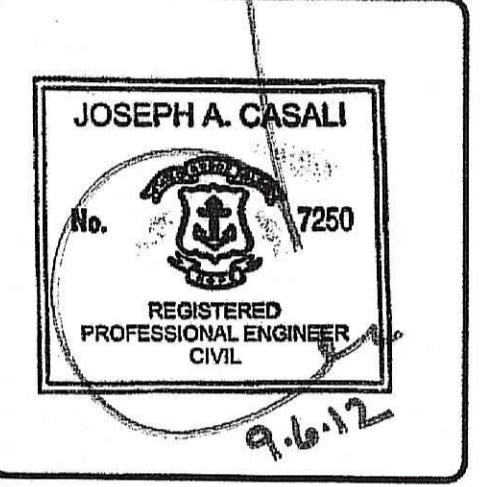
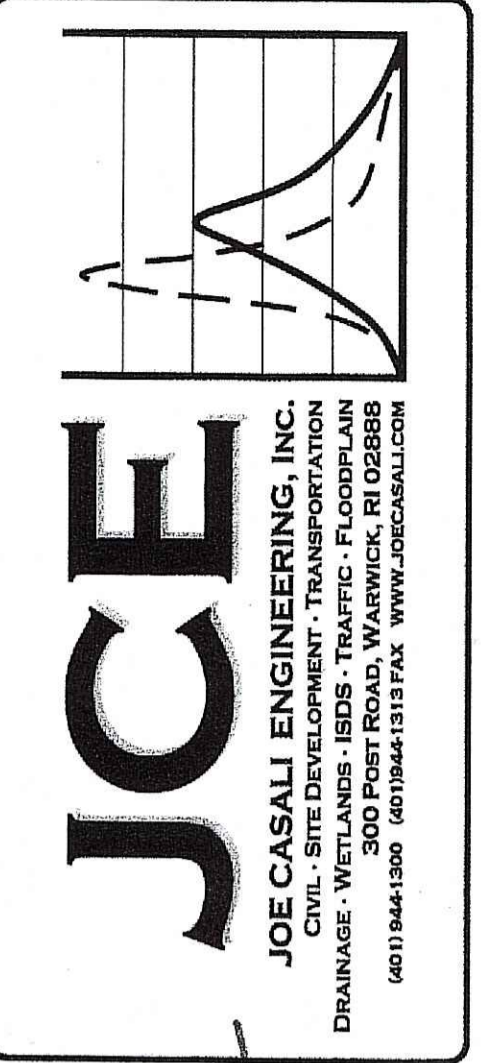


SITE PLANS FOR A
PROPOSED
10-UNIT RESIDENTIAL DEVELOPMENT
GREENFIELD COMMONS

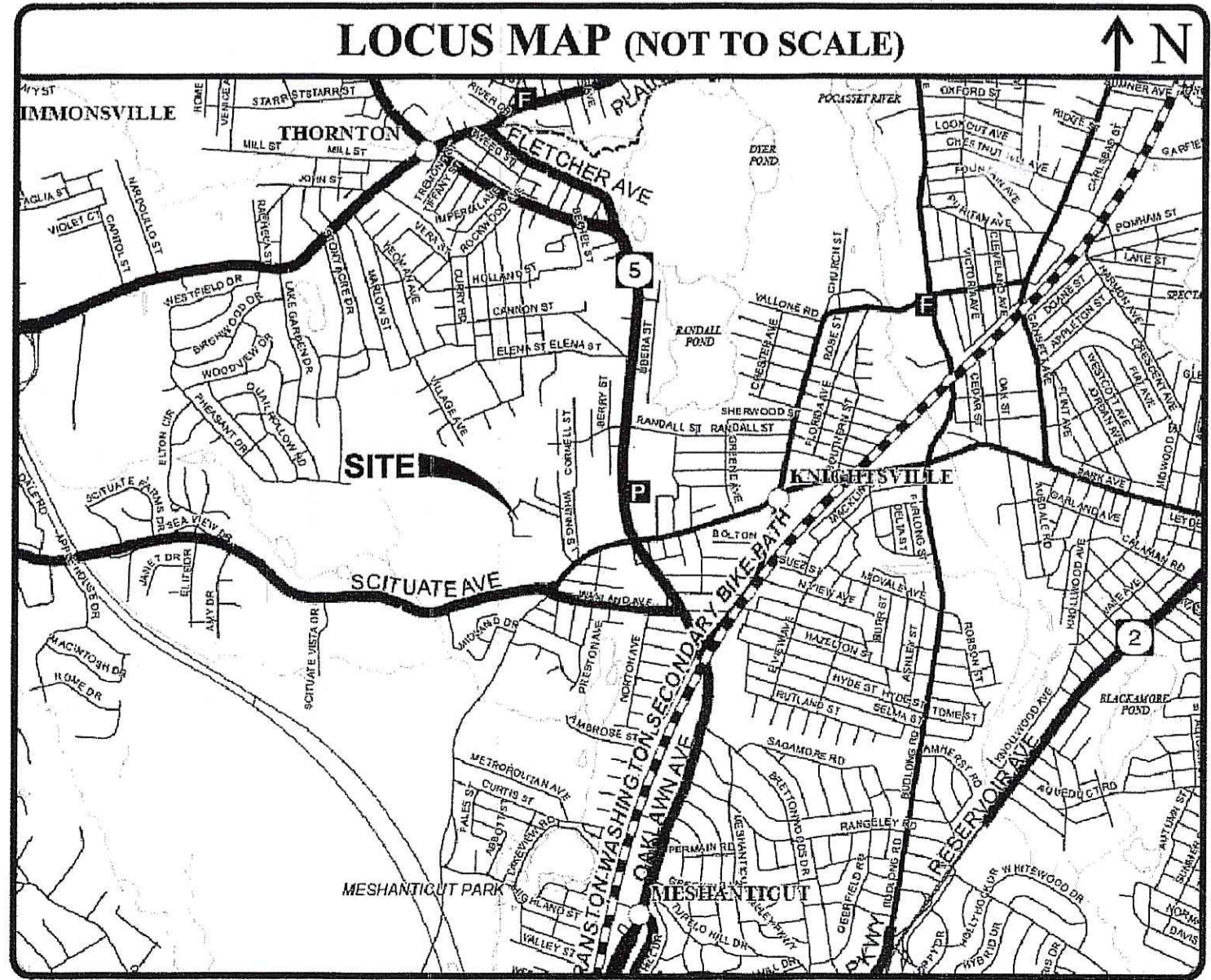
AP 12 LOTS 3158, 3166, 3167, & 3234
CRANSTON, RHODE ISLAND



GREENFIELD COMMONS
CRANSTON, RHODE ISLAND
AP 12 LOT 3158, 3166, 3167, & 3234

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 14, 2012 FILE # 12-0158
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

PROJECT TEAM	
OWNER/ APPLICANT:	SORDAM DEVELOPMENT, LLC 1135 CHARLES STREET NORTH PROVIDENCE, RI 02904
CIVIL:	JOE CASALI ENGINEERING, INC 300 POST ROAD WARWICK, RI 02888 PHONE: 401-944-1300 FAX: 401-944-1313
SURVEYOR:	LOUIS CALCAGNI, JR., PLS 1 CALCAGNI PLACE GREENVILLE, RI 02917 PHONE: 401-949-5885



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4	DETAILS
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2 OF 5	SITE PLAN
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4 OF 5	CONSTRUCTION DETAILS AND NOTES
5 OF 5	CONSTRUCTION DETAILS



REVISIONS:	
NO.	DATE DESCRIPTION

DESIGNED BY:	GAA
DRAWN BY:	GAA
CHECKED BY:	JAC
DATE:	SEPTEMBER 6, 2012
PROJECT NO:	12-15A

PRELIMINARY, NOT FOR
CONSTRUCTION

**COVER
SHEET**

**SHEET
1 OF 4**

GENERAL NOTES:

- THIS PLANSET REFLECTS UPDATES TO THE PREVIOUSLY DESIGNED "GREENFIELD COMMONS" DEVELOPMENT DESIGNED BY CIVILTECH ENGINEERING. THIS PROJECT WAS PREVIOUSLY APPROVED BY RIDEM AS FRESHWATER WETLANDS PERMIT #05-0252. A PORTION OF THE PROJECT SITE WAS COMPLETED UNDER THAT PERMIT, BUT FULL CONSTRUCTION WAS NOT COMPLETED BEFORE PERMIT #05-0252 EXPIRED. THIS PLANSET REFLECTS IMPROVEMENTS TO THE STORMWATER MANAGEMENT SYSTEM OF THE SITE ONLY, AS NOTED ON THE SITE PLANS, AND DOES NOT EVALUATE THE COMPLETE ENGINEERING DESIGN OF CIVILTECH ENGINEERING. SEE CIVILTECH ENGINEERING PLANS (ATTACHED AS REFERENCE PLANS) FOR SITE LAYOUT, MATERIALS, UTILITIES, AND PARTIAL STORMWATER MANAGEMENT DESIGN.
- PROPERTY LINE, TOPOGRAPHIC SURVEY, WETLAND DELINEATION, AND ORIGINALLY PROPOSED INFORMATION SHOWN ON PLANS TAKEN FROM PLANSET TITLED "GREENFIELD COMMONS" BY CIVILTECH ENGINEERING, INC. DATED 03/07/2005. AN AS-BUILT PLAN BY LOUIS CALCAIGNI JR., PLS IS INCLUDED IN THIS PLANSET TO SHOW WHAT HAS BEEN INSTALLED TO-DATE.
- THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR CITY WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
- THE PROJECT SITE IS LOCATED WITHIN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 44007C0311G, EFFECTIVE DATE OF MARCH 2, 2009.
- SOILS EXISTING ON THE SITE ARE AS ALL HYDROLOGIC SOIL GROUP B, AS FOLLOWS, PER THE SOIL SURVEY OF RHODE ISLAND:
 - CANTON-CHARLTON-ROCK OUTCROP COMPLEX, 15 TO 35% SLOPES (CaD)
 - CANTON AND CHARLTON FINE SANDY LOAMES, VERY ROCKY, 3 TO 15% SLOPES (CaC)
 - NARRAGANSETT SILT LOAM, 3 TO 8% SLOPES (NaB)
 - SCIO SILT LOAM, 0 TO 3% SLOPES (ScA)
- TEST PIT EVALUATIONS WERE PERFORMED IN AUGUST 2012 BY JOHN TZITZOURIS (LICENSE #D4021).

SITE NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.
- STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.
- ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED, UNLESS OTHERWISE NOTED ON THE SITE PLANS.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SURVEY LAYOUT SERVICES FOR THE WORK AND SHALL SUBMIT "AS-BUILT" DRAWINGS OF ALL WORK, WHICH SHALL BE STAMPED AND CERTIFIED BY A RHODE ISLAND REGISTERED PROFESSIONAL LAND SURVEYOR OR A RHODE ISLAND REGISTERED PROFESSIONAL ENGINEER.
- ANY ITEM OF WORK NOT SPECIFICALLY INDICATED ON THE PLANS BUT IS REQUIRED FOR THE COMPLETE CONSTRUCTION OF THE PROJECT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND INCLUDED IN THE CONTRACT BID PRICE. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING SITE CONDITIONS.
- WHERE NECESSARY TO REMOVE CURBS, CATCH BASINS OR DRAINS TO COMPLETE WORK, THE CONTRACTOR SHALL REPLACE SUCH ITEMS TO THE SATISFACTION OF THE CITY AT NO ADDITIONAL COST TO THE OWNER.
- ANY EXISTING PIPE OR UTILITY DAMAGED BY THE CONTRACTORS OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER OR THE CITY.
- THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION OR REPLACE TREES, SHRUBS, FENCES, SIGNS, GUARDRAILS, DRIVEWAYS, SIDEWALKS AND ANY OTHER OBJECT (NOT SCHEDULED FOR DEMOLITION) AFFECTED BY THIS OPERATION.
- ROADWAYS SHALL BE LEFT PASSABLE AT ALL TIMES. CLOSURE OF ROADWAY IS NOT PERMITTED.
- ALL CONSTRUCTION WORK SHALL BE PERFORMED IN THE DRY. THE CONTRACTOR SHALL PROVIDE, OPERATE AND MAINTAIN ALL PUMPS, DRAINS, WET POINTS, SCREENS, OR OTHER FACILITIES NECESSARY TO CONTROL, COLLECT AND DISPOSE OF ALL SURFACE AND SUBSURFACE WATER ENCOUNTERED IN THE PERFORMANCE OF THE WORK.
- REFER TO PLUMBING PLANS FOR CONTINUATION OF ALL UTILITIES WITHIN 5' (FIVE) FEET OF THE BUILDING.
- ALL SITE WORK, INCLUDING BUT NOT LIMITED TO, AGGREGATE MATERIALS, DRAINAGE STRUCTURES, AND LANDSCAPING, ETC. SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2004 EDITION (WITH LATEST ADDENDA) AND THE RIDOT STANDARD DETAILS, 1998 EDITION (WITH LATEST ADDENDA).

LAYOUT NOTE:

THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN, AND PRIOR TO THE CONSTRUCTION, THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE STATE OF RHODE ISLAND TO SET AND VERIFY ALL LINES AND GRADES. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEMS FOUND WHICH DO NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.



LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE DONE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO ANY EXCAVATION CALL DIGSAFE AT 1-888-DIG-SAFE TO ANY EXCAVATION CALL DIGSAFE AT 1-888-DIG-SAFE 1-888-344-7233

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- THE SILT FENCE LINE ILLUSTRATED ON THESE PLANS SHALL SERVE AS THE STRICT LIMIT OF DISTURBANCE FOR THE PROJECT WITHIN OR ADJACENT TO REGULATED FRESHWATER WETLAND AREAS.
- THE LIMITS OF CLEARING, GRADING, AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PLAN SHALL BE TOTALLY UNDISTURBED, TO REMAIN IN NATURAL CONDITION.
- ALL CATCH BASINS AND CULVERTS SHALL BE PROTECTED WITH STAKED HAYBALES (R.I. STD. 9.8.0) DURING CONSTRUCTION ACTIVITIES. ALL PROPOSED STORM WATER DISCHARGE AREAS SHALL BE LINED WITH A RIPRAP SPLASH PAD AND PROTECTED WITH STAKED HAYBALE WITH SILT FENCE (R.I. STD. 9.3.0) AND STAKED HAYBALE WITH SILT FENCE SHALL ALSO BE INSTALLED AT ALL EXISTING STORMWATER DISCHARGE LOCATIONS WHERE DISTRIBUTING PIPES, CATCH BASINS, AND MANHOLES ARE TO BE CLEANED AND FLUSHED.
- ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL REGULARLY CHECK ALL SEEDED AREAS TO ENSURE THAT A GOOD STAND IS MAINTAINED.
- ALL SILT FENCE, TEMPORARY TREATMENT (HAY, STRAW, ETC.) AND TEMPORARY EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
- STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES OF NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED PER CONTRACT SPECIFICATIONS.
- THE SILTFENCE SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY SILTFENCE AS NEEDED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY-BALES BECOMES FILLED WITH SEDIMENTS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL SOIL EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITE FOR THE ENTIRE DURATION OF THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL FOLLOW THE DIRECTION OF THE RESIDENT ENGINEER WITH REGARD TO INSTALLATION, MAINTENANCE, AND REPAIR OF ALL SOIL EROSION AND SEDIMENTATION CONTROLS ON THE PROJECT SITE. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROLS (HAYBALES, SILT FENCE, ETC.) SHALL BE MAINTAINED UNTIL ALL EXPOSED SOILS ARE SATISFACTORILY STABILIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND/OR RESEEDING ALL AREAS THAT DO NOT DEVELOP WITHIN ONE YEAR FROM THE COMPLETION OF CONSTRUCTION.
- ALL REFERENCED SOIL EROSION AND SEDIMENTATION CONTROLS INCLUDING MATERIALS USED, APPLICATION RATES AND THE INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE "RHODE ISLAND EROSION AND SEDIMENTATION HANDBOOK", DATED 1993.

BMP CONSTRUCTION MAINTENANCE SCHEDULE:

- ALL MAINTENANCE (INCLUDING CLEANING) REQUIRED DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE:
 - MEASURES NEEDED TO ENSURE THE PROPER OPERATION OF THE STORMWATER RUNOFF (DRAINAGE) AND WATER QUALITY CONTROL SYSTEMS INCLUDE INSPECTION, CLEANING, AND REPAIR OF ALL PIPES, INTAKE AND DISCHARGE STRUCTURES, CATCH BASIN SUMPS, AND MANHOLES.
 - INSPECTION OF ALL SLOPES, BERMS, AND OTHER CONTROL STRUCTURES FOR STRUCTURAL INTEGRITY/STABILITY AND EVIDENCE OF SOIL EROSION PROCESSES, AND MAINTENANCE OF THESE STRUCTURES IF NECESSARY. INSPECTIONS SHALL BE PERFORMED FOLLOWING ALL RAIN EVENTS OF 1/2 INCH RAINFALL OR MORE IN A 24-HOUR PERIOD, OR BI-MONTHLY IF NO RAINFALL EVENT OCCURS.
- UPON COMPLETION OF THE PROJECT CONSTRUCTION, AND PRIOR TO VACATING THE SITE, THE CONTRACTOR SHALL CONDUCT A FINAL INSPECTION AND CLEANING OF THE DRAINAGE SYSTEM AND ALL ASSOCIATED STRUCTURES.
- AFTER THE COMPLETION OF PROJECT CONSTRUCTION AND THE FINAL STABILIZATION OF THE ENTIRE SITE, THE INSPECTION AND MAINTENANCE OF ALL STORMWATER FACILITIES MUST BE PERFORMED AS FOLLOWS:
 - ANY REQUIRED REPAIR AND REPLACEMENT OF DRAINAGE STRUCTURES OR FACILITIES SHALL BE DONE PROMPTLY TO ENSURE PROPER FUNCTIONING OF THE SYSTEM.
 - ALL DESIGN, CLEANING, AND MAINTENANCE OF THE STORMWATER DRAINAGE SYSTEM SHALL FOLLOW AT LEAST THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION MINIMUM STANDARDS, SECTION 212 AND SECTION 708. WHERE APPROPRIATE, PROCEDURES REGARDING THE DRAINAGE DESIGN, AND THE INSPECTION AND MAINTENANCE OF THE STORMWATER DRAINAGE SYSTEM SHALL BE FOLLOWED AS OUTLINED IN THE "RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL" (RIDEM/RICRMC, DECEMBER 2010).
- THE BIORETENTION BASINS SHALL NOT BE USED AS A CONSTRUCTION SEDIMENTATION SYSTEM.
- CONSTRUCTION EQUIPMENT, VEHICULAR TRAFFIC, PARKING OF VEHICLES, AND STOCKPILING OF CONSTRUCTION AND EARTH MATERIALS SHALL BE OUTSIDE THE LIMITS OF THE BIORETENTION BASINS UNTIL INSTALLATION IS COMPLETED. THE SUBGRADE BENEATH THE SYSTEM SHALL NOT BE COMPACTED.
- EXCAVATION FOR CONSTRUCTION OF THE BIORETENTION BASINS SHALL BE PERFORMED MANUALLY OR BY HYDRAULIC EXCAVATOR OR SOME OTHER SIMILAR MEANS TO ENSURE THAT THE EQUIPMENT IS NOT IN DIRECT CONTACT WITH THE NATURAL INFILTRATION EARTH MATERIAL AND DOES NOT CAUSE COMPACTION OF THE MATERIAL.

MISCELLANEOUS UTILITY NOTES:

- PRIOR TO CONSTRUCTION ALL POTENTIAL UTILITY/DRAINAGE CONFLICTS MUST BE IDENTIFIED BY THE CONTRACTOR. ANY MODIFICATIONS TO THE PROPOSED UTILITIES TO AVOID CONFLICTS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- OVERHEAD ELECTRIC AND TELEPHONE SERVICES ARE TO BE REMOVED BY THE APPROPRIATE UTILITY COMPANY AND COORDINATED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL AT ALL TIMES PROVIDE A SUFFICIENT NUMBER OF WORKMEN AND GUARDS AS MAY BE NECESSARY TO PROPERLY SAFEGUARD THE PUBLIC FROM THEIR OPERATIONS.
- THE CONTRACTOR SHALL TAKE PRECAUTIONS AGAINST DAMAGING OF PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES AND SHALL PROMPTLY REPAIR AT HIS OWN EXPENSE ANY DAMAGE TO SUCH PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES TO THE SATISFACTION OF THE OWNER OR TOWN.

MISCELLANEOUS CONSTRUCTION NOTES

- CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ALL MATERIALS AND APPURTENANCES SPECIFIED ON THESE PLANS TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE DESIGN ENGINEER OF RECORD PRIOR TO COMMENCEMENT OF CONSTRUCTION.

BMP LONG TERM MAINTENANCE SCHEDULE

- DEEP SUMP CATCH BASINS
- INSPECTIONS SHALL BE PERFORMED A MINIMUM OF 2 TIMES PER YEAR (SPRING/FALL). UNITS SHALL BE CLEANED ANNUALLY AND WHENEVER THE DEPTH OF SEDIMENT IS GREATER THAN OR EQUAL TO HALF THE SUMP DEPTH.
 - THE INLET GRATE SHALL NOT BE WELDED TO THE FRAME SO THAT THE SUMP CAN BE EASILY INSPECTED AND MAINTAINED.

STORMWATER OUTFALLS

- INSPECT OUTFALL LOCATIONS MONTHLY FOR THE FIRST THREE MONTHS AFTER CONSTRUCTION TO ENSURE PROPER FUNCTIONING AND CORRECT ANY AREAS THAT HAVE SETTLED OR EXPERIENCED WASHOUTS.
- INSPECT OUTFALLS ANNUALLY AFTER INITIAL THREE MONTH PERIOD.
- ANNUAL INSPECTIONS SHOULD BE SUPPLEMENTED AFTER LARGE STORMS, WHEN WASHOUTS MAY OCCUR.
- MAINTAIN VEGETATION AROUND OUTFALLS TO PREVENT BLOCKAGES AT THE OUTFALL.
- MAINTAIN RIP RAP PAD BELOW EACH OUTFALL AND REPLACE ANY WASHOUTS.
- REMOVE AND DISPOSE OF ANY TRASH OR DEBRIS AT THE OUTFALL.

ROOF DRAIN LEADERS

- PERFORM ROUTINE ROOF INSPECTIONS QUARTERLY.
- KEEP ROOFS CLEAN AND FREE OF DEBRIS.
- KEEP ROOF DRAINAGE SYSTEMS CLEAR.

BIORETENTION BASINS

- SEDIMENT SHALL BE CLEANED OUT OF THE SEDIMENT FOREBAY WHEN IT ACCUMULATES TO HALF THE DEPTH OF THE DESIGN. VEGETATION WITHIN THE SEDIMENT FOREBAY SHALL BE LIMITED TO 18 INCHES. THE GABION BAFFLE SHALL BE CLEANED/REPAIRED WHEN DRAWDOWN TIMES EXCEED 36 HOURS.
- TRASH AND DEBRIS SHALL BE REMOVED AS NECESSARY.
- SILT/SEDIMENT SHALL BE REMOVED FROM THE FILTER BED WHEN THE ACCUMULATION EXCEEDS 1 INCH.
- WHEN DRAIN DOWN TIME EXCEEDS 48 HOURS, THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REMOVED AND REPLACED WITH FRESH MATERIAL.
- DURING THE 6 MONTHS IMMEDIATELY AFTER CONSTRUCTION, FILTER PRACTICES SHALL BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY.
- INSPECT SYSTEM ANNUALLY AND AFTER STORM EVENTS GREATER THAN OR EQUAL TO THE 1-YEAR, 24-HOUR TYPE III PRECIPITATION EVENT.
- PRUNING OR REPLACEMENT OF WOODY VEGETATION SHOULD OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED. SEPARATION OF HERBACEOUS VEGETATION ROOTSTOCK SHOULD OCCUR WHEN OVER-CROWDING IS OBSERVED, OR APPROXIMATELY ONCE EVERY 3 YEARS. IF AT LEAST 50% VEGETATION COVERAGE IS NOT ESTABLISHED AFTER 2 YEARS, A REINFORCEMENT PLANTING SHOULD BE PERFORMED.
- MINOR SOIL GULLIES SHOULD BE REPAIRED WHEN THEY OCCUR.

DETENTION BASINS

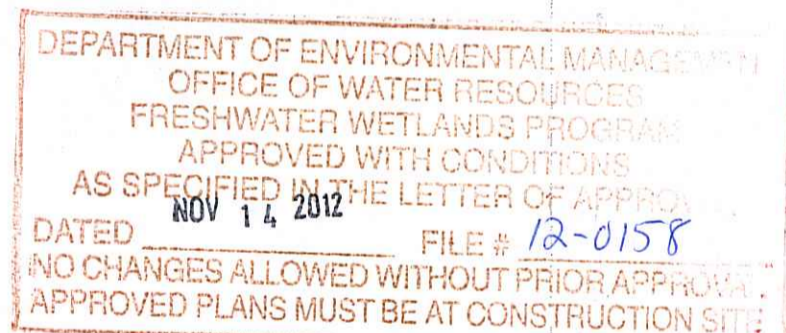
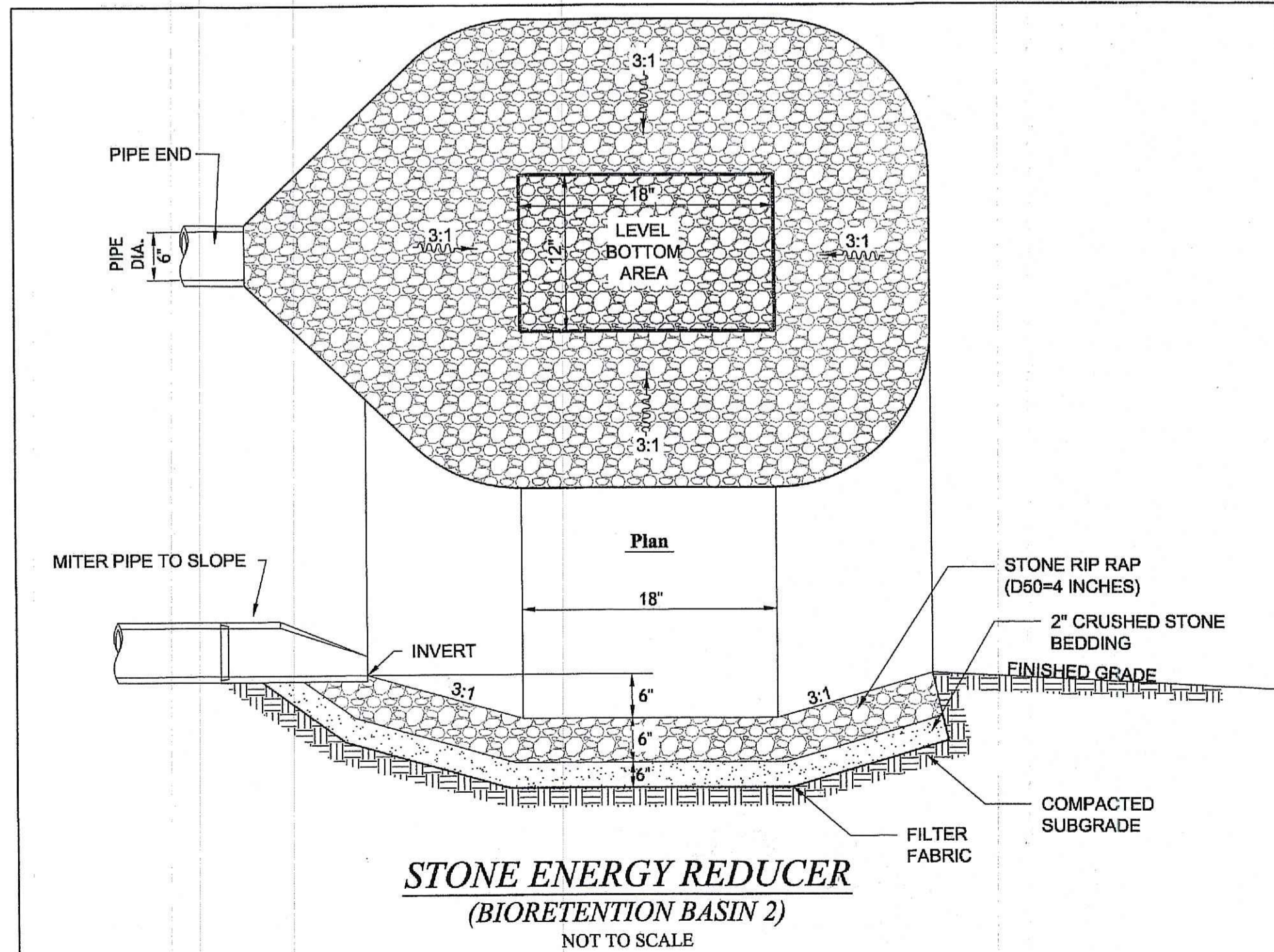
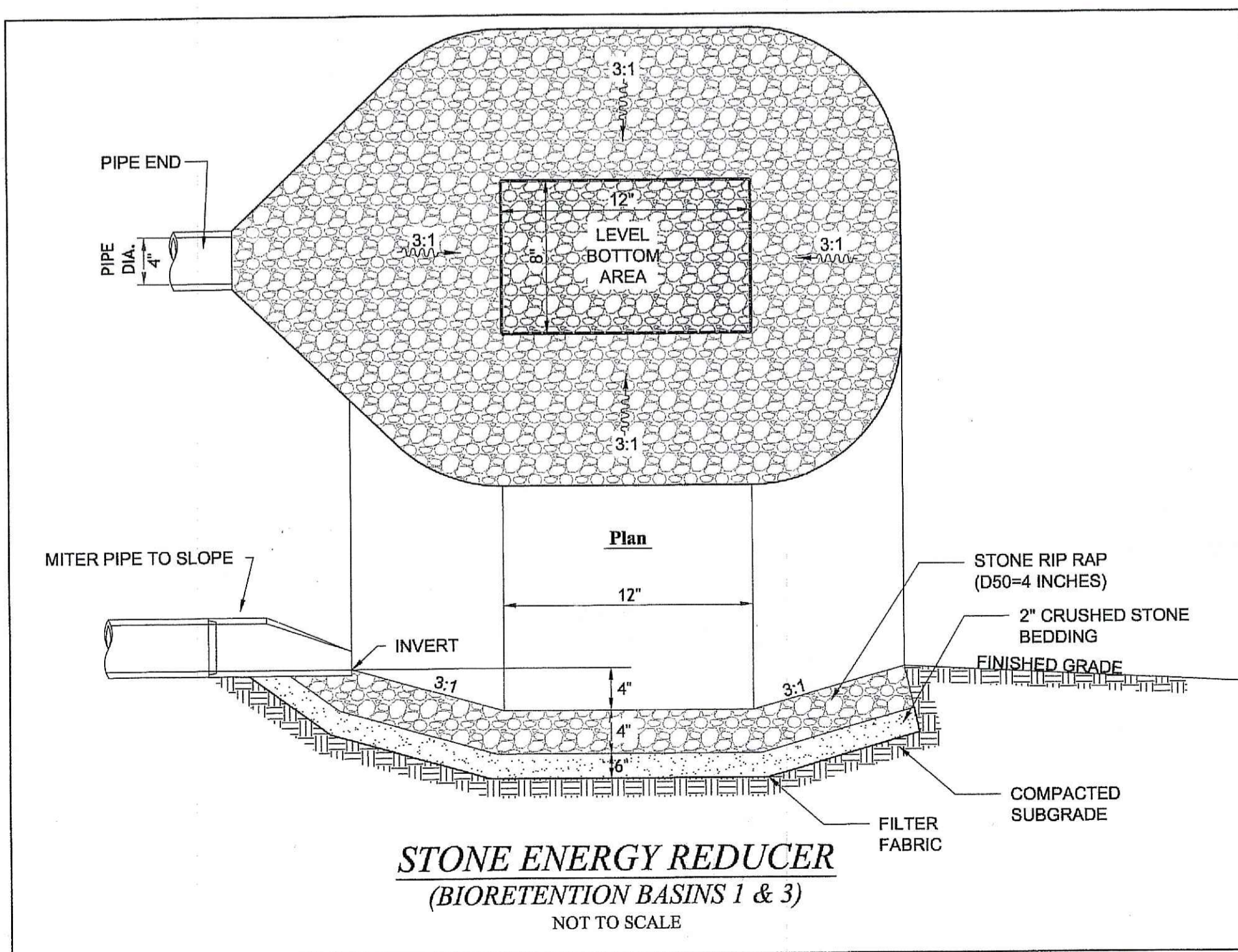
- SEDIMENT SHALL BE REMOVED FROM THE BASINS WHEN THE SEDIMENT VOLUME EXCEEDS 10% OF THE TOTAL BASIN VOLUME.
- RIP RAP OUTFLOWS AND OUTLET CONTROL STRUCTURES SHALL BE INSPECTED AFTER EVERY STORM IN THE FIRST 3 MONTHS OF OPERATION TO ENSURE PROPER FUNCTION. THEREAFTER, OUTFALLS SHALL BE INSPECTED AT LEAST ONCE EVERY 6 MONTHS.

ALL SEDIMENTS REMOVED FROM SITE DRAINAGE FACILITIES SHALL BE DISPOSED OF PROPERLY AND IN ACCORDANCE WITH APPLICABLE LOCAL AND STATE REGULATIONS.

BIORETENTION BASIN NOTES

CONTRACTOR SHALL REFER TO THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL (2010) FOR PLANTING GUIDELINES WITHIN THE BIORETENTION BASINS.

LEGEND	
	EXISTING PROPERTY LINE
	PROPOSED PROPERTY LINE
	ABUTTING PROPERTY LINE
	BUILDING SETBACK LINE
	WETLAND EDGE
	WETLAND FLAG
	50' PERIMETER WETLAND
	100' RIVERBANK WETLAND
	200' RIVERBANK WETLAND
	EXISTING EASEMENT
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SLOPES > 15%
	EXISTING STONE WALL
	IRON PIN
	DRILL HOLE
	CONCRETE BOUND
	EXISTING CURB
	GUARD RAIL
	DRAIN LINE
	DRAINAGE MANHOLE
	CATCH BASIN
	UTILITY POLE
	OVERHEAD WIRES
	UNDERGROUND ELECTRIC
	VERIZON LINE
	WATER LINE
	WATER SHUT OFF VALVE
	WELL
	SEWER
	SMH
	NOW OR FORMERLY
	TREELINE
	HAY BALES
	LIMIT OF DISTURBANCE
	SOIL EVALUATION



GREENFIELD COMMONS
CRANSTON, RHODE ISLAND
AP 12 LOT 3158, 3166, 3167, & 3234



REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY: GAA
DRAWN BY: GAA
CHECKED BY: JAC
DATE: SEPTEMBER 6, 2012
PROJECT NO: 12-15A

PRELIMINARY, NOT FOR CONSTRUCTION

GENERAL NOTES, LEGEND, & DETAILS

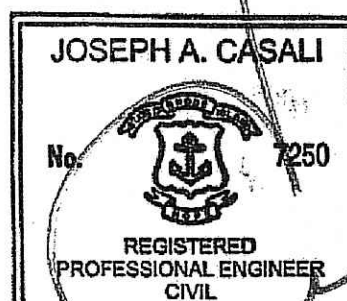
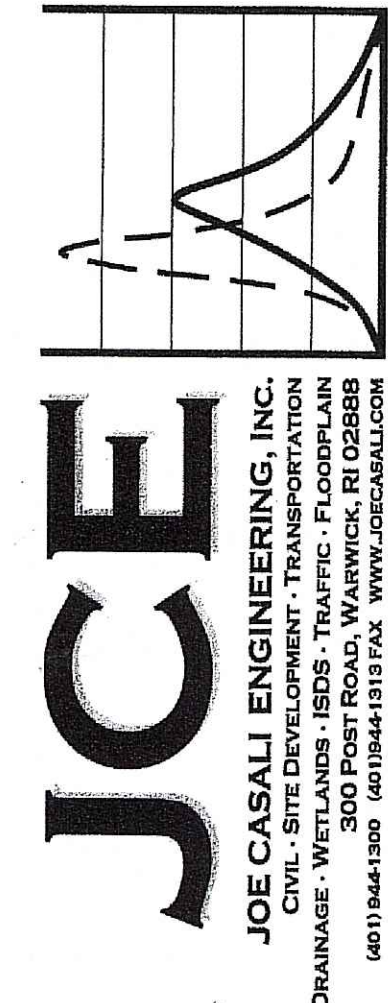
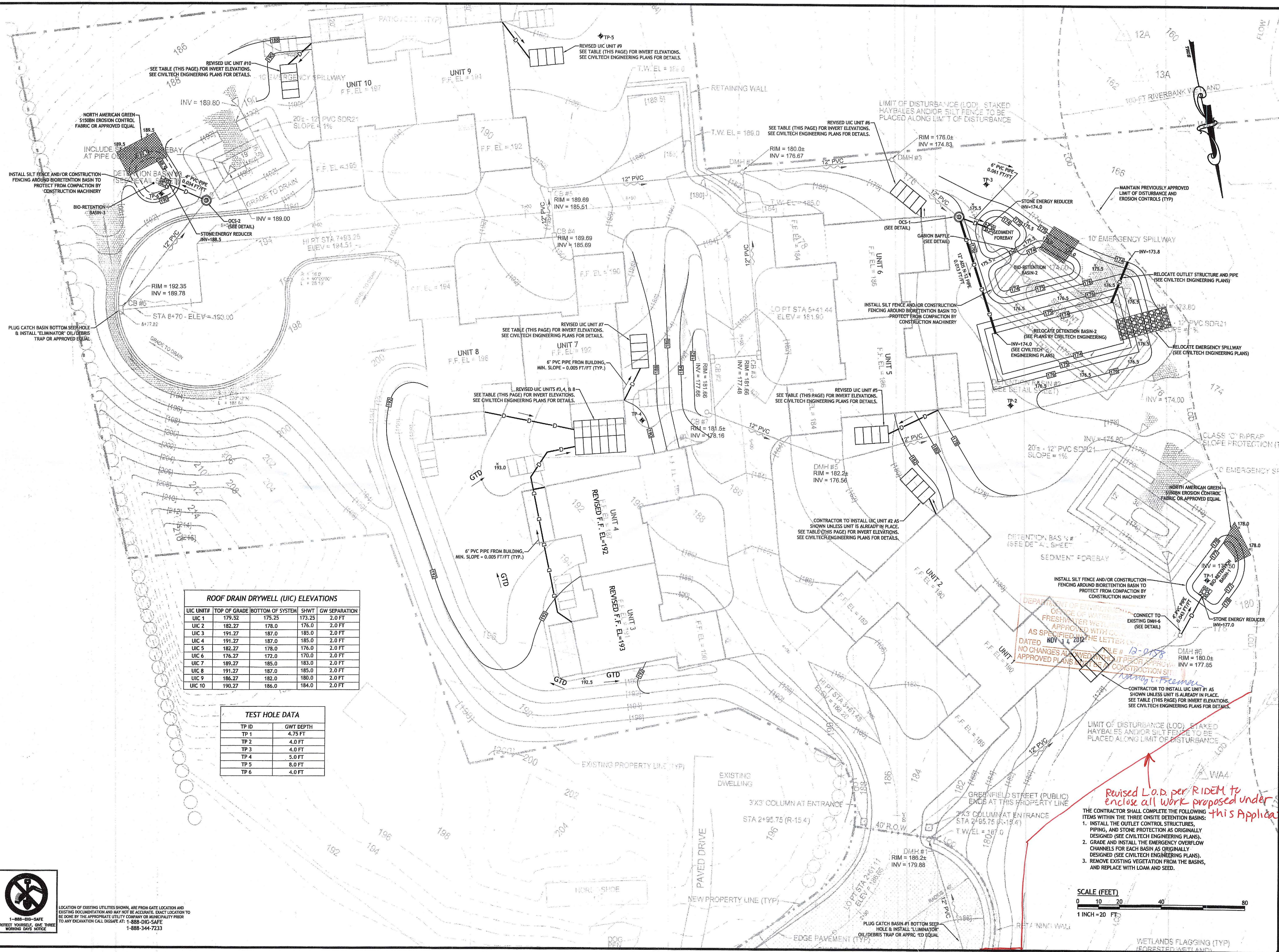
SHEET 2 OF 4



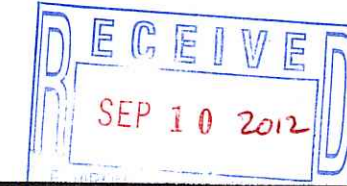
LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE SURE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO ANY EXCAVATION CALL DISSAFE AT: 1-888-DIG-SAFE 1-888-344-7233

ROOF DRAIN DRYWELL (UIC) ELEVATIONS				
UIC UNIT#	TOP OF GRADE	BOTTOM OF SYSTEM	SWIFT	GW SEPARATION
UIC 1	179.52	175.25	173.35	2.0 FT
UIC 2	182.27	178.0	185.0	2.0 FT
UIC 3	191.27	187.0	185.0	2.0 FT
UIC 4	191.27	187.0	185.0	2.0 FT
UIC 5	182.27	178.0	176.0	2.0 FT
UIC 6	176.27	172.0	170.0	2.0 FT
UIC 7	189.27	185.0	183.0	2.0 FT
UIC 8	191.27	187.0	185.0	2.0 FT
UIC 9	186.27	182.0	180.0	2.0 FT
UIC 10	190.27	186.0	184.0	2.0 FT

TEST HOLE DATA	
TP ID	GW DEPTH
TP 1	4.75 FT
TP 2	4.0 FT
TP 3	4.0 FT
TP 4	5.0 FT
TP 5	8.0 FT
TP 6	4.0 FT



GREENFIELD COMMONS
CRANSTON, RHODE ISLAND
AP 12 LOT 3158, 3166, 3167, & 3234



REVISIONS:		
NO.	DATE	DESCRIPTION

DESIGNED BY: GAA
 DRAWN BY: GAA
 CHECKED BY: JAC
 DATE: SEPTEMBER 6, 2012
 PROJECT NO: 12-15A

PRELIMINARY, NOT FOR CONSTRUCTION

SITE PLAN

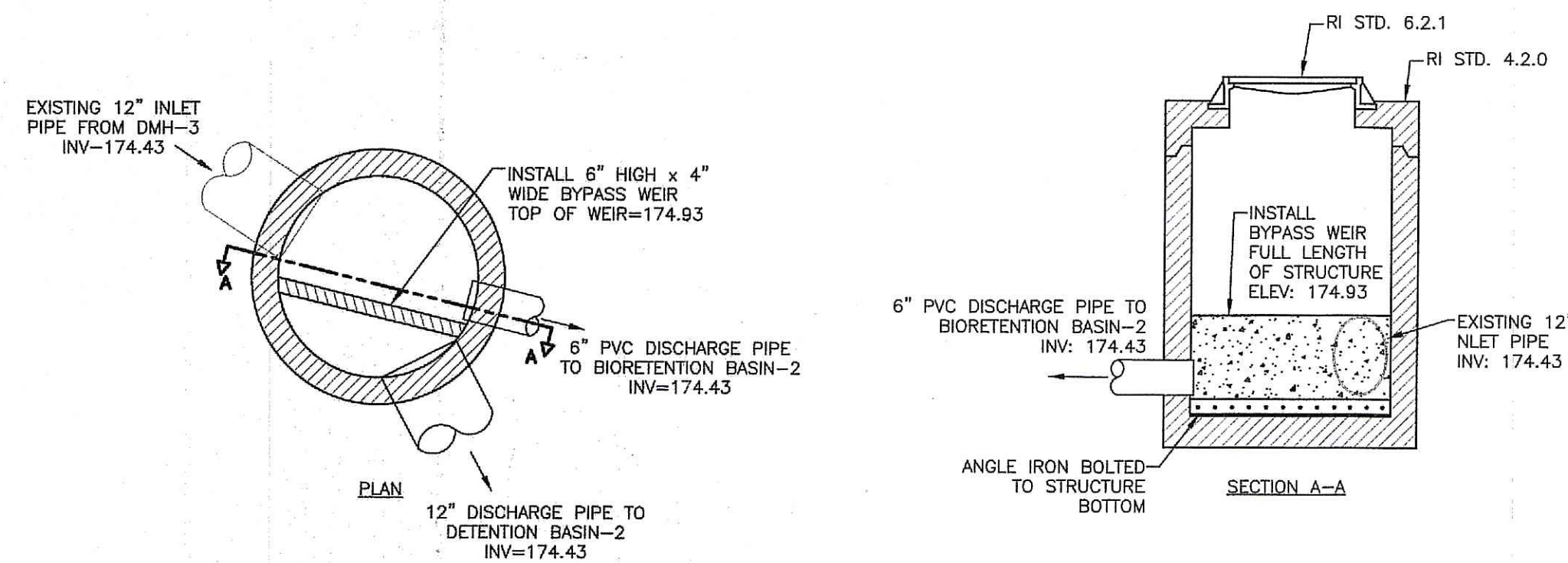
SHEET 3 OF 4

SCALE (FEET)
 0 10 20 40 80
 1 INCH = 20 FT

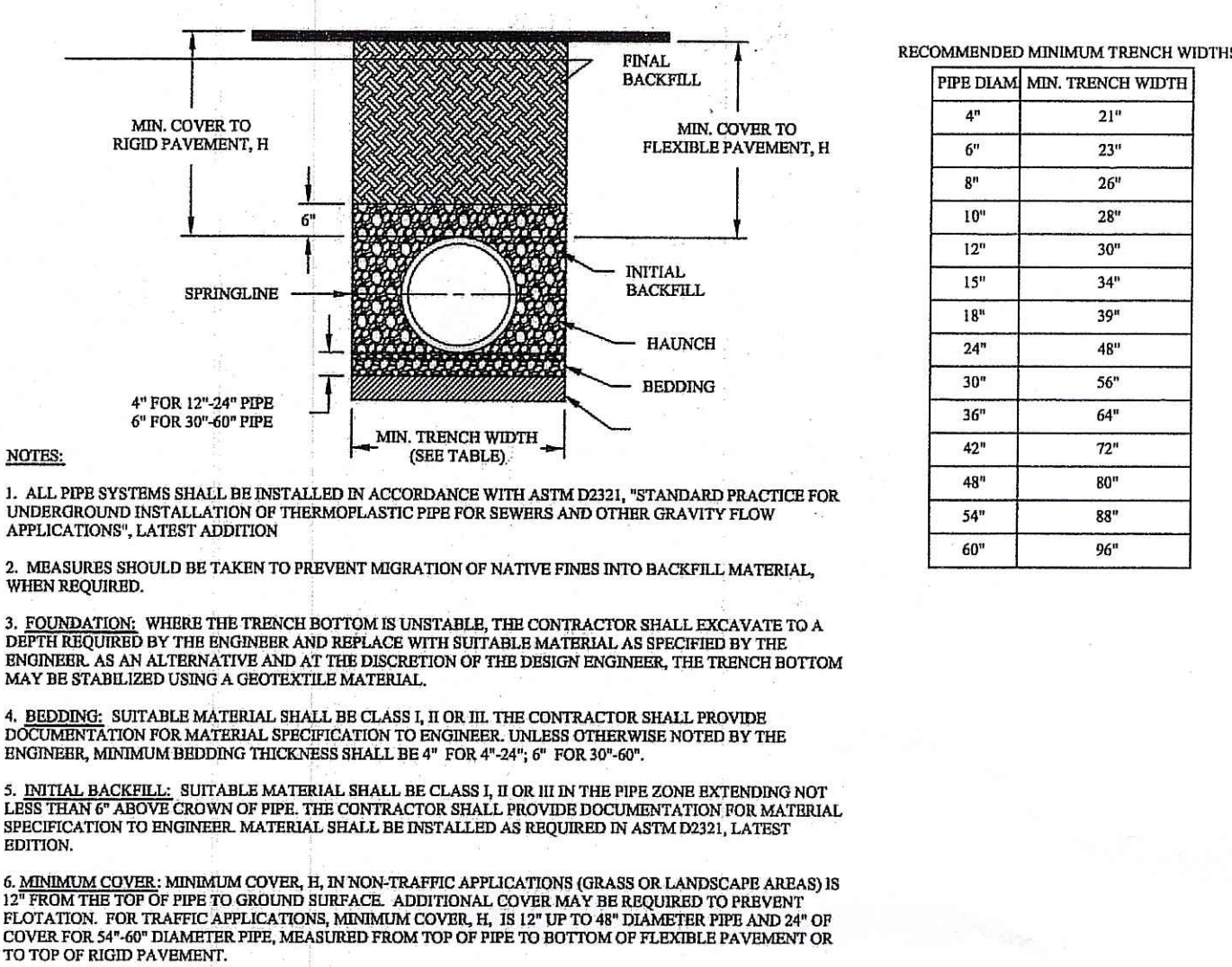
Revised L.O.D. per RIDEM to enclose all work proposed under this Application.

THE CONTRACTOR SHALL COMPLETE THE FOLLOWING ITEMS WITHIN THE THREE ONSITE DETENTION BASINS:

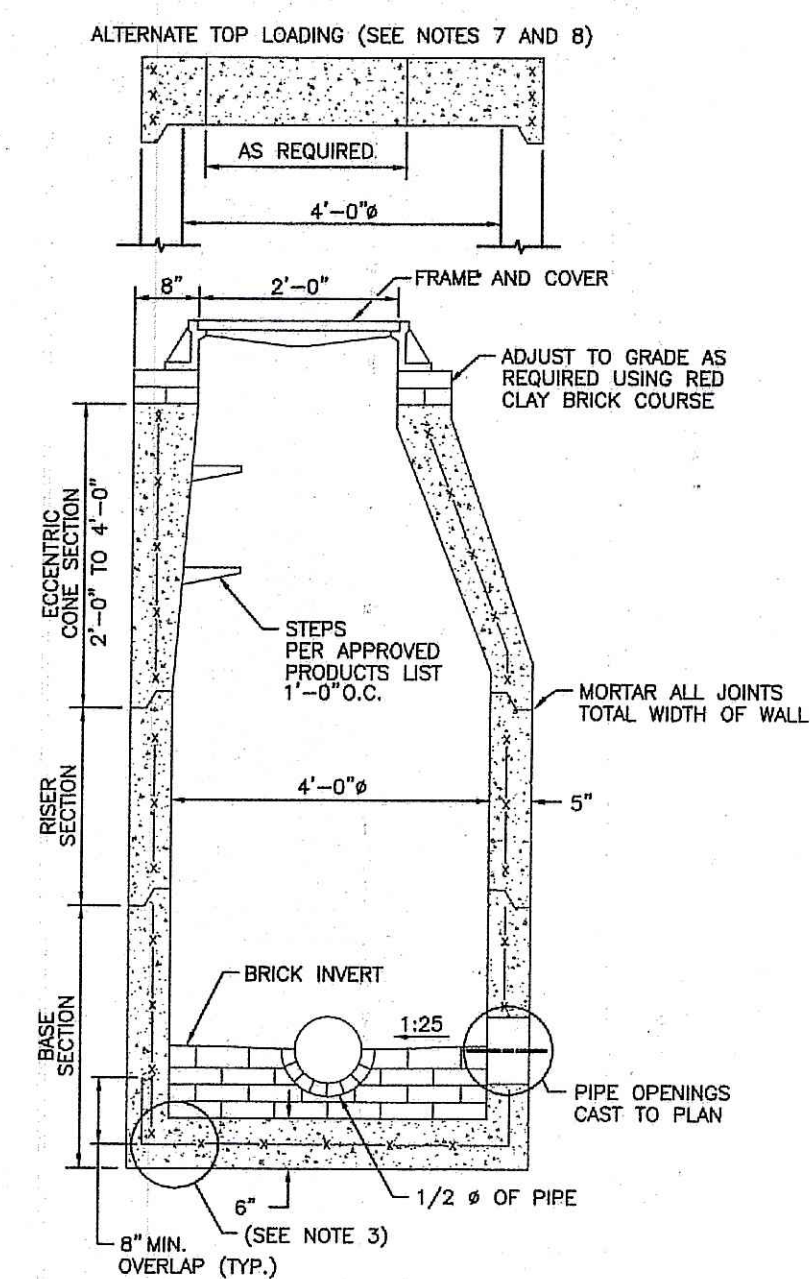
1. INSTALL THE OUTLET CONTROL STRUCTURES, PIPING, AND STONE PROTECTION AS ORIGINALLY DESIGNED (SEE CIVILTECH ENGINEERING PLANS).
2. GRADE AND INSTALL THE EMERGENCY OVERFLOW CHANNELS FOR EACH BASIN AS ORIGINALLY DESIGNED (SEE CIVILTECH ENGINEERING PLANS).
3. REMOVE EXISTING VEGETATION FROM THE BASINS, AND REPLACE WITH LOAM AND SEED.



OUTLET CONTROL STRUCTURE-1 (OCS-1)
N.T.S.



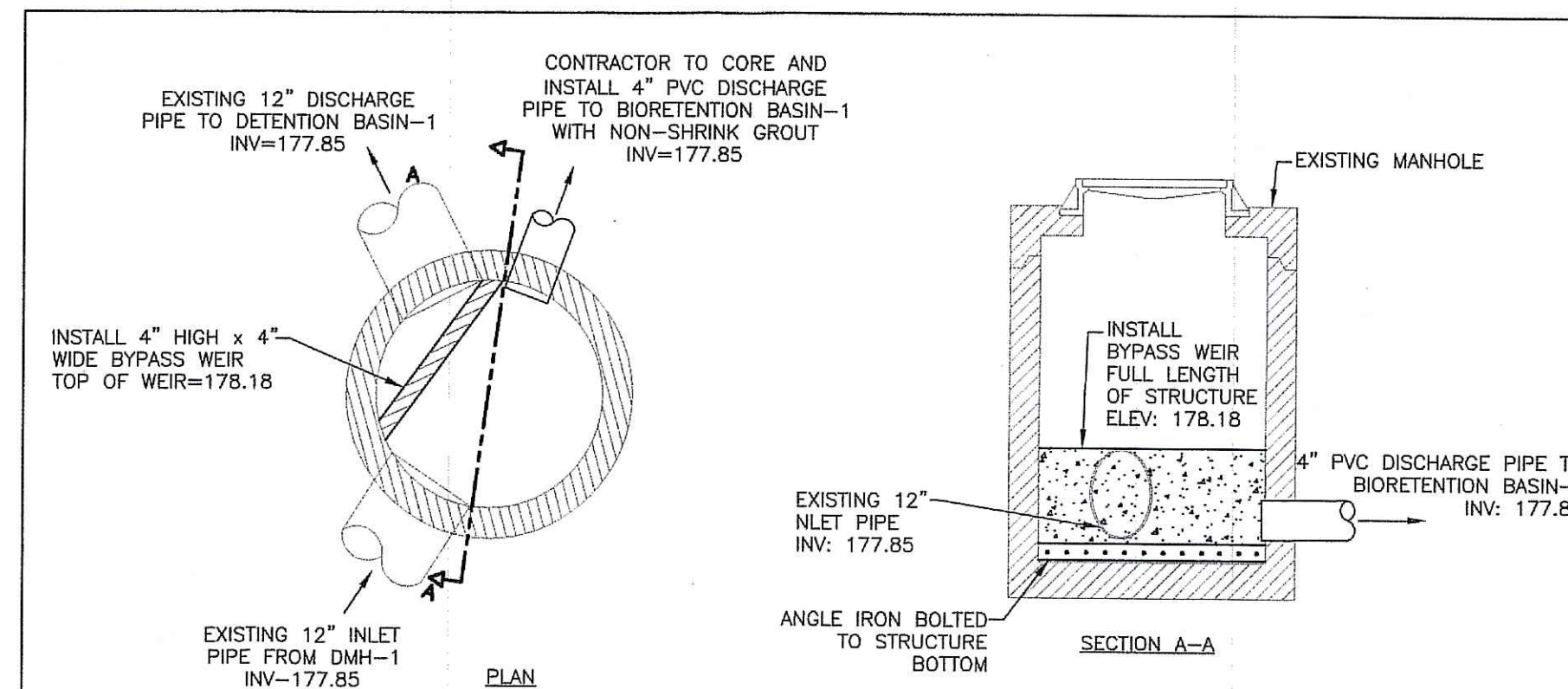
DRAIN PIPE TRENCH SECTION
NOT TO SCALE



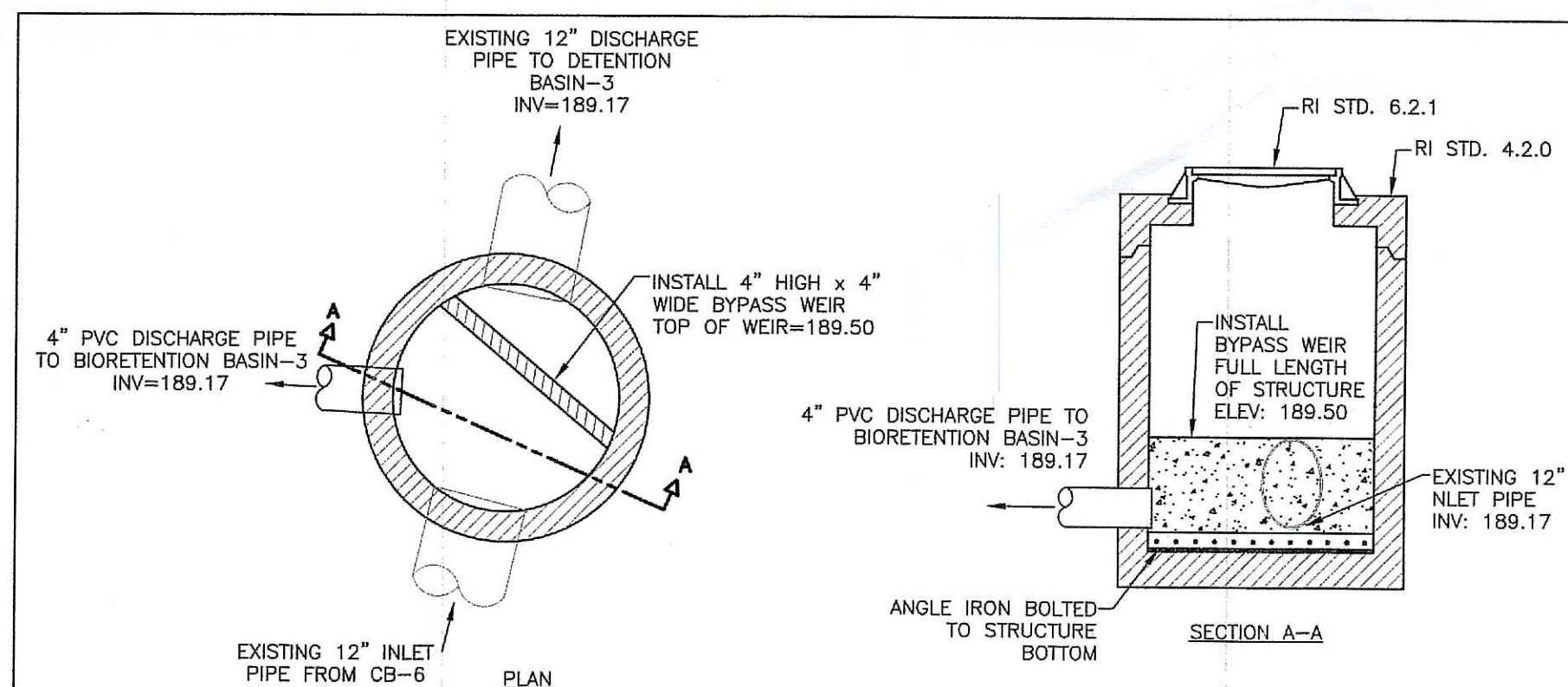
- NOTES:**
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
 2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.12 SQ. IN. / LIN. FT. MINIMUM.
 3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 4. ONE POUR MONOLITHIC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

PRECAST 4'-0" ROUND MANHOLE

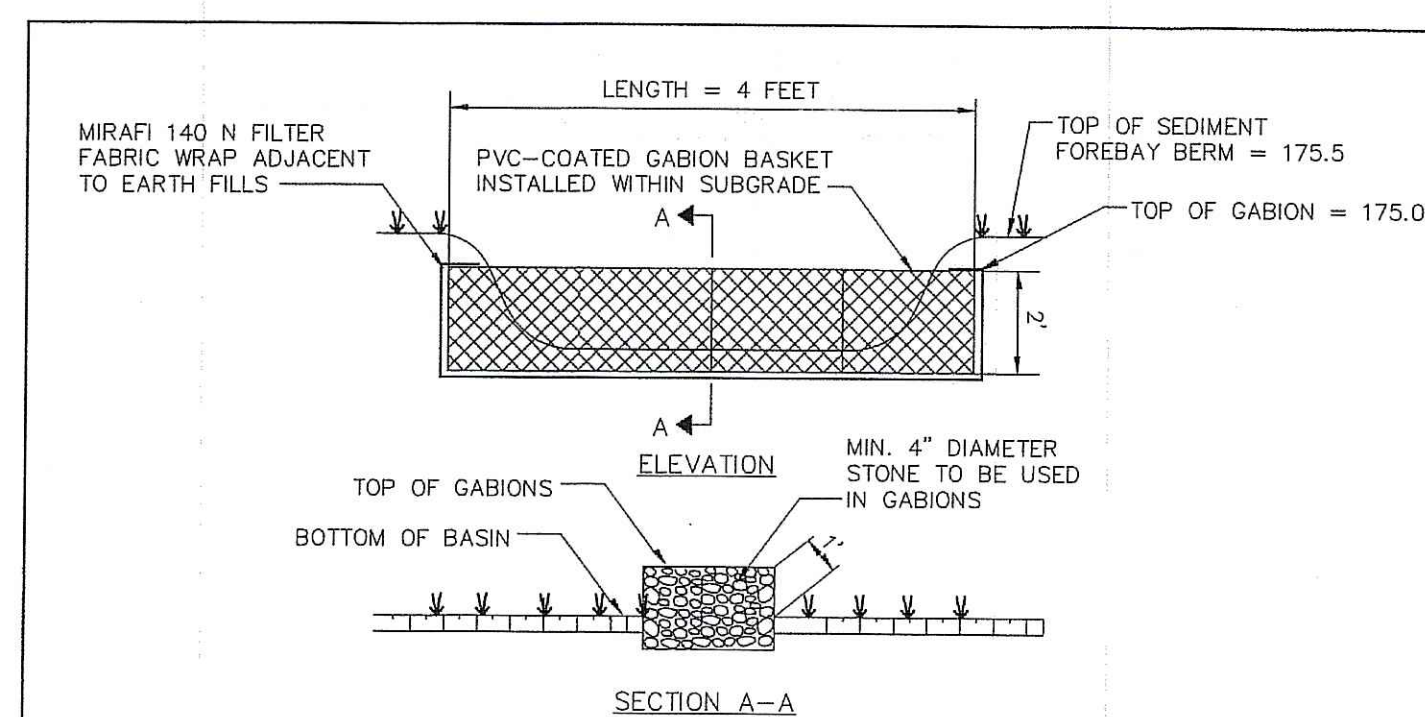
R.I.
STANDARD
4.2.0



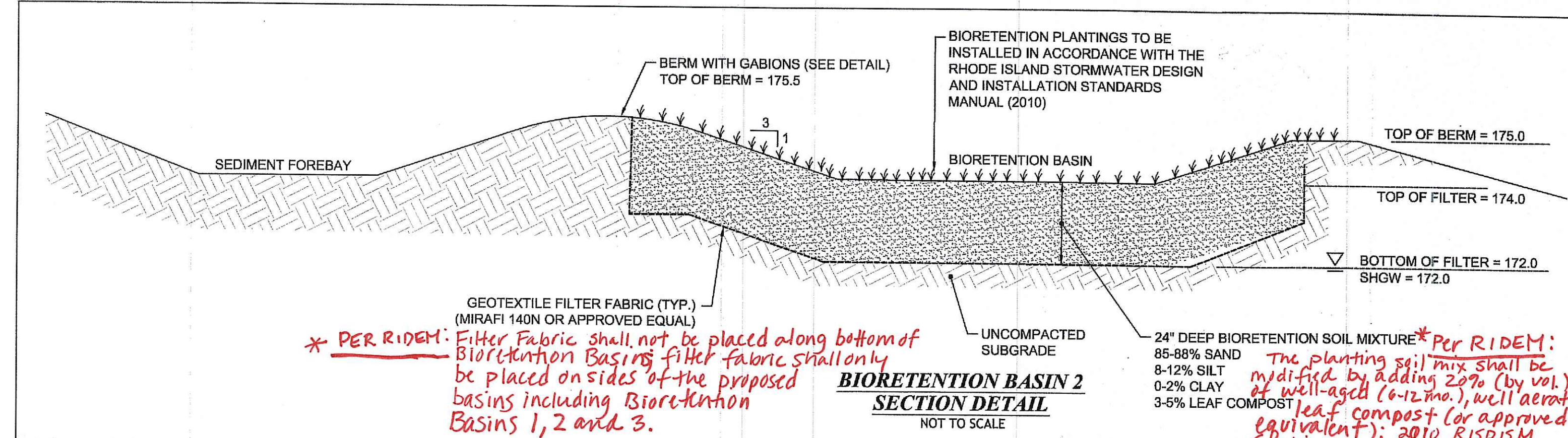
DMH #6 REVISIONS
N.T.S.



OUTLET CONTROL STRUCTURE-2 (OCS-2)
N.T.S.

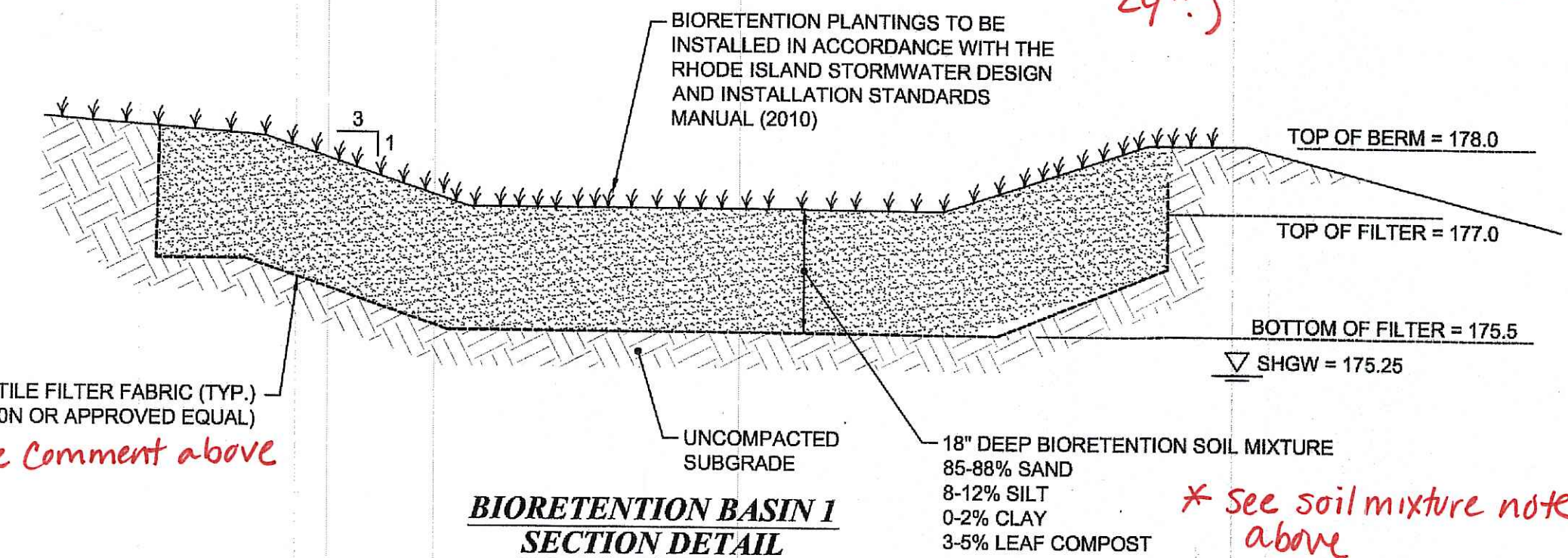


GABION BAFFLE DETAIL
NOT TO SCALE



BIORETENTION BASIN 2
SECTION DETAIL
NOT TO SCALE

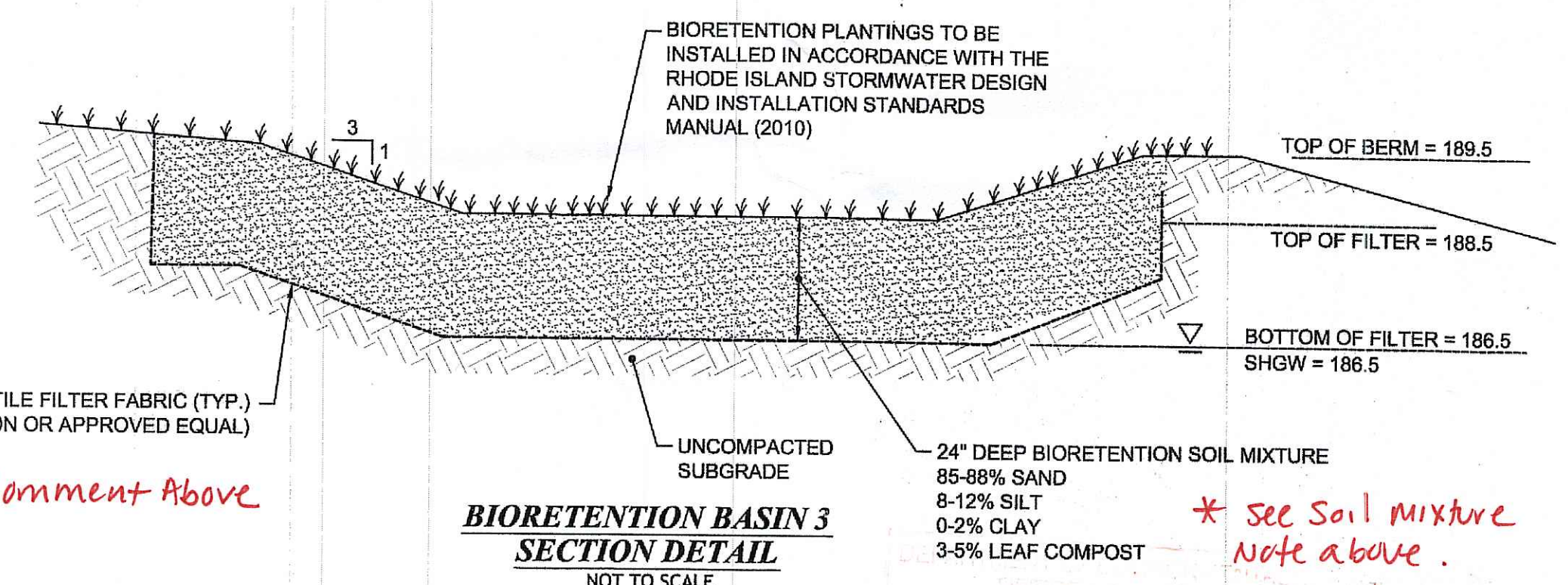
** PER RIDEM: Filter Fabric shall not be placed along bottom of Bioretention Basins. Filter fabric shall only be placed on sides of the proposed basins including Bioretention Basins 1, 2 and 3.*



BIORETENTION BASIN 1
SECTION DETAIL
NOT TO SCALE

** See Comment above*

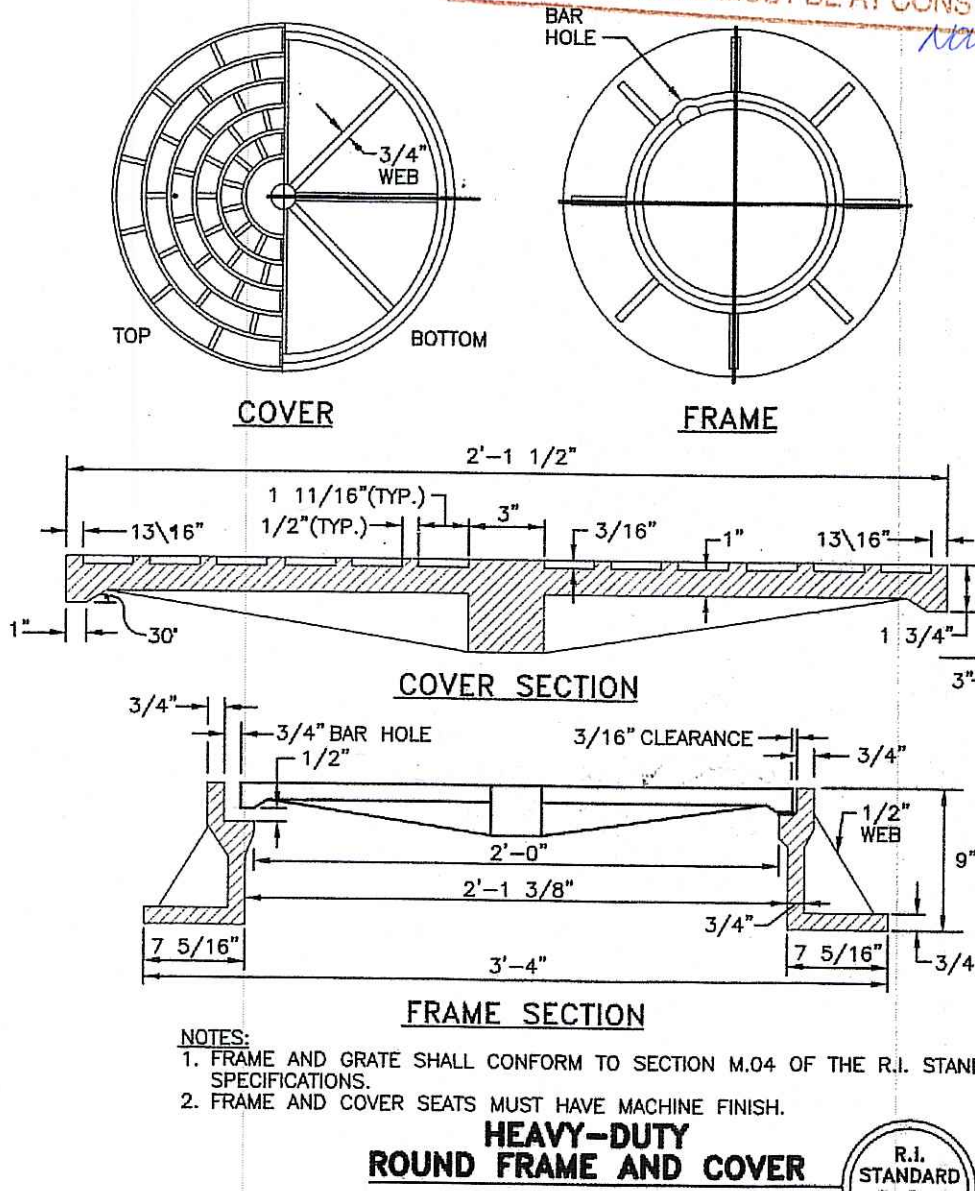
** See soil mixture note above*



BIORETENTION BASIN 3
SECTION DETAIL
NOT TO SCALE

** See Comment Above*

** See Soil mixture note above.*



HEAVY-DUTY ROUND FRAME AND COVER
R.I. STANDARD 6.2.1

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

GREENFIELD COMMONS
CRANSTON, RHODE ISLAND
AP 12 LOT 3158, 3166, 3167, & 3234

RECEIVED
SEP 10 2012

REVISIONS:	NO.	DATE	DESCRIPTION

DESIGNED BY: GAA
DRAWN BY: GAA
CHECKED BY: JAC
DATE: SEPTEMBER 6, 2012
PROJECT NO: 12-15A

PRELIMINARY, NOT FOR CONSTRUCTION

DETAILS

SHEET
4 OF 4

JCE
JOE CASALI ENGINEERING, INC.
DRAINAGE - WETLANDS - EROSION CONTROL - TRAFFIC - FLOODING
300 POST ROAD, WARWICK, RI 02886
(401) 844-1900 (401) 844-1315 FAX WWW.JCEMALL.COM

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REGISTERED PROFESSIONAL ENGINEER
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9.6.12