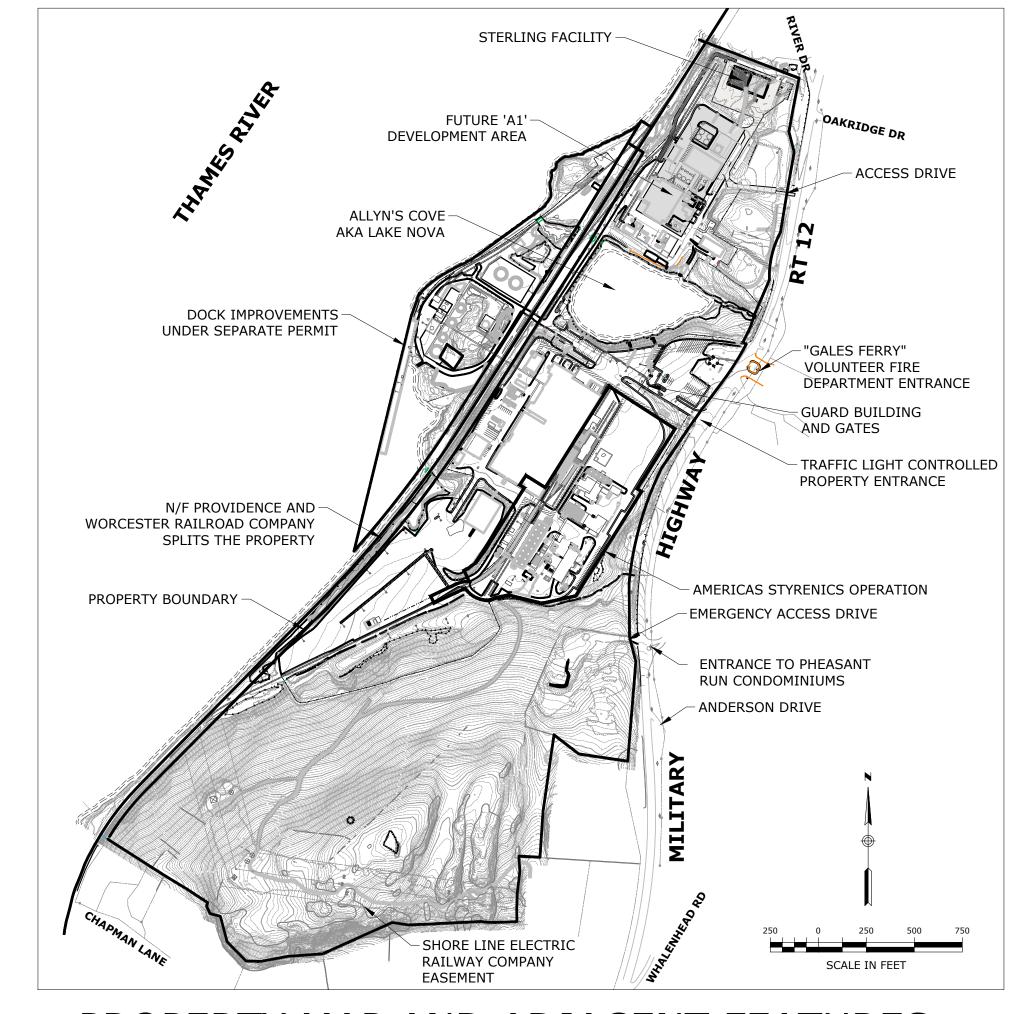
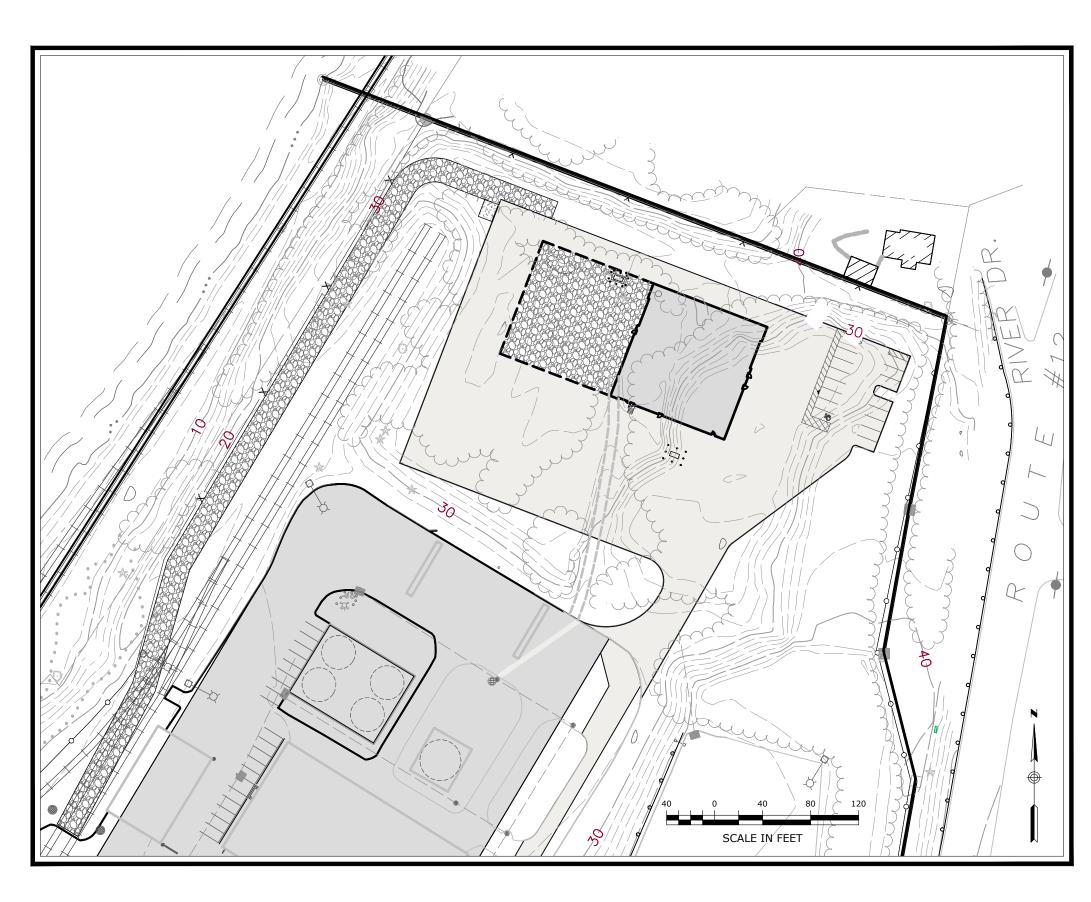
GALES FERRY INTERMODAL STERLING FACILITY

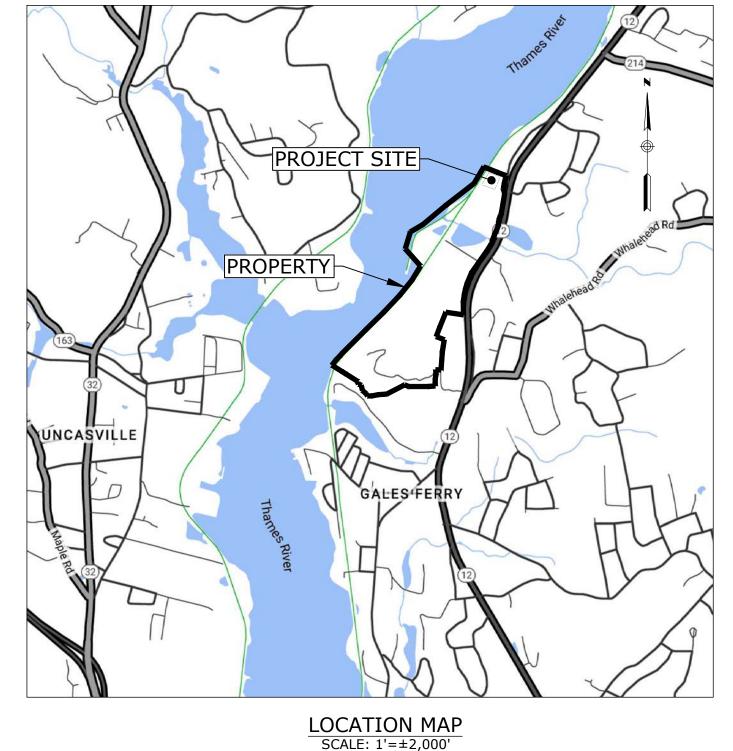
1761 ROUTE 12 GALES FERRY, CONNECTICUT 06335

> MARCH 07, 2023 REVISED: APRIL 6, 2023



PROPERTY MAP AND ADJACENT FEATURES





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4	C-2	OVERALL SITE PLAN			
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Property Owner / Applicant:

GALES FERRY INTERMODAL LLC 549 SOUTH STREET **QUINCY, MA 02169**



Prepared By:

Engineer:



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PZC PERMIT #__ DATE OF APPROVAL EXPIRATION DATE PZC CHAIRMAN OR SECRETARY

SURVEY NOTES

- 1. THIS PLAN IS BASED ON MAP REFERENCE A AND B.
- 2. REFERENCE IS MADE TO THE TOWN OF LEDYARD, CT LAND EVIDENCE RECORDS VOLUME 621
- AT PAGE 981 FOR THE SUBJECT PROPERTY. 3. THE SUBJECT PROPERTY IS LOCATED ENTIRELY WITHIN THE "I" INDUSTRIAL ZONE DISTRICT.
- 4. "NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP NEW LONDON COUNTY, CONNECTICUT ALL JURISDICTIONS PANEL 354, TOWN OF LEDYARD, MAP NUMBER 09011C0354G EFFECTIVE DATE JULY 18, 2011 FEDERAL EMERGENCY MANAGEMENT AGENCY" INDICATES THE SUBJECT PROPERTY IS LOCATED IN ZONE AE (EL 12) AND ZONE X.
- 5. THE SUBJECT PROPERTY IS SHOWN ON THE TOWN OF LEDYARD, CT TAX ASSESSOR MAP 61 BLOCK 2120 AS LOT 1761 WHICH HAS ASSIGNED STREET ADDRESSES OF 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335.
- UNDERGROUND UTILITIES MUST BE FIELD VERIFIED PRIOR TO ANY EXCAVATION.
- 7. INLAND WETLANDS WERE DELINEATED IN THE FIELD BY JMM WETLAND CONSULTING SERVICES, LLC AND LOCATED BY LOUREIRO ENGINEERING ASSOCIATES, INC., GROTON,
- 8. LIMITS OF FLOOD ZONE SHOWN ON PROPOSED PLAN ARE FROM FEMA NFIP MAP NUMBER 09011C0354G, EFFECTIVE DATE JULY 18, 2011.

MAP REFERENCES

- A. PROPERTY SURVEY, PROPERTY OF TRINSEO LLC, #1737 & #1761 MILITARY HIGHWAY (ROUTE 12), LEDYARD, GALES FERRY, CT, PREPARED FOR: JAY CASHMAN, INC., 549 SOUTH STREET, QUINCY, MA, SCALE: 1"=100', DATE: 5/10/2022, BY CHA.
- B. PROPERTY AND TOPOGRAPHIC SURVEY, #1737 & #1761 MILITARY HIGHWAY (ROUTE 12), LEDYARD, GALES FERRY, CT, PREPARED FOR: STYRON LLC "ALLYN'S POINT PLANT", BY CME.

SITE NOTES:

- 1. THE APPLICANT/OWNER IS GALES FERRY INTERMODAL LLC OF 549 SOUTH STREET, QUINCY, MA. 2. THE APPLICANT IS PROPOSING TO CONSTRUCT A 20,000 SF INDUSTRIAL BUILDING WHICH WILL BE UTILIZED BY THE APPLICANT, AND/OR ITS AFFILIATES, FOR STORAGE AND REPAIR OF
- MARINE EQUIPMENT AND APPURTENANCES WHICH ARE UTILIZED BY THE APPLICANT'S AFFILIATES IN CONJUNCTION WITH ITS MARINE CONTRACTING AND DREDGING OPERATIONS. 3. OTHER USES ON THE SITE CURRENTLY INCLUDE MANUFACTURING OF STYROFOAM PRODUCTS
- 4. THE PURPOSE OF THESE PLANS IS FOR REVIEW BY THE LEDGE LIGHT HEALTH DISTRICT FOR COMPLIANCE WITH THE PUBLIC HEALTH CODE AND THE TOWN OF LEDYARD PLANNING & ZONING COMMISSION FOR A SPECIAL PERMIT APPLICATION FOR THE NEW INDUSTRIAL BUILDING. THESE PLANS ARE FOR PERMIT PURPOSES ONLY AND ARE NOT TO BE USED FOR CONTRACT DOCUMENTS.
- 5. FOR EXACT BUILDING DIMENSIONS, SEE BUILDING PLANS PROVIDED.

BY AMERICAS STYRENICS, A TENANT OF THE PROPERTY.

- 4. THE SUBJECT PROPERTY IS LOCATED WITHIN THE 'I' INDUSTRIAL ZONE. THE PARCEL DOES LIE WITHIN THE COASTAL AREA MANAGEMENT ZONE. A PORTION OF THE SITE IS WITHIN THE FEMA AE (EL 12) AND ZONE X WHILE THE PROPOSED BUILDING IS LOCATED OUTSIDE OF ANY FEMA
- 5. LOT COVERAGE CALCULATIONS:
- A. ALLOWED @ 70% = 70% X 6,882,480 SF = 4,817,736 SF
- B. PROVIDED: 2,091,741 (EXISTING) + 73,965 (PROPOSED) / 6,882,480 SF = 31.5 % 6. PARKING CALCULATIONS FOR NEW INDUSTRIAL BUILDING:
- A. REQUIRED: 1 SPACE PER EMPLOYEE ON MAX SHIFT PLUS 1 SPACE PER FLEET VEHICLE 1 SPACE PER EMPLOYEE ON MAX SHIFT X 10 EMPLOYEES PLUS 1 SPACE PER FLEET VEHICLE X 7 FLEET VEHICLES = 17 SPACES REQUIRED
- B. PROPOSED:
- OTHER ON-SITE BUILDINGS AND USES WERE NOT EVALUATED FOR PARKING
- 7. THERE SHALL BE NO ACTIVITY WITHIN THE WETLAND OR 100 FOOT INLAND WETLAND UPLAND REVIEW AREA UNLESS OTHERWISE PERMITTED AND AS SHOWN ON THESE PLANS. 8. ANY MODIFICATION TO THE PLANS, INCLUDING ANY RECONFIGURATION OF THE PROPOSED FLOOR PLAN, IMPOSED BY ANOTHER FEDERAL, STATE OR LOCAL AGENCY SHALL REQUIRE

ADDITIONAL REVIEW BY TOWN STAFF OR THE COMMISSION, WHICHEVER IS APPROPRIATE.

- 9. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS INCLUDING A CONNECTICUT D.O.T. ENCROACHMENT PERMIT FOR ALL WORK WITHIN THE D.O.T. RIGHT-OF-WAY PRIOR TO
- 10. THE CONTRACTOR SHALL OBTAIN, REVIEW AND ADHERE TO ALL REQUIREMENTS AND ANY CONDITIONS OF APPROVAL OF THE TOWN OF LEDYARD.
- 11. NO SIGNAGE IS PROPOSED WITH THIS APPLICATION. ANY FUTURE SIGNAGE SHALL MEET THE ZONING REGULATIONS REQUIREMENTS AND WILL REQUIRE THE NECESSARY PERMITS.
- 12. ANY EXTERIOR LIGHTING SHALL BE FULL CUTOFF AND SHALL BE SHIELDED TO DIRECT LIGHT AND GLARE AWAY FROM ALL ADJOINING PROPERTIES.
- 13. ALL PROPOSED PAVEMENT MARKINGS SHALL BE INSTALLED IN THE LOCATIONS SHOWN WITH DURABLE WHITE PAVEMENT MARKING PAINT AND IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.). THE HANDICAP PARKING SYMBOLS SHALL BE WHITE WITH STANDARD HANDICAP BLUE BACKGROUNDS. ALL TRAFFIC CONTROL SIGNS SHALL CONFORM TO M.U.T.C.D. STANDARDS.
- 14. NEW SIDEWALKS, RAMPS AND DRIVEWAYS SHALL BE INSTALLED TO PROVIDE SMOOTH TRANSITION FOR PEDESTRIANS AND VEHICLES.
- 15. ALL CURB/HANDICAP RAMP DESIGNS SHALL CONFORM TO ANSI STANDARDS OR ADA ACT OF 1991, WHICHEVER IS MOST RESTRICTIVE.
- 16. ALL JOINTS BETWEEN EXISTING AND NEW PAVEMENT SHALL BE PROPERLY SAWCUT, TACK COATED AND SEALED AS APPLICABLE. ALL PROPOSED JOINTS SHALL BE FLUSH AND MATCH EXISTING GRADES. SAWCUT LINES MAY BE MODIFIED AS NECESSARY TO MEET CONSTRUCTION
- 17. ALL EXISTING CURBING, PAVEMENT, ETC. DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPLACED/RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR.

REOUIREMENTS UPON REVIEW AND APPROVAL BY THE DESIGN ENGINEER.

18. ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" STANDARDS.

UTILITY NOTES:

- 1. UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 PRIOR TO INITIATION OF THIS PROJECT. IF UTILITIES DIFFER FROM THOSE SHOWN ON THIS PLAN, ENGINEER SHALL BE NOTIFIED.
- 2. SCHEMATIC UNDERGROUND UTILITIES (ELECTRIC, TELEPHONE, COMMUNICATIONS, WATER) ARE SHOWN ON THESE PLANS FOR INFORMATIONAL PURPOSES ONLY. FINAL LOCATIONS WILL BE DETERMINED BY RESPECTIVE UTILITY AUTHORITIES AND INSTALLATION SHALL CONFORM TO UTILITY AUTHORITY POLICIES AND PRACTICES.
- 3. ALL NEW UTILITIES, INCLUDING CATV, WILL BE LOCATED UNDERGROUND.
- 4. ELECTRIC, TELEPHONE AND COMMUNICATION SERVICES SHALL CONFORM TO THE POLICIES AND PRACTICES OF THE APPROPRIATE UTILITY AUTHORITIES.
- 5. UTILITY SERVICE SIZES, MATERIALS, AND INSTALLATIONS SHALL BE APPROVED AND INSPECTED BY THE APPROPRIATE UTILITY COMPANY.
- 6. PROVIDE MINIMUM VERTICAL SEPARATION OF 12" FROM WATER MAIN TO DRAINAGE PIPING AND 18" TO SEWER PIPING.
- 7. LOCATION AND SIZE OF ALL BUILDING UTILITY CONNECTIONS SHALL BE COORDINATED WITH BUILDING ARCHITECTURAL PLANS AND APPROPRIATE UTILITY AUTHORITY.
- 8. WATER LINE INSTALLATION NOTES

WITH MOST CURRENT REVISIONS.

- A. DOMESTIC AND FIRE PROTECTION WATER SERVICES SHALL BE SIZED BASED ON DEMAN AND COORDINATED WITH GROTON UTILITIES, THE PROVIDER THROUGH THE TOWN OF LEDYARD WPCA.
- B. SITE MUST BE AT SUBGRADE BEFORE WATER UTILITIES CAN BE INSTALLED.
- C. ALL WATER MAIN AND SERVICE INSTALLATIONS SHALL CONFORM TO THE CITY OF GROTON.
- D. APPROVED BACKFLOW PREVENTERS ARE REQUIRED ON ALL FIRE SPRINKLER AND DOMESTIC WATER LINES.

DEPARTMENT OF UTILITIES, WATER MAIN AND SERVICE CONSTRUCTION SPECIFICATIONS,

- E. MINIMUM COVER OVER TOP OF WATER LINES SHALL BE 4.5' FROM FINISHED GRADE.
- F. NO BACKFILLING OF PIPE SHALL BE DONE UNTIL A DESIGNATED REPRESENTATIVE OF THE CITY OF GROTON, DEPARTMENT OF UTILITIES HAS MADE AN INSPECTION AND INSTALLATION HAS BEEN APPROVED.
- G. PIPE SEPARATIONS
- a. 10' MINIMUM BETWEEN WATER AND SEWER
- b. 10' MINIMUM BETWEEN WATER AND BUILDINGS c. 5' MINIMUM BETWEEN WATER AND CATCH BASINS OR DRAIN PIPES
- H. WATER LINE GATE VALVES TO BE "OPEN LEFT, CLOSE RIGHT"
- I. NEW WATER LINES TO BE CHLORINATED, PRESSURE TESTED, WATER QUALITY SAMPLED AND FLUSHED PER CITY OF GROTON, DEPARTMENT OF UTILITIES REQUIREMENTS PRIOR TO
- 9. MINIMUM 6' SEPARATION BETWEEN ELECTRIC AND ALL OTHER PIPES SUCH AS WATER, SEWER
- 10. ALL UTILITIES AND ON-SITE STORM DRAINAGE SHALL BE STRUCTURALLY SUPPORTED TO MINIMIZE DISRUPTION FROM SETTLEMENT OF UNDERLYING SOIL.

EROSION AND SEDMIENTATION (E&S) CONTROL PLAN:

- 1. THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN IS FOR THE CONSTRUCTION OF A NEW 20,000 SF INDUSTRIAL BUILDING WITH ASSOCIATED LOADING DOCKS, ACCESS DRIVE, PARKING, UTILITY IMPROVEMENTS, LANDSCAPING IMPROVEMENTS, STORMWATER MANAGEMENT IMPROVEMENTS, A NEW SUBSURFACE SEWAGE DISPOSAL SYSTEM, AND OTHER ASSOCIATED SITE IMPROVEMENTS.
- 2. THE TOPOGRAPHY VARIES ACROSS THE SITE AND GENERALLY SLOPES FROM ROUTE 12 TO THE EXISTING ON-SITE INLAND WETLANDS. THE PORTION OF THE SITE WHERE THE PROPOSED WORK IS LOCATED SLOPES TO THE NORTH, SOUTH AND WEST. THE UNDERLYING SOIL ON THE SITE MOSTLY CONSISTS OF, FINE LOAMY SAND, HYDROLOGIC SOIL GROUP B.
- 3. A LARGE PORTION OF THE UPLAND SOILS WILL BE DISTURBED BY EARTHWORK ACTIVITIES AND THE INTENT OF THIS EROSION AND SEDIMENT CONTROL PLAN IS TO ESTABLISH STORMWATER CONTROLS DURING CONSTRUCTION TO PREVENT THE DISCHARGE OF SEDIMENT LADEN RUNOFF FROM ENTERING THE EXISTING INLAND WETLANDS.
- 4. EROSION CONTROL MEASURES INTENDED TO MINIMIZE SOIL EROSION AND TO CONTROL SEDIMENTATION DURING CONSTRUCTION INCLUDE:
- A. THE INSTALLATION OF SILT FENCE ALONG THE DOWN-GRADIENT LIMIT OF DISTURBANCE. INSTALL HAYBALES AS SHOWN ON PLANS.
- B. INSTALL SILTSACKS IN EXISTING CATCH BASINS IN THE PROJECT AREA. INSTALL SILT SACKS IN NEW CATCH BASINS DURING CONSTRUCTION.
- C. THE IMMEDIATE STABILIZATION OF FINAL GRADED AREAS THROUGH THE PLACEMENT OF RIPRAP, TOPSOIL, SEED, MULCH AND EROSION CONTROL NETTING. D. DEVELOPMENT OF A CONSTRUCTION OPERATIONS PLAN IN CONSIDERATION OF BASIC
- CONSTRUCTION SEQUENCING OUTLINED HEREIN. 5. IT IS ANTICIPATED THAT SITE WORK CONSTRUCTION WILL BEGIN IN THE SPRING OF 2023 AND WILL BE COMPLETED IN THE FALL OF 2023.

GENERAL E&S REQUIREMENTS

- 1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE TOWN REPRESENTATIVE TO DISCUSS ESC REQUIREMENTS AND STORMWATER MANAGEMENT
- 2. CONSTRUCTION ENTRANCE SHALL BE INSTALLED BEFORE CONSTRUCTION TRAFFIC INTO AND OUT OF THE SITE BEGINS.
- 3. THE CONTRACTOR SHALL INSTALL HAYBALES AND SILT FENCING AS SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN PRIOR TO INITIATING CONSTRUCTION ACTIVITIES AND SHALL BE
- MAINTAINED/REPAIRED UNTIL FINAL STABILIZATION OF ALL DISTURBED AREAS. 4. THE CONTRACTOR SHALL SEED AND MULCH DISTURBED AREAS EXPECTED TO REMAIN UNSTABILIZED FOR A PERIOD OF MORE THAN 30 DAYS.
- 5. THE CONTRACTOR SHALL COMPLETE PERMANENT SEEDING BETWEEN APRIL 15TH THROUGH JUNE 15TH AND AUGUST 15TH THROUGH SEPTEMBER 15TH. APPLY PERMANENT SOIL STABILIZATION MEASURES TO ALL GRADED AREAS WITHIN 7 DAYS OF ESTABLISHING FINAL GRADE AT A RATE OF 90 POUNDS PER 1,000 SQUARE FEET. RECOMMENDED SEED MIXTURE FUTURA 2000 BY THE CHAS C. HART CO. CONTAINING THE FOLLOWING VARIETIES OF
- 6. UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF SEDIMENT AND DEBRIS. ALL REMOVED SEDIMENTS AND DEBRIS SHALL BE DISPOSED OF.

PERENNIAL RYEGRASSES: FIESTA II, BLAZER II, DASHER II AND EXPRESS.

- 7. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL DURING THE CONSTRUCTION PROCESS. THE CONSTRUCTION MANAGER SHALL INSPECT THE SITE TO ASSURE DUST IS ADEOUATELY CONTROLLED. IF THE CONSTRUCTION MANAGER DETERMINES DUST CONTROL MEASURES ARE NOT ADEQUATE, THE CONTRACTOR SHALL BE REQUIRED TO INCREASE THESE MEASURES AS DIRECTED BY THE CONSTRUCTION MANAGER.
- 8. THE CONTRACTOR SHALL MAINTAIN EROSION CONTROLS.
- 9. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF CONNECTICUT SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. ALL MEASURES SHALL BE MAINTAINED AND UPGRADED TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION.
- 10. THE CONSTRUCTION MANAGER SHALL BE RESPONSIBLE FOR IMPLEMENTING AND INSPECTING EROSION AND SEDIMENT CONTROL MEASURES PER THIS PLAN AND SHALL INFORM ALI CONTRACTORS OF THE OBJECTIVES AND REQUIREMENTS OF THE PLAN. THE OWNER SHALL NOTIFY THE PROPER TOWN AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY AND SHALL ADVISE THE TOWN REGARDING THE NEED FOR IMPLEMENTING ADDITIONAL CONTROL MEASURES OR MAINTAINING EXISTING MEASURES AS DEEMED NECESSARY DURING CONSTRUCTION. WEEKLY INSPECTIONS SHALL BE CONDUCTED AND/OR WITHIN 24 HOURS OF THE END OF A STORM HAVING A RAINFALL AMOUNT OF 1/2 INCH OR GREATER. MONTHLY WRITTEN REPORTS SHALL BE PREPARED INFORMING THE TOWN OF LEDYARD OBSERVATIONS, MAINTENANCE, AND CORRECTIVE ACTIONS.

THE INTENT OF THE FOLLOWING CONSTRUCTION SEQUENCE IS TO ESTABLISH STORMWATER CONTROLS DURING EARTHWORK ACTIVITIES TO PREVENT THE DISCHARGE OF SEDIMENT LADEN RUNOFF FROM ENTERING STORM DRAIN SYSTEMS, WETLANDS AND WATERCOURSES.

THE ESC PLAN SHOWS THE PROPOSED GRADING WHICH DEPICTS THE APPROXIMATE EXCAVATION LIMITS AND RESULTING DRAINAGE PATTERNS UPON WHICH THE ESC MEASURES ARE PREDICATED. THE CONTRACTOR SHALL DEVELOP A CONSTRUCTION EXCAVATION PLAN BASED ON THEIR OPERATIONAL REQUIREMENTS.

- CONTACT "CALL BEFORE YOU DIG" TO MARK OUT ALL UTILITY LOCATIONS PRIOR TO ANY
- 2. ENSURE ALL LAND USE PERMITS HAVE BEEN SECURED. OBTAIN ALL NECESSARY PERMITS.
- 3. THE PROJECT LAND SURVEYOR SHALL STAKE OUT PROPOSED CLEARING LIMITS PRIOR TO CONSTRUCTION 4. INSTALL TEMPORARY CONSTRUCTION ENTRANCE, SEDIMENT FENCES AND/OR HAY BALE
- BARRIERS AS SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN. 5. REMOVE ALL TREES, BRUSH AND STUMPS WITHIN CLEARING LIMITS AS NECESSARY. PROTECT
- WETLANDS AT ALL TIMES. THERE SHALL BE NO BURIAL OF CONSTRUCTION DEBRIS, STUMPS, BRUSH OR UNSUITABLE MATERIAL ON SITE.
- 6. EXCAVATE AND/OR FILL WORK SITE TO SUBGRADE LEVEL.
- A. NO ROCK CRUSHING AND/OR BLASTING IS PROPOSED. IF BLASTING IS REQUIRED FOR ROCK REMOVAL, A PRE-BLAST SURVEY SHALL BE PERFORMED. IF BLASTING AND ROCK CRUSHING ARE REQUIRED THEN APPROVAL OF THE PLANNING AND ZONING COMMISSION
- B. FILL WILL BE PLACED AND COMPACTED IN 8 INCH LIFTS AND SHALL BE FREE OF BRUSH, RUBBISH, LOGS, BUILDING DEBRIS, OR ANY OTHER OBJECTIONABLE MATERIAL
- C. MOISTEN SOIL SURFACE PERIODICALLY WITH WATER TO MINIMIZE DUST. 7. THE PROPOSED BUILDING AND SEPTIC SYSTEM SHALL BE STAKED OUT BY A LICENSED LAND
- SURVEYOR PRIOR TO CONSTRUCTION 8. BEGIN CONSTRUCTION OF BUILDINGS, SEPTIC SYSTEM, AND INSTALL UTILITIES. ADD EROSION CONTROL DEVICES AS NEEDED.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING THE BUILDING AND SEPTIC SYSTEM IN THE EXACT LOCATION SHOWN AND SHALL BE CONSTRUCTED TO THE EXACT DIMENSIONS SHOWN ON THE LATEST SITE AND ARCHITECTURAL PLANS IN ACCORDANCE WITH THE APPROVED PLANS
- 10. INSTALL STORMWATER MANAGEMENT IMPROVEMENTS AND DRAINAGE STRUCTURES STARTING FROM THE MOST DOWNGRADIENT IMPROVEMENTS.
- 11. ALL DISTURBED AREAS NOT COVERED BY BUILDINGS, PARKING, SIDEWALKS, GRAVEL SURFACES, ETC., SHALL BE GRADED AND STABILIZED AS FOLLOWS:
- A. PLACE MINIMUM 4 INCHES OF TOPSOIL IN ALL AREAS. B. APPLY RECOMMENDED SEED MIXTURE AT RECOMMENDED RATE.
- C. APPLY STRAW OR HAY MULCH ON ALL SEEDED AREAS. ALL GRADED AREAS WITH SLOPES GRADED AT 3H:1V OR STEEPER SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS. 11. PLACE AND COMPACT BASE MATERIAL TO FINAL GRADE. INSTALL PAVEMENT, CURB, SIDEWALKS, GRAVEL, STEPS, ETC.
- 12. INSTALL FINAL PAVEMENT COURSE.
- 13. FINAL GRADE AND PLACE TOPSOIL SEED AND MULCH.
- 14. WHEN ALL GRADED AREAS ARE PERMANENTLY STABILIZED, REMOVE ALL EROSION AND SEDIMENT CONTROLS. REMOVE TRAPPED SEDIMENT.

MAINTENANCE OF EROSION CONTROL DEVICES:

- 1. HAYBALE BARRIERS/GEOTEXTILE SILT FENCES: A. INSPECT HAY BALE BARRIERS/GEOTEXTILE SILT FENCE AT LEAST ONCE A WEEK AND WITHIN 24
- HOURS AFTER THE END OF A STORM WITH A RAINFALL AMOUNT OF 1/2" OR GREATER TO DETERMINE MAINTENANCE NEEDS. B. REMOVE SEDIMENT DEPOSITS OR INSTALL A SECONDARY BARRIER/FENCE WHEN SEDIMENT
- DEPOSITS REACH APPROXIMATELY ONE HALF HEIGHT OF THE BARRIER/FENCE. C. REPLACE OR REPAIR THE BARRIER/FENCE WITHIN 24 HOURS OF OBSERVED FAILURE. IF REPETITIVE
- FAILURE OCCURS, CONSULT 2002 GUIDELINES FOR TROUBLESHOOTING FAILURES. D. MAINTAIN THE HAY BALE BARRIER/SILT FENCE UNTIL THE CONTRIBUTING AREA IS STABILIZED
- E. AFTER UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE STAKES FROM HAY BALES; PULL UP FENCE SUPPORT POSTS AND CUT OFF GEOTEXTILE AT GROUND. UNLESS OTHERWISE REOUIRED, HAY BALES MAY BE LEFT IN PLACE OR BROKEN UP FOR GROUND COVER. IF ACCUMULATED SEDIMENT EXCEEDS 6 INCHES, RE-GRADE OR REMOVE SEDIMENT. STABILIZE ANY
- 2. CONSTRUCTION ENTRANCES AND ROADWAYS:

DISTURBED SOILS.

- A. MAINTAIN THE ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING AND WASHING OF SEDIMENTS ONTO PAVED SURFACES.
- B. PROVIDE PERIODIC TOP DRESSING AND ADDITIONAL STONE OR LENGTH AS NECESSARY. C. IMMEDIATELY REMOVE ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED

SURFACES. ROADS ADJACENT TO THE CONSTRUCTION SITE SHALL BE LEFT CLEAN EVERY DAY.

- SAND MAY BE REUSED FOR WINTER SANDING, BUT MAY NOT BE STORED ON-SITE. AS PART OF THE HAULING CONTRACT, THE HAULER SHALL NOTIFY THE PROPERTY
- A. A CONNECTICUT-LICENSED HAULER SHALL PUMP THE SUMPS OF ON-SITE CATCH

A. THE ACCESS DRIVE AND PARKING AREAS SHOULD BE SWEPT AT LEAST ONCE PER

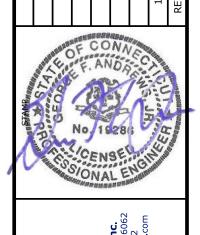
- CATCH BASINS AND MANHOLES
- BASINS AND MANHOLES, AND SHALL DISPOSE OF THE PUMPING LEGALLY. ROAD OWNER IN WRITING WHERE THE MATERIAL IS BEING DISPOSED.

STORMWATER MANAGEMENT SYSTEM MAINTENANCE PLAN:

YEAR, PREFERABLY AFTER THE END OF THE WINTER SANDING SEASON.

- B. EACH CATCH BASIN SHALL BE INSPECTED EVERY FOUR MONTHS, WITH ONE INSPECTION OCCURRING DURING THE MONTH OF APRIL. ANY DEBRIS OCCURRING WITHIN ONE FOOT FROM THE BOTTOM OF EACH SUMP SHALL BE REMOVED BY VACUUM "VACTOR" TYPE OF MAINTENANCE EQUIPMENT.
- 3. STORMTECH UNDERGROUND INFILTRATION/DETENTION SYSTEM
- A. THE ISOLATOR ROWS SHALL BE CLEANED AT THE END OF CONSTRUCTION ONCE THE CONTRIBUTING AREAS ARE FULLY STABILIZED. FOR THE FIRST YEAR OF OPERATION FOLLOWING CONSTRUCTION, THE CHAMBER ROWS SHALL BE INSPECTED ONCE EVERY 6 MONTHS.
- B. AFTER THE FIRST YEAR OF OPERATION, THE CHAMBERS SHALL BE INSPECTED A MINIMUM OF ONCE PER YEAR. IF UPON VISUAL INSPECTION IT IS FOUND THAT SEDIMENT HAS ACCUMULATED. A STADIA ROD SHOULD BE INSERTED TO DETERMINE THE DEPTH OF THE SEDIMENT. WHEN THE AVERAGE DEPTH OF ACCUMULATION EXCEEDS 3", A CLEAN-OUT SHOULD BE PERFORMED AND PROPERLY DISPOSED OFF-SITE. CLEAN-OUT SHOULD BE ACCOMPLISHED USING A JETVAC PROCESS.
- C. A DETAILED MAINTENANCE LOGBOOK SHALL BE KEPT ON-SITE FOR THE UNITS BY THE PROPERTY OWNER/MANAGER. INFORMATION IS TO INCLUDE, BUT NOT BE LIMITED TO, THE DATE OF INSPECTION, RECORD OF SEDIMENT DEPTH, GENERAL OBSERVATIONS, AND DATE OF CLEANING PERFORMED.
- 4. HYDRODYNAMIC SEPARATOR
- A. THE SEPARATOR SHALL BE CLEANED PERIODICALLY DURING CONSTRUCTION, AND AT THE END OF CONSTRUCTION ONCE THE LANDSCAPED AREAS ARE FULLY STABILIZED
- B. FOR THE FIRST YEAR OF OPERATION FOLLOWING CONSTRUCTION, THE SEPARATOR SHALL BE INSPECTED ONCE EVERY 4 MONTHS FOR THE MONTHS OF NOVEMBER. MARCH, AND JULY. A GRADUATED MEASURING DEVICE SHALL BE INSERTED INTO MANHOLE AND MEASUREMENTS OF ANY ACCUMULATIONS WILL BE RECORDED. CLEANING WILL OCCUR WHEN DEBRIS HAS ACCUMULATED TO A DEPTH OF 20" OR
- C. AFTER THE FIRST YEAR OF OPERATION, THE SEPARATOR SHALL BE INSPECTED A MINIMUM OF TWICE PER YEAR IN THE SAME MANNER AS DESCRIBED ABOVE. WHEN THE DEPTH OF ACCUMULATION REACHES 20", A CLEAN-OUT SHOULD BE PERFORMED AND SEDIMENT PROPERLY DISPOSED OF OFF-SITE. DEBRIS WILL BE REMOVED BY VACUUM "VACTOR" TYPE OF FOUIPMENT. THE MANHOLE SHOULD THEN BE PRESSURE WASHED TO REMOVE REMAINING SEDIMENT AND DEBRIS AND THE WATER SHOULD THEN BE VACUUMED OUT. ONCE CLEANING IS COMPLETE THE MANHOLE SHOULD BE REFILLED WITH WATER.
- D. A DETAILED MAINTENANCE LOGBOOK SHALL BE KEPT FOR THE UNIT. INFORMATION IS TO INCLUDE THE DATE OF INSPECTION, RECORD OF GRIT DEPTH, CONDITION OF TANK, OBSERVATION OF ANY FLOATABLE DEBRIS, AND DATE OF CLEANING

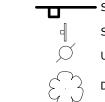
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	'I' INDUSTRIAL ZONE USE - COMMERCIAL					
ITEM	REQUIRED	PROVIDED				
LOT AREA	200,000 SQ. FT. (4.59 AC.)	6,882,480 SQ. FT. (158 AC.)				
FRONTAGE	200 FT.	3700 ± FT.				
LOT WIDTH	200 FT	> 200 FT.				
FRONT SETBACK	35 FT.	145 ± FT.				
SIDE SETBACK	25 FT	45 ± FT.				
REAR SETBACK	25 FT.	220 ± FT.				
LOT COVERAGE (%) (SEE SITE NOTE 5)	70% (4,817,736 SQ. FT.)	31.5 % (2,165,706 SQ. FT.)				
BUILDING HEIGHT	65 FT.	32 ± FT. (SEE ARCHITECTURAL PLANS)				
PARKING (# OF SPACES) (SEE SITE NOTE 6)	17 SPACES	17 SPACES				
WATER SUPPLY	MUNICIPAL					
SANITARY DISPOSAL	ONSITE SSDS					



	Engineering • Construction • EH&S • Energy Waste • Facility Services • Laboratory	Loureiro Engineering Associates, 1 100 Northwest Drive • Plainville, Connecticut Phone: 860-747-6181 • Fax: 860-747-88	An Employee Owned Company • www.Loureir ©Loureiro Engineering Associates, Ind All Rights Reserved 2023
Е		рате 16/2023	рате 16/2023

--5-- EXISTING CONTOUR --5- Existing index contour x6.1 NEW SPOT GRADE ——5— NEW CONTOUR ——5— NEW INDEX CONTOUR BUILDING SETBACK LINE

——E—— UNDERGROUND ELECTRIC CONNECTICUT LIGHT & POWER CATCH BASIN W/ E&SC SEDIMENT FENCE SIGN



AC ACRES

C.O.

BIT CONC BITUMINOUS CONCRETE

TOP OF CURB

CLEAN OUT

INVERT

MINIMUM

SQUARE FEET

TYPICAL

CONNECTICUT HIGHWAY

BOTTOM OF CURB

FINISHED FLOOR

MORE OR LESS

NOW OR FORMERLY

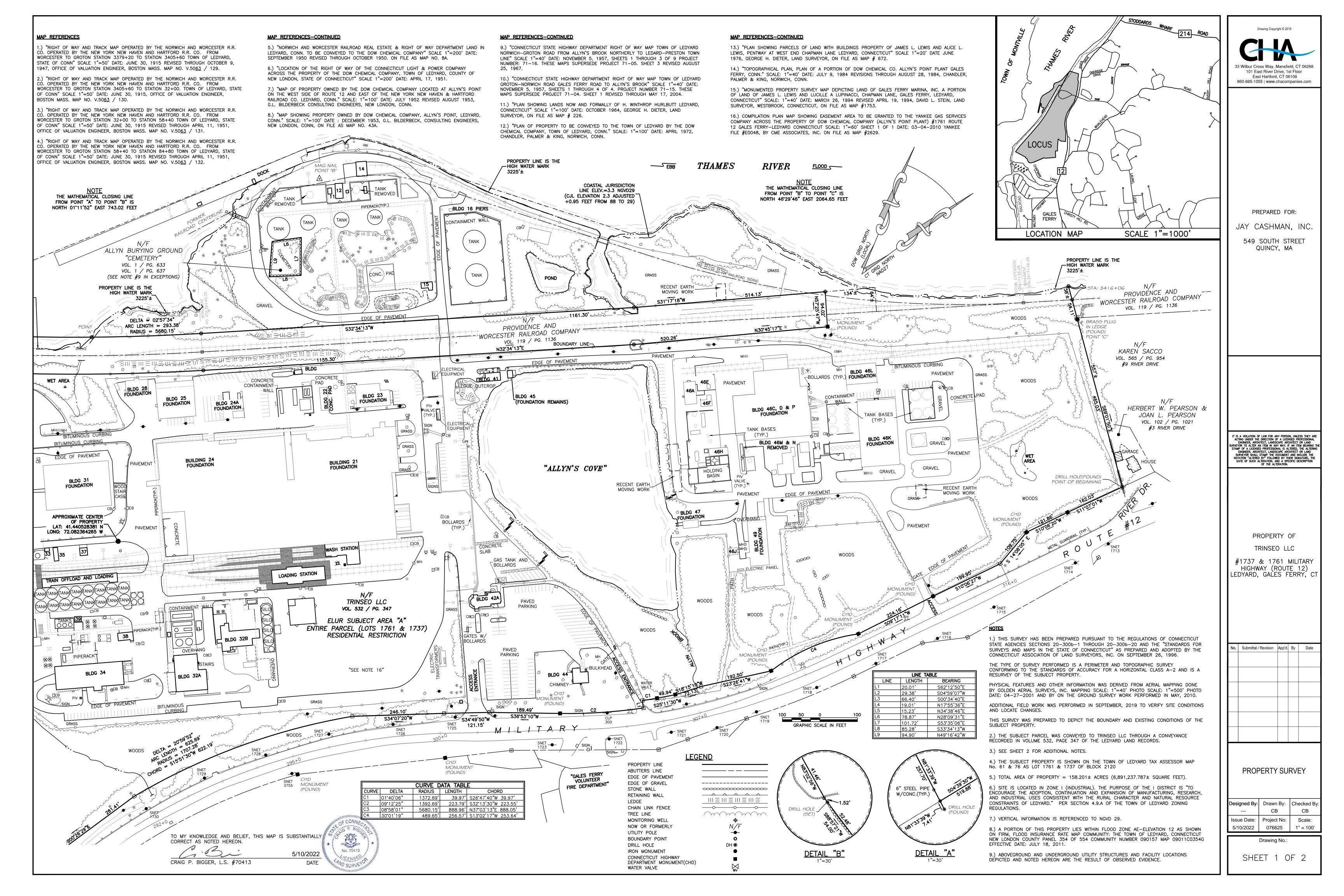
DEPARTMENT MONUMENT

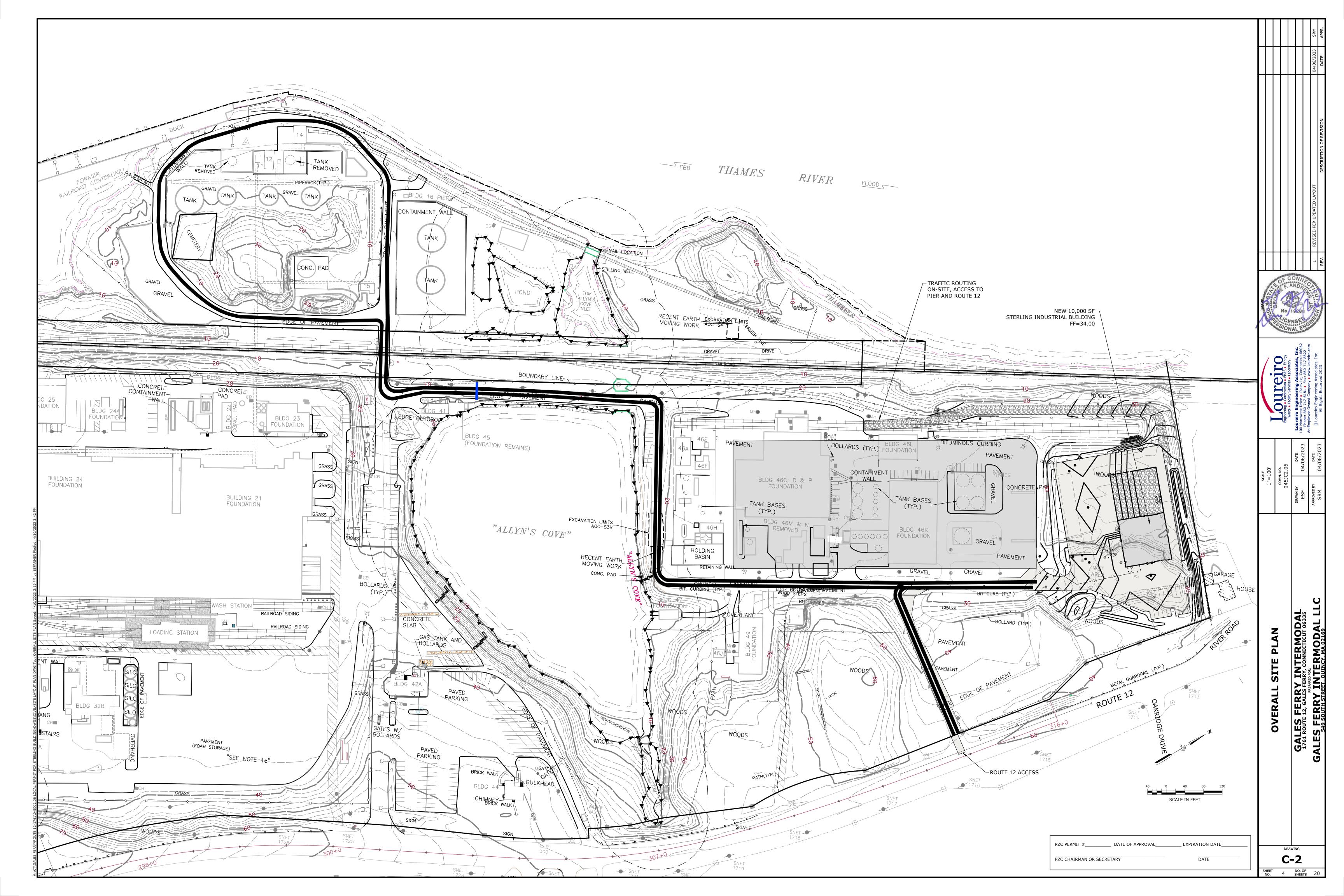
LEDYARD LAND RECORDS

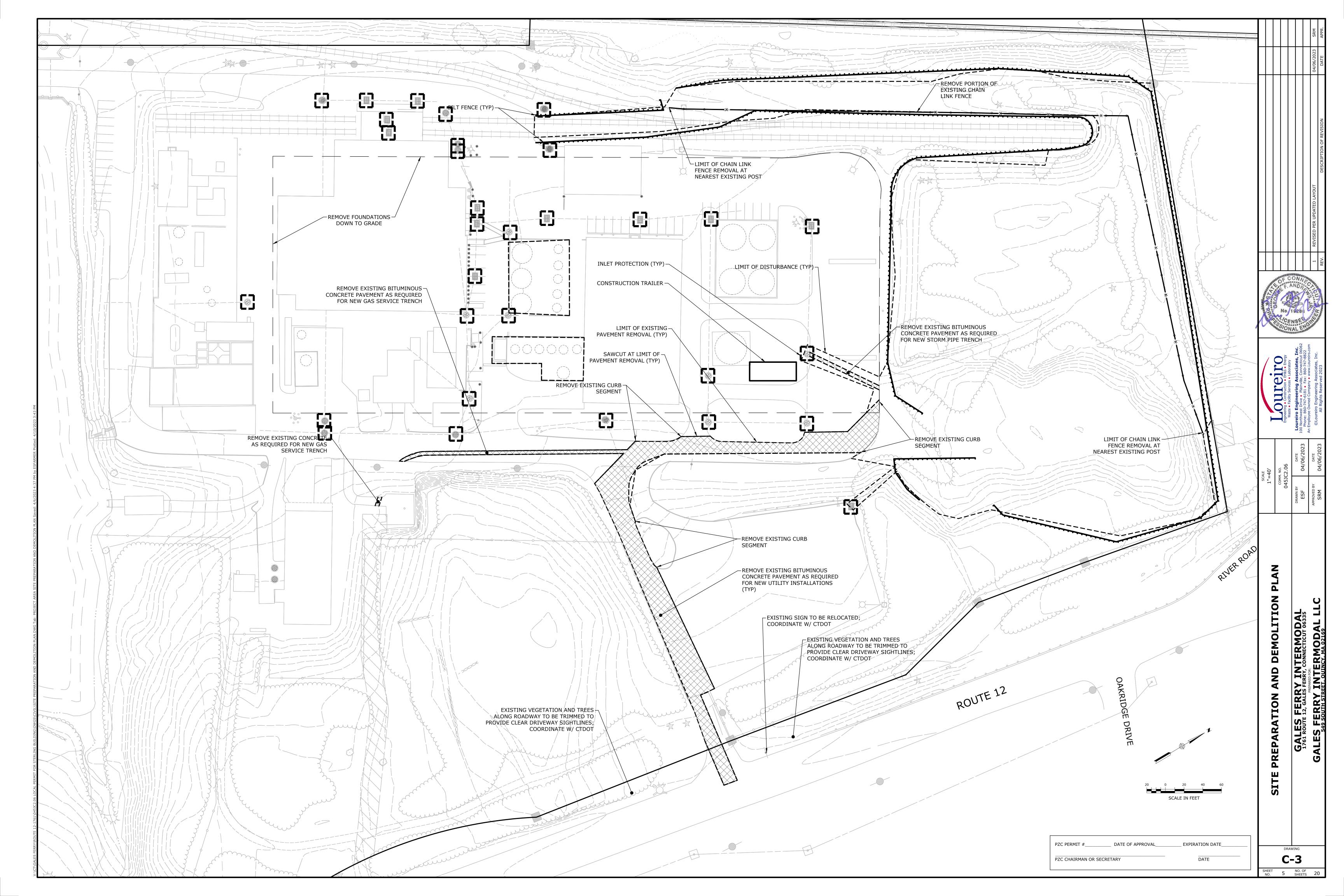
UTILITY POLE DECIDUOUS TREE SOIL TYPE - TAKEN FROM NATURAL RESOURCES CONSERVATION SERVICE. WEBSOIL SURVEY, NATIONAL COOPERATIVE SOIL SURVEY

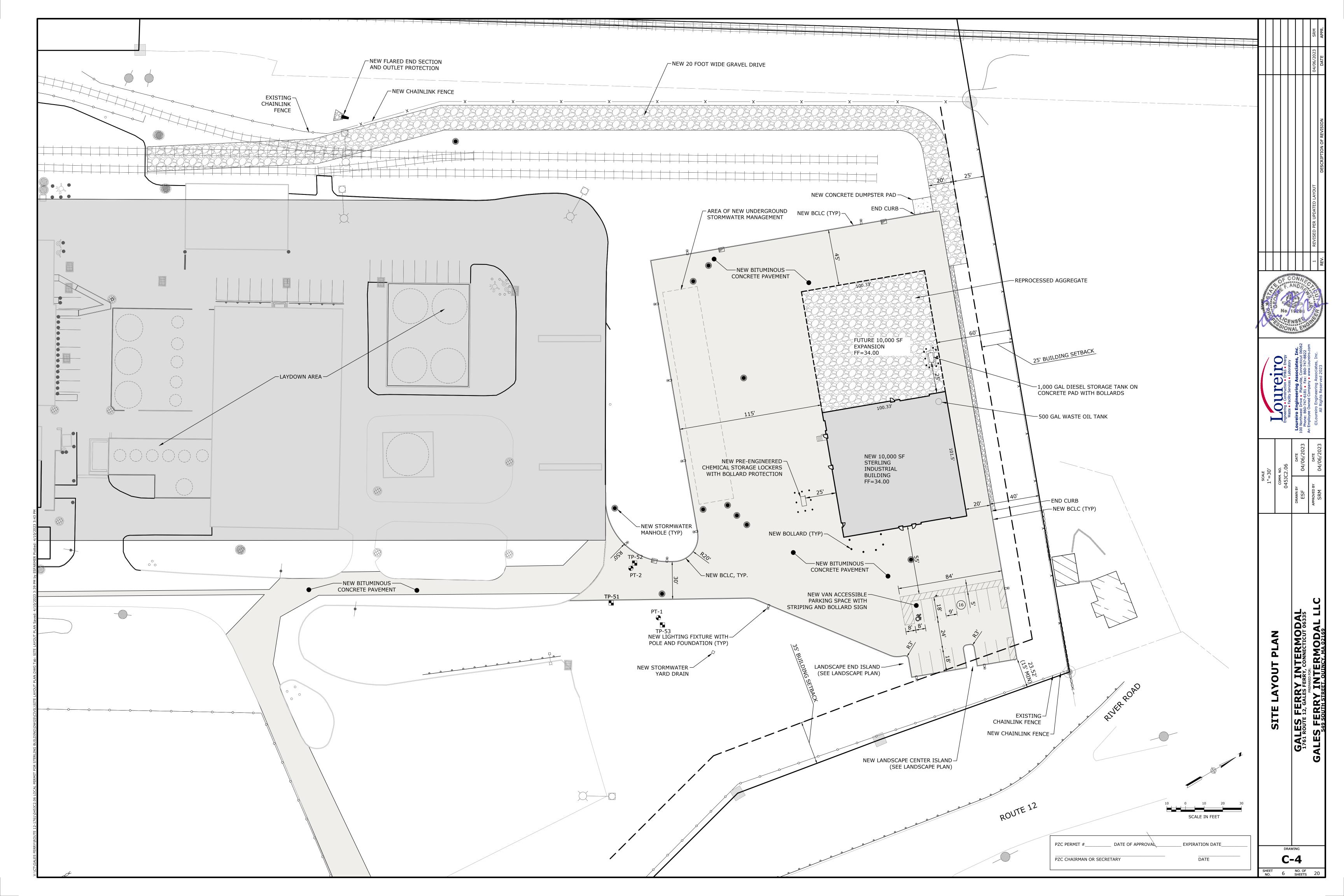
C-1

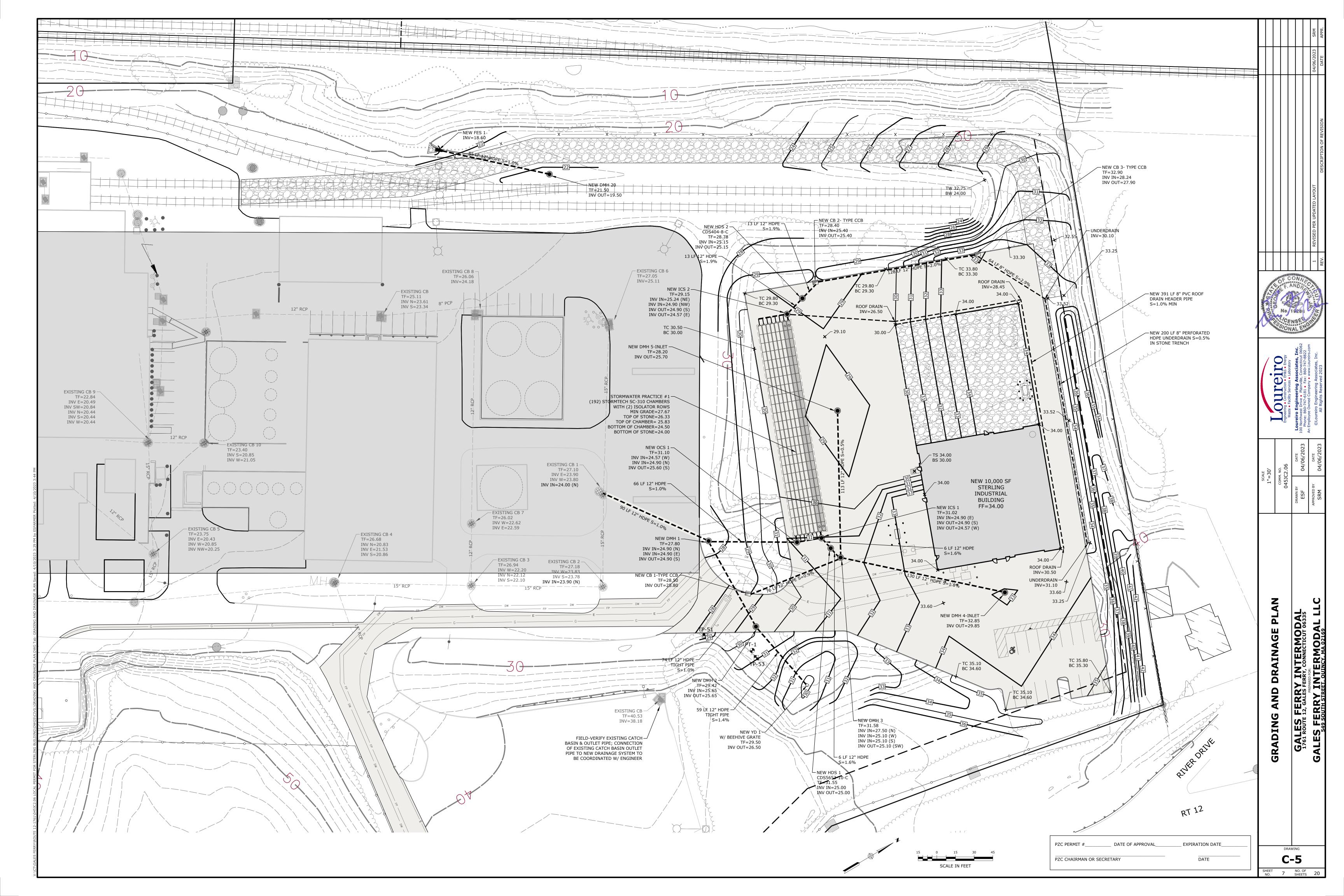
PZC PERMIT #_ _ DATE OF APPROVAL EXPIRATION DATE PZC CHAIRMAN OR SECRETARY DATE

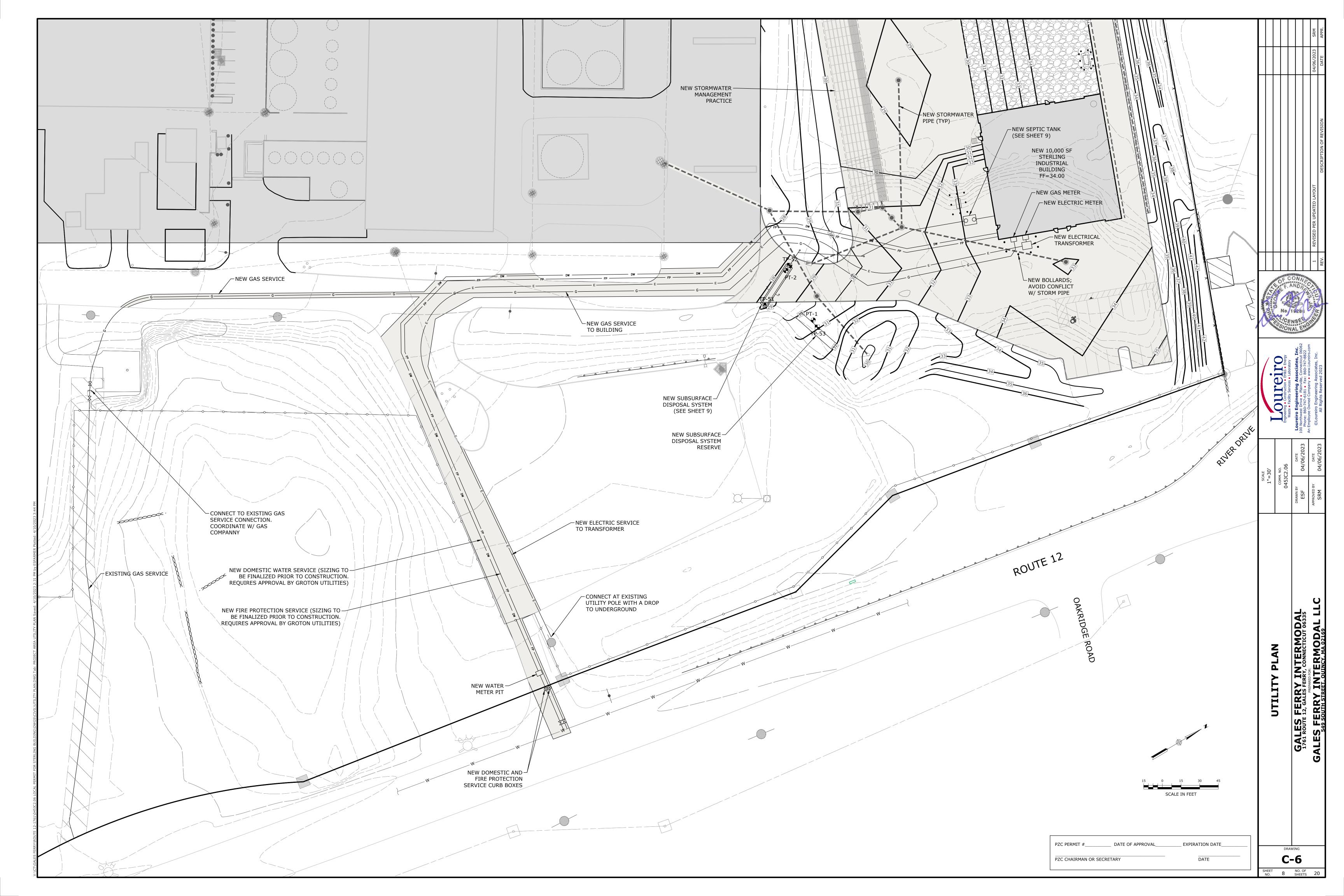


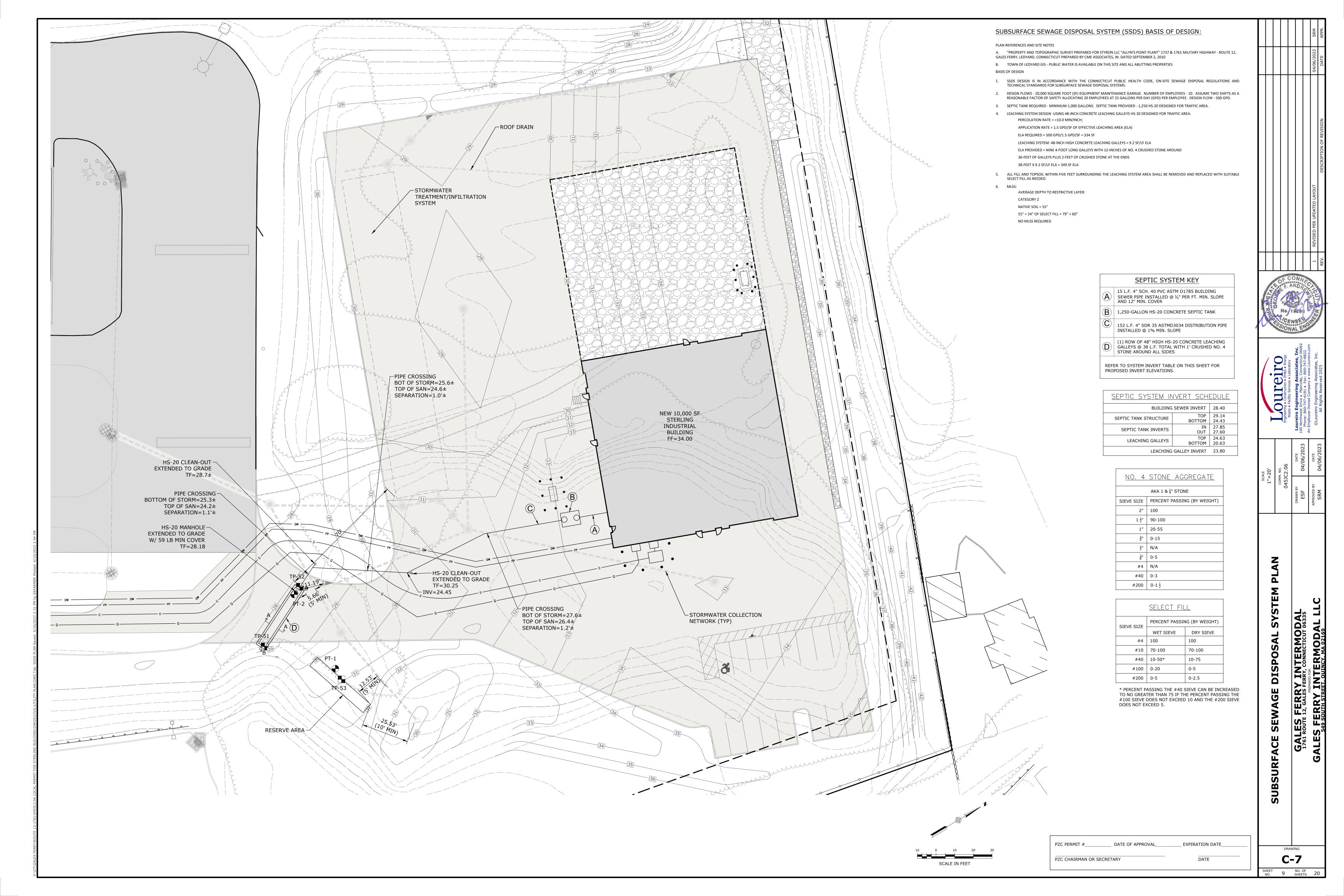


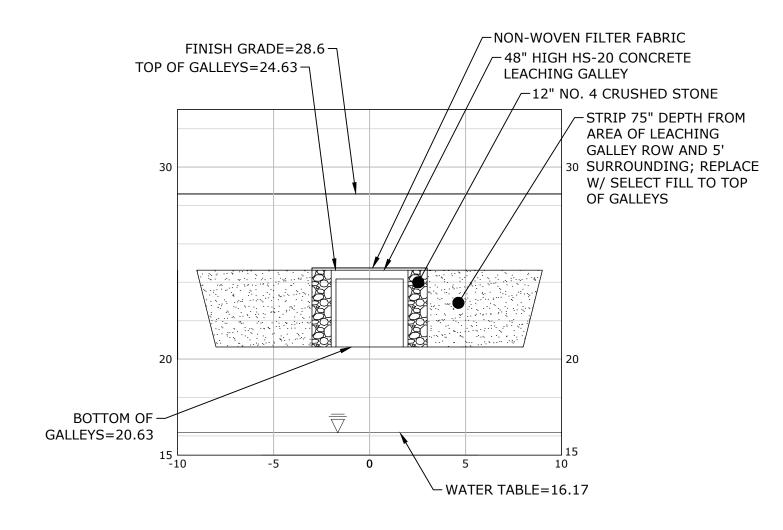




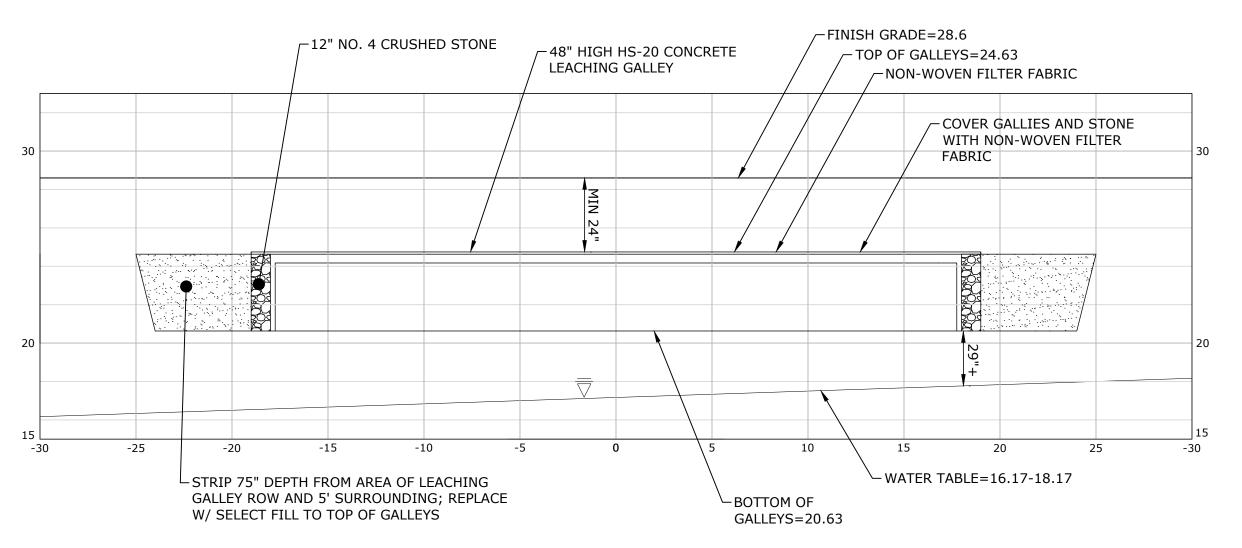








A-A SECTION VIEW SCALE: 1"=5'H&V



B-B SECTION VIEW

PERCOLATION TEST RESULTS CONDUCTED BY LOUREIRO ENGINEERING ASSOCIATES ON MARCH 24, 2023

DEPTH: 122) II -	
	MEASURE (INCHES)	RATE (MIN/IN)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	5.75 7 8.25 8.75 9.125 9.5 10 10.375 10.75 11 11.5 12.125 12.125 12.375 12.5 13 13.125 13.125 13.75 14 14.25 IER REMAINING	0.80 0.80 2.0 2.7 2.7 2.0 2.7 4.0 2.0 2.7 4.0 4.0 8.0 2.0 8.0 8.0 4.0 4.0 4.0 4.0

PERC RATE = 4.0 MIN/INCH

DEPTH:	108"	
TIME (MIN)	MEASURE (INCHES)	RATE (MIN/I
0	11.5	
1	12.5	1.0
2	13.5	1.0
3	14.375	1.1
4	15.125	1.3
5	15.875	1.3
6	16.375	2.0
7	17	1.6
8	17.5	2.0
	DRY	

PERC RATE = 2.0 MIN/INCH

TEST PIT LOG: TP—51 OBSERVED BY LOUREIRO ENGINEERING ASSOCIATES AND LEDGE LIGHT HEALTH DISTRICT ON MARCH 7, 2023 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 TEST PIT LOG: TP—52 OBSERVED BY LOUREIRO ENGINEERING ASSOCIATES AND LEDGE LIGHT HEALTH DISTRICT ON MARCH 24, 2023 DEPTH OBSERVATIONS 0-62" FILL 62"-84" ORIGINAL TOPSOIL 84"-111" DARK BROWN MEDIUM-COARSE SAND WITH GRAVEL AND COBBLES 111"-150" TAN MEDIUM SAND, SOME GRAVEL *ROOTS TO 62" *GROUNDWATER AT 130" *NO REFUSAL *NO MOTILING EST PIT LOG: TP—53 OBSERVED BY LOUREIRO ENGINEERING ASSOCIATES AND LEDGE LIGHT HEALTH DISTRICT ON MARCH 24, 2023 DEPTH OBSERVATIONS 0-79" FILL 79"-105" ORIGINAL TOPSOIL 105"-128" ORANGE BROWN MEDIUM-COARSE SAND WITH GRAVEL AND COBBLES *ROOTS TO 105" *GROUNDWATER AT 130" *NO REFUSAL *NO MOTILING 105"-128" ORANGE BROWN MEDIUM-COARSE SAND WITH GRAVEL AND COBBLES *ROOTS TO 105" *GROUNDWATER AT 128" *NON CREFUSAL *NO MOTILING		
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*GROUNDWATER AT 128" *NO REFUSAL	105"-128"	ORANGE BROWN MEDIUM-COARSE SAND WITH GRAVEL AND COBBLES
	*GRC *NO	DUNDWATER AT 128" REFUSAL

SUBSURFACE SEWAGE DISPOSAL SYSTEM (SSDS) CONSTRUCTION NOTES:

1) REFER TO SOIL EROSION AND SEDIMENT CONTROL PLAN FOR EROSION PROTECTION.

- 2) PROCEDURES FOR THE INSTALLATION OF FILL:
 - 2.1) NO EXCAVATION SHALL OCCUR PRIOR TO NOTIFYING "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 OR 811.
 - 2.2) INSTALL EROSION CONTROL ALONG THE DOWN-GRADIENT LIMITS OF FILL IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
 - 2.3) 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.
 - 2.4) 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.
 - 2.5) SELECT FILL SHALL BE PLACED WITHIN OR ADJACENT TO THE LEACHING SYSTEM PER THE PLAN AND SHALL MEET THE REQUIREMENTS OF SECTION VIII.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.
 - 2.6) 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.
 - 2.7) NATIVE SOIL OR COMMON FILL SHALL BE USED AS BACKFILL BEYOND THE LIMITS OF SELECT FILL AND BELOW THE

3) NO UTILITIES SHALL BE INSTALLED THROUGH ANY PORTION OF THE LEACHING SYSTEM.

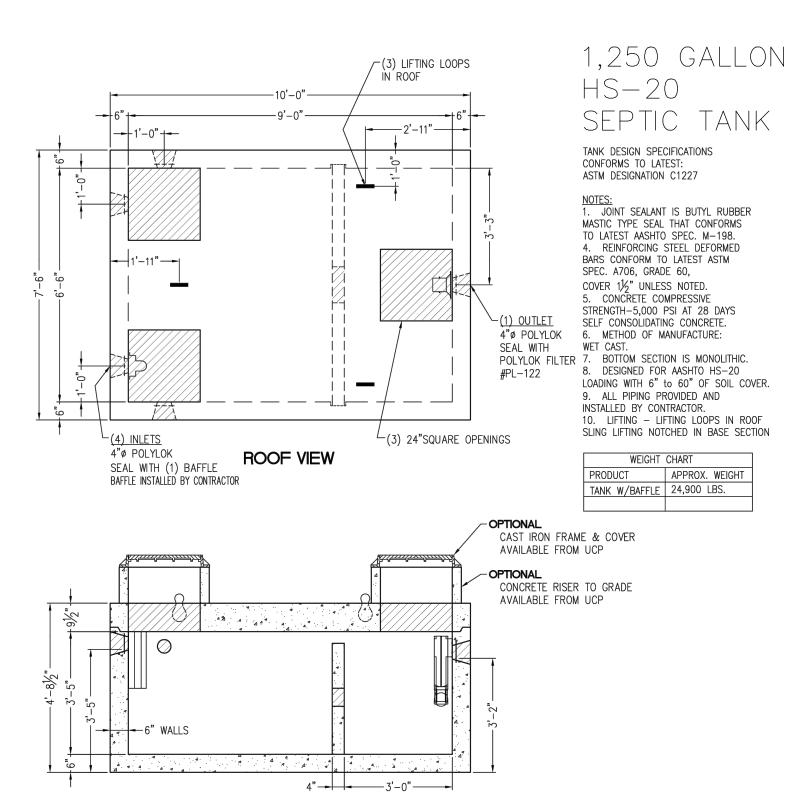
4) SEPTIC TANK SHALL BE SET LEVEL ON A MINIMUM OF SIX INCHES OF PROCESSED AGGREGATE OR BROKEN STONE PLACED ON COMPACTED SUBGRADE. BACKFILL AROUND THE TANK SHALL BE PLACED AND COMPACTED IN SIX INCH LIFTS.

5) HS-20 SEPTIC TANK SHALL BE EQUIPPED WITH RISERS TO GRADE EQUIPPED WITH CAST IRON MANHOLE COVERS WITH A MINIMUM WEIGHT OF 59 PONDS EQUIPPED WITH A LOCKING FEATURE.

6) 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.

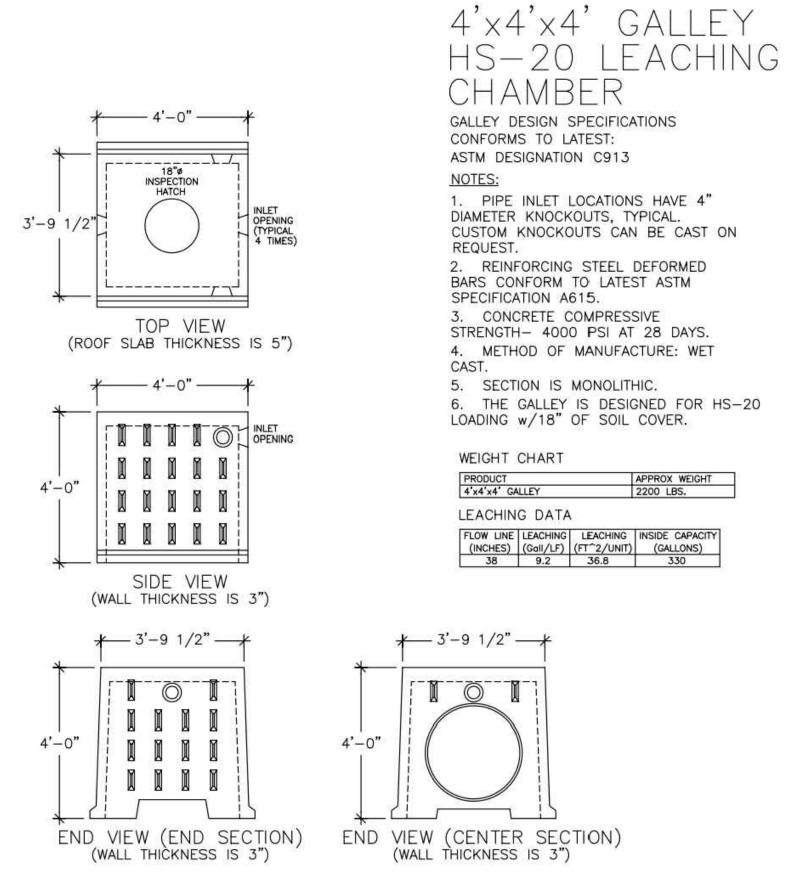
7) THE INSTALLER SHALL SUBMIT TO LEDGE LIGHT HEALTH DISTRICT UPON 30 DAYS OF COMPLETION SCALED OR TIED AS-BUILT DRAWINGS OF ALL SSDS COMPONENTS. THE DRAWING SHALL INCLUDE THE NAME OF THE INSTALLER, DATE AND PROPERTY

8) 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.



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

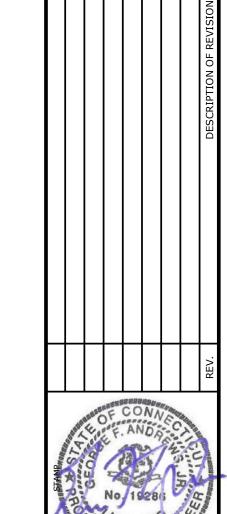
ELEV. SECTION



48" HIGH HS-20 LEACHING GALLEY

NOT TO SCALE

PZC PERMIT #	DATE OF APPROVAL	EXPIRATION DATE_
PZC CHAIRMAN OR S	ECRETARY	DATE



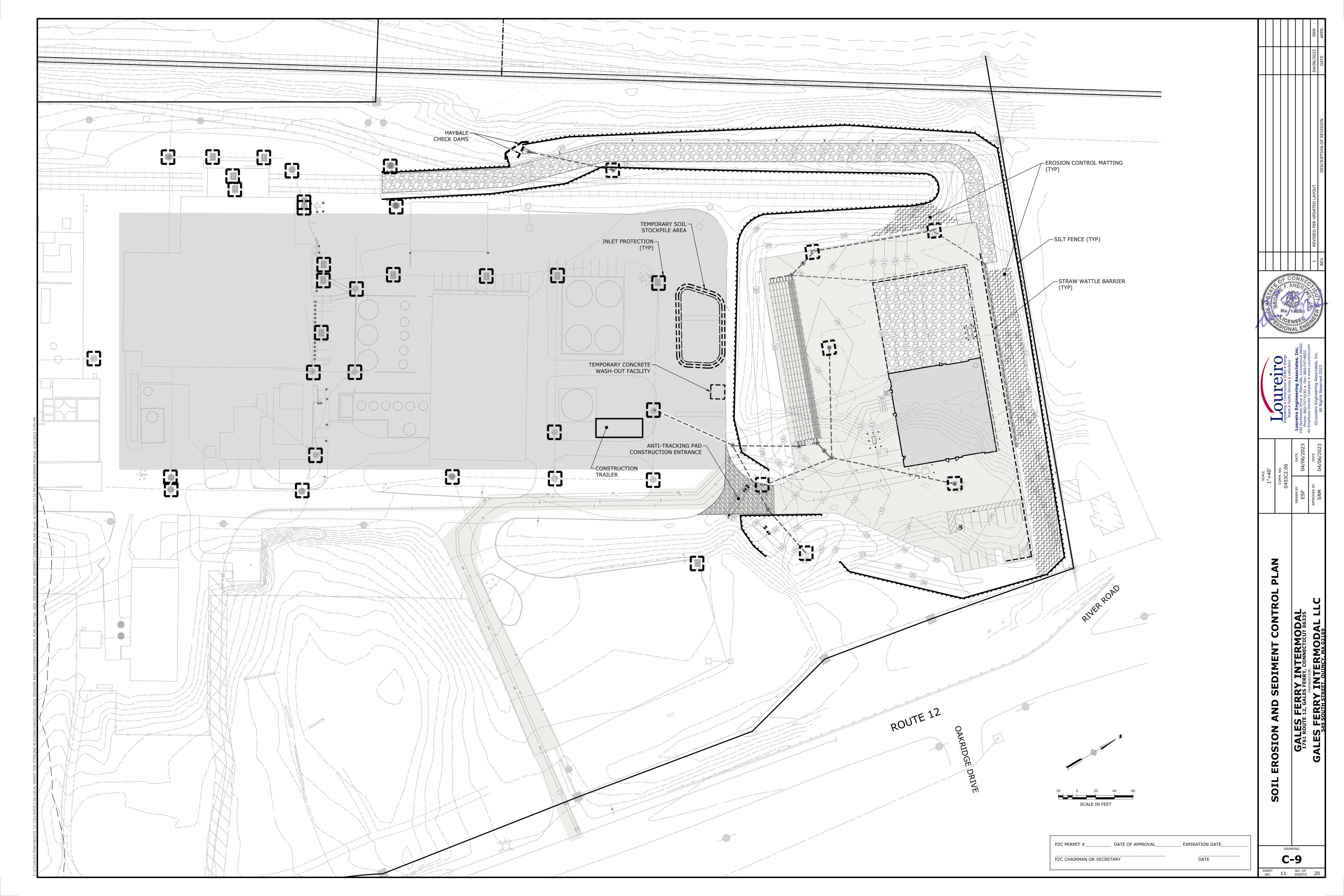
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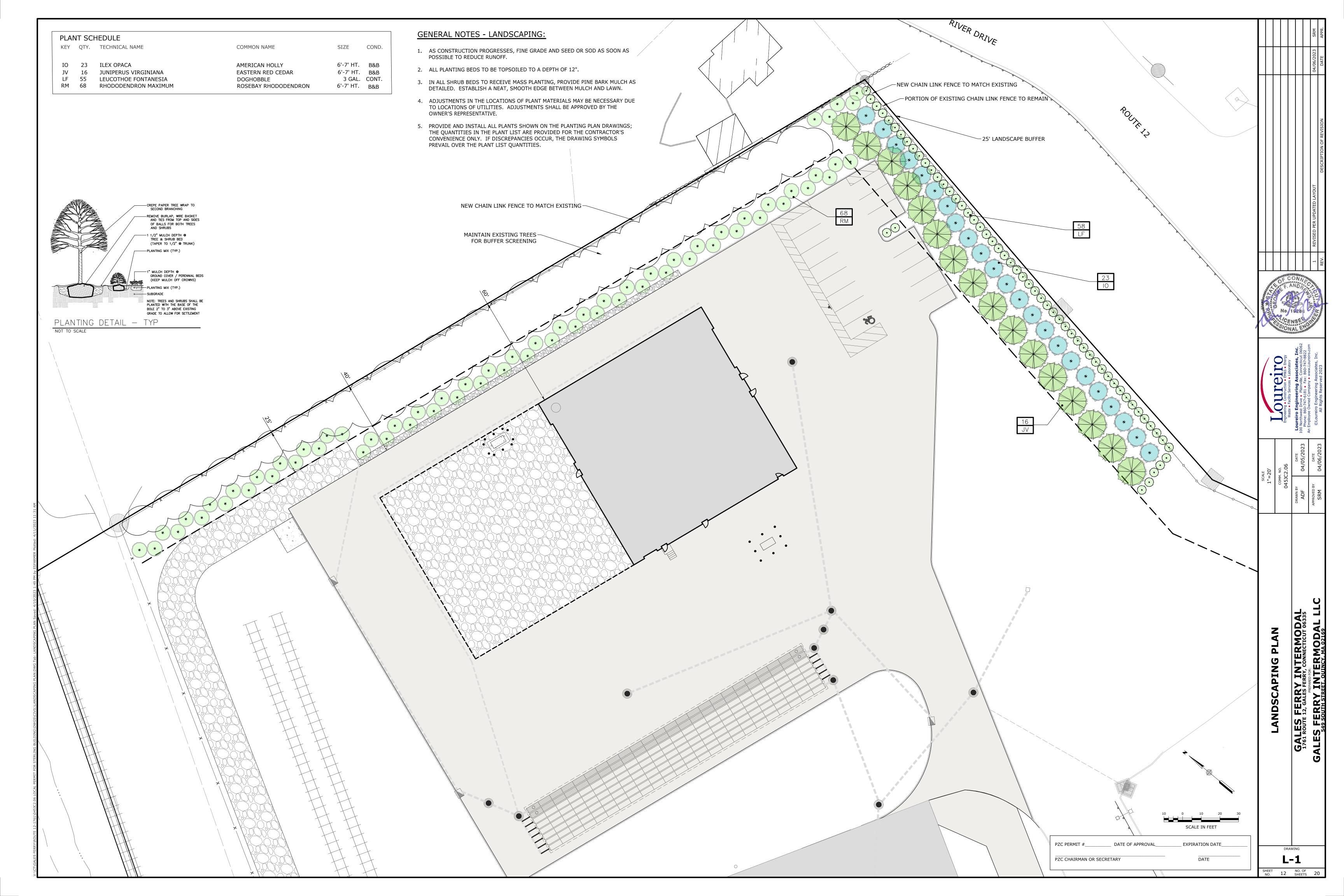
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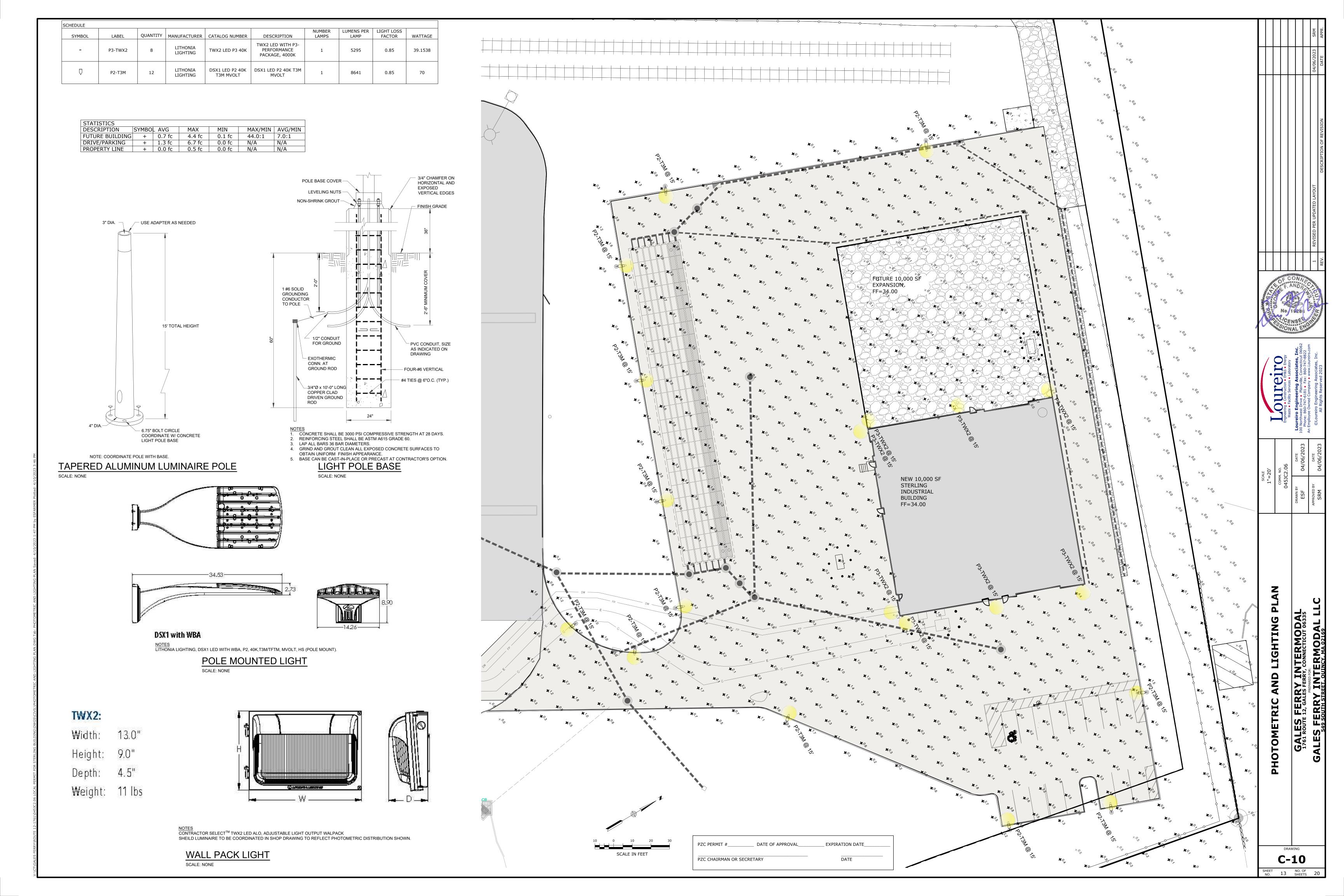
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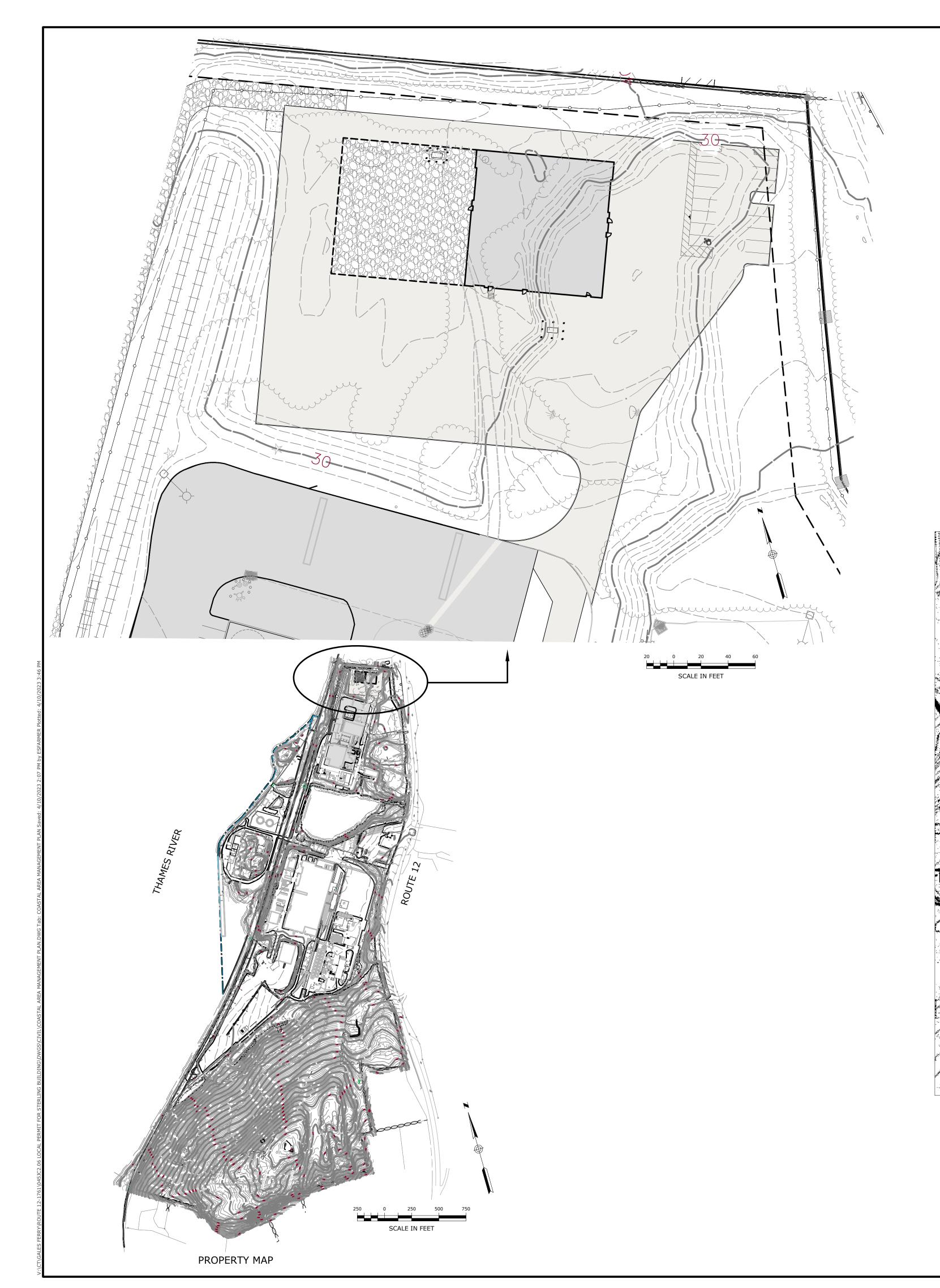
SHEET NO. OF SHEETS 20

BSU



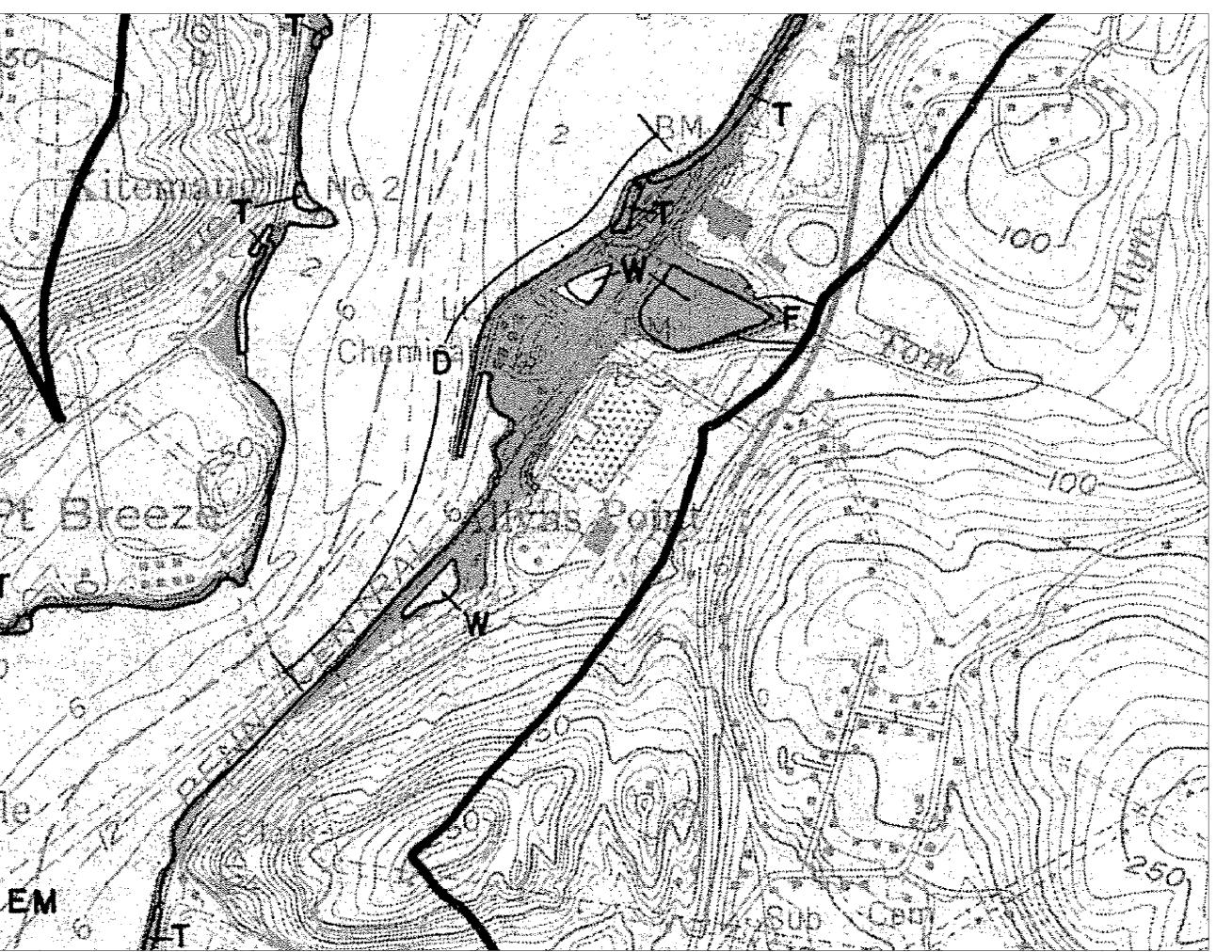






COASTAL RESOURCES

- 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 STATUES.
- 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

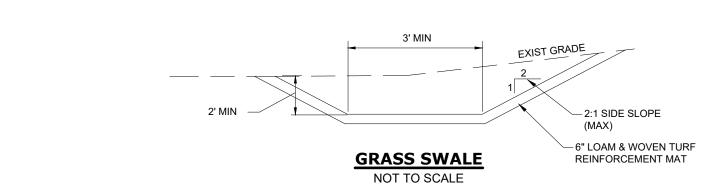
PZC PERMIT #	DATE OF APPROVAL	EXPIRATION DATE
PZC CHAIRMAN OR SECRE	TARY	DATE

DRAWING C-11

MANAGEMENT PLAN

AREA



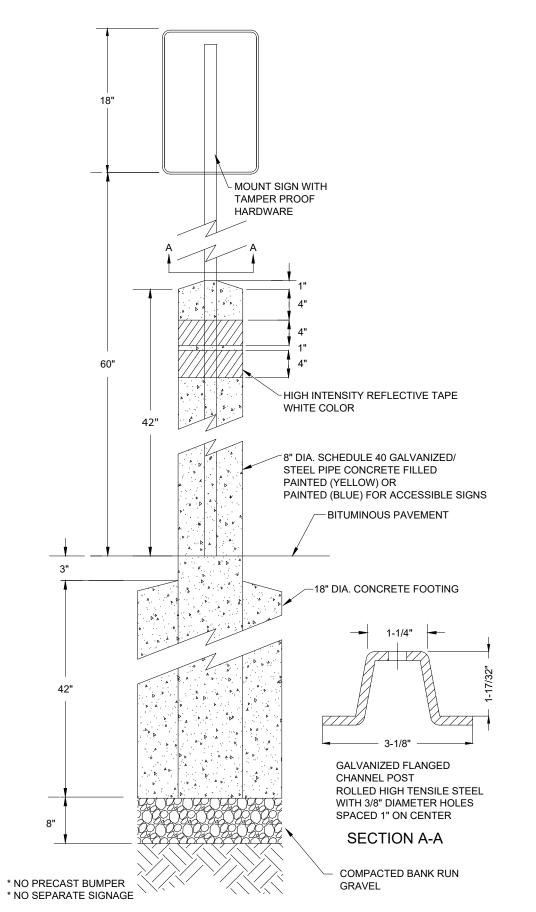


SIGN DETAIL SCALE: NONE

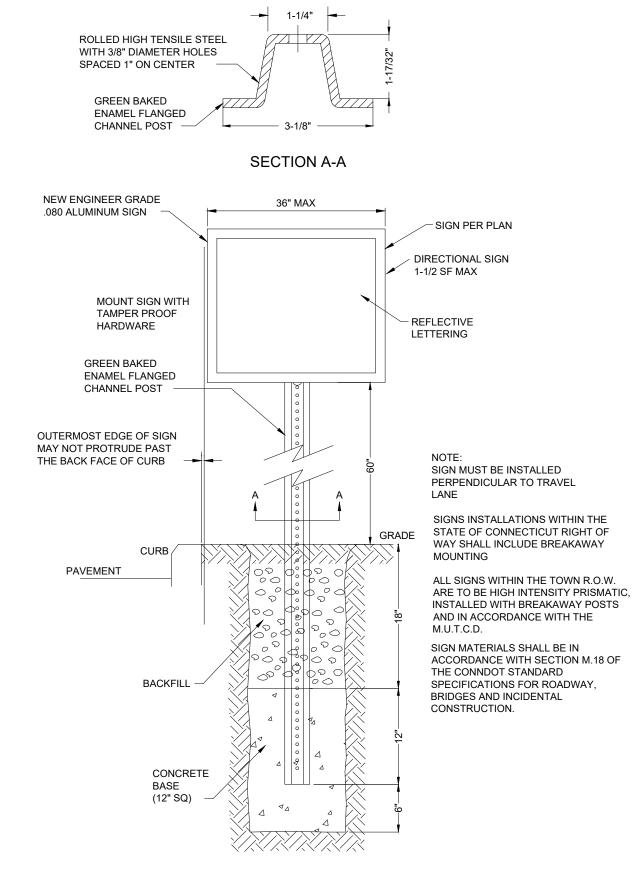
STOP

STOP SIGN:

R1-1; 31-0552-30"

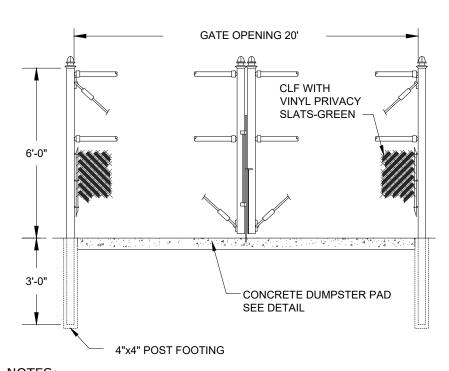


BOLLARD MOUNTED SIGNAGE



TRAFFIC SIGN

NOT TO SCALE

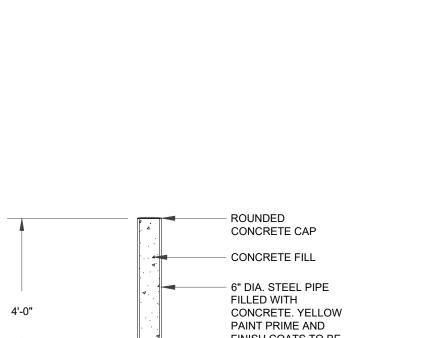


1. DUMPSTER ENCLOSURE TO BE EQUIPPED WITH VINYL PRIVACY SLATS - GREEN, ALL SIDES. 2. REFER TO CHAIN LINK FENCE DETAIL FOR ADDITIONAL DETAILS. 3. DEPTH OF THE ENCLOSURE IS 8'.

DUMPSTER ENCLOSURE DETAIL SCALE: NONE

4,000 PSI CONCRETE WOOD FLOAT FINISH	1/4" PER FOOT CROSS-SLOPE
6x6 W 2.9 x W 2.9 GALVANIZED OR EPOXY COATED MESH	x x x x x x x x x x x x x x x x x x x
COMPACTED GRAVEL BASE	8"
COMPACTED SUBGRADE OR UNDISTURBED MATE	

SEE PLAN FOR LOCATION AND SIZE OF PAD. CONCRETE DUMPSTER PAD DETAIL SCALE: NONE



NOTE: CONCRETE: ACI301, 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS

NOTES:

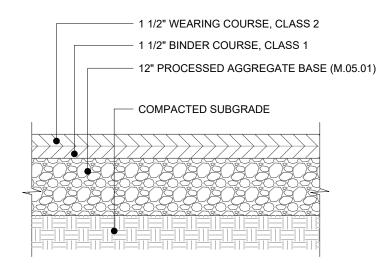
- 1. ALLOWABLE DESIGN STRESSES: CLASS "A" CONCRETE BASED ON f'c =3000 psi. REINFORCEMENT: (ASTM A 615 GRADE 60) fs = 24000 psi 2. REINFORCEMENT COVER: ALL STEM REINFORCEMENT SHALL HAVE 2"
- SHALL HAVE 3" COVER. 3. AFTER EXCAVATION CONTRACTOR SHOULD NOTIFY THE ENGINEER FOR THE INSPECTION OF THE EXISTING SOIL.
- 4. ALL REINFORCEMENT IN THE STEM, INCLUDING THE FOOTING

3 1/2" CRUSHED STONE (M.01.01) COMPACTED SUBGRADE

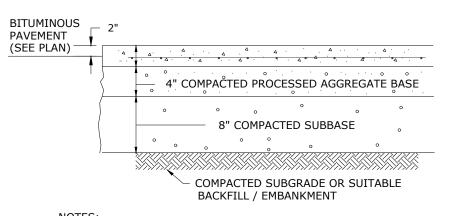
1. CRUSHED STONE SHALL CONSIST OF WASHED NO. 6 STONE AND SHALL BE IN ACCORDANCE WITH THE CONNECTICUT DEPARTMENT OF TRANSPORTATION SPECIFICATION SECTION M.01.01 ALL COMPACTION TO BE 95% STANDARD PROCTOR DENSITY

GRAVEL SURFACE X-SECTION

NOT TO SCALE

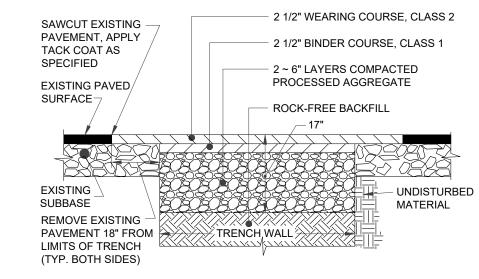


BITUMINOUS CONCRETE PAVING NOT TO SCALE

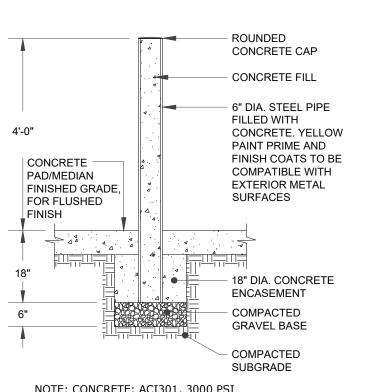


1. ALL COMPACTION TO BE 95% STANDARD PROCTOR DENSITY. 2. CONCRETE TO BE 3500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.

> **CONCRETE PAD** NOT TO SCALE



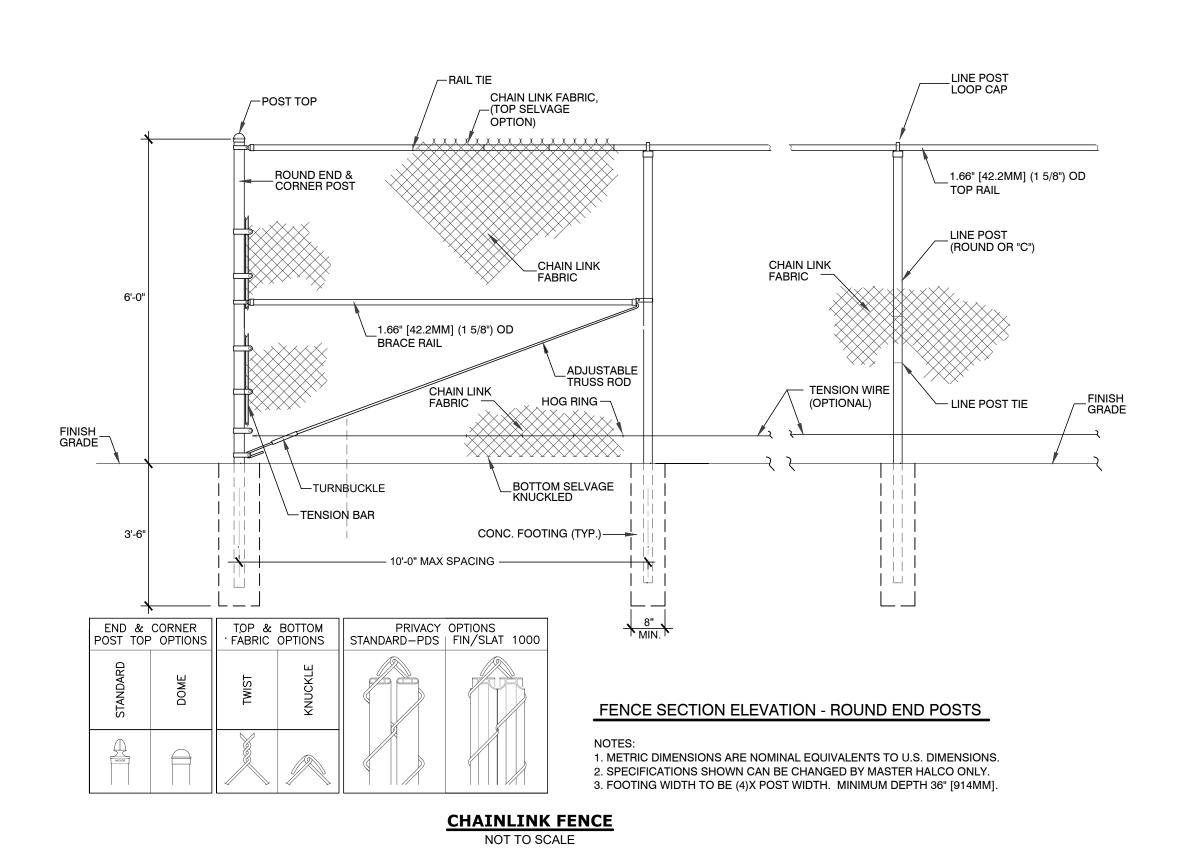
PAVEMENT REPLACEMENT DETAIL NOT TO SCALE



STEEL BOLLARD

SCALE: NONE

- COVER UNLESS OTHERWISE NOTED. ALL FOOTING REINFORCEMENT
- DOWELS, SHALL BE EPOXY COATED.



PZC PERMIT #_ _ DATE OF APPROVAL_ EXPIRATION DATE_ PZC CHAIRMAN OR SECRETARY

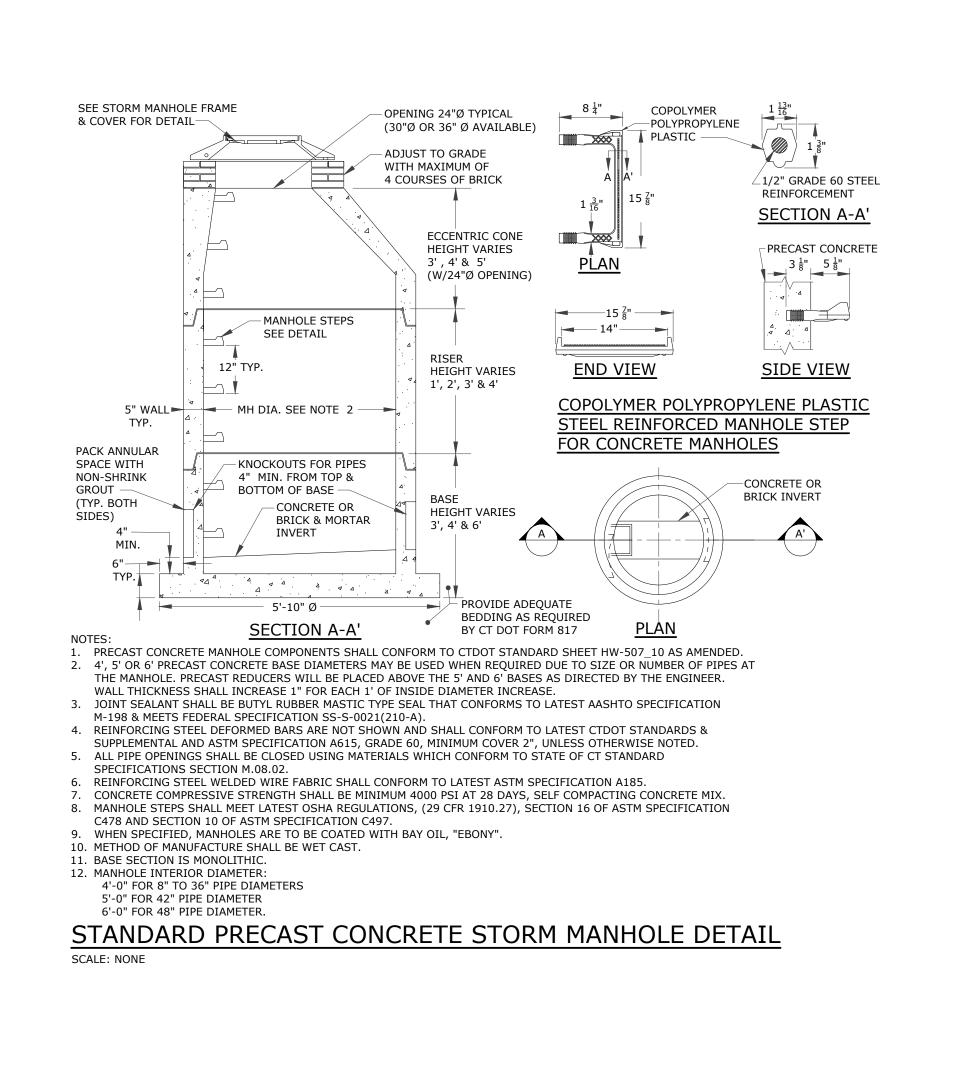
C-12 NO. 15 NO. OF SHEETS 20

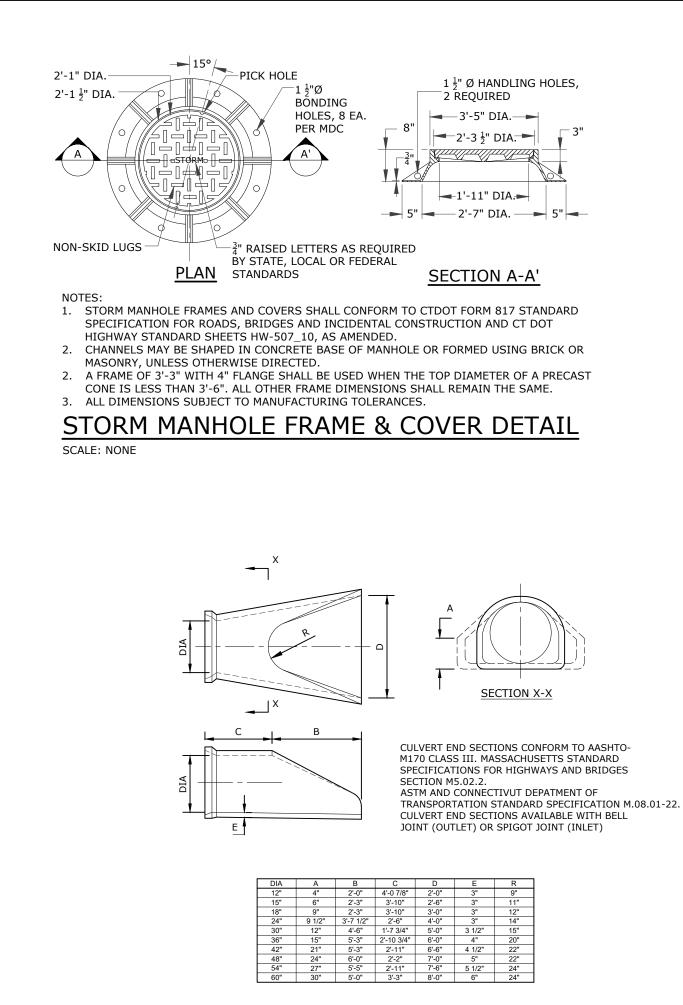
000

S FERR DUTE 12, GALES PERRY 19 SOUTH STRE

DETAILS

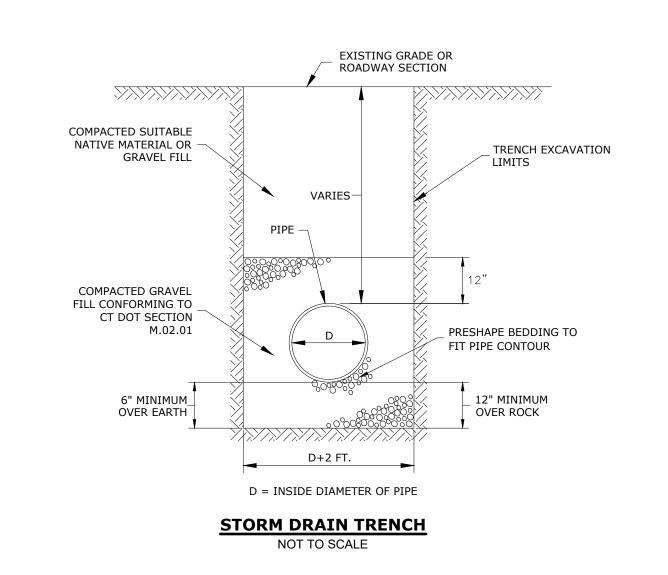
Oureiro Construction EH&S Energy

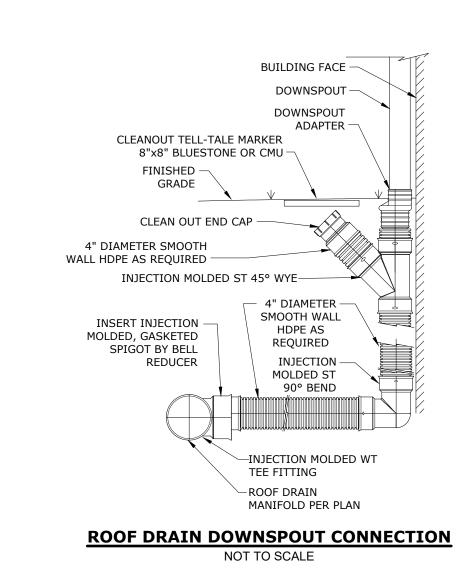


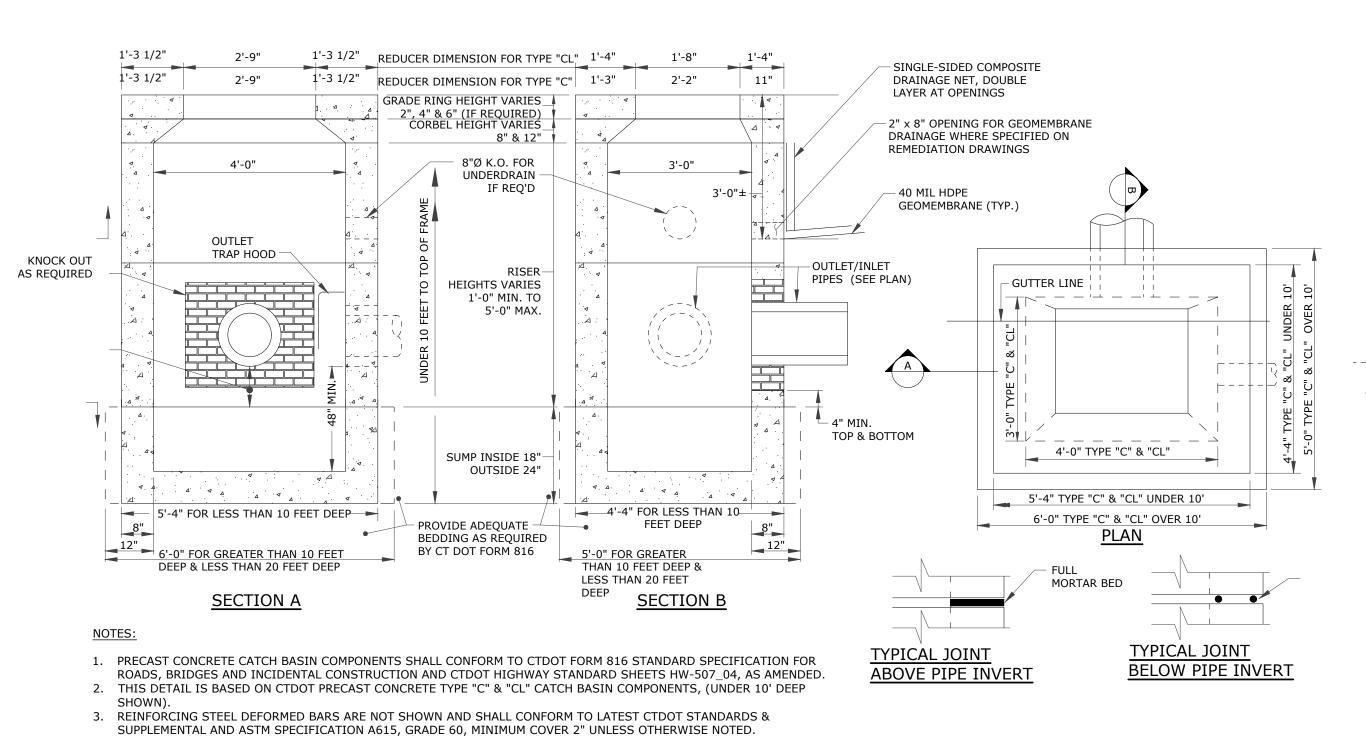


REINFORCED CONCRETE CULVERT ENDS

NOT TO SCALE





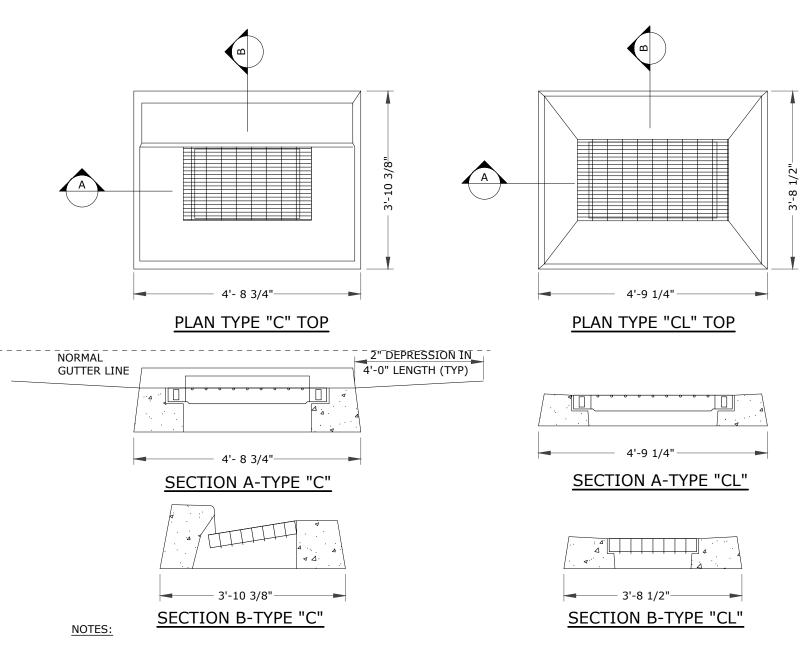


TYPE "C" & "C-L" PRECAST CONCRETE CATCH BASIN DETAIL

4. METHOD OF MANUFACTURE SHALL BE WET CAST.

5. SUMP SECTION SHALL BE MONOLITHIC.

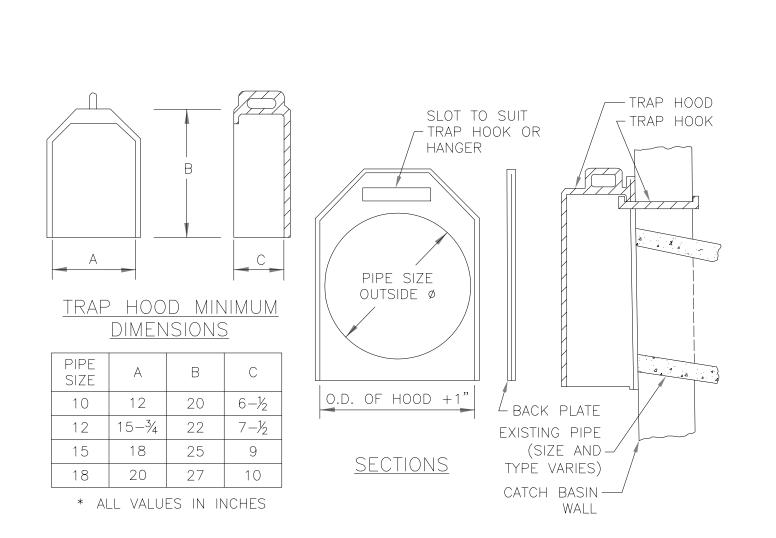
6. DESIGN LOAD SHALL BE AASHTO H-20.





- 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
- 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



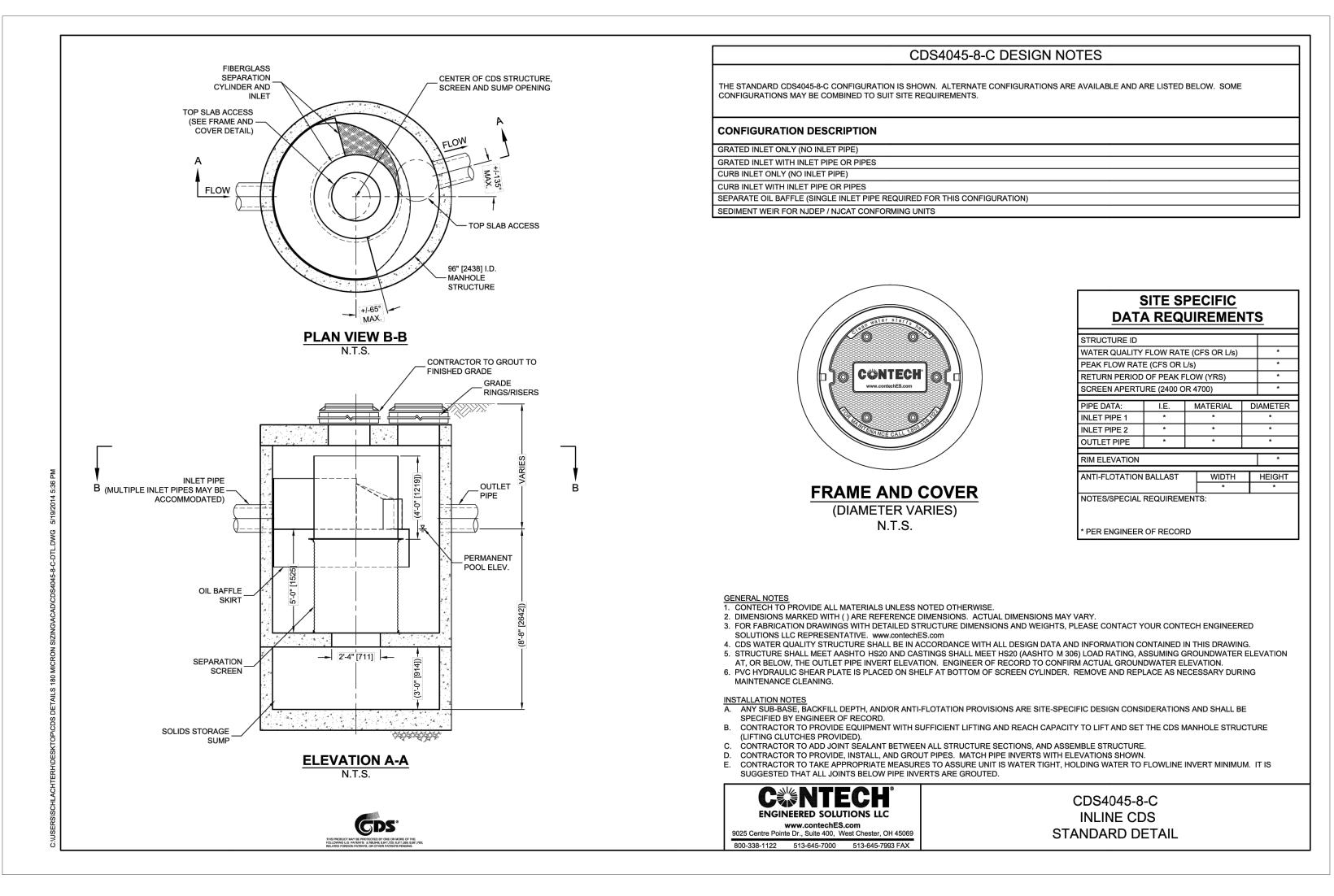
- 1. TRAP HOODS SHALL BE CAST IRON FOR 10", 12", 15" AND 18 PIPE SIZES AND FABRICATED ALUMINUM FOR 21" OR GREATER. ALL TRAP HOODS SHALL INCLUDE STAINLESS STEEL HOOKS OR HANGERS FOR MOUNTING TO THE CATCH BASIN WALL. BACK PLATES SHALL BE
- FURNISHED ONLY WHEN REQUESTED. 3. TRAP HOODS SHALL BE FROM CAMPBELL FOUNDRY. NEENAH 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.

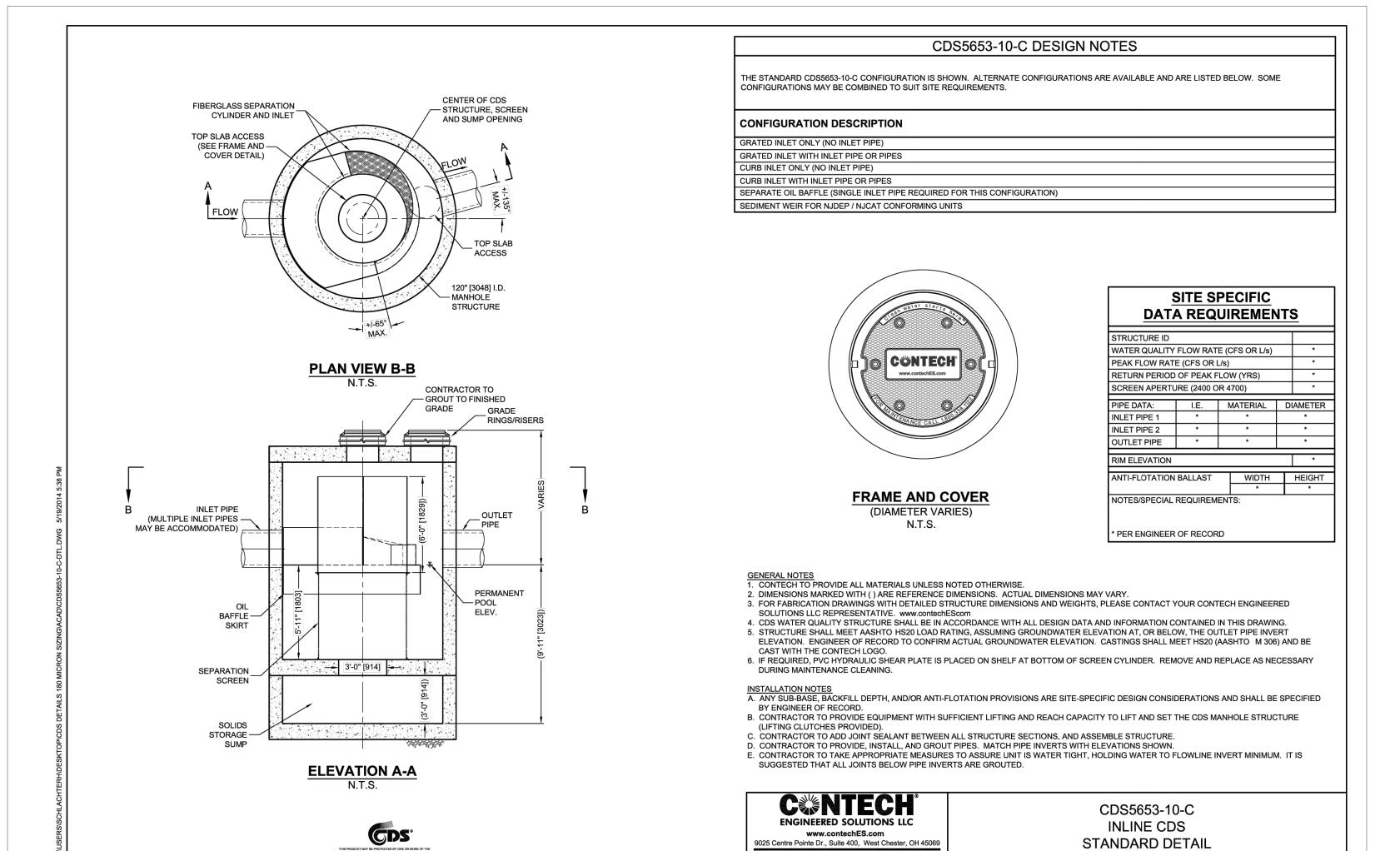
CATCH BASIN TRAP HOOD NOT TO SCALE

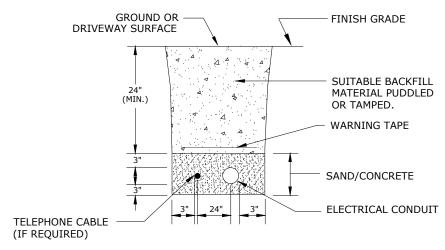
PZC PERMIT # DATE OF APPROVAL	EXPIRATION DATE
PZC CHAIRMAN OR SECRETARY	DATE

C-13 IEET NO. OF SHEETS 2

DETAILS

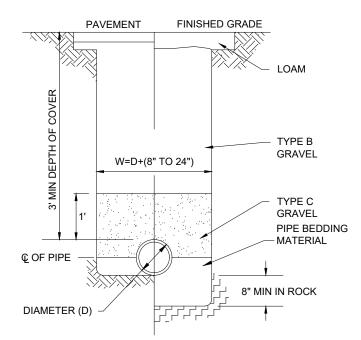






NOTE: NUMBER AND TYPE OF CONDUITS VARY

ELECTRICAL LINE TRENCH
NOT TO SCALE



WATER LINE TRENCH

PZC PERMIT #_____ DATE OF APPROVAL_____ EXPIRATION DATE_____
PZC CHAIRMAN OR SECRETARY DATE

SITE DETAILS 3

LES FERRY INTERMODAL
ROUTE 12, GALES FERRY, CONNECTICUT 06335
PREPARED FOR:

S FERRY INTERMODAL LLC
SABOUTH STREET, OUINCY, MA 02169
SABOUTH STREET, OUINCY, MA 02169

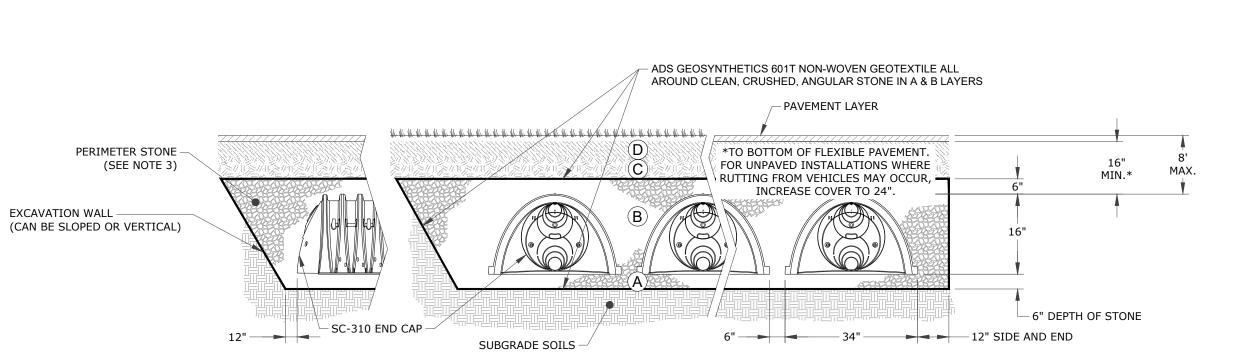
O A STRIPLY STREET

O A FORWARD
O A FORMARD
O A FOR

C-14

NO. 17 NO. OF SHEETS 20

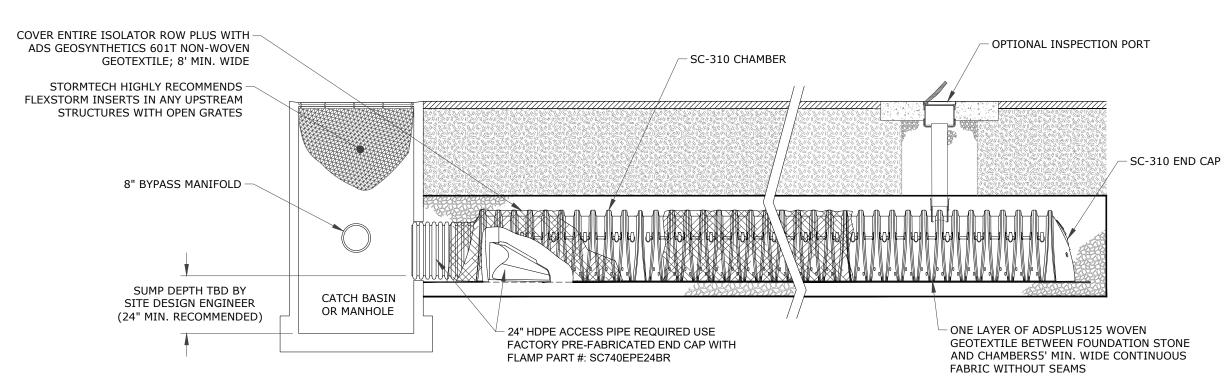
Oureino Construction EH&S Energy



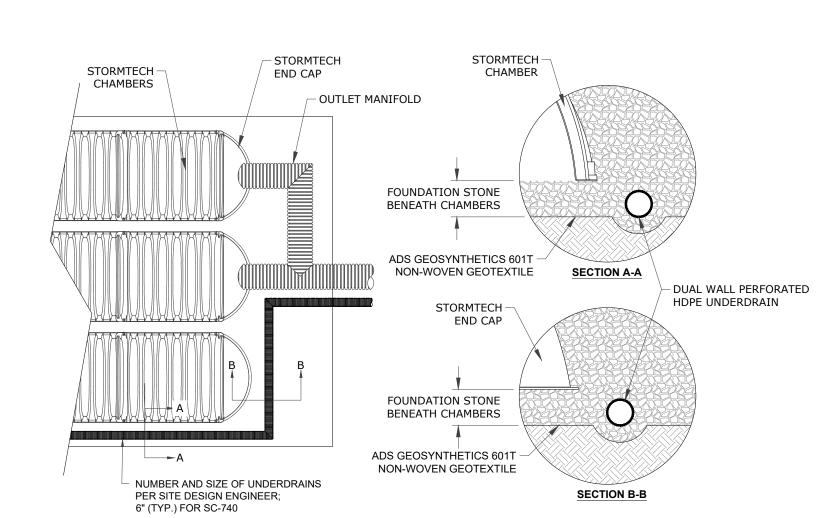
CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION

- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS. 4. REQUIREMENTS FOR HANDLING AND INSTALLATION:
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS. 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



ADS STORMTECH SC-310 UNDERDRAIN NOT TO SCALE

ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

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

6" (150 mm)

9.6" (244 mm)

8" (200 mm) 11.9" (302 mm)

10" (250 mm) 12.7" (323 mm)

THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT

ADS STORMTECH SC-310 STUB LOCATIONS IN END CAPS

BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF

* FOR THE SC310EPE12B THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm).

0.5" (13 mm)

0.6" (15 mm)

0.7" (18 mm)

0.9" (23 mm)

1.4" (36 mm)

SC310EPE06T / SC310EPE06TPC

SC310EPE06B / SC310EPE06BPC

SC310EPE08T / SC310EPE08TPC

SC310EPE08B / SC310EPE08BPC

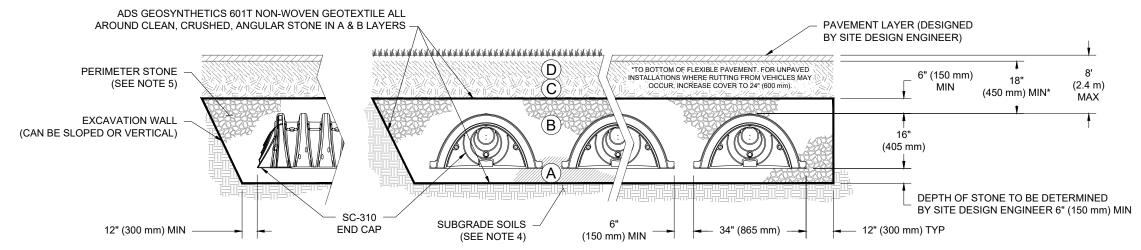
SC310EPE10T / SC310EPE10TPC

SC310EPE10B / SC310EPE10BPC

NOTE: ALL DIMENSIONS ARE NOMINAL

	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	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	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	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
А	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	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

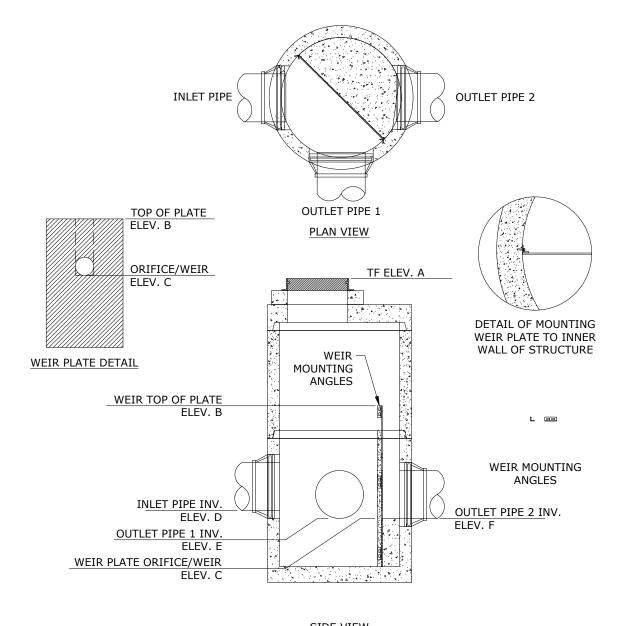
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE". STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGNS, CONTACT STORMTECH FOR 4. 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.



UNDERGROUND DETENTION SYSTEM ELEVATION SUMMARY TABLE STRUCTURE ID CHAMBER NUMBER OF STUB CHAMBER | CHAMBER | STONE STONE MANIFOLD MANIFOLD INVERT TYPE CHAMBERS ELEV. ELEV. ELEV. SIZE SIZE ELEV. ELEV. STORMWATER MANAGEMENT SC-310 26.54(6"Ø) 26.58(12"Ø) AREA 3

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	
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) 48.00 (6"Ø) (S)		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) 26.00 (6"Ø) (E)		25.50 (12"Ø) (E)	



*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

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

DETAILS STORMWATER

C-15

HEET NO. OF NO. OF SHEETS 20

CONCRETE COLLAR

PAVEMENT

CONCRETE SLAB

6" MIN. THICKNESS

STORMTECH CHAMBER

ADS STORMTECH SC-310 4" PVC INSPECTION PORT

NOTE: INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

12" MIN.

WIDTH

NOT TO SCALE

CONCRETE COLLAR NOT REQUIRED

8" NYLOPLAST INSPECTION PORT

TRAFFIC RATED BOX WITH SOLID

4" (100 mm) INSERTA TEE

TO BE CENTERED ON

CORRUGATION CREST

FOR UNPAVED APPLICATIONS

LOCKING COVER

4" (100 mm)

SDR 35 PIPE

ADS STORMTECH ACCEPTABLE FILL MATERIALS

