

**PRELIMINARY PLAN SUBMISSION
FOR A PROPOSED 5-LOT MAJOR RESIDENTIAL SUBDIVISION**

EDWARD AVENUE

NORTH SMITHFIELD, RHODE ISLAND

AP 1, LOT 57

ZONING DISTRICT: SUBURBAN RESIDENTIAL (RS-40)

APPROVALS:

NORTH SMITHFIELD PLANNING BOARD OF REVIEW - PRE-APPLICATION AND MASTER PLAN APPROVAL (SEPTEMBER 7, 2017)

FILINGS:

NORTH SMITHFIELD PLANNING BOARD OF REVIEW - PRELIMINARY PLAN

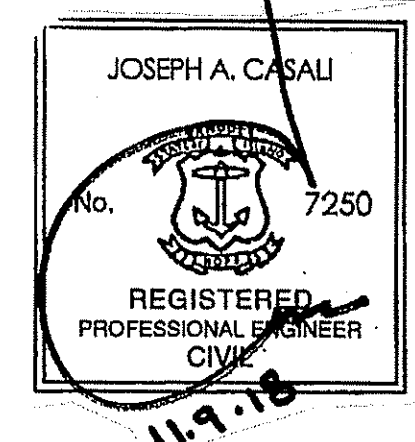
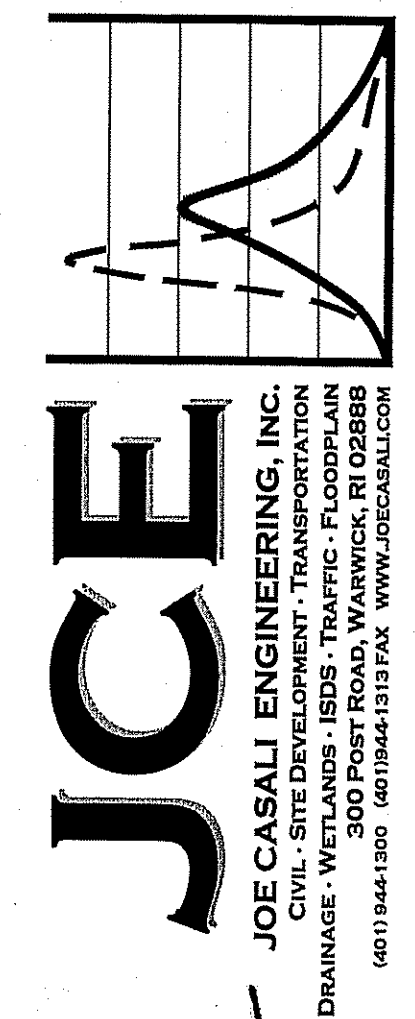
RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT - PRELIMINARY DETERMINATION APPLICATION

NORTH SMITHFIELD SEWER DEPARTMENT

NORTH SMITHFIELD WATER DEPARTMENT

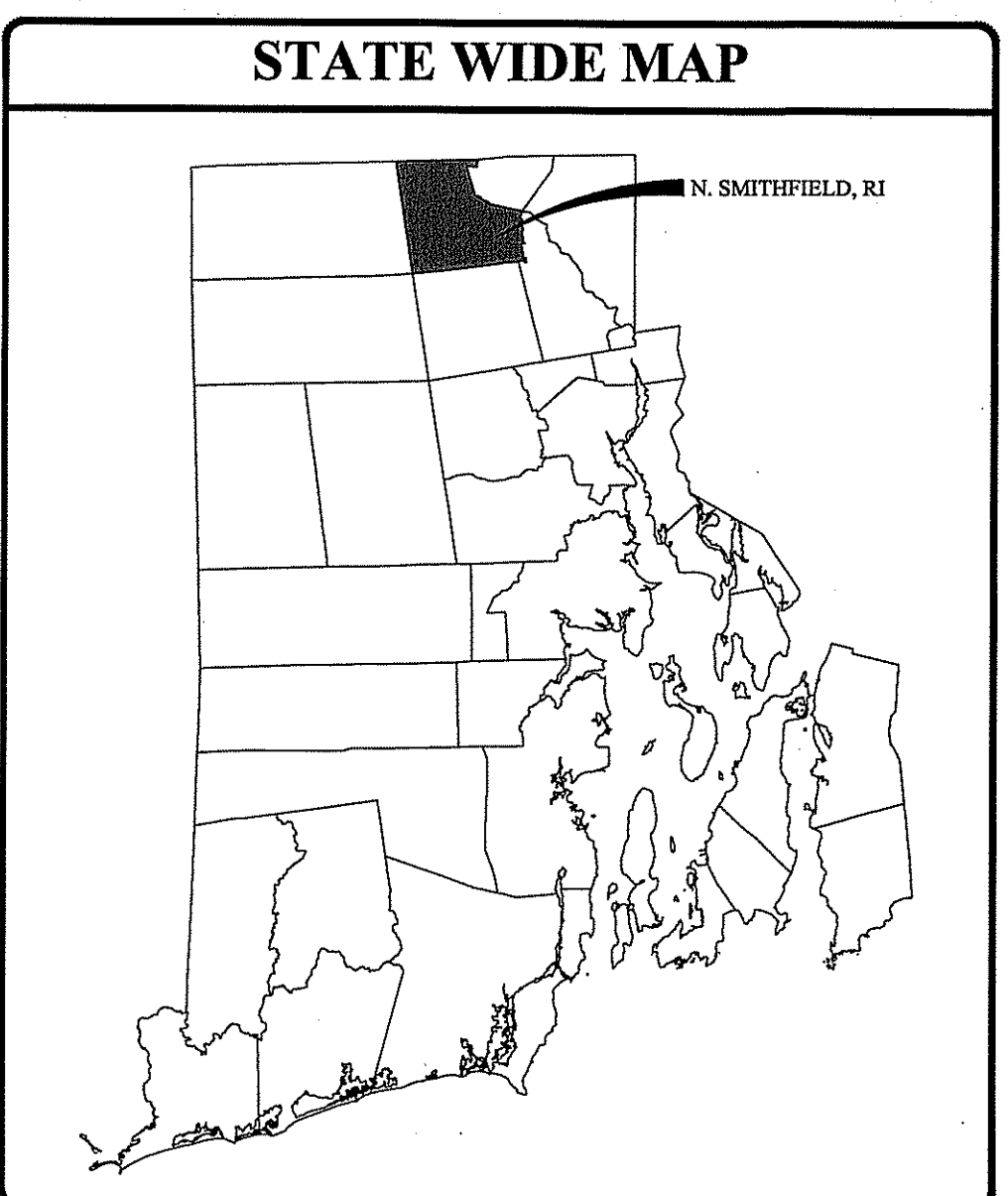
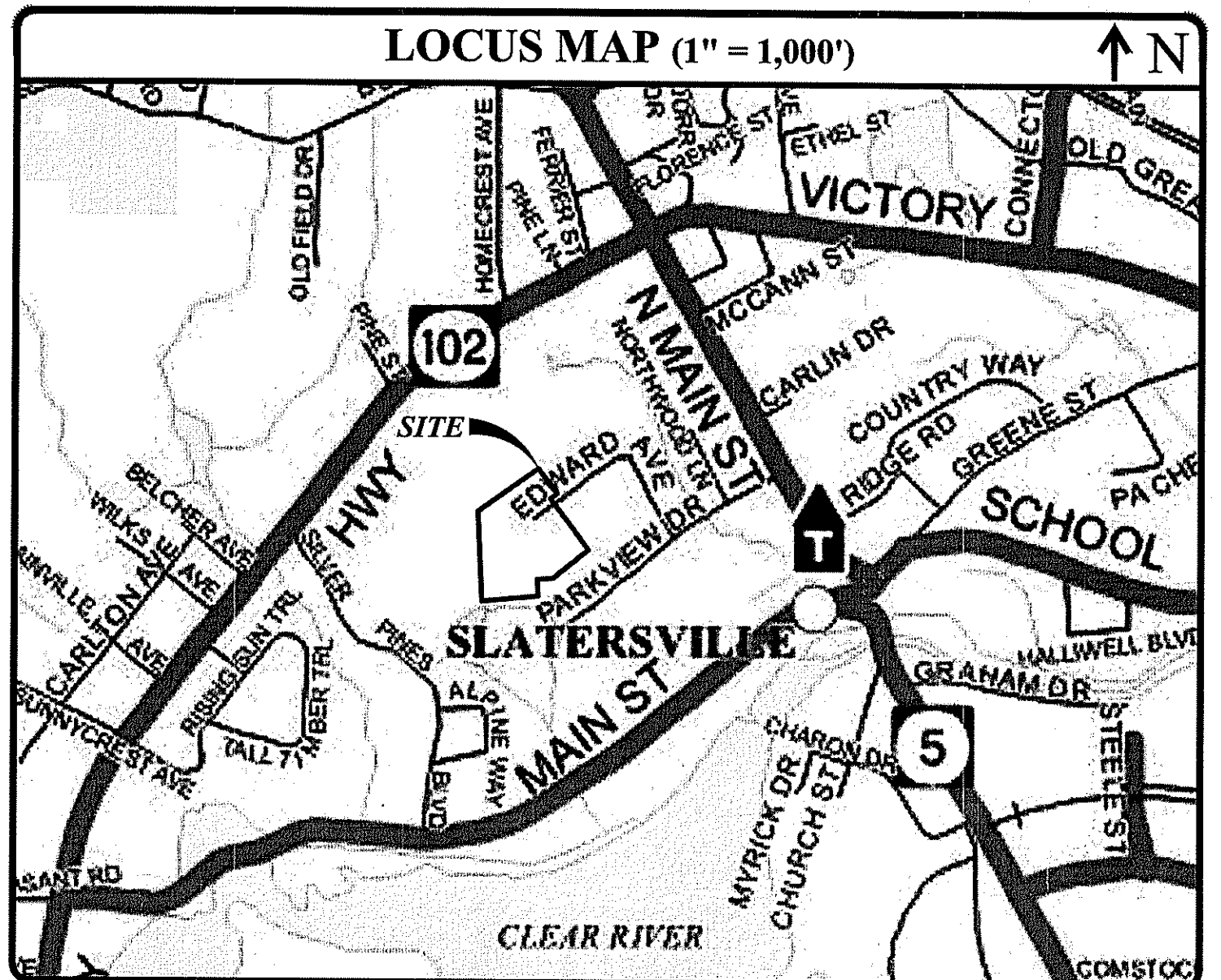
Kindly be advised that this
Master Plan is subject to a
verification of the type and extent
of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 9 2018 FILE # 18-0160
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Haber



**PROPOSED MAJOR SUBDIVISION
EDWARD AVENUE
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 57**

PROJECT TEAM			
OWNER/ APPLICANT:	KIMBERLY A. GODFRIN TRUST 47 HOMECREST AVENUE NORTH SMITHFIELD, RI 02896	LANDSCAPE ARCHITECT:	DIANE C. SOULE & ASSOCIATES, ASLA 422 FARNUM PIKE SMITHFIELD, RI 02917 PHONE: 401-231-0736
CIVIL ENGINEER:	JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RI 02888 PHONE: 401-944-1300 FAX: 401-944-1313 JOECASALI.COM	WETLAND BIOLOGIST:	NATURAL RESOURCE SERVICES 180 TINKHAM LANE PO BOX 311 HARRISVILLE, RI 02830 PHONE: (401) 568-7490
LAND SURVEYOR:	NATIONAL LAND SURVEYORS- DEVELOPERS, INC. 42 HAMLET AVENUE WOONSOCKET, RI 02895 PHONE: 401-769-7779		



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REFERENCE PLAN:	
R1	ADMINISTRATIVE SUBDIVISION PLAN, PREPARED BY NATIONAL SURVEYORS-DEVELOPERS, INC., FEBRUARY 2018

REVISIONS:		
NO.	DATE	DESCRIPTION
1	11.8.2018	RIDEM RTC

DESIGNED BY: WML/RS/D
DRAWN BY: SEP/SD
CHECKED BY: JAC
DATE: JUNE 2018
PROJECT NO: 13-22c

PRELIMINARY, NOT FOR CONSTRUCTION

COVER SHEET

SHEET 1 OF 9

GENERAL NOTES:

- 1. CLASS I PROPERTY LINE AND CLASS III TOPOGRAPHIC SURVEY COMPLETED BY NATIONAL LAND SURVEYORS-DEVELOPERS, INC., 42 HAMLET AVENUE, WOONSOCKET, RI 02895 IN AUGUST 2016, REVISED FEBRUARY 2018.
2. 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 TO 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.
3. THIS SITE LIES IN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD), AS SHOWN ON THE FIRM MAPS FOR PROVIDENCE COUNTY, COMMUNITY PANEL NO. 44007C0065G, EFFECTIVE SEPTEMBER 18, 2013 (FIRM PANEL NOT PRINTED).
4. SOILS EXISTING ON THE SITE CONSISTS OF CHARLTON VERY STONY FINE SANDY LOAMS 3-8 PERCENT SLOPES (ChB), CANTON AND CHARLTON FINE SANDY LOAMS, VERY ROCKY, 3-15 PERCENT SLOPES (Cec), WHICH CLASSIFY AS HYDROLOGIC SOIL GROUP "B"; AND RIDEBURY, LEICESTER, AND WHITMAN SOILS, 0 TO 8 PERCENT SLOPES, EXTREMELY STONY (Rf), WHICH CLASSIFY AS HYDROLOGIC SOIL GROUP "D".
5. WETLANDS WERE DELINEATED IN NOVEMBER 2002 AND UPDATED IN JUNE 2016 BY NATIONAL RESOURCES SERVICES, INC., P.O. BOX 311 HARRISVILLE, RI 02830.
6. THE PROPOSED DEVELOPMENT IS LOCATED WITHIN THE BRANCH RIVER WATERSHED. THERE ARE NO EXTRAORDINARY OR UNUSUAL FEATURES ON THE SUBJECT SITE.
7. THERE ARE NO KNOWN EASEMENTS WITHIN THE SUBJECT PARCEL.
8. TELEPHONE, ELECTRIC AND WATER SERVICES ARE AVAILABLE FROM WITHIN EDWARD AVENUE.

SITE NOTES:

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH ALL RHODE ISLAND DEPARTMENT OF CORRECTIONS (RIDOC) POLICIES. RIDOC POLICIES ARE AVAILABLE ON THE RIDOC WEBSITE (WWW.DOC.RI.GOV/ADMINISTRATION/POLICY/ALL.PHP).
2. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.
3. 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.
4. STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.
5. ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED.
6. 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.
7. 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.
8. 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 CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SITE CONDITIONS.
9. WHERE NECESSARY TO REMOVE CURBS, CATCH BASINS OR DRAINS TO COMPLETE WORK, THE CONTRACTOR SHALL REPLACE SUCH ITEMS TO THE SATISFACTION OF THE ENGINEER AND THE TOWN AT NO ADDITIONAL COST TO THE OWNER.
10. ANY EXISTING PIPE OR UTILITY DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER.
11. 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.
12. THE TOPS OF ALL VALVE BOXES AND CURB BOXES SHALL BE FLUSH WITH GROUND OR PAVEMENT SURFACE LEVEL AND PLUMB, UNLESS OTHERWISE DIRECTED.
13. ROADWAYS SHALL BE LEFT PASSABLE AT ALL TIMES. CLOSURE OF ROADWAY IS NOT PERMITTED.
14. WATER SERVICE SHALL BE MAINTAINED AT ALL TIMES.
15. ALL LEDGE TO BE REMOVED BY MECHANICAL MEANS.
16. 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.
17. ALL SITE WORK, INCLUDING BUT NOT LIMITED TO, BITUMINOUS PAVEMENT, AGGREGATE MATERIALS, DRAINAGE STRUCTURES, CURBING, SIDEWALK, LANDSCAPING, SAW CUTTING, ETC. SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2004 EDITION (WITH LATEST ADDENDA) AND THE RIDOT STANDARD DETAILS, 1998 EDITION (WITH LATEST ADDENDA).

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- 1. THE SILT FENCE / HAY BALE LINE ILLUSTRATED ON THESE PLANS SHALL SERVE AS THE STRICT LIMIT OF DISTURBANCE FOR THE PROJECT WITHIN OR ADJACENT TO REGULATED FRESHWATER WETLAND AREAS.
2. 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.
3. NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE IN THE AREA OF THE STORMWATER MITIGATION AREAS ONCE THE SUBGRADE IS EXPOSED.
4. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL REGULARLY CHECK ALL SEEDED AREAS TO ENSURE THAT A GOOD STAND IS MAINTAINED.
5. 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.
6. 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.
7. THE SILT FENCE SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY-BALES BECOMES FILLED WITH SEDIMENTS.
8. 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 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.
9. ALL REFERENCED SOIL EROSION AND SEDIMENTATION CONTROLS INCLUDING MATERIALS USED, APPLICATION RATES AND THE INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE "RHODE ISLAND EROSION AND SEDIMENTATION HANDBOOK", DATED 1993, AMENDED 2014.

DRAINAGE SYSTEM NOTES:

- 1. 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.

BMP MAINTENANCE SCHEDULE:

- 1. PRIOR TO THE START OF CONSTRUCTION, THE SITE CONTRACTOR SHALL STAKE OUT AND PROTECT ALL SURFICIAL STORMWATER INFILTRATION AREAS, INCLUDING THE SEDIMENT FOREBAY AND SAND FILTER BASIN. CONSTRUCTION TRAFFIC IS NOT ALLOWED WITHIN THE INFILTRATION AREAS. CONSTRUCTION FENCING SHALL BE USED TO PROTECT AREA FROM CONSTRUCTION TRAFFIC. STORMWATER INFILTRATION AREAS SHALL BE PROTECTED FROM RUNOFF DURING CONSTRUCTION AND MAY NOT BE USED AS TEMPORARY SEDIMENTATION AREAS DURING CONSTRUCTION. SILT FENCE SHALL BE USED TO PROTECT THESE AREAS FROM RUNOFF.
2. ALL MAINTENANCE (INCLUDING CLEANING) REQUIRED DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE:
A. 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.
B. 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.
3. 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.
4. 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/RICRMC, 2010).
5. STORMWATER BMPs SHALL BE INSPECTED AND MAINTAINED BY THE OWNER AS FOLLOWS:

PRE-TREATMENT SEDIMENT FOREBAY

- AFTER CONSTRUCTION, THE SEDIMENT FOREBAY SHALL BE INSPECTED AND CLEANED WHEN SEDIMENT BUILD UP IS IN EXCESS OF 6" OR 25% OF THE SEDIMENT STORAGE VOLUME.

SAND FILTER SYSTEM

- DURING THE SIX MONTHS IMMEDIATELY AFTER CONSTRUCTION, THE SAND FILTER SHALL BE INSPECTED AFTER THE FIRST TWO RAINFALL EVENTS OF AT LEAST 1.0 INCH TO ENSURE THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER INSPECTIONS SHALL BE CONDUCTED ON AN ANNUAL BASIS AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL TO 2 INCHES.
SILT AND SEDIMENT SHALL BE REMOVED FROM THE FILTER BED WHEN THE ACCUMULATION EXCEEDS ONE INCH. WHEN THE FILTERING CAPACITY OF THE SAND FILTER DIMINISHES SUBSTANTIALLY (I.E. WHEN WATER PONDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 48 HOURS), THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH MATERIAL. THE REMOVED SEDIMENTS SHALL BE DISPOSED IN AN ACCEPTANCE MANNER AT AN APPROVED AND PERMITTED LOCATION.

INFILTRATION BASIN

- DURING THE SIX MONTHS IMMEDIATELY AFTER CONSTRUCTION, THE INFILTRATION BASIN SHALL BE INSPECTED AFTER THE FIRST TWO RAINFALL EVENTS OF AT LEAST 1.0 INCH TO ENSURE THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER INSPECTIONS SHALL BE CONDUCTED ON AN ANNUAL BASIS AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL TO 2 INCHES.
SILT AND SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE ACCUMULATION EXCEEDS SIX INCHES, OR WHEN WATER PONDS ON THE SURFACE OF THE DETENTION BASIN FOR MORE THAN 48 HOURS.
SOIL EROSION GULLIES SHALL BE REPAIRED WHEN THEY OCCUR.
THE OUTLET DEVICES SHALL BE CLEANED/REPAIRED WHEN NECESSARY.
TRASH AND DEBRIS SHALL BE REMOVED WHEN NECESSARY.
THE LOW FLOW ORIFICE GRATE SHALL BE INSPECTED AFTER MAJOR STORM EVENTS EXCEEDING 2 INCHES OF RAIN. ANY TRASH OR DEBRIS SHALL BE REMOVED IMMEDIATELY.
THE OUTFLOW WEIR SHOULD BE INSPECTED ANNUALLY TO ENSURE THAT IT IS FUNCTIONING PROPERLY.

- 6. ALL REMOVED SEDIMENT IS TO BE TESTED TO DETERMINE POLLUTANT CONTENT. THE SEDIMENT IS TO BE PROPERLY DISPOSED OF BASED UPON THE TEST RESULTS AND LOCAL, STATE, AND FEDERAL REGULATIONS.

LOADING & SEEDING

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:

- 1. 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.
2. 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).
3. 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.
4. APPLY LIME AT A RATE OF ONE TON PER ACRE AND UNIFORMLY INCORPORATE INTO THE TOP 1-2" OF TOPSOIL.
5. 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.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY AND VEHICULAR SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2009 EDITION.
2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.
3. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED IN THE STATE OR TOWN RIGHT-OF-WAY.
4. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS CHANNELING DEVICES, ETC, SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION.
5. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE RIDOT SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

MISCELLANEOUS UTILITY NOTES:

- 1. 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.
2. OVERHEAD AND/OR UNDERGROUND ELECTRIC, GAS AND COMMUNICATIONS SERVICES ARE TO BE COORDINATED BY THE CONTRACTOR WITH THE APPROPRIATE UTILITY COMPANY.
3. 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.
4. 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 AND/OR THE TOWN OF SMITHFIELD.
5. 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.
6. 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.
7. 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.
8. APPLICANT IS REQUIRED TO PROVIDE TWO SETS OF FINAL AS-BUILT PLANS UPON COMPLETION OF CONSTRUCTION, PRIOR TO FINAL ACCEPTANCE. AS-BUILT PLANS SHALL INCLUDE FIELD MEASUREMENTS OF ALL INSTALLED PIPE AND APPURTENANCES, INCLUDING LENGTH, SLOPE, MANHOLE RIMS AND INVERTS, AS WELL AS SWING TIES/MEASUREMENTS TO ALL MANHOLES, SEWER STUBS, AND/OR LATERAL SERVICE CONNECTIONS.
9. APPLICANT IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM LOCAL, STATE, AND/OR FEDERAL AGENCIES WITH REGULATORY JURISDICTION OVER THE PROPOSED WORK. ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY A DRAIN LAYER LICENSED IN THE STATE OF RHODE ISLAND AND THE TOWN OF NORTH SMITHFIELD.
10. NO FLOW WILL BE ACCEPTED UNTIL A COMPLETION CERTIFICATE IS ISSUED.
11. 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.
12. ALL CONSTRUCTION MATERIALS, AS WELL AS ALL MATERIAL SHOP DRAWINGS AND MANUFACTURERS DATA SHEETS SHALL BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER, OR HIS/HER REPRESENTATIVE PRIOR TO FABRICATION AND INSTALLATION.

LEGEND:

Legend table with symbols and descriptions for various utility lines, structures, and features like existing property lines, water lines, catch basins, and trees.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 9 2019 FILE # 18-0160
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Haber

JCE logo and contact information for Joe Casali Engineering, Inc. including address, phone, and website.

Professional Engineer seal for Joseph A. Casali, No. 7250, Registered Professional Engineer, Civil, State of Rhode Island.

PROPOSED MAJOR SUBDIVISION
EDWARD AVENUE
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 57

Table with 2 columns: NO. DATE, DESCRIPTION. Row 1: 1 11.8.2018 RIDEM RTC

DESIGNED BY: WMLJR/SD
DRAWN BY: SEP/SD
CHECKED BY: JAC
DATE: JUNE 2018
PROJECT NO: 13-22c

PRELIMINARY, NOT FOR CONSTRUCTION

GENERAL NOTES & LEGEND

SHEET 2 OF 9

DIG-SAFE logo and text: 1-888-DIG-SAFE, PROTECT YOURSELF, GIVE THEM WORKING DAYS NOTICE. 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

Environmental Management
NOV 13 2019

ZONING CRITERIA	REQUIRED	EXISTING
ZONING DISTRICT	RS-40	RS-40
MINIMUM LOT AREA	40,000 SF	325,484 SF
MINIMUM LOT FRONTAGE (1)	150 FT	NA
MINIMUM FRONT YARD SETBACK	30 FT	NA
MINIMUM SIDE YARD SETBACK	25 FT	NA
MINIMUM REAR YARD SETBACK	40 FT	NA
MAXIMUM BUILDING COVERAGE	20 %	0 %
MAXIMUM STRUCTURE HEIGHT	30 FT	NA
MAXIMUM IMPERVIOUS AREA (2)	15 %	0 %

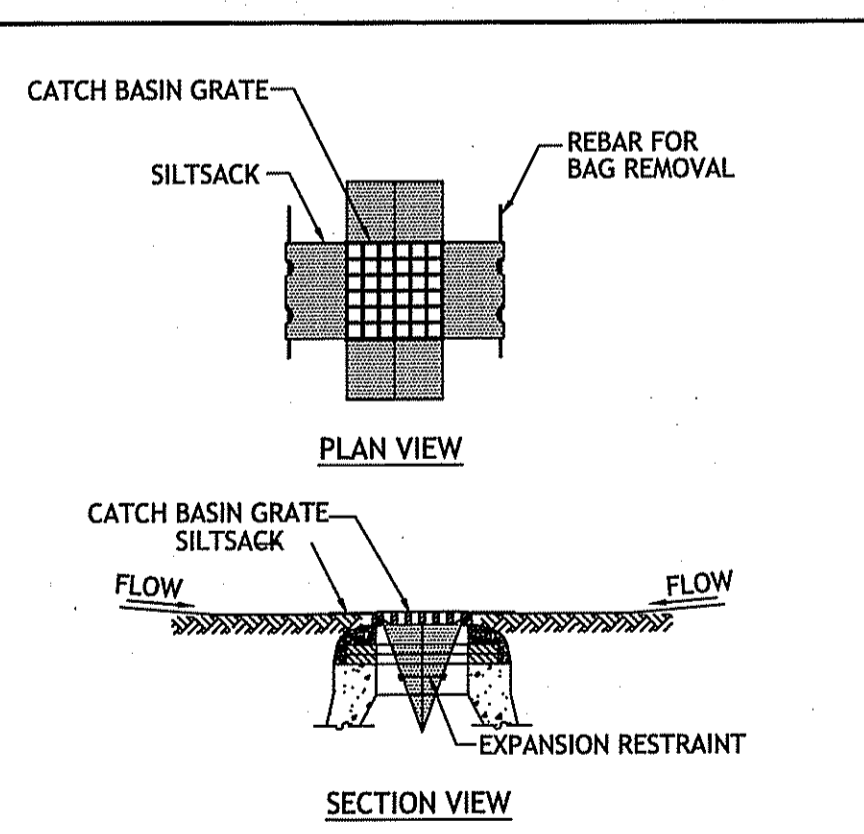
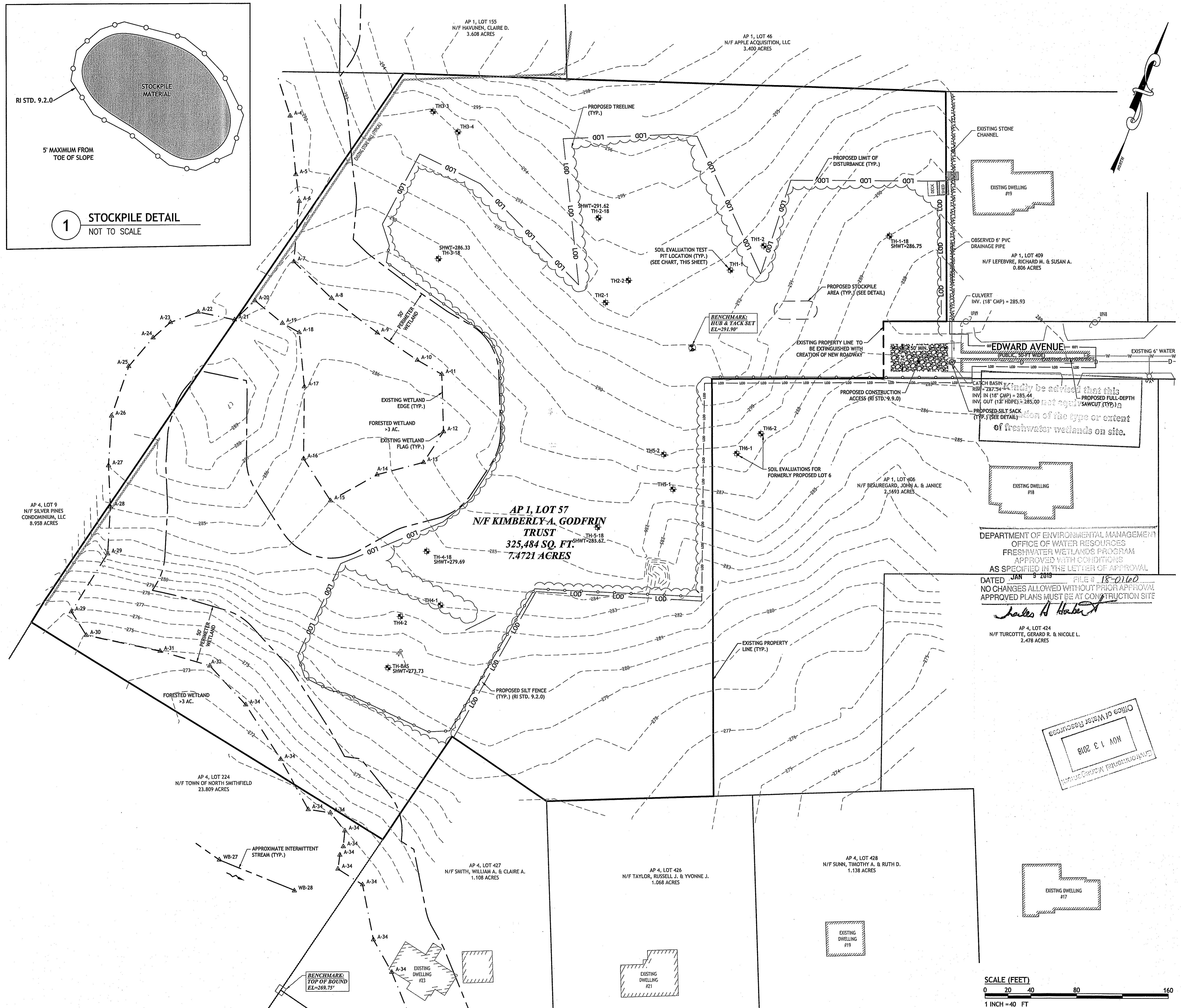
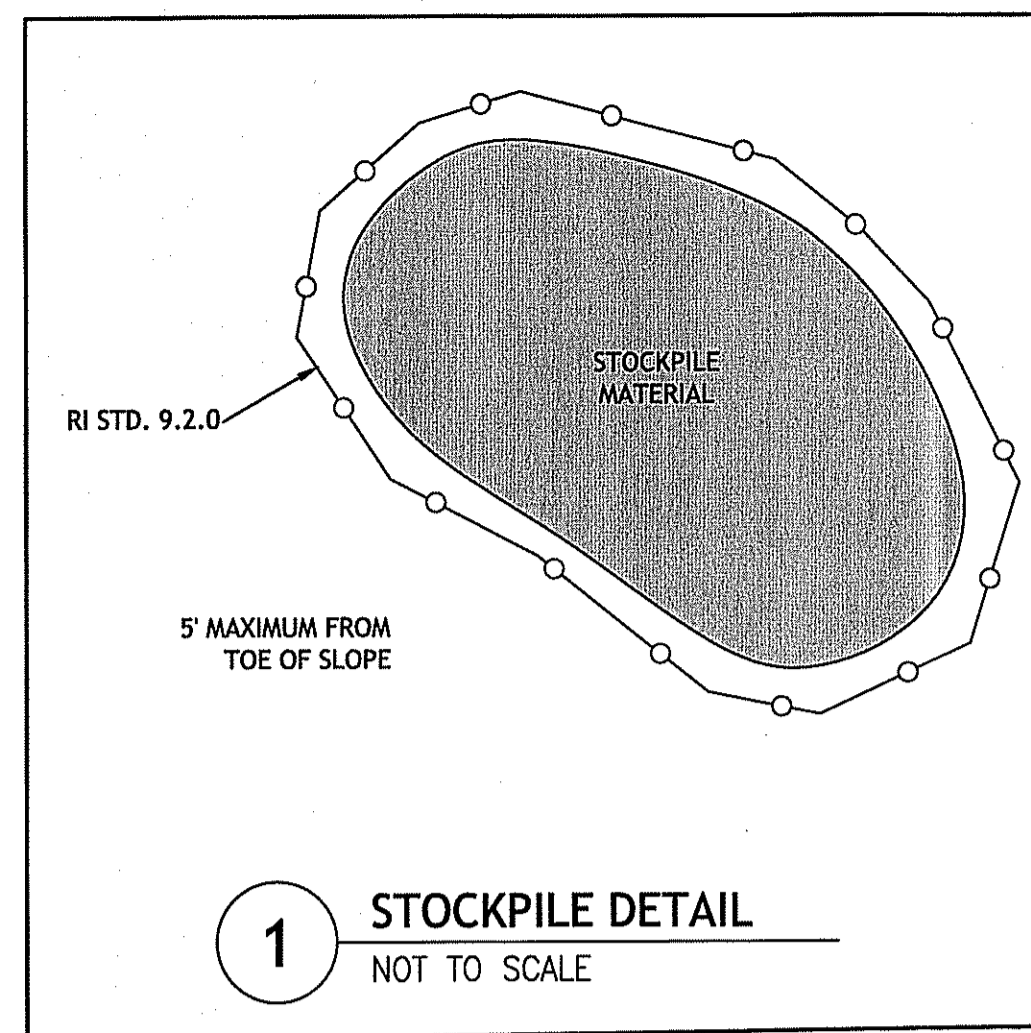
(1) PER ARTICLE 5.7.A.1 OF THE NORTH SMITHFIELD LAND DEVELOPMENT REGULATIONS, LOT FRONTAGE FOR LOTS LOCATED ENTIRELY ON CUL-DE-SACS MAY BE REDUCED BY 20%.
 (2) THE SUBJECT PROPERTY LIES WITHIN THE GROUNDWATER AQUIFER PROTECTION OVERLAY DISTRICT, AS DESCRIBED IN SECTION 6.19 OF THE NORTH SMITHFIELD ZONING ORDINANCE. THE MAXIMUM PERCENTAGE OF IMPERVIOUS AREA IN A RS-40 ZONE IS 15%.

SOIL EVALUATION TEST PIT DATA		
	SURFACE EL.	SHWT / EL.
TH1-1	292.68	33' / 289.93
TH1-2	292.44	31' / 289.86
TH2-1	293.57	34' / 209.73
TH2-2	293.61	31' / 291.02
TH3-3	292.87	36' / 289.87
TH3-4	293.03	40' / 291.00
TH4-1	283.09	40' / 279.75
TH4-2	281.81	44' / 278.14
TH5-1	286.70	47' / 282.78
TH5-2	289.12	48' / 285.12
TH6-1	288.62	33' / 285.87
TH6-2	288.31	31' / 285.73

NOTE: TEST PIT EVALUATIONS WERE CONDUCTED BY NATIONAL LAND SURVEYORS-DEVELOPERS, INC. IN JANUARY 2003. SOIL EVALUATIONS ARE AVAILABLE TO THE CONTRACTOR UPON REQUEST.

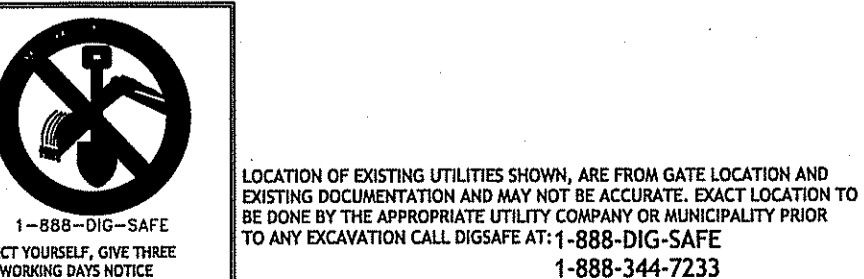
SOIL EVALUATION TEST PIT DATA		
	SURFACE EL.	SHWT / EL.
TH1-18	289.00	27' / 286.75
TH2-18	294.45	34' / 291.62
TH3-18	289.58	39' / 286.33
TH4-18	284.69	60' / 279.69
TH5-18	286.34	32' / 283.67
TH-BAS	279.56	70' / 273.73

NOTE: TEST PIT EVALUATIONS WERE CONDUCTED BY NATIONAL LAND SURVEYORS-DEVELOPERS, INC. IN SEPTEMBER 2018. SOIL EVALUATIONS ARE AVAILABLE TO THE CONTRACTOR UPON REQUEST.



Notes:
 INSTALL SILT SACK IN CATCH BASIN AT THE SOUTHEASTERN CORNER OF WASHINGTON AND DEAN STREET AND BOTH CATCH BASINS ALONG SERVICE ROAD 7 BEFORE COMMENCING WORK.
 GRATE TO BE PLACED OVER SILT SACK. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILT SACK SEDIMENT TRAP
 NOT TO SCALE



JOE CASALI ENGINEERING, INC.
 CIVIL, SITE DEVELOPMENT, TRANSPORTATION
 DRAINAGE, WETLANDS, I&DS, TRAFFIC, FLOODPLAIN
 300 POST ROAD, WARWICK, RI 02886
 (401) 944-1800

JOSEPH A. CASALI
 No. 7250
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 11.9.18

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JAN 9 2018 FILE # 18-0160
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
James H. Humber
 AP 4, LOT 424
 N/F TURCOTTE, GERARD R. & NICOLE L.
 2.478 ACRES

Office of Water Resources
 8/11/2018
 PRELIMINARY CHECKED FOR CONSTRUCTION

REVISIONS:

NO.	DATE	DESCRIPTION
1	11.8.2018	RIDEM RTC

DESIGNED BY: WMLR/SD
 DRAWN BY: SEP/SD
 CHECKED BY: JAC
 DATE: JUNE 2018
 PROJECT NO: 13-22c

PRELIMINARY, NOT FOR CONSTRUCTION

SITE PREPARATION PLAN

SHEET 3 OF 9

JOE CASALI ENGINEERING, INC.
 CIVIL, SITE DEVELOPMENT, TRANSPORTATION
 DRAINAGE, WETLANDS, I&DS, TRAFFIC, FLOODPLAIN
 300 POST ROAD, WARWICK, RI 02886
 (401) 944-1800

JOSEPH A. CASALI
 No. 7250
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 CIVIL
 11.9.18

PROPOSED MAJOR SUBDIVISION
EDWARD AVENUE
 NORTH SMITHFIELD, RHODE ISLAND
 AP 1, LOT 57

PRELIMINARY, NOT FOR CONSTRUCTION

SITE PREPARATION PLAN

SHEET 3 OF 9

SEWER NOTE:

1. THE PROPOSED SINGLE-FAMILY DWELLINGS ARE TO BE SERVICED BY MUNICIPAL SEWERS. CONSTRUCTION DOCUMENTS HAVE BEEN APPROVED FOR A SEWER MAIN EXTENSION UP EDWARD AVENUE AND PARKVIEW DRIVE. THE APPLICANT WILL COORDINATE WITH THE TOWN TO INSTALL THE PROPOSED SEWER MAINS WITHIN EDWARD AVENUE IN CONJUNCTION WITH THE TOWN SEWER MAIN EXTENSION PROJECT. CONSTRUCTION DOCUMENTS WERE APPROVED UNDER RIDEM APPLICATION NO. 17-0307. CONSTRUCTION IS SCHEDULED TO COMMENCE IN JUNE 2018.

RS-40 ZONE DIMENSIONAL REGULATIONS

ZONING CRITERIA	REQUIRED	EXISTING	PROPOSED				
			LOT 1	LOT 2	LOT 3	LOT 4	LOT 5
ZONING DISTRICT	RS-40	RS-40	RS-40	RS-40	RS-40	RS-40	RS-40
MINIMUM LOT AREA	40,000 SF	325,484 SF	40,026 SF	40,068 SF	48,794 SF	119,870 SF	53,199 SF
MINIMUM LOT FRONTAGE ⁽¹⁾	150 FT	NA	150 FT	150 FT	120 FT ⁽¹⁾	120 FT ⁽¹⁾	123 FT ⁽¹⁾
MINIMUM FRONT YARD SETBACK	30 FT	NA	>30 FT	>30 FT	>30 FT	>30 FT	>30 FT
MINIMUM SIDE YARD SETBACK	25 FT	NA	>25 FT	>25 FT	>25 FT	>25 FT	>25 FT
MINIMUM REAR YARD SETBACK	40 FT	NA	>40 FT	>40 FT	>40 FT	>40 FT	>40 FT
MAXIMUM BUILDING COVERAGE	20 %	0 %	3 %	3 %	3 %	1 %	2 %
MAXIMUM STRUCTURE HEIGHT	30 FT	NA	<30 FT	<30 FT	<30 FT	<30 FT	<30 FT
MAXIMUM IMPERVIOUS AREA ⁽²⁾	15 %	0 %	6 %	6 %	5 %	2 %	5 %

(1) PER ARTICLE 5.7.A.1 OF THE NORTH SMITHFIELD LAND DEVELOPMENT REGULATIONS, LOT FRONTAGE FOR LOTS LOCATED ENTIRELY ON CUL-DE-SACS MAY BE REDUCED BY 20%.
 (2) THE SUBJECT PROPERTY LIES WITHIN THE GROUNDWATER AQUIFER PROTECTION OVERLAY DISTRICT. AS DESCRIBED IN SECTION 6.19 OF THE NORTH SMITHFIELD ZONING ORDINANCE, THE MAXIMUM PERCENTAGE OF IMPERVIOUS AREA IN A RS-40 ZONE IS 15%.

NORTH SMITHFIELD LAND DEVELOPMENT AND SUBDIVISION REGULATIONS

ARTICLE 5.7.A.3.G: MINOR RESIDENTIAL STREETS SHALL HAVE A PAVED WIDTH OF THIRTY (30) FEET

WAIVER GRANTED AT MASTER PLAN TO ALLOW A PROPOSED PAVED ROADWAY WIDTH OF 24-FEET (TO MATCH EXISTING EDWARD AVENUE PAVEMENT WIDTH).

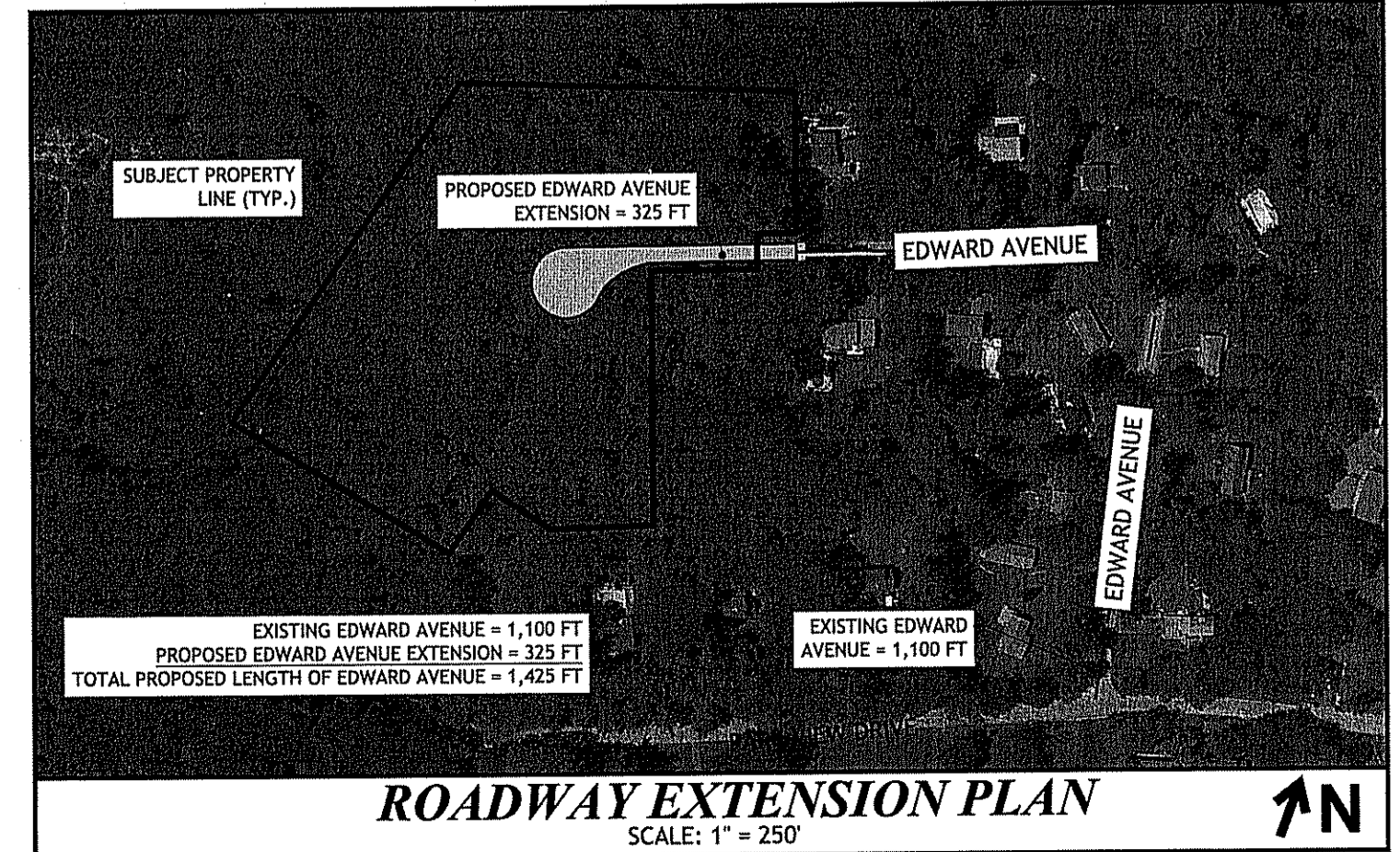
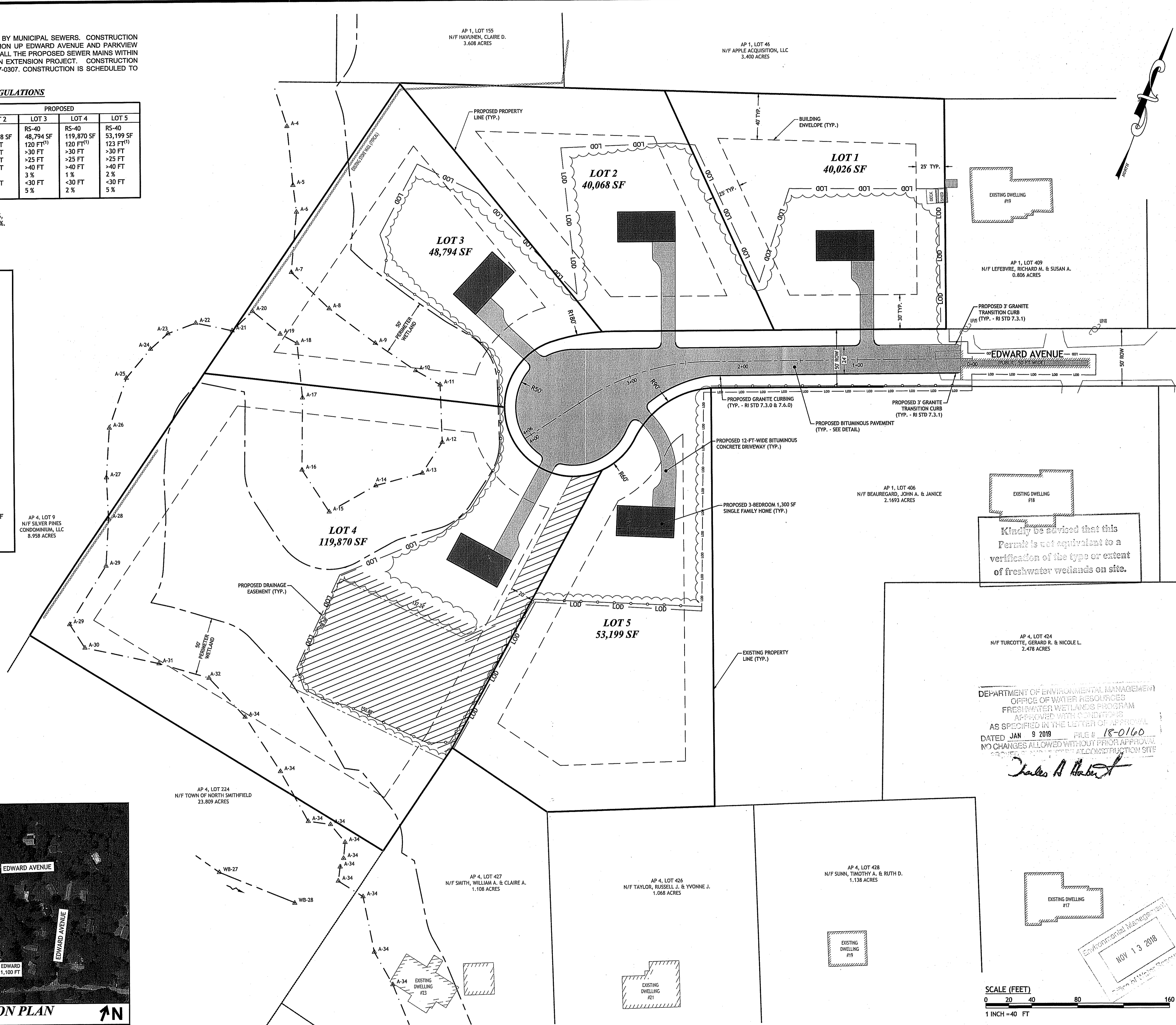
ARTICLE 5.7.A.3.J: DEAD END STREETS SHALL NOT BE MORE THAN 600 FEET IN LENGTH FROM THE CENTER OF THE TURN-AROUND TO THE CENTERLINE OF THE INTERSECTING STREET.

WAIVER GRANTED AT MASTER PLAN TO ALLOW A DEAD END STREET 1,425 FEET IN LENGTH (EXISTING LENGTH OF 1,100 FEET).

ARTICLE 5.7.B: SIDEWALKS ARE REQUIRED ON ONE SIDE OF A STREET IN ALL ZONES UNLESS WAIVED BY THE BOARD IN CONSIDERATION OF THE FOLLOWING:

- DEVELOPMENT INTENSITY,
- PROBABILITY OF PEDESTRIAN TRAFFIC,
- PROXIMITY TO PUBLIC FACILITIES AND SERVICE AREAS,
- DEAD-END STREETS 600-FEET LONG,
- EXTENSIONS OF EXISTING STREETS WITHOUT SIDEWALKS,
- LOTS ZONED FOR 40,000 SF OR GREATER, OR,
- SUBDIVISIONS OF 6 LOTS OR LESS.

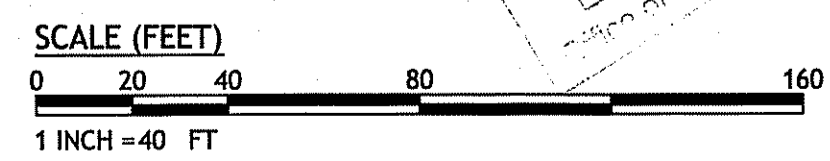
WAIVER GRANTED AT MASTER PLAN TO NOT REQUIRE THE INSTALLATION OF SIDEWALKS (TO MATCH THE EXISTING EDWARD AVENUE ROADWAY CONDITIONS).



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JAN 9 2019 FILE # 18-0160
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 JAMES A. HUBERT

Environmental Management
 NOV 13 2018



JCE
 JOE CASALI ENGINEERING, INC.
 CIVIL - SITE DEVELOPMENT - TRANSPORTATION
 DRAINAGE - WETLANDS - IBCS - TRAFFIC - P & ID
 (401) 844-1300 (401) 844-1313 FAX WWW.JCE-CA.COM

JOSEPH A. CASALI
 No. 7250
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 11.9.18

PROPOSED MAJOR SUBDIVISION
EDWARD AVENUE
 NORTH SMITHFIELD, RHODE ISLAND
 AP 1, LOT 57

REVISIONS:

NO.	DATE	DESCRIPTION
1	11.8.2018	RIDEM RTC

DESIGNED BY: WML/RSD
 DRAWN BY: SEP/SD
 CHECKED BY: JAC
 DATE: JUNE 2018
 PROJECT NO: 13-22c

PRELIMINARY, NOT FOR CONSTRUCTION

SITE PLAN

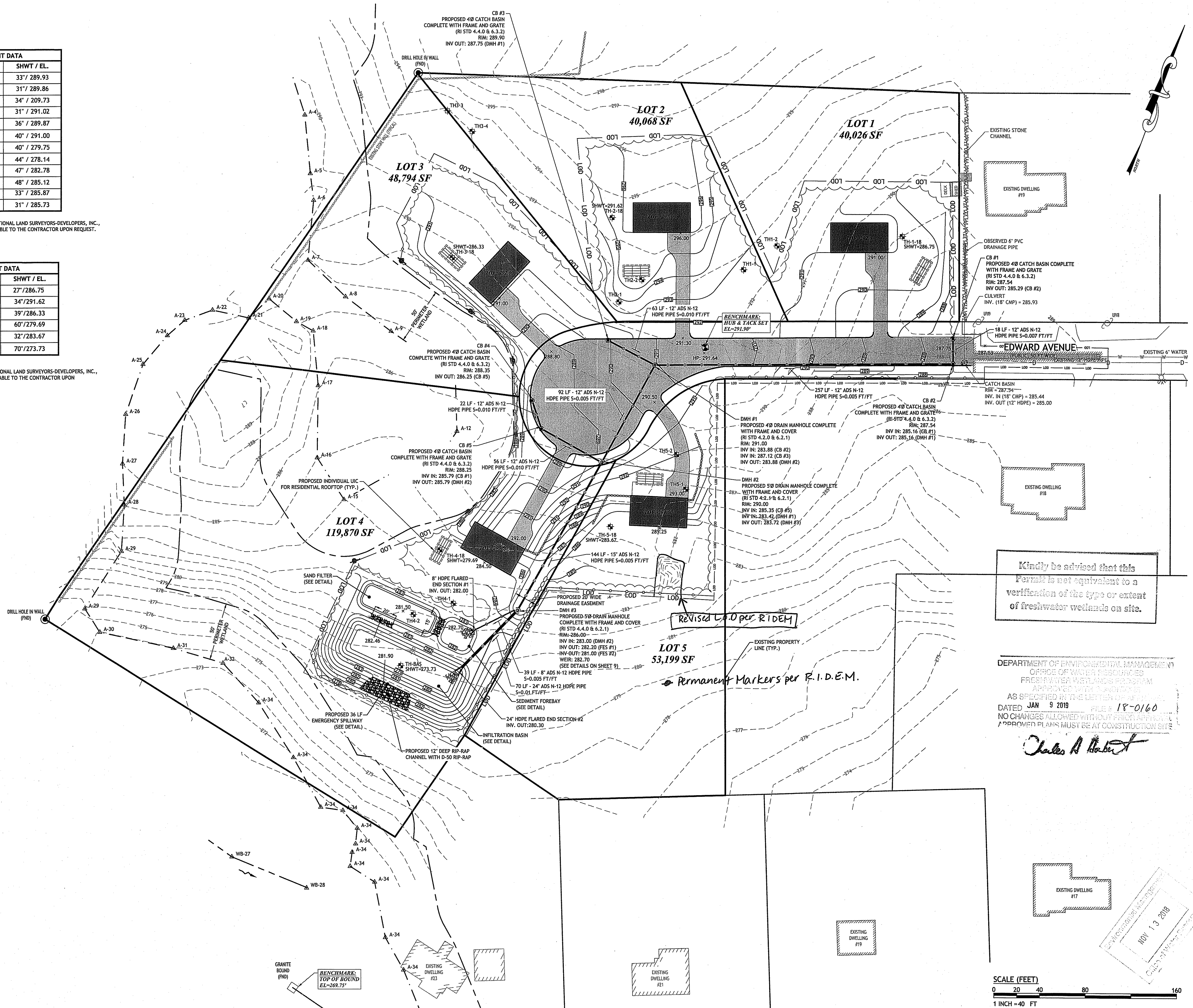
SHEET 4 OF 9

SOIL EVALUATION TEST PIT DATA		
	SURFACE EL.	SHWT / EL.
TH1-1	292.68	33" / 289.93
TH1-2	292.44	31" / 289.86
TH2-1	293.57	34" / 209.73
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NOTE:
TEST PIT EVALUATIONS WERE CONDUCTED BY NATIONAL LAND SURVEYORS-DEVELOPERS, INC.,
IN JANUARY 2003. SOIL EVALUATIONS ARE AVAILABLE TO THE CONTRACTOR UPON REQUEST.

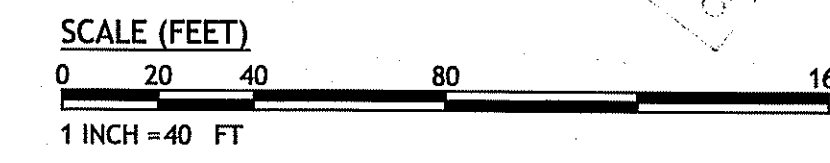
SOIL EVALUATION TEST PIT DATA		
	SURFACE EL.	SHWT / EL.
TH1-18	289.00	27" / 286.75
TH2-18	294.45	34" / 291.62
TH3-18	289.98	39" / 286.33
TH4-18	284.69	60" / 279.69
TH5-18	286.34	32" / 283.67
TH-BAS	279.56	70" / 273.73

NOTE:
TEST PIT EVALUATIONS WERE CONDUCTED BY NATIONAL LAND SURVEYORS-DEVELOPERS, INC.,
IN SEPTEMBER 2018. SOIL EVALUATIONS ARE AVAILABLE TO THE CONTRACTOR UPON REQUEST.



Kindly be advised that this
Permit is not equivalent to a
verification of the type or extent
of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 9 2019 FILE # 18-0160
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Habet



JOE
JOE CASALI ENGINEERING, INC.
CIVIL, SITE DEVELOPMENT, TRANSPORTATION,
DRAINAGE, WETLANDS, ISDS, TRAFFIC, FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401) 944-1300 (401) 944-1313 FAX WWW.JOECA.SALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
11.9.18

PROPOSED MAJOR SUBDIVISION
EDWARD AVENUE
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 5

REVISIONS:

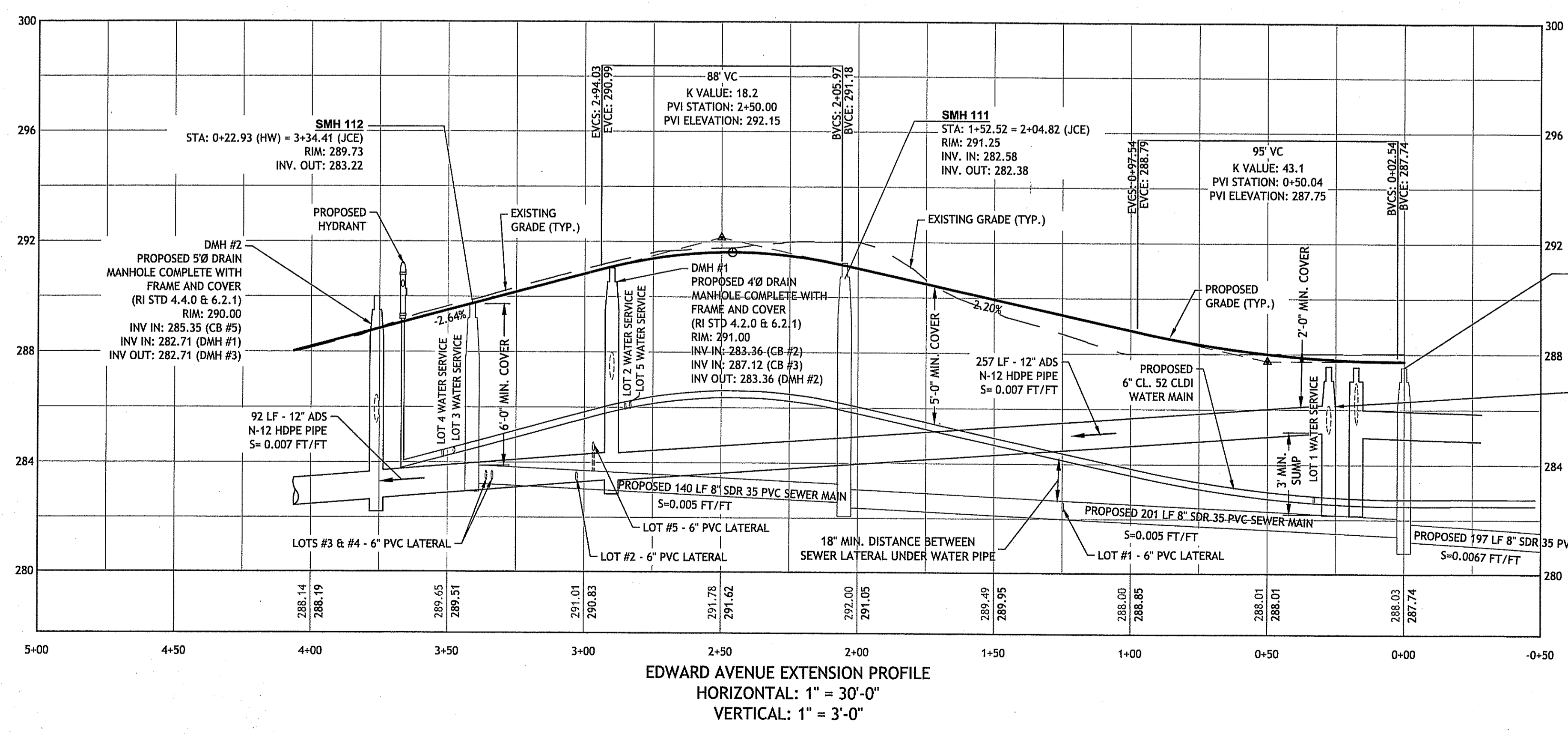
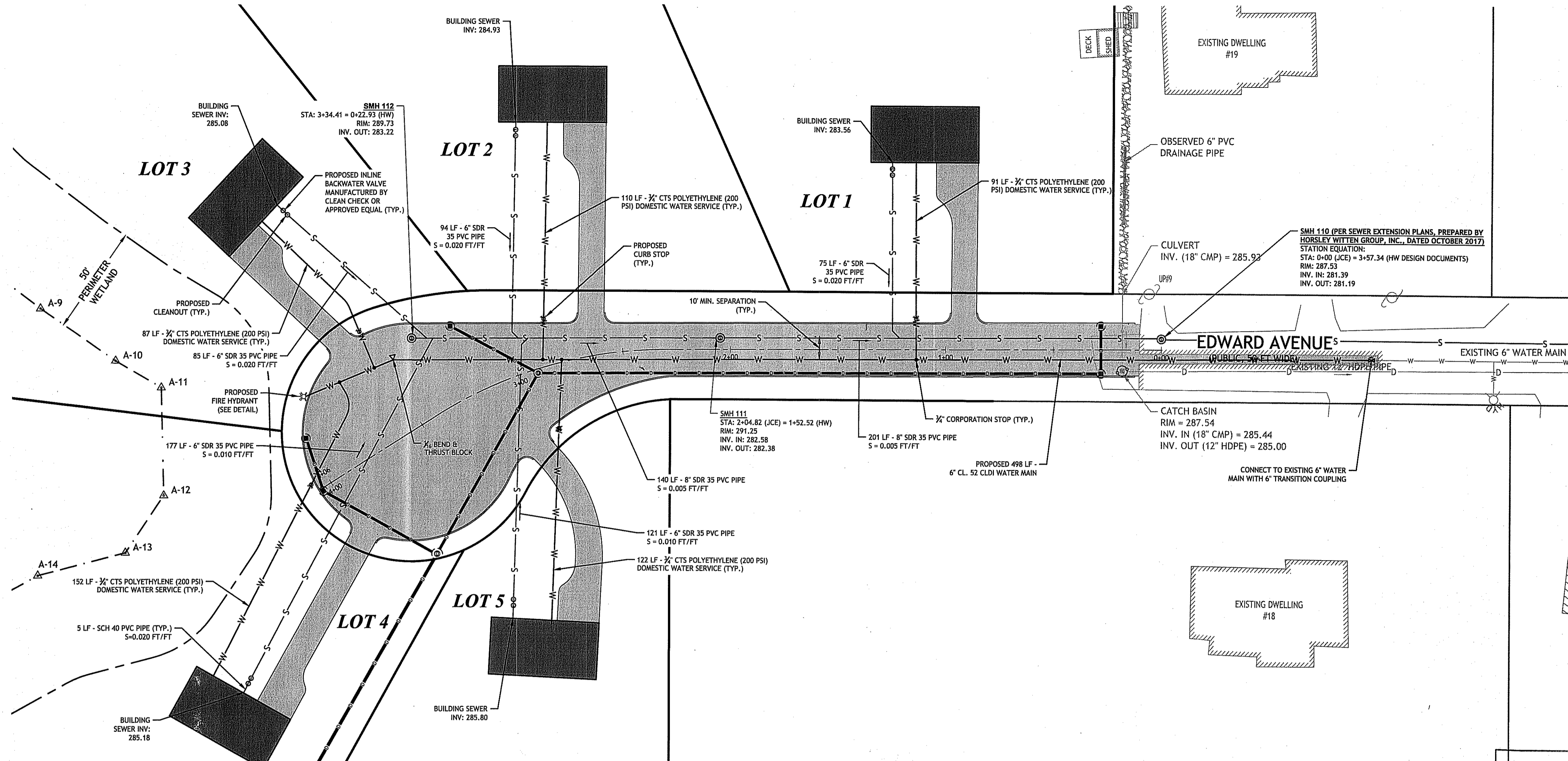
NO.	DATE	DESCRIPTION
1	11.8.2018	RIDEM RTC

DESIGNED BY: WML/JR/SD
DRAWN BY: SEP/SD
CHECKED BY: JAC
DATE: JUNE 2018
PROJECT NO: 13-22c

PRELIMINARY, NOT FOR CONSTRUCTION

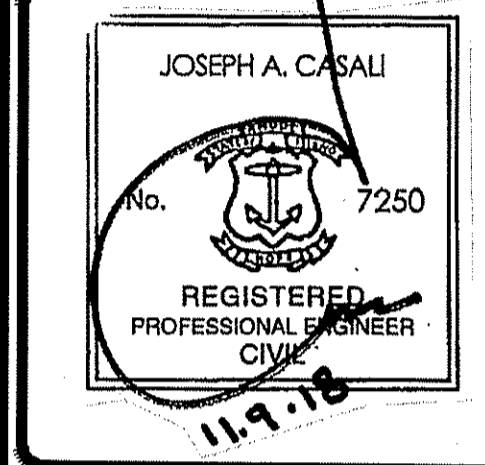
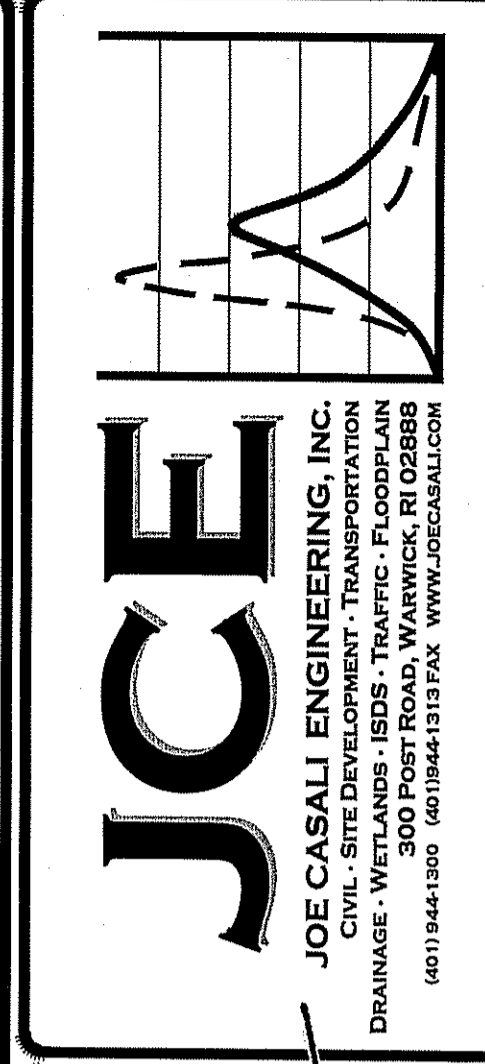
GRADING & DRAINAGE PLAN

SHEET 5 OF 9



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF PERMITTING AND REGULATORY SERVICES
 FROM WATER RESOURCES DIVISION
 AS SPECIFIED BY THE PERMIT
 DATED JAN 9 2019 FILE 18-0160
 NO CHANGES ALLOWED WITHOUT THE APPROVED PLANS MUST BE AT ALL TIMES
Charles A. Haber



PROPOSED MAJOR SUBDIVISION
EDWARD AVENUE
 NORTH SMITHFIELD, RHODE ISLAND
 AP 1, LOT 57

REVISIONS:

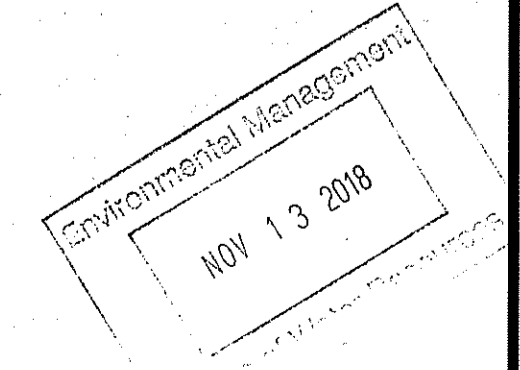
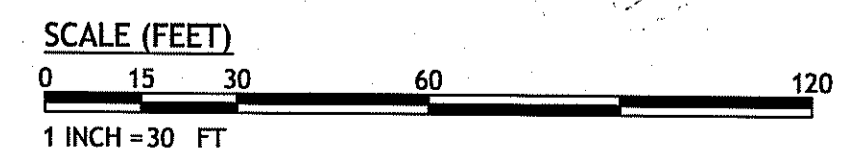
NO.	DATE	DESCRIPTION
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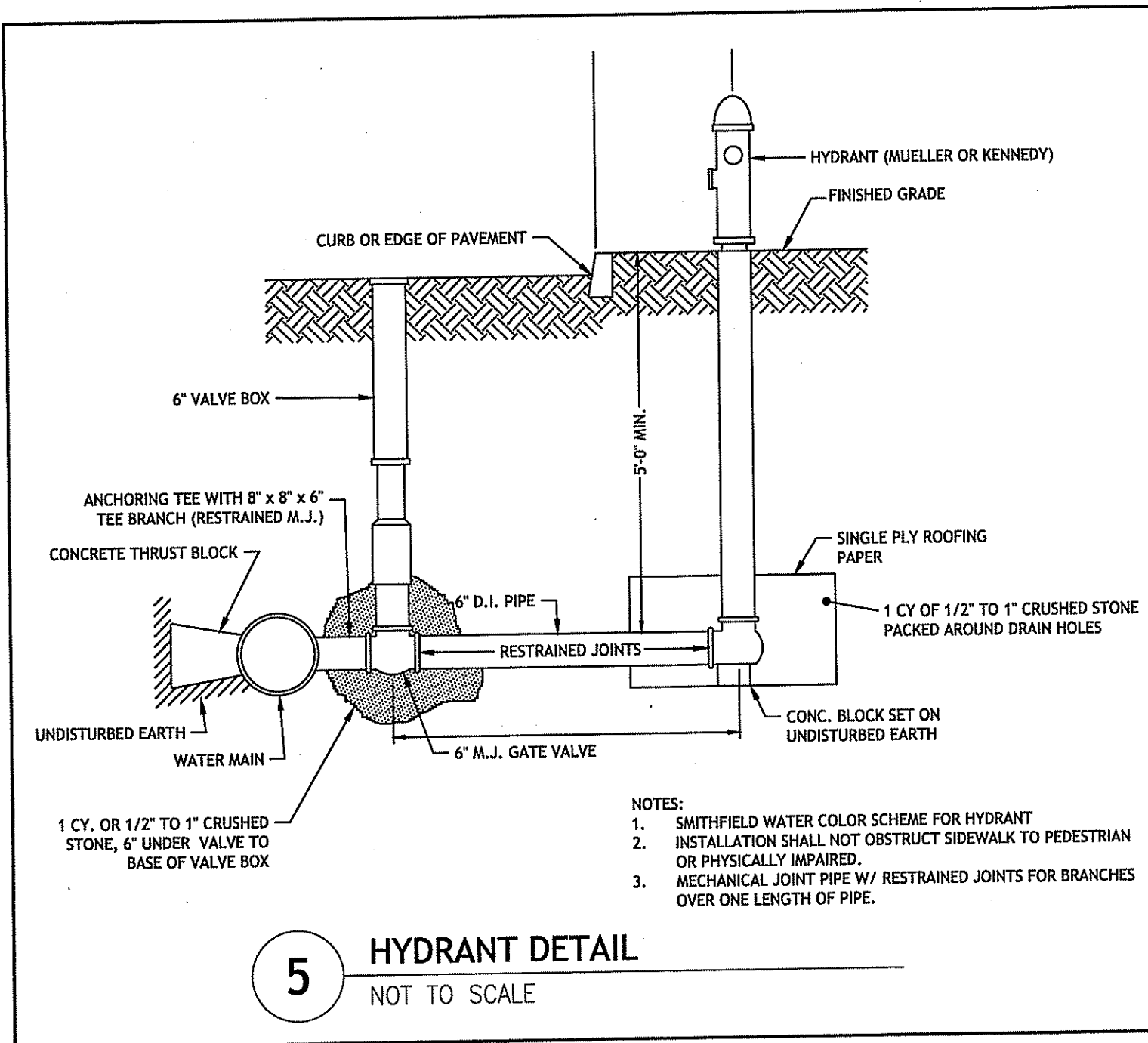
DESIGNED BY: WML/JRS/D
 DRAWN BY: SEP/SD
 CHECKED BY: JAC
 DATE: JUNE 2018
 PROJECT NO: 13-22c

PRELIMINARY, NOT FOR CONSTRUCTION

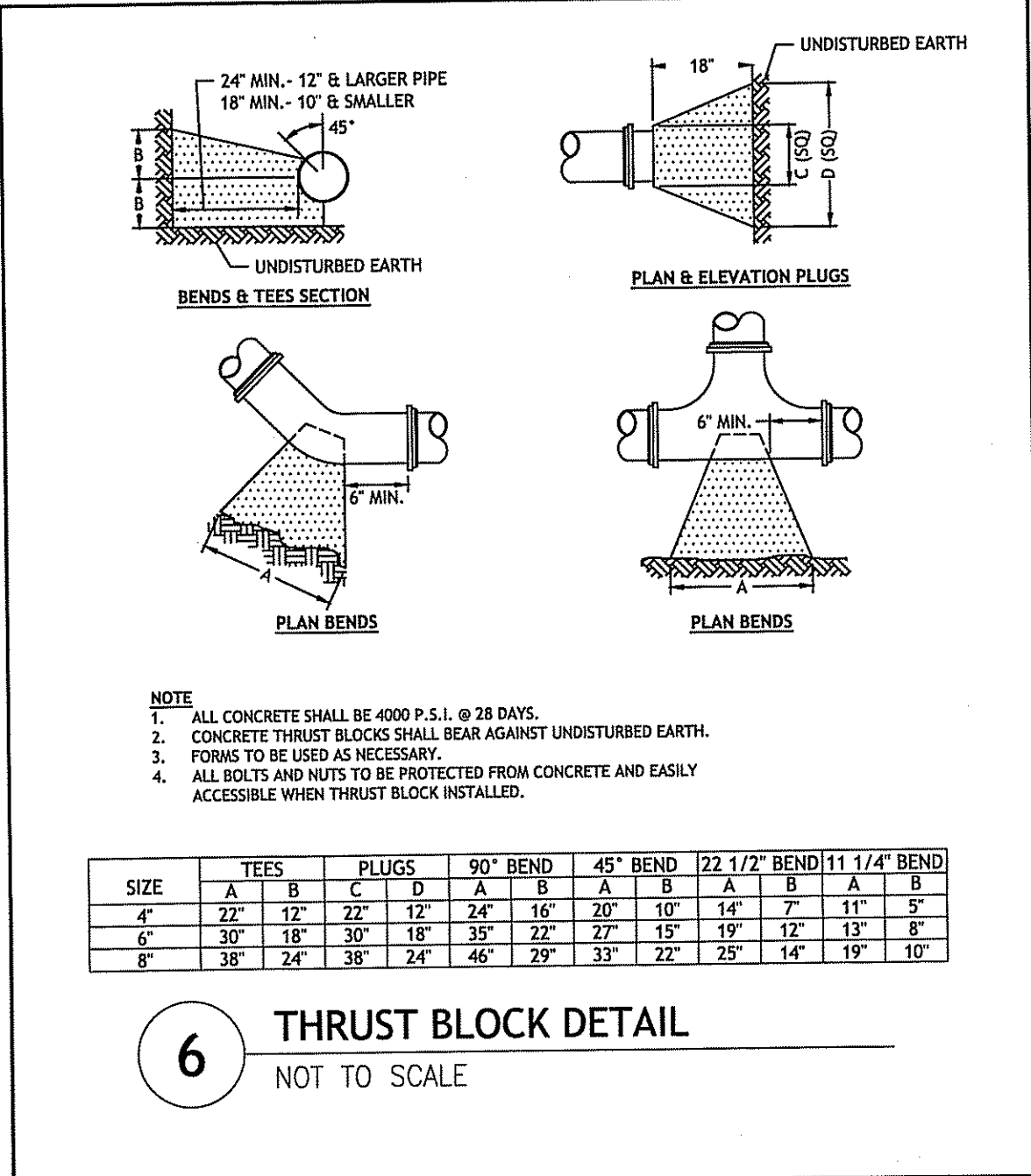
UTILITY PLAN & PROFILE

SHEET 6 OF 9

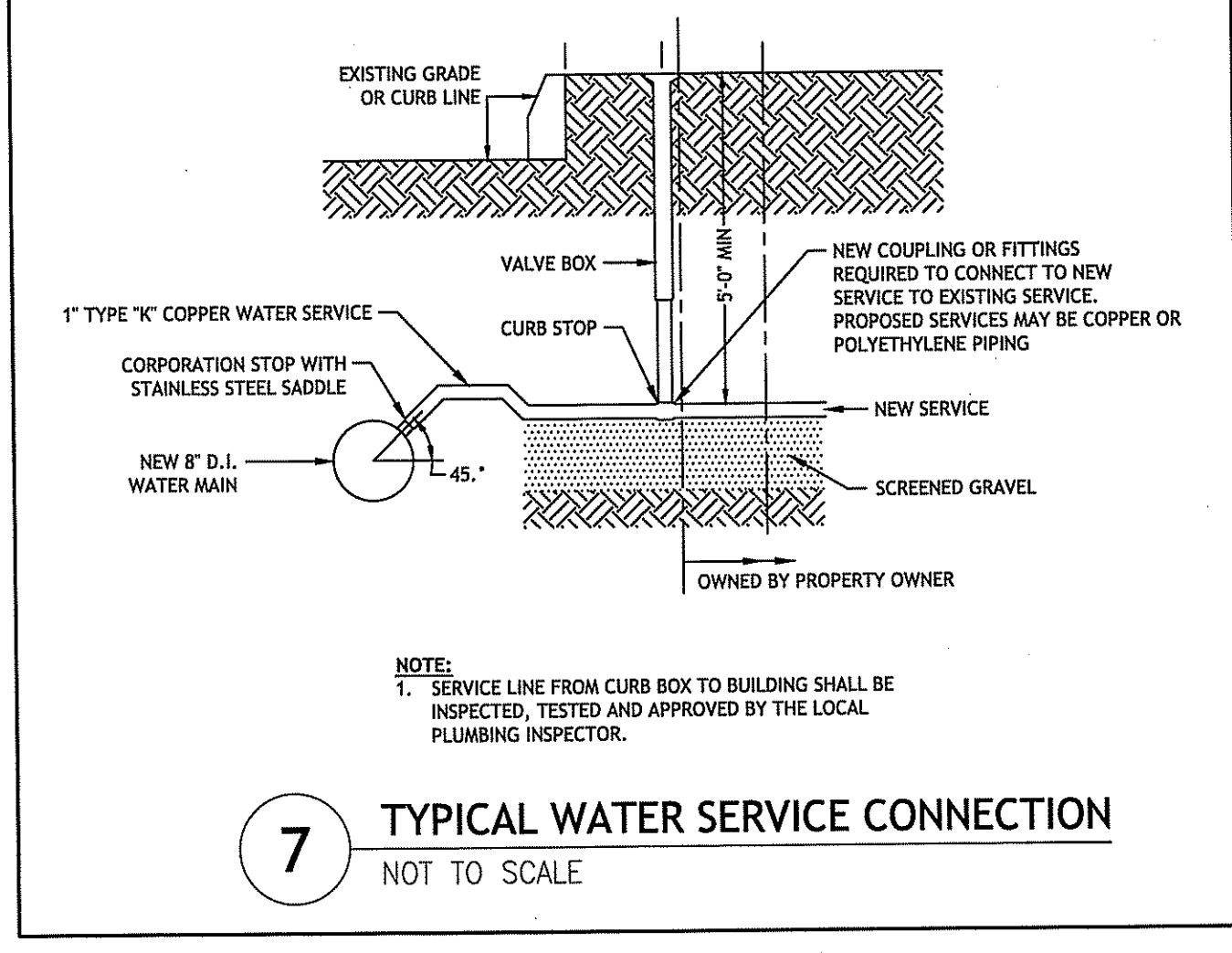




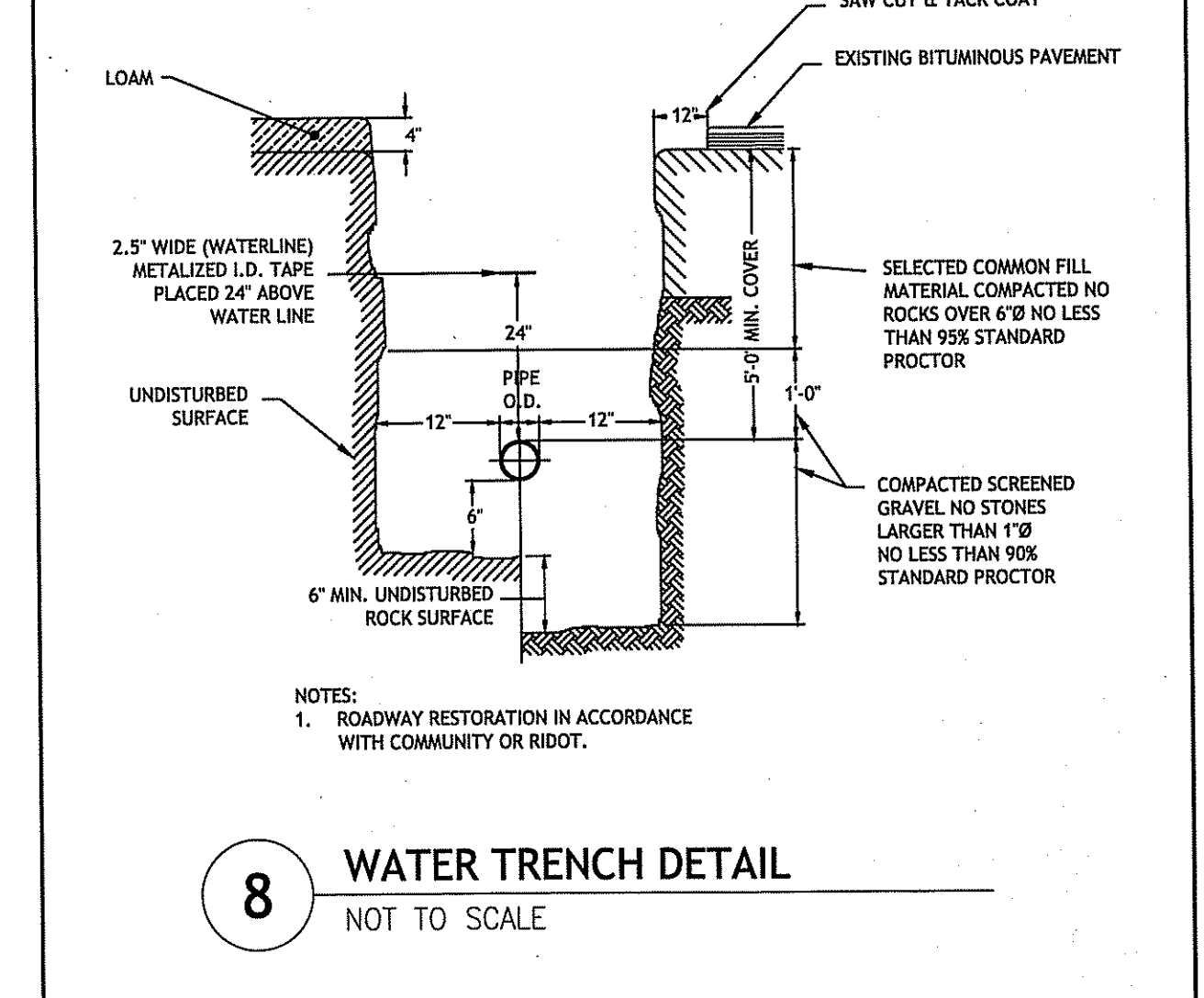
5 HYDRANT DETAIL
NOT TO SCALE



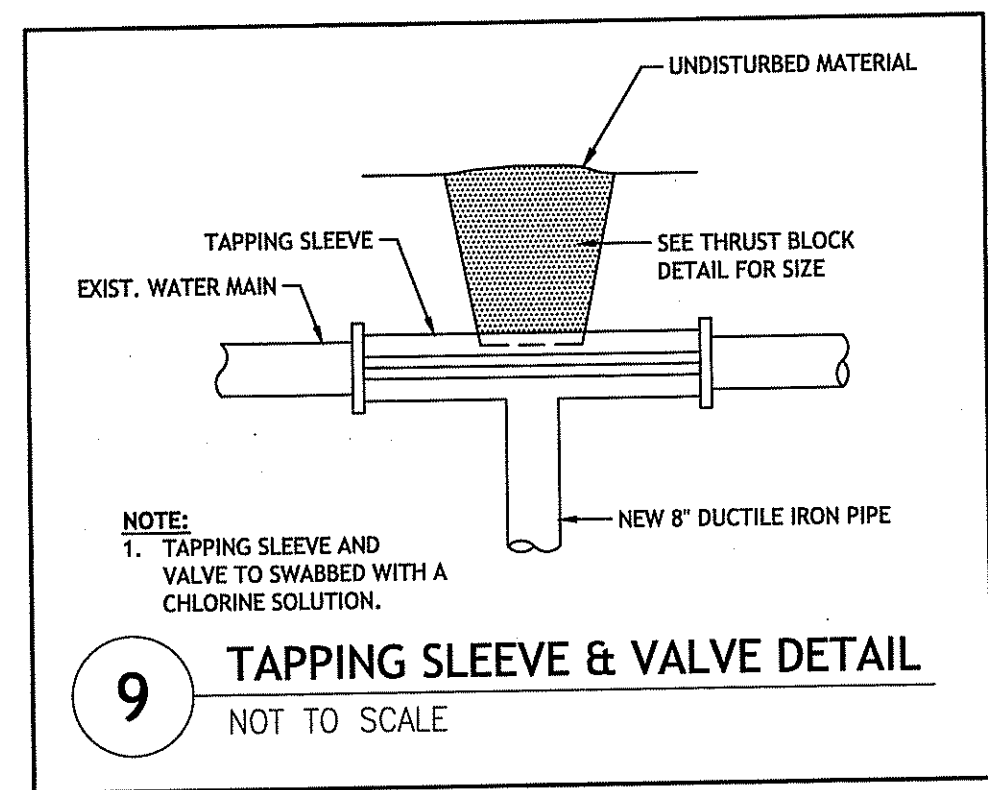
6 THRUST BLOCK DETAIL
NOT TO SCALE



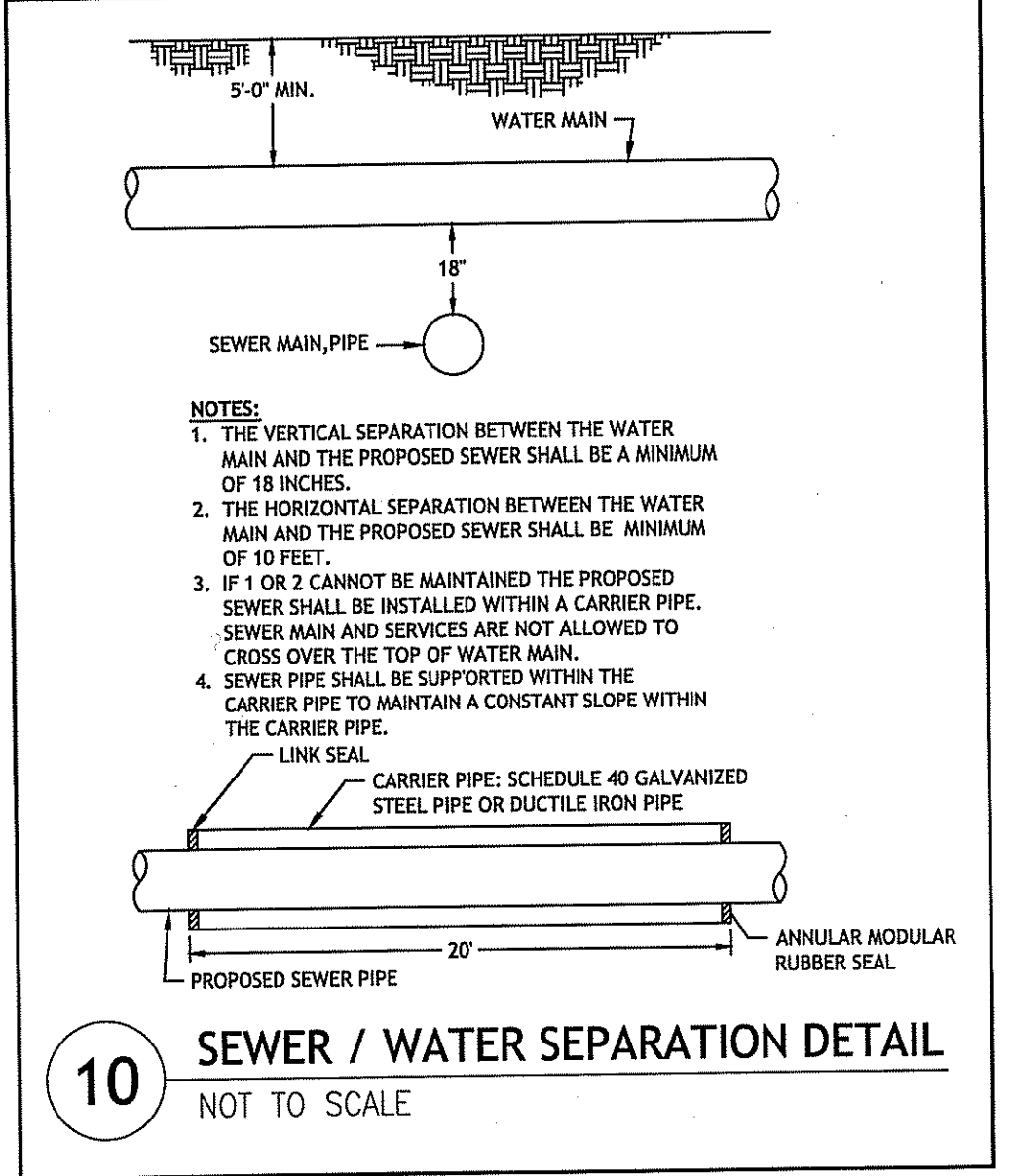
7 TYPICAL WATER SERVICE CONNECTION
NOT TO SCALE



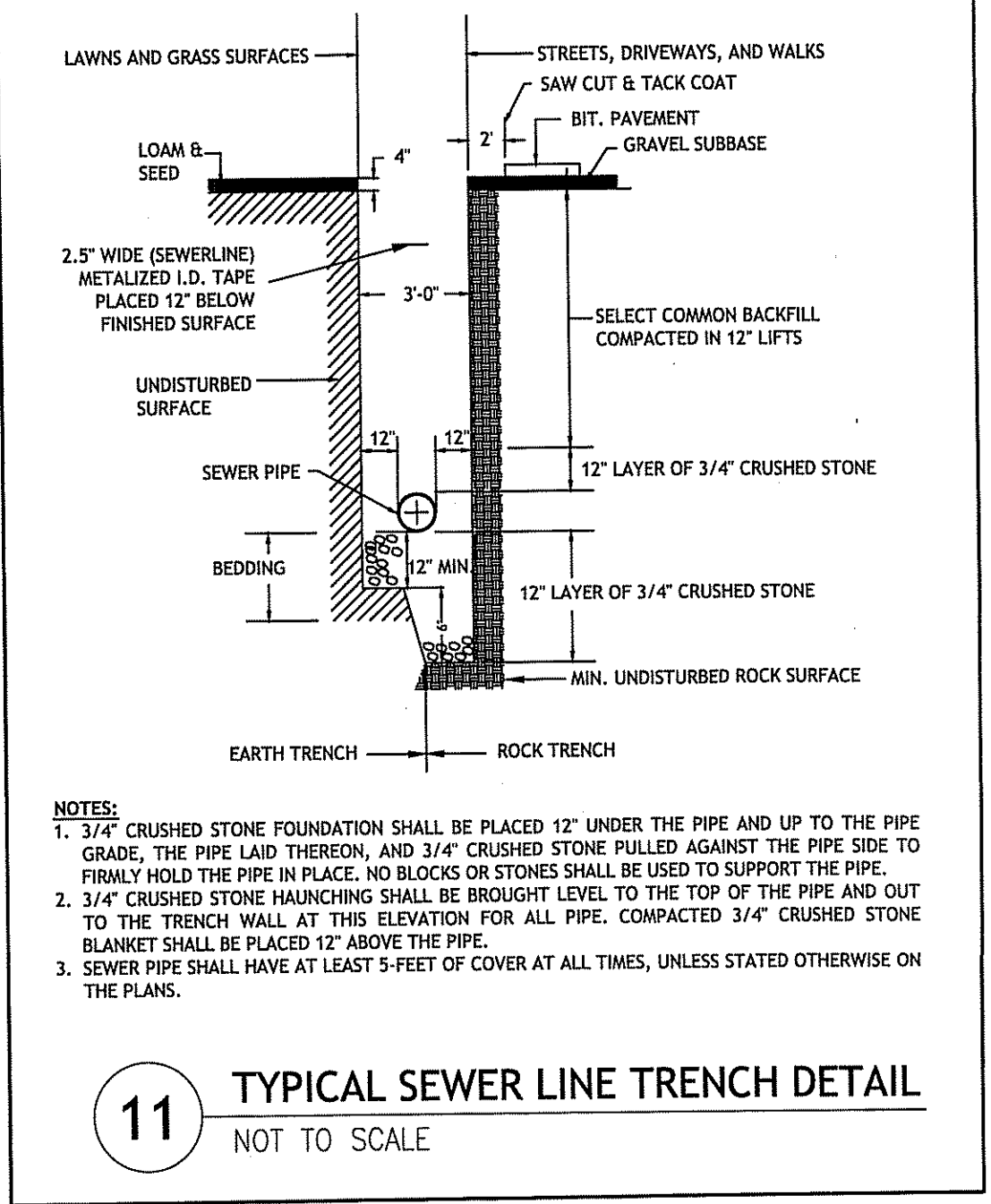
8 WATER TRENCH DETAIL
NOT TO SCALE



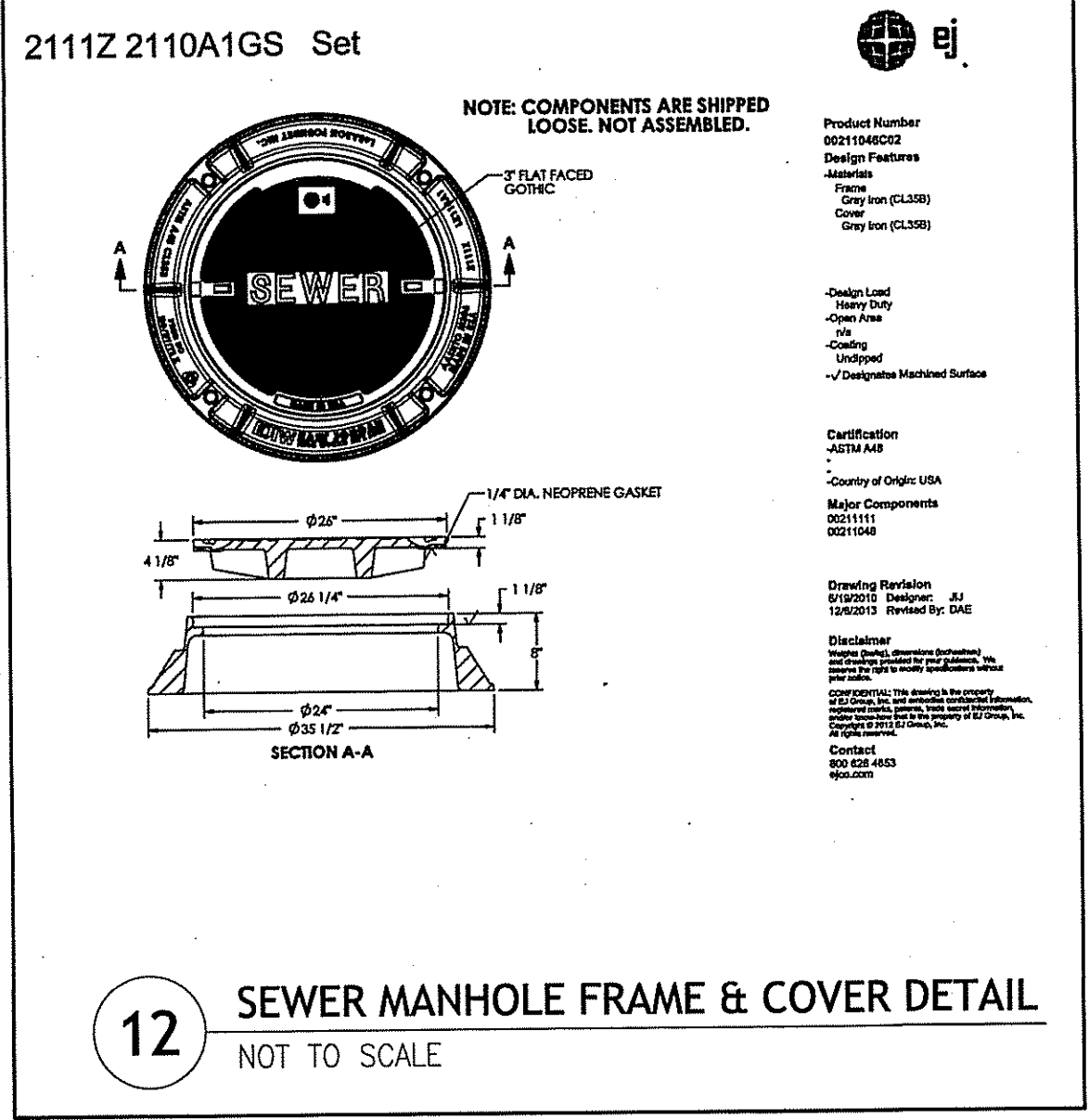
9 TAPPING SLEEVE & VALVE DETAIL
NOT TO SCALE



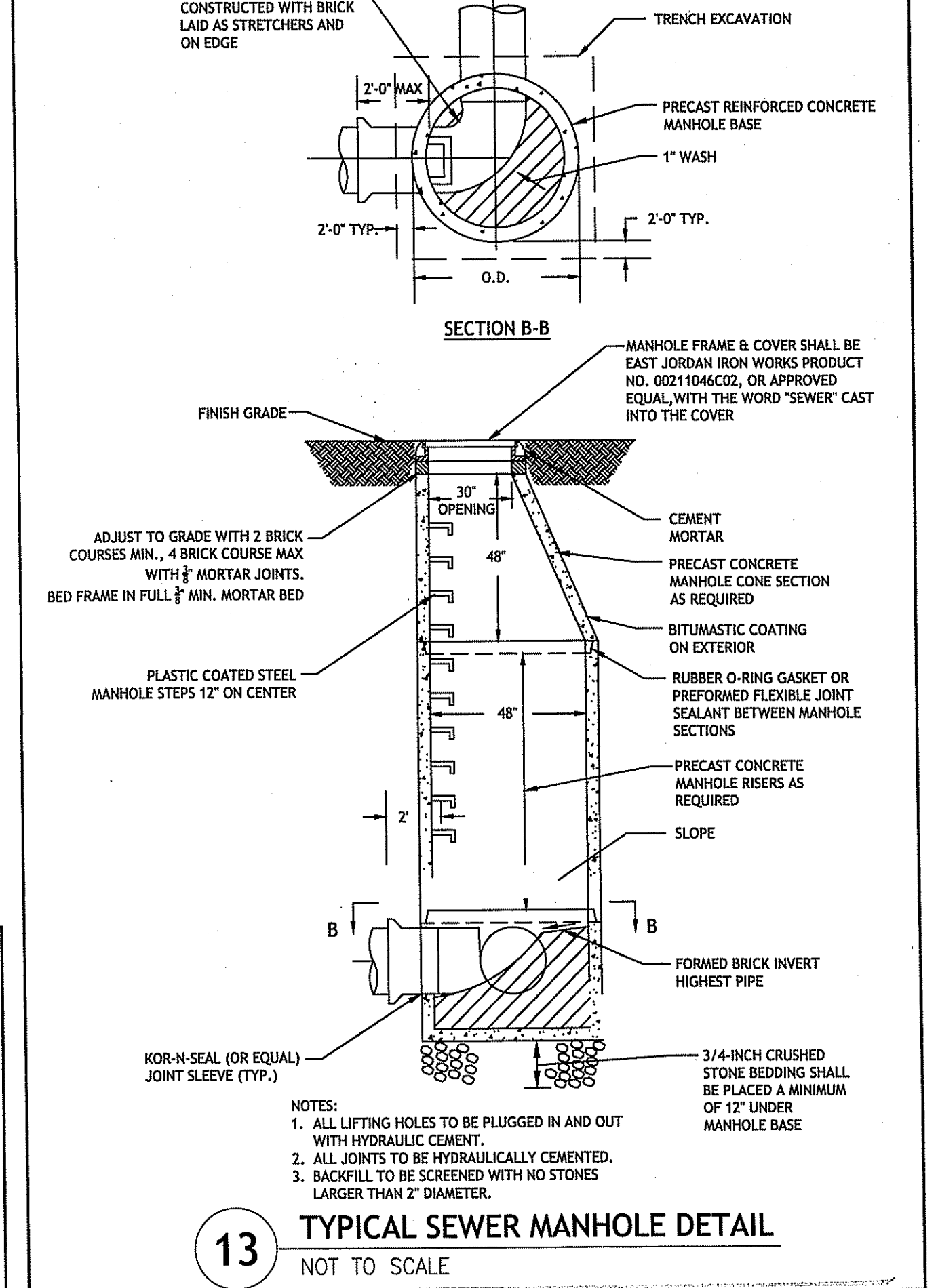
10 SEWER / WATER SEPARATION DETAIL
NOT TO SCALE



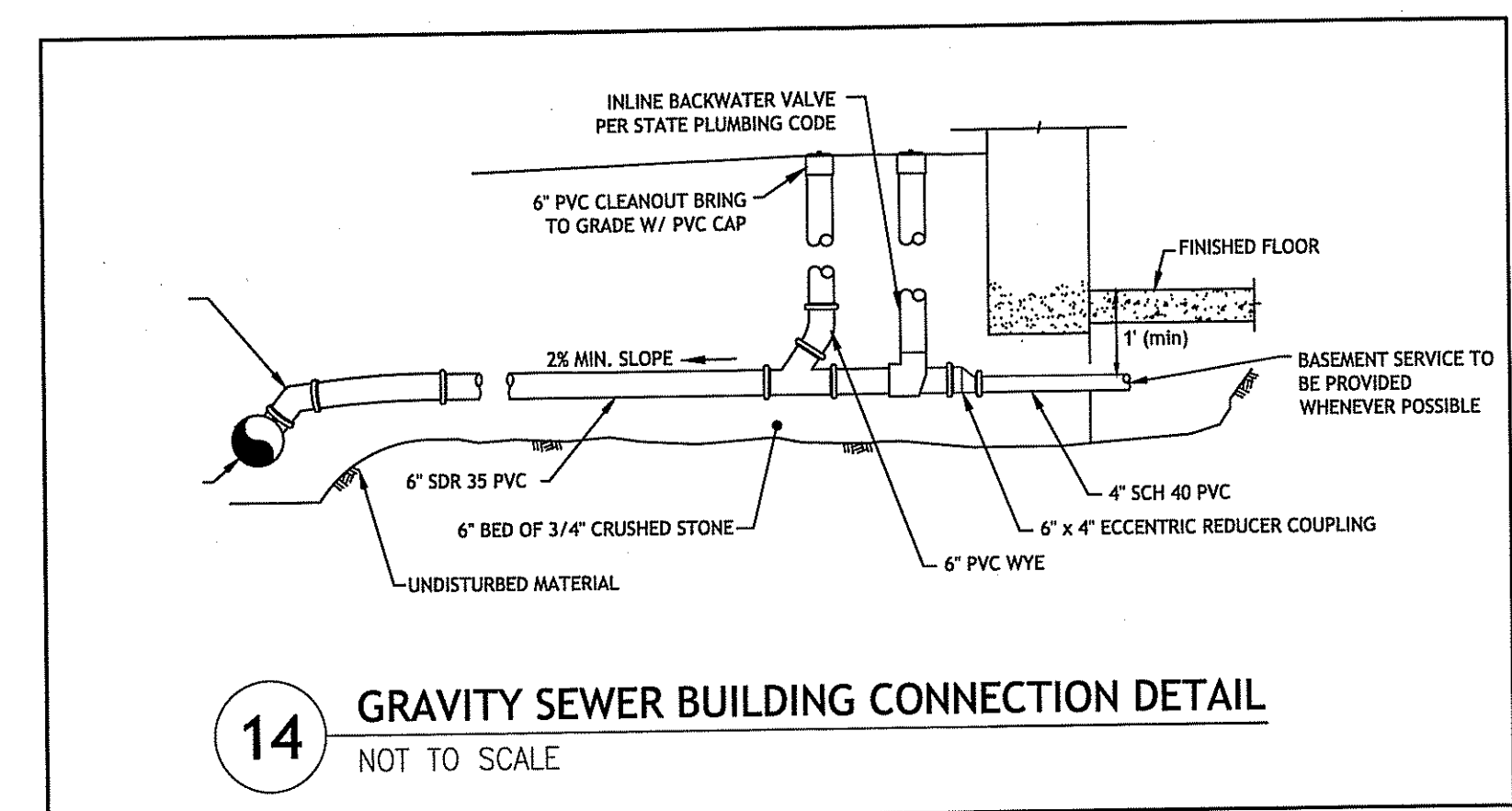
11 TYPICAL SEWER LINE TRENCH DETAIL
NOT TO SCALE



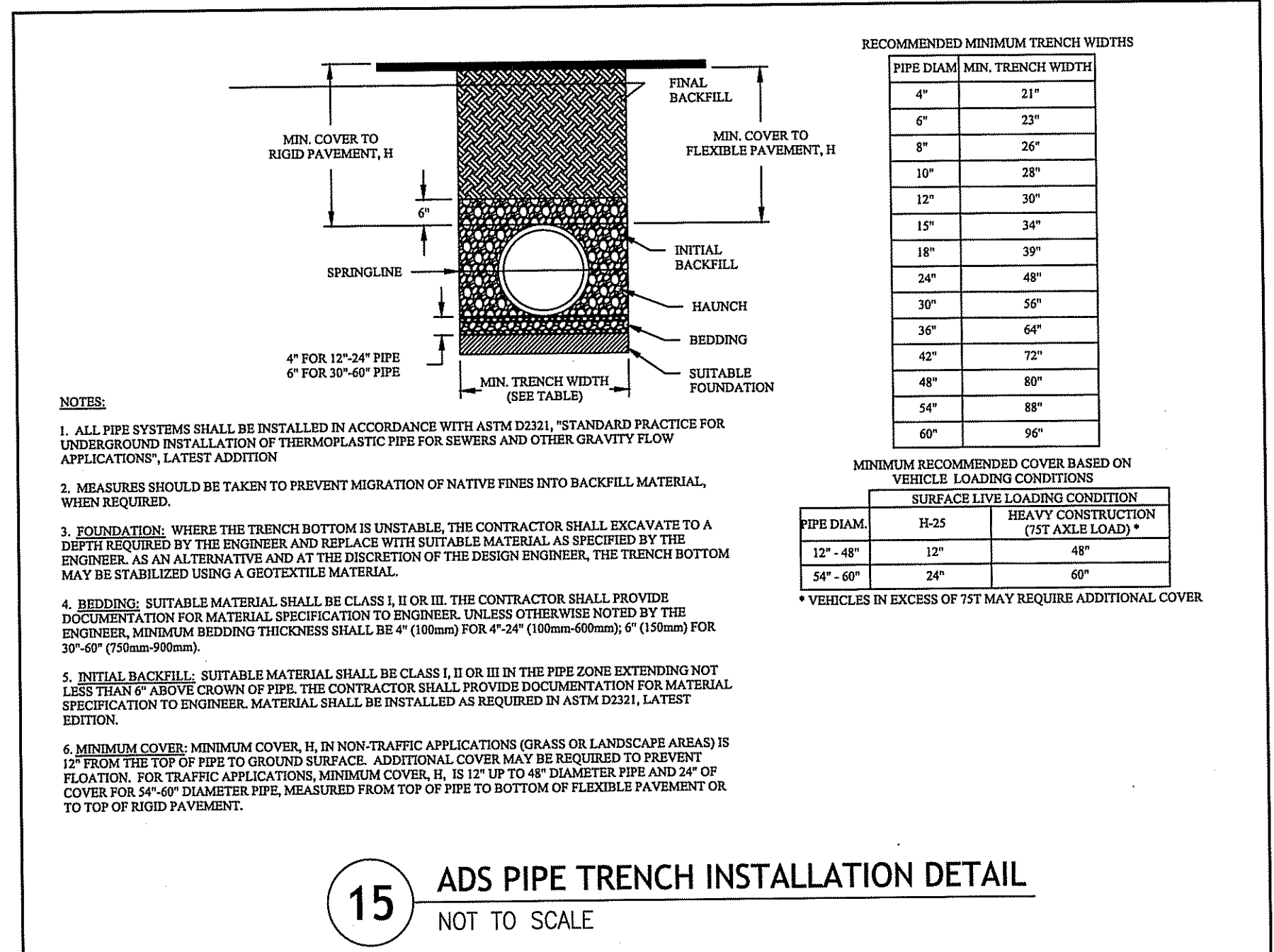
12 SEWER MANHOLE FRAME & COVER DETAIL
NOT TO SCALE



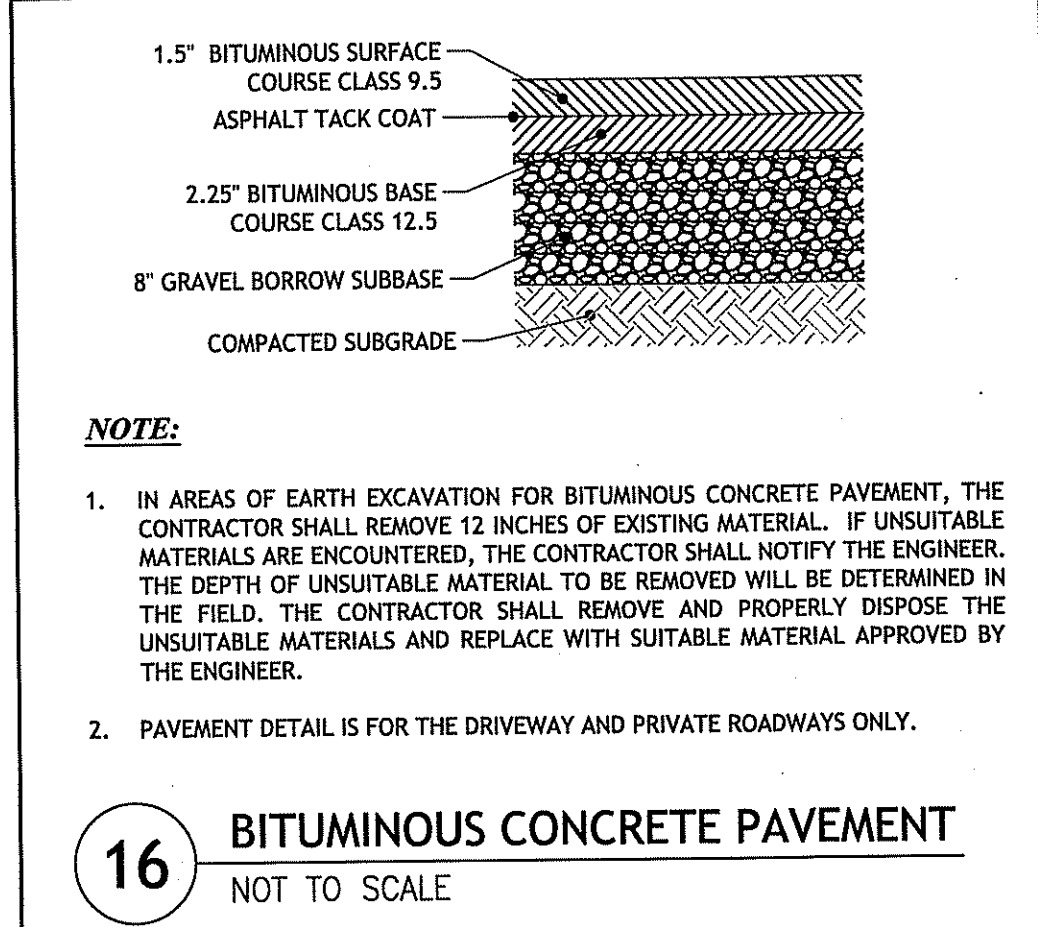
13 TYPICAL SEWER MANHOLE DETAIL
NOT TO SCALE



14 GRAVITY SEWER BUILDING CONNECTION DETAIL
NOT TO SCALE



15 ADS PIPE TRENCH INSTALLATION DETAIL
NOT TO SCALE



16 BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE

JOE CASALI ENGINEERING, INC.
CIVIL - SITE DEVELOPMENT - TRANSPORTATION
DRAINAGE - WETLANDS - IBDS - TRAFFIC - FLOODPLAIN
300 POST ROAD, WARWICK, RI 02886
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11.9.18

PROPOSED MAJOR SUBDIVISION
EDWARD AVENUE
NORTH SMITHFIELD, RHODE ISLAND
AP 1, LOT 57

REVISIONS:
NO. DATE DESCRIPTION
1 11.8.2018 RIDEM RTC

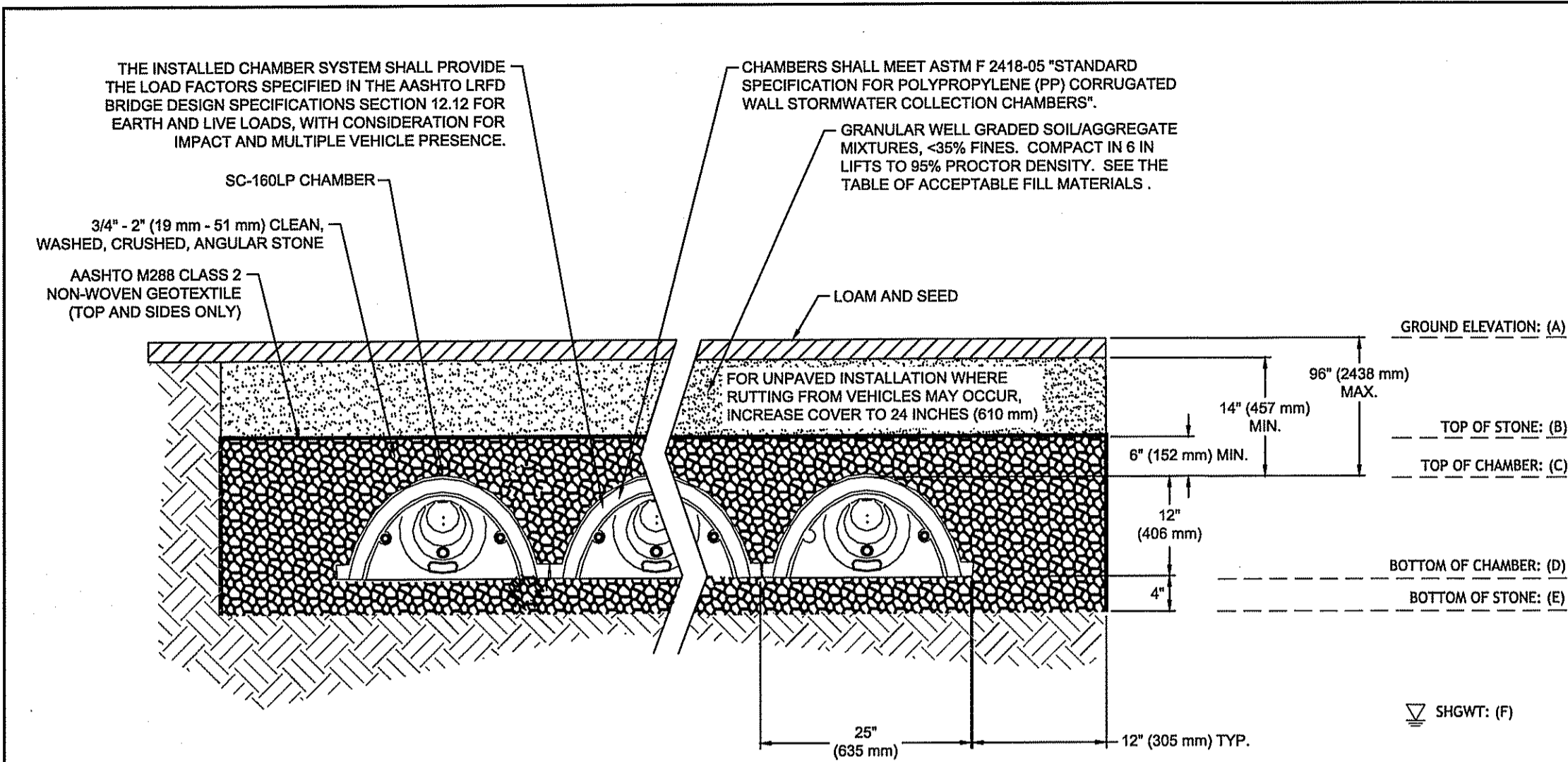
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WILSON PROGRAM
APPROVED FOR CONSTRUCTION
AS SPECIFIED IN THE DIVISION OF PERMITS
DATED JAN 9 2019 FILE 18-0160
NO CHANGES ALLOWED WITHOUT PERMITTING
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DESIGNED BY: WML/SD
DRAWN BY: SEP/SD
CHECKED BY: JAC
DATE: JUNE 2018
PROJECT NO: 13-22c

PRELIMINARY, NOT FOR CONSTRUCTION

DETAILS I

SHEET 8 OF 9



THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS

UNDERGROUND INFILTRATION SYSTEM ELEVATIONS					
	LOT 1	LOT 2	LOT 3	LOT 4	LOT 5
A (GROUND ELEVATION)	290.25	295.50	291.00	284.50	292.00
B (TOP OF STONE)	289.58	294.83	290.33	283.83	291.00
C (TOP OF CHAMBER)	289.08	294.33	289.83	283.33	290.50
D (BOTTOM OF CHAMBER)	288.08	293.33	288.83	282.33	289.50
E (BOTTOM OF STONE)	287.75	293.00	288.50	282.00	289.17
F (SHGWT)	285.75	290.97	286.33	279.69	284.33
DIST. E-F (SEP. TO SHGWT)	2.00'	2.03'	2.17'	2.31'	4.84'
TEST HOLE REFERENCE	TH-1-18: 27"	TH-2-2: 31"	TH-3-18: 39"	TH-4-18: 60"	TH-5-18: 32"

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740, SC-310, SC-160LP CHAMBER SYSTEMS

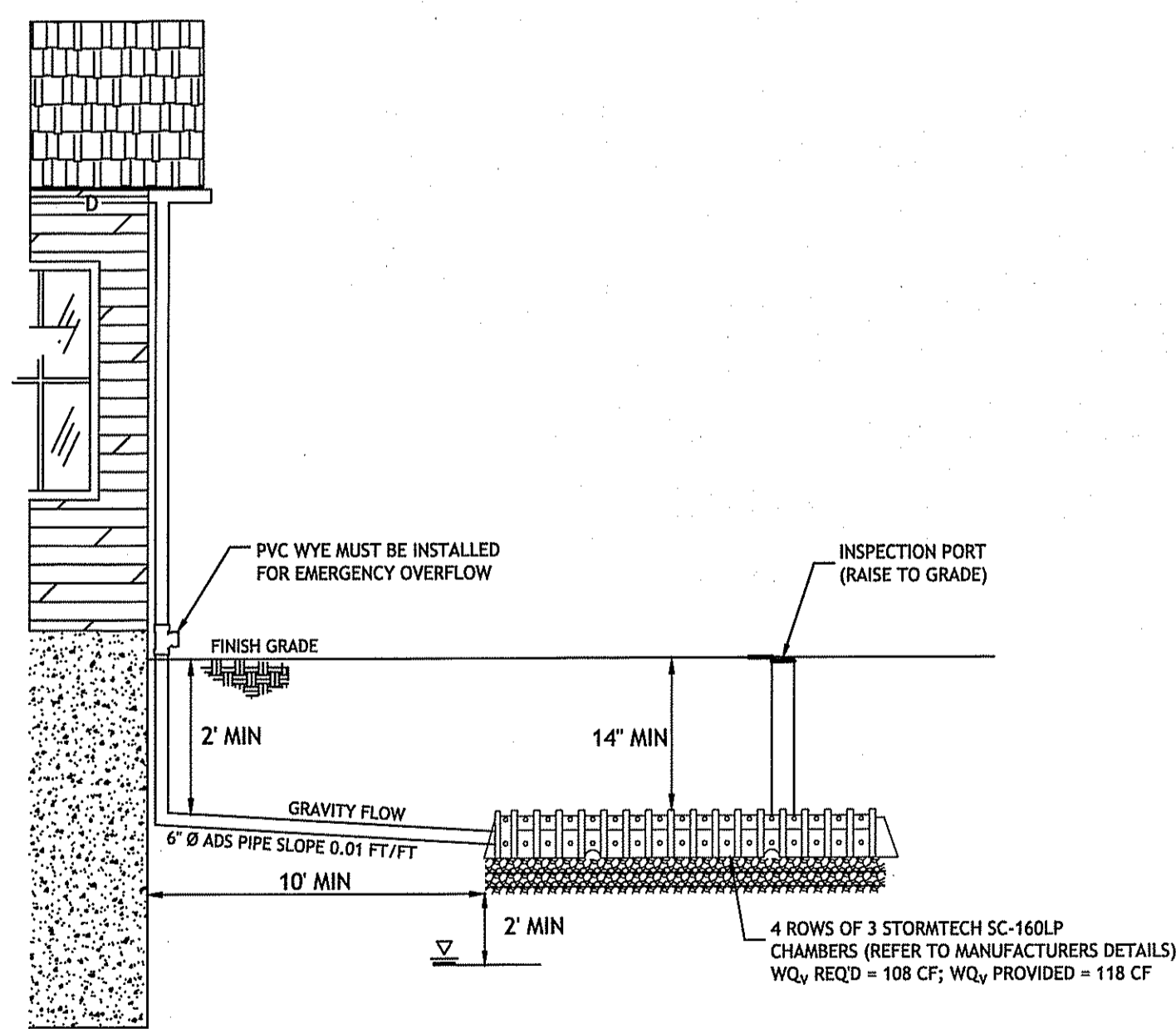
MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION(1)	COMPACTION/DENSITY REQUIREMENT
① FILL MATERIAL FOR LAYER D STARTS FROM THE TOP OF THE C LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISH GRADE ABOVE. NOTE THAT PAVEMENT SUB-BASE MAY BE PART OF THIS LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
② FILL MATERIAL FOR LAYER C STARTS FROM THE TOP OF THE EMBEDMENT STONE (B LAYER) TO 18" (457 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUB-BASE MAY BE A PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES. MOST PAVEMENT SUB-BASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 76, 8, 89, 9, 10	BEGIN COMPACTION AFTER 12" (305 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (152 mm) LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY (2). ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
③ EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A LAYER) TO THE C LAYER ABOVE.	CLEAN, WASHED, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH (19 - 51 mm)	3, 357, 4, 457, 5, 56, 57	NO COMPACTION REQUIRED.
④ FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, WASHED, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH (19 - 51 mm)	3, 35, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY (2).

PLEASE NOTE:
 1. 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".
 2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS IN OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (229 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.

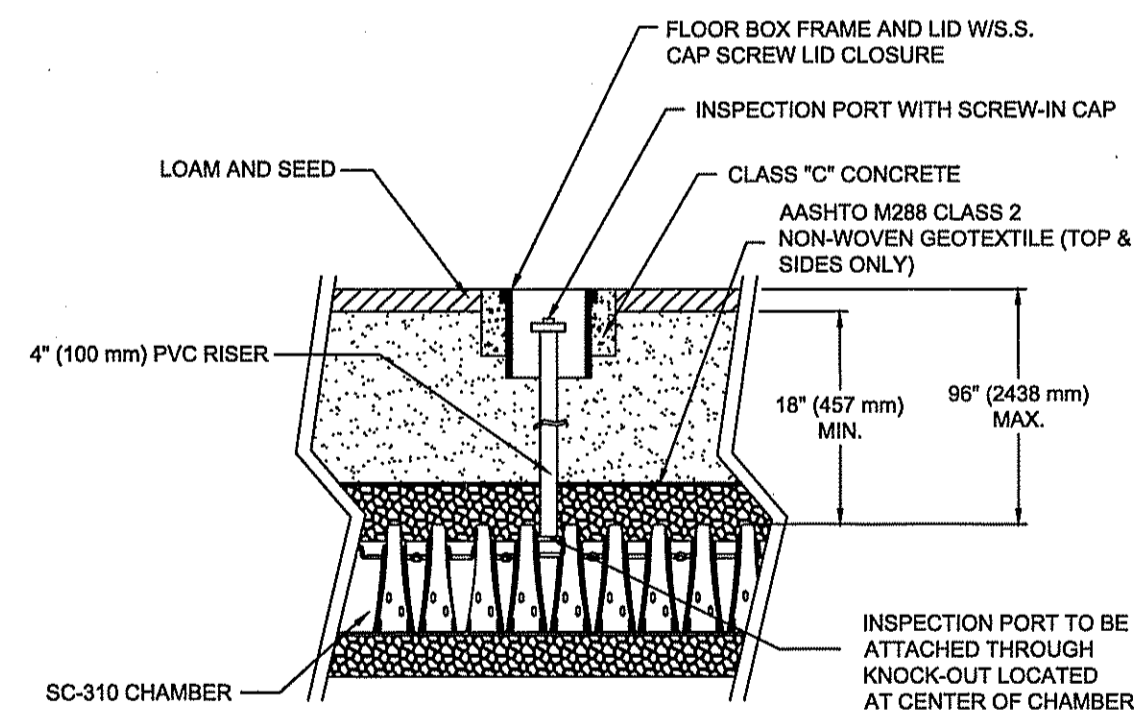
STORMTECH GENERAL NOTES

- 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 SERVICES 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 14" (457 mm) NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96" (2438 mm) INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24" (610 mm), MAXIMUM COVER IS 96" (2438 mm).
- 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 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

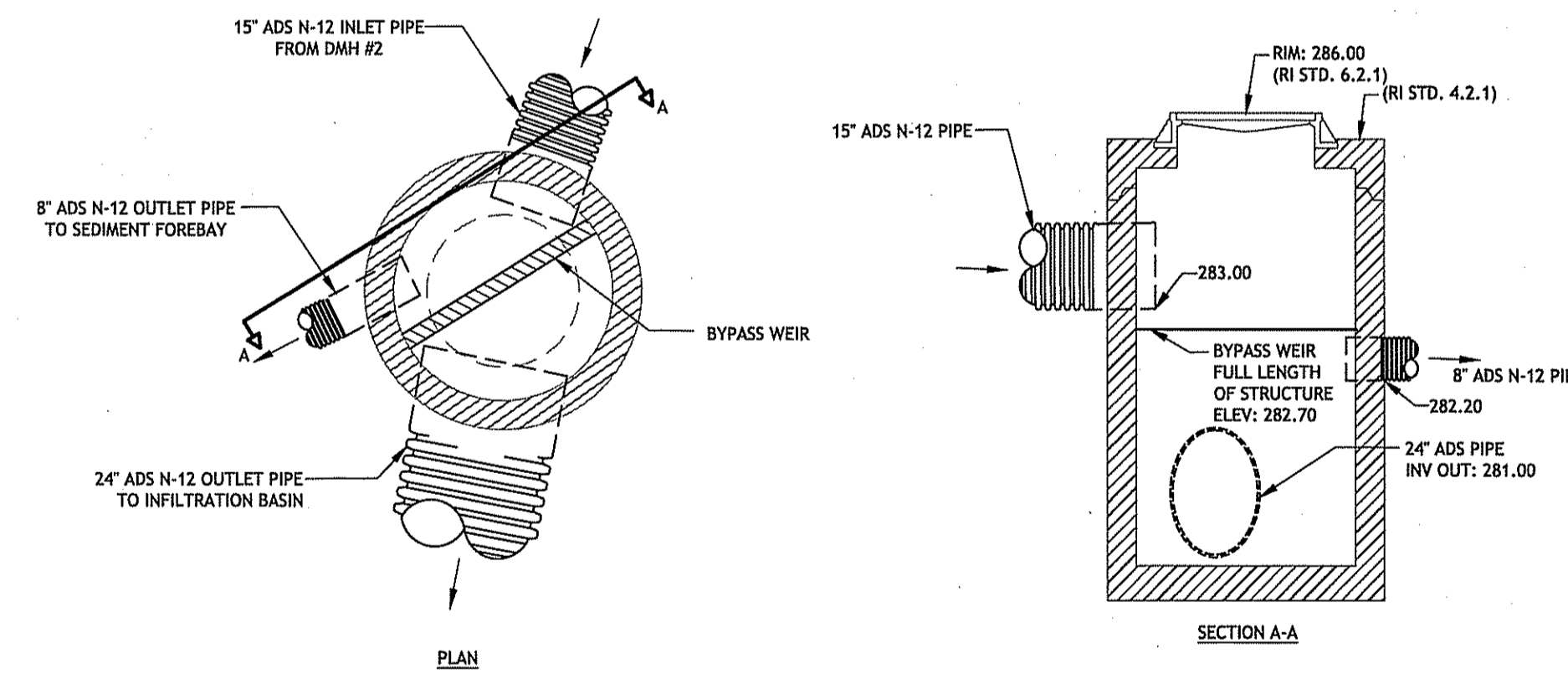
17 SC-160LP STANDARD DETAILS NOT TO SCALE



18 ROOFTOP INFILTRATION SYSTEMS - TYPICAL SECTION NOT TO SCALE



19 INSPECTION PORT DETAIL NOT TO SCALE



20 DIVERSION STRUCTURE DETAIL (DMH #3) NOT TO SCALE

Kindly be advised that this permit is not to be a verification of design or extent of freshwater work on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF PERMITS AND COMPLIANCE
 FRESHWATER PERMITTING DIVISION
 AS SPECIFIED IN PERMIT 18-0160
 DATED JAN 9 2019
 NO CHANGES ALLOWED WITHOUT APPROVED PLANS FROM THE PERMITTING DIVISION
 APPROVED PLANS MUST BE FOR THE PERMITTING DIVISION

Charles A. Haber

Environmental Management
 NOV 13 2018

JOSEPH A. CASALI
 No. 7250
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 11.9.18

PROPOSED MAJOR SUBDIVISION
EDWARD AVENUE
 NORTH SMITHFIELD, RHODE ISLAND
 AP 1, LOT 57

REVISIONS:	NO.	DATE	DESCRIPTION
	1	11.8.2018	RIDEM RTC

DESIGNED BY: WMLJR/SD
 DRAWN BY: SEP/SD
 CHECKED BY: JAC
 DATE: JUNE 2018
 PROJECT NO: 13-22c

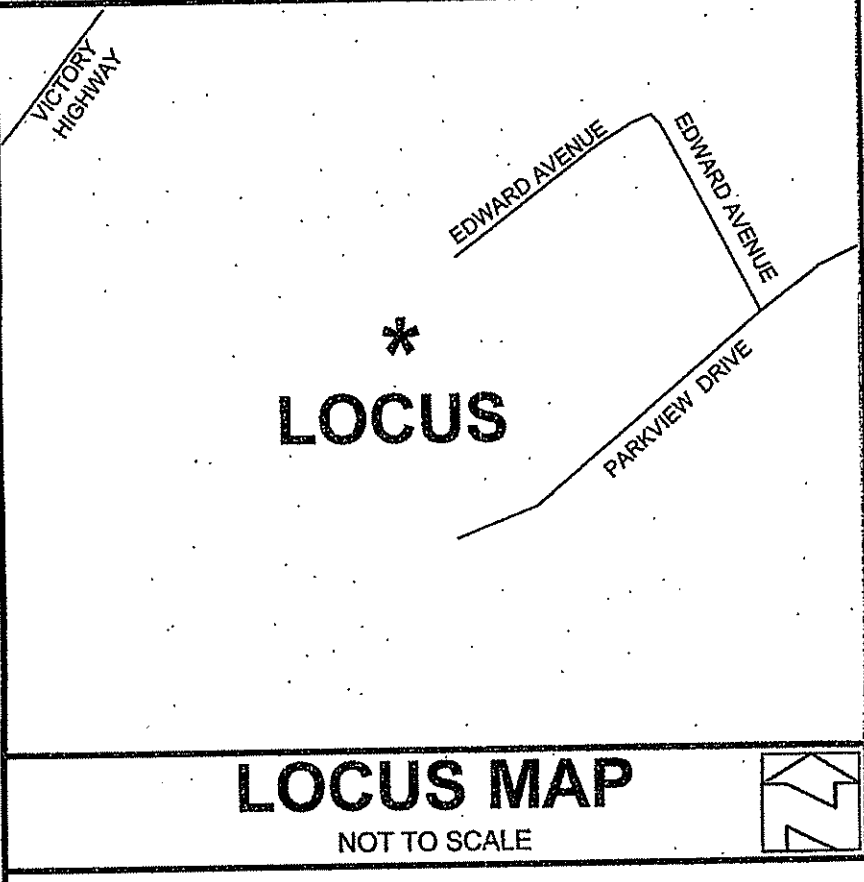
PRELIMINARY, NOT FOR CONSTRUCTION

DETAILS II

SHEET 9 OF 9

ZONING CRITERIA	
ZONING DISTRICT	RS-40
MINIMUM LOT AREA	40,000 SQ. FT.
MINIMUM LOT FRONTAGE	150'
MINIMUM FRONT YARD SETBACK	30'
MINIMUM SIDE YARD SETBACK	25'
MINIMUM REAR YARD SETBACK	40'
MAXIMUM BUILDING COVERAGE	20%
MAXIMUM BUILDING HEIGHT	30'

LEGEND	
	BOUNDARY
	BOUNDARY PROPOSED
	BOUNDARY TO BE ABANDONED
	ABUTTER
	STONEWALL
	BUILDING ENVELOPE
	IRON PIN
	BOUND
	DRILL HOLE



PLAN REFERENCE:

1. A PLAN ENTITLED "ADMINISTRATIVE SUBDIVISION FOR A.P. 4 LOT 10 & A.P. 1 LOT 57 FRAN TAM DEVELOPMENT CORPORATION 10 INMAN ROAD HARRISVILLE, RHODE ISLAND AND THE TOWN OF NORTH SMITHFIELD A.P. 4 LOT 224 LOCATED AT MAIN STREET NORTH SMITHFIELD, RHODE ISLAND AUGUST, 2002 SCALE: 1" = 120' SHEET 1 OF 1" SAID PLAN IS RECORDED IN THE TOWN OF NORTH SMITHFIELD REGISTRY OF DEEDS ON HANGING FILE NUMBER 80-B.
2. QUIT CLAIM DEED FOR RICHARD M. & SUSAN A. LEFEBVRE TO KIMBERLY A. GODFRIN AND RECORDED IN THE NORTH SMITHFIELD REGISTRY OF DEEDS IN DEED BOOK 763 PAGE 60.

A.P. 4 LOT 224
N/F TOWN OF NORTH SMITHFIELD

A.P. 4 LOT 9
N/F SILVER PINES
CONDOMINIUM LLC

A.P. 1 LOT 399

A.P. 1 LOT 155
N/F CLAIRE D. HAVUNEN

A.P. 1 LOT 57
N/F KIMBERLY A. GODFRIN TRUST
D.B. 233 PG. 298 &
D.B. 753 PG. 50

ORIGINAL AREA
379,179 SQ. FT.
8.7048 ACRES

PROPOSED AREA
325,484 SQ. FT.
7.4721 ACRES

(VACANT)

A.P. 1 LOT 46
N/F APPLE ACQUISITION, LLC

S11°28'24"W 158.95'
S11°28'24"W 108.02'
N78°31'36"W 100.00'

A.P. 4 LOT 427
N/F WILLIAM A. & CLAIRE A.
SMITH

BOUNDARY PROPOSED
BOUNDARY TO BE ABANDONED
SETBACK (TYP)

**AREA TO BE CONVEYED
FROM LOT 57 TO LOT 406**
53,695 SQ. FT.
1.2327 ACRES

BOUNDARY PROPOSED
BOUNDARY TO BE ABANDONED
TOTAL = 390.00'

A.P. 1 LOT 409
N/F RICHARD M. & SUSAN A.
LEFEBVRE

A.P. 4 LOT 430

A.P. 4 LOT 426 N/F
RUSSELL J. & YVONNE J.
TAYLOR

A.P. 1 LOT 406
N/F JOHN &
JANICE
BEAUREGARD
TRUSTEES

A.P. 4 LOT 428
N/F TIMOTHY A. & RUTH D.
SUNN

A.P. 4 LOT 424
N/F GERARD R. & NICOLE L.
TURCOTTE

ORIGINAL AREA
40,800 SQ. FT.
0.9386 ACRES

**PROPOSED
COMBINED AREA**
94,495 SQ. FT.
2.1693 ACRES

A.P. 1 LOT 378
N/F DERRICK McDONALD

NORBERT A. THERIEN
No. 1739
PROFESSIONAL
LAND SURVEYOR

NATIONAL
Surveyors-Developers
Inc.
42 Hamlet Ave., Woonsocket, R.I.
(401) 769-7779

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATIONS FOR PROFESSIONAL LAND SURVEYORS NOVEMBER 25, 2015 AS FOLLOWS:

TYPE OF SURVEY: COMPREHENSIVE BOUNDARY SURVEY
MEASUREMENT SPECIFICATION: CLASS 1 STANDARD

PURPOSE OF SURVEY: ADMINISTRATIVE SUBDIVISION

BY: *Norbert A. Therien* DATE: 2/8/18
NORBERT A. THERIEN, PLS NO. 1739

Kindly note what this gap
represents and what action
is required to close the gap or extend
of boundary within the system.

AS SURVEYED
DATE: JAN 9 2019
NO CHANGE TO BOUNDARY
APPROVED BY: *Charles D. Therien*

KIMBERLY A. GODFRIN TRUST
A.P. 1 LOT 57
EDWARD AVENUE
AND
A.P. 1 LOT 406
**JOHN & JANICE
BEAUREGARD TRUSTEES**
18 EDWARD AVENUE
NORTH SMITHFIELD, RHODE ISLAND

ADMINISTRATIVE SUBDIVISION

DRAWN BY: J.M.L.	CHECKED BY: N.A.T.	FIELD BY:
JANUARY 2018	JOB No. 2002-191	SHEET 1 OF 1

