## Robinson+Cole

#### JONATHAN H. SCHAEFER

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Also admitted in Massachusetts and Vermont

Via First Class Mail and Electronic Mail (siting.council@ct.gov)

November 28, 2023

Melanie A. Bachman, Esq. Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: PETITION NO. 1442 - SR Litchfield, LLC petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 19.8-megawatt AC solar photovoltaic electric generating facility on 6 contiguous parcels located both east and west of Wilson Road south of the intersection with Litchfield Town Farm Road in Litchfield, Connecticut, and both east and west of Rossi Road, south of the intersection with Highland Avenue in Torrington, Connecticut, and associated electrical interconnection.

#### Partial D&M Plan III – Responses to Council Interrogatories

Dear Ms. Bachman:

Enclosed please find an original and fifteen (15) copies of SR Litchfield, LLC's ("SRL") Responses to the Connecticut Siting Council's ("Council") November 7, 2023 Interrogatories in connection with SRL's Partial Development and Maintenance Plan III. Due to the size of the Attachments to this filing (approximately 70 MB) a link<sup>1</sup> to download a copy of Attachments A and B is being provided to the Council in order to access an electronic version.

As Attachments A and B are being filed as bulk exhibits, only two (2) copies of these attachments are being mailed to the Council as part of this filing. Should the Council require additional copies of any of these Attachments, please let me know. An original and fifteen (15) copies of Attachment C are enclosed.

Boston | Hartford | New York | Providence | Stamford | Albany | Los Angeles | Miami | New London | **rc.com** 

<sup>&</sup>lt;sup>1</sup> <u>https://transfer.rc.com/message/bIBujM3TEUV0xztvDgYUbA</u>

Melanie A. Bachman, Esq. November 28, 2023 Page 2

If you have any questions or need any additional information regarding this Project, please feel free to contact me.

Sincerely,

beene then A Ship Jonathan H. Schaefer

Copy to (via email):

Dominick J. Thomas, Esq. (djt@cohen-thomas.com)

#### STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

SR LITCHFIELD, LLC PETITION FOR	:	
DECLARATORY RULING, PURSUANT TO	:	
CONNECTICUT GENERAL STATUTES	:	PETITION NO. 1442
§4-176 AND §16-50k, FOR THE PROPOSED	:	
CONSTRUCTION, MAINTENANCE AND	:	
<b>OPERATION OF A 19.8-MEGAWATT AC</b>	:	
SOLAR PHOTOVOLTAIC ELECTRIC	:	
<b>GENERATING FACILITY ON 6</b>	:	
CONTIGUOUS PARCELS LOCATED BOTH	:	
EAST AND WEST OF WILSON ROAD	:	
SOUTH OF THE INTERSECTION WITH	:	
LITCHFIELD TOWN FARM ROAD IN	:	
LITCHFIELD, CONNECTICUT, AND BOTH	:	
EAST AND WEST OF ROSSI ROAD, SOUTH	:	
OF THE INTERSECTION WITH HIGHLAND	:	
AVENUE IN TORRINGTON, CONNECTICUT,	:	
AND ASSOCIATED ELECTRICAL	:	
INTERCONNECTION	:	NOVEMBER 28, 2023

#### RESPONSES OF SR LITCHFIELD, LLC TO CONNECTICUT SITING COUNCIL INTERROGATORIES PARTIAL DEVELOPMENT AND MANAGEMENT PLAN III

On November 7, 2023, the Connecticut Siting Council ("Council") issued interrogatories in connection with SR Litchfield, LLC's ("SRL") Partial Development and Management Plan II, relating to Petition No. 1442. Below are the Petitioners responses to the interrogatories:

Questions No. 1

Civil Site Plan C700 includes detail for a seven-foot tall chain link fence with one-foot of barbed wire. The response to Council Integratory 81 states SRL would be willing to exclude the barbed wire from the fence. Can a fence be installed without the barbed wire? If so, provide specifications.

#### Response

Yes, the fence can be installed without the barbed wire and SRL continues to be willing to exclude the barbed wire from the fence. The detail on Civil Site Plan C700 has been revised to reflect a seven-foot-tall chain link fence without the barbed wire. *See* **Attachment A** (Site Civil Design (Revision 14, November 17, 2023).

#### Question No. 2

According to Partial D&M Plan II, livestock grazing is no longer contemplated for the site. Can the bottom of the perimeter fence be raised to 6 inches above grade to allow for small animal movement?

#### Response

SRL does not have plans to bring sheep to the Project at this time. However, as SRL stated in the Partial D&M Plan II (May 3, 2023) it is still interested in continuing to explore having sheep grazing at the Project after operation begins. SRL will not bring sheep to the Project until it has notified the Council and received the Council's approval of its sheep grazing plan.

#### Questions No. 3

Civil Site Plan C002 and Electrical Site Plan PV-001 refer to the host parcel acreage as 281 and 211.7 acres, respectively. Clarify.

#### Response

The host parcel acreage is 211.7 acres. Civil Site Plan C002 has been revised to show the correct acreage. *See* **Attachment A**.

#### Question No. 4

Electrical Site Plan PV-001 states the closest distance from a solar panel to a perimeter fence is 4.5 feet. Where is this location?

#### Response

SRL understands the reference to Electrical Site Plan PV-001 to be to PV-100 in Attachment 1 (Racking Engineering Plans), which is also PV-100 in Attachment 3 (Site Layout and Array Details).

The 4.5 feet measurement was a typographical error. The Site Layout and Array Details (i.e., PV-100) have been updated to reflect the latest Project design, for which the closest distance from a solar panel to a perimeter fence is now 10 feet. *See* **Attachment B** (Site Layout and Array Details).<sup>1</sup> All perimeter fences will be construction at least 10 feet from any solar panel.

The same typographical error 4.5 feet measurement was also on G-101 in Attachment 1 (Racking Engineering Plans). This will be updated before construction of the modules and perimeter fencing begins.

#### Question No. 5

Civil Site Plan C002 indicates there will be an excess of 55,552 cubic yards of cut. Where will this material be disposed of?

#### Response

Currently, SRL's contractor plans to bring the material to Pepin Family Farm (25 East Street, Goshen, CT 06756).

<sup>&</sup>lt;sup>1</sup> SRL notes that because Attachment 3 (Site Layout and Array Details) was a subset of Attachment 1, SRL is not providing an updated copy of Attachment 1 separate from what is being provided in Attachment B.

#### Question No. 6

Civil Site Plan C503 Phase 3 Note 1 refers to "CT DEEP County" for review. Provide more information as to what entity will review the site.

#### <u>Response</u>

"County" was inadvertently included. As the Council is aware, the Connecticut Department of Energy and Environmental Protection ("CT DEEP") is the entity that has reviewed and approved the Project's stormwater and erosion control plans. The Phase 3 Note on Civil Site Plan C503 has been updated to remove the word "County". *See* Attachment A.

#### Question No. 7

Civil Site Plan C002 General Note 3 states "All erosion control devices shall be maintained daily". Civil Site Plan C510 Erosion Control Notes states "All sediment and erosion control devices shall be inspected once every calendar week." Are daily or weekly inspections specified? Which personnel be conducting the inspections and maintenance of erosion/sediment controls?

#### <u>Response</u>

SRL's contractor is expected to maintain erosion control devices daily and to inspect them weekly. Daily maintenance includes fixing erosion control devices as failures or weaknesses are noticed. Formal inspections of all erosion control devices will be conducted weekly. An engineer will inspect erosion control devices weekly and monthly, and CT DEEP will inspect erosion control devices monthly.

#### Question No. 8

Civil Site Plan C501 Phase 1 Note 1 refers to a DEEP Inspector. Will DEEP perform inspections at the site?

#### Response

CT DEEP is represented by the Northwestern Conservation District for monthly inspections. The pre-construction on-site meeting was conducted on Tuesday, November 7, 2023 with representatives from CT DEEP, the Northwestern Conservation District, SRL, 301 Alan Wood General, and HDR.

#### Question No. 9

The Petition Noise Impact Assessment dated December 2, 2020 (Exhibit N), was based on a project design with 90 inverters. Electrical Site Plan G-001 indicates 170 inverters will be installed as part of a project re-design. Revise the Noise Impact Assessment to account for the project re-design. Will the project re-design meet DEEP Noise Control Regulations at the boundaries of the host parcels?

#### Response

An updated Noise Impact Assessment of the latest Project design was conducted on November 21, 2023. The preliminary results show that the latest Project design meets DEEP Noise Control Regulations at all nearby residences surrounding the Project. *See* **Attachment C**.

A final updated Noise Impact Assessment report supporting that conclusion is expected by December 7, 2023. SRL will submit a copy to the Council when it is received. If the Council elects to approve SRL's Phase III D&M Plan prior to that submission, then SRL would be pleased to have as a condition of approval the submission of the final updated Noise Impact Assessment report demonstrating compliance with the CT DEEP Noise Control regulations.

#### **CERTIFICATION**

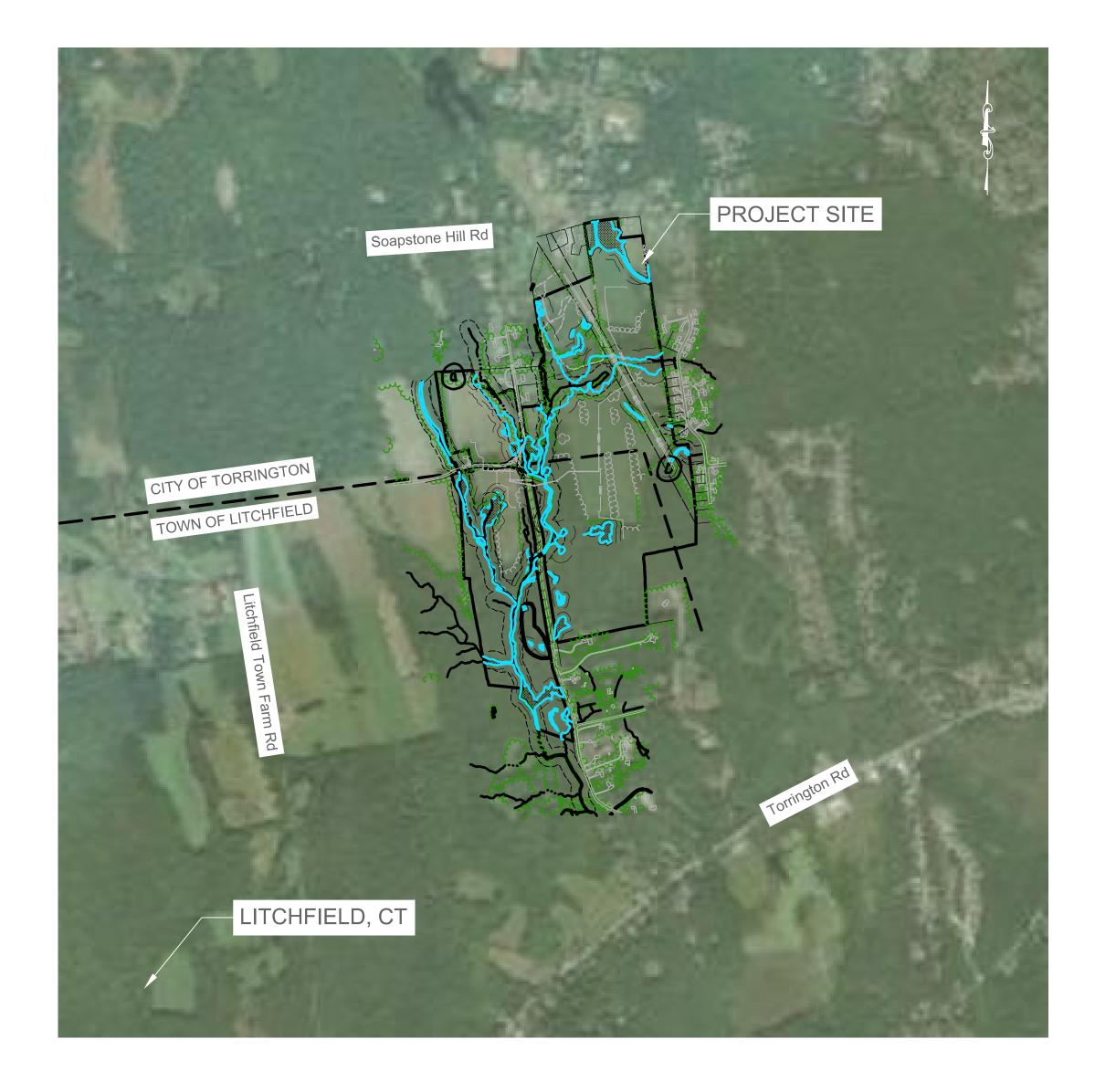
This is to certify that on the 28<sup>th</sup> day of November, 2023, a copy of the foregoing was

sent, via electronic mail, to the following:

Dominick J. Thomas, Esq. Cohen and Thomas 315 Main Street Derby, CT 06418 (203) 735-9521 djt@cohen-thomas.com

Jonathan H. Schaefer

# SILICON RANCH



Contract Drawings For

## **SILICON RANCH CORPORATION**

## Litchfield Solar

## Site Civil Design

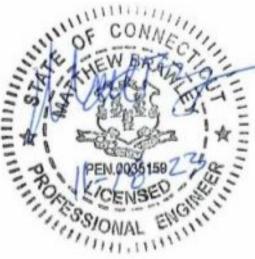
HDR Project No. 10243351

Litchfield, Connecticut **ISSUED FOR PERMIT** 9/30/2020 PROGRESS SET (Not for Construction) 1/29/2021 REVISION 1 (Not for Construction) 6/25/2021 REVISION 2 (Not for Construction) 1/28/2022 REVISION 3 (Not for Construction) 5/31/2022 REVISION 4 (Not for Construction) 6/29/2022 REVISION 5 (Not for Construction) 9/02/2022 REVISION 6 (Not for Construction) 12/1/2022 REVISION 7 (Not for Construction) 12/7/2023 REVISION 8 (Not for Construction) 02/9/2023 REVISION 9 (Not for Construction) 4/17/2023 REVISION 10 (Not for Construction) 6/09/2023 REVISION 11 (Not for Construction) 8/16/2023 REVISION 12 (Not for Construction) 9/27/2023 REVISION 13 (Not for Construction) (Sheet C002 Only) 11/17/2023 REVISION 14 (Not for Construction) (Sheets C002, C503, C504, C700 Only)

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C700	SITE ACCESS PLAN & CIVIL DETAILS



<u>GEN</u>	NERAL DEMOLITION NOTES:	GI
1.	ALL MATERIAL PRODUCED AS A RESULT OF DEMOLITION TO BE DISPOSED OF OFFSITE IN COMPLIANCE WITH ALL STATE, FEDERAL AND LOCAL ENVIRONMENTAL REGULATIONS.	1.
2.	CONTRACTOR TO FIELD VERIFY ALL UTILITIES BEFORE START OF DEMOLITION AND PROTECT AS REQUIRED TO COMPLETE DEMOLITION ACTIVITIES.	2.
3.	CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF DEMOLITION OR RELOCATION WITH APPLICABLE UTILITY COMPANIES: GAS, CABLE, POWER, TELEPHONE, WATER, SEWER, ETC.	3.
4.	CONTRACTOR TO INSTALL ALL PERIMETER EROSION CONTROLS PRIOR TO COMMENCEMENT OF DEMOLITION.	
5.	SAW CUT EXISTING ASPHALT TO CLEAN EDGE.	4.
6.	DEMOLITION OF FENCING SHALL BE COMPLETED WITH OWNER APPROVAL. TEMPORARY FENCING AND SECURITY FENCING WILL BE REQUIRED. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING TIMING AND REQUIREMENTS OF ALL FENCING ESTABLISHMENT TO ENSURE SITE TEMPORARY WAY FINDING IS UP TO DATE PRIOR TO ACCESS	5.
	CLOSURES. IF PERIMETER FENCING EXISTS AND IS INTACT, CONTRACTOR TO PRESERVE AS POSSIBLE.	6.
7.	ALL UTILITIES SHALL BE DEMOLISHED TO NEAREST JOINT WHERE FEASIBLE. CONFIRM PROPER CONNECTIONS WITH ENGINEER IF PIPING MATERIALS ARE TO BE CUT AND JOINED.	
8.		7.
	SYSTEM(S). CONTRACTOR SHOULD PRESERVE EXISTING WATER SERVICE (IE. WATER TAP OR WELL), AND INSTALL BURIED HDPE PIPE AND FROST FREE HYDRANT DIRECTLY INSIDE MAIN ENTRY GATE.	7
9.	CONTRACTOR, PRIOR TO DEMOLITION, SHALL WALK THE SITE WITH THE OWNER AND SPECIFICALLY NOTE ITEMS	7
	THAT SHALL BE REMOVED AND HANDED OVER TO THE OWNER.	7
		7
		8.
<u>SE</u>	EEDBED PREPARATION NOTES:	
1.	SURFACE WATER CONTROL MEASURES TO BE INSTALLED ACCORDING TO PLAN.	
2.	AREAS TO BE SEEDED SHALL BE RIPPED AND SPREAD WITH AVAILABLE TOPSOIL 3" DEEP. TOTAL SEEDBED PREPARED DEPTH SHALL BE 4" TO 6" DEEP. CONTRACTOR SHALL SUBMIT INTENDED SEED MIX INFORMATION TO OWNER AND RECEIVE OWNER APPROVAL PRIOR TO PROCUREMENT.	
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- 3. LOOSE ROCKS, ROOTS AND OTHER OBSTRUCTIONS SHALL BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION AT FINISHED GRADES SHOWN SHALL BE REASONABLY SMOOTH AND UNIFORM.
- 4. SOIL TESTS SHOULD BE TAKEN, AND AMENDMENTS SHOULD BE APPLIED PER SOIL TEST RECOMMENDATIONS.
- 5. LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDBED PREPARATION.
- 6. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDING ON FIELD CONDITIONS.
- 7. MULCH TO BE TACKED OR MECHANICALLY TIED DOWN WITHIN TWO DAYS AFTER MULCH IS SPREAD.
- 8. ALL SLOPES GREATER THAN 2.5:1 SHALL BE STABILIZED WITH JUTE MESH.

EROSION CONTROL NOTES:

- 1. ALL EROSION CONTROL MEASURES SHALL BE IN STRICT ACCORDANCE WITH CONNECTICUT EROSION AND SEDIMENT CONTROL STANDARDS.
- 2. NO ON-SITE BURIAL PITS ARE ALLOWED.
- 3. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF CONNECTICUT EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
- 4. GRADING MORE THAN HALF ACRE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE STATE.
- 5. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE SHOWN ON THE PLAN.
- 6. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED DUE TO FIELD CONDITIONS OR AS DIRECTED BY THE CT DEEP INSPECTOR.
- 7. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
- 8. THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES.
- 9. ALL MATERIALS REQUIRED FOR CONSTRUCTION OF SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE AVAILABLE ON SITE BEFORE ANY LAND-DISTURBING ACTIVITY IS BEGUN.
- 10. LINEAR TREE PROTECTION SHALL BE ORANGE SAFETY FENCE 3' HIGH. TO PROVIDE ADDITIONAL WORKING ROOM, CONTRACTOR MAY COORDINATE WITH THE INSPECTOR TO UTILIZE COMBINATION SILT FENCE WITH ORANGE STRIP ON TOP.
- 11. IF THE GROUND IS SEMI-FROZEN, PUNCH SEED DISTURBED AREAS (SEED APPLIED INTO THE SOIL), ALLOWING THE SEED TO REMAIN WET AND GERMINATE DURING FAVORABLE WEATHER CONDITIONS.

#### ENERAL NOTES:

- PROVIDE SILT FENCE AROUND PERIMETER OF ALL STOCKPILES. STABILIZE IMMEDIATELY UPON ESTABLISHMENT OF PILE.
- GRADING CONTRACTOR SHALL CHECK/ IDENTIFY FOR ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING THE CLEARING / GRADING.
- ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED DAILY. ALL TEMPORARY SEDIMENT BASINS SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER. THE TEMPORARY SEDIMENT BASINS SHALL BE CLEANED OUT WHEN THE SEDIMENT REACHES 1/2 OF THE SEDIMENT STORAGE CAPACITY. SILT FENCE SHALL BE CLEANED FROM SEDIMENT WHEN THE SEDIMENT LEVEL IS HALF WAY UP THE SILT FENCE FABRIC.
- THE CONSTRUCTION ENTRANCE MAY REQUIRE ADDITIONAL STONE TO PREVENT TRACKING.
- THE GRADING CONTRACTOR WILL BE RESPONSIBLE FOR CLEANING ANY TRACKING OF SEDIMENT ONTO PAVED ROAD AS SOON AS POSSIBLE, BUT BEFORE THE END OF THE WORK DAY.
- ALL DEBRIS STOCK PILES SHALL BE REMOVED AND PROPERLY DISPOSED OF IN A LEGAL LANDFILL (I.E. MULCH AND LOG PILES). CONTRACTOR SHALL COMPLY WITH ALL LOCAL ORDINANCES, SURROUNDING PROPERTIES AND COMMUNICATE WITH LOCAL FIRE DEPARTMENTS FOR THE BURNING OF ANY CLEARING DEBRIS.
- SITE SURVEY DATA IS BASED ON THE FOLLOWING BOUNDARY SURVEYS:
- 7.1. WILSON ROAD ALTA PREPARED BY PROVOST & ROVERO, INC. DATED 5/18/2018
- 7.2. FOLLERT ALTA PREPARED BY PROVOST & ROVERO, INC. DATED 4/30/18
- 7.3. HELD ALTA (ROMANELLA PARCELS) PREPARED BY JAMES ROMANELLA & SONS INC. DATED 7/3/2018
- 7.4. LIPPINCOTT ALTA, PREPARED BY PROVOST & ROVERO, INC. DATED 4/30/2018
- CONTROL BASED ON CT STATE PLANE COORDINATES, NAD-83 (2011), US SURVEY FEET.

LITCHFIELD CIVIL QUANTITIES		
ITEM	UNIT	QUANTITY
LIMITS OF DISTURBANCE	ACRES	72.6
PROPERTY AREA	ACRES	211.7
ROADS	LF	7,792
PERIMETER FENCE	LF	20,294
TREE REMOVAL	ACRES	23.6
CUT VOLUME	CY	73,660
FILL VOLUME	CY	23,108

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## FJS



## NOT FOR CONSTRUCTION

## LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W



LITCHFIELD, CT

14	REVISED PER SITING COUNCIL	11/14/23
13	<b>REVISION FOR CLARITY</b>	09/26/23
12	<b>RE-ISSUED FOR PERMIT</b>	08/16/23
11	<b>RE-ISSUED FOR PERMIT</b>	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
REV. NO	DESCRIPTION	DATE

(SHEET TITLE:

CIVIL NOTES AND ABBREVIATIONS		
PROJ. MGR.	PROJ. ENGR.	DATE:
CM	<b>MB</b>	11/14/23
DRAWN BY:	CHECKED BY:	SCALE:
JP	CP	NTS
DRAWING NO.		

C002

## 

Y/CIVIL LINE SYMBOLOGY
W EXISTING WATER
EXISTING GAS LINE
PIPELINE
OHW UTILITY OVERHEAD LINE
PROPERTY LINE
ADJOINING PROPERTY LINE
— — — EASEMENT
RIGHT OF WAY
— — — — — EXISTING CONTOUR (MINOR)
PROPOSED CONTOUR (MINOR)
— — — EXISTING CONTOUR W/ELEVATION (MAJOR)
PROPOSED CONTOUR (MAJOR)
EXISTING TREE LINE
——————————————————————————————————————
FLOOD LIMIT (100 YEAR)
STREAM/CREEK
100' GULF STREAM BUFFER
— · — · — VEGETATIVE BUFFER
LOD LIMITS OF DISTURBANCE
OUTLET PROTECTION, EMERGENCY SPILLWAY, SKIMMER OUTLET PAD
F SF SILT FENCE
GRAVEL TRENCH
TREE CLEARING
1+00 — — — ALIGNMENT
25' WETLAND BUFFER
·· VERNAL POOL ENVELOPE
50' WETLAND SETBACK
—— —— 100' WETLAND SETBACK

#### **ENVIRONMENTAL NOTES - RESOURCES PROTECTION MEASURES**

#### WETLAND, VERNAL POOL, AND RARE SPECIES PROTECTION PROGRAM

THE PROPOSED SOLAR FACILITY IS LOCATED PROXIMATE TO SENSITIVE HABITATS INCLUDING GULF STREAM, A DEEP-DESIGNATED COLD-WATER HABITAT STREAM, WETLAND RESOURCE AREAS, VERNAL POOLS, AND RARE SPECIES. AS A RESULT, THE FOLLOWING PROTECTIVE MEASURES SHALL BE FOLLOWED TO HELP AVOID DEGRADATION OF NEARBY GULF STREAM, WETLANDS, WATERCOURSES, AVOID INCIDENTAL IMPACT TO VERNAL POOL INDICATOR SPECIES, AND RARE SPECIES.

IN ADDITION, WOOD TURTLE (GLYPTEMYS INSCULPTA), BOBOLINK (DOLICHONYX ORYZIVORUS), SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS), AMERICAN KESTREL (FALCO SPARVERIUS), RED BAT (LASIURUS BOREALIS), AND HOARY BAT (LASIURUS CINEREUS), ALL STATE SPECIAL CONCERN SPECIES AFFORDED PROTECTION UNDER THE CONNECTICUT ENDANGERED SPECIES ACT, ARE KNOWN TO OCCUR ON OR PROXIMITY TO THE PROPOSED FACILITY. THESE RARE SPECIES PROTECTION MEASURES ARE SIMILAR TO PROTECTION MEASURES PREVIOUSLY APPROVED BY THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION ("DEEP") WILDLIFE DIVISION ON OTHER SIMILAR PROJECTS.

IN AREA 1 OF THE SOLAR FACILITY, A 12-FOOT WIDE ACCESS DRIVE WOULD EXTEND FROM HIGHLAND AVENUE THROUGH A FORESTED WETLAND TO THE SOLAR ARRAY. THIS ACCESS ROAD WOULD FOLLOW THE ROUTE OF EXISTING FARM ROAD THROUGH THE WETLAND. APPROXIMATELY 866 SQUARE FEET OF FORESTED WETLAND WOULD BE PERMANENTLY IMPACTED IN THIS AREA. IN THE EASTERN PORTION OF AREA 1, AN EXISTING FARM CROSSING OF A WETLAND WOULD BE UPGRADED TO A 16-FOOT WIDE ACCESS ROAD WITH AN OPEN-BOTTOM ARCH CULVERT CROSSING (CULVERT C-1) THAT WOULD REQUIRE A PERMANENT WETLAND IMPACT OF APPROXIMATELY 587 SQUARE FEET. IN THE EASTERN PORTION OF AREA 3, AN ACCESS ROAD AND AN ASSOCIATED CULVERT WOULD BE INSTALLED AT THE HEAD OF AN INTERMITTENT STREAM THAT DRAINS TO GULF STREAM.

IN ORDER TO CONNECT THE AREA 1 ARRAY TO THE SWITCHGEAR LOCATION IN AREA 3 OF THE SOLAR FACILITY, AN OVERHEAD UTILITY LINE WOULD BE INSTALLED TO CROSS THE GULF STREAM RIPARIAN CORRIDOR. THE CROSSING LOCATION WOULD UTILIZE THE ROUTE OF EXISTING FARM ROAD THROUGH THE RIPARIAN CORRIDOR TO MINIMIZE THE CLEARING OF VEGETATION. TWO OTHER OVERHEAD WETLAND UTILITY CROSSINGS WOULD BE DEVELOPED; ONE EXTENDING FROM AREA 1 TO AREA 2 AND ONE OVER A TRIBUTARY TO GULF STREAM ADJACENT TO ROSSI ROAD. TO FACILITATE THESE CROSSINGS THE PETITIONER WOULD USE BUCKET TRUCKS, SKID STEERS, LINE TRUCKS, REEL TRUCKS AND HAND TOOLS. CONSTRUCTION WOULD BE CONDUCTED IN ACCORDANCE WITH US ARMY CORPS OF ENGINEERS BEST MANAGEMENT PRACTICES.

IT IS OF THE UTMOST IMPORTANCE THAT THE CONTRACTOR COMPLIES WITH THE REQUIREMENT FOR IMPLEMENTATION OF THESE PROTECTIVE MEASURES AND THE EDUCATION OF ITS EMPLOYEES AND SUBCONTRACTORS PERFORMING WORK ON THE PROJECT SITE. THE WETLAND PROTECTION MEASURES SHALL BE IMPLEMENTED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES UNTIL PERMANENT STABILIZATION OF SITE SOILS HAS OCCURRED. VERNAL POOL PROTECTION MEASURES SHOULD BE IMPLEMENTED DURING PEAK AMPHIBIAN MOVEMENT PERIODS (EARLY SPRING BREEDING [MARCH 1ST TO MAY 15TH] AND LATE SUMMER DISPERSAL [JULY 15TH TO SEPTEMBER 15TH]) IF CONSTRUCTION CANNOT BE AVOIDED DURING THESE PERIODS.

DETAILS OF IMPLEMENTATION MEASURES TO PROTECT THESE VARIOUS SENSITIVE RESOURCES DURING CONSTRUCTION AND MAINTENANCE OF THE SOLAR FACILITY ARE PROVIDED BELOW. THE RARE SPECIES PROTECTION MEASURES WITHIN THIS PLAN SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PLAN DETAILS BELOW FOR INDIVIDUAL SPECIES.

ALL-POINTS TECHNOLOGY CORPORATION, P.C. ("APT") WILL SERVE AS THE ENVIRONMENTAL MONITOR FOR THIS PROJECT TO ENSURE THAT THESE PROTECTION MEASURES ARE IMPLEMENTED PROPERLY. APT WILL PROVIDE AN EDUCATION SESSION FOR THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION ACTIVITIES ON NEARBY SENSITIVE WETLAND RESOURCES/VERNAL POOLS RESOURCES AND RARE SPECIES THAT MAY BE ENCOUNTERED. THE CONTRACTOR SHALL CONTACT DEAN GUSTAFSON, SENIOR BIOLOGIST AT APT, AT LEAST 5 BUSINESS DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES TO SCHEDULE A PRE-CONSTRUCTION MEETING. MR. GUSTAFSON CAN BE REACHED BY PHONE AT (860) 552-2033 OR VIA EMAIL AT DGUSTAFSON@ALLPOINTSTECH.COM.

THIS PROTECTION PROGRAM CONSISTS OF SEVERAL COMPONENTS: EDUCATION OF ALL CONTRACTORS AND SUB-CONTRACTORS PRIOR TO INITIATION OF WORK ON THE SITE; PROTECTIVE MEASURES; PERIODIC INSPECTION OF THE CONSTRUCTION PROJECT; AND, REPORTING.

#### 1. CONTRACTOR EDUCATION

- a. PRIOR TO WORK ON SITE AND INITIAL DEPLOYMENT/MOBILIZATION OF EQUIPMENT AND MATERIALS, THE CONTRACTOR SHALL ATTEND AN EDUCATIONAL SESSION AT THE PRE-CONSTRUCTION MEETING WITH APT. THIS ORIENTATION AND EDUCATIONAL SESSION WILL CONSIST OF AN INTRODUCTORY MEETING WITH APT TO EMPHASIZE THE ENVIRONMENTALLY SENSITIVE NATURE OF THE PROJECT, GULF STREAM AND THE VARIOUS WETLAND, VERNAL POOL AND RARE SPECIES RESOURCES, AND THE REQUIREMENT TO DILIGENTLY FOLLOW THE PROTECTIVE MEASURES AS DESCRIBED IN SECTIONS BELOW. WORKERS WILL ALSO BE PROVIDED INFORMATION REGARDING THE IDENTIFICATION OF OTHER TURTLES, SNAKES, COMMON HERPETOFAUNA (E.G., AMPHIBIANS AND REPTILES), AND RARE GRASSLAND BIRD SPECIES THAT COULD BE ENCOUNTERED. THE MEETING WILL FURTHER EMPHASIZE THE NON-AGGRESSIVE NATURE OF THESE SPECIES, THE ABSENCE OF NEED TO DESTROY SUCH ANIMALS AND THE NEED TO FOLLOW PROTECTIVE MEASURES AS DESCRIBED IN FOLLOWING SECTIONS.
- b. THE EDUCATION SESSION WILL ALSO FOCUS ON MEANS TO DISCRIMINATE BETWEEN THE SPECIES OF CONCERN AND OTHER NATIVE SPECIES TO AVOID UNNECESSARY "FALSE ALARMS". ENCOUNTERS WITH ANY SPECIES OF TURTLES, SNAKES AND AMPHIBIANS WILL BE DOCUMENTED.
- c. THE CONTRACTOR WILL DESIGNATE A MEMBER OF ITS CREW AS THE PROJECT MONITOR TO BE RESPONSIBLE FOR THE PERIODIC "SWEEPS" FOR HERPETOFAUNA WITHIN THE CONSTRUCTION ZONE EACH MORNING AND FOR ANY GROUND DISTURBANCE WORK. THIS INDIVIDUAL WILL RECEIVE MORE INTENSE TRAINING FROM APT ON THE IDENTIFICATION AND PROTECTION OF HERPETOFAUNA IN ORDER TO PERFORM SWEEPS. ANY HERPETOFAUNA DISCOVERED WOULD BE TRANSLOCATED OUTSIDE THE WORK ZONE IN THE GENERAL DIRECTION THE ANIMAL WAS ORIENTED.
- d. THE CONTRACTOR WILL BE PROVIDED WITH CELL PHONE AND EMAIL CONTACTS FOR APT PERSONNEL TO IMMEDIATELY REPORT ANY ENCOUNTERS WITH ANY RARE SPECIES. EDUCATIONAL POSTER MATERIALS WILL BE PROVIDED BY APT AND DISPLAYED ON THE JOB SITE TO MAINTAIN WORKER AWARENESS AS THE PROJECT PROGRESSES.
- e. APT WILL ALSO POST CAUTION SIGNS THROUGHOUT THE PROJECT SITE FOR THE DURATION OF THE CONSTRUCTION PROJECT PROVIDING NOTICE OF THE ENVIRONMENTALLY SENSITIVE NATURE OF THE WORK AREA, THE POTENTIAL FOR ENCOUNTERING VARIOUS AMPHIBIANS AND REPTILES AND PRECAUTIONS TO BE TAKEN TO AVOID INJURY TO OR MORTALITY OF THESE ANIMALS.
- f. IF ANY RARE SPECIES ARE ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY CEASE ALL WORK, AVOID ANY DISTURBANCE TO THE SPECIES, AND CONTACT APT. 2. ISOLATION MEASURES & SEDIMENTATION AND EROSION CONTROLS
- a. PLASTIC NETTING USED IN A VARIETY OF EROSION CONTROL PRODUCTS (I.E., EROSION CONTROL BLANKETS, FIBER ROLLS [WATTLES], REINFORCED SILT FENCE) HAS BEEN FOUND TO ENTANGLE WILDLIFE, INCLUDING REPTILES, AMPHIBIANS, BIRDS, AND SMALL MAMMALS, BUT PARTICULARLY SNAKES. NO PERMANENT EROSION CONTROL PRODUCTS OR REINFORCED SILT FENCE WILL BE USED ON THE PROJECT. TEMPORARY EROSION CONTROL PRODUCTS WILL USE EITHER EROSION CONTROL BLANKETS AND FIBER ROLLS COMPOSED OF PROCESSED FIBERS MECHANICALLY BOUND TOGETHER TO FORM A CONTINUOUS MATRIX (NETLESS) OR NETTING COMPOSED OF PLANAR WOVEN NATURAL BIODEGRADABLE FIBER TO AVOID/MINIMIZE WILDLIFE ENTANGLEMENT.
- b. INSTALLATION OF SEDIMENTATION AND EROSION CONTROLS, REQUIRED FOR EROSION CONTROL COMPLIANCE AND CREATION OF A BARRIER TO POSSIBLE MIGRATING/DISPERSING TURTLES, SHALL BE PERFORMED BY THE CONTRACTOR FOLLOWING CLEARING ACTIVITIES AND PRIOR TO ANY EARTHWORK. THE ENVIRONMENTAL MONITOR WILL INSPECT THE WORK ZONE AREA PRIOR TO AND FOLLOWING EROSION CONTROL BARRIER INSTALLATION TO ENSURE THE AREA IS FREE OF WOOD TURTLE (ALONG WITH OTHER AMPHIBIANS AND REPTILES THAT MAY BE ENCOUNTERED) AND DOCUMENT BARRIERS HAVE BEEN SATISFACTORILY INSTALLED. THE

INTENT OF THE BARRIER IS TO SEGREGATE THE MAJORITY OF THE WORK ZONE AND ISOLATE IT FROM NESTING/FORAGING/MIGRATING/DISPERSING TURTLES, SNAKES AND OTHER HERPETOFAUNA. OFTENTIMES COMPLETE ISOLATION OF A WORK ZONE IS NOT FEASIBLE DUE TO ACCESSIBILITY NEEDS AND LOCATIONS OF STAGING/MATERIAL STORAGE AREAS, ETC. ALTHOUGH THE BARRIERS MAY NOT COMPLETELY ISOLATE THE WORK ZONE, THEY WILL BE POSITIONED TO DEFLECT MIGRATING/DISPERSAL ROUTES AWAY FROM THE WORK ZONE TO MINIMIZE POTENTIAL ENCOUNTERS WITH TURTLES. SNAKES AND OTHER HERPETOFAUNA.

- c. EXCLUSIONARY FENCING SHALL BE AT LEAST 20 INCHES TALL AND MUST BE SECURED TO AND REMAIN IN CONTACT WITH THE GROUND AND BE REGULARLY MAINTAINED BY THE CONTRACTOR (AT LEAST BI-WEEKLY AND AFTER MAJOR WEATHER EVENTS) TO SECURE
- d. THE CONTRACTOR IS RESPONSIBLE FOR DAILY INSPECTIONS OF THE SEDIMENTATION AND EROSION CONTROLS FOR TEARS OR BREECHES AND ACCUMULATION LEVELS OF SEDIMENT, PARTICULARLY FOLLOWING STORM EVENTS THAT GENERATE A DISCHARGE. AS DEFINED BY AND IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THE CONTRACTOR SHALL NOTIFY THE ENVIRONMENTAL MONITOR WITHIN 24 HOURS OF ANY BREECHES OF THE SEDIMENTATION AND EROSION CONTROLS AND ANY SEDIMENT RELEASES BEYOND THE PERIMETER CONTROLS THAT IMPACT WETLANDS, WATERCOURSES OR WITHIN 100 FEET OF WETLANDS AND WATERCOURSES. THE ENVIRONMENTAL MONITOR WILL PROVIDE PERIODIC INSPECTIONS OF THE SEDIMENTATION AND EROSION CONTROLS THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES ONLY AS IT PERTAINS TO THEIR FUNCTION AS ISOLATION MEASURES FOR THE PROTECTION OF RARE SPECIES. SUCH INSPECTIONS WILL GENERALLY OCCUR ONCE PER MONTH. THE FREQUENCY OF MONITORING MAY INCREASE DEPENDING UPON SITE CONDITIONS, LEVEL OF CONSTRUCTION ACTIVITIES IN PROXIMITY TO SENSITIVE RECEPTORS, OR AT THE REQUEST OF SILICON RANCH OR REGULATORY AGENCIES. IF THE COMPLIANCE MONITOR IS NOTIFIED BY THE CONTRACTOR OF A SEDIMENT RELEASE, AN INSPECTION WILL BE SCHEDULED SPECIFICALLY TO INVESTIGATE
- e. THIRD PARTY MONITORING OF SEDIMENTATION AND EROSION CONTROLS WILL BE PERFORMED BY OTHER PARTIES, AS NECESSARY, UNDER APPLICABLE LOCAL, STATE AND/OR FEDERAL REGULATIONS AND PERMIT CONDITIONS.
- f. THE EXTENT OF THE SEDIMENTATION AND EROSION CONTROLS WILL BE AS SHOWN ON THE SITE PLANS. THE CONTRACTOR SHALL HAVE ADDITIONAL SEDIMENTATION AND EROSION CONTROLS STOCKPILED ON SITE SHOULD FIELD OR CONSTRUCTION CONDITIONS WARRANT EXTENDING THE CONTROLS AS DIRECTED BY APT OR OTHER REGULATORY AGENCIES.
- g. NO EQUIPMENT, VEHICLES OR CONSTRUCTION MATERIALS SHALL BE STORED OUTSIDE OF THE SEDIMENTATION AND EROSION CONTROLS WITHIN 100 FEET OF WETLANDS OR WATERCOURSES.
- h. CONSTRUCTION EQUIPMENT WASHOUT AREAS SHALL BE ESTABLISHED A MINIMUM OF 50 FEET FROM WETLANDS OR WATERCOURSES. THE WASHOUT STATIONS SHALL BE SELF-CONTAINED AND NO SURFACE DISCHARGE OF WASHOUT WASTEWATERS SHALL OCCUR.
- i. ALL SEDIMENTATION AND EROSION CONTROLS SHALL BE REMOVED WITHIN 30 DAYS OF COMPLETION OF WORK AND PERMANENT STABILIZATION OF SITE SOILS SO THAT REPTILE AND AMPHIBIAN MOVEMENT BETWEEN UPLANDS AND WETLANDS IS NOT RESTRICTED. IF FIBER ROLLS/WATTLES, STRAW BALES, OR OTHER NATURAL MATERIAL EROSION CONTROL PRODUCTS ARE USED, SUCH DEVICES WILL NOT BE LEFT IN PLACE TO BIODEGRADE AND SHALL BE PROMPTLY REMOVED AFTER SOILS ARE STABLE SO AS NOT TO CREATE A BARRIER TO WILDLIFE MOVEMENT. SEED FROM SEEDING OF SOILS SHOULD NOT SPREAD OVER FIBER ROLLS/WATTLES AS IT MAKES THEM HARDER TO REMOVE ONCE SOILS ARE STABILIZED BY VEGETATION.
- 3. PETROLEUM MATERIALS STORAGE AND SPILL PREVENTION a. CERTAIN PRECAUTIONS ARE NECESSARY TO STORE PETROLEUM MATERIALS, REFUEL
- OIL, HYDRAULIC FLUID, ETC.) SPILL TO AVOID POSSIBLE IMPACT TO NEARBY RESOURCES. b. SILICON RANCH CORPORATION HAS DEVELOPED AND WILL ADHERE TO A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN FOR THIS PROJECT AS PER THE REQUIREMENTS OF 40 CFR 112. PLEASE REFER TO THE SPCC FOR SPECIFIC REQUIREMENTS, BASIC REQUIREMENTS FOR PETROLEUM MATERIALS STORAGE AND SPILL PREVENTION ARE PROVIDED BELOW. IN THE EVENT THESE BASIC REQUIREMENTS CONTRADICT THE SPCC, THE CONTRACTOR SHALL RELY ON REQUIREMENTS PROVIDED IN THE SPCC.
- c. 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.
- d. THE FOLLOWING PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING RESTRICTIONS AND SPILL RESPONSE PROCEDURES WILL BE ADHERED TO BY THE CONTRACTOR.
- i. PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING 1. REFUELING OF VEHICLES OR MACHINERY SHALL OCCUR A MINIMUM OF 100 FEET
- PAD WITH SECONDARY CONTAINMENT DESIGNED TO CONTAIN FUELS.
- STORED ON AN IMPERVIOUS SURFACE UTILIZING SECONDARY CONTAINMENT A MINIMUM OF 100 FEET FROM WETLANDS OR WATERCOURSES.
- 3. THE CONTRACTOR SHALL INSPECT ALL EQUIPMENT AT THE BEGINNING AND END OF EACH DAY FOR ANY FUEL OR HYDRAULIC LEAKS AND IF DISCOVERED SHALL TAKE IN THE FOLLOWING SECTIONS.
- ii. INITIAL SPILL RESPONSE PROCEDURES
- 1. STOP OPERATIONS AND SHUT OFF EQUIPMENT.
- 2. REMOVE ANY SOURCES OF SPARK OR FLAME.
- 3. CONTAIN THE SOURCE OF THE SPILL.
- 4. DETERMINE THE APPROXIMATE VOLUME OF THE SPILL.
- 6. ENSURE THAT FELLOW WORKERS ARE NOTIFIED OF THE SPILL. iii. SPILL CLEAN UP & CONTAINMENT
- 1. OBTAIN SPILL RESPONSE MATERIALS FROM THE ON-SITE SPILL RESPONSE KIT.
- PLACE ABSORBENT MATERIALS DIRECTLY ON THE RELEASE AREA.
- PERIMETER OF THE SPILL.
- 3. ISOLATE AND ELIMINATE THE SPILL SOURCE.
- NECESSARY.
- 5. CONTACT A DISPOSAL COMPANY TO PROPERLY DISPOSE OF CONTAMINATED MATERIALS IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- iv.REPORTING 1. COMPLETE AN INCIDENT REPORT.
- 2. SUBMIT A COMPLETED INCIDENT REPORT TO THE CONNECTICUT SITING COUNCIL, AND OTHER APPLICABLE LOCAL, STATE, AND FEDERAL OFFICIALS.
- 4. WETLAND CROSSINGS, CULVERT C-1 INSTALLATION & RESTORATION
- a. THE CONTRACTOR SHALL CONTACT APT A MINIMUM OF 5 BUSINESS DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE WETLAND CROSSINGS (BOTH ACCESS AND OVERHEAD UTILITY CROSSINGS) IN ORDER TO MONITOR CONSTRUCTION ACTIVITIES IN AND ADJACENT TO WETLANDS AND WATERCOURSES AND IN PARTICULAR THE PROJECT'S TWO DIRECT WETLAND IMPACT AREAS (E.G., IMPROVING THE EXISTING

ANY GAPS OR OPENINGS AT GROUND LEVEL THAT MAY LET ANIMAL PASS THROUGH.

AND EVALUATE POSSIBLE IMPACTS TO WETLAND AND/OR WATERCOURSE RESOURCES.

AND CONTAIN AND PROPERLY CLEAN UP ANY INADVERTENT FUEL OR PETROLEUM (I.E.,

FROM WETLANDS OR WATERCOURSES AND SHALL TAKE PLACE ON AN IMPERVIOUS

2. ANY FUEL OR HAZARDOUS MATERIALS THAT MUST BE KEPT ON SITE SHALL BE

IMMEDIATE STEPS TO MAKE REPAIRS AND CLEAN UP ANY DISCHARGES AS DETAILED

5. IDENTIFY THE LOCATION OF NATURAL FLOW PATHS TO PREVENT THE RELEASE OF THE SPILL TO SENSITIVE NEARBY WATERWAYS OR WETLANDS.

2. LIMIT THE SPREAD OF THE SPILL BY PLACING ABSORBENT MATERIALS AROUND THE

4. CONTACT THE APPROPRIATE LOCAL, STATE AND/OR FEDERAL AGENCIES, AS

ACCESS OFF HIGHLAND AVENUE AND INSTALLATION OF CULVERT C-1).

- b. INSTALLATION OF THE OPEN-BOTTOM ARCH CULVERT (CULVERT C-1) SHALL CONFORM TO THE PROJECT SITE PLANS AND ASSOCIATED DETAILS ALLOWING FOR SLIGHT FIELD ADJUSTMENTS BASED ON EXISTING ELEVATIONS WITHIN THE WETLAND SYSTEM TO ENSURE THAT THE CROSSING AND CULVERT WILL NOT IMPEDED OR ADVERSELY IMPACT CONVEYANCE OF EXISTING SURFACE FLOWS THROUGH THE WETLAND SYSTEM.
- c. CULVERT C-1 SHALL MATCH EXISTING WETLAND GRADIENT (SLOPE) AND CHANNEL PROFILES.
- d. THE EXISTING WETLAND SUBSTRATE AT CULVERT C-1 SHALL BE PRESERVED AND RESTORED AS NECESSARY WITH THIS OPEN-BOTTOM CULVERT INSTALLATION.
- e. ANY EXPOSED/DISTURBED WETLAND SOILS RESULTING FROM ANY OF THE WETLAND CROSSING ACTIVITIES SHALL BE SEEDED WITH A NEW ENGLAND WET SEED MIX (NEW
- ENGLAND WETLAND PLANTS, INC., OR APPROVED EQUIVALENT) AT THE MANUFACTURERS RECOMMENDED SEED RATE. SIDE SLOPES AT THE WETLAND CROSSING SHALL BE SEEDED WITH A NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX (NEW ENGLAND WETLAND PLANTS, INC., OR APPROVED EQUIVALENT) AT THE MANUFACTURERS RECOMMENDED SEED RATE. MULCH SEEDED AREAS WITH NON-WOVEN NATURAL FIBER EROSION CONTROL BLANKET OR 2 TO 3 INCHES OF CLEAN STRAW MULCH, AS APPROPRIATE.

#### 5. GULF STREAM UTILITY CROSSING

- a. THE CONTRACTOR SHALL CONTACT APT A MINIMUM OF 5 BUSINESS DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE OVERHEAD UTILITY CROSSING OF GULF STREAM
- b. MATS SHALL BE USED DURING THE INSTALLATION OF THE UTILITY INTERCONNECTION LINE WITHIN 100 FEET OF GULF STREAM TO MINIMIZE SOIL DISTURBANCE/COMPACTION. THESE DEVICES SHALL BE KEPT FREE OF TRACKED SEDIMENTS.
- c. NO CROSSING OF GULF STREAM WITH EQUIPMENT OR MATS IS ALLOWED FOR THE UTILITY INTERCONNECTION LINE WORK.
- d. TREES CLEARED TO FACILITATE THE INSTALLATION OF THE UTILITY INTERCONNECTION SHALL HAVE THE STUMPS LEFT IN PLACE (NO GRUBBING OR STUMP REMOVAL SHALL OCCUR) TO MINIMIZE SOIL DISTURBANCE AND ALLOW FOR NATURAL REVEGETATION POST REMOVAL OF THE MATTING.
- e. TREE CLEARING EQUIPMENT SHALL BE SUPPORTED BY MATTING TO AVOID SOIL DISTURBANCE AND COMPACTION. EROSION CONTROL MATERIALS SHALL BE AVAILABLE FOR USE AS NEEDED TO AVOID RUNOFF OR SEDIMENT IMPACTS TO GULF STREAM.
- f. TREES IN PROXIMITY TO THE BANKS OF GULF STREAM WILL BE GRAPPLED WITH THE FELLER BUNCHER DURING CUTTING TO PREVENT TREES FROM FALLING INTO THE STREAM AND DISTURBING THE STREAM BANK. CUTTING OF THE SHRUB UNDERSTORY WILL BE LIMITED TO WHAT IS NECESSARY TO MAINTAIN REQUIRED WIRE CLEARANCES.
- g. ANY SOIL EXCAVATED FROM THE UTILITY POLE INSTALLATIONS WITHIN 100 FEET OF GULF STREAM SHALL BE PLACED ON THE MATTING AND REMOVED AND SPREAD/STABILIZED WITHIN UPLAND AREAS AT LEAST 100 FEET FROM GULF STREAM OR REMOVED OFF SITE.
- h. MATTING USED TO ACCESS THE UTILITY INTERCONNECTION WORK SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF ALL WORK.
- i. ANY EXPOSED/DISTURBED WETLAND SOILS RESULTING FROM ANY OF THE UTILITY CROSSING ACTIVITIES SHALL BE SEEDED WITH A NEW ENGLAND WET SEED MIX (NEW ENGLAND WETLAND PLANTS, INC., OR APPROVED EQUIVALENT) AT THE MANUFACTURERS RECOMMENDED SEED RATE. ANY EXPOSED/DISTURBED UPLAND SOILS RESULTING FROM ANY OF THE UTILITY CROSSING ACTIVITIES SHALL BE SEEDED WITH A NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX (NEW ENGLAND WETLAND PLANTS, INC., OR APPROVED EQUIVALENT) AT THE MANUFACTURERS RECOMMENDED SEED RATE. MULCH SEEDED AREAS WITH NON-WOVEN NATURAL FIBER EROSION CONTROL BLANKET OR 2 TO 3 INCHES OF CLEAN STRAW MULCH, AS APPROPRIATE.

#### 6. VERNAL POOL PROTECTION MEASURES

- a. A THOROUGH COVER SEARCH OF THE CONSTRUCTION AREAS WILL BE PERFORMED BY APT'S ENVIRONMENTAL MONITOR FOR HERPETOFAUNA (AMPHIBIANS AND REPTILES) PRIOR TO AND FOLLOWING INSTALLATION OF THE SILT FENCING BARRIER TO REMOVE ANY SPECIES FROM THE WORK ZONE PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES. ANY HERPETOFAUNA DISCOVERED WOULD BE CAREFULLY TRANSLOCATED OUTSIDE THE WORK ZONE IN THE GENERAL DIRECTION THE ANIMAL WAS ORIENTED. PERIODIC INSPECTIONS WILL BE PERFORMED BY APT'S ENVIRONMENTAL MONITOR THROUGHOUT THE DURATION OF THE CONSTRUCTION.
- b. ANY STORMWATER MANAGEMENT FEATURES, RUTS OR ARTIFICIAL DEPRESSIONS THAT COULD HOLD WATER CREATED INTENTIONALLY OR UNINTENTIONALLY BY SITE CLEARING/CONSTRUCTION ACTIVITIES WILL BE PROPERLY FILLED IN AND PERMANENTLY STABILIZED WITH VEGETATION TO AVOID THE CREATION OF VERNAL POOL "DECOY POOLS" THAT COULD INTERCEPT AMPHIBIANS MOVING TOWARD THE VERNAL POOLS. STORMWATER MANAGEMENT FEATURES SUCH AS LEVEL SPREADERS WILL BE CAREFULLY REVIEWED IN THE FIELD TO ENSURE THAT STANDING WATER DOES NOT ENDURE FOR MORE THAN A 24-HOUR PERIOD TO AVOID CREATION OF DECOY POOLS AND MAY BE SUBJECT TO FIELD DESIGN CHANGES, ANY SUCH PROPOSED DESIGN CHANGES WILL BE REVIEWED BY THE DESIGN ENGINEER TO ENSURE STORMWATER MANAGEMENT FUNCTIONS ARE MAINTAINED.
- C. EROSION CONTROL MEASURES WILL BE REMOVED NO LATER THAN 30 DAYS FOLLOWING FINAL SITE STABILIZATION SO AS NOT TO IMPEDE MIGRATION OF HERPETOFAUNA OR OTHER WILDLIFE.

#### 7. HERBICIDE, PESTICIDE AND SALT RESTRICTIONS

- a. THE USE OF HERBICIDES AND PESTICIDES AT THE FACILITY SHALL BE RESTRICTED. IN THE EVENT HERBICIDES AND/OR PESTICIDES ARE REQUIRED AT THE FACILITY, THEIR USE WILL BE USED IN ACCORDANCE WITH INTEGRATED PEST MANAGEMENT ("IPM") PRINCIPLES WITH PARTICULAR ATTENTION TO MINIMIZE APPLICATIONS WITHIN 100 FEET OF WETLAND OR WATERCOURSE RESOURCES. NO APPLICATIONS OF HERBICIDES OR PESTICIDES ARE
- ALLOWED WITHIN ACTUAL WETLAND OR WATERCOURSE RESOURCES. b. MAINTENANCE OF THE FACILITY DURING THE WINTER MONTHS SHALL NOT INCLUDE THE APPLICATION OF SALT OR SIMILAR PRODUCTS FOR MELTING SNOW OR ICE.
- 8. TURTLE PROTECTION MEASURES CONSTRUCTION PHASE
- a. PRIOR TO CONSTRUCTION AND FOLLOWING INSTALLATION OF ISOLATION BARRIERS, THE CONSTRUCTION AREA WILL BE SWEPT BY APT AND ANY TURTLES OCCURRING WITHIN THE WORK AREA WILL BE RELOCATED TO SUITABLE HABITAT OUTSIDE OF THE ISOLATION BARRIERS.
- b. PRIOR TO THE START OF CONSTRUCTION EACH DAY, THE CONTRACTOR SHALL SEARCH THE ENTIRE WORK AREA FOR TURTLES.
- c. IF A TURTLE IS FOUND DURING THE ACTIVE PERIOD, IT SHALL BE IMMEDIATELY MOVED, UNHARMED, BY BEING CAREFULLY GRASPED IN BOTH HANDS, ONE ON EACH SIDE OF THE SHELL, BETWEEN THE TURTLE'S FORELIMBS AND THE HIND LIMBS, AND PLACED JUST OUTSIDE OF THE ISOLATION BARRIER IN THE SAME APPROXIMATE DIRECTION IT WAS HEADING. THESE ANIMALS ARE PROTECTED BY LAW AND NO TURTLES SHOULD BE RELOCATED FROM THE PROPERTY.
- d. SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR DURING EARLY MORNING AND EVENING HOURS SO THAT POSSIBLE BASKING OR FORAGING TURTLES ARE NOT HARMED BY CONSTRUCTION ACTIVITIES.
- e. THE CONTRACTOR SHALL BE PARTICULARLY DILIGENT DURING THE MONTHS OF MAY AND JUNE WHEN TURTLES ARE ACTIVELY SELECTING NESTING SITES WHICH RESULTS IN AN INCREASE IN TURTLE MOVEMENT ACTIVITY.
- f. NO HEAVY MACHINERY OR VEHICLES MAY BE PARKED IN ANY TURTLE HABITAT.
- g. AVOID AND LIMIT ANY EQUIPMENT USE WITHIN 100 FEET OF WETLANDS AND NO HEAVY MACHINERY OR VEHICLES MAY BE PARKED IN ANY TURTLE HABITAT OR WITHIN 100 FEET OF WETLANDS.
- h. SPECIAL PRECAUTIONS MUST BE TAKEN TO AVOID DEGRADATION OF WETLAND HABITATS, PARTICULARLY ALONG GULF STREAM AND OTHER PERENNIAL STREAM RIPARIAN CORRIDORS.

9. TURTLE PROTECTION MEASURES - FACILITY MAINTENANCE (MOWING RECOMMENDATIONS)

a. PERFORM MOWING DURING THE TURTLE DORMANT PERIOD - NOVEMBER 1<sup>S1</sup> THROUGH

- MARCH 31<sup>ST</sup> WHEN POSSIBLE.
- SAFETY PURPOSES.
- BRONTOSAURUS-STYLE MOWER WILL LIKELY HAVE THE LEAST IMPACT ON TURTLES.
- IMPORTANT COVER FOR ANIMALS.
- AND MOVE OUT OF THE AREA.
- NEARBY STREAMS.
- SEASON (APRIL 1 THROUGH AUGUST 30).
- IMPLEMENTING THE FOLLOWING MEASURES.
- THIS PERIOD.

#### MAINTENANCE MOWING

- RESTRICTIONS WOULD NOT APPLY.
- d. MOWING TYPE/METHOD:
- EVERY 1-5 YEARS.
- THE ARRAY FIELD.
- FLEDGLINGS ARE FULLY MOBILE.
- PRESENT ON THE SITE.
- 13. REPORTING

- ANIMAL

b. IF MOWING IS REQUIRED OUTSIDE OF THE TURTLE DORMANT PERIOD, AVOID MOWING DURING MAY 15<sup>1 H</sup> THROUGH AUGUST 30<sup>1 H</sup> WHEN TURTLES MAY BE LOCATED WITHIN THE FACILITY (AND AWAY FROM FORESTED HABITAT), IF POSSIBLE, UNDERSTANDING THAT SOME VEGETATION MAINTENANCE IS NECESSARY FOR OPERATIONAL AND ELECTRICAL

c. VEGETATION MAINTENANCE WITHIN THE FENCED SOLAR FACILITY MAY BE ACCOMPLISHED THROUGH SHEEP GRAZING. SHOULD THAT TECHNIQUE BE USED, MOWING RESTRICTIONS WOULD NOT APPLY; MOWING RECOMMENDATIONS OUTSIDE OF THE FENCED FACILITY WOULD STILL APPLY.

d. IF MOWING IS REQUIRED DURING THE TURTLE ACTIVE SEASON (APRIL 1ST THROUGH OCTOBER 31<sup>ST</sup>), MOWING SHOULD BE PERFORMED AS FOLLOWS.

i. MOWING STYLE: AVOID FLAIL MOWER HEADS WITH GUIDE BARS THAT RIDE ALONG THE GROUND. SICKLE BAR MOWERS WILL HAVE THE LEAST IMPACT IF MOWING EVERY 1-5 YEARS. IN AREAS WITH MORE WOODY VEGETATION >1-2" DIAMETER

ii. MOWING HEIGHT: IF MOWING DURING ACTIVE SEASON, RETENTION OF MOWING STUBBLE TO 7-12 INCHES WILL REDUCE MORTALITY, REDUCE BLADE WEAR, AND WILL LEAVE

iii. DIRECTIONALITY: IF MOWING DURING THE ACTIVE SEASON IS NECESSARY, START MOWING FROM THE CENTER OF THE FIELD AND USE A BACK-AND-FORTH APPROACH, OR LARGE CIRCULAR PATTERN, TO AVOID CONCENTRATING FLEEING ANIMALS WHERE THEY MAY BE KILLED OR STRANDED. IN ADDITION, LEAVE AN UN-MOWED 30 FT STRIP AROUND THE PERIMETER OF THE FIELD AND MOW THIS AREA LAST. MOST TURTLES ARE FOUND IN THESE AREAS AND THIS PROVIDES TIME FOR THEM TO REACT TO THE MOWING ACTIVITY

iv. MOWER SPEED: MOWING IN LOW GEAR OR AT SLOW SPEEDS WILL ALLOW TURTLES TO REACT AND MOVE OUT OF THE FIELD.

v. UN-MOWED EDGE: LEAVING AN UN-MOWED FIELD EDGE IN HIGH TURTLE USE AREAS UNTIL AFTER SEPTEMBER 15TH. WOOD TURTLES ARE OFTEN IN FIELD EDGES CLOSEST TO

**10.RARE GRASSLAND BIRDS PROTECTION MEASURES - CONSTRUCTION-PHASE** a. IDEALLY, CONSTRUCTION SHOULD BE PERFORMED OUTSIDE OF THE SENSITIVE BREEDING

b. HOWEVER, IF CONSTRUCTION ACTIVITIES ARE TO OCCUR DURING THE ACTIVE PEAK BREEDING SEASON FOR RARE GRASSLAND BIRD SPECIES (MAY 20 TO AUGUST 20), THESE BIRDS SHOULD BE DETERRED FROM NESTING WITHIN THE PROJECT LIMITS BY

c. THE PROJECT AREA SHOULD BE MOWED CONTINUOUSLY TWICE PER WEEK STARTING ON MAY 1ST AND CONTINUING UNTIL CONSTRUCTION BEGINS.

d. VEGETATION SHOULD NOT BE ALLOWED TO EXCEED THREE INCHES IN HEIGHT DURING

e. THE TWICE PER WEEK MOWING SCHEDULE SHOULD BE MAINTAINED REGARDLESS OF VEGETATION HEIGHT (I.E., EVEN IF VEGETATION HEIGHT REMAINS BELOW THREE INCHES) TO SERVE AS AN ADDITIONAL DETERRENT TO NEST ESTABLISHMENT.

f. FIELD SURVEYS BY QUALIFIED BIOLOGISTS SHOULD OCCUR DURING THIS MOWING PERIOD AND THROUGH THE MONTH OF MAY UNTIL CONSTRUCTION BEGINS TO ENSURE THAT THE MEASURES ARE EFFECTIVELY DETERRING NEST ESTABLISHMENT. IF THIS PROVES UNSUCCESSFUL, REMEDIAL MEASURES WILL BE RECOMMENDED.

g. FOR MAINTENANCE OF THE FACILITY ONCE CONSTRUCTION HAS BEEN COMPLETED, MOWING ACTIVITIES SHOULD BE RESTRICTED AS OUTLINED IN THE FOLLOWING SECTION 10: RARE GRASSLAND BIRDS SITE MANAGEMENT PROTECTION MEASURES (MOWING). 11.RARE GRASSLAND BIRDS SITE MANAGEMENT PROTECTION MEASURES -

a. THE FOLLOWING MEASURES ARE INTENDED FOR IMPLEMENTATION WITHIN THE FENCED SOLAR-POWERED GENERATION FACILITY FOR MAINTENANCE MOWING ONCE THE FACILITY IS OPERATIONAL. THE LIKELIHOOD OF NESTING OCCURRING WITHIN THE FENCED COMPOUND, AND AMONGST THE ARRAYS THEMSELVES, IS LOW. HOWEVER, THESE BIRDS MAY BREED IN THE CONTIGUOUS GRASSLAND HABITAT ADJACENT TO THE FACILITY AND THEREFORE WOULD BE SUBJECT TO SECONDARY IMPACTS SUCH AS NOISE OR VISUAL DISTURBANCE THAT MAY AFFECT NESTING. ADDITIONALLY, THERE IS THE POTENTIAL FOR

ADULTS AND FLEDGLINGS TO FEED WITHIN THE FENCED COMPOUND. b. VEGETATION MAINTENANCE WITHIN THE FENCED SOLAR FACILITY MAY BE

ACCOMPLISHED THROUGH SHEEP GRAZING. SHOULD THAT TECHNIQUE BE USED, MOWING

c. TIMING OF MOWING/VEGETATION MAINTENANCE: IF POSSIBLE, MOWING SHOULD BE AVOIDED FROM MAY 20TH THROUGH AUGUST 20TH TO MINIMIZE IMPACTS TO NESTING BIRDS. FOR THE BENEFIT OF BIRDS AS WELL AS TERRESTRIAL WILDLIFE, MOWING CONDUCTED ONCE PER SEASON IS OPTIMAL, AFTER OCTOBER 15TH WHEN MOST SPECIES HAVE ENTERED FALL/WINTER DORMANCY.

1. MOWER SPEED: MOWING AT SLOW SPEEDS WILL ALLOW ANIMALS TO REACT AND MOVE OUT OF THE FIELD.

2. MOWING STYLE: AVOID FLAIL MOWER HEADS WITH GUIDE BARS THAT RIDE ALONG THE GROUND. SICKLE BAR MOWERS WILL HAVE THE LEAST IMPACT IF MOWING

3. MOWING HEIGHT: IF MOWING DURING THE BREEDING SEASON, RETENTION OF MOWING STUBBLE AT A MINIMUM HEIGHT OF 7 INCHES WILL REDUCE MORTALITY AND WILL LEAVE IMPORTANT COVER FOR WILDLIFE.

4. DIRECTIONALITY: IF MOWING DURING THE BREEDING SEASON IS NECESSARY, START MOWING CLOSEST TO THE ARRAYS AND MOVE OUTWARD TOWARD THE EDGE OF

e. PRE-MOWING NEST SURVEYS: IF MOWING OUTSIDE OF THE NESTING SEASON IS NOT POSSIBLE, A PRE-MOWING INSPECTION BY AN ORNITHOLOGIST IS RECOMMENDED TO CONFIRM THAT NO NESTS ARE PRESENT WITHIN THE MOWING LIMITS. THAT SURVEY SHOULD OCCUR NO MORE THAN ONE WEEK PRIOR TO THE START OF MOWING. ANY ACTIVITY BY TARGET SPECIES SHOULD BE FIELD FLAGGED AND/OR CONVEYED TO THE CONTRACTOR. IF A NEST SITE IS OBSERVED WITHIN THE MOWING LIMITS, NO MOWING SHOULD OCCUR WITHIN 100 FEET OF THE NEST SITE UNTIL IT IS INACTIVE AND THE

#### 12. RARE BATS SITE MANAGEMENT MEASURES (TREE CLEARING)

a. TREE CLEARING IS RESTRICTED TO OCCUR ONLY BETWEEN AUGUST 15<sup>TH</sup> THROUGH APRIL 30<sup>1 H</sup>, DURING THE BAT'S NON-ROOSTING PERIOD, WHEN BATS WOULD NOT BE

a. A COMPLIANCE MONITORING REPORT (BRIEF NARRATIVE AND APPLICABLE PHOTOS) DOCUMENTING EACH APT INSPECTION WILL BE SUBMITTED BY APT TO THE CONTRACTOR AND PERMITTEE FOR COMPLIANCE VERIFICATION. ANY OBSERVATIONS OF RARE SPECIES, VERNAL POOL INDICATOR SPECIES, WETLAND/WATERCOURSE IMPACTS, OR CORRECTIVE ACTIONS WILL BE INCLUDED IN THE REPORTS.

b. FOLLOWING COMPLETION OF THE CONSTRUCTION PROJECT, APT WILL PROVIDE A FINAL COMPLIANCE MONITORING REPORT TO SILICON RANCH DOCUMENTING IMPLEMENTATION OF THIS RESOURCES PROTECTION PROGRAM AND MONITORING OBSERVATIONS, INCLUDING ANY OBSERVATIONS OF RARE SPECIES. SILICON RANCH SHALL PROVIDE A COPY OF THE FINAL COMPLIANCE MONITORING REPORT TO THE CONNECTICUT SITING COUNCIL FOR COMPLIANCE VERIFICATION.

c. ANY OBSERVATIONS OF RARE SPECIES WILL BE REPORTED TO DEEP BY APT ON THE APPROPRIATE SPECIAL ANIMAL REPORTING FORM, WITH PHOTO-DOCUMENTATION (IF POSSIBLE) AND SPECIFIC INFORMATION ON THE LOCATION AND DISPOSITION OF THE



## NOT FOR CONSTRUCTION

## LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W



#### LITCHFIELD, CT

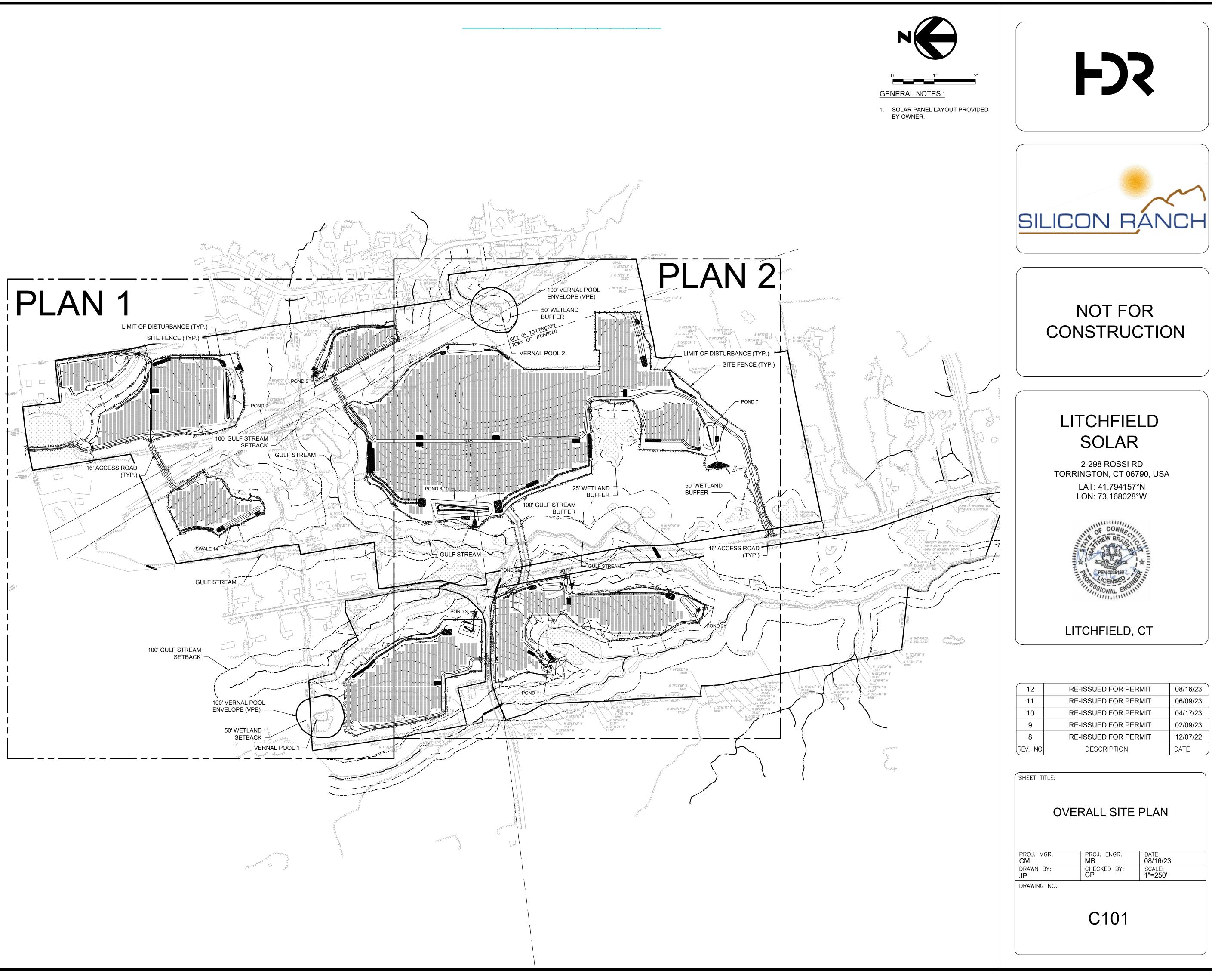
RE-ISSUED FOR PERMIT	08/16/23
RE-ISSUED FOR PERMIT	06/09/23
RE-ISSUED FOR PERMIT	04/17/23
RE-ISSUED FOR PERMIT	02/09/23
RE-ISSUED FOR PERMIT	12/07/22
DESCRIPTION	DATE
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SHEET TITLE:

#### **ENVIRONMENTAL NOTES**

PROJ. MGR.	PROJ. ENGR.	DATE:
C <b>M</b>	<b>MB</b>	08/16/23
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<b>JP</b>	CP	NTS
DRAWING NO.		

## C003

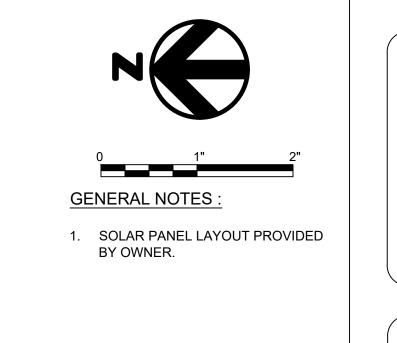


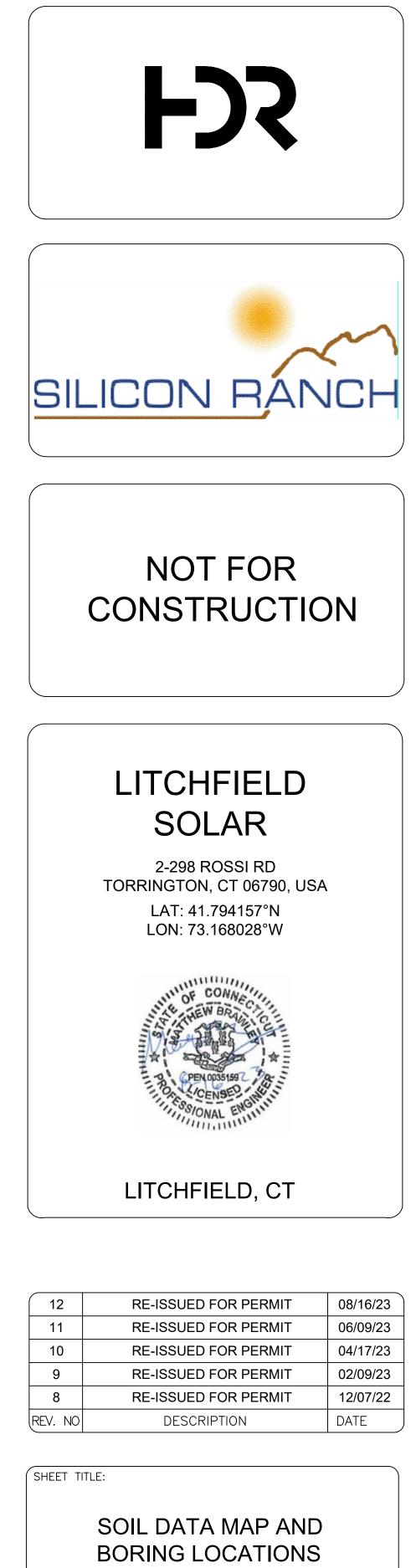
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PROJ. MGR. <b>CM</b>	PROJ. ENGR. <b>MB</b>	DATE: <b>08/16/23</b>
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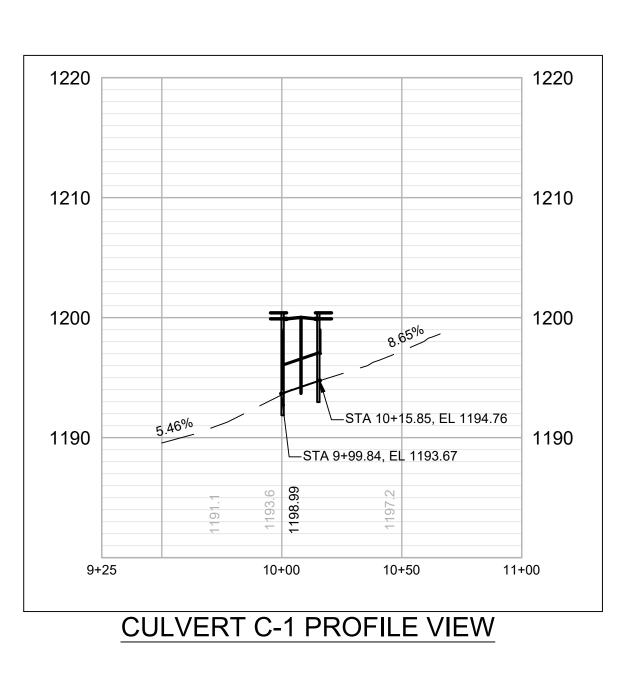


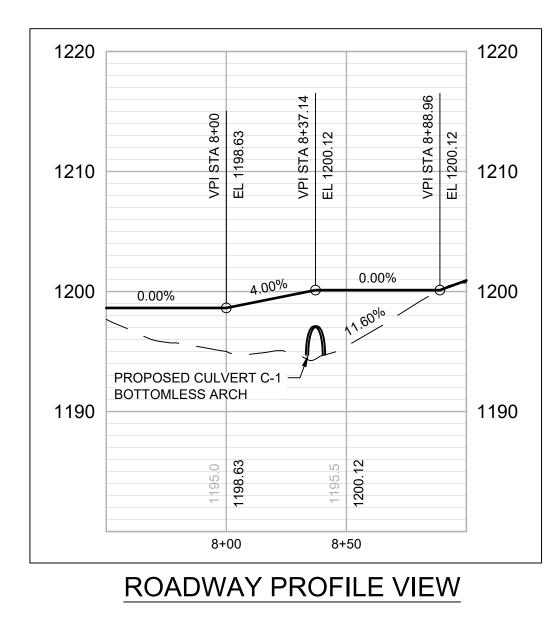




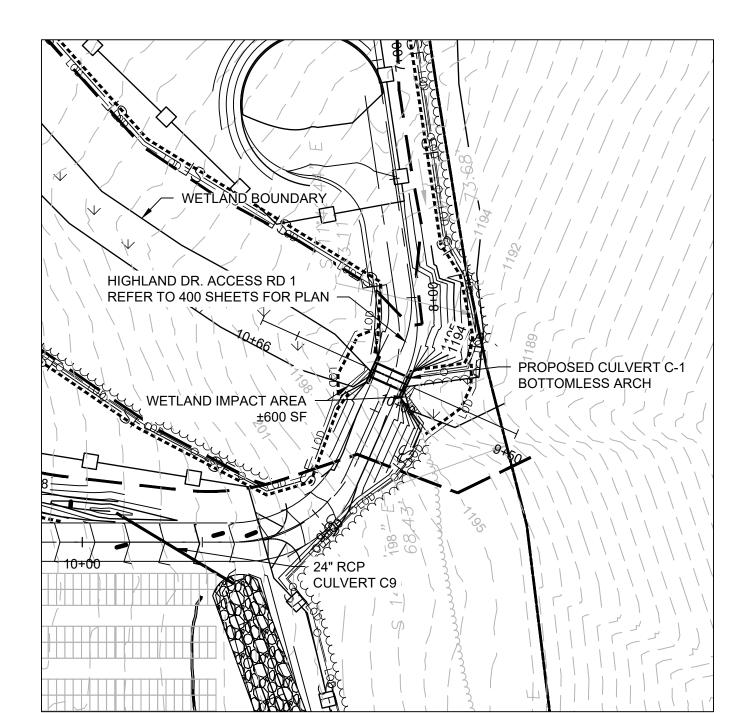
PROJ. MGR. <b>CM</b>	PROJ. ENGR. <b>MB</b>	DATE: 08/16/23
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DRAWING NO.		

C103

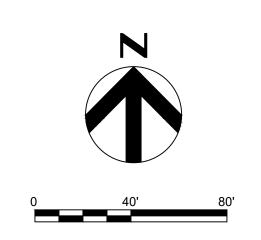




Culvert	Est. Peak Flow Q 50-yr (cfs)	Length (ft)	Shape	Span (ft)	Rise (ft)	Area (sf)	Open Area (sf)	OR (Open Area) / Length
C-1	34.03	16	Arch (Bottomless)	6	2' - 4"	14	14.00	0.88



CULVERT C-1



GENERAL NOTES :

SEE SHEET C101 FOR OVERALL PLAN.
 ALL TIE-IN GRADING SLOPES ARE 3H:1V.



FJS

## NOT FOR CONSTRUCTION

## LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W

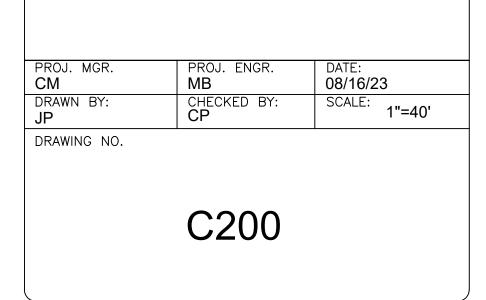


## LITCHFIELD, CT

12	<b>RE-ISSUED FOR PERMIT</b>	08/16/23
11	<b>RE-ISSUED FOR PERMIT</b>	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

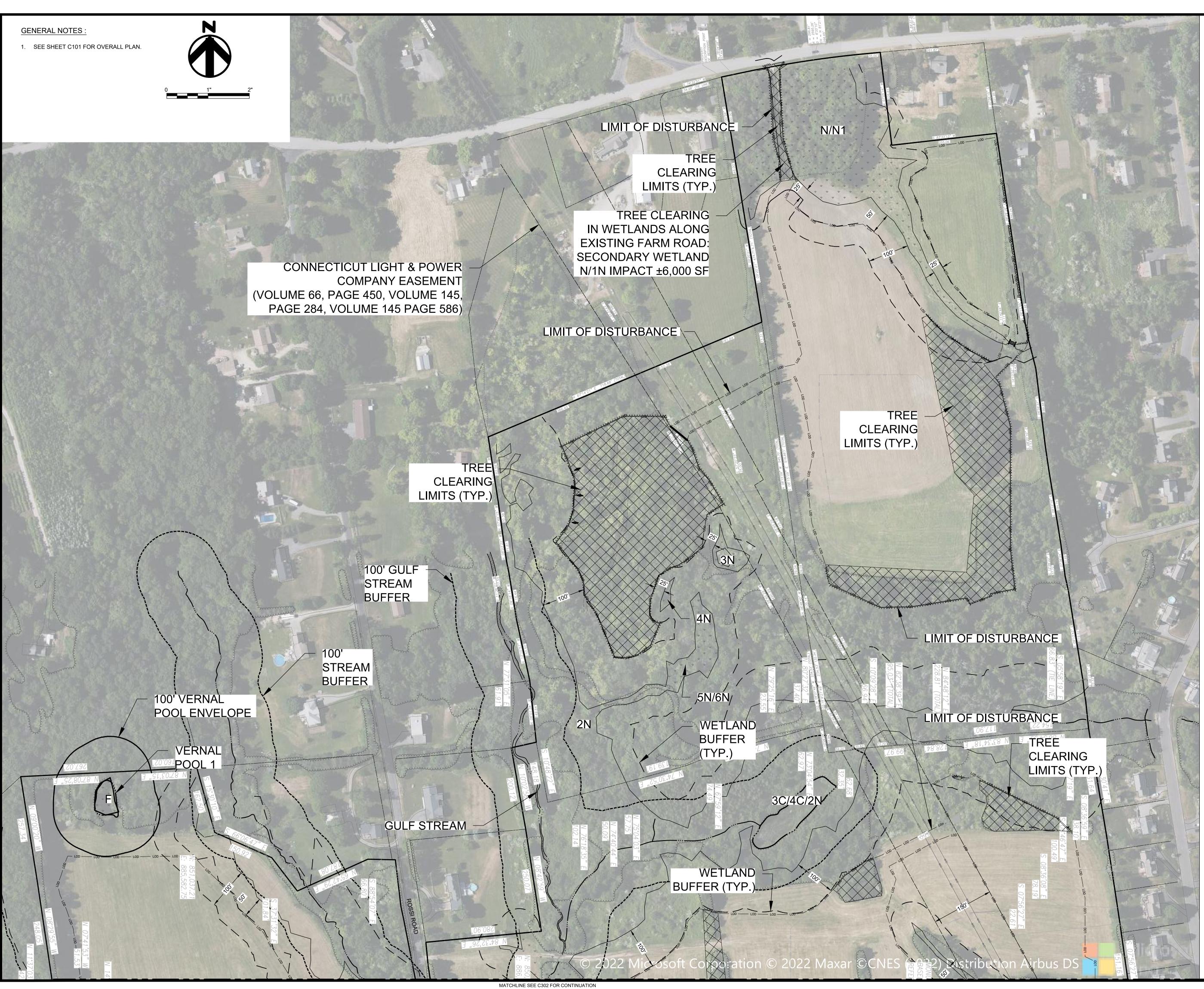
SHEET TITLE:

#### WETLAND CROSSING









# FJS



## NOT FOR CONSTRUCTION

## LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W

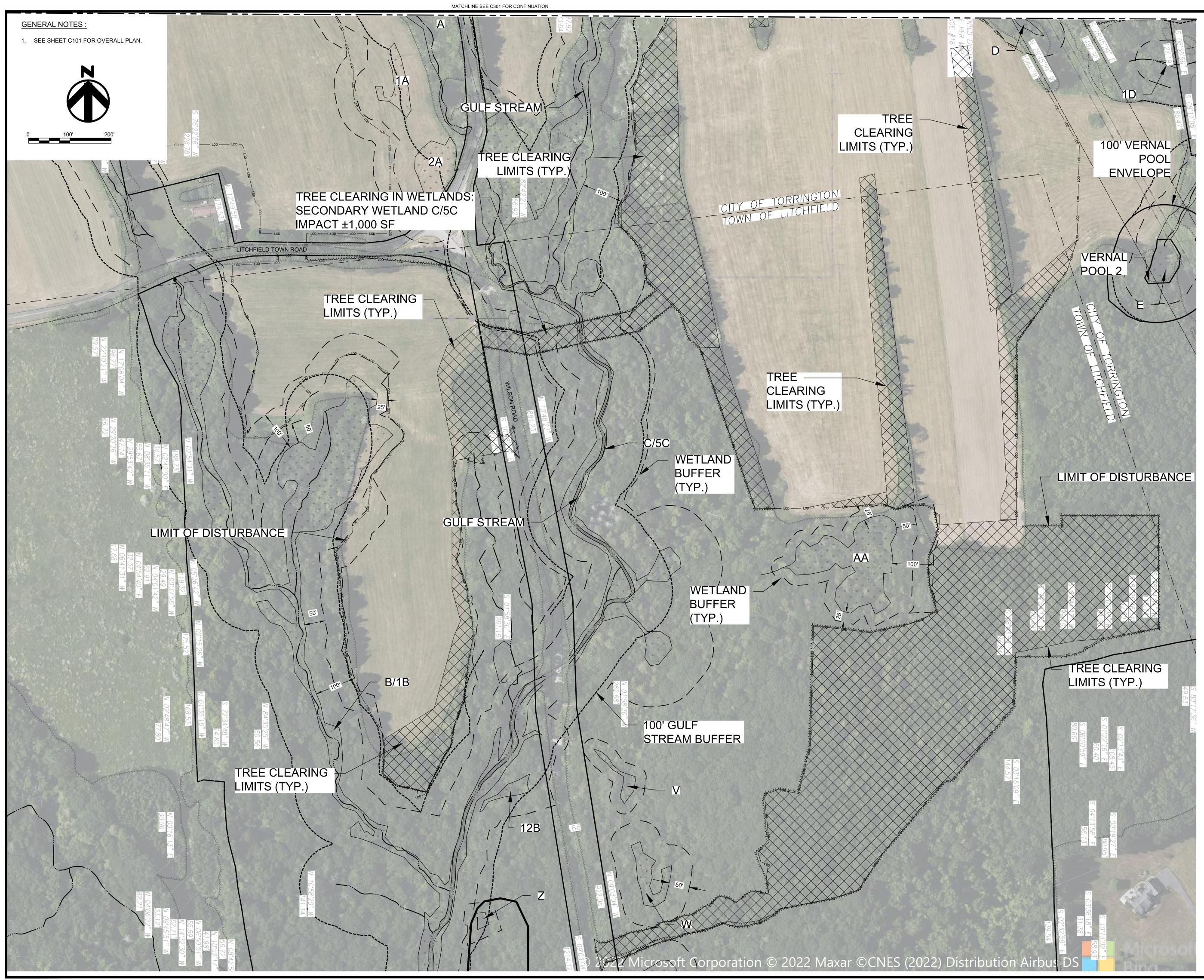


## LITCHFIELD, CT

12	<b>RE-ISSUED FOR PERMIT</b>	08/16/23
11	<b>RE-ISSUED FOR PERMIT</b>	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

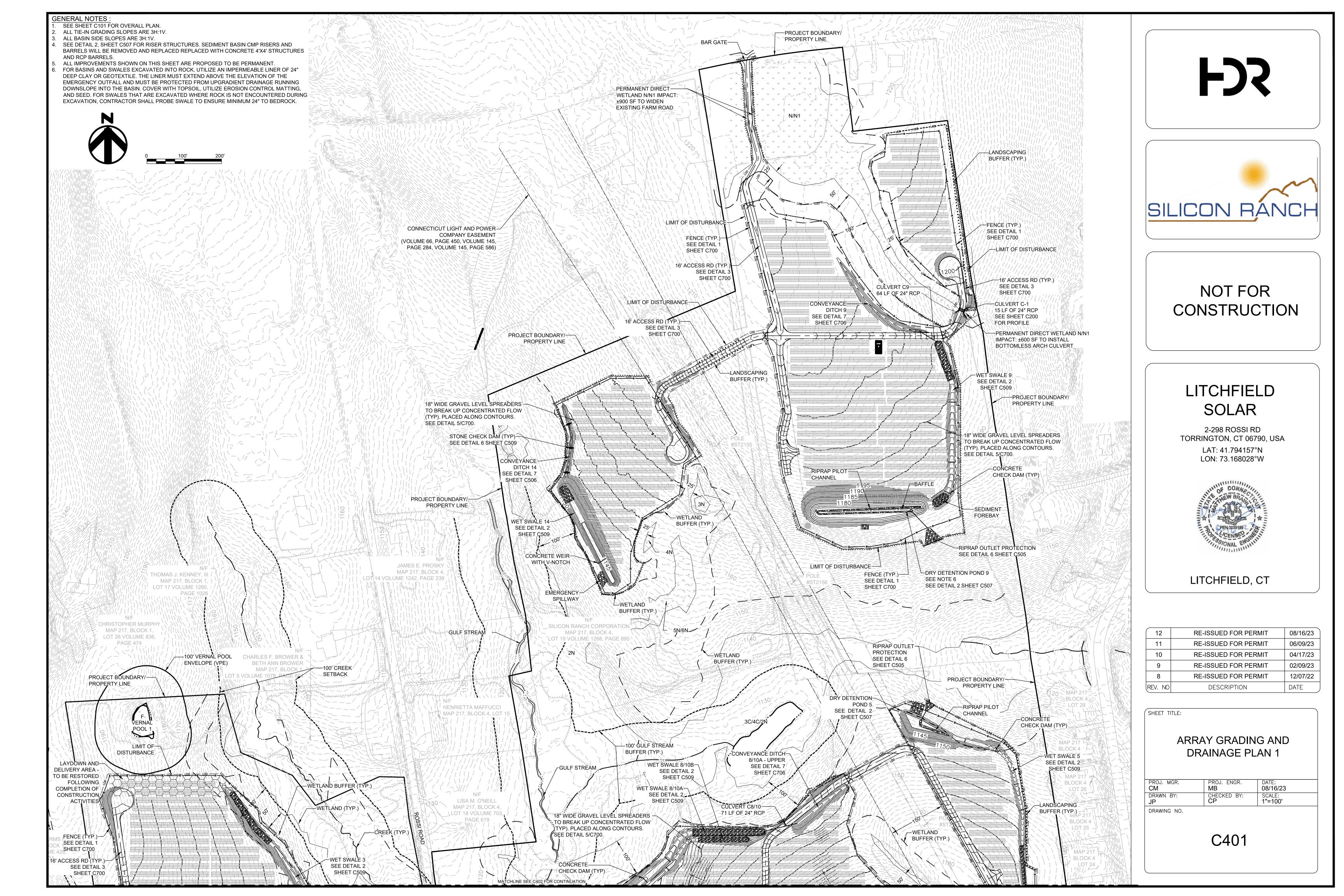
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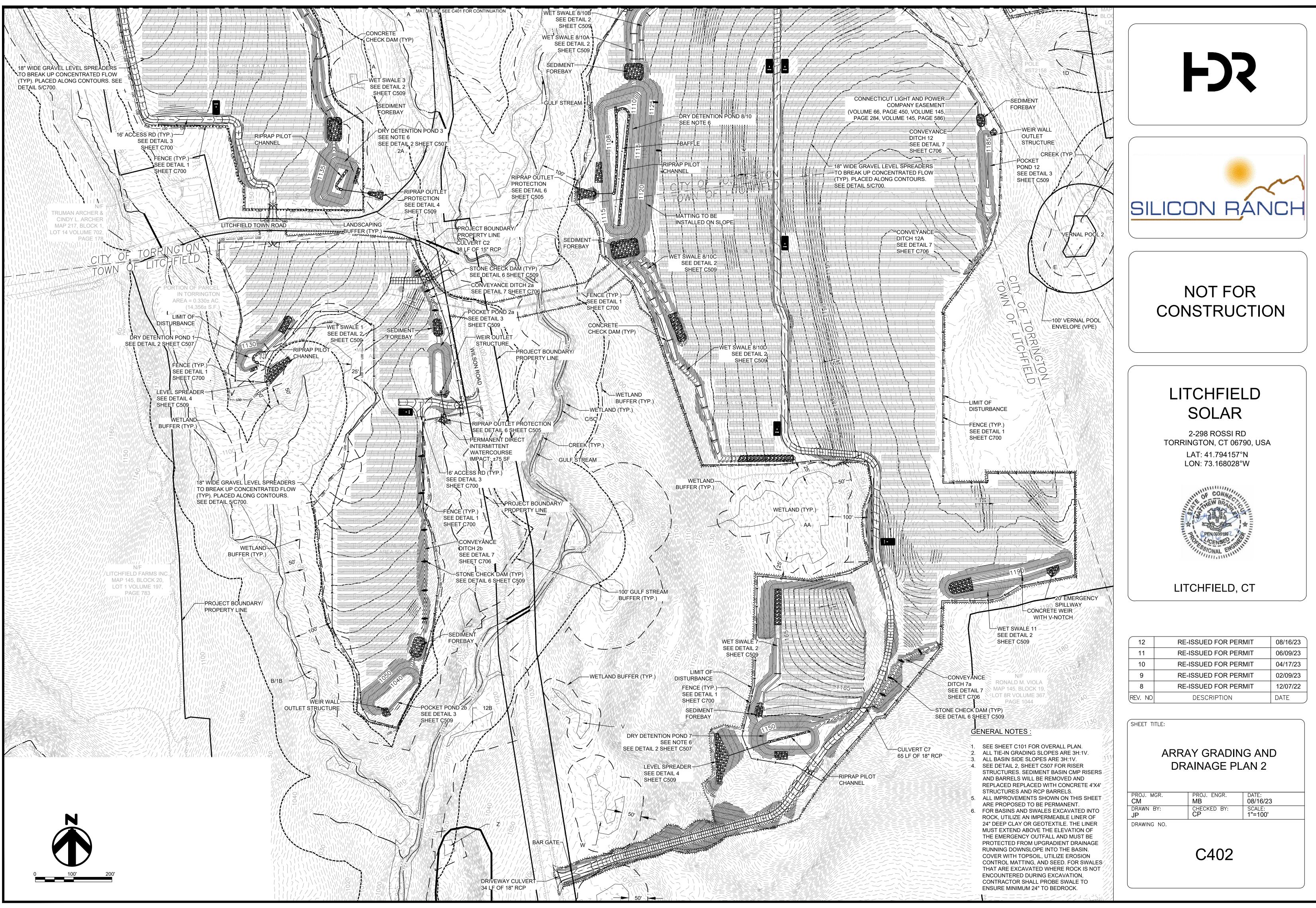
TREE CLEARING PLAN 1				
PROJ. MGR.	PROJ. ENGR.	DATE:		
CM	<b>MB</b>	08/16/23		
DRAWN BY:	CHECKED BY:	SCALE:		
JP	CP	1"=100'		
DRAWING NO.	C301			

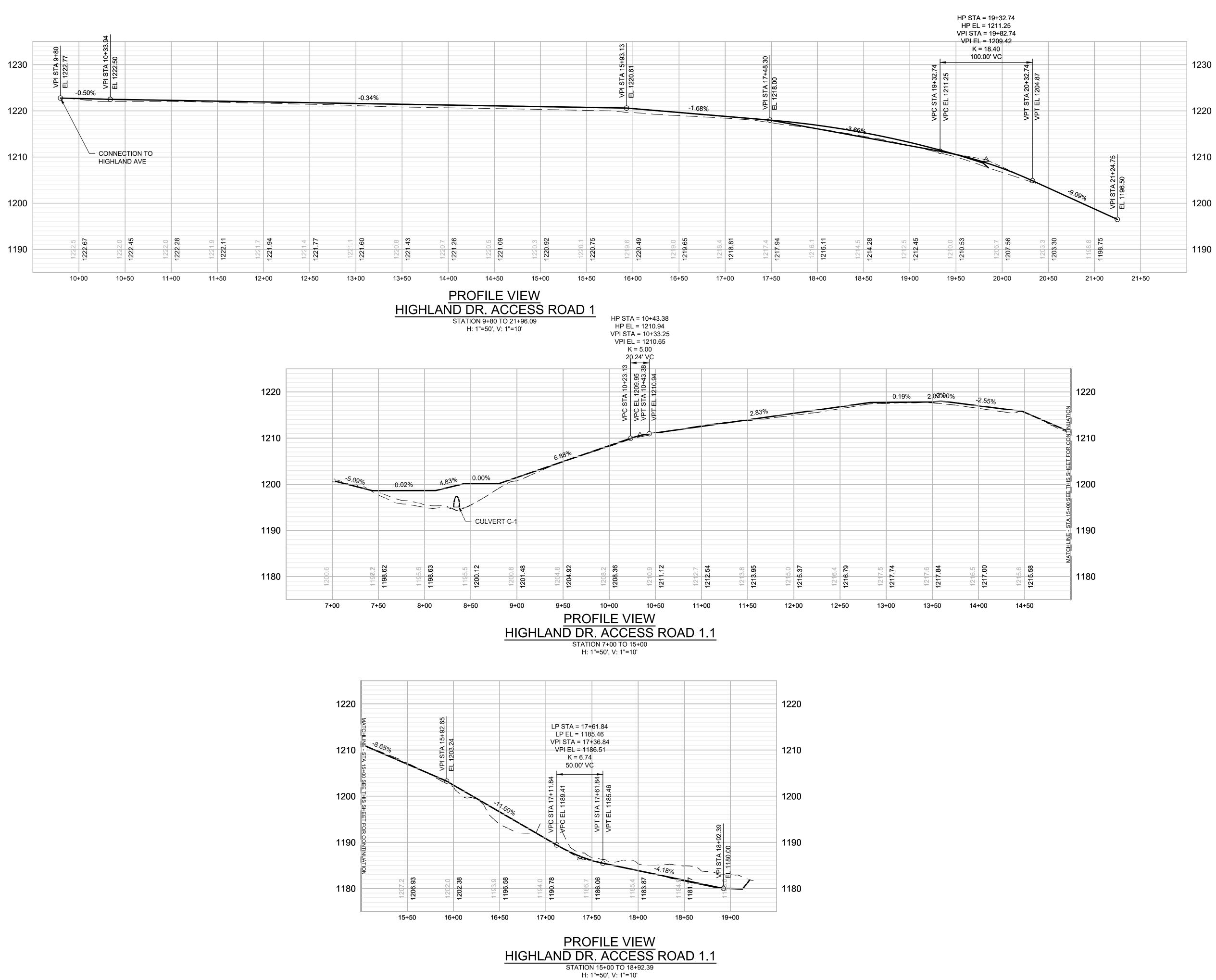


## FJS SILICON RANCH NOT FOR CONSTRUCTION LITCHFIELD SOLAR 2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W LITCHFIELD, CT **RE-ISSUED FOR PERMIT** 08/16/23 12 **RE-ISSUED FOR PERMIT** 06/09/23 11 **RE-ISSUED FOR PERMIT** 04/17/23 10 02/09/23 **RE-ISSUED FOR PERMIT** 9 **RE-ISSUED FOR PERMIT** 12/07/22 8 DATE DESCRIPTION (REV. NO SHEET TITLE: TREE CLEARING PLAN 2 PROJ. ENGR. MB CHECKED BY: CP DATE: 08/16/23 SCALE: 1"=100' PROJ. MGR. **CM** DRAWN BY: DRAWING NO.

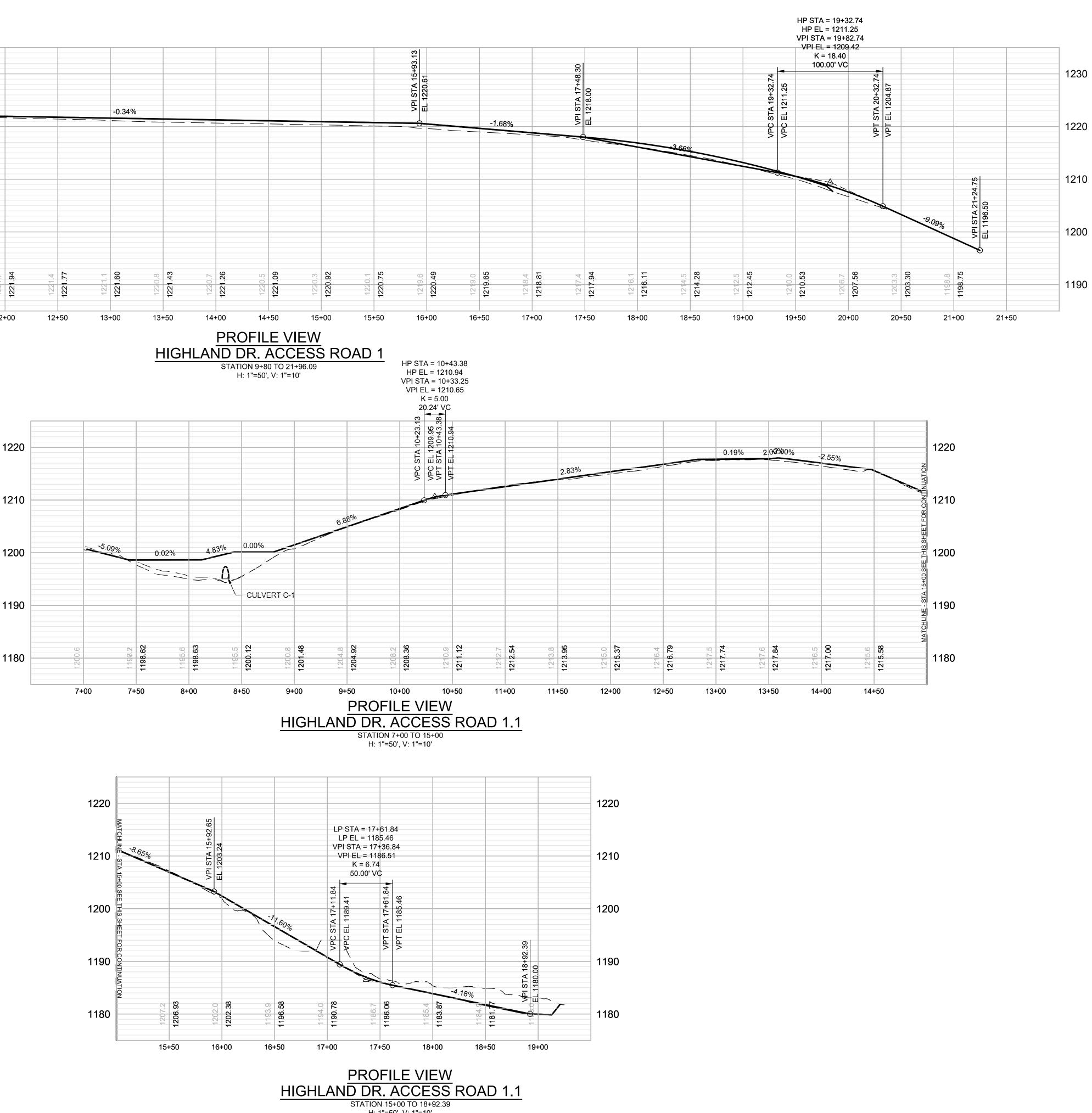
C302

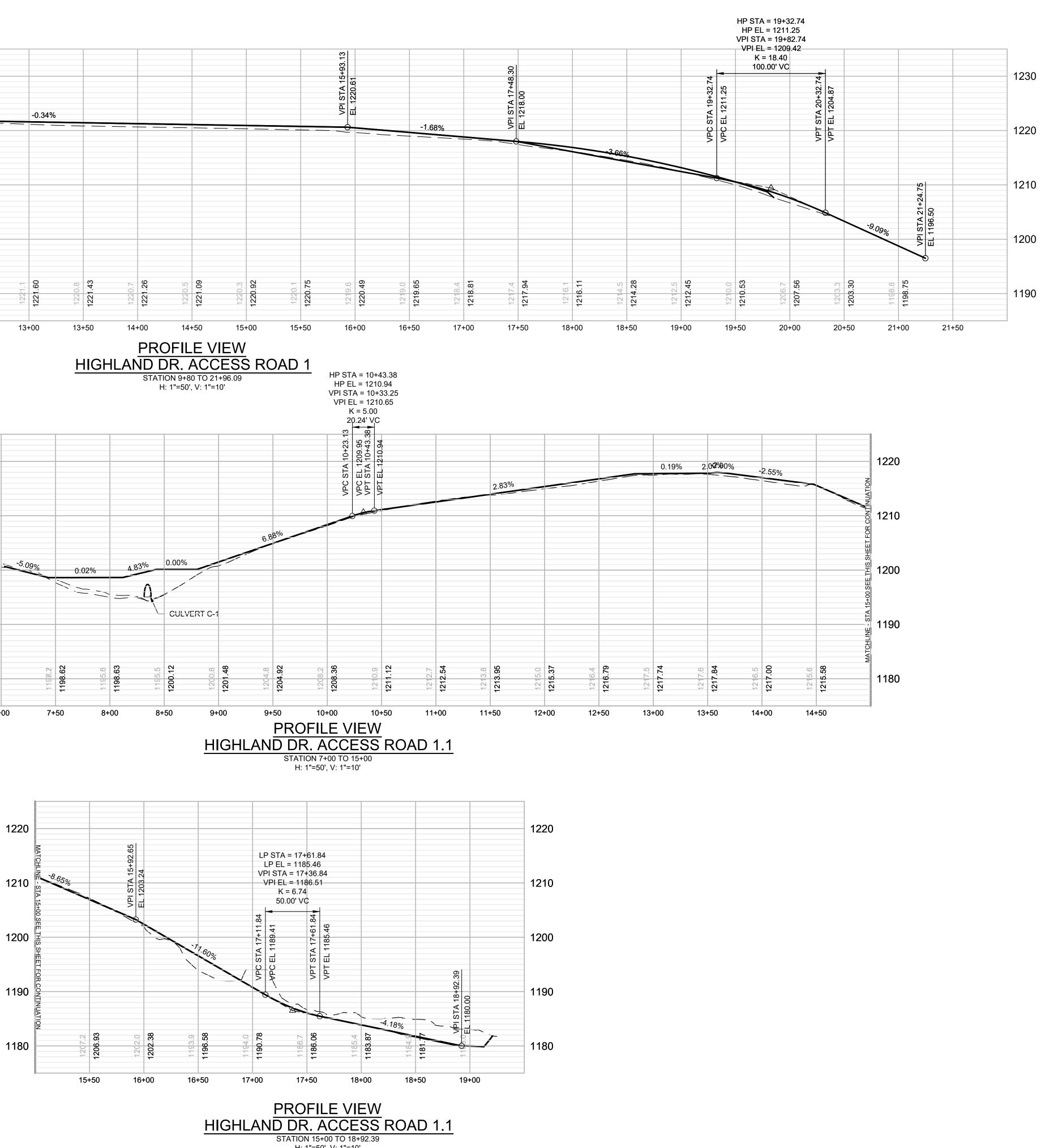


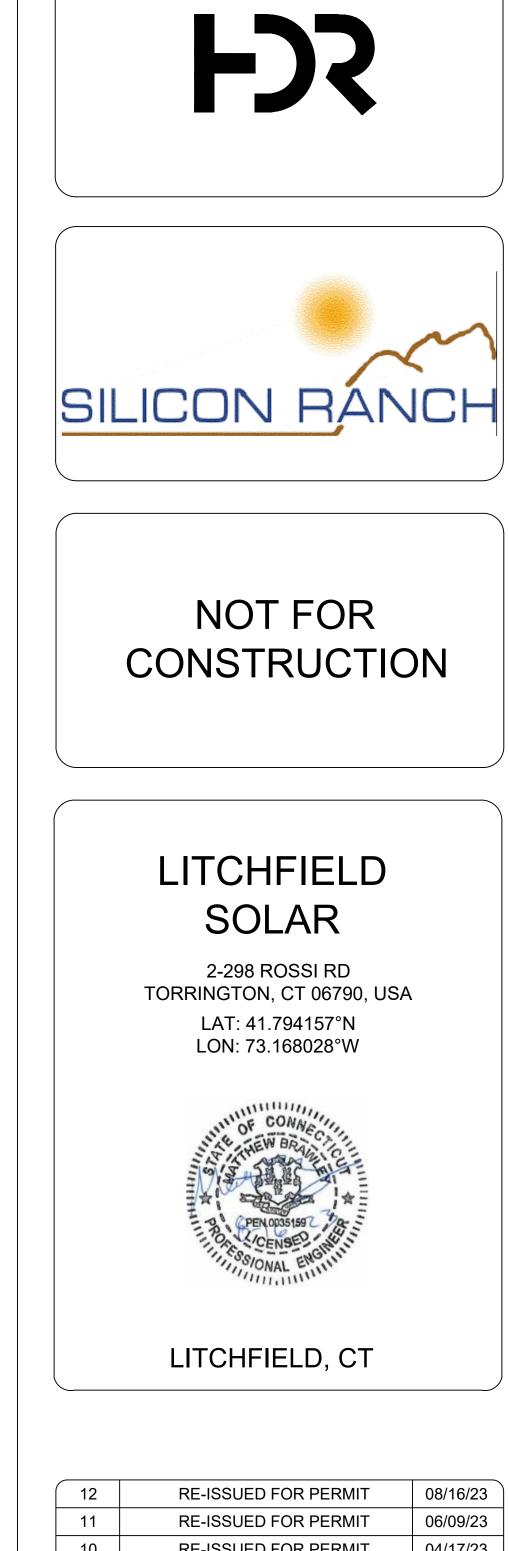










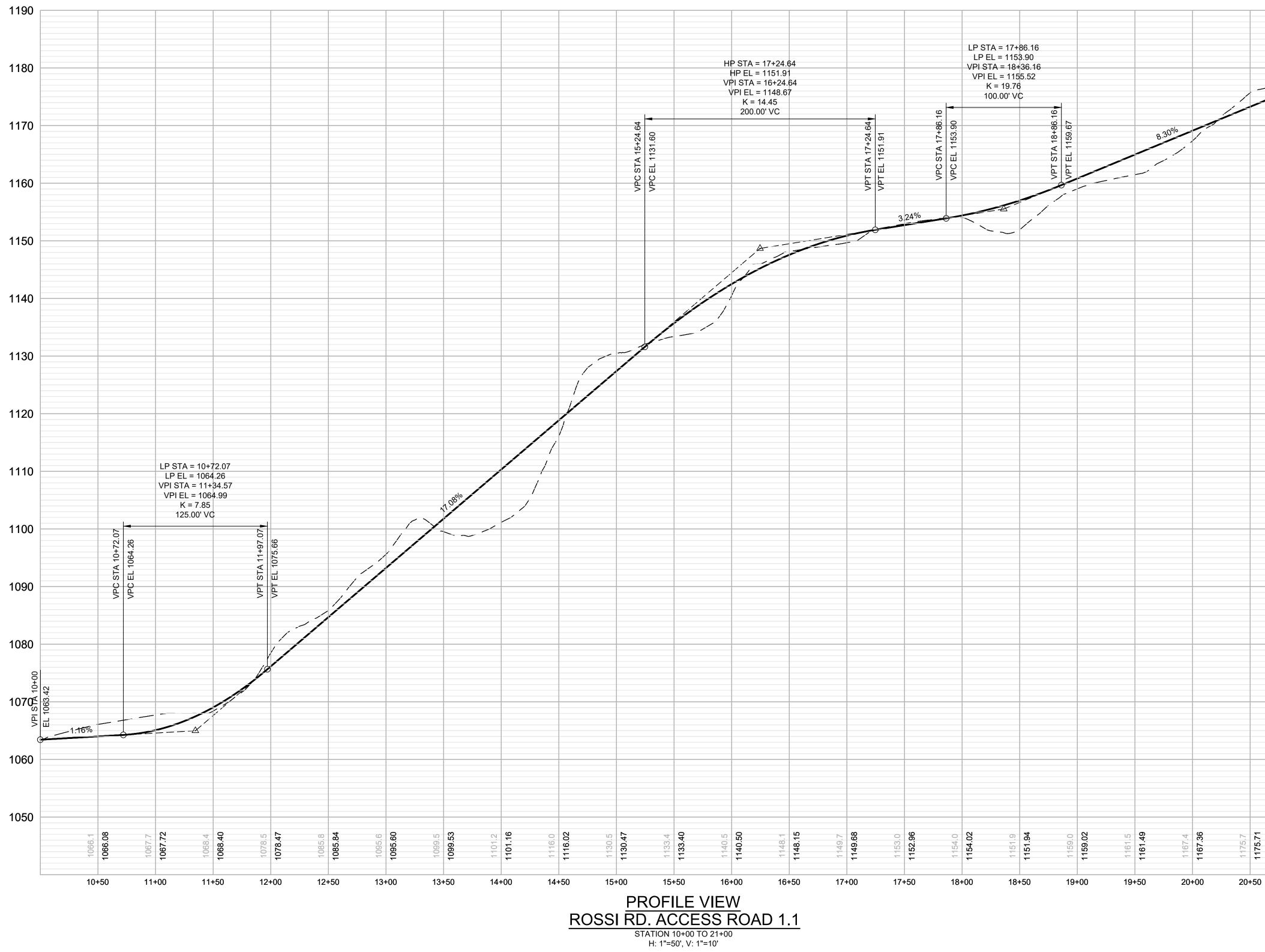


12	RE-ISSUED FOR PERMIT	08/16/23
11	RE-ISSUED FOR PERMIT	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

SHEET TITLE:

ACCESS ROAD PROFILES 1

PROJ. MGR. CM	PROJ. ENGR. MB	DATE: 08/16/23
DRAWN BY: JP	CHECKED BY: CP	SCALE: 1"=100'
DRAWING NO.		
	0400	
	C403	



## FJS SILICON RANCH NOT FOR CONSTRUCTION LITCHFIELD SOLAR 2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W LITCHFIELD, CT 08/16/23 **RE-ISSUED FOR PERMIT** 12 RE-ISSUED FOR PERMIT 06/09/23 11 10 RE-ISSUED FOR PERMIT 04/17/23

VPC STA 20+74.6 VPC EL 1175.31

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SHEET TITLE:

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ACCESS ROAD PROFILES 2

RE-ISSUED FOR PERMIT

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DESCRIPTION

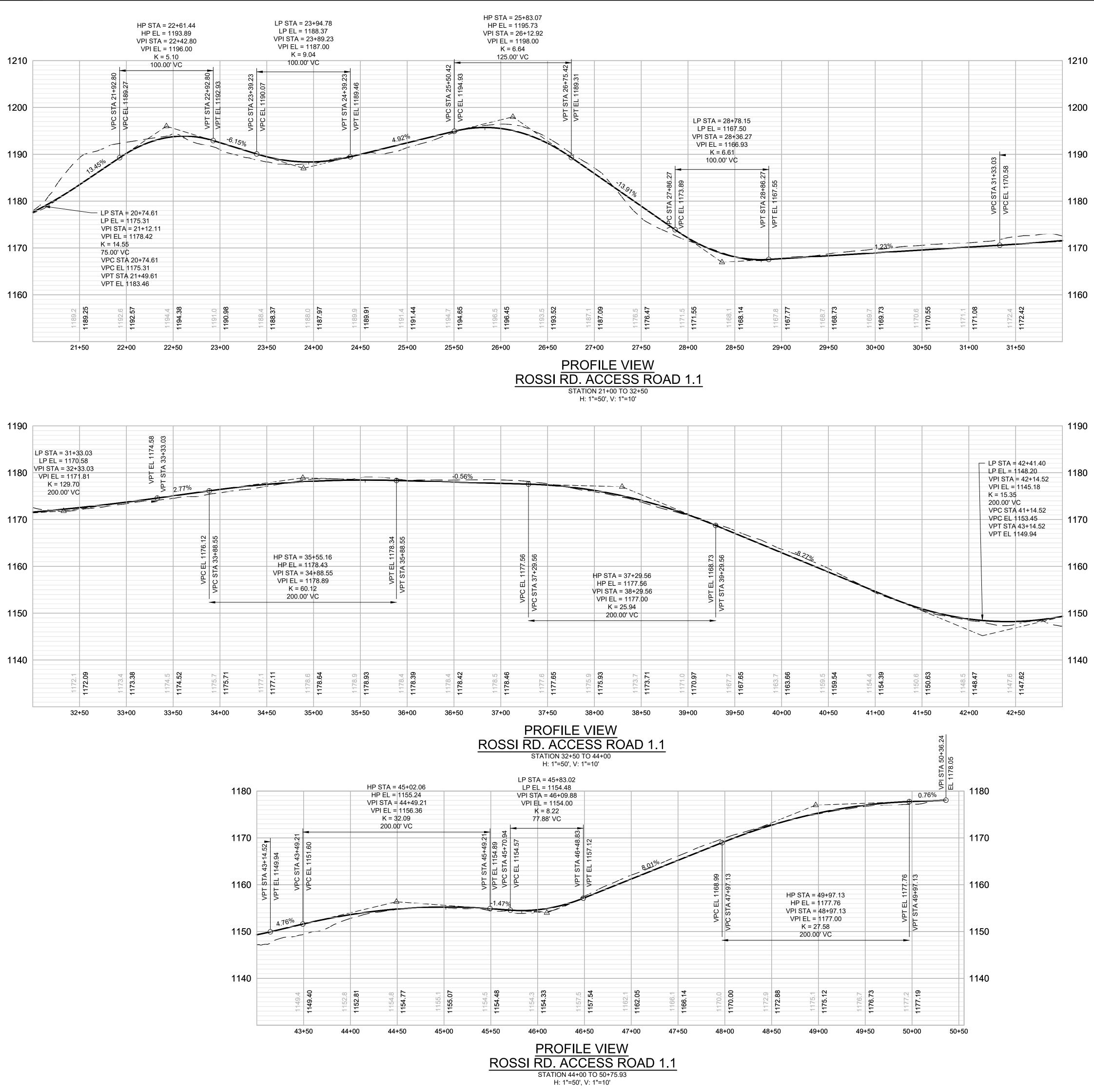
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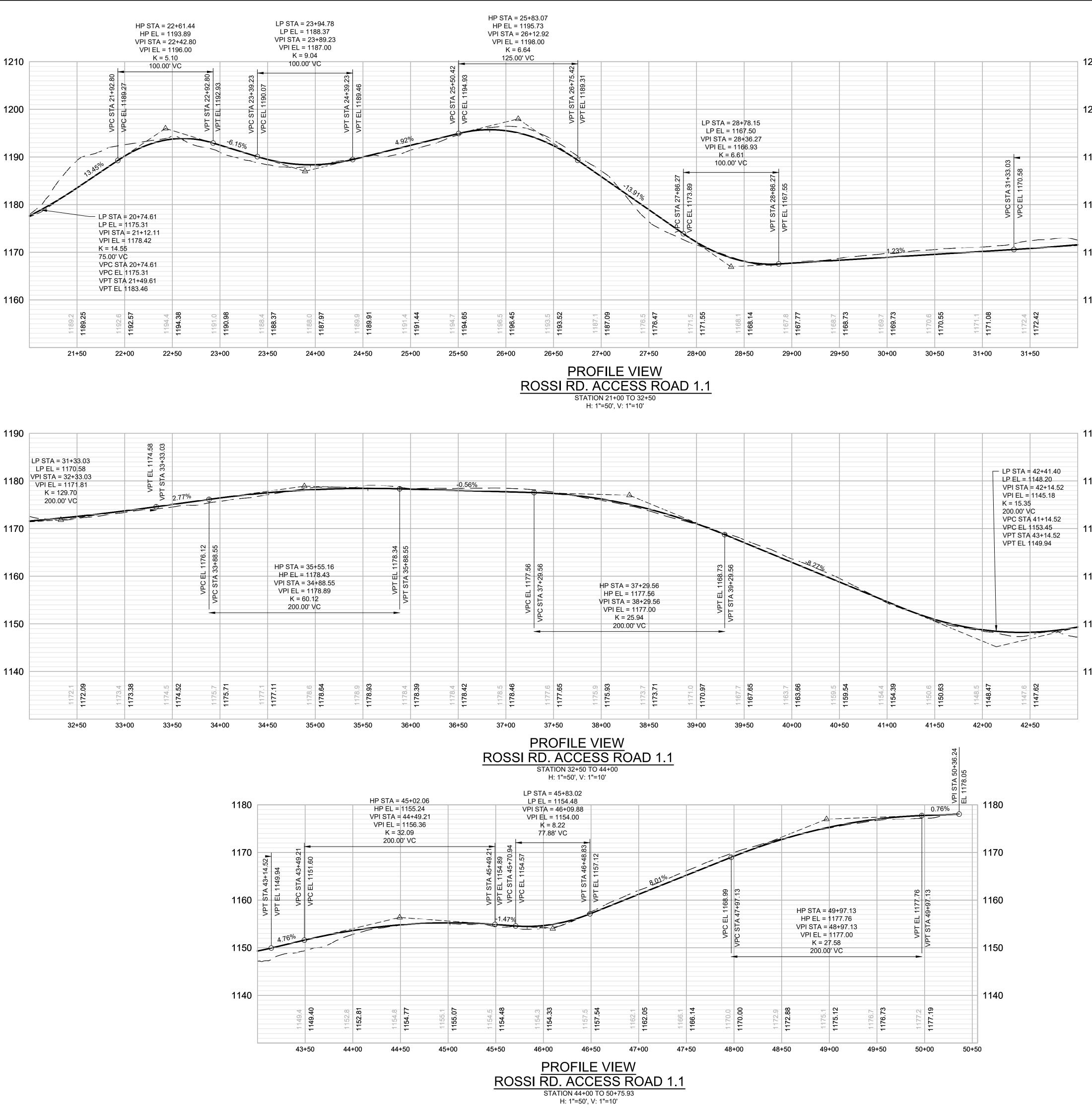
12/07/22

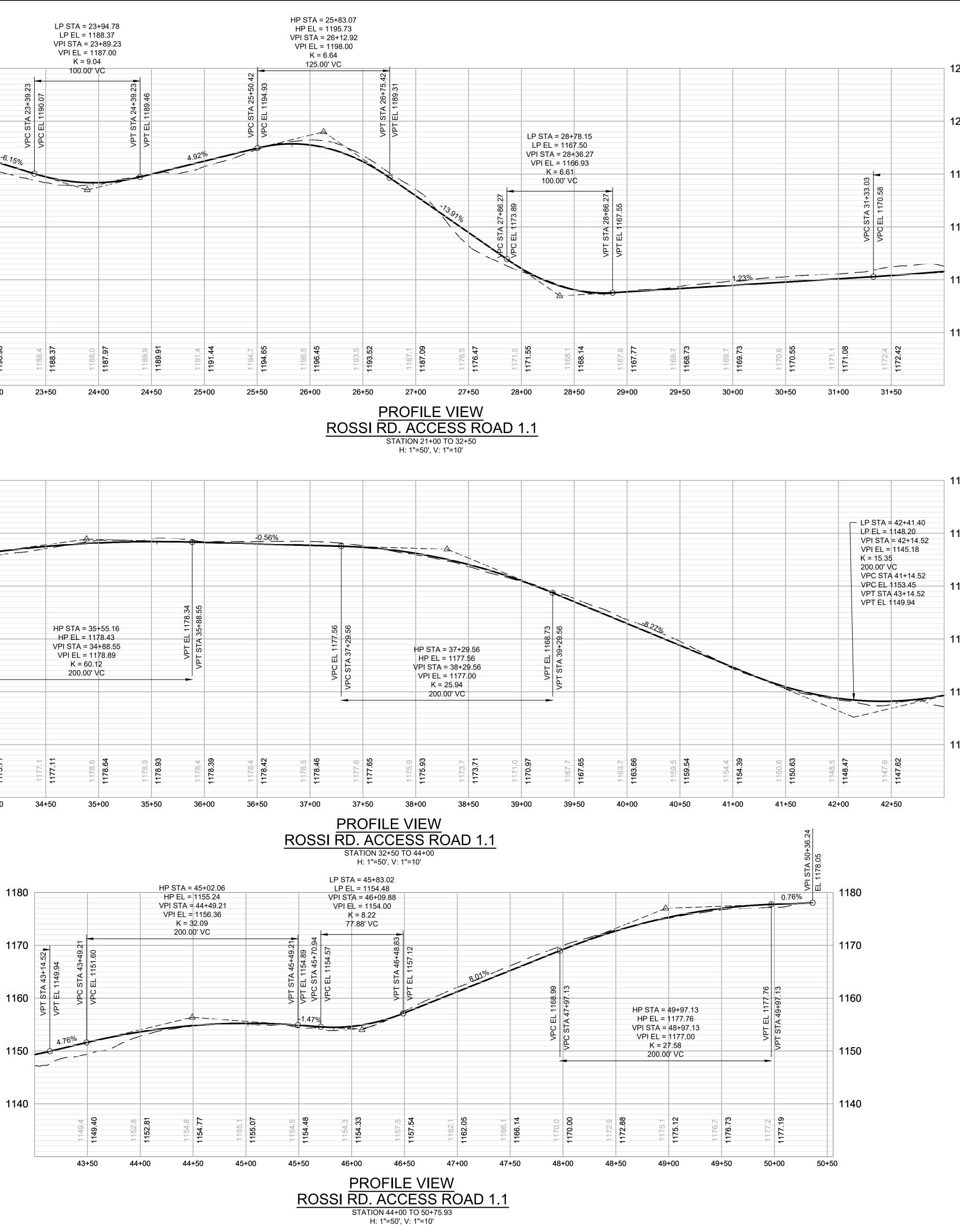
DATE

PROJ. MGR. CM	PROJ. ENGR. <b>MB</b>	DATE: 08/16/23			
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C404







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FJS

## NOT FOR CONSTRUCTION

SILICON RANCH

## LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W



## LITCHFIELD, CT

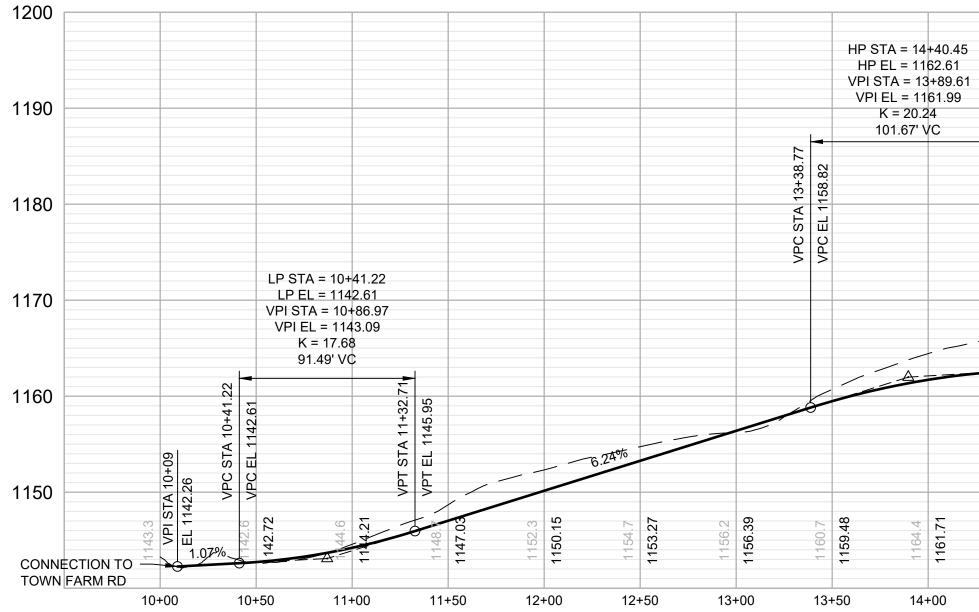
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11	RE-ISSUED FOR PERMIT	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

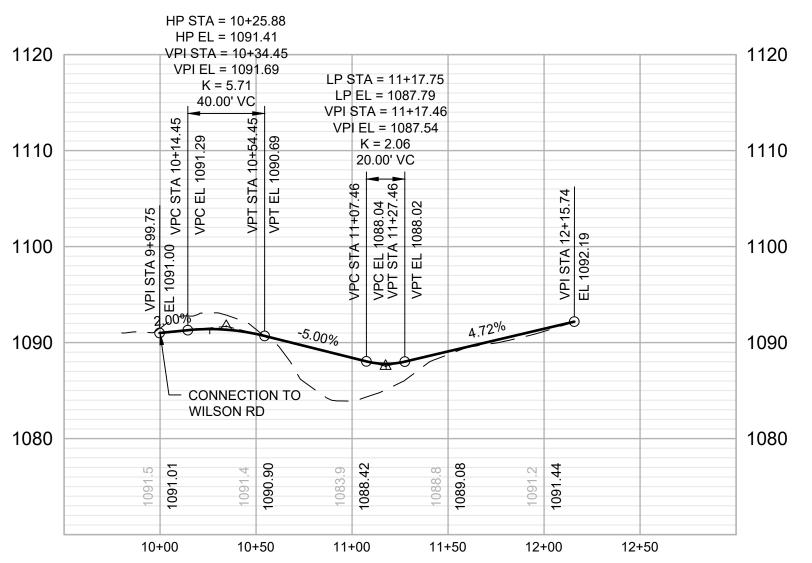
SHEET TITLE:

ACCESS ROAD PROFILES 3

PROJ. MGR. CM	PROJ. ENGR. <b>MB</b>	DATE: 08/16/23		
DRAWN BY: JP	CHECKED BY: CP	SCALE: 1"=100'		
DRAWING NO.				

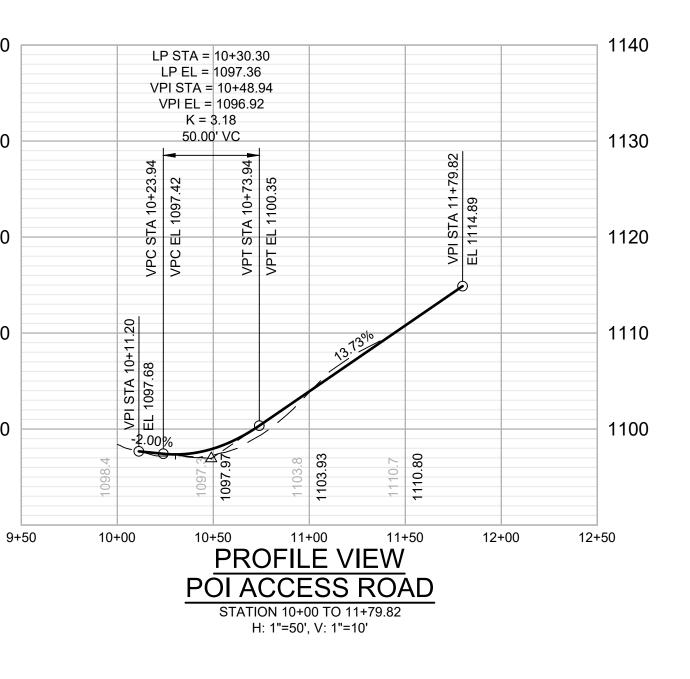
C405







1140



#### PROFILE VIEW WILSON RD. ACCESS ROAD STATION 9+80 TO 16+00 H: 1"=50', V: 1"=10'

LP STA = 14+85.18 LP EL = 1163.15 VPI STA = 15+57.22 VPI EL = 1164.03 K = 26.00 144.08' VC 6 6 62 14 

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# **FJS**



## NOT FOR CONSTRUCTION

## LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W



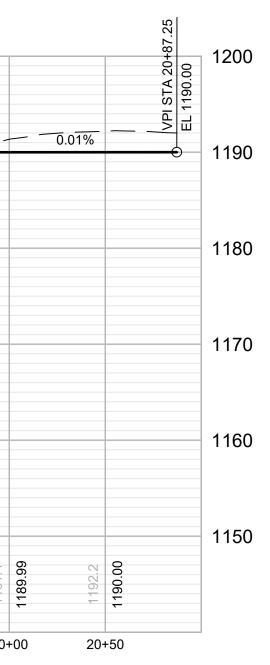
## LITCHFIELD, CT

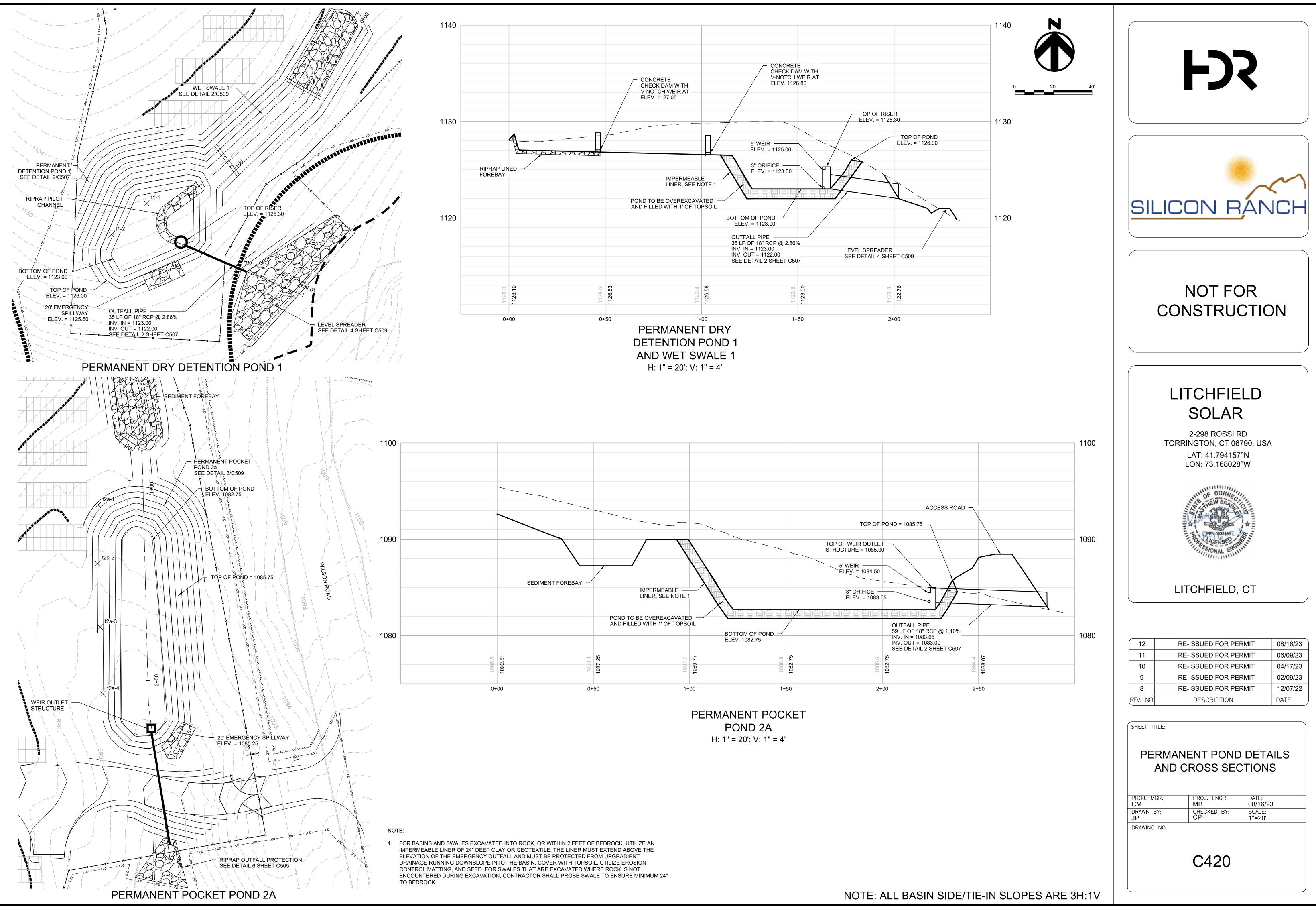
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11	RE-ISSUED FOR PERMIT	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

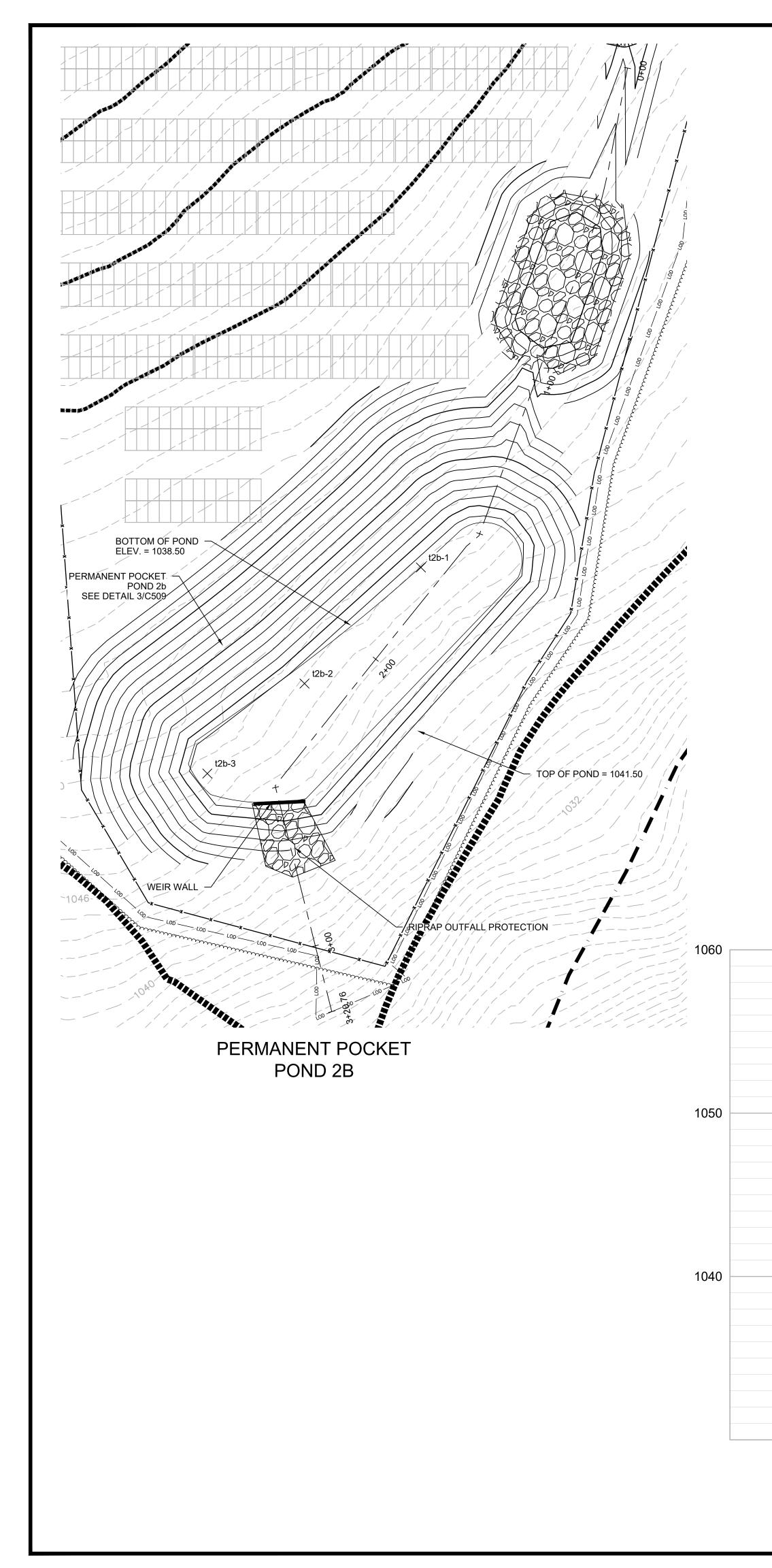
SHEET TITLE:

ACCESS ROAD PROFILES 4

PROJ. MGR.	PROJ. ENGR.	DATE:
СМ	MB	08/16/23
DRAWN BY:	CHECKED BY:	SCALE:
JP	CP	1"=100'
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	C406	

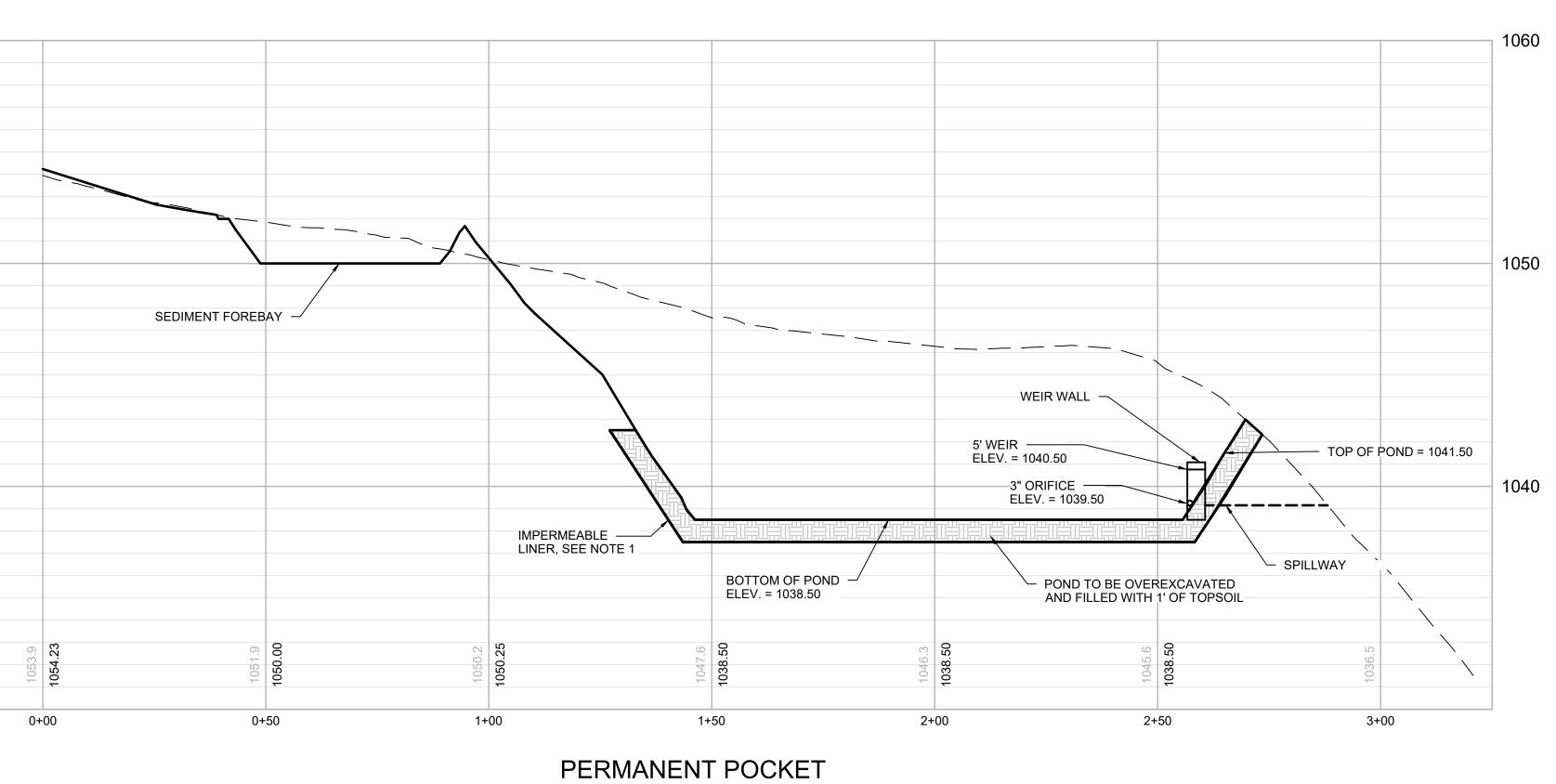






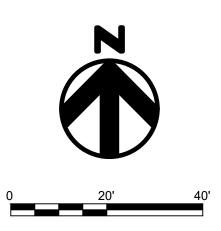
## NOTE: ALL BASIN SIDE/TIE-IN SLOPES ARE 3H:1V

#### POND 2B H: 1" = 20'; V: 1" = 4'

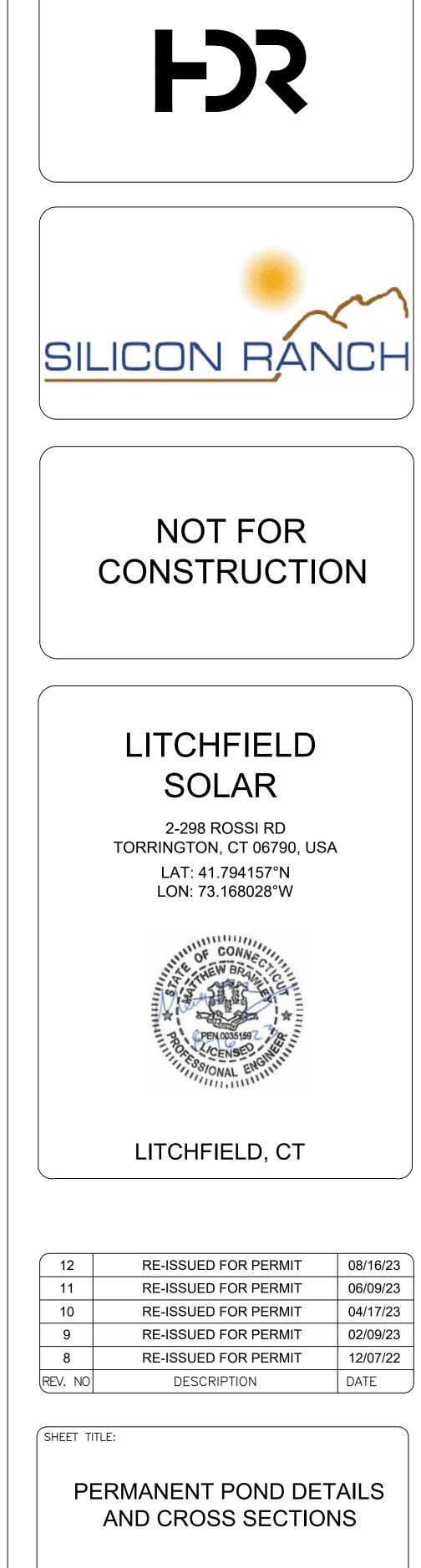


TO BEDROCK.

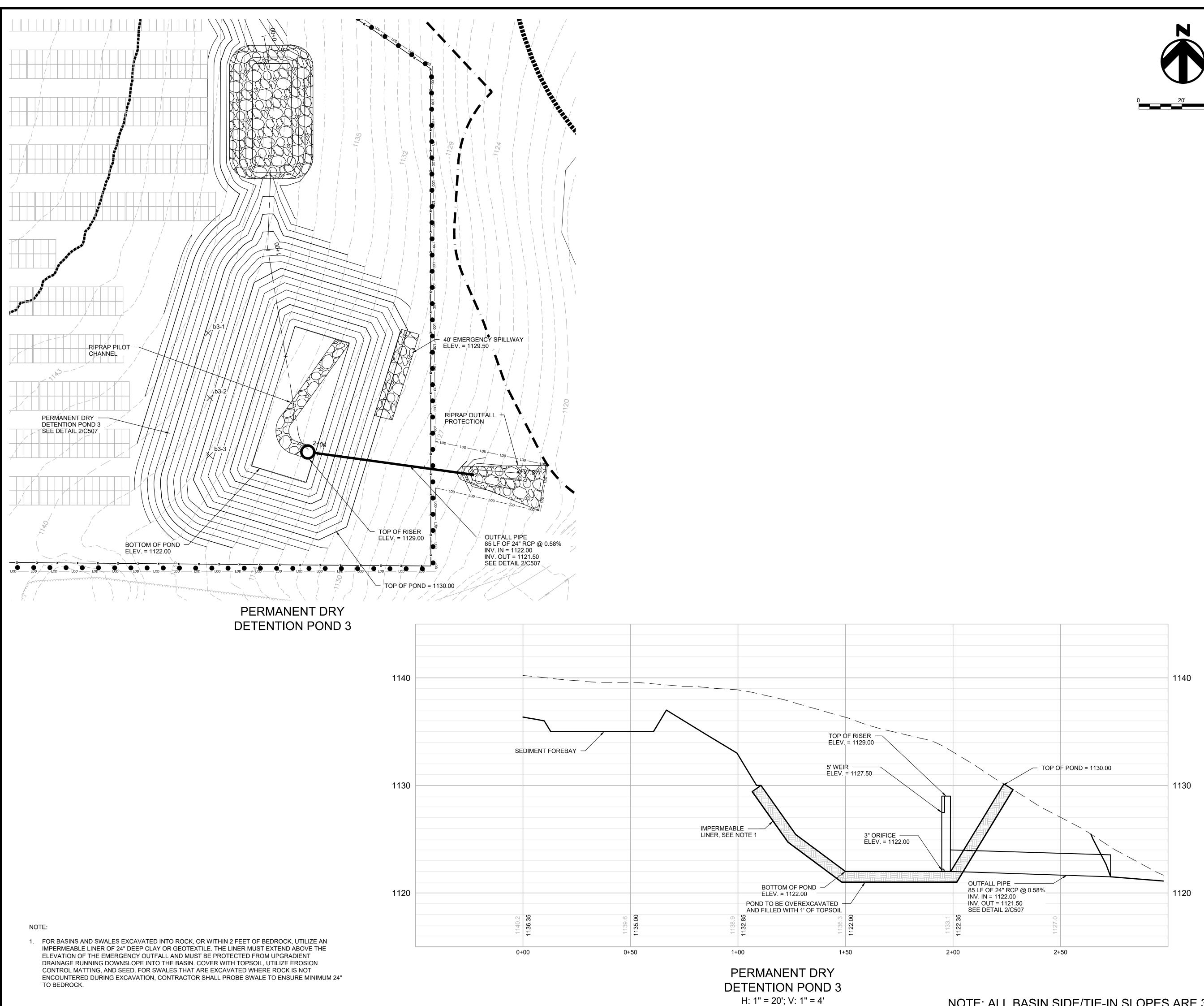
NOTE:



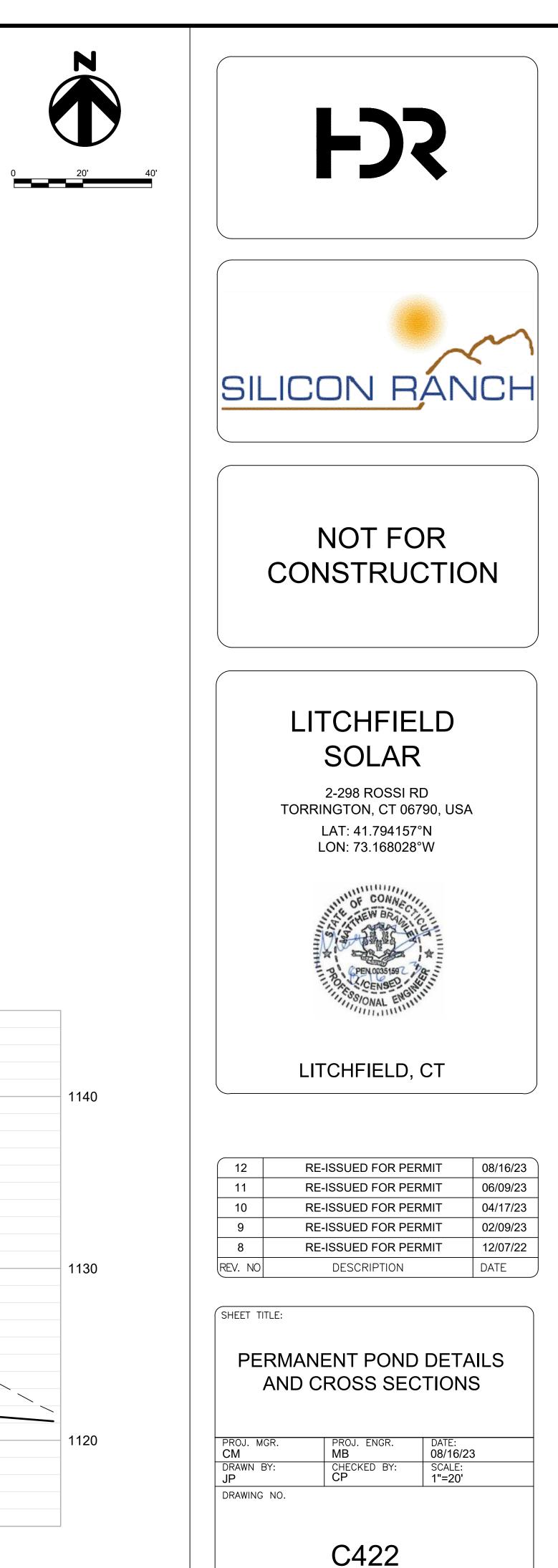
1. FOR BASINS AND SWALES EXCAVATED INTO ROCK, OR WITHIN 2 FEET OF BEDROCK, UTILIZE AN IMPERMEABLE LINER OF 24" DEEP CLAY OR GEOTEXTILE. THE LINER MUST EXTEND ABOVE THE ELEVATION OF THE EMERGENCY OUTFALL AND MUST BE PROTECTED FROM UPGRADIENT DRAINAGE RUNNING DOWNSLOPE INTO THE BASIN. COVER WITH TOPSOIL, UTILIZE EROSION CONTROL MATTING, AND SEED. FOR SWALES THAT ARE EXCAVATED WHERE ROCK IS NOT ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL PROBE SWALE TO ENSURE MINIMUM 24"

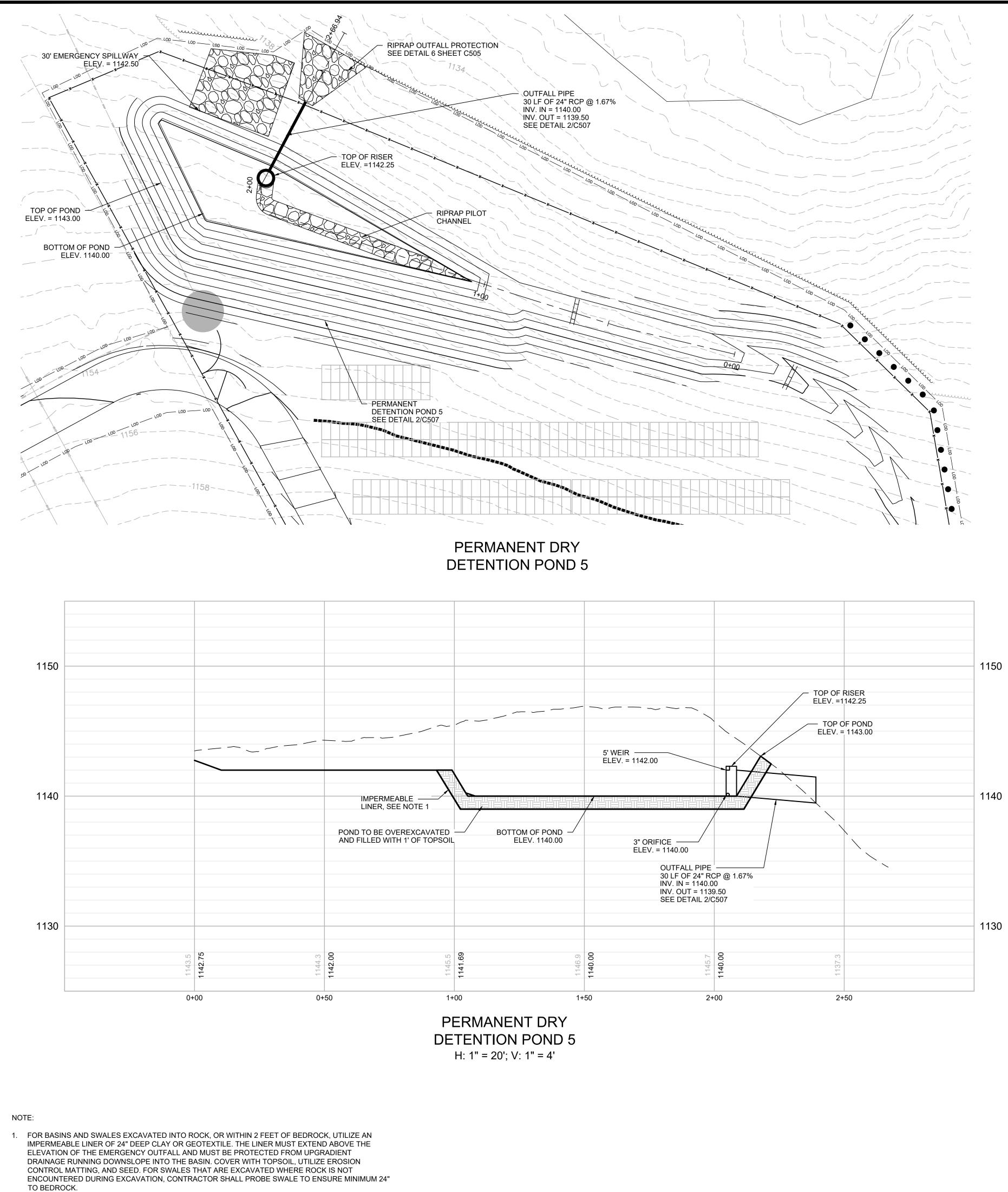


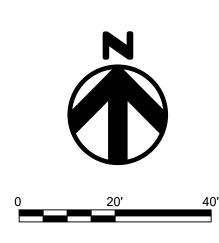
PROJ. MGR. CM	PROJ. ENGR. <b>MB</b>	DATE: 08/16/23
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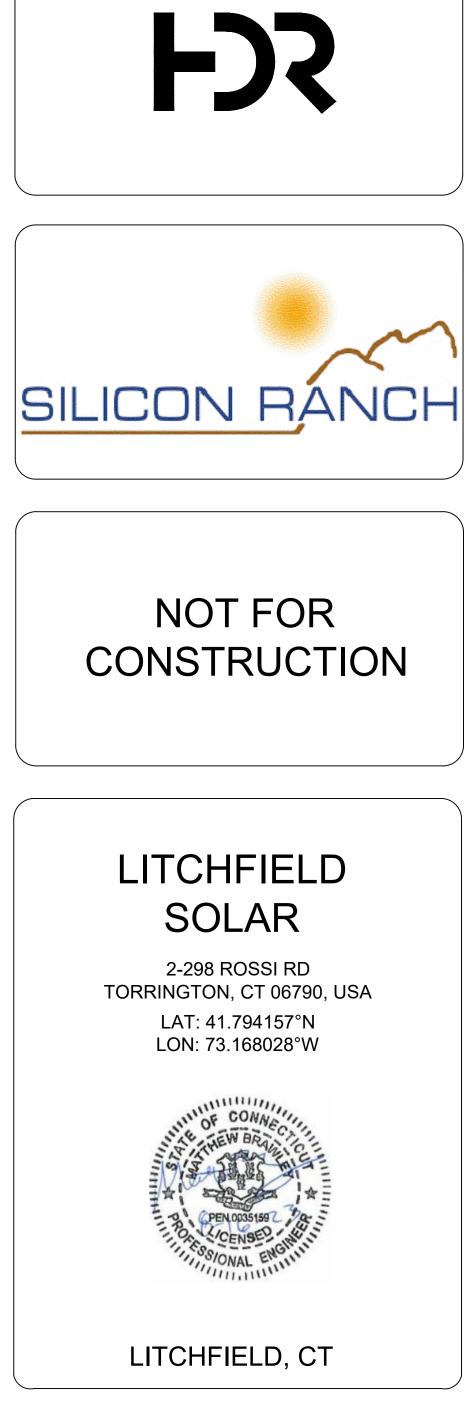


## NOTE: ALL BASIN SIDE/TIE-IN SLOPES ARE 3H:1V









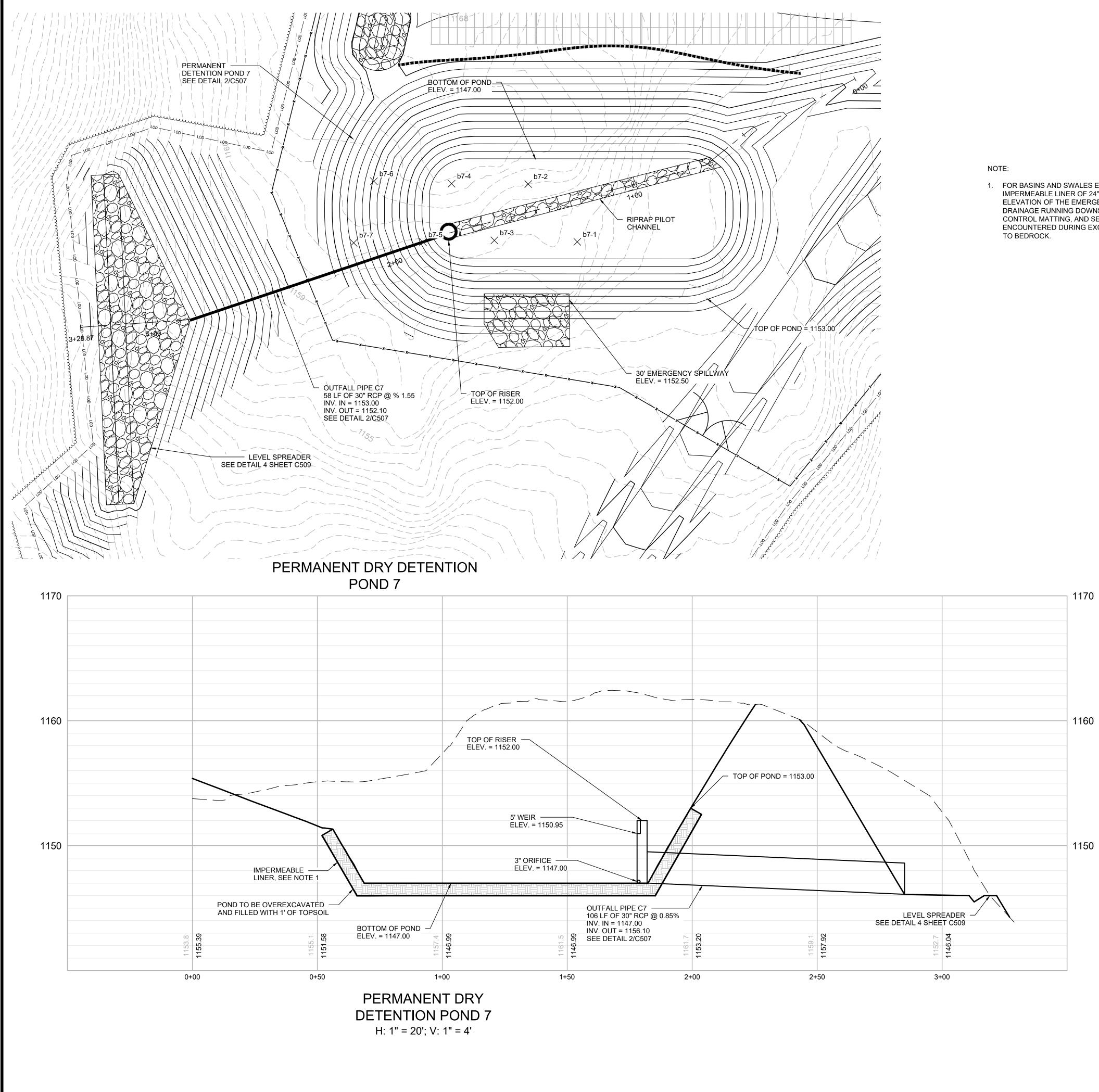
12	<b>RE-ISSUED FOR PERMIT</b>	08/16/23
11	<b>RE-ISSUED FOR PERMIT</b>	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

SHEET TITLE:

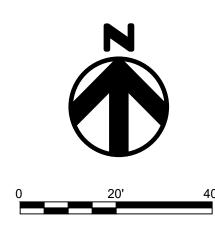
### PERMANENT POND DETAILS AND CROSS SECTIONS

PROJ. MGR.	PROJ. ENGR.	DATE:
CM	MB	08/16/23
DRAWN BY:	CHECKED BY:	SCALE:
JP	CP	1"=20'
DRAWING NO.		
	C423	

### NOTE: ALL BASIN SIDE/TIE-IN SLOPES ARE 3H:1V



1. FOR BASINS AND SWALES EXCAVATED INTO ROCK, OR WITHIN 2 FEET OF BEDROCK, UTILIZE AN IMPERMEABLE LINER OF 24" DEEP CLAY OR GEOTEXTILE. THE LINER MUST EXTEND ABOVE THE ELEVATION OF THE EMERGENCY OUTFALL AND MUST BE PROTECTED FROM UPGRADIENT DRAINAGE RUNNING DOWNSLOPE INTO THE BASIN. COVER WITH TOPSOIL, UTILIZE EROSION CONTROL MATTING, AND SEED. FOR SWALES THAT ARE EXCAVATED WHERE ROCK IS NOT ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL PROBE SWALE TO ENSURE MINIMUM 24"





## NOT FOR CONSTRUCTION

SILICON RANCH

## LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W



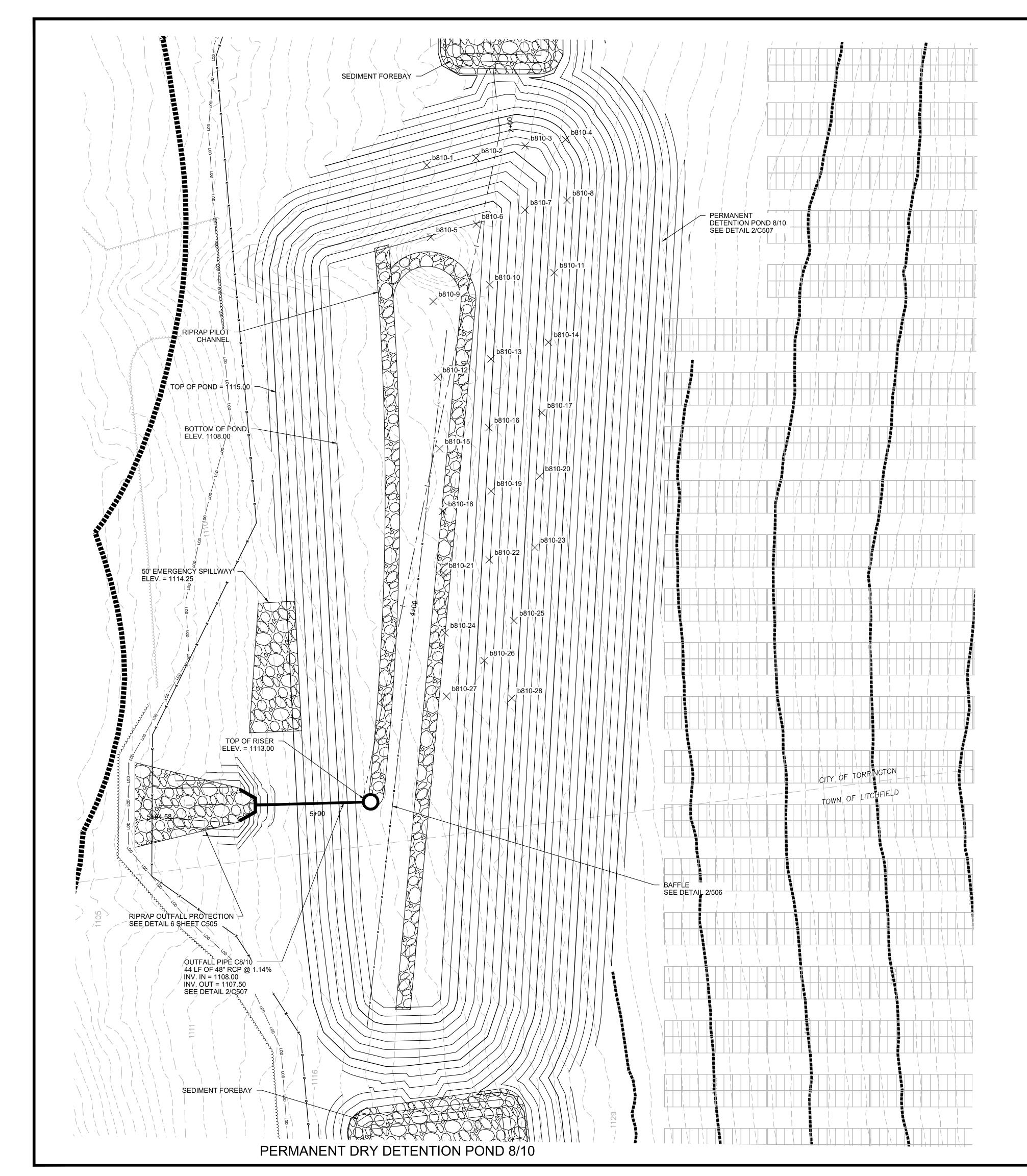
## LITCHFIELD, CT

12	<b>RE-ISSUED FOR PERMIT</b>	08/16/23
11	<b>RE-ISSUED FOR PERMIT</b>	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
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REV. NO	DESCRIPTION	DATE

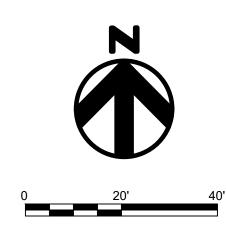
SHEET TITLE:

### PERMANENT POND DETAILS AND CROSS SECTIONS

PROJ. ENGR. MB	DATE: 08/16/23
CHECKED BY: CP	SCALE: 1"=20'
C424	
	MB CHECKED BY: CP



NOTE:



1. FOR BASINS AND SWALES EXCAVATED INTO ROCK, OR WITHIN 2 FEET OF BEDROCK, UTILIZE AN IMPERMEABLE LINER OF 24" DEEP CLAY OR GEOTEXTILE. THE LINER MUST EXTEND ABOVE THE ELEVATION OF THE EMERGENCY OUTFALL AND MUST BE PROTECTED FROM UPGRADIENT DRAINAGE RUNNING DOWNSLOPE INTO THE BASIN. COVER WITH TOPSOIL, UTILIZE EROSION CONTROL MATTING, AND SEED. FOR SWALES THAT ARE EXCAVATED WHERE ROCK IS NOT ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL PROBE SWALE TO ENSURE MINIMUM 24"



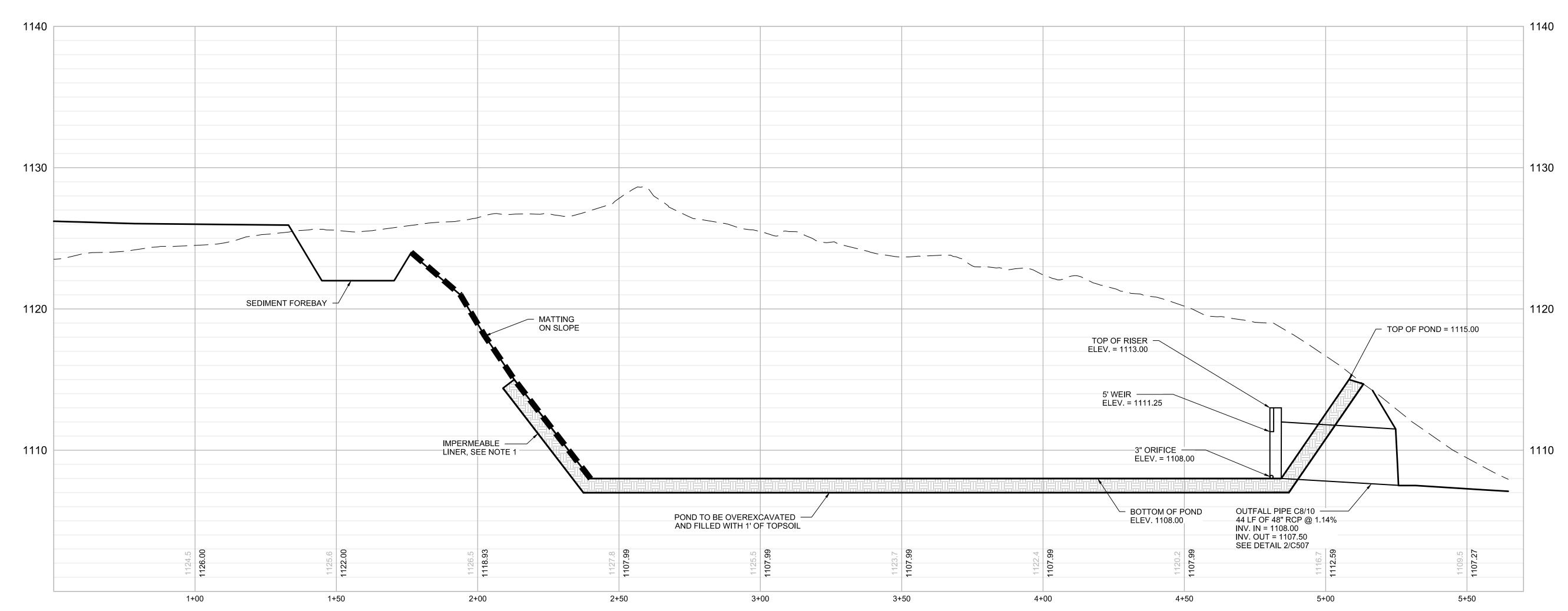
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11	RE-ISSUED FOR PERMIT	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

SHEET TITLE:

## PERMANENT POND DETAILS AND CROSS SECTIONS

PROJ. MGR. CM	PROJ. ENGR. MB	DATE: 08/16/23
DRAWN BY: JP	CHECKED BY: CP	SCALE: 1"=20'
DRAWING NO.		
	C425	
	0420	

TO BEDROCK.

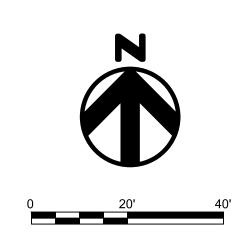


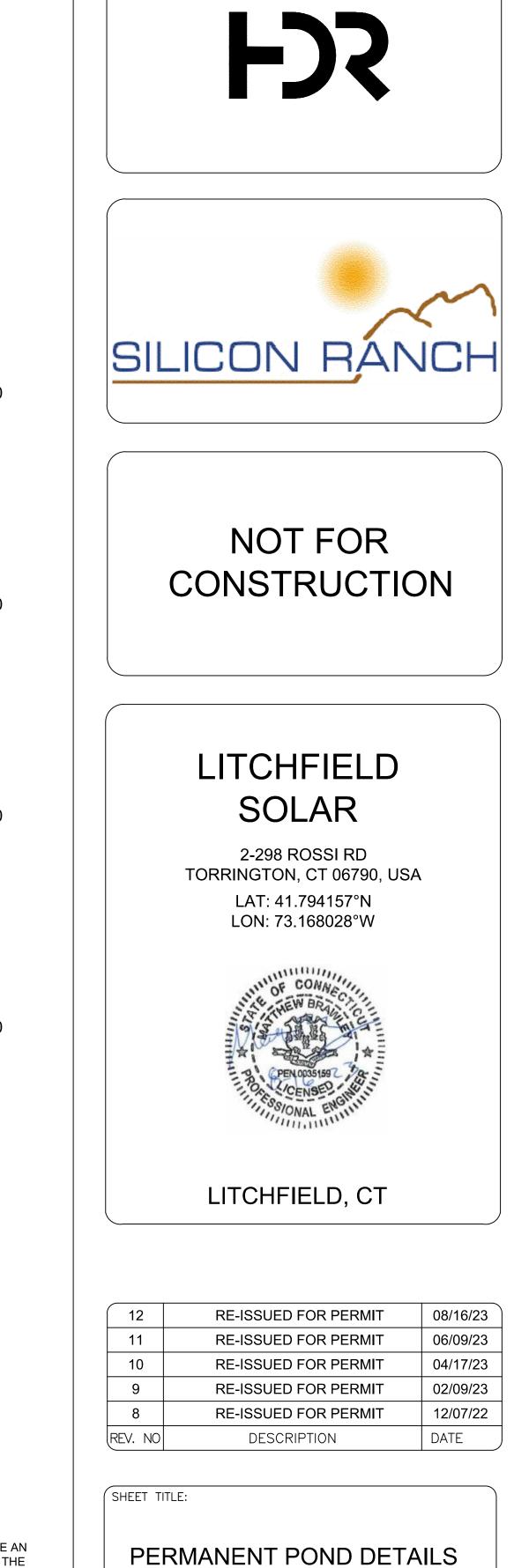
NOTE:

TO BEDROCK.

#### PERMANENT DRY **DETENTION POND 8/10** H: 1" = 20'; V: 1" = 4'

NOTE: ALL BASIN SIDE/TIE-IN SLOPES ARE 3H:1V

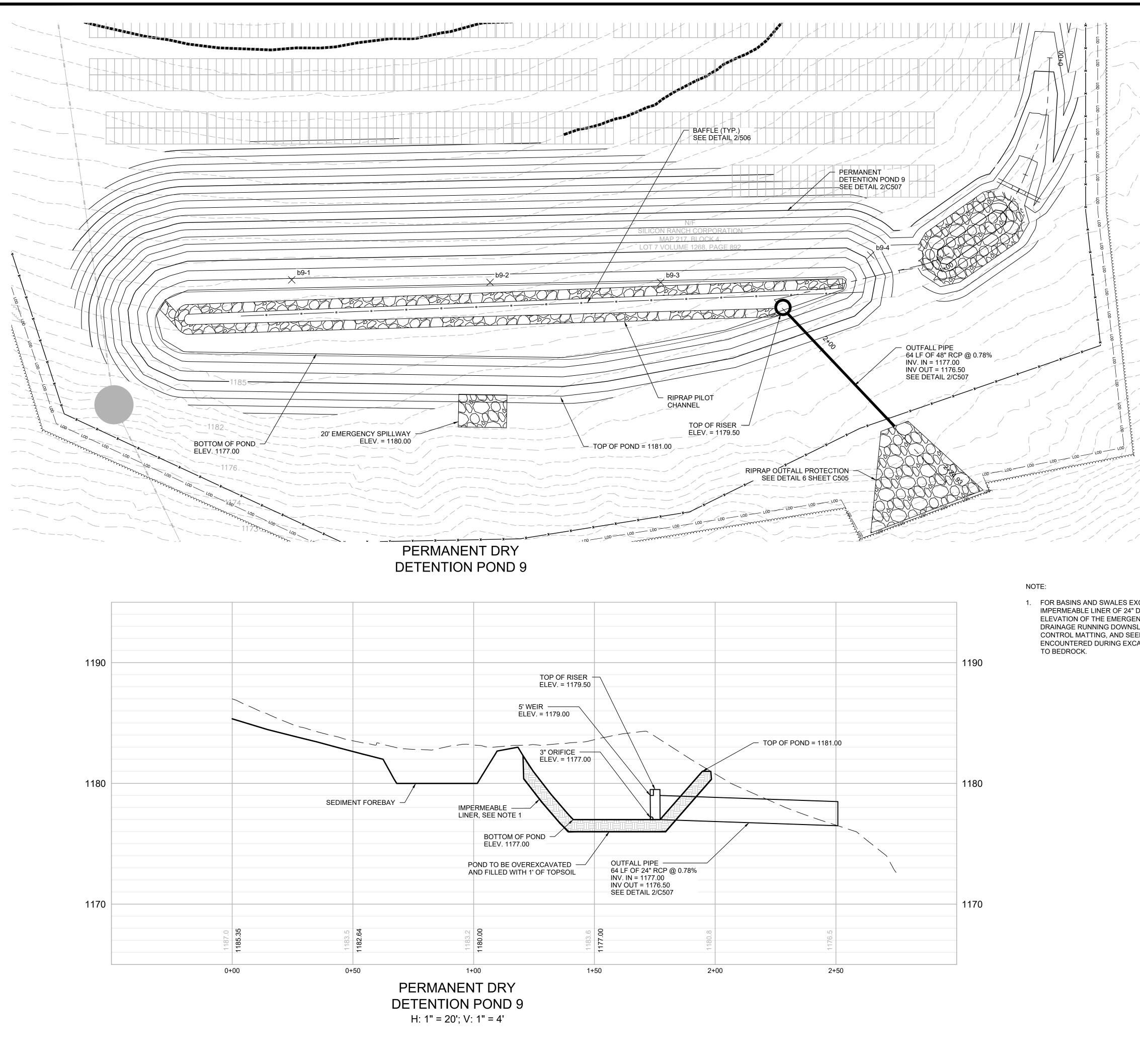


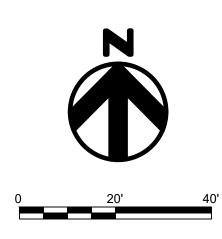


## AND CROSS SECTIONS

PROJ. MGR. CM	PROJ. ENGR. MB	DATE: 08/16/23
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DRAWING NO.		
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	<b>0420</b>	

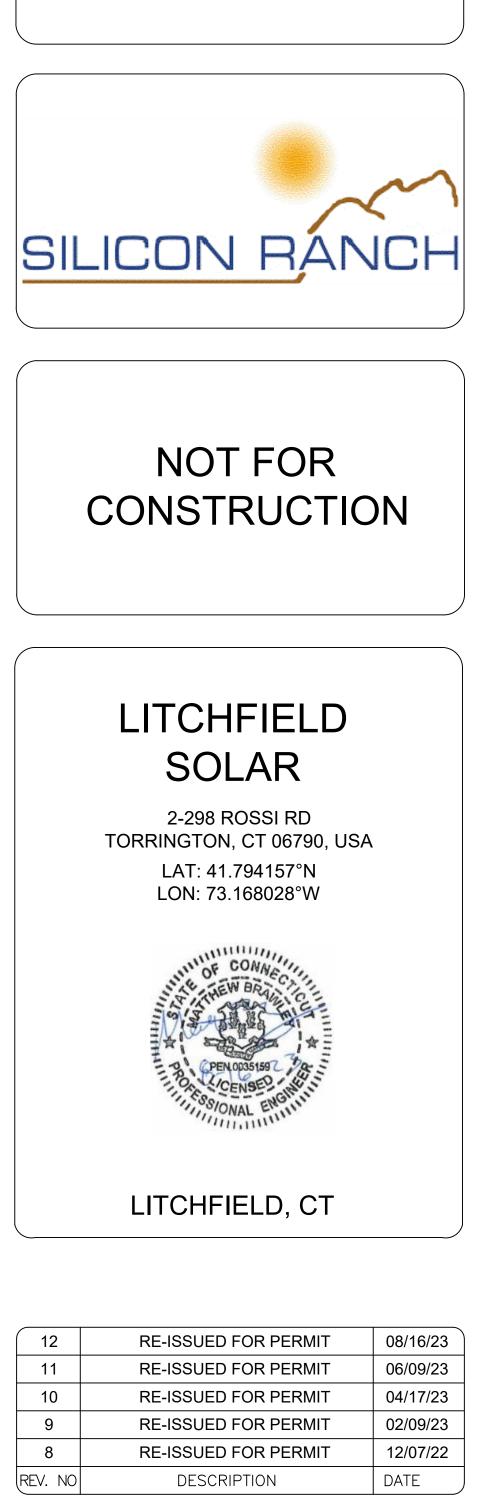
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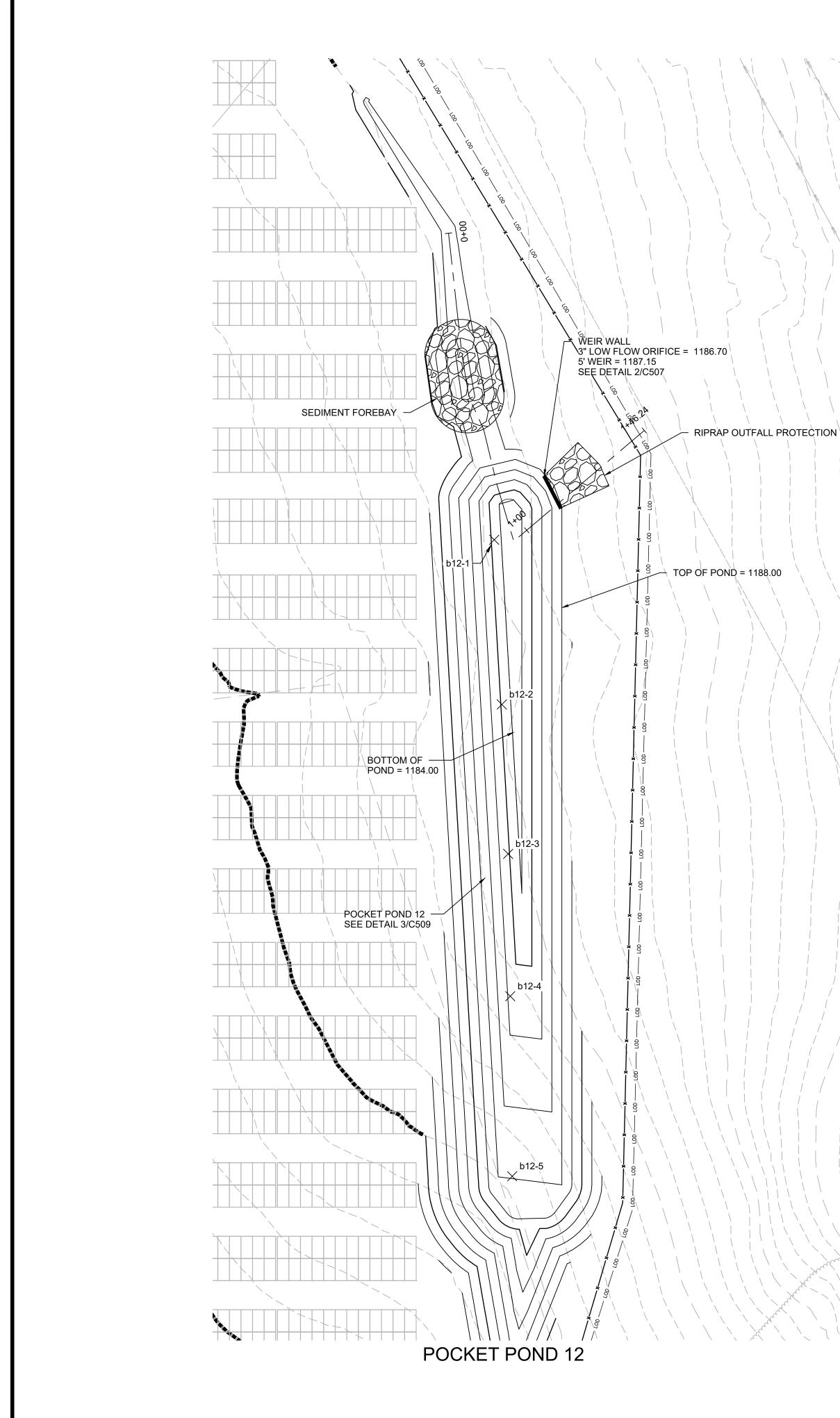


FJS

SHEET TITLE:

#### PERMANENT POND DETAILS AND CROSS SECTIONS

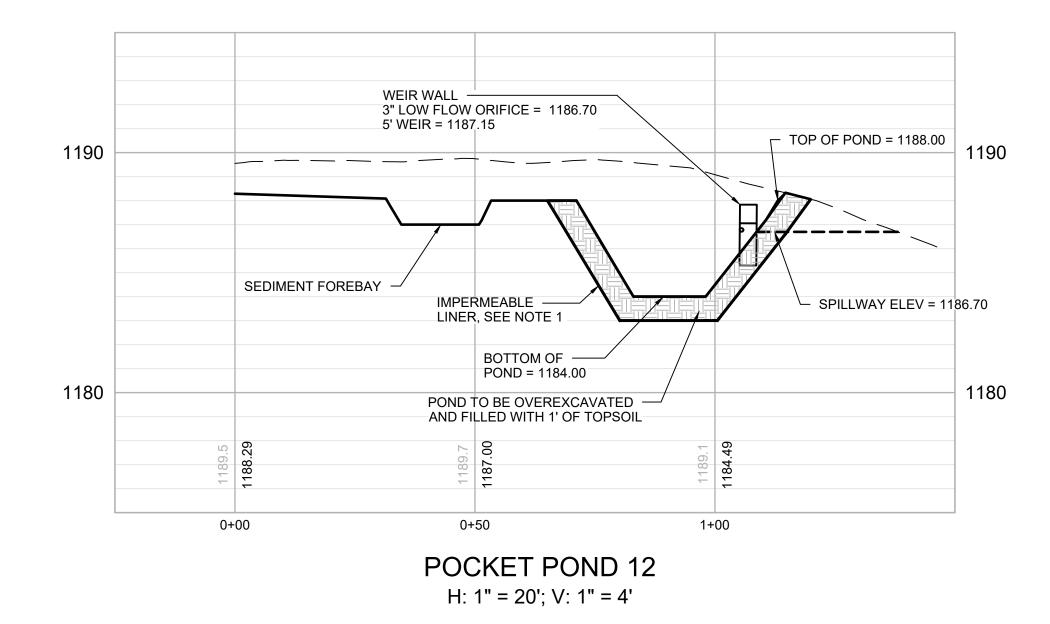
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DRAWN BY: JP	CHECKED BY: CP	SCALE: 1"=20'
DRAWING NO.		
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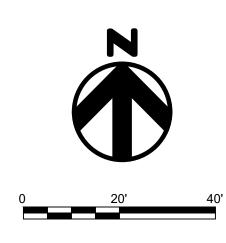


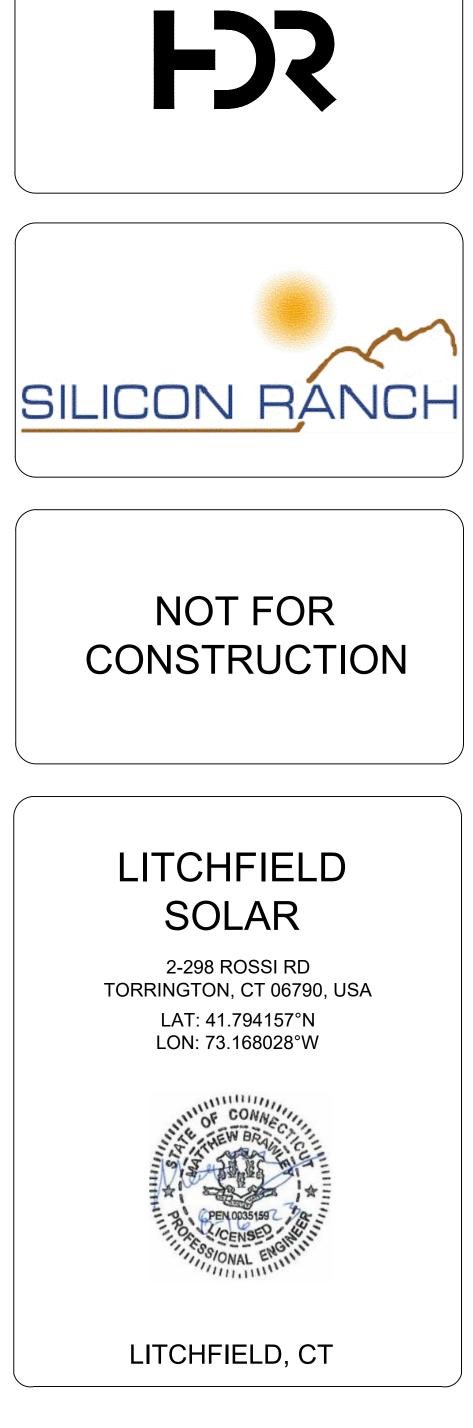
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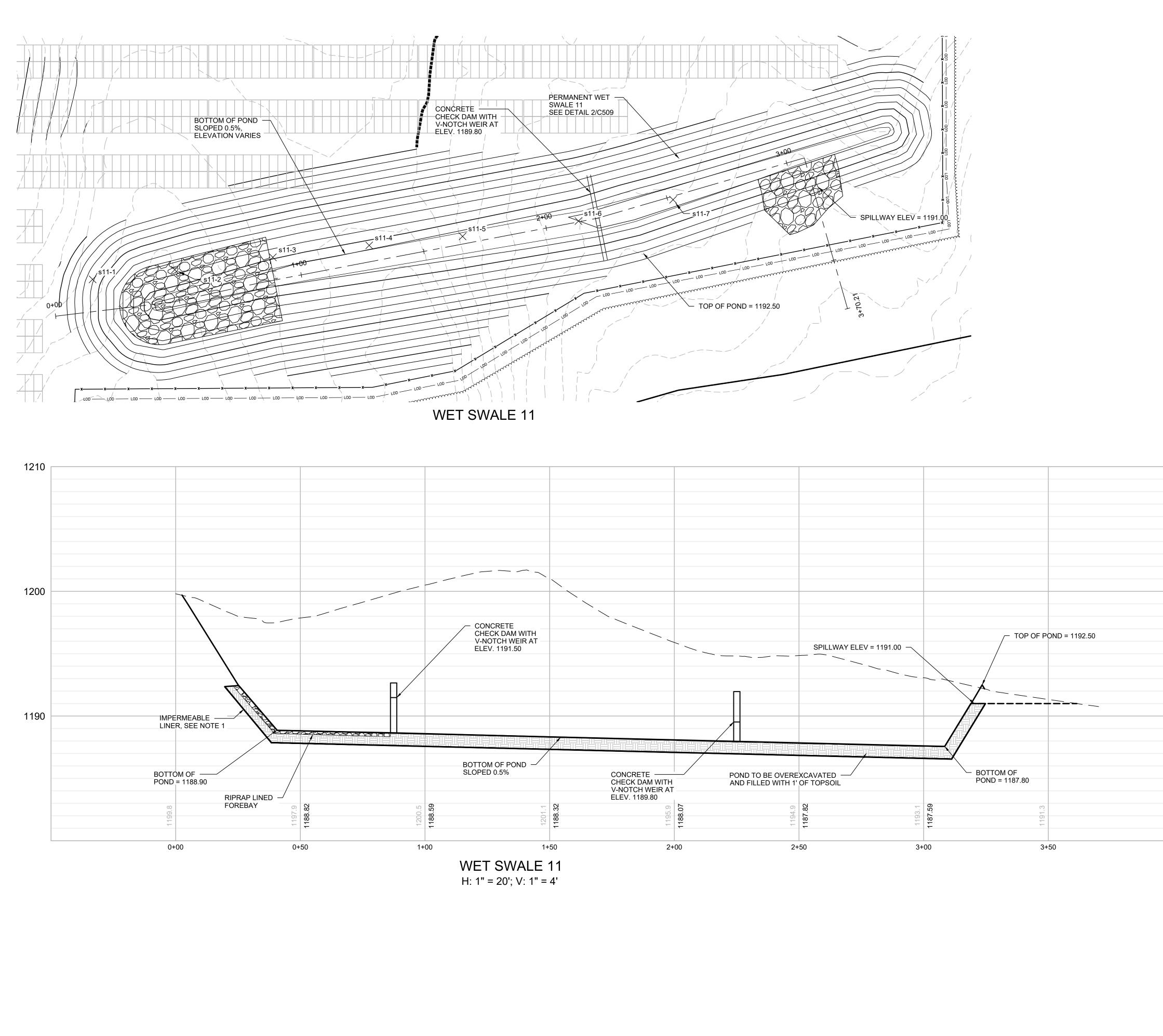
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11	<b>RE-ISSUED FOR PERMIT</b>	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

SHEET TITLE:

## PERMANENT POND DETAILS AND CROSS SECTIONS

PROJ. MGR.	PROJ. ENGR.	DATE:
CM	MB	08/16/23
DRAWN BY:	CHECKED BY:	SCALE:
JP	CP	1"=20'
DRAWING NO.	•	
	<b>0</b> 4 0 0	
	C428	

### NOTE: ALL BASIN SIDE/TIE-IN SLOPES ARE 3H:1V



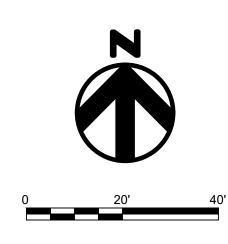
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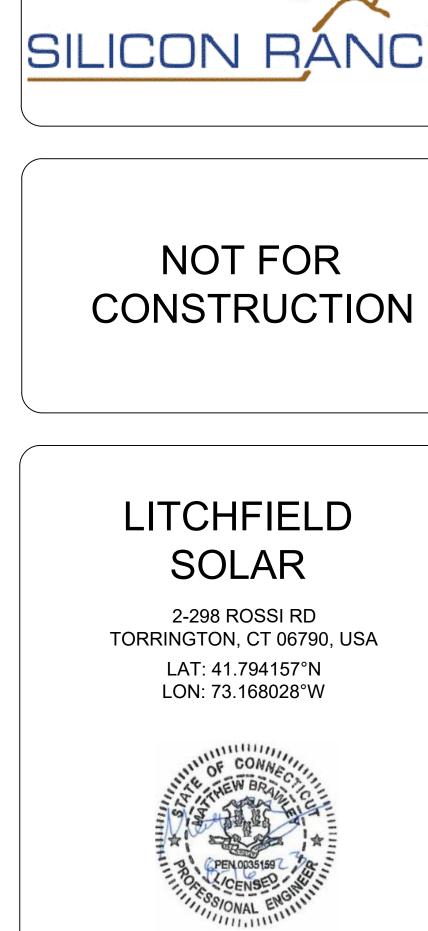
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1210

1200

1190





FJS

## LITCHFIELD, CT

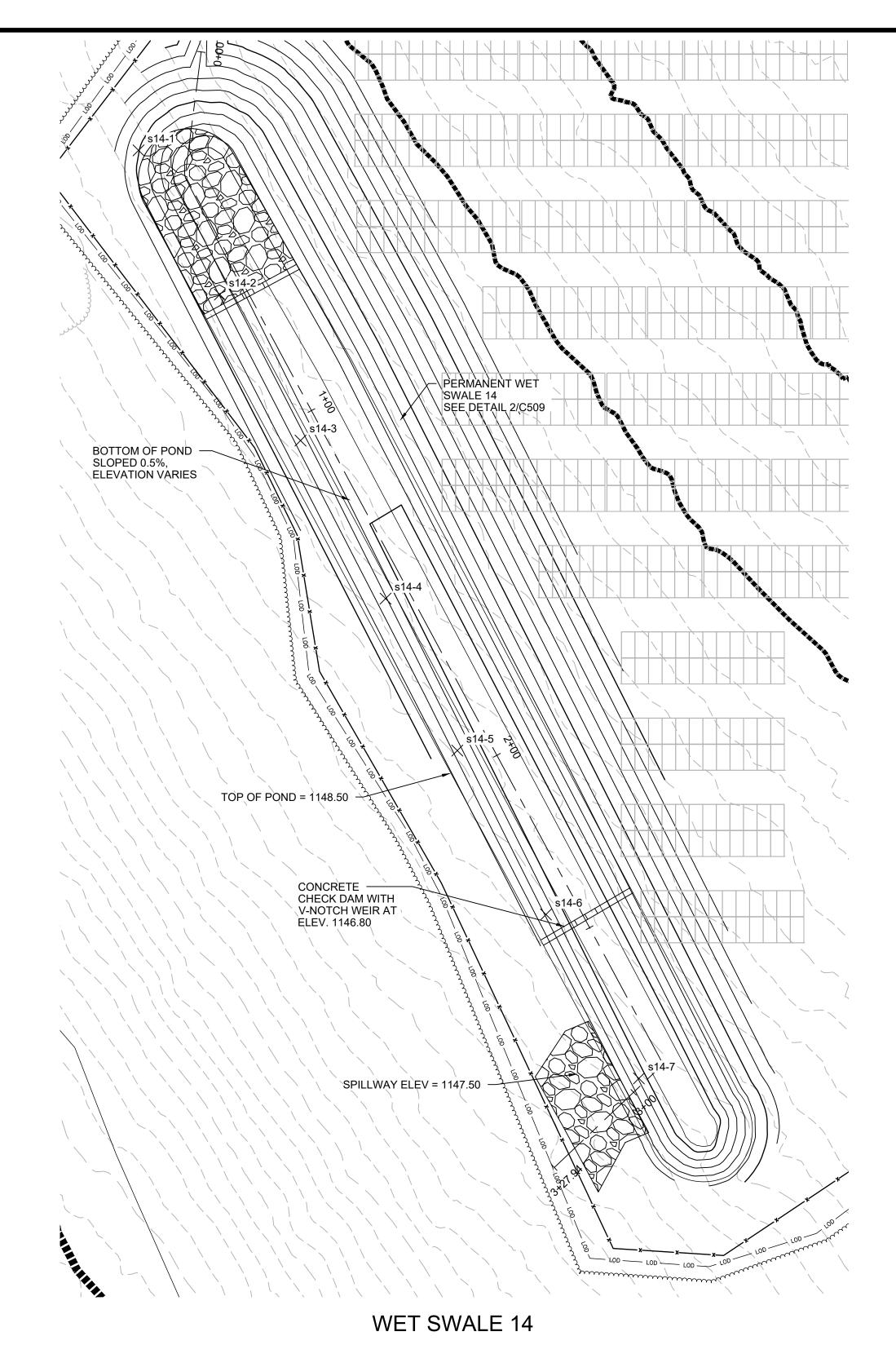
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11	<b>RE-ISSUED FOR PERMIT</b>	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

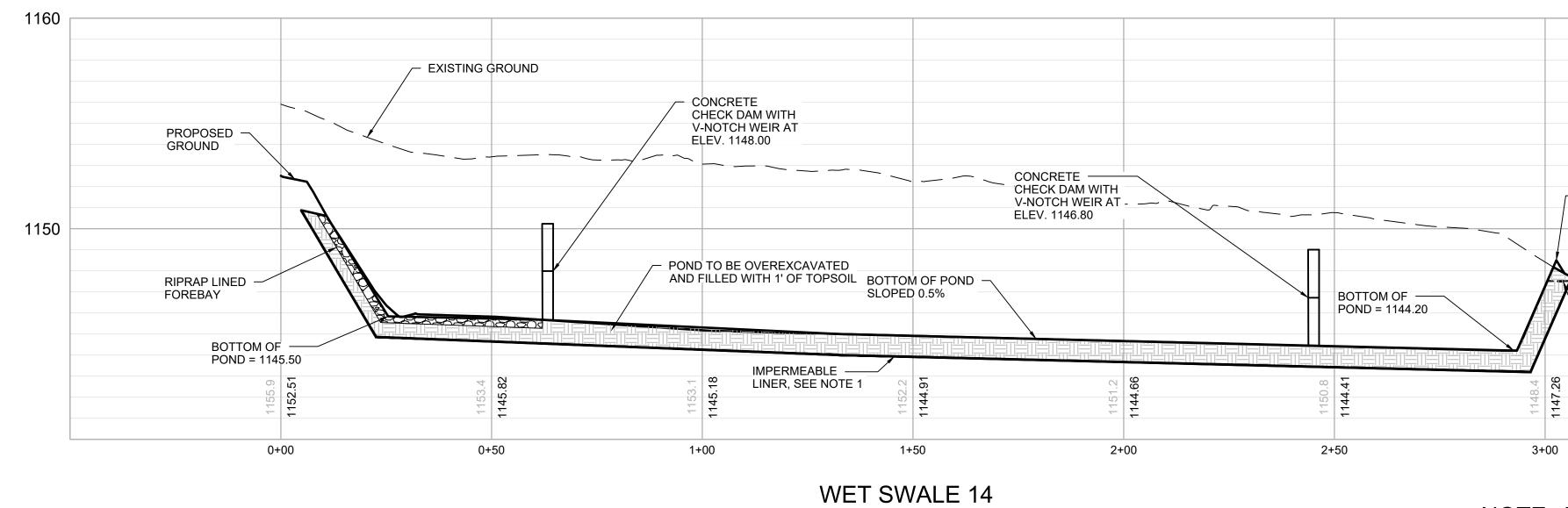
SHEET TITLE:

## PERMANENT POND DETAILS AND CROSS SECTIONS

PROJ. MGR. CM	PROJ. ENGR. MB	DATE: 08/16/23
DRAWN BY: JP	CHECKED BY: CP	SCALE: 1"=20'
DRAWING NO.		
	C429	

#### NOTE: ALL BASIN SIDE/TIE-IN SLOPES ARE 3H:1V



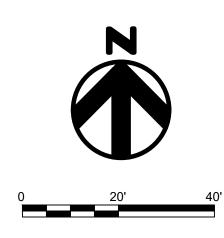


H: 1" = 20'; V: 1" = 4'

NOTE:

TO BEDROCK.

## NOTE: ALL BASIN SIDE/TIE-IN SLOPES ARE 3H:1V



## NOT FOR CONSTRUCTION

SILICON RANCH

FJS

## LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W



## LITCHFIELD, CT

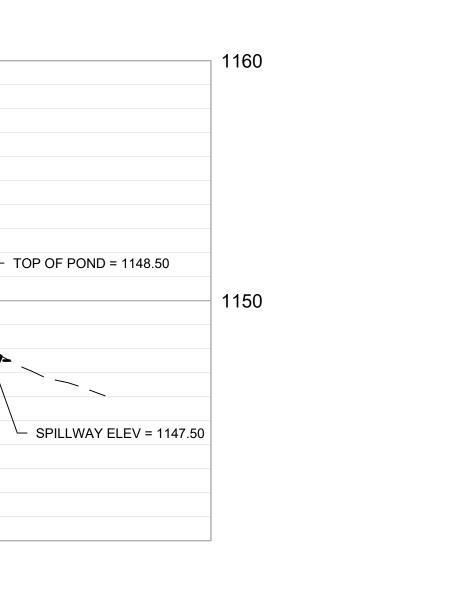
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11	<b>RE-ISSUED FOR PERMIT</b>	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

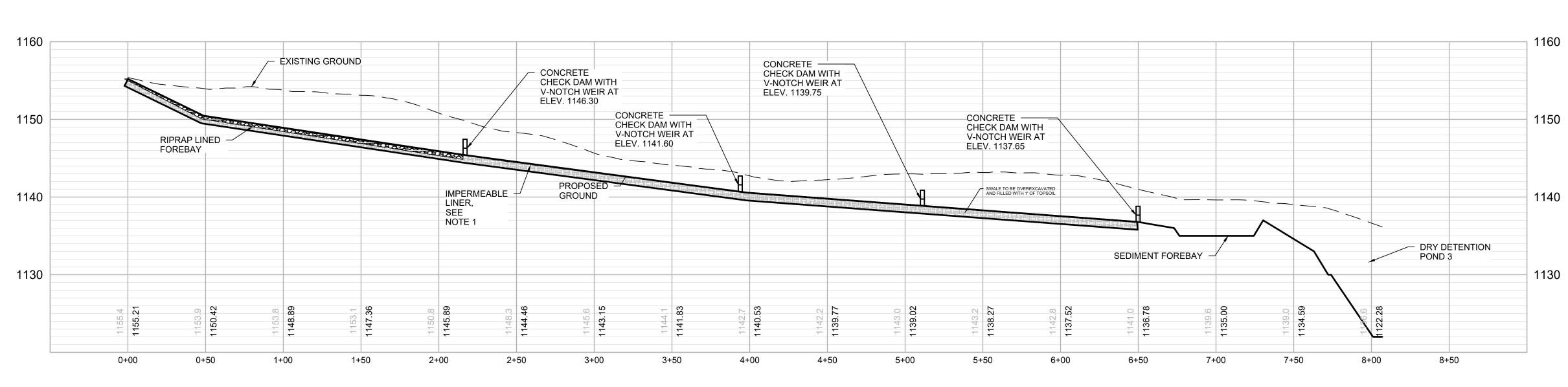
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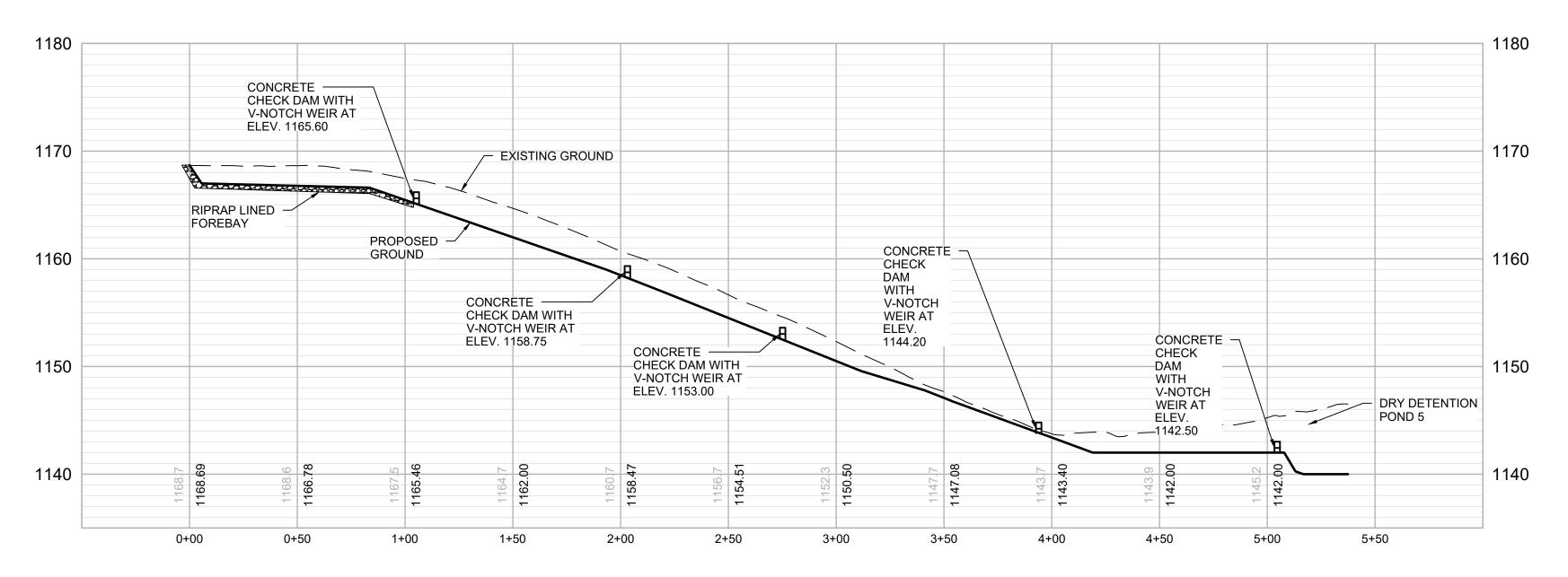
## PERMANENT POND DETAILS AND CROSS SECTIONS

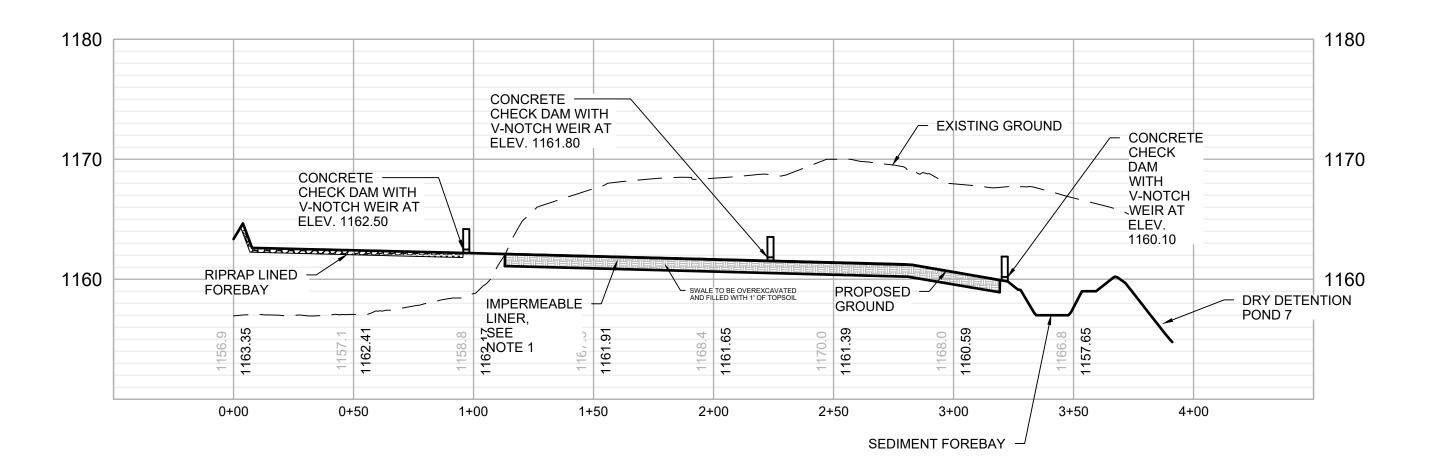
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DRAWN BY:	CHECKED BY:	SCALE:
JP	CP	1"=20'
DRAWING NO.		
	C 1 2 0	
	C430	

1. FOR BASINS AND SWALES EXCAVATED INTO ROCK, OR WITHIN 2 FEET OF BEDROCK, UTILIZE AN IMPERMEABLE LINER OF 24" DEEP CLAY OR GEOTEXTILE. THE LINER MUST EXTEND ABOVE THE ELEVATION OF THE EMERGENCY OUTFALL AND MUST BE PROTECTED FROM UPGRADIENT DRAINAGE RUNNING DOWNSLOPE INTO THE BASIN. COVER WITH TOPSOIL, UTILIZE EROSION CONTROL MATTING, AND SEED. FOR SWALES THAT ARE EXCAVATED WHERE ROCK IS NOT ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL PROBE SWALE TO ENSURE MINIMUM 24"









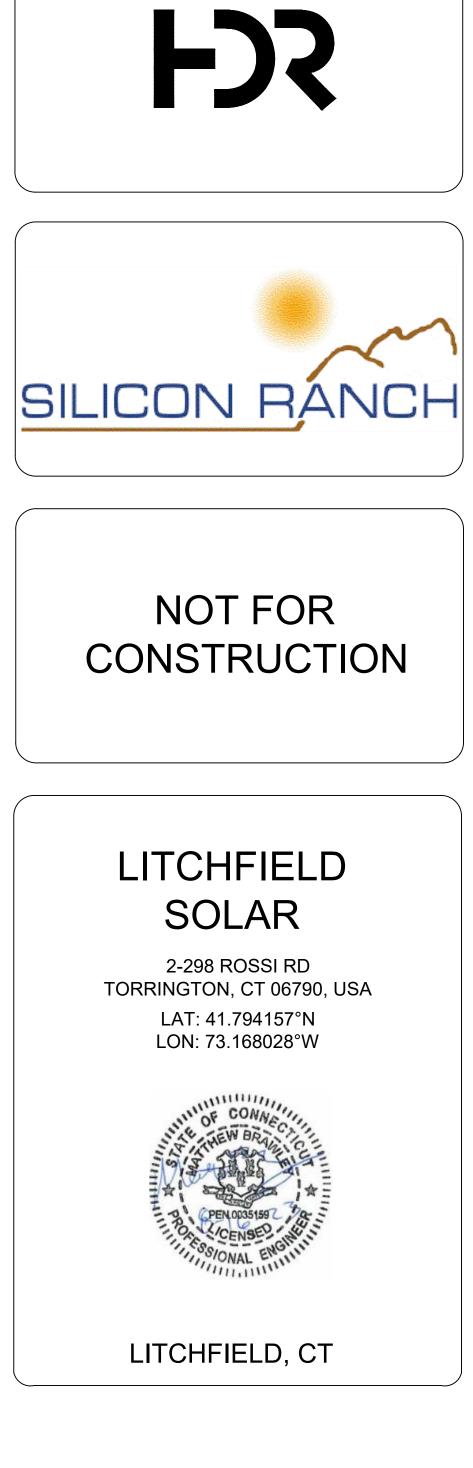
WET SWALE 3 H: 1" = 40'; V: 1" = 8'

WET SWALE 5 H: 1" = 40'; V: 1" = 8'

NOTE:

TO BEDROCK.

WET SWALE 7 H: 1" = 40'; V: 1" = 8'



<b>RE-ISSUED FOR PERMIT</b>	08/16/23
RE-ISSUED FOR PERMIT	06/09/23
RE-ISSUED FOR PERMIT	04/17/23
RE-ISSUED FOR PERMIT	02/09/23
RE-ISSUED FOR PERMIT	12/07/22
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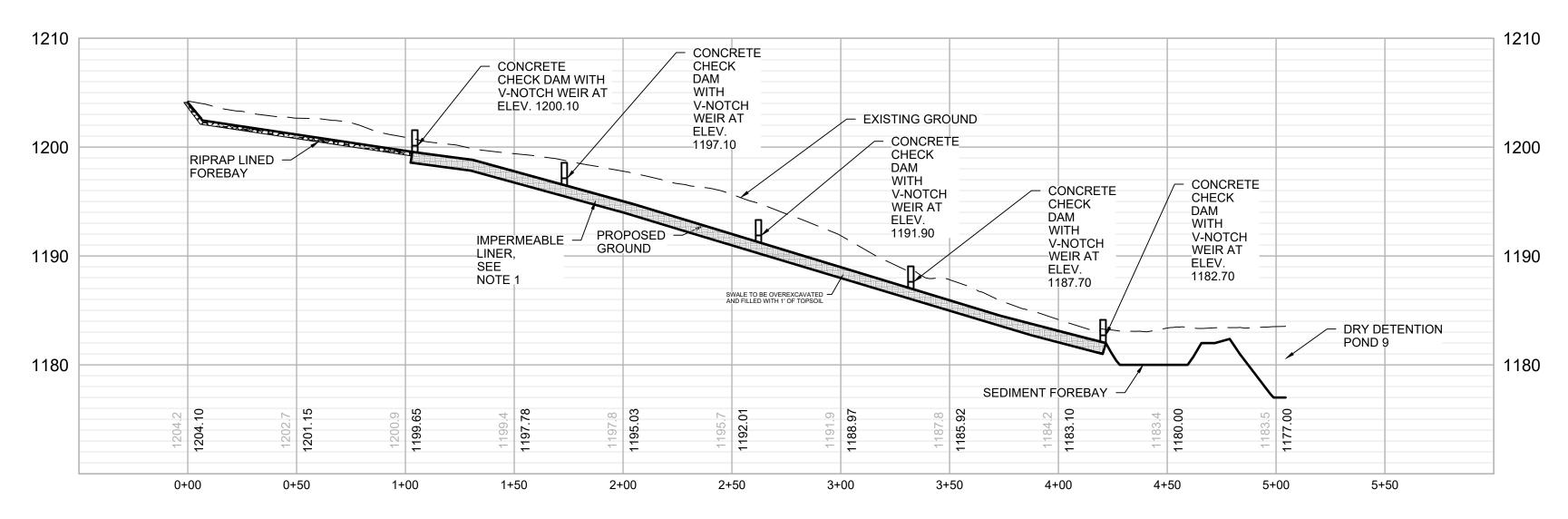
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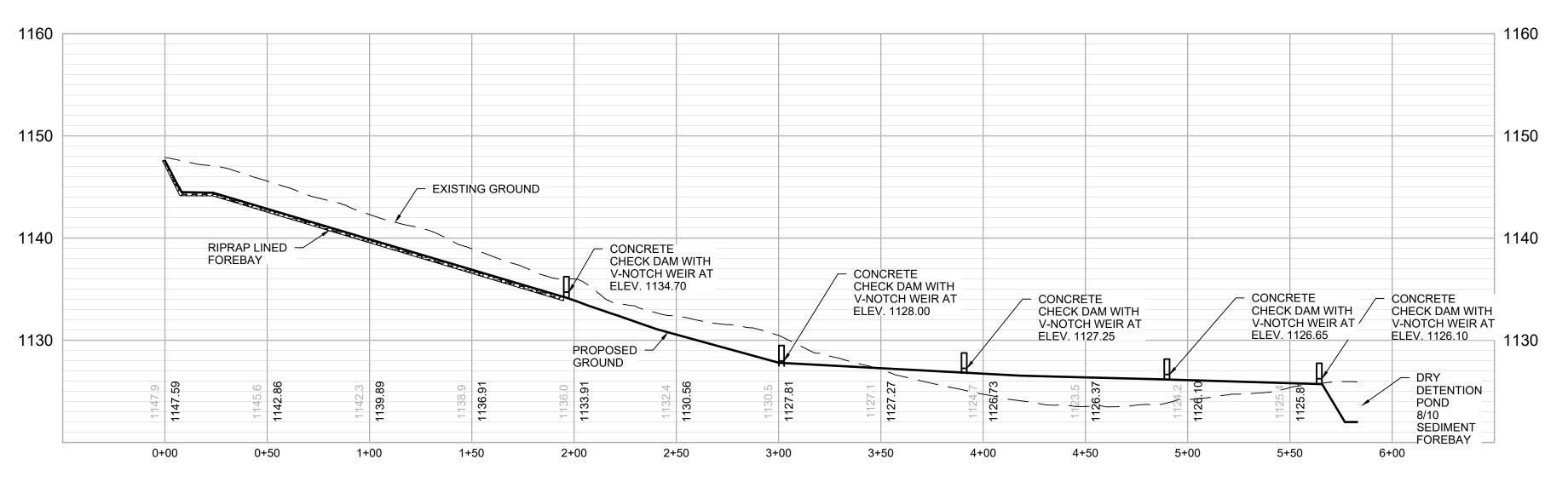
#### WET SWALE PROFILES

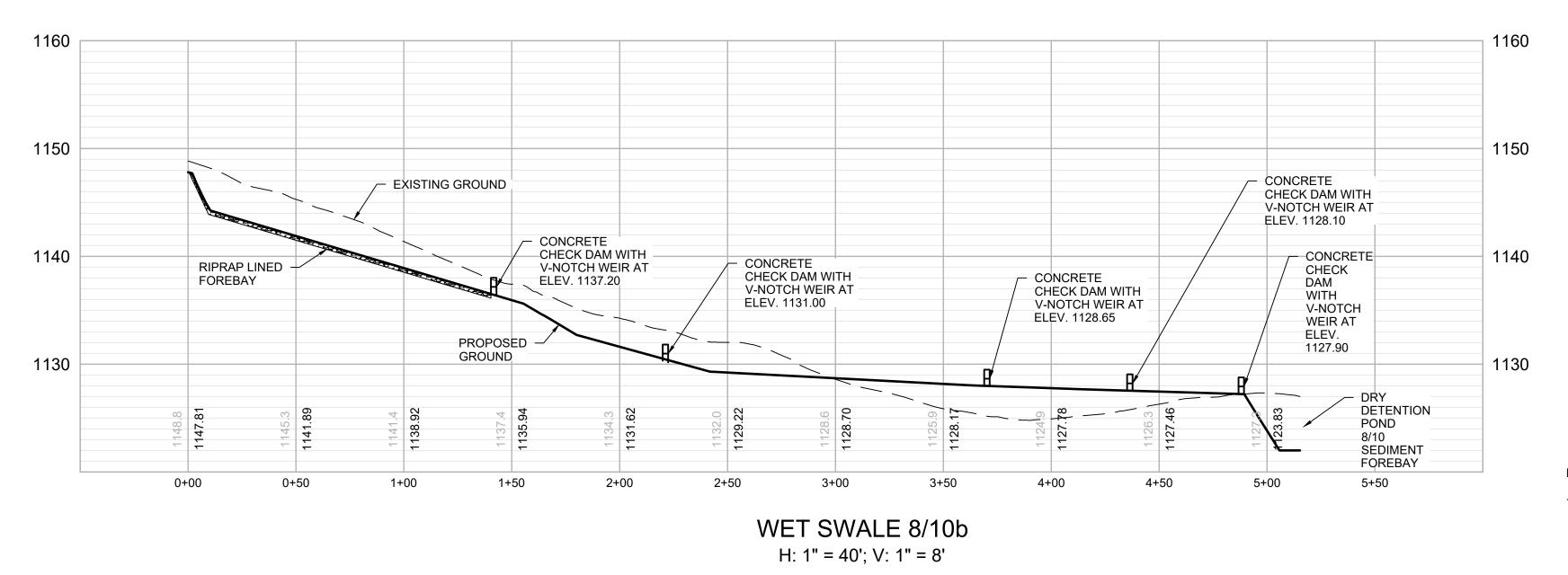
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DRAWN BY: JP	CHECKED BY: CP	SCALE: 1"=40'
DRAWING NO.		

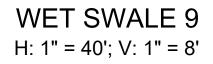
C431

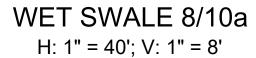
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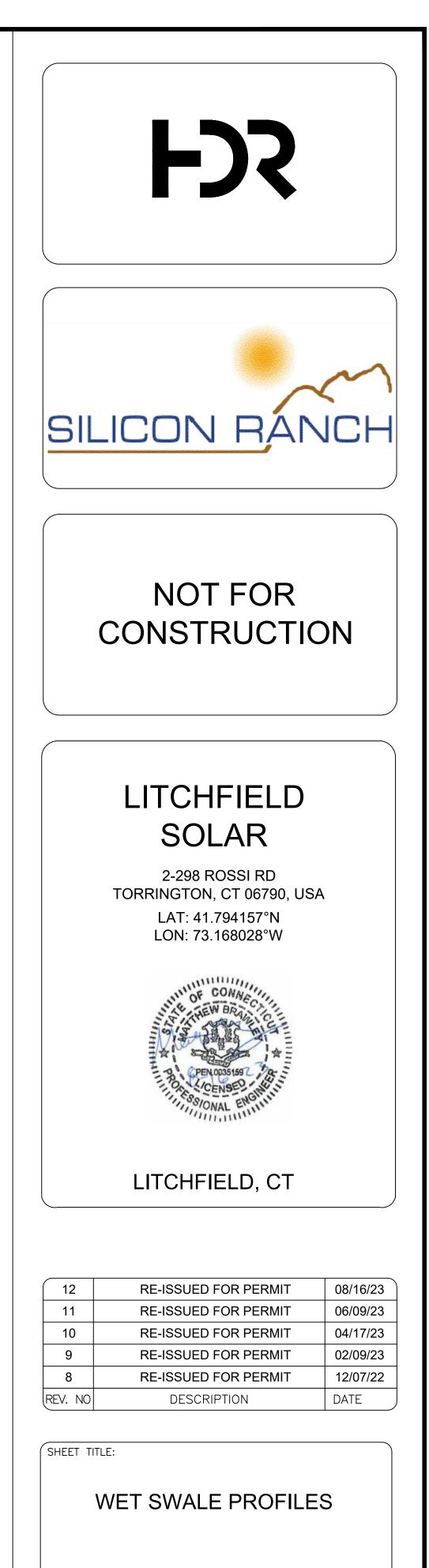








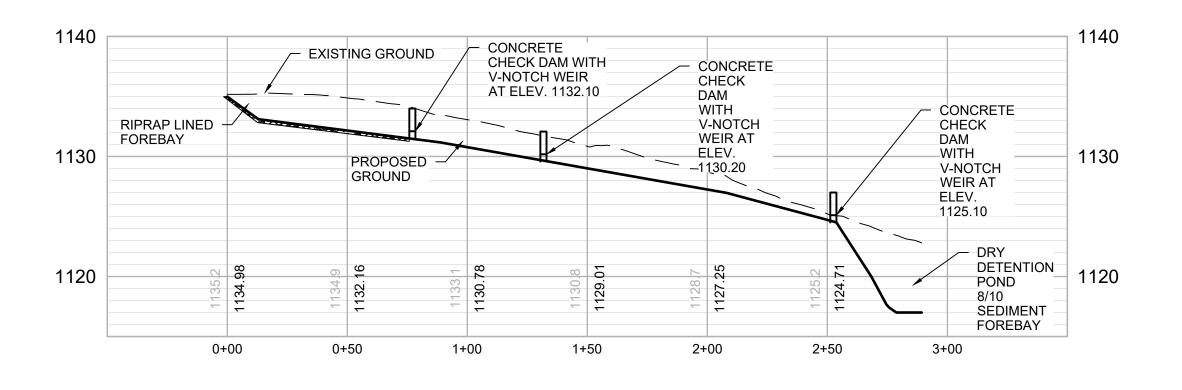
NOTE: TO BEDROCK.

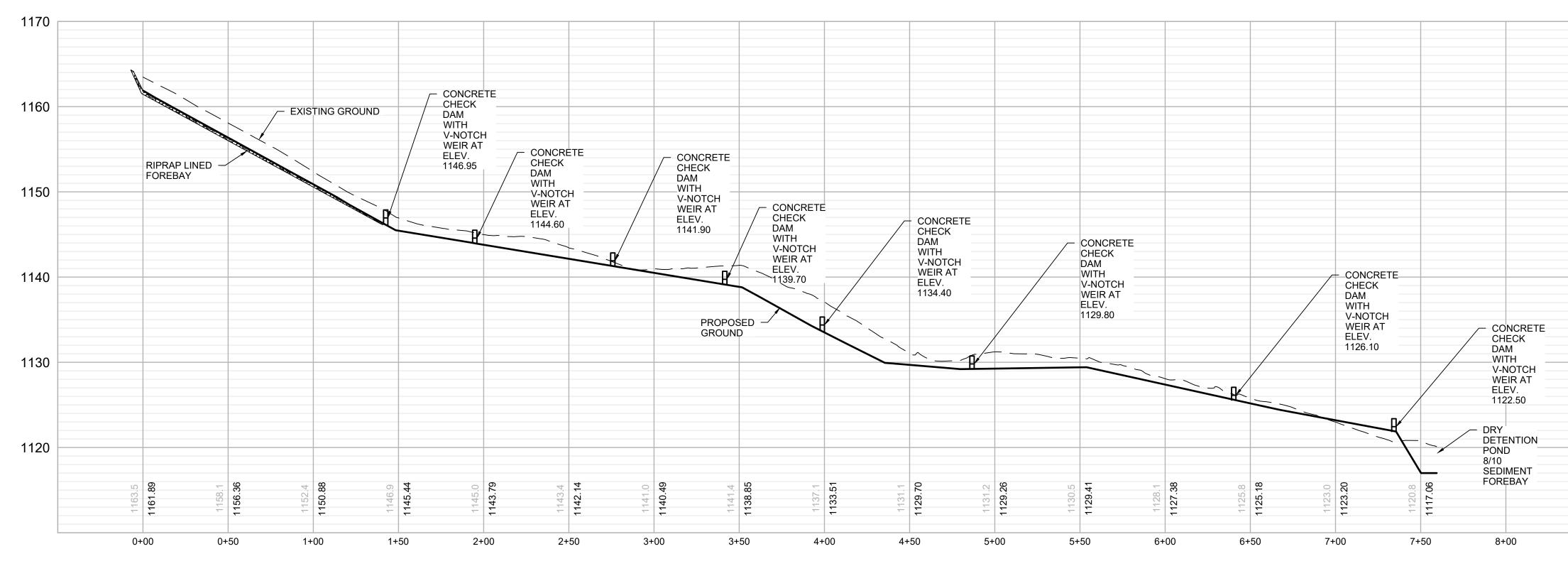


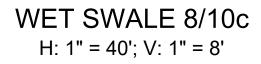
PROJ. MGR.	PROJ. ENGR.	DATE:
C <b>M</b>	MB	08/16/23
DRAWN BY:	CHECKED BY:	SCALE:
JP	CP	1"=40'
DRAWING NO.		

C432

1. FOR BASINS AND SWALES EXCAVATED INTO ROCK, OR WITHIN 2 FEET OF BEDROCK, UTILIZE AN IMPERMEABLE LINER OF 24" DEEP CLAY OR GEOTEXTILE. THE LINER MUST EXTEND ABOVE THE ELEVATION OF THE EMERGENCY OUTFALL AND MUST BE PROTECTED FROM UPGRADIENT DRAINAGE RUNNING DOWNSLOPE INTO THE BASIN. COVER WITH TOPSOIL, UTILIZE EROSION CONTROL MATTING, AND SEED. FOR SWALES THAT ARE EXCAVATED WHERE ROCK IS NOT ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL PROBE SWALE TO ENSURE MINIMUM 24"







WET SWALE 8/10d H: 1" = 40'; V: 1" = 8'

NOTE:

FOR BASINS AND SWALES EXCAVATED INTO INTO INTERMEABLE LINER OF 24" DEEP CLAY OR GELEVATION OF THE EMERGENCY OUTFALL AND DRAINAGE RUNNING DOWNSLOPE INTO THE INTO THE INTO THE CONTROL MATTING, AND SEED. FOR SWALES ENCOUNTERED DURING EXCAVATION, CONTROL BEDROCK.

1170

1160

1150

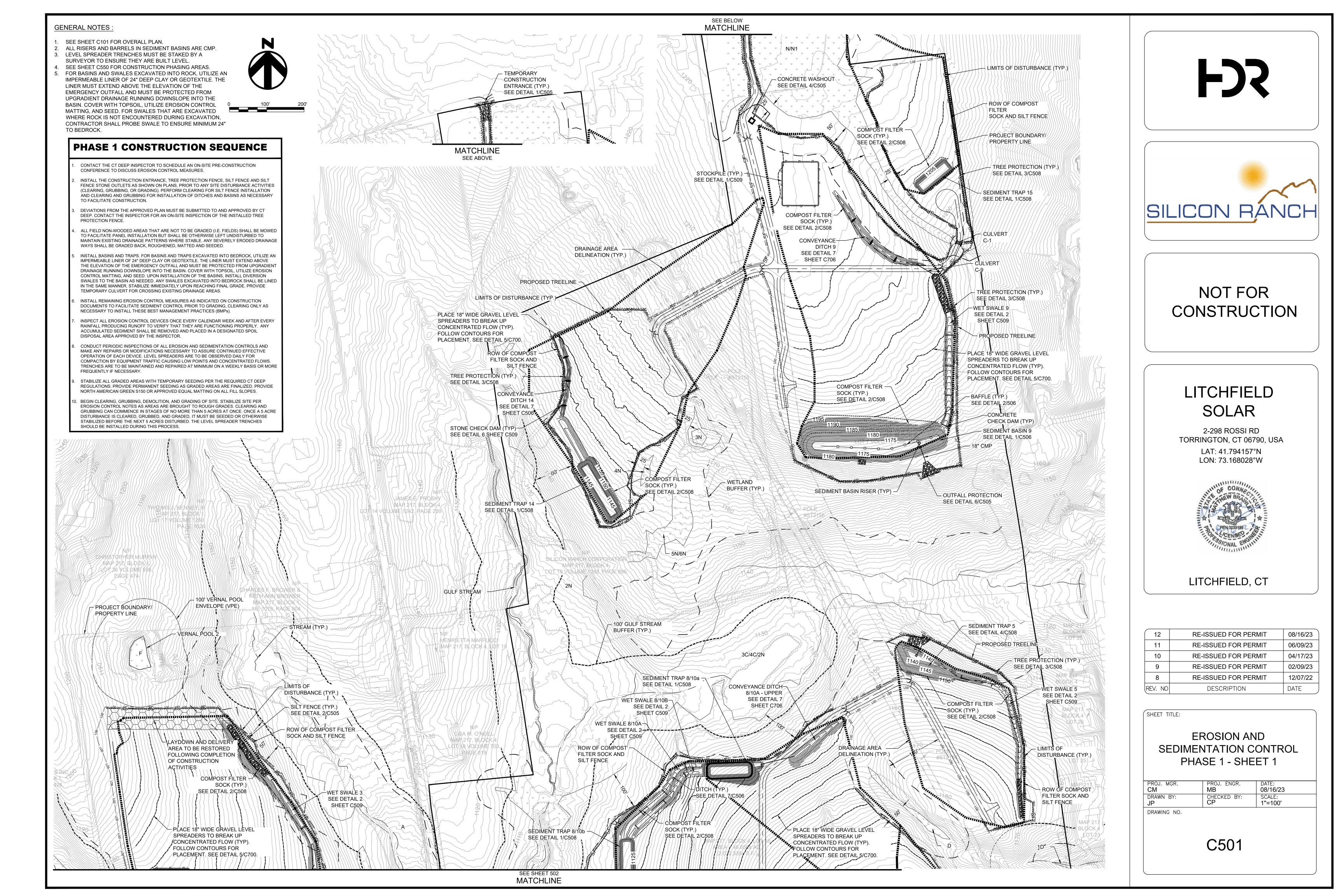
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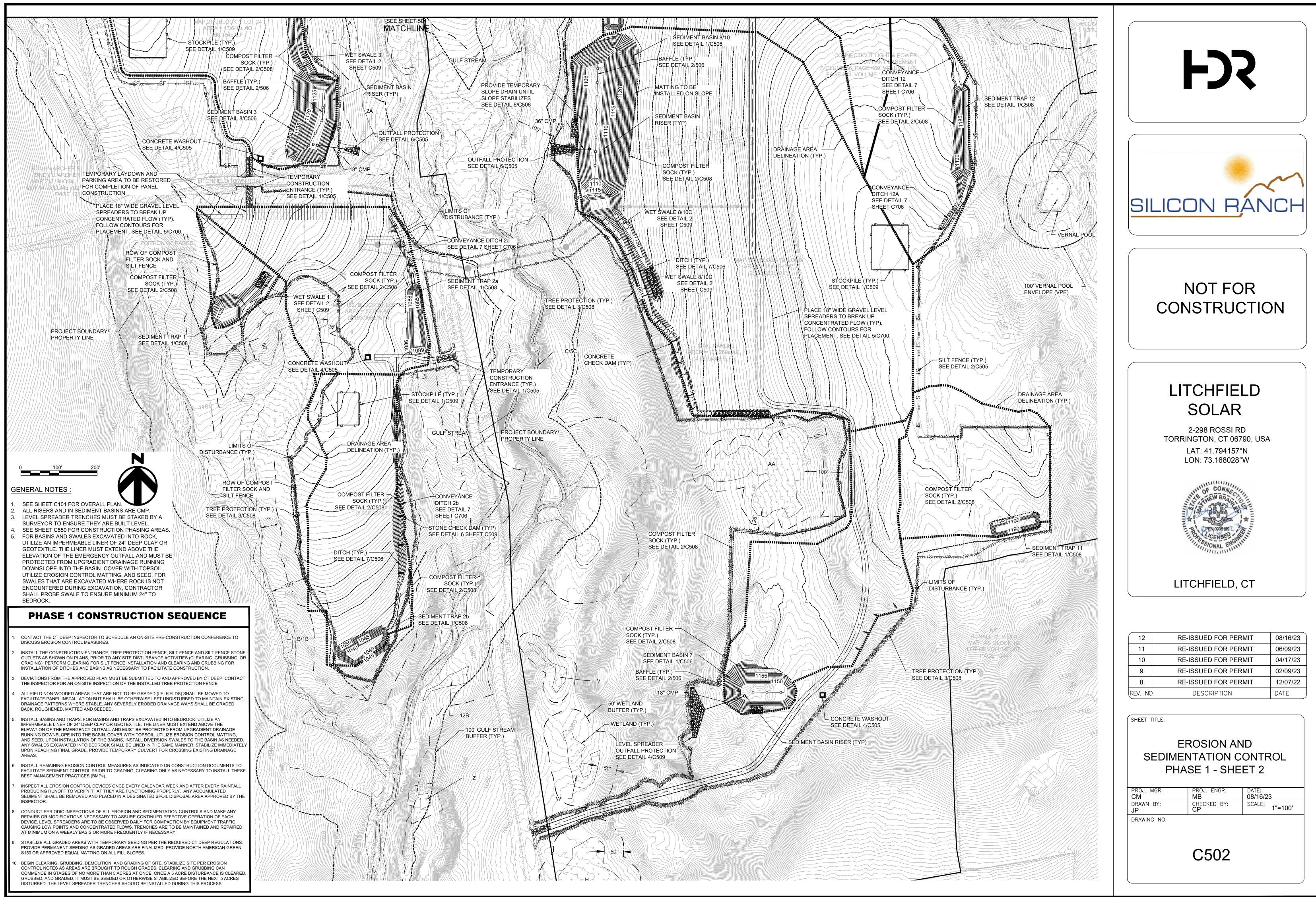
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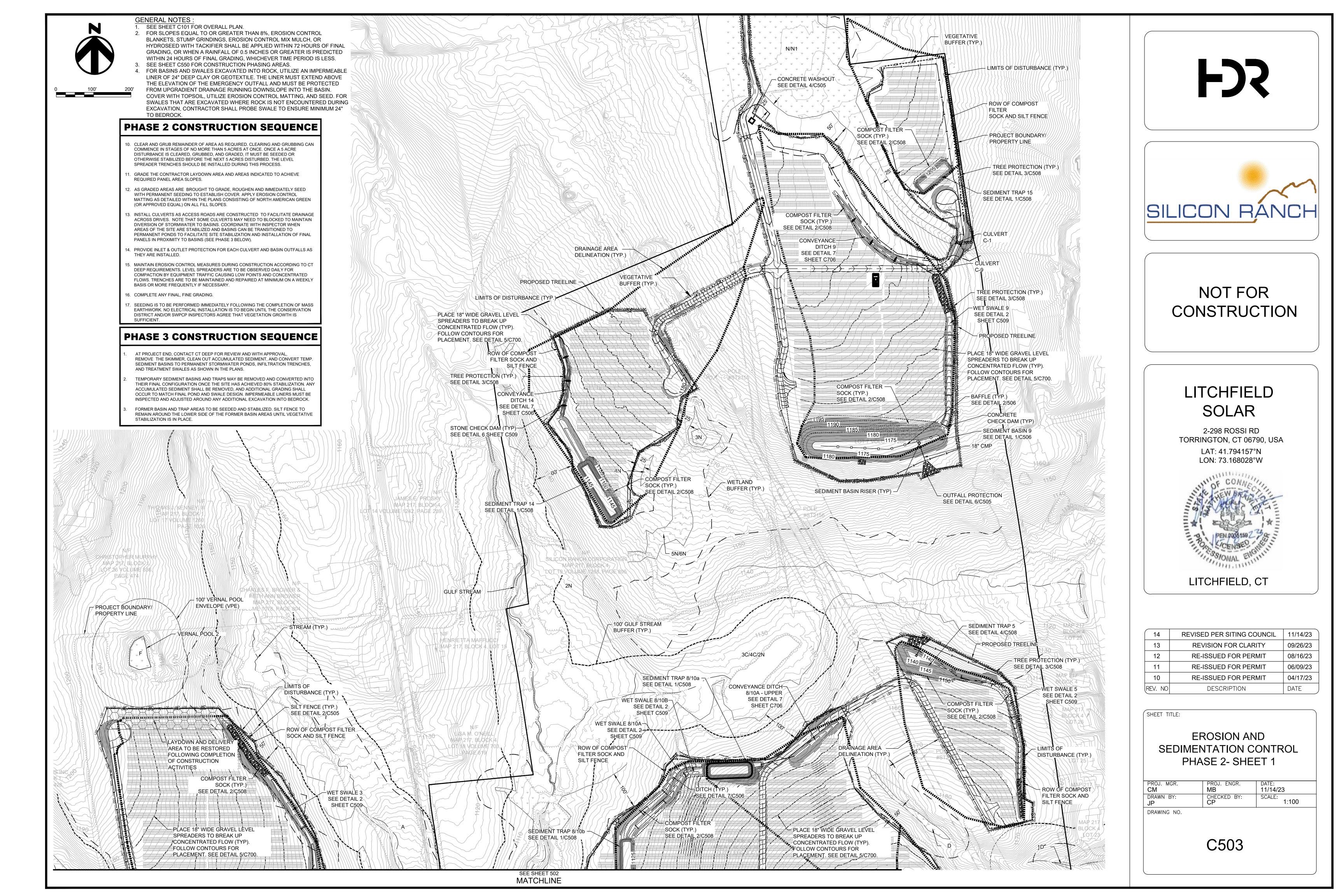
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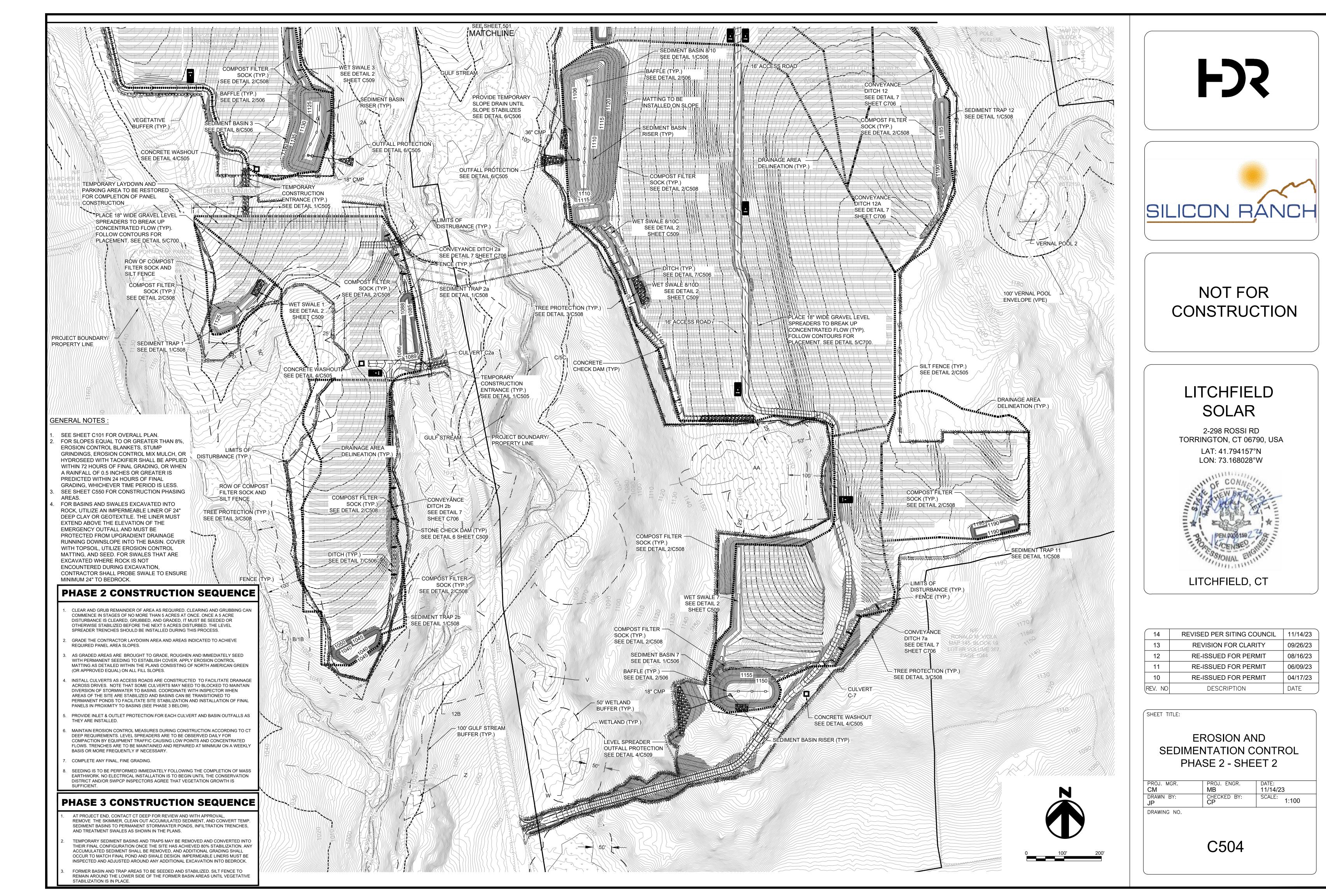
0 40' 80'	
	FJS
	SILICON RANCH
	NOT FOR CONSTRUCTION
	LITCHFIELD SOLAR 2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W
	DENOD351592
	LITCHFIELD, CT
	12RE-ISSUED FOR PERMIT08/16/2311RE-ISSUED FOR PERMIT06/09/2310RE-ISSUED FOR PERMIT04/17/239RE-ISSUED FOR PERMIT02/09/238RE-ISSUED FOR PERMIT12/07/22REV. NODESCRIPTIONDATE
	SHEET TITLE: WET SWALE PROFILES
	PROJ. MGR. CMPROJ. ENGR. MBDATE: 08/16/23DRAWN BY: JPCHECKED BY: CPSCALE: 1"=40'DRAWING NO.
D ROCK, OR WITHIN 2 FEET OF BEDROCK, UTILIZE AN GEOTEXTILE. THE LINER MUST EXTEND ABOVE THE AND MUST BE PROTECTED FROM UPGRADIENT E BASIN. COVER WITH TOPSOIL, UTILIZE EROSION ES THAT ARE EXCAVATED WHERE ROCK IS NOT	C433

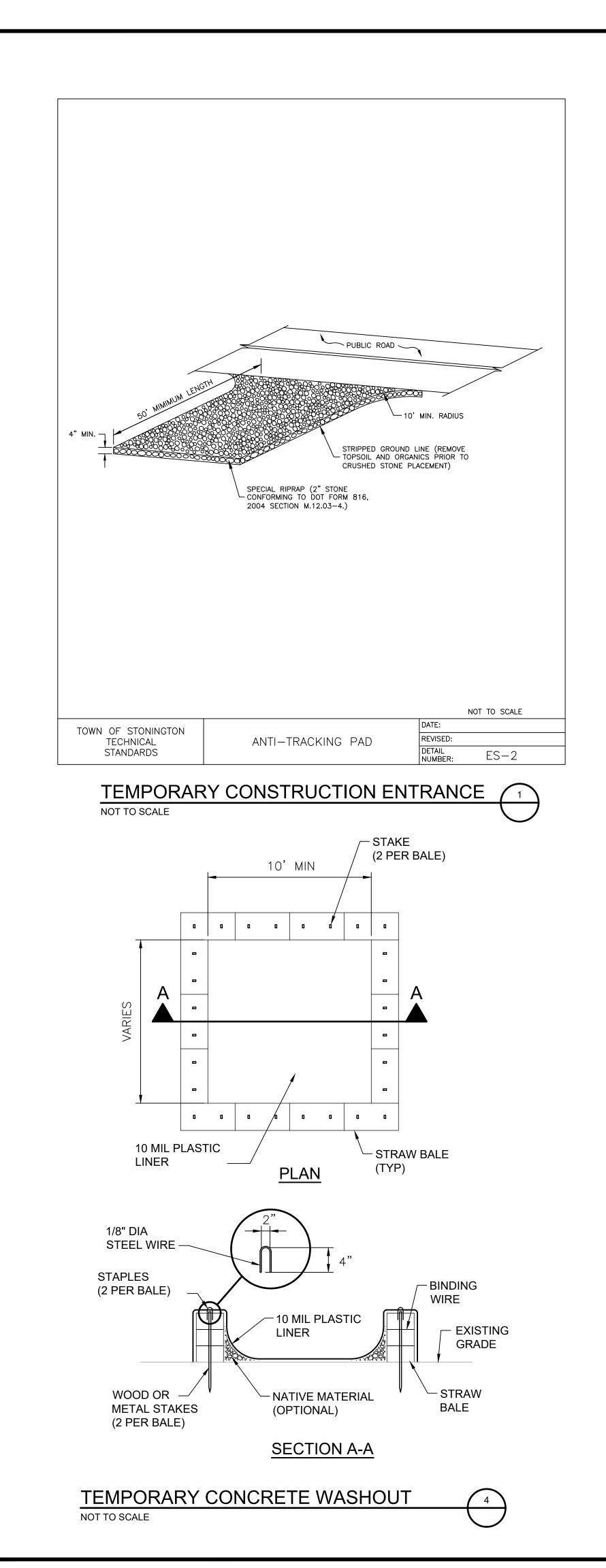
CONTROL MATTING, AND SEED. FOR SWALES THAT ARE EXCAVATED WHERE ROCK IS NOT ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL PROBE SWALE TO ENSURE MINIMUM 24"

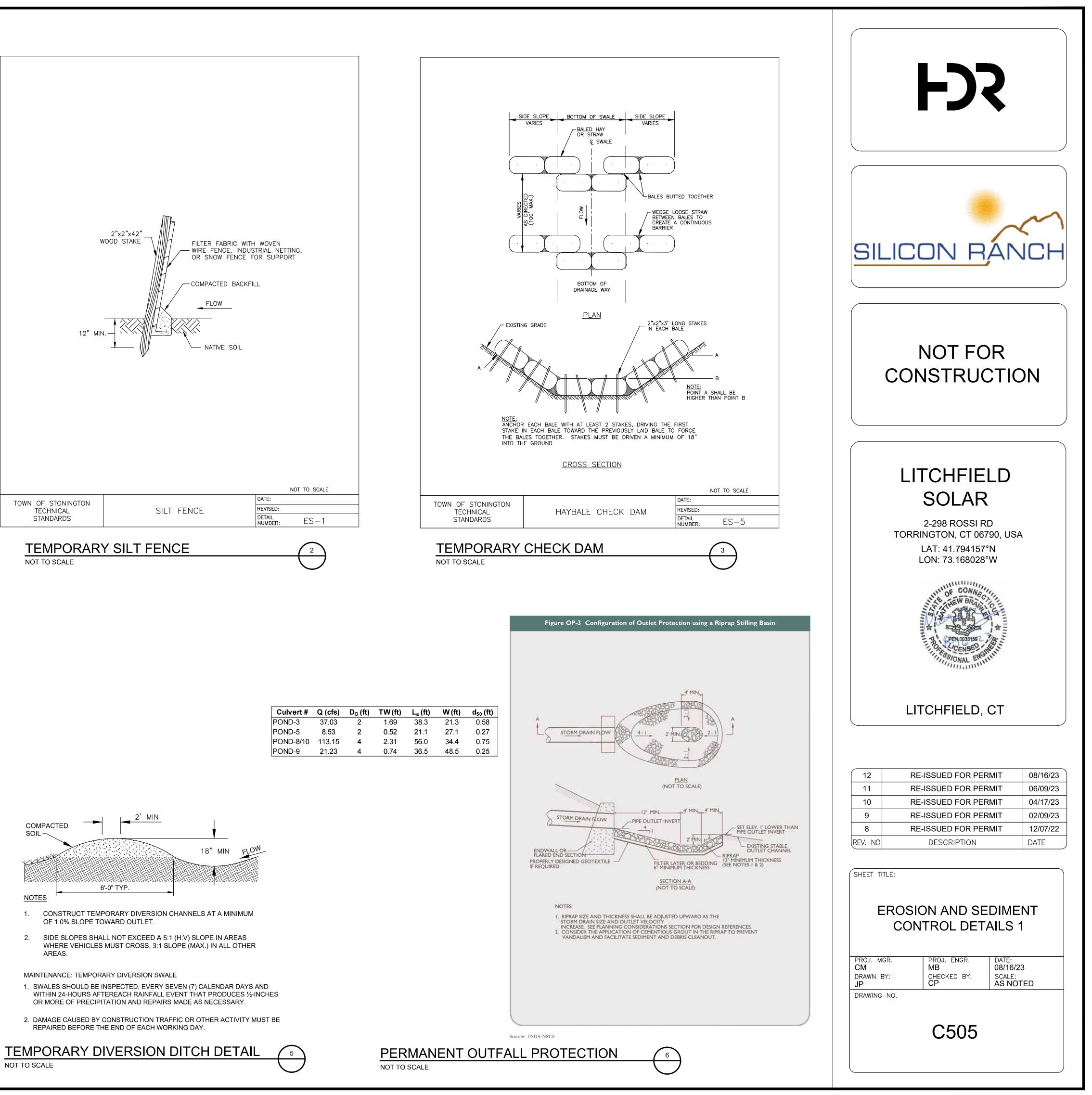


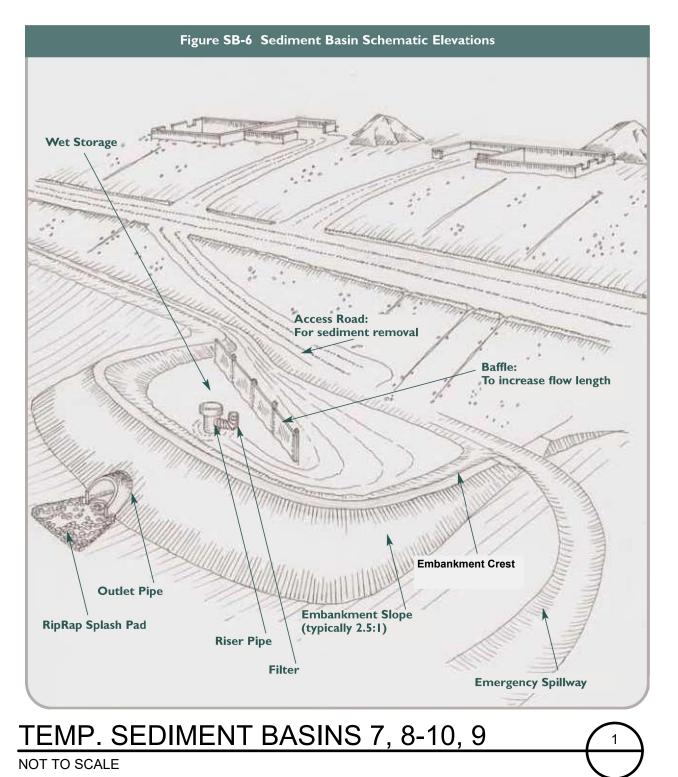


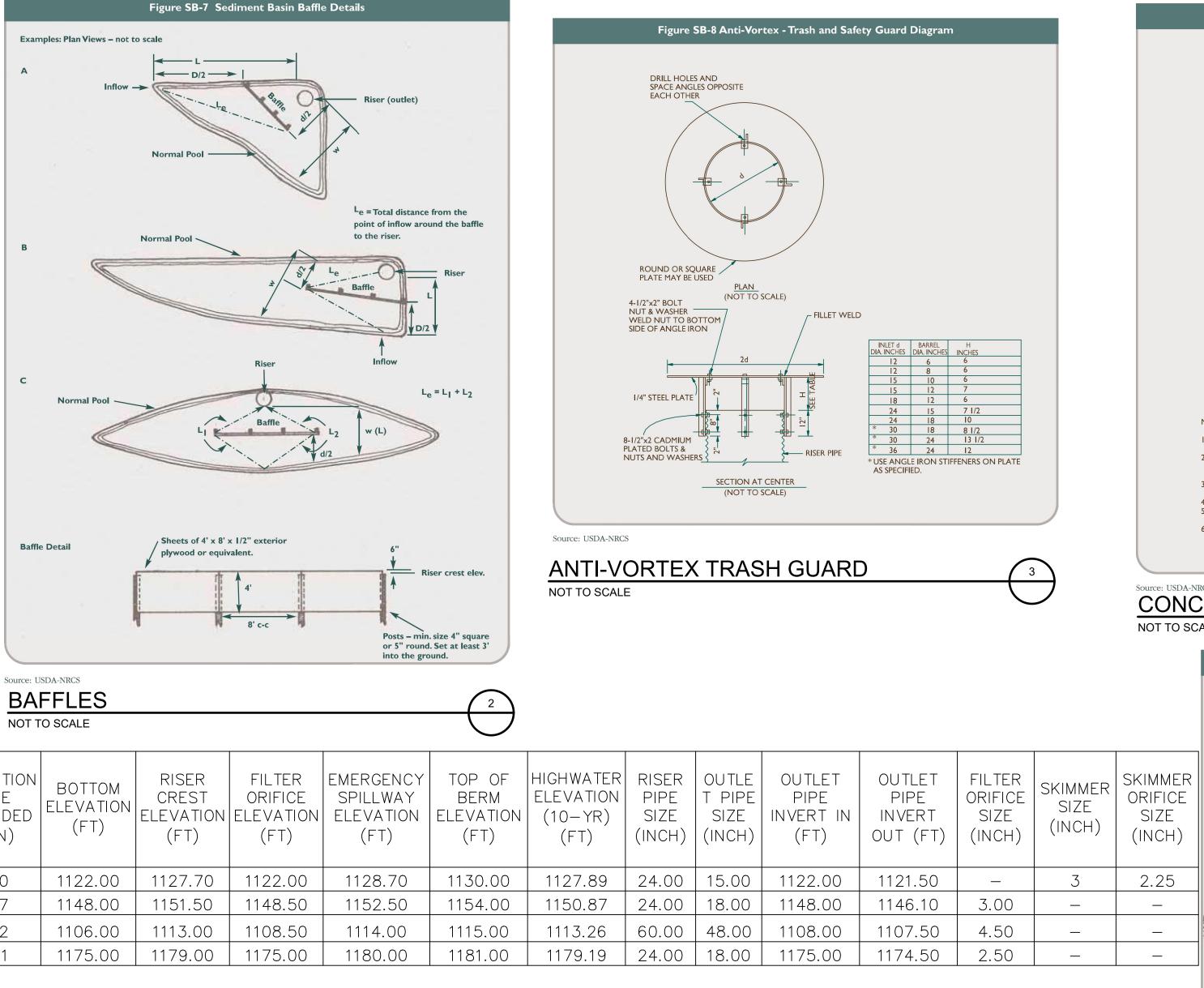






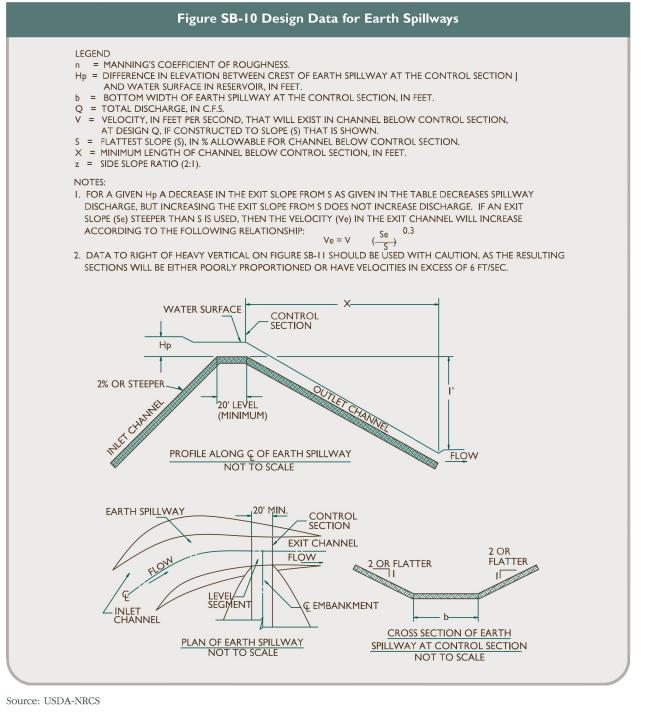


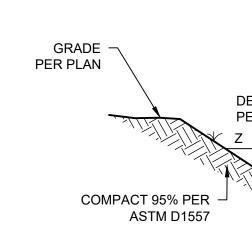




BASIN #	TOTAL DRAINAGE AREA (AC)	DEPTH OF DRY STORAGE VOLUME (FT)	DEPTH OF WET STORAGE VOLUME (FT)	10YR PEAK FLOW (CFS)	RETENTION TIME REQUIRED (MIN)	RETENTION TIME PROVIDED (MIN)	BOTTOM ELEVATION (FT)	RISER CREST ELEVATION (FT)	FILTER ORIFICE ELEVATION (FT)	
3	7.33	0.50	5.70	21.63	600	920	1122.00	1127.70	1122.00	
7	4.35	0.50	3.50	6.65	600	647	1148.00	1151.50	1148.50	
8-10	15.65	0.50	7.00	53.25	600	862	1106.00	1113.00	1108.50	
9	6.83	0.50	4.00	21.54	600	961	1175.00	1179.00	1175.00	

# TEMP. SEDIMENT BASIN SPECIFICATIONS NOT TO SCALE





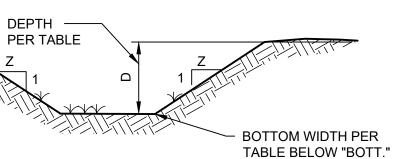
Ditch	Weighted Peak Runoff 10-yr Event (cfs)	Avg. Slope (%)	Shape	Side Slope z:1	Bott. (ft)	Depth (ft)	Top Width (ft)
2a	14.33	10.78%	Tri.	3	0	1.75	9.0
2b	11.47	6.47%	Tri.	3	0	1.50	9.0
7a	2.36	11.23%	Trap.	3	4	2.00	16.0
8/10a - upper	17.57	3.01%	Trap.	3	4	1.50	13.0
12	1.98	0.90%	Tri.	3	0	1.25	7.5
12a	1.22	8.54%	Tri.	3	0	1.00	6.0
14	15.99	4.75%	Tri.	3	0	2.00	8.0

5

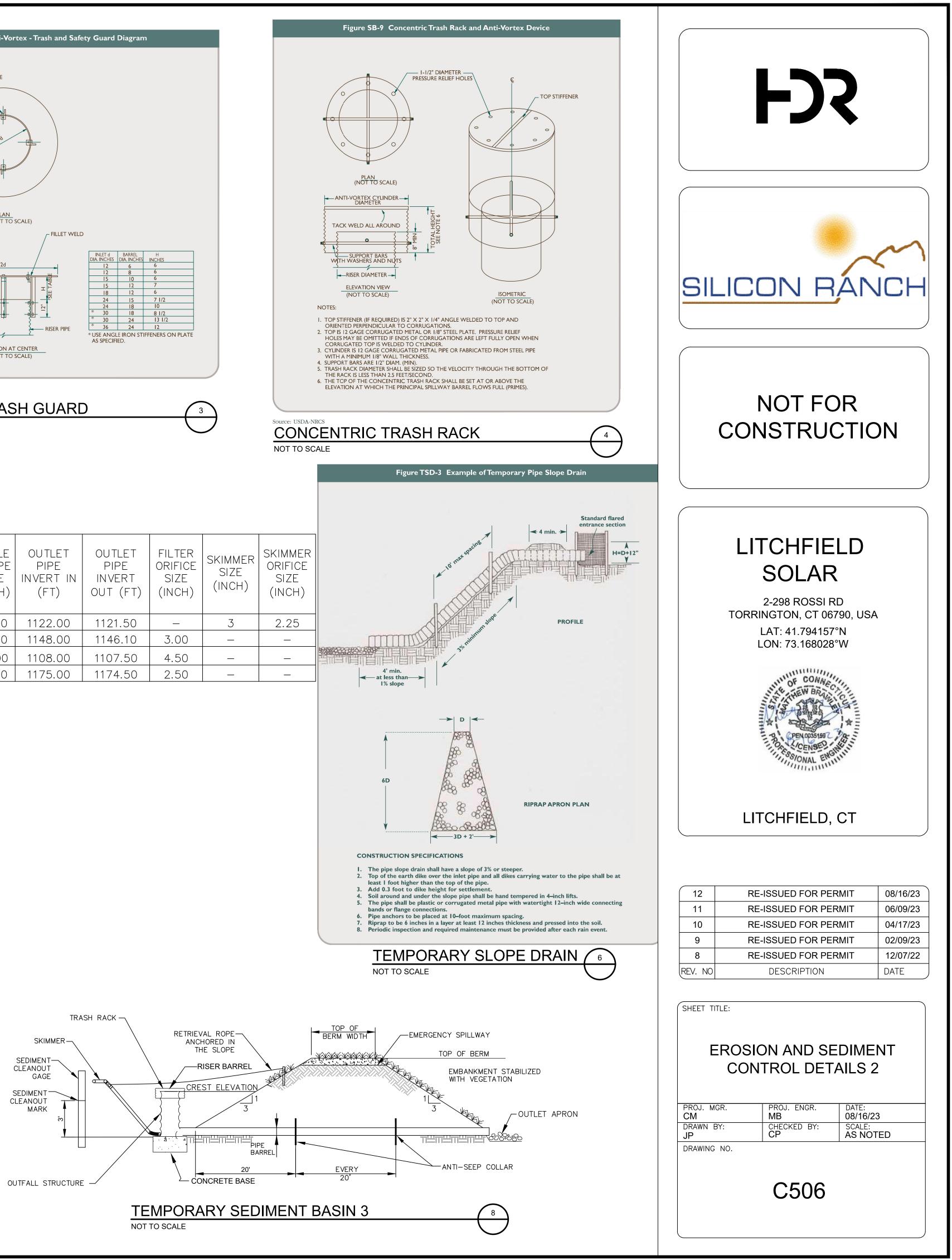
EARTH SPILLWAY NOT TO SCALE

# NOT TO SCALE





PERMANENT CONVEYANCE DITCH DETAIL



# **4-Short Term Non-living Soil Protection** Temporary Erosion Control Blanket (ECB)

#### Definition

A manufactured blanket composed of biodegradable / photodegradable natural or polymer fibers and/or filaments that have been mechanically, structurally or chemically bound together to form a continuous matrix.

#### Purpose

To provide temporary surface protection to newly seeded and/or disturbed soils to absorb raindrop impact and to reduce sheet and rill erosion and to enhance the establishment of vegetation.

### Applicability

- On disturbed soils where slopes are 2:1 or flatter. • Where wind and traffic generated air flow may dislodge standard, unarmored mulches.
- May be used as a substitute for **Temporary**
- Soil Protection. • May be used as a substitute for **Mulch for**
- Seed.

#### **Planning Considerations**

When considering the use of ECB keep in mind the blanket's capability to conform to ground surface irregularities. If the blanket is not capable of developing a continuous contact with the soil then it must be applied to a fine graded surface. Some blankets will soften and when wetted reconform to the ground. Also, when the ground is frozen, proper anchoring can be difficult, if not impossible.

Care must be taken to choose the type of blanket which is most appropriate for the specific need of the project. With the abundance of erosion control blankets available, it is impossible to cover all of the advantages, disadvantages and specifications of all manufactured blankets. There is no substitute for a thorough understanding of the manufacturer's instructions and recommendations in conjunction with a site visit by the erosion and sedimentation plan designer prior to and during installation to verify a product's appropriateness.

The success of temporary erosion control blankets is dependent upon strict adherence to the manufacturer's installation recommendations. As such, a final inspection should be planned to ensure that the lap joints are secure, all edges are properly anchored and all staking/stapling patterns follow the manufacturer's recommendations.

### **Specifications**

#### Materials

Temporary erosion control blankets shall be composed of fibers and/or filaments that:

- O are biodegradable or photodegradable within two years but without substantial degradation over the period of intended usage (five months maximum);
- O are mechanically, structurally or chemically bound together to form a continuous matrix of even thickness and distribution that resist raindrop splash and when used with seedings allows vegetation to penetrate the blanket;
- are of sufficient structural strength to withstand stretching or movement by wind or water when installed in accordance with the manufacturer's recommendations:
- O are free of any substance toxic to plant growth and unprotected human skin or which interferes with seed germination;
- O contain no contaminants that pollute the air or waters of the State when properly applied; and

2002 Connecticut Guidelines for Soil Erosion and Sediment Control

O provide either 80%-95% soil coverage when used as a substitute for **Mulch for Seed** or 100% initial soil coverage when used as a substitute for **Temporary Soil Protection** measure.

Materials shall be selected as appropriate for the specific site conditions in accordance with manufacturer's recommendations. Use of any particular temporary erosion control blanket should be supported by manufacturer's test data that confirms the blanket meets these material specifications and will provide the short term erosion control capabilities necessary for the specific project.

#### Site Preparation and Installation (see Figure ECB-1)

5-4-10

Prepare the surface, remove protruding objects and install temporary erosion control blankets in accordance with the manufacturer's recommendations. Ensure that the orientation and anchoring of the blanket is appropriate for the site.

The blanket can be laid over areas where sprigged grass seedlings have been inserted into the soil. Where landscape plantings are planned, lay the blanket first and then plant through the blanket in accordance with Landscape Planting measure.

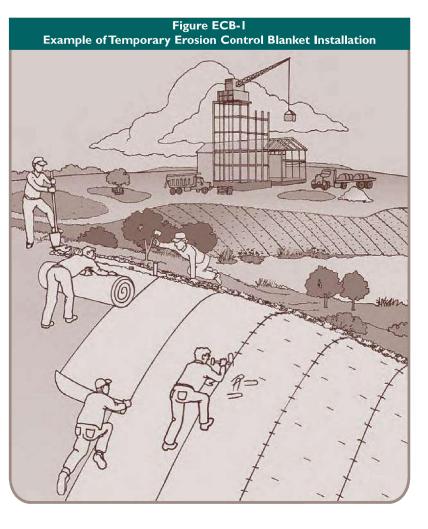
Inspect the installation to insure that all lap joints are secure, all edges are properly anchored and all staking or stapling patterns follow manufacturer's recommendations.

## Maintenance

Inspect temporary erosion control blankets at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for failures. Blanket failure has occurred when (1) soils and/or seed have washed away from beneath the blanket and the soil surface can be expected to continue to erode at an accelerated rate, and/or (2) the blanket has become dislodged from the soil surface or is torn.

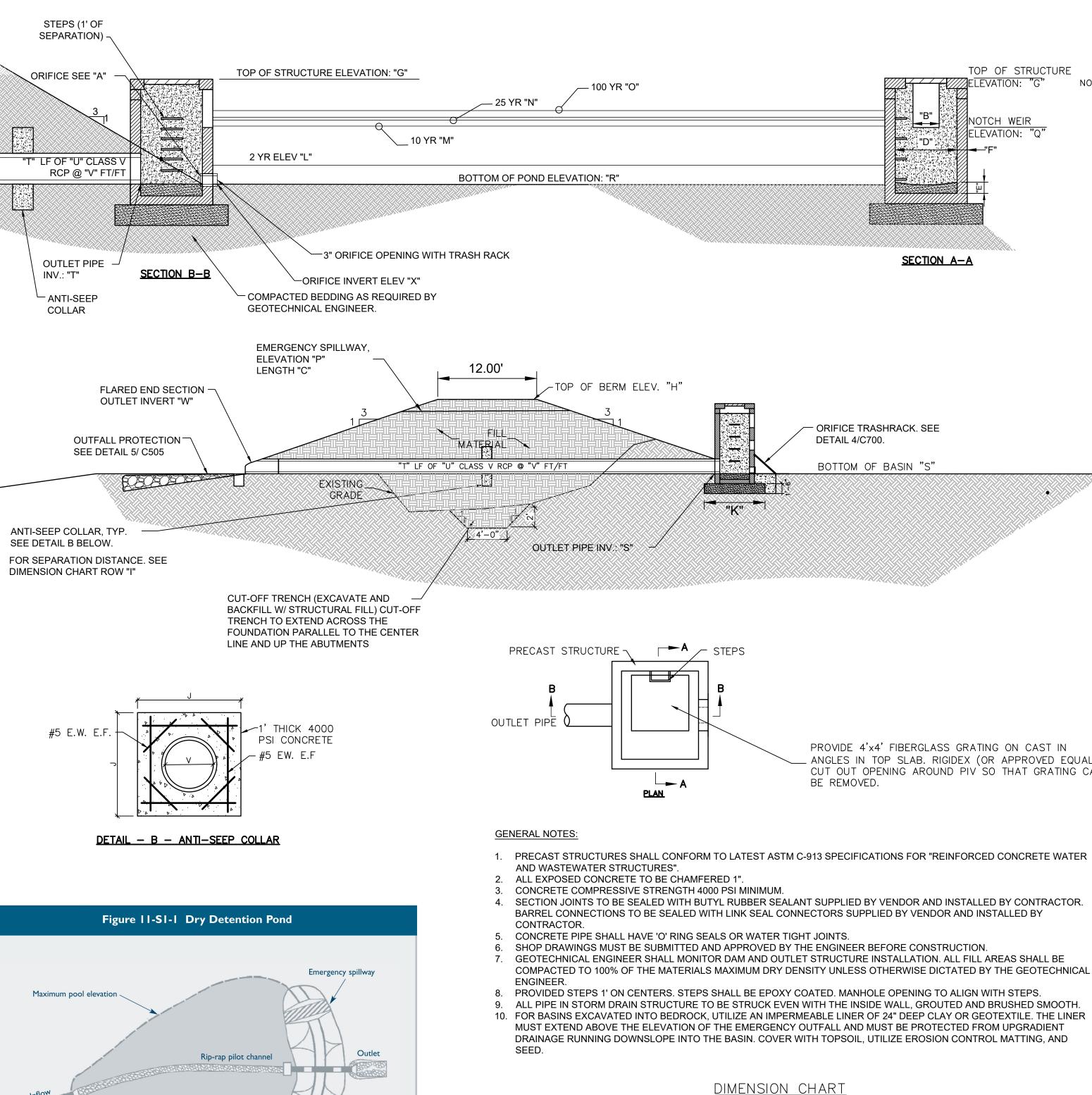
If washouts or breakouts occur, re-install the blanket after regrading and re-seeding, ensuring that blanket installation still meets design specifications. When repetitive failures occur at the same location, review conditions and limitations for use and determine if diversions, stone check dams or other measures are needed to reduce failure rate. Repair any dislodged or failed

blankets immediately. When used as a substitute for Mulch for Seed, continue to inspect as required by the seeding measure. When used as a substitute for Temporary Soil Protection, continue to inspect until it is replaced by other erosion control measures or until work resumes.



2002 Connecticut Guidelines for Soil Erosion and Sediment Control





**Plan View** 

Low flow orifice &

Barre

Anti-seep collar or

filter diaphragm

Stable outfall

trash rack ~

 $\bigtriangledown$  100 year level

 $\bigtriangledown$  10 year level

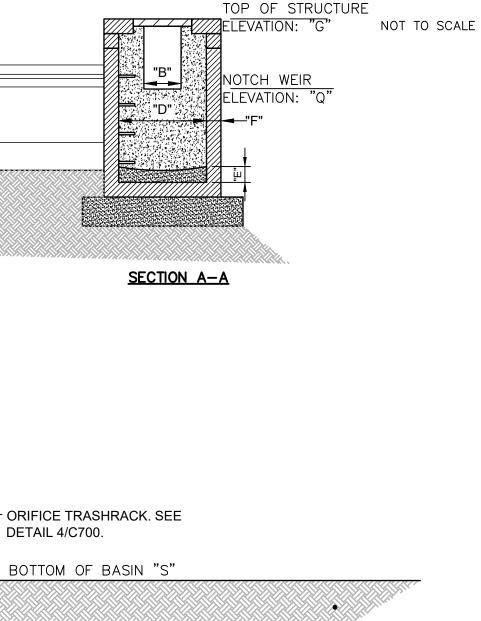
Pilot channe

Elevation

 $\bigtriangledown$  2 year level

		DIMENSION	<u>i cha</u>	RT
Γ		BASIN	POND 1	PO
	А	Orifice Diameter (in)	3	
	В	25YR Detention Weir Length (ft)	5	
	С	Emergency Spillway Length (ft)	20	4
	D	Inside Dimension of Outlet Structure (ft) (Square Box)	4	
	E	Concrete Ballast Depth (in)	8	
	F	Width of Outlet Structure Walls (in)	6	
	G	Top of Riser	1126.30	113
	н	Top of Berm	1127.00	113
	Ι	Anti-seep Collar Separation (ft)	20	
	J	Anti-seep Collar Length and Width (ft)	4	
	К	Outlet Structure Base Dimension (ft) (Depth is 18")	6	
	L	2 Year Water Elevation	1125.05	112
	М	10 Year Water Elevation	1125.35	112
	Ν	25 Year Water Elevation	1125.42	112
	0	100 Year Water Elevation	1125.48	112
	Р	Emergency Spillway Elevation	1125.60	112
	Q	Weir Elevation	1125.00	112
	R	Bottom of Pond Elevation	1123.00	112
	S	Outlet Pipe Invert	1123.00	112
	Т	Linear Feet of Outlet Pipe	35	(
	U	Diameter of Outlet Pipe	18	
	V	Outlet Pipe Slope (Ft/Ft)	0.0286	0.0
	W	Outlet Pipe FES Invert	1122.00	112
	Х	Orifice Invert	1121.00	112

PERMANENT DRY DETENTION POND NOT TO SCALE



PROVIDE 4'x4' FIBERGLASS GRATING ON CAST IN ANGLES IN TOP SLAB. RIGIDEX (OR APPROVED EQUAL) CUT OUT OPENING AROUND PIV SO THAT GRATING CAN BE REMOVED.

DND 1	POND 3	POND 5	POND 7	POND 8/10	POND 9
З	3	3	3	3	3
5	5	5	5	5	5
20	40	30	30	50	20
4	4	4	4	6	6
8	8	8	8	8	8
6	6	6	6	6	6
26.30	1134.00	1146.25	1157.00	1127.00	1182.50
27.00	1135.00	1147.00	1158.00	1129.00	1184.00
20	20	20	20	20	20
4	4	4	4	4	4
6	6	6	6	6	6
25.05	1127.90	1141.80	1149.61	1112.14	1179.25
25.35	1128.70	1142.33	1151.21	1113.30	1179.72
25.42	1128.99	1142.44	1151.53	1113.61	1180.03
25.48	1129.69	1142.52	1151.88	1114.44	1180.33
25.60	1129.50	1142.50	1152.50	1114.25	1180.00
25.00	1127.50	1142.00	1150.95	1111.25	1179.00
23.00	1122.00	1140.00	1147.00	1108.00	1177.00
23.00	1122.00	1140.00	1147.00	1108.00	1177.00
35	60	30	106	44	64
18	24	24	30	48	24
0286	0.0083	0.0167	0.0085	0.0114	0.0078
22.00	1121.50	1139.50	1145.10	1107.50	1176.50
21.00	1121.50	1137.00	1146.10	1100.00	1174.00

# SILICON RANCH NOT FOR CONSTRUCTION

FJS

# LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W



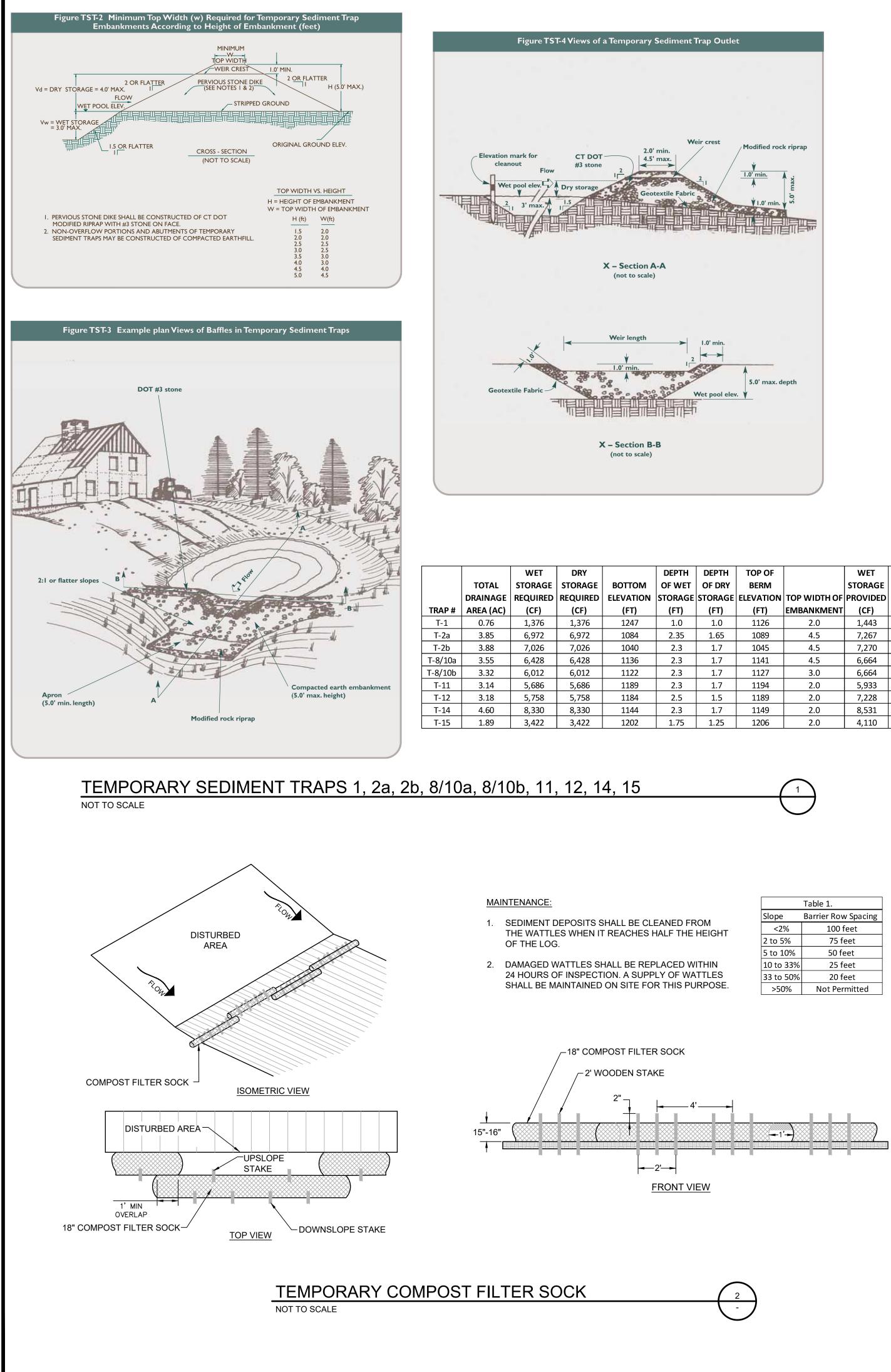
# LITCHFIELD, CT

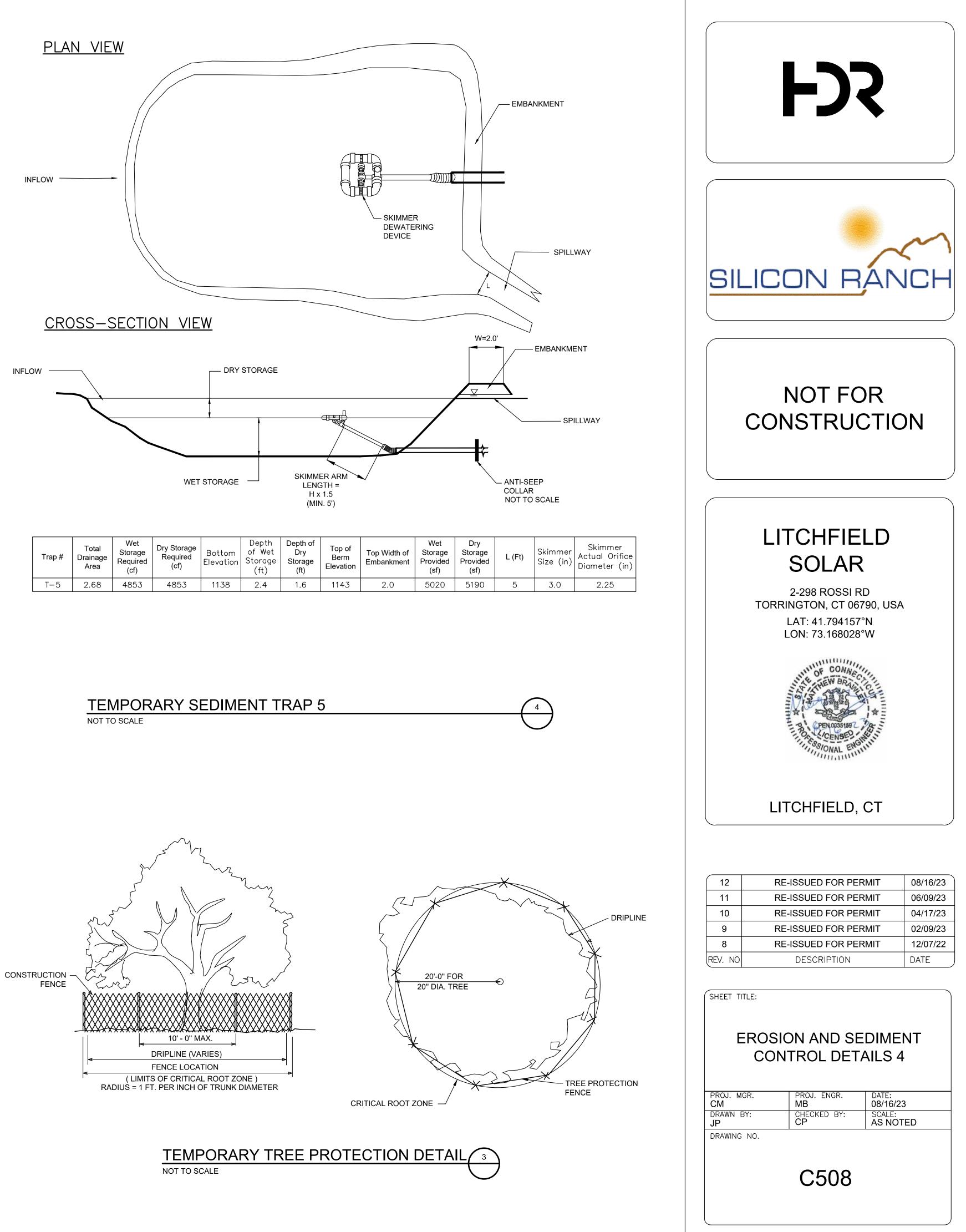
12	<b>RE-ISSUED FOR PERMIT</b>	08/16/23
11	<b>RE-ISSUED FOR PERMIT</b>	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
9	RE-ISSUED FOR PERMIT	02/09/23
8	RE-ISSUED FOR PERMIT	12/07/22
REV. NO	DESCRIPTION	DATE

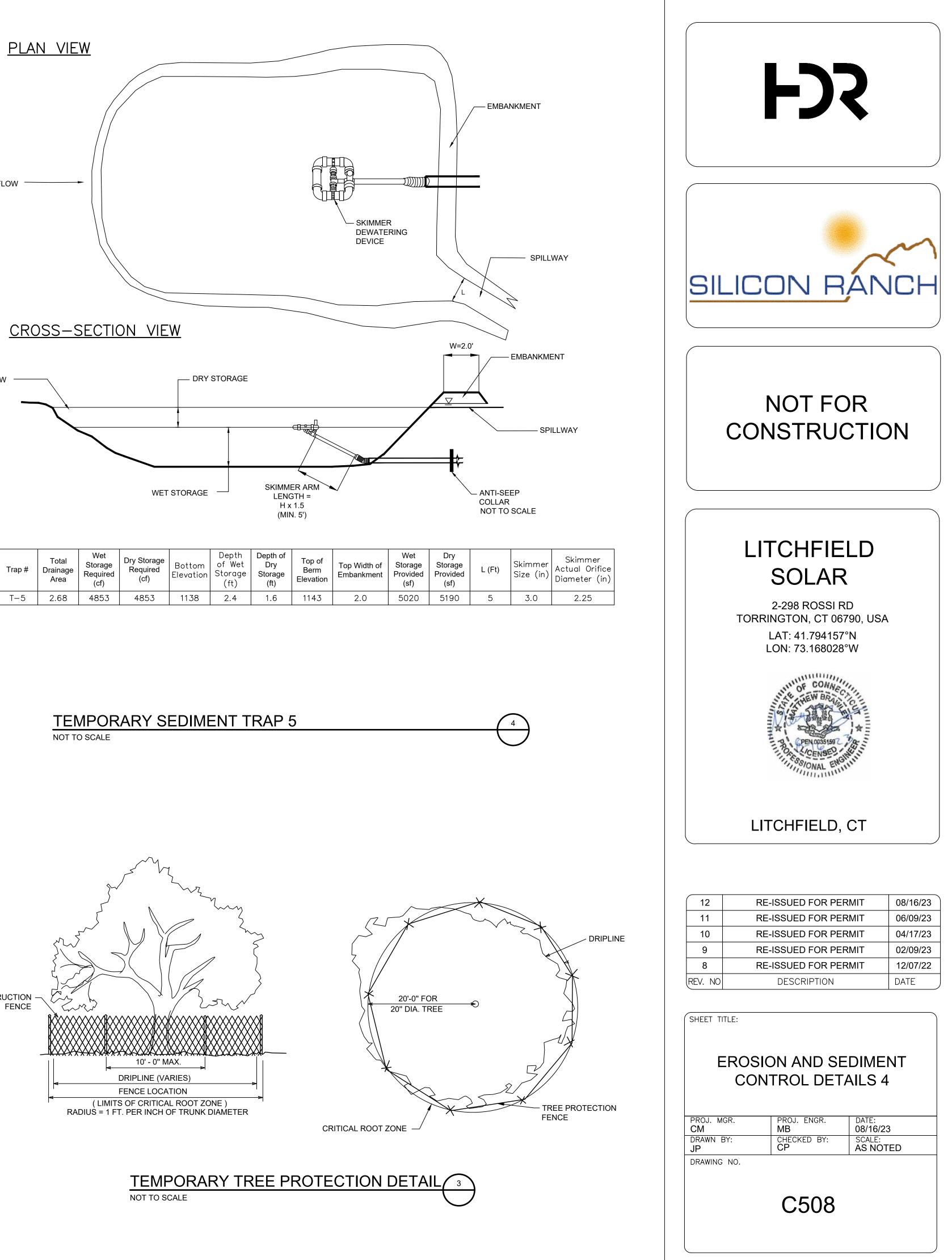
(SHEET TITLE:

# **EROSION AND SEDIMENT CONTROL DETAILS 3**

PROJ. MGR. <b>CM</b>	PROJ. ENGR. <b>MB</b>	DATE: 08/16/23
DRAWN BY: JP	CHECKED BY: CP	SCALE: AS NOTED
DRAWING NO.		
	C507	

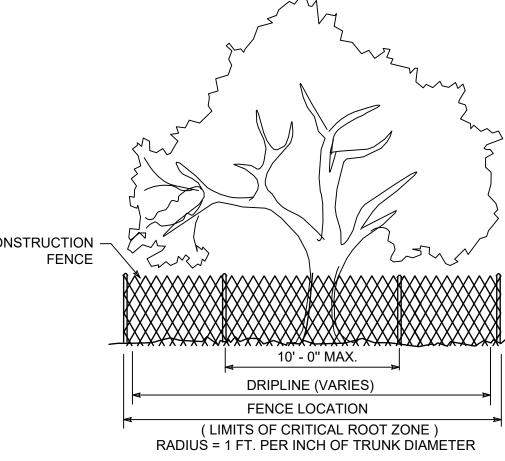


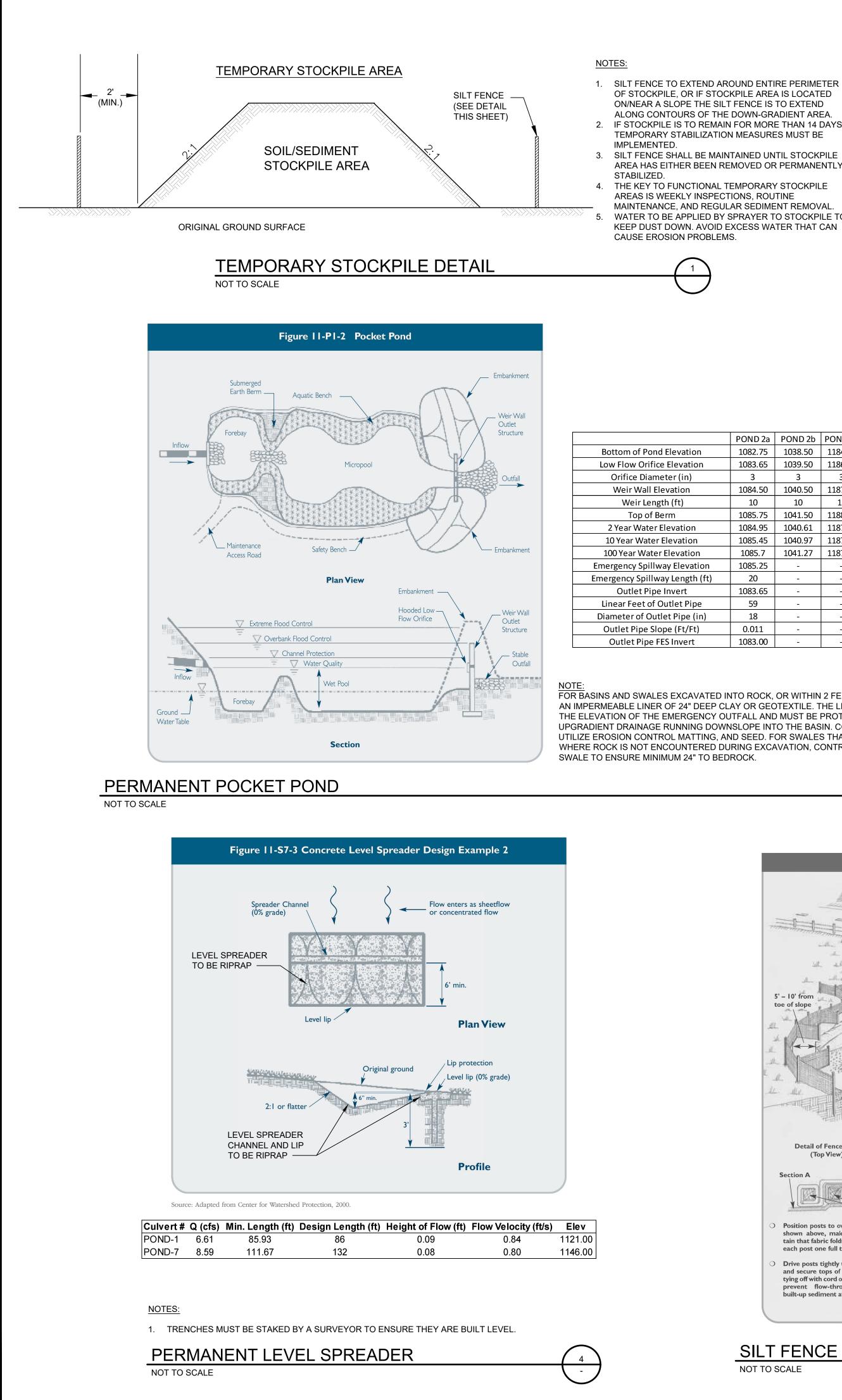




_					
-	DEPTH	TOP OF		WET	DRY
Т	OF DRY	BERM		STORAGE	STORAGE
GE	STORAGE	ELEVATION	TOP WIDTH OF	PROVIDED	PROVIDED
	(FT)	(FT)	EMBANKMENT	(CF)	(CF)
	1.0	1126	2.0	1,443	1,909
	1.65	1089	4.5	7,267	7,033
	1.7	1045	4.5	7,270	7,176
	1.7	1141	4.5	6,664	6,603
	1.7	1127	3.0	6,664	6,603
	1.7	1194	2.0	5,933	5,989
	1.5	1189	2.0	7,228	6,667
	1.7	1149	2.0	8,531	8,512
	1.25	1206	2.0	4,110	3,851







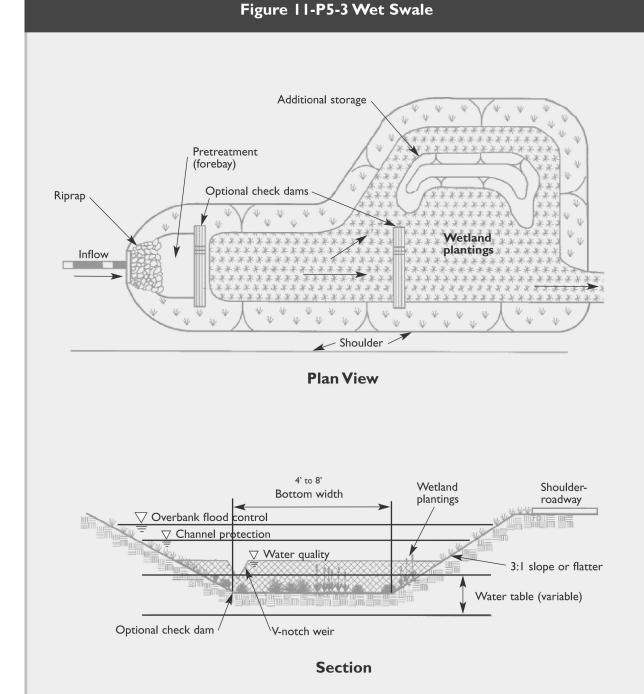
#### 1. SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON/NEAR A SLOPE THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN-GRADIENT AREA. 2. IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS TEMPORARY STABILIZATION MEASURES MUST BE

3. SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA HAS EITHER BEEN REMOVED OR PERMANENTLY

4. THE KEY TO FUNCTIONAL TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL. 5. WATER TO BE APPLIED BY SPRAYER TO STOCKPILE TO

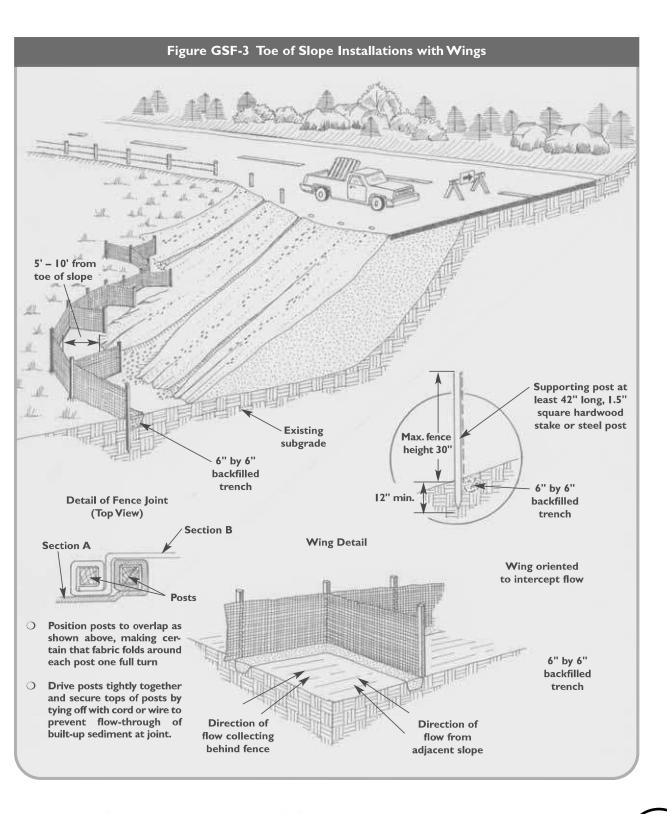
	POND 2a	POND 2b	POND 12
tion	1082.75	1038.50	1184.00
ation	1083.65	1039.50	1186.70
ו)	3	3	3
n	1084.50	1040.50	1187.15
	10	10	10
	1085.75	1041.50	1188.00
on	1084.95	1040.61	1187.28
ion	1085.45	1040.97	1187.51
ion	1085.7	1041.27	1187.69
vation	1085.25	-	-
gth (ft)	20	-	-
	1083.65	-	_
Pipe	59	_	_
e (in)	18	_	_
/Ft)	0.011	-	-
ert	1083.00	_	-

FOR BASINS AND SWALES EXCAVATED INTO ROCK, OR WITHIN 2 FEET OF BEDROCK, UTILIZE AN IMPERMEABLE LINER OF 24" DEEP CLAY OR GEOTEXTILE. THE LINER MUST EXTEND ABOVE THE ELEVATION OF THE EMERGENCY OUTFALL AND MUST BE PROTECTED FROM UPGRADIENT DRAINAGE RUNNING DOWNSLOPE INTO THE BASIN. COVER WITH TOPSOIL UTILIZE EROSION CONTROL MATTING, AND SEED. FOR SWALES THAT ARE EXCAVATED WHERE ROCK IS NOT ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL PROBE



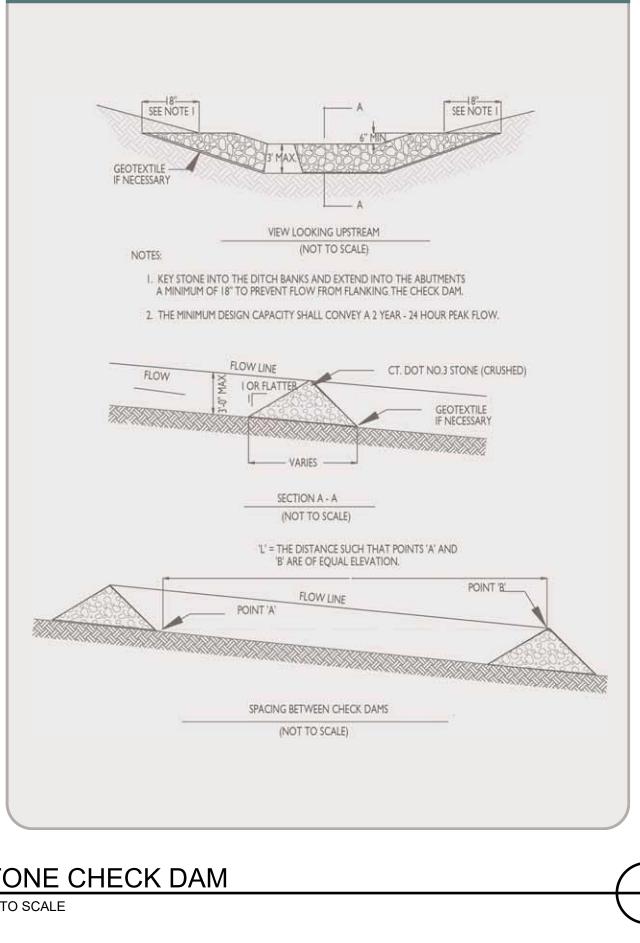
Source: Adapted from Center for Watershed Protection, 2000.

# PERMANENT WET SWALE NOT TO SCALE



SILT FENCE WITH WINGS

NOT TO SCALE



# STONE CHECK DAM NOT TO SCALE

Spillway Торо 100 Year Wa 2 Year Wat 10 Year Wa Water Qua Spillway Botton Slope of Concrete Check Dam -

Weighted Peak Runoff Ditch 10-yr Event Slope (cfs) 5.10 0.50 3 25.10 2.32 7.07 5 4.99 5.55 7 1.2 8/10a 16.36 3.1 8/10b 15.66 3.29 24.01 8/10c 2.70 8/10d 21.58 4.97 9

21.28 4.95% Trap 3 8 2 \*SEE SHEETS C420 AND C431-C433 FOR WEIR ELEVATIONS ALONG WET SWALE PROFILES. WEIR ELEVATIONS HAVE BEEN SET AT THE 10YR STORM DEPTH.

FOR BASINS AND SWALES EXCAVATED INTO ROCK, OR WITHIN 2 FEET OF BEDROCK, UTILIZE AN IMPERMEABLE LINER OF 24" DEEP CLAY OR GEOTEXTILE. THE LINER MUST EXTEND ABOVE THE ELEVATION OF THE EMERGENCY OUTFALL AND MUST BE PROTECTED FROM UPGRADIENT DRAINAGE RUNNING DOWNSLOPE INTO THE BASIN. COVER WITH TOPSOIL, UTILIZE EROSION CONTROL MATTING, AND SEED. FOR SWALES THAT ARE EXCAVATED WHERE ROCK IS NOT ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL PROBE SWALE TO ENSURE MINIMUM 24" TO BEDROCK.

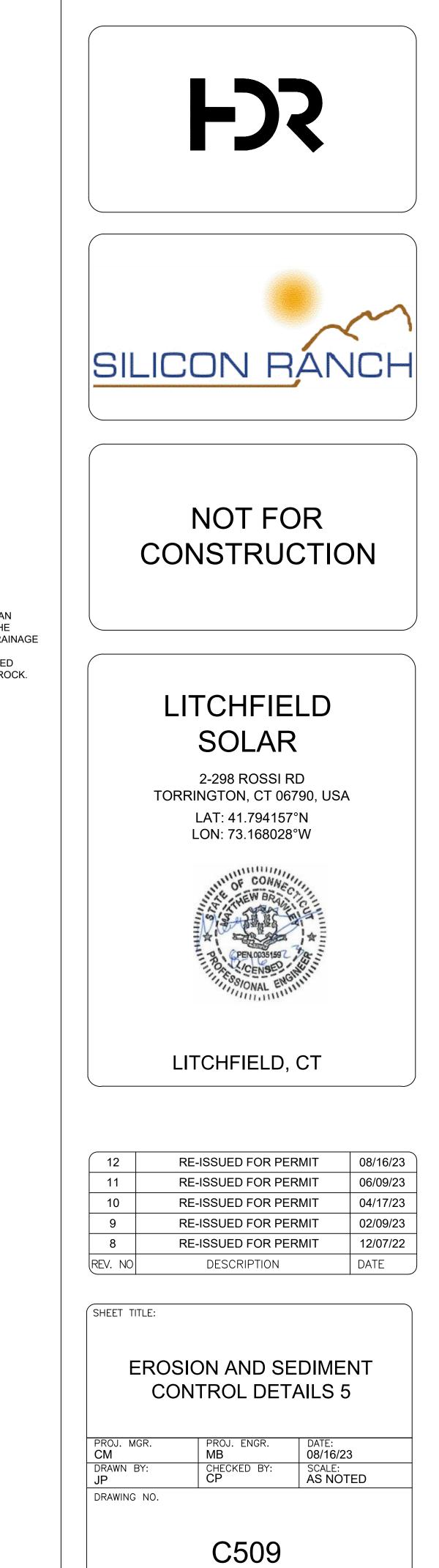
Wet Swales for Quantity and Quality				
	SWALE 11	SWALE 14		
Spillway Length (ft)	20	20		
Top of Berm	1192.50	1148.50		
Year Water Elevation	1191.43	1148.27		
ear Water Elevation	1191.02	1147.76		
Year Water Elevation	1191.22	1147.95		
ter Quality Elevation	1190.80	1146.80		
Spillway Elevation	1191.00	1147.50		
Bottom of Pond	1188.00	1145.00		
lope of Bottom (%)	0.50	0.50		
ck Dam - V-notch Weir Elevation	1189.80	1146.80		

## Wet Swales for Quality Only (Discharging to Dry Ponds)

vg. e (%)	Shape	Side Slope z:1	Bott. (ft)	Depth (ft)	Top Width (ft)
50%	Trap.	3	8	2	20
32%	Trap.	3	4	2	16
99%	Trap.	3	4	1	10
27%	Trap.	3	6	2	18
L5%	Trap.	3	8	2	20
29%	Trap.	3	4	1.5	13
70%	Trap.	3	8	2.5	23
97%	Trap.	3	8	1.5	17
95%	Trap	3	8	2	20



Figure SCD-2 Stone Check Dam Installation in Drainageways



# EARTHEN STOCKPILE MANAGEMENT Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile. Provide stable stone access point when feasible. 4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs. HERBICIDES, PESTICIDES AND RODENTICIDES . Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.

- 2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- . Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately. 4. Do not stockpile these materials onsite.

## HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- 2. Place hazardous waste containers under cover or in secondary containment
- 3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

## EQUIPMENT AND VEHICLE MAINTENANCE

- 1. Maintain vehicles and equipment to prevent discharge of fluids.
- 2. Provide drip pans under any stored equipment.
- 3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- 4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- 5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- 6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

# LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers. Provide a sufficient number and size of waste containers (e.g dumpster, trash
- receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland. Cover waste containers at the end of each workday and before storm events or
- provide secondary containment. Repair or replace damaged waste containers. Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility. 9. On business days, clean up and dispose of waste in designated waste containers.

# **CONCRETE WASHOUTS**

- 1. Do not discharge concrete or cement slurry from the site.
- 2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- 4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- 6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- 8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- 9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

EROSION CONTROL NOTES:

- 1. If necessary, slopes, which exceed eight (8) vertical feet should be stabilized with synthetic or vegetative mats, in addition to hydroseeding. It may be necessary to install temporary slope drains during construction. Temporary berms may be needed until the slope is brought to grade.
- 2. Where construction activities have permanently ceased or when final grades are reached in any portion of the site, stabilization and protection practices as specified in Chapter 5 of the Guidelines or as approved by the commissioner or his/ her designated agent shall be implemented within seven days. Areas that will remain disturbed but inactive for at least thirty days will receive temporary seeding or soil protection within seven days in accordance with the Guidelines
- 3. All sediment and erosion control devices shall be inspected once every calendar week. If periodic inspection or other information indicates that a BMP has been inappropriately, or incorrectly, the Permittee must address the necessary replacement or modification required to correct the BMP within 48 hours of identification. Inspections shall be done in accordance with the SWPCP.
- 4. Provide silt fence and/or other control devices, as may be required, to control soil erosion during utility construction. All disturbed areas shall be cleaned, graded, and stabilized with grassing immediately after the utility installation. Fill, cover, and temporary seeding at the end of each day are recommended. If water is encountered while trenching, the water should be filtered to remove sediment before being pumped back into any waters of the State.
- All erosion control devices shall be properly maintained during all phases of construction until the completion of all construction activities and all disturbed areas have been stabilized. Additional control devices may be required during construction in order to control erosion and/or offsite sedimentation. All temporary control devices shall be removed once construction is complete and the site is stabilized.
- The contractor must take necessary action to minimize the tracking of mud onto paved roadway(s) from construction areas and the generation of dust. The contractor shall daily remove mud/soil from pavement, as may be required.
- 7. Temporary diversion berms and/or ditches will be provided as needed during construction to protect work areas from upslope runoff and/or to divert sediment-laden water to appropriate traps or stable outlets.
- 8. All waters of the State (WoS), including wetlands, are to be flagged or otherwise clearly marked in the field. A double row of silt fence is to be installed in all areas where a 25-foot buffer can't be maintained between the disturbed area and all WoS. A 10-foot buffer should be maintained between the last row of silt fence and all WoS.
- 9. Litter, construction debris, oils, fuels, and building products with significant potential for impact (such as stockpiles of freshly treated lumber) and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.
- 10. A copy of the SWPCP, inspections records, and rainfall data must be retained at the construction site or a nearby location easily accessible during normal business hours, from the date of commencement of construction activities to the date that final stabilization is reached.
- 11. Initiate stabilization measures on any exposed steep slope (3H:1V or greater) where land-disturbing activities have permanently or temporarily ceased, and will not resume for a period of 7 calendar days.
- 12. Minimize soil compaction and, unless infeasible, preserve topsoil.
- 13. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
- 14. Minimize the discharge of pollutants from dewatering of trenches and excavated areas. These discharges are to be routed through appropriate BMPs (sediment basin, filter bag, etc.).
- 15. The following discharges from sites are prohibited and shall be in compliance with the SWPCP:
  - Wastewater from washout of concrete, unless managed by an
  - appropriate control; • Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction
  - materials; • Fuels, oils, or other pollutants used in vehicle and
  - equipment operation and maintenance; and
  - Soaps or solvents used in vehicle and equipment washing.
- 16. After construction activities begin, inspections must be conducted at a minimum of at least once every calendar week and must be conducted until final stabilization is reached on all areas of the construction site. Inspections shall be done in accordance with the SWPCP.
- 17. If existing BMPs need to be modified or if additional BMPs are necessary to comply with the requirements of this permit and/or

#### GROUND STABILIZATION SPECIFICATION Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	
<ul> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li>Rolled erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul> <li>Permanent other muld</li> <li>Geotextile reinforcerr</li> <li>Hydroseed</li> <li>Shrubs or o with mulct</li> <li>Uniform ar sufficient t</li> <li>Structural retaining w</li> <li>Rolled eros</li> </ul>

Permanent Stabilization nt grass seed covered with straw or

Iches and tackifiers e fabrics such as permanent soil

ment matting other permanent plantings covered

and evenly distributed ground cover

to restrain erosion l methods such as concrete, asphalt or

walls osion control products with grass seed

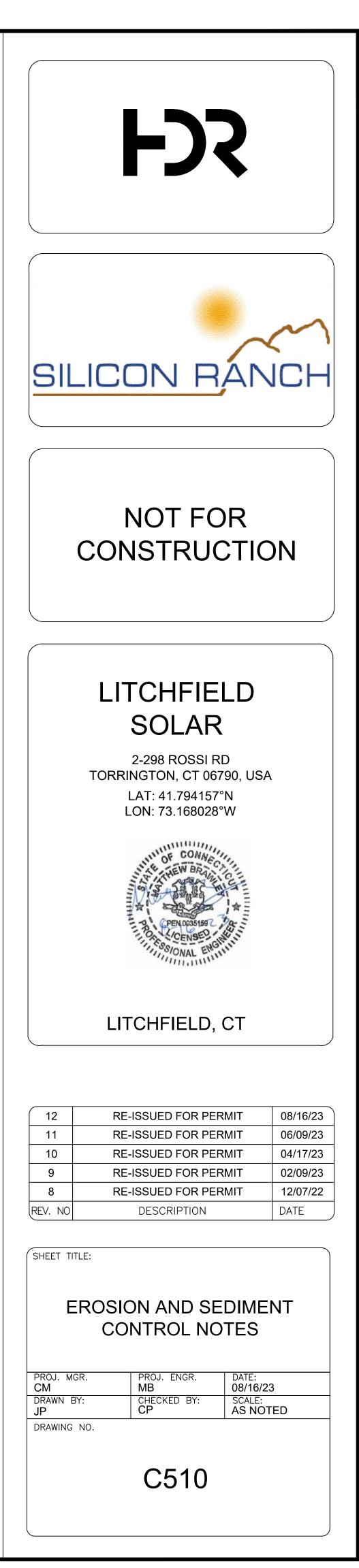
CT's Water Quality Standards, implementation must be completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented in the SWPCP inspectoin report and alternative BMPs must be implemented as soon as reasonably possible.

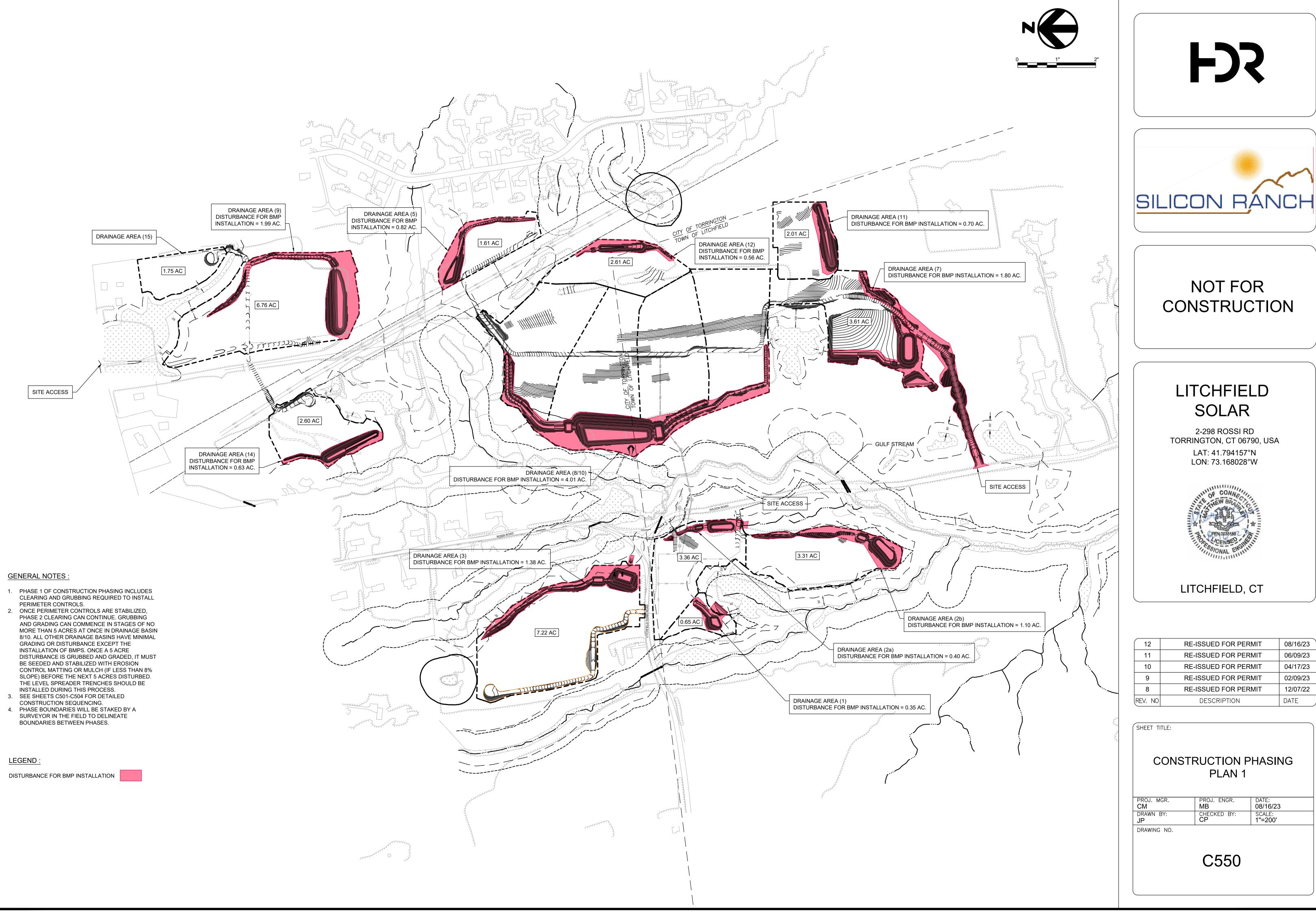
18. A Pre-Construction Conference must be held for each construction site with an approved On-Site SWPCP prior to the implementation of construction activities. For non-linear projects that disturb 10 acres or more this conference must be held on-site unless the Department has approved otherwise.

19. For slopes greater than or equal to 8%, erosion control blankets or stump grindings or erosion control mix mulch or hydroseed with tackifier shall be applied within 72 hours of final grading, or when a rainfall of 0.5 inches or greater is predicted within 24 hours of final grading, whichever time period is less.

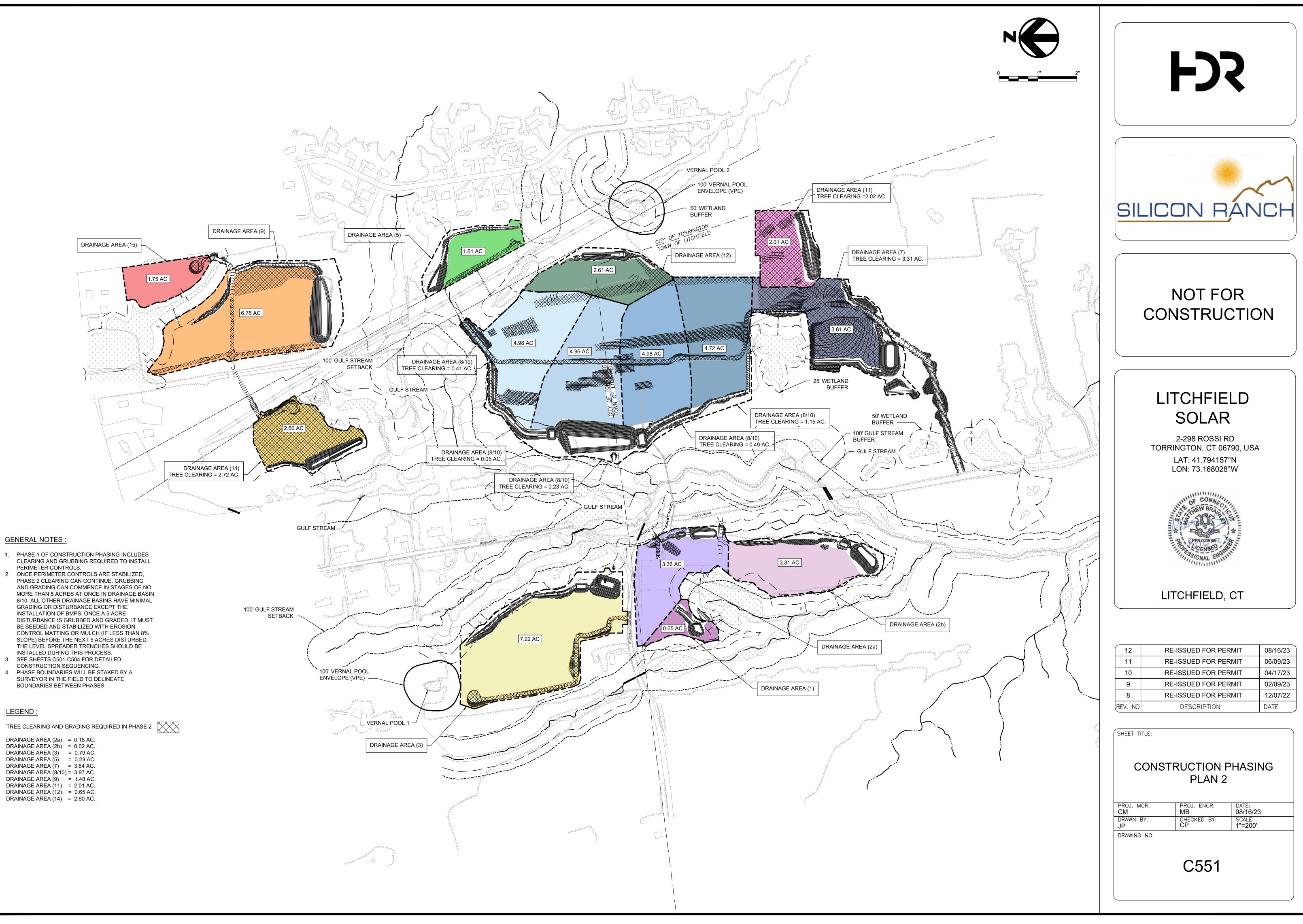
20. If the ground is semi-frozen, punch seed disturbed areas (seed applied into soil), allowing the seed to remain wet and germinate during fvorable weather conditions.

21. Install two rows of silt fencing/compost filter sock in areas where the distance from a wetland to the LOD is less than 100 ft.



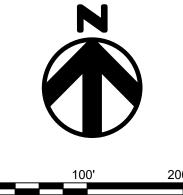






DRAINA	GE A	REA	(2a)	=	0.18	AC.
DRAINA	GE A	REA	(2b)	=	0.02	AC.
DRAINA	GE A	REA	(3)	=	0.79	AC.
DRAINA	GE A	REA	(5)	=	0.23	AC.
DRAINA	GE A	REA	(7)	=	3.64	AC.
DRAINA	GE A	REA	(8/10)	=	3.97	AC.
DRAINA	GE A	REA	(9)	=	1.48	AC.
DRAINA	GE A	REA	(11)	=	2.01	AC.
DRAINA	GE A	REA	(12)	=	0.65	AC.
DRAINA	GE A	REA	(14)	=	2.60	AC.

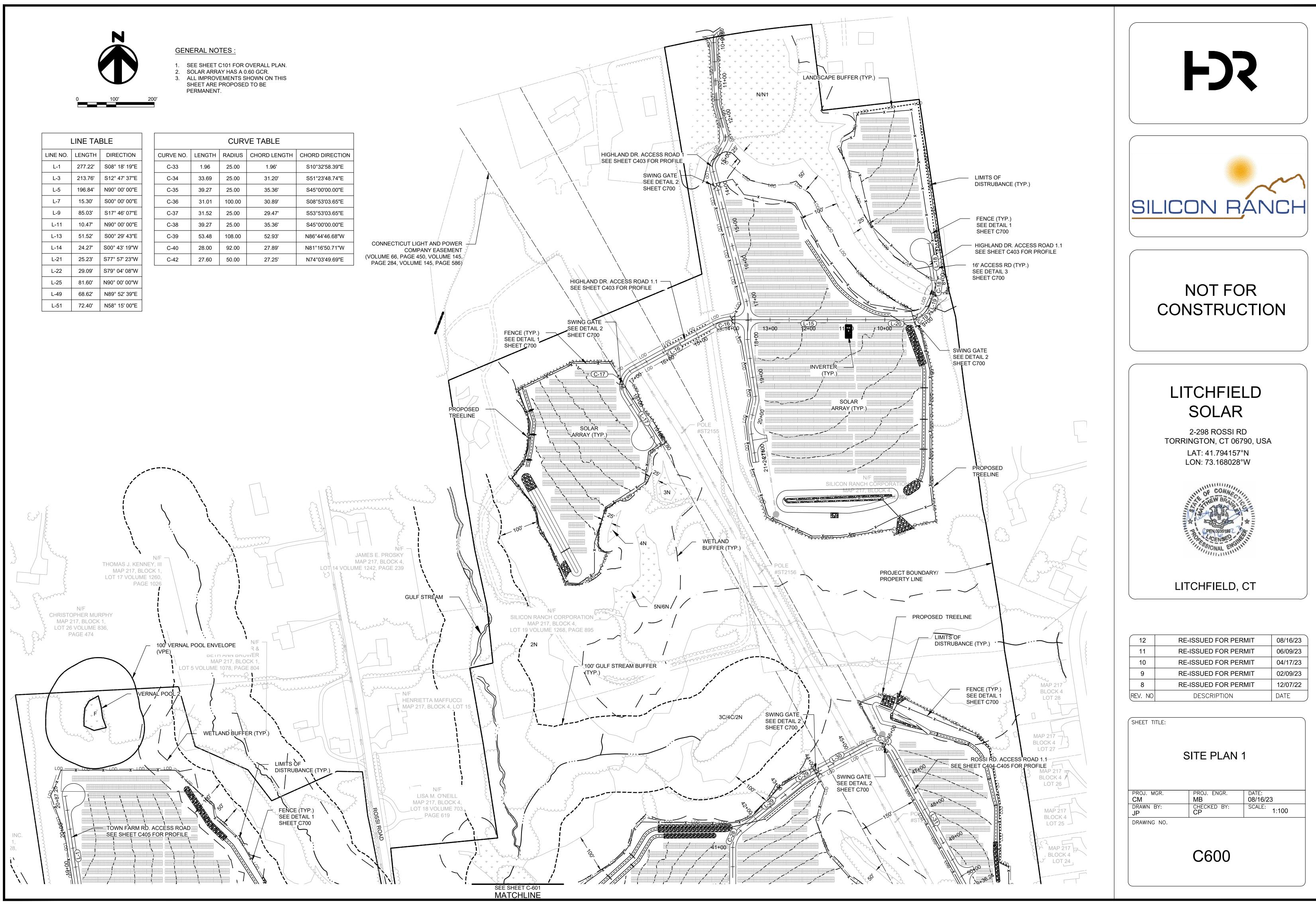
LEGEND :

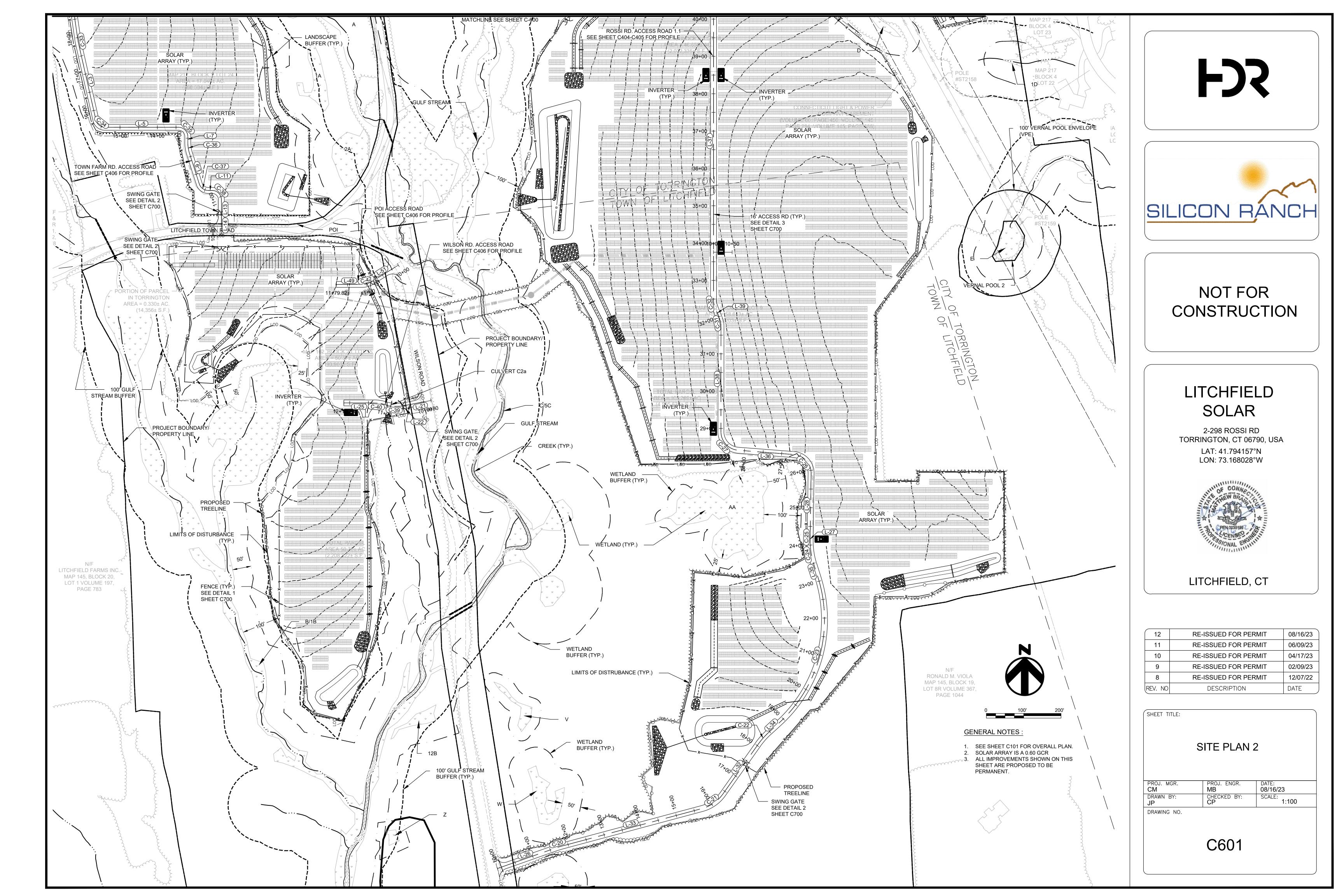


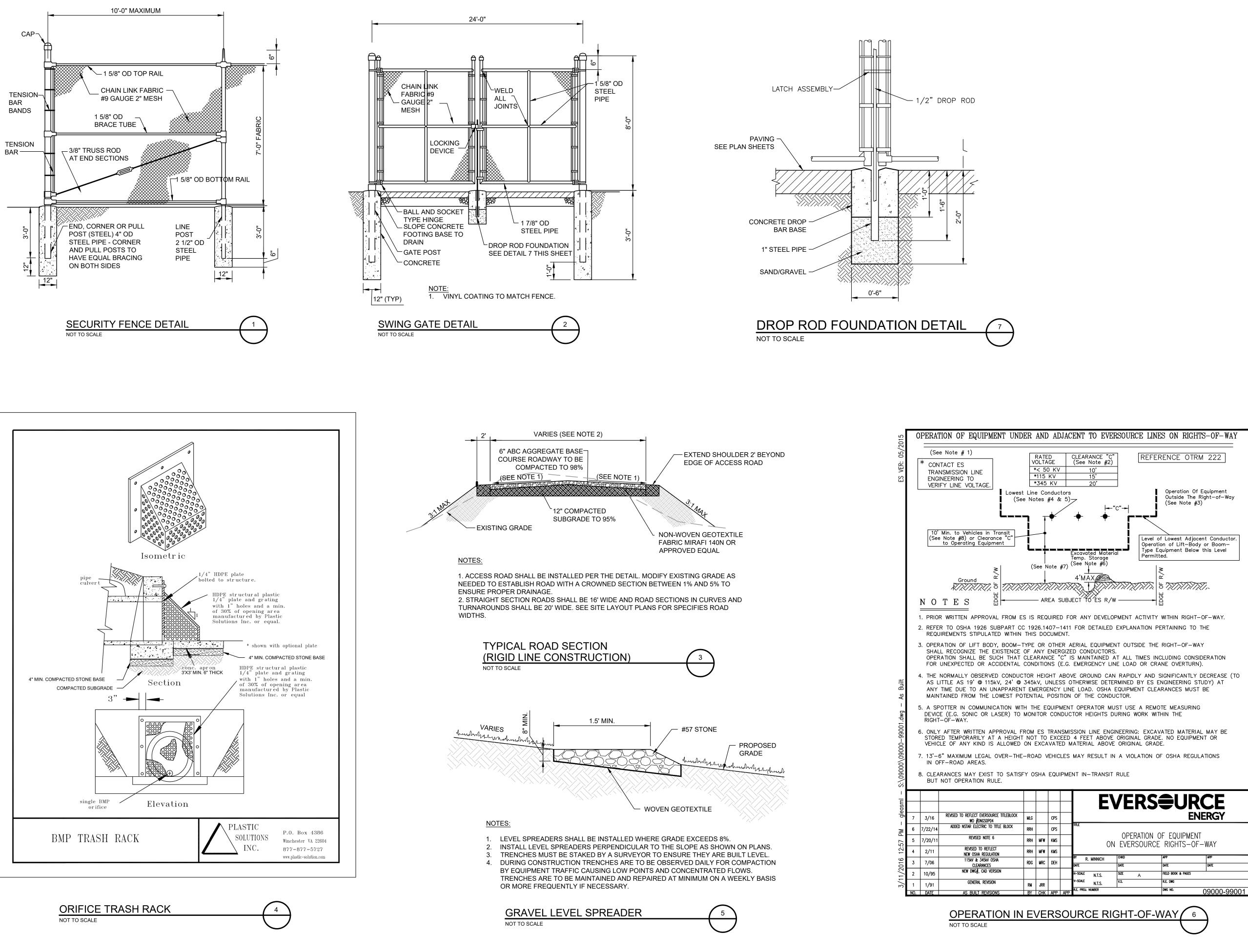
- SHEET ARE PROPOSED TO BE

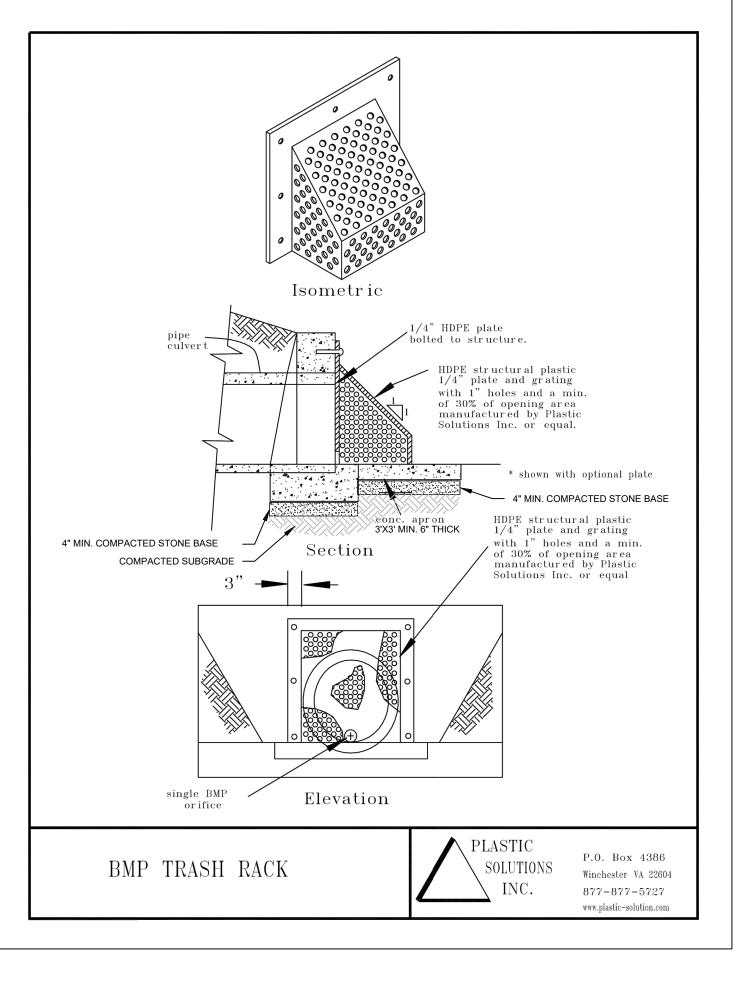
	LINE TABLE				
LINE NO.	LENGTH	DIRECTION			
L-1	277.22'	S08° 18' 19"E			
L-3	213.76'	S12° 47' 37"E			
L-5	196.84'	N90° 00' 00"E			
L-7	15.30'	S00° 00' 00"E			
L-9	85.03'	S17° 46' 07"E			
L-11	10.47'	N90° 00' 00"E			
L-13	51.52'	S00° 29' 43"E			
L-14	24.27'	S00° 43' 19"W			
L-21	25.23'	S77° 57' 23"W			
L-22	29.09'	S79° 04' 08"W			
L-25	81.60'	N90° 00' 00"W			
L-49	68.62'	N89° 52' 39"E			
L-51	72.40'	N58° 15' 00"E			

CURVE TABLE				
CURVE NO.	LENGTH	RADIUS	CHORD LENGTH	CHORD DIRECTION
C-33	1.96	25.00	1.96'	S10°32'58.39"E
C-34	33.69	25.00	31.20'	S51°23'48.74"E
C-35	39.27	25.00	35.36'	S45°00'00.00"E
C-36	31.01	100.00	30.89'	S08°53'03.65"E
C-37	31.52	25.00	29.47'	S53°53'03.65"E
C-38	39.27	25.00	35.36'	S45°00'00.00"E
C-39	53.48	108.00	52.93'	N86°44'46.68"W
C-40	28.00	92.00	27.89'	N81°16'50.71"W
C-42	27.60	50.00	27.25'	N74°03'49.69"E









# FJS



# NOT FOR CONSTRUCTION

# LITCHFIELD SOLAR

2-298 ROSSI RD TORRINGTON, CT 06790, USA LAT: 41.794157°N LON: 73.168028°W

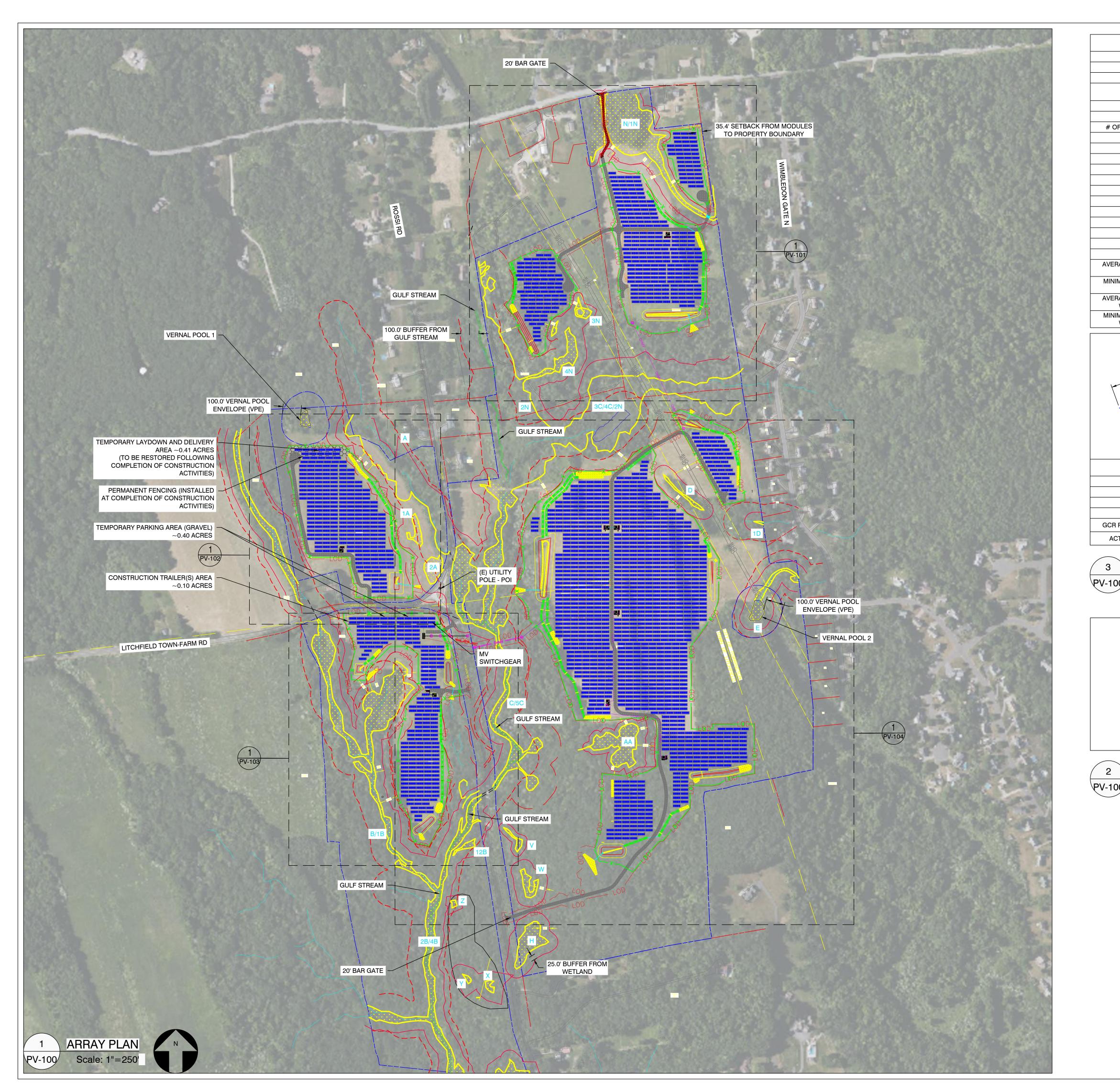


LITCHFIELD, CT

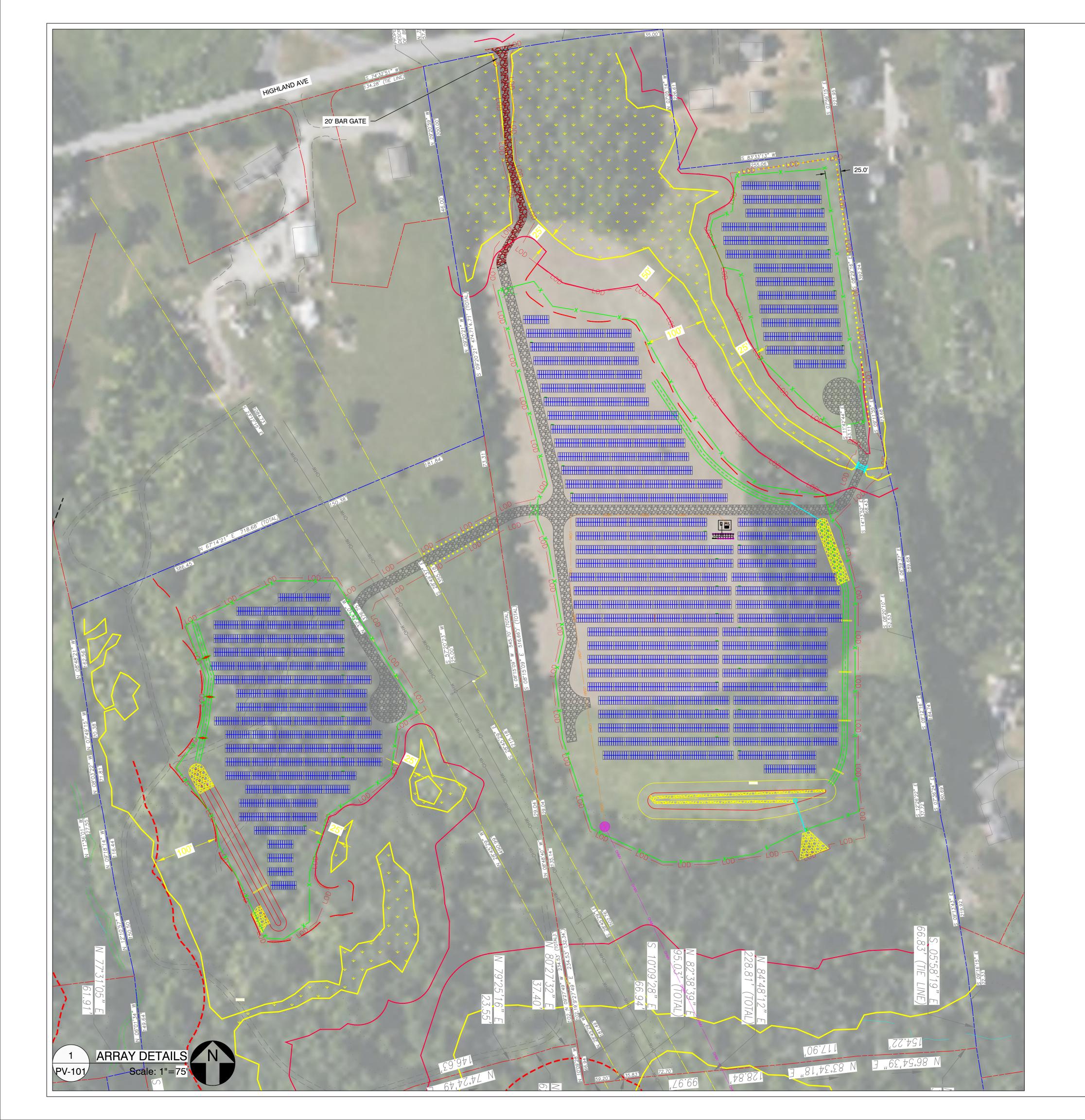
14	REVISED PER SITING COUNCIL	11/14/23
13	<b>REVISION FOR CLARITY</b>	09/26/23
12	RE-ISSUED FOR PERMIT	08/16/23
11	RE-ISSUED FOR PERMIT	06/09/23
10	RE-ISSUED FOR PERMIT	04/17/23
REV. NO	DESCRIPTION	DATE

SHEET TITLE: SITE ACCESS PLAN & **CIVIL DETAILS** PROJ. MGR. PROJ. ENGR. DATE: CM MB 11/14/23 DRAWN BY: CHECKED BY: SCALE: NTS IP DRAWING NO. C700

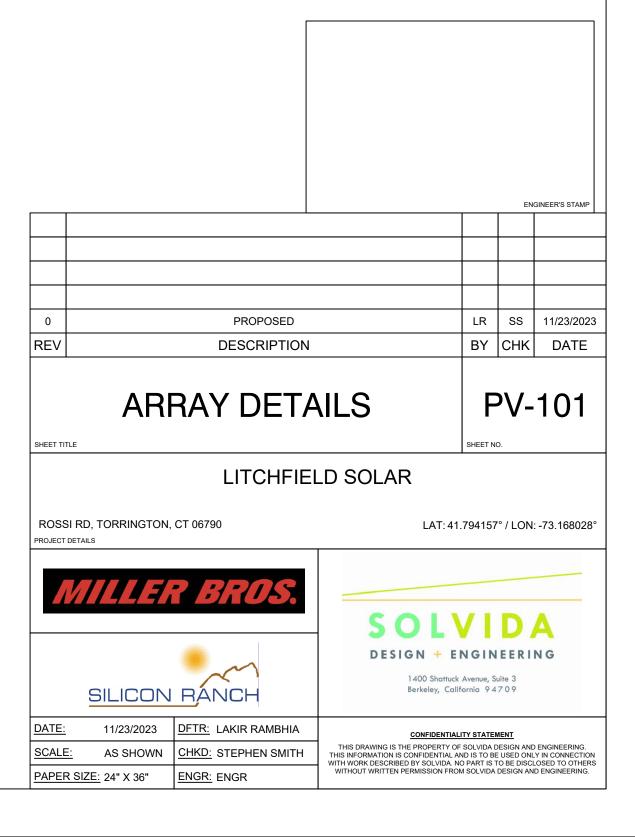
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CPS				ENE	RGY
CPS		TITLE			
KMS		ON	EVERSOURCE	F EQUIPMENT RIGHTS-OF-	WAY
KMS					
Deh		<sup>by</sup> R. MINNICH date	CHKD DATE	APP	APP DATE
		H-scale N.T.S.	size A	FIELD BOOK & PAGES	
		V-SCALE N.T.S.	V.S.	R.E. DWG	
APP	APP	R.E. PROJ. NUMBER		DWG NO. (	9000-99001

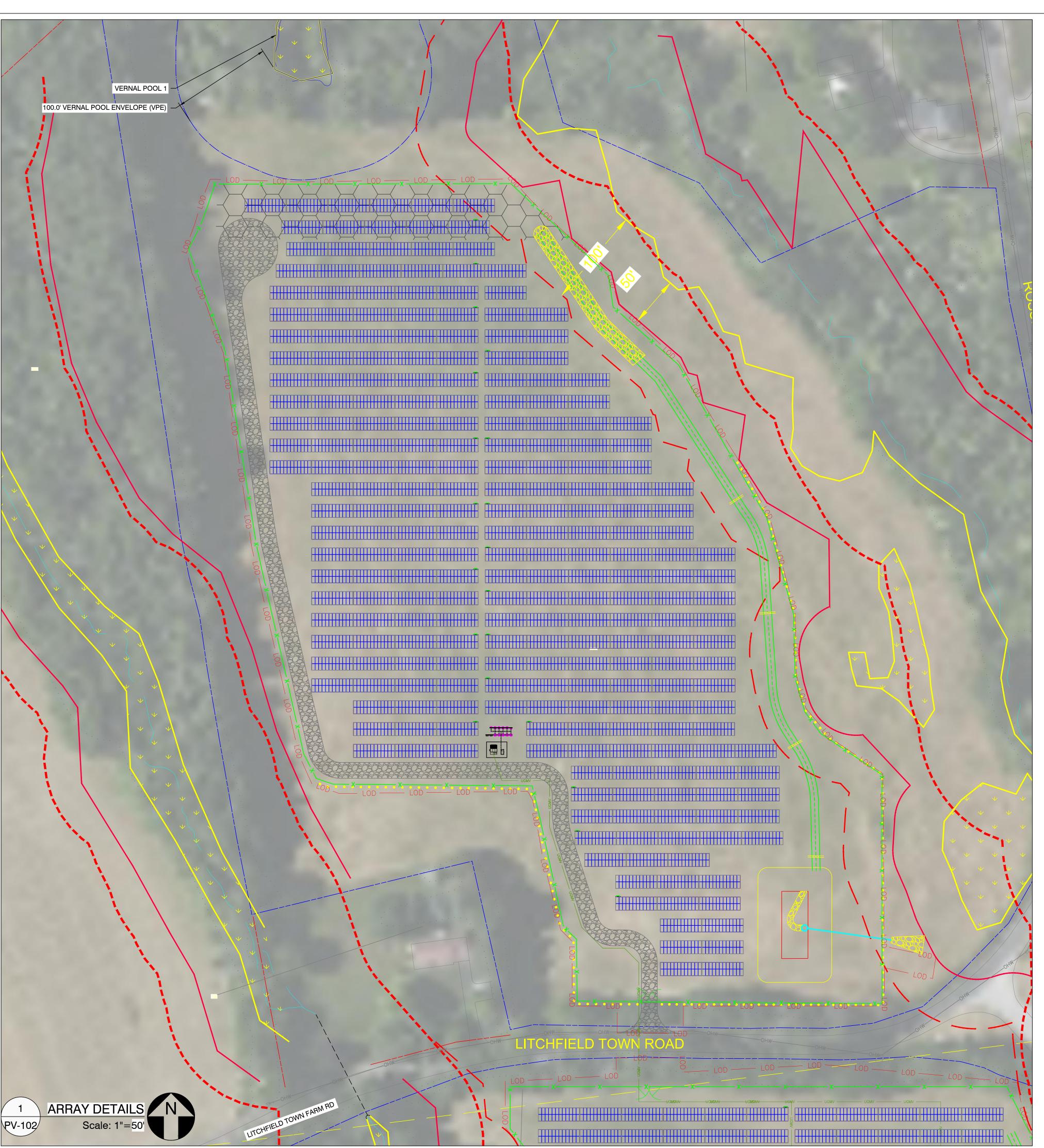


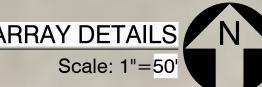
	JECT DETAILS			LEGEND		
SYSTEM SIZE AC SYSTEM SIZE DC	23,109.12 kW			2P X 12 HANWHA Q-CELLS 480W @25° TH T		
DC/AC RATIO MODULE MODEL	HANWHA Q CELLS			480W @25° TILT EQUIPMENT RACK (TYP. OF 8)		
MODULE RATING				(1) LV SWITCHGEAR & (1) MV		MER
TOTAL MODULE QTY OF MODULES PER STRINGS	48,144 24			SUNGROW 125kW STRING INV	/ERTER	
TOTAL # OF STRINGS INVERTER MODEL	2,006 SUNGROW SG125HV			EQUIPMENT RACK WITH 1 STF	RING INVE	RTER
INVERTER RATING TOTAL INVERTER QTY	125 kW 170			EQUIPMENT RACK WITH 3 STF	RING INVE	RTERS
RACKING TILT ANGLE	GROUND MOUNT FIXED TILT			EQUIPMENT RACK WITH 4 STF	RING INVE	RTERS
AZIMUTH	180°			WETLANDS		
PITCH INTER ROW SPACING				UNDERGROUND DC CABLE		
GCR FENCED AREA	61% 65.65 ACRES					
PROPERTY AREA ERAGE DISTANCE BETWEEN	15'		UGMV	UNDERGROUND MEDIUM VOL	TAGE CAE	BLE
FENCE AND MODULE	10'		онw	OVERHEAD ELECTRICAL LIN	ES	
FENCE AND MODULE ERAGE DISTANCE BETWEEN WETLANDS AND MODULE	100'		_ooo	PERMANENT FENCE LINE		
NIMUM DISTANCE BETWEEN WETLANDS AND MODULE	50'		<u> </u>	TEMPORARY FENCE LINE		
			LOD LOD	LIMIT OF DISTURBANCE		
	Z			STORMWATER BASIN		
X						
	— Y — I		8080808	16FT ACCESS ROADS		
			8888	12FT ACCESS ROADS		
L			EZZ,	TEMPORARY LAYDOWN AREA (TO BE RESTORED FOLLOWIN OF CONSTRUCTION ACTIVITIE	G COMPLI	ETION
				25' WETLAND BUFFER		
G FEE	CR TABLE			100' WETLAND SETBACK		
X 14.5 Y 8.69				100' GULF STREAM BUFFER		
Z 22.0	3 6.72 PITCH			100 GOLF STREAM DOFFEN		
ACTUAL GCR	66%         X/Z           60.5%         (Z-Y)/Z		2A	WETLAND ID		
8.7'	- 41.6'					
TYP. MODU	Scale: 1"=	=20'				ENGINEER'S STAMP
				I		
		0	PRC	DPOSED	LR St	6 11/23/202
		REV	DESC	RIPTION	BY CH	K DATE
			PROPOSE	D LAYOUT	PV	-100
		SHEET TI			SHEET NO.	
			LIT	CHFIELD SOLAR		
			SI RD, TORRINGTON, CT 06790 I DETAILS	LAT: 4	1.794157° / Lo	ON: -73.168028
			SILICON RANCH	DESIGN + E 1400 Shattuci Berkeley, Cal		
		DATE SCAL			AND IS TO BE USED NO PART IS TO BE D	ONLY IN CONNECTION



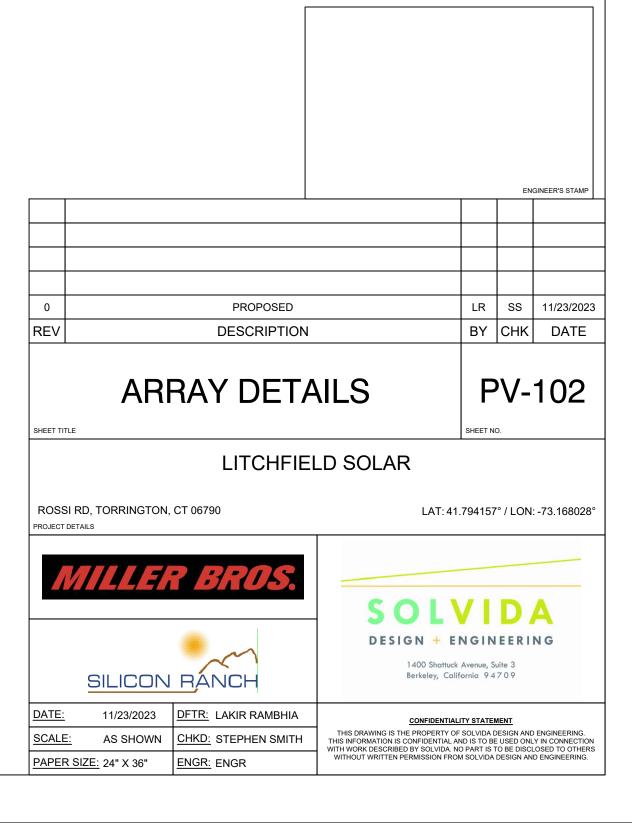
LEGEND			
	2P X 12 HANWHA Q-CELLS 480W @25° TILT		
	EQUIPMENT RACK (TYP. OF 8) (1) LV SWITCHGEAR & (1) MV TRANSFORMER		
-	SUNGROW 125kW STRING INVERTER		
	EQUIPMENT RACK WITH 1 STRING INVERTER		
	EQUIPMENT RACK WITH 3 STRING INVERTERS		
	EQUIPMENT RACK WITH 4 STRING INVERTERS		
	WETLANDS		
	UNDERGROUND DC CABLE		
UGMV	UNDERGROUND MEDIUM VOLTAGE CABLE		
OHW	OVERHEAD ELECTRICAL LINES		
-00	PERMANENT FENCE LINE		
<u> </u>	TEMPORARY FENCE LINE		
LOD LOD	LIMIT OF DISTURBANCE		
	STORMWATER BASIN		
608080	16FT ACCESS ROADS		
8888	12FT ACCESS ROADS		
K-X-X	TEMPORARY LAYDOWN AREA (TO BE RESTORED FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES)		
	25' WETLAND BUFFER		
	100' WETLAND SETBACK		
	100' GULF STREAM BUFFER		
2A	WETLAND ID		
	LANDSCAPING		

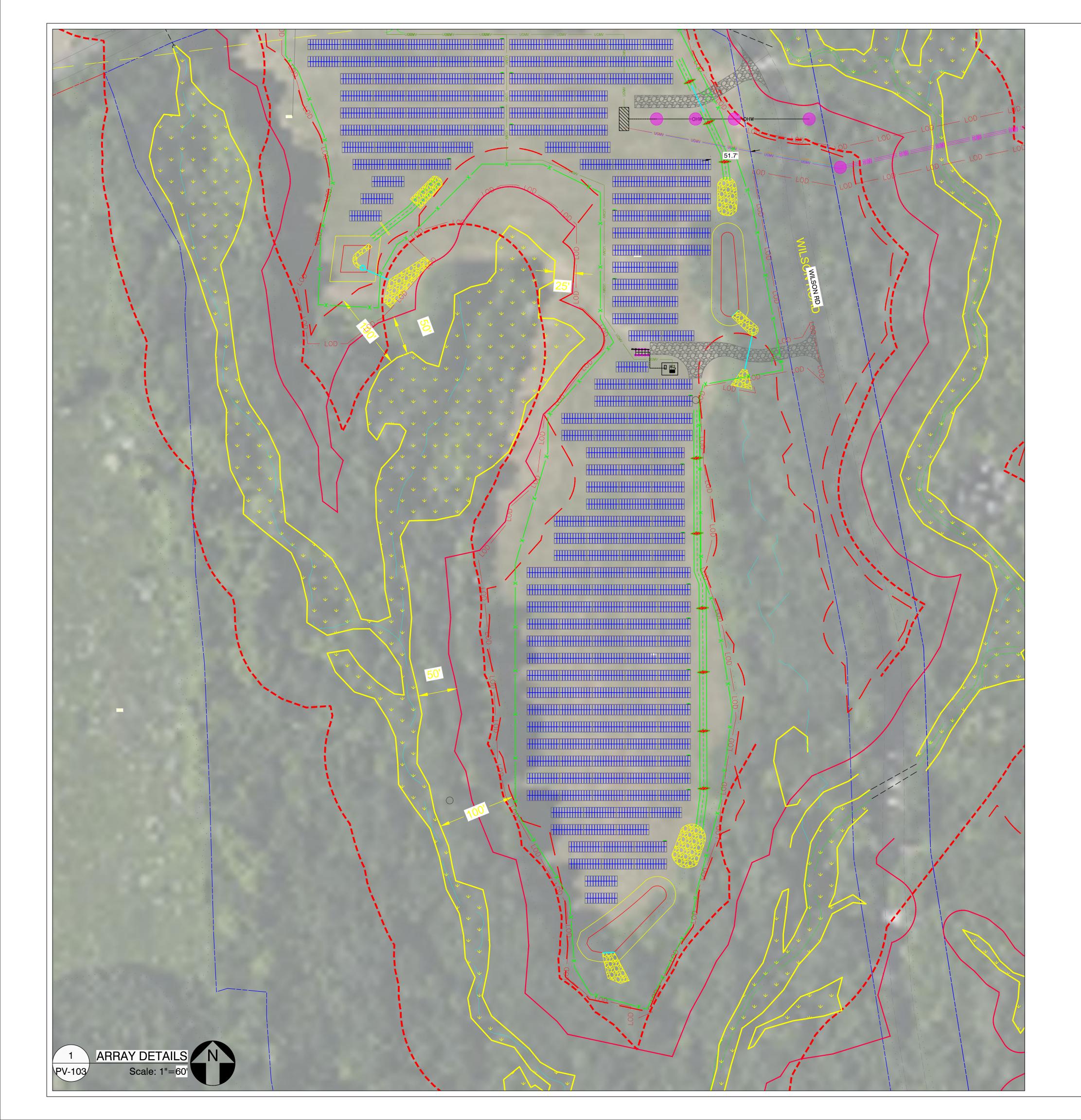




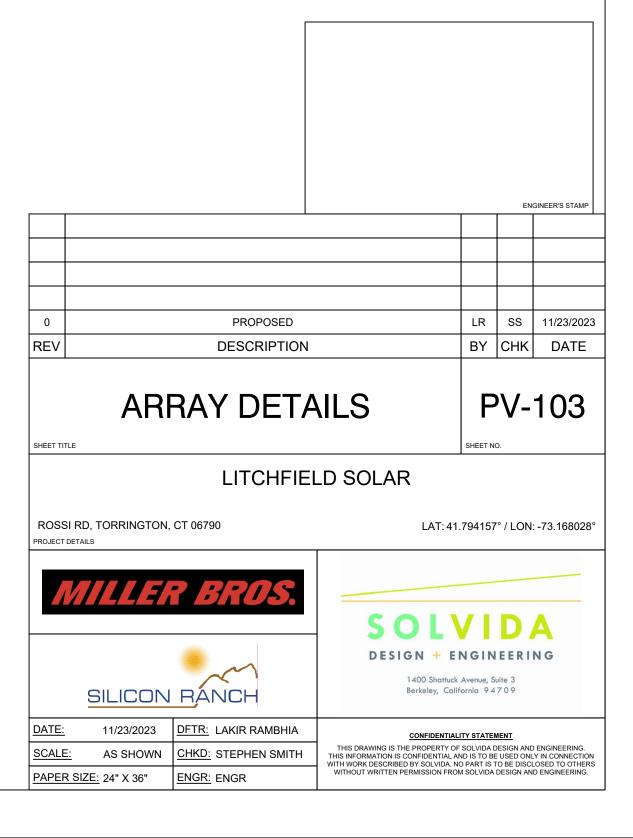


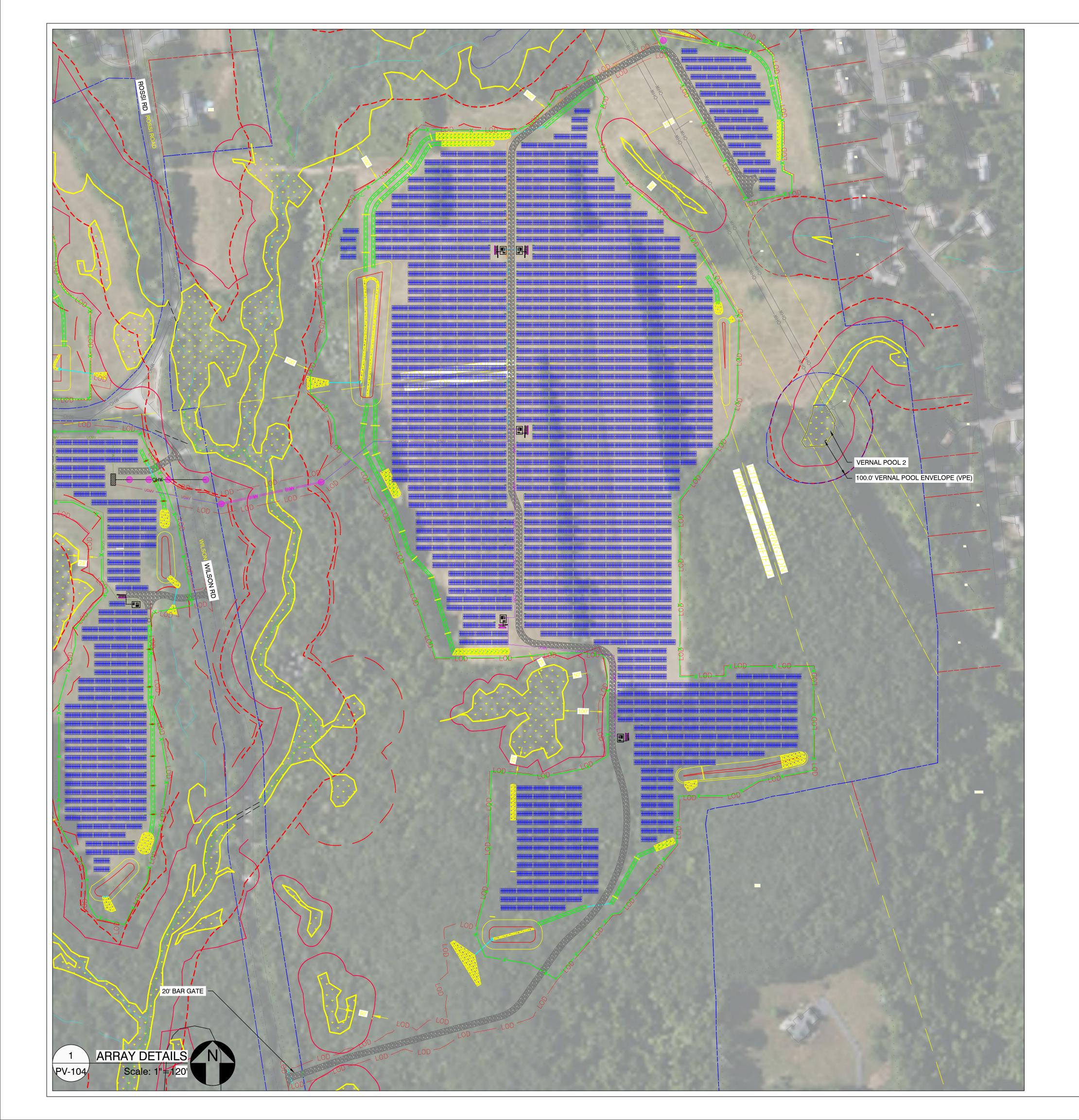
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	LANDSCAPING		



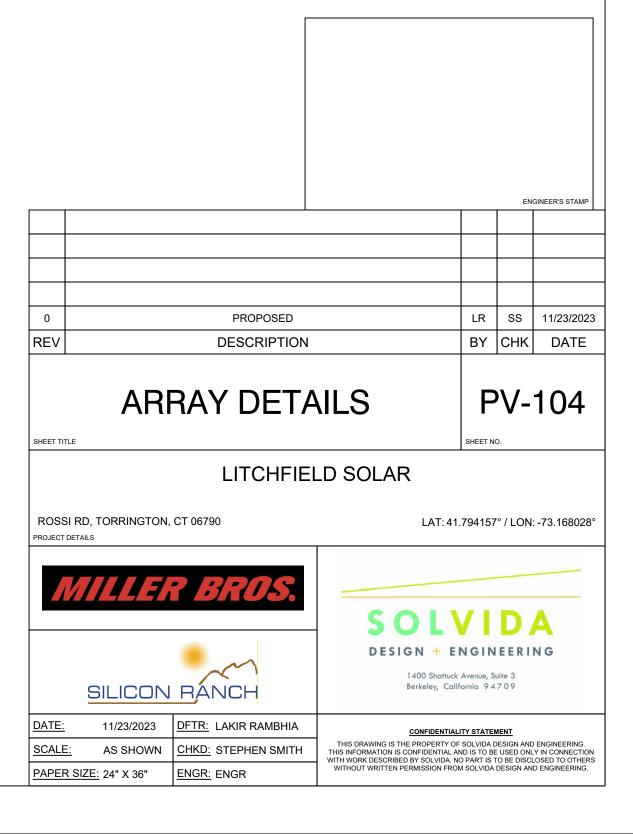


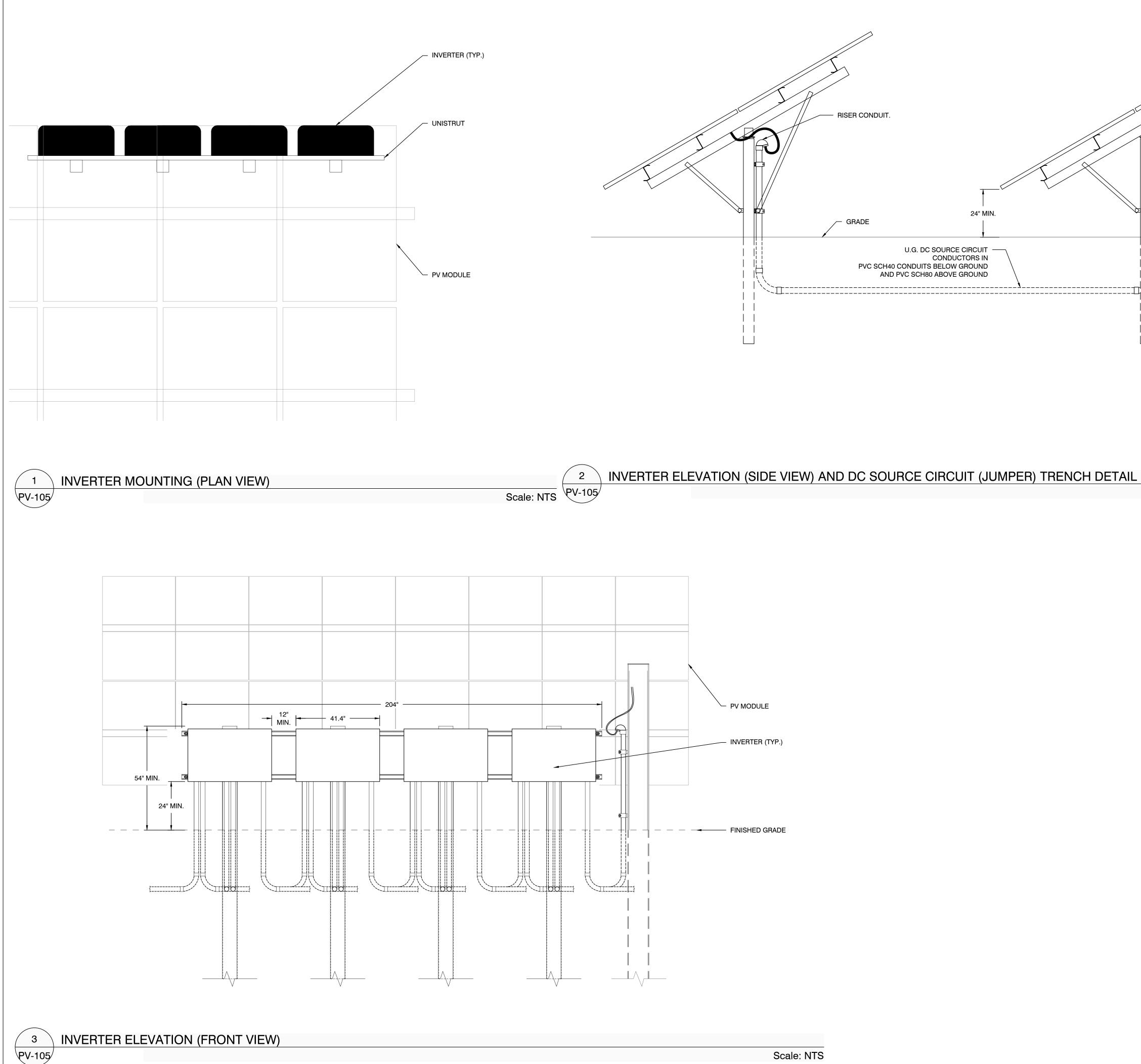
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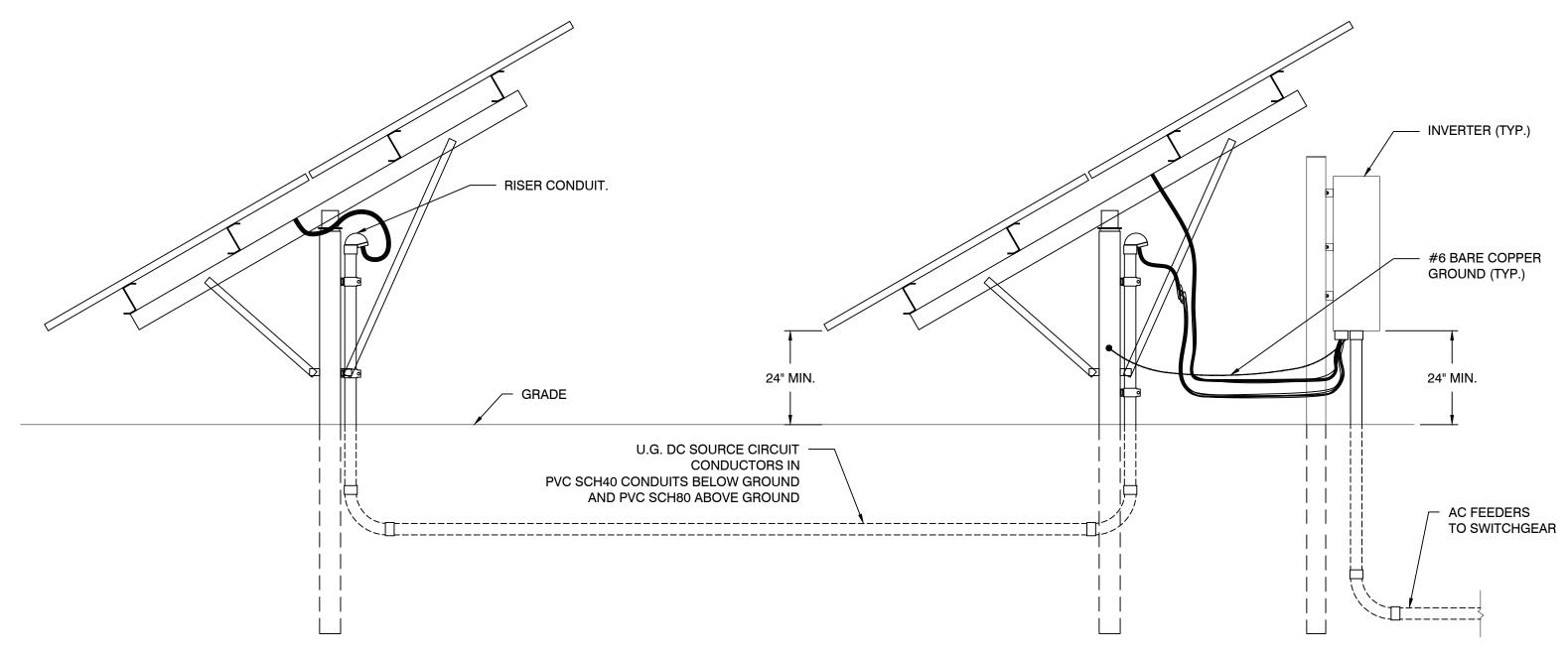




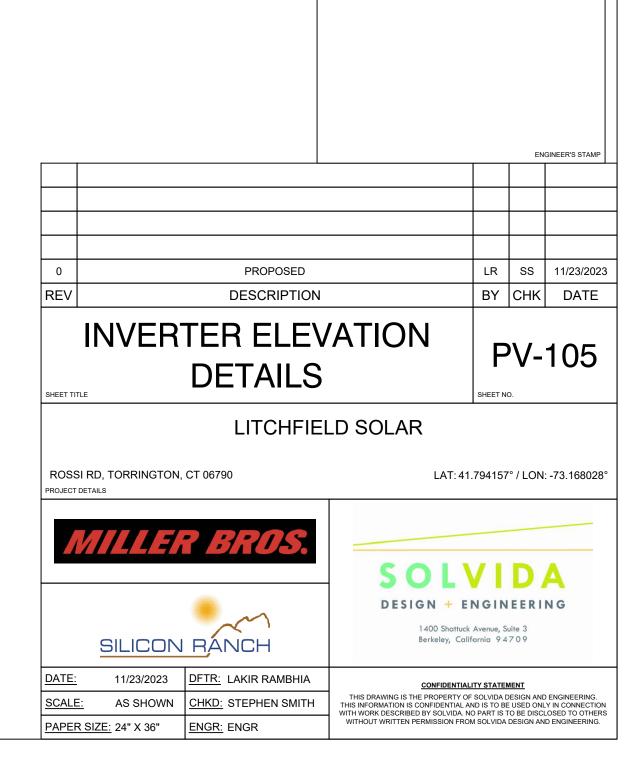
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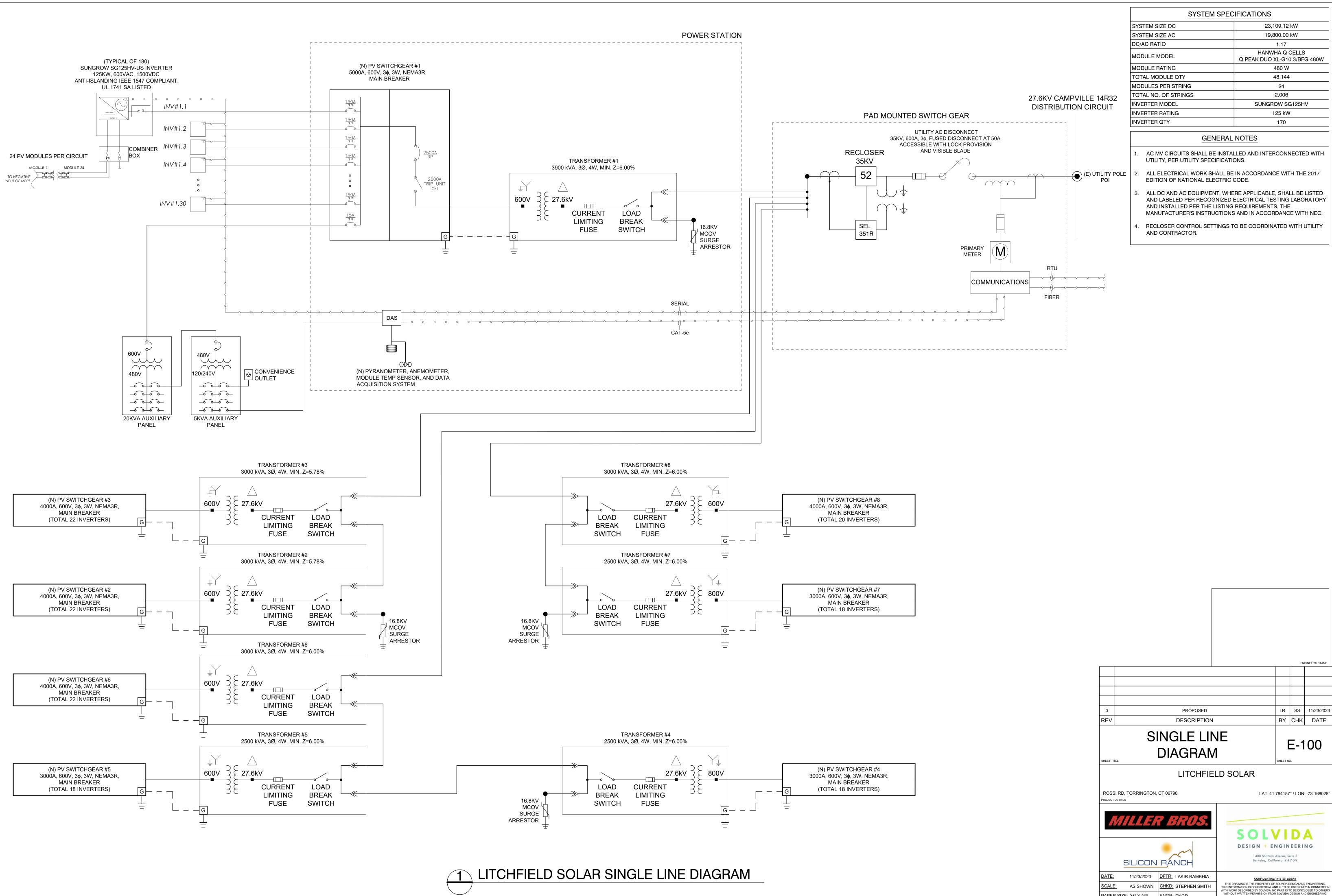






Scale: NTS





PAPER SIZE: 24" X 36" ENGR: ENGR



November 27, 2023

Silicon Ranch Corporation 18475 W Colfax Ave. Suite 120 Golden, CO 80401

Attn: Ali Kairys (Vice President, Project Development, Silicon Ranch Corporation)

Re: Pending Petition No. 1442, SR Litchfield, LLC for the 19.8MW Solar Energy Facility

#### Dear Ms. Kairys,

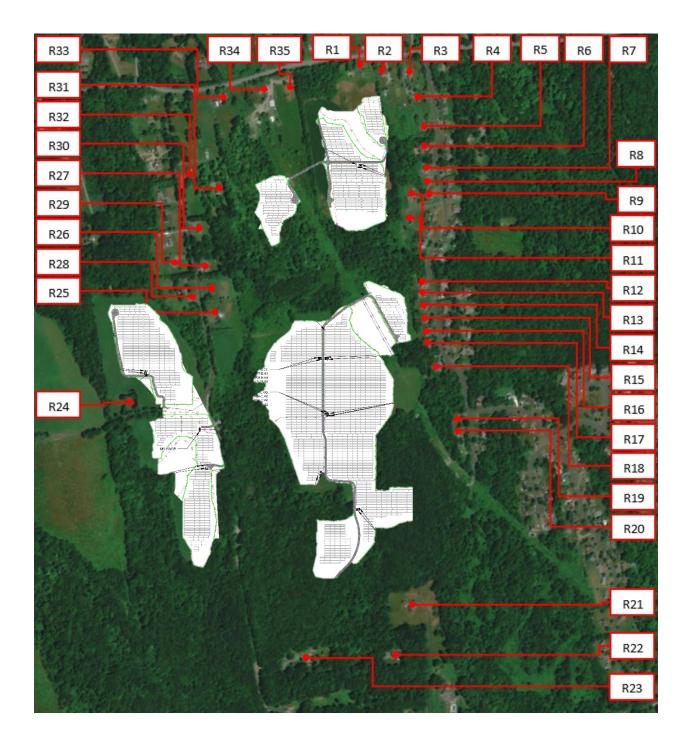
I am writing you today to address the noise concern outlined in the November 7, 2023, Partial Development and Management Plan III Interrogatories written by Melanie Bachman on behalf of the Connecticut Siting Council, for Petition No. 1442 of SR Litchfield, LLC for the 19.8MW Solar Energy Facility proposed both east and west of Wilson Road, south of the intersection with Litchfield Town Farm Road in Litchfield, Connecticut, and both east and west of Rossi Road, south of the intersection with Highland Avenue in Torrington, Connecticut. Urban Solution Group was retained to investigate the environmental noise impact from operations for the proposed solar energy project re-design and conducted an updated Noise Impact Assessment (NIA) to that effect. The noise model is dated November 21, 2023, and the preliminary results of the updated NIA are contained in this letter (whereas the updated formal NIA report is currently pending).

#### **RESULTS OF THE NIA**

Predicted noise levels in the Noise Impact Assessment conducted by Urban Solution Group were calculated in SoundPLAN 9.0 software using combined acoustical contributions from equipment specified in the project re-design, consisting of 170 power inverters and eight (8) transformers. The sound power levels of this equipment employed in the theoretical noise model are from daytime conditions and thus, during maximum electrical power generation of the system, providing conservative sound level predictions. It is assumed that the energy throughput of the solar energy facility will diminish during the nighttime due to minimal incidence of irradiance onto the system, and consequently, noise levels emitted by the facility equipment will decrease significantly at nighttime. Therefore, the predicted noise levels in the NIA represent daytime operational noise levels only.

The assessment predicted noise levels at 35 receptor points (denoted R1 to R35) located at nearby residences surrounding the proposed solar facility, as shown in the figure on the following page. The predicted noise levels at these receptors include only noise emitted by the solar energy

facility during daytime operations, and pre-existing noise sources such as animals, weather, road traffic, and all other ambient sounds were not included in the theoretical noise model.



Predicted noise levels at each receptor are shown in the table on the following page. Receptor locations in the table correspond to those identified in the figure above. The model predicted that daytime noise levels at each receptor (i.e., nearby residence) range from 18.2 dBA to 45.2

dBA – below the allowable daytime noise level of 55 dBA set by the Connecticut Department of Energy and Environmental Protection (CTDEEP) in Section 22a-69-3.5 of the Regulations of Connecticut State Agencies for Class A receptors. Receptor 24 is expected to be the most impacted receptor, with a predicted daytime noise level of 45.2 dBA. As discussed above, the noise levels emitted by the solar energy facility are expected to decline significantly at nighttime such that it is anticipated that nighttime noise levels at the receptors will be below the allowable nighttime noise level of 45 dBA set by CTDEEP.

Receptor	Max Permissible Noise Level (dBA)	Predicted Noise Level (dBA)
R1	55.0	36.3
R2	55.0	33.9
R3	55.0	32.5
R4	55.0	33.4
R5	55.0	32.9
R6	55.0	31.7
R7	55.0	31.6
R8	55.0	30.4
R9	55.0	31.8
R10	55.0	34.0
R11	55.0	34.0
R12	55.0	30.7
R13	55.0	30.5
R14	55.0	30.5
R15	55.0	30.5
R16	55.0	31.5
R17	55.0	30.1
R18	55.0	27.2
R19	55.0	23.9
R20	55.0	26.0
R21	55.0	18.2
R22	55.0	21.2
R23	55.0	22.9
R24	55.0	45.2
R25	55.0	39.3
R26	55.0	37.8
R27	55.0	36.4
R28	55.0	38.5
R29	55.0	36.4
R30	55.0	34.5
R31	55.0	33.1
R32	55.0	32.1
R33	55.0	31.7
R34	55.0	32.8
R35	55.0	33.4

#### SUMMARY

In general, photovoltaic solar power project operations are considered very low impact with respect to environmental noise. The environmental Noise Impact Assessment carried out for this solar energy project re-design provides estimates of solar energy facility operational noise levels at 35 nearby residences surrounding the proposed solar facility. The results of the noise model predictions demonstrate that noise levels emitted by the 19.8MW Solar Energy Facility re-design proposed by SR Litchfield, LLC are predicted to comply with the allowable noise levels required by CTDEEP. The assessment concludes that noise mitigation/control strategies for the proposed solar energy facility re-design are not required to obtain or maintain compliance.

Respectfully submitted,

Vincent Ginter, Acoustic Engineer, P.Eng., M.Sc. VP Engineering Urban Solution Group



URBAN SOLUTION GROUP