

PRELIMINARY/FINAL PLAN SUBMISSION FOR A PROPOSED

9,000 SQ. FT. BUILDING SERVICING



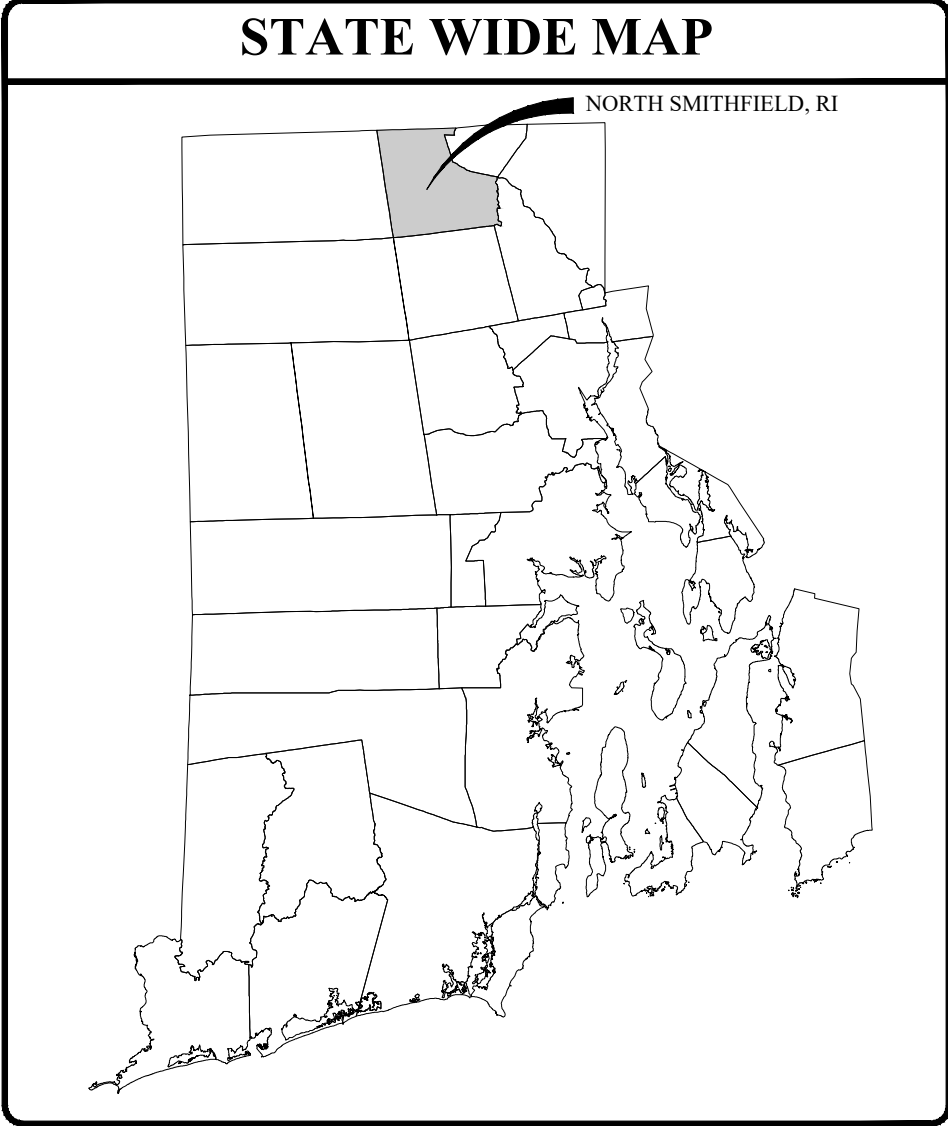
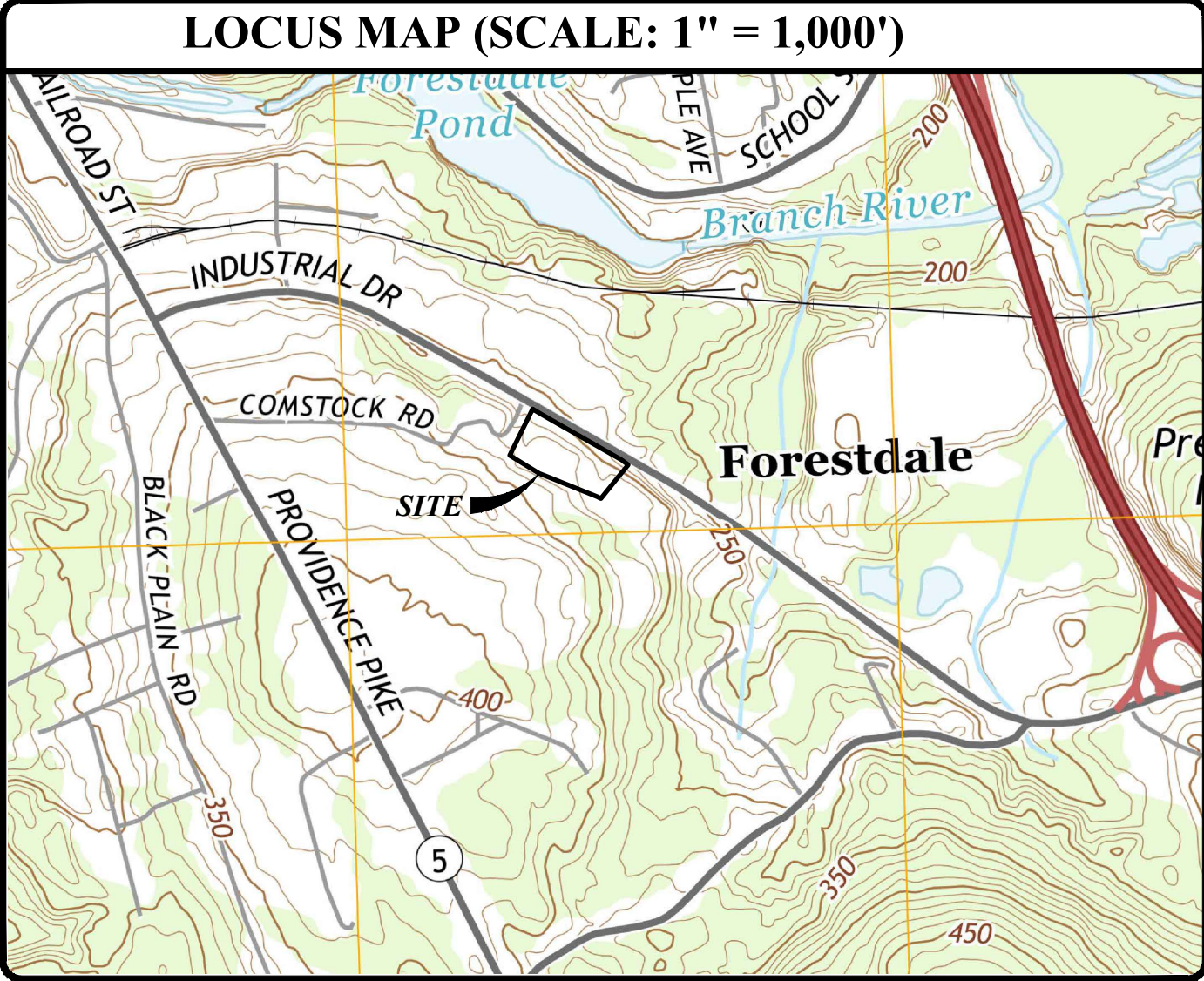
125 INDUSTRIAL DRIVE
NORTH SMITHFIELD, RHODE ISLAND
AP 5, LOT 425

ZONING DISTRICT: MANUFACTURING (M)

APPROVALS:
MASTER PLAN: TOWN OF NORTH SMITHFIELD PLANNING BOARD (JUNE 8, 2023)
RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT - WQC/STW FILE NO. 23-106 & UIC FILE NO. 001720 (OCTOBER 12, 2023)
RHODE ISLAND DEPARTMENT OF TRANSPORTATION - PHYSICAL ALTERATION PERMIT NO. 23-96 (NOVEMBER 8, 2023)

FILINGS:
PRELIMINARY PLAN: TOWN OF NORTH SMITHFIELD PLANNING BOARD

PROJECT TEAM	
OWNER/ APPLICANT:	JARVIS PROPERTIES LLC d/b/a NEW ENGLAND TRUCK SOLUTIONS, INC. 125 INDUSTRIAL DRIVE NORTH SMITHFIELD, RI 02896
CIVIL ENGINEER:	JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RI 02888 PHONE: 401-944-1300 JOECASALI.COM
ARCHITECT:	CASTELLONE ARCHITECTURE LLC 792 GREAT ROAD LINCOLN, RI 02865
LAND SURVEYOR:	OCEAN STATE PLANNERS INC. 1255 OAKLAWN AVE. CRANSTON, RI 02920



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9	RI STANDARD DETAILS
RI	SURVEY PLAN, PREPARED BY OCEAN STATE PLANNERS, DATED FEBRUARY 2023

PROPOSED 9,000 SF COMMERCIAL BUILDING
NEW ENGLAND TRUCK SOLUTIONS
125 INDUSTRIAL DRIVE
NORTH SMITHFIELD, RHODE ISLAND
AP 5, LOT 425

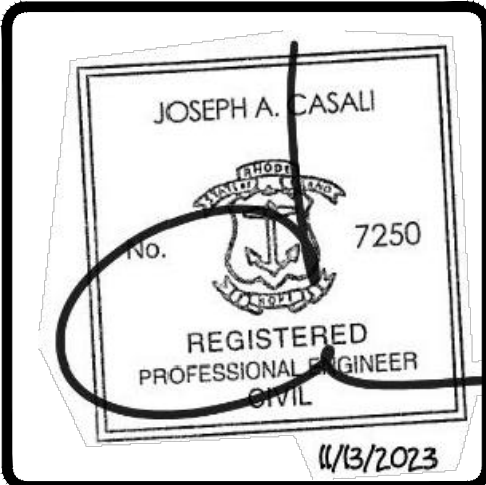
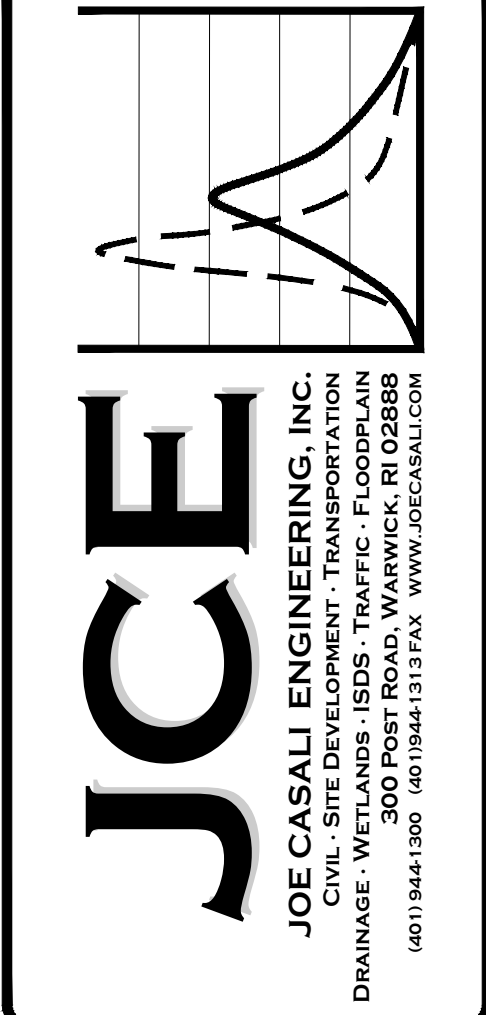
REVISIONS:	
NO.	DATE DESCRIPTION
1	09/11/23 RIDEM RTC
2	10/04/23 RIDOT RTC

DESIGNED BY:	DRD
DRAWN BY:	SD
CHECKED BY:	JAC
DATE:	NOV. 2023
PROJECT NO:	23-01

PRELIMINARY/FINAL
PLAN SUBMISSION

COVER
SHEET

SHEET
1 OF 9



GENERAL NOTES:

- CONTRACTOR SHALL NOTIFY "DIGSAFE" (811) AT LEAST 72 HOURS BEFORE EXCAVATING.
- CLASS I PROPERTY LINE AND CLASS III TOPOGRAPHIC SURVEY PROVIDED BY OCEAN SATE PLANNERS, 1255 OAKLAWN AVENUE, CRANSTON, RI 02920 IN FEBRUARY 2023.
- THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR CITY WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
- THE ENTIRE PROJECT SITE LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FIRM MAP FOR THE TOWN OF NORTH SMITHFIELD, RHODE ISLAND, MAP NUMBER 44007C0152G, EFFECTIVE DATE MARCH 2, 2009.
- THE SITE IS LOCATED WITHIN DEM GROUNDWATER CLASSIFICATION GAA - "GROUNDWATER RESOURCES KNOWN OR PRESUMED TO BE SUITABLE FOR DRINKING WITHOUT TREATMENT." THIS DESIGNATION PLACES THE PROPOSED SITE WITHIN THE NORTH SMITHFIELD GROUNDWATER AQUIFER OVERLAY DISTRICT. HOWEVER, SUBJECT SITE IS EXEMPT FROM THE REQUIREMENTS OF THE GROUNDWATER AQUIFER OVERLAY DISTRICT.
- BASED ON RIDEM MAPPING, THE SITE IS LOCATED WITHIN A NON-COMMUNITY WELLHEAD PROTECTION AREA. THERE ARE NO HIGH HAZARD AREAS ON THE PROJECT SITE.
- SOILS EXISTING ON THE SITE CONSIST OF CANTON AND CHARLTON FINE SANDY LOAMS, 0 TO 8 PERCENT SLOPES (CHB), CANTON AND CHARLTON FINE SANDY LOAMS, 15% SLOPES (CHC), CANTON AND CHARLTON FINE SANDY LOAMS, 3-15% SLOPES (CKC) AND HINCKLEY LOAMY SAND, 15 TO 25% SLOPES (HKD). CANTON SOILS CONSIST OF COARSE-LOAMY OVER SANDY MELT-OUT TILL DERIVED FROM GNEISS, GRANITE, AND/OR SCHIST. THESE SOILS ARE WELL DRAINED WITH A LOW RUNOFF CLASS AND BELONG TO HYDROLOGIC SOIL GROUP B. HKC SOILS CONSIST OF SANDY AND GRAVELLY GLACIOFLUVIAL DEPOSITS DERIVED FROM GNEISS AND/OR GRANITE AND/OR SCHIST. THESE SOILS ARE EXCESSIVELY DRAINED WITH A LOW RUNOFF CLASS AND BELONG TO HYDROLOGIC SOIL GROUP A.
- TEST PIT EVALUATIONS WERE CONDUCTED BY JOE CASALI ENGINEERING, INC. IN APRIL 2023. SOIL EVALUATION LOGS AND ESTIMATED SEASONAL HIGH GROUND WATER ELEVATIONS, ARE PROVIDED ON THE DETAIL SHEETS.
- THERE IS A 20-FOOT-WIDE AT&T COMMUNICATION EASEMENT ALONG THE EASTERN PROPERTY LINE OF SUBJECT PROPERTY.
- TELEPHONE, ELECTRIC, WATER, AND GAS SERVICES ARE ALL AVAILABLE FROM WITHIN INDUSTRIAL DRIVE. THE EXISTING NETS FACILITY IS NOT TIED INTO THE PUBLIC WATER SYSTEM; RATHER, AN ON-SITE WELL PROVIDES DOMESTIC WATER TO THE FACILITY. NETS IS CONNECTED TO THE PUBLIC SEWER SYSTEM WITHIN THE UNIMPROVED PORTION OF COMSTOCK ROAD TO THE SOUTH.

SITE NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.
- ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS, AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAN WITH DISABILITIES ACT AND WITH ALL APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS, WHICHEVER IS MORE STRINGENT.
- STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.
- ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED.
- THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN, AND PRIOR TO THE CONSTRUCTION, THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE STATE OF RHODE ISLAND TO SET AND VERIFY ALL LINES AND GRADES. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEMS FOUND WHICH DO NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SURVEY LAYOUT SERVICES FOR THE WORK AND SHALL SUBMIT "AS-BUILT" DRAWINGS OF ALL WORK, WHICH SHALL BE STAMPED AND CERTIFIED BY A RHODE ISLAND REGISTERED PROFESSIONAL LAND SURVEYOR.
- ANY ITEM OF WORK NOT SPECIFICALLY INDICATED ON THE PLANS BUT IS REQUIRED FOR THE COMPLETE CONSTRUCTION OF THE PROJECT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND INCLUDED IN THE CONTRACT BID PRICE. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING SITE CONDITIONS.
- REFER TO ARCHITECTURAL PLANS, STRUCTURAL PLANS, PLUMBING PLANS, FIRE PROTECTION PLANS, AND ELECTRICAL PLANS, FOR ACTUAL SIZE OF THE PROPOSED BUILDING AND WORK WITHIN 5 FEET OF THE PROPOSED BUILDING.
- WHERE NECESSARY TO REMOVE CURBS, CATCH BASINS OR DRAINS TO COMPLETE WORK, THE CONTRACTOR SHALL REPLACE SUCH ITEMS TO THE SATISFACTION OF THE TOWN OF NORTH SMITHFIELD AT NO ADDITIONAL COST TO THE OWNER.
- ANY EXISTING PIPE OR UTILITY DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION OR REPLACE TREES, SHRUBS, FENCES, SIGNS, GUARDRAILS, DRIVEWAYS, SIDEWALKS AND ANY OTHER OBJECT AFFECTED BY THIS OPERATION, UNLESS OTHERWISE NOTED ON THE SITE PLANS.
- THE TOPS OF ALL VALVE BOXES AND CURB BOXES SHALL BE FLUSH WITH GROUND OR PAVEMENT SURFACE LEVEL AND PLUMB, UNLESS OTHERWISE DIRECTED.
- ROADWAYS SHALL BE LEFT PASSABLE AT ALL TIMES. CLOSURE OF ROADWAY IS NOT PERMITTED.
- WATER SERVICE SHALL BE MAINTAINED AT ALL TIMES.
- ALL LEDGE TO BE REMOVED BY MECHANICAL MEANS TO THE MAXIMUM EXTENT PRACTICABLE. SHOULD CONTRACTORS PROPOSE TO BLAST LEDGE, A PERMIT MUST BE OBTAINED BY THE STATE FIRE MARSHAL'S OFFICE. PRE-BLAST SURVEYS MAY BE REQUIRED TO ENSURE NO ADVERSE EFFECTS TO ABUTTING PROPERTIES.
- ALL CONSTRUCTION WORK SHALL BE PERFORMED IN THE DRY. THE CONTRACTOR SHALL PROVIDE, OPERATE AND MAINTAIN ALL PUMPS, DRAINS, WET POINTS, SCREENS, OR OTHER FACILITIES NECESSARY TO CONTROL, COLLECT AND DISPOSE OF ALL SURFACE AND SUBSURFACE WATER ENCOUNTERED IN THE PERFORMANCE OF THE WORK.
- REFER TO PLUMBING PLANS FOR CONTINUATION OF ALL UTILITIES WITHIN 5' (FIVE) FEET OF THE BUILDING.
- ALL WORK TO BE DONE WITHIN THE STATE HIGHWAY RIGHT-OF-WAY (ROW) SHALL CONFORM TO THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2022 EDITION WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE RI STANDARD DETAILS, 1998 EDITION (AMENDED JUNE 2019) WITH ALL REVISIONS.
- ALL SITE WORK, INCLUDING BUT NOT LIMITED TO, BITUMINOUS PAVEMENT, SOIL AND AGGREGATE MATERIALS, DRAINAGE STRUCTURES, CURBING, SIDEWALK, LANDSCAPING, SAW CUTTING, ETC. SHALL CONFORM TO THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2022 EDITION WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE RI STANDARD DETAILS, 1998 EDITION (AMENDED JUNE 2019) WITH ALL REVISIONS.

DRAINAGE SYSTEM NOTES:

- THE PROPOSED DRAINAGE LINES SHALL BE ADS N-12 HDPE PIPE OR AN APPROVED EQUAL UNLESS OTHERWISE NOTED ON THE SITE PLANS.
- ALL RIM ELEVATIONS SHOWN ARE APPROXIMATE AND ARE TO BE SET FLUSH WITH FINAL GRADES.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

- THE COMPOST SICK LINE / SILT FENCE LINE ILLUSTRATED ON THESE PLANS SHALL SERVE AS THE STRICT LIMIT OF DISTURBANCE FOR THE PROJECT.
- THE LIMITS OF CLEARING, GRADING, AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PLAN SHALL BE TOTALLY UNDISTURBED, TO REMAIN IN NATURAL CONDITION.
- ALL CATCH BASINS AND CULVERTS SHALL BE PROTECTED WITH EITHER SILT SACK SEDIMENT TRAPS OR STAKED HAYBALES (R.I. STD. 9.8.0) DURING CONSTRUCTION ACTIVITIES. ALL PROPOSED STORM WATER DISCHARGE AREAS SHALL BE LINED WITH A RIPRAP SPLASH PAD AND PROTECTED WITH STAKED HAYBALE OUTLET PROTECTION (R.I. STD. 9.1.0), OR STAKED HAYBALE WITH SILT FENCE (R.I. STD. 9.3.0) OUTLET PROTECTION (STAKED HAYBALE OR STAKED HAYBALE WITH SILT FENCE) SHALL ALSO BE INSTALLED AT ALL EXISTING STORMWATER DISCHARGE LOCATIONS WHERE DISTRIBUTING PIPES, CATCH BASINS, AND MANHOLES ARE TO BE CLEANED AND FLUSHED.
- ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL REGULARLY CHECK ALL SEEDED AREAS TO ENSURE THAT A GOOD STAND IS MAINTAINED. STEEP SLOPE PROTECTION IS TO BE UTILIZED ON ALL SLOPES GREATER THAN 15% IN ACCORDANCE WITH THE PRACTICES LISTED IN THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION HANDBOOK" (UPDATED 2016): SECTION FOUR: EROSION CONTROL MEASURES: SLOPE PROTECTION.
- ALL SILT FENCE, TEMPORARY TREATMENT (HAY, STRAW, ETC.) AND TEMPORARY EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
- STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES OF NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED PER CONTRACT SPECIFICATIONS.
- THE SILT FENCE SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY SILT FENCE AS NEEDED. THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL SOIL EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITE FOR THE ENTIRE DURATION OF THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL FOLLOW THE DIRECTION OF THE RESIDENT ENGINEER WITH REGARD TO INSTALLATION, MAINTENANCE, AND REPAIR OF ALL SOIL EROSION AND SEDIMENTATION CONTROLS ON THE PROJECT SITE. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROLS (HAYBALES, SILT FENCE, ETC.) SHALL BE MAINTAINED UNTIL ALL EXPOSED SOILS ARE SATISFACTORILY STABILIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND/OR RESEEDING ALL AREAS THAT DO NOT DEVELOP WITHIN ONE YEAR FROM THE COMPLETION OF CONSTRUCTION.
- ALL REFERENCED SOIL EROSION AND SEDIMENTATION CONTROLS INCLUDING MATERIALS USED, APPLICATION RATES AND THE INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION HANDBOOK", UPDATED 2016.

MISCELLANEOUS UTILITY NOTES:

- PRIOR TO CONSTRUCTION ALL POTENTIAL UTILITY/DRAINAGE CONFLICTS MUST BE IDENTIFIED BY THE CONTRACTOR. ANY MODIFICATIONS TO THE PROPOSED UTILITIES TO AVOID CONFLICTS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL AT ALL TIMES PROVIDE A SUFFICIENT NUMBER OF WORKMEN AND GUARDS AS MAY BE NECESSARY TO PROPERLY SAFEGUARD THE PUBLIC FROM THEIR OPERATIONS.
- THE CONTRACTOR SHALL TAKE PRECAUTIONS AGAINST DAMAGING OF PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES AND SHALL PROMPTLY REPAIR AT HIS OWN EXPENSE ANY DAMAGE TO SUCH PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES TO THE SATISFACTION OF THE OWNER OR TOWN.
- EXISTING UTILITY FRAMES AND COVERS FOR SANITARY SEWER, WATER, GAS, STORM DRAINAGE AND OTHER UTILITIES SHALL BE ADJUSTED TO GRADE AS REQUIRED IN NEW PAVING AND PAVEMENT OVERLAY AREAS.
- ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN OF NORTH SMITHFIELD'S "SEWER ORDINANCE" AND "STANDARD SANITARY SEWER REQUIREMENTS".
- ALL NEW SEWER PIPES AND MANHOLES SHALL BE CLEANED AND TESTED PRIOR TO ACCEPTANCE. GRAVITY SEWER PIPES SHALL BE REQUIRED TO PASS BOTH LOW PRESSURE AIR AND DEFLECTION (IE., MANDREL) TESTING. LOW PRESSURE SEWER PIPING SHALL BE REQUIRED TO PASS A LOW PRESSURE (IE., HYDROSTATIC) TEST.
- A BACKFLOW PREVENTION DEVICE MUST BE INSTALLED AT EACH SEWER SERVICE BUILDING CONNECTION THAT IS BELOW THE RIM ELEVATION OF THE NEAREST SEWER MANHOLE, AS REQUIRED BY THE INTERNATIONAL PLUMBING CODE AND THE TOWN OF NORTH SMITHFIELD.
- APPLICANT IS REQUIRED TO PROVIDE A COMPLETE SET OF FINAL AS-BUILT PLANS TO THE NORTH SMITHFIELD SEWER DEPARTMENT UPON COMPLETION OF CONSTRUCTION, PRIOR TO FINAL ACCEPTANCE. AS-BUILT PLANS SHALL BE PREPARED IN ACCORDANCE WITH THE SEWER DEPARTMENT'S POLICY.
- INSPECTION OF ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY THE SUPERINTENDENT, PRETREATMENT COORDINATOR OR OTHER DULY AUTHORIZED EMPLOYEES OF THE TOWN OF NORTH SMITHFIELD OR CITY OF WOONSOCKET. APPLICANT SHALL PROVIDE SCHEDULE FOR CONSTRUCTION AS SOON AS POSSIBLE TO ALLOW FOR DEVELOPMENT OF INSPECTION FEE. TO BE PAID BY APPLICANT DIRECTLY TO TOWN OF NORTH SMITHFIELD. UPON PAYMENT OF FEE, COMMENCEMENT OF CONSTRUCTION INSPECTION REQUIRES MINIMUM NOTIFICATION OF 48-HOURS.
- APPLICANT IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM LOCAL, STATE, AND/OR FEDERAL AGENCIES WITH REGULATORY JURISDICTION OVER THE PROPOSED WORK. COPIES OF ALL PERMITS SHALL BE PROVIDED TO NORTH SMITHFIELD SEWER DEPARTMENT PRIOR TO CONSTRUCTION. ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY A DRAIN LAYER LICENSED IN THE STATE OF RHODE ISLAND AND THE TOWN OF NORTH SMITHFIELD.
- NO FLOW WILL BE ACCEPTED UNTIL ALL TERMS, CONDITIONS AND REQUIREMENTS HAVE BEEN COMPLETED WITH, ANY FEES DUE ARE PAID IN FULL, AND THE APPLICANT RECEIVES FINAL ACCEPTANCE FROM THE NORTH SMITHFIELD SEWER DEPARTMENT.
- THE CONTRACTOR SHALL CONFINE HIS CONSTRUCTION OPERATIONS AND ACTIVITIES TO WITHIN THE STREET LINES, EASEMENT AND/OR RIGHT-OF-WAY, AS SHOWN ON THE DRAWINGS.
- FOUR (4) COMPLETE SETS OF SHOP DRAWINGS WITH MANUFACTURER'S CERTIFICATION THAT ALL MATERIALS TO BE USED FOR CONSTRUCTION OF THE PROJECT / SYSTEM COMPLY WITH THE APPROVED PLANS AND SPECIFICATIONS. THE SEWER DEPARTMENT WILL REVIEW SHOP DRAWINGS FOR COMPLIANCE WITH THE APPROVE PLANS.
- PRIOR TO CONSTRUCTION OF THE RELOCATION OF ALL WATER MAINS, THE CONTRACTOR SHALL COORDINATE WITH NORTH SMITHFIELD WATER DEPARTMENT FOR INSPECTION AND CHLORINATION OF NEW PIPING, FITTINGS AND VALVES.

BMP MAINTENANCE SCHEDULE:

- ALL MAINTENANCE (INCLUDING CLEANING) REQUIRED DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE:
 - MEASURES NEEDED TO ENSURE THE PROPER OPERATION OF THE STORMWATER RUNOFF (DRAINAGE) AND WATER QUALITY CONTROL SYSTEMS TO INCLUDE INSPECTION, CLEANING AND REPAIRS ALL PIPES, INTAKE AND DISCHARGE STRUCTURES, CATCH BASIN SUMPS, AND MANHOLES.
 - INSPECTION OF ALL SLOPES, BERMS, AND OTHER CONTROL STRUCTURES FOR STRUCTURAL INTEGRITY/STABILITY AND EVIDENCE OF SOIL EROSION PROCESSES, AND MAINTENANCE OF THESE STRUCTURES IF NECESSARY. INSPECTIONS SHALL BE PERFORMED FOLLOWING ALL RAIN EVENTS OF 1/2 INCH RAINFALL OR MORE IN A 24-HOUR PERIOD, OR BI-MONTHLY IF NO RAINFALL EVENT OCCURS.
- UPON COMPLETION OF THE PROJECT CONSTRUCTION, AND PRIOR TO VACATING THE SITE, THE CONTRACTOR SHALL CONDUCT A FINAL INSPECTION AND CLEANING OF THE DRAINAGE SYSTEM AND ALL ASSOCIATED STRUCTURES.
- ALL INSTALLATION, CLEANING, AND MAINTENANCE OF THE STORMWATER DRAINAGE SYSTEM SHALL FOLLOW AT LEAST THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION MINIMUM STANDARDS, SECTION 212 AND SECTION 708. WHERE APPROPRIATE, PROCEDURES REGARDING THE DRAINAGE INSTALLATION, CLEANING, INSPECTION, AND MAINTENANCE OF THE STORMWATER DRAINAGE SYSTEM SHALL BE FOLLOWED AS OUTLINED IN THE "RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL" (RIDEM/RICRM, AMENDED 2015).
- AFTER CONSTRUCTION, STORMWATER BMPs SHALL BE INSPECTED AND MAINTAINED BY THE OWNER AS FOLLOWS:

ROOF DRAIN LEADERS

- PERFORM ROUTINE ROOF INSPECTIONS QUARTERLY.
- KEEP ROOFS CLEAN AND FREE OF DEBRIS.
- KEEP ROOF DRAINAGE SYSTEMS CLEAR.

UNDERGROUND INFILTRATION SYSTEM

- INFILTRATION SYSTEMS SHALL BE INSPECTED ON A BI-ANNUAL BASIS TO ENSURE PROPER FUNCTIONS. INSPECTION PORTS SHALL BE USED TO VERIFY THAT THE SYSTEMS ARE DRAINING WITHIN 72 HOURS. IF THE SYSTEM FAILS TO DRAIN WITHIN 72-HOURS, THE SYSTEM SHALL BE CLEANED OR REPLACED AS NECESSARY.
- THE INFILTRATION SYSTEM SHALL BE INSPECTED BI-ANNUALLY FOR SEDIMENT ACCUMULATIONS.. IF THE SYSTEM HAS ACCUMULATED 3 INCHES OF SEDIMENT, THE SEDIMENT SHALL BE REMOVED BY FLUSHING FROM THE SYSTEM WITH HIGH PRESSURE WATER JETS AND AND VACUUMING THE SEDIMENT AND DEBRIS THROUGH THE ACCESS PORTS. ALL SEDIMENT REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL STATE AND FEDERAL REGULATIONS.

LOAMING & SEEDING NOTES:

SEEDING ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH SECTION L.02 SEEDING OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA), AND SHALL ALSO CONFORM TO THE FOLLOWING:

- AFTER ROUGH GRADING IS COMPLETED, ALL DISTURBED AREAS AND AREAS LABELED AS 'LOAM AND SEED' ARE TO BE BROUGHT TO AN ELEVATION OF 6" BELOW THE PROPOSED FINISHED GRADE. SCARIFY THE SUBGRADE TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE OR A POWER RAKE TO RESULT IN AN UNCOMPACTED SUBSOIL. 6" OF GOOD QUALITY TOPSOIL IS TO BE APPLIED AND RAKED TO FINISHED GRADE.
- THE TOPSOIL IS TO BE GOOD QUALITY LOAM, FERTILE AND FREE OF WEEDS, STICKS AND STONES OVER 3/4" IN SIZE AND OTHERWISE COMPLYING WITH SECTION M.18.01 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA),
- PRIOR TO SEEDING OR SODDING, FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 1-2" OF THE PLANTING SOIL. APPLY AT A RATE OF 8 LBS. PER 1000 SQUARE FEET.
- APPLY LIME AT A RATE OF ONE TON PER ACRE AND UNIFORMLY INCORPORATE INTO THE TOP 1-2" OF TOPSOIL.
- SEEDING
AFTER THE SEED BED IS PREPARED, SEED IS TO BE BROADCAST EVENLY OVER THE SURFACE AND WORKED INTO THE TOP 1" OF SOIL. SEED SHALL BE APPROVED URI #2 OR APPROVED EQUAL. APPLY AT A RATE OF 4-5 LBS. PER 1000 SQUARE FEET OR AS OTHERWISE DIRECTED BY THE MANUFACTURER.

URI #2 IMPROVED SEED MIX, % BY WEIGHT:

40% CREEPING RED FESCUE
20% IMPROVED PERENNIAL RYEGRASS
20% IMPROVED KENTUCKY BLUEGRASS
20% KENTUCKY BLUEGRASS

RECOMMENDED SEEDING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15. AT THE CONTRACTORS DISCRETION, SEED MAY BE APPLIED BY HYDROSEEDING RATHER THAN THE METHOD DESCRIBED ABOVE.

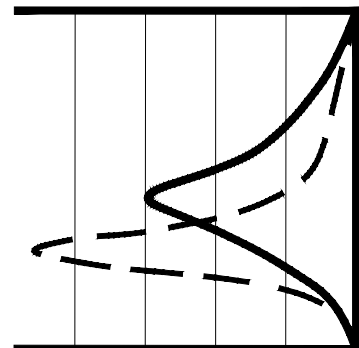
LEGEND:

- EXISTING PROPERTY LINE
- ABUTTING PROPERTY LINE
- BUILDING SETBACK LINE
- WETLAND EDGE
- WETLAND FLAG
- 50' PERIMETER WETLAND
- 100' RIVERBANK WETLAND
- 200' RIVERBANK WETLAND
- EXISTING CONTOUR
- PROPOSED CONTOUR
- IRON PIN
- DRILL HOLE
- CONCRETE BOUND
- EXISTING CURB
- GUARD RAIL
- DRAIN LINE
- DRAINAGE MANHOLE
- CATCH BASIN
- UTILITY POLE
- OVERHEAD WIRES
- UNDERGROUND ELECTRIC
- VERIZON
- VERIZON LINE
- WATER LINE
- WATER SHUT OFF VALVE
- WELL
- SEWER
- SMH
- N/F - NOW OR FORMERLY
- EXISTING TREE LINE
- SILT FENCE
- LIMIT OF DISTURBANCE
- SOIL EVALUATION

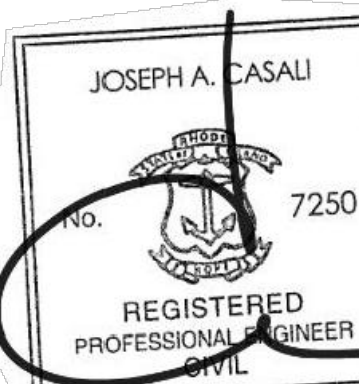


LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE DONE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO ANY EXCAVATION CALL DIGSAFE AT: 1-888-DIG-SAFE

1-888-344-7233



JOE CASALI ENGINEERING, INC.
CIVIL ENGINEER - TRANSPORTATION
DRAINAGE - WETLANDS - EROSION CONTROL
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(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM



PROPOSED 9,000 SF COMMERCIAL BUILDING
NEW ENGLAND TRUCK SOLUTIONS
125 INDUSTRIAL DRIVE
NORTH SMITHFIELD, RHODE ISLAND
AP 5, LOT 425

REVISIONS:	
NO.	DATE DESCRIPTION
1	09/11/23 RIDEM RTC
2	10/04/23 RIDOT RTC

DESIGNED BY:	DRD
DRAWN BY:	SD
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DATE:	NOV. 2023
PROJECT NO:	23-01

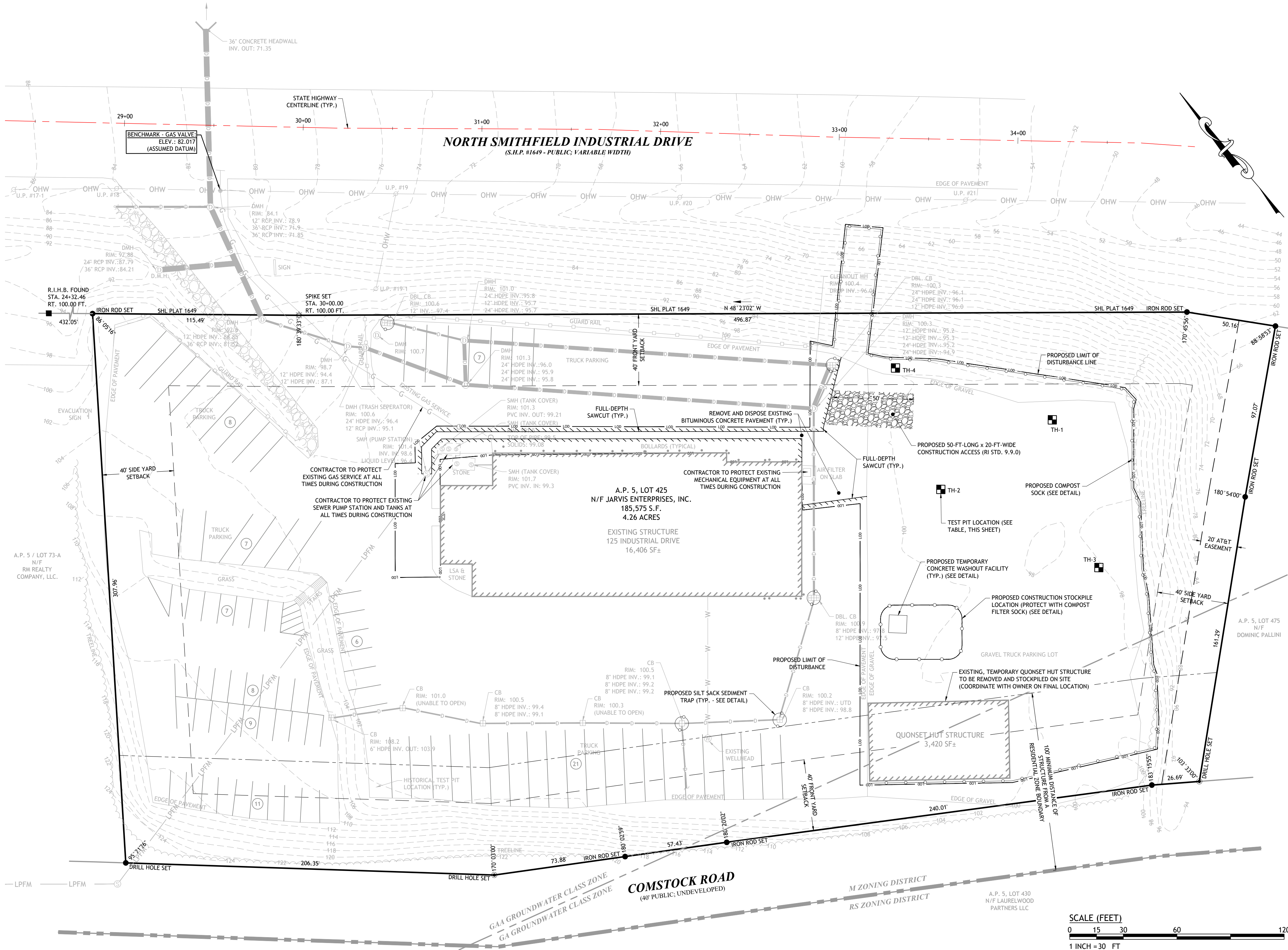
PRELIMINARY/FINAL
PLAN SUBMISSION

GENERAL
NOTES AND
LEGEND

SHEET
2 OF 9

SOIL EVALUATION TEST HOLE DATA			
TH ID	GROUND ELEV.	SHGWT DEPTH / EL.	LEDGE DEPTH / EL.
TH-1	99.0	NE	NE
TH-2	100.0	NE	36" / 97.0
TH-3	98.0	NE	66" / 92.5
TH-4	100.0	NE	NE

NOTE: NE = NOT ENCOUNTERED



PROPOSED 9,000 SF COMMERCIAL BUILDING
NEW ENGLAND TRUCK SOLUTIONS
125 INDUSTRIAL DRIVE
NORTH SMITHFIELD, RHODE ISLAND
AP 5, LOT 425

REVISIONS:	
NO.	DATE / DESCRIPTION
1	09/11/23 RIDEM RTC
2	10/04/23 RIDOT RTC

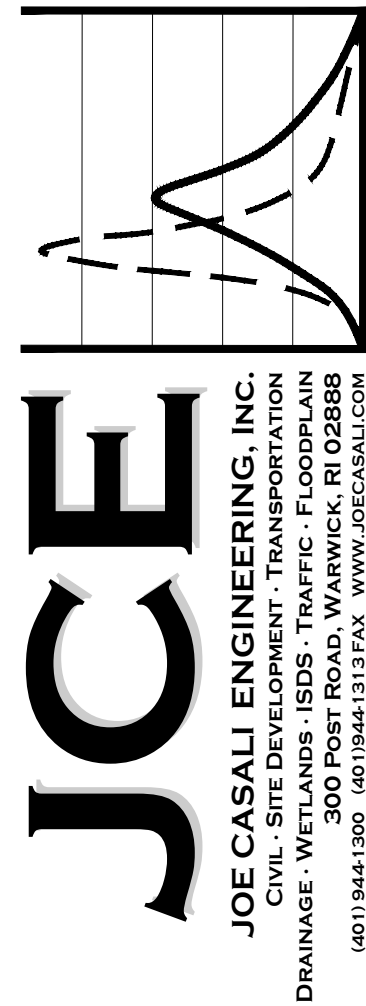
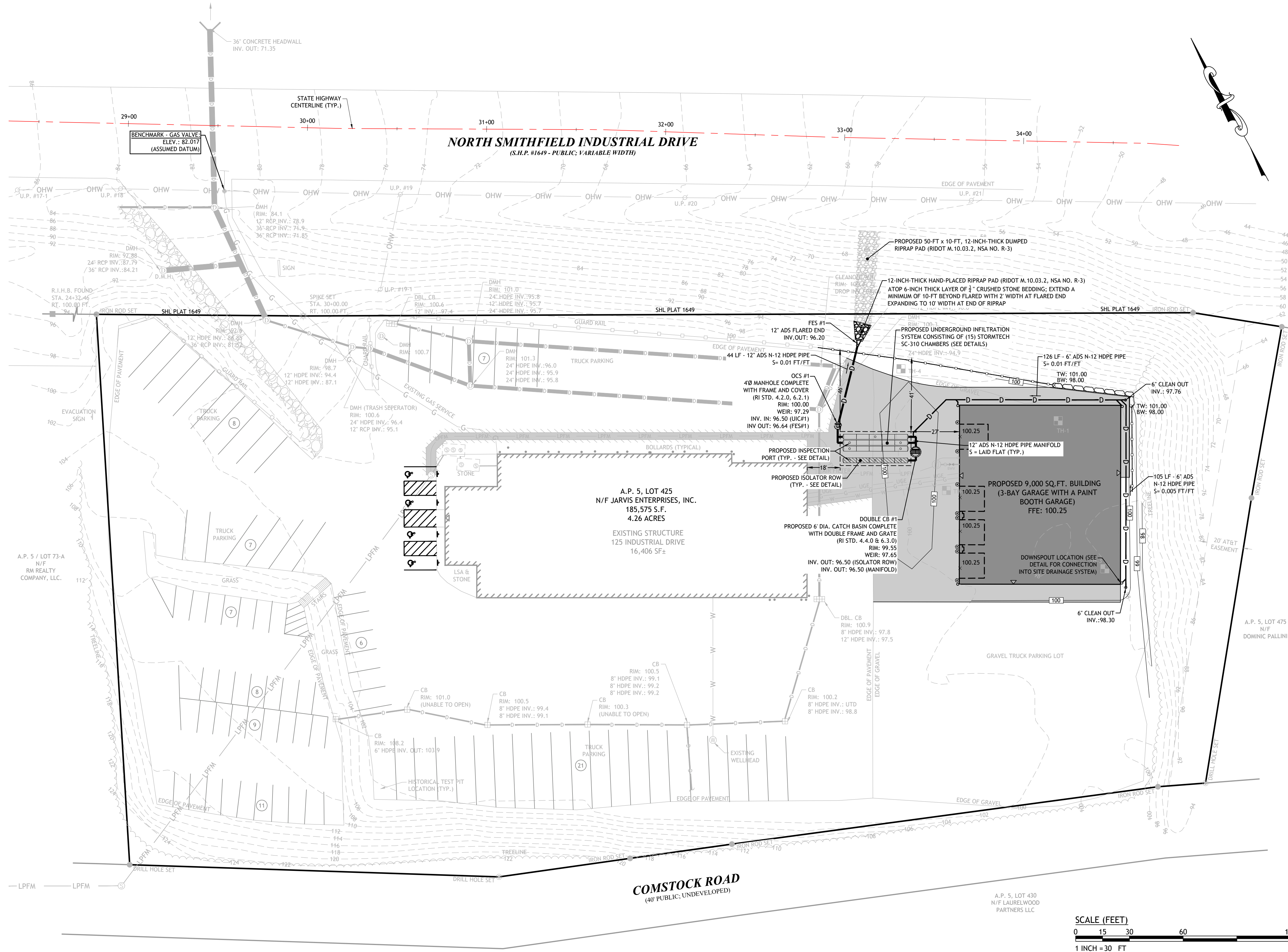
DESIGNED BY:	DRD
DRAWN BY:	SD
CHECKED BY:	JAC
DATE:	NOV. 2023
PROJECT NO:	23-01

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PLAN SUBMISSION

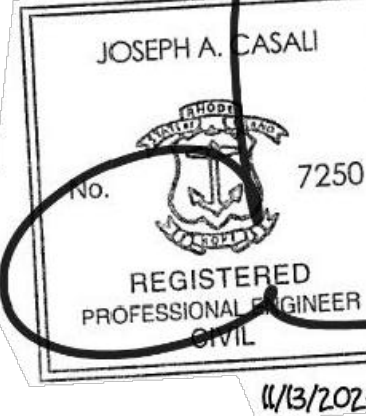
EXISTING
CONDITIONS &
SITE PREP.
PLAN

SHEET
3 OF 9

Q:\23-01 NE Truck Solutions\ACAD\125 Industrial Drive [PRELIM-FINAL].dwg, Nov. 13, 2023 1:12:46am



JOE CASALI ENGINEERING, INC.
CIVIL ENGINEERING, ARCHITECTURE
DRAINAGE, WASTE, WATER, AND
300 POST ROAD, WARWICK, RI 02888
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM



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NEW ENGLAND TRUCK SOLUTIONS
125 INDUSTRIAL DRIVE
NORTH SMITHFIELD, RHODE ISLAND
AP 5, LOT 425

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**GRADING &
DRAINAGE
PLAN**

**SHEET
5 OF 9**

1 COMPOST SOCK
NOT TO SCALE

2 STOCKPILE DETAIL

NOT TO SCALE

3 TEMP. CONCRETE WASHOUT DETAIL
NOT TO SCALE

4 SILT SACK SEDIMENT TRAP
NOT TO SCALE

5 BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE

6 HANDICAP PAVEMENT MARKING

7 HANDICAP PARKING SIGN DETAIL

NOT TO SCALE

8 HANDICAP PARKING STALL DETAIL

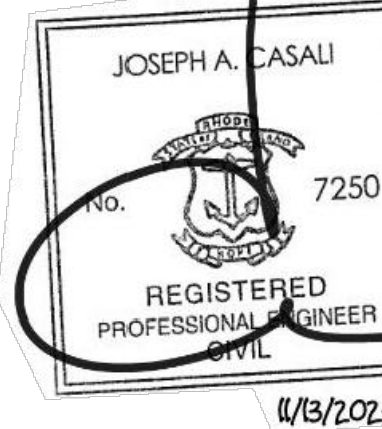
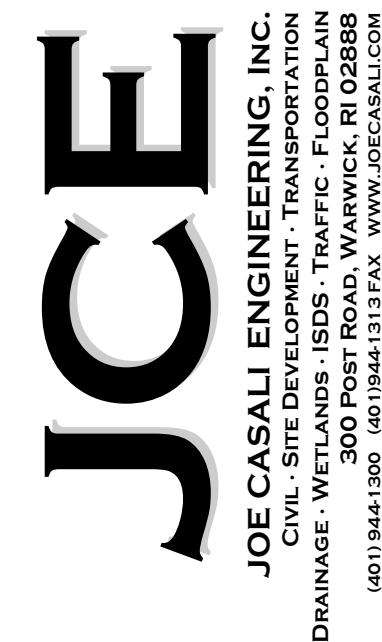
9 TYPICAL BOLLARD DETAIL
NOT TO SCALE

10 TIMBER GUARDRAIL DETAIL
NOT TO SCALE

11 DOWNSPOUT LEADER CONNECTION
NOT TO SCALE

12 FLARED END SECTION SPECIFICATIONS
NOT TO SCALE

13 WATER LINE TRENCH DETAIL
NOT TO SCALE



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125 INDUSTRIAL DRIVE
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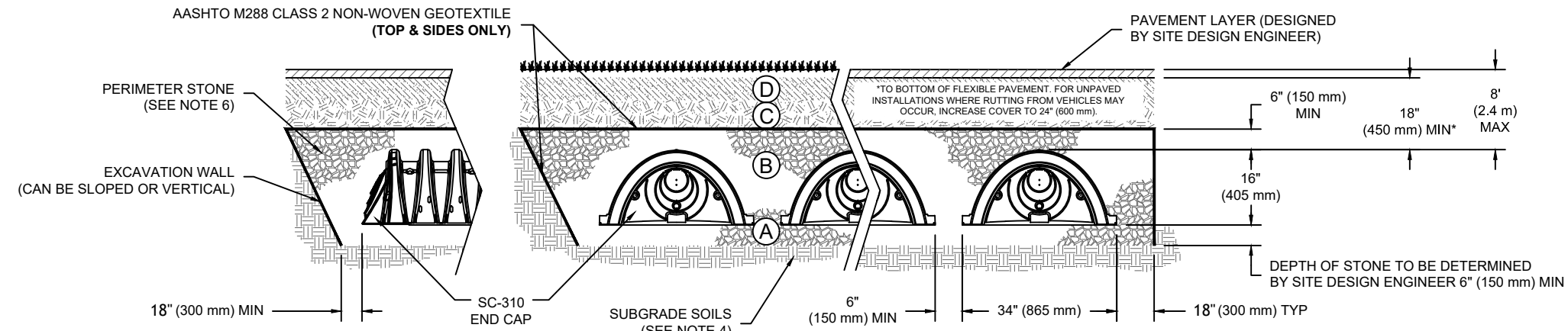
CIVIL DETAILS I

**SHEET
6 OF 9**

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.		
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (F LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'C' 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 90% 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).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ¹ A

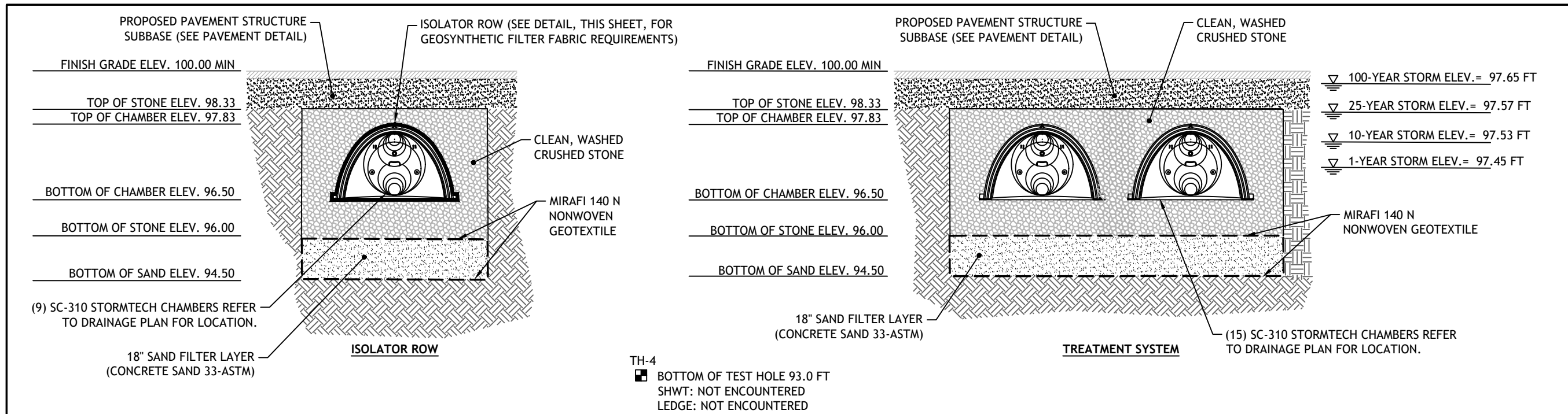
- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN 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.



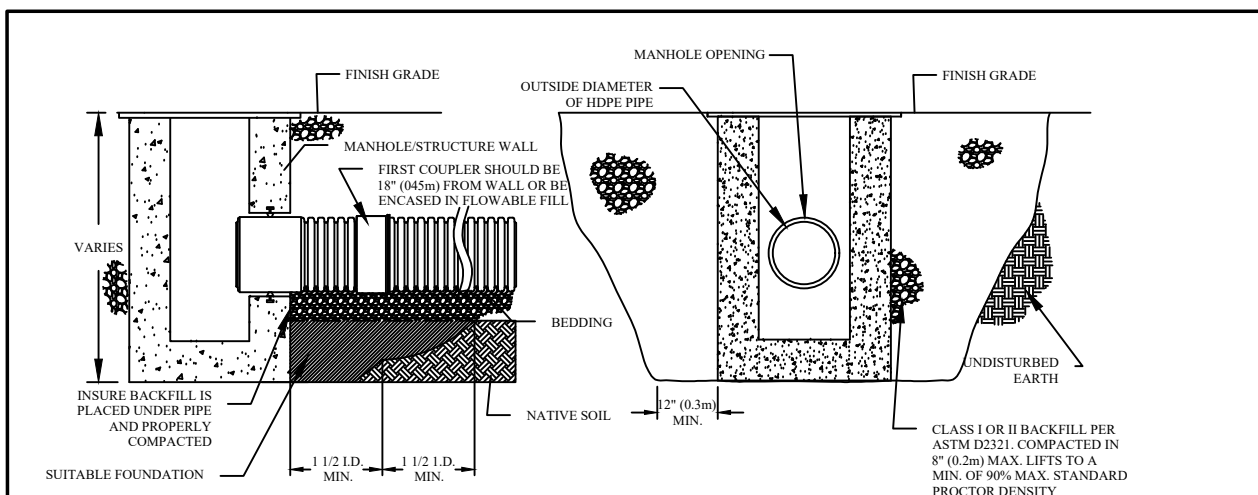
NOTES:

- SC-310 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) 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".
- *ACCEPTABLE FILL MATERIALS* TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOL 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.

19 STORMTECH SC-310 CROSS SECTION DETAIL
NOT TO SCALE



21 UNDERGROUND INFILTRATION CHAMBER SYSTEM #1- ELEVATION DETAIL
NOT TO SCALE



NOTES:

- MAXIMUM INSERTION ANGLE SHALL NOT EXCEED REQUIREMENTS AS SPECIFIED BY THE MANUFACTURER.
- SEE STANDARD DETAILS STD-202 (A-B) THROUGH STD-204 (A-E) FOR STRUCTURE CONNECTIONS, PRODUCT INFORMATION AND DIMENSIONAL PIPE DATA. INSTALLATION RECOMMENDATIONS ARE ALSO SPECIFIED IN TECHNICAL NOTE 5.04: HDPE CONNECTIONS TO MANHOLES AND STRUCTURES.
- PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST INSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.

23 STRUCTURE CONNECTION INSTALLATION DETAIL
NOT TO SCALE

STORMTECH GENERAL NOTES:

- STORMTECH LLC ("STORMTECH") REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
- OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL 1-888-892-2694 TO SPEAK TO A TECHNICAL SERVICE REPRESENTATIVE OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
- STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.): MINIMUM COVER IS 18 INCHES NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96 INCHES INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24 INCHES, MAXIMUM COVER IS 96 INCHES.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
- AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
- STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: WWW.STORMTECH.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
- THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
- STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT 1-888-892-2694 OR VISIT WWW.STORMTECH.COM.

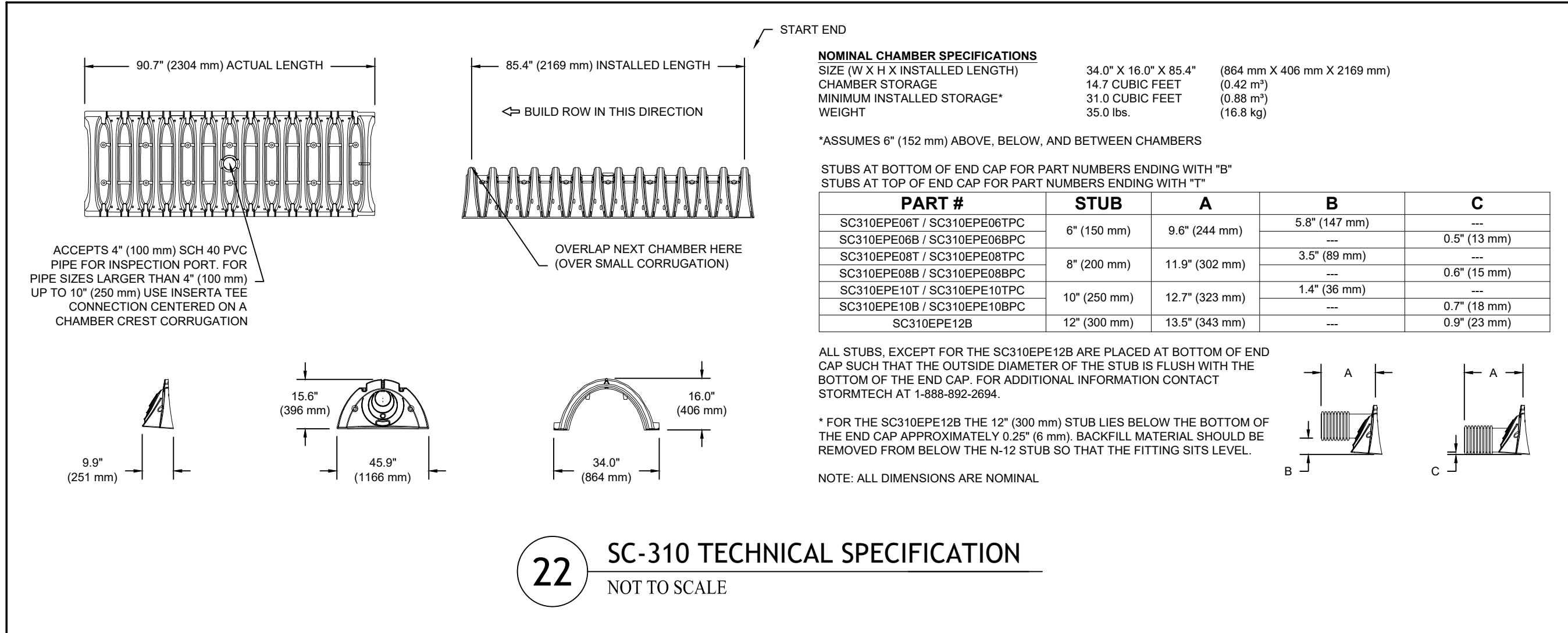
INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT).
 - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATINGS, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION, ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

20 STORMTECH SC-310 ISOLATOR ROW DETAIL
NOT TO SCALE



22 SC-310 TECHNICAL SPECIFICATION
NOT TO SCALE

STORMWATER CHAMBER SPECIFICATIONS

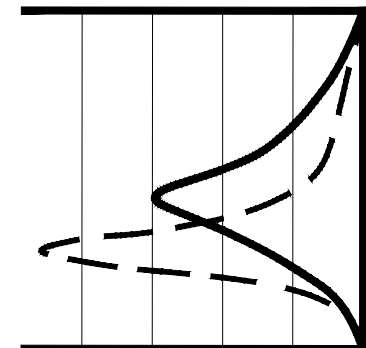
- CHAMBERS SHALL BE STORMTECH SC-310.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL MEET ASTM F2922 (POLYETHYLENE) OR ASTM F2418-16 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 OR ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
 - STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

NOTES FOR THE INSTALLATION OF THE SC-310 SYSTEM

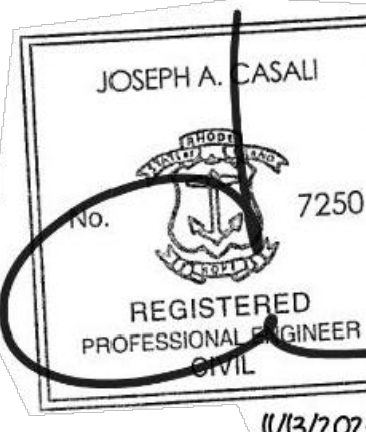
- STORMTECH SC-310 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOTTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 6" SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4"-2".
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER TIERED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.
- USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.
- CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



JOE CASALI ENGINEERING, INC.
CIVIL ENGINEERING & CONSTRUCTION
1505 WEST 10TH STREET, SUITE 100
DRAUGHTING - WARWICK, RI 02886
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM



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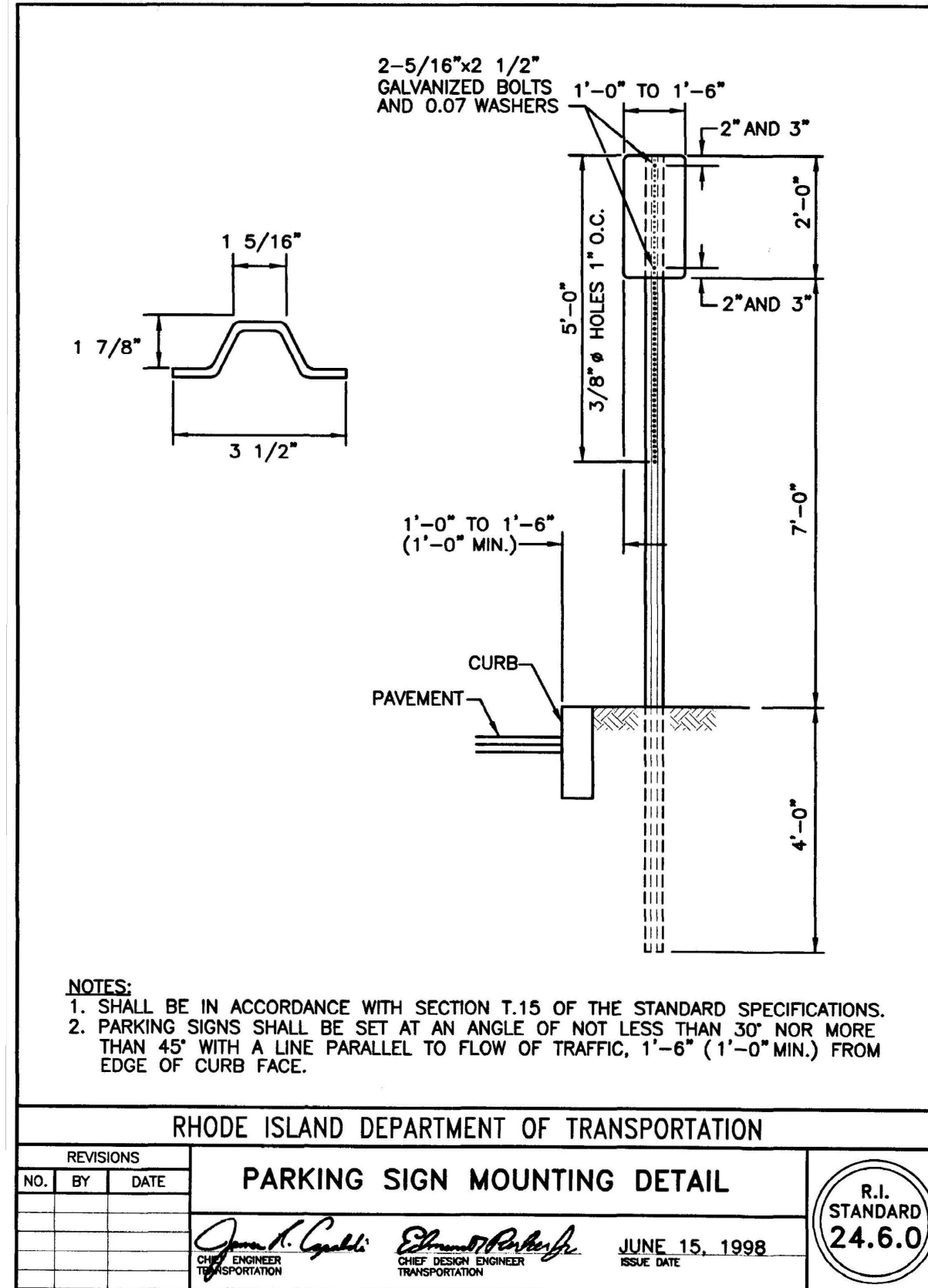
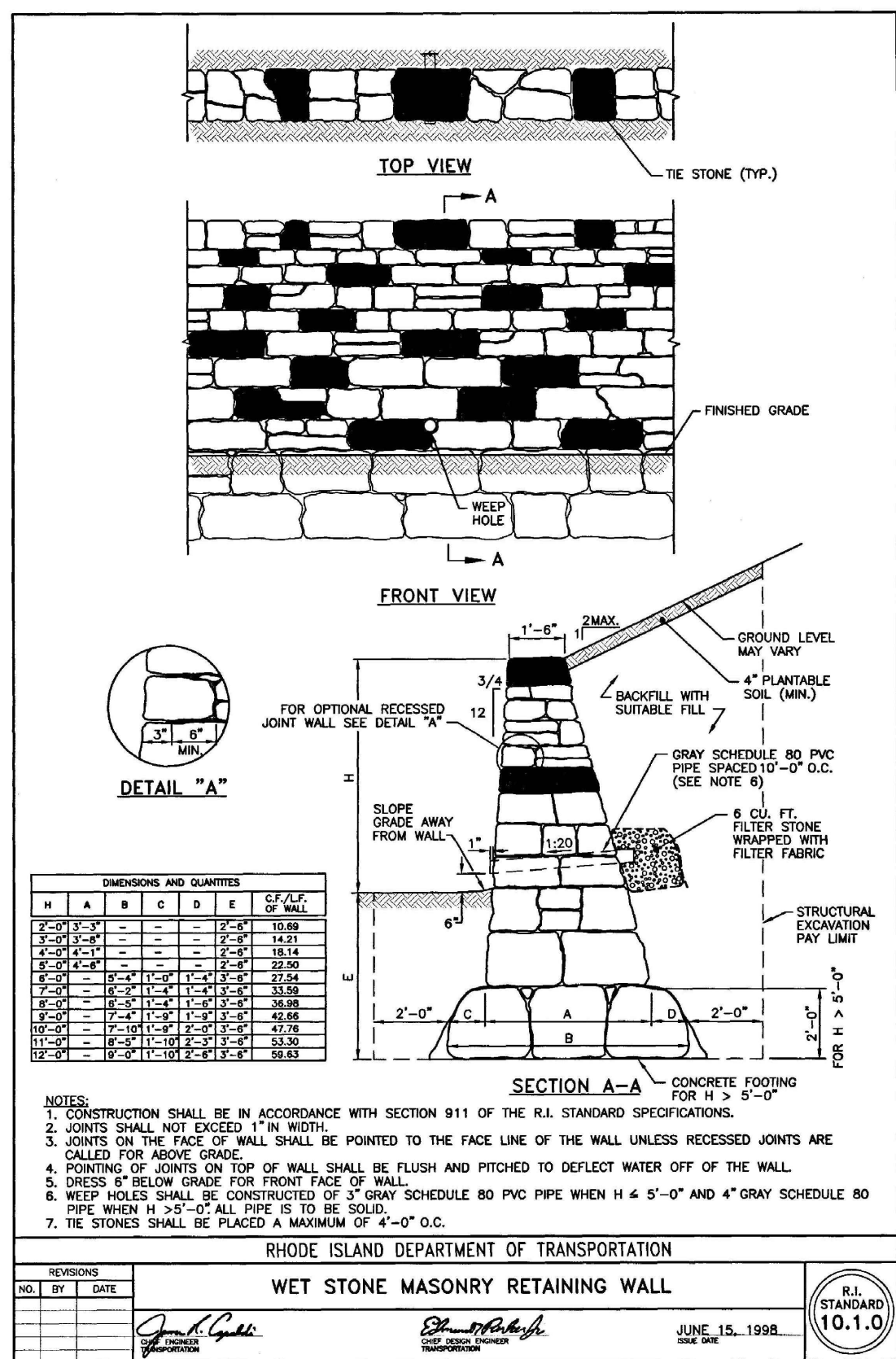
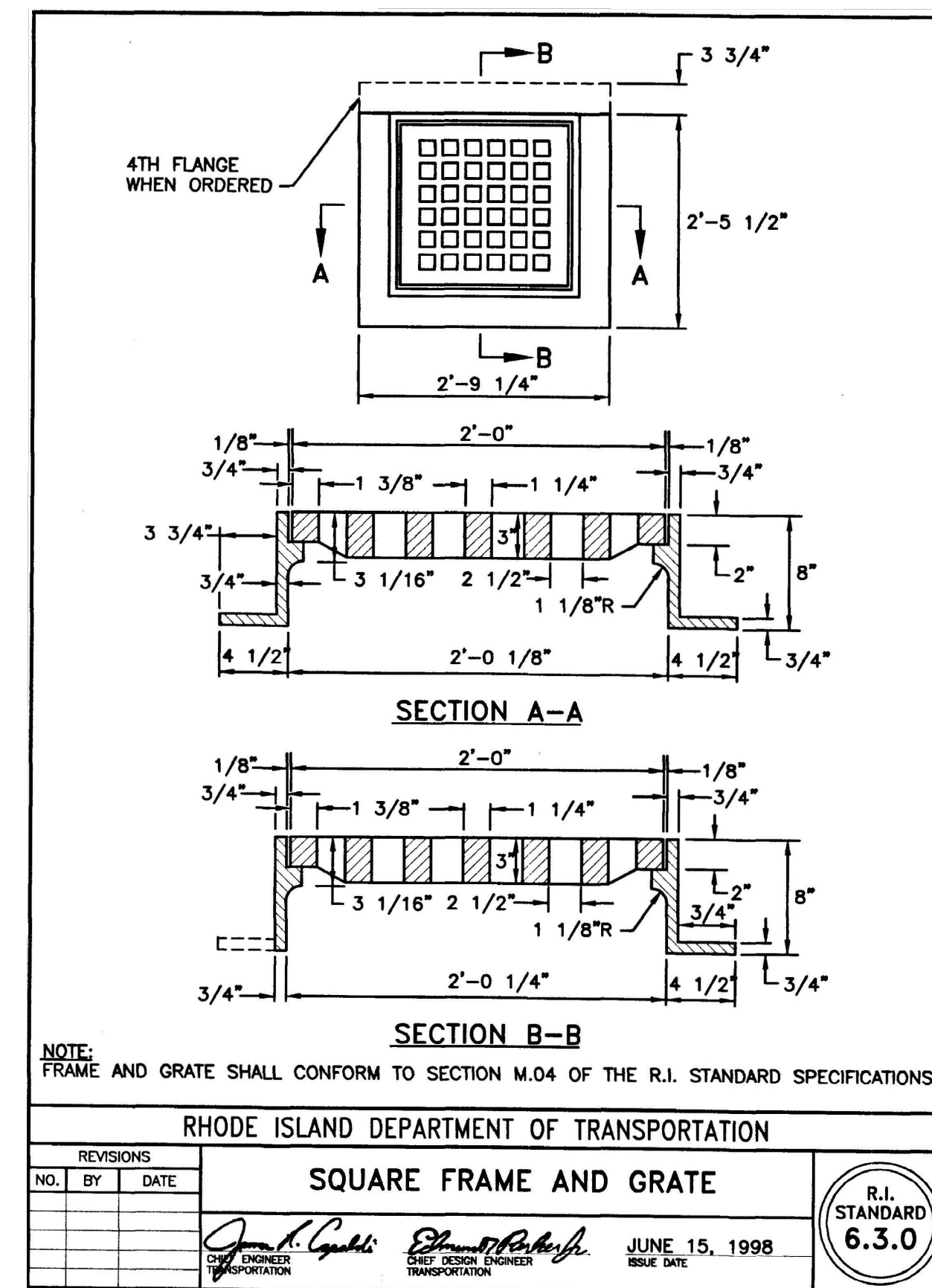
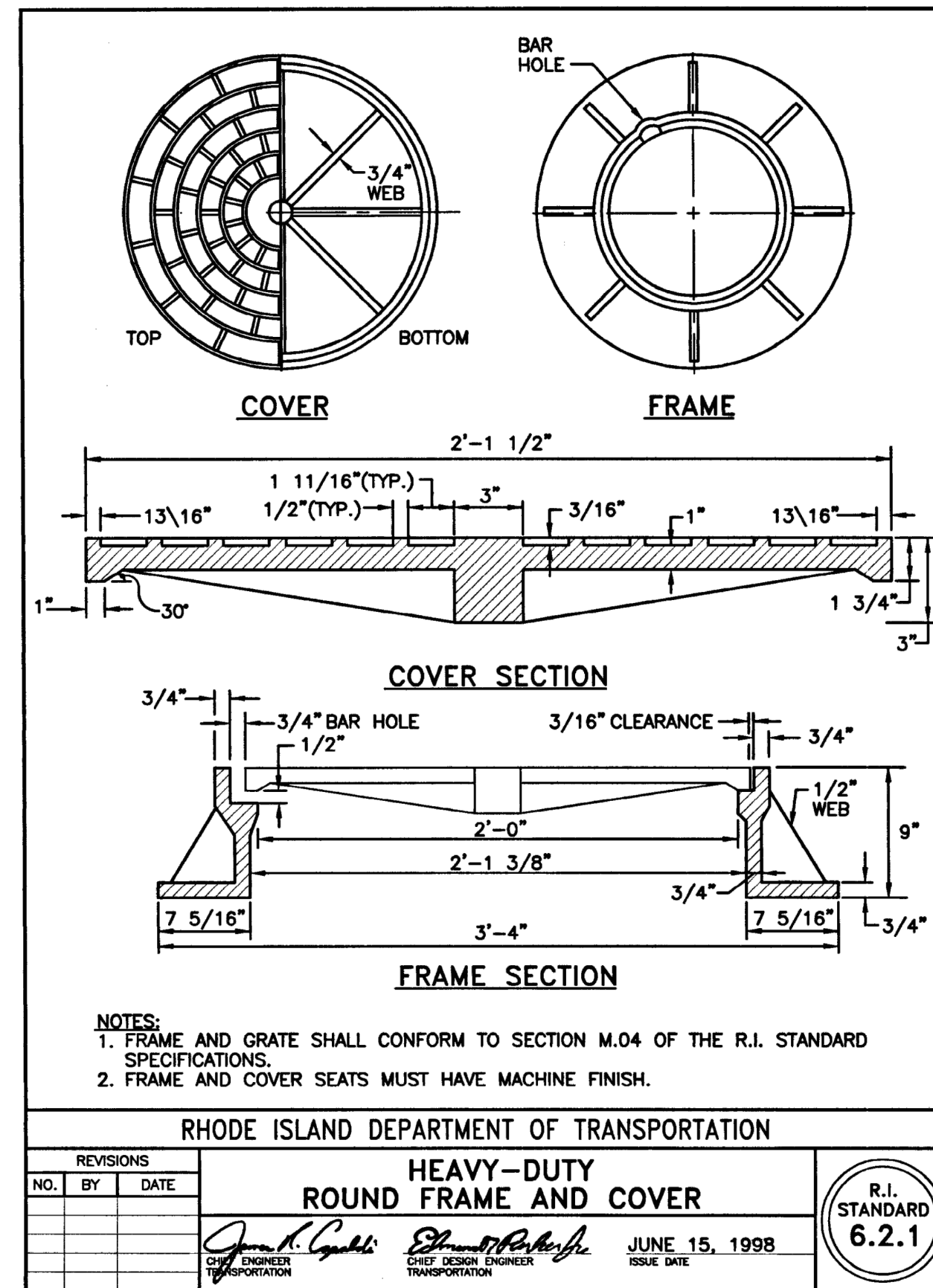
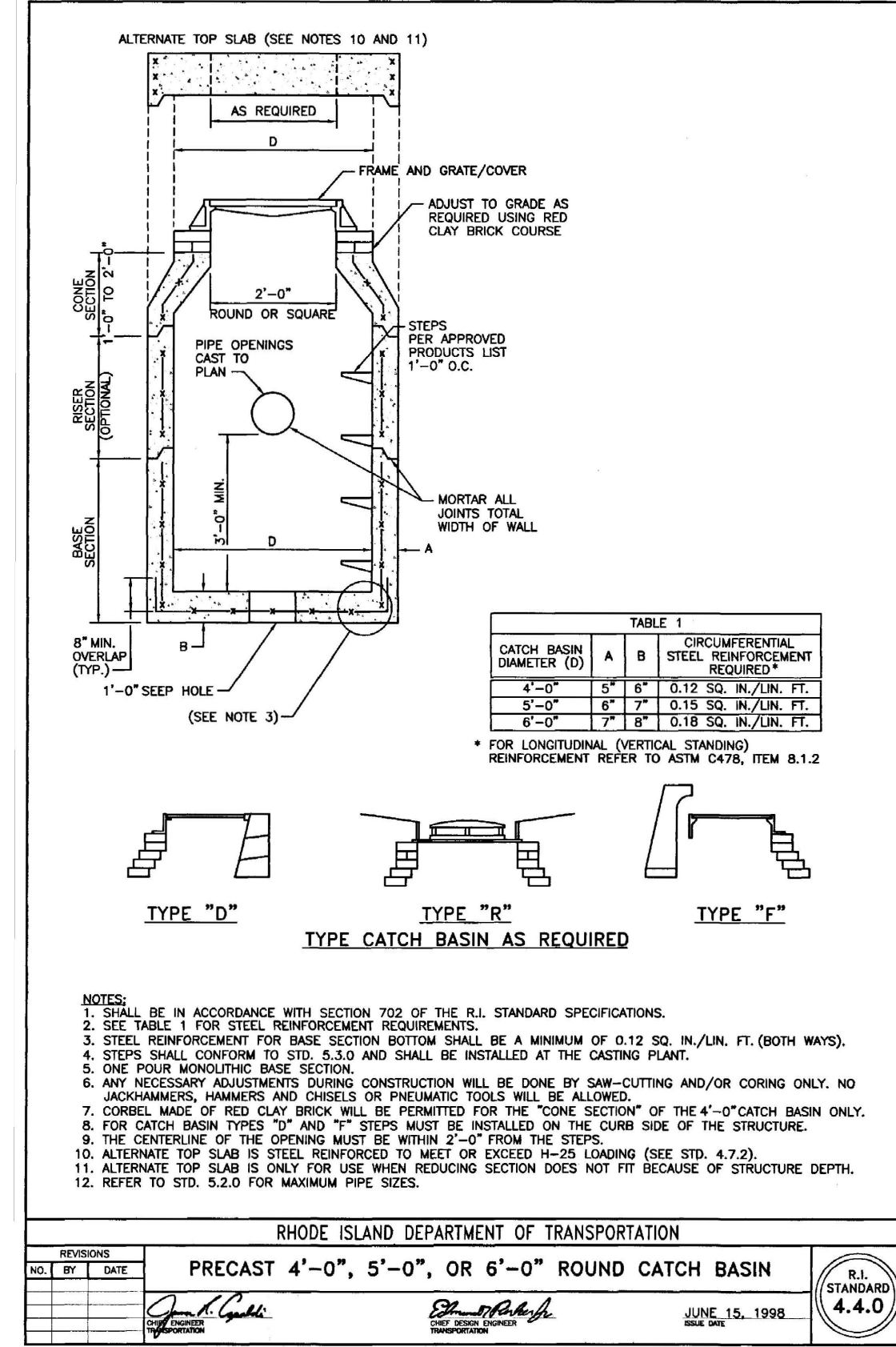
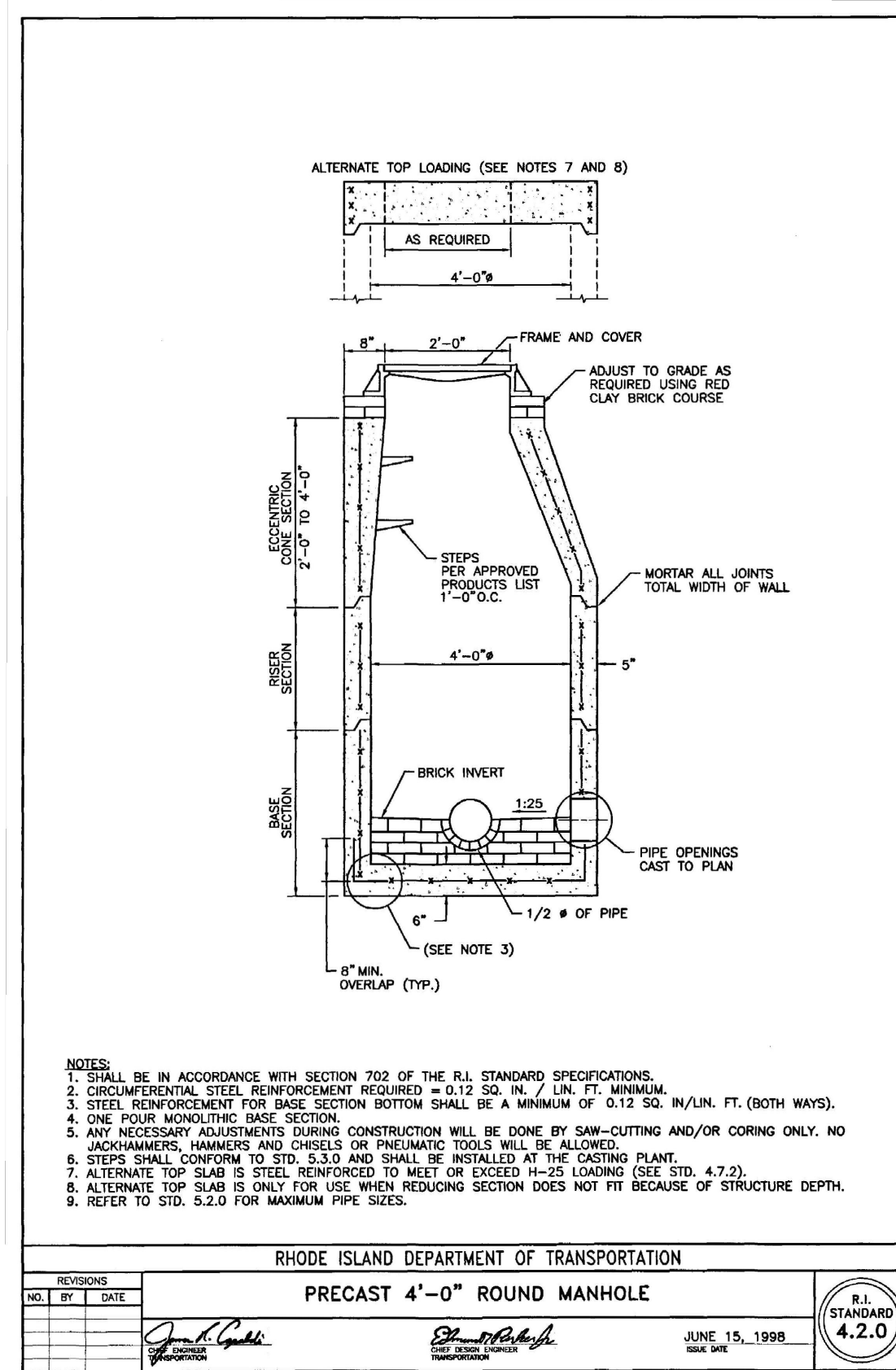
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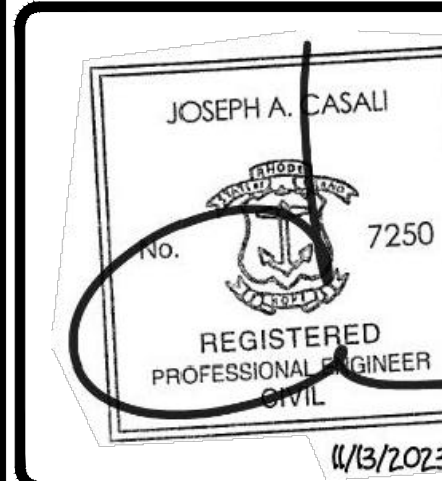
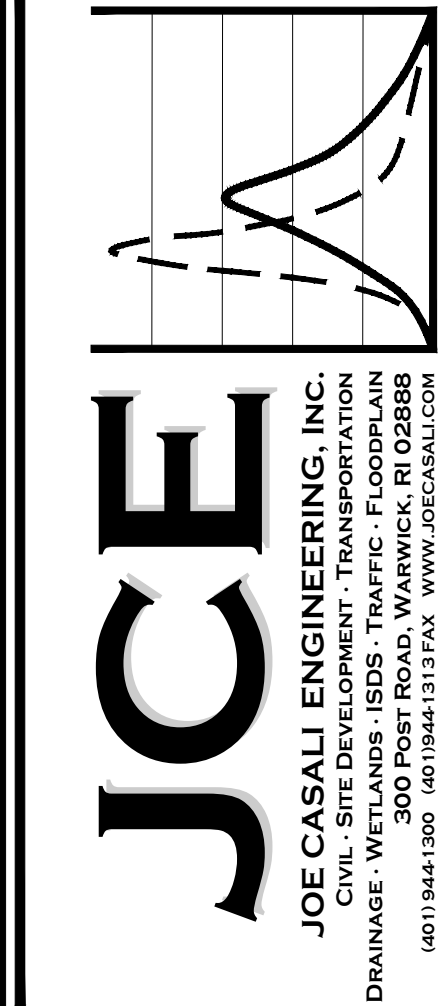
PRELIMINARY/FINAL
PLAN SUBMISSION

**CIVIL
DETAILS III**

**SHEET
8 OF 9**



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RI
STANDARD
DETAILS

SHEET
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