINISTRATIONS
- PRV PRESSURE RELEASE VALVE
- PSI POUNDS PER SQUARE INCH
- PSIG POUNDS PER SQUARE INCH GAUGE
- ROW RIGHT OF WAY
- SCH SCHEDULE
- STA STATION
- SWPPP STORM WATER POLLUTION PREVENTION PLAN
- TCE TEMPORARY CONSTRUCTION EASEMENT
- TCP TRAFFIC CONTROL PLAN
- TP TEST PIT
- TYP TYPICAL
- UE UNDERGROUND ELECTRIC
- USS UNIT OF STUDY SURVEY
- UT UNDERGROUND TELEPHONE
- Ø DIAMETER
- & AND

TANK SCHEDULE (CAPACITY IN GALLONS)

| TANK ID | OWNER | DIESEL | | GASOLINE | | TANK DESCRIPTION |
|---------|---------------------|----------------|--------------------------|----------------|--------------------------|--|
| | | GROSS CAPACITY | NET CAPACITY (90% SHELL) | GROSS CAPACITY | NET CAPACITY (90% SHELL) | |
| TANK 1 | CITY OF SCAMMON BAY | 27,000 | 24,300 | | | NEW HORIZONTAL BULK TANK, SINGLE WALL |
| TANK 2 | CITY OF SCAMMON BAY | 27,000 | 24,300 | | | NEW HORIZONTAL BULK TANK, SINGLE WALL |
| TANK 3 | CITY OF SCAMMON BAY | 27,000 | 24,300 | | | NEW HORIZONTAL BULK TANK, SINGLE WALL |
| TANK 4 | CITY OF SCAMMON BAY | 6,000 | 5,400 | 6,000 | 5,400 | NEW DUAL PRODUCT HORIZONTAL DISPENSING TANK, SINGLE WALL |
| TANK 5 | CITY OF SCAMMON BAY | | | 27,000 | 24,300 | NEW HORIZONTAL BULK TANK, SINGLE WALL |
| TANK 6 | CITY OF SCAMMON BAY | | | 27,000 | 24,300 | NEW HORIZONTAL BULK TANK, SINGLE WALL |
| TANK 7 | CITY OF SCAMMON BAY | | | 27,000 | 24,300 | NEW HORIZONTAL BULK TANK, SINGLE WALL |
| TANK 8 | CITY OF SCAMMON BAY | | | 27,000 | 24,300 | NEW HORIZONTAL BULK TANK, SINGLE WALL |
| TOTAL | | 87,000 | 78,300 | 114,000 | 102,600 | |

VALVE SCHEDULE GASOLINE

| BULK FUEL TRANSFER STATION | | |
|----------------------------|------------------------|------|
| TAG | TYPE | SIZE |
| 101 | CHECK | 3" |
| 102 | BALL | 3" |
| TANK FARM | | |
| 103 | BALL | 3" |
| 104 | BALL | 3" |
| 105 | PRESSURE RELIEF | 1" |
| 106 | BALL | 3" |
| 107 | BALL | 3" |
| 108 | BALL | 2" |
| MOV1 | BALL W/ MOTOR ACTUATOR | 2" |
| 109 | BALL | 2" |
| 110 | PRESSURE RELIEF | 1" |
| 111 | CHECK VALVE | 2" |
| 112' | FILL LIMITER | |

VALVE SCHEDULE DIESEL NO. 1

| BULK FUEL TRANSFER STATION | | |
|----------------------------|------------------------|------|
| TAG | TYPE | SIZE |
| 201 | CHECK | 3" |
| 202 | BALL | 3" |
| TANK FARM | | |
| 203 | BALL | 3" |
| 204 | PRESSURE RELIEF | 1" |
| 205 | BALL | 3" |
| 206 | BALL | 3" |
| 207 | BALL | 2" |
| MOV2 | BALL W/ MOTOR ACTUATOR | 2" |
| 208 | BALL | 2" |
| 209 | PRESSURE RELIEF | 1" |
| 210 | CHECK VALVE | 2" |
| 211 | FILL LIMITER | |

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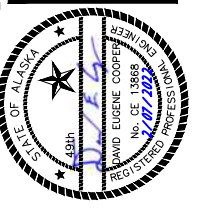
PUMP SCHEDULE

| TANK FARM | | | |
|-----------|------------------|------|----------|
| TAG | TYPE | SIZE | PRODUCT |
| TP1 | TRANSFER PUMP | 2" | GASOLINE |
| SP1 | SUBMERSIBLE PUMP | 2" | GASOLINE |
| SP2 | SUBMERSIBLE PUMP | 2" | DIESEL |
| TP2 | TRANSFER PUMP | 2" | DIESEL |

DISPENSER VALVE SCHEDULE

| DISPENSING FACILITY | | | |
|---------------------|------------|--------|----------|
| TAG | TYPE | SIZE | PRODUCT |
| D1 | BALL VALVE | 1-1/2" | GASOLINE |
| D2 | BALL VALVE | 1-1/2" | DIESEL |

| REVISIONS | DATE | DESCRIPTION |
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| 1 | 11/28/22 | REVISED PIPING SCH 40 TO SCH 40S |
| 2 | 11/28/23 | REVISED PIPING SCH 40S TO SCH 40 |
| 3 | 11/28/23 | REVISED PIPING SCH 40 TO SCH 40S |
| 4 | 11/28/23 | REVISED PIPING SCH 40S TO SCH 40 |



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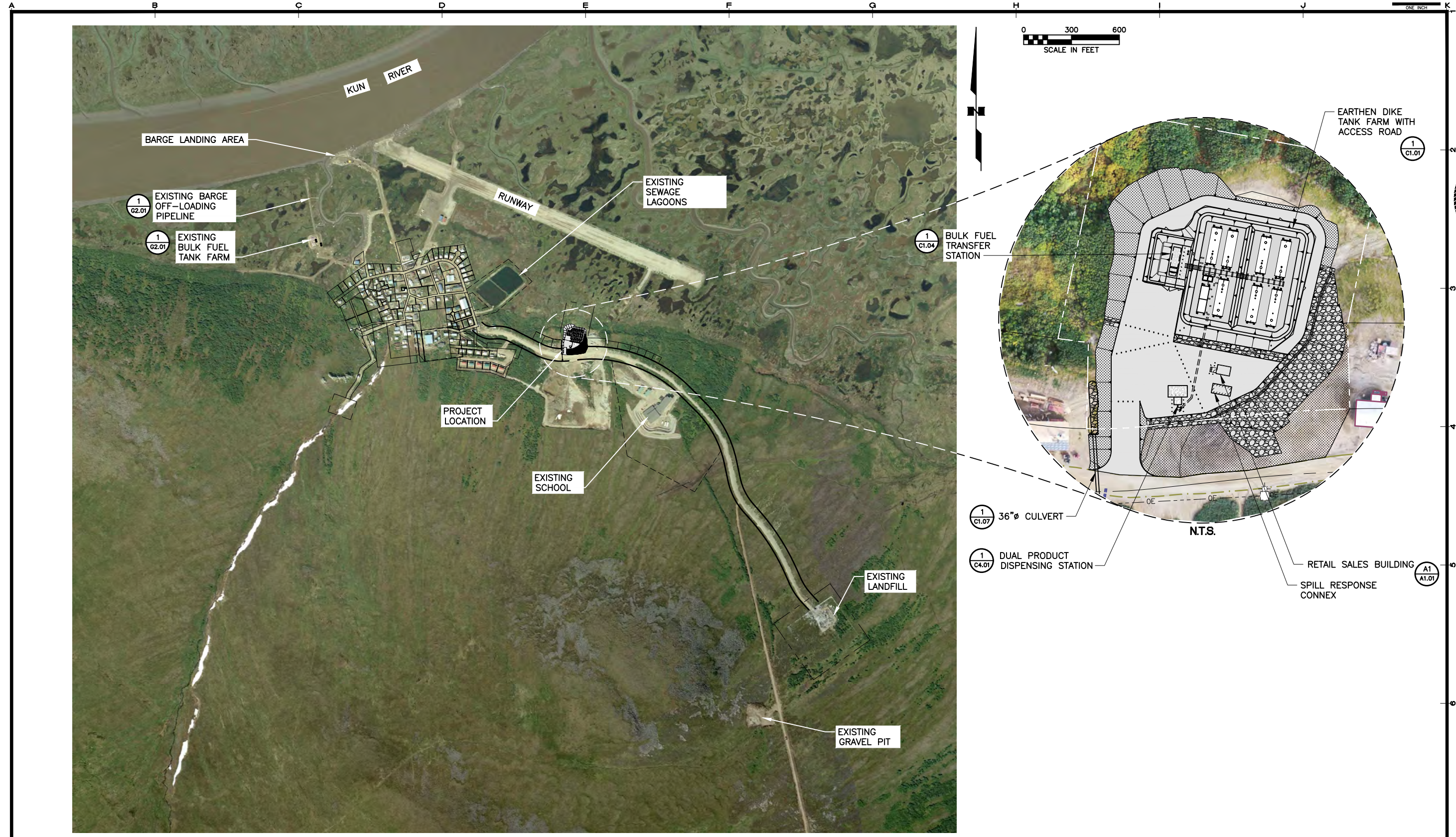
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| DATE: 01/31/22 | SCALE: NONE |
| JOB NUMBER: 20-017 | |

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DATE TIME
2/3/2022 1:20 PM

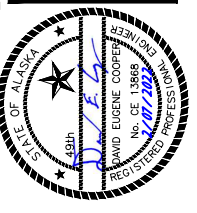
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OVERALL PROJECT LAYOUT PLAN

SCALE: 1" = 300'

| REVISIONS | MARK | DATE | DESCRIPTION |
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| SHEET TITLE OVERALL PROJECT LAYOUT PLAN | |
| SHEET G1.04 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: 1" = 100' |
| JOB NUMBER: 20-017 | |

CODE ANALYSIS

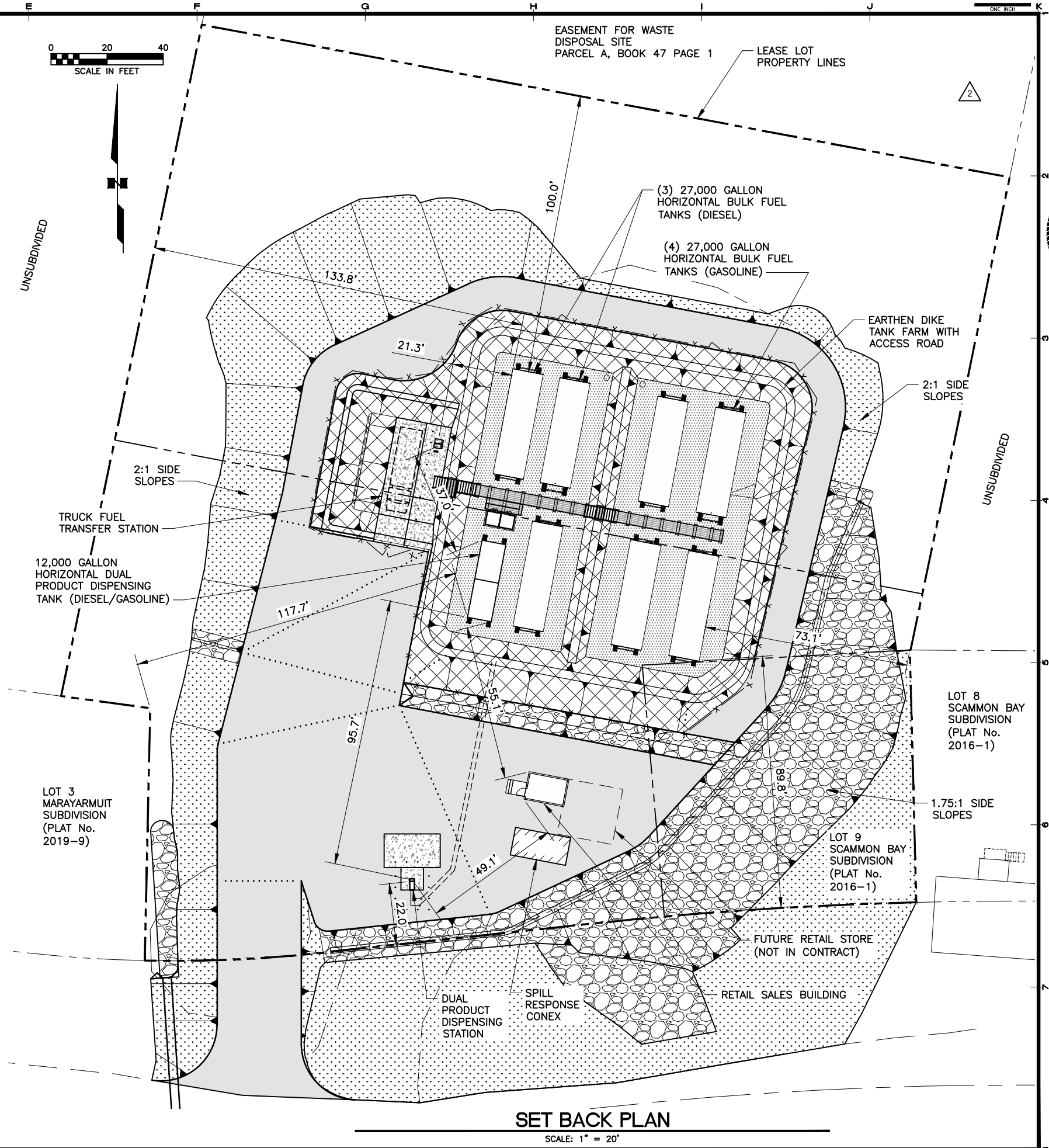
THE CONSOLIDATED TANK FARM WILL PERFORM THREE FUNCTIONS – BULK STORAGE, BULK TRANSFER, AND DISPENSING. ALL TANKS ARE INSTALLED ABOVE GROUND. TO COMPLY WITH THE REQUIREMENTS OF THE 2012 INTERNATIONAL FIRE CODE (IFC), THE 2015 FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE (NFPA 30), AND THE ALASKA ADMINISTRATIVE CODE (AAC) THE FOLLOWING MINIMUM CLEARANCES ARE REQUIRED:

| UNPROTECTED BULK TANK REQUIREMENTS | | |
|------------------------------------|---------------------|---|
| CODE REFERENCE | SETBACK REQUIREMENT | CRITERIA |
| IFC | 25' | FROM BULK STORAGE TANKS TO ALL COMBUSTIBLE MATERIALS. |
| NFPA 30 TABLE 22.4.2.1 | 3' | FROM TANK TO TANK OR 1/6 SUM OF ADJACENT TANK DIAMETERS. |
| 13 AAC 50.025 (66) | 5' | FROM TANKS TO FENCE. |
| NFPA 30 TABLE 22.4.1.1(a)(b) | 40' | FROM LOT LINE WHICH IS OR CAN BE BUILT UPON, INCLUDING THE OPPOSITE SIDE OF A PUBLIC WAY (30,001 TO 50,000 GAL.) |
| NFPA 30 TABLE 22.4.1.1(a)(b) | 10' | FROM NEAREST SIDE OF ANY PUBLIC WAY OR FROM NEAREST IMPORTANT BUILDING ON THE SAME PROPERTY (12,001 TO 30,000 GAL.) |
| NFPA 30 TABLE 22.11.2.5 | 5' | FROM INTERIOR DIKE WALL TO TANK |

| UNPROTECTED DISPENSING TANK REQUIREMENTS | | |
|--|---------------------|--|
| CODE REFERENCE | SETBACK REQUIREMENT | CRITERIA |
| IFC TABLE 2306.2.3 | 50' | FROM DISPENSERS TO ALL UNPROTECTED DISPENSING TANKS. |
| IFC TABLE 2306.2.3 | 50' | FROM NEAREST IMPORTANT BUILDING ON SAME PROPERTY TO ALL UNPROTECTED DISPENSING TANKS. |
| IFC TABLE 2306.2.3 | 100' | FROM LOT LINE THAT IS OR CAN BE BUILT UPON, INCLUDING THE OPPOSITE SIDE OF A PUBLIC WAY TO ALL UNPROTECTED DISPENSING TANKS. |
| IFC TABLE 2306.2.3 | 50' | FROM NEAREST SIDE OF A PUBLIC WAY TO ALL UNPROTECTED DISPENSING TANKS. |

| DISPENSER REQUIREMENTS | | |
|------------------------|---------------------|--|
| CODE REFERENCE | SETBACK REQUIREMENT | CRITERIA |
| IFC 2303.1 | 5' | FROM BUILDING OPENINGS WHEN HOSE IS FULLY EXTENDED. |
| IFC 2303.1 | 10' | FROM LOT LINES AND BUILDINGS. |
| IFC 2303.1 | 20' | FROM FIXED SOURCES OF IGNITION. |
| NFPA 30 28.4.1 | 15' | FROM BULK LOADING FACILITIES TO ABOVEGROUND TANKS, WAREHOUSES, OTHER PLANT BUILDINGS, OR LOT LINES FOR CLASS II LIQUIDS. |

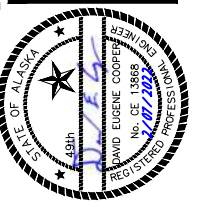
| CLEARANCE FROM CLASS A PUBLIC WELL | | |
|------------------------------------|---------------------|--|
| CODE REFERENCE | SETBACK REQUIREMENT | CRITERIA |
| 18 AAC 80.020 TABLE A | 100' | FROM FUEL TANKS AND PIPELINES TO PUBLIC WATER WELLS. |



SET BACK PLAN
SCALE: 1" = 20'

DRAWING LOCATION: H:\Jobs\20-017 Scammon Bay BPU Ph. 1 and 2 (AEA)\CAD\Drawings\20-017_01_G1_03-SBSP.dwg KKRNEGAY DATE TIME: 11/29/2023 2:56 PM LAYOUT: G1.05

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-----------------------|
| 1 | 11/28/23 | INITIAL LIMITS, HATCH |
| 2 | 11/28/23 | UPDATES |



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SCAMMON BAY BULK FUEL UPGRADES

ALASKA ENERGY AUTHORITY

SCAMMON BAY, ALASKA

SHEET TITLE: CODE ANALYSIS AND SET BACK PLAN

SHEET: G1.05

DRAWN BY: KK CHECKED BY: DEC

DATE: 01/31/22 SCALE: 1" = 100'

JOB NUMBER: 20-017

LAYOUT
G1.06

DATE TIME
11/29/2023 2:56 PM

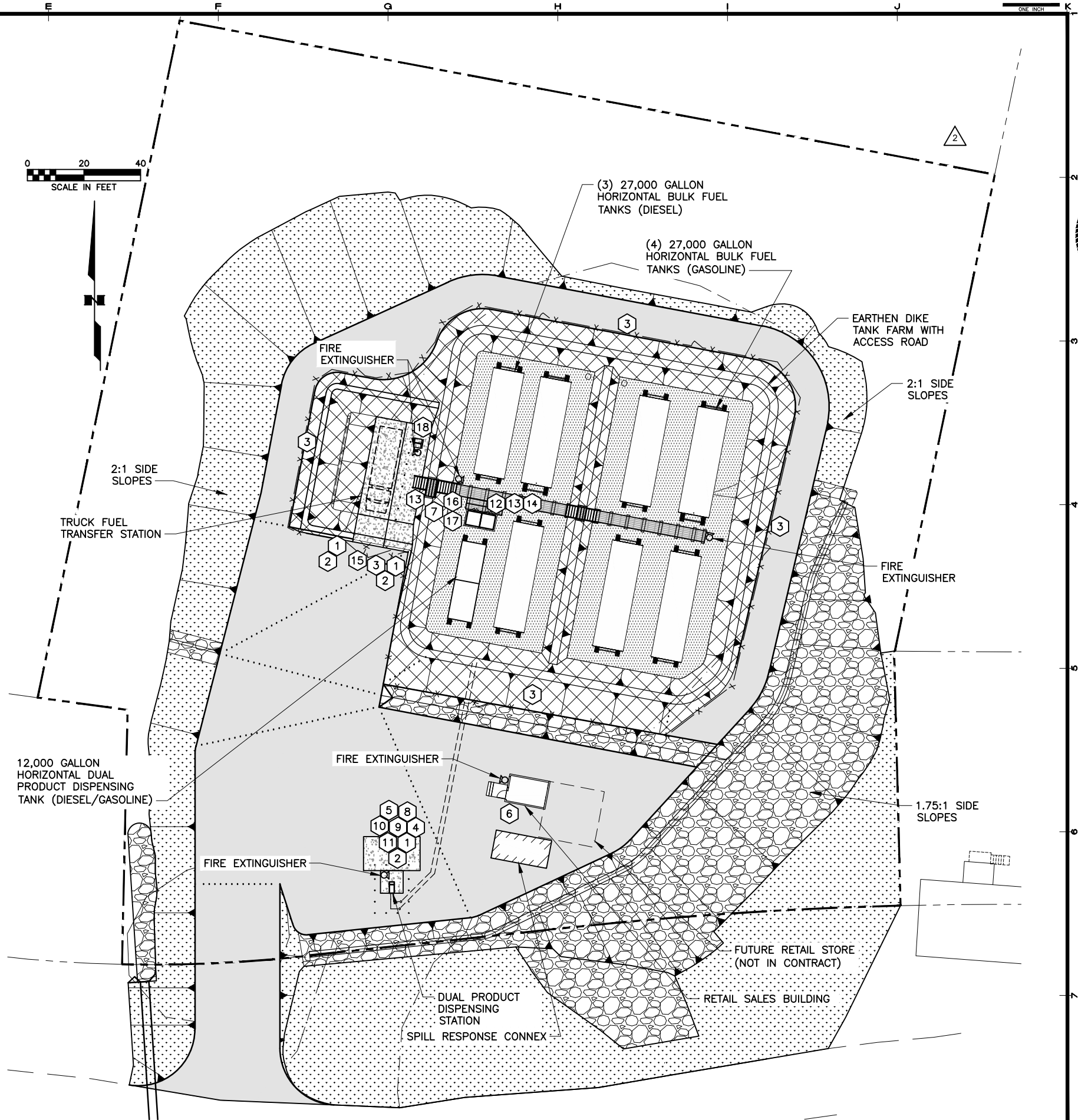
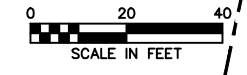
DRAWING LOCATION
H:\Jobs\20-017 Scammon Bay BFU Ph. 1 and 2 (AEA)\CAD\Drawings\20-017_01_03-SBSP.dwg KKRNEGAY

SIGNAGE NOTES:

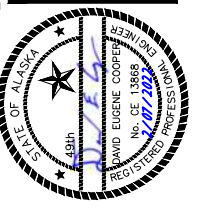
1. INSTALLATION – ATTACH TO FENCING WITH HOG RINGS OR STAINLESS STEEL CABLE TIES. ATTACH TO STRUCTURES WITH LAGS OR BOLTS.
2. WARNING SIGNS & INFORMATIONAL PLACARDS – PROVIDE ALL SIGNS INDICATED IN THE SCHEDULE BELOW, QUANTITY & LOCATION AS INDICATED ON DRAWINGS. ALL SIGNS SHALL BE 0.08" ALUMINUM PLATE, 10"x14" UNLESS INDICATED OTHERWISE OR REQUIRED TO BE LARGER FOR SPECIFIED LETTER SIZE. PROVIDE 3/16" HOLES IN ALL FOUR CORNERS. WHITE NON-REFLECTIVE VINYL BACKGROUND, 3M 3650-10, WITH 3M SERIES 225 HIGH PERFORMANCE VINYL LETTERS, ONE SIDE ONLY. WARNING LITES OR EQUAL.
3. INSTALL 5 PORTABLE FIRE EXTINGUISHERS (TYPE 4 – 40BC), INCLUDING TWO IN THE FENCED AREA, ONE AT THE DISPENSER AND TWO SPARES TO BE STORED WITH SPILL RESPONSE EQUIPMENT. EXTINGUISHERS MOUNTED OUTSIDE SHALL BE WITHIN APPROVED WEATHER PROOF ENCLOSURE WITH HINGED DOORS.
4. SEE ELECTRICAL SHEETS FOR LOCATIONS OF EMERGENCY STOPS AND INSTALL SIGNS AT THOSE LOCATION.

SIGNAGE:

- WARNING SIGNS – RED ON NON-REFLECTIVE WHITE BACKGROUND.**
- ① "DANGER – FLAMMABLE, NO SMOKING" (3" HIGH 1/2" STROKE LETTERS-24"x18")
 - ② "IN CASE OF SPILL CALL DEC 1-800-478-9300"
 - ③ "DANGEROUS CARGO, NO VISITORS, NO SMOKING, NO OPEN LIGHTS" (3" HIGH 1/2" STROKE LETTERS – 36"x24")
- INFORMATIONAL PLACARDS – BLACK ON NON-REFLECTIVE WHITE BACKGROUND.**
- ④ "DISPENSING INTO UNAPPROVED CONTAINERS PROHIBITED"
 - ⑤ "STOP YOUR MOTOR"
 - ⑥ "EMERGENCY FUEL SHUT OFF"
 - ⑦ "IN CASE OF FIRE OR SPILL TURN OFF MAIN BREAKER"
 - ⑧ "DISCHARGE YOUR STATIC ELECTRICITY BEFORE FUELING BY TOUCHING A METAL SURFACE AWAY FROM THE NOZZLE"
 - ⑨ "TO PREVENT A STATIC CHARGE DO NOT RE-ENTER YOUR VEHICLE WHILE GASOLINE IS PUMPING"
 - ⑩ "NO FILLING OF PORTABLE CONTAINERS IN OR ON A MOTOR VEHICLE. PLACE CONTAINER ON GROUND BEFORE FILLING"
 - ⑪ "IF FIRE STARTS, DO NOT REMOVE NOZZLE – BACK AWAY IMMEDIATELY"
 - ⑫ "CLOSE & LOCK BULK TANK MAIN VALVES AFTER EACH TRANSFER"
 - ⑬ "TURN OFF MAIN POWER EACH NIGHT"
 - ⑭ "PRIOR TO FILLING BULK TANKS CEASE TRANSFER OPERATIONS"
 - ⑮ "CHOCK WHEELS, ATTACH STATIC WIRE, & VERIFY TANK CAPACITY PRIOR TO BULK TRANSFER"
 - ⑯ "DISPENSING NOT PERMITTED WHILE DISPENSING TANK BEING FILLED"
 - ⑰ "CHECK GASOLINE DISPENSING TANK LEVEL DAILY, FILL WHEN BELOW 3'-0" :
 1) VERIFY BULK TANK LEVEL – DO NOT TRANSFER IF BELOW 1'-0"
 2) OPEN VALVE AT TANK
 3) PRESS START BUTTON
 4) MONITOR TANK LEVELS CONTINUOUSLY
 5) WHEN DISPENSING TANK LEVEL REACHES 90% PRESS STOP BUTTON
 6) CLOSE & LOCK VALVE"
 - ⑱ "MAXIMUM PRESSURE" = 75 PSI DO NOT OPERATE PIPELINES WITH PRESSURES IN EXCESS OF MAXIMUM



| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-------------|
| 1 | 11/28/23 | UPDATE |



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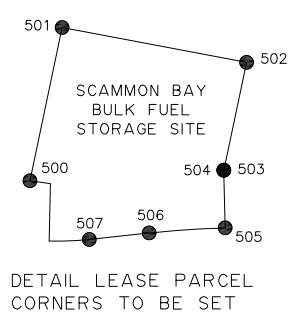
SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
 SCAMMON BAY, ALASKA

| | |
|------------------------------------|--------------------|
| SHEET TITLE SIGNAGE PLAN | |
| SHEET G1.06 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

SIGNAGE PLAN

SCALE: 1" = 20'

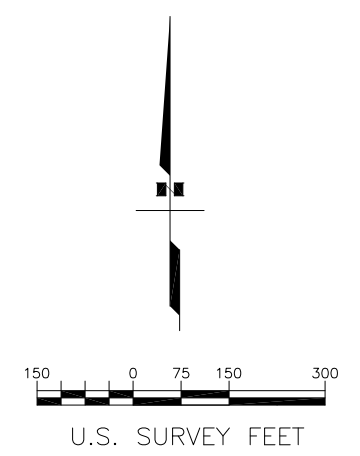
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DATE TIME: 2/4/2022 11:13 AM
LAYOUT: LAYOUT1
BMKERS: BMKERS



| POINT | NORTHING | EASTING |
|-------|------------|------------|
| 500 | 60202.6553 | 39601.0183 |
| 501 | 60442.0616 | 39651.2117 |
| 502 | 60387.6036 | 39939.3280 |
| 503 | 60219.0710 | 39903.9938 |
| 504 | 60219.0725 | 39903.7340 |
| 505 | 60129.0966 | 39906.0171 |
| 506 | 60121.1596 | 39787.0813 |
| 507 | 60111.0367 | 39693.6724 |

| LINE | DIRECTION | LENGTH |
|------|-------------|--------|
| L1 | N01°17'32"E | 89.99' |
| L2 | N82°11'34"W | 32.15' |
| L3 | N89°39'58"W | 0.26' |
| L4 | S01°27'10"E | 90.00' |
| L5 | N83°48'54"E | 93.96' |

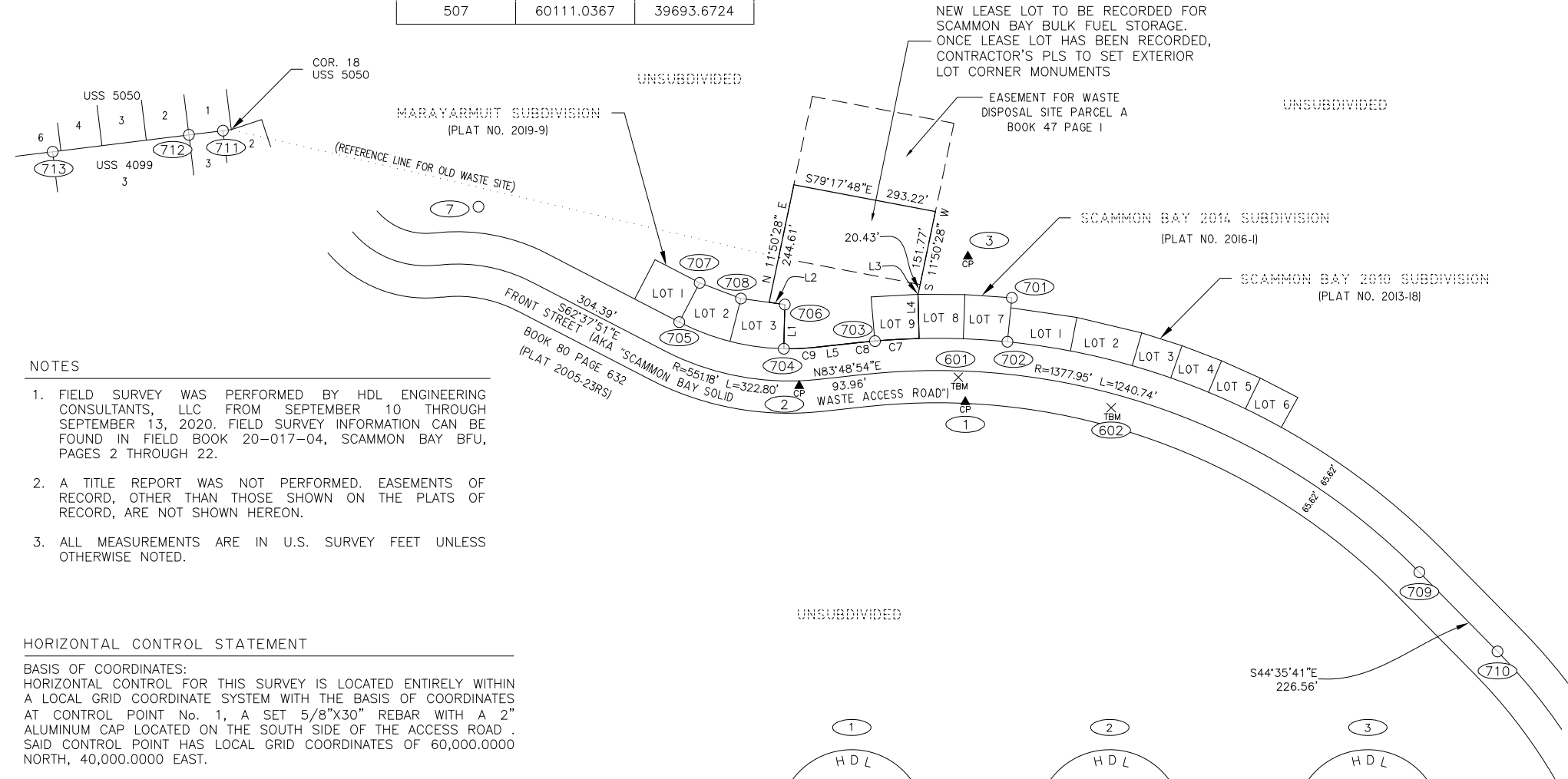
| CURVE | RADIUS | LENGTH | DELTA | CHORD | CHORD BEARING |
|-------|----------|--------|----------|--------|---------------|
| C7 | 1443.57' | 90.01' | 3°34'22" | 90.00' | S 86°45'40" W |
| C8 | 1443.57' | 29.22' | 1°09'35" | 29.22' | S 84°23'41" W |
| C9 | 485.56' | 62.93' | 7°25'34" | 62.89' | S 87°31'41" W |



| REVISIONS | MARK | DATE | DESCRIPTION |
|-----------|------|------|-------------|
| | | | |
| | | | |
| | | | |



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- NOTES**
- FIELD SURVEY WAS PERFORMED BY HDL ENGINEERING CONSULTANTS, LLC FROM SEPTEMBER 10 THROUGH SEPTEMBER 13, 2020. FIELD SURVEY INFORMATION CAN BE FOUND IN FIELD BOOK 20-017-04, SCAMMON BAY BFU, PAGES 2 THROUGH 22.
 - A TITLE REPORT WAS NOT PERFORMED. EASEMENTS OF RECORD, OTHER THAN THOSE SHOWN ON THE PLATS OF RECORD, ARE NOT SHOWN HEREON.
 - ALL MEASUREMENTS ARE IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.

HORIZONTAL CONTROL STATEMENT

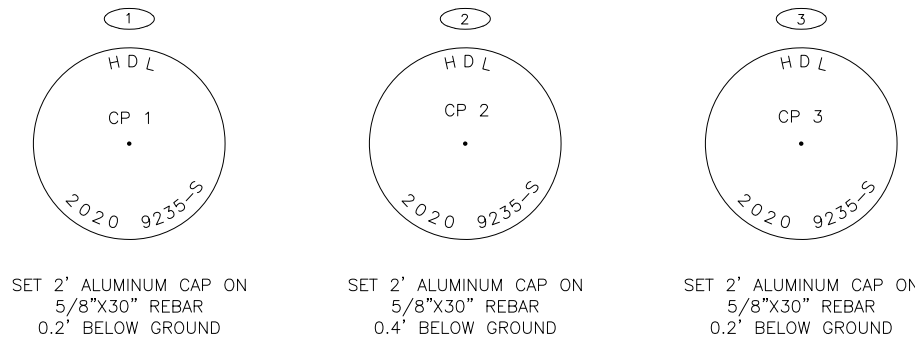
BASIS OF COORDINATES:
 HORIZONTAL CONTROL FOR THIS SURVEY IS LOCATED ENTIRELY WITHIN A LOCAL GRID COORDINATE SYSTEM WITH THE BASIS OF COORDINATES AT CONTROL POINT No. 1, A SET 5/8"X30" REBAR WITH A 2" ALUMINUM CAP LOCATED ON THE SOUTH SIDE OF THE ACCESS ROAD. SAID CONTROL POINT HAS LOCAL GRID COORDINATES OF 60,000.0000 NORTH, 40,000.0000 EAST.

BASIS OF BEARINGS:
 THE BASIS OF BEARINGS IS NAD 83(2011) EPOCH 2010.00 ALASKA STATE PLANE ZONE 8 GRID FROM GPS OBSERVATIONS.

TRANSLATION PARAMETERS:
 TO CONVERT THE LOCAL COORDINATES TO NAD 83(2011) EPOCH 2010.00 ALASKA STATE PLANE ZONE 8 U.S. SURVEY FOOT COORDINATES, TRANSLATE USING +2,805,132.1661 NORTH, +1,674,797.2343 EAST AND SCALE USING 0.99999159.

VERTICAL CONTROL STATEMENT

VERTICAL CONTROL FOR THIS SURVEY IS BASED ON THE VERTICAL DATUM NAVD 88 (COMPUTED USING GEOID 12B). AN ELEVATION OF 72.57 US SURVEY FEET AT CONTROL POINT No. 1 WAS DERIVED THROUGH A GPS STATIC SURVEY WHICH WAS THEN SUBMITTED TO NGS' OPUS FOR PROCESSING. FROM CONTROL POINT No. 1, DIFFERENTIAL LEVELING LOOPS WERE RUN TO ESTABLISH ELEVATIONS ON OTHER CONTROL POINTS AND TEMPORARY BENCH MARKS FOR USE IN DATA COLLECTION AND TO AID IN FUTURE CONSTRUCTION.



| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|-------|----------|---------|-----------|-----------------------------|
| 601 | 60050 | 39986 | 67.93 | SET SPIKE IN TELEPHONE POLE |
| 602 | 59988 | 40297 | 85.59 | TOP OF EAST BOLT LIGHT POLE |

| POINT | NORTHING | EASTING | DESCRIPTION |
|-------|------------|------------|-----------------------|
| 7 | 60397.3662 | 39009.6930 | FOUND 2" ALUMINUM CAP |
| 701 | 60211.9900 | 40094.7372 | FOUND 2" ALUMINUM CAP |
| 702 | 60122.4296 | 40085.7613 | FOUND 2" ALUMINUM CAP |
| 703 | 60123.6567 | 39816.2780 | FOUND 5/8' REBAR |
| 704 | 60108.3241 | 39630.8409 | FOUND 2" ALUMINUM CAP |
| 705 | 60162.5384 | 39418.1812 | FOUND 2" ALUMINUM CAP |
| 706 | 60198.2881 | 39632.8703 | FOUND 2" ALUMINUM CAP |
| 707 | 60242.4660 | 39459.5497 | FOUND 2" ALUMINUM CAP |
| 708 | 60210.5286 | 39543.5948 | FOUND 2" ALUMINUM CAP |
| 709 | 59653.2640 | 40924.0106 | FOUND 2" ALUMINUM CAP |
| 710 | 59492.0458 | 41082.8120 | FOUND 2" ALUMINUM CAP |
| 711 | 60552.1267 | 38489.7379 | FOUND 2" ALUMINUM CAP |
| 712 | 60543.6188 | 38420.3716 | FOUND 2" ALUMINUM CAP |
| 713 | 60509.3180 | 38143.2474 | FOUND COPPERWELD |

| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|-------|------------|------------|-----------|---------------------|
| 1 | 60000.0000 | 40000.0000 | 72.57 | SET 2" ALUMINUM CAP |
| 2 | 60032.6141 | 39662.1741 | 43.39 | SET 2" ALUMINUM CAP |
| 3 | 60296.0473 | 40005.3915 | 28.07 | SET 2" ALUMINUM CAP |

SCAMMON BAY BULK FUEL UPGRADES

ALASKA ENERGY AUTHORITY

SCAMMON BAY, ALASKA

SHEET TITLE: SURVEY CONTROL DRAWING

SHEET: G1.07

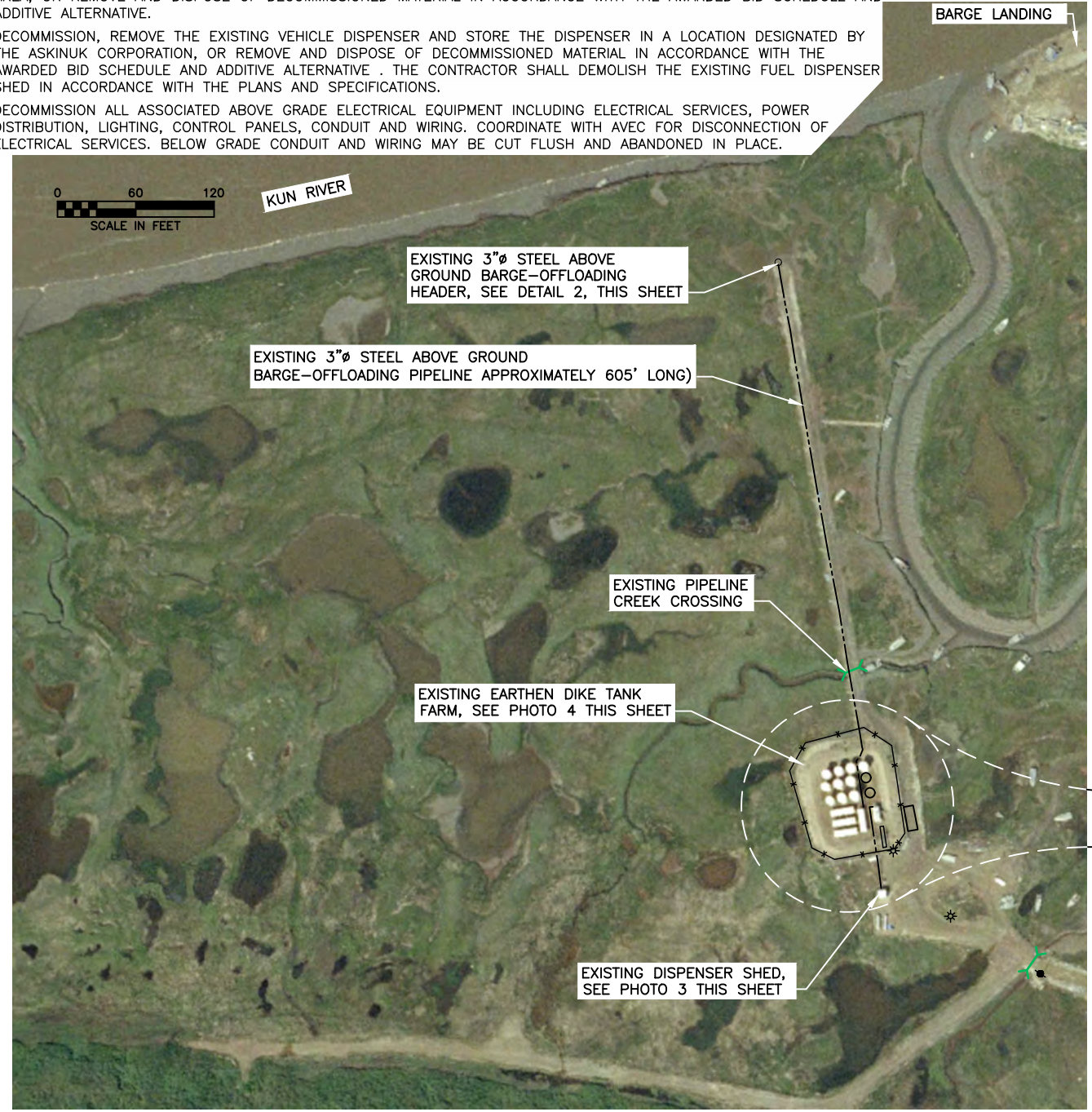
DRAWN BY: JHS
 CHECKED BY: TDM

DATE: 02/04/22
 SCALE: 1"=150'

JOB NUMBER: 20-017-04

SCOPE OF WORK

1. VISUALLY INSPECT ALL ABOVEGROUND TANKS DESIGNATED ON THE CONTRACT DRAWINGS FOR DECOMMISSIONING. DETERMINE IF PRODUCT EXISTS WITHIN EACH TANK. IF PRODUCT EXISTS, PUMP, FILTER, AND TRANSFER ALL USEABLE PRODUCT TO THE NEW TANK(S) BEING CONSTRUCTED TO REPLACE THE EXISTING TANKS.
2. CLEAN THE INTERIOR OF EACH TANK IN ACCORDANCE TO API 2015 OR OTHER APPROVED METHOD.
3. IMPLEMENT A CONFINED SPACE ENTRY PERMIT SYSTEM BEFORE ANY WORKER ENTERS EACH TANK. MONITOR THE TANK ATMOSPHERE FOR TOXICITY, OXYGEN LEVELS, AND EXPLOSIVE VAPORS.
4. ALL TANKS SHALL BE RENDERED UNUSABLE BY THE CONTRACTOR AT THE TIME OF DECOMMISSIONING. REMOVE NOZZLES AND VENTS. DISMANTLE AND DISPOSE OF EXISTING TANKS IN ACCORDANCE WITH THE AWARDED BID SCHEDULE AND ADDITIVE ALTERNATIVE.
5. CONSOLIDATE AND STORE ALL DECOMMISSIONED TANK MATERIAL IN NEAT AND ORGANIZED STACKS WITHIN THE OLD TANK FARM FUEL CONTAINMENT AREA, OR REMOVE AND DISPOSE OF DECOMMISSIONED MATERIAL IN ACCORDANCE WITH THE AWARDED BID SCHEDULE AND ADDITIVE ALTERNATIVE.
6. PURGE ALL REMAINING FUEL AND RESIDUAL LIQUID FROM THE EXISTING LINES. DECOMMISSION THE PIPELINES AS SPECIFIED IN THE CONTRACT DOCUMENTS AND CUT THE FUEL PIPING IN MAXIMUM OF 20-FOOT SECTIONS.
7. STORE ALL DECOMMISSIONED PIPING IN NEAT AND ORGANIZED STACKS NEXT TO THE OLD TANK FARM FUEL CONTAINMENT AREA, OR REMOVE AND DISPOSE OF DECOMMISSIONED MATERIAL IN ACCORDANCE WITH THE AWARDED BID SCHEDULE AND ADDITIVE ALTERNATIVE.
8. DECOMMISSION, REMOVE THE EXISTING VEHICLE DISPENSER AND STORE THE DISPENSER IN A LOCATION DESIGNATED BY THE ASKINUK CORPORATION, OR REMOVE AND DISPOSE OF DECOMMISSIONED MATERIAL IN ACCORDANCE WITH THE AWARDED BID SCHEDULE AND ADDITIVE ALTERNATIVE. THE CONTRACTOR SHALL DEMOLISH THE EXISTING FUEL DISPENSER SHED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
9. DECOMMISSION ALL ASSOCIATED ABOVE GRADE ELECTRICAL EQUIPMENT INCLUDING ELECTRICAL SERVICES, POWER DISTRIBUTION, LIGHTING, CONTROL PANELS, CONDUIT AND WIRING. COORDINATE WITH AVEC FOR DISCONNECTION OF ELECTRICAL SERVICES. BELOW GRADE CONDUIT AND WIRING MAY BE CUT FLUSH AND ABANDONED IN PLACE.



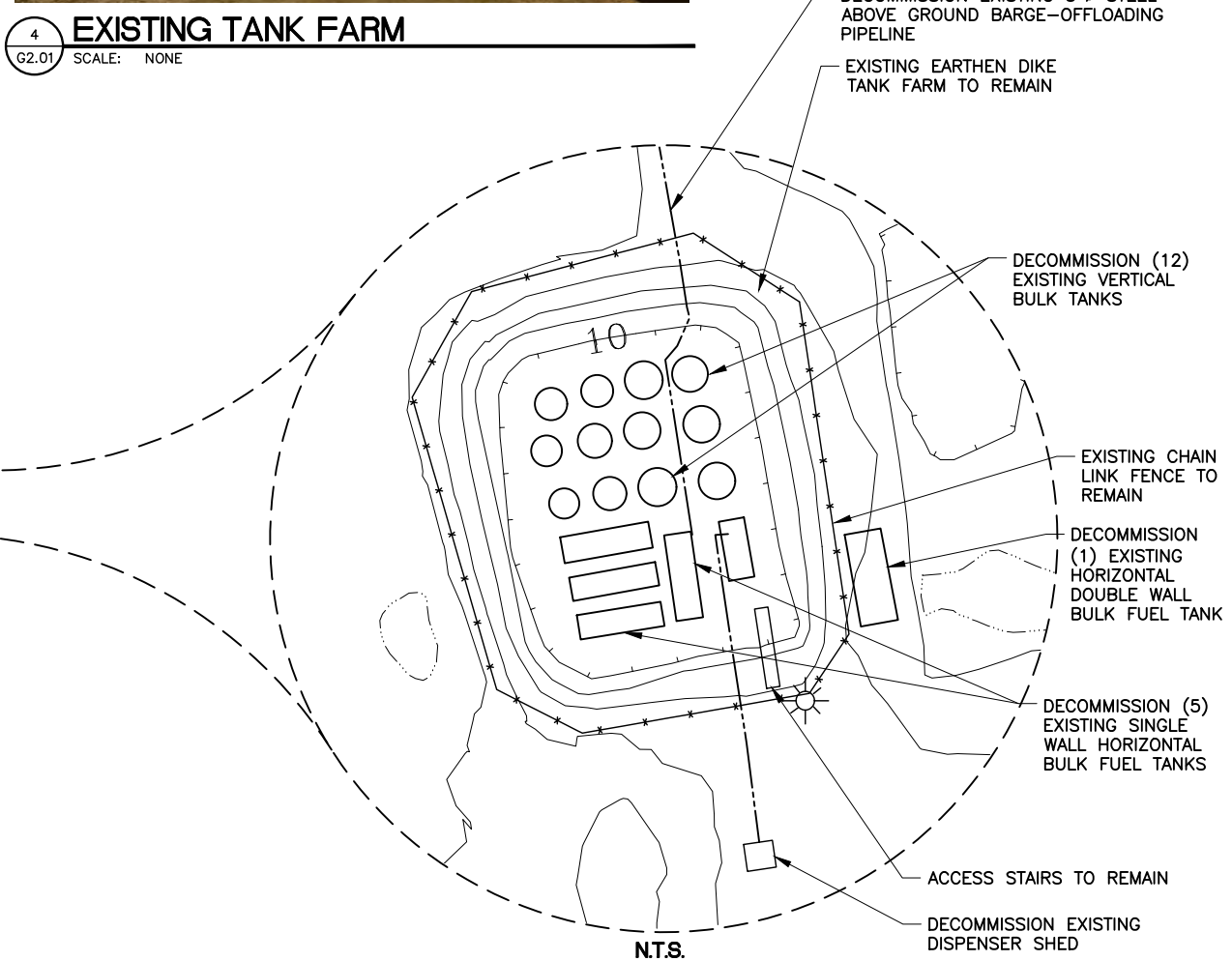
2 EXISTING BARGE HEADER
G2.01 SCALE: NONE



3 EXISTING DISPENSER SHED
G2.01 SCALE: NONE



4 EXISTING TANK FARM
G2.01 SCALE: NONE



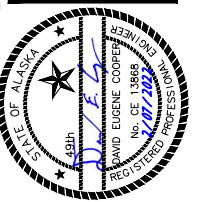
1 EXISTING TANK FARM DECOMMISSIONING PLAN
G2.01 SCALE: NONE

LAYOUT G2.01

DATE TIME 2/3/2022 1:20 PM

DRAWING LOCATION h:\jobs\20-017 scammun bay bfu ph 1 and 2 (aec)\CAD\Drawings\20-017_01_01_04-PLP.dwg KKPREGAY

| REVISIONS | DATE | DESCRIPTION |
|-----------|------|-------------|
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SCAMMON BAY BULK FUEL UPGRADES

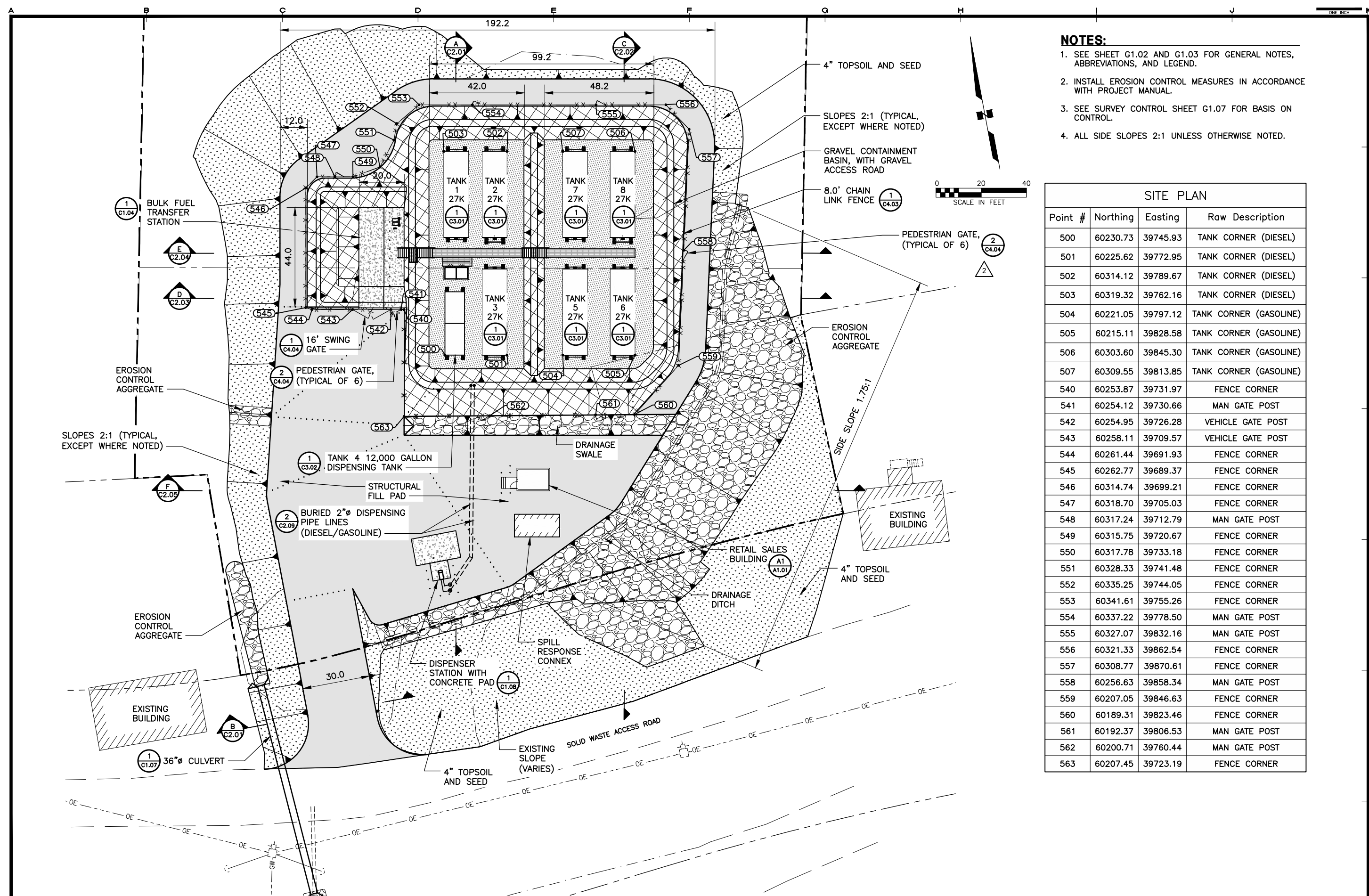
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

SHEET TITLE: EXISTING TANK FARM DECOMMISSIONING PLAN
SHEET: G2.01
DRAWN BY: KK CHECKED BY: DEC
DATE: 01/31/22 SCALE: AS SHOWN
JOB NUMBER: 20-017

LAYOUT
C1.01

DATE TIME
11/26/2023 5:00 PM

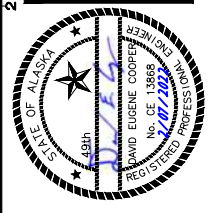
DRAWING LOCATION
H:\Jobs\20-017 Scammon Bay Bfu Ph 1 and 2 (AEA)\CAD\Drawings\20-017_04_site-grade.dwg KKRREGAY



- NOTES:**
1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 2. INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
 3. SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
 4. ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

| SITE PLAN | | | |
|-----------|----------|----------|------------------------|
| Point # | Northing | Easting | Raw Description |
| 500 | 60230.73 | 39745.93 | TANK CORNER (DIESEL) |
| 501 | 60225.62 | 39772.95 | TANK CORNER (DIESEL) |
| 502 | 60314.12 | 39789.67 | TANK CORNER (DIESEL) |
| 503 | 60319.32 | 39762.16 | TANK CORNER (DIESEL) |
| 504 | 60221.05 | 39797.12 | TANK CORNER (GASOLINE) |
| 505 | 60215.11 | 39828.58 | TANK CORNER (GASOLINE) |
| 506 | 60303.60 | 39845.30 | TANK CORNER (GASOLINE) |
| 507 | 60309.55 | 39813.85 | TANK CORNER (GASOLINE) |
| 540 | 60253.87 | 39731.97 | FENCE CORNER |
| 541 | 60254.12 | 39730.66 | MAN GATE POST |
| 542 | 60254.95 | 39726.28 | VEHICLE GATE POST |
| 543 | 60258.11 | 39709.57 | VEHICLE GATE POST |
| 544 | 60261.44 | 39691.93 | FENCE CORNER |
| 545 | 60262.77 | 39689.37 | FENCE CORNER |
| 546 | 60314.74 | 39699.21 | FENCE CORNER |
| 547 | 60318.70 | 39705.03 | FENCE CORNER |
| 548 | 60317.24 | 39712.79 | MAN GATE POST |
| 549 | 60315.75 | 39720.67 | FENCE CORNER |
| 550 | 60317.78 | 39733.18 | FENCE CORNER |
| 551 | 60328.33 | 39741.48 | FENCE CORNER |
| 552 | 60335.25 | 39744.05 | FENCE CORNER |
| 553 | 60341.61 | 39755.26 | FENCE CORNER |
| 554 | 60337.22 | 39778.50 | MAN GATE POST |
| 555 | 60327.07 | 39832.16 | MAN GATE POST |
| 556 | 60321.33 | 39862.54 | FENCE CORNER |
| 557 | 60308.77 | 39870.61 | FENCE CORNER |
| 558 | 60256.63 | 39858.34 | MAN GATE POST |
| 559 | 60207.05 | 39846.63 | FENCE CORNER |
| 560 | 60189.31 | 39823.46 | FENCE CORNER |
| 561 | 60192.37 | 39806.53 | MAN GATE POST |
| 562 | 60200.71 | 39760.44 | MAN GATE POST |
| 563 | 60207.45 | 39723.19 | FENCE CORNER |

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-------------|
| 1 | 11/28/23 | UPDATE |



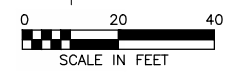
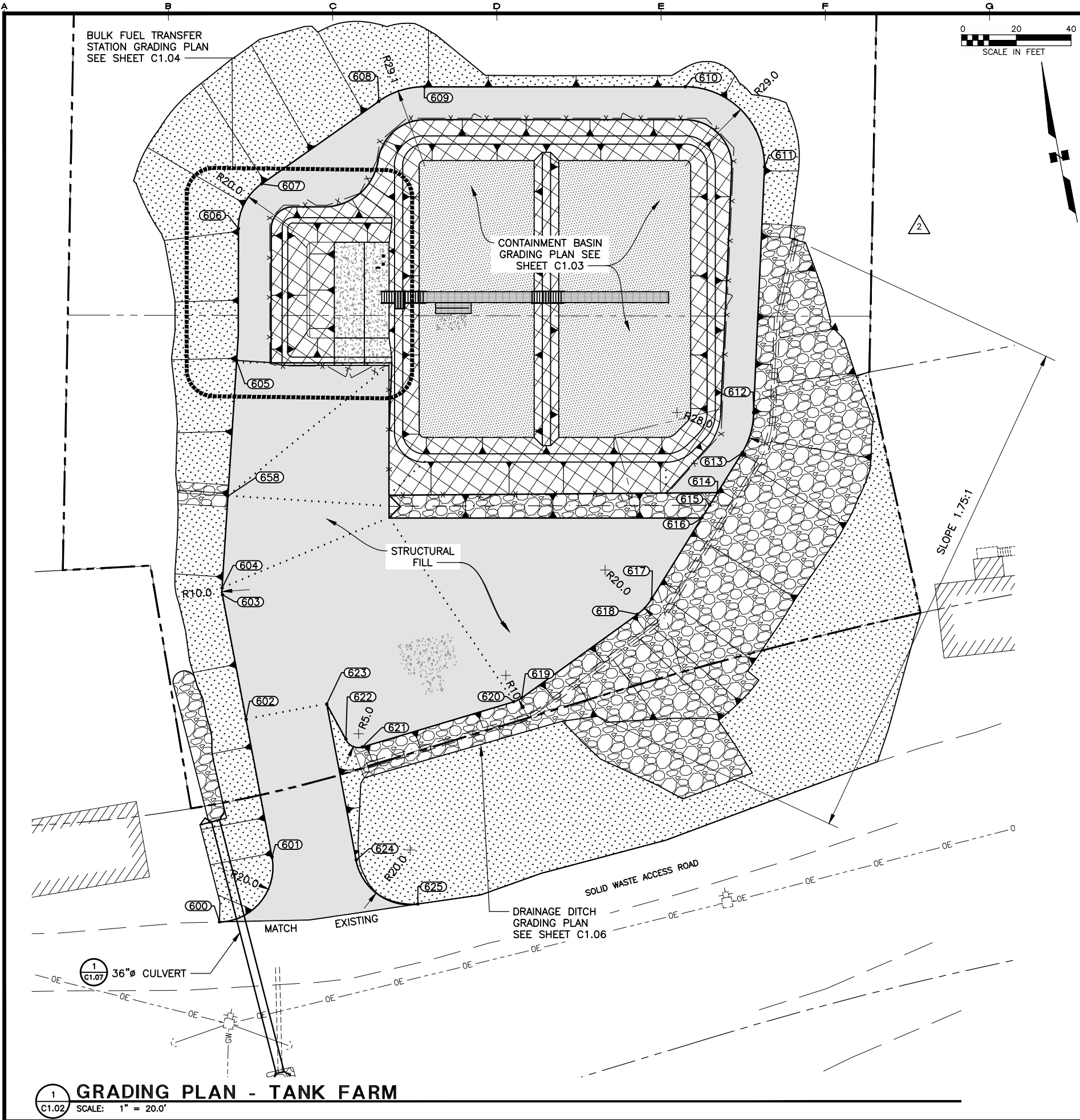
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SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
 SCAMMON BAY, ALASKA

| | |
|--------------------------|--------------------|
| SHEET TITLE SITE PLAN | |
| SHEET C1.01 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

1 SITE PLAN - TANK FARM
 SCALE: 1" = 20.0'

LAYOUT C1.02
 DATE TIME 11/26/2023 5:00 PM
 DRAWING LOCATION H:\Jobs\20-017 Scammon Bay BPU Ph 1 and 2 (AEA)\CAD\Drawings\20-017_04_site-grade.dwg KKRREGAY



NOTES:

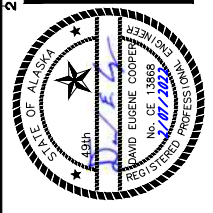
1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
2. INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
3. SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
4. ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

GRADING PLAN POINTS

| Point # | Northing | Easting | Elevation | Description |
|---------|----------|----------|-----------|-------------------------------|
| 600 | 60065.68 | 39633.39 | 43.3 | EXIST ROAD / DRIVEWAY / PC |
| 601 | 60085.40 | 39656.68 | 42.6 | DRIVEWAY / PT |
| 602 | 60136.63 | 39656.68 | 40.0 | DRIVEWAY EDGE |
| 603 | 60182.95 | 39656.68 | 37.5 | DRIVEWAY EDGE / PC |
| 604 | 60185.43 | 39656.99 | 37.5 | DRIVEWAY EDGE / PT |
| 605 | 60266.18 | 39677.71 | 38.0 | DRIVEWAY EDGE |
| 606 | 60313.42 | 39687.25 | 35.8 | ACCESS ROAD / PC |
| 607 | 60327.90 | 39698.62 | 35.8 | ACCESS ROAD / PT |
| 608 | 60349.59 | 39746.26 | 35.8 | ACCESS ROAD / PC |
| 609 | 60351.72 | 39763.69 | 35.8 | ACCESS ROAD / PT |
| 610 | 60334.03 | 39857.28 | 35.8 | ACCESS ROAD / PC |
| 611 | 60299.85 | 39880.33 | 35.8 | ACCESS ROAD / PT |
| 612 | 60212.39 | 39859.73 | 38.3 | ACCESS ROAD / PC |
| 613 | 60198.68 | 39852.87 | 38.3 | ACCESS ROAD / PT |
| 614 | 60186.07 | 39841.32 | 38.1 | TOP OF SWALE |
| 615 | 60182.06 | 39837.65 | 37.6 | BOTTOM OF SWALE |
| 616 | 60178.06 | 39833.98 | 38.5 | TOP OF SWALE |
| 617 | 60152.36 | 39810.45 | 40.0 | GRAVEL PAD EDGE / PC |
| 618 | 60147.76 | 39804.19 | 40.2 | GRAVEL PAD EDGE / PT |
| 619 | 60125.69 | 39757.14 | 40.5 | GRAVEL EDGE / PC |
| 620 | 60124.80 | 39753.93 | 40.5 | GRAVEL EDGE / PT |
| 621 | 60118.81 | 39696.58 | 42.0 | GRAVEL EDGE / PC |
| 622 | 60122.78 | 39691.16 | 42.0 | GRAVEL EDGE / PT |
| 623 | 60136.63 | 39686.68 | 40.0 | DRIVEWAY |
| 624 | 60078.63 | 39686.68 | 43.6 | DRIVEWAY / PC |
| 625 | 60058.65 | 39705.80 | 46.5 | DRIVEWAY / PT / EXISTING ROAD |
| 658 | 60218.08 | 39665.37 | 36.0 | END SWALE |

1 GRADING PLAN - TANK FARM
 SCALE: 1" = 20.0'

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-------------|
| 1 | 11/28/23 | UPDATE |

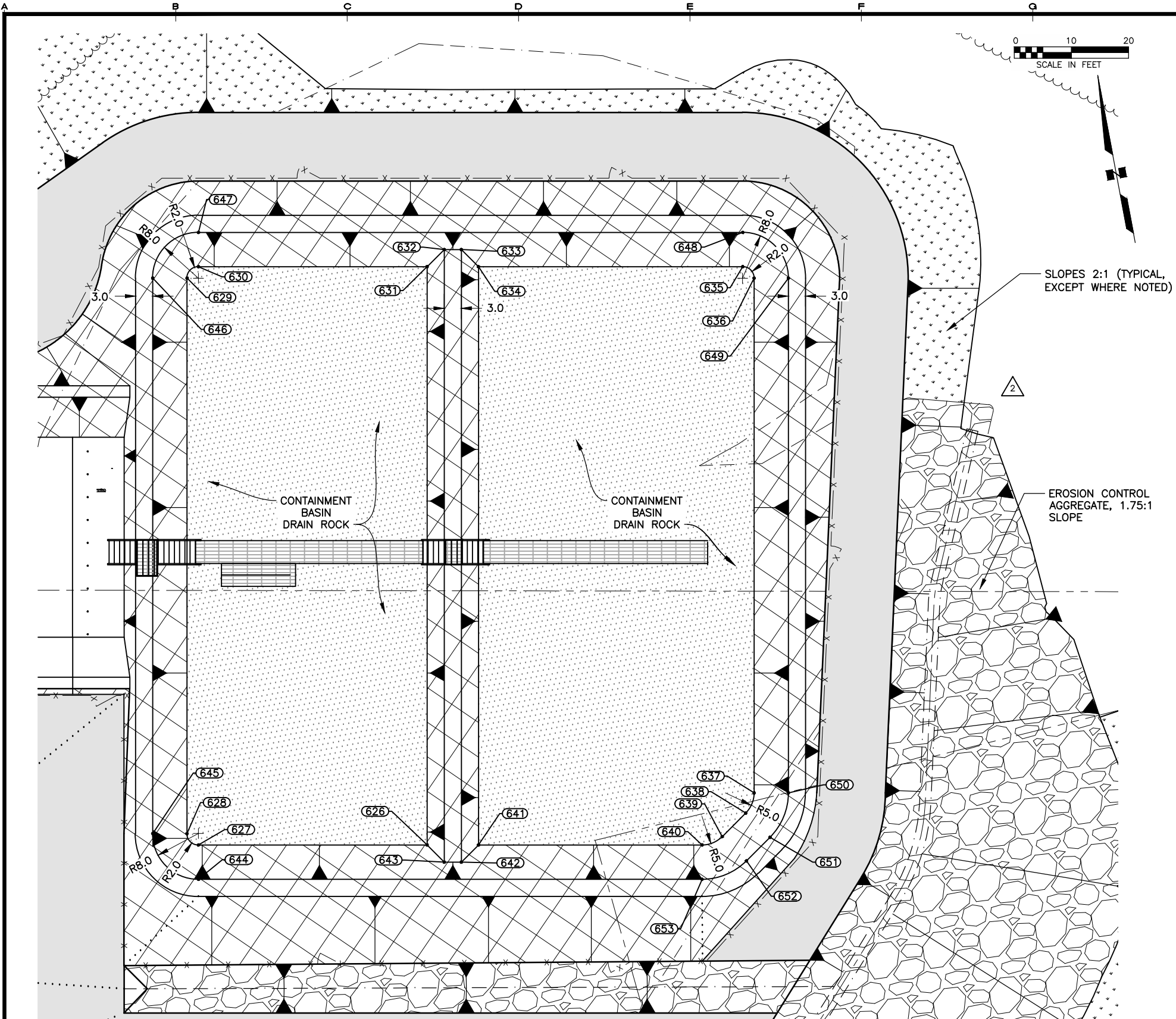


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SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
 SCAMMON BAY, ALASKA

| | |
|----------------------------------|--------------------|
| SHEET TITLE SITE GRADING PLAN | |
| SHEET C1.02 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

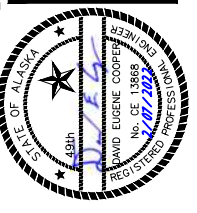
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DATE TIME: 11/28/2023 5:00 PM
LAYOUT: C1.03



- NOTES:**
1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 2. INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
 3. SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
 4. ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

| GRADING PLAN POINTS | | | | |
|---------------------|----------|----------|-----------|----------------------------|
| Point # | Northing | Easting | Elevation | Description |
| 626 | 60218.34 | 39779.19 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 627 | 60225.77 | 39739.89 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 628 | 60228.10 | 39738.29 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 629 | 60323.60 | 39756.34 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 630 | 60325.19 | 39758.68 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 631 | 60317.76 | 39797.98 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 632 | 60320.15 | 39801.49 | 38.0 | TOP INTERMEDIATE DIKE |
| 633 | 60319.59 | 39804.44 | 38.0 | TOP INTERMEDIATE DIKE |
| 634 | 60316.09 | 39806.83 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 635 | 60307.50 | 39852.26 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 636 | 60305.16 | 39853.86 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 637 | 60216.66 | 39837.13 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 638 | 60213.46 | 39835.03 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 639 | 60210.18 | 39830.23 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 640 | 60209.40 | 39826.48 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 641 | 60216.67 | 39788.04 | 36.5 | BOTTOM OF CONTAINMENT DIKE |
| 642 | 60214.28 | 39784.53 | 38.0 | TOP OF INTERMEDIATE DIKE |
| 643 | 60214.83 | 39781.58 | 38.0 | TOP OF INTERMEDIATE DIKE |
| 644 | 60219.87 | 39738.77 | 39.5 | TOP OF CONTAINMENT DIKE |
| 645 | 60229.22 | 39732.40 | 39.5 | TOP OF CONTAINMENT DIKE |
| 646 | 60324.71 | 39750.45 | 39.5 | TOP OF CONTAINMENT DIKE |
| 647 | 60331.08 | 39759.79 | 39.5 | TOP OF CONTAINMENT DIKE |
| 648 | 60313.40 | 39853.38 | 39.5 | TOP OF CONTAINMENT DIKE |
| 649 | 60304.05 | 39859.75 | 39.5 | TOP OF CONTAINMENT DIKE |
| 650 | 60215.55 | 39843.02 | 39.5 | TOP OF CONTAINMENT DIKE |
| 651 | 60208.50 | 39838.41 | 39.5 | TOP OF CONTAINMENT DIKE |
| 652 | 60205.23 | 39833.61 | 39.5 | TOP OF CONTAINMENT DIKE |
| 653 | 60203.50 | 39825.37 | 39.5 | TOP OF CONTAINMENT DIKE |

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|----------------------------------|
| 1 | 11/28/23 | NIP 1 FILL LIMITS, HATCH UPDATES |



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SCAMMON BAY BULK FUEL UPGRADES

ALASKA ENERGY AUTHORITY

SCAMMON BAY, ALASKA

SHEET TITLE: CONTAINMENT BASIN - GRADING PLAN

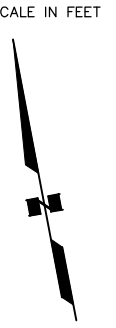
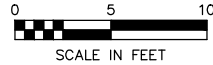
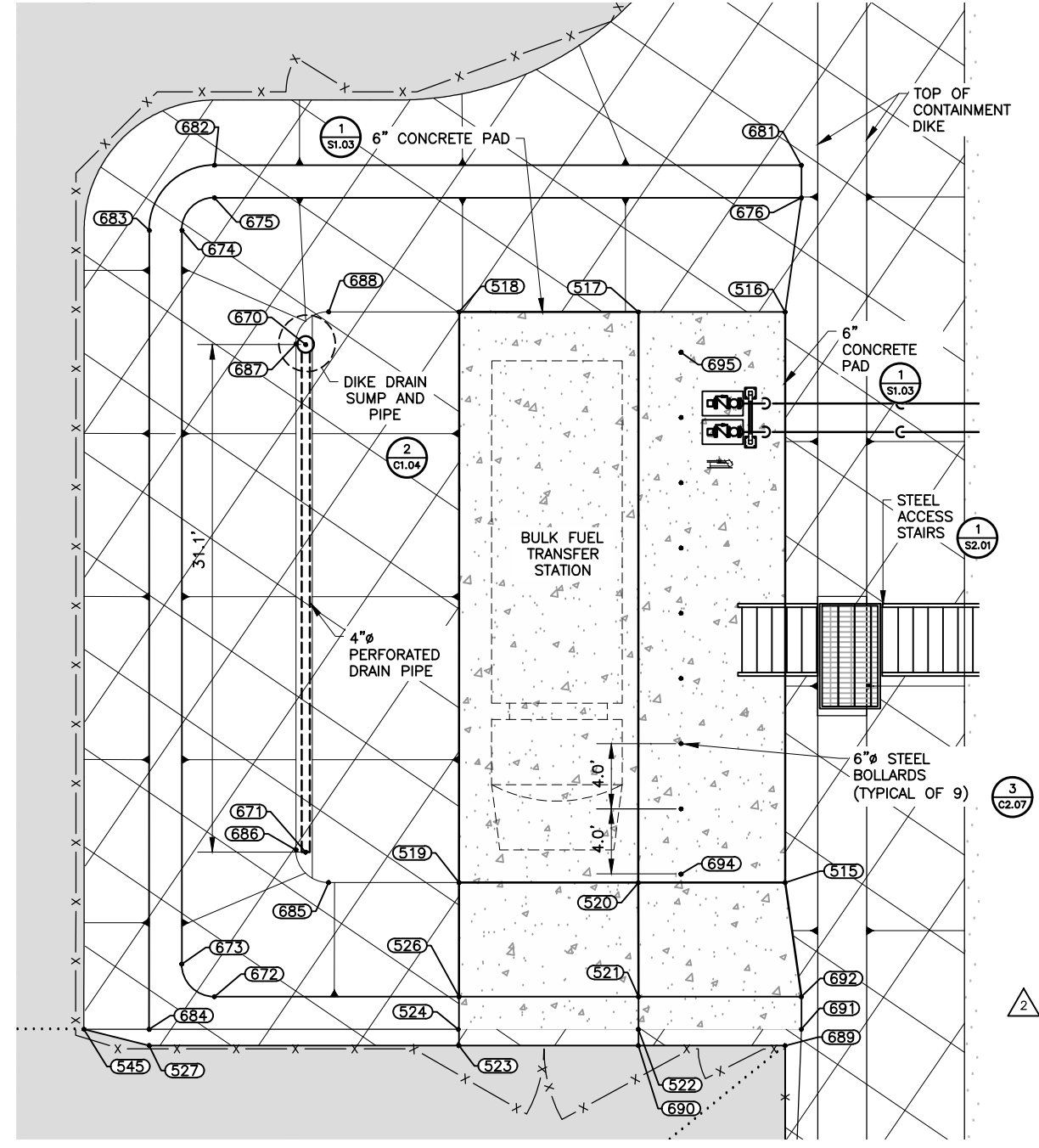
1 GRADING PLAN - CONTAINMENT BASIN
 SCALE: 1" = 10.0'

| | |
|--------------------|-----------------|
| SHEET: C1.03 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

DRAWING LOCATION: H:\Jobs\20-017 Scammon Bay BPU Ph 1 and 2 (AEA)\CAD\Drawings\20-017_04_IF-SITE.dwg KORNIGAY

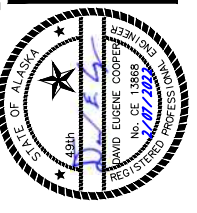
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LAYOUT: C1.04



- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - SEE SHEET G1.03 FOR TANK, PUMP AND VALVE SCHEDULES.

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|------------------------------------|
| 1 | 11/28/23 | INITIAL FILL LIMITS, HATCH UPDATES |

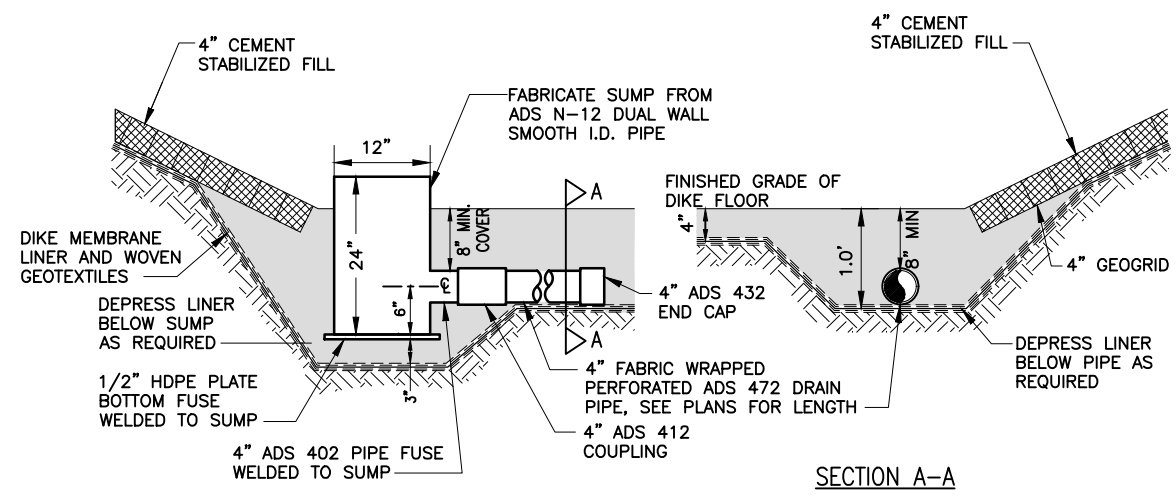


| BULK FUEL TRANSFER STATION POINTS | | | | |
|-----------------------------------|----------|----------|-----------|-------------------------------------|
| Point # | Northing | Easting | Elevation | Description |
| 515 | 60263.89 | 39733.86 | 38.5 | CONCRETE PAD BULK FUEL TRANSFER |
| 516 | 60298.28 | 39740.36 | 38.5 | CONCRETE PAD BULK FUEL TRANSFER |
| 517 | 60299.96 | 39731.52 | 38.3 | CONCRETE PAD BULK FUEL TRANSFER |
| 518 | 60302.00 | 39720.72 | 38.0 | CONCRETE PAD BULK FUEL TRANSFER |
| 519 | 60267.61 | 39714.21 | 38.0 | CONCRETE PAD BULK FUEL TRANSFER |
| 520 | 60265.56 | 39725.02 | 38.3 | CONCRETE PAD BULK FUEL TRANSFER |
| 521 | 60258.69 | 39723.72 | 39.0 | CONCRETE PAD BULK FUEL TRANSFER |
| 522 | 60256.72 | 39723.35 | 39.0 | CONCRETE PAD BULK FUEL TRANSFER |
| 523 | 60257.78 | 39712.36 | 38.5 | BOTTOM OF DIKE |
| 524 | 60258.77 | 39712.49 | 39.0 | TOP OF DIKE/CONCRETE PAD |
| 526 | 60260.73 | 39712.91 | 39.0 | TOP OF DIKE/CONCRETE PAD |
| 527 | 60261.32 | 39693.67 | 38.5 | BOTTOM OF DIKE |
| 545 | 60263.04 | 39689.93 | 38.0 | BOTTOM OF SLOPE/FENCE CORNER |
| 670 | 60301.78 | 39711.10 | 33.3 | 12" DIA DRAINAGE SUMP ID BOTTOM INV |
| 671 | 60271.19 | 39705.31 | 33.9 | 4" DIA DRAINAGE PIPE INV |
| 672 | 60263.52 | 39698.16 | 39.0 | TOP OF DIKE |
| 673 | 60265.86 | 39696.57 | 39.0 | TOP OF DIKE |
| 674 | 60310.07 | 39704.94 | 39.0 | TOP OF DIKE |
| 675 | 60311.66 | 39707.28 | 39.0 | TOP OF DIKE |

| BULK FUEL TRANSFER STATION POINTS | | | | |
|-----------------------------------|----------|----------|-----------|--------------------------|
| Point # | Northing | Easting | Elevation | Description |
| 676 | 60304.98 | 39742.65 | 39.0 | TOP OF DIKE |
| 681 | 60306.94 | 39743.02 | 39.0 | TOP OF DIKE |
| 682 | 60313.63 | 39707.65 | 39.0 | TOP OF DIKE |
| 683 | 60310.44 | 39702.97 | 39.0 | TOP OF DIKE |
| 684 | 60262.30 | 39693.86 | 39.0 | TOP OF DIKE |
| 685 | 60269.10 | 39706.35 | 35.3 | TOE OF DIKE |
| 686 | 60271.43 | 39704.76 | 35.0 | TOE OF DIKE |
| 687 | 60301.94 | 39710.53 | 34.7 | TOE OF DIKE |
| 688 | 60303.49 | 39712.85 | 35.0 | TOE OF DIKE |
| 689 | 60254.07 | 39732.01 | 38.8 | BOTTOM OF DIKE |
| 690 | 60255.74 | 39723.17 | 38.6 | BOTTOM OF DIKE |
| 691 | 60254.86 | 39733.17 | 39.0 | TOP OF DIKE/CONCRETE PAD |
| 692 | 60256.83 | 39733.55 | 39.0 | TOP OF DIKE/CONCRETE PAD |
| 694 | 60265.59 | 39727.69 | --- | 6" DIA BOLLARD |
| 695 | 60297.04 | 39733.63 | --- | 6" DIA BOLLARD |

1 SITE PLAN - BULK FUEL TRANSFER STATION
SCALE: 1" = 5.0'

2 DRAINAGE SUMP - BULK FUEL TRANSFER STATION
SCALE: NONE



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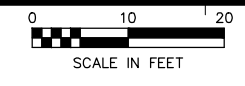
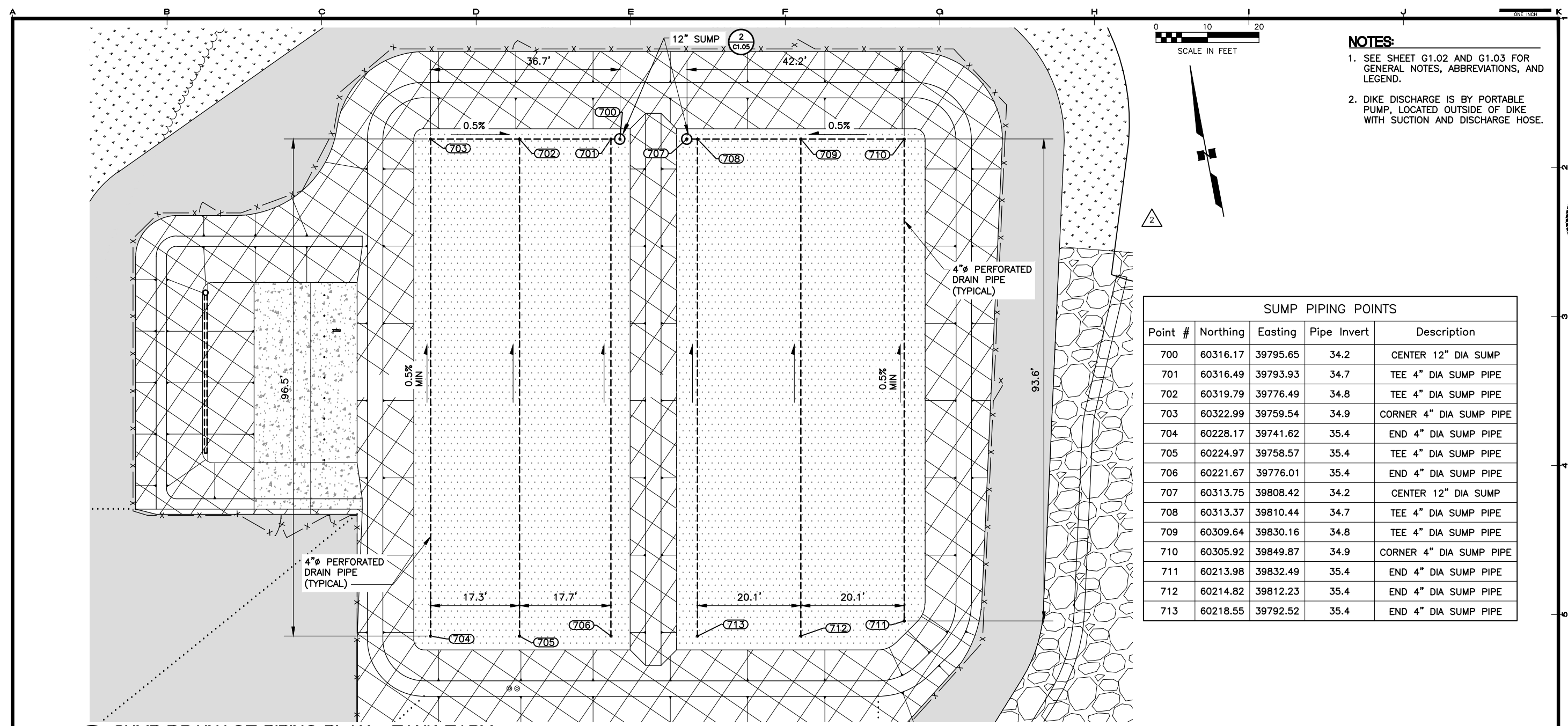
SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

| | |
|--|-----------------|
| SHEET TITLE | |
| BULK FUEL TRANSFER STATION SITE - GRADING PLAN | |
| SHEET | |
| C1.04 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

LAYOUT
C1.05

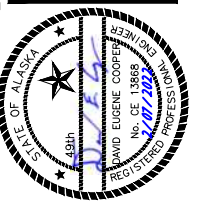
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11/29/2023 3:06 PM

DRAWING LOCATION
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- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - DIKE DISCHARGE IS BY PORTABLE PUMP, LOCATED OUTSIDE OF DIKE WITH SUCTION AND DISCHARGE HOSE.

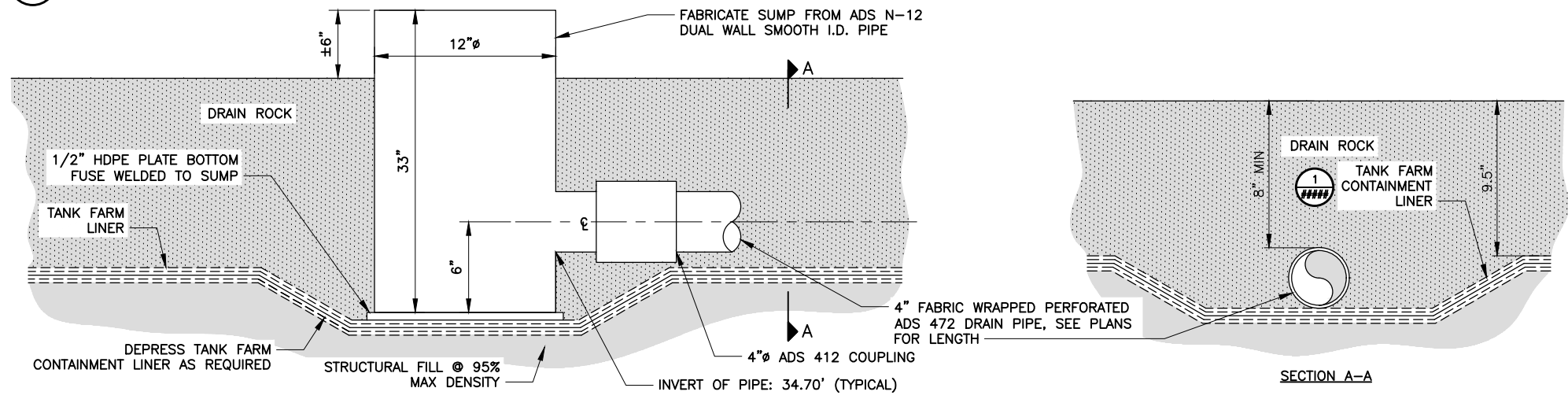
| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-------------|
| 1 | 11/28/23 | UPDATE |



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| SUMP PIPING POINTS | | | | |
|--------------------|----------|----------|-------------|-------------------------|
| Point # | Northing | Easting | Pipe Invert | Description |
| 700 | 60316.17 | 39795.65 | 34.2 | CENTER 12" DIA SUMP |
| 701 | 60316.49 | 39793.93 | 34.7 | TEE 4" DIA SUMP PIPE |
| 702 | 60319.79 | 39776.49 | 34.8 | TEE 4" DIA SUMP PIPE |
| 703 | 60322.99 | 39759.54 | 34.9 | CORNER 4" DIA SUMP PIPE |
| 704 | 60228.17 | 39741.62 | 35.4 | END 4" DIA SUMP PIPE |
| 705 | 60224.97 | 39758.57 | 35.4 | TEE 4" DIA SUMP PIPE |
| 706 | 60221.67 | 39776.01 | 35.4 | END 4" DIA SUMP PIPE |
| 707 | 60313.75 | 39808.42 | 34.2 | CENTER 12" DIA SUMP |
| 708 | 60313.37 | 39810.44 | 34.7 | TEE 4" DIA SUMP PIPE |
| 709 | 60309.64 | 39830.16 | 34.8 | TEE 4" DIA SUMP PIPE |
| 710 | 60305.92 | 39849.87 | 34.9 | CORNER 4" DIA SUMP PIPE |
| 711 | 60213.98 | 39832.49 | 35.4 | END 4" DIA SUMP PIPE |
| 712 | 60214.82 | 39812.23 | 35.4 | END 4" DIA SUMP PIPE |
| 713 | 60218.55 | 39792.52 | 35.4 | END 4" DIA SUMP PIPE |

1 SUMP DRAINAGE PIPING PLAN - TANK FARM
C1.05 SCALE: 1" = 10.0'

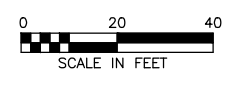
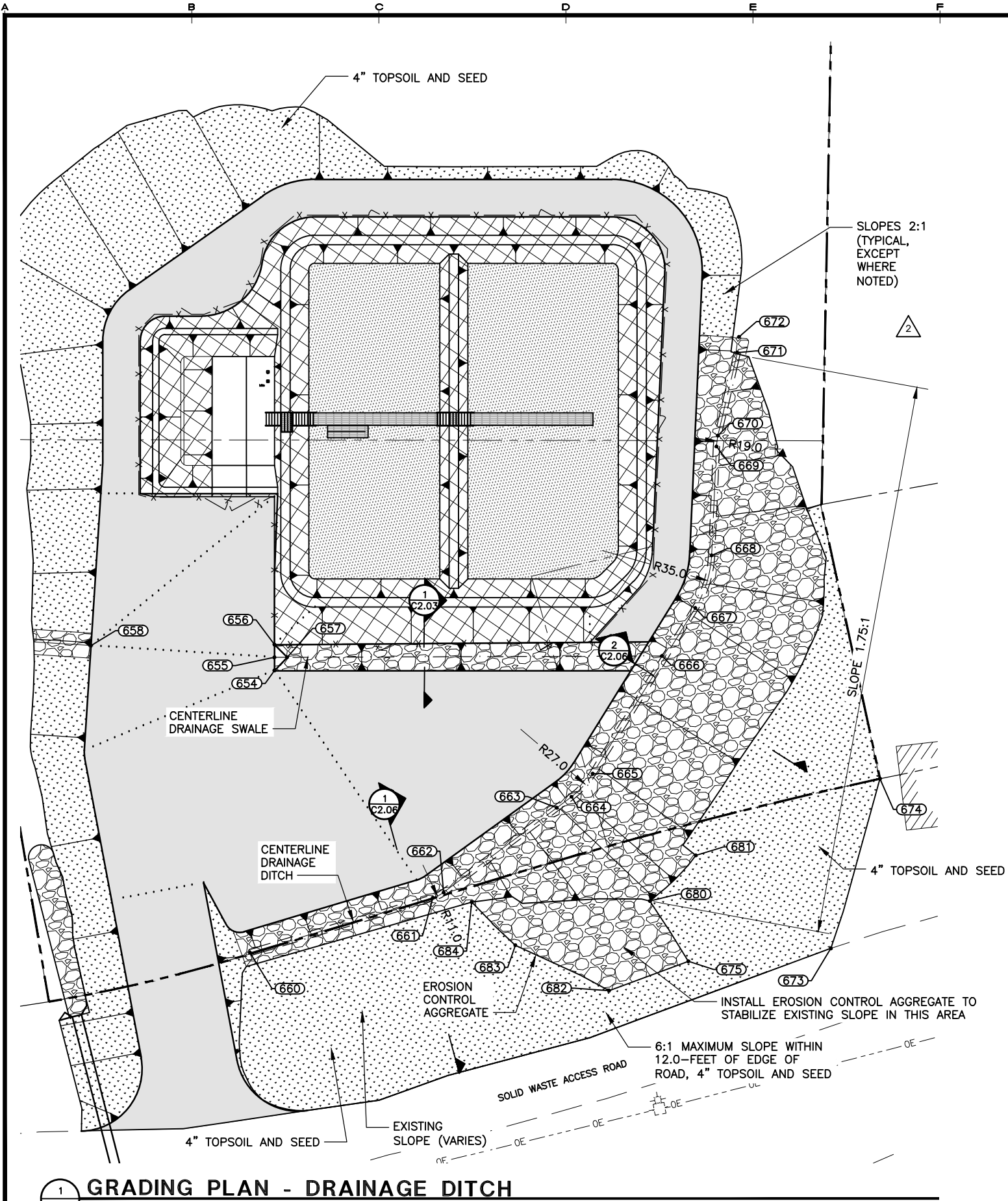


2 SUMP DRAINAGE PIPE INSTALLATION DETAIL
C1.05 SCALE: NTS

SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

| SHEET TITLE | |
|----------------------------|-----------------|
| TANK FARM SUMP PIPING PLAN | |
| SHEET C1.05 | |
| DRAWN BY: KKR | CHECKED BY: MRS |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

DRAWING LOCATION: H:\Jobs\20-017 Scammon Bay BPU Ph 1 and 2 (MEA)\CAD\Drawings\20-017_04_site-grade.dwg
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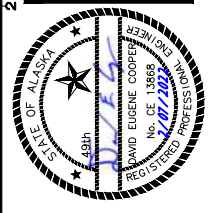
NOTES:

1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
2. INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
3. SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
4. ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

| CENTERLINE DITCH POINTS | | | | |
|-------------------------|----------|----------|-----------|-----------------------------|
| Point # | Northing | Easting | Elevation | Description |
| 654 | 60199.29 | 39721.65 | 38.5 | GRAVEL PAD / SWALE |
| 655 | 60203.43 | 39722.44 | 38.5 | BEGIN SWALE |
| 656 | 60207.45 | 39723.19 | 38.5 | GRAVEL PAD/SWALE |
| 657 | 60202.69 | 39726.44 | 37.8 | SWALE |
| 658 | 60218.08 | 39665.37 | 36.0 | END SWALE |
| 660 | 60111.83 | 39697.13 | 37.8 | BEGIN CENTERLINE DITCH |
| 661 | 60118.19 | 39758.03 | 37.2 | PC CENTERLINE DITCH |
| 662 | 60119.25 | 39761.73 | 37.2 | PC CENTERLINE DITCH |
| 663 | 60139.19 | 39802.42 | 36.5 | CONNECTION DITCH CENTERLINE |
| 664 | 60141.80 | 39807.74 | 36.4 | PC CENTERLINE DITCH |
| 665 | 60147.81 | 39815.78 | 36.3 | PT CENTERLINE DITCH |
| 666 | 60180.77 | 39844.60 | 35.0 | CENTERLINE DITCH |
| 667 | 60193.93 | 39858.01 | 35.0 | PC CENTERLINE DITCH |
| 668 | 60209.55 | 39866.26 | 34.7 | PT CENTERLINE DITCH |
| 669 | 60243.59 | 39874.28 | 34.0 | PC CENTERLINE DITCH |
| 670 | 60246.92 | 39875.39 | 33.9 | PT CENTERLINE DITCH |
| 671 | 60271.94 | 39886.45 | 31.3 | END CENTERLINE DITCH |
| 672 | 60276.76 | 39887.92 | 31.0 | END EROSION ROCK |
| 673 | 60078.57 | 39880.46 | 58.7 | TOPSOIL / ME |
| 674 | 60129.10 | 39906.01 | 60.4 | TOPSOIL / ME |
| 675 | 60082.98 | 39834.75 | 56.1 | GRADING EDGE / ME |
| 680 | 60104.24 | 39826.27 | 56.8 | GRADING EDGE / ME |
| 681 | 60115.90 | 39843.41 | 56.8 | GRADING EDGE / ME |
| 682 | 60078.44 | 39808.05 | 52.8 | GRADING EDGE / ME |
| 683 | 60098.33 | 39781.19 | 46.0 | GRADING EDGE / ME |
| 684 | 60114.51 | 39770.03 | 40.2 | GRADING EDGE / ME |

1 GRADING PLAN - DRAINAGE DITCH
 C1.06 SCALE: 1" = 20.0'

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-----------------------------------|
| 1 | 11/28/23 | NTIP 1 FILL LIMITS, HATCH UPDATES |



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ALASKA ENERGY AUTHORITY

SCAMMON BAY, ALASKA

SHEET TITLE: DRAINAGE DITCH - GRADING PLAN

SHEET: C1.06

DRAWN BY: KK CHECKED BY: DEC

DATE: 01/31/22 SCALE: AS SHOWN

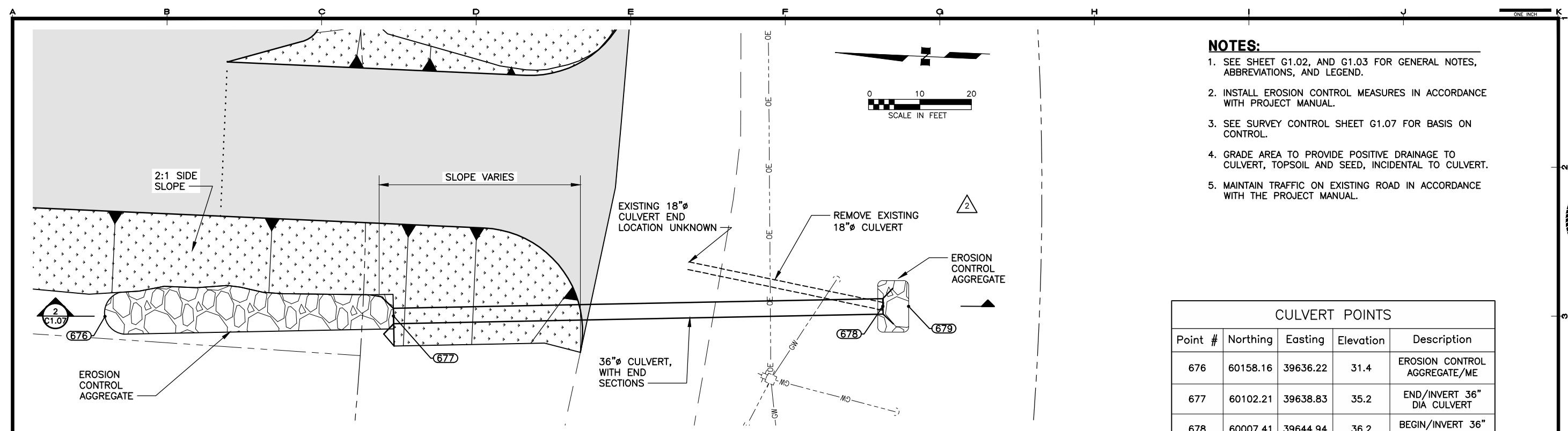
JOB NUMBER: 20-017

LAYOUT
C1.07

DATE TIME
11/28/2023 5:00 PM

DRAWING LOCATION
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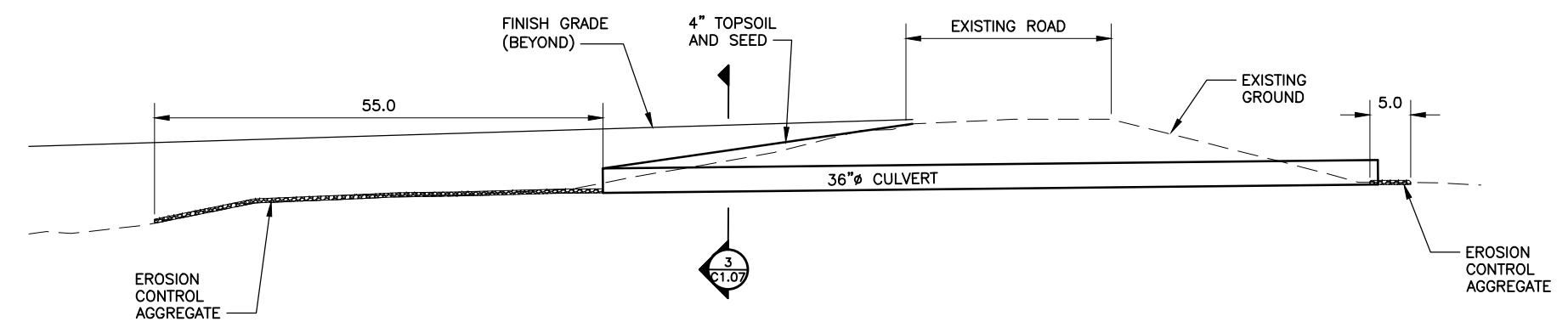
KKORNEGAY



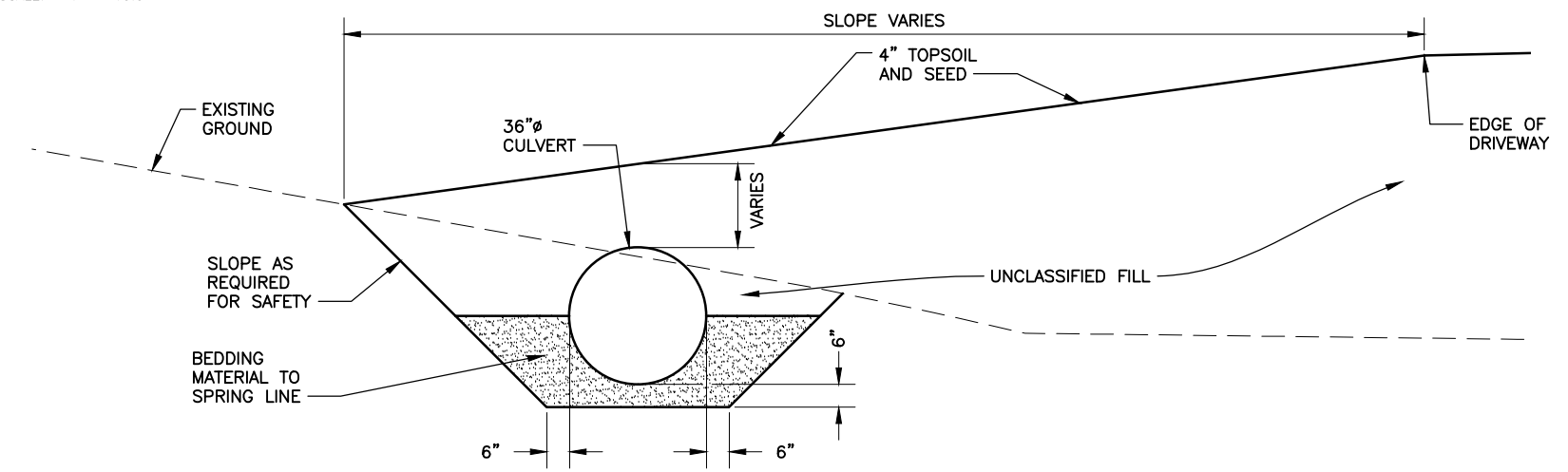
- NOTES:**
- SEE SHEET G1.02, AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
 - SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
 - GRADE AREA TO PROVIDE POSITIVE DRAINAGE TO CULVERT, TOPSOIL AND SEED, INCIDENTAL TO CULVERT.
 - MAINTAIN TRAFFIC ON EXISTING ROAD IN ACCORDANCE WITH THE PROJECT MANUAL.

| CULVERT POINTS | | | | |
|----------------|----------|----------|-----------|------------------------------|
| Point # | Northing | Easting | Elevation | Description |
| 676 | 60158.16 | 39636.22 | 31.4 | EROSION CONTROL AGGREGATE/ME |
| 677 | 60102.21 | 39638.83 | 35.2 | END/INVERT 36" DIA CULVERT |
| 678 | 60007.41 | 39644.94 | 36.2 | BEGIN/INVERT 36" DIA CULVERT |
| 679 | 60002.41 | 39645.17 | 36.2 | EROSION CONTROL AGGREGATE/ME |

1 SITE PLAN - 36" DIA CULVERT
SCALE: 1" = 10.0'

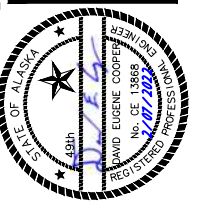


2 SECTION - 36" DIA. CULVERT
SCALE: 1" = 10.0'



3 SECTION - 36" DIA. CULVERT
SCALE: 1" = 2.0'

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|----------------------------------|
| 1 | 11/28/23 | NIP 1 FILL LIMITS, HATCH UPDATES |



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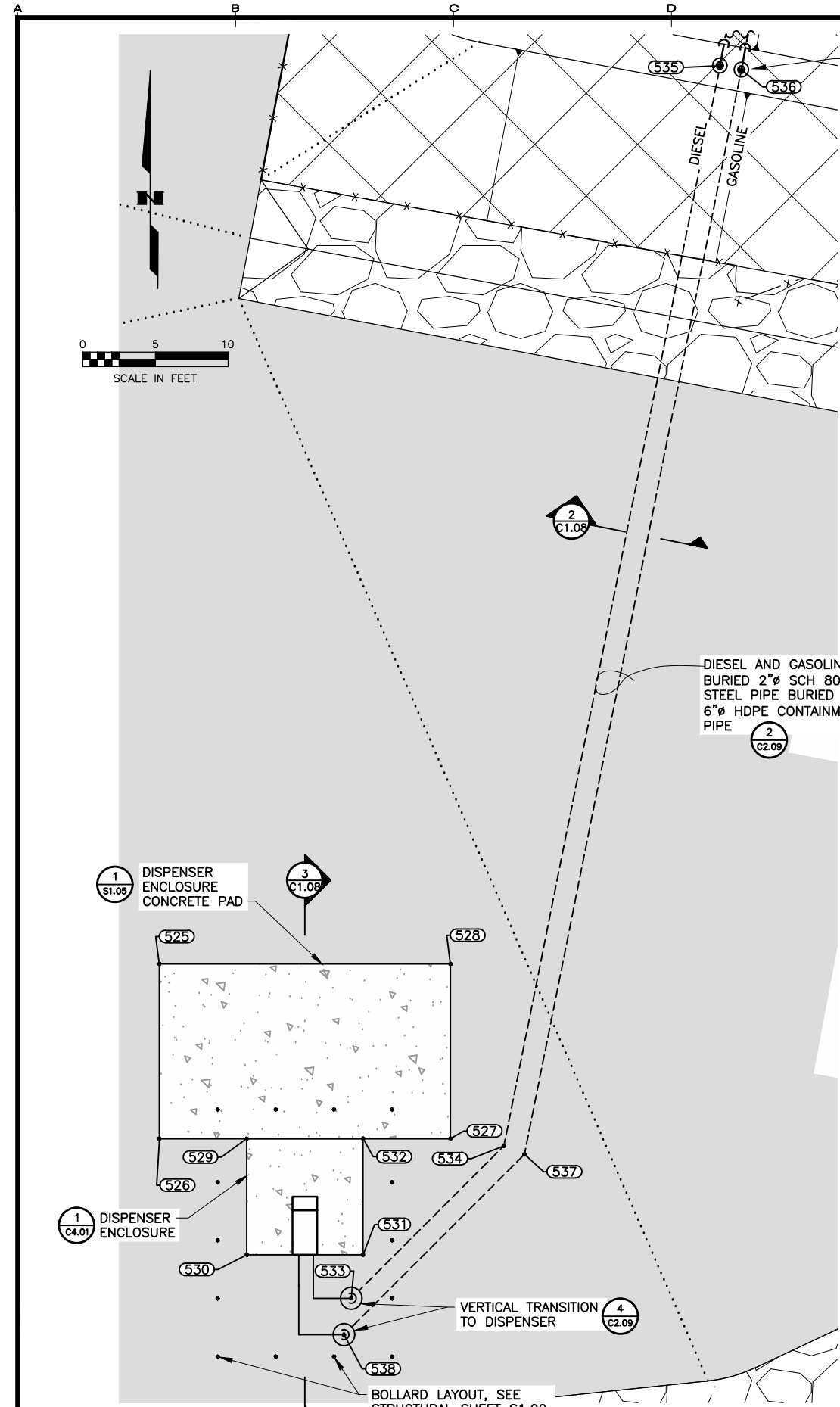


SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

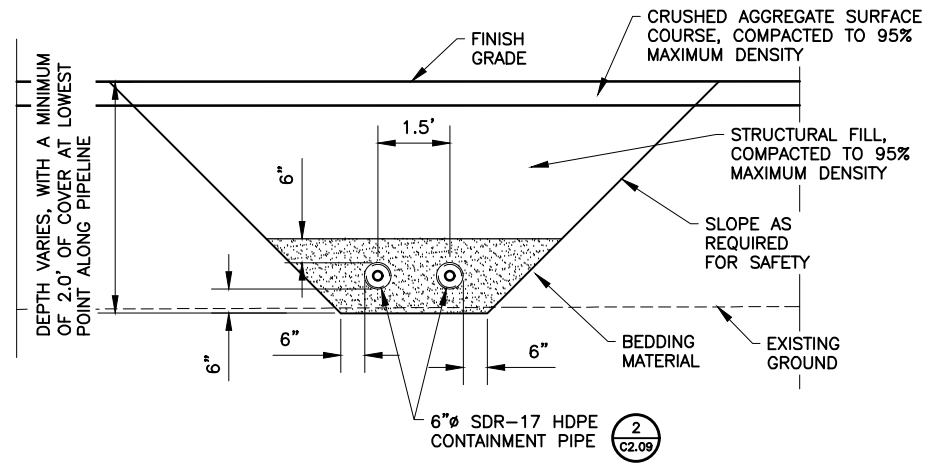
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| SHEET TITLE SITE PLAN - 36 INCH DIA. CULVERT | |
| SHEET C1.07 | |
| DRAWN BY: <i>KK</i> | CHECKED BY: <i>DEC</i> |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

LAYOUT
C1.08
DATE TIME
11/29/2023 3:14 PM

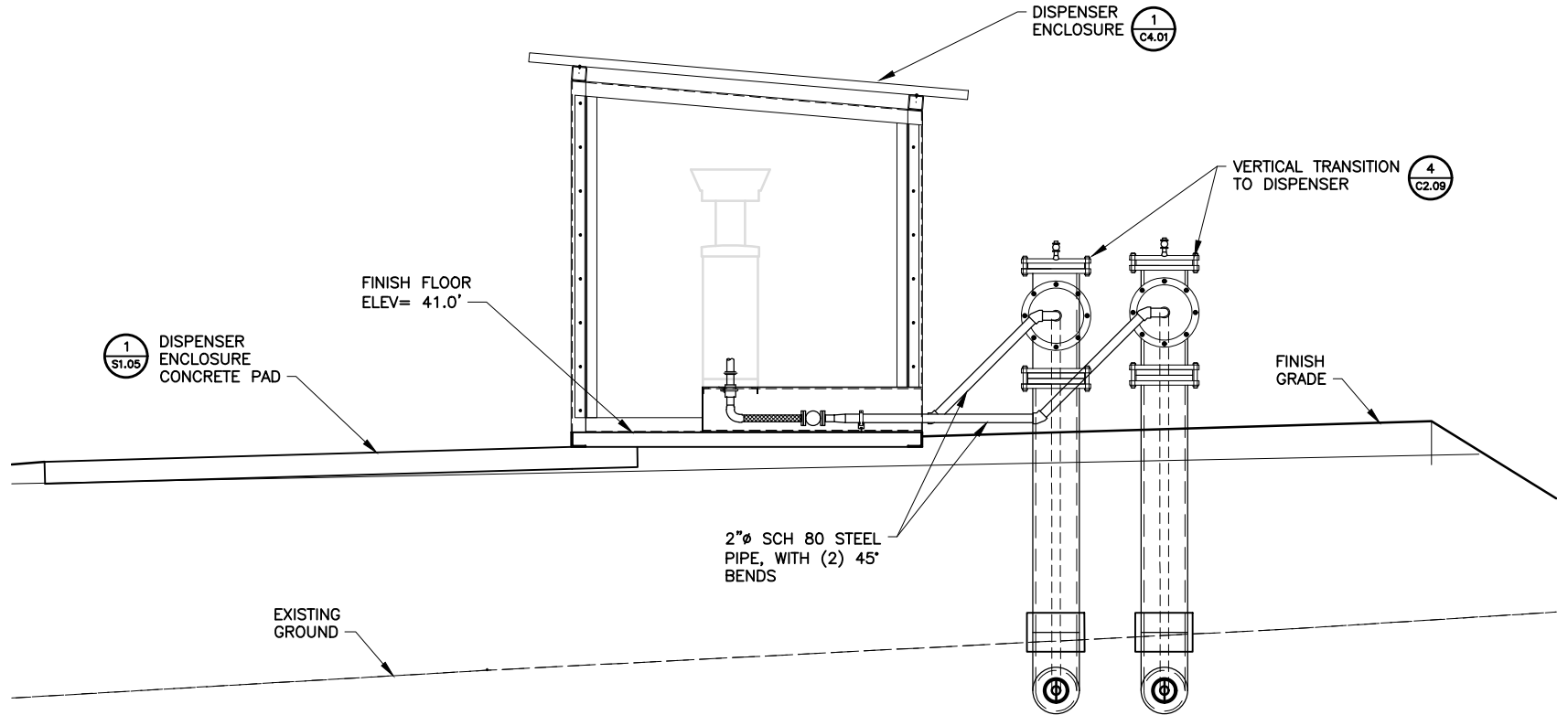
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H:\Jobs\20-017\scammon bay bfu ph 1 and 2 (sec)\CAD\Drawings\20-017_04_TF-PIPING.dwg KKRMEGAY



1 DISPENSER ENCLOSURE - PIPING PLAN
C1.08 SCALE: 1" = 5.0'



2 TYPICAL CONTAINMENT PIPE TRENCH
C1.08 SCALE: 1" = 2.0'

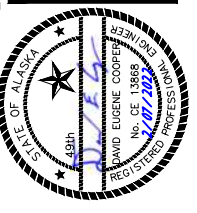


3 DISPENSER ENCLOSURE - SECTION
C1.08 SCALE: 1" = 2.0'

NOTES:
1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.

| DISTRIBUTION SITE AND PIPING POINTS | | | |
|-------------------------------------|----------|----------|-------------------------------------|
| Point # | Northing | Easting | Description |
| 525 | 60153.49 | 39716.20 | CONCRETE PAD BULK FUEL TRANSFER |
| 526 | 60141.47 | 39716.20 | CONCRETE PAD DISPENSER |
| 527 | 60141.47 | 39736.22 | CONCRETE PAD DISPENSER |
| 528 | 60153.49 | 39736.22 | CONCRETE PAD DISPENSER |
| 529 | 60141.48 | 39722.21 | CONCRETE PAD DISPENSER |
| 530 | 60133.48 | 39722.21 | CONCRETE PAD DISPENSER |
| 531 | 60133.48 | 39730.21 | CONCRETE PAD DISPENSER |
| 532 | 60141.48 | 39730.21 | CONCRETE PAD DISPENSER |
| 533 | 60130.48 | 39729.40 | CENTER VERTICAL TRANSITION DIESEL |
| 534 | 60140.98 | 39739.90 | CENTER 45 DEGREE BEND DIESEL |
| 535 | 60215.32 | 39754.77 | CENTER VERTICAL TRANSITION DIESEL |
| 536 | 60215.04 | 39756.24 | CENTER VERTICAL TRANSITION GASOLINE |
| 537 | 60140.40 | 39741.31 | CENTER 45 BEND GASOLINE |
| 538 | 60127.98 | 39728.90 | CENTER VERTICAL TRANSITION GASOLINE |

| REVISIONS | MARK | DATE | DESCRIPTION |
|-----------|------|------|-------------|
| | | | |



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SHEET TITLE
DISPENSER ENCLOSURE PIPING PLAN

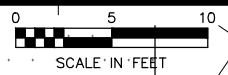
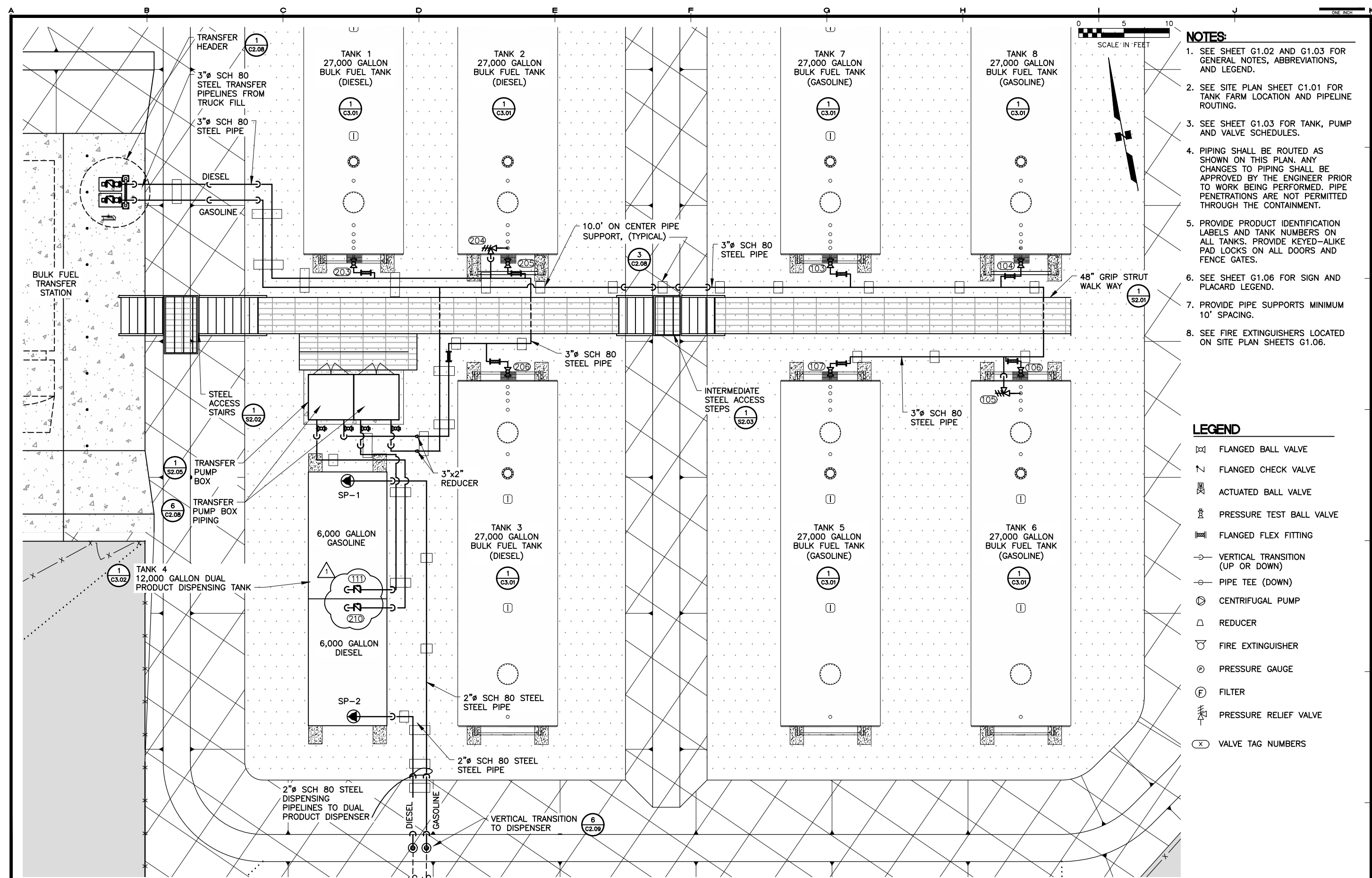
SHEET
C1.08

DRAWN BY: **KK** CHECKED BY: **MRS**
DATE: **01/31/22** SCALE: **AS SHOWN**
JOB NUMBER: **20-017**

LAYOUT
C1.09

DATE TIME
11/29/2023 3:12 PM

DRAWING LOCATION
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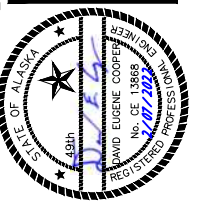
NOTES:

- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
- SEE SITE PLAN SHEET C1.01 FOR TANK FARM LOCATION AND PIPELINE ROUTING.
- SEE SHEET G1.03 FOR TANK, PUMP AND VALVE SCHEDULES.
- PIPING SHALL BE ROUTED AS SHOWN ON THIS PLAN. ANY CHANGES TO PIPING SHALL BE APPROVED BY THE ENGINEER PRIOR TO WORK BEING PERFORMED. PIPE PENETRATIONS ARE NOT PERMITTED THROUGH THE CONTAINMENT.
- PROVIDE PRODUCT IDENTIFICATION LABELS AND TANK NUMBERS ON ALL TANKS. PROVIDE KEYED-ALIKE PAD LOCKS ON ALL DOORS AND FENCE GATES.
- SEE SHEET G1.06 FOR SIGN AND PLACARD LEGEND.
- PROVIDE PIPE SUPPORTS MINIMUM 10' SPACING.
- SEE FIRE EXTINGUISHERS LOCATED ON SITE PLAN SHEETS G1.06.

LEGEND

- FLANGED BALL VALVE
- FLANGED CHECK VALVE
- ACTUATED BALL VALVE
- PRESSURE TEST BALL VALVE
- FLANGED FLEX FITTING
- VERTICAL TRANSITION (UP OR DOWN)
- PIPE TEE (DOWN)
- CENTRIFUGAL PUMP
- REDUCER
- FIRE EXTINGUISHER
- PRESSURE GAUGE
- FILTER
- PRESSURE RELIEF VALVE
- VALVE TAG NUMBERS

| REVISIONS | DATE | DESCRIPTION |
|-----------|---------|----------------|
| 1 | 3/28/22 | REVISED VALVES |



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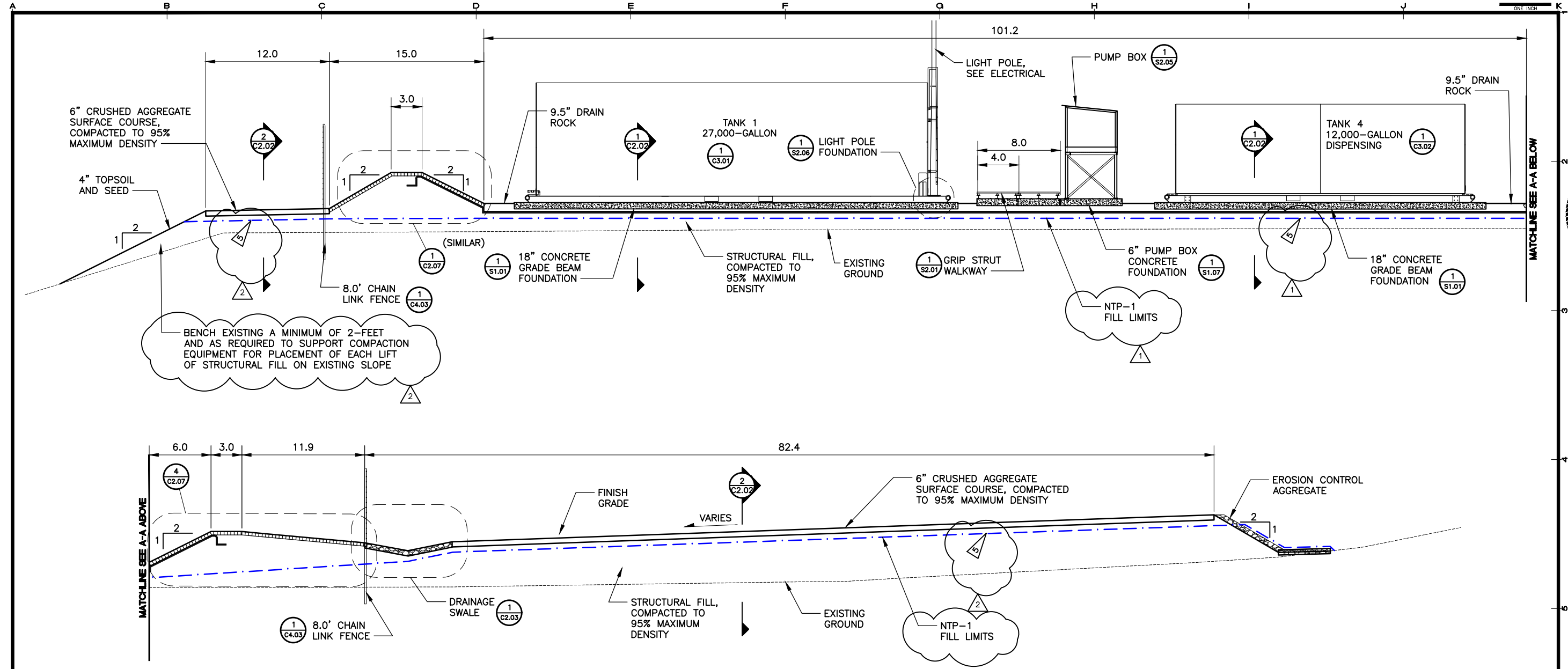
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| | |
|---|---------------------------|
| SHEET TITLE TANK FARM PIPING PLAN | |
| SHEET C1.09 | |
| DRAWN BY: KK | CHECKED BY: MRS |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

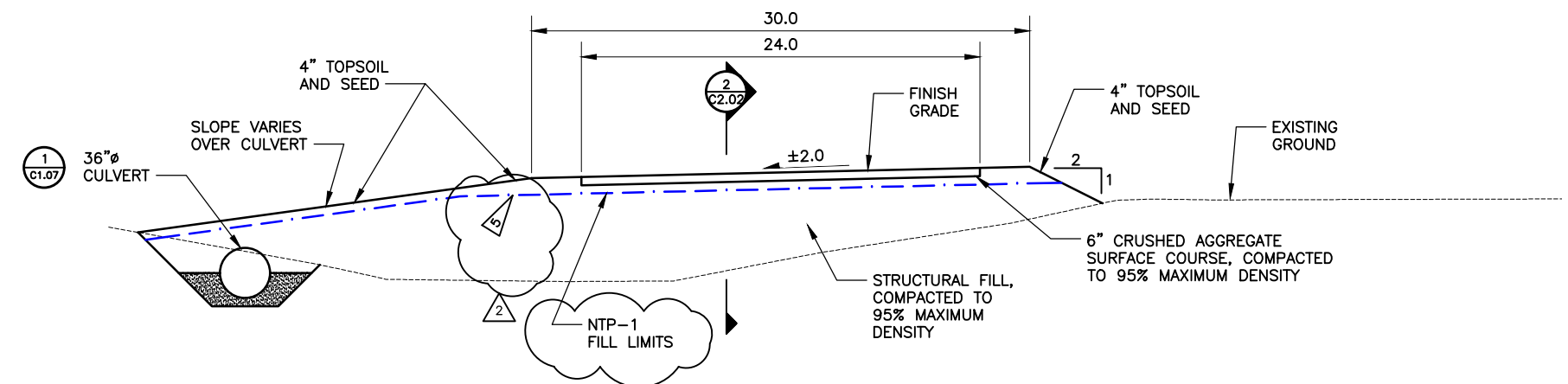
1 TANK FARM - PIPING PLAN
 C1.09 SCALE: 1" = 5.0'

LAYOUT C2.01
DATE TIME 11/26/2023 4:29 PM

DRAWING LOCATION H:\Jobs\20-017 Scammon Bay BPU Ph. 1 and 2 (MEA)\CAD\Drawings\20-017_04_SP-SECTIONS-REV.dwg K KORNEGAY



A SECTION - TANK FARM
SCALE: NONE



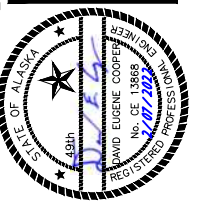
B SECTION - ACCESS ROAD
SCALE: NONE

- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
 - SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
 - ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

NTP 1 WORK LIMIT:

FILL PLACED UNDER NTP 1 SHALL BE HELD 6-INCHES BELOW LINER ELEVATION, BOTTOM OF CRUSHED AGGREGATE SURFACE COURSE, AND BASE OF CONTAINMENT BERMS AND TEMPORARILY GRADED TO DRAIN. CONSTRUCT AND STABILIZE EMBANKMENT SLOPES WITHIN NTP 1 WORK LIMITS.

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-------------------|
| 1 | 11/28/23 | NTP 1 FILL LIMITS |



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SHEET TITLE: SECTIONS

SHEET: C2.01

DRAWN BY: KK CHECKED BY: DEC

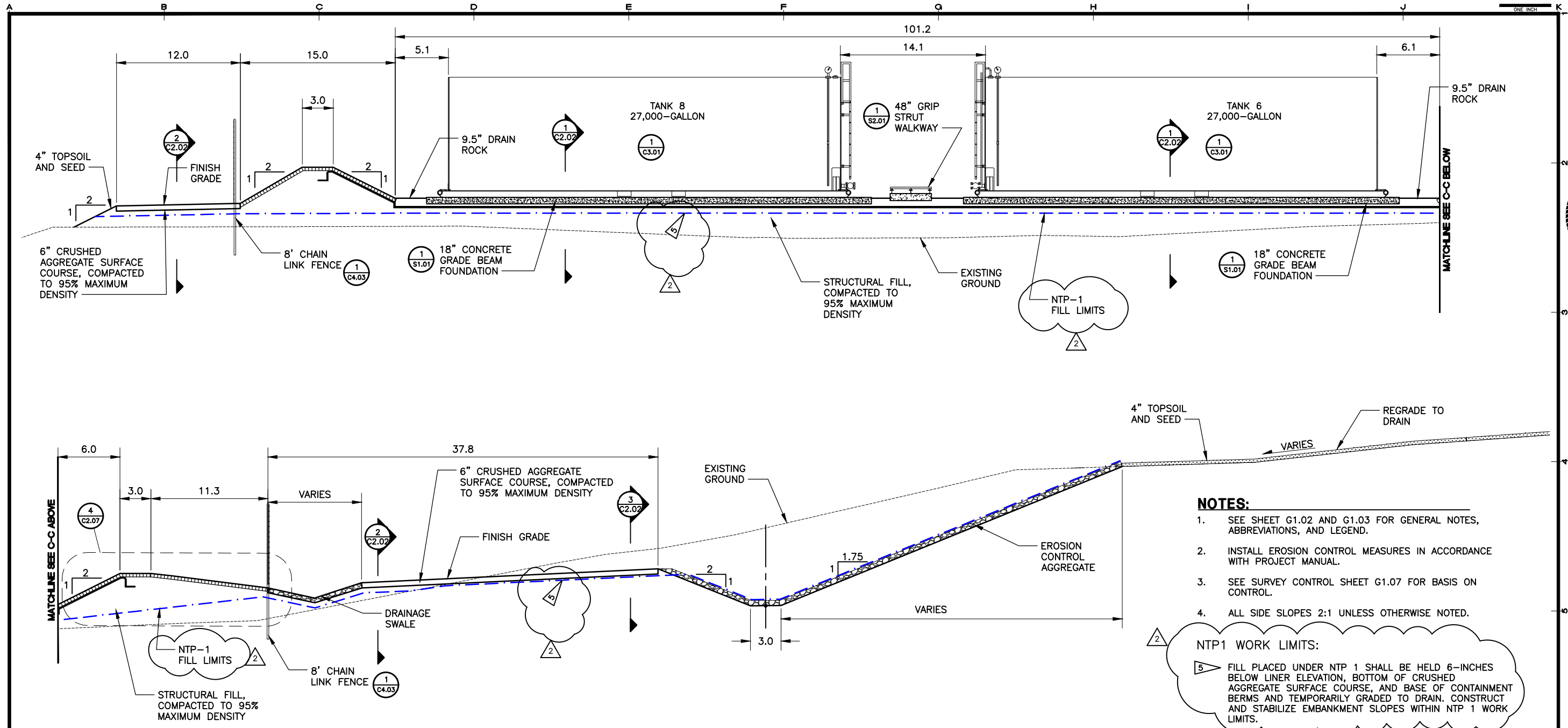
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JOB NUMBER: 20-017

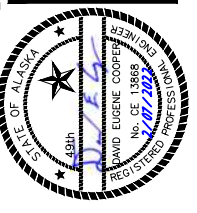
LAYOUT
C2.02

DATE TIME
11/26/2023 4:02 PM

DRAWING LOCATION
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| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-------------------|
| 1 | 11/28/23 | NTP 1 FILL LIMITS |



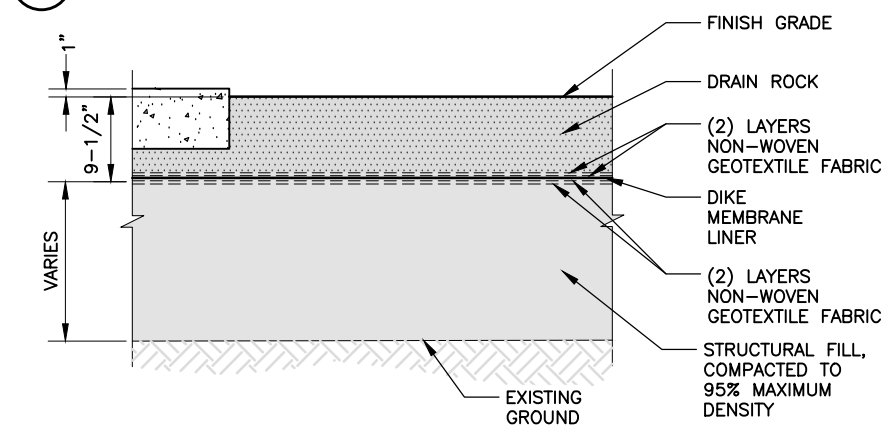
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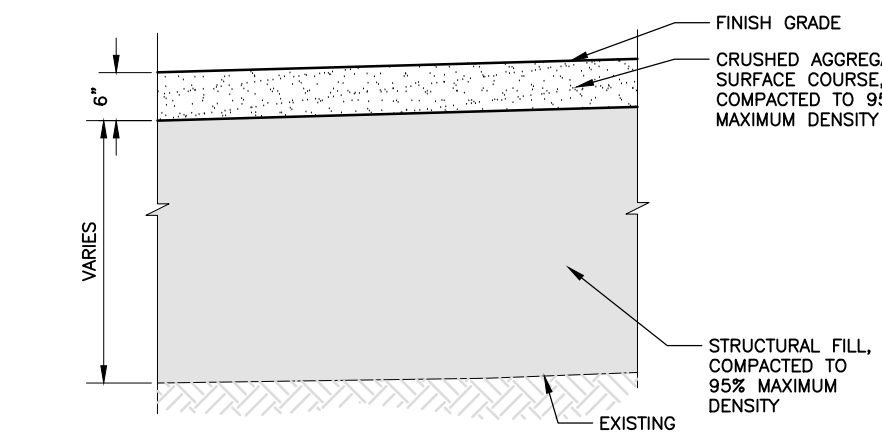
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| SHEET C2.02 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

SECTION - TANK FARM
C2.02 SCALE: NONE



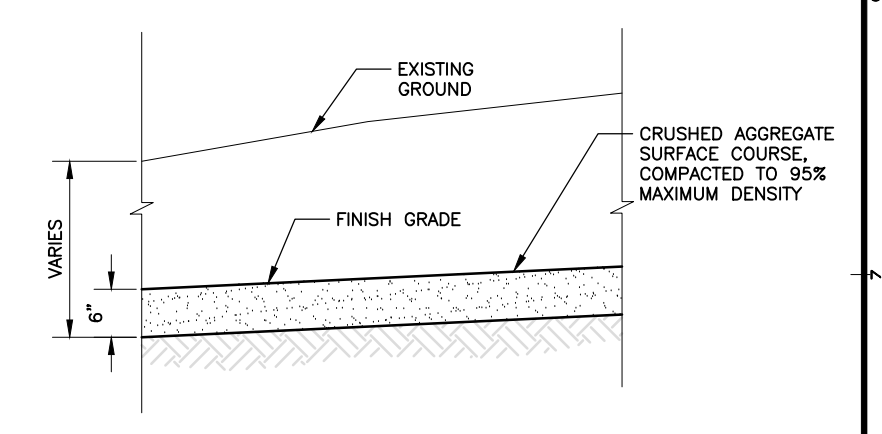
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SECTION - GRAVEL PAD
C2.02 SCALE: NONE



SECTION - GRAVEL PAD
C2.02 SCALE: NONE

SECTION - GRAVEL PAD
C2.02 SCALE: NONE



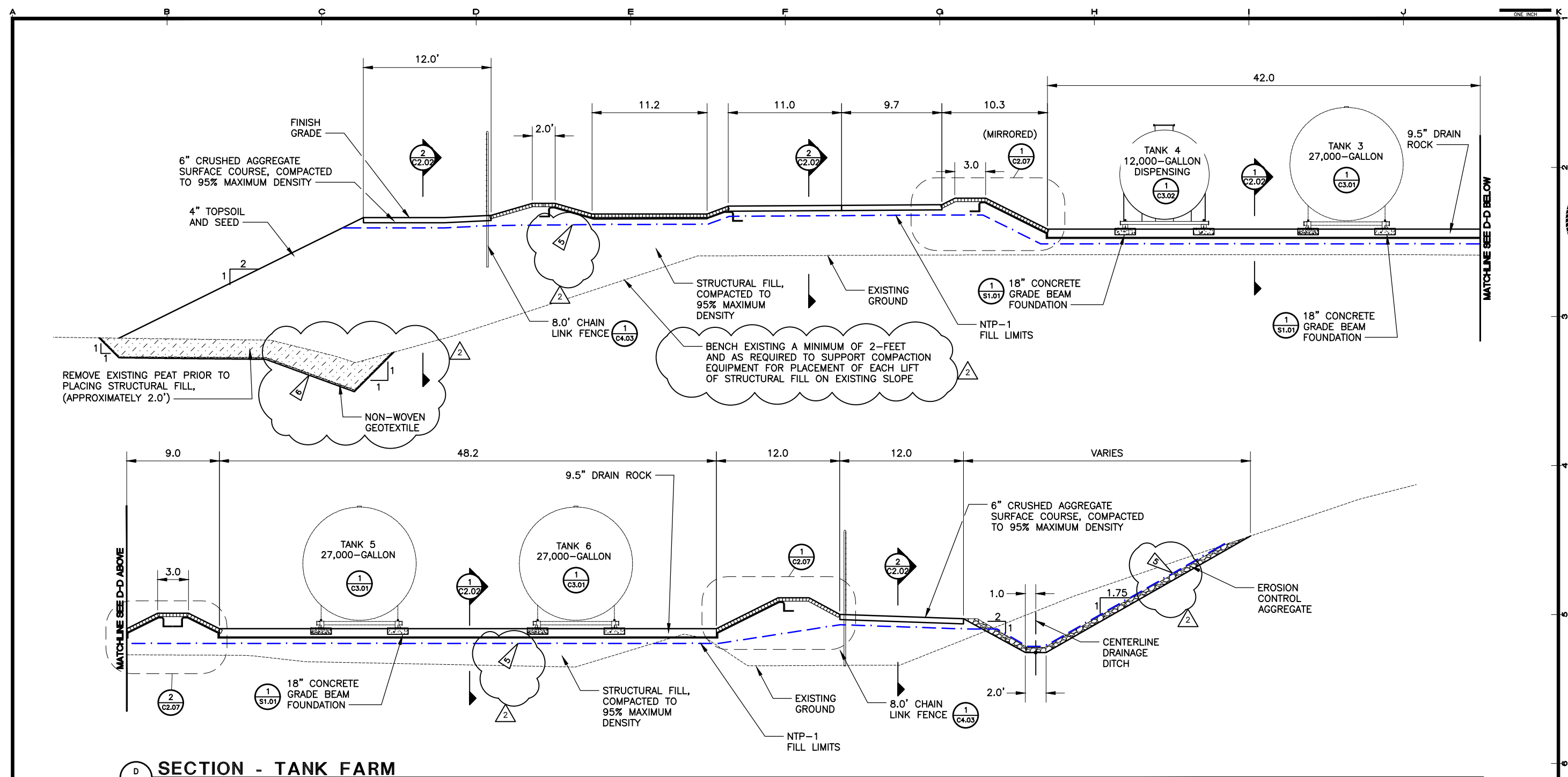
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- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
 - SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
 - ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.
- NTP1 WORK LIMITS:**
- 5 FILL PLACED UNDER NTP 1 SHALL BE HELD 6-INCHES BELOW LINER ELEVATION, BOTTOM OF CRUSHED AGGREGATE SURFACE COURSE, AND BASE OF CONTAINMENT BERMS AND TEMPORARILY GRADED TO DRAIN. CONSTRUCT AND STABILIZE EMBANKMENT SLOPES WITHIN NTP 1 WORK LIMITS.

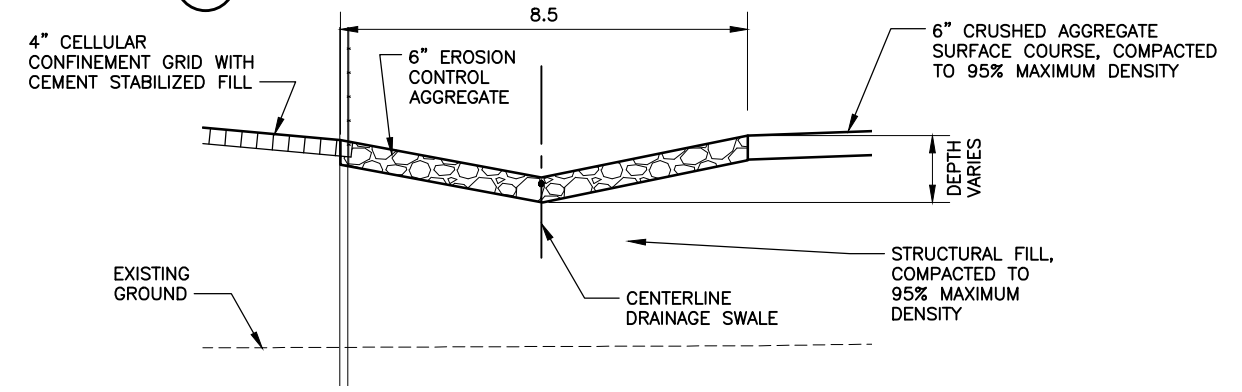
LAYOUT
C2.03

DATE TIME
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DRAWING LOCATION
H:\Jobs\20-017 Scammon Bay BPU Ph. 1 and 2 (AEA)\CAD\Drawings\20-017_04_SP-SECTIONS-Fv.dwg KRONKAY



D SECTION - TANK FARM
SCALE: NONE



1 SECTION - DRAINAGE SWALE
SCALE: NONE

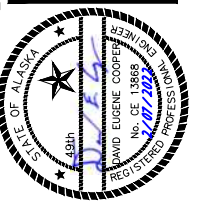
NOTES:

- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
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- SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
- ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

NTP 1 WORK LIMITS:

- FILL PLACED UNDER NTP 1 SHALL BE HELD 6-INCHES BELOW LINER ELEVATION, BOTTOM OF CRUSHED AGGREGATE SURFACE COURSE, AND BASE OF CONTAINMENT BERMS AND TEMPORARILY GRADED TO DRAIN. CONSTRUCT AND STABILIZE EMBANKMENT SLOPES WITHIN NTP 1 WORK LIMITS.
- WHERE FILL IS PLACED BEYOND THE TOE OF THE EXISTING EMBANKMENT, EXCAVATE TO BOTTOM OF ORGANIC SILT (PEAT) OR AS DIRECTED BY THE ENGINEER. AVERAGE DEPTH OF SILT LAYER IS ESTIMATED TO BE APPROXIMATELY 24-INCHES. BEGIN FULL DEPTH EXCAVATION AT TOE OF EXISTING EMBANKMENT. END FULL DEPTH EXCAVATION OF TOE OF NEW EMBANKMENT. BACKFILL WITH STRUCTURAL FILL. COMPACTED TO 95% MAXIMUM DENSITY.

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-------------------|
| 1 | 11/28/23 | NTP 1 FILL LIMITS |



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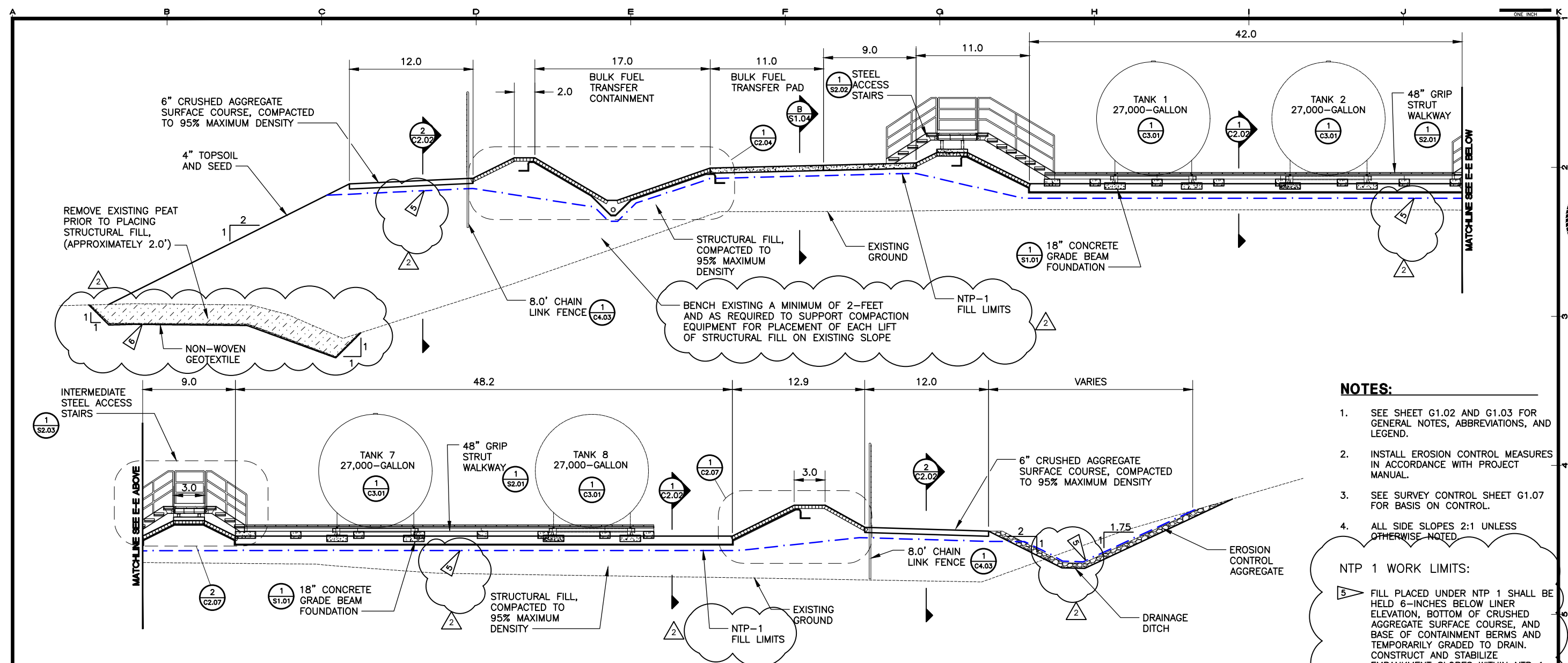
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| SHEET C2.03 | |
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| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

LAYOUT
C2.04

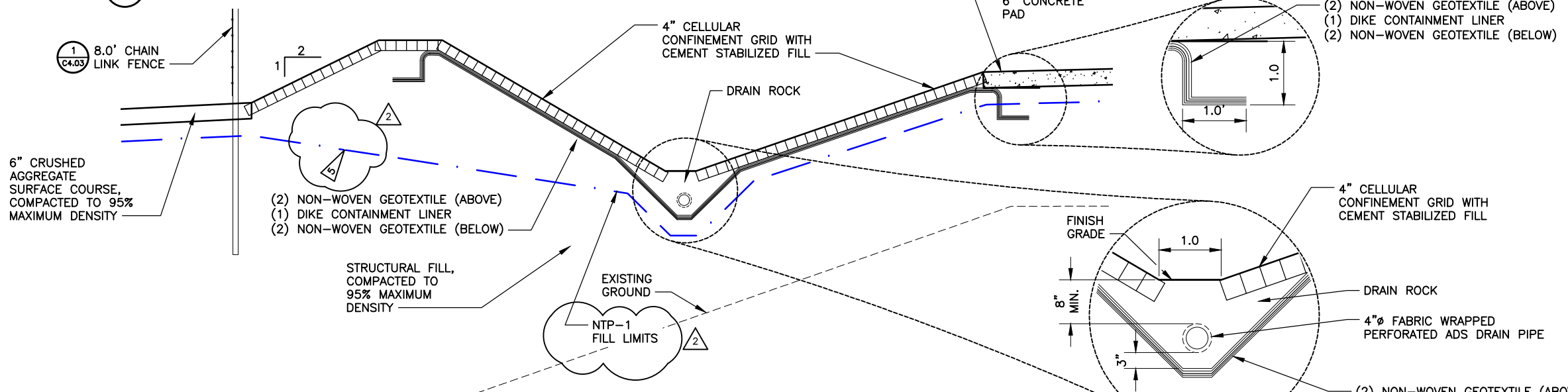
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KORNEGAY



SECTION - TANK FARM
SCALE: NONE



SECTION - BULK FUEL TRANSFER STATION
SCALE: NONE

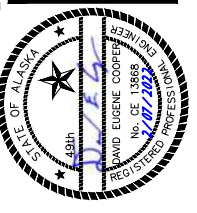
- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
 - SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
 - ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

NTP 1 WORK LIMITS:

5 FILL PLACED UNDER NTP 1 SHALL BE HELD 6-INCHES BELOW LINER ELEVATION, BOTTOM OF CRUSHED AGGREGATE SURFACE COURSE, AND BASE OF CONTAINMENT BERMS AND TEMPORARILY GRADED TO DRAIN. CONSTRUCT AND STABILIZE EMBANKMENT SLOPES WITHIN NTP 1 WORK LIMITS.

6 WHERE FILL IS PLACED BEYOND THE TOE OF THE EXISTING EMBANKMENT, EXCAVATE TO BOTTOM OF ORGANIC SILT (PEAT) OR AS DIRECTED BY THE ENGINEER. AVERAGE DEPTH OF SILT LAYER IS ESTIMATED TO BE APPROXIMATELY 24-INCHES. BEGIN FULL DEPTH EXCAVATION AT TOE OF EXISTING EMBANKMENT. END FULL DEPTH EXCAVATION OF TOE OF NEW EMBANKMENT. BACKFILL WITH STRUCTURAL FILL, COMPACTED TO 95% MAXIMUM DENSITY.

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-------------------|
| 1 | 11/28/23 | NTP 1 FILL LIMITS |



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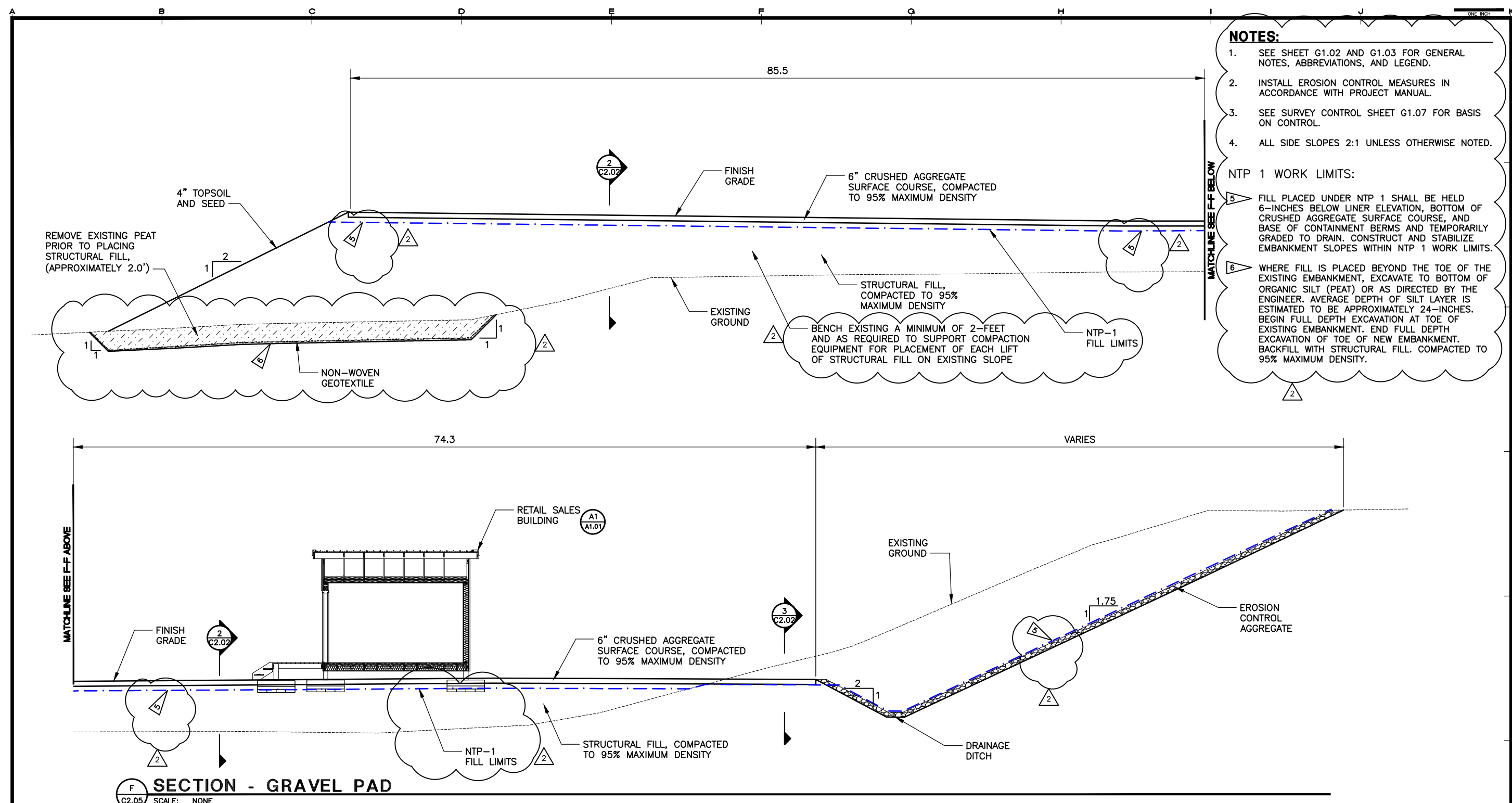
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| SHEET TITLE | |
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| SECTIONS | |
| SHEET | |
| C2.04 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

LAYOUT C2.05
 DATE TIME 11/26/2023 4:29 PM
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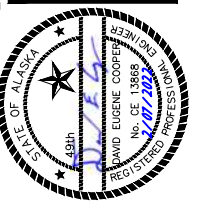
NOTES:

- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
- INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
- SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
- ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

NTP 1 WORK LIMITS:

- FILL PLACED UNDER NTP 1 SHALL BE HELD 6-INCHES BELOW LINER ELEVATION, BOTTOM OF CRUSHED AGGREGATE SURFACE COURSE, AND BASE OF CONTAINMENT BERMS AND TEMPORARILY GRADED TO DRAIN. CONSTRUCT AND STABILIZE EMBANKMENT SLOPES WITHIN NTP 1 WORK LIMITS.
- WHERE FILL IS PLACED BEYOND THE TOE OF THE EXISTING EMBANKMENT, EXCAVATE TO BOTTOM OF ORGANIC SILT (PEAT) OR AS DIRECTED BY THE ENGINEER. AVERAGE DEPTH OF SILT LAYER IS ESTIMATED TO BE APPROXIMATELY 24-INCHES. BEGIN FULL DEPTH EXCAVATION AT TOE OF EXISTING EMBANKMENT. END FULL DEPTH EXCAVATION OF TOE OF NEW EMBANKMENT. BACKFILL WITH STRUCTURAL FILL. COMPACTED TO 95% MAXIMUM DENSITY.

| REVISIONS | DATE | DESCRIPTION |
|-----------|----------|-------------------|
| 1 | 11/28/23 | NTP 1 FILL LIMITS |



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SHEET TITLE
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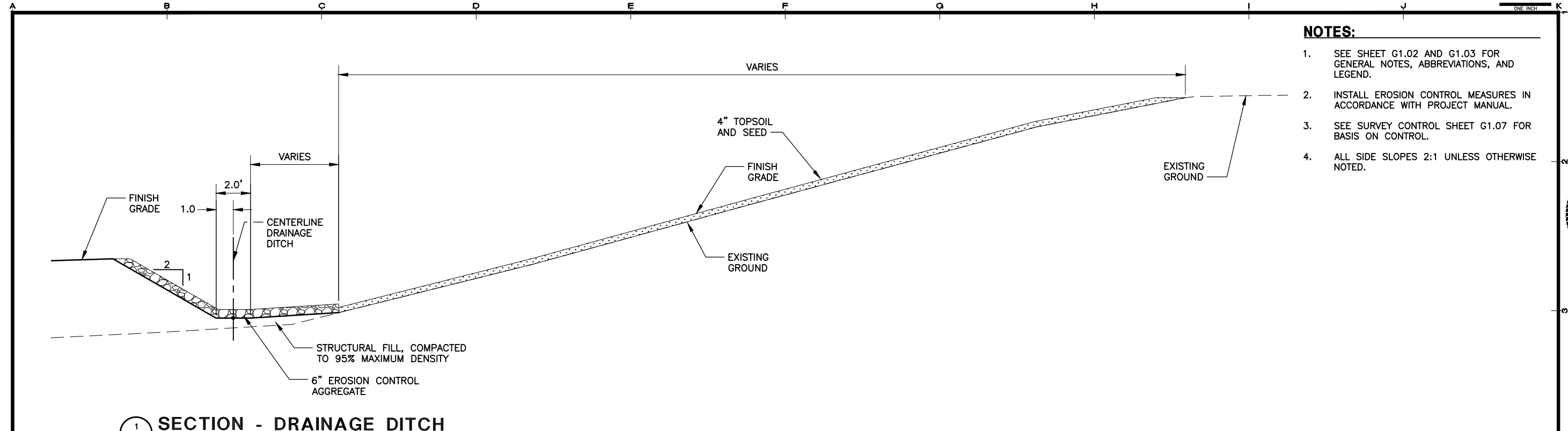
SHEET
C2.05

DRAWN BY: *KK* CHECKED BY: *DEC*
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 JOB NUMBER: 20-017

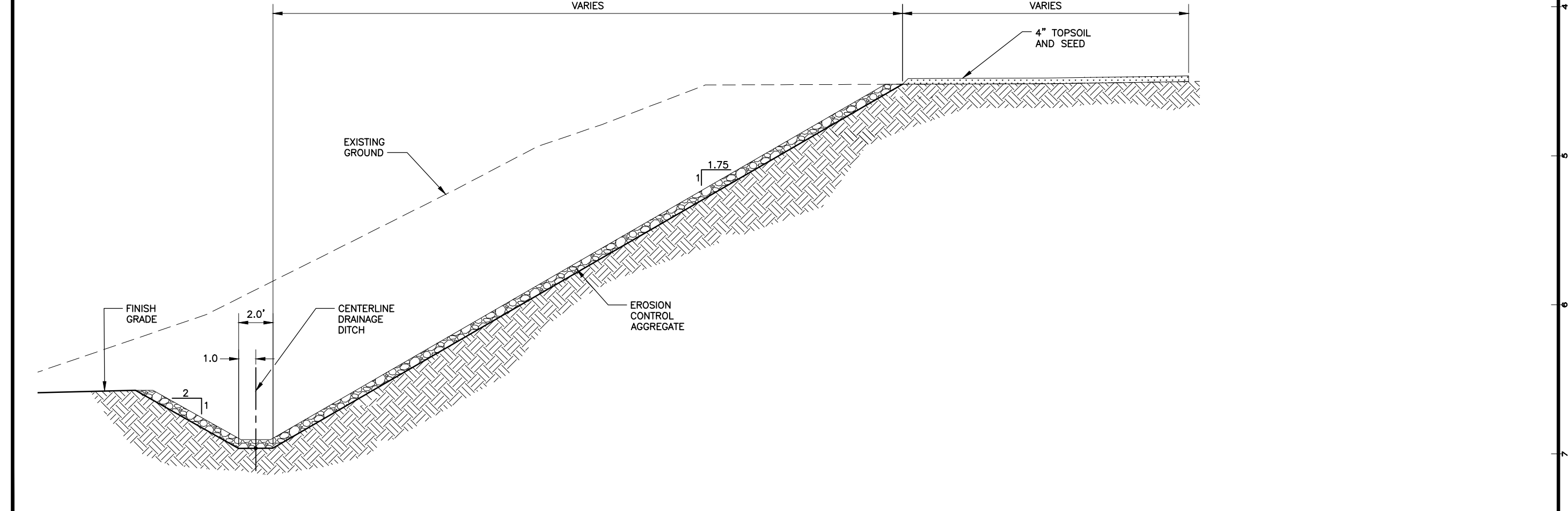
F SECTION - GRAVEL PAD
 SCALE: NONE

LAYOUT C2.06
DATE TIME 11/26/2023 4:12 PM

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1 SECTION - DRAINAGE DITCH
SCALE: NONE



2 SECTION - DRAINAGE DITCH
SCALE: NONE

- NOTES:**
1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 2. INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
 3. SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
 4. ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

| REVISIONS | MARK | DATE | DESCRIPTION |
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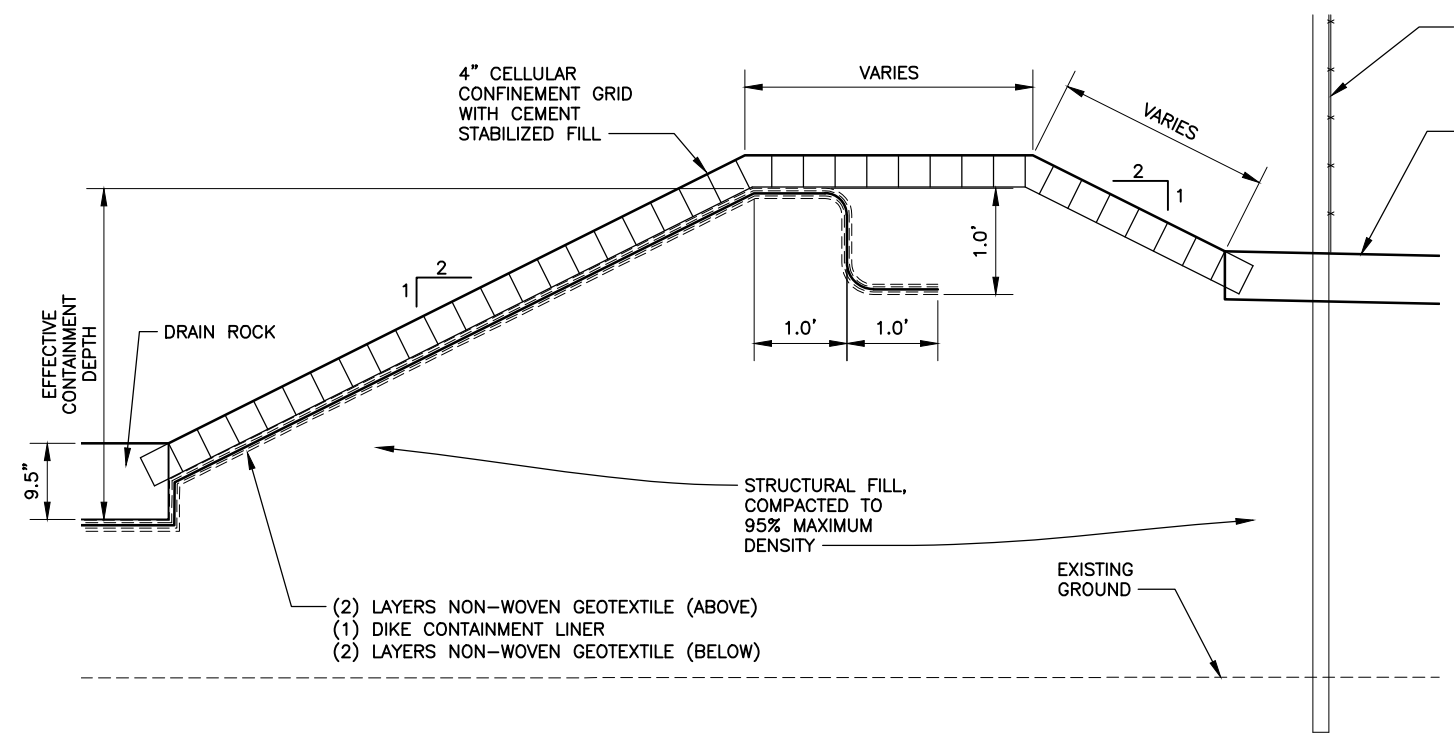
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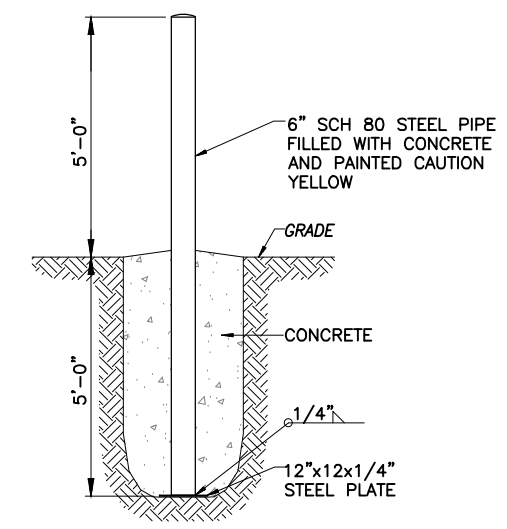
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| DRAWN BY: KK | CHECKED BY: DEC |
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| JOB NUMBER: 20-017 | |

LAYOUT C2.07
DATE TIME 11/26/2023 4:13 PM

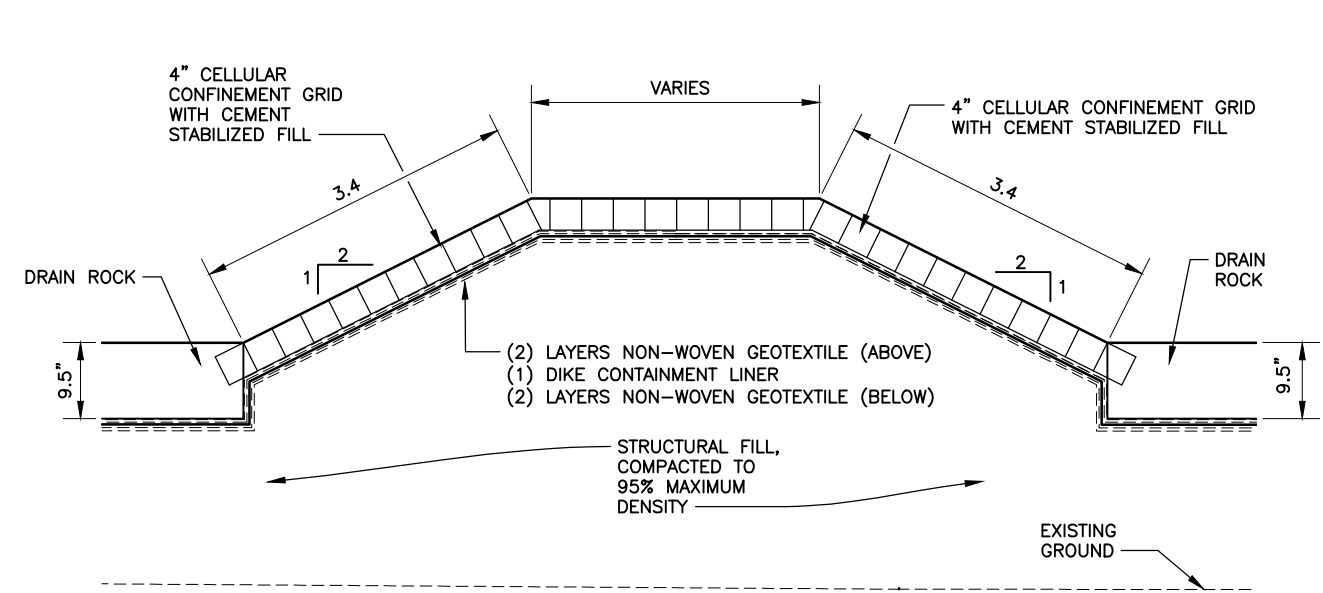
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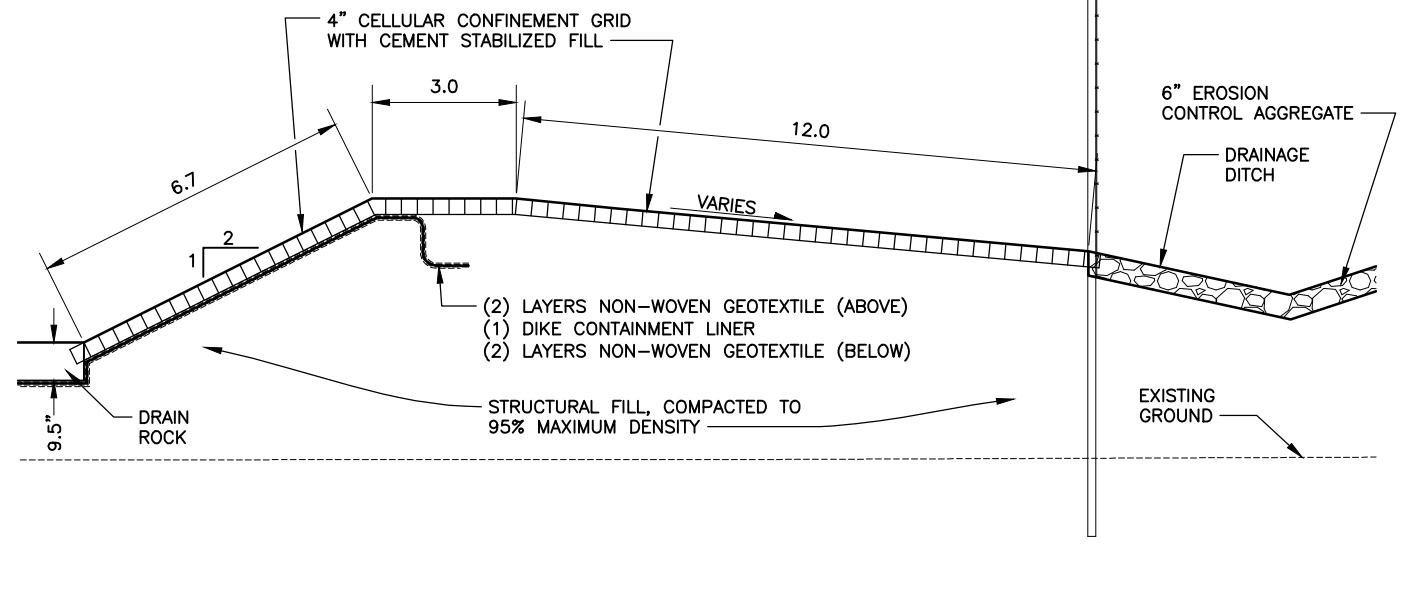
1 SECTION - DIKE CONTAINMENT
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3 BOLLARD DETAIL
C2.07 SCALE: NONE



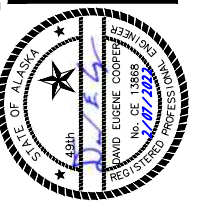
2 SECTION - INTERMEDIATE DIKE CONTAINMENT
C2.07 SCALE: NONE



4 SECTION - DIKE CONTAINMENT
C2.07 SCALE: NONE

- NOTES:**
1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 2. INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH PROJECT MANUAL.
 3. SEE SURVEY CONTROL SHEET G1.07 FOR BASIS ON CONTROL.
 4. ALL SIDE SLOPES 2:1 UNLESS OTHERWISE NOTED.

| REVISIONS | MARK | DATE | DESCRIPTION |
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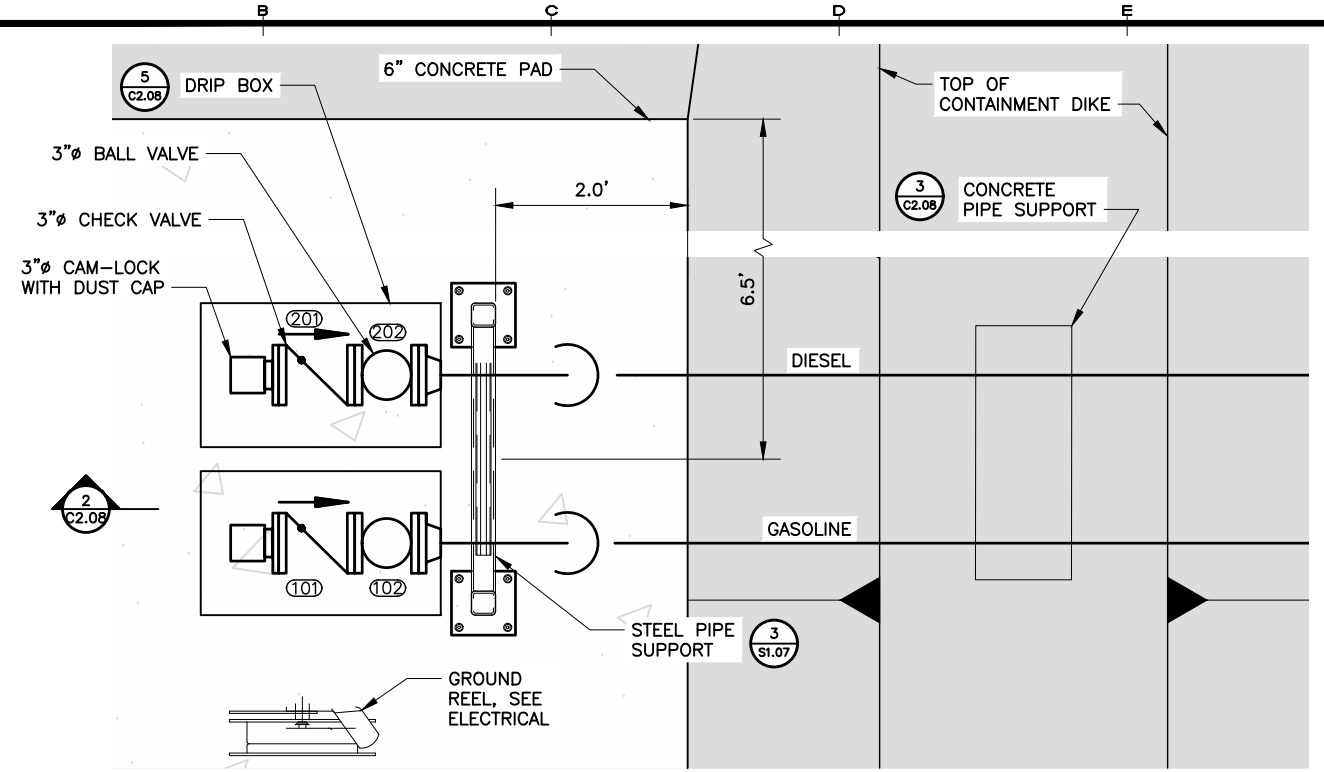
SCAMMON BAY BULK FUEL UPGRADES

ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

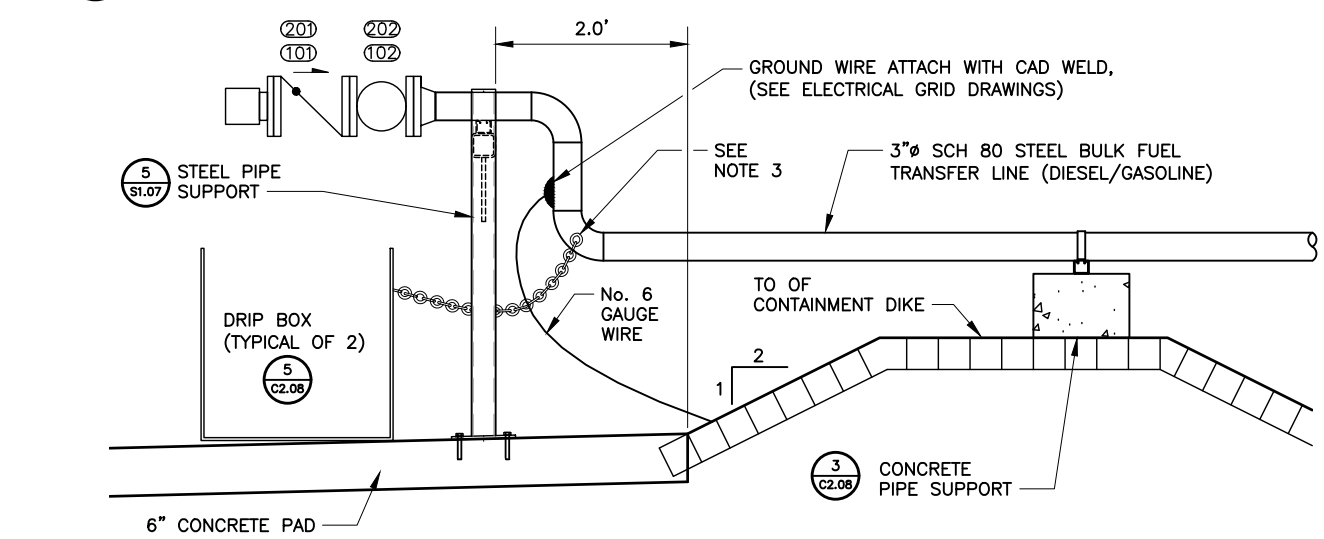
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2/3/2022 1:26 PM

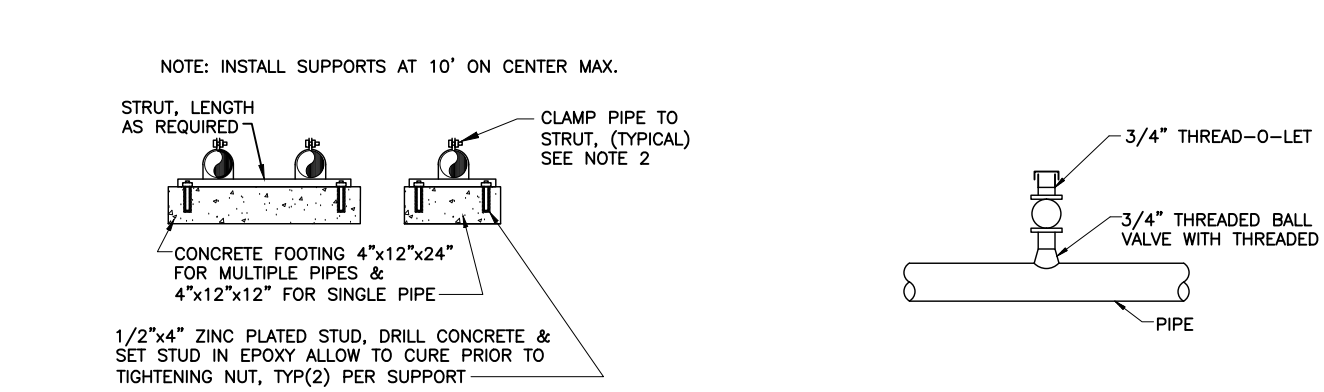
DRAWING LOCATION
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1 BULK FUEL TRANSFER STATION HEADER
SCALE: NOT TO SCALE



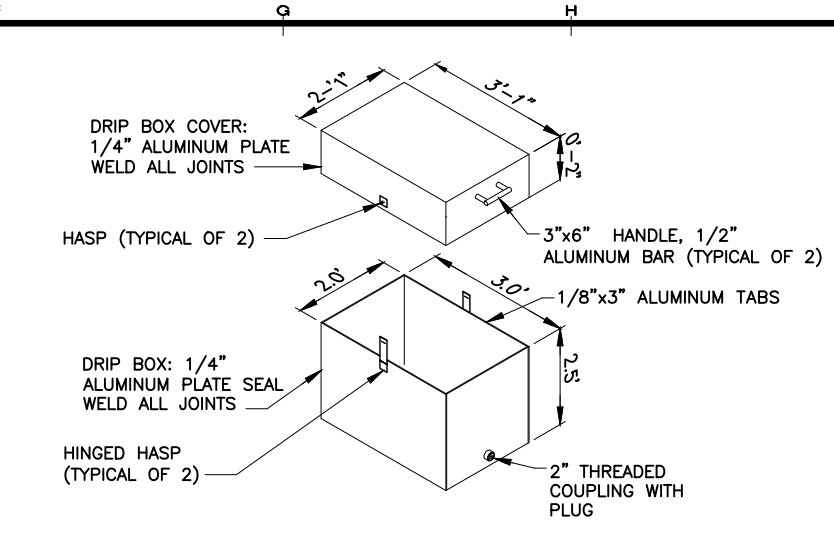
2 BULK FUEL TRANSFER STATION HEADER SECTION
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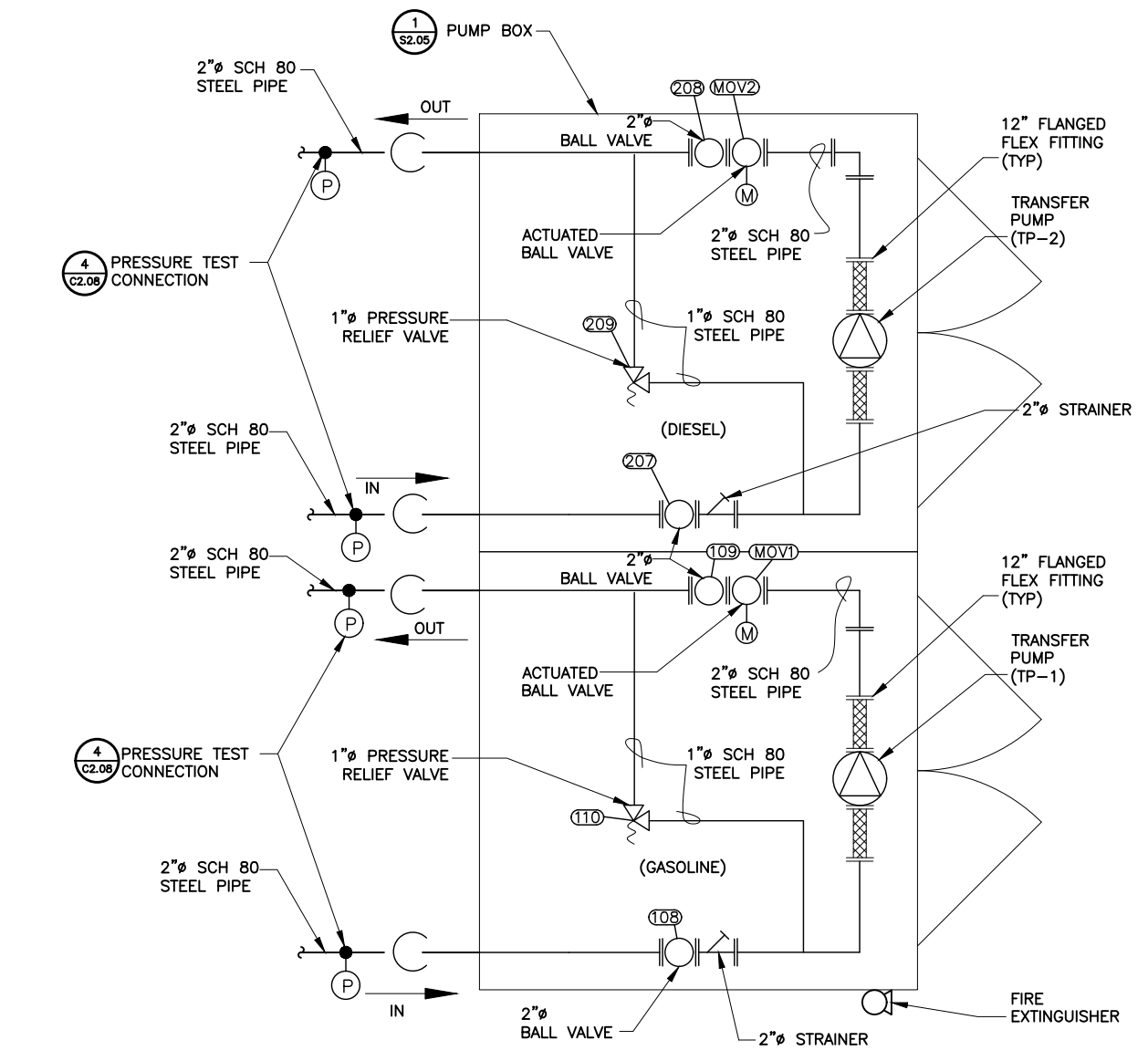
3 PIPE SUPPORT
SCALE: NOT TO SCALE



4 PRESSURE TEST CONNECTION
SCALE: NOT TO SCALE



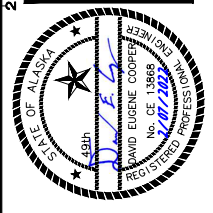
5 DRIP BOX
SCALE: NOT TO SCALE



6 PUMP BOX PIPING SCHEMATIC
SCALE: NOT TO SCALE

- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - PIPE CLAMP TYPE SHALL BE PER SECTION 23 11 13.
 - DO NOT WELD CHAIN LINK TO PIPING. INSTALL SHACKLE AT END OF CHAIN AND WRAP AROUND PIPE.

| REVISIONS | MARK | DATE | DESCRIPTION |
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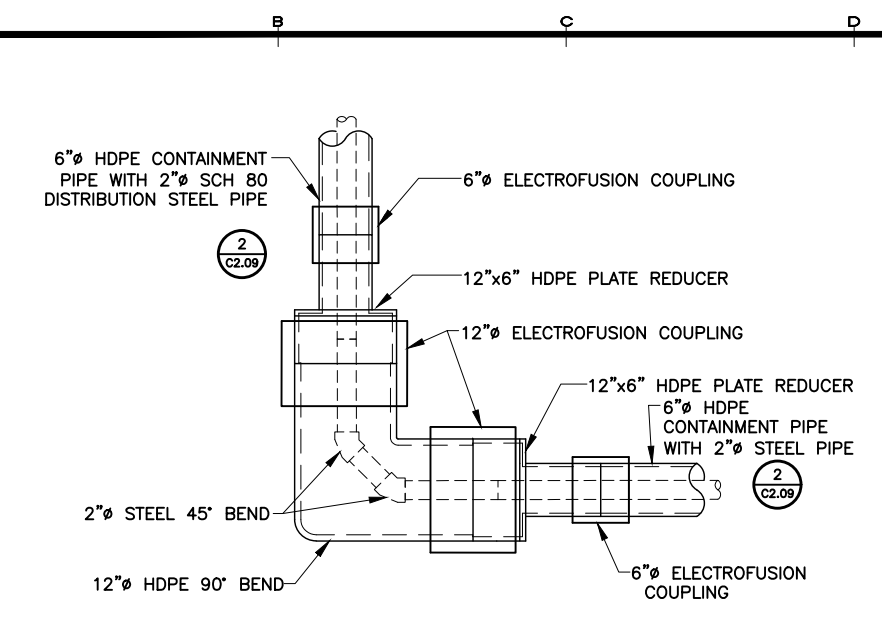


SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

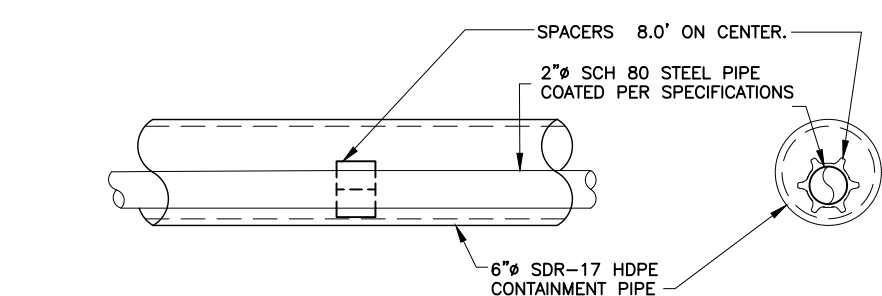
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| SHEET C2.08 | |
| DRAWN BY KK | CHECKED BY MRS |
| DATE 01/31/22 | SCALE AS SHOWN |
| JOB NUMBER 20-017 | |

LAYOUT C2.09
DATE TIME 2/3/2022 1:26 PM

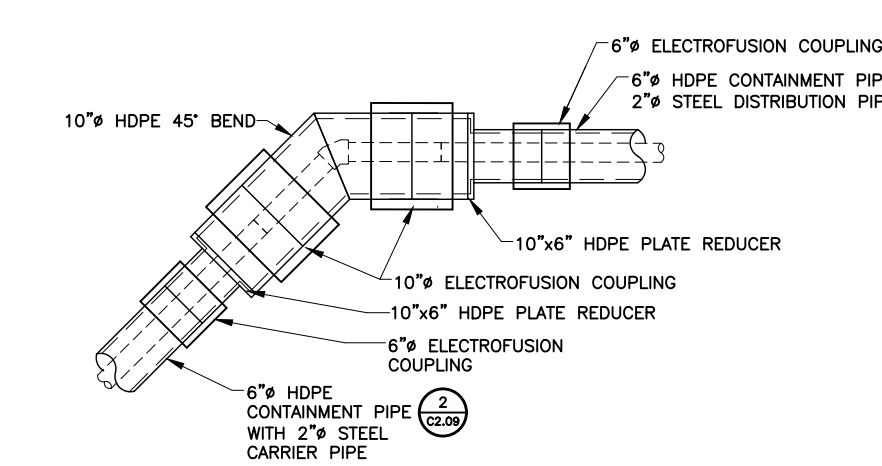
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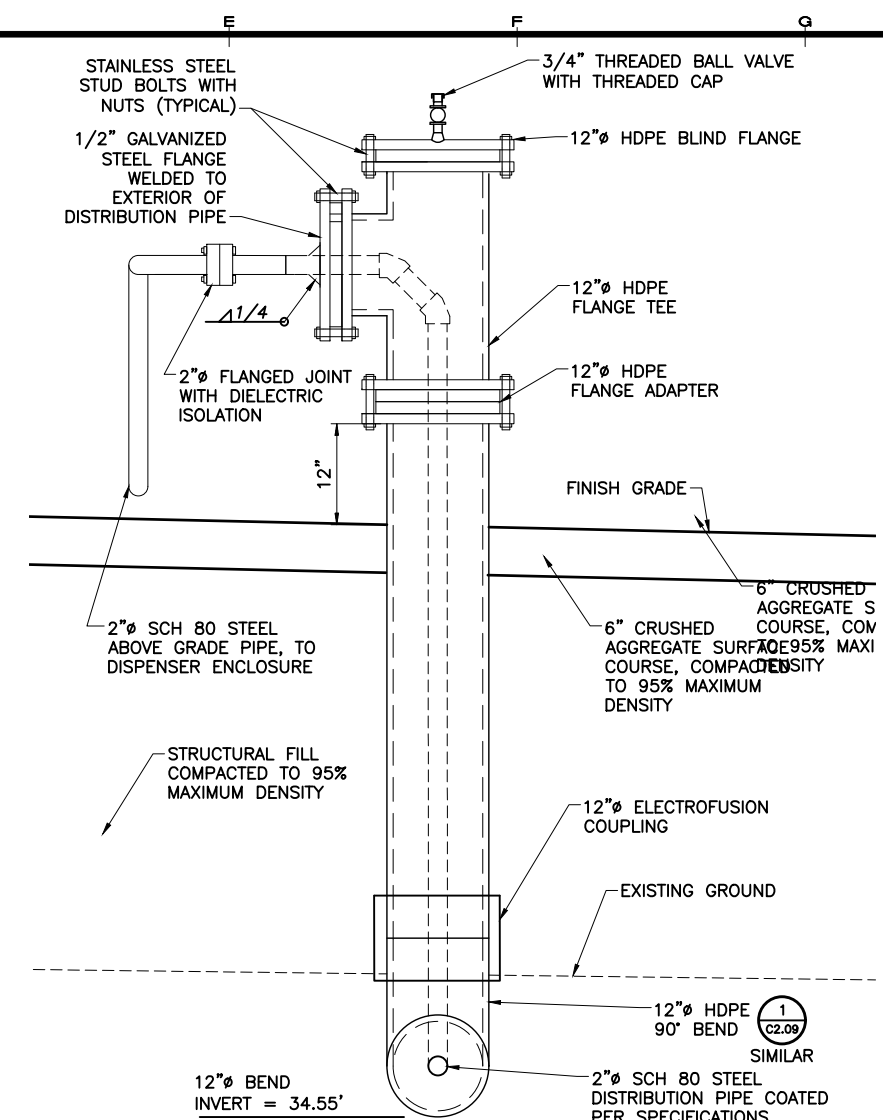
1 CONTAINMENT PIPE 90 DEGREE ANGLE DETAIL
SCALE: NONE



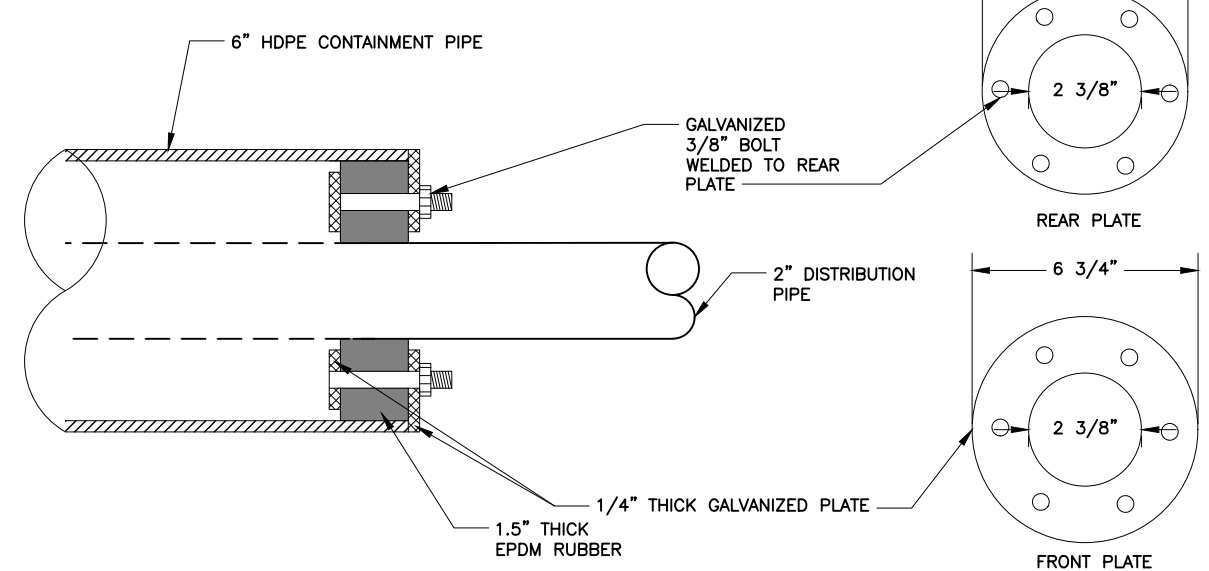
2 CONTAINMENT PIPE DETAIL
SCALE: NONE



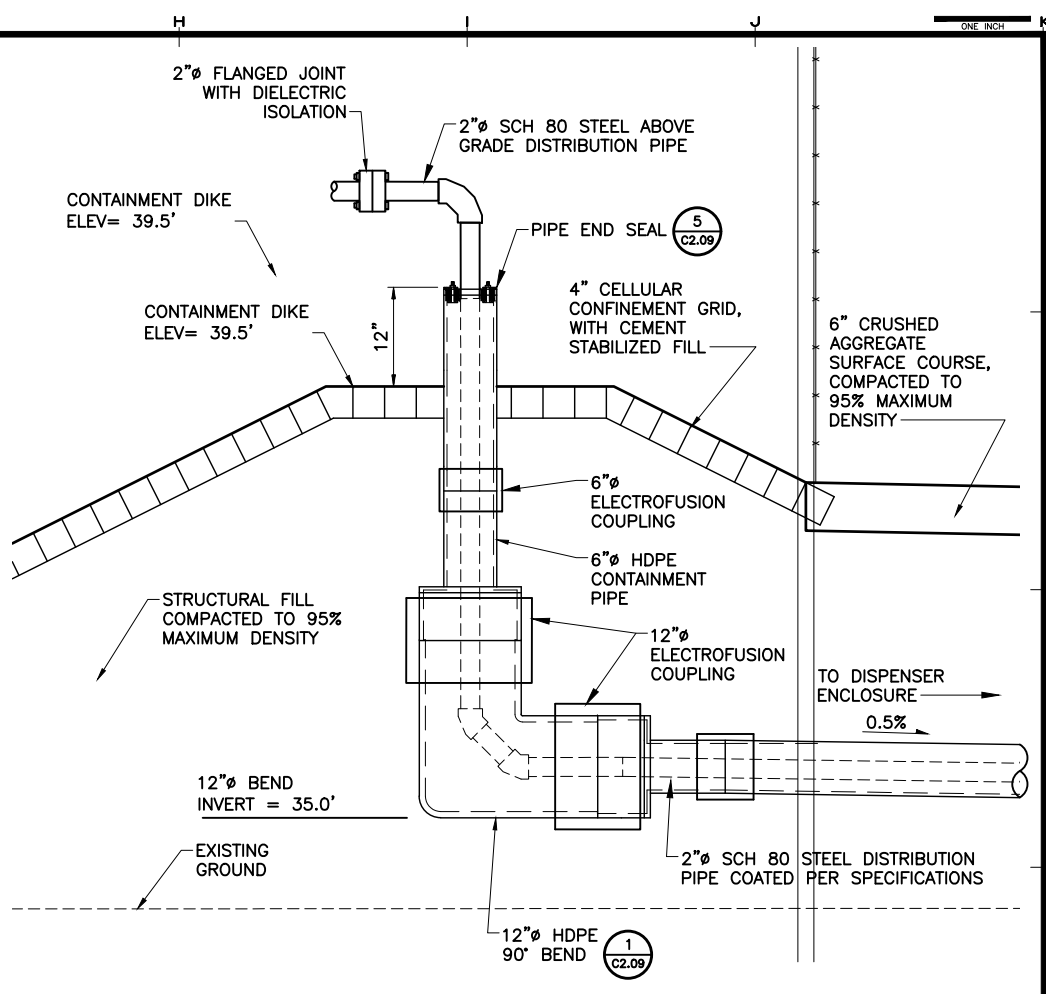
3 TYPICAL CONTAINMENT PIPE 45 DEGREE ANGLE DETAIL
SCALE: NONE



4 CONTAINMENT PIPE VERTICAL TRANSITION DETAIL
SCALE: NONE



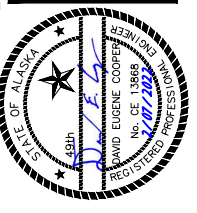
5 CONTAINMENT PIPE DETAIL
SCALE: NONE



6 CONTAINMENT PIPE VERTICAL TRANSITION DETAIL
SCALE: NONE

- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, LEGEND, ABBREVIATIONS, AND SPECIFICATIONS.
 - DISTRIBUTION PIPE SHALL BE 2-INCH SCHEDULE 80 BURIED STEEL PIPE.
 - CONTAINMENT PIPE SHALL BE 6-INCH SDR-17 HDPE PIPE.
 - RADIUS INSIDE EDGE OF CONTAINMENT PIPE END PRIOR TO INSERTING PIPE. USE CARE WHEN INSERTING PIPE INTO CONTAINMENT PIPE TO AVOID DAMAGING COATINGS.
 - ELECTROFUSION COUPLINGS SHALL BE CENTRAL PLASTICS, OR APPROVED EQUAL.
 - BURIED CONTAINMENT PIPE SHALL HAVE A MINIMUM GRADE OF -0.5% TO VERTICAL TRANSITION AT TRUCK FILL BUILDING, DEPTH OF PIPE VARIES.

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ALASKA ENERGY AUTHORITY

SCAMMON BAY, ALASKA

SHEET TITLE
CONTAINMENT PIPING DETAILS

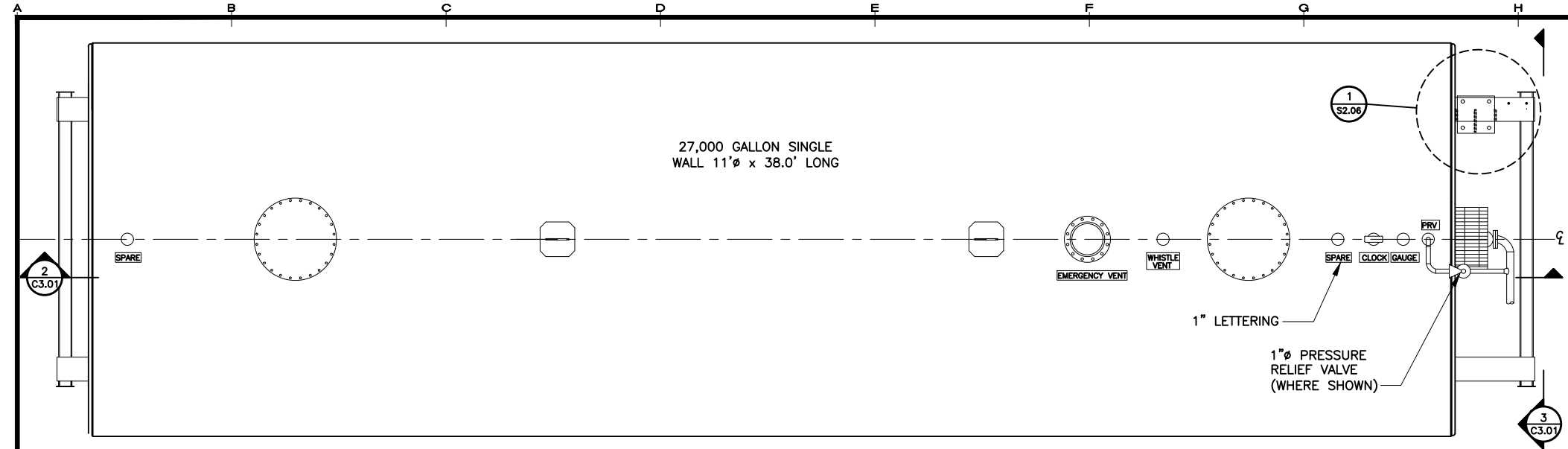
SHEET
C2.09

DRAWN BY: KK
CHECKED BY: DEC
DATE: 01/31/22
SCALE: AS SHOWN
JOB NUMBER: 20-017

LAYOUT
C3.01

DATE TIME
2/3/2022 1:26 PM

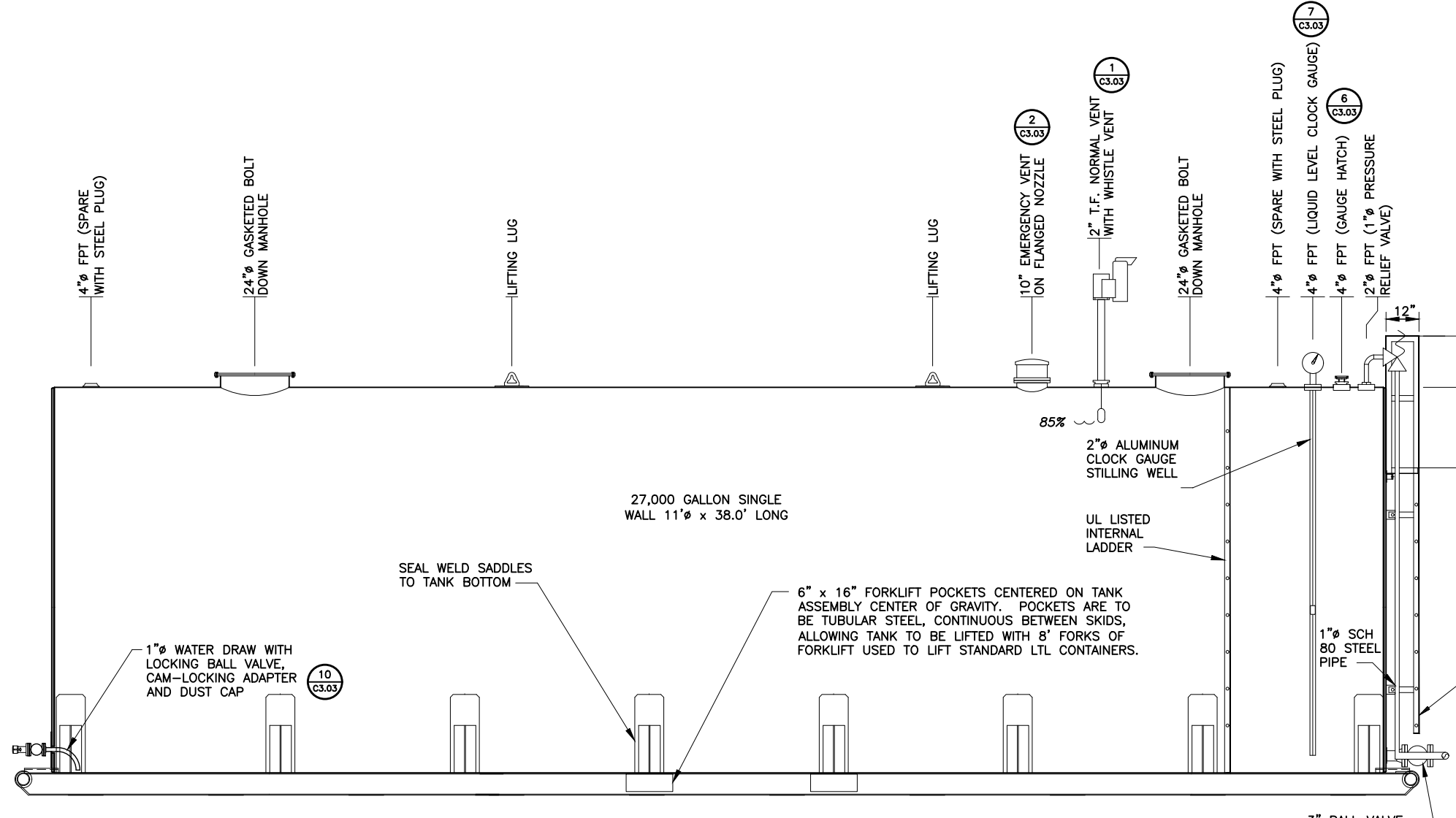
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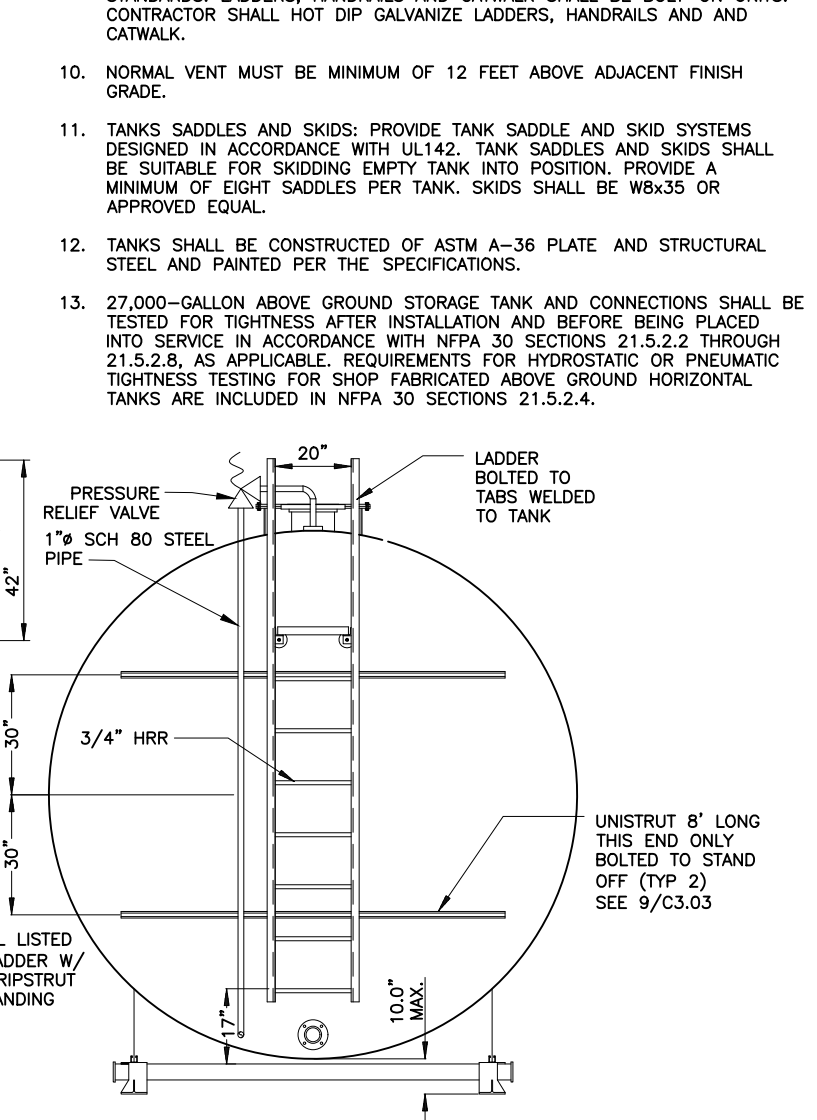
NOTES:

- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, LEGEND AND ABBREVIATIONS.
- TANKS SHALL BE UL142 LISTED AND LABELED.
- PROVIDE LABELING ON TANK IN ACCORDANCE WITH THE INTERNATIONAL FIRE CODE, INCLUDING BUT NOT LIMITED TO:
 - PRODUCT IDENTIFICATION
 - COMPARTMENT STORAGE CAPACITY
 - TARE WEIGHT
 - NFPA 704
 - INTERNATIONAL FIRE CODE CHAPTER 57
 - TANK #
 - FILL HEIGHT
- TANK SHALL BE EQUIPPED WITH PRIMARY EMERGENCY VENT.
- SHELL JOINTS WILL BE FULL PENETRATION BUTT WELDS PER UL142, FIG 6.1, NO. 3.
- HEAD TO SHELL JOINTS WILL BE FULL FILLET LAP WELDS PER UL142, FIG. 6.2, NO. 6.
- THIS DRAWING IS A PROTOTYPICAL TANK DRAWING. CONTRACTOR SHALL MODIFY BUNG LOCATIONS AS NECESSARY TO MATCH PIPING REQUIREMENTS. SUBMIT SHOP DRAWING WITH ANY PROPOSED REVISIONS HIGHLIGHTED FOR ENGINEER REVIEW.
- TANKS AND APPURTENANCES SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSIONS OF UL142, STATE OF ALASKA FIRE AND LIFE SAFETY REGULATIONS (13 AAC50), ASME B 31.3, ASME B 31.4, AND ASME B 31.4A.
- LADDER, HANDRAILS, AND CATWALK MUST MEET ALL APPLICABLE OSHA STANDARDS. LADDERS, HANDRAILS AND CATWALK SHALL BE BOLT-ON UNITS. CONTRACTOR SHALL HOT DIP GALVANIZE LADDERS, HANDRAILS AND AND CATWALK.
- NORMAL VENT MUST BE MINIMUM OF 12 FEET ABOVE ADJACENT FINISH GRADE.
- TANKS SADDLES AND SKIDS: PROVIDE TANK SADDLE AND SKID SYSTEMS DESIGNED IN ACCORDANCE WITH UL142. TANK SADDLES AND SKIDS SHALL BE SUITABLE FOR SKIDDING EMPTY TANK INTO POSITION. PROVIDE A MINIMUM OF EIGHT SADDLES PER TANK. SKIDS SHALL BE W8x35 OR APPROVED EQUAL.
- TANKS SHALL BE CONSTRUCTED OF ASTM A-36 PLATE AND STRUCTURAL STEEL AND PAINTED PER THE SPECIFICATIONS.
- 27,000-GALLON ABOVE GROUND STORAGE TANK AND CONNECTIONS SHALL BE TESTED FOR TIGHTNESS AFTER INSTALLATION AND BEFORE BEING PLACED INTO SERVICE IN ACCORDANCE WITH NFPA 30 SECTIONS 21.5.2.2 THROUGH 21.5.2.8, AS APPLICABLE. REQUIREMENTS FOR HYDROSTATIC OR PNEUMATIC TIGHTNESS TESTING FOR SHOP FABRICATED ABOVE GROUND HORIZONTAL TANKS ARE INCLUDED IN NFPA 30 SECTIONS 21.5.2.4.

1 PLAN - 27,000 GALLON SINGLE WALL TANK
SCALE: NONE

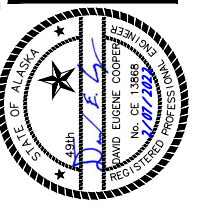


2 SECTION - 27,000 GALLON SINGLE WALL TANK
SCALE: NONE



3 END VIEW
SCALE: NONE

| REVISIONS | MARK | DATE | DESCRIPTION |
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ALASKA ENERGY AUTHORITY

SCAMMON BAY, ALASKA

SHEET TITLE
27,000 GALLON SINGLE WALL BULK FUEL TANK

SHEET
C3.01

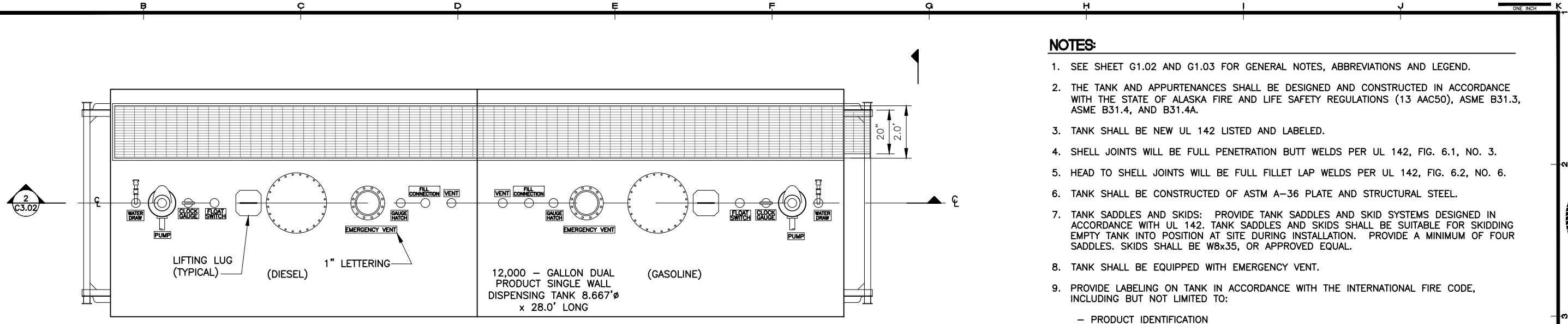
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DATE: **01/31/22** SCALE: **NONE**

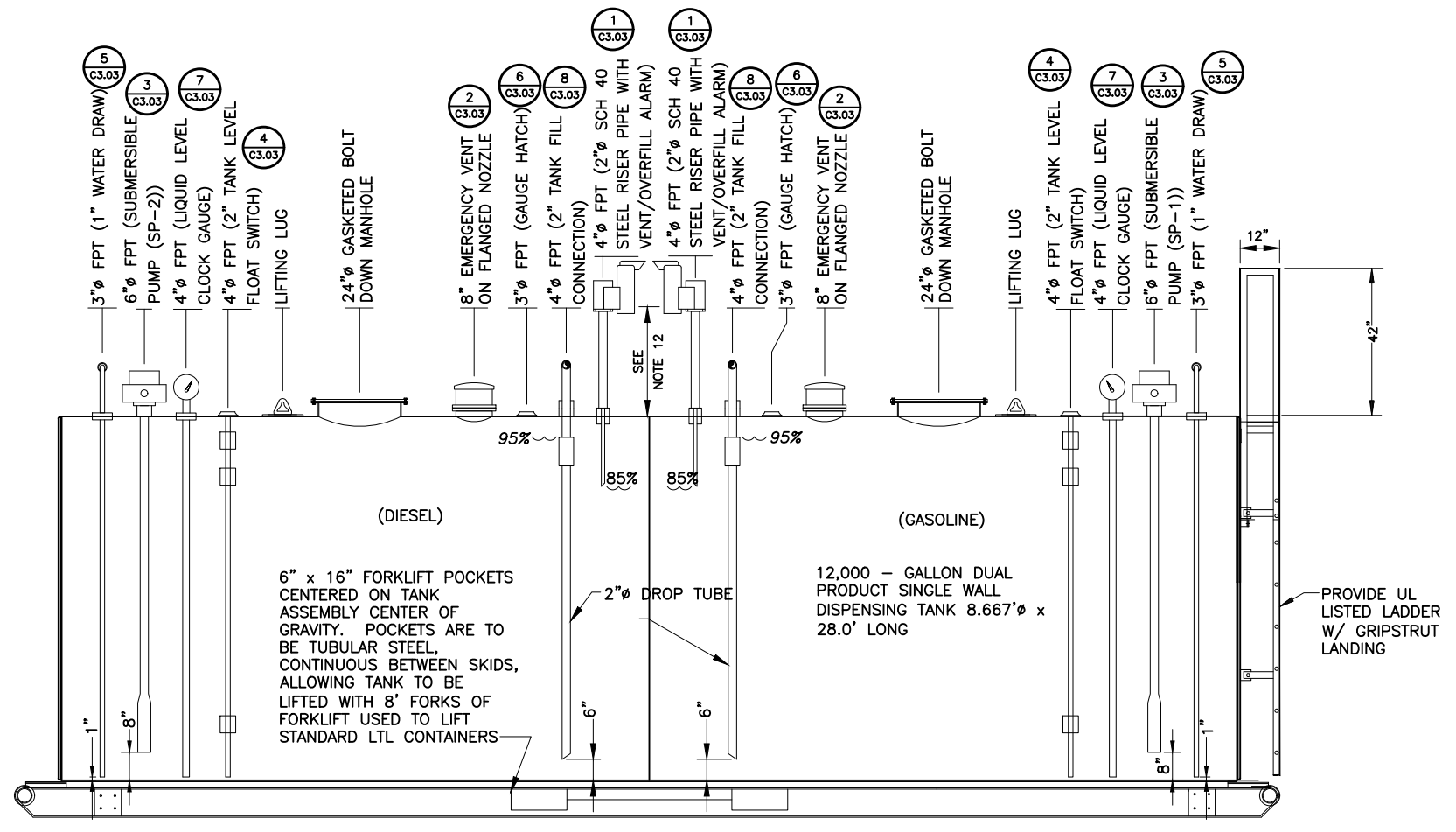
JOB NUMBER: **20-017**

LAYOUT C3.02
DATE TIME 2/3/2022 1:26 PM

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1 PLAN VIEW - 12,000 - GALLON DUAL PRODUCT DISPENSING TANK
SCALE: NOT TO SCALE

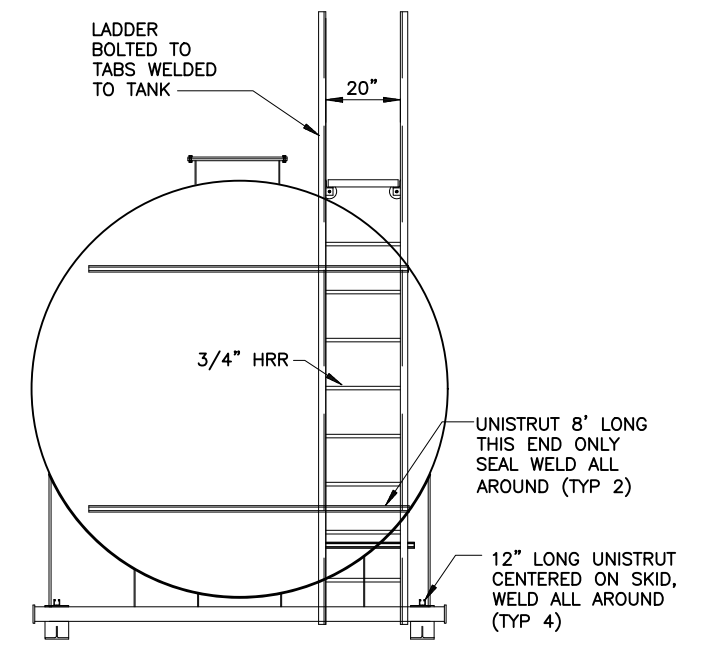


2 SECTION - 12,000 - GALLON DUAL PRODUCT DISPENSING TANK
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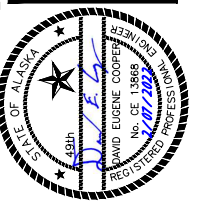
NOTES:

- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS AND LEGEND.
- THE TANK AND APPURTENANCES SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE STATE OF ALASKA FIRE AND LIFE SAFETY REGULATIONS (13 AAC50), ASME B31.3, ASME B31.4, AND B31.4A.
- TANK SHALL BE NEW UL 142 LISTED AND LABELED.
- SHELL JOINTS WILL BE FULL PENETRATION BUTT WELDS PER UL 142, FIG. 6.1, NO. 3.
- HEAD TO SHELL JOINTS WILL BE FULL FILLET LAP WELDS PER UL 142, FIG. 6.2, NO. 6.
- TANK SHALL BE CONSTRUCTED OF ASTM A-36 PLATE AND STRUCTURAL STEEL.
- TANK SADDLES AND SKIDS: PROVIDE TANK SADDLES AND SKID SYSTEMS DESIGNED IN ACCORDANCE WITH UL 142. TANK SADDLES AND SKIDS SHALL BE SUITABLE FOR SKIDDING EMPTY TANK INTO POSITION AT SITE DURING INSTALLATION. PROVIDE A MINIMUM OF FOUR SADDLES. SKIDS SHALL BE W8x35, OR APPROVED EQUAL.
- TANK SHALL BE EQUIPPED WITH EMERGENCY VENT.
- PROVIDE LABELING ON TANK IN ACCORDANCE WITH THE INTERNATIONAL FIRE CODE, INCLUDING BUT NOT LIMITED TO:
 - PRODUCT IDENTIFICATION
 - COMPARTMENT STORAGE CAPACITY
 - TARE WEIGHT
 - NFPA 704
 - INTERNATIONAL FIRE CODE CHAPTER 57.
 - TANK #
 - FILL HEIGHT
- ALL PRIMARY TANKS SHALL BE EQUIPPED WITH A COMBINATION VENT/OVERFILL ALARM IN PLACE OF THE NORMAL VENT. SET WHISTLE TO START AT 85% OF TANK CAPACITY.
- LADDER, HANDRAILS, AND CATWALK MUST MEET ALL APPLICABLE OSHA AND UL 142 STANDARDS AND SHALL BE BOLT-ON UNITS COATED WITH A HOT DIP ZINC GALVANIZE.
- NORMAL VENT MUST BE MINIMUM OF 12 FEET ABOVE ADJACENT FINISH GRADE.
- THIS DRAWING IS A PROTOTYPICAL TANK DRAWING. CONTRACTOR SHALL MOVE FILL AND ISSUE BUNG LOCATIONS TO MATCH EACH TANK'S PIPING LOCATION REQUIREMENTS.
- TANK SHALL BE PAINTED PER CONTRACT DOCUMENTS.
- 12,000-GALLON ABOVE GROUND STORAGE TANK AND CONNECTIONS SHALL BE TESTED FOR TIGHTNESS AFTER INSTALLATION AND BEFORE BEING PLACED INTO SERVICE IN ACCORDANCE WITH NFPA 30 SECTIONS 21.5.2.2 THROUGH 21.5.2.8, AS APPLICABLE. REQUIREMENTS FOR HYDROSTATIC OR PNEUMATIC TIGHTNESS TESTING FOR SHOP FABRICATED ABOVE GROUND HORIZONTAL TANKS ARE INCLUDED IN NFPA 30 SECTIONS 21.5.2.4.

3 END VIEW
SCALE: NOT TO SCALE



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SHEET TITLE
12,000 GALLON SINGLE WALL DUAL PRODUCT DISPENSING TANK

SHEET
C3.02

DRAWN BY: **KK** CHECKED BY: **DC**

DATE: **01/31/22** SCALE: **NONE**

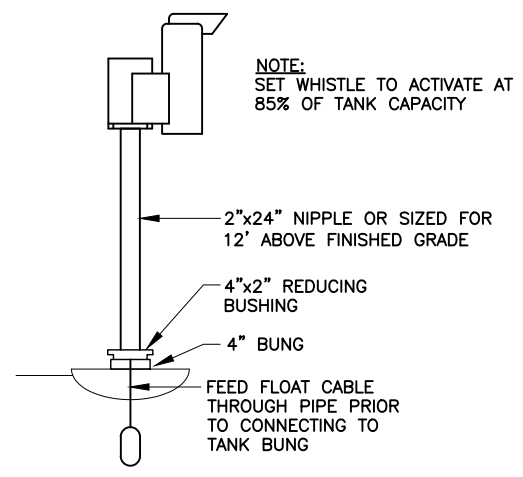
JOB NUMBER: **20-017**

LAYOUT
C3.03

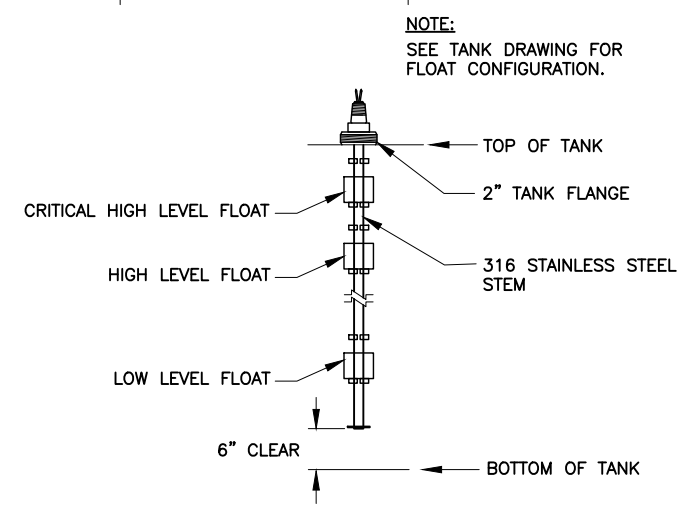
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KORNEGAY

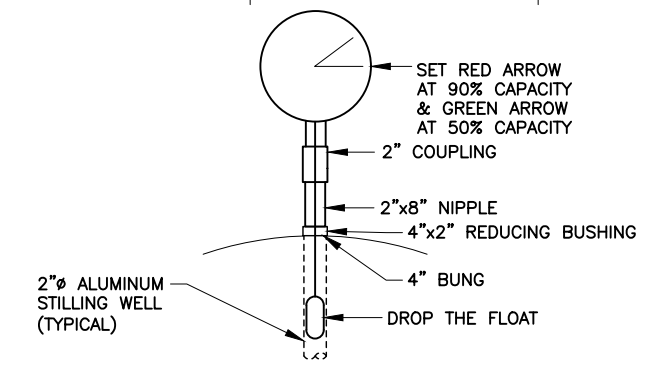
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1 VENT/OVERFILL ALARM
C3.03 SCALE: NOT TO SCALE

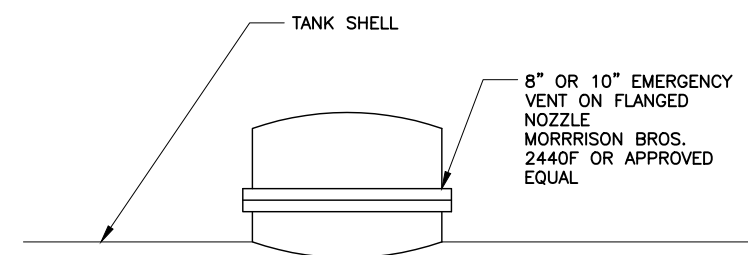


4 LEVEL FLOAT SWITCH
C3.03 SCALE: NOT TO SCALE

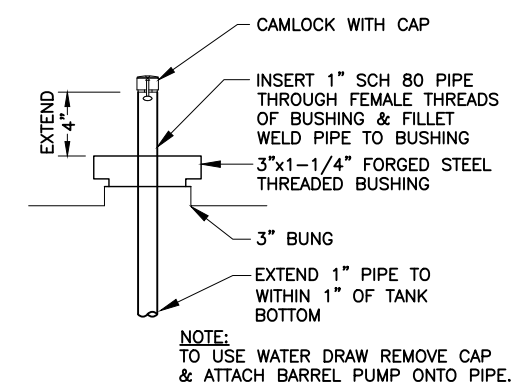


7 CLOCK GAUGE
C3.03 SCALE: NOT TO SCALE

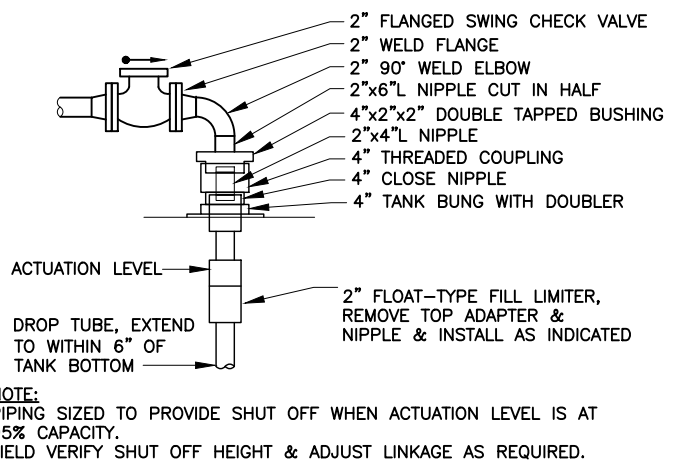
- CLOCK GAUGE NOTES:**
1. FEED FLOAT CABLE THROUGH NIPPLE PRIOR TO CONNECTING TO TANK.
 2. GREASE FLOAT PRIOR TO INSTALLING IN TANK TO PREVENT FREEZING TO BOTTOM.
 3. CALIBRATE GAUGE AFTER FILLING TANK AND VERIFY WITH MANUAL GAUGING ROD.
 4. ENSURE THAT BACK COVER PLATE IS PROPERLY SEALED AFTER REASSEMBLY (ANY LOOSENESS OR RATTLING WHEN TAPPED INDICATES A POOR SEAL).



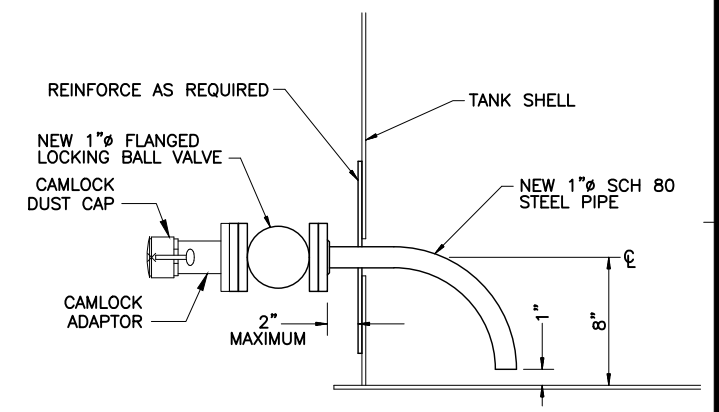
2 EMERGENCY VENT
C3.03 SCALE: NOT TO SCALE



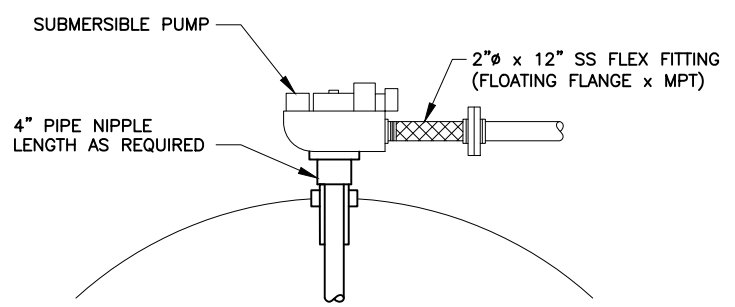
5 TANK TOP WATER DRAW
C3.03 SCALE: NOT TO SCALE



8 FILL LIMITER
C3.03 SCALE: NOT TO SCALE



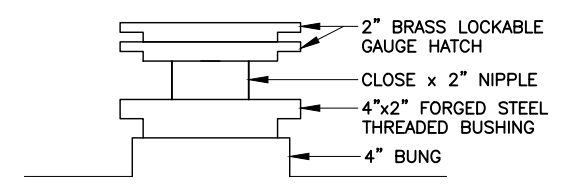
10 TANK BOTTOM WATER DRAW
C3.03 SCALE: NOT TO SCALE



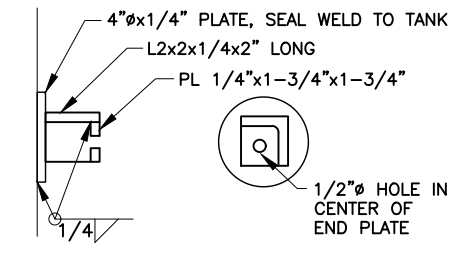
SUBMERSIBLE PUMP ASSEMBLY NOTES:

1. PRIOR TO PLACING PUMP IN TANK, INSTALL TRAPPER SCREEN AND SET PUMP LENGTH SO THAT INTAKE WILL BE 8" ABOVE TANK BOTTOM. SECURELY TIGHTEN AND LOCK ADJUSTING MECHANISM.
2. AFTER INSTALLATION REMOVE ALL BOLTS, PLUGS, AND FITTINGS ON TOP. THOROUGHLY COAT THREADS WITH ANTI-SIEZE COMPOUND, REINSTALL, AND TIGHTEN SECURELY.

3 SUBMERSIBLE PUMP ASSEMBLY
C3.03 SCALE: NOT TO SCALE

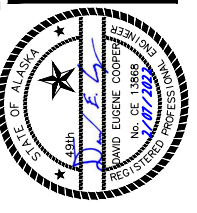


6 TANK GAUGE HATCH
C3.03 SCALE: NOT TO SCALE



9 PIPE SUPPORT STAND OFF
C3.03 SCALE: NOT TO SCALE

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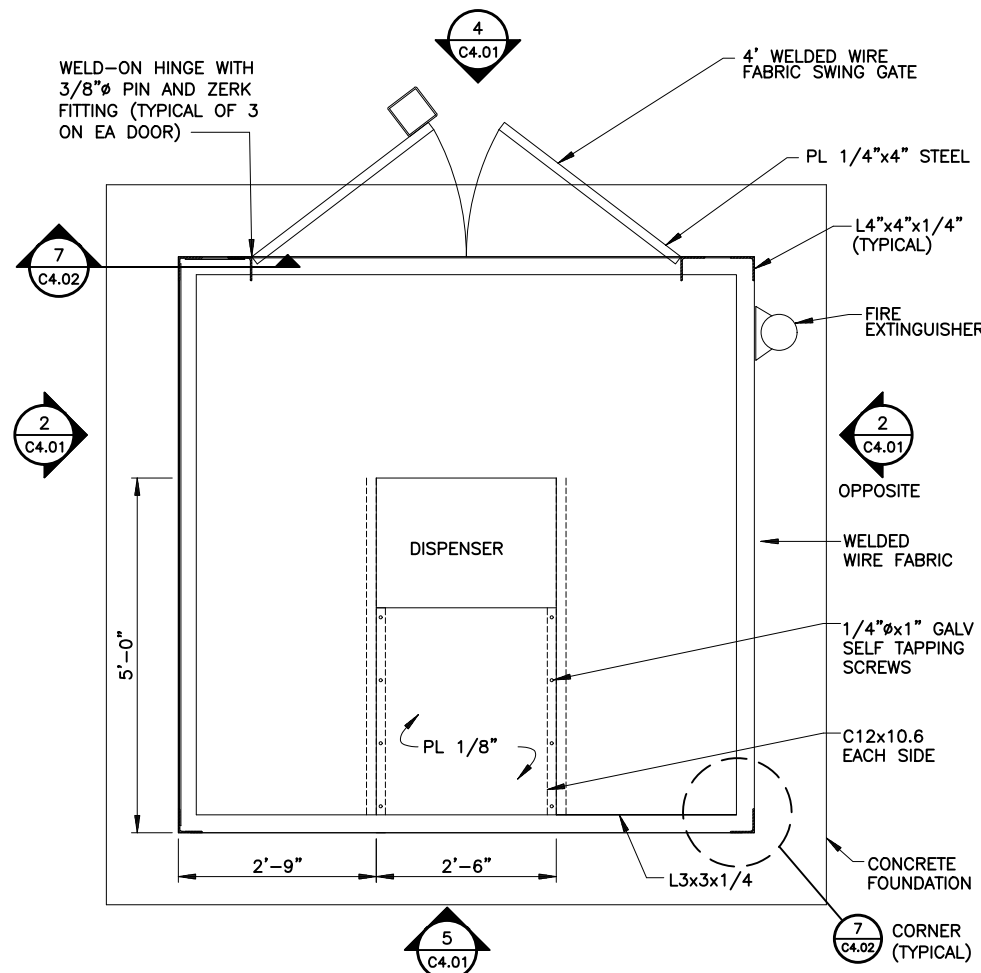
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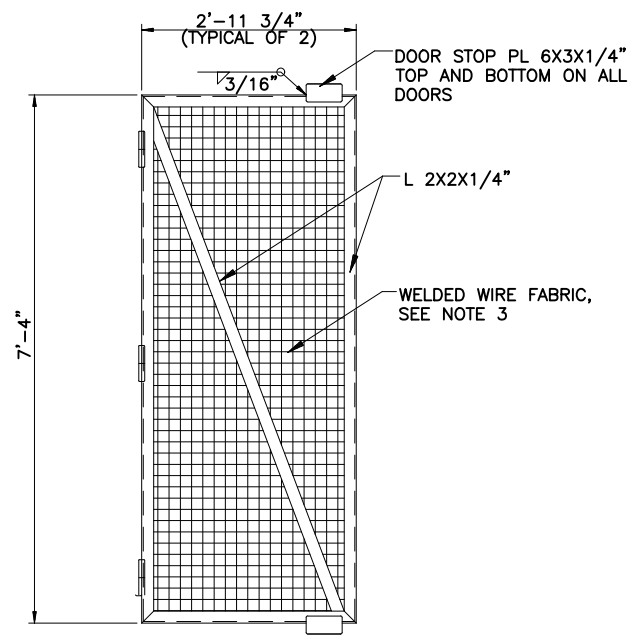
SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

| | |
|---|-------------------|
| SHEET TITLE TYPICAL TANK APPURTENANCE DETAILS | |
| SHEET C3.03 | |
| DRAWN BY KK | CHECKED BY DEC |
| DATE 01/31/22 | SCALE AS SHOWN |
| JOB NUMBER 20-017 | |

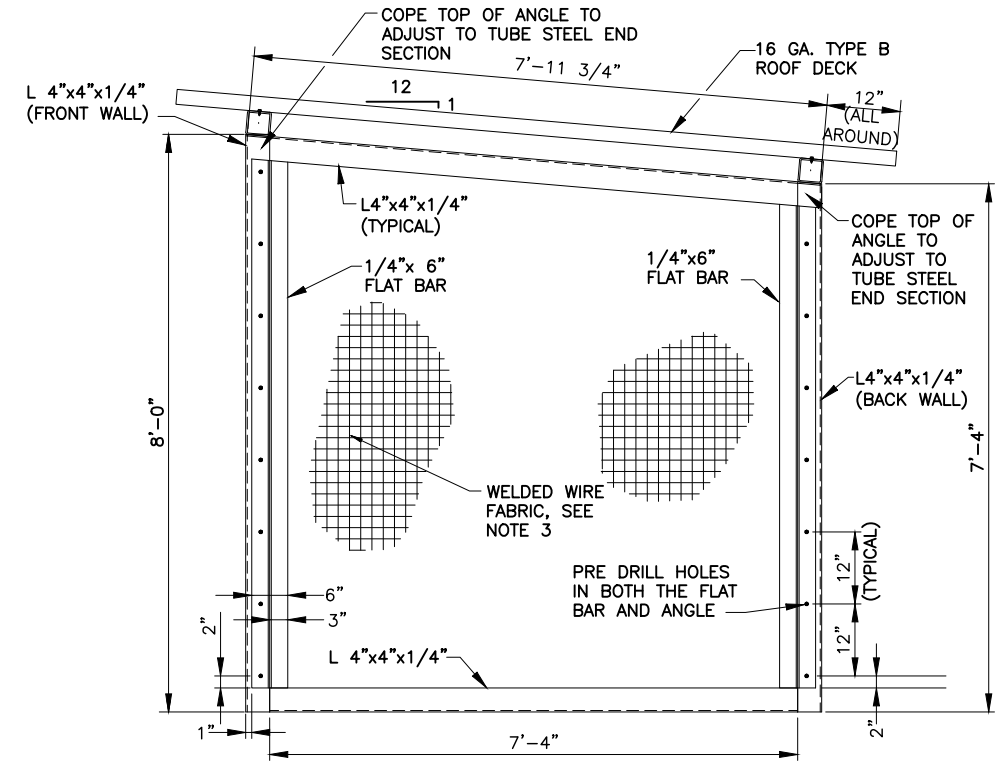
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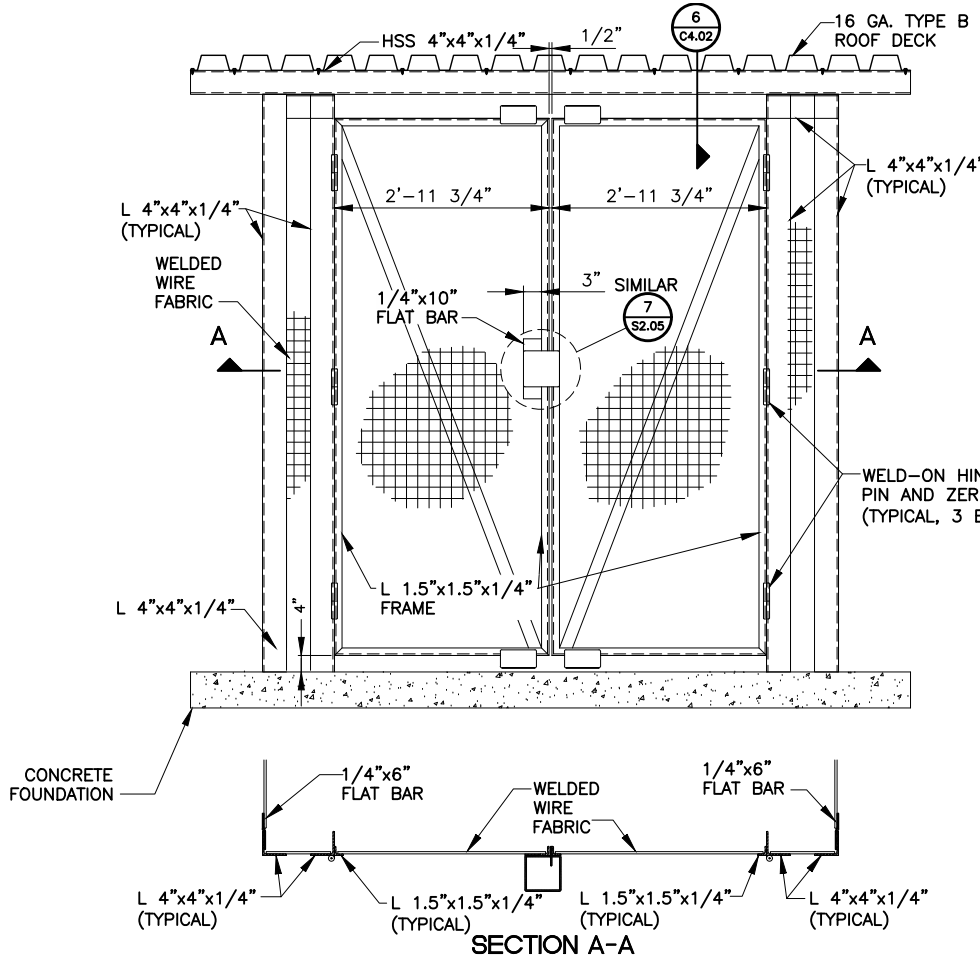
1 DISPENSER ENCLOSURE - PLAN VIEW
C4.01 SCALE: 3/4" = 1'-0"



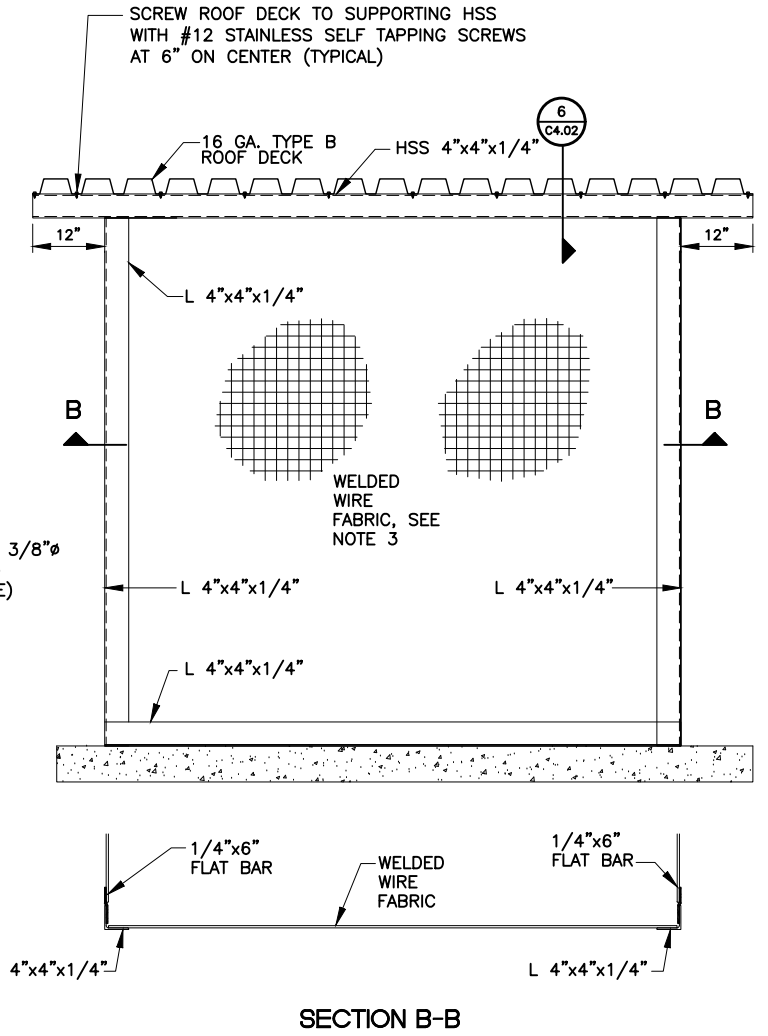
3 DOOR FRAME
C4.01 SCALE: 3/4" = 1'-0"



2 DISPENSER SIDE PANEL ELEVATION
C4.01 SCALE: 3/4" = 1'-0"



4 DISPENSER FRONT PANEL ELEVATION
C4.01 SCALE: 3/4" = 1'-0"

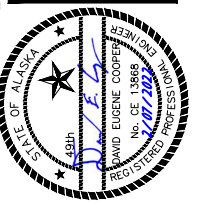


5 DISPENSER BACK PANEL ELEVATION
C4.01 SCALE: 3/4" = 1'-0"

NOTES:

1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS AND LEGEND.
2. HOT DIP GALVANIZE STRUCTURE, FLOOR, AND DISPENSER BASE IN ACCORDANCE WITH THE SPECIFICATIONS.
3. 4" SQUARE WIRE MESH WITH 3/8" WIRE. McNICHOLS CATALOG WITH GALVANIZE COATING.
4. PROVIDE FIRE EXTINGUISHERS FOR THE DISPENSERS IN ACCORDANCE WITH SPECIFICATIONS.

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SCAMMON BAY BULK FUEL UPGRADES

ALASKA ENERGY AUTHORITY

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SHEET TITLE: **DISPENSER ENCLOSURE FRAMING PLAN AND ELEVATIONS**

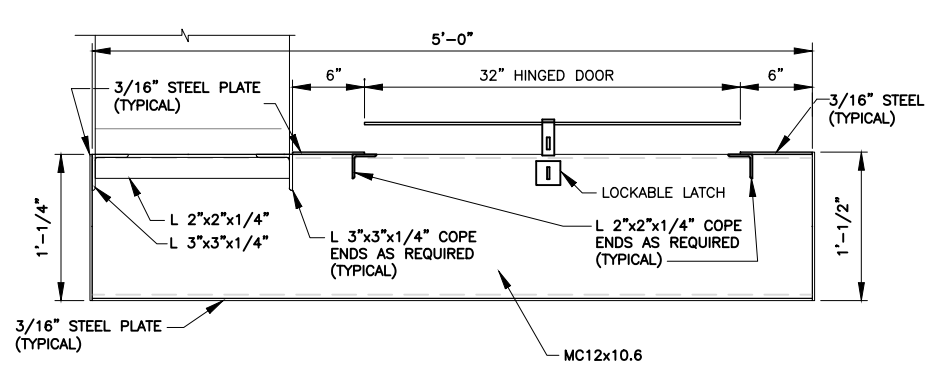
SHEET: **C4.01**

DRAWN BY: **KK** CHECKED BY: **MRS**

DATE: **01/31/22** SCALE: **AS NOTED**

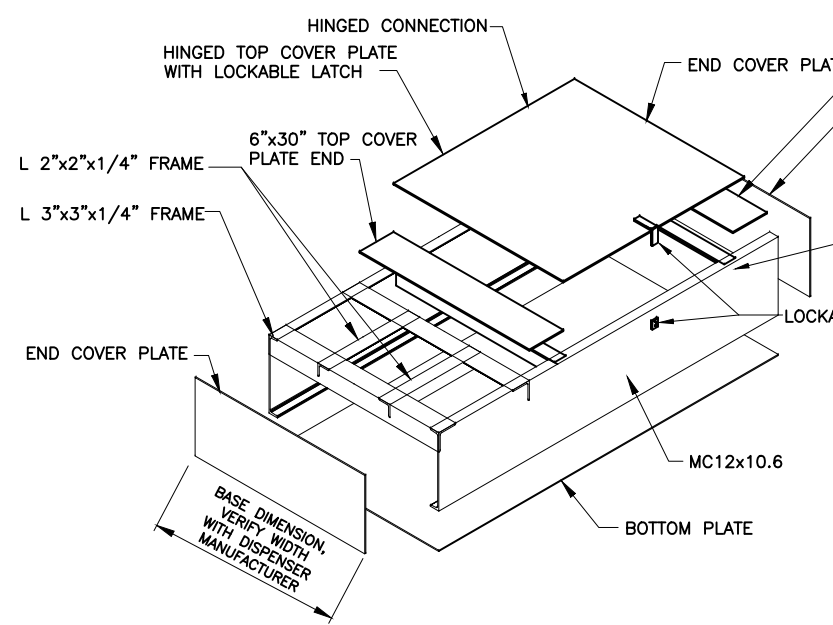
JOB NUMBER: **20-017**

DRAWING LOCATION: h:\jobs\20-017\scammon bay bulk fuel upgades\20-017_04_s3_01-s3_02-Dispenser.dwg
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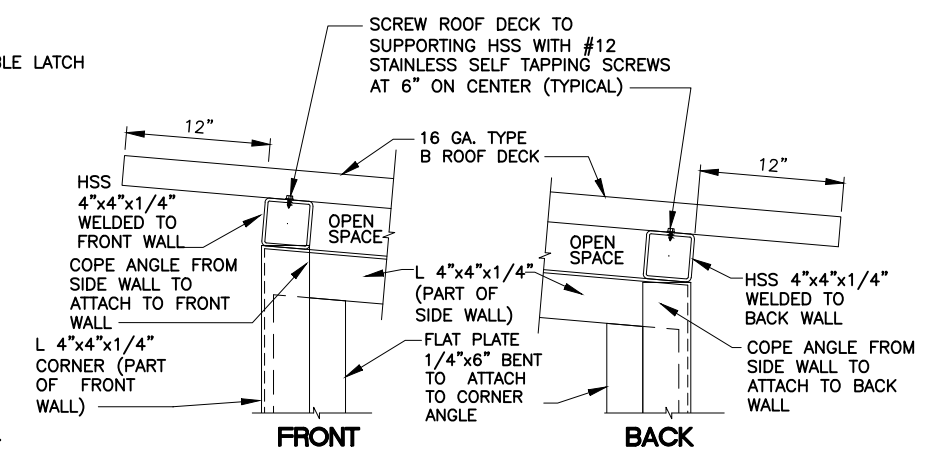


- NOTES:**
1. END COVER PLATES, BOTTOM PLATE, AND 6"x30" TOP COVER PLATE ENDS SHALL BE 1/8" FILLET SEAL WELDED.
 2. TOP COVER PLATE HINGE AND LOCKABLE LATCH SHALL BE WELD ATTACHED.
 3. DISPENSER BASE SHALL BE BOLTED TO THE DISPENSER BUILDING CONCRETE FOUNDATION WITH 1/2" ϕ x 4" ANCHOR BOLTS AND WASHERS SET IN EPOXY. SEE 5 C4.02

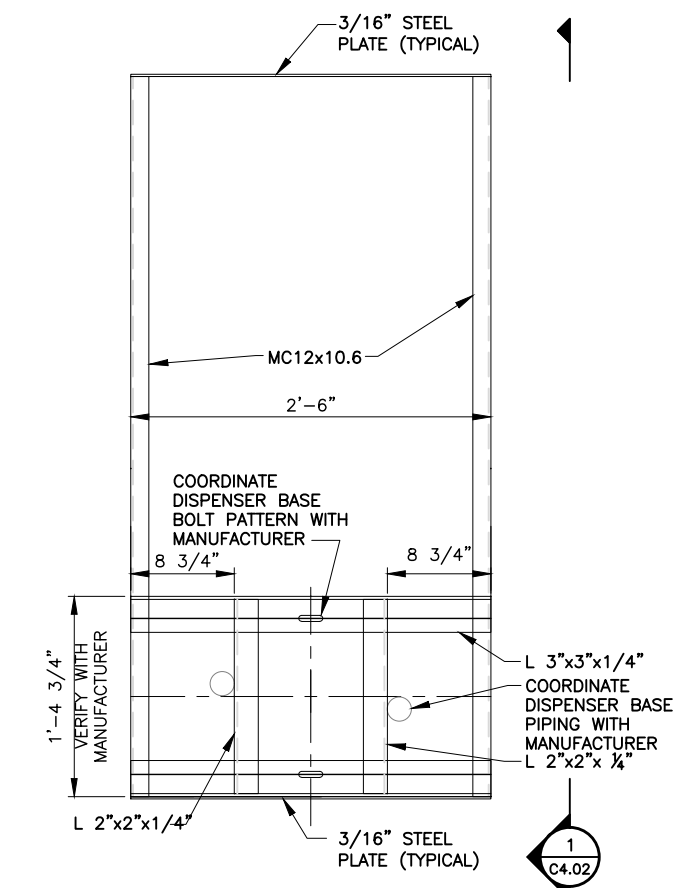
1 ELEVATION - DISPENSER BASE
 SCALE: 3/4" = 1'-0"



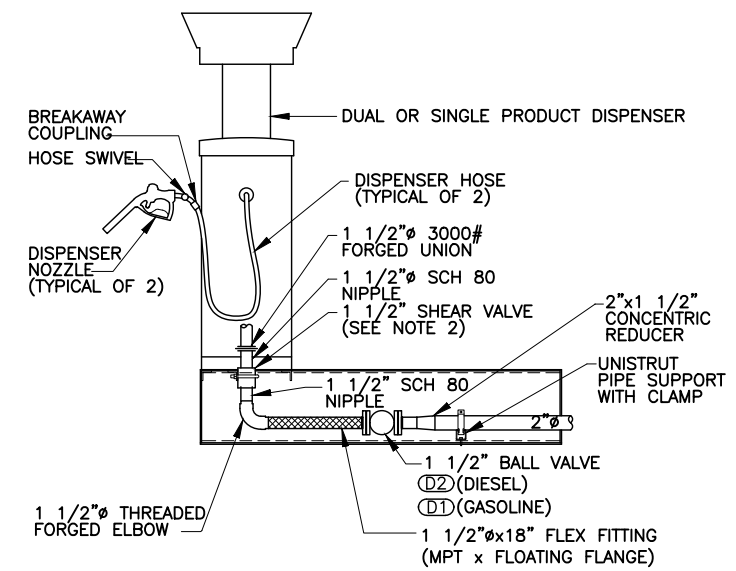
3 ISOMETRIC - DISPENSER BASE
 SCALE: NOT TO SCALE



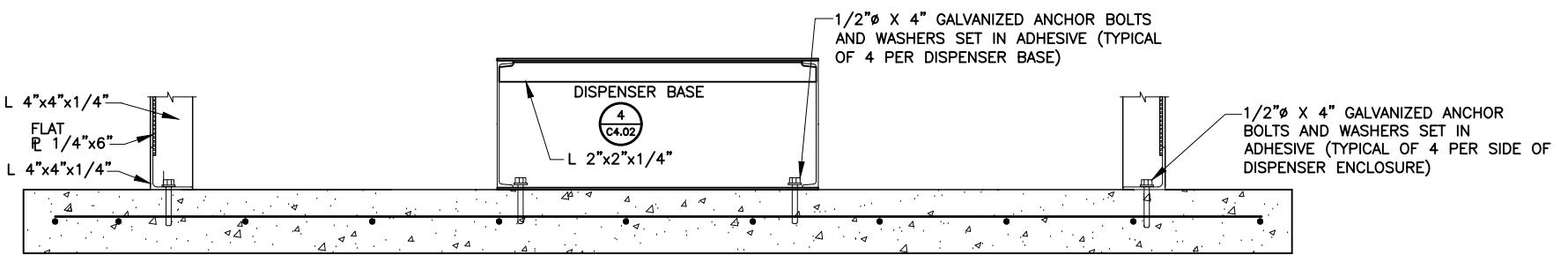
6 ROOF CONNECTION DETAIL
 SCALE: 1 1/2" = 1'-0"



2 PLAN - DISPENSER BASE
 SCALE: 3/4" = 1'-0"



4 DISPENSER SECTION
 SCALE: NONE



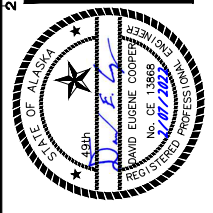
5 FRAMING SECTION
 SCALE: 1 1/2" = 1'-0"

NOTE:
 SEE STRUCTURAL NOTES ON S1.02 FOR ADHESIVE SYSTEM

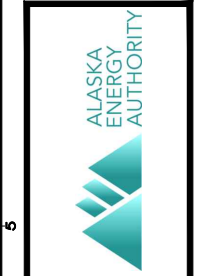
NOTES:

1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS AND LEGEND.
2. SET SHEAR VALVE WITH PLANE OF SHEAR AT TOP OF DISPENSER MOUNT.
3. HOT DIP GALVANIZE STRUCTURE, FLOOR, AND DISPENSER BASE INCLUDING BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH THE SPECIFICATIONS.

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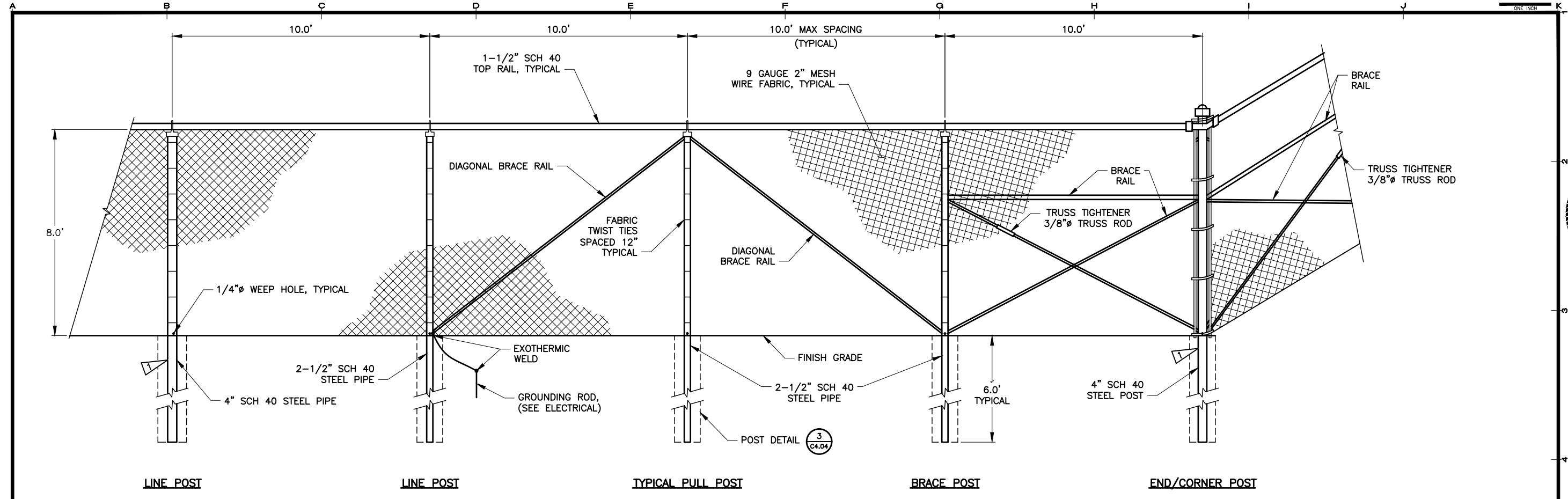


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| SHEET TITLE | |
| DISPENSER ENCLOSURE SECTIONS AND DETAILS | |
| SHEET | |
| C4.02 | |
| DRAWN BY: | CHECKED BY: |
| KK | MRS |
| DATE: | SCALE: |
| 01/31/22 | AS NOTED |
| JOB NUMBER: | |
| 20-017 | |

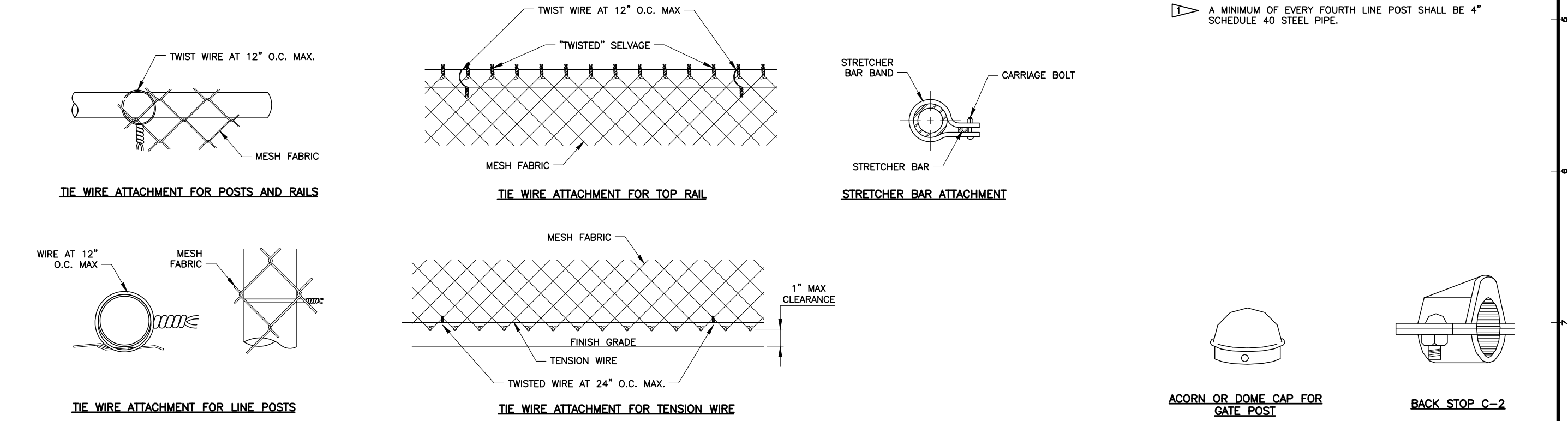
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DATE TIME 2/3/2022 1:26 PM

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1 TYPICAL FENCE DETAIL
C4.03 SCALE: NTS

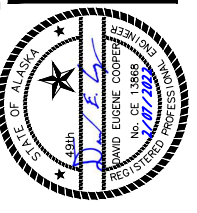
NOTE:
A MINIMUM OF EVERY FOURTH LINE POST SHALL BE 4\"/>



2 FENCE ATTACHMENT DETAILS
C4.03 SCALE: NTS

3 FENCE HARDWARE
C4.03 SCALE: NTS

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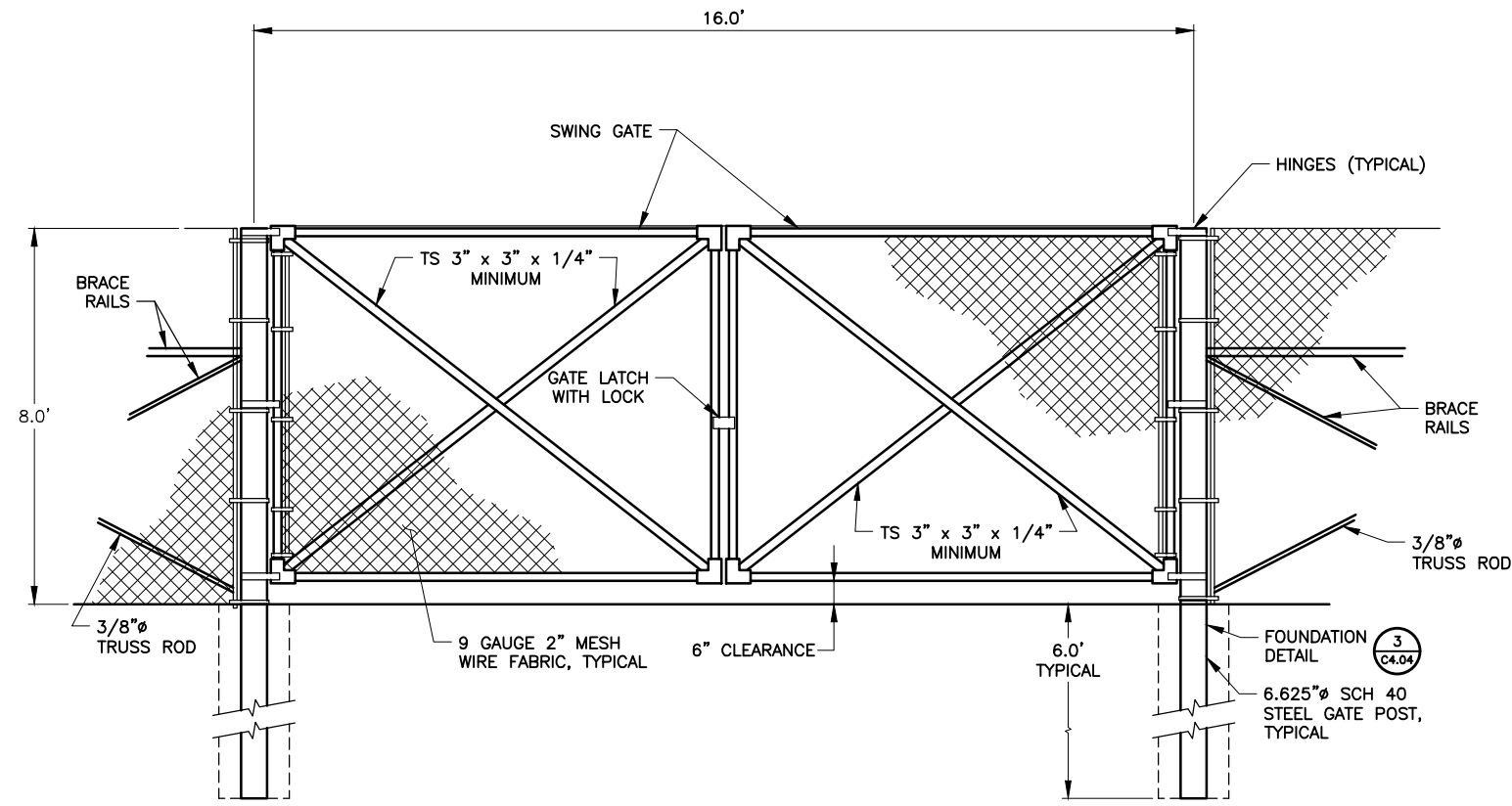
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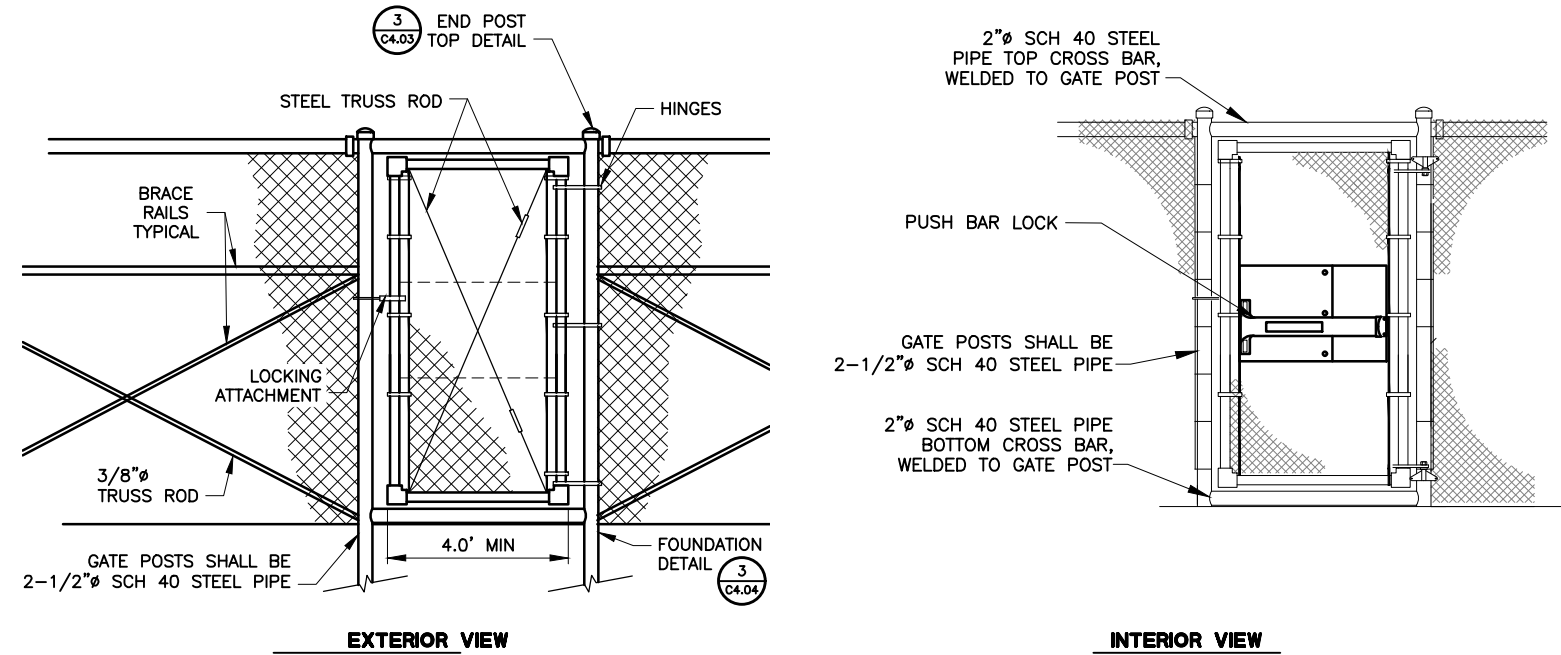
SHEET TITLE: FENCE DETAILS
SHEET: C4.03
DRAWN BY: KK
CHECKED BY: DEC
DATE: 01/31/22
SCALE: AS SHOWN
JOB NUMBER: 20-017

LAYOUT C4.05
DATE TIME 2/3/2022 1:26 PM

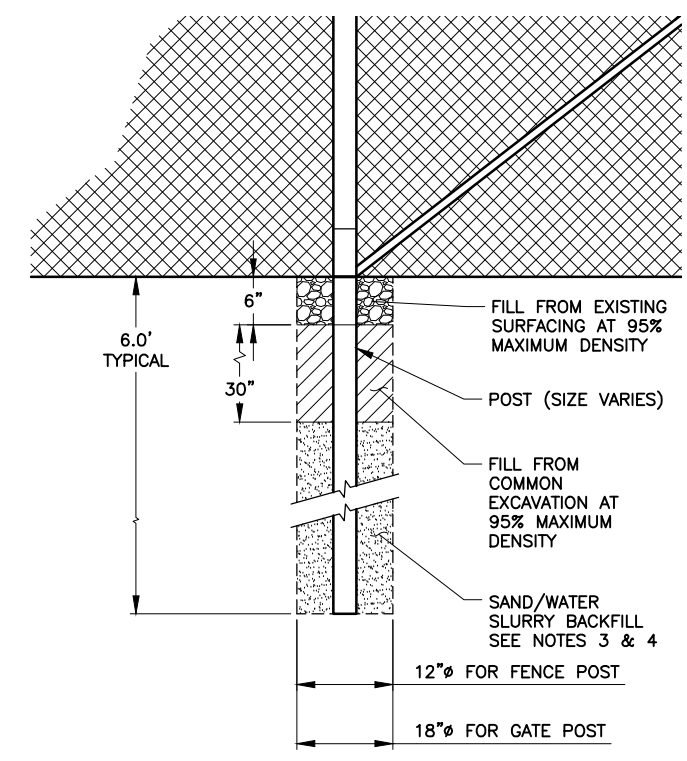
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1 DOUBLE SWING GATE DETAIL
C4.04 SCALE: NTS



2 PEDESTRIAN GATE DETAIL
C4.04 SCALE: NTS

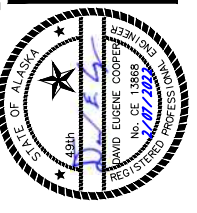


3 FENCE POST FOUNDATION DETAIL
C4.04 SCALE: NTS

NOTES:

- GATE FABRIC SHALL BE SAME DESIGN AND HEIGHT OF LINE FENCE FABRIC.
- GATE FRAMES SHALL BE WELDED PRIOR TO COATING AND SHALL BE BRACED TO ELIMINATE SAGGING. HINGES, LATCHES, AND OTHER GATE APPARATUS SHALL BE OF SUFFICIENT STRENGTH AND DESIGN TO ASSURE EASY, TROUBLE FREE OPERATION.
- SLURRY BACKFILLING OPERATIONS SHALL BE PERFORMED IN LIFTS IN A CONTINUOUS MANNER.
- SLURRY BACKFILL SHALL BE THOROUGHLY RODDED, TAMPED OR MECHANICALLY VIBRATED WITH A DOWNHOLE, PENCIL TYPE VIBRATOR OR OTHER VIBRATOR TECHNIQUE APPROVED IN ADVANCE BY THE ENGINEER.
- ALL GATE COMPONENTS SHALL BE HOT DIPPED GALVANIZED.
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR GATE ASSEMBLY.

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| SHEET TITLE FENCE DETAILS | |
| SHEET C4.04 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

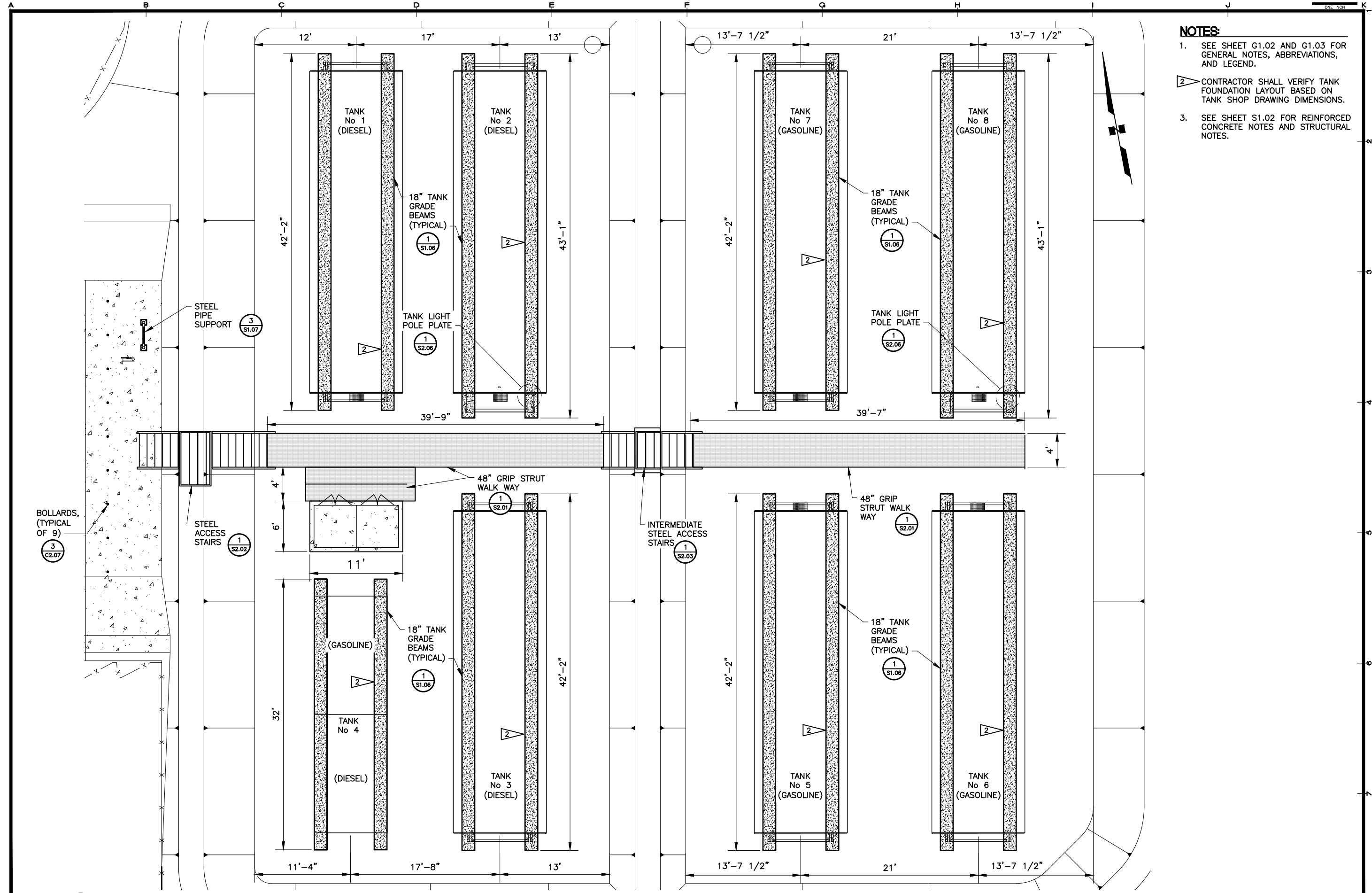
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S1.01

DATE TIME
2/3/2022 9:10 AM

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DATE TIME
2/3/2022 9:10 AM

DRAWING LOCATION
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- NOTES:**
1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 2. CONTRACTOR SHALL VERIFY TANK FOUNDATION LAYOUT BASED ON TANK SHOP DRAWING DIMENSIONS.
 3. SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.

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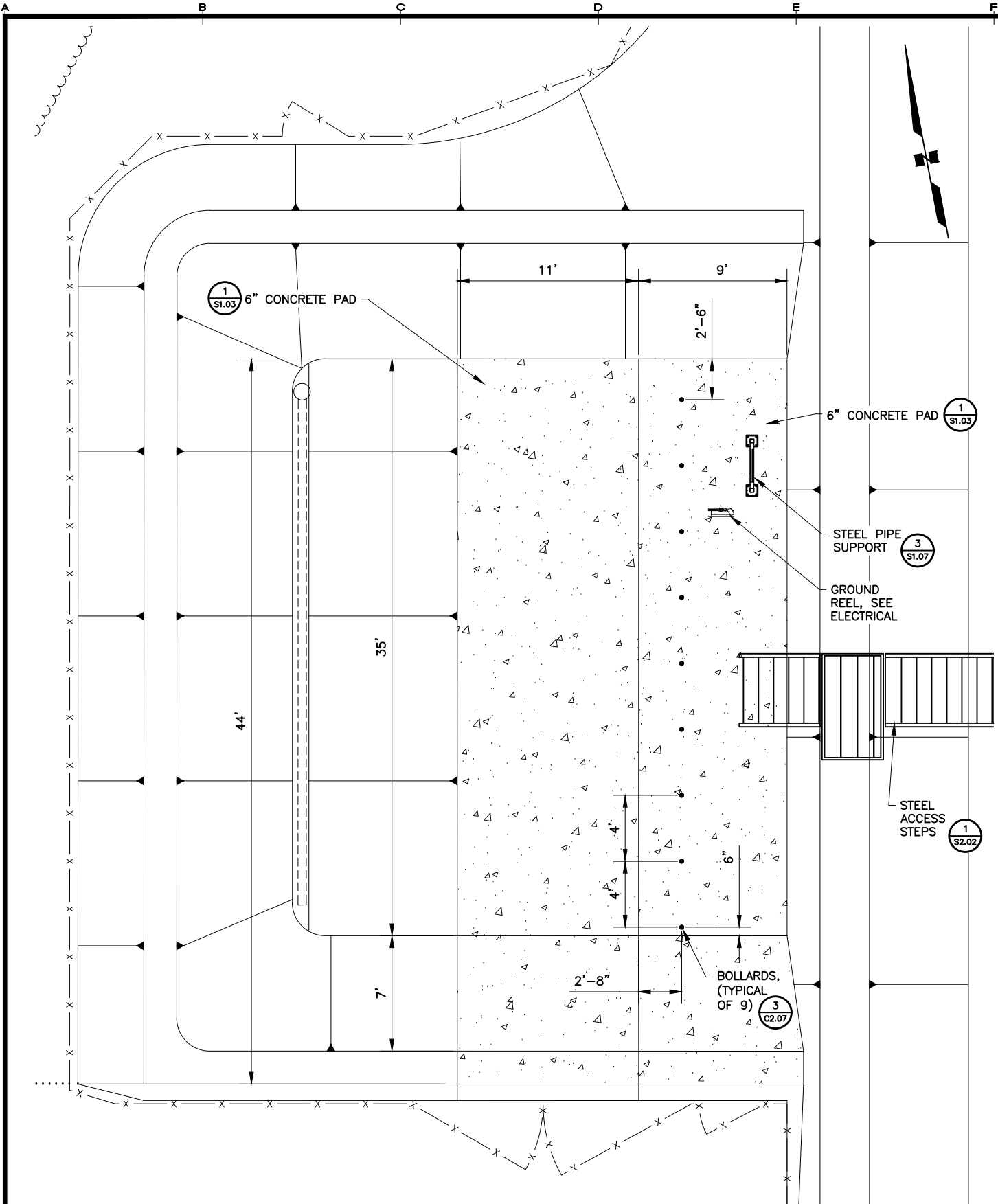
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| SHEET TITLE TANK FARM FOUNDATION PLAN | |
| SHEET S1.01 | |
| DRAWN BY KK | CHECKED BY MRS |
| DATE 01/31/22 | SCALE AS SHOWN |
| JOB NUMBER 20-017 | |

1 TANK FARM - FOUNDATION PLAN
 S1.01 SCALE: 3/16" = 1'-0"

LAYOUT
S1.02

DATE TIME
2/3/2022 9:10 AM

DRAWING LOCATION
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1
S1.02

BULK FUEL TRANSFER STATION - FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

REINFORCED CONCRETE:

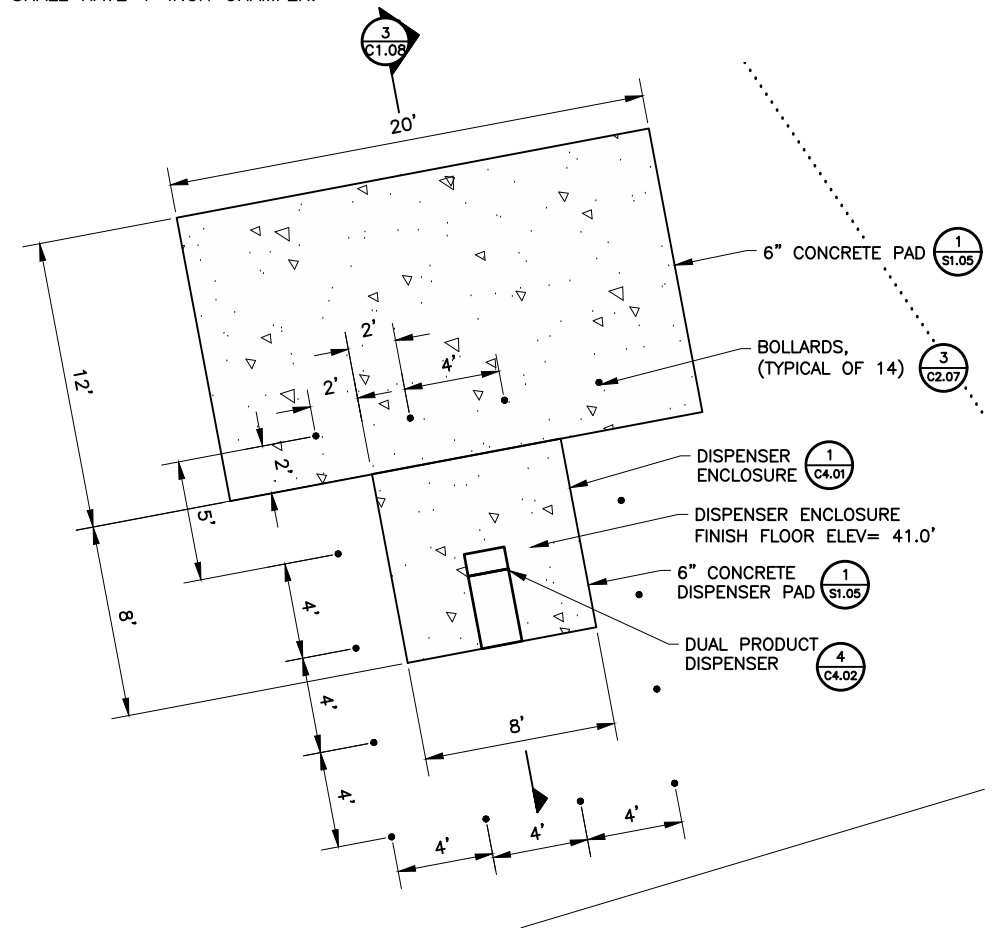
1. ALL CONCRETE - $f_cQS = 3,000$ PSI, MAXIMUM W/C = 0.52. SUBMIT MIX DESIGN. SEE SPECIFICATIONS FOR ADMIXTURES.
2. UNLESS OTHERWISE NOTED, REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. PROVIDE CLASS B SPLICE. SUBMIT REINFORCING STEEL SHOP DRAWINGS WITH DETAILS PER ACI 315 MANUAL OF STANDARD PRACTICE.
3. CONCRETE COVER: FOOTINGS & GRADE BEAMS 3". SLABS ON GRADE 1 1/2".
4. ANCHOR BOLTS: ASTM A307 OR F1554, GRADE 36. EMBED HEADED END OR PROVIDE DOUBLE NUT OR SINGLE NUT WITH MARRED THREADS ABOVE AND BELOW NUT. WELDING, INCLUDING TACK WELDS, TO ANCHOR BOLTS IS NOT PERMITTED.
5. DRILL-IN EXPANSION ANCHORS:
"KWIK BOLT TZ" BY HILTI FASTENING SYSTEMS OR APPROVED EQUAL. ICC-ES CERTIFICATION FOR SEISMIC RESISTANCE IN CRACKED CONCRETE REQUIRED. SPECIAL INSPECTION REQUIRED.
6. DRILL-IN ADHESIVE ANCHORS:
"HIT HY 200" ADHESIVE ANCHOR SYSTEM BY HILTI FASTENING SYSTEMS FOR CONCRETE OR APPROVED EQUAL. ICC-ES CERTIFICATION FOR SEISMIC RESISTANCE IN CRACKED CONCRETE REQUIRED. SPECIAL INSPECTION REQUIRED.
7. CONCRETE SCREW ANCHORS:
"KH-EZ" ANCHOR SYSTEM BY HILTI FASTENING SYSTEMS FOR CONCRETE OR APPROVED EQUAL. ICC-ES CERTIFICATION FOR SEISMIC LOAD RESISTANCE IN CRACKED CONCRETE REQUIRED. SPECIAL INSPECTION REQUIRED.
8. ALL EXPOSED CONCRETE SHALL HAVE 1-INCH CHAMFER.

STRUCTURAL STEEL:

1. ALL STEEL ASTM A36, EXCEPT WIDE FLANGE SECTIONS TO BE ASTM A992, OR A572-50, TUBE SECTIONS TO BE ASTM A500 GRADE C, AND PIPE SECTIONS TO BE ASTM A53 TYPE E GRADE B. SUBMIT SHOP DRAWINGS.
2. WELDING PER AWS D1.1. MINIMUM SIZE WELDS 3/16" CONTINUOUS FILLET. WELDERS CERTIFIED PER AMERICAN WELDING SOCIETY FOR ROD AND POSITION. ELECTRODES SHALL BE E70XX MINIMUM, WITH MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LB AT -20 DEG F.
3. HIGH-STRENGTH BOLTS PER ASTM F3125 TYPE 1, GRADE A325 OR F1852. TYPICAL BOLTED CONNECTIONS - SNUG TIGHTENED TYPE.
4. ALL REINFORCING STEEL SHALL BE BENT COLD AT THE MINIMUM RADIUS RECOMMENDED BY THE INTERNATIONAL BUILDING CODE (IBC) AND THE AMERICAN CONCRETE INSTITUTE (ACI).

NOTES:

1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.



1
S1.02

DISPENSER ENCLOSURE - FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

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SHEET TITLE
BULK FUEL TRANSFER AND DISPENSER ENCLOSURE FOUNDATION PLAN

SHEET
S1.02

DRAWN BY: KK
CHECKED BY: MRS

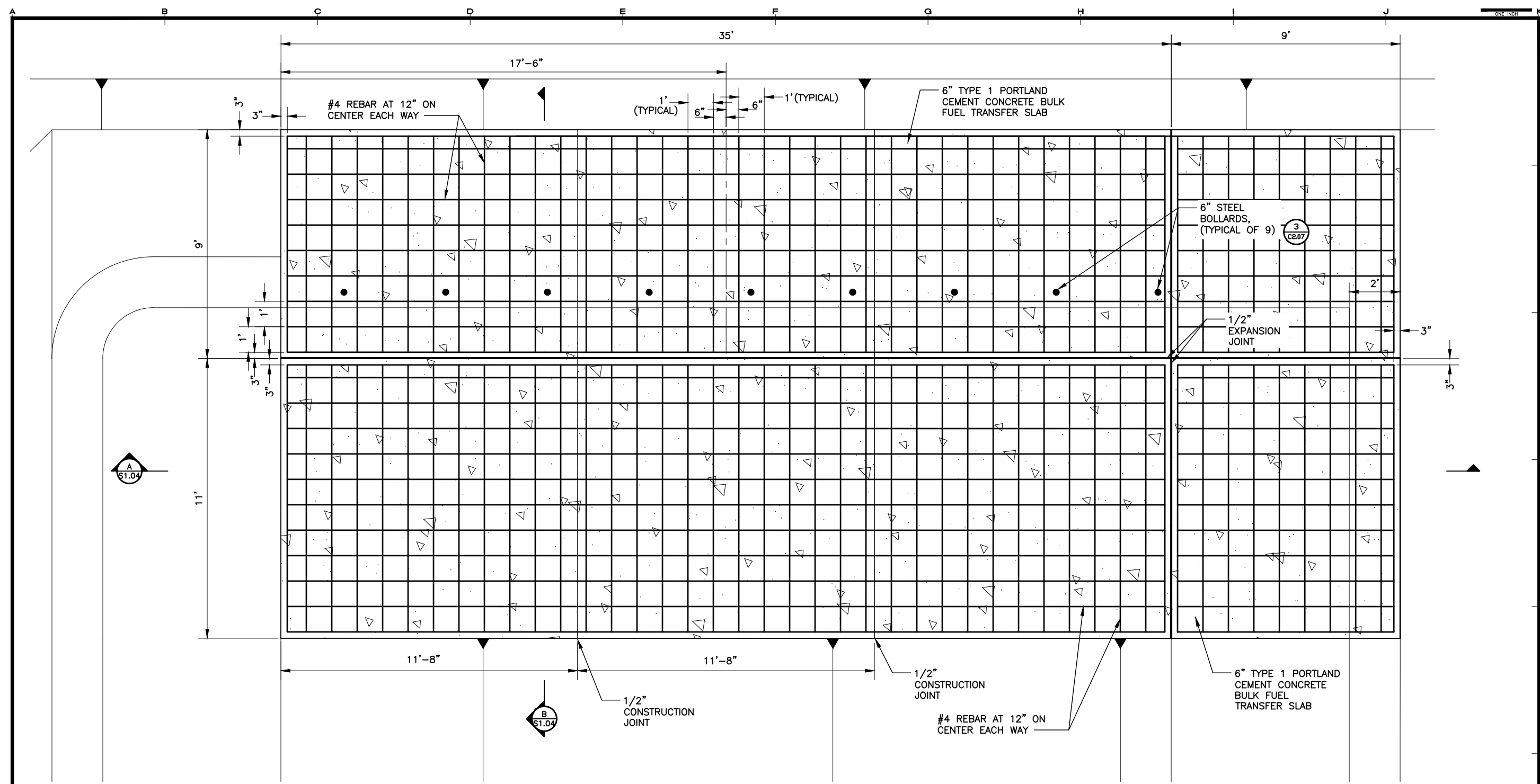
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SCALE: AS SHOWN

JOB NUMBER: 20-017

DRAWING LOCATION: h:\Jobs\20-017\scammon bay bfu ph 1 and 2 (acc)\CAD\Drawings\20-017_04-Truck-Transfer.dwg KORNIGAY

DATE TIME: 2/3/2022 9:06 AM

LAYOUT: S1.03



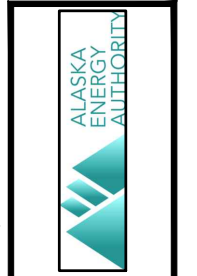
1 BULK FUEL TRANSFER STATION CONCRETE LAYOUT
 S1.03 SCALE: 1/2" = 1'-0"

- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.

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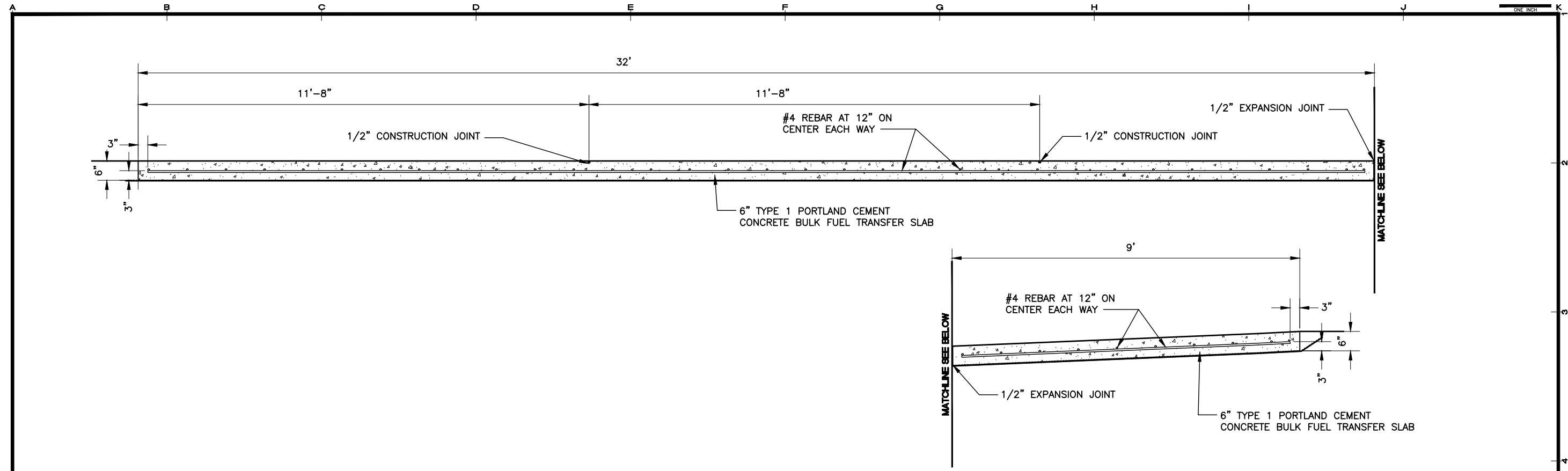
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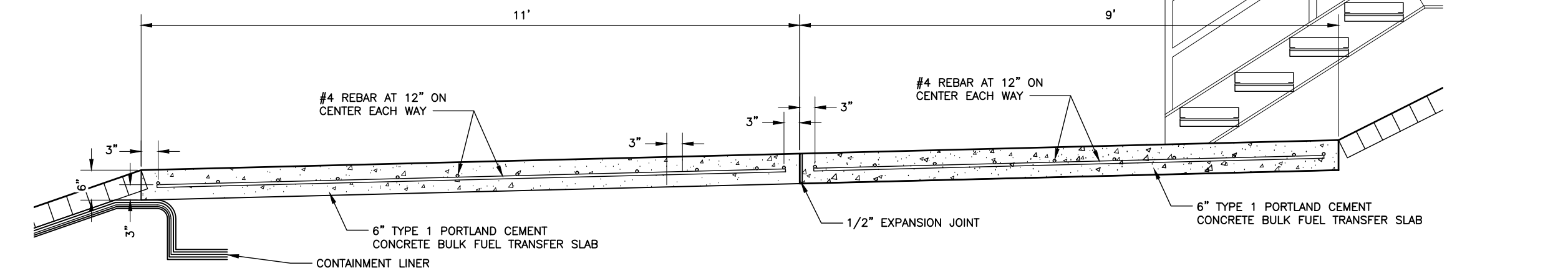
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| SHEET TITLE | |
| BULK FUEL TRANSFER STATION CONCRETE LAYOUT PLAN | |
| SHEET | |
| S1.03 | |
| DRAWN BY: | CHECKED BY: |
| KK | DEC |
| DATE: | SCALE: |
| 01/31/22 | AS SHOWN |
| JOB NUMBER: | |
| 20-017 | |

LAYOUT S1.04
 DATE TIME 2/3/2022 9:08 AM
 DRAWING LOCATION h:\Jobs\20-017 scammn bay bfu ph 1 and 2 (see)\CAD\Drawings\20-017_04-Truck-Transfer.dwg KKRREGAY



A BULK FUEL TRANSFER STATION CONCRETE SECTION
 S1.04 SCALE: 3/4" = 1'-0"



B BULK FUEL TRANSFER STATION CONCRETE SECTION
 S1.04 SCALE: 1" = 1'-0"

- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.

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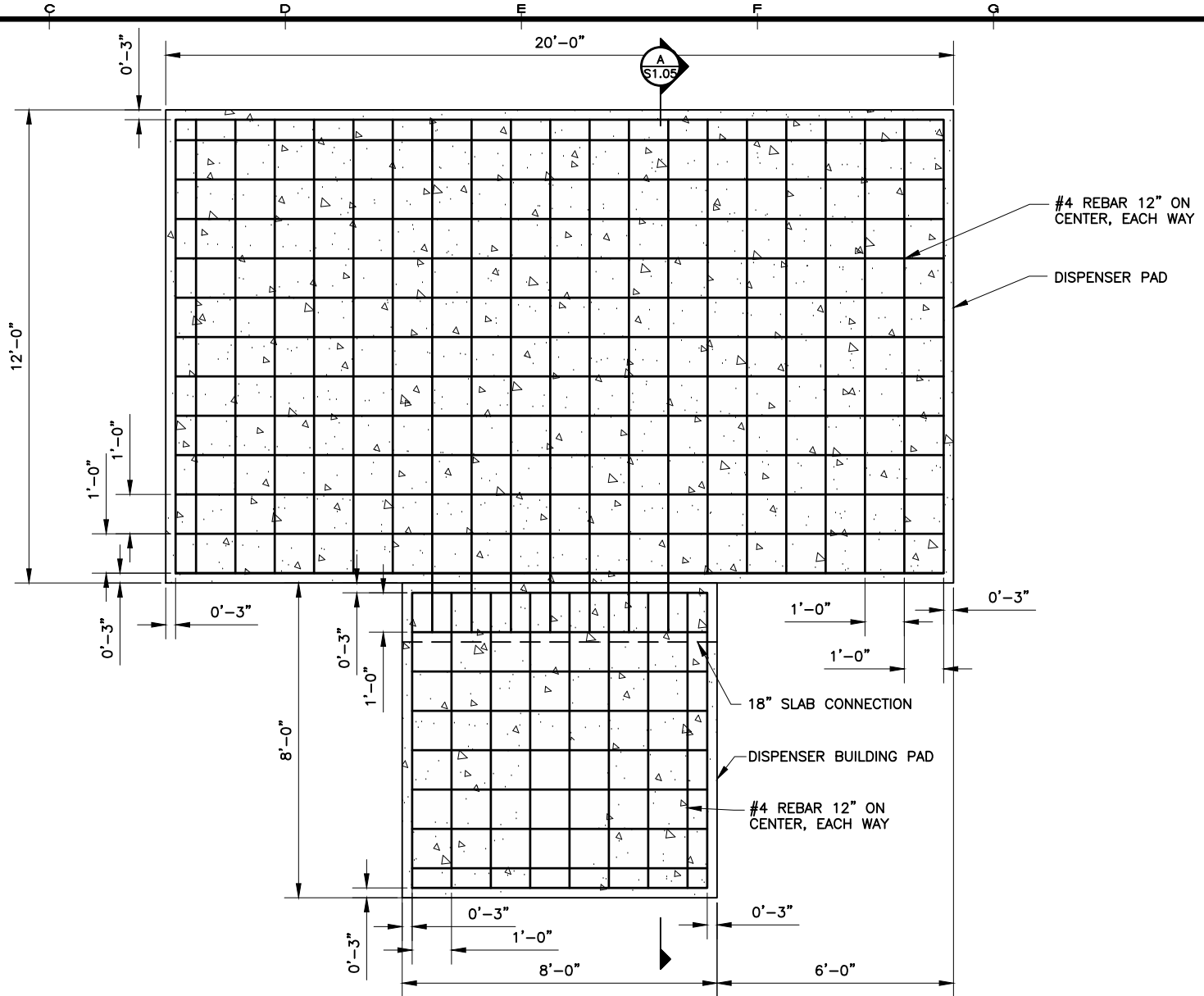
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| SHEET TITLE | |
| BULK FUEL TRANSFER STATION CONCRETE SECTIONS | |
| SHEET S1.04 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

LAYOUT
S1.05

DATE TIME
2/3/2022 9:06 AM

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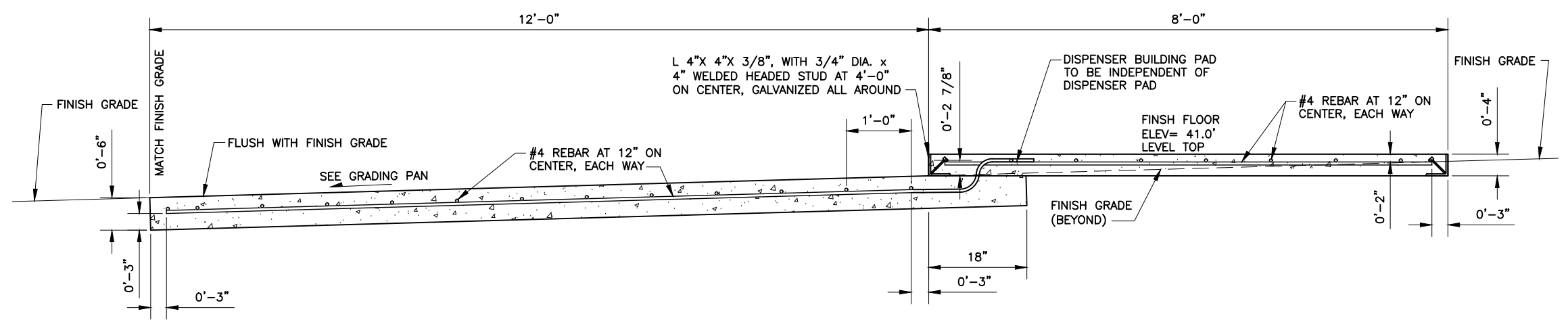
- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.

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1 DISPENSER PAD CONCRETE LAYOUT
 S1.05 SCALE: 1/2" = 1'-0"



A DISPENSER PAD SECTION
 S1.05 SCALE: 1" = 1'-0"

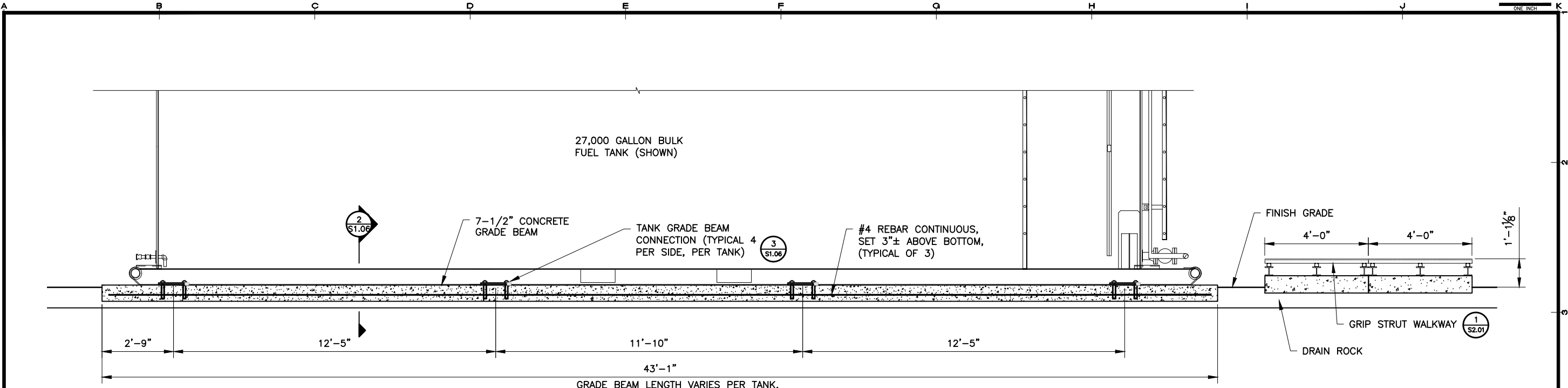
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| SHEET TITLE DISPENSER PAD PLAN AND SECTION | |
| SHEET S1.05 | |
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| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

LAYOUT
S1.06
DATE TIME
2/3/2022 10:16 AM

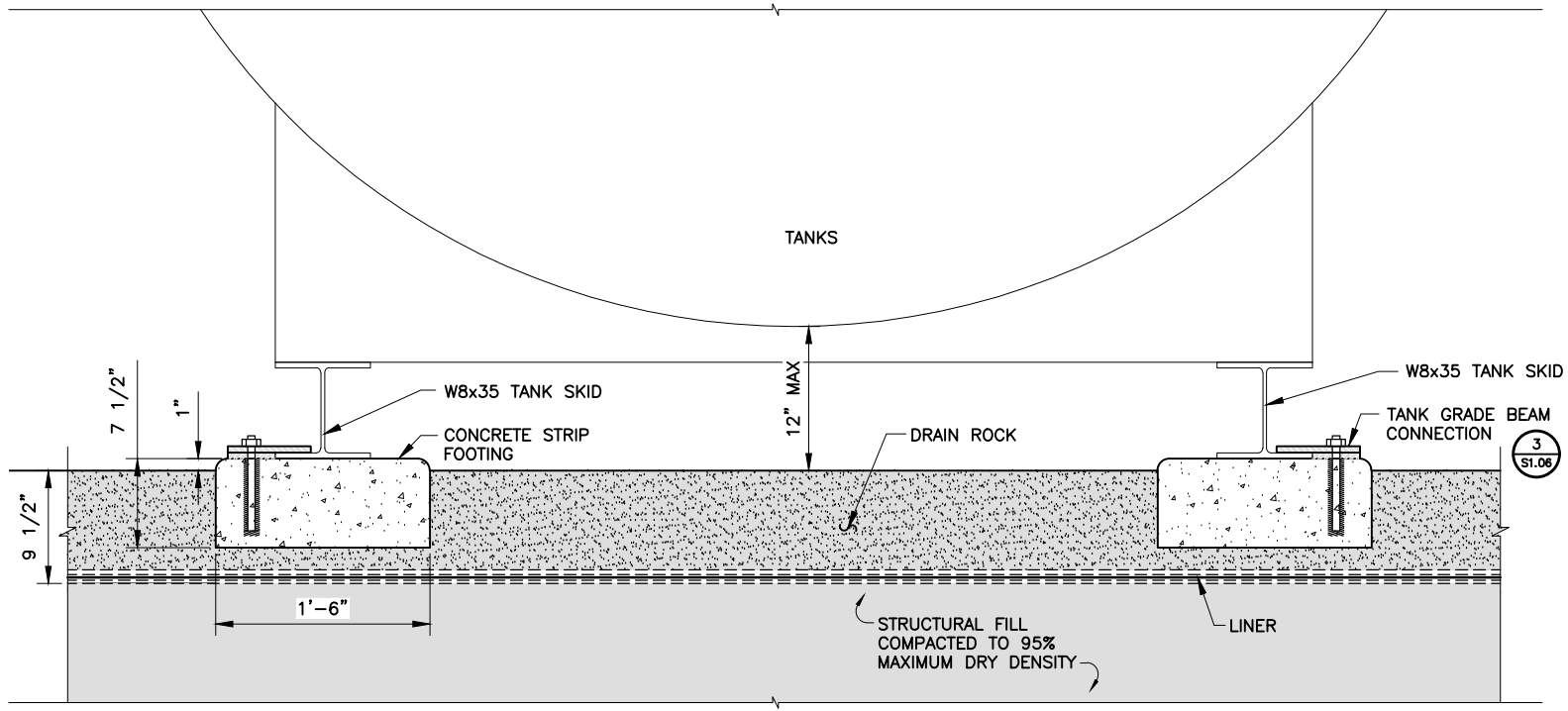
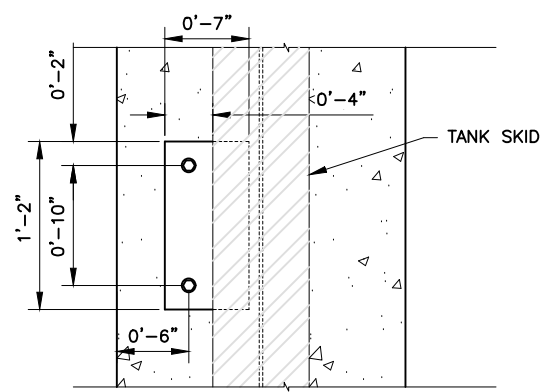
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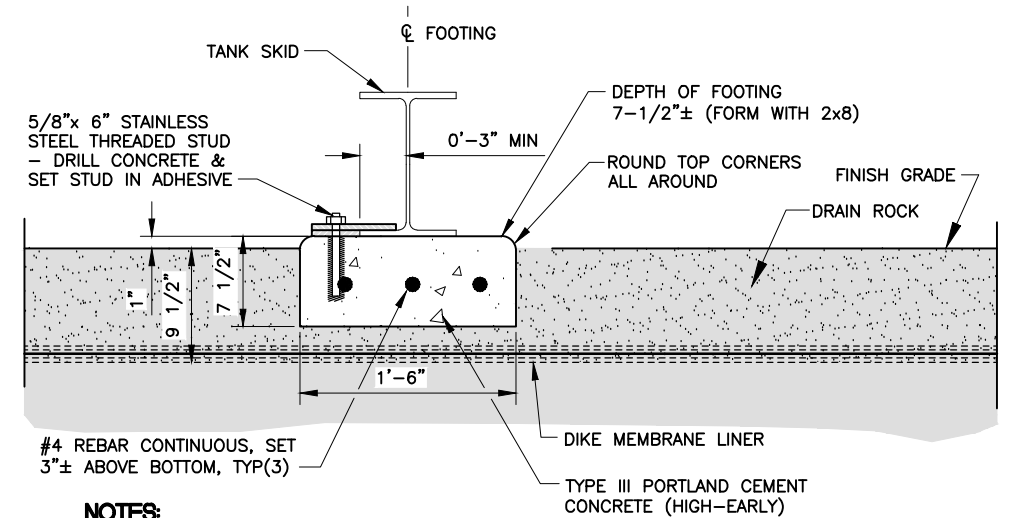
1 TANK GRADE BEAM
S1.06 SCALE: 1/2" = 1'-0"

NOTES:

- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
- SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.



2 TANK GRADE BEAM
S1.06 SCALE: 1 1/2" = 1'-0"



NOTES:

- TAKE STEPS TO PROTECT LINER WHILE FORMING & POURING FOOTING. DO NOT USE STAKES FOR SETTING FORMS.
- SEE DIKE PLAN FOR FOOTING LENGTH & WIDTH.

3 TANK GRADE BEAM CONNECTION
S1.06 SCALE: 1 1/2" = 1'-0"

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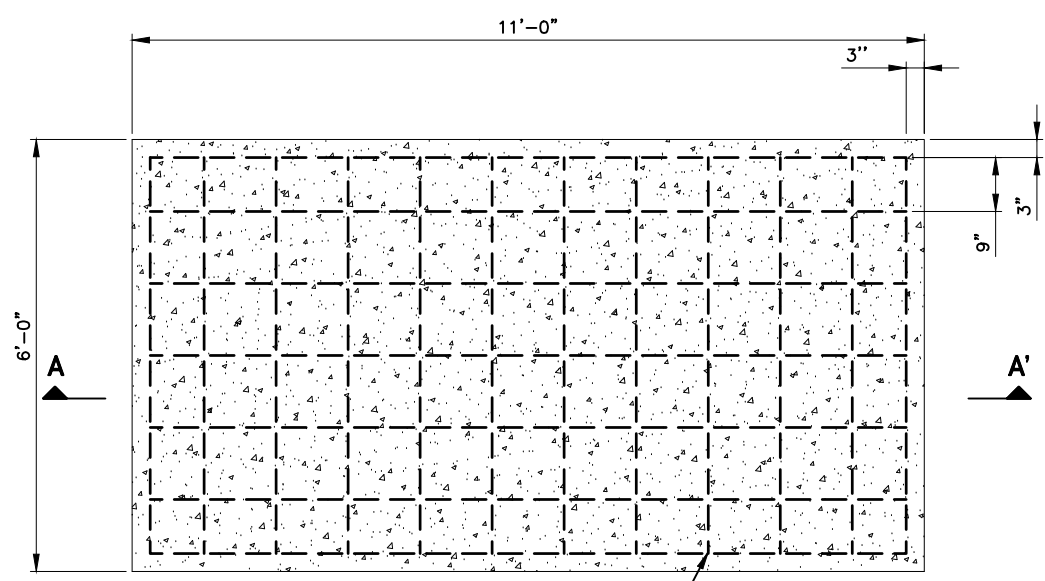
SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

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| SHEET TITLE TANK FOUNDATION DETAILS | |
| SHEET S1.06 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

LAYOUT
S1.07

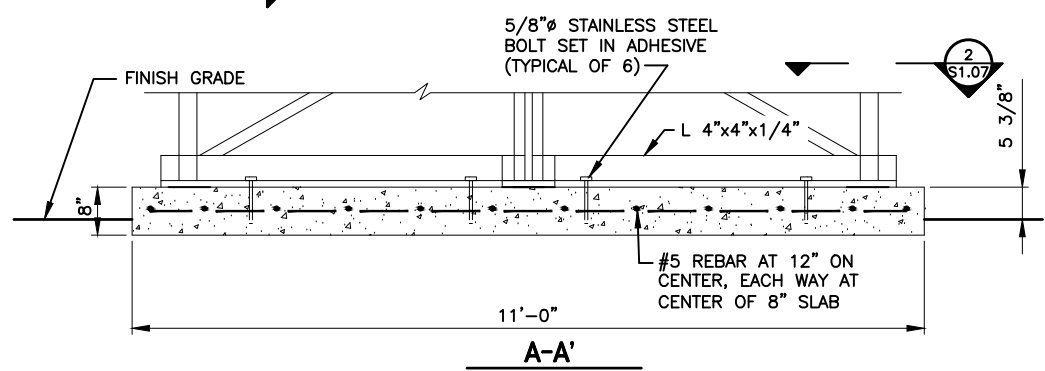
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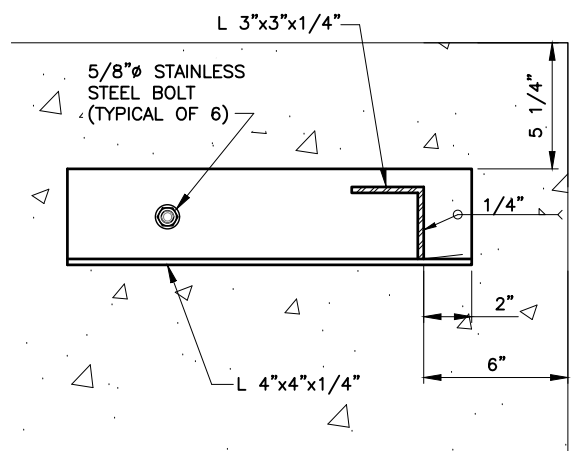


#5 REBAR AT 12" ON CENTER
EACH WAY AT CENTER OF SLAB

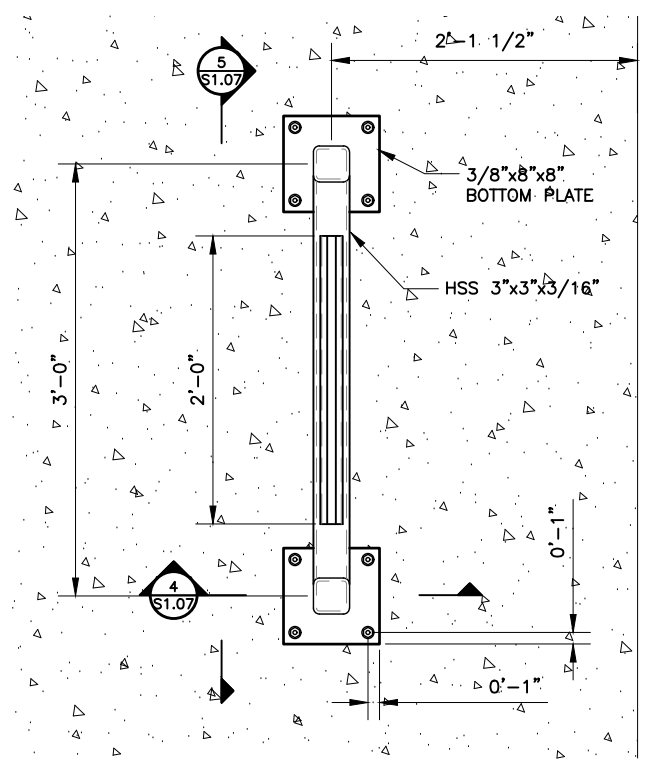
PLAN



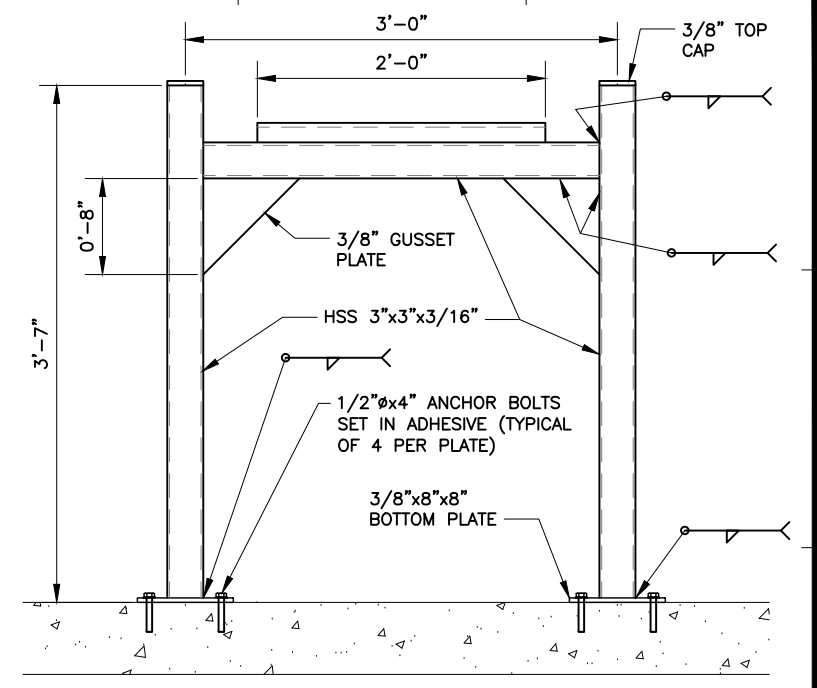
1 TANK FARM - PUMP BOX FOUNDATION PLAN
S1.07 SCALE: 3/4" = 1'-0"
(DIESEL/GASOLINE PUMP BOX)



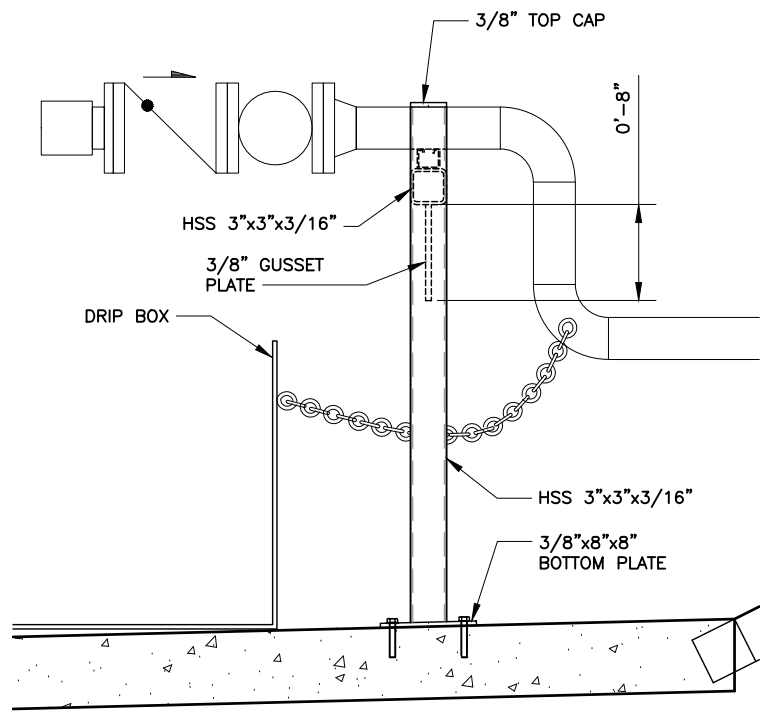
2 PLAN VIEW - PUMP BOX CONNECTION
S1.07 SCALE: 3" = 1'-0"



3 PIPE SUPPORT
S1.07 SCALE: 1-1/2" = 1'-0"



5 SECTION - PIPE SUPPORT
S1.07 SCALE: 1-1/2" = 1'-0"



4 SECTION - PIPE SUPPORT
S1.07 SCALE: 1-1/2" = 1'-0"

NOTES:

- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
- SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.
- ALL STEEL SHALL BE GALVANIZED STEEL PER SECTION 09 98 00.

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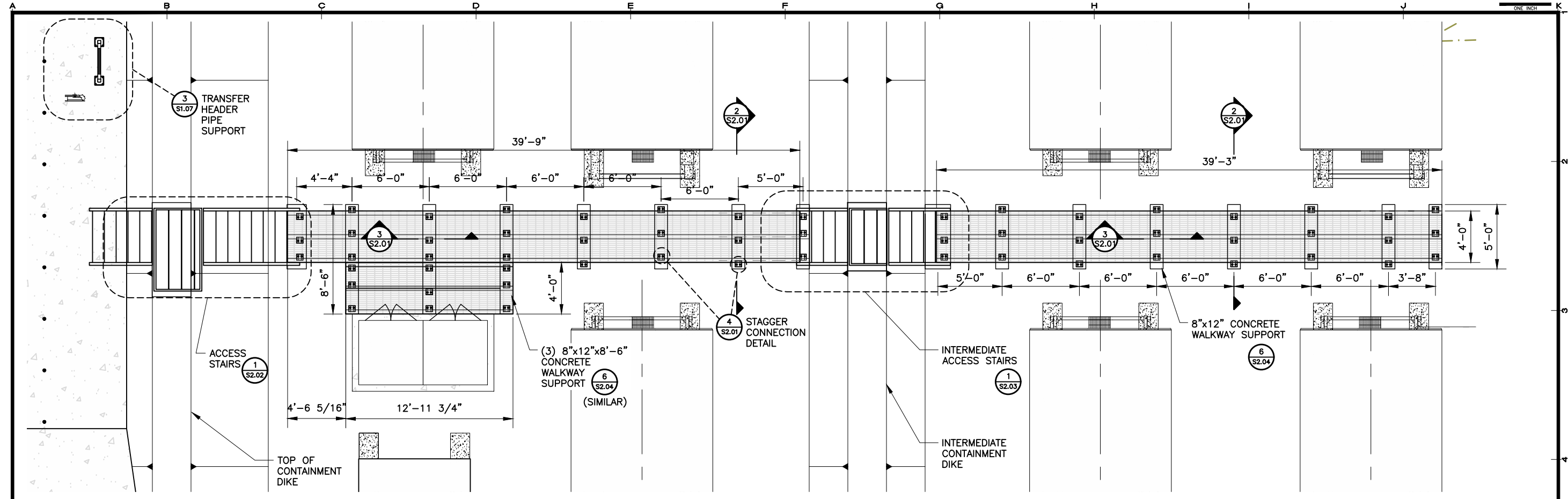
SCAMMON BAY, ALASKA

SHEET TITLE
FOUNDATION DETAILS

SHEET
S1.07

DRAWN BY: KK
CHECKED BY: DEC
DATE: 01/31/22
SCALE: AS SHOWN
JOB NUMBER: 20-017

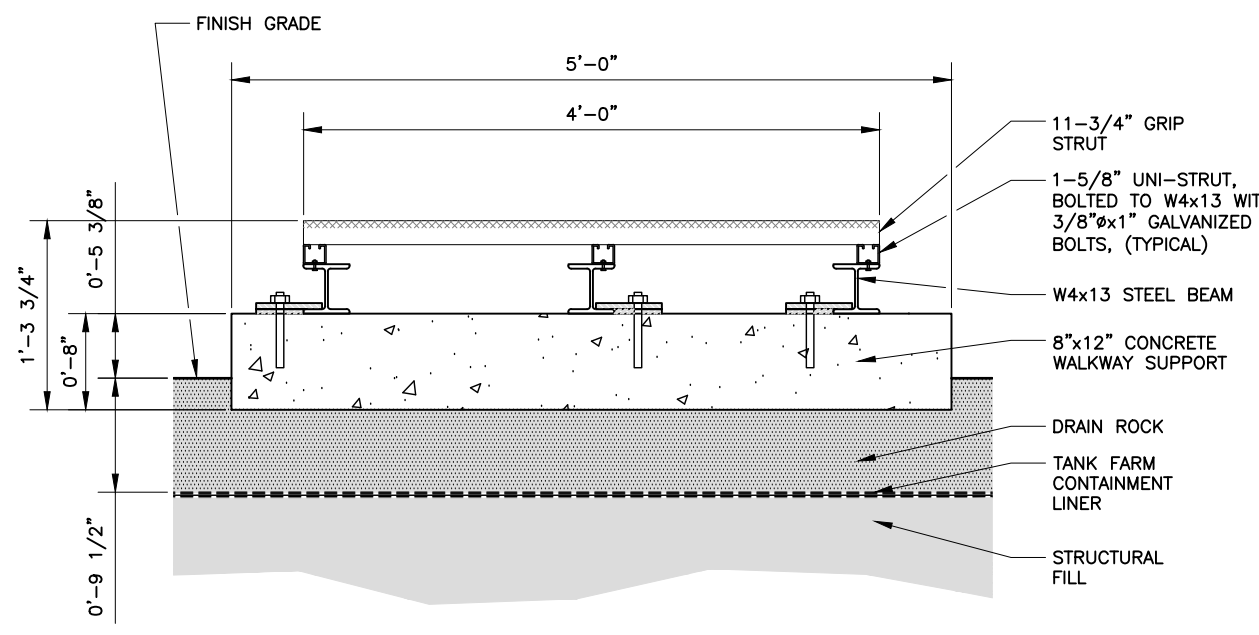
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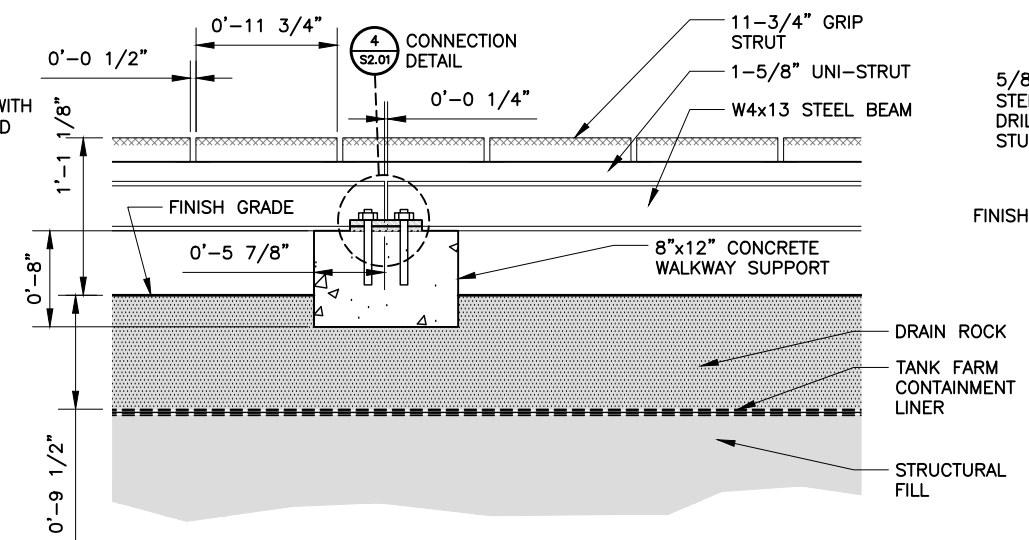
1 PLAN - TANK FARM ACCESS STAIRS AND WALKWAY
SCALE: 1/4" = 1'-0"

NOTES:

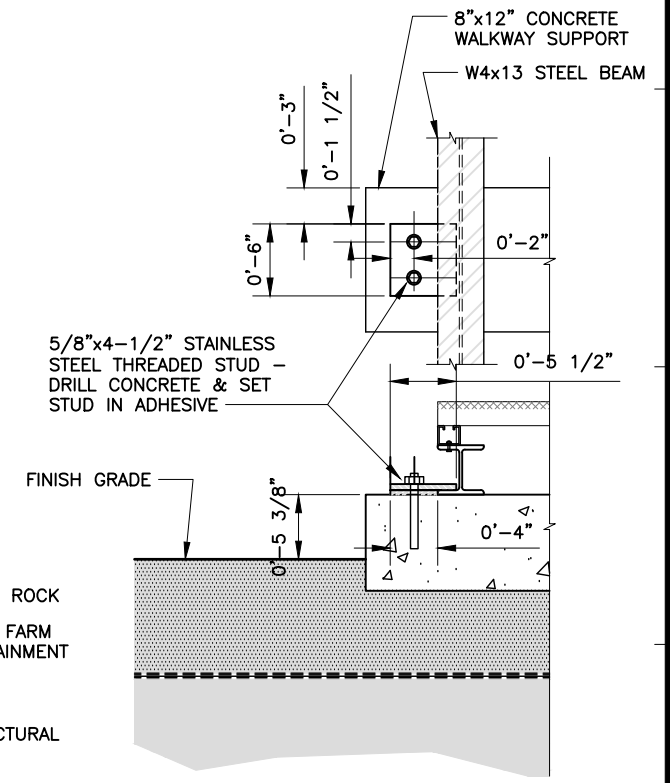
- 1. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
- 2. SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.
- 3. ALL STEEL SHALL BE GALVANIZED STEEL PER SECTION 09 98 00.



2 SECTION - WALKWAY
SCALE: 1-1/2" = 1'-0"



3 SECTION - WALKWAY
SCALE: 1-1/2" = 1'-0"



4 CONNECTION DETAIL
SCALE: 1-1/2" = 1'-0"

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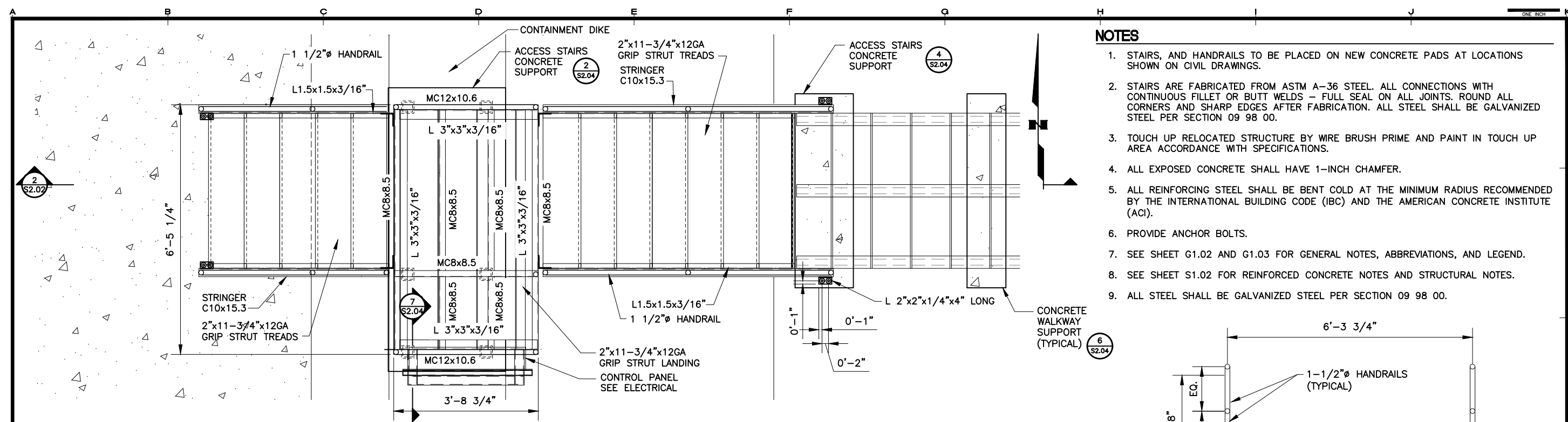
SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

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|---|-------------------|
| SHEET TITLE TANK FARM ACCESS STAIRS AND WALKWAY PLANS | |
| SHEET S2.01 | |
| DRAWN BY KK | CHECKED BY DEC |
| DATE 01/31/22 | SCALE AS SHOWN |
| JOB NUMBER 20-017 | |

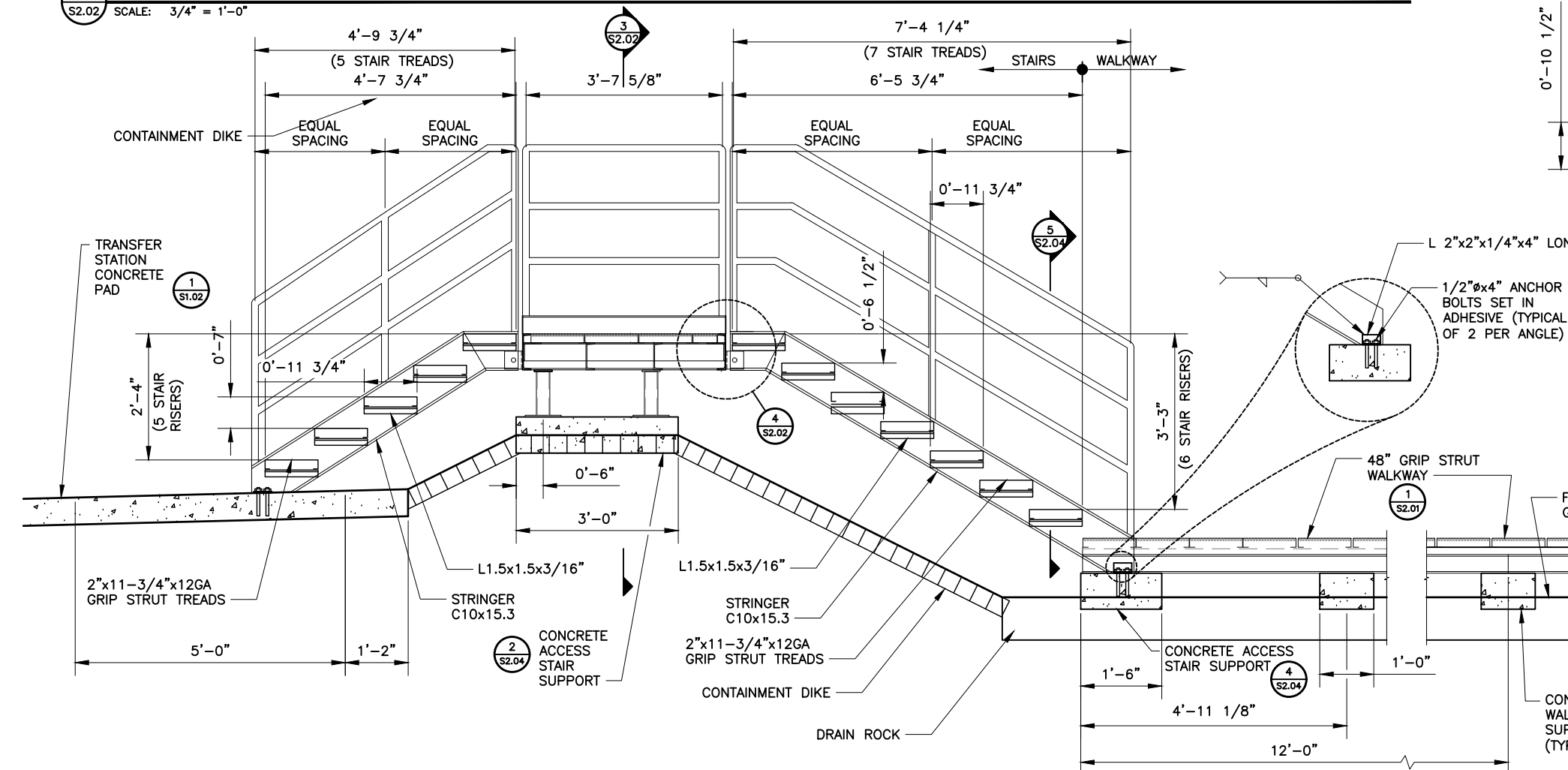
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DATE TIME
2/3/2022 9:57 AM

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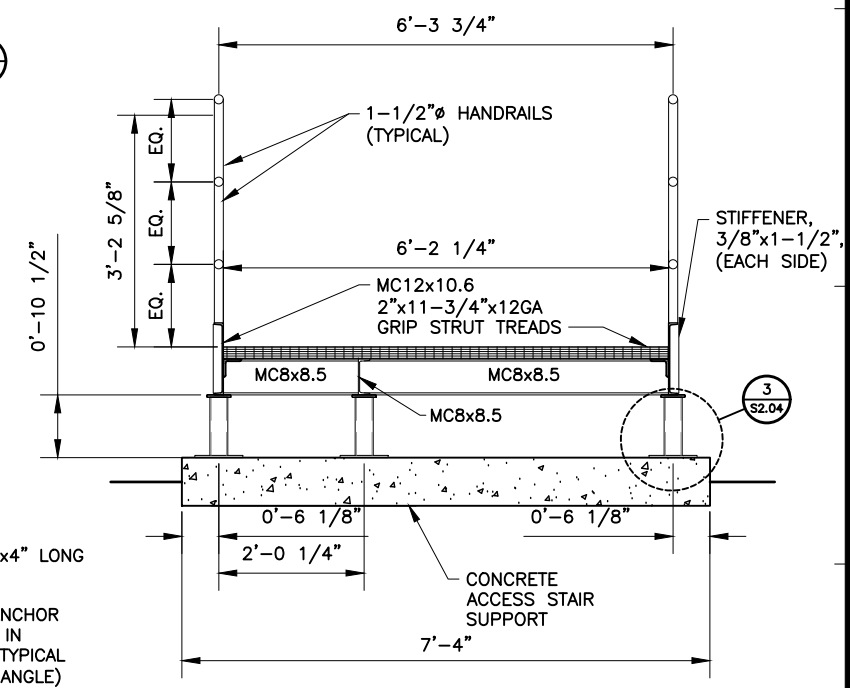
1 PLAN - TANK FARM ACCESS STAIRS
S2.02 SCALE: 3/4" = 1'-0"



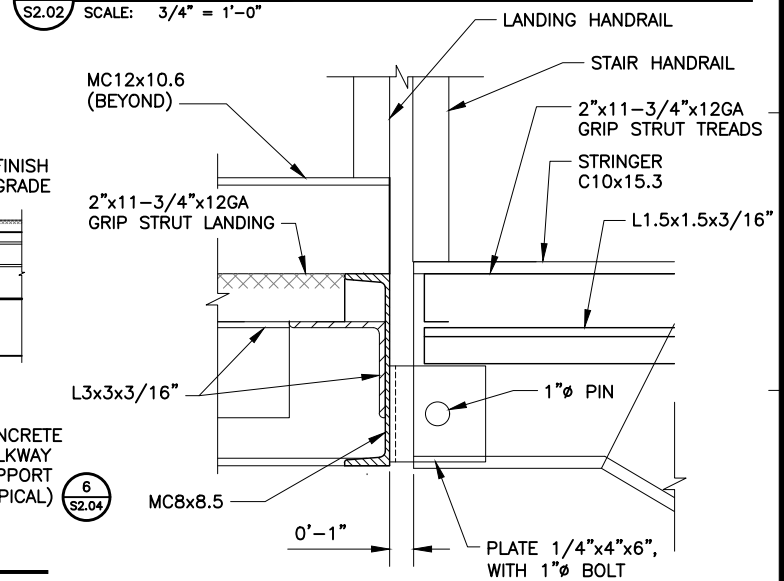
2 SECTION - TANK FARM ACCESS STAIRS
S2.02 SCALE: 3/4" = 1'-0"

NOTES

1. STAIRS, AND HANDRAILS TO BE PLACED ON NEW CONCRETE PADS AT LOCATIONS SHOWN ON CIVIL DRAWINGS.
2. STAIRS ARE FABRICATED FROM ASTM A-36 STEEL. ALL CONNECTIONS WITH CONTINUOUS FILLET OR BUTT WELDS - FULL SEAL ON ALL JOINTS. ROUND ALL CORNERS AND SHARP EDGES AFTER FABRICATION. ALL STEEL SHALL BE GALVANIZED STEEL PER SECTION 09 98 00.
3. TOUCH UP RELOCATED STRUCTURE BY WIRE BRUSH PRIME AND PAINT IN TOUCH UP AREA ACCORDANCE WITH SPECIFICATIONS.
4. ALL EXPOSED CONCRETE SHALL HAVE 1-INCH CHAMFER.
5. ALL REINFORCING STEEL SHALL BE BENT COLD AT THE MINIMUM RADIUS RECOMMENDED BY THE INTERNATIONAL BUILDING CODE (IBC) AND THE AMERICAN CONCRETE INSTITUTE (ACI).
6. PROVIDE ANCHOR BOLTS.
7. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
8. SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.
9. ALL STEEL SHALL BE GALVANIZED STEEL PER SECTION 09 98 00.



3 SECTION - TANK FARM ACCESS STAIRS
S2.02 SCALE: 3/4" = 1'-0"



4 SECTION - CONNECTION ACCESS STAIRS
S2.02 SCALE: 3/4" = 1'-0"

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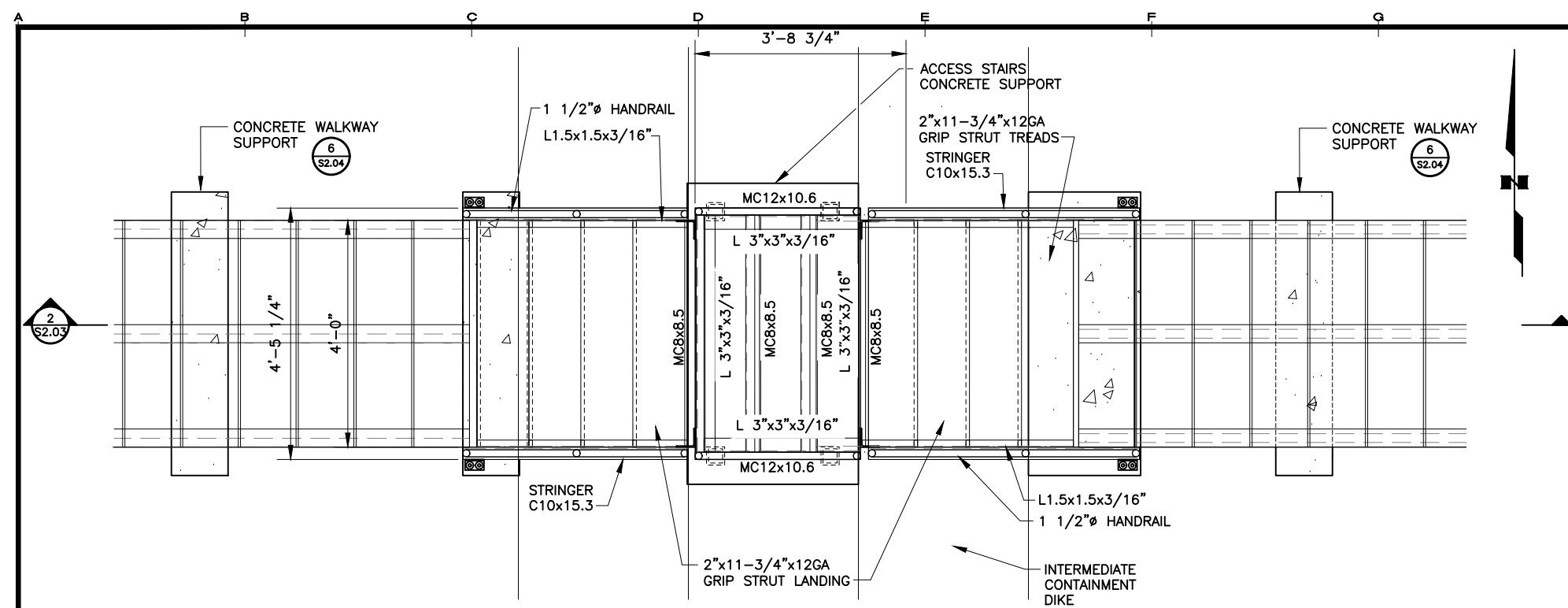
SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

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| SHEET TITLE ACCESS STAIRS PLAN AND SECTION | |
| SHEET S2.02 | DATE 01/31/22 |
| DRAWN BY KK | CHECKED BY DEC |
| SCALE AS SHOWN | JOB NUMBER 20-017 |

LAYOUT
S2.03

DATE TIME
2/3/2022 9:57 AM

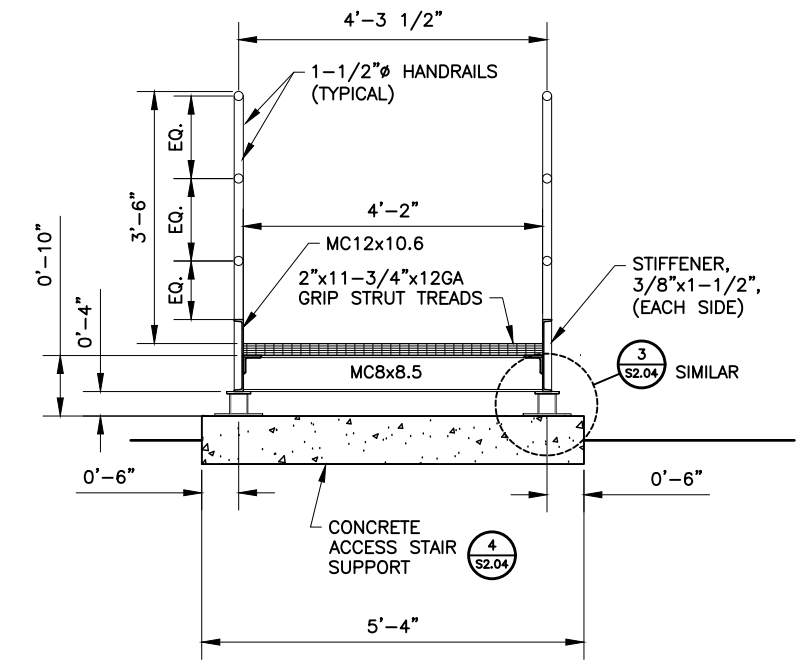
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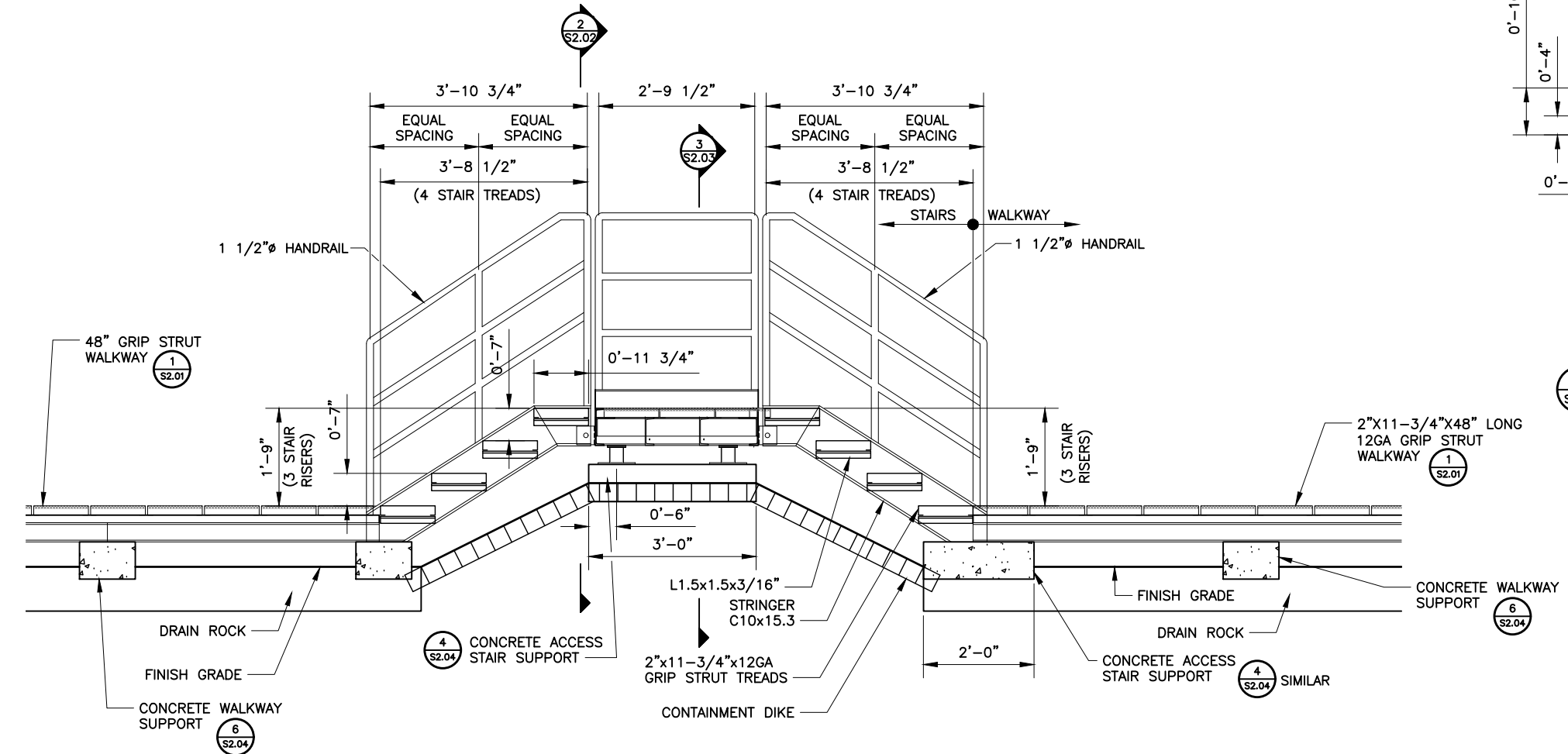
1 PLAN - INTERMEDIATE ACCESS STAIRS
S2.03 SCALE: 3/4" = 1'-0"

NOTES

1. STAIRS, AND HANDRAILS TO BE PLACED ON NEW CONCRETE PADS AT LOCATIONS SHOWN ON CIVIL DRAWINGS.
2. STAIRS ARE FABRICATED FROM ASTM A-36 STEEL. ALL CONNECTIONS WITH CONTINUOUS FILLET OR BUTT WELDS - FULL SEAL ON ALL JOINTS. ROUND ALL CORNERS AND SHARP EDGES AFTER FABRICATION. ALL STEEL SHALL BE GALVANIZED STEEL PER SECTION 09 98 00.
3. TOUCH UP RELOCATED STRUCTURE BY WIRE BRUSH PRIME AND PAINT IN TOUCH UP AREA ACCORDANCE WITH SPECIFICATIONS.
4. ALL EXPOSED CONCRETE SHALL HAVE 1-INCH CHAMFER.
5. ALL REINFORCING STEEL SHALL BE BENT COLD AT THE MINIMUM RADIUS RECOMMENDED BY THE INTERNATIONAL BUILDING CODE (IBC) AND THE AMERICAN CONCRETE INSTITUTE (ACI).
6. PROVIDE ANCHOR BOLTS.
7. SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
8. SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.
9. ALL STEEL SHALL BE GALVANIZED STEEL PER SECTION 09 98 00.



3 SECTION - TANK FARM ACCESS STAIRS
S2.03 SCALE: 3/4" = 1'-0"



2 SECTION - INTERMEDIATE ACCESS STAIRS
S2.03 SCALE: 3/4" = 1'-0"

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GREG LATRELLE
02/03/2022
SE 13870
REGISTERED STRUCTURAL ENGINEER

MAT-SU
907.746.5230

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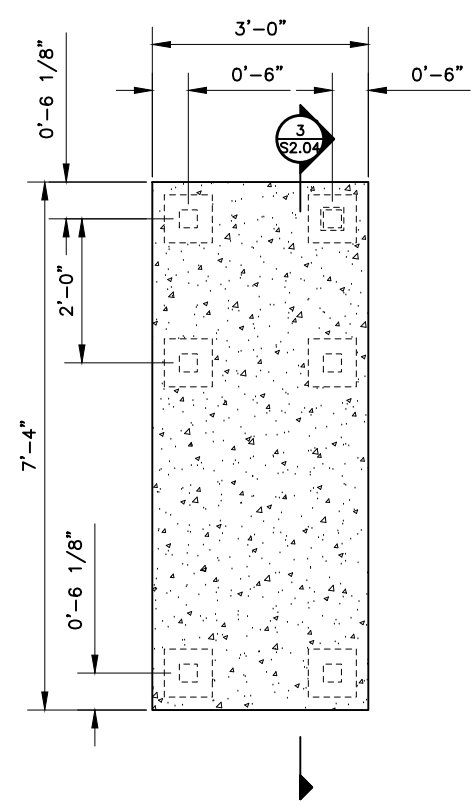
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| DRAWN BY KK | CHECKED BY DEC |
| DATE 01/31/22 | SCALE AS SHOWN |
| JOB NUMBER 20-017 | |

LAYOUT
S2.04

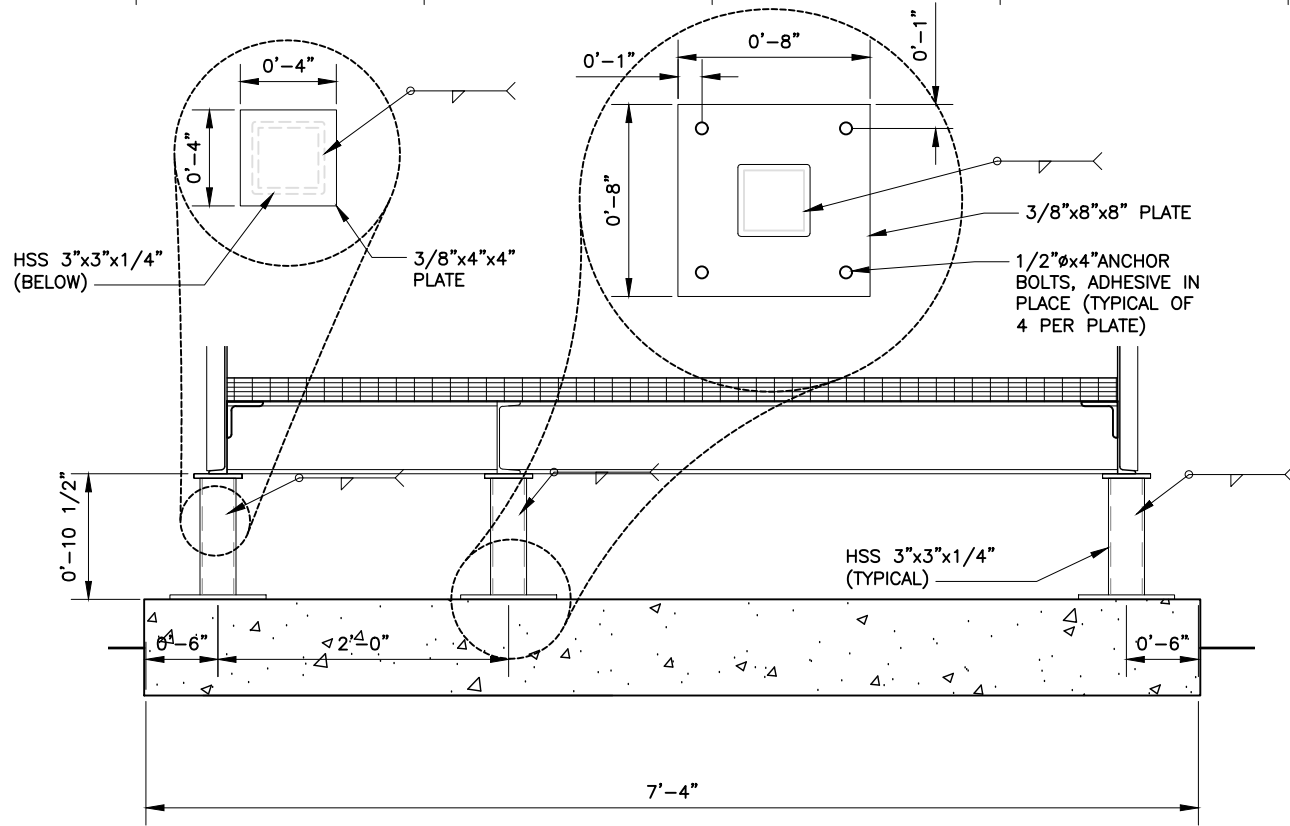
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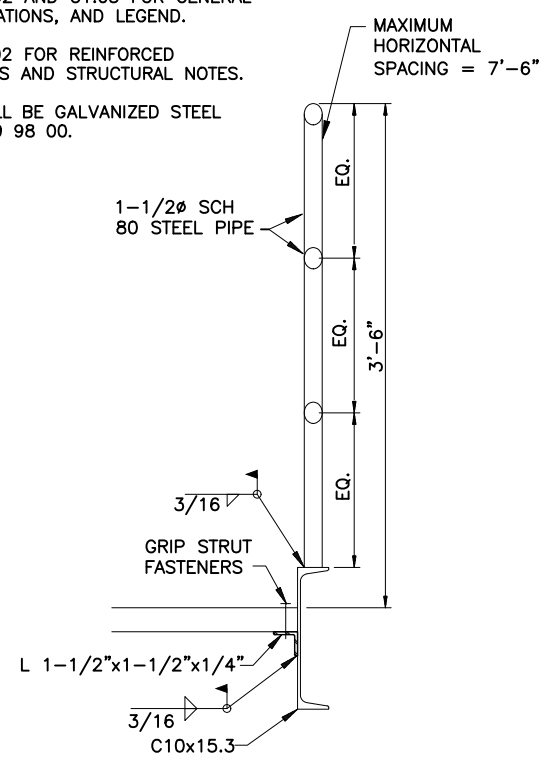
1 ACCESS STAIRS CONCRETE SUPPORT
S2.04 SCALE: 3/4" = 1'-0"



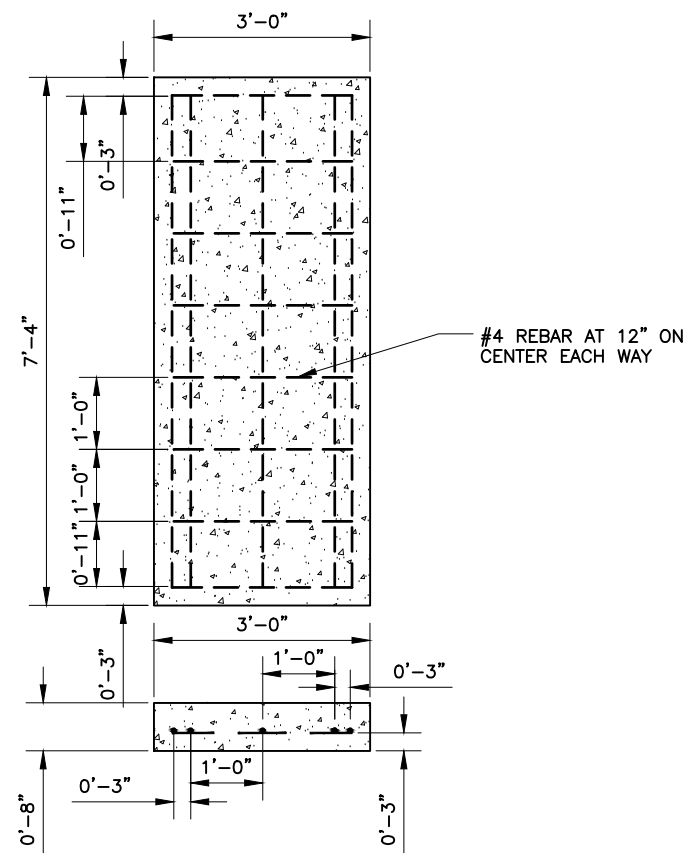
3 ACCESS STAIRS CONCRETE SUPPORT
S2.04 SCALE: 1-1/2" = 1'-0"

NOTES:

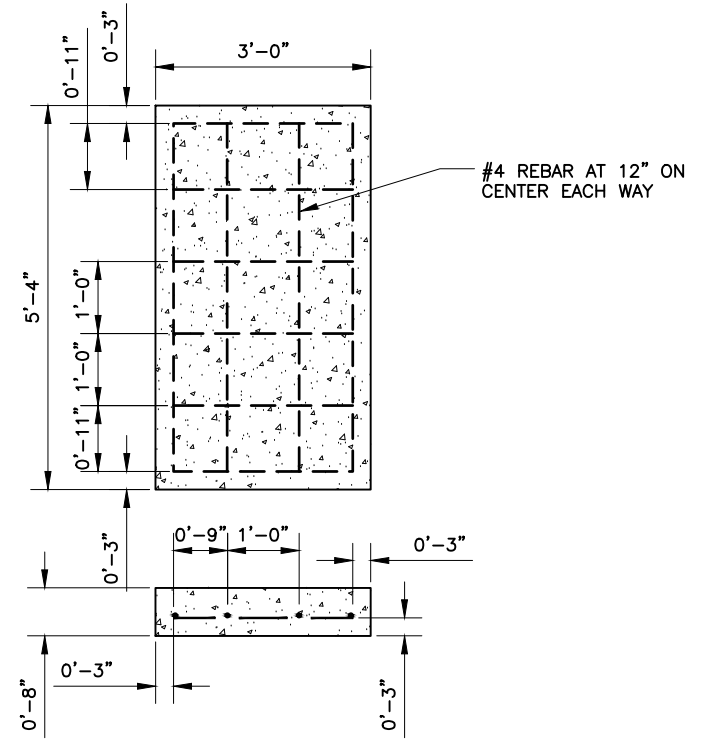
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
- SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.
- ALL STEEL SHALL BE GALVANIZED STEEL PER SECTION 09 98 00.



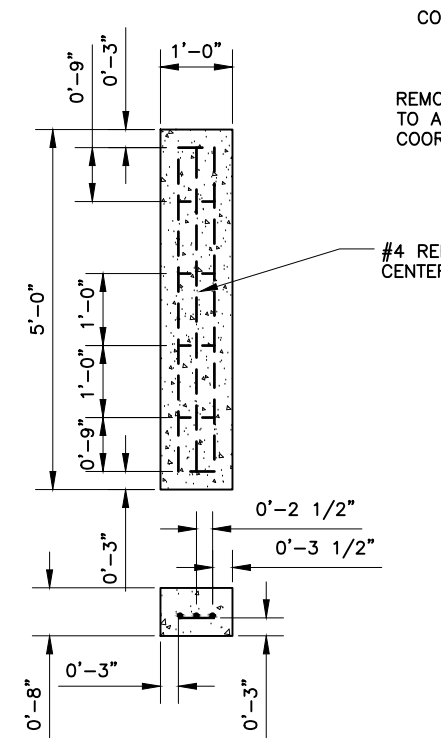
5 SECTION - ACCESS STAIRS HAND RAILING
S2.04 SCALE: 1 1/2" = 1'-0"



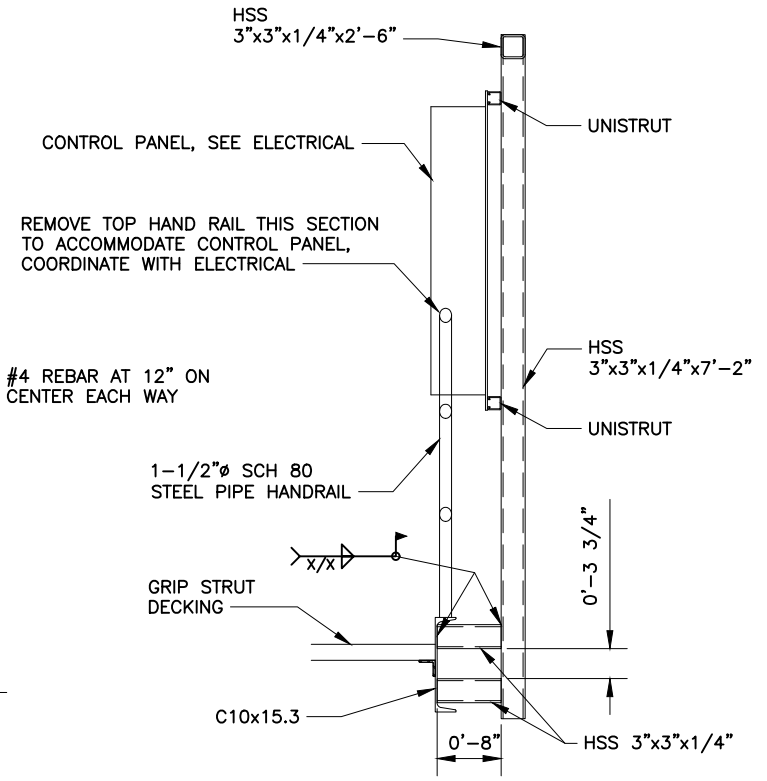
2 ACCESS STAIRS CONCRETE SUPPORT
S2.04 SCALE: 3/4" = 1'-0"



4 ACCESS STAIRS CONCRETE SUPPORT
S2.04 SCALE: 1 1/2" = 1'-0"



6 CONCRETE WALKWAY SUPPORT
S2.04 SCALE: 1 1/2" = 1'-0"



7 STAIR CONTROL PANEL SUPPORT
S2.04 SCALE: 1 1/2" = 1'-0"

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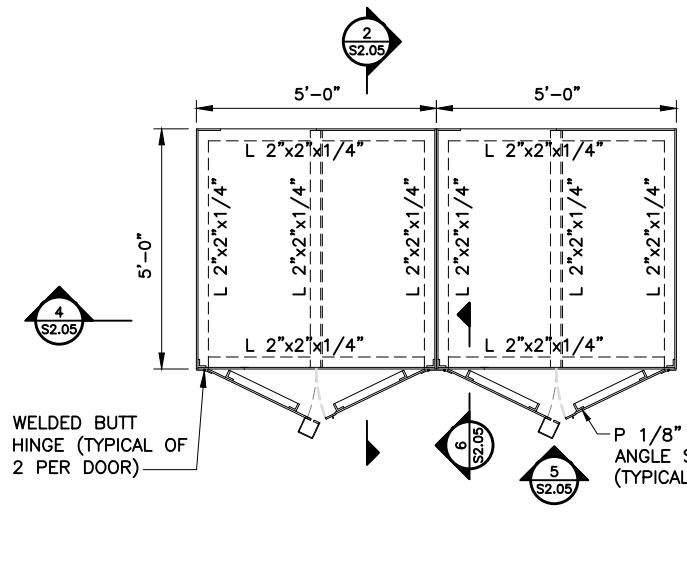


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ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

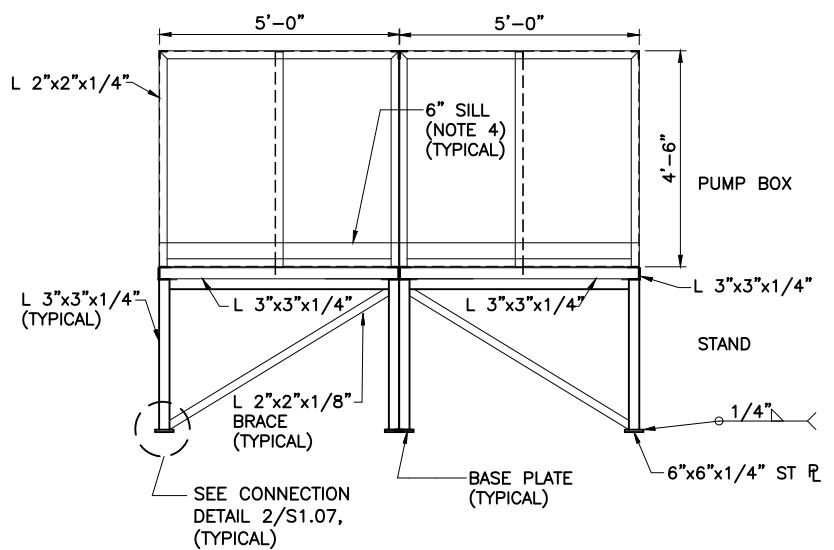
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| SHEET TITLE ACCESS STAIRS AND DETAILS | |
| SHEET S2.04 | |
| DRAWN BY KK | CHECKED BY DEC |
| DATE 01/31/22 | SCALE AS SHOWN |
| JOB NUMBER 20-017 | |

LAYOUT 04.03
DATE TIME 2/3/2022 9:53 AM

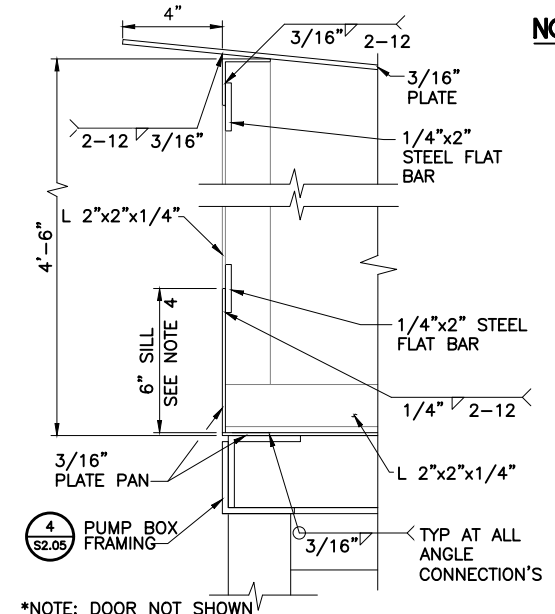
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1 TANK FARM - PUMP BOX ROOF FRAMING PLAN
SCALE: 1/2" = 1'-0"

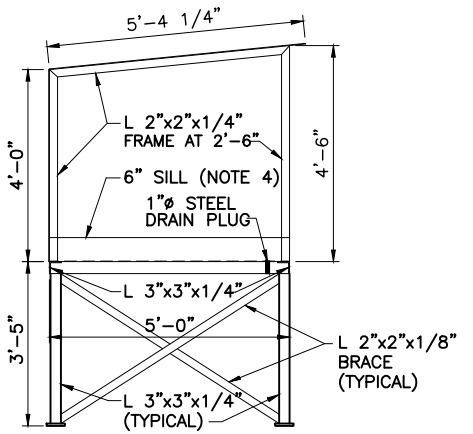


4 TANK FARM - PUMP BOX FRAMING SECTION
SCALE: 1/2" = 1'-0"

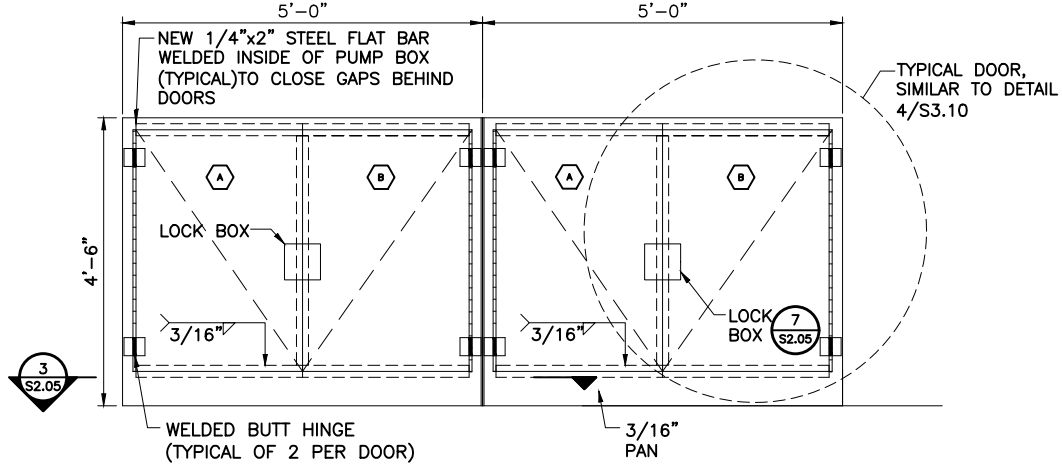


6 DOOR OPENING SECTION
SCALE: 3" = 1'-0"

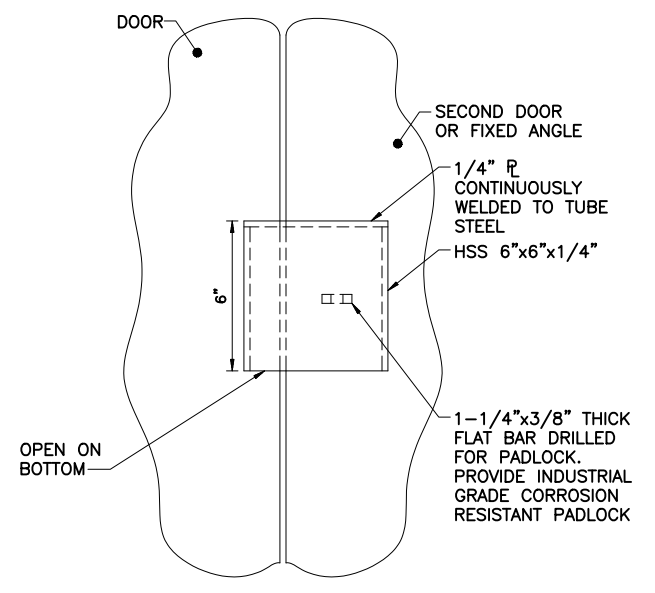
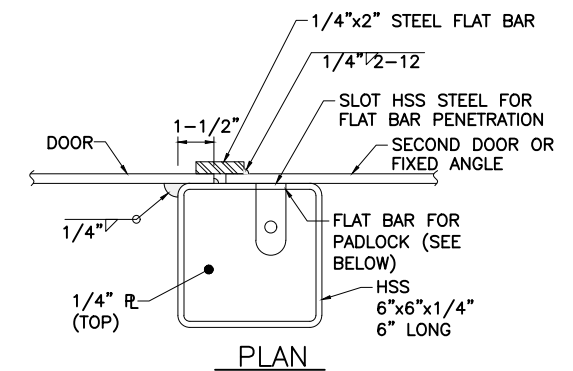
- NOTES**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, AND SPECIFICATIONS, LEGEND, AND ABBREVIATIONS.
 - ALL CONNECTIONS SHALL BE CONTINUOUSLY WELDED UNLESS OTHERWISE NOTED.
 - PUMP BOX SHALL BE FROM A36 STEEL.
 - PUMP BOX SHALL HAVE A 6" SILL FOR SECONDARY CONTAINMENT AND SHALL BE SEAL WELDED ALL AROUND, AND SHALL BE DRAINED VIA A 1"Ø THREADED STEEL DRAIN PLUG.
 - PUMP BOX SHALL BE PAINTED PER SPECIFICATION No. 09 96 00.
 - MOUNT ALL EQUIPMENT AND PIPE SUPPORTS TO INVERTED CHANNELS WELDED TO THE BOTTOM OF ENCLOSURE. PROVIDE 6" MINIMUM CLEARANCE UNDERNEATH EQUIPMENT FOR ACCESS TO ALL MOUNTING BOLTS.
 - SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.



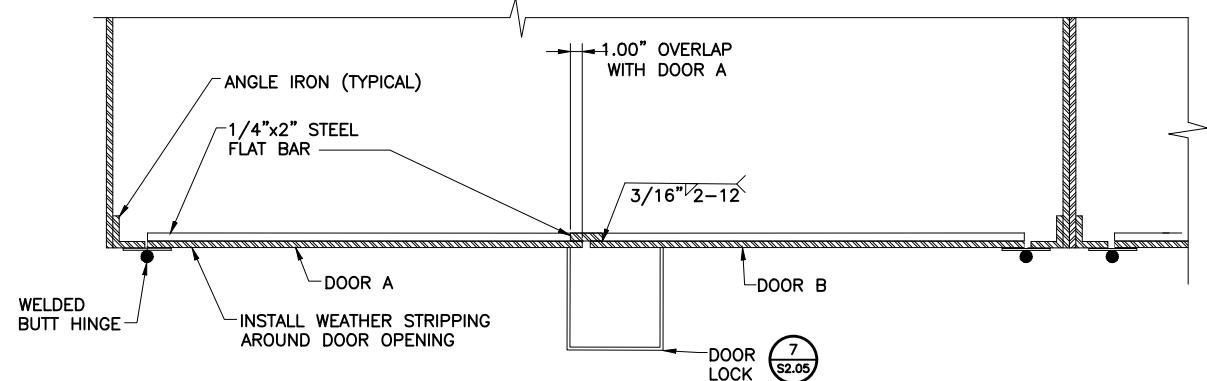
2 TANK FARM - PUMP BOX SECTION
SCALE: 1/2" = 1'-0"



5 TANK FARM - PUMP BOX ELEVATION
SCALE: 3/4" = 1'-0"



7 DOOR LOCK DETAIL
SCALE: 3" = 1'-0"



3 TANK FARM - PUMP BOX SECTION
SCALE: 1 1/2" = 1'-0"

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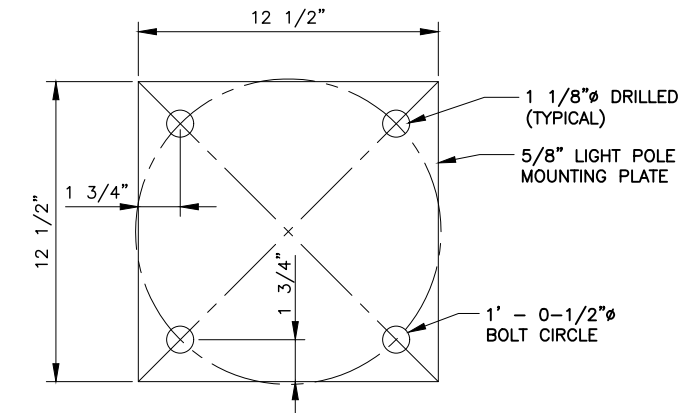
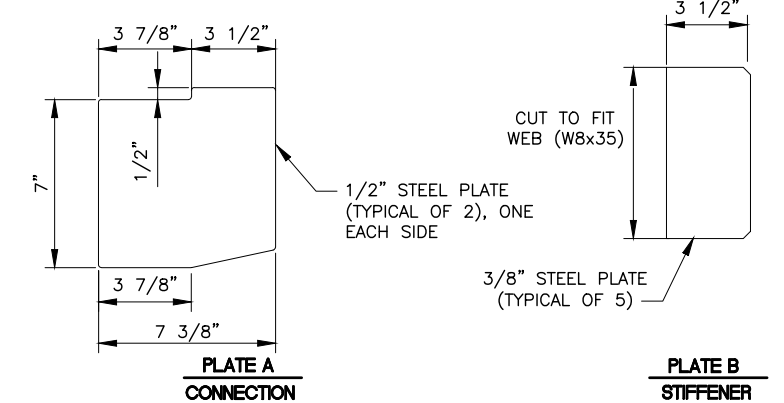
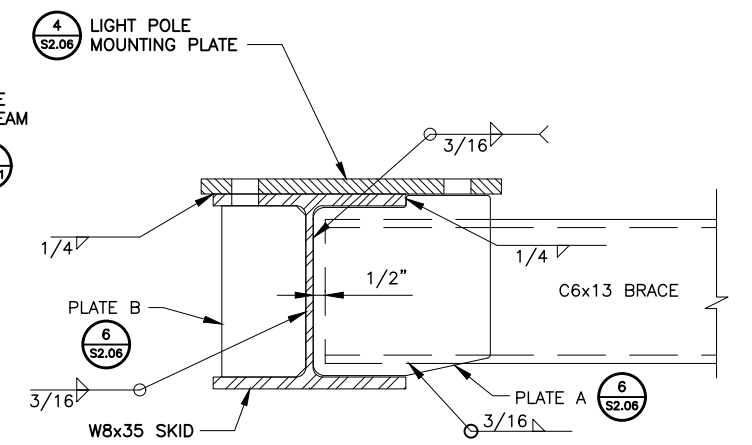
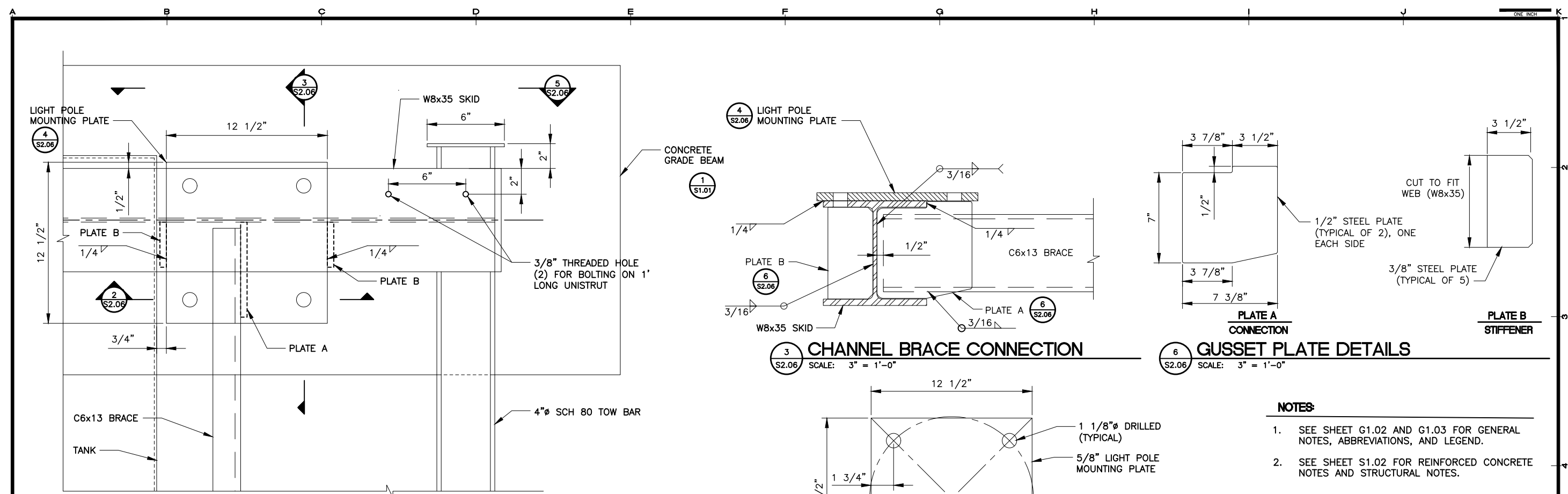
SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

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| SHEET TITLE TANK FARM PUMP BOX DETAILS | |
| SHEET S2.05 | |
| DRAWN BY KK | CHECKED BY DC |
| DATE 01/31/22 | SCALE AS NOTED |
| JOB NUMBER 20-017 | |

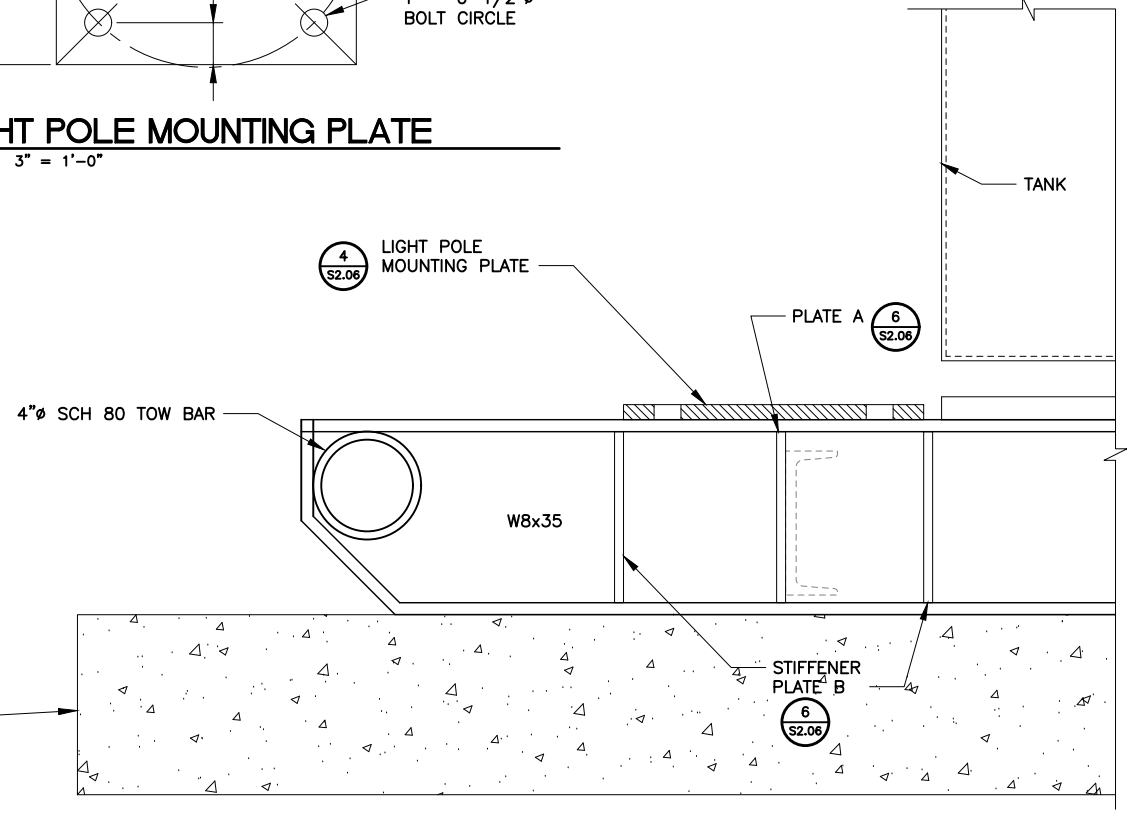
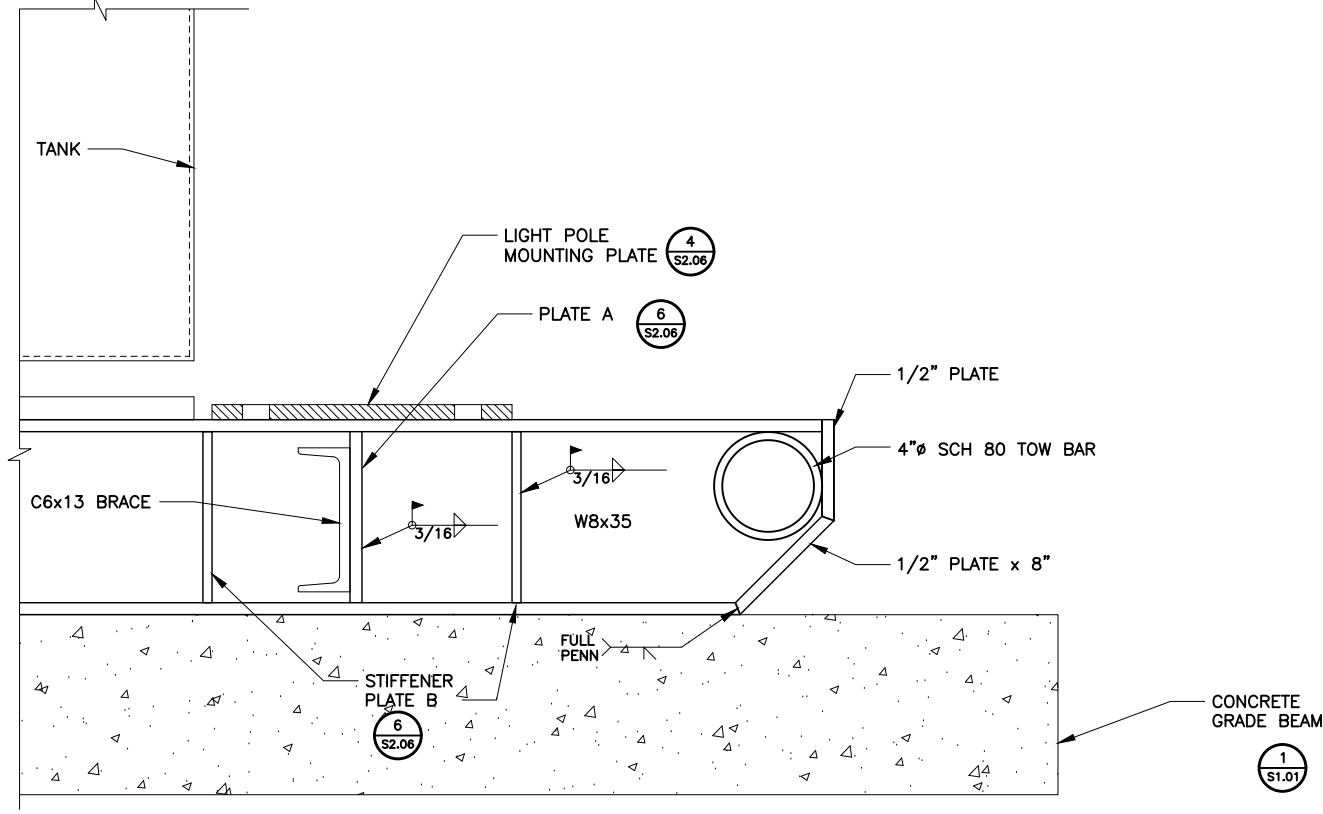
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DATE TIME
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- NOTES:**
- SEE SHEET G1.02 AND G1.03 FOR GENERAL NOTES, ABBREVIATIONS, AND LEGEND.
 - SEE SHEET S1.02 FOR REINFORCED CONCRETE NOTES AND STRUCTURAL NOTES.



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SCAMMON BAY BULK FUEL UPGRADES
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SCAMMON BAY, ALASKA

| | |
|---|--------------------|
| SHEET TITLE TYPICAL TANK LIGHT POLE MOUNTING PLATE | |
| SHEET S2.06 | |
| DRAWN BY: KK | CHECKED BY: DEC |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

LAYOUT A101
DATE TIME 12/23/2021 2:48 PM

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STRUCTURAL GENERAL NOTES

THE FOLLOWING NOTES APPLY UNLESS INDICATED OTHERWISE:
 CODE: INTERNATIONAL BUILDING CODE, 2012 EDITION
 DESIGN SOIL PRESSURE: 1500 PSF MAX DEAD + LIVE LOAD
 DESIGN LOADS:
 RISK CATEGORY = II, TYPICAL BUILDINGS
 FLOORS = 40 PSF
 ROOF SNOW = Pg = 100 PSF, Pf = 63 PSF
 Ce = 0.9, Ct = 1.0
 WIND = 128 MPH 3-SECOND GUST NOMINAL DESIGN WIND SPEED
 EXPOSURE D_s (Gcpi) = +/- 0.18
 SEISMIC = S_s = 0.28, S₁ = 0.11
 SOIL SITE CLASS D
 S_{ds} = 0.30, S_{d1} = 0.17
 SEISMIC DESIGN CATEGORY C
 BASIC SEISMIC FORCE RESISTING SYSTEM:
 PLYWOOD SHEATHED SHEAR/BEARING WALLS
 Cs = 0.046, R = 6.5, OMEGA = 2.5

STRUCTURAL SAWN LUMBER:
 LUMBER VISUALLY GRADED AND STAMPED PER WMPA STANDARD GRADING RULES. MOISTURE CONTENT OF LUMBER 2" OR LESS IN THICKNESS = 19 PERCENT, MAXIMUM.
 STRUCTURAL FRAMING - HEM-FIR SPECIES, NO.2 GRADE OR BETTER, F_b = 850 PSI
 POSTS AND TIMBERS - HEM-FIR SPECIES, NO.1 GRADE OR BETTER, F_c = 850 PSI

MINIMUM NAILING FOR CONNECTION OF VARIOUS COMPONENTS PER TABLE 2304.10.1 OF THE IBC. TREAT WOOD BEARING ON OR WITHIN 1" OF MASONRY OR CONCRETE WITH PRESERVATIVE. USE MILD STEEL PLATE WASHERS AT ALL BOLT HEADS AND NUTS BEARING ON WOOD. ATTACH FOUNDATION PLATES AND SILLS TO CONCRETE AND MASONRY WITH GALVANIZED FRAMING HARDWARE MANUFACTURED BY SIMPSON COMPANY OR APPROVED EQUAL. ICC-ES CERTIFICATION REQUIRED.

MINIMUM NAIL SIZES - 8d COMMON - 0.131" DIA X 2 1/2"
 10d COMMON - 0.148" DIA X 3"
 16d COMMON - 0.162" DIA X 3 1/2"

SEATHING:
 SHEATHING GRADE - CD EXPOSURE 1 WITH EXTERIOR GLUE LAID FACE GRAIN PERPENDICULAR TO SUPPORT
 ROOF SHEATHING - 3/4" THICK, 48/24 SPAN RATING
 WALL SHEATHING - 7/16" THICK, 32/16 SPAN RATING
 FLOOR SHEATHING - 3/4" THICK, 48/24 SPAN RATING, T&G EDGES

PROVIDE 2X4 BLOCKING AT ALL UNSUPPORTED WALL PANEL EDGES. GLUE FLOOR SHEATHING TO ALL SUPPORTS WITH ADHESIVE COMPLYING WITH APA AFG-01, AT A 50 PERCENT SKIP PATTERN AND A 3/16" DIA BEAD MINIMUM.

NAILING AT ALL PANEL EDGES AND AT ALL STUDS WITH HOLDDOWNS IS AS FOLLOWS:
 ROOF SHEATHING - 10d @ 6" O.C.
 WALL SHEATHING - 10d @ 4" O.C.
 FLOOR SHEATHING - 10d @ 6" O.C.

NAILING AT ALL PANEL INTERMEDIATE SUPPORTS OTHER THAN STUDS WITH HOLDDOWNS IS 10d @ 12" O.C. FOR ROOF, WALLS, AND FLOOR.

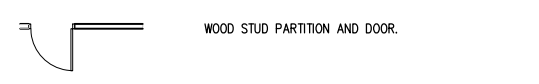
CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES AND CONDITIONS PRIOR TO COMMENCING ANY WORK.
 DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION, WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

REFER TO ARCHITECTURAL DRAWINGS FOR WALL OPENINGS, ARCHITECTURAL TREATMENT AND DIMENSIONS NOT SHOWN.

PROVIDE TEMPORARY ERECTION BRACING AND SHORING AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

REFER TO SPECIFICATIONS FOR INFORMATION NOT CONTAINED IN THESE GENERAL NOTES.

LEGEND



GENERAL NOTES

- SEE SHEET A201 FOR EXTERIOR ELEVATIONS AND BUILDING SECTIONS.
- SEE SHEET A301 FOR WALL SECTIONS.

SHEET FLAG NOTES

- DOOR AND FRAME.
- STUD FRAMED EXTERIOR WALL.
- PAINTED PLYWOOD FLOORING.
- 4'-0" X 4'-0" VINYL FRAMED WINDOW WITH INSULATED GLAZING.
- 5'-0" X 5'-0" P.T. WOOD DECK
- EXTERIOR P.T. WOOD STAIR.
- NOT USED
- 2 X 10 WOOD JOISTS @ 16" O.C.
- 3-1/2 X 10 LVL PERIMETER JOISTS AT LONG SIDES OF BUILDING.
- 6" X 6" WOOD POSTS.
- ALL WEATHER WOOD FOUNDATION PADS.
- STANDING SEAM METAL ROOF PANELS.
- METAL ROOF TRIM.
- EDGE OF ROOF ABOVE.

CODE REVIEW

CODE: INTERNATIONAL BUILDING CODE 2012 EDITION AS AMENDED BY THE STATE OF ALASKA

ACTUAL AREA AND BUILDING HEIGHT
 ACTUAL AREA FIRST FLOOR: 123 SF
 ACTUAL BUILDING HEIGHT = 12 FT - 11 3/4 INCHES ABOVE GRADE

OCCUPANCY GROUP
 M (MERCANTILE)

CONSTRUCTION TYPE: VB

FIRE SPRINKLER SYSTEM: NO

FIRE EXTINGUISHERS: MULTI-PURPOSE DRY CHEMICAL
 2-A:10-B:C 5 Lb

ALLOWABLE AREA: M = 9,000 SF 1 STORY (40 FT.)

FIRE SEPARATION DISTANCE:
 PER TABLE 602, WHERE FIRE SEPARATION DISTANCE TO THE CLOSEST BUILDING OR PROPERTY LINE IS GREATER THAN OR EQUAL TO 30 FEET, EXTERIOR WALLS FOR TYPE VB CONSTRUCTION IN AN M OCCUPANCY ARE NOT REQUIRED TO BE RATED. DISTANCE FROM RETAIL SALES BUILDING TO ANY ADJACENT FUEL TANK OR PROPERTY LINE IS GREATER THAN 30 FEET.

OCCUPANT LOAD FACTOR:
 MERCANTILE, BASEMENT AND GRADE FLOOR - 30 GROSS SF/OCCUPANT

OCCUPANT LOAD:
 MAIN FLOOR: 125 SF / 30 = 5 OCCUPANTS

ACTUAL EGRESS WIDTH:
 FIRST FLOOR (DOOR CONTROLS): 32"

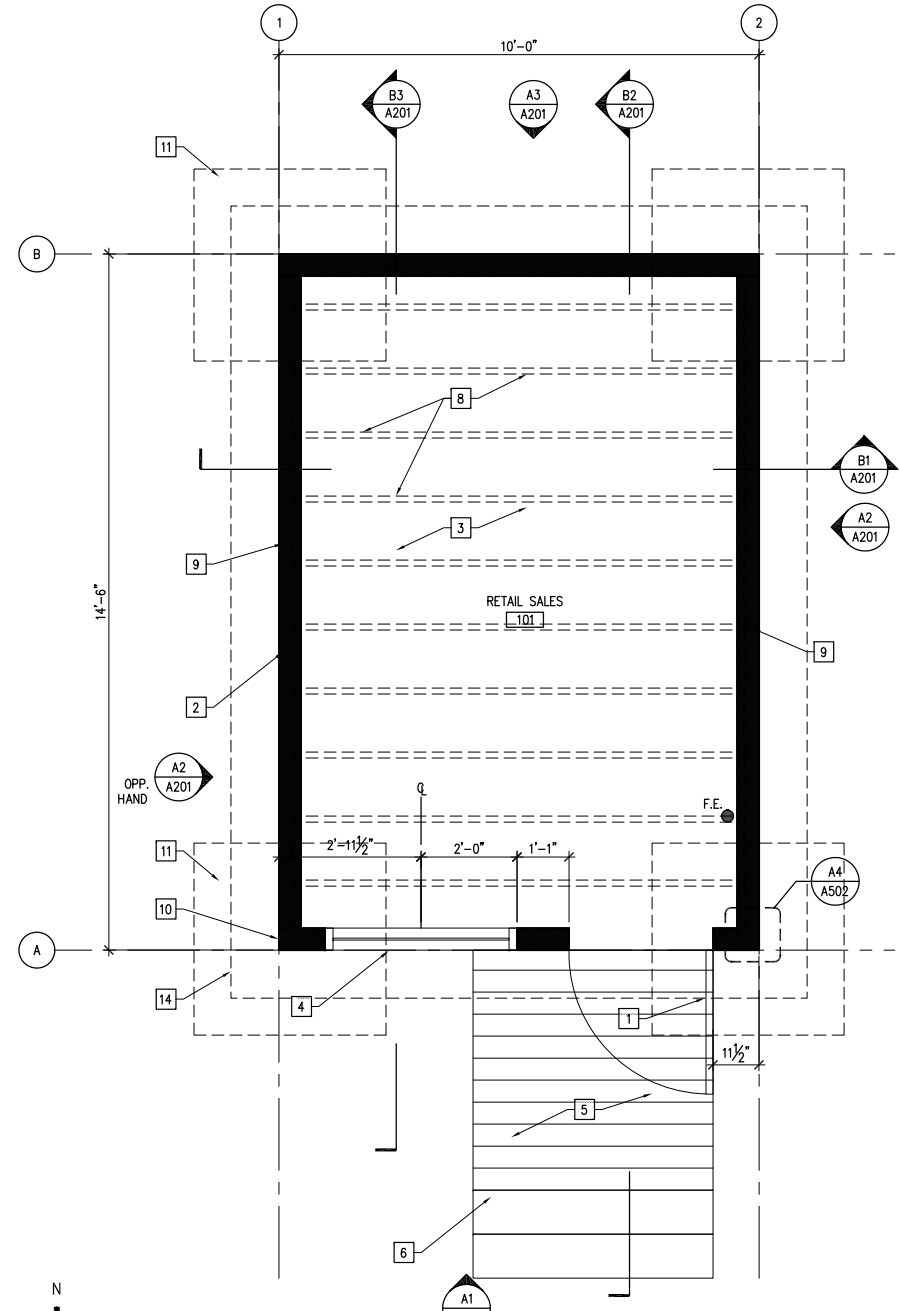
REQUIRED EGRESS WIDTH:
 FIRST FLOOR (DOORS CONTROL)=
 0.15"/OCC X 5 OCC = 0.75" < 32":OK

MAXIMUM TRAVEL DISTANCE:
 MAXIMUM ALLOWABLE TRAVEL DISTANCE TO EXIT: 200 FT

COMMON PATH OF TRAVEL: 100 FT MAX. IN M OCCUPANCY
 WHERE OCCUPANT LOAD ≤ 30

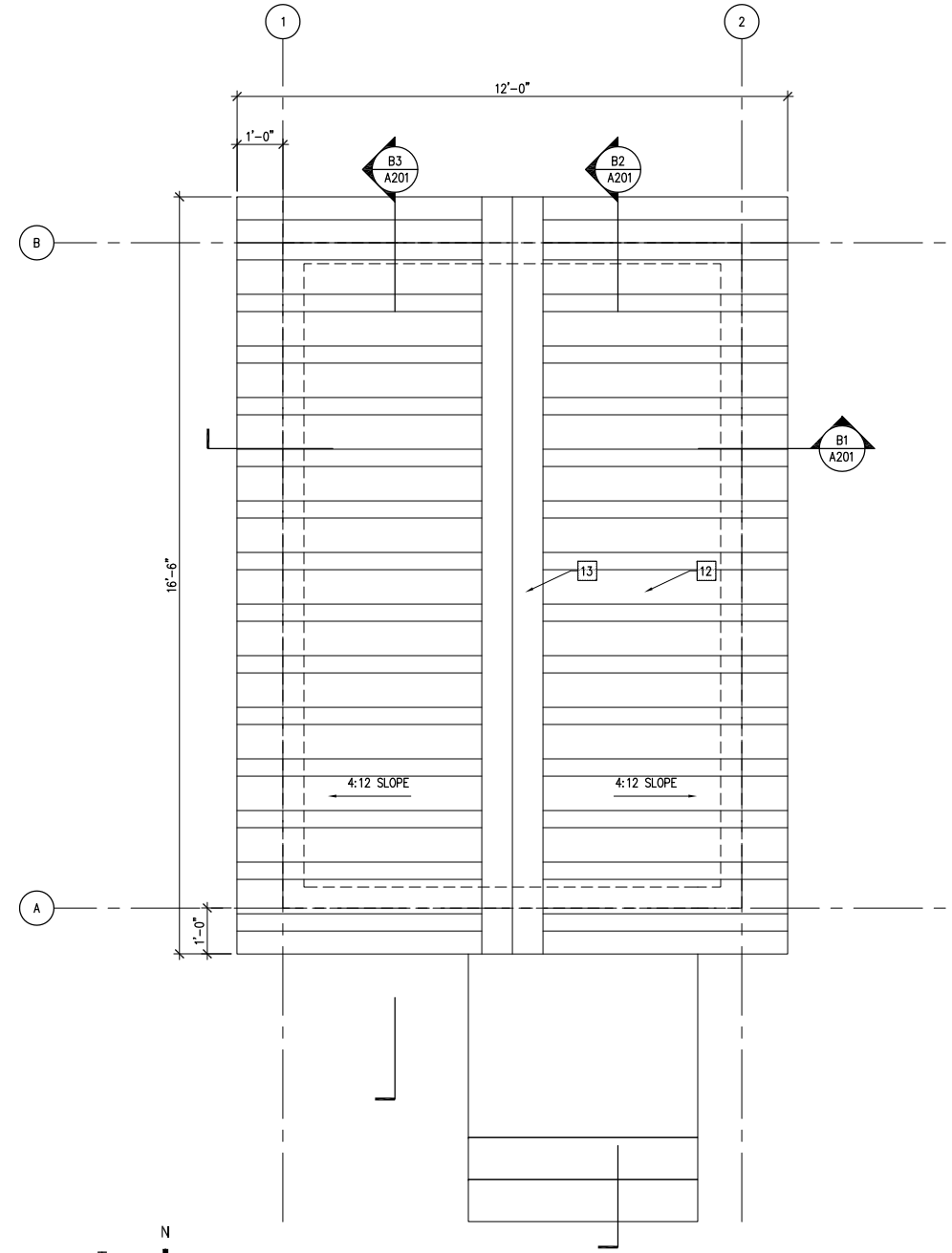
ELEVATED BUILDING PROTECTION
 PER SECTION 425.1, ALL ELEVATED BUILDINGS WITH THE LOWER FLOOR LEVEL ABOVE GRADE AND OPEN ON THE SIDES MUST BE FENCED AROUND THE BUILDING EXTERIOR IF THE BUILDING IS HIGHER THAN 2 FT. TO THE UNDERSIDE OF FLOOR FRAMING.

FENCING IS NOT REQUIRED FOR THIS BUILDING.



FLOOR PLAN

SCALE: 1/2" = 1'-0"
 0' 1' 2' 4' 8'



ROOF PLAN

SCALE: 1/2" = 1'-0"
 0' 1' 2' 4' 8'



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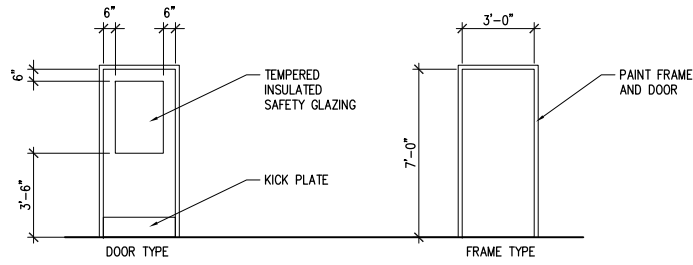
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|------------------------------------|-------------|
| SHEET TITLE | |
| CODE REVIEW FLOOR PLAN & ROOF PLAN | |
| SHEET | |
| A1.01 | |
| DRAWN BY: | CHECKED BY: |
| SLH | SLH |
| DATE: | SCALE: |
| 12/28/21 | 1/2" = 1' |
| JOB NUMBER: | |
| 20-017 | |

LAYOUT
A201

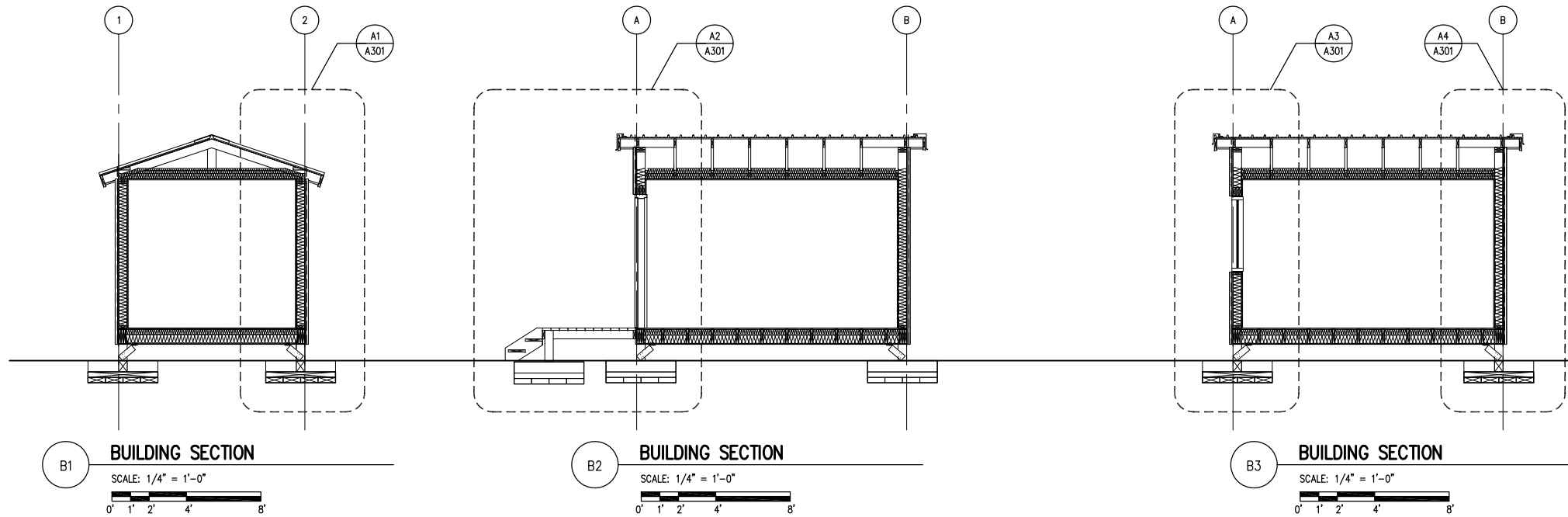
DATE TIME
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W:\2021\21042.01 HDL Scammon Bay Tank Farm\DWG\A201_Exterior Elevations and Building Sections.dwg SHENRI



C1 DOOR ELEVATION
SCALE: 1/4" = 1'-0"
SEE DIVISION 08 SPECIFICATION SECTION "DOOR HARDWARE" FOR DOOR HARDWARE PRODUCTS BASIS OF DESIGN

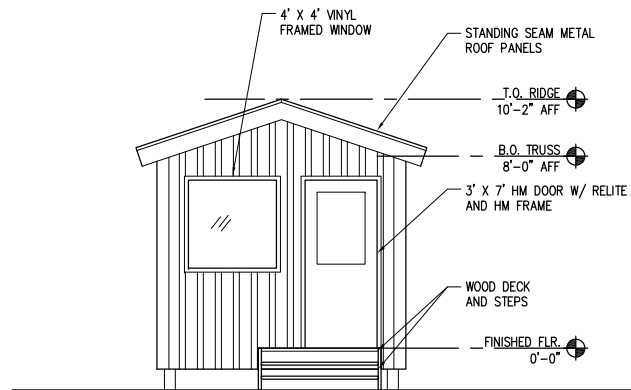
| MATERIAL AND FINISH LEGEND | |
|---|---|
| EXTERIOR | INTERIOR |
| METAL WALL PANELS: AEP SPAN, PC10-12C COLOR: TO BE SELECTED BY OWNER | INTERIOR PAINT P1 (FIELD OF WALL) COLOR: TO BE SELECTED BY OWNER |
| METAL ROOF PANELS: AEP SPAN, DESIGN SPAN hp COLOR: TO BE SELECTED BY OWNER | INTERIOR PAINT P2 (FLOOR) COLOR: TO BE SELECTED BY OWNER |
| METAL FLASHING: COLOR TO MATCH ADJACENT PANEL | |
| EXTERIOR PAINT EP1 (HOLLOW METAL DOOR & FRAME) SHERWIN WILLIAMS COLOR: TO BE SELECTED BY OWNER | |
| GLAZING: PROVIDE TEMPERED, INSULATED SAFETY GLAZING AT DOOR RELITE SEE DIVISION 08 SECTION "GLAZING." | |



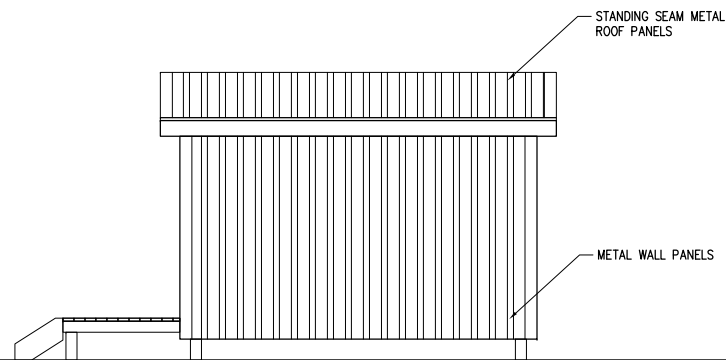
B1 BUILDING SECTION
SCALE: 1/4" = 1'-0"
0' 1' 2' 4' 8'

B2 BUILDING SECTION
SCALE: 1/4" = 1'-0"
0' 1' 2' 4' 8'

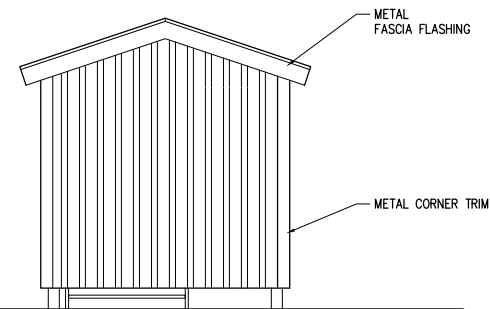
B3 BUILDING SECTION
SCALE: 1/4" = 1'-0"
0' 1' 2' 4' 8'



A1 ENTRY ELEVATION
SCALE: 1/4" = 1'-0"
0' 1' 2' 4' 8'



A2 SIDE ELEVATION
SCALE: 1/4" = 1'-0"
0' 1' 2' 4' 8'



A3 REAR ELEVATION
SCALE: 1/4" = 1'-0"
0' 1' 2' 4' 8'



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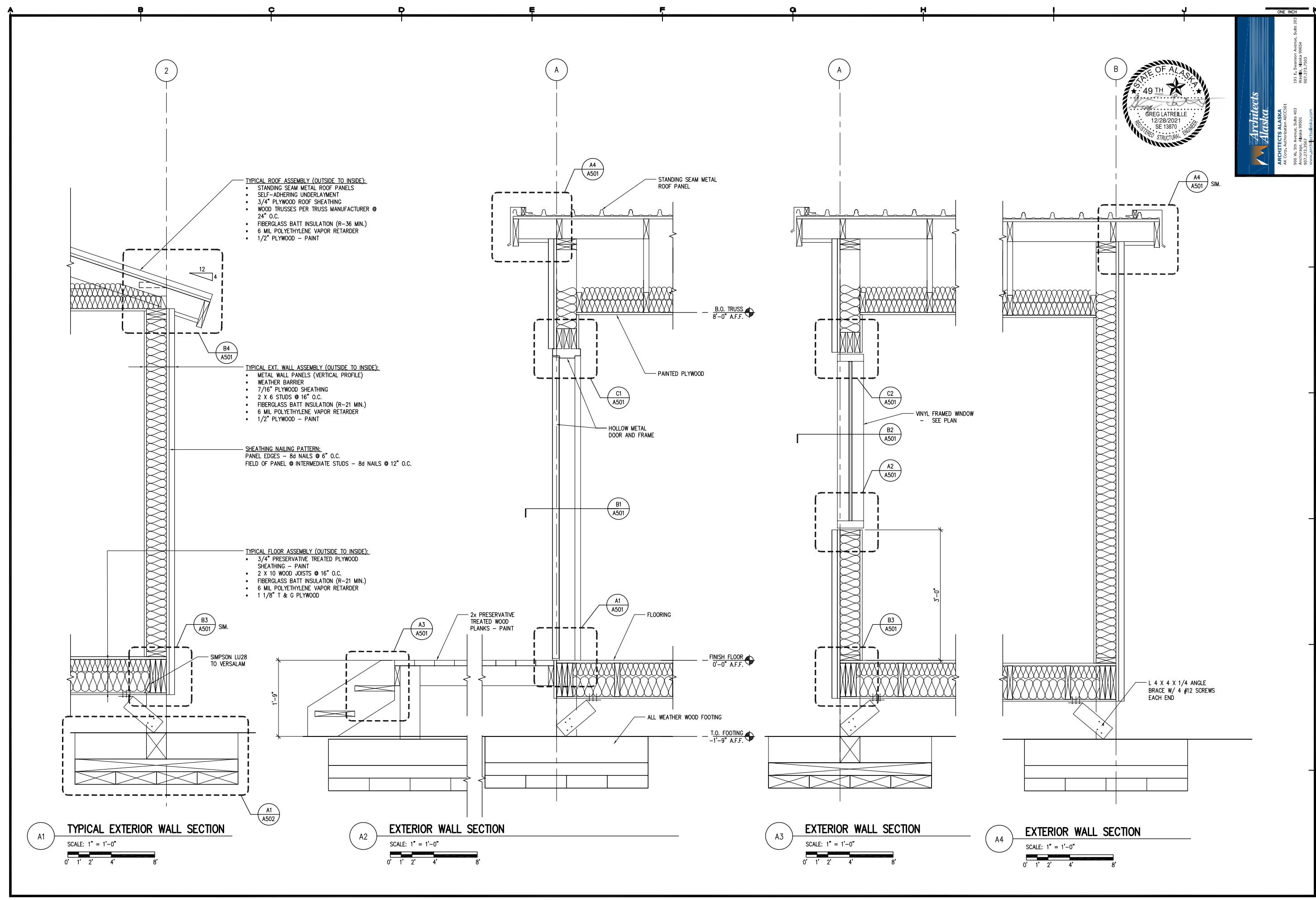
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|---|---------------------|
| SHEET TITLE EXT ELEVATIONS BUILDING SECTIONS & FINISH LEGEND | |
| SHEET A2.01 | |
| DRAWN BY: SLH | CHECKED BY: SLH |
| DATE: 12/28/21 | SCALE: 1/4" = 1' |
| JOB NUMBER: 20-017 | |

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- TYPICAL ROOF ASSEMBLY (OUTSIDE TO INSIDE):**
- STANDING SEAM METAL ROOF PANELS
 - SELF-ADHERING UNDERLAYMENT
 - 3/4" PLYWOOD ROOF SHEATHING
 - WOOD TRUSSES PER TRUSS MANUFACTURER @ 24" O.C.
 - FIBERGLASS BATT INSULATION (R-36 MIN.)
 - 6 MIL POLYETHYLENE VAPOR RETARDER
 - 1/2" PLYWOOD - PAINT

- TYPICAL EXT. WALL ASSEMBLY (OUTSIDE TO INSIDE):**
- METAL WALL PANELS (VERTICAL PROFILE)
 - WEATHER BARRIER
 - 7/16" PLYWOOD SHEATHING
 - 2 X 6 STUDS @ 16" O.C.
 - FIBERGLASS BATT INSULATION (R-21 MIN.)
 - 6 MIL POLYETHYLENE VAPOR RETARDER
 - 1/2" PLYWOOD - PAINT

SHEATHING NAILING PATTERN:
 PANEL EDGES - 8d NAILS @ 6" O.C.
 FIELD OF PANEL @ INTERMEDIATE STUDS - 8d NAILS @ 12" O.C.

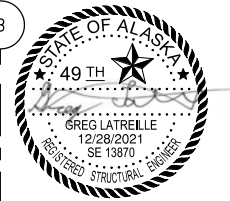
- TYPICAL FLOOR ASSEMBLY (OUTSIDE TO INSIDE):**
- 3/4" PRESERVATIVE TREATED PLYWOOD SHEATHING - PAINT
 - 2 X 10 WOOD JOISTS @ 16" O.C.
 - FIBERGLASS BATT INSULATION (R-21 MIN.)
 - 6 MIL POLYETHYLENE VAPOR RETARDER
 - 1 1/8" T & G PLYWOOD

A1 TYPICAL EXTERIOR WALL SECTION
 SCALE: 1" = 1'-0"
 0' 1' 2' 4' 8'

A2 EXTERIOR WALL SECTION
 SCALE: 1" = 1'-0"
 0' 1' 2' 4' 8'

A3 EXTERIOR WALL SECTION
 SCALE: 1" = 1'-0"
 0' 1' 2' 4' 8'

A4 EXTERIOR WALL SECTION
 SCALE: 1" = 1'-0"
 0' 1' 2' 4' 8'



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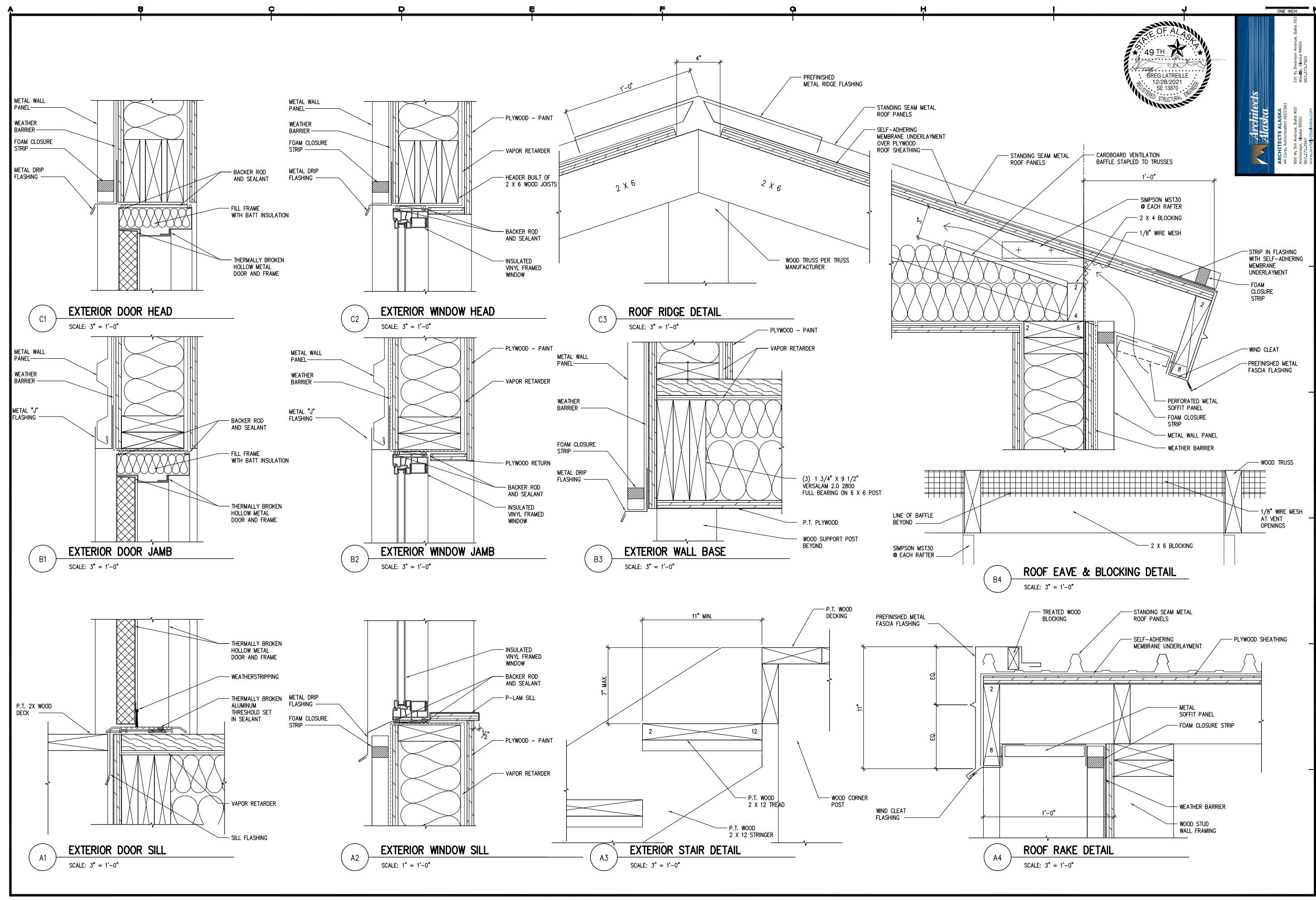


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ALASKA ENERGY AUTHORITY
 SCAMMON BAY, ALASKA

| SHEET TITLE | |
|--------------------|-----------------|
| WALL SECTIONS | |
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| JOB NUMBER: 20-017 | |

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DATE TIME 12/23/2021 2:57 PM

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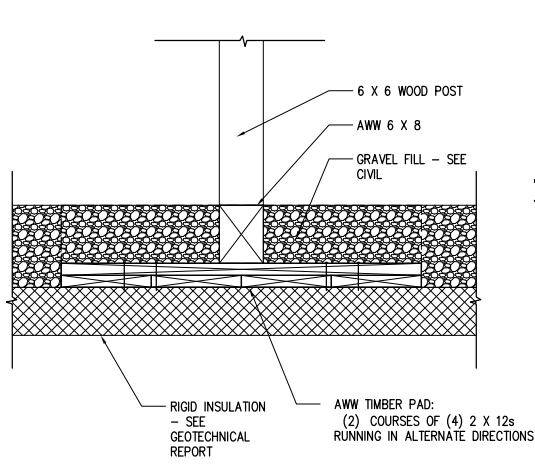


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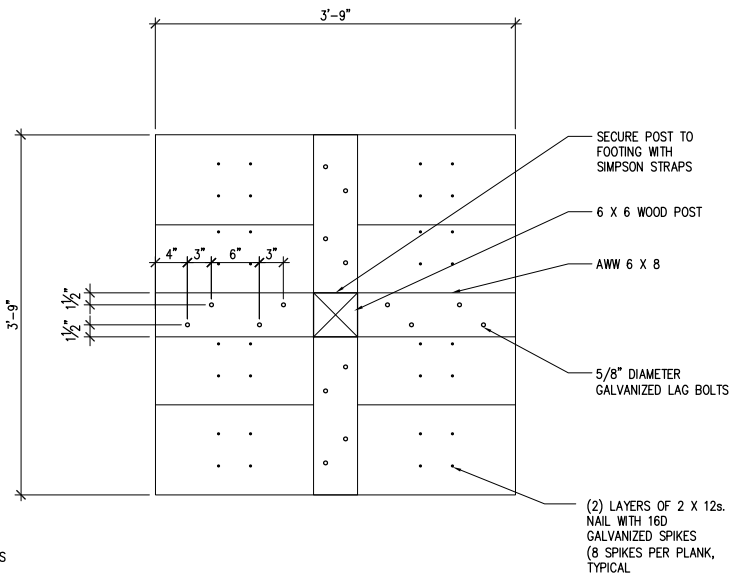


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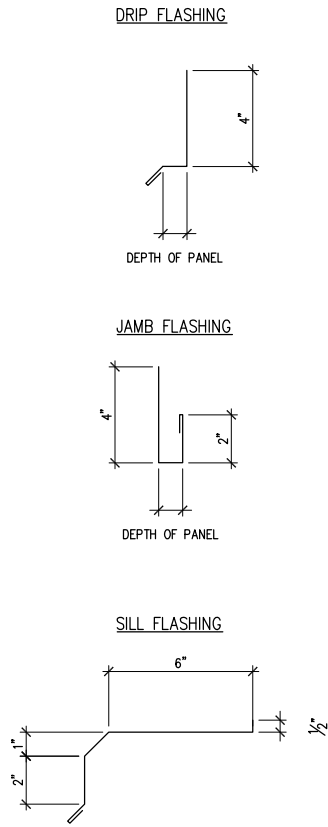
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| SHEET A5.01 | CHECKED BY SLH |
| DRAWN BY SLH | SCALE 3" = 1' |
| DATE 12/28/21 | JOB NUMBER 20-017 |



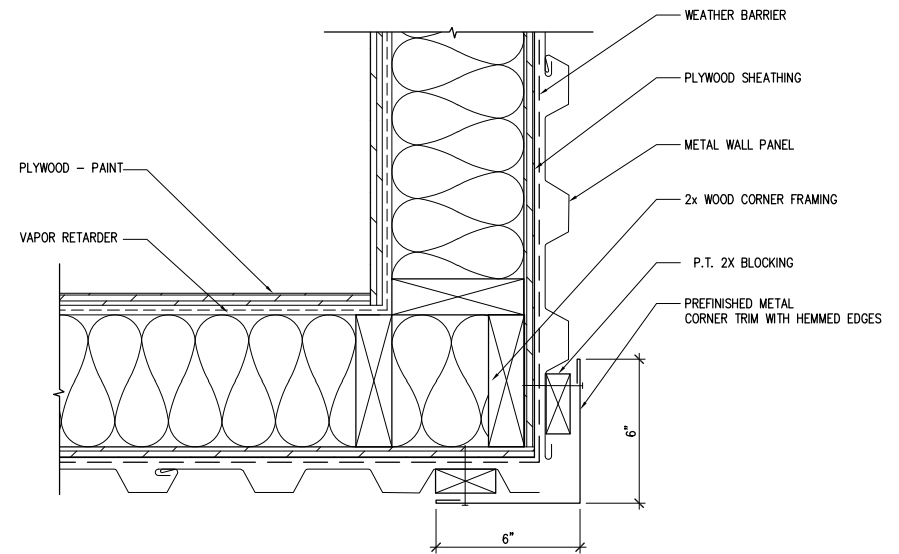
A1 FOOTING DETAIL - SECTION
SCALE: 1" = 1'-0"



A2 FOOTING DETAIL - PLAN
SCALE: 1" = 1'-0"



A3 TYPICAL METAL FLASHING PROFILES
SCALE: 3" = 1'-0"



A4 TYPICAL EXTERIOR CORNER DETAIL
SCALE: 3" = 1'-0"



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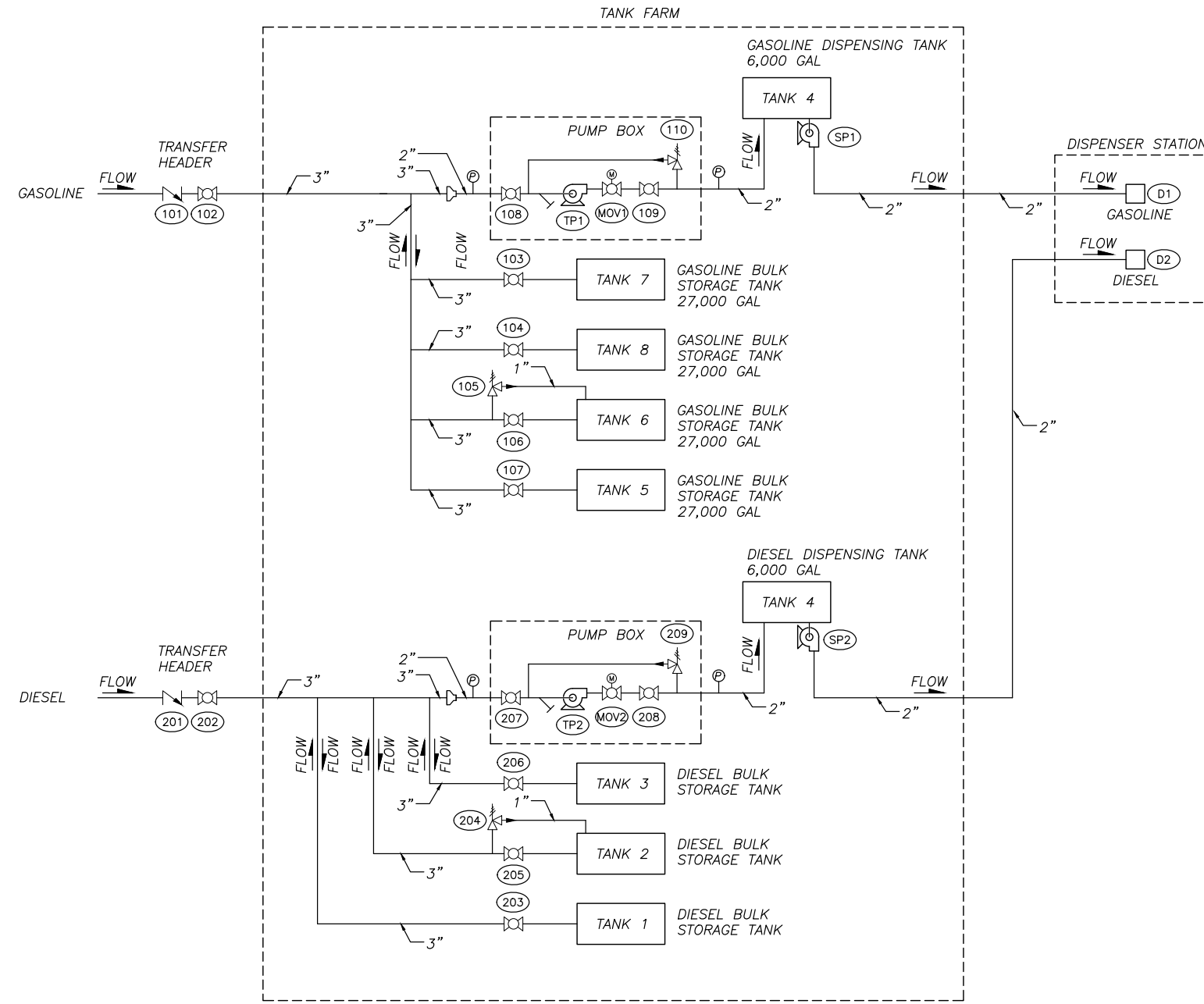
SHEET TITLE
EXTERIOR DETAILS

SHEET
A5.02

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JOB NUMBER: 20-017

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DATE: 12/28/21

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 DATE TIME: 2/7/2022 4:09 PM



SYMBOL LEGEND

- BALL VALVE
- BALL VALVE W/MOTOR ACTUATOR
- CHECK VALVE
- PLUG VALVE
- PRESSURE RELIEF VALVE
- PRESSURE TEST PORT
- STRAINER
- PUMP
- CUSTODY METER
- CARTRIDGE FILTER
- DISPENSING NOZZLE
- PIPE SIZE REDUCER

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| SHEET TITLE PROCESS DIAGRAM | |
| SHEET P1.01 | |
| DRAWN BY: CDF | CHECKED BY: ZB |
| DATE: 1/31/22 | SCALE: |
| JOB NUMBER: 20-017 | |

DATE TIME
2/2/2022 6:17 PM

DRAWING LOCATION
p:\Projects\HOL\scammon bay bulk fuel\dwgs\elec\E1.0 ELECTRICAL LEGENDS AND ABBREVIATIONS.dwg

ELECTRICAL LEGEND

| SYMBOL | DESCRIPTION |
|--------|--|
| | EXPOSED CONDUIT |
| | UNDERGROUND CONDUIT |
| | 3/4" X 10' COPPER CLAD STEEL GROUND ROD |
| | CONDUIT RUN - CHANGE IN ELEVATION |
| | LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT |
| | JUNCTION BOX OR FITTING |
| | MOLDED CASE CIRCUIT BREAKER, X = AMPERE RATING, Y = NO. OF POLES |
| | UNDERGROUND ELECTRIC |
| | OVERHEAD ELECTRIC |
| | KILOWATT-HOUR METER |
| | THERMOSTAT |
| | 20A, 120V, SINGLE POLE SWITCH (SPST) |
| | PANELBOARD |
| | 20A, 120V, GFI DUPLEX RECEPTACLE NEMA 5-20R |
| | 20A, 120V DUPLEX RECEPTACLE NEMA 5-20R |
| | MOTOR, SINGLE PHASE |
| | COMBINATION MOTOR STARTER |
| | FUSED DISCONNECT SWITCH |
| | NON-FUSIBLE DISCONNECT SWITCH |
| | MOTORIZED VALVE |

OTHER SYMBOLS ARE AS DEFINED BY NOTE.

| INSTRUMENT IDENTIFIER | |
|-----------------------|---------------------------|
| | XX = FUNCTION / YY = LOOP |
| ESD | EMERGENCY SHUTDOWN |
| LSH | LEVEL SWITCH HIGH |
| LSHH | LEVEL SWITCH HIGH HIGH |
| LSL | LEVEL SWITCH LOW |
| MOV | MOTOR OPERATED VALVE |

CIRCUIT AND DEVICE LEGEND

- A-1,a GROUP OR EQUIPMENT IDENTIFICATION.
"A" DENOTES PANEL NAME
"1" DENOTES CIRCUIT NUMBER
"a" DENOTES SWITCH LEG AS INDICATED.
- \$3,a SWITCH IDENTIFICATION.
"3" DENOTES SWITCH CONFIGURATION
"a" DENOTES SWITCH LEG AS INDICATED.

ABBREVIATIONS

- 3PDT THREE POLE, DOUBLE THROW
A ANALOG SIGNAL, AMPERE
AFF ABOVE FINISH FLOOR
AL ALUMINUM
AVEC ALASKA VILLAGE ELECTRIC COOPERATIVE
BCU BARE COPPER
C CONDUIT OR CONDUCTOR
C1D1 CLASS 1, DIVISION 1, GROUP D
C1D2 CLASS 1, DIVISION 2, GROUP D
CCT COLOR CORRECTION TEMPERATURE
CP CONTROL PANEL
CU COPPER
D DIGITAL SIGNAL
DPDT DOUBLE POLE, DOUBLE THROW
E EMERGENCY
(E) EXISTING
EXP EXPLOSION PROOF (HAZARDOUS AREA)
FLA FULL LOAD AMPERES
FS FLOW SWITCH
G GROUND CONDUCTOR
GFI GROUND FAULT INTERRUPTING
GRC GALVANIZED RIGID (STEEL) CONDUIT
HOA HAND-OFF-AUTO
HL HIGH LEVEL
HP HORSEPOWER
KVA KILO-VOLT-AMPERES
LTF LIQUID TIGHT FLEXIBLE CONDUIT (METALLIC)
(N) NEW
N.I.C. NOT IN CONTRACT
NC NORMALLY CLOSED
NO NORMALLY OPEN
PH PHASE
SIG SIGNAL
SP SPACE
SPST SINGLE POLE, SINGLE THROW
STL STEEL
SS STAINLESS STEEL
TBD TO BE DETERMINED
TSP TWISTED SHIELDED PAIR
TWSH TWISTED WIRE SHIELDED
TYP TYPICAL
UON UNLESS OTHERWISE NOTED
V VOLTS
W WATTS, WIRE
WP WEATHERPROOF
XFMR TRANSFORMER
ZS LIMIT SWITCH

GENERAL NOTES

- ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, STATE, MUNICIPAL, AND FEDERAL LAWS, AMENDMENTS AND/OR ORDINANCES GOVERNING THE PROJECT. IF DIRECT CONFLICT ARISES BETWEEN DESIGN DOCUMENTS AND GOVERNING CODES, LAWS, AND/OR ORDINANCES, THE CODES, LAWS, AND/OR ORDINANCES SHALL HAVE JURISDICTION AND THE WORK IN QUESTION SHALL BE INSTALLED ACCORDING TO THE CODES, LAWS, AND/OR ORDINANCES. ALL WORK SHALL BE PERFORMED BY OR UNDER THE SUPERVISION OF A STATE OF ALASKA LICENSED JOURNEYMAN ELECTRICIAN.
- MATERIALS AND EQUIPMENT SHALL BE COMMERCIAL GRADE AND ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED. ALL ELECTRICAL EQUIPMENT SHALL INCLUDE THE SEAL OF NATIONAL TESTING LABORATORY RECOGNIZED BY THE STATE OF ALASKA FOR THE PURPOSE FOR WHICH IT IS INSTALLED. WHENEVER POSSIBLE, SIMILAR ITEMS SHALL BE SUPPLIED BY THE SAME MANUFACTURER THROUGHOUT THE PROJECT.
- COORDINATE AND PROVIDE EQUIPMENT WITH THE SHORT CIRCUIT CURRENT RATING (SCCR) FOR THE AVAILABLE FAULT CURRENT AT THE POINT OF THE SYSTEM WHERE INSTALLED. PROVIDE FAULT CURRENT LABELS ON ALL SERVICE EQUIPMENT PER NEC ARTICLE 110.24 REQUIREMENTS.
- PROVIDE ARC-FLASH HAZARD WARNING LABELS ON ALL PANELBOARDS AND SIMILAR EQUIPMENT PER NEC ARTICLE 110.16.
- DIMENSIONS OF EQUIPMENT ARE APPROXIMATE. INSTALLATION SHALL BE VERIFIED BASED ON ACTUAL MANUFACTURER'S DATA AND SHOP DRAWINGS.
- ALL SITE WORK AND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. VERIFY ALL INSTALLATIONS PRIOR TO COMMENCEMENT OF WORK. COORDINATE ALL WORK WITH UTILITIES AS REQUIRED.
- ALL SINGLE PHASE BRANCH CIRCUITS SHALL BE 3/4"C, 3#12, AND ALL THREE PHASE BRANCH CIRCUITS SHALL BE 3/4"C, 4#12, UNLESS OTHERWISE NOTED. ALL CIRCUITS SHALL HAVE GROUND CONDUCTOR.
- CONTRACTOR SHALL SUBMIT REQUEST FOR SUBSTITUTION IN WRITING TO THE ENGINEER.
- PROVIDE SEISMIC SUPPORT AND DESIGN PER IBC REQUIREMENTS.
- WHERE EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS, MULTIPLE PARALLEL LINES MAY BE ENCOUNTERED IN THE SAME TRENCH OR GENERAL AREA. SINGLE LINES WERE SHOWN FOR CLARITY.
- CAUTION - ELECTRICALLY CLASSIFIED (HAZARDOUS) AREAS EXIST ON THE PROJECT. INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AS OUTLINED IN ARTICLES 500 THRU 504, 513 AND 514 AS APPLICABLE.
- IN ALL LOCATIONS WHERE CONDUIT RUNS TRANSITION FROM BELOW GRADE TO ABOVE GRADE PROVIDE A SECTION OF LTF WITH AN INSTALLED BEND TO ALLOW FOR DIFFERENTIAL MOVEMENT.

FIXTURE SCHEDULE

| TYPE | FIXTURE SYMBOL | LAMP SIZE | MOUNTING | DESCRIPTION |
|------|----------------|-------------|----------------------------------|--|
| S1 | | LED 94W | POLE MOUNT AT 30'-0" ABOVE GRADE | AREA FLOODLIGHT, WET LOCATION, 13,200 LUMEN, 120V, LITHONIA CAT# TFX2-LED-40K-MVOLT-IS-DBBXD. |
| L1 | | 30W LED | SURFACE CEILING MOUNT | EXPLOSION-PROOF, C1D1 RATED, 120V: EATON #EVLEDCX2C201. |
| L2 | | 32W LED | SURFACE CEILING MOUNT | INTERIOR LED WRAP FIXTURE, 4,000 LUMEN, 4,000K CCT, 120V, LITHONIA CAT# LBL4LP840 |
| EX1 | | 69W LED | WALL MOUNT ABOVE DOOR | WALL PACK WITH PHOTOCELL; LITHONIA CSXW LED #CSXW LED-30C-700-40K-T2M-MVOLT-BBW-PE -DBLXD WITH VANDAL GUARD LITHONIA #CSXWVG |
| EX2 | | 46W | SURFACE CEILING MOUNT | LED CANOPY LIGHT, 5,443 LUMEN, 4,000K, 120V, LITHONIA CAT#DSXSC-20C-700-40K-T5W-MVOLT-DBBXD. |
| EM1 | | (2)1.5W LED | WALL MOUNT ABOVE DOOR | DAMP LOCATION EXIT SIGN AND EMERGENCY LIGHT WITH NI-CAD BATTERY; LITHONIA #LHQM-LED-R-HO. |
| EM2 | | (1)1.5W LED | WALL MOUNT ABOVE DOOR | WEATHERPROOF REMOTE EMERGENCY LAMP HEAD LITHONIA #ELA-QWP-L0309 |

CONTROL PANEL COMPONENT SCHEDULE

| ITEM | PROVIDE MATERIALS SPECIFIED (OR APPROVED EQUAL) |
|------|---|
| ① | PILOT LIGHT, 120V, LED, NEMA 4X, ALLEN BRADLEY CAT #800HC-QRH10*, WHERE * = LENS TINT AS SHOWN. |
| ② | 120V RELAY, 3PDT, 11-PIN OCTAL SOCKET MOUNT WITH MECHANICAL ON/OFF INDICATOR, ALLEN BRADLEY CAT #700-HA33A1 AND #700-HN126 SOCKET BASE. |
| ③ | PILOT LIGHT, PUSH TO TEST, 120V, LED, NEMA 4X, ALLEN BRADLEY CAT #800HC-QRTH10*, WHERE * = LENS TINT AS SHOWN. PROVIDE ADDITIONAL CONTACTS AS REQUIRED. |
| ④ | ALARM HORN, 120V, WEATHERPROOF, FEDERAL #350WB 120. |
| ⑤ | 2-POLE, 600V, 23A, IEC, OPEN TYPE CONTACTOR WITH 120V COIL, ALLEN BRADLEY CAT #100-C12D10 AND SOLID STATE, SINGLE PHASE, OVERLOAD RELAY ALLEN BRADLEY CAT #193-ES18B. PROVIDE WITH ADDITIONAL AUXILIARY AND OVERLOAD CONTACTS, AND REMOTE OVERLOAD RESET ALLEN BRADLEY CAT #193-ER1D AS REQUIRED. |
| ⑥ | NORMALLY OPEN PUSHBUTTON, 120V, 10A, NEMA 4X, ALLEN BRADLEY CAT #800HC-AR2D1. PROVIDE ADDITIONAL CONTACT BLOCKS AS REQUIRED. |
| ⑦ | ALARM LIGHT, 120V, FEDERAL ELECTRA FLASH #141ST-120R W/ RED LEXAN DOME. |
| ⑧ | 120V, 10A, N.C., NEMA 4X, MUSHROOM HEAD PUSHBUTTON W/ MAINTAINED PUSH-PULL OPERATION, ALLEN BRADLEY CAT#800HC-TFRXT. PROVIDE W/ RED 'EMERGENCY SHUTDOWN' LEGEND PLATE AND CONTACTS AS REQUIRED. |
| ⑨ | 120V, PANEL HEATER W/ INTEGRAL THERMOSTAT WATTAGE AS REQUIRED, HOFFMAN SERIES #DAH. |
| ⑩ | METAL OXIDE VARISTOR, GE PART # V130LA10A. |
| ⑪ | NORMALLY CLOSED PUSHBUTTON, 120V, 10A, NEMA 4X, ALLEN BRADLEY CAT #800HC-AR6D2. PROVIDE ADDITIONAL CONTACT BLOCKS AS REQUIRED. |
| ⑫ | DOOR MOUNTED DISCONNECT SWITCH, 240V, 60A, 3-POLE W/ PADLOCK PROVISION, ALLEN BRADLEY CAT#194RF-NN060R24E |
| ⑬ | 2-POSITION SELECTOR SWITCH, 120V, NEMA 4X, ALLEN BRADLEY CAT #800HC-HR2A. PROVIDE CONTACTS BLOCKS AS REQUIRED. |
| ⑭ | NEMA 4X, NON-METALLIC ENCLOSURE WITH REMOVABLE STEEL BACK PANEL, INNER DEAD-FRONT HINGED DOOR AND OUTER DOOR. SIZE AS REQUIRED. PROVIDE SWING OUT PANEL KIT. HOFFMAN OR EQUAL. |
| ⑮ | MINIATURE CIRCUIT BREAKER, 240V, AMPERE RATING AND NUMBER OF POLES AS SHOWN, DIN RAIL MOUNTED W/BOX LUGS, SQUARE D MULTI 9 C60N CLASS 860 SERIES |
| ⑯ | ADJUSTABLE TIME DELAY RELAY, 1.0-100 MINUTE ON DELAY, 120V, DPDT, ALLEN BRADLEY CAT#700-HT12DU120. SET FOR 100 MINUTE TIME DELAY. |
| ⑰ | POWER DISTRIBUTION BLOCK, 600V, 335A, 3-POLE. ALLEN BRADLEY CAT#1492-PD3163. |
| ⑱ | 120V, LED PANEL LIGHT HOFFMAN CAT# EL1200MS-US. |

| REVISIONS | MARK | DATE | DESCRIPTION |
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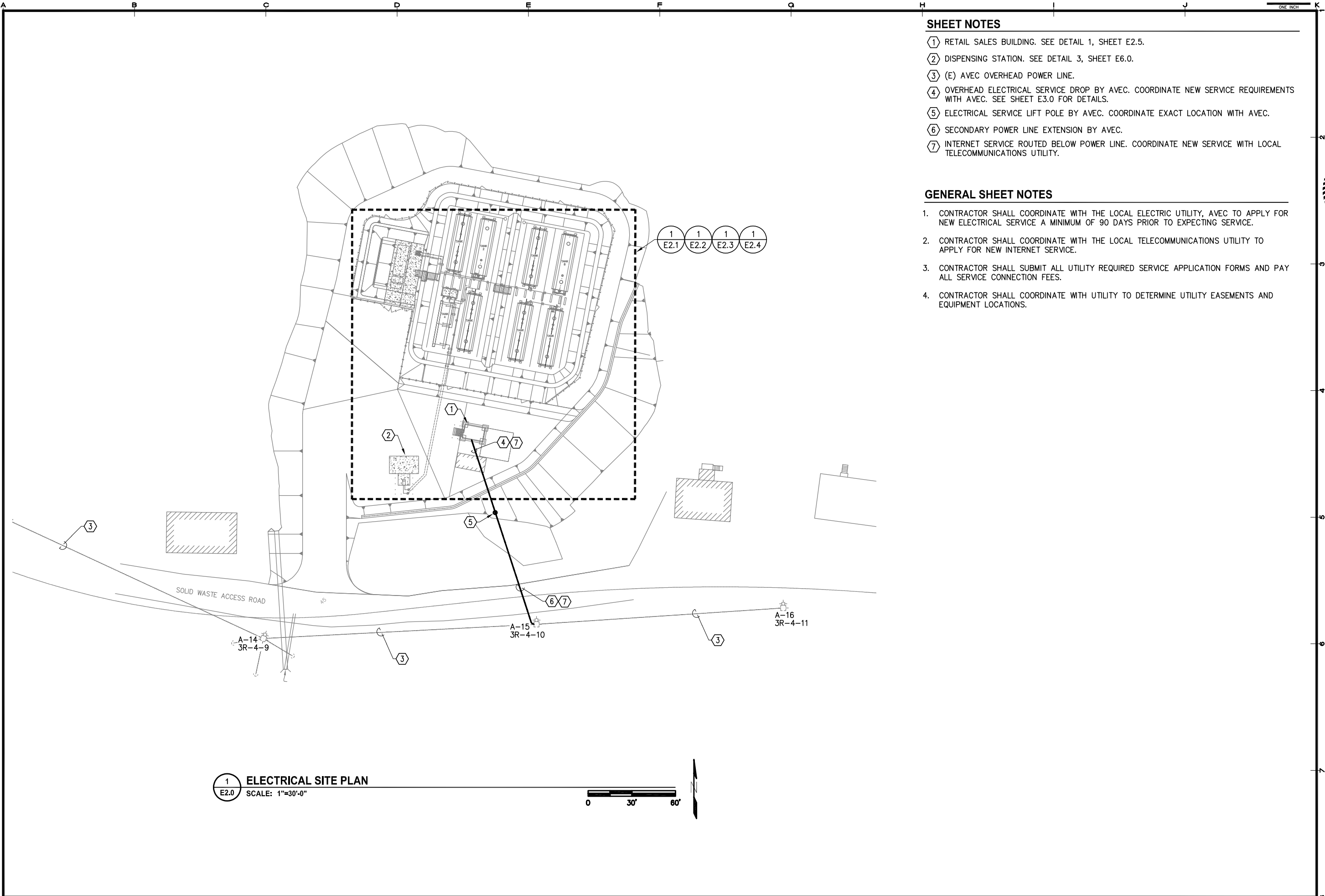


SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

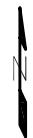
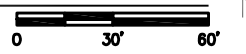
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|--|--------------------|
| SHEET TITLE ELECTRICAL LEGENDS, ABBREVIATIONS AND SCHEDULES | |
| SHEET E1.0 | |
| DRAWN BY: OM | CHECKED BY: CW |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

DRAWING LOCATION
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DATE TIME
 2/3/2022 8:51 AM



1 ELECTRICAL SITE PLAN
 E2.0 SCALE: 1"=30'-0"



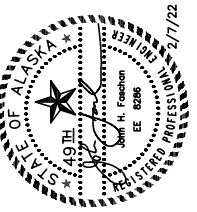
SHEET NOTES

- ① RETAIL SALES BUILDING. SEE DETAIL 1, SHEET E2.5.
- ② DISPENSING STATION. SEE DETAIL 3, SHEET E6.0.
- ③ (E) AVEC OVERHEAD POWER LINE.
- ④ OVERHEAD ELECTRICAL SERVICE DROP BY AVEC. COORDINATE NEW SERVICE REQUIREMENTS WITH AVEC. SEE SHEET E3.0 FOR DETAILS.
- ⑤ ELECTRICAL SERVICE LIFT POLE BY AVEC. COORDINATE EXACT LOCATION WITH AVEC.
- ⑥ SECONDARY POWER LINE EXTENSION BY AVEC.
- ⑦ INTERNET SERVICE ROUTED BELOW POWER LINE. COORDINATE NEW SERVICE WITH LOCAL TELECOMMUNICATIONS UTILITY.

GENERAL SHEET NOTES

- 1. CONTRACTOR SHALL COORDINATE WITH THE LOCAL ELECTRIC UTILITY, AVEC FOR NEW ELECTRICAL SERVICE A MINIMUM OF 90 DAYS PRIOR TO EXPECTING SERVICE.
- 2. CONTRACTOR SHALL COORDINATE WITH THE LOCAL TELECOMMUNICATIONS UTILITY TO APPLY FOR NEW INTERNET SERVICE.
- 3. CONTRACTOR SHALL SUBMIT ALL UTILITY REQUIRED SERVICE APPLICATION FORMS AND PAY ALL SERVICE CONNECTION FEES.
- 4. CONTRACTOR SHALL COORDINATE WITH UTILITY TO DETERMINE UTILITY EASEMENTS AND EQUIPMENT LOCATIONS.

| REVISIONS | MARK | DATE | DESCRIPTION |
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 LICENSE NO. AECCT05

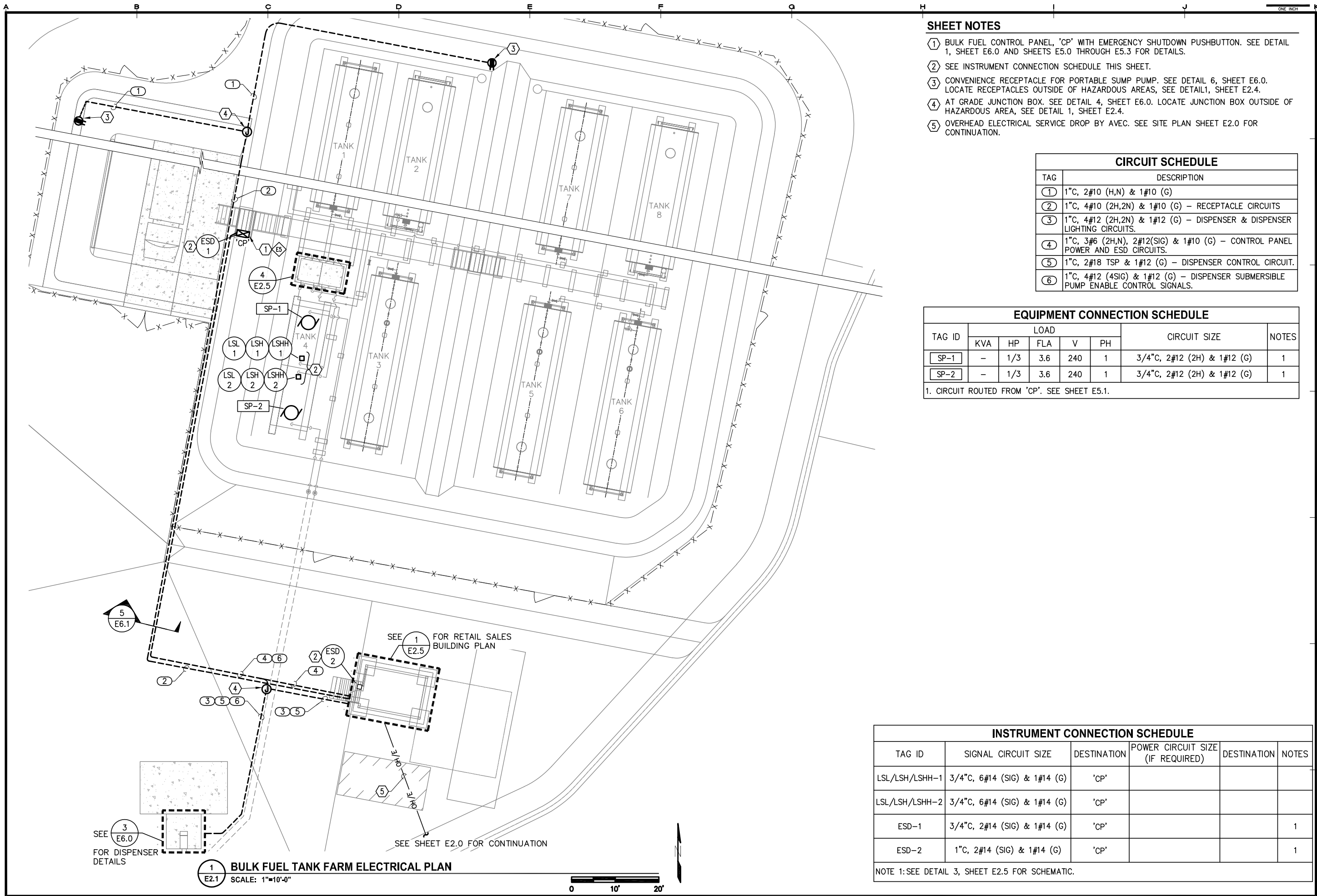


SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
 SCAMMON BAY, ALASKA

| | |
|-------------------------------------|--------------------|
| SHEET TITLE ELECTRICAL SITE PLAN | |
| SHEET E2.0 | |
| DRAWN BY: OM | CHECKED BY: CW |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

DATE TIME
2/7/2022 9:26 AM

DRAWING LOCATION
p:\Projects\HOL\scammon bay fuel\Drawings\Elect\E2.1 BULK FUEL TANK FARM ELECTRICAL PLAN.dwg



SHEET NOTES

- ① BULK FUEL CONTROL PANEL, 'CP' WITH EMERGENCY SHUTDOWN PUSHBUTTON. SEE DETAIL 1, SHEET E6.0 AND SHEETS E5.0 THROUGH E5.3 FOR DETAILS.
- ② SEE INSTRUMENT CONNECTION SCHEDULE THIS SHEET.
- ③ CONVENIENCE RECEPTACLE FOR PORTABLE SUMP PUMP. SEE DETAIL 6, SHEET E6.0. LOCATE RECEPTACLES OUTSIDE OF HAZARDOUS AREAS, SEE DETAIL1, SHEET E2.4.
- ④ AT GRADE JUNCTION BOX. SEE DETAIL 4, SHEET E6.0. LOCATE JUNCTION BOX OUTSIDE OF HAZARDOUS AREA, SEE DETAIL 1, SHEET E2.4.
- ⑤ OVERHEAD ELECTRICAL SERVICE DROP BY AVEC. SEE SITE PLAN SHEET E2.0 FOR CONTINUATION.

| CIRCUIT SCHEDULE | |
|------------------|---|
| TAG | DESCRIPTION |
| ① | 1" C, 2#10 (H,N) & 1#10 (G) |
| ② | 1" C, 4#10 (2H,2N) & 1#10 (G) - RECEPTACLE CIRCUITS |
| ③ | 1" C, 4#12 (2H,2N) & 1#12 (G) - DISPENSER & DISPENSER LIGHTING CIRCUITS. |
| ④ | 1" C, 3#6 (2H,N), 2#12(SIG) & 1#10 (G) - CONTROL PANEL POWER AND ESD CIRCUITS. |
| ⑤ | 1" C, 2#18 TSP & 1#12 (G) - DISPENSER CONTROL CIRCUIT. |
| ⑥ | 1" C, 4#12 (4SIG) & 1#12 (G) - DISPENSER SUBMERSIBLE PUMP ENABLE CONTROL SIGNALS. |

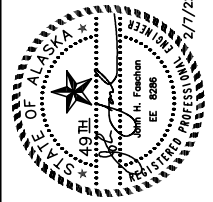
| EQUIPMENT CONNECTION SCHEDULE | | | | | | | |
|-------------------------------|------|-----|-----|-----|----|------------------------------|-------|
| TAG ID | LOAD | | | | | CIRCUIT SIZE | NOTES |
| | KVA | HP | FLA | V | PH | | |
| SP-1 | - | 1/3 | 3.6 | 240 | 1 | 3/4" C, 2#12 (2H) & 1#12 (G) | 1 |
| SP-2 | - | 1/3 | 3.6 | 240 | 1 | 3/4" C, 2#12 (2H) & 1#12 (G) | 1 |

1. CIRCUIT ROUTED FROM 'CP'. SEE SHEET E5.1.

| INSTRUMENT CONNECTION SCHEDULE | | | | | |
|--------------------------------|-------------------------------|-------------|----------------------------------|-------------|-------|
| TAG ID | SIGNAL CIRCUIT SIZE | DESTINATION | POWER CIRCUIT SIZE (IF REQUIRED) | DESTINATION | NOTES |
| LSL/LSH/LSHH-1 | 3/4" C, 6#14 (SIG) & 1#14 (G) | 'CP' | | | |
| LSL/LSH/LSHH-2 | 3/4" C, 6#14 (SIG) & 1#14 (G) | 'CP' | | | |
| ESD-1 | 3/4" C, 2#14 (SIG) & 1#14 (G) | 'CP' | | | 1 |
| ESD-2 | 1" C, 2#14 (SIG) & 1#14 (G) | 'CP' | | | 1 |

NOTE 1: SEE DETAIL 3, SHEET E2.5 FOR SCHEMATIC.

| REVISIONS | MARK | DATE | DESCRIPTION |
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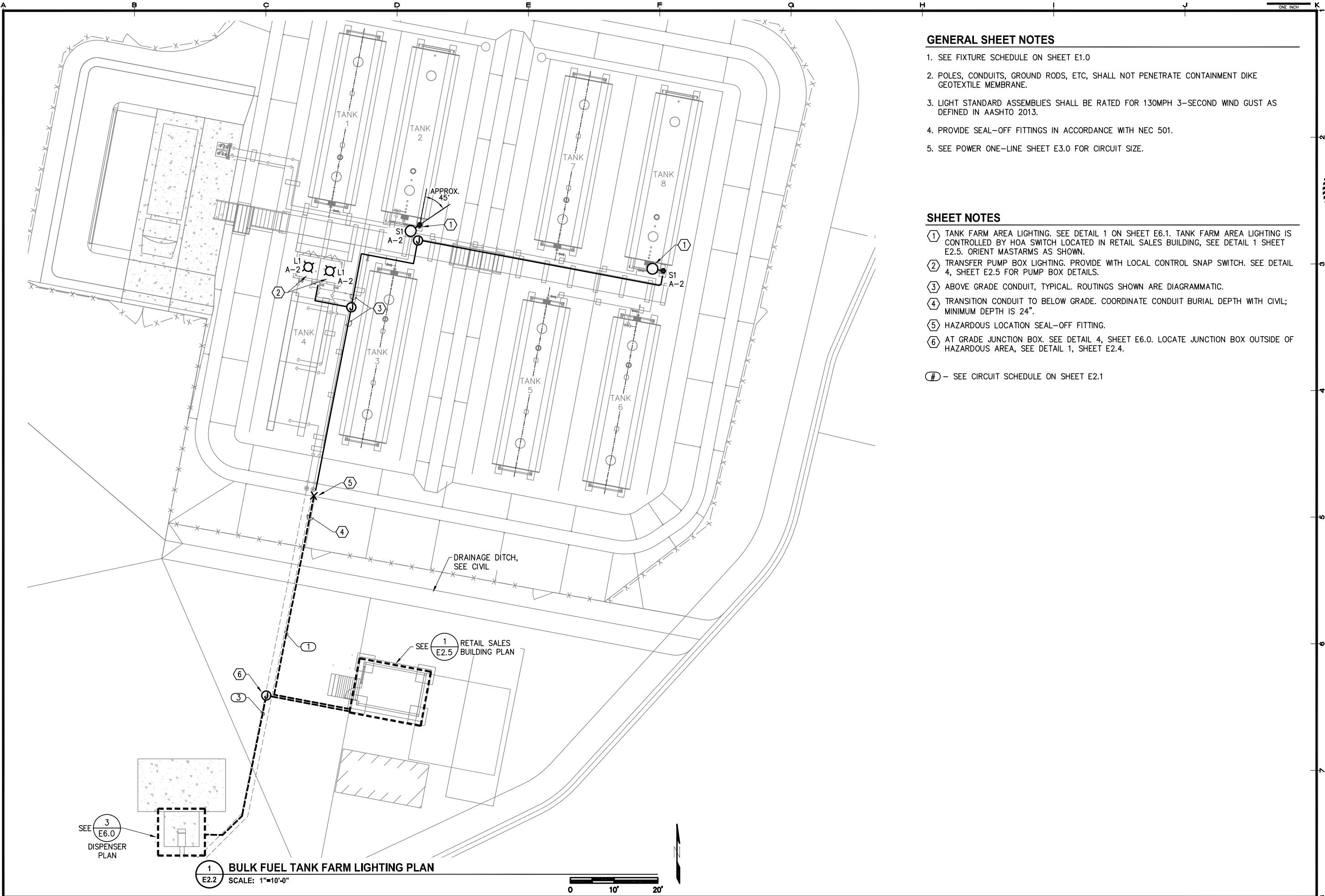
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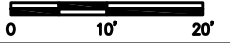
SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

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| SHEET TITLE BULK FUEL TANK FARM ELECTRICAL PLAN | |
| SHEET E2.1 | |
| DRAWN BY: OM | CHECKED BY: CW |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

DRAWING LOCATION: p:\Projects\HOL\scammon bay bulk fuel\Drawings\E1\E2.2 BULK FUEL TANK FARM LIGHTING PLAN.dwg
DATE/TIME: 2/7/2022 2:43 PM



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E2.2 BULK FUEL TANK FARM LIGHTING PLAN
SCALE: 1"=10'-0"



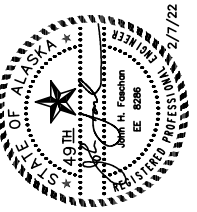
GENERAL SHEET NOTES

1. SEE FIXTURE SCHEDULE ON SHEET E1.0
2. POLES, CONDUITS, GROUND RODS, ETC, SHALL NOT PENETRATE CONTAINMENT DIKE GEOTEXTILE MEMBRANE.
3. LIGHT STANDARD ASSEMBLIES SHALL BE RATED FOR 130MPH 3-SECOND WIND GUST AS DEFINED IN AASHTO 2013.
4. PROVIDE SEAL-OFF FITTINGS IN ACCORDANCE WITH NEC 501.
5. SEE POWER ONE-LINE SHEET E3.0 FOR CIRCUIT SIZE.

SHEET NOTES

- ① TANK FARM AREA LIGHTING. SEE DETAIL 1 ON SHEET E6.1. TANK FARM AREA LIGHTING IS CONTROLLED BY HOA SWITCH LOCATED IN RETAIL SALES BUILDING, SEE DETAIL 1 SHEET E2.5. ORIENT MASTARMS AS SHOWN.
 - ② TRANSFER PUMP BOX LIGHTING. PROVIDE WITH LOCAL CONTROL SNAP SWITCH. SEE DETAIL 4, SHEET E2.5 FOR PUMP BOX DETAILS.
 - ③ ABOVE GRADE CONDUIT, TYPICAL. ROUTINGS SHOWN ARE DIAGRAMMATIC.
 - ④ TRANSITION CONDUIT TO BELOW GRADE. COORDINATE CONDUIT BURIAL DEPTH WITH CIVIL; MINIMUM DEPTH IS 24".
 - ⑤ HAZARDOUS LOCATION SEAL-OFF FITTING.
 - ⑥ AT GRADE JUNCTION BOX. SEE DETAIL 4, SHEET E6.0. LOCATE JUNCTION BOX OUTSIDE OF HAZARDOUS AREA, SEE DETAIL 1, SHEET E2.4.
- # - SEE CIRCUIT SCHEDULE ON SHEET E2.1

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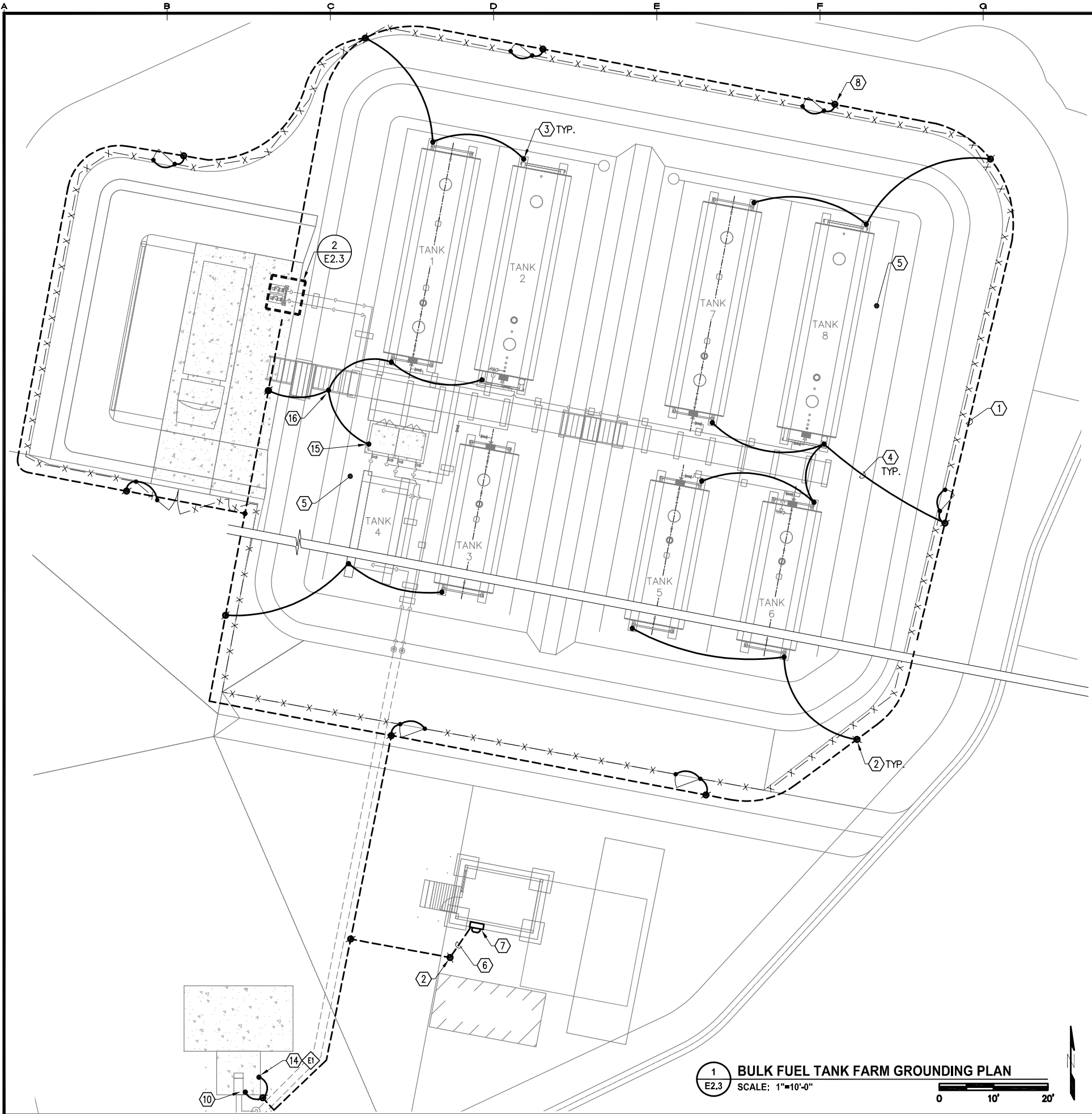
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ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

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| SHEET TITLE BULK FUEL TANK FARM LIGHTING PLAN | |
| SHEET E2.2 | |
| DRAWN BY: OM | CHECKED BY: CW |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

DRAWING LOCATION: p:\Projects\HOL\scammon bay bulk fuel\Drawings\E2.3 BULK FUEL TANK FARM GROUNDING PLAN.dwg
DATE TIME: 2/1/2022 8:56 PM



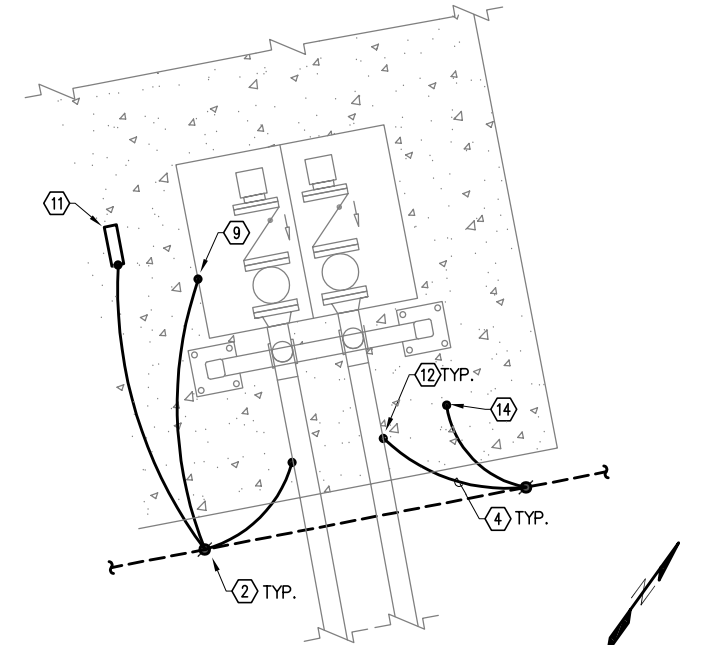
1 BULK FUEL TANK FARM GROUNDING PLAN
E2.3 SCALE: 1"=10'-0"

SHEET NOTES

- ① GROUND RING: #2 BCU 30" MIN. BURIAL DEPTH.
- ② GROUNDING ELECTRODE: 3/4"x10' CU CLAD STEEL GROUND ROD, 12" MINIMUM DEPTH TO TOP OF ROD, (TYP.). SEE DETAIL 3 SHEET E6.1.
- ③ BOND TO EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS (TYP.).
- ④ BONDING JUMPER: #6 BCU MIN (TYP.). WHERE EQUIPMENT IS SUBJECT TO MOVEMENT, SUCH AS SWINGING GATES, BONDING JUMPER SHALL BE FLEXIBLE CU BRAID EQUIVALENT TO #2 AWG CU FOR INCREASED MECHANICAL STRENGTH.
- ⑤ LINED GRAVEL CONTAINMENT AREA. DO NOT DISTURB LINER. SEE CIVIL.
- ⑥ GROUNDING ELECTRODE CONDUCTOR: #4 BCU MIN.
- ⑦ ELECTRICAL SERVICE METER/MAIN.
- ⑧ BOND FENCING TO GROUNDING ELECTRODE SYSTEM (GES). SEE DETAIL 2 ON SHEET E6.1 (TYP.).
- ⑨ STEEL DRIP PAN. BOND TO GES.
- ⑩ DISPENSER BUILDING. BOND DISPENSER AND ASSOCIATED EQUIPMENT TO THE GES PER MANUFACTURER'S INSTRUCTIONS.
- ⑪ STATIC GROUNDING REEL. BOND TO GES.
- ⑫ BOND FUEL PIPING TO GROUND AT TACK WELD LOCATION; SEE CIVIL. SEE SHEET NOTE 13 FOR ADDITIONAL REQUIREMENTS.
- ⑬ BOND ALL FUEL PIPING TO GES IN ACCORDANCE WITH NEC ARTICLE 250.104(B)(5) IN ADDITION TO NEC ARTICLE 250.104(B)(1). BONDS TO PIPING SHALL BE PER PIPE MANUFACTURER'S REQUIREMENTS; COAT WITH SUITABLE CORROSION INHIBITOR AFTER BOND HAS BEEN MADE. FOR PURPOSES OF CLARITY, NOT ALL BONDS ARE SHOWN.
- ⑭ BOND TO REBAR IN CONCRETE PAD W/ #4 BCU.
- ⑮ BOND TO TRANSFER PUMP BOX.
- ⑯ BOND TO STAIRS.

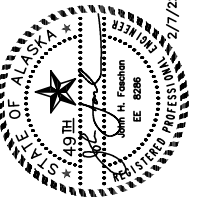
GROUNDING GENERAL NOTES

- 1. ALL GROUNDING AND BONDING CONNECTIONS SHALL BE OF THE EXOTHERMIC WELD TYPE, UNLESS OTHERWISE NOTED.
- 2. ALL METALLIC PARTS AND STRUCTURES SHALL BE BONDED TO EARTH GROUND. WHERE ELECTRICAL CONTINUITY BETWEEN PARTS IS INTERRUPTED DUE TO INSULATED FITTINGS OR POOR CONNECTION, PROVIDE BONDING JUMPERS. ALL LOCATIONS OF FENCING DISCONTINUITY SHALL BE JUMPED WITH #6 BCU.
- 3. BOND GAS PIPING TO GROUNDING SYSTEMS. GAS PIPING SHALL NOT BE USED AS A GROUNDING ELECTRODE IN ACCORDANCE WITH NEC.
- 4. WHERE BOLTED CONNECTIONS ARE UTILIZED A FLAT AND A LOCK WASHER SHALL BE INSTALLED BELOW THE NUT. ALL HARDWARE SHALL BE HOT DIP GALVANIZED UNLESS OTHERWISE NOTED.



2 BULK FUEL TRANSFER STATION GROUNDING DETAIL
E2.3 SCALE: NTS

| REVISIONS MARK | DATE | DESCRIPTION |
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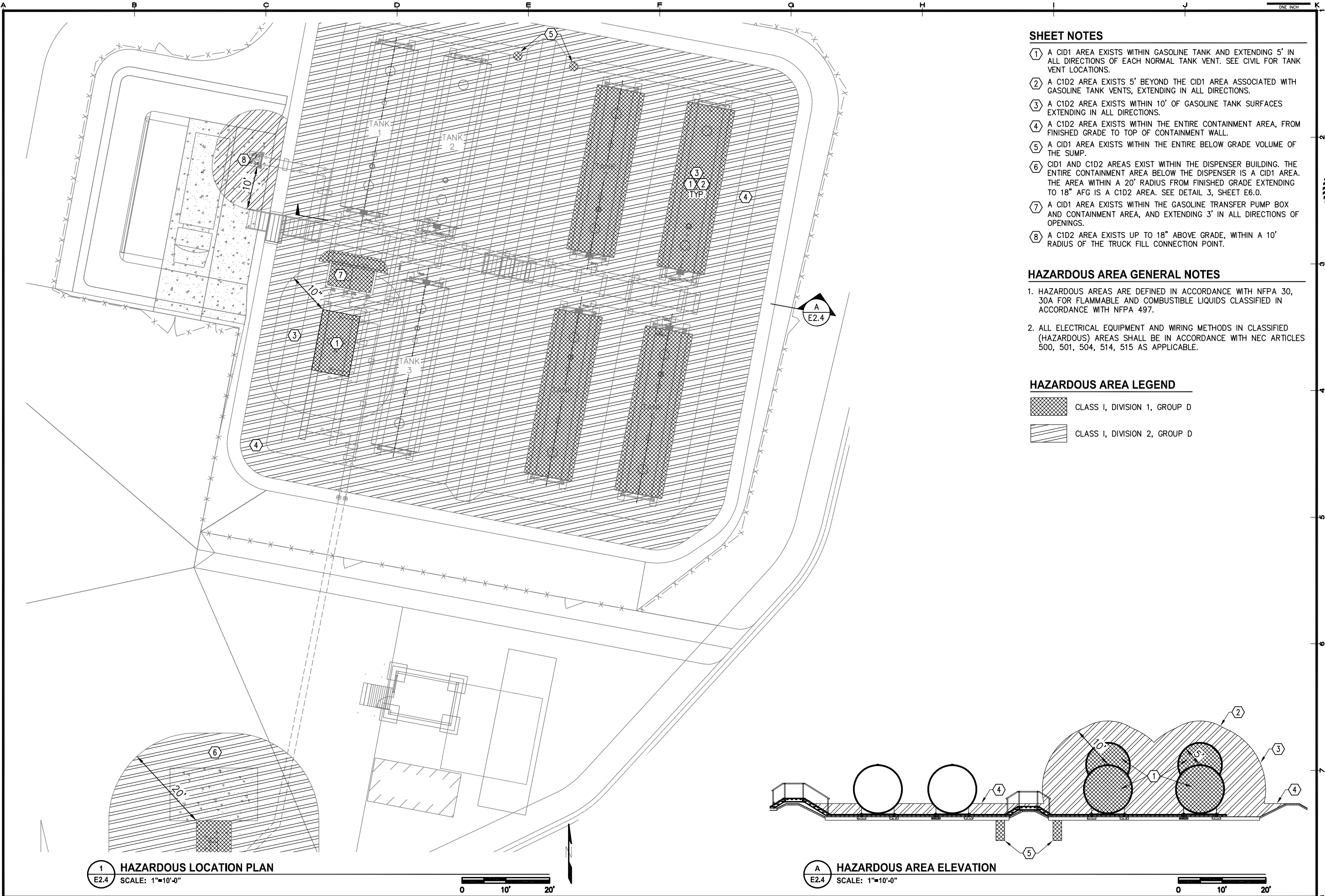
SCAMMON BAY BULK FUEL UPGRADES

ALASKA ENERGY AUTHORITY

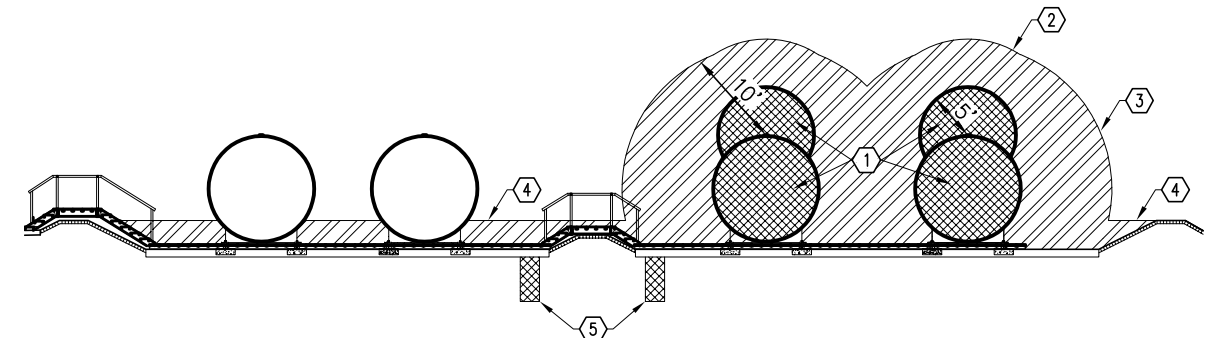
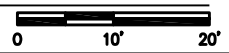
SCAMMON BAY, ALASKA

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| SHEET TITLE BULK FUEL TANK FARM GROUNDING PLAN | |
| SHEET E2.3 | |
| DRAWN BY: OM | CHECKED BY: CW |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

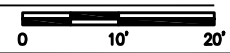
DATE TIME 2/1/2022 8:56 PM
 DRAWING LOCATION p:\Projects\HOL\scammon bay bulk fuel\Design\elec\E2.4 HAZARDOUS LOCATION PLAN.dwg



1 HAZARDOUS LOCATION PLAN
 E2.4 SCALE: 1"=10'-0"



A HAZARDOUS AREA ELEVATION
 E2.4 SCALE: 1"=10'-0"



SHEET NOTES

- ① A CID1 AREA EXISTS WITHIN GASOLINE TANK AND EXTENDING 5' IN ALL DIRECTIONS OF EACH NORMAL TANK VENT. SEE CIVIL FOR TANK VENT LOCATIONS.
- ② A CID2 AREA EXISTS 5' BEYOND THE CID1 AREA ASSOCIATED WITH GASOLINE TANK VENTS, EXTENDING IN ALL DIRECTIONS.
- ③ A CID2 AREA EXISTS WITHIN 10' OF GASOLINE TANK SURFACES EXTENDING IN ALL DIRECTIONS.
- ④ A CID2 AREA EXISTS WITHIN THE ENTIRE CONTAINMENT AREA, FROM FINISHED GRADE TO TOP OF CONTAINMENT WALL.
- ⑤ A CID1 AREA EXISTS WITHIN THE ENTIRE BELOW GRADE VOLUME OF THE SUMP.
- ⑥ CID1 AND CID2 AREAS EXIST WITHIN THE DISPENSER BUILDING. THE ENTIRE CONTAINMENT AREA BELOW THE DISPENSER IS A CID1 AREA. THE AREA WITHIN A 20' RADIUS FROM FINISHED GRADE EXTENDING TO 18" AFG IS A CID2 AREA. SEE DETAIL 3, SHEET E6.0.
- ⑦ A CID1 AREA EXISTS WITHIN THE GASOLINE TRANSFER PUMP BOX AND CONTAINMENT AREA, AND EXTENDING 3' IN ALL DIRECTIONS OF OPENINGS.
- ⑧ A CID2 AREA EXISTS UP TO 18" ABOVE GRADE, WITHIN A 10' RADIUS OF THE TRUCK FILL CONNECTION POINT.

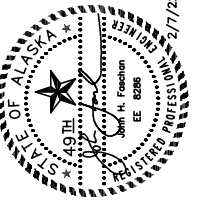
HAZARDOUS AREA GENERAL NOTES

1. HAZARDOUS AREAS ARE DEFINED IN ACCORDANCE WITH NFPA 30, 30A FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS CLASSIFIED IN ACCORDANCE WITH NFPA 497.
2. ALL ELECTRICAL EQUIPMENT AND WIRING METHODS IN CLASSIFIED (HAZARDOUS) AREAS SHALL BE IN ACCORDANCE WITH NEC ARTICLES 500, 501, 504, 514, 515 AS APPLICABLE.

HAZARDOUS AREA LEGEND

- CLASS I, DIVISION 1, GROUP D
- CLASS I, DIVISION 2, GROUP D

| REVISIONS | MARK | DATE | DESCRIPTION |
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| | | | |



EDC, INC.
 213 W. FIREWEED LANE
 ANCHORAGE, AK 99503
 (907) 276-7883
 LICENSE NO. AECCT05

SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
 SCAMMON BAY, ALASKA

| | |
|--|--------------------|
| SHEET TITLE HAZARDOUS LOCATION PLAN | |
| SHEET E2.4 | |
| DRAWN BY: OM | CHECKED BY: CW |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

DRAWING LOCATION: p:\Projects\HOL\scammon bay\bulk fuel\Drawings\E1\E2.5 SALES BUILDING AND TRANSFER PUMP ENCLOSURE ELECTRICAL PLAN.dwg
DATE TIME: 2/7/2022 1:20 PM

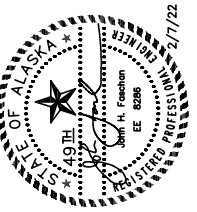
GENERAL SHEET NOTES

- 1. SEE FIXTURE SCHEDULE ON SHEET E1.0.

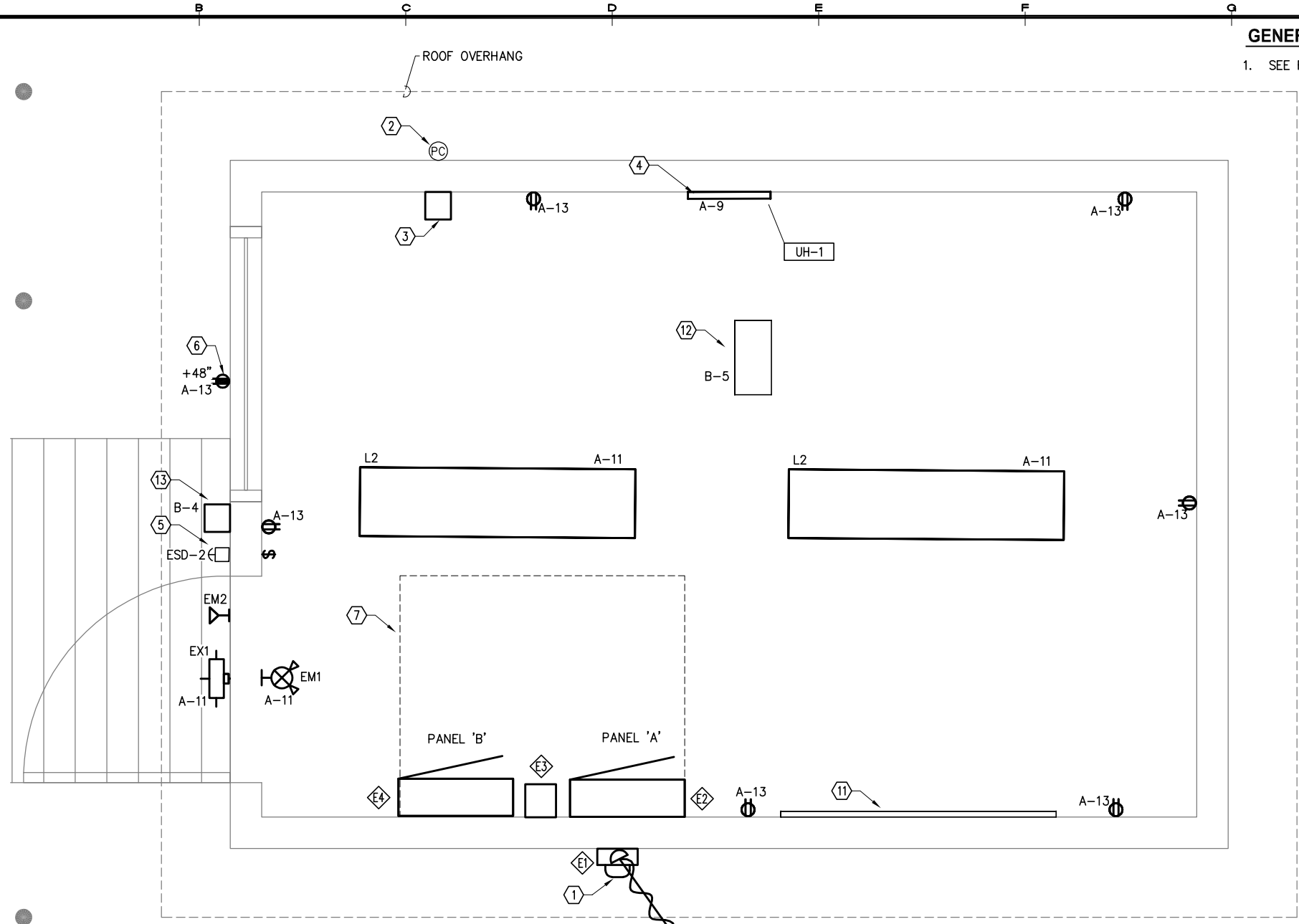
SHEET NOTES

- ① OVERHEAD SERVICE DROP BY AVEC, AND ELECTRICAL SERVICE EQUIPMENT, SEE DETAIL 2, SHEET E6.0.
 - ② PHOTOCELL, 1800VA, 120V RATED FOR AREA LIGHTING CONTROL, INTERMATIC #K4121M OR EQUAL. INSTALL ABOVE ROOF AND AIM NORTH.
 - ③ LIGHTING CONTROL, 20A, 120V, NEMA 4X, 30mm HAND-OFF-AUTO SWITCH AND PILOT LIGHT IN NEMA 1 ENCLOSURE. SEE DETAIL 2, THIS SHEET.
 - ④ 1.5kW, 120V, ELECTRIC HEATER WITH INTEGRAL THERMOSTAT (OR LINE VOLTAGE THERMOSTAT, KING MODEL K101 OR EQUAL), KING MODEL PX1215-WD-R OR EQUAL.
 - ⑤ EMERGENCY SHUTDOWN PUSHBUTTON, RED, MUSHROOM HEAD, NEMA 4X, PUSH-PULL TYPE. SEE SCHEMATIC, DETAIL 3, THIS SHEET.
 - ⑥ EXTERIOR GFI RECEPTACLE. PROVIDE WITH WEATHER-PROOF, METALLIC WHILE-IN-USE COVER, TAYMAC OR EQUAL.
 - ⑦ PROVIDE FLOOR MARKINGS INDICATING REQUIRED ELECTRICAL CLEAR SPACE PER NEC 110.26, 30" WIDE BY 36" DEPTH.
 - ⑧ CLASS 1, DIV. 1 RATED FACTORY SEALED DISCONNECT SWITCH FOR TRANSFER PUMP.
 - ⑨ CLASS 1, DIV. 1 RATED FACTORY SEALED DISCONNECT SWITCH FOR CONTROL OF INTERIOR LIGHT.
 - ⑩ SEE DETAIL 5, SHEET E6.0 FOR TYPICAL PUMP BOX LAYOUT.
 - ⑪ 4'x 8' PLYWOOD BACKBOARD FOR MOUNTING TELECOMMUNICATIONS EQUIPMENT FOR THE INTERNET SERVICE INCLUDING ROUTER, NETWORK SWITCH, SURGE PROTECTION.
 - ⑫ POINT-OF-SALE SYSTEM, CREDIT CARD READER AND RECEIPT PRINTER. LOCATE ON OWNER PROVIDED DESK.
 - ⑬ CREDIT CARD READER AND RECEIPT PRINTER IN NEMA 3R ENCLOSURE. IDENTIFY ENCLOSURE WITH 'DISPENSER CREDIT CARD READER' PLACARD.
- ⚡ SEE SHEET E3.0 FOR ELECTRICAL EQUIPMENT SCHEDULE

| REVISIONS | MARK | DATE | DESCRIPTION |
|-----------|------|------|-------------|
| | | | |



SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

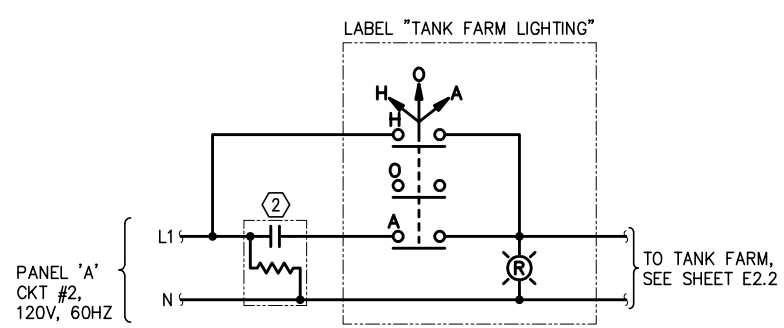
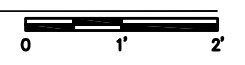


EQUIPMENT CONNECTION SCHEDULE

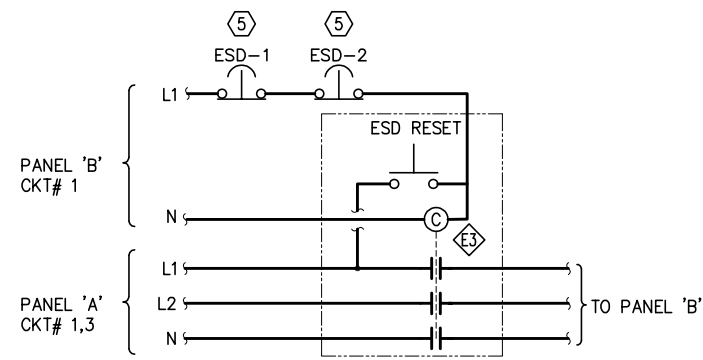
| TAG ID | LOAD | | | | | CIRCUIT SIZE | NOTES |
|--------|------|-----|------|-----|----|-----------------------------------|-------|
| | KVA | HP | FLA | V | PH | | |
| TP-1 | - | 1.0 | 8.0 | 240 | 1 | 3/4"C, 2#12 (2H) & 1#12 (G) | 1 |
| TP-2 | - | 1.0 | 8.0 | 240 | 1 | 3/4"C, 2#12 (2H) & 1#12 (G) | 1 |
| MOV-1 | - | - | 1.2 | 120 | 1 | 3/4"C, 5#12 (H,N,3SIG) & 1#12 (G) | 1 |
| MOV-2 | - | - | 1.2 | 120 | 1 | 3/4"C, 5#12 (H,N,3SIG) & 1#12 (G) | 1 |
| UH-1 | 1.5 | - | 12.5 | 120 | 1 | 3/4"C, 2#12 (H,N) & 1#12 (G) | |

1. CIRCUIT Routed FROM 'CP'. SEE SHEET E5.1.

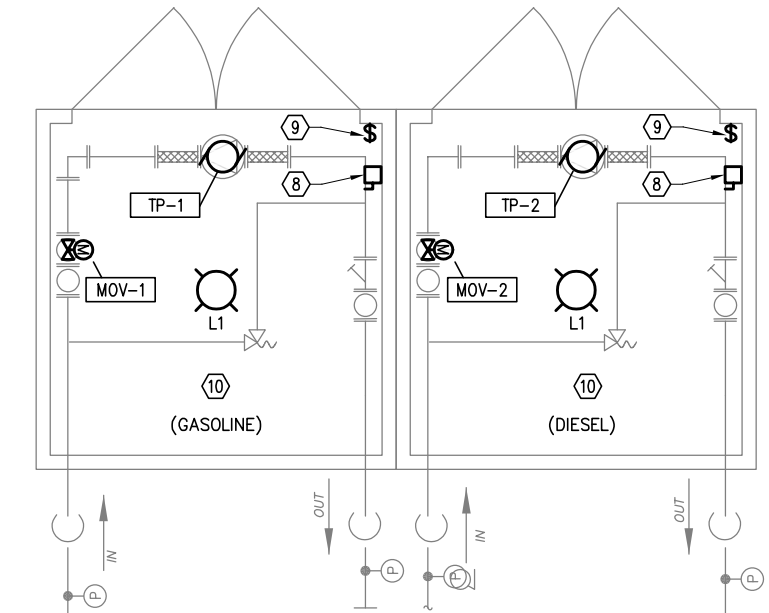
1 RETAIL SALES BUILDING ELECTRICAL PLAN
E2.5 SCALE: 1" = 1'-0"



3 EMERGENCY SHUTDOWN CONTACTOR SCHEMATIC
E2.5 SCALE:



4 TRANSFER PUMP BOX PLAN
E2.5 SCALE: NTS

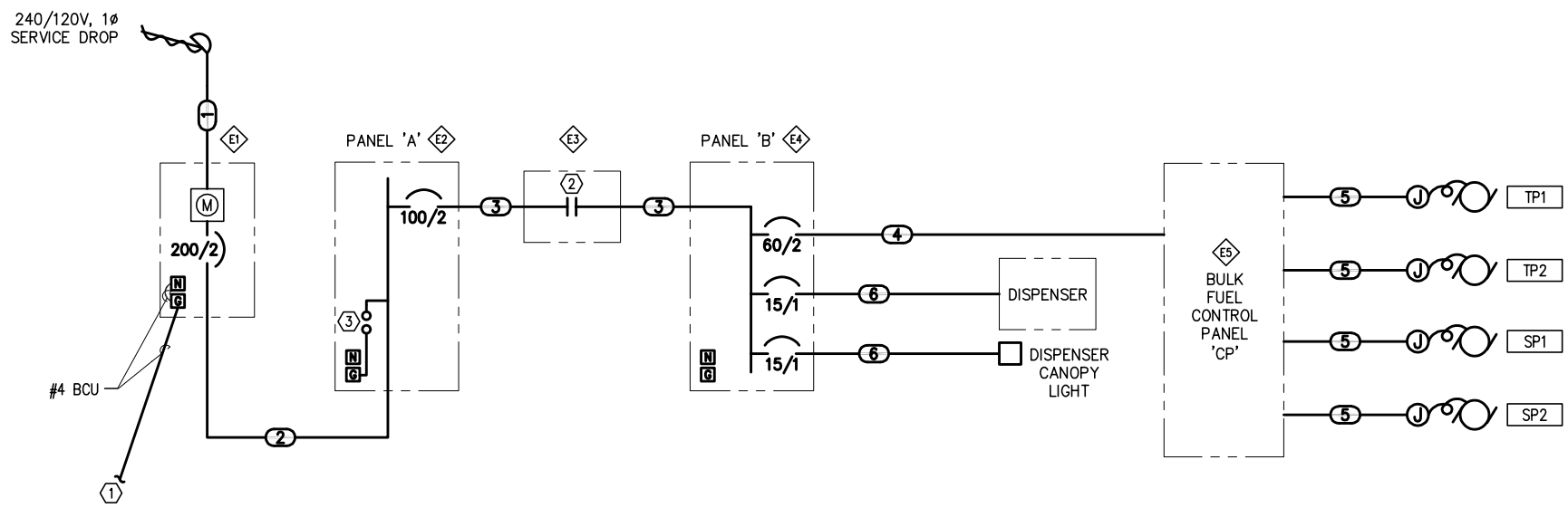


SHEET TITLE: SALES BUILDING AND TRANSFER PUMP ENCLOSURE ELECTRICAL PLANS

SHEET: E2.5

| | |
|--------------------|-----------------|
| DRAWN BY: OM | CHECKED BY: CW |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

DRAWING LOCATION: p:\Projects\HOL\scammon bay bulk fuel\Drawings\E3.0 BULK FUEL TANK FARM POWER ONE-LINE DIAGRAM & PANEL SCHEDULE.dwg DATE TIME: 1/4/2022 1:51 PM



1 POWER ONE-LINE DIAGRAM
E1.0 SCALE: NTS

SHEET NOTES

- ① PROVIDE CONNECTION TO GROUNDING ELECTRODE SYSTEM (GES). SEE TANK FARM GROUNDING PLAN ON E2.3.
- ② EMERGENCY SHUTDOWN CONTACTOR. SEE SCHEMATIC, DETAIL 3 ON E2.5.
- ③ 120/240V, SINGLE-PHASE, 3WIRE, 120KA SURGE PROTECTOR.

| CIRCUIT SCHEDULE | |
|------------------|--------------------------------|
| TAG | DESCRIPTION |
| ① | 2" C, 3#3/0 (2H,N) |
| ② | 2" C, 3#3/0 (2H,N) & 1#6 (G) |
| ③ | 1-1/2" C, 3#2 (2H,N) & 1#8 (G) |
| ④ | 1" C, 3#6 (2H,N) & 1#10 (G) |
| ⑤ | 3/4" C, 2#12 (2H) & 1#12 (G) |
| ⑥ | 3/4" C, 2#12 (H,N) & 1#12 (G) |

| ELECTRICAL EQUIPMENT SCHEDULE | | |
|-------------------------------|---|-----------------------|
| ITEM NO. | DESCRIPTION | MANUFACTURER OR EQUAL |
| E1 | 200A, 240/120V, 1φ, NEMA 3R, 4-JAW, RING TYPE METER/MAIN. | B-LINE CAT# 2M2R |
| E2 | 225A, 240/120V, 1φ, NEMA 1, 30-SPACE PANELBOARD W/ INTERNALLY MOUNTED 120KA SURGE PROTECTOR. | SQUARE D CAT# NQ30L2C |
| E3 | 100A, 240V, 3-POLE, NEMA 1, CONTACTOR. | SQUARE D CAT# SFG2V02 |
| E4 | 100A, 240/120V, 1φ, NEMA 1, 18-SPACE PANELBOARD. | SQUARE D CAT #NQ18L1C |
| E5 | BULK FUEL CONTROL PANEL, SIZE AS REQUIRED. SEE E5.0 FOR LAYOUT, AND E5.1 THROUGH E5.3 FOR SCHEMATICS. | |

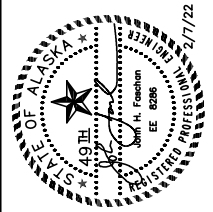
| PANEL 'A' SCHEDULE | | | | | | | | | | A.I.C. RATING: 10,000 | |
|---------------------------------|-------|----------------------|------|------|-----|---|------|-----|-----------------------|-----------------------|-----|
| BUS: 225A | | | | | | | | | | ENCLOSURE: NEMA 1 | |
| MAIN: 200A MCB | | | | | | | | | | MOUNTING: SURFACE | |
| LOCATION: RETAIL SALES BUILDING | | | | | | | | | | | |
| CKT | AMP | LOAD DESCRIPTION | KVA | LOAD | A | B | LOAD | KVA | LOAD DESCRIPTION | AMP | CKT |
| 1 | 100/2 | PANEL 'B' | 6.6 | F | 6.9 | | L | 0.3 | BULK FUEL FARM LIGHTS | 20/1 | 2 |
| 3 | | | 5.1 | F | 5.1 | | S | 0.0 | SPARE | 20/1 | 4 |
| 5 | 20/1 | SUMP PUMP RECEPTACLE | 1.9 | R | 1.9 | | S | 0.0 | SPARE | 20/1 | 6 |
| 7 | 20/1 | SUMP PUMP RECEPTACLE | 1.9 | R | 1.9 | | S | 0.0 | SPARE | 20/1 | 8 |
| 9 | 20/1 | BUILDING HEATER | 1.5 | N | 1.5 | | | | | | 10 |
| 11 | 20/1 | BUILDING LIGHTS | 0.2 | L | 0.2 | | | | | | 12 |
| 13 | 20/1 | BUILDING RECEPTACLES | 1.3 | R | 1.3 | | | | | | 14 |
| 15 | | | | | 0.0 | | | | | | 16 |
| 17 | | | | | 0.0 | | | | | | 18 |
| 19 | | | | | 0.0 | | | | | | 20 |
| 21 | | | | | 0.0 | | | | | | 22 |
| 23 | | | | | 0.0 | | | | | | 24 |
| 25 | | | | | 0.0 | | | | | | 26 |
| 27 | | | | | 0.0 | | | | | | 28 |
| 29 | | | | | 0.0 | | | | | | 30 |
| | | | 11.6 | | 7.2 | | | | | | |
| TOTAL KVA: 18.8 | | | | | | | | | | | |
| AMPS: 78.3 | | | | | | | | | | | |

| SUMMARY BY LOAD TYPE | | CONNECTED KVA | | | TOTAL KVA | NEC% | NEC TOTAL | NOTES: |
|---------------------------|----------------|---------------|------|------|-----------|---------|-----------|--------|
| | | PH A | PH B | FEED | | | | |
| L | LIGHTING | 0.3 | 0.0 | | 0.3 | 1.25 | 0.4 | |
| R | RECEPTACLES | 3.2 | 1.9 | | 5.1 | 10K+50% | 5.1 | |
| M | MOTORS | 0.0 | 0.0 | | 0.0 | 1.00 | 0.0 | |
| LM | LARGEST MOTOR | 0.0 | 0.0 | | 0.0 | 1.25 | 0.0 | |
| C | CONTINUOUS | 0.0 | 0.0 | | 0.0 | 1.25 | 0.0 | |
| N | NON-CONTINUOUS | 1.5 | 0.0 | | 1.5 | 1.00 | 1.5 | |
| S | SPARE | 0.0 | 0.0 | | 0.0 | 1.00 | 0.0 | |
| X | NON-COINCIDENT | 0.0 | 0.0 | | 0.0 | 0.00 | 0.0 | |
| O | OTHER | 0.0 | 0.0 | | 0.0 | 1.00 | 0.0 | |
| F | FEEDER | 6.6 | 5.1 | | 11.7 | 1.00 | 11.7 | |
| TOTAL KVA (PHASE) | | 11.6 | 7.0 | | 18.6 | | 7.0 | |
| TOTAL AMPERES | | 96.7 | 58.3 | | 77.5 | | 29.1 | |
| PHASE BALANCE, AB PERCENT | | A-B | B-A | | | | | |
| | | 62 | 38 | | | | | |

| PANEL 'B' SCHEDULE | | | | | | | | | | A.I.C. RATING: 10,000 | |
|---------------------------------------|------|--------------------------|-----|------|-----|---|------|-----|-----------------------------|-----------------------|-----|
| BUS: 100A | | | | | | | | | | ENCLOSURE: NEMA 1 | |
| MAIN: 100A MLO | | | | | | | | | | MOUNTING: SURFACE | |
| LOCATION: RETAIL SALES BUILDING | | | | | | | | | | | |
| CKT | AMP | LOAD DESCRIPTION | KVA | LOAD | A | B | LOAD | KVA | LOAD DESCRIPTION | AMP | CKT |
| 1 | 60/2 | BULK FUEL SYSTEM CONTROL | 5.0 | F | 6.4 | | C | 1.4 | DISPENSER | 15/1* | 2 |
| 3 | | PANEL, 'CP' | 5.0 | F | 5.1 | | C | 0.1 | EXTERIOR CREDIT CARD READER | 20/1 | 4 |
| 5 | 20/1 | DISPENSER POS CONSOLE | 0.1 | C | 0.2 | | L | 0.1 | DISPENSER LIGHT | 15/1* | 6 |
| 7 | 20/1 | SPARE | 0.0 | S | 0.0 | | S | 0.0 | SPARE | 20/1 | 8 |
| 9 | | | | | 0.0 | | | | | | 10 |
| 11 | | | | | 0.0 | | | | | | 12 |
| 13 | | | | | 0.0 | | | | | | 14 |
| 15 | | | | | 0.0 | | | | | | 16 |
| 17 | | | | | 0.0 | | | | | | 18 |
| | | | 6.6 | | 5.1 | | | | | | |
| *- INDICATES SWITCHED NEUTRAL BREAKER | | | | | | | | | | | |
| TOTAL KVA: 11.7 | | | | | | | | | | | |
| AMPS: 48.8 | | | | | | | | | | | |

| SUMMARY BY LOAD TYPE | | CONNECTED KVA | | | TOTAL KVA | NEC% | NEC TOTAL | NOTES: |
|---------------------------|----------------|---------------|------|------|-----------|---------|-----------|--------|
| | | PH A | PH B | FEED | | | | |
| L | LIGHTING | 0.1 | 0.0 | | 0.1 | 1.25 | 0.1 | |
| R | RECEPTACLES | 0.0 | 0.0 | | 0.0 | 10K+50% | 0.0 | |
| M | MOTORS | 0.0 | 0.0 | | 0.0 | 1.00 | 0.0 | |
| LM | LARGEST MOTOR | 0.0 | 0.0 | | 0.0 | 1.25 | 0.0 | |
| C | CONTINUOUS | 1.5 | 0.1 | | 1.6 | 1.25 | 2.0 | |
| N | NON-CONTINUOUS | 0.0 | 0.0 | | 0.0 | 1.00 | 0.0 | |
| S | SPARE | 0.0 | 0.0 | | 0.0 | 1.00 | 0.0 | |
| X | NON-COINCIDENT | 0.0 | 0.0 | | 0.0 | 0.00 | 0.0 | |
| O | OTHER | 0.0 | 0.0 | | 0.0 | 1.00 | 0.0 | |
| F | FEEDER | 5.0 | 5.0 | | 10.0 | 1.00 | 10.0 | |
| TOTAL KVA (PHASE) | | 6.6 | 5.1 | | 11.7 | | 2.1 | |
| TOTAL AMPERES | | 55.0 | 42.5 | | 48.8 | | 8.9 | |
| PHASE BALANCE, AB PERCENT | | A-B | B-A | | | | | |
| | | 56 | 44 | | | | | |

| REVISIONS | MARK | DATE | DESCRIPTION |
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EDC, INC.
215 W. FIREWEED LANE
ANCHORAGE, AK 99503
(807) 276-7983
LICENSE NO. AECC705

SCAMMON BAY BULK FUEL UPGRADES

ALASKA ENERGY AUTHORITY

SCAMMON BAY, ALASKA

SHEET TITLE: BULK FUEL TANK FARM POWER ONE-LINE DIAGRAM & PANEL SCHEDULE

SHEET: E3.0

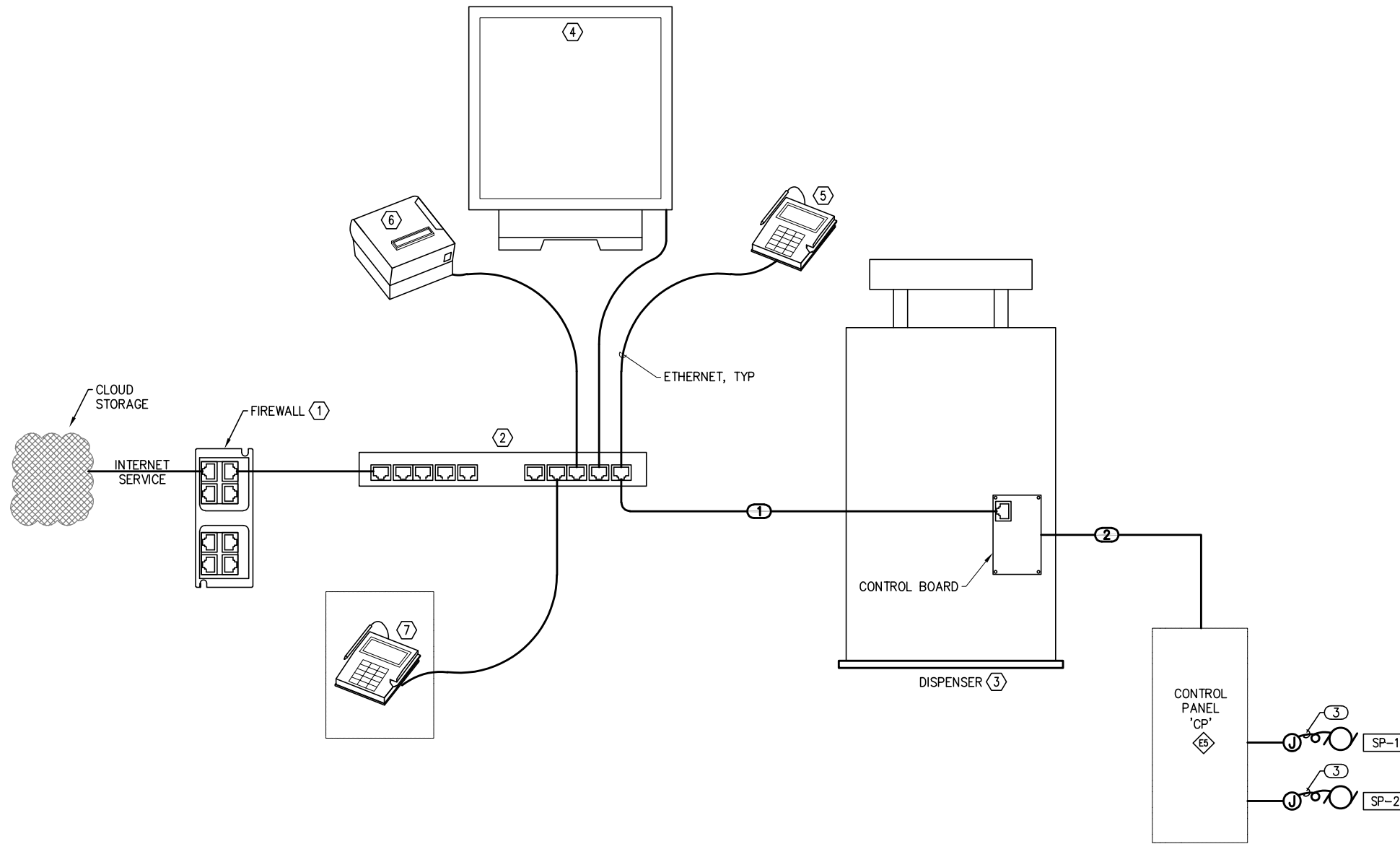
DRAWN BY: OM CHECKED BY: CW

DATE: 01/31/22 SCALE: AS SHOWN

JOB NUMBER: 20-017

DATE TIME
1/4/2022 12:50 PM

DRAWING LOCATION
p:\Projects\HBL\scammon bay bulk fuel\pmpg\et\ec\EA.0 CONTROL DIAGRAM.dwg



1 FUEL MANAGEMENT SYSTEM CONTROL DIAGRAM
E4.0 SCALE: NTS

GENERAL SHEET NOTES

1. CONTRACTOR SHALL PROVIDE A FULLY FUNCTIONING FUEL DISPENSING SYSTEM COMPLETE WITH DISPENSER, POINT-OF-SALE (POS) SYSTEM AND ALL REQUIRED INTERCONNECTIONS AND PERIPHERALS INCLUDING A POS MONITOR, CREDIT CARD READER, RECEIPT PRINTER, NETWORK SWITCH AND ROUTER/FIREWALL. SYSTEM SHALL INCLUDE ALL MANUFACTURER RECOMMENDED SURGE PROTECTION DEVICES AND AN UNINTERRUPTIBLE POWER SUPPLY (UPS) FOR POWERING ALL THE ELECTRONIC EQUIPMENT.
2. SYSTEM SHALL ALLOW BOTH CREDIT CARD AND CASH PAYMENT TRANSACTIONS TO BE MADE INSIDE THE RETAIL SALES BUILDING DURING ATTENDED HOURS AND UNATTENDED CREDIT CARD TRANSACTIONS AFTER HOURS.
3. CONTRACTOR SHALL COORDINATE WITH THE LOCAL TELECOMMUNICATIONS UTILITY TO OBTAIN INTERNET SERVICE TO THE RETAIL SALES BUILDING AS REQUIRED. PROVIDE ALL DEMARCATION EQUIPMENT, PATCH PANELS, SURGE PROTECTION, GROUNDING, ETC. REQUIRED BY THE UTILITY.
4. CONTRACTOR SHALL COORDINATE WITH THE CITY OF SCAMMON BAY AND ASSIST WITH SETTING UP A CREDIT CARD BANKING SERVICE FOR THE RETAIL FUELING SYSTEM. ASSISTANCE TO INCLUDE INSTALLING ANY REQUIRED SECURE NETWORK DEVICES, ROUTERS, SOFTWARE, ETC. AS REQUIRED FOR A FULLY FUNCTIONING SYSTEM.

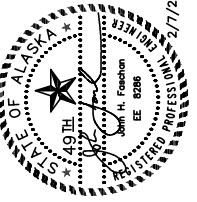
SHEET NOTES

- 1 INTERNET SERVICE FIREWALL
- 2 INTERNET ROUTER IN RETAIL SALES BUILDING.
- 3 DUAL PRODUCT DISPENSER. GILBARCO ENCORE 700 S-SERIES OR EQUAL.
- 4 POINT-OF-SALE SYSTEM, GILBARCO PASSPORT POS OR EQUAL.
- 5 POINT-OF-SALE CREDIT CARD READER.
- 6 POINT-OF-SALE RECEIPT PRINTER.
- 7 POINT-OF-SALE CREDIT CARD READER W/ RECEIPT PRINTER IN NEMA 3R ENCLOSURE OUTSIDE RETAIL SALES BUILDING. PROVIDE HEATER IN ENCLOSURE IF REQUIRED TO MAINTAIN TEMPERATURE WITHIN RATED LIMITS OF THE CARD READER AND RECEIPT PRINTER WITH -40 DEGREES F EXTERNAL AMBIENT TEMPERATURE.

CIRCUIT SCHEDULE

| TAG | DESCRIPTION |
|-----|-------------------------------|
| 1 | 3/4" C, CAT 5 ETHERNET CABLE. |
| 2 | 3/4" C, 4#14(4SIG) & 1#14(G). |

| REVISIONS | MARK | DATE | DESCRIPTION |
|-----------|------|------|-------------|
| | | | |



EDC, INC.
215 W. FIREWEED LANE
ANCHORAGE, AK 99503
(907) 276-7883
LICENSE NO. AEC0705



SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

SHEET TITLE
CONTROL DIAGRAM

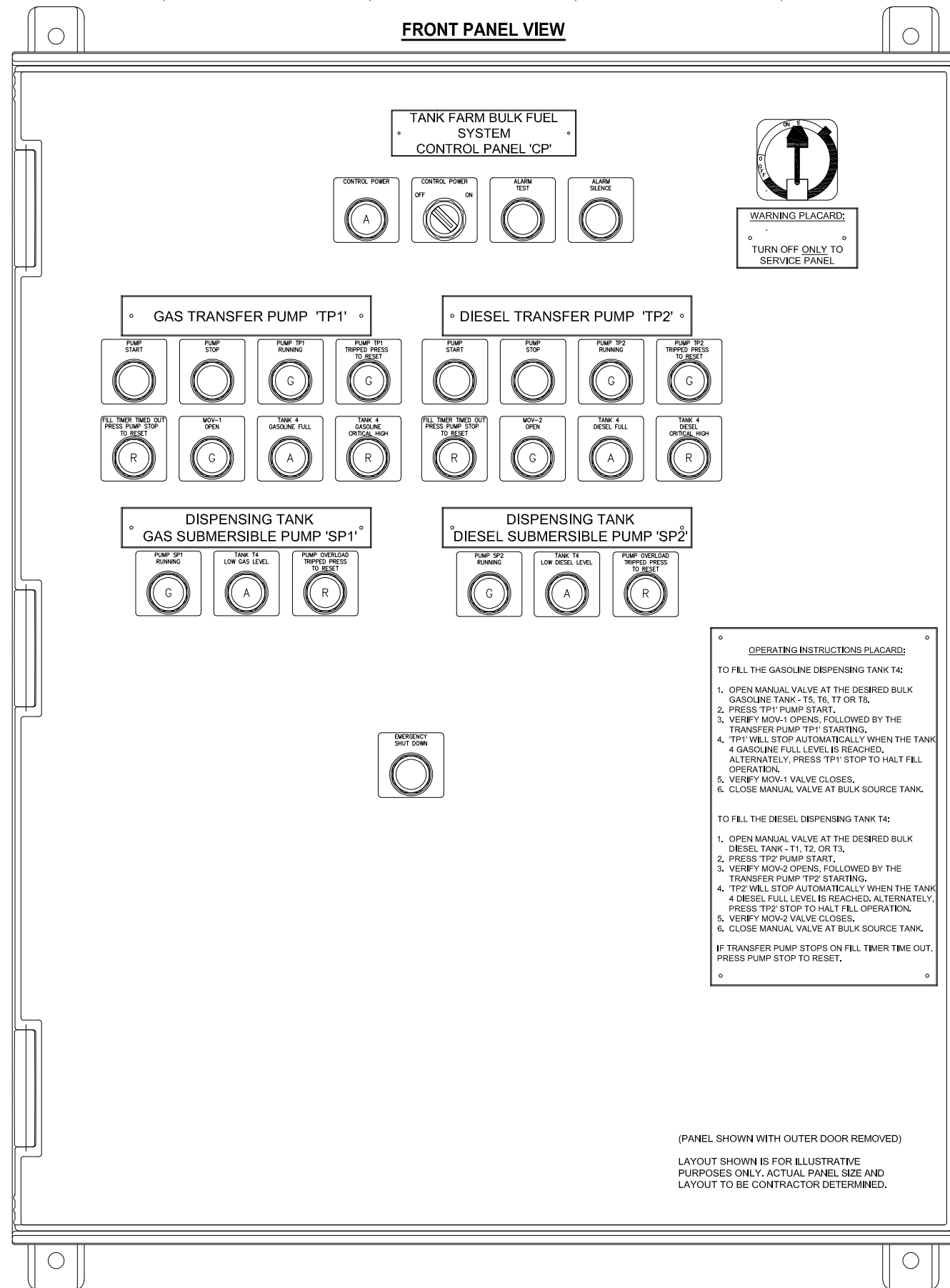
SHEET
E4.0

DRAWN BY: OM
CHECKED BY: CW
DATE: 01/31/22
SCALE: AS SHOWN
JOB NUMBER: 20-017

DRAWING LOCATION: p:\Projects\HOL\scammon bay bulk fuel\dwgs\elec\E5.0 BULK FUEL CONTROL PANEL LAYOUT AND FUNCTIONAL NARRATIVE.dwg

DATE TIME: 12/16/2021 9:59 AM

FRONT PANEL VIEW



OPERATING INSTRUCTIONS PLACARD:

TO FILL THE GASOLINE DISPENSING TANK T4:

1. OPEN MANUAL VALVE AT THE DESIRED BULK GASOLINE TANK - T5, T6, T7 OR T8.
2. PRESS 'TP1' PUMP START.
3. VERIFY MOV-1 OPENS, FOLLOWED BY THE TRANSFER PUMP 'TP1' STARTING.
4. 'TP1' WILL STOP AUTOMATICALLY WHEN THE TANK 4 GASOLINE FULL LEVEL IS REACHED. ALTERNATELY, PRESS 'TP1' STOP TO HALT FILL OPERATION.
5. VERIFY MOV-1 VALVE CLOSES.
6. CLOSE MANUAL VALVE AT BULK SOURCE TANK.

TO FILL THE DIESEL DISPENSING TANK T4:

1. OPEN MANUAL VALVE AT THE DESIRED BULK DIESEL TANK - T1, T2, OR T3.
2. PRESS 'TP2' PUMP START.
3. VERIFY MOV-2 OPENS, FOLLOWED BY THE TRANSFER PUMP 'TP2' STARTING.
4. 'TP2' WILL STOP AUTOMATICALLY WHEN THE TANK 4 DIESEL FULL LEVEL IS REACHED. ALTERNATELY, PRESS 'TP2' STOP TO HALT FILL OPERATION.
5. VERIFY MOV-2 VALVE CLOSES.
6. CLOSE MANUAL VALVE AT BULK SOURCE TANK.

IF TRANSFER PUMP STOPS ON FILL TIMER TIME OUT, PRESS PUMP STOP TO RESET.

(PANEL SHOWN WITH OUTER DOOR REMOVED)
LAYOUT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL PANEL SIZE AND LAYOUT TO BE CONTRACTOR DETERMINED.

FUNCTIONAL NARRATIVE

THIS PANEL CONTROLS AND MONITORS THE GASOLINE AND DIESEL FUEL TRANSFER PUMPS, TP1 AND TP2, AND THE SUBMERSIBLE DISPENSING PUMPS SP1 AND SP2.

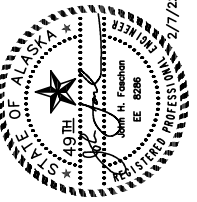
1. **TP1** SUPPLIES GASOLINE FROM THE BULK STORAGE TANKS T5, T6, T7 & T8 TO THE 6,000 GALLON DISPENSING TANK, T4. TP1 IS CONTROLLED FROM THE START/STOP PUSHBUTTONS ON THE CONTROL PANEL. PRIOR TO TRANSFERRING FUEL, SELECT WHICH TANK TO TRANSFER FUEL FROM BY OPENING THE APPROPRIATE MANUAL VALVE ON THE BULK TANK. WHEN THE 'START' PUSHBUTTON IS PRESSED AND IF SP1 IS NOT RUNNING (TP1 SHALL BE INTERLOCKED WITH SP1 SO THAT ONLY ONE MAY RUN AT A TIME), THE MOTORIZED BALL VALVE, MOV-1 ON THE DISCHARGE OF THE TRANSFER PUMP WILL OPEN, TRANSFER PUMP TP1 WILL THEN START AND A MAXIMUM RUN TIMER WILL BEGIN TIMING. THE TRANSFER PUMP WILL RUN UNTIL THE 'TANK FULL' LEVEL IS REACHED AT TANK T4, THE 'STOP' PUSHBUTTON IS PRESSED, THE MAXIMUM RUN TIMER TIMES OUT OR AN ESD IS PRESSED, AT WHICH POINT THE PUMP STOPS AND MOTORIZED VALVE, MOV-1 CLOSES. IF THE 'TANK FULL' SIGNAL FAILS AND THE TANK KEEPS FILLING, THE 'CRITICAL HIGH' LEVEL IN TANK T4 WILL BE REACHED. IF THIS OCCURS AN EXTERNAL HORN AND ALARM LIGHT WILL ENERGIZE, A 'CRITICAL HIGH' ALARM WILL BE INDICATED ON THE PANEL, MOTORIZED VALVE, MOV-1 WILL CLOSE AND THE TRANSFER PUMP WILL STOP. THE PUMP MAY NOT BE RE-STARTED UNTIL THE CONDITION IS CLEARED. THE EXTERNAL HORN AND ALARM LIGHT MAY BE DE-ENERGIZED BY SILENCING THE ALARM, BUT THE INDICATING LIGHT ON THE PANEL WILL NOT CLEAR UNTIL THE CRITICAL HIGH ALARM CONDITION IS CORRECTED.
2. **TP2** SUPPLIES DIESEL FUEL FROM BULK STORAGE TANKS T1, T2 AND T3 TO THE 6,000 GALLON DISPENSING TANK, T4. TP2 IS CONTROLLED FROM THE START/STOP PUSHBUTTONS ON THE CONTROL PANEL. PRIOR TO TRANSFERRING FUEL, SELECT WHICH TANK TO TRANSFER FUEL FROM BY OPENING THE APPROPRIATE MANUAL VALVE ON THE BULK TANK. WHEN THE 'START' PUSHBUTTON IS PRESSED AND IF SP2 IS NOT RUNNING (TP2 SHALL BE INTERLOCKED WITH SP2 SO THAT ONLY ONE MAY RUN AT A TIME), THE MOTORIZED BALL VALVE, MOV-2 ON THE DISCHARGE OF THE TRANSFER PUMP WILL OPEN, TRANSFER PUMP TP2 WILL THEN START AND A MAXIMUM RUN TIMER WILL BEGIN TIMING. THE TRANSFER PUMP WILL RUN UNTIL THE 'TANK FULL' LEVEL IS REACHED AT TANK T4, THE 'STOP' PUSHBUTTON IS PRESSED, THE MAXIMUM RUN TIMER TIMES OUT OR AN ESD IS PRESSED, AT WHICH POINT THE PUMP STOPS AND MOTORIZED VALVE, MOV-2 CLOSES. IF THE 'TANK FULL' SIGNAL FAILS AND THE TANK KEEPS FILLING, THE 'CRITICAL HIGH' LEVEL IN TANK T4 WILL BE REACHED. IF THIS OCCURS AN EXTERNAL HORN AND ALARM LIGHT WILL ENERGIZE, A 'CRITICAL HIGH' ALARM WILL BE INDICATED ON THE PANEL, MOTORIZED VALVE, MOV-2 WILL CLOSE AND THE TRANSFER PUMP WILL STOP. THE PUMP MAY NOT BE RE-STARTED UNTIL THE CONDITION IS CLEARED. THE EXTERNAL HORN AND ALARM LIGHT MAY BE DE-ENERGIZED BY SILENCING THE ALARM, BUT THE INDICATING LIGHT ON THE PANEL WILL NOT CLEAR UNTIL THE CRITICAL HIGH ALARM CONDITION IS CORRECTED.
3. **SP1** - SUBMERSIBLE PUMP SP1 SUPPLIES GASOLINE FROM THE DISPENSING TANK, T4 TO THE DISPENSER. IT IS CONTROLLED BY A SIGNAL RECEIVED FROM THE DISPENSER. WHEN THE CONTROL PANEL RECEIVES THE OFF HOOK SIGNAL FROM THE DISPENSER, SP1 STARTS. THE PUMP WILL RUN UNTIL THE CONTROL PANEL NO LONGER RECEIVES THE OFF HOOK SIGNAL, A TANK T4 LOW GAS LEVEL SIGNAL IS RECEIVED OR AN ESD IS PRESSED, AT WHICH POINT THE PUMP STOPS. SP1 IS DISABLED WHENEVER TRANSFER PUMP, TP1 IS SUPPLYING FUEL TO THE DISPENSING TANK.
4. **SP2** - SUBMERSIBLE PUMP SP2 SUPPLIES DIESEL FUEL FROM THE DISPENSING TANK, T4 TO THE DISPENSER. IT IS CONTROLLED BY A SIGNAL RECEIVED FROM THE DISPENSER. WHEN THE CONTROL PANEL RECEIVES THE OFF HOOK SIGNAL FROM THE DISPENSER, SP2 STARTS. THE PUMP WILL RUN UNTIL THE CONTROL PANEL NO LONGER RECEIVES THE OFF HOOK SIGNAL, A TANK T4 LOW DIESEL LEVEL SIGNAL IS RECEIVED OR AN ESD IS PRESSED, AT WHICH POINT THE PUMP STOPS. SP2 IS DISABLED WHENEVER TRANSFER PUMP, TP2 IS SUPPLYING FUEL TO THE DISPENSING TANK.

IN THE EVENT OF AN EMERGENCY, ALL POWER TO THIS CONTROL PANEL AND TO THE DISPENSER SHED IS INTERRUPTED WHENEVER AN ESD IS PRESSED, EITHER ON THIS PANEL OR AT THE RETAIL SALES BUILDING. WHEN THE ESD IS ACTIVATED ALL PUMPS WILL STOP.

SEE SHEET E1.0 FOR COMPONENT SCHEDULE

1 TANK FARM BULK FUEL SYSTEM CONTROL PANEL, 'CP'
E5.0 SCALE:

| REVISIONS | MARK | DATE | DESCRIPTION |
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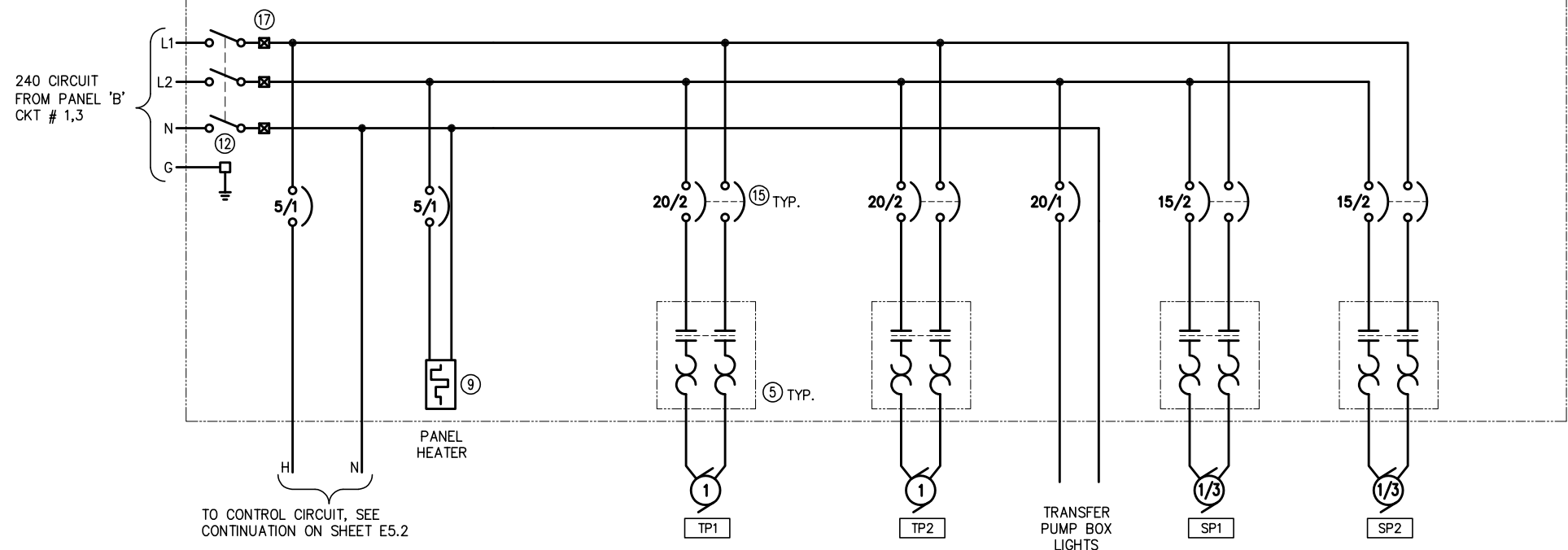
SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA



| | |
|---|-------------|
| SHEET TITLE | |
| BULK FUEL CONTROL PANEL LAYOUT AND FUNCTIONAL NARRATIVE | |
| SHEET | |
| E5.0 | |
| DRAWN BY: | CHECKED BY: |
| OM | CW |
| DATE: | SCALE: |
| 01/31/22 | AS SHOWN |
| JOB NUMBER: | 20-017 |

DATE TIME
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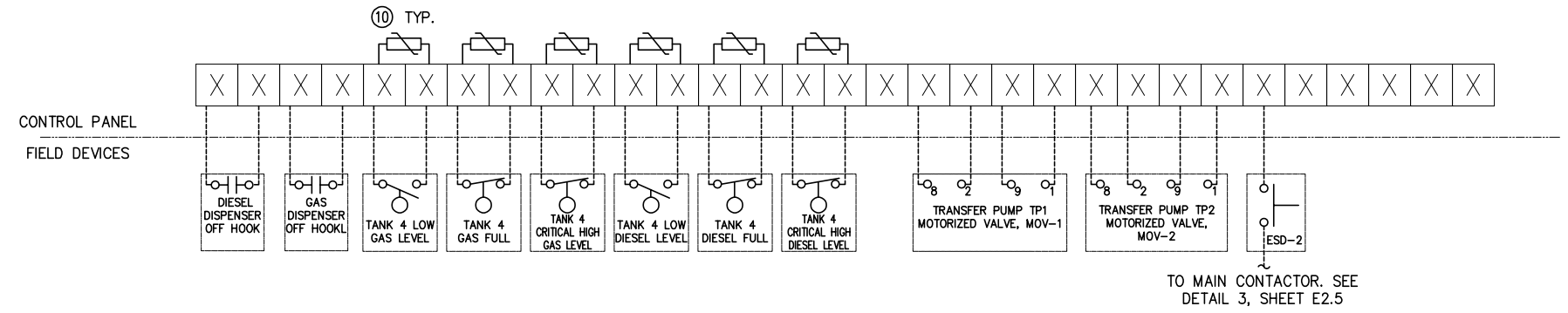
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BULK FUEL SYSTEM CONTROL PANEL 'CP' 



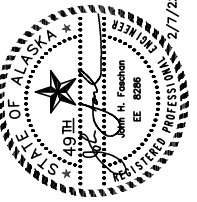
 SEE SHEET E1.0 FOR COMPONENT SCHEDULE
 SEE SHEET E3.0 FOR ELECTRICAL EQUIPMENT SCHEDULE

1 BULK FUEL SYSTEM CONTROL PANEL 'CP' POWER DISTRIBUTION SCHEMATIC
 E5.1 SCALE: NTS



2 BULK FUEL SYSTEM CONTROL PANEL 'CP' FIELD WIRING TERMINALS
 E5.1 SCALE: NTS

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SCAMMON BAY BULK FUEL UPGRADES

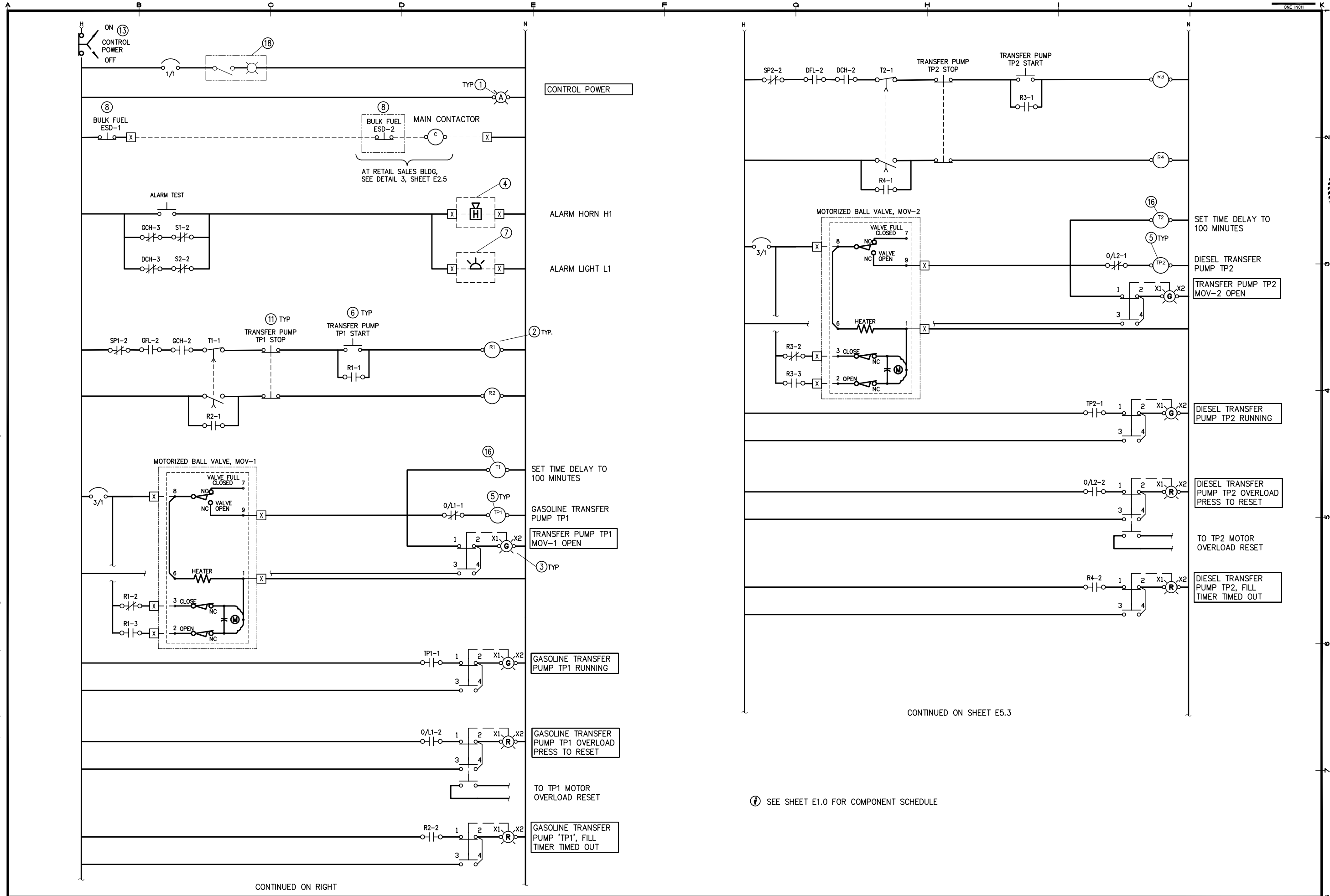


ALASKA ENERGY AUTHORITY
 SCAMMON BAY, ALASKA

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| SHEET TITLE BULK FUEL CONTROL PANEL POWER DISTRIBUTION | |
| SHEET E5.1 | |
| DRAWN BY: OM | CHECKED BY: CW |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

DATE TIME
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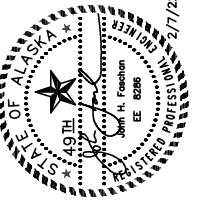


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CONTINUED ON SHEET E5.3

SEE SHEET E1.0 FOR COMPONENT SCHEDULE

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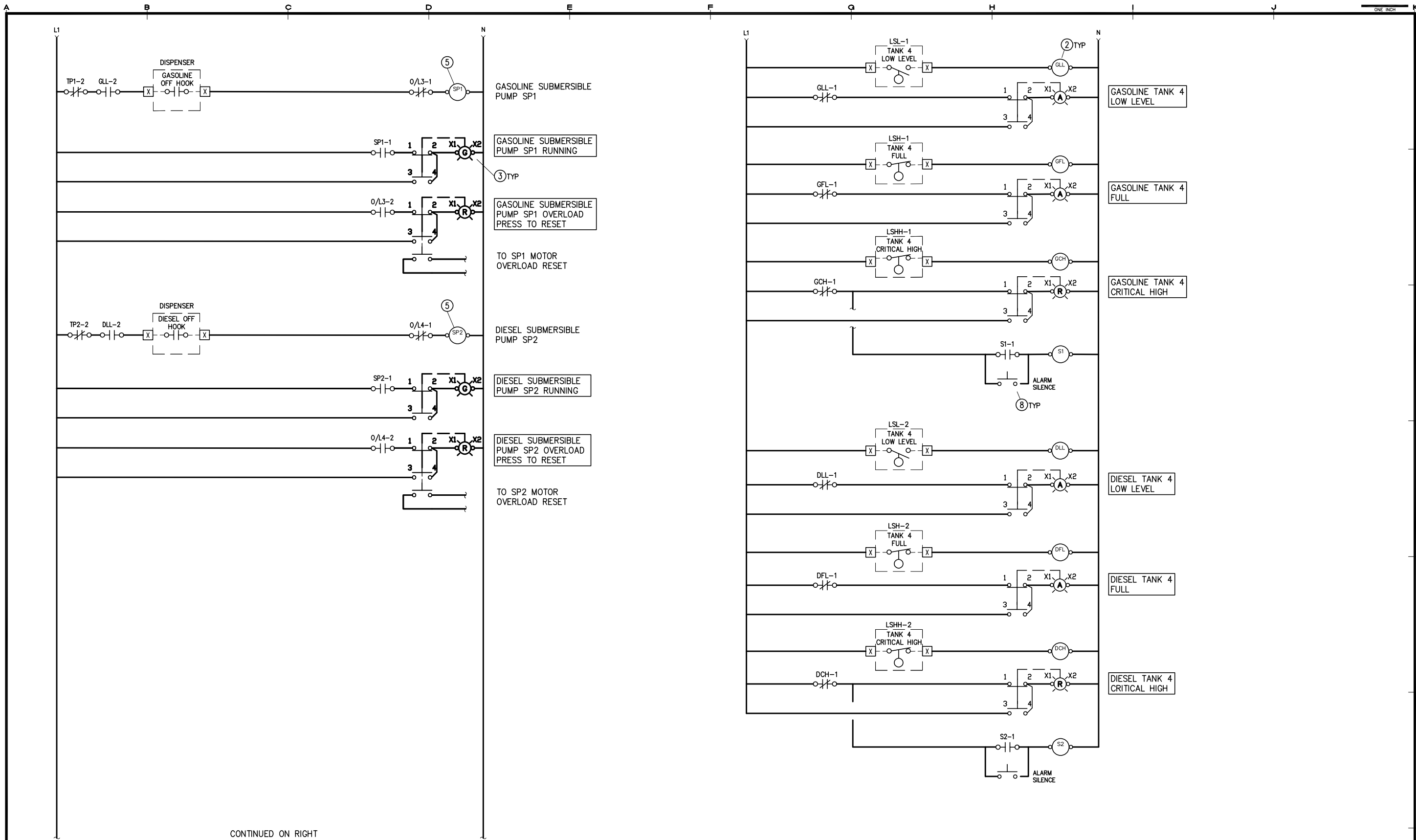
ALASKA ENERGY AUTHORITY

SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

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| SHEET E5.2 | |
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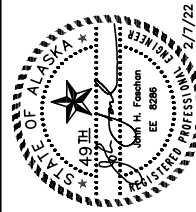
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SEE SHEET E1.0 FOR COMPONENT SCHEDULE

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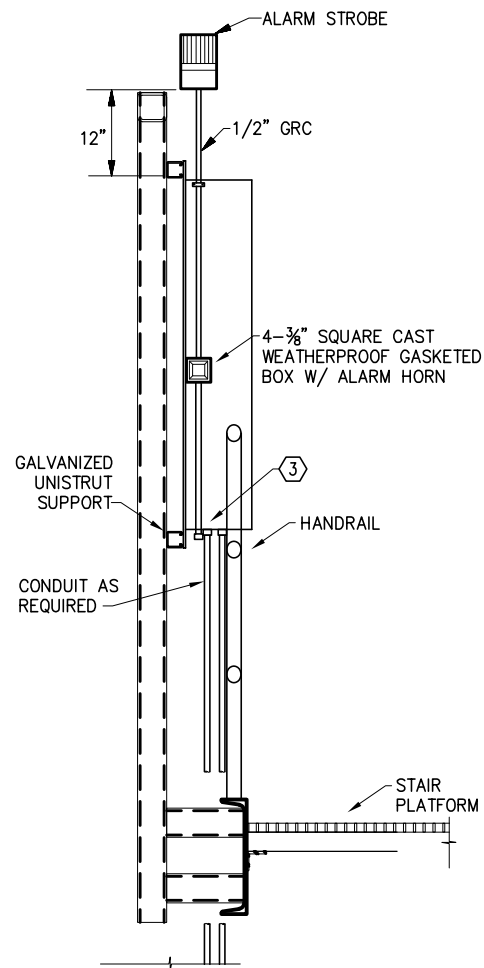
EDC, INC.
213 W. FIREWEED LANE
ANCHORAGE, AK 99503
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LICENSE NO. AEC0705

SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

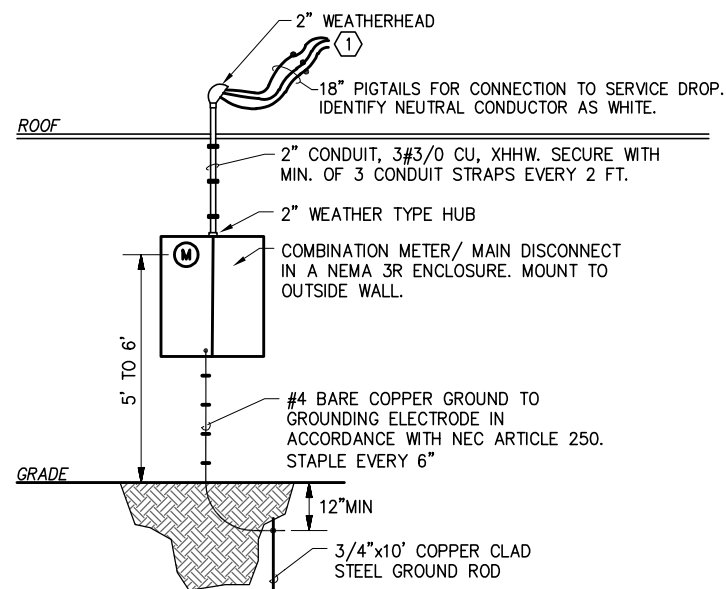
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| SHEET TITLE BULK FUEL CONTROL PANEL SCHEMATIC | |
| SHEET E5.3 | |
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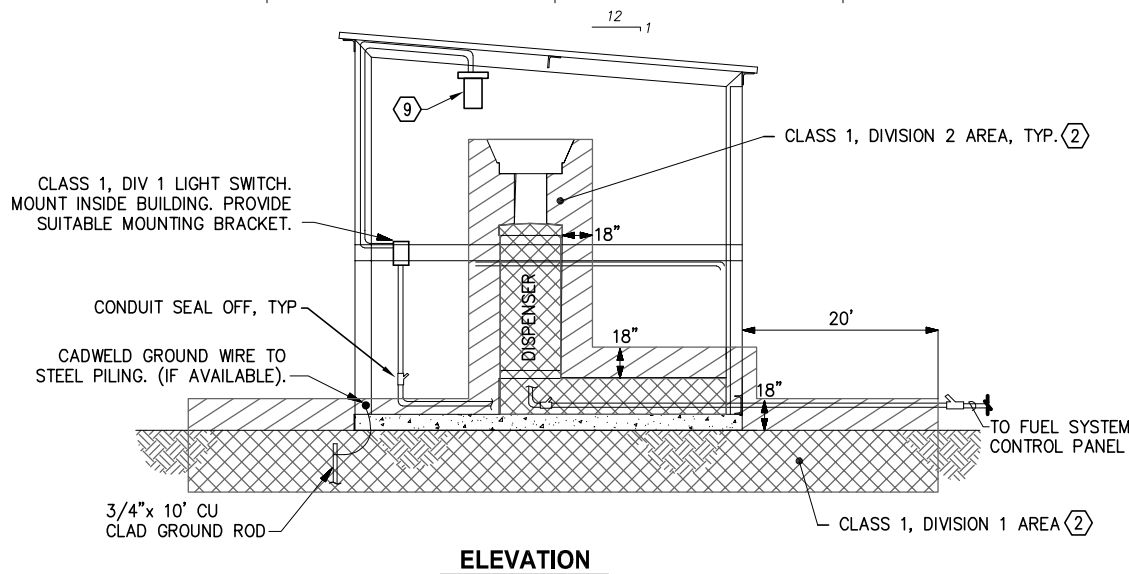
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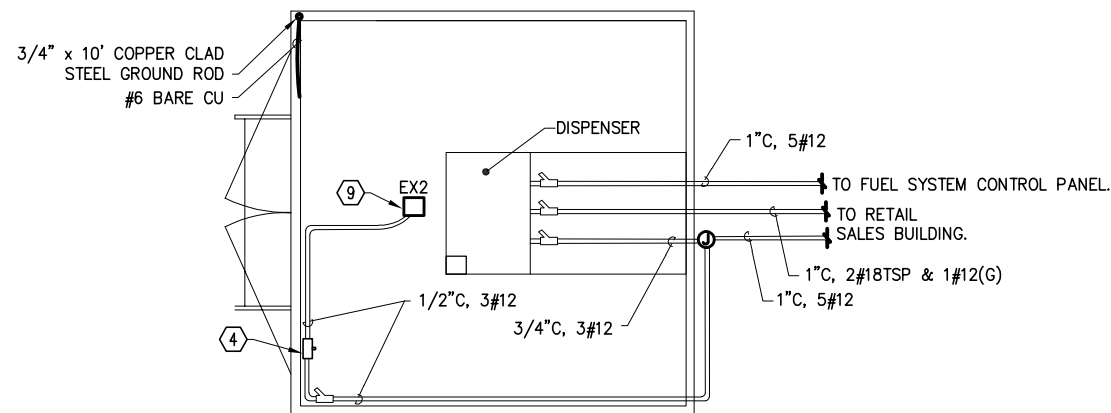
1 CONTROL PANEL 'CP' MOUNTING DETAIL
E6.0 SCALE: NTS



2 ELECTRICAL SERVICE DETAIL
E6.0 SCALE: NTS

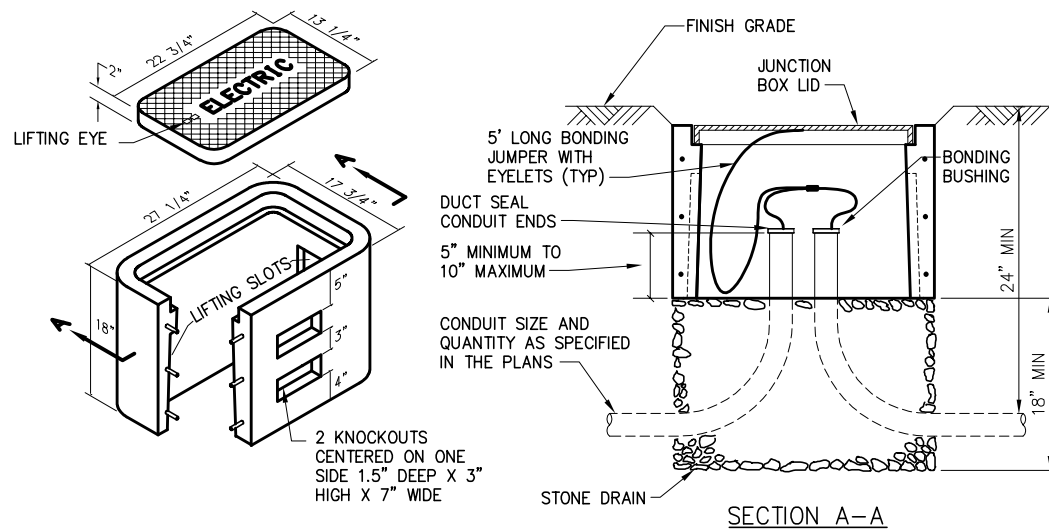


ELEVATION



PLAN

3 DISPENSER DETAILS
E6.0 SCALE: NTS

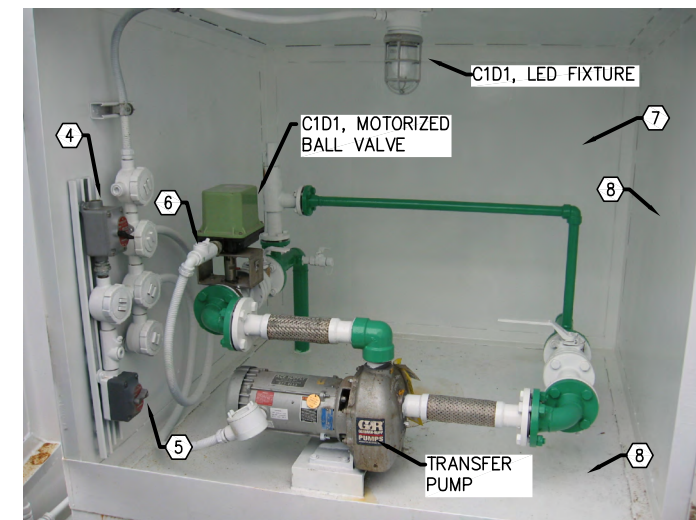


SECTION A-A

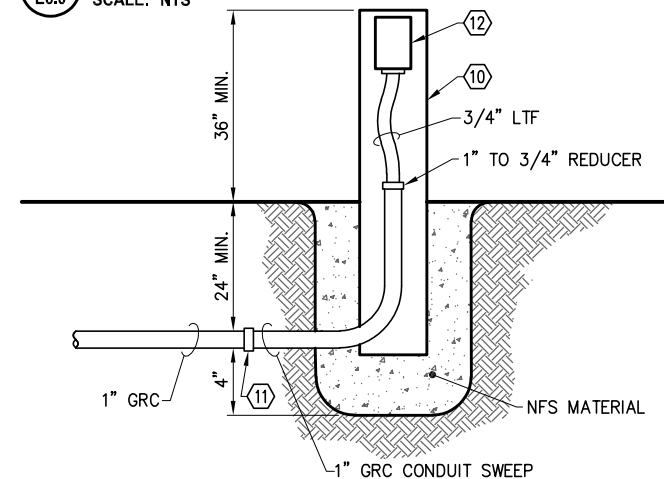
4 JUNCTION BOX DETAIL
E6.0 SCALE: NTS

SHEET NOTES

- ① SERVICE DROP CONDUCTORS BY AVEC. COORDINATE NEW SERVICE REQUIREMENTS WITH AVEC.
- ② THE AREA WITHIN 20' OF THE DISPENSER SHED, UP TO 18" ABOVE GRADE, IS A CLASS 1, DIVISION 2 HAZARDOUS LOCATION. THE AREA WITHIN 18" OF THE DISPENSER IS ALSO A CLASS 1, DIVISION 2 HAZARDOUS LOCATION. THE AREA WITHIN THE DISPENSER AND BELOW GRADE WITHIN 20' OF THE DISPENSER IS A CLASS 1, DIVISION 1 LOCATION. ALL WORK IN THESE AREAS SHALL BE DONE IN STRICT COMPLIANCE WITH ARTICLES 501 AND 514 OF THE NATIONAL ELECTRICAL CODE. PROVIDE SEAL-OFFS ON ALL CONDUIT PENETRATING CLASSIFIED LOCATIONS AS REQUIRED BY CODE.
- ③ ALL CONTROL PANEL PENETRATIONS SHALL BE THROUGH THE BOTTOM. NO TOP OR SIDE PENETRATIONS ALLOWED.
- ④ CLASS 1, DIVISION 1 RATED FACTORY SEALED SNAP SWITCH FOR CONTROL OF INTERIOR LIGHT.
- ⑤ CLASS 1, DIVISION 1 RATED FACTORY SEALED DISCONNECT SWITCH FOR TRANSFER PUMP.
- ⑥ CLASS 1, DIVISION 1 SEAL-OFF FITTING. PROVIDE AS REQUIRED.
- ⑦ THE ENTIRE AREA WITHIN THE TRANSFER PUMP BOX IS A CLASS 1, DIV 1 LOCATION. ONLY ONE SIDE OF THE TRANSFER PUMP BOX IS SHOWN. SECOND SIDE CONSTRUCTION IS IDENTICAL.
- ⑧ PENETRATIONS INTO THE TRANSFER PUMP BOX SHALL BE THROUGH THE SIDE WALLS ABOVE THE LEVEL OF THE DOOR SILLS ONLY. THE INTENT IS TO MAINTAIN THE WATERTIGHT CONTAINMENT PROPERTY OF THE BASE OF THE PUMP BOX.
- ⑨ CANOPY LIGHT. SEE FIXTURE SCHEDULE ON SHEET E1.0
- ⑩ 4"x4"x5' PRESSURE TREATED WOOD POST.
- ⑪ HDPE TO GRC WATERPROOF CONNECTOR, DURALINE, SHUR-LOCK II OR EQUAL.
- ⑫ 20A, 120V, GFCI RECEPTACLE IN WEATHER-PROOF WHILE-IN-USE METALLIC ENCLOSURE.



5 TRANSFER PUMP BOX DETAILS
E6.0 SCALE: NTS



6 SUMP PUMP RECEPTACLE DETAIL
E6.0 SCALE: NTS

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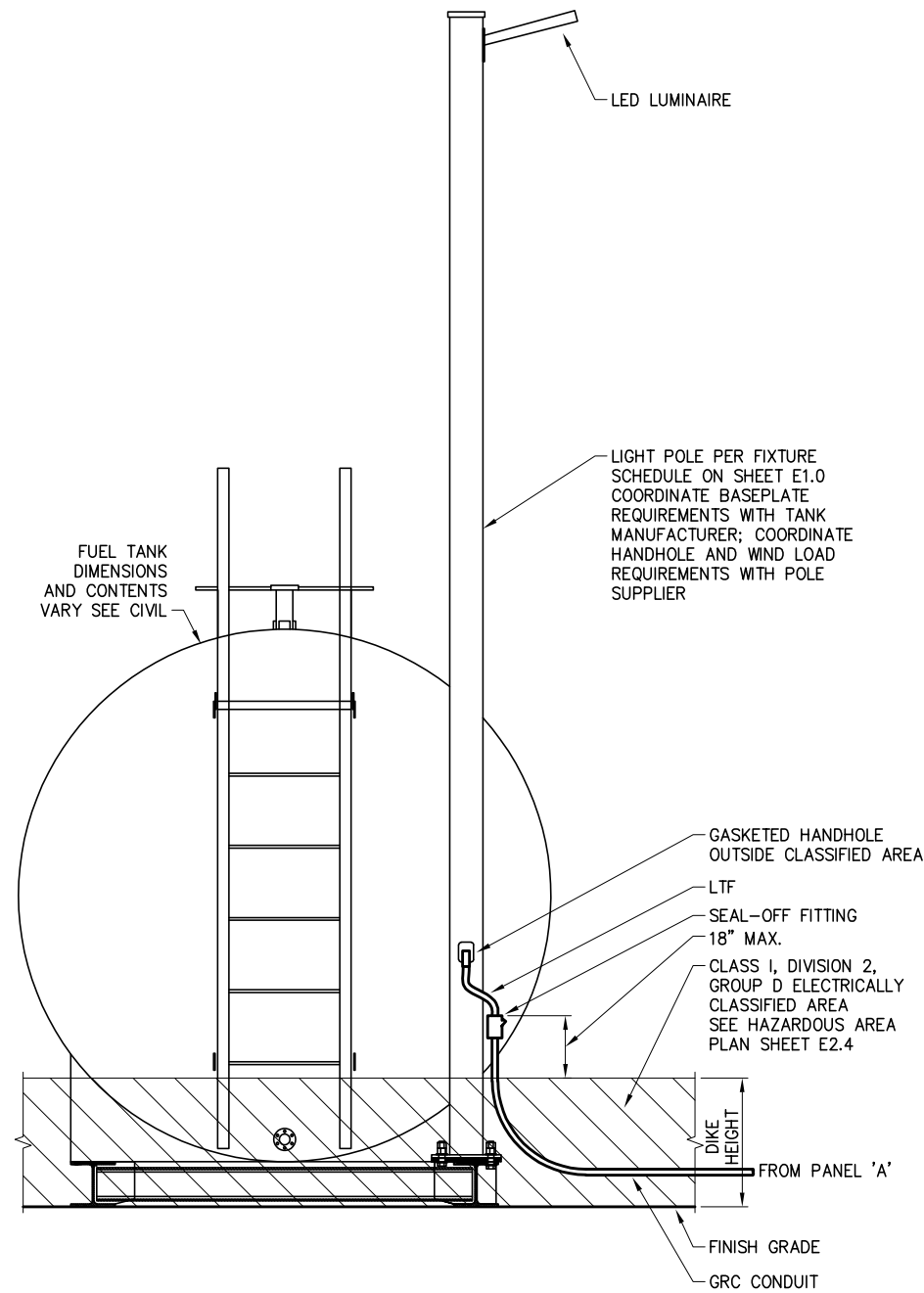
ALASKA ENERGY AUTHORITY

SCAMMON BAY BULK FUEL UPGRADES
ALASKA ENERGY AUTHORITY
SCAMMON BAY, ALASKA

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| SHEET TITLE ELECTRICAL DETAILS | |
| SHEET E6.0 | |
| DRAWN BY: OM | CHECKED BY: CW |
| DATE: 01/31/22 | SCALE: AS SHOWN |
| JOB NUMBER: 20-017 | |

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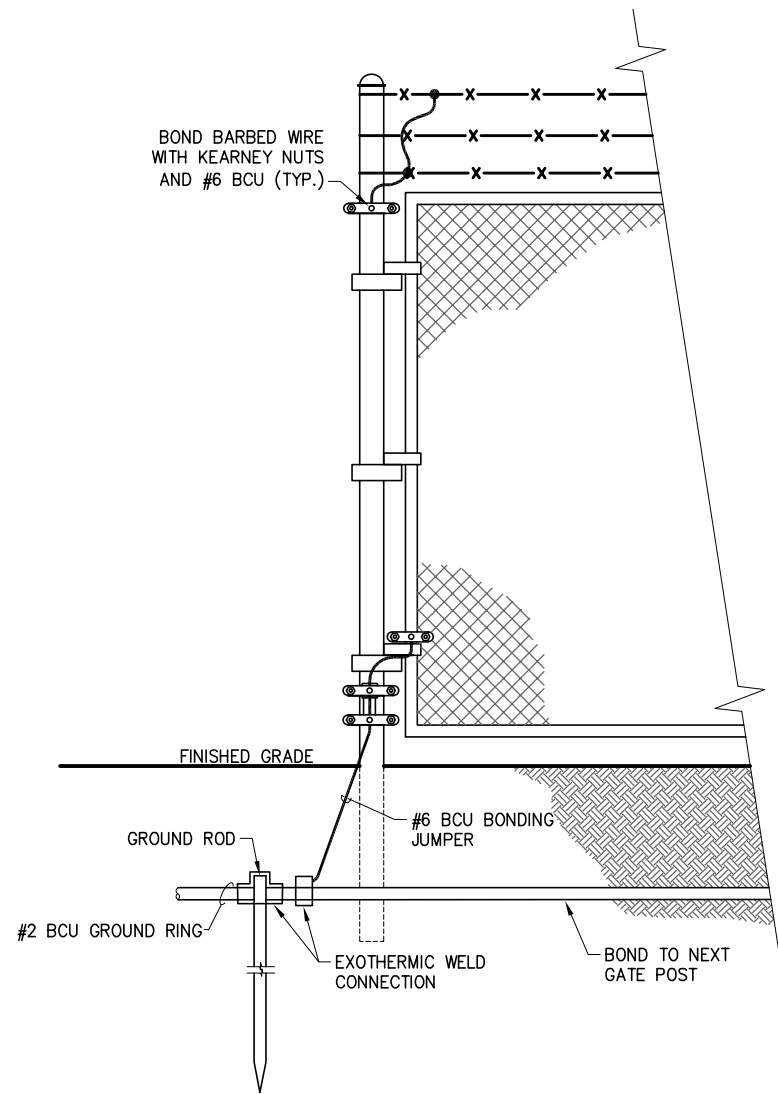
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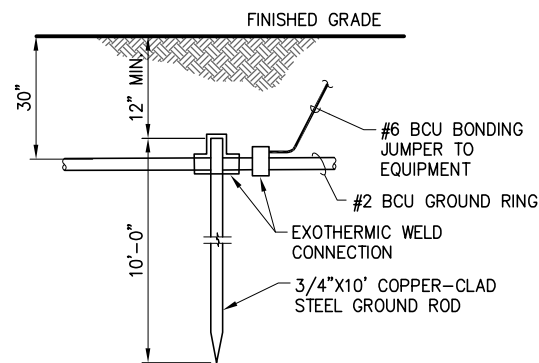
DETAIL NOTES

- CONDITIONS VARY; SEE LIGHTING PLAN SHEET E2.2 AND HAZARDOUS AREA PLAN SHEET E2.4.

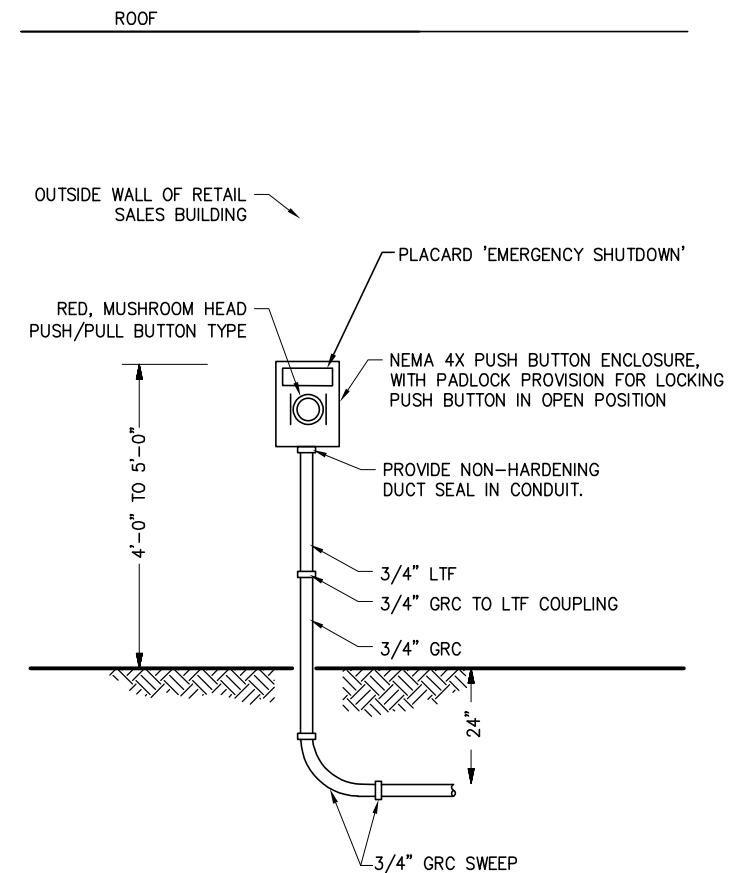
1 TANK MOUNTED LIGHT POLE DETAIL
E6.1 SCALE: NTS



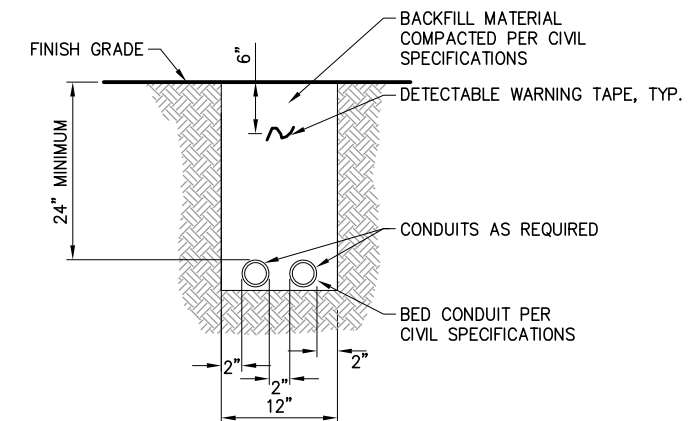
2 TYPICAL FENCE BONDING DETAIL
E6.1 SCALE: NTS



3 GROUNDING ELECTRODE DETAIL
E6.1 SCALE: NTS



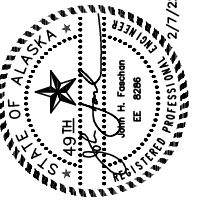
4 EMERGENCY SHUTDOWN PUSH BUTTON DETAIL
E6.1 SCALE: NTS



- NOTES:
1. DETAIL DIMENSIONS SHOWN ARE MINIMUM

5 CONDUIT TRENCH DETAIL
E6.1 SCALE: NTS

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| SHEET TITLE ELECTRICAL DETAILS | |
| SHEET E6.1 | |
| DRAWN BY: OM | CHECKED BY: CW |
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| JOB NUMBER: 20-017 | |