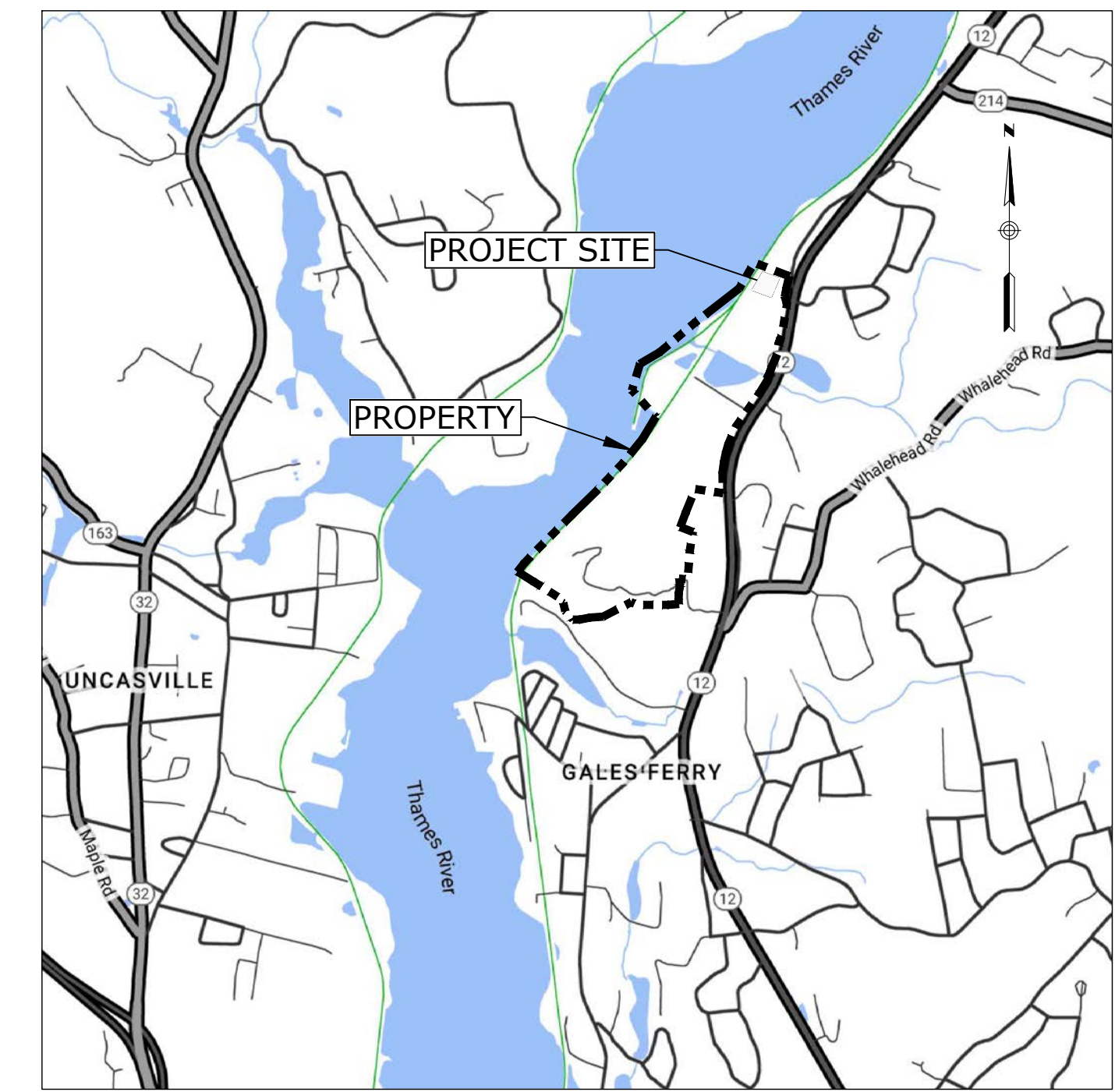


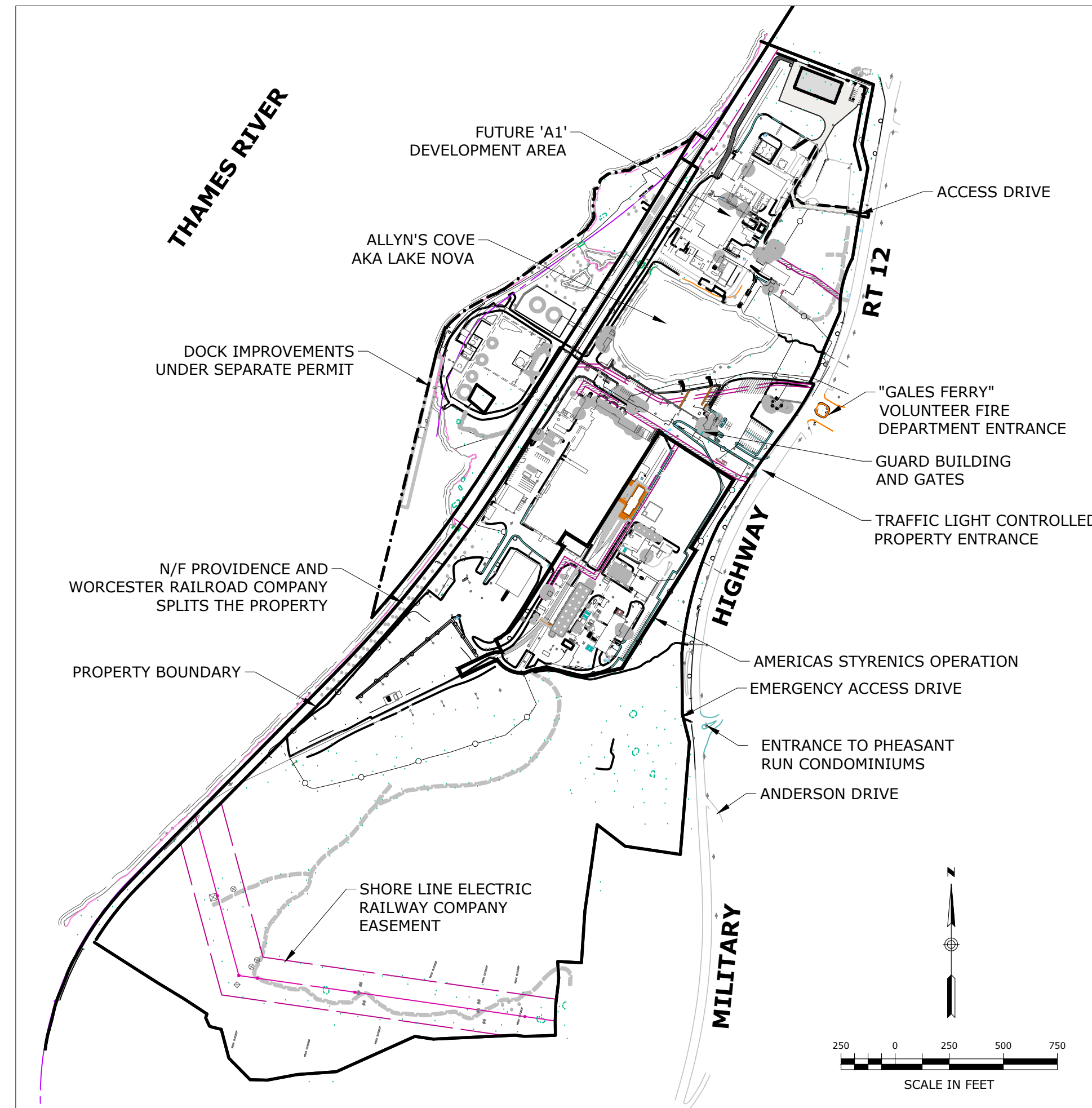
GALES FERRY INTERMODAL STERLING FACILITY

1761 ROUTE 12
GALES FERRY, CONNECTICUT 06335

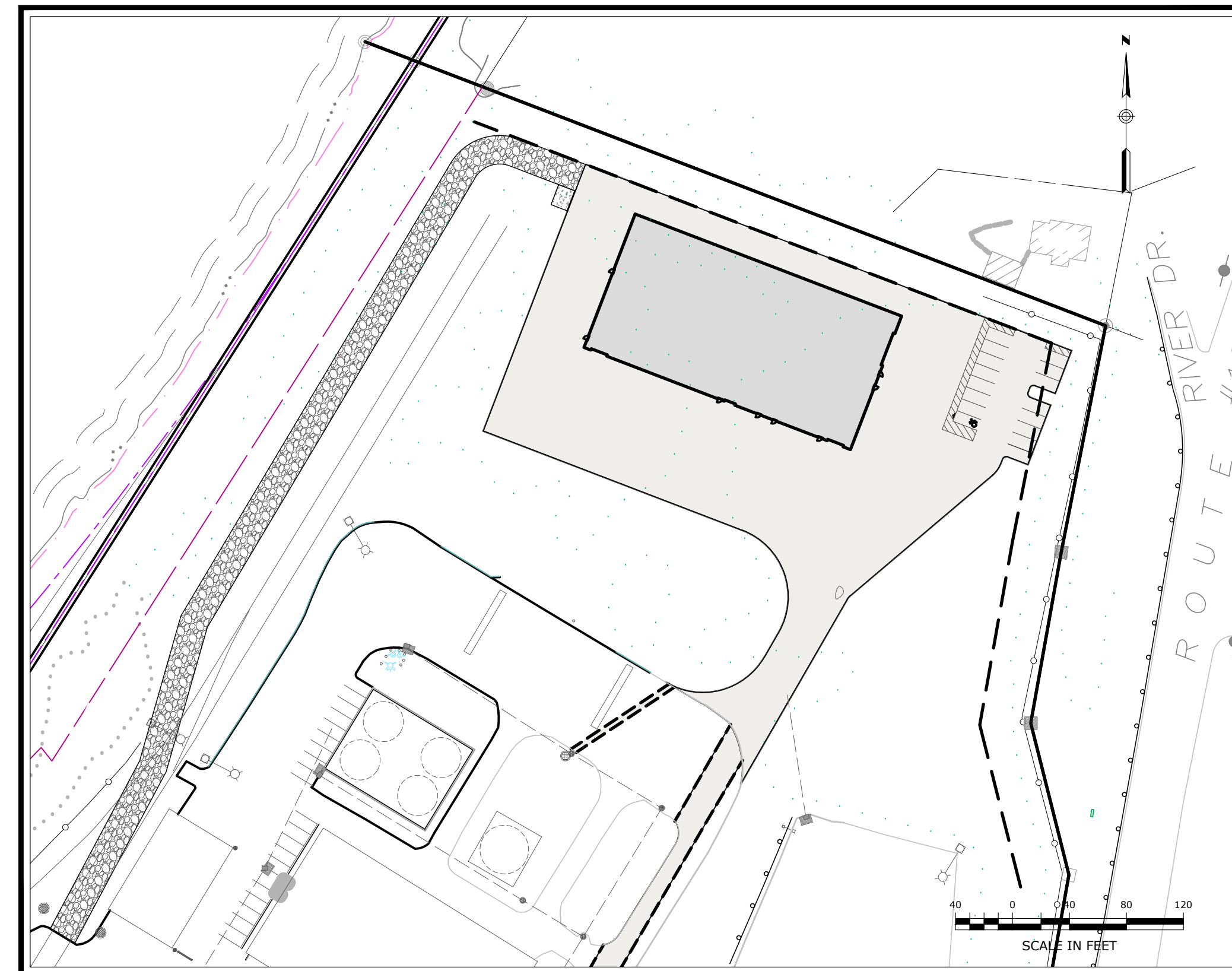
MARCH 07, 2023



LOCATION MAP
SCALE: 1"=±2,000'



PROPERTY MAP AND ADJACENT FEATURES



| DRAWING INDEX | | |
|---------------|----------|--|
| SHEET NO. | DRAWING | TITLE |
| 1 | - | COVER SHEET |
| 2 | C-1 | NOTES, LEGEND, AND ABBREVIATIONS |
| 3 | #2010063 | PROPERTY SURVEY |
| 4 | C-2 | OVERALL SITE PLAN |
| 5 | C-3 | SITE PREPARATION AND DEMOLITION PLAN |
| 6 | C-4 | SITE PLAN LAYOUT |
| 7 | C-5 | GRADING AND DRAINAGE PLAN |
| 8 | C-6 | UTILITY PLAN |
| 9 | C-7 | SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN |
| 10 | C-8 | SUBSURFACE SEWAGE DISPOSAL SECTIONS, DETAILS & NOTES |
| 11 | C-9 | SOIL EROSION AND SEDIMENT CONTROL PLAN |
| 12 | L-1 | LANDSCAPING PLAN |
| 13 | C-10 | PHOTOMETRIC AND LIGHTING PLAN |
| 14 | C-11 | COASTAL AREA MANAGEMENT PLAN |
| 15 | C-12 | SITE DETAILS 1 |
| 16 | C-13 | SITE DETAILS 2 |
| 17 | C-14 | SITE DETAILS 3 |
| 18 | C-15 | STORMWATER DETAILS |
| 19 | C-16 | SOIL EROSION AND SEDIMENT CONTROL DETAILS |
| 20 | C-17 | SIGHTLINE DEMONSTRATION PLAN |

Property Owner / Applicant:

GALES FERRY INTERMODAL LLC
549 SOUTH STREET
QUINCY, MA 02169



Prepared By:

Engineer:
Loureiro Engineering Associates, Inc.
100 Northwest Drive · Plainville, Connecticut 06062
Phone: 860-747-6181 · Fax: 860-747-8822
An Employee Owned Company · www.Loureiro.com
Engineering · Construction · EH&S · Energy
Waste · Facility Services · Laboratory



| | | |
|---------------------------------|------------------------|-----------------------|
| PZ PERMIT # _____ | DATE OF APPROVAL _____ | EXPIRATION DATE _____ |
| PZC CHAIRMAN OR SECRETARY _____ | DATE _____ | |

MAP REFERENCES

- "RIGHT OF WAY AND TRACK MAP OPERATED BY THE NORWICH AND WORCESTER R.R. CO. OPERATED BY THE NEW YORK NEW HAVEN AND HARTFORD R.R. CO. FROM WORCESTER TO GROTON STATION 3379+20 TO STATION 3405+60 TOWN OF LEDYARD, STATE OF CONN SCALE 1"=50' DATE: JUNE 30, 1915 REVISED THROUGH OCTOBER 9, 1947, OFFICE OF VALUATION ENGINEER, BOSTON MASS. MAP NO. V.5063 / 129.
- "RIGHT OF WAY AND TRACK MAP OPERATED BY THE NORWICH AND WORCESTER R.R. CO. OPERATED BY THE NEW YORK NEW HAVEN AND HARTFORD R.R. CO. FROM WORCESTER TO GROTON STATION 3405+60 TO STATION 32+00. TOWN OF LEDYARD, STATE OF CONN SCALE 1"=50' DATE: JUNE 30, 1915, OFFICE OF VALUATION ENGINEER, BOSTON MASS. MAP NO. V.5063 / 130.
- "RIGHT OF WAY AND TRACK MAP OPERATED BY THE NORWICH AND WORCESTER R.R. CO. OPERATED BY THE NEW YORK NEW HAVEN AND HARTFORD R.R. CO. FROM WORCESTER TO GROTON STATION 32+00 TO STATION 58+40 TOWN OF LEDYARD, STATE OF CONN SCALE 1"=50' DATE: JUNE 30, 1915 REVISED THROUGH APRIL 11, 1951, OFFICE OF VALUATION ENGINEER, BOSTON MASS. MAP NO. V.5063 / 131.
- "RIGHT OF WAY AND TRACK MAP OPERATED BY THE NORWICH AND WORCESTER R.R. CO. OPERATED BY THE NEW YORK NEW HAVEN AND HARTFORD R.R. CO. FROM WORCESTER TO GROTON STATION 58+40 TO STATION 84+80 TOWN OF LEDYARD, STATE OF CONN SCALE 1"=50' DATE: JUNE 30, 1915 REVISED THROUGH APRIL 11, 1951, OFFICE OF VALUATION ENGINEER, BOSTON MASS. MAP NO. V.5063 / 132.

MAP REFERENCES—CONTINUED

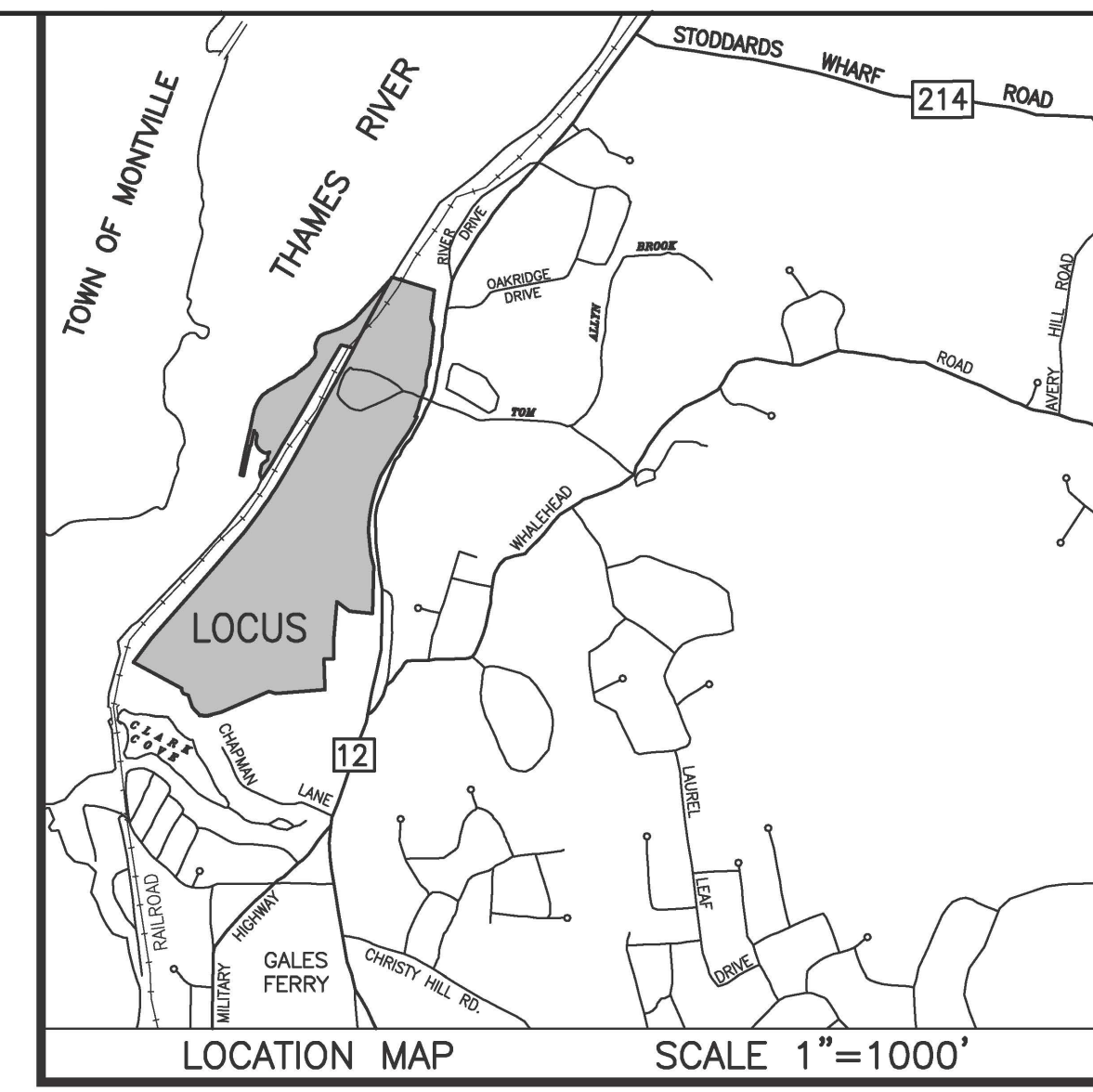
- "NORWICH AND WORCESTER RAILROAD REAL ESTATE & RIGHT OF WAY DEPARTMENT LAND IN LEDYARD, CONN. TO BE CONVEYED TO THE DOW CHEMICAL COMPANY" SCALE 1"=200' DATE: SEPTEMBER 1950 REVISED THROUGH OCTOBER 1950. ON FILE AS MAP NO. BA.
- "LOCATION OF THE RIGHT OF WAY OF THE CONNECTICUT LIGHT & POWER COMPANY ACROSS THE PROPERTY OF THE DOW CHEMICAL COMPANY, TOWN OF LEDYARD, COUNTY OF NEW LONDON, STATE OF CONNECTICUT" SCALE 1"=200' DATE: APRIL 17, 1951.
- "MAP OF PROPERTY OWNED BY THE DOW CHEMICAL COMPANY LOCATED AT ALLYN'S POINT ON THE WEST SIDE OF ROUTE 12 AND EAST OF THE NEW YORK NEW HAVEN & HARTFORD RAILROAD CO. LEDYARD, CONN." SCALE: 1"=100' DATE: JULY 1952 REVISED AUGUST 1953, G.L. BILDERBECK CONSULTING ENGINEERS, NEW LONDON, CONN.
- "MAP SHOWING PROPERTY OWNED BY DOW CHEMICAL COMPANY, ALLYN'S POINT, LEDYARD, CONN." SCALE: 1"=100' DATE: DECEMBER 1953, G.L. BILDERBECK, CONSULTING ENGINEERS, NEW LONDON, CONN. ON FILE AS MAP NO. 43A.

MAP REFERENCES—CONTINUED

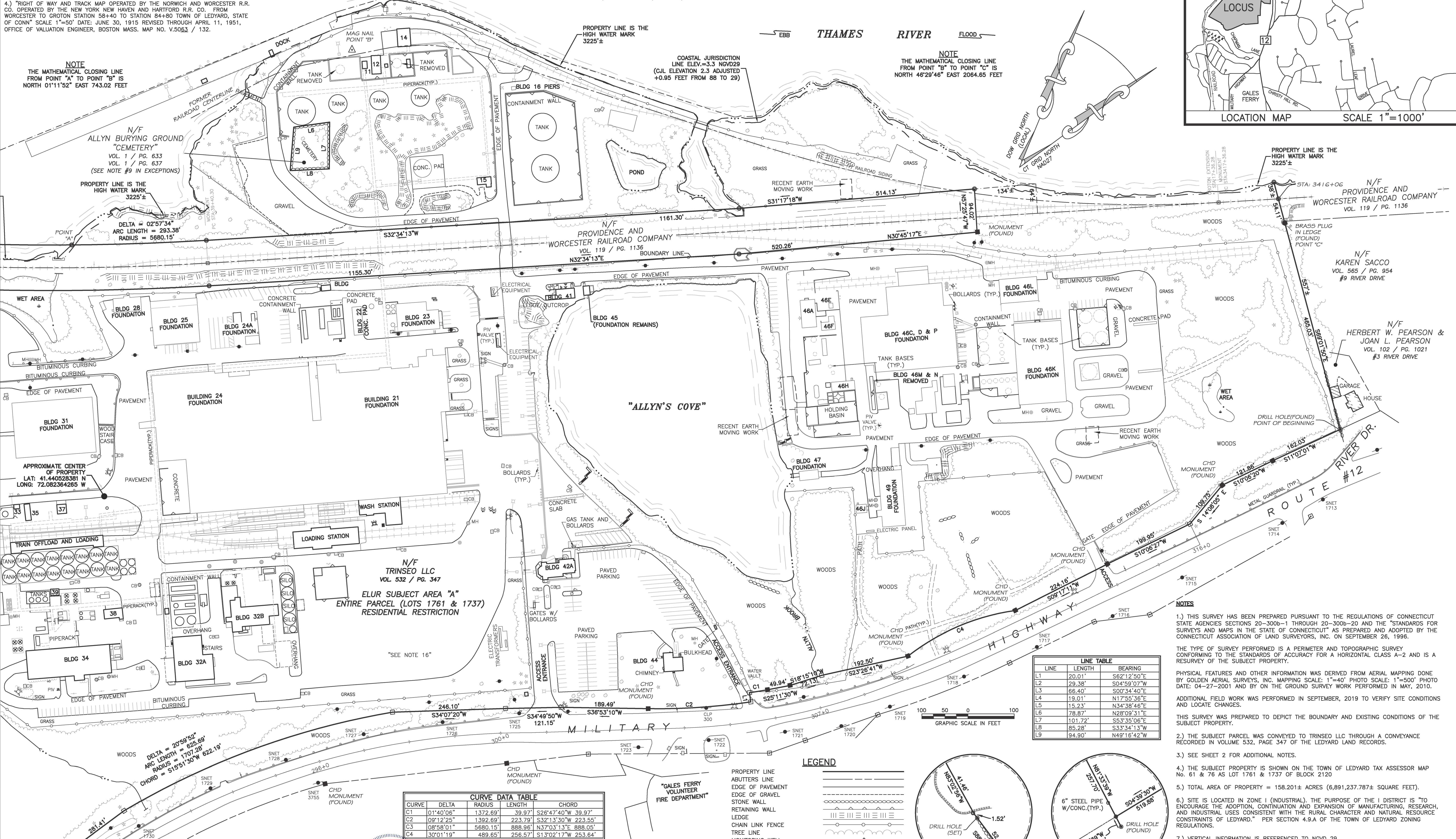
- "CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF LEDYARD GROTTON-NORWICH ROAD GALES FERRY ROAD TO ALLYN'S BROOK" SCALE 1"=40' DATE: NOVEMBER 5, 1957, SHEETS 1 THROUGH 4 OF 4, PROJECT NUMBER 71-15. THESE MAPS SUPERSEDE PROJECT 71-04, SHEET 1 REVISED THROUGH MAY 17, 2004.
- "PLAN SHOWING LANDS NOW AND FORMERLY OF H. WINTHROP HUERTLUBT LEDYARD, CONNECTICUT" SCALE 1"=100' DATE: OCTOBER 1964, GEORGE H. DIETER, LAND SURVEYOR, ON FILE AS MAP # 226.
- "PLAN OF PROPERTY TO BE CONVEYED TO THE TOWN OF LEDYARD BY THE DOW CHEMICAL COMPANY, TOWN OF LEDYARD, CONN." SCALE: 1"=100' DATE: APRIL 1972, CHANDLER, PALMER & KING, NORWICH, CONN.

MAP REFERENCES—CONTINUED

- "PLAN SHOWING PARCELS OF LAND WITH BUILDINGS PROPERTY OF JAMES L. LEWIS AND ALICE L. LEWIS, PENTWAY AT WEST END CHAPMAN LANE LEDYARD, CONNECTICUT" SCALE 1"=20' DATE JUNE 1976, GEORGE H. DIETER, LAND SURVEYOR, ON FILE AS MAP # 672.
- "TOPOGRAPHICAL PLAN, PLAN OF A PORTION OF DOW CHEMICAL CO. ALLYN'S POINT PLANT GALES FERRY, CONN." SCALE: 1"=40' DATE: JULY 9, 1984 REVISIONS THROUGH AUGUST 28, 1984, CHANDLER, PALMER & KING, NORWICH, CONN.
- "MONUMENTED PROPERTY SURVEY MAP DEPICTING LAND OF GALES FERRY MARINA, INC. A PORTION OF LAND OF JAMES L. LEWIS AND LUCILLE A. LUPINACCI, CHAPMAN LANE, GALES FERRY, LEDYARD, CONNECTICUT" SCALE: 1"=40' DATE: MARCH 26, 1994 REVISED APRIL 19, 1994, DAVID L. STEIN, LAND SURVEYOR, WESTBROOK, CONNECTICUT, ON FILE AS MAP #1753.
- COMPILATION PLAN MAP SHOWING EASEMENT AREA TO BE GRANTED TO THE YANKEE GAS SERVICES COMPANY ACROSS THE PROPERTY OF DOW CHEMICAL COMPANY (ALLYN'S POINT PLANT) #1761 ROUTE 12 GALES FERRY-LEDYARD CONNECTICUT SCALE: 1"=60' SHEET 1 OF 1 DATE: 03-04-2010 YANKEE FILE #E0048, BY CME ASSOCIATES, INC. ON FILE AS MAP #2629.



NOTE
THE MATHEMATICAL CLOSING LINE FROM POINT "A" TO POINT "B" IS NORTH 01°11'52" EAST 743.02 FEET



NOTE
THE MATHEMATICAL CLOSING LINE FROM POINT "B" TO POINT "C" IS NORTH 46°28'46" EAST 2064.65 FEET

COASTAL JURISDICTION LINE ELEV.=3.3 NGVD29 (C.I. ELEVATION 2.3 ADJUSTED +0.95 FEET FROM 88 TO 29)

NOTE
DELTA = 02°57'34"
ARC LENGTH = 293.38'
RADIUS = 5680.15'

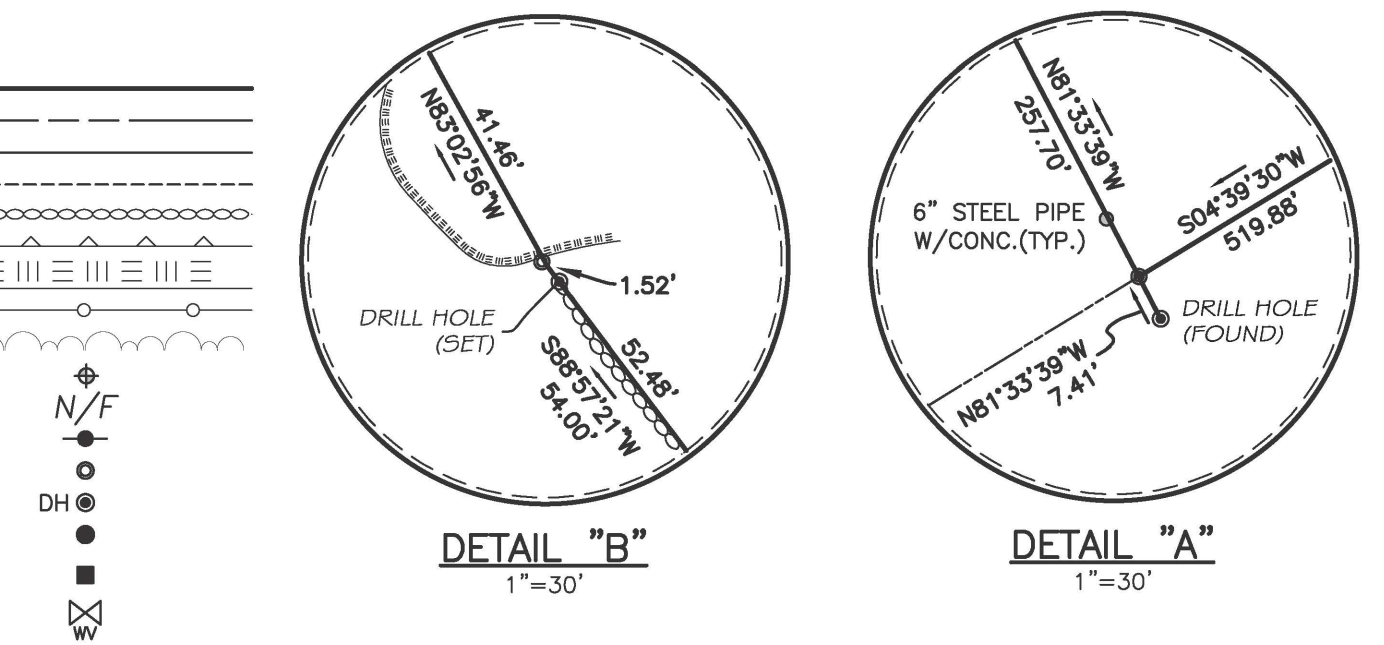
APPROXIMATE CENTER OF PROPERTY
LAT: 41.440528381 N
LONG: 72.082364265 W

DELTA = 29°58'52"
ARC LENGTH = 625.69'
RADIUS = 1707.26'
CHORD = 518°51'30" 622.19'

| CURVE | DELTA | RADIUS | LENGTH | CHORD |
|-------|-----------|----------|---------|---------------------|
| C1 | 01°40'08" | 1372.69' | 39.97' | S26°47'40"W 39.97' |
| C2 | 09°12'29" | 1392.69' | 223.79' | S32°13'30"W 223.55' |
| C3 | 08°58'01" | 888.96' | 888.96' | N37°03'13"E 888.05' |
| C4 | 30°01'19" | 489.65' | 256.57' | S13°02'17"W 253.64' |

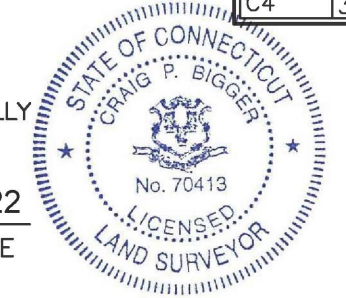
| LINE | LENGTH | BEARING |
|------|---------|-------------|
| L1 | 20.01' | S62°12'50"E |
| L2 | 28.38' | S04°59'07"W |
| L3 | 66.40' | S03°34'40"E |
| L4 | 19.01' | N17°55'36"E |
| L5 | 15.23' | N34°38'46"E |
| L6 | 78.87' | N28°09'31"E |
| L7 | 101.72' | S53°35'06"E |
| L8 | 85.28' | S33°34'13"W |
| L9 | 94.90' | N49°16'42"W |

LEGEND



- NOTES**
- THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.
 - THE TYPE OF SURVEY PERFORMED IS A PERIMETER AND TOPOGRAPHIC SURVEY CONFORMING TO THE STANDARDS OF ACCURACY FOR A HORIZONTAL CLASS A-2 AND IS A RESURVEY OF THE SUBJECT PROPERTY.
 - PHYSICAL FEATURES AND OTHER INFORMATION WAS DERIVED FROM AERIAL MAPPING DONE BY GOLDEN AERIAL SURVEYS, INC. MAPPING SCALE: 1"=40' PHOTO SCALE: 1"=500' PHOTO DATE: 04-27-2001 AND BY ON THE GROUND SURVEY WORK PERFORMED IN MAY, 2010.
 - ADDITIONAL FIELD WORK WAS PERFORMED IN SEPTEMBER, 2019 TO VERIFY SITE CONDITIONS AND LOCATE CHANGES.
 - THIS SURVEY WAS PREPARED TO DEPICT THE BOUNDARY AND EXISTING CONDITIONS OF THE SUBJECT PROPERTY.
 - THE SUBJECT PARCEL WAS CONVEYED TO TRINSEO LLC THROUGH A CONVEYANCE RECORDED IN VOLUME 532, PAGE 347 OF THE LEDYARD LAND RECORDS.
 - SEE SHEET 2 FOR ADDITIONAL NOTES.
 - THE SUBJECT PROPERTY IS SHOWN ON THE TOWN OF LEDYARD TAX ASSESSOR MAP No. 61 & 76 AS LOT 1761 & 1737 OF BLOCK 2120
 - TOTAL AREA OF PROPERTY = 158.201± ACRES (6,891,237.787± SQUARE FEET).
 - SITE IS LOCATED IN ZONE I (INDUSTRIAL). THE PURPOSE OF THE I DISTRICT IS "TO ENCOURAGE THE ADOPTION, CONTINUATION AND EXPANSION OF MANUFACTURING, RESEARCH, AND INDUSTRIAL USES CONSISTENT WITH THE RURAL CHARACTER AND NATURAL RESOURCE CONSTRAINTS OF LEDYARD." PER SECTION 4.9A OF THE TOWN OF LEDYARD ZONING REGULATIONS.
 - VERTICAL INFORMATION IS REFERENCED TO NGVD 29.
 - A PORTION OF THIS PROPERTY LIES WITHIN FLOOD ZONE AE-ELEVATION 12 AS SHOWN ON FIRM, FLOOD INSURANCE RATE MAP COMMUNITY: THE TOWN OF LEDYARD, CONNECTICUT NEW LONDON COUNTY PANEL 354 OF 554 COMMUNITY NUMBER 090157 MAP 09011C0354G EFFECTIVE DATE: JULY 18, 2011.
 - ABOVEGROUND AND UNDERGROUND UTILITY STRUCTURES AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON ARE THE RESULT OF OBSERVED EVIDENCE.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.
CRAIG P. BIGGER, L.S. #70413
5/10/2022
DATE



Drawing Copyright © 2015

33 Wilbur Cross Way, Mansfield, CT 06268
101 East River Drive, 1st Floor
East Hartford, CT 06108
860-885-1055 | www.chaacompaines.com

PREPARED FOR:
JAY CASHMAN, INC.
549 SOUTH STREET
QUINCY, MA

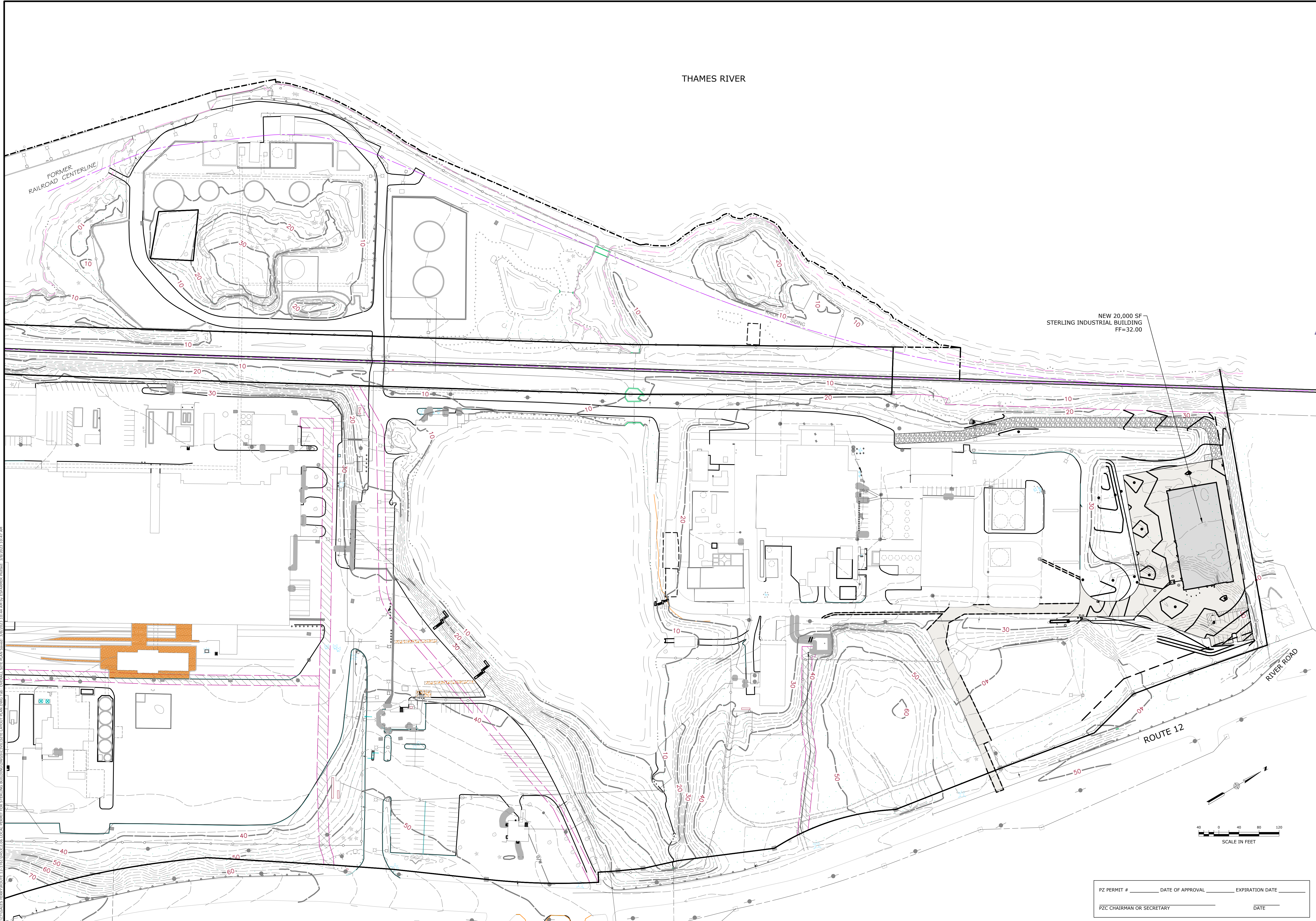
PROPERTY OF
TRINSEO LLC
#1737 & 1761 MILITARY
HIGHWAY (ROUTE 12)
LEDYARD, GALES FERRY, CT

| No. | Submitted / Revision | App'd | By | Date |
|-----|----------------------|-------|----|------|
| | | | | |

PROPERTY SURVEY

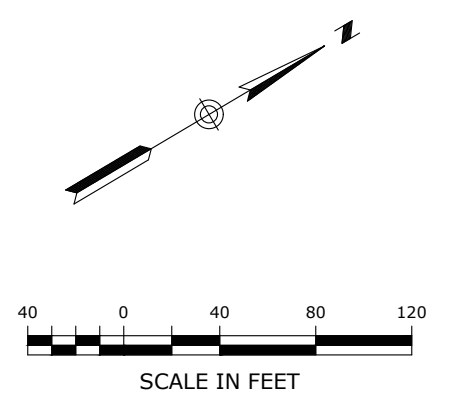
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| Designed By: --- | Drawn By: CB | Checked By: CB |
| Issue Date: 5/10/2022 | Project No: 076625 | Scale: 1" = 100' |

Drawing No.: SHEET 1 OF 2



THAMES RIVER

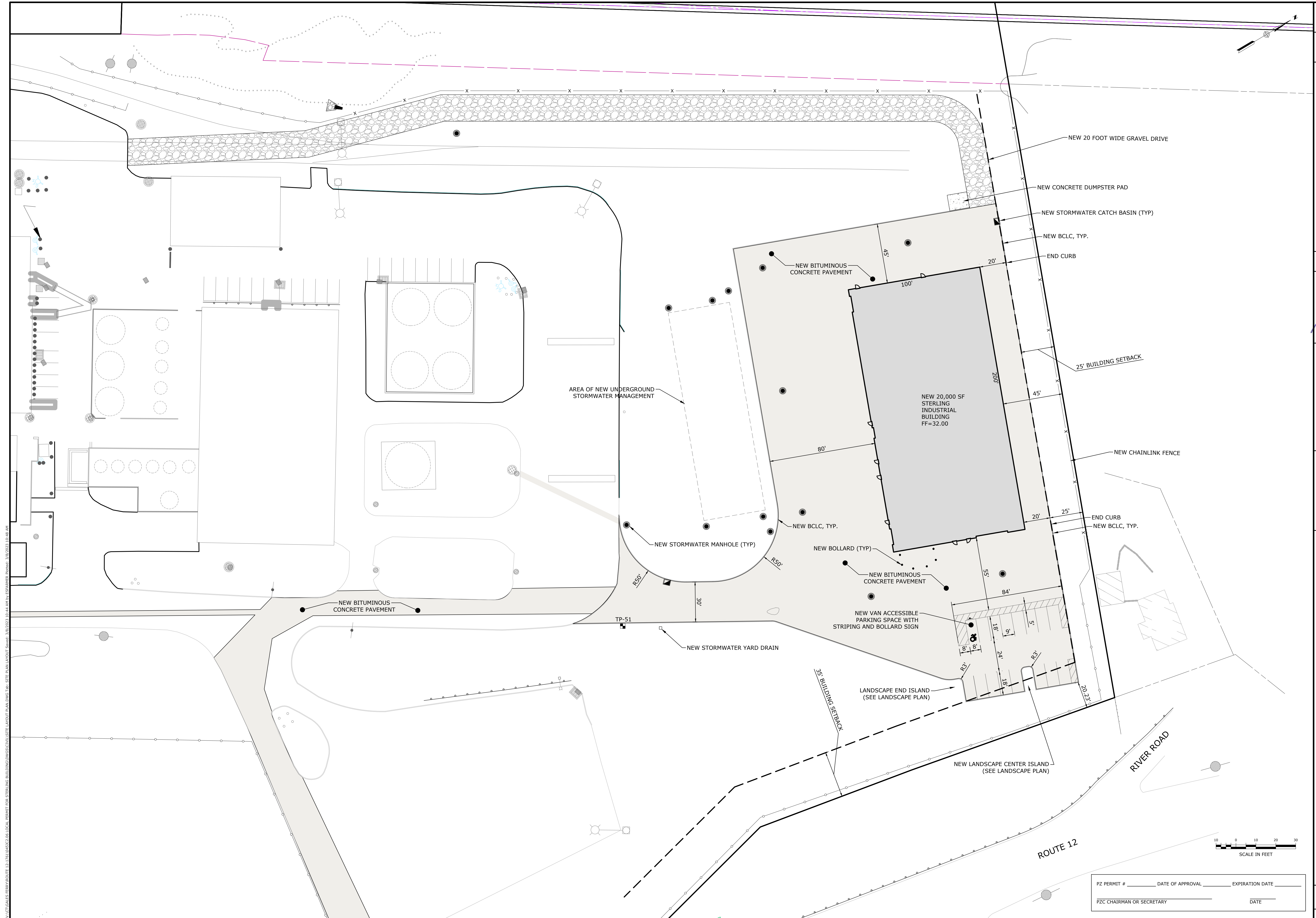
NEW 20,000 SF
STERLING INDUSTRIAL BUILDING
FF=32.00



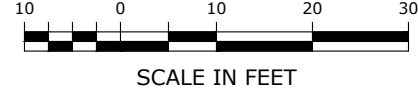
PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____
PZC CHAIRMAN OR SECRETARY _____ DATE _____

V:\ACT\GALES FERRY\ROUTE 12_1761\0451C2.06_LOCAL PERMIT FOR STERLING BUILDING\DWG\SCHEMATIC\SITE LAYOUT PLAN.DWG.TB OVERALL SITE PLAN.dwg 3/6/2023 10:47 AM

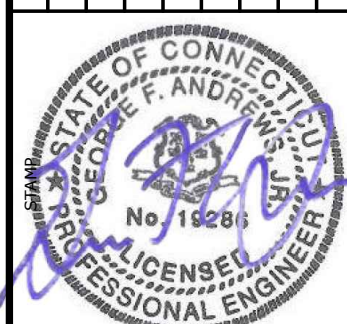

| | |
|--|---|
| <p>OVERALL SITE PLAN</p> <p>GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335</p> <p>GALES FERRY INTERMODAL LLC 39 SOUTH STREET, DANBURY, CT 06810</p> | <p>SCALE: 1" = 100'</p> <p>CONTRACT NO.: 0451C2.06</p> <p>DATE: 03/07/2023</p> <p>DRAWN BY: ESP</p> <p>APPROVED BY: SRM</p> |
| <p>STATE OF CONNECTICUT REGISTERED PROFESSIONAL ENGINEER No. 10281</p> | |
| <p>Loureiro Water • Facility Services • Laboratory Loureiro Engineering Associates, Inc. 1761 Route 12, Gales Ferry, CT 06335 Tel: 860-797-0181 Fax: 860-797-8827 An Employee Owned Company • www.loureiro.com © Loureiro Engineering Associates, Inc. All Rights Reserved 2023</p> | |
| <p>C-2</p> <p>SHEET NO. 4 NO. OF SHEETS 20</p> | <p>DATE _____</p> <p>REV. _____</p> <p>DESCRIPTION OF REVISION _____</p> |

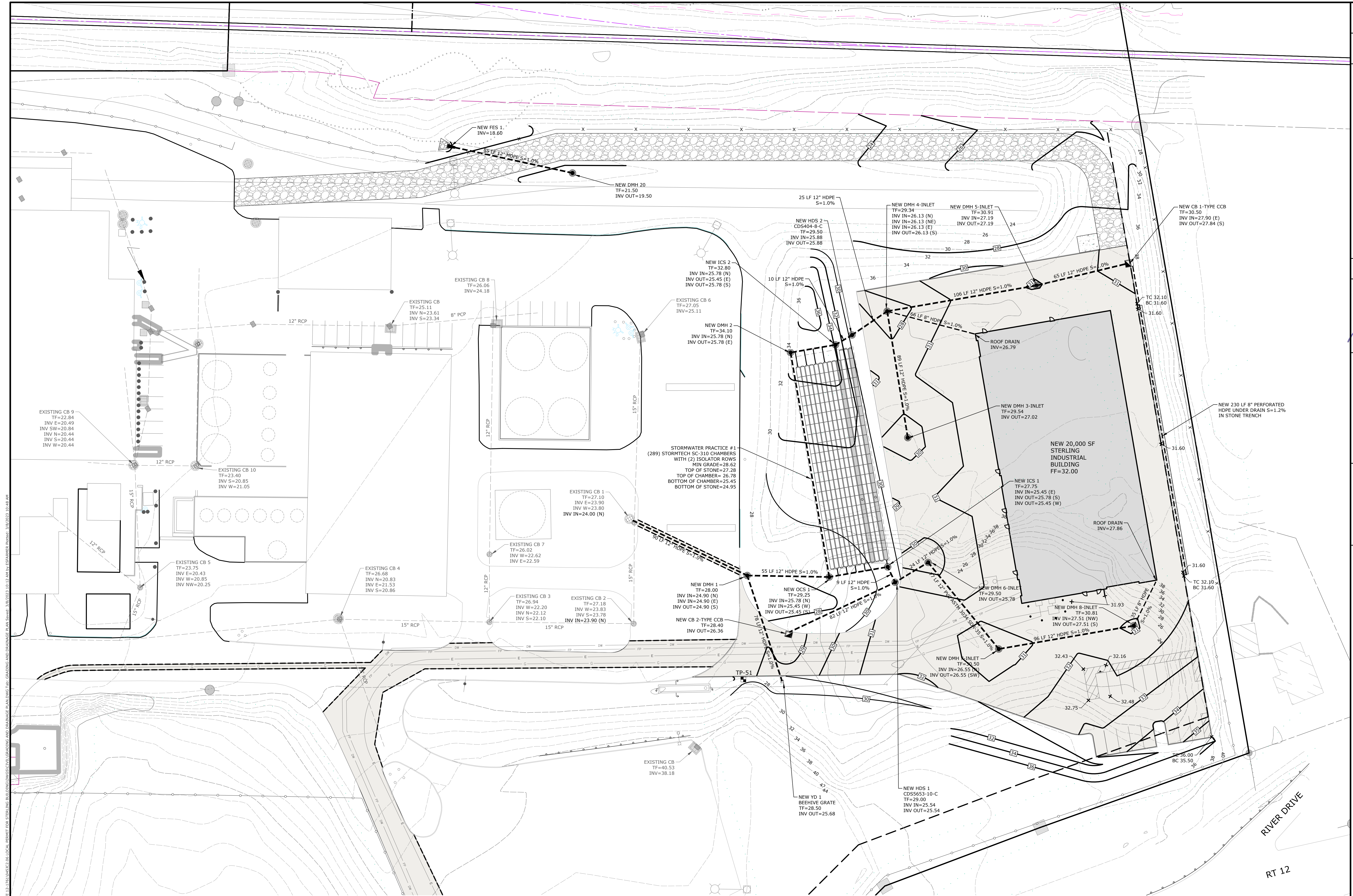


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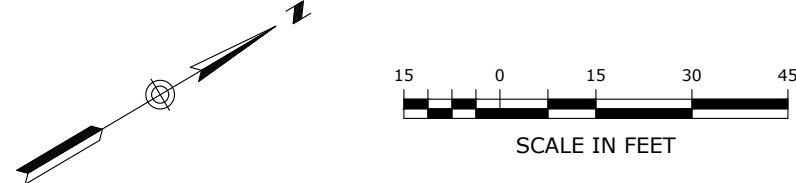


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| PZ PERMIT # _____ | DATE OF APPROVAL _____ | EXPIRATION DATE _____ |
| PZC CHAIRMAN OR SECRETARY _____ | DATE _____ | |

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|--|--|-------|----------|----------|-----|------|------------|-------------|-----|------|------------|
| SITE PLAN LAYOUT GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335 GALES FERRY INTERMODAL LLC <small>383 SOUTH STREET, DANBURY, CT 06810</small> | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">SCALE</td> <td>1" = 30'</td> </tr> <tr> <td style="font-size: 8px;">DRAWN BY</td> <td>ESF</td> </tr> <tr> <td style="font-size: 8px;">DATE</td> <td>03/07/2023</td> </tr> <tr> <td style="font-size: 8px;">APPROVED BY</td> <td>SRM</td> </tr> <tr> <td style="font-size: 8px;">DATE</td> <td>03/07/2023</td> </tr> </table> | SCALE | 1" = 30' | DRAWN BY | ESF | DATE | 03/07/2023 | APPROVED BY | SRM | DATE | 03/07/2023 |
| SCALE | 1" = 30' | | | | | | | | | | |
| DRAWN BY | ESF | | | | | | | | | | |
| DATE | 03/07/2023 | | | | | | | | | | |
| APPROVED BY | SRM | | | | | | | | | | |
| DATE | 03/07/2023 | | | | | | | | | | |
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| SHEET NO. 6 | NO. OF SHEETS 20 | | | | | | | | | | |

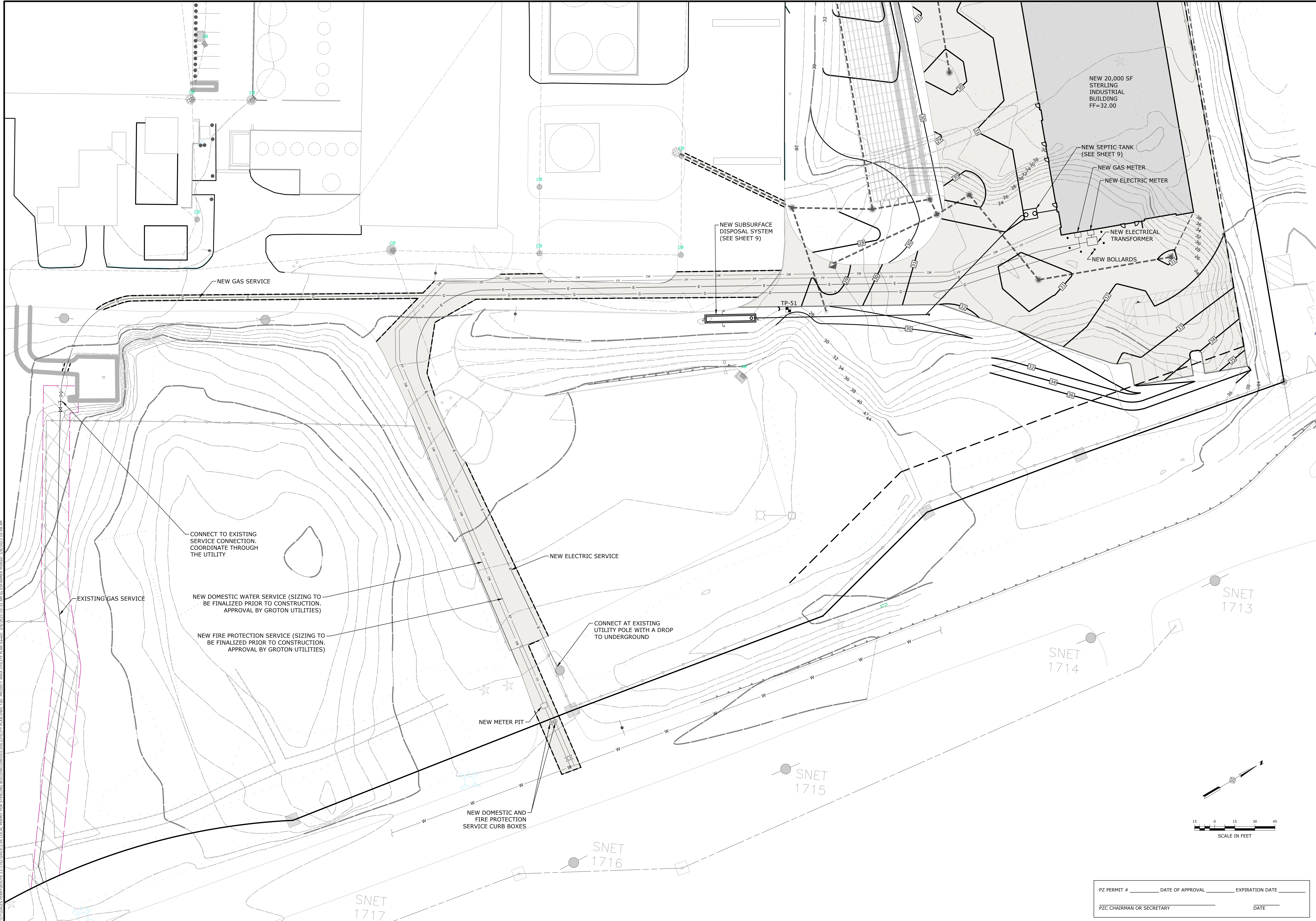


V:\CT\GALES FERRY\ROUTE 12\176104532\04 LOCAL PERMIT FOR STERLING BUILDING\SCULPTURING AND DRAINAGE PLAN\DWG\IN GRADING AND DRAINAGE PLAN\DWG\176104532_04.DWG by ESP/ARMER/03/07/2023 10:48 AM



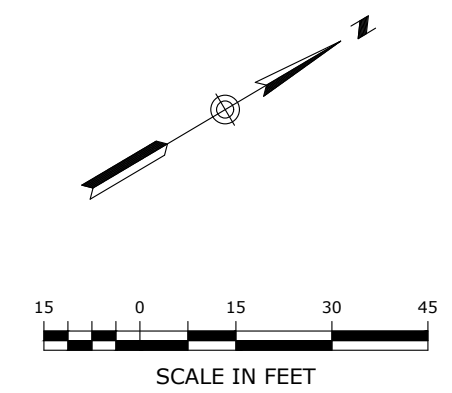
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| PZ PERMIT # _____ | DATE OF APPROVAL _____ | EXPIRATION DATE _____ |
| PZC CHAIRMAN OR SECRETARY _____ | DATE _____ | |

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|--|---|-------|----------|----------|-----|------|------------|-------------|-----------|-------------|-----|------|------------|
| GRADING AND DRAINAGE PLAN GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335 GALES FERRY INTERMODAL LLC <small>353 SOUTH STREET, SUITE 101, DANBURY, CT 06810</small> | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">SCALE</td> <td>1" = 30'</td> </tr> <tr> <td style="font-size: 8px;">DRAWN BY</td> <td>ESP</td> </tr> <tr> <td style="font-size: 8px;">DATE</td> <td>03/07/2023</td> </tr> <tr> <td style="font-size: 8px;">DRAWING NO.</td> <td>0451C2.06</td> </tr> <tr> <td style="font-size: 8px;">APPROVED BY</td> <td>SRM</td> </tr> <tr> <td style="font-size: 8px;">DATE</td> <td>03/07/2023</td> </tr> </table> | SCALE | 1" = 30' | DRAWN BY | ESP | DATE | 03/07/2023 | DRAWING NO. | 0451C2.06 | APPROVED BY | SRM | DATE | 03/07/2023 |
| SCALE | 1" = 30' | | | | | | | | | | | | |
| DRAWN BY | ESP | | | | | | | | | | | | |
| DATE | 03/07/2023 | | | | | | | | | | | | |
| DRAWING NO. | 0451C2.06 | | | | | | | | | | | | |
| APPROVED BY | SRM | | | | | | | | | | | | |
| DATE | 03/07/2023 | | | | | | | | | | | | |
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| STATE OF CONNECTICUT PROFESSIONAL ENGINEER LICENSE No. 16285 | | | | | | | | | | | | | |

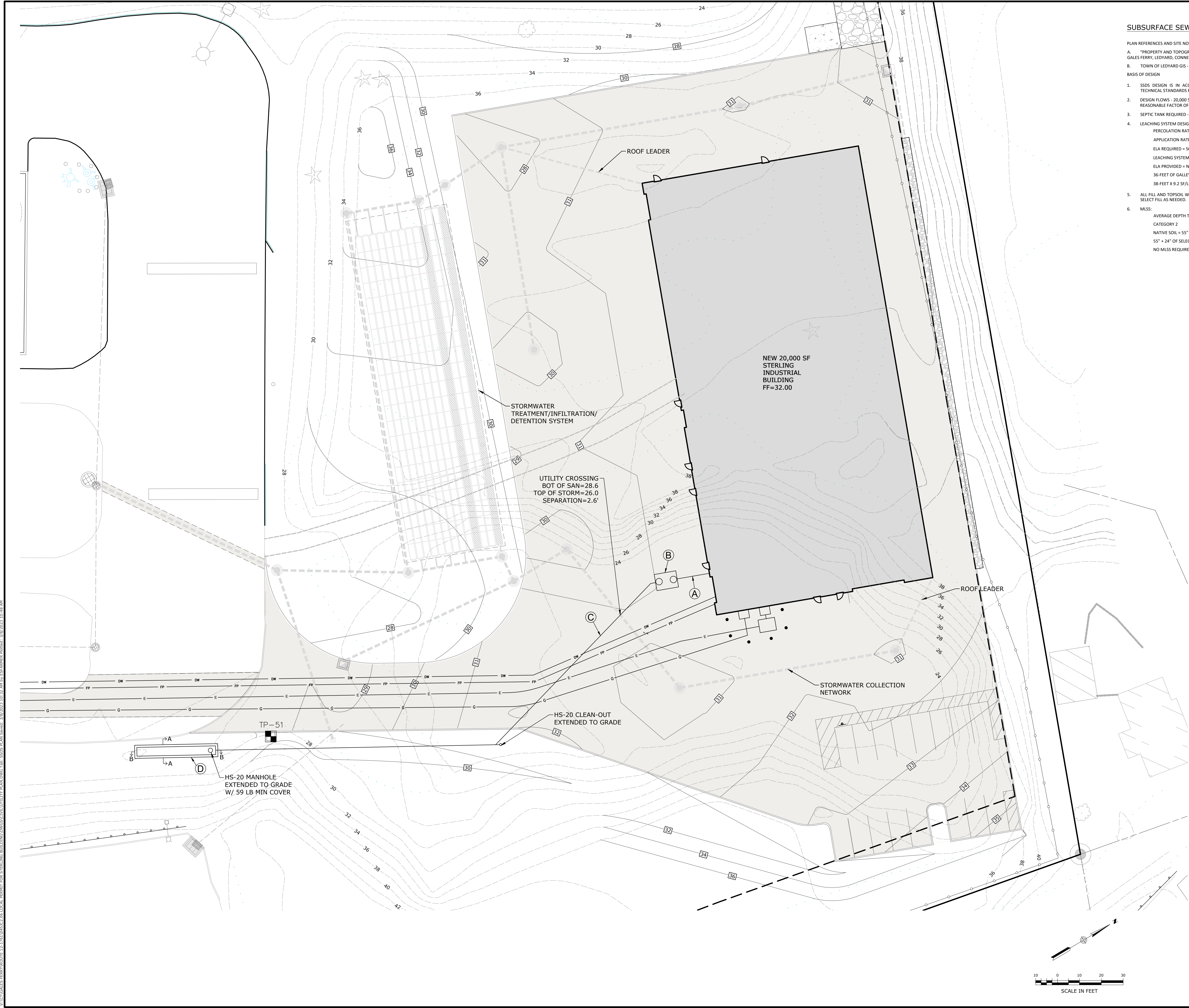


V:\CT\GALES FERRY\ROUTE 12, 1761\045C2.06\LOCAL PERMIT FOR STERLING BUILDINGS\COUL\UTILITY PLAN.DWG (Job: PROJECT AREA UTILITY PLAN Saved: 3/02/2023 10:32 AM by: E5646666 Revise: 3/02/2023 10:48 AM)

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| PZ PERMIT # _____ | DATE OF APPROVAL _____ | EXPIRATION DATE _____ |
| PZC CHAIRMAN OR SECRETARY _____ | DATE _____ | |



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| UTILITY PLAN GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335 GALES FERRY INTERMODAL LLC <small>383 SOUTH STREET, DANBURY, CT 06810</small> | SCALE: 1"=30' DRAWING NO: 0451C2.06 DATE: 03/07/2023 DRAWN BY: ESP APPROVED BY: SRM |
| | DATE: _____ REV: _____ DESCRIPTION OF REVISION: _____ DATE: _____ APRR: _____ |
| | |



SUBSURFACE SEWAGE DISPOSAL SYSTEM (SSDS) BASIS OF DESIGN:

- PLAN REFERENCES AND SITE NOTES
- "PROPERTY AND TOPOGRAPHIC SURVEY PREPARED FOR STYRON LLC 'ALLYN'S POINT PLANT' 1737 & 1761 MILITARY HIGHWAY - ROUTE 12, GALES FERRY, LEDYARD, CONNECTICUT PREPARED BY CME ASSOCIATES, INC. DATED SEPTEMBER 2, 2010
 - TOWN OF LEDYARD GIS - PUBLIC WATER IS AVAILABLE ON THIS SITE AND ALL ADJACENT PROPERTIES
- BASIS OF DESIGN
- SSDS DESIGN IS IN ACCORDANCE WITH THE CONNECTICUT PUBLIC HEALTH CODE, ON-SITE SEWAGE DISPOSAL REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS.
 - DESIGN FLOWS - 20,000 SQUARE FOOT (SF) EQUIPMENT MAINTENANCE GARAGE. NUMBER OF EMPLOYEES - 10. ASSUME TWO SHIFTS AS A REASONABLE FACTOR OF SAFETY ALLOCATING 20 EMPLOYEES AT 25 GALLONS PER DAY (GPD) PER EMPLOYEE. DESIGN FLOW - 500 GPD.
 - SEPTIC TANK REQUIRED - MINIMUM 1,000 GALLONS. SEPTIC TANK PROVIDED - 1,250 HS-20 DESIGNED FOR TRAFFIC AREA.
 - LEACHING SYSTEM DESIGN - USING 48-INCH CONCRETE LEACHING GALLEYS HS-20 DESIGNED FOR TRAFFIC AREA.
PERCOLATION RATE = 1.5 GPD/SF
APPLICATION RATE = 1.5 GPD/SF OF EFFECTIVE LEACHING AREA (ELA)
ELA REQUIRED = $500 \text{ GPD} / 1.5 \text{ GPD/SF} = 334 \text{ SF}$
LEACHING SYSTEM - 48-INCH HIGH CONCRETE LEACHING GALLEYS = 9.2 SF/LF ELA
ELA PROVIDED = NINE 4-FOOT LONG GALLEYS WITH 12-INCHES OF NO. 4 CRUSHED STONE AROUND
36- FEET OF GALLEYS PLUS 2- FEET OF CRUSHED STONE AT THE ENDS
38- FEET X 9.2 SF/LF ELA = 349 SF ELA
 - ALL FILL AND TOPSOIL WITHIN FIVE FEET SURROUNDING THE LEACHING SYSTEM AREA SHALL BE REMOVED AND REPLACED WITH SUITABLE SELECT FILL AS NEEDED.
 - MLSS:
AVERAGE DEPTH TO RESTRICTIVE LAYER:
CATEGORY 2
NATIVE SOIL - 55"
55" + 24" OF SELECT FILL = 79" > 60"
NO MLSS REQUIRED

SEPTIC SYSTEM KEY

| | |
|-----|--|
| (A) | 15 L.F. 4" SCH. 40 PVC ASTM D1785 BUILDING SEWER PIPE INSTALLED @ 1/4" PER FT. MIN. SLOPE AND 12" MIN. COVER |
| (B) | 1,250-GALLON HS-20 CONCRETE SEPTIC TANK |
| (C) | 233 L.F. 4" SDR 35 ASTM D3034 DISTRIBUTION PIPE INSTALLED @ 1% MIN. SLOPE |
| (D) | (1) ROW OF 48" HIGH HS-20 CONCRETE LEACHING GALLEYS @ 38 L.F. TOTAL WITH 1' CRUSHED NO. 4 STONE AROUND ALL SIDES |

REFER TO SYSTEM INVERT TABLE ON THIS SHEET FOR PROPOSED INVERT ELEVATIONS.

SEPTIC SYSTEM INVERT SCHEDULE

| | |
|------------------------|---------------------------|
| BUILDING SEWER INVERT | 29.50 |
| SEPTIC TANK INVERT | IN 29.15 OUT 28.90 |
| LEACHING GALLEYS | TOP 26.35 BOTTOM 22.35 |
| LEACHING GALLEY INVERT | 25.85 |

NO. 4 STONE AGGREGATE

AKA 1 & 1/2" STONE

| SIETVE SIZE | PERCENT PASSING (BY WEIGHT) |
|-------------|-----------------------------|
| 2" | 100 |
| 1 1/2" | 90-100 |
| 1" | 20-55 |
| 3/4" | 0-15 |
| 1/2" | N/A |
| 3/8" | 0-5 |
| #4 | N/A |
| #40 | 0-3 |
| #200 | 0-1 1/2 |

SELECT FILL

| SIETVE SIZE | PERCENT PASSING (BY WEIGHT) | |
|-------------|-----------------------------|-----------|
| | WET SIEVE | DRY SIEVE |
| #4 | 100 | 100 |
| #10 | 70-100 | 70-100 |
| #40 | 10-50* | 10-75 |
| #100 | 0-20 | 0-5 |
| #200 | 0-5 | 0-2.5 |

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75 IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10 AND THE #200 SIEVE DOES NOT EXCEED 5.

TEST PIT LOG: TP-51

| DEPTH | OBSERVATIONS |
|----------|--|
| 0'-24" | GRAVEL, FILL |
| 24'-68" | DARK BROWN FINE SANDY LOAM, CONCRETE DEBRIS W/ REBAR FOUND |
| 68'-75" | BURIED TOPSOIL LAYER |
| 75'-93" | TAN GREY FINE SANDY LOAM WITH GRAVEL |
| 93'-150" | ORANGE BROWN MEDIUM-COARSE SAND AND GRAVEL W/ COBBLES |

* ROOTS TO 93"
* GROUNDWATER AT 130"
* NO REFUSAL

PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____
PZC CHAIRMAN OR SECRETARY _____ DATE _____



SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN
 GALE'S FERRY INTERMODAL
 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335
 GALE'S FERRY INTERMODAL LLC
 389 SOUTH STREET, DANBURY, CT 06810

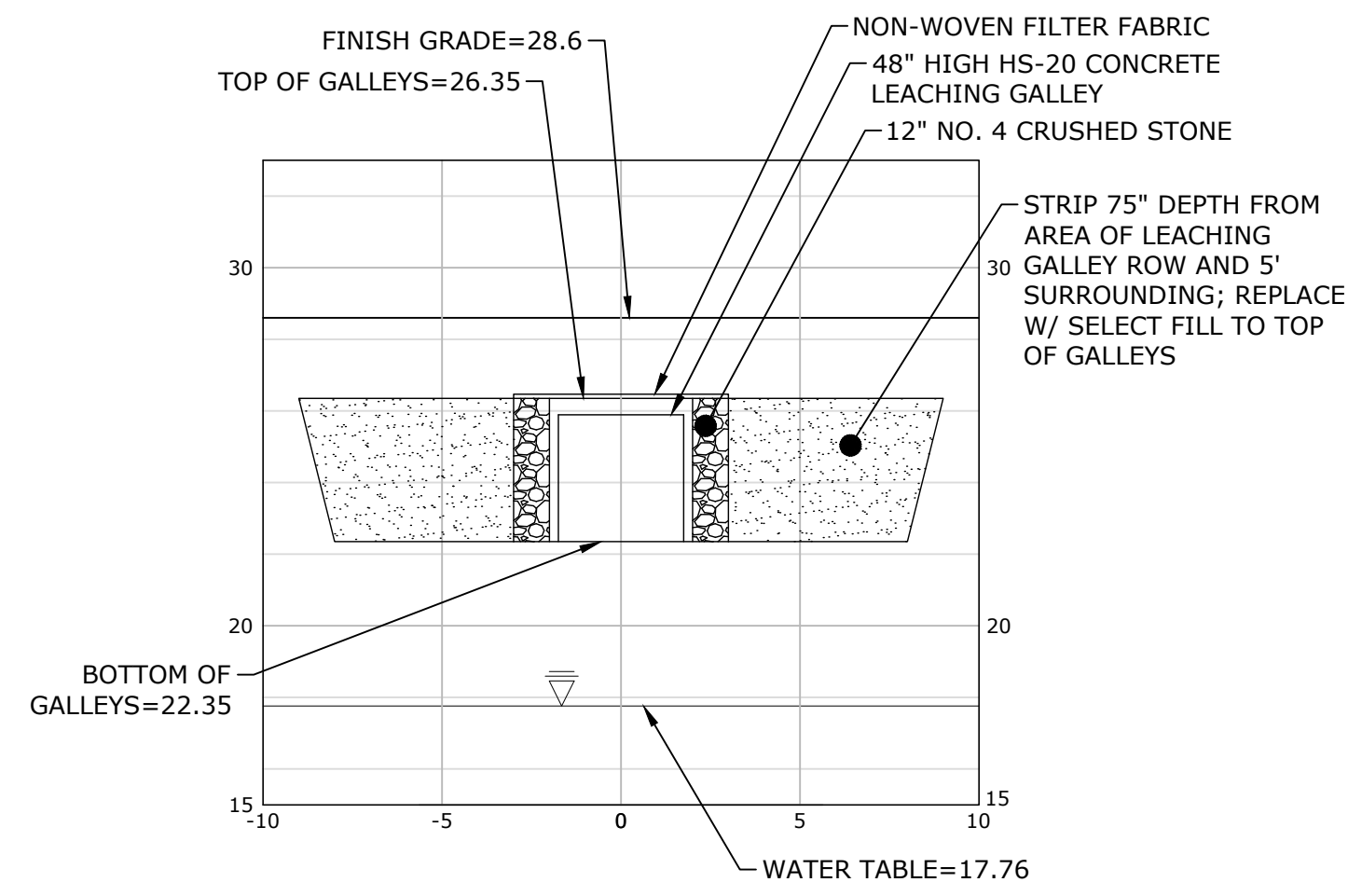
SCALE: 1" = 20'
 DRAWN BY: ESP
 APPROVED BY: SRM
 DATE: 03/07/2023
 DATE: 03/07/2023

PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____
 PZC CHAIRMAN OR SECRETARY _____ DATE _____

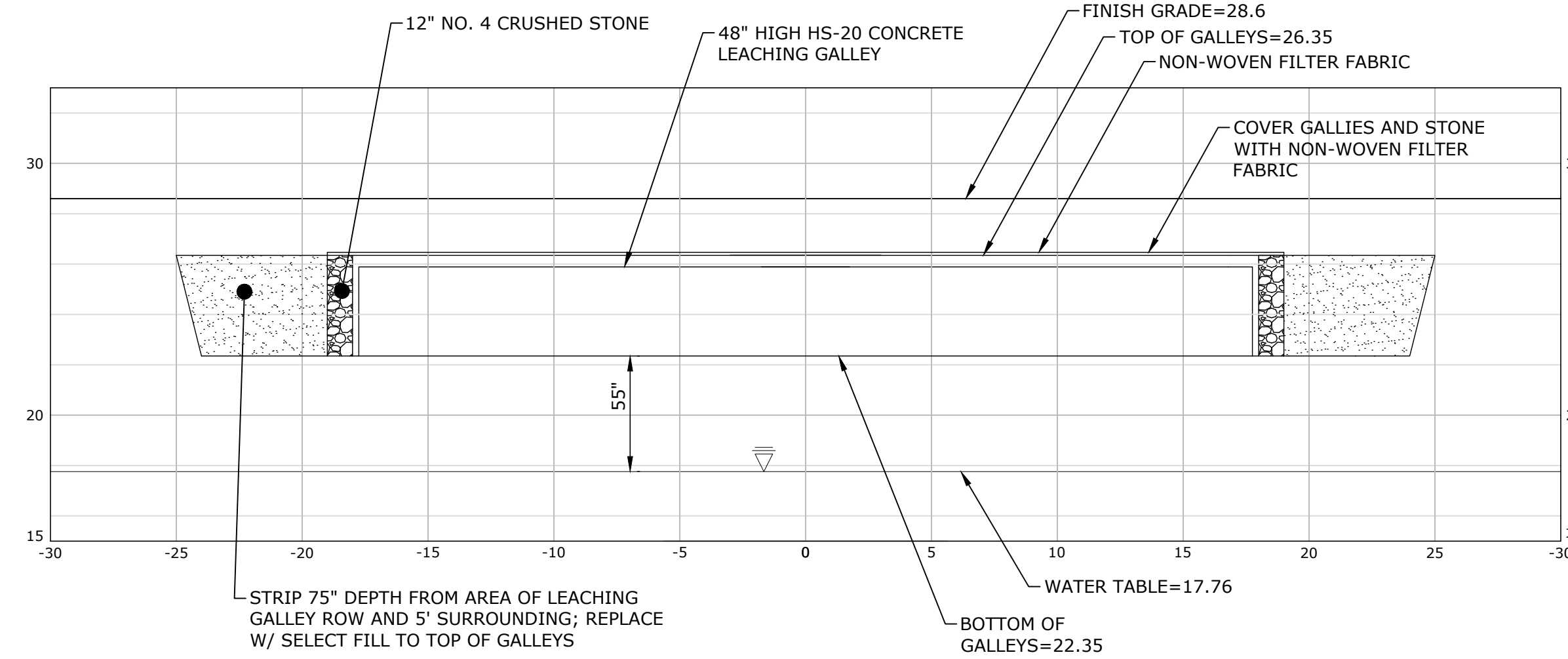
SHEET NO. 9 OF 20
 NO. OF SHEETS 20

C-7

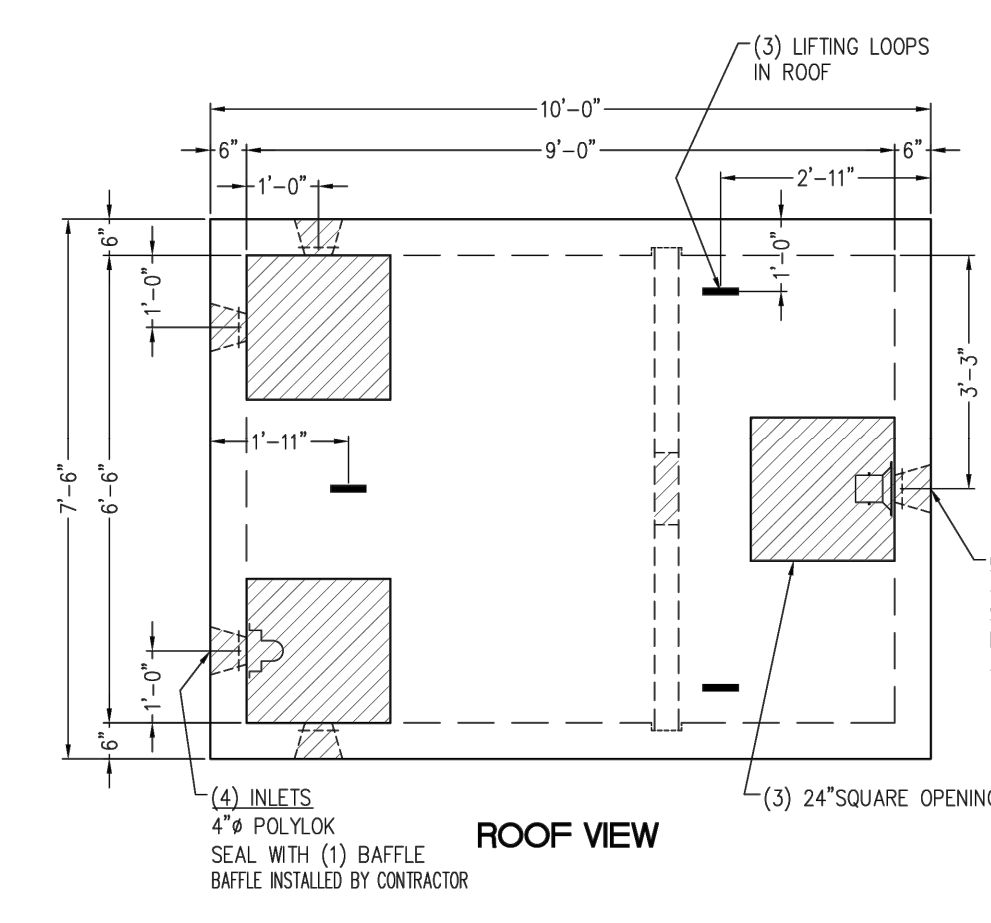
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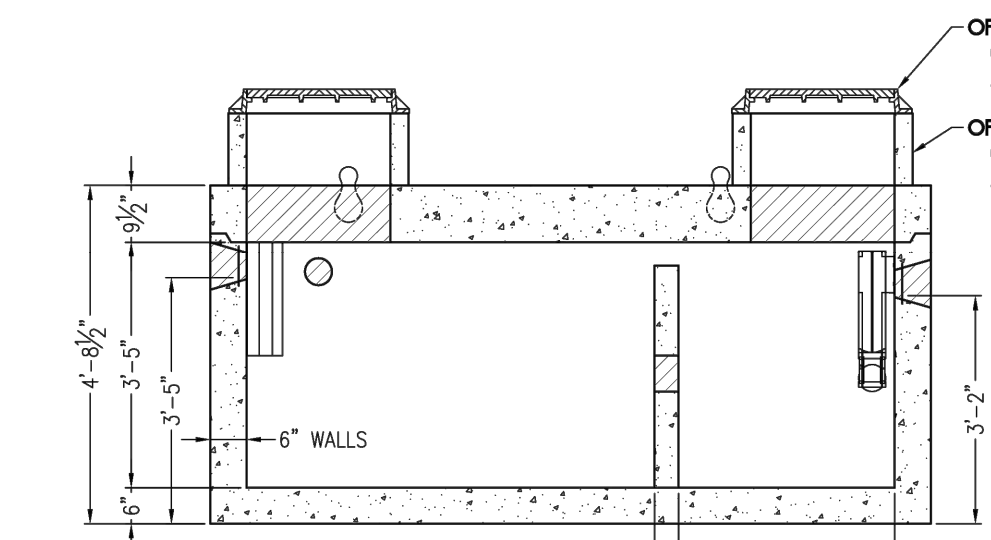
A-A SECTION VIEW
SCALE: 1"=5'H&V



B-B SECTION VIEW
SCALE: 1"=5'H&V



ROOF VIEW



ELEV. SECTION

**1,250 GALLON
HS-20
SEPTIC TANK**

TANK DESIGN SPECIFICATIONS CONFORMS TO LATEST ASTM DESIGNATION C1227

NOTES:
1. JOINT SEALANT IS BUTYL RUBBER MASTIC TYPE SEAL THAT CONFORMS TO LATEST AASHTO SPEC. M-198.
2. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPEC. A603, GRADE 60.
3. COVER 1/2" UNLESS NOTED.
4. CONCRETE COMPRESSIVE STRENGTH-5,000 PSI AT 28 DAYS SELF CONSOLIDATING CONCRETE. METHOD OF MANUFACTURE: WET CAST.
5. BOTTOM SECTION IS MONOLITHIC.
6. DESIGNED FOR AASHTO HS-20 LOADING WITH 6" TO 60" OF SOIL COVER.
7. ALL PIPING PROVIDED AND INSTALLED BY CONTRACTOR.
8. LIFTING - LIFTING LOOPS IN ROOF SLUNG LIFTING NOTCHED IN BASE SECTION

| WEIGHT CHART | |
|---------------|----------------|
| PRODUCT | APPROX. WEIGHT |
| TANK W/BAFFLE | 24,900 LBS. |

1,250 GALLON HS-20 SEPTIC TANK
NOT TO SCALE

SUBSURFACE SEWAGE DISPOSAL SYSTEM (SSDS) CONSTRUCTION NOTES:

- REFER TO SOIL EROSION AND SEDIMENT CONTROL PLAN FOR EROSION PROTECTION.
- PROCEDURES FOR THE INSTALLATION OF FILL:
 - NO EXCAVATION SHALL OCCUR PRIOR TO NOTIFYING "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 OR 811.
 - INSTALL EROSION CONTROL ALONG THE DOWN-GRADIENT LIMITS OF FILL IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
 - STRIP ALL VEGETATION, ORGANIC MATTER AND UNSUITABLE OVERBURDEN INCLUDING THE BURIED TOPSOIL TO A DEPTH OF 75-INCHES BELOW GRADE IN THE AREA OF AND TEN FEET SURROUNDING THE NEW LEACHING SYSTEM. REMOVE ANY UNSUITABLE MATERIAL WHICH MAY INTERFERE WITH THE PROPER FUNCTION OF THE SYSTEM.
 - SCARIFY THE SURFACE IN THE PROPOSED LEACHING SYSTEM AREA PRIOR TO PLACING ANY SELECT FILL MATERIAL. AVOID COMPACTING THE SCARIFIED AREA. FILL SHALL NOT BE PLACED OVER SNOW OR FROZEN GROUND. DISCONTINUE FILL PLACEMENT DURING HEAVY RAINFALL AND A MINIMUM OF 24 HOURS THEREAFTER.
 - SELECT FILL SHALL BE PLACED WITHIN OR ADJACENT TO THE LEACHING SYSTEM PER THE PLAN AND SHALL MEET THE REQUIREMENTS OF SECTION VII.A OF THE TECHNICAL STANDARDS. SELECT FILL SHALL BE PLACED TO THE TOP OF THE PROPOSED LEACHING GALLEYS AND SHALL EXTEND A MINIMUM OF FIVE FEET LATERALLY IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE LEACHING SYSTEM AND TO DEPTHS INDICATED IN THE CROSS SECTION. THE SELECT FILL MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90% DENSITY.
 - A SIEVE ANALYSIS FROM A SOIL TESTING LABORATORY SHALL BE PROVIDED TO LEDGE LIGHT HEALTH DISTRICT FOR ALL SELECT FILL MATERIAL TO DEMONSTRATE COMPLIANCE WITH THE TECHNICAL STANDARDS.
 - NATIVE SOIL OR COMMON FILL SHALL BE USED AS BACKFILL BEYOND THE LIMITS OF SELECT FILL AND BELOW THE TOPSOIL LAYER.
- NO UTILITIES SHALL BE INSTALLED THROUGH ANY PORTION OF THE LEACHING SYSTEM.
- SEPTIC TANK SHALL BE SET LEVEL ON A MINIMUM OF SIX INCHES OF PROCESSED AGGREGATE OR BROKEN STONE PLACED ON COMPACTED SUBGRADE. BACKFILL AROUND THE TANK SHALL BE PLACED AND COMPACTED IN SIX INCH LIFTS.
- HS-20 SEPTIC TANK SHALL BE EQUIPPED WITH RISERS TO GRADE EQUIPPED WITH CAST IRON MANHOLE COVERS WITH A MINIMUM WEIGHT OF 59 POUNDS EQUIPPED WITH A LOCKING FEATURE.
- PERCOLATION TESTS SHALL BE PERFORMED IN THE PRIMARY AND RESERVE LEACHING SYSTEM AREAS PRIOR TO CONSTRUCTION TO CONFIRM DESIGN PERCOLATION RATE. DESIGN ENGINEER SHALL PROVIDE PERCOLATION TEST RESULTS TO LEDGE LIGHT HEALTH DISTRICT UPON COMPLETION. IF THE PERCOLATION RATE IS SLOWER THAN THE DESIGN RATE, REVISIONS TO THE LEACHING SYSTEM WILL BE REQUIRED.
- THE NEW SSDS SHALL BE STAKED BY A LICENSED SURVEYOR AND A BENCH MARK SHALL BE ESTABLISHED AT THE LOCATION SHOWN ON THE SSDS PLAN.
- THE INSTALLER SHALL SUBMIT TO LEDGE LIGHT HEALTH DISTRICT UPON 30 DAYS OF COMPLETION SCALED OR TIED AS-BUILT DRAWINGS OF ALL SSDS COMPONENTS. THE DRAWING SHALL INCLUDE THE NAME OF THE INSTALLER, DATE AND PROPERTY LOCATION/ADDRESS.
- ALL STORM AND/OR ROOF DRAINS WITHIN 25 FEET OF THE SEPTIC SYSTEM SHALL BE TIGHT PIPE WITH NO FREE-DRAINING BEDDING MATERIAL IN TRENCH.

**4'x4'x4' GALLEY
HS-20 LEACHING
CHAMBER**

GALLEY DESIGN SPECIFICATIONS CONFORMS TO LATEST: ASTM DESIGNATION C913

NOTES:

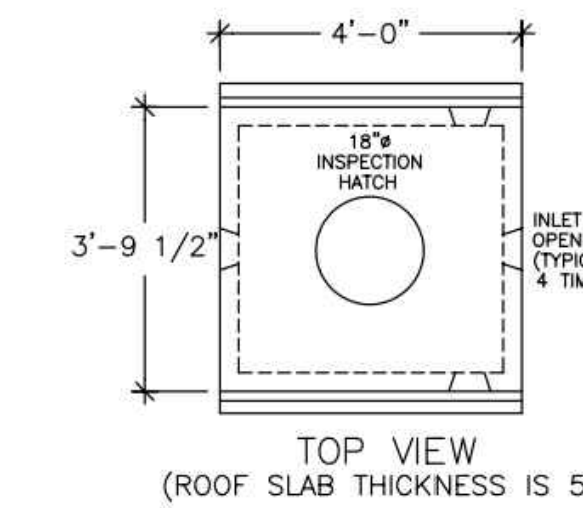
- PIPE INLET LOCATIONS HAVE 4" DIAMETER KNOCKOUTS, TYPICAL. CUSTOM KNOCKOUTS CAN BE CAST ON REQUEST.
- REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPECIFICATION A615.
- CONCRETE COMPRESSIVE STRENGTH- 4000 PSI AT 28 DAYS.
- METHOD OF MANUFACTURE: WET CAST.
- SECTION IS MONOLITHIC.
- THE GALLEY IS DESIGNED FOR HS-20 LOADING w/18" OF SOIL COVER.

WEIGHT CHART

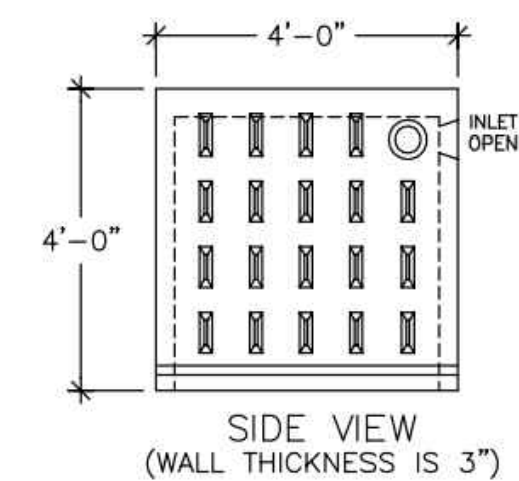
| PRODUCT | APPROX. WEIGHT |
|-----------------|----------------|
| 4'x4'x4' GALLEY | 2200 LBS. |

LEACHING DATA

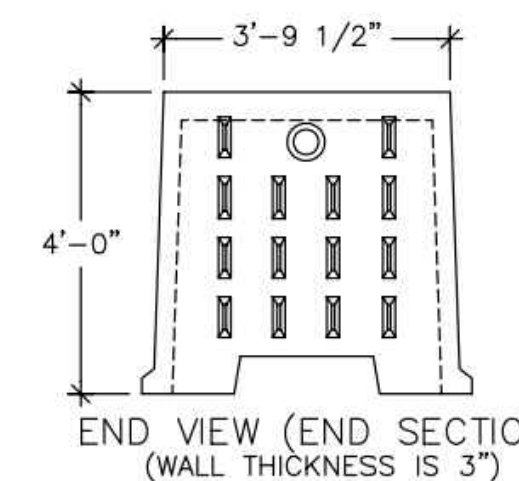
| FLOW LINE (INCHES) | LEACHING (Gph/LF) | LEACHING (FT ² /UNIT) | INSIDE CAPACITY (GALLONS) |
|--------------------|-------------------|----------------------------------|---------------------------|
| 38 | 9.2 | 36.8 | 330 |



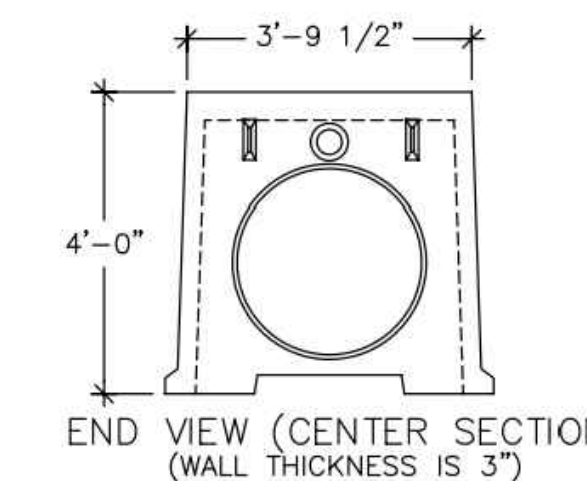
TOP VIEW
(ROOF SLAB THICKNESS IS 5")



SIDE VIEW
(WALL THICKNESS IS 3")



END VIEW (END SECTION)
(WALL THICKNESS IS 3")



END VIEW (CENTER SECTION)
(WALL THICKNESS IS 3")

48" HIGH HS-20 LEACHING GALLEY
NOT TO SCALE

PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____
PZC CHAIRMAN OR SECRETARY _____ DATE _____

SUBSURFACE SEWAGE DISPOSAL SECTIONS, DETAILS & NOTES

Loureiro
Engineering & Construction • Energy • Est. & Energy
100 Northwood Drive • Plainville, Connecticut 06062
Phone: 860-267-9688 • Fax: 860-267-8822
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GALES FERRY INTERMODAL
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335
GALES FERRY INTERMODAL LLC
349 SOUTH STREET, QUINCY, MA 02269

SCALE AS NOTED
CONTR. NO. 0451C2.06
DATE 3/6/2023
DRAWN BY FCC
APPROVED BY GFA

DATE 3/6/2023

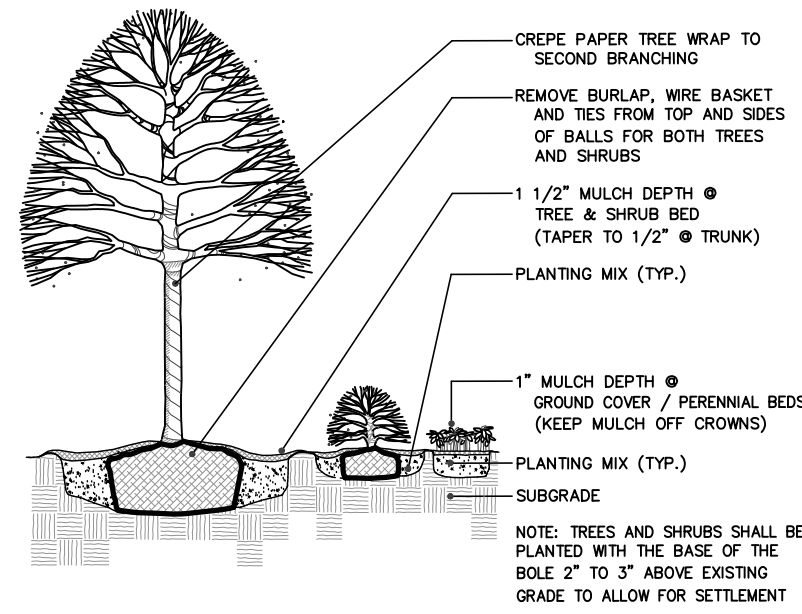
DESCRIPTION OF REVISION
REV. DATE

APPR. DATE

| PLANT SCHEDULE | | | | | |
|-------------------------|------|----------------------------------|-------------------------|--------------|-------|
| KEY | QTY. | TECHNICAL NAME | COMMON NAME | SIZE | COND. |
| DECIDUOUS TREES | | | | | |
| LS | 2 | LIQUIDAMBAR STYRACIFLUA | SWEETGUM | 2"-2.5" CAL. | B&B |
| MV | 1 | MAGNOLIA VIRGINIANA | SWEET BAY MAGNOLIA | 6'-7' HT. | B&B |
| CONIFEROUS TREES | | | | | |
| TP | 55 | THUJA PLICATA 'GREEN GIANT' | GREEN GIANT ARBORVITAE | 5'-6' HT. | B&B |
| SHRUBS | | | | | |
| CS | 37 | CORNUS SERICEA 'FLAVIRAMEA' | YELLOW TWIG DOGWOOD | 3 GAL. | CONT. |
| IG | 8 | ILEX GLABRA 'SHAMROCK' | SHAMROCK INKBERRY HOLLY | 3 GAL. | CONT. |
| PERENNIALS | | | | | |
| ES | 42 | ERAGOSTIS SPECTABILIS | PURPLE LOVE GRASS | 1 GAL. | CONT. |
| PN | 112 | PANICUM VIRGATUM 'NORTHWIND' | NORTHWIND SWITCHGRASS | 3 GAL. | CONT. |
| PV | 15 | PHYSOSTEGIA VIRGINIANA 'VIVID' | VIVID OBEDIENT PLANT | 1GAL. | CONT. |
| PD | 21 | PENSTEMON DIGITALIS 'HUSKER RED' | HUSKER RED BEARDTONGUE | 1 GAL. | CONT. |

GENERAL NOTES - LANDSCAPING:

- AS CONSTRUCTION PROGRESSES, FINE GRADE AND SEED OR SOD AS SOON AS POSSIBLE TO REDUCE RUNOFF.
- ALL PLANTING BEDS TO BE TOPSOILED TO A DEPTH OF 12".
- IN ALL SHRUB BEDS TO RECEIVE MASS PLANTING, PROVIDE PINE BARK MULCH AS DETAILED. ESTABLISH A NEAT, SMOOTH EDGE BETWEEN MULCH AND LAWN.
- ADJUSTMENTS IN THE LOCATIONS OF PLANT MATERIALS MAY BE NECESSARY DUE TO LOCATIONS OF UTILITIES. ADJUSTMENTS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE.
- PROVIDE AND INSTALL ALL PLANTS SHOWN ON THE PLANTING PLAN DRAWINGS; THE QUANTITIES IN THE PLANT LIST ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. IF DISCREPANCIES OCCUR, THE DRAWING SYMBOLS PREVAIL OVER THE PLANT LIST QUANTITIES.



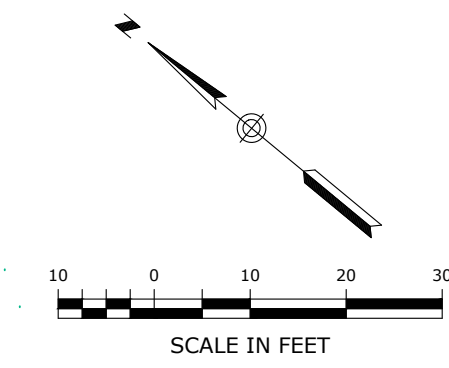
PLANTING DETAIL - TYP
NOT TO SCALE

AUGMENT EXISTING VEGETATION WITHIN BUFFER AREA

25' LANDSCAPE BUFFER

V:\CT\GALES FERRY\ROUTE 12\1761\0451C2.06\LOCAL PERMIT FOR STEELING BUILDING\DWG\LANDSCAPING PLAN\DWG.DWG: LANDSCAPING PLAN SCHED: 3/8/2023 10:46 AM BY: ESPARBER D:\DWG: 3/8/2023 10:49 AM

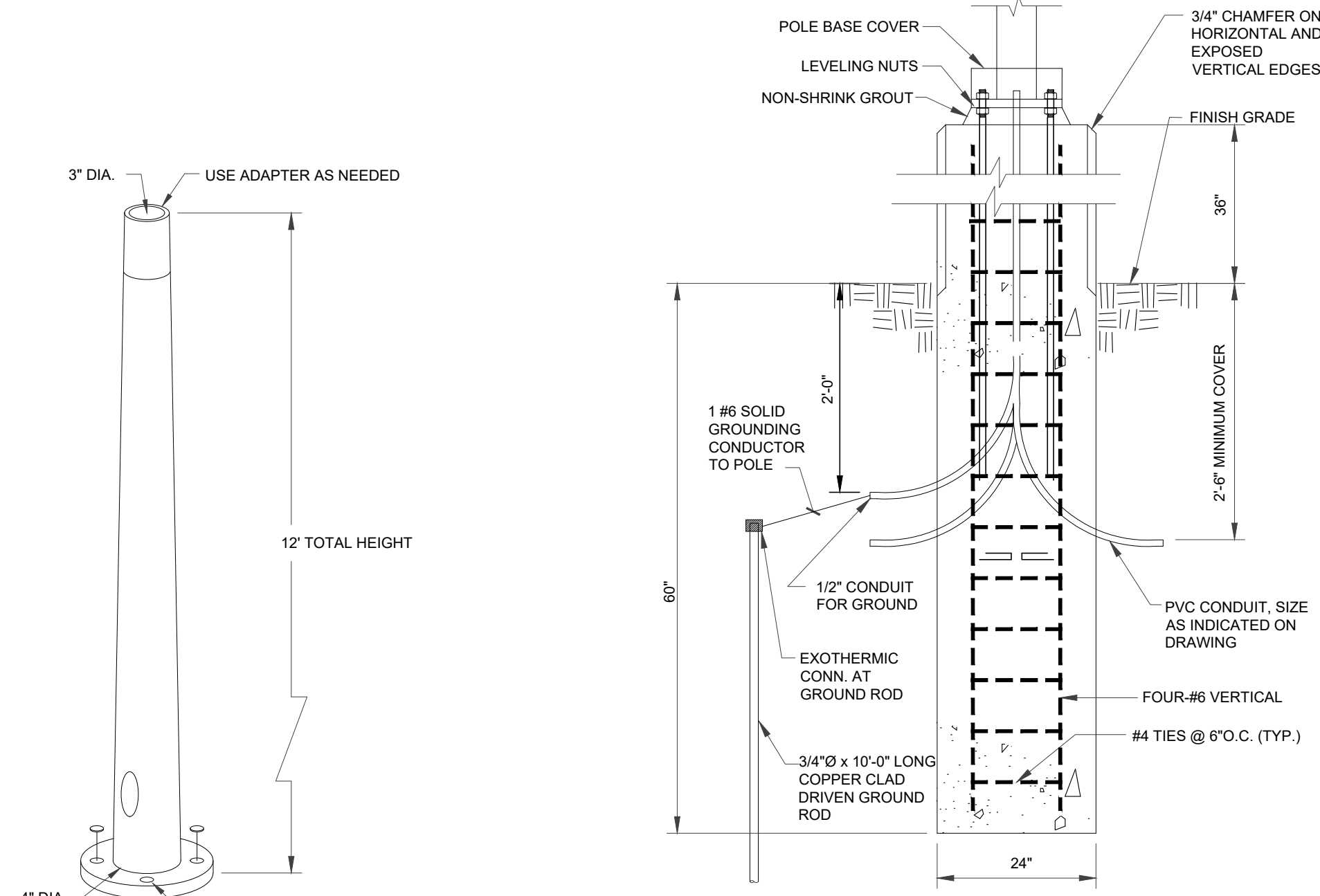
| | |
|---|--------------------|
| STATE OF CONNECTICUT PROFESSIONAL ENGINEER No. 11228 | |
| Loureiro Engineering Associates, Inc. Water & Facility Services & Laboratory Estimating & Construction & E&C & Energy 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335 Tel: 860-747-0181 Fax: 860-747-8827 An Employee Owned Company & www.loureiro.com © Loureiro Engineering Associates, Inc. All Rights Reserved 2023 | |
| SCALE 1"=20' | DATE 03/07/2023 |
| CROWN NO. 0451C2.06 | DATE 03/07/2023 |
| DRAWN BY ADP | APPROVED BY SRM |
| LANDSCAPING PLAN GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335 GALES FERRY INTERMODAL LLC 383 SOUTH STREET, DANIELSON, CT 06248 | |
| DRAWING L-1 | |
| SHEET NO. 12 | NO. OF SHEETS 20 |



PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____
 PZC CHAIRMAN OR SECRETARY _____ DATE _____

| SYMBOL | LABEL | QUANTITY | MANUFACTURER | CATALOG NUMBER | DESCRIPTION | NUMBER LAMPS | LUMENS PER LAMP | LIGHT LOSS FACTOR | WATTAGE |
|--------|-------------|----------|-------------------|---|---|--------------|-----------------|-------------------|---------|
| | P3-TWX2 | 9 | LITHONIA LIGHTING | TWX2 LED P3 40K | TWX2 LED WITH P3-PERFORMANCE PACKAGE, 4000K | 1 | 5295 | 0.85 | 39.1538 |
| | P2-T3M | 6 | LITHONIA LIGHTING | DSX1 LED P2 40K T3M MVOLT | DSX1 LED P2 40K T3M MVOLT | 1 | 8641 | 0.85 | 70 |
| | P2-TFT M-HS | 1 | LITHONIA LIGHTING | DSX1 LED P2 40K TFTM MVOLT HS WITH HOUSESIDE SHIELD | DSX1 LED P2 40K TFTM MVOLT HS WITH HOUSESIDE SHIELD | 1 | 6495 | 0.85 | 70 |
| | P2-T3M-HS | 5 | LITHONIA LIGHTING | DSX1 LED P2 40K T3M MVOLT WITH HOUSESIDE SHIELD | DSX1 LED P2 40K T3M MVOLT WITH HOUSESIDE SHIELD | 1 | 7002 | 0.85 | 70 |

| DESCRIPTION | SYMBOL | AVG | MAX | MIN | MAX/MIN | AVG/MIN |
|---------------|--------|--------|--------|--------|---------|---------|
| DRIVE/PARKING | + | 1.8 fc | 7.1 fc | 0.0 fc | N/A | N/A |
| PROPERTY LINE | + | 0.0 fc | 0.5 fc | 0.0 fc | N/A | N/A |



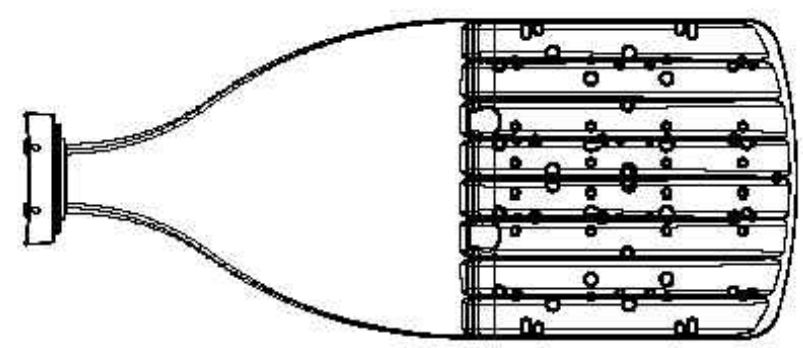
- NOTES
1. CONCRETE SHALL BE 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
 2. REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.
 3. LAP ALL BARS 36 BAR DIAMETERS.
 4. GRIND AND GROUT CLEAN ALL EXPOSED CONCRETE SURFACES TO OBTAIN UNIFORM FINISH APPEARANCE.
 5. BASE CAN BE CAST-IN-PLACE OR PRECAST AT CONTRACTOR'S OPTION.

TAPERED ALUMINUM LUMINAIRE POLE

SCALE: NONE

LIGHT POLE BASE

SCALE: NONE



DSX1 with WBA

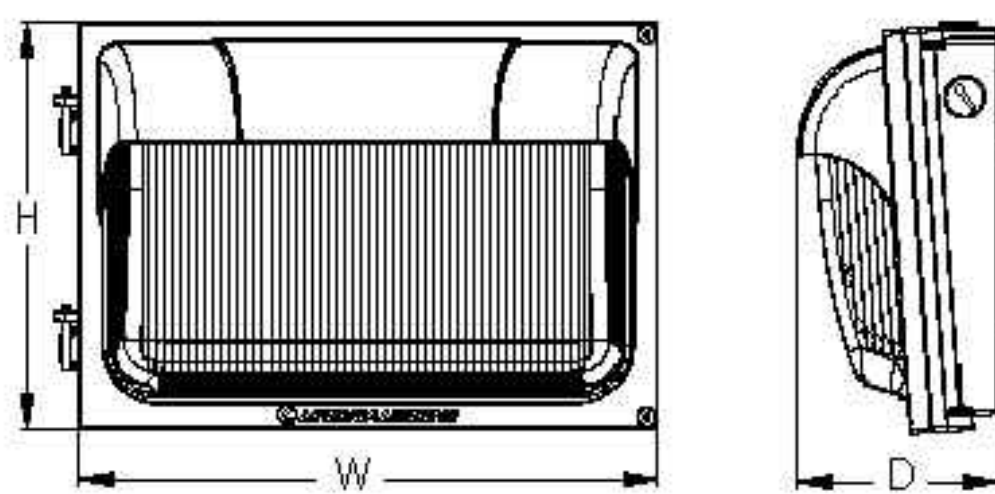
- NOTES
1. LITHONIA LIGHTING, DSX1 LED WITH WBA, P2, 40K, T3M/TFTM, MVOLT, HS (POLE MOUNT).

POLE MOUNTED LIGHT

SCALE: NONE

TWX2:

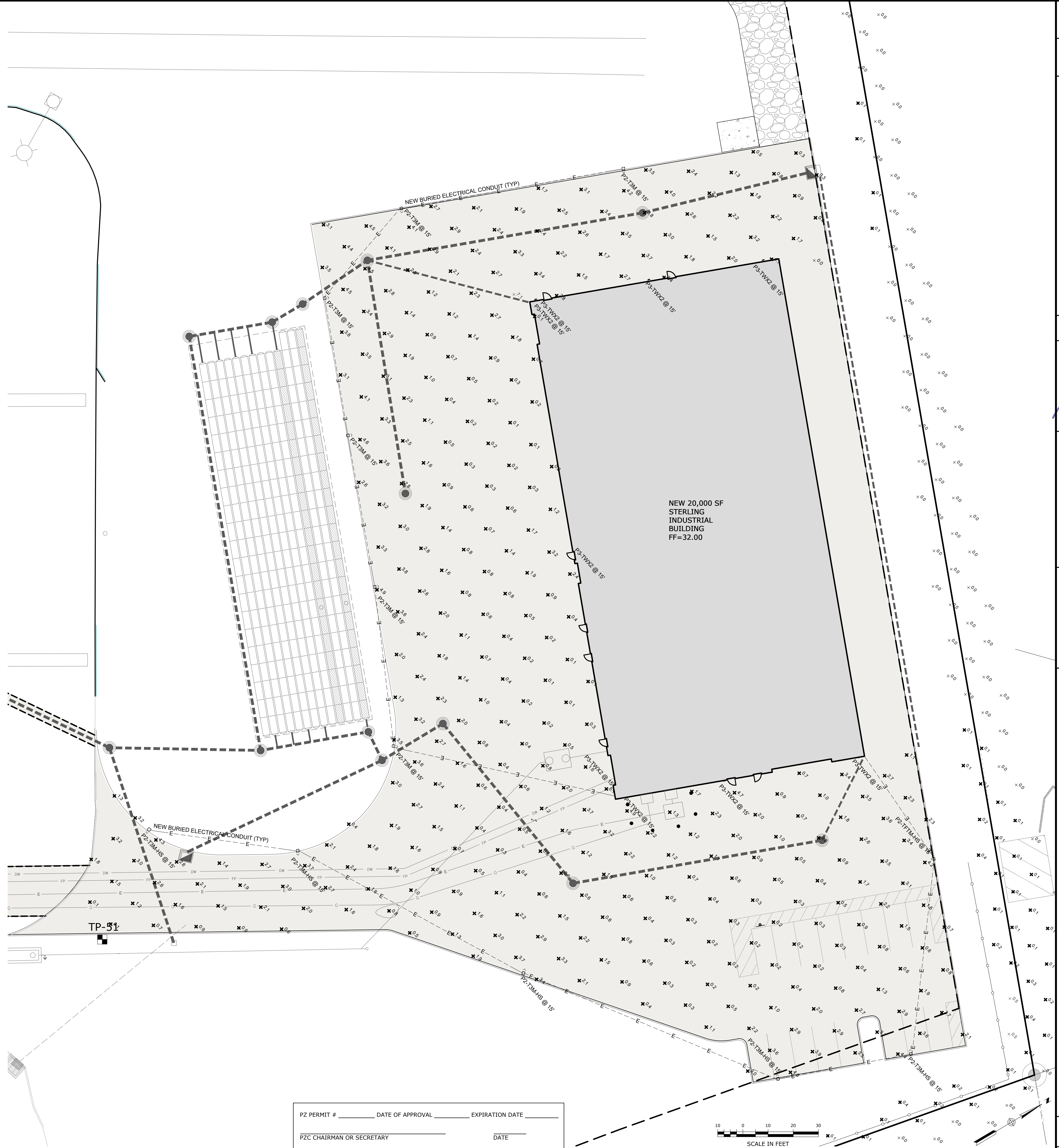
- Width: 13.0"
- Height: 9.0"
- Depth: 4.5"
- Weight: 11 lbs



- NOTES
1. CONTRACTOR SELECT™ TWX2 LED ALO, ADJUSTABLE LIGHT OUTPUT WALPACK SHIELD LUMINAIRE TO BE COORDINATED IN SHOP DRAWING TO REFLECT PHOTOMETRIC DISTRIBUTION SHOWN.

WALL PACK LIGHT

SCALE: NONE



PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____
 PZC CHAIRMAN OR SECRETARY _____ DATE _____



STATE OF CONNECTICUT
 GEORGE F. ANDRZEJCZAK
 No. 10285
 LICENSED PROFESSIONAL ENGINEER

Loureiro
 Water & Facility Services & Laboratory
 Loureiro Engineering Associates, Inc.
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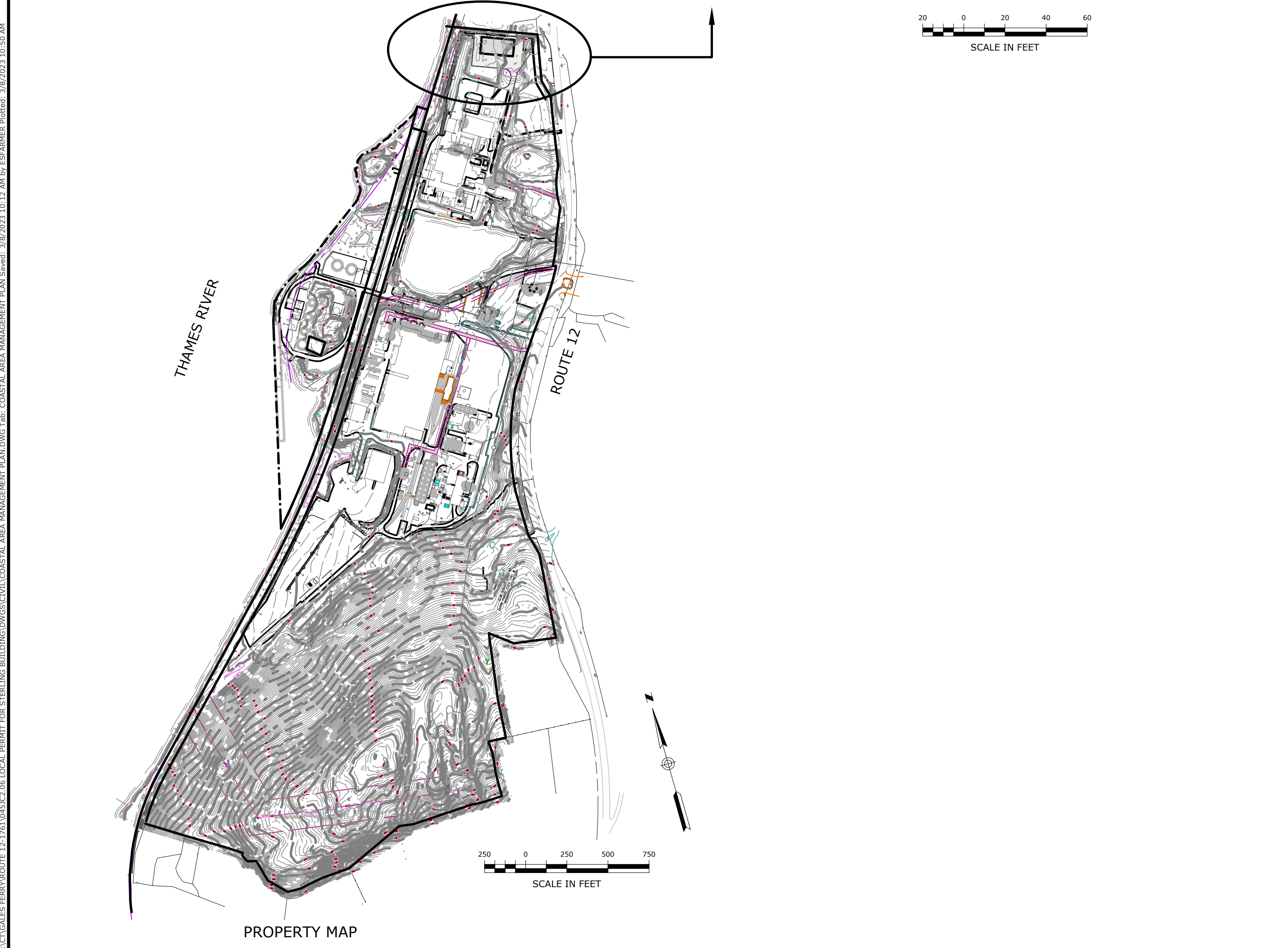
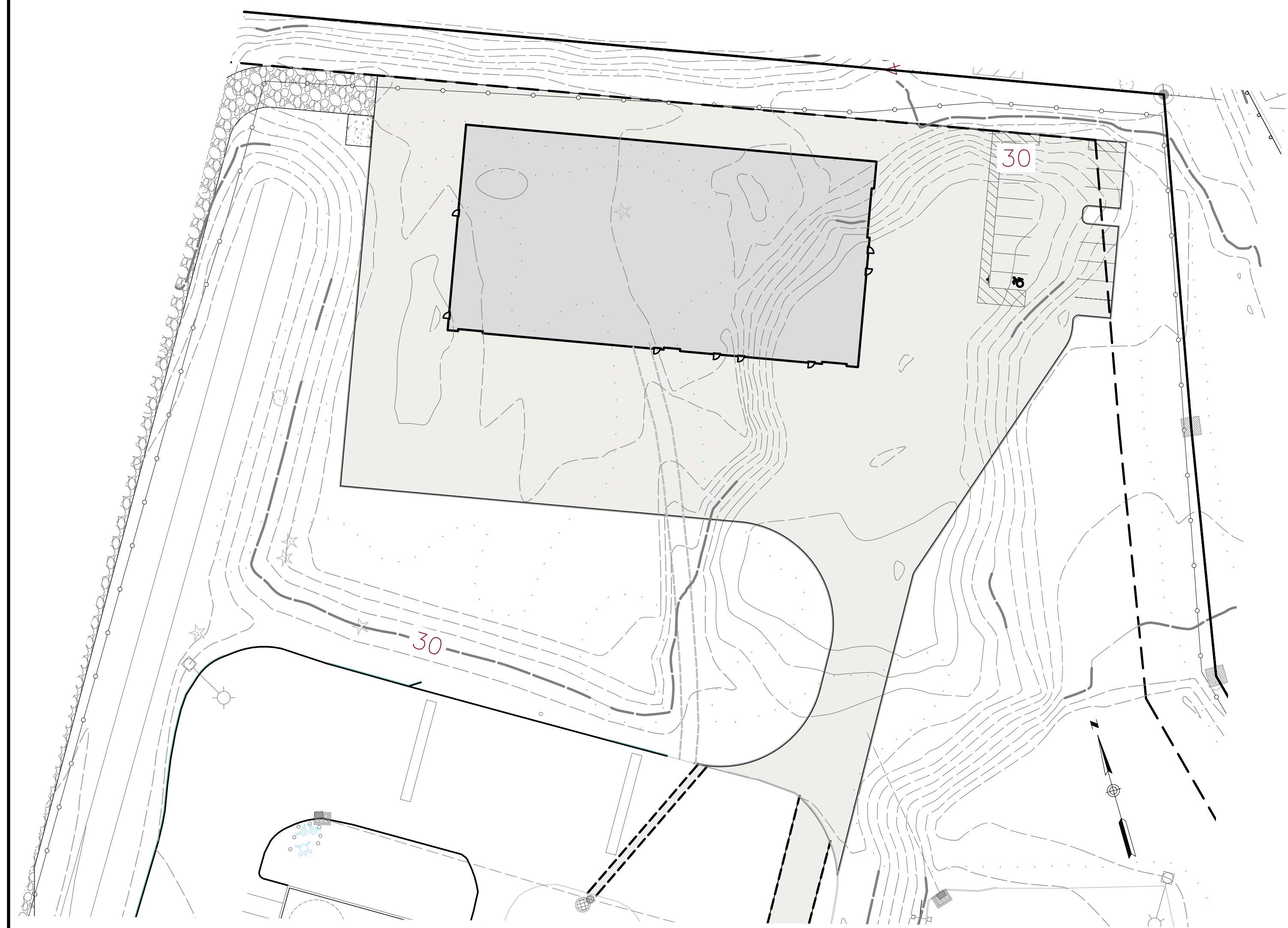
PHOTOMETRIC AND LIGHTING PLAN
GALES FERRY INTERMODAL
 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335
GALES FERRY INTERMODAL LLC
 389 SOUTH STREET, DANBURY, CT 06810

SCALE: 1"=20'
 DRAWN BY: ESP
 DATE: 03/07/2023
 APPROVED BY: SRM
 DATE: 03/07/2023

SHEET NO. 13 NO. OF SHEETS 20
 DESCRIPTION OF REVISION
 DATE
 REV.

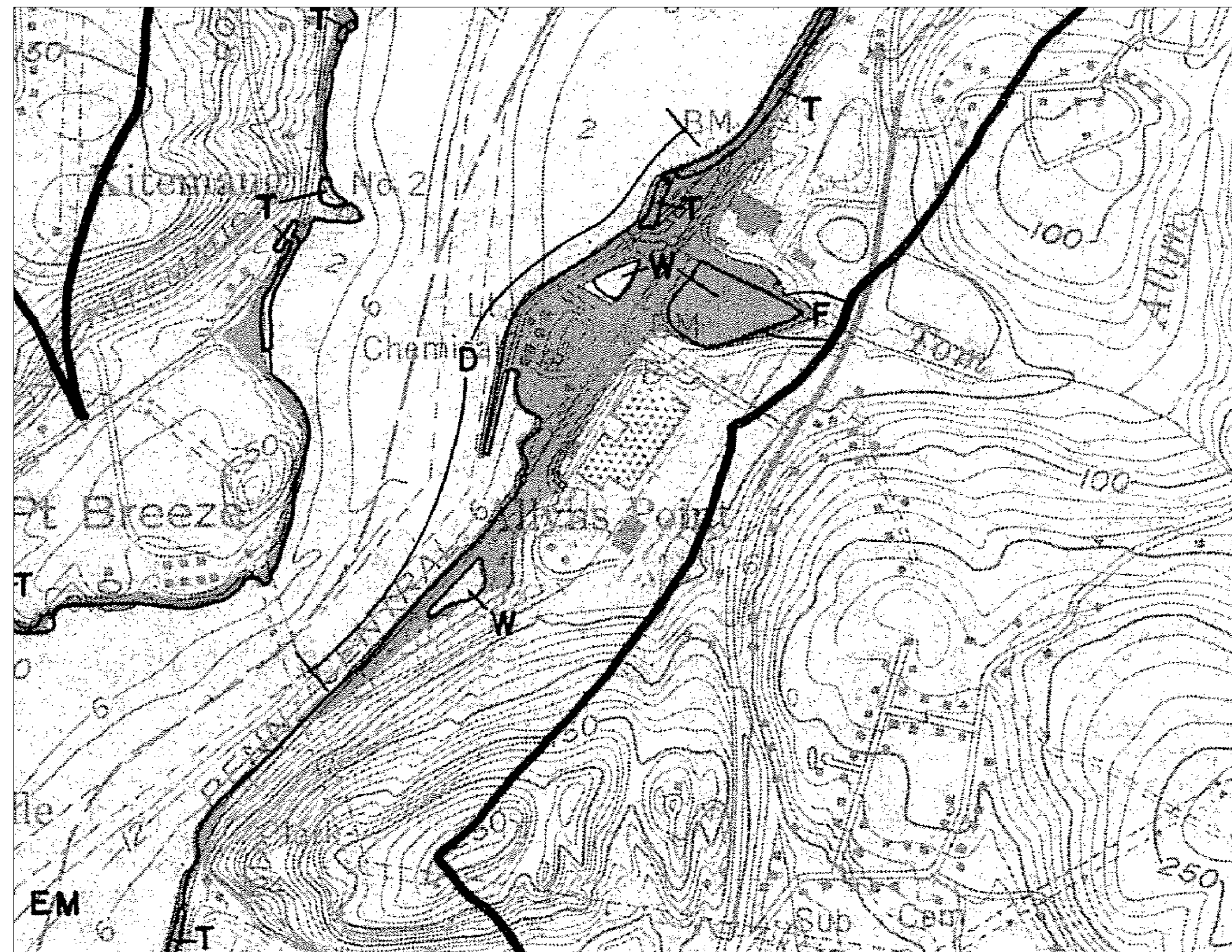
DRAWING
C-10

V:\CT\GALES FERRY\ROUTE 12_1761\04522_01 LOCAL PERMIT FOR STERLING BUILDING\DWG\PHOTOMETRIC AND LIGHTING PLAN.dwg, 18/03/2023 10:09 AM by: ESP/ARM/PROD, 3/7/2023 10:09 AM



COASTAL RESOURCES

1. D - DEVELOPED SHOREFRONT: PORT AND HARBOR AREAS WHICH HAVE BEEN HIGHLY ENGINEERED AND DEVELOPED RESULTING IN THE FUNCTIONAL IMPAIRMENT OR SUBSTANTIAL ALTERATION OF THEIR NATURAL PHYSIOGRAPHIC FEATURES OR SYSTEMS.
2. W - WATER: OPEN WATER BODIES SUCH AS BUT NOT LIMITED TO LAKES AND PONDS SUBJECT TO REGULATION UNDER SECTIONS 22A-36 TO 22A-45 OF THE CONNECTICUT GENERAL STATUTES.
3. T - REGULATED TIDAL WETLANDS: OFFICIAL STATE DESIGNATED AND REGULATED TIDAL WETLANDS LOCATED WITHIN THE COASTAL BOUNDARY. THE AREAS DEPICTED ON THIS MAP SHALL IN NO WAY SUPERSEDE THE OFFICIAL STATE REGULATED TIDAL WETLAND MAPS AT THE SCALE OF 1:2400.
4. COASTAL 'FLOOD' HAZARD AREA: 100 YEAR COASTAL FLOOD HAZARD AREA AS IDENTIFIED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA). ON THOSE COASTAL ISLANDS CURRENTLY UNMAPPED BY FEMA, THE FLOOD HAZARD AREA IS CONSERVATIVELY APPROXIMATED BY THE 10' CONTOUR INTERVAL.
5. EM - ESTUARINE EMBAYMENTS: PROTECTED COASTAL WATER BODIES WITH AN OPEN CONNECTION TO THE SOUND INCLUDING TIDAL RIVERS, BAYS, COVES AND LAGOONS.
6. SHORELANDS: UPLAND AREAS AT ELEVATIONS IN EXCESS OF THE 100 YEAR STILL WATER FLOOD LEVEL AND LOCATED WITHIN THE COASTAL BOUNDARY.



COASTAL RESOURCES

1979. PREPARED BY COASTAL AREA MANAGEMENT PROGRAM, CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION

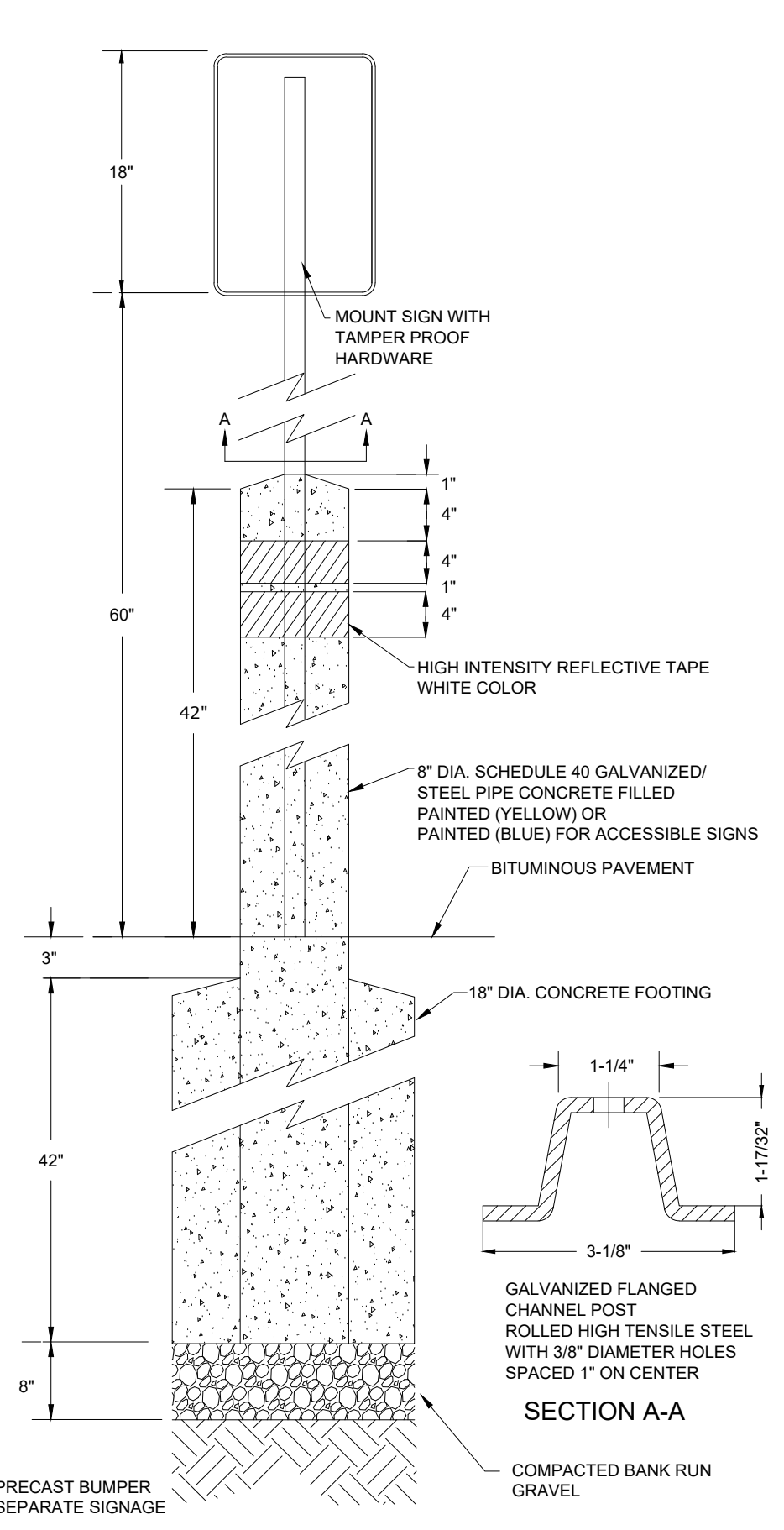
| | | |
|---------------------------------|------------------------|-----------------------|
| PZ PERMIT # _____ | DATE OF APPROVAL _____ | EXPIRATION DATE _____ |
| PZC CHAIRMAN OR SECRETARY _____ | DATE _____ | |

| | | | | |
|--|--|---|--------------------|--------------------|
| COASTAL AREA MANAGEMENT PLAN | | SCALE AS NOTED DRAWING NO. 0451C2.06 | DATE 03/07/2023 | DATE 03/07/2023 |
| GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335 | | DRAWN BY ESF | | |
| GALES FERRY INTERMODAL, LLC 389 SOUTH STREET, GAITHERSBURG, MD 20878 | | APPROVED BY SRM | | |
| C-11 | | SHEET NO. 14 NO. OF SHEETS 20 | | |
| | | DESCRIPTION OF REVISION | | |
| | | REV. | | |
| | | DATE | | |
| | | APPR. | | |

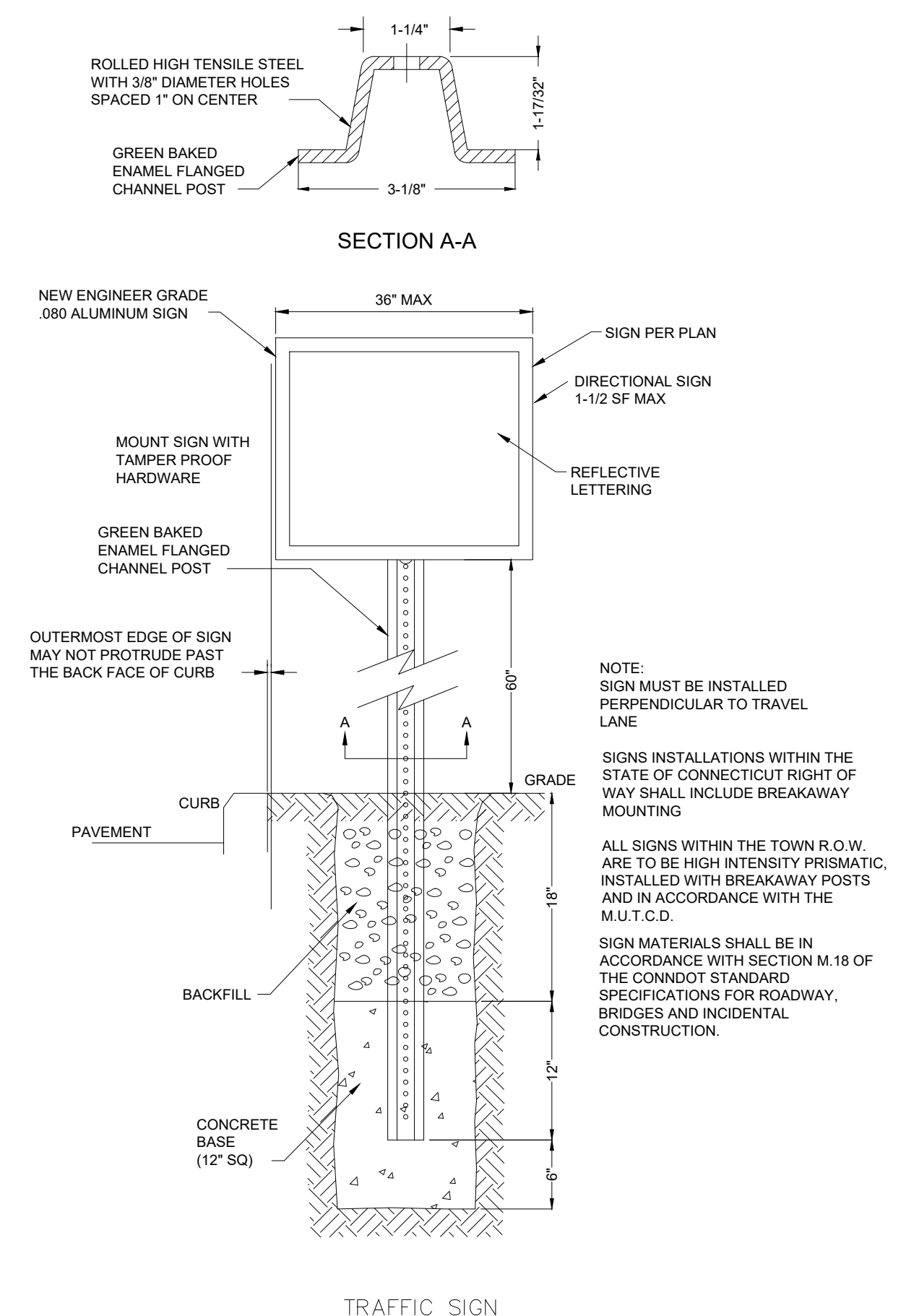
V:\ACT\GALES FERRY\ROUTE 12_1761\0451C2.06\LOCAL PERMIT FOR STEELING BUILDINGS\0451C2\COASTAL AREA MANAGEMENT PLAN\DRAWING COASTAL AREA MANAGEMENT PLAN\SCALE 1:2400\03/07/2023 10:50 AM



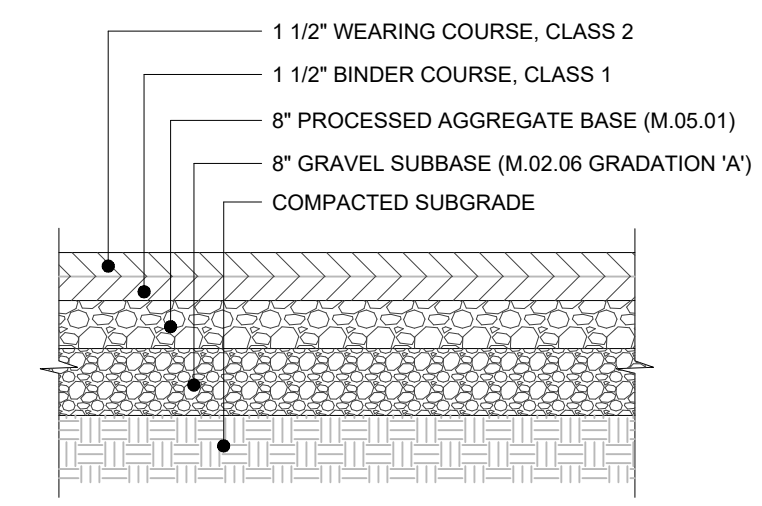
SIGN DETAIL
SCALE: NONE



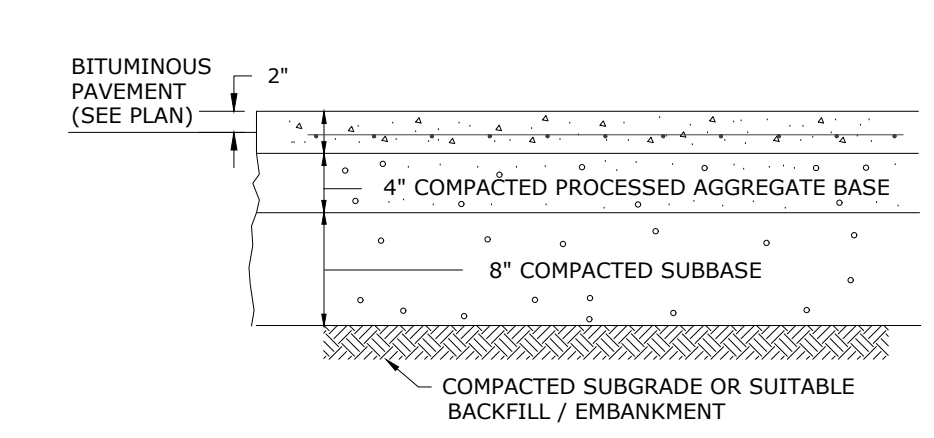
BOLLARD MOUNTED SIGNAGE
SCALE: NONE



TRAFFIC SIGN
NOT TO SCALE

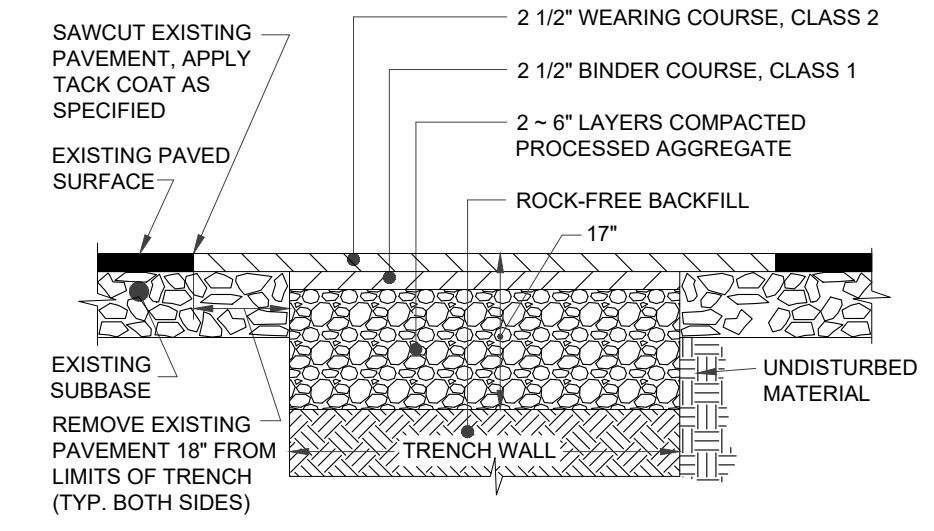


BITUMINOUS CONCRETE PAVING
NOT TO SCALE

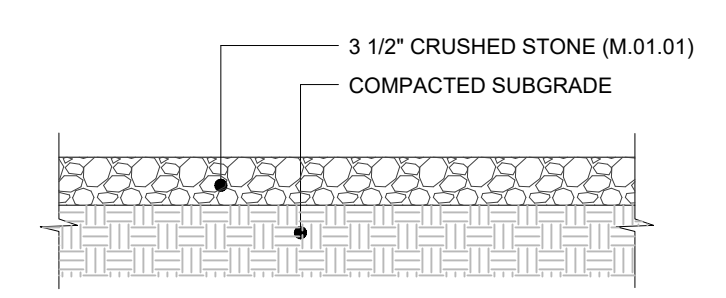


- NOTES:
1. ALL COMPACTION TO BE 95% STANDARD PROCTOR DENSITY.
2. CONCRETE TO BE 3500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.

CONCRETE PAD
NOT TO SCALE

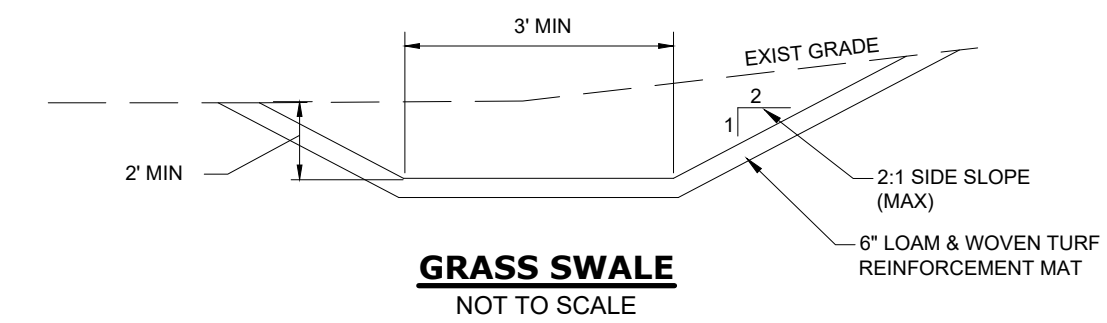


PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE

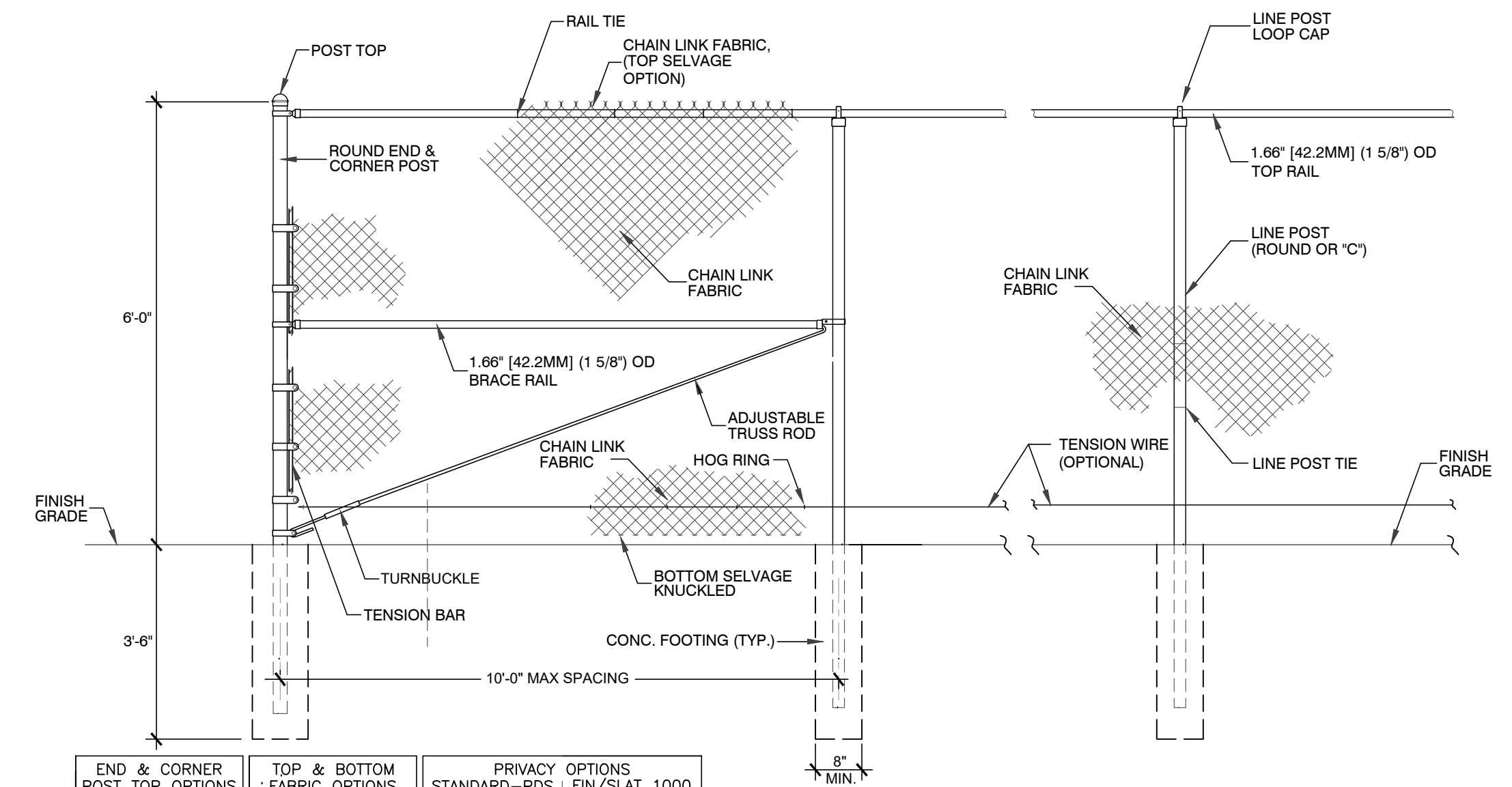


- NOTES:
1. CRUSHED STONE SHALL CONSIST OF WASHED NO. 6 STONE AND SHALL BE IN ACCORDANCE WITH THE CONNECTICUT DEPARTMENT OF TRANSPORTATION SPECIFICATION SECTION M.01.01
2. ALL COMPACTION TO BE 95% STANDARD PROCTOR DENSITY

GRAVEL SURFACE X-SECTION
NOT TO SCALE



GRASS SWALE
NOT TO SCALE



| END & CORNER POST TOP OPTIONS | TOP & BOTTOM FABRIC OPTIONS | PRIVACY OPTIONS STANDARD-PDS FIN/SLAT 1000 |
|-------------------------------|-----------------------------|--|
| STANDARD | TWIST | STANDARD-PDS |
| DOMED | KNUCKLE | FIN/SLAT 1000 |

FENCE SECTION ELEVATION - ROUND END POSTS

- NOTES:
1. METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
2. SPECIFICATIONS SHOWN CAN BE CHANGED BY MASTER HALCO ONLY.
3. FOOTING WIDTH TO BE (4)X POST WIDTH. MINIMUM DEPTH 36" (914MM).

CHAINLINK FENCE
NOT TO SCALE

PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____
PZC CHAIRMAN OR SECRETARY _____ DATE _____

SITE DETAILS 1

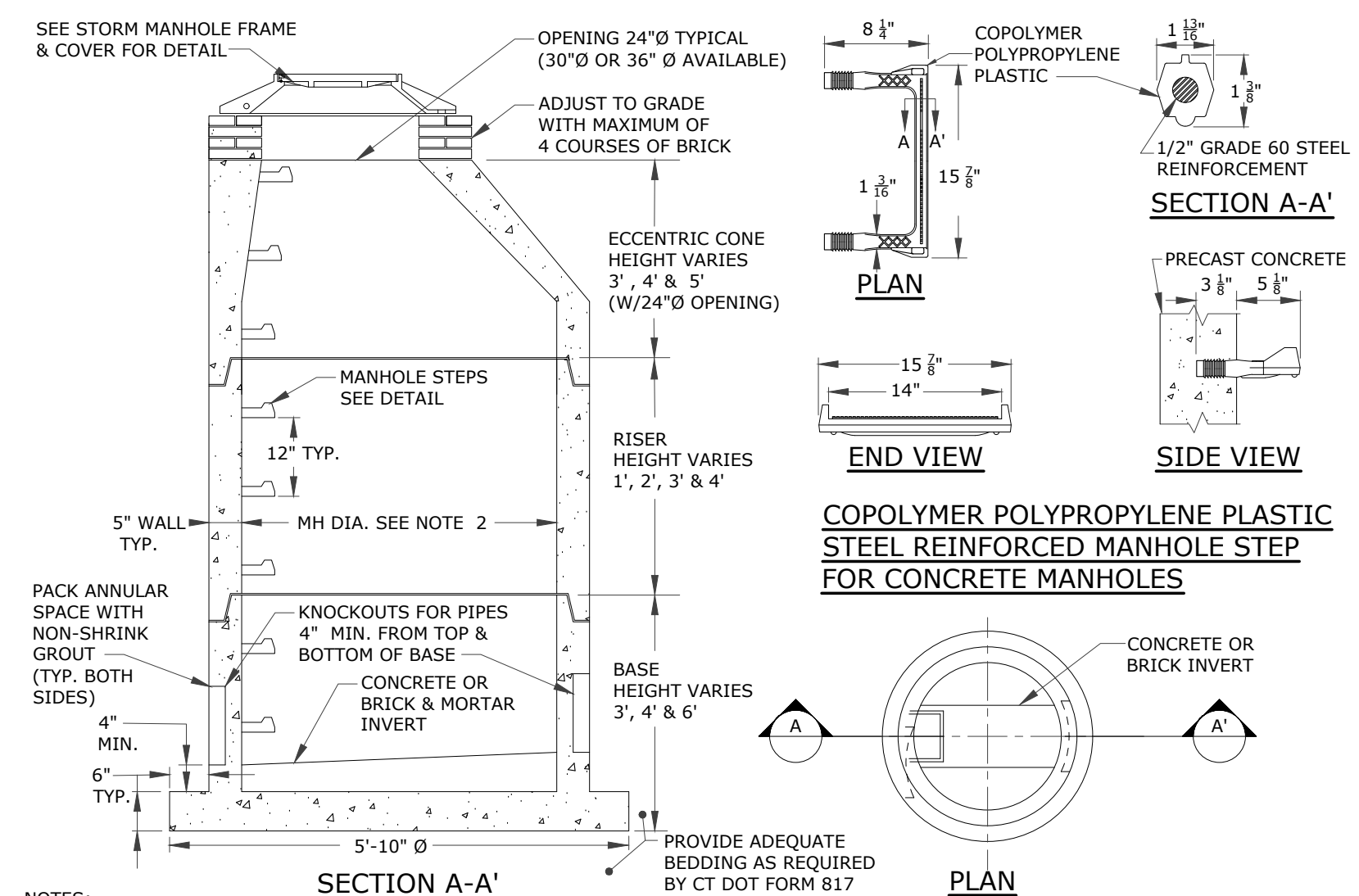
GALES FERRY INTERMODAL
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335
GALES FERRY INTERMODAL LLC
359 SOUTH STREET, DANBURY, CT 06810

SCALE: NOT TO SCALE
DRAWN BY: ESP
APPROVED BY: SRM
DATE: 03/07/2023

DATE: 03/07/2023
DESCRIPTION OF REVISION: _____
REV: _____
DATE: _____
APPR: _____

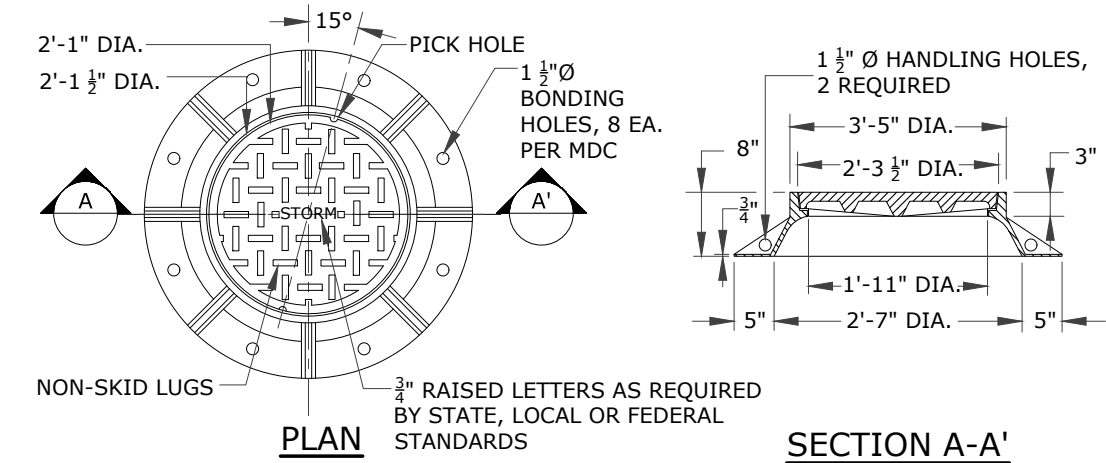
SHEET NO. 15 NO. OF SHEETS 20

C-12



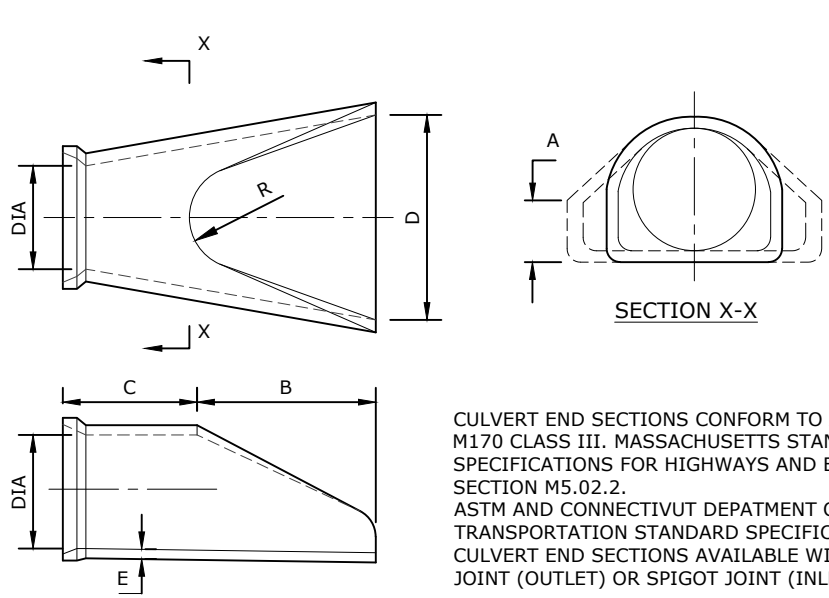
- NOTES:**
1. PRECAST CONCRETE MANHOLE COMPONENTS SHALL CONFORM TO CTDOT STANDARD SHEET HW-507.10 AS AMENDED.
 2. 4", 5" OR 6" PRECAST CONCRETE BASE DIAMETERS MAY BE USED WHEN REQUIRED DUE TO SIZE OR NUMBER OF PIPES AT THE MANHOLE. PRECAST REDUCERS WILL BE PLACED ABOVE THE 5" AND 6" BASES AS DIRECTED BY THE ENGINEER. WALL THICKNESS SHALL INCREASE 1" FOR EACH 1' OF INSIDE DIAMETER INCREASE.
 3. JOINT SEALANT SHALL BE BUTYL RUBBER MASTIC TYPE SEAL THAT CONFORMS TO LATEST AASHTO SPECIFICATION M-198 & MEETS FEDERAL SPECIFICATION SS-S-0021(210-A).
 4. REINFORCING STEEL DEFORMED BARS ARE NOT SHOWN AND SHALL CONFORM TO LATEST CTDOT STANDARDS & SUPPLEMENTAL AND ASTM SPECIFICATION A615, GRADE 60, MINIMUM COVER 2" UNLESS OTHERWISE NOTED.
 5. ALL PIPE OPENINGS SHALL BE CLOSED USING MATERIALS WHICH CONFORM TO STATE OF CT STANDARD SPECIFICATIONS SECTION M.08.02.
 6. REINFORCING STEEL WELDED WIRE FABRIC SHALL CONFORM TO LATEST ASTM SPECIFICATION A185.
 7. CONCRETE COMPRESSIVE STRENGTH SHALL BE MINIMUM 4000 PSI AT 28 DAYS, SELF COMPACTING CONCRETE MIX.
 8. MANHOLE STEPS SHALL MEET LATEST OSHA REGULATIONS, (29 CFR 1910.27), SECTION 16 OF ASTM SPECIFICATION C478 AND SECTION 10 OF ASTM SPECIFICATION C497.
 9. WHEN SPECIFIED, MANHOLES ARE TO BE COATED WITH BAY OIL, "EBONY".
 10. METHOD OF MANUFACTURE SHALL BE WET CAST.
 11. BASE SECTION IS MONOLITHIC.
 12. MANHOLE INTERIOR DIAMETER:
 - 4'-0" FOR 8" TO 36" PIPE DIAMETERS
 - 5'-0" FOR 42" PIPE DIAMETER
 - 6'-0" FOR 48" PIPE DIAMETER.

STANDARD PRECAST CONCRETE STORM MANHOLE DETAIL
SCALE: NONE

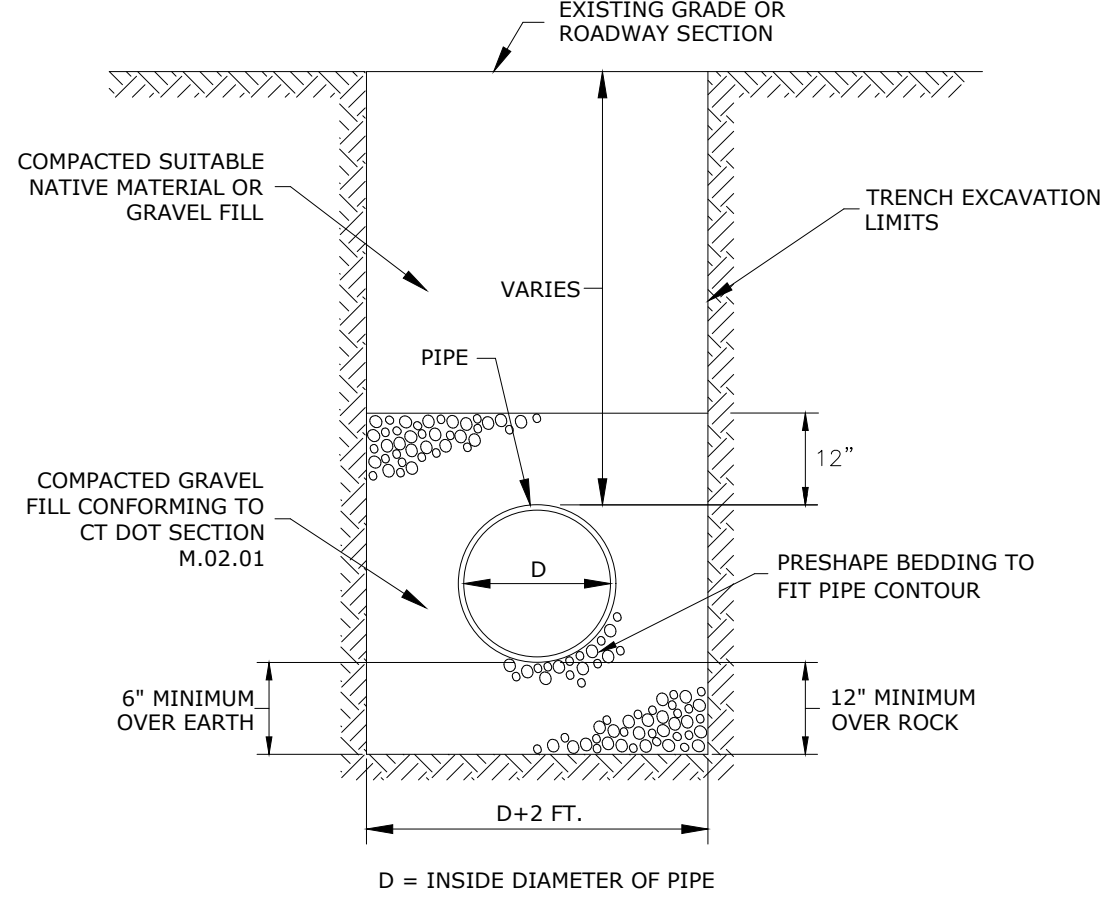


- NOTES:**
1. STORM MANHOLE FRAMES AND COVERS SHALL CONFORM TO CTDOT FORM 817 STANDARD SPECIFICATION FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION AND CT DOT HIGHWAY STANDARD SHEETS HW-507.10, AS AMENDED.
 2. CHANNELS MAY BE SHAPED IN CONCRETE BASE OF MANHOLE OR FORMED USING BRICK OR MASONRY, UNLESS OTHERWISE DIRECTED.
 3. A FRAME OF 3'-3" WITH 4" FLANGE SHALL BE USED WHEN THE TOP DIAMETER OF A PRECAST CONE IS LESS THAN 3'-6". ALL OTHER FRAME DIMENSIONS SHALL REMAIN THE SAME.
 4. ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.

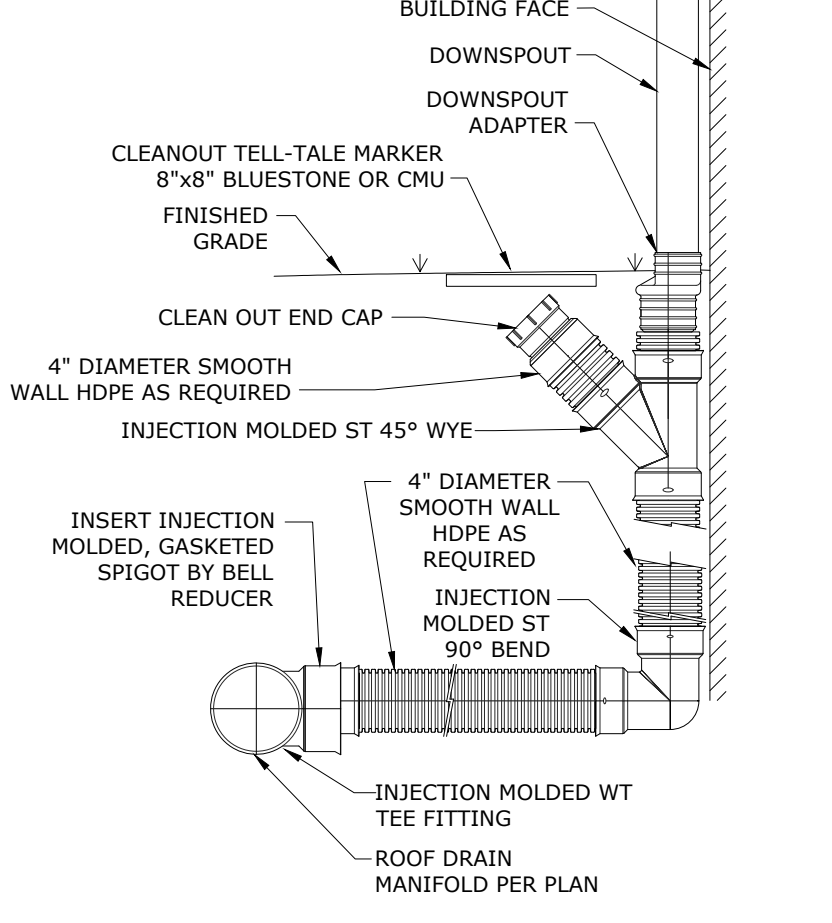
STORM MANHOLE FRAME & COVER DETAIL
SCALE: NONE



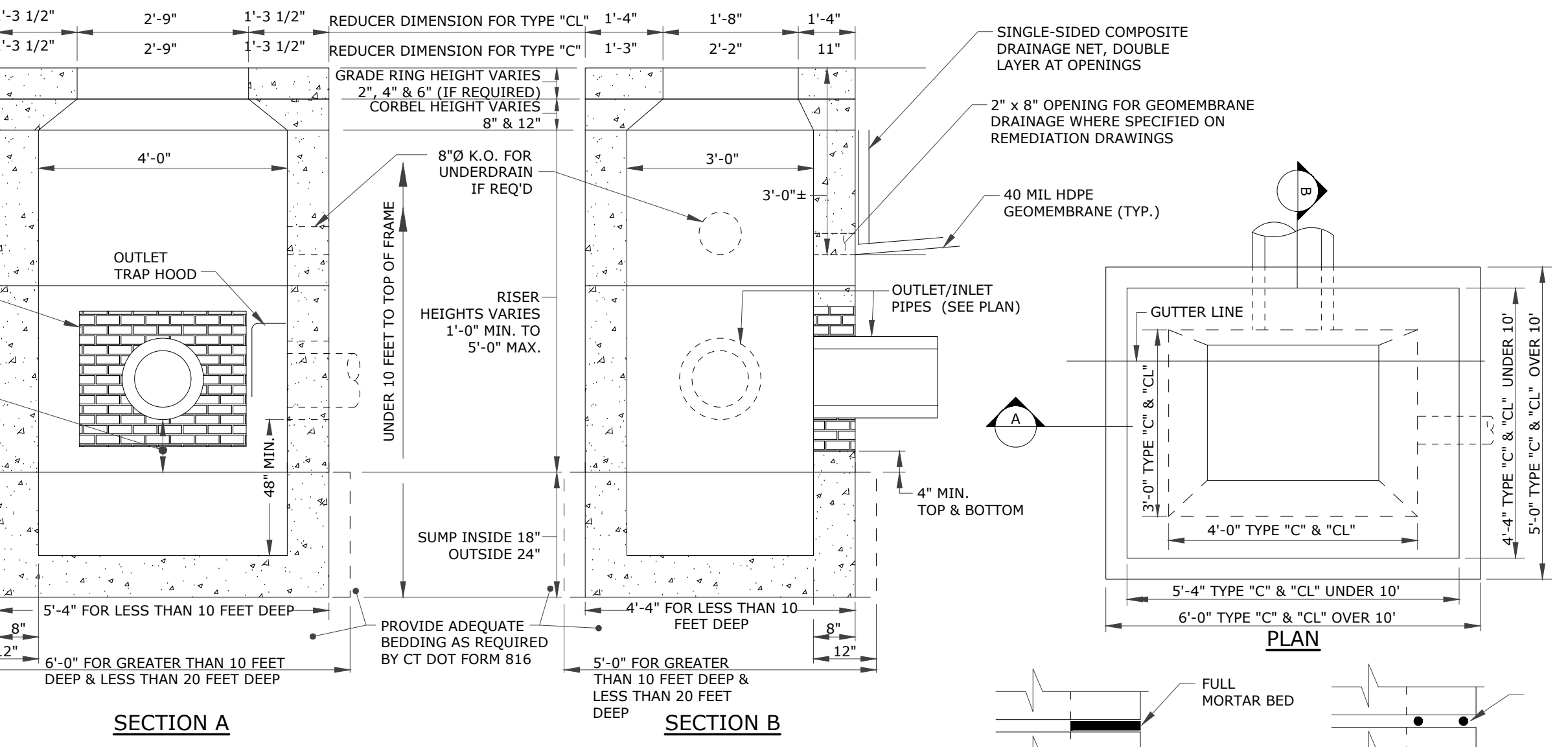
REINFORCED CONCRETE CULVERT ENDS
NOT TO SCALE



STORM DRAIN TRENCH
NOT TO SCALE

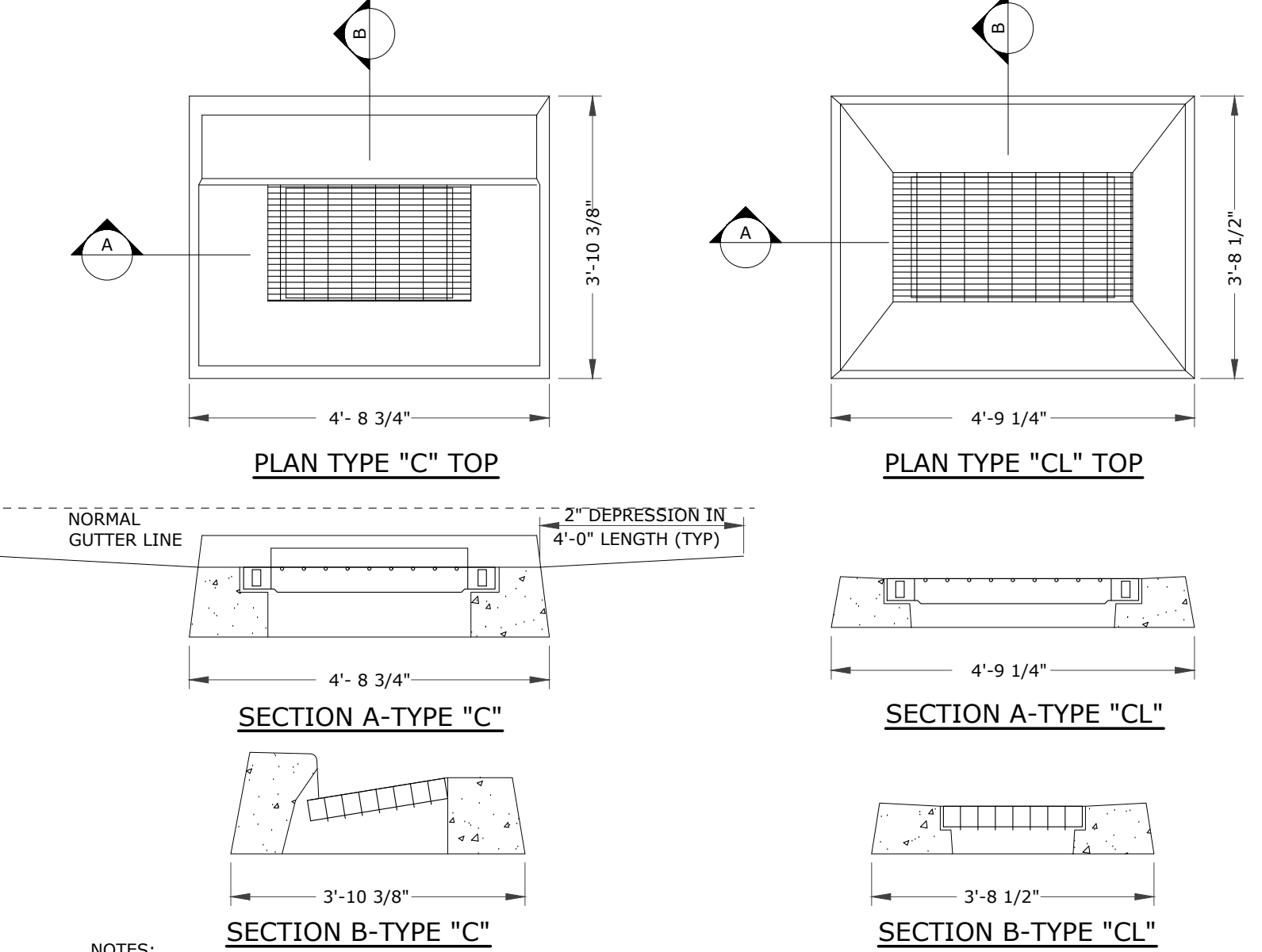


ROOF DRAIN DOWNSPOUT CONNECTION
NOT TO SCALE



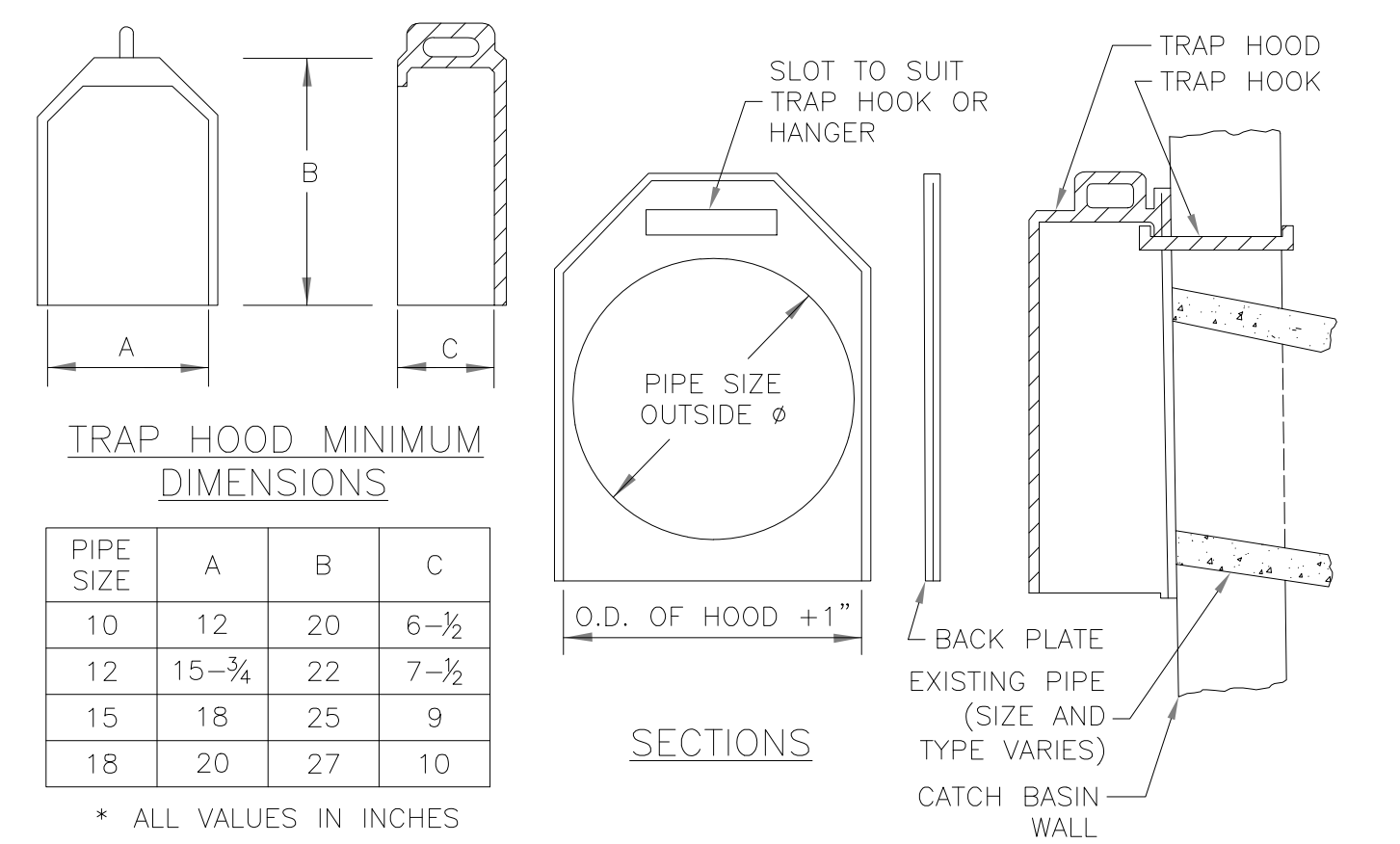
- NOTES:**
1. PRECAST CONCRETE CATCH BASIN COMPONENTS SHALL CONFORM TO CTDOT FORM 816 STANDARD SPECIFICATION FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION AND CTDOT HIGHWAY STANDARD SHEETS HW-507.04, AS AMENDED.
 2. THIS DETAIL IS BASED ON CTDOT PRECAST CONCRETE TYPE "C" & "CL" CATCH BASIN COMPONENTS, (UNDER 10' DEEP SHOWN).
 3. REINFORCING STEEL DEFORMED BARS ARE NOT SHOWN AND SHALL CONFORM TO LATEST CTDOT STANDARDS & SUPPLEMENTAL AND ASTM SPECIFICATION A615, GRADE 60, MINIMUM COVER 2" UNLESS OTHERWISE NOTED.
 4. METHOD OF MANUFACTURE SHALL BE WET CAST.
 5. SUMP SECTION SHALL BE MONOLITHIC.
 6. DESIGN LOAD SHALL BE AASHTO H-20.

TYPE "C" & "C-L" PRECAST CONCRETE CATCH BASIN DETAIL
NOT TO SCALE



- NOTES:**
1. CATCH BASIN TOPS, CURBS AND GRATE COMPONENTS SHALL CONFORM TO CTDOT FORM 816 STANDARD SPECIFICATION FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION AND CTDOT HIGHWAY STANDARD SHEETS HW-507.07 AND HW-507.08, AS AMENDED.
 2. REINFORCING STEEL DEFORMED BARS ARE NOT SHOWN AND SHALL CONFORM TO LATEST CTDOT STANDARDS & SUPPLEMENTAL AND ASTM SPECIFICATION A615, GRADE 60, MINIMUM COVER 2" UNLESS OTHERWISE NOTED.
 3. ALL STEEL, EXCEPT REINFORCING BARS, SHALL BE GALVANIZED IN CONFORMANCE WITH SECTION M06.03 OF CONNECTICUT STANDARD SPECIFICATIONS.
 4. TYPE "C" CATCH BASIN DEPRESSED GUTTER STRIPS SHALL CONFORM TO CTDOT STANDARD SHEET HW-507.01, APPROVED 07-21-2013.

TYPE "C" & "C-L" CATCH BASIN TOP DETAILS
NOT TO SCALE



- NOTES:**
1. TRAP HOODS SHALL BE CAST IRON FOR 10", 12", 15" AND 18" PIPE SIZES AND FABRICATED ALUMINUM FOR 21" OR GREATER.
 2. ALL TRAP HOODS SHALL INCLUDE STAINLESS STEEL HOOKS OR HANGERS FOR MOUNTING TO THE CATCH BASIN WALL. BACK PLATES SHALL BE FURNISHED ONLY WHEN REQUESTED.
 3. TRAP HOODS SHALL BE FROM CAMPBELL FOUNDRY, NEEHAM FOUNDRY, EAST JORDAN IRON WORKS OR APPROVED EQUAL. DIMENSIONS AND MODEL NUMBERS VARY BASED ON DISCHARGE PIPE SIZE AND MANUFACTURER.
 4. SEE MANUFACTURER FOR INSTALLATION INSTRUCTIONS.

CATCH BASIN TRAP HOOD
NOT TO SCALE

DATE: _____
DESCRIPTION OF REVISION: _____
REV: _____

STATE OF CONNECTICUT
REGISTRAR OF PROFESSIONAL ENGINEERS
No. 10285
PROFESSIONAL ENGINEER

Loureiro
Water & Facility Services & Laboratory
Loureiro Engineering Associates, Inc.
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335
An Employee Owned Company • www.loureiro.com
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| | |
|------------------------|------------------|
| SCALE: NOT TO SCALE | DATE: 03/07/2023 |
| CONTRACT NO. 0451C2.06 | DATE: 03/07/2023 |
| DRAWN BY: ESP | APPROVED BY: SRM |

SITE DETAILS 2

GALES FERRY INTERMODAL
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335
GALES FERRY INTERMODAL LLC
359 SOUTH STREET, DANBURY, CT 06810

DRAWING: **C-13**

SHEET NO. 16 NO. OF SHEETS 20

PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____

PZC CHAIRMAN OR SECRETARY _____ DATE _____

V:\CADD\GALES FERRY\ROUTE 12\176104327.DWG LOCAL PERMIT FOR STEELING BUILDING\CONSTRUCTION\DETAILS\10-C\DTL.DWG 5/19/2023 10:50 AM

CDS4045-8-C DESIGN NOTES

THE STANDARD CDS4045-8-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

| CONFIGURATION DESCRIPTION | |
|---|--|
| GRATED INLET ONLY (NO INLET PIPE) | |
| GRATED INLET WITH INLET PIPE OR PIPES | |
| CURB INLET ONLY (NO INLET PIPE) | |
| CURB INLET WITH INLET PIPE OR PIPES | |
| SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION) | |
| SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS | |

PLAN VIEW B-B
N.T.S.

FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

| | |
|--------------------------------------|------------------------|
| STRUCTURE ID | |
| WATER QUALITY FLOW RATE (CFS OR L/s) | * |
| PEAK FLOW RATE (CFS OR L/s) | * |
| RETURN PERIOD OF PEAK FLOW (YRS) | * |
| SCREEN APERTURE (2400 OR 4700) | * |
| PIPE DATA: | I.E. MATERIAL DIAMETER |
| INLET PIPE 1 | * * * |
| INLET PIPE 2 | * * * |
| OUTLET PIPE | * * * |
| RIM ELEVATION | * |
| ANTI-FLOTATION BALLAST | WIDTH HEIGHT |
| NOTES/SPECIAL REQUIREMENTS: | * |

* PER ENGINEER OF RECORD

ELEVATION A-A
N.T.S.

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO M 306 AND CASTINGS SHALL MEET AASHTO M 306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH
ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45099
800-338-1122 513-645-7000 513-645-7993 FAX

CDS4045-8-C
INLINE CDS
STANDARD DETAIL

CDS5653-10-C DESIGN NOTES

THE STANDARD CDS5653-10-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

| CONFIGURATION DESCRIPTION | |
|---|--|
| GRATED INLET ONLY (NO INLET PIPE) | |
| GRATED INLET WITH INLET PIPE OR PIPES | |
| CURB INLET ONLY (NO INLET PIPE) | |
| CURB INLET WITH INLET PIPE OR PIPES | |
| SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION) | |
| SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS | |

PLAN VIEW B-B
N.T.S.

FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

| | |
|--------------------------------------|------------------------|
| STRUCTURE ID | |
| WATER QUALITY FLOW RATE (CFS OR L/s) | * |
| PEAK FLOW RATE (CFS OR L/s) | * |
| RETURN PERIOD OF PEAK FLOW (YRS) | * |
| SCREEN APERTURE (2400 OR 4700) | * |
| PIPE DATA: | I.E. MATERIAL DIAMETER |
| INLET PIPE 1 | * * * |
| INLET PIPE 2 | * * * |
| OUTLET PIPE | * * * |
| RIM ELEVATION | * |
| ANTI-FLOTATION BALLAST | WIDTH HEIGHT |
| NOTES/SPECIAL REQUIREMENTS: | * |

* PER ENGINEER OF RECORD

ELEVATION A-A
N.T.S.

GENERAL NOTES

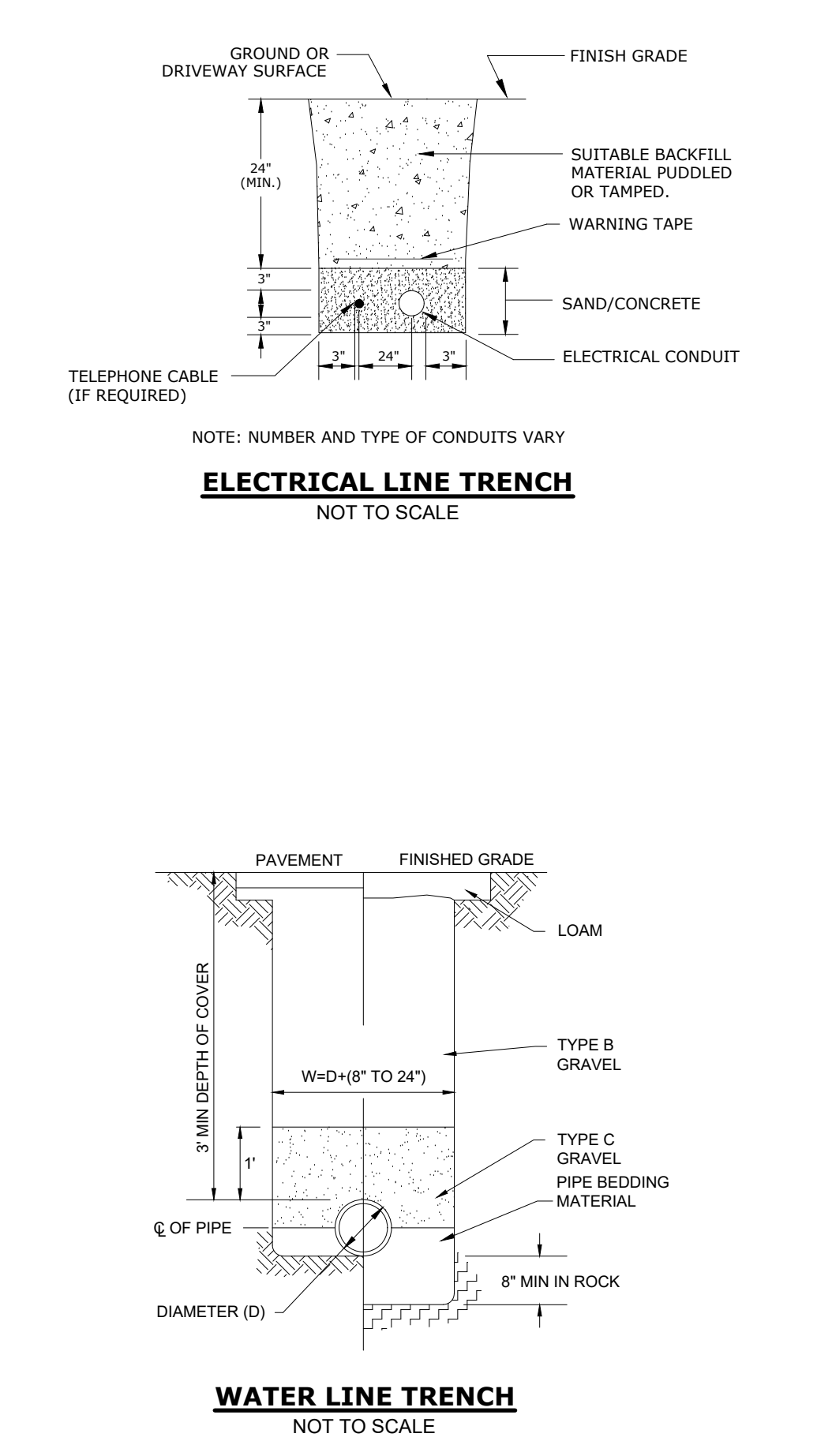
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO M 306 AND CASTINGS SHALL MEET AASHTO M 306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET H320 (AASHTO M 306) AND BE CAST WITH THE CONTECH LOGO.
- IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH
ENGINEERED SOLUTIONS LLC
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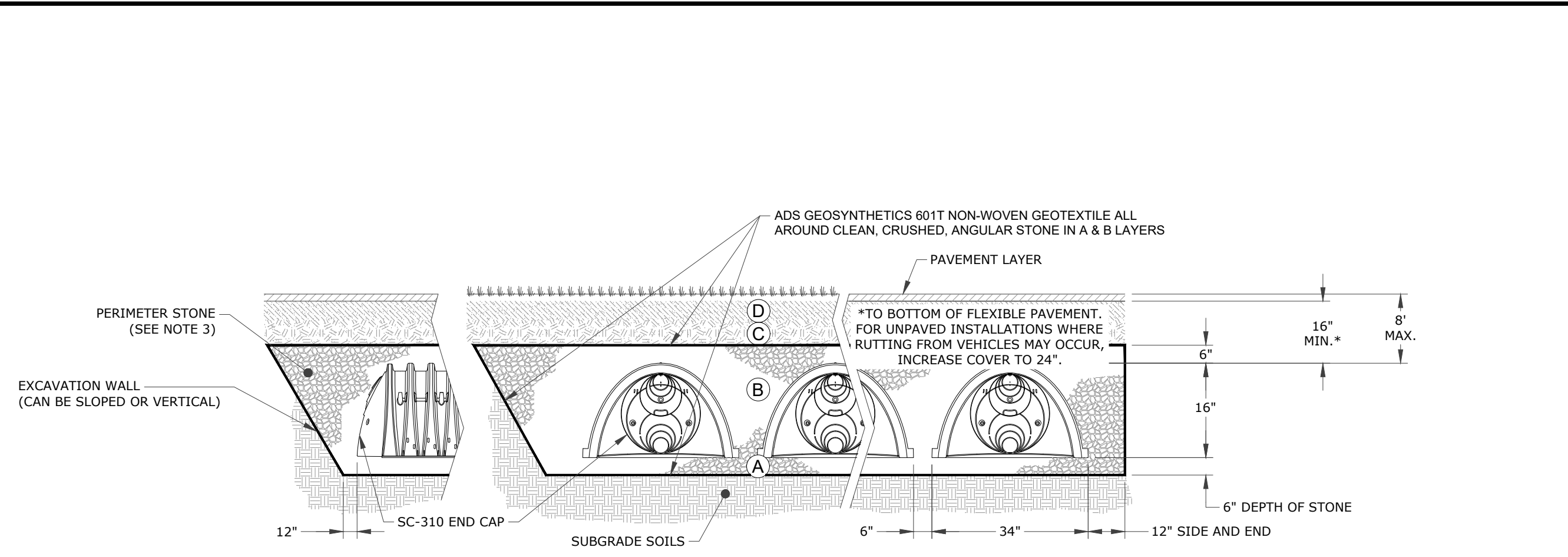
CDS5653-10-C
INLINE CDS
STANDARD DETAIL



| | |
|--|--|
| <p>SITE DETAILS 3</p> <p>GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335</p> <p>GALES FERRY INTERMODAL LLC 359 SOUTH STREET, DANBURY, CT 06810</p> | <p>SCALE: NOT TO SCALE</p> <p>CONTRACT NO.: 0451C2.06</p> <p>DATE: 03/07/2023</p> <p>DRAWN BY: ESP</p> <p>APPROVED BY: SRM</p> |
| <p>C-14</p> <p>SHEET NO. 17 NO. OF SHEETS 20</p> | <p>DATE: _____</p> <p>DESCRIPTION OF REVISION: _____</p> |

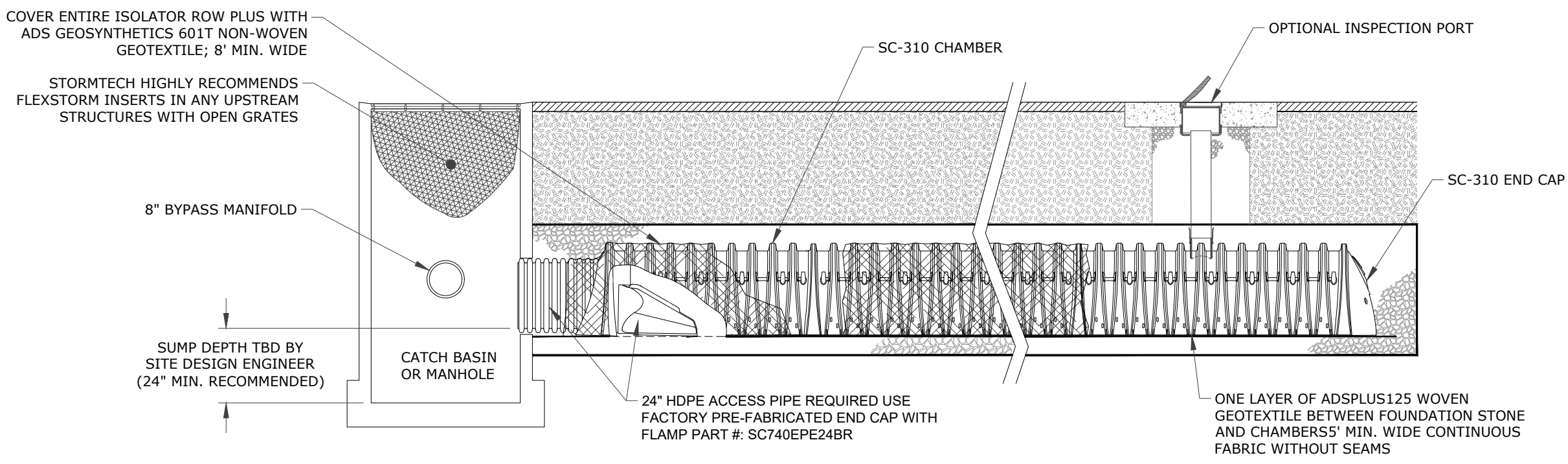
PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____

PZC CHAIRMAN OR SECRETARY _____ DATE _____



- NOTES:**
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
 - REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING SLUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

ADS STORMTECH SC-310 CROSS-SECTION
NOT TO SCALE



ADS STORMTECH SC-310 ISOLATOR ROW
NOT TO SCALE



STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

| PART # | STUB | A | B | C |
|-----------------------------|--------------|----------------|---------------|--------------|
| SC310EPE06T / SC310EPE06TPC | 6" (150 mm) | 9.6" (244 mm) | 5.8" (147 mm) | --- |
| SC310EPE06B / SC310EPE06BPC | --- | --- | --- | 0.5" (13 mm) |
| SC310EPE08T / SC310EPE08TPC | 8" (200 mm) | 11.9" (302 mm) | 3.5" (89 mm) | --- |
| SC310EPE08B / SC310EPE08BPC | --- | --- | --- | 0.6" (15 mm) |
| SC310EPE10T / SC310EPE10TPC | 10" (250 mm) | 12.7" (323 mm) | --- | --- |
| SC310EPE10B / SC310EPE10BPC | --- | --- | --- | 0.7" (18 mm) |
| SC310EPE12B | 12" (300 mm) | 13.5" (343 mm) | --- | 0.9" (23 mm) |

ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC310EPE12B THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL.

ADS STORMTECH SC-310 STUB LOCATIONS IN END CAPS
NOT TO SCALE

UNDERGROUND DETENTION SYSTEM ELEVATION SUMMARY TABLE

| STRUCTURE ID | CHAMBER TYPE | NUMBER OF CHAMBERS | TOP OF STONE ELEV. | TOP OF CHAMBER ELEV. | BOTTOM OF CHAMBER ELEV. | BOTTOM OF STONE ELEV. | INLET MANIFOLD SIZE | OUTLET MANIFOLD SIZE | INLET STUB INVERT ELEV. | OUTLET STUB INVERT ELEV. |
|------------------------------|--------------|--------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|----------------------|-------------------------|--------------------------|
| STORMWATER MANAGEMENT AREA 3 | SC-310 | 156 | 28.33 | 27.83 | 26.50 | 26.00 | 12"x6" | 12"x12" | 26.54(6"Ø) | 26.58(12"Ø) |

ADS STORMTECH SC-310 ELEVATION SUMMARY TABLE

INLET/OUTLET CONTROL STRUCTURE ELEVATION SUMMARY TABLE

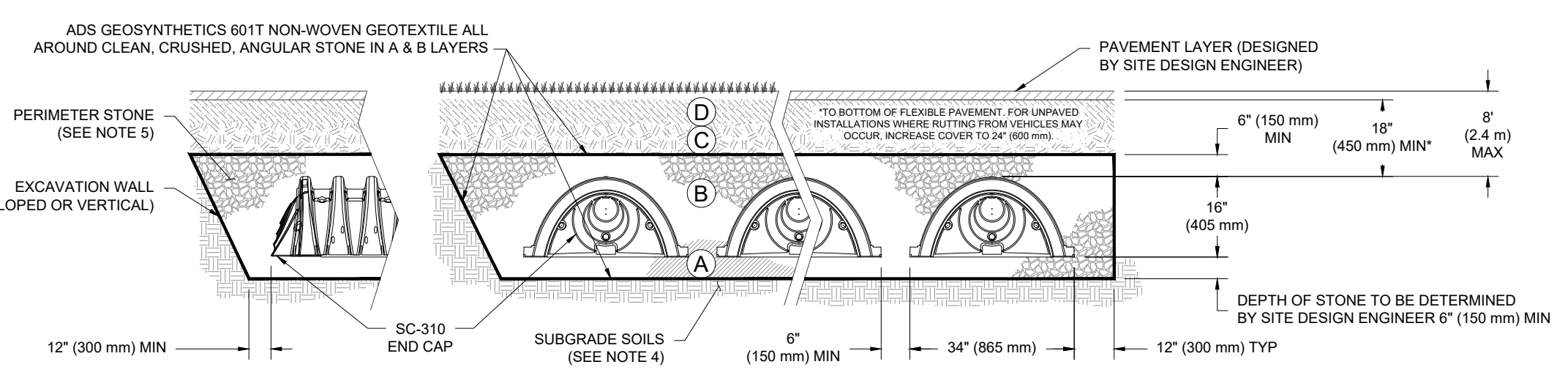
| STRUCTURE ID | TOP OF FRAME ELEV. A | TOP OF WEIR PLATE ELEV. B | LOW-FLOW ORIFICE/WEIR INVERT ELEV. C | INLET PIPE INVERT ELEV. D | OUTLET PIPE 1 INVERT ELEV. E | OUTLET PIPE 2 INVERT ELEV. F |
|--------------|----------------------|---------------------------|--|---------------------------|--------------------------------|--------------------------------------|
| ICS-1 | 55.40 | 52.00 | --- | 48.10 (18"Ø) (N) | 48.10 (12"Ø; ISOLATOR ROW) (S) | 48.10 (12"Ø; INLET MANIFOLD) (E) |
| ICS-2 | 32.30 | 27.70 | --- | 26.60 (15"Ø) (W) | 26.60 (6"Ø; ISOLATOR ROW) (E) | 26.60 (12"Ø; INLET MANIFOLD) (N & S) |
| ICS-3 | 31.75 | 27.70 | --- | 26.60 (12"Ø) (N) | 26.60 (6"Ø; ISOLATOR ROW) (W) | 26.60 (12"Ø; INLET MANIFOLD) (S) |
| ICS-4 | 30.55 | 27.70 | --- | 26.60 (12"Ø) (S) | 26.60 (6"Ø; ISOLATOR ROW) (W) | 26.60 (12"Ø; INLET MANIFOLD) (N) |
| OCS-1 | 37.45 | 36.45 | 35.00 (5"Ø ORIFICE) 31.00 (6"Ø ORIFICE) | --- | --- | 31.00 (15"Ø) (E) |
| OCS-2 | 55.80 | 52.70 | 50.00 (6"Ø ORIFICE) 48.00 (5"Ø ORIFICE) | 48.10 (12"Ø) (W) | --- | 45.00 (15"Ø) (N) |
| OCS-3 | 31.70 | 27.83 | 9.1 (6"Ø ORIFICE) 8.5 (6"Ø ORIFICE) | 26.60 (12"Ø) (N) | --- | 25.50 (12"Ø) (E) |

INLET CONTROL STRUCTURE (ICS) AND OUTLET CONTROL STRUCTURE (OCS)

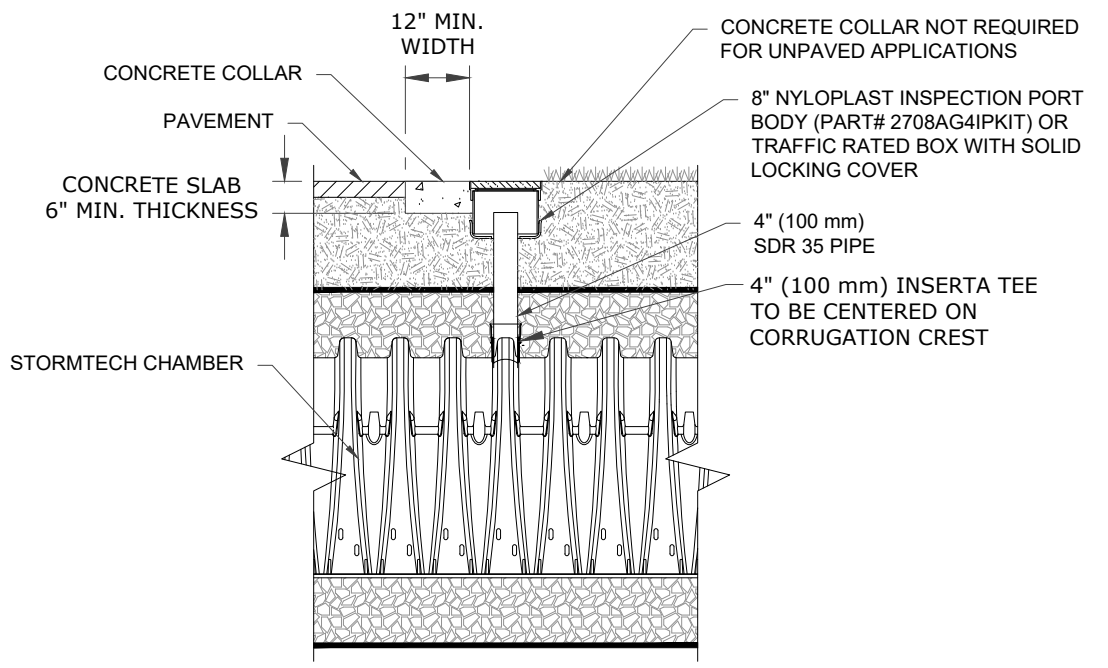
ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

| MATERIAL LOCATION | DESCRIPTION | AASHTO MATERIAL CLASSIFICATIONS | COMPACTION / DENSITY REQUIREMENT |
|-------------------|--|--|---|
| D | FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER. | ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS. | N/A |
| C | INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER. | GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER. | AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10 |
| B | EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE. | CLEAN, CRUSHED, ANGULAR STONE | AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57 |
| A | FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER. | CLEAN, CRUSHED, ANGULAR STONE | AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57 |

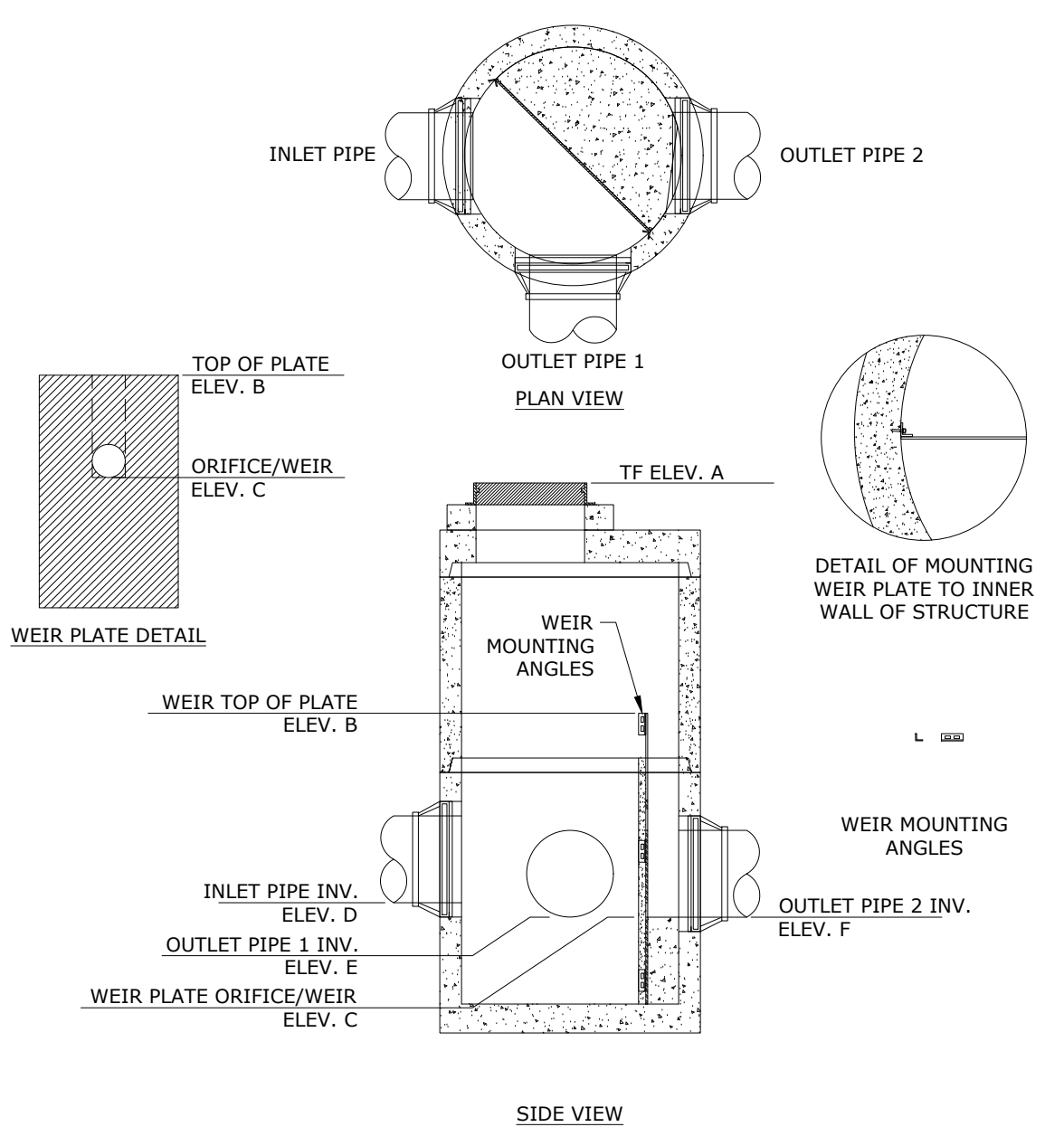
- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



ADS STORMTECH ACCEPTABLE FILL MATERIALS
NOT TO SCALE



ADS STORMTECH SC-310 4\"/>



NOTE:
*5" OR 6" DIA. PRECAST BASES MAY BE USED WHEN REQUIRED DUE TO SIZE OR NUMBER OF PIPES AT THE MANHOLE. PRECAST REDUCERS WILL BE PLACED ABOVE THE 5" AND 6" BASES. WALL THICKNESS TO INCREASE 1" FOR EACH 1" OF INSIDE DIAMETER INCREASE.

STORMTECH SYSTEM OVERFLOW CONTROL STRUCTURE DETAIL
NOT TO SCALE

PZ PERMIT # _____ DATE OF APPROVAL _____ EXPIRATION DATE _____

PZC CHAIRMAN OR SECRETARY _____ DATE _____

STATE OF CONNECTICUT
REGISTERED PROFESSIONAL ENGINEER
No. 10285

Loureiro
Water & Facility Services & Laboratory
Engineering • Construction • EPC • Energy

Loureiro Engineering Associates, Inc.
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335
Tel: 860-747-0418 Fax: 860-747-8822
An Employee Owned Company • www.loureiro.com
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SCALE: NOT TO SCALE
DRAWN BY: ESP
DATE: 03/07/2023
APPROVED BY: SRM
DATE: 03/07/2023

STORMWATER DETAILS

GALES FERRY INTERMODAL
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335
GALES FERRY INTERMODAL LLC
389 SOUTH STREET, SUITE 101, GALESFERRY, CT 06438

DESCRIPTION OF REVISION
DATE
REV.

NO. OF SHEETS: 20
SHEET NO.: 18

DATE: _____
DATE: _____

C-15

