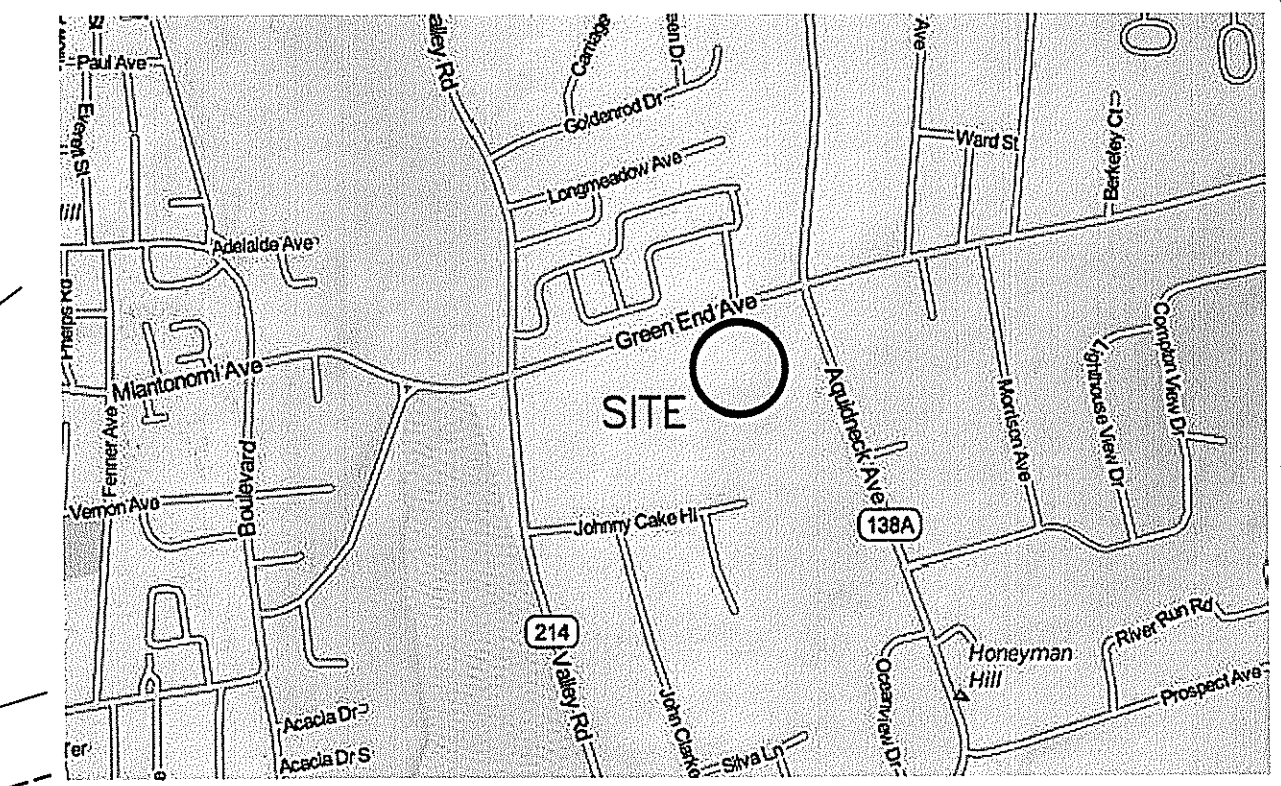


PRELIMINARY PLAN  
RESIDENTIAL CONSERVATION DEVELOPMENT

# AQUIDNECK HIGHLANDS

A.P. 114 LOT 106  
Zone - R20

385 GREEN END AVENUE  
MIDDLETOWN, RHODE ISLAND



LOCUS MAP  
SCALE: AS SHOWN

NOTES:

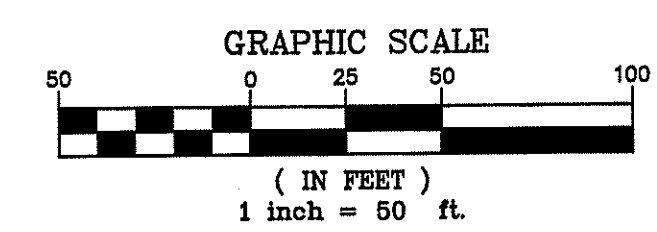
- FLOOD ZONE: THE SUBJECT PROPERTY IS NOT SITUATED IN A 100-YEAR FLOOD ZONE AS IDENTIFIED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD RATE INSURANCE MAP, NEWPORT COUNTY, PANEL 93 OF 226, MAP #4400500093H, EFFECTIVE APRIL 5, 2010. THE SUBJECT PROPERTY IS INDICATED IN 'ZONE X' WHICH ARE AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- PROPERTY LINE INFORMATION FOR SUBJECT PROPERTY TAKEN FROM SURVEY BY K. ANDREWS ASSOCIATES.
- ABUTTING PROPERTY LINES TAKEN FROM TOWN PLAT MAPS WITH AN ESTIMATED HORIZONTAL ERROR OF 10 FEET.
- TOPOGRAPHY WAS PRODUCED BY DIGITAL PHOTOGRAMMETRIC METHODS ON A WILD BC-2/3 INSTRUMENT. VERTICAL DATUM IS NGVD 29 (MSL). HORIZONTAL DATUM-RI STATE PLANE COORDINATE-NAD 83. PREPARED BY AEROTECH INTERNATIONAL CORP. FOR K. ANDREWS ASSOC.
- THERE ARE NO FRESHWATER OR COASTAL WETLANDS ON SUBJECT PROPERTY, REFER TO CONFIRMATION LETTER BY GREEN HILL ENVIRONMENTAL DATED OCTOBER 15, 2012.
- SUBJECT PROPERTY DOES NOT CONTAIN ANY KNOWN ROCK OUTCROPS, CULTIVATED LAND OR BEACHES.
- SUBJECT PROPERTY TO BE SERVED BY PUBLIC WATER SYSTEM
- SUBJECT PROPERTY TO BE SERVED BY PUBLIC SEWER SYSTEM
- SUBJECT PROPERTY DOES NOT LIE IN A NATURAL HERITAGE AREA AS INDICATED ON THE RIDEM GEOGRAPHICAL INFORMATION SYSTEM.
- SUBJECT PROPERTY DOES NOT LIE IN A SOLE SOURCE AQUIFER, GROUNDWATER RESERVOIR OR GROUNDWATER RECHARGE ZONE AS INDICATED ON THE RIDEM GEOGRAPHICAL INFORMATION SYSTEM.
- SUBJECT PROPERTY IS SITUATED IN THE 'COASTAL AQUIDNECK' WATERSHED AS INDICATED ON THE RIDEM GEOGRAPHICAL INFORMATION SYSTEM.
- SUBJECT PROPERTY IS SITUATED IN A 'CLASS A' GROUNDWATER CLASSIFICATION AS INDICATED ON THE RIDEM GEOGRAPHICAL INFORMATION SYSTEM.
- SUBJECT PROPERTY IS SITUATED IN A 'CATEGORY 4A' POND WATER QUALITY ASSESSMENT AS INDICATED ON THE RIDEM GEOGRAPHICAL INFORMATION SYSTEM.
- SUBJECT PROPERTY IS NOT SITUATED IN A WELL HEAD PROTECTION AREA AS INDICATED ON THE RIDEM GEOGRAPHICAL INFORMATION SYSTEM.
- SUBJECT PROPERTY IS SITUATED IN 'IMPORTANT' OR 'PRIME' FARM SOILS AREAS AS INDICATED ON THE RIDEM GEOGRAPHICAL INFORMATION SYSTEM. THERE ARE NO ACTIVE OR RECENT AGRICULTURAL USE ON PROPERTY.
- SUBJECT PROPERTY IS SITUATED IN THE NEWPORT DRINKING WATER SUPPLY WATERSHED.
- SUBJECT PROPERTY IS NOT KNOWN TO BE SITUATED IN A LOCAL OR STATE GREENWAY OR GREENSPACE PRIORITY.
- SUBJECT PROPERTY IS NOT KNOWN TO BE SITUATED IN A CRMC SPECIAL AREA MANAGEMENT PLAN
- SUBJECT PROPERTY IS SITUATED IN THE TOWN'S ZONE 2 WATERSHED PROTECTION DISTRICT.
- THESE PLANS HAVE BEEN ISSUED FOR LOCAL/STATE AGENCY REVIEW AND ARE CONSIDERED PERMIT PLANS. ONLY FINAL PLANS WHICH ARE RECORDED IN LAND EVIDENCE RECORDS AND STAMPED 'ISSUED FOR CONSTRUCTION' AFTER RECEIPT OF LOCAL/STATE APPROVALS SHALL BE USED FOR CONSTRUCTION.

SHEET# & PLAN TITLE

- |    |                                      |
|----|--------------------------------------|
| 1  | COVER SHEET                          |
| 2  | EXISTING CONDITIONS PLAN             |
| 3  | PROPOSED LOT LAYOUT PLAN             |
| 4  | PROPOSED GENERAL PLAN                |
| 5  | PROPOSED ROAD PROFILE                |
| 6  | PROPOSED STORMWATER DRAINAGE PROFILE |
| 7  | PROPOSED SANITARY SEWER PROFILE      |
| 8  | PROPOSED SOIL EROSION CONTROL PLAN   |
| 9  | PROPOSED OPEN SPACE USE PLAN         |
| 10 | DETAILS 1                            |
| 11 | DETAILS 2                            |
| 12 | DETAILS 3                            |
| 13 | DETAILS/NOTES 4                      |

LEGEND

A.P.	ASSESSORS PLAT	SUBJECT PROPERTY LINE	_____
BASM'T	BASEMENT	ABUTTING PROPERTY LINE	_____
BIT.	BITUMINOUS CONCRETE	BUILDING SETBACK LINE	_____
B.R.	BELOW RIM/GRATE	EXISTING ELEVATION CONTOUR	_____
BIO.	BIO-RETENTION FILTRATION	PROPOSED ELEVATION CONTOUR	_____
B.O.	PERMANENT BLOW OFF	EXIST. ELECTRIC LINE	_____
B.S.L.	BUILDING SETBACK LINE	EXIST. DRAIN LINE	_____
CB	CATCH BASIN	EXIST. WATER LINE	_____
C.O.	CLEANOUT	EXIST. TELECOMMUNICATIONS	_____
CONC.	CONCRETE	EXIST. GAS LINE	_____
DMH	DRAIN MANHOLE	EXIST. OVERHEAD WIRE	_____
EL. OR ELEV.	ELEVATION	PROPOSED ELECTRIC LINE	_____
EOP	EDGE OF PAVEMENT	PROPOSED DRAIN LINE	_____
EXIST.	EXISTING	PROPOSED WATER LINE	_____
F.F.	FLARED END SECTION	PROPOSED SUBDRAIN	_____
INTV.	INVERT	PROPOSED SANITARY SEWER	_____
MIN.	MINIMUM	SILT FENCE & LIMIT OF DISTURB.	_____
N/F	NOW OR FORMERLY	LIMIT OF DISTURBANCE	_____
S	SLOPE	STONEWALL	_____
S.D.	SUBDRAIN	EXISTING SPOT GRADE	_____
SMH	SANITARY MANHOLE	PROPOSED SPOT GRADE	_____
STH	STATION	TREELINE	_____
TH	TEST HOLE	EXISTING PRIVATE WELL	_____
TYP.	TYPICAL	PROPOSED RUNOFF FLOW DIRECTION	_____
UP	UTILITY POLE	PROPOSED EASEMENT LINE	_____
		EDGE OF FRESHWATER WETLAND	_____



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

TIMOTHY J. BEHAN  
REGISTERED PROFESSIONAL ENGINEER  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED OCT 30 2013 FILE # 13-0013  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



WAIVERS:  
THE FOLLOWING WAIVERS WERE GRANTED AT MASTER PLAN (RECORDED FEB. 11, 2013, BK 1329 PG 194)  
1. SECTION 510-NO SIDEWALKS PROPOSED.  
2. SECTION 603-REDUCE ROAD WIDTH FROM 26' TO 24'.  
3. SECTION 622-NO STREET TREES PROPOSED; HOWEVER THAT EVERGREEN TREES EQUAL TO THE MINIMUM NUMBER OF STREET TREES THAT WOULD HAVE BEEN REQUIRED BE PLACED AS SCREENING ALONG THE GREEN END AVENUE PROPERTY LINE, AND THAT AN ADDITIONAL 15 PLANTINGS CONSISTING OF A MIX OF EASTERN RED CEDAR AND RHODODENDRON BE PROVIDED IN THE SAME AREA.

Being: ASSESSORS PLAT 114 LOT 106  
COVER SHEET  
AQUIDNECK HIGHLANDS  
385 GREEN END AVENUE  
MIDDLETOWN, RHODE ISLAND  
PREPARED FOR:  
SEASCAPE HOLDINGS, LLC  
1004 BOSTON NECK ROAD, SUITE 6  
MIDDLETOWN, RI 02842

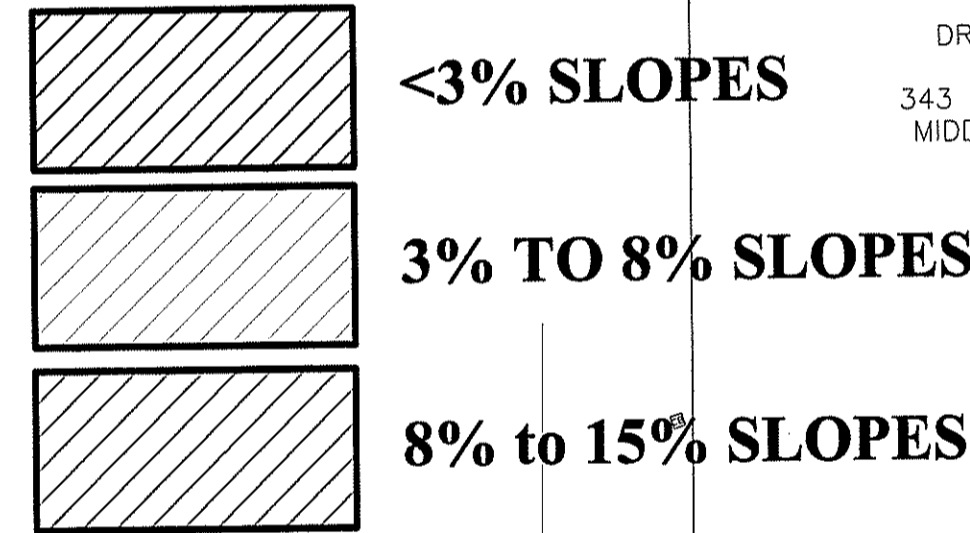
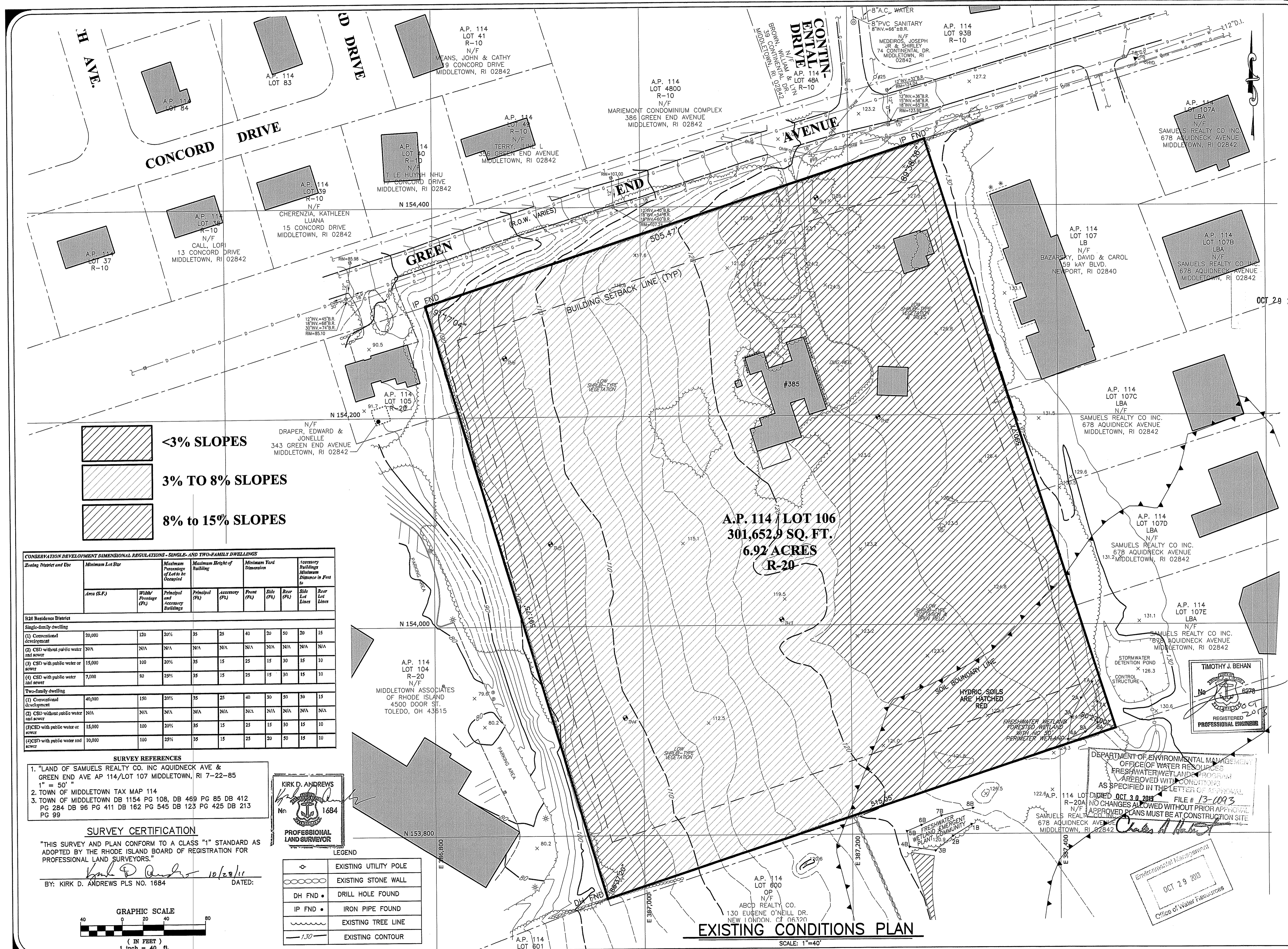
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Scale: AS SHOWN Date: NOV. 2012

NO.	REVISION	DATE
1	TO SUBMIT FOR REGULATORY AGENCY REVIEW	10/27/13
2	PRELIMINARY PLAN SUBMISSION	10/27/13
3	FOR COMMENTS	10/27/13
4	FOR COMMENTS	10/27/13
5	FOR COMMENTS	10/27/13
6	FOR COMMENTS	10/27/13
7	FOR COMMENTS	10/27/13

**TJB ENGINEERING, LLC**  
CIVIL ENGINEERING  
PERMITTING \* LAND PLANNING  
SUBDIVISIONS \* WASTEWATER  
1050 MAIN STREET SUITE 31  
EAST GREENWICH, RI 02818  
PHONE: 401-996-1677

**K ANDREWS ASSOCIATES**  
LAND SURVEYING AND SITE PLANNING  
1050 MAIN STREET SUITE 31  
EAST GREENWICH, RHODE ISLAND 02818  
PHONE (401) 339-2681

Sheet 1 of 13 sheets



**CONSERVATION DEVELOPMENT DIMENSIONAL REGULATIONS - SINGLE- AND TWO-FAMILY DWELLINGS**

Zoning District and Use	Minimum Lot Size		Maximum Percentage of Lot to be Occupied		Maximum Height of Building					Minimum Yard Dimension		Accessory Buildings Minimum Distance in Feet to	
	Area (S.F.)	Width/Prong (Ft.)	Principal and Accessory Buildings	Principal (Ft.)	Accessory (Ft.)	Front (Ft.)	Side (Ft.)	Rear (Ft.)	Side Lot Lines	Rear Lot Lines	Front	Rear	
<b>R2B Residence District</b>													
Single-family dwelling	20,000	120	20%	35	25	40	20	50	20	15			
(1) Conventional development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
(2) CSD without public water and sewer	15,000	100	20%	35	15	25	15	30	15	10			
(3) CSD with public water or sewer	7,000	80	25%	35	15	25	15	30	15	10			
(4) CSD with public water and sewer													
Two-family dwelling	40,000	150	20%	35	25	40	30	50	30	15			
(1) Conventional development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
(2) CSD without public water and sewer	15,000	100	20%	35	15	25	15	30	15	10			
(3) CSD with public water or sewer	10,000	100	25%	35	15	25	20	30	15	10			
(4) CSD with public water and sewer													

**SURVEY REFERENCES**

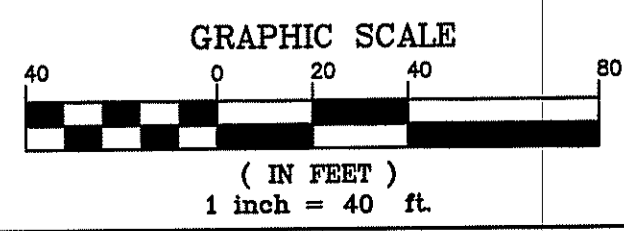
- "LAND OF SAMUELS REALTY CO. INC AQUIDNECK AVE & GREEN END AVE AP 114/LOT 107 MIDDLETOWN, RI 7-22-85 1" = 50'
- TOWN OF MIDDLETOWN TAX MAP 114
- TOWN OF MIDDLETOWN DB 1154 PG 108, DB 469 PG 85 DB 412 PG 284 DB 96 PG 411 DB 162 PG 545 DB 123 PG 425 DB 213 PG 99

**KIRK D. ANDREWS**  
 No. 1684  
 PROFESSIONAL LAND SURVEYOR

**SURVEY CERTIFICATION**

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

BY: *Kirk D. Andrews* 10/28/11 DATED:



**LEGEND**

	EXISTING UTILITY POLE
	EXISTING STONE WALL
	DRILL HOLE FOUND
	IRON PIPE FOUND
	EXISTING TREE LINE
	EXISTING CONTOUR

**EXISTING CONDITIONS PLAN**  
 SCALE: 1"=40'

Being: ASSESSORS PLAT 114, LOT 106  
**EXISTING CONDITIONS PLAN**  
**AQUIDNECK HIGHLANDS**

LOCATION  
 385 GREEN END AVENUE  
 MIDDLETOWN, RHODE ISLAND

OWNER:  
 BLAKELEY BOGART  
 365 GREEN END AVENUE  
 MIDDLETOWN, RI 02842

PREPARED FOR:  
 SEASCAPE HOLDINGS, LLC  
 1004 BOSTON NECK ROAD, SUITE 6  
 WARRINGSETT, RI 02882

Checked By: T.J.B. Drawn By: T.J.B. Date: NOV. 2012

Scale: AS SHOWN

**REVISIONS**

NO.	REVISION	DATE
1	PRELIMINARY PLAN SUBMISSION	08/27/13
2	TOWN BOARD COMMENTS	09/27/13
3	FINAL PLAN	10/27/13
4	FINAL REVISION	10/27/13
5	FINAL REVISION	10/27/13
6	FINAL REVISION	10/27/13
7	FINAL REVISION	10/27/13

**TJB ENGINEERING, LLC**

CIVIL ENGINEERING  
 PERMITTING \* LAND PLANNING  
 SUBDIVISIONS \* WASTEWATER

1050 MAIN STREET SUITE 31  
 EAST GREENWICH, RI 02818  
 PHONE: 401-996-1677

**K ANDREWS ASSOCIATES**

LAND SURVEYING AND SITE PLANNING

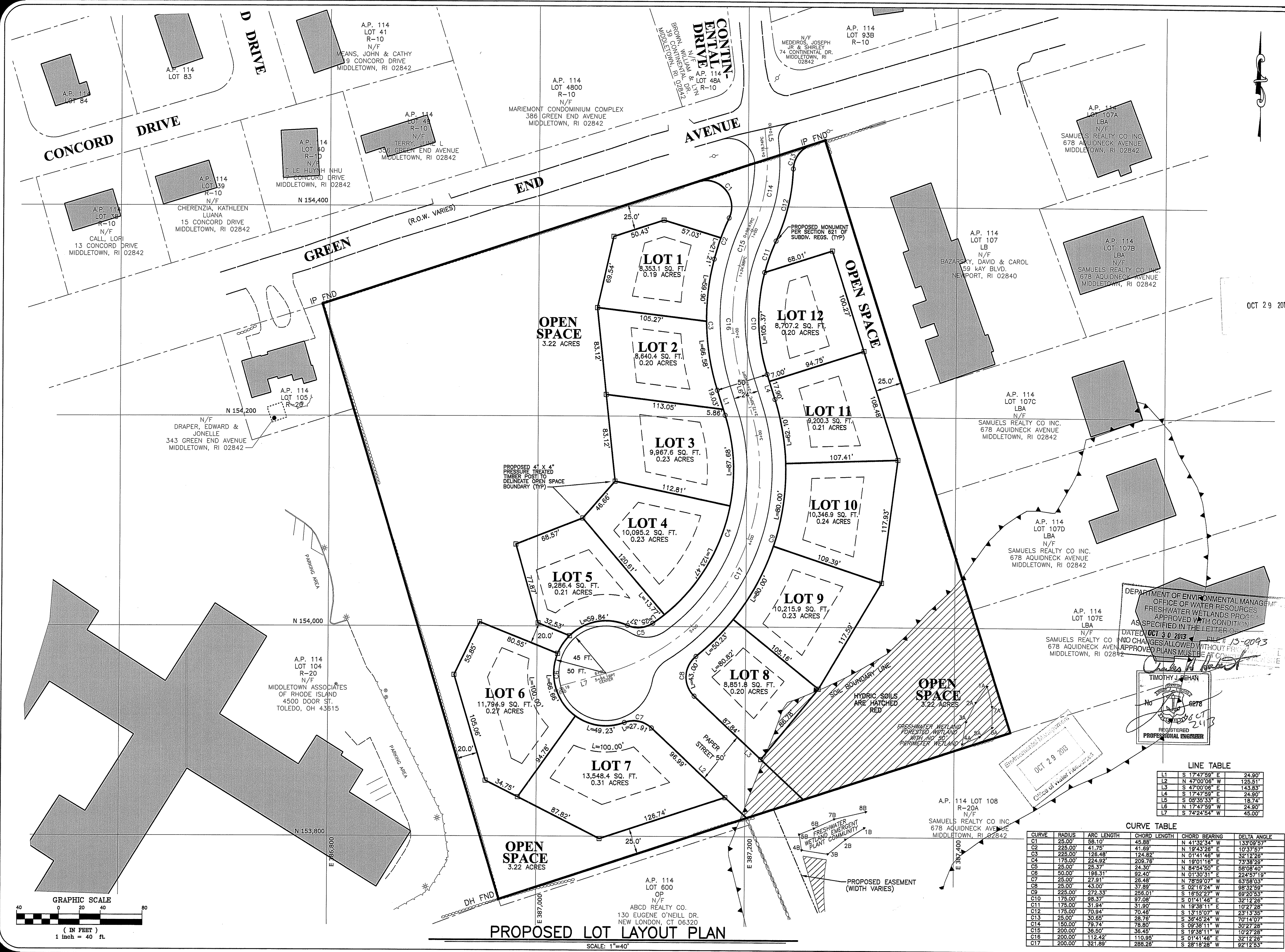
1050 MAIN STREET, SUITE 31  
 EAST GREENWICH, RHODE ISLAND 02818  
 PHONE (401) 339-2681

Sheet **2**  
 of 13 sheets

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLAND PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 OCT 30 2013 FILE # 13-1093  
 R-20A NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 SAMUELS REALTY CO. INC.  
 678 AQUIDNECK AVENUE  
 MIDDLETOWN, RI 02842

**TIMOTHY J. BEHAN**  
 No. 6278  
 REGISTERED PROFESSIONAL ENGINEER

OCT 29 2013  
 Office of Water Resources



**PROPOSED LOT LAYOUT PLAN**

SCALE: 1"=40'

**CURVE TABLE**

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	25.00'	58.10'	49.88'	N 41°32'34" W	133°09'57"
C2	225.00'	41.75'	41.69'	N 19°43'26" E	107°37'57"
C3	225.00'	126.48'	124.82'	N 01°41'46" W	32°12'26"
C4	175.00'	224.92'	209.78'	N 19°01'16" E	73°38'28"
C5	25.00'	25.37'	24.30'	N 84°54'50" E	58°08'40"
C6	50.00'	193.51'	92.40'	N 01°30'31" E	224°57'19"
C7	25.00'	27.61'	26.48'	N 78°50'07" W	63°56'03"
C8	25.00'	43.00'	37.89'	S 02°16'24" W	98°32'59"
C9	225.00'	272.33'	256.01'	S 16°52'27" W	69°20'53"
C10	175.00'	96.37'	97.08'	S 01°41'46" E	32°12'26"
C11	175.00'	31.94'	31.90'	N 19°38'11" E	107°27'28"
C12	175.00'	70.94'	70.45'	S 13°15'07" W	23°13'35"
C13	25.00'	30.65'	28.76'	S 36°45'24" W	70°14'07"
C14	150.00'	78.74'	78.80'	S 09°38'11" W	30°27'28"
C15	200.00'	36.50'	36.45'	S 19°38'11" W	107°27'28"
C16	200.00'	112.42'	110.95'	S 01°41'46" E	32°12'26"
C17	200.00'	321.88'	288.28'	S 28°18'28" W	92°12'53"

**LINE TABLE**

LINE	BEARING	LENGTH
L1	S 17°47'59" E	24.90'
L2	N 47°00'06" E	125.51'
L3	S 47°00'06" E	143.53'
L4	S 17°47'59" E	24.90'
L5	S 05°35'33" E	18.74'
L6	N 17°47'59" W	24.90'
L7	S 74°24'54" W	45.00'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTERS  
DATED OCT 30 2013 FILE # 13-0093  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT ALL TIMES  
*Charles H. Hebert*  
TIMOTHY J. KEHAN  
REGISTERED PROFESSIONAL ENGINEER  
No. 6278

Being: ASSESSORS PLAT 114 LOT 106  
**PROPOSED LOT LAYOUT PLAN**  
**AQUIDNECK HIGHLANDS**  
LOCATION  
385 GREEN END AVENUE ISLAND  
MIDDLETOWN, RHODE ISLAND  
OWNER:  
BLAKELEY BOGART  
385 GREEN END AVENUE  
MIDDLETOWN, RI 02842  
PREPARED FOR:  
SEASCAPE HOLDINGS, LLC  
1004 BOSTON NECK ROAD, SUITE 6  
NORWAMUNSETT, RI 02882

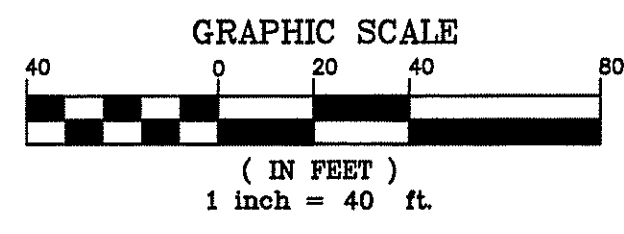
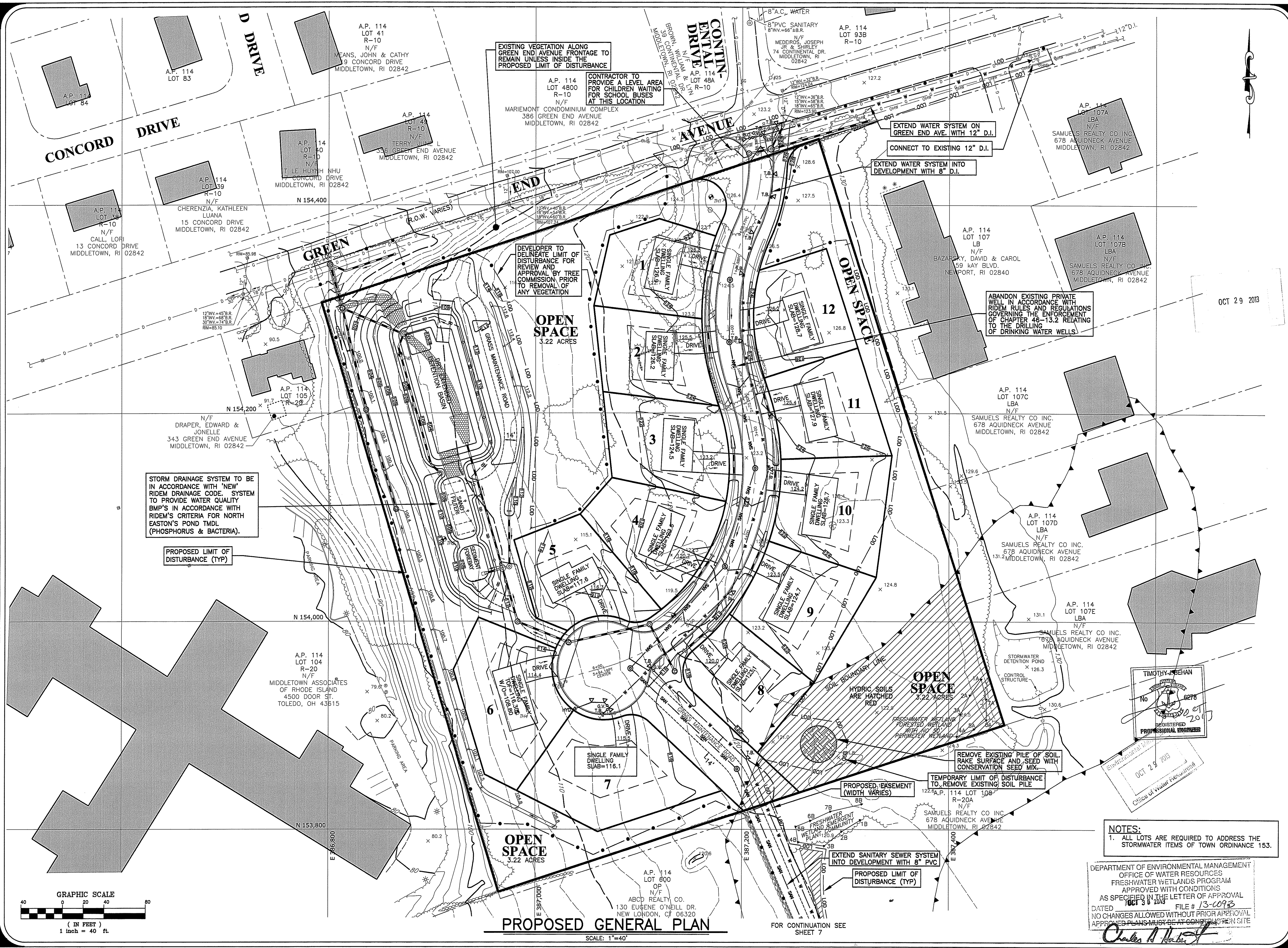
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Scale: AS SHOWN Date: JAN. 2013  
**REVISIONS**

NO.	REVISION	DATE
1	TO FIELD FOR REGULATORY APPLICATION	01/27/13
2	FOR PERMITS	02/27/13
3	FOR PERMITS	03/27/13
4	FOR PERMITS	04/27/13
5	FOR PERMITS	05/27/13
6	FOR PERMITS	06/27/13
7	FOR PERMITS	07/27/13

**TJB ENGINEERING, LLC**  
CIVIL ENGINEERING  
PERMITTING \* LAND PLANNING  
SUBDIVISIONS \* WASTEWATER  
1050 MAIN STREET SUITE 31  
EAST GREENWICH, RI 02818  
PHONE: 401-996-1677

**K ANDREWS ASSOCIATES**  
LAND SURVEYING AND SITE PLANNING  
1050 MAIN STREET, SUITE 31  
EAST GREENWICH, RHODE ISLAND 02818  
PHONE (401) 339-2681

Sheet **3**  
of 13 sheets

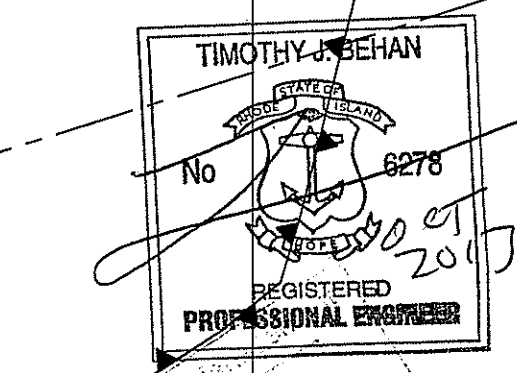


**PROPOSED GENERAL PLAN**

SCALE: 1"=40'

FOR CONTINUATION SEE SHEET 7

OCT 29 2013



**NOTES:**  
 1. ALL LOTS ARE REQUIRED TO ADDRESS THE STORMWATER ITEMS OF TOWN ORDINANCE 153.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 FILE # 13-093  
 DATED 10/21/13  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Charles A. Harte*

Being: ASSESSORS PLAT 114 LOT 106  
**PROPOSED GENERAL PLAN**  
**AQUIDNECK HIGHLANDS**  
 LOCATION  
 385 GREEN END AVENUE  
 MIDDLETOWN, RHODE ISLAND  
 OWNER  
 BLAKELEY BOGART  
 385 GREEN END AVENUE  
 MIDDLETOWN, RI 02842  
 PREPARED FOR  
 SEASCAPE HOLDINGS, LLC  
 1004 BOSTON NECK ROAD, SUITE 6  
 NARRAGANSETT, RI 02882

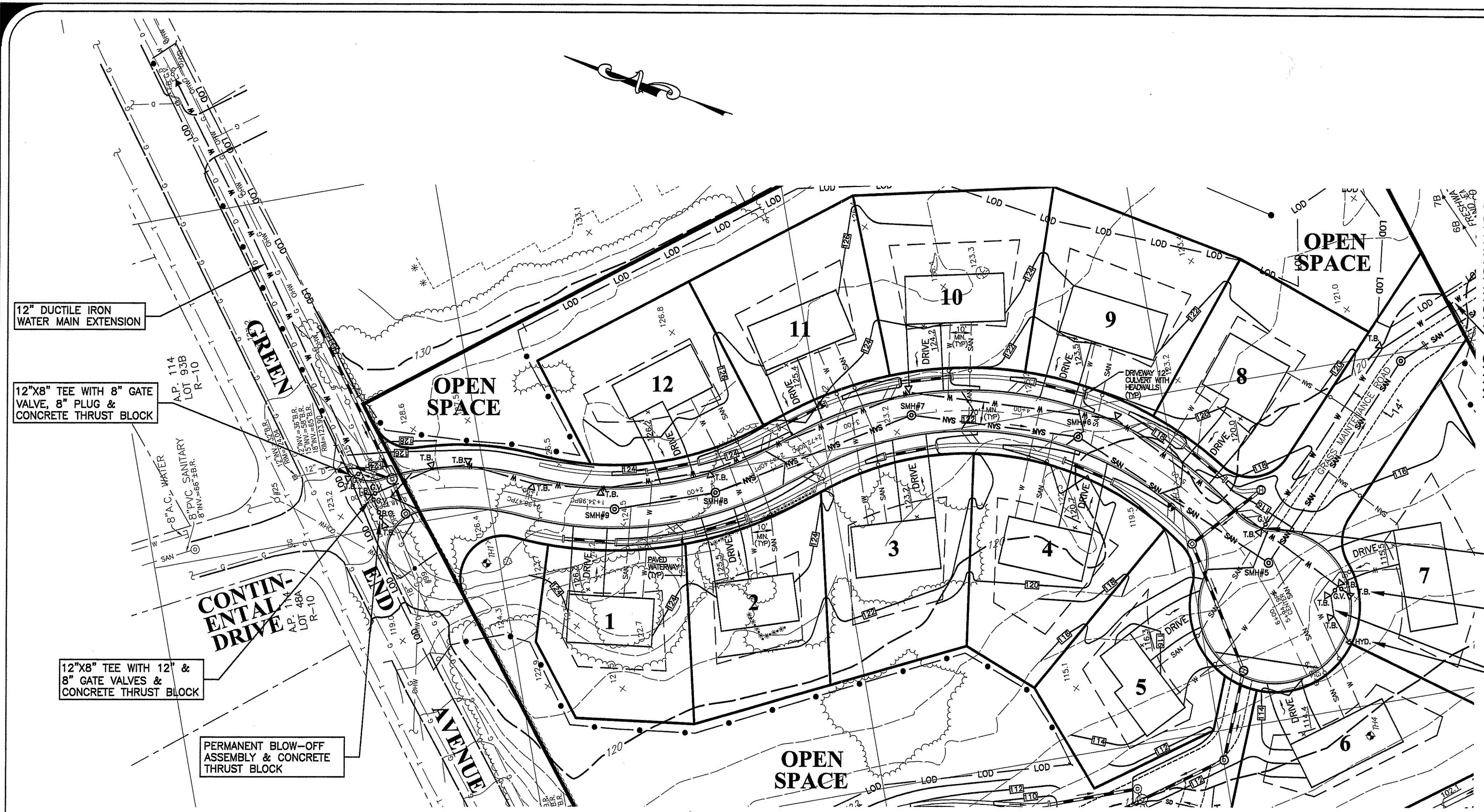
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 Scale: AS SHOWN Date: JAN. 2013

NO.	REVISION	DATE
1	FOR REVIEW FOR REGULATORY FEASIBILITY	09/27/13
2	PRELIMINARY PLAN SUBMISSION	09/27/13
3	TOWN BOARD COMMENTS	09/27/13
4	TOWN BOARD COMMENTS	09/27/13
5	TOWN BOARD COMMENTS	09/27/13
6	TOWN BOARD COMMENTS	09/27/13
7	TOWN BOARD COMMENTS	09/27/13

**TJB ENGINEERING, LLC**  
 CIVIL ENGINEERING  
 PERMITTING \* LAND PLANNING  
 SUBDIVISIONS \* WASTEWATER  
 1050 MAIN STREET SUITE 31  
 EAST GREENWICH, RI 02818  
 PHONE: 401-996-1677

**K ANDREWS ASSOCIATES**  
 LAND SURVEYING AND SITE PLANNING  
 1050 MAIN STREET, SUITE 31  
 EAST GREENWICH, RHODE ISLAND 02818  
 PHONE: (401) 339-2681

Sheet **4**  
 of **13** sheets



- NOTES:**
1. ALL MATERIALS AND METHODS SHALL BE APPROVED BY TOWN PRIOR TO CONSTRUCTION. TOWN STANDARDS SHALL GOVERN WHEN THESE PLANS CONTRADICT TOWN STANDARDS.
  2. DRIVEWAY CULVERT SHALL BE 12" SDR35 PVC WITH HEADWALLS. HEADWALLS SHALL HAVE A STONE & MORTAR FACIA OR APPROVED EQUAL BY TOWN. SLOPE OF 12" PIPE SHALL BE 0.5% MINIMUM.
  3. ALL ROAD STORMWATER RUNOFF SHALL REMAIN ON ROAD AND NOT ENTER DRIVEWAYS. CONTRACTOR TO FINE GRADE DRIVEWAYS SO RUNOFF REMAINS ON ROADWAY AND DISCHARGES TO GRASS SWALES DOWN PAVED WATERWAYS.
  4. PAVED WATERWAYS SHALL BE LOCATED AT PROPERTY LINES UNLESS ANOTHER LOCATION IS APPROVED BY TOWN.

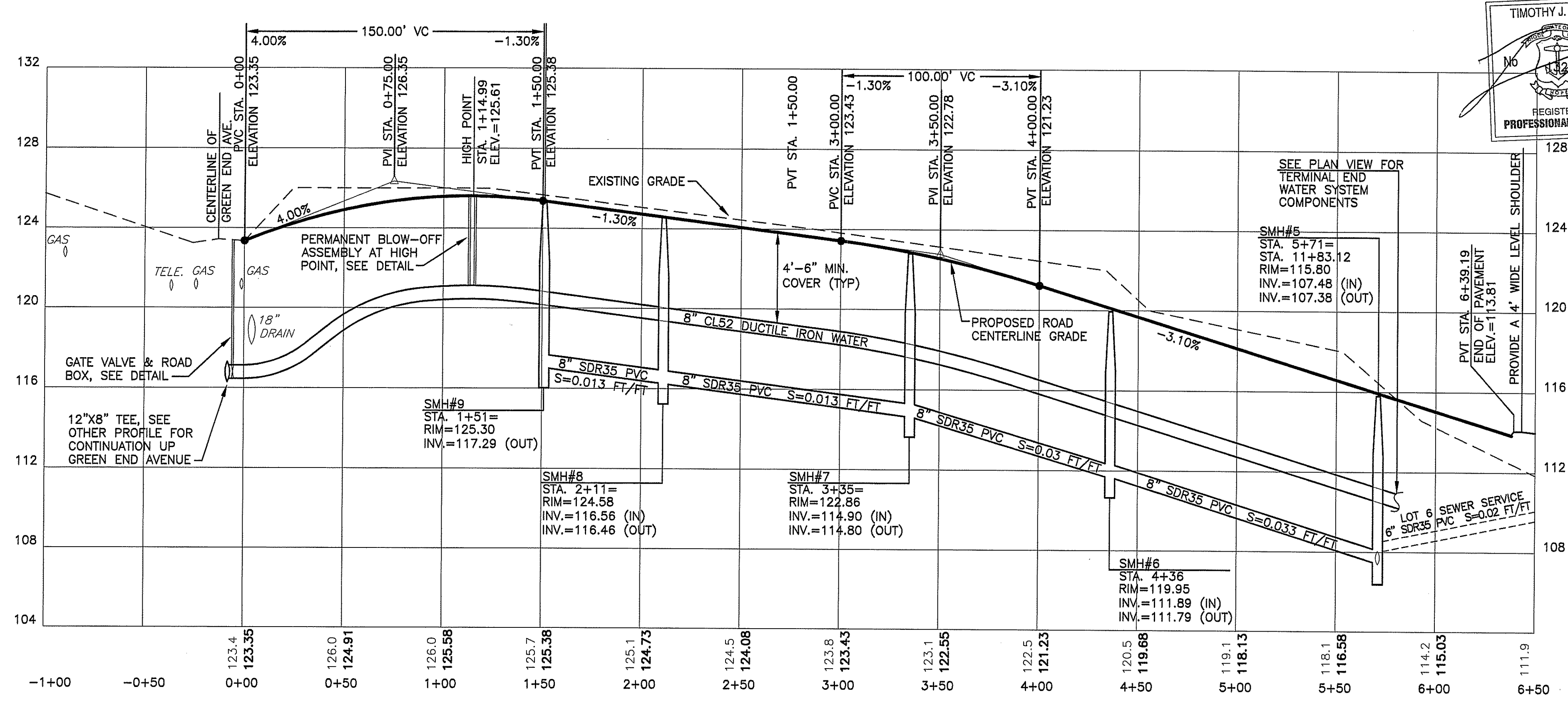
Being: ASSESSORS PLAT 114 LOT 106  
**PROPOSED ROAD PROFILE**  
**AQUIDNECK HIGHLANDS**  
 LOCATION  
 385 GREEN END AVENUE  
 MIDDLETOWN, RHODE ISLAND  
 PREPARED FOR:  
 OWNER: BLAKELEY BOGART SEASCAPE HOLDINGS, LLC  
 1004 BOSTON NECK ROAD, SUITE 6  
 MIDDLETOWN, RI 02882

OCT 29 2013

NO.	REVISION	DATE
1	ISSUED FOR PERMIT	10/29/13
2	FOR COMMENTS	10/29/13
3	FOR COMMENTS	10/29/13
4	FOR COMMENTS	10/29/13
5	FOR COMMENTS	10/29/13
6	FOR COMMENTS	10/29/13
7	FOR COMMENTS	10/29/13
8	FOR COMMENTS	10/29/13
9	FOR COMMENTS	10/29/13
10	FOR COMMENTS	10/29/13

**PROPOSED PLAN/PROFILE - ROAD CENTERLINE**

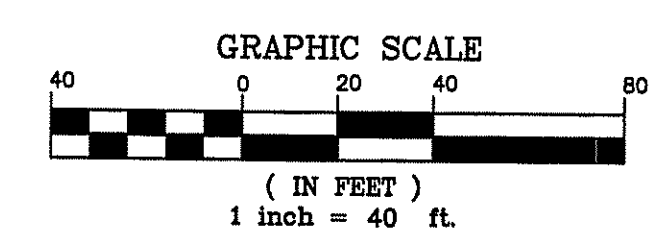
SCALE: 1"=40' HOR.  
 1"=4' VERT.



TIMOTHY J. BEHAN  
 No. 6278  
 REGISTERED PROFESSIONAL ENGINEER

Environmental Management  
 OCT 29 2013  
 Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED OCT 30 2013 FILE # 13-093  
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 APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
 Charles A. Herbert



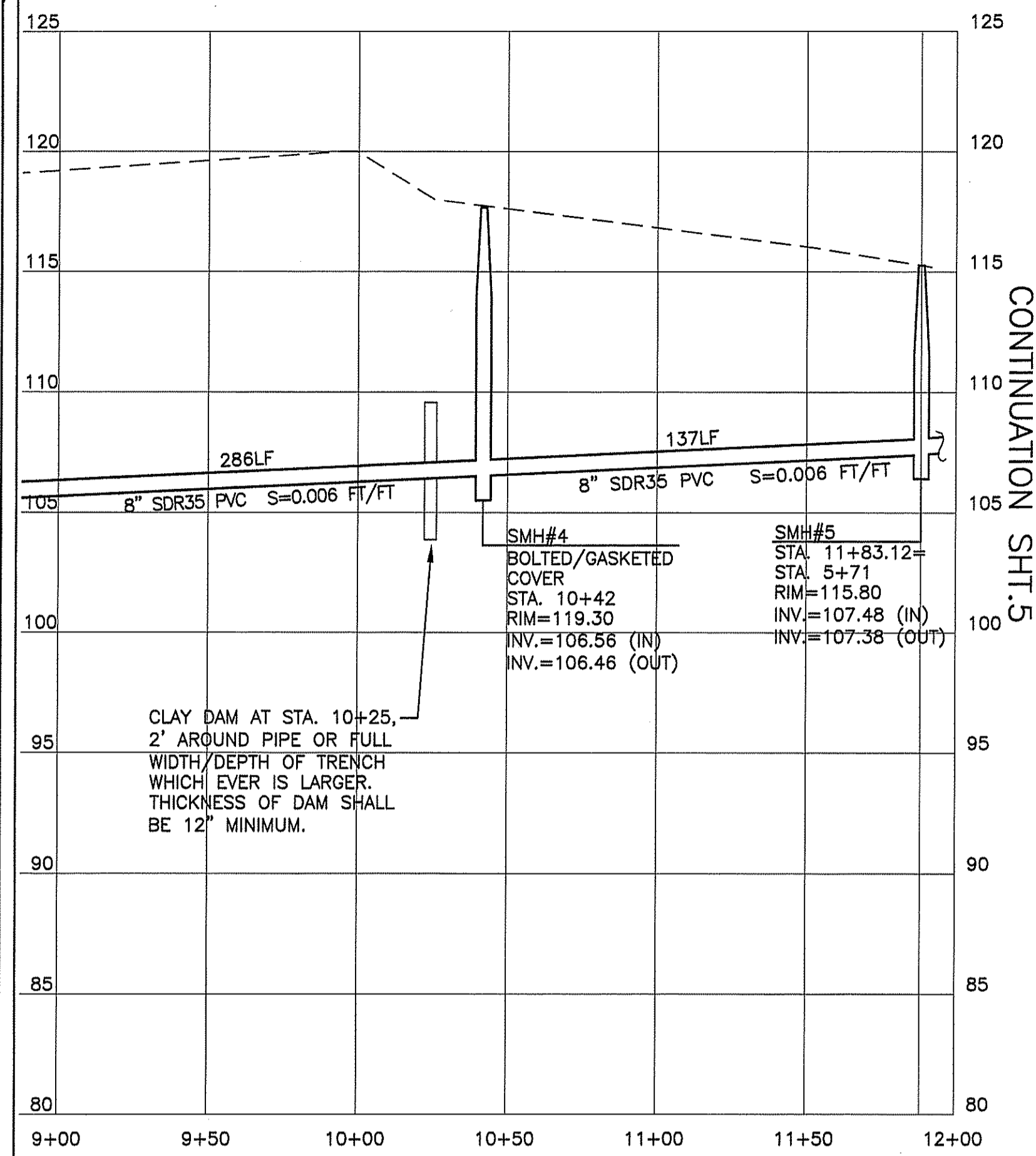
**PROPOSED PLAN/PROFILE - ROAD CENTERLINE**

SCALE: 1"=40' HOR.  
 1"=4' VERT.

**TJB ENGINEERING, LLC**  
 CIVIL ENGINEERING  
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 1050 MAIN STREET SUITE 31  
 EAST GREENWICH, RI 02818  
 PHONE: 401-996-1677

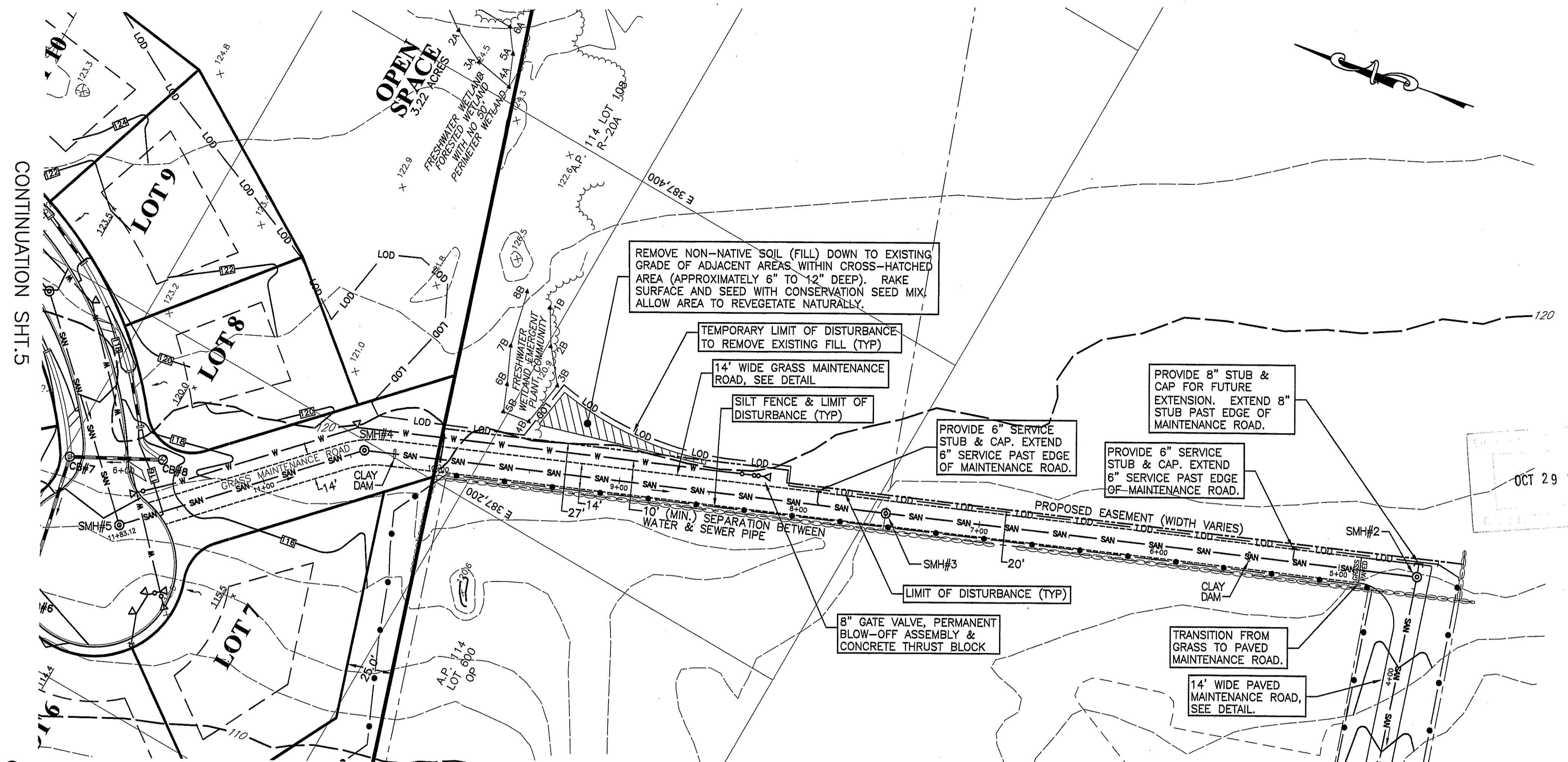
**K ANDREWS ASSOCIATES**  
 LAND SURVEYING AND SITE PLANNING  
 1050 MAIN STREET SUITE 31  
 EAST GREENWICH, RHODE ISLAND 02818  
 PHONE (401) 359-2861





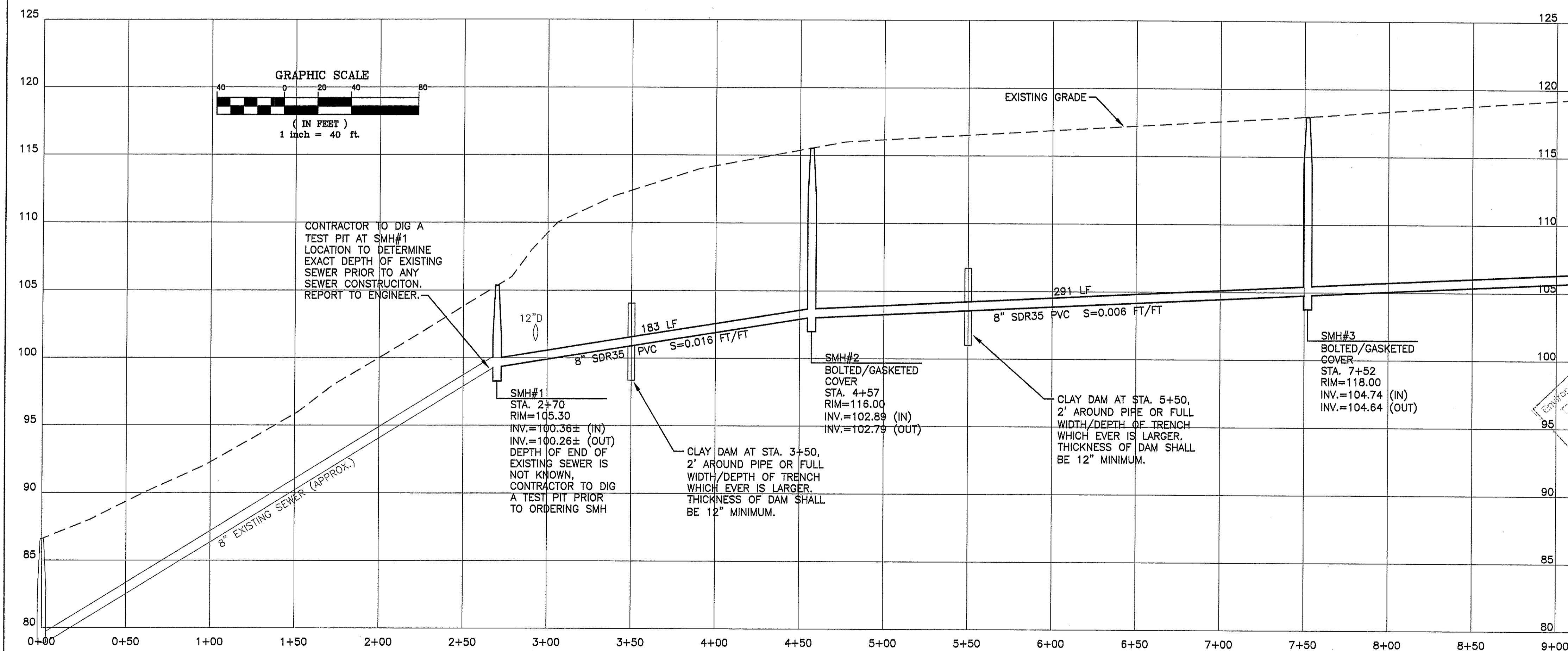
**PROPOSED PLAN/PROFILE  
SEWER CENTERLINE STA. 9+00 TO STA. 12+00**

SCALE: 1"=40' HOR.  
1"=5' VERT.



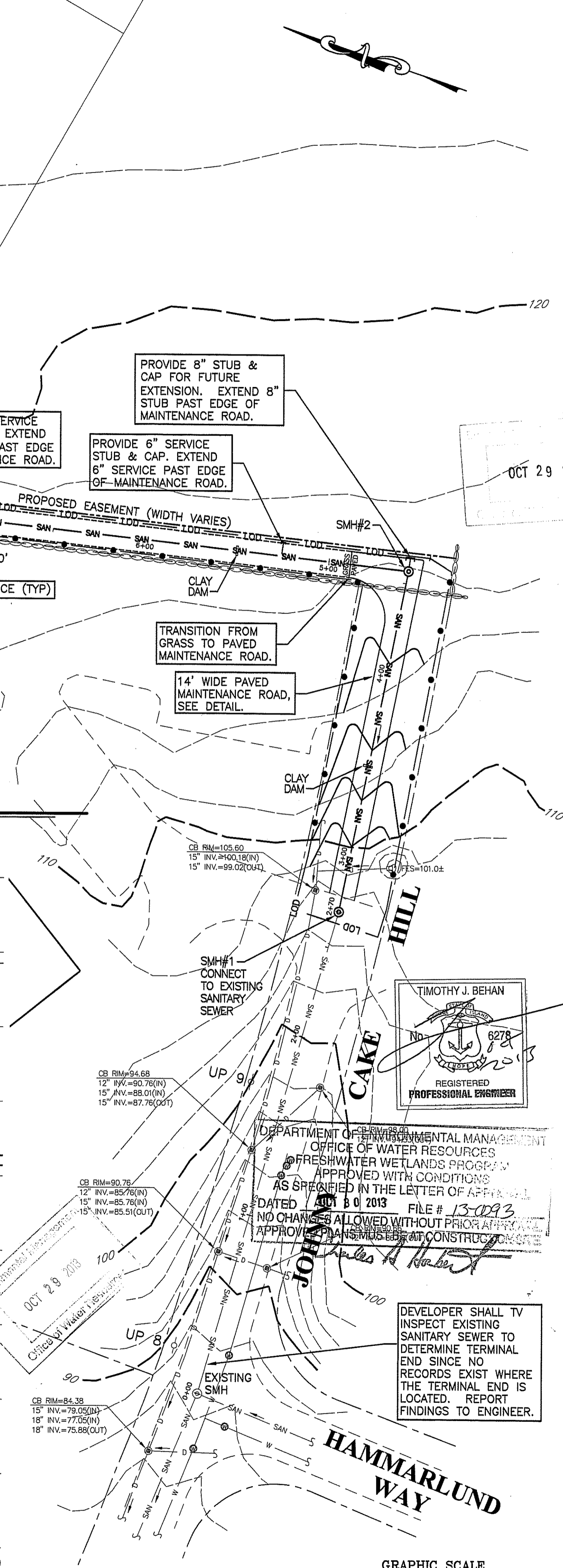
**PROPOSED PLAN/PROFILE - SEWER CENTERLINE**

SCALE: 1"=40' HOR.  
1"=5' VERT.



**PROPOSED PLAN/PROFILE - SEWER CENTERLINE STA. 0+00 TO STA. 9+00**

SCALE: 1"=40' HOR.  
1"=5' VERT.



GRAPHIC SCALE  
( IN FEET )  
1 inch = 40 ft.

Being: ASSESSORS PLAT 114 LOT 106  
**PROPOSED SANITARY SEWER PROFILE  
AQIDNECK HIGHLANDS**  
LOCATION  
385 GREEN END AVENUE  
MIDDLETOWN, RHODE ISLAND  
OWNER  
BLAKELEY BOGART  
385 GREEN END AVENUE  
MIDDLETOWN, RI 02842  
PREPARED FOR:  
SEASCAPE HOLDINGS, LLC  
1004 BOSTON NECK ROAD, SUITE 6  
MARRAGANSETT, RI 02882

Checked By: T.J.B. Drawn By: T.J.B. Date: NOV. 2012

Scale: AS SHOWN

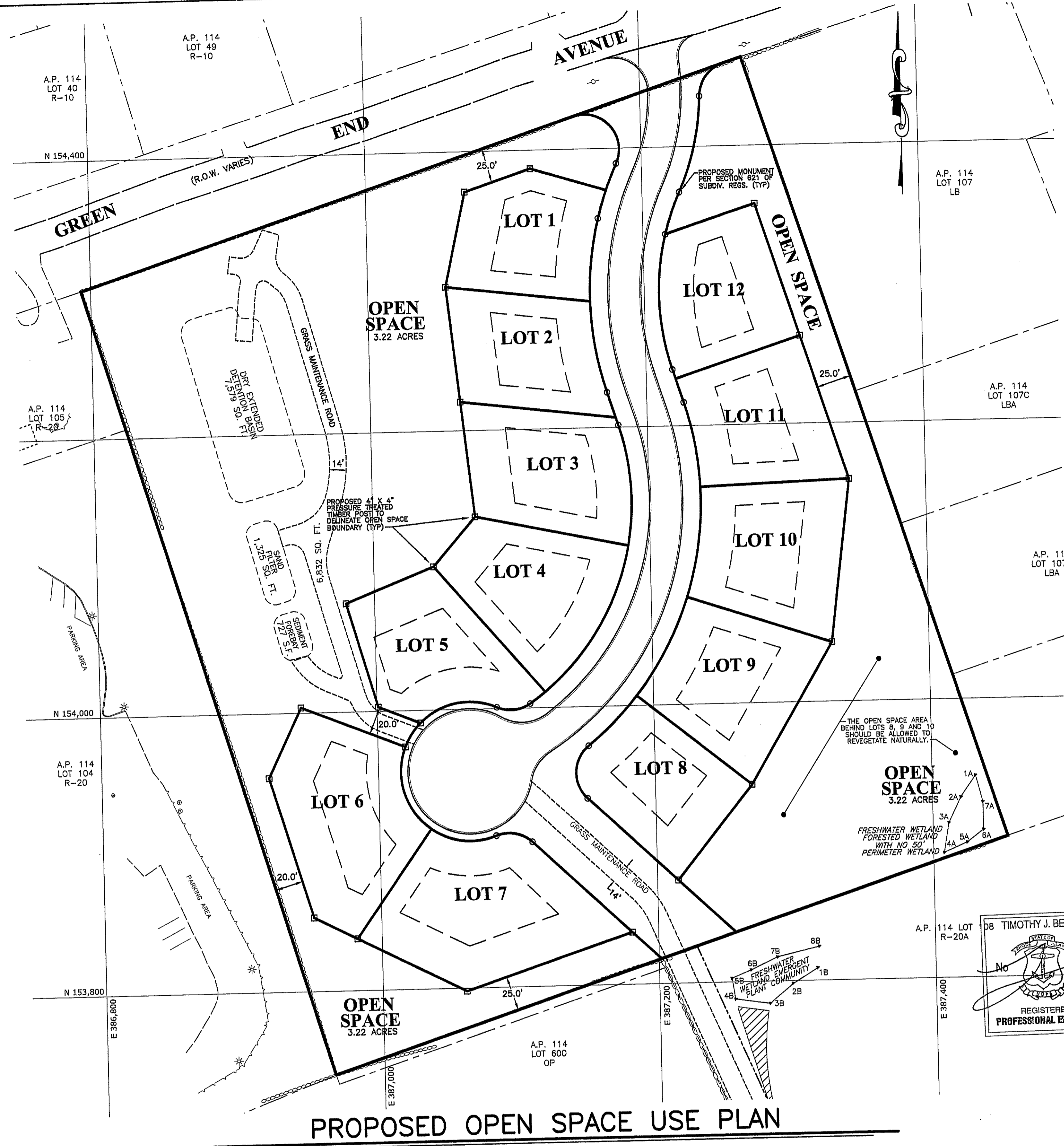
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2	ISSUE FOR PERMITTING
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6	ISSUE FOR PERMITTING
7	ISSUE FOR PERMITTING
8	ISSUE FOR PERMITTING
9	ISSUE FOR PERMITTING
10	ISSUE FOR PERMITTING

**TJB ENGINEERING, LLC**  
CIVIL ENGINEERING  
PERMITTING \* LAND PLANNING  
SUBDIVISIONS \* WASTEWATER  
1050 MAIN STREET SUITE 31  
EAST GREENWICH, RI 02818  
PHONE: 401-996-1677

**K ANDREWS ASSOCIATES**  
LAND SURVEYING AND SITE PLANNING  
1050 MAIN STREET, SUITE 31  
EAST GREENWICH, RHODE ISLAND 02818  
PHONE: (401) 359-2681

Sheet **7**  
of **13** sheets





**PROPOSED OPEN SPACE USE PLAN**

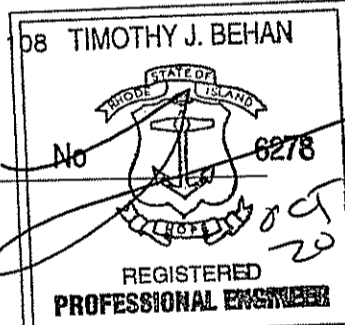
SCALE: 1"=50'

OPEN SPACE AREA CALCULATIONS: (TOTAL LOT AREA = 6.92 ACRES)

TOTAL OPEN SPACE AREA ACRES	WETLAND AREA ACRES	FLOOD ZONE AREA ACRES	COASTAL SHORELINE SYSTEMS ACRES	STREET R.O.W. AREA ACRES	EXISTING WATER SURFACES ACRES	AREAS REQ'D FOR STORMWATER RETENTION/ DETENTION ACRES	PUBLIC UTILITY EASEMENT AREAS ACRES	DEVELOPABLE LAND AREA OF THE OPEN SPACE ACRES	DEVELOPABLE OPEN SPACE % OF TOTAL LOT AREA (30% MIN.)	UTILITIES & DRAINAGE FACILITIES AREA (20% MAX.)	VEHICULAR FACILITIES AREA (10% MAX.)
3.22	0.02	0	0	0	0	0.22	0	2.98	46.5%	6.8%	5.2%

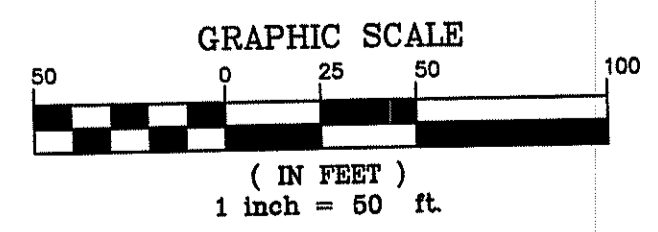
**OPEN SPACE NOTES:**

- OWNERSHIP OF OPEN SPACE WILL BE CONVEYED TO LOT OWNERS WITHIN THE CSD. THE OPEN SPACE WILL BE OWNED IN COMMON BY ALL THE LOT OWNERS WITHIN THE CSD. THE DEED TO EACH LOT WILL INCLUDE A FRACTIONAL INTEREST IN THE COMMON CSD. THE DEED TO EACH LOT WILL INCLUDE AN AMOUNT INVERSELY PROPORTIONAL TO THE NUMBER OF LOTS IN THE DEVELOPMENT. THE DEED WILL ALSO INCLUDE ALL COVENANTS, RESTRICTIONS AND EASEMENTS WHICH WILL BE IMPOSED UPON THE USE, MANAGEMENT OR MAINTENANCE OF THE OPEN SPACE IN ORDER TO PROVIDE FOR THE NECESSARY CONTROL AND REQUISITE UPKEEP OF THE OPEN SPACE.
- A HOMEOWNERS ASSOCIATION WILL BE ESTABLISHED FOR THE USE, CARE AND MAINTENANCE OF ALL OPEN SPACE LANDS AND IMPROVEMENTS. MEMBERSHIP IN THE HOA WILL BE MANDATORY FOR ALL LANDOWNERS WITHIN THE CSD, AND EACH LOT WILL BE ENTITLED TO EQUAL REPRESENTATION.
- OPEN SPACE WILL BE MAINTAINED BY THE HOA IN A MANNER WHICH WILL PRESERVE SCENIC VIEWS TOWARD THE OCEAN. EXISTING VEGETATION WILL BE TRIMMED TO KEEP VEGETATION FROM BLOCKING VIEWS, EXCEPT FOR THE FOLLOWING AREA: THE OPEN SPACE AREA BEHIND LOTS 8, 9 AND 10 SHOULD BE ALLOWED TO REVEGETATE NATURALLY WITH NO TRIMMING.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PERMITTING  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED OCT 30 2013 FILE 13-0093  
 NO CHANGES ALLOWED WITHOUT APPROVAL  
 APPROVED PLANS MUST BE AT CONSISTENT WITH

*Charles A. Andrews*



OCT 29 2013

Being: ASSESSORS PLAT 114 LOT 106  
**PROPOSED OPEN SPACE USE PLAN**  
**AQUIDNECK HIGHLANDS**  
 LOCATION  
 385 GREEN END AVENUE  
 MIDDLETOWN, RHODE ISLAND  
 OWNER:  
 BLAKEY BOGART  
 385 GREEN END AVENUE  
 MIDDLETOWN, RI 02842  
 PREPARED FOR:  
 SEASCAPE HOLDINGS, LLC  
 1004 BOSTON NECK ROAD, SUITE 6  
 NARRAGANSETT, RI 02882

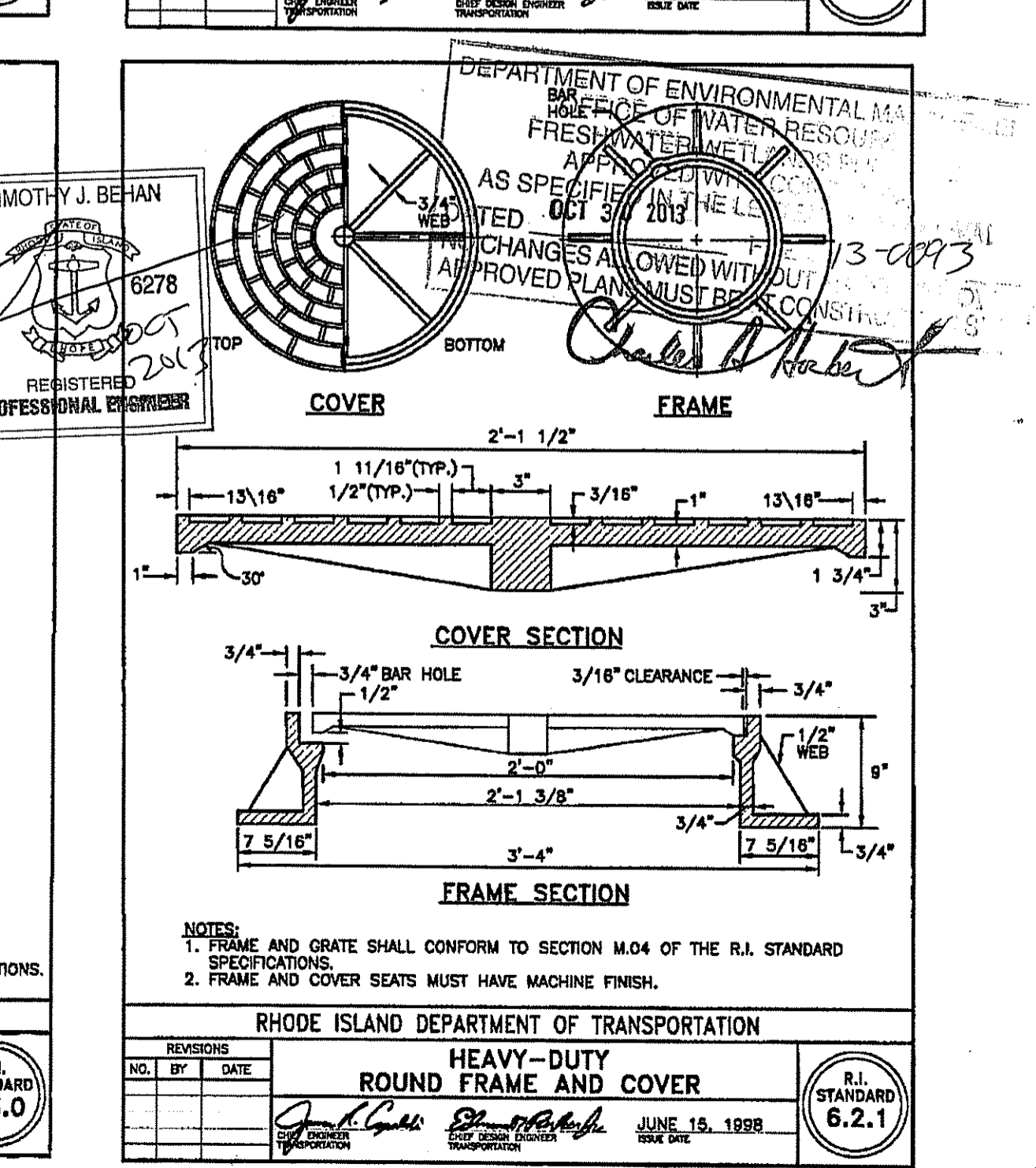
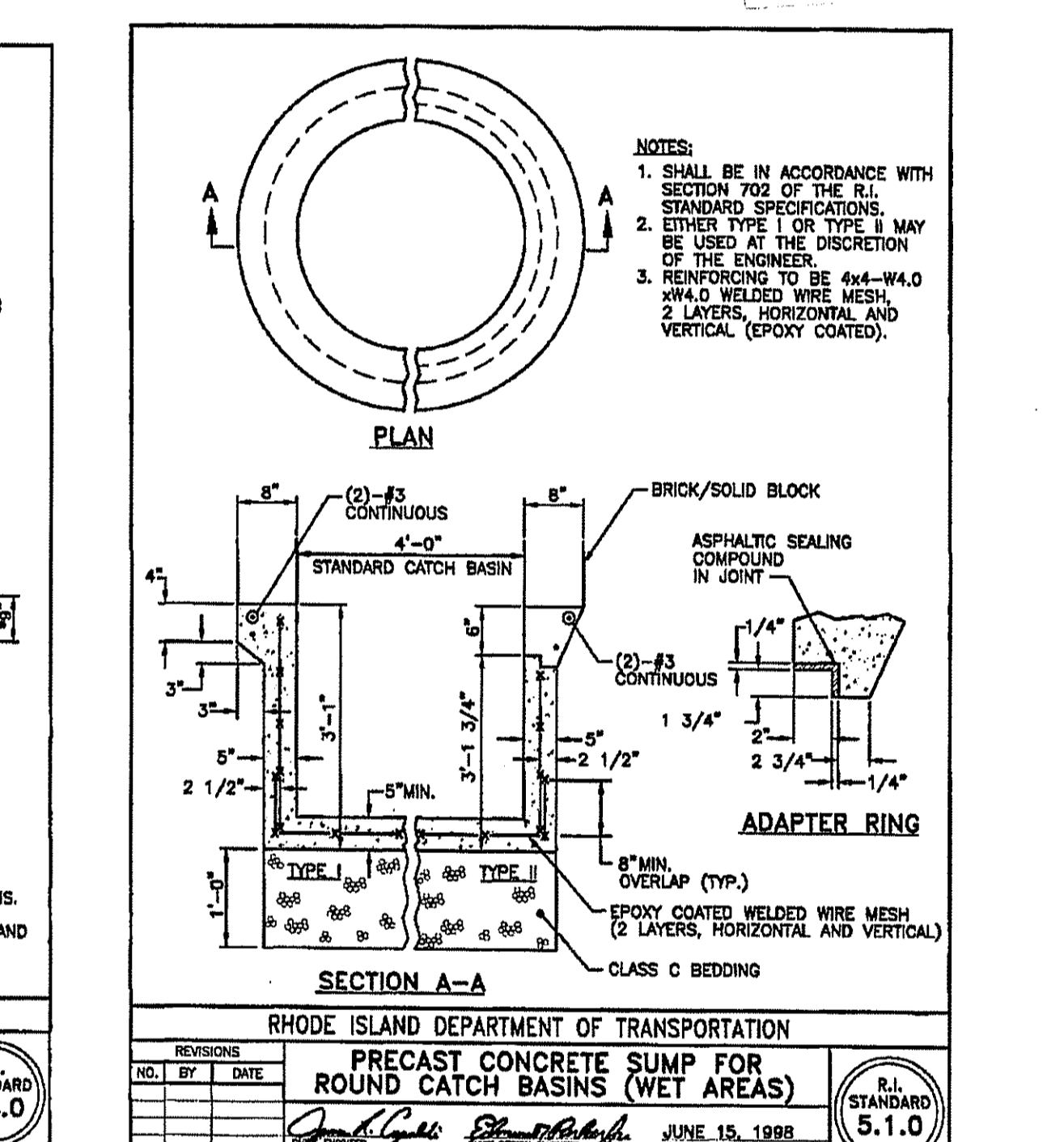
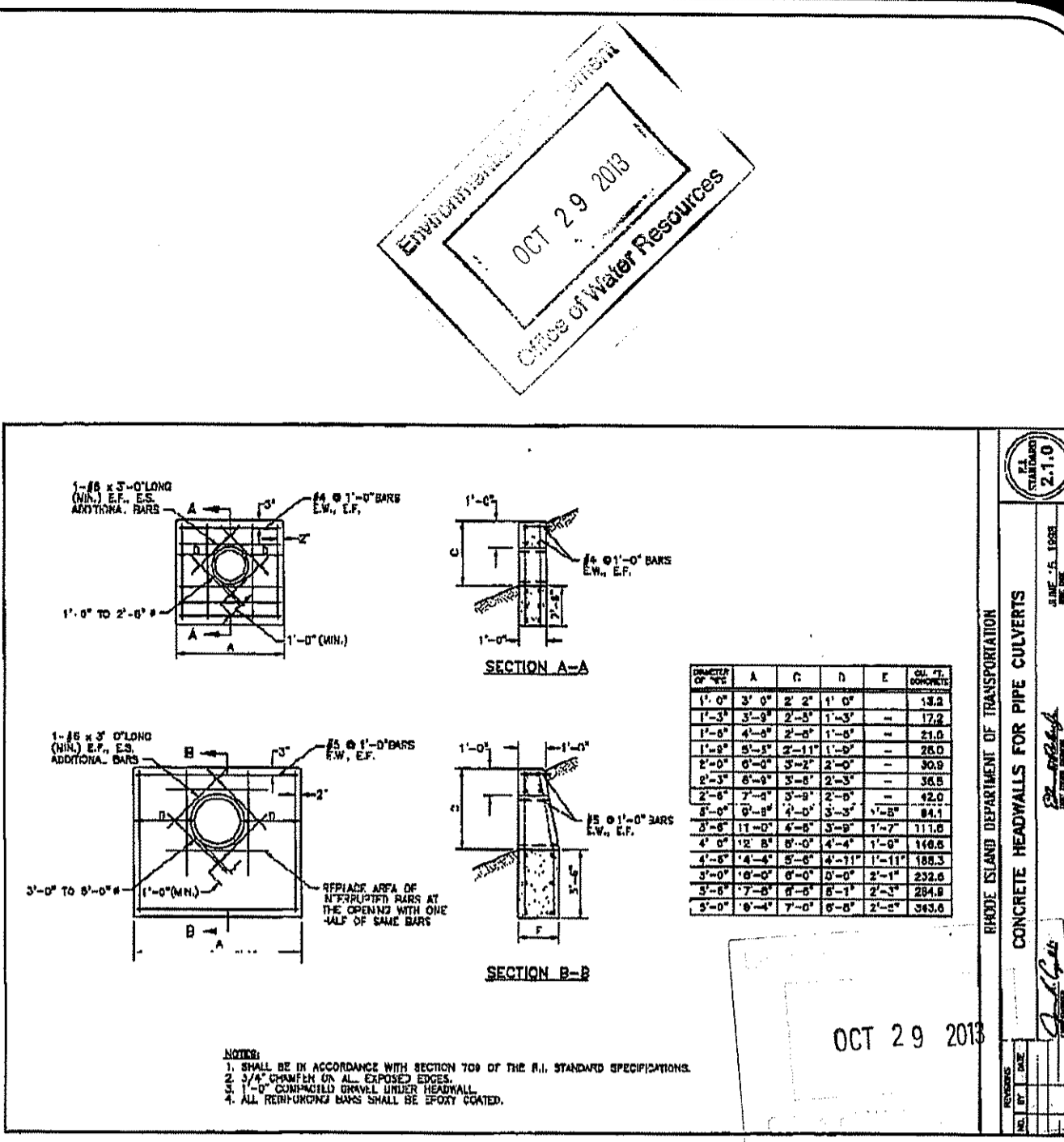
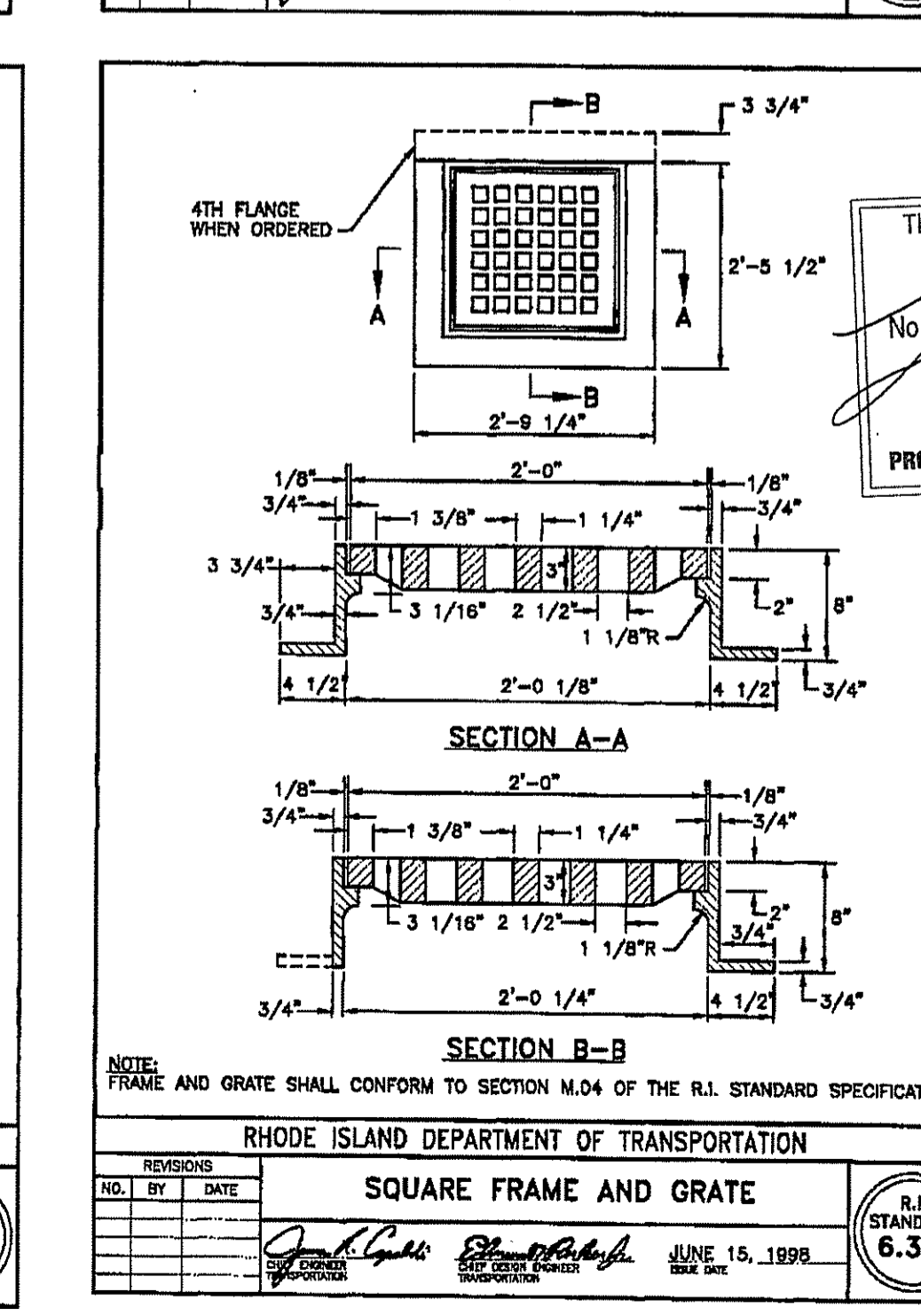
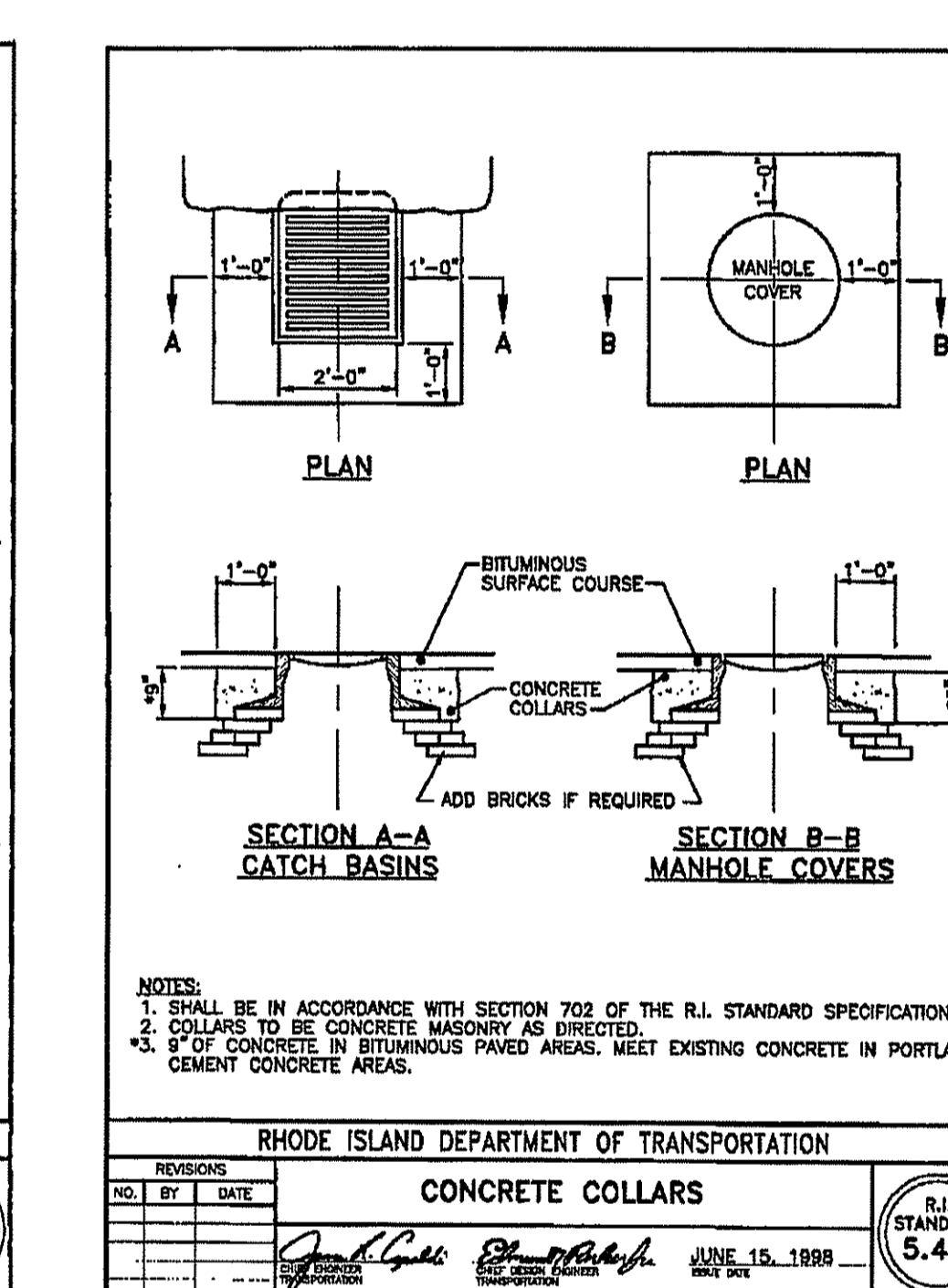
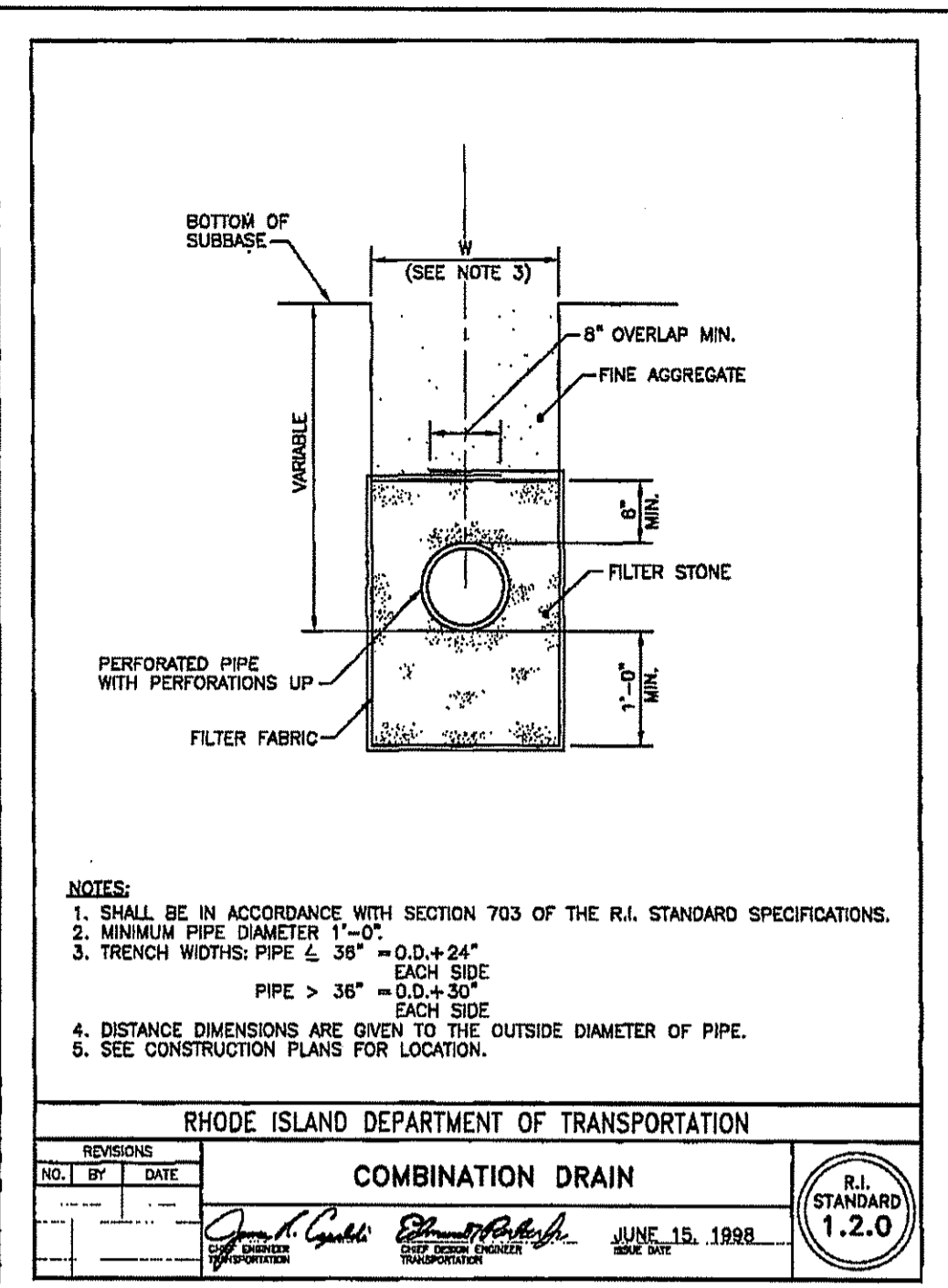
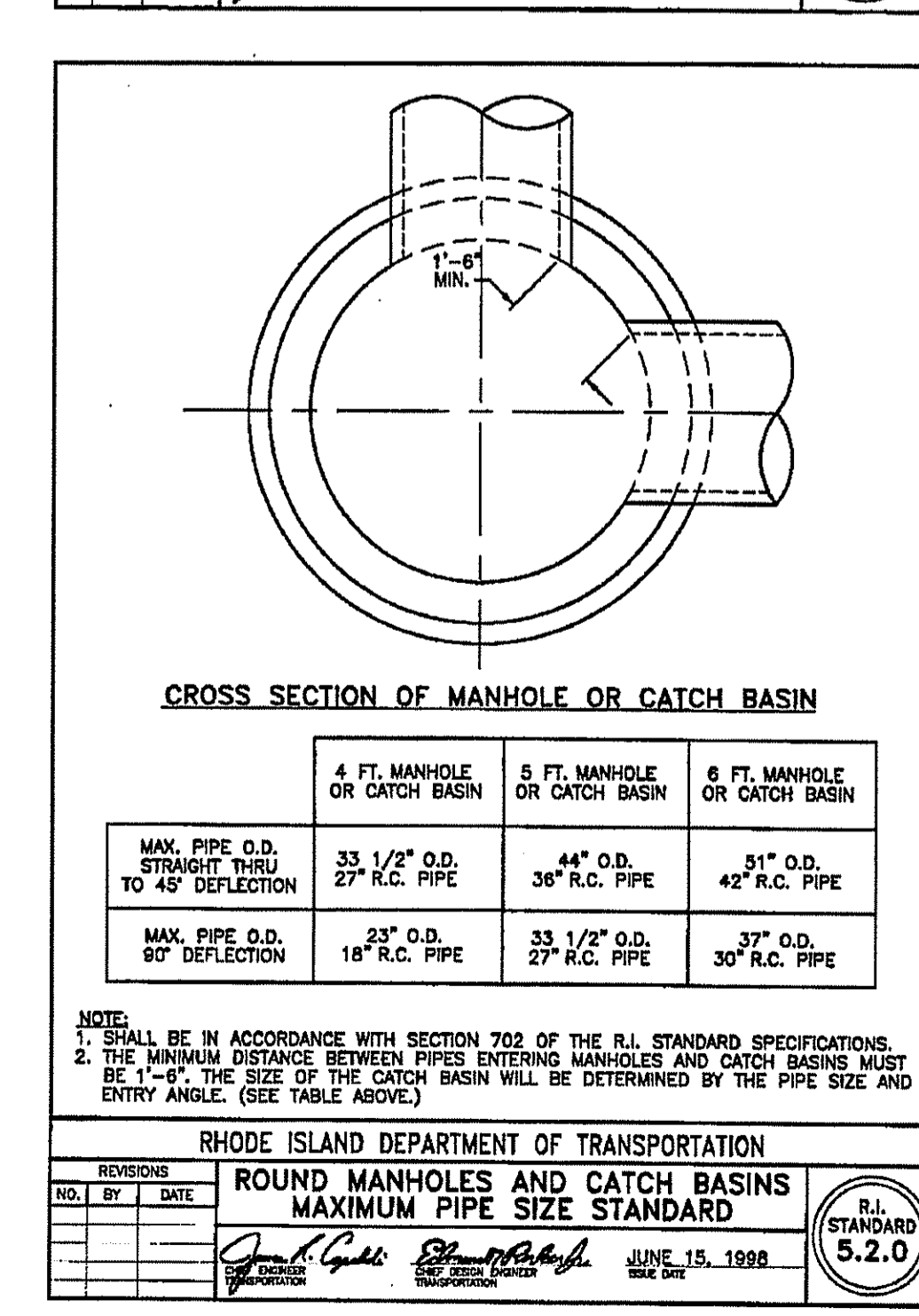
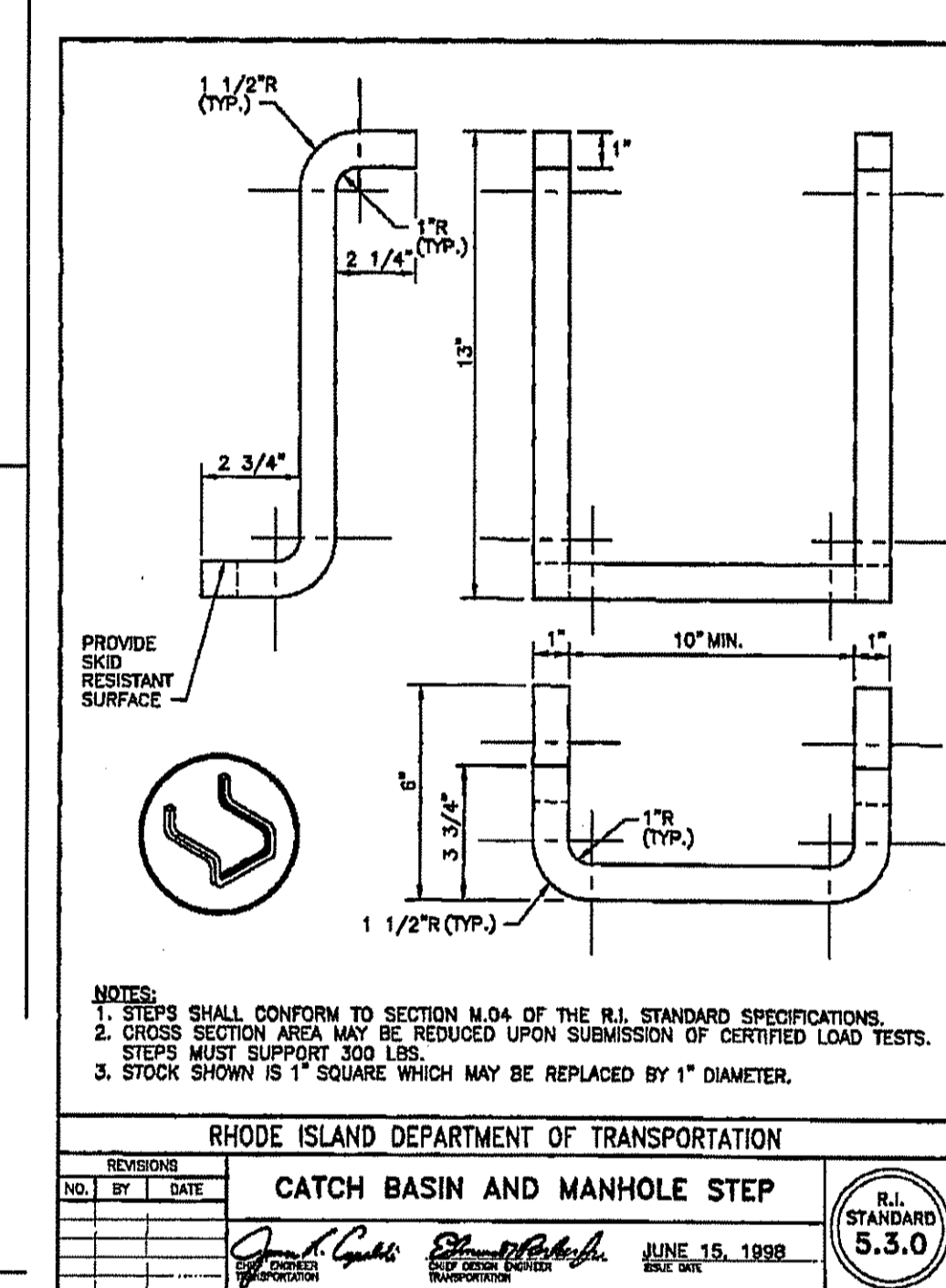
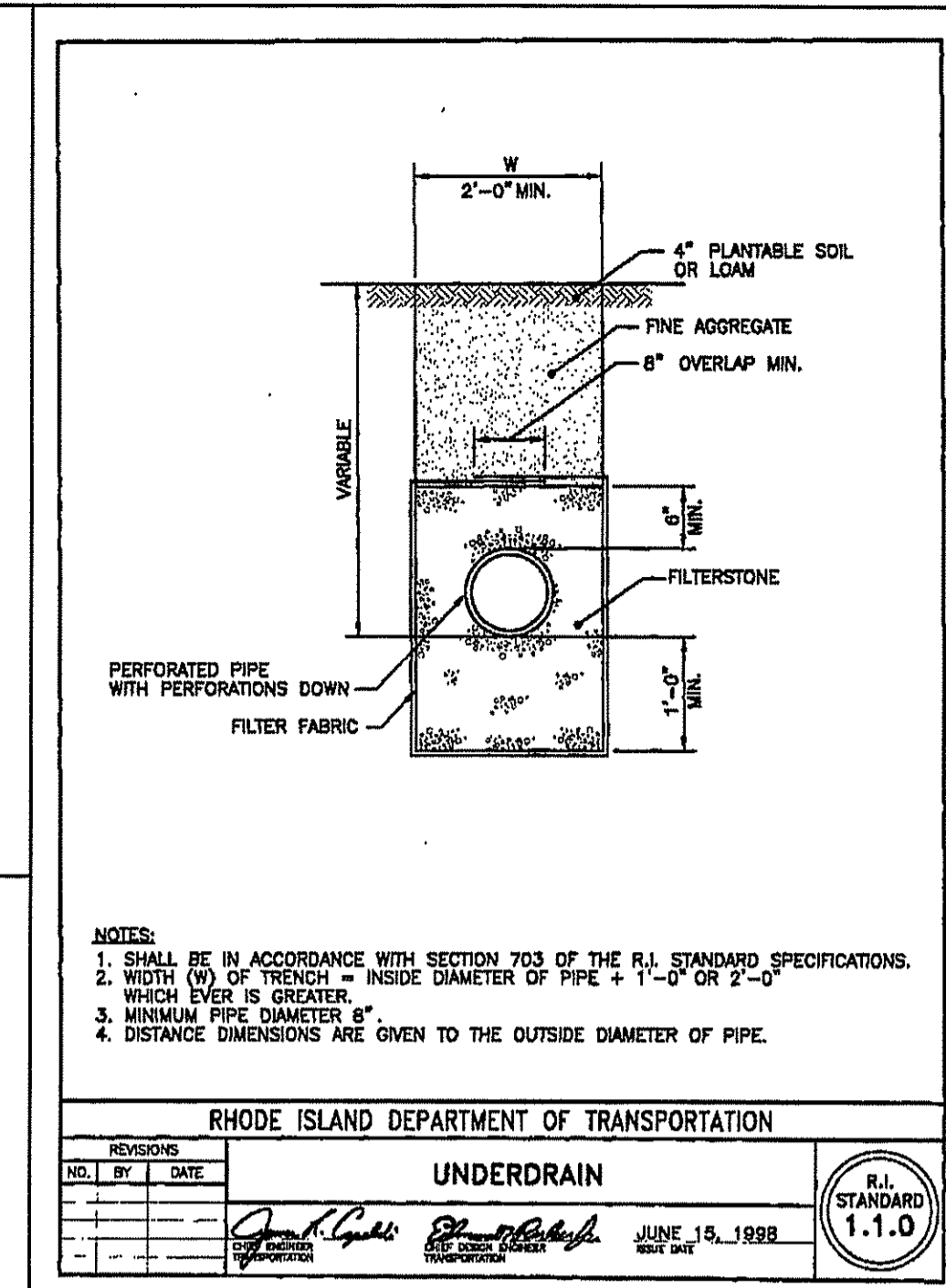
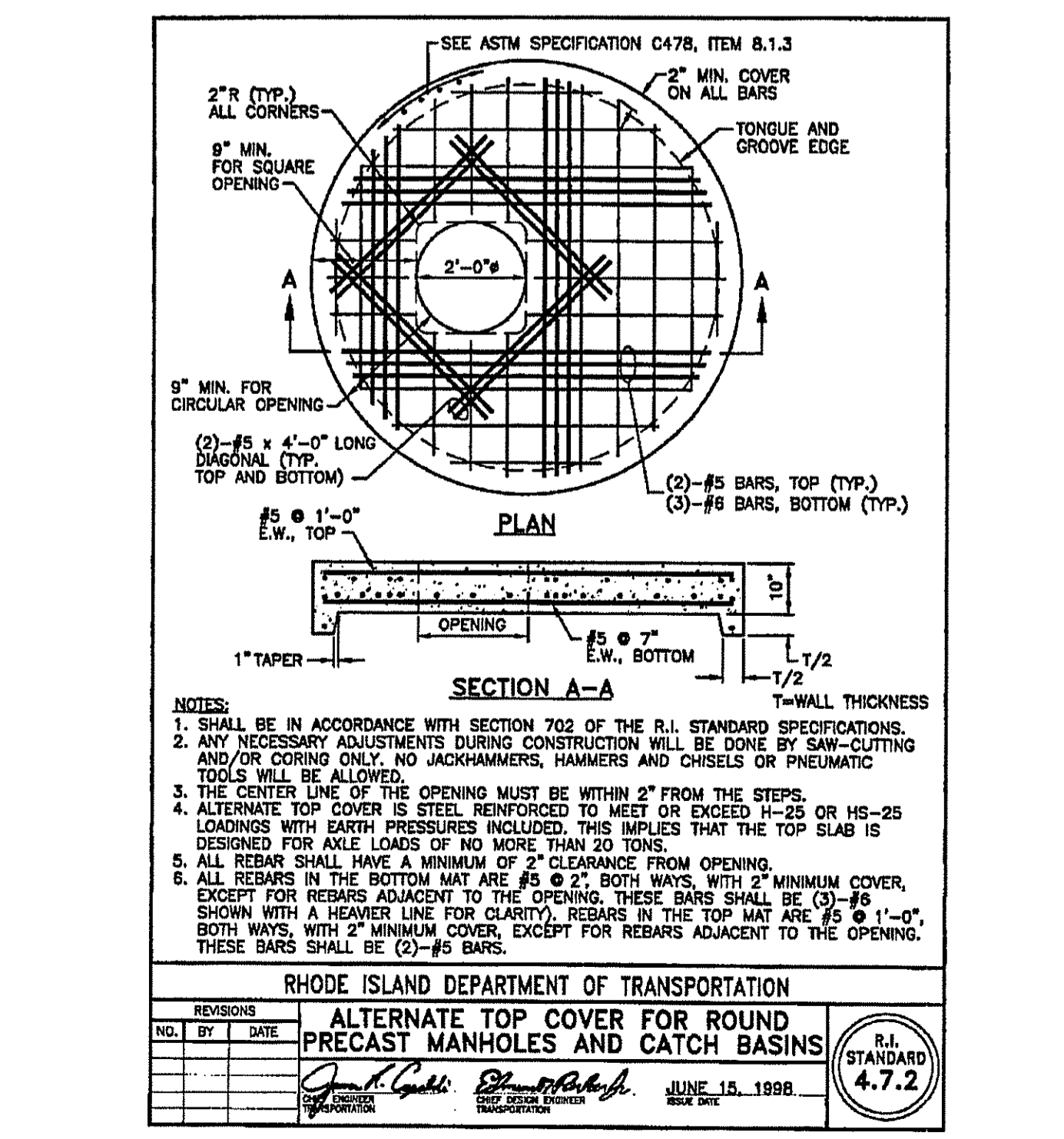
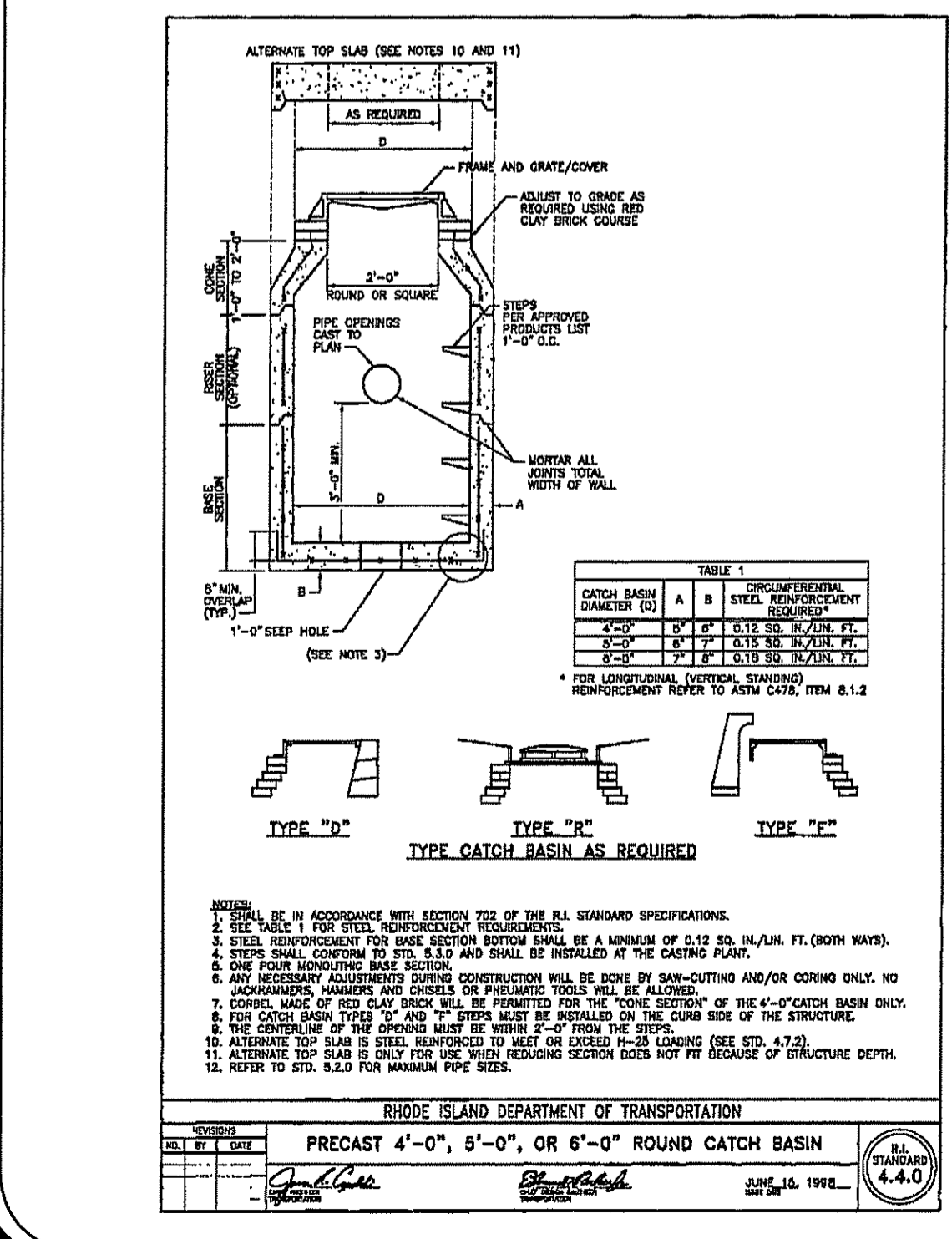
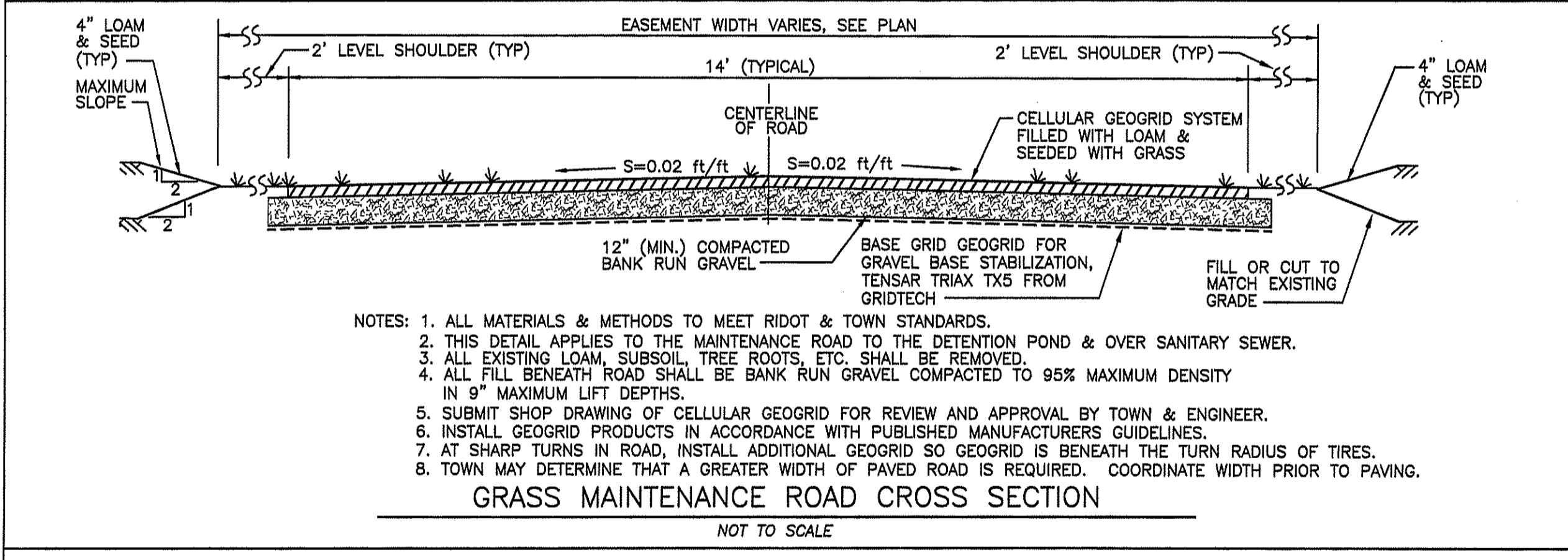
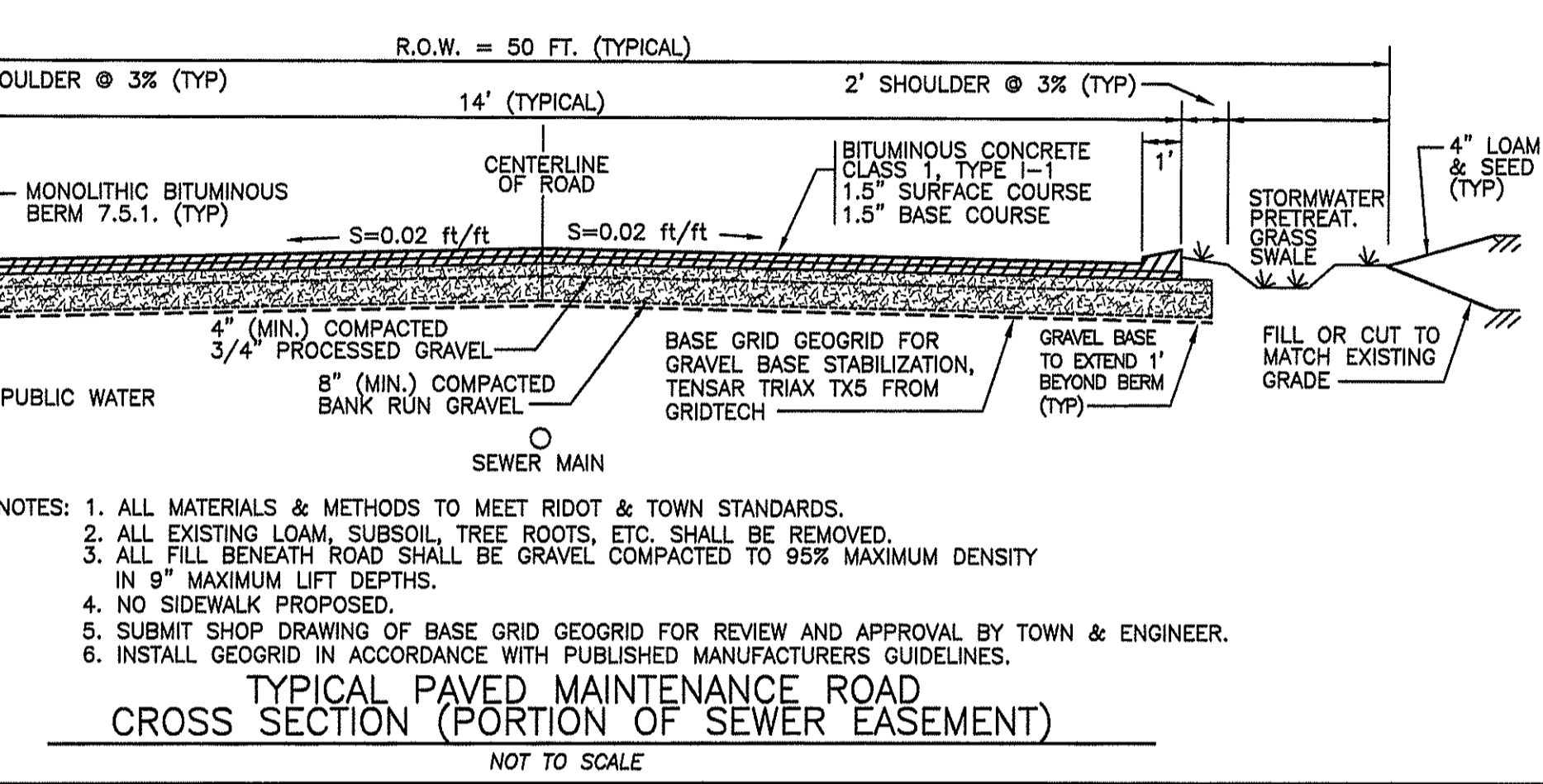
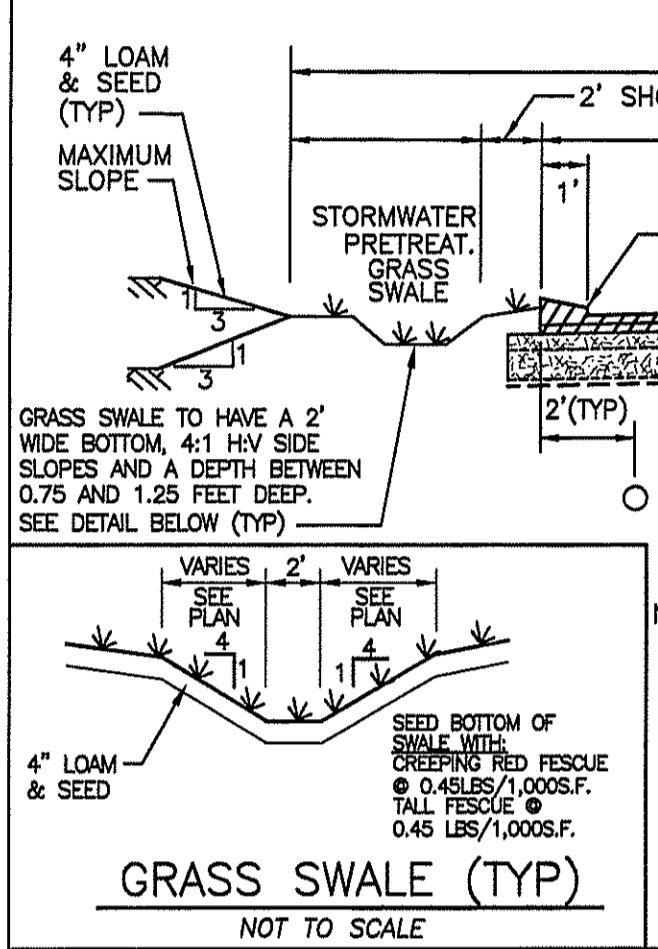
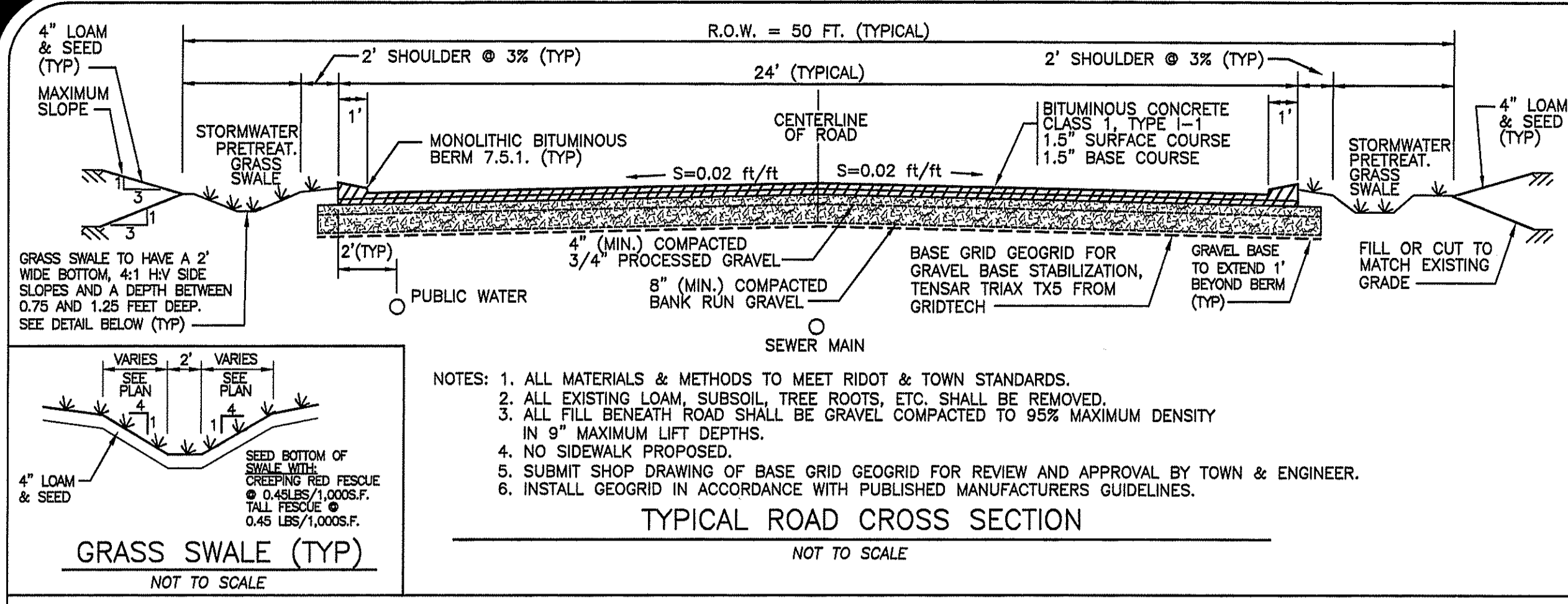
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 Scale: AS SHOWN Date: NOV. 2012

NO.	REVISION	DATE
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2	PRELIMINARY PLAN SUBMISSION	08/24/13
3	TOWN ZONING COMMENTS	09/07/13
4	TOWN ZONING COMMENTS	09/07/13
5	TOWN ZONING COMMENTS	09/07/13
6	TOWN ZONING COMMENTS	09/07/13
7	TOWN ZONING COMMENTS	09/07/13

**TJB ENGINEERING, LLC**  
 CIVIL ENGINEERING  
 PERMITTING \* LAND PLANNING  
 SUBDIVISIONS \* WASTEWATER  
 1050 MAIN STREET SUITE 31  
 EAST GREENWICH, RI 02818  
 PHONE: 401-596-1677

**K ANDREWS ASSOCIATES**  
 LAND SURVEYING AND SITE PLANNING  
 1050 MAIN STREET SUITE 31  
 EAST GREENWICH, RHODE ISLAND 02818  
 PHONE (401) 339-2681

Sheet **9**  
 of 13 sheets



Being: ASSESSORS PLAT 114 LOT 106  
**DETAILS - 1**  
**AQUINECK HIGHLANDS**

385 GREEN END AVENUE  
 MIDDLETOWN, RHODE ISLAND  
 OWNER: SEASCAPE HOLDINGS, LLC  
 100A BRISTOL NEXUS ROAD, SUITE 6  
 WARRANSETT, RI 02882

Checked By: T.J.B. Drawn By: T.J.B.  
 Scale: AS SHOWN Date: NOV. 2012

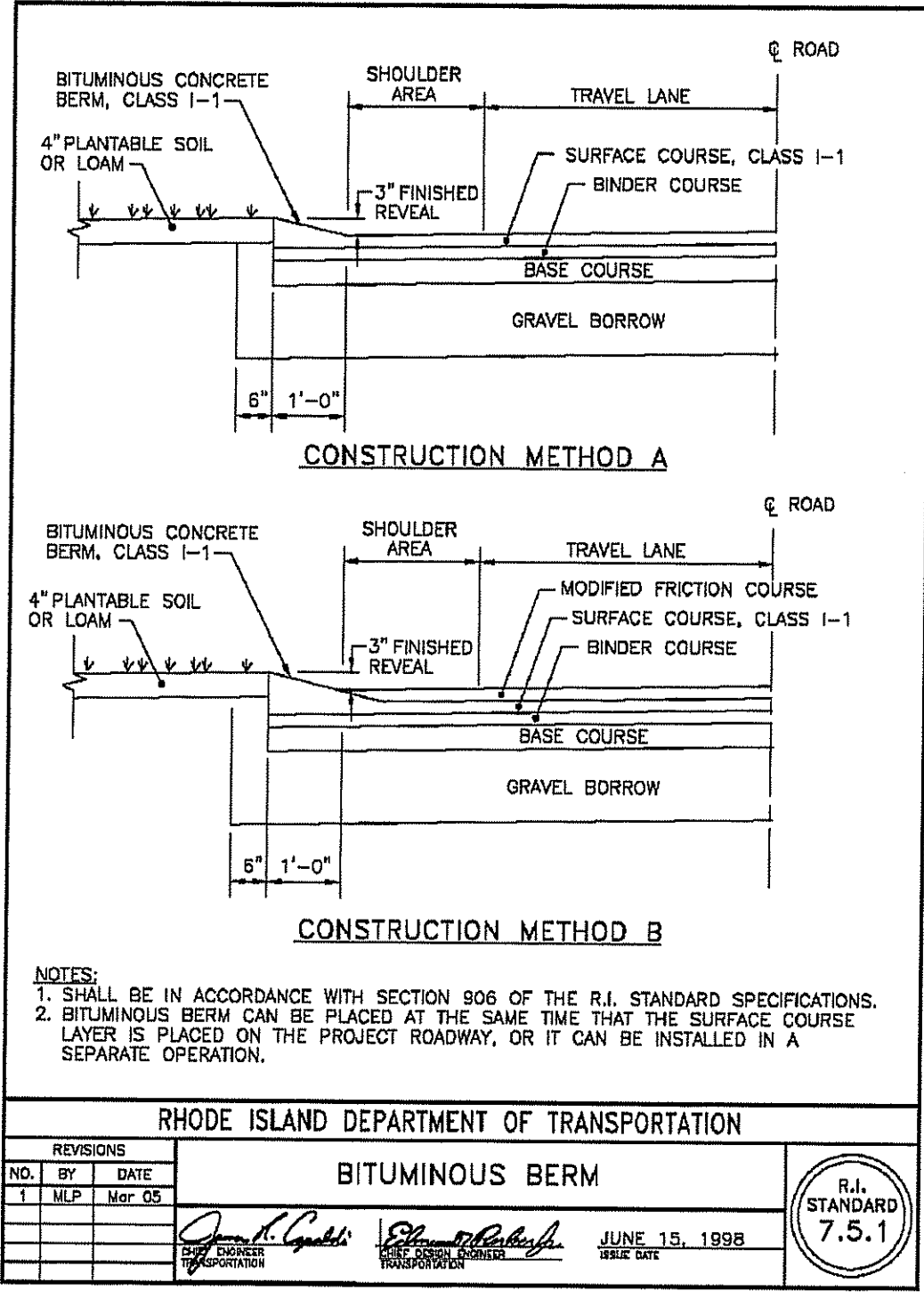
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3	TOWN NO. COMMENTS	02/07/13	TJB
4	TOWN NO. COMMENTS	02/07/13	TJB
5	ISSUED FOR PERMITTING	02/07/13	TJB
6	ISSUED FOR PERMITTING	02/07/13	TJB
7	ISSUED FOR PERMITTING	02/07/13	TJB

**TJB ENGINEERING, LLC**  
 CIVIL ENGINEERING  
 PERMITTING \* LAND PLANNING  
 SUBDIVISIONS \* WASTEWATER

1050 MAIN STREET SUITE 31  
 EAST GREENWICH, RI 02818  
 PHONE: 401-996-1677

**K ANDREWS ASSOCIATES**  
 LAND SURVEYING AND SITE PLANNING

1050 MAIN STREET, SUITE 31  
 EAST GREENWICH, RHODE ISLAND 02818  
 PHONE (401) 339-2681

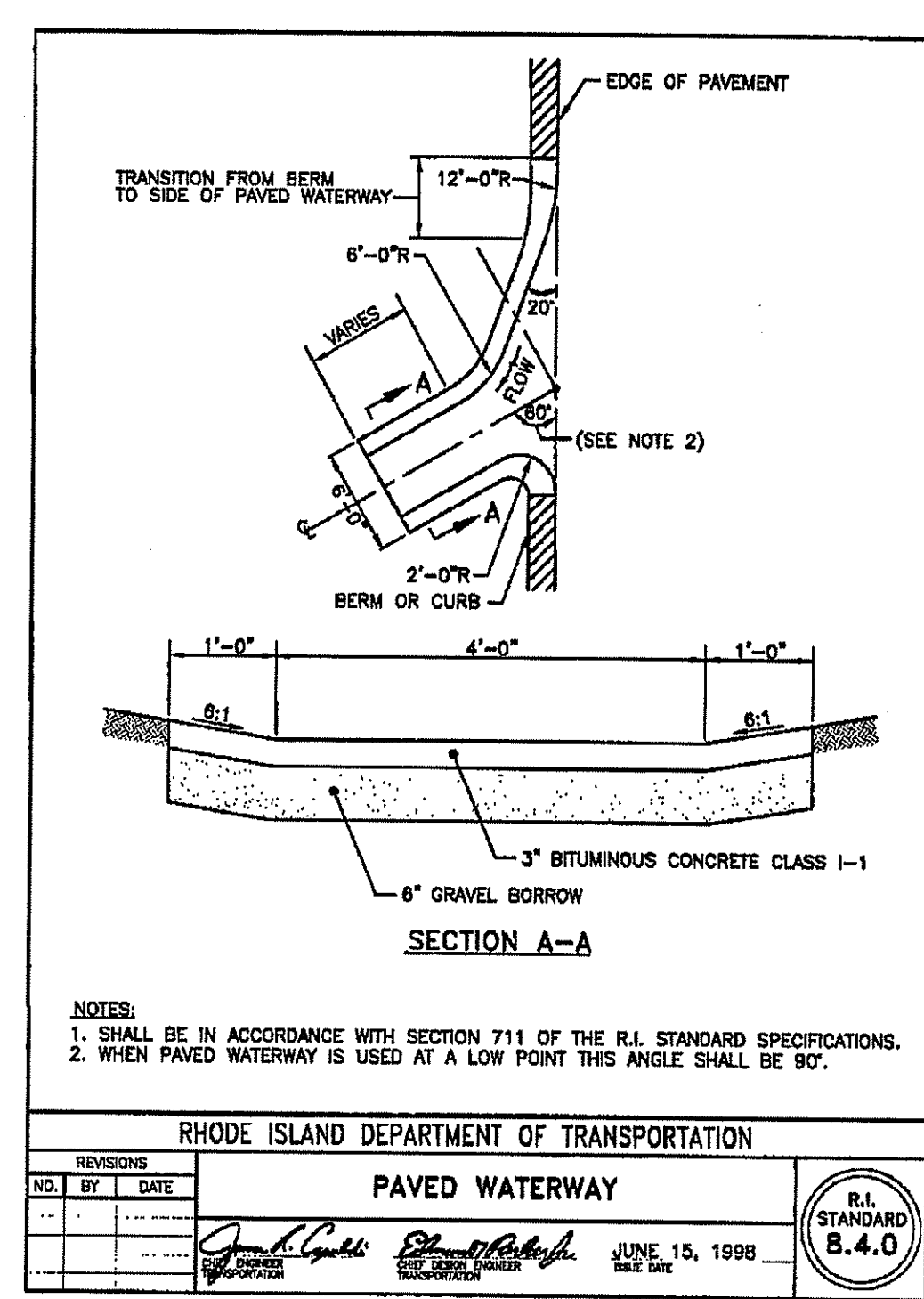


RHODE ISLAND DEPARTMENT OF TRANSPORTATION

**BITUMINOUS BERM**

NO. BY DATE  
 1 M.P. M.P. 08  
 JUNE 15, 1998

R.I. STANDARD 7.5.1

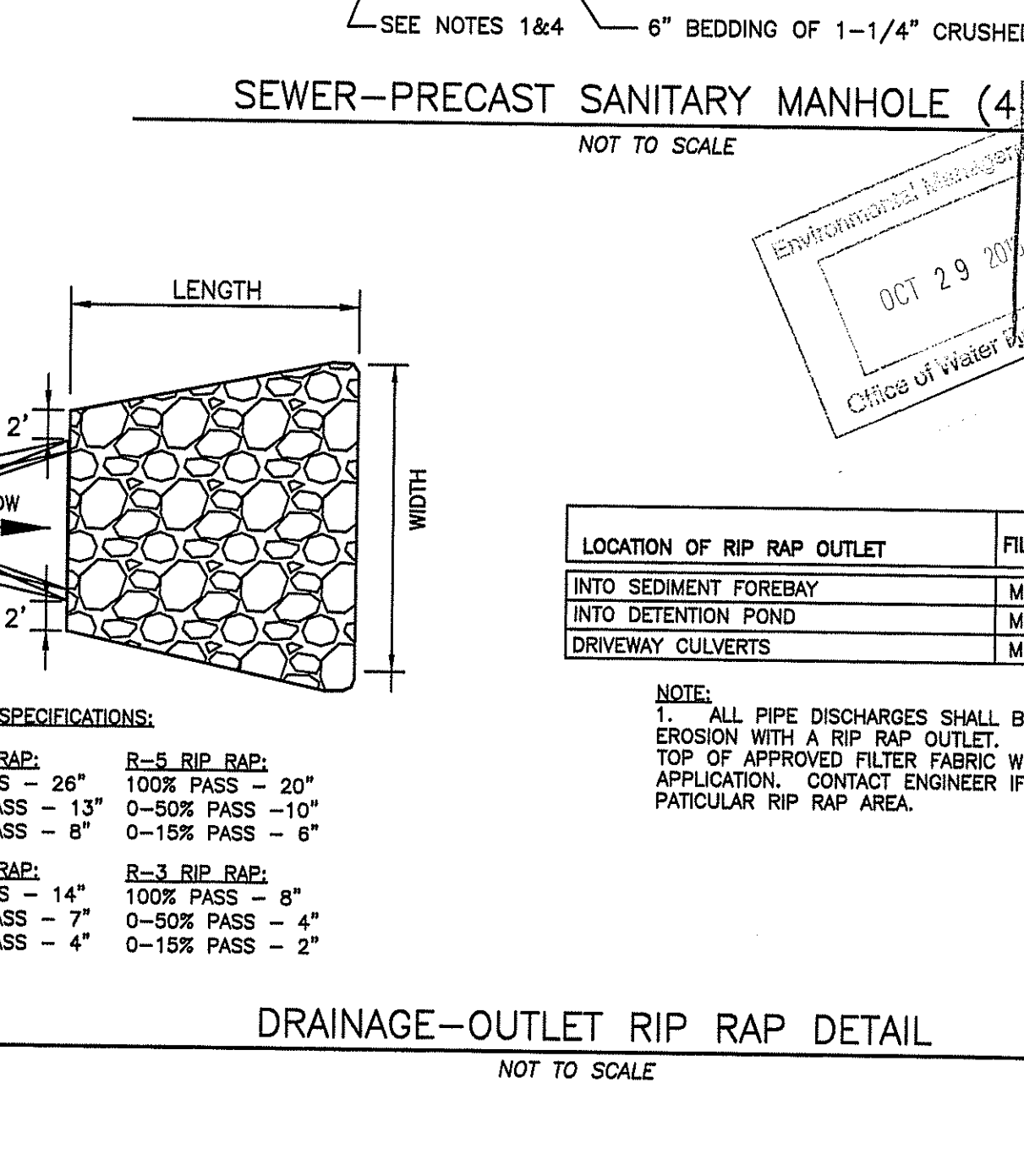
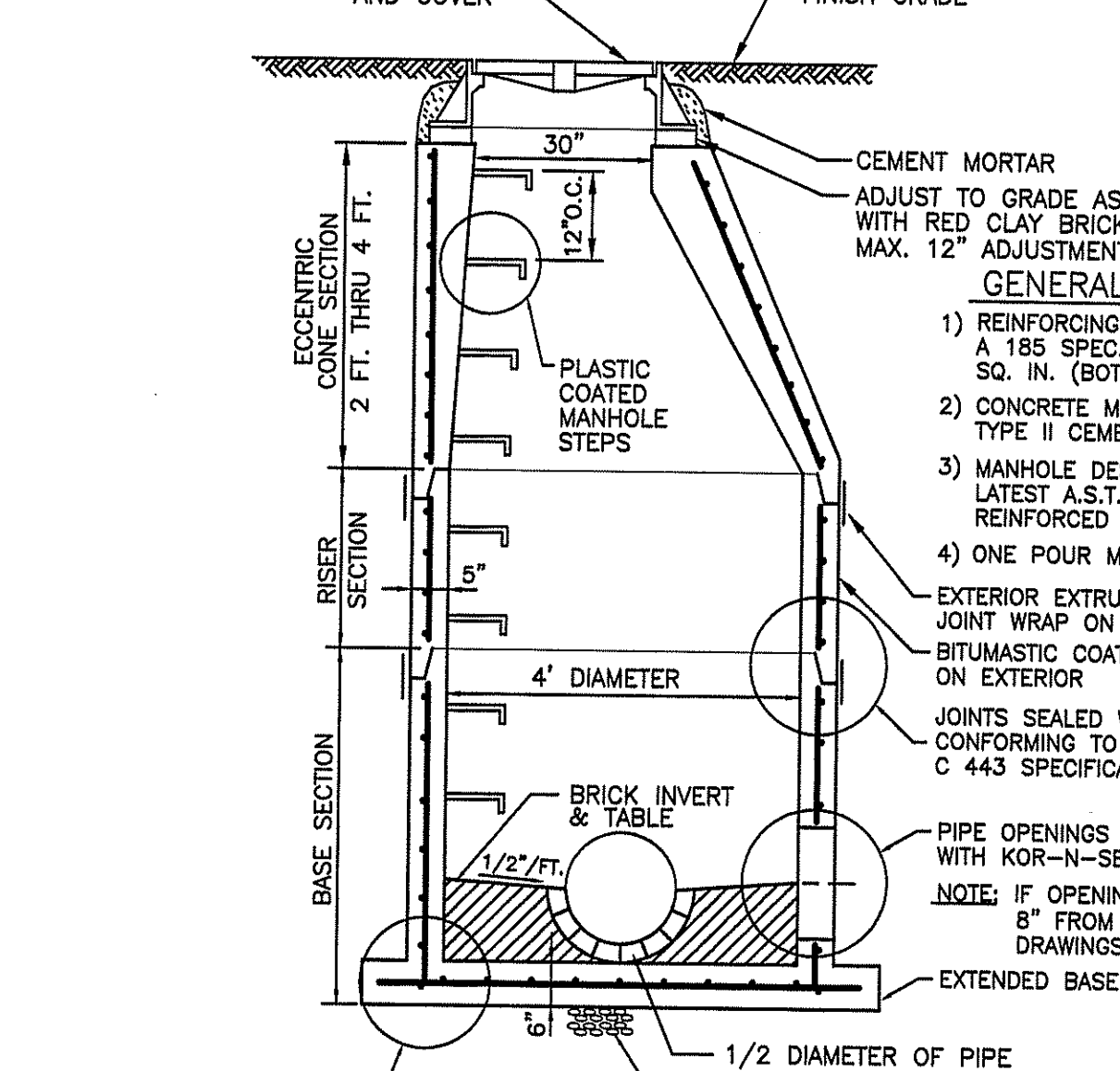
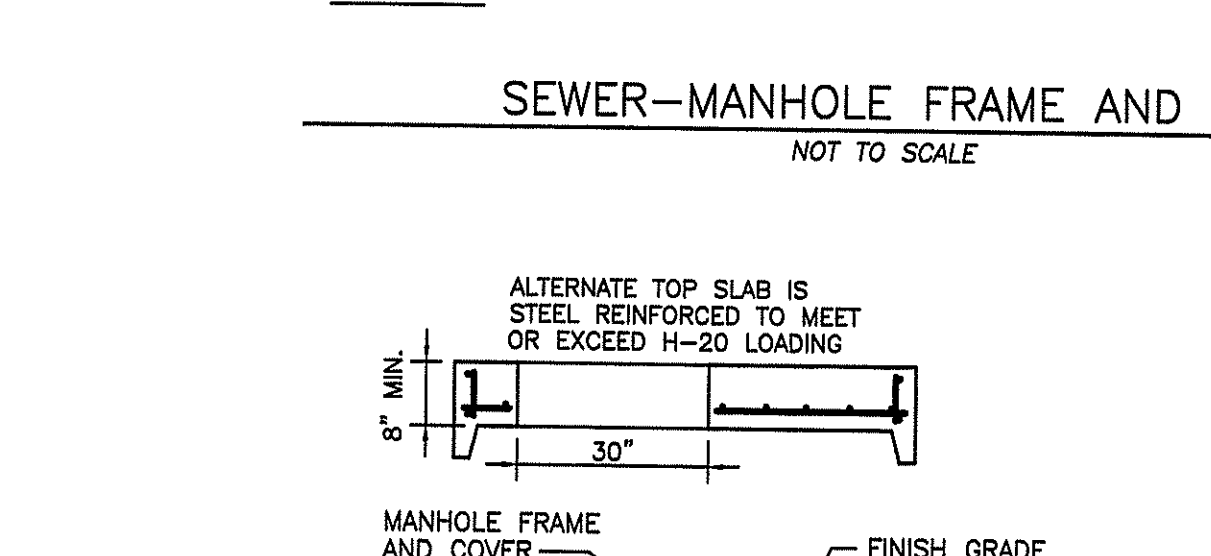
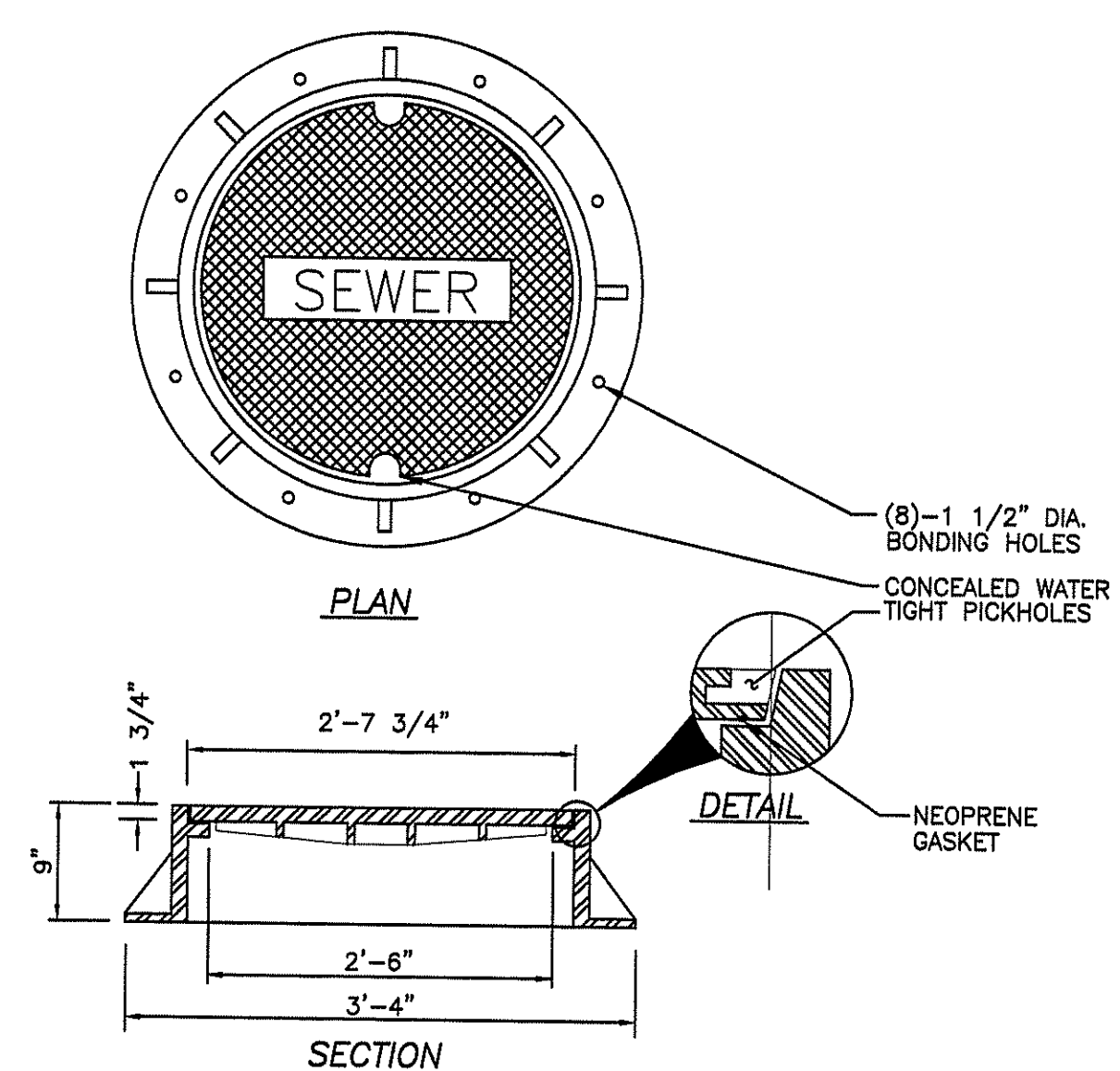
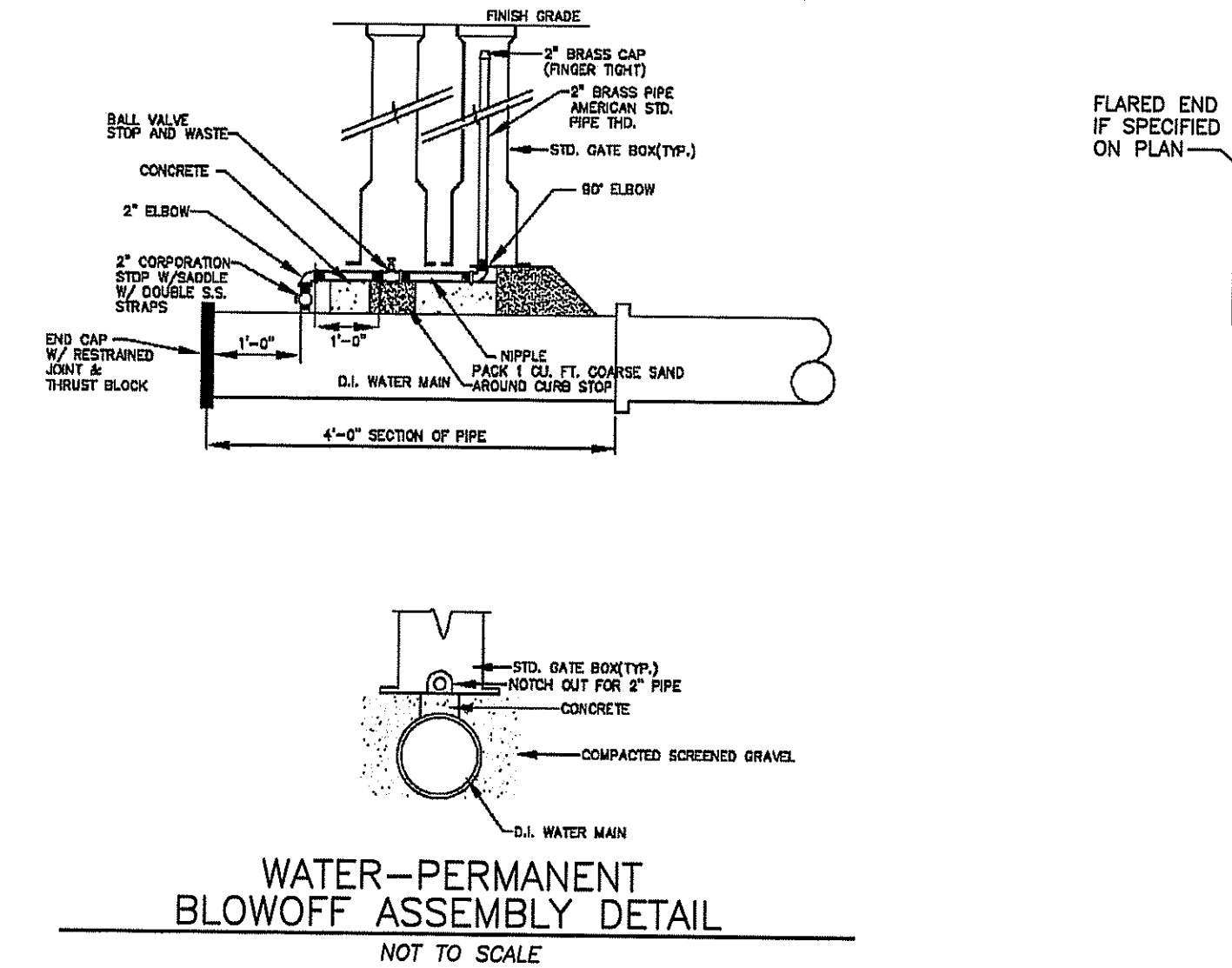
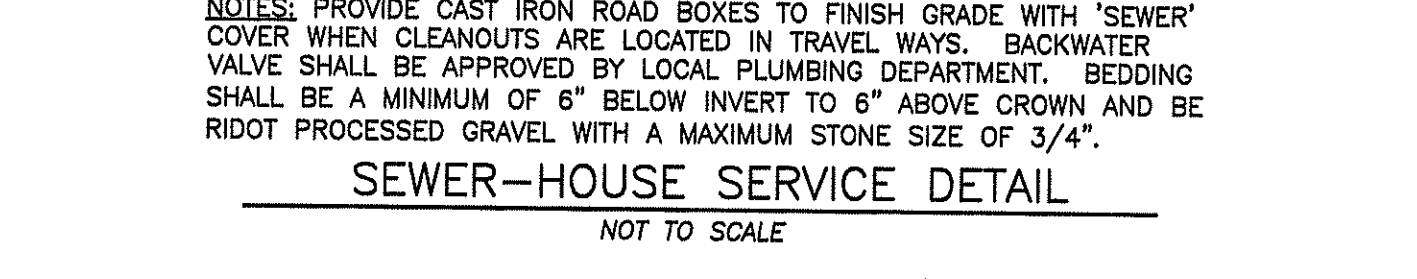
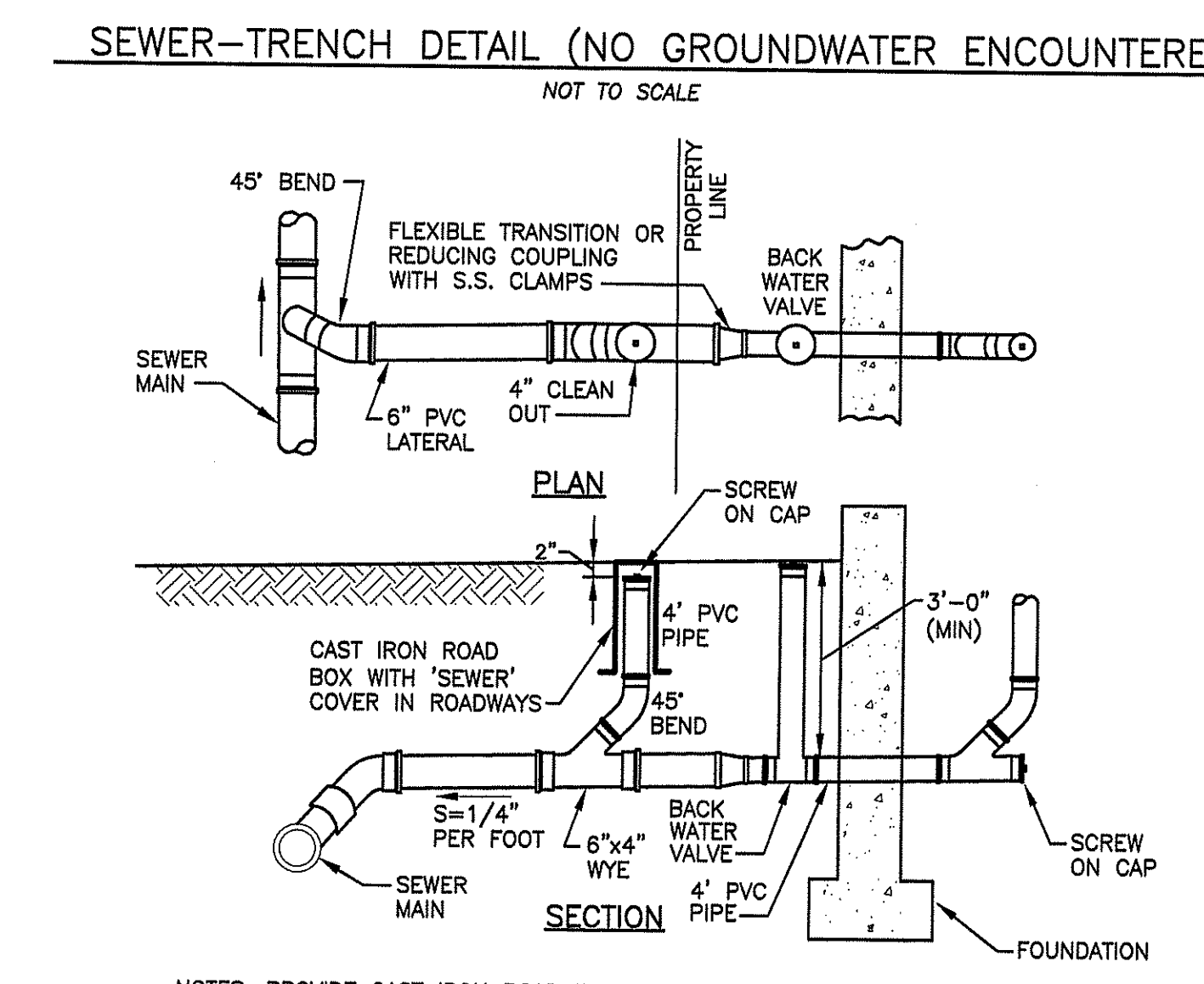
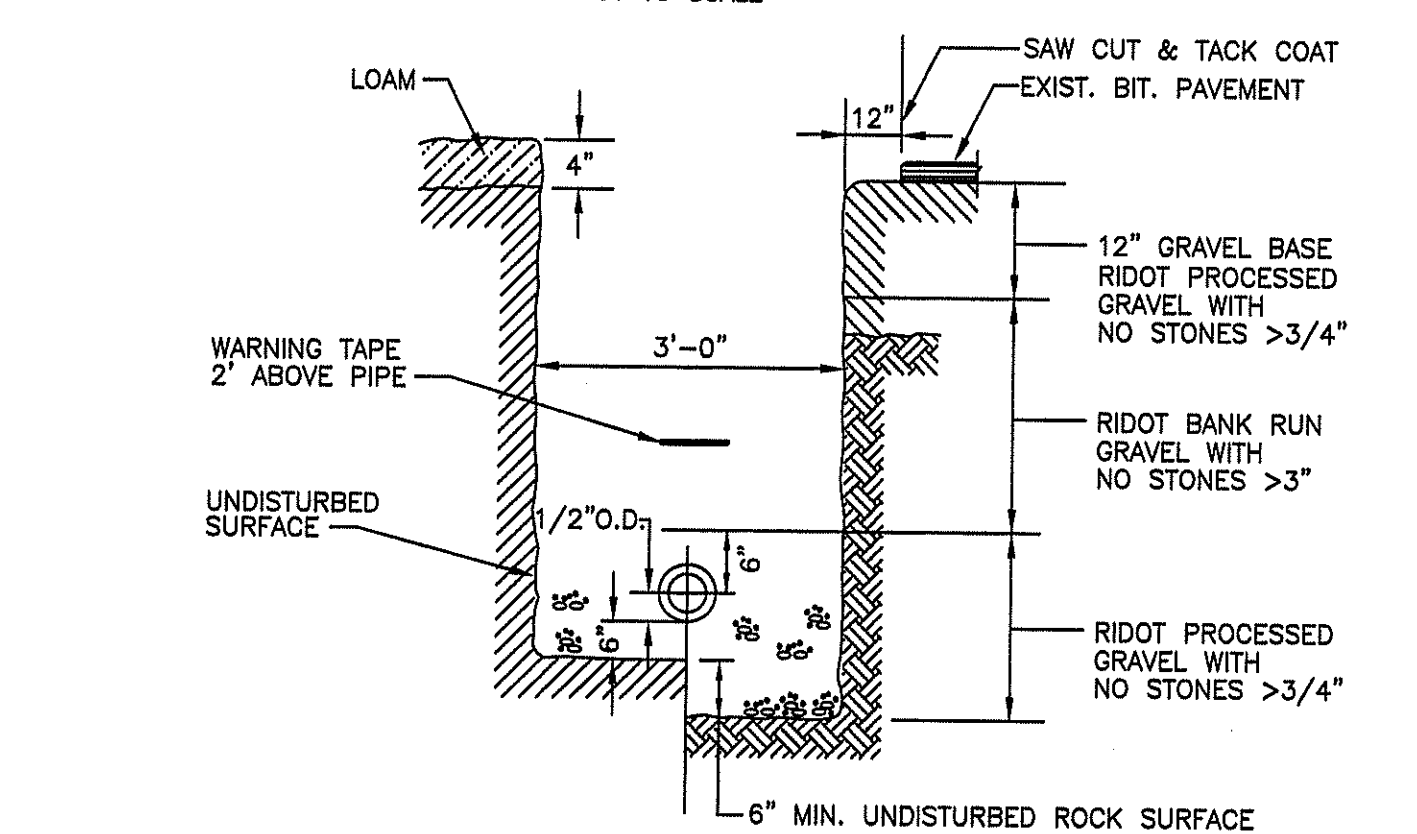
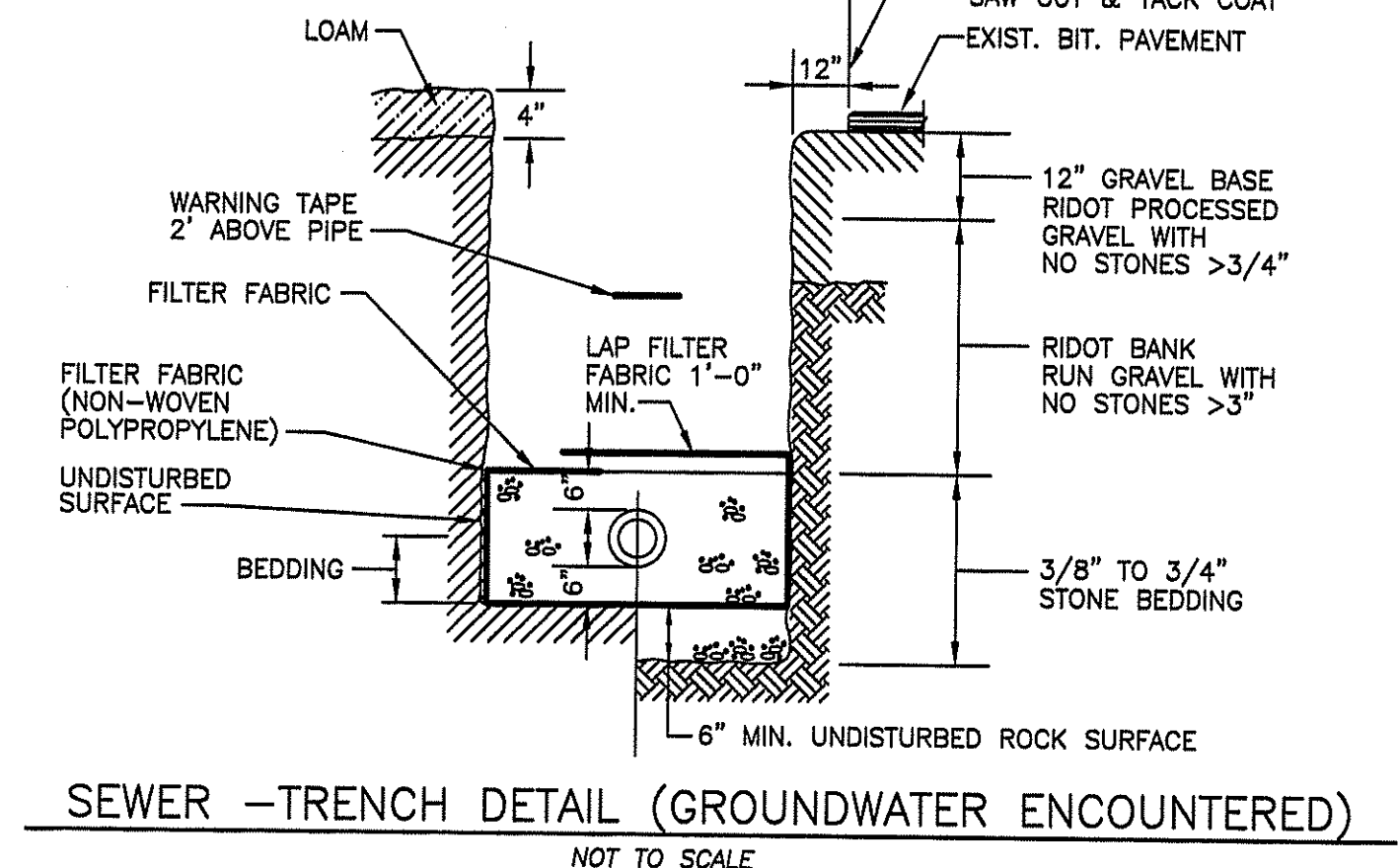


RHODE ISLAND DEPARTMENT OF TRANSPORTATION

**PAVED WATERWAY**

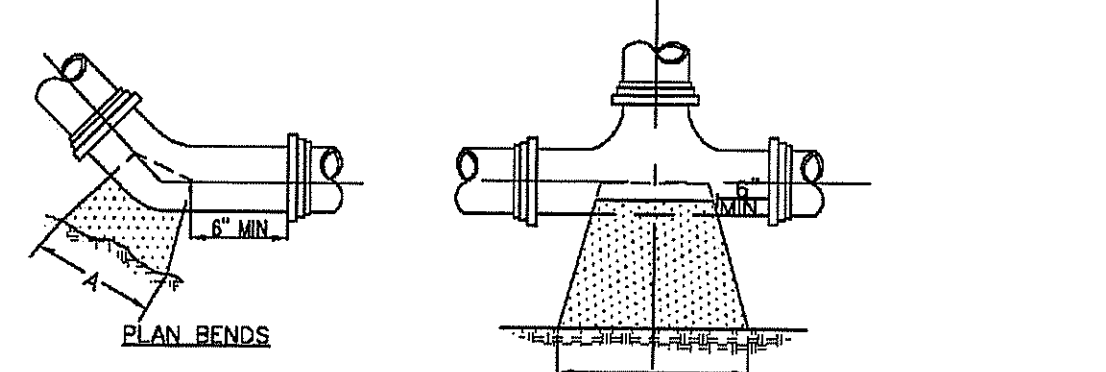
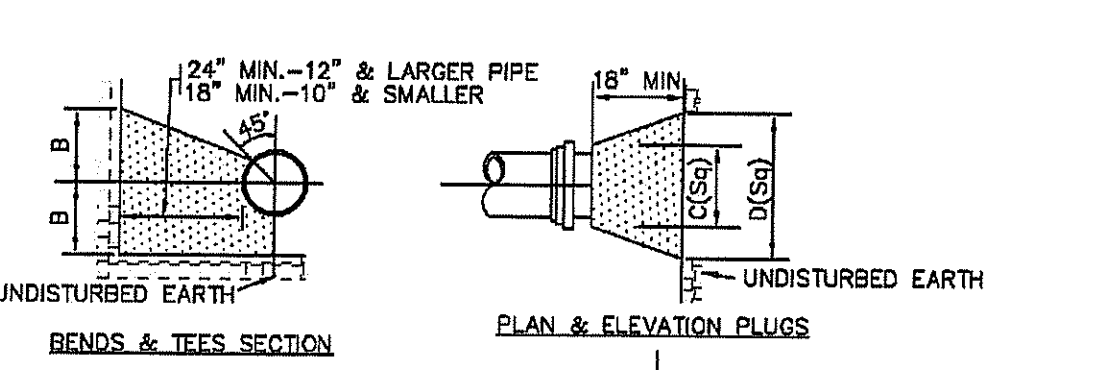
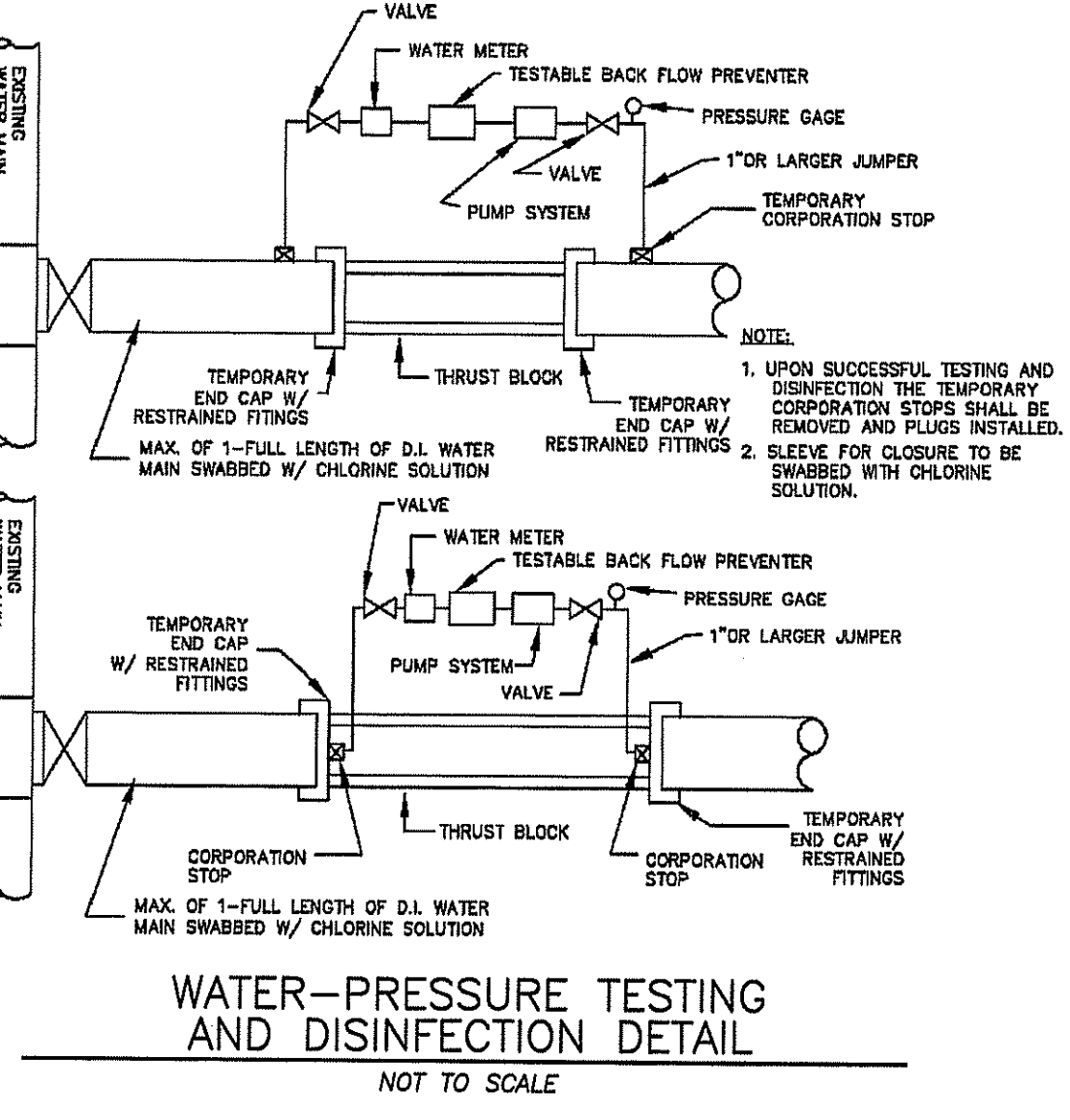
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R.I. STANDARD 8.4.0



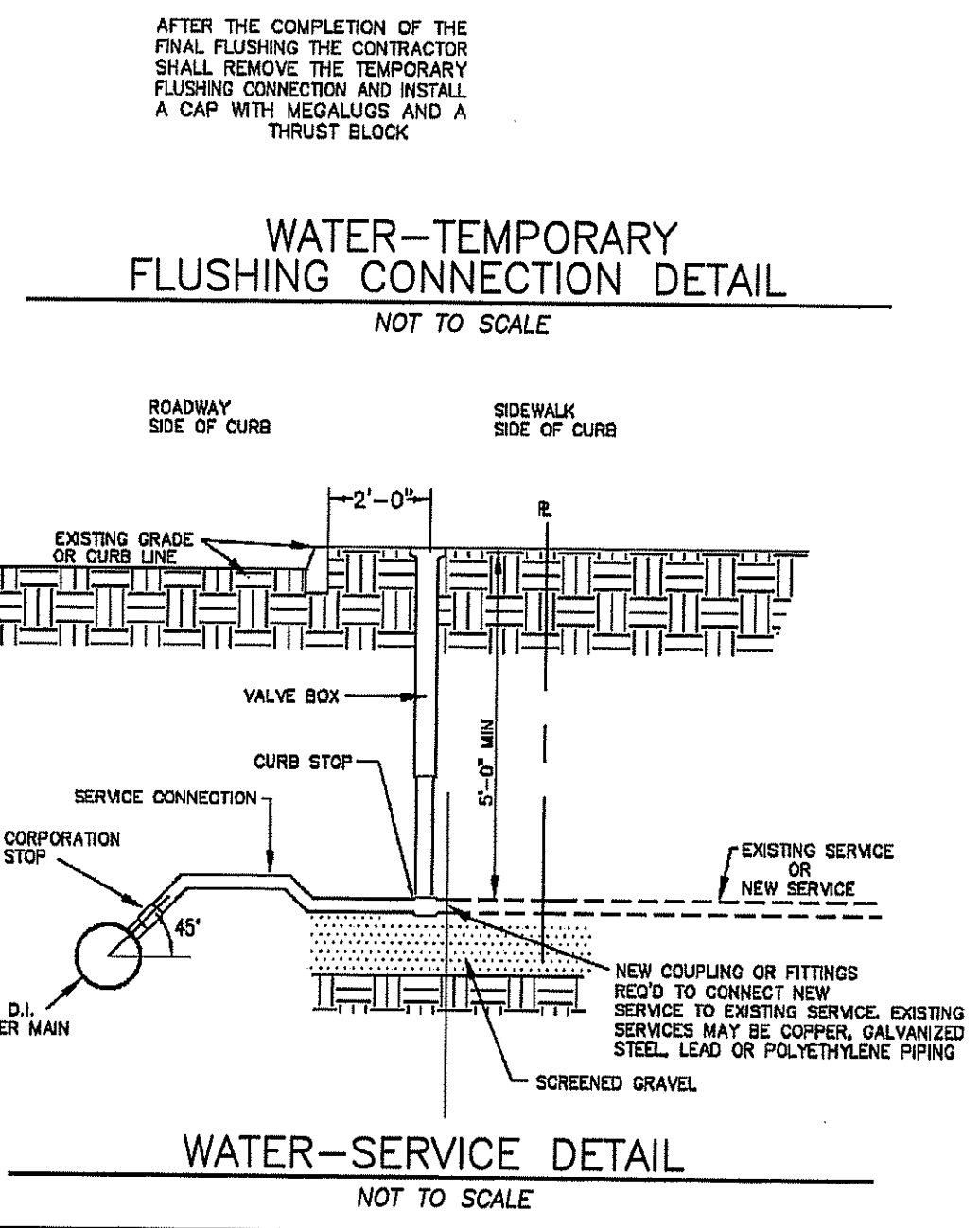
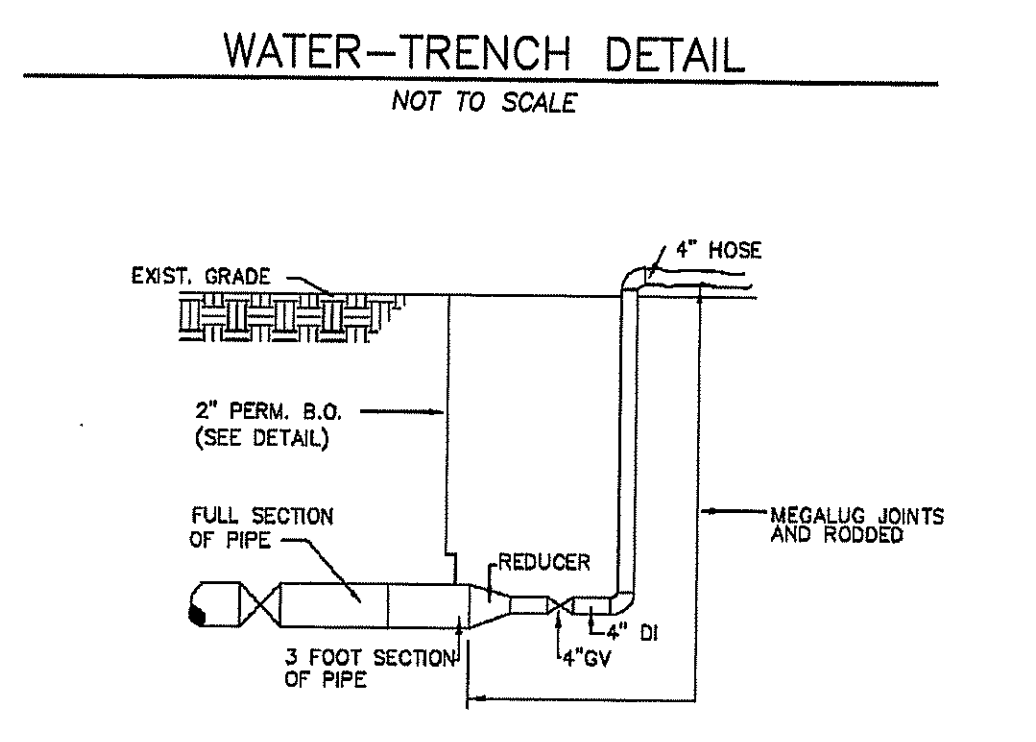
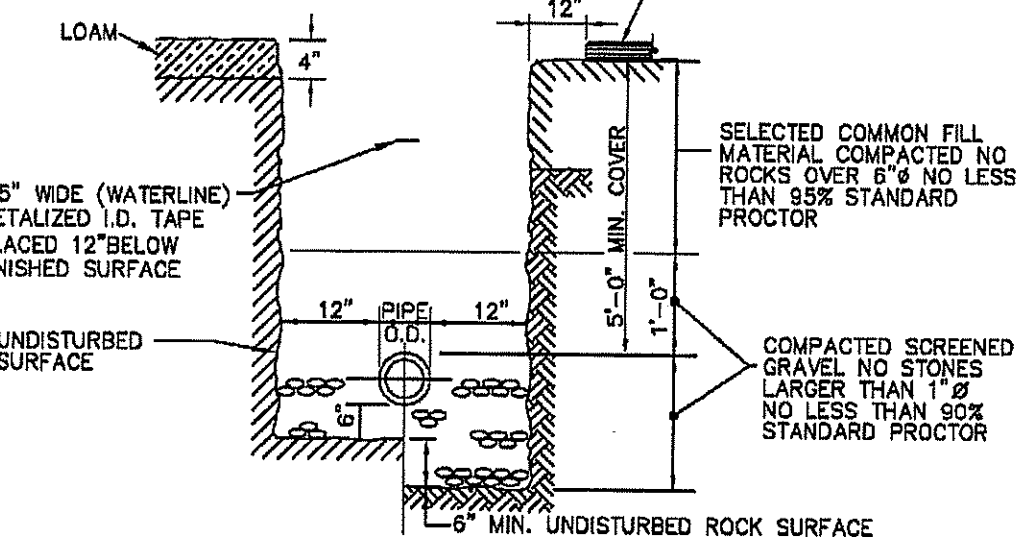
- NOTES:**
- MANHOLE COVER TO BE SOLID AND WATER-TIGHT WITH NO VENT HOLES. THE LOWER SURFACE OF THE COVER AND THE CORRESPONDING UPPER SURFACE OF THE FRAME SHALL BE MACHINE FINISHED TO PROVIDE SMOOTH FLAT CONTACT OR FIT WITHOUT ANY TENDENCY FOR THE COVER TO ROCK OR RATTLE.
  - FRAME & COVERS OFF PAVEMENT AREAS (EASEMENT) SHALL BE BOLTED & GASKETED.
  - ALL FRAME & COVERS SHALL BE APPROVED BY LOCAL SEWER AUTHORITY PRIOR TO ORDERING.

OCT 29 2013



- 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 KCWA REQUIREMENTS.

SIZE	TEES		PLUGS		90° BEND		45° BEND		22 1/2° BEND		WYEBEND	
	A	B	C	D	A	B	A	B	A	B	A	B
6"	20"	10"	10"	21"	24"	12"	16"	9"	13"	7"	9"	5"
8"	26"	13"	12"	26"	30"	15"	20"	11"	17"	11"	12"	6"
10"	32"	16"	15"	32"	36"	18"	24"	13"	21"	13"	15"	7"
12"	41"	20"	18"	41"	46"	22"	30"	16"	27"	16"	18"	8"
18"	54"	27"	24"	54"	60"	28"	38"	20"	36"	20"	24"	12"



Checked By: T.J.B. Drawn By: T.J.B. Date: NOV. 2012

Scale: AS SHOWN

**REVISIONS**

NO.	REVISION	DATE
1	ISSUE FOR REGULATORY AGENCY	10/24/13
2	FOR PERMITS	10/24/13
3	FOR PERMITS	10/24/13
4	FOR PERMITS	10/24/13
5	FOR PERMITS	10/24/13
6	FOR PERMITS	10/24/13
7	FOR PERMITS	10/24/13

- GENERAL NOTES**
- REINFORCING STEEL CONFORMS TO LATEST A.S.T.M. A 198 SPEC, 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
  - CONCRETE MINIMUM COMPRESSIVE STRENGTH = 4000 PSI TYPE II CEMENT.
  - MANHOLE DESIGN SPECIFICATIONS CONFORM TO LATEST A.S.T.M. C 478 SPEC. FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS".
  - ONE POUR MONOLITHIC BASE SECTION.
- EXTERIOR EXTRUDED BUTYL ADHESIVE TAPE JOINT WRAP ON ALL JOINTS, MIN. WIDTH 6" BITUMASTIC COATING ON EXTERIOR
- JOINTS SEALED WITH RUBBER GASKETS CONFORMING TO LATEST A.S.T.M. C 443 SPECIFICATIONS
- PIPE OPENINGS CAST TO PLAN WITH KOR-N-SEAL JOINT SLEEVES
- NOTE: IF OPENINGS MUST BE CAST LESS THAN 8" FROM JOINT OR THROUGH JOINT, SHOP DRAWINGS WILL BE REQUIRED.
- EXTENDED BASE
- 1/2" DIAMETER OF PIPE
- 6" BEDDING OF 1-1/4" CRUSHED STONE

APPROVED FOR ENVIRONMENTAL PERMITS

OFFICE OF WATER RESOURCES

FRESHWATER WETLANDS

APPROVED WITH

AS SPECIFIED IN THE

DATED OCT 29 2013 FILE 13-0093

NO CHANGES ALLOWED WITHOUT APPROVED PLANS MUST BE AT CONSTRUCTION

**LOCATION OF RIP RAP OUTLET**

LOCATION OF RIP RAP OUTLET	FILTER FABRIC	DEPTH & SIZE	LENGTH	WIDTH
INTO SEDIMENT FOREBAY	MIRAFI N1100	21" R-4	44'	26"
INTO DETENTION POND	MIRAFI N1100	30" R-5	10'	10"
DRIVEWAY CULVERTS	MIRAFI N1100	21" R-4	8'	4"

**NOTES:**

ALL PIPE DISCHARGES SHALL BE PROTECTED AGAINST SOIL EROSION WITH A RIP RAP OUTLET. RIP RAP SHALL BE LAID ON TOP OF APPROVED FILTER FABRIC WHICH IS DESIGNED FOR THIS APPLICATION. CONTACT ENGINEER IF NO DETAIL IS GIVEN FOR A PARTICULAR RIP RAP AREA.

TIMOTHY J. BEHAN

No. 0278

REGISTERED PROFESSIONAL ENGINEER

**TJB ENGINEERING, LLC**

CIVIL ENGINEERING

PERMITTING \* LAND PLANNING

SUBDIVISIONS \* WASTEWATER

1050 MAIN STREET SUITE 31

EAST GREENWICH, RI 02818

PHONE: 401-996-1677

**K ANDREWS ASSOCIATES**

LAND SURVEYING AND SITE PLANNING

1050 MAIN STREET, SUITE 31

EAST GREENWICH, RHODE ISLAND 02818

PHONE (401) 359-2661

Sheet 11 of 13 sheets

Being: ASSESSORS PLAT 114 LOT 106

**DETAILS 2**

**AQUIDNECK HIGHLANDS**

LOCATION

385 GREEN END AVENUE

MIDDLETOWN, RHODE ISLAND

OWNER:

BLAKELEY BOGART

385 GREEN END AVENUE

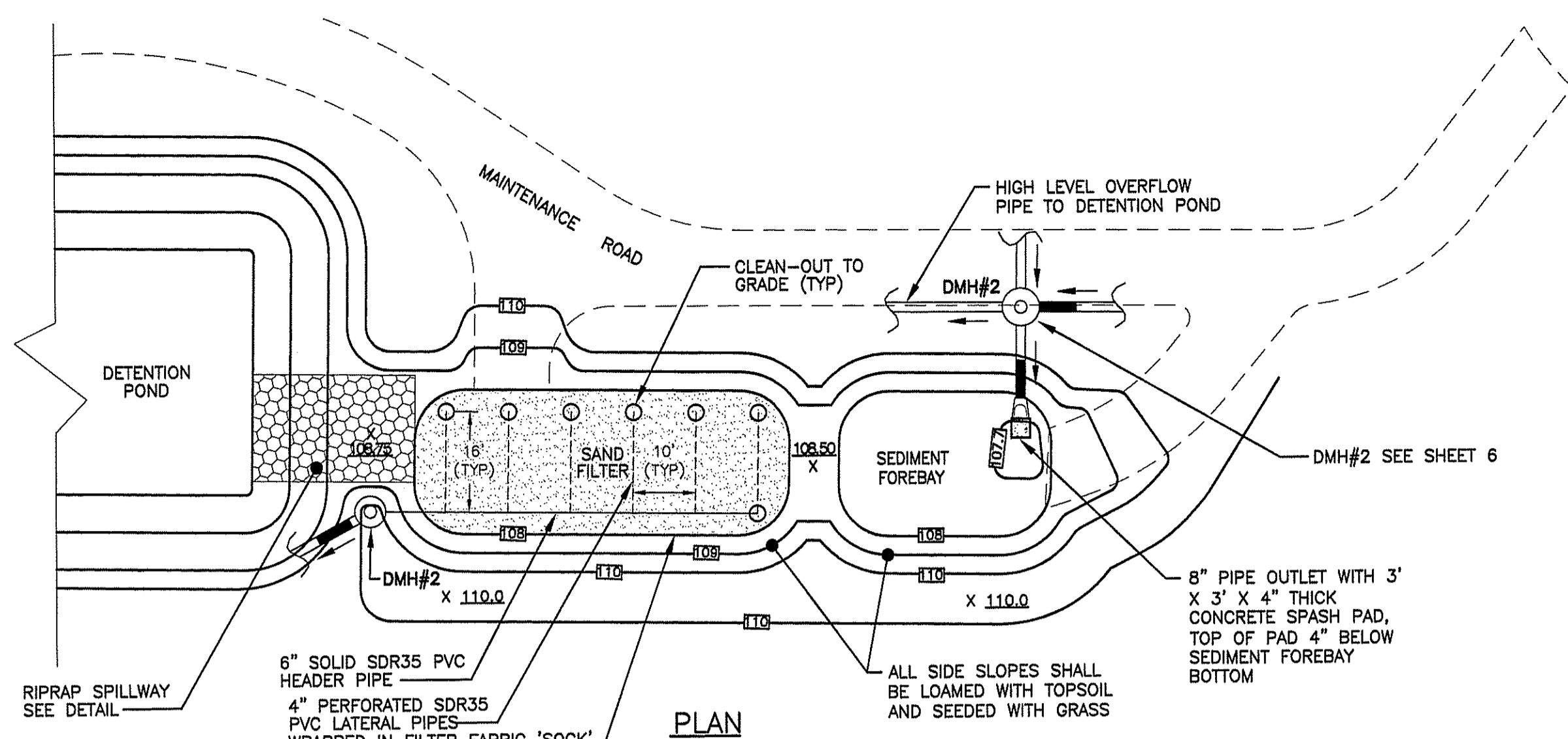
MIDDLETOWN, RI 02842

PREPARED FOR:

SEASCAPE HOLDINGS, LLC

1004 BOSTON NECK ROAD, SUITE 6

MARSHANSETT, RI 02882



**BANK RUN GRAVEL SPEC.:**  
GRAVEL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 3". UP TO 10% MAY BE SIZED BETWEEN 3/4" AND 3". GRAVEL SHALL MEET THE FOLLOWING:

SIZE	% PASSING
3/4"	100%
#4	55%-100%
#10	40%-100%
#40	10%-50%
#100	0%-20%
#200	0%-2%

**ASTM C-33 SAND SPEC.:**  
ASTM C-33 SAND SHALL MEET ASTM C-33 REQUIREMENTS AND ALSO THE FOLLOWING:

SIZE=0.02" TO 0.04"  
% PASS 200 SIEVE < 1.0%

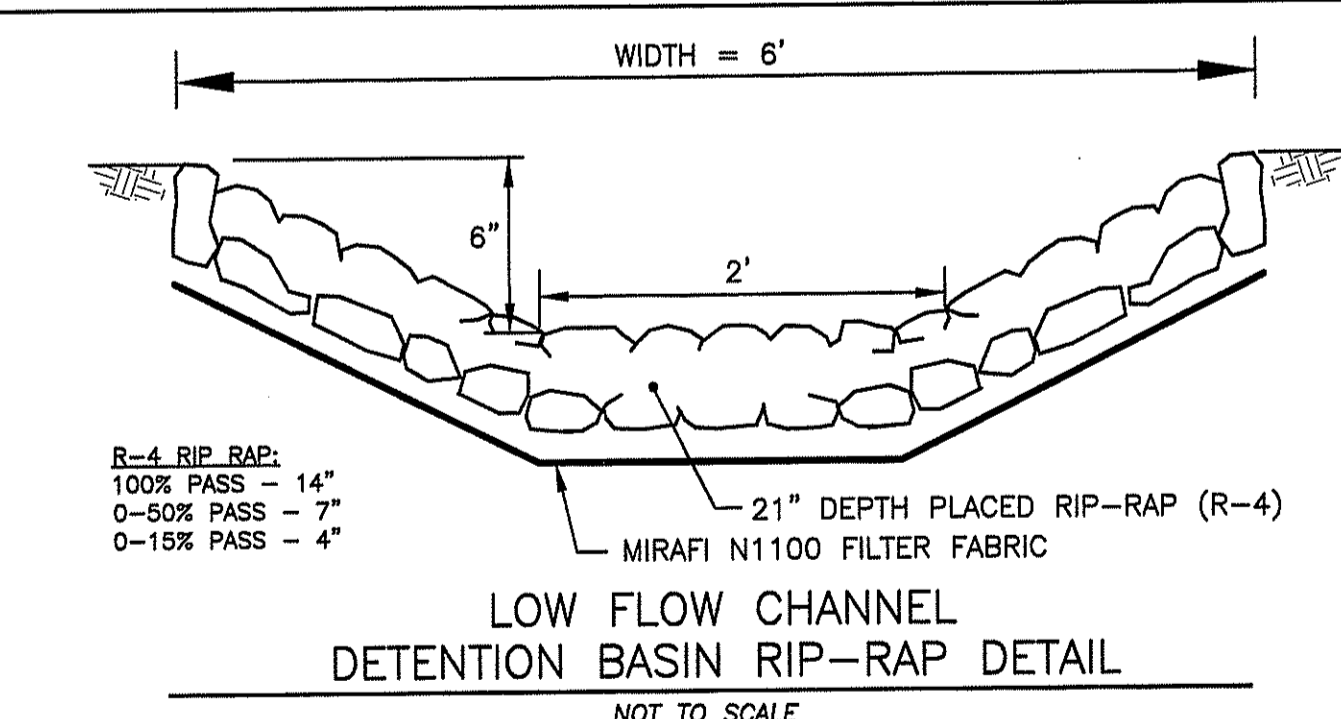
**FILTER FABRIC SPEC.:**  
SHALL MEET THE FOLLOWING:

THICKNESS=0.06"  
OPENING SIZE=#80 SIEVE  
FLOW RATE=125 GAL/MIN.  
ASTM D751=125 LB.  
ASTM D1117=400 PSI.  
ASTM D1662=300 LB.

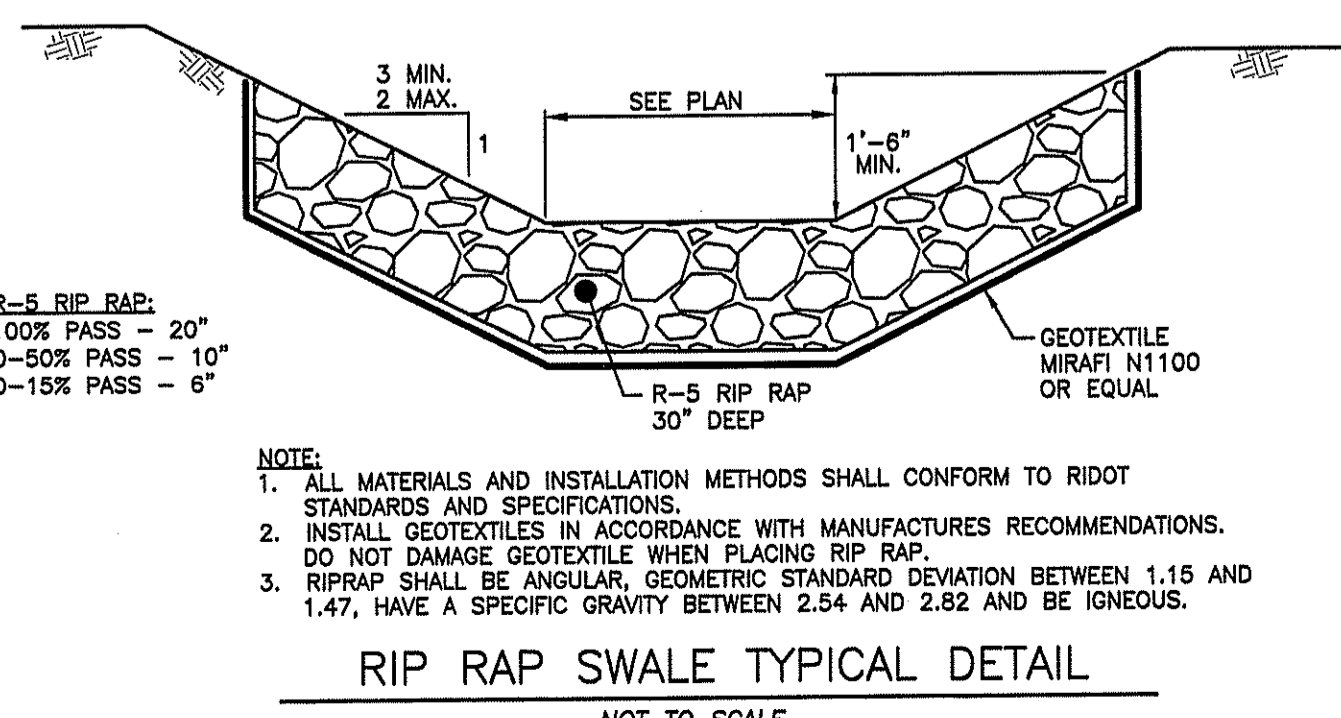
**TOPSOIL SPEC.:**  
TOPSOIL SHALL HAVE A TEXTURE CLASSIFICATION OF SANDY LOAM AND BE FREE OF ROCKS GREATER THAN 3/4", ROOTS, DEBRIS AND ANY UNDESIRABLE MATERIALS AS DETERMINED BY THE TOWN OR ENGINEER. TOPSOIL SHALL ALSO MEET RIDOT SPECIFICATIONS AND HAVE A PERCOLATION RATE OF 10 MINUTES PER INCH OR FASTER.

- NOTES:**
1. CONSTRUCT AND MAINTAIN IN ACCORDANCE WITH THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, DEC. 2010 AS AMENDED.
  2. PLANT BOTTOM OF SWALE IN ACCORDANCE WITH LANDSCAPE PLAN.

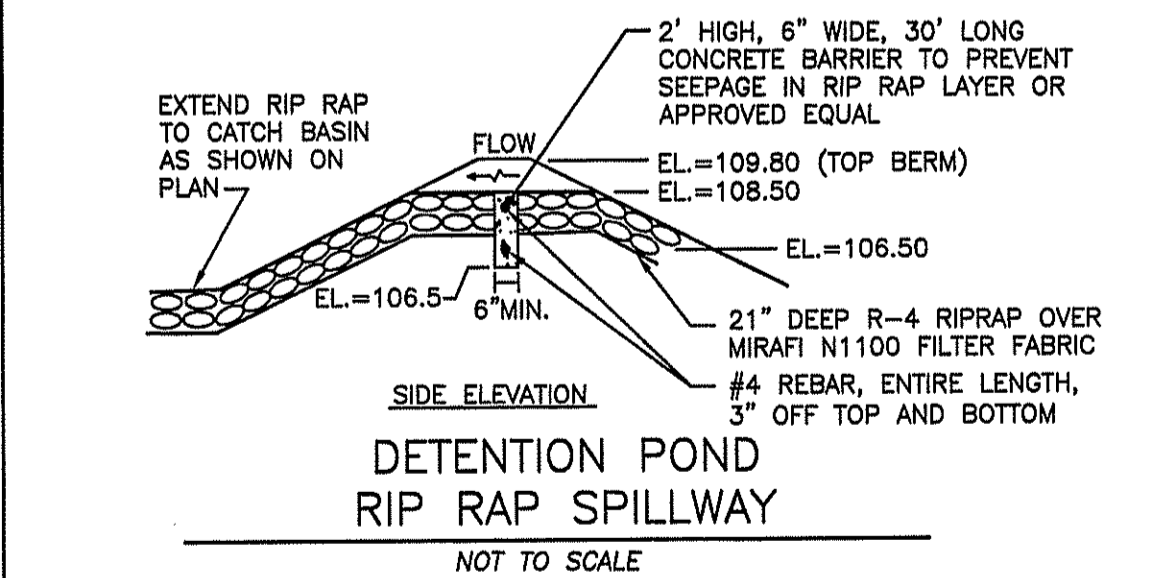
**SEDIMENT FOREBAY & SAND FILTER DETAIL**  
NOT TO SCALE



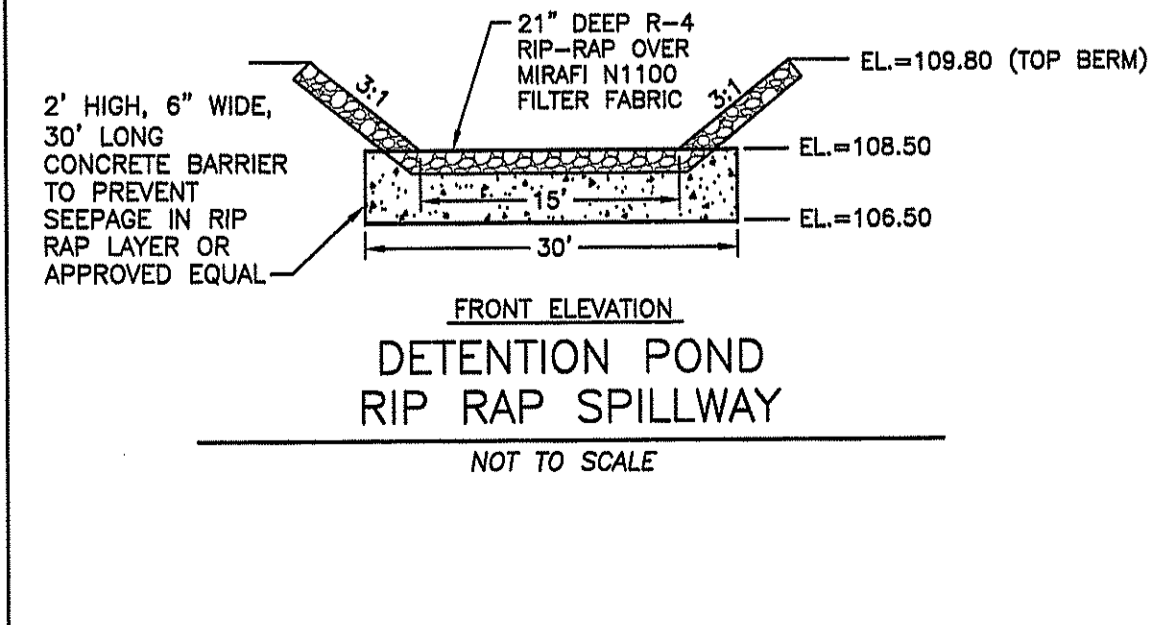
**LOW FLOW CHANNEL DETENTION BASIN RIP-RAP DETAIL**  
NOT TO SCALE



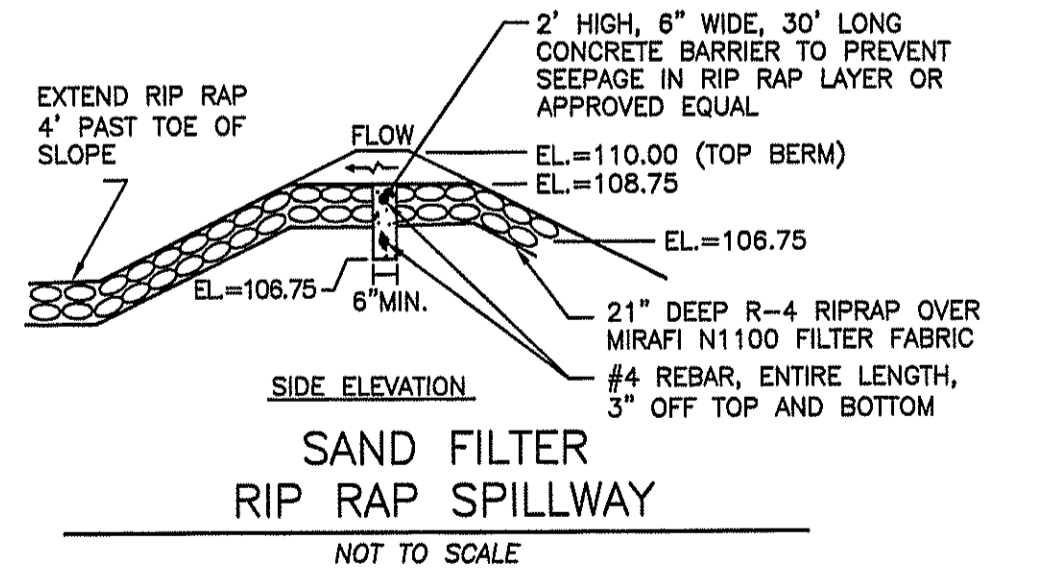
**RIP RAP SWALE TYPICAL DETAIL**  
NOT TO SCALE



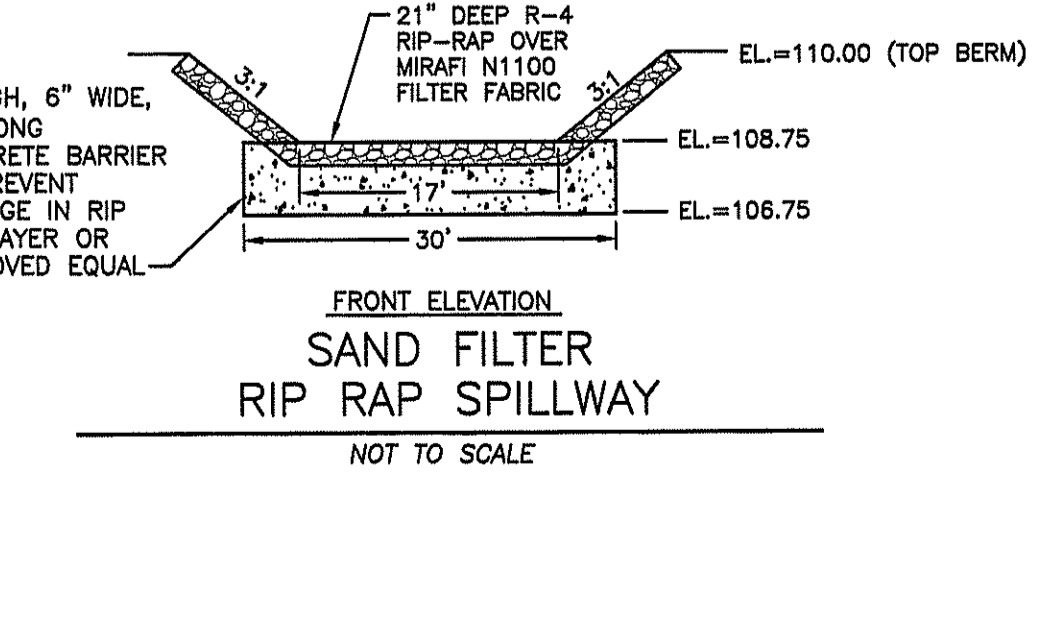
**DETENTION POND RIP RAP SPILLWAY**  
NOT TO SCALE



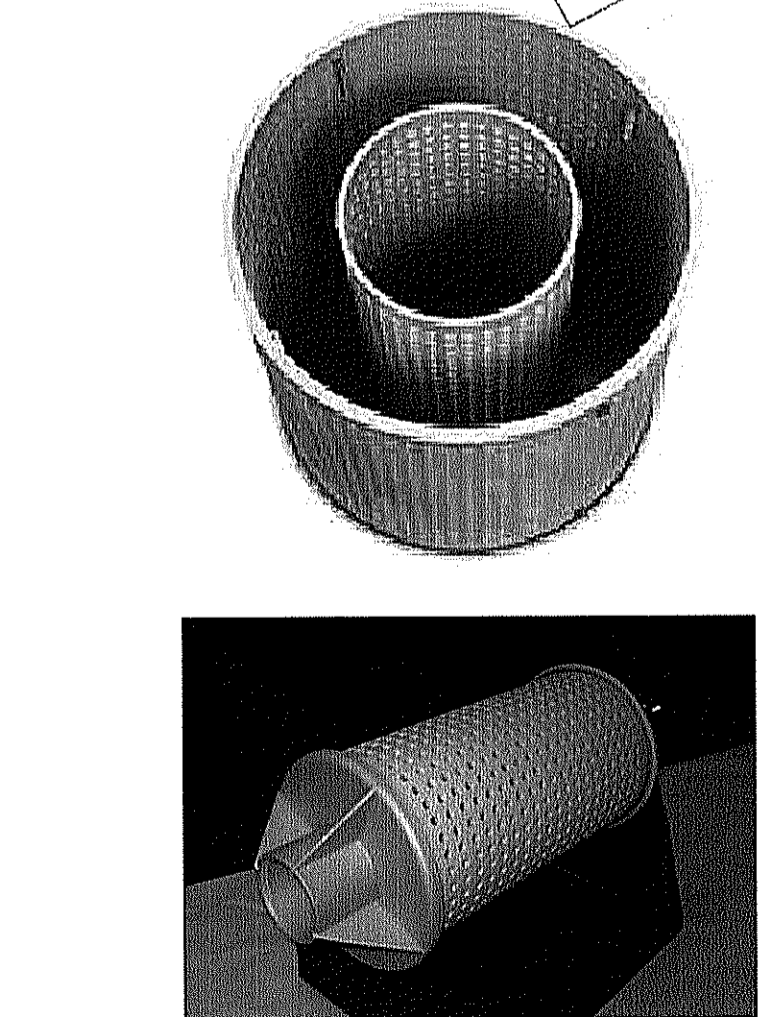
**DETENTION POND RIP RAP SPILLWAY**  
NOT TO SCALE



**SAND FILTER RIP RAP SPILLWAY**  
NOT TO SCALE

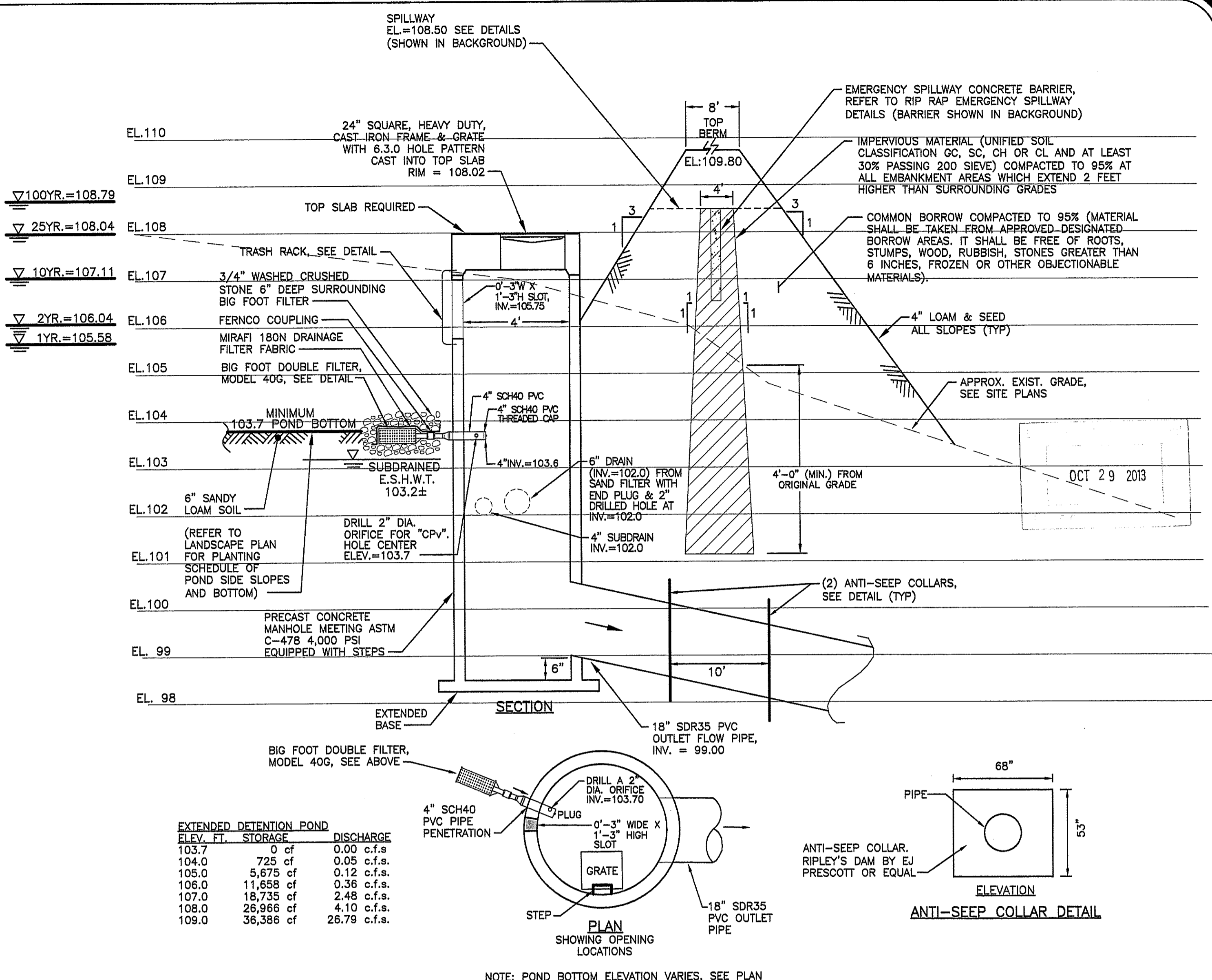


**SAND FILTER RIP RAP SPILLWAY**  
NOT TO SCALE



- NOTES:**
1. FILTER BY BIG FOOT MANUFACTURING COMPANY, MODEL 40G WITH A 6" DIA. OUTSIDE FILTER WITH 1/4" DIA. HOLES AND AN INTERNAL 2" DIA. FILTER WITH 1/8" WIDE SLOTS OR APPROVED EQUAL.
  2. INSTALL PER MANUFACTURERS INSTRUCTIONS.

**DETENTION POND BIG FOOT DOUBLE FILTER MODEL 40G**  
NOT TO SCALE

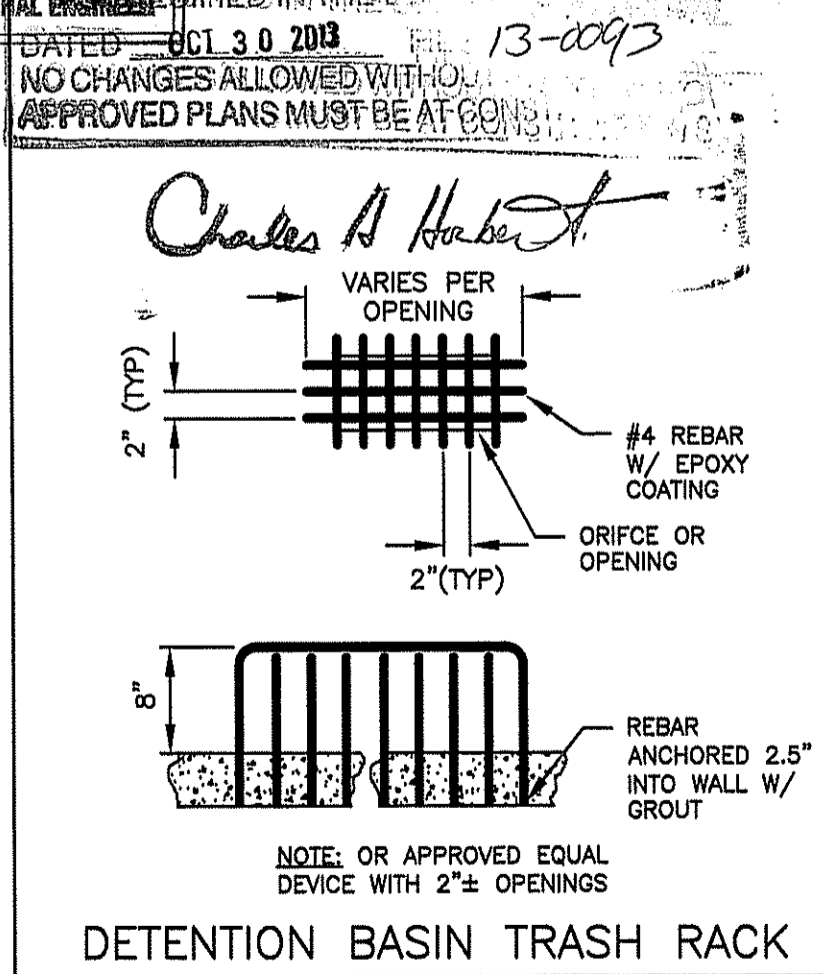


**EXTENDED DETENTION POND**

ELEV. FT.	STORAGE	DISCHARGE
103.7	0 cf	0.00 c.f.s
104.0	725 cf	0.05 c.f.s
105.0	5,675 cf	0.12 c.f.s
106.0	11,658 cf	0.36 c.f.s
107.0	18,735 cf	2.48 c.f.s
108.0	26,966 cf	4.10 c.f.s
109.0	36,386 cf	26.79 c.f.s

NOTE: POND BOTTOM ELEVATION VARIES, SEE PLAN

**EXTENDED DETENTION POND DETAIL & OUTLET CONTROL STRUCTURE DETAIL**  
SCALE: 1" = 0.6' VERT.



**DETENTION BASIN TRASH RACK**  
NOT TO SCALE

Being: ASSESSORS PLAT 114 LOT 106  
**DETAILS-3**  
**AQUIDNECK HIGHLANDS**  
LOCATION  
385 GREEN END AVENUE  
MIDDLETOWN, RHODE ISLAND  
PREPARED FOR: SEASCAPE HOLDINGS, LLC  
1004 BOSTON NECK ROAD, SUITE 6  
MIDDLETOWN, RI 02882

Checked By: T.J.B. Drawn By: T.J.B. Date: NOV. 2012 Scale: AS SHOWN

**REVISIONS**

NO.	REVISION	DATE
1	ISSUED FOR PERMITTING	11/01/12
2	ISSUED FOR PERMITTING	11/01/12
3	ISSUED FOR PERMITTING	11/01/12
4	ISSUED FOR PERMITTING	11/01/12
5	ISSUED FOR PERMITTING	11/01/12
6	ISSUED FOR PERMITTING	11/01/12
7	ISSUED FOR PERMITTING	11/01/12
8	ISSUED FOR PERMITTING	11/01/12
9	ISSUED FOR PERMITTING	11/01/12
10	ISSUED FOR PERMITTING	11/01/12

**TJB ENGINEERING, LLC**  
CIVIL ENGINEERING  
PERMITTING \* LAND PLANNING  
SUBDIVISIONS \* WASTEWATER  
1050 MAIN STREET SUITE 31  
EAST GREENWICH, RI 02818  
PHONE: 401-996-1677

**K ANDREWS ASSOCIATES**  
LAND SURVEYING AND SITE PLANNING  
1050 MAIN STREET, SUITE 31  
EAST GREENWICH, RHODE ISLAND 02818  
PHONE (401) 339-2681

GENERAL NOTES:

- 1. EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE 4" OF TOPSOIL AND SEED UNLESS OTHERWISE NOTED.
2. ALL EXCAVATION AND PLACEMENT OF FILL SHALL BE IN ACCORDANCE WITH R.I.D.O.T. STANDARD SPECIFICATIONS SECTION 202.
3. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH 'DIG SAFE'...

WATER SYSTEM NOTES:

- 1. CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL LOCAL WATER AUTHORITY RULES, REGULATIONS, AND INSTALLATION REQUIREMENTS.
2. CONSTRUCTION MATERIALS AND METHODS FOR SERVICE CONNECTIONS HAVE BEEN STANDARDIZED BY THE LOCAL WATER AUTHORITY. THE CONTRACTOR SHALL ONLY USE CITY APPROVED MATERIALS AND METHODS.
3. PIPELINE MAINS: ALL DUCTILE-IRON PIPE AND APPURTENANCES SHALL BE FROM A SINGLE MANUFACTURER SOURCE...

SEWER NOTES:

- 1. ALL CONSTRUCTION, MATERIALS, SPECIFICATIONS, AND PROCEDURES SHALL CONFORM WITH LOCAL SEWER AUTHORITY STANDARDS AND ALL APPLICABLE FEDERAL, STATE AND CITY BUILDING AND PLUMBING CODES.
2. PROTECTION OF WATER LINES:
A. HORIZONTAL SEPARATION: SEWERS SHALL BE LAID AT A MINIMUM AT LEAST 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN OR SERVICE...

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICLE TRAFFIC INCLUDING POLICE PROTECTION, ALL TEMPORARY AND VEHICULAR SIGNS, BARRICADES AND LANE CLOSURES.
2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.

EXISTING CONDITIONS/UTILITIES NOTES:

- 1. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH 'DIG SAFE'.
2. ALL EXISTING UTILITIES HAVE BEEN PLOTTED BASED UPON BEST AVAILABLE INFORMATION AND REPRESENT APPROXIMATE LOCATIONS. SOME OBSTRUCTIONS, OBSTRUCTIONS, OR DIFFICULTIES IN THE PATH OF THE WORK, EITHER ANTICIPATED OR DISCOVERED IN THE PERFORMANCE OF THE WORK, MAY NOT HAVE BEEN INDICATED BY DRAWINGS...

SUBSURFACE CONDITIONS NOTES:

- 1. ALL SOIL AND TEST HOLE DATA, WATER TABLE ELEVATIONS, AND SOIL ANALYSIS SHOWN/REFERENCED ON THE DRAWINGS OR INCLUDED IN THE SPECIFICATIONS APPLY ONLY AT THE LOCATION OF THE TEST HOLES AND TO THE DEPTHS INDICATED.
2. THE INDICATED ELEVATION OF THE WATER TABLE IS THAT EXISTING AT THE DATE THE TEST HOLE DATA WAS OBTAINED...

EARTHWORK NOTES:

- 1. SPECIFICATIONS & DETAILS TO GOVERN THIS PROJECT ARE THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION 2004 EDITION AND ALL ADDENDUMS & TOWN STANDARDS.
2. ALL EXCAVATION AND PLACEMENT OF FILL SHALL BE IN ACCORDANCE WITH R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION 2004 EDITION AND ALL ADDENDUMS & TOWN STANDARDS.

DRAINAGE SYSTEM-INSPECTION, MAINTENANCE & REPAIR:

- 1. THE TOWN OF MIDDLETOWN SHALL MAINTAIN THE PROPOSED DRAINAGE SYSTEM COMPONENTS LOCATED IN THE PROPOSED STREET RIGHT-OF-WAY WHICH INCLUDE THE CATCH BASINS, GRASS SWALES, PIPING AND CULVERTS.
2. INSPECTIONS ARE ESSENTIAL FOR THE LONGEVITY OF THE DRAINAGE SYSTEMS. THE DRAINAGE SYSTEM SHOULD BE INSPECTED IN ACCORDANCE WITH THE 'MANUAL' BY THE MAINTENANCE COMPANY.
3. THE HOA SHALL SUBMIT AN ANNUAL INSPECTION REPORT TO THE TOWN ENGINEER AND TOWN DPW DIRECTOR BY FEBRUARY 1 OF EACH YEAR...

RAIN MANHOLES:

- A. REMOVE TRASH AND LITTER.
B. REPAIR ALL STRUCTURAL DEFECTS IMMEDIATELY.
C. REMOVE ALL ACCUMULATED SEDIMENT AND DISPOSED OFF-SITE IN ACCORDANCE WITH STATE & FEDERAL REGULATIONS.

PIPES & OUTLETS:

- A. ALL CLOGGED OR SEDIMENT FILLED PIPES WHICH ARE MORE THAN 10% SEDIMENT FILLED SHALL BE CLEANED OUT IMMEDIATELY.
B. REMOVE TRASH AND LITTER.
C. INSPECT OUTLET RIP RAP AREAS. REPAIR ALL ERODED AREAS BY SUPPLEMENTING WITH MORE RIP RAP AND ESTABLISHING NEW VEGETATIVE GROWTH.

EXTENDED DETENTION POND:

GENERAL INSPECTIONS SHOULD BE CONDUCTED ON AN ANNUAL BASIS AND AFTER STORM EVENTS GREATER THAN OR EQUAL TO THE 1-YEAR, 24-HOUR TYPE III PRECIPITATION EVENT (2.7 INCHES OF RAIN).

THE SLOPES OF THE EXTENDED DETENTION POND SHOULD BE INSPECTED FOR EROSION AND GULLYING. REINFORCE EXISTING RIPRAP IF RIPRAP IS FOUND TO BE DEFICIENT, EROSION IS PRESENT AT THE OUTFALLS OF ANY CONTROL STRUCTURES, OR THE EXISTING RIPRAP HAS BEEN COMPROMISED. ALL STRUCTURAL COMPONENTS, WHICH INCLUDE, BUT ARE NOT LIMITED TO, TRASH RACKS, WEIR WALLS, ORIFICE STRUCTURES, AND SPILLWAY...

ANY AREAS WITHIN THE EXTENTS OF THE POND THAT ARE SUBJECT TO EROSION OR GULLYING SHOULD BE REPLENISHED WITH THE ORIGINAL DESIGN MATERIAL AND RE-VEGETATED ACCORDING TO DESIGN DRAWINGS. SLOPE PROTECTION MATERIAL SHOULD BE PLACED IN AREAS PRONE TO EROSION...

MOW THE GRASS AROUND THE PERIMETER OF THE POND AND THE GRASS MAINTENANCE ROAD AT LEAST 4 TIMES ANNUALLY. VEGETATION ALONG THE MAINTENANCE ACCESS ROADS SHOULD BE MOWED ANNUALLY. PRUNE ALL DEAD OR OVERGROWING THE MAINTENANCE ACCESS TO THE FACILITY REMOVE ANY VEGETATION THAT HAS A NEGATIVE IMPACT ON STORMWATER FLOWAGE THROUGH THE FACILITY, AND TRIM ANY OVERGROWING VEGETATION WITHIN THE POND...

SWALES:

THE MAINTENANCE OBJECTIVE FOR THIS PRACTICE INCLUDES PRESERVING THE HYDRAULIC EFFICIENCY OF THE CHANNEL AND MAINTAINING A DENSE, HEALTHY VEGETATIVE COVER. THE FOLLOWING ACTIVITIES ARE RECOMMENDED ON AN ANNUAL BASIS OR AS NEEDED:

- MOWING AND LITTER AND DEBRIS REMOVAL;
• STABILIZATION OF ERODED SIDE SLOPES AND BOTTOM;
• NUTRIENT AND PESTICIDE USE MANAGEMENT;
• RE-THATCHING AND SOIL AND DEBRIS REMOVAL OF THATCHING; AND
• DISCING OR AERATION OF SWALE BOTTOM.

EVERY FIVE YEARS, SCRAPING OF THE CHANNEL BOTTOM AND REMOVAL OF SEDIMENT FROM THE CHANNEL CROSS SECTION AND INFILTRATION RATE, AND SEEDING TO RESTORE GROUND COVER IS RECOMMENDED.

DRY SWALES SHOULD BE INSPECTED ON AN ANNUAL BASIS AND AFTER STORMS OF GREATER THAN OR EQUAL TO THE 1-YEAR, 24-HOUR TYPE III PRECIPITATION EVENT (2.7 INCHES OF RAIN). BOTH THE STRUCTURAL AND VEGETATIVE COMPONENTS SHOULD BE INSPECTED AND REPAIRED AS NEEDED. WHEN SEDIMENT ACCUMULATES TO A DEPTH OF APPROXIMATELY 3 INCHES, IT SHOULD BE REMOVED, AND THE SWALE SHOULD BE RECONFIGURED TO ITS ORIGINAL DIMENSIONS...

SAND FILTER & SEDIMENT FOREBAY:

SAND FILTERS AND THEIR SEDIMENT FOREBAY SHALL BE INSPECTED ANNUALLY AND AFTER STORM EVENTS GREATER THAN OR EQUAL TO THE 1-YEAR, 24 HOUR TYPE III PRECIPITATION EVENT.

MATERIALS DEPOSITED ON THE SURFACE (E.G., TRASH AND LITTER) SHOULD BE REMOVED MANUALLY. IF STANDING WATER IS OBSERVED IN THE SAND FILTER/SEDIMENT FOREBAY FOR MORE THAN 48 HOURS AFTER A STORM...

ALL STRUCTURAL COMPONENTS, WHICH INCLUDE PIPES, FRAME AND COVERS, UNDERDRAIN SYSTEM, SHOULD BE INSPECTED AND ANY DEFICIENCIES SHOULD BE REPORTED.

REMOVAL OF WATER AND PROTECTION FROM FLOODING NOTES:

- 1. THE EXCAVATIONS FOR PIPELINES, STRUCTURES, AND APPURTENANCE WORK REQUIRED ARE TO SOME EXTENT BELOW EXISTING GROUNDWATER LEVELS. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL PUMPS, DRAINS, WELL POINTS OR ANY OTHER FACILITIES FOR THE CONTROL, COLLECTION, AND DISPOSAL OF GROUNDWATER OR SURFACE AND SUBSURFACE WATER ENCOUNTERED IN THE PERFORMANCE OF THE WORK AND PROVIDE ALL PUMPS, PIPING, AND DITCHING FOR THE REMOVAL OF WATER AT ALL TIMES AND SO THAT THE TRENCHES AND EXCAVATIONS SO THAT ALL TRENCHES AND EXCAVATIONS MAY BE KEPT FREE FROM WATER AT ALL TIMES AND SO THAT THE TRENCHES AND EXCAVATIONS MAY BE KEPT FREE FROM WATER AT ALL TIMES...

STORMWATER BMP GENERAL NOTES:

- 1. SPECIFICATIONS, DETAILS, INSTALLATION AND MAINTENANCE REQUIREMENTS TO GOVERN THIS PROJECT FOR STORMWATER BEST MANAGEMENT PRACTICES (BMP) ARE THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION 2004 EDITION AND ALL ADDENDUMS.
2. ALL BMP AREAS SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES (OTHER THAN ROADWAYS AND BENEATH STRUCTURES) RESTORED TO PROMOTE INFILTRATION BY TILLING THE TOP 12 INCHES OF SOIL PRIOR TO FINAL STABILIZATION.

Being: ASSESSORS PLAT 114 LOT 106
DETAILS & NOTES - 4
AQUIDNECK HIGHLANDS
385 GREEN END AVENUE
MIDDLETOWN, RHODE ISLAND
PREPARED FOR: SEASCAPE HOLDINGS, LLC
1004 BOSTON NECK ROAD, SUITE 6
NARRAGANSETT, RI 02882

Table with columns: NO., DATE, BY, REVISIONS. Includes entries for DATE, BY, REVISIONS.

TJB ENGINEERING, LLC
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K ANDREWS ASSOCIATES
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Sheet 13 of 13 sheets