



August 2, 2022

Attorney Melanie Bachman  
Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

*RE: Petition #1469 -- LSE Indus LLC Petition for a Declaratory Ruling that No Certificate of Environmental Compatibility and Public Need is Required for the Construction, Operation and Maintenance of Solar Photovoltaic Facility in North Canaan, Connecticut*

Dear Attorney Bachman:

In accordance with the Council's decision dated January 28, 2022 (the "Approval"), petitioner LSE Indus LLC ("Lodestar") submits the following in accordance with the Council's Approval, conditions #3, 5 and 6. Please let me know if you have any questions.

1. Lodestar is submitting these revised plans for Council staff approval of minor changes in site layout, attached hereto as Exhibit 1. Please note that the changes include revisions to the detention basins and the addition of drip edge protection as requested by the Department of Energy and Environmental Protection's ("DEEP") stormwater division as part of Lodestar's general stormwater permit process. As a result of the stormwater design revisions the overall development area has incurred a reduction of .29 acres. Given these minor changes that result in less overall impact, Lodestar respectfully requests Council approval of such change.
2. In regards to **condition #3** requiring a pollinator seed mix: please note that, based on the recommendations of Lodestar's engineering and environmental professionals and in coordination with DEEP's stormwater team, Lodestar is proposing to utilize a non-pollinator mix—Ernst Solar Farm Mix ERNMX-186—for temporary stabilization of the Site given the existing slopes on the site. Final stabilization seeding has been updated to include the Ernst Fuzz and Buzz mix premium ERNMX-147 pollinator mix. As you will see in sheets EC-1 and DN-1 of the plan set, this pollinator mix will be utilized to achieve final stabilization.
3. In addition, please find the specifications for the newly-proposed solar panels attached hereto as Exhibit 2. The original petition indicated that Lodestar would be utilizing Hanwa QCell panels. Due to availability as further discussed herein,

Lodestar will be utilizing ZNShine, Item/Model Number: ZXM7-SHLDD144 Module Size: 540. Based on the panel model change, the total panel count for the Project will be reduced from the originally-proposed 5,902 to 4,966panels.

By way of background, Lodestar would like to provide additional detail on the module procurement process. The module market and availability has been quickly evolving and has been particularly volatile as a result of the COVID-19 worldwide pandemic, supply chain disruptions and as a result of federal import tariff policy. In the time that is taken to file our petition with the Council, obtain an approval and stormwater permit, many of the modules that Lodestar has obtained information on are no longer available for purchase in the market. In this instance, Lodestar was unable to procure the Hanwa QCell panels proposed in its initial design.

Please note that the manufacturer of the ZNShine modules does not have TCLP testing available for these modules and, in fact, Lodestar was unable to locate any modules available for purchase and compatible with the Project design that did provide TCLP testing prior to purchase. The only other way to conduct TCLP testing is to have the specific type of module physically available to do so. In order for that to occur, Lodestar has to purchase and schedule for delivery the full quantity of modules required for the Project. As the Council can imagine, this puts Lodestar in the untenable position of incurring the full cost (over \$1 million) to order material prior to confirmation that the modules can comply with the Council's condition. Notwithstanding, Lodestar is committed to performing the TCLP testing upon delivery of the modules to the Site and prior to installation.

While Lodestar does not anticipate that the modules would fail the TCLP testing, Lodestar wishes to note that, in the unlikely event that that would occur, it would *only* impact the process utilized to decommission the panels at the end of the useful life of the Project. Lodestar is committed to removing the Project in accordance with all applicable environmental regulations. Lodestar will provide the results of the TCLP testing once completed.

4. Please find enclosed as Exhibit 3 a copy of the spill prevention plan as included in Lodestar's stormwater permit application, as required by *condition #6*.

Please contact me directly if you have any questions.

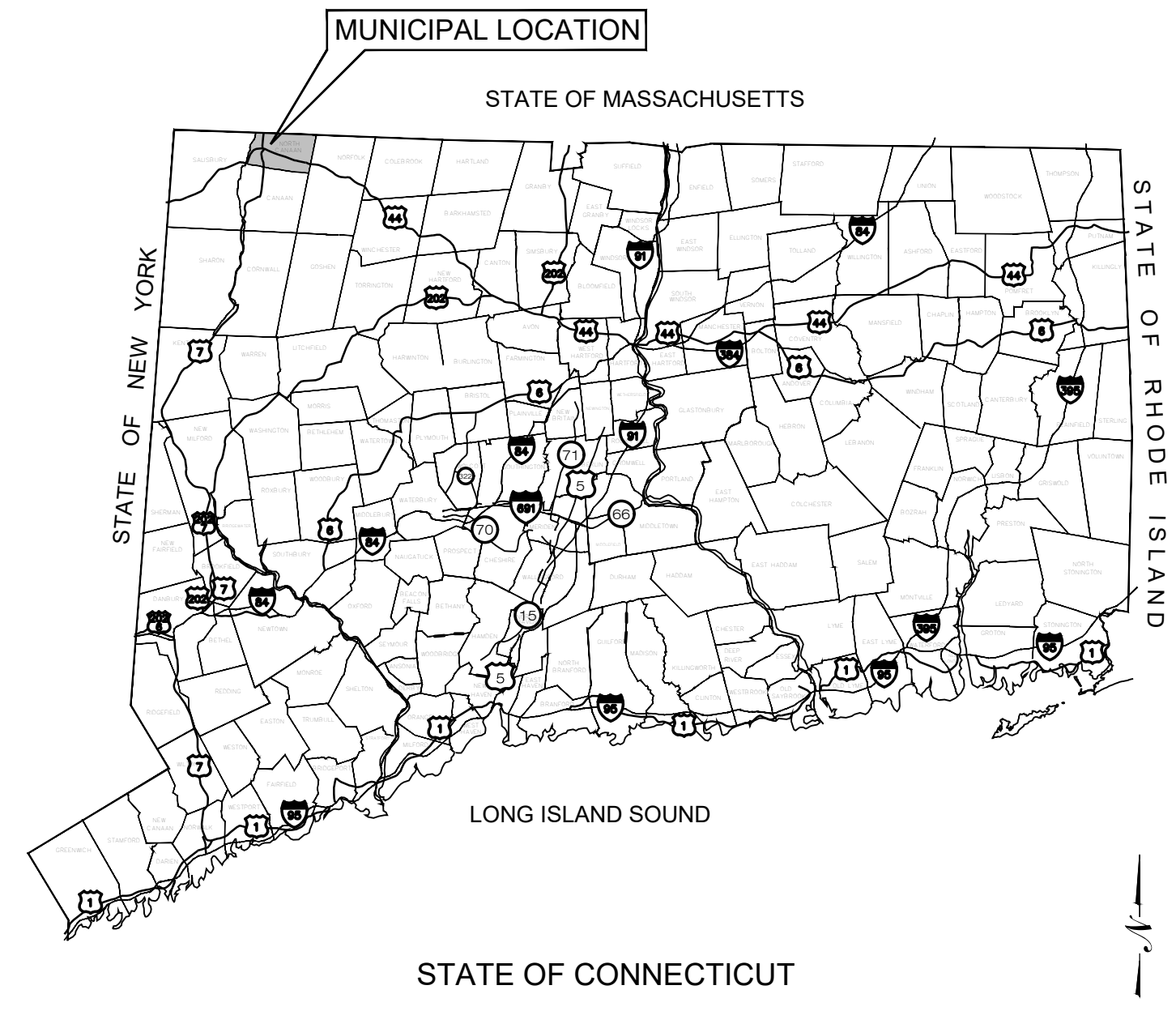
Sincerely,

*Carrie Larson Ortolano*

Carrie Larson Ortolano

Enclosures

**EXHIBIT 1**  
**Revised Site Plans**



# LSE INDUS LLC

## "BUNCE 1 SOLAR FACILITY"

### 81 EAST MAIN ST NORTH CANAAN, CT

LSE INDUS LLC  
40 TOWER LANE, SUITE 201  
AVON, CT 06001



567 VAUXHALL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-663-1697  
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

**PERMIT SET**

NO	DATE	REVISION
0	10/19/21	FOR REVIEW: KAM
1	02/16/22	FOR REVIEW: KAM
2	05/26/22	FOR REVIEW: KAM
3	08/02/22	FOR REVIEW: KAM
4		
5		
6		

**LIST OF DRAWINGS**

- T-1 TITLE SHEET & INDEX
- 1 OF 1 PROPERTY & TOPOGRAPHIC SURVEY PROVIDED BY MARTIN SURVEYING ASSOCIATES, LLC
- GN-1 GENERAL NOTES
- OP-1 OVERALL LOCUS MAP
- EC-1 SEDIMENTATION & EROSION CONTROL NOTES
- EC-2 SEDIMENTATION & EROSION CONTROL DETAILS
- EC-3 PHASE 1 SEDIMENTATION & EROSION CONTROL PLAN
- EC-4 PHASE 1 SEDIMENTATION & EROSION CONTROL PLAN
- EC-5 PHASE 2 SEDIMENTATION & EROSION CONTROL PLAN
- EC-6 PHASE 2 SEDIMENTATION & EROSION CONTROL PLAN
- GD-1 FINAL GRADING & DRAINAGE PLAN
- GD-2 FINAL GRADING & DRAINAGE PLAN
- SP-1 SITE & UTILITY PLAN
- SP-2 SITE & UTILITY PLAN
- DN-1 SITE DETAILS
- DN-2 SITE DETAILS

**SITE INFORMATION**

SITE NAME: "BUNCE 1 SOLAR FACILITY"  
 LOCATION: 81 EAST MAIN ST  
NORTH CANAAN, CT  
 SITE TYPE/DESCRIPTION: ADD (4) GROUND MOUNTED SOLAR PANEL ARRAYS W/ ASSOCIATED EQUIPMENT, GRAVEL ACCESS ROAD, AND STORMWATER MANAGEMENT.  
 PROPERTY OWNER: JOHN BUNCE  
81 EAST MAIN ST  
NORTH CANAAN, CT  
 APPLICANT: LSE INDUS LLC  
40 TOWER LANE, SUITE 201  
AVON, CT 06001  
 ENGINEER CONTACT: KEVIN A. MCCAFFERY, P.E.  
(860) 663-1697 x228  
 LATITUDE: 42°1'18.16" N  
LONGITUDE: 73°18'46.48" W  
 MBLU: 16-50-0  
ZONE: R-25  
 TOTAL SITE ACREAGE: 67.41± AC.  
TOTAL DISTURBED AREA: 11.33± AC.  
 APPROX. VOLUME OF CUT: 3,419± CY  
APPROX. VOLUME OF FILL: 2,845± CY  
APPROX. NET VOLUME: 574± CY OF CUT

**USGS TOPOGRAPHIC MAP**



SCALE: 1" = 2000'± SOURCE: NRCS LITCHFIELD CT DIGITAL RASTER GRAPHIC COUNTY MOSAIC, 2001

**DESIGN PROFESSIONAL OF RECORD**

PROF: KEVIN A. MCCAFFERY, P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHALL STREET  
EXTENSION - SUITE 311  
WATERFORD, CT 06385

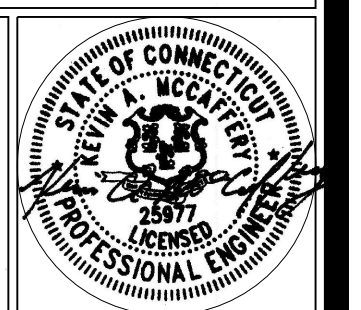
OWNER: JOHN BUNCE  
ADDRESS: 81 EAST MAIN ST  
NORTH CANAAN, CT

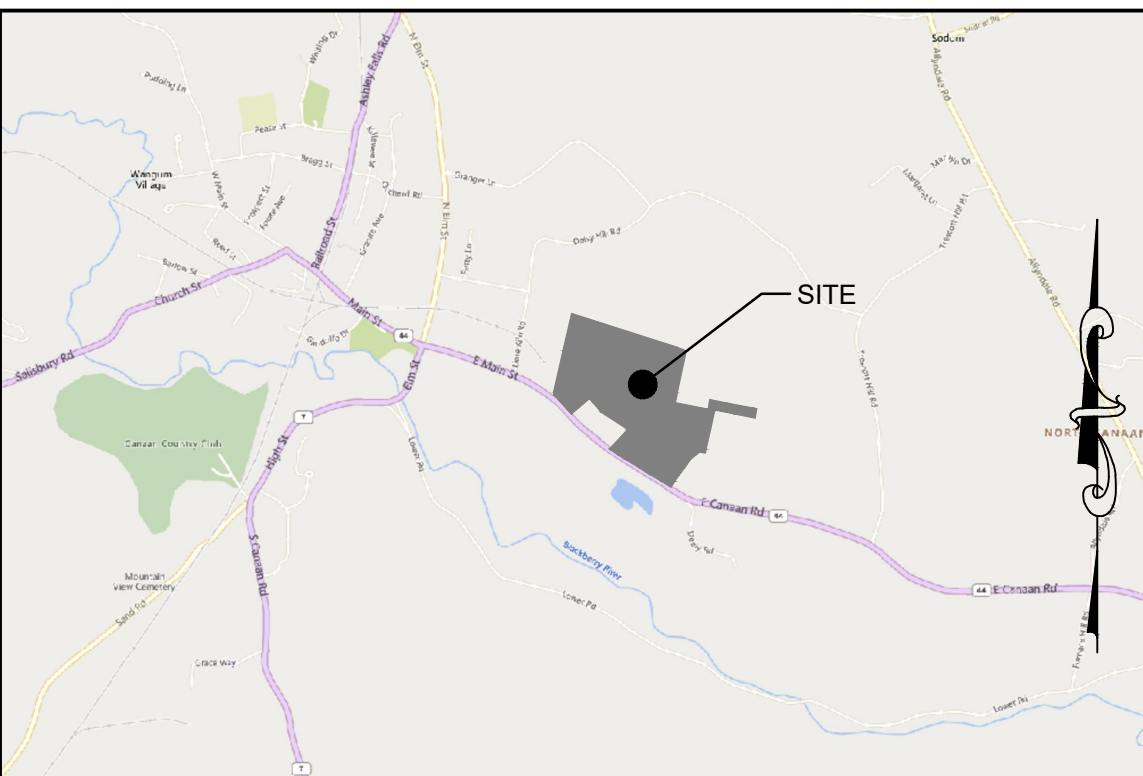
**BUNCE 1 SOLAR FACILITY**

SITE: 81 EAST MAIN ST  
ADDRESS: NORTH CANAAN, CT  
APT FILING NUMBER: CT606140  
DRAWN BY: JT  
DATE: 10/19/21 CHECKED BY: KAM

SHEET TITLE:  
**TITLE SHEET & INDEX**

SHEET NUMBER:  
**T-1**





SITE LOCATION MAP (NOT TO SCALE)

MAP NOTES:

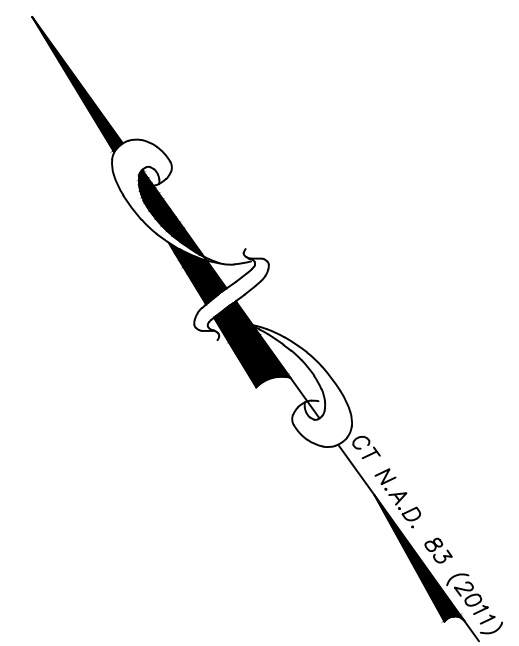
- THIS MAP AND SURVEY HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND "THE MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" ADOPTED JUNE 21, 1996; AMENDED OCTOBER 26, 2018.
- THE TYPE OF SURVEY PERFORMED AND THE MAPPED FEATURES DEPICTED HEREON ARE IN ACCORDANCE WITH THE REQUIREMENTS OF AN PROPERTY/BOUNDARY & TOPOGRAPHIC SURVEY.
- THE HORIZONTAL BASELINE CONFORMS TO A CLASS A-2 ACCURACY. THE VERTICAL BASELINE CONFORMS TO A CLASS V-2 ACCURACY. THE TOPOGRAPHIC FEATURES CONFORM TO A CLASS T-2 ACCURACY.
- THE PROPERTY/BOUNDARY OPINION/DETERMINATION DEPICTED HEREON IS FIRST SURVEY AND CONFORMS TO A CLASS A-2 ACCURACY.
- THE FEATURES DEPICTED AND NOTED HEREON ARE THE RESULT OF A FIELD SURVEY CONDUCTED IN FEBRUARY AND MARCH, 2021.
- THE GROUND RELIEF CONTOURS DEPICTED HEREON ARE BASED UPON THE LIDAR FLIGHT OF 2016 DATA SET CONDUCTED BY THE STATE OF CONNECTICUT AVAILABLE AT CT.ECO.UCONN.EDU. LIDAR ELEVATION WERE FIELD VERIFIED AT VARIOUS LOCATIONS THROUGHOUT THE SUBJECT PARCEL. CERTAIN AREAS WERE REVISED WITH A CONVENTIONAL FIELD SURVEY CONDUCTED ON SEPTEMBER 3, 2021.
- THE WETLANDS DEPICTED HEREON WERE FIELD LOCATED WHILE CONDUCTING THE FIELD SURVEY AND HAVE BEEN DELINEATED BY ALL-POINTS TECHNOLOGY CORPORATION.

MAP NOTES (CONTINUED):

- THE NORTH ARROW AND BEARINGS ARE BASED UPON THE CONNECTICUT STATE COORDINATE SYSTEM N.A.D. 1983 (2011). THE ELEVATIONS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) USING GEOID 12B. COORDINATES AND ELEVATIONS WERE DETERMINED FROM RTK GPS OBSERVATIONS MADE ON FEBRUARY 15, 2021, USING THE CT DOT RTK NETWORK KNOWN AS ACORN (MASH BASE), HAVING THE FOLLOWING VALUES:  
 LATITUDE = N 42° 08' 25.75395"  
 LONGITUDE = W 73° 21' 51.06342"  
 ELLIPSOID HEIGHT = 175.592
- UNDERGROUND UTILITIES, STRUCTURES AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON ARE BASED UPON OBSERVABLE SURFACE EVIDENCE WHILE CONDUCTING THE FIELD SURVEY. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE. THE EXISTENCE WHICH IS UNKNOWN TO MARTIN SURVEYING ASSOCIATES, LLC. ALL CONTRACTORS ARE REQUIRED TO CONTACT CALL-BEFORE-YOU-DIG AT 1-800-922-4455 FOR LOCATION AND OR STAKEOUT OF ANY UTILITY PRIOR TO ANY EXCAVATION.

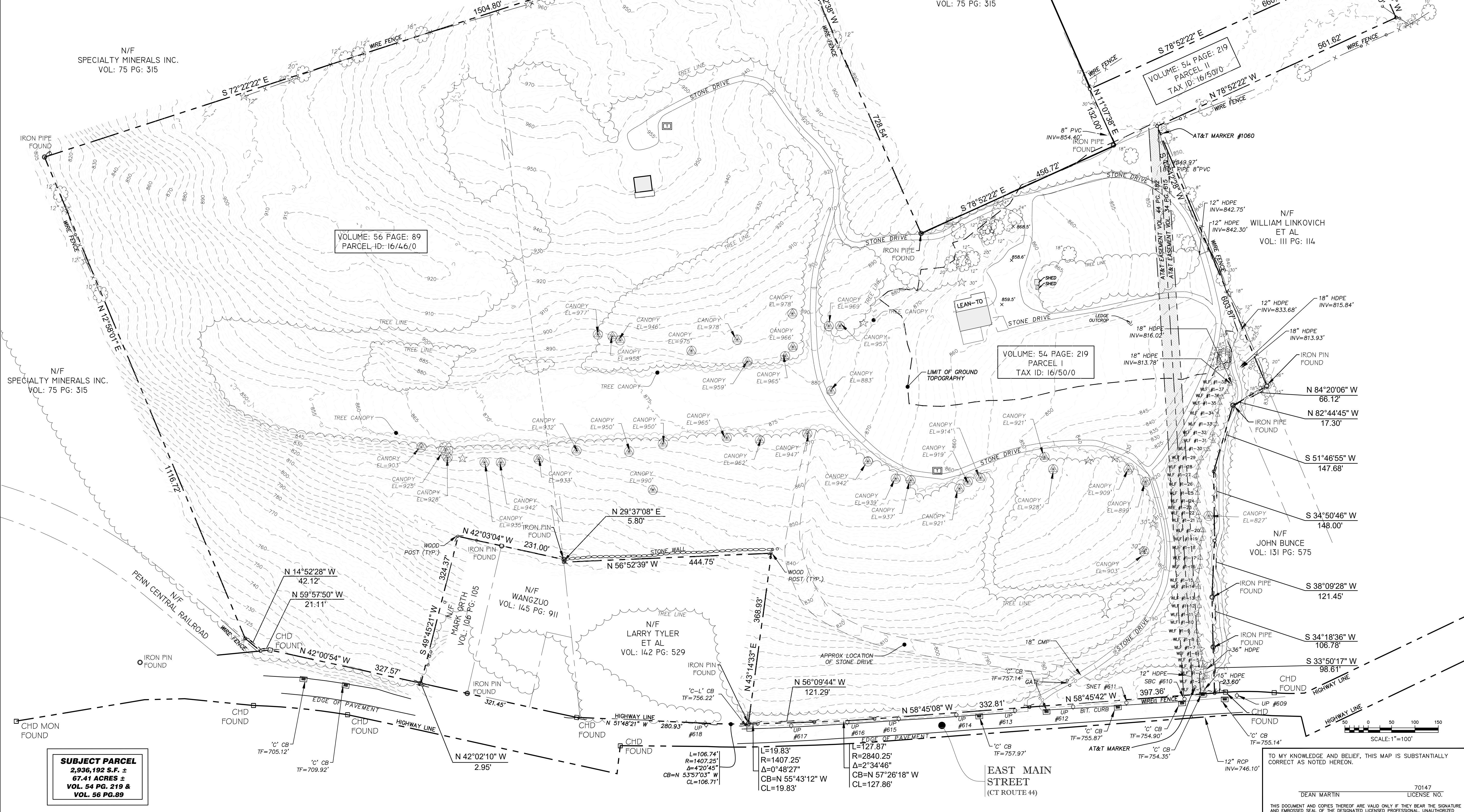
MAP NOTES (CONTINUED):

- PARCEL IS SUBJECT TO RIGHT OF WAY AND EASEMENT TO THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY AS DESCRIBED IN VOLUME 34 AT PAGE 415 AND TO A SECOND EASEMENT GRANTED TO SAID AMERICAN TELEPHONE AND TELEGRAPH COMPANY DATED MARCH 20, 1973 AND RECORDED MAY 24, 24, 1973 IN THE NORTH CANAAN LAND RECORDS. REFERENCE IS MADE TO A RIGHT TO CONSTRUCT AND MAINTAIN A TURNAROUND HAVING A 25 FEET RADIUS AS CENTERED ON A MANHOLE TO BE CONSTRUCTED. THIS SURVEY WAS CONDUCTED DURING THE WINTER MONTHS WITH SIGNIFICANT SNOW COVER. NO MANHOLE WAS FOUND AS OF THE FIELD SURVEY. SAID 25 FEET RADIUS IS NOT DEPICTED HEREON.
- MAP REFERENCES:
- "RIGHT OF WAY MAP TOWN OF NORTH CANAAN NORFOLK-CANAAN ROAD FROM THE R.R. UNDERPASS EASTERLY ABOUT 4,400 FEET ROUTE U.S. 44" (SHEETS 1 THROUGH 3). SCALE: 1"=40'; DATED: FEBRUARY 20, 1948; BY: CONNECTICUT STATE HIGHWAY DEPARTMENT.
  - "MAP OF LAND OF ELMER G. MORCK & RALPH MORCK VOL. 36 PG. 359 U.S. ROUTE 44 NORTH CANAAN, CONNECTICUT." SCALE: 1"=30'; BY: DR. GEORGE D. ADOTTE, DATED: NOVEMBER 26, 1984.
  - "MAP PREPARED FOR ELSIE ROSE GHI #107 EAST CANAAN ROAD - ROUTE 44 NORTH CANAAN, CONNECTICUT." SCALE: 1"=50'; BY: MATHIAS M. KIEFER, DATED: JULY 5, 2001.



LEGEND:

○ IRON PIN (FOUND)	△ SIGN
● Rebar/Drill Hole (To Be Set)	○ POST
□ MONUMENT (FOUND)	☆ LIGHT POLE
⊙ MANHOLE	⊗ GUY ANCHOR
⊕ DRAINAGE MANHOLE	⊘ UTILITY POLE
⊙ SANITARY MANHOLE	⊘ WATER GATE
⊙ ELEC. MANHOLE	⊘ WATER METER
⊙ TELE. MANHOLE	⊘ GAS VALVE
⊙ "C" CATCH BASIN	⊘ GAS METER
□ "C-L" CATCH BASIN	⊘ TRANSFORMER
⊙ DECIDUOUS TREES	⊘ ELEC. METER
☆ EVERGREEN TREES	⊘ MAIL BOX
⊙ SHRUB/BUSH	⊘ HAND HOLE
⊙ FLAG POLE	⊘ BUTTON BOX
⊙ TRAFFIC CONTROL BOX	⊘ A.C. UNIT
	⊘ TRAFFIC LIGHT POLE



REVISIONS:  
9/7/21 REVISED CONTOURS

PROPERTY & TOPOGRAPHIC SURVEY  
LAND OF  
JOHN BUNCE  
81 EAST MAIN STREET  
NORTH CANAAN, CONNECTICUT

MSA PROJECT NO: 70147  
 SCALE: 1"=100'  
 DATE: 4/6/2021  
 DRAWN BY: G.S.D.  
 CHECKED BY: D.G.M.  
 SHEET: 1 OF 1

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.  
 DEAN MARTIN  
 LICENSE NO. 70147

**SUBJECT PARCEL**  
 2,936.192 S.F. ±  
 67.41 ACRES ±  
 VOL. 54 PG. 219 &  
 VOL. 56 PG. 89

**GENERAL NOTES**

- ALL CONSTRUCTION SHALL COMPLY WITH PROJECT DEVELOPER STANDARDS, TOWN OF NORTH CANAAN STANDARDS, CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
- IF NO PROJECT CONSTRUCTION SPECIFICATION PACKAGE IS PROVIDED BY THE PROJECT DEVELOPER OR THEIR REPRESENTATIVE, THE CONTRACTOR SHALL COMPLY WITH THE MANUFACTURER, TOWN OF NORTH CANAAN, OR CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AND BE IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
- THE PROJECT DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING AND STORMWATER PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL TOWN OF NORTH CANAAN CONSTRUCTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
- REFER TO PLANS, DETAILS AND REPORTS PREPARED BY ALL-POINTS TECHNOLOGY CORPORATION FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE PROJECT DEVELOPER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING/CONSTRUCTION. ANY CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONFIRMED WITH THE PROJECT DEVELOPER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS PER PLANS, AND SPECIFICATIONS TO THE PROJECT DEVELOPER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
- SHOULD ANY UNKNOWN OR INCORRECTLY LOCATED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE PROJECT DEVELOPER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
- DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE PROJECT DEVELOPER OR OTHERS DURING OCCUPIED HOURS. EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE PROJECT DEVELOPER AND THE LOCAL MUNICIPALITY. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
- THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE CONTRACT DRAWINGS.
- THE CONTRACTOR SHALL ABIDE BY ALL OSHA, FEDERAL, STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID FOR BY THE CONTRACTOR.
- THE CONTRACTOR SHALL COMPLY WITH OSHA CFR 29 PART 1926 FOR EXCAVATION TRENCHING AND TRENCH PROTECTION REQUIREMENTS.
- THE ENGINEER IS NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ENGINEER HAS NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OF PERSONNEL OR TO SUPERVISE SAFETY AND DO NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
- THE CONTRACTOR SHALL RESTORE ANY DRAINAGE STRUCTURE, PIPE, CONDUIT, PAVEMENT, CURBING, SIDEWALKS, LANDSCAPED AREAS OR SIGNAGE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE PROJECT DEVELOPER OR TOWN OF NORTH CANAAN.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE PROJECT DEVELOPER AT THE END OF CONSTRUCTION.
- ALTERNATIVE METHODS AND PRODUCTS, OTHER THAN THOSE SPECIFIED, MAY BE USED IF REVIEWED AND APPROVED BY THE PROJECT DEVELOPER, ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING/CONSTRUCTION PROCESS.
- INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OF WORK AT "811" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
- NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS AND PERMITS ARE GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.

**SITE PLAN NOTES**

- THE SURVEY WAS PROVIDED BY MARTIN SURVEYING ASSOCIATES, LLC. DATED APRIL 6, 2021.
- THERE ARE BORDERING VEGETATED WETLANDS (BVWS) LOCATED ON THE SITE AS INDICATED ON THE PLANS. BVW BOUNDARIES WERE FLAGGED AND LOCATED BY ALL-POINTS TECHNOLOGY CORPORATION, IN APRIL AND JULY 2021.
- THERE WILL BE MINIMAL GRADING ON SITE WITHIN THE ARRAY AREA IN THE AREAS OF THE MINOR CLEARING, TO ENSURE THAT PROPER DRAINAGE IS MAINTAINED. GRADING WILL BE PROPOSED FOR THE REQUIRED STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES.
- THE CONTRACTOR SHALL FOLLOW THE RECOMMENDED SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE EROSION CONTROL PLAN OR SUBMIT AN ALTERNATE PLAN FOR APPROVAL BY THE ENGINEER AND/OR PERMITTING AGENCIES PRIOR TO THE START CONSTRUCTION. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
- PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR BVWS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. IN ADDITION, THE CONTRACTOR SHALL ADHERE TO THE 'EROSION CONTROL PLAN' CONTAINED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO POST ALL BONDS AS REQUIRED BY GOVERNMENT AGENCIES WHICH WOULD GUARANTEE THE PROPER IMPLEMENTATION OF THE PLAN.
- ALL SITE WORK, MATERIALS OF CONSTRUCTION, AND CONSTRUCTION METHODS FOR EARTHWORK AND STORM DRAINAGE WORK, SHALL CONFORM TO THE SPECIFICATIONS AND DETAILS AND APPLICABLE SECTIONS OF THE PROJECT SPECIFICATIONS MANUAL. OTHERWISE THIS WORK SHALL CONFORM TO THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION AND PROJECT GEOTECHNICAL REPORT IF THERE IS NO PROJECT SPECIFICATIONS MANUAL. ALL FILL MATERIAL UNDER STRUCTURES AND PAVED AREAS SHALL BE PER THE ABOVE STATED APPLICABLE SPECIFICATIONS, AND/OR PROJECT GEOTECHNICAL REPORT, AND SHALL BE PLACED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. MATERIAL SHALL BE COMPACTED IN 8' LIFTS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 AT 95% PERCENT OF OPTIMUM MOISTURE CONTENT.
- ALL DISTURBANCE INCURRED TO PUBLIC, MUNICIPAL, COUNTY, STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE TOWN OF NORTH CANAAN AND STATE OF CONNECTICUT.
- IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE PROJECT DEVELOPER AND/OR PROJECT DEVELOPER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE PROJECT DEVELOPER AND/OR PROJECT DEVELOPER'S ENVIRONMENTAL CONSULTANT.

**UTILITY NOTES**

- CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE TOWN OF NORTH CANAAN TO SECURE CONSTRUCTION PERMITS AND FOR PAYMENT OF FEES FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES.
- REFER TO DRAWINGS BY PROJECT DEVELOPER FOR THE ONSITE ELECTRICAL DRAWINGS AND INTERCONNECTION TO EXISTING ELECTRICAL GRID. SITE CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY AT BUILDING CONNECTION POINT OR AT EXISTING UTILITY OR PIPE CONNECTION POINT. THESE DETAILS ARE NOT INCLUDED IN THESE PLANS.
- UTILITY LOCATIONS AND PENETRATIONS ARE SHOWN FOR THE CONTRACTORS INFORMATION AND SHALL BE VERIFIED WITH THE ELECTRICAL ENGINEER AND THE PROJECT DEVELOPER'S CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. TEST PITS SHALL BE DUG AT ALL LOCATIONS WHERE PROP. SANITARY SEWERS AND WHERE PROP. STORM PIPING WILL CROSS EXISTING UTILITIES, AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE CONTRACTOR SHALL CONTACT THE PROJECT DEVELOPER IN THE EVENT OF ANY DISCOVERED OR UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED SANITARY SEWERS, STORM PIPING AND UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
- UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY PROVIDER AND GOVERNING AUTHORITY STAFF REVIEW.
- THE CONTRACTOR SHALL ENSURE THAT ALL UTILITY PROVIDERS AND GOVERNING AUTHORITY STANDARDS FOR MATERIALS AND CONSTRUCTION METHODS ARE MET. THE CONTRACTOR SHALL PERFORM PROPER COORDINATION WITH THE RESPECTIVE UTILITY PROVIDER.
- THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY PROVIDERS FOR SERVICE INSTALLATIONS AND CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WORK TO BE PERFORMED BY THE VARIOUS UTILITY PROVIDERS AND SHALL PAY ALL FEES FOR CONNECTIONS, DISCONNECTIONS, RELOCATIONS, INSPECTIONS, AND DEMOLITION UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATIONS MANUAL AND/OR GENERAL CONDITIONS OF THE CONTRACT.
- ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED SHALL BE SAW CUT. AFTER UTILITY INSTALLATION IS COMPLETED, THE CONTRACTOR SHALL INSTALL TEMPORARY AND/OR PERMANENT PAVEMENT REPAIR AS DETAILED ON THE DRAWINGS OR AS REQUIRED BY THE TOWN OF NORTH CANAAN.
- ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
- RELOCATION OF UTILITY PROVIDER FACILITIES, SUCH AS POLES, SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY PROVIDER.
- THE CONTRACTOR SHALL COMPACT PIPE BACKFILL IN 8' LIFTS ACCORDING TO THE PIPE BEDDING DETAILS. TRENCH BOTTOM SHALL BE STABLE IN HIGH GROUNDWATER AREAS. A PIPE FOUNDATION SHALL BE USED PER THE TRENCH DETAILS AND IN AREAS OF ROCK EXCAVATION.
- CONTRACTOR TO PROVIDE STEEL SLEEVES AND ANNULAR SPACE SAND FILL FOR UTILITY PIPE AND CONDUIT CONNECTIONS UNDER FOOTINGS.
- ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION FOR APPROVAL PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROVIDER REQUIREMENTS.
- A ONE-FOOT MINIMUM VERTICAL CLEARANCE BETWEEN WATER, GAS, ELECTRICAL, AND TELEPHONE LINES AND STORM PIPING SHALL BE PROVIDED. A SIX-INCH MINIMUM CLEARANCE SHALL BE MAINTAINED BETWEEN STORM PIPING AND SANITARY SEWER. A 6-INCH TO 18-INCH VERTICAL CLEARANCE BETWEEN SANITARY SEWER PIPING AND STORM PIPING SHALL REQUIRE CONCRETE ENCASEMENT OF THE SANITARY PIPING.
- THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPE, CONDUIT, PAVEMENT, CURBING, SIDEWALKS, DRAINAGE STRUCTURE, SWALE OR LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION, TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE PROJECT DEVELOPER AND TOWN OF NORTH CANAAN.
- INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY, AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE INCLUDING SERVICES. CONTACT "CALL BEFORE YOU DIG" AT 811 72 HOURS PRIOR TO CONSTRUCTION AND VERIFY ALL UNDERGROUND AND OVERHEAD UTILITY AND STORM DRAINAGE LOCATIONS. THE CONTRACTOR SHALL EMPLOY THE USE OF A UTILITY LOCATING COMPANY TO PROVIDE SUBSURFACE UTILITY ENGINEERING CONSISTING OF DESIGNATING UTILITIES AND STORM PIPING ON PRIVATE PROPERTY WITHIN THE CONTRACT LIMIT AND CONSISTING OF DESIGNATING AND LOCATING WHERE PROP. UTILITIES AND STORM PIPING CROSS EXISTING UTILITIES AND STORM PIPING WITHIN THE CONTRACT LIMITS.
- THE CONTRACTOR SHALL ARRANGE AND COORDINATE WITH UTILITY PROVIDERS FOR WORK TO BE PERFORMED BY UTILITY PROVIDERS. THE CONTRACTOR SHALL PAY ALL UTILITY FEES UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATION MANUAL AND GENERAL CONDITIONS, AND REPAIR PAVEMENTS AS NECESSARY.
- ELECTRIC DRAWINGS AND REQUIREMENTS ARE NOT INCLUDED AS PART OF THIS DRAWING SET AND SHOULD BE OBTAINED FROM THE PROJECT DEVELOPER.
- ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE PROJECT DEVELOPER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE PROJECT DEVELOPER, TOWN OF NORTH CANAAN, UTILITY PROVIDERS AND GOVERNING AUTHORITIES.

GENERAL LEGEND		
	EXISTING	PROPOSED
PROPERTY LINE	----	----
BUILDING SETBACK	----	----
SOLAR SETBACK	----	----
EASEMENT	----	----
TREE LINE	~~~~~	~~~~~
WETLAND	~~~~~	~~~~~
WETLAND BUFFER	----	----
VERNAL POOL	----	----
VERNAL POOL BUFFER	----	----
WATERCOURSE	----	----
WATERCOURSE BUFFER	----	----
MAJOR CONTOUR	----	----
MINOR CONTOUR	----	----
UNDERGROUND ELECTRIC		—E—E—
OVERHEAD ELECTRIC		—OH—OH—
GAS LINE		—G—G—
WATER LINE		—W—W—
BASIN		•••••
SWALE		—>—<—
FENCE		—X—X—X—
LIMIT OF DISTURBANCE		—LOD—
LIMIT OF CLEARING AND GRUBBING		—LCG—
FILTER SOCK		—FS—FS—
SILT FENCE		—SF—SF—
BAFFLE		— — — —

**LSE INDUS LLC**  
**40 TOWER LANE, SUITE 201**  
**AVON, CT 06001**



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**DESIGN PROFESSIONAL OF RECORD**

**PROF. KEVIN A. MCCAFFERY, P.E.**  
**COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.**  
**ADD: 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385**

**OWNER: JOHN BUNCE**

**ADDRESS: 81 EAST MAIN ST NORTH CANAAN, CT**

**BUNCE 1 SOLAR FACILITY**

**SITE 81 EAST MAIN ST**  
**ADDRESS: NORTH CANAAN, CT**

**APT FILING NUMBER: CT606140**

**DRAWN BY: JT**

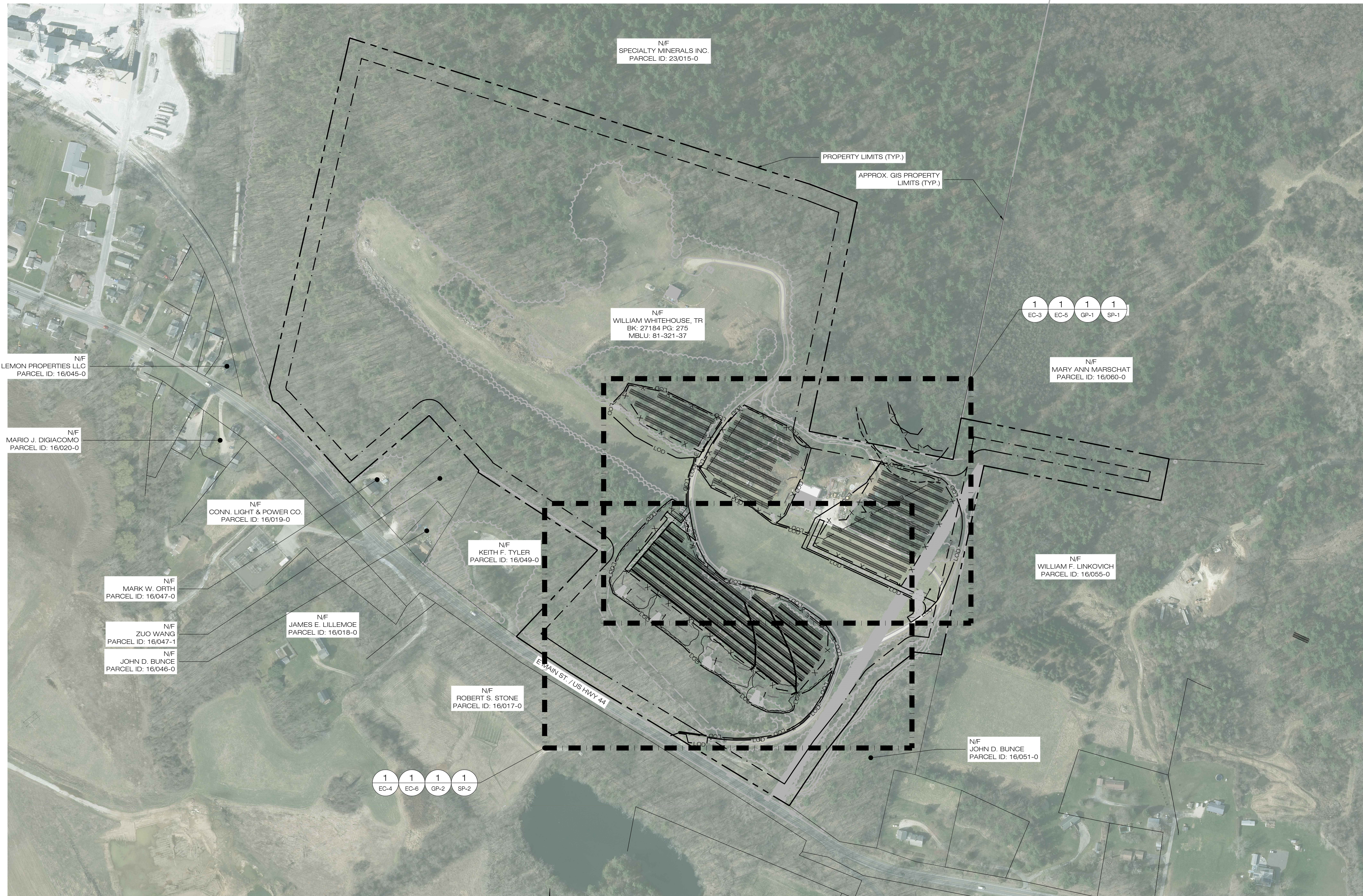
**DATE: 10/19/21** **CHECKED BY: KAM**

**SHEET TITLE:**

**GENERAL NOTES**

**SHEET NUMBER:**

**GN-1**



LSE INDUS LLC  
 40 TOWER LANE, SUITE 201  
 AVON, CT 06001

**ALL-POINTS**  
 TECHNOLOGY CORPORATION  
 567 VAUXHALL STREET EXTENSION - SUITE 311  
 WATERFORD, CT 06385 PHONE: (860)-663-1697  
 WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

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SHEET TITLE:  
**OVERALL LOCUS MAP**

SHEET NUMBER:  
**OP-1**

N/F  
 SPECIALTY MINERALS INC.  
 PARCEL ID: 23/015-0

PROPERTY LIMITS (TYP.)  
 APPROX. GIS PROPERTY LIMITS (TYP.)

N/F  
 WILLIAM WHITEHOUSE, TR  
 BK: 27184 PG: 275  
 MBLU: 81-321-37

1 EC-3  
 1 EC-5  
 1 GP-1  
 1 SP-1

N/F  
 MARY ANN MARSCHAT  
 PARCEL ID: 16/060-0

N/F  
 LEMON PROPERTIES LLC  
 PARCEL ID: 16/045-0

N/F  
 MARIO J. DIGIACOMO  
 PARCEL ID: 16/020-0

N/F  
 CONN. LIGHT & POWER CO.  
 PARCEL ID: 16/019-0

N/F  
 KEITH F. TYLER  
 PARCEL ID: 16/049-0

N/F  
 WILLIAM F. LINKOVICH  
 PARCEL ID: 16/055-0

N/F  
 MARK W. ORTH  
 PARCEL ID: 16/047-0

N/F  
 JAMES E. LILLEMOR  
 PARCEL ID: 16/018-0

N/F  
 ZUO WANG  
 PARCEL ID: 16/047-1

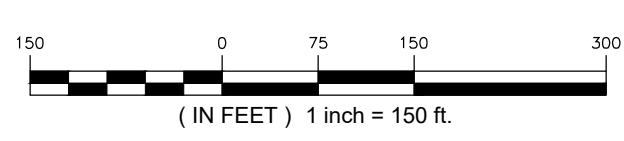
N/F  
 JOHN D. BUNCE  
 PARCEL ID: 16/046-0

N/F  
 ROBERT S. STONE  
 PARCEL ID: 16/017-0

1 EC-4  
 1 EC-6  
 1 GP-2  
 1 SP-2

N/F  
 JOHN D. BUNCE  
 PARCEL ID: 16/051-0

1 OP-1  
**OVERALL LOCUS MAP**  
 SCALE: 1" = 150'-0"





# EROSION CONTROL NOTES

## EROSION AND SEDIMENT CONTROL PLAN NOTES

- THE CONTRACTOR SHALL CONSTRUCT ALL SEDIMENT AND EROSION CONTROLS IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AND AS DIRECTED BY THE TOWN OF NORTH CANAAN, PERMITTEE, AND/OR SWPCP MONITOR. ALL PERIMETER SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CLEARING AND GRUBBING AND DEMOLITION OPERATIONS.
- THESE DRAWINGS ARE ONLY INTENDED TO DESCRIBE THE SEDIMENT AND EROSION CONTROL MEASURES FOR THIS SITE. SEE CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN ARE SHOWN AS REQUIRED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL EROSION CONTROL MEASURES ARE CONFIGURED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION OF SOILS AND PREVENT THE TRANSPORT OF SEDIMENTS AND OTHER POLLUTANTS TO STORM DRAINAGE SYSTEMS AND/OR WATERCOURSES. ACTUAL SITE CONDITIONS OR SEASONAL AND CLIMATIC CONDITIONS MAY WARRANT ADDITIONAL CONTROLS OR CONFIGURATIONS, AS REQUIRED, AND AS DIRECTED BY THE PERMITTEE AND/OR SWPCP MONITOR. REFER TO SITE PLAN FOR GENERAL INFORMATION AND OTHER CONTRACT PLANS FOR APPROPRIATE INFORMATION.
- A BOND OR LETTER OF CREDIT MAY BE REQUIRED TO BE POSTED WITH THE GOVERNING AUTHORITY FOR THE EROSION CONTROL INSTALLATION AND MAINTENANCE.
- THE CONTRACTOR SHALL APPLY THE MINIMUM EROSION & SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN IN CONJUNCTION WITH CONSTRUCTION SEQUENCING, SUCH THAT ALL ACTIVE WORK ZONES ARE PROTECTED. ADDITIONAL AND/OR ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE CONTRACTOR, OWNER, SITE ENGINEER, MUNICIPAL OFFICIALS, OR ANY GOVERNING AGENCY. THE CONTRACTOR SHALL CONTACT THE OWNER AND APPROPRIATE GOVERNING AGENCIES FOR APPROVAL IF ALTERNATIVE CONTROLS OTHER THAN THOSE SHOWN ON THE PLANS ARE PROPOSED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL TAKE EXTREME CARE DURING CONSTRUCTION SO AS NOT TO DISTURB UNPROTECTED WETLAND AREAS OR INSTALLED SEDIMENTATION AND EROSION CONTROL MEASURES. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROLS WEEKLY AND WITHIN 24 HOURS OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCHES OR GREATER TO VERIFY THAT THE CONTROLS ARE OPERATING PROPERLY AND MAKE REPAIRS AS NECESSARY IN A TIMELY MANNER.
- THE CONTRACTOR SHALL KEEP A SUPPLY OF EROSION CONTROL MATERIAL (SILT FENCE, COMPOST FILTER SOCK, EROSION CONTROL BLANKET, ETC.) ON-SITE FOR PERIODIC MAINTENANCE AND EMERGENCY REPAIRS.
- ALL FILL MATERIAL PLACED ADJACENT TO ANY WETLAND AREA SHALL BE GOOD QUALITY, WITH LESS THAN 5% FINES PASSING THROUGH A #200 SIEVE (BANK RUN), SHALL BE PLACED IN MAXIMUM ONE FOOT LIFTS, AND SHALL BE COMPACTED TO 95% MAX. DRY DENSITY MODIFIED PROCTOR OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
- PROTECT EXISTING TREES THAT ARE TO BE SAVED BY FENCING, ORANGE SAFETY FENCE, CONSTRUCTION TAPE, OR EQUIVALENT FENCING/TAPE. ANY LIMB TRIMMING SHOULD BE DONE AFTER CONSULTATION WITH AN ARBORIST AND BEFORE CONSTRUCTION BEGINS IN THAT AREA. FENCING SHALL BE MAINTAINED AND REPAIRED DURING CONSTRUCTION.
- CONSTRUCTION ENTRANCES (ANTI-TRACKING PADS) SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR CONSTRUCTION ACTIVITY AND SHALL BE MAINTAINED THROUGHOUT THE DURATION OF ALL CONSTRUCTION IF REQUIRED. THE LOCATION OF THE TRACKING PADS MAY CHANGE AS VARIOUS PHASES OF CONSTRUCTION ARE COMPLETED. CONTRACTOR SHALL ENSURE THAT ALL VEHICLES EXITING THE SITE ARE PASSING OVER THE ANTI-TRACKING PADS PRIOR TO EXITING.
- ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE LIMIT OF DISTURBANCE, WHICH SHALL BE MARKED WITH SILT FENCE, SAFETY FENCE, HAY BALES, RIBBONS, OR OTHER MEANS PRIOR TO CLEARING. CONSTRUCTION ACTIVITY SHALL REMAIN ON THE UPHILL SIDE OF THE SEDIMENT BARRIER UNLESS WORK IS SPECIFICALLY CALLED FOR ON THE DOWNHILL SIDE OF THE BARRIER.
- NO CUT OR FILL SLOPES SHALL EXCEED 2:1 EXCEPT WHERE STABILIZED BY ROCK FACED EMBANKMENTS OR EROSION CONTROL BLANKETS. ALL SLOPES SHALL BE SEEDED AND BANKS WILL BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING UNTIL TURF IS ESTABLISHED.
- DIRECT ALL DEWATERING PUMP DISCHARGE TO A SEDIMENT CONTROL DEVICE CONFORMING TO THE GUIDELINES WITHIN THE APPROVED LIMIT OF DISTURBANCE IF REQUIRED. DISCHARGE TO STORM DRAINS OR SURFACE WATERS FROM SEDIMENT CONTROLS SHALL BE CLEAR AND APPROVED BY THE PERMITTEE OR MUNICIPALITY.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN CONSTRUCTION SITE AND SHALL NOT ALLOW THE ACCUMULATION OF RUBBISH OR CONSTRUCTION DEBRIS ON THE SITE. PROPER SANITARY DEVICES SHALL BE MAINTAINED ON-SITE AT ALL TIMES AND SECURED APPROPRIATELY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID THE SPILLAGE OF FUEL OR OTHER POLLUTANTS ON THE CONSTRUCTION SITE AND SHALL ADHERE TO ALL APPLICABLE POLICIES AND REGULATIONS RELATED TO SPILL PREVENTION AND RESPONSE/CONTAINMENT.
- MINIMIZE LAND DISTURBANCES. SEED AND MULCH DISTURBED AREAS WITH TEMPORARY MIX AS SOON AS PRACTICABLE (2 WEEK MAXIMUM UNSTABILIZED PERIOD) USING PERENNIAL RYEGRASS AT 40 LBS PER ACRE. MULCH ALL CUT AND FILL SLOPES AND SWALES WITH LOOSE HAY AT A RATE OF 2 TONS PER ACRE. IF NECESSARY, REPLACE LOOSE HAY ON SLOPES WITH EROSION CONTROL BLANKETS OR JUTE CLOTH. MODERATELY GRADED AREAS, ISLANDS, AND TEMPORARY CONSTRUCTION STAGING AREAS MAY BE HYDROSEEDING WITH TACKIFIER.
- SWEEP AFFECTED PORTIONS OF OFF SITE ROADS ONE OR MORE TIMES A DAY (OR LESS FREQUENTLY IF TRACKING IS NOT A PROBLEM) DURING CONSTRUCTION. FOR DUST CONTROL, PERIODICALLY MOISTEN EXPOSED SOIL SURFACES WITH WATER ON UNPAVED TRAVELWAYS TO KEEP THE TRAVELWAYS DAMP. CALCIUM CHLORIDE MAY ALSO BE APPLIED TO ACCESS ROADS. DUMP TRUCK LOADS EXITING THE SITE SHALL BE COVERED.
- VEGETATIVE ESTABLISHMENT SHALL OCCUR ON ALL DISTURBED SOIL, UNLESS THE AREA IS UNDER ACTIVE CONSTRUCTION, IT IS COVERED IN STONE OR SCHEDULED FOR PAVING WITHIN 30 DAYS. TEMPORARY SEEDING OR NON-LIVING SOIL PROTECTION OF ALL EXPOSED SOILS AND SLOPES SHALL BE INITIATED WITHIN THE FIRST 7 DAYS OF SUSPENDING WORK IN AREAS TO BE LEFT LONGER THAN 30 DAYS.
- MAINTAIN ALL PERMANENT AND TEMPORARY SEDIMENT CONTROL DEVICES IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. UPON COMPLETION OF WORK SWEEP CONCRETE PADS, CLEAN THE STORMWATER MANAGEMENT SYSTEMS AND REMOVE ALL TEMPORARY SEDIMENT CONTROLS ONCE THE SITE IS FULLY STABILIZED AND APPROVAL HAS BEEN RECEIVED FROM PERMITTEE OR THE MUNICIPALITY.
- THE SITE WAS DESIGNED TO COMPLY WITH FEDERAL, STATE, AND, IF APPLICABLE, LOCAL STANDARDS, PLUS CURRENT ACCEPTED PRACTICES FOR THE INDUSTRY. ADDITIONAL CONTROLS AND ACTIVITIES MAY BE DEEMED NECESSARY BY THE SWPCP MONITOR DURING CONSTRUCTION AS A RESULT OF UNFORESEEN CONDITIONS AND/OR MEANS AND METHODS. SUCH ITEMS MAY INCLUDE, BUT ARE NOT LIMITED TO: ADDITIONAL FOREBAYS, BASINS, OR UPSTREAM STRUCTURAL CONTROLS, THE USE OF FLOCCULANTS OF FLOCK LOGS TO DECREASE SEDIMENT, DISCHARGE MANAGEMENT SUCH AS ADDITIONAL ARMORING AND FILTERING MEASURES (I.E. STRAW BALES, WATTLES, ETC.), AND HYDROSEEDING WITH RAPIDLY GERMINATING SEED.
- SEEDING MIXTURES SHALL BE ERNST SOLAR FARM SEED MIX (ERNMX-186) DURING CONSTRUCTION AND ERNST FUZZ & BUZZ MIX (ERNMX-147) FOR FINAL STABILIZATION (SEE SITE DETAILS SHEET DN-1), OR APPROVED EQUAL BY OWNER.

### CONSTRUCTION OPERATION AND MAINTENANCE PLAN - BY CONTRACTOR

E&S MEASURE	INSPECTION SCHEDULE	MAINTENANCE REQUIRED
CONSTRUCTION ENTRANCE	DAILY	PLACE ADDITIONAL STONE, EXTEND THE LENGTH OR REMOVE AND REPLACE THE STONE. CLEAN PAVED SURFACES OF TRACKED SEDIMENT.
COMPOST FILTER SOCK	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.25"	REPAIR/REPLACE WHEN FAILURE OR DETERIORATION IS OBSERVED.
SILT FENCE	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.25"	REPAIR/REPLACE WHEN FAILURE OR DETERIORATION IS OBSERVED. REMOVE SILT WHEN IT REACHES 1/2 THE HEIGHT OF THE FENCE.
TOPSOIL/BORROW STOCKPILES	DAILY	REPAIR/REPLACE SEDIMENT BARRIERS AS NECESSARY.
TEMPORARY SOIL PROTECTION	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.25"	REPAIR ERODED OR BARE AREAS IMMEDIATELY. RESEED AND MULCH.

## SEDIMENT & EROSION CONTROL NARRATIVE

- THE PROJECT INVOLVES THE CONSTRUCTION OF A GROUND MOUNTED SOLAR PANEL FACILITY WITH ASSOCIATED EQUIPMENT, INCLUDING THE CLEARING, GRUBBING AND GRADING OF APPROXIMATELY 11.33± ACRES OF EXISTING LOT.
 

THE PROPOSED PROJECT INVOLVES THE FOLLOWING CONSTRUCTION:

  - CLEARING, GRUBBING, AND GRADING OF EXISTING LOT.
  - CONSTRUCTION OF 4,966 GROUND MOUNTED SOLAR PANELS AND ASSOCIATED EQUIPMENT.
  - THE STABILIZATION OF DISTURBED AREAS WITH PERMANENT VEGETATIVE TREATMENTS.
- FOR THIS PROJECT, THERE ARE APPROXIMATELY 11.33± ACRE OF THE SITE BEING DISTURBED WITH NEGLIGIBLE INCREASE IN THE IMPERVIOUS AREA OF THE SITE, AS ALL ACCESS THROUGH THE SITE WILL BE GRAVEL. IMPERVIOUS AREAS ARE LIMITED TO THE CONCRETE PADS FOR ELECTRICAL EQUIPMENT.
- THE PROJECT SITE, AS MAPPED IN THE SOIL SURVEY OF STATE OF CONNECTICUT (NRCS, VERSION 20, JUN 9, 2020), CONTAINS TYPE 61B, 73C, 90B, AND 90D (HYDROLOGIC SOIL GROUP B), AND 49B (HYDROLOGIC SOIL GROUP C). A GEOTECHNICAL ENGINEERING REPORT HAS NOT BEEN COMPLETED.
- IT IS ANTICIPATED THAT CONSTRUCTION WILL BE COMPLETED IN APPROXIMATELY 3-4 MONTHS.
- REFER TO THE CONSTRUCTION SEQUENCING AND EROSION AND SEDIMENTATION NOTES FOR INFORMATION REGARDING SEQUENCING OF MAJOR OPERATIONS IN THE ON-SITE CONSTRUCTION PHASES.
- STORMWATER MANAGEMENT DESIGN CRITERIA UTILIZES THE APPLICABLE SECTIONS OF THE 2004 CONNECTICUT STORMWATER QUALITY MANUAL AND THE TOWN OF NORTH CANAAN STANDARDS, TO THE EXTENT POSSIBLE AND PRACTICABLE FOR THIS PROJECT ON THIS SITE. EROSION AND SEDIMENTATION MEASURES ARE BASED UPON ENGINEERING PRACTICE, JUDGEMENT AND THE APPLICABLE SECTIONS OF THE CONNECTICUT EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, LATEST EDITION.
- DETAILS FOR THE TYPICAL STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION MEASURES ARE SHOWN ON THE PLAN SHEETS OR PROVIDED AS SEPARATE SUPPORT DOCUMENTATION FOR REVIEW IN THIS PLAN.
- CONSERVATION PRACTICES TO BE USED DURING CONSTRUCTION:
  - STAGED CONSTRUCTION;
  - MINIMIZE THE DISTURBED AREAS TO THE EXTENT PRACTICABLE DURING CONSTRUCTION;
  - STABILIZE DISTURBED AREAS WITH TEMPORARY OR PERMANENT MEASURES AS SOON AS POSSIBLE, BUT NO LATER THAN 7-DAYS FOLLOWING DISTURBANCE;
  - MINIMIZE IMPERVIOUS AREAS;
  - UTILIZE APPROPRIATE CONSTRUCTION EROSION AND SEDIMENTATION MEASURES.
- THE FOLLOWING SEPARATE DOCUMENTS ARE TO BE CONSIDERED A PART OF THE EROSION AND SEDIMENTATION PLAN:
  - STORMWATER MANAGEMENT REPORT DATED OCTOBER 2021, REVISED FEBRUARY 2022.
  - SWPCP DATED OCTOBER 2021, REVISED FEBRUARY 2022.

### SUGGESTED CONSTRUCTION SEQUENCE

THE FOLLOWING SUGGESTED SEQUENCE OF CONSTRUCTION ACTIVITIES IS PROJECTED BASED UPON ENGINEERING JUDGEMENT AND BEST MANAGEMENT PRACTICES. THE CONTRACTOR MAY ELECT TO ALTER THE SEQUENCING TO BEST MEET THE CONSTRUCTION SCHEDULE, THE EXISTING SITE ACTIVITIES AND WEATHER CONDITIONS. SHOULD THE CONTRACTOR ALTER THE CONSTRUCTION SEQUENCE OR ANY EROSION AND SEDIMENTATION CONTROL MEASURES THEY SHALL MODIFY THE STORMWATER POLLUTION CONTROL PLAN ("SWPCP") AS REQUIRED BY THE GENERAL PERMIT. MAJOR CHANGES IN SEQUENCING AND/OR METHODS MAY REQUIRE REGULATORY APPROVAL PRIOR TO IMPLEMENTATION.

- THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING. PHYSICALLY FLAG THE LIMITS OF DISTURBANCE IN THE FIELD AS NECESSARY TO FACILITATE THE PRE-CONSTRUCTION MEETING.
- CONDUCT A PRE-CONSTRUCTION MEETING TO DISCUSS THE PROPOSED WORK AND EROSION AND SEDIMENTATION CONTROL MEASURES. THE MEETING SHOULD BE ATTENDED BY THE OWNER, THE OWNERS REPRESENTATIVE(S), THE GENERAL CONTRACTOR, DESIGNATED SUB-CONTRACTORS AND THE PERSON, OR PERSONS, RESPONSIBLE FOR THE IMPLEMENTATION, OPERATION, MONITORING AND MAINTENANCE OF THE EROSION AND SEDIMENTATION MEASURES. THE CONSTRUCTION PROCEDURES FOR THE ENTIRE PROJECT SHALL BE REVIEWED AT THIS MEETING.
- NOTIFY CALL BEFORE YOU DIG AT 811, AS REQUIRED, PRIOR TO THE START OF CONSTRUCTION.

### PHASE 1

- REMOVE EXISTING IMPEDIMENTS AS NECESSARY AND PROVIDE MINIMAL CLEARING AND GRUBBING TO INSTALL THE REQUIRED CONSTRUCTION ENTRANCES.
- CLEAR ONLY AS NEEDED TO INSTALL THE PERIMETER EROSION AND SEDIMENTATION CONTROL MEASURES AND, IF APPLICABLE, TREE PROTECTION. ALL WETLAND AREAS SHALL BE PROTECTED BEFORE MAJOR CONSTRUCTION BEGINS.
- INSTALL PERIMETER EROSION CONTROL.
- INSTALL PERMANENT GRASSED STORMWATER MANAGEMENT BASINS B-1B, B-1C, B-1D, B-1E, B-2, B-3, AND B-4. UPON COMPLETION OF THE INSTALLATION AND STABILIZATION OF THE BASINS, PHASE 2 WORK UP GRADIENT CAN PROCEED.

### PHASE 2

- UPON COMPLETION OF THE INSTALLATION OF EACH OF THE PERMANENT GRASSED STORMWATER MANAGEMENT BASINS AND REQUIRED PERIMETER CONTROLS, THE AREAS UPSTREAM CAN HAVE THE REMAINING ARRAY AREA CLEARING AND GRUBBING COMPLETED AS REQUIRED. REMOVE CUT WOOD AND STOCKPILE FOR FUTURE USE OR REMOVE OFF-SITE. REMOVE AND DISPOSE OF DEMOLITION DEBRIS OFF-SITE IN ACCORDANCE WITH APPLICABLE LAWS.
- TEMPORARILY SEED DISTURBED AREAS NOT UNDER CONSTRUCTION FOR THIRTY (30) DAYS OR MORE.

### FINAL GRADING & DRAINAGE PLAN (PHASE 3)

- INSTALL CONCRETE EQUIPMENT PADS.
- INSTALL ELECTRICAL CONDUITS.
- INSTALL RACKING POSTS FOR GROUND MOUNTED SOLAR PANELS.
- INSTALL GRAVEL DRIP EDGE PROTECTION.
- INSTALL REMAINDER OF RACKING AND GROUND MOUNTED SOLAR PANELS AND COMPLETE ELECTRICAL INSTALLATION.
- AFTER SUBSTANTIAL COMPLETION OF THE INSTALLATION OF THE SOLAR PANELS, COMPLETE REMAINING SITE WORK, INCLUDING ANY REQUIRED LANDSCAPE SCREENING, AND STABILIZE ALL DISTURBED AREAS.
- FINE GRADE, RAKE, SEED AND MULCH ALL REMAINING DISTURBED AREAS. FINAL STABILIZATION SEEDING SHALL BE ERNST FUZZ & BUZZ MIX OR APPROVED EQUAL.
- AFTER THE SITE IS DEEMED TO HAVE ACHIEVED FINAL STABILIZATION AND WITH THE APPROVAL OF THE PERMITTEE, REMOVE PERIMETER EROSION AND SEDIMENTATION CONTROLS AND CLEAN PERMANENT STORMWATER GRASS LINED BASINS. ANY AREAS DISTURBED DURING CLEAN UP SHALL BE PERMANENTLY SEEDED.
- THE SITE SHALL BE MONITORED ONCE A MONTH FOR TWO FULL GROWING SEASONS (APRIL - OCTOBER).
- ISSUE NOTICE OF TERMINATION UPON COMPLETION OF MONITORING REQUIRED PER CT DEEP CONSTRUCTION GP APPENDIX I.

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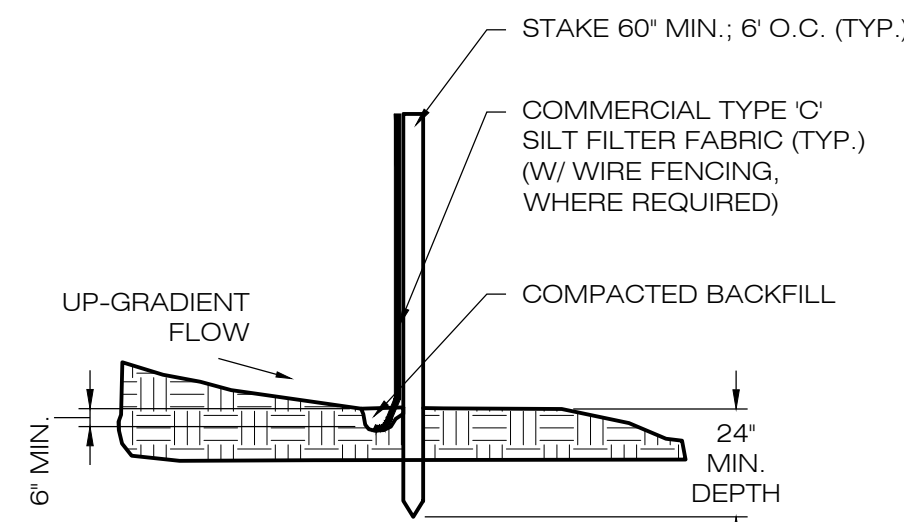
**DATE: 10/19/21** **DRAWN BY: JT** **CHECKED BY: KAM**

### SHEET TITLE: SEDIMENTATION & EROSION CONTROL NOTES

**SHEET NUMBER:**

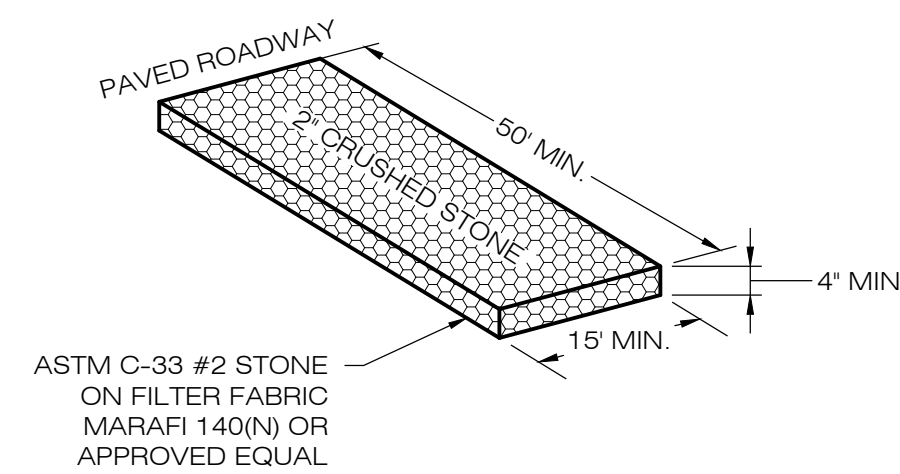
**EC-1**





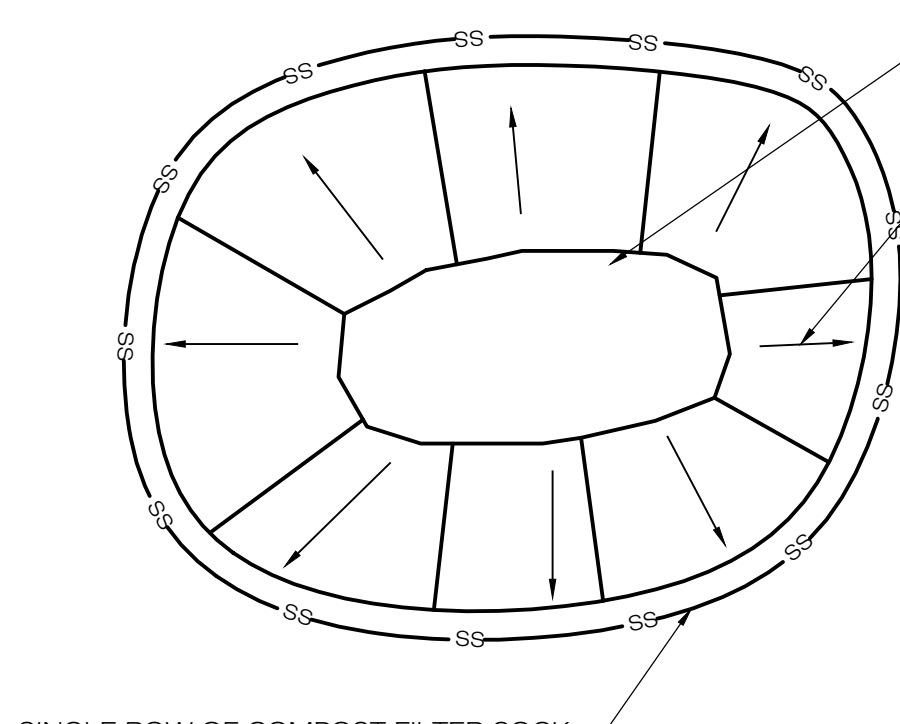
NOTE:  
SILT FENCE SHALL BE LAPPED ONLY  
WHEN NECESSARY PER THE  
MANUFACTURER RECOMMENDATIONS.

**1 SILT FENCE DETAIL**  
SCALE : N.T.S.



ASTM C-33 #2 STONE  
ON FILTER FABRIC  
MARAFI 140(N) OR  
APPROVED EQUAL

**2 CONSTRUCTION  
ENTRANCE DETAIL**  
SCALE : N.T.S.

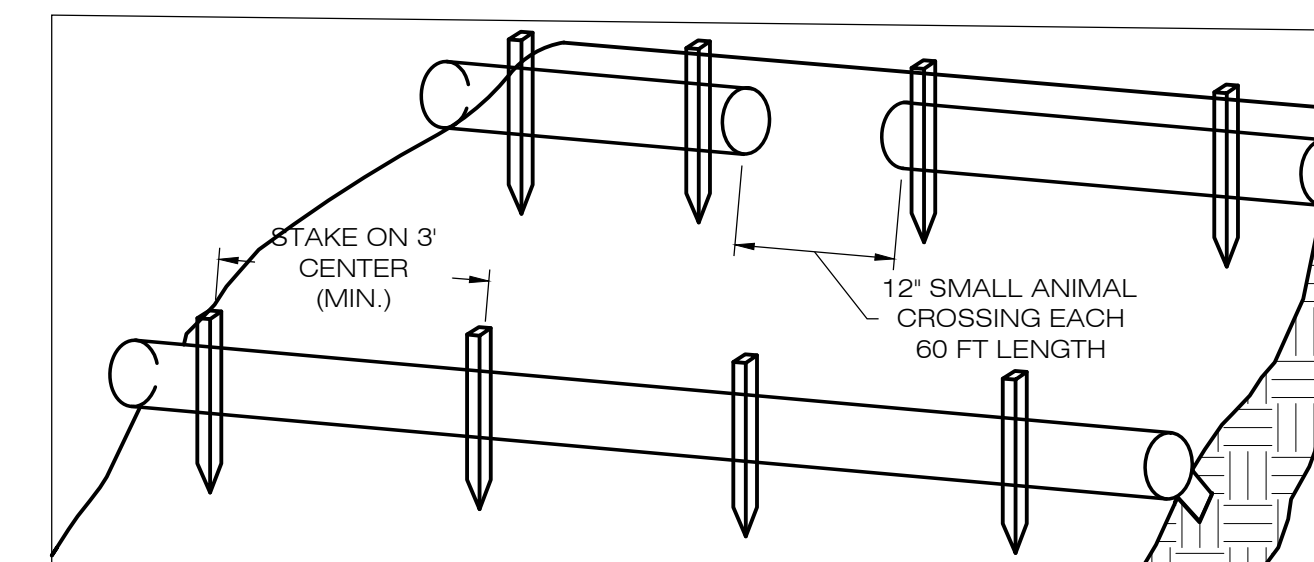


SOIL/AGGREGATE STOCKPILE OF EXISTING  
SITE MATERIAL TO BE REUSED AND/OR NEW  
MATERIAL TO BE INSTALLED IN THE WORK

DIRECTION OF RUN-OFF FLOW (TYP.)

- NOTES:
1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN THE WORK IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
  2. SOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE DRAWINGS.
  3. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND RESEED AS REQUIRED.
  4. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

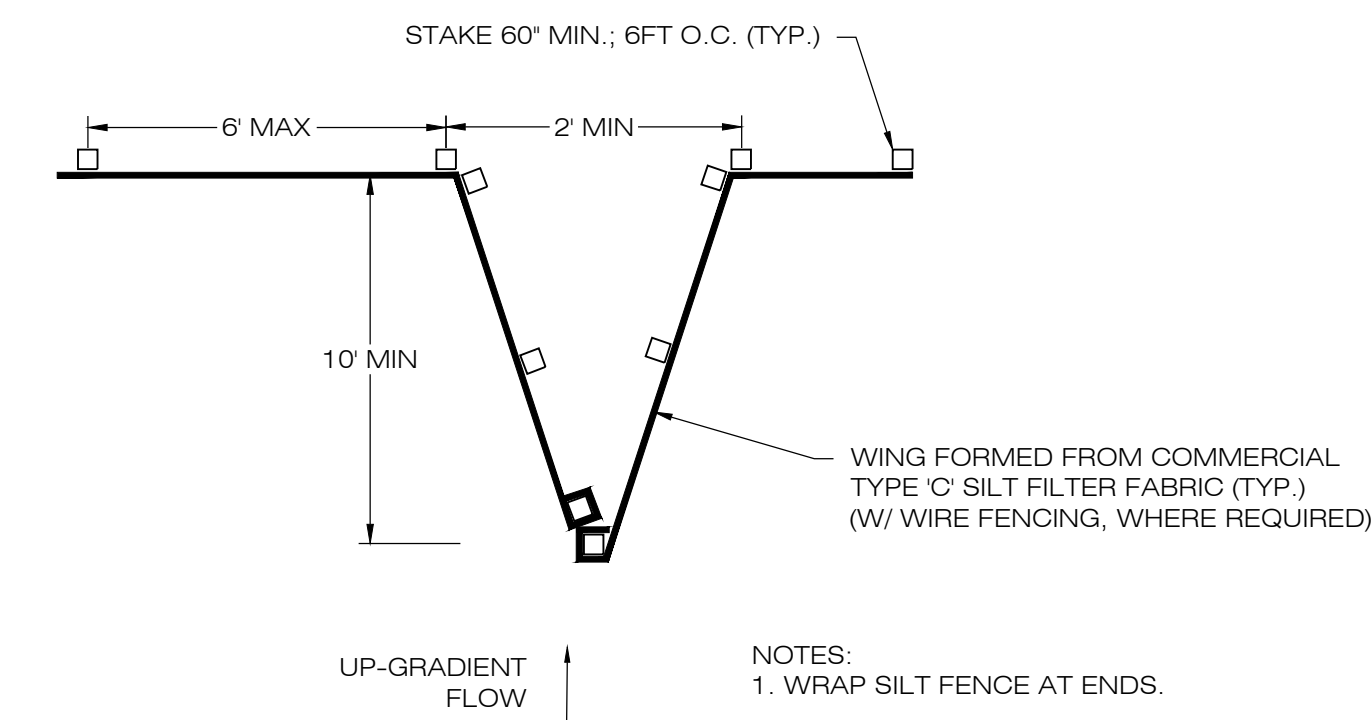
**3 MATERIALS STOCKPILE DETAIL**  
SCALE : N.T.S.



1. BEGIN AT THE LOCATION WHERE THE SOCK IS TO BE INSTALLED BY EXCAVATING A 2-3" (5-7.5 CM) DEEP X 9" (22.9 CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE SOCK IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE SOCK ON THE UPHILL SIDE. SOCKS SHALL BE INSTALLED IN 60 FT CONTINUOUS LENGTHS WITH ADJACENT SOCKS TIGHTLY ABUT. EVERY 60 FT THE SOCK ROW SHALL BE SPACED 12 INCHES CLEAR, END TO END, FOR AMPHIBIAN AND REPTILE TRAVEL. THE OPEN SPACES SHALL BE STAGGERED MID LENGTH OF THE NEXT DOWN GRADIENT SOCK.
3. SECURE THE SOCK WITH 18-24" (45.7-61 CM) STAKES EVERY 3-4' (0.9-1.2 M) AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE SOCK LEAVING AT LEAST 2-3" (5-7.5 CM) OF STAKE EXTENDING ABOVE THE SOCK. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

**COMPOST FILTER SOCK  
SEDIMENTATION CONTROL BARRIER**

**4 SCALE : N.T.S.**



- NOTES:
1. WRAP SILT FENCE AT ENDS.
  2. NO JOINING FENCE SECTIONS SHALL BE INSTALLED WITHIN 30 FEET OF WING.

**5 SILT FENCE WING DETAIL**  
SCALE : N.T.S.

LSE INDUS LLC  
40 TOWER LANE, SUITE 201  
AVON, CT 06001



567 VAUXHALL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-663-1697  
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

**PERMIT SET**

NO	DATE	REVISION
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1	02/16/22	FOR REVIEW: KAM
2	05/26/22	FOR REVIEW: KAM
3	08/02/22	FOR REVIEW: KAM
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**DESIGN PROFESSIONAL OF RECORD**

PROF: KEVIN A. MCCAFFERY, P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: JOHN BUNCE

ADDRESS: 81 EAST MAIN ST  
NORTH CANAAN, CT

**BUNCE 1 SOLAR FACILITY**

SITE: 81 EAST MAIN ST  
ADDRESS: NORTH CANAAN, CT

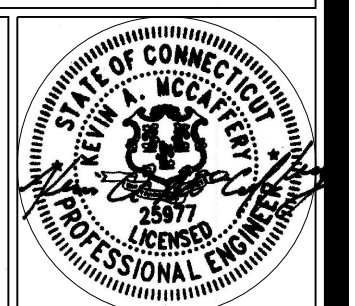
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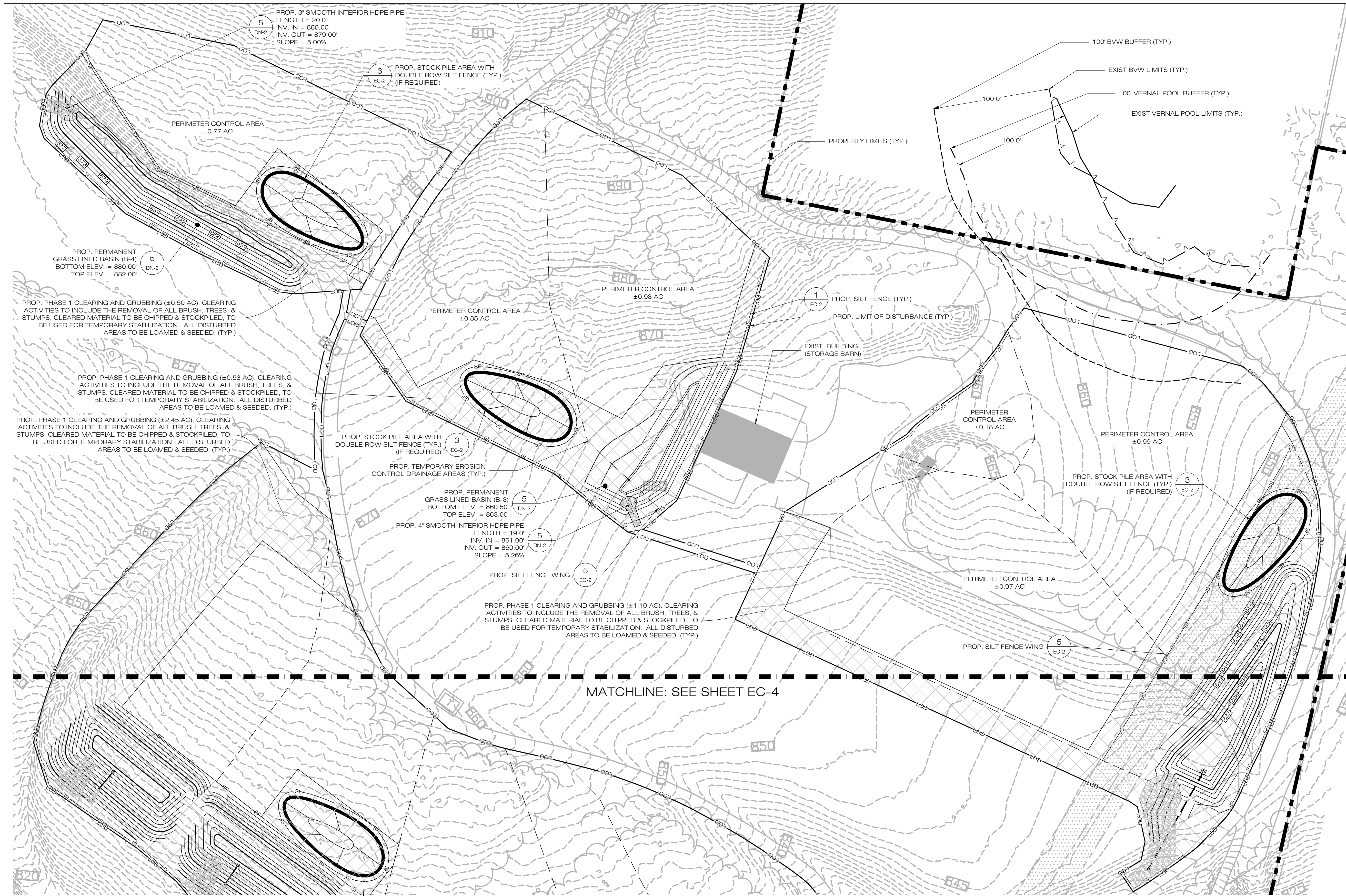
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DRAWN BY: JT  
CHECKED BY: KAM

SHEET TITLE:  
**SEDIMENTATION &  
EROSION CONTROL  
DETAILS**

SHEET NUMBER:

**EC-2**





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 AVON, CT 06001

**ALL-POINTS**  
 TECHNOLOGY CORPORATION  
 567 VAUXHALL STREET EXTENSION - SUITE 311  
 WATERFORD, CT 06385 PHONE: (860)-663-1697  
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**PERMIT SET**

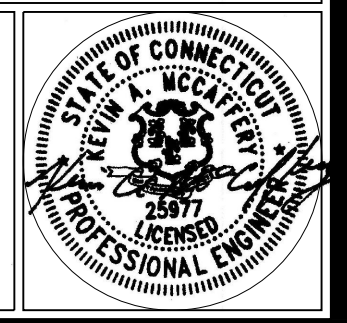
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 OWNER: JOHN BUNCE  
 ADDRESS: 81 EAST MAIN ST NORTH CANAAN, CT

**BUNCE 1 SOLAR FACILITY**  
 SITE: 81 EAST MAIN ST  
 ADDRESS: NORTH CANAAN, CT  
 APT FILING NUMBER: CT606140  
 DATE: 10/19/21  
 DRAWN BY: JT  
 CHECKED BY: KAM

SHEET TITLE:  
**PHASE 1  
 SEDIMENTATION &  
 EROSION CONTROL PLAN**

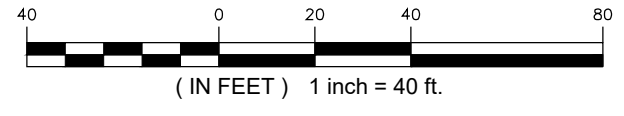
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**EC-3**



**PHASE 1 CLEARING LEGEND**

CLEARING AND GRUBBING	
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**1 PHASE 1 - SEDIMENTATION & EROSION CONTROL PLAN**  
 SCALE: 1" = 40'-0"



LSE INDUS LLC  
 40 TOWER LANE, SUITE 201  
 AVON, CT 06001



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 WATERFORD, CT 06385 PHONE: (860)-663-1697  
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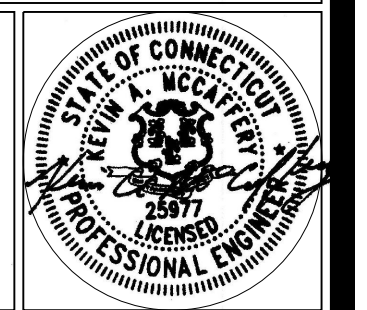
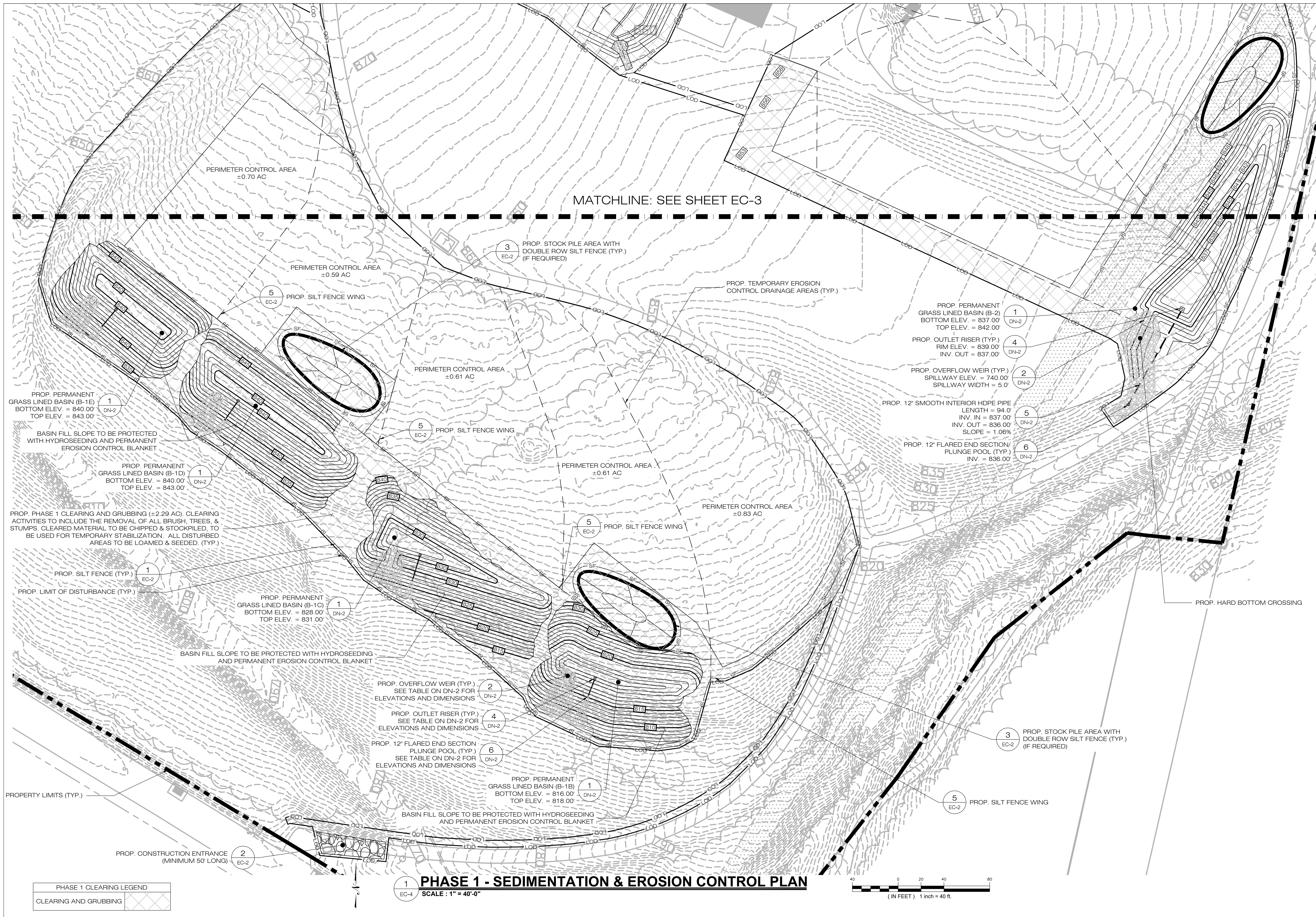
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 ADDRESS: 81 EAST MAIN ST NORTH CANAAN, CT

**BUNCE 1 SOLAR FACILITY**  
 SITE: 81 EAST MAIN ST  
 ADDRESS: NORTH CANAAN, CT  
 APT FILING NUMBER: CT606140  
 DATE: 10/19/21  
 DRAWN BY: JT  
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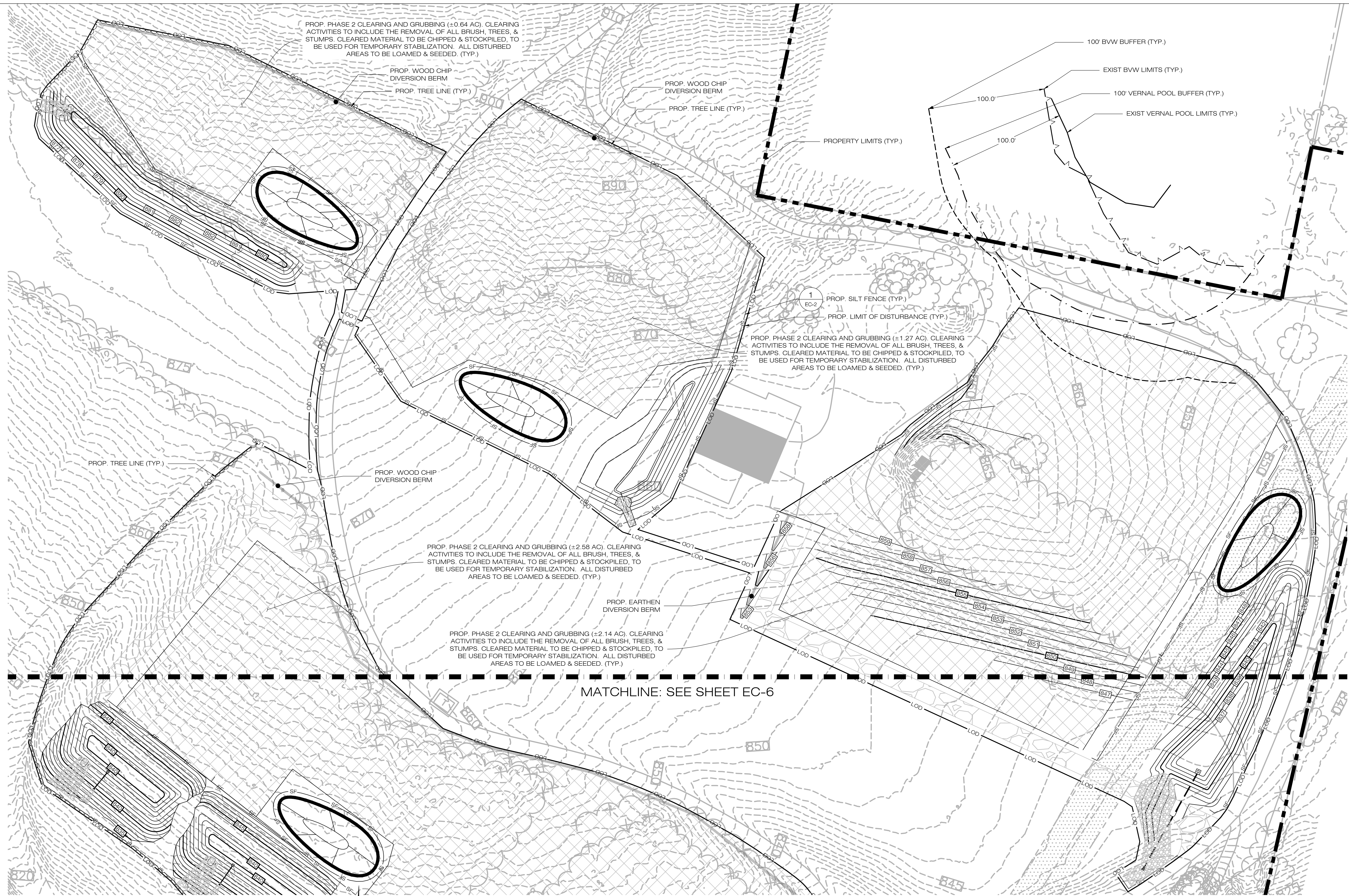
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**PHASE 1  
 SEDIMENTATION &  
 EROSION CONTROL PLAN**

SHEET NUMBER:  
**EC-4**

PHASE 1 CLEARING LEGEND

CLEARING AND GRUBBING	
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PROP. PHASE 2 CLEARING AND GRUBBING (±0.64 AC), CLEARING ACTIVITIES TO INCLUDE THE REMOVAL OF ALL BRUSH, TREES, & STUMPS. CLEARED MATERIAL TO BE CHIPPED & STOCKPILED, TO BE USED FOR TEMPORARY STABILIZATION. ALL DISTURBED AREAS TO BE LOAMED & SEED. (TYP.)

PROP. WOOD CHIP DIVERSION BERM  
PROP. TREE LINE (TYP.)

PROP. WOOD CHIP DIVERSION BERM  
PROP. TREE LINE (TYP.)

PROPERTY LIMITS (TYP.)

100' BVW BUFFER (TYP.)

EXIST BVW LIMITS (TYP.)

100' VERNAL POOL BUFFER (TYP.)

EXIST VERNAL POOL LIMITS (TYP.)

1  
EC-2  
PROP. SILT FENCE (TYP.)  
PROP. LIMIT OF DISTURBANCE (TYP.)

PROP. PHASE 2 CLEARING AND GRUBBING (±1.27 AC), CLEARING ACTIVITIES TO INCLUDE THE REMOVAL OF ALL BRUSH, TREES, & STUMPS. CLEARED MATERIAL TO BE CHIPPED & STOCKPILED, TO BE USED FOR TEMPORARY STABILIZATION. ALL DISTURBED AREAS TO BE LOAMED & SEED. (TYP.)

PROP. TREE LINE (TYP.)

PROP. WOOD CHIP DIVERSION BERM

PROP. PHASE 2 CLEARING AND GRUBBING (±2.58 AC), CLEARING ACTIVITIES TO INCLUDE THE REMOVAL OF ALL BRUSH, TREES, & STUMPS. CLEARED MATERIAL TO BE CHIPPED & STOCKPILED, TO BE USED FOR TEMPORARY STABILIZATION. ALL DISTURBED AREAS TO BE LOAMED & SEED. (TYP.)

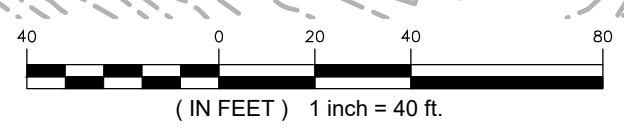
PROP. EARTHEN DIVERSION BERM

PROP. PHASE 2 CLEARING AND GRUBBING (±2.14 AC), CLEARING ACTIVITIES TO INCLUDE THE REMOVAL OF ALL BRUSH, TREES, & STUMPS. CLEARED MATERIAL TO BE CHIPPED & STOCKPILED, TO BE USED FOR TEMPORARY STABILIZATION. ALL DISTURBED AREAS TO BE LOAMED & SEED. (TYP.)

MATCHLINE: SEE SHEET EC-6

PHASE 2 CLEARING LEGEND	
	CLEARING AND GRUBBING

1  
EC-5  
**PHASE 2 - SEDIMENTATION & EROSION CONTROL PLAN**  
SCALE: 1" = 40'-0"



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40 TOWER LANE, SUITE 201  
AVON, CT 06001

ALL-POINTS  
TECHNOLOGY CORPORATION  
567 VAUXHALL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-663-1697  
WWW.ALLPOINTS TECH.COM FAX: (860)-663-0935

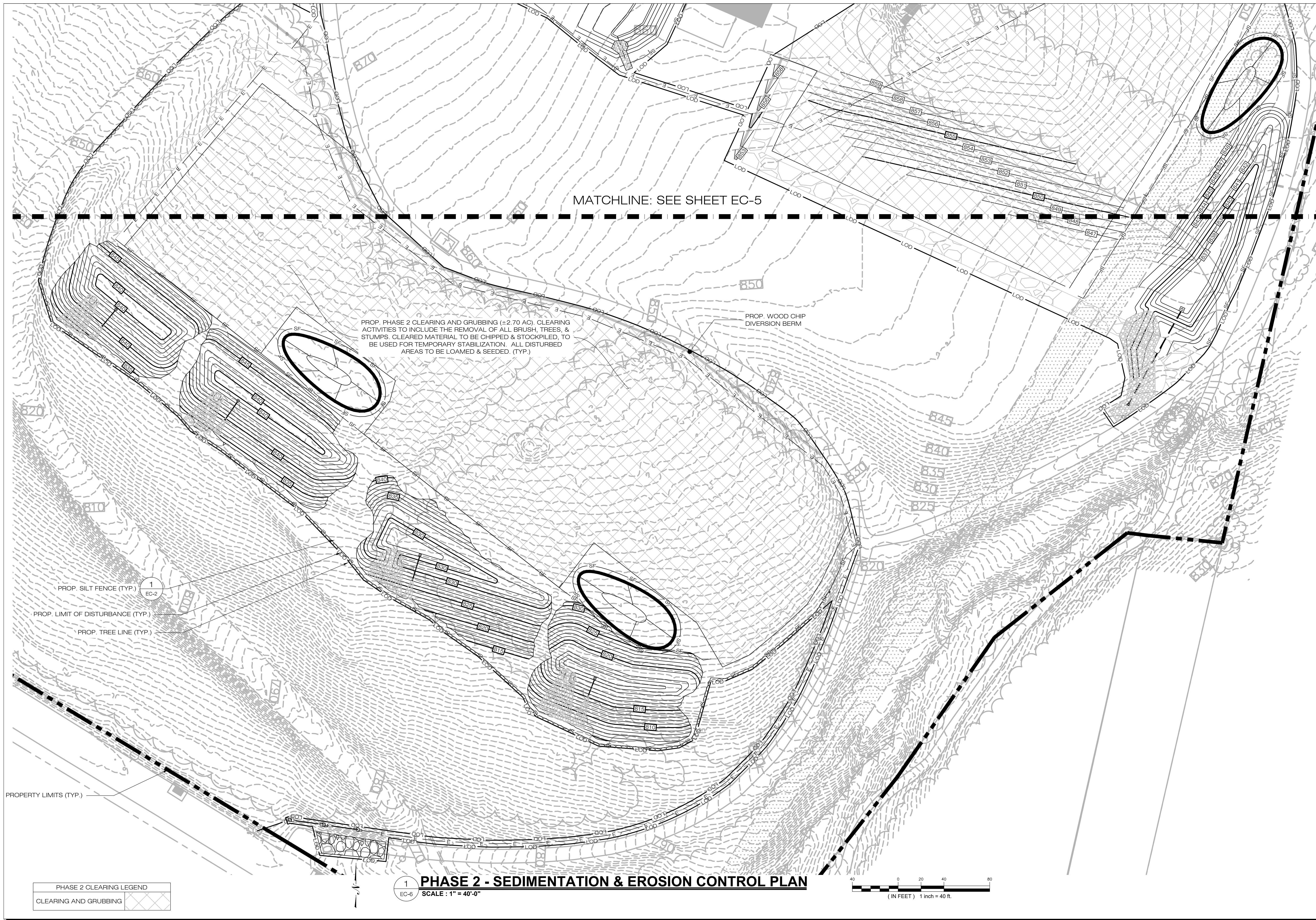
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DESIGN PROFESSIONAL OF RECORD  
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COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385  
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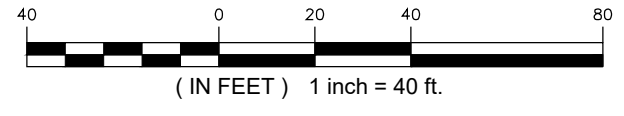
**BUNCE 1 SOLAR FACILITY**  
SITE: 81 EAST MAIN ST  
ADDRESS: NORTH CANAAN, CT  
APT FILING NUMBER: CT606140  
DRAWN BY: JT  
DATE: 10/19/21 CHECKED BY: KAM

SHEET TITLE:  
**PHASE 2  
SEDIMENTATION &  
EROSION CONTROL PLAN**

SHEET NUMBER:  
**EC-5**



**1**  
 EC-6  
**PHASE 2 - SEDIMENTATION & EROSION CONTROL PLAN**  
 SCALE: 1" = 40'-0"



LSE INDUS LLC  
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 AVON, CT 06001

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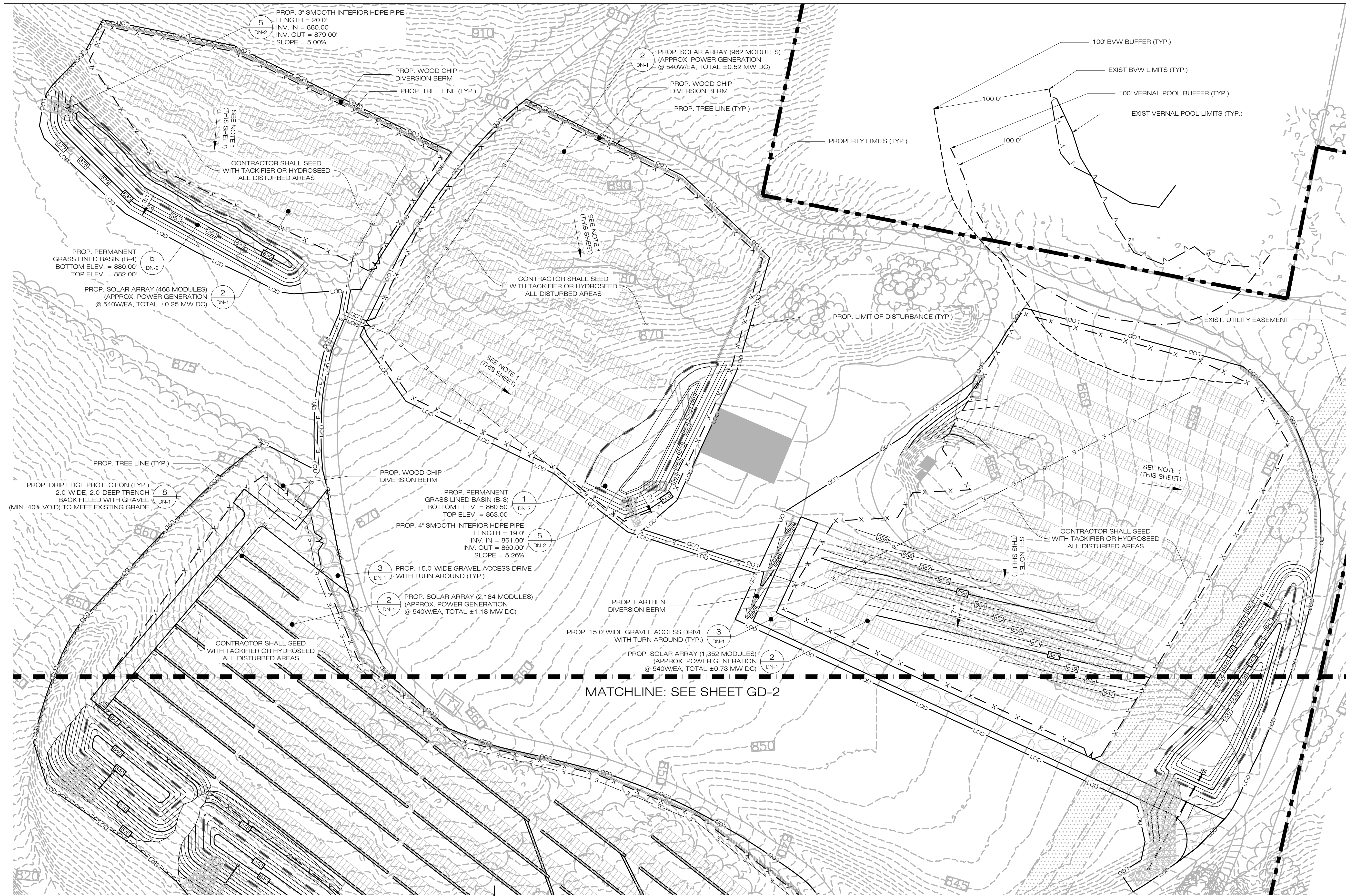
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**BUNCE 1 SOLAR FACILITY**  
 SITE: 81 EAST MAIN ST  
 ADDRESS: NORTH CANAAN, CT  
 APT FILING NUMBER: CT606140  
 DATE: 10/19/21  
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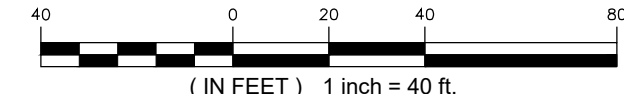
SHEET TITLE:  
**PHASE 2  
 SEDIMENTATION &  
 EROSION CONTROL PLAN**

SHEET NUMBER:  
**EC-6**



NOTES:  
 1. GRADE/SHAPE AREA TO MAINTAIN EXIST. DRAINAGE PATTERNS  
 2. CONTRACTOR SHALL CLEAN PERMANENT GRASS LINED BASINS OF SEDIMENT GENERATED DURING CONSTRUCTION AND RESTABILIZE AS NEEDED

**1**  
 GD-1 **FINAL GRADING & DRAINAGE PLAN**  
 SCALE: 1" = 40'-0"



**LSE INDUS LLC**  
 40 TOWER LANE, SUITE 201  
 AVON, CT 06001

**ALL-POINTS TECHNOLOGY CORPORATION**  
 567 VAUXHALL STREET EXTENSION - SUITE 311  
 WATERFORD, CT 06385 PHONE: (860)-663-1697  
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 OWNER: JOHN BUNCE  
 ADDRESS: 81 EAST MAIN ST NORTH CANAAN, CT

**BUNCE 1 SOLAR FACILITY**  
 SITE: 81 EAST MAIN ST  
 ADDRESS: NORTH CANAAN, CT  
 APT FILING NUMBER: CT606140  
 DATE: 10/19/21  
 DRAWN BY: JT  
 CHECKED BY: KAM

**SHEET TITLE:**  
**FINAL GRADING & DRAINAGE PLAN**

**SHEET NUMBER:**  
**GD-1**

LSE INDUS LLC  
40 TOWER LANE, SUITE 201  
AVON, CT 06001

**ALL-POINTS**  
TECHNOLOGY CORPORATION  
567 VAUXHALL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-663-1697  
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PERMIT SET


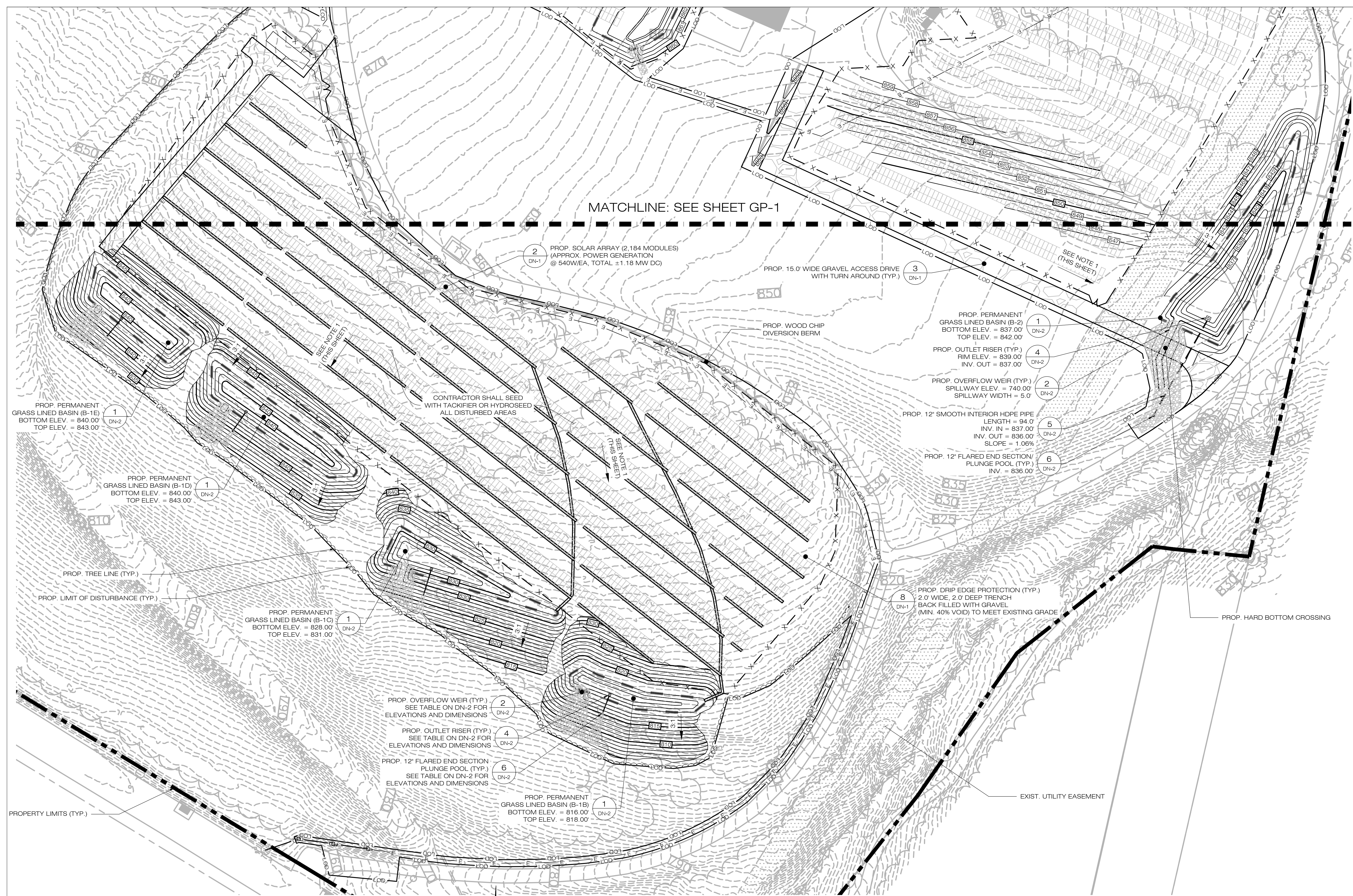
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**BUNCE 1 SOLAR FACILITY**  
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ADDRESS: NORTH CANAAN, CT  
APT FILING NUMBER: CT606140  
DRAWN BY: JT  
DATE: 10/19/21  
CHECKED BY: KAM

SHEET TITLE:  
**FINAL GRADING & DRAINAGE PLAN**

SHEET NUMBER:  
**GD-2**

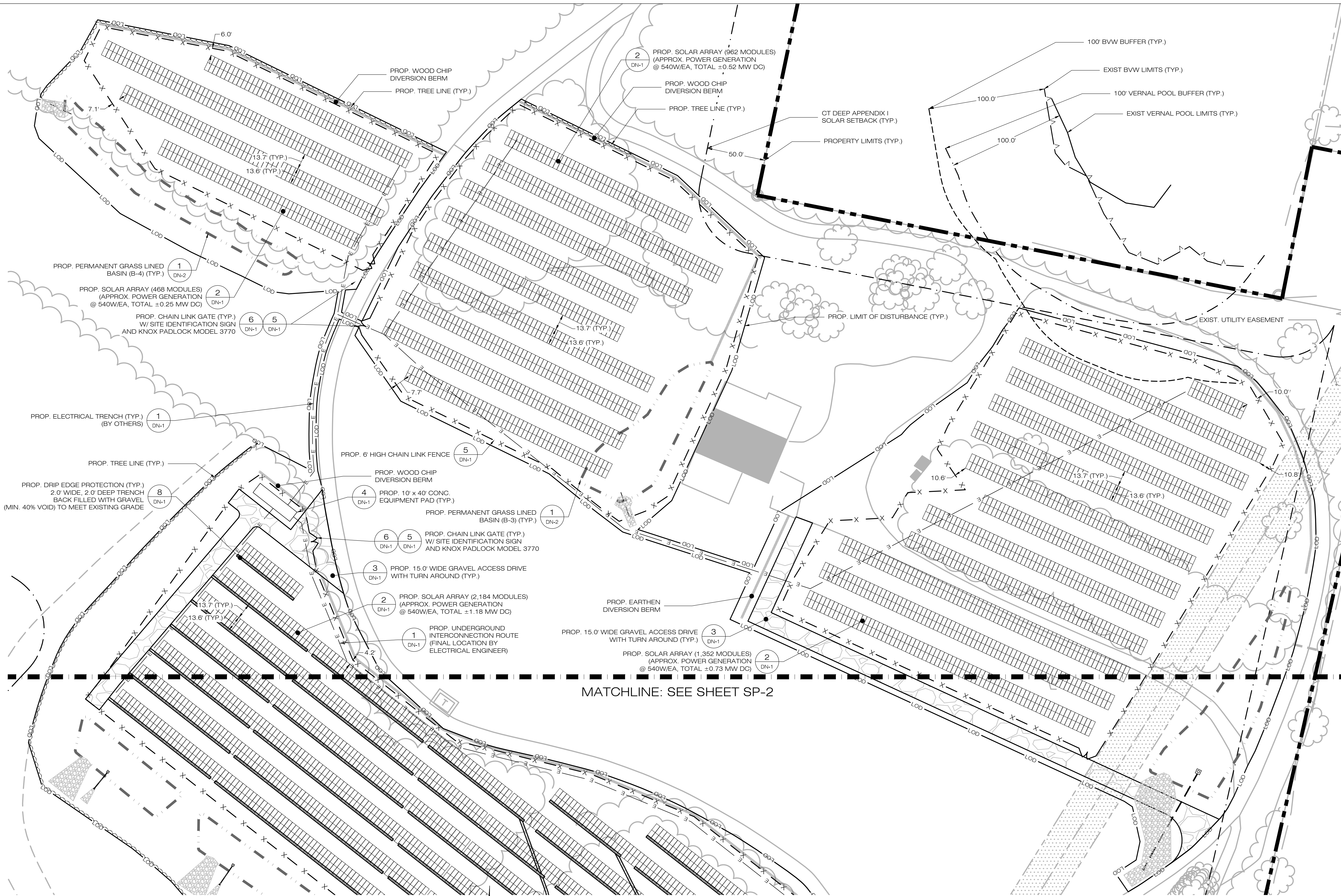



NOTES:  
1. GRADE/SHAPE AREA TO MAINTAIN EXIST. DRAINAGE PATTERNS  
2. CONTRACTOR SHALL CLEAN PERMANENT GRASS LINED BASINS OF SEDIMENT GENERATED DURING CONSTRUCTION AND RESTABILIZE AS NEEDED

**1 FINAL GRADING & DRAINAGE PLAN**  
GD-2 SCALE: 1" = 40'-0"

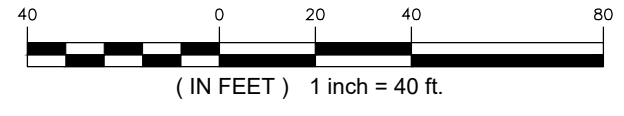






NOTES:  
 1. DISTANCE BETWEEN MODULES AND FENCE LINE VARIES. CONTRACTOR TO REFERENCE RACKING DESIGN FOR FINAL INSTALLATION.

**1 SITE & UTILITY PLAN**  
 SP-1 SCALE: 1" = 40'-0"



**LSE INDUS LLC**  
 40 TOWER LANE, SUITE 201  
 AVON, CT 06001

**ALL-POINTS TECHNOLOGY CORPORATION**  
 567 VAUXHALL STREET EXTENSION - SUITE 311  
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 APT FILING NUMBER: CT606140  
 DATE: 10/19/21  
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SHEET TITLE:  
**SITE & UTILITY PLAN**

SHEET NUMBER:  
**SP-1**

LSE INDUS LLC  
 40 TOWER LANE, SUITE 201  
 AVON, CT 06001

**ALL-POINTS**  
 TECHNOLOGY CORPORATION  
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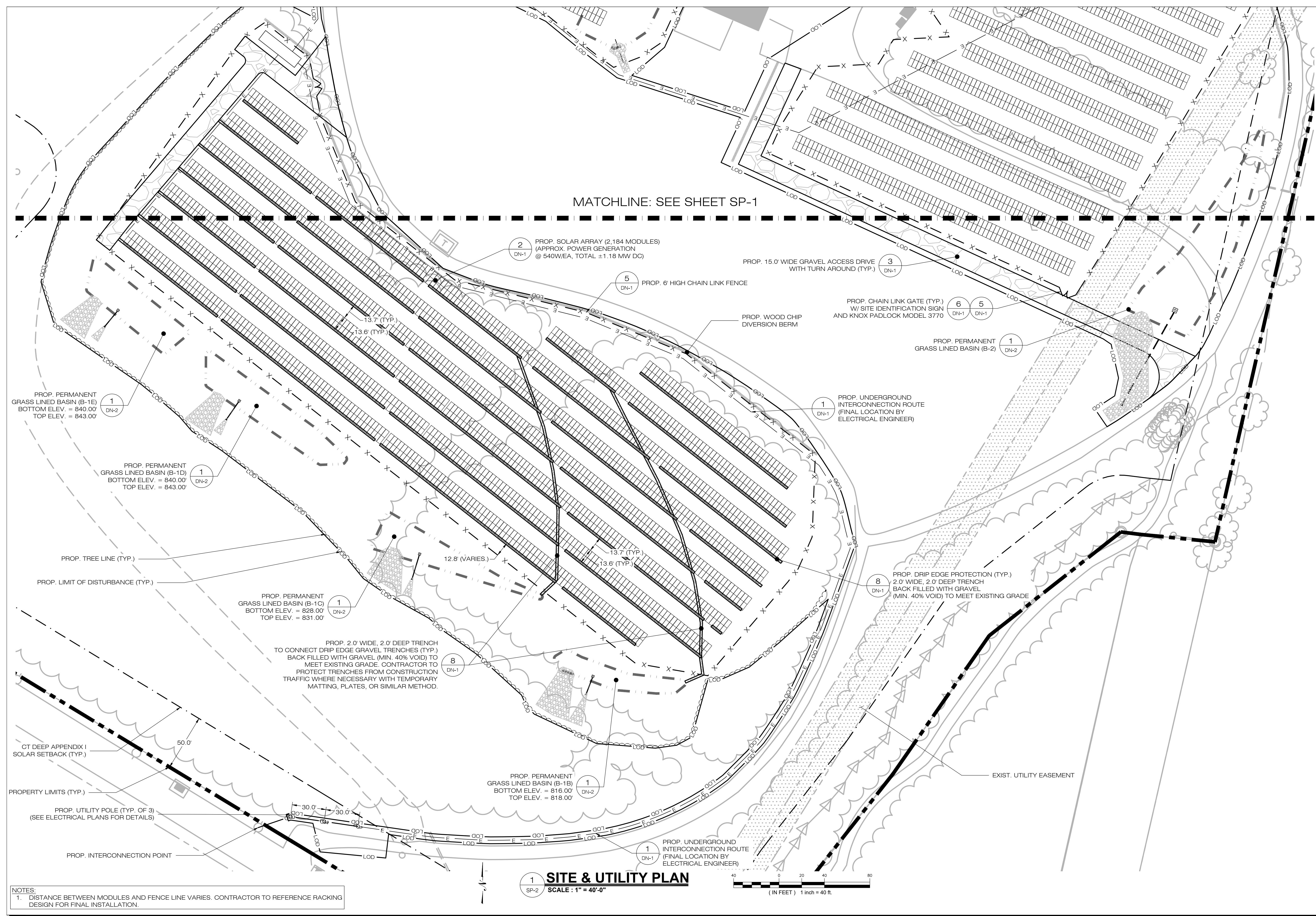
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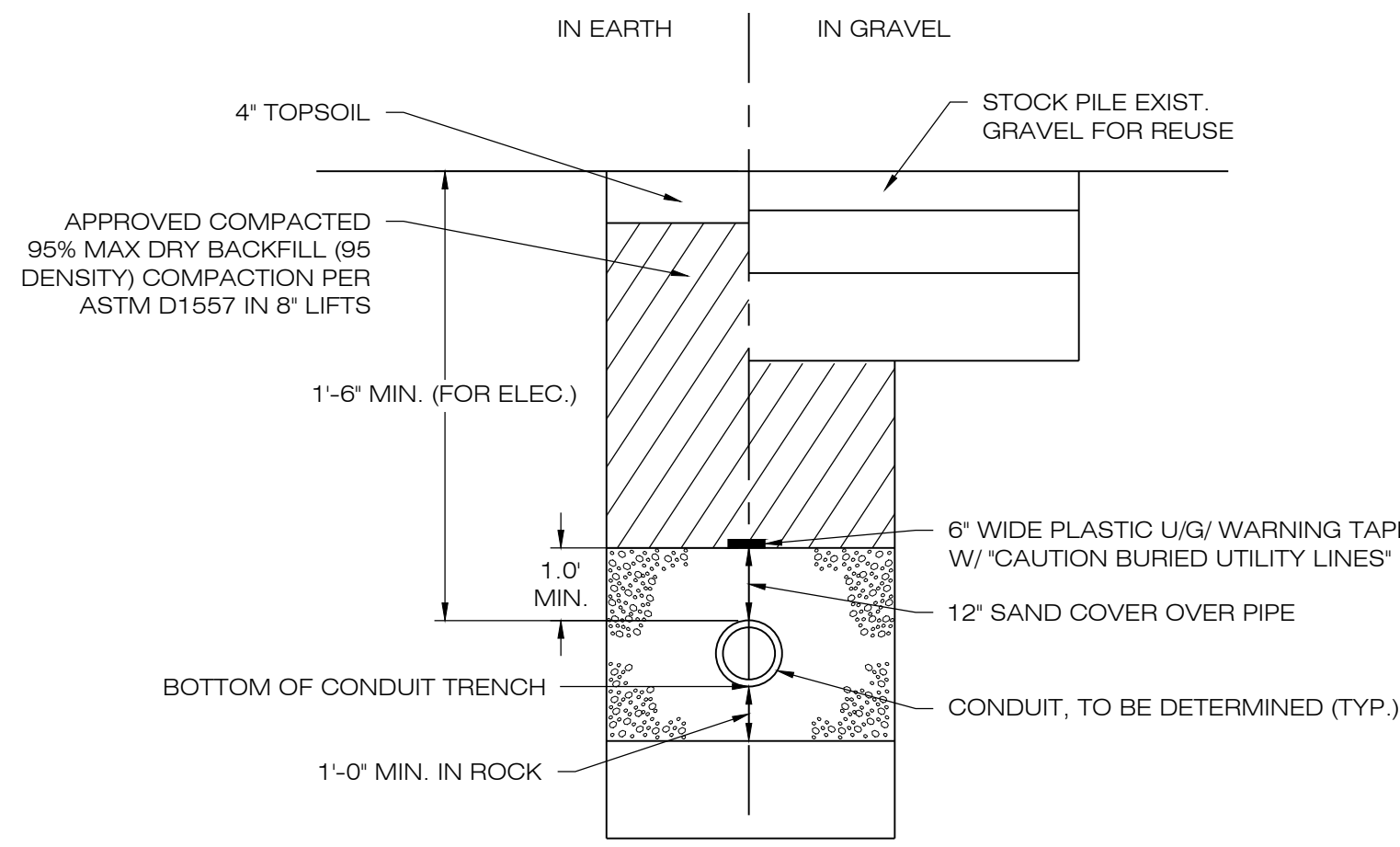
**BUNCE 1 SOLAR FACILITY**  
 SITE ADDRESS: 81 EAST MAIN ST NORTH CANAAN, CT  
 APT FILING NUMBER: CT606140  
 DATE: 10/19/21  
 DRAWN BY: JT  
 CHECKED BY: KAM

SHEET TITLE:  
**SITE & UTILITY PLAN**

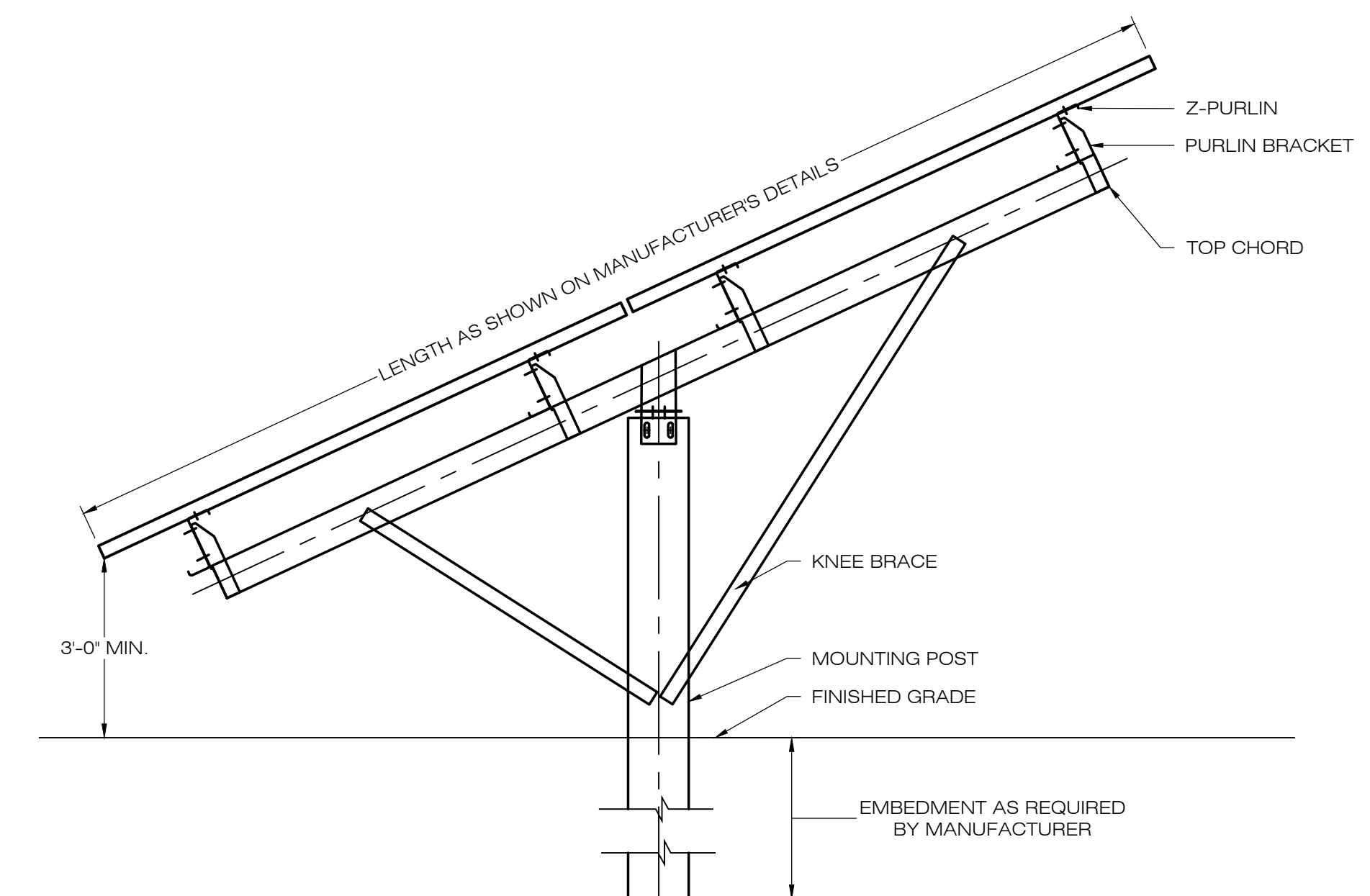
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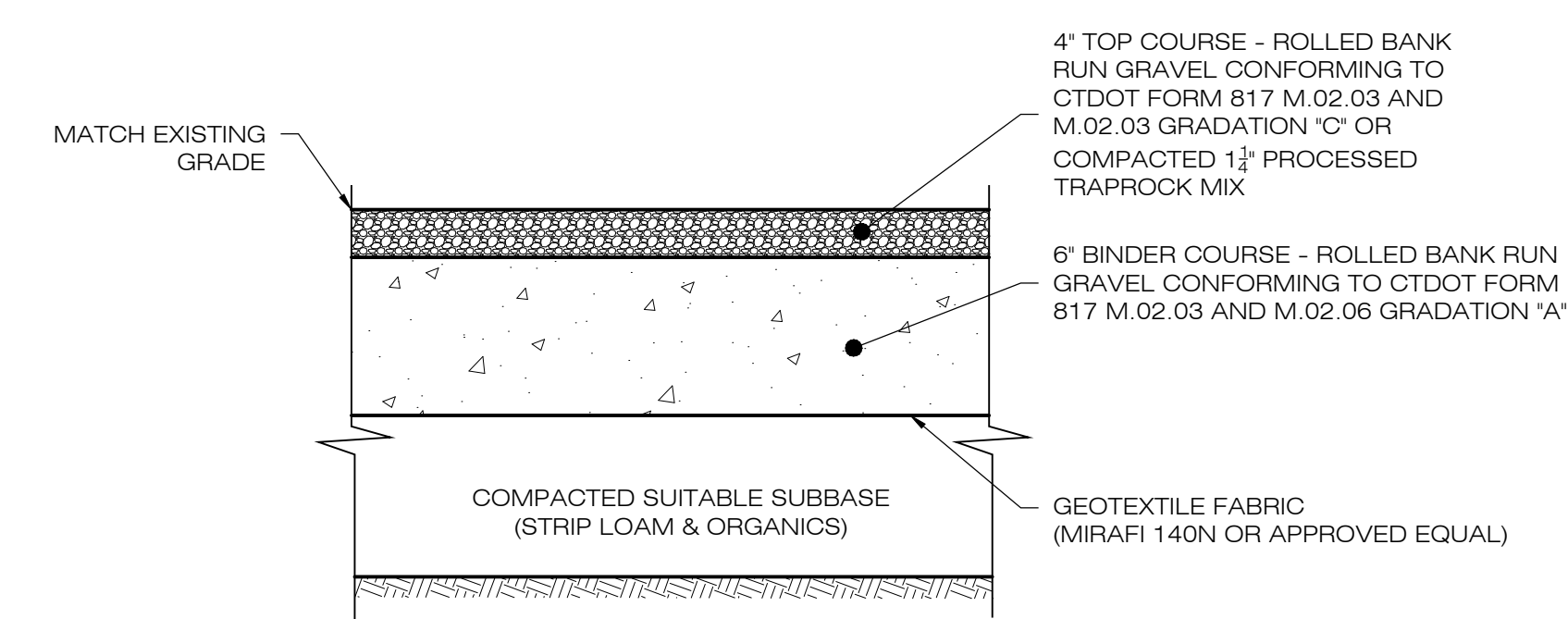
NOTES:  
 1. DISTANCE BETWEEN MODULES AND FENCE LINE VARIES. CONTRACTOR TO REFERENCE RACKING DESIGN FOR FINAL INSTALLATION.



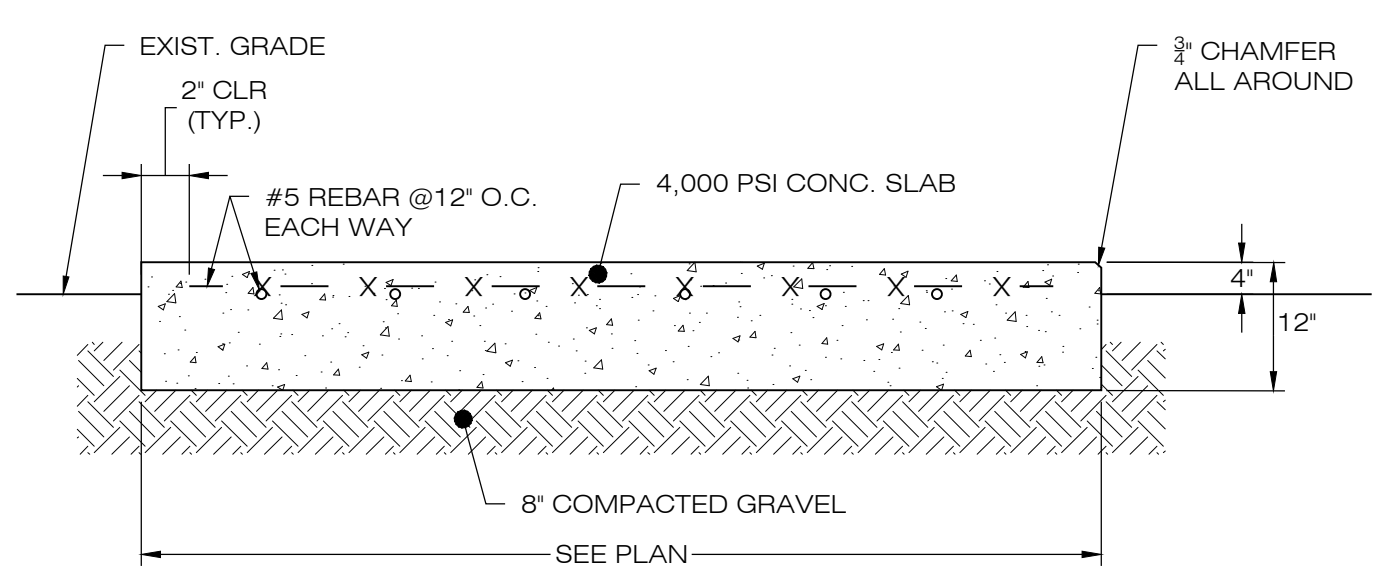
**1 ELECTRICAL TRENCH DETAIL**  
SCALE : N.T.S.



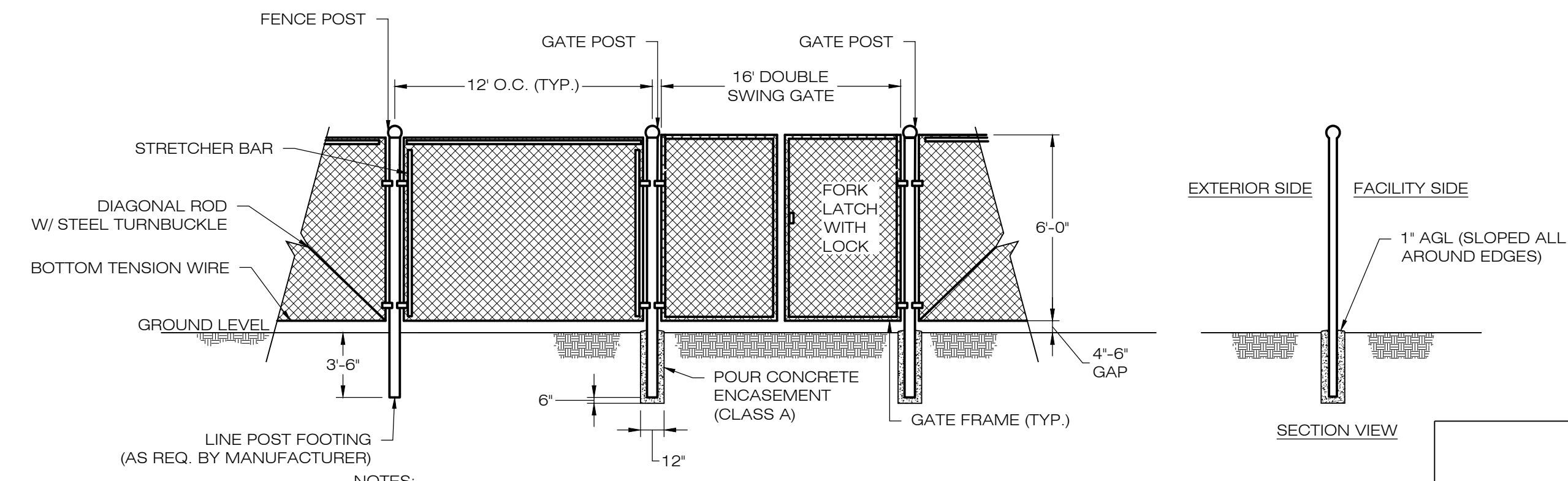
**2 TYPICAL POST MOUNTED RACKING SYSTEM**  
SCALE : N.T.S.



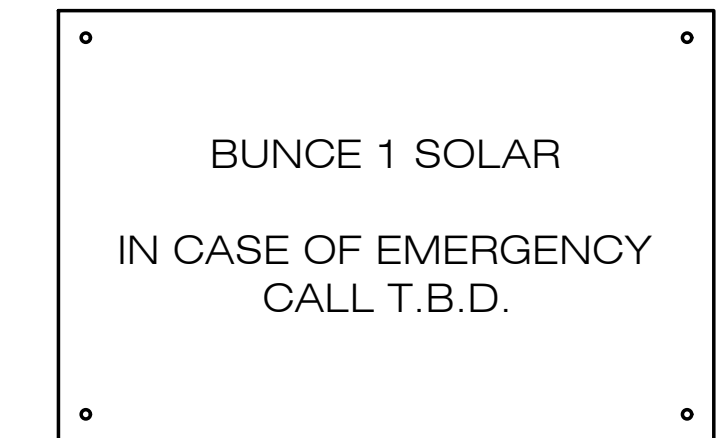
**3 GRAVEL ACCESS DRIVE SECTION**  
SCALE : N.T.S.



**4 CONCRETE EQUIPMENT PAD**  
SCALE : N.T.S.



**5 CHAIN-LINK FENCE & GATE DETAIL**  
SCALE : N.T.S.



**6 NOTIFICATION SIGN DETAIL**  
SCALE : N.T.S.

**Ernst Conservation Seeds**  
8884 Mercer Pike  
Meadville, PA 16335  
(800) 873-3321 Fax (814) 336-5191  
www.ernstseed.com

Date: March 01, 2021

**Ernst Solar Farm Seed Mix - ERNMX-186**

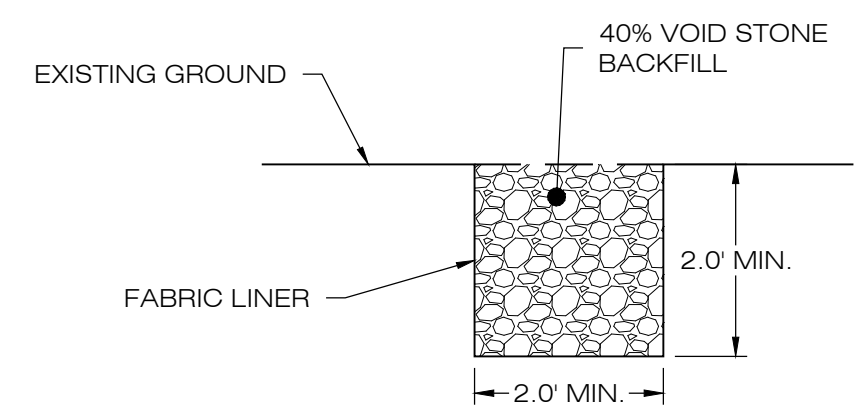
Botanical Name	Common Name	Price/lb
45.50 % <i>Festuca rubra</i>	Creeping Red Fescue	2.20
15.00 % <i>Festuca ovina</i> var. <i>duriuscula</i> , 'Jetty'	Hard Fescue, 'Jetty'	3.52
15.00 % <i>Festuca ovina</i> var. <i>duriuscula</i> , 'Gladiator'	Hard Fescue, 'Gladiator'	3.52
10.00 % <i>Festuca rubra</i> ssp. <i>commutata</i>	Chewings Fescue	2.70
5.00 % <i>Poa pratensis</i> , 'Selway'	Kentucky Bluegrass, 'Selway'	3.08
5.00 % <i>Poa pratensis</i> , 'Appalachian'	Kentucky Bluegrass, 'Appalachian'	3.08
4.50 % <i>Trifolium repens</i> , 'Dutch'	White Clover, 'Dutch'	4.84

**100.00 % Mix Price/lb Bulk: \$2.85**

**Seeding Rate:** 6 lb per 1,000 sq ft  
Lawn & Turfgrass Sites; Solar Sites

Provide a 2' clearance between the ground and the solar panels. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

**7 SOLAR FARM MIX**  
SCALE : N.T.S.



**8 GRAVEL DRIP EDGE PROTECTION DETAIL**  
SCALE : N.T.S.

**Ernst Conservation Seeds**  
8884 Mercer Pike  
Meadville, PA 16335  
(800) 873-3321 Fax (814) 336-5191  
www.ernstseed.com

Date: July 12, 2022

**Fuzz & Buzz Mix - Premium - ERNMX-147**

Botanical Name	Common Name	Price/Lb
21.40 % <i>Lolium perenne</i> , 'Crave', Tetraploid	Perennial Ryegrass, 'Crave', Tetraploid	4.20
17.00 % <i>Dactylis glomerata</i> , Potomac	Orchardgrass, Potomac	4.32
15.00 % <i>Poa pratensis</i> , 'Ginger'	Kentucky Bluegrass, 'Ginger' (pasture type)	5.52
12.00 % <i>Bromus biebersteinii</i> , 'Fleet'	Meadow Brome, 'Fleet'	8.64
5.40 % <i>Trifolium hybridum</i>	Alsike Clover	3.90
5.00 % <i>Agropyron trachycaulum</i>	Slender Wheatgrass	8.40
5.00 % <i>Festuca elatior</i> x <i>Lolium perenne</i> , Duo	Festulolium, 'Duo'	3.60
4.90 % <i>Trifolium incarnatum</i> , Variety Not Stated	Crimson Clover, Variety Not Stated	3.00
4.50 % <i>Trifolium pratense</i> , Medium, Variety Not Stated	Red Clover, Medium, Variety Not Stated	5.40
2.50 % <i>Butelousa curtipendula</i> , Butte	Sideoats Gramma, Butts	15.95
2.00 % <i>Lotus corniculatus</i> , 'Leo'	Bird's Foot Trefoil, 'Leo'	9.60
1.00 % <i>Linum perenne</i>	Perennial Blue Flax	48.00
0.80 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype	7.20
0.60 % <i>Cichorium intybus</i>	Blue Chicory	19.20
0.50 % <i>Aster oblongifolius</i> , PA Ecotype	Aromatic Aster, PA Ecotype	336.00
0.50 % <i>Chrysanthemum leucanthemum</i>	Oxeye Daisy	38.40
0.40 % <i>Coreopsis lanceolata</i>	Lanceleaf Coreopsis	28.80
0.40 % <i>Tradescantia ohioensis</i> , PA Ecotype	Ohio Spiderwort, PA Ecotype	192.00
0.40 % <i>Zizia aurea</i> , PA Ecotype	Golden Alexanders, PA Ecotype	96.00
0.30 % <i>Aster prenanthoides</i> , PA Ecotype	Zigzag Aster, PA Ecotype	432.00
0.30 % <i>Solidago nemoralis</i> , PA Ecotype	Gray Goldenrod, PA Ecotype	264.00
0.10 % <i>Asclepias syriaca</i> , PA Ecotype	Common Milkweed, PA Ecotype	96.00

**100.00 % Mix Price/lb Bulk: \$11.27**

**Seeding Rate:** Expect to apply about 42 lbs per acre with a cover crop of annual ryegrass at 12 lbs/acre.  
Forage & Pasture Sites; Solar Sites

**9 FUZZ & BUZZ MIX**  
SCALE : N.T.S.

**LSE INDUS LLC**  
40 TOWER LANE, SUITE 201  
AVON, CT 06001

567 VAUXHALL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-663-1697  
WWW.ALLPOINTS TECH.COM FAX: (860)-663-0935

PERMIT SET		
NO	DATE	REVISION
0	10/19/21	FOR REVIEW: KAM
1	02/16/22	FOR REVIEW: KAM
2	05/26/22	FOR REVIEW: KAM
3	08/02/22	FOR REVIEW: KAM
4		
5		
6		

**DESIGN PROFESSIONAL OF RECORD**

**PROF: KEVIN A. MCCAFFERY, P.E.**  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

**OWNER: JOHN BUNCE**

**ADDRESS: 81 EAST MAIN ST NORTH CANAAN, CT**

**BUNCE 1 SOLAR FACILITY**

**SITE ADDRESS: 81 EAST MAIN ST NORTH CANAAN, CT**

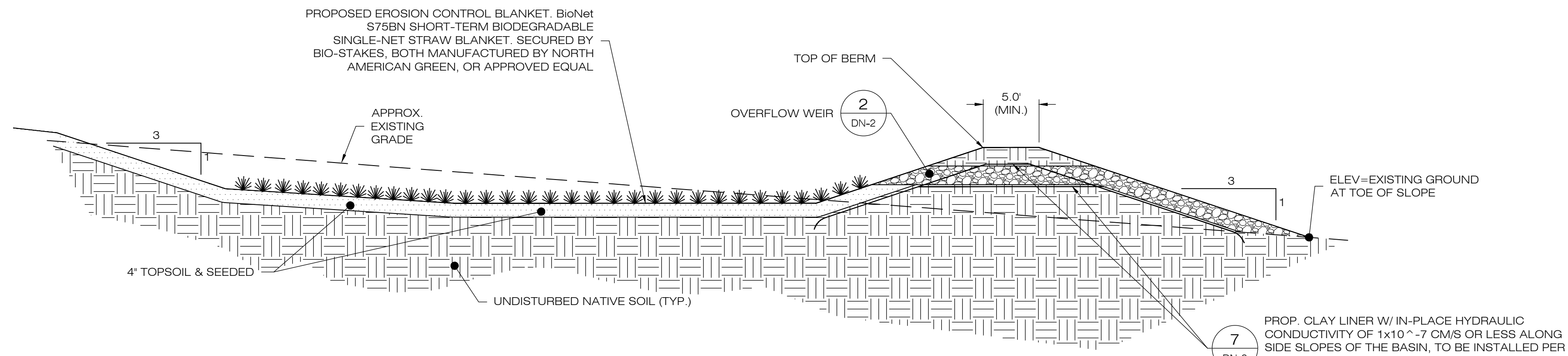
**APT FILING NUMBER: CT606140**

**DATE: 10/19/21 CHECKED BY: KAM**

**DRAWN BY: JT**

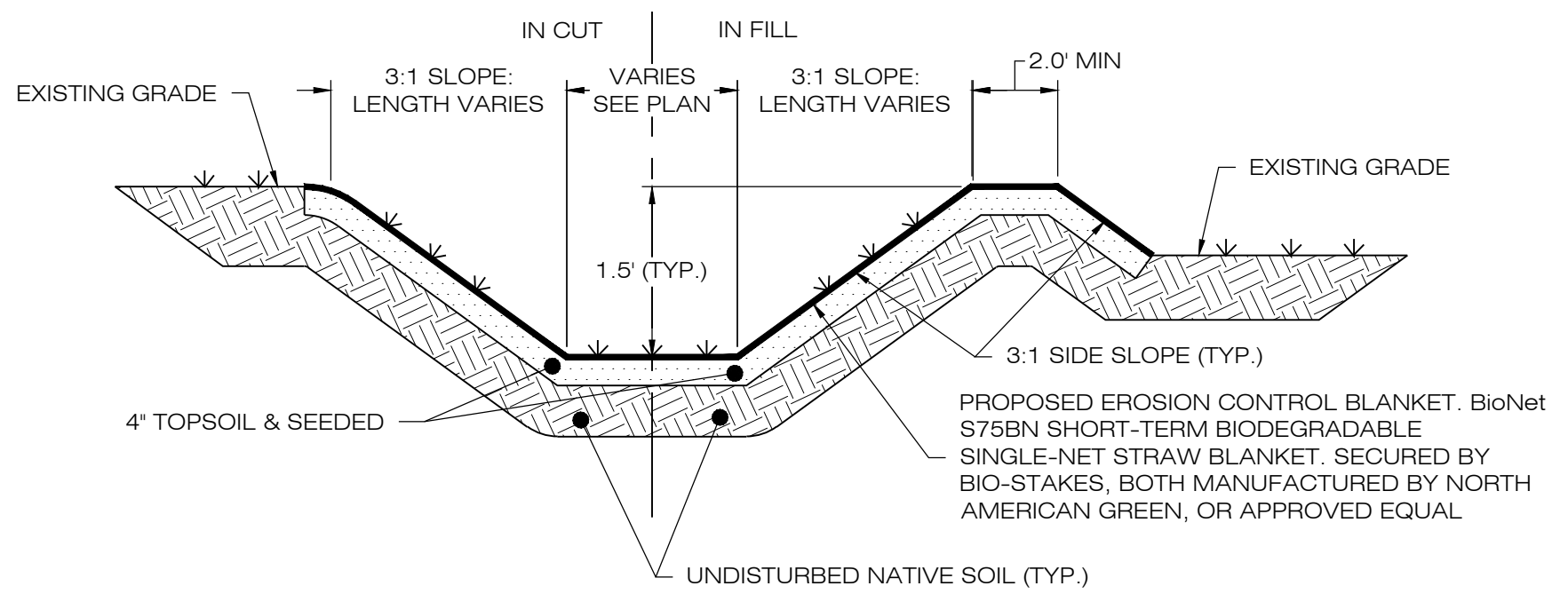
**SHEET TITLE: SITE DETAILS**

**SHEET NUMBER: DN-1**



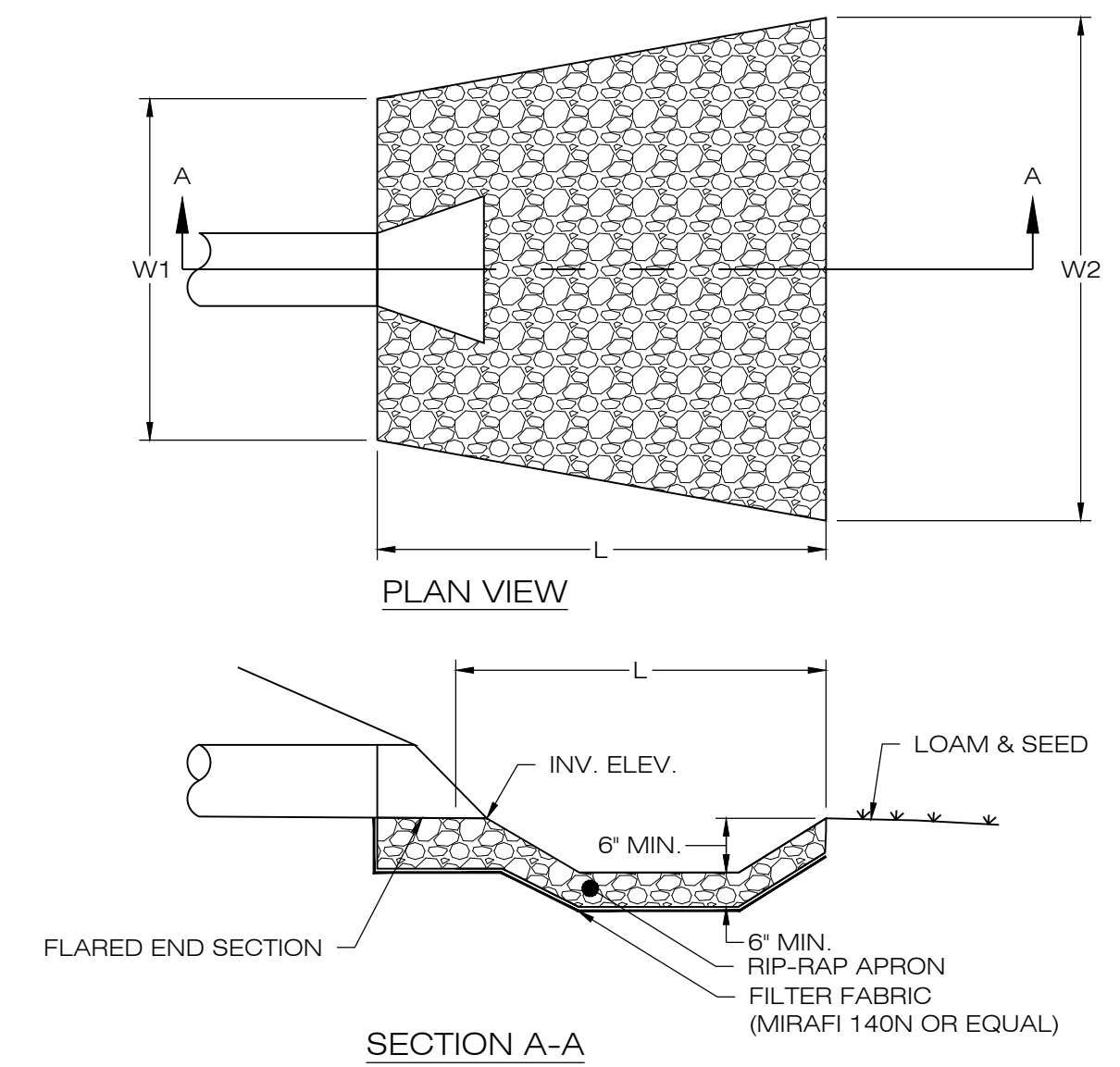
- NOTES:
- SEED MIX TO BE NEW ENGLAND EROSION CONTROL/ RESTORATION MIX FOR MOIST SITES ON THE BOTTOM OF THE BASIN AND NEW ENGLAND EROSION/RESTORATION MIX FOR DRY SITES ON THE SIDE SLOPES.
  - FOR CONVERTING TEMPORARY SEDIMENT BASIN TO INFILTRATION BASIN, REMOVE BAFFLES, CLEAN OUT SEDIMENT, RESHAPE AS REQUIRED. SEE PLANS FOR BASIN DEPTHS AND ELEVATIONS.
  - INSPECT AND CLEAN PIPES.

**1 GRASS LINED BASIN**  
SCALE : N.T.S.



- NOTES:
- SEED MIX TO BE NEW ENGLAND EROSION CONTROL/ RESTORATION MIX FOR MOIST SITES ON THE BOTTOM OF THE BASIN AND NEW ENGLAND EROSION/RESTORATION MIX FOR DRY SITES ON THE SIDE SLOPES.
  - IF DEPTH VARIES FROM 1.5', SEE PLAN CALLOUTS.

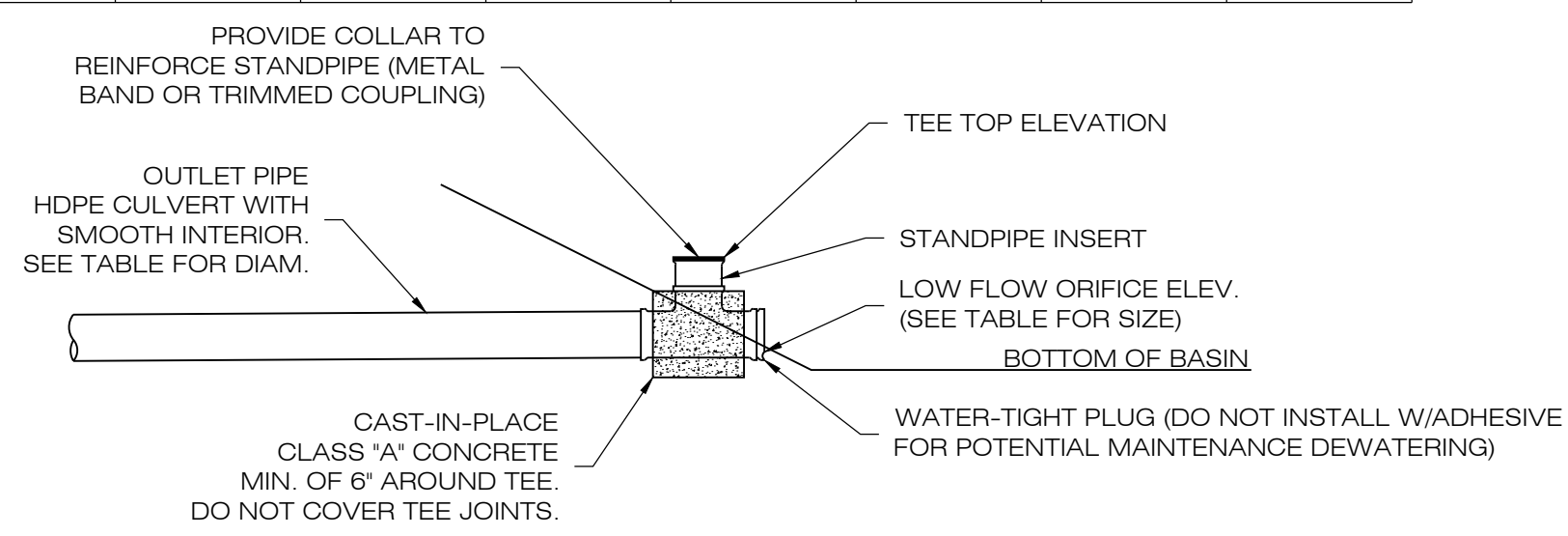
**3 GRASS LINED SWALE**  
SCALE : N.T.S.



FLARED END SECTION SIZING				
BASIN	INV. ELEV. (FT)	MIN. L (FT)	MIN. W1 (FT)	MIN. W2 (FT)
B-1B	815.00'	14.0'	1.50'	8.5'
B-1C	827.00'	14.0'	1.50'	8.5'
B-1D	838.50'	14.5'	1.50'	8.5'
B-1E	839.50'	14.5'	1.50'	8.5'
B-2	836.00'	15.5'	3.0'	10.5'
B-3	860.00'	12.5'	1.0'	7.5'
B-4	879.00'	7.0'	0.75'	4.5'

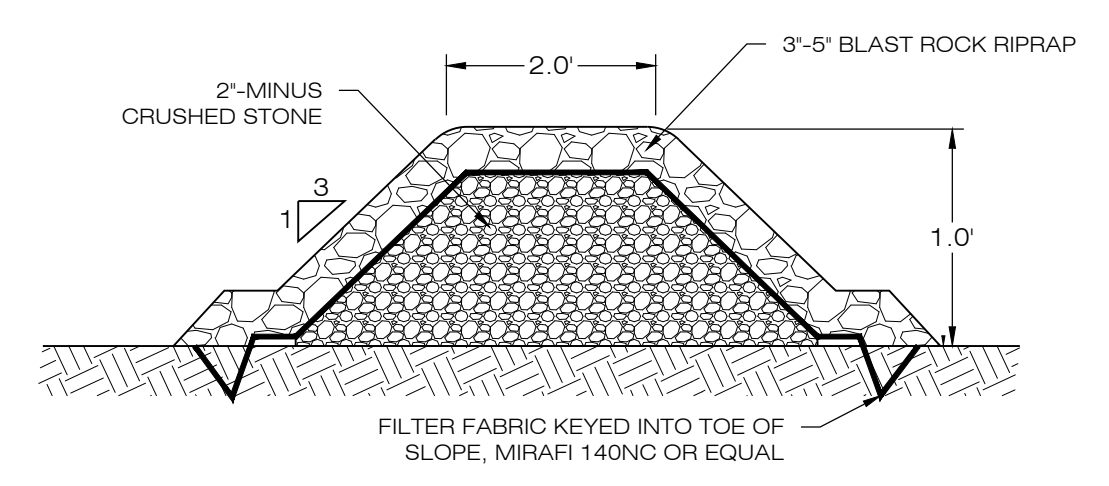
**6 FLARED END SECTION**  
SCALE : N.T.S.

HDPE OUTLET PIPE SIZING TABLE								
BASIN	STANDPIPE TEE TOP ELEV. (FT)	STANDPIPE DIAMETER (IN)	LOW FLOW ORIFICE ELEV. (FT)	OUTLET PIPE SIZE (IN)	OUTLET PIPE LENGTH (FT)	OUTLET PIPE SLOPE (%)	OUTLET PIPE INV. ELEV. AT STRUCTURE (FT)	OUTLET PIPE INV. AT OUTFALL (FT)
B-1B	816.50'	6"	816.00' (DIA = 1.0')	6"	16.5'	6.06%	816.00'	815.00'
B-1C	828.50'	6"	828.00' (DIA = 1.0')	6"	22.5'	4.44%	828.00'	827.00'
B-1D	841.00'	4"	840.00' (DIA = 1.0')	6"	19.5'	2.56%	840.00'	838.50'
B-1E	841.50'	4"	840.00' (DIA = 1.0')	6"	18.0'	2.78%	840.00'	839.50'
B-2	839.00'	8"	837.00' (DIA = 3.0')	12"	94.0'	1.06%	837.00'	836.00'
B-3	N/A	N/A	N/A	4"	21.0'	2.38%	860.50'	860.00'
B-4	N/A	N/A	N/A	3"	20.0'	5.00%	880.00'	879.00'



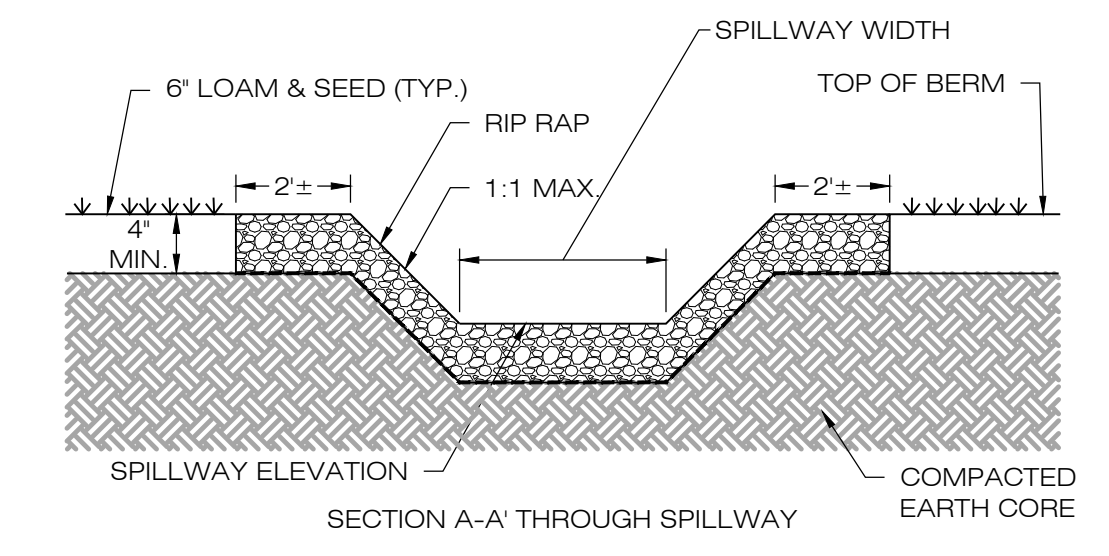
- NOTES:
- TEE TO BE ADS ADVANEDGE (TM) FABRICATED TEE OR APPROVED EQUAL. CONTRACTOR TO MODIFY TEE AS NEEDED.
  - CONVERT TEMPORARY SEDIMENT BASIN RISER TO FINAL BASIN OUTLET RISER.

**4 OUTLET RISER**  
SCALE : N.T.S.

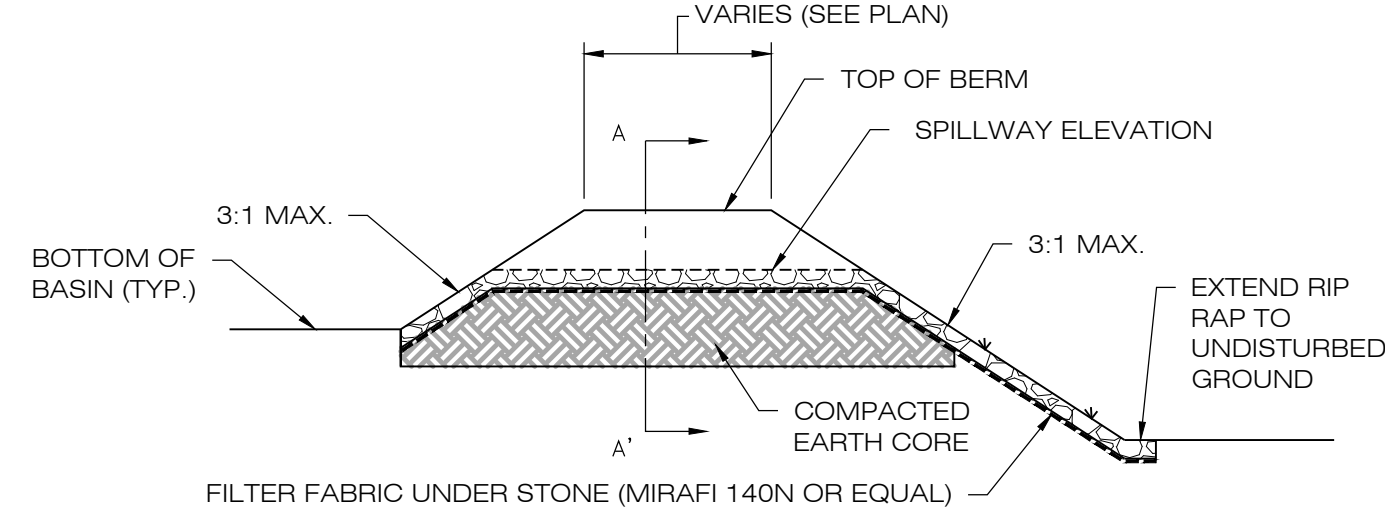


- NOTES:
- STONE SHALL BE PLACED MECHANICALLY OR BY HAND. STONE SHALL NOT BE DUMPED DIRECTLY INTO SWALE.
  - SEE GRADING AND DRAINAGE PLAN.

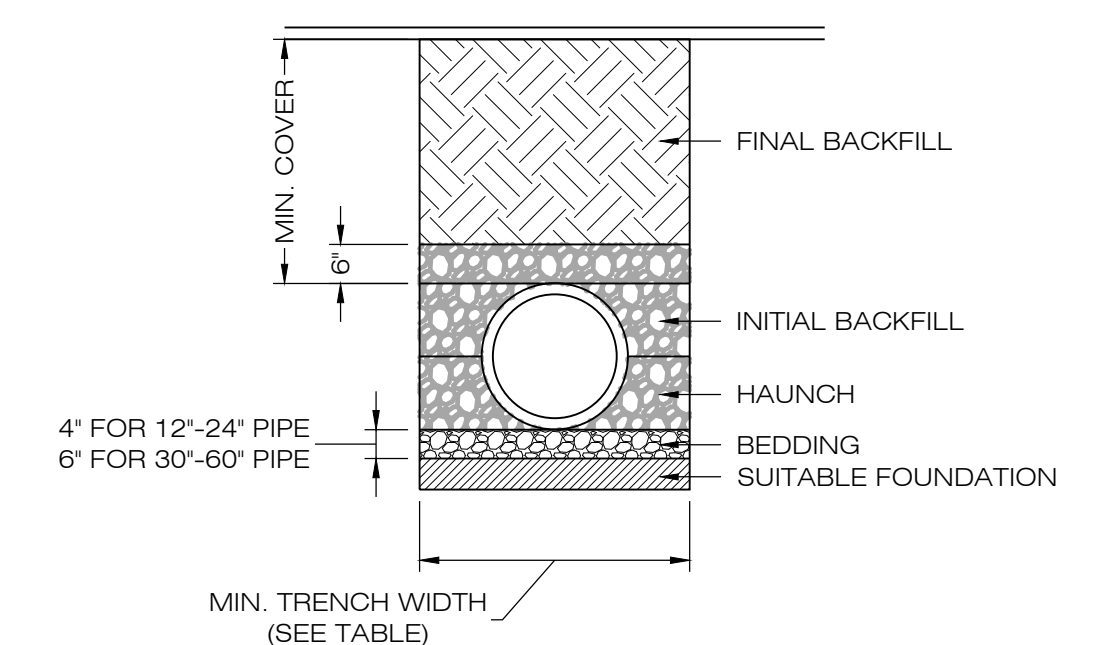
**7 STONE CHECK DAM**  
SCALE : N.T.S.



BASIN WEIR DETAILS		
BASIN	SPILLWAY ELEV.	SPILLWAY WIDTH
B-1B	817.00'	5.0'
B-1C	829.00'	5.0'
B-1D	842.50'	5.0'
B-1E	842.50'	5.0'
B-2	817.00'	5.0'
B-3	817.00'	5.0'
B-4	817.00'	5.0'



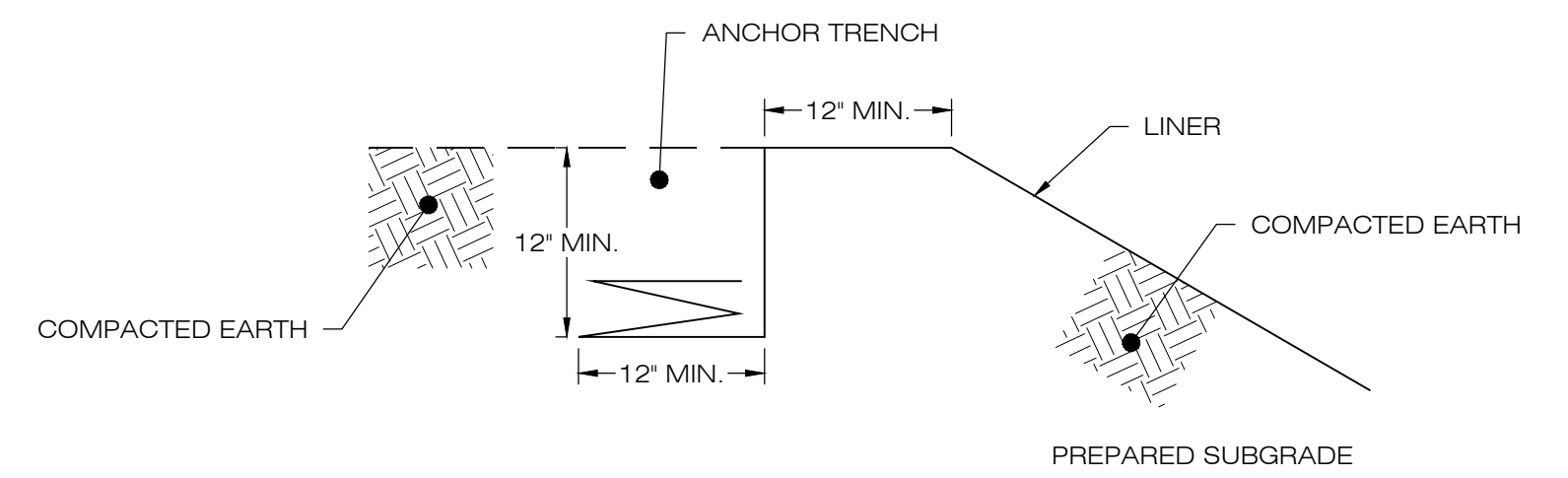
**2 OVERFLOW WEIR DETAIL**  
SCALE : N.T.S.



RECOMMENDED MIN. TRENCH WIDTH	
PIPE DIA.	MIN. TRENCH WIDTH
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
48"	80"
60"	96"

- NOTES:
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
  - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
  - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
  - BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
  - INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
  - MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

**5 HDPE STORM DRAINAGE TRENCH DETAIL**  
SCALE : N.T.S.



**8 LINER ANCHOR DETAIL**  
SCALE : N.T.S.

LSE INDUS LLC  
40 TOWER LANE, SUITE 201  
AVON, CT 06001



567 VAUXHALL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-663-1697  
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PERMIT SET		
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DESIGN PROFESSIONAL OF RECORD

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BUNCE 1 SOLAR FACILITY

SITE ADDRESS: 81 EAST MAIN ST NORTH CANAAN, CT

APT FILING NUMBER: CT606140

DATE: 10/19/21

DRAWN BY: JT

CHECKED BY: KAM

SHEET TITLE:  
**SITE DETAILS**

SHEET NUMBER:  
**DN-2**

**EXHIBIT 2**  
**Module Specifications**

# ZXM7-SHLDD144 Series ZNSHINESOLAR

Znshinesolar 10BB HALF-CELL Bifacial Light-Weight  
Double Glass Monocrystalline PERC PV Module

525W | 530W | 535W | 540W | 545W | 550W



## Excellent cells efficiency

MBB technology decreases the distance between busbar and finger grid line which is benefit to power increase.



## Better Weak Illumination Response

More power output in weak light condition, such as haze, cloudy, and early morning.



## Anti PID

Ensured PID resistance through the quality control of cell manufacturing process and raw materials.



## Adapt To Harsh Outdoor Environment

Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.



## TIER 1

Global, Tier 1 bankable brand, with independently certified state-of-the-art automated manufacturing.



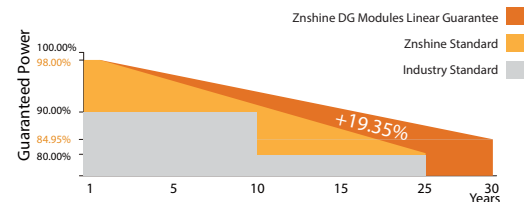
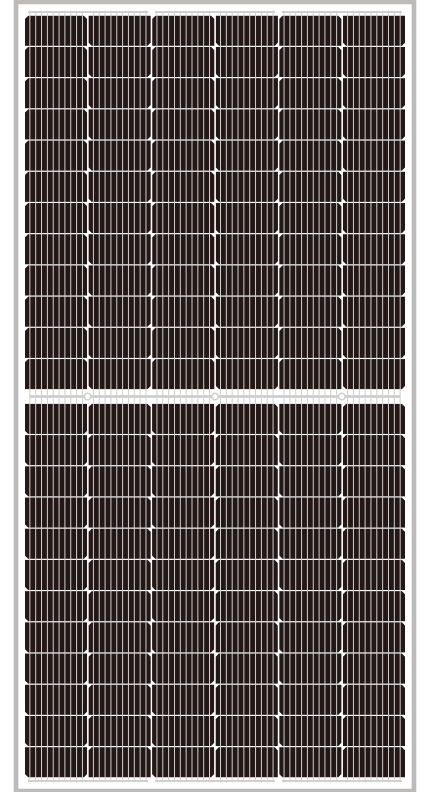
## Excellent Quality Management System

Warranted reliability and stringent quality assurances well beyond certified requirements.



## Bifacial Technology

Up to 25% additional power gain from back side depending on albedo.



12 years product guarantee  
30 years output guarantee



0.45% annual degradation  
over 30 years



IEC61215/IEC61730/IEC61701/IEC62716/UL61730

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO45001: Occupational Health and Safety Management System

Founded in 1988, ZNShine solar is a world's leading high-tech PV module manufacturer. With the state-of-the-art production lines, the company boasts module capacity of 6GW. Bloomberg has listed ZNShine as a global Tier 1 PV module maker. Today Znshine has distributed its sales to more than 60 countries around the globe.

[www.znshinesolar.com](http://www.znshinesolar.com)

**ELECTRICAL CHARACTERISTICS | STC\***

Nominal Power Watt Pmax(W)*	525	530	535	540	545	550
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.90	41.10	41.30	41.50	41.70	41.90
Maximum Power Current Imp(A)	12.85	12.91	12.96	13.02	13.07	13.13
Open Circuit Voltage Voc(V)	49.20	49.40	49.60	49.80	50.00	50.20
Short Circuit Current Isc(A)	13.59	13.65	13.71	13.77	13.83	13.89
Module Efficiency (%)	20.32	20.52	20.71	20.90	21.10	21.29

\*STC (Standard Test Condition): Irradiance 1000W/m<sup>2</sup>, Module Temperature 25°C, AM 1.5

\*Measuring tolerance: ±3%

**ELECTRICAL CHARACTERISTICS | NMOT\***

Maximum Power Pmax(Wp)	392.70	396.40	399.90	403.60	406.80	410.80
Maximum Power Voltage Vmp(V)	38.00	38.20	38.40	38.50	38.80	38.90
Maximum Power Current Imp(A)	10.33	10.38	10.42	10.47	10.49	10.56
Open Circuit Voltage Voc(V)	46.00	46.20	46.30	46.50	46.70	46.90
Short Circuit Current Isc(A)	10.98	11.02	11.07	11.12	11.17	11.22

\*NMOT(Nominal module operating temperature):Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

**ELECTRICAL CHARACTERISTICS WITH 25% REAR SIDE POWER GAIN**

Front power Pmax/W	525	530	535	540	545	550
Total power Pmax/W	656	663	669	675	681	688
Vmp/V(Total)	41.00	41.20	41.40	41.60	41.80	42.00
Imp/A(Total)	16.01	16.08	16.15	16.23	16.30	16.37
Voc/V(Total)	49.30	49.50	49.70	49.90	50.10	50.30
Isc/A(Total)	16.95	17.02	17.10	17.17	17.25	17.32

**MECHANICAL DATA**

Solar cells	Mono PERC
Cells orientation	144 (6×24)
Module dimension	2278×1134×30 mm(With Frame)
Weight	33.5 kg
Glass	2.0 mm+2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Junction box	IP 68, 3 diodes
Cables	4 mm <sup>2</sup> , 350 mm
Connectors	MC4-compatible

**TEMPERATURE RATINGS**

NMOT	44°C ±2°C	Maximum system voltage	1500 V DC
Temperature coefficient of Pmax	-0.35%/°C	Operating temperature	-40°C~+85°C
Temperature coefficient of Voc	-0.29%/°C	Maximum series fuse	30 A
Temperature coefficient of Isc	0.05%/°C	Maximum load(snow/wind)	5400 Pa / 2400 Pa
Refer.Bifacial Factor	70±5%		

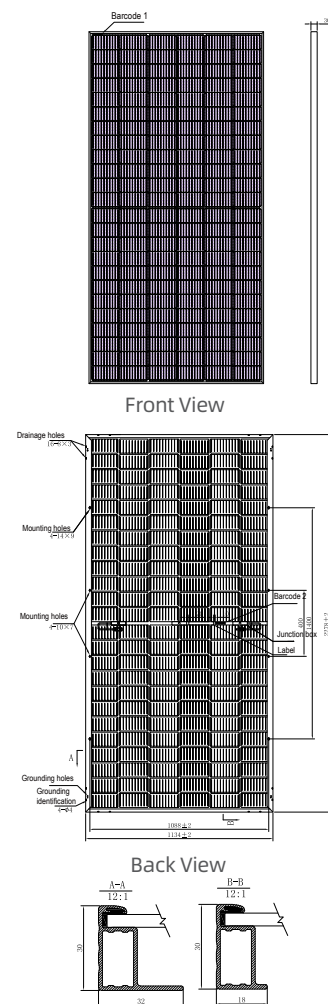
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

\*Remark:Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

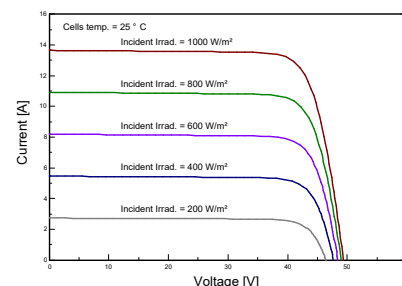
**PACKAGING CONFIGURATION**

Piece/Box	36	
Piece/Container(40'HQ)	720	*Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.
Piece/Container(with additional small package)	/	

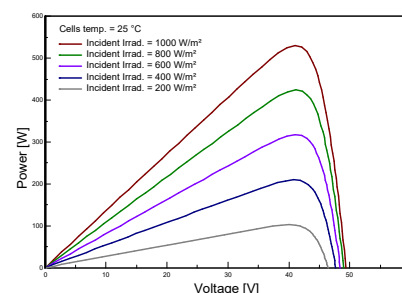
**DIMENSIONS(MM)**



**I-V CURVES OF PV MODULE(530W)**



**P-V CURVES OF PV MODULE(530W)**



**EXHIBIT 3**  
**Spill Prevention Plan**





# **STORMWATER POLLUTION CONTROL PLAN**

**PROPOSED  
BUNCE 1  
SOLAR PROJECT**

**EAST MAIN STREET  
NORTH CANAAN, CONNECTICUT  
LITCHFIELD COUNTY**

**Prepared for:**

**LSE Indus LLC  
40 Tower Lane - Suite 201  
Avon, CT 06001**

**Prepared by:**

**All-Points Technology Corporation, P.C.  
567 Vauxhall Street Extension – Suite 311  
Waterford, CT 06385**

**October 2021  
Revised July 2022**

This Stormwater Pollution Control Plan (SWPCP) is prepared to comply with the requirements for the General Permit for the Discharge and Dewatering Wastewaters from Construction Activities. Also to be considered part of the SWPCP are the proposed construction plans, special provisions, and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (Guidelines).

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WETLAND DELINEATION REPORT PROVIDED UPON REQUEST

# **Post-Construction Stormwater Management**

## **Post-construction Guidelines**

After the Project is complete the developer will perform the following maintenance and restoration measures:

- Mowing and maintenance of the turf and vegetated areas will occur as needed.

## **Other Controls**

### **Spill Prevention Control Plan**

Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill to avoid possible impact to nearby habitats.

A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.

The following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.

1. Petroleum and Hazardous Materials Storage and Refueling
  - a. Refueling of vehicles or machinery shall occur within the Construction Laydown Area ONLY and shall take place on an impervious pad with secondary containment designed to contain fuels. This area must be a minimum of 100 feet from wetlands or watercourses.
  - b. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands or watercourses.
2. Initial Spill Response Procedures
  - a. Stop operations and shut off equipment.
  - b. Remove any sources of spark or flame.
  - c. Contain the source of the spill.
  - d. Determine the approximate volume of the spill.
  - e. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby waterways or wetlands.
  - f. Ensure that fellow workers are notified of the spill.
3. Spill Clean Up & Containment
  - a. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
  - b. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.

- c. Isolate and eliminate the spill source.
  - d. Contact the appropriate local, state and/or federal agencies, as necessary. In the event of a spill, the Contractor (C-TEC) will use Clean Harbors (800) 645-8265 for cleanup.
  - e. Contact a disposal company to properly dispose of contaminated materials in accordance with all local, state and federal regulations.
4. Reporting
- a. Complete an incident report.
  - b. Notify Regional Water Authority Control Room at 1-800-732-9678 (staffed 24/7).
  - c. Notify CT Department of Environmental Protection at 860-424-3338 or 1-866-337-7745 (1-866-DEP-SPIL).
  - d. Contact general contractor C-TEC Solar ((860) 818-9118, Brandon Pizzoferrato).
  - e. Contact site owner – LSE Indus LLC (Kevin Midei at (410) 274-2716).
  - f. Contact local police department in North Canaan for non-emergency at (860) 824-7313 ext193 or for emergency at 911.
  - g. Contact municipal official (Town manager) at (860) 824-7313.
  - h. Submit a completed incident report to the appropriate Connecticut Department of Environmental Protection, Municipal Official, Connecticut Siting Council and other applicable local, state and federal officials.

## **Waste Disposal**

Construction site waste shall be properly managed and disposed of during the entire construction period. Additionally;

- A waste collection area will be designated. The selected area will minimize truck travel through the site and will not drain directly to the adjacent wetlands.
- Waste collection shall be scheduled regularly to prevent the containers from overflowing.
- Spills shall be cleaned up immediately.
- Defective containers that may cause leaks or spills will be identified through regular inspection. Any found to be defective will be repaired or replaced immediately.
- Any stockpiling of materials should be confined to the designated area as defined by the engineer.

## **Washout Areas**

Washout of applicators, containers, vehicles and equipment for concrete shall be conducted in a designated washout area. No surface discharge of washout wastewaters from the area will be allowed. All concrete wash water will be directed into a container or pit such that no overflows can occur. Washout shall be conducted in an entirely self-contained system and will be clearly designed and flagged or signed where necessary. The washout area shall be located outside of any buffers and at least 50 feet from any stream, wetland or other sensitive water or natural resources as shown on the plans.

The designated area shall be designed and maintained such that no overflows can occur during rainfall or after snowmelt. Containers or pits shall be inspected at least once a week to ensure structural integrity, adequate holding capacity and will be repaired prior to future use if leaks are present. The contractor shall remove hardened concrete waste when it accumulates to a height