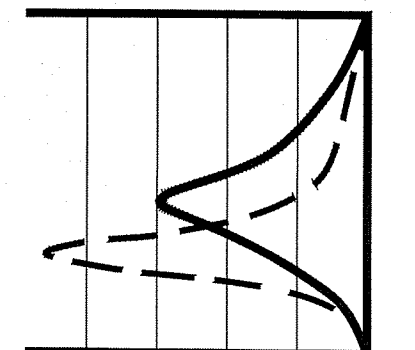
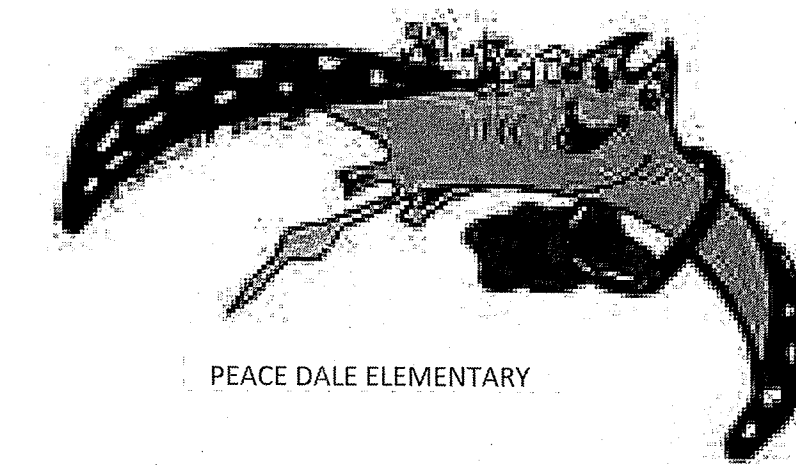
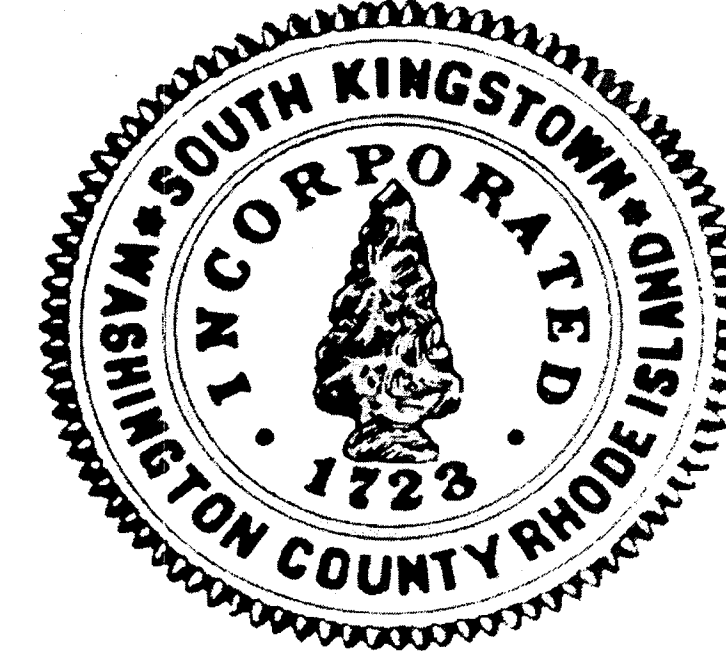


SITE PLANS FOR PARKING LOT IMPROVEMENTS TO PEACE DALE ELEMENTARY SCHOOL

109 KERSEY ROAD
PEACE DALE, RHODE ISLAND
AP 48-2, LOT 73

ZONING DISTRICT: GOVERNMENT AND INSTITUTIONAL (GI)



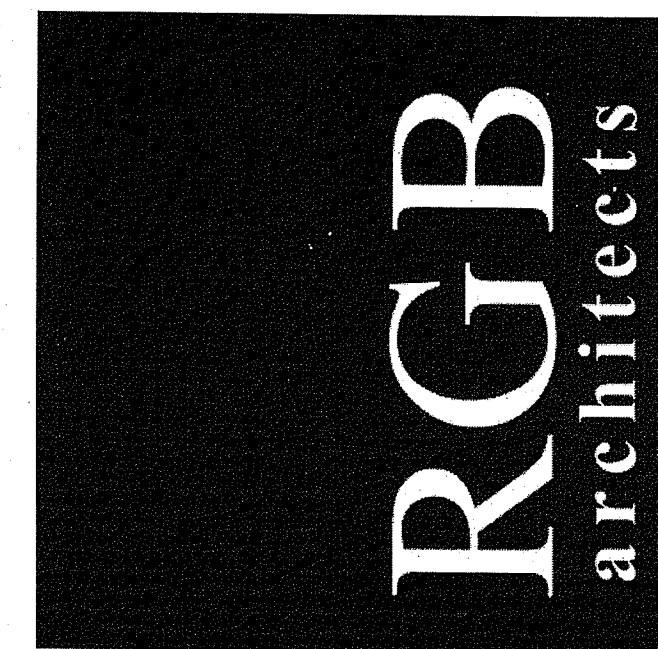
JCE
JOE CASALI ENGINEERING, INC.
CIVIL - SITE DEVELOPMENT - TRAFFIC - FLOODPLAIN
DRAINAGE - WETLANDS - ISDS - TRANSPORTATION
14019441300 4019441313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
9.10.19

FILINGS:

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT - OFFICE OF WATER RESOURCES: PRELIMINARY DETERMINATION APPLICATION
TOWN OF SOUTH KINGSTOWN DEPARTMENT OF PUBLIC WORKS: RIGHT-OF-WAY PHYSICAL ALTERATION PERMIT (ROW-PAP) APPLICATION

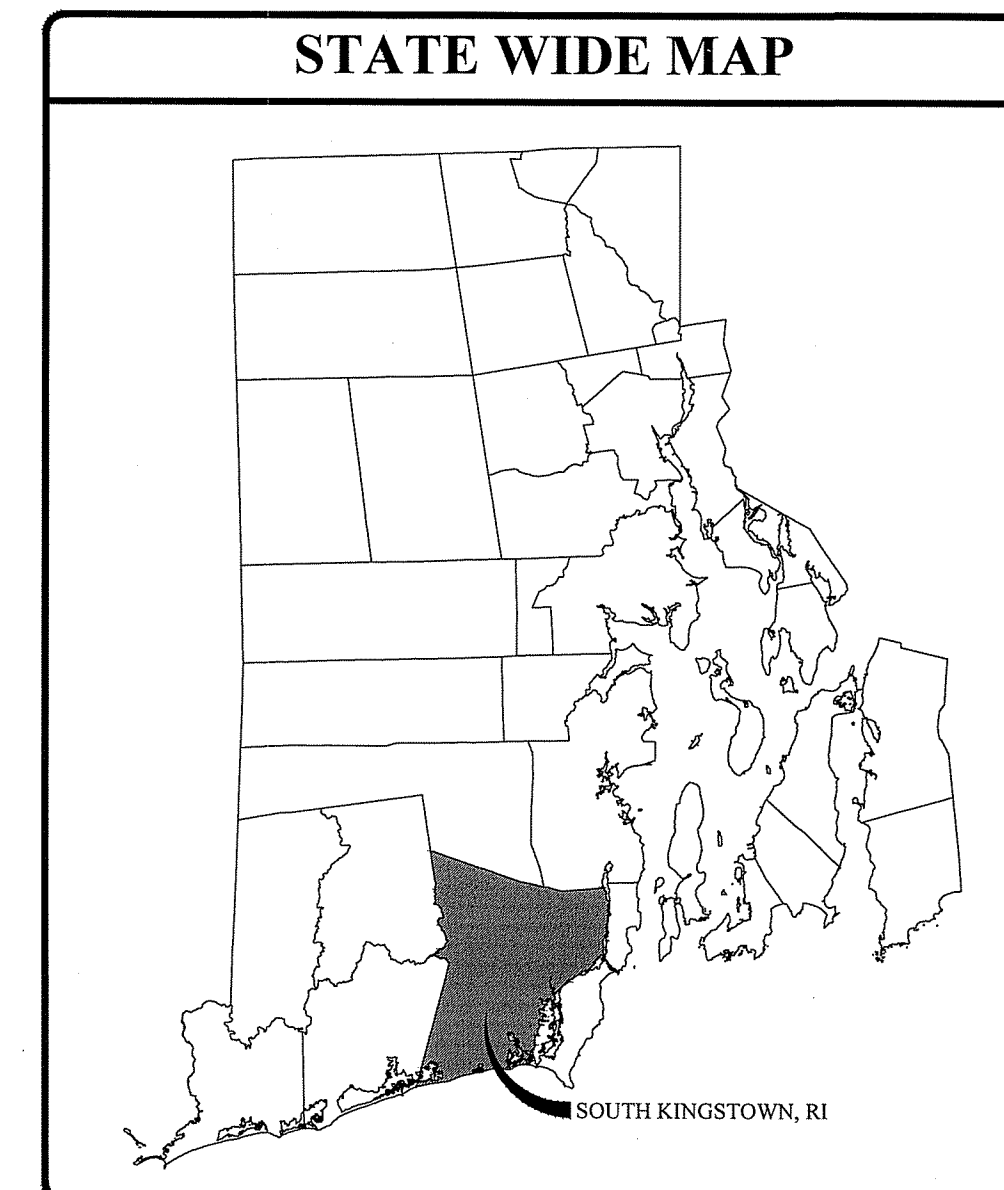
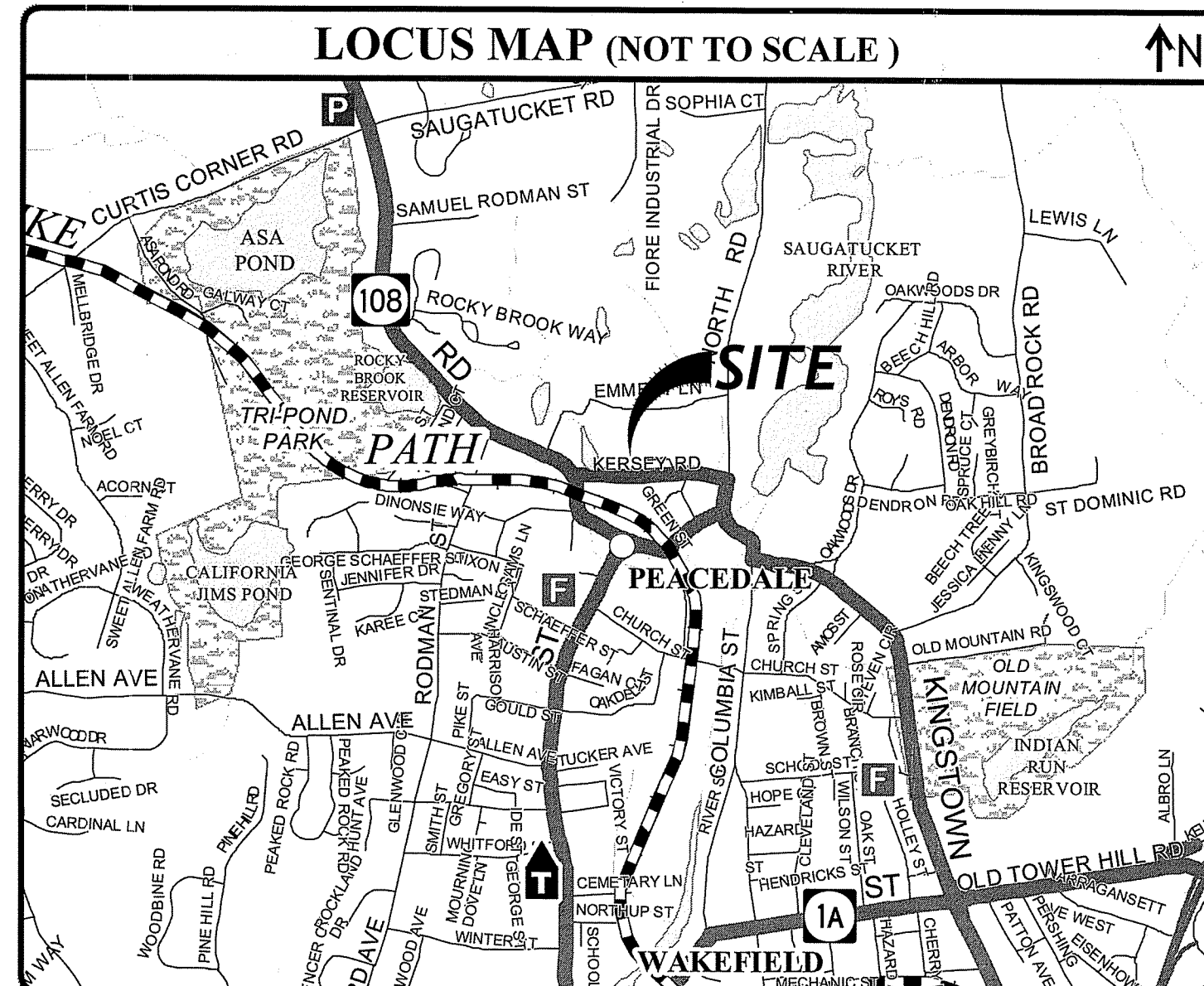
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 12 2019 FILE # 19-0234
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
ADMICY L. Frelman



PEACE DALE ELEMENTARY SCHOOL
109 KERSEY ROAD
PEACE DALE, RHODE ISLAND
AP 48-2, LOT 73

Q:\14-20 RGB\14-30ak SK Schools\Peace Dale Elementary School\ACAD\Peace Dale Elementary [Permit Set] R1.dwg, Sep. 13, 2019 9:48am

PROJECT TEAM	
<p>OWNER/APPLICANT: SOUTH KINGSTOWN SCHOOL DISTRICT 307 CURTIS CORNER ROAD WAKEFIELD, RI 02879 PHONE: 401-360-1300 FAX: 401-360-1330</p>	<p>LAND SURVEYOR: DIPRETE ENGINEERING TWO STAFFORD COURT CRANSTON, RI 02920 PHONE: 401-943-1000</p>
<p>ARCHITECT: RGB ARCHITECTS 50 HOLDEN STREET PROVIDENCE, RI 02908 PHONE: 401-272-1730 FAX: 401-273-7156</p>	<p>LANDSCAPE ARCHITECT: DIANE C. SOULE & ASSOCIATES, ASLA 422 FARNUM PIKE SMITHFIELD, RI 02917 PHONE: 401-232-2620</p>
<p>CIVIL ENGINEER: JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RI 02888 PHONE: 401-944-1300 FAX: 401-944-1313 JOECASALI.COM</p>	<p>WETLAND BIOLOGIST: NATURAL RESOURCE SERVICES 86 HARRISVILLE MAIN ST. HARRISVILLE, RI 02830 PHONE: 401-568-7390 FAX: 401-568-7390</p>



INDEX OF DRAWINGS	
SHEET NO.	PLAN
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	EXISTING CONDITIONS & SITE PREPARATION PLAN
4	SITE PLAN
5	GRADING & DRAINAGE PLAN
6	RI STANDARD DETAILS
7	CIVIL DETAILS I
8	CIVIL DETAILS II
REFERENCE PLAN:	
SHEET 1 OF 1	SURVEY PLAN, PREPARED BY DIPRETE ENGINEERING, DATED JUNE 2019

REVISIONS:	
NO.	DATE DESCRIPTION

DESIGNED BY: DRD
DRAWN BY: SEP/SD
CHECKED BY: JAC
DATE: SEPT. 2019
PROJECT NO: 14-30ak

ISSUED FOR PERMITTING

COVER SHEET

SHEET 1 OF 8

GENERAL NOTES:

- PROPERTY LINE INFORMATION TAKEN FROM PLAN ENTITLED: "PROPERTY LINE SURVEY OF A.P. 48-2, LOT 73 & A.P. 49-1, LOT 110, KERSEY ROAD, SOUTH KINGSTOWN, RHODE ISLAND, DATE: FEB. 1991", SURVEYOR: RUSSELL F. GEISSER, R.L.S. CLASS III TOPOGRAPHIC SURVEY COMPLETED BY DIPRETE ENGINEERING, TWO STAFFORD COURT, CRANSTON, RI IN JUNE 2019.
- THE MAJORITY OF THE SITE LIES IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AND A PORTION OF THE SITE LIES WITHIN FLOOD ZONE A (AREAS WITH NO BASE FLOOD ELEVATION DETERMINED) AS SHOWN ON THE FEMA FIRM MAP FOR THE TOWN OF SOUTH KINGSTOWN, RI, COMMUNITY PANEL NO. 44009C01841 EFFECTIVE DATE OCTOBER 16, 2013.
- 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.
- SOILS ON THE SITE CONSIST OF MERRIMAC-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES (MU), SCARBORO MUCKY FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES (SB), ENFIELD SILT LOAM, 3 TO 8 PERCENT SLOPES (EB), HINCKLEY LOAMY SAND, 8 TO 15 PERCENT SLOPES AND WATER (W). SOIL BORING WERE COMPLETED BY JOE CASALI ENGINEERING ON JUNE 10, 2019.
- THERE ARE NO CEMETERIES PRESENT ON THE SITE.
- THERE ARE NO UNIQUE HISTORIC FEATURES PRESENT ON THE SITE.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

- THE HAYBALE AND/OR SILT FENCE LINE ILLUSTRATED ON THESE PLANS SHALL SERVE AS THE STRICT LIMIT OF DISTURBANCE FOR THE PROJECT WITHIN OR ADJACENT TO REGULATED FRESHWATER WETLAND AREAS.
- THE LIMITS OF CLEARING, GRADING, AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED CONSTRUCTION AREA. ALL AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PLAN SHALL BE TOTALLY UNDISTURBED, TO REMAIN IN NATURAL CONDITION.
- 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.
- ALL HAYBALES, 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 HAYBALES AND 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 HAYBALES AS NEEDED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY-BALES BECOMES FILLED WITH SEDIMENTS.
- 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 EROSION AND SEDIMENTATION HANDBOOK", DATED 1993.

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 DESIGN ENGINEER PRIOR TO CONSTRUCTION. NO EXTRA PAYMENT TO THE CONTRACTOR DUE TO RELOCATIONS WILL BE AUTHORIZED.
- IF REQUIRED, OVERHEAD ELECTRIC AND TELEPHONE SERVICES ARE TO BE REMOVED BY THE APPROPRIATE UTILITY COMPANY AND COORDINATED BY THE CONTRACTOR.
- 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.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

- 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 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 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.
- THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED IN THE STATE RIGHT-OF-WAY.
- ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS CHANNELING DEVICES, ETC. SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2000 EDITION, INCLUDING LATEST REVISIONS.
- SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE RIDOT SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

SITE NOTES:

- CONTRACTOR SHALL NOTIFY "DIGSAFE" (811) AND THE TOWN DEPARTMENT OF PUBLIC SERVICES (FOR NON MEMBER UTILITIES) AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.
- STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.
- ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A LOAM & SEED. REFER TO LANDSCAPE PLANS FOR DETAILS.
- 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, AND MUST BE SUBMITTED TO OWNER PRIOR TO FINAL SUBMISSION.
- 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.
- 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 SOUTH KINGSTOWN 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.
- 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.
- THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL DRIVEWAYS AT COMPLETION OF EACH DAYS WORK.
- WATER SERVICE SHALL BE MAINTAINED AT ALL TIMES.
- ALL LEDGE TO BE REMOVED BY MECHANICAL MEANS AND SHALL CONFORM TO SECTION 202 EXCAVATION AND EMBANKMENT OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA).
- 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.
- ALL SITE WORK, INCLUDING BUT NOT LIMITED TO, BITUMINOUS PAVEMENT, ROADWAY CONSTRUCTION, AGGREGATE MATERIALS, DRAINAGE PIPING, CURBING, SIDEWALK, SAW CUTTING, ETC. SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA) AND THE RIDOT STANDARD DETAILS, 1998 EDITION (WITH LATEST ADDENDA).

LAYOUT NOTE:

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 ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.

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.

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 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/RICRMC, 2010).
- AFTER CONSTRUCTION, STORMWATER BMPs SHALL BE INSPECTED AND MAINTAINED BY THE OWNER AS FOLLOWS:

CATCH BASINS

 - INSPECTIONS SHALL BE PERFORMED A MINIMUM OF 2 TIMES PER YEAR (SPRING/FALL). UNITS SHALL BE CLEANED WHENEVER THE DEPTH OF SEDIMENT IS GREATER THAN OR EQUAL TO 2-FEET (LESS THAN 2-FEET FROM THE BOTTOM OF PIPE). ALL REMOVED SEDIMENT SHALL BE TESTED TO DETERMINE POLLUTANT CONTENT AND SHALL BE REMOVED IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.
 - THE INLET GRATE SHALL NOT BE WELDED TO THE FRAME SO THAT THE SUMP CAN BE EASILY INSPECTED AND MAINTAINED.

UNDERGROUND INFILTRATION SYSTEMS

 - 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 ACCUMULATION. IF THE SYSTEM HAS ACCUMULATED 3 INCHES OF SEDIMENT, THE SEDIMENT SHALL BE REMOVED BY FLUSHING FROM THE SYSTEM WITH HIGH PRESSURE JETS 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. KEEP ROOFS CLEAN AND FREE OF DEBRIS.

LOAMING AND 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:
- 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:

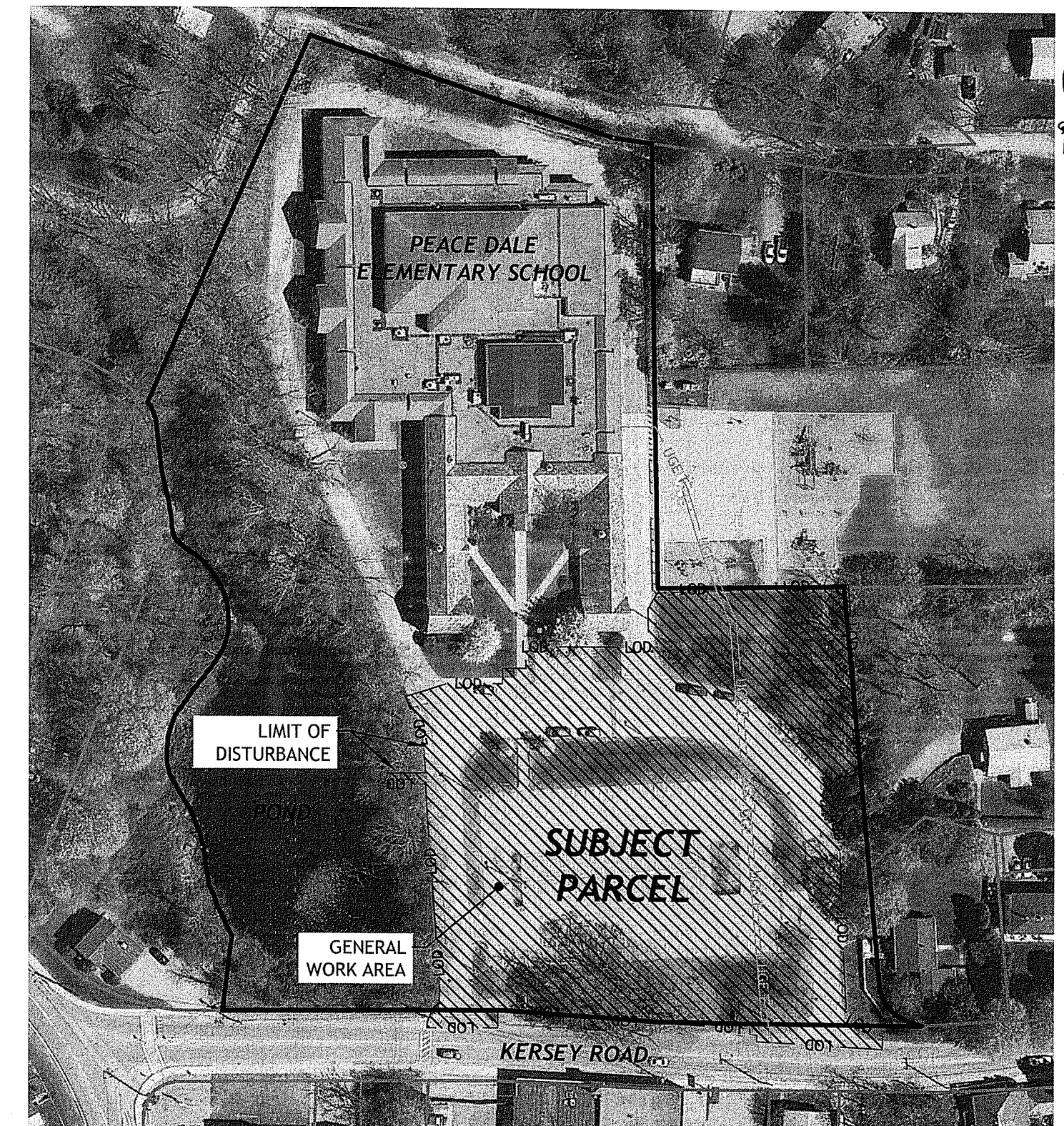
 - 40% CREEPING RED FESCUE
 - 20% IMPROVED PERENNIAL RYEGRASS
 - 20% IMPROVED KENTUCKY BLUEGRASS
 - 20% KENTUCKY BLUEGRASS

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

- PROPERTY LINE
- ABUTTING PROPERTY LINE
- - - BUILDING SETBACK LINE
- - - WETLAND EDGE
- △ WF WETLAND FLAG
- - - 50' PERIMETER WETLAND
- - - 100' RIVERBANK WETLAND
- - - 200' RIVERBANK WETLAND
- 163.8x EXISTING SPOT GRADE
- - - 100' EXISTING CONTOUR
- 100' PROPOSED CONTOUR
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING BERM
- GUARD RAIL
- D D D D D D DRAIN LINE
- D D D D D D OVERHEAD DRAIN LINE
- DHW OVERHEAD WIRES
- UGE UNDERGROUND ELECTRIC
- LPM LOW PRESSURE FORCE MAIN
- S S S S S S EXISTING SEWER LINE
- W W W W W W EXISTING WATER LINE
- W PROPOSED WATER
- TEL TELEPHONE
- GAS GAS
- EXISTING LIMIT OF WOODLAND (APPROXIMATE)
- LOD LIMIT OF DISTURBANCE
- SILT FENCE
- EXISTING DRAINAGE MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- UP#72 EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- WG ○ WATER GATE
- PROPOSED WATER GATE
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- N/F --- NOW OR FORMERLY
- TEST HOLE
- BOLLARD
- LAMP POLE
- FIRE DEPARTMENT CONTROL
- FIRE HYDRANT
- EXISTING HANDICAP
- PROPOSED HANDICAP
- EXISTING TREE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED **DEC 12 2019** FILE # **19-0234**
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Adm. C. Freeman



LOCUS MAP
SCALE: 1 INCH = 100 FEET

JCE
JOE CASALI ENGINEERING, INC.
CIVIL - SITE DEVELOPMENT - TRANSPORTATION
DRAINAGE - WETLANDS - TRAFFIC - FLOODPLAIN
(401)944-1300 (401)944-1319 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER CIVIL
9.10.19

PEACE DALE ELEMENTARY SCHOOL
109 KERSEY ROAD
PEACE DALE, RHODE ISLAND
AP 48-2, LOT 73

REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY:	DRD
DRAWN BY:	SEP/SD
CHECKED BY:	JAC
DATE:	SEPT. 2019
PROJECT NO.:	14-308k

ISSUED FOR PERMITTING

GENERAL NOTES & LEGEND

SHEET 2 OF 8

Q:\14-30 RCB\14-30ak SK Schools\Peace Dale Elementary School\ACAD\Peace Dale Elementary (Permit Set) RT.dwg Sep. 13, 2019 9:49am

1-888-DIG-SAFE
PROTECT YOURSELF. GIVE THREE 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

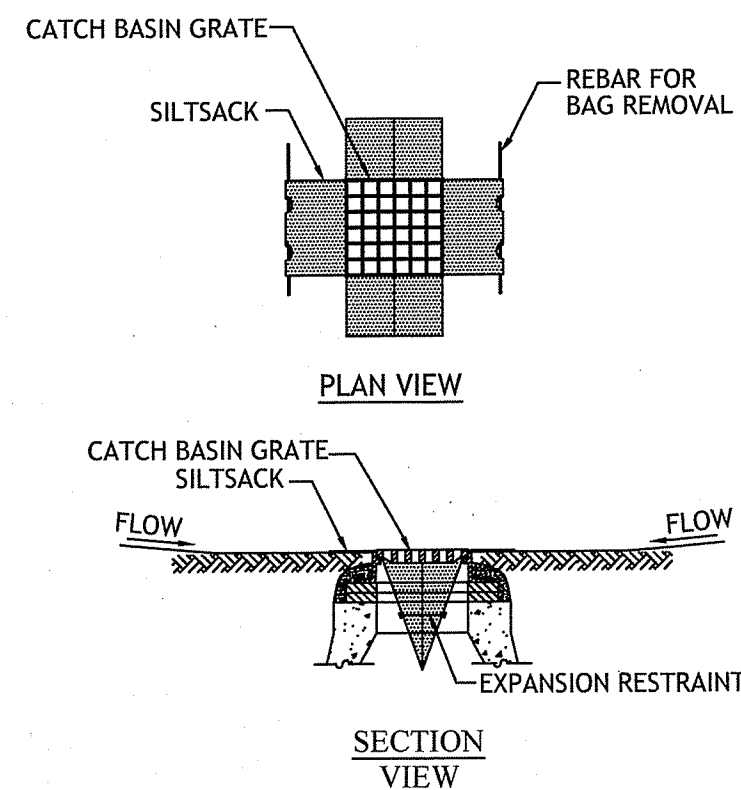
1-888-344-7233

ZONING CRITERIA	REQUIRED	EXISTING
ZONING DISTRICT	GI	GI
MINIMUM LOT AREA	SEE NOTE 1	271,379 S.F.
MINIMUM LOT FRONTAGE & WIDTH	200 FT	500 FT
MAXIMUM LOT BUILDING COVERAGE	20%	20%
MAXIMUM BUILDING HEIGHT	35 FT	< 35 FT
MINIMUM FRONT YARD SETBACK	40 FT	270 FT
MINIMUM CORNER SIDE YARD SETBACK	40 FT	50 FT
MINIMUM SIDE YARD SETBACK	40 FT	25 FT
MINIMUM REAR YARD SETBACK	40 FT	40 FT

NOTES:
1. 200,000 SF + 40,000 PER 100 PUPILS
(371 STUDENTS = 200,000 + 160,000 + 360,000 S.F.)

SUBSURFACE EXPLORATION DATA - BORINGS		
	SURFACE EL.	SHGWT / EL.
B-101	44.9	10' / < 34.9
B-102	44.1	9.5' / 34.6

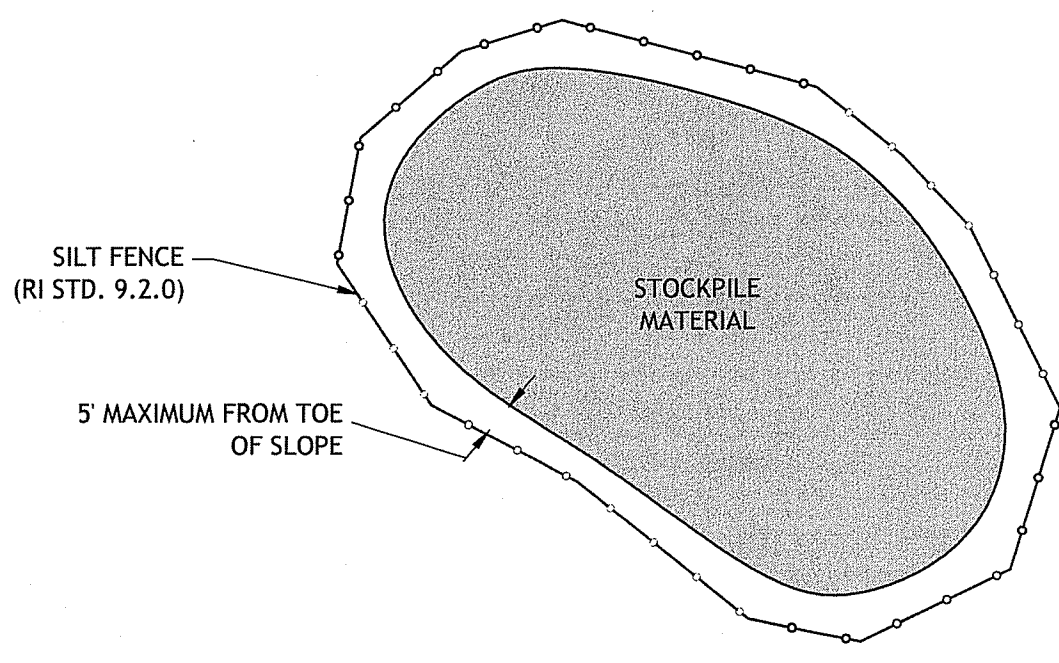
SUBSURFACE EXPLORATION DATA - PAVEMENT CORES		
Core #	Asphalt Thickness	Soil Description
P-1	3"	(3-15"): SILTY SAND (SM); Brown, dry, 75% fine to coarse sand, 15% non-plastic fines, 10% fine to coarse gravel.
P-2	3"	(3-17"): WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM); Light brown, dry, 75% fine to coarse sand, 15% fine to coarse gravel, 10% non-plastic fines.
P-3	3"	(3-21"): SILTY SAND WITH GRAVEL (SM); Brown, dry, 70% fine to coarse sand, 15% non-plastic fines, 15% fine to coarse gravel.
P-4	3"	(3-19"): SILTY SAND WITH GRAVEL (SM); Brown, dry, 70% fine to coarse sand, 15% non-plastic fines, 15% fine to coarse gravel.
P-5	3"	(3-19"): SILTY SAND WITH GRAVEL (SM); Brown, dry, 65% fine to coarse sand, 20% fine to coarse gravel, 15% non-plastic fines.
P-6	4"	(4-12"): WELL GRADED SAND WITH SILT (SW-SM); Brown, dry, 80% fine to coarse sand, 10% non-plastic fines, 10% fine to coarse gravel.
P-7	3"	(3-21"): SILTY SAND (SM); Brown, dry, 75% fine to coarse sand, 15% non-plastic fines, 10% fine to coarse gravel.
P-8	3"	(3-19"): SILTY SAND (SM); Brown, dry, 80% fine to coarse sand, 15% non-plastic fines, 5% fine to coarse gravel.



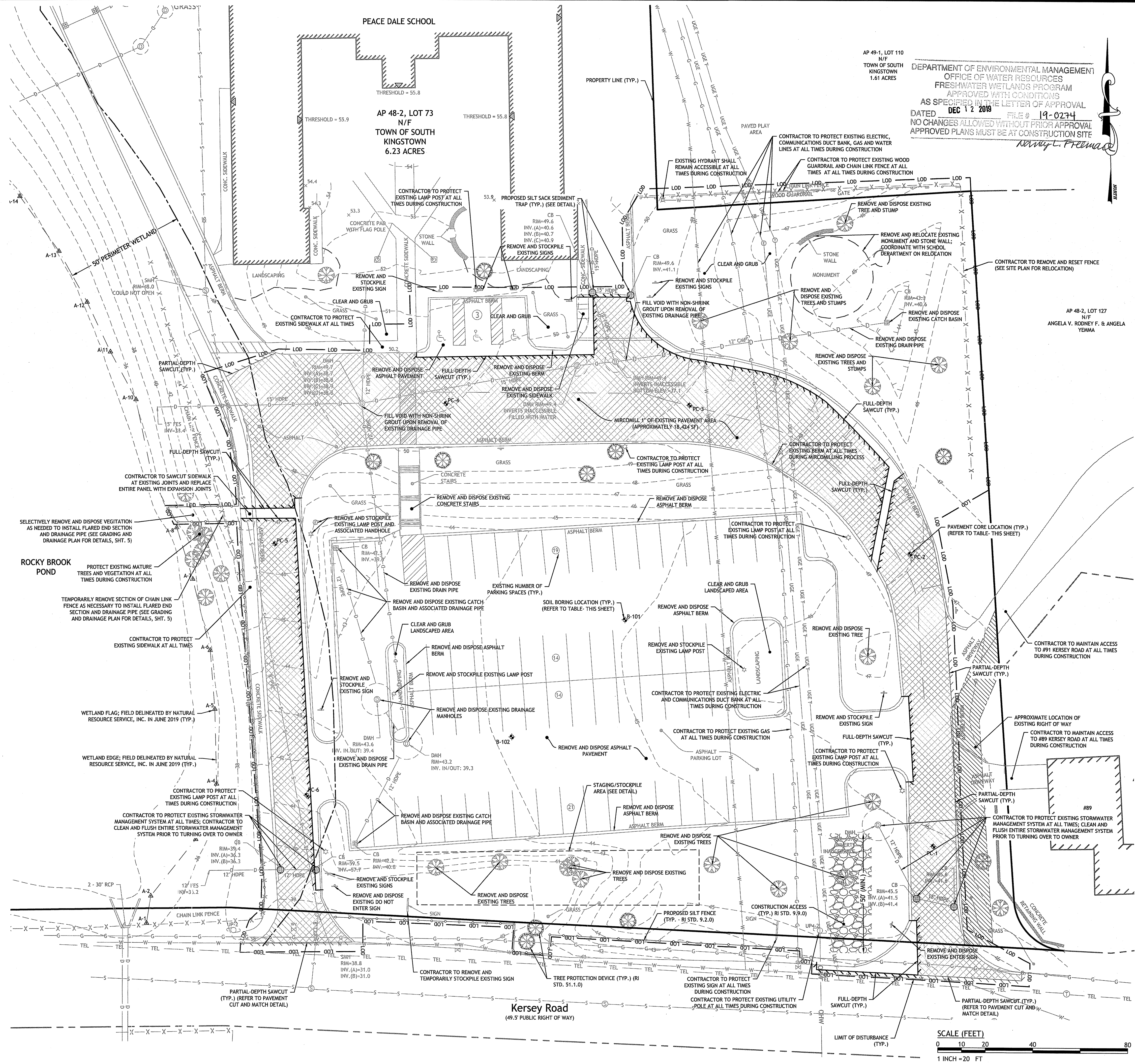
NOTES:
1. INSTALL SILTSACKS IN CATCH BASINS SHOWN ON THE EXISTING CONDITIONS AND SITE PREPARATION PLAN.
GRATE TO BE PLACED OVER SILTSACK. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

1 SILTSACK SEDIMENT TRAP
NOT TO SCALE

NOTE TO CONTRACTOR:
CONTRACTOR TO COORDINATE WITH THE OWNER ON LOCATION OF CONSTRUCTION TRAILER AND STAGING AREAS



2 MATERIAL STOCKPILE DETAIL
NOT TO SCALE



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 12 2019 FILE # 19-0234
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

JCE
JOE CASALI ENGINEERING, INC.
CIVIL, SITE DEVELOPMENT, TRAINING
DRAINAGE - WILMINGTON, DE
300 FORT ROAD, WARWICK, RI 02886
(401) 944-3300 (603) 944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL
9.10.19

PEACE DALE ELEMENTARY SCHOOL
109 KERSEY ROAD
PEACE DALE, RHODE ISLAND
AP 48-2, LOT 73

REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY: DRD
DRAWN BY: SEP/SD
CHECKED BY: JAC
DATE: SEPT. 2019
PROJECT NO: 14-30ak

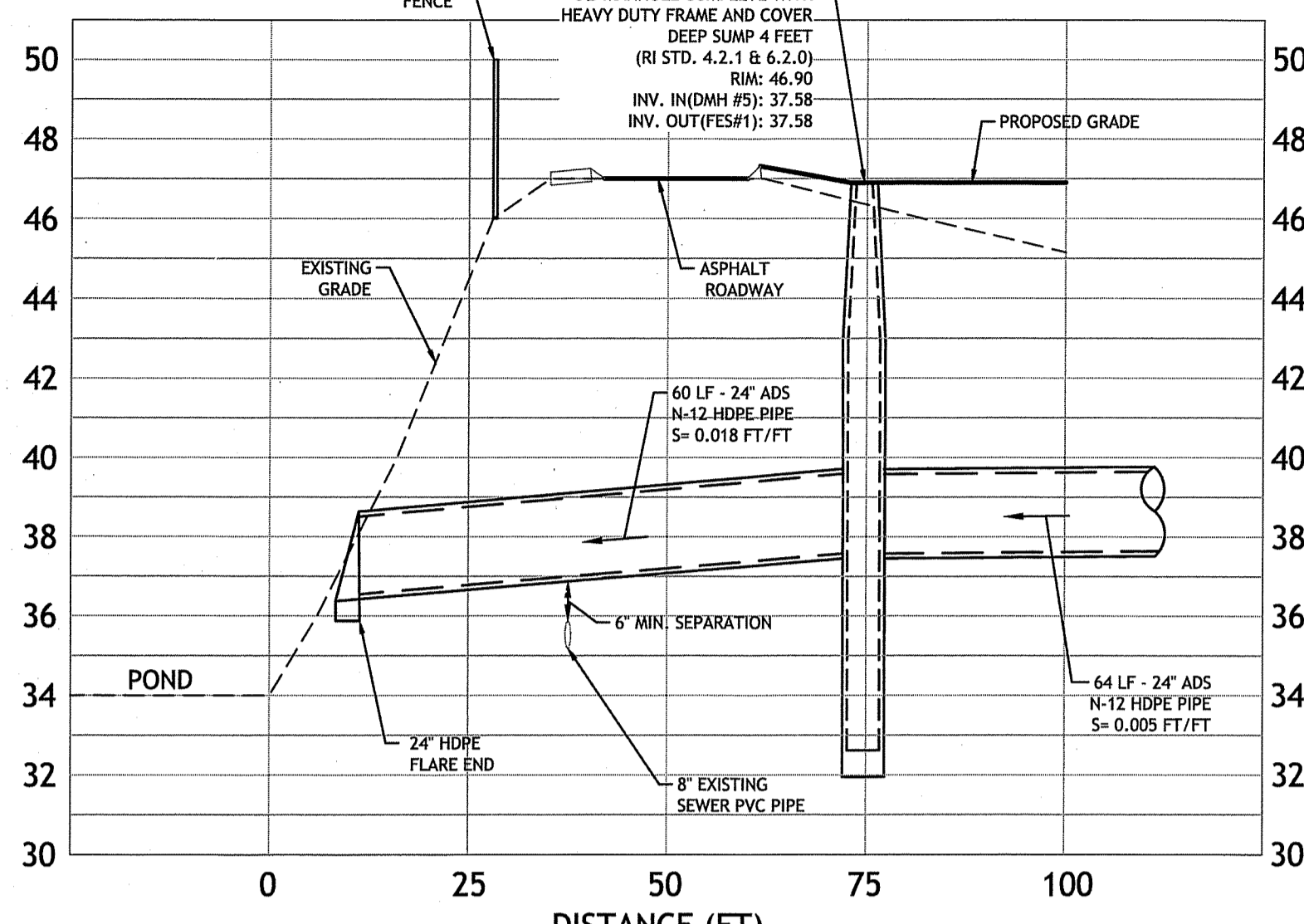
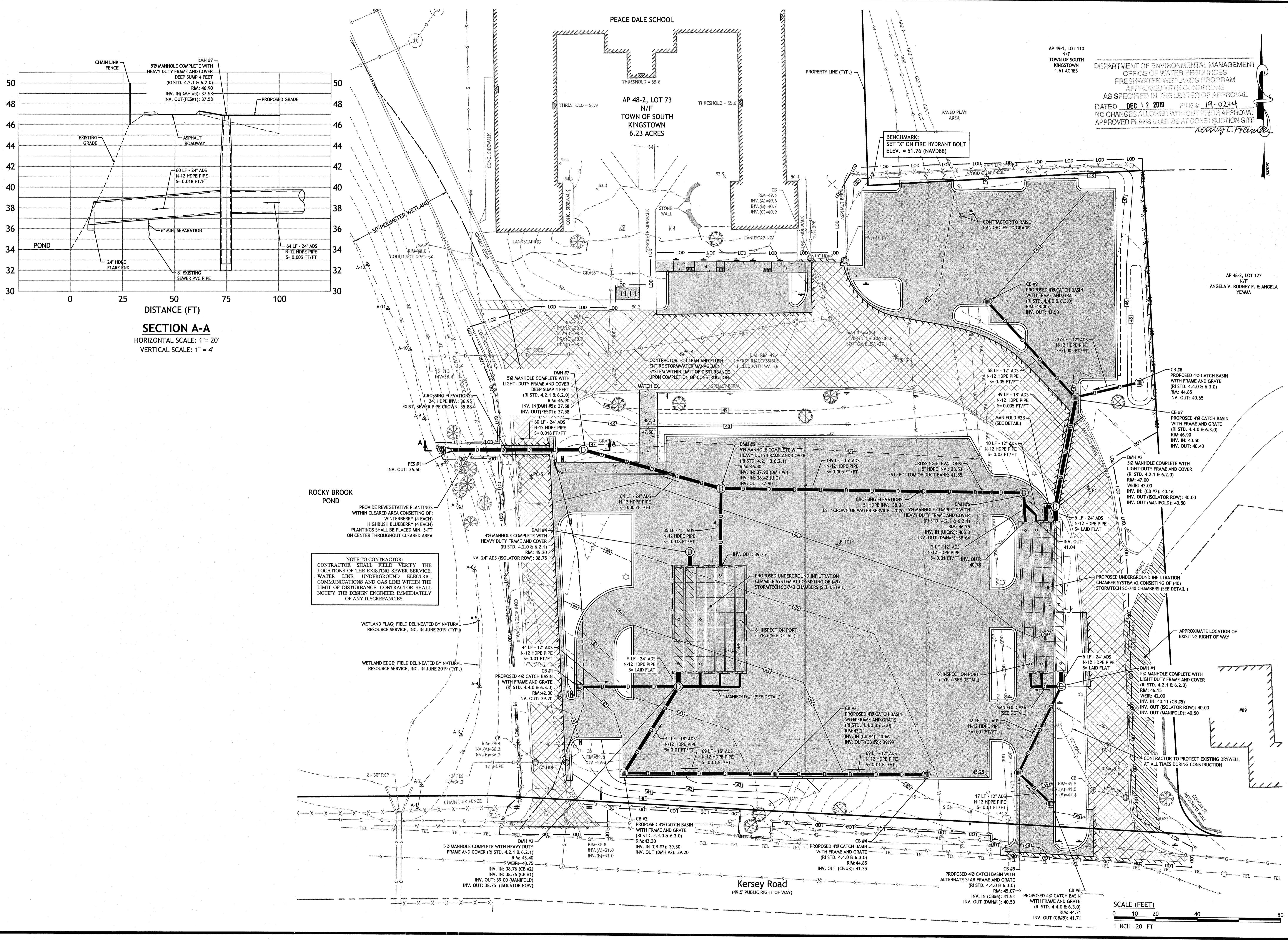
ISSUED FOR PERMITTING

EXISTING CONDITIONS & SITE PREP. PLAN

SHEET 3 OF 8

Q:\14-30 RCB\14-30ak SK Schools\Peace Dale Elementary\Permit Set\14.dwg Sep-13, 2019 9:49am

Q:\14-30 RCB\14-30ak-SK Schools\Peace Dale Elementary (Permit Set) R1.dwg Sep. 13, 2019 9:49am



SECTION A-A
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 4'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED **DEC 12 2019** FILE # **19-0274**
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Frenkel

JCE
 JOE CASALI ENGINEERING, INC.
 CIVIL, SITE DEVELOPMENT, TRANSPORTATION
 DRAINAGE - WEIR, SOUP, ROAD, WATER, SEWER, ETC.
 (601) 844-1300 (601) 944-1313 FAX WWW.JCE-ENGINEERING.COM

JOSEPH A. CASALI
 No. 7250
 REGISTERED PROFESSIONAL ENGINEER CIVIL
 9.10.19

PEACE DALE ELEMENTARY SCHOOL
 109 KERSEY ROAD
 PEACE DALE, RHODE ISLAND
 AP 48-2, LOT 73

REVISIONS:

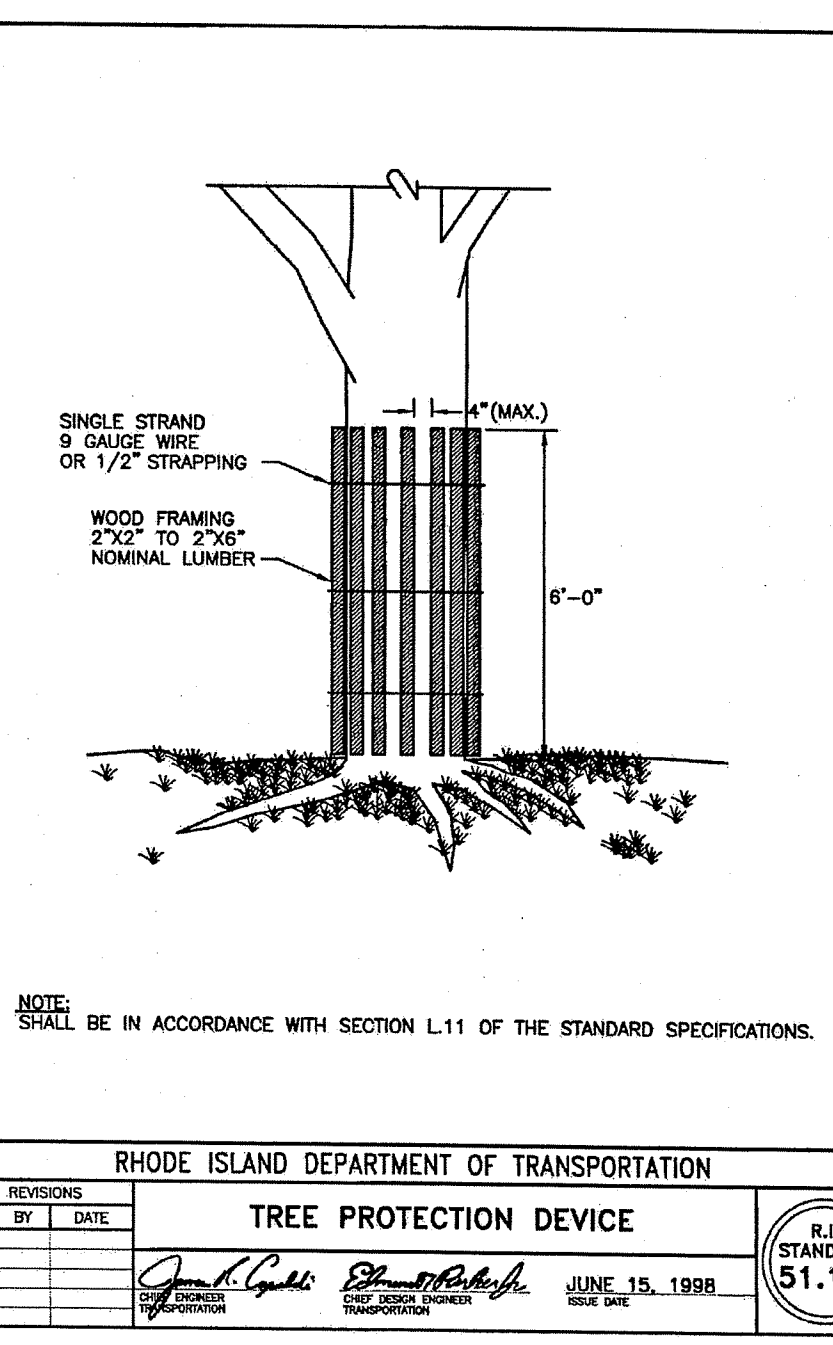
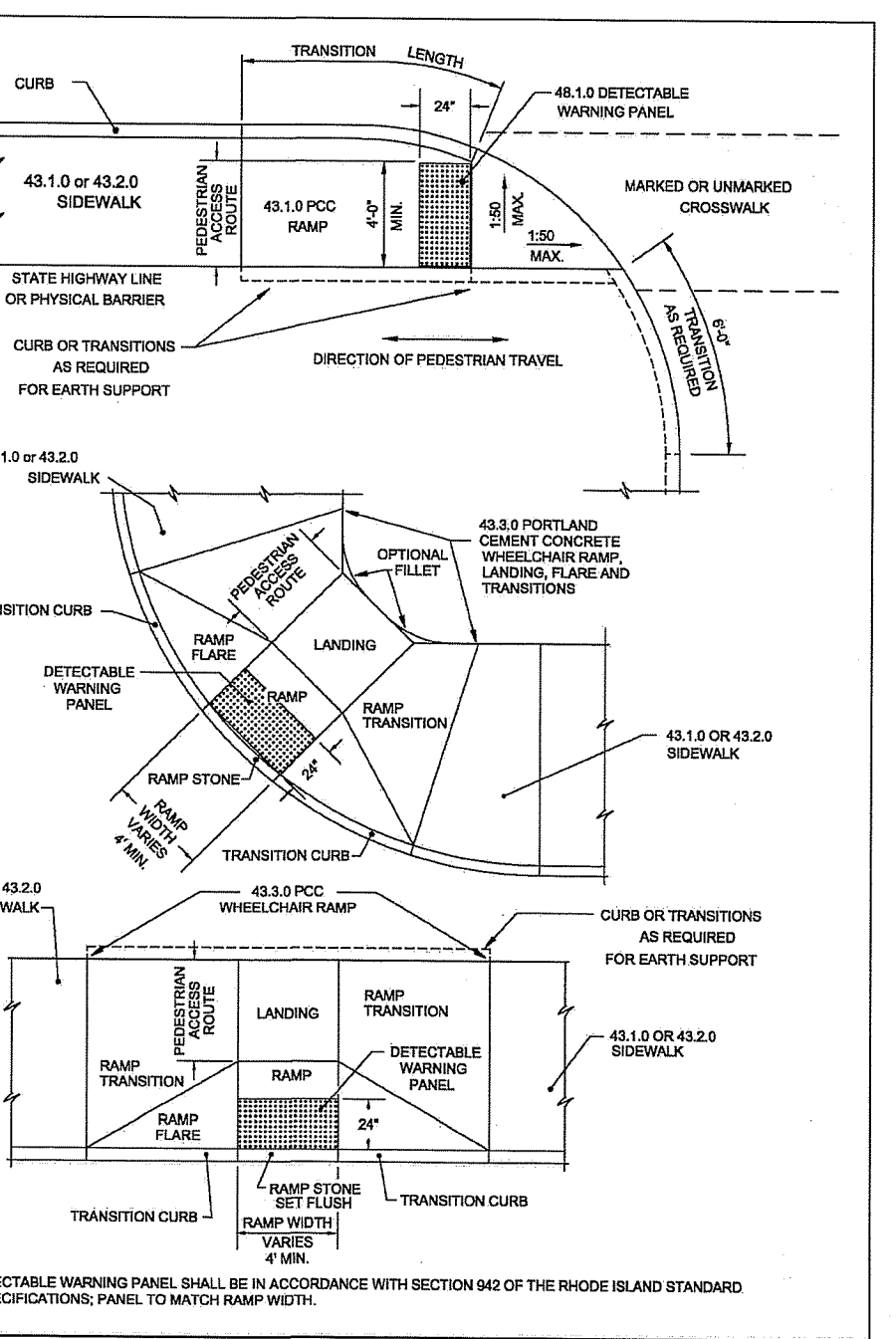
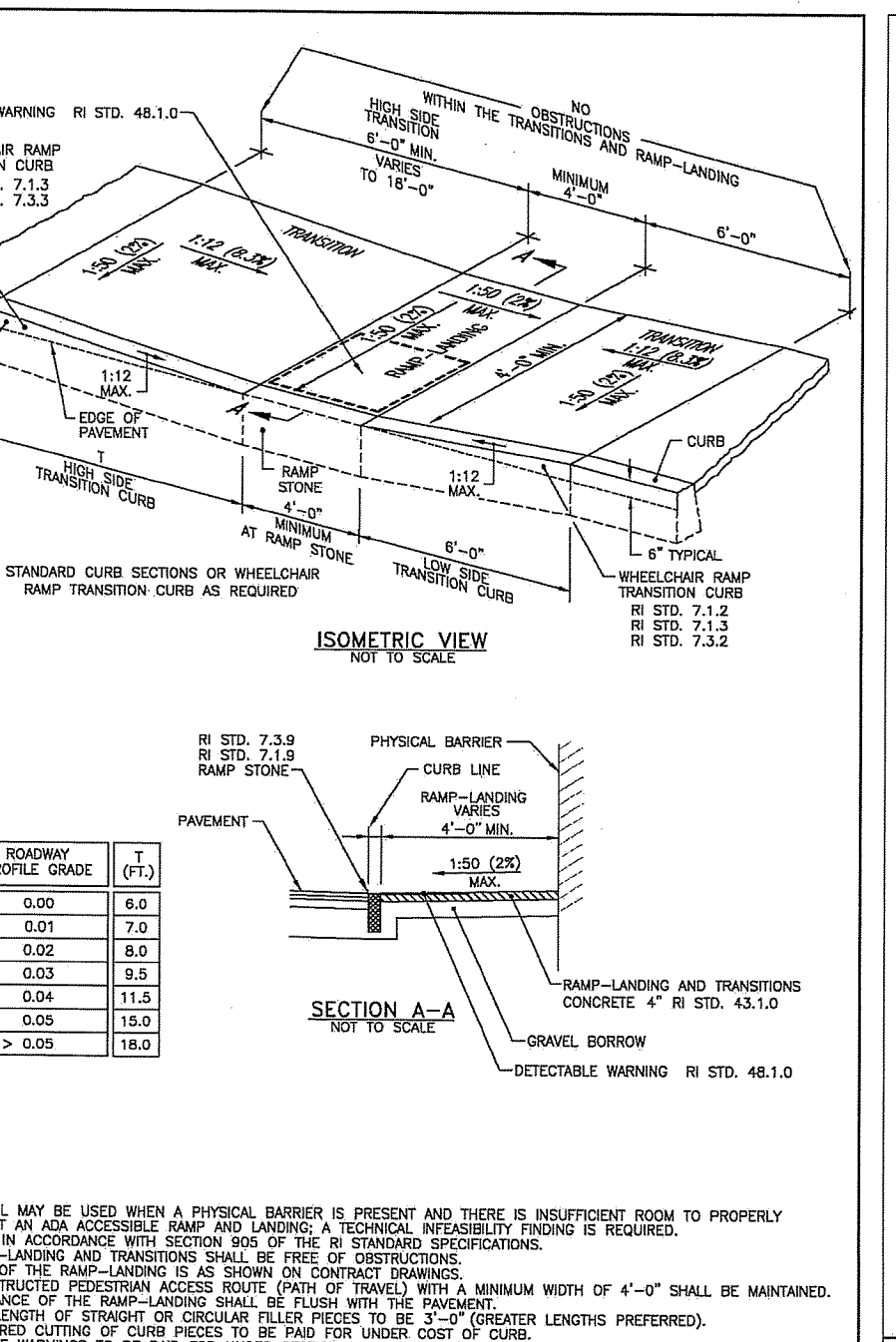
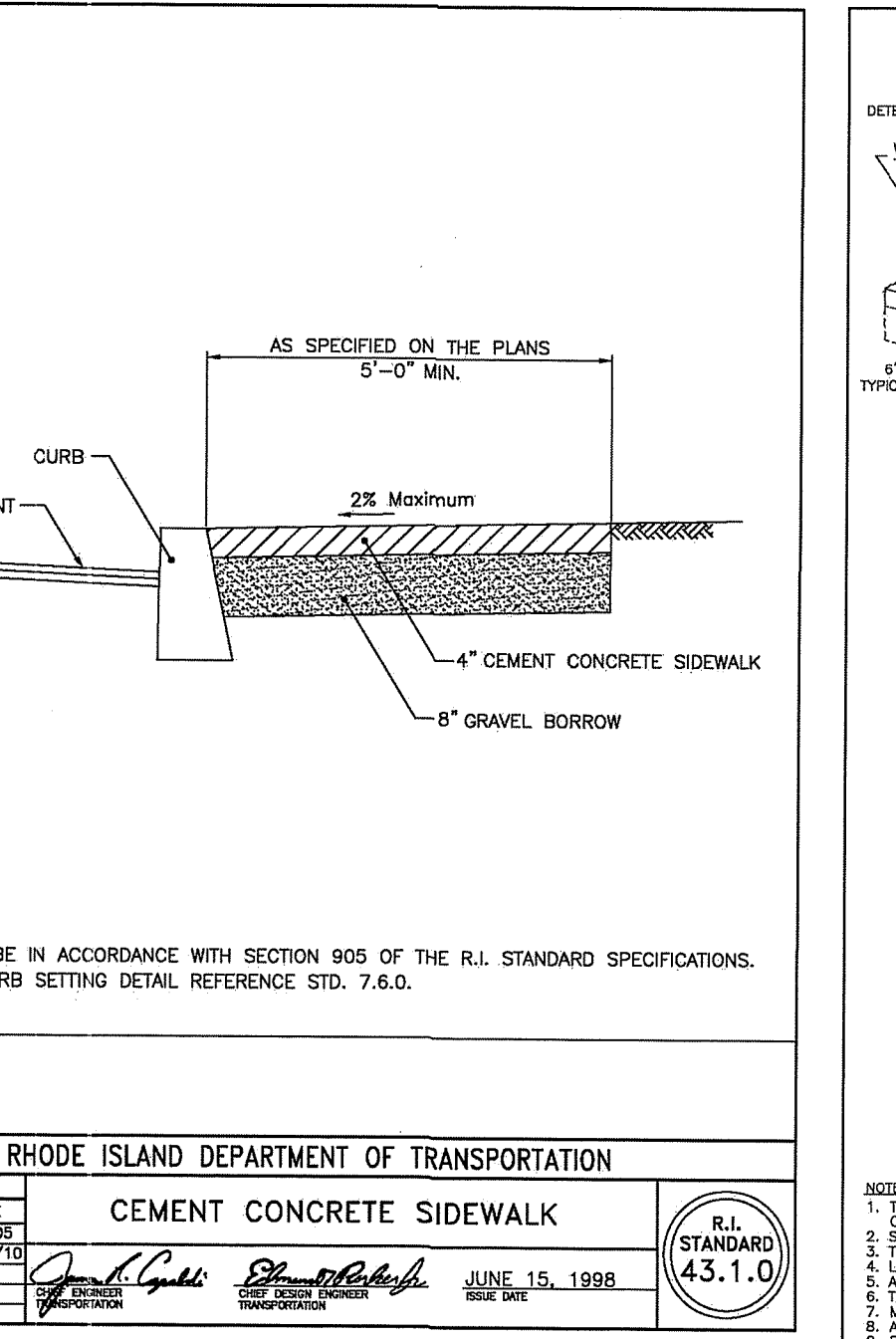
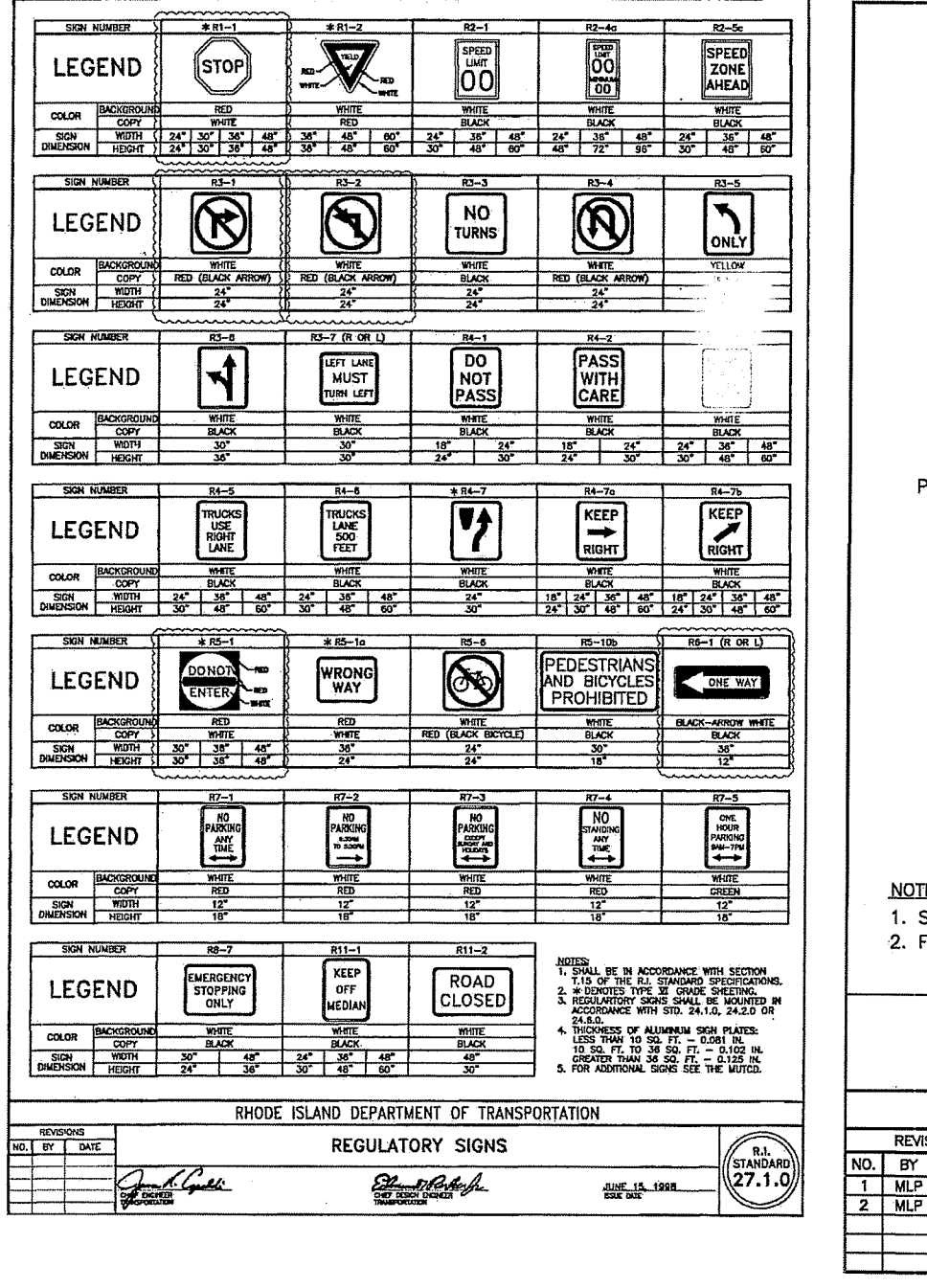
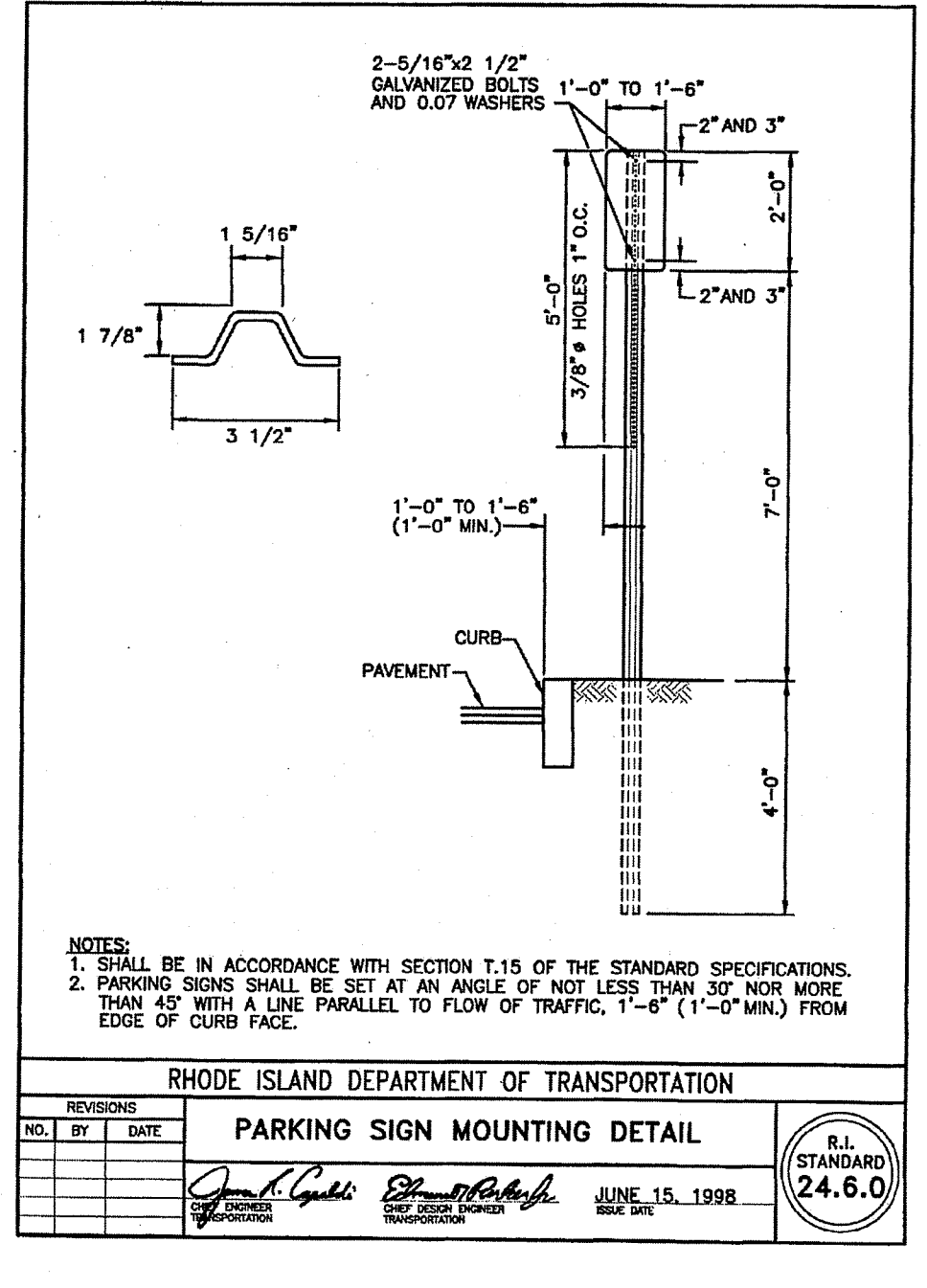
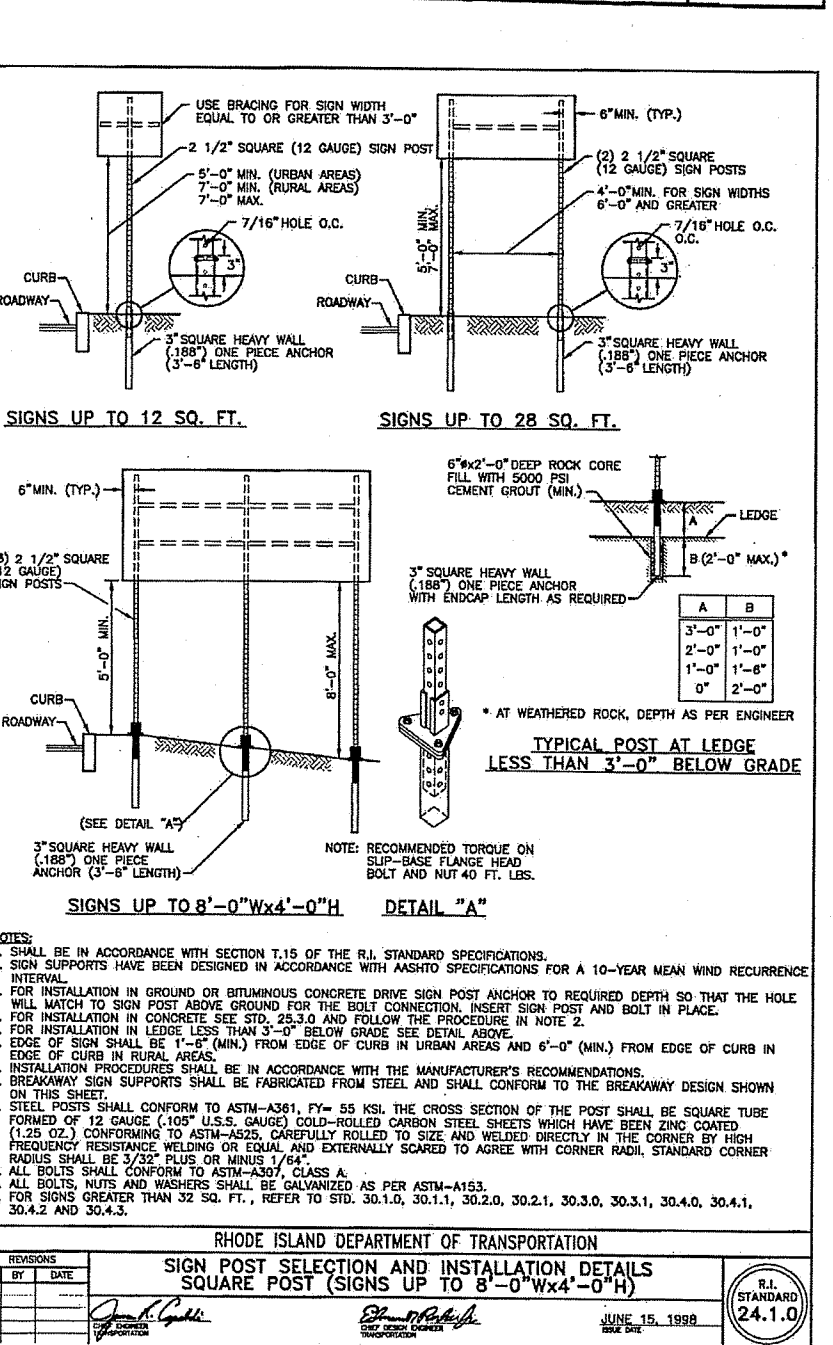
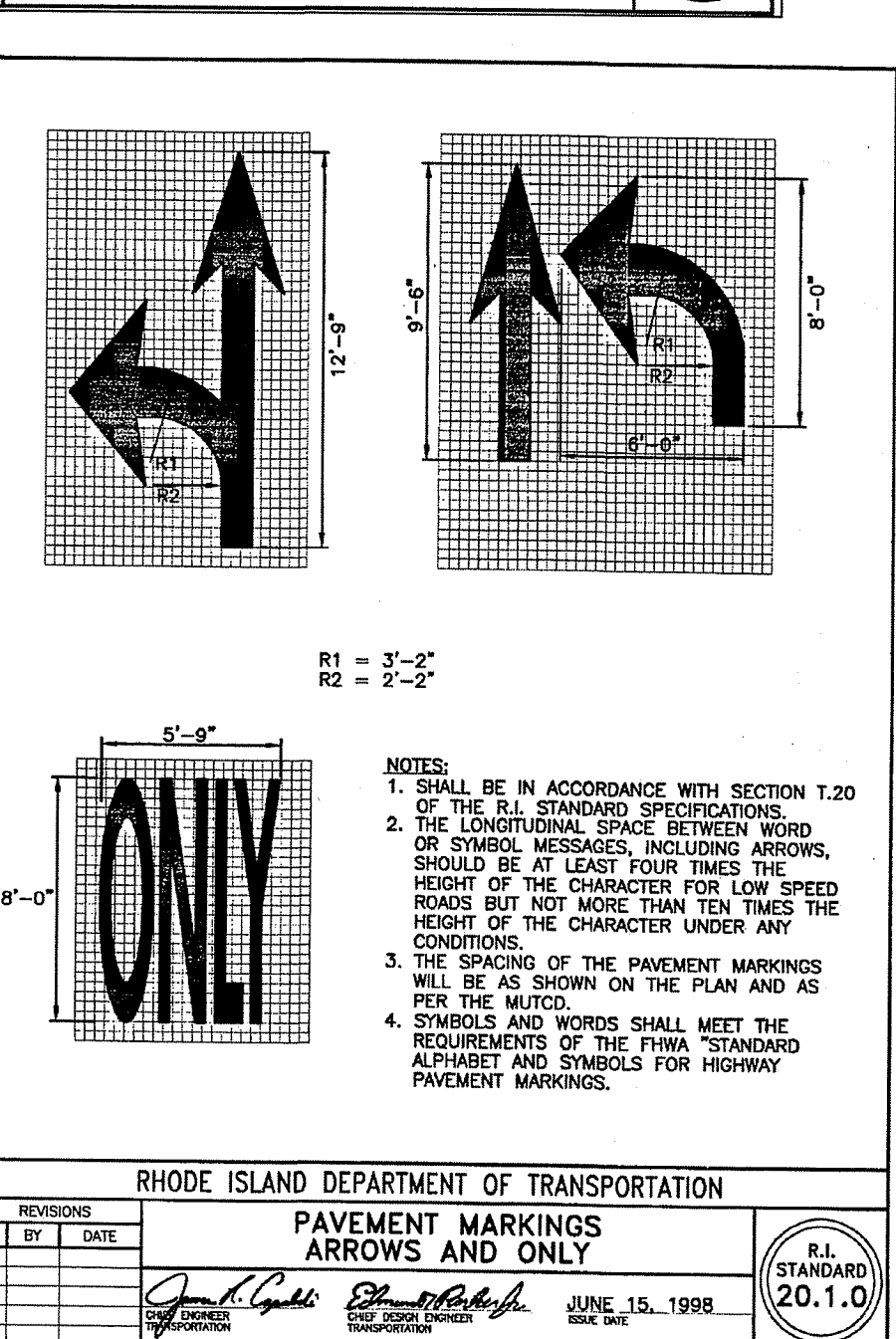
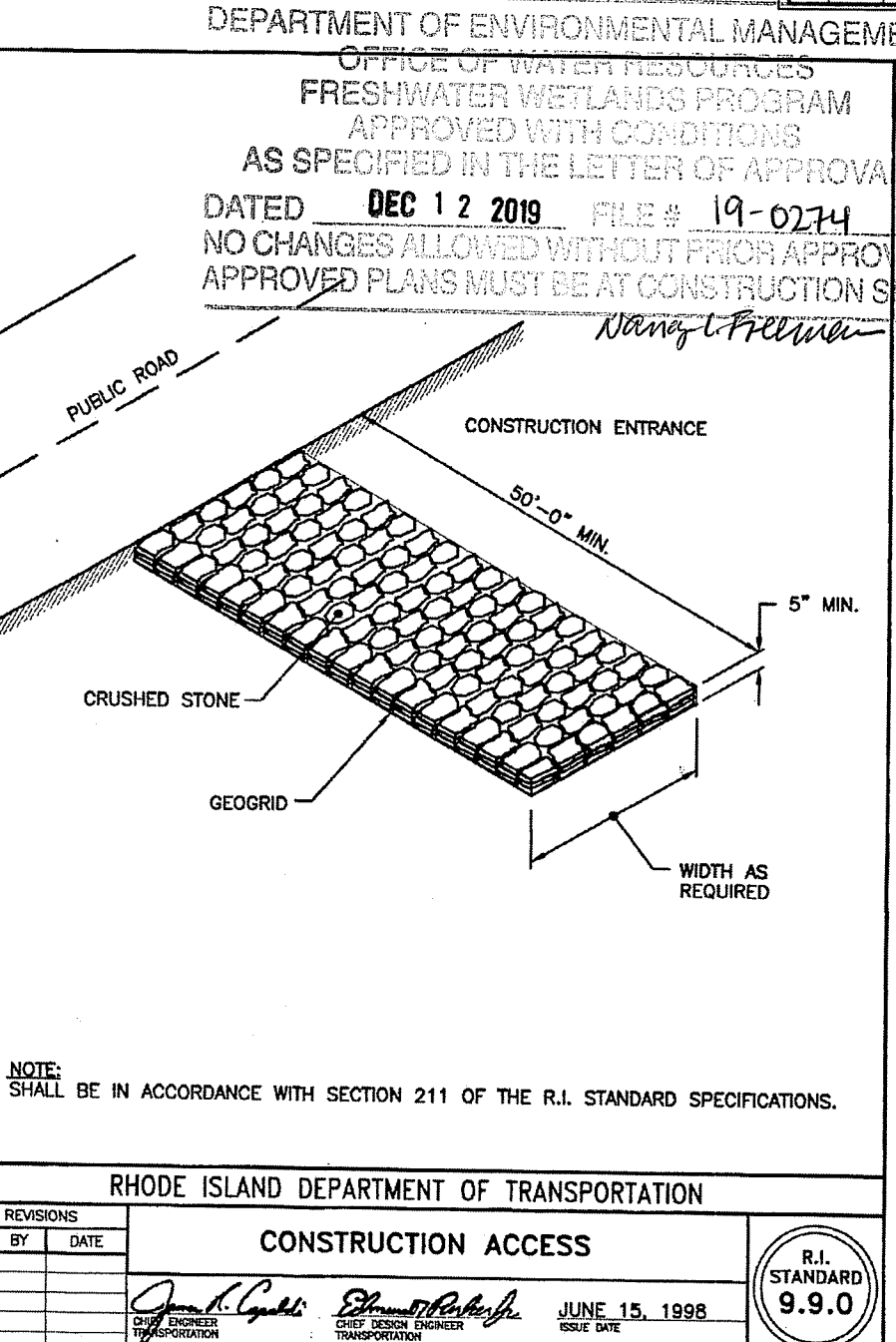
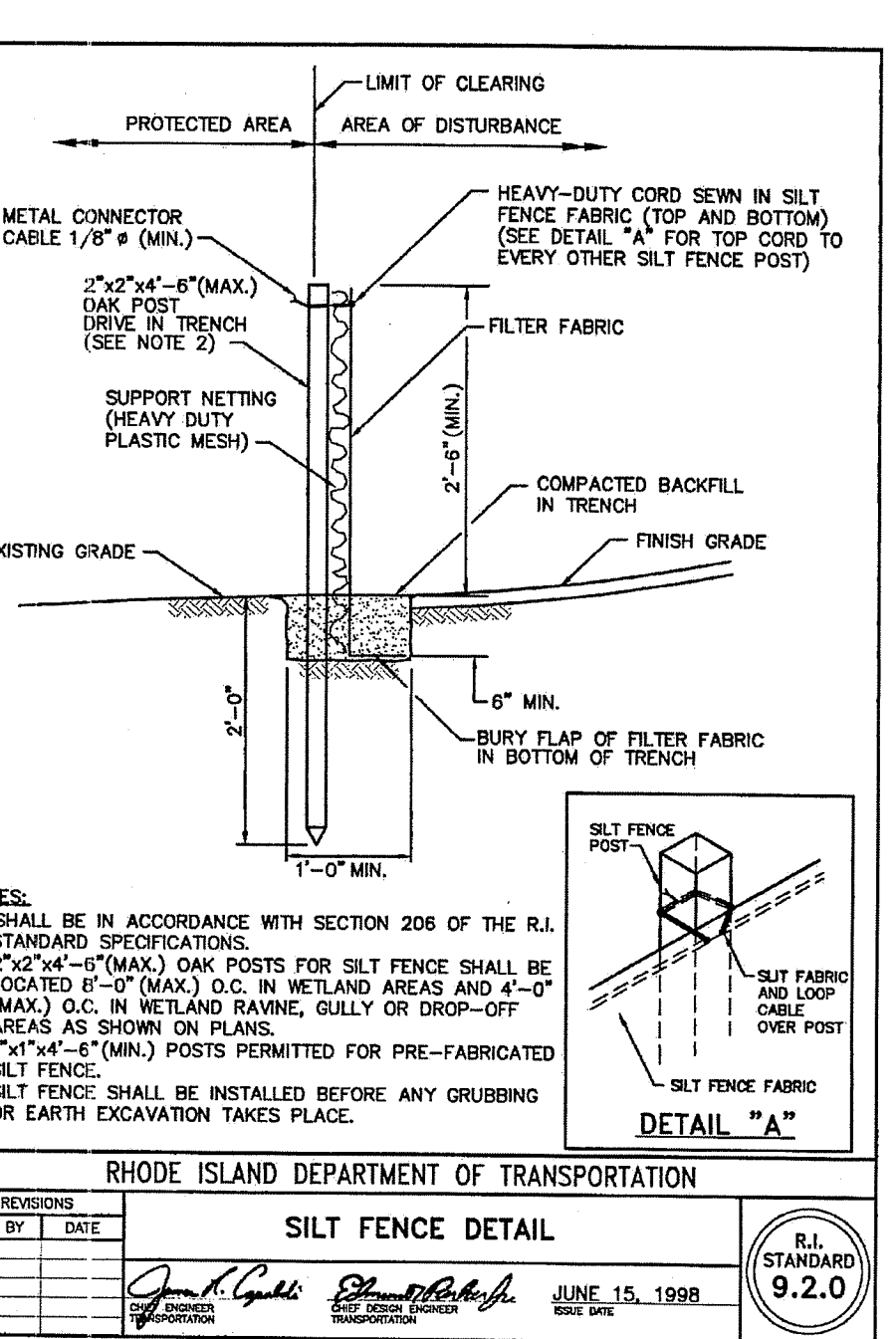
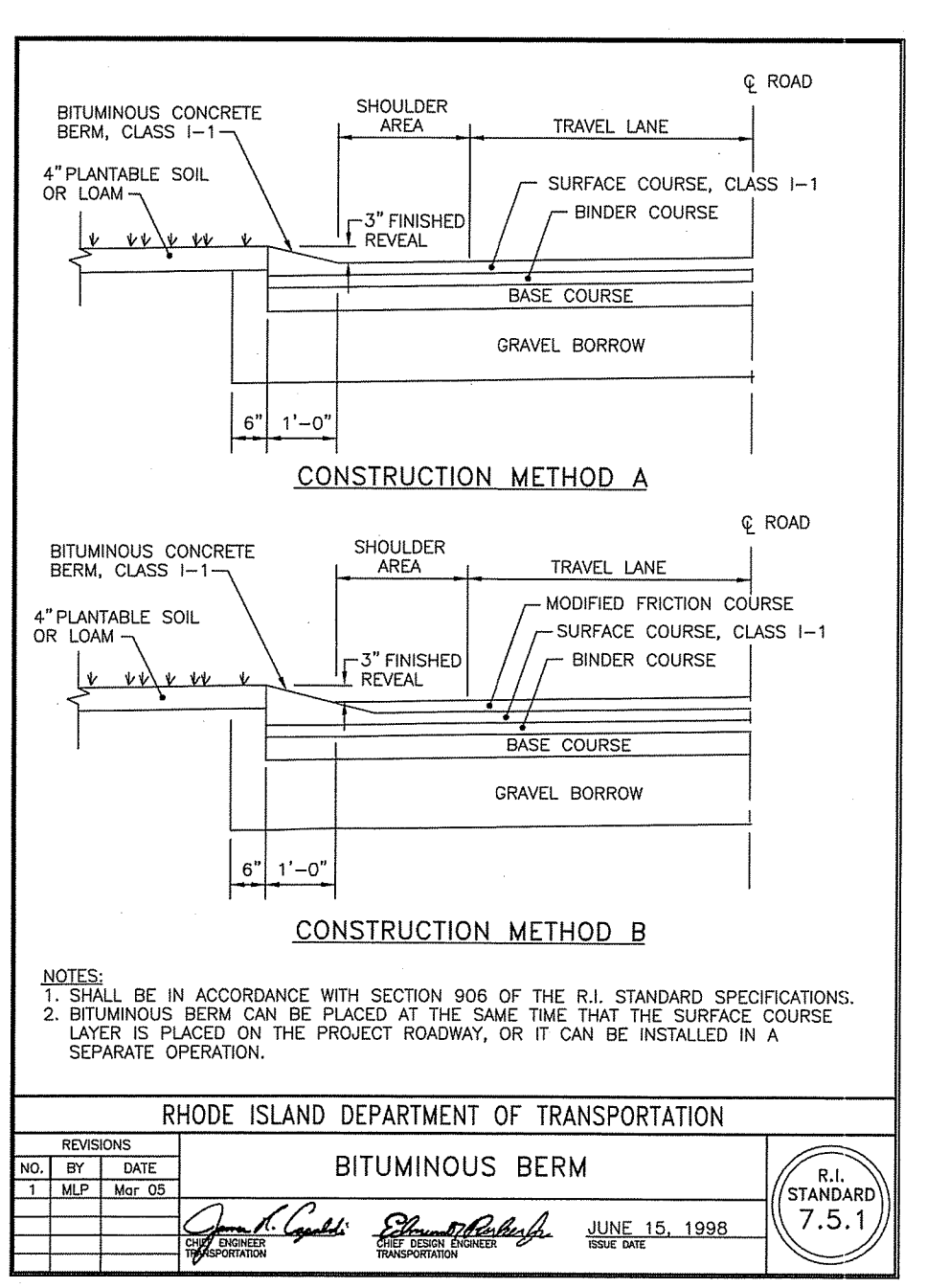
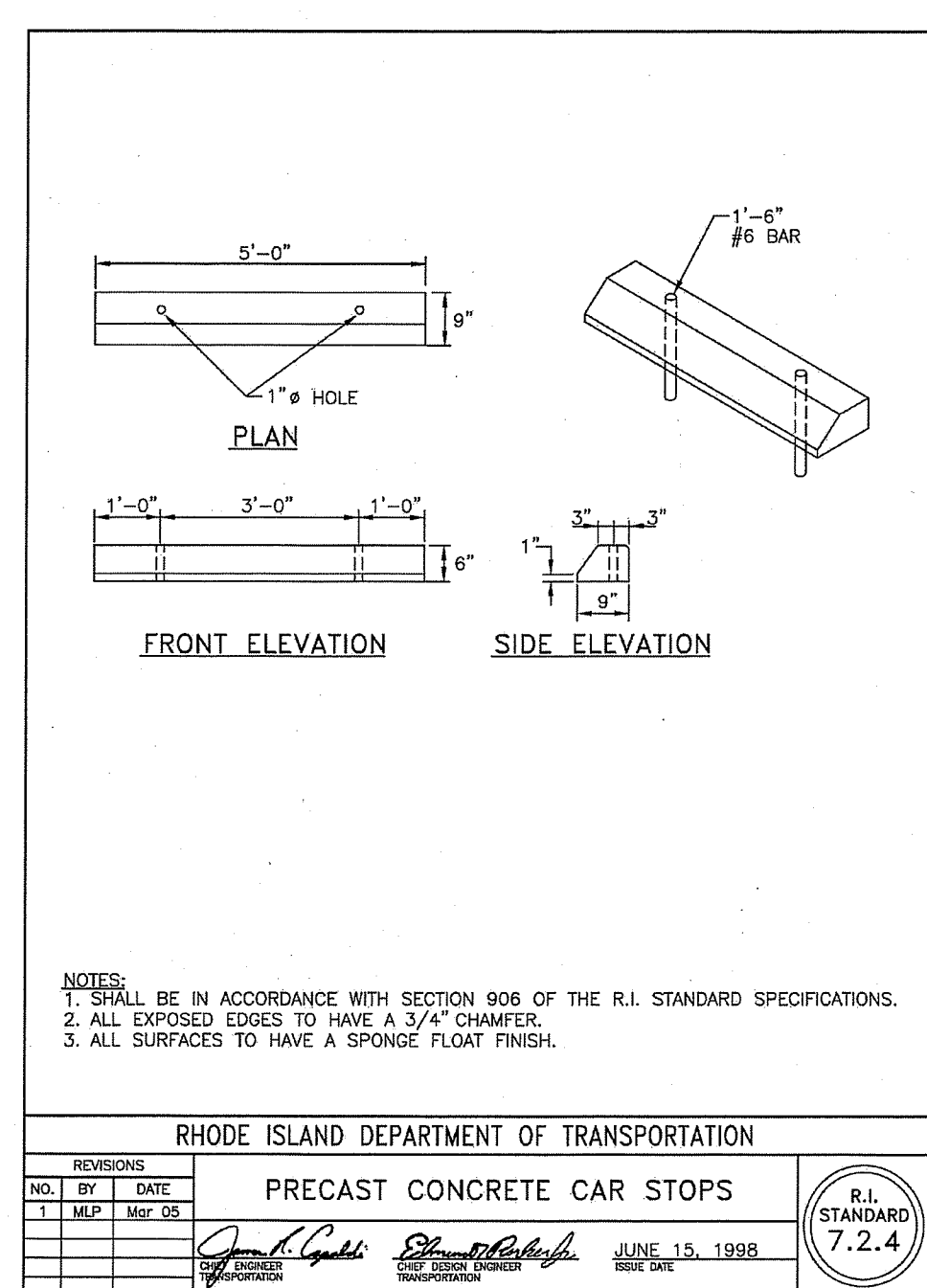
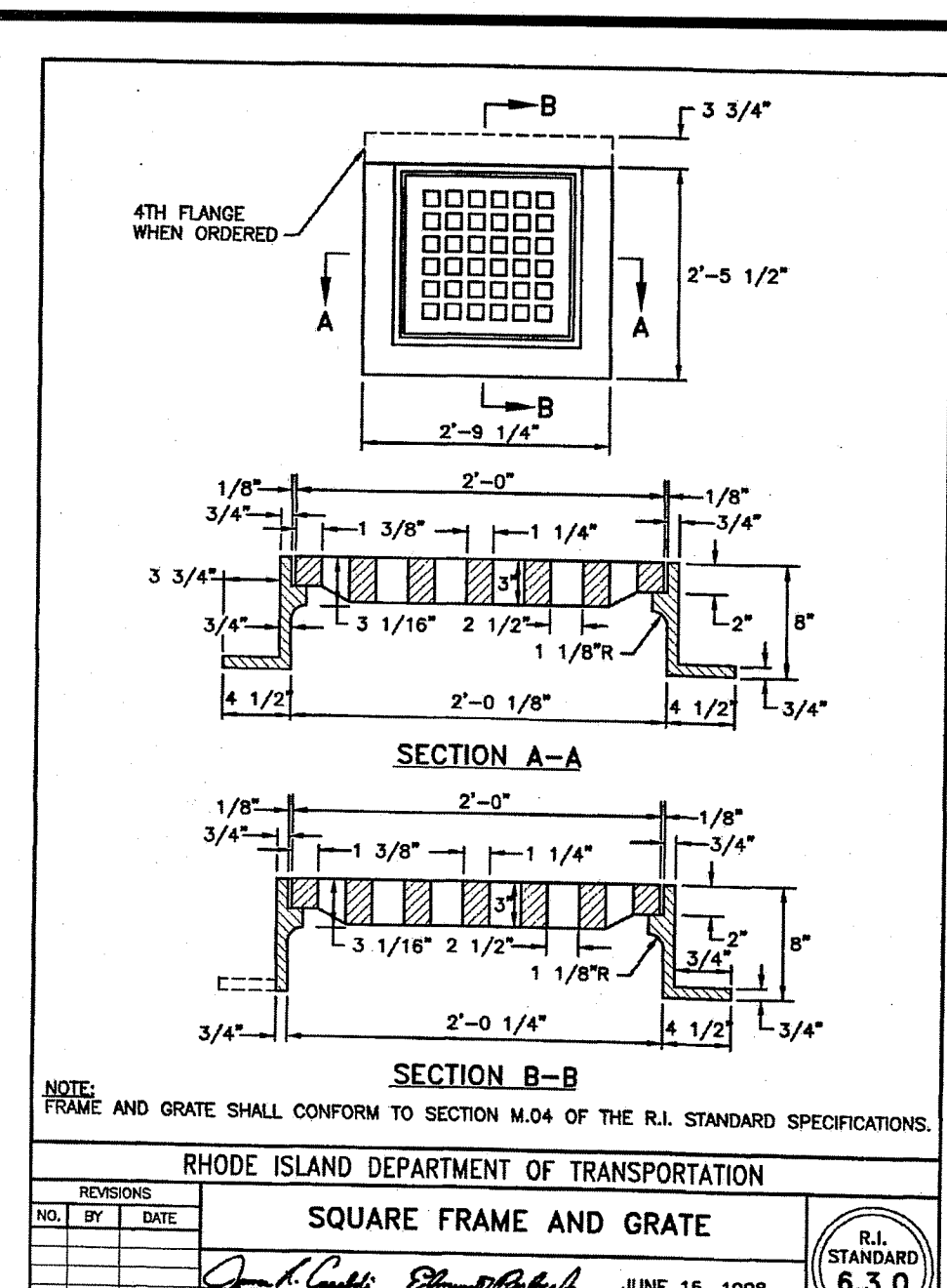
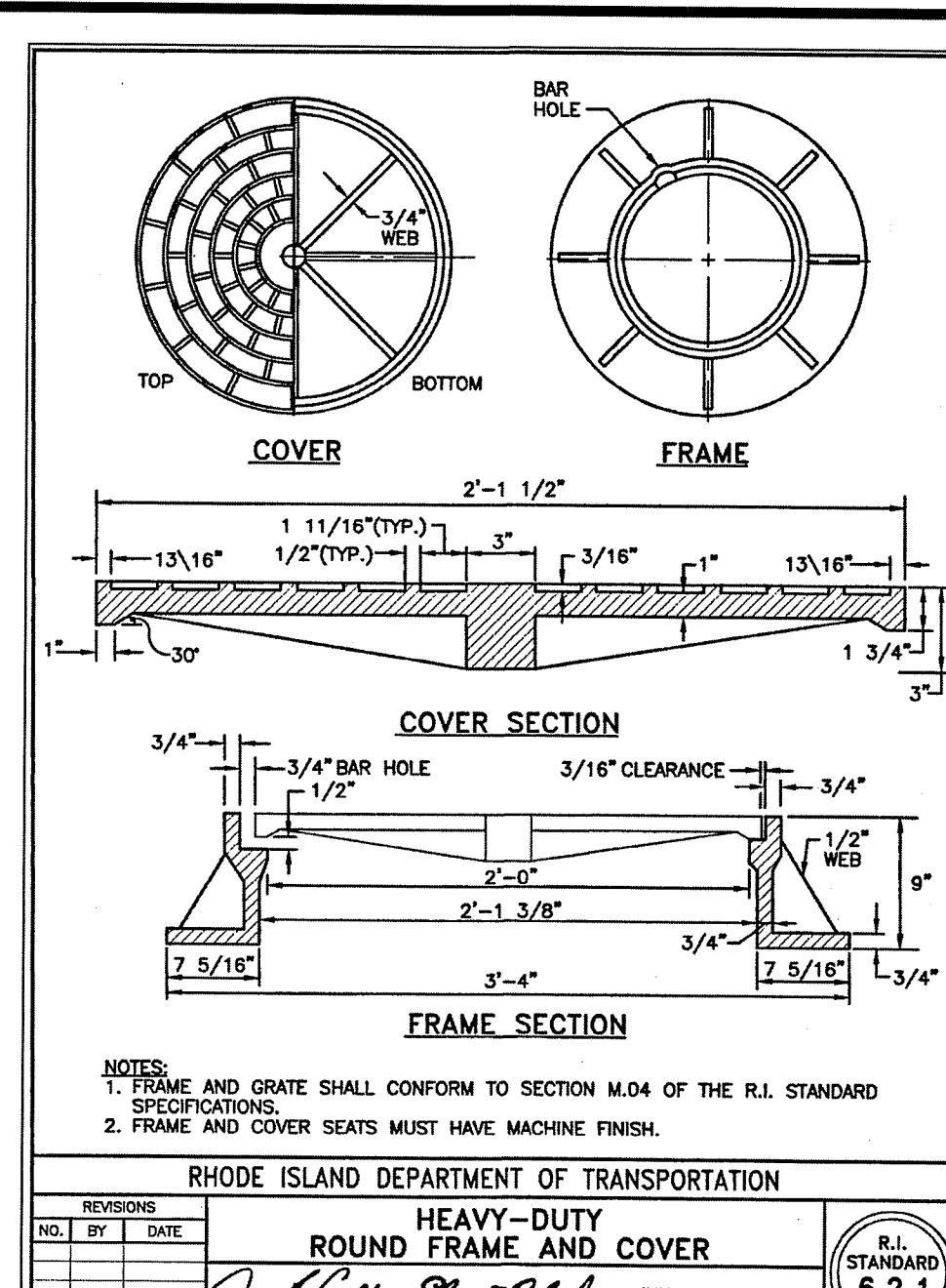
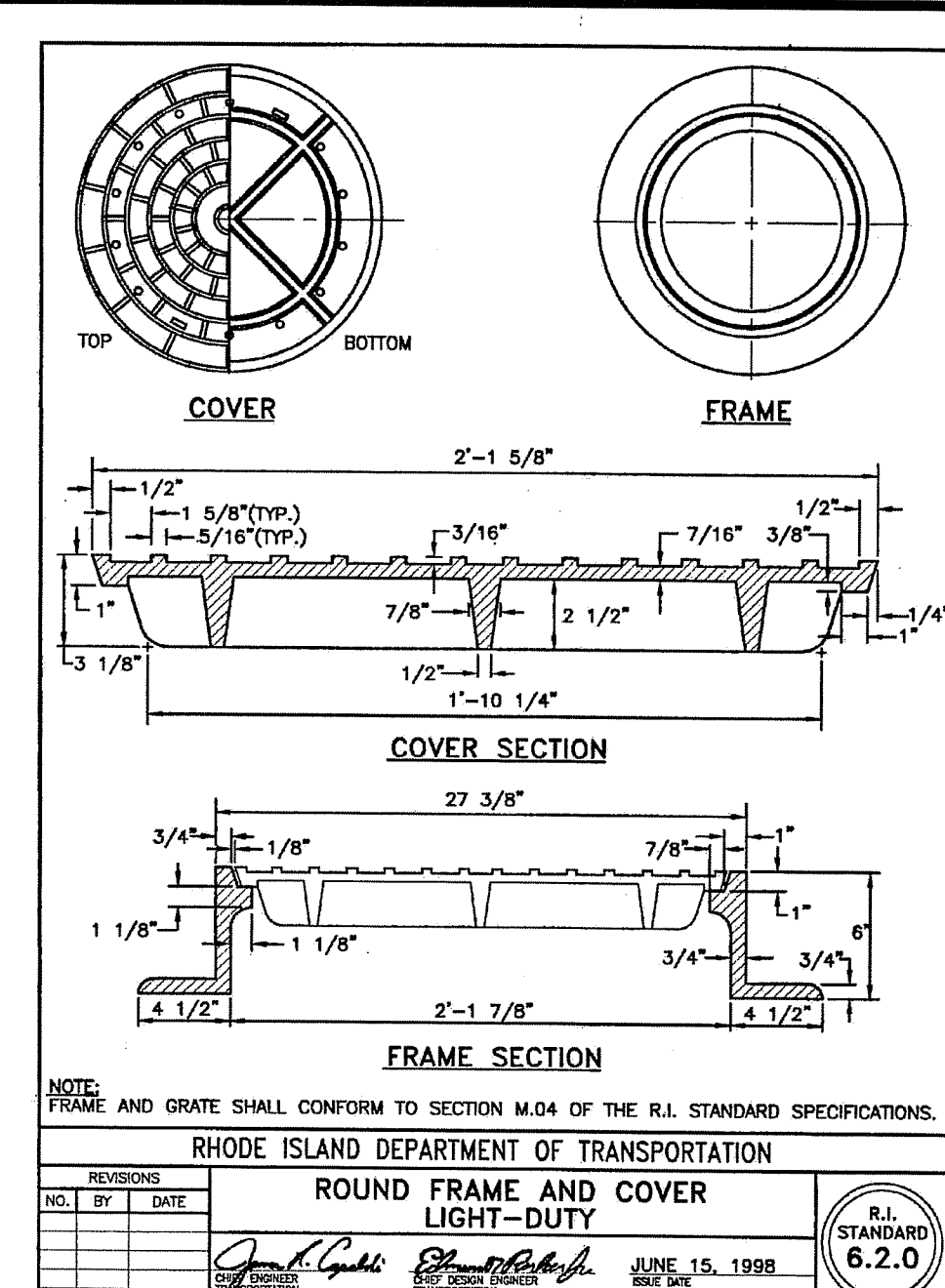
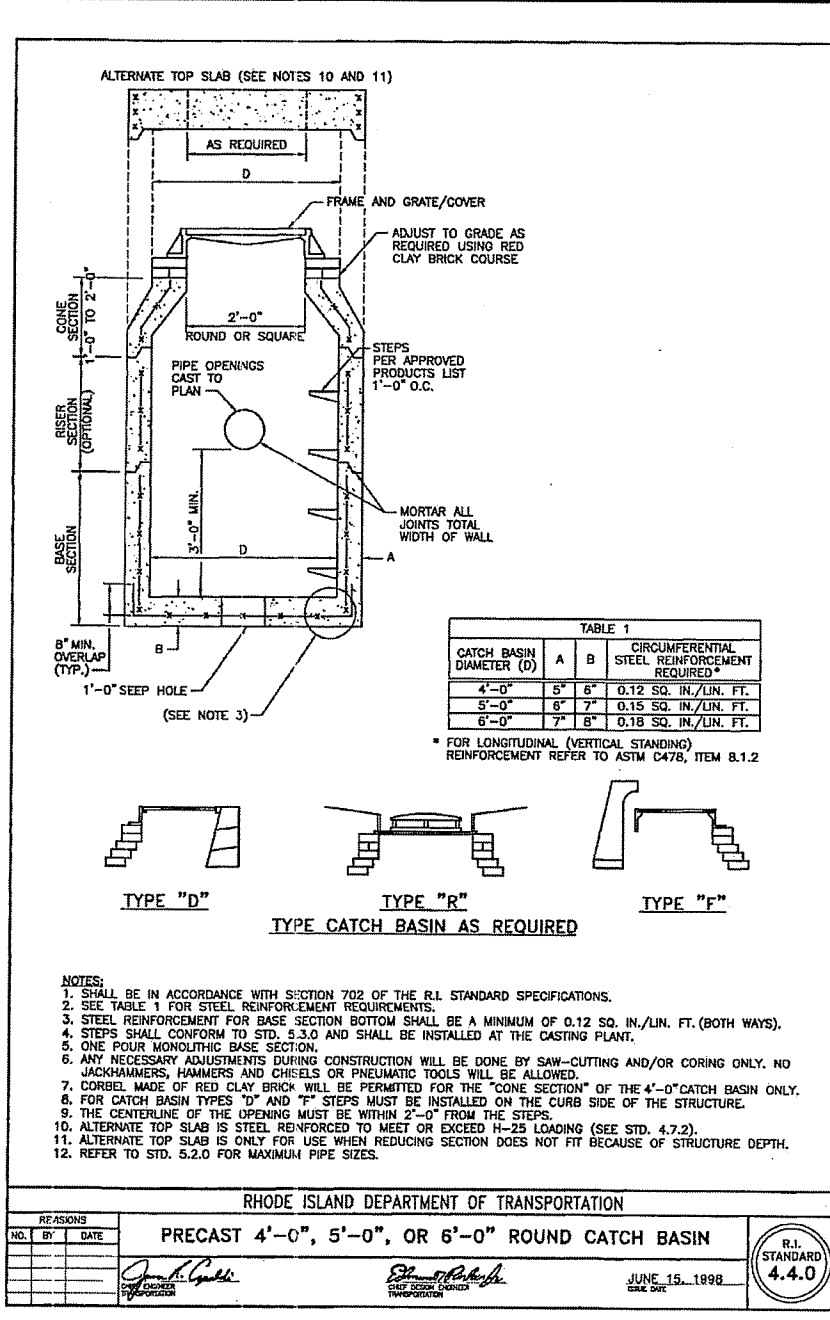
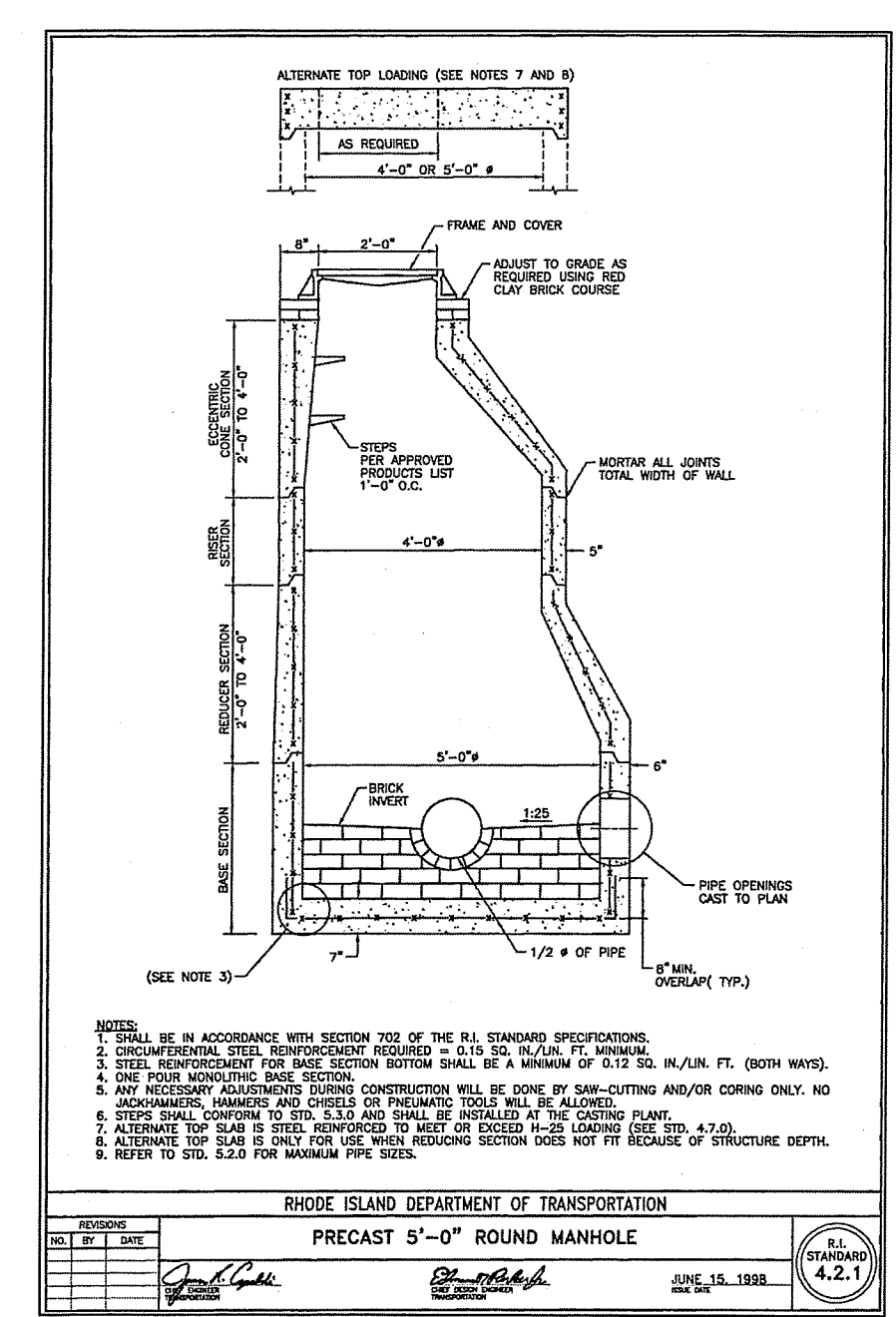
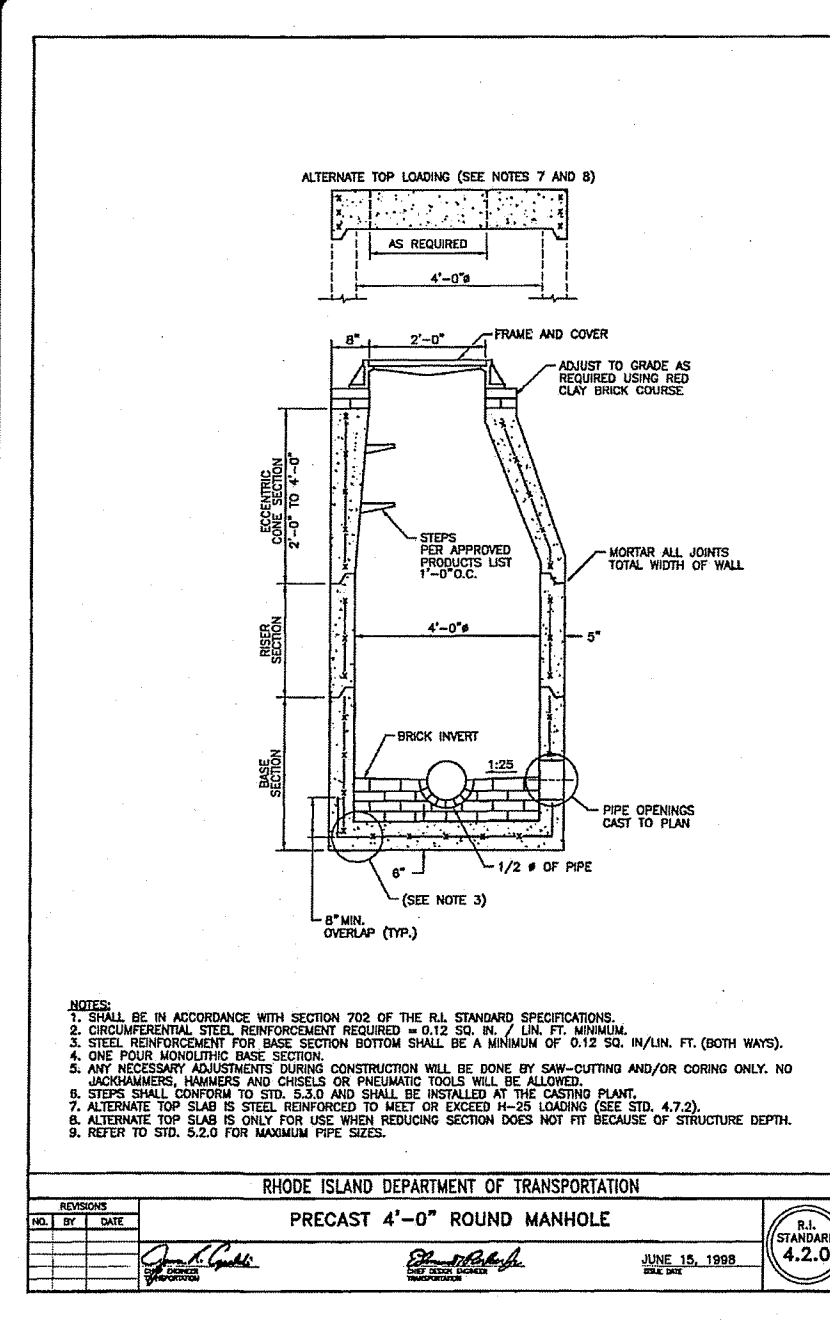
NO.	DATE	DESCRIPTION

DESIGNED BY: DRD
 DRAWN BY: SEP/SD
 CHECKED BY: JAC
 DATE: SEPT. 2019
 PROJECT NO: 14-30ak

ISSUED FOR PERMITTING

GRADING & DRAINAGE PLAN

SHEET 5 OF 8



JCE
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 300 POST ROAD, WARWICK, RI 02886
 (401) 944-1300 (401) 944-1313 FAX WWW.JCEASALI.COM

JOSEPH A. CASALI
 No. 2250
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 9.16.19

PEACE DALE ELEMENTARY SCHOOL
 109 KERSEY ROAD
 PEACE DALE, RHODE ISLAND
 AP 48-2, LOT 73

REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY: DRD
 DRAWN BY: SEPSD
 CHECKED BY: JAC
 DATE: SEPT. 2019
 PROJECT NO: 14-30ak

ISSUED FOR PERMITTING

RI STANDARD DETAILS

SHEET 6 OF 8

02:14:30 (RDB) 14-30ak-SK_Schools/Peace Dale Elementary School/ACAD/Peace Dale Elementary (Permit Set) [Rev. 13, 2019 9:50am]



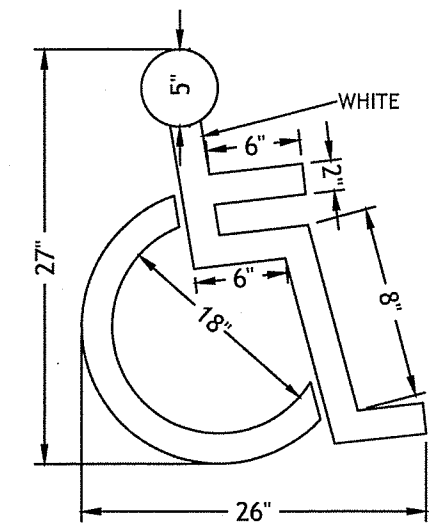
NOTE: SIGNS ARE TO CONFORM WITH THE MOST RECENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

*VAN ACCESSIBLE SIGNS FOR SPACES ADJACENT TO THE 8' STRIPED ISLE.

SIGN NOTES:

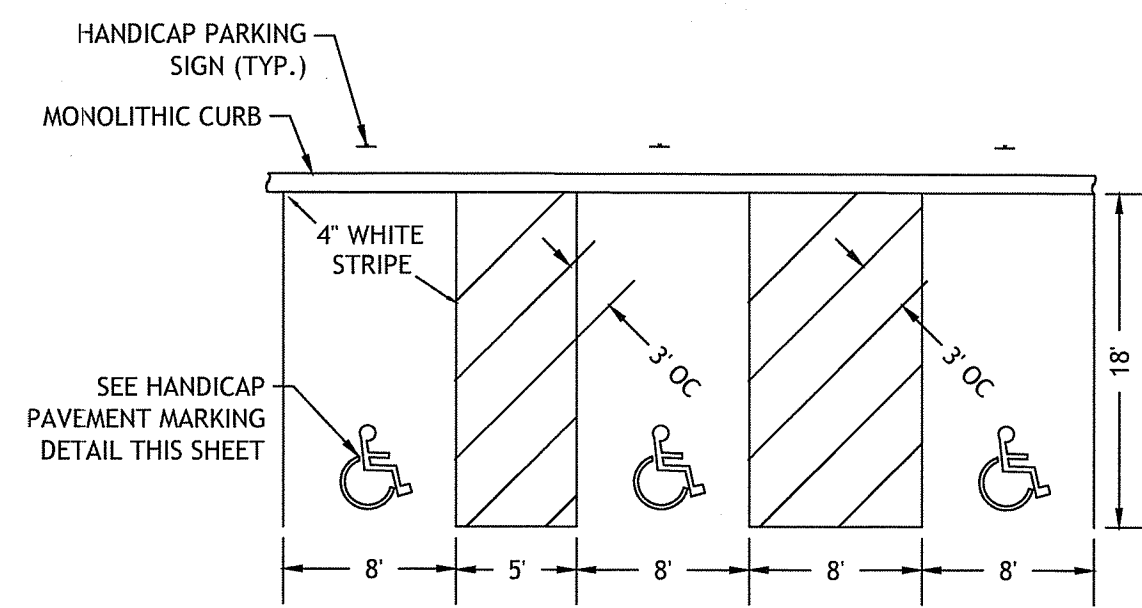
- SIGN POSTS SHALL BE GALVANIZED STEEL U-CHANNEL (3 1/2" WIDE-MIN) AND INSTALLED IN CONFORMANCE TO M.U.T.C.D. AND RHODE ISLAND STANDARD SPECIFICATIONS.
- POSTS SHALL BE DRIVEN TO A DEPTH OF 4 FEET (MIN).
- THE EDGE OF THE SIGN SHALL BE 18" FROM THE FACE OF THE CURB.
- WITHIN SIDEWALK LOCATIONS THE SIGN POST WILL BE INSTALLED WITHIN A 6'X6' SQUARE BOX FORM.

3 HANDICAP PARKING SIGNS
NOT TO SCALE

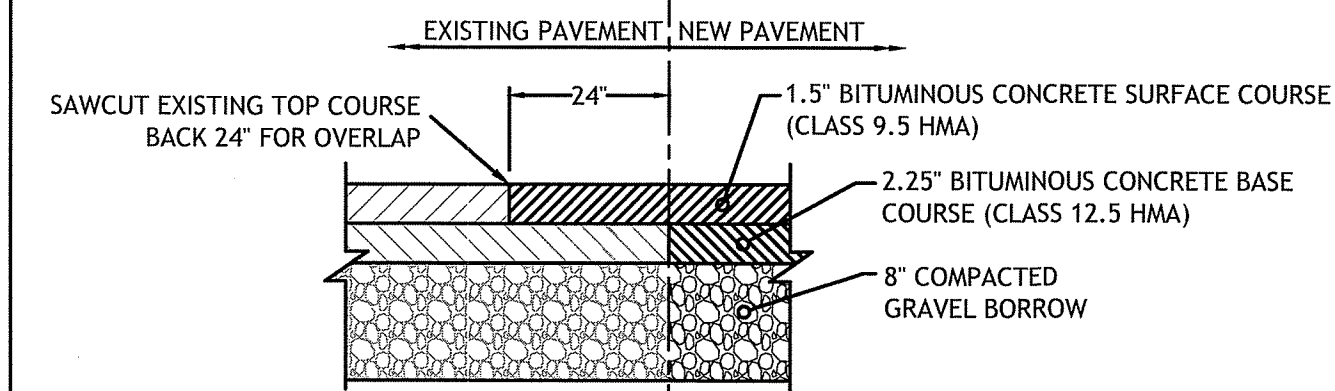


NOTE: 1. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE RHODE ISLAND STATE BUILDING CODE.

4 HANDICAP PAVEMENT MARKING
NOT TO SCALE

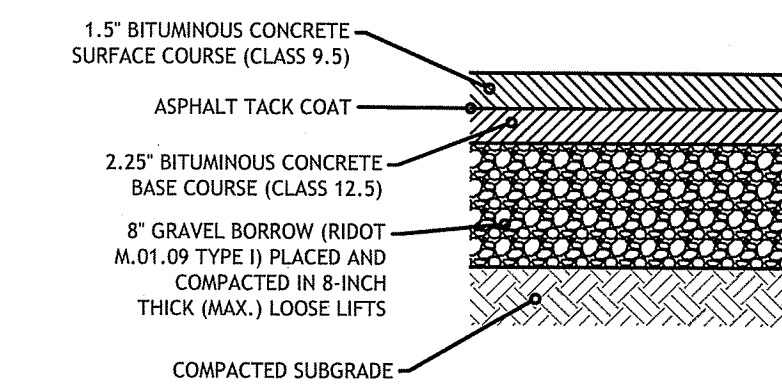


5 HANDICAP PARKING STALLS
NOT TO SCALE



NOTE: PROVIDE BITUMINOUS TACK COAT AT ALL SAWCUTS.

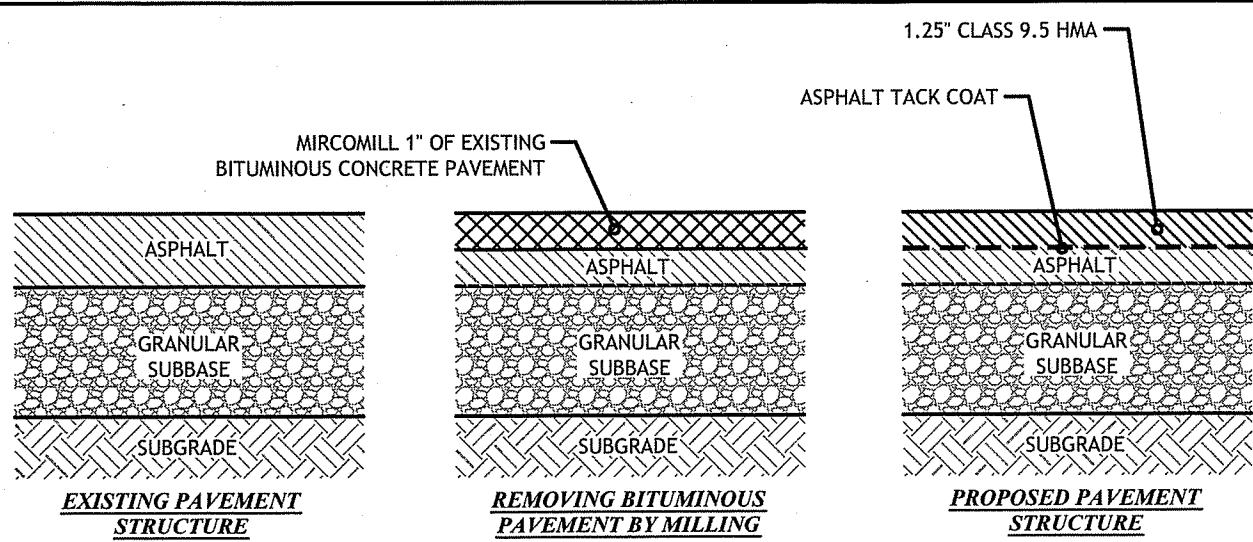
6 PAVEMENT CUT AND MATCH DETAIL
NOT TO SCALE



NOTES:

- IF UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. THE DEPTH OF UNSUITABLE MATERIAL TO BE REMOVED WILL BE DETERMINED IN THE FIELD. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE THE UNSUITABLE MATERIALS AND REPLACE WITH SUITABLE MATERIAL APPROVED BY THE ENGINEER.
- MINIMUM COMPACTION FOR GRAVEL BORROW SUB-BASE AND SUBGRADE: 95% MODIFIED PROCTOR.

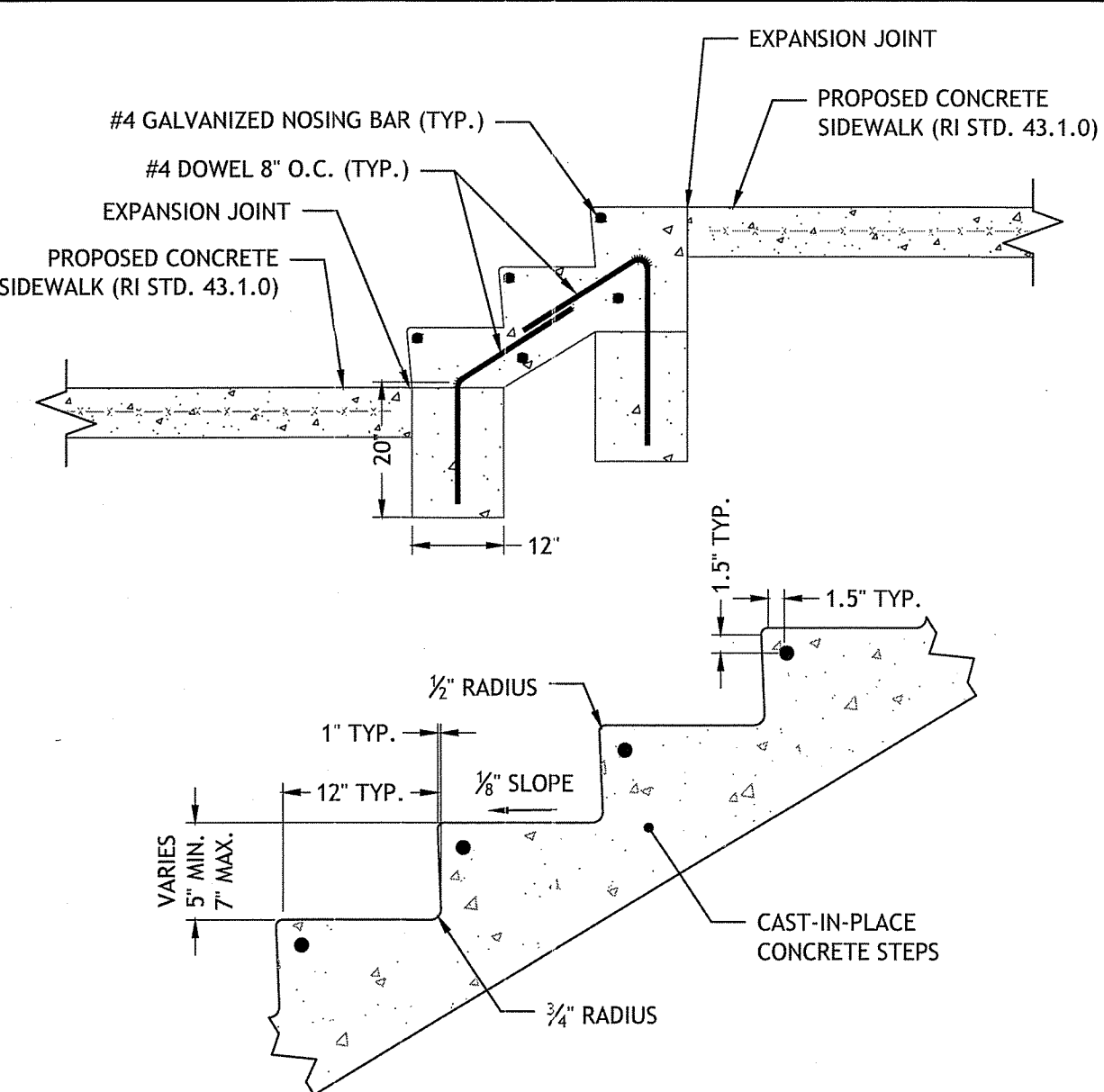
7 BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE



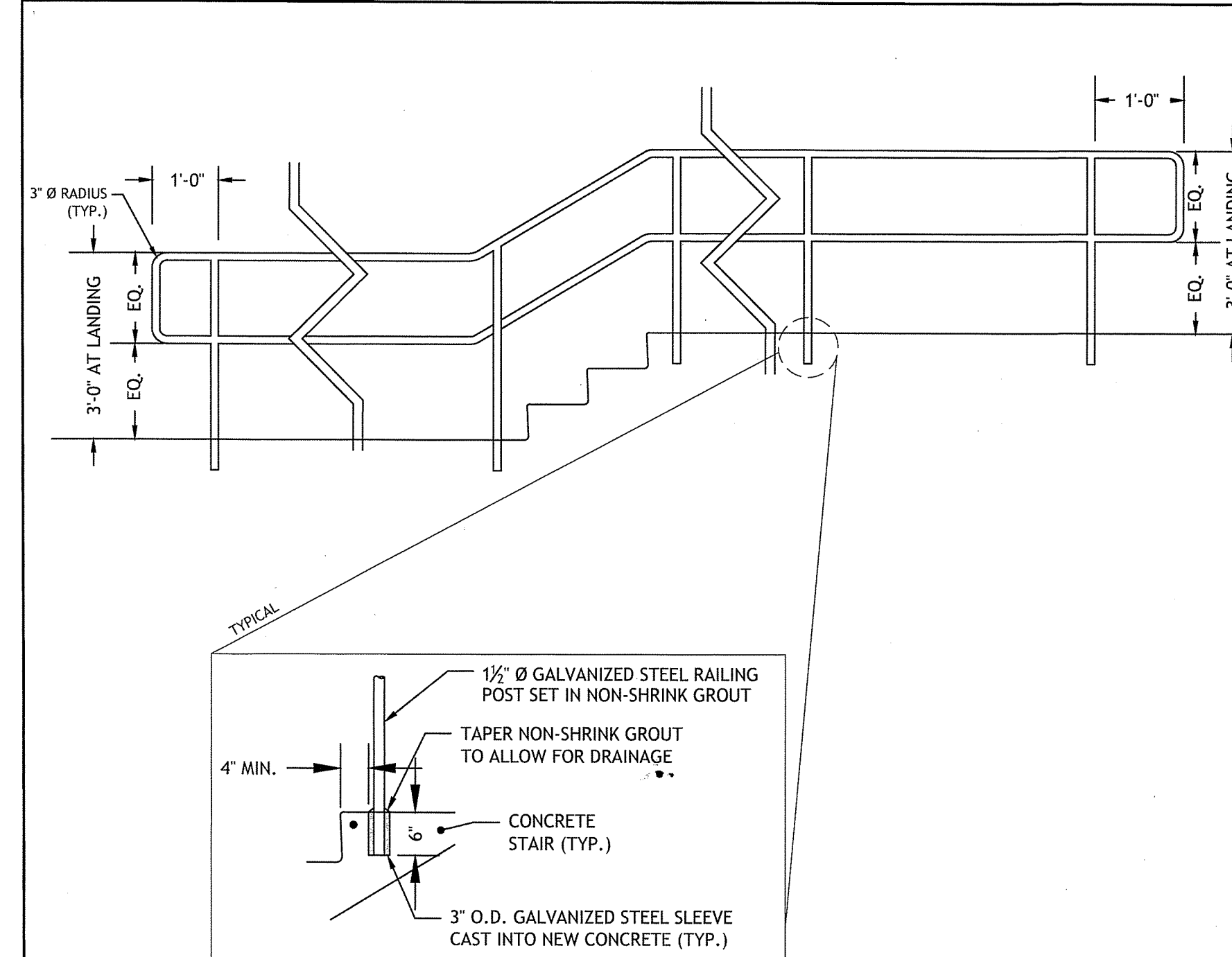
NOTES:

- PAVEMENT MILLING SHALL BE IN ACCORDANCE WITH SECTION 935 OF THE RHODE ISLAND STANDARD SPECIFICATIONS WITH ALL LATEST REVISIONS AND ADDENDA.
- ASPHALT TACK COAT SHALL BE IN ACCORDANCE WITH SECTION 403 OF THE RHODE ISLAND STANDARD SPECIFICATIONS WITH ALL LATEST REVISIONS AND ADDENDA.
- CLASS 9.5 HOT MIX ASPHALT (HMA) SHALL BE IN ACCORDANCE WITH SECTION 401 OF THE RHODE ISLAND STANDARD SPECIFICATIONS WITH ALL LATEST REVISIONS AND ADDENDA.

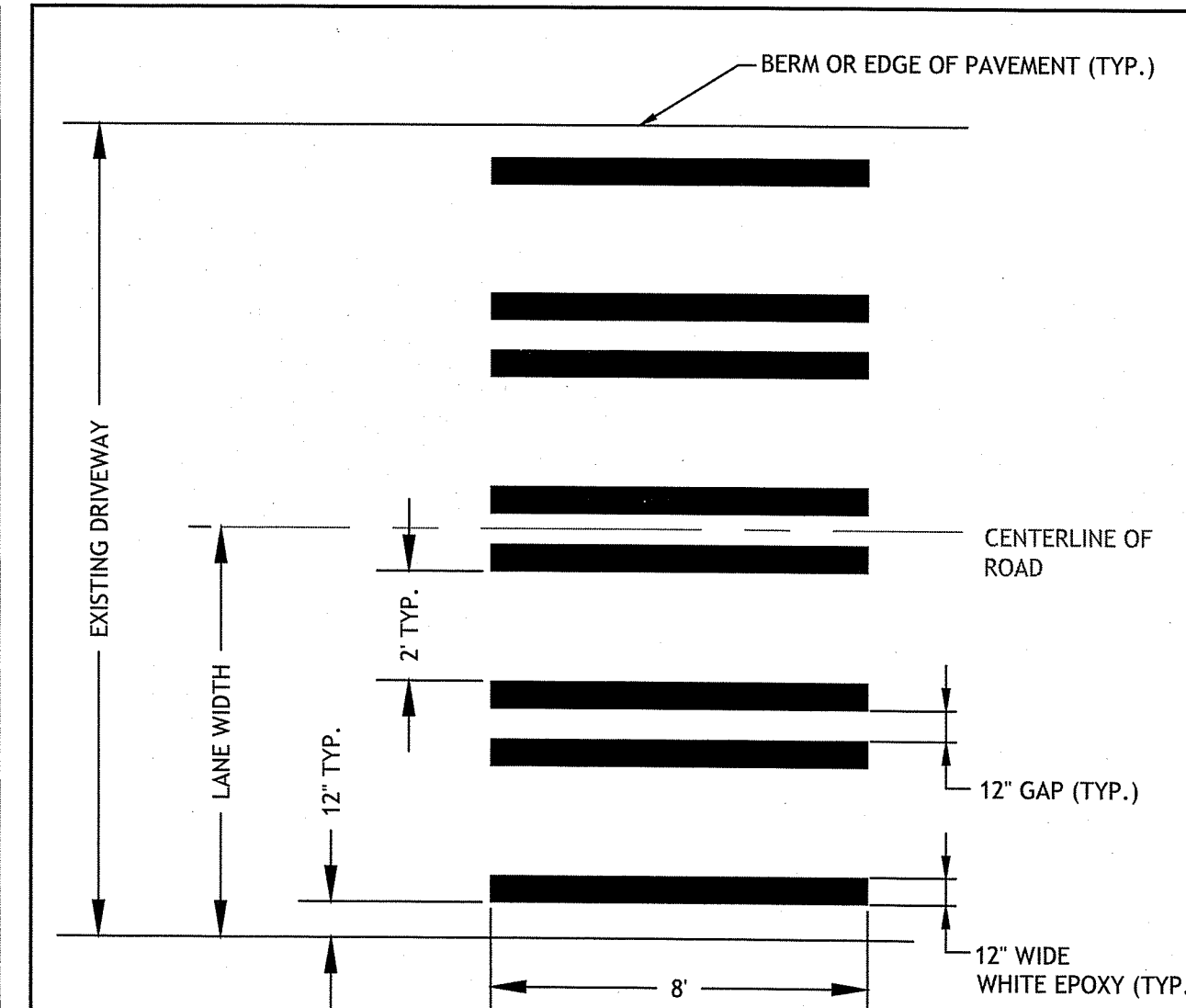
8 MILLING AND ASPHALT REPAIR DETAIL
NOT TO SCALE



9 CONCRETE STEPS DETAIL
NOT TO SCALE

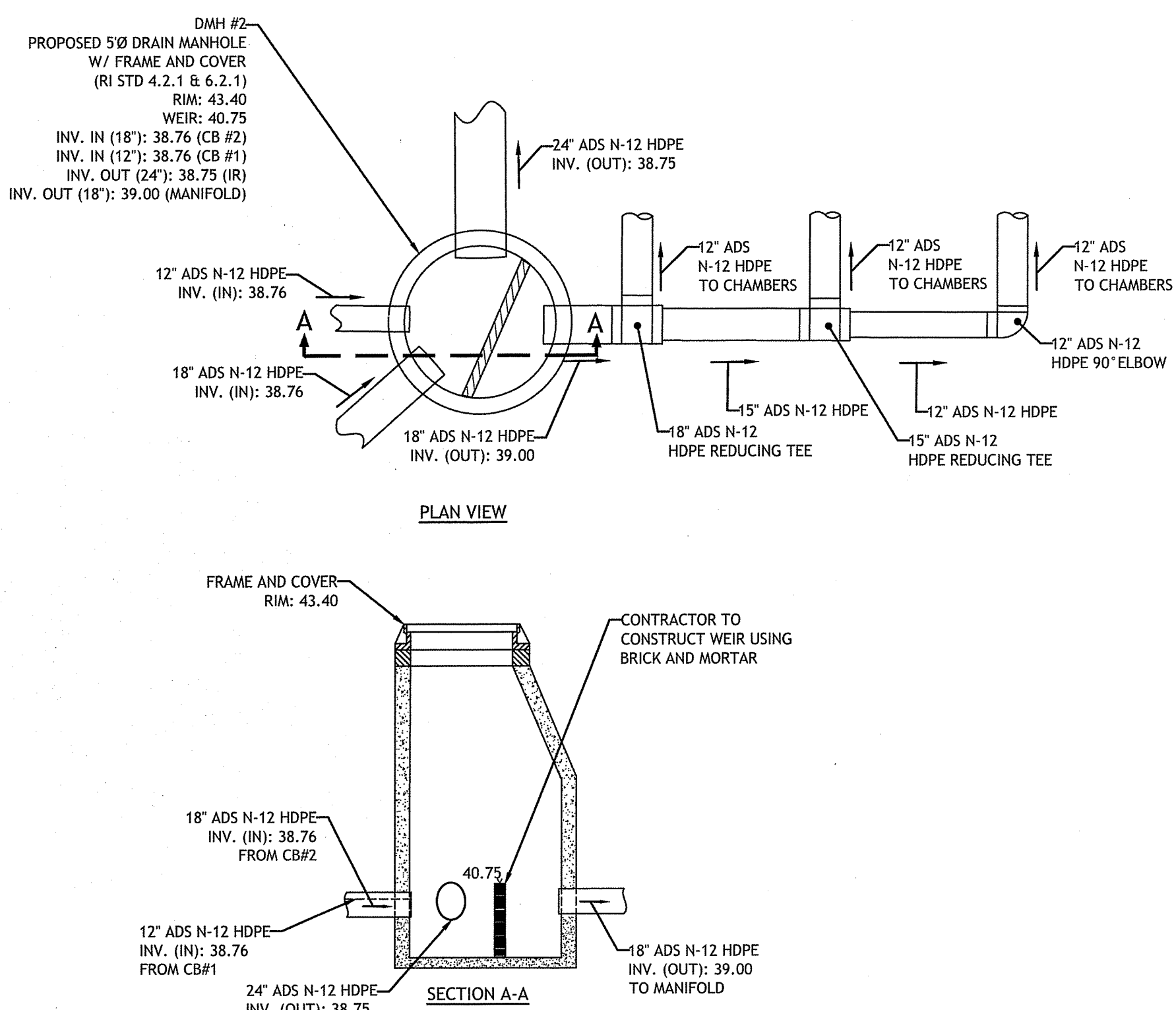


10 GALVANIZED STEEL RAILING DETAIL
NOT TO SCALE

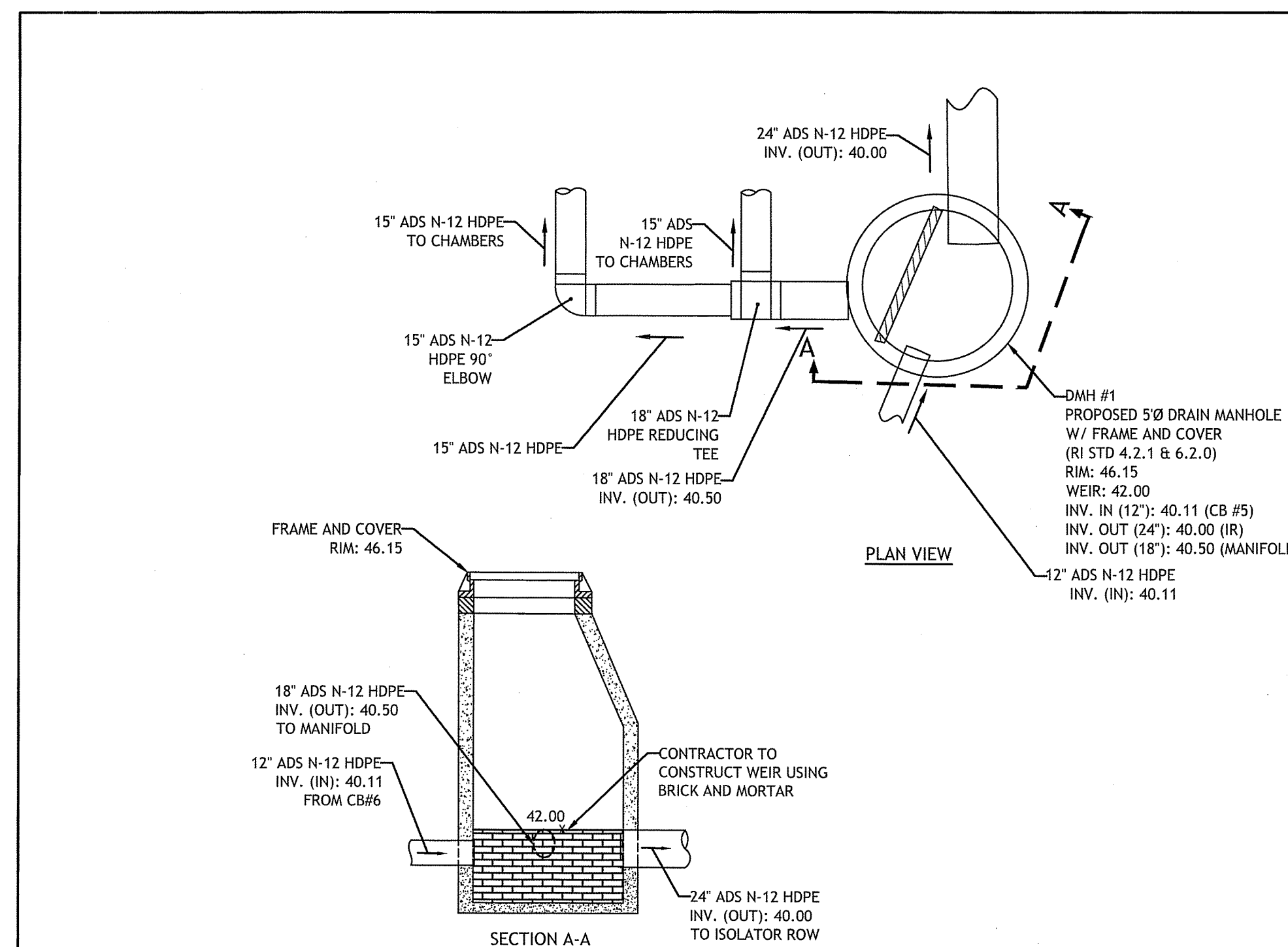


- TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6 INCH LINES) WILL BE ACCEPTED.
- CROSSWALK SIDE SLOPE SHALL NOT EXCEED 1.5%.
- PAVEMENT MARKINGS TO BE PLACED TO AVOID WHEEL PATHS.
- PAVEMENT MARKINGS TO BE WHITE EPOXY PAINT.

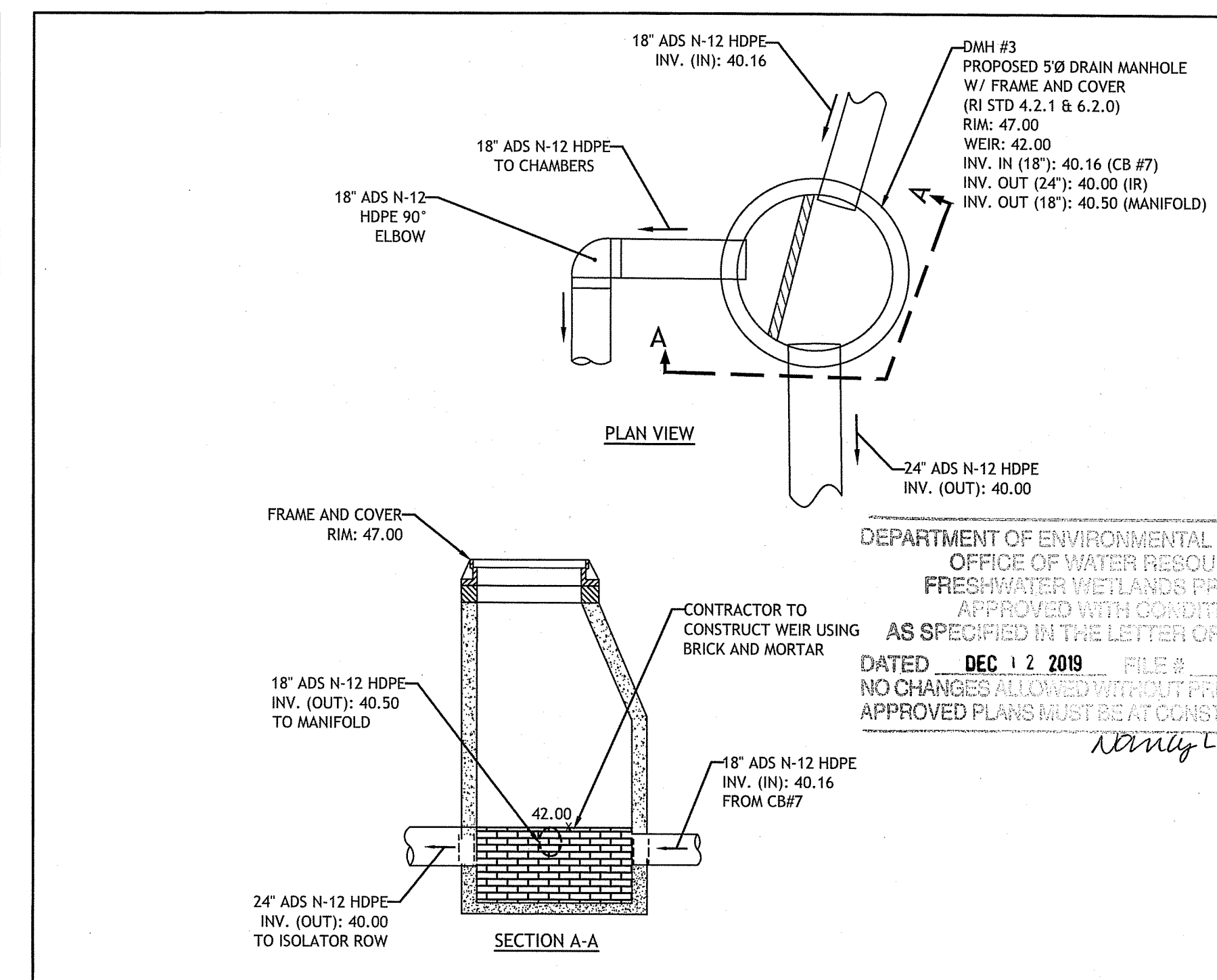
11 CONTINENTAL CROSSWALK DETAIL
NOT TO SCALE



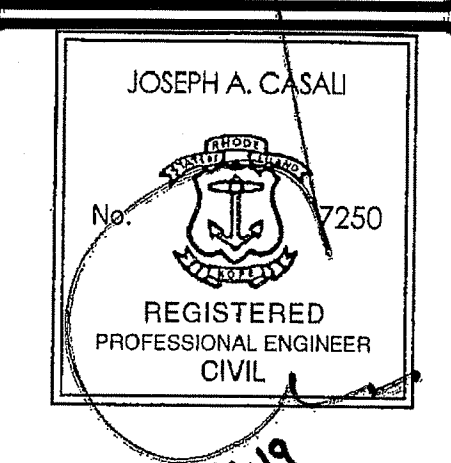
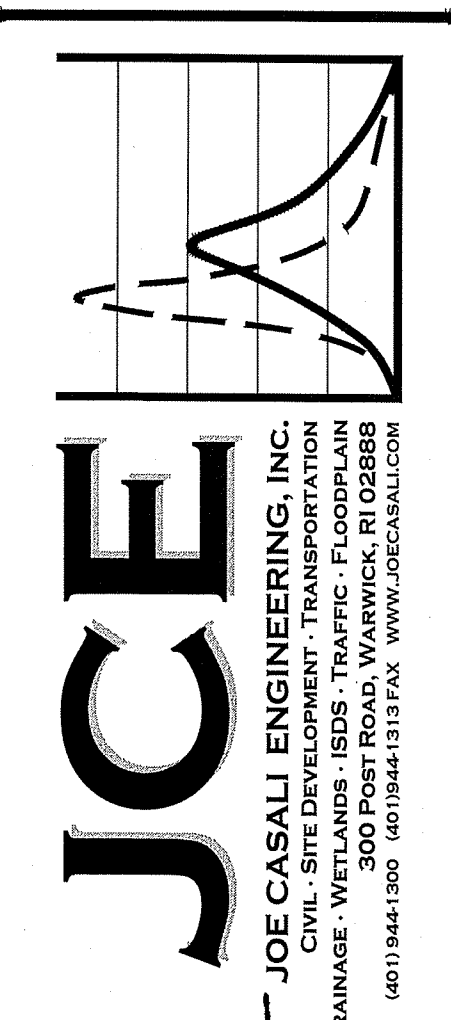
12 DMH #2 - DIVERSION MANHOLE & MANIFOLD #1
NOT TO SCALE



13 DMH #1 - DIVERSION MANHOLE & MANIFOLD #2A
NOT TO SCALE



14 DMH #3 - DIVERSION MANHOLE & MANIFOLD #2B
NOT TO SCALE



PEACE DALE ELEMENTARY SCHOOL
109 KERSEY ROAD
PEACE DALE, RHODE ISLAND
AP 48-2, LOT 73

NO.	DATE	DESCRIPTION

DESIGNED BY: DRD
DRAWN BY: SEP/SD
CHECKED BY: JAC
DATE: SEPT. 2019
PROJECT NO: 14-30ak

ISSUED FOR PERMITTING

CIVIL DETAILS I

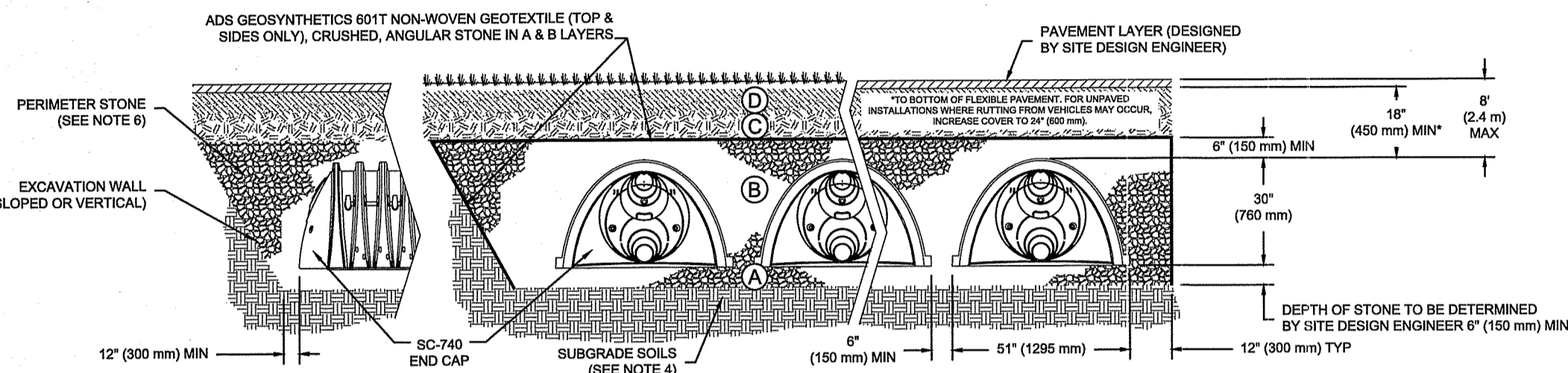
SHEET 7 OF 8

Q:\14-30 RCB\14-30ak SK Schools\Peace Dale Elementary\Permit Set\14-30ak.dwg Sep. 13, 2019 9:50am

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBBASE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('E' 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, <3% 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 ² 3, 357, 4, 467, 5, 56, 57, 61, 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. 90% 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).
B EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ² 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.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ² 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{1,2}

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. 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.
 3. 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-740 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-740 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 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.

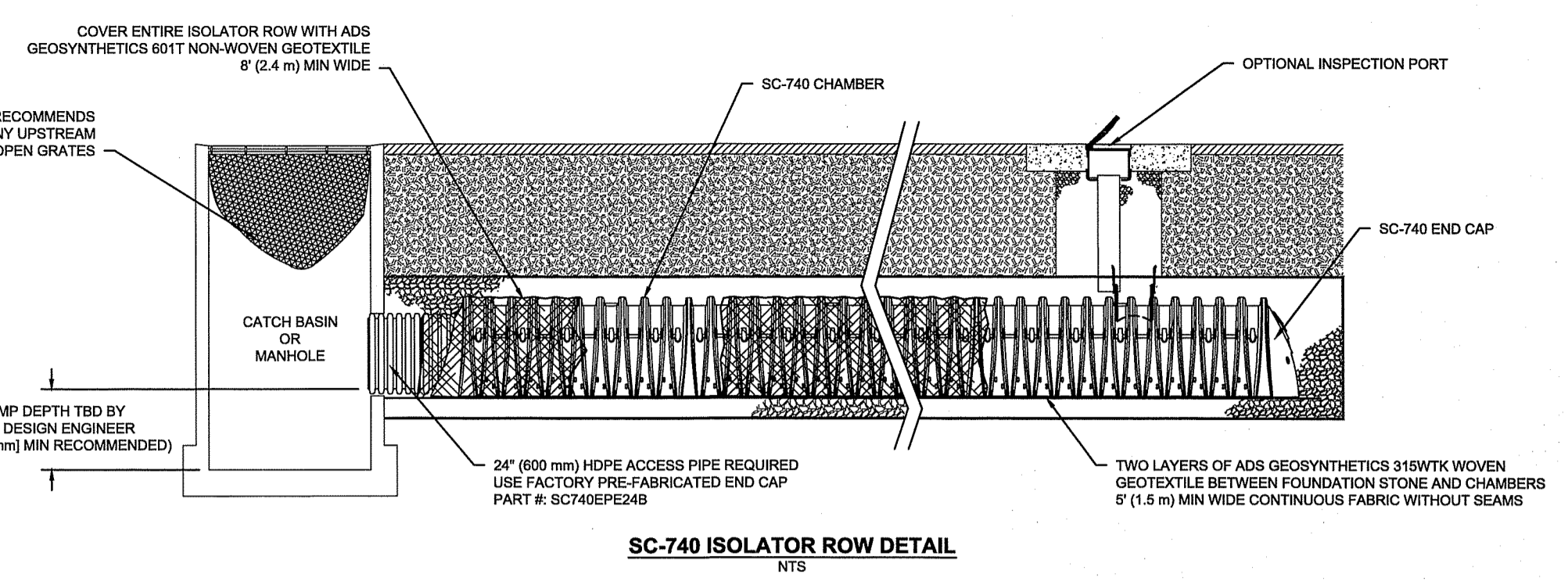
15 STORMTECH SC-740 CROSS SECTION DETAIL
NOT TO SCALE

STANDARD CROSS SECTION
 DATE: 11/18/14
 DRAWN: JLM
 CHECKED: JLM
 PROJECT #:
 REVISIONS:
 SHEET 1 OF 1

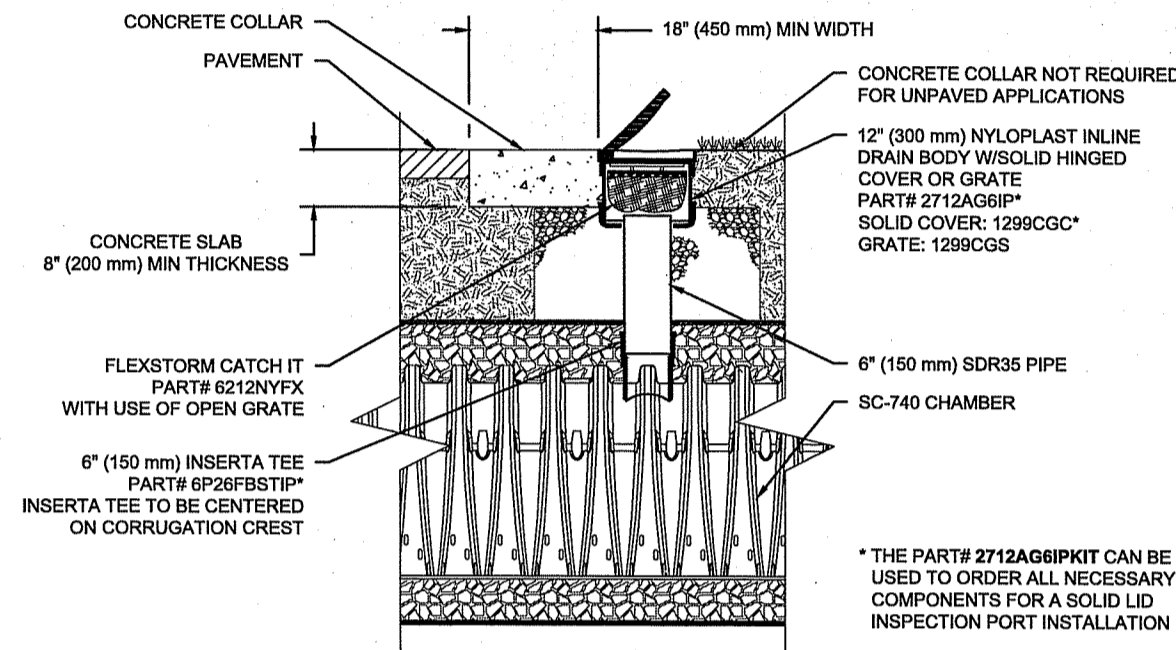
INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
 A. INSPECTION PORTS (IF PRESENT)
 A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 B. ALL ISOLATOR ROWS
 B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
 B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 B.3. 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. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLOW WATER IS CLEAN
 C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS, RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

- NOTES**
 1. 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.
 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



SC-740 ISOLATOR ROW DETAIL
NTS



SC-740 6\"/>

ISOLATOR ROW DETAILS
 DATE: 08/07/17
 DRAWN: JLM
 CHECKED: JLM
 PROJECT #:
 REVISIONS:
 SHEET 1 OF 1

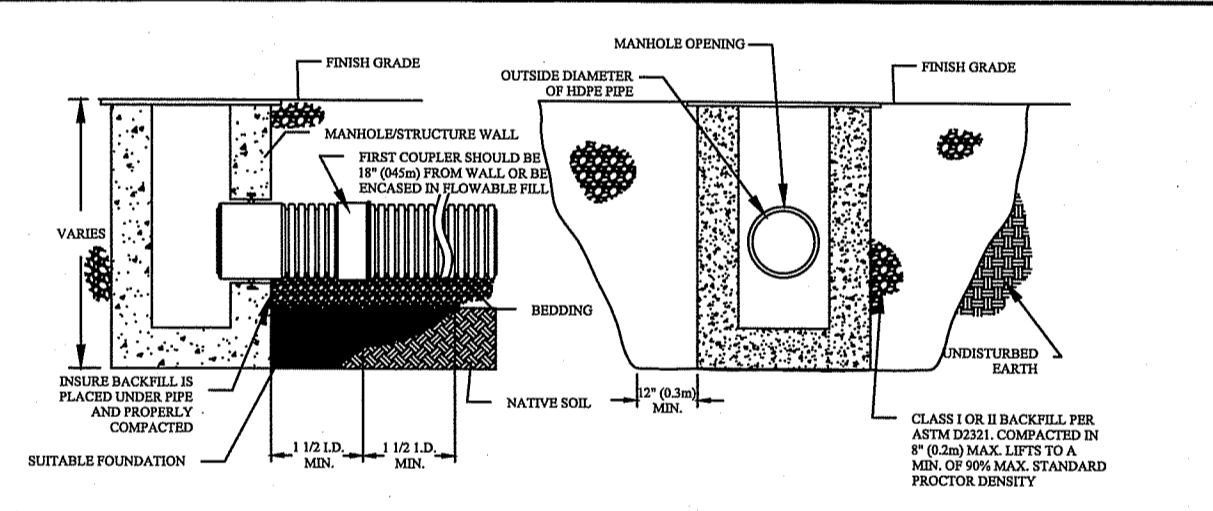
16 STORMTECH SC-740 ISOLATOR ROW DETAIL
NOT TO SCALE

NOTES FOR THE INSTALLATION OF THE SC-740 SYSTEM

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-310 & SC-740 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:
 - STONESHOOTER 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 & SC-740 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 & SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER TIED 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 30" (800 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 1-888-892-2894 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



- 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.

20 STRUCTURE CONNECTION INSTALLATION DETAIL
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WITH LANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED DEC 12 2018 FILE # 19-0274
 NO CHANGES ALLOWED WITHOUT TECHNICAL APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Misty L. Freeman

REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY: DRD
 DRAWN BY: SEP/SD
 CHECKED BY: JAC
 DATE: SEPT 2019
 PROJECT NO: 14-30ak

ISSUED FOR PERMITTING

CIVIL DETAILS II

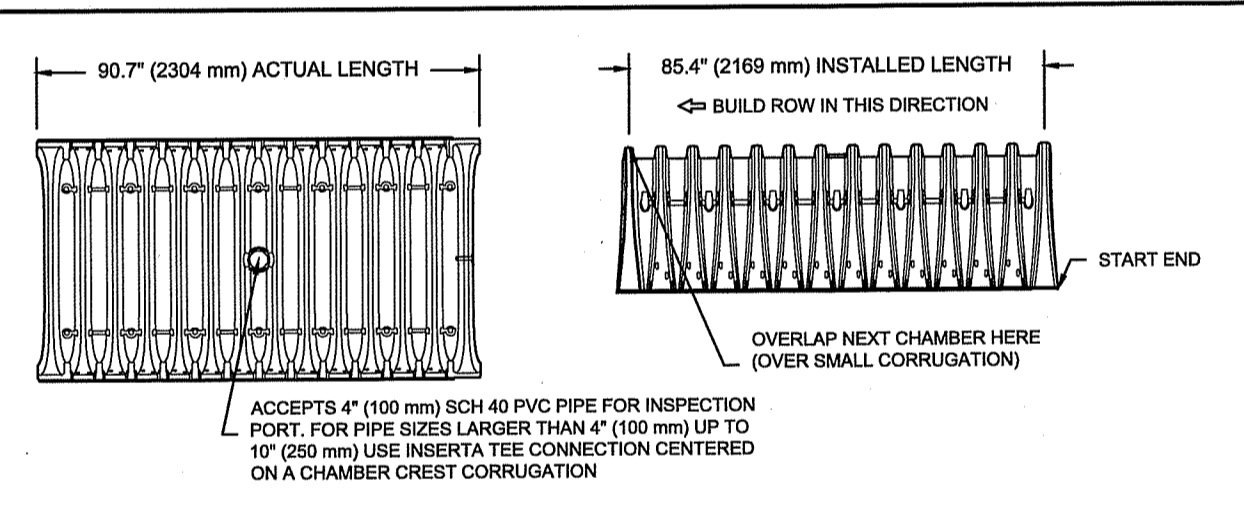
SHEET 8 OF 8

JCE
 JOE CASALI ENGINEERING, INC.
 CIVIL - SITE DEVELOPMENT - TRANSPORTATION
 DRAINAGE - WETLANDS - I&DS - TRAFFIC - FLOODPLAIN
 (601) 944-1300 (401) 944-1313 FAX WWW.JCEONLINE.COM

JOSEPH A. CASALI
 No. 7250
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 9-10-19

JOSEPH A. CASALI
 No. 7250
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 9-10-19

PEACE DALE ELEMENTARY SCHOOL
 109 KERSEY ROAD
 PEACE DALE, RHODE ISLAND
 AP 48-2, LOT 73



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4" (1300 mm X 762 mm X 2169 mm)	1206 mm X 762 mm X 2169 mm
CHAMBER STORAGE	45.9 CUBIC FEET (1.30 m ³)	1.30 m ³
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET (2.12 m ³)	2.12 m ³
WEIGHT	75.0 kg	83.8 kg

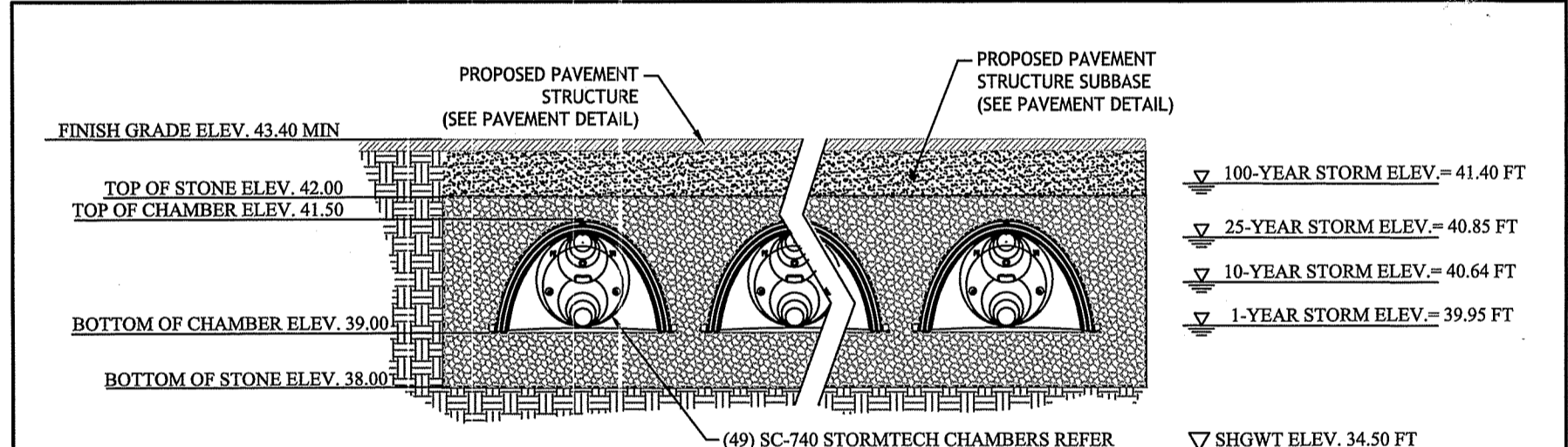
*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

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

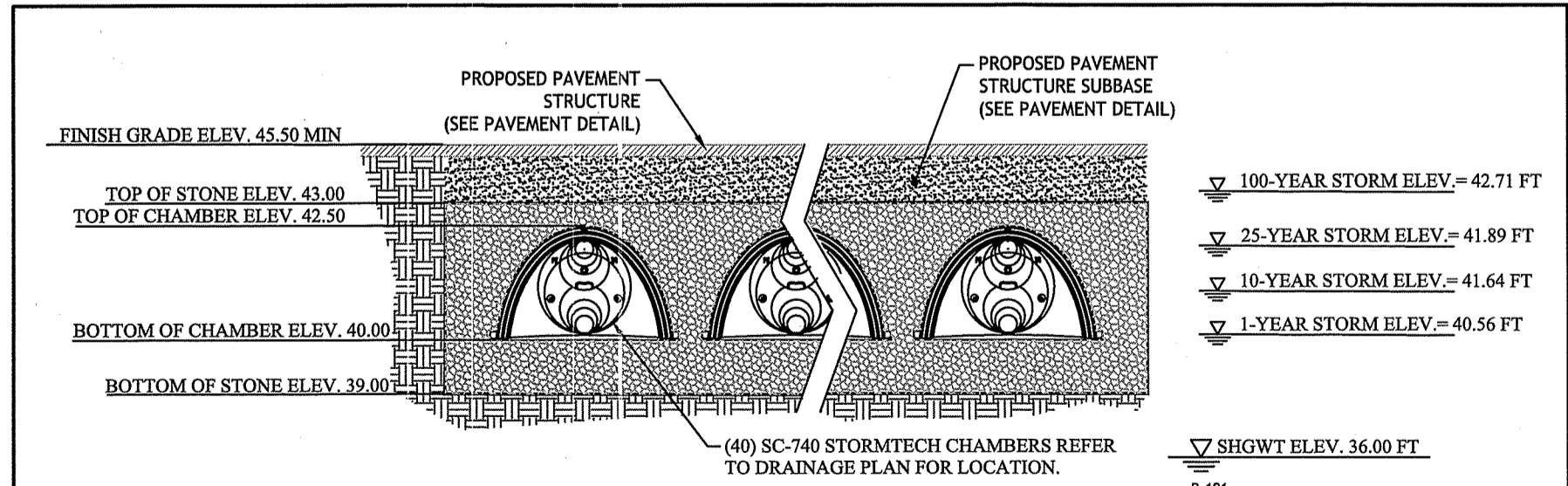
PART #	STUB	A	B	C
SC740EP06T / SC740EP06BPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	—
SC740EP08T / SC740EP08BPC	8" (200 mm)	12.2" (310 mm)	16.5" (418 mm)	0.5" (13 mm)
SC740EP10T / SC740EP10BPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	0.6" (15 mm)
SC740EP12T / SC740EP12BPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	0.7" (18 mm)
SC740EP15T / SC740EP15BPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	1.2" (30 mm)
SC740EP18T / SC740EP18BPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	1.3" (33 mm)
SC740EP24T / SC740EP24BPC	24" (600 mm)	18.5" (470 mm)	—	1.6" (41 mm)

ALL STUBS, EXCEPT FOR THE SC740EP06B, ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2894.
 *FOR THE SC740EP24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.
 NOTE: ALL DIMENSIONS ARE NOMINAL.

17 SC-740 TECHNICAL SPECIFICATION
NOT TO SCALE

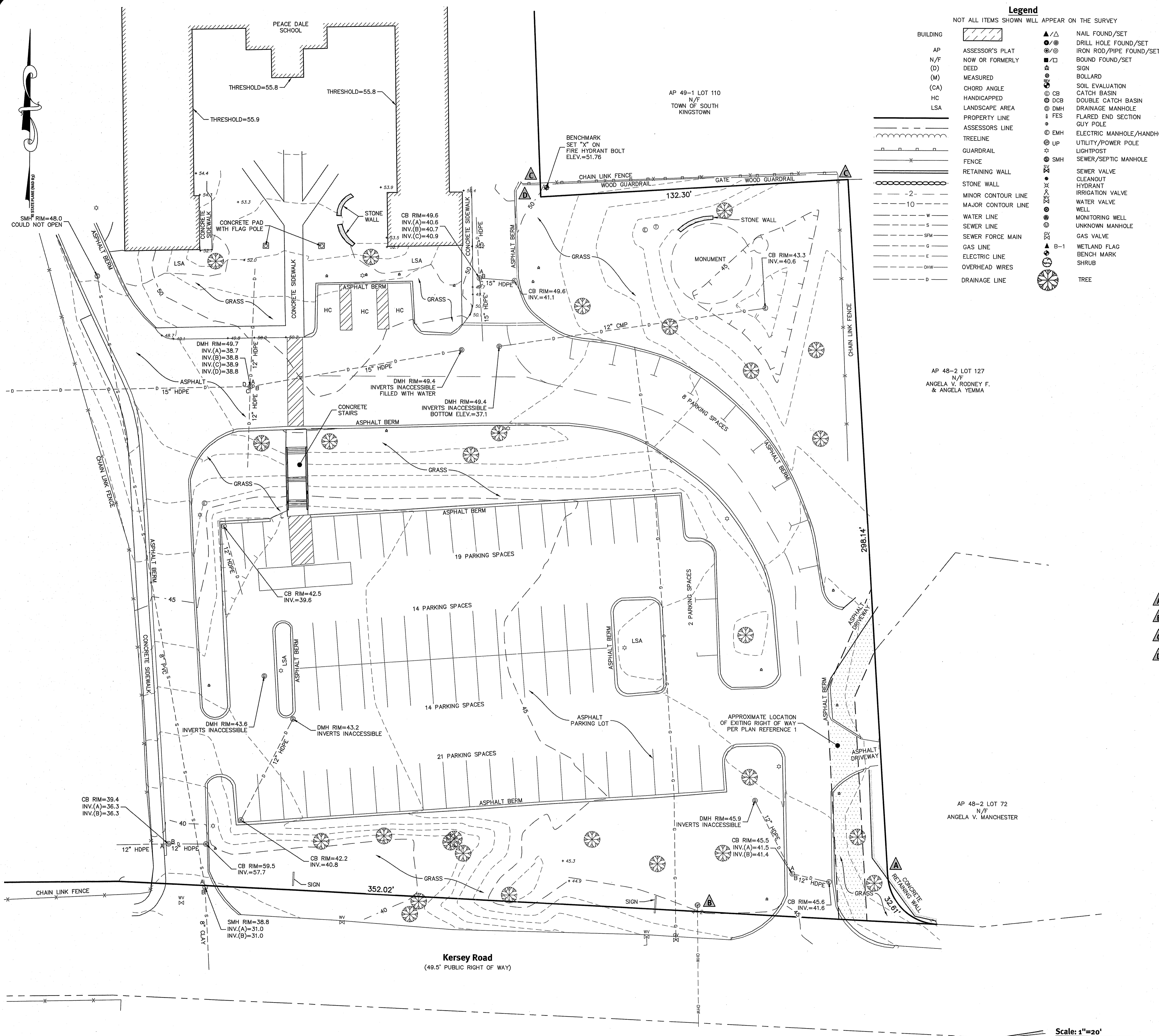


18 UIC #1 INSTALLATION ELEVATION DETAIL
NOT TO SCALE



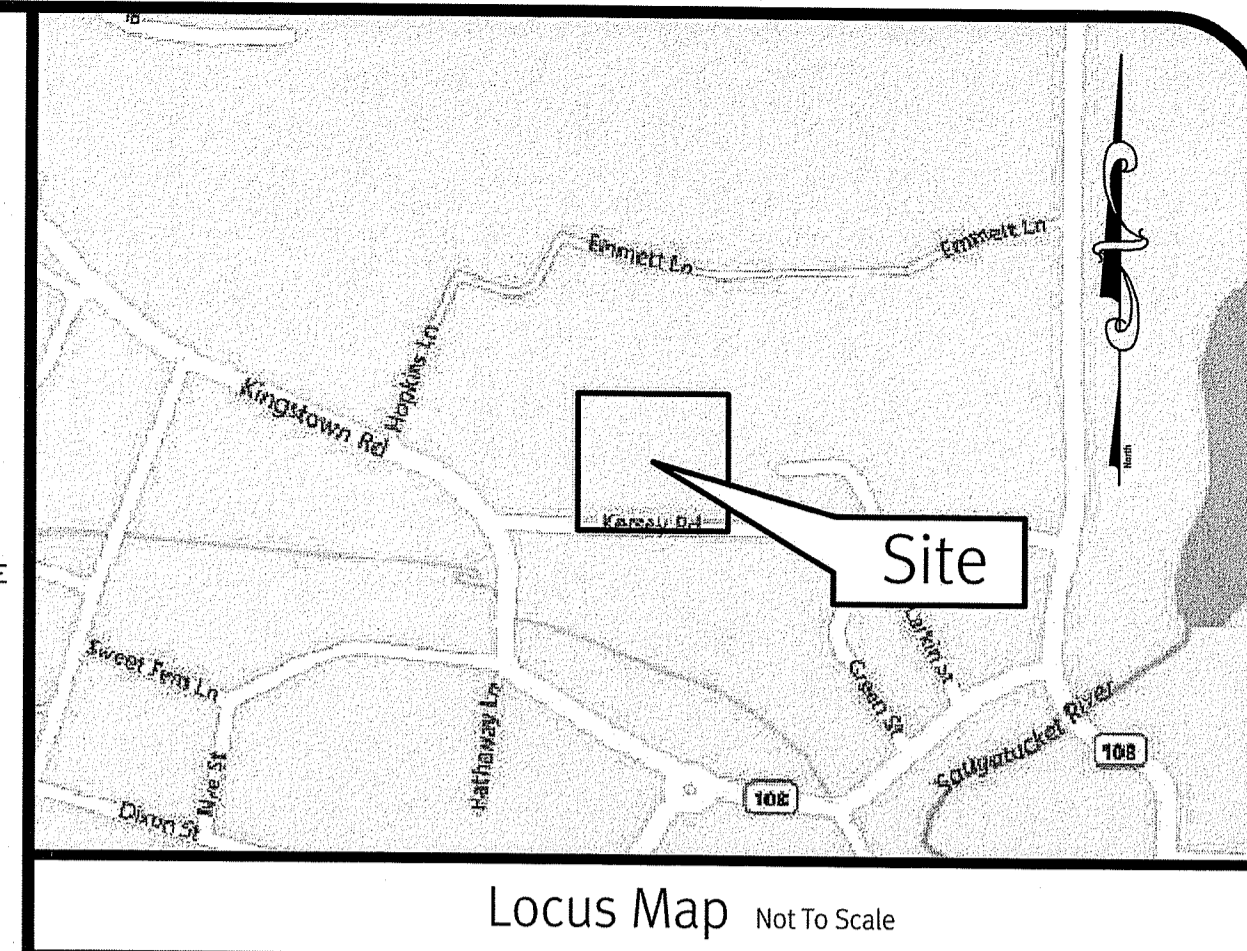
19 UIC #2 INSTALLATION ELEVATION DETAIL
NOT TO SCALE

CU:14-30 RCB:14-30ak, St. School:Peace Dale Elementary [Permit: 54] R:1.dwg, Sep. 13, 2019 1:10:30pm



Legend
NOT ALL ITEMS SHOWN WILL APPEAR ON THE SURVEY

BUILDING	AP ASSESSOR'S PLAT	N/F NOW OR FORMERLY	(D) DEED	(M) MEASURED	(CA) CHORD ANGLE	HC HANDICAPPED	LSA LANDSCAPE AREA	PROPERTY LINE	ASSESSOR'S LINE	TREELINE	GUARDRAIL	FENCE	RETAINING WALL	STONE WALL	MINOR CONTOUR LINE	MAJOR CONTOUR LINE	WATER LINE	SEWER LINE	SEWER FORCE MAIN	GAS LINE	ELECTRIC LINE	OVERHEAD WIRES	DRAINAGE LINE	▲/△ NAIL FOUND/SET	●/◎ DRILL HOLE FOUND/SET	■/□ IRON ROD/PIPE FOUND/SET	▲ SIGN	◎ BOLLARD	◎ SOIL EVALUATION	◎ CATCH BASIN	◎ DOUBLE CATCH BASIN	◎ DRAINAGE MANHOLE	◎ FLARED END SECTION	◎ GUY POLE	◎ EMH ELECTRIC MANHOLE/HANDHOLE	◎ UP UTILITY/POWER POLE	◎ LIGHTPOST	◎ SMH SEWER/SEPTIC MANHOLE	◎ SEWER VALVE	◎ CLEANOUT	◎ HYDRANT	◎ IRRIGATION VALVE	◎ WATER VALVE	◎ WELL	◎ MONITORING WELL	◎ UNKNOWN MANHOLE	◎ GAS VALVE	◎ B-1 WETLAND FLAG	◎ BENCH MARK	◎ SHRUB	◎ TREE
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- General Notes:**
- THE PARCEL IS FOUND ON ASSESSOR'S PLAT 48-2, LOT 73 IN THE TOWN OF SOUTH KINGSTOWN, WASHINGTON COUNTY, RHODE ISLAND.
 - THE OWNER PER DEED BOOK 42, PAGE 496 IS TOWN OF SOUTH KINGSTOWN.
 - BASED ON GRAPHICAL PLOTTING ONLY, THE PARCEL IS LOCATED IN ZONE X AND ZONE A PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 44009C0184J, DATED OCTOBER 16, 2013. THIS DESIGNATION MAY CHANGE BASED UPON REVIEW BY A FLOOD ZONE SPECIALIST OR BY THE RESULTS OF A COMPREHENSIVE FLOOD STUDY.
 - THE PARCEL IS ZONED G1 BASED ON TOWN OF SOUTH KINGSTOWN GIS. ANY OVERLAY DISTRICTS, SPECIAL PERMITS OR VARIANCES SPECIFIC TO THIS SITE ARE NOT TAKEN INTO CONSIDERATION. PLEASE CONTACT THE ZONING DEPARTMENT FOR ANY ADDITIONAL INFORMATION OR FOR A CERTIFICATE OF ZONING.
 - THERE WERE NO CEMETERIES, GRAVE SITES AND OR BURIAL GROUNDS OBSERVED WITHIN THE LIMITS OF THE SURVEY.
 - FIELD SURVEY PERFORMED BY DIPRETE ENGINEERING ON MAY 25, 2019. THIS PLAN REFLECTS ON THE GROUND CONDITIONS AS OF THAT DATE.
 - THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY UNKNOWN OR UNRECORDED EASEMENTS, DEEDS OR CLAIMS THAT A TITLE REPORT WOULD DISCLOSE.

- Plan References:**
- LAND AT PEACE DALE IN SOUTH KINGSTOWN TO BE DEEDED BY M.T. STEVENS & SONS CO. TO THE TOWN OF SOUTH KINGSTOWN. SCALE 1"=100'. DATED AUGUST 12, 1922. PLAN BY T.G. HAZARD JR. SURVEYOR. RECORDED IN DEED BOOK 42 PAGE 496.
 - TRACT OF LAND AT PEACE DALE IN THW TOWN OF SOUTH KINGSTOWN, R.I. TO BE CONVEYED BY MATTEO & PAOLO SACCIA TO JOHN F. & ANGELA V. MANCHESTER. SCALE 1"=20'. DATED AUGUST 1966. PLAN BY A.J. EASTERBROOKS, C.E. RECORDED PLAN BOOK 9 PAGE 412-413.
 - LAYOUT AND TAKING PLAN FOR PADDY HILL ROAD IN THE TOWN OF SOUTH KINGSTOWN, RHODE ISLAND SURVEYED AND PLATTED FOR PAUL S. SCHAUER, ET AL. SCALE 1"=20'. DATED JULY, 1984. PLAN BY DONALD W. JACKSON, R.L.S. RECORDED IN PLAN BOOK 18 PAGE 1656.
 - ADMINISTRATIVE SUBDIVISION PLAN SHOWING A PARCEL OF LAND TO BE CONVEYED FROM JOHN F. MANCHESTER & ANGELA V. TO FRANK L. YEMMA & MARGARET P. OFF PADDY HILL ROAD SOUTH KINGSTOWN, R.I. SCALE 1"=30'. DATED JANUARY, 1995. RECORDED IN BOOK 24 PAGE 62.

Datum Note:
1. ELEVATIONS SHOWN HEREON, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY DIPRETE ENGINEERING USING REAL TIME KINEMATIC G.P.S. OBSERVATIONS.

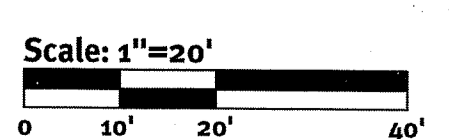
- List of Possible Encroachments:**
- ▲ CONCRETE RETAINING WALL OVER PROPERTY LINE
 - ▲ UTILITY POLE OVER PROPERTY LINE
 - ▲ FENCE OVER PROPERTY LINE
 - ▲ WOOD GUARDRAIL OVER PROPERTY LINE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 12 2019 FILE # 19-0274
NO CHANGES ALLOWED WITHOUT FEED APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

Certification
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 REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:
TYPE OF SURVEY LIMITED CONTENT FEATURE LOCATION SURVEY MEASUREMENT SPECIFICATION CLASS III
DATA ACCUMULATION SURVEY (LIMITED) CLASS T-2
THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:
PERIMETER RETRACEMENT PERFORMED BY DIPRETE ENGINEERING FOR THE PURPOSE OF SITE ENGINEERING AND PERMITTING.

ROBERT G. BABCOCK
No. 2504
PROFESSIONAL LAND SURVEYOR

6/5/19
ROBERT G. BABCOCK, RIPLS #2504, COA #L.S.000160



DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel. 401-943-1000 fax. 401-464-6006 www.diprete-eng.com

Topographic Survey
Peace Dale School
South Kingstown, Rhode Island

RGB Architects
68 Holden Avenue, Providence, Rhode Island 02908
tel. (401) 272-2730

Client
Peace Dale School
South Kingstown, Rhode Island

Drawn By: A.L.E.
Date: 6/5/19
No.: 2504
Description: Topographic Survey

Scale: 1"=20'
0 10' 20' 40'

Sheet 1 **Of 1**

z:\meham\projects\1933-006 peace dale school\vertical drawings\1933-006-avo.dwg Plotdate: 6/2/2019