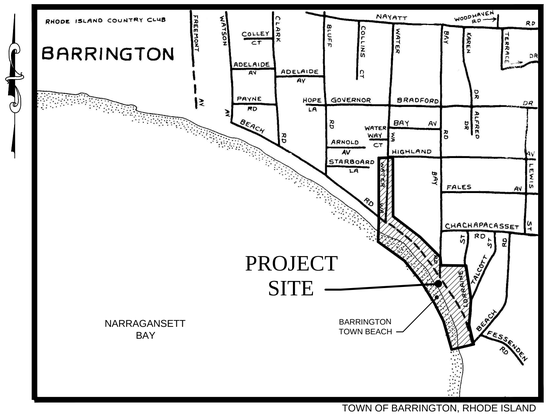
291.731 Barrington Town Beach - 6-12 Plan Set - R1 5-13.dwg

BARRINGTON TOWN BEACH
WATER QUALITY IMPROVEMENTS
BAY ROAD,
BARRINGTON,
RHODE ISLAND



LOCUS MAP
NOT TO SCALE

Prepared for:
THE TOWN OF BARRINGTON, RHODE ISLAND

Administered by:
TOWN OF BARRINGTON PLANNING DEPARTMENT
PETER DeANGELIS, Jr., TOWN MANAGER
PHILIP HERVEY, TOWN PLANNER

Prepared By:
THE GIFFORD DESIGN GROUP, Inc.
LANDSCAPE ARCHITECTURE ENVIRONMENTAL PLANNING

In Association with:
CROSSMAN ENGINEERING
A DIVISION OF CROSSMAN CORPORATION

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DRAWING 1 OF 11

JUNE 2012
W/ REVISIONS THROUGH 4-15-2013

DRAWING NO:
1

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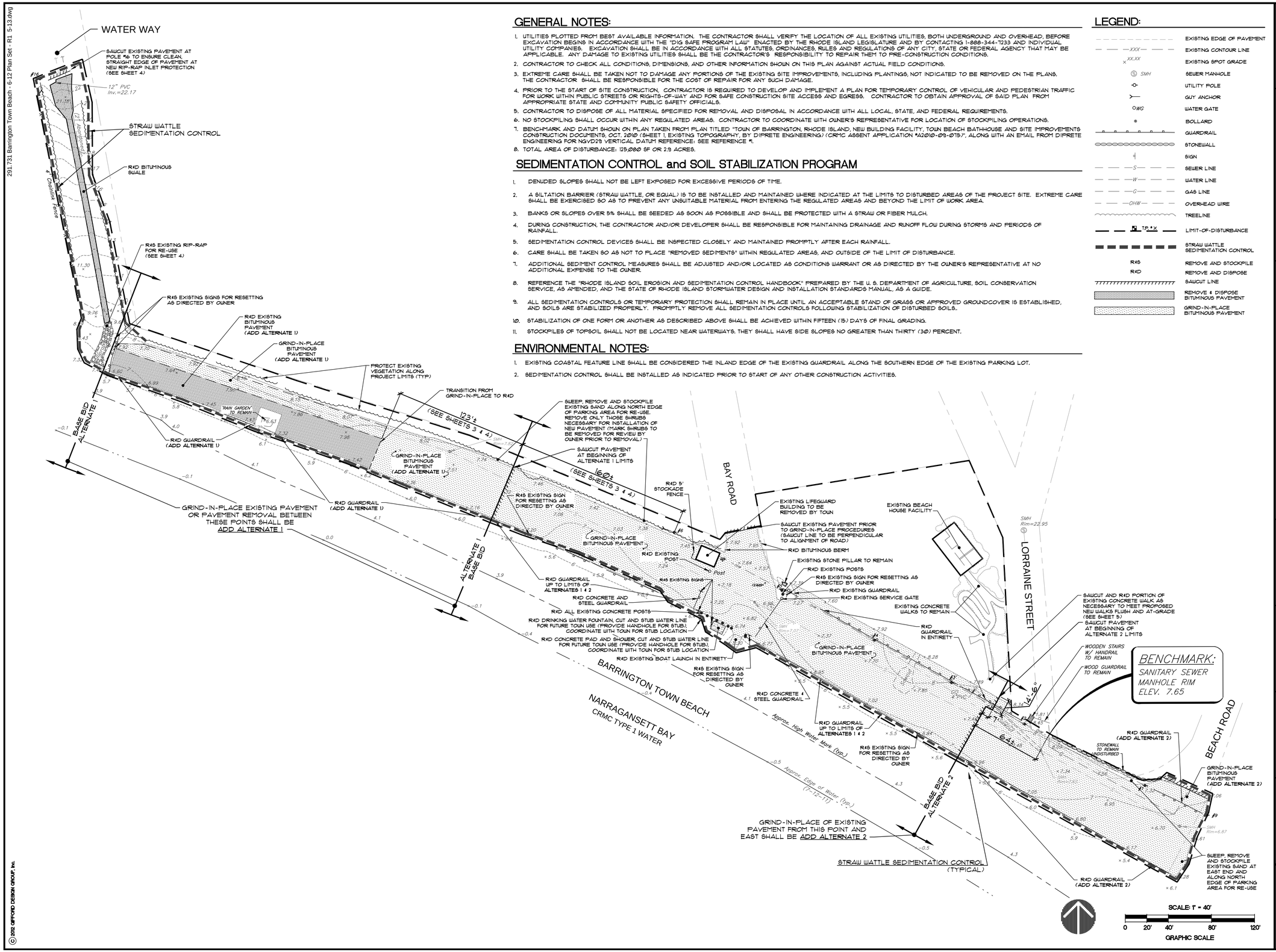

GENERAL NOTES:

1. UTILITIES PLOTTED FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH THE "DIG SAFE PROGRAM LAW" ENACTED BY THE RHODE ISLAND LEGISLATURE AND BY CONTACTING 1-888-344-7233 AND INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY CITY, STATE OR FEDERAL AGENCY THAT MAY BE APPLICABLE. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR THEM TO PRE-CONSTRUCTION CONDITIONS.
2. CONTRACTOR TO CHECK ALL CONDITIONS, DIMENSIONS, AND OTHER INFORMATION SHOWN ON THIS PLAN AGAINST ACTUAL FIELD CONDITIONS.
3. EXTREME CARE SHALL BE TAKEN NOT TO DAMAGE ANY PORTIONS OF THE EXISTING SITE IMPROVEMENTS, INCLUDING PLANTINGS, NOT INDICATED TO BE REMOVED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPAIR FOR ANY SUCH DAMAGE.
4. PRIOR TO THE START OF SITE CONSTRUCTION, CONTRACTOR IS REQUIRED TO DEVELOP AND IMPLEMENT A PLAN FOR TEMPORARY CONTROL OF VEHICULAR AND PEDESTRIAN TRAFFIC FOR WORK WITHIN PUBLIC STREETS OR RIGHTS-OF-WAY AND FOR SAFE CONSTRUCTION SITE ACCESS AND EGRESS. CONTRACTOR TO OBTAIN APPROVAL OF SAID PLAN FROM APPROPRIATE STATE AND COMMUNITY PUBLIC SAFETY OFFICIALS.
5. CONTRACTOR TO DISPOSE OF ALL MATERIAL SPECIFIED FOR REMOVAL AND DISPOSAL IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
6. NO STOCKPILING SHALL OCCUR WITHIN ANY REGULATED AREAS. CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE FOR LOCATION OF STOCKPILING OPERATIONS.
7. BENCHMARK AND DATUM SHOWN ON PLAN TAKEN FROM PLAN TITLED "TOWN OF BARRINGTON, RHODE ISLAND, NEW BUILDING FACILITY, TOWN BEACH BATHHOUSE AND SITE IMPROVEMENTS CONSTRUCTION DOCUMENTS, OCT. 2010 (SHEET 1, EXISTING TOPOGRAPHY, BY DIPRETE ENGINEERING) (CRMC ASSENT APPLICATION #A2010-09-079)", ALONG WITH AN EMAIL FROM DIPRETE ENGINEERING FOR NGVD29 VERTICAL DATUM REFERENCE; SEE REFERENCE #1.
8. TOTAL AREA OF DISTURBANCE: 125,000 SF OR 2.9 ACRES.

SEDIMENTATION CONTROL and SOIL STABILIZATION PROGRAM

1. DENUDED SLOPES SHALL NOT BE LEFT EXPOSED FOR EXCESSIVE PERIODS OF TIME.
2. A SILTATION BARRIER (STRAW WATTLE, OR EQUAL) IS TO BE INSTALLED AND MAINTAINED WHERE INDICATED AT THE LIMITS TO DISTURBED AREAS OF THE PROJECT SITE. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE REGULATED AREAS AND BEYOND THE LIMIT OF WORK AREA.
3. BANKS OR SLOPES OVER 5% SHALL BE SEEDED AS SOON AS POSSIBLE AND SHALL BE PROTECTED WITH A STRAW OR FIBER MULCH.
4. DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
5. SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
6. CARE SHALL BE TAKEN SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN REGULATED AREAS, AND OUTSIDE OF THE LIMIT OF DISTURBANCE.
7. ADDITIONAL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED AND/OR LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL EXPENSE TO THE OWNER.
8. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK" PREPARED BY THE U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, AS AMENDED, AND THE STATE OF RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, AS A GUIDE.
9. ALL SEDIMENTATION CONTROLS OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUNDCOVER IS ESTABLISHED, AND SOILS ARE STABILIZED PROPERLY. PROMPTLY REMOVE ALL SEDIMENTATION CONTROLS FOLLOWING STABILIZATION OF DISTURBED SOILS.
10. STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN FIFTEEN (15) DAYS OF FINAL GRADING.
11. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN THIRTY (30) PERCENT.

ENVIRONMENTAL NOTES:

1. EXISTING COASTAL FEATURE LINE SHALL BE CONSIDERED THE INLAND EDGE OF THE EXISTING GUARDRAIL ALONG THE SOUTHERN EDGE OF THE EXISTING PARKING LOT.
2. SEDIMENTATION CONTROL SHALL BE INSTALLED AS INDICATED PRIOR TO START OF ANY OTHER CONSTRUCTION ACTIVITIES.

LEGEND:

- EXISTING EDGE OF PAVEMENT
- XXX — EXISTING CONTOUR LINE
- XX.XX — EXISTING SPOT GRADE
- SMH — SEWER MANHOLE
- UTILITY POLE
- GUY ANCHOR
- WG — WATER GATE
- BOLLARD
- GUARDRAIL
- STONEWALL
- SIGN
- S — SEWER LINE
- W — WATER LINE
- G — GAS LINE
- OHW — OVERHEAD WIRE
- TREELINE
- TP.# — LIMIT-OF-DISTURBANCE
- STRAW WATTLE SEDIMENTATION CONTROL
- R4S — REMOVE AND STOCKPILE
- R4D — REMOVE AND DISPOSE
- SAWCUT LINE
- REMOVE & DISPOSE BITUMINOUS PAVEMENT
- GRIND-IN-PLACE BITUMINOUS PAVEMENT

No:	Revision:	Date:
1	Town Comments	4-15-2013

REFERENCES:

1. "BARRINGTON TOWN BEACH DRAINAGE IMPROVEMENTS – BAY ROAD, BEACH ROAD, LORRAINE STREET & WATER WAY, BARRINGTON, RHODE ISLAND; EXISTING CONDITIONS PLAN"; PREPARED BY: CROSSMAN ENGINEERING; PREPARED FOR: THE GIFFORD DESIGN GROUP, INC; SHEET NO. C-1 OF 1, SCALE: 1" = 40', DATED: AUGUST 2011.
2. "ZONING MAP – TOWN OF BARRINGTON, RHODE ISLAND – MAP NUMBER 10"; PREPARED BY: MainStreetGIS,LLC; SCALE: 1" = 100', DATED: JANUARY 7, 2011.

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BARRINGTON TOWN BEACH WATER QUALITY IMPROVEMENTS

A.P. 10,
BEACH ROAD
BARRINGTON, RI

THE GIFFORD DESIGN GROUP, Inc.
LANDSCAPE ARCHITECTURE
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Email: cei@crossmaneng.com

EXISTING CONDITIONS AND SITE PREPARATION PLAN

PROJECT NO. 291.731
DATE: JUNE 2012
SCALE: AS SHOWN
DRAWN BY: KMA, WS
CHECKED BY: GHG

DRAWING 2 OF 11

DRAWING NO:
2

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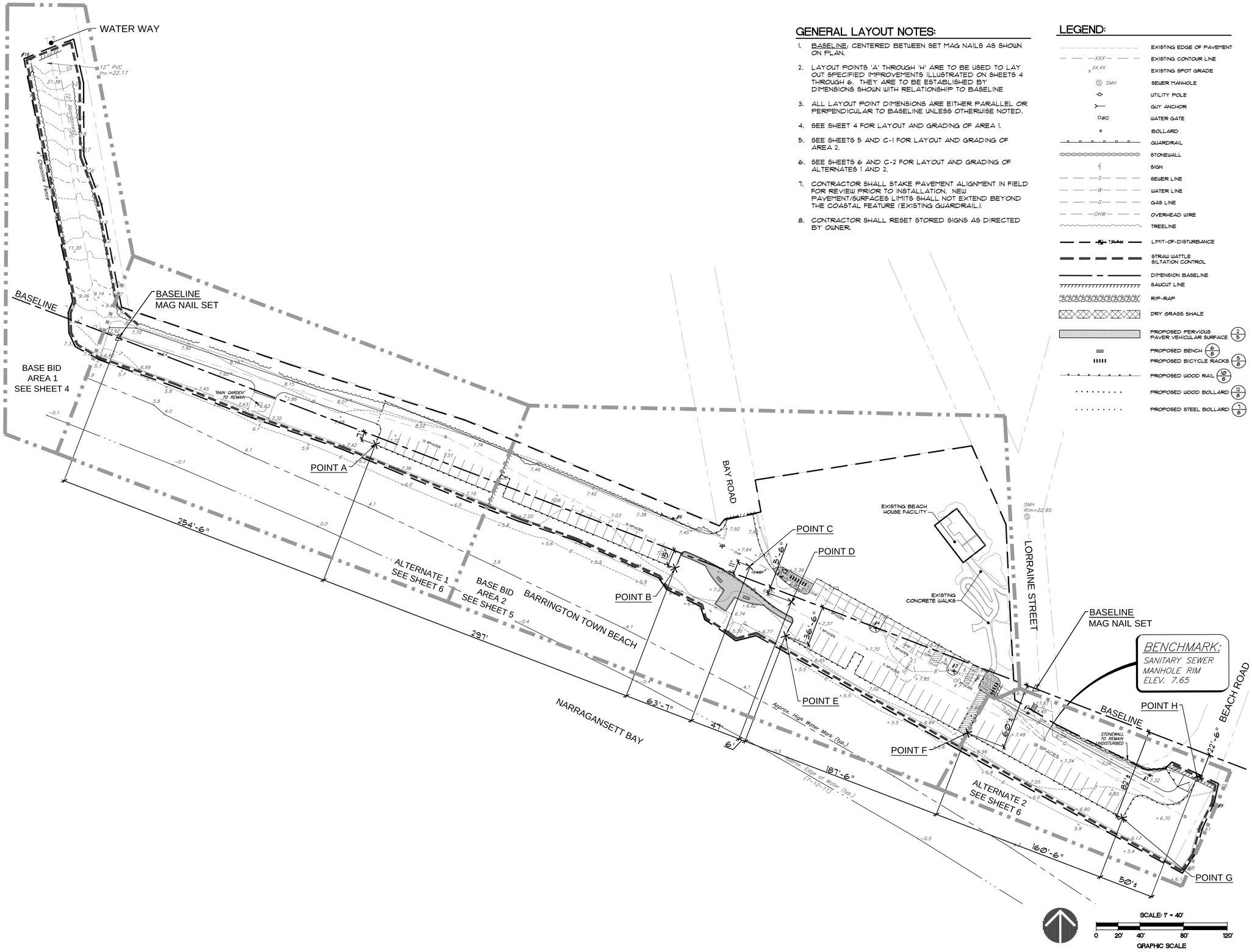

GENERAL LAYOUT NOTES:

1. BASELINE: CENTERED BETWEEN SET MAG NAILS AS SHOWN ON PLAN.
2. LAYOUT POINTS 'A' THROUGH 'H' ARE TO BE USED TO LAY OUT SPECIFIED IMPROVEMENTS ILLUSTRATED ON SHEETS 4 THROUGH 6. THEY ARE TO BE ESTABLISHED BY DIMENSIONS SHOWN WITH RELATIONSHIP TO BASELINE
3. ALL LAYOUT POINT DIMENSIONS ARE EITHER PARALLEL OR PERPENDICULAR TO BASELINE UNLESS OTHERWISE NOTED.
4. SEE SHEET 4 FOR LAYOUT AND GRADING OF AREA 1.
5. SEE SHEETS 5 AND C-1 FOR LAYOUT AND GRADING OF AREA 2.
6. SEE SHEETS 6 AND C-2 FOR LAYOUT AND GRADING OF ALTERNATES 1 AND 2.
7. CONTRACTOR SHALL STAKE PAVEMENT ALIGNMENT IN FIELD FOR REVIEW PRIOR TO INSTALLATION. NEW PAVEMENT/SURFACES LIMITS SHALL NOT EXTEND BEYOND THE COASTAL FEATURE (EXISTING GUARDRAIL).
8. CONTRACTOR SHALL RESET STORED SIGNS AS DIRECTED BY OWNER.

LEGEND:

- EXISTING EDGE OF PAVEMENT
- EXISTING CONTOUR LINE
- EXISTING SPOT GRADE
- SEWER MANHOLE
- UTILITY POLE
- GUY ANCHOR
- WATER GATE
- BOLLARD
- GUARDRAIL
- STONEWALL
- SIGN
- SEWER LINE
- WATER LINE
- GAS LINE
- OVERHEAD WIRE
- TREELINE
- LIMIT-OF-DISTURBANCE
- STRAW WATTLE SILTATION CONTROL
- DIMENSION BASELINE
- SAWCUT LINE
- RIP-RAP
- DRY GRASS SWALE
- PROPOSED PERVIOUS PAVER VEHICULAR SURFACE (2/5)
- PROPOSED BENCH (6/5)
- PROPOSED BICYCLE RACKS (5/5)
- PROPOSED WOOD RAIL (10/8)
- PROPOSED WOOD BOLLARD (12/8)
- PROPOSED STEEL BOLLARD (7/8)

No:	Revision:	Date:
1	Town Comments	4-15-2013

REFERENCES:

1. "BARRINGTON TOWN BEACH DRAINAGE IMPROVEMENTS – BAY ROAD, BEACH ROAD, LORRAINE STREET & WATER WAY, BARRINGTON, RHODE ISLAND; EXISTING CONDITIONS PLAN"; PREPARED BY: CROSSMAN ENGINEERING; PREPARED FOR: THE GIFFORD DESIGN GROUP, INC; SHEET NO. C-1 OF 1, SCALE: 1" = 40', DATED: AUGUST 2011.
2. "ZONING MAP – TOWN OF BARRINGTON, RHODE ISLAND – MAP NUMBER 10"; PREPARED BY: MainStreetGIS,LLC; SCALE: 1" = 100', DATED: JANUARY 7, 2011.
3. AERIAL PHOTOGRAPH: PROVIDED BY GOOGLE EARTH 2011.

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BARRINGTON TOWN BEACH WATER QUALITY IMPROVEMENTS

A.P. 10,
BEACH ROAD
BARRINGTON, RI

THE GIFFORD
DESIGN GROUP, Inc.
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
4096 MENDON ROAD, CUMBERLAND, RHODE ISLAND 02864
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OVERALL SITE LAYOUT AND KEY PLAN

PROJECT NO. 291.731
DATE: JUNE 2012
SCALE: AS SHOWN
DRAWN BY: KMA, WS
CHECKED BY: GHG

DRAWING 3 OF 11

DRAWING NO: 3

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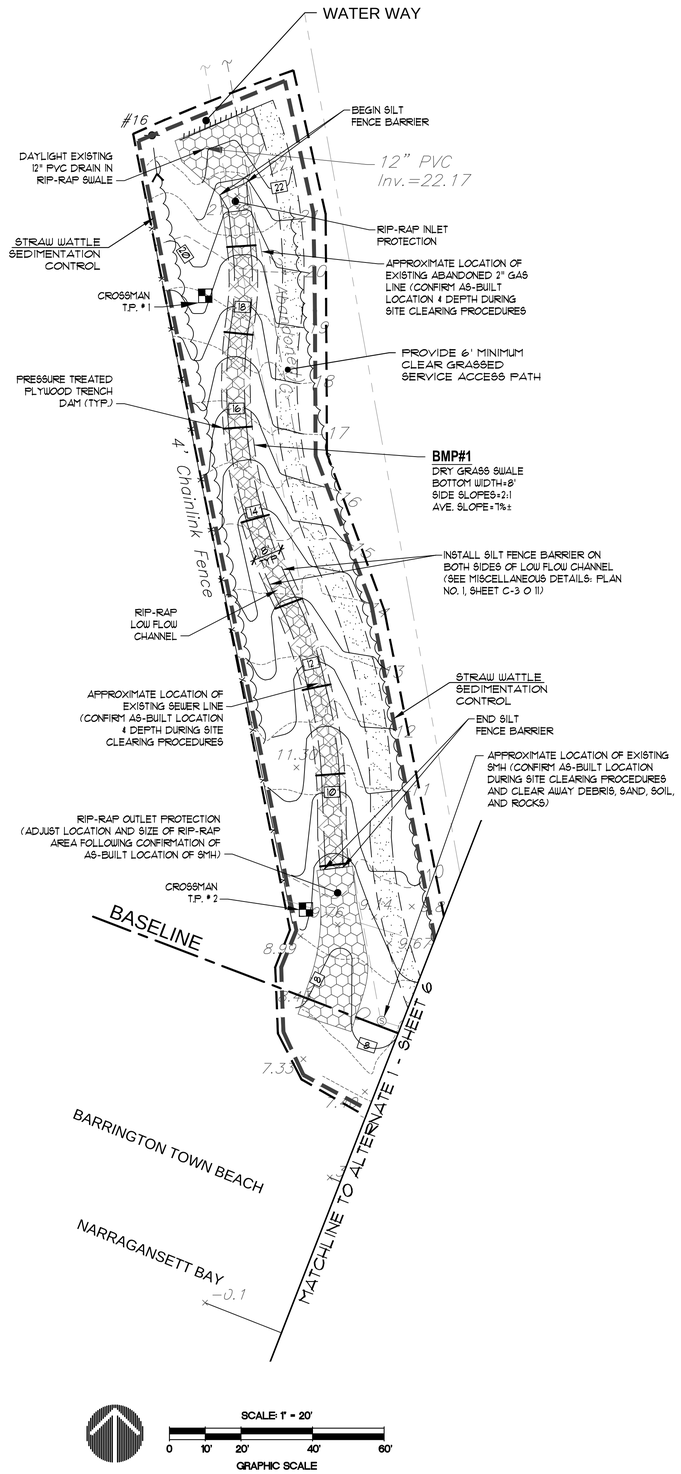

LEGEND:

- EXISTING EDGE OF PAVEMENT
- EXISTING CONTOUR LINE
- EXISTING SPOT GRADE
- SEWER MANHOLE
- UTILITY POLE
- GUY ANCHOR
- WATER GATE
- BOLLARD
- GUARDRAIL
- STONEWALL
- SIGN
- SEWER LINE
- WATER LINE
- GAS LINE
- OVERHEAD WIRE
- TREELINE
- LIMIT-OF-DISTURBANCE
- STRAW WATTLE SEDIMENTATION CONTROL
- SAWCUT LINE
- RIP-RAP
- DRY GRASS SWALE
- PROPOSED 6' MINIMUM CLEAR SURFACE ACCESS PATH
- PROPOSED CONTOUR LINE
- PROPOSED SPOT GRADE

NOTE:
SEE PLANTING PLAN, SHEET 7 FOR TREATMENT OF ALL DISTURBED AREAS WITHIN LIMIT-OF-DISTURBANCE.

FLOOD ZONE NOTE:
THE 'WATER WAY' PORTION OF THE PROJECT IS SHOWN TO BE PARTIALLY WITHIN FEMA FLOOD ZONE VE (EL. = 19) A COASTAL FLOOD ZONE WITH VELOCITY HAZARD, AND FEMA FLOOD ZONE X AREAS OF 0.2% CHANCE FLOOD OR AREAS OF 0.1% CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT, ON THE FLOOD INSURANCE RATE MAP FOR BRISTOL COUNTY, RHODE ISLAND, PANEL 7 OF 18, MAP NUMBER 44001C0007G, MAP REVISED: NOVEMBER 16, 2006.

No:	Revision:	Date:
1	Town Comments	4-15-2013

REFERENCES:

1. 'BARRINGTON TOWN BEACH DRAINAGE IMPROVEMENTS – BAY ROAD, BEACH ROAD, LORRAINE STREET & WATER WAY, BARRINGTON, RHODE ISLAND; EXISTING CONDITIONS PLAN';
   PREPARED BY: CROSSMAN ENGINEERING;
   PREPARED FOR: THE GIFFORD DESIGN GROUP, INC;
   SHEET NO. C-1 OF 1, SCALE: 1" = 40', DATED: AUGUST 2011.
2. 'ZONING MAP – TOWN OF BARRINGTON, RHODE ISLAND – MAP NUMBER 10';
   PREPARED BY: MainStreetGIS,LLC;
   SCALE: 1" = 100', DATED: JANUARY 7, 2011.

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BARRINGTON TOWN BEACH WATER QUALITY IMPROVEMENTS

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BARRINGTON, RI

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Email: cei@crossmaneng.com

AREA 1: LAYOUT AND GRADING PLAN

PROJECT NO. 291.731
DATE: JUNE 2012
SCALE: AS SHOWN
DRAWN BY: KMA, WS
CHECKED BY: GHG

DRAWING 4 OF 11
DRAWING NO: 4

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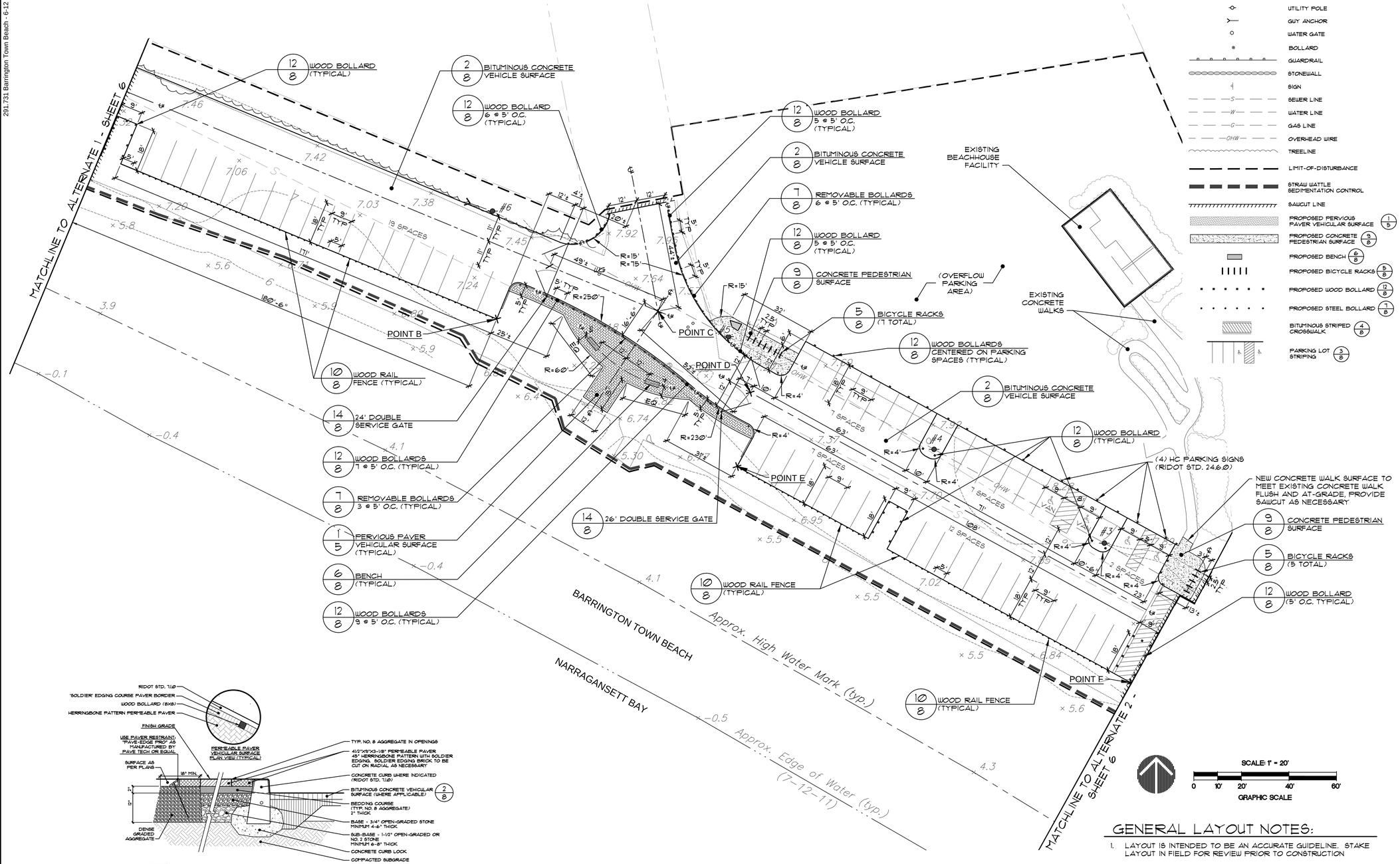

NOTES:

1. CONTRACTOR SHALL PROVIDE SAMPLES INDICATING COLOR, SIZE AND PATTERN OF PAVERS FOR REVIEW BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
2. WHEN INSTALLED, BLOCKS SHALL HAVE A MINIMUM VOID RATIO OF 15%.
3. INSTALL AS PER MANUFACTURER'S SPECIFICATIONS.

1 PERVIOUS PAVER VEHICULAR SURFACE

NOT TO SCALE

GENERAL LAYOUT NOTES:

1. LAYOUT IS INTENDED TO BE AN ACCURATE GUIDELINE. STAKE LAYOUT IN FIELD FOR REVIEW PRIOR TO CONSTRUCTION
2. NEW BITUMINOUS PAVEMENT EDGE SHALL NOT EXTEND BEYOND COASTAL FEATURE.
3. SEE SHEET 3 FOR OVERALL SITE LAYOUT PLAN.
4. SEE SHEET 4 FOR LAYOUT AND GRADING OF AREA 1.
5. SEE SHEET C-1 FOR GRADING OF AREA 2.
6. SEE SHEETS 6 AND C-2 FOR LAYOUT AND GRADING OF ALTERNATES 1 AND 2.

LEGEND:

- EXISTING EDGE OF PAVEMENT
- XXX EXISTING CONTOUR LINE
- XX.XX EXISTING SPOT GRADE
- SEWER MANHOLE
- UTILITY POLE
- GUY ANCHOR
- WATER GATE
- BOLLARD
- GUARDRAIL
- STONEWALL
- SIGN
- S SEWER LINE
- W WATER LINE
- G GAS LINE
- OHW OVERHEAD WIRE
- TREELINE
- LIMIT-OF-DISTURBANCE
- STRAW WATTLE SEDIMENTATION CONTROL
- SAWCUT LINE
- PROPOSED PERVIOUS PAVER VEHICULAR SURFACE 1/5
- PROPOSED CONCRETE PEDESTRIAN SURFACE 9/8
- PROPOSED BENCH 6/8
- PROPOSED BICYCLE RACKS 5/8
- PROPOSED WOOD BOLLARD 12/8
- PROPOSED STEEL BOLLARD 7/8
- BITUMINOUS STRIPED CROSSWALK 4/8
- PARKING LOT STRIPING 3/8

No:	Revision:	Date:
1	Town Comments	4-15-2013

REFERENCES:

1. 'BARRINGTON TOWN BEACH DRAINAGE IMPROVEMENTS – BAY ROAD, BEACH ROAD, LORRAINE STREET & WATER WAY, BARRINGTON, RHODE ISLAND; EXISTING CONDITIONS PLAN'; PREPARED BY: CROSSMAN ENGINEERING; PREPARED FOR: THE GIFFORD DESIGN GROUP, INC; SHEET NO. C-1 OF 1, SCALE: 1" = 40', DATED: AUGUST 2011.
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AREA 2: LAYOUT PLAN

PROJECT NO. 291.731
DATE: JUNE 2012
SCALE: AS SHOWN
DRAWN BY: KMA, WS
CHECKED BY: GHG

DRAWING 5 OF 11

DRAWING NO: 5

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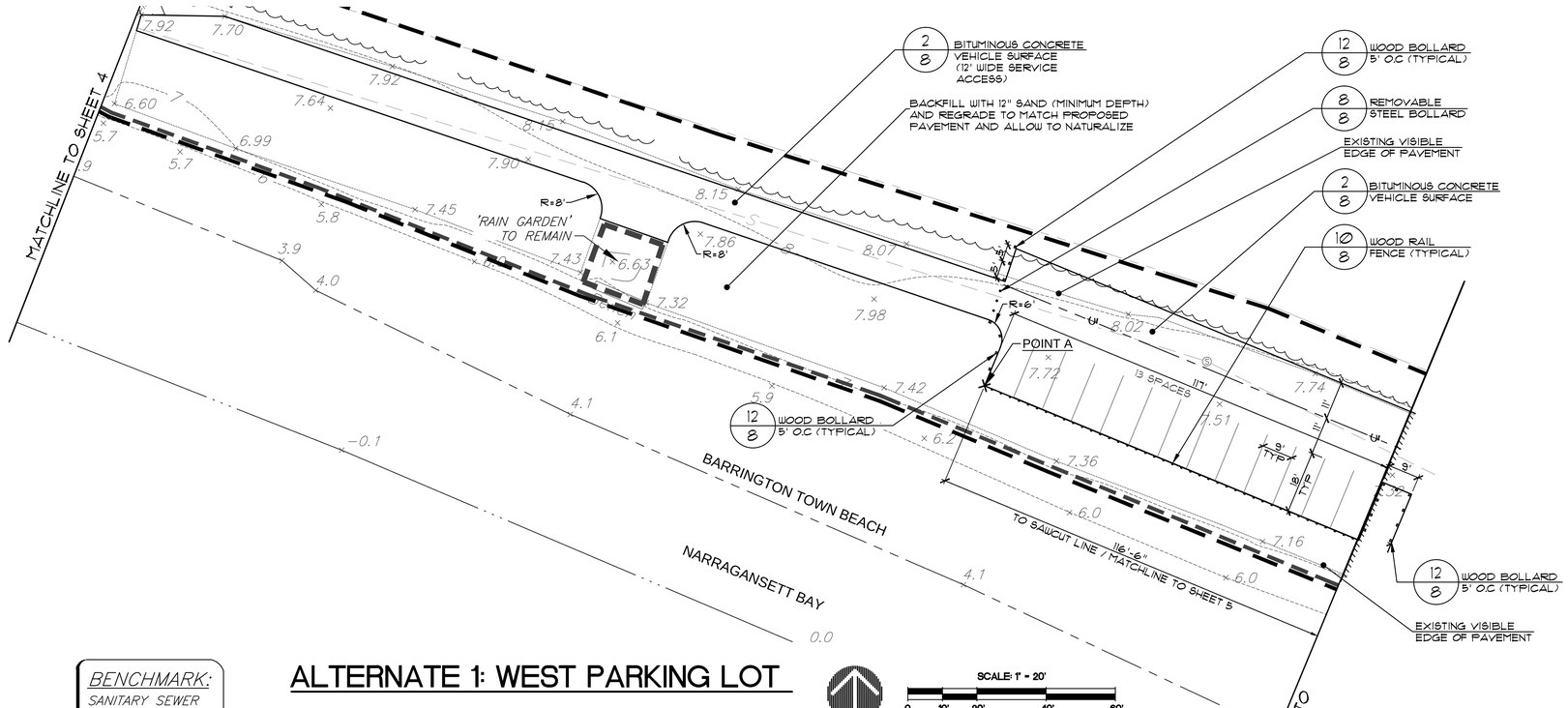
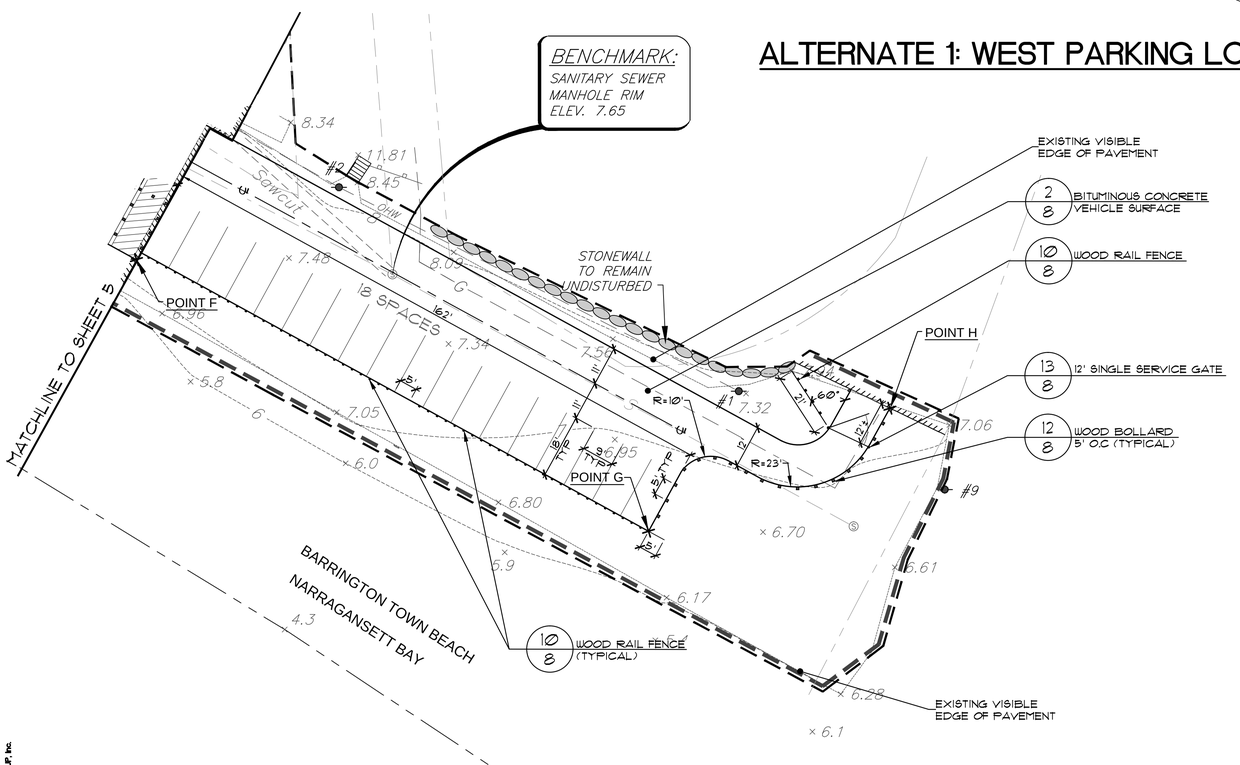


ALTERNATE 1: WEST PARKING LOT

SCALE: 1" = 20'
0 10' 20' 40' 60'
GRAPHIC SCALE



ALTERNATE 2: EAST PARKING LOT

SCALE: 1" = 20'
0 10' 20' 40' 60'
GRAPHIC SCALE

GENERAL LAYOUT NOTES:

1. LAYOUT IS INTENDED TO BE AN ACCURATE GUIDELINE. STAKE LAYOUT IN FIELD FOR REVIEW PRIOR TO CONSTRUCTION
2. NEW BITUMINOUS PAVEMENT EDGE SHALL NOT EXTEND BEYOND COASTAL FEATURE.
3. SEE SHEET 3 FOR OVERALL SITE LAYOUT PLAN.
4. SEE SHEET 4 FOR LAYOUT AND GRADING OF AREA 1.
5. SEE SHEETS 5 AND C-1 FOR LAYOUT AND GRADING OF AREA 2.
6. SEE SHEET C-2 FOR GRADING OF ALTERNATES 1 AND 2.

LEGEND:

- EXISTING EDGE OF PAVEMENT
- EXISTING CONTOUR LINE
- EXISTING SPOT GRADE
- SEWER MANHOLE
- UTILITY POLE
- GUY ANCHOR
- WATER GATE
- BOLLARD
- GUARDRAIL
- STONEWALL
- SIGN
- SEWER LINE
- WATER LINE
- GAS LINE
- OVERHEAD WIRE
- TREELINE
- LIMIT-OF-DISTURBANCE
- STRAW WATTLE SEDIMENTATION CONTROL
- SAWCUT LINE
- PROPOSED BITUMINOUS CONCRETE PEDESTRIAN SURFACE (1/8)
- PROPOSED CONCRETE PEDESTRIAN SURFACE (9/8)
- PROPOSED WOOD BOLLARD (12/8)
- PROPOSED STEEL BOLLARD (7/8)
- PROPOSED WOOD RAIL (10/8)
- PARKING LOT STRIPING (3/8)

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No:	Revision:	Date:
1	Town Comments	4-15-2013

REFERENCES:

1. 'BARRINGTON TOWN BEACH DRAINAGE IMPROVEMENTS – BAY ROAD, BEACH ROAD, LORRAINE STREET & WATER WAY, BARRINGTON, RHODE ISLAND; EXISTING CONDITIONS PLAN'; PREPARED BY: CROSSMAN ENGINEERING; PREPARED FOR: THE GIFFORD DESIGN GROUP, INC; SHEET NO. C-1 OF 1, SCALE: 1" = 40', DATED: AUGUST 2011.
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ALTERNATES 1 and 2: LAYOUT PLAN

PROJECT NO. 291.731
DATE: JUNE 2012
SCALE: AS SHOWN
DRAWN BY: KMA, WS
CHECKED BY: GHG

DRAWING 6 OF 11

DRAWING NO: 6

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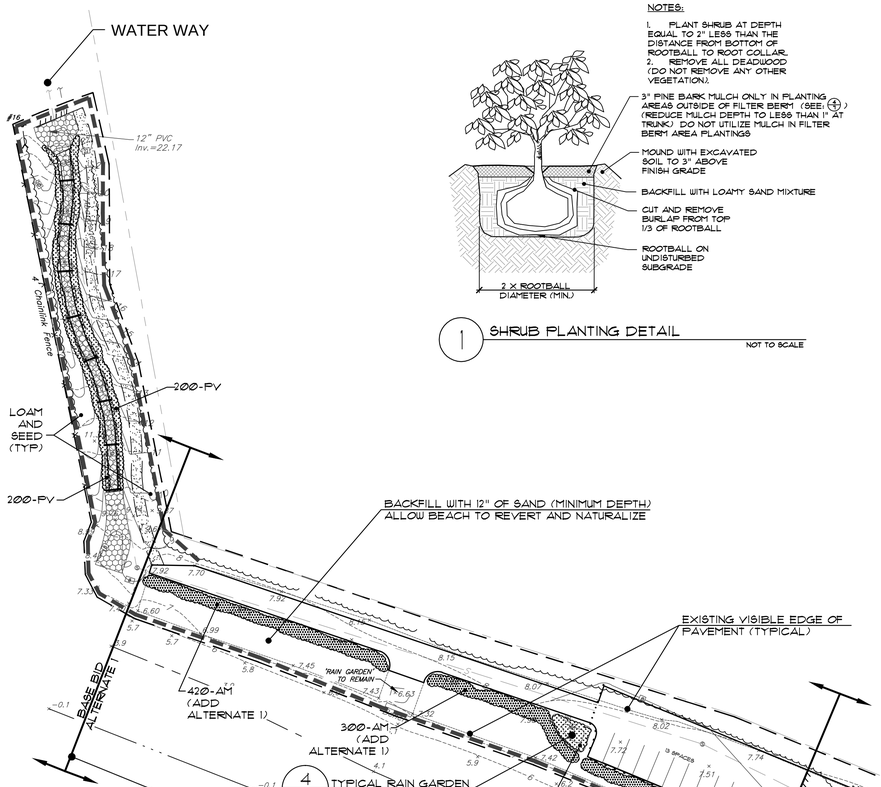


4/7 TYPICAL RAIN GARDEN CONSTRUCTION DETAIL

4/7 TYPICAL RAIN GARDEN CONSTRUCTION DETAIL

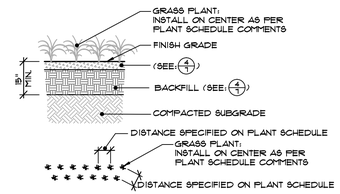
4/7 TYPICAL RAIN GARDEN CONSTRUCTION DETAIL

NOTES:

1. PLANT SHRUB AT DEPTH EQUAL TO 2" LESS THAN THE DISTANCE FROM BOTTOM OF ROOTBALL TO ROOT COLLAR.
2. REMOVE ALL DEADWOOD (DO NOT REMOVE ANY OTHER VEGETATION).

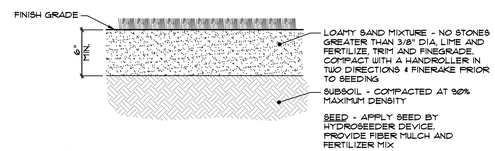
1 SHRUB PLANTING DETAIL

NOT TO SCALE



2 GRASSES PLANTING

NOT TO SCALE



NOTES:
1) CONTRACTOR TO LOAM AND SEED ANY DISTURBED AREAS ALONG NORTH EDGE OF PARKING AREA, AT 'WATER WAY', AND WHERE INDICATED ON THE PLANS.
2) PROVIDE EROSION CONTROL FABRIC ALONG VEGETATED SWALE ON 'WATER WAY' (SEE ENGINEER'S PLAN).
3) EROSION CONTROL FABRIC MUST BE INSTALLED IMMEDIATELY UPON COMPLETION OF GRADING WHERE REQUIRED.

3 LOAM & SEED

NOT TO SCALE

LEGEND:

EXISTING EDGE OF PAVEMENT	SAWCUT LINE
XXX EXISTING CONTOUR LINE	PROPOSED BITUMINOUS CONCRETE PEDESTRIAN SURFACE (1/8)
XX.XX EXISTING SPOT GRADE	PROPOSED PERVIOUS PAVER VEHICULAR SURFACE (2/5)
SEWER MANHOLE	PROPOSED CONCRETE PEDESTRIAN SURFACE (3/8)
UTILITY POLE	PROPOSED BENCH (6/8)
GUY ANCHOR	PROPOSED BICYCLE RACKS (5/8)
WATER GATE	PROPOSED WOOD RAIL (10/8)
BOLLARD	PROPOSED WOOD BOLLARD (12/8)
GUARDRAIL	PROPOSED STEEL BOLLARD (7/8)
STONEWALL	BITUMINOUS STRIPED CROSSWALK (4/8)
SIGN	PARKING LOT STRIPING (3/8)
SEWER LINE	SHRUB PLANTING
WATER LINE	AB - AMMOPHILA BREVILIGULATA GRASSES PLANTING
GAS LINE	PV - PANICUM VARIGATUM GRASSES PLANTING
OVERHEAD WIRE	
TREELINE	
LIMIT-OF-DISTURBANCE	
STRAW WATTLE SEDIMENTATION CONTROL	

PLANT SCHEDULE: BASE BID

Key	Botanical Name/ Common Name	Size	Qnty	Comment
AB	AMMOPHILA BREVILIGULATA American Beach Grass	2" Plug	1,040	Plant 18" O.C.
MP	MYRICA PENSYLVANICA Bayberry	18"-24"	30	B&B
PV	PANICUM VIRGATUM Switchgrass	1 QUART	1,030	Container Plant 2' O.C.

PLANT SCHEDULE: BASE ADD ALTERNATE 1

Key	Botanical Name/ Common Name	Size	Qnty	Comment
AB	AMMOPHILA BREVILIGULATA American Beach Grass	2" Plug	1,010	Plant 18" O.C.
PV	PANICUM VIRGATUM Switchgrass	1 QUART	65	Container Plant 2' O.C.

PLANT SCHEDULE: BASE ADD ALTERNATE 2

Key	Botanical Name/ Common Name	Size	Qnty	Comment
AB	AMMOPHILA BREVILIGULATA American Beach Grass	2" Plug	600	Plant 18" O.C.
MP	MYRICA PENSYLVANICA Bayberry	18"-24"	16	B&B
PV	PANICUM VIRGATUM Switchgrass	1 QUART	325	Container Plant 2' O.C.
RV	ROSA VIRGINIANA Virginia Rose	18"-24"	26	B&B

RAIN GARDEN - A

STAGE / STORAGE SUMMARY		
ELEVATION	CONTOUR AREA (SF)	TOTAL VOLUME (CF)
6	77	0
7	261	169

RAIN GARDEN - B

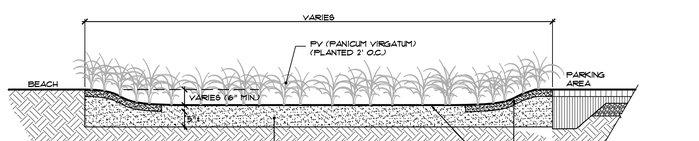
STAGE / STORAGE SUMMARY		
ELEVATION	CONTOUR AREA (SF)	TOTAL VOLUME (CF)
5	485	0
6	787	636

RAIN GARDEN - C

STAGE / STORAGE SUMMARY		
ELEVATION	CONTOUR AREA (SF)	TOTAL VOLUME (CF)
5	546	0
5.5	798	336

RAIN GARDEN - D

STAGE / STORAGE SUMMARY		
ELEVATION	CONTOUR AREA (SF)	TOTAL VOLUME (CF)
6	759	0
6.5	1,026	446



NE COASTAL SALT TOLERANT SEED MIX AND APPLICATION RATES:

26%	CREEPING RED FESCUE
20%	K-31 TALL FESCUE
14%	CANADA WILD RYE
12%	INDIAN GRASS
10%	SWITCH GRASS
6%	BIG BLUESTEM
6%	SIDE OATS GRAMA
6%	LITTLE BLUESTEM
6%	SAND DROPSEED

30-40 LBS. PER ACRE

TYPICAL CROSS SECTION

NOT TO SCALE

4 TYPICAL RAIN GARDEN CONSTRUCTION DETAIL

NOT TO SCALE

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No:	Revision:	Date:
1	Town Comments	4-15-2013

REFERENCES:

1. 'BARRINGTON TOWN BEACH DRAINAGE IMPROVEMENTS – BAY ROAD, BEACH ROAD, LORRAINE STREET & WATER WAY, BARRINGTON, RHODE ISLAND; EXISTING CONDITIONS PLAN'; PREPARED BY: CROSSMAN ENGINEERING; PREPARED FOR: THE GIFFORD DESIGN GROUP, INC; SHEET NO. C-1 OF 1, SCALE: 1" = 40', DATED: AUGUST 2011.
2. 'ZONING MAP – TOWN OF BARRINGTON, RHODE ISLAND – MAP NUMBER 10'; PREPARED BY: MainStreetGIS,LLC; SCALE: 1" = 100', DATED: JANUARY 7, 2011.

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A.P. 10,
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BARRINGTON, RI

THE GIFFORD DESIGN GROUP, Inc.
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
4096 MENDON ROAD, CUMBERLAND, RHODE ISLAND 02864
PHONE (401) 671-6336 FAX (401) 671-6466

PLANTING PLAN AND DETAILS

PROJECT NO. 291.731

DATE: JUNE 2012

SCALE: AS SHOWN

DRAWN BY: WS

CHECKED BY: GHG

DRAWING 7 OF 11

DRAWING NO: 7

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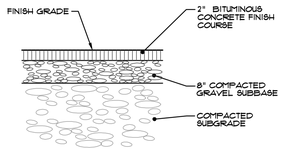
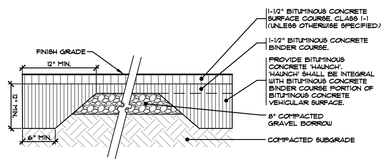


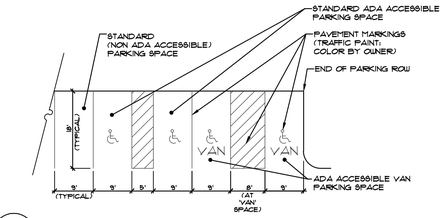
1 BITUMINOUS CONCRETE PEDESTRIAN SURFACE

NOT TO SCALE



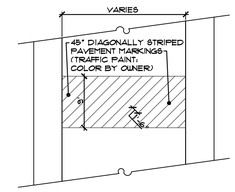
2 BITUMINOUS CONCRETE VEHICULAR SURFACE

NOT TO SCALE



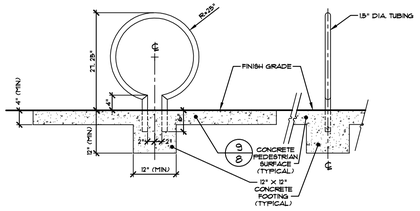
3 TYPICAL PARKING LOT STRIPING DETAIL

NOT TO SCALE



4 TYPICAL CROSSWALK STRIPING DETAIL

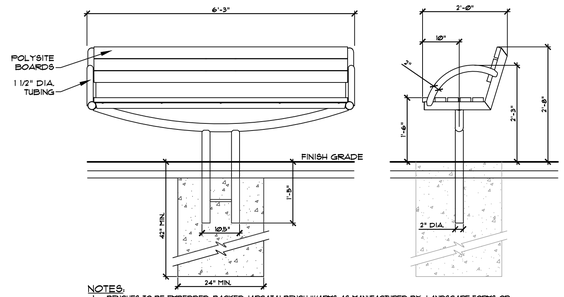
NOT TO SCALE



NOTES:
1. BICYCLE RACKS TO BE EMBEDDED 'RING' BIKE RACK AS MANUFACTURED BY: LANDSCAPE FORMS OR APPROVED EQUAL. COLOR BY OWNER.
2. CONTRACTOR TO STAKE LOCATION IN FIELD FOR REVIEW BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
3. PROVIDE MANUFACTURER SHOP DRAWINGS FOR REVIEW BY OWNER'S REPRESENTATIVE.
4. INSTALL PER MANUFACTURER'S RECOMPMENDED INSTALLATION REQUIREMENTS.

5 BICYCLE RACK

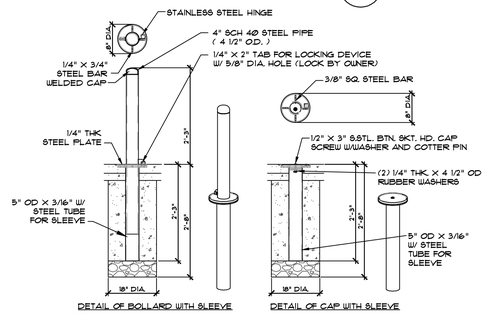
NOT TO SCALE



NOTES:
1. BENCHES TO BE EMBEDDED, BACKED, 'ARCATA' BENCH W/ARMS AS MANUFACTURED BY: LANDSCAPE FORMS OR APPROVED EQUAL. COLOR BY OWNER.
2. CONTRACTOR TO STAKE LOCATION IN FIELD FOR REVIEW BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
3. PROVIDE MANUFACTURER SHOP DRAWINGS FOR REVIEW BY OWNER'S REPRESENTATIVE.
4. INSTALL PER MANUFACTURER'S RECOMPMENDED INSTALLATION REQUIREMENTS.

6 BENCH

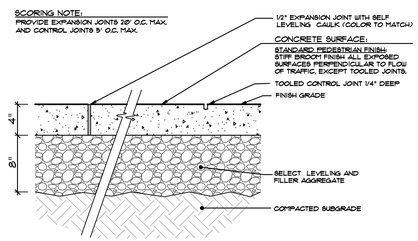
NOT TO SCALE



NOTES:
1. REMOVABLE STEEL BOLLARDS TO BE DIRECT EMBED, 40XP-36/8-18L, STEEL MEMBERS COATED WITH ZINC RICH EPOXY THEN FINISHED WITH POLYESTER POWDER COATING, AS MANUFACTURED BY: DUPONT OR APPROVED EQUAL. COLOR BY OWNER.
2. CONTRACTOR TO STAKE LOCATION IN FIELD FOR REVIEW BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
3. PROVIDE MANUFACTURER SHOP DRAWINGS FOR REVIEW BY OWNER'S REPRESENTATIVE.
4. INSTALL PER MANUFACTURER'S RECOMPMENDED INSTALLATION REQUIREMENTS.

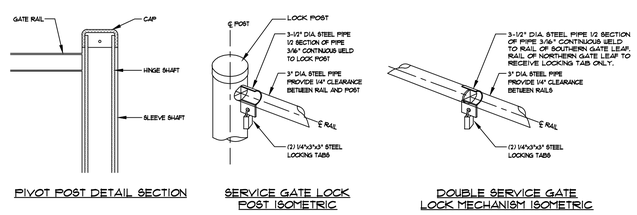
8 REMOVABLE STEEL BOLLARD

NOT TO SCALE



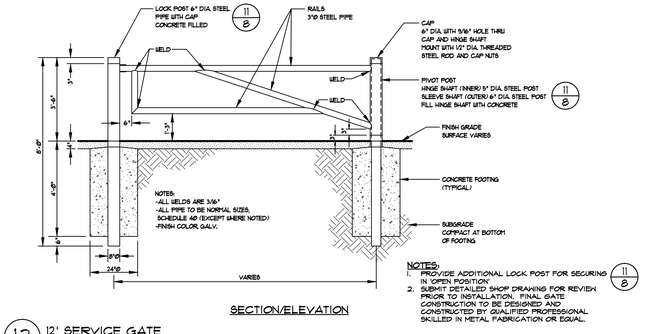
9 CONCRETE PEDESTRIAN SURFACE

NOT TO SCALE



11 SERVICE GATE HINGE AND LATCH DETAILS

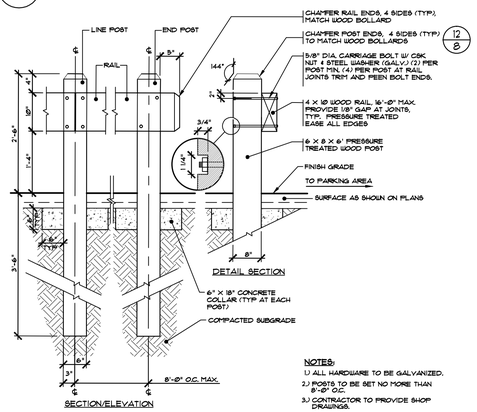
NOT TO SCALE



NOTES:
1. PROVIDE ADDITIONAL LOCK POST FOR SECURING IN 'OPEN POSITION'
2. SUBMIT DETAILED SHOP DRAWING FOR REVIEW PRIOR TO INSTALLATION. FINAL GATE CONSTRUCTION TO BE DESIGNED AND CONSTRUCTED BY QUALIFIED PROFESSIONAL SKILLED IN METAL FABRICATION OR EQUAL.

13 12' SERVICE GATE

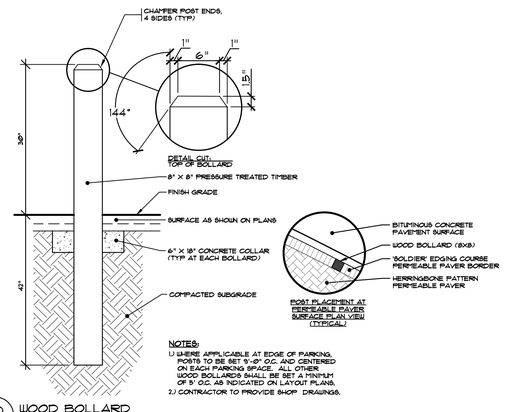
NOT TO SCALE



NOTES:
1.) ALL HARDWARE TO BE GALVANIZED.
2.) POSTS TO BE SET NO MORE THAN 8'-0" O.C.
3.) CONTRACTOR TO PROVIDE SHOP DRAWINGS.

10 WOOD RAIL FENCE

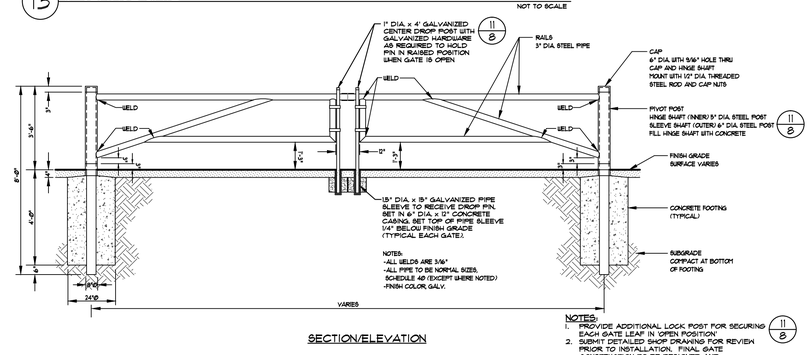
NOT TO SCALE



NOTES:
1.) WHERE APPLICABLE AT EDGE OF PARKING, POSTS TO BE SET 9'-0" O.C. AND CENTERED ON EACH PARKING SPACE. ALL OTHER WOOD BOLLARDS SHALL BE SET A MINIMUM OF 5' O.C. AS INDICATED ON LATOUT PLANS.
2.) CONTRACTOR TO PROVIDE SHOP DRAWINGS.

12 WOOD BOLLARD

NOT TO SCALE



NOTES:
1. PROVIDE ADDITIONAL LOCK POST FOR SECURING EACH GATE LEAF IN 'OPEN POSITION'
2. SUBMIT DETAILED SHOP DRAWING FOR REVIEW PRIOR TO INSTALLATION. FINAL GATE CONSTRUCTION TO BE DESIGNED AND CONSTRUCTED BY QUALIFIED PROFESSIONAL SKILLED IN METAL FABRICATION OR EQUAL.

14 DOUBLE SERVICE GATE

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No:	Revision:	Date:

REFERENCES:

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BARRINGTON TOWN BEACH WATER QUALITY IMPROVEMENTS

A.P. 10,
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BARRINGTON, RI

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ENVIRONMENTAL PLANNING
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PHONE (401) 671-6336 FAX (401) 671-6466

DETAILS

PROJECT NO. 291.731

DATE: JUNE 2012

SCALE: AS SHOWN

DRAWN BY: KMA, WS

CHECKED BY: GHG

DRAWING 8 OF 11

DRAWING NO:

8

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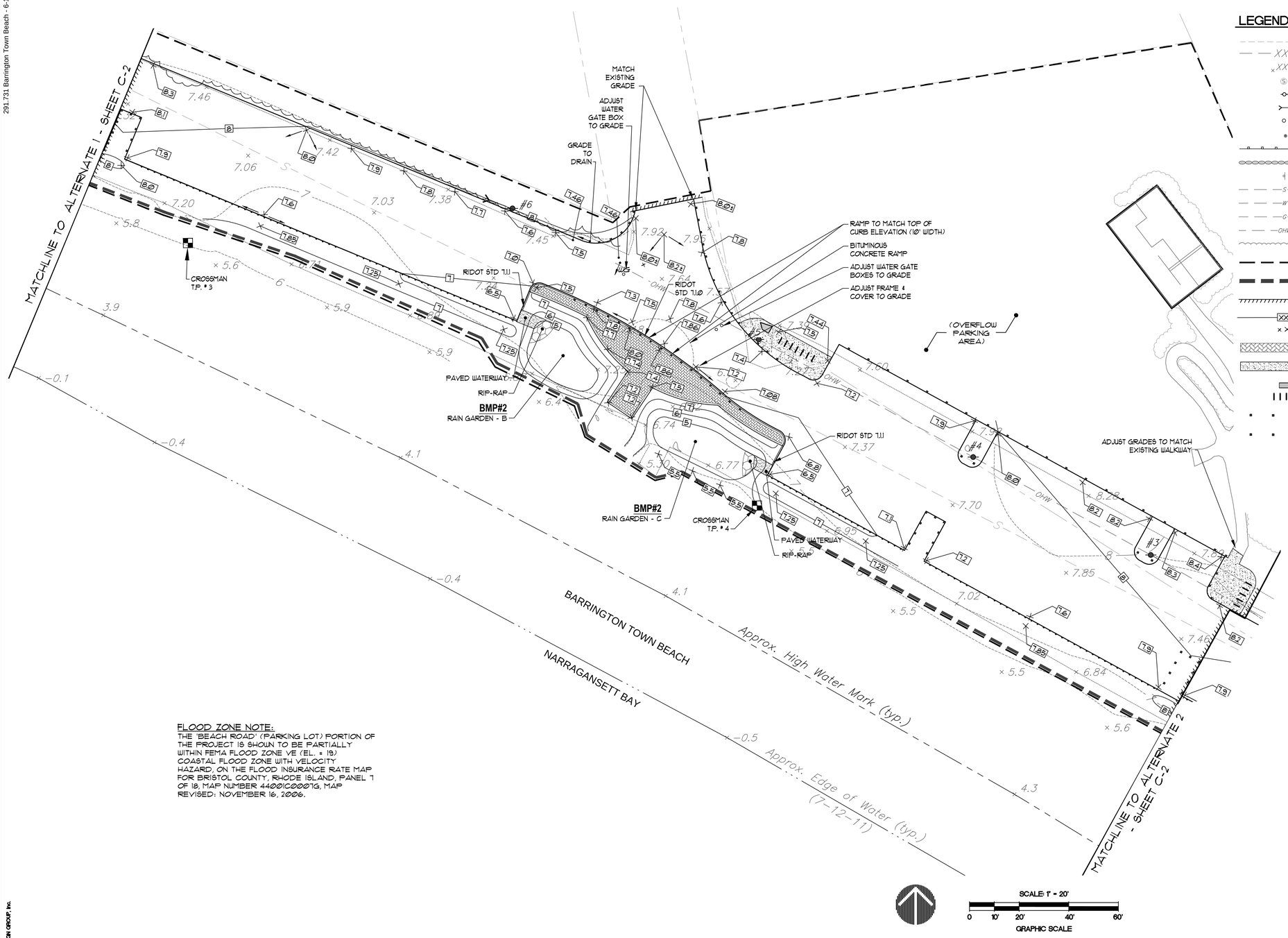

FLOOD ZONE NOTE:

THE 'BEACH ROAD' (PARKING LOT) PORTION OF THE PROJECT IS SHOWN TO BE PARTIALLY WITHIN FEMA FLOOD ZONE VE (EL. + 19) COASTAL FLOOD ZONE WITH VELOCITY HAZARD, ON THE FLOOD INSURANCE RATE MAP FOR BRISTOL COUNTY, RHODE ISLAND, PANEL 7 OF 18, MAP NUMBER 44001C0007G, MAP REVISED: NOVEMBER 16, 2006.

LEGEND:

- EXISTING EDGE OF PAVEMENT
- XXX — EXISTING CONTOUR LINE
- XX.XX — EXISTING SPOT GRADE
- SEWER MANHOLE
- UTILITY POLE
- GUY ANCHOR
- WATER GATE
- BOLLARD
- GUARDRAIL
- STONEWALL
- SIGN
- S — SEWER LINE
- W — WATER LINE
- G — GAS LINE
- OHW — OVERHEAD WIRE
- TREELINE
- LIMIT-OF-DISTURBANCE
- STRAW WATTLE SEDIMENTATION CONTROL
- SAWCUT LINE
- XX — PROPOSED GRADE
- XX — PROPOSED SPOT GRADE
- PROPOSED PERVIOUS PAVER VEHICULAR SURFACE (1/5)
- PROPOSED CONCRETE PEDESTRIAN SURFACE (9/8)
- PROPOSED BENCH (6/8)
- PROPOSED BICYCLE RACKS (5/8)
- PROPOSED WOOD BOLLARD (12/8)
- PROPOSED REMOVABLE BOLLARD (12/8)

No:	Revision:	Date:
1	Town Comments	4-15-2013

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1. 'BARRINGTON TOWN BEACH DRAINAGE IMPROVEMENTS – BAY ROAD, BEACH ROAD, LORRAINE STREET & WATER WAY, BARRINGTON, RHODE ISLAND; EXISTING CONDITIONS PLAN'; PREPARED BY: CROSSMAN ENGINEERING; PREPARED FOR: THE GIFFORD DESIGN GROUP, INC; SHEET NO. C-1 OF 1, SCALE: 1" = 40', DATED: AUGUST 2011.
2. 'ZONING MAP – TOWN OF BARRINGTON, RHODE ISLAND – MAP NUMBER 10'; PREPARED BY: MolnStreetGIS,LLC; SCALE: 1" = 100', DATED: JANUARY 7, 2011.

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Email: ce@crossmaneng.com

AREA 2: GRADING PLAN

PROJECT NO. 291.731
DATE: JUNE 2012
SCALE: AS SHOWN
DRAWN BY: KMA, WS
CHECKED BY: GHG

DRAWING 9 OF 11

DRAWING NO:

C-1

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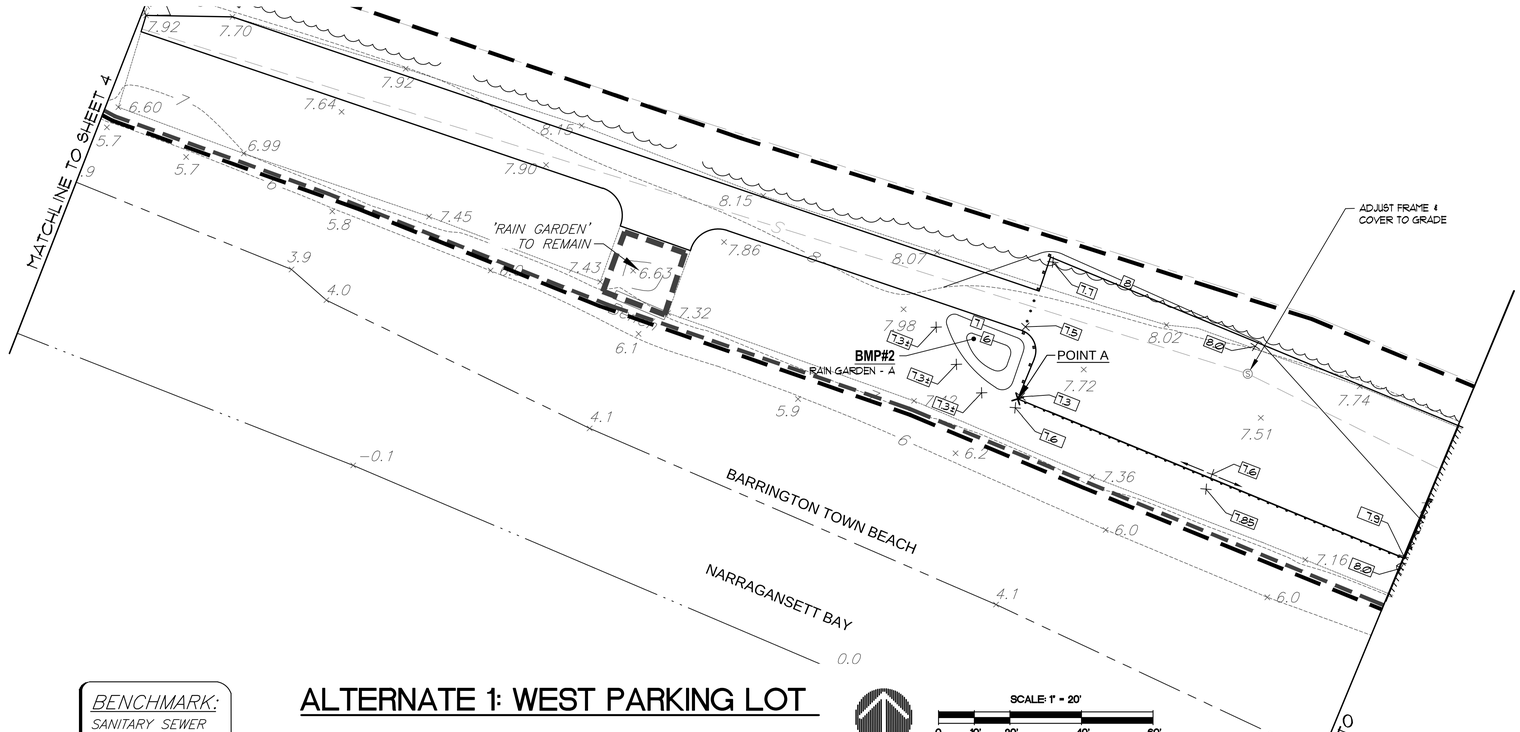
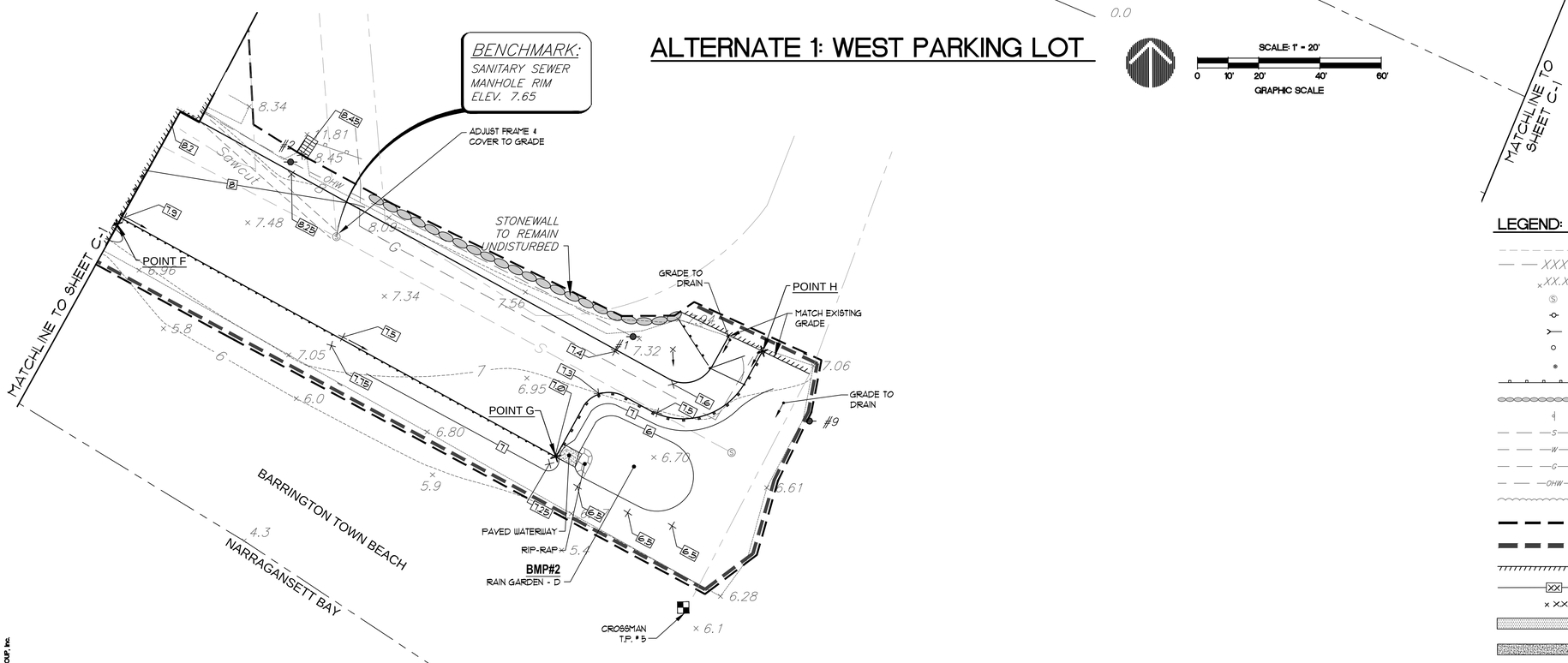


ALTERNATE 1: WEST PARKING LOT

SCALE: 1" = 20'
0 10' 20' 40' 60'
GRAPHIC SCALE



ALTERNATE 2: EAST PARKING LOT

SCALE: 1" = 20'
0 10' 20' 40' 60'
GRAPHIC SCALE

LEGEND:

- EXISTING EDGE OF PAVEMENT
- EXISTING CONTOUR LINE
- EXISTING SPOT GRADE
- SEWER MANHOLE
- UTILITY POLE
- GUY ANCHOR
- WATER GATE
- BOLLARD
- GUARDRAIL
- STONEWALL
- SIGN
- SEWER LINE
- WATER LINE
- GAS LINE
- OVERHEAD WIRE
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- LIMIT-OF-DISTURBANCE
- STRAW WATTLE SEDIMENTATION CONTROL
- SAWCUT LINE
- PROPOSED CONTOUR LINE
- PROPOSED SPOT GRADE
- PROPOSED BITUMINOUS CONCRETE PEDESTRIAN SURFACE (1/8)
- PROPOSED CONCRETE PEDESTRIAN SURFACE (3/8)
- PROPOSED BENCH (6/8)
- PROPOSED WOOD RAIL (10/8)

No:	Revision:	Date:
1	Town Comments	4-15-2013

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   PREPARED BY: CROSSMAN ENGINEERING;
   PREPARED FOR: THE GIFFORD DESIGN GROUP, INC;
   SHEET NO. C-1 OF 1, SCALE: 1" = 40', DATED: AUGUST 2011.
2. 'ZONING MAP – TOWN OF BARRINGTON, RHODE ISLAND – MAP NUMBER 10';
   PREPARED BY: MolnStreetGIS,LLC;
   SCALE: 1" = 100', DATED: JANUARY 7, 2011.

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ALTERNATES 1 and 2: GRADING PLAN

PROJECT NO. 291.731
DATE: JUNE 2012
SCALE: AS SHOWN
DRAWN BY: KMA, WS
CHECKED BY: GHG

DRAWING 10 OF 11
DRAWING NO:
C-2

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TEST PIT DATA

TEST PIT 1
SURFACE ELEV.=19.0±

Depth	Soil	Horizon
0"–8"	DARK BROWN FINE SANDY LOAM	^A (VERY FRIABLE)
8"–36"	OLIVE BROWN GRAVELLY SANDY LOAM	^C (VERY FRIABLE)
36"–60"	DARK YELLOWISH BROWN FINE SANDY LOAM	2Bwb (VERY FRIABLE)
60"–120"	LIGHT BROWNISH GRAY SAND/LOAMY SAND	3C (LOOSE)

DEPTH TO BEDROCK: NONE OBSERVED
DEPTH TO GROUNDWATER SEEPAGE: NONE
ESTIMATED SEASONAL HIGH WATER TABLE: 120"
SOIL MOTTLING: NONE OBSERVED

TEST PIT 2
SURFACE ELEV.=9.5±

Depth	Soil	Horizon
0"–12"	DARK BROWN SANDY LOAM	^A (VERY FRIABLE)
12"–24"	OLIVE BROWN GRAVELLY COARSE SAND	^C1 (VERY FRIABLE)
24"–38"	DARK BROWN LOAMY SAND	^C2 (VERY FRIABLE)
38"–44"	VERY DARK GRAY SANDY LOAM	^C3 (FRIABLE)
44"–60"	YELLOWISH BROWN VERY FINE LOAMY SAND	Bwb1 (FRIABLE)
60"–84"	LIGHT OLIVE BROWN FINE TO MEDIUM SAND	Bwb2 (FRIABLE)

DEPTH TO BEDROCK: NONE OBSERVED
DEPTH TO GROUNDWATER SEEPAGE: 64"
ESTIMATED SEASONAL HIGH WATER TABLE: 54"
SOIL MOTTLING: 60"–84"

TEST PIT 3
SURFACE ELEV.=6.0±

Depth	Soil	Horizon
0"–22"	LIGHT GRAY COARSE SAND	C1 (LOOSE)
22"–24"	ASPHALT	2^M
24"–36"	GRAY COARSE SAND	C2 (LOOSE)
36"–48"	GRAY COARSE SAND	C3 (LOOSE)
48"–60"	BLACK ORGANICS	Oeb
60"–84"	GRAYISH BROWN GRAVELLY COARSE SAND	C4 (LOOSE)

DEPTH TO BEDROCK: NONE OBSERVED
DEPTH TO GROUNDWATER SEEPAGE: 45"
ESTIMATED SEASONAL HIGH WATER TABLE: 30"
SOIL MOTTLING: 24"–36", AND 36"–48"

TEST PIT 4
SURFACE ELEV.=6.0±

Depth	Soil	Horizon
0"–24"	LIGHT GRAY COARSE SAND	C1 (LOOSE)
24"–42"	GRAY COARSE SAND	C2 (LOOSE)
42"–54"	GRAY COARSE SAND	C3 (LOOSE)
54"–60"	BLACK ORGANICS	Oeb
60"–84"	DARK OLIVE BROWN COARSE SAND	C4 (LOOSE)

DEPTH TO BEDROCK: NONE OBSERVED
DEPTH TO GROUNDWATER SEEPAGE: 45"
ESTIMATED SEASONAL HIGH WATER TABLE: 30"
SOIL MOTTLING: 42"–54"

TEST PIT 5
SURFACE ELEV.=5.5±

Depth	Soil	Horizon
0"–36"	LIGHT GRAY COARSE SAND	C1 (LOOSE)
36"–48"	GRAY COARSE SAND	C2 (LOOSE)
48"–60"	BLACK ORGANICS	Oeb
60"–84"	LIGHT OLIVE BROWN COARSE SAND	C3 (LOOSE)

DEPTH TO BEDROCK: NONE OBSERVED
DEPTH TO GROUNDWATER SEEPAGE: 48"
ESTIMATED SEASONAL HIGH WATER TABLE: 30"
SOIL MOTTLING: 36"–48"

TEST PIT NOTE:
TEST PITS WERE EXCAVATED BY THE BARRINGTON DEPARTMENT OF PUBLIC WORKS AND DESCRIBED BY CROSSMAN ENGINEERING ON OCTOBER 5, 2011.

STORMWATER MANAGEMENT SYSTEM - MAINTENANCE & OPERATION:

1. RESPONSIBILITY

THE TOWN OF BARRINGTON, OR THEIR DESIGNEE, WILL BE RESPONSIBLE FOR PERFORMING MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEMS.

CONTACT INFORMATION: TOWN OF BARRINGTON DEPARTMENT OF PUBLIC WORKS:

BARRINGTON TOWN HALL
283 COUNTY ROAD
BARRINGTON, RI 02806
TELEPHONE: 401–247–1907

2. RAIN GARDEN

2.1 GENERAL MAINTENANCE:

HEALTHY VEGETATION WITHIN EACH RAIN GARDEN IS ESSENTIAL TO ITS STABILITY. THE RAIN GARDENS SHALL INITIALLY BE INSPECTED ONCE A MONTH AND AFTER STORM EVENTS DURING THE FIRST GROWING SEASON TO ENSURE PROPER ESTABLISHMENT OF THE VEGETATION. RESEED ANY BARE SLOPES, REPLACE DEAD VEGETATION, AND REMOVE AND DISPOSE ALL LITTER AND DEBRIS.

ONCE THE RAIN GARDENS HAVE BECOME ESTABLISHED THEY SHALL BE INSPECTED TWICE PER YEAR. MAINTENANCE SHALL INCLUDE RESEEDING ANY BARE SLOPES, PRUNING AND THINNING, PLANT REPLACEMENT AND TO REMOVE AND DISPOSE ALL LITTER AND DEBRIS. CONTINUE TO INSPECT RAIN GARDENS PERIODICALLY DURING AND/OR IMMEDIATELY AFTER RAINFALL EVENTS TO ENSURE THEY ARE OPERATING PROPERLY.

2.2 INSPECTIONS:

AN INSPECTION MUST OCCUR TWICE PER YEAR (SPRING AND FALL) BY QUALIFIED PERSONNEL TO ENSURE PROPER OPERATION. THE INSPECTION SHOULD CONCENTRATE ON THE FOLLOWING:

– EROSION
– WOODY GROWTH SHOULD BE CUT OR REMOVED
– SEDIMENT ACCUMULATION
– SLOPE STABILITY
– NO STANDING WATER AFTER PRECEDENT 72 HOUR DRY PERIOD

ANY DEFICIENCY NOTED DURING THE INSPECTION WILL BE IMMEDIATELY REPAIRED OR REPLACED.

2.3 SEDIMENT REMOVAL:

ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT LEVEL REACHES A DEPTH OF 3" TO 4". ALL DISTURBED AREAS SHALL BE RESTORED. ALL REMOVED SEDIMENT IS TO BE DISPOSED OF IN ACCORDANCE WITH APPENDIX–A OF THE R.I.D.E.M. SOLID WASTE REGULATIONS AND R.I.P.D.E.S. CATCH BASIN CLEANING GUIDANCE.

3. GRASS SWALE

3.1 MOWING:

THE SWALE MUST BE MOWED AS NEEDED DURING THE GROWING SEASON TO PREVENT WOODY GROWTH, TO CONTROL WEEDS AND TO MAINTAIN THE CHANNEL'S HYDRAULIC CHARACTERISTICS. AS A PART OF THE MOWING OPERATION, ALL LITTER AND DEBRIS MUST BE REMOVED. THE TYPICAL GRASS HEIGHT AFTER MOWING SHOULD BE 4" TO 6". GRASS HEIGHT MUST NOT EXCEED 10".

3.2 INSPECTIONS:

AN INSPECTION MUST OCCUR TWICE PER YEAR (SPRING AND FALL) BY QUALIFIED PERSONNEL TO ENSURE PROPER OPERATION. THE INSPECTION SHOULD CONCENTRATE ON THE FOLLOWING:

- EROSION
- CHECK DAM CONDITION
- WOODY GROWTH SHOULD BE CUT OR REMOVED
- SEDIMENT ACCUMULATION
- SLOPE STABILITY
- NO STANDING WATER AFTER PRECEDENT 72 HOUR DRY PERIOD

ANY DEFICIENCY NOTED DURING THE INSPECTION WILL BE IMMEDIATELY REPAIRED OR REPLACED.

RIP–RAP SHALL BE INSTALLED OVER AREAS OF THE SWALE WHICH CANNOT SUPPORT VEGETATION AND ARE PRONE TO EROSION. LINES AND GRADES OF THE SWALE SHALL BE MAINTAINED.

3.3 SEDIMENT REMOVAL

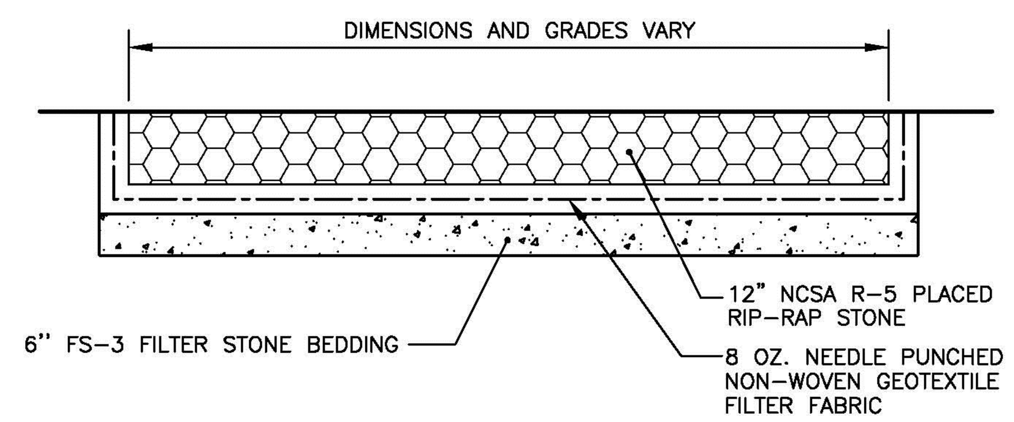
ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT LEVEL REACHES A DEPTH OF 3" TO 4". ALL DISTURBED AREAS SHALL BE RESTORED. ALL REMOVED SEDIMENT IS TO BE DISPOSED OF IN ACCORDANCE WITH APPENDIX–A OF THE R.I.D.E.M. SOLID WASTE REGULATIONS AND R.I.P.D.E.S. CATCH BASIN CLEANING GUIDANCE.

UTILITY NOTES:

1. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR MUST PERFORM ADDITIONAL TESTS TO:
   1.1 CONFIRM THE EXISTING DEPTHS OF UTILITIES AT ALL POTENTIAL CONFLICT POINTS.
   1.2 PRIOR TO CONSTRUCTION, THE FINDINGS ARE TO BE REVIEWED BY THE TOWN AND THE ENGINEER. IF NECESSARY, ALTERNATIVES TO AVOID UTILITY CONFLICTS WILL BE DEVELOPED. NO CONSTRUCTION WILL BE ALLOWED WITHOUT TOWN AUTHORIZATION.
2. ANY MODIFICATIONS TO THE PROPOSED CONSTRUCTION TO AVOID CONFLICTS MUST BE APPROVED BY THE TOWN AND THE ENGINEER PRIOR TO CONSTRUCTION. NO EXTRA PAYMENT TO THE CONTRACTOR DUE TO RELOCATIONS WILL BE AUTHORIZED.

DRAINAGE NOTES:

1. CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE OR FRAME AND COVER.
2. SHOP DRAWING AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER, PRIOR TO ORDERING.



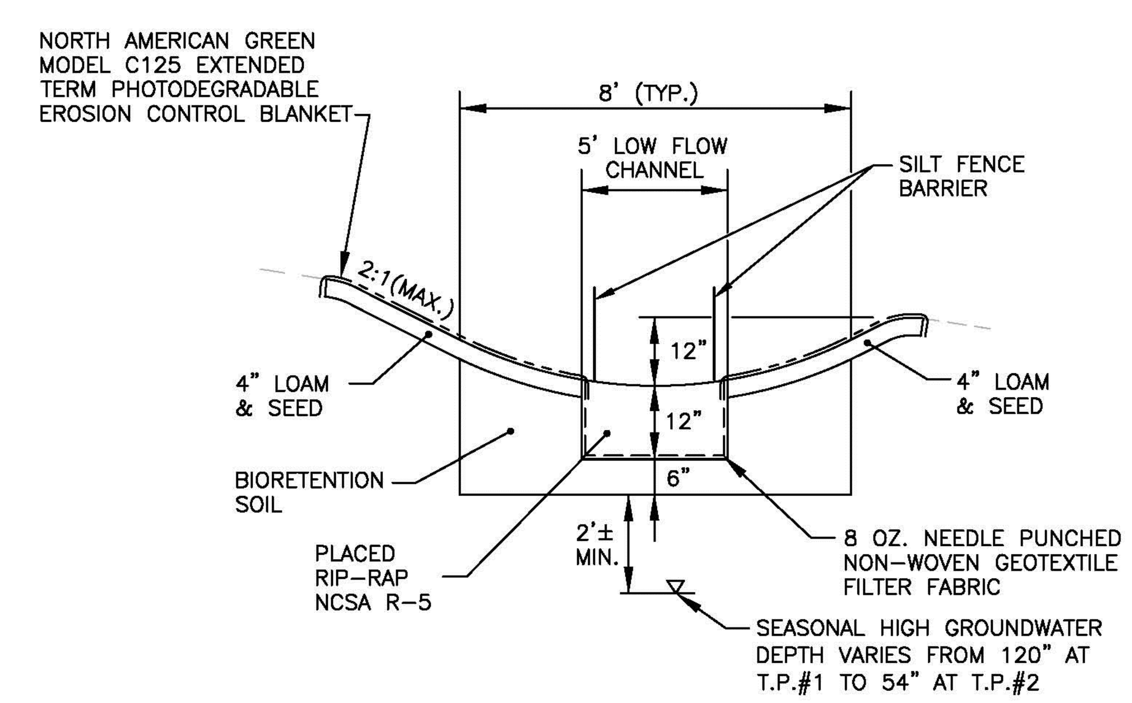
TYPICAL SECTION OF RIP-RAP INLET AND OUTLET PROTECTION
NOT TO SCALE

NOTES:

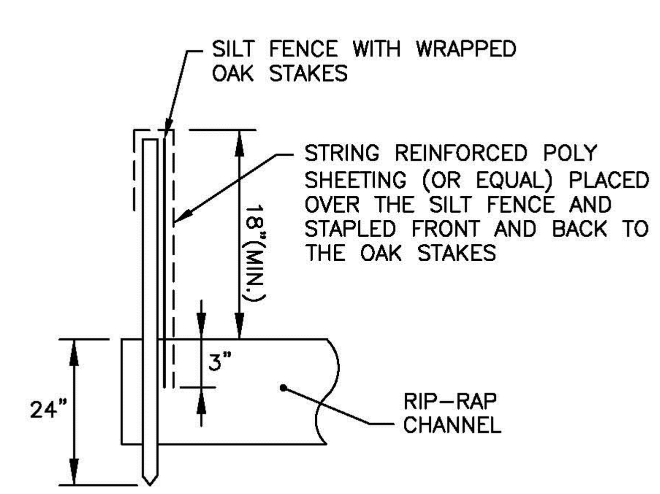
1. BIORETENTION SOIL SHALL MEET THE SPECIFICATION IN THE R.I. STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, DEC. 2010, APPENDIX–F, SECTION F.5.2.2.
2. ALL DRAINAGE FLOW SHALL BE DIRECTED INTO THE LOW FLOW CHANNEL UNTIL THE GRASSED SIDE SLOPES ARE FULLY STABILIZED WITH A THICK STAND OF VEGETATION. SILT FENCE BARRIERS SHALL BE PLACED ALONG EACH SIDE OF THE LOW FLOW CHANNEL TO TEMPORARILY CONTAIN ALL DRAINAGE FLOW TO THE LOW FLOW CHANNEL. REFER TO SILT FENCE BARRIER DETAIL.
3. THE CONTRACTOR SHALL BE PREPARED TO INSTALL ADDITIONAL CONTROLS SUCH AS SAND BAGS TO KEEP ALL DRAINAGE FLOW WITHIN THE LOW CHANNEL UNTIL THE SIDESLOPES ARE COMPLETELY STABILZED.
4. PRESSURE TREATED PLYWOOD (15/32" THICK) TRENCH DAMS SHALL BE PLACED EVERY 25' WHERE INDICATED ON THE PLAN (DRAWING NO.4).

BIORETENTION SOIL MIXTURE:

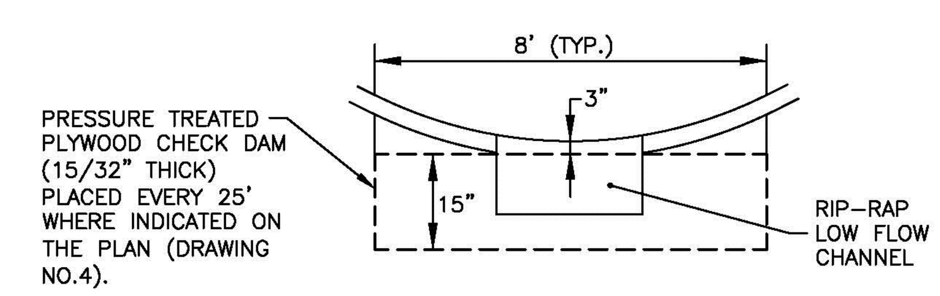
SAND: 85–88%
SOIL FINES: 8 TO 12% (NO MORE THAN 2% CLAY)
ORGANIC MATTER: 3 TO 5%
* ADD 20% (BY VOLUME) OF WELL AGED (3 MONTHS), WELL AERATED, LEAF COMPOST TO THE MIXTURE.



BMP #1 - GRASS SWALE TYPICAL SECTION
NOT TO SCALE



SILT FENCE BARRIER DETAIL
NOT TO SCALE



TRENCH DAM DETAIL
NOT TO SCALE

No:	Revision:	Date:
1	Town Comments	4–15–2013

1–888–DIG–SAFE
PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

BARRINGTON TOWN BEACH WATER QUALITY IMPROVEMENTS

A.P. 10,
BEACH ROAD
BARRINGTON, RI

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Email: cei@crossmaneng.com

MISCELLANEOUS DETAILS: PLAN NO. 1

PROJECT NO. 291.731
DATE: JUNE 2012
SCALE: AS SHOWN
DRAWN BY: BH
CHECKED BY: GHG

DRAWING 11 OF 11
DRAWING NO:
C–3

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