

CIVIL UNDERGROUND CONSTRUCTION RENEWABLE CONNECTIONS PROJECT BARNUM DYKE & CEDAR CREEK CITY OF BRIDGEPORT

PROJECT #HA8231 W/O 10-2667



The United Illuminating Company
180 Marsh Hill Road, Orange, CT 06477

PLAN REVIEW LIST:

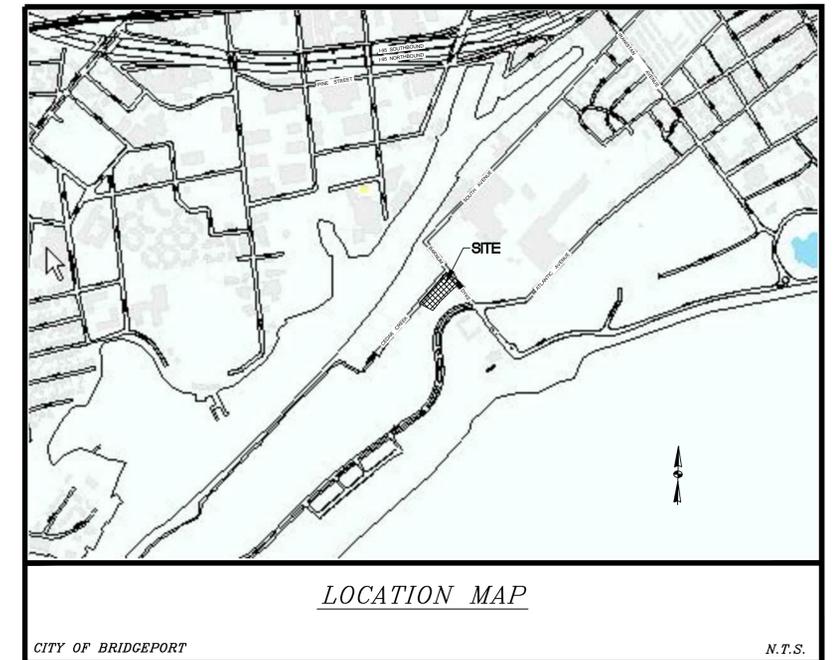
CHARLES MARESCA ON 9/7/2014
MANAGER - CIVIL CONSTRUCTION

CONSTRUCTION PLAN LEGEND

- PROPOSED U.I. CONDUIT AND SPLICE CHAMBER
- EXISTING U.I. CONDUIT AND SPLICE CHAMBER
- EXISTING TEL. CO. CONDUIT AND MANHOLE
- EXISTING TRAFFIC CONTROL CONDUIT AND/OR LOOPS
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING SANITARY, STORM, & DRAINAGE SYSTEM
- ROCK OR ROCK OUTCROP
- RETAINING WALL
- WIRE ROPE GUIDE RAIL
- METAL BEAM GUIDE RAIL
- FENCE
- HEDGE
- STONE WALL
- HIGHWAY AND/OR STREET LINE & MONUMENT
- CATCHBASIN
- WATERGATE OR CASKGATE
- UTILITY POLE
- FIRE HYDRANT
- TREE
- MARSH OR SWAMP
- SCALE AS NOTED
- TRAFFIC SPAN POLE BASE
- LIGHT POLE
- SILT FENCE

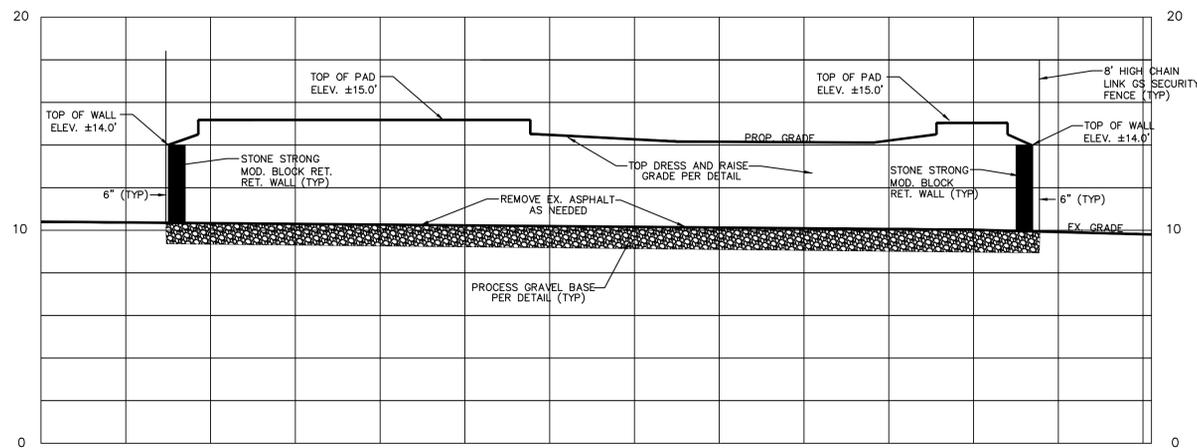
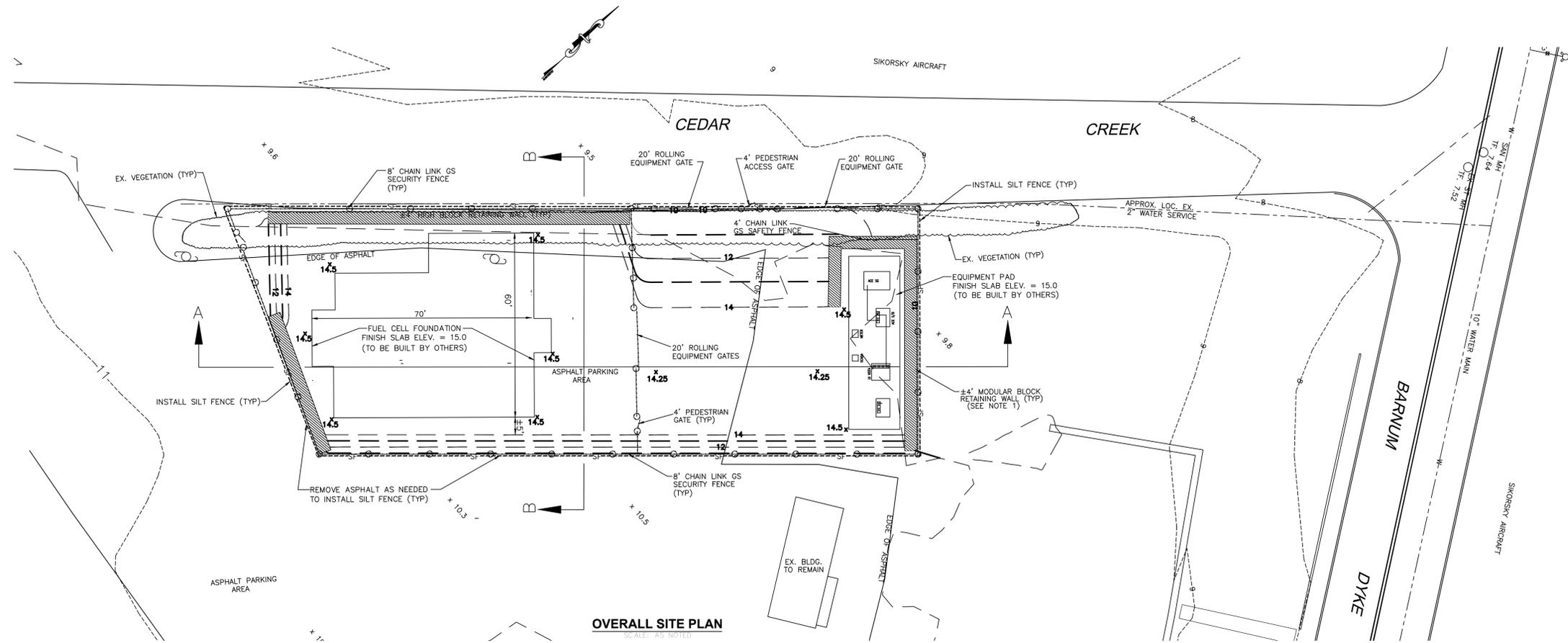
DRAWING LEGEND LIST

DWC. NO.	CONTENT
CVR	COVER SHEET
GN	CONSTRUCTION GENERAL NOTES
ECP-1	EROSION CONTROL & PLANTING PLAN
SP-1	OVERALL SITE PLAN AND PROFILES

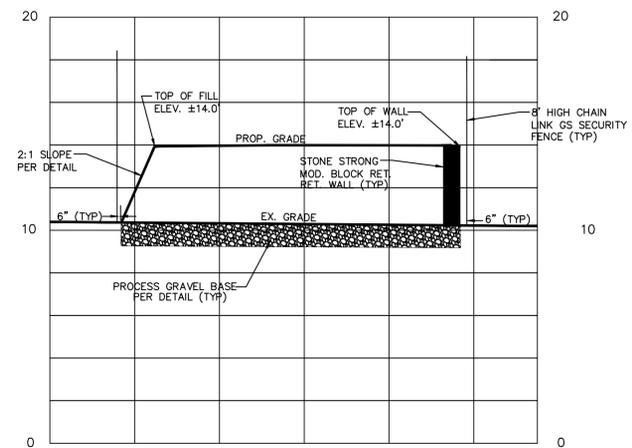


APPENDIX A - UI D&M PLANS

1	10/17/14	ISSUED FOR BID	TJ	MS					
No	Date	Revision	By	Chkd.	Engr.	Supv.			
	9/5/14	Scale: AS NOTED	CAD FILE NAME	SEQUENCE No.	DRAWING NUMBER				
	Design Engr. <i>Matthew Scully</i>	Design Supv.			CVR				

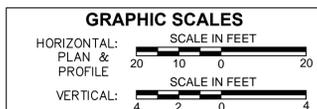


**SECTION A-A
PROFILE VIEW**
SCALE: 1" = 20'



**SECTION B-B
PROFILE VIEW**
SCALE: 1" = 20'

NOTES:
1) MODULAR BLOCK RETAINING WALL TO BE A NON REINFORCED STONE STRONG 6SF OR 24SF SYSTEM WITH TOP BLOCKS, OR APPROVED EQUAL. THE WALLS ARE TO BE INSTALLED IN ACCORDANCE WITH ALL MANUFACTURERS SPECIFICATIONS, TO THE ELEVATIONS SHOWN.

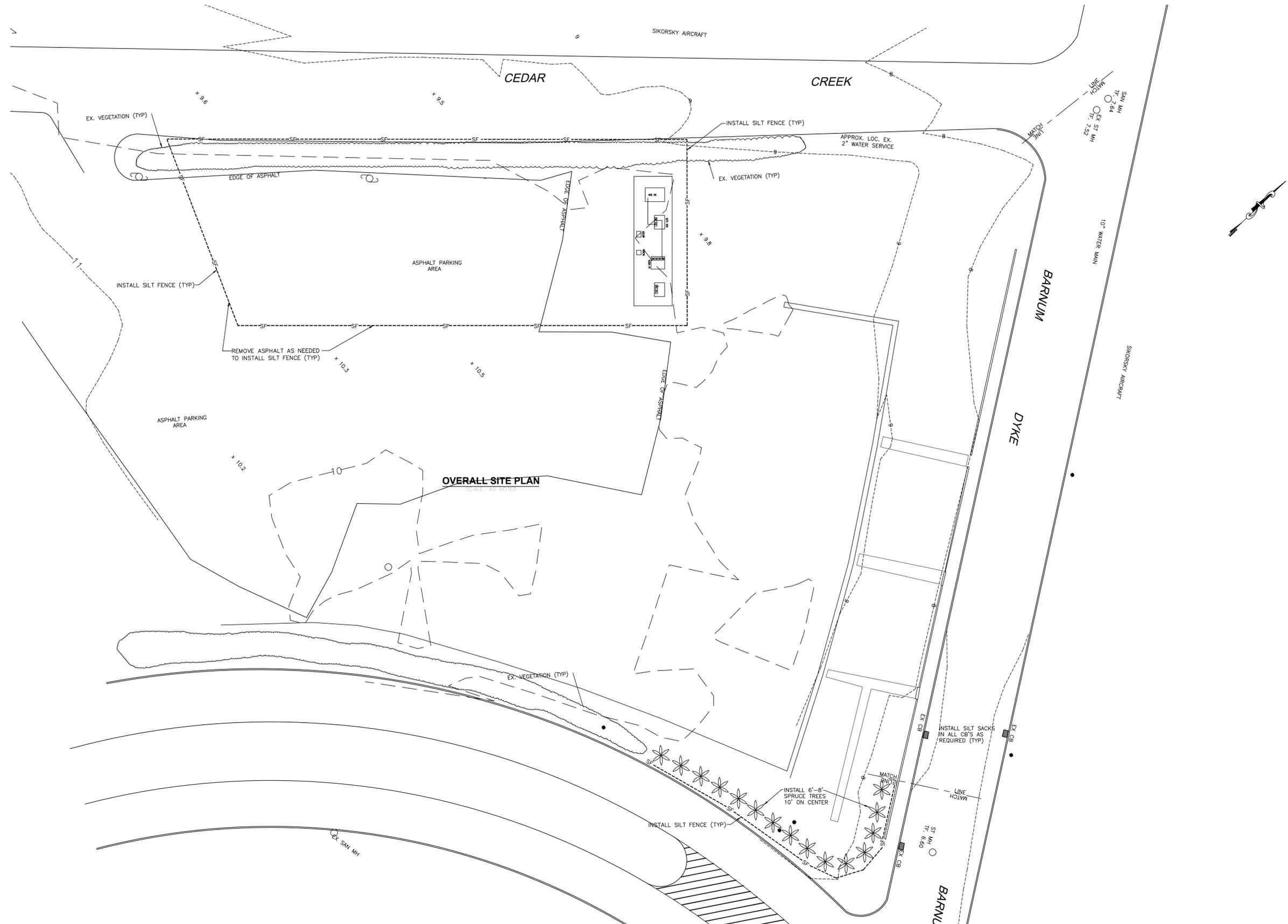


No	Date	Revision	By	Chkd.	Engr.	Supv.
1	1/16/15	ISSUED FOR BID	TJ	MS		

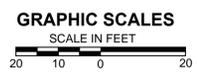
ui The United Illuminating Company
157 Church St. New Haven, Ct. 06506

RENEWABLE CONNECTIONS PROJECT
BARNUM DYKE & ATLANTIC STREET
CITY OF BRIDGEPORT
OVERALL SITE PLAN AND PROFILES

Drawn	Date	Scale:	CAD FILE NAME	SEQUENCE No.	DRAWING NUMBER
Chkd.	9/5/14	AS NOTED			SP-1
	Design Engr. MATTHEW SCULLY	Design Supv.			



OVERALL SITE PLAN
SCALE: AS NOTED



1	1/16/15	ISSUED FOR BID	TJ	MS
No	Date	Revision	By	Chkd. Engr. Supv.

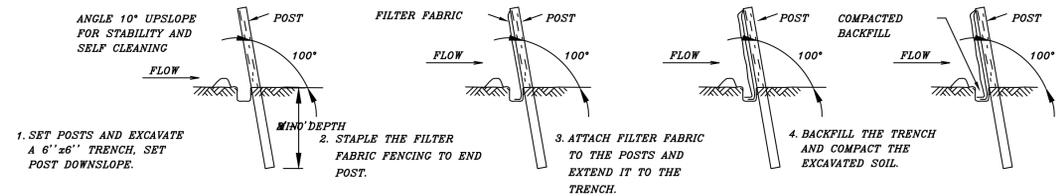
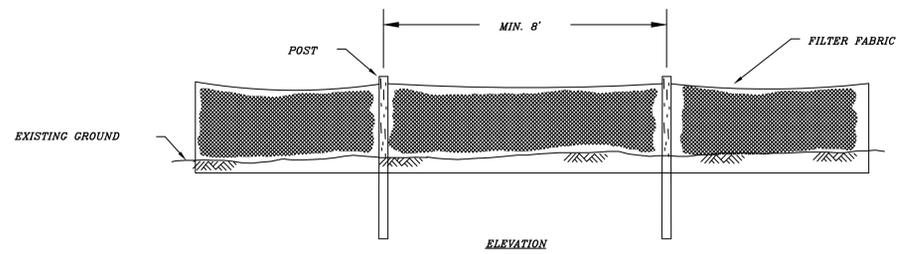
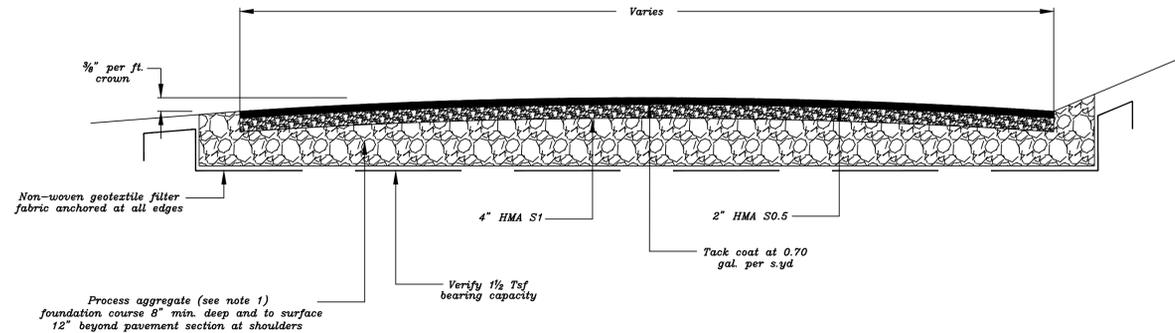
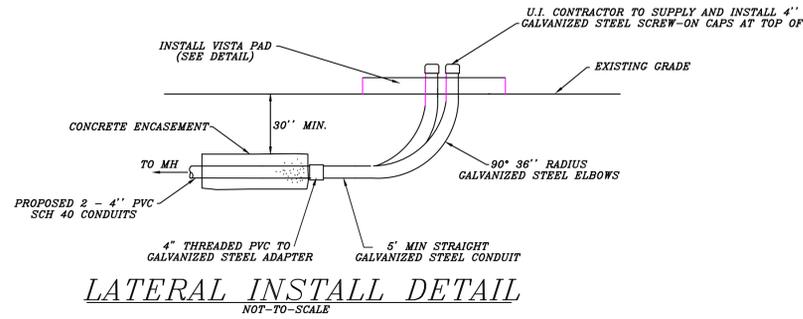


The United Illuminating Company
157 Church St. New Haven, Ct. 06506

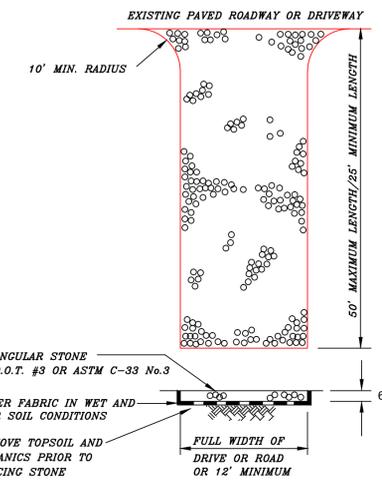
Drawn: _____ Date: 9/5/14 Scale: AS NOTED
Design Engr. **MATTHEW SCULLY** Design Supv. _____

RENEWABLE CONNECTIONS PROJECT
BARNUM DYKE & ATLANTIC STREET
CITY OF BRIDGEPORT
EROSION & SEDIMENT CONTROL AND
LANDSCAPE PLANTINGS PLAN

CAD FILE NAME: _____ SEQUENCE No. _____ DRAWING NUMBER: **ECP-1**



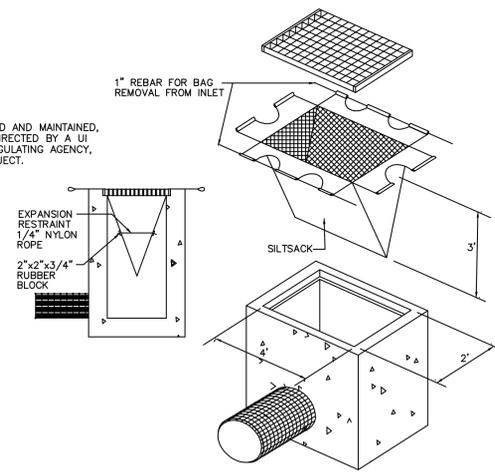
SILT FENCE
NOT TO SCALE



ANTI-TRACKING PAD DETAIL
NOT TO SCALE

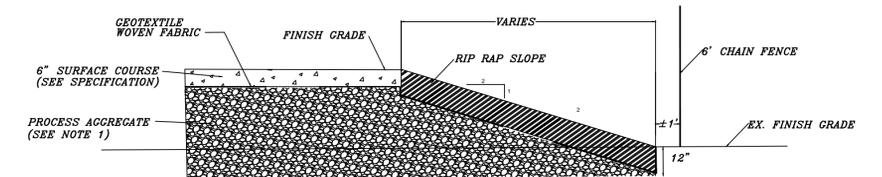
NOTE: REGULAR FLOW = 40 GAL./MIN./SF
HIGH FLOW = 200 GAL./MIN./SF

NOTE: SILT SACKS ARE TO BE INSTALLED AND MAINTAINED, AS SHOWN ON THE PLANS OR DIRECTED BY A UI CONSTRUCTION MANAGER, OR REGULATING AGENCY, FOR THE DURATION OF THE PROJECT.



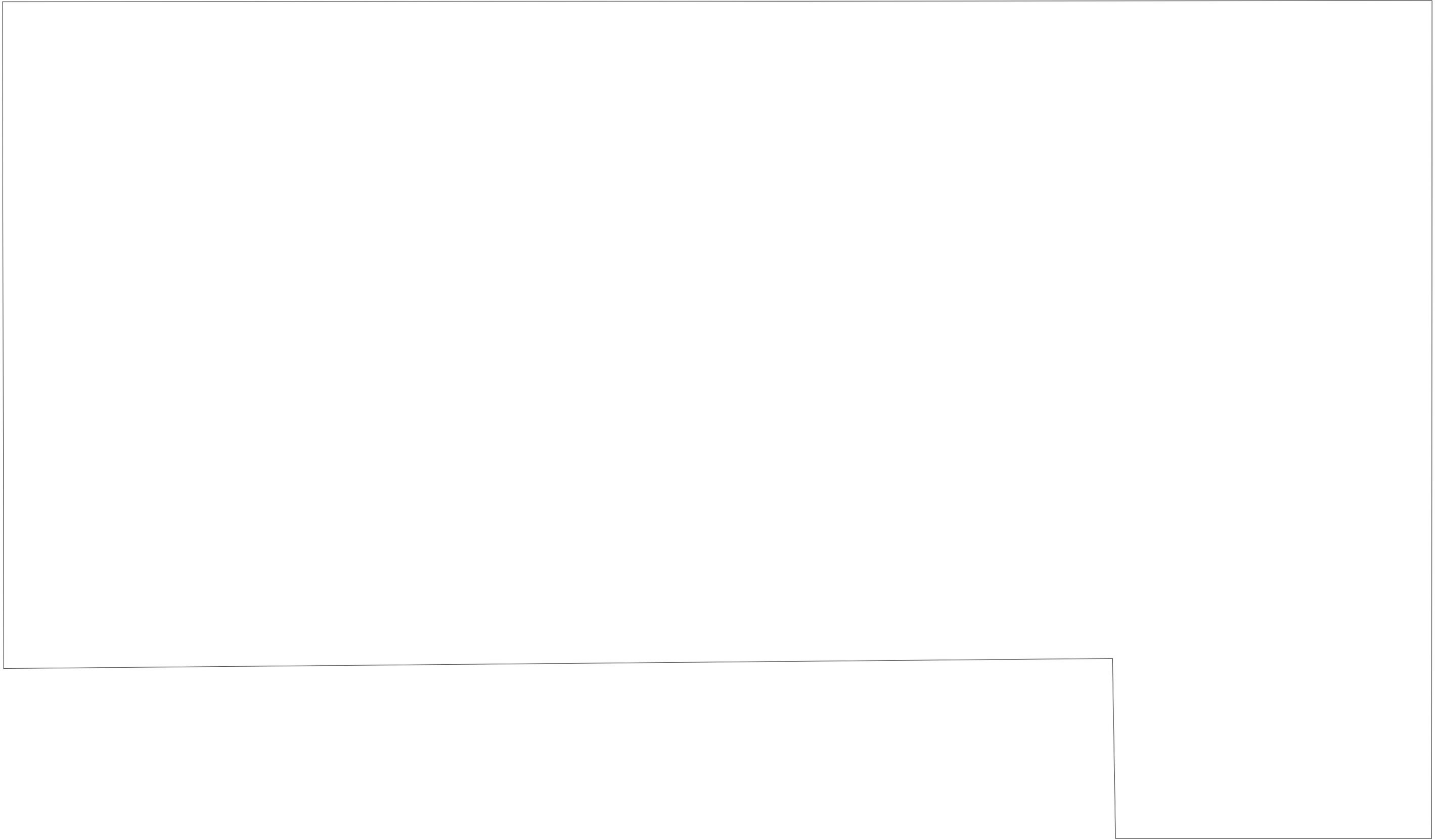
SILT SACK DETAIL
NOT TO SCALE

RIP-RAP SPECIFICATION		SURFACE COURSE SPECIFICATION	
Stone Size	% of Mass	US Standard	Sieve Size % Passing
10' or over	0	1-1/2"	100
6' to 10'	20 - 50	1"	95-100
4' to 6'	30 - 60	3/4"	75-95
2' to 4'	30 - 40	3/8"	0-55
1' to 2'	10 - 20	No. 30	0-5
Less than 1'	0 - 10	No. 200	0-3



1) PROCESSED AGGREGATE TO MEET D.O.T. SPECIFICATION M.02.06, GRADING B, AND SHALL BE COMPACTED TO 95% MDD, IN 12" LIFTS. PROCTOR ANALYSIS AND COMPACTION TEST RESULTS SHALL BE SUPPLIED PRE-PLACEMENT AND POST COMPACTION. RECLAIMED MISCELLANEOUS AGGREGATE MEETING SECTION M.02.06 MAY ALSO BE USED.

				 The United Illuminating Company 157 Church St. New Haven, Ct. 06506			RENEWABLE CONNECTIONS PROJECT BARNUM DYKE & CEDAR CREEK CITY OF BRIDGEPORT GENERAL DETAILS					
1	1/16/15	ISSUED FOR BID	TJ							MS	Drawn	Date
No	Date	Revision	By	Chkd.	Engr.	Supv.	Chkd.	Design Engr. <i>Matthew Scully</i>	Design Supv.	CAD FILE NAME	SEQUENCE No.	DRAWING NUMBER <i>DET-1</i>



				 The United Illuminating Company 157 Church St. New Haven, Ct. 06506				RENEWABLE CONNECTIONS PROJECT BARNUM DYKE & CEDAR CREEK CITY OF BRIDGEPORT SECURITY FENCE DETAILS					
No	Date	Revision	By								Chkd.	Engr.	Supv.
1	1/16/15	ISSUED FOR BID	TJ	MS					9/5/14	AS NOTED			DET-2



DRAWINGS LIST	
DRAWING #	DESCRIPTION
CIVIL & STRUCTURAL	
C-1	SITE PLAN
C-2	SITE DETAILS
S-1	STRUCTURAL FOUNDATION PLAN
S-2	STRUCTURAL FOUNDATION SECTIONS
ELECTRICAL	
E-000	ELECTRICAL ABBREVIATIONS AND SYMBOLS
E-100	ELECTRICAL SITE PLAN
E-101	ELECTRICAL SITE DETAILS
E-200	ELECTRICAL GROUNDING PLAN
E-700	ELECTRICAL RISER DIAGRAM
E-701	COMMUNICATIONS RISER DIAGRAM
E-702	ELECTRICAL THREE-LINE DIAGRAMS
E-800	ELECTRICAL DETAILS
MECHANICAL	
H-001	MECHANICAL LEGEND & ABBREVIATIONS
H-100	MECHANICAL SITE PLAN
H-700	MECHANICAL PROCESS SCHEMATIC



FuelCell Energy
Ultra-Clean, Efficient, Reliable Power

**SEASIDE PARK
FUEL CELL PROJECT
BRIDGEPORT, CONNECTICUT**

**PROGRESS
IFC PROGRESS R2
12-19-14**

DESIGN/BUILD CONTRACTOR:



SITE/CIVIL CONSULTANTS:



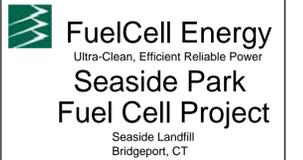
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Consultants



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 An Employee Owned Company
 email : info@loureiro.com
 Comm No. -

Project

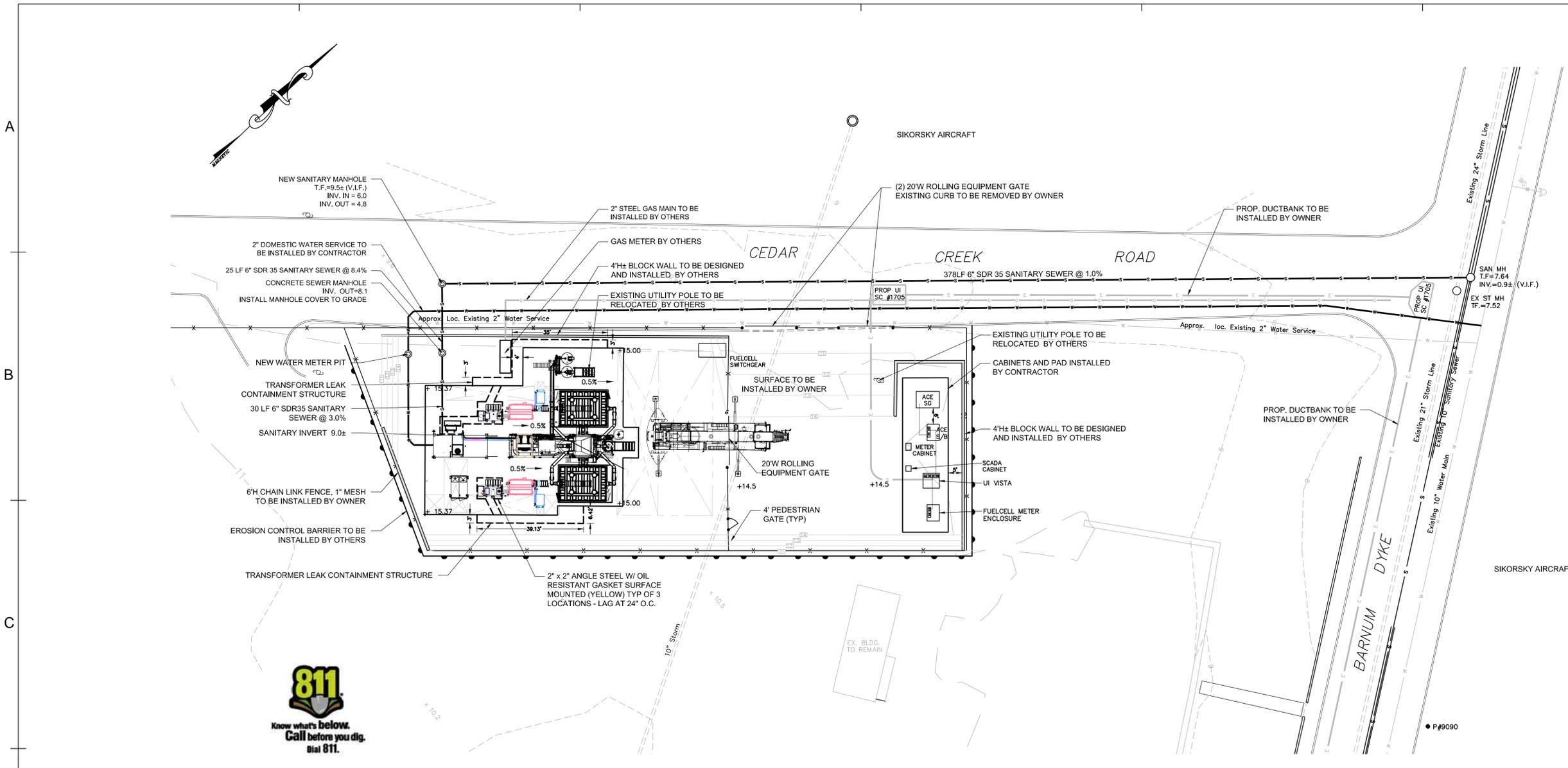


Rev	Description	Date
1	Issued for Permit	9/26/2014
2	IFC PROGRESS	10/17/2014
3	Revised Grading	12/19/2014



SITE PLAN

Date: 9/12/2014	Drawing No.
Drawn By: P.M.C.	C-1
Checked By: G.F.A.	
Scale: As Notes	
Project #:	



A

B

C

D

E



SOIL EROSION AND SEDIMENT CONTROL NOTES

All applicable regulations and requirements of the State of Connecticut Department of Environment & Environmental Protection (DEEP) and the local land use requirements shall be adhered to including the placement of the proposed SE&S barriers as specified herein. When the construction work is completed, the Contractor shall clean the SE&S barriers and restore the natural drainage areas affected by his operations to their original condition unless otherwise noted.

Prior to construction, all SE&S barriers shall be placed to confine sediment as shown on drawings and where otherwise required based on the Contractor's means/methods and construction sequencing. All SE&S barriers shall be left in place and maintained until the work has been completed and surfaces stabilized.

It shall be the responsibility of the Contractor to monitor the condition of the SE&S structures. If the effectiveness or integrity of any structures is found to be insufficient or if the structures are damaged in any way, the Contractor shall make whatever repairs are necessary to ensure that proper erosion control is maintained. Monitoring of the erosion control structures is particularly important following periods of rainfall. All repairs of erosion control structures shall be made by the Contractor as soon as the damage is discovered.

If additional SE&S control structures are necessary to minimize erosion and sedimentation, as determined in the field, the Contractor shall install said additional structures as required.

In addition to the above general provisions, the Contractor shall comply with the following special requirements:

1. Land disturbance shall be kept to a minimum; restabilization shall be scheduled as soon as practicable following construction.
2. All graded areas are to be restored as soon as possible after construction work is completed. Erosion controls will be implemented throughout construction for stabilization of disturbed areas.
3. All other areas affected by construction and not to be filled/paved or otherwise stabilized are to be restored with topsoil and seeded as shown on the drawings.
4. A Stockpile Area has been located to minimize the amount of run-on into the area and as far away from catch basins and surfaces waters as is reasonable to prevent sedimentation in runoff from stockpiles. Stockpiles will be provided with erosion controls in the form of hay bales and/or silt fencing at least ten feet from the toe of the stockpile slope.
5. For specific details on the design, application and installation of the erosion and sedimentation control structures, the Contractor shall refer to the Connecticut guidelines for Soil Erosion and Sediment Control, dated May 2002, as amended or otherwise replaced.
6. The Contractor shall inspect all erosion control measures daily during construction and after each significant rain storm event. Damage shall be repaired immediately.

In the event that a rain event occurs and the Contractor provided SE&S controls fail to maintain the site in a stabilized condition, the Contractor shall be fully responsible for any and all remediation, mitigation or other damage that may occur.

Anticipated project start September 2014; anticipated completion is within 10-days.

GENERAL NOTES

1. Base map and background information provided by others.
2. Map Reference: "Renewable Connection Project, Barnum Dike and Atlantic Street, City of Bridgeport, Equipment Layout Plan," scale: 1"=30' dated 6/19/2014 prepared by United Illuminating Company.
3. Location of underground features are based upon information furnished by others. Additionally other such features may exist, the existence of which is unknown to Loureiro Engineering Associates, Inc., (Loureiro). This information is to be considered approximate in nature and Loureiro does not take responsibility for subsequent errors or omissions which may have been incorporated into this plan as a result. The size and location and existence of all such features must be field determined and verified by the appropriate authority. Call Before You Dig (800) 922-4455 or 811.

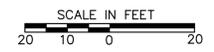
RECOMMENDED PROJECT SEQUENCING

1. Determination of all existing utility locations
2. Installation of soil erosion and sediment controls
3. Clearing, grubbing and pavement/concrete removal
4. Utility Installation
5. Grading and foundation pad preparation
6. Foundation and slab formation and pouring
7. Mechanical/electrical component installation
8. Fencing installation
9. Paving
10. Site restoration
11. Demobilization

Primary Contact for SE&S Matters:
 AZ Corporation,
 46 Norwich Westerly Road,
 North Stonington, CT
 (800) 400-2420.



KEY MAP
 Scale: 1"=100'



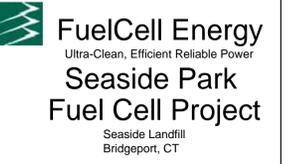


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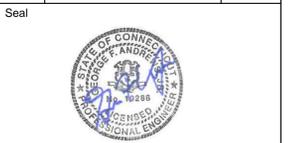


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Comm No. -

Project

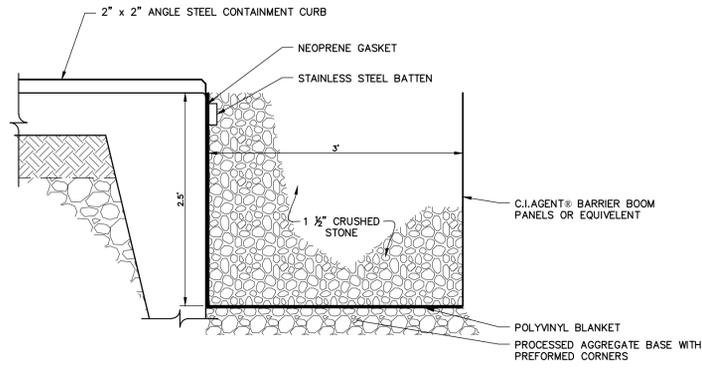


Rev	Description	Date
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2	IFC PROGRESS	10/17/2014
3	Add Drop MH Detail	12/19/2014



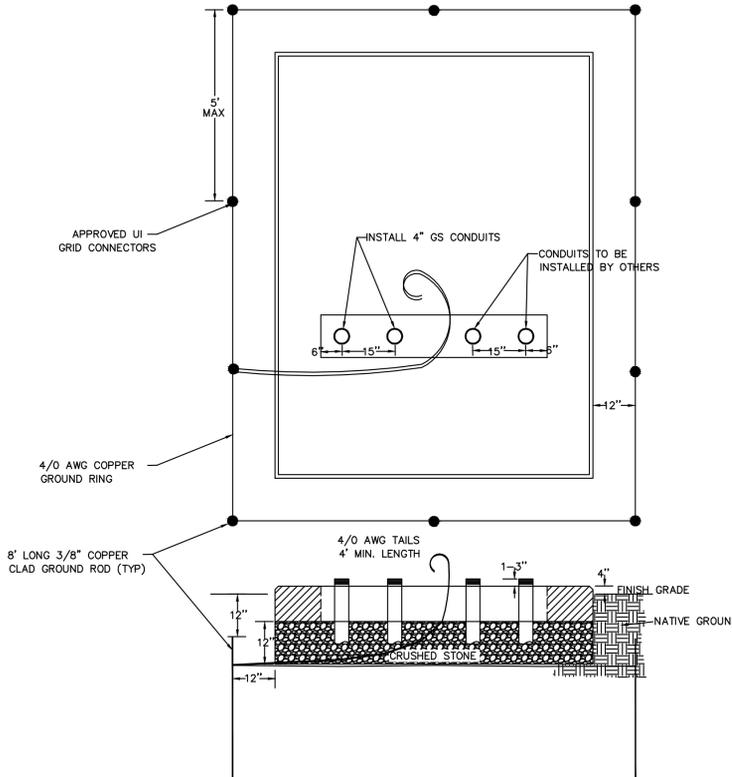
DETAILS

Date: 9/12/2014	Drawing No.
Drawn By: P.M.C.	
Checked By: G.F.A.	C-2
Scale: As Notes	
Project #:	

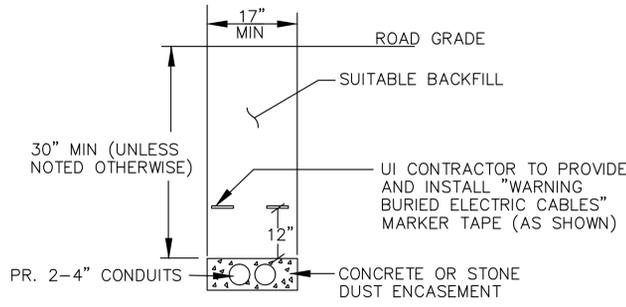


TRANSFORMER LEAK CONTAINMENT SYSTEM DETAIL
NONE

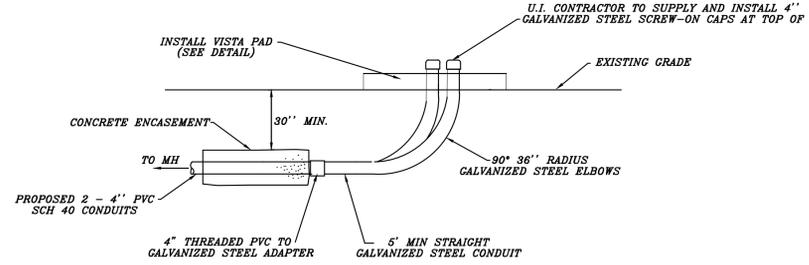
- NOTES:
1. Install secondary containment inside of grounding grid - coordinate with electrical trade.
 2. Base and slab sides to be 40 oz. polyvinyl.
 3. Barrier boom panels to be sized by the provider based upon rainfall data for southern Connecticut and concrete pad run-off potential.
 4. In accordance with 40 CFR 112.7, coordinate installation with P.E. responsible for SPCC certification.



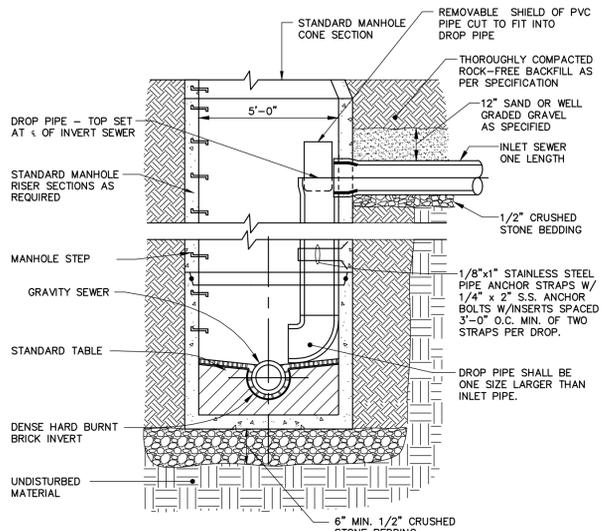
VISTA PAD DETAIL
NONE



TYPICAL CONDUIT TRENCH DETAIL
NONE

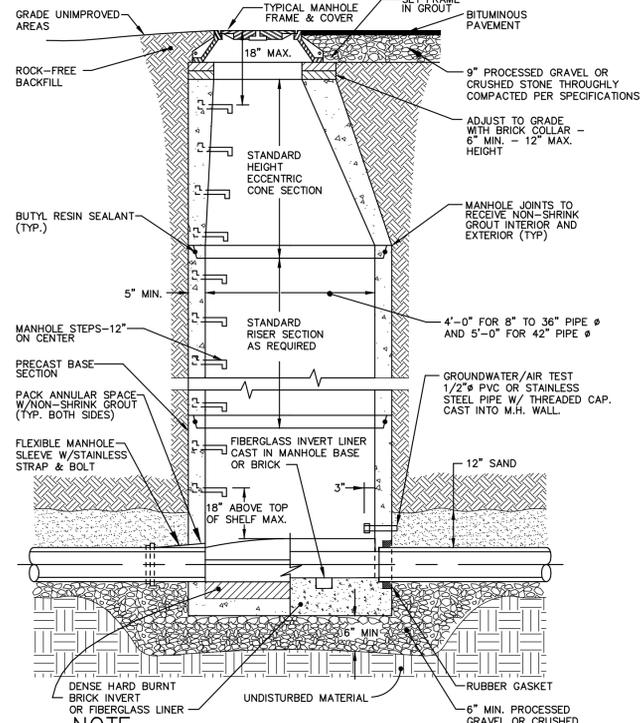


TYPICAL LATERAL INSTALLATION DETAIL
NONE



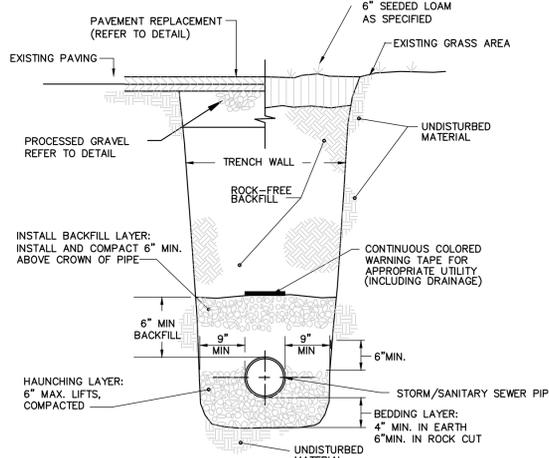
DESIGN LOADING:
AASHTO HS20-44
STEEL REINFORCEMENT: ASTM A-615-75, GRADE 6, 1" MIN. COVER
CONCRETE MIN. STRENGTH: 5000 PSI @ 28 DAYS

INSIDE DROP MANHOLE
NOT TO SCALE



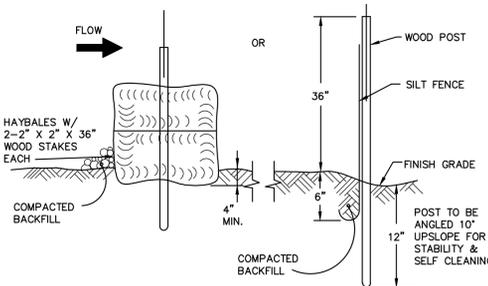
NOTE:
DESIGN LOADING:
AASHTO HS20-44 REINFORCED CONCRETE MANHOLE SECTIONS conforming to ASTM-478
STEEL REINFORCEMENT: ASTM A-615-75, GRADE 6, 1" MIN. COVER
CONCRETE MIN. STRENGTH: 5000 PSI @ 28 DAYS

PRECAST CONCRETE MANHOLE
NOT TO SCALE



- NOTES:
1. SEE STATE AND/OR LOCAL HIGHWAY DEPARTMENT SPECIFICATIONS FOR ADDITIONAL PAVING REQUIRED WHEREVER APPLICABLE.
 2. BACKFILL MATERIAL USED IN BEDDING, HAUNCHING, AND INITIAL BACKFILL LAYERS SHALL BE CLASS IA, IB, II, OR III AS SPECIFIED IN THE ASTM D 2321 - 89 STANDARD.
 3. DEEP FOUNDATIONS: WHERE SPECIAL DEEP FOUNDATIONS ARE REQUIRED, BECAUSE OF VERY SOFT SOIL FOUNDATION, CRUSHED STONE OR PROCESSED GRAVEL SHALL BE USED TO A POINT 24" DEEPER THAN FLOW LINE OF PIPE. ADDITIONAL FOUNDATION DEPTH BELOW THIS POINT MAY BE OTHER SELECTED MATERIAL, AS SPECIFIED AND AS REQUIRED BY THE ENGINEER IN THE FIELD.

TYPICAL STORM/SANITARY SEWER TRENCH DETAIL
NONE



TYPICAL SEDIMENT BARRIER DETAIL
NONE

AZ CORP Engineering
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800.400.2420 - www.a-zcorp.com

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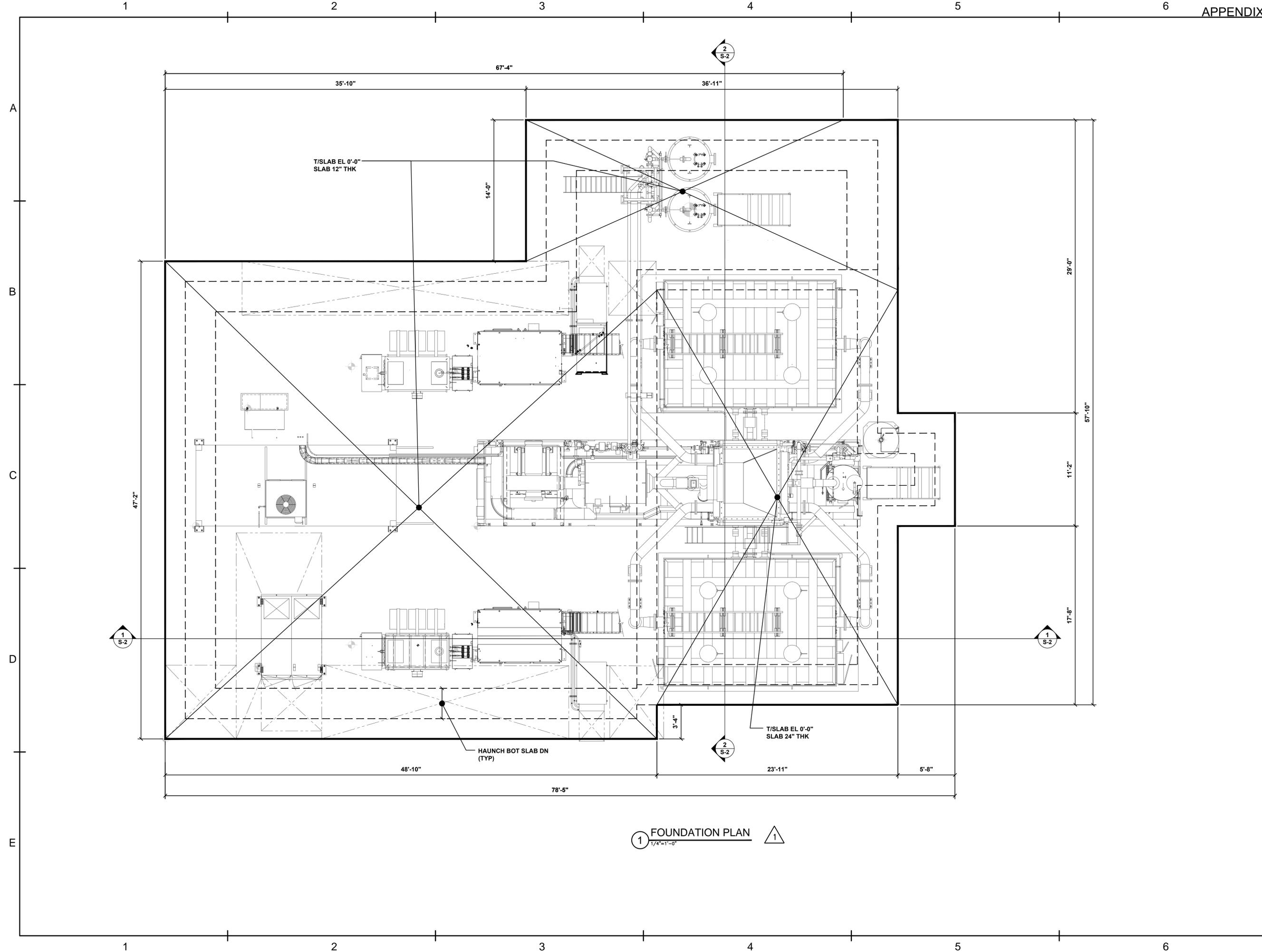
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Loureiro
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email: info@loureiro.com
Comm No. - 03ST402

Project
FuelCell Energy
Ultra-Clean, Efficient Reliable Power
**Seaside Park
Fuel Cell Project**
Seaside Landfill
Bridgeport, CT

Rev	Description	Date
1	REVISED PAD SIZE & SECTION 1	9/8/14
2	REVISED CURB REMOVAL	9/25/14
3	IFC PROGRESS	10/17/14

Seal

**STRUCTURAL
FOUNDATION
PLAN**
Date: 9/5/2014
Drawn By: JTF
Checked By: EGS
Scale: As Noted
Project #:
Drawing No. **S-1**



1 FOUNDATION PLAN
1/4"=1'-0"

G:\AUTOCAD\PROJECTS\WOLKINLED_SHELOMS\BRIDGEPORT_FUEL_CELL\WMS\BRIDGEPORT_S-1_2.DWG Tab: BP S-1 Saved: 10/21/2014 4:24 PM Plotted: 10/21/2014 4:26 PM

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 Comm No. - 03ST402

Project

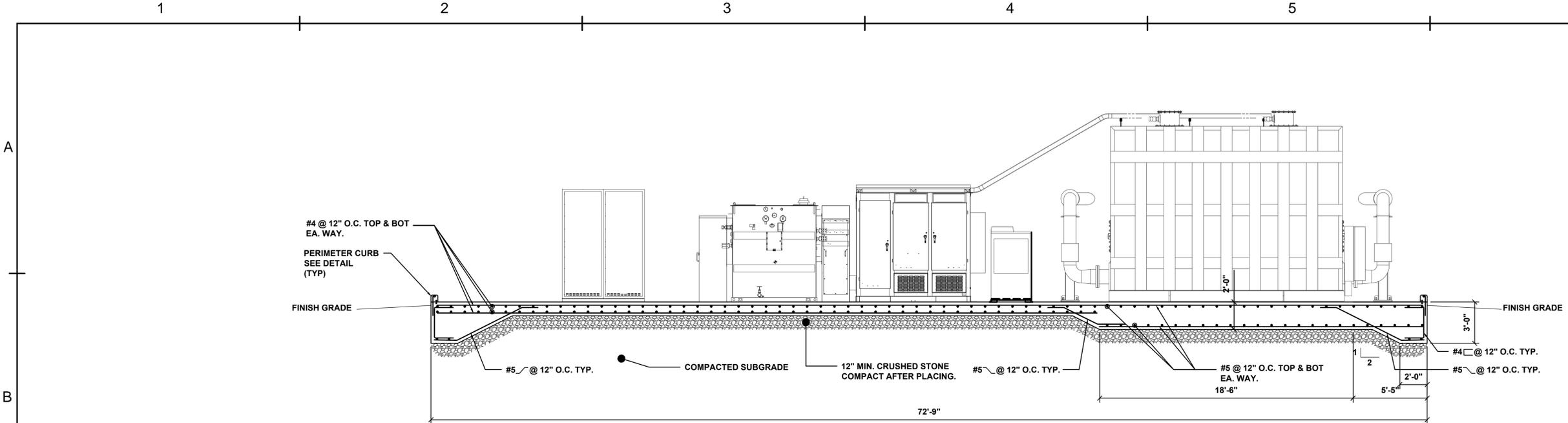
FuelCell Energy
 Ultra-Clean, Efficient Reliable Power
Seaside Park Fuel Cell Project
 Seaside Landfill
 Bridgeport, CT

Rev	Description	Date
1	REVISED PAD SIZE & SECTION 1	9/8/14
2	REVISED CURB REMOVAL	9/25/14
3	IFC PROGRESS	10/17/14

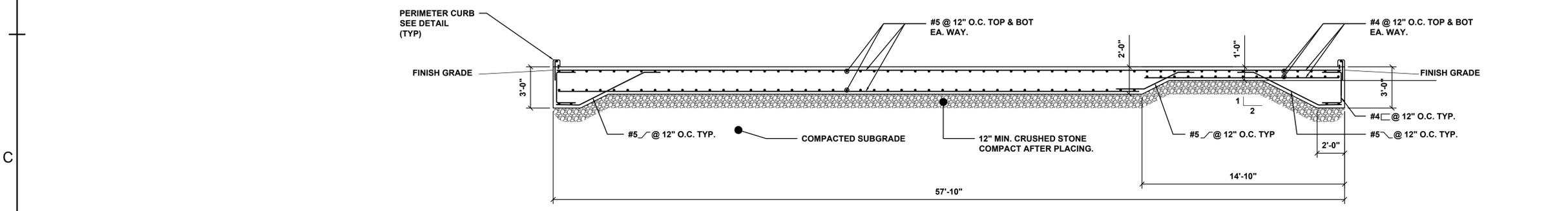


STRUCTURAL FOUNDATION SECTIONS

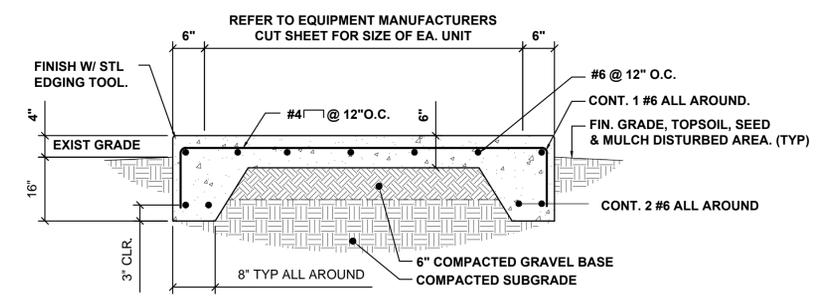
Date: 9/5/2014	Drawn By: JTF	Drawing No. S-2
Checked By: EGS	Scale: As Noted	
Project #:		



SECTION 1
 1/4"=1'-0"



SECTION 2
 1/4"=1'-0"



SECTION 3 - TYPICAL SMALL EQUIPMENT PAD
 3/4"=1'-0"

NOTE: REFER TO SITE PLANS FOR LOCATIONS OF PADS.

G:\AUTOCAD\PROJECTS\WOLKIN\SEASIDE PARK FUEL CELL\WOLKIN\BRIDGEPORT - 1 - 2.DWG Tbf: BP 5-2 Saved: 10/21/2014 4:24 PM Plotted: 10/21/2014 4:26 PM



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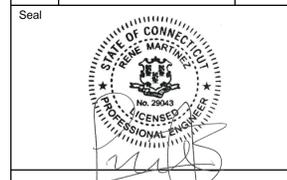
Consultants

Project



Seaside Park Fuel Cell Project
Seaside Landfill
Bridgeport, CT

Rev	Description	Date
01	ISSUE FOR PERMIT	9-26-14
02	IFC PROGRESS	10-17-14
03	IFC PROGRESS R2	12-19-14



ELECTRICAL LEGEND & ABBREVIATIONS

Date: 9/12/14	E-000
Drawn By: RBM	
Checked By: AZ	
Project #: S10465	

EQUIPMENT SYMBOLS (PLAN)

- 120V DUPLEX RECEPTACLE - "H" DENOTES MOUNTED HORIZONTALLY ABOVE COUNTER; "C" DENOTES MOUNTED 6" ABOVE COUNTER OR 46" AFF TO CENTER LINE. "2" DENOTES CIRCUIT NUMBER
- 120V DUPLEX RECEPTACLE WITH BOTTOM HALF SWITCHED "o" DENOTES SWITCH CONTROL
- SPECIAL PURPOSE OUTLET - RATING AS INDICATED ("TL" DENOTES TWIST LOCK TYPE)
- 120V GROUND FAULT CIRCUIT INTERRUPTER TYPE DUPLEX RECEPTACLE
- 120V DOUBLE DUPLEX RECEPTACLE
- 120V GROUND FAULT CIRCUIT INTERRUPTER TYPE DUPLEX RECEPTACLE WITH WEATHERPROOF COVER
- 120V GROUND FAULT INTERRUPTER TYPE DUPLEX RECEPTACLE WITH TAY-MAC WEATHERPROOF COVER MTD
- 120V DUPLEX RECEPTACLE FOR ELECTRIC WATER COOLER
- 120V ISOLATED GROUND TYPE DUPLEX RECEPTACLE
- ISOLATED GROUND TYPE SINGLE RECEPTACLE
- 480V SINGLE RECEPTACLE
- 120V DUPLEX RECEPTACLE FLUSH FLOOR MOUNTED
- 120V DUPLEX RECEPTACLE FOR SECURITY CAMERA
- MULTIOUTLET ASSEMBLY WITH DUPLEX RECEPTACLES MOUNTED 12" ON CENTER UNLESS OTHERWISE NOTED
- DUPLEX 120VAC WIREMOLD POWER OUTLET
- PANELBOARD - 120/208V-3ø, 4W
- PANELBOARD - 277/480V-3ø, 4W
- NORMAL/EMERGENCY PANELBOARD - 277/480V-3ø, 4W
- NORMAL/EMERGENCY PANELBOARD - 120/280V-3ø, 4W
- ELECTRIC HEATER - XKW HEATER RATING.
- PHOTO CELL
- THERMOSTAT
- JUNCTION BOX - SIZE AS REQUIRED
- FUSED DISCONNECT SWITCH - "3R" INDICATES NEMA RATING "X" INDICATES FUSE RATING
- NON-FUSED DISCONNECT SWITCH - "3R" INDICATES NEMA RATING
- MAGNETIC MOTOR STARTER
- 480V SINGLE RECEPTACLE WITH NON-FUSED DISCONNECT SWITCH
- COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC MOTOR STARTER AND MOTOR CIRCUIT PROTECTOR
- COMBINATION REVERSING MAGNETIC MOTOR STARTER AND MOTOR CIRCUIT PROTECTOR
- PULL BOX
- CONTACTOR
- DISTRIBUTION DRY TYPE TRANSFORMER RATING AS INDICATED
- THERMAL SWITCH WITH PILOT LIGHT (FLUSH MOUNTED IN FINISHING AREAS)
- CONDUIT HOME RUN
- MOTOR - "X" INDICATES HORSEPOWER
- GENERATOR
- UNINTERRUPTIBLE POWER SUPPLY
- AUTOMATIC DOOR OPERATOR
- CONDUIT RISING UP
- CONDUIT TURNED DOWN
- HOT WATER HEATER
- CONDUIT SEALS
- CABLE TRAY

SOUND SYSTEM (PLAN)

- SPEAKER, FLUSH CEILING MOUNTED
- SPEAKER, FLUSH WALL MOUNTED
- MICROPHONE OUTLET
- CEILING MOUNTED PUBLIC ADDRESS SYSTEM SPEAKER
- WALL MOUNTED PUBLIC ADDRESS SYSTEM SPEAKER. WP INDICATES OUTDOOR WEATHER PROOF UNIT.

GROUNDING SYMBOLS (PLAN)

- EXISTING PIPE ELECTRODE
- MADE-DRIVEN ROD ELECTRODE
- MADE-PLATE ELECTRODE
- GROUNDING CONDUCTOR RUN IN EARTH OR CONCRETE
- WELDED PROCESS-TYPE JOINT
- GROUND BUS BAR
- EQUIPMENT GROUND
- GROUND CONNECTION TO STRUCTURAL STEEL
- GROUND CONDUCTOR TURNING UP TOWARD OBSERVER READING DRAWING
- GROUND CONDUCTOR TURNING AWAY FROM OBSERVER READING DRAWING

LIGHTING EQUIPMENT (PLAN)

- (REFER TO LIGHTING FIXTURE SCHEDULE)
- 2"x4" FLUORESCENT LIGHT FIXTURE. "X" INDICATES TYPE OF LIGHT FIXTURE. "o" INDICATES SWITCH CIRCUIT.
 - 2"x4" EMERGENCY FLUORESCENT LIGHT FIXTURE. "X" INDICATES TYPE OF LIGHT FIXTURE.
 - 2"x2" FLUORESCENT LIGHT FIXTURE. "X" INDICATES TYPE OF LIGHT FIXTURE. "o" INDICATES SWITCH CIRCUIT.
 - 2"x2" EMERGENCY FLUORESCENT LIGHT FIXTURE. "X" INDICATES TYPE OF LIGHT FIXTURE.
 - 1"x4" FLUORESCENT LIGHT FIXTURE. "X" INDICATES TYPE OF LIGHT FIXTURE. "o" INDICATES SWITCH CIRCUIT.
 - 1"x4" EMERGENCY FLUORESCENT LIGHT FIXTURE. "X" INDICATES TYPE OF LIGHT FIXTURE.
 - FLUORESCENT VAPORPROOF LIGHTING FIXTURE
 - FLUORESCENT STRIP OR INDUSTRIAL FIXTURE
 - CEILING (PENDANT) MOUNTED FIXTURE, "X" DENOTES FIXTURE TYPE
 - EMERGENCY CEILING (PENDANT) MOUNTED FIXTURE, "X" DENOTES FIXTURE TYPE
 - WALL MOUNTED LIGHTING FIXTURE "X" DENOTES FIXTURE TYPE
 - EXTERIOR WALL MOUNTED LIGHTING FIXTURE "X" DENOTES FIXTURE TYPE
 - EXTERIOR EMERGENCY WALL MOUNTED LIGHTING FIXTURE "X" DENOTES FIXTURE TYPE
 - UNDER CANOPY LIGHTING FIXTURE
 - EMERGENCY UNDER CANOPY LIGHTING FIXTURE
 - WALLWASH OR DIRECTIONAL LIGHTING FIXTURE
 - ILLUMINATED "EXIT" SIGN, WALL
 - ILLUMINATED "EXIT" SIGN DOUBLE FACE.
 - ILLUMINATED "EXIT" SIGN, WALL, W/DIRECTION
 - EXIT/EMERGENCY LIGHT, WALL MOUNT WITH HEADS AS INDICATED.
 - EMERGENCY LIGHTING, BATTERY UNIT, WITH HEADS AS INDICATED.
 - EXTERIOR WALL MOUNT LIGHT ABOVE DOOR
 - EXTERIOR WALL MOUNT BATTERY BACK UP EGRESS LIGHT ABOVE DOOR
 - 12 VDC EMERGENCY ONLY LIGHTING FIXTURE. SINGLE OR DOUBLE UNIT AS INDICATED
 - TRACK LIGHTING WITH HEADS AS INDICATED

SINGLE LINE DEVICES (ONE LINE DIAGRAM)

- 3000 AMP CIRCUIT BREAKER WITH INTEGRAL GROUND FAULT TRIPPING. FURNISHED BY SWITCHBOARD VENDOR
- POWER FACTOR CORRECTION CAPACITOR
- CIRCUIT BREAKER 100AF - INDICATES FRAME RATING 100AT - INDICATES TRIP RATING NAT - INDICATES NON AUTOMATIC TRIP
- DRAW OUT TYPE CIRCUIT BREAKER, 13.8KV
- GROUNDING RESISTOR
- FUSED DISCONNECT
- MOLDED CASE CIRCUIT BREAKER, 600AF - INDICATES FRAME RATING. 600AT - INDICATES TRIP RATING
- 1 - INDICATES E-STOP CONTROL STATION
- 2 - INDICATES START/STOP CONTROL STATION
- 3 - INDICATES HOA W/PILOT LIGHT (RUN) CONTROL STATION
- 4 - INDICATES STOP/JOG CONTROL STATION
- 5 - INDICATES RUN PILOT LIGHT ONLY CONTROL STATION
- 6 - INDICATES OTHER CONTROL STATION
- VARIABLE FREQUENCY DRIVE
- SILICON CONTROLLED RECTIFIER
- MTS-MANUAL TRANSFER SWITCH
- ATS-AUTOMATIC TRANSFER SWITCH
- DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- DISCONNECTING DEVICE
- LIGHTNING ARRESTER
- AIR CIRCUIT BREAKER WITH SERIES TRIP DEVICE
- POTENTIAL TRANSFORMER
- CURRENT TRANSFORMER
- PLUG IN DUCT RATING NOTED, W/FUSED DISCONNECT
- KIRK KEY
- VACUUM INTERRUPTER SWITCH

ELECTRICAL ONE LINE ABBREVIATIONS

- AMMETER
- AMMETER SELECTOR SWITCH
- DISTRIBUTED CONTROL SYSTEM
- DRAINAGE REACTOR AND PROTECTOR TUBE
- DISCONNECT SWITCH
- FREQUENCY METER
- INSULATING TRANSFORMER, 6:1 RATIO
- LIGHTNING ARRESTER
- NEUTRALIZING REACTOR
- POWER FACTOR METER
- SYNCHROSCOPE
- TEMPERATURE SWITCH
- VOLTMETER
- VAR METER
- VOLTMETER SELECTOR SWITCH
- WATTMETER
- WATTHOUR METER
- XDCR
- POWER TRANSFORMER, LETTER (XX) DESIGNATES TRANSFORMER TYPE AND COOLING METHOD. TRANSFORMER, RATING AS INDICATED
- COOLING METHOD
- OIL-IMMERSED, SELF COOLED
- OIL-IMMERSED, WATER COOLED
- OIL-IMMERSED, WATER COOLED/SELF COOLED
- OIL-IMMERSED, SELF COOLED/FORCED AIR COOLED (ABOVE 500KVA)
- OIL-IMMERSED, SELF COOLED (FORCED AIR COOLED) FORCED AIR COOLED (10,000KVA AND LARGER)
- OIL-IMMERSED, SELF COOLED/FORCED AIR- FORCED OIL COOLED, FORCED AIR-COOLED OIL-COOLED
- OIL-IMMERSED, FORCED OIL-COOLED WITH FORCED AIR COOLER (10,000KVA AND LARGER)
- OIL-IMMERSED, FORCED OIL-COOLED WITH FORCED WATER COOLER (10,000KVA AND LARGER)
- DRY TYPE, SELF COOLED
- DRY TYPE, FORCED AIR COOLED
- DRY TYPE, SELF COOLED/FORCED AIR COOLED (ABOVE 500KVA)
- SYNCH CHECK RELAY
- AUTO SYNCHRONIZER
- TRANSFORMER OVER TEMPERATURE DEVICE
- UNDERVOLTAGE RELAY
- REV POWER RELAY
- REV POWER RELAY
- UNDERCURRENT OR UNDERPOWER RELAY
- GEN. FIELD FAILURE RELAY
- FIELD CIRCUIT BREAKER
- SYNC SELECTOR SWITCH (AUTO-OFF-MANUAL)
- GEN. NEG. PHASE SEQUENCE RELAY
- PHASE/OVERCURRENT/GROUND PROTECTION
- FAULT DETECTOR RELAY, 5A
- OVERCURRENT RELAY WITH INSTANTANEOUS TRIP
- OVERCURRENT/GROUND PROTECTION
- GENERATOR NEUTRAL GROUND OVERCURRENT RELAY
- OVERCURRENT RELAY W/VOLTAGE RESTRAINT & AUXILIARY PT'S
- INVERSE TIME OVERCURRENT RELAY, VERY INVERSE
- AC CIRCUIT BREAKER
- BUS GROUND OVERVOLTAGE RELAY
- EXCITER OVERVOLTAGE TRIP
- BLOWN PT FUSE RELAY
- BREAKER FAILURE TIMER
- TRANSFORMER SUDDEN PRESSURE RELAY
- BUS GROUND FAULT RELAY
- GROUND FAULT RELAY
- PILOT WIRE MONITOR/TRANSFER TRIP RELAY PM-23, 125VDC
- FREQUENCY RELAY
- UNDERFREQUENCY/OVERFREQUENCY RELAY
- AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY
- LOCKOUT RELAY W/YELLOW STATUS LIGHT
- HAND RESET LOCKOUT RELAY
- HAND RESET LOCKOUT RELAY
- HAND RESET LOCKOUT RELAY
- BUS DIFFERENTIAL RELAY
- GENERATOR DIFFERENTIAL RELAY
- GENERATOR GROUND DIFFERENTIAL RELAY
- PILOT WIRE LINE PROTECTION.
- TRANSFORMER DIFFERENTIAL RELAY
- TRANSFORMER DIFFERENTIAL RELAY
- TRIPPING RELAY, 3 N.O. CONTACTS, 125VDC COIL PICK-UP 4MS

LIGHT SWITCHING (PLAN)

- (ALL SWITCHES MOUNTED 48" AFF UNLESS NOTED OTHERWISE)
- SINGLE POLE SWITCH; RATED FOR MOTOR DUTY. "WP" DENOTES WEATHERPROOF ENCLOSURE
 - SINGLE POLE SWITCH
 - SINGLE POLE SWITCH, "b" DENOTES SWITCH CONTROL
 - TWO POLE SWITCH
 - THREE-WAY SWITCH
 - FOUR-WAY SWITCH
 - SINGLE POLE SWITCH WITH PILOT LIGHT
 - SINGLE POLE KEY OPERATED SWITCH
 - 1500 WATT, 120 VOLT DIMMER
 - 2000 WATT, 120 VOLT DIMMER
 - SINGLE POLE SWITCH WITH MOTION (IR) DETECTOR

COMMUNICATION DEVICES (PLAN)

- COMMUNICATION OUTLETS SHALL HAVE MINIMUM 3/4" EMPTY CONDUIT STUBBED TO ABOVE HUNG CEILING. 1" CONDUIT FOR DOUBLE OUTLETS. ALL COMMUNICATION OUTLETS MOUNTED 18" AFF UNLESS OTHERWISE NOTED
- TELEPHONE OUTLET
 - PUBLIC TELEPHONE. CONFIRM EXACT REQUIREMENTS WITH TELEPHONE CO.
 - SECURITY TELEPHONE
 - WALL MOUNTED TELEPHONE OUTLET
 - FIRE FIGHTERS PHONE OUTLET
 - FLUSH FLOOR TELEPHONE OUTLET
 - DEDICATED PHONE OUTLET
 - FLUSH FLOOR DEDICATED TELEPHONE OUTLET
 - WALL MOUNTED DATA OUTLET
 - FLUSH FLOOR DATA OUTLET
 - COMBINATION TEL/DATA OUTLET
 - FLUSH FLOOR TEL/DATA OUTLET
 - CABLE OUTLET (COAXIAL)

DRAWING NOTATIONS

- REVISION CLOUD (DRAWING CHANGE)
- SCOPE OF WORK LIMITS
- "HOLD" WORK LIMITS

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Project

FuelCell Energy
Ultra-Clean, Efficient, Reliable Power
Seaside Park Fuel Cell Project
Seaside Landfill
Bridgeport, CT

Rev	Description	Date
01	ISSUE FOR PERMIT	9-26-14
02	IFC PROGRESS	10-17-14
03	IFC PROGRESS R2	12-19-14

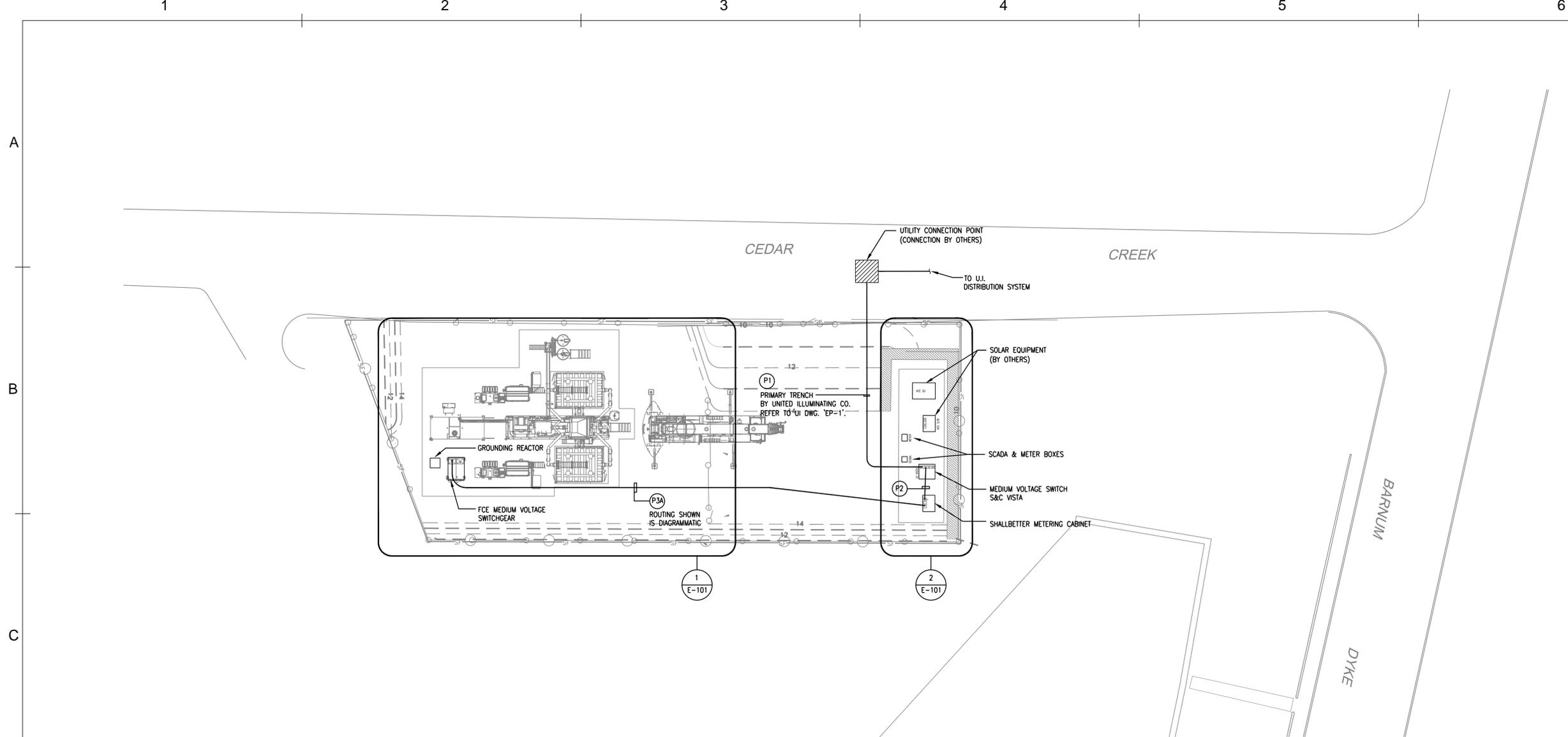
Seal



ELECTRICAL SITE PLAN

Date: 9/12/14
Drawn By: RBM
Checked By: AZ
Scale: AS NOTED
Project #: S10465

E-100



1 OVERALL ELECTRICAL SITE PLAN
SCALE: 1"=20'-0"

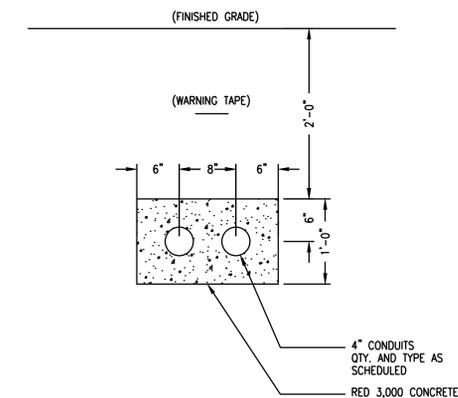


TAG	FROM	TO	CONDUCTOR SIZE	TYPE	CONDUIT	REMARKS
(P1)	UI	VISTA	(BY UTILITY CO.)	(BY UTILITY CO.)	(BY UTILITY CO.)	-
(P2)	VISTA	SHALLBETTER	(BY UTILITY CO.)	(BY UTILITY CO.)	(2) 4" R.G.S.	R.G.S. 36" RADIUS SWEEPS IN BOTH SIDES
(P3A)	SHALLBETTER	FCE SWITCH	(3) #1/0 AWG CU	15KV MV105 1333N	(2) 4" R.G.S.	R.G.S. 36" RADIUS SWEEPS IN SHALLBETTER SIDE ONLY
(P3B)	FCE SWITCH	TR-01, TR-02 & TRM1	(3) #1/0 AWG CU + (1) #1/0 AWG NEUT	15KV MV105 1333N	(2) 4" PVC SCH. 40	PVC SWEEPS
(P4)	FCE SWITCH	REACTOR	(1) #1/0 AWG CU (1) #1/0 AWG CU	15KV MV105 1333N 600V CU	(1) 4" PVC SCH. 40	PVC SWEEPS

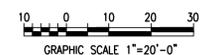
NOTES:
1 - REFER TO FCE DOCUMENT 4865-73-00 FOR FULL LIST OF INTERNAL AND UTILITY CABLES WITHIN THE PLANT

UNDERGROUND UTILITY NOTE

THE CONTRACTOR IS TO BE FULLY RESPONSIBLE FOR CONTACTING THE LOCAL CABLE TELEVISION COMPANY, POWER COMPANY, TELEPHONE COMPANY, GAS COMPANY, WATER AND SEWER COMPANY AND ANY OTHER UTILITY COMPANY WITHIN THE AREA PRIOR TO PROCEEDING WITH ANY EXCAVATION. BY LAW, THE CONTRACTOR IS REQUIRED TO CALL BEFORE DOING ANY EXCAVATION, DIGGING HOLES OR DRIVING POSTS REGARDLESS OF WHETHER IT IS WITHIN THE STREET LINE OR ON PRIVATE PROPERTY. OBTAIN INFORMATION REGARDING THE EXISTENCE AND LOCATION OF ANY UNDERGROUND FACILITIES BY CALLING 811 OR VISITING WWW.CALL811.COM FOR STATE SPECIFIC INFORMATION AND PHONE NUMBERS.



3 TYPICAL DUCTBANK DETAIL
SCALE: N.T.S.





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Project

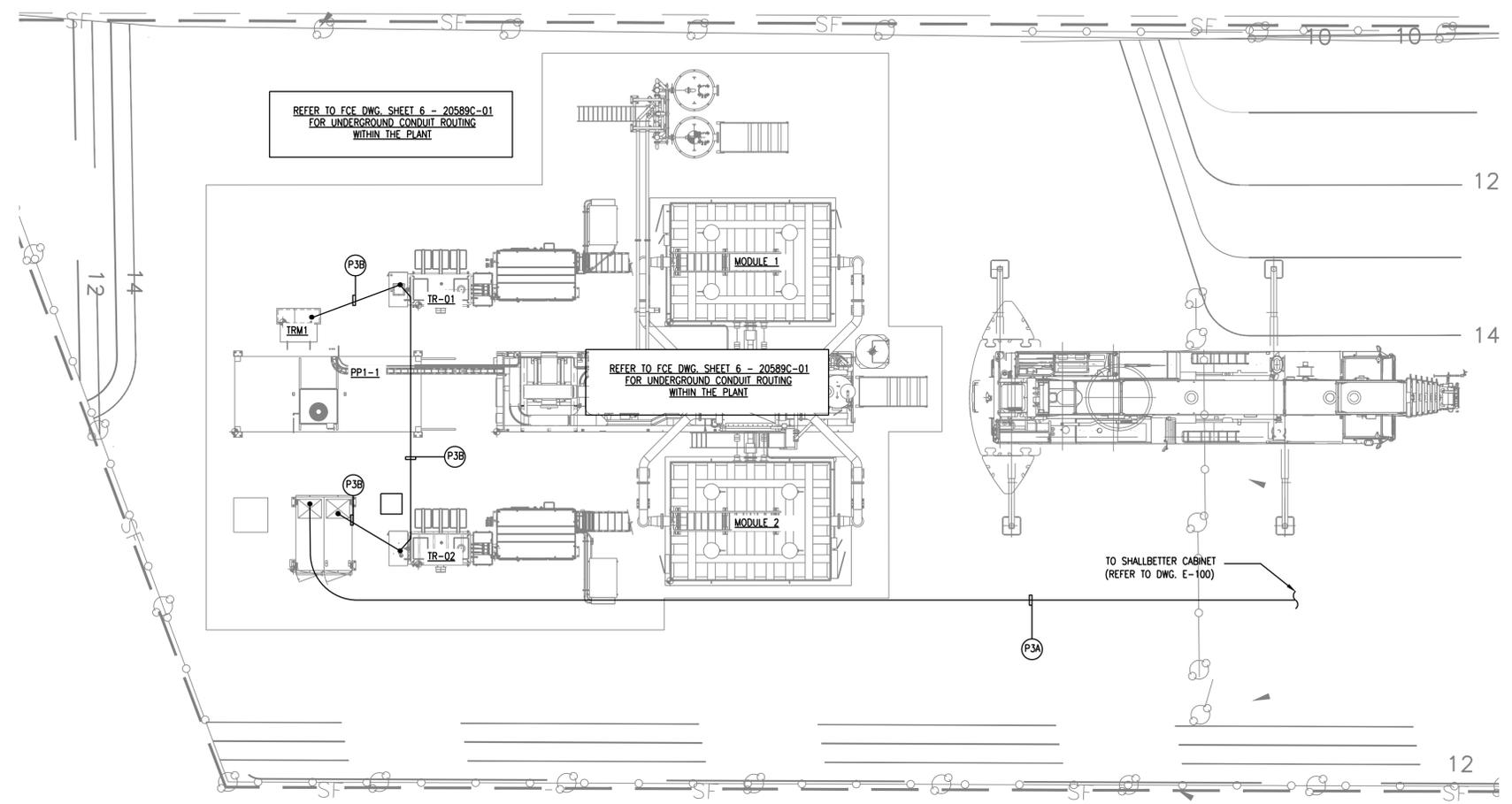
Seaside Park Fuel Cell Project
Seaside Landfill
Bridgeport, CT

Rev	Description	Date
01	ISSUE FOR PERMIT	9-26-14
02	IFC PROGRESS	10-17-14
03	IFC PROGRESS R2	12-19-14



SITE PLAN DETAILS

Date: 9/12/14	E-101
Drawn By: RBM	
Checked By: AZ	
Scale: AS NOTED	
Project #: S10465	

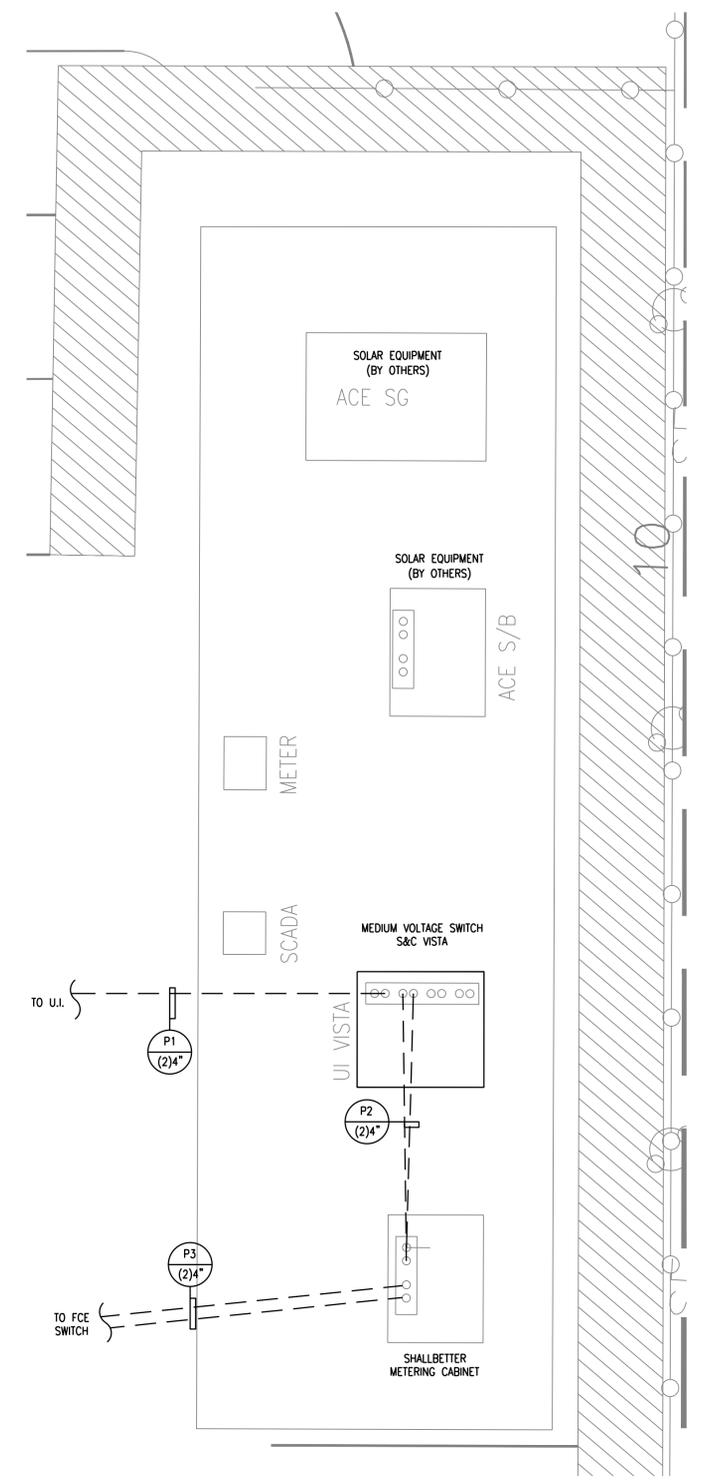


1 SITE PLAN DETAIL
SCALE: 1/8"=1'-0"

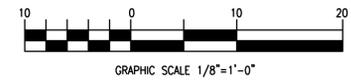
POWER FEEDERS SCHEDULE						
TAG	FROM	TO	CONDUCTOR SIZE	TYPE	CONDUIT	REMARKS
P1	UI	VISTA	(BY UTILITY CO.)	(BY UTILITY CO.)	(BY UTILITY CO.)	-
P2	VISTA	SHALLBETTER	(BY UTILITY CO.)	(BY UTILITY CO.)	(2) 4" R.G.S.	R.G.S. 36" RADIUS SWEEPS IN BOTH SIDES
P3A	SHALLBETTER	FCE SWITCH	(3) #1/0 AWG CU	15KV MV105 133%N	(2) 4" R.G.S.	R.G.S. 36" RADIUS SWEEPS IN SHALLBETTER SIDE ONLY
P3B	FCE SWITCH	TR-01, TR-02 & TRM1	(3) #1/0 AWG CU + (1) #1/0 AWG NEUT	15KV MV105 133%N	(2) 4" PVC SCH. 40	PVC SWEEPS
P4	FCE SWITCH	REACTOR	(1) #1/0 AWG CU (1) #1/0 AWG CU	15KV MV105 133%N 600V CU	(1) 4" PVC SCH. 40	PVC SWEEPS

NOTES:
1 - REFER TO FCE DOCUMENT 4865-73-00 FOR FULL LIST OF INTERNAL AND UTILITY CABLES WITHIN THE PLANT

COMMUNICATIONS CABLE SCHEDULE						
TAG	FROM	TO	CONDUCTOR SIZE	TYPE	CONDUIT	REMARKS
C5	FCE SWITCH	SCADA	(1) RS485	RS485	(1) 1" PVC	F60 COMMUNICATIONS
C6	UPS PANEL SKID 1	SCADA	6C#10 & 1C#12	THHN/THWN	(1) 1" PVC	UPS POWER & 120V NON UPS FOR HEATER FROM PANEL CP1-1
C7	SKID 1 CSU	SCADA	SPARE	SPARE	(1) 1" PVC	-
C8	VISTA	SCADA	12C#14	THHN/THWN	(1) 1" PVC	FAULT CONTACTS
C9						NOT USED
C10						NOT USED
C11	METER	SHALLBETTER	4C#12 (PT'S) 4C#10 (CT'S)	THHN/THWN	1-1/2" PVC RGS STUB-UP	PTS, CTS
C12	SCADA	METER	(1) CAT. 6	CAT. 6 ETHERNET	(1) 1" PVC	LEAVE 10' SLACK ON BOTH ENDS
C13	SCADA	SHALLBETTER	6C#12 (HEATER)	THHN/THWN	1-1/2" PVC RGS STUB-UP	HEATER
C14	SCADA	METER	6#12	THHN/THWN	(1) 2" PVC	HEATER CIRCUIT + 120V UPS
C15	METER	SKID 1	(3) CAT. 6	CAT. 6 ETHERNET	(1) 1" PVC	METER COMM



2 UTILITY AREA CONDUIT PLAN
SCALE: 1/4"=1'-0"



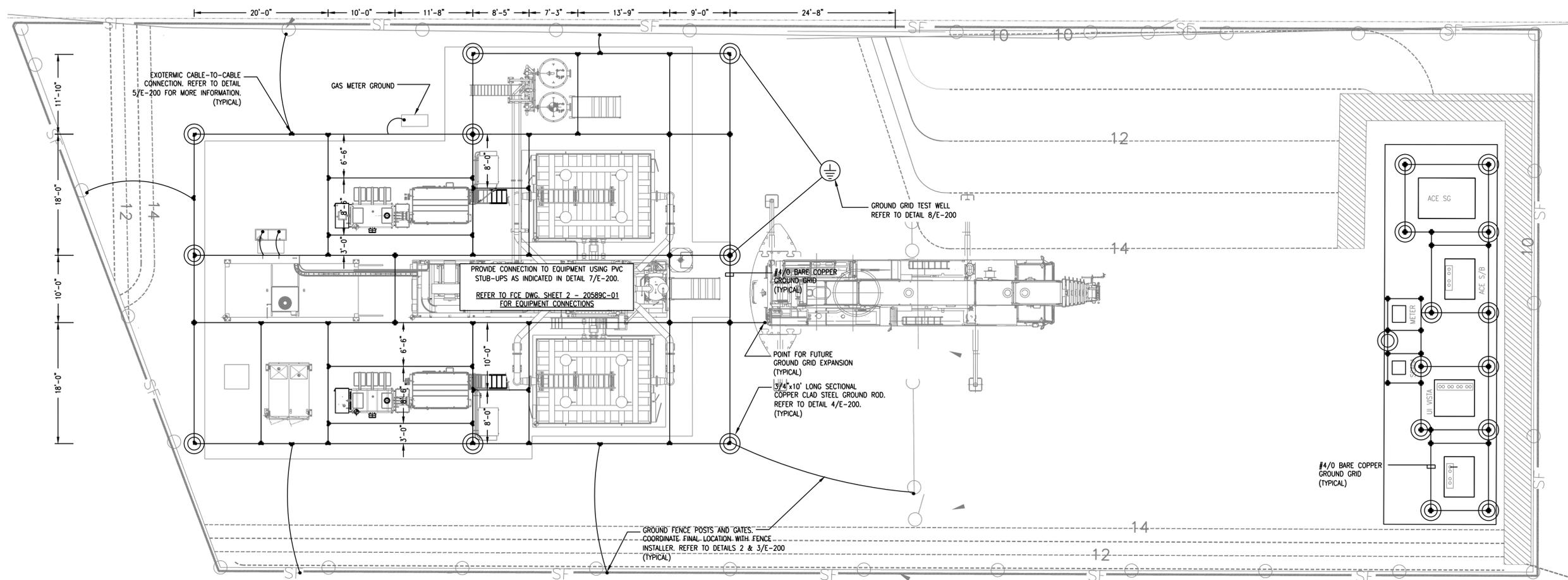
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Project

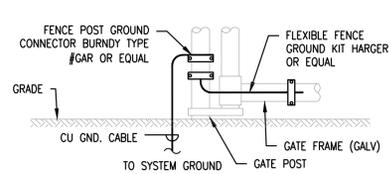
FuelCell Energy
 Ultra-Clean, Efficient, Reliable Power

Seaside Park Fuel Cell Project
 Seaside Landfill
 Bridgeport, CT

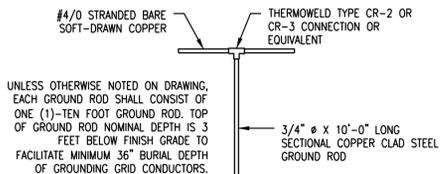


1 ELECTRICAL GROUNDING PLAN
 SCALE: 1/8"=1'-0"

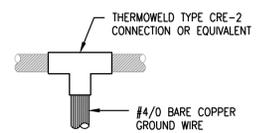
- ELECTRICAL GROUNDING GENERAL NOTES**
- GROUNDING GRID SHALL BE CONTINUOUS THROUGHOUT THE FACILITY. PROVIDE EXOTERMIC WELD AT ALL CONNECTION POINTS. EXOTERMIC WELDS SHALL BE MADE PER MANUFACTURER INSTRUCTIONS.
 - GROUNDING GRID SHALL BE INSTALLED 18" BELOW GRADE.
 - GROUNDING CONDUCTOR SHALL BE BARE COPPER, #4/0 AWG.
 - GROUNDING RODS SHALL BE 3/4" X 10'.
 - REFER TO FUEL CELL ENERGY (FCE) DRAWING 20589C-01 FOR ABOVE GROUND EQUIPMENT GROUNDING DETAILS. ALL EQUIPMENT GROUND TAILS SHALL BE ROUTED THROUGH SLAB VIA 1-1/4" PVC CONDUIT.



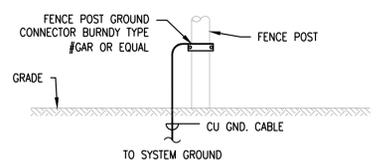
2 GATE GROUNDING
 SCALE: N.T.S.



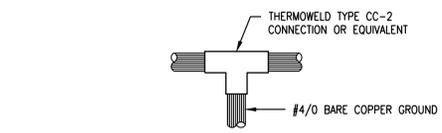
4 ROD DETAIL
 SCALE: N.T.S.



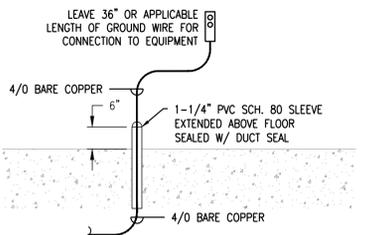
6 REBAR CONNECTION
 SCALE: N.T.S.



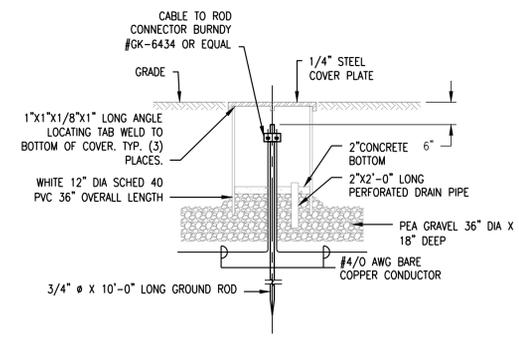
3 POST GROUNDING
 SCALE: N.T.S.



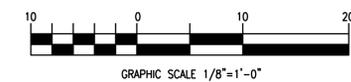
5 WELD DETAIL
 SCALE: N.T.S.



7 STUB-UP DETAIL
 SCALE: N.T.S.



8 TEST WELL DETAIL
 SCALE: N.T.S.



Rev	Description	Date
01	ISSUE FOR PERMIT	9-26-14
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ELECTRICAL GROUNDING PLAN

Date: 9/12/14
 Drawn By: RBM
 Checked By: AZ
 Scale: AS NOTED
 Project #: S10465

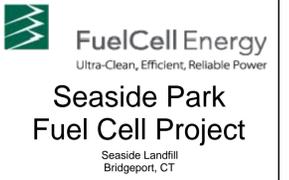
E-200



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Project



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03	IFC PROGRESS R2	12-19-14



ELECTRICAL RISER DIAGRAM

Date: 9/12/14
 Drawn By: RBM
 Checked By: AZ
 Scale: AS NOTED
 Project #: S10465

E-700

POWER FEEDERS SCHEDULE

TAG	FROM	TO	CONDUCTOR SIZE	TYPE	CONDUIT	REMARKS
P1	UI	VISTA	(BY UTILITY CO.)	(BY UTILITY CO.)	(BY UTILITY CO.)	-
P2	VISTA	SHALLBETTER	(BY UTILITY CO.)	(BY UTILITY CO.)	(2) 4" R.G.S.	R.G.S. 36" RADIUS SWEEPS IN BOTH SIDES
P3A	SHALLBETTER	FCE SWITCH	(3) #1/0 AWG	15KV MV105 133%N	(2) 4" R.G.S.	R.G.S. 36" RADIUS SWEEPS IN SHALLBETTER SIDE ONLY
P3B	FCE SWITCH	TR-01, TR-02 & TRM1	(3) #1/0 AWG + (1) #1/0 AWG NEUT	15KV MV105 133%N	(2) 4" PVC SCH. 40	PVC SWEEPS
P4	FCE SWITCH	REACTOR	(1) #1/0 AWG (1) #1/0 AWG	15KV MV105 133%N 600V CU	(1) 4" PVC SCH. 40	PVC SWEEPS

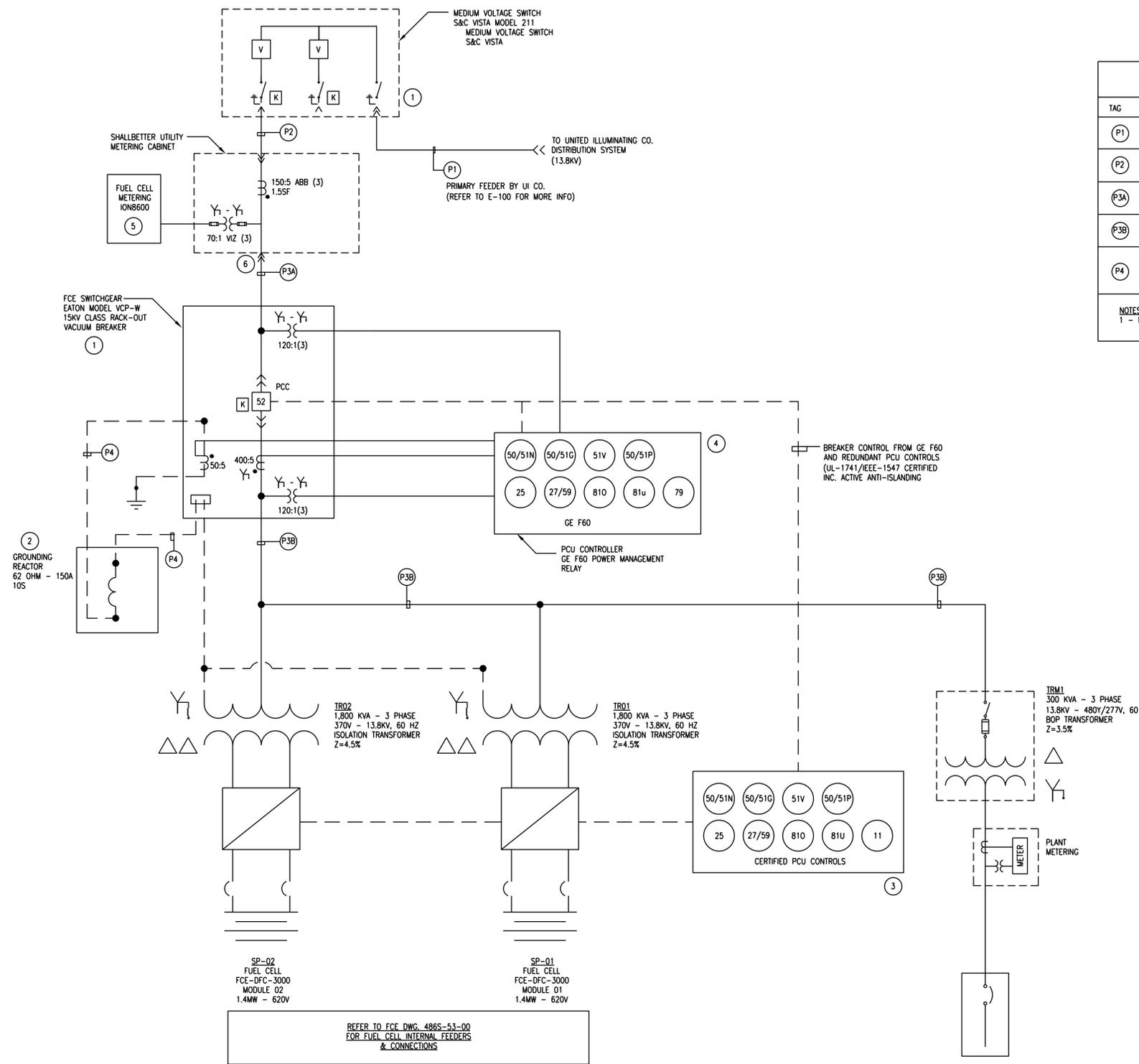
NOTES:
 1 - REFER TO FCE DOCUMENT 4865-73-00 FOR FULL LIST OF INTERNAL AND UTILITY CABLES WITHIN THE PLANT

PROTECTIVE RELAYING LEGEND

NUMBER	DESCRIPTION
11	ANTI-ISLANDING DEVICE
25	SYNCHRONISM CHECK DEVICE
27	UNDERVOLTAGE RELAY
50	INSTANTANEOUS OVERCURRENT RELAY
51	AC INVERSE TIME OVERCURRENT RELAY
51V	VOLTAGE RESTRAINT OVERCURRENT DEVICE
52	AC CIRCUIT BREAKER
59	PHASE OVERVOLTAGE RELAY
79	AUTOMATIC RECLOSER
81	FREQUENCY RELAY

PROTECTION SETTINGS (GE F60 RELAY):
 ANSI 27 - UNDERVOLTAGE: 88% 500MS, 50% 160MS
 ANSI 59 - OVERVOLTAGE: 110% 500MS, 120% 160MS
 ANSI 810 - OVERFREQUENCY: 60.5HZ, 160MS
 ANSI 81U - UNDERFREQUENCY: 58HZ, 32S, 57HZ, 160MS
 ANSI 25 - SYNC PERMISSIVE: 240V, 100EC, 0.5HZ DIFF.

KEYNOTES:
 1 MAIN BREAKER SHALL HAVE KIRK-LOCK WITH KEY REMOVABLE ONLY IN RACK-OUT POSITION AND KEYS TO VISTA.
 2 GROUND REACTOR SEPARATE FROM SWITCHGEAR
 3 ANSI FUNCTION 11 REFERS TO THE UL-1741/IEEE-1547 CERTIFIED ANTI-ISLANDING FUNCTION OF THE INVERTERS WHICH OPENS BREAKER ON LOSS OF GRID.
 4 GENERAL ELECTRIC MULTILIN F-60 FEEDER MANAGEMENT RELAY WITH DNP-3 SCADA PART # F60-G00-HKH-FBF-HGA-MXX-PXX-UXX-WXX
 5 SCADA AND METER CABINET NOT SHOWN. REFER TO DWG. E-701 FOR MORE INFORMATION.
 6 CONTRACTOR TO INSTALL 200A LOAD BREAK ELBOWS WITH PROVISIONS FOR GROUNDING POINTS.



ELECTRICAL RISER DIAGRAM
 SCALE: N.T.S.

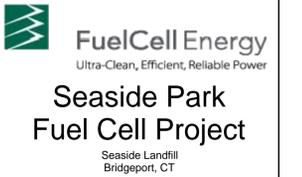
REFER TO FCE DWG. 4865-53-00 FOR FUEL CELL INTERNAL FEEDERS & CONNECTIONS



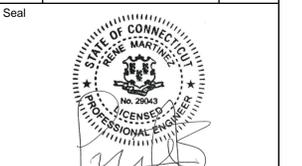
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Project



Rev	Description	Date
01	ISSUE FOR PERMIT	9-26-14
02	IFC PROGRESS	10-17-14
03	IFC PROGRESS R2	12-19-14

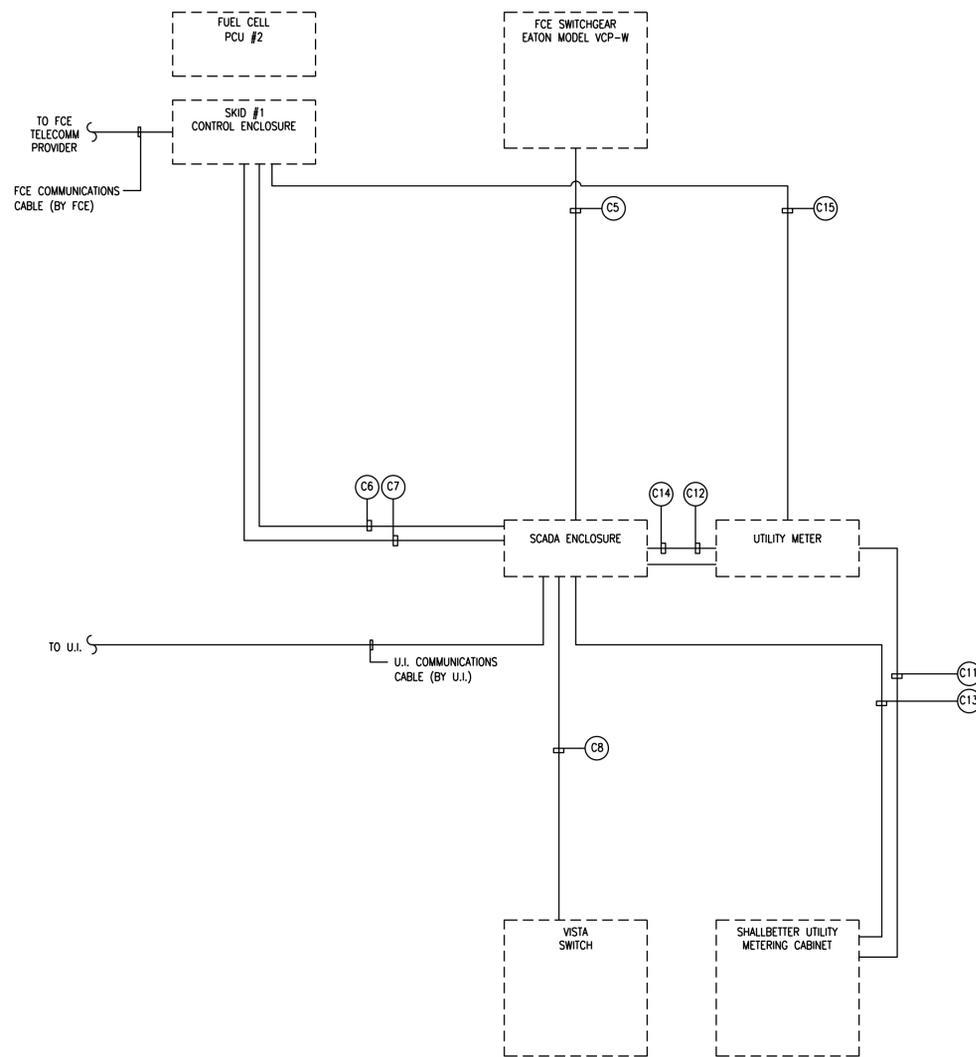


COMMUNICATIONS RISER DIAGRAM

Date: 9/12/14
 Drawn By: RBM
 Checked By: AZ
 Scale: AS NOTED
 Project #: S10465

E-701

TAG	FROM	TO	CONDUCTOR SIZE	TYPE	CONDUIT	REMARKS
C5	FCE SWITCH	SCADA	(1) RS485	RS485	(1) 1" PVC	F60 COMMUNICATIONS
C6	UPS PANEL SKID 1	SCADA	6C#10 & 1C#12	THHN/THWN	(1) 1" PVC	UPS POWER & 120V NON UPS FOR HEATER FROM PANEL CP1-1
C7	SKID 1 CSU	SCADA	SPARE	SPARE	(1) 1" PVC	-
C8	VISTA	SCADA	12C#14	THHN/THWN	(1) 1" PVC	FAULT CONTACTS
C9	NOT USED					
C10	NOT USED					
C11	METER	SHALLBETTER	4C#12 (PT'S) 4C#10 (CT'S)	THHN/THWN	1-1/2" PVC RGS STUB-UP	PIS, CTS
C12	SCADA	METER	(1) CAT. 6	CAT. 6 ETHERNET	(1) 1" PVC	LEAVE 10' SLACK ON BOTH ENDS
C13	SCADA	SHALLBETTER	6C#12 (HEATER)	THHN/THWN	1-1/2" PVC RGS STUB-UP	HEATER
C14	SCADA	METER	6#12	THHN/THWN	(1) 2" PVC	HEATER CIRCUIT + 120V UPS
C15	METER	SKID 1	(3) CAT. 6	CAT. 6 ETHERNET	(1) 1" PVC	METER COMM



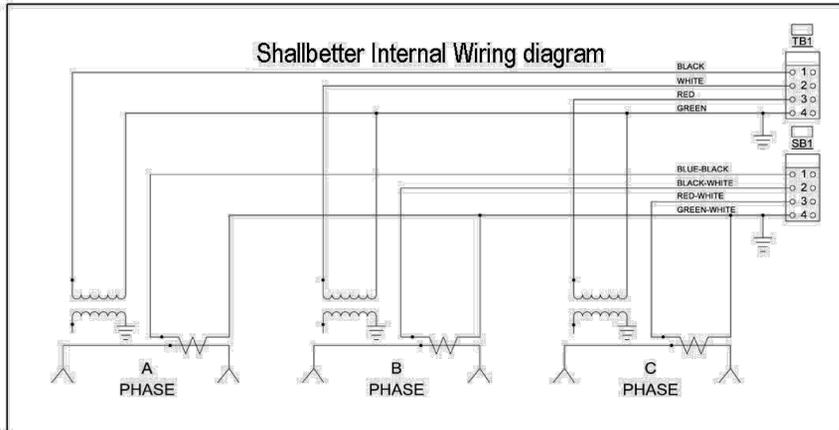
1 COMMUNICATIONS RISER DIAGRAM
 SCALE: N.T.S.



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Project



FCE SHALLBETTER WIRING DIAGRAM
SCALE: N.T.S.

PROTECTIVE RELAYING LEGEND

PCU CONTROLLER GE F60 POWER MANAGEMENT RELAY	50/51N	50/51C	51V	50/51P
	25	27/59	810	81U
				11

NUMBER	DESCRIPTION
11	ANTI-ISLANDING DEVICE
25	SYNCHRONISM CHECK DEVICE
27	UNDERVOLTAGE RELAY
50	INSTANTANEOUS OVERCURRENT RELAY
51	AC INVERSE TIME OVERCURRENT RELAY
51V	VOLTAGE RESTRAINT OVERCURRENT DEVICE
52	AC CIRCUIT BREAKER
59	PHASE OVERVOLTAGE RELAY
79	AUTOMATIC RECLOSER
81	FREQUENCY RELAY

PROTECTION SETTINGS (GE F60 RELAY):

- ANSI 27 - UNDERVOLTAGE: 88% 500MS, 50% 160MS
- ANSI 59 - OVERVOLTAGE: 110% 500MS, 120% 160MS
- ANSI 810 - OVERFREQUENCY: 60.5HZ 160MS
- ANSI 81U - UNDERFREQUENCY: 58HZ 32S, 57HZ, 160MS
- ANSI 25 - SYNC PERMISSIVE: 240V, 10DEG, 0.5HZ DIFF.

KEYNOTES:

- MAIN BREAKER SHALL HAVE KIRK-LOCK WITH KEY REMOVABLE ONLY IN RACK-OUT POSITION AND KEYPED TO VISTA.
- GROUND REACTOR SEPARATE FROM SWITCHGEAR
- ANSI FUNCTION 11 REFERS TO THE UL-1741/IEEE-1547 CERTIFIED ANTI-ISLANDING FUNCTION OF THE INVERTERS WHICH OPENS BREAKER ON LOSS OF GRID.
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- SCADA AND METER CABINET NOT SHOWN. REFER TO DWG. E-701 FOR MORE INFORMATION.
- CONTRACTOR TO INSTALL 200A LOAD BREAK ELBOWS WITH PROVISIONS FOR GROUNDING POINTS.

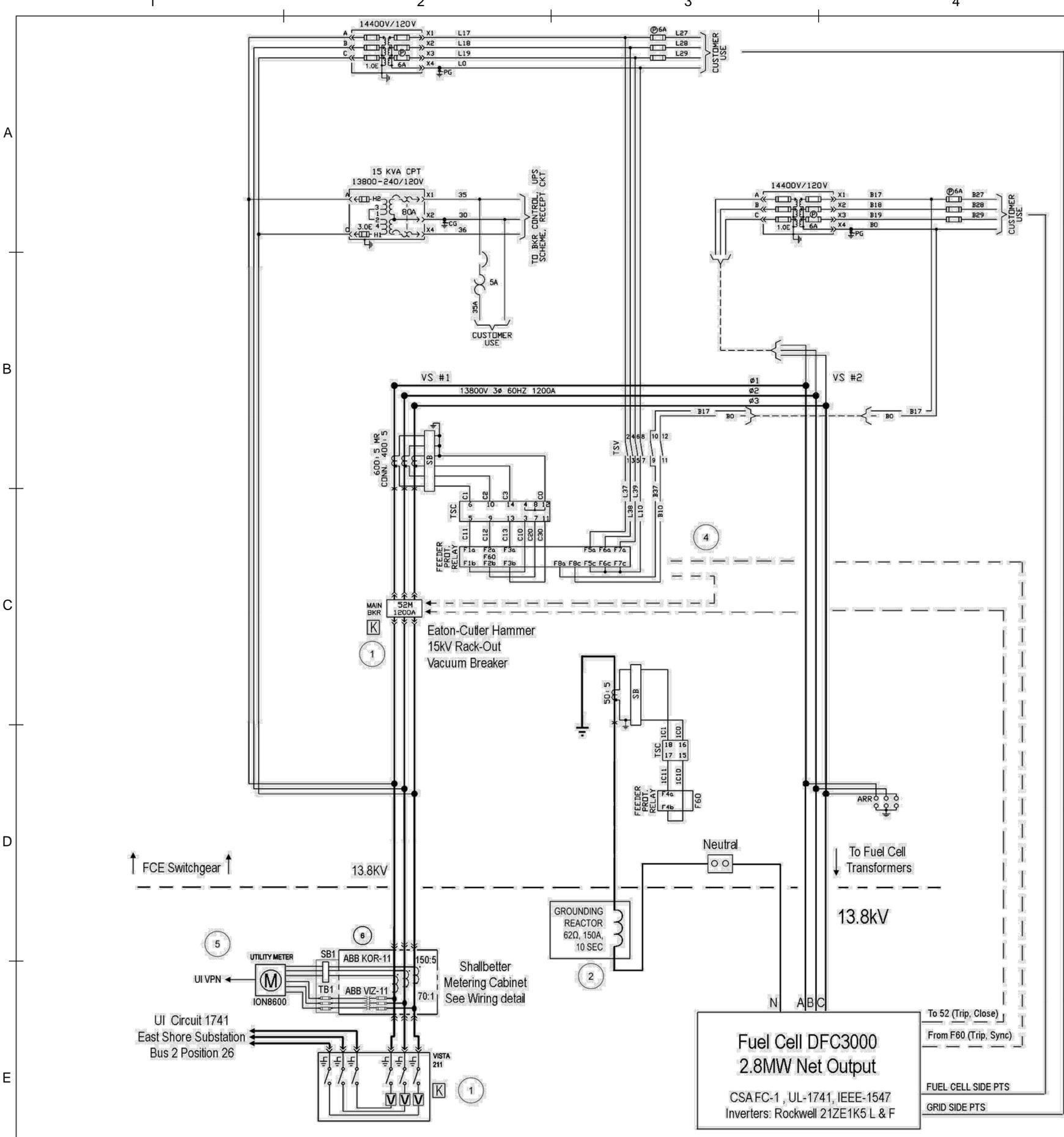
Rev	Description	Date
01	ISSUE FOR PERMIT	9-26-14
02	IFC PROGRESS	10-17-14
03	IFC PROGRESS R2	12-19-14



ELECTRICAL 3-LINE DIAGRAM

Date: 9/12/14
 Drawn By: RBM
 Checked By: AZ
 Scale: AS NOTED
 Project #: S10465

E-702



FCE THREE-LINE DIAGRAM
SCALE: N.T.S.

A
B
C
D
E

1 2 3 4 5 6

1 2 3 4 5 6

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Project

FuelCell Energy
Ultra-Clean, Efficient, Reliable Power
Seaside Park Fuel Cell Project
Seaside Landfill
Bridgeport, CT

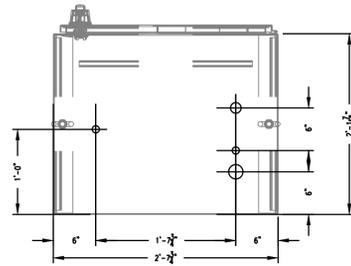
Rev	Description	Date
01	ISSUE FOR PERMIT	9-26-14
02	IFC PROGRESS	10-17-14
03	IFC PROGRESS R2	12-19-14

Seal

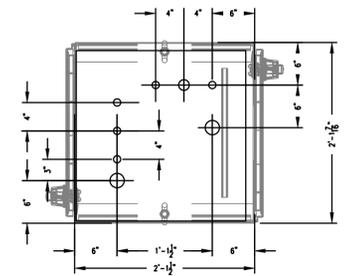

ELECTRICAL DETAILS

Date: 9/12/14
 Drawn By: RBM
 Checked By: AZ
 Scale: AS NOTED
 Project #: S10465

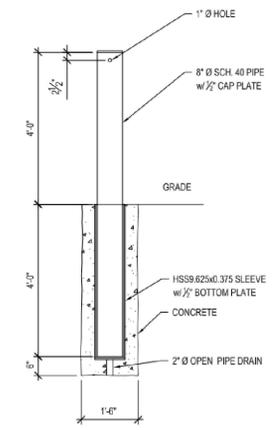
E-800



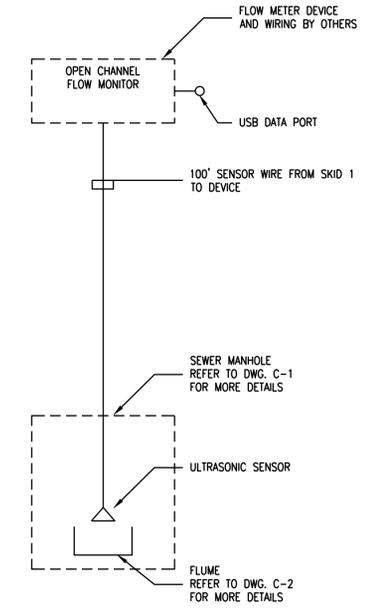
1 METER CABINET STUB UP PLAN
 SCALE: 1"=1'-0"
 NOTE: BASED ON HOFFMAN ENCLOSURE MODEL #A7230324SSFSN4



2 SCADA CABINET STUB UP PLAN
 SCALE: 1"=1'-0"
 NOTE: BASED ON HOFFMAN ENCLOSURE MODEL #A722424SSFSDAN



3 REMOVABLE PIPE BOLLARD
 SCALE: N.T.S.
 PAINT SPECIFICATIONS:
 SURFACE PREP: SP6
 1ST COAT: SHERWIN WILLIAMS MACROPOXY 646 FF (GRAY) 5.0-7.0 MILS DFT
 2ND COAT: SHERWIN WILLIAMS ACROLON 218 HS (SAFETY YELLOW) 2.0-3.0 MILS DFT
 PAINT BOLLARD AND SLEEVE.



4 SEWER METER DETAIL
 SCALE: N.T.S.

MECHANICAL LEGEND AND ABBREVIATIONS

ABBREVIATIONS - MECHANICAL

ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING UNIT	MAT	MIXED AIR TEMPERATURE
ACC	AIR COOLED CONDENSER	MAX	MAXIMUM
ACD	AUTOMATIC CONTROL DAMPER	MB	CHILLED WATER MIXING BLOCK
AD	ACCESS DOOR	MBH	THOUSAND BTU PER HOUR
AFS	AIRFLOW STATION	MCC	MOTOR CONTROL CENTER
AHU	AIR HANDLING UNIT	MFG	MANUFACTURER
ARCH	ARCHITECTURAL	MFS	MAXIMUM FUSE SIZE
ATC	AUTOMATIC TEMPERATURE CONTROL	MIN	MINIMUM
B	BOILER	MUA	MAKE UP AIR UNIT
BD	BALANCING DAMPER	MOCP	MAXIMUM OVERCURRENT PROTECTION
BDD	BACK DRAFT DAMPER	NC	NORMALLY CLOSED
BMS	BUILDING MANAGEMENT SYSTEM	NFA	NET FREE AREA
BO	BLANK OFF	NC	NOT IN THIS CONTRACT
BHP	BRAKE HORSE POWER	NK	NECK
BTU	BRITISH THERMAL UNIT	NO	NORMALLY OPEN
CA	COMPRESSED AIR	NTS	NOT TO SCALE
CC	COOLING COIL	OA	OUTSIDE AIR INTAKE
CD	CEILING DIFFUSER	OBD	OPPOSED BLADE DAMPER
CF	CAP FOR FUTURE	OD	OUTSIDE DIMENSION
CFM	CUBIC FEET PER MINUTE	P	PUMP
CG	CEILING GRILLE	POC	POINT OF CONNECTION
CH	CHILLER	PHC	PRE-HEAT COIL
CO	CLEAN OUT	PHX	PLATE HEAT EXCHANGER
COMP	COMPRESSOR	PRV	PRESSURE REDUCING VALVE
CONV	CONNECTOR	PSI	POUNDS PER SQUARE INCH (GAUGE)
CR	CEILING REGISTER	PSA	POUNDS PER SQUARE INCH ABSOLUTE
CT	COOLING TOWER	RA	RETURN AIR
CU	CONDENSING UNIT	RF	RETURN FAN
CW	CONDENSER WATER	RH	RELATIVE HUMIDITY
DB	DRY BULB	RHC	REHEAT COIL
DEC	DIRECT EVAPORATIVE COOLER	RPM	REVOLUTIONS PER MINUTE
DA	DAMETER	SA	SUPPLY AIR
DN	DOWN	SATT	SOUND ATTENUATOR
DX	DIRECT EXPANSION	SD	SMOKE DAMPER
EA	EXHAUST AIR	SF	SUPPLY FAN
EAT	ENTERING AIR TEMPERATURE	SENS	SENSIBLE
ECH	ELECTRIC CABINET HEATER	SM	SHEET METAL
EC	EVAPORATIVE CONDENSER	SP	STATIC PRESSURE
EDB	ENTERING DRY BULB	STP	STAIR PRESSURIZATION
EF	EXHAUST FAN	SQFT	SQUARE FEET
EFF	EFFICIENCY	ST	SOUND TRAP
ELEV	ELEVATOR	SK	SMOKE EXHAUST
EHC	ELECTRIC HEATING COIL	TF	TRANSFER FAN
ER	ENERGY RECOVERY	TRD	TRANSFER DUCT
EUH	ELECTRIC UNIT HEATER	TRG	TRANSFER GRILLE
EWB	ENTERING WET BULB	Tx	TOILET EXHAUST
EW	ENTERING WATER TEMPERATURE	TYP	TYPICAL
F	FEET	UH	UNIT HEATER
F	FILTER	VAR	VARIABLE
FCU	FAN COIL UNIT	VAV	VARIABLE AIR VOLUME
FD	FUSIBLE LINK FIRE DAMPER W/ DUCT ACCESS DOOR	VO	VOLUME DAMPER
FHX	FLAME HOOD EXHAUST	VFD	VARIABLE FREQUENCY DRIVE
FLR	FLOOR	VX	VAPOR HOOD EXHAUST
FLA	FULL LOAD AMPS	W/	WITH
FPB	FAN POWERED BOX	WB	WET BULB
FPI	FPS PER INCH	WG	WATER GAUGE
FRE	FIRE RATED ENCLOSURE	WMS	WIRE MESH SCREEN
FSD	COMBINATION FIRE AND SMOKE DAMPER	WO-SIZE	WALL OPENING - [SIZE]
FT	FEET	X	EXISTING TO BE REMOVED
FTR	FAN TUBE RADIATOR	300	CUBIC FEET OR AIR PER MINUTE OR GALLONS PER MINUTE
GLY	GLYCOL		
GPM	GALLONS PER MINUTE		
GX	GENERAL EXHAUST		
H	HUMIDIFIER		
HC	HEATING COIL		
HP	HEAT PUMP		
HP	HORSE POWER		
HR	HOUR		
HRU	HEAT RECOVERY UNIT		
HTW	HEATWHEEL		
HW	HOT WATER		
HX	HEAT EXCHANGER		
ID	INSIDE DIMENSION		
KW	KILOWATT		
KWH	KILOWATT HOURS		
KX	KITCHEN EXHAUST		
LAT	LEAVING AIR TEMPERATURE		
LBS	POUNDS		
LD	LINEAR DIFFUSER (CEILING, WALL, SILL OR FLOOR)		

PIPING LEGEND

	CONDENSER WATER SUPPLY		REFRIGERANT SUCTION PIPING		SLOPED CHANGE IN PIPE ELEVATION
	CONDENSER WATER RETURN		REFRIGERANT SAFETY VALVE RELIEF LINE		FLEXIBLE CONNECTION
	CHILLED WATER SUPPLY		GAS PIPING		SHUT-OFF VALVE
	CHILLED WATER RETURN		DOMESTIC COLD WATER MAKE-UP		AUTOMATIC FLOW CONTROL VALVE
	PROCESS CHILLED WATER SUPPLY		ARROW INDICATES DIRECTION OF FLOW		CALIBRATED BALANCE VALVE
	PROCESS CHILLED WATER RETURN		PITCH PIPE DOWN IN DIRECTION OF ARROW		GLOBE VALVE
	ENERGY RECOVERY WATER SUPPLY		DRAIN LINE		CHECK VALVE
	ENERGY RECOVERY WATER RETURN		PIPE ANCHOR		AUTOMATIC THREE-WAY CONTROL VALVE
	GLYCOL HOT WATER SUPPLY		PIPE GUIDE		AUTOMATIC TWO-WAY CONTROL VALVE
	GLYCOL HOT WATER RETURN		EXPANSION COMPENSATOR		RELIEF VALVE
	HIGH TEMPERATURE HOT WATER SUPPLY		EXPANSION LOOP (SIZE A+B)		ANGLE RELIEF VALVE
	HIGH TEMPERATURE HOT WATER RETURN		FLEXIBLE BALL JOINT EXPANSION COMPENSATOR		PRESSURE REDUCING VALVE (PRV)
	MEDIUM TEMPERATURE HOT WATER SUPPLY		CONCENTRIC REDUCER (INCREASER)		LUBRICATED PLUG VALVE
	MEDIUM TEMPERATURE HOT WATER RETURN		ECCENTRIC REDUCER (INCREASER)		LOCKSHIELD GLOBE VALVE
	HOT WATER SUPPLY		UNION		SOLENOID VALVE
	HOT WATER RETURN		CAPPED PIPE WITH SHUT-OFF VALVE		BUTTERFLY VALVE (MANUAL)
	REFRIGERANT LIQUID PIPING		VALVE IN VERTICAL		BUTTERFLY VALVE (MOTORIZED)
	DRY POCKET		MANUAL AIR VENT		BALL VALVE
	REFRIGERANT EXPANSION VALVE		AUTOMATIC AIR VENT		PUMP
	SIGHT GLASS		THERMOMETER		PIPE SENSOR WELL (THERMOMETER)
	PRESSURE GAUGE AND COCK		PRESSURE GAUGE WITH LOOP		TEMPERATURE-PRESSURE TEST FITTING
	PRESSURE GAUGE WITH LOOP		TEMPERATURE-PRESSURE TEST FITTING		BASKET TYPE STRAINER
	CENTER LINE		HEAT TRACED PIPING		DUPLEX STRAINER
	PIPE SLEEVE		ELBOW TURNED UP		ELBOW TURNED DOWN
	BEAM PENETRATION		BOTTOM PIPE CONNECTION		TOP PIPE CONNECTION

MISCELLANEOUS

	DIFFERENTIAL PRESSURE SENSOR		AIR OUTLET/INLET DEVICE DESIGNATION		TYPE NECK OR FACE SIZE
	DIFFERENTIAL PRESSURE SWITCH		LINEAR DIFFUSER DEVICE DESIGNATION		TYPE NECK OR FACE SIZE
	NEW WORK		EMCS PANEL		THERMOSTAT
	EXISTING WORK TO BE REMOVED		HUMIDITY SENSOR		AIRCUTY SAMPLING PORT
	POINT OF NEW CONNECTION TO EXISTING WORK		CARBON DIOXIDE SENSOR		OXYGEN SENSOR
	OVAL		HORN STROBE FOR OXYGEN DEPLETION SYSTEM		AIRFLOW PRESSURIZATION (+) OR (-)
	DIAMETER		NO ARROWS UNDER DOOR		AIRFLOW PRESSURIZATION (NEUTRAL)
	UNDERCUT DOOR		POSITIVELY PRESSURIZED SPACE		NEGATIVELY PRESSURIZED SPACE
	RISER DESIGNATION		DUCT SMOKE DETECTOR - MULTIPLE UNITS MAY BE REQUIRED DUE TO SIZE OF DUCT.		DUCT STATIC PRESSURE SENSOR
	SECTION DESIGNATION				
	DETAIL DESIGNATION				
	EQUIPMENT DESIGNATION				
	EQUIPMENT DESIGNATION				
	TERMINAL DESIGNATION				

DRAWING LIST

H-001	HVAC LEGEND AND ABBREVIATIONS
H-100	HVAC SITE PLAN
H-700	MECHANICAL PROCESS SCHEMATIC

AZ CORP Engineering Construction Operations Maintenance
 46 Norwich Westerly Road
 Post Office Box 370
 North Stonington
 Connecticut 06359
 800.400.2420 - www.a-zcorp.com

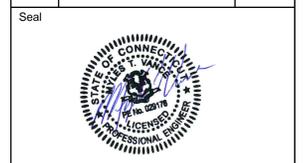
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Project	
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FuelCell Energy
 Ultra-Clean, Efficient, Reliable Power
Seaside Park Fuel Cell Project
 Seaside Landfill
 Bridgeport, CT

Rev	Description	Date
01	ISSUE FOR PERMIT	9-26-14
02	IFC PROGRESS	10-17-14
03	IFC PROGRESS R2	12-19-14



MECHANICAL LEGEND & ABBREVIATIONS

Date: 9/12/14
 Drawn By: TP
 Checked By: MV
 Scale: AS NOTED
 Project #: S10465

H-001



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Project



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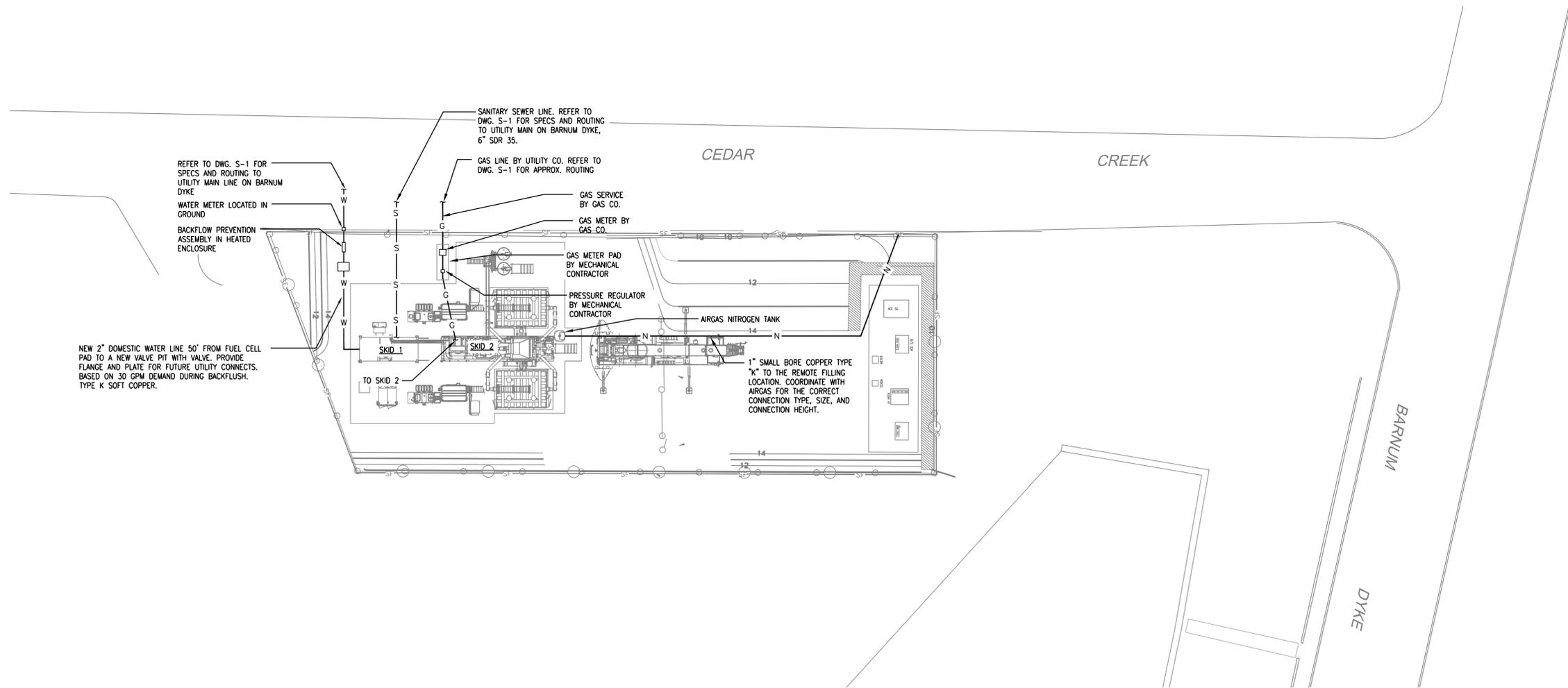
Seal



**MECHANICAL
SITE PLAN**

Date: 9/12/14
Drawn By: TP
Checked By: MV
Scale: AS NOTED
Project #: S10465

H-100



1 OVERALL MECHANICAL SITE PLAN
SCALE: 1"=20'-0"



UNDERGROUND UTILITY NOTE

THE CONTRACTOR IS TO BE FULLY RESPONSIBLE FOR CONTACTING THE LOCAL CABLE TELEVISION COMPANY, POWER COMPANY, TELEPHONE COMPANY, GAS COMPANY, WATER AND SEWER COMPANY AND ANY OTHER UTILITY COMPANY WITHIN THE AREA PRIOR TO PROCEEDING WITH ANY EXCAVATION. BY LAW, THE CONTRACTOR IS REQUIRED TO CALL BEFORE DOING ANY EXCAVATION, DIGGING HOLES OR DRIVING POSTS REGARDLESS OF WHETHER IT IS WITHIN THE STREET LINE OR ON PRIVATE PROPERTY. OBTAIN INFORMATION REGARDING THE EXISTENCE AND LOCATION OF ANY UNDERGROUND FACILITIES BY CALLING 811 OR VISITING WWW.CALL811.COM FOR STATE SPECIFIC INFORMATION AND PHONE NUMBERS.

MECHANICAL SYSTEMS NOTE

UTILITY ROUTING SHOWN IS SCHEMATIC. CONTRACTOR IS RESPONSIBLE OF COORDINATING FINAL LOCATIONS WITH UTILITY COMPANIES AND FUEL CELL ENERGY PRIOR CONSTRUCTION.

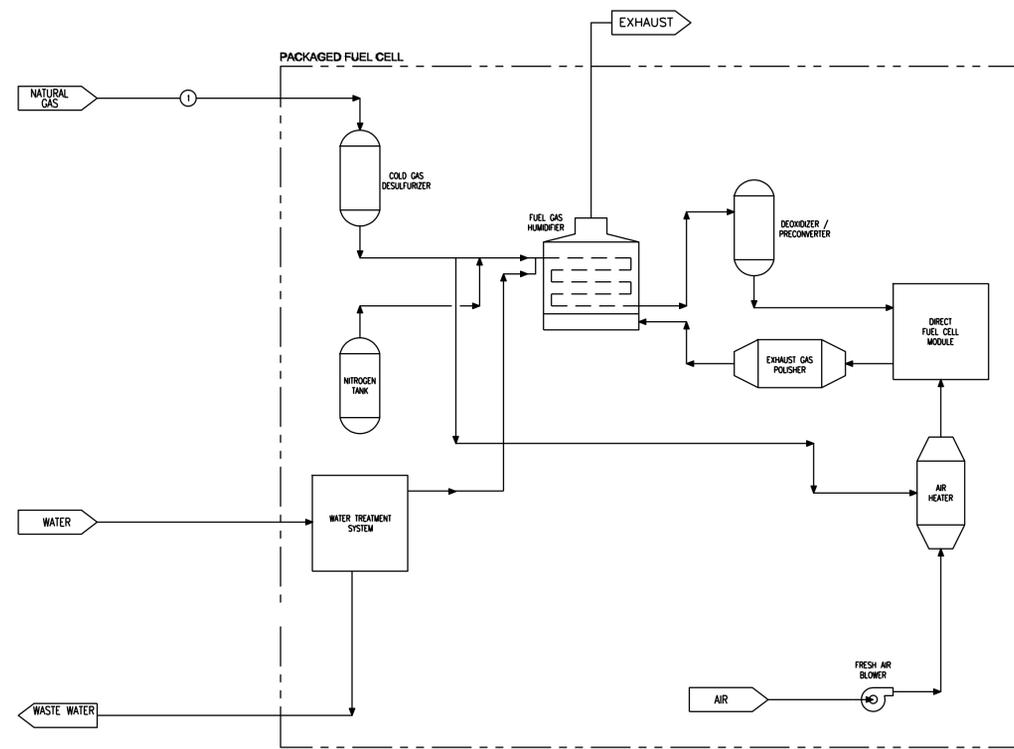
DFC3000 FUEL & WATER SPECIFICATIONS

PARAMETER	DESCRIPTION
FUEL TYPE	NATURAL GAS
FUEL PRESSURE	15-20 PSIG
FUEL CONTAMINANTS	REFER TO FCE DOC. #5665
FUEL DEMAND	405 SCFM
WATER DEMAND	30 GPM

DURING FULL POWER OPERATION, THE OVERALL WATER CONSUMPTION OF THE POWERPLANT IS APPROXIMATELY 13,000 GALLONS/DAY, AND WATER DISCHARGE IS APPROXIMATELY 6,500 GALLON/DAY. THIS CAN VARY DEPENDING ON THE INPUT QUALITY OF THE SUPPLY WATER. THE POWERPLANT ONLY CONSUMES WATER WHILE IT IS FILLING THE WATER STORAGE TANK. WHEN THE TANK IS FULL, THE POWERPLANT DOES NOT DRAW ANY WATER, EXCEPT WHEN THE SYSTEM IS BACK FLUSHING.

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DFC3000 FUEL & WATER SPECIFICATIONS	
PARAMETER	DESCRIPTION
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1 MECHANICAL PROCESS SCHEMATIC
SCALE: N.T.S.

Project

FuelCell Energy
Ultra-Clean, Efficient, Reliable Power
Seaside Park Fuel Cell Project
Seaside Landfill
Bridgeport, CT

Rev	Description	Date
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MECHANICAL PROCESS SCHEMATIC

Date: 9/12/14
 Drawn By: TP
 Checked By: MV
 Scale: AS NOTED
 Project #: S10465

H-700

THE UNITED ILLUMINATING COMPANY

SEASIDE LANDFILL GROUND MOUNTED SOLAR FACILITY BARNUM BLVD, BRIDGEPORT, CT

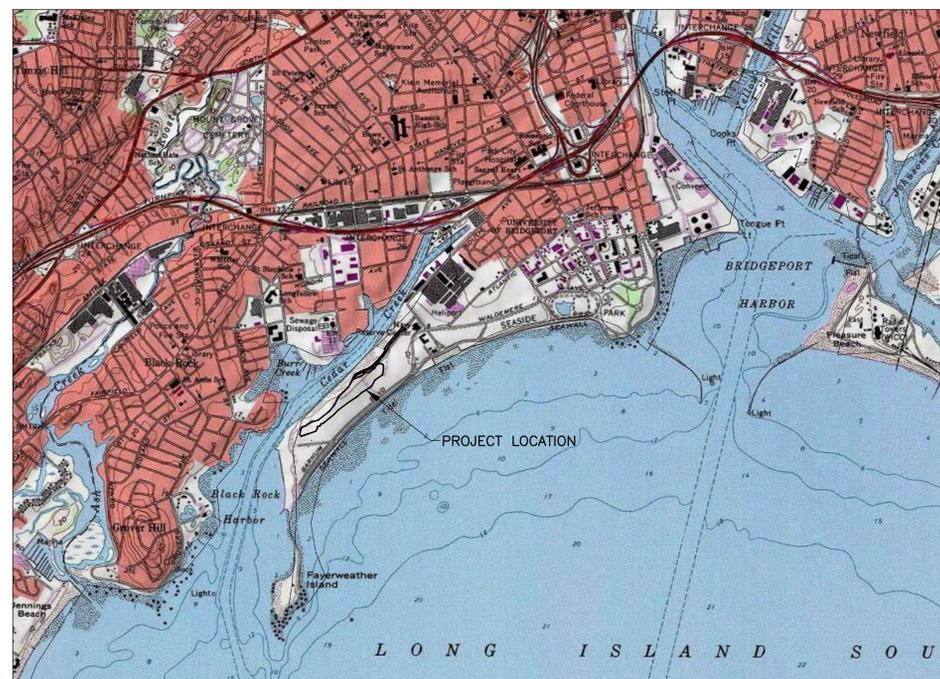
DECEMBER 2014

AMERICAN CAPITAL ENERGY

1001 Pawtucket Blvd. Suite 278

Lowell, MA 01854

Phone 978-221-2000



USGS MAP
SCALE: 1" = 2,000'

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PROJECT DIRECTORY	
OWNER: THE UNITED ILLUMINATING COMPANY	HOST: CITY OF BRIDGEPORT 45 LYONS TERRACE BRIDGEPORT, CT 06604
ENGINEERING, PROCUREMENT, CONSTRUCTION (EPC) CONTRACTOR: AMERICAN CAPITAL ENERGY, INC. 1001 PAWTUCKET BOULEVARD, SUITE 278 LOWELL, MASSACHUSETTS 01854	UTILITY: THE UNITED ILLUMINATING COMPANY P.O. BOX 1564 NEW HAVEN, CT 06506

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LEGEND

DESCRIPTION	EXISTING	PROPOSED
CATCH BASIN	■	■ CB
HYDRANT	⊕	⬇
UTILITY POLE	⊕	⬇
LIGHT POST	☆	
EDGE OF PAVEMENT	—EOP—	—
EDGE OF UNPAVED ROAD	— — — —	— — — —
GAS LINE	—G—	
RAILROAD	+++++	
STONE WALL	○○○○○○○○	○○○○○○○○
RETAINING WALL	—RET WALL—	—RET WALL—
FENCE	—x—x—	—x—x—
INDIVIDUAL DECIDUOUS TREE	⊕	⊕
INDIVIDUAL EVERGREEN TREE	⊕*	⊕*
EDGE OF WOODS	~~~~~	~~~~~
DEBRIS / SOIL PILE / RUBBLE	▨	
ELECTRIC METER	[E]	
SURVEY MARKER	□	
PROPERTY BOUNDARY	— · — · —	
LIMIT OF WORK		— · — · —
APPROXIMATE LIMIT OF WASTE	— · — · —	
SPOT ELEVATIONS	x 141.5	x 141.5
DEPRESSION CONTOUR LINES	— — — —	— — — —
RESOURCE FLAG	⊕ A2 (TYP.)	
GUY WIRE	⊕	
EROSION CONTROL MATTING		▨
RIP RAP	▨	▨
SIGN	⊕	
BENCH MARK	⊕	
AUGER BORING	⊕ A-1	⊕ A-1
PERCOLATION TEST	⊕ PT-1	⊕ PT-1
TEST PIT	⊕ TP-1	
SOIL BORING	⊕ SB-1	
HIGH POINT	⊕ HP	
BLIND FLANGE	—H	
GAS CONDENSATE KNOCKOUT	⊕ KO-1	
CONTROL VALVE	⊕ CV-1	
BAR HOLE PROBE (LFG MONITORING)	BHP-1	
POLYVINYL CHLORIDE (PIPE)	PVC	
CONCRETE	CONC.	
PAVEMENT	PAVE.	
ELECTRIC	ELEC.	
NOW OR FORMERLY	N/F	
SURFACE WATER SAMPLING LOCATION	⊕ SW	
GROUNDWATER MONITORING WELL	⊕ MW-# SHALLOW ⊕ DEEP	
EXISTING WELL	⊕ #2	
GAS EXTRACTION WELL	⊕ GW-1	
SOIL GAS MONITORING POINT	△ GP	
GAS VENT	⊕ GV-1	
SEDIMENT/EROSION CONTROLS		▨
ROCK OUTCROP	▨	
TOWN BOUNDARY	— · — · —	
PHASE BOUNDARY		— · — · —
SEWER MANHOLE	⊕ SMH-1	●
MANHOLE (MH) FOR UNDERDRAIN SYSTEM	⊕	
DRAIN MANHOLE (DMH)	⊕	
STAFF GAUGE	⊕ SG	
GRASS SWALE		▨
SIDE SLOPE SWALE		▨
END CAP		⊕
UTILITY MANHOLE	⊕	
PV MODULE RACK		▨
ABOVE GROUND ELECTRICAL CONDUIT		— E —
UNDERGROUND ELECTRICAL CONDUIT		— UG —

NOTES: ITEMS SHOWN IN THE LEGEND MAY NOT BE PRESENT ON THESE PLANS.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL CALL DIGSAFE AT 811 OR 1-888-922-4455 AT LEAST 72 HOURS, SATURDAYS, SUNDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE DIGSAFE PROJECT REFERENCE NUMBER(S) SHALL BE GIVEN TO THE OWNER PRIOR TO EXCAVATION.
2. LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS AND OTHER UNDERGROUND OBJECTS ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT ACCOUNT SHOULD THEY BE OTHER THAN SHOWN.
3. STONE WALLS, FENCES, CURBS, ETC. SHALL BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE WORK. UNLESS OTHERWISE INDICATED, ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF THE PROJECT.
4. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND PAYMENT LIMITS SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL INSTALL EROSION CONTROLS BEFORE BEGINNING OTHER WORK ON SITE.
6. THE PLANS HEREIN SHALL BE IN UTILIZED CONJUNCTION WITH THE AMERICAN CAPITAL ENERGY'S DEVELOPMENT AND MANAGEMENT PLAN.

SPECIFICATIONS FOR WORK ON LANDFILL:

GENERAL:

1. THE CONTRACTOR SHALL BE AWARE THAT WORK IS LOCATED ON A LANDFILL AND IS SUBJECT TO THE CONNECTICUT SOLID WASTE MANAGEMENT PLAN (SECTION 22A-228 OF THE CONNECTICUT GENERAL STATUTES).
2. THE CONTRACTOR SHALL BE AWARE THAT THE WORK IS TO TAKE PLACE ABOVE A LANDFILL COVER SYSTEM, GENERALLY COMPRISED OF A VEGETATIVE SUPPORT LAYER, A SAND DRAINAGE LAYER, AND A LOW PERMEABILITY LINER LAYER. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO NOT DISRUPT THE LANDFILL CAP PROFILE OR TO DAMAGE THE LOW PERMEABILITY LINER, UNLESS AS INDICATED ON PLAN.
3. WORK SHALL BE COMPLETED IN GENERAL ACCORDANCE WITH ALL PROJECT PERMIT APPROVALS.
4. THE CONTRACTOR SHALL HAVE A HEALTH AND SAFETY PLAN WHILE WORKING ON THE LANDFILL.

EQUIPMENT:

1. THE CONTRACTOR SHALL PROVIDE A LIST OF ALL EQUIPMENT PROPOSED TO BE WORKING ON THE LANDFILL. THE LIST SHALL INCLUDE THE EQUIPMENT WEIGHT, GROUND PRESSURE, AND ANY RESTRICTIONS THAT WILL BE IMPOSED ON THE VEHICLE (I.E. LIMITED TO TEMPORARY ACCESS ROADS, LIMITED TO CARRYING 1/2 LOADS, ETC.).
2. ALL EQUIPMENT IS SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER. AS A GENERAL RULE, EQUIPMENT SHALL ADHERE TO THE FOLLOWING REQUIREMENTS:

EQUIPMENT GROUND PRESSURE		MINIMUM LIFT THICKNESS	
KPa	psi	meter	inches
<70	<10	0.30	12
70-140	10-20	0.60	24
>140	>20	0.90	36

SOURCE: GEOMEMBRANE PROTECTION DESIGN MANUAL, GSE; DHANI NAREJO, PH.D. AND GREG CORCORAN, P.E., FIRST EDITION.

EXCAVATIONS:

1. THE CONTACTOR SHALL PROVIDE AN EXCAVATION PLAN DETAILING HOW THE CONTRACTOR WILL COMPLY WITH ALL PERTINENT PROVISIONS OF THE CONTRACT DOCUMENTS, INCLUDING SITE RESTRICTIONS, WORK PROTOCOLS, TEMPORARY ROADS, ON-SITE PARKING AND STORAGE AREAS.
2. EXCAVATIONS ON THE LANDFILL AREA SHALL BE PERFORMED WITH THE GUIDANCE OF A LABORER OR 'SPOTTER' AT ALL TIMES. THE LABORER SHALL IDENTIFY THE DEPTH OF THE LOW PERMEABILITY LINER AND NOTIFY THE OPERATOR SHOULD HE GET TOO CLOSE.
3. IT IS PREFERABLE TO USE A SMOOTH BUCKET EXCAVATOR IN LIEU OF BUCKET WITH TEETH.

MATERIALS SPECIFICATIONS:

GEOSYNTHETICS:

1. GENERAL:

SUBMIT 6 SETS OF SHOP DRAWINGS FOR EACH MATERIAL. INSTALLATION OF GEOTEXTILE FABRICS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFIC LAYOUT PLANS AND DETAILS REVIEWED BY OWNER'S REPRESENTATIVE.

2. WOVEN FILTER FABRIC:

THE WOVEN FILTER FABRIC SHALL BE MIRAFI 500X FABRIC, BY MIRAFI INC., OR APPROVED EQUAL. THE WOVEN FILTER FABRIC SHALL BE COMPOSED OF POLYPROPYLENE STABILIZED WITH CARBON BLACK TO RESIST ULTRAVIOLET DEGRADATION AND BE RESISTANT TO BIOLOGICAL AND CHEMICAL DEGRADATION DUE TO ALL NATURALLY OCCURRING ORGANISMS OR REAGENTS NORMALLY ENCOUNTERED IN NATURAL SOIL ENVIRONMENTS.

3. FILTER/DRAINAGE FABRIC:

THE FILTER/DRAINAGE FABRIC SHALL BE A NON-WOVEN FABRIC COMPOSED OF CONTINUOUS FILAMENT FIBERS BONDED TOGETHER TO FORM A SHEET. THE FABRIC SHALL BE AN AVERAGE OF 20 MILS THICK AND POSSESS THE CHARACTERISTICS OF MIRAFI 140N AS MANUFACTURED BY MIRAFI INC., OR APPROVED EQUAL.

EARTHWORK MATERIALS:

1. GENERAL:

SUBMIT 6 SETS OF SHOP DRAWINGS FOR EACH MATERIAL.

2. BROKEN OR CRUSHED STONE:

CRUSHED STONE SHALL SATISFY THE REQUIREMENTS LISTED IN CONNDOT SPECIFICATION SECTION M.02.01 AND SHALL SATISFY THE GRADATION REQUIREMENTS LISTED FOR M.01.01 AND M2.01.4, RESPECTIVELY.

3. BANK OR CRUSHED GRAVEL

BANK OR CRUSHED GRAVEL SHALL SATISFY THE REQUIREMENTS OF CONNDOT SPECIFICATION SECTION M.02.01.

4. BACKFILL MATERIALS:

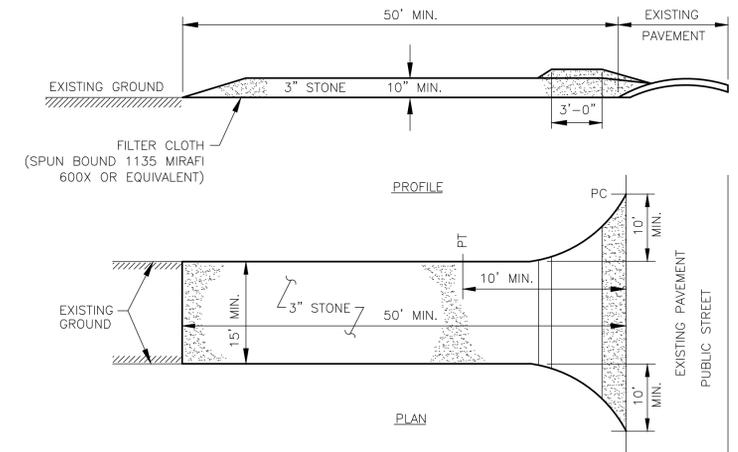
a. CLASS B BACKFILL:

CLASS B BACKFILL SHALL BE GRANULAR, WELL GRADED FRIABLE SOIL; FREE OF RUBBISH, ICE, SNOW, TREE STUMPS, ROOTS, CLAY AND ORGANIC MATTER; WITH 30 PERCENT OR LESS PASSING THE NO. 200 SIEVE; NO STONE GREATER THAN TWO-THIRD (2/3) LOOSE LIFT THICKNESS, OR SIX INCHES, WHICHEVER IS SMALLER.

b. SELECT BACKFILL:

SELECT BACKFILL SHALL BE GRANULAR, WELL GRADED FRIABLE SOIL, FREE OF RUBBISH, ICE, SNOW, TREE STUMPS, ROOTS, CLAY AND ORGANIC MATTER, AND OTHER DELETERIOUS OR ORGANIC MATERIAL; GRADED WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	PERCENT FINER BY WEIGHT
3"	100
NO. 10	30-95
NO. 40	10-70
NO. 200	0-10



NOTES:

1. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
2. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
3. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL 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 AND/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.
4. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
6. STONE SHALL BE REMOVED AT THE CONCLUSION OF PROJECT AND ACCUMULATED SEDIMENT DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. REMOVAL OF STONE SHALL BE AT NO ADDITIONAL COST TO THE OWNER.

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EROSION CONTROL NOTES:

GENERAL

THE PLANS HEREIN SHALL BE IN UTILIZED CONJUNCTION WITH THE AMERICAN CAPITAL ENERGY'S DEVELOPMENT AND MANAGEMENT PLAN.

WATER EROSION CONTROL MEASURES

EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIST OF STRAW WATTLES (ON LANDFILL CAP), HAY BALES, NON-WOVEN FILTER FABRIC MATERIAL WITH A WIRE MESH BACKING, OR A SILT FENCE (OFF-CAP). ALL MATERIAL SHALL BE NEW AND FREE FROM DEFECTS THAT WOULD COMPROMISE THE EFFECTIVENESS OF THE CONTROL MEASURES. ONCE THESE MEASURES HAVE BEEN INSTALLED, ALL EXCESS MATERIAL SHALL BE DISPOSED OF PROPERLY. EROSION AND SEDIMENT CONTROL STRUCTURES SHALL BE MAINTAINED PER THE EROSION AND SEDIMENT CONTROL PLAN. PLEASE NOTE: ALL WATER CONTROL MEASURES ARE LOCATED DOWN-GRADIENT FROM DISTURBED AREA. IF TOPSOIL IS TO BE STORED IN AN AREA NOT SHOWN ON THE CONSTRUCTION STAGING AND TRAFFIC CONTROL PLAN, DUE TO UNFORESEEN EVENTS, PRIOR TO STORING, THE DOWN-GRADIENT PERIMETER OF THE STORAGE AREA SHALL BE PROPERLY PROTECTED PER THE SPECIFICATIONS DETAILED ON THIS SITE PLAN.

CONSTRUCTION LITTER CONTROL

DURING CONSTRUCTION, ALL WRAPPINGS, BOXES, SCRAPS OF BUILDING MATERIAL AND OTHER LITTER ITEMS SHALL BE DISPOSED OF PROPERLY. THE SITE SHALL BE INSPECTED AND CLEANED DAILY DURING CONSTRUCTION.

TYPICAL CONSTRUCTION SEQUENCE

ON-SITE CONSTRUCTION SEQUENCE SHALL START WITH THE INSTALLATION OF EROSION CONTROL MEASURES (AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN) THIS INCLUDES WOOD CHIP BERMS, SILTATION FENCING, ANTI-TRACK PADS, HAY BALES AND OTHER MEASURES NOTED ON THIS SITE PLAN. NO WORK SHALL TAKE PLACE UNTIL THE OWNER'S REPRESENTATIVE HAS INSPECTED AND APPROVED INSTALLED MEASURE. AFTER EROSION CONTROL MEASURES ARE INSTALLED THE TYPICAL SEQUENCE SHALL BE AS FOLLOWS:

- A. CLEAR AREA WITHIN THE LIMITS OF WORK. SEE DEVELOPMENT AND MANAGEMENT PLAN FOR MORE DETAIL
- B. STAKE OUT OF CONSTRUCTION (SEE REQUIREMENTS ON STAKES ON THE LANDFILL)
- C. CONSTRUCT PRIMARY AND SECONDARY ACCESS ROADS.
- D. INSTALL UNDERDRAINS AND DRAINAGE CULVERTS (IF REQUIRED)
- E. LAYOUT AND COMMENCE PREPARATION FOR CONCRETE BALLAST LOCATIONS, EQUIPMENT PADS, AND PERIMETER FENCING
- F. INSTALL CONCRETE BALLASTS, RACKING SYSTEM, SOLAR PANELS, AND PERIMETER FENCING
- G. INSTALL ALL ELECTRICAL WIRING AND COMPONENTS
- H. INSTALL ALL UTILITY CONDUIT RUNS AND ALL ASSOCIATED UTILITY WIRING AND SUPPORTS
- I. RE-SEED THE DISTURBED AREA USING THE APPROPRIATE MIX (THIS PAGE).

DURING THIS TIME ALL EROSION AND SEDIMENT STRUCTURES SHALL BE MAINTAINED IN PROPER WORKING ORDER. DISTURBED AREAS SHALL BE KEPT TO A MINIMUM AND SHALL ONLY TAKE PLACE WHERE IMMEDIATELY REQUIRED TO FURTHER CONSTRUCTION. IT IS DESIRABLE FROM AN EROSION PREVENTION CONCERN TO MINIMIZE DISTURBED AREAS. FINAL GRADING AND SEEDING SHALL TAKE PLACE AS SOON AS PRACTICAL.

A RAIN GAUGE SHALL BE PLACED AT THE PROJECT IN A WORKABLE LOCATION AND MONITORED DURING RAINFALL PERIODS UNTIL ALL DISTURBED AREAS ARE STABILIZED .IN THE EVENT THERE IS A RAINFALL GREATER THAN 1/2" IN 12 HOUR PERIOD, ALL EROSION CONTROL MEASURES SHALL BE CHECKED AND REPAIRED AS REQUIRED. IF NO RAIN GAUGE IS USED, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AFTER ALL RAINFALL EVENTS.

AN INSPECTION FORM SHALL BE PROVIDED TO CONTRACTOR BY THE OWNER'S REPRESENTATIVE TO BE FILLED OUT EVERY WEEK OR AFTER EACH RAINFALL EVENT OF 1/2" OR GREATER.

SEEDING (AREAS OUTSIDE OF PV DEVELOPMENT)

ALL DISTURBED AREAS OUTSIDE OF PV DEVELOPMENT AREAS SHALL BE RESTORED WITH A VEGETATIVE STABILIZATION MATERIAL (GRASS). THE SOIL SHALL BE ADJUSTED TO A PH OF 5.70 OR HIGHER. THIS CAN BE DONE BY USING THE APPROPRIATE AMOUNT OF GROUND LIMESTONE OR FERTILIZER, AS REQUIRED BY A SOIL TEST. IF A TEST IS NOT PERFORMED, THE AREA SHALL BE FERTILIZED WITH 10-10-10 U.F. OR EQUAL AT A RATE OF 300 POUNDS PER ACRE (11 POUNDS PER 1000 SQUARE FEET). THE LIME OR FERTILIZER SHALL BE WORKED INTO THE SOIL A MINIMUM OF 4 INCHES AND UNIFORMLY BLENDED. ALL STONES TWO INCHES OR LARGER IN DIAMETER SHALL BE REMOVED ALONG WITH ALL DELETERIOUS MATERIAL (SUCH AS BUILDING MATERIAL WASTE, ETC.). THE SEED SHALL BE APPLIED BY EITHER HAND, CYCLONE SEEDER, A CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING BOTH SEED AND FERTILIZER). HYDROSEEDING, WHICH ARE MULCHED, MAY BE LEFT ON SOIL SURFACE. SEED MIX SHALL CONSIST OF 20 POUNDS OF KENTUCKY BLUEGRASS, 20 POUNDS OF CREEPING RED FESCUE, AND 5 POUNDS OF PERENNIAL RYEGRASS, FOR A TOTAL OF 45 POUNDS OF SEED PER ACRE. RECOMMENDED SEEDING DATES ARE APRIL 1 THROUGH JUNE 1 AND AUGUST 15 THROUGH SEPTEMBER 1. ALL SEEDED AREAS SHALL BE MAINTAINED TO ENSURE PROPER GROWTH AND TO MINIMIZE EROSION.

SHADE MIX SEEDING (WITHIN PV DEVELOPMENT AREAS)

ALL AREAS WITHIN THE PHOTOVOLTAIC DEVELOPMENT AREA SHALL BE HYDROMULCHED IN ACCORDANCE WITH THE FOLLOWING CONSTRUCTION METHODS:

1. THE LIMING, FERTILIZING AND SEEDING TO BE ACCOMPLISHED UNDER THIS SECTION SHALL BE DONE DURING A PERIOD OF TIME TO BE APPROVED BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE 30 DAYS PRIOR TO THE TIME THAT HE/SHE INTENDS TO BEGIN THIS WORK. NO SEEDING SHALL BE PERMITTED PRIOR TO APPROVAL IN WRITING BY THE OWNER'S REPRESENTATIVE.
2. HEAVILY STRATIFYING THE EXISTING TURF GRASS AND OVER SEEDING WITH ADDITIONAL SEED MIX MAY BE NECESSARY IN SOME AREAS.
3. WHERE APPROPRIATE, THE EXISTING TURF MAY BE TOP DRESSED WITH ONE TO TWO INCHES OF LOAM BEFORE SEED IS APPLIED.
4. AFTER ALL SURFACES TO BE SEEDED HAVE BEEN BROUGHT TO FINISHED GRADE, THE CONTRACTOR SHALL FURNISH AND APPLY LIMESTONE AS HEREIN SPECIFIED.
5. LIMESTONE SHALL BE APPLIED AT A RATE UP TO A MAXIMUM OF 100 HUNDRED POUNDS PER 1000 THOUSAND SQUARE FEET, OR AS DETERMINED BY THE RESULTS OF LABORATORY TESTS CONDUCTED BY AN APPROVED TESTING LABORATORY AT CONTRACTOR'S EXPENSE. A MINIMUM OF 4 SUB-SAMPLES, TAKEN TO THE PROPOSED DEPTH OF TOPSOIL, SHALL BE TAKEN PER ACRE OF AREA TO BE LIMED. THESE SAMPLES SHALL BE PLACED IN A SUITABLE CONTAINER OBTAINED FROM THE TESTING LABORATORY AND MARKED SO AS TO CLEARLY INDICATE THE ACRE AREA FROM WHICH THEY WERE TAKEN.
6. THE SAMPLE SHALL BE DELIVERED BY THE CONTRACTOR TO THE TESTING LABORATORY FOR CHEMICAL AND MECHANICAL ANALYSIS. THE TESTING LABORATORY SHALL BE DIRECTED BY THE CONTRACTOR TO FURNISH TEST RESULTS AND RECOMMENDATIONS FOR LIMING AND FERTILIZING TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.
7. LIME SHALL BE MECHANICALLY SPREAD IN TWO APPLICATIONS UP TO 50 LBS. PER 1000 SQUARE FEET, ON ALL AREAS. THE LIME SHALL BE DISTRIBUTED UNIFORMLY.
8. FERTILIZER SHALL BE MECHANICALLY SPREAD SO AS TO OBTAIN UP TO A MINIMUM SOWN FERTILIZER COVERAGE YIELD OF 16 POUNDS PER 1000 SQUARE FEET. THE ACTUAL AMOUNTS AND TYPE OF FERTILIZER APPLIED SHALL BE AS DETERMINED BY THE RESULTS OF LABORATORY TESTS CONDUCTED ABOVE.
9. SEED SHALL BE INCORPORATED WITH THE MULCHING MATERIAL SO AS TO OBTAIN A MINIMUM SOWN COVERAGE OF 200 HUNDRED POUNDS OF THE SPECIFIED MIX PER ACRE. SEED SUBSTITUTIONS MAY REQUIRE RATE ADJUSTMENTS AS RECOMMENDED BY THE SEED SUPPLIERS, IF APPROVED BY THE OWNER'S REPRESENTATIVE.
10. AT AREAS TO BE SEEDED BY HYDROMULCHING, CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL STONES OVER 3 INCHES IN SIZE OR OTHER UNSUITABLE MATERIAL OFF THE SITE.
11. AFTER THE FINE GRADING AND PREPARATIONS FOR HYDROMULCH SEEDING ARE APPROVED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL SEED THE AREA INDICATED, AS SPECIFIED HEREIN. THE SEED SHALL BE INCORPORATED WITH MULCHING MATERIALS COMPOSED OF WOOD CELLULOSE FIBERS THAT WILL READILY DISPERSE IN WATER TO FORM A UNIFORM AND HOMOGENEOUS MIXTURE WHEN AGITATED.
12. THE SLURRY SO FORMED SHALL BE OF SUCH CONSISTENCY THAT IT CAN BE SPRAYED UPON THE PREPARED SOIL SURFACES FROM A HYDROSEED GUN OR THROUGH AT LEAST 200 FEET OF ONE AND ONE-HALF INCH DIAMETER CANVAS HOSE. THE MULCHING MATERIAL SHALL BE USED AT THE RATE OF 1000 THOUSAND POUNDS PER ER ACRE ON FLAT SURFACES AND 1400 POUNDS PER ACRE ON SLOPES EXCEEDING FOUR PERCENT.

13. SPRAYING EQUIPMENT SPECIFICATIONS SHALL BE SUBMITTED TO THE SUPERVISING ENGINEER PRIOR TO SITE ENTRY TO DETERMINE GROUND PRESSURE.

MATERIALS

LIME

A. LIME SHALL BE STANDARD COMMERCIAL GROUND LIMESTONE CONTAINING AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE AND MAGNESIUM OXIDE) AND 50% PERCENT OF THE MATERIAL MUST PASS THROUGH A #100 MESH SIEVE, WITH 98% PASSING A #20 MESH SIEVE.

FERTILIZER

- A. FERTILIZER SHALL BE COMMERCIAL FERTILIZER 10-6-4 U.F. FERTILIZER MIXTURE CONTAINING AT LEAST 60% OF ORGANIC MATERIAL OR TYPE DETERMINED BY CHEMICAL SOIL ANALYSIS AS TESTED BY AN APPROVED LABORATORY. IT SHALL BE DELIVERED AT THE SITE IN THE ORIGINAL SEALED CONTAINERS WITH CONTENTS CLEARLY DESCRIBED.
- B. ALL FERTILIZER SHALL BE UNIFORMLY SPREAD BY A MECHANICAL SPREADER AT THE RATE OF 15 POUNDS PER 1000 SQUARE FEET. AT SLOPES EXCEEDING 25% GRADIENT THE FERTILIZER SHALL BE APPLIED MANUALLY IN AN APPROVED MANNER.

SEED

THE LAWN SEED BLEND SHALL BE A SUN AND SHADE BLEND AS SUPPLIED BY WINDING BROOK TURF FARM INC., WETHERSFIELD, CT, MADE UP OF THE FOLLOWING GRASSES OR APPROVED EQUAL. SUBMIT SUPPLIER'S SEED BLEND SPECIFICATIONS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO COMMENCING WITH THE HYDROSEEDING OPERATIONS.

COMMON NAME	WEIGHT
PERENNIAL RYEGRASS	35%
KENTUCKY BLUEGRASS	30%
CREEPING RED FESCUE	20%
CHEWINGS FESCUE	15%

MULCH

MULCH MATERIAL SHALL BE A MANUFACTURED PRODUCT OF NATURAL WOOD CELLULOSE FIBERS WITH A NON-TOXIC GREEN MARKING DYE INCORPORATED TO INSURE UNIFORM DISTRIBUTION. MATERIAL SHALL BE INTERNATIONAL PAPER COMPANY'S "TURFIBER;" WEYERHAEUSER COMPANY'S "SILVA-FIBER," OR APPROVED EQUAL AND CLEARLY PACKED IN ORIGINAL CONTAINERS, SEALED AND CLEARLY LABELED WITH BRAND NAME AND MANUFACTURER. IT SHALL HAVE A DELIVERED MOISTURE CONTENT OF NOT OVER 12%.

MAINTENANCE OF SEEDED AREAS SHALL BE THE SOLE RESPONSIBILITY OF CONTRACTOR AS DESCRIBED BELOW:

- A. CONTRACTOR SHALL MAINTAIN THE ENTIRE SEEDED AREAS UNTIL FINAL ACCEPTANCE AT THE COMPLETION OF THE PROJECT OR FOR 90 DAY, WHICHEVER IS LONGER. MAINTENANCE SHALL INCLUDE WATERING AS SPECIFIED , WEEDING, REMOVAL OF STONES WHICH MAY APPEAR AND REGULAR CUTTINGS OF THE GRASS NO CLOSER THAN 10 DAYS APART. THE FIRST CUTTING SHALL BE ACCOMPLISHED WHEN THE GRASS IS FROM 2-1/2 TO 3 INCHES HIGH. WEEKLY WATERING SHALL PROVIDE THE SEEDED AREAS WITH THE EQUIVALENT OF 1 INCH OF RAINFALL PER WEEK. IF THE SEEDED AREAS ARE WATERED BY NORMAL RAINFALL OR THE NORMAL WATERING IS INADEQUATE DUE TO WEATHER, THE CONTRACTOR MAY AT HIS/HER DISCRETION ELIMINATE OR INCREASE RESPECTIVELY, THE WATERING DURING A GIVEN WEEK. HOWEVER, SUCH ACTION BY CONTRACTOR SHALL IN NO WAY WAIVE CONTRACTOR'S RESPONSIBILITY FOR THE GROWTH AND HEALTH OF THE GRASS UNTIL FINAL ACCEPTANCE. CONTRACTOR SHALL FURNISH ALL TEMPORARY PIPE AND CONNECTIONS FOR SPRINKLING. CONTRACTOR SHALL FURNISH ALL REQUIRED WATER AT NO EXPENSE TO THE OWNER. GARDEN HOSE AND HAND SPRINKLING SHALL BE PERMITTED ONLY IN SPECIAL INSTANCES BY THE OWNER'S REPRESENTATIVE.
- B. ALL BARE SPOTS, WHICH BECOME APPARENT AS THE GRASS GERMINATES, SHALL BE RESEEDED BY CONTRACTOR AT ITS OWN EXPENSE AS MANY TIMES AS NECESSARY TO SECURE A GOOD GROWTH AND THE ENTIRE AREA SHALL BE MAINTAINED AND CUT UNTIL ALL WORK HAS BEEN COMPLETED AND FINAL ACCEPTANCE HAS OCCURRED. RESEEDING MAY BE ACCOMPLISHED BY HYDROMULCHING OR BY MECHANICAL MEANS AS DETERMINED BY THE AREA OF RESEEDING TO BE ACCOMPLISHED.
- C. AT ALL AREAS TO BE SEEDED WHERE HYDROMULCHING CANNOT BE ACCOMPLISHED, I.E., ADJACENT TO NARROW OR IRREGULARLY SHAPED AREAS, PERFORM THE WORK MANUALLY AND PROTECT THE SEEDED AREAS WITH STRAW, OR WOOD FIBER MULCH SPRINKLED TO COVER THE AREA.
- D. CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PROTECT THE GRASS WHILE IT IS GERMINATING. THESE MEASURES SHALL INCLUDE FURNISHING OF WARNING SIGNS, BARRIERS, TEMPORARY FENCE OR ANY OTHER NECESSARY MEASURES OF PROTECTION.

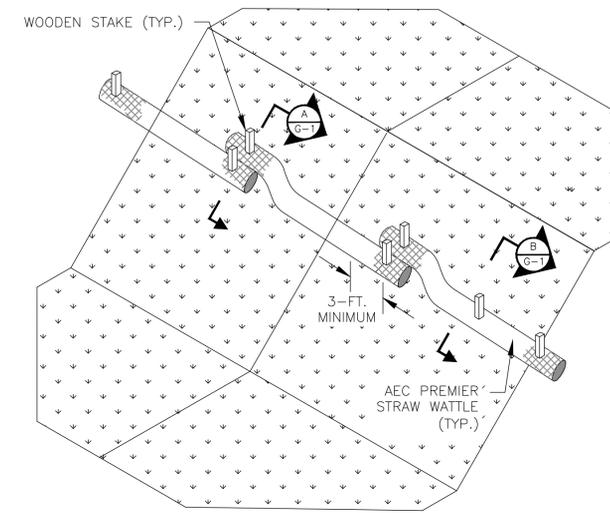
E. CONTRACTOR SHALL FURNISH, PROTECT, AND MAINTAIN ALL TEMPORARY BARRIERS UNTIL FINAL ACCEPTANCE OF THE SEEDED AREAS BY THE OWNER AND SHALL REMOVE THEM UPON SUCH FINAL ACCEPTANCE, THE BARRIERS SHALL REMAIN THE PROPERTY OF CONTRACTOR AT ALL TIMES.

F. SIX WEEKS AFTER THE GRASS IS ESTABLISHED, CONTRACTOR SHALL APPLY FERTILIZER TO THE SURFACE OF SEEDED AREAS AT ONE-HALF THE RATE RECOMMENDED BY INITIAL LABORATORY TESTS AS INDICATED HEREIN.

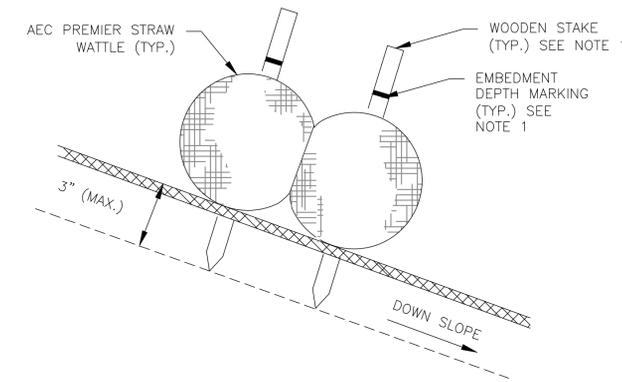
TEMPORARY EROSION CONTROL MEASURES:

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME.
2. SEDIMENT/EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON PLANS. EROSION CONTROL BARRIERS ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE BEEN ADEQUATELY STABILIZED.
3. FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC.
4. THE TEMPORARY AND PERMANENT STORMWATER CONTROLS SHALL BE PERIODICALLY CLEANED OF SEDIMENT, AS REQUIRED BY THE ENGINEER. THE SEDIMENT WILL BE REMOVED TO A SECURE LOCATION SO AS TO PREVENT SILTATION OF NATURAL WATER WAYS.
5. STRAW WATTLES MUST BE A MINIMUM TUBE DIAMETER OF 12 INCHES (300mm) FOR SLOPES UP TO 50 FEET (15.24m) IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
6. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
7. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.
8. EROSION CONTROL MEASURES SHALL BE REMOVED WHEN DISTURBED AREA IS STABILIZED. DISTURBED AREA RESULTING FROM THE SILT FENCE REMOVAL OPERATION SHALL BE SEEDED IN ACCORDANCE WITH THE SPECIFICATIONS.
9. EROSION CONTROLS OTHER THAN AS SHOWN (I.E. HAYBALES) MUST BE APPROVED BY THE ENGINEER.

APPENDIX C - SOLAR FACILITY PLANS



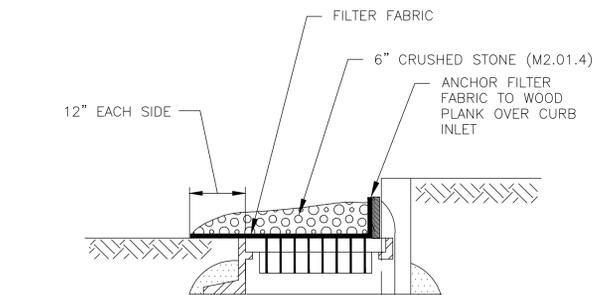
SLOPE DETAIL
N.T.S.



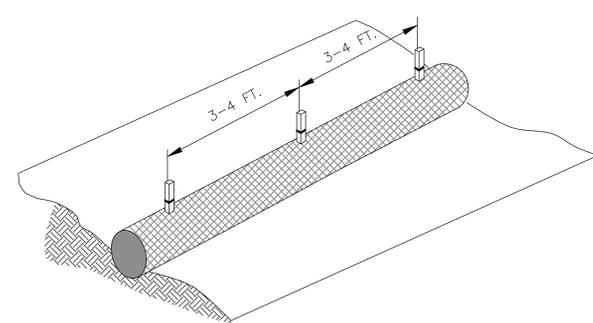
STRAW WATTLE STAKE CROSS SECTION
N.T.S.

NOTES:

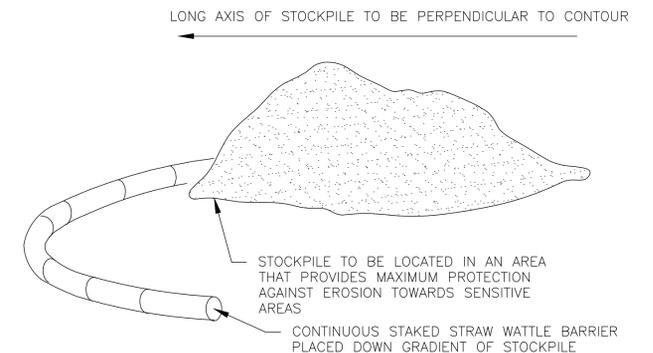
1. WATTLES CAN BE STAKED ON THE LANDFILL PROVIDED THE STAKES TO DO NOT EXCEED 3" INTO THE VEGETATIVE SUPPORT LAYER. STAKES SHALL BE CLEARLY MARKED 16" FROM THE TIP OF THE STAKE (3" MAX. EMBEDMENT DEPTH + 12" WATTLE) AND SHALL BE CLEARLY VISIBLE.
2. CONCRETE BLOCKS OR SAND BAGS ARE ACCEPTABLE ALTERNATIVES TO WOODEN STAKES.



CATCH BASIN INLET PROTECTION DETAIL
N.T.S.



STRAW WATTLE INSTALLATION DETAIL
N.T.S.



TEMPORARY STOCKPILE DETAIL
N.T.S.

PERMIT SET



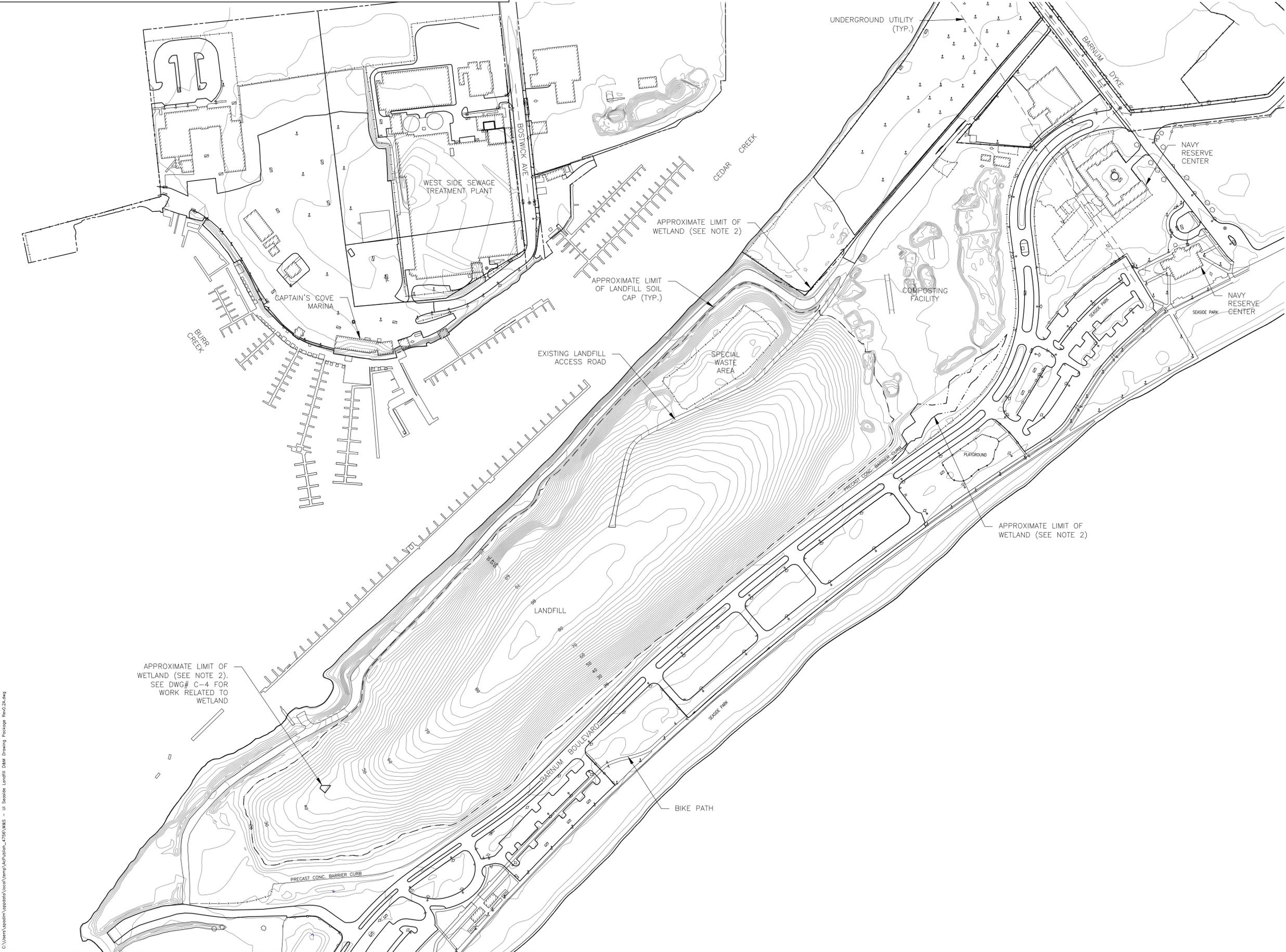
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UI SEASIDE LANDFILL - BRIDGEPORT, CT
GROUND MOUNTED SOLAR ARRAY
EROSION & SEDIMENT CONTROL NOTES AND DETAILS

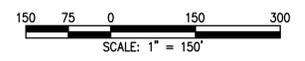
DWG #:
G-2
REV 0.1

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- NOTES:
1. EXISTING CONDITIONS PLAN BASED ON GEOGRAPHIC INFORMATION SYSTEMS (GIS) DATA PROVIDED BY THE CITY OF BRIDGEPORT'S GIS DEPARTMENT. TOPOGRAPHIC DATA WAS DIGITIZED FROM AN AERIAL SURVEY PERFORMED IN 2005. HORIZONTAL AND VERTICAL DATUMS ARE BASED ON NAD83 AND NAVD99, RESPECTIVELY.
 2. APPROXIMATE LOCATION OF WETLANDS DIGITIZED FROM FITZGERALD & HALLIDAY INC.'S (FHI) "WETLAND FLAG LINE FIGURES," DATED OCTOBER 2014. FLAGGED LIMITS WERE PICKED UP USING A HAND-HELD GPS UNIT FOR PURPOSES OF PREPARING A FIELD SKETCH. FLAGS TO BE SURVEYED BY THE CONTRACTOR AND INCLUDED IN THE FINAL DESIGN.

PERMIT SET



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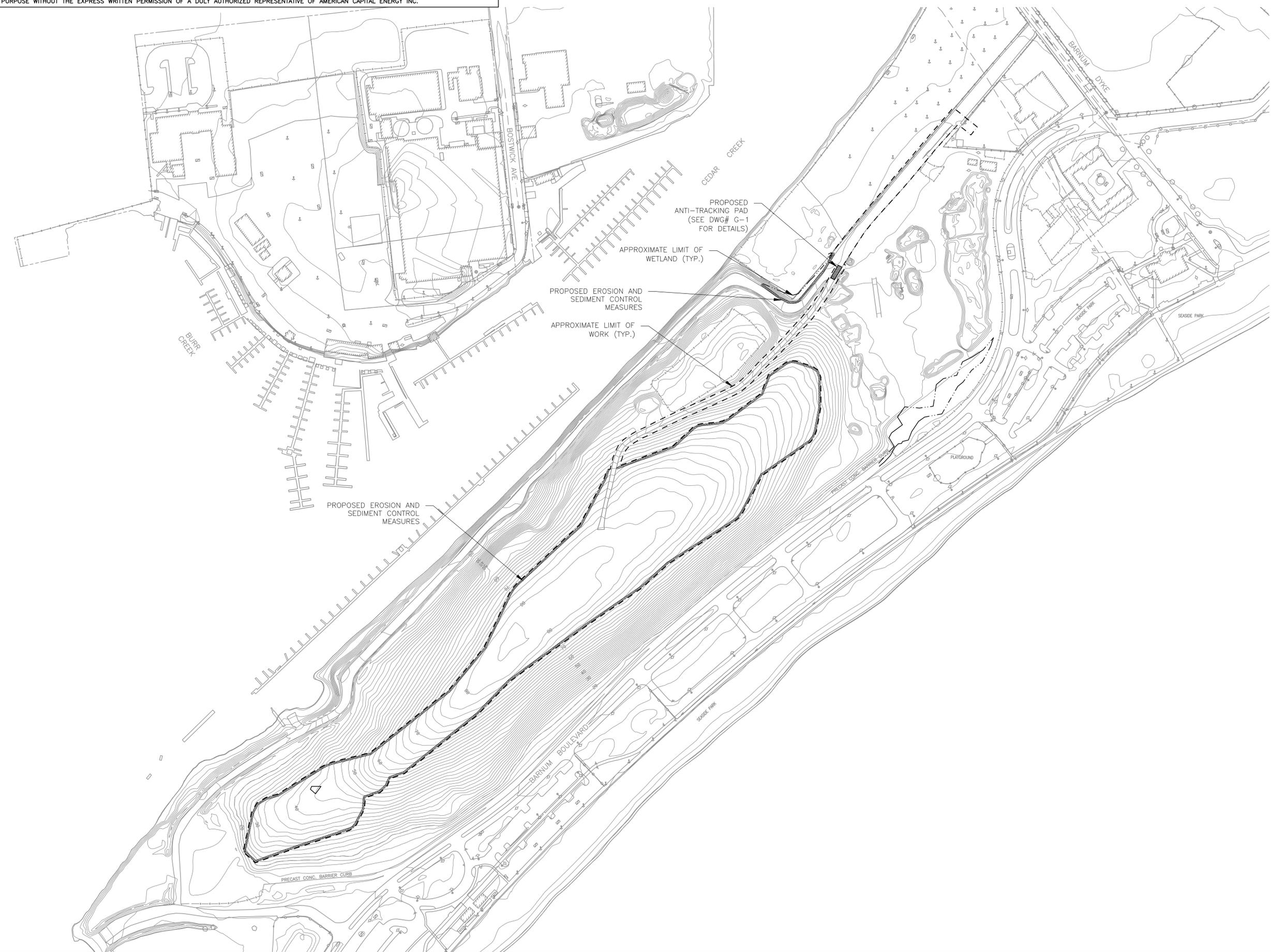
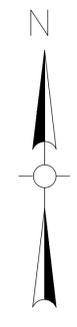
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UI SEASIDE LANDFILL - BRIDGEPORT, CT
GROUND MOUNTED SOLAR ARRAY
EXISTING CONDITIONS

DWG #:
C-1
 REV 0.2

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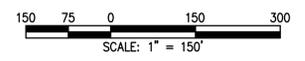
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NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION AND REMOVAL OF SEDIMENT FROM ALL STORMWATER STRUCTURES INCLUDING SWALES, INFILTRATION BASINS, AND CATCHBASINS.
2. EROSION AND SEDIMENTATION CONTROL INSTALLATION, MAINTENANCE, AND REMOVAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. FOR THE DESCRIPTION OF EROSION AND SEDIMENTATION CONTROL MEASURES, REFER TO THE THE EROSION AND SEDIMENTATION CONTROL NOTE AND DETAILS (DWG# G-2), APPROPRIATE PERMIT APPROVALS AND PLANS OR AS REQUIRED BY THE ENGINEER.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL AS REQUIRED.

PERMIT SET



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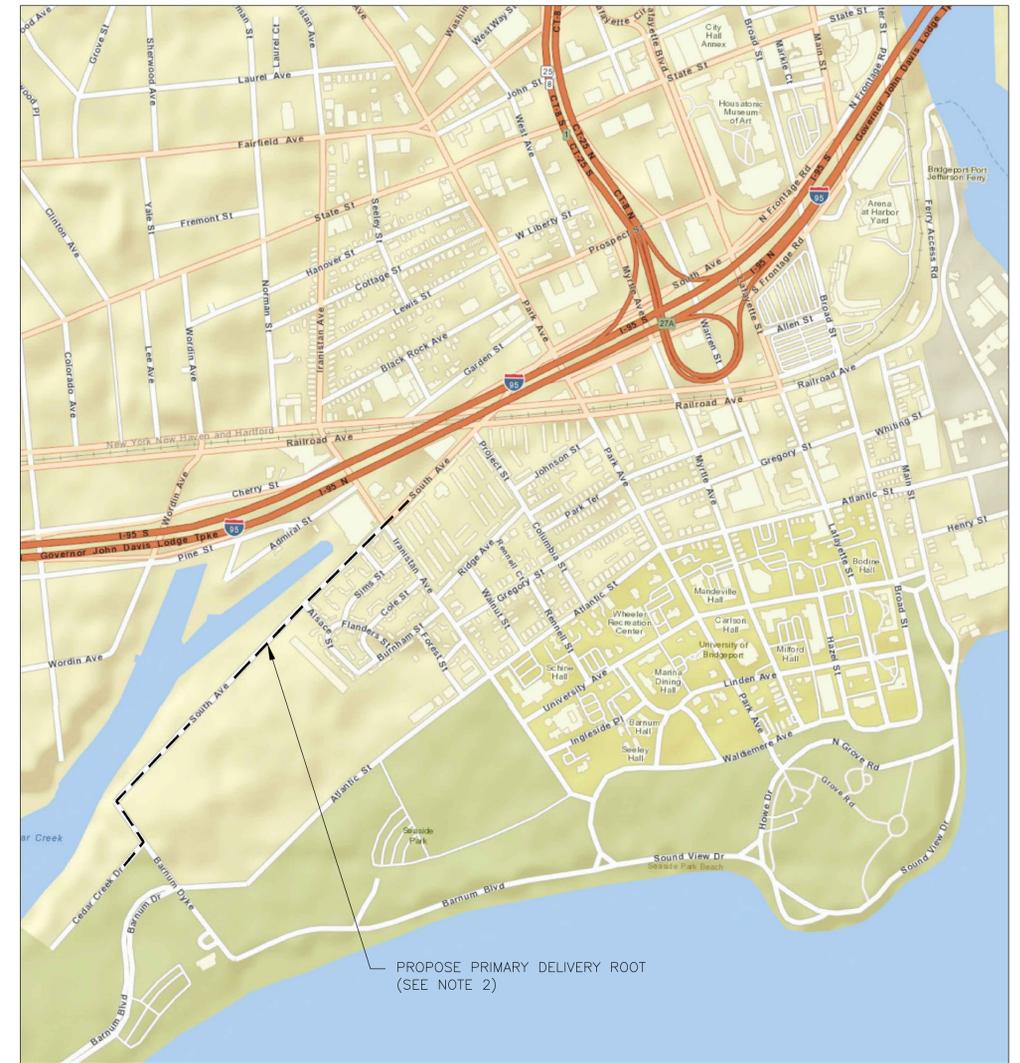
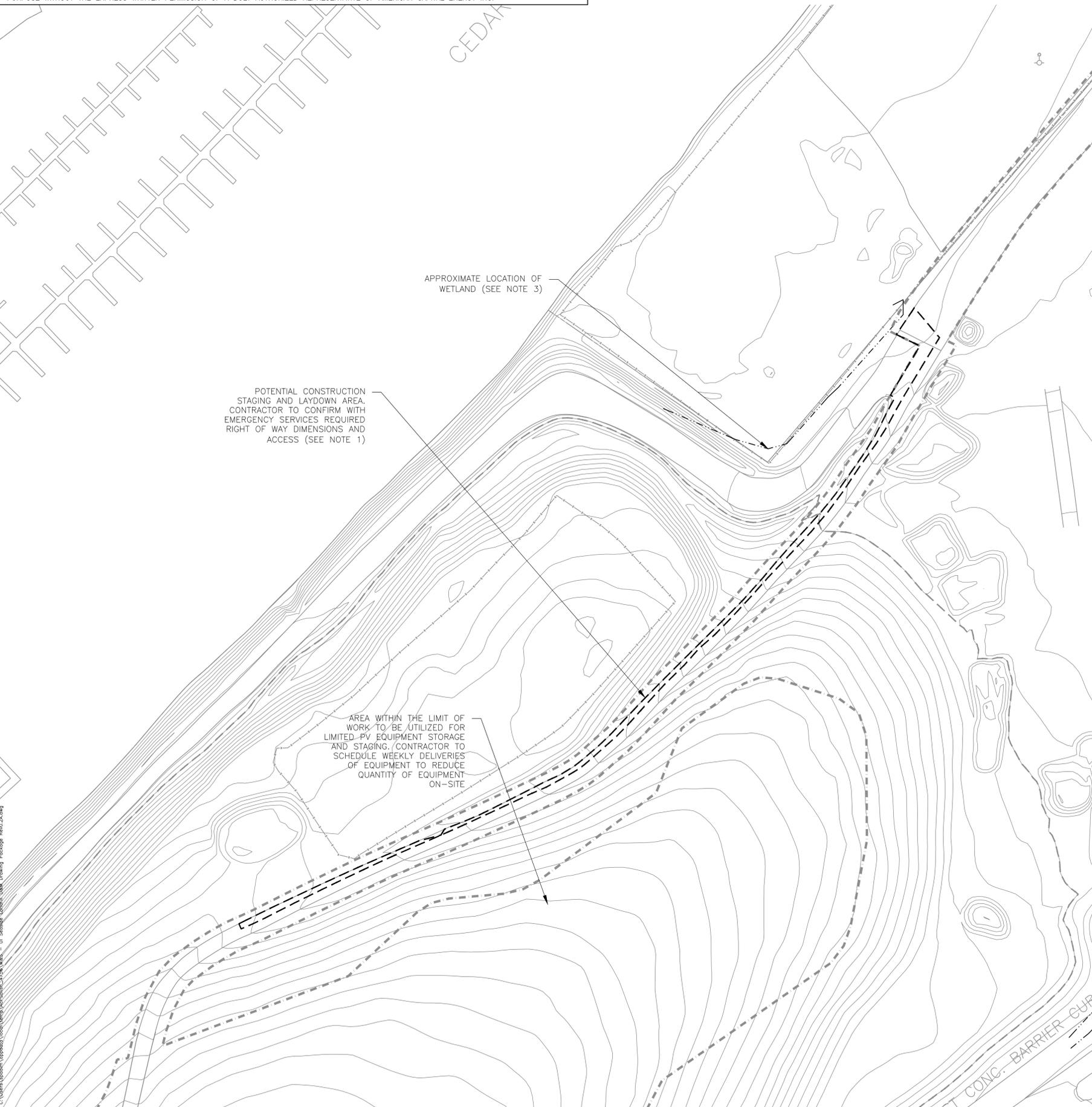
DRAWN BY	APPROVED BY	DESCRIPTION
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**UI SEASIDE LANDFILL - BRIDGEPORT, CT
 GROUND MOUNTED SOLAR ARRAY
 EROSION AND SEDIMENT CONTROL PLAN**

DWG #:
C-2
 REV 0.2

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APPENDIX C - SOLAR FACILITY PLANS

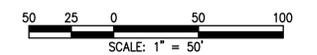


TRAFFIC PLAN
 N.T.S.

NOTES:

1. PRIOR TO CONSTRUCTION, CONTRACTOR TO FINALIZE CONSTRUCTION STAGING AND LAYDOWN LOCATION. CONTRACTOR SHALL COORDINATE PARKING, STAGING, AND OPERATIONS WITH APPLICABLE CITY OF BRIDGEPORT DEPARTMENTS INCLUDING EMERGENCY SERVICES. CONTRACTOR TO USE AVAILABLE AREA ON ACCESS ROAD FOR PARKING.
2. CONTRACTOR TO COORDINATE WITH CITY OF BRIDGEPORT PREFERRED PRIMARY AND SECONDARY DELIVERY ROUTES WITH THE CITY OF BRIDGEPORT TO MINIMIZE POTENTIAL IMPACT.
3. ADDITIONAL EROSION AND SEDIMENT CONTROL MAY BE REQUIRED BASED ON FINAL LAYDOWN AREA LOCATION AND FOOTPRINT. SEE EROSION AND SEDIMENT CONTROL NOTES AND DETAILS (DWG# G-2) FOR TEMPORARY STOCKPILE REQUIREMENTS.
4. CONTRACTOR SHALL PROPERLY MAINTAIN THE STAGING AREA AND STORE EQUIPMENT AND MATERIALS SECURELY. CONTRACTOR WILL BE RESPONSIBLE TO RESTORE STAGING AREA TO IT'S ORIGINAL CONDITION.

PERMIT SET

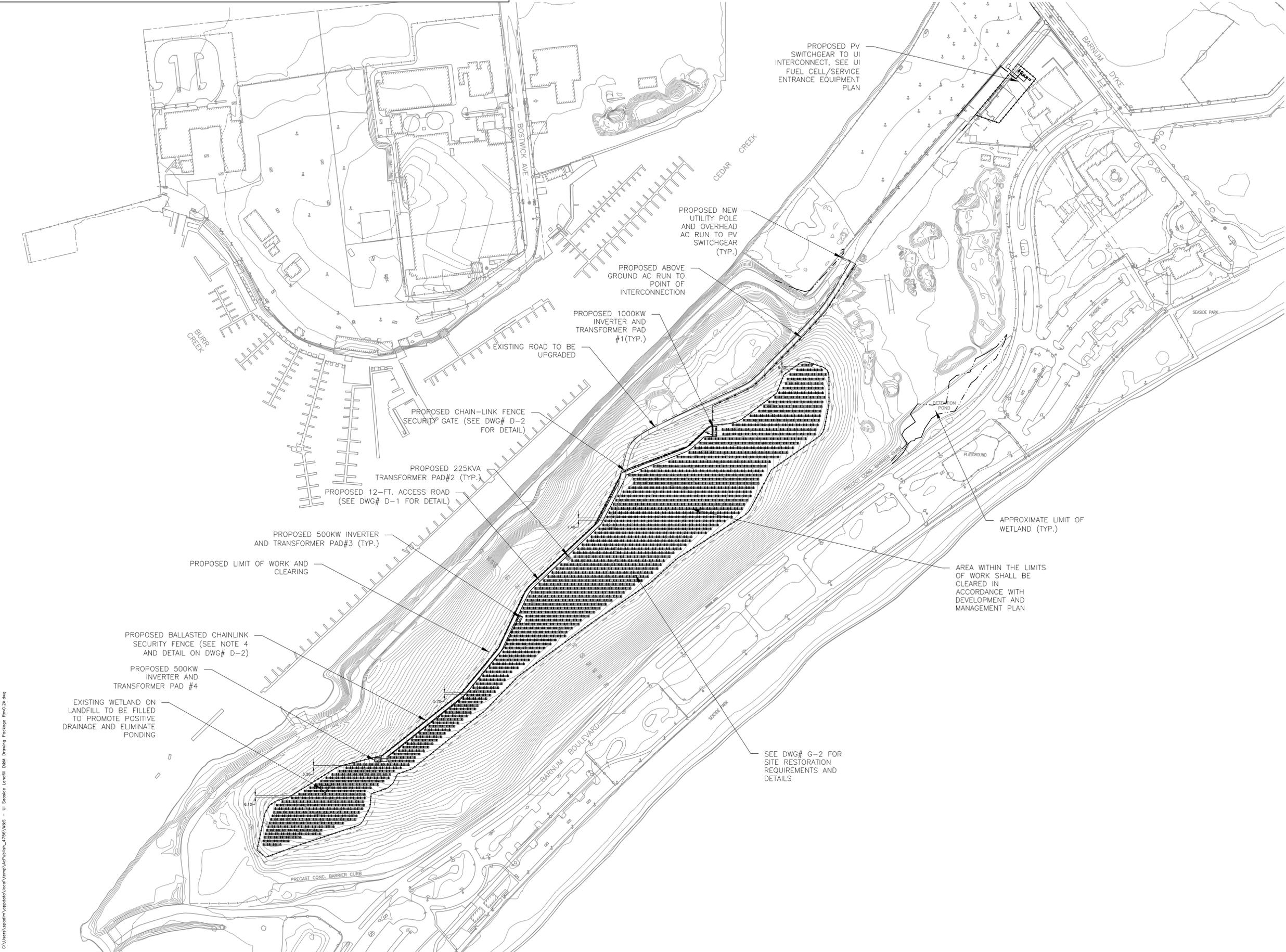
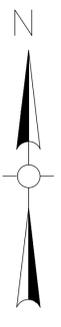


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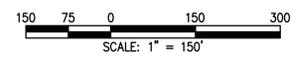
UI SEASIDE LANDFILL - BRIDGEPORT, CT
 GROUND MOUNTED SOLAR ARRAY
 CONSTRUCTION STAGING AND TRAFFIC PLAN

DWG #:
C-3
 REV 0.2



- NOTES:
1. NOMINAL SIZE OF PV SYSTEM IS 2.6505 MW DC USING QTY (8550) BYD 310W MODULES MOUNTED ON BALLASTED RACKING SYSTEM.
 2. FINAL COMPONENTS AND CONFIGURATION ARE SUBJECT TO CHANGE.
 3. PROPOSED PV SYSTEM LAYOUT BASED ON 20° TILT ANGLE AT 180° AZIMUTH. ROW SPACING AS SHOWN. SYSTEM DESIGNED FOR NO INTER-ROW SHADING BETWEEN APPROXIMATELY HOURS OF 9 AM AND 3 PM ON DECEMBER 21.
 4. FENCE TO BE 3' FROM PV LIMITS OF CONSTRUCTION

PERMIT SET



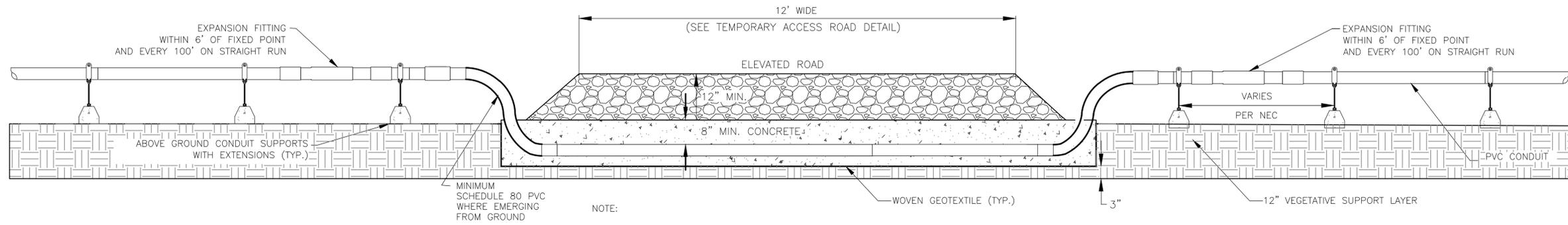
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UI SEASIDE LANDFILL - BRIDGEPORT, CT
GROUND MOUNTED SOLAR ARRAY
PROPOSED DEVELOPMENT PLAN

DWG #:
C-4
 REV 0.2

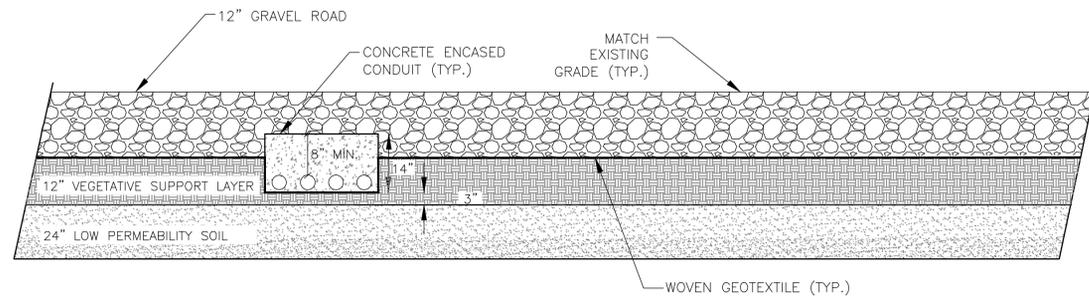
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NOTE:
 1. SEE DWG# G-1 FOR CONSTRUCTION REQUIREMENTS AND MATERIAL SPECIFICATIONS.

TYPICAL CONDUIT ROAD CROSSING DETAIL

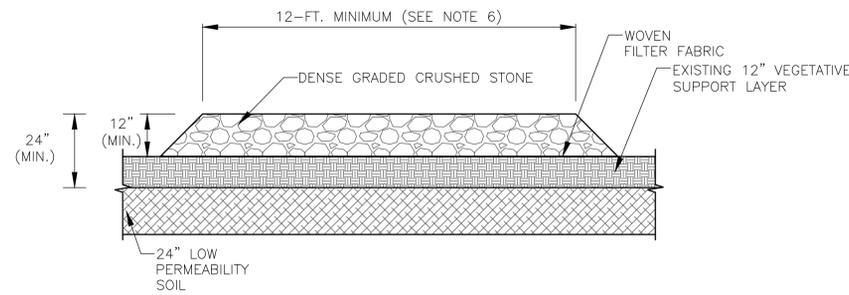
N.T.S.



NOTE:
 1. SEE DWG# G-1 FOR CONSTRUCTION REQUIREMENTS AND MATERIAL SPECIFICATIONS.

TYPICAL ON-CAP CONDUIT/EXISTING ROAD CROSSING PROFILE

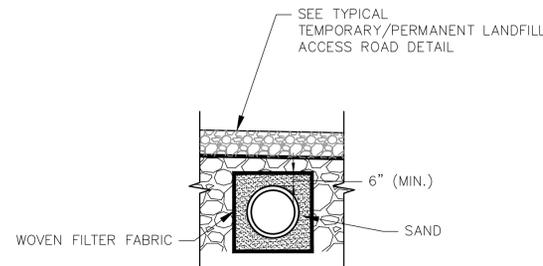
N.T.S.



- NOTES:
1. IF EXISTING PERMANENT ACCESS ROAD IS TO BE USED FOR HEAVY EQUIPMENT TRAFFIC, ADDITIONAL MATERIAL MUST BE ADDED TO PROVIDE A 24" SEPARATION BETWEEN 24" LOW PERMEABILITY SOIL CAP AND THE ROAD SURFACE.
 2. EXISTING ACCESS ROAD MAY NEED TO BE EXCAVATED TO VERIFY ACTUAL THICKNESS.
 3. FOR TEMPORARY ACCESS ROADS, DENSE GRADED CRUSHED STONE (ABOVE GRADE) AND WOVEN FILTER FABRIC SHALL BE REMOVED UPON PROJECT COMPLETION.
 4. TEMPORARY ACCESS ROADS WILL BE USED, IF NEEDED, DURING CONSTRUCTION.
 5. LOCATION OF TEMPORARY ACCESS ROADS REQUIRES APPROVAL BY ENGINEER.
 6. MINIMUM ROAD WIDTH SHALL BE 12-FT. CONTRACTOR SHALL WIDEN ROAD AS NECESSARY TO ACHIEVE MINIMUM WIDTH. IF EXISTING ROAD IS GREATER THAN 12-FT, CONTRACTOR SHALL MATCH EXISTING WIDTH.

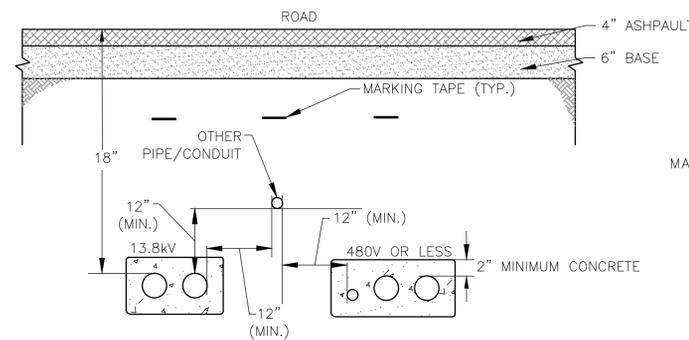
TYPICAL TEMPORARY/PERMANENT LANDFILL ACCESS ROAD

N.T.S.



SECTION B-B'

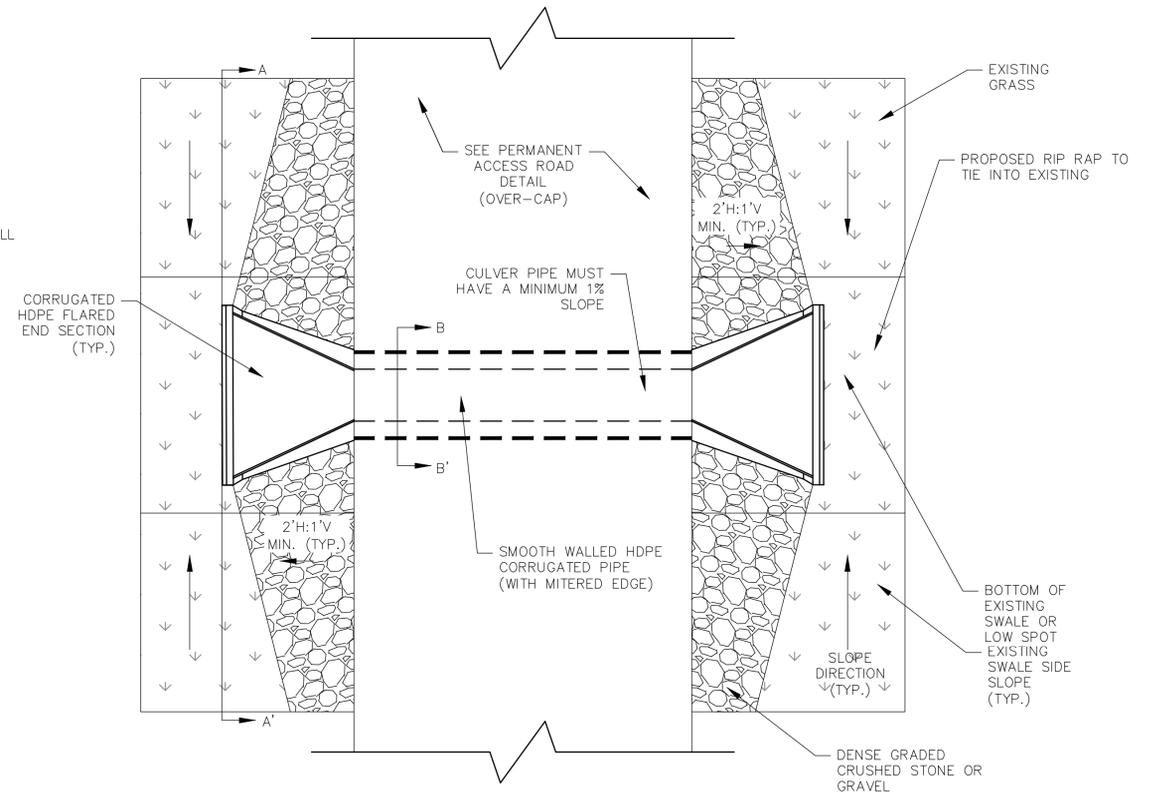
N.T.S.



- NOTES:
1. UNLESS OTHERWISE SHOWN, MAINTAIN DEPTH AND CLEARANCES AS INDICATED.
 2. THIS UNDERGROUND CONDUIT DETAIL WILL BE USED AT ALL OTHER UNDERGROUND INSTALLATIONS.

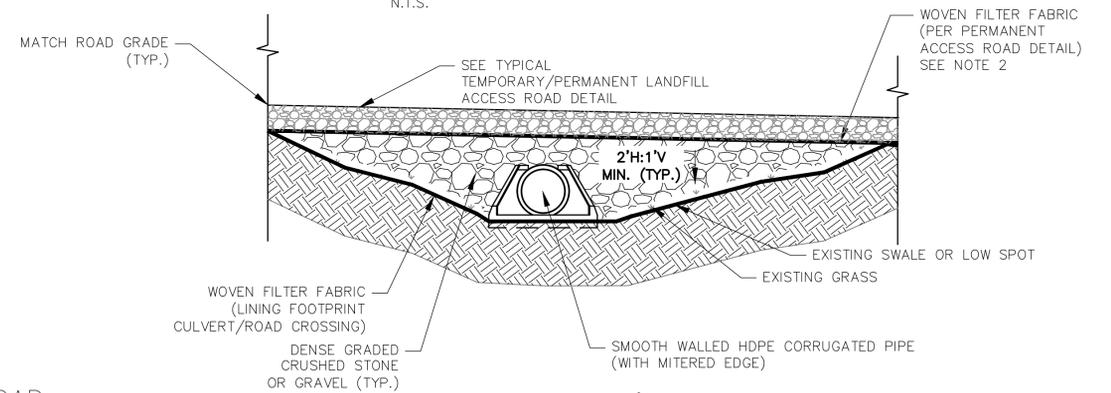
OFF CAP UNDERGROUND CONDUIT DETAIL AT ROAD

N.T.S.



CULVERT CROSSING DETAIL

N.T.S.

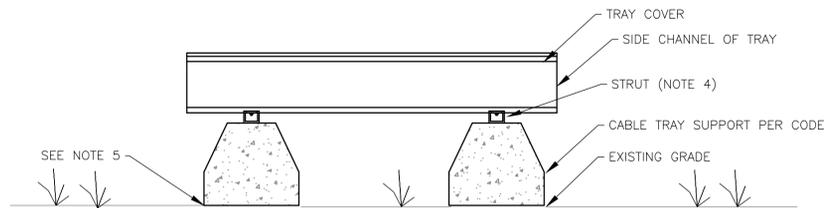


SECTION A-A'

N.T.S.

PERMIT SET

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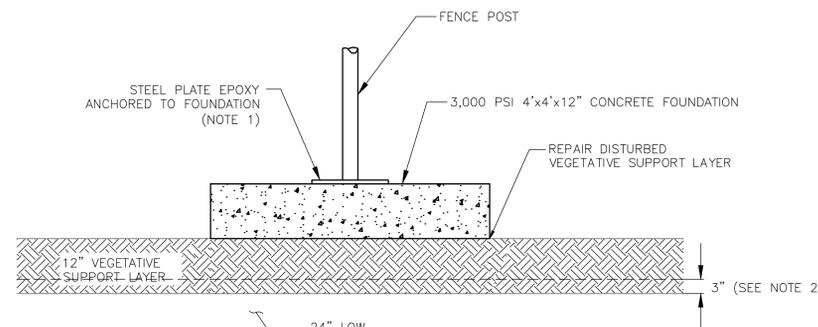


NOTES:

1. ALUMINUM CABLE TRAY 4" DEEP 9" RUNG SPACING (WIDTH DETERMINED BY NUMBER OF CONDUCTORS). BLUNE REDI-RAIL OR EQUIVALENT
2. CABLE TRAY SUPPORT SHALL BE SPACED PER NEC.
3. EXPANSION FITTING/SPLICE SHALL BE INSTALLED PER NEC. AND MANUFACTURER'S SPECIFICATIONS.
4. ALL HARDWARE USED FOR SUPPORT SHALL BE GALVANIZED.
5. IF CONDUIT SUPPORTS REQUIRE ADDITIONAL MATERIAL TO REACH A DESIRED HEIGHT, A WOVEN GEOTEXTILE SHALL BE INSTALLED TO SEPARATE THE MATERIAL AND THE EXISTING GRADE.

ABOVE GROUND CABLE TRAY SUPPORT

N.T.S.

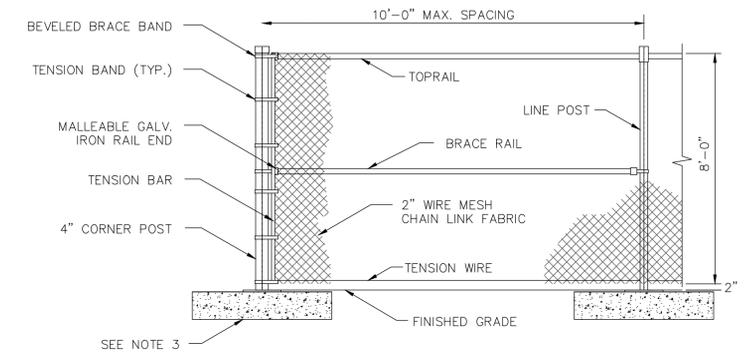


NOTES:

1. FENCE POST TO BE EITHER EMBEDDED DIRECTLY INTO CONCRETE OR ATTACHED TO STEEL PLATE AND ANCHORED INTO FOUNDATION. FINAL DESIGN TO BE DETERMINED UPON ENGINEERING REVIEW OF SITE CONDITIONS.
2. FENCE BALLAST TO BE INSTALLED ON THE EXISTING GRADE. EXCAVATION INTO THE VEGETATIVE SUPPORT LAYER OR ADDITIONAL MATERIAL MAY BE REQUIRED TO LEVEL THE BALLAST. IF EXCAVATION IS REQUIRED, CONTRACTOR TO EXCAVATE TO A MAXIMUM DEPTH OF 3" FROM THE LOW PERMEABILITY LAYER. A WOVEN GEOTEXTILE SHALL BE INSTALLED AT THE BOTTOM OF ALL EXCAVATIONS. IF ADDITIONAL MATERIAL IS REQUIRED, A WOVEN GEOTEXTILE IS REQUIRED AS SEPARATION BETWEEN THE EXISTING GRADE AND MATERIAL.

FENCE FOUNDATION ABOVE LANDFILL CAP DETAIL

N.T.S.

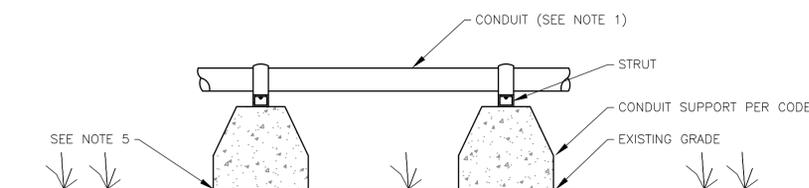


NOTES:

1. FURNISH AND INSTALL A CORNER POST AND BRACE RAIL WHERE THE CHANGE IN FENCE ALIGNMENT IS GREATER THAN 15'.
2. INSTALL BRACE RAILS AT ALL CORNER, END AND GATE POSTS.
3. FOR FENCING LOCATED OVER LANDFILL CAP, SEE "FENCE FOUNDATION ABOVE LANDFILL CAP" DETAIL, THIS SHEET.

BALLASTED CHAIN LINK FENCE DETAIL

N.T.S.

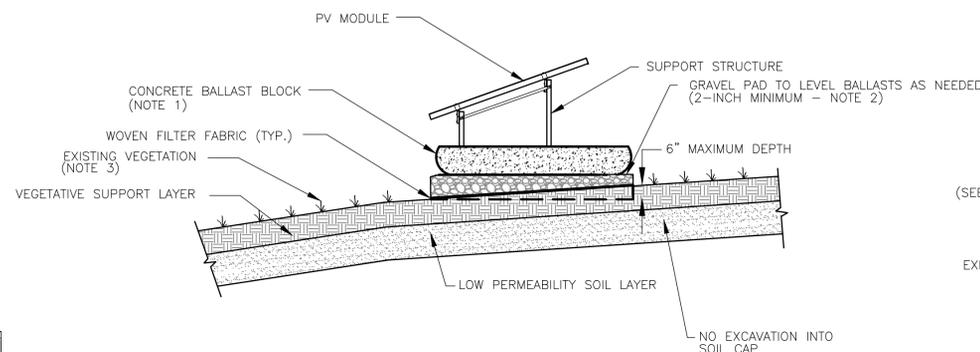


NOTES:

1. ALL CONDUIT SHALL BE PVC SCHEDULE 80.
2. CONDUIT SUPPORT SHALL BE SPACED PER NEC.
3. EXPANSION FITTING SHALL BE INSTALLED PER NEC.
4. ALL HARDWARE SHALL BE GALVANIZED.
5. IF CONDUIT SUPPORTS REQUIRE ADDITIONAL MATERIAL TO REACH A DESIRED HEIGHT, A WOVEN GEOTEXTILE SHALL BE INSTALLED TO SEPARATE THE MATERIAL AND THE EXISTING GRADE.

ABOVE GROUND CONDUIT SUPPORT

N.T.S.

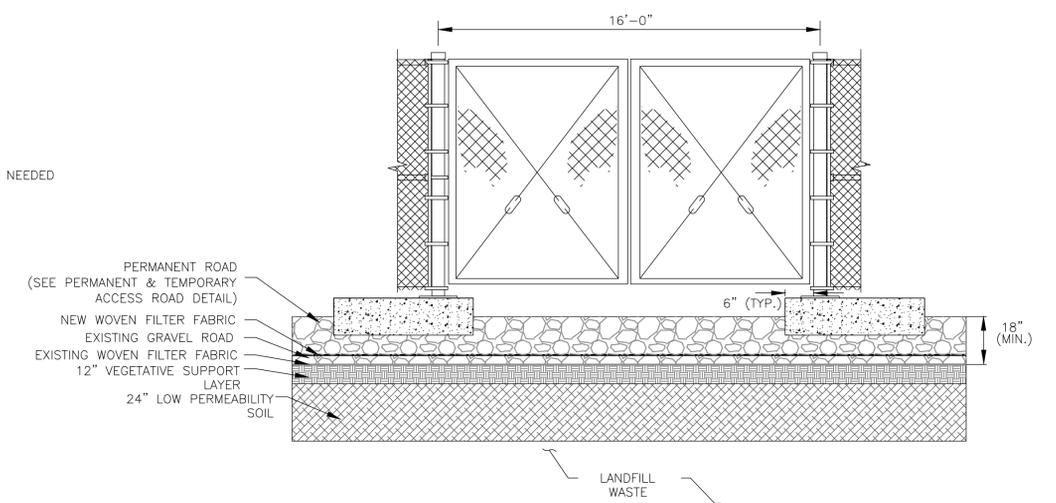


NOTES:

1. BALLASTS DIMENSIONS ARE CONTINGENT ON SELECTION OF PANEL AND RACKING MANUFACTURERS AND SUBJECT TO CHANGE IF PANELS AND RACKING CHANGE.
2. EXCAVATION INTO VEGETATIVE SUPPORT LAYER AT CONTRACTORS DISCRETION TO A MAXIMUM DEPTH OF 6" BUT IN NO CASE SHALL EXCAVATION EXTEND INTO LOW PERMEABILITY SOIL LAYER.
3. DISTURBED AREAS WITHIN THE ARRAY SHALL BE RE-SEEDED WITH A SHADE TOLERANT SEED MIXTURE. SEE DWG# G-1 FOR MORE INFORMATION.

TYPICAL LANDFILL FINAL COVER SYSTEM WITH PV STRUCTURE

N.T.S.

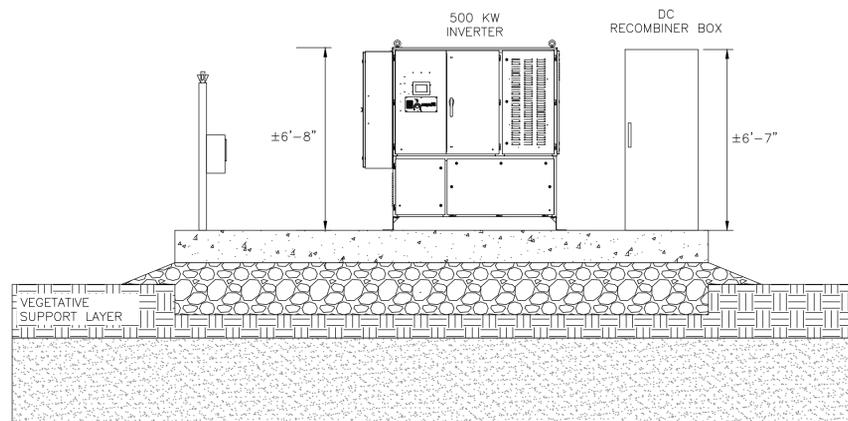


NOTES:

1. FURNISH AND INSTALL A CORNER POST AND BRACE RAIL WHERE THE CHANGE IN FENCE ALIGNMENT IS GREATER THAN 15'.
2. INSTALL BRACE RAILS AT ALL CORNER, END AND GATE POSTS.
3. ALL FENCING AND HARDWARE SHALL BE GALVANIZED.

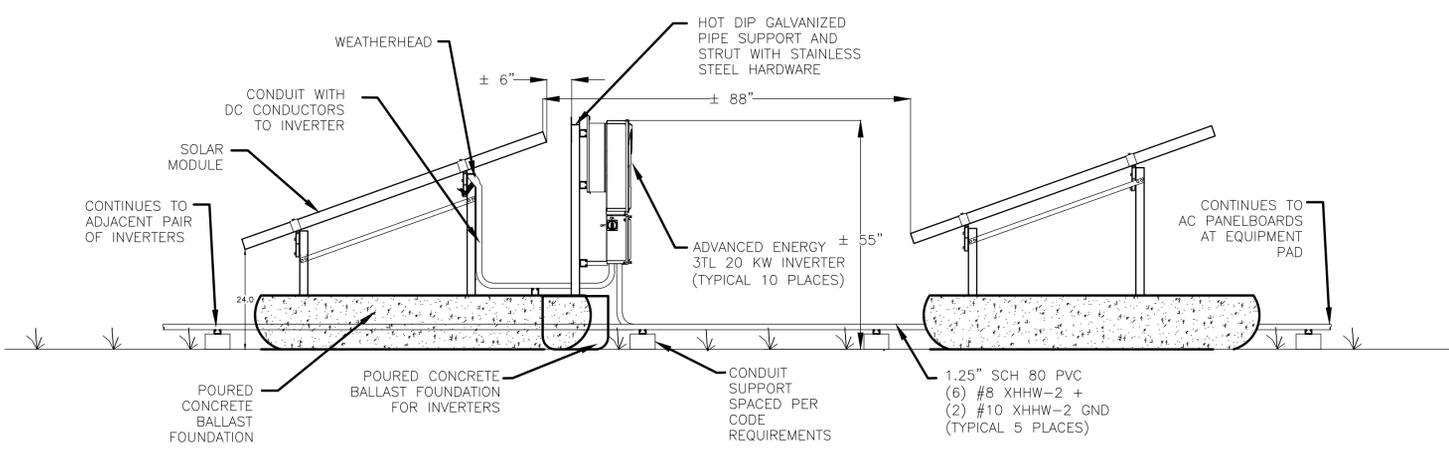
TYPICAL BALLASTED CHAIN LINK GATE DETAIL

N.T.S.

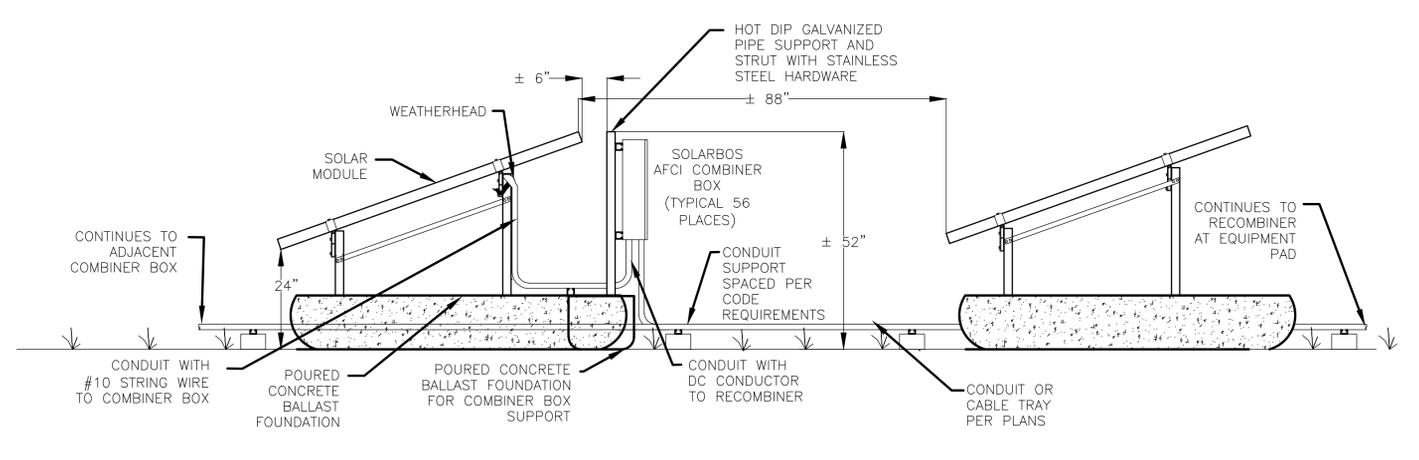


TYPICAL INVERTER PAD ELEVATION DETAIL

N.T.S.

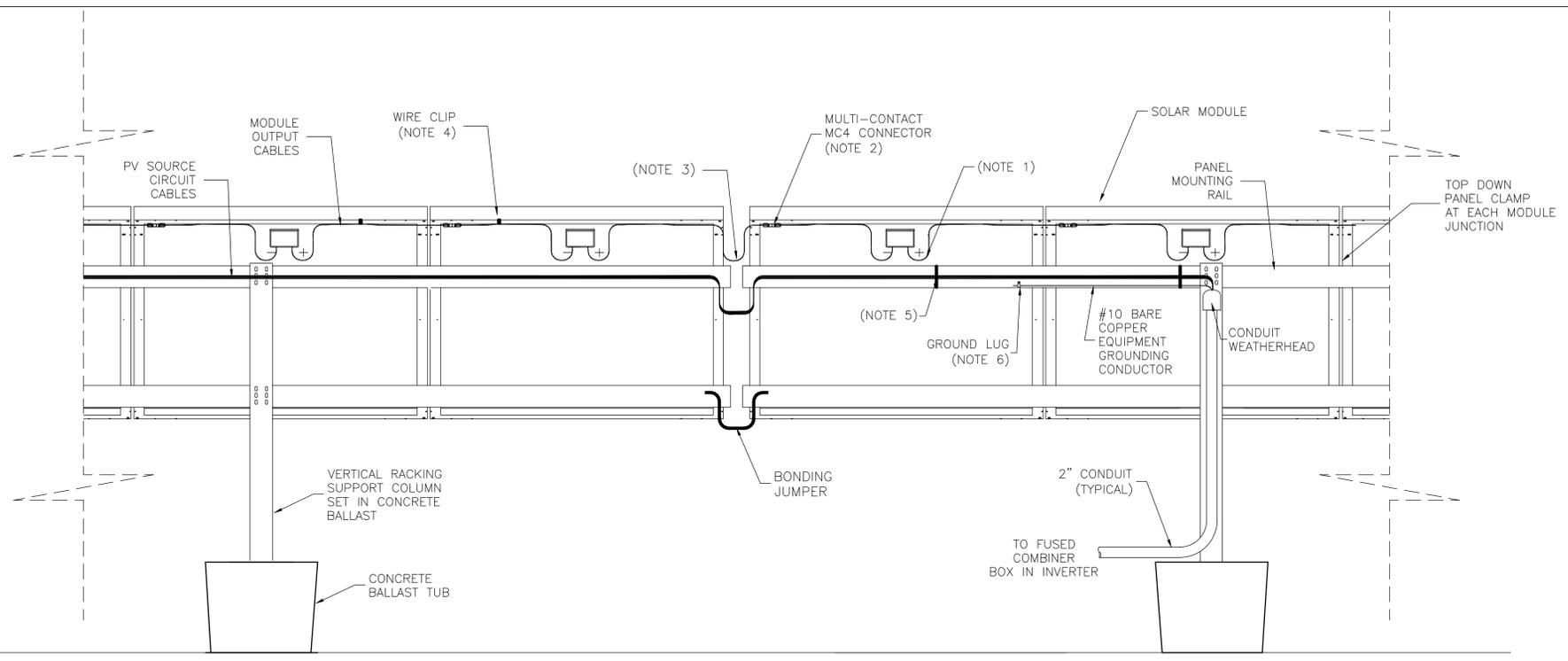


STRING INVERTER AND RACKING SIDE ELEVATION DETAIL
 N.T.S.



COMBINER BOX MOUNTING DETAIL
 N.T.S.

- NOTES:
1. THE RADIUS OF BENDS IN CONDUCTORS SHALL NOT BE LESS THAN MANUFACTURER'S MINIMUM BENDING RADIUS.
 2. CONDUCTORS SHALL NOT BE BENT WITHIN 1" OF MULTI-CONTACT CONNECTORS.
 3. WHERE WIRES PASS BETWEEN PANEL ASSEMBLIES A 6" LOOP OF WIRE SHALL BE MADE TO ALLOW UNEVEN SETTLING OF ARRAY SUPPORT STRUCTURES.
 4. MODULE OUTPUT CONDUCTORS TO BE FASTENED TO MODULES FRAMES USING STAINLESS STEEL FRAME CLIPS.
 5. SOURCE CIRCUIT CONDUCTORS AND EQUIPMENT GROUNDING CONDUCTOR TO BE SECURED TO ARRAY SUPPORT STRUCTURE COMPONENTS USING SUNLIGHT (UV) RESISTANT TIE WRAPS AND STAINLESS STEEL WIRE CLIPS.
 6. GROUND LUG, LAY-IN TYPE ILSCO GBL-4DBT OR EQUIVALENT CONNECTED WITH STAINLESS STEEL HARDWARE TO THIRD CHAMBER OF PANEL RAIL PER RACKING MANUFACTURER'S MANUAL.



TYPICAL RACKING SYSTEM REAR ELEVATION
 N.T.S.

PERMIT SET



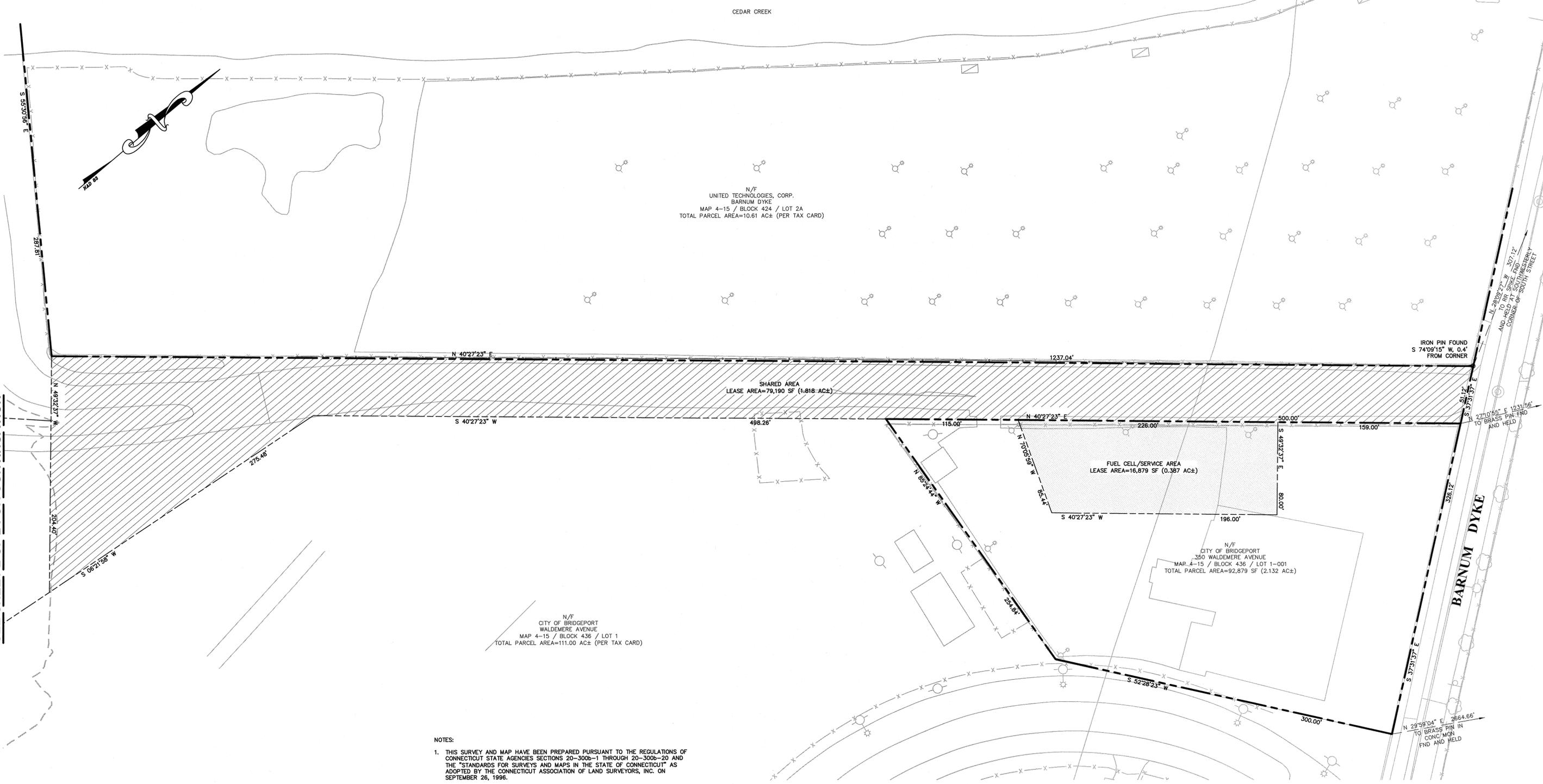
AMERICAN CAPITAL ENERGY
 1001 Pawtucket Blvd. Suite 278
 Lowell, MA 01854
 Phone 978-221-2000

DRAWN BY	APPROVED BY	DESCRIPTION
JRS	DM	DETAILS III
DATE	COPYRIGHT 2014 AMERICAN CAPITAL ENERGY INC. ALL RIGHTS RESERVED	
09/04/14		

UI SEASIDE LANDFILL - BRIDGEPORT, CT
 GROUND MOUNTED SOLAR ARRAY
 DETAILS III

DWG #:
 D-3
 REV 0.1

SEE SHEET 2 OF 2 FOR CONTINUATION



NOTES:

1. THIS SURVEY AND MAP HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.
2. THE TYPE OF SURVEY PERFORMED IS A DATA ACCUMULATION PLAN AND IS INTENDED TO DEPICT OR NOTE THE LEASE AREAS IN FAVOR OF THE UNITED ILLUMINATING COMPANY.
3. THE BOUNDARY DETERMINATION/OPINION IS BASED UPON FIRST SURVEY WITH RESPECT TO THE LEASE AREA BOUNDARIES.
4. THIS SURVEY CONFORMS TO HORIZONTAL ACCURACY CLASS A-2 WITH RESPECT TO THE PROPERTY AND LEASE LINES.
5. THE BEARINGS DEPICTED HEREON ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983 PROJECTED ONTO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM.
6. THE SUBJECT PARCEL APPEARS TO LIE WITHIN FLOOD ZONES AE AND X, AS DEPICTED ON FEMA'S FLOOD INSURANCE RATE MAPS (FIRM) ENTITLED FAIRFIELD COUNTY, CONNECTICUT (ALL JURISDICTIONS); PANEL 437 OF 626; MAP NUMBER 0900100437G; MAP REVISED: JULY 8, 2013; APPROXIMATE SCALE: 1"=500'. ANY FEMA FLOODPLAIN AND/OR FLOODWAY INFORMATION DEPICTED HEREON IS APPROXIMATE ONLY AND DOES NOT IN ANY WAY CONSTITUTE AN OPINION OR REPRESENTATION OF ACTUAL FLOODPLAIN AND/OR FLOODWAY INFORMATION BY PEREIRA ENGINEERING, LLC (PE). PE DOES NOT WARRANT THE ACCURACY OF THIS INFORMATION, AND MAKES NO REPRESENTATIONS UPON WHICH THE CLIENT SHOULD RELY IN CONNECTION WITH THE FLOOD ZONE OF THE SUBJECT PARCEL OR ANY FEMA FLOODPLAIN AND/OR FLOODWAY INFORMATION DEPICTED HEREON.
7. THE SUBJECT PARCEL APPEARS TO LIE WITHIN THE COASTAL BOUNDARY AS DELINEATED ON THE COASTAL BOUNDARY MAP OF THE CITY OF BRIDGEPORT. PARCELS LOCATED WITHIN THE COASTAL BOUNDARY MAY REQUIRE A COASTAL SITE PLAN REVIEW (CSM) APPLICATION.
8. UTILITY INFORMATION DEPICTED HEREON IS APPROXIMATE AND IS BASED ON VISIBLE EVIDENCE OF SURFACE AND OVERHEAD STRUCTURE LOCATIONS AND AS COMPILED FROM EXISTING RECORD MAPPING AVAILABLE DURING THE PREPARATION OF THE SURVEY. ALL CONTRACTORS SHOULD CONTACT "CALL BEFORE YOU DIG" AT (800) 922-4455 FOR VERIFICATION OF UTILITY INFORMATION PRIOR TO START OF ANY WORK.
9. BACKGROUND FEATURES DEPICTED HEREON ARE BASED UPON THE CITY OF BRIDGEPORT GIS MAPPING.

MAP REFERENCES:

1. "MAP B, SURVEY OF PROPERTY IN BRIDGEPORT, CONNECTICUT FOR: UNITED AIRCRAFT CORPORATION," SCALE: 1"=60'; DATED: JUNE 29, 1946; PREPARED BY FULLER & CO., INC.; FILED IN THE BRIDGEPORT LAND RECORDS IN MAP VOLUME 13 PAGE 93.
2. "MAP A, SURVEY OF PROPERTY IN BRIDGEPORT, CONNECTICUT FOR UNITED AIRCRAFT CORPORATION," SCALE: 1"=60'; DATED: JUNE 29, 1946; PREPARED BY FULLER & CO., INC.; FILED IN THE BRIDGEPORT LAND RECORDS IN MAP VOLUME 13 PAGE 91.
3. CITY OF BRIDGEPORT BLOCK MAP FOR BLOCKS 424 & 425, SCALE 1"=60', AVAILABLE FROM THE CITY OF BRIDGEPORT ENGINEERING DEPARTMENT.
4. CITY OF BRIDGEPORT BLOCK MAP FOR BLOCKS 427 THROUGH 431, SCALE 1"=40', AVAILABLE FROM THE CITY OF BRIDGEPORT ENGINEERING DEPARTMENT.
5. "SITE FOR NAVAL RESERVE ARMY (SEASIDE PARK)," AVAILABLE FROM THE CITY OF BRIDGEPORT ENGINEERING DEPARTMENT.
6. "PROPERTY SURVEY OF PROPERTY LOCATED AT BARNUM DYKE & BARNUM DRIVE, BRIDGEPORT, CONNECTICUT, PREPARED FOR THE CITY OF BRIDGEPORT," SCALE: 1"=40'; DATED: SEPTEMBER 28, 2005; PREPARED BY PEREIRA ENGINEERING, LLC.

APPENDIX D - LEASE LIMITS



To my knowledge and belief, this map is substantially correct as noted hereon.
Edward S. Ruchin
 Edward S. Ruchin, P.L.S. Cdn. # 15460

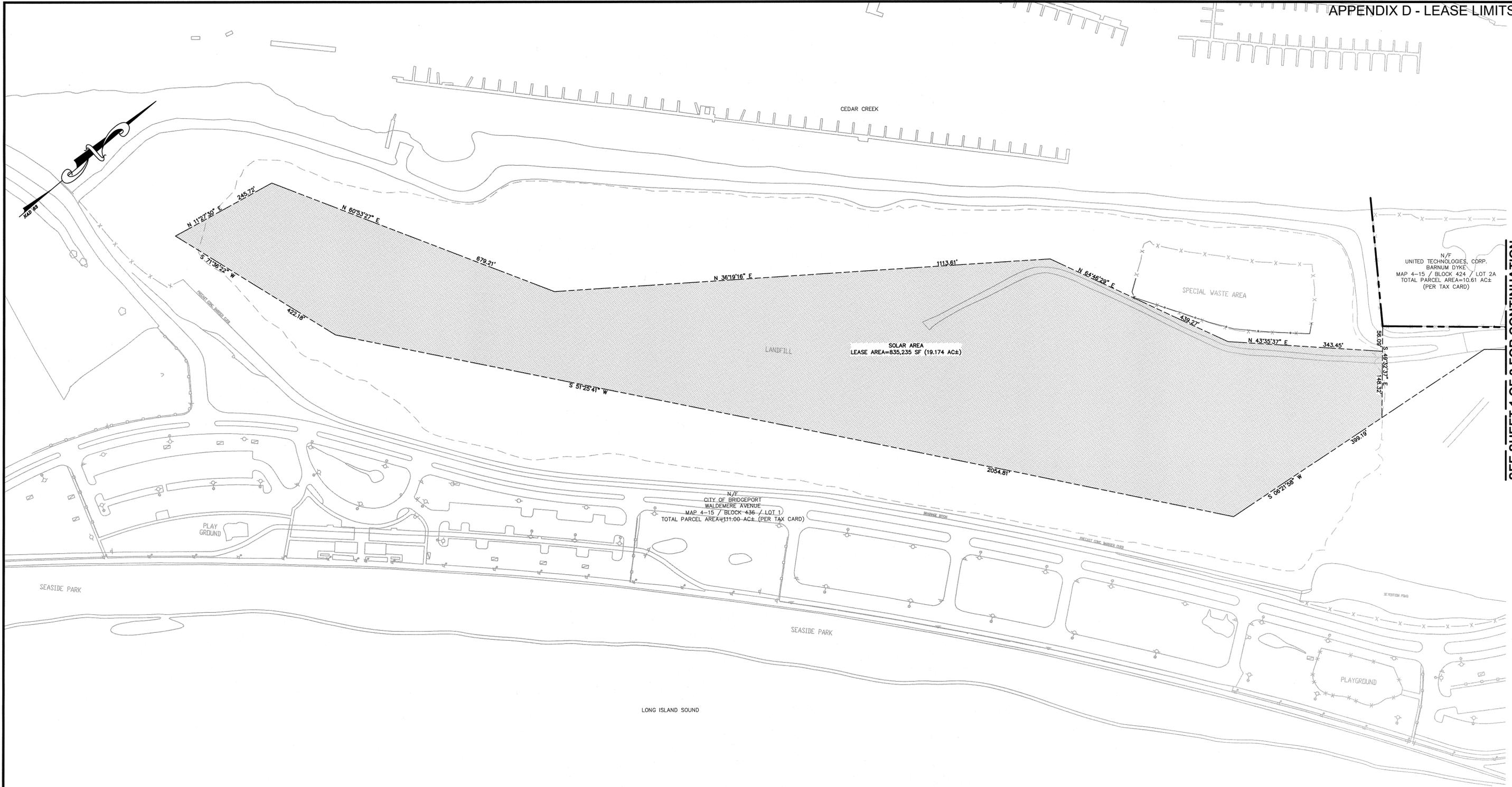


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 Shelton, CT 06484 Fax: (203) 944-9945
 homepage: www.pereiraeng.com
 email: mail@pereiraeng.com

REVISIONS		
NO.	DATE	REMARKS

DATA ACCUMULATION PLAN
 OF PROPERTY LOCATED AT
 BARNUM DYKE
 BRIDGEPORT, CONNECTICUT
 PREPARED FOR
 THE UNITED ILLUMINATING COMPANY

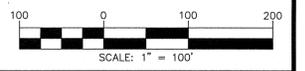
COPYRIGHT © 2014
 DATE: MAY 2, 2014
 SCALE: 1"=40'
 DWG: TAA FLD: ESR
S SHEET 1 OF 2
 CAD REF. NO. 1003SURV



SEE SHEET 1 OF 2 FOR CONTINUATION

N/F
UNITED TECHNOLOGIES, CORP.
BARNUM DYKE
MAP 4-15 / BLOCK 424 / LOT 2A
TOTAL PARCEL AREA=10.61 AC±
(PER TAX CARD)

N/F
CITY OF BRIDGEPORT
WALDEMERE AVENUE
MAP 4-15 / BLOCK 436 / LOT 1
TOTAL PARCEL AREA=11.00 AC± (PER TAX CARD)



G:\10033\dwg\10033SURV.dwg SHEET 2, 5/13/2014 8:20:22 AM, s.d., 1:1

	<p>Pereira Engineering, LLC CIVIL & ENVIRONMENTAL</p> <p>One Enterprise Drive, Suite 312 Phone: (203) 944-9944 Shelton, CT 06484 Fax: (203) 944-9945 homepage: www.pereiraeng.com email: mail@pereiraeng.com</p>	<p>NO.</p>	<p>DATE</p>	<p>REVISIONS</p>	<p>REMARKS</p>

DATA ACCUMULATION PLAN
OF PROPERTY LOCATED AT
BARNUM DYKE
BRIDGEPORT, CONNECTICUT
PREPARED FOR
THE UNITED ILLUMINATING COMPANY

COPYRIGHT © 2014
DATE: **MAY 2, 2014**
SCALE: 1"=100'
DWG: TAA FLD: ESR
S SHEET **2** OF **2**
CAD REF. NO. 1003SURV

APPENDIX E

AERIAL PHOTOGRAPH

BRIDGEPORT SEASIDE LANDFILL
PETITION NO. 1104
DEVELOPMENT AND MANAGEMENT PLAN

LEGEND

-  = APPROXIMATE LOCATION OF FUEL CELL/SERVICE ENTRANCE AREA
-  = SHARED AREA/ACCESS ROAD
-  = PROJECT ACCESS POINT
-  = APPROXIMATE LIMITS OF SOLAR FACILITIES

The United Illuminating Company

Scale: NTS

