

# PROPOSED LANDFILL REMEDIATION AND SOLAR FACILITY

## SITE DEVELOPMENT PLANS

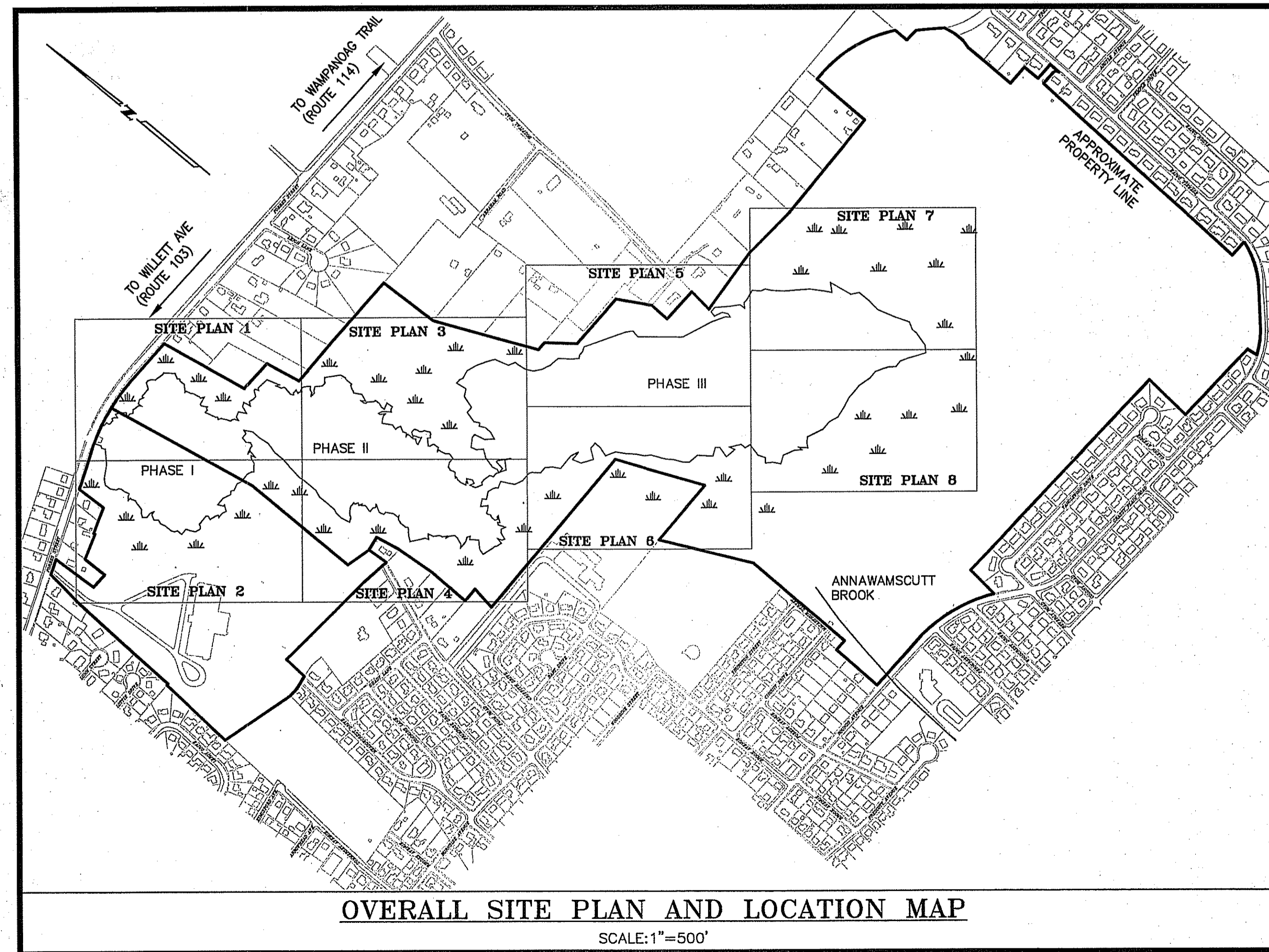
### ISSUED FOR PERMITTING

FORMER FORBES STREET LANDFILL  
FORBES STREET  
EAST PROVIDENCE, RHODE ISLAND  
MAP 511 PARCEL 2 UNITS 1&2  
NOVEMBER 27, 2012  
LATEST ISSUE: APRIL 3, 2013

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED MAY 10 2013 FILE # 12-0209  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

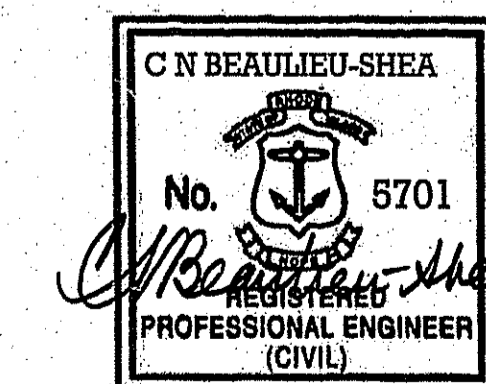
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**Applicant**  
City of East Providence  
145 Taunton Avenue  
East Providence, RI 02914

**Owner**  
City of East Providence  
145 Taunton Avenue  
East Providence, RI 02914



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Providence, RI 02909  
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PROPOSED LANDFILL REMEDIATION  
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CITY OF EAST PROVIDENCE  
FORMER FORBES STREET LANDFILL  
FORBES STREET  
MAP 511 PARCEL 2 UNITS 1&2  
EAST PROVIDENCE, RHODE ISLAND

PROJECT NO.: 210061

APR 11 2013

**GENERAL NOTES:**

- REFER TO SURVEY NOTES FOR INFORMATION ON HORIZONTAL AND VERTICAL DATUMS.
- EXISTING UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED UPON AVAILABLE PLANS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED.
- UTILITY COMPANY AND GOVERNMENTAL AGENCY CONTACTS ARE LISTED BELOW:
  - \* CABLE TELEVISION (CATV): COX COMMUNICATIONS, 670 NARRAGANSETT PARK DRIVE, PAWTUCKET, RI 02861, (401) 305-7600
  - \* CITY OF EAST PROVIDENCE, 145 TAUNTON AVENUE, EAST PROVIDENCE, RI 02914
  - \* JEANNE BOLYE - PLANNING DIRECTOR, (401) 435-7531
  - \* ERIC SKADBERG, P.E. - CITY ENGINEER, (401) 435-7703
  - \* ROBERT WALKER - BUILDING OFFICIAL, (401) 435-7722
  - \* STEPHEN COUTU - DIRECTOR OF PUBLIC WORKS, (401) 435-7701
  - \* EDWARD PIMENTEL - ZONING OFFICIAL, (401) 435-7720
- THE OWNER OR OWNER'S REPRESENTATIVE SHALL CONTACT THE LOCAL ELECTRIC UTILITY COMPANY UPON SITE PLAN APPROVAL TO DISCUSS LOAD REQUIREMENTS AND POWER DROP LOCATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY NEW UTILITIES OR UTILITIES FOUND TO INTERFERE WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. NO EXCAVATION SHALL TAKE PLACE WITHOUT NOTIFYING "DIG SAFE" AT 1-888-344-7233. ALL UTILITY LOCATIONS SHOWN ON THIS PLAN SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ASSUME THE RESPONSIBILITY FOR ANY DAMAGE TO THE UTILITY LINES, WHETHER SHOWN ON THESE PLANS OR NOT, DURING WORK ON THIS PROJECT.
- ANY CONSTRUCTION, (CATCH BASIN, MANHOLE, SIDEWALK, CURB, WATER & SANITARY ETC.) WITHIN THE CITY OF EAST PROVIDENCE RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH HIGHWAY DEPARTMENT & UTILITY DEPARTMENT SPECIFICATIONS AND A PERMIT MUST BE OBTAINED FROM THE HIGHWAY SUPERINTENDENT PRIOR TO CONSTRUCTION REGARDLESS OF OTHER APPROVALS OR PERMITS RECEIVED.
- ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, AND FOR THE FEES ASSOCIATED WITH, ALL NECESSARY LOCAL/STATE CONSTRUCTION PERMITS AND BONDS FOR THIS PROJECT.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING ANY REQUIRED POLICE PROTECTION. ALL TEMPORARY CONSTRUCTION SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
- APPLICANT/OWNER: CITY OF EAST PROVIDENCE, 145 TAUNTON AVENUE, EAST PROVIDENCE, RI 02914
- AUTHORIZED AGENT: CHERENZIA & ASSOCIATES, LTD., PO BOX 513, WESTERLY, RI 02891, PHONE: 860-629-6500
- BASE PLAN, EXISTING CONDITIONS, TOPOGRAPHY, AND PLANIMETRIC FEATURES PROVIDED BY OTHERS.
- WETLAND FLAGGING BY NATURAL RESOURCE SERVICES, INC. AND FIELD LOCATED BY THE CITY OF EAST PROVIDENCE.

**CONSTRUCTION NOTES:**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND MATERIALS, R.I. DEPARTMENT OF TRANSPORTATION AND CITY OF EAST PROVIDENCE DETAILS AND STANDARD SPECIFICATIONS. ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE IMMEDIATELY REMOVED AND REPLACED AT THE FULL RESPONSIBILITY AND COST/EXPENSE TO THE CONTRACTOR.
- UNLESS OTHERWISE NOTED ON THE PLANS, CLEARING AND GRUBBING WILL EXTEND TO THE SLOPE LIMITS OF THE WORK. AREAS TO REMAIN UNPAVED WILL BE LOAMED AND SEEDED TO THE LIMITS OF THE DISTURBED AREA.
- THE LOCATION OF ALL UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES, BOTH UNDERGROUND AND OVERHEAD, WITH DIG SAFE, PRIOR TO BEGINNING CONSTRUCTION.
- NEW PAVEMENT MATERIALS, SUBBASE, PROCESSED AGGREGATE BASE, CONCRETE FOR SIDEWALKS AND GRAVEL FILL MATERIALS SHALL CONFORM TO AND MEET THE CITY OF EAST PROVIDENCE & STATE STANDARDS.
- REFERENCE MADE TO "STATE STANDARDS", "STATE STANDARD SPECIFICATIONS", "STANDARD SPECIFICATIONS" AND "R.I. DOT. STANDARDS" SHALL MEAN AND BE DEFINED AS THE "RHODE ISLAND DEPARTMENT OF TRANSPORTATION - STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION".
- CONSTRUCT ALL E&S CONTROL MEASURES AS SHOWN ON THESE PLANS AND IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MOST RECENT EDITION OF THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK". ALL MEASURES SHALL BE MAINTAINED AND UPGRADED TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION.
- THE CITY OF EAST PROVIDENCE SHALL BE NOTIFIED WHEN E&S CONTROL MEASURES HAVE BEEN INSTALLED FOR INSPECTION AND PRIOR TO THE START OF ANY CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL A 24-INCH CAP TO THE WETLAND EDGE TO ENSURE THAT ALL CONTAMINATED SOILS HAVE BEEN PROPERLY CAPPED WHILE STILL PROTECTING THE WETLAND RESOURCE AREAS SURROUNDING THE LANDFILL AREAS.

**UTILITY NOTES:**

- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITY COMPANIES AND WORK TRADES ASSOCIATED WITH THE WORK OF THIS CONTRACT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE OWNER & THE CITY OF EAST PROVIDENCE ENGINEERING DEPT. WITH AS-BUILT RECORD DRAWINGS, WHEN APPLYING FOR A CERTIFICATE OF OCCUPANCY. RECORD DRAWINGS SHALL SHOW EXISTING UTILITIES ENCOUNTERED, DAMAGED, REPAIRED AND INSTALLED DURING WORK OF THE CONTRACT. ALSO, COMPLETED ROADWAY AND DRAINAGE IMPROVEMENTS SHALL BE SHOWN. UP-TO-DATE RECORD DRAWINGS AND WORK PROGRESS PRINTS SHALL BE AVAILABLE AT ALL TIMES ON-SITE TO THE OWNER, OWNER'S REPRESENTATIVE, ARCHITECT, ENGINEER AND TOWN STAFF.
- PRIOR TO RECEIVING AUTHORIZATION FROM THE TOWN TO CONSTRUCT EACH UTILITY, ALL MATERIALS SHALL MEET THE STANDARDS AND RECEIVE WRITTEN APPROVAL, BASED ON THE MANUFACTURER'S DRAWINGS AND OTHER DATA SUBMITTED TO THE CITY OF EAST PROVIDENCE.
- AN EXISTING 8" DIAMETER CAST IRON WATER MAIN IS PRESENT BENEATH THE PHASE I AND PHASE II AREAS. THE LOCATION NEEDS TO BE CONFIRMED BEFORE CONSTRUCTION CAN BEGIN.

**EROSION AND SEDIMENTATION (E&S) CONTROL PLAN**

CITY OF EAST PROVIDENCE, CONTACT: STEPHEN COUTU, PUBLIC WORKS DIRECTOR, 145 TAUNTON AVENUE, EAST PROVIDENCE, RI 02914, PHONE: 401-435-7701 SHALL BE RESPONSIBLE FOR INSTALLATION & MAINTENANCE OF EROSION & SEDIMENTATION CONTROL STRUCTURES.

**NARRATIVE:**

- THE FOLLOWING EROSION AND SEDIMENTATION CONTROL (E&S) NOTES HAVE BEEN PREPARED FOR THE PROPERTY OWNED BY THE CITY OF EAST PROVIDENCE LOCATED ON FORBES STREET IN THE CITY OF EAST PROVIDENCE, RHODE ISLAND. THE E&S NOTES APPLY TO THE CONSTRUCTION OF AN ENGINEERED CAP FOR THE FORMER LANDFILL.
- SOILS THROUGHOUT THE SITE ARE CLASSIFIED AS DU-DUMPS.
- EROSION CONTROL MEASURES INTENDED TO MINIMIZE SOIL EROSION AND TO CONTROL SEDIMENTATION DURING CONSTRUCTION INCLUDE:
  - THE INSTALLATION OF A CONSTRUCTION ENTRANCE.
  - THE INSTALLATION OF SILT FENCE OR STRAW WATTLE AS SHOWN ON PLAN.
- IT IS ANTICIPATED THAT SITE WORK CONSTRUCTION WILL BEGIN IN THE SPRING OF 2013 AND WILL BE COMPLETED IN THE FALL OF 2014.

**GENERAL E&S REQUIREMENTS:**

- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL MEET WITH THE CITY REPRESENTATIVE TO DISCUSS E&S CONTROL REQUIREMENTS.
- THE CONTRACTOR SHALL INSTALL SILT FENCING OR STRAW WATTLE TO CONTROL EROSION AND SEDIMENTATION AND TO PROTECT OFF-SITE AREAS. THESE DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLAN PRIOR TO INITIATION OF MAJOR SITE WORK ACTIVITIES AND SHALL BE MAINTAINED/REPAIRED UNTIL FINAL STABILIZATION OF ALL DISTURBED AREAS.
- E&S CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. ALL MEASURES SHALL BE MAINTAINED AND UPGRADED TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION.
- THE OWNER SHALL BE RESPONSIBLE FOR IMPLEMENTING THE E&S CONTROL PLAN AND SHALL INFORM ALL SUBCONTRACTORS OF THE OBJECTIVES AND REQUIREMENTS OF THE PLAN. THE OWNER SHALL NOTIFY THE PROPER MUNICIPAL AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY AND SHALL ADVISE THE CITY REGARDING THE NEED FOR IMPLEMENTING ADDITIONAL CONTROL MEASURES OR MAINTAINING EXISTING MEASURES AS DEEMED NECESSARY DURING CONSTRUCTION. INSPECTIONS SHALL BE CONDUCTED WEEKLY AND/OR WITHIN 24 HOURS OF THE END OF A STORM HAVING A RAINFALL AMOUNT OF 0.25 INCH OR GREATER. MONTHLY WRITTEN REPORTS SHALL BE PREPARED INFORMING THE CITY OF OBSERVATIONS, MAINTENANCE, AND CORRECTIVE ACTIONS.
- WEATHER PERMITTING, ALL DISTURBED AREAS SHALL BE REVEGETATED WITH A SUITABLE SEED MIXTURE. REVEGETATION SHALL TAKE PLACE NO MORE THAN 14 DAYS AFTER CONSTRUCTION ACTIVITIES HAVE CEASED UNLESS ACTIVITIES ARE TO RESUME WITHIN 21 DAYS.
- ALL DISTURBED AREAS SHALL HAVE TEMPORARY SEED APPLIED AT THE END OF THE CONSTRUCTION SEASON, WHEN CONSTRUCTION IS TEMPORARILY SUSPENDED FOR THE WINTER.
- ANY CONSTRUCTION TRASH OR DEBRIS SHALL BE APPROPRIATELY DISPOSED OF ON A REGULAR BASIS.

**CONSTRUCTION SEQUENCE - SEE SHEETS C-11 AND C-12 CONSTRUCTION PHASING PLANS**

**SWPPP NOTES:**

- PRE-DEVELOPMENT STORMWATER DRAINAGE PATTERNS GENERALLY OVERLAND FLOW AWAY FROM THE CENTER OF EACH LANDFILL PHASE UNTIL IT REACHES THE WETLANDS.
- POST-DEVELOPMENT STORMWATER DRAINAGE PATTERNS WILL GENERALLY MATCH PRE-DEVELOPMENT CONDITIONS AS MUCH AS POSSIBLE.
- SLOPES AFTER MAJOR GRADING ACTIVITIES WILL BE A MINIMUM OF 5 PERCENT ON THE FLAT AREAS OF THE LANDFILL AND A MAXIMUM OF 33 PERCENT ON THE SLOPES ALONG THE EDGES.
- STORMWATER ENTERS THE SURROUNDING WETLANDS AND FLOWS TO THE SOUTH AND ULTIMATELY ENTERS THE ANNAMASCUTT BROOK.
- AREA OF DISTURBANCE = APPROXIMATELY 63 ACRES, THE LIMIT OF DISTURBANCE IS THE WETLANDS EDGE AS DESIGNATED ON THE PLANS.

**LANDSCAPING NOTES:**

- PLATEAU AREAS SHALL BE SEEDED WITH A LOW MAINTENANCE FINE FESCUE LAWN MIX. THE SEED MIX SHALL CONSIST OF 74% HARD FESCUE, 19% CREEPING FESCUE, AND 7% PERENNIAL Ryegrass AND SHALL BE APPLIED AT A RATE OF 160 POUNDS PER ACRE. SEED MIX AND APPLICATION RATE WERE DESIGNED BY WHITMAN.
- SIDE SLOPES SHALL BE SEEDED WITH NEWP CONSERVATION WILDLIFE MIX (NEW ENGLAND WETLAND PLANTS, INC.) AT A RATE OF 25 POUNDS PER ACRE. HYDROSEED FOR THE SIDE SLOPES SHALL ALSO INCLUDE MULCH HYDRACX2 BY NORTH AMERICAN GREEN OR APPROVED EQUIVALENT.

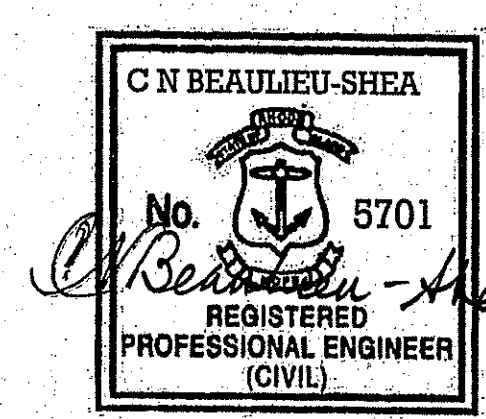
**LEGEND**

DESCRIPTION	EXISTING	PROPOSED
CATCH BASIN		
UTILITY POLE		
CONTOURS	949	949
SPOT GRADE	x 200.0	+ 200.1
SILT FENCE		SF
STRAW WATTLE		SW
PAVEMENT		
TREELINE		
BUILDING		
OVERHEAD UTILITIES	O/H	E
WATER MAIN/SERVICE	w	W
SEWER MAIN/SERVICE	s	S
UNDERGROUND GAS MAIN	g	G
DRAINAGE LINE		
HYDRANT		
STONE WALL		
SIGN		
GAS VALVE		
WATER GATE VALVE		
POLE MOUNTED LIGHT		
CHAINLINK FENCE		
STOCKADE FENCE		
SURVEY MONUMENT		
FINISHED FLOOR ELEVATION	FF=	
CONCRETE SLAB ELEVATION	Slab=	
PARKING SPACE COUNT	⑦	⑦
NOW OR FORMERLY	N/F	

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*Jonathan D. Wasserman*

APR 11 2013



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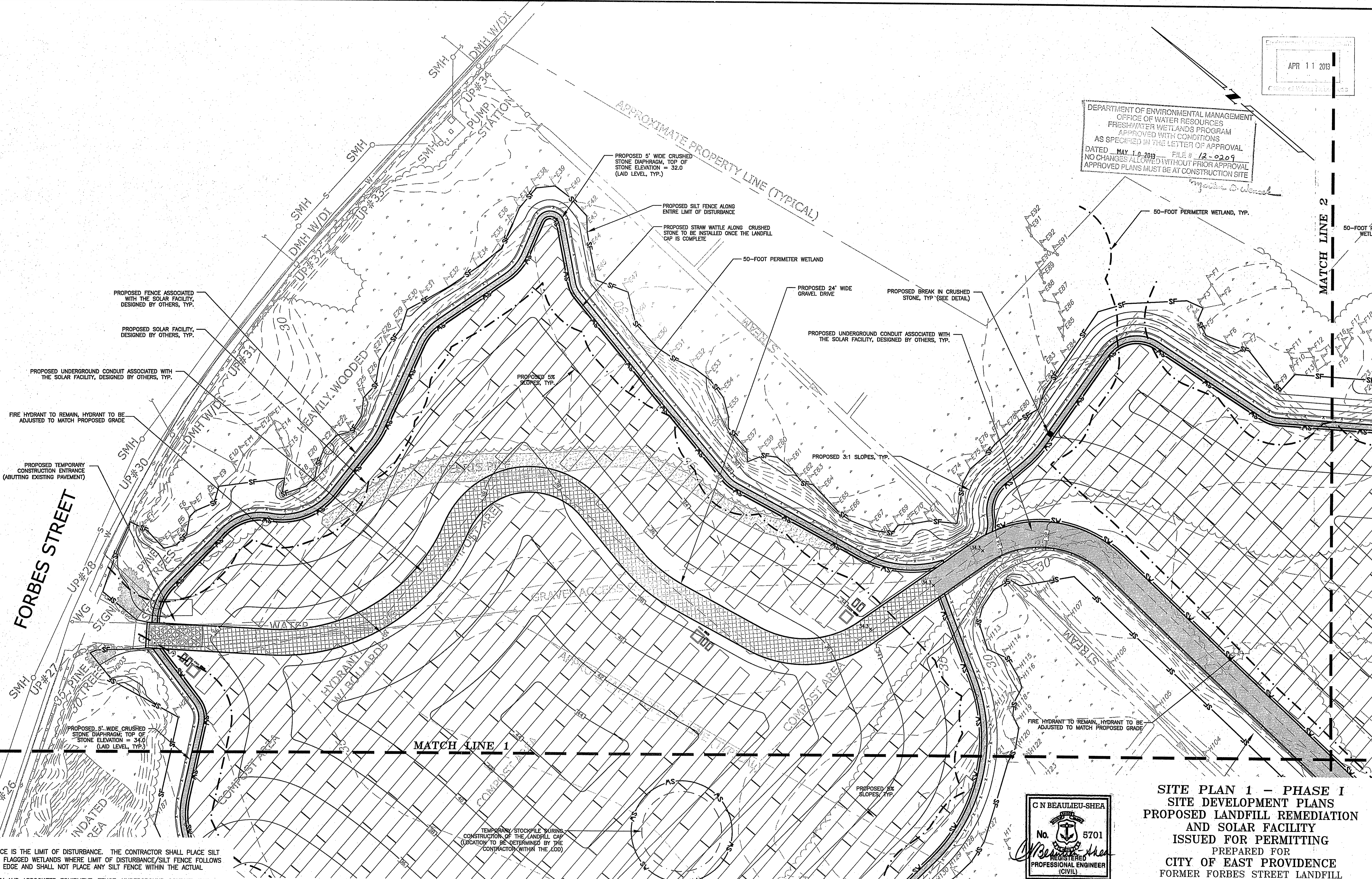
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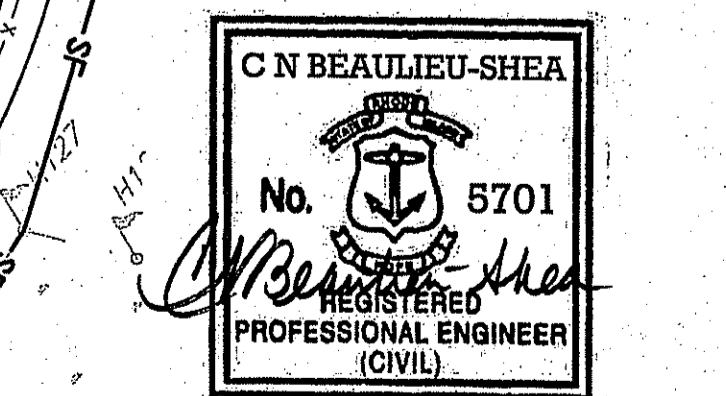
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  2. SOLAR FACILITY AND ASSOCIATED EQUIPMENT, FENCE, UNDERGROUND CONDUIT, ECT. WAS DESIGNED BY OTHERS.
  3. TEMPORARY STOCKPILE LOCATIONS WILL VARY AS CONSTRUCTION PROGRESSES. ALL STOCKPILES SHALL BE SURROUNDED BY A ROW OF SILT FENCE OR STRAW WATTLE.
  4. CRUSHED STONE DIAPHRAGMS AND CRUSHED STONE DRIVES SHALL BE LAID LEVEL AND TO THE FINISHED GRADES PROVIDED HEREIN. BREAKS IN THE CRUSHED STONE DRIVE/DIAPHRAGM SHALL BE INSTALLED AS SHOWN TO PREVENT STORMWATER FROM HIGHER CRUSHED STONE ELEVATIONS FLOWING INTO CRUSHED STONE AT LOWER ELEVATIONS. BREAKS IN THE CRUSHED STONE SHALL CONSIST OF GRASS PAVERS ON THE DRIVES AND LOAM ON THE DIAPHRAGMS. (SEE DETAIL)

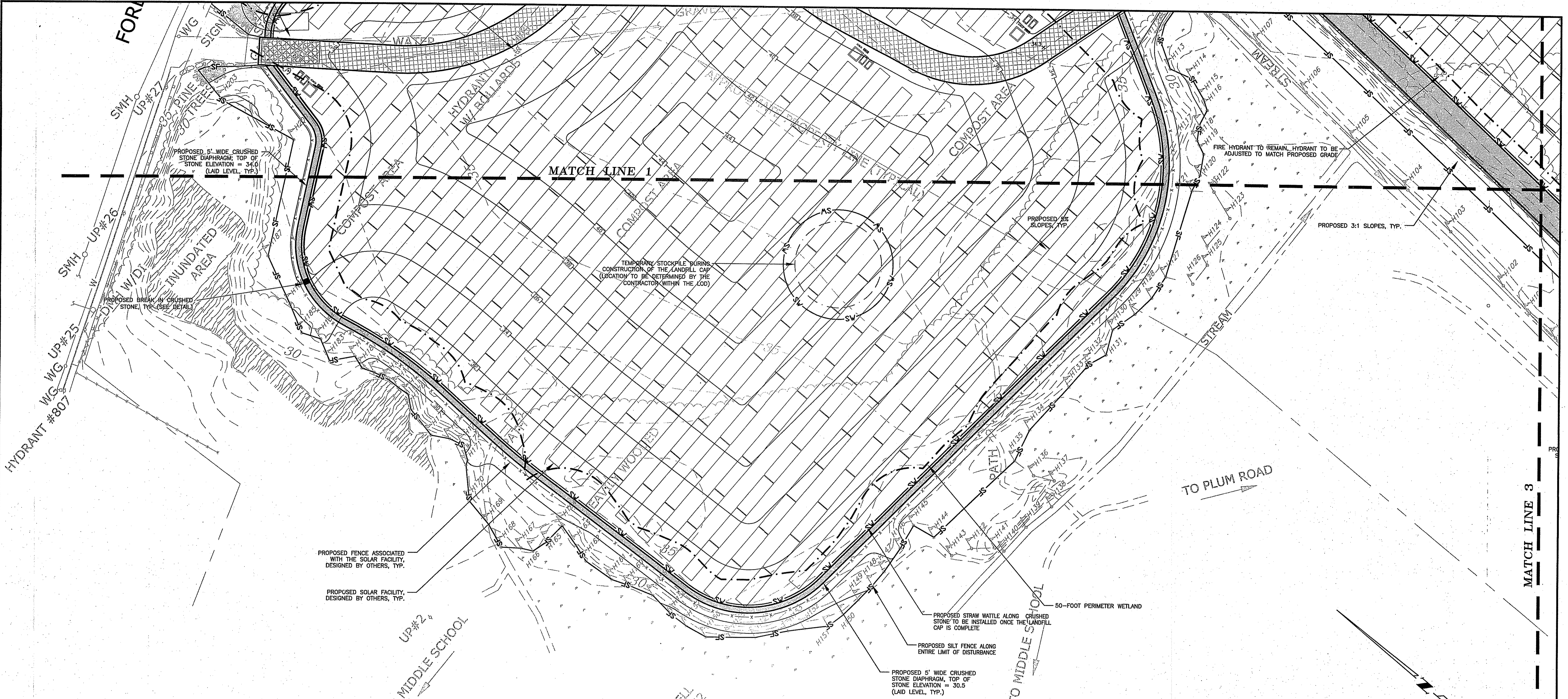
TEMPORARY STOCKPILE DURING CONSTRUCTION OF THE LANDFILL CAP (LOCATION TO BE DETERMINED BY THE CONTRACTOR WITHIN THE LOD)

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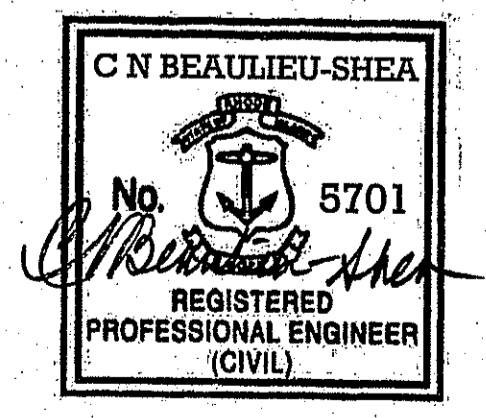
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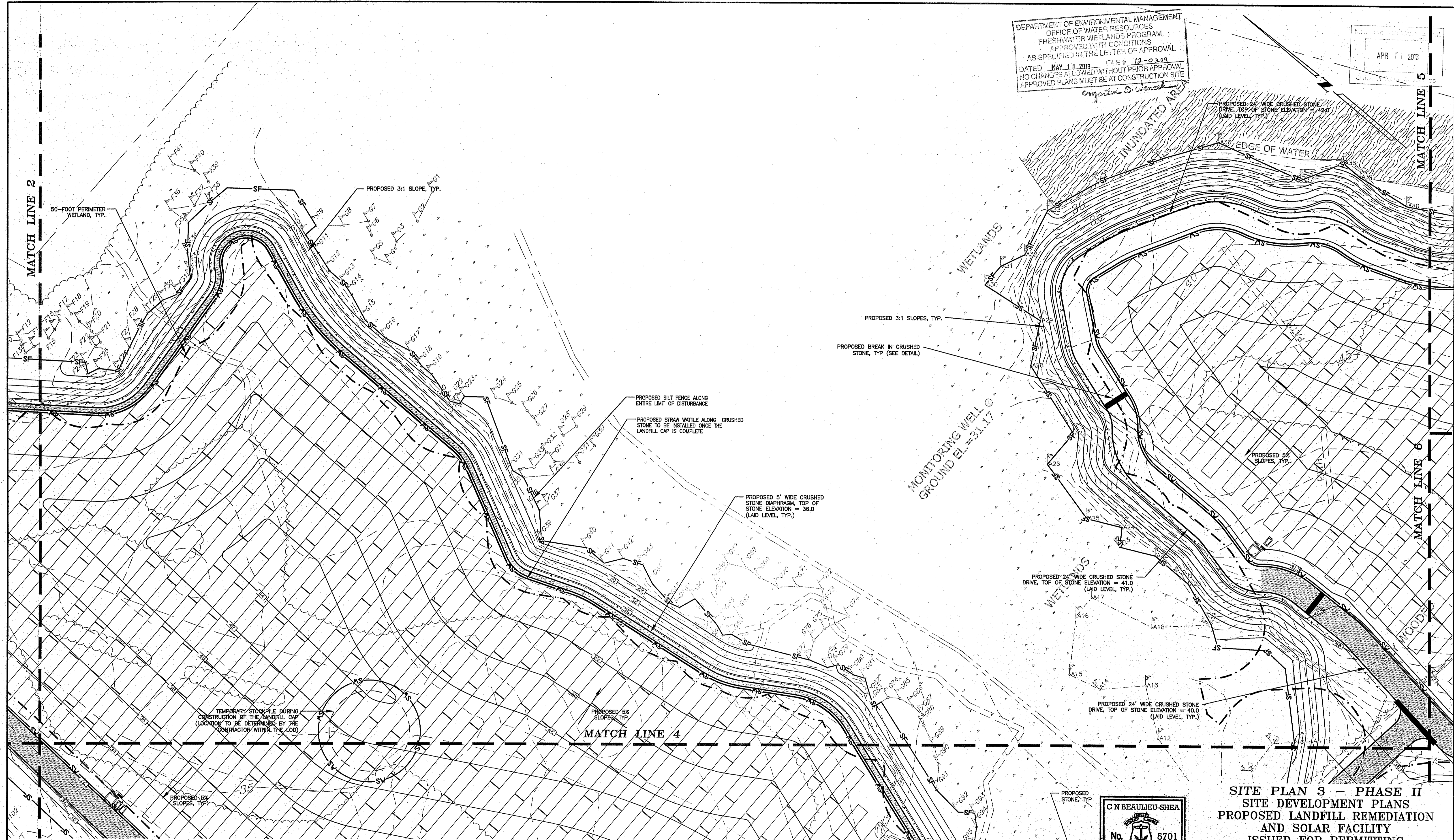
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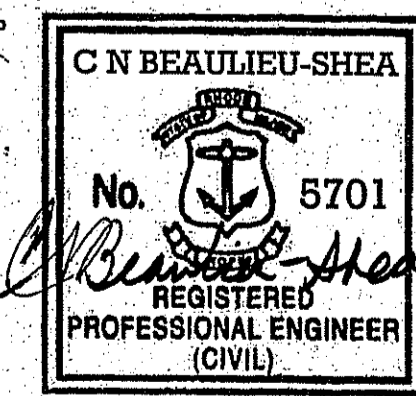
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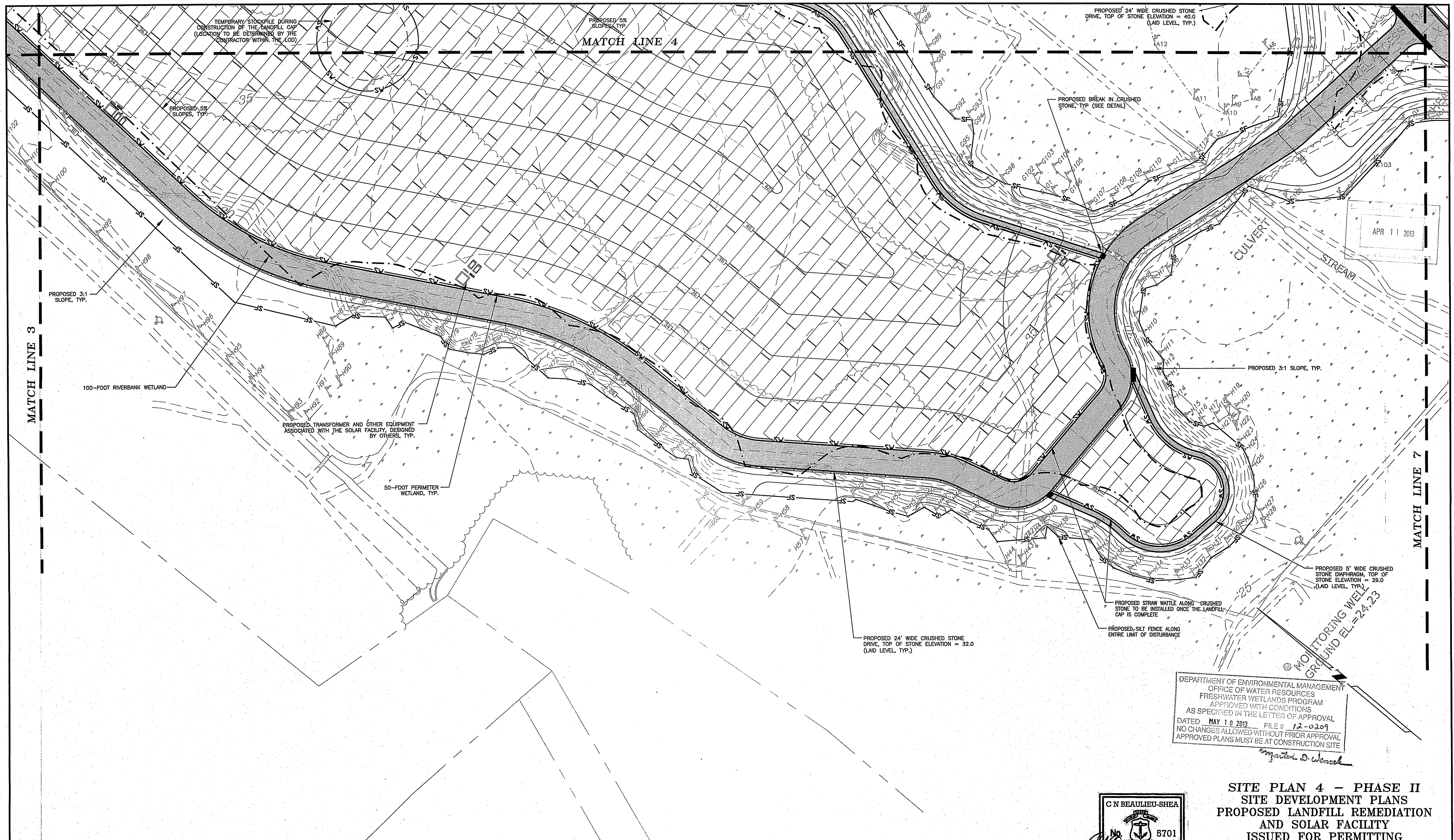
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  4. CRUSHED STONE DIAPHRAGMS AND CRUSHED STONE DRIVES SHALL BE LAID LEVEL AND TO THE FINISHED GRADES PROVIDED HEREIN. BREAKS IN THE CRUSHED STONE DRIVE/DIAPHRAGM SHALL BE INSTALLED AS SHOWN TO PREVENT STORMWATER FROM HIGHER CRUSHED STONE ELEVATIONS FLOWING INTO CRUSHED STONE AT LOWER ELEVATIONS. BREAKS IN THE CRUSHED STONE SHALL CONSIST OF GRASS PAVERS ON THE DRIVES AND LOAM ON THE DIAPHRAGMS. (SEE DETAIL)

PLAN REVISIONS			
DATE	DESCRIPTION	DWN BY	CHK BY
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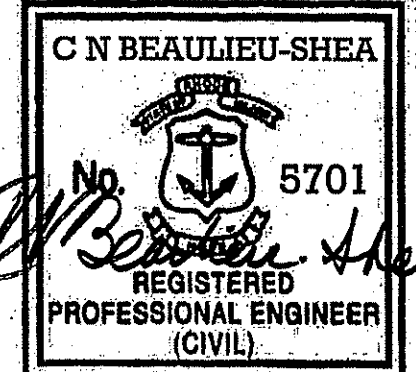
**SITE PLAN 3 - PHASE II**  
**SITE DEVELOPMENT PLANS**  
**PROPOSED LANDFILL REMEDIATION**  
**AND SOLAR FACILITY**  
**ISSUED FOR PERMITTING**  
 PREPARED FOR  
**CITY OF EAST PROVIDENCE**  
 FORMER FORBES STREET LANDFILL  
 FORBES STREET  
 MAP 511 PARCEL 2 UNITS 1&2  
 EAST PROVIDENCE, RHODE ISLAND  
 SCALE: 1"=40'  
 NOVEMBER 27, 2012  
 DRAWN BY: AKG  
 CHECK BY: CNB  
 SHEET: C-4  
 JOB NO.: 210061



APR 11 2013

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED MAY 10 2013 FILE # 12-0209  
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**SITE PLAN 4 - PHASE II**  
**SITE DEVELOPMENT PLANS**  
**PROPOSED LANDFILL REMEDIATION**  
**AND SOLAR FACILITY**  
 ISSUED FOR PERMITTING  
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**CITY OF EAST PROVIDENCE**  
 FORMER FORBES STREET LANDFILL  
 FORBES STREET  
 MAP 511 PARCEL 2 UNITS 1&2  
 EAST PROVIDENCE, RHODE ISLAND



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 1000 Main St. East Providence, RI 02915  
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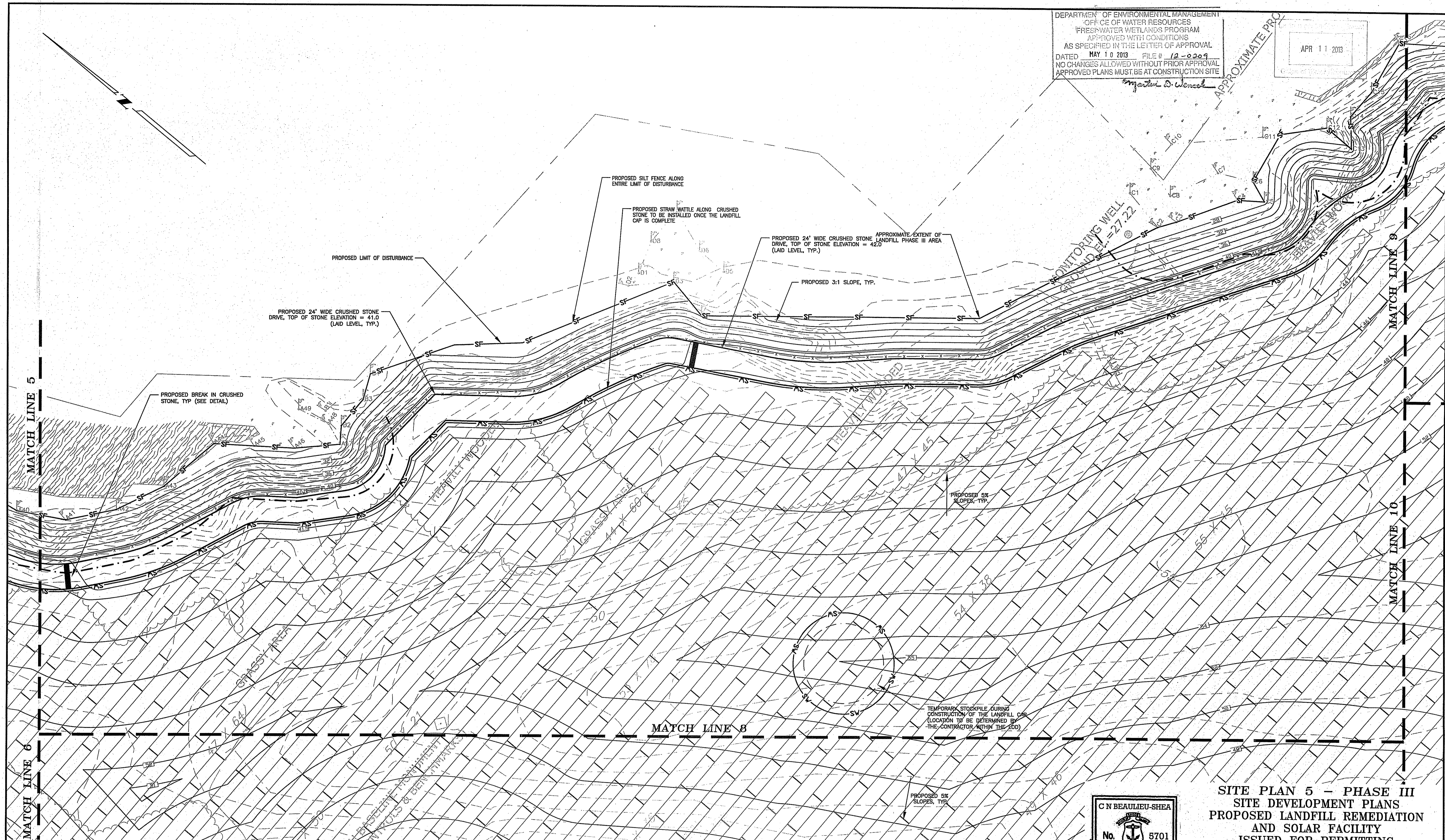
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DATE	DESCRIPTION	DWN BY	CHK BY
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SCALE: 1"=40'  
 NOVEMBER 27, 2012 CHECK BY: CNB  
 SHEET: C-5 JOB NO.: 210061

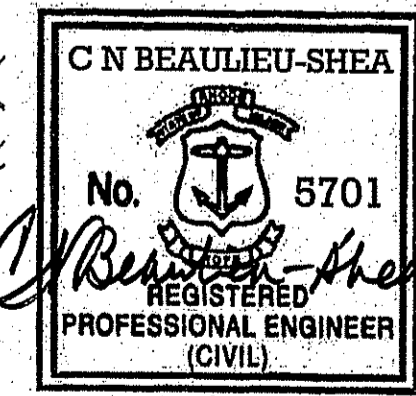
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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 FRESHWATER WETLANDS PROGRAM  
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*Master D. Wencel*

APR 11 2013



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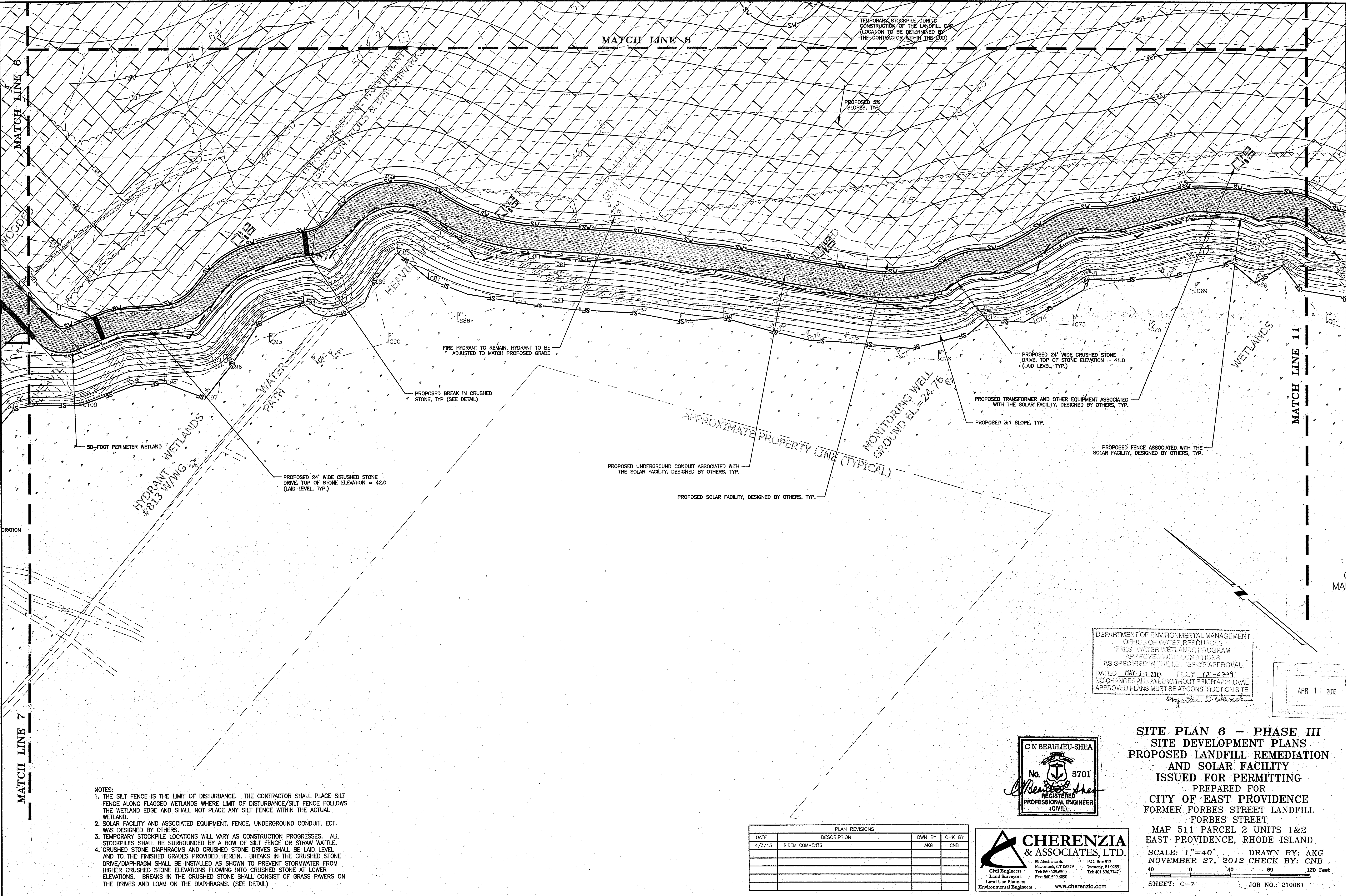


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**SITE PLAN 5 - PHASE III  
 SITE DEVELOPMENT PLANS  
 PROPOSED LANDFILL REMEDIATION  
 AND SOLAR FACILITY  
 ISSUED FOR PERMITTING  
 PREPARED FOR  
 CITY OF EAST PROVIDENCE  
 FORMER FORBES STREET LANDFILL  
 FORBES STREET  
 MAP 511 PARCEL 2 UNITS 1&2  
 EAST PROVIDENCE, RHODE ISLAND**

SCALE: 1"=40' DRAWN BY: AKG  
 NOVEMBER 27, 2012 CHECK BY: CNB

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 SHEET: C-6 JOB NO.: 210061

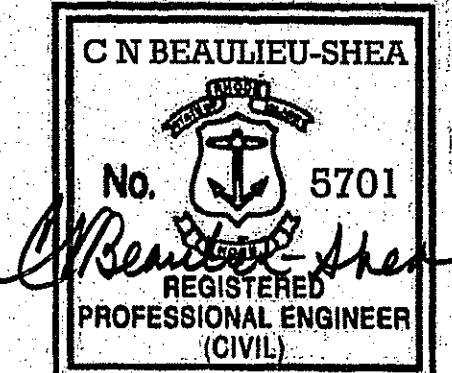


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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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*Matthew D. Wernick*

APR 11 2013  
 City of East Providence

**SITE PLAN 6 - PHASE III**  
**SITE DEVELOPMENT PLANS**  
**PROPOSED LANDFILL REMEDIATION**  
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 SCALE: 1"=40' DRAWN BY: AKG  
 NOVEMBER 27, 2012 CHECK BY: CNB  
 SHEET: C-7 JOB NO.: 210061

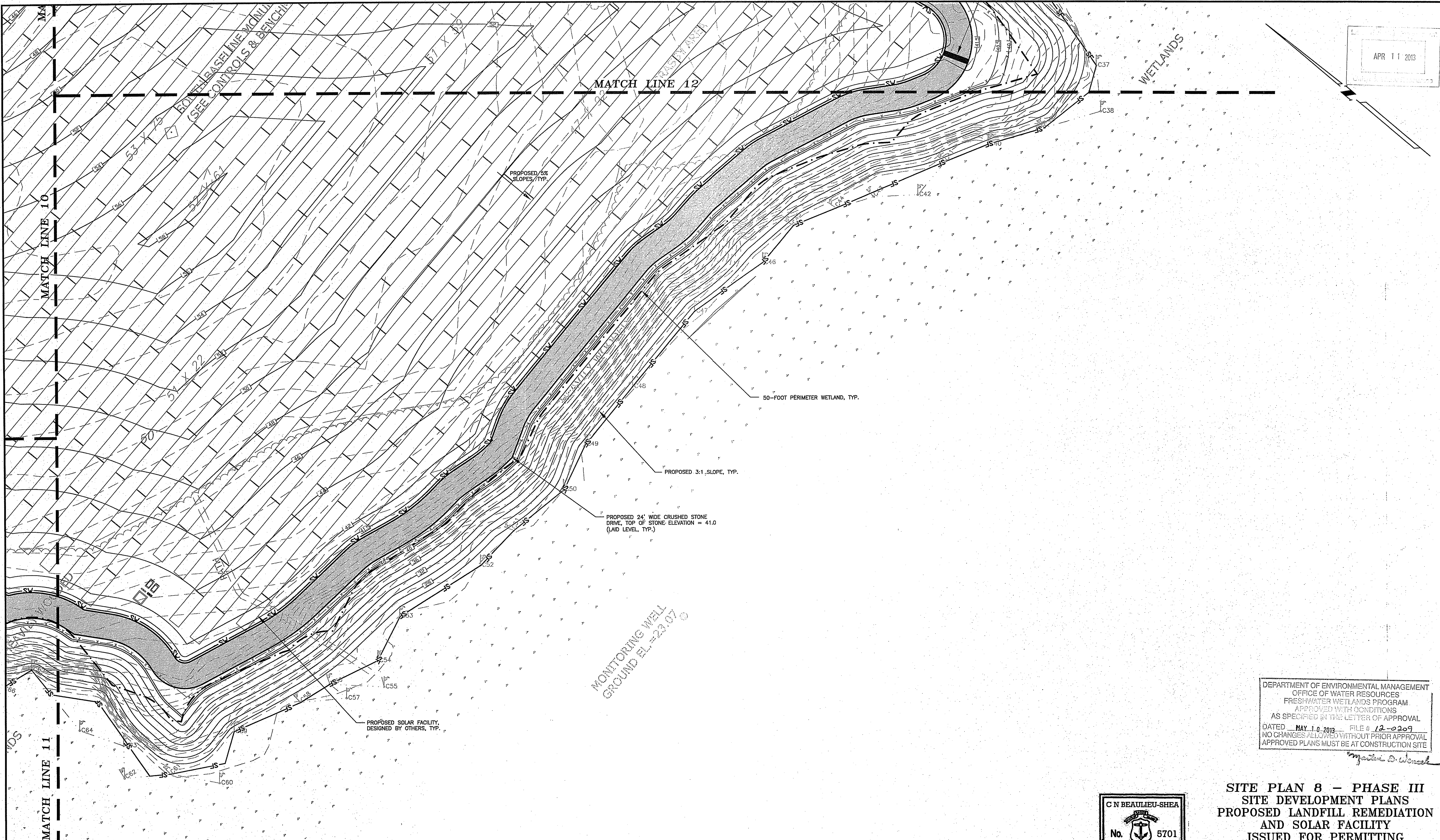


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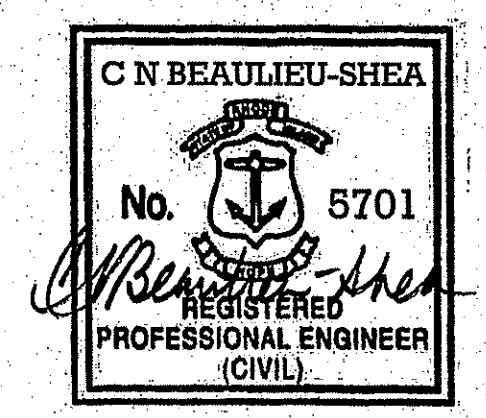
APR 11 2013



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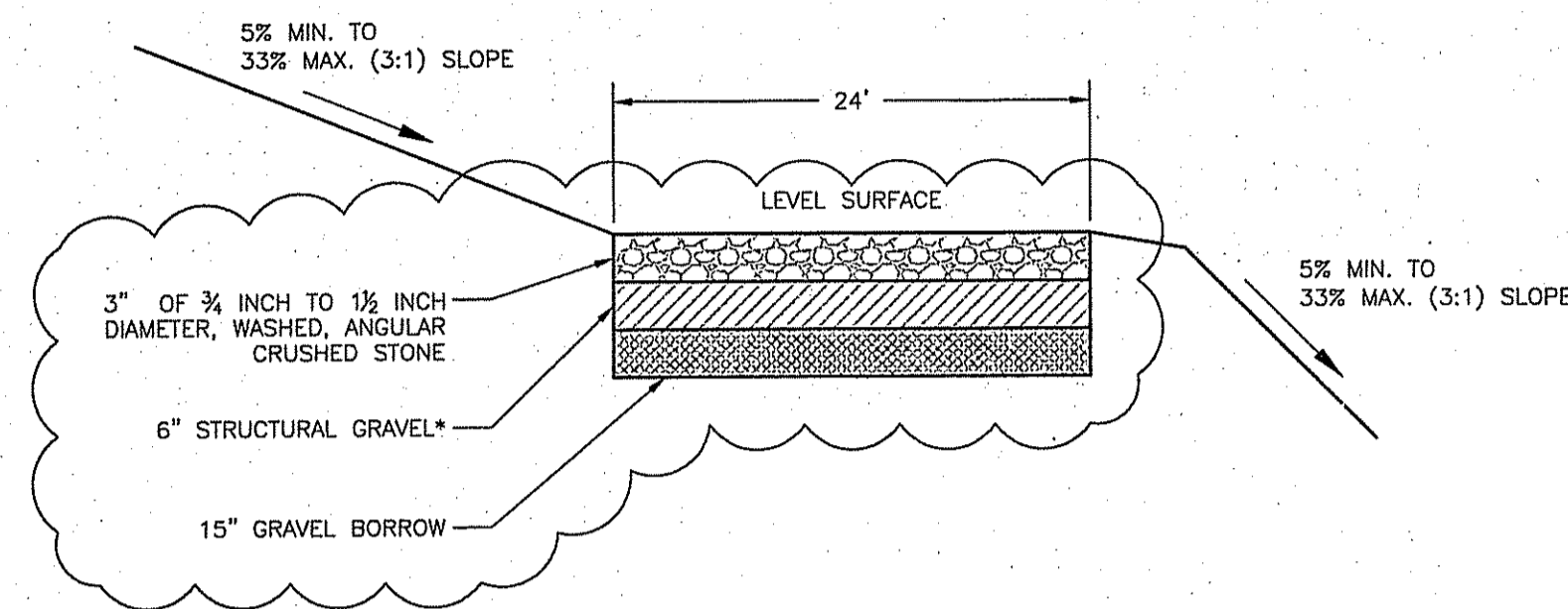
**SITE PLAN 8 - PHASE III**  
**SITE DEVELOPMENT PLANS**  
**PROPOSED LANDFILL REMEDIATION**  
**AND SOLAR FACILITY**  
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 FORMER FORBES STREET LANDFILL  
 FORBES STREET  
 MAP 511 PARCEL 2 UNITS 1&2  
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SCALE: 1"=40'  
 NOVEMBER 27, 2012 CHECK BY: CNB  
 SHEET: C-9 JOB NO.: 210061

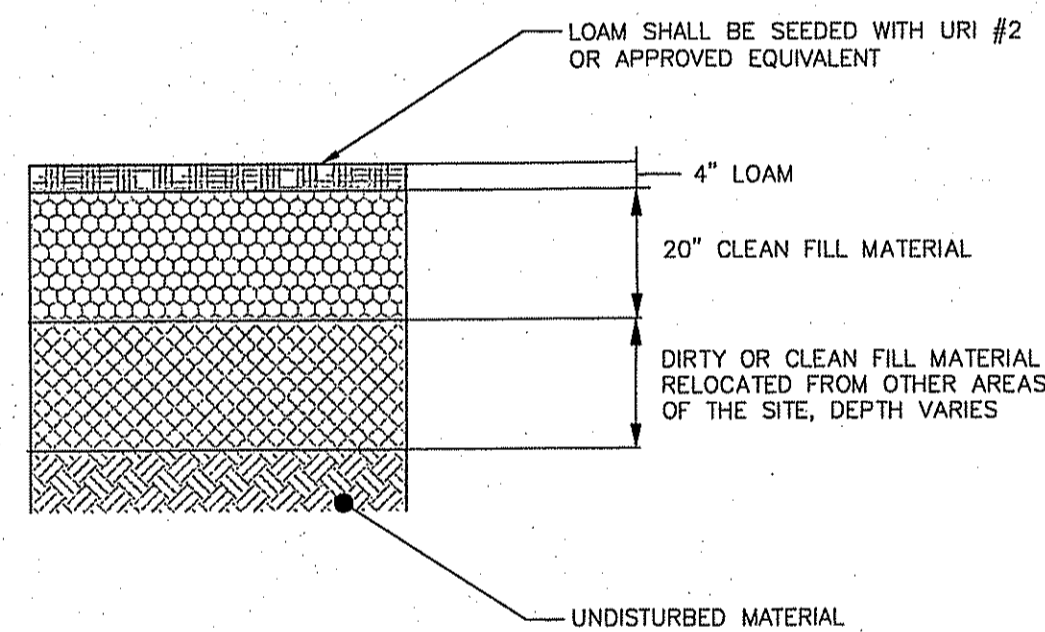


**CRUSHED STONE DRIVE DETAIL**  
NTS

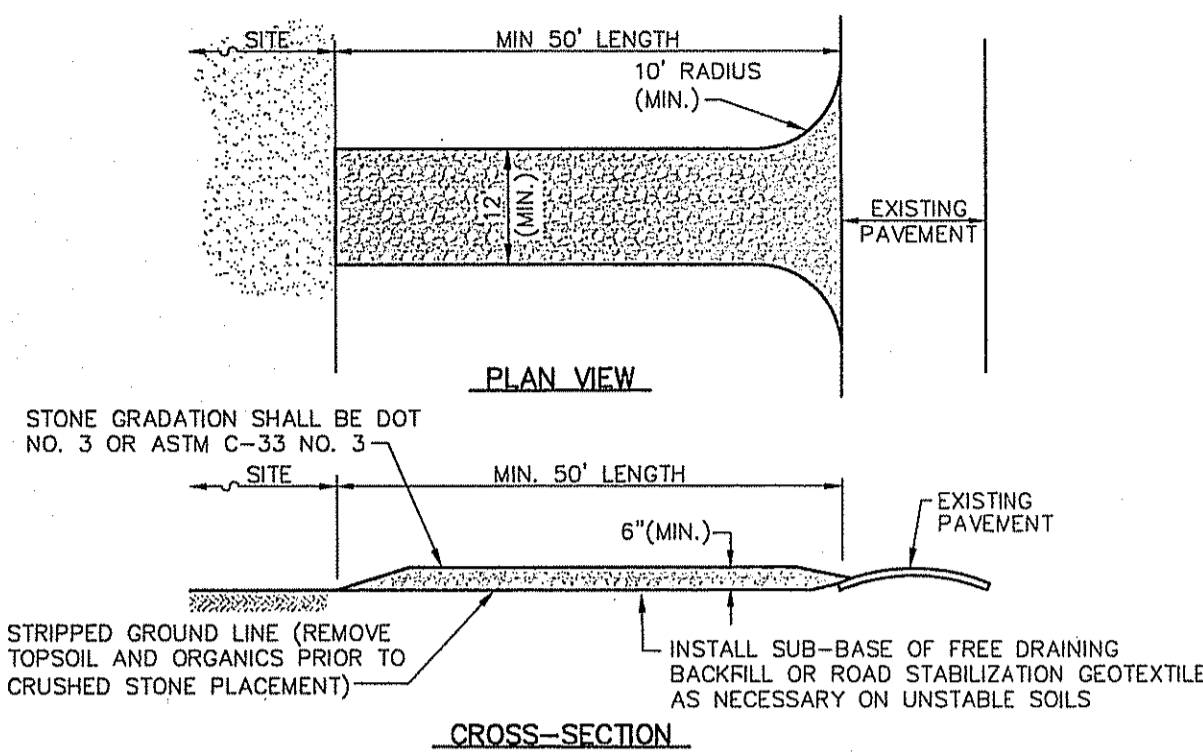
NOTE: STRUCTURAL STRENGTH OF THE DRIVE HAS NOT BEEN DESIGNED. STRUCTURAL STRENGTH OF THE DRIVE TO SUPPORT VEHICLES SHALL BE VERIFIED BY OTHERS.

GRAVEL DRIVE SUBSTITUTION: WHERE INDICATED ON THE PLAN (LANDFILL PHASE 1 AREA), A GRAVEL SURFACE CAN BE USED INSTEAD OF THE CRUSHED STONE FOR THE DRIVE. WHEN A GRAVEL SURFACE IS USED, THE DRIVE SHALL BE INSTALLED WITH A MINIMUM CROSS SLOPE OF TWO PERCENT.

\* STRUCTURAL GRAVEL SHALL MEET DESIGN INFILTRATION RATE OF 1.02 IN/HR



**LANDFILL CAP DETAIL**  
NTS



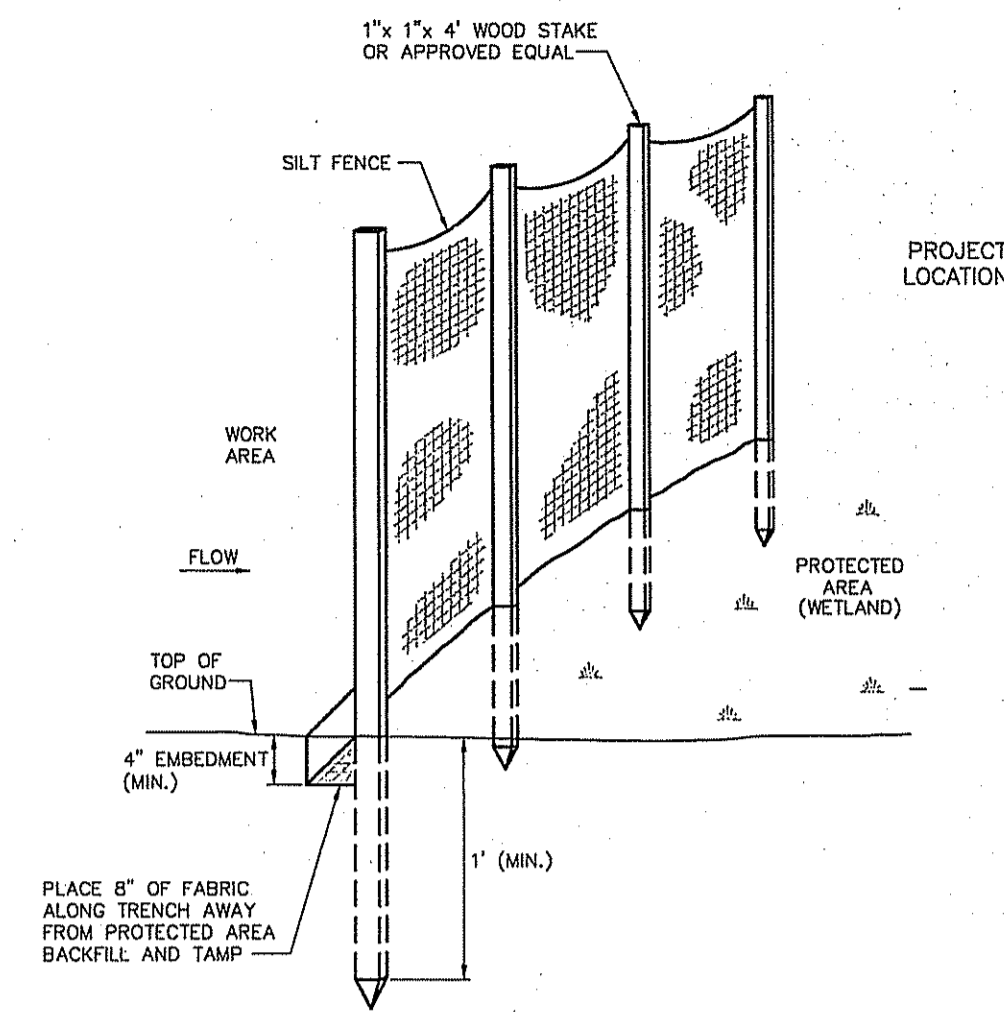
STONE GRADATION SHALL BE DOT NO. 3 OR ASTM C-33 NO. 3

STRIPPED GROUND LINE (REMOVE TOPSOIL AND ORGANICS PRIOR TO CRUSHED STONE PLACEMENT)

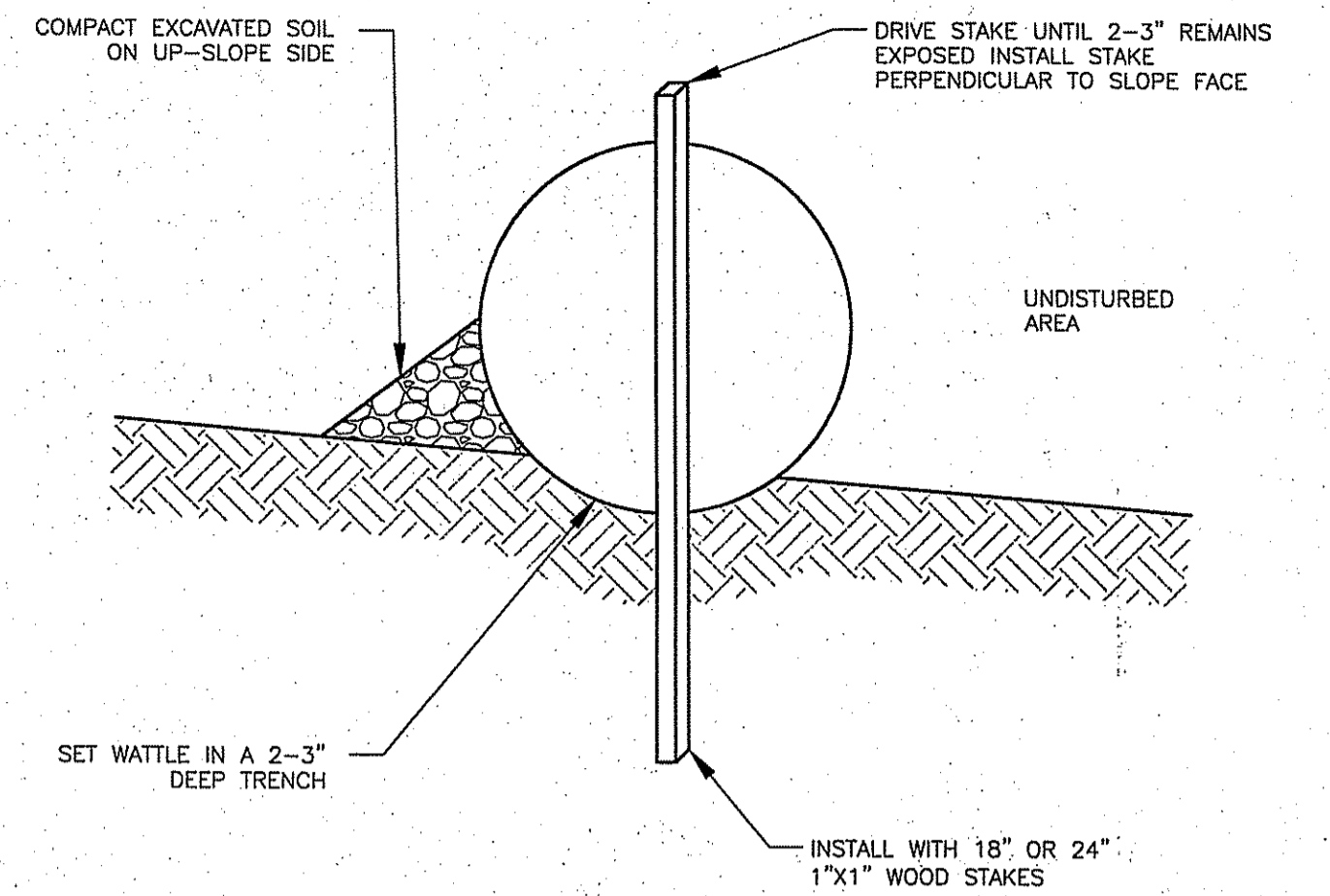
INSTALL SUB-BASE OF FREE DRAINING BACKFILL OR ROAD STABILIZATION GEOTEXTILE AS NECESSARY ON UNSTABLE SOILS

NOTES:  
1. ENTRANCE WIDTH SHALL BE A TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.  
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.

**TEMPORARY CONSTRUCTION ENTRANCE**  
NTS

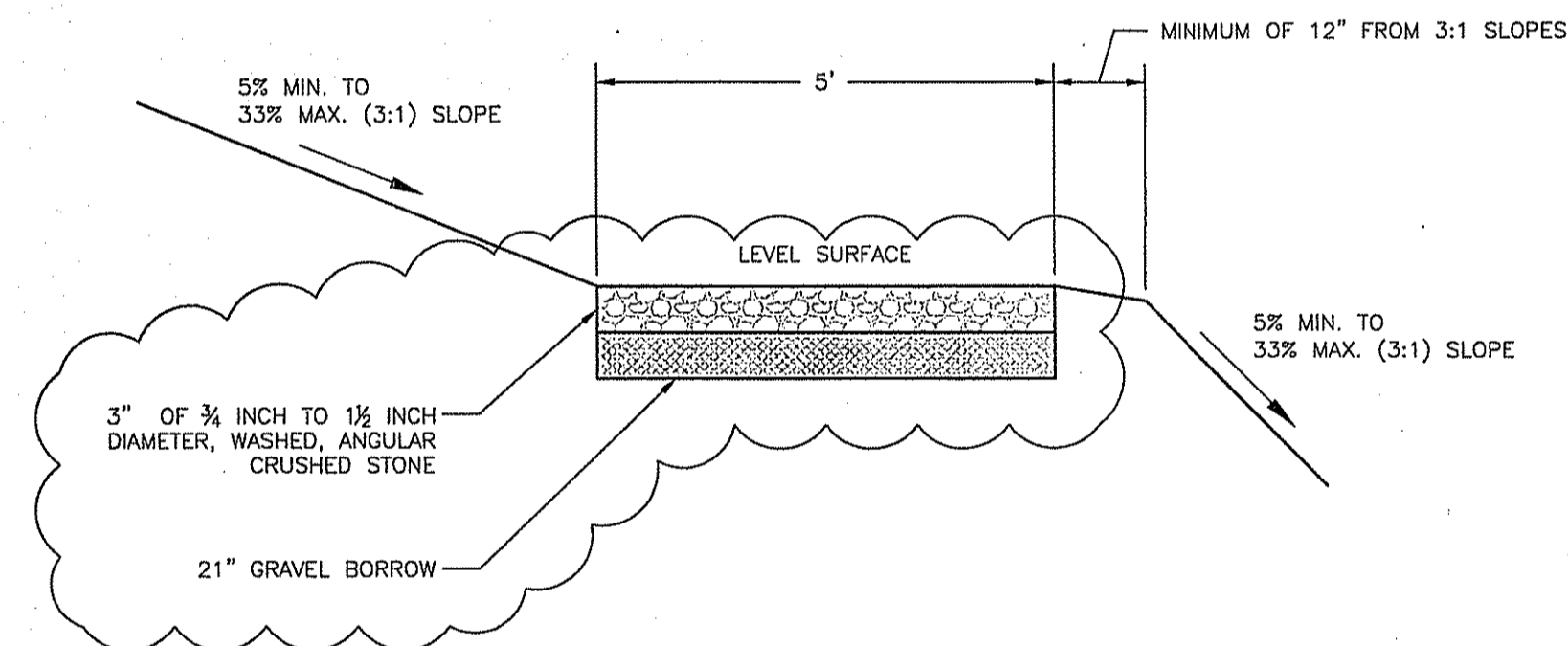
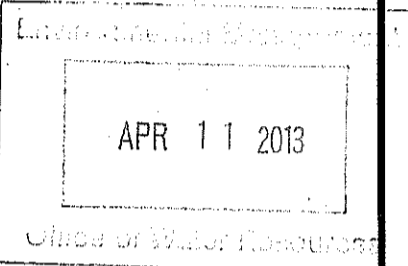


**SILT FENCE DETAIL**  
NTS

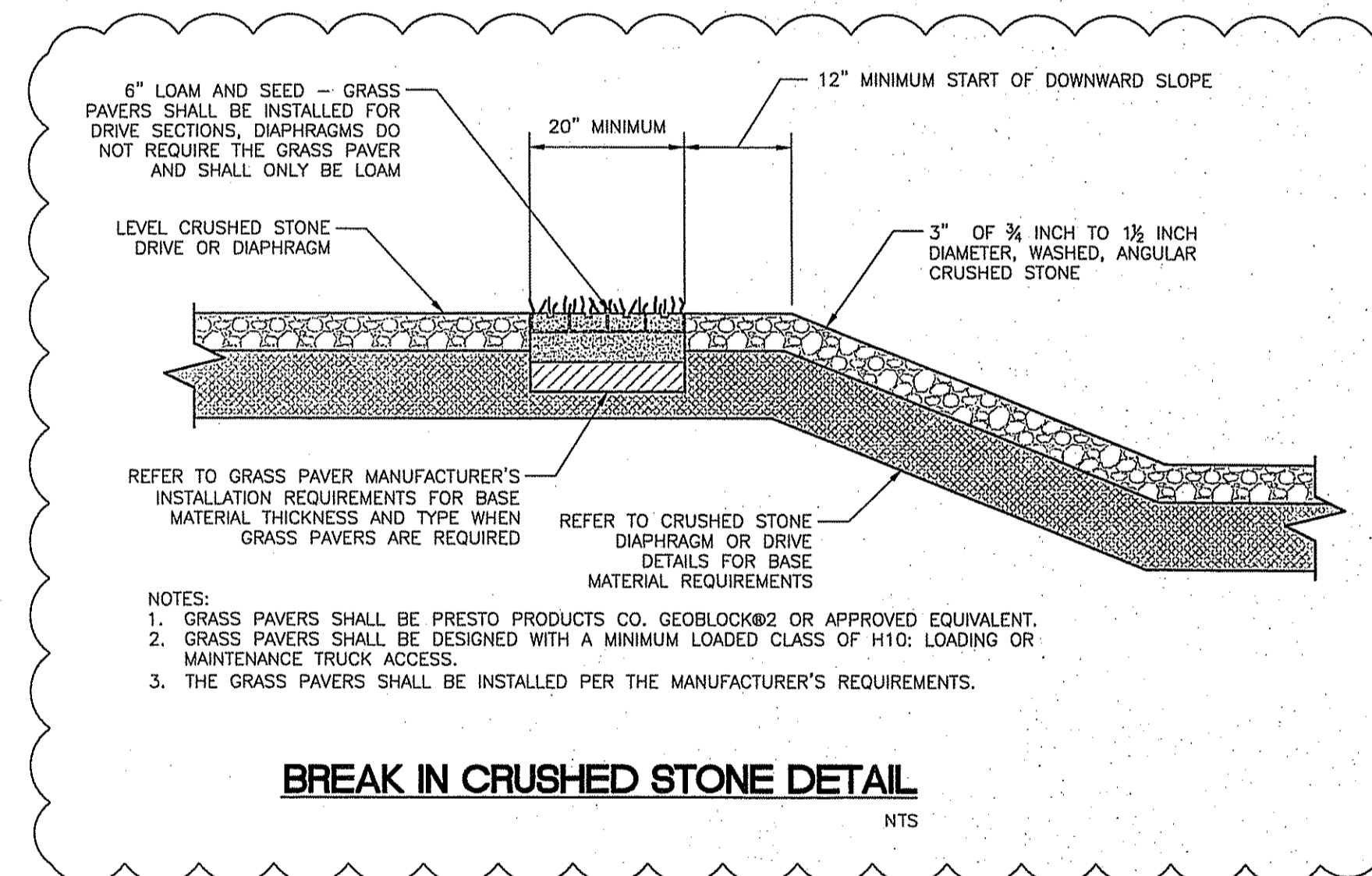


NOTES:  
1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" DEEP X 8" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.  
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT THE SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UP HILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.  
3. SECURE THE WATTLE WITH 18-24" STAKES EVERY 3-4' WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLES LEAVING AT LEAST 2-3" OF STAKE EXTENDING ABOVE. THE WATTLE STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.

**STRAW WATTLE DETAIL**  
NTS



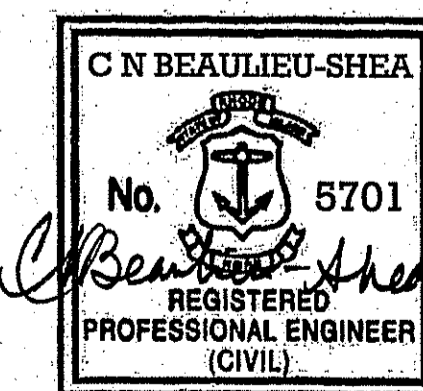
**CRUSHED STONE DIAPHRAGM DETAIL**  
NTS



**BREAK IN CRUSHED STONE DETAIL**  
NTS

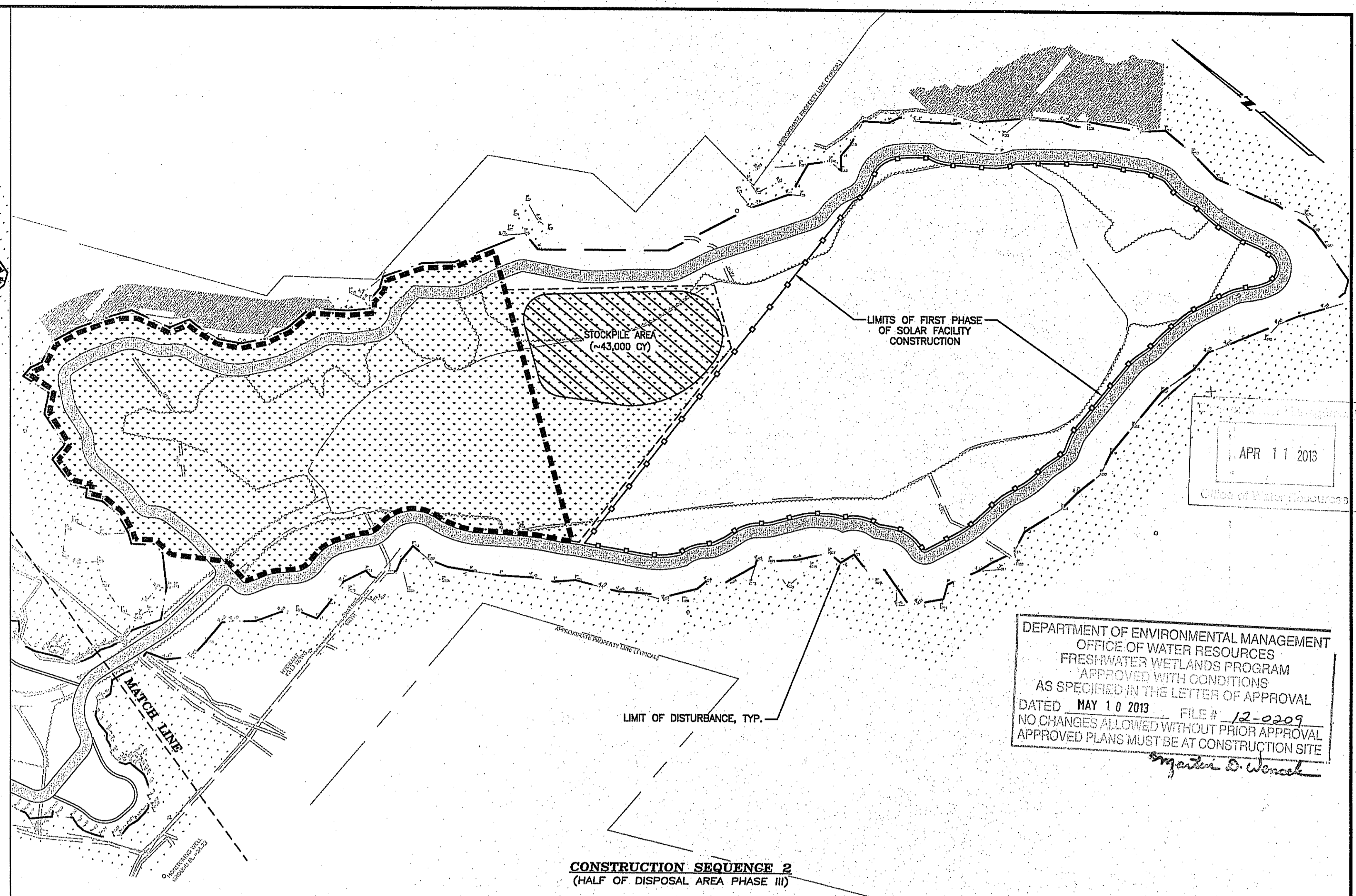
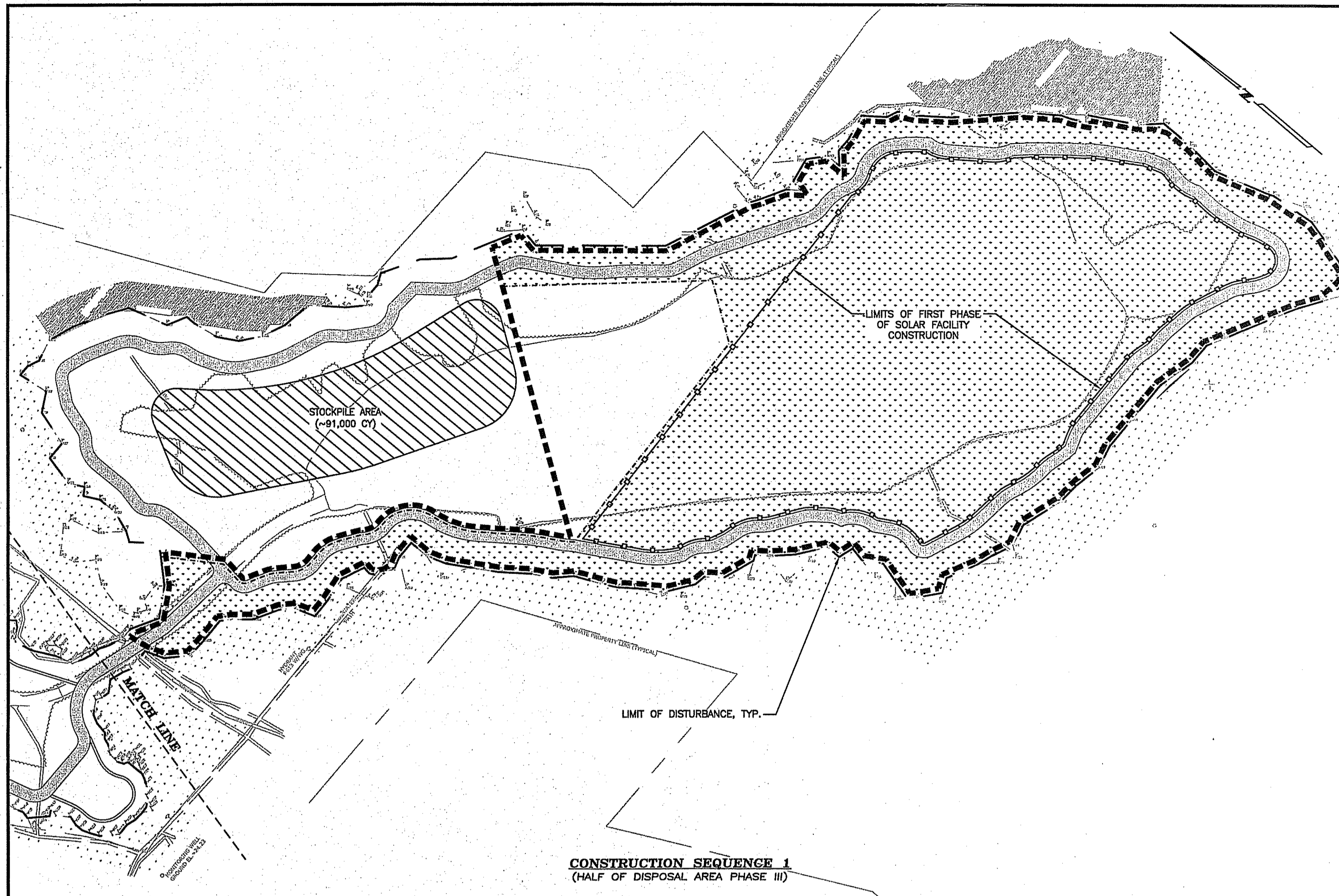
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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**DETAILS 1**  
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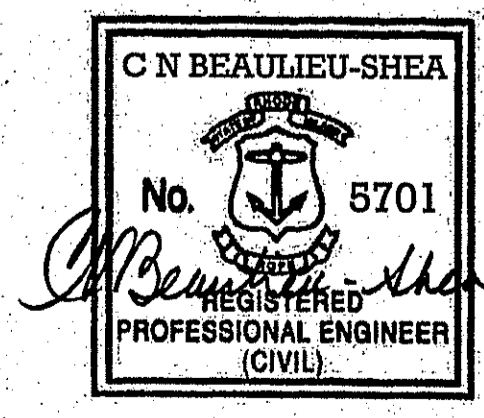
APR 11 2013  
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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*Martin D. Wozniak*

NOTES:  
1. ANY DISTURBED AREAS THAT WILL NOT BE UNDER ACTIVE CONSTRUCTION WITHIN TWENTY ONE (21) DAYS MUST BE STABILIZED USING TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION METHODS.  
2. ALL AREAS ON THE DOWN GRADIENT SIDE OF THE CRUSHED STONE DRIVE/DIAPHRAGM (SIDE SLOPES) SHALL BE HYDROSEED FIRST WITH NEWP CONSERVATION WILDLIFE MIX AND HYDRACX2 MULCH. THE REMAINING AREAS (PLATEAU) SHALL BE SEED SECOND WITH A LOW MAINTENANCE FINE PESCUE LAWN MIX. REFER TO LEGEND AND NOTES SHEET FOR MORE SEED INFORMATION.  
3. PERIMETER EROSION CONTROLS (SILT FENCE) CAN BE RELOCATED FOR USE ON OTHER CONSTRUCTION PHASES ONCE SEED HAS BECOME ESTABLISHED. SIMILARLY, THE SECONDARY EROSION CONTROLS ALONG THE CRUSHED STONE (STRAW WATTLE) CAN BE RELOCATED ONCE CONSTRUCTION OF THE SOLAR FACILITY UP GRADIENT FROM IT HAS BEEN COMPLETED AND ALL SEEDING IS ESTABLISHED. ANY SEDIMENT ACCUMULATION SHALL BE REMOVED BEFORE THE EROSION CONTROL IS RELOCATED.

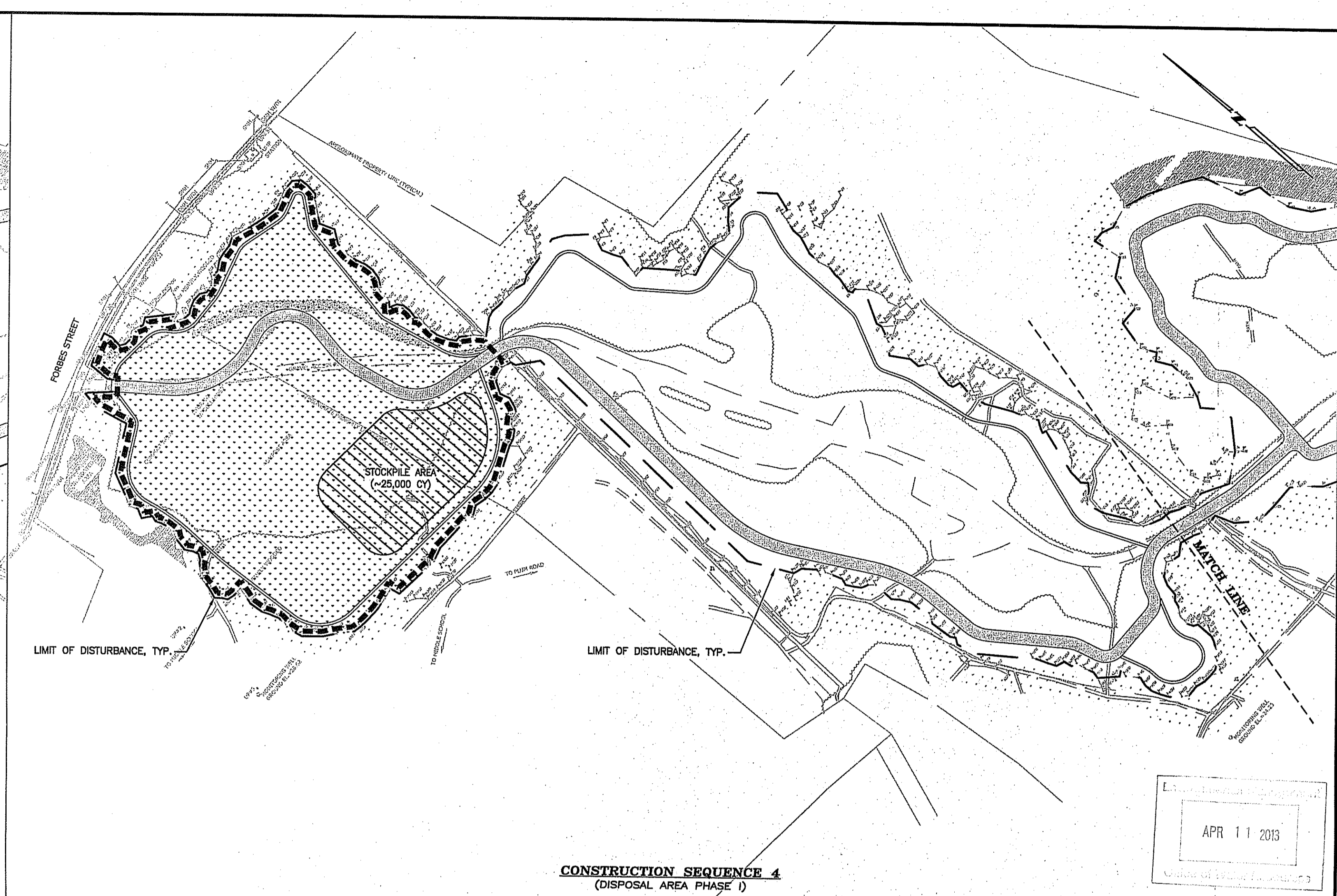
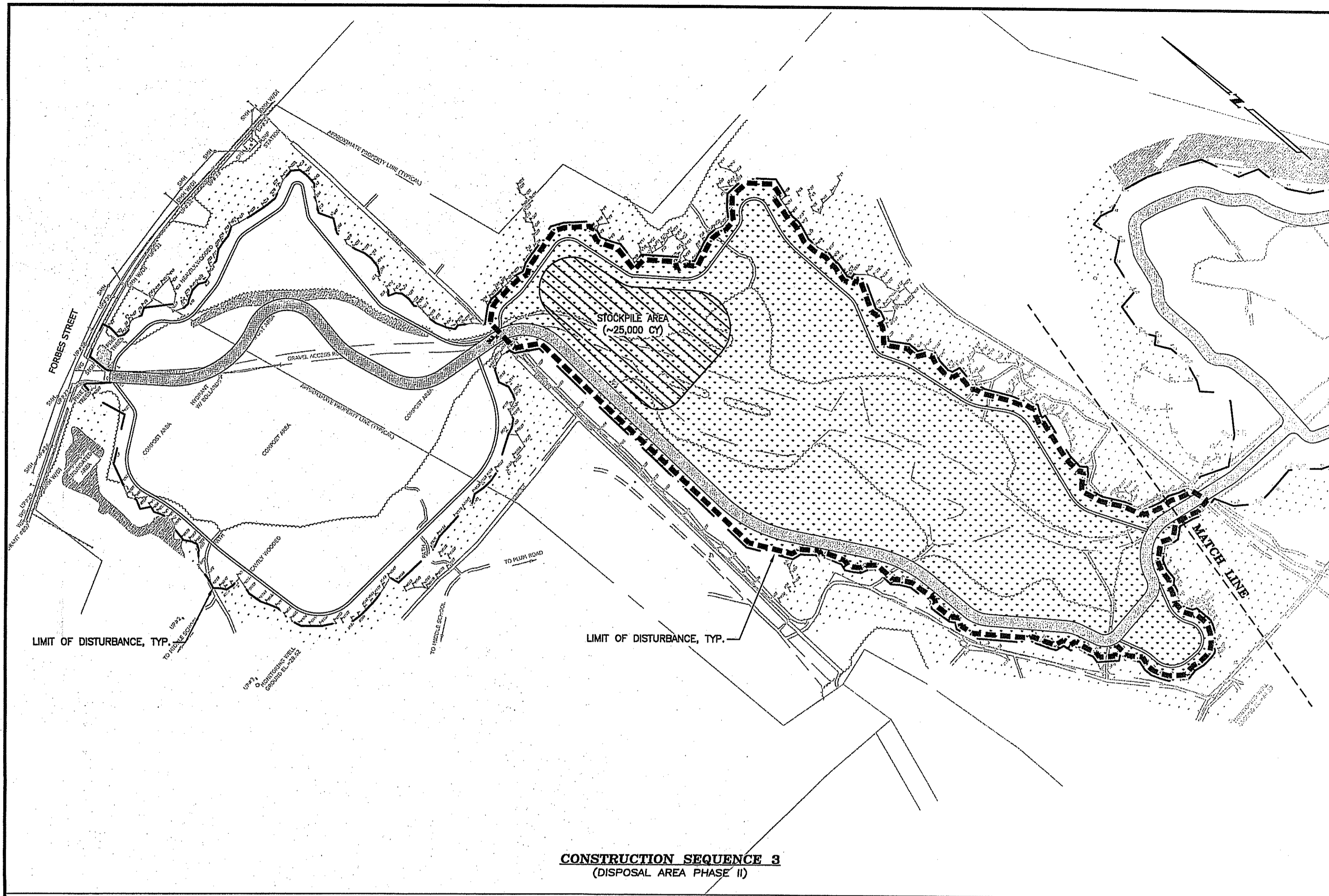
LEGEND AND CONSTRUCTION SEQUENCE NOTES	
	1. INSTALL/REPAIR PERIMETER EROSION CONTROLS ALONG TOE OF SLOPE. (LIMIT OF DISTURBANCE).
	2. EXCAVATE CLEAN FILL FROM CONSTRUCTION AREA AND STOCKPILE AS SHOWN.
	3. INSTALL EROSION CONTROLS AROUND TOE OF SLOPE OF STOCKPILE; MONITOR REGULARLY.
	4. GRADE TO PROPOSED SUBGRADE ELEVATIONS WITHIN THE CONSTRUCTION AREA.
	5. USE THE STOCKPILED MATERIAL TO CONSTRUCT THE CAP OVER THE CONSTRUCTION AREA.
	6. LOAM AND HYDROSEED THE CONSTRUCTION AREA IMMEDIATELY UPON COMPLETION OF THE LANDFILL CAP. (SEE NOTE #2)
	7. CONSTRUCT THE CRUSHED STONE DRIVE/DIAPHRAGM.
	8. INSTALL ADDITIONAL EROSION CONTROLS ALONG EDGE OF CONSTRUCTION AREA IF FUTURE EARTHWORK ACTIVITIES ARE REQUIRED TO BE PERFORMED ON UP GRADIENT AREAS. (PHASE III ONLY)
	9. ONCE THE CONSTRUCTION AREA IS STABILIZED, INSTALLATION OF THE SOLAR FACILITY CAN BEGIN. INSTALL STRAW WATTLES ALONG THE UP GRADIENT SIDE OF THE CRUSHED STONE DRIVE BEFORE THE START OF ANY INSTALLATION.

**CONSTRUCTION SEQUENCE PLAN 1**  
SITE DEVELOPMENT PLANS  
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FORMER FORBES STREET LANDFILL  
FORBES STREET  
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SCALE: 1"=160' DRAWN BY: AKG  
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Angela D. Wenzel*

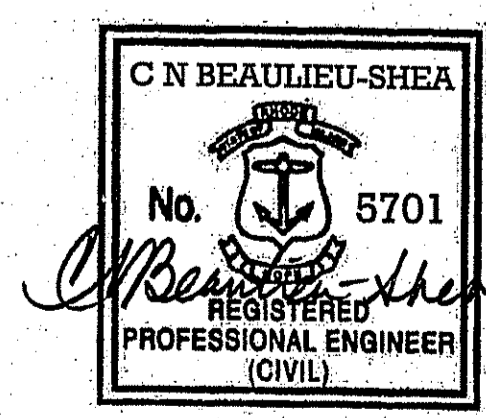
- NOTES:
1. ANY DISTURBED AREAS THAT WILL NOT BE UNDER ACTIVE CONSTRUCTION WITHIN TWENTY ONE (21) DAYS MUST BE STABILIZED USING TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION METHODS.
  2. ALL AREAS ON THE DOWN GRADIENT SIDE OF THE CRUSHED STONE DRIVE/DIAPHRAGM (SIDE SLOPES) SHALL BE HYDROSEED FIRST WITH NEWP CONSERVATION WILDLIFE MIX AND HYDRAC2 MULCH. THE REMAINING AREAS (PLATEAU) SHALL BE SEED SECOND WITH A LOW MAINTENANCE FINE FESCUE LAWN MIX. REFER TO LEGEND AND NOTES SHEET FOR MORE SEED INFORMATION.
  3. PERIMETER EROSION CONTROLS (SILT FENCE) CAN BE RELOCATED FOR USE ON OTHER CONSTRUCTION PHASES ONCE SEED HAS BECOME ESTABLISHED. SIMILARLY, THE SECONDARY EROSION CONTROLS ALONG THE CRUSHED STONE (STRAW WATTLE) CAN BE RELOCATED ONCE CONSTRUCTION OF THE SOLAR FACILITY UP GRADIENT FROM IT HAS BEEN COMPLETED AND ALL SEEDING IS ESTABLISHED. ANY SEDIMENT ACCUMULATION SHALL BE REMOVED BEFORE THE EROSION CONTROL IS RELOCATED.

**LEGEND AND CONSTRUCTION SEQUENCE NOTES**

	1. INSTALL/REPAIR PERIMETER EROSION CONTROLS ALONG TOE OF SLOPE. (LIMIT OF DISTURBANCE)
	2. EXCAVATE CLEAN FILL FROM CONSTRUCTION AREA AND STOCKPILE AS SHOWN.
	3. INSTALL EROSION CONTROLS AROUND TOE OF SLOPE OF STOCKPILE; MONITOR REGULARLY.
	4. GRADE TO PROPOSED SUBGRADE ELEVATIONS WITHIN THE CONSTRUCTION AREA.
	5. USE THE STOCKPILED MATERIAL TO CONSTRUCT THE CAP OVER THE CONSTRUCTION AREA.
	6. LOAM AND HYDROSEED THE CONSTRUCTION AREA IMMEDIATELY UPON COMPLETION OF THE LANDFILL CAP. (SEE NOTE #2)
	7. CONSTRUCT THE CRUSHED STONE DRIVE/DIAPHRAGM.
	8. INSTALL ADDITIONAL EROSION CONTROLS ALONG EDGE OF CONSTRUCTION AREA IF FUTURE EARTHWORK ACTIVITIES ARE REQUIRED TO BE PERFORMED ON UP GRADIENT AREAS. (PHASE III ONLY)
	9. ONCE THE CONSTRUCTION AREA IS STABILIZED, INSTALLATION OF THE SOLAR FACILITY CAN BEGIN. INSTALL STRAW WATTLES ALONG THE UP GRADIENT SIDE OF THE CRUSHED STONE DRIVE BEFORE THE START OF ANY INSTALLATION.

**CONSTRUCTION SEQUENCE PLAN 2**  
SITE DEVELOPMENT PLANS  
PROPOSED LANDFILL REMEDIATION  
ISSUED FOR CONSTRUCTION  
PREPARED FOR  
CITY OF EAST PROVIDENCE  
FORMER FORBES STREET LANDFILL  
FORBES STREET  
MAP 511 PARCEL 2 UNITS 1&2  
EAST PROVIDENCE, RHODE ISLAND  
SCALE: 1"=160'  
APRIL 3, 2013  
SHEET: C-12

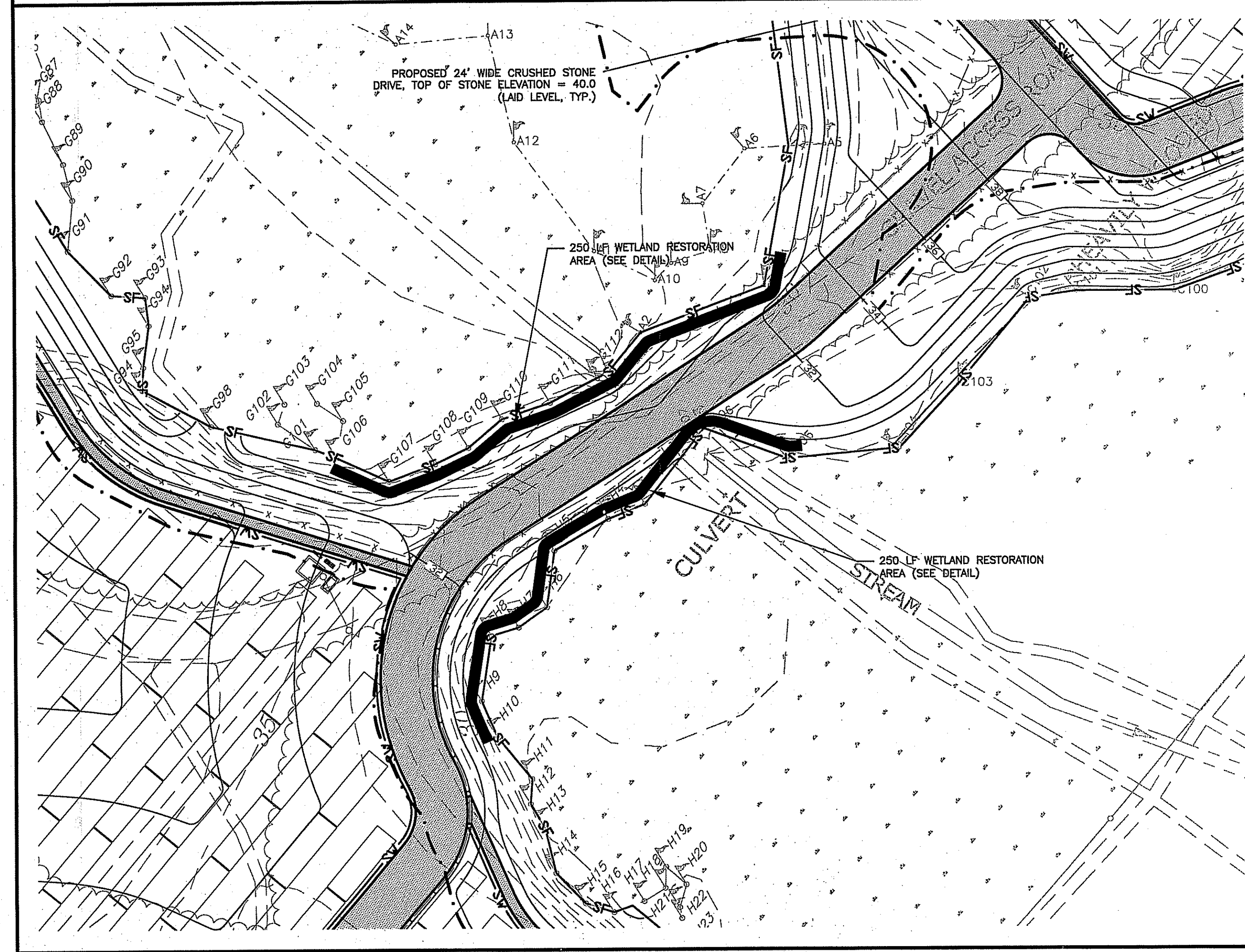
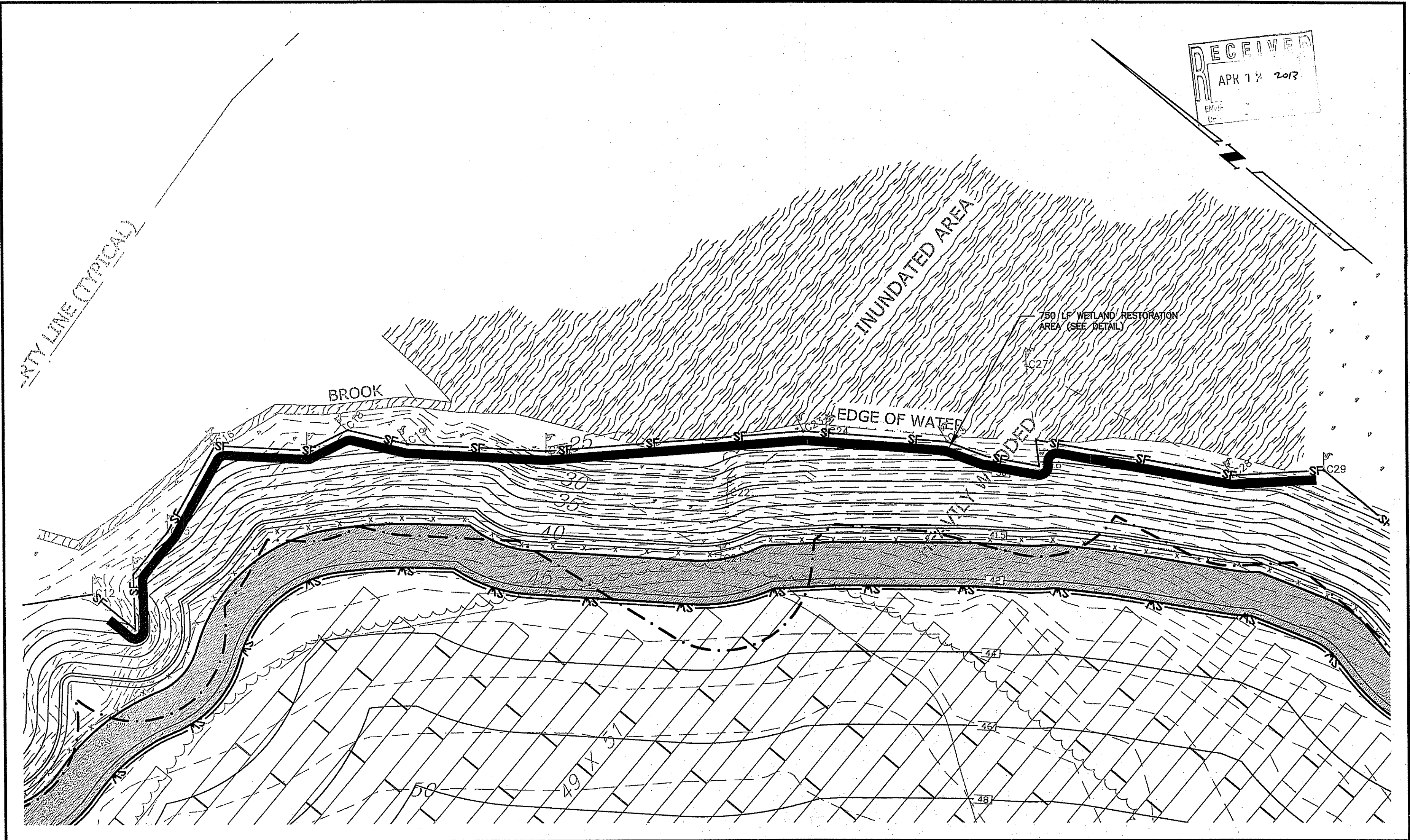
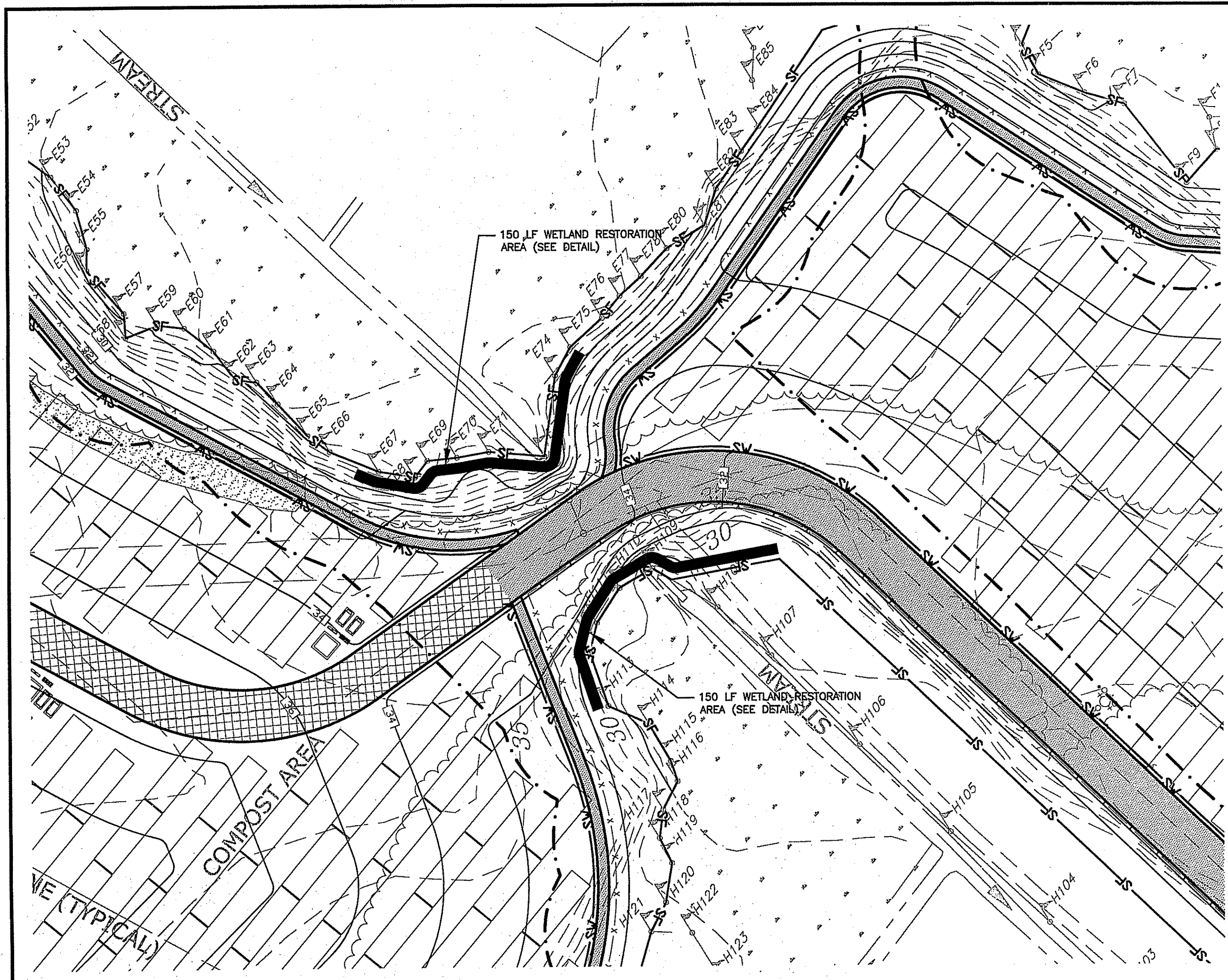
DRAWN BY: AKG  
CHECK BY: CNB  
JOB NO.: 210061



**CHERENZIA & ASSOCIATES, LTD.**  
99 Mechanic St. P.O. Box 513  
Pawtucket, CT 06379 Westfield, RI 02891  
Tel: 860.629.6500 Fax: 860.599.6090  
Tel: 401.596.7747  
Civil Engineers  
Land Surveyors  
Land Use Planners  
Environmental Engineers  
www.cherenzia.com

PLAN REVISIONS

DATE	DESCRIPTION	DWN BY	CHK BY



TYPICAL WETLAND RESTORATION PLANTING PLAN PER 50 LINEAR FEET ALONG WETLAND EDGE

Wetland Restoration Legend	Plant Size/ Application Rate	Total Quantity
△ Sweet Paperbush ( <i>Clethra alnifolia</i> )	#2	155
□ Pussy Willow ( <i>Salix discolor</i> )	#3	93
○ Sweet Fern ( <i>Comptonia peregrina</i> )	#1	186
■ NEWP Conservation - Wildlife Mix	25 lbs. per Acre	25 lbs. per Acre

NOTE: ALL PLANTINGS SHALL BE A MINIMUM OF 24 INCHES IN HEIGHT AT THE TIME OF INSTALLATION.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED MAY 10 2013 FILE # 12-0209  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Margaret D. Wenzel*

**WETLAND RESTORATION PLAN  
 SITE DEVELOPMENT PLANS  
 PROPOSED LANDFILL REMEDIATION  
 AND SOLAR FACILITY  
 ISSUED FOR PERMITTING  
 PREPARED FOR  
 CITY OF EAST PROVIDENCE  
 FORMER FORBES STREET LANDFILL  
 FORBES STREET  
 MAP 511 PARCEL 2 UNITS 1&2  
 EAST PROVIDENCE, RHODE ISLAND**

SCALE: 1"=40'  
 APRIL 2, 2013  
 DRAWN BY: AKG  
 CHECK BY: CNB

SHEET: C-13 JOB NO.: 210061

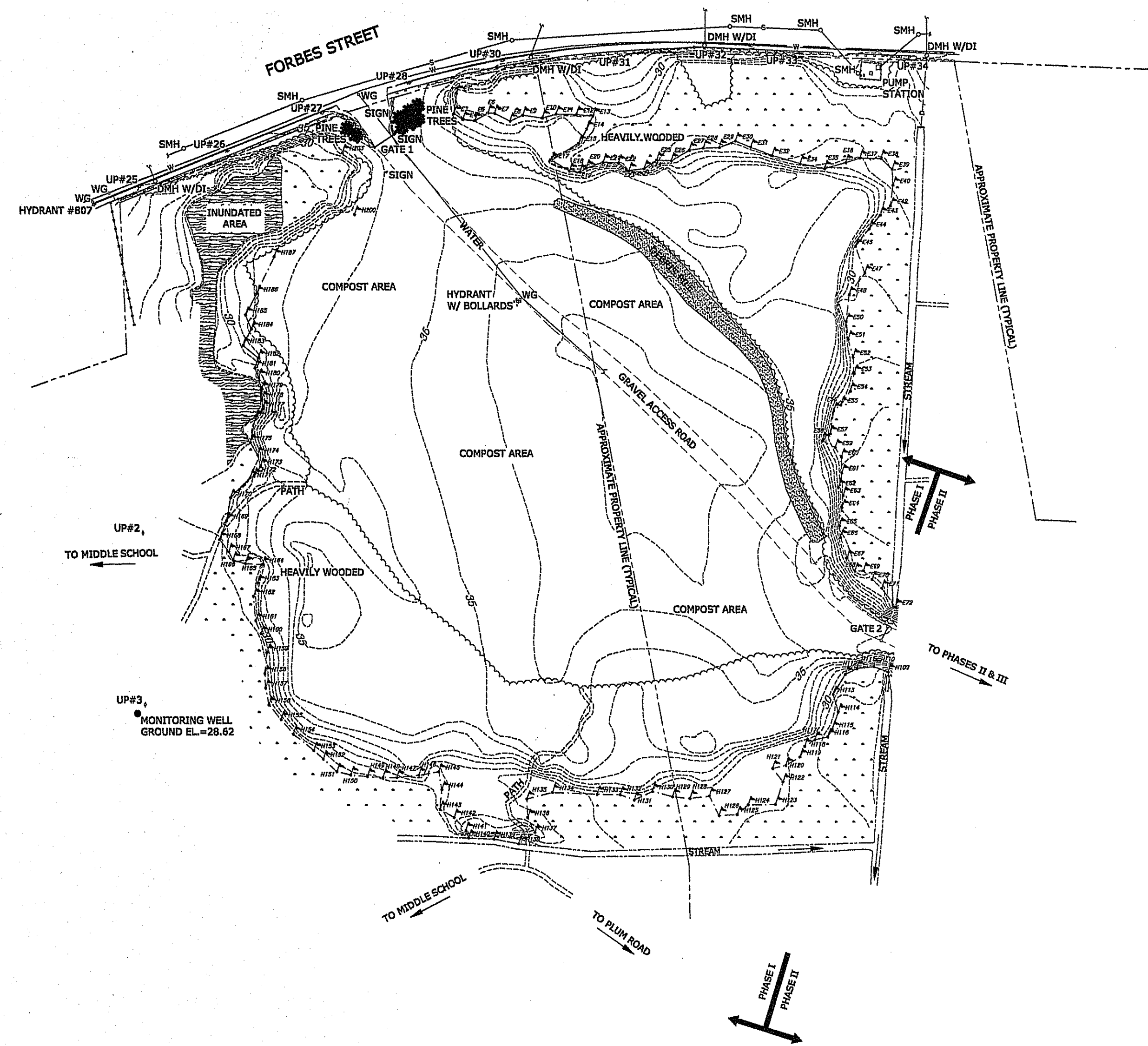
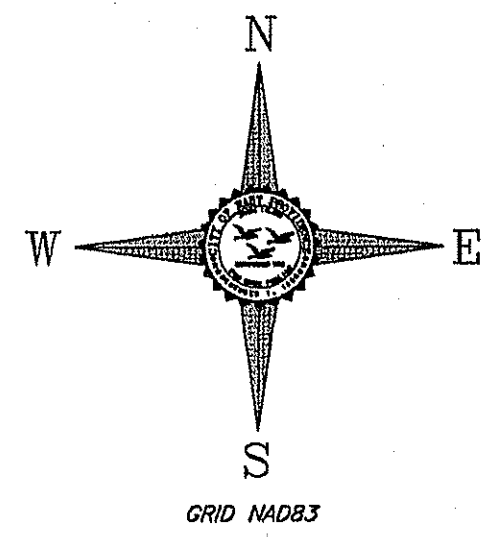
PLAN REVISIONS				
DATE	DESCRIPTION	DWN BY	CHK BY	
4/3/13	RIDEM COMMENTS	AKG	CNB	

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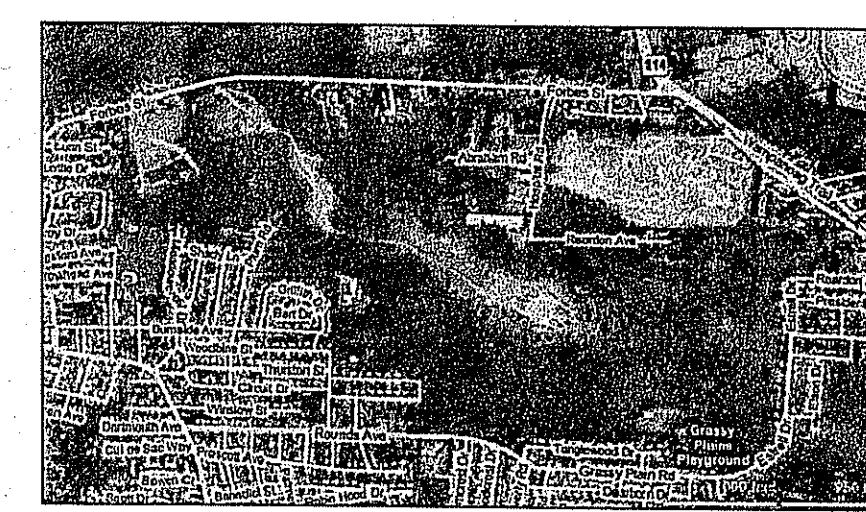
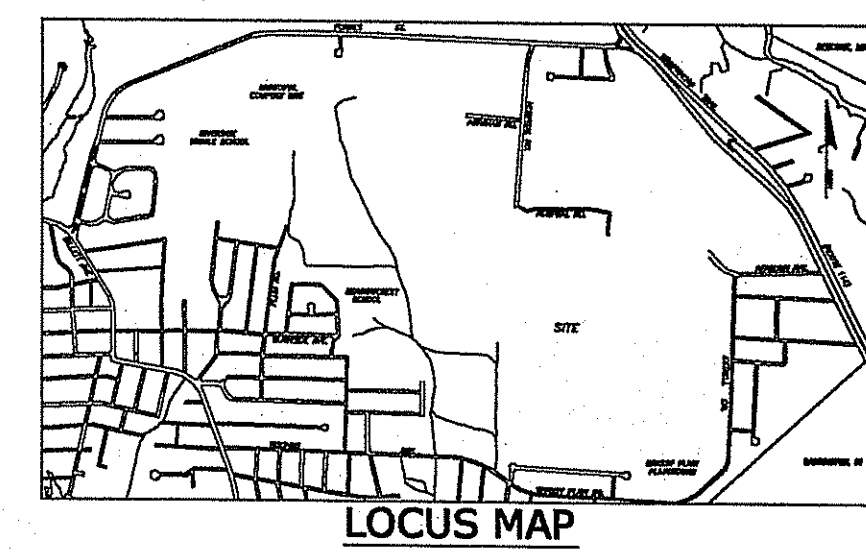


**PLAN LEGEND**

	APPROXIMATE PROPERTY LINE
	CONTOURS
	SPOT GRADE
	EDGE OF ACCESS ROAD
	EDGE OF 2011 FILL
	EDGE OF WOODS
	HYDRANT
	WATER GATE
	WATER LINE
	DRAINAGE LINE
	SEWER LINE
	SEWER MANHOLE
	DRAIN MANHOLE WITH DROP INLET
	UTILITY POLE
	GUARDRAIL
	WETLAND FLAGS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED MAY 10 2013 FILE # 12-0209  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Jonathan D. Wenzel*



**SURVEYORS REPORT**  
 PROJECT NUMBER: 2011030  
 JOB DESCRIPTION: AS-BUILT OF EXISTING CONDITIONS OF THE FILLED PORTION OF PHASE I.  
 DATE: MARCH 29, 2012

**PURPOSE:**  
 THE PURPOSE OF THIS PLAN IS TO PROVIDE THE CITY ENGINEER WITH A TOPOGRAPHIC SURVEY TO BE USED AS A TOOL FOR ASSESSMENT AND PLANNING. IT IS INTENDED TO COVER THE EXTENTS OF THE AREAS FILLED IN PRIOR OPERATIONS. THE TOPO DEPICTED ON THIS PLAN IS INTENDED TO REPRESENT THE GENERAL SHAPE OF THE FILLED AREA, AND DOES NOT SHOW DETAILS LIKE MOUNDINGS, AND MINOR TRENCHES.

- NOTES:**
- CONTROL FOR THIS SURVEY IS BASED ON NAD83 STATE PLANE COORDINATES. COORDINATES FOR THE CONTROL MONUMENTS WERE OBTAINED BY "WATERMAN ENGINEERING", UNDER CONTRACT WITH THE CITY USING GPS EQUIPMENT AND AN RTK NETWORK, FOR WHICH THEY ARE SUBSCRIBED. A SECOND, CONVENTIONAL TRANSVERSE, WAS RUN BY THE CITY OF EAST PROVIDENCE, FROM "RIGS" DISKS ON THE WAMPANOAG TRAIL TO THE ABOVE MENTIONED CONTROL ESTABLISH ADDITIONAL CONTROL POINTS.
  - ELEVATIONS WERE OBTAINED FROM A RIGS DISK EP014. LEVELS WERE RUN ON NGVD29 AND THE PROJECT BENCHMARKS WERE LATER CONVERTED TO EAST PROVIDENCE MEAN HIGH WATER BY THE FOLLOWING RELATIONSHIP (EPMHW=NGVD29 - 2.95').
  - EPMHW WAS THE CHOSEN VERTICAL DATUM FOR CONTINUITY WITH PREVIOUS WORK, SPECIFICALLY, THAT SET OF PLANS ENTITLED "CITY OF EAST PROVIDENCE, RHODE ISLAND, SANITARY LANDFILL" DATED MARCH 1977 AND SHOWN ON THREE SHEETS.
  - NAD83 WAS CHOSEN FOR THE HORIZONTAL DATUM, TO PROVIDE CONTINUITY WITH PRIOR WORK DONE BY HOLDEN ENGINEERING AND THE CITY "GIS" SYSTEM.
  - TOPO DATA WAS COLLECTED OVER A LARGE TIME PERIOD, AND MAY NOT REFLECT GRADUAL CHANGES LIKE EROSION AND THE RE-GRADING THAT IS REQUIRED FOR MAINTENANCE.
  - WETLAND FLAGS WERE LOCATED BY HAND-HELD "GPS", A GARMIN "GSMAP66C", IN HEAVY WOODS. FIELD LOCATIONS DONE DURING THE TOPOGRAPHY HAVE RELOCATED MOST OF THE WETLAND FLAGS AND HAVE CONFIRMED THAT MOST ORIGINAL LOCATIONS WERE REASONABLY DEPICTED, BUT THERE ARE SOME OUTLIERS AND NOT ALL FLAGS COULD BE RECOVERED, THEREFORE THE FLAGS SHOULD BE CONSIDERED APPROXIMATE. FOR MORE SPECIFIC INFORMATION ABOUT WHICH FLAGS COULD NOT BE RELOCATED, CONTACT THE CITY OF EAST PROVIDENCE - DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION.
  - THE BOTTOM OF BANK WAS CHOSEN AS THE LIMIT OF THE SURVEY WORK. BEYOND THE BOTTOM OF BANK APPEARED TO BE ORIGINAL GROUND (UNDISTURBED), AND ASSUMED TO MATCH THE PLANS REFERENCE IN NOTE NUMBER 3. ADDITIONAL TOPO SHOTS BEYOND THE LIMITS WERE OBSERVED TO GIVE A REFERENCE TO FEATHER THE CONTOURS AND TO LOCATE OBSERVATION WELLS.
  - PROPERTY LINES ARE APPROXIMATE. THEY WERE COPIED FROM OTHER MAPS AND ARE NOT THE RESULTS OF A SURVEY. THEY ARE SHOWN FOR REFERENCE PURPOSES ONLY.
  - PHASE I IS CURRENTLY BEING USED FOR COMPOSTING LARGE QUANTITIES OF YARD DEBRIS. BECAUSE THIS IS AN ON-GOING OPERATION, FIELD CONDITIONS CAN CHANGE FROM ONE DAY TO THE NEXT, THEREFORE THE ACTUAL COMPOST PILES WERE NOT LOCATED, AND THIS MAP MAY VARY FROM CURRENT FIELD CONDITIONS.
  - A SUBSTANTIAL DEBRIS PILE IS SHOWN ON THIS PLAN. ALTHOUGH THIS IS CONSIDERED A NON-PERMANENT FEATURE, IT STRADDLES THE NATURAL TOP OF BANK, AND THEREFORE OBSTRUCTS AN IMPORTANT FEATURE.
  - THERE IS A RAMP (NOT SHOWN) USED FOR THE COMPOSTING OPERATIONS. IT IS NOT KNOWN WHETHER THIS IS PERMANENT OR NOT, AND THE OPERATION OF EQUIPMENT IN THE AREA POSSES A SAFETY ISSUE. SHOULD THE LOCATION OF THE RAMP BE REQUIRED, SOME DOWN-TIME OF THE EQUIPMENT SHOULD BE COORDINATED WITH THE SURVEY CREW.

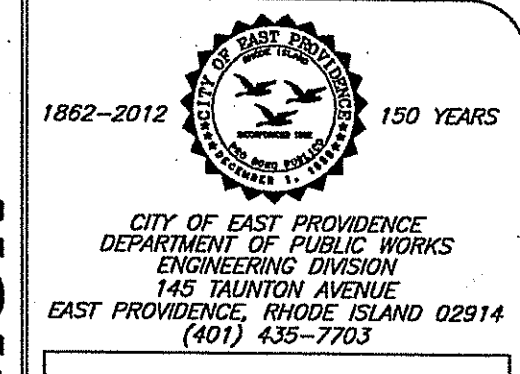
Charles R. Hampton

**SURVEY NOTE**  
 THE PROPERTY LINES SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. THEY ARE NOT A RESULT OF AN ACCURATE SURVEY. THEY MAY BE SUBJECT TO CHANGES THAT AN ACCURATE SURVEY MAY REVEAL.

**FLOOD INFORMATION**  
 A REVIEW OF FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 44007C03396, CITY OF EAST PROVIDENCE, COUNTY OF PROVIDENCE, STATE OF RHODE ISLAND, PANEL 339 OF 451, DATED PRELIMINARY MAY 31 2007, DEPICTS THE SUBJECT PARCEL(S) TO LIE WITHIN ZONE "X".

**CONTROL & BENCHMARKS**  
 HORIZONTAL CONTROL-  
 NAD83 (NORTH AMERICAN DATUM OF 1983)  
 SPC RI FT - STATE PLANE COORDINATE RHODE ISLAND FEET  
 USING RTK NETWORK  
 STATE PLANE COORDINATES ESTABLISHED BY WATERMAN ENGINEERING  
 DATE OF OBSERVATION - JUNE 29, 2011  
 NORTH BASELINE MONUMENT  
 NORTHERING 251285.1540 EASTING 371367.5630  
 SOUTH BASELINE MONUMENT  
 NORTHERING 251283.8350 EASTING 372227.9891  
 VERTICAL CONTROL-  
 EPMHW (EAST PROVIDENCE MEAN HIGH WATER)  
 PE NAIL IN BACK OF POLE #28 FORBES STREET  
 EL. 35.42

**SURVEY CERTIFICATION**  
 This survey and plan conform to a CLASS III Standard as adopted by the Rhode Island Board of Registration for Professional Land Surveyors.  
 By: *Charles R. Hampton* 10/31/12 Date  
 Charles R. Hampton, P.L.S. #1795  
 Registered Professional Land Surveyor



**CITY OF EAST PROVIDENCE - DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION**

Professional Engineer Stamp  
 CHARLES R. HAMPTON  
 No. 1795  
 PROFESSIONAL LAND SURVEYOR  
 Professional Land Surveyor Stamp  
 Rhode Island State Law (Statute Chapter 39-1.2, Section 1) requires that this stamp shall be notified 48 hours prior to any excavation. 1-888-360-SAFE / 1-888-344-7233  
 EMERGENCY NUMBERS  
 Gas-National Grid (1-800-936-7000)  
 Water-EPDPW/Water Dept (435-7741)  
 Sewer-United Water (433-6363)

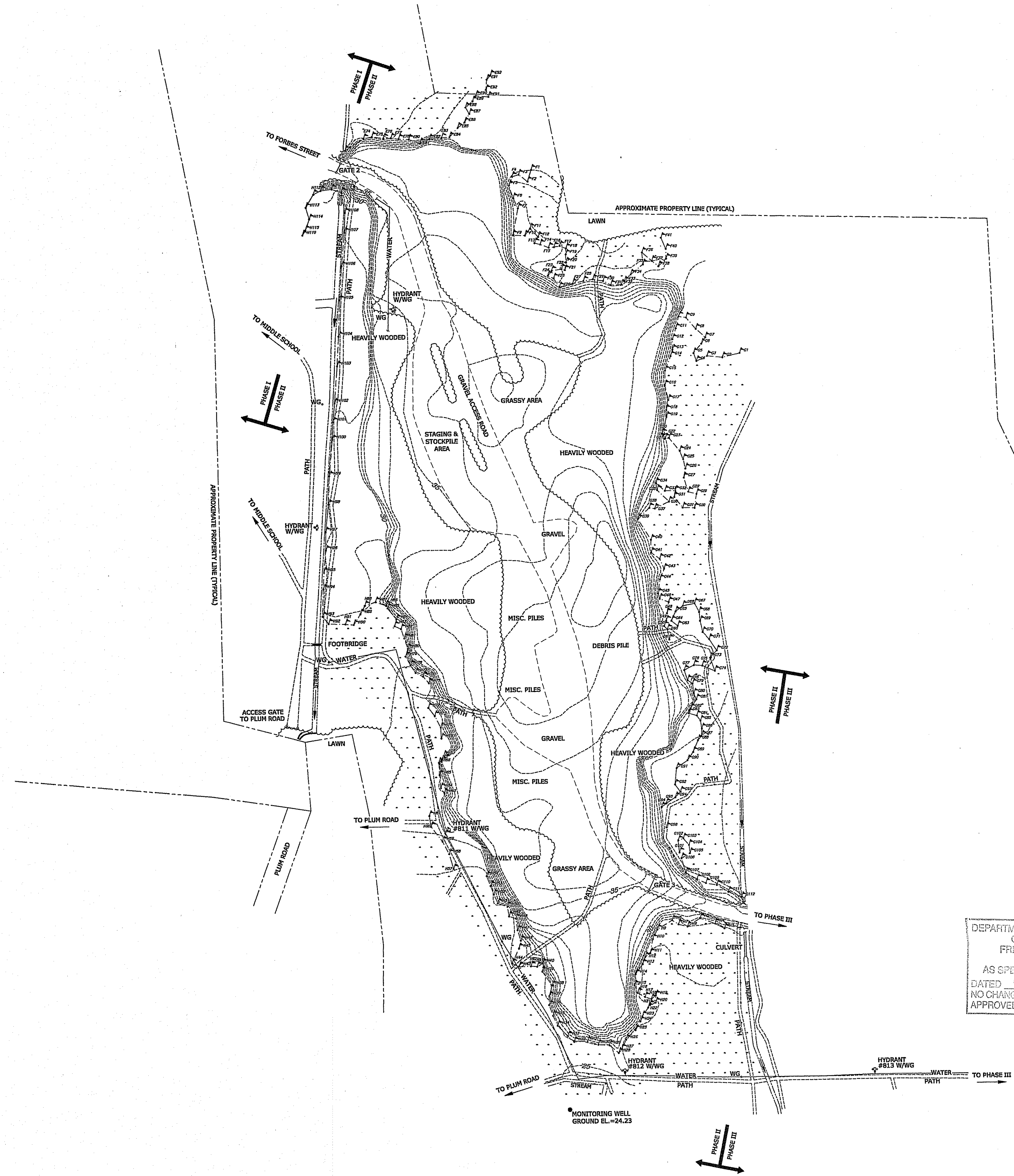
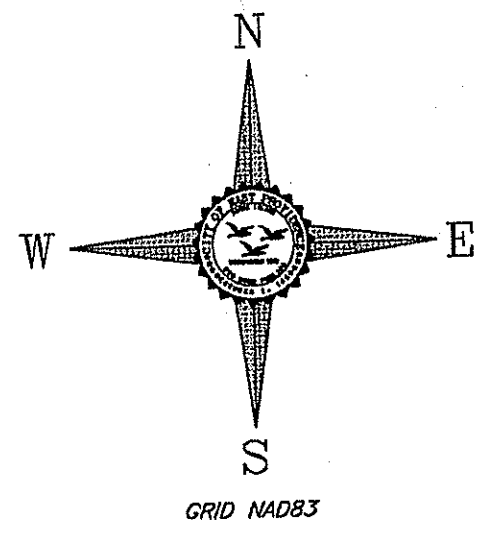
Topographical Survey  
**EAST PROVIDENCE LANDFILL**  
 Forbes Street  
 PHASE I  
 East Providence, RI

DRAWN BY:	EGV
EX. COND. CHECKED BY:	CRH
DESIGNED BY:	---
DESIGN CHECKED BY:	---
APPROVED BY:	EGS
DATE DRAWN:	04/06/12
DATE SURVEYED:	04/05/12
SURVEYED BY:	CRH/EGV
SCALE:	1"=100'
FILENAME:	2011030
LAST EDIT:	See Revisions

Date	Revision

1

SHEET NUMBER 1 OF 2  
 PROJECT NUMBER 2011030

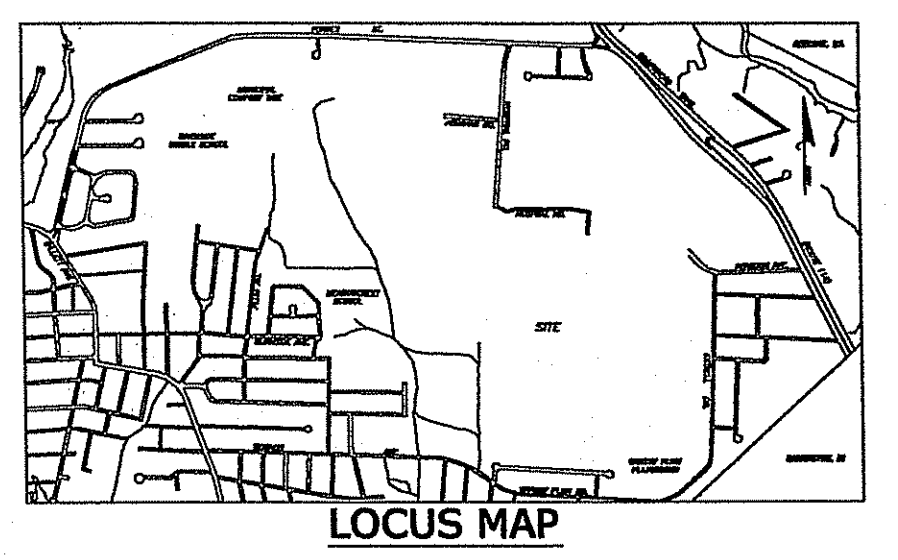


**PLAN LEGEND**

	APPROXIMATE PROPERTY LINE
	CONTOURS
	SPOT GRADE
	EDGE OF ACCESS ROAD
	EDGE OF 2011 FILL
	EDGE OF WOODS
	HYDRANT
	WATER GATE
	WETLAND FLAGS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED MAY 10 2013 FILE # 12-0209  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Magister D. Wenzel*



APR 11 2013

**SURVEYORS REPORT**

PROJECT NUMBER: 2011030  
 JOB DESCRIPTION: AS-BUILT OF EXISTING CONDITIONS OF THE FILLED PORTION OF PHASE II.  
 DATE: MARCH 21, 2012

PURPOSE:  
 THE PURPOSE OF THIS PLAN IS TO PROVIDE THE CITY ENGINEER WITH A TOPOGRAPHIC SURVEY TO BE USED AS A TOOL FOR ASSESSMENT AND PLANNING. IT IS INTENDED TO COVER THE EXTENTS OF THE AREAS FILLED IN PRIOR OPERATIONS. THE TOPO DEPICTED ON THIS PLAN IS INTENDED TO REPRESENT THE GENERAL SHAPE OF THE FILLED AREA, AND DOES NOT SHOW DETAILS LIKE MOUND, DEBRIS PILES, AND MINOR TRENCHES.

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  - ELEVATIONS WERE OBTAINED FROM A RIGS DISK EP014. LEVELS WERE RUN ON NGVD29 AND THE PROJECT BENCHMARKS WERE LATER CONVERTED TO EAST PROVIDENCE MEAN HIGH WATER BY THE FOLLOWING RELATIONSHIP (EPHWW-NGVD29 - 2.35').
  - EPHWW WAS THE CHOSEN VERTICAL DATUM FOR CONTINUITY WITH PREVIOUS WORK, SPECIFICALLY, THAT SET OF PLANS ENTITLED "CITY OF EAST PROVIDENCE, RHODE ISLAND, SANITARY LANDFILL" DATED MARCH 1977 AND SHOWN ON THREE SHEETS.
  - NAD83 WAS CHOSEN FOR THE HORIZONTAL DATUM, TO PROVIDE CONTINUITY WITH PRIOR WORK DONE BY HOLDEN ENGINEERING AND THE CITY "GIS" SYSTEM.
  - TOPO DATA WAS COLLECTED OVER A LARGE TIME PERIOD, AND MAY NOT REFLECT GRADUAL CHANGES LIKE EROSION AND THE RE-GRADING THAT IS REQUIRED FOR MAINTENANCE.
  - WETLAND FLAGS WERE LOCATED BY HAND-HELD "GPS", A GARMIN "GPSMAP760CX", IN HEAVY WOODS. FIELD LOCATIONS DONE DURING THE TOPOGRAPHY HAVE RELOCATED MOST OF THE WETLAND FLAGS AND HAVE CONFIRMED THAT MOST ORIGINAL LOCATIONS WERE REASONABLY DEPICTED, BUT THERE ARE SOME OUTLIERS AND NOT ALL FLAGS COULD BE RECOVERED. THEREFORE THE FLAGS SHOULD BE CONSIDERED APPROXIMATE. FOR MORE SPECIFIC INFORMATION ABOUT WHICH FLAGS COULD NOT BE RELOCATED, CONTACT THE CITY OF EAST PROVIDENCE - DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION.
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  - PROPERTY LINES ARE APPROXIMATE. THEY WERE COPIED FROM OTHER MAPS AND ARE NOT THE RESULTS OF A SURVEY. THEY ARE SHOWN FOR REFERENCE PURPOSES ONLY.
  - PHASE II IS CURRENTLY BEING USED FOR STAGING AND STOCKPILING OF CONSTRUCTION MATERIAL SUCH AS CONCRETE PIPE, PRE-CAST CONCRETE PADS, CRUSHED STONE AND GRAVEL. THESE WERE CONSIDERED NON-PERMANENT AND NO ATTEMPT WAS MADE TO LOCATE THEM.

CHARLES R. HAMPTON

**SURVEY NOTE**  
 THE PROPERTY LINES SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. THEY ARE NOT A RESULT OF AN ACCURATE SURVEY. THEY MAY BE SUBJECT TO CHANGES THAT AN ACCURATE SURVEY MAY REVEAL.

**FLOOD INFORMATION**  
 A REVIEW OF FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 44007C03396, CITY OF EAST PROVIDENCE, COUNTY OF PROVIDENCE, STATE OF RHODE ISLAND, PANEL 359 OF 451, DATED PRELIMINARY MAY 31, 2007, DEPICTS THE SUBJECT PARCEL(S) TO LIE WITHIN ZONE "X".

**CONTROL & BENCHMARKS**

HORIZONTAL CONTROL:  
 NAD83 (NORTH AMERICAN DATUM OF 1983)  
 SPC RI FT - STATE PLANE COORDINATE RHODE ISLAND FEET  
 USING RTK NETWORK  
 DATE OF OBSERVATION - JUNE 29, 2011

STATE PLANE COORDINATES ESTABLISHED BY WATERMAN ENGINEERING

NORTH BASELINE MONUMENT (PHASE III)  
 NORTHING 251865.1540 EASTING 371367.5630

SOUTH BASELINE MONUMENT (PHASE III)  
 NORTHING 251283.8350 EASTING 372227.9891

VERTICAL CONTROL:  
 EPHWW (EAST PROVIDENCE MEAN HIGH WATER)  
 NORTHEAST BOLT IN 3" X 3" X 3" CONCRETE BASE, WEST SIDE OF GATE 2 EL. 39.37

**SURVEY CERTIFICATION**  
 This survey and plan conform to a CLASS III Standard as adopted by the Rhode Island Board of Registration for Professional Land Surveyors.

By *Charles R. Hampton* Date 10/31/12  
 Charles R. Hampton, P.L.S., #1795  
 Registered Professional Land Surveyor

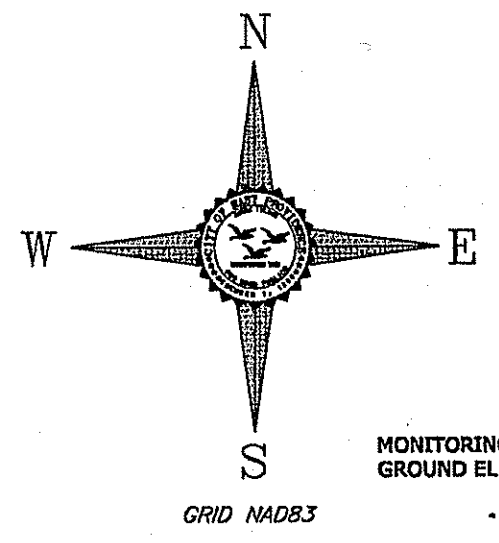
Professional Engineer Stamp  
 CHARLES R. HAMPTON  
 #1795  
 PROFESSIONAL  
 LAND SURVEYOR

Professional Land Surveyor Stamp  
 Rhode Island State Law  
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 requires that Dig-Safe shall be notified  
 48 hours prior to any excavation.  
 1-888-DIG-SAFE / 1-800-344-7233  
 EMERGENCY NUMBERS:  
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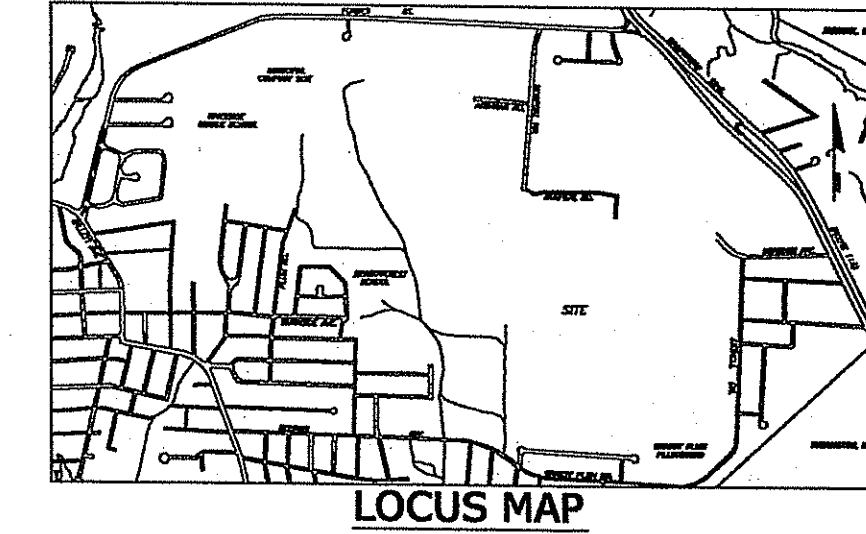
Topographical Survey  
 EAST PROVIDENCE LANDFILL  
 Forbes Street  
 PHASE II  
 East Providence, RI

DRAWN BY:	EGV
EX. COND. CHECKED BY:	CRH
DESIGNED BY:	---
DESIGN CHECKED BY:	---
APPROVED BY:	EGS
DATE DRAWN:	3/20/12
DATE SURVEYED:	3/19/12
SURVEYED BY:	CRH/EGV
SCALE:	1"=100'
FILENAME:	2011030
LAST EDIT:	See Revisions

Date	Revision



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED MAY 10 2012 FILE # 12-0209  
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Magaret D. Wenzel*



APR 11 2013  
UNIVERSITY MICROFILMS

**SURVEYORS REPORT**

PROJECT NUMBER: 2011019

JOB DESCRIPTION: AS-BUILT OF LANDFILL CAPPING OPERATION CONDUCTED SPRING OF 2011 AND EXPANDED JAN 2012 TO INCLUDE THE LIMITS OF FILLED AREA.

DATE: FEBRUARY 13, 2012

PURPOSE: THE PURPOSE OF THIS PLAN IS TO PROVIDE THE CITY ENGINEER WITH A TOPOGRAPHIC SURVEY TO BE USED AS A TOOL FOR ASSESSMENT AND PLANNING. IT IS INTENDED TO COVER THE EXTENTS OF THE CAPPING PERFORMED IN THE SPRING OF 2011 PLUS THE PREVIOUS CAPPINGS. THE TOPO REPRESENTED ON THIS PLAN IS INTENDED TO REPRESENT THE GENERAL SHAPES OF THE CAPPED LANDFILL, AND DOES NOT SHOW DETAILS LIKE LOGS, DEBRIS PILES, AND MINOR TRENCHES.

**NOTES:**

- CONTROL FOR THIS SURVEY IS BASED ON NAD83 STATE PLANE COORDINATES. COORDINATES FOR THE CONTROL MONUMENTS WERE OBTAINED BY "WATERMAN ENGINEERING", UNDER CONTRACT WITH THE CITY USING GPS EQUIPMENT AND AN RTK NETWORK, FOR WHICH THEY ARE SUBSCRIBED. A SECOND, CONVENTIONAL TRAVERSE, WAS RUN BY THE CITY OF EAST PROVIDENCE, FROM "RIGGS" DISKS ON THE WAMPANAGG TRAIL TO THE ABOVE MENTIONED CONTROL. ESTABLISH ADDITIONAL CONTROL POINTS.
- ELEVATIONS WERE OBTAINED FROM A RIGGS DISK EP014. LEVELS WERE RUN ON NGVD29 AND THE PROJECT BENCHMARKS WERE LATER CONVERTED TO EAST PROVIDENCE MEAN HIGH WATER BY THE FOLLOWING RELATIONSHIP (EPHW-NGVD29 = 2.39).
- EPHW WAS THE CHOSEN VERTICAL DATUM FOR CONTINUITY WITH PREVIOUS WORK. SPECIFICALLY, THAT SET OF PLANS ENTITLED "CITY OF EAST PROVIDENCE, RHODE ISLAND, SANITARY LANDFILL" DATED MARCH 1977 AND SHOWN ON THREE SHEETS.
- NAD83 WAS CHOSEN FOR THE HORIZONTAL DATUM, TO PROVIDE CONTINUITY WITH PRIOR WORK DONE BY HOLDEN ENGINEERING AND THE CITY "GIS" SYSTEM.
- TOPO DATA WAS COLLECTED OVER A LARGE TIME PERIOD, AND MAY NOT REFLECT GRADUAL CHANGES LIKE EROSION AND THE RE-GRADING THAT IS REQUIRED FOR MAINTENANCE.
- WETLAND FLAGS WERE LOCATED BY HAND-HELD "GPS", A GARMIN "SPARKTRACY", IN HEAVY WOODS. FIELD CHECKS HAVE CONFIRMED THAT MOST ARE REASONABLY DEPICTED, BUT THERE ARE SOME OUTLIERS AND THE FLAGS SHOULD BE CONSIDERED APPROXIMATE. SHOULD MORE DEFINITIVE LOCATIONS BE REQUIRED, ADDITIONAL FIELD WORK WILL BE NEEDED.
- THE BOTTOM OF BANK WAS CHOSEN AS THE LIMIT OF THE SURVEY WORK. BEYOND THE BOTTOM OF BANK APPEARED TO BE ORIGINAL GROUND (UNDISTURBED), AND ASSUMED TO MATCH THE PLANS REFERENCE IN NOTE NUMBER 5. ADDITIONAL TOPO SHOTS BEYOND THE LIMITS WERE OBSERVED TO GIVE A REVERSE TO FEATHER THE CONTOURS AND TO LOCATE OBSERVATION WELLS.
- PROPERTY LINES ARE APPROXIMATE. THEY WERE COPIED FROM OTHER MAPS AND ARE NOT THE RESULTS OF A SURVEY. THEY ARE SHOWN FOR REFERENCE PURPOSES ONLY.

**SURVEY NOTES**

- THE PROPERTY LINES SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. THEY ARE NOT A RESULT OF AN ACCURATE SURVEY. THEY MAY BE SUBJECT TO CHANGES THAT AN ACCURATE SURVEY MAY REVEAL.
- THE ORIGINAL SURVEY FOR THIS PLAN WAS DONE IN THE SPRING OF 2011. ADDITIONAL SURVEYING WAS REQUESTED BY THE CONSULTANT (CHERENZIA & ASSOCIATES, LTD.) AND WAS PERFORMED IN THE WINTER OF 2011-12. SEE REVISIONS ON SHEET 1 FOR HISTORY OF THIS PROJECT.

**FLOOD INFORMATION**

A REVIEW OF FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 44007C0399G, CITY OF EAST PROVIDENCE, COUNTY OF PROVIDENCE, STATE OF RHODE ISLAND, PANEL 339 OF 451, DATED PRELIMINARY MAY 31 2007, DEPICTS THE SUBJECT PARCEL(S) TO LIE WITHIN ZONE "X".

**CONTROL & BENCHMARKS**

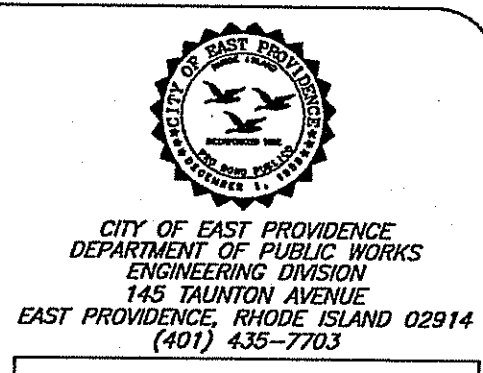
HORIZONTAL CONTROL:  
NAD83 (NORTH AMERICAN DATUM OF 1983)  
SPC RI FT - STATE PLANE COORDINATE RHODE ISLAND FEET  
STATE PLANE COORDINATES ESTABLISHED BY WATERMAN ENGINEERING USING ITS RTK NETWORK  
DATE OF OBSERVATION - JUNE 29, 2011  
NORTH BASELINE MONUMENT  
NORTHING 251283.1549 EASTING 371367.5630  
SOUTH BASELINE MONUMENT  
NORTHING 251283.8350 EASTING 372227.9891

VERTICAL CONTROL:  
EPHW (EAST PROVIDENCE MEAN HIGH WATER)  
CHISEL SQUARE SOUTHEAST CORNER ON NORTH BASELINE MONUMENT AT LANDFILL, EL. 24.85

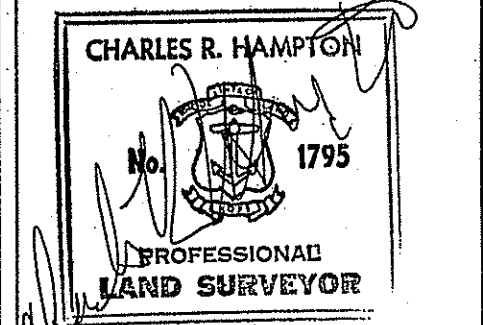
**SURVEY CERTIFICATION**

This survey and plan conform to a CLASS III Standard as adopted by the Rhode Island Board of Registration for Professional Land Surveyors.  
By *Charles R. Hampton* 10/24/12 Date  
Charles R. Hampton, P.E.S., #1795 Registered Professional Land Surveyor

**CITY OF EAST PROVIDENCE - DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION**



Professional Engineer Stamp



Professional Land Surveyor Stamp

Rhode Island State Law (Statute Chapter 39-1.2, Section 1) requires that Dig-Safe shall be notified 48 hours prior to any excavation. 1-888-DIG-SAFE / 1-888-344-7233  
EMERGENCY NUMBERS  
Gas-Natural Gas (1-800-336-7000)  
Water-EPDPW/Water Dept (435-7741)  
Sewer-United Water (433-6363)

Topographical Survey and Capping As-Built  
**EAST PROVIDENCE LANDFILL**  
Forbes Street  
PHASE III  
East Providence, RI

DRAWN BY:	EGV
EX. COND. CHECKED BY:	CRH
DESIGNED BY:	---
DESIGN CHECKED BY:	---
APPROVED BY:	EGS
DATE DRAWN:	07/01/11
DATE SURVEYED:	06/03/11
SURVEYED BY:	CRH/EGV
SCALE:	1"=100'
FILENAME:	2011019
LAST EDIT:	2/24/12

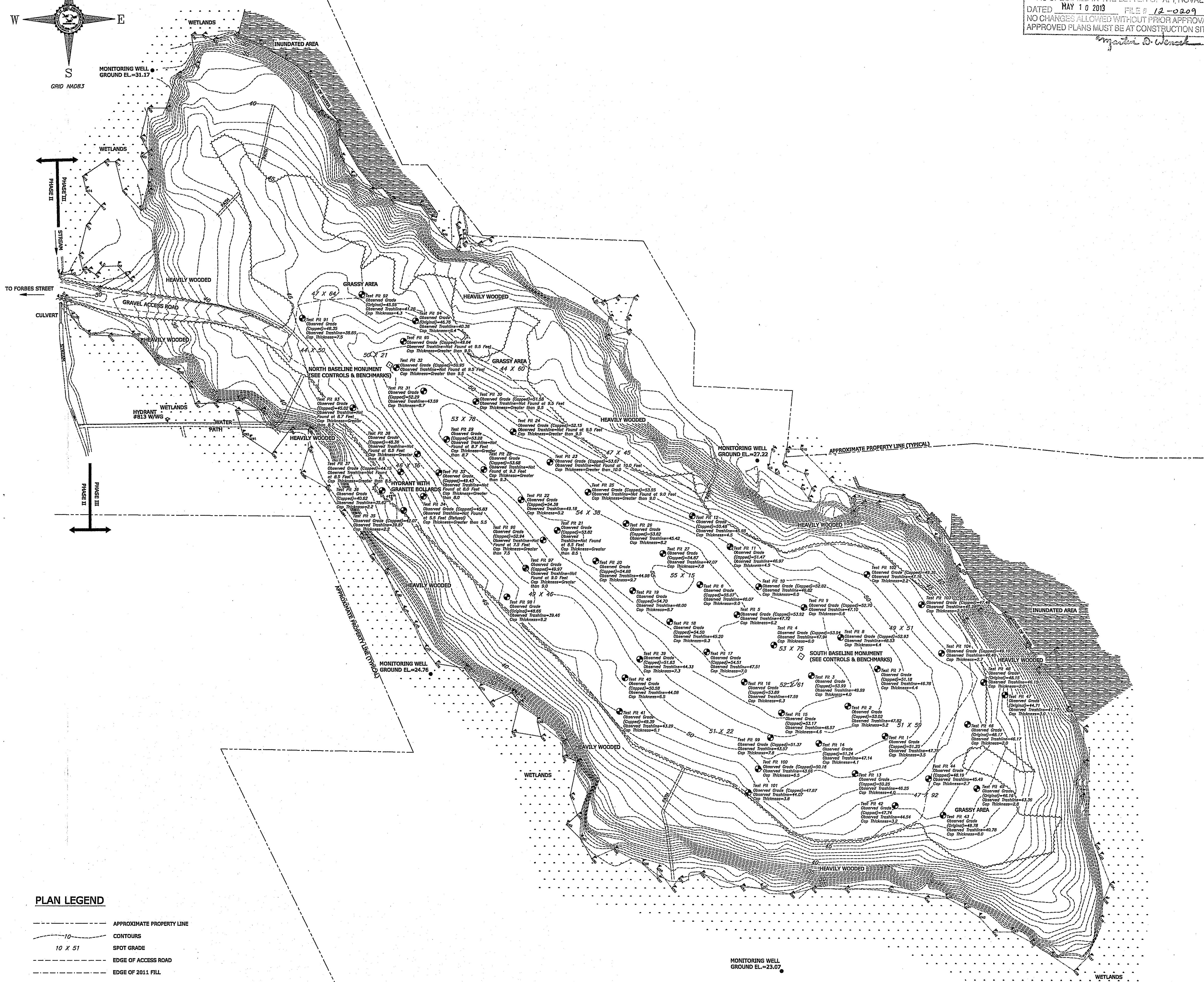
Date	Revision
11/29/11	Test Pits Added (EG/ES)
12/7/11	Additional Test Pits (EG/ES)
2/24/12	Additional Topo (EG/CH)
2/24/12	Sheets 2-6 Added (EG)
3/14/12	Path/Stream Added (EG)

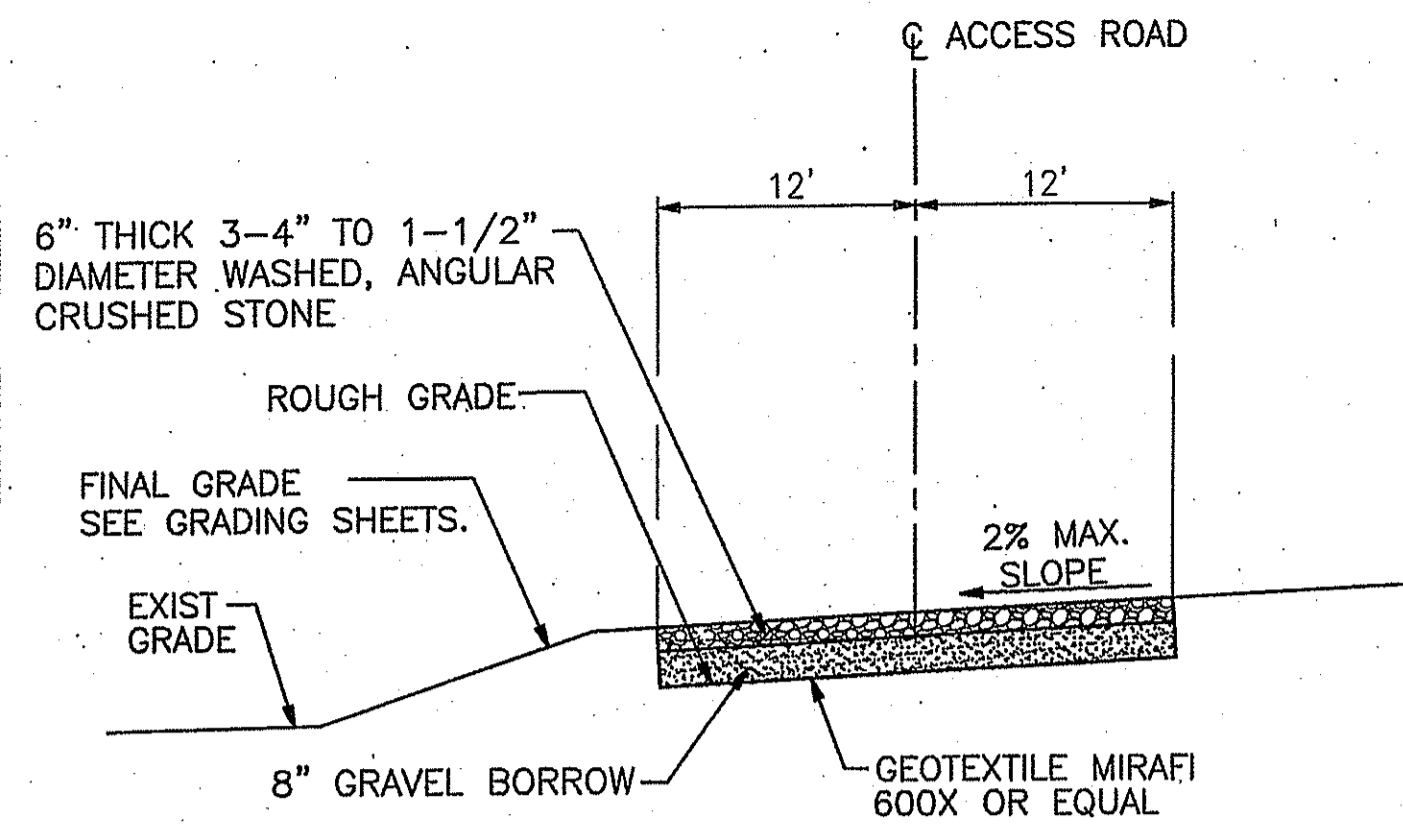
1

SHEET NUMBER 1 OF 6  
PROJECT NUMBER 2011019

**PLAN LEGEND**

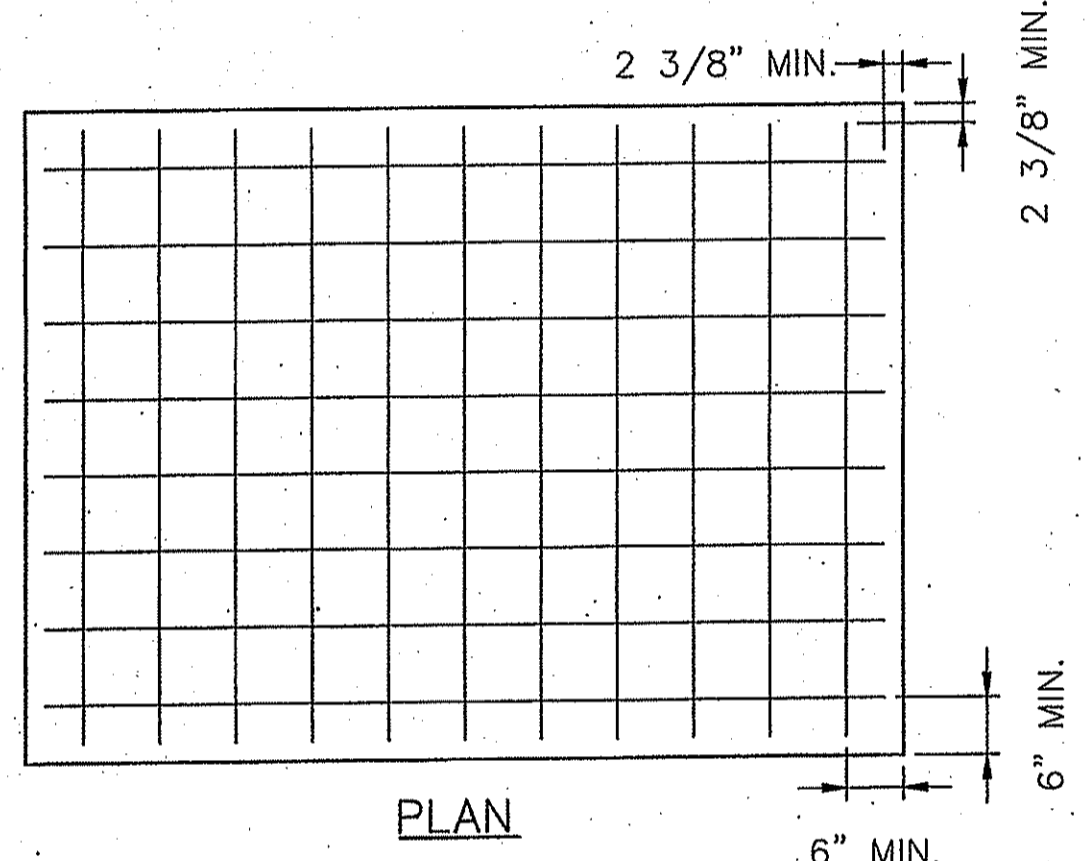
	APPROXIMATE PROPERTY LINE
	CONTOURS
	SPOT GRADE
	EDGE OF ACCESS ROAD
	EDGE OF 2011 FILL
	EDGE OF WOODS
	HYDRANT
	BASELINE MONUMENT
	TEST PIT
	WETLAND EDGE/FLAG



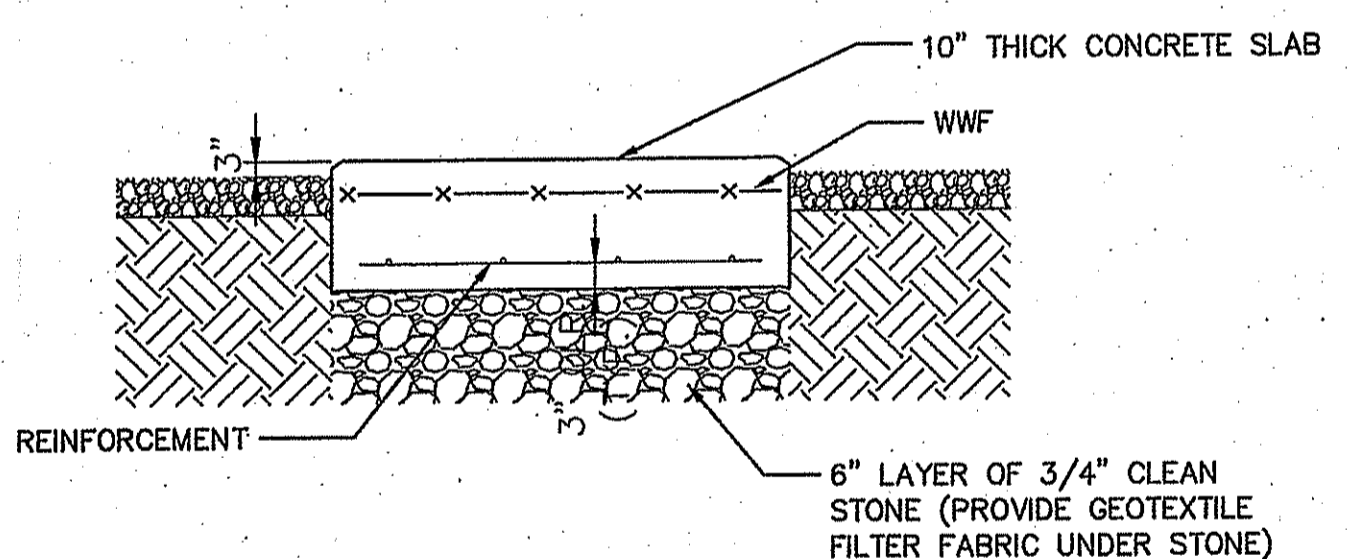


**GRAVEL ACCESS DRIVE DETAIL**  
NOT TO SCALE

- NOTE:  
 1. DRIVEWAY TO BE RATED FOR A 35 TON VEHICLE.  
 2. DRIVEWAY DESIGNED IN ACCORDANCE WITH "THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION GRAVEL ROADS MAINTENANCE AND DESIGN MANUAL, TABLE 5", DATED NOVEMBER 2000.



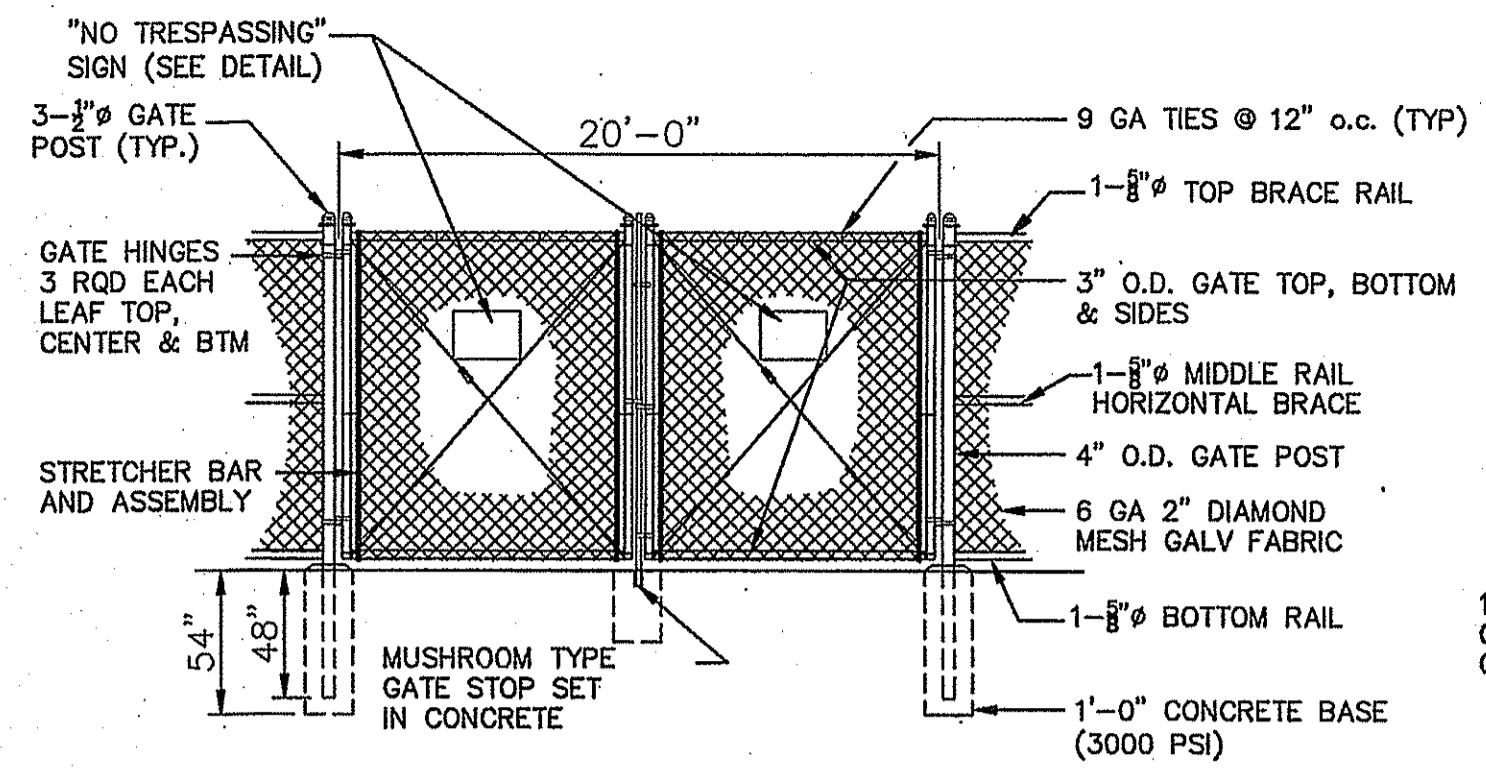
**PLAN**



**TYPICAL CONCRETE SLAB DETAIL FOR INVERTER**  
NOT TO SCALE

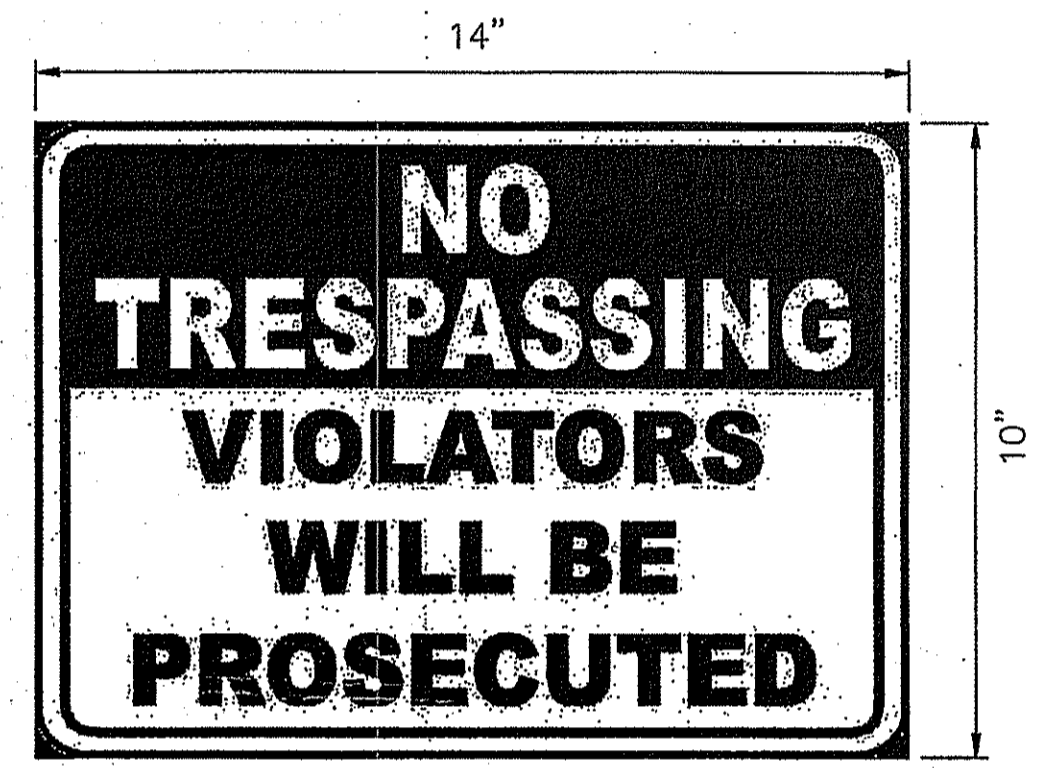
**CONCRETE AND REINFORCING STEEL NOTES:**

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318 AND THE SPECIFICATION CAST-IN-PLACE CONCRETE.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE.
- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNLESS NOTED OTHERWISE.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
 CONCRETE CAST AGAINST EARTH.....3 IN.  
 CONCRETE EXPOSED TO EARTH OR WEATHER:  
 #6 AND LARGER.....2 IN.  
 #5 AND SMALLER & WWF.....1 1/2 IN.  
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:  
 SLAB AND WALL.....2 IN.  
 BEAMS AND COLUMNS.....2 IN.
- A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.

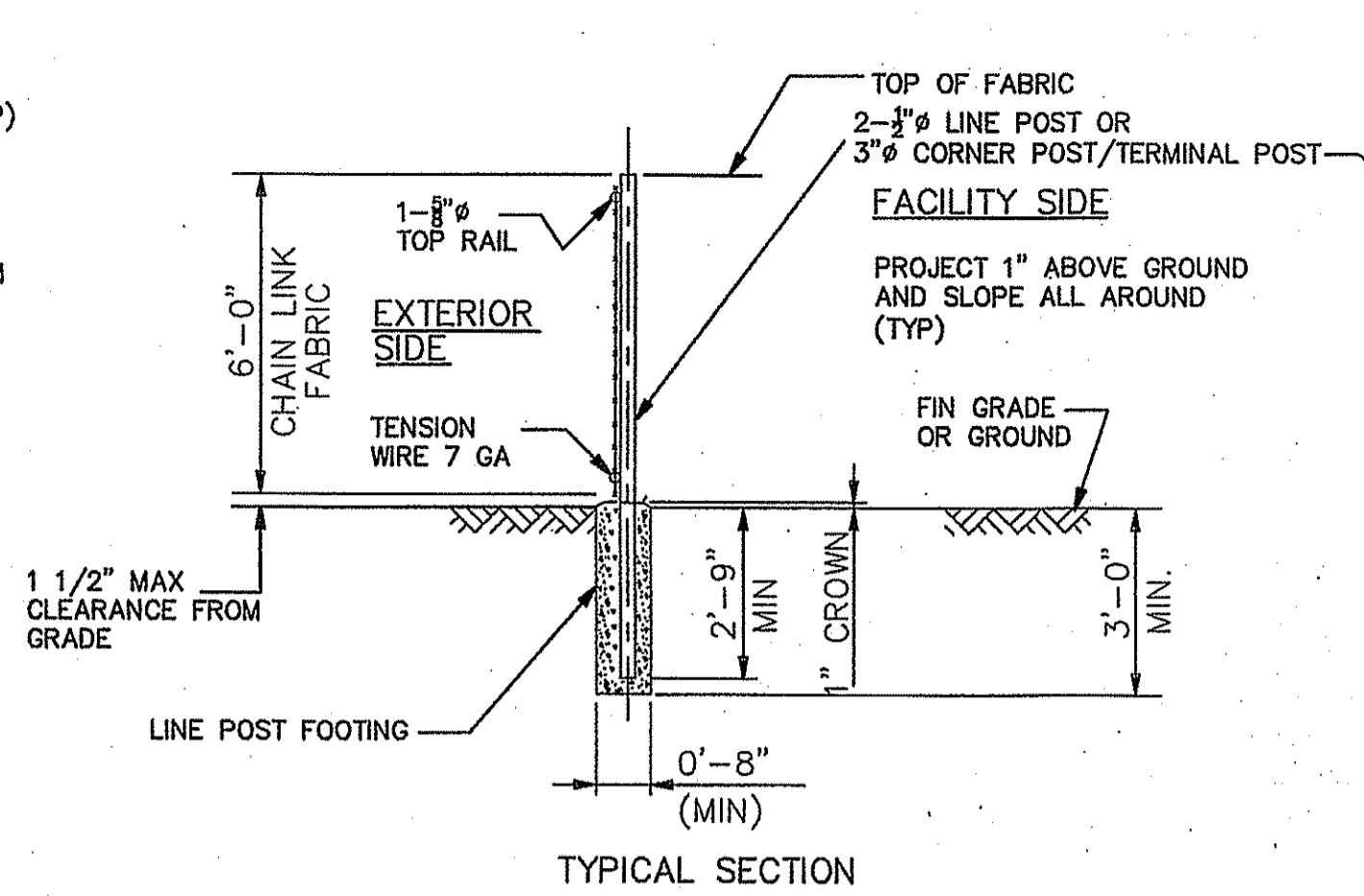


NOTE: CORNER POSTS TO BE 3" O.D.

**DOUBLE GATE**  
DETAIL  
NOT TO SCALE

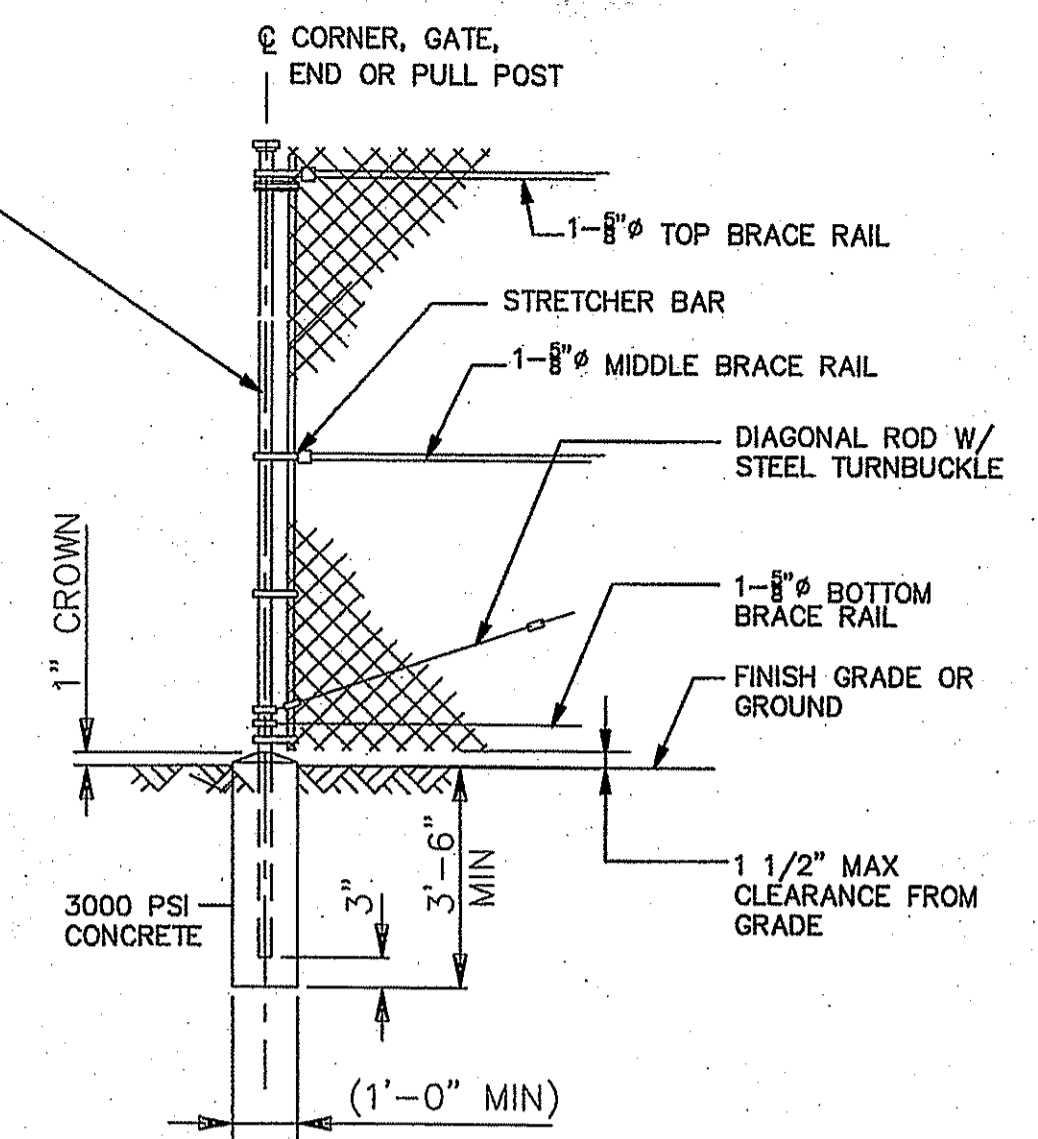


**"NO TRESPASSING" SIGN**  
NOT TO SCALE



**WIRE FENCE DETAIL**  
NOT TO SCALE

NOTE: ALL DEPTHS OF FENCE POSTS TO BE COORDINATED WITH THE FINAL DEPTH OF CAP TO NOT PENETRATE THICKNESS OF CAP.



**WIRE CORNER, GATE END OR PULL POST**  
DETAIL  
NOT TO SCALE

APR 11 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 MAY 1 0 2013 FILE # 12-0209  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**WHITMAN**  
 116 TICES LANE, UNIT B-1  
 EAST BRUNSWICK, NJ 08816  
 TEL: (732) 390-5858  
 FAX: (732) 390-9496

SEAL:  
 JOHN W. COLARANGELO JR. P.E.  
 ENGINEER LIC. NO. 7790  
 DRAWING NOTES:  
 1. IF THIS DRAWING DOES NOT CONTAIN THE RAISED SEAL OF THE PROFESSIONAL ENGINEER, IT IS NOT A VALID DOCUMENT AND NO LIABILITY IS ASSUMED FOR THE INFORMATION SHOWN.  
 2. THIS DRAWING HAS BEEN PREPARED AS AN 'D' SIZE DOCUMENT. DO NOT SCALE THIS DRAWING IF IT IS PLOTTED AS ANY OTHER SIZE.

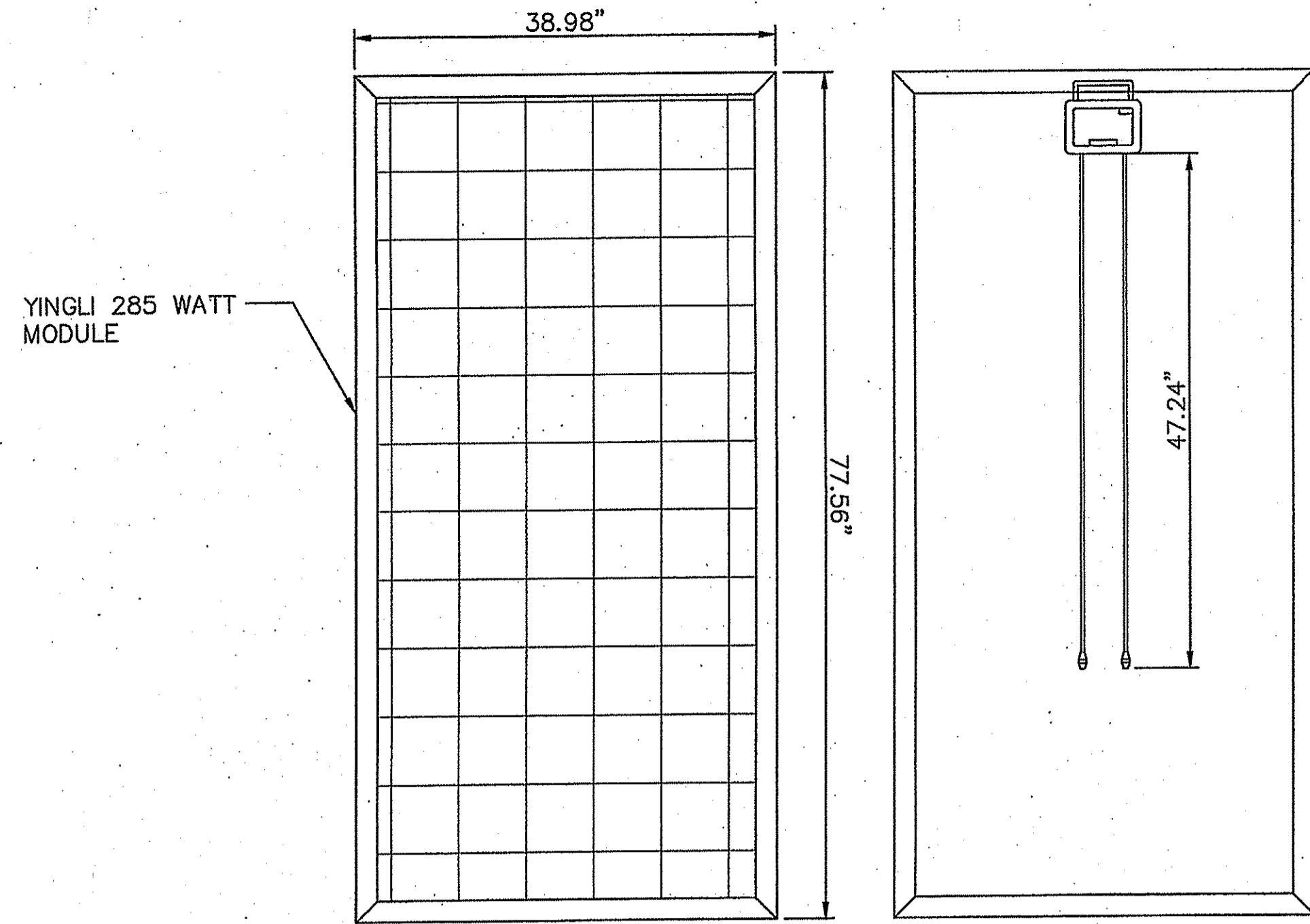
**CME ENERGY, LLC AND HECATE ENERGY, d/b/a FORBES STREET SOLAR, LLC**

NO.	DATE	REVISION DESCRIPTION
0	10/5/12	SITE PLAN SUBMISSION
1	10/31/12	REVISE ACCESS DRIVE DETAIL

**PROJECT:**  
 ±3.74 MW (DC) PHOTOVOLTAIC SYSTEM  
 FORBES STREET LANDFILL PROJECT  
 EAST PROVIDENCE, RI  
 COUNTY OF PROVIDENCE

BLOCK: 2	LOT: 1
SCALE: AS SHOWN	JOB: 10-11-03
DATE: 10/5/12	CLIENT: OCI
DRAWN BY: J.F.	REVIEWED BY: C.R./R.P.

**DRAWING TITLE:**  
 SITE DETAILS  
**DRAWING NO.:**  
 SP-5  
**SHEET NO.:**  
 9 OF 17



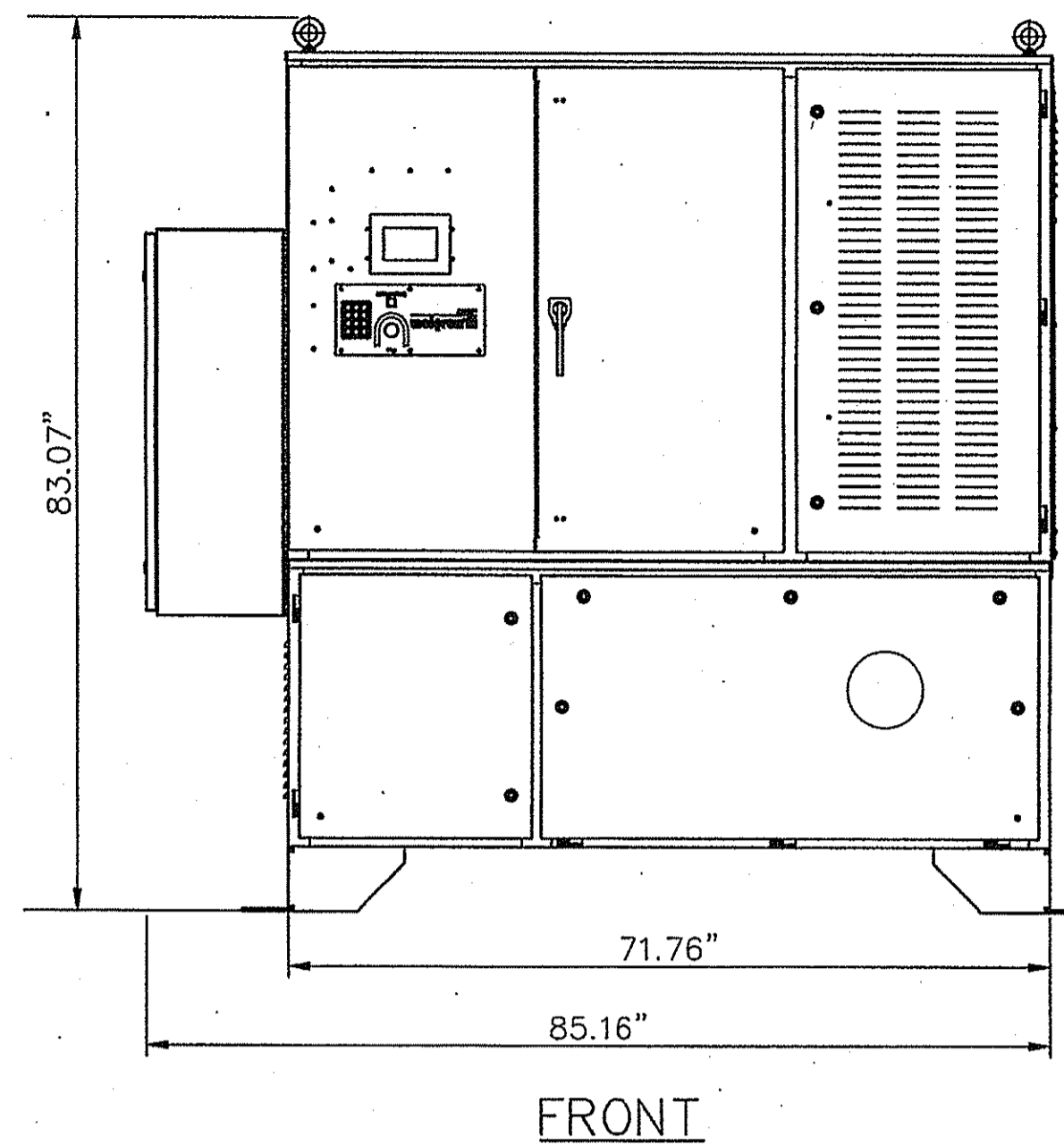
FRONT

BACK

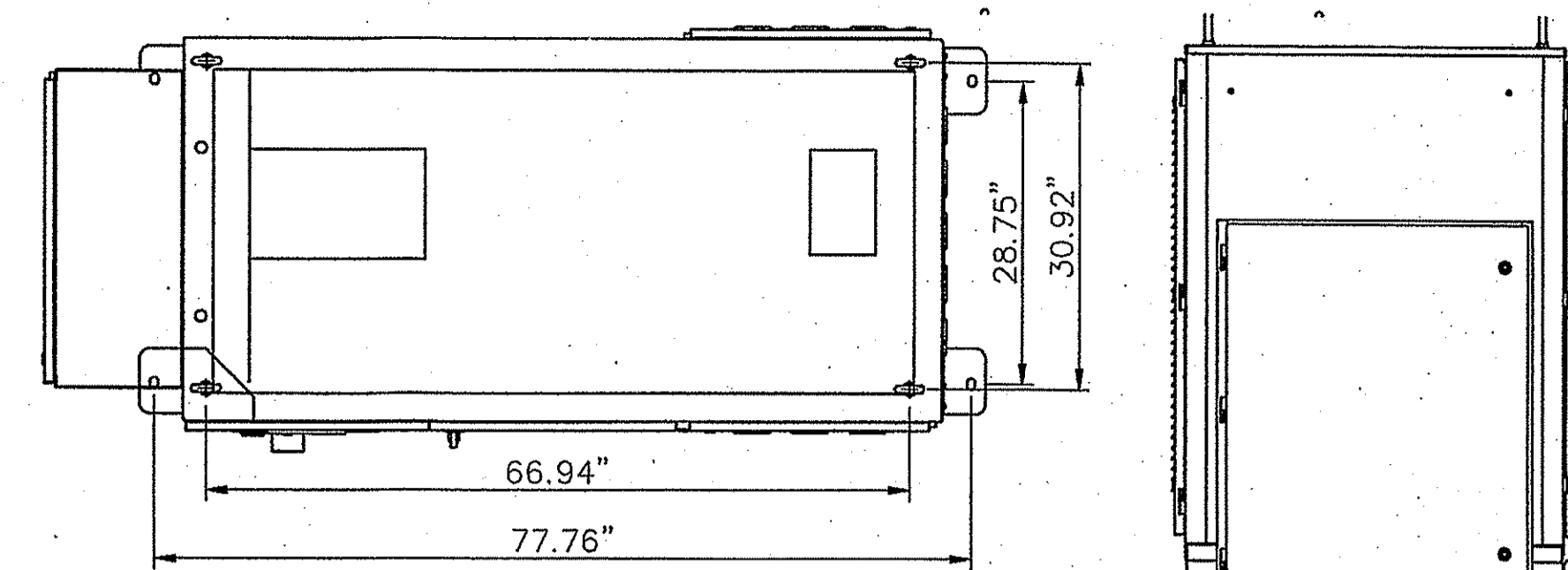
MODULE SPECIFICATIONS		
YINGLI 285 WATT MODEL No. YGE 285P-35b		
PEAK POWER OUTPUT	Pp (WATTS)	285
RATED VOLTAGE	Vp (VOLTS)	35.5
RATED CURRENT	Ip (AMPS)	8.02
OPEN CIRCUIT VOLTAGE	Voc (VOLTS)	45.0
SHORT CIRCUIT CURRENT	Ic (AMPS)	8.50
MODULE LENGTH	L (IN)	77.56
MODULE WIDTH	W (IN)	38.98
MODULE DEPTH	D (IN)	1.97
MODULE WEIGHT	W (LBS)	59.1

YINGLI 285 WATT MODULE  
NOT TO SCALE

NOTE:  
APPLICANT RESERVES THE RIGHT TO  
PROVIDE AN APPROVED EQUAL SOLAR  
MODULE.



FRONT



BOTTOM VIEW

SIDE

NOTES:

1. REFER TO MANUFACTURERS INSTALLATION MANUALS FOR EXACT BOLT LOCATIONS AND ATTACHMENT REQUIREMENTS.
2. APPLICANT RESERVES THE RIGHT TO PROVIDE AN APPROVED EQUAL INVERTER.

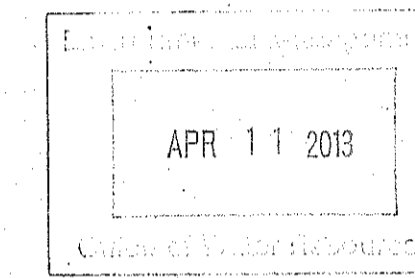
INVERTER SPECIFICATIONS		
ADVANCED ENERGY SOLARON 500 KW		
RATED OUTPUT	Pr (KW)	500
AC RATED OUTPUT	Voc (VOLTS)	
AC RATED CURRENT	(AMPS)	
POWER FACTOR	-	>.99
PEAK EFFICIENCY	EFF%	98.5%
CEC EFFICIENCY		97.5%
INVERTER		
INVERTER WIDTH	W (IN)	85.4
INVERTER DEPTH	D (IN)	40.2
INVERTER HEIGHT	H (IN)	83.1
INVERTER WEIGHT	WT (LBS)	4100
INVERTER REGULATORY UL1741 CERTIFIED TESTED TO IEEE 1547 FCC PART 15 CLASS A		

SOLARON 500 KW INVERTER  
NOT TO SCALE



116 TICES LANE, UNIT B-1  
EAST BRUNSWICK, NJ 08816  
TEL: (732) 390-5858  
FAX: (732) 390-9496

SEAL:



JOHN W. COLOGAN, P.E.  
RHODE ISLAND PROFESSIONAL ENGINEER  
DATE: APR 11 2013  
LIC. NO. 7790

DRAWING NOTES:

1. IF THIS DRAWING DOES NOT CONTAIN THE RAISED SEAL OF THE PROFESSIONAL ENGINEER, IT IS NOT A VALID DOCUMENT AND NO LIABILITY IS ASSUMED FOR THE INFORMATION SHOWN.
2. THIS DRAWING HAS BEEN PREPARED AS AN 'D' SIZE DOCUMENT. DO NOT SCALE THIS DRAWING IF IT IS PLOTTED AS ANY OTHER SIZE.

CME ENERGY, LLC  
AND  
HECATE ENERGY,  
d/b/a FORBES STREET  
SOLAR, LLC

NO.	DATE:	REVISION DESCRIPTION
0	10/5/12	SITE PLAN SUBMISSION
1	10/31/12	REVISE ACCESS DRIVE DETAIL

PROJECT:

±3.74 MW (DC)  
PHOTOVOLTAIC SYSTEM  
FORBES STREET LANDFILL  
PROJECT  
EAST PROVIDENCE, RI  
COUNTY OF PROVIDENCE

BLOCK: 2	LOT: 1
SCALE: AS SHOWN	JOB: 10-11-03
DATE: 10/5/12	CLIENT: OCI
DRAWN BY: J.F.	REVIEWED BY: C.R./R.P.

DRAWING TITLE:  
PANEL AND INVERTER  
DETAILS

DRAWING NO.:  
SP-6

SHEET NO.:  
10 OF 17

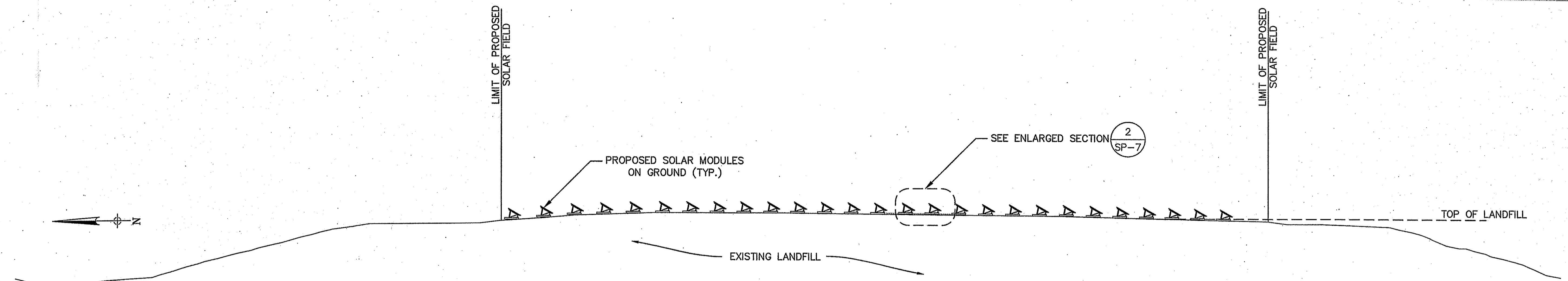
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED MAY 10 2013 FILE # 12-0209  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 APR 11 2013  
 Office of Water Resources



**WHITMAN**

116 TICES LANE, UNIT B-1  
 EAST BRUNSWICK, NJ 08816  
 TEL: (732) 390-5858  
 FAX: (732) 390-9496



1 SECTION  
 SP-7 N.T.S.

SEAL:

JOHN W. COLAGANDE, JR., P.E.  
 RHODE ISLAND PROFESSIONAL ENGINEER  
 LIC. NO. 7790

DRAWING NOTES:

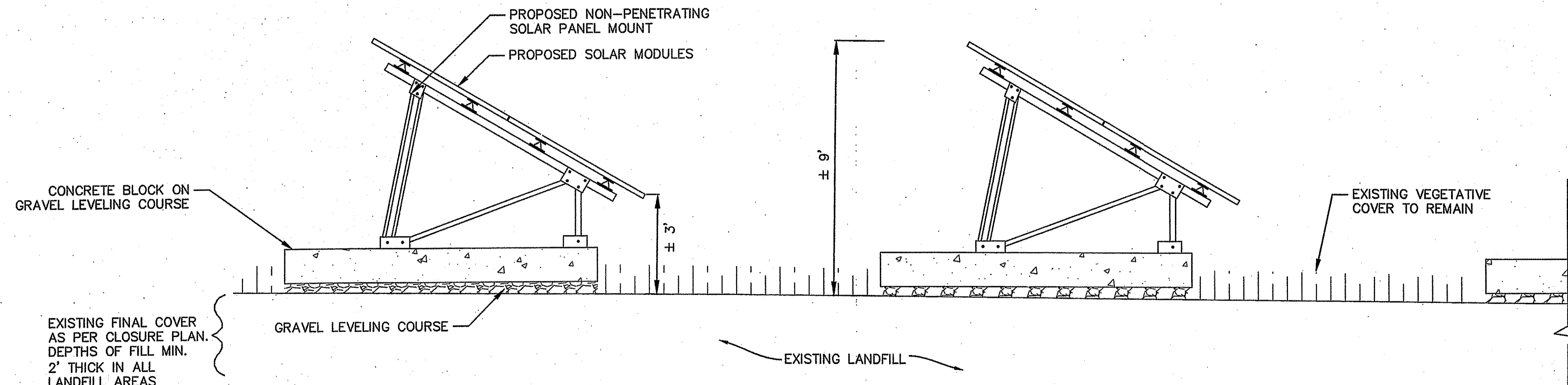
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
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*Signature*

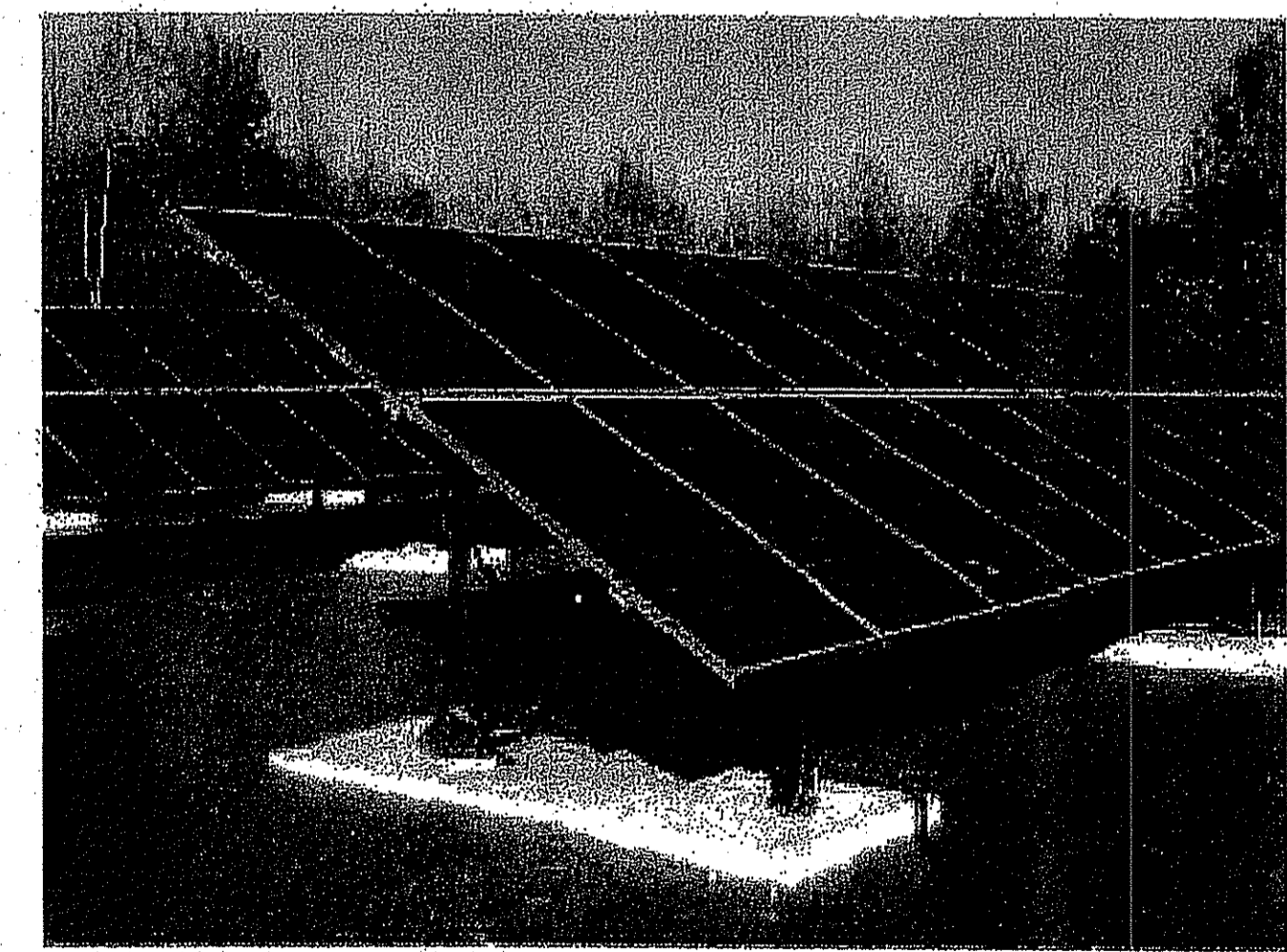
CME ENERGY, LLC  
 AND  
 HECATE ENERGY,  
 d/b/a FORBES STREET  
 SOLAR, LLC

NO.	DATE	REVISION DESCRIPTION
0	10/5/12	SITE PLAN SUBMISSION
1	10/31/12	REVISE ACCESS DRIVE DETAIL



2 ENLARGED SECTION  
 SP-7 N.T.S.

\* RACKING PLAN SHOWN FOR GRAPHICAL REPRESENTATION ONLY.  
 ACTUAL RACKING PROFILE, HEIGHT AND ARRANGEMENT MAY VARY.



3 TYPICAL SOLAR RACKING  
 SP-7 N.T.S.

PROJECT:

±3.74 MW (DC)  
 PHOTOVOLTAIC SYSTEM  
 FORBES STREET LANDFILL  
 PROJECT  
 EAST PROVIDENCE, RI  
 COUNTY OF PROVIDENCE

BLOCK: 2	LOT: 1
SCALE: AS SHOWN	JOB: 10-11-03
DATE: 10/5/12	CLIENT: OCI
DRAWN BY: J.F.	REVIEWED BY: C.R./R.P.

DRAWING TITLE:  
 RACKING DETAILS

DRAWING NO.:  
 SP-7

SHEET NO.:  
 11 OF 17

Z:\WHITMAN\2010\10-11-03 Cornerstone East Providence Site Phase-Phase 1\Rev 1\10-11-03 SP7.dwg 10/31/2012 11:27:26 AM Federico