

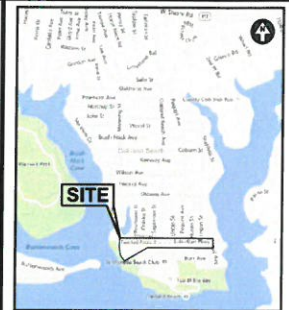
**Stormwater Management at Oakland Beach – Project Narrative  
Suburban Parkway and Strand Avenue, Warwick, RI**

This stormwater management project consists of constructing a bioretention area within the roadway median along Suburban Parkway and Strand Avenue. The project involves the installation of a series of bioretention basins and vegetated swales within the medians of these two roadways. The total project would be approximately 2,000 feet long. Suburban Parkway and Strand Avenue currently have closed drainage systems that are regularly overburdened during even moderate storm events. This project will increase the capacity of the stormwater system, increase infiltration, and improve water quality.

See attached project plans entitled, "Site Plans for Stormwater Management at Oakland Beach, Suburban Parkway and Strand Avenue, Warwick, Rhode Island," February 2016, prepared by Crossman Engineering.

# SITE PLANS FOR STORMWATER MANAGEMENT AT OAKLAND BEACH

## SUBURBAN PARKWAY AND STRAND AVENUE WARWICK, RHODE ISLAND



**LOCATION MAP**  
NOT TO SCALE

### INDEX OF DRAWINGS

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DL.2	LANDSCAPE PLAN NO. 2
C6	MISCELLANEOUS DETAIL PLAN NO. 1
C7	MISCELLANEOUS DETAIL PLAN NO. 2

**OWNER/APPLICANT**

City of Warwick  
3275 Post Road  
Warwick, Rhode Island 02886

**ENGINEERS and LAND SURVEYORS**



- Civil
- Transportation
- Environmental
- Site Planning
- Surveying
- Permitting
- Landscape Architecture

**CROSSMAN ENGINEERING**

<p><small>Rhode Island</small> 151 Cantonville Road Warwick, RI 02886 Phone: (401) 738-6660</p>	<p><small>Massachusetts</small> 103 Commonwealth Avenue North Attleboro, MA 02763 Phone: (508) 695-1700</p>
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Email: [cae@crossmaneng.com](mailto:cae@crossmaneng.com)

FEBRUARY 2016  
SHEET 1 of 11

**REVISIONS:**

No.:	DATE:	DESCRIPTION:

2002-CDD-COVER.dwg

**GENERAL NOTES**

- FOR ALL EXCAVATION, PLACEMENT OF FILL, PIPE INSTALLATION, BITUMINOUS PAVEMENT, CUTTING AND PATCHING, CONCRETE AND MAINTENANCE, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2013 EDITION, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. THE METHOD OF MEASUREMENT AND BASIS OF PAYMENT WITHIN THE R.I.S.D.T. SPECIFICATIONS ARE NOT APPLICABLE. THESE SPECIFICATIONS CAN BE OBTAINED ON-LINE AT: [www.dot.state.rhodeisland.gov](http://www.dot.state.rhodeisland.gov)
- FOR ALL EXCAVATION AND PLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE R.I. STANDARD SPECIFICATION SECTION 202.
- RHODE ISLAND STANDARDS REFERENCED ARE ACCORDING TO THE STATE OF RHODE ISLAND AND PROVISIONS. PLANS AND SPECIFICATIONS DATED MAY 20, 2014, WITH ALL REVISIONS AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
- WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
- CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.
- IF IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT PRIOR TO THE START OF WORK, SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS, RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, THE CONTRACTOR'S RESPONSIBILITY TO ACCEPT THE PROJECT ENGINEER'S RECORDS IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.
- ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN.

**LAYOUT NOTE**

THE LAYOUT SHOWN REPRESENTS A CONCEPT DESIGN AND PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE STATE OF RHODE ISLAND TO SET AND VERIFY ALL LINES AND CORNERS. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO MATCH THE PLANS UNLESS OTHERWISE SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.

**EXISTING UTILITY NOTES**

- THE PLANS DO NOT SHOW ALL UNDERGROUND UTILITY SYSTEMS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITY SYSTEMS, BOTH UNDERGROUND AND OVERGROUND, PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
- ALL UTILITIES INTERFERED WITH OR DAMAGED BY THE CONTRACTOR SHALL BE IMMEDIATELY AND PROPERLY RESTORED BY THE CONTRACTOR. THE CONTRACTOR SHALL FULLY COMPENSATE ALL ADJACENT MATERIAL, AROUND AND UNDER ALL EXISTING UTILITIES ENCOUNTERED OR DAMAGED.

**MAINTENANCE AND PROTECTION OF TRAFFIC NOTES**

- DURING CONSTRUCTION, VEHICLE ACCESS SHALL BE MAINTAINED ON BOTH SIDES OF SUBURBAN PARKWAY AND STRAND AVENUE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICLE TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY CONSTRUCTION SIGNS, CONES, AND/OR BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST EDITIONS OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.
- THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS WILL NOT BE PERMITTED IN ANY ROADWAY RIGHT-OF-WAY AREA THAT IS TO BE USED FOR VEHICLE ACCESS ALONG SUBURBAN PARKWAY AND STRAND AVENUE.
- ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL DEVICES, SIGNS, CHANNELING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION, INCLUDING REVISIONS 2, MAY 2012, AND SUBSEQUENT ADDENDA.
- CON SIGNMENTS SHALL BE IN ACCORDANCE WITH THE STATE O.D.T. SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

**FLOOD ZONE NOTE**

THE SITE IS LOCATED IN ZONE AE SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD WITH BASE FLOOD ELEVATION +11.4 AS SHOWN ON THE FLOOD INSURANCE RATE MAP, HENT COUNTY, RHODE ISLAND (ALL JURISDICTIONS), PANEL 142 OF 251, MAP NUMBER M40000000A, MAP REVISION SEPTEMBER 18, 2013.

**STORMWATER SYSTEM (WITHIN PROJECT LIMITS) - MAINTENANCE OPERATION**

LOW-IMPACT DEVELOPMENT (LID) OPERATIONAL AND MAINTENANCE PROCEDURES ARE RECOMMENDED AND ARE PROVIDED IN A SEPARATE DOCUMENT. THE BELOW LIST IS A SUMMARY OF THE OPERATIONAL AND MAINTENANCE PROCEDURES.

- CATCHBASINS AND MANHOLES:**  
CATCHBASIN AND MANHOLE INSPECTION SHALL OCCUR ON AN ANNUAL BASIS. THE INSPECTION SHOULD, AS A MINIMUM, CONCENTRATE ON THE FOLLOWING:  
DAMAGE TO GRATE/COVER  
EVIDENCE OF STANDING WATER  
DEBRIS REMOVAL  
STRUCTURAL ALIGNMENT/INTEGRITY
- SEDIMENT REMOVAL:**  
FOLLOWING CONSTRUCTION, SEDIMENT REMOVAL SHALL BE CONDUCTED AS DEEMED NECESSARY BY THE SYSTEM INSPECTORS. ALL REMOVED SEDIMENT IS TO BE STORED TO SETTLE AND POLLUTANT CONTENT THE SEDIMENT IS TO BE PROPERLY DISPOSED IN UPLAND AREAS BASED UPON THE TEST RESULTS AND LOCAL, STATE, AND FEDERAL REGULATIONS.
- BORNETON FILTERS:**  
THE BORNETON FILTERS SHALL BE INSPECTED ANNUALLY AND AFTER STORMS EQUAL TO OR GREATER THAN THE 1-YEAR, 24 HOUR TYPE II STORM EVENT (2.7 INCHES). INSPECT THE INLET PIPES AND OUTLET PIPES FOR CLOGGING. REMOVE ACCUMULATED SEDIMENT, TRASH AND OTHER DEBRIS FROM THE INLET AND OUTLET PIPES. THE BORNETON FILTERS SHALL BE MAINTAINED AS FOLLOWS:  
SEGMENT BUILD-UP WITHIN THE BOTTOM OF THE BASIN SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 1/4" LOW WATER MARK WHEN IT REACHES A HEIGHT OF 1/4" (MAXIMUM). IF SURFACE PONDING OCCURS FOR AN EXTENDED PERIOD (THE DRAINAGE TIME EXCEEDS 48 HOURS), THE TOP 1/2" OF PONDING DEBRIS SHALL BE REMOVED AND REPLACED WITH FRESH MATERIAL. ANY OIL OR GREASE FOUND AT THE TIME OF THE INSPECTION SHOULD BE CLEANED WITH OIL ADSORPTION PADS AND DISPOSED OF IN AN APPROVED LOCATION. MUDS/LAYERS SHALL BE REPLENISHED TO ORIGINAL DESIGN DEPTH EVERY OTHER YEAR.  
THE STONE WEIRWAYS SHALL BE INSPECTED ANNUALLY AND AFTER STORMS EQUAL TO OR GREATER THAN THE 1-YEAR, 24 HOUR TYPE II STORM EVENT (2.7 INCHES). REMOVE ACCUMULATED SEDIMENT MANUALLY AND RESTORE WITH CLEAN STONE WEIR REQUIRED.

**PLAN NOTE**

THE PURPOSE OF THE PROPOSED IMPROVEMENTS IS TO PROVIDE STORMWATER MITIGATION AND WATER QUALITY IMPROVEMENTS TO REDUCE POLLUTANTS DISCHARGING INTO GREENWICH BAY. STORMWATER IMPROVEMENTS INCLUDE CAPTURING AND TREATING RUNOFF FLOWING TO SUBURBAN PARKWAY AND STRAND AVENUE. MITIGATION MEASURES ARE PROPOSED WITHIN THE LANDSCAPED ISLANDS TO PROVIDE WATER QUALITY TREATMENT, GROUNDBEETLE RECHARGE, AND PEAK FLOW REDUCTION. THE PROPOSED DESIGN WILL ALSO RESULT IN A DECREASE IN IMPERVIOUS AREA. THE PROPOSED BMP MEASURES ARE LISTED BELOW.

- PERMEABLE CRUSHED STONE WEIRWAYS
- WATER QUALITY TREATMENT: BORNETON BASIN
- GROUNDBEETLE RECHARGE: BORNETON BASIN
- PEAK FLOW ATTENUATION: BORNETON BASIN

**SOIL EVALUATION DATA**

SOIL EVALUATIONS WERE CONDUCTED BY CROSSMAN ENGINEERING ON JULY 10, 2015

TEST PIT #	TEST PIT #	TEST PIT #	TEST PIT #	TEST PIT #
1' Dark Brown Silty Sand (Very Friable)	1' Dark Brown Silty Sand (Very Friable)	1' Dark Brown Silty Sand (Very Friable)	1' Dark Brown Silty Sand (Very Friable)	1' Dark Brown Silty Sand (Very Friable)
2' Yellowish Brown Silty Sand (Very Friable)	2' Dark Brown Silty Sand (Very Friable)	2' Light Olive Brown Silty Sand (Loose)	2' Dark Brown Silty Sand (Very Friable)	2' Dark Brown Silty Sand (Very Friable)
3' Yellowish Brown Silty Sand (Very Friable)	3' Dark Brown Silty Sand (Very Friable)	3' Light Olive Brown Silty Sand (Loose)	3' Dark Brown Silty Sand (Very Friable)	3' Dark Brown Silty Sand (Very Friable)
4' Yellowish Brown Silty Sand (Very Friable)	4' Dark Brown Silty Sand (Very Friable)	4' Light Olive Brown Silty Sand (Loose)	4' Dark Brown Silty Sand (Very Friable)	4' Dark Brown Silty Sand (Very Friable)
5' Yellowish Brown Silty Sand (Very Friable)	5' Dark Brown Silty Sand (Very Friable)	5' Light Olive Brown Silty Sand (Loose)	5' Dark Brown Silty Sand (Very Friable)	5' Dark Brown Silty Sand (Very Friable)
6' Yellowish Brown Silty Sand (Very Friable)	6' Dark Brown Silty Sand (Very Friable)	6' Light Olive Brown Silty Sand (Loose)	6' Dark Brown Silty Sand (Very Friable)	6' Dark Brown Silty Sand (Very Friable)
7' Yellowish Brown Silty Sand (Very Friable)	7' Dark Brown Silty Sand (Very Friable)	7' Light Olive Brown Silty Sand (Loose)	7' Dark Brown Silty Sand (Very Friable)	7' Dark Brown Silty Sand (Very Friable)
8' Yellowish Brown Silty Sand (Very Friable)	8' Dark Brown Silty Sand (Very Friable)	8' Light Olive Brown Silty Sand (Loose)	8' Dark Brown Silty Sand (Very Friable)	8' Dark Brown Silty Sand (Very Friable)
9' Yellowish Brown Silty Sand (Very Friable)	9' Dark Brown Silty Sand (Very Friable)	9' Light Olive Brown Silty Sand (Loose)	9' Dark Brown Silty Sand (Very Friable)	9' Dark Brown Silty Sand (Very Friable)
10' Yellowish Brown Silty Sand (Very Friable)	10' Dark Brown Silty Sand (Very Friable)	10' Light Olive Brown Silty Sand (Loose)	10' Dark Brown Silty Sand (Very Friable)	10' Dark Brown Silty Sand (Very Friable)

NO LIMITING LAYER DETECTED  
NO ROOT FEATURES

**LEGEND**

- CONCRETE CURB
- CONTOUR LINE
- SPOT GRADE
- DRAINAGE MANHOLE
- CATCH BASIN
- COVER INLET
- SEWER MANHOLE
- UTILITY POLE
- GUY ANCHOR
- WATER METER
- WATER GATE
- GAS VALVE
- DRAIN LINE
- SEWER LINE
- WATER LINE
- GAS LINE
- TREE
- SOIL
- MUD/SILT
- DEPT PIT
- SHRUBS
- GROUND CONTROL
- GRADE TO DRAIN

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**CROSSMAN ENGINEERING**  
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**PROJECT TITLE**  
STORMWATER MANAGEMENT AT OAKLAND BEACH

SUBURBAN PARKWAY AND STRAND AVENUE  
WARWICK, RHODE ISLAND

**DRAWING TITLE**  
GENERAL NOTES AND LEGEND

**DATE** FEBRUARY 2016 **SCALE** NO SCALE

**REV. NO.** 01 **DATE** 2/04/16 **BY** MJC

**REVISIONS**

NO.	DATE	DESCRIPTION
1	2/04/16	ISSUED FOR PERMIT

**DRAWING NUMBER**  
**C1**

HEET: 2 of 11



**CROSSMAN ENGINEERING**  
 115 Commercial Road  
 Warwick, RI 02890  
 Phone: (401) 734-4800  
 Email: info@crossmaneng.com

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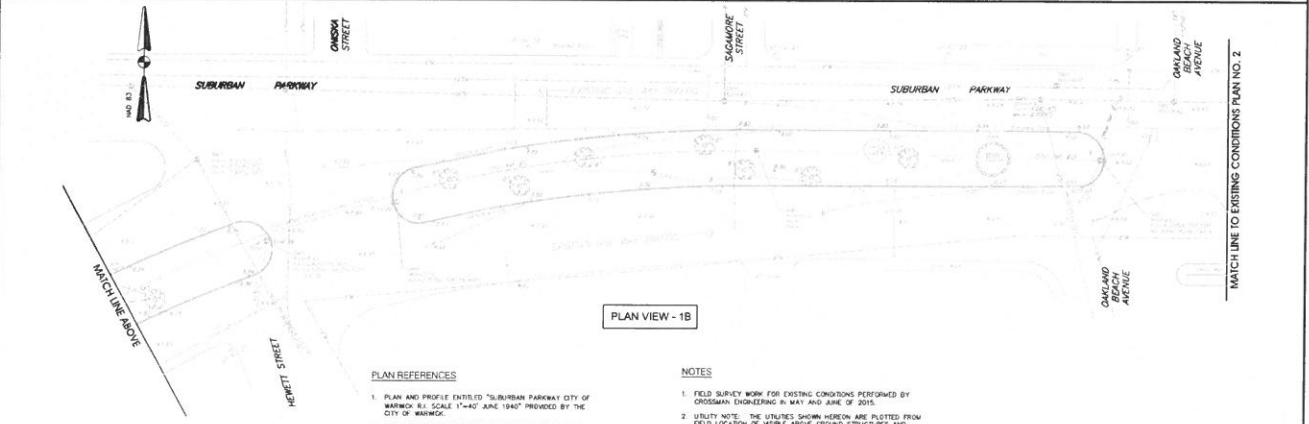
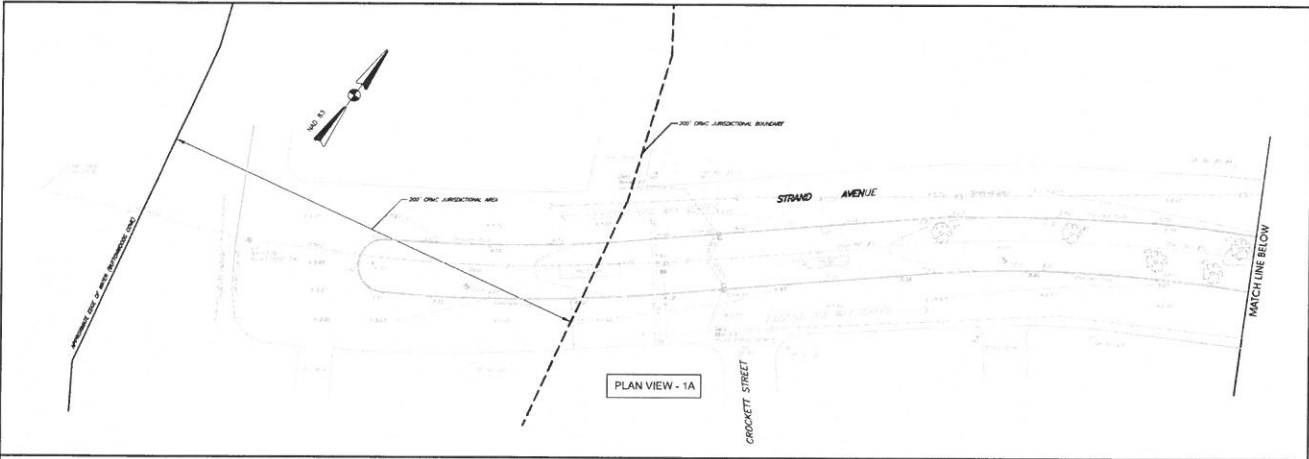
**PROJECT TITLE:**  
 STORMWATER  
 MANAGEMENT AT  
 OAKLAND BEACH  
 SUBURBAN PARKWAY  
 AND STRAND AVENUE  
 WARWICK, RHODE ISLAND

**PREPARED FOR:**  
 CITY OF WARWICK  
 3275 POST ROAD  
 WARWICK, RHODE ISLAND

**DRAWING TITLE:**  
 AERIAL MAP

<b>DATE:</b>	FEBRUARY 2018	<b>SCALE:</b>	1" = 100'																																													
<b>FILE NAME:</b>	2008-C02-NOMA.dwg																																															
<b>REVISIONS:</b>	<table border="1"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>			NO.	REVISION	DATE																																										
NO.	REVISION	DATE																																														

**DRAWING NUMBER:**  
**C2**  
 SHEET 3 OF 11



**PLAN REFERENCES**

1. PLAN AND PROFILE ENTITLED "SUBURBAN PARKWAY CITY OF WARWICK RI SCALE 1"=40' JAN 1940" PROVIDED BY THE CITY OF WARWICK.
2. GAS FACILITY MAPS PROVIDED BY NATIONAL GRID MAPS & RECORDS RHODE ISLAND DIVISION.
3. PLAN, PROFILE AND SECTIONS OF PROPOSED CITY HIGHWAY, OAKLAND BEACH AVENUE, F/A, PROJECT NO. F-40 (S) PROVIDED BY THE CITY OF WARWICK.
4. PLANS ENTITLED "CITY OF WARWICK RHODE ISLAND, WARWICK SEWER AUTHORITY SYSTEM OF SEWERS, CONTRACT NO. 29 & CONTRACT NO. 30 DATED 1976 AND PREPARED BY CE QUADRE, INC.
5. A PLAN ENTITLED "BOARD OF WATER COMMISSIONERS, WARWICK, RHODE ISLAND, SECTION 9A" SHEET 27 OF 39.

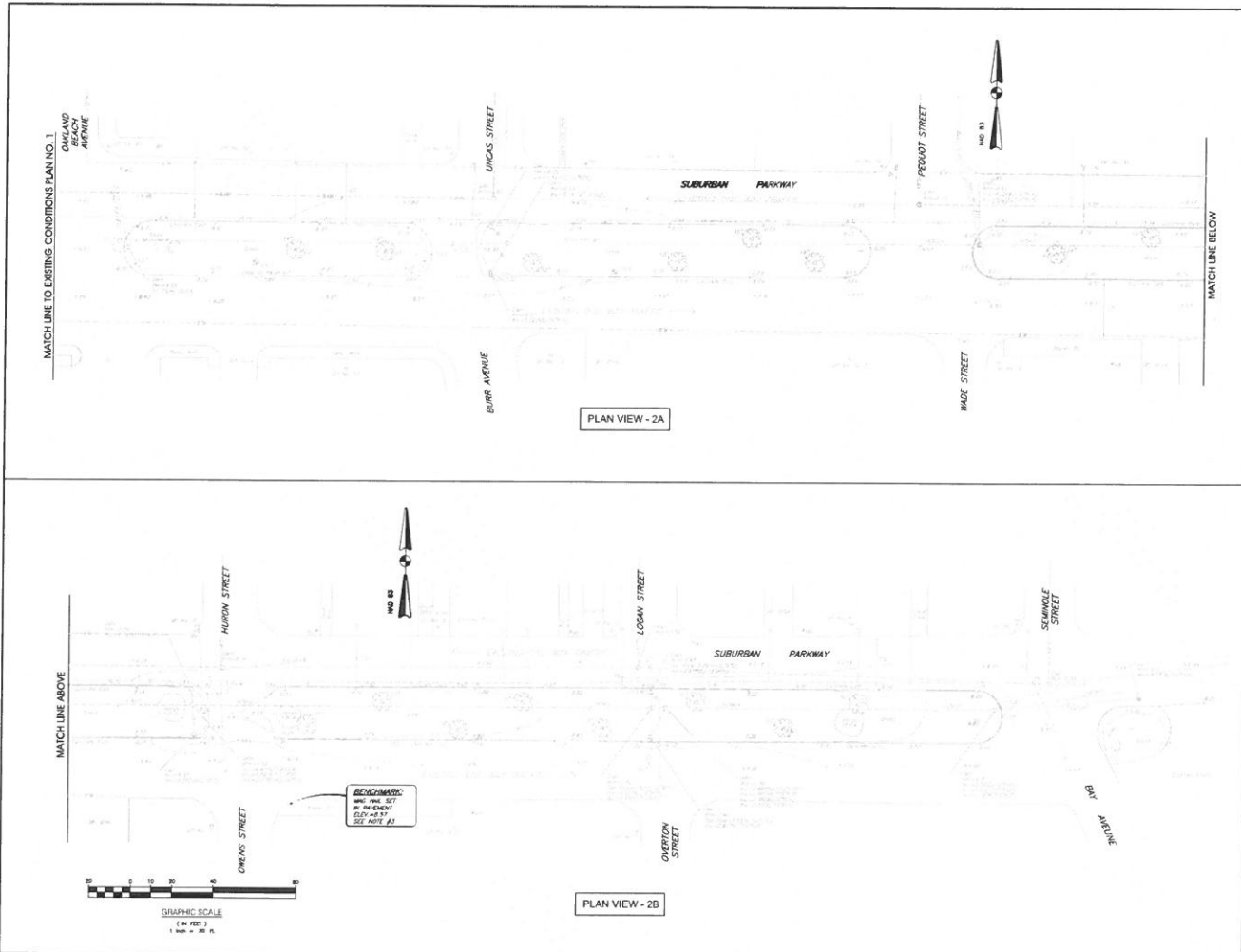
**NOTES**

1. FIELD SURVEY WORK FOR EXISTING CONDITIONS PERFORMED BY CROSSMAN ENGINEERING IN MAY AND JUNE OF 2015.
2. UTILITY NOTE: THE UTILITIES SHOWN HEREON ARE PLOTTED FROM FIELD LOCATION OF AVAILABLE ABOVE GROUND UTILITIES AND DRAINAGE INVERTS ALONG WITH PROVIDED RESEARCH. SEE PLAN RESPONSES ALL UNDERGROUND UTILITY INFORMATION SHOWN HEREON MUST BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THIS SITE. THE CONTRACTOR OR USER OF THIS PLAN SHOULD CONTACT DISUTEA PRIOR TO ANY WORK.
3. THE HORIZONTAL DATUM IS THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM (NAD83) AND THE VERTICAL DATUM IS NAVD 88 UTILIZING SP6 RTN NETWORK CONTROL.
4. THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS FOR ENGINEERING DESIGN BY CROSSMAN ENGINEERING.



 <p><b>CROSSMAN ENGINEERING</b></p>	
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<p>181 Commonwealth Avenue, West Warwick, RI 02891 Phone: (401) 934-1309</p>	
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<p><b>PROJECT TITLE</b> STORMWATER MANAGEMENT AT OAKLAND BEACH</p>	
<p>SUBURBAN PARKWAY AND STRAND AVENUE WARWICK RHODE ISLAND</p>	
<p><b>PREPARED FOR</b> CITY OF WARWICK 3275 POST ROAD WARWICK, RHODE ISLAND</p>	
<p><b>ENGINE TITLE</b> EXISTING CONDITIONS PLAN NO. 1</p>	
<p><b>DATE</b> FEBRUARY 2016</p>	<p><b>SCALE</b> 1" = 30'</p>
<p><b>ENGINE</b> 2062-CO3-BOLLEARD-DICU #49</p>	
<p><b>REVISIONS</b></p>	<p><b>DATE</b></p>
<p> </p>	<p> </p>
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<p> </p>	<p> </p>
<p><b>ENGINE NUMBER</b> <b>C3.1</b></p>	
<p> </p>	<p> </p>





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 AND WE ARE NOT PROVIDING ANY DESIGN OR  
 CONSTRUCTION SERVICES. WE ARE PROVIDING  
 ONLY THE SERVICES DESCRIBED ON THIS SHEET.

**PROJECT TITLE:**  
 STORMWATER  
 MANAGEMENT AT  
 OAKLAND BEACH

**PREPARED FOR:**  
 CITY OF WARWICK  
 3275 POST ROAD  
 WARWICK, RHODE ISLAND

**PROJECT FILE:**  
 EXISTING CONDITIONS  
 PLAN NO. 2

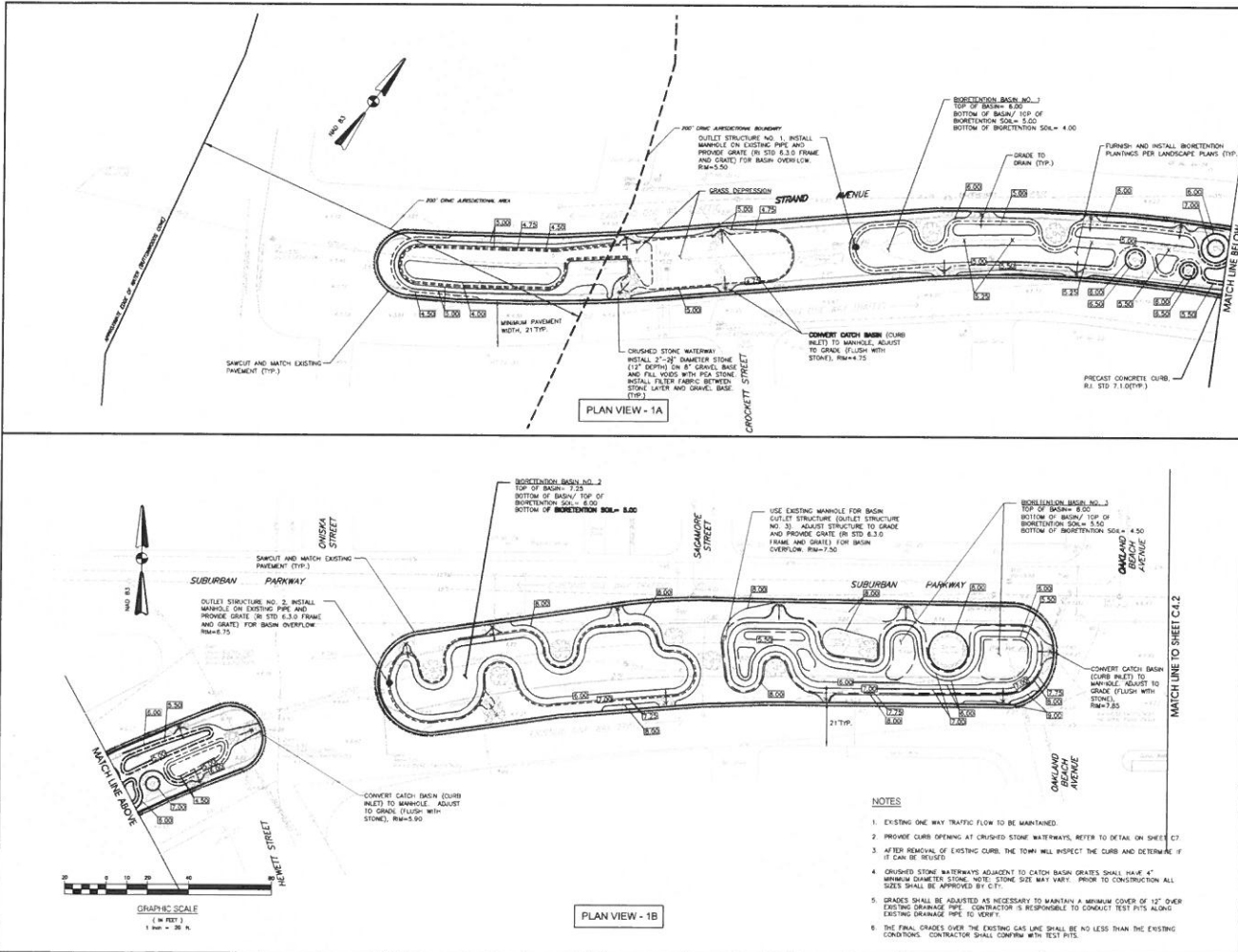
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**FILE NAME:** 2062-C03-BOULEVARD-CLOCK.dwg

**REVISIONS:**

NO.	REVISION	DATE

**PROJECT NUMBER:**  
**C3.2**



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Services:  
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**PROJECT TITLE:**  
 STORMWATER MANAGEMENT AT OAKLAND BEACH

SUBURBAN PARKWAY AND STRAND AVENUE WARWICK, RHODE ISLAND

**PREPARED FOR:**  
 CITY OF WARWICK  
 3275 POST ROAD  
 WARWICK, RHODE ISLAND

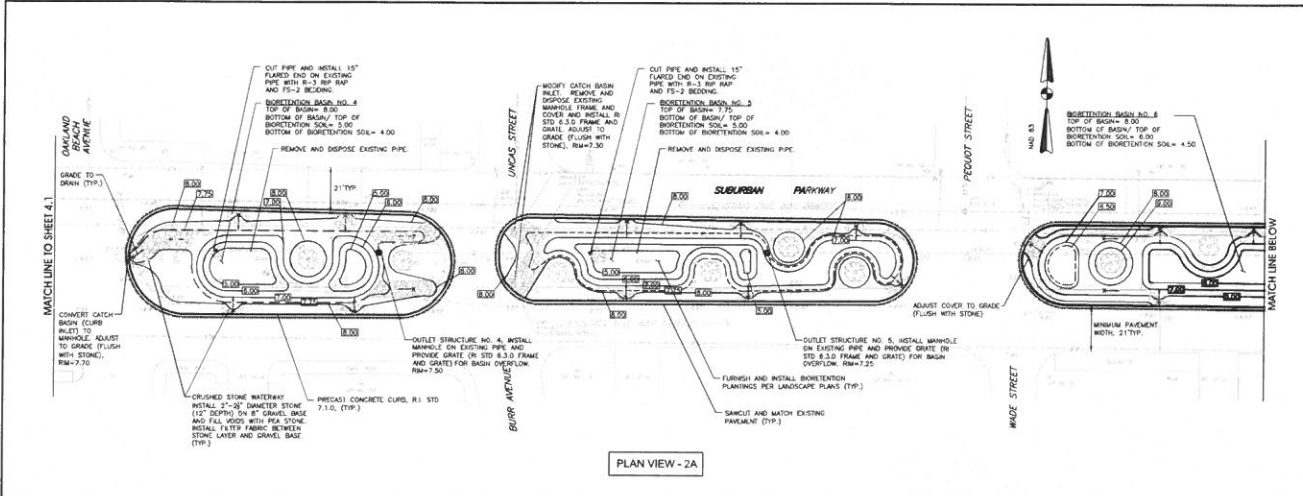
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 SITE PLAN NO. 1

**DATE:** FEBRUARY 2018 **SCALE:** 1" = 30'  
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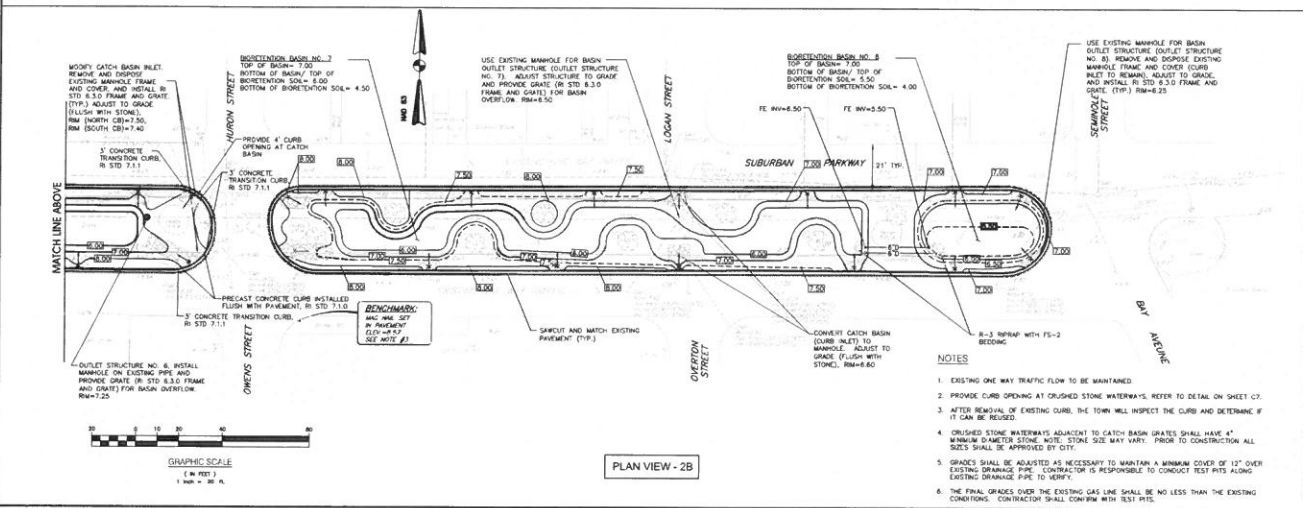
REVISION	DATE

**PROJECT NUMBER:**  
**C4.1**

**SHEET:** 6 OF 11



PLAN VIEW - 2A



PLAN VIEW - 2B

- NOTES**
- EXISTING ONE WAY TRAFFIC FLOW TO BE MAINTAINED.
  - PROVIDE CURB OPENING AT CRUSHED STONE WATERWAYS. REFER TO DETAIL ON SHEET C7.
  - AFTER REMOVAL OF EXISTING CURBS, THE TOWN WILL INSPECT THE CURBS AND DETERMINE IF IT CAN BE REUSED.
  - CRUSHED STONE WATERWAYS ADJACENT TO CATCH BASIN GRATES SHALL HAVE 4" MINIMUM DIAMETER STONE. NOTE: STONE SIZE MAY VARY. PRIOR TO CONSTRUCTION ALL SIZES SHALL BE APPROVED BY CITY.
  - GRADES SHALL BE ADJUSTED AS NECESSARY TO MAINTAIN A MINIMUM COVER OF 12" OVER EXISTING DRAINAGE PIPE. CONTRACTOR IS RESPONSIBLE TO CONDUCT TEST PITS ALONG EXISTING DRAINAGE PIPE TO VERIFY.
  - THE FINAL GRADES OVER THE EXISTING GAS LINE SHALL BE NO LESS THAN THE EXISTING CONDITIONS. CONTRACTOR SHALL CONFIRM WITH TEST PITS.

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**PROJECT TITLE:**  
STORMWATER MANAGEMENT AT OAKLAND BEACH

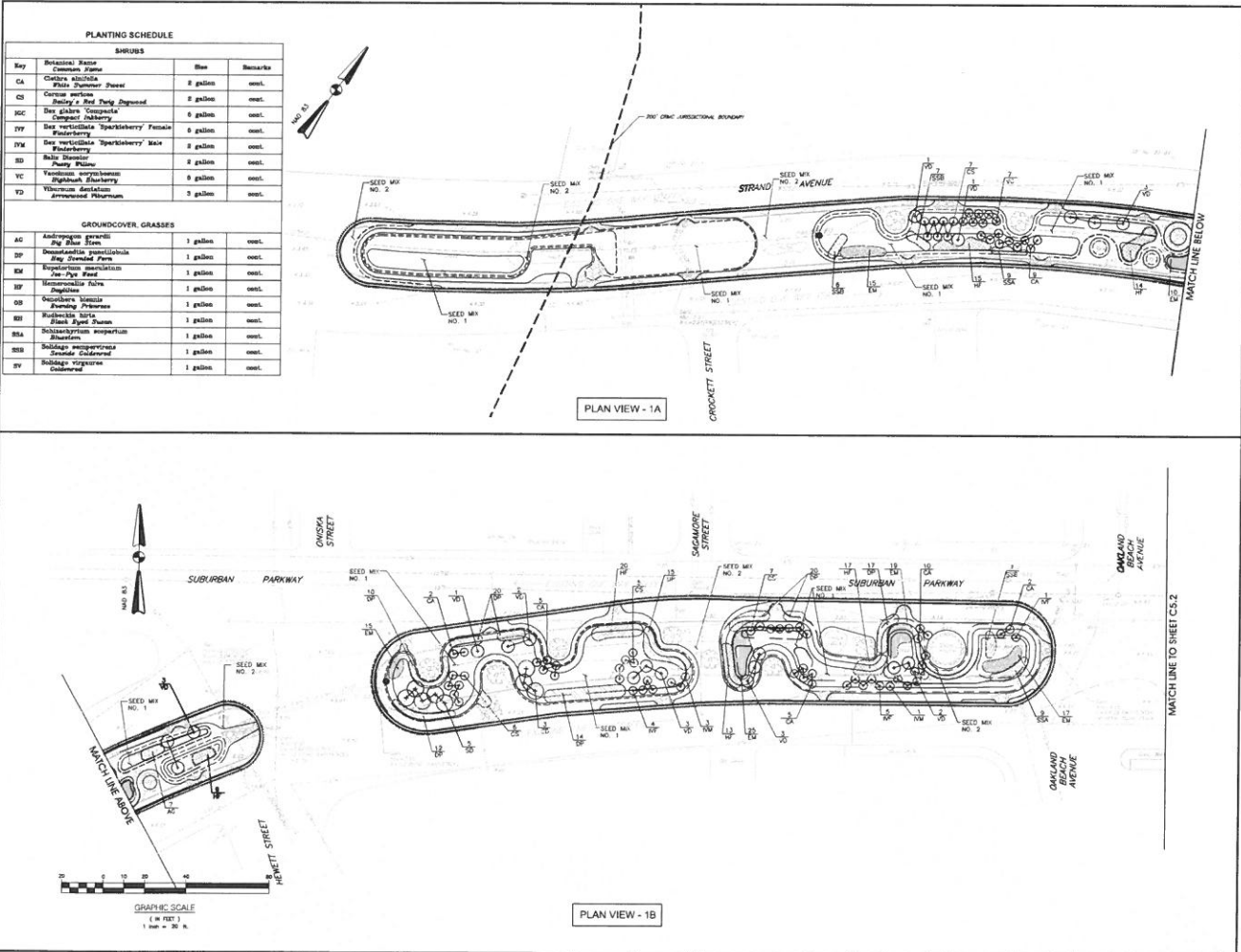
**PROJECT LOCATION:**  
SUBURBAN PARKWAY AND STRAND AVENUE WARWICK, RHODE ISLAND

**PROJECT NO.:**  
CITY OF WARWICK  
3275 POST ROAD  
WARWICK, RHODE ISLAND

**DATE:** FEBRUARY 2016  
**SCALE:** 1" = 30'  
**PROJECT NO.:** 2016-004-BOULEVARD-SITE.dwg

**PROJECT NUMBER:**  
**C4.2**  
SHEET 7 OF 11





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PROJECT FILE:  
**STORMWATER MANAGEMENT AT OAKLAND BEACH**

SUBURBAN PARKWAY AND STRAND AVENUE  
 WARWICK, RHODE ISLAND

APPROVED FOR:  
**CITY OF WARWICK**  
 3275 POST ROAD  
 WARWICK, RHODE ISLAND

DRAWING FILE:  
**LANDSCAPE PLAN NO. 1**

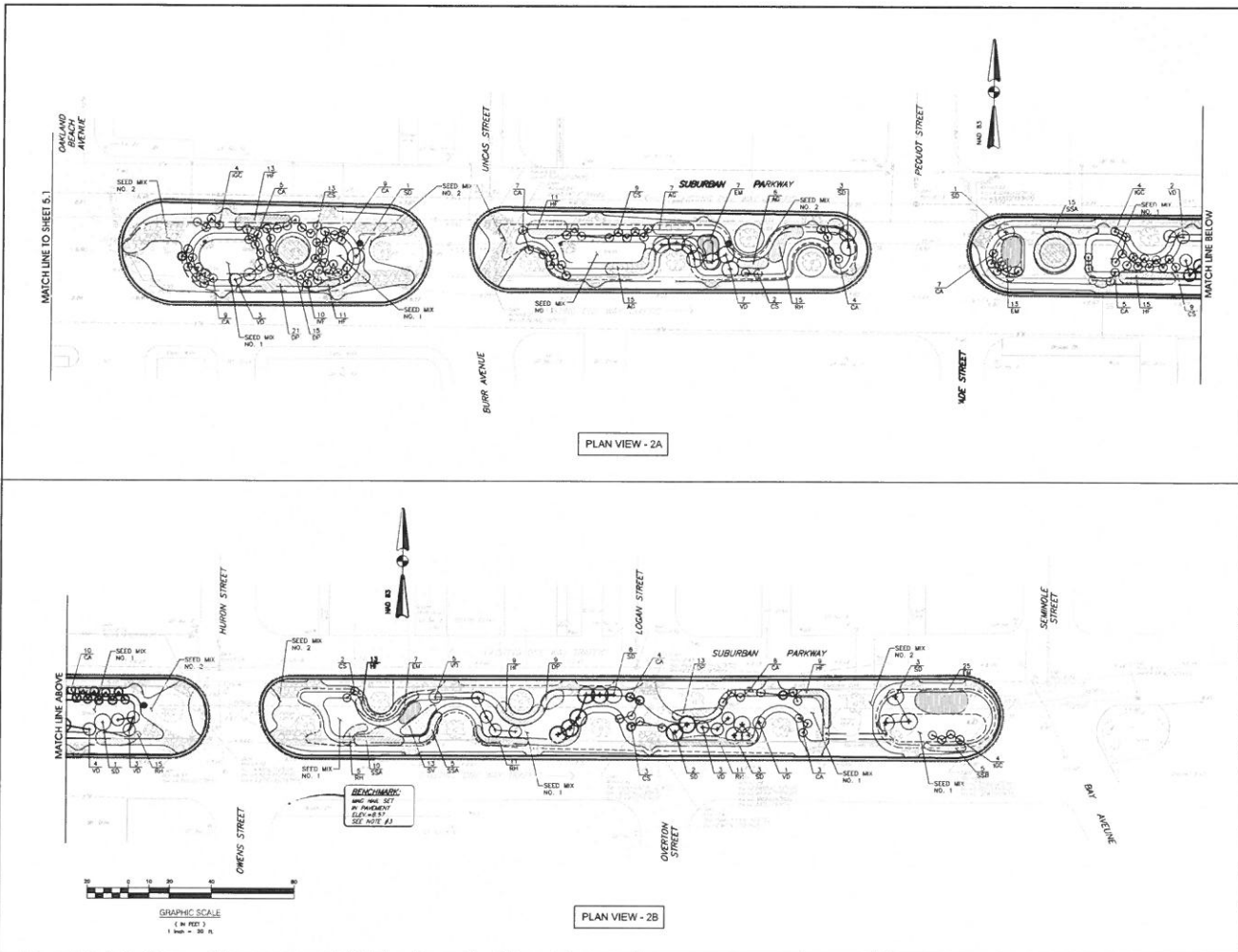
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 SHEET: 1" = 20'  
 2082-CIS-BOLLYARD-LAND-043

REVISIONS:

NO.	DATE	BY

PROJECT NUMBER:  
**C5.1**

DATE: 02/18/18



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• Civil  
• Transportation  
• Environmental  
• Site Planning  
• Landscaping  
• Surveying

**PROJECT TITLE:**  
STORMWATER MANAGEMENT AT OAKLAND BEACH

**PREPARED FOR:**  
CITY OF WARWICK  
3275 POST ROAD  
WARWICK, RHODE ISLAND

**DRAWING TITLE:**  
LANDSCAPE PLAN NO. 2

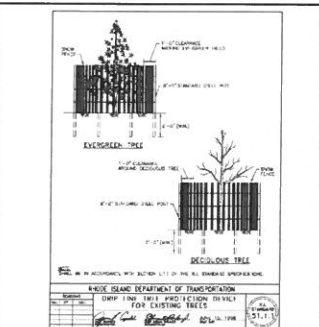
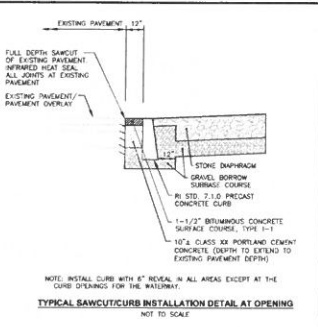
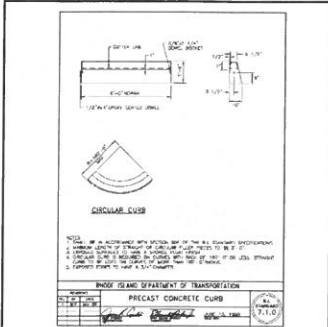
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**PROJECT NAME:** 2062-C09-BOULEVARD-LANDSCAPE

NO.	DATE	BY	CHECKED

**GRAPHIC NUMBER:**  
**C5.2**

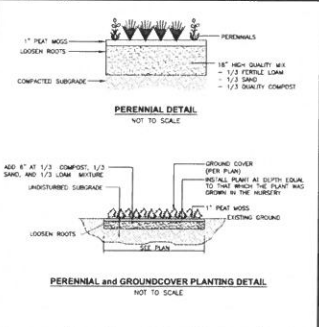
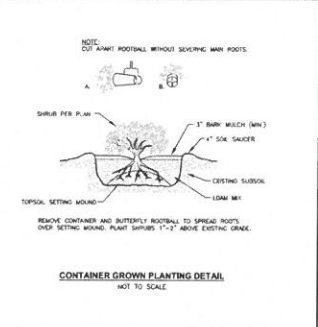
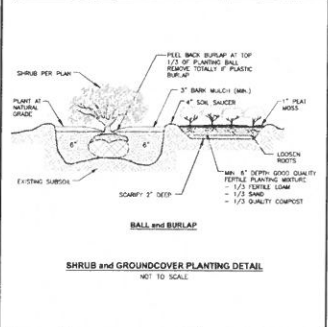
**SHEET:** 5 OF 11



**SEEDING NOTES**

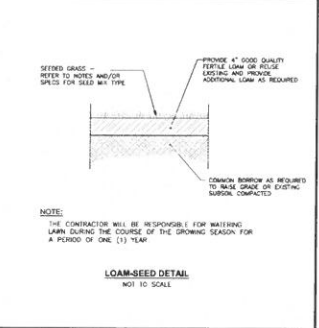
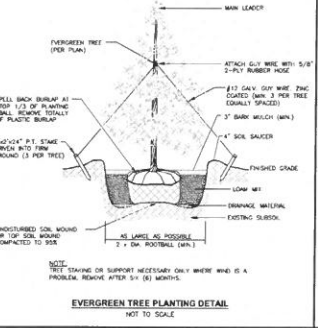
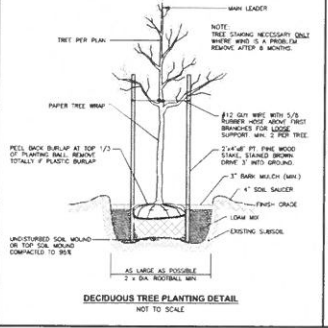
- LOAM SHALL BE SPREAD TO A MINIMUM DEPTH OF 4" OVER ALL AREAS DESIGNATED ON PLANS.
- SMOOTH AND SMOOTH THE SURFACE TO THE LINES AND GRADES AS SHOWN ON PLANS.
- FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS, AT LEAST 40# OF THE FERTILIZER PER 1000 SQ. FT. BE IN A SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 2 TO 4 INCHES OF THE PLANTING SOIL. APPLY AT THE RATE OF 8 POUNDS PER 1000 SQUARE FEET AT SETTING.
- LAWN: SPREAD SEEDS AND WORK INTO THE SOIL DURING PREPARATION OF SEED BED AT THE RATE OF ONE TON PER ACRE. INCORPORATE INTO THE SOIL BY DIGGING OR OTHER APPROVED METHOD. DISTRIBUTE EACH UNIFORM AND WORK INTO TOP 4 INCHES OF TOP SOIL (MINIMUM) AND UNIFORM BY DIGGING OR ROTOTILLING.
- APPLICATION OF SEED: A RATE OF APPLICATION OF SEED SHALL BE 8 POUNDS PER 1000 SQUARE FEET OR AS INDICATED ON PLANS.
- SEEDING SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS AND DURING THE FOLLOWING DATES:  
SPRING SEEDING: MARCH 15 TO MAY 31  
FALL SEEDING: AUGUST 15 TO OCTOBER 15
- THE CONTRACTOR SHALL KEEP ALL SEEDED AREAS WATERED AND IN GOOD CONDITION THROUGHOUT AND WHEN NECESSARY FOR AN 8 WEEK PERIOD OF UNITS. A GOOD, HEALTHY, UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA. THE CONTRACTOR SHALL ALSO MAINTAIN THESE AREAS IN AN APPROVED CONDITION UNTIL PROVISIONAL ACCEPTANCE.
- DURING THE PERIOD WATER SHALL BE NECESSARY TO MAINTAIN AN ADEQUATE SUPPLY OF MOISTURE WITHIN THE ROOT ZONE AN ADEQUATE SUPPLY OF MOISTURE IS ESSENTIAL TO THE PROPER GROWTH OF SEEDS. THE CONTRACTOR SHALL MAINTAIN THESE AREAS AS NEARLY NATURAL AS POSSIBLE AS INDICATED BY THE ARCHITECT.
- OVERSEED WHEN NECESSARY TO PROMOTE GRASS GROWTH.
- REPLANT AREAS VOID OF TURF ONE SQUARE FOOT OR LARGER.
- SEEDS: SEED ALL AREAS DESIGNATED ON PLAN AS WELL AS ALL DISTURBED EXISTING AREAS WITH THE FOLLOWING SEED MIX:

SEED MIX NO. 1		SEED MIX NO. 2	
COWHAGE BEACH (COWHAGE SEED MIX)		COWHAGE BEACH (COWHAGE SEED MIX)	
SIZE	% BY WEIGHT	SIZE	% BY WEIGHT
CRACKING RED FESCUE	16	PERENNIAL RYE	30
CANADA WHEATGRASS	12	TURF TYLE FESCUE	30
INDIAN WHEATGRASS	8	CHICKEN FESCUE	30
SMOOTH BROMEGRASS	7	KENTUCKY BLUEGRASS	10
SOFT WHEATGRASS	8	APPLICATION RATE = 250 lbs. / ACRE	
ORANGE DOG PASTURE	8		
BLUE MAZE PASTURE	8		
FAIRWAY BROMEGRASS	8		
FAIRWAY BROMEGRASS	8		
FAIRWAY BROMEGRASS	8		
FAIRWAY BROMEGRASS	8		
FAIRWAY BROMEGRASS	8		



**LANDSCAPE CONSTRUCTION NOTES**

- FURNISH AND INSTALL ALL PLANTS SHOWN ON THE DRAWINGS SPECIFIED HEREIN, AND IN THE QUANTITIES LISTED ON THE BILL OF MATERIALS. NO SUBSTITUTIONS WILL BE PERMITTED, UNLESS APPROVED BY THE ARCHITECT.
- LOAM TO BE SORECEDED, GOOD QUALITY, FERTILE, FREE OF WEEDS, STONES OVER 3/4" AND ROOTS. SPREAD TO A MINIMUM OF 4" OVER ALL PLANTED AREAS WITHIN EACH AREA PROVIDE 8" DEPTH UNLESS APPROVED OTHERWISE BY ARCHITECT.
- INFILTRATION AREA-PLANTING SOIL: LOAM SPECIFICATIONS AND PERCENTAGE OF ORGANIC CONTENT SHALL MEET ROOT SPECIFICATIONS.
- NURSERY STOCK SHALL MEET THE STANDARDS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION AS TO GROWING AND QUALITY.
- ONLY NURSERY-GROWN PLANTS, GROWN IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES, AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS, WILL BE ACCEPTED.
- SET PLANTS PLUMB AND AT A LEVEL THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. SETTLE BASKETS WATER FOR PLANTS, PRODUCE AND PROPERLY BY FIRING OR TAMING FORM SAVERS, CAPABLE OF HOLDING WATER. VERIFY INDIVIDUAL PLANTS BY PLACING INDEXES OF PLANTING SOIL MISSING LACK.
- STAKE ALL TREES OVER 3 FEET AS SHOWN ON PLANS. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
- BALANCE WATER AS PLANTS BEAR AFTER PLANTING IF CONDITIONS WINDY AND AT MANY TIMES THEREAFTER TO SUSTAIN HEALTHY CONDITIONS UNTIL LANDSCAPE INSTALLATION IS COMPLETED. SATURATE THE SOIL AROUND EACH PLANT THROUGHOUT AT EACH WATERING.
- CRIMINAL PRUNE PLANTS AS DIRECTED BY OWNER AT THE PROJECT SITE BEFORE OR IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE BEST HORTICULTURAL PRACTICE. CUT BRANCHES DEAD OR INJURED BRANCHES IMMEDIATELY ABOVE THE STEM COLLAR ON THE TRUNK OR LIMB FROM ALL BRUSH ROOTS ON THE PLANT SOIL OF THE BRANCH. PRUNE CUTS OVER 3/4" IN DIAMETER WITH TREE WOUND PRUNING SHALL BE SEAMLESS OR OTHERWISE, DESTROY THE TYPICAL SWAY OR SWAY OF THE PLANT, AND SHALL BE INCLUDED THE HEIGHT BY MORE THAN ONE INCH. SO, SET CUT BACK THE LEADER OF THE PLANT UNLESS DIRECTED BY THE ARCHITECT.
- FERTILIZING: FERTILIZE SHRUB BEDS WITH 10-4-4 FERTILIZER BROADCAST AT A RATE OF THREE POUNDS PER 100 SQUARE FEET OF SURFACE AREA BROADCAST. APPLY THE FERTILIZER IMMEDIATELY TO THE SURFACE BEDS AND WORK INTO THE LOWER 2 TO 4 INCHES OF SOIL. FERTILIZE INDIVIDUAL TREES AT A RATE OF ONE AGRIFORM PELLET PER ONE TON OF TURF. FERTILIZER (FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS) APPLY A SECOND APPLICATION OF FERTILIZER TO ALL PLANT STEMS AT THE SAME SPECIFIED RATES OVER THE MATCH AT THE END OF AN EIGHT WEEK PERIOD.
- LAWN: ADD ROUNDED LIME EVERY SIX MONTHS - OR SLOW RELEASE GRANULAR LIME-AS PER MANUFACTURER'S INSTRUCTION.
- MULCHING: WITHIN A 72 HOUR PERIOD AFTER PLANTING, COVER ALL PLANTED AREAS WITH 3" BARK MULCH. MULCH OR RED OR BROWN MULCH IS TO BE USED. MULCH SHOULD BE PULLED OFF, 4-6 INCHES FROM PLANT, FROM THE STEM, AND NOT ALLOWED TO REST DIRECTLY AGAINST THE TRUNK OR STEM.
- GUARANTEE: ALL PLANTS FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF PLANTING AND SHALL BE REPLANTED AND IN SATISFACTORY GROWTH AT THE END OF THE GUARANTEE PERIOD. ALL SEEDS OR OTHER PLANT MATERIAL SHALL BE REPLACED AT ONCE BY THE CONTRACTOR, FREE OF CHARGE.



**NOTE:** THE CONTRACTOR WILL BE RESPONSIBLE FOR WATERING LAWN DURING THE COURSE OF THE GROWING SEASON FOR A PERIOD OF ONE (1) YEAR.

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Landscaping  
• Civil  
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• Environmental  
• Site Planning  
• Surveying  
• Planning  
• Landscape Architecture

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**PROJECT TITLE**

**STORMWATER MANAGEMENT AT OAKLAND BEACH**

SUBURBAN PARKWAY AND STRAND AVENUE  
WARWICK, RHODE ISLAND

---

**PREPARED FOR**

**CITY OF WARWICK**

3275 POST ROAD  
WARWICK, RHODE ISLAND

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**PROJECT TITLE**

**MISCELLANEOUS DETAIL PLAN NO. 1**

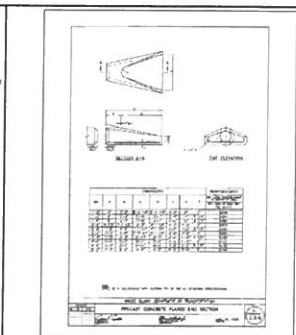
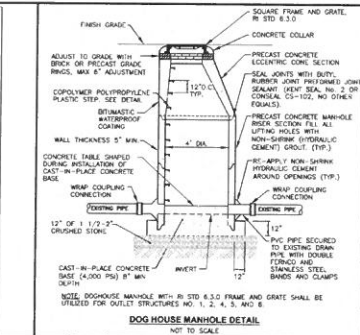
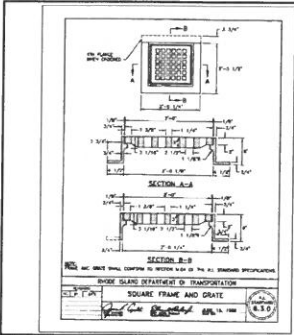
DATE	SCALE
FEBRUARY 2016	AS SHOWN

FILE NAME: 2016-004-DETAIL1.dwg

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**C6**

SCALE: 10' = 1"



**DUST CONTROL NOTES**

ON AN AS-NEEDED BASIS OR AS DIRECTED BY THE CITY OR OWNER, THE CONTRACTOR SHALL UTILIZE ONE OF THE FOLLOWING METHODS (AS RECOMMENDED BY THE "M" SOI EROSION AND SEDIMENT CONTROL HANDBOOK - ISSUED 1989, REVISED 2014) TO CONTROL DUST:

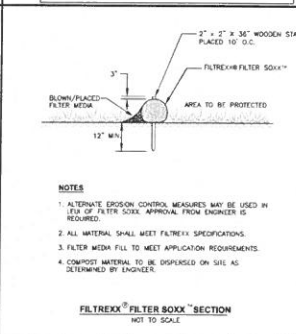
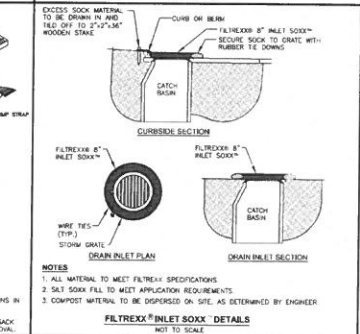
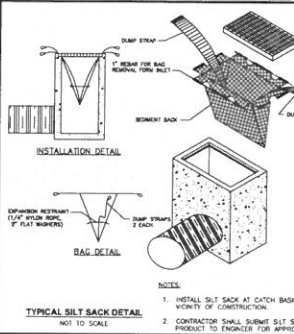
- THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

**INSPECTION/MAINTENANCE NOTES**

- PRIOR TO COMMENCING CONSTRUCTION OPERATIONS, INLET PROTECTION AND TREE PROTECTION DEVICES SHALL BE PLACED TO PROTECT EXISTING TREES AND TO PREVENT SEDIMENT FROM ENTERING THE EXISTING DRAINAGE SYSTEM. ALL TREES AND SHRUBS SHALL BE PROTECTED UNLESS AUTHORIZED OTHERWISE BY THE CITY.
- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT AN UNSOUNDABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM.
- ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXISTING SHALL RECEIVE SLOPE PROTECTION - SUCH AS RE-SEED.
- DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND PILOT FLOW DURING PERIODS OF RAINFALL.
- DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL, MAINTENANCE AND SHALL REPAIR / REPLACE SLOPE DRAINAGE CONSTRUCTION FOLLOWING RAINFALL AND WETLY DURING NON CONSTRUCTION PERIODS.
- ADDITIONAL PROTECTIVE MEASURES SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- THE "M" SOI EROSION AND SEDIMENT CONTROL HANDBOOK PREPARED BY THE BROWN ISLAND STATE CONSTRUCTION COMMITTEE, ISSUED 1989 (REVISED 2014), MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION INCLUDING TEMPORARY SHUT-DOWN PERIODS. MUST MONITOR AND REPORT AS NEEDED. ALL SLOPES TO BE CONSIDERED A SINGLE PRODUCT.

**GENERAL PROJECT WIDE NOTES**

- EROSION CONTROL SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION FROM ENTERING THE EXISTING DRAINAGE SYSTEM.
- THE CONTRACTOR MUST REPLACE ANY/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
- INLET PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED SLOPE COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
- TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHEREVER FEASIBLE. THE AREA BEHIND THE EXPOSED SHALL BE FENCED OR ROPED OFF TO PREVENT TREES FROM CONSTRUCTION EQUIPMENT.
- AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESEED, RESEED, OR OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.
- STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED FILTERSOX.
- STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF "M" STRAW, FIBER MATING OR APPROVED EQUAL.
- SILT SACK SHALL BE INSTALLED AT EXISTING AND PROPOSED CATCH BASINS (GRATE INLET) WITHIN THE VICINITY OF CONSTRUCTION. FILTERREX INLET SOCKS SHALL BE INSTALLED AT CURB INLETS.
- THE CONTRACTOR IS RESPONSIBLE TO WATER NEW PLANTS AS NECESSARY FOR GROWTH. THERE WILL BE ONE TEAM RESPONSIBLE ON ALL PLANTINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SURVIVAL OF ALL PLANTINGS FOR A PERIOD OF 1 YEAR AFTER INSTALLATION. ALL REPLACEMENT SHALL BE PROVIDED BY THE CONTRACTOR USING ONE YEAR OLD PLANTS. IF PLANTINGS DO NOT SURVIVE, LANSING IS DAMAGED OR SET WITHIN 1 YEAR OF CONSTRUCTION, THE CONTRACTOR SHALL REPLACE THE PLANTING IN-KIND AT NO ADDITIONAL COST TO THE CITY.



**NOTES**

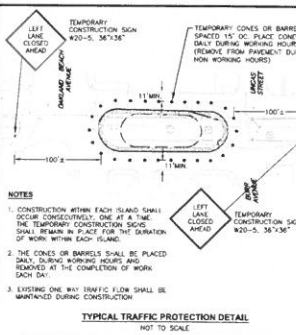
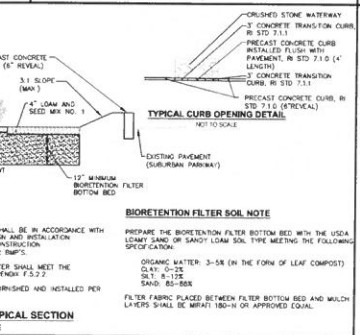
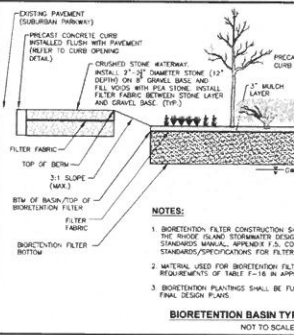
- ALTERNATE EROSION CONTROL MEASURES MAY BE USED IN LIEU OF FILTER SOCKS APPROVAL FROM ENGINEER IS REQUIRED.
- ALL MATERIAL SHALL MEET FILTERREX SPECIFICATIONS.
- FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
- CONTOUR MATERIAL TO BE DISPERSED ON SLOPE AS DETERMINED BY ENGINEER.

**CONSTRUCTION NOTES**

CONSTRUCTION OF ISLANDS WITHIN THE LANDSCAPED ISLANDS IN SUBURBAN PARKWAY AND STRAND AVENUE SHALL OCCUR CONSECUTIVELY, STARTING AT THE ISLAND AT THE EASTERN END OF SUBURBAN PARKWAY. ONCE CONSTRUCTION WITHIN ONE ISLAND IS COMPLETE, CONSTRUCTION CAN BEGIN WITHIN THE NEXT ISLAND. AT NO TIME SHALL CONSTRUCTION ACTIVITIES OCCUR WITHIN MORE THAN ONE ISLAND SIMULTANEOUSLY AT ANY GIVEN TIME. THE SEQUENCE OF CONSTRUCTION SHALL BE APPROVED BY THE CITY.

**SEQUENCE OF CONSTRUCTION**

- AS APPROVED BY THE CITY, INSTALL SILT SACKS AND FILTERREX INLET SOCKS AT EXISTING CATCH BASINS AND TREE PROTECTION DEVICES AT EXISTING INLETS IN THE VICINITY OF CONSTRUCTION SITE AREA.
- CONTRACTOR SHALL BEGON CONSTRUCTION AT THE ISLAND AT THE EASTERN END OF SUBURBAN PARKWAY. ONCE CONSTRUCTION IS COMPLETE AT EACH ISLAND (TOWARDS STRAND AVENUE), THE SEQUENCE OF CONSTRUCTION FOR EACH ISLAND IS AS FOLLOWS:
  - INSTALL TRAFFIC ISLANDS
  - REMOVE AND DISPOSE EXISTING CURBS AND PAVEMENT AND ROUGH GRADE ISLAND.
  - INSTALL CURB AND STONE DRAINAGE.
  - CONTRACT BIORRETENTION BASIN AND INSTALL/PROPOSED OUTLET STRUCTURES (WITH SILT SACK UNDER GRATE).
  - LOW AND SEED DISTURBED AREAS OR PROVIDE TEMPORARY VEGETATIVE COVER.
- INSTALL PLANTINGS SITE WIDE (ONE ISLAND AT A TIME) AND LOW AND SEED ALL DISTURBED AREAS.
- REMOVE EROSION CONTROLS ONCE VEGETATIVE COVER IS ESTABLISHED SITE WIDE.



**NOTES**

- CONSTRUCTION WITHIN EACH ISLAND SHALL OCCUR CONSECUTIVELY, ONE AT A TIME. THE TEMPORARY CONSTRUCTION SIGNS SHALL REMAIN IN PLACE FOR THE DURATION OF WORK WITHIN EACH ISLAND.
- THE CONES OR BARRELS SHALL BE PLACED ONLY DURING WORKING HOURS AND REMOVED AT THE COMPLETION OF WORK SACKS ON.
- EXISTING ONE WAY TRAFFIC FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.

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**PROJECT TITLE**  
STORMWATER MANAGEMENT AT OAKLAND BEACH

**PREPARED FOR**  
SUBURBAN PARKWAY AND STRAND AVENUE WARWICK, RHODE ISLAND

**CITY OF WARWICK**  
3275 POST ROAD WARWICK, RHODE ISLAND

**MISCELLANEOUS DETAIL**  
PLAN NO. 2

**DATE**  
FEBRUARY 2016

**SCALE**  
AS SHOWN

**APPROVED**  
3082-002-Detail2.dwg

**NUMBER**  
REVISION

**DATE**

**REVISION**

**DATE**

**REVISION**

**C7**

EXHIBIT 11 of 11