

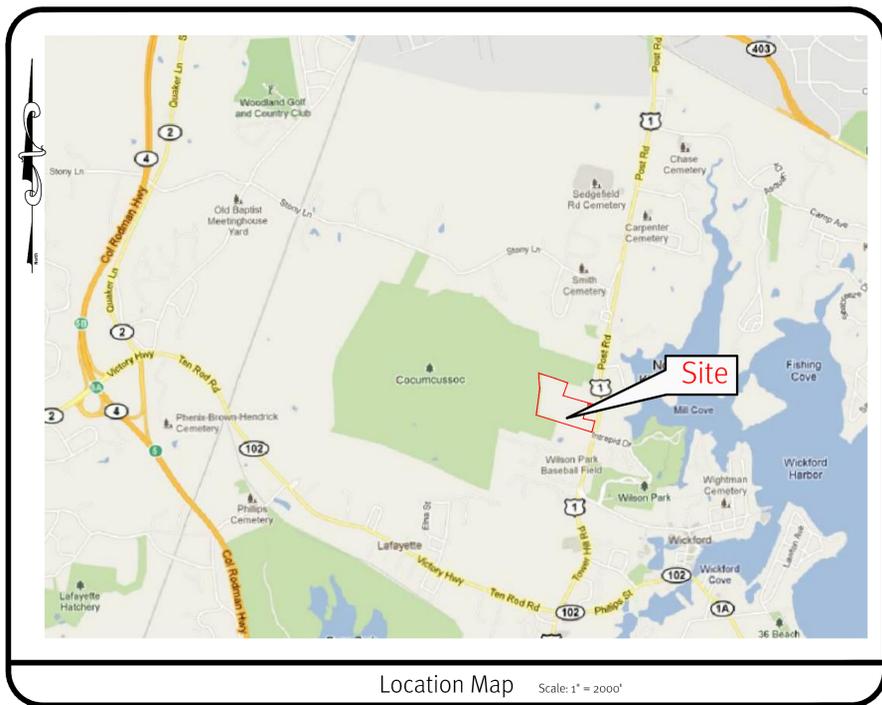
Preliminary Submission

Harbor View

Post Road

North Kingstown, Rhode Island

Assessor's Plat 119 Lots 11, 28 & 51



Sheet Index

1. Cover Sheet
2. Half Mile Aerial Plan
3. Existing Conditions
4. Overall Plan
5. Grading Plan - 1
6. Grading Plan - 2
7. Plan & Profile - 1
8. Plan & Profile - 2
9. Detail Sheet - 1
10. Detail Sheet - 2
11. Detail Sheet - 3
12. Detail Sheet - 4
13. Detail Sheet - 5
14. Detail Sheet - 6
15. Detail Sheet - 7
16. Detail Sheet - 8
17. Detail Sheet - 9

Record Plans

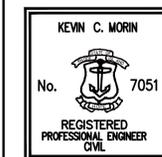
18. Perimeter / Open Space Plan
19. Record Plan - Phase I
20. Record Plan - Phase I

Landscape Plans

21. Overall Landscape Plan
22. Landscape Plan
23. Landscape Plan
24. Planting Notes
25. Planting Details

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Cover Sheet

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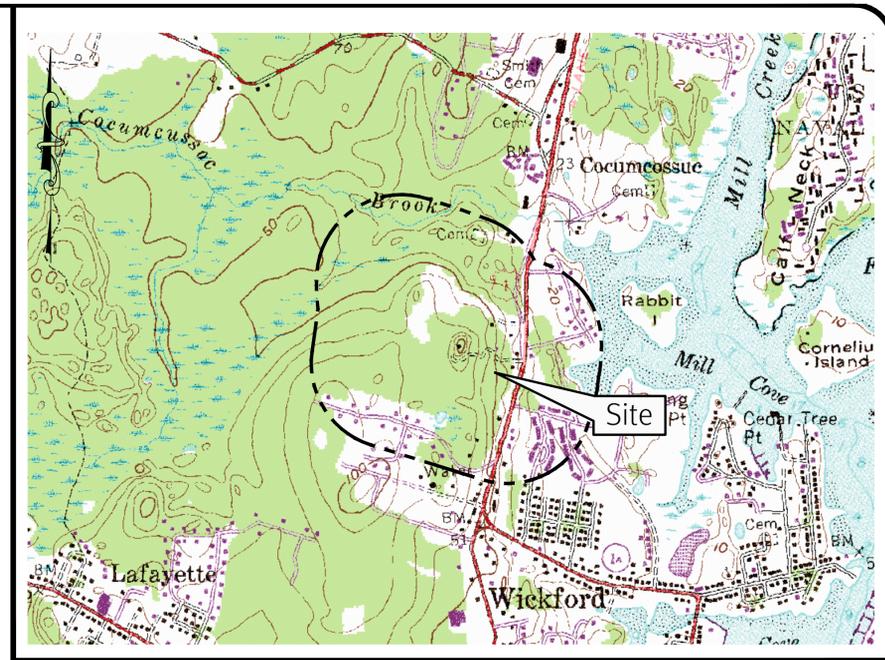
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Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.DiPrete-Eng.com

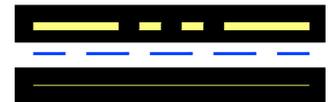
Applicant:
Wickford Harbor Estates, LLC
117 Camden Road
Narragansett, RI 02880

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USGS Map Scale: 1"=1000'

Legend:

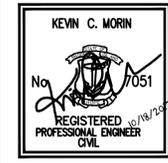


Harbor View
 TOTAL AREA OF PARCELS = 23.16 ACRES±
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 20 TOTAL PROPOSED LOTS (16 MARKET RATE, 3 AFFORDABLE (LOTS 13, 14 & 18), 1 ADDITIONAL MARKET RATE AS ALLOWED BY DENSITY BONUS)



Photo obtained from the RI-GIS of 2004 Digital Orthophotography Southern Urban Areas of Rhode Island.

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Half Mile Aerial Plan

Harbor View

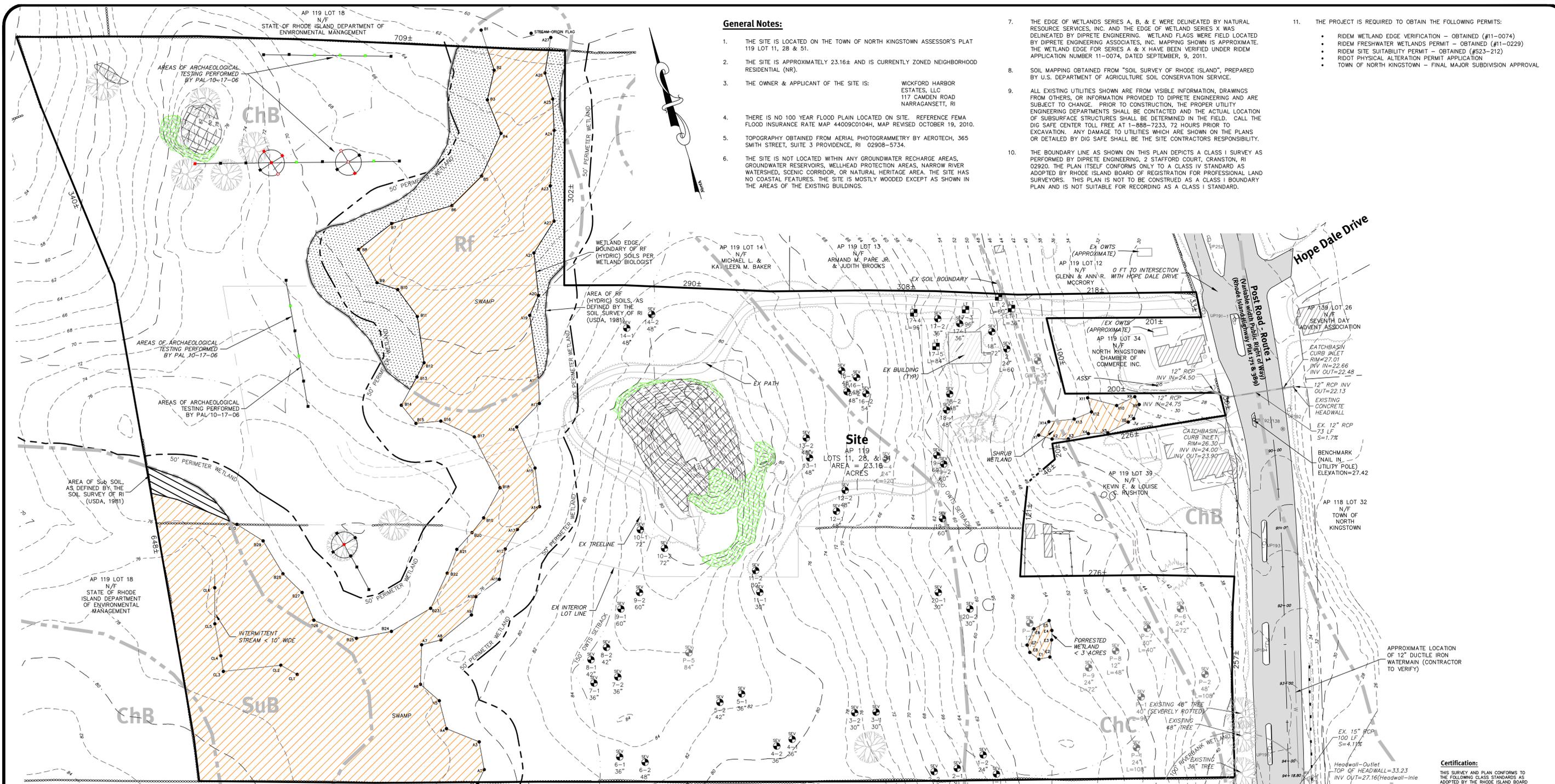
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General Notes:

- THE SITE IS LOCATED ON THE TOWN OF NORTH KINGSTOWN ASSESSOR'S PLAT 119 LOT 11, 28 & 51.
- THE SITE IS APPROXIMATELY 23.16± AND IS CURRENTLY ZONED NEIGHBORHOOD RESIDENTIAL (NR).
- THE OWNER & APPLICANT OF THE SITE IS: WICKFORD HARBOR ESTATES, LLC 117 CAMDEN ROAD NARRAGANSETT, RI
- THERE IS NO 100 YEAR FLOOD PLAIN LOCATED ON SITE. REFERENCE FEMA FLOOD INSURANCE RATE MAP 44009C0104H, MAP REVISED OCTOBER 19, 2010.
- TOPOGRAPHY OBTAINED FROM AERIAL PHOTOGRAMMETRY BY AEROTECH, 365 SMITH STREET, SUITE 3 PROVIDENCE, RI 02908-5734.
- THE SITE IS NOT LOCATED WITHIN ANY GROUNDWATER RECHARGE AREAS, GROUNDWATER RESERVOIRS, WELLHEAD PROTECTION AREAS, NARROW RIVER WATERSHED, SCENIC CORRIDOR, OR NATURAL HERITAGE AREA. THE SITE HAS NO COASTAL FEATURES. THE SITE IS MOSTLY WOODED EXCEPT AS SHOWN IN THE AREAS OF THE EXISTING BUILDINGS.

- THE EDGE OF WETLANDS SERIES A, B, & E WERE DELINEATED BY NATURAL RESOURCE SERVICES, INC. AND THE EDGE OF WETLAND SERIES X WAS DELINEATED BY DIPRETE ENGINEERING. WETLAND FLAGS WERE FIELD LOCATED BY DIPRETE ENGINEERING ASSOCIATES, INC. MAPPING SHOWN IS APPROXIMATE. THE WETLAND EDGE FOR SERIES A & X HAVE BEEN VERIFIED UNDER RIDEM APPLICATION NUMBER 11-0074, DATED SEPTEMBER, 9, 2011.
- SOIL MAPPING OBTAINED FROM "SOIL SURVEY OF RHODE ISLAND", PREPARED BY U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.
- ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS FROM OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. PRIOR TO CONSTRUCTION, THE PROPER UTILITY ENGINEERING DEPARTMENTS SHALL BE CONTACTED AND THE ACTUAL LOCATION OF SUBSURFACE STRUCTURES SHALL BE DETERMINED IN THE FIELD. CALL THE DIG SAFE CENTER TOLL FREE AT 1-888-7233, 72 HOURS PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES WHICH ARE SHOWN ON THE PLANS OR DETAILED BY DIG SAFE SHALL BE THE SITE CONTRACTORS RESPONSIBILITY.
- THE BOUNDARY LINE AS SHOWN ON THIS PLAN DEPICTS A CLASS I SURVEY AS PERFORMED BY DIPRETE ENGINEERING, 2 STAFFORD COURT, CRANSTON, RI 02920. THE PLAN ITSELF CONFORMS ONLY TO A CLASS IV STANDARD AS ADOPTED BY RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THIS PLAN IS NOT TO BE CONSTRUED AS A CLASS I BOUNDARY PLAN AND IS NOT SUITABLE FOR RECORDING AS A CLASS I STANDARD.

- THE PROJECT IS REQUIRED TO OBTAIN THE FOLLOWING PERMITS:
 - RIDEM WETLAND EDGE VERIFICATION - OBTAINED (#11-0074)
 - RIDEM FRESHWATER WETLANDS PERMIT - OBTAINED (#11-0229)
 - RIDEM SITE SUITABILITY PERMIT - OBTAINED (#523-212)
 - RIDOT PHYSICAL ALTERATION PERMIT APPLICATION
 - TOWN OF NORTH KINGSTOWN - FINAL MAJOR SUBDIVISION APPROVAL

Soil Descriptions:

REFERENCE SOIL SURVEY OF RHODE ISLAND - BY USDA SOIL CONSERVATION SERVICE
 ChB - CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 3 TO 8 PERCENT SLOPES - 16.02 A.C.±
 ChC - CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 8 TO 15 PERCENT SLOPES - 3.48 A.C.±
 Rf - RIDGEBURY, WHITMAN, AND LEICESTER EXTREMELY STONY FINE SANDY LOAMS - 2.25 A.C.±
 SuB - SUTTON VERY STONY FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES - 1.41 A.C.±

Development Limitations District:

REFERENCE SUBDIVISION REGULATIONS - ARTICLE 14.1.1 DESIGN AND IMPROVEMENT STANDARDS

LIMITATION DISTRICT	INCLUDED SOIL	TOTAL AREA
1. HIGH WATERTABLE DISTRICT	NONE	0.00 ACRES
2. FLOOD HAZARD DISTRICT	NONE	0.00 ACRES
3. COASTAL FLOOD HAZARD	NONE	0.00 ACRES
4. SEASONAL WATERTABLE DISTRICT	SuB, Rf	3.66 ACRES
5. SLOWLY PERMEABLE DISTRICT	NONE	0.00 ACRES
6. EXTREMELY STONY SOILS DISTRICT	Rf	2.25 ACRES
7. FROST HEAVE DISTRICT	Rf	2.25 ACRES
8. STEEP SLOPE DISTRICT	NONE	0.00 ACRES
9. UTILITIES LIMITATIONS DISTRICT	N/A	0.00 ACRES
10. ZONE 2 GROUNDWATER PROTECTION AREA	N/A	0.00 ACRES

Legend:

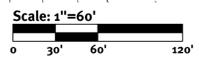
PR OWTS	FIRE HYDRANT	LEGE/ROCK OUTCROPS
N/F NOW OR FORMERLY	100' RIVERBANK WETLAND	AREA OF SUB SOIL AS DEFINED BY THE SOIL SURVEY OF RI (USDA, 1981)
AP ASSESSOR'S PLAT	50' PERIMETER WETLAND	HYDRIC SOILS AS DEFINED BY THE SOIL SURVEY OF RI (USDA, 1981)
2' CONTOUR	150' OWTS SETBACK	PAVEMENT
10' CONTOUR	IDENTIFIED SPECIMEN TREES	SLOPES > 25%
TREELINE	NON-WITNESSED SOIL EVALUATIONS	
STONE WALL	RIDEM WITNESSED SOIL EVALUATIONS	
FENCE	WETLAND EDGE, BOUNDARY OF Rf (HYDRIC) SOILS PER WETLAND BIOLOGIST	
DIRECTIONAL FLOW ARROW		
UTILITY POLE		
WETLAND FLAG		
PROPERTY LINE		
WETLAND LINE		
WATER VALVE		

Archaeological Testing Legend:

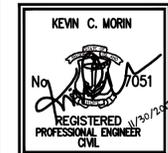
- NO CULTURAL MATERIAL
- WITH POST CONTACT CULTURAL MATERIAL
- WITH PRE CONTACT CULTURAL MATERIAL
- WITH PRE AND POST CONTACT CULTURAL MATERIAL

Harbor View

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Existing Conditions

Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
 North Kingstown, Rhode Island



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 tel 401-943-1000 fax 401-464-6006 www.DiPrete-Eng.com

Applicant:
Wickford Harbor Estates, LLC
 117 Camden Road
 Narragansett, RI 02880

Certification:
 THIS SURVEY AND PLAN CONFORMS TO THE FOLLOWING CLASS STANDARDS AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS EFFECTIVE APRIL 1, 1994.
 BOUNDARY SURVEY: CLASS IV
 TOPOGRAPHIC FEATURE SURVEY: CLASS III

REGISTERED PROFESSIONAL LAND SURVEYOR

General Notes:

- THE SITE IS PROPOSED TO BE SERVICED BY PUBLIC WATER AND PRIVATE ON-SITE WASTE WATER TREATMENT SYSTEMS (OWTS). THERE ARE NO OWTS PROPOSED WITHIN 150' OF THE WETLAND.
- THE SITE IS PROPOSED TO BE BUILT WITH 50' WIDE RIGHT OF WAY. ROADWAYS ARE PROPOSED TO BE 11' WIDE TRAVEL LANES WITH 1' CAPE COD BERMS (TOTAL PAVEMENT WIDTH = 24'). NO SIDEWALKS ARE PROPOSED.
- THE DRAINAGE SYSTEM IS DESIGNED TO MEET THE TOWN OF NORTH KINGSTOWN SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE STORMWATER MANAGEMENT SYSTEM WILL MEET RIDEM BEST MANAGEMENT PRACTICES.
- DETAILED SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE INCORPORATED AT THE PRELIMINARY DESIGN STAGE AND WILL CONFORM TO RIDEM BEST MANAGEMENT PRACTICES.
- THE SITE IS PROPOSED TO BE BUILT IN ONE PHASE.
- ALL DRAINAGE PIPE ON-SITE IS TO BE HIGH-DENSITY POLYETHYLENE (HDPE).
- THE SITE IS TO BE SERVICED BY UNDERGROUND ELECTRIC.

Dimensional Regulations:

CURRENT ZONING:	NEIGHBORHOOD RESIDENTIAL NR-40	CONSERVATION DEVELOPMENT (W/WATER)
MINIMUM LOT AREA:	40,000 SF	10,000 SF
MINIMUM LOT DEPTH:	200'	N/A
MINIMUM FRONTAGE/LOT WIDTH:	180'	20'
MAXIMUM HEIGHT:	35'	35'
MINIMUM FRONT YARD:	25'	25'
MINIMUM CORNER YARD:	20'	N/A
MINIMUM SIDE YARD:	35'	10'
MINIMUM REAR YARD:	35'	30'

Development Data:

TOTAL SITE AREA:	23.16 ACRES
TOTAL NUMBER OF LOTS:	20
RIGHT OF WAY AREA:	1.67± ACRES
PAVEMENT WIDTH:	50'
TOTAL LENGTH OF ROAD:	1148± LF
TOTAL OPEN SPACE:	14.49± ACRES
SUITABLE OPEN SPACE:	9.08± ACRES

North Kingstown Conservation Development Regulations:

DENSITY FOR A CONSERVATION DEVELOPMENT IS BASED UPON NUMBER OF LOTS WHICH COULD BE DEVELOPED UNDER A YIELD PLAN (16 LOTS)

OPEN SPACE: PER SECTION 21-218 OF THE TOWN OF NORTH KINGSTOWN ZONING REGULATIONS THE MINIMUM AMOUNT OF REQUIRED OPEN SPACE AREA SHALL BE BASED ON A PERCENTAGE OF THE LAND SUITABLE FOR DEVELOPMENT IN THE ENTIRE CONSERVATION DEVELOPMENT. (NR = 50%)

CALCULATION OF SUITABLE LAND:
 AREA OF SITE - UNSUITABLE AREA = NET SUITABLE LAND
 23.16 AC - 4.02 AC (WETLANDS) - 0.66 AC (LEDGE/ROCK OUTCROPS + SLOPES > 25%) - 0.91 (SEASONAL WATER TABLE LIMITATION DISTRICTS) - 1.67 AC (ROW) = 15.90 AC.

CALCULATION OF OPEN SPACE: AREA OF SUITABLE LAND X 50% = MINIMUM SUITABLE OPEN SPACE REQUIRED 15.90 ACRES X 50% = 7.95 AC.
 SUITABLE OPEN SPACE PROVIDED 9.08 ACRES (57%)

Inclusionary Zoning Calculation:

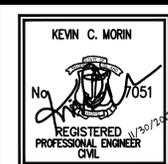
- 16 LOTS X 10% = 2 AFFORDABLE LOTS MINIMUM
- 3 AFFORDABLE + 1 (DENSITY BONUS) = 4 LOTS OVER MINIMUM
- 3 AFFORDABLE LOTS / 20 LOTS = 15% AFFORDABLE

* DENOTES AN AFFORDABLE LOT

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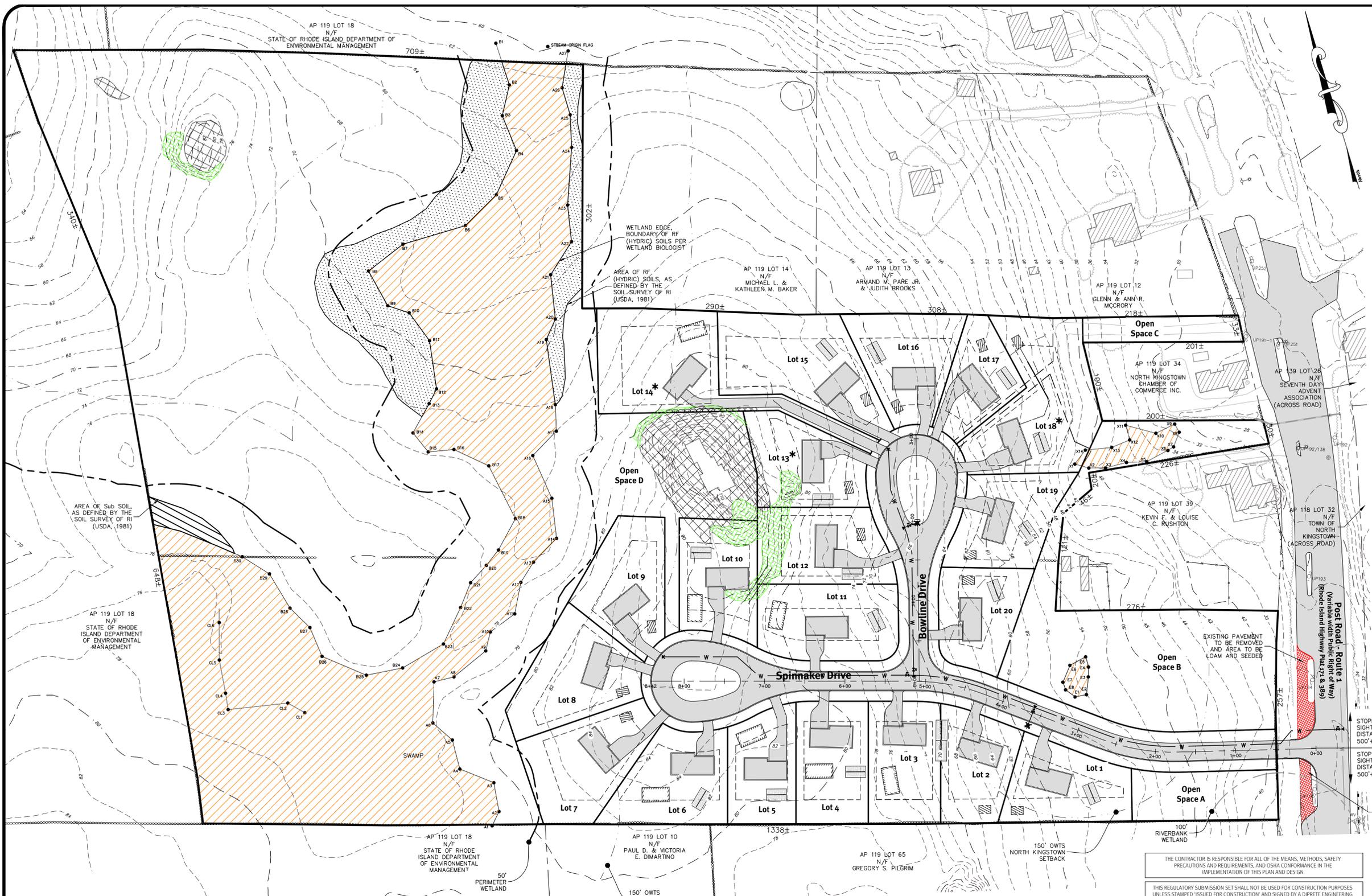
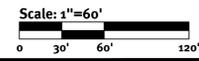
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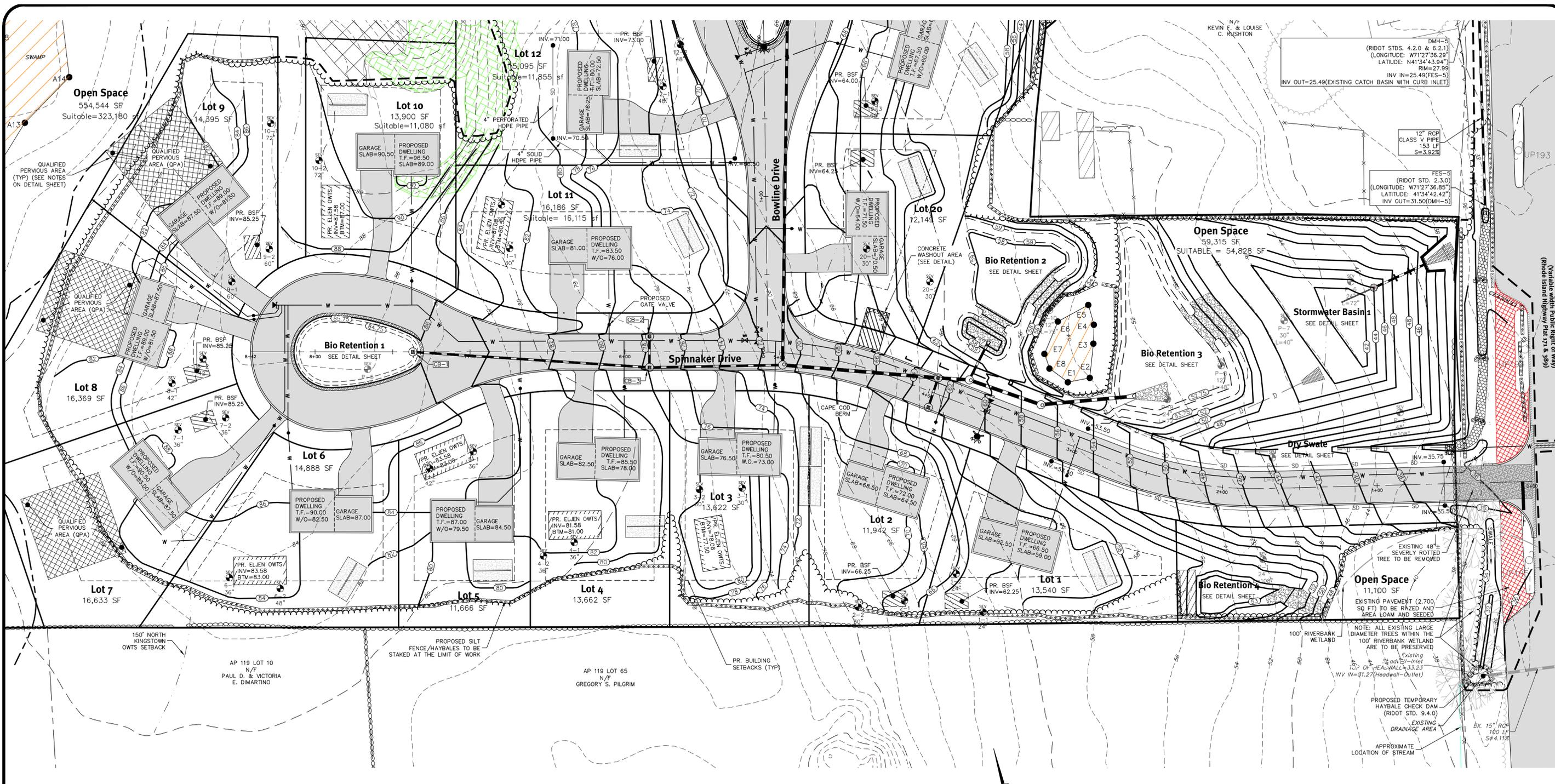
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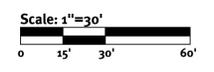


Engineers • Planners • Surveyors



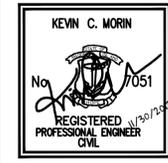
Grading and Utility Notes:

- THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ONSITE. PLEASE REFERENCE THE STORMWATER POLLUTION PREVENTION PLAN. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND RI DEPT. OF ENVIRONMENTAL MANAGEMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY DIG SAFE 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
- CONSTRUCTION TO COMMENCE SPRING 2013 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
- SEQUENCE OF CONSTRUCTION PROVIDED MAY BE MODIFIED AS FIELD CONDITIONS WARRANT WITH PRIOR APPROVAL FROM THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS SHALL BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUND WATER ARE DIRECTED AWAY FROM THE STRUCTURE.
- ALL PROPOSED UTILITIES SERVING THE SITE AND BUILDINGS TO BE COORDINATED WITH APPLICANT, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.
- ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES 2009 INCLUDING ALL REVISIONS.
- ALL RETAINING WALLS AND STEEP SLOPES ARE SHOWN SCHEMATICALLY ONLY AND DIPRETE ENGINEERING IS NOT PROVIDING THE DESIGN OF THESE ITEMS. THE ACTUAL WALLS AND SLOPES ARE TO BE BUILT UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER AND CERTIFIED TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS TO BE SUBMITTED PRIOR TO CONSTRUCTION.
- ALL CUT AND FILL AREAS ARE TO BE DONE UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER WITH TESTING AND CERTIFICATION TO BE PROVIDED TO THE APPLICANT AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING ASSOCIATES, INC. IS NOT PROVIDING THE FILL SPECIFICATION, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.
- ALL COMPONENTS OF THE DRAINAGE AND WATER SYSTEMS MUST BE ASBUILT PRIOR TO COVERING. ENGINEER TO BE NOTIFIED PRIOR TO COVERING TO SURVEY ASBUILT LOCATIONS. ENGINEER WILL NOT ACCEPT FIELD MEASUREMENTS FROM THE SITE CONTRACTOR.
- NO STOCKPILING OF MATERIAL TO BE LOCATED IN THE RIGHT OF WAY AND NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.
- ALL LOAM IN DISTURBED AREAS TO BE STOCKPILED FOR FUTURE USE.
- ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, SHALL BE DISCARDED OFF SITE IN AN ACCEPTABLE MANNER AT AN APPROVED LOCATION. STUMPS SHALL BE GROUND ONSITE OR REMOVED.
- NO STUMP DUMPS ARE PROPOSED ONSITE.
- IF CONCRETE TRUCKS ARE WASHED OUT ONSITE, ALL WASHOUT MUST BE COMPLETED IN THE DESIGNATED CONCRETE WASHOUT AREA.
- AN ANALYSIS OF THE EXISTING SURFACE AND PROPOSED SURFACE SHOWS THAT THE SITE IS ESTIMATED TO HAVE A NET FILL OF APPROXIMATELY 9,000 CUBIC YARDS.
- A TRAIL WILL BE INSTALLED FOR ACCESS TO THE OPEN SPACE FOR HOMEOWNERS.
- THE OPEN SPACE IS PROPOSED TO BE USED PRIMARILY AS PASSIVE RECREATION.



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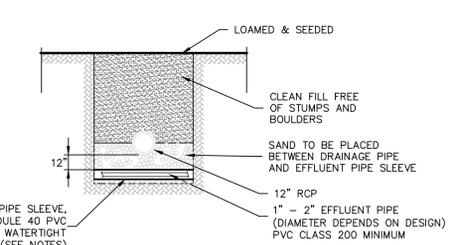
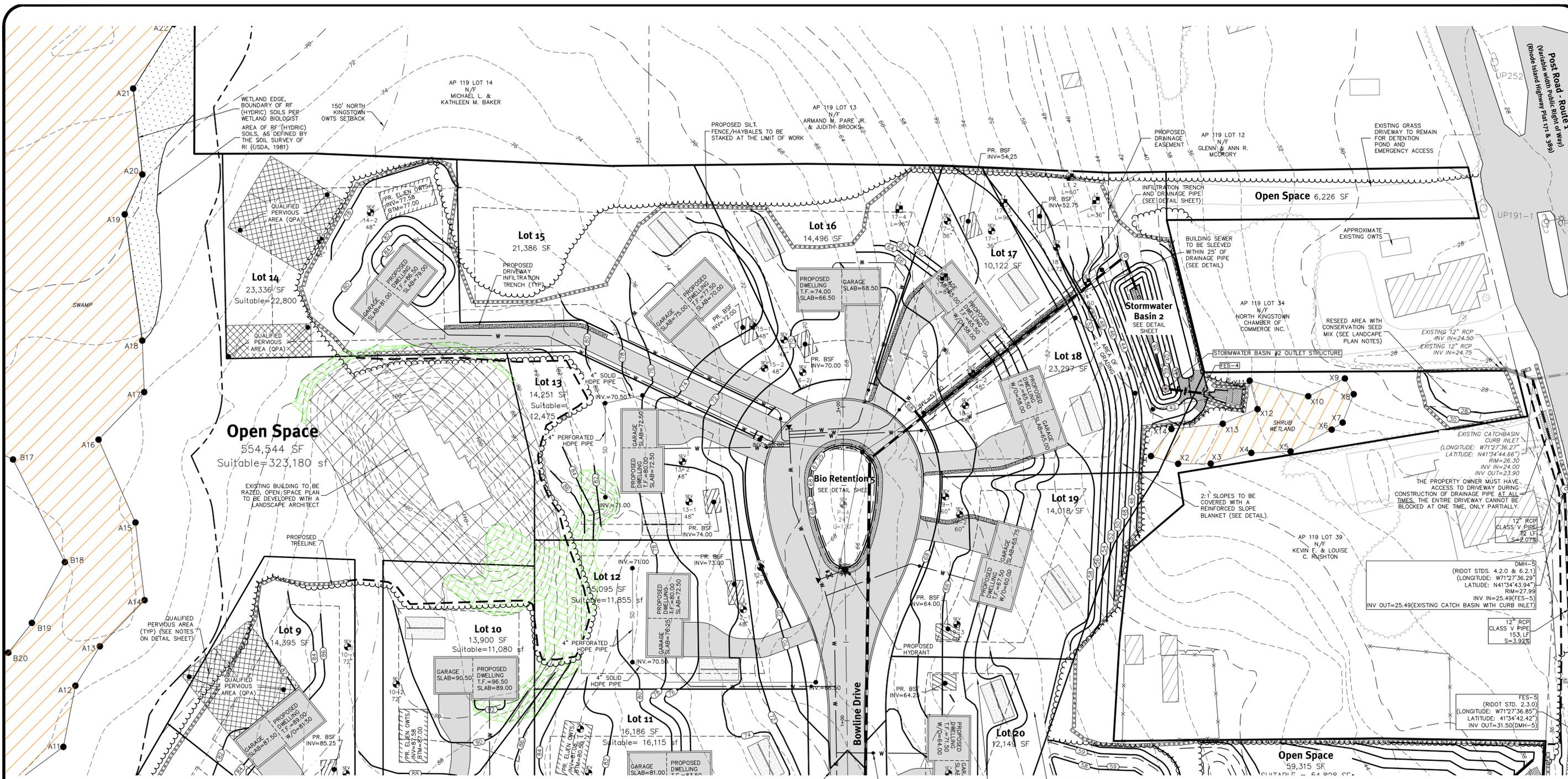
Grading Plan - 1
Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
 North Kingstown, Rhode Island



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

Wickford Harbor Estates, LLC
 117 Camden Road
 Narragansett, RI 02880



- NOTES:**
1. THE SEPTIC TANK EFFLUENT PIPE MUST BE SLEEVED WHENEVER IT IS WITHIN TWENTY FIVE (25) FEET OF THE DRAIN.
 2. THE SLEEVE SHALL BE SEAMLESS OR SCHEDULE 40 PVC WITH WATERTIGHT JOINTS AND IT SHALL HAVE A WATERTIGHT SEAL THAT IS FASTENED TO THE PIPES WITH A STAINLESS STEEL RETRACTABLE CLAMP.

EFFLUENT PIPE & DRAINAGE PIPE CROSSING DETAIL
NOT TO SCALE

Legend:

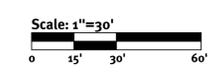
SETBACK	-----
EX MAJOR FOOT CONTOUR	----- 160 -----
EX MINOR FOOT CONTOUR	----- 158 -----
PR CONTOUR	-----
ASSESSOR LINE	-----
PROPERTY LINE	-----
LIMIT OF WORK	-----
STAKED HAYBALES	-----
EX TREELINE	-----
PR TREELINE	-----
PR BUILDING	-----
PR SUBDRAIN (4" PERFORATED PIPE)	----- SD -----
PR SOLID DRAIN PIPE	-----
PR UNDERDRAIN	----- D -----

Residential Drywell Construction Notes:

1. MOST OF THE SINGLE-FAMILY RESIDENTIAL DWELLINGS SHOWN IN THIS DEVELOPMENT ARE PROPOSED TO HAVE ROOF DRAINS CONNECTED TO DRYWELL STRUCTURES CONSTRUCTED ON THE HOUSE LOT.
2. THE DETAIL ENTITLED "HOUSE DRYWELL CONNECTION DETAIL" ON SHEET 15 PROVIDES A TABLE SHOWING THE LOTS AND ASSOCIATED DRYWELLS TO BE BUILT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ANY LOTS THAT ARE DESIGNED TO HAVE DRYWELL STRUCTURES SHALL HAVE ALL ROOF DRAINS CONNECTED INTO THE DRYWELL.
4. ROOF LEADERS DRAINS TO BE 25 FT. FROM LEACH FIELDS.

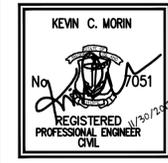
RIDEM Site Suitability Notes:

1. THERE ARE NO KNOWN EXISTING OR PROPOSED PRIVATE WELLS WITHIN 200 FT. OF THE PROPOSED DEVELOPMENT EXCEPT WHERE SHOWN.
2. THERE ARE NO KNOWN EXISTING OR PROPOSED OWTS WITHIN 200 FT. OF THE DEVELOPMENT EXCEPT WHERE SHOWN.
3. THERE ARE NO KNOWN PUBLIC WELLS WITHIN 500 FT. OF THE PROPOSED DEVELOPMENT.
4. THERE ARE NO KNOWN EXISTING OR PROPOSED WELLS WITHIN 200 FT. OF A PROPOSED OWTS EXCEPT WHERE SHOWN.
5. RESIDENTIAL HOMES ARE TO BE SERVICED BY PUBLIC WATER AND PRIVATE OWTS.
6. OWTS COMPONENTS MUST MAINTAIN AT LEAST 15 FEET SETBACK DISTANCE FROM ANY STORMWATER INFILTRATION SYSTEM.



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Harbor View
TOTAL AREA OF PARCELS = 23.16 ACRES±

YIELD PLAN
THE TOTAL LOTS DEVELOPED UNDER THE YIELD PLAN IS 16.

CONSERVATION PLAN
20 TOTAL PROPOSED LOTS (16 MARKET RATE, 3 AFFORDABLE (LOTS 13, 14 & 18), 1 ADDITIONAL MARKET RATE AS ALLOWED BY DENSITY BONUS)

Grading Plan - 2
Harbor View

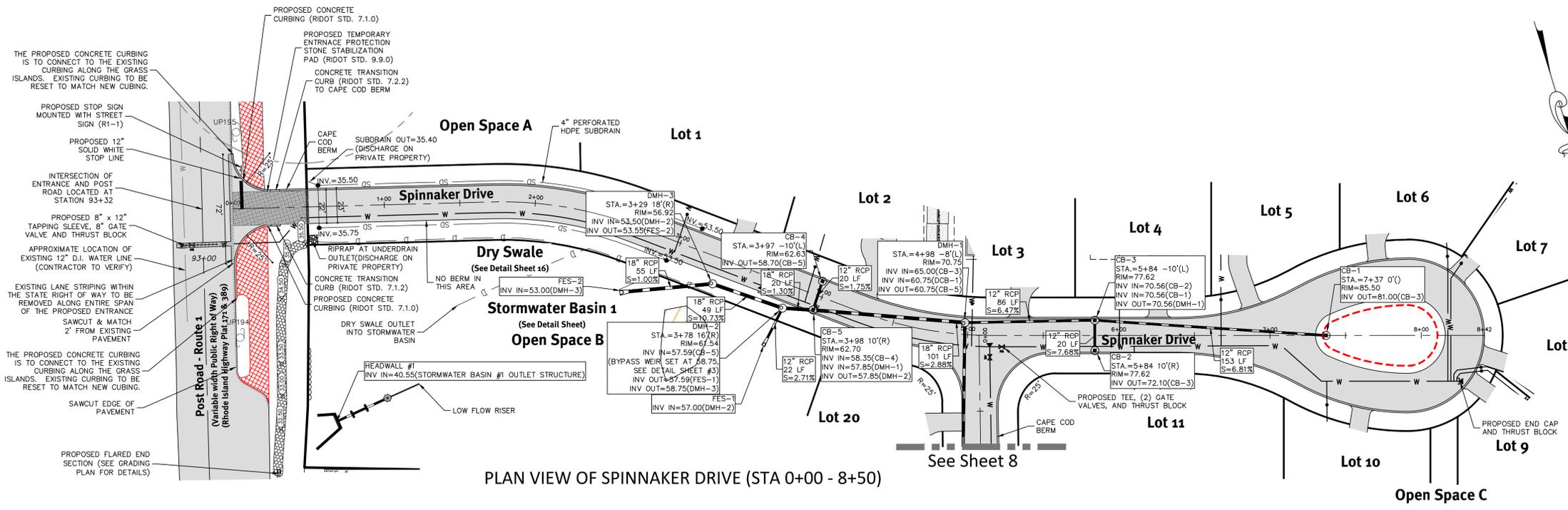
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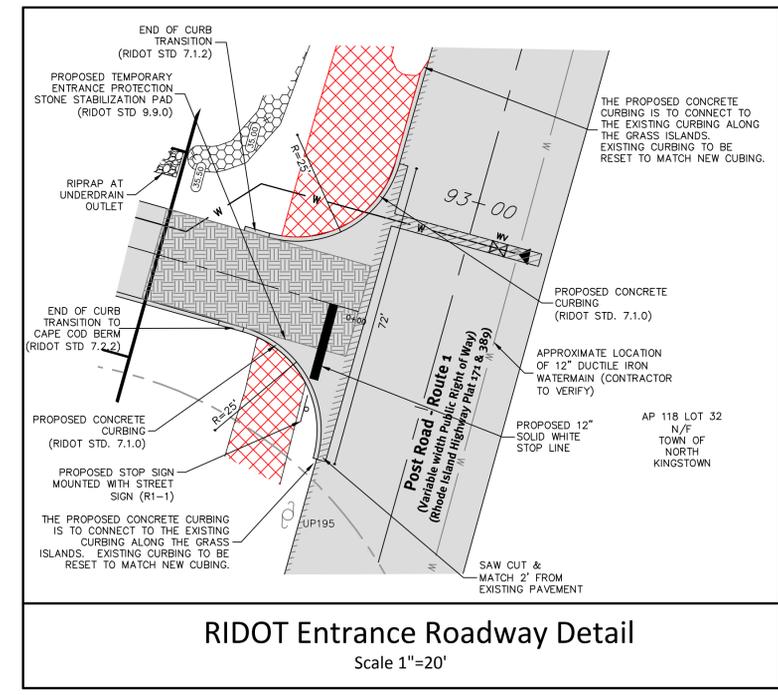
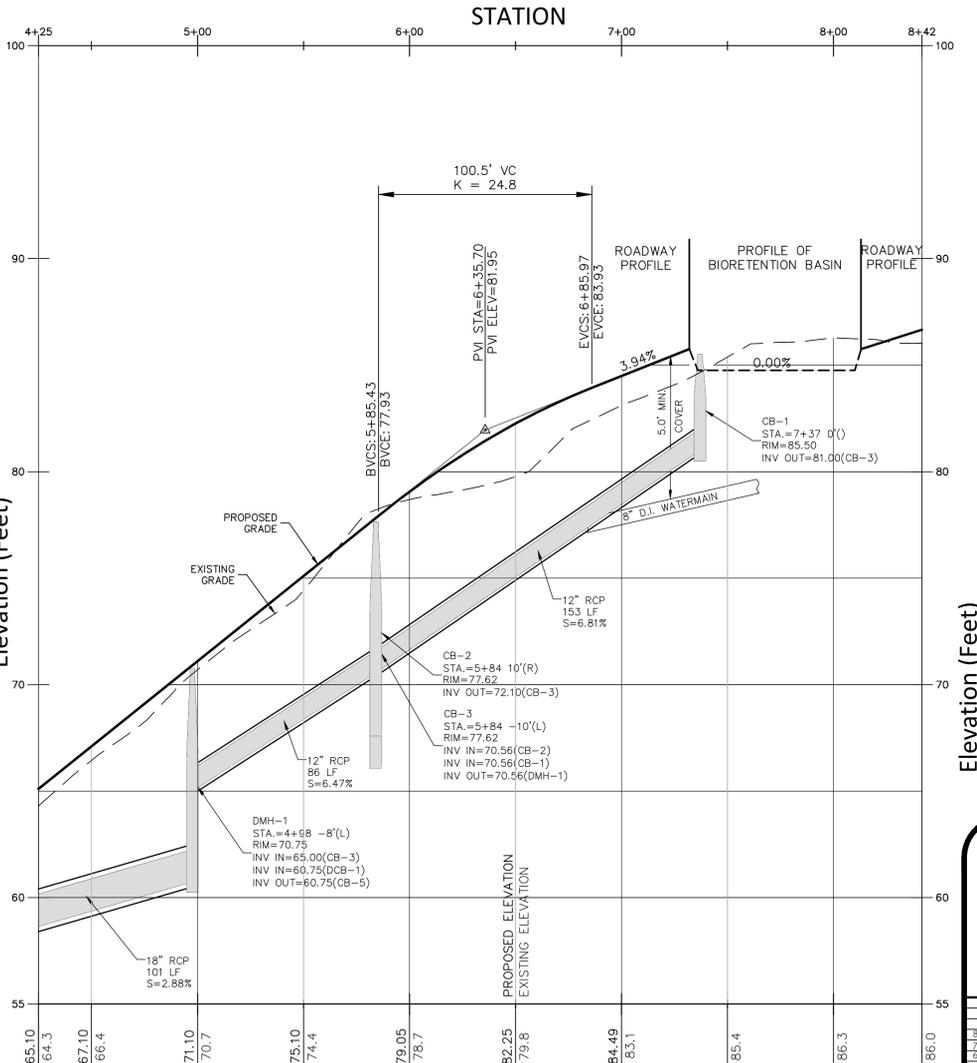
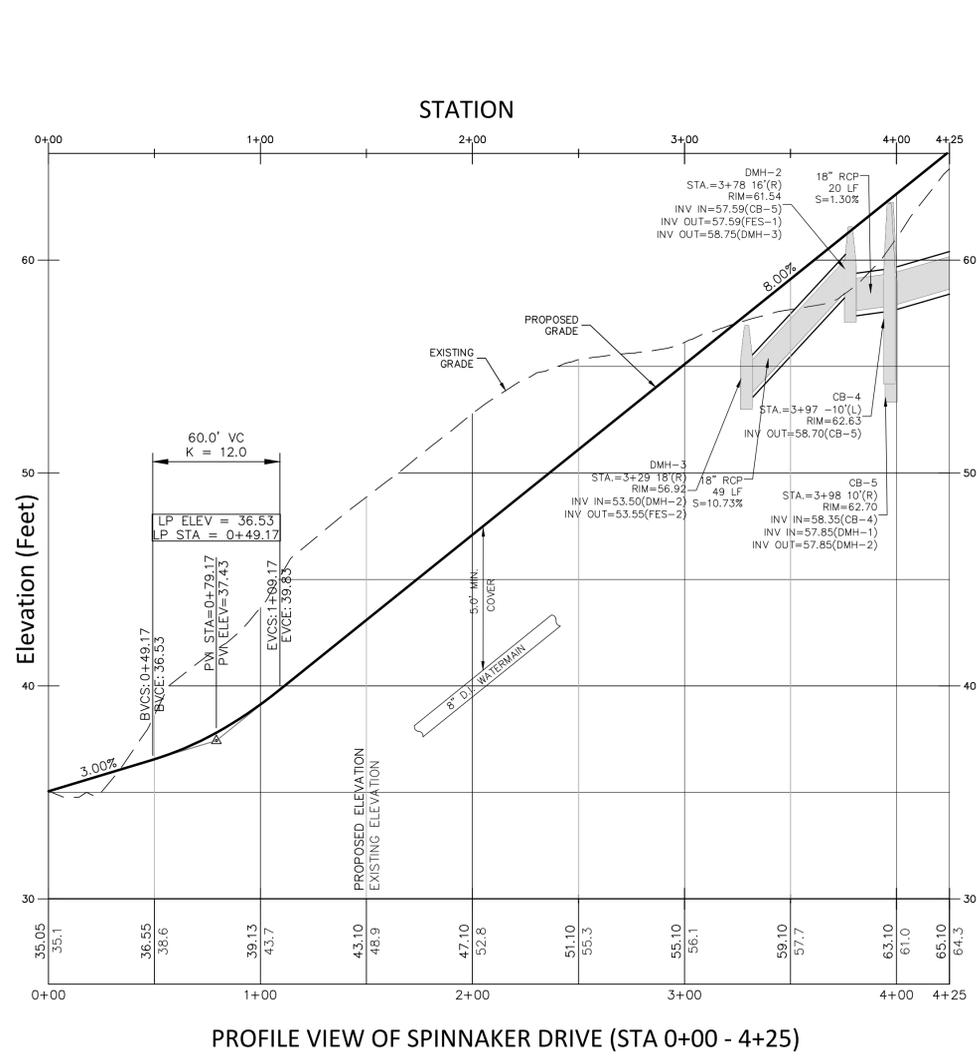
Applicant:
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Narragansett, RI 02880

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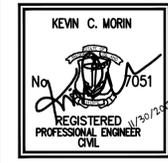
- RIDOT Notes:**
- ALL WORK WITHIN THE STATE'S R.O.W. WILL CONFORM TO RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2004 INCLUDING ALL REVISIONS AND THE RI STANDARD DETAILS.
 - ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES 2003 INCLUDING ALL REVISIONS.
 - NO LANE OR SHOULDER CLOSURES SHALL BE PERFORMED WITHIN THE STATE'S R.O.W. DURING PEAK TRAFFIC HOURS.
 - UTILITY AND WATER CONNECTIONS WITHIN THE STATE R.O.W. WILL REQUIRE A SEPARATE RIDOT UTILITY PERMIT. CONTRACTOR TO OBTAIN BEFORE CONSTRUCTION.
 - THE DRAINAGE SYSTEM IS DESIGNED TO DECREASE BOTH STORM WATER RUNOFF RATE DISCHARGE, AND STORM WATER RUNOFF VOLUME TO THE STATE RIGHT-OF-WAY FROM PRE-DEVELOPMENT TO POST-DEVELOPMENT. THERE WILL BE NO INCREASE IN RUNOFF TO THE STATE RIGHT OF WAY FROM THE PROPOSED DEVELOPMENT.

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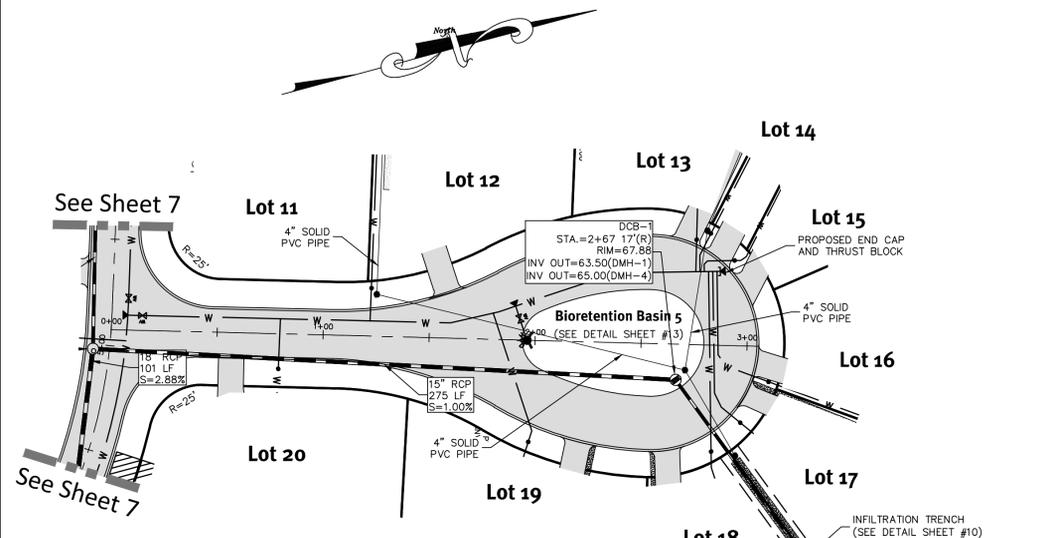
Plan & Profile - 1
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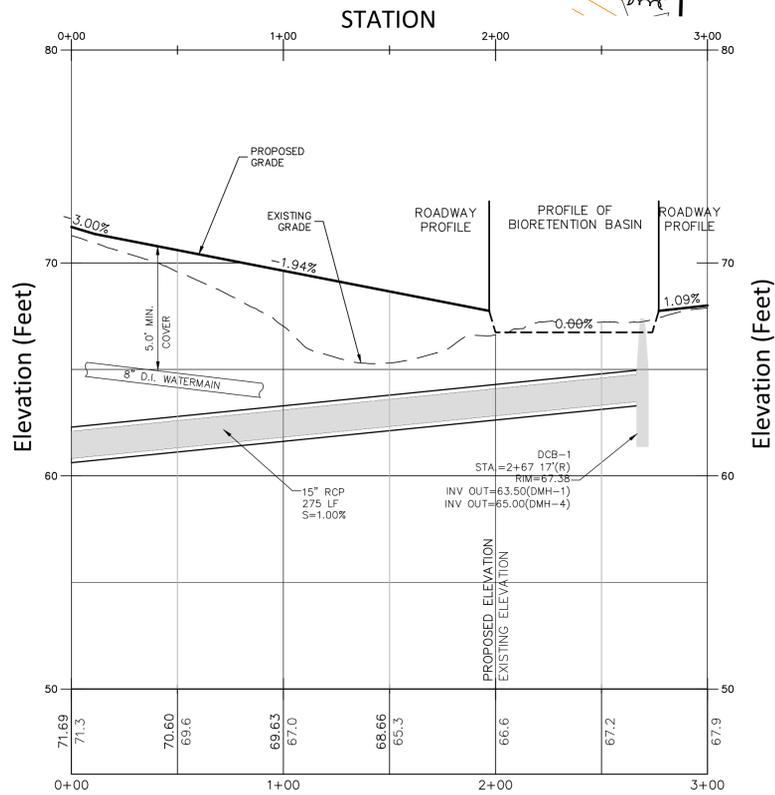
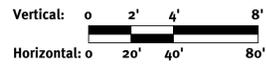
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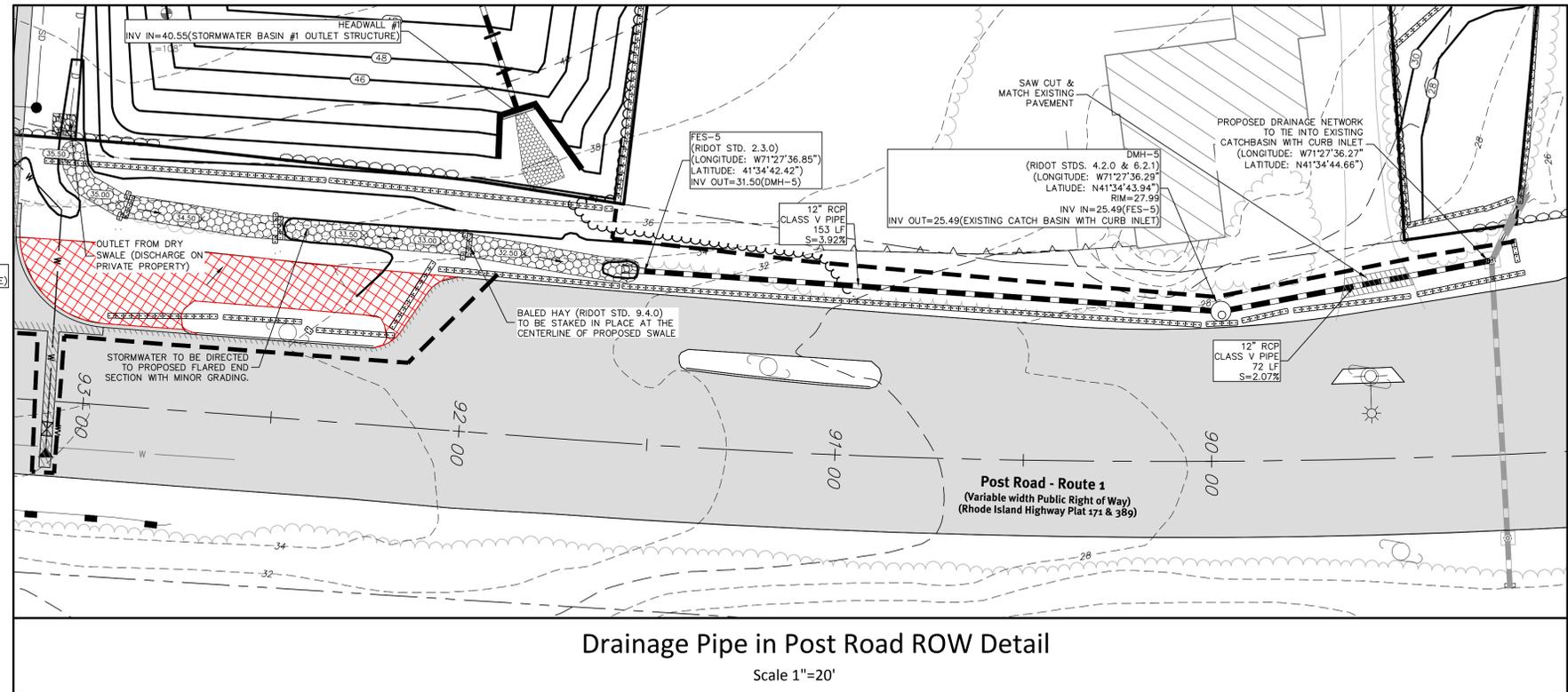
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PLAN VIEW OF BOWLINE DRIVE (STA 0+00 - 3+05)



PROFILE VIEW OF BOWLINE DRIVE (STA 0+00 - 3+05)

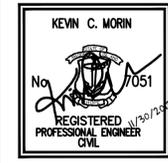


Drainage Pipe in Post Road ROW Detail

Scale 1"=20'

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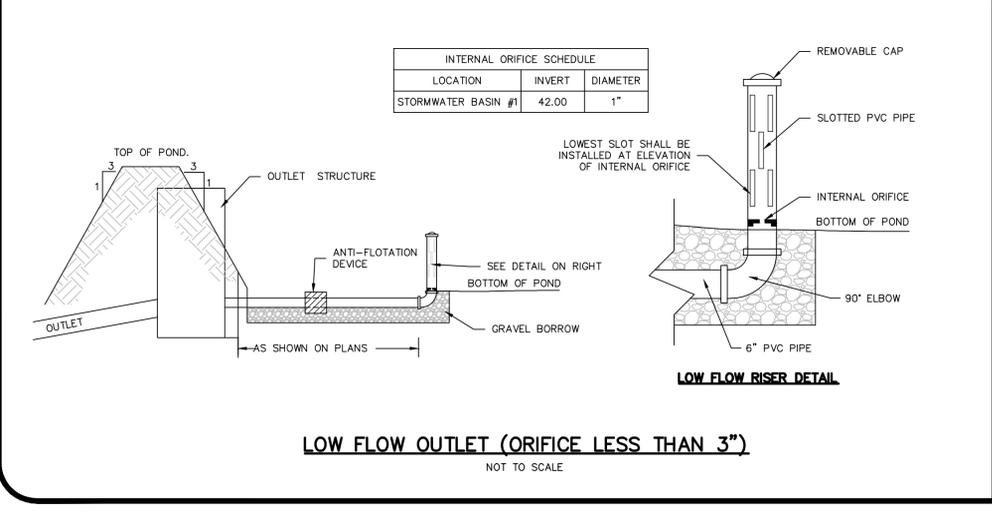
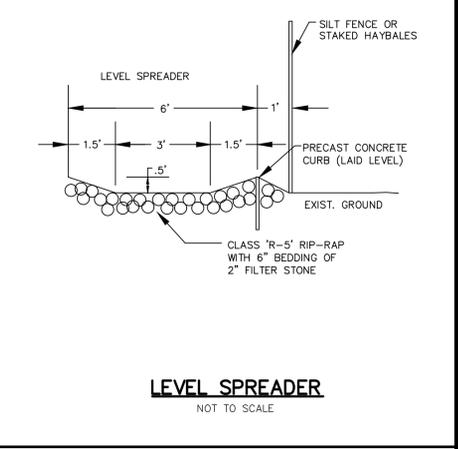
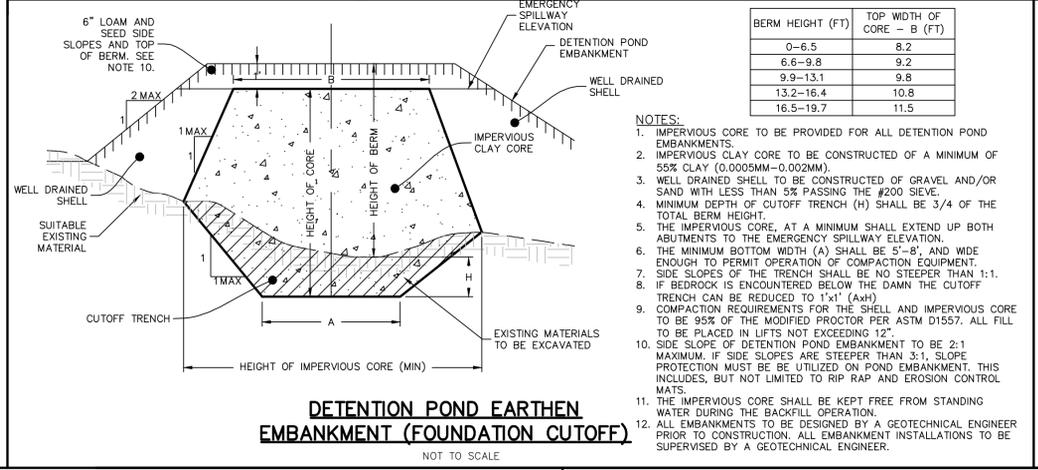
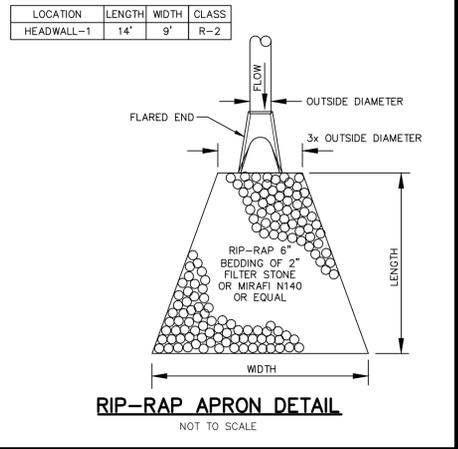
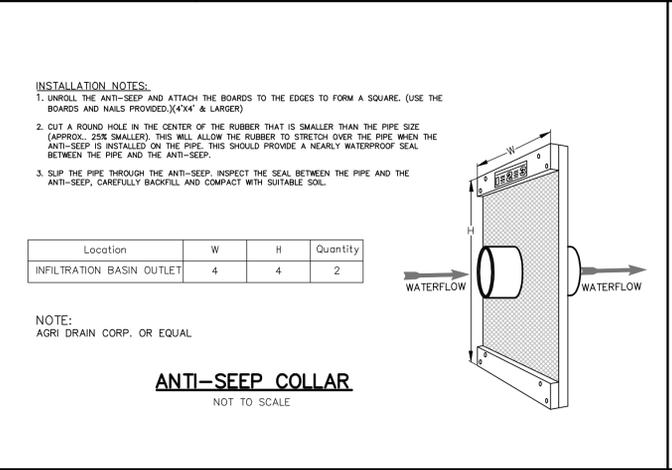
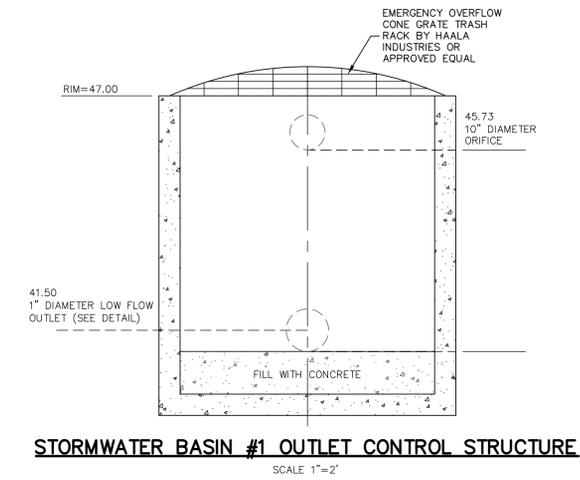
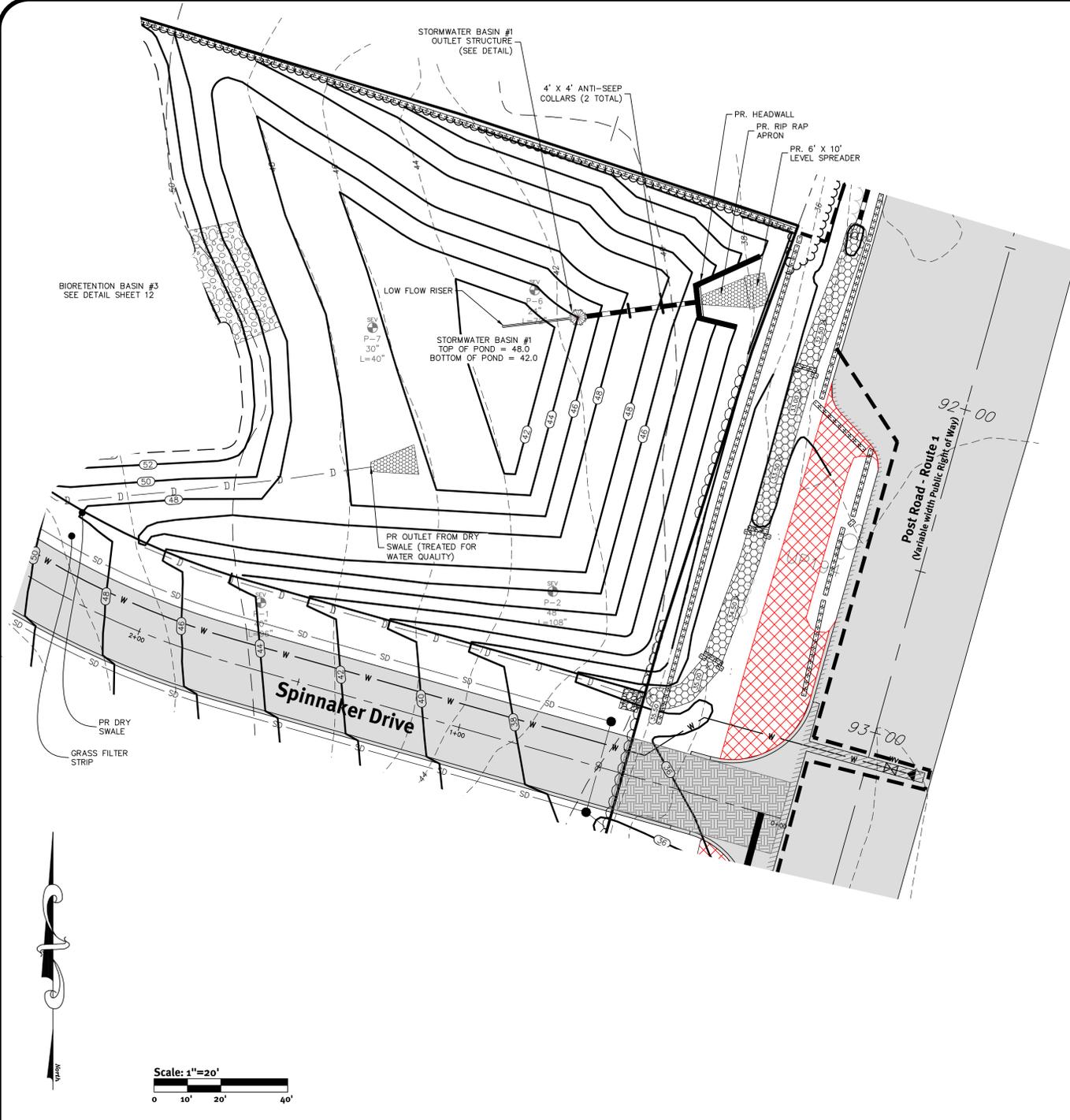
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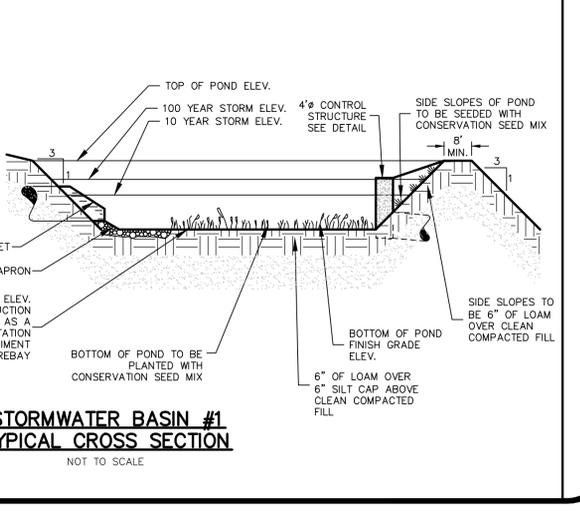
Plan & Profile - 2
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DiPrete Engineering

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0	7-21-11	Master Plan Submission	B.A.H.



DESCRIPTION	STORMWATER BASIN #1
TOP OF POND ELEVATION	48.00
BOTTOM OF POND	42.00
100 YEAR STORM ELEVATION	46.97
10 YEAR STORM ELEVATION	44.07
SEASONAL HIGH GWT ELEVATION*	40.00
SOIL EVALUATION P-6	2.00'



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KEVIN C. MORIN

No. 7051

REGISTERED PROFESSIONAL ENGINEER CIVIL

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Detail Sheet - 1

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North Kingstown, Rhode Island

DiPrete Engineering

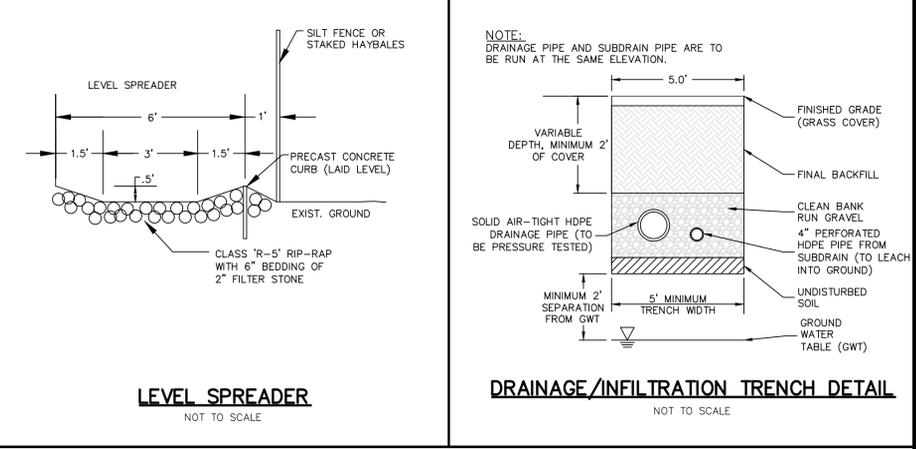
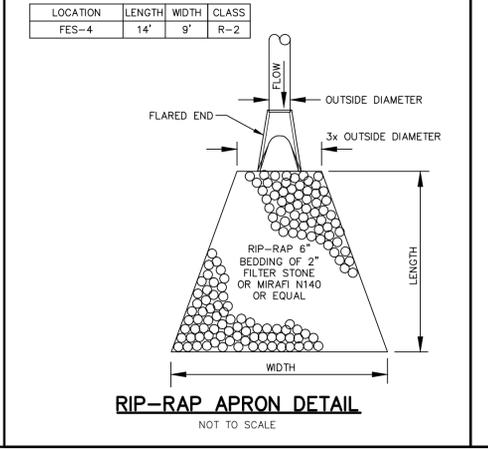
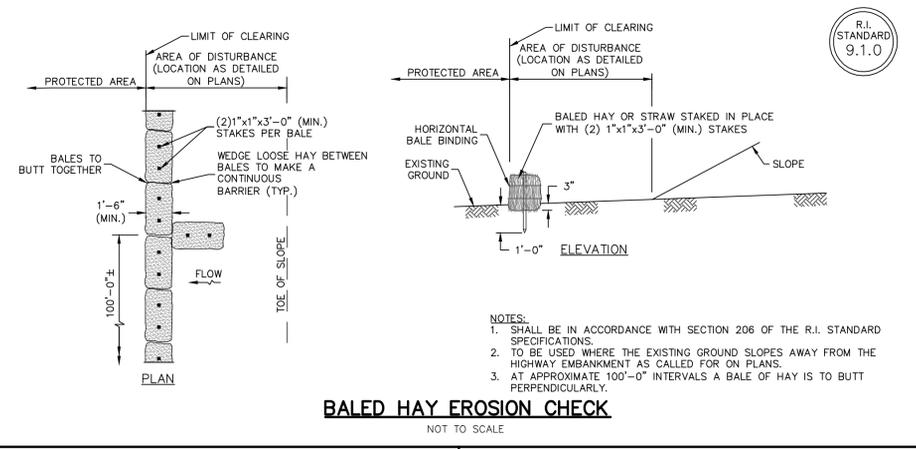
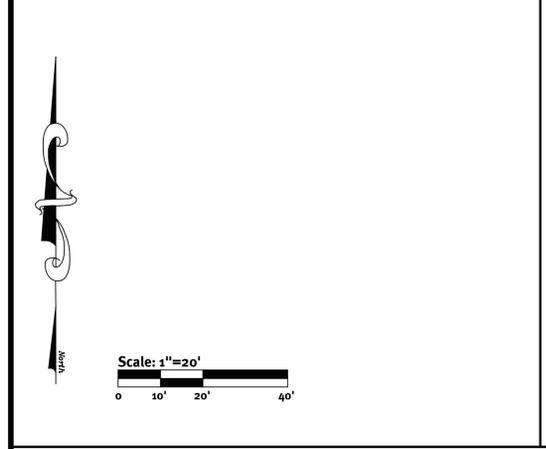
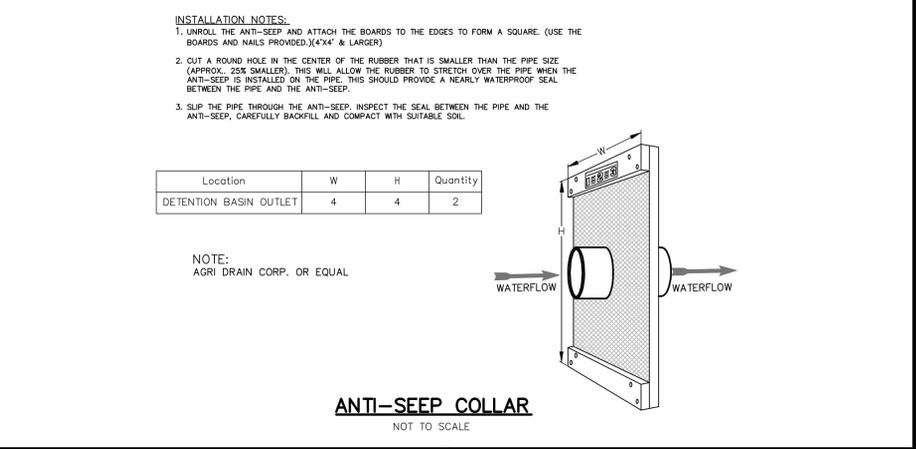
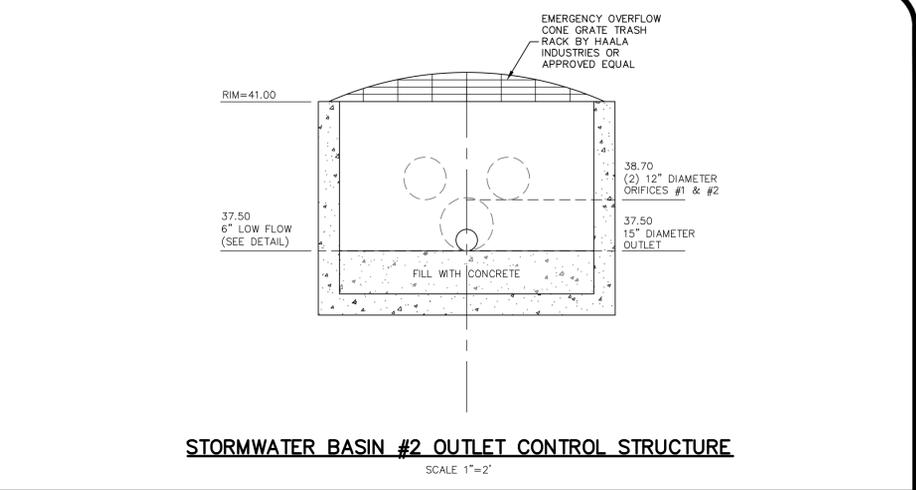
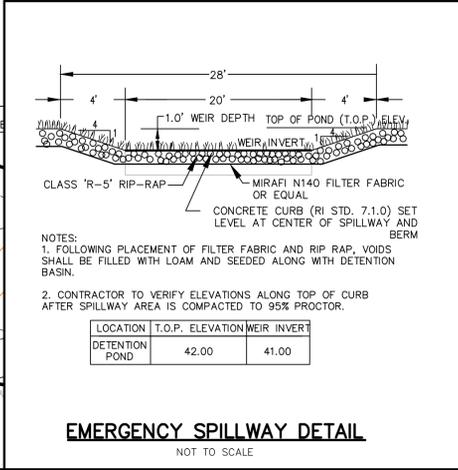
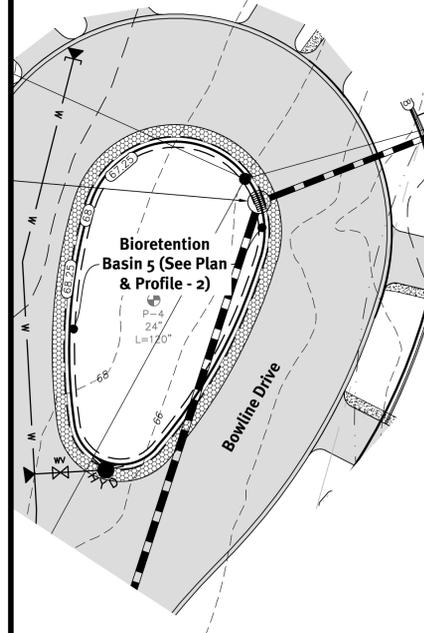
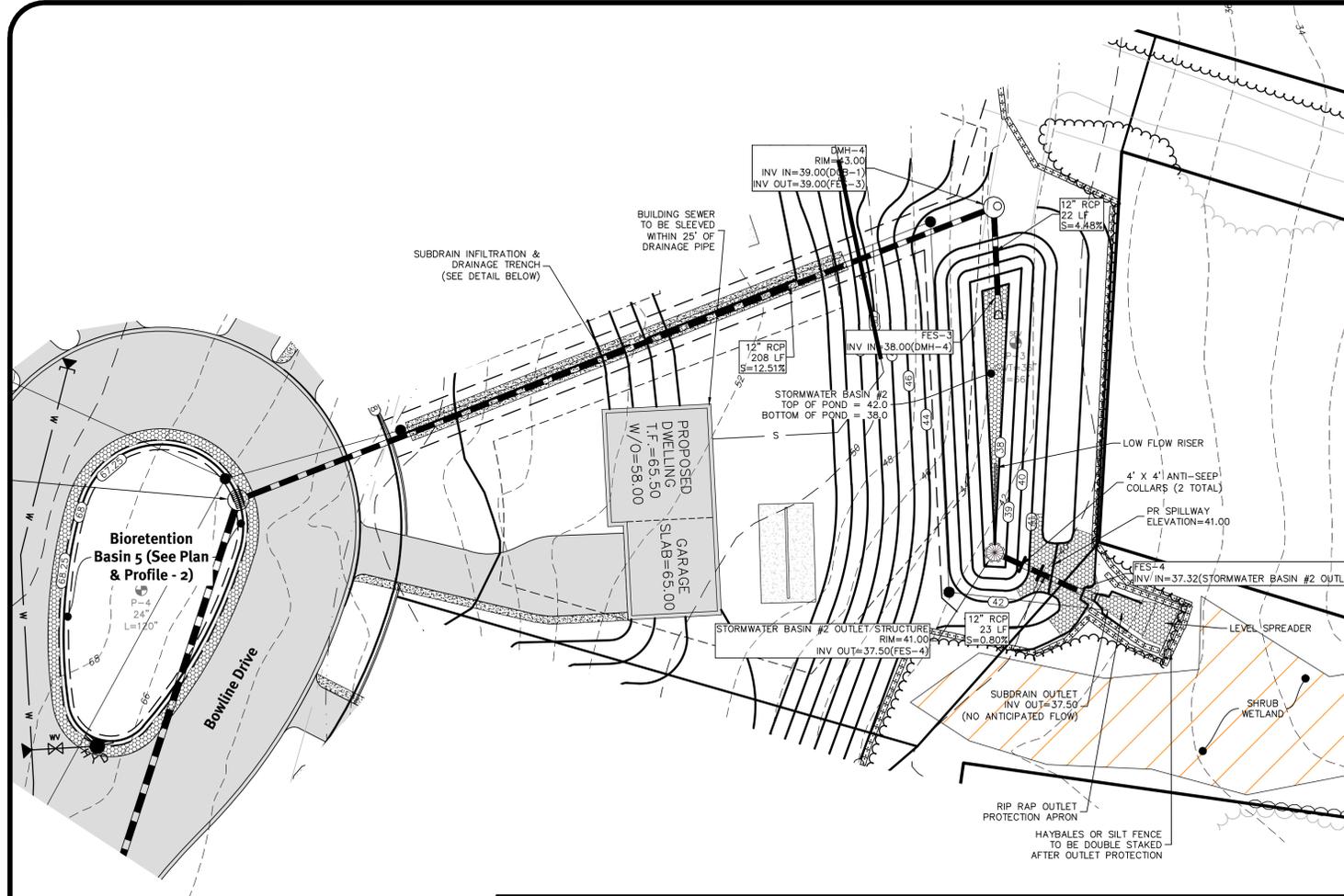
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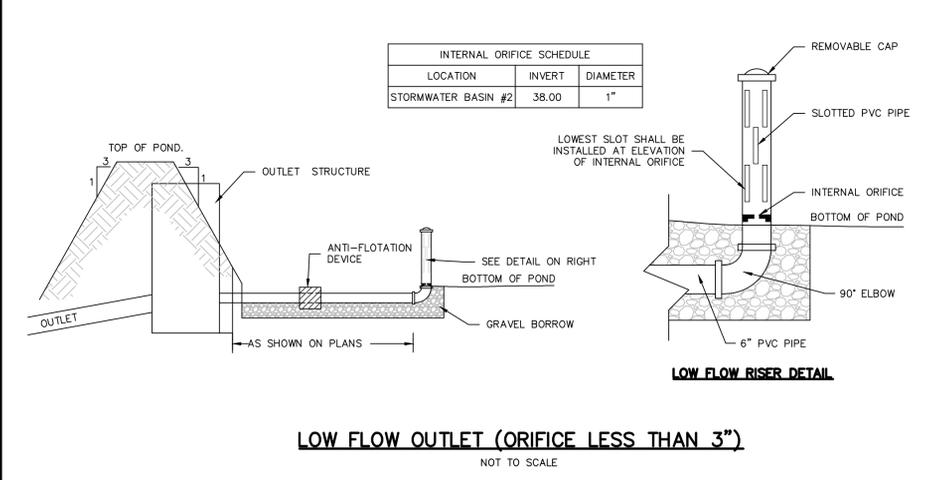
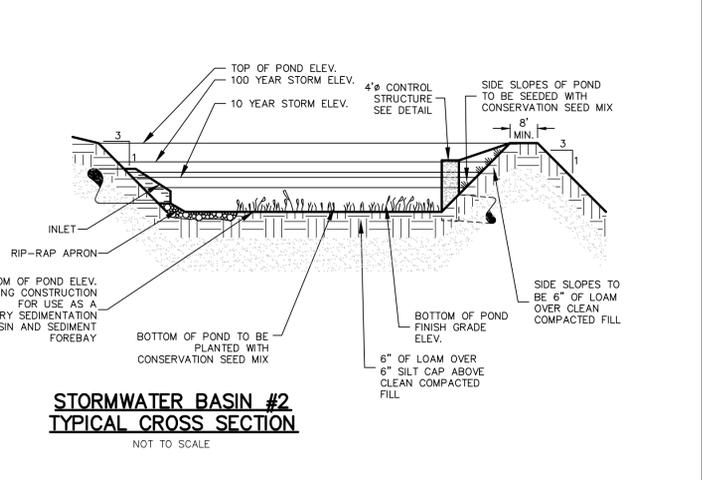
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SHEET 9 OF 25

DiPrete Engineering Associates, Inc.



DESCRIPTION	STORMWATER BASIN #2
TOP OF POND ELEVATION	56.00
BOTTOM OF POND	50.00
100 YEAR STORM ELEVATION	40.99
10 YEAR STORM ELEVATION	39.79
SEASONAL HIGH GWT ELEVATION*	39.50
SOIL EVALUATION P-3	3.00'



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No. 7051

REGISTERED PROFESSIONAL ENGINEER CIVIL

Detail Sheet - 2

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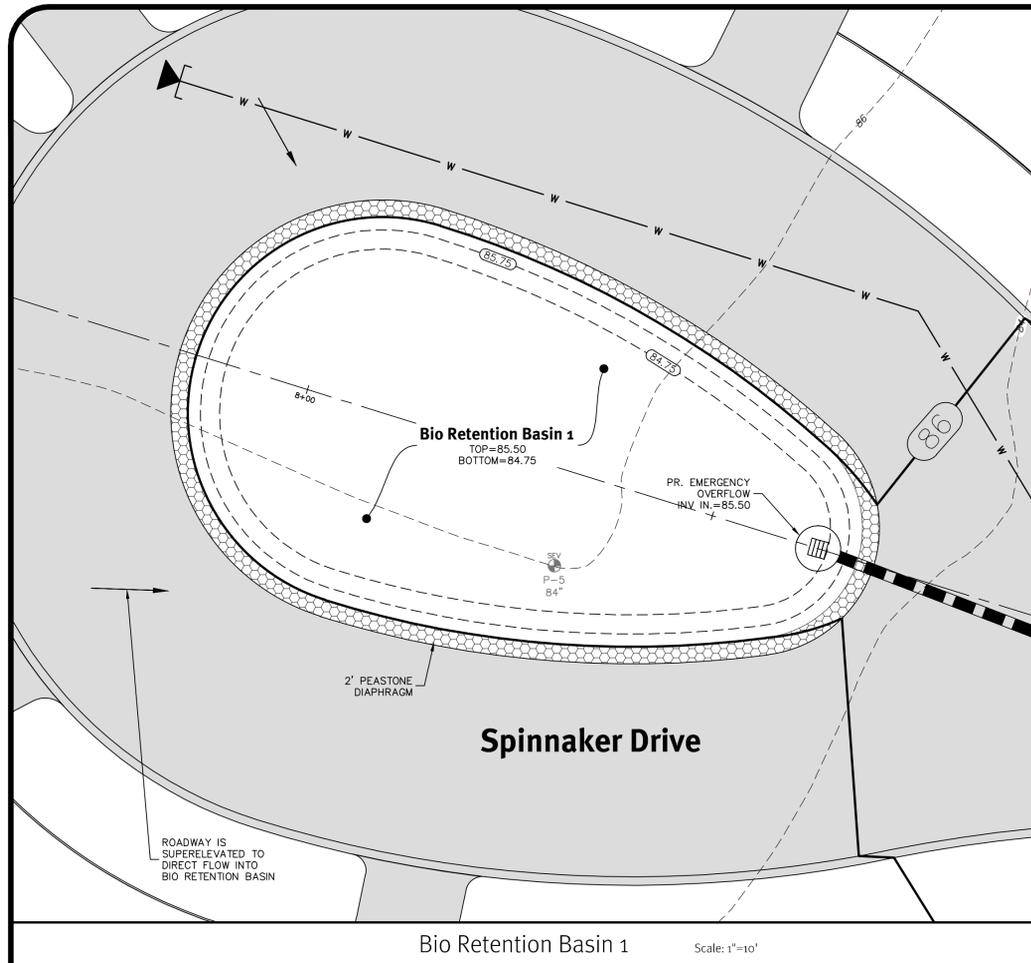
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- BIORETENTION BASIN INSTALLATION NOTES:**
- LANDSCAPE SHRUBS/TREES SHOULD BE DENSE ENOUGH TO IMPROVE WATER QUALITY THROUGH PLANT UPTAKE, BUT NOT SO DENSE AS TO LIMIT ABILITY TO MAINTAIN AREA.
 - CATCH BASIN STRUCTURES SHALL BE SET AS SHOWN ON PLANS.
 - BIORETENTION BASINS SHALL BE HAND COMPACTED ONLY. NO MACHINES SHALL BE DRIVEN THROUGH OR OPERATED WITHIN THE RAIN GARDEN FOOTPRINT.
 - PEA STONE DIAPHRAGM AND PEA GRAVEL LAYER ARE AGGREGATES CONSISTING OF MIXED SIZES OF 1/4" TO 3/4" PARTICLES THAT NORMALLY OCCUR IN OR NEAR OLD STREAMBED AND HAVE BEEN WORN SMOOTH BY THE ACTION OF WATER.

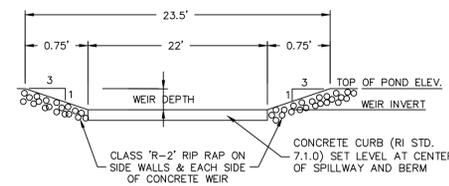
- BIORETENTION BASIN MAINTENANCE NOTES:**
- THIS BIORETENTION BASIN IS DESIGNED AS AN UPLAND TERRESTRIAL HABITAT WITH A LONG, LOW-MAINTENANCE LIFE. HOWEVER, IF STANDING WATER PERSISTS 48 HOURS AFTER A STORM EVENT, THE GARDEN SHALL UNDERGO MAINTENANCE IMMEDIATELY AND NON-IMPROVEMENT OF CONDITIONS THEREAFTER WILL CALL FOR REPLACEMENT OF SYSTEM OR IMPROVEMENT OF STRUCTURAL DRAINAGE SYSTEM.
 - THE BIORETENTION BASIN SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. SEDIMENT REMOVAL FROM THE RAIN GARDEN SHALL COINCIDE WITH STREET SWEEPING IN THE SPRINGTIME. ANY DEAD AND/OR FALLEN BRANCHES AND BUILD-UP OF DEBRIS INSIDE THE SYSTEM SHALL BE REMOVED AT YEARLY INSPECTION.
 - ANY DEAD PLANTINGS OBSERVED DURING INSPECTION SHALL BE REMOVED AND NEW PLANTINGS SHALL BE INSTALLED IN THESE AREAS. IF PLANTINGS ARE OBSERVED TO NOT GROW IN A SPECIFIC AREA, THIS AREA SHALL BE REGRADED IF NOT AT GRADE WITH REMAINDER OF GARDEN OR SOIL SHALL BE REPLACED AS APPLICABLE.
 - OBSTRUCTIONS OF OVERFLOW STRUCTURES OBSERVED DURING INSPECTION SHALL BE REMOVED.

- BIORETENTION BASIN PLANTING NOTES:**
- ALL BIORETENTION BASINS ARE TO BE PLANTED WITH RIDEM APPROVED PLANTINGS. A LIST OF RIDEM APPROVED PLANTINGS CAN BE FOUND IN APPENDIX B OF THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL. THE MANUAL IS AVAILABLE ON THE RIDEM WEBSITE. IN ADDITION, RIDEM HAS PREVIOUSLY APPROVED THE FOLLOWING PLANTS FOR USE IN RAIN GARDENS: AMELANCHIER CANADENSIS (SHADBLOWSERVICE BERRY), BETULA NIGRA 'HERITAGE' (HERITAGE RIVER BIRCH), ILEX GLABRA 'SHAMROCK' (SHAMROCK INKERRY), MYRICA PENNSYLVANICA (BAYBERRY), PANICUM VIRGATUM 'HEAVY METAL' (HEAVY METAL SWITCH GRASS), ECHINACEA PURPUREA 'MAGNUS' (CONEFLOWER), IRIS VERSICOLOR, (BLUE FLAG IRIS), RUDBECKIA HIRTA L. 'PULCHERRIMA FARW' (BLACK EYED SUSAN) AND THE NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX.
 - CONTRACTOR/TENANT SHALL COORDINATE PLANTINGS WITH A LANDSCAPE ARCHITECT AND SUBMIT A LANDSCAPE PLAN FOR ALL BIORETENTION BASINS PLANTINGS. THIS MUST BE APPROVED BY THE DESIGN ENGINEER.

DESCRIPTION	BR-1	BR-2
TOP OF BASIN ELEVATION	85.50	58.50
AVAILABLE STORAGE ELEVATION	85.75	59.00
BOTTOM OF BASIN	84.75	58.00
100 YEAR STORM ELEVATION	85.60	58.64
10 YEAR STORM ELEVATION	84.43	58.62
1 YEAR STORM ELEVATION	82.26	58.10
SEASONAL HIGH GWT ELEVATION	79.00	VARIES*
SOIL EVALUATION P-5	7'	N/A
SOIL EVALUATION P-10	N/A	1'

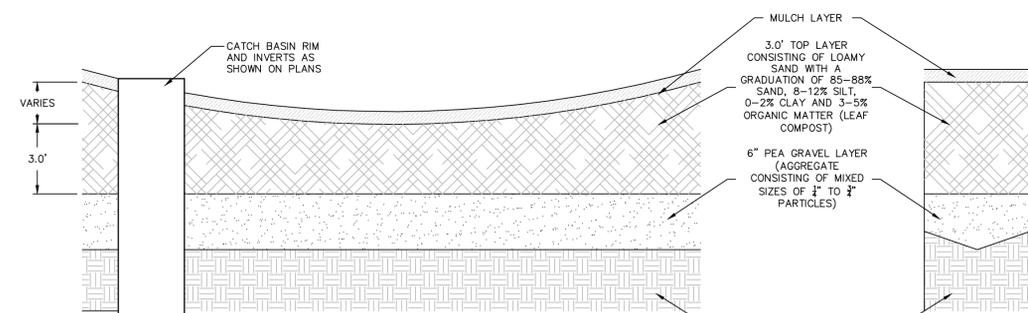
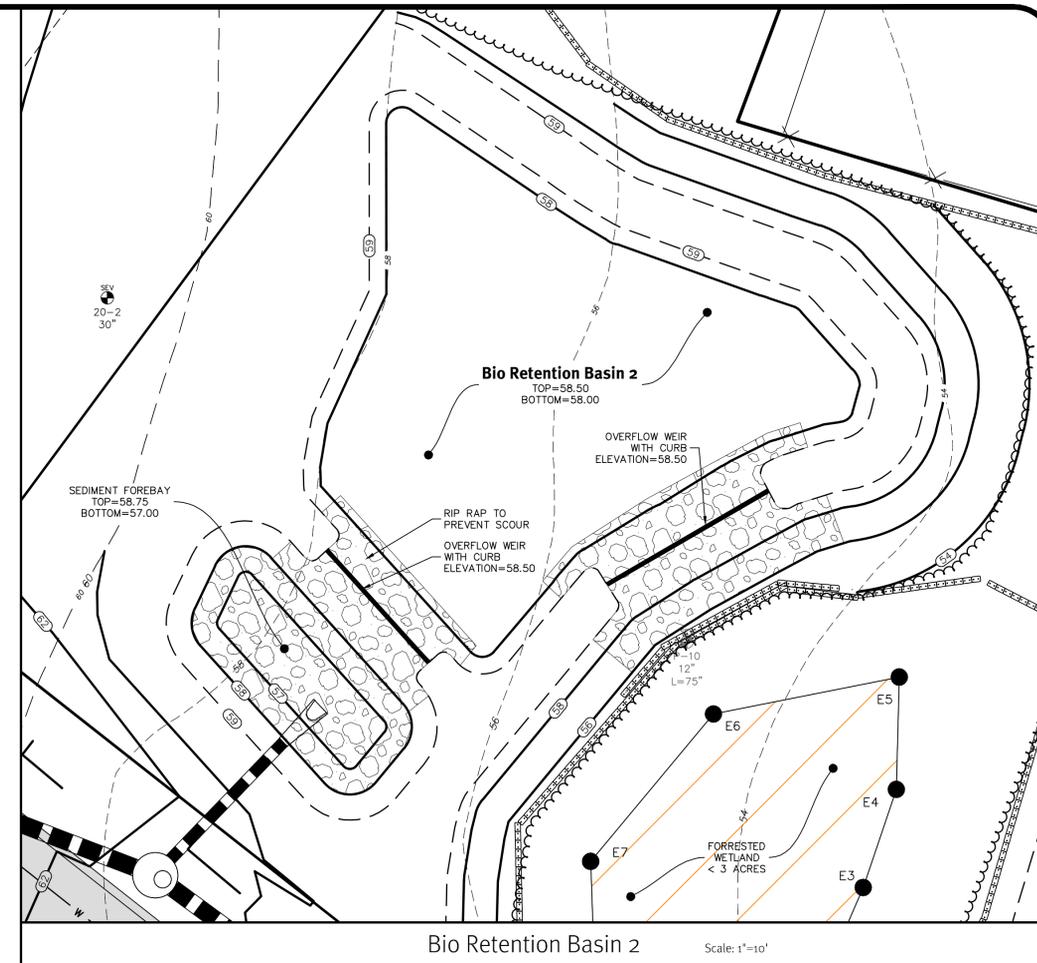
*SEE BIORETENTION GWT CROSS SECTION (BELOW)

LOCATION	TOP OF BERM	WEIR INVERT	WEIR DEPTH
BASIN-2	59.00	58.50	0.25'



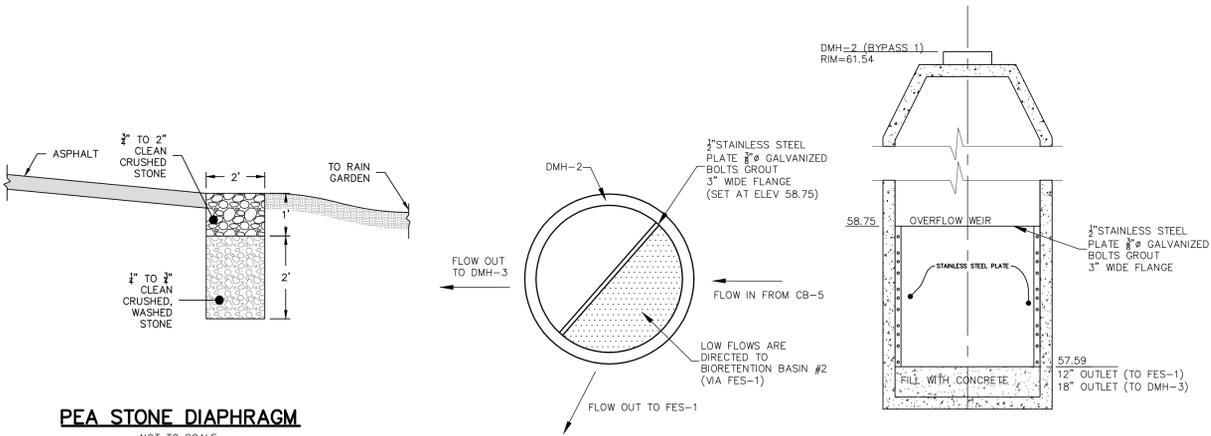
SPILLWAY WITH CURB DETAIL

NOT TO SCALE



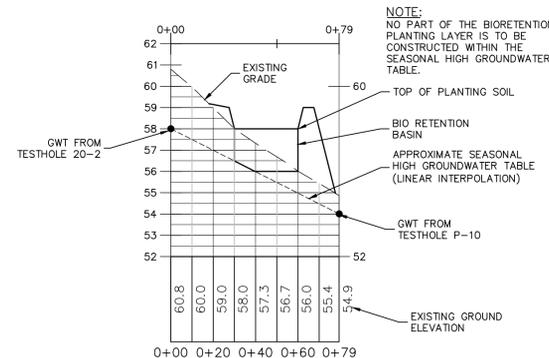
BIO RETENTION BASIN 1 CROSS SECTION

NOT TO SCALE



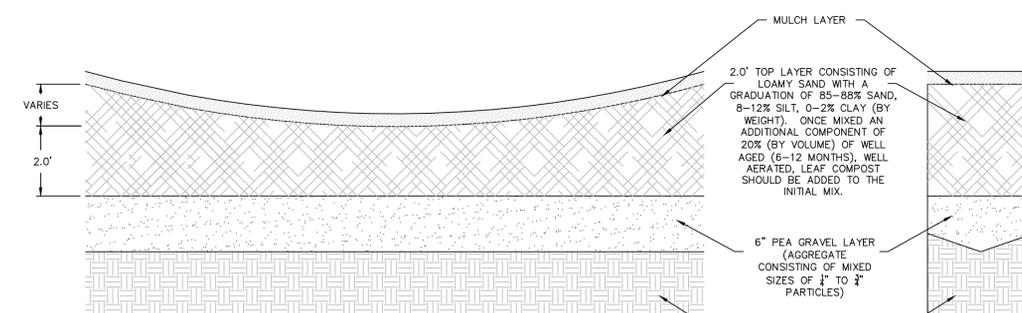
DMH-2 (BYPASS 1) CROSS SECTION

NOT TO SCALE



BIO-RETENTION BASIN #2 GWT CROSS SECTION

NOT TO SCALE

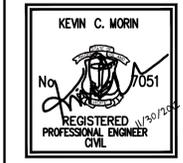


BIO RETENTION 2 CROSS SECTION

NOT TO SCALE

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

THIS REGULATORY SUBMISSION SET SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED 'ISSUED FOR CONSTRUCTION' AND SIGNED BY A DIPRETE ENGINEERING REPRESENTATIVE.



Detail Sheet - 3

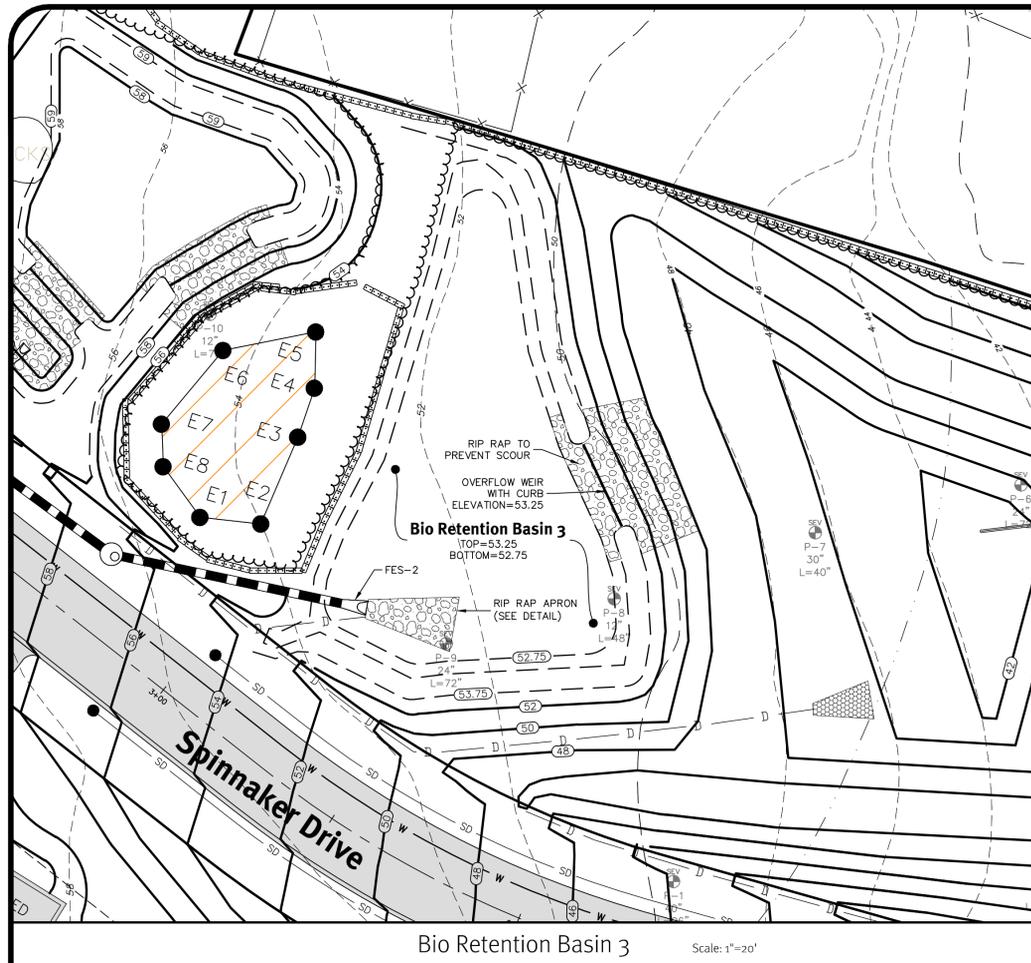
Harbor View
 Assessor's Plat 119, Lots 11, 28, & 51
 North Kingstown, Rhode Island

DiPrete Engineering

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

Applicant:
Wickford Harbor Estates, LLC
 117 Camden Road
 Narragansett, RI 02880

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1	9-12-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.
No.	Date	Description	By:



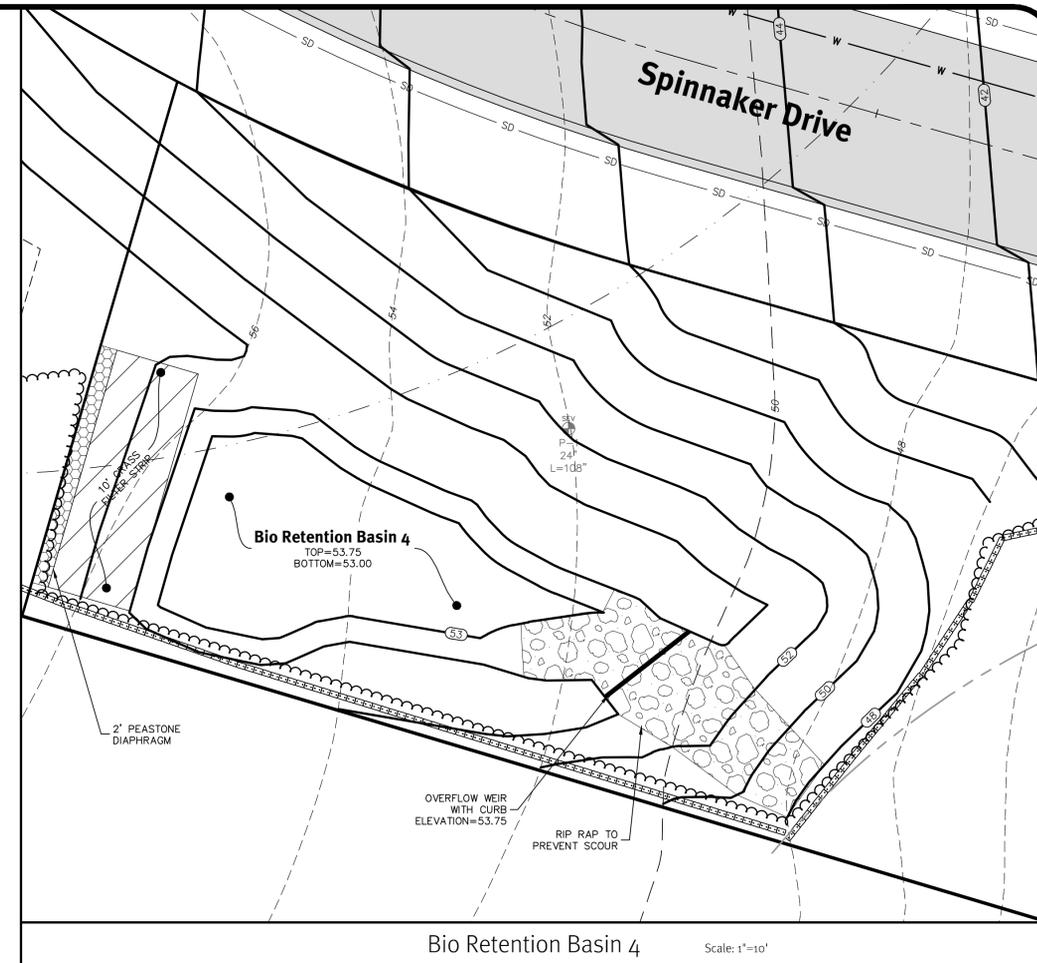
Bio Retention Basin 3 Scale: 1"=20'

- BIORETENTION BASIN INSTALLATION NOTES:**
1. LANDSCAPE SHRUBS/TREES SHOULD BE DENSE ENOUGH TO IMPROVE WATER QUALITY THROUGH PLANT UPTAKE, BUT NOT SO DENSE AS TO LIMIT ABILITY TO MAINTAIN AREA.
 2. CATCH BASIN STRUCTURES SHALL BE SET AS SHOWN ON PLANS.
 3. BIORETENTION BASINS SHALL BE HAND COMPACTED ONLY. NO MACHINES SHALL BE DRIVEN THROUGH OR OPERATED WITHIN THE RAIN GARDEN FOOTPRINT.
 4. PEA STONE DIAPHRAGM AND PEA GRAVEL LAYER ARE AGGREGATES CONSISTING OF MIXED SIZES OF 1/2" TO 3/4" PARTICLES THAT NORMALLY OCCUR IN OR NEAR OLD STREAMBEDS AND HAVE BEEN WORN SMOOTH BY THE ACTION OF WATER.

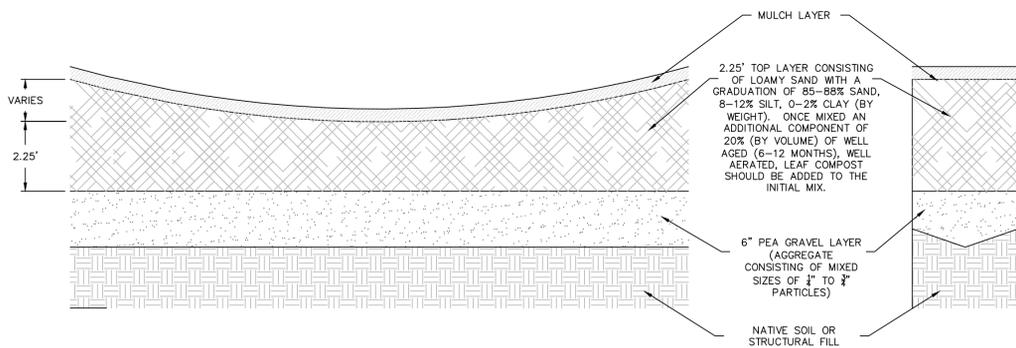
- BIORETENTION BASIN MAINTENANCE NOTES:**
1. THIS BIORETENTION BASIN IS DESIGNED AS AN UPLAND TERRESTRIAL HABITAT WITH A LONG, LOW-MAINTENANCE LIFE. HOWEVER, IF STANDING WATER PERSISTS 48 HOURS AFTER A STORM EVENT, THE GARDEN SHALL UNDERGO MAINTENANCE IMMEDIATELY AND NON-IMPROVEMENT OF CONDITIONS THEREAFTER WILL CALL FOR REPLACEMENT OF SYSTEM OR IMPROVEMENT OF STRUCTURAL DRAINAGE SYSTEM.
 2. THE BIORETENTION BASIN SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. SEDIMENT REMOVAL FROM THE RAIN GARDEN SHALL COINCIDE WITH STREET SWEEPING IN THE SPRINGTIME. ANY DEAD AND/OR FALLEN BRANCHES AND BUILD-UP OF DEBRIS INSIDE THE SYSTEM SHALL BE REMOVED AT YEARLY INSPECTION.
 3. ANY DEAD PLANTINGS OBSERVED DURING INSPECTION SHALL BE REMOVED AND NEW PLANTINGS SHALL BE INSTALLED IN THESE AREAS. IF PLANTINGS ARE OBSERVED TO NOT GROW IN A SPECIFIC AREA, THIS AREA SHALL BE REGRADED IF NOT AT GRADE WITH REMAINDER OF GARDEN OR SOIL SHALL BE REPLACED AS APPLICABLE.
 4. OBSTRUCTIONS OF OVERFLOW STRUCTURES OBSERVED DURING INSPECTION SHALL BE REMOVED.

- BIORETENTION BASIN PLANTING NOTES:**
1. ALL BIORETENTION BASINS ARE TO BE PLANTED WITH RIDEM APPROVED PLANTINGS. A LIST OF RIDEM APPROVED PLANTINGS CAN BE FOUND IN APPENDIX B OF THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL. THE MANUAL IS AVAILABLE ON THE RIDEM WEBSITE. IN ADDITION, RIDEM HAS PREVIOUSLY APPROVED THE FOLLOWING PLANTS FOR USE IN RAIN GARDENS: AMELANCHIER CANADENSIS (SHADBLOWSERVICE BERRY), BETULA NIGRA 'HERITAGE' (HERITAGE RIVER BIRCH), ILEX GLABRA 'SHAMROCK' (SHAMROCK INKBERRY), MYRICA PENNSYLVANICA (BAYBERRY), PANICUM VIRGATUM 'HEAVY METAL' (HEAVY METAL SWITCH GRASS), ECHINACEA PURPUREA 'MAGNUS' (CONEFLOWER), IRIS VERSICOLOR (BLUE FLAG IRIS), RUDBECKIA HIRTA L. 'PULCHERRIMA FARW' (BLACK EYED SUSAN) AND THE NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX.
 2. CONTRACTOR/TENANT SHALL COORDINATE PLANTINGS WITH A LANDSCAPE ARCHITECT AND SUBMIT A LANDSCAPE PLAN FOR ALL BIORETENTION BASINS PLANTINGS. THIS MUST BE APPROVED BY THE DESIGN ENGINEER.

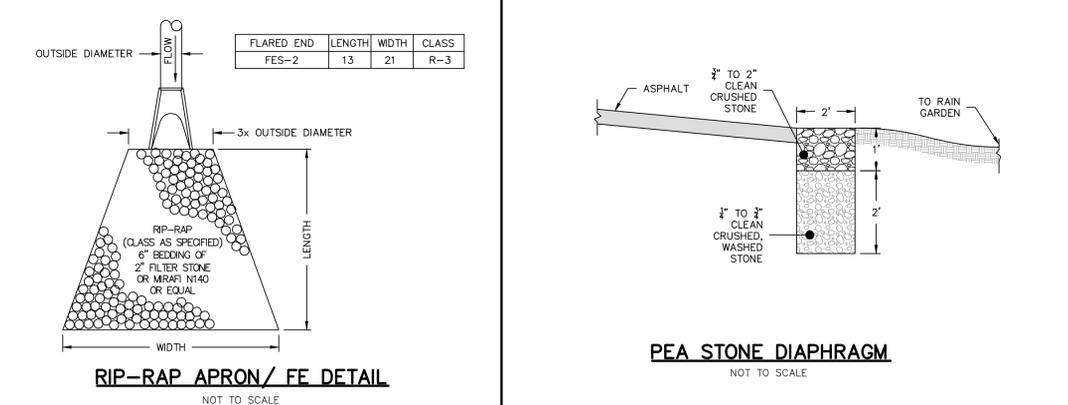
DESCRIPTION	BR-3	BR-4
TOP OF BASIN ELEVATION	53.25	53.75
AVAILABLE STORAGE ELEVATION	53.75	54.00
BOTTOM OF BASIN	52.75	53.00
100 YEAR STORM ELEVATION	53.49	53.91
10 YEAR STORM ELEVATION	53.27	53.79
1 YEAR STORM ELEVATION	50.53	51.34
SEASONAL HIGH GWT ELEVATION	50.50	50.00
SOIL EVALUATION P-7	2.5'	N/A
SOIL EVALUATION P-8	1'	N/A
SOIL EVALUATION P-9	2'	N/A
SOIL EVALUATION P-1	N/A	2'



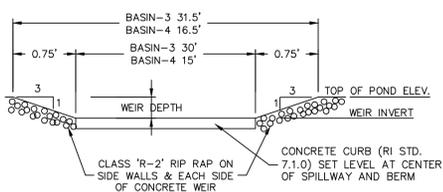
Bio Retention Basin 4 Scale: 1"=10'



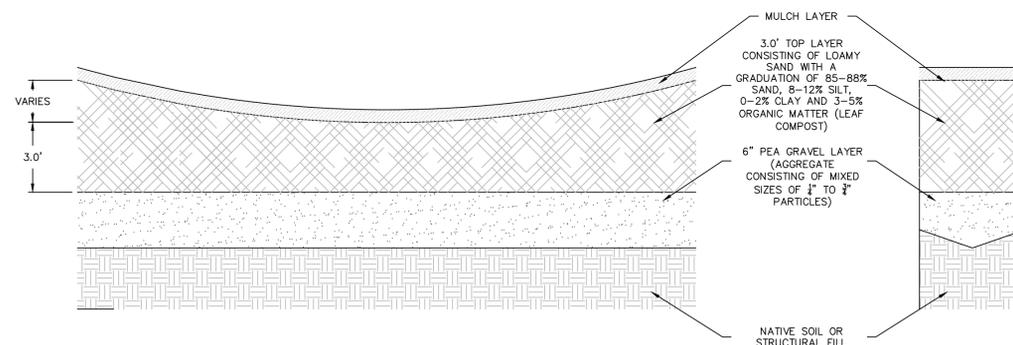
BIO RETENTION 3 CROSS SECTION NOT TO SCALE



LOCATION	TOP OF BERM	WEIR INVERT	WEIR DEPTH
BASIN-3	53.75	53.25	0.50'
BASIN-4	54.00	53.75	0.25'



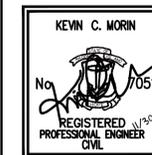
SPILLWAY WITH CURB DETAIL NOT TO SCALE



BIO RETENTION 4 CROSS SECTION NOT TO SCALE

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Detail Sheet - 4

Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island

DiPrete Engineering

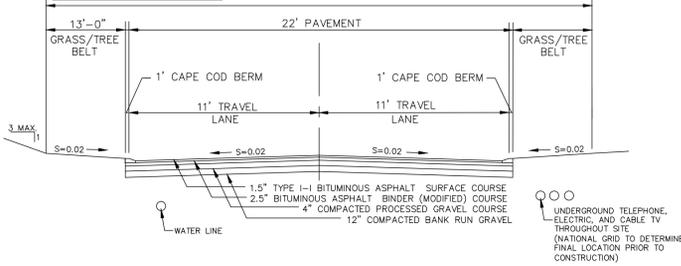
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.DiPrete-Eng.com

Applicant:
Wickford Harbor Estates, LLC

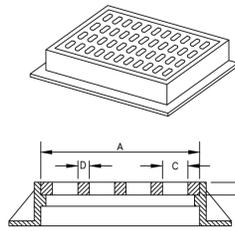
117 Camden Road
Narragansett, RI 02880

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1	9-12-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.

NOTE: UNDERGROUND UTILITY TRENCH CONSTRUCTION TO CONFORM TO ALL APPLICABLE STANDARDS DETERMINED BY THE TOWN AND NATIONAL GRID PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR TO NOTIFY DIG SAFE PRIOR TO EXCAVATION.

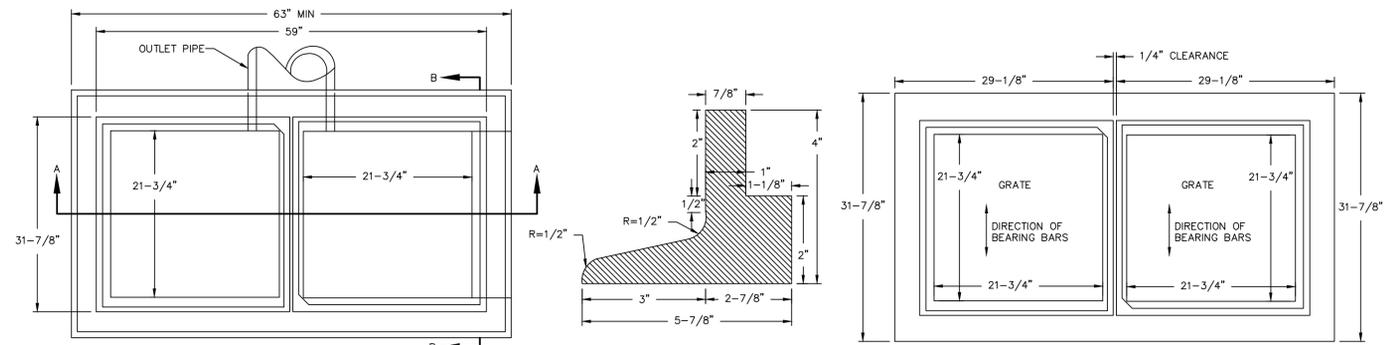


ROADWAY CONSTRUCTION CROSS SECTION
NOT TO SCALE



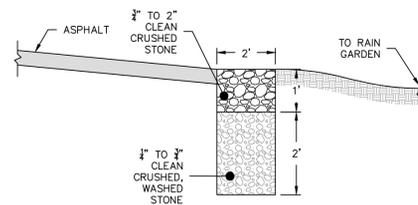
CAT. NO.	A	B	C	D	WT. (LBS)
R-4853-A	24"x45"	3"	1 1/2"x 6 1/2"	1 1/2"	520

DOUBLE FRAME & GRATE
NEENAH FOUNDRY CORP. (OR EQUAL)
NOT TO SCALE

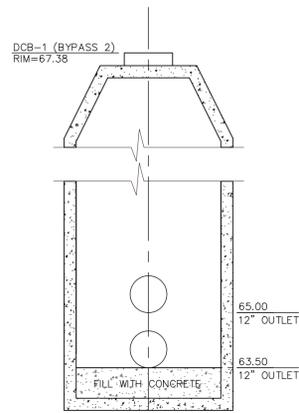


DOUBLE CATCHBASIN FRAME
NOT TO SCALE

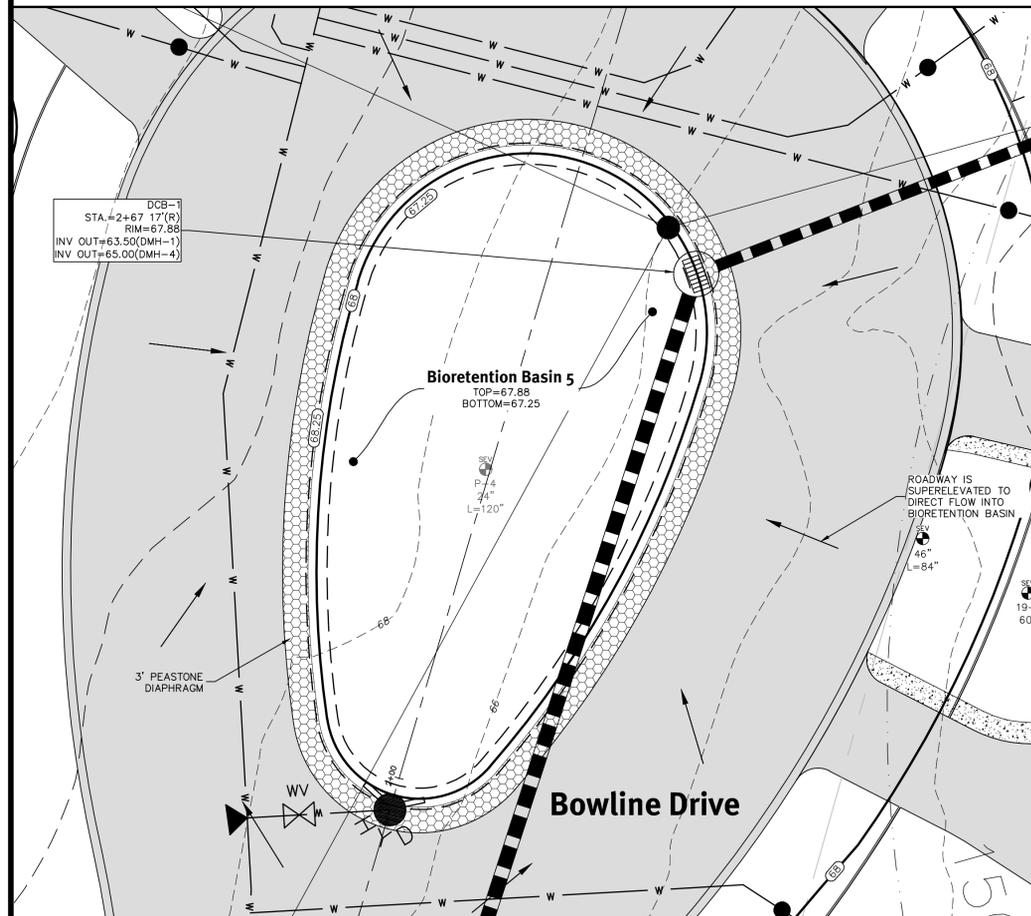
DESCRIPTION	BR-5
TOP OF BASIN ELEVATION	67.88
AVAILABLE STORAGE ELEVATION	68.25
BOTTOM OF BASIN	67.25
100 YEAR STORM ELEVATION	68.25
10 YEAR STORM ELEVATION	68.00
1 YEAR STORM ELEVATION	67.25
SEASONAL HIGH GWT ELEVATION	65.00
SOIL EVALUATION P-4	2'



PEA STONE DIAPHRAGM
NOT TO SCALE

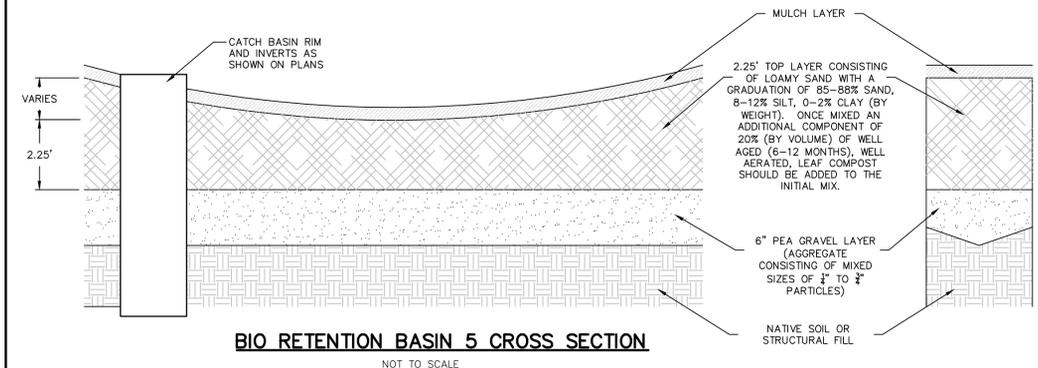


DCB-1 (BYPASS 2) CROSS SECTION
NOT TO SCALE



Bio Retention Basin 5 Scale: 1"=10'

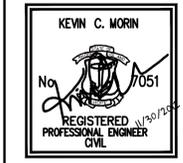
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 - CONTRACTOR/TENANT SHALL COORDINATE PLANTINGS WITH A LANDSCAPE ARCHITECT AND SUBMIT A LANDSCAPE PLAN FOR ALL BIORETENTION BASIN PLANTINGS. THIS MUST BE APPROVED BY THE DESIGN ENGINEER.



BIO RETENTION BASIN 5 CROSS SECTION
NOT TO SCALE

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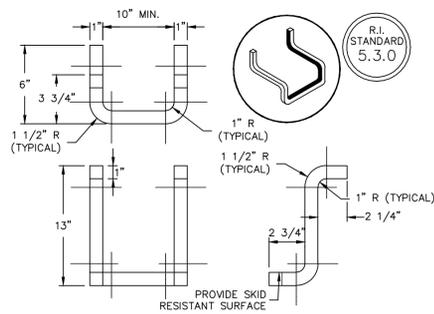
Detail Sheet - 5

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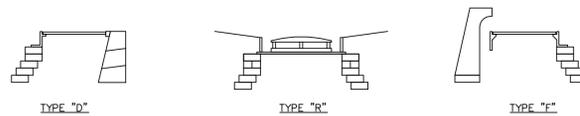
Applicant:
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1	9-12-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.



- NOTES:
- STEPS SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
 - CROSS SECTION AREA MAY BE REDUCED UPON SUBMISSION OF CERTIFIED LOAD TESTS. STEPS MUST SUPPORT 300 LBS.
 - STOCK SHOWN IS 1" SQUARE WHICH MAY BE REPLACED BY 1" DIAMETER.

CATCH BASIN AND MANHOLE STEP
NOT TO SCALE



TYPE CATCH BASIN AS REQUIRED

STANDARD 4.4.0

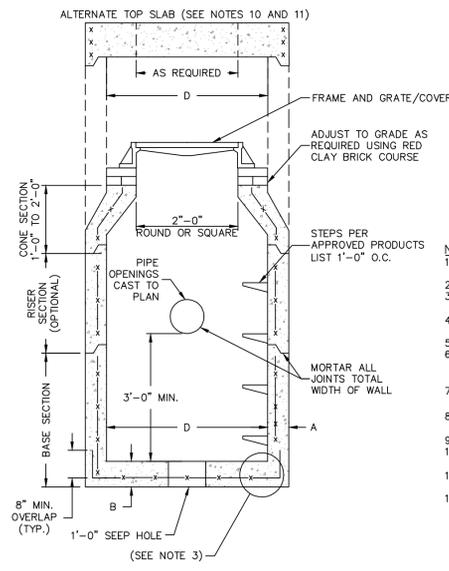


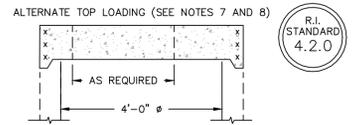
TABLE 1
CATCH BASIN DIAMETER (D) A B CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED*

4'-0"	5"	6"	0.12 SQ. IN./LIN. FT.
5'-0"	6"	7"	0.15 SQ. IN./LIN. FT.
6'-0"	7"	8"	0.18 SQ. IN./LIN. FT.

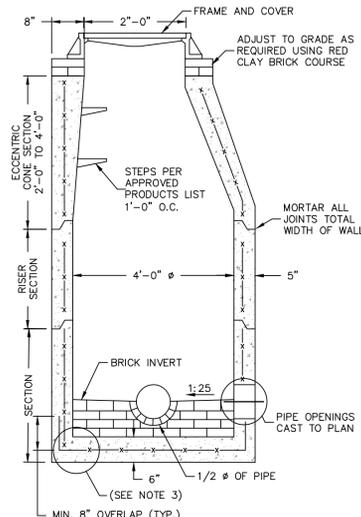
* FOR LONGITUDINAL (VERTICAL STANDING) REINFORCEMENT REFER TO ASTM C478, ITEM 8.1.2

- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
 - SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
 - STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 - STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
 - ONE POUR MONOLITHIC BASE SECTION.
 - ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
 - CORBEL MADE OF RED CLAY BRICK WILL BE PERMITTED FOR THE "CONE SECTION" OF THE 4'-0" CATCH BASIN ONLY.
 - FOR CATCH BASIN TYPES "D" AND "F" STEPS MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE.
 - THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.
 - ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
 - REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

PRECAST ROUND CATCH BASIN
NOT TO SCALE



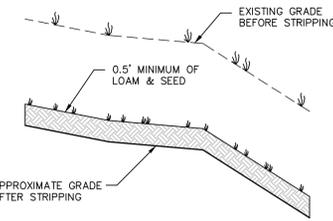
R.I. STANDARD 4.2.0



- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
 - CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.12 SQ. IN./LIN. FT. MINIMUM.
 - STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 - ONE POUR MONOLITHIC BASE SECTION.
 - ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
 - STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
 - ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
 - ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
 - REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

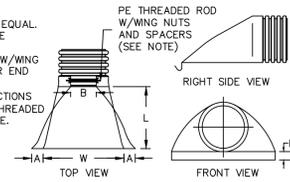
PRECAST 4'-0" ROUND MANHOLE
NOT TO SCALE

- NOTES:
- THIS DETAIL IS PROVIDED AS THE MINIMUM REQUIREMENTS TO BE MET BY THE CONTRACTOR.
 - THIS DETAIL ONLY, IS VOID IN CASES WHERE CONFLICTS OCCUR WITH THE PLANTING DETAILS PROVIDED BY A LANDSCAPE ARCHITECT REGISTERED WITH THE STATE OF RHODE ISLAND.
 - SPECIAL CARE SHALL BE TAKEN TO INSURE THAT THE SOIL EROSION CONTROL MEASURES AND PROCEDURES ARE FOLLOWED.



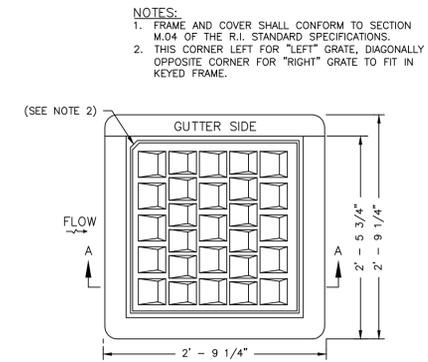
RE-ESTABLISHMENT OF VEGETATIVE COVER (AREA OF TOPSOIL STRIPPING)
NOT TO SCALE

- NOTE:
- ADS OR APPROVED EQUAL.
 - ALL DIMENSIONS ARE NOMINAL.
 - PE THREADED ROD W/WING NUTS PROVIDED FOR END SECTIONS 12"-24".
 - 30" & 36" END SECTIONS REQUIRE TWO (2) THREADED RODS FOR ASSEMBLY.



PART #	PIPE SIZE	A	B (MAX)	H	L	W
1210NP	12 IN (300 MM)	6.50 IN (165 MM)	10 IN (254 MM)	6.50 IN (165 MM)	25 IN (635 MM)	29 IN (737 MM)
1510NP	15 IN (375 MM)	6.50 IN (165 MM)	10 IN (254 MM)	6.50 IN (165 MM)	25 IN (635 MM)	29 IN (737 MM)
1810 NP	18 IN (450 MM)	7.50 IN (191 MM)	15 IN (381 MM)	6.50 IN (165 MM)	32 IN (813 MM)	35 IN (889 MM)
2410NP	24 IN (600 MM)	7.50 IN (191 MM)	18 IN (457 MM)	6.50 IN (165 MM)	36 IN (914 MM)	45 IN (1143 MM)
3015NP	30 IN (750 MM)	7.50 IN (191 MM)	12 IN (305 MM)	8.60 IN (218 MM)	58 IN (1473 MM)	63 IN (1600MM)
3615NP	36 IN (900 MM)	7.50 IN (191 MM)	25 IN (635 MM)	8.60 IN (218 MM)	58 IN (1473 MM)	63 IN (1600 MM)

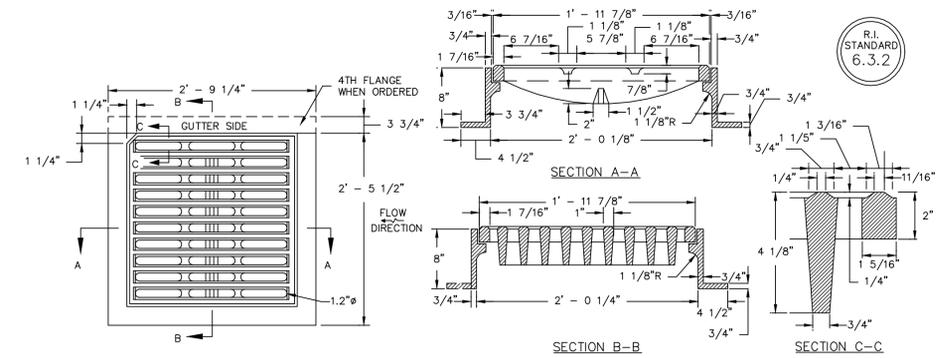
HDPE FLARED END SECTION
NOT TO SCALE



- NOTES:
- FRAME AND COVER SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
 - THIS CORNER LEFT FOR "LEFT" GRATE, DIAGONALLY OPPOSITE CORNER FOR "RIGHT" GRATE TO FIT IN KEYED FRAME.

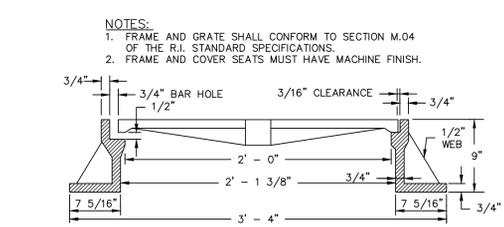
R.I. STANDARD 6.3.4

HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)
NOT TO SCALE



R.I. STANDARD 6.3.2

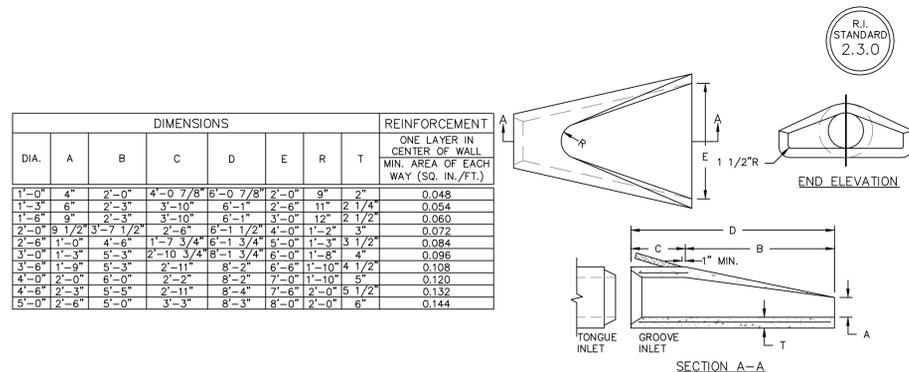
SQUARE FRAME AND GRATE (BICYCLE SAFE)
NOT TO SCALE



- NOTES:
- FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
 - FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.

R.I. STANDARD 6.2.1

HEAVY-DUTY ROUND FRAME AND COVER
NOT TO SCALE

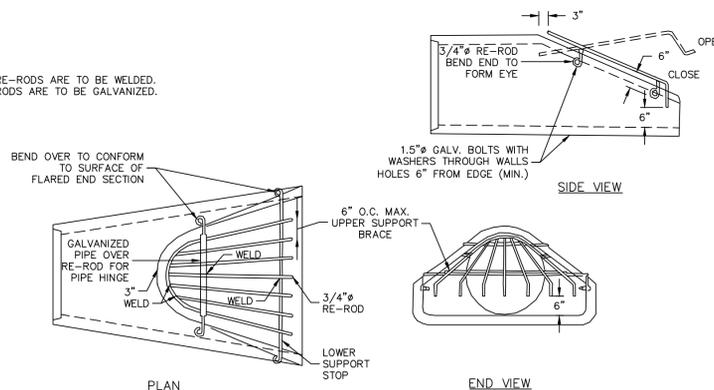


R.I. STANDARD 2.3.0

DIMENSIONS							REINFORCEMENT		
DIA.	A	B	C	D	E	R	T	ONE LAYER IN CENTER OF WALL	MIN. AREA OF EACH WAY (SQ. IN./FT.)
1'-0"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	3"	0.048	
1'-3"	6"	2'-3"	3'-10"	6'-11"	2'-6 1/4"	11"	2 1/4"	0.054	
1'-6"	9"	2'-3"	3'-10"	6'-11"	3'-0"	12"	2 1/2"	0.060	
2'-0"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	1'-2"	3"	0.072	
2'-6"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	1'-3"	3 1/2"	0.084	
3'-0"	1'-3"	5'-3"	2'-10 3/4"	6'-1 3/4"	6'-0"	1'-8"	4"	0.096	
3'-6"	1'-9"	5'-3"	2'-11"	6'-2"	6'-6"	1'-10"	4 1/2"	0.108	
4'-0"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	1'-10"	5"	0.120	
4'-6"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	2'-0"	5 1/2"	0.132	
5'-0"	2'-6"	5'-0"	3'-3"	8'-3"	8'-0"	2'-0"	6"	0.144	

PRECAST CONCRETE FLARED END SECTION
NOT TO SCALE

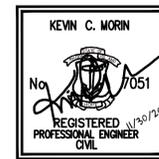
- NOTES:
- ALL RE-RODS ARE TO BE WELDED.
 - ALL RODS ARE TO BE GALVANIZED.



GRATING FOR FLARED END
NOT TO SCALE

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

THIS REGULATORY SUBMISSION SET SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED "ISSUED FOR CONSTRUCTION" AND SIGNED BY A DIPRETE ENGINEERING REPRESENTATIVE.



Detail Sheet - 6

Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island

DiPrete Engineering

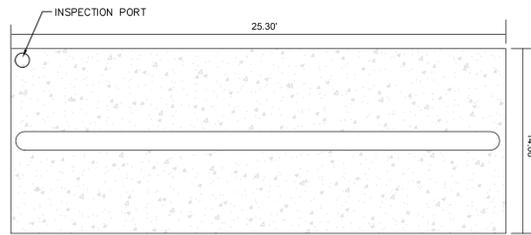
Two Stafford Court, Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.DiPrete-Eng.com

Applicant:

Wickford Harbor Estates, LLC

117 Camden Road
Narragansett, RI 02880

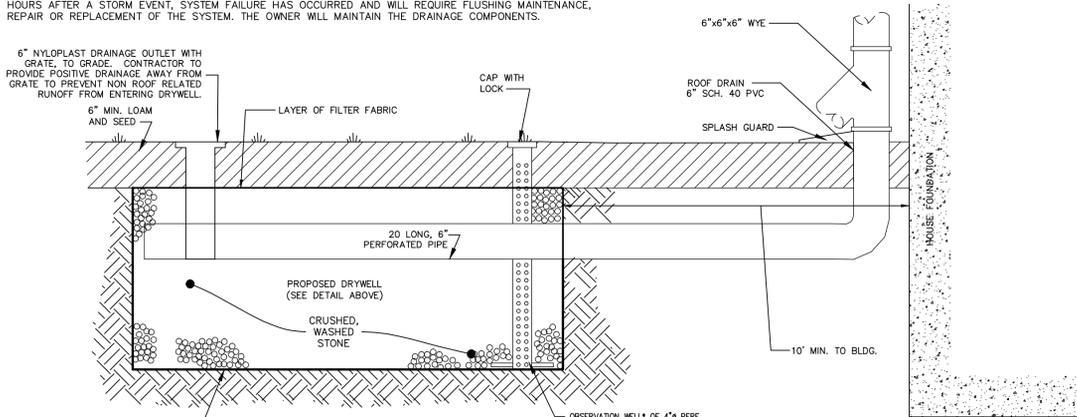
No.	Date	Description	By:
8	11-30-12	Preliminary Submission	B.A.H.
7	10-18-12	RIDOT Re-Submission	B.A.H.
6	8-29-12	RIDEM Site Suitability Re-Submission	B.A.H.
5	7-26-12	RIDEM & RIDOT Re-Submission	B.A.H.
4	5-11-12	RIDEM & RIDOT Re-Submission	B.A.H.
3	12-08-11	RIDEM Site Suitability Submission	B.A.H.
2	12-09-11	RIDEM Preliminary Determination Submission	B.A.H.
1	9-12-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.
No.	Date	Description	By:



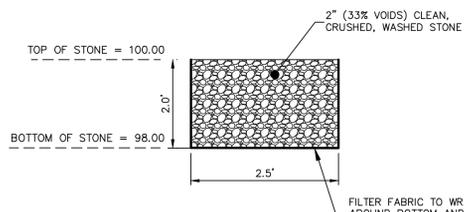
HOUSE DRYWELL DETAIL (PLAN)
NOT TO SCALE

CONSTRUCTION, MAINTENANCE, & INSPECTION NOTES:

- ROOF LEADERS ARE TO TIE INTO PROPOSED DRYWELLS.
- DRYWELL AREA TO BE STAKED, MARKED, AND REMAIN UNDISTURBED PRIOR TO CONSTRUCTION. THERE IS TO BE NO CONSTRUCTION TRAFFIC ON DESIGNATED AREA PRIOR TO CONSTRUCTION.
- PLACE FILTER FABRIC ALONG THE BOTTOM AND SIDES OF TRENCH AND FILL WITH CRUSHED, WASHED STONE.
- OVERLAP FILTER FABRIC ON THE TOP OF THE FILTER STONE. BACK FILL WITH CLEAN FILL TO FINISH GRADE.
- (*) MONITORING WATER LEVELS WITHIN THE INSPECTION PORT AT VARIOUS TIME INTERVALS AFTER A RAINFALL EVENT WILL INDICATE THE EFFECTIVENESS OF THE SYSTEM. IF WATER IS STANDING IN DRYWELL SYSTEM 72 HOURS AFTER A STORM EVENT, SYSTEM FAILURE HAS OCCURRED AND WILL REQUIRE FLUSHING MAINTENANCE, REPAIR OR REPLACEMENT OF THE SYSTEM. THE OWNER WILL MAINTAIN THE DRAINAGE COMPONENTS.



HOUSE DRYWELL CONNECTION DETAIL
NOT TO SCALE



NOTES:

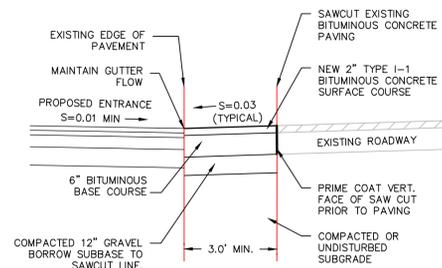
- ELEVATIONS BASED ON ASSUMED ELEVATION OF 100.00, ACTUAL ELEVATIONS WILL VARY.
- ONLY THE BOTTOM AREA OF THE INFILTRATION TRENCH IS USED WHEN CALCULATING INFILTRATION RATES.
- DRIVEWAYS TO BE GRADED TO DIRECT RUNOFF INTO INFILTRATION TRENCH.

STONE DRAINAGE TRENCH (FOR DRIVEWAYS)

NOT TO SCALE

NOTE:

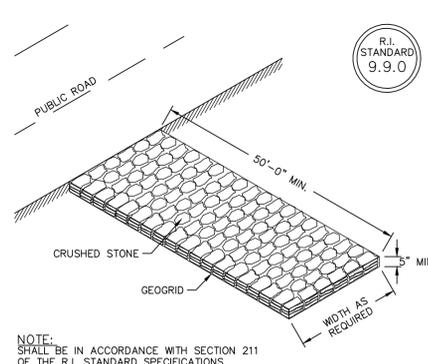
- MINIMUM COMPACTION FOR GRAVEL SUB-BASE OR SUBGRADE: 95% MODIFIED PROCTOR.
- THE SAWCUT & MATCH FOR THE WATER SERVICE CONNECTION MUST MATCH THE MATERIALS AND DEPTHS OF THE EXISTING ROADWAY.



ENTRANCE ACCESS SAWCUT & MATCH
NOT TO SCALE

QUALIFIED PERVIOUS AREAS (QPAs) NOTES:

- THE MAXIMUM ROOFTOP AREA CONTRIBUTING TO ONE DOWNSPOUT SHOULD BE 1,000 SQ. FT.
- THE SLOPE OF THE QPA SHALL BE LESS THAN OR EQUAL TO 5.0%.
- DOWNSPOUTS FROM RESIDENTIAL DWELLINGS SHALL HAVE APPROPRIATE PROVISIONS TO INDUCE SHEET FLOW.
- THE QUALIFIED PERVIOUS AREA MUST CONTAIN AT LEAST 4" OF TOPSOIL AND ORGANIC MATERIAL. THIS SOIL SHOULD BE PLANTED WITH LOW-MAINTENANCE GRASSES.
- FERTILIZATION OF QUALIFIED PERVIOUS AREAS SHOULD BE KEPT TO A MINIMUM. IF DONE IT MUST COMPLY WITH APPENDIX C OF THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL.



NOTE: SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

CONSTRUCTION ACCESS
NOT TO SCALE

EROSION CONTROL NOTES

8.0 EROSION AND SEDIMENTATION CONTROL MEASURES, PERMANENT STABILIZATION, AND MAINTENANCE

THE SOIL EROSION, SEDIMENT, STABILIZATION, AND RUNOFF CONTROL WILL BE ACCOMPLISHED BY THE USE OF THE FOLLOWING DURING AND AFTER CONSTRUCTION:

- ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER
- NON-STRUCTURAL MEASURES
- STRUCTURAL MEASURES

8.1 ESTABLISHMENT OF VEGETATIVE COVER

8.1.1 SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHALL INITIATE APPROPRIATE VEGETATIVE PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS.

8.1.2 ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED OR PROTECTED.

8.1.3 THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH RHODE ISLAND'S STANDARD SPECIFICATION, M.20.

8.1.4 THE SEED MIX SHALL BE GENERAL SEED MIX URI #2:

EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED. SEEDING SCHEDULE SHOULD CONFORM WITH RHODE ISLAND'S STANDARD SPECIFICATION, L.02.03.1 SEEDING DATES. PERMANENT SEEDING SHALL BE DURING THE APRIL 1 TO MAY 31 OR AUGUST 15 TO OCTOBER 15. TEMPORARY SEEDING MAY BE DONE ANYTIME BETWEEN MARCH 15 AND NOVEMBER 15 WITH THE APPROVAL OF THE ENGINEER OF RECORD. FERTILIZE AS REQUIRED BY SOIL TESTING TO COMPLEMENT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS AND BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUMS FOR EACH VARIETY.

8.1.5 TEMPORARY TREATMENTS SHALL CONSIST OF HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING. TEMPORARY HAY MULCH TO BE TACKED IN PLACE WITH NYLON MESH NETTING. SIDE SLOPES OF BASINS SHALL BE TREATED WITH NORTH AMERICAN GREEN EROSION CONTROL BLANKETS SUCH AS S150 OR APPROVED EQUAL. THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 2 TONS/ACRE.

8.1.6 ALL HAY BALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.

8.1.7 ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH LOCAL MUNICIPAL REQUIREMENTS AND THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE SECTION 202.

8.1.8 STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED.

8.1.9 ALL AREAS PROPOSED TO BE VEGETATED THAT ARE DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. PERMANENTLY SEEDED AREAS SHALL BE PROTECTED DURING ESTABLISHMENT WITH MULCH. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STANDARD IS MAINTAINED. WELL ESTABLISHED VEGETATION SHALL BE MAINTAINED. BARE OR ERODED AREAS SHALL BE IMMEDIATELY REPAIRED AND RESEED BY THE CONTRACTOR. ACTIVITIES SHALL BE CONFINED TO WITHIN THE LIMIT OF WORK AS SHOWN ON THE PLANS.

8.1.10 MAXIMUM PERMANENT GRADED SLOPE WITHIN THE SITE IS TO BE 3:1 UNLESS NOTED OTHERWISE.

8.1.11 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE HOMEOWNERS ASSOCIATION.

8.1.12 REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE 1989 AS A GUIDE.

8.2 NON-STRUCTURAL MEASURES

8.2.1 CONSTRUCTION TRAFFIC SHALL BE LIMITED TO THE ACCESS ROAD AND AREAS TO BE GRADED.

8.2.2 TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATION SHALL BE SUBJECT TO APPROVAL BY THE PROJECT ENGINEER. A SEDIMENT BARRIER SHALL SURROUND ALL TOPSOIL STOCKPILES.

8.2.3 ALL TYPES OF WASTE GENERATED AT THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF DAILY TO AVOID EXPOSURE TO PRECIPITATION.

8.2.4 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION OF NON-STRUCTURAL MEASURES AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.

8.2.5 REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE 1989, AS A GUIDE.

8.3 STRUCTURAL MEASURES

8.3.1 RUNOFF WATER QUALITY IS IMPROVED UTILIZING SWALES, SEDIMENT FOREBAYS, BIORETENTION BASINS, AND STORMWATER BASINS. CONSTRUCTION OF THE BMP'S SHALL BE SUPERVISED BY THE PROJECT ENGINEER. THE BMP'S SHALL BE BUILT TO CONTROL RUNOFF FOR 2 THROUGH 100 YEAR STORM FREQUENCIES. SIDE SLOPES WITHIN THE INFILTRATION BASINS SHALL BE 3:1 MAXIMUM, UNLESS NOTED OTHERWISE. ALL EMBANKMENTS OF THE BASINS SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH R.I. STANDARD SPECIFICATION SECTION 202. THE EMERGENCY SPILLWAY SHALL BE PROTECTED BY RIP RAP DOWNSTREAM AND UPSTREAM.

8.3.2 A STONE STABILIZATION PAD IS LOCATED AT THE SITE ENTRANCE TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT OF WAY.

8.3.3 RIP RAP APRONS AND/OR LEVEL SPREADERS SHALL BE INSTALLED AT THE OUTLETS OF ALL DRAINAGE PIPES.

8.3.4 HAY BALES OR SILT FENCE SHALL BE INSTALLED DOWNSTREAM OUTSIDE THE LIMITS OF ANY PROPOSED CONSTRUCTION AS SHOWN ON THE SITE PLANS AND PRIOR TO THE COMMENCEMENT OF THE PROPOSED ALTERATION.

8.3.5 TEMPORARY BERMS/ OR SWALES SHALL BE USED TO DIRECT SURFACE RUNOFF TO TEMPORARY SEDIMENTATION BASINS TO CAPTURE AND TREAT THE MAXIMUM AMOUNT OF STORM WATER.

8.3.6 STORMWATER BASINS ARE NOT TO BE USED AS SEDIMENTATION BASINS. THE CONTRACTOR SHALL CONSTRUCT ANY TEMPORARY SEDIMENTATION BASINS WHICH ARE REQUIRED TO MEET ALL GUIDELINES IN THE RHODE ISLAND SOIL EROSION SEDIMENT CONTROL HANDBOOK.

8.3.7 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE THE OVERALL RESPONSIBILITY FOR STRUCTURAL MEASURE IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.

8.3.8 REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE USDS SOIL CONSERVATION SERVICE 1989, AS A GUIDE.

8.4 MAINTENANCE- SHORT TERM / LONG TERM

8.4.1 THE STONE STABILIZATION PAD AT THE SITE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ON THE PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.

8.4.2 ALL HAY BALES/SILT FENCE, TEMPORARY TREATMENTS (HAY, STRAW, ETC.), AND TEMPORARY PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. HAY BALES/SILT FENCE SHALL BE INSPECTED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH STORM EVENT OR EVERY 7 DAYS, WHICHEVER COMES FIRST, FOR UNDERMINING AND DETECTION. A STORM EVENT SHALL BE DEFINED AS 0.25 INCHES OF RAIN WITHIN A 24-HOUR PERIOD. THE HAY BALES/SILT FENCE SHALL BE REPAIRED OR REPLACED AS WARRANTED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY BALES/SILT FENCE BECOMES FILLED IN WITH SEDIMENT. THE HAY BALES/SILT FENCE SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. FOLLOWING CONFIRMATION FROM THE CONTRACTOR AND OR THE PROJECT ENGINEER THAT AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER HAS BEEN ESTABLISHED THE HAY BALES/SILT FENCE SHALL BE REMOVED.

8.4.3 THE CONTRACTOR SHALL MAINTAIN ALL TOPSOIL STOCKPILES AND SEDIMENT BARRIERS THROUGHOUT CONSTRUCTION. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT SPILL OVER THE SEDIMENT BARRIER. HAY BALES OR SILT FENCE SHALL BE STAKED AROUND THE STOCKPILES.

8.4.4 ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED, AND MAINTAINED BY THE CONTRACTOR FOLLOWING FINAL GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL CHECK REGULARLY ALL SEEDED AREAS TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. THE CONTRACTOR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.

8.4.5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE AND REPAIR TO ALL DRAINAGE STRUCTURES AND RELATED APPURTENANCES ON SITE DURING CONSTRUCTION AND IMMEDIATELY FOLLOWING CONSTRUCTION FOR A MAXIMUM OF ONE YEAR, OR UNTIL ACCEPTANCE BY THE TOWN OF NORTH KINGSTOWN AND THE H.A.. THE TOWN OF NORTH KINGSTOWN IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE OF THE DRAINAGE NETWORK WITHIN THE TOWN'S RIGHT-OF-WAY. THE HOMEOWNERS ASSOCIATION IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE OF THE NEWLY CONSTRUCTED DRAINAGE BMP'S WITHIN THE STATE'S RIGHT-OF-WAY AND THE H.A. IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE TO THE DRAINAGE BMP'S OUTSIDE OF THE TOWN RIGHT-OF-WAY THEREAFTER.

DURING CONSTRUCTION THE CONSTRUCTION SUPERINTENDENT'S MAINTENANCE/INSPECTION RESPONSIBILITIES SHALL INCLUDE:

- RESEEDING ANY UN-STABILIZED AREAS AT NO ADDITIONAL EXPENSE TO THE OWNER;
- REMOVING ACCUMULATED SILT WHEN SEDIMENTS IN THE BMP'S REACH THE HEIGHT SPECIFIED IN THE SEDIMENT VOLUME CALCULATIONS.
- INSPECTION OF RIP RAP PADS AFTER EACH STORM AND REPAIR AS NECESSARY.
- INSPECTION, MAINTENANCE AND REPAIR TO THE DRAINAGE NETWORK INCLUDING STRUCTURES AND RELATED APPURTENANCES. ACCUMULATED SEDIMENTS IN ALL STRUCTURES SHALL BE REMOVED AND DRAINAGE PIPES FLUSHED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION.
- NEIGHBORING CATCH BASIN SUMPS SHALL BE CHECKED WEEKLY AND SEDIMENTS SHALL BE REMOVED IF THEY EXCEED 6" DEPTH.
- CHECK BMP'S FOR STANDING WATER OR OTHER EVIDENCE OF CLOGGING
- CHECK FOR SEDIMENT ACCUMULATION, TRASH, AND DEBRIS
- CHECK FOR BLOCKAGES, STRUCTURAL INTEGRITY, AND EVIDENCE OF EROSION AT INLETS, OUTLETS, AND OVERFLOW SPILLWAYS
- CHECK FOR RAPID RELEASE OF STORMWATER

8.4.6 FOLLOWING ACCEPTANCE BY THE TOWN OF NORTH KINGSTOWN AND THE H.A., THE OWNER AND THE TOWN OF NORTH KINGSTOWN ARE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE, AND IMPLEMENTING THE MAINTENANCE PROGRAM FOR THE STORMWATER MANAGEMENT PLAN. THE OWNER IS RESPONSIBLE UNTIL THE HOMEOWNERS ASSOCIATION (H.A.) IS ESTABLISHED. FOLLOWING ESTABLISHMENT OF THE H.A. THE TOWN OF NORTH KINGSTOWN IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE OF THE DRAINAGE BMP'S WITHIN THE TOWN'S RIGHT-OF-WAY. THE HOMEOWNERS ASSOCIATION IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE TO THE NEWLY CONSTRUCTED DRAINAGE BMP'S WITHIN THE STATE'S RIGHT-OF-WAY AND THE H.A. IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE TO THE DRAINAGE BMP'S OUTSIDE OF THE TOWN RIGHT-OF-WAY THEREAFTER. A LEGALLY BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT SHALL BE EXECUTED BETWEEN THE OWNER AND THE RESPONSIBLE AUTHORITY TO ENSURE THE MAINTENANCE SCHEDULES OUTLINED IN THIS REPORT ARE FOLLOWED.

THE RESPONSIBLE PARTIES AND FUNDING SOURCE FOR THE STORMWATER MANAGEMENT PROGRAM IS:

- THE TOWN OF NORTH KINGSTOWN
80 BOSTON NECK ROAD
NORTH KINGSTOWN, RI 02852

- THE HOMEOWNERS ASSOCIATION

THE RESPONSIBLE PARTY MAINTENANCE/INSPECTION RESPONSIBILITIES SHALL INCLUDE:

- UNDERGROUND INFILTRATION MAINTENANCE PROCEDURE
 - ANNUAL INSPECTION FOR DAMAGE
 - ANNUAL INSPECTION FOR HYDROCARBON BUILD-UP AND REMOVE IF DETECTED
 - ANNUAL INSPECTION FOR SEDIMENT ACCUMULATION IN THE FACILITY
 - ANNUAL INSPECTION THAT INLET AND OUTLET DEVICES ARE FREE OF DEBRIS
 - MONTHLY CLEANING AND REMOVAL OF DEBRIS FROM INLET AND OUTLET STRUCTURES
 - 5 YEAR REMOVAL OF SEDIMENT FROM BASIN
- BIO-RETENTION AREA MAINTENANCE PROCEDURE
 - DURING THE FIRST SIX MONTHS FOLLOWING CONSTRUCTION BIORETENTION FACILITIES SHOULD BE INSPECTED AT LEAST TWICE OR MORE FOLLOWING PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, INSPECTIONS SHOULD BE CONDUCTED ON AN ANNUAL BASIS AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL TO THE 1-YEAR, 24-HOUR TYPE III PRECIPITATION EVENT.
 - THE MULCH LAYER SHOULD BE REPLISHED (TO THE ORIGINAL DEPTH) EVERY OTHER YEAR, AS DIRECTED BY INSPECTION RECORDS. THE PREVIOUS MULCH LAYER SHOULD BE REMOVED, AND PROPERLY DISPOSED OF, OR ROTO-TILLED INTO THE SOIL SURFACE.
 - ANNUAL INSPECTION OF SEDIMENT IN FILTER MEDIA BED AND/OR REMOVAL OF SEDIMENT WHEN DEPTH IS GREATER THAN 1.0 INCH, WHICHEVER COMES FIRST
 - SEMI-ANNUAL INSPECTION OF FILTER MEDIA FOR STANDING WATER AND OTHER EVIDENCE OF CLOGGING
 - SEMI-ANNUAL CHECKING OF STRUCTURAL INTEGRITY AND EVIDENCE OF EROSION AT INLETS AND OUTLETS
 - SEASONALLY PLANTS NEED TO BE WATERED, MULCH ADDED TO VOID AREAS.

TREATING OF DISEASED TREES AND SHRUBS, INSPECTION OF SOIL AND REPAIR ERODED AREAS, AND REMOVAL OF LITTER AND DEBRIS.

- EVERY 3 YEARS PRUNING OR REPLACEMENT OF WOOD VEGETATION.
- IF 50% OF VEGETATION COVERAGE IS NOT ESTABLISHED AFTER 2 YEARS REINFORCEMENT PLANTING IS REQUIRED.
- IF THERE IS STANDING WATER IN BIORETENTION AREAS 48 HOURS AFTER A STORM EVENT FAILURE HAS OCCURRED AND THE SURFACE OF THE BIORETENTION AREA MUST BE ROTOTILLED OR CULTIVATED TO BREAK UP ANY HARD PACKED SEDIMENT AND REVEGETATED.

8.4.7 THE CONTRACTOR SHALL MAINTAIN THE DRAINAGE NETWORK DURING CONSTRUCTION. THE ACCUMULATED SEDIMENTS IN THE SWALES AND CATCH BASINS SHALL BE REMOVED AND DRAINAGE PIPES FLUSHED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. CATCH BASIN SUMPS SHALL BE CHECKED WEEKLY AND SEDIMENTS SHALL BE REMOVED IF THEY EXCEED 6" DEPTH OR EVERY 10 YEARS, WHICHEVER COMES FIRST.

8.4.8 DURING THE FIRST SIX (6) MONTHS OF OPERATIONS, INSPECTIONS SHALL BE ACCOMPLISHED IN EACH DRAINAGE BMP AFTER EVERY RAINFALL EVENT, TO CHECK FOR CLOGGING OR, CONVERSELY, TOO RAPID A RELEASE. FOLLOWING THE SIX (6) MONTHS, INSPECTIONS SHALL BE CONDUCTED, AT MINIMUM, ANNUALLY.

8.4.9 IF STANDING WATER IS OBSERVED WITHIN THE DRAINAGE BMP'S MORE THAN THREE (3) DAYS AFTER A RAINFALL, THEN FAILURE OF THE SYSTEM HAS OCCURRED AND SHALL BE ADDRESSED THROUGH REPAIR OR REPLACEMENT.

- MONTHLY INSPECT FOR TRASH AND DEBRIS AND REMOVE IF PRESENT.
- MONTHLY INSPECT FOR EVIDENCE OF CHANNELIZED FLOWS.
- EROSION AND CHANNELS MUST BE CORRECTED IMMEDIATELY BY RE-ESTABLISHING ORIGINAL GRADE BY RAKING EXISTING STONE OR APPLYING STONE AS NECESSARY.
- SEMI-ANNUALLY INSPECT FOR EXCESSIVE SEDIMENTS AND REMOVE SEDIMENTS IF PRESENT. IF SEDIMENT SOURCE IS OBSERVED, ELIMINATE SOURCE.
- EVERY 5 YEARS, REMOVE AND WASH PEA STONE OR REPLACE WITH NEW PEA STONE.
- GRASS FILTER STRIP AND GREEN ROOF MAINTENANCE
 - SEMI-ANNUALLY INSPECT EROSION AND REPAIR IF OBSERVED.
 - MOW GRASS AS APPLICABLE TO MAINTAIN A HEIGHT OF 4"-6". WHEN MOWING REMOVE ANY TRASH AND DEBRIS PRESENT.
- BIO-RETENTION (DRY) SWALE MAINTENANCE PROCEDURE
 - DURING THE FIRST SIX MONTHS FOLLOWING CONSTRUCTION SWALES SHOULD BE INSPECTED AT LEAST TWICE OR MORE FOLLOWING PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, INSPECTIONS SHOULD BE CONDUCTED ON A SEMI-ANNUAL BASIS AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL TO THE 1-YEAR, 24-HOUR TYPE III PRECIPITATION EVENT.
 - SEMI-ANNUALLY INSPECT FILTER BED FOR STANDING WATER AND OTHER EVIDENCE OF CLOGGING OF FILTER MEDIA.
 - SEMI-ANNUALLY CHECK STRUCTURAL INTEGRITY AND EVIDENCE OF EROSION AT SWALE INLETS AND OUTLETS.
 - SEMI-ANNUALLY CHECK FOR AND STABILIZE ANY ERODED AREAS.
 - ANNUALLY INSPECT SEDIMENT IN SWALE BED AND/OR REMOVE SEDIMENT WHEN DEPTH IS GREATER THAN 3 INCHES, WHICHEVER COMES FIRST.
 - ANNUALLY TREAT SWALE WITH NUTRIENTS AND PESTICIDES IF NEEDED OR DESIRED.
 - ANNUALLY DETATCH OR AERATE SWALE BOTTOM.
 - MOW GRASS AS APPLICABLE TO MAINTAIN A HEIGHT OF 4"-6". WHEN MOWING REMOVE ANY TRASH AND DEBRIS PRESENT.
 - EVERY 5 YEARS, SCRAPE THE CHANNEL BOTTOM AND REMOVE SEDIMENTS TO RESTORE ORIGINAL CROSS SECTION AND SEED SWALE TO RESTORE GROUND COVER.
 - IF THERE IS STANDING WATER IN SWALE 48 HOURS AFTER A STORM EVENT, FAILURE HAS OCCURRED AND THE SURFACE OF THE BIORETENTION AREA MUST BE ROTOTILLED OR CULTIVATED TO BREAK UP ANY HARD PACKED SEDIMENT AND REVEGETATED.

8.4.10 STREETS SHOULD BE SWEEP AT MINIMUM OF TWICE PER YEAR.

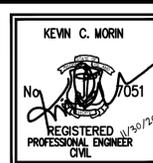
8.4.11 THE CONTRACTOR SHALL MAINTAIN THE DRAINAGE NETWORK DURING CONSTRUCTION. THE ACCUMULATED SEDIMENTS IN THE SWALES AND CATCH BASINS SHALL BE REMOVED AND DRAINAGE PIPES FLUSHED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION.

8.4.12 REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE 1989, AS A GUIDE.

- QUALIFIED PERVIOUS AREAS (QPAs)
 - ANNUAL INSPECTION AND REMOVAL OF ANY DEPOSITED SEDIMENT.
 - ANNUAL INSPECTION TO ADDRESS ANY PONDING OR EROSION.
 - ANNUAL PLANTING OF ANY VEGETATION WHICH HAS DIED.
- PRUNE ALL DEAD OR DYING VEGETATION WITHIN THE EXTENTS OF THE BASIN.
- REMOVE ALL HERBACEOUS VEGETATION ROOT STOCK WHEN OVERCROWDING OF THE MAINTENANCE ACCESS TO THE FACILITY, REMOVE ANY VEGETATION THAT HAS A NEGATIVE IMPACT ON STORMWATER FLOWAGE THROUGH FACILITY, AND TRIM ANY OVERGROWN VEGETATION WITHIN THE BASIN.
- ANY INVASIVE VEGETATION ENCRACING UPON THE PERIMETER OF THE FACILITY SHOULD BE PRUNED OR REMOVED IF IT IS PROHIBITING ACCESS TO THE FACILITY, COMPROMISING SIGHT VISIBILITY AND/OR COMPROMISING ORIGINAL DESIGN VEGETATION.
- REPLACE ANY/ALL ORIGINAL VEGETATION THAT HAS DIED OFF OR HAS NOT FULLY ESTABLISHED, AS DETERMINED AT THE TIME OF THE INSPECTION.

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

THIS REGULATORY SUBMISSION SET SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED/ISSUED FOR CONSTRUCTION AND SIGNED BY A DIPRETE ENGINEERING REPRESENTATIVE.



Detail Sheet - 7

Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island

DiPrete Engineering

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

Applicant:
Wickford Harbor Estates, LLC
117 Camden Road
Narragansett, RI 02880

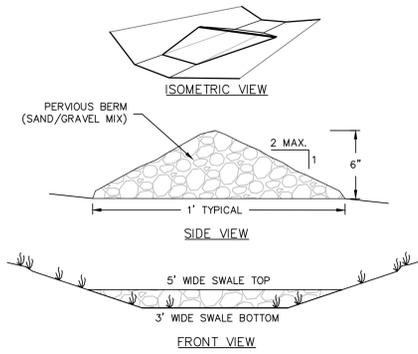
No.	Date	Description	By:
8	11-30-12	Preliminary Submission	B.A.H.
7	10-18-12	RIDOT Re-Submission	B.A.H.
6	8-29-12	RIDEM Site Suitability Re-Submission	B.A.H.
5	8-24-12	RIDEM RIBOT Re-Submission	B.A.H.
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2	12-09-11	RIDEM Preliminary Information Submission	B.A.H.
1	9-12-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.

WATER DETAILS

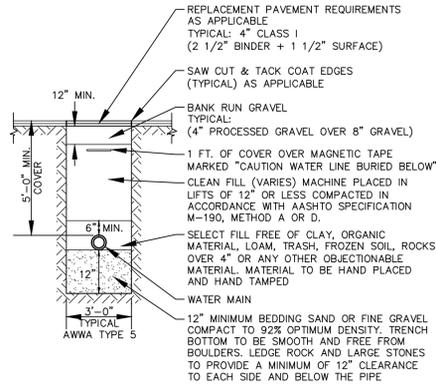
- ALL WORK AND MATERIAL OF WATER LINE SHALL BE IN ACCORDANCE WITH RULES AND REGULATIONS SET FORTH BY THE NORTH KINGSTOWN WATER DEPARTMENT. INSTALLATION PROCEDURES AND MATERIALS TO CONFORM TO THE NORTH KINGSTOWN WATER DEPARTMENT AND AWWA SPECIFICATIONS. A PRECONSTRUCTION MEETING SHALL BE HELD PRIOR TO ORDER OF MATERIALS AND WATER MAIN INSTALLATION.
- WATER MAIN INSTALLATION SHALL BE INSPECTED BY THE NORTH KINGSTOWN WATER DEPARTMENT PRIOR TO BACKFILLING THE TRENCH.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE NORTH KINGSTOWN WATER DEPARTMENT FIVE (5) DAYS PRIOR TO START OF CONSTRUCTION.
- CHLORINATION OF SYSTEM AND SAMPLING SHALL CONFORM TO AWWA REQUIREMENTS FOR SERVICE AND MAIN INSTALLATIONS.
- THE CONTRACTOR SHALL NOTIFY THE DIRECTOR OF WATER SUPPLY AT LEAST TWO WORKING DAYS IN ADVANCE FOR FINAL INSPECTION.
- WHENEVER IN THESE SPECIFICATIONS, REFERENCE IS MADE TO THE REQUIREMENTS OF AWWA, ANSI, ASTM OR ANY OTHER STANDARD SPECIFICATION, THE REFERENCE IS MADE TO THE LATEST REVISIONS OR MODIFICATIONS OF SUCH REQUIREMENTS AND SPECIFICATIONS.
- ALL PIPE, FITTINGS, AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH AWWA AND ANSI STANDARDS, AND THE MANUFACTURER'S SUGGESTED RECOMMENDATIONS FOR INSTALLATIONS.
- PIPELINES SHALL BE CONSTRUCTED IN DRY TRENCHES AND LAID TO THE LINE GRADE. WHENEVER PIPE IS TO BE INSTALLED IN SATURATED SOIL CONDITIONS A BEDDING OF PROCESSED GRANULAR FILTER MATERIAL SHALL BE PROVIDED.
- ALL BENDS, CROSSES, TEES, END CAPS AND PLUGS, VALVES AND ANY OTHER APPURTENANCES SHALL BE RESTRAINED WITH THRUST BLOCKS, STRAPPING OR ANCHORS.
- JOINTING OF MECHANICAL AND PUSH ON TYPE JOINTS SHALL BE PERFORMED IN STRICT ACCORDANCE WITH AWWA STANDARD C-600, UNITED WATER, RI AND SOUTH KINGSTOWN SPECIFICATIONS. RUBBER GASKETS AND RINGS SHALL BE SUITABLE FOR USE WITH POTABLE WATER AND THOROUGHLY CLEANED TO REMOVE OIL, GRIT, AND OTHER FOREIGN MATTER PRIOR TO ASSEMBLY. THE GASKETS SHALL BE INSPECTED BY THE DIRECTOR OF WATER SUPPLY OR HIS AGENT TO INSURE THAT THEY ARE ACCEPTABLE.
- ALL FITTINGS USED FOR SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH AWWA C-800 AND THE NORTH KINGSTOWN WATER DEPARTMENT.
- VALVES USED SHALL BE IN ACCORDANCE WITH AWWA C-500 SERIES AND THE NORTH KINGSTOWN WATER DEPARTMENT. VALVES SHALL BE MECHANICAL JOINT, DOUBLE DISC PARALLEL SEAT OR RESILIENT SEAT GATE STYLES AS FOLLOWS:
 - MUELLER CORPORATION STOP DOUBLE DISC PARALLEL SEAT.
 - AMERICAN DARLING VALVE RESILIENT MODEL CRS-80.
- BLOW-OFF ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C-800 SERIES AND THE NORTH KINGSTOWN WATER DEPARTMENT.
- FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH MUELLER A421, AWWA C-502 "DRY BARREL FIRE HYDRANTS".
- HYDROSTATIC AND LEAKAGE TESTS SHALL BE PERFORMED ON ALL COMPLETED SECTIONS OF NEWLY INSTALLED PIPELINE IN ACCORDANCE WITH AWWA C-600, AND THE NORTH KINGSTOWN WATER DEPARTMENT.
- ALL PIPE SHALL BE DISINFECTED PRIOR TO BEING ACTIVATED IN ACCORDANCE WITH AWWA B-300, AWWA C-601, UNITED WATER, R.I., AND TOWN SPECIFICATIONS.
- DISTRIBUTION PIPING SHALL BE CL 52 DUCTILE IRON, DOUBLE CEMENT LINED, WITH PUSH ON JOINTS. PIPE SHALL MEET ANSI/AWWA C151 A21.51. JOINTS SHALL MEET ANSI/AWWA /C111/A21.11. AMERICAN MANUFACTURER ONLY.
- FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CL350 CEMENT MORTAR LINED AND MEET ANSI/AWWA/C153/A21.53. MECHANICAL JOINTS SHALL MEET ANSI/AWWA/C111/A21.11 AMERICAN MANUFACTURER ONLY.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL STATE AND TOWN PERMITS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS RELATED TO INSTALLATION OF THE WATER MAIN.
- EXCAVATIONS THAT EXTEND INTO PUBLIC RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN 12" LIFTS. A TEMPORARY SURFACE COURSE IS TO BE APPLIED. FINAL BINDER AND FINISH COURSE TO BE PLACED AFTER REMOVAL OF TEMPORARY PAVEMENT AND COMPACTION OF GRAVEL BASE. CONTRACTOR SHALL MAKE ROAD PASSABLE FOR ONE LANE OF TRAFFIC AT ALL TIMES.
- CONTRACTOR SHALL NOTIFY DIG SAFE PRIOR TO DIGGING ANY TRENCHES.
- WHEN WORK IS NOT IN PROGRESS AND AT THE END OF EACH DAY, ALL OPEN ENDS OF THE PIPE AND FITTINGS SHALL BE SECURELY CLOSED.
- DIPRETE ENGINEERING DOES NOT CERTIFY AS TO THE WATER FLOW RATE OR RESIDUAL PRESSURE OF THIS WATER MAIN EXTENSION.

LEAKAGE AND PRESSURE TESTING FOR WATERMAINS

- GENERAL**
HYDROSTATIC AND LEAKAGE TESTS SHALL BE PERFORMED ON ALL COMPLETED SECTIONS OF NEWLY INSTALLED WATERMAIN PIPELINE IN ACCORDANCE WITH AWWA C600, UNITED WATER, THE TOWN OF SOUTH KINGSTOWN, AND AS SPECIFIED BELOW.
THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR TESTING.
- TESTING PROCEDURES**
ALL AIR SHALL BE EXPELLED AT THE HIGH POINTS AND THE PIPELINE SLOWLY FILLED WITH POTABLE WATER.
THE INTERNAL PRESSURE SHALL BE BUILT UP TO 150 PSI AND MAINTAINED FOR A PERIOD OF NOT LESS THAN ONE (1) HOUR.
ALL LEAKS IN THE PIPELINE SHALL BE STOPPED; CRACKED OR DEFECTIVE PIPE, FITTINGS OR ACCESSORIES SHALL BE REMOVED AND REPLACED WITH NEW BY THE CONTRACTOR.
THE PIPELINE SHALL BE RETESTED AS MAY BE REQUIRED AND NECESSARY UNTIL THE LEAKAGE FALLS WITHIN THE ALLOWABLE DETERMINED FOR THE PIPE NETWORK, AT WHICH TIME THE PIPELINE MAY BE CONSIDERED READY FOR:
a. WATERMAINS - DISINFECTING STEP

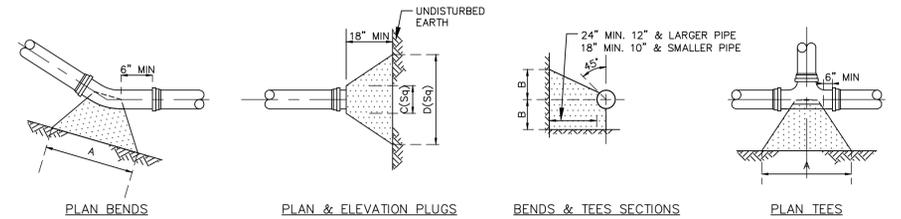


DRAINAGE SWALE STONE CHECK DAM
NOT TO SCALE



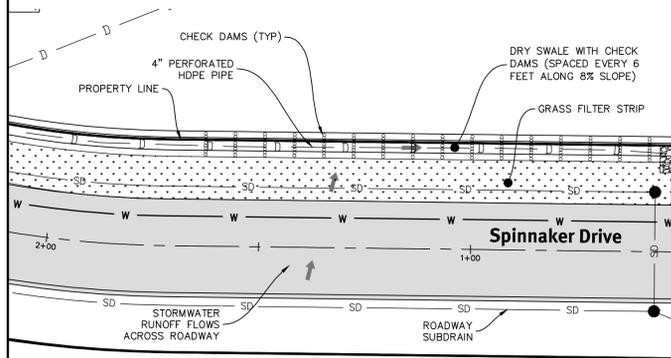
WATER TRENCH DETAIL
NOT TO SCALE

- NOTES:**
- ALL CONCRETE SHALL BE 4000 P.S.I. @ 28 DAYS
 - CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.
 - FORMS TO BE USED AS NECESSARY.
 - ALL BOLTS AND NUTS TO BE PROTECTED FROM CONCRETE AND EASILY ACCESSIBLE WHEN THRUST BLOCK INSTALLED.
 - REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF R.I. SHALL VERIFY ALL CALCULATIONS DURING DESIGN TO MEET CONDITIONS OF PROJECT AND WATER REQUIREMENTS.

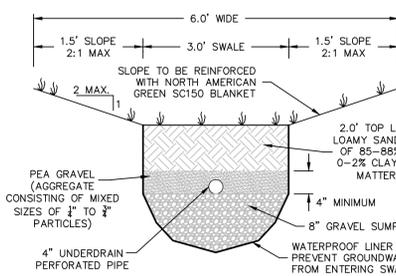


THRUST BLOCK
NOT TO SCALE

SIZE	TEES		PLUGS		90° BEND		45° BEND		22.5° BEND		11.25° BEND	
	A	B	C	D	A	B	A	B	A	B	A	B
6"	20"	10"	10"	21"	24"	12"	18"	9"	13"	7"	9"	5"
8"	26"	13"	12"	26"	32"	16"	24"	12"	17"	9"	12"	6"
10"	34"	17"	14"	34"	40"	20"	30"	15"	22"	11"	15"	8"
12"	41"	20"	16"	41"	48"	24"	35"	18"	25"	13"	18"	9"
16"	54"	27"	20"	54"	64"	32"	47"	23"	34"	17"	24"	12"



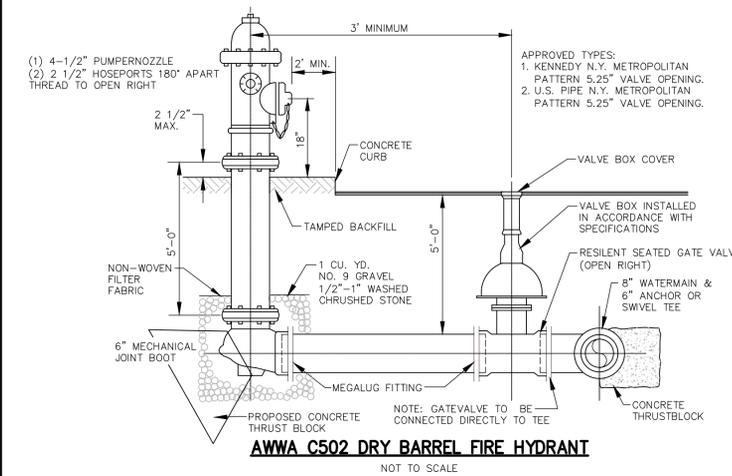
TYPICAL SUPER ELEVATED ROADWAY & BIO RETENTION (DRY SWALE) PLAN VIEW
SCALE: 1" = 20'



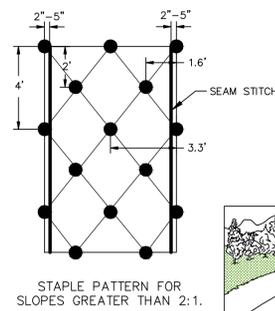
BIO RETENTION (DRY SWALE) CROSS SECTION
NOT TO SCALE

CHECK DAM SPACING REQUIREMENTS

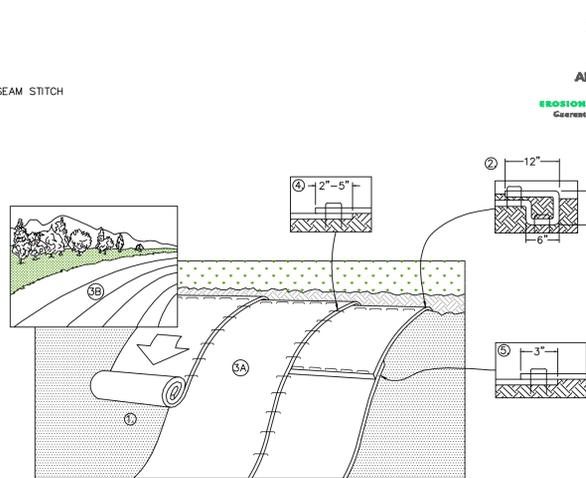
ROADWAY SLOPE	CHECK DAM SPACING
8%	6'



AWWA C502 DRY BARREL FIRE HYDRANT
NOT TO SCALE



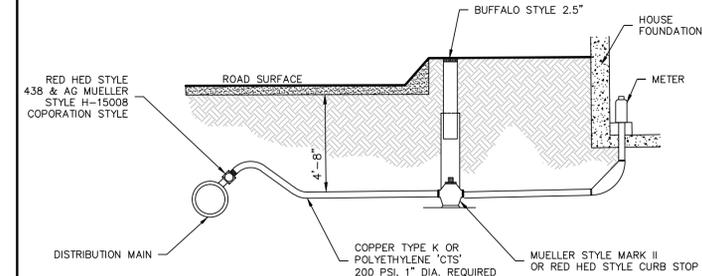
STAPLE PATTERN FOR SLOPES GREATER THAN 2:1.



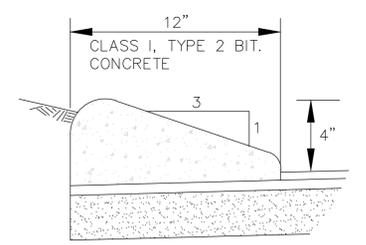
REINFORCED SLOPE INSTALLATION (NORTH AMERICAN GREEN C-350 OR ENGINEER APPROVED EQUAL)
NOT TO SCALE

NOTES:

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-0-SEED DO NOT SEED PREPARED AREA. CELL-0-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
 - ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2'-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
 - CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.
- *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.



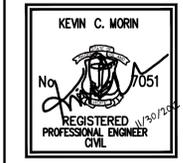
WATER SERVICE INSTALLATION (TYPICAL)
NOT TO SCALE



CAPE COD BERM DETAIL
N.T.S.

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

THIS REGULATORY SUBMISSION SET SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED 'ISSUED FOR CONSTRUCTION' AND SIGNED BY A DIPRETE ENGINEERING REPRESENTATIVE.



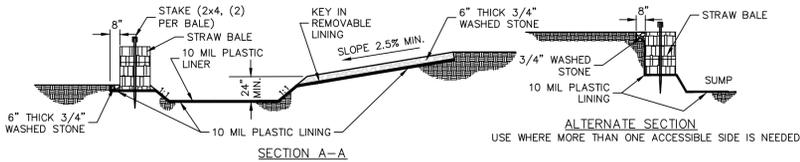
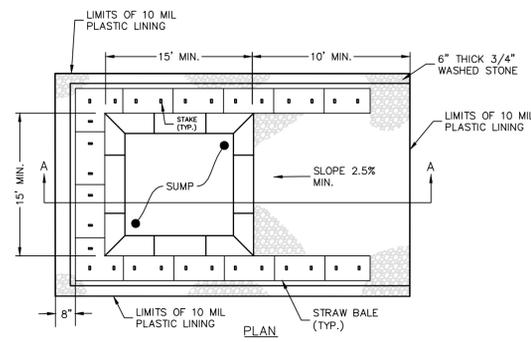
Detail Sheet - 8

Harbor View
Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island

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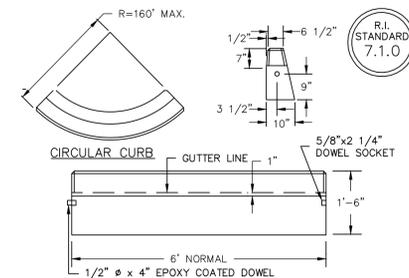
Applicant:
Wickford Harbor Estates, LLC
117 Camden Road
Narragansett, RI 02880

No.	Date	Description	By:
8	11-30-12	Preliminary Submission	B.A.H.
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2	12-05-11	RIDEM Preliminary Determination Submission	B.A.H.
1	9-12-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.



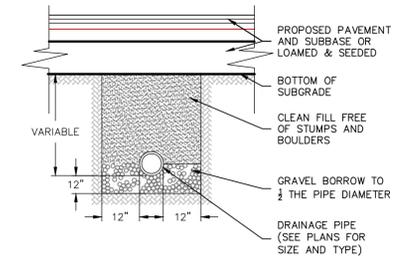
CONCRETE WASHOUT AREA
(NOT TO SCALE)

- NOTES:**
- PIT IS SPECIFICALLY DESIGNATED, DIKED AND IMPERVIOUS CONTAINMENT TO PREVENT CONTACT BETWEEN CONCRETE WASH AND STORMWATER.
 - WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE WATER.
 - FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12."
 - FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED.
 - SAW CUT PORTLAND CEMENT CONCRETE, RESIDUE FROM SAWCUT & GRINDING TO BE DISPOSED OF IN THE PIT.
 - CONCRETE WASHOUTS SHALL BE LOCATED A MINIMUM OF 100' FROM DRAINAGE WAYS, INLETS, & SURFACE WATERS.
 - MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.



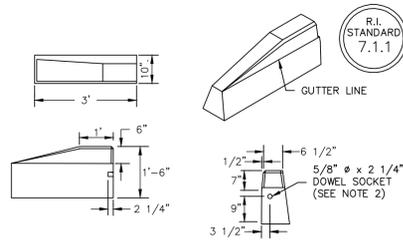
- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 - MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
 - EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 - CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADII.
 - EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

PRECAST CONCRETE CURB
NOT TO SCALE



- NOTES:**
- ALL PIPE TO BE RCP CLASS III UNLESS NOTED OTHERWISE

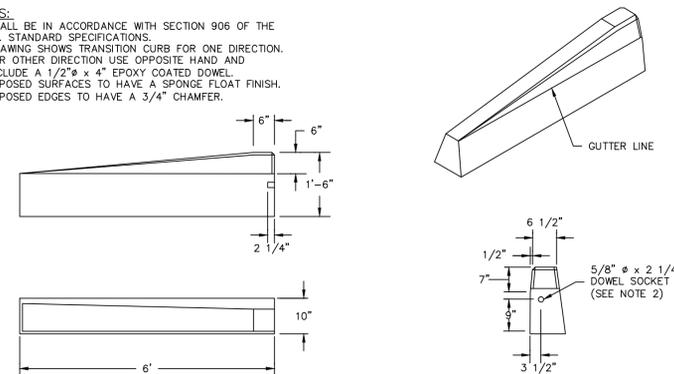
DRAINAGE TRENCH DETAIL
NOT TO SCALE



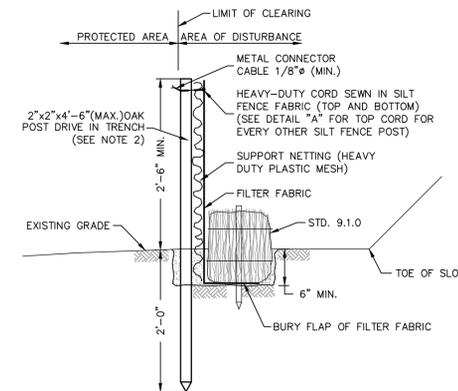
- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 - DRAWING SHOWS TRANSITION CURB FOR ONE DIRECTION, FOR OTHER DIRECTION USE OPPOSITE HAND AND INCLUDE A 1/2" x 4" EPOXY COATED DOWEL.
 - EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 - EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

3' PRECAST CONCRETE TRANSITION CURB
NOT TO SCALE

- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
 - DRAWING SHOWS TRANSITION CURB FOR ONE DIRECTION, FOR OTHER DIRECTION USE OPPOSITE HAND AND INCLUDE A 1/2" x 4" EPOXY COATED DOWEL.
 - EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 - EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

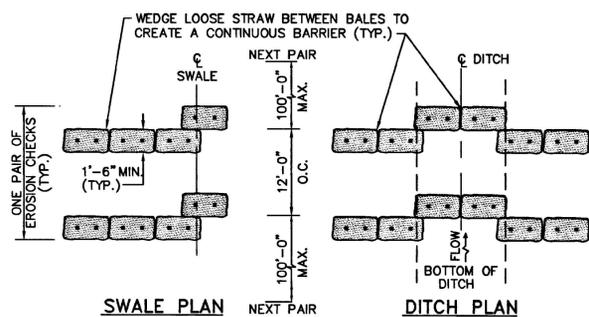
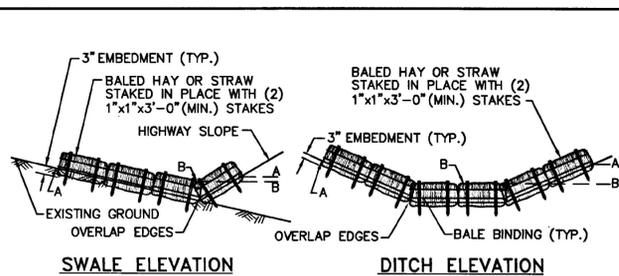


6' PRECAST CONCRETE TRANSITION CURB
NOT TO SCALE



- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
 - STD. 9.1.0 IS INSTALLED "TIGHT" AGAINST SILT FENCE. THOROUGHLY COMPACT EXCAVATED SOILS BACK INTO TRENCH AFTER INSTALLATION OF EROSION CONTROL DEVICE. SILT FENCE FABRIC SHALL NOT BE SLIT. STD. 9.1.0 POST SHALL BE DRIVEN THROUGH SILT FENCE FABRIC. 2"x2"x4'-6" (MAX.) OAK POST FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
 - 1"x1"x4'-6" (MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
 - SILT FENCE AND BALED HAY SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.
 - TO BE LOCATED AT ALL BASIN OUTFALLS.

BALED HAY EROSION CHECK AND SILT FENCE COMBINED
NOT TO SCALE



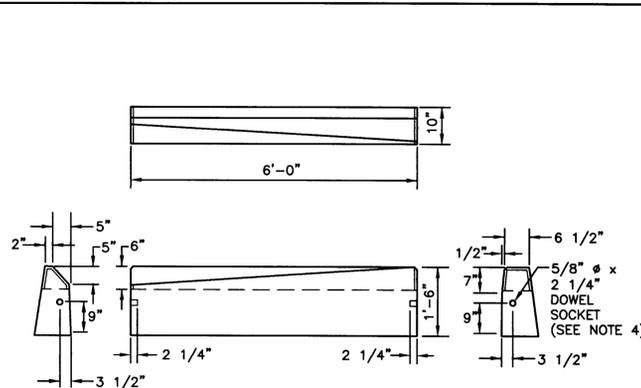
- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 207 OF THE R.I. STANDARD SPECIFICATIONS.
 - TO BE USED IN LOCATIONS WHERE THE EXISTING GROUND SLOPES IN TOWARD THE EMBANKMENT OR IN DRAINAGE DITCHES AS CALLED FOR ON THE PLANS.
 - THE BALES ARE TO BE EMBEDDED A MINIMUM OF 3" INTO THE EXISTING GROUND, HIGHWAY SLOPE OR DITCH SECTION.
 - POINTS "A" SHOULD BE AT A HIGHER ELEVATION THAN POINTS "B".

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BALED HAY DITCH AND SWALE EROSION CHECK

NO.	BY	DATE

JUNE 15, 1998
ISSUE DATE



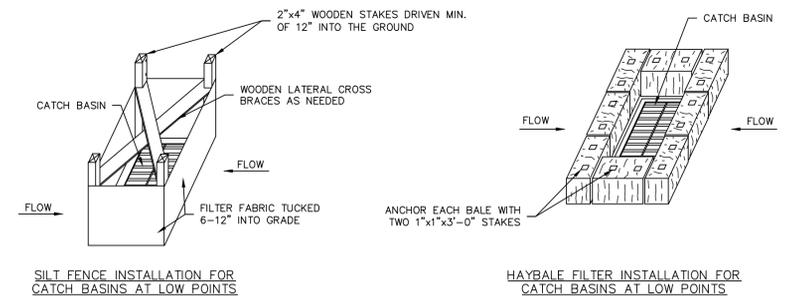
- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 - EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 - EXPOSED EDGES TO HAVE A 3/4" CHAMFER.
 - DRAWING SHOWS TRANSITION CURB FOR ONE DIRECTION, FOR OTHER DIRECTION USE OPPOSITE HAND AND INCLUDE A 1/2" x 4" EPOXY COATED DOWEL.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE TRANSITION CURB (VERTICAL FACE TO SLOPED FACE)

NO.	BY	DATE

JUNE 15, 1998
ISSUE DATE

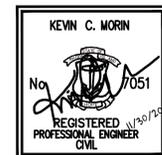


- NOTES:**
- STORMWATER INLETS WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED.
 - SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM.
 - REFER TO LONG TERM/SHORT TERM MAINTENANCE NOTES FOR TIMING OF PLACEMENT AND REMOVAL OF EROSION CONTROL ELEMENTS.

CATCH BASIN EROSION CONTROL
NOT TO SCALE

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

THIS REGULATORY SUBMISSION SET SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED "ISSUED FOR CONSTRUCTION" AND SIGNED BY A DIPRETE ENGINEERING REPRESENTATIVE.



Detail Sheet - 9

Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island

DiPrete Engineering

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

Applicant:
Wickford Harbor Estates, LLC
117 Camden Road
Narragansett, RI 02880

NO.	DATE	DESCRIPTION	BY
8	11-30-12	Preliminary Submission	B.A.H.
7	10-18-12	RI/OT Re-Submission	B.A.H.
6	8-29-12	RI/DEM Site Suitability Re-Submission	B.A.H.
5	7-26-12	RI/DEM & RI/OT Re-Submission	B.A.H.
4	5-11-12	RI/DEM & RI/OT Re-Submission	B.A.H.
3	12-08-11	RI/DEM Site Suitability Submission	B.A.H.
2	12-09-11	RI/DEM Preliminary Determination Submission	B.A.H.
1	9-12-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.
No.	Date	Description	By



Locus Map Not To Scale

General Notes:

1. THE PARCEL IS LOCATED IN THE TOWN OF NORTH KINGSTOWN ON ASSESSOR'S PLAT 119 LOTS 11, 28 & 51.
2. THE OWNER PER DEED BOOK 2579 PAGE 308 IS WICKFORD HARBOR ESTATES, LLC.
3. THE SURVEYED AREA OF THE PARCEL IS 1,008,853 SQUARE FEET (23.16 ACRES)
4. THE PARCEL IS LOCATED IN ZONE X & X SHADED PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 44009C0104H, MAP REVISED OCTOBER 19, 2010.
5. THE PARCEL IS ZONED NR-40 PER THE ASSESSOR'S ONLINE DATABASE. PLEASE CONTACT THE ZONING DEPARTMENT FOR ANY ADDITIONAL INFORMATION OR FOR A CERTIFICATE OF ZONING.
6. THERE WERE NO CEMETERIES, GRAVE SITES AND OR BURIAL GROUNDS OBSERVED WITHIN THE LIMITS OF THE SURVEY.
7. THERE WERE NO VISIBLE ABOVEGROUND ENCROACHMENTS OBSERVED, OTHER THAN SHOWN ON SURVEY.
8. BOUNDARY SURVEY PERFORMED BY DIPRETE ENGINEERING IN JULY 2006. ADDITIONAL FIELD WORK PERFORMED APRIL 2012.
9. ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN LOCATED FROM FIELD SURVEY OBSERVATIONS ONLY TOGETHER WITH EXISTING PLANS BY OTHERS. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR MISSING UNDERGROUND UTILITIES, EITHER IN SERVICE OR ABANDONED, NOT OBSERVED AT THE TIME OF THE SURVEY. (PLEASE CONTACT DIGSAFE 72 WORKING HOURS PRIOR TO ANY CONSTRUCTION AT 1-800-344-7233).
10. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY UNKNOWN OR UNRECORDED EASEMENTS THAT A TITLE REPORT WOULD DISCLOSE.

Dimensional Regulations:

CURRENT ZONING:	NEIGHBORHOOD RESIDENTIAL NR-40	CONSERVATION DEVELOPMENT (W/WATER)
MINIMUM LOT AREA:	40,000 SF	10,000 SF
MINIMUM LOT DEPTH:	200'	N/A
MINIMUM FRONTAGE/LOT WIDTH:	180'	20'
MAXIMUM HEIGHT:	35'	35'
MINIMUM FRONT YARD:	25'	25'
MINIMUM CORNER YARD:	20'	N/A
MINIMUM SIDE YARD:	35'	10'
MINIMUM REAR YARD:	35'	30'

Development Data:

TOTAL SITE AREA:	23.16 ACRES
TOTAL NUMBER OF LOTS:	20
RIGHT OF WAY AREA:	1.67± ACRES
RIGHT OF WAY WIDTH:	50'
PAVEMENT WIDTH:	24'
TOTAL LENGTH OF ROAD:	1148± LF
TOTAL OPEN SPACE:	9.08± ACRES
SUITABLE OPEN SPACE:	9.08± ACRES

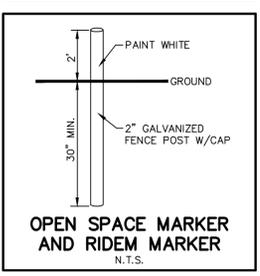
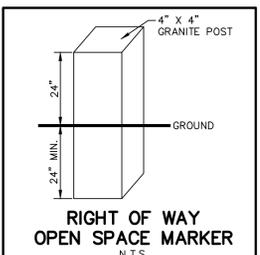
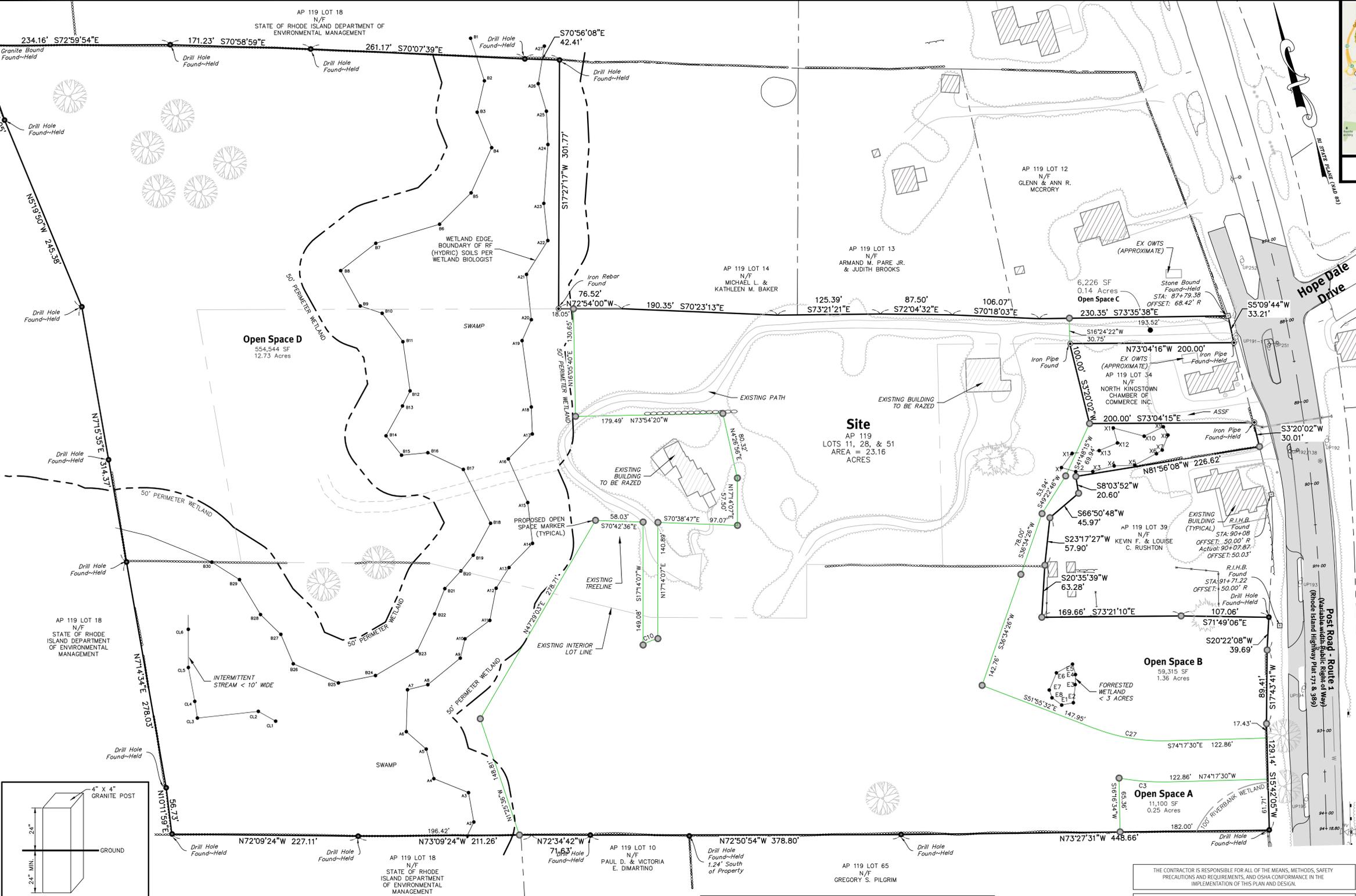
North Kingstown Conservation Development Regulations:

DENSITY FOR A CONSERVATION DEVELOPMENT IS BASED UPON NUMBER OF LOTS WHICH COULD BE DEVELOPED UNDER A YIELD PLAN (16 LOTS)

OPEN SPACE: PER SECTION 21-218 OF THE TOWN OF NORTH KINGSTOWN ZONING REGULATIONS THE MINIMUM AMOUNT OF REQUIRED OPEN SPACE AREA SHALL BE BASED ON A PERCENTAGE OF THE LAND SUITABLE FOR DEVELOPMENT IN THE ENTIRE CONSERVATION DEVELOPMENT. (NR = 50%)

CALCULATION OF SUITABLE LAND:
 AREA OF SITE - UNSUITABLE AREA = NET SUITABLE LAND
 23.16 AC - 4.02 AC (WETLANDS) - 0.66 AC (LEDGE/ROCK OUTCROPS + SLOPES > 25%) - 0.91 (SEASONAL WATER TABLE LIMITATION DISTRICTS) - 1.67 AC (ROW) = 15.90 AC.

CALCULATION OF OPEN SPACE: AREA OF SUITABLE LAND X 50% = MINIMUM SUITABLE OPEN SPACE REQUIRED 15.90 ACRES X 50% = 7.95 AC.
 SUITABLE OPEN SPACE PROVIDED 9.08 ACRES (57%)



- Legend**
- BUILDING: Hatched pattern
 - ASPHALT: Solid grey
 - AP N/F: Dashed line
 - OWTS: Dotted line
 - PROPERTY LINE: Solid line
 - ASSESSOR'S PLAT: Dashed line
 - NOW OR FORMERLY ON SITE WASTE WATER TREATMENT SYSTEMS: Wavy line
 - TREELINE: Dashed line with tree symbols
 - GUARDRAIL: Dashed line with triangles
 - FENCE: Dashed line with vertical bars
 - RETAINING WALL: Dashed line with horizontal bars
 - STONE WALL: Dashed line with irregular shapes
 - OVERHEAD WIRES: Dashed line with horizontal bars
 - WATER LINE: Dashed line with 'W'
 - ASSASSOR'S PLAT: Dashed line
 - UTILITY/POWER POLE LIGHTPOST: Circle with cross
 - HYDRANT: Circle with 'H'
 - WATER VALVE: Circle with 'V'
 - WELL: Circle with 'W'
 - GAS VALVE: Circle with 'G'
 - WETLAND FLAG: Circle with 'W'
 - BUSH: Circle with 'B'
 - TREE: Circle with 'T'

Harbor View
 TOTAL AREA OF PARCELS = 23.16 ACRES±
 YIELD PLAN: THE TOTAL LOTS DEVELOPED UNDER THE YIELD PLAN IS 16.
 CONSERVATION PLAN: 20 TOTAL PROPOSED LOTS (16 MARKET RATE, 3 AFFORDABLE, 1 MARKET RATE AS ALLOWED BY DENSITY BONUS)

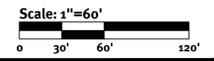
This Plan Should Be Indexed By The Following Streets:

- Post Road - Route 1
- Spinnaker Drive
- Bowline Drive

Curve Table

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C3	111°7'40"	298.79'	58.90'	29.55'	58.80'	N68°09'15"W
C10	17°51'46"	63.00'	19.64'	9.90'	19.56'	N84°11'09"E
C27	22°20'31"	225.00'	87.74'	44.43'	87.18'	S63°07'15"E

- Plan References:**
1. "ADMINISTRATIVE SUBDIVISION ASSESSOR'S PLAT 119 LOTS 11 & 14, NORTH KINGSTOWN, RHODE ISLAND PREPARED FOR: JAMES PATRICK BROOKS PREPARED BY: ALPHA ASSOCIATES PROFESSIONAL LAND SURVEYORS 35 ROCKY HOLLOW ROAD, EAST GREENWICH, R.I." SCALE: 1"=80' REVISED DATE: JULY 26, 2004. MAP NO. 1795 IN THE TOWN OF NORTH KINGSTOWN LAND EVIDENCE RECORDS.
 2. PROPERTY LINES SURVEY AP 119/ LOTS 11, 28, 49 & 51 IN: NORTH KINGSTOWN, R.I. FOR: WILLIAM C. PRICHETT SURVEYED BY: ALPHA ASSOCIATES 16 ROCKY HOLLOW ROAD, EA. GREENWICH, R.I. DATE: JUNE, 1983, SCALE: 1"=40'. MAP NO. 1114 IN THE TOWN OF NORTH KINGSTOWN LAND EVIDENCE RECORDS.
 3. RHODE ISLAND HIGHWAY PLAT 171 & 389.



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THIS REGULATORY SUBMISSION SET SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED/ISSUED FOR CONSTRUCTION AND SIGNED BY A DIPRETE ENGINEERING REPRESENTATIVE.

Certification:
 THIS SURVEY AND PLAN CONFORMS TO A CLASS 1 STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.



No.	Date	Description	By:
8	11-30-12	Preliminary Submission	B.A.H.
7	10-18-12	RIDEM Re-Submission	B.A.H.
6	8-29-12	RIDEM Site Suitability Re-Submission	B.A.H.
5	7-26-12	RIDEM & RIDOT Re-Submission	B.A.H.
4	5-13-12	RIDEM & RIDOT Re-Submission	B.A.H.
3	12-08-11	RIDEM Site Suitability Submission	B.A.H.
2	12-05-11	RIDEM Preliminary Determination Submission	B.A.H.
1	9-21-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.

Perimeter / Open Space Plan

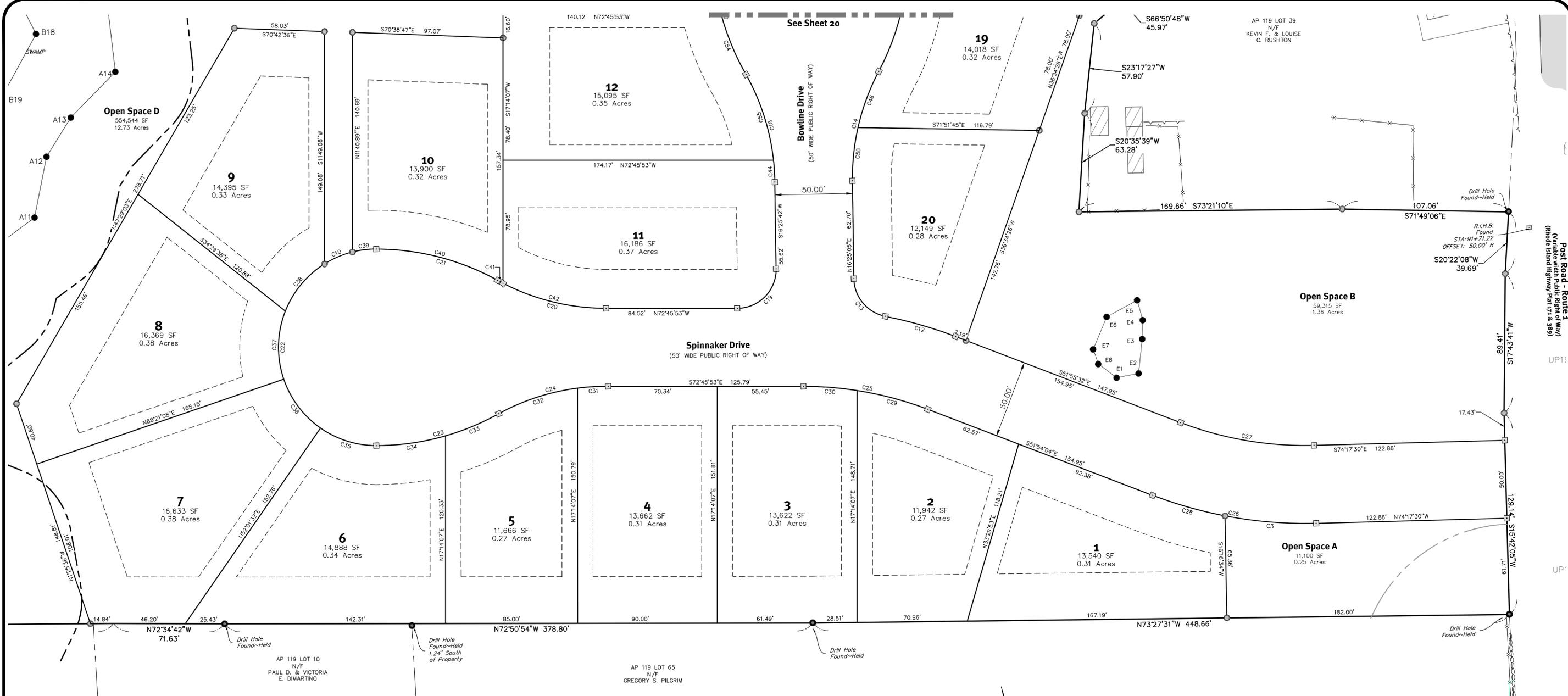
Harbor View
 Assessor's Plat 119, Lots 11, 28, & 51
 North Kingstown, Rhode Island



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

Applicant:
Wickford Harbor Estates, LLC
 117 Camden Road
 Narragansett, RI 02880

Engineers • Planners • Surveyors



Curve Table

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C3	111°7'40"	298.79'	58.00'	29.55'	58.80'	N68°09'15"W
C10	175°1'46"	63.00'	19.64'	9.90'	19.56'	N84°11'09"E
C12	9°49'16"	275.00'	47.14'	23.63'	47.08'	N56°48'42"W
C13	78°08'25"	25.00'	34.10'	20.30'	31.51'	N22°39'08"W
C14	28°48'36"	145.00'	72.91'	37.24'	72.14'	N30°49'28"E
C18	28°31'58"	145.00'	72.21'	36.87'	71.47'	S2°10'58"W
C19	90°48'25"	25.00'	39.62'	25.35'	35.60'	S61°49'54"W
C20	271°2'54"	145.00'	68.87'	35.10'	68.23'	N59°09'27"W
C21	301°4'50"	162.00'	85.52'	43.78'	84.53'	N57°42'58"W
C22	180°00'00"	63.00'	197.92'	13062626390897.20	126.00'	S171°4'07"W
C23	29°05'44"	162.00'	82.27'	42.04'	81.38'	S87°18'45"E
C24	29°01'27"	145.00'	73.45'	37.53'	72.67'	S86°44'46"E
C25	20°51'50"	225.00'	81.93'	41.42'	81.48'	S62°19'58"E
C26	222°3'27"	275.00'	107.47'	54.43'	106.79'	S63°05'47"E
C27	222°0'31"	225.00'	87.74'	44.43'	87.18'	S63°07'15"E
C28	10°06'57"	275.00'	48.55'	24.34'	48.49'	N56°57'32"W
C29	12°01'55"	225.00'	47.25'	23.71'	47.16'	N57°55'01"W
C30	8°49'55"	225.00'	34.68'	17.38'	34.65'	N68°20'56"W
C31	7°47'21"	145.00'	19.71'	9.87'	19.70'	N76°07'43"W
C32	211°4'06"	145.00'	53.74'	27.18'	53.43'	S89°21'34"W

Curve Table

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C33	13°06'16"	162.00'	37.05'	18.61'	36.97'	S84°41'31"W
C34	15°59'28"	162.00'	45.21'	22.75'	45.07'	N80°45'37"W
C35	34°47'25"	63.00'	38.25'	19.74'	37.67'	N55°22'11"W
C36	36°19'36"	63.00'	39.94'	20.67'	39.28'	N19°48'40"W
C37	40°33'09"	63.00'	44.59'	23.27'	43.66'	N18°37'42"E
C38	36°21'00"	63.00'	39.97'	20.68'	39.30'	N57°04'47"E
C39	14°07'04"	63.00'	15.52'	7.80'	15.48'	S79°49'26"E
C40	28°48'36"	162.00'	81.46'	41.61'	80.60'	S58°21'35"E
C41	1°35'43"	145.00'	4.04'	2.02'	4.04'	S44°45'08"E
C42	27°12'54"	145.00'	68.87'	35.10'	68.23'	S59°09'27"E
C44	5°33'29"	145.00'	14.07'	7.04'	14.06'	N13°40'13"E
C54	15°20'18"	162.00'	43.37'	21.81'	43.24'	N5°00'27"W
C55	22°58'28"	145.00'	58.14'	29.47'	57.75'	N0°35'45"W
C56	13°35'00"	145.00'	34.38'	17.27'	34.30'	N23°12'39"E

Legend

- BUILDING
- ASPHALT
- AP
- N/F
- OWTS
- ON SITE WASTE WATER TREATMENT SYSTEMS
- PROPERTY LINE
- ASSESSOR'S LINE
- TREELINE
- GUARDRAIL
- FENCE
- RETAINING WALL
- STONE WALL
- OVERHEAD WIRES
- WATER LINE
- NAIL FOUND/SET
- DRILL HOLE FOUND/SET
- IRON ROD/PIPE FOUND/SET
- BOUND FOUND/SET
- OPEN SPACE MARKER
- UTILITY/POWER POLE
- LIGHTPOST
- HYDRANT
- WATER VALVE
- WELL
- GAS VALVE
- WETLAND FLAG
- BUSH
- TREE

This Plan Should Be Indexed By The Following Streets:

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Harbor View

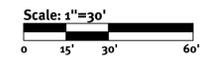
TOTAL AREA OF PARCELS = 23.16 ACRES±

YIELD PLAN

THE TOTAL LOTS DEVELOPED UNDER THE YIELD PLAN IS 16.

CONSERVATION PLAN

20 TOTAL PROPOSED LOTS (16 MARKET RATE, 3 AFFORDABLE, 1 MARKET RATE AS ALLOWED BY DENSITY BONUS)



THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

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Certification:

THIS SURVEY AND PLAN CONFORMS TO A CLASS 1 STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

REGISTERED PROFESSIONAL LAND SURVEYOR

MICHAEL E. GAVITT
No. 1981
PROFESSIONAL LAND SURVEYOR

No.	Date	Description	By:
8	11-30-12	Preliminary Submission	B.A.H.
7	10-18-12	RI DOT Re-Submission	B.A.H.
6	8-29-12	RI DOT Site Suitability Re-Submission	B.A.H.
5	7-26-12	RI DOT & RI DOT Re-Submission	B.A.H.
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1	9-21-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.
No.	Date	Description	By:

Record Plan - Phase 1

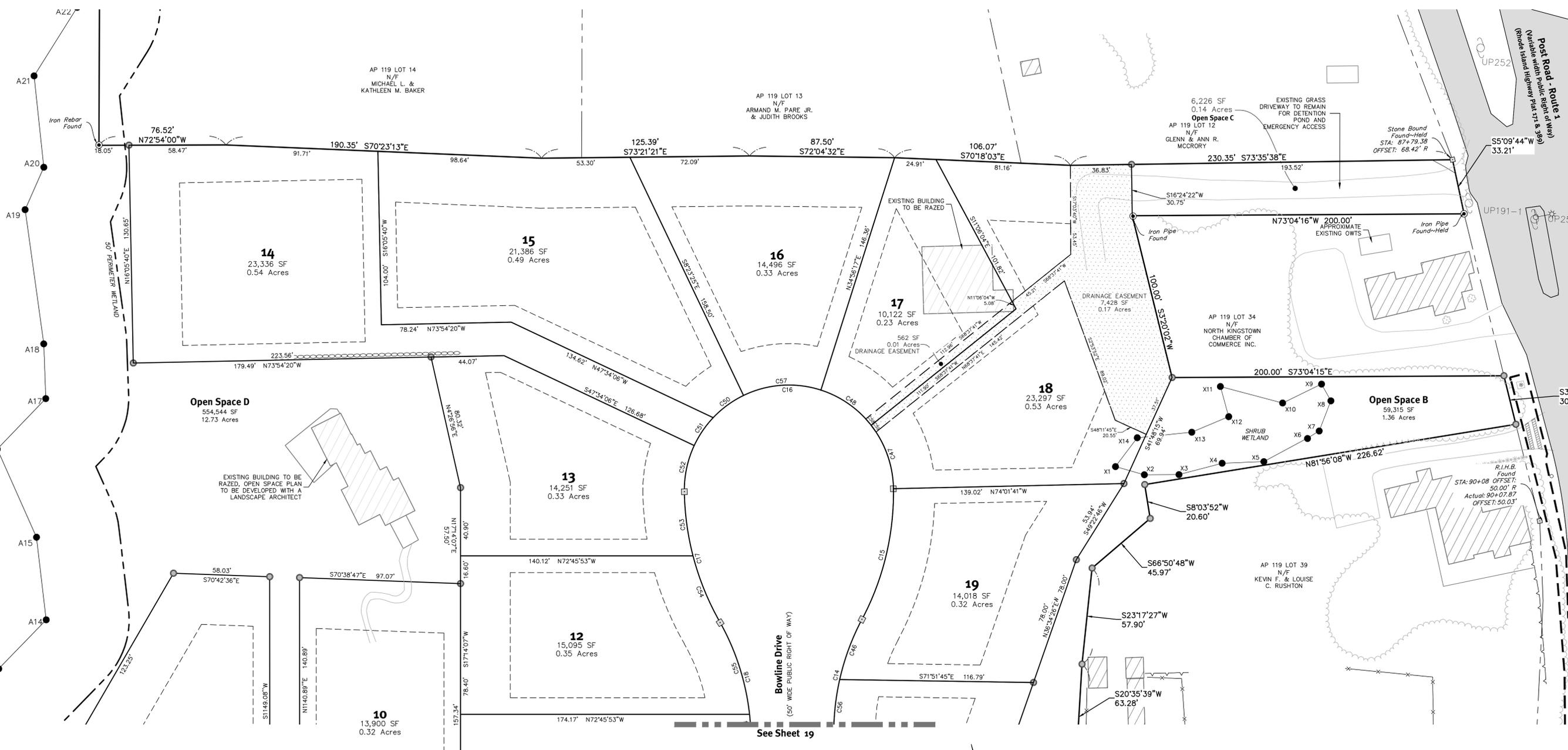
Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
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tel 401-943-1000 fax 401-464-6006 www.DiPrete-Eng.com

Applicant:
Wickford Harbor Estates, LLC
117 Camden Road
Narragansett, RI 02880



See Sheet 19

Curve Table

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C14	28°48'36"	145.00'	72.91'	37.24	72.14'	N30°49'28"E
C15	28°48'36"	162.00'	81.46'	41.61	80.60'	N30°49'28"E
C16	180°00'00"	63.00'	197.92'	INFINITE	126.00'	N73°54'51"W
C17	29°05'44"	162.00'	82.27'	42.04	81.38'	S1°52'17"W
C18	28°31'58"	145.00'	72.21'	36.87	71.47'	S2°10'58"W
C46	15°13'36"	145.00'	38.53'	19.38	38.42'	S37°36'58"W
C47	36°40'04"	64.06'	21.23	11.23	40.30'	S2°14'08"E
C48	34°03'19"	63.00'	37.45'	19.29	36.90'	S37°55'06"E
C50	20°40'08"	63.00'	22.73'	11.49	22.60'	N71°16'31"E
C51	18°30'34"	63.00'	20.35'	10.27	20.26'	N51°41'11"E
C52	26°00'44"	63.00'	28.60'	14.55	28.36'	N29°25'32"E
C53	13°45'28"	162.00'	38.90'	19.54	38.81'	N9°32'26"E
C54	15°20'18"	162.00'	43.37'	21.81	43.24'	N5°00'27"W
C55	22°58'28"	145.00'	58.14'	29.47	57.75'	N0°35'45"W
C56	13°35'00"	145.00'	34.38'	17.27	34.30'	N23°12'39"E
C57	43°26'40"	63.00'	47.77'	25.10	46.63'	S76°40'05"E
C58	4°33'03"	63.00'	5.00'	2.50	5.00'	S23°09'57"E
C59	4°33'14"	63.00'	5.01'	2.50	5.01'	S18°36'49"E

Legend

- BUILDING
- ASPHALT
- AP
- N/F
- OWTS
- ON SITE WASTE WATER TREATMENT SYSTEMS
- PROPERTY LINE
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- UTILITY/POWER POLE
- LIGHTPOST
- HYDRANT
- WATER VALVE
- WELL
- GAS VALVE
- WETLAND FLAG
- BUSH
- TREE

NOTE:
SEE SHEET 18 OF 20 FOR ADDITIONAL NOTES AND INFORMATION.

This Plan Should Be Indexed By The Following Streets:

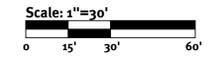
- Post Road - Route 1
- Spinnaker Drive
- Bowline Drive

Harbor View

TOTAL AREA OF PARCELS = 23.16 ACRES±

YIELD PLAN
THE TOTAL LOTS DEVELOPED UNDER THE YIELD PLAN IS 16.

CONSERVATION PLAN
20 TOTAL PROPOSED LOTS (16 MARKET RATE, 3 AFFORDABLE, 1 MARKET RATE AS ALLOWED BY DENSITY BONUS)



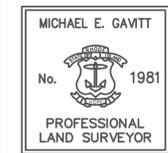
THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

THIS REGULATORY SUBMISSION SET SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED 'ISSUED FOR CONSTRUCTION' AND SIGNED BY A DIPRETE ENGINEERING REPRESENTATIVE.

Certification:
THIS SURVEY AND PLAN CONFORMS TO A CLASS 1 STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

REGISTERED PROFESSIONAL LAND SURVEYOR

No.	Date	Description	By:
8	11-30-12	Preliminary Submission	B.A.H.
7	10-18-12	RIDOT Re-Submission	B.A.H.
6	8-29-12	RIDEM Site Suitability Re-Submission	B.A.H.
5	7-24-12	RIDEM & RIDOT Re-Submission	B.A.H.
4	5-11-12	RIDEM & RIDOT Re-Submission	B.A.H.
3	12-08-11	RIDEM Site Suitability Submission	B.A.H.
2	12-05-11	RIDEM Preliminary Determination Submission	B.A.H.
1	9-21-11	Master Plan Comments	B.A.H.
0	7-21-11	Master Plan Submission	B.A.H.
No.	Date	Description	By:



Record Plan - Phase 1

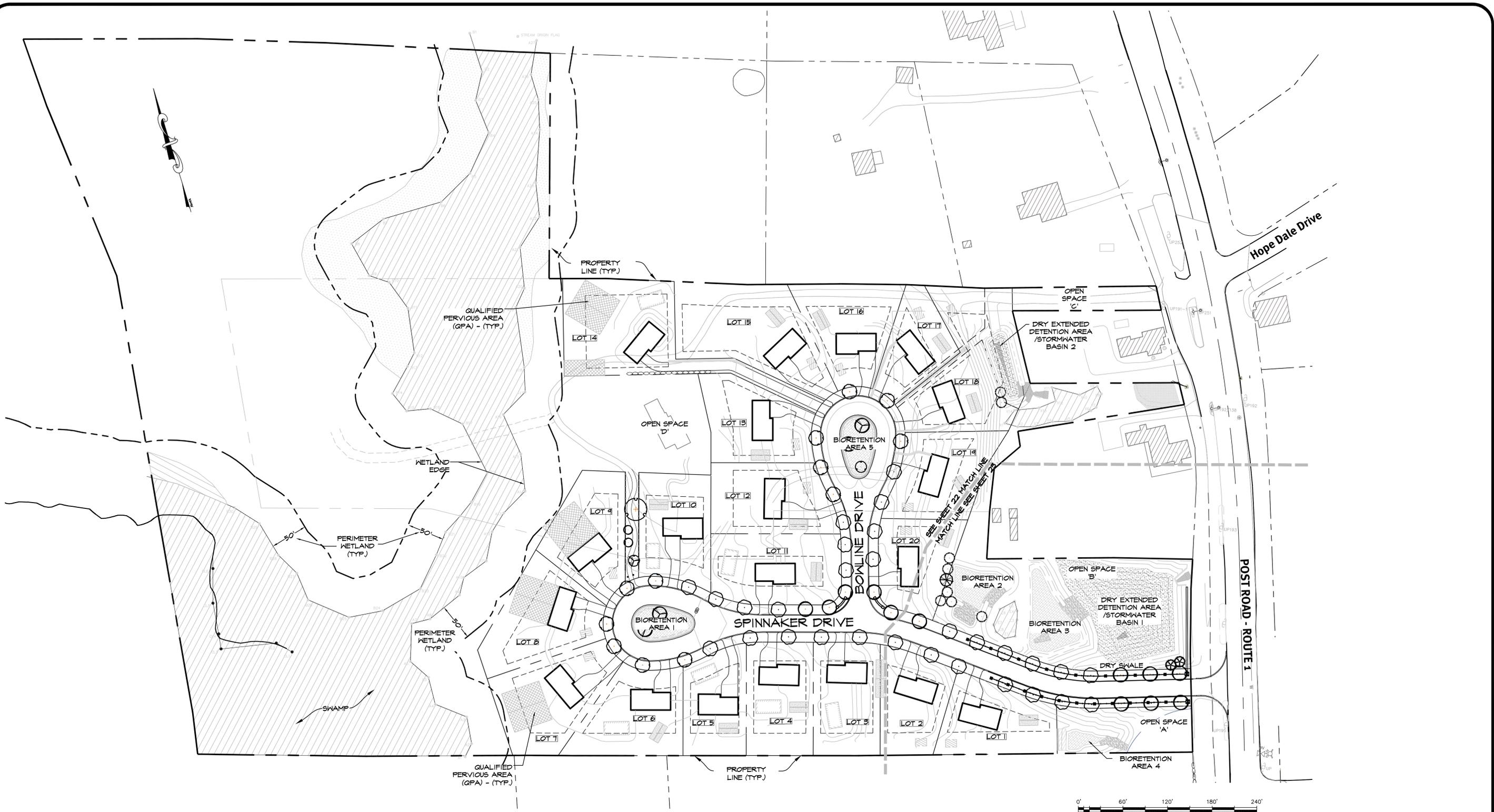
Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island



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

Applicant:
Wickford Harbor Estates, LLC
117 Camden Road
Narragansett, RI 02880



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No.	Date	Description	By
1	11-30-12	Preliminary Submission	L.M.W.
0	8-17-12	Preliminary Submission	L.M.W.

Overall Landscape Plan Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island



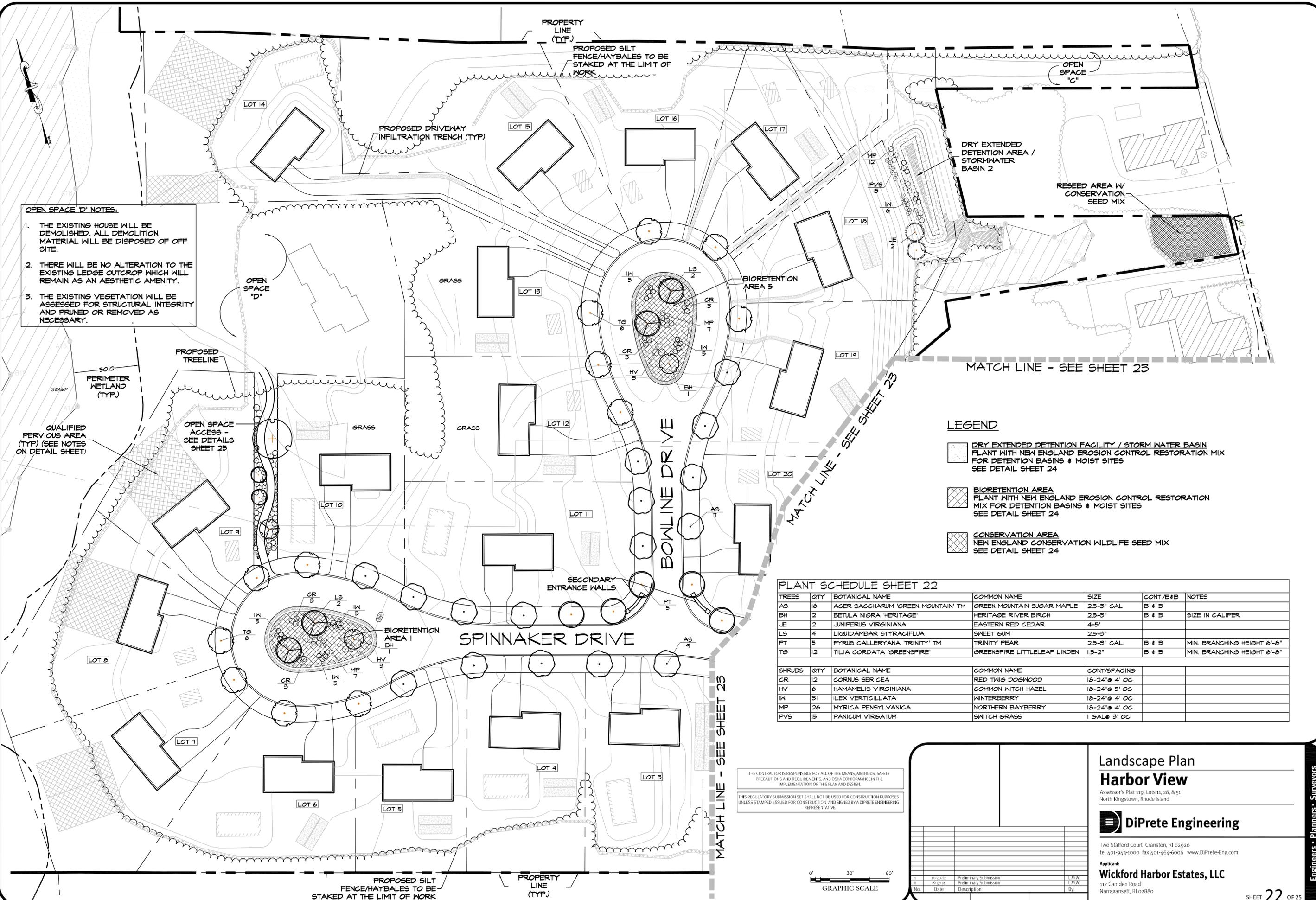
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117 Camden Road
Narragansett, RI 02880

Engineers - Planners - Surveyors

OPEN SPACE 'D' NOTES:

1. THE EXISTING HOUSE WILL BE DEMOLISHED. ALL DEMOLITION MATERIAL WILL BE DISPOSED OF OFF SITE.
2. THERE WILL BE NO ALTERATION TO THE EXISTING LEDGE OUTCROP WHICH WILL REMAIN AS AN AESTHETIC AMENITY.
3. THE EXISTING VEGETATION WILL BE ASSESSED FOR STRUCTURAL INTEGRITY AND PRUNED OR REMOVED AS NECESSARY.



LEGEND

- DRY EXTENDED DETENTION FACILITY / STORM WATER BASIN PLANT WITH NEW ENGLAND EROSION CONTROL RESTORATION MIX FOR DETENTION BASINS & MOIST SITES SEE DETAIL SHEET 24
- BIORETENTION AREA PLANT WITH NEW ENGLAND EROSION CONTROL RESTORATION MIX FOR DETENTION BASINS & MOIST SITES SEE DETAIL SHEET 24
- CONSERVATION AREA NEW ENGLAND CONSERVATION WILDLIFE SEED MIX SEE DETAIL SHEET 24

PLANT SCHEDULE SHEET 22

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT./B4B	NOTES
AS	16	ACER SACCHARUM 'GREEN MOUNTAIN' TM	GREEN MOUNTAIN SUGAR MAPLE	2.5-3" CAL	B & B	
BH	2	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	2.5-3"	B & B	SIZE IN CALIFER
JE	2	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	4-5'		
LS	4	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	2.5-3"		
PT	5	PYRUS CALLERYANA 'TRINITY' TM	TRINITY PEAR	2.5-3" CAL.	B & B	MIN. BRANCHING HEIGHT 6'-8"
TG	12	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	1.5-2"	B & B	MIN. BRANCHING HEIGHT 6'-8"

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT./SPACING
CR	12	CORNUS SERICEA	RED TWIG DOGWOOD	18-24" @ 4' OC
HV	6	HAMAMELIS VIRGINIANA	COMMON WITCH HAZEL	18-24" @ 5' OC
IN	31	ILEX VERTICILLATA	WINTERBERRY	18-24" @ 4' OC
MP	26	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	18-24" @ 4' OC
FVS	15	PANICUM VIRGATUM	SWITCH GRASS	1 GAL @ 3' OC

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**Landscape Plan
Harbor View**

Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island



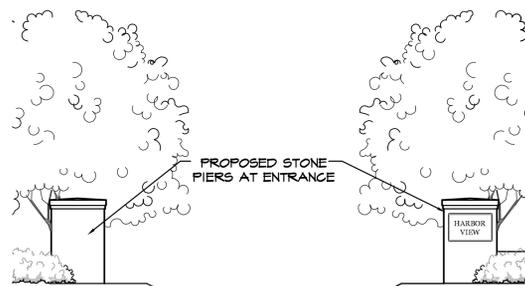
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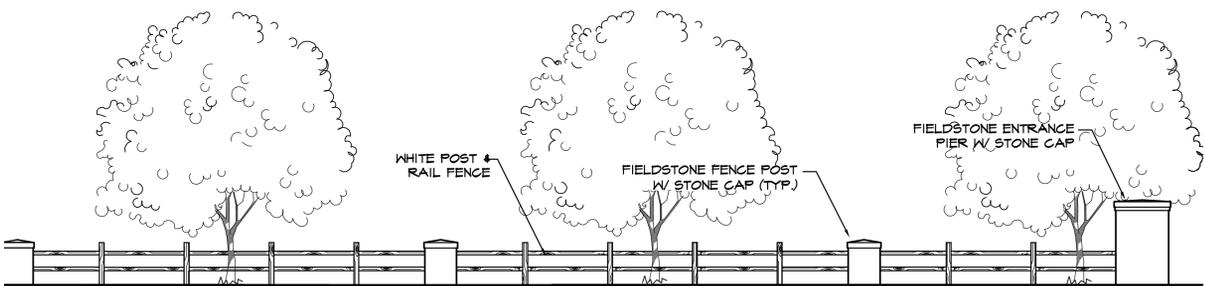
No.	Date	Description	By:
1	11-30-12	Preliminary Submission	L.M.W.
0	8-17-12	Preliminary Submission	L.M.W.

PLANT SCHEDULE SHEET 23

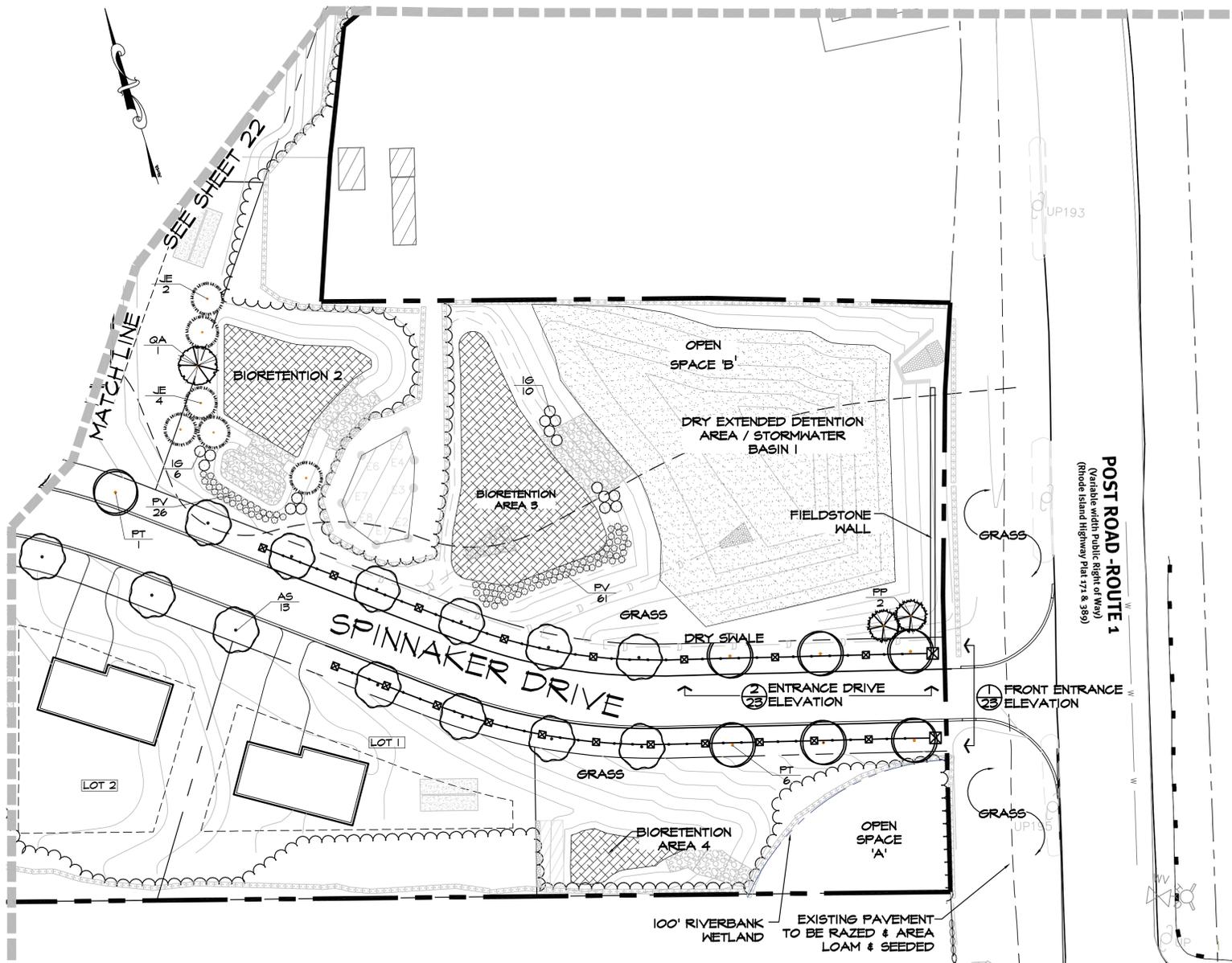
TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT./B&B	NOTES
AS	13	ACER SACCHARUM 'GREEN MOUNTAIN' TM	GREEN MOUNTAIN SUGAR MAPLE	2.5-3" CAL	B & B	
JE	6	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	4-5'		
PP	2	PICEA PUNGENS	COLORADO SPRUCE	8-10'	B & B	SIZE IN HEIGHT
PT	7	PYRUS CALLERYANA 'TRINITY' TM	TRINITY PEAR	2.5-3" CAL.	B & B	MIN. BRANCHING HEIGHT 6'-8"
QA	1	QUERCUS ALBA	WHITE OAK	B & B	2.5-3"	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT./SPACING		
IG	16	ILEX GLABRA	INKBERRY HOLLY	30-36" @ 3' OC		
PV	87	PANICUM VIRSATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	2 GAL @ 3' OC		



1 FRONT ENTRANCE
Scale: $\frac{1}{8}'' = 1'-0''$

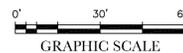


2 ENTRANCE DRIVE - ELEVATION
Scale: $\frac{1}{8}'' = 1'-0''$



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Landscape Plan
Harbor View
Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island

DiPrete Engineering

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SHEET **23** OF 25

DESIGN INTENT

THESE PLANTING PLANS ARE INTENDED TO ADDRESS THE TOWN OF NORTH KINGSTOWN LANDSCAPE REQUIREMENTS AND THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION MANUAL.

THE PLANTING DESIGN FOR THE PONDS/BASINS AND RAINGARDENS/BIORETENTION FACILITIES WILL PROVIDE THE NECESSARY VEGETATION TO EFFECTIVELY STABILIZE THE BOTTOMS AND SIDE SLOPES, REQUIRE LOW MAINTENANCE, ACT AS AN EFFECTIVE STORMWATER TREATMENT PRACTICE, PROVIDE A DIVERSE FOOD AND HABITAT FOR WILDLIFE AND FLORA, AND ADD A UNIQUE AESTHETIC QUALITY TO THE OVERALL STORMWATER TREATMENT FACILITIES ON SITE.

THE SUPPLEMENTAL GROUPS OF HERBACEOUS PERENNIALS AND GRASSES THAT HAVE BEEN ADDED TO THE PROPOSED SEED MIXES, WILL ENHANCE THE TEXTURAL QUALITY OF THE OVERALL PLANTING SCHEME, AND PROVIDE ADDITIONAL FOOD AND COVER TO THE RAINGARDENS AND PONDS. THE SHADE TREES AND UNDERSTORY SHRUBS WILL INCREASE SPECIES DIVERSITY AND AID IN THE EFFECTIVENESS OF THE OVERALL TREATMENT SYSTEM.

TREES

THE TREE PLANTINGS ARE INTENDED FOR TWO PURPOSES. THE FIRST AS AN INTEGRATION INTO THE PLANTING DESIGN FOR THE STORMWATER TREATMENT FACILITIES, AND THE SECOND, TO PROVIDE A STREET TREE AESTHETIC WHERE ABUTTING A ROAD.

GENERAL:

- THE EXISTING SITE INFORMATION WAS TAKEN FROM PLANS PREPARED BY DIPRETE ENGINEERING DATED 5-11-12 AND AS REVISED AND TITLED WICKFORD HARBOR "GRADING PLAN 1" AND GRADING PLAN 2", SHEETS 5 & 6 OF 17 - ASSESSOR'S PLAT 119, LOTS 11, 28 & 51, .
- THIS PLAN IS TO BE USED FOR THE SELECTION, LOCATION AND INSTALLATION OF PLANT MATERIALS ONLY AND IS NOT TO BE USED FOR ANY OTHER PURPOSE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES BEFORE ANY EXCAVATION. DIG-SAFE SHALL BE CONTACTED AT LEAST 72 HOURS BEFORE EXCAVATION. DIG-SAFE CAN BE REACHED AT 1-888-344-7233.

PLANTING:

- PROVIDE QUALITY PLANTS IN THE GENUS, SPECIES AND VARIETY INDICATED IN THE PLANT SCHEDULE, COMPLYING WITH APPLICABLE REQUIREMENTS OF "ANSI Z601 AMERICAN STANDARD FOR NURSERY STOCK."
- PROVIDE PLANTS IN THE SIZE AND NUMBER INDICATED IN THE PLANT SCHEDULE. PLANTS SHALL BE GROWN IN NURSERIES LOCATED IN THE NORTHEASTERN U.S.
- DELIVER FRESH DUG TREES WHICH ARE BALLED AND BURLAPPED, AND SHRUBS WHICH ARE BALLED AND BURLAPPED OR IN NURSERY CONTAINERS. ALL PLANTS ARE TO BE HEALTHY, VIGOROUS AND FREE OF INSECTS AND DISEASE.
- PLANTS ARE TO BE INSTALLED AS SPECIFIED IN THE PLANTING DETAILS WITH ADEQUATE WATER PROVIDED DURING PLANTING TO ALLOW COMPACTION OF THE PLANTING SOIL TO PREVENT ANY AIR POCKETS OR SETTLEMENT AFTER PLANTING.
- ALL PLANTING BEDS ARE TO BE COVERED WITH 2" SHREDDED HARDWOOD BARK MULCH.
- ALL DECIDUOUS AND EVERGREEN TREES OVER 5' TALL ARE TO BE STAKED AS SHOWN IN THE PLANTING DETAILS. TREES ARE TO REMAIN PLUMB AND SHALL BE ADJUSTED AS NEEDED. ALL STAKES, GUY WIRES AND OTHER HARDWARE ARE TO BE MAINTAINED AND REMOVED WHEN NO LONGER NEEDED.

- RECOMMENDED PLANTING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.
- PLANT SUBSTITUTIONS SHALL BE ALLOWED BASED ON AVAILABILITY ONLY WITH DIRECT APPROVAL FROM THE LANDSCAPE ARCHITECT.

MAINTENANCE & WARRANTY:

- THE CONTRACTOR SHALL WARRANTY ALL PLANTS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH.
- AFTER PLANTING IS COMPLETED, THE OWNER SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE WATER TO ENSURE HEALTHY AND VIGOROUS GROWTH.
- ANY PLANT WHICH IS NOT HEALTHY AND GROWING VIGOROUSLY AFTER ONE YEAR SHALL BE REPLACED BY THE CONTRACTOR IN CONFORMANCE WITH THE PLANTING SPECIFICATIONS.
- IF NECESSARY, THE CONTRACTOR SHALL OVERSEED OR SOD ANY AREAS WHICH ARE NOT SUBSTANTIALLY COVERED BY ADEQUATE GRASS GROWTH FOR ONE YEAR AFTER THE INITIAL SEED APPLICATION.

LOAMING & SEEDING/SODDING:

- AFTER ROUGH GRADING IS COMPLETED, ALL DISTURBED AREAS WHICH ARE LABELED AS "GRASS", ARE TO BE BROUGHT TO AN ELEVATION OF 4" BELOW THE PROPOSED FINISHED GRADE. IF COMPACTED, THE SUBGRADE IS TO BE SCARIFIED TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE TO RESULT IN AN UNCOMPACTED SUBSOIL. THEN 4" 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.8.01 OF THE RI DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 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.
- LIME IS TO BE APPLIED AT A RATE OF ONE TON PER ACRE AND UNIFORMLY INCORPORATED INTO THE TOP 1-2" OF TOPSOIL.

SEEDING

- THE AREAS LABELED AS "GRASS" SHALL BE SEEDED AS FOLLOWS:
- 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 **URI #2 IMPROVED MIX** (AVAILABLE FROM ALLEN'S SEED STORE, SOUTH COUNTY TRAIL, EXETER, RI) OR APPROVED EQUAL. APPLY AT A RATE OF 5-7 LBS. PER 1000 SQUARE FEET.
- BY WEIGHT

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

- RECOMMENDED SEEDING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.
- RATHER THAN SEEDING AS DESCRIBED ABOVE, THE CONTRACTOR MAY HYDROSEED USING AN EQUIVALENT SEED MIX.

QUALIFIED PERVIOUS AREA (QPA)

A QPA IS A PERVIOUS AREA TO WHICH STORMWATER RUNOFF FROM ROOFTOPS, ROADWAYS, DRIVEWAYS OR PARKING LOTS IS DIRECTED FOR RECHARGE AND TREATMENT. A QPA IS AN AREA WHERE THE STORMWATER EITHER INFILTRATES INTO THE SOIL OR FLOWS OVER IT WITH SUFFICIENT TIME AND REDUCED VELOCITY TO ALLOW FOR ADEQUATE FILTERING. QPAs ARE GENERALLY FLAT LOCATIONS WHERE THE DISCHARGE IS DIRECTED VIA SHEET FLOW AND NOT AS A POINT SOURCE DISCHARGE.

- LAWNS INDICATED AS QPAs SHALL BE PLANTED WITH THE GRASS SEED MIXTURE LISTED UNDER 'SEEDING', WHICH CONSISTS OF LOW-MAINTENANCE GRASSES ADAPTED TO THE NEW ENGLAND REGION. **NO EXCESSIVE FERTILIZING CAN BE DONE IN THE QPA.**
- TO PREVENT COMPACTION OF THE SOIL IN THE QPA, CONSTRUCTION VEHICLES MUST NOT BE ALLOWED TO DRIVE OVER THE AREA. IF IT BECOMES COMPACTED, THE SOIL MUST BE SUITABLY AMENDED, TILLED, AND RE-VEGETATED ONCE CONSTRUCTION IS COMPLETE TO RESTORE INFILTRATION CAPACITY.

SODDING

IN PLACE OF SEEDING, THE AREAS LABELED AS GRASS MAY BE SODDED AS DESCRIBED BELOW:

- SOD SHALL BE LIVE, FRESH, AND OF SUITABLE CHARACTER FOR THE PURPOSE INTENDED AND FOR THE SOIL ON WHICH IT WILL BE PLACED. SODS SHALL BE AT LEAST 2-SQUARE FEET IN AREA AND SHALL BE THICK ENOUGH TO CONTAIN ALL NATURAL ROOTS WITHOUT MUTILATION. IN NO CASE WILL SODS BE PERMITTED TO BE UNDER 3/4" THICK OR OVER 1" THICK, UNLESS EXPRESS WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT IS PROCURED. SOD STORED LONGER THAN 36 HOURS WILL NOT BE ALLOWED UNDER ANY CIRCUMSTANCES.
- RECOMMENDED SODDING DATES ARE APRIL 1 TO JUNE 30 AND AUGUST 15 TO NOVEMBER 15.
- SOD INSTALLATION: THE SOD BED SHALL BE MOIST AND BE WATERED CONTINUOUSLY DURING THE SODDING OPERATION. SOD SHALL BE LAID IN THE LONGEST DIMENSION PARALLEL TO THE CONTOURS. THE FIRST ROW OF SOD SHALL BE LAID A STRAIGHT LINE WITH THE SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY AGAINST EACH OTHER. LATERAL/VERTICAL JOINTS SHALL BE STAGGERED BY A MINIMUM OF 12" TO PROMOTE UNIFORM GROWTH AND STRENGTH. SOD SHALL NOT BE STRETCHED OR OVERLAPPED AND ALL JOINTS SHALL BE BUTTED TIGHT.
- AFTER THE SOD IS PLACED, IT SHALL BE PRESSED FIRMLY INTO CONTACT WITH THE SOD BED BY TAMPING OR HAND ROLLING. THIS PROCEDURE SHALL NOT DEFORM THE SOD. THE CONTRACTOR SHALL CUT THE SOD TO LINE AS INDICATED ON THE PLAN OR AS DIRECTED BY THE LANDSCAPE ARCHITECT.

DRY EXTENDED DETENTION BASIN STORM WATER QUALITY NOTES:

- THE DRY EXTENDED DETENTION BASINS ARE DESIGNED TO BE IN ACCORDANCE WITH SECTION 7.0 OF THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, AND PLANTED WITH APPROPRIATE SPECIES AS DESCRIBED IN THE MANUAL.
- THE PROPOSED SEED MIX HAS BEEN SELECTED FOR ITS APPROPRIATENESS FOR THE HYDROLOGIC ZONE PRESENT IN THE DRY EXTENDED DETENTION BASIN.
- AFTER THE 6" OF LOAM HAS BEEN SPREAD ON THE BOTTOM AND SIDE SLOPES OF THE BASIN, AS DESCRIBED IN THE DETAIL ON THE ENGINEERING PLANS, THE SURFACE SHALL BE RAKED SMOOTH AND SEED SHALL BE APPLIED BY BROADCAST OR HYDROSEEDING METHODS.
- DRY EXTENDED DETENTION BASINS 1 AND 2 SHALL BE PLANTED WITH THE FOLLOWING SEED MIX WHERE SHOWN ON THE PLANS:

KEY NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS & MOIST SITES

BOTANICAL NAME	COMMON NAME
AGROSTIS SCABRA	ROUGH BENTGRASS/TICKLEGRASS
ANDROPOGON GERARDIII	BIG BLUESTEM
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER
CAREX VULPINOIDEA	FOX SEDGE
ELYMUS VIRGINICUS	VIRGINIA WILD RYE
EUPATORIUM PERFOOLIATUM	BONESET
EUTHAMIA GRAMINIFOLIA	GRASS LEAVED GOLDENROD
FESTUCA RUBRA	CREEPING RED FESCUE
JUNCUS EFFUSUS	SOFT RUSH
PANICUM VIRGATUM	SWITCH GRASS
SCHIZACHRYRIUM SCOPARIUM	LITTLE BLUESTEM
SCIRPUS ATROVIRENS	GREEN BULLRUSH
SCIRPUS CYPERINUS	WOOL GRASS
VERBENA HASTATA	BLUE VERVAIN

MIX SHALL BE APPLIED AT A RATE 35 LBS./ACRE AND IS AVAILABLE AT NEW ENGLAND WETLAND PLANTS, INC. 820 WEST STREET, AMHERST, MA 01002 (413) 548-8000

DRY EXTENDED DETENTION BASIN /STORM WATER MAINTENANCE NOTES:

- THE PROPOSED INFILTRATION BASIN PLANTINGS SHALL BE MAINTAINED IN ACCORDANCE WITH SECTION 7.21 DRY EXTENDED DETENTION BASIN OF THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL. ANNUAL MOWING OF THE BASIN SETBACK IS ONLY REQUIRED ALONG MAINTENANCE RIGHT-OF-WAY AND THE EMBANKMENT. THE REMAINING SETBACK CAN BE MANAGED AS RANGELAND (MOWING EVERY OTHER YEAR) OR FOREST.
- REFER TO ENGINEERING PLANS FOR ADDITIONAL INFORMATION REGARDING DRY EXTENDED DETENTION BASIN INSTALLATION AND MAINTENANCE.

BIORETENTION FACILITIES/RAIN GARDENS

BIORETENTION FACILITY PLANTING NOTES:

- THE BIORETENTION FACILITIES HAVE BEEN DESIGNED IN ACCORDANCE WITH APPENDIX B.9.3 OF THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL AND PLANTED WITH SPECIES APPROPRIATE FOR THE HYDROLOGIC ZONES PRESENT IN EACH FACILITY AS DESCRIBED IN APPENDIX B', 'B-4', TABLE B-1'.

TABLE B-1 HYDROLOGIC ZONES
ZONE 5 - FLOODPLAIN TERRACE
ZONE 6 - UPLAND SLOPES

- BIORETENTION BASINS (2, 3, 5) ARE TO HAVE A SOIL MIXTURE WHICH HAS 20% (BY VOLUME) OF WELL AGED (6-12 MONTHS), WELL-AERATED LEAF COMPOST (OR APPROVED EQUIVALENT) TO THE PLANTING SOIL MIXTURE.
- AFTER THE BIORETENTION FACILITY HAS BEEN CONSTRUCTED, AS DESCRIBED IN THE DETAIL ON THE ENGINEERING PLANS, THE SURFACE SHALL BE RAKED SMOOTH.
- ONE HALF INCH (1/2") OF COMPOSTED HARDWOOD MULCH SHALL BE MIXED INTO THE TOP 4" OF PLANTING SOIL. THE MULCH SHALL BE SHREDDED HARDWOOD MULCH THAT IS WELL AGED (STOCKPILED OR STORED FOR AT LEAST SIX (6) MONTHS, UNIFORM IN COLOR, AND FREE OF OTHER MATERIALS SUCH AS WEED SEED, SOIL, ROOTS, ETC. GRASS CLIPPINGS SHALL NOT BE USED.
- HYDROSEED SHALL BE APPLIED IN A BONDED 100% WOOD FIBER MATRIX.
- PRIOR TO HYDROSEEDING, THE CONTRACTOR SHALL VERIFY THE HYDROSEED MIX AND METHOD OF APPLICATION WITH THE LANDSCAPE ARCHITECT.
- AFTER THE HYDROSEED IS APPLIED, THE AREA SHALL BE WATERED TO MAINTAIN HEALTHY VIGOROUS GROWTH.
- IF THE HYDROSEED IS APPLIED DURING THE DORMANT WINTER MONTHS, THEN NORTH AMERICAN GREEN SC150 TO 30 COCONUT STRAN BLANKET (OR APPROVED EQUAL) SHALL BE STAPLED DOWN OVER THE BOTTOM OF THE BASIN AS REQUIRED TO PREVENT EROSION.

BIORETENTION FACILITY PLANTING MIX

ALL BIORETENTION FACILITIES SHALL BE SEEDED WITH THE FOLLOWING SEED MIX WHERE SHOWN ON THE PLANS:

KEY NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS & MOIST SITES

BOTANICAL NAME	COMMON NAME
AGROSTIS SCABRA	ROUGH BENTGRASS/TICKLEGRASS
ANDROPOGON GERARDIII	BIG BLUESTEM
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER
CAREX VULPINOIDEA	FOX SEDGE
ELYMUS VIRGINICUS	VIRGINIA WILD RYE
EUPATORIUM PERFOOLIATUM	BONESET
EUTHAMIA GRAMINIFOLIA	GRASS LEAVED GOLDENROD
FESTUCA RUBRA	CREEPING RED FESCUE
JUNCUS EFFUSUS	SOFT RUSH
PANICUM VIRGATUM	SWITCH GRASS
SCHIZACHRYRIUM SCOPARIUM	LITTLE BLUESTEM
SCIRPUS ATROVIRENS	GREEN BULLRUSH
SCIRPUS CYPERINUS	WOOL GRASS
VERBENA HASTATA	BLUE VERVAIN

MIX SHALL BE APPLIED AT A RATE 35 LBS./ACRE. LATE FALL AND WINTER FORMANT SEEDING REQUIRE AN INCREASE IN THE SEEDING RATE. SEED IS AVAILABLE AT NEW ENGLAND WETLAND PLANTS, INC. 820 WEST STREET, AMHERST, MA 01002 (413) 548-8000

BIORETENTION MAINTENANCE:

- THE BIORETENTION FACILITIES SHALL BE MAINTAINED IN ACCORDANCE WITH SECTION 5.5 BIORETENTION SYSTEMS OF THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL. IN ADDITION TO THE STANDARDS SET FORTH IN THE MANUAL, THE BIORETENTION FACILITIES SHALL ALSO BE MAINTAINED AS FOLLOWS:
 - VISUALLY INSPECT AND REPAIR EROSION MONTHLY
 - AFTER RAINSTORMS, INSPECT THE BIORETENTION FACILITY AND MAKE SURE THE DRAINAGE PATHS ARE CLEAR, AND THAT FONDING WATER DISSIPATES AFTER 48 HOURS. (WATER MAY FOND FOR LONGER TIMES DURING THE WINTER AND SPRING WHEN THE SOIL IS FROZEN).
 - MINIMIZE SEDIMENT FLOW INTO THE FACILITY.
 - REMOVE PET WASTE AND TRASH MONTHLY.
 - INSPECT OVERFLOW PIPES (IF ANY) ANNUALLY TO ENSURE THAT THESE ARE NOT CLOGGED WITH EXCESS ORGANIC DEBRIS.
 - PRUNING OR REPLACEMENT OF WOODY VEGETATION SHOULD OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED. SEPARATION OF HERBACEOUS VEGETATION ROOTSTOCK SHOULD OCCUR WHEN OVER CROWDING IS OBSERVED, OR APPROXIMATELY ONCE EVERY 3 YEARS. IF AT LEAST 50% VEGETATION COVERAGE IS NOT ESTABLISHED AFTER TWO YEARS, A REINFORCEMENT PLANTING SHOULD BE PERFORMED. THE MULCH LAYER SHOULD BE REPLENISHED (TO THE ORIGINAL DESIGN DEPTH) EVERY OTHER YEAR, AS DIRECTED BY INSPECTION REPORTS. THE PREVIOUS MULCH LAYER SHOULD BE REMOVED, AND PROPERLY DISPOSED OF.
- REFER TO ENGINEERING PLANS FOR ADDITIONAL INFORMATION REGARDING BIORETENTION FACILITY INSTALLATION AND MAINTENANCE.



NEW ENGLAND CONSERVATION / WILDLIFE MIX

AREAS NOTED ON THE PLAN SHALL BE PLANTED WITH THE FOLLOWING SEED MIX:

BOTANICAL NAME	COMMON NAME
ANDROPOGON GERARDIII	BIG BLUESTEM
ASCLEPIAS SYRIACA	COMMON MILKWEED
ASTER UMBELLATUS	FLAT TOPPED / UMBRELLA ASTER
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
ELYMUS VIRGINICUS	VIRGINIA WILD RYE
EUPATORIUM PURPUREUM	PURPLE JOE PYE WEED
EUTHAMIA GRAMINIFOLIA	GRASS LEAVED
GOLDENROD FESCUGA RUBRA	CREEPING RED FESCUE
HELIOPSIS HELIANTHOIDES	OX EYE SUNFLOWER
PANICUM CLANDESTINUM	DEER TONGUE
PANICUM VIRGATUM	SWITCH GRASS
SCHIZACHRYRIUM SCOPARIUM	LITTLE BLUESTEM
SOLIDAGO JUNCEA	EARLY GOLDENROD
SORGHASTRUM NUTANS	INDIAN GRASS
VERBENA HASTATA	BLUE VERVAIN
ZIZIA AUREA	GOLDEN ALEXANDERS

MIX SHALL BE APPLIED AT A RATE 25 LBS./ACRE AND IS AVAILABLE AT NEW ENGLAND WETLAND PLANTS, INC. 820 WEST STREET, AMHERST, MA 01002 (413) 548-8000 (OR APPROVED EQUAL)

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

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Planting Notes

Harbor View

Assessor's Plat 119, Lots 11, 28, & 51
North Kingstown, Rhode Island

DiPrete Engineering

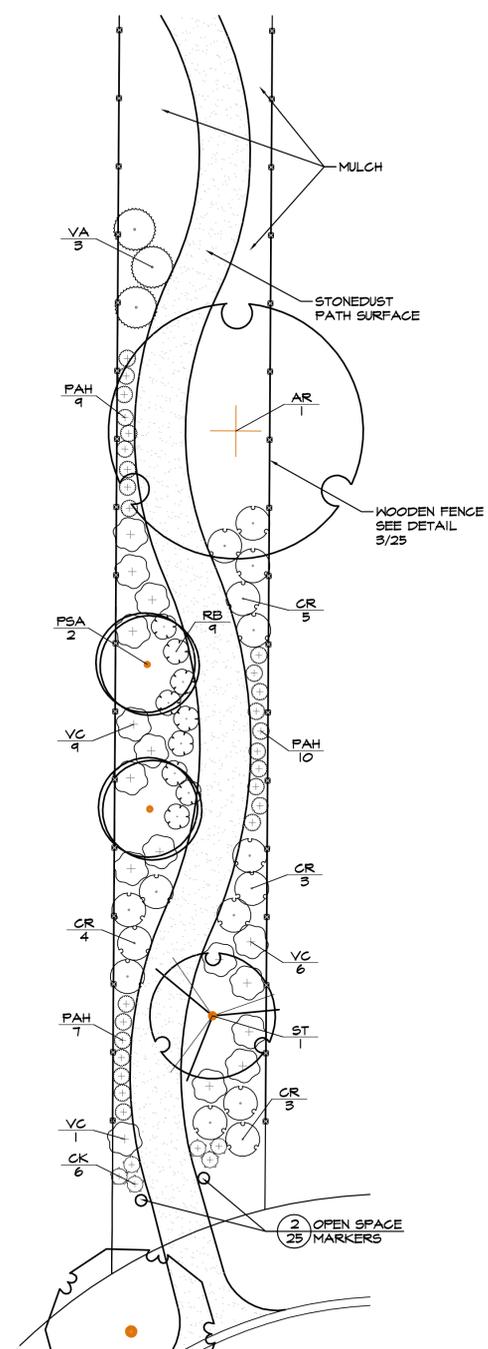
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.DiPrete-Eng.com

Applicant:
Wickford Harbor Estates, LLC
117 Camden Road
Narragansett, RI 02880

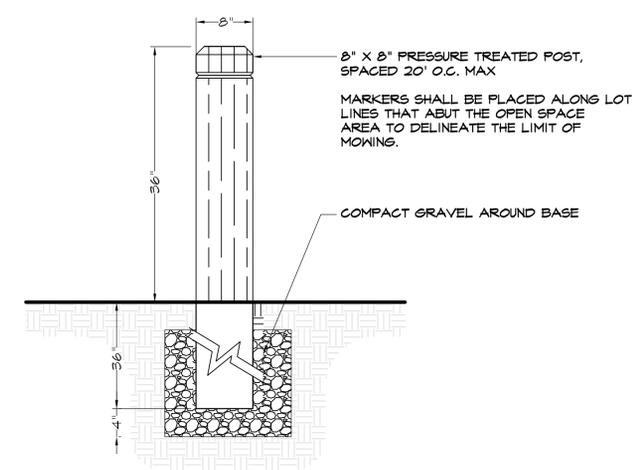
No.	Date	Description	By:
1	11-30-12	Preliminary Submission	L.M.W.
0	8-17-12	Preliminary Submission	L.M.W.

24

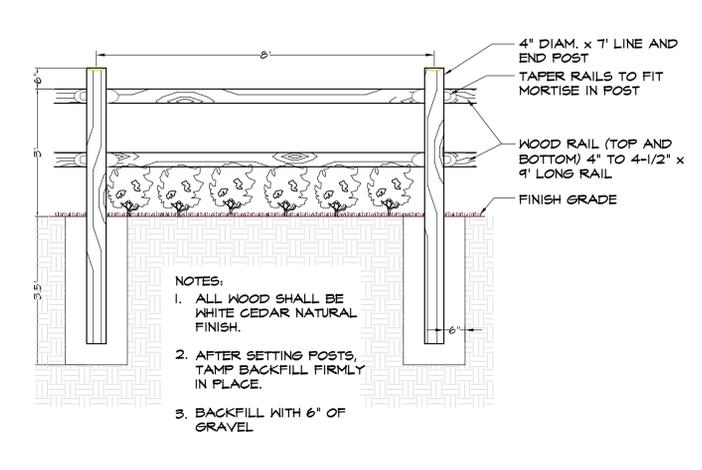
OF 25



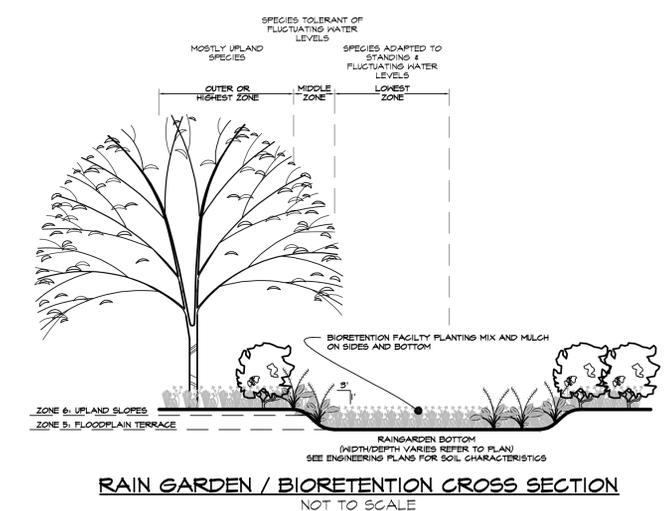
1 OPEN SPACE ACCESS PATH
Scale 1"=10'-0"



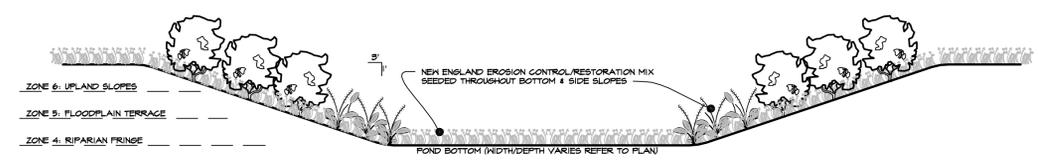
2 OPEN SPACE MARKER
Scale 1"=1'



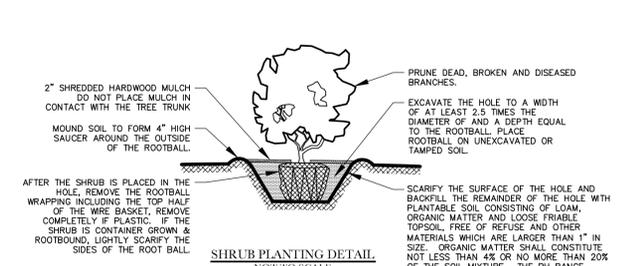
3 SPLIT RAIL FENCE
Scale 1/2"=1'



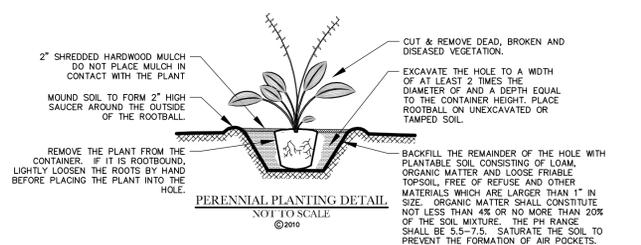
RAIN GARDEN / BIORETENTION CROSS SECTION
NOT TO SCALE



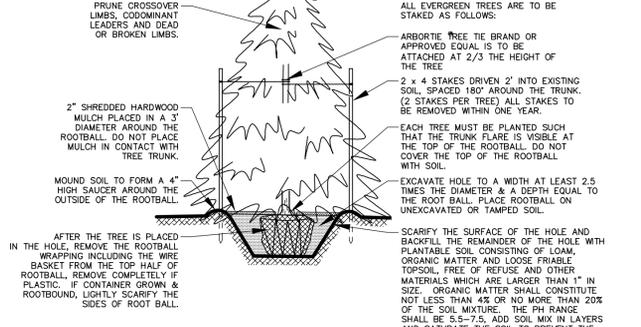
DRY EXTENDED DETENTION FACILITY / STORMWATER BASIN
TYPICAL CROSS SECTION
NOT TO SCALE



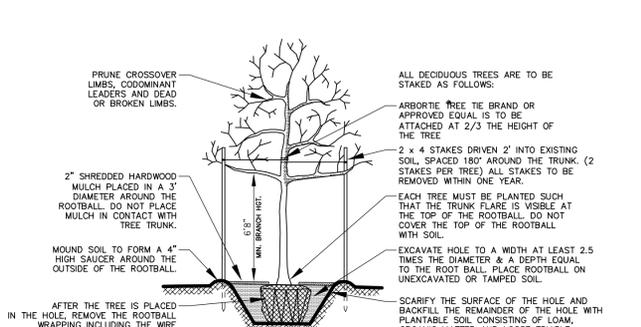
SHRUB PLANTING DETAIL
NOT TO SCALE
©2010



PERENNIAL PLANTING DETAIL
NOT TO SCALE
©2010



EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE
©2010



TREE PLANTING DETAIL
NOT TO SCALE
©2010

PLANT SCHEDULE OPENSOURCE PATH						
TREES	QT	BOTANICAL NAME	COMMON NAME	SIZE	CONT./B#	NOTES
AR	1	ACER RUBRUM 'OCTOBER GLORY'™	OCTOBER GLORY MAPLE	2.5-3" CAL.	B # B	MIN. BRANCHING HEIGHT 6'-8"
PSA	2	PRUNUS SUBHIRTELLA 'AUTUMNALIS'	AUTUMN FLOWERING CHERRY	2.5-3"	B # B	SIZE IN CALIPER
ST	1	STENHARTIA PSEUDOCAMELLIA	JAPANESE STENHARTIA	2.5-3"	B # B	SIZE IN CALIPER
SHRUBS						
SHRUBS	QT	BOTANICAL NAME	COMMON NAME	CONT./SPACIN		
CR	15	CORNUS SERICEA	RED TIGER DOGWOOD	18-24" @ 4' OC		
VC	16	VIBURNUM CARLESII 'COMPACTUM'	KOREAN SPICE VIBURNUM	18-24" @ 4' OC		
VA	5	VIBURNUM DENTATUM	VIBURNUM	30-36" @ 5' OC		

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SHEET 25 OF 25

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Engineers - Planners - Surveyors