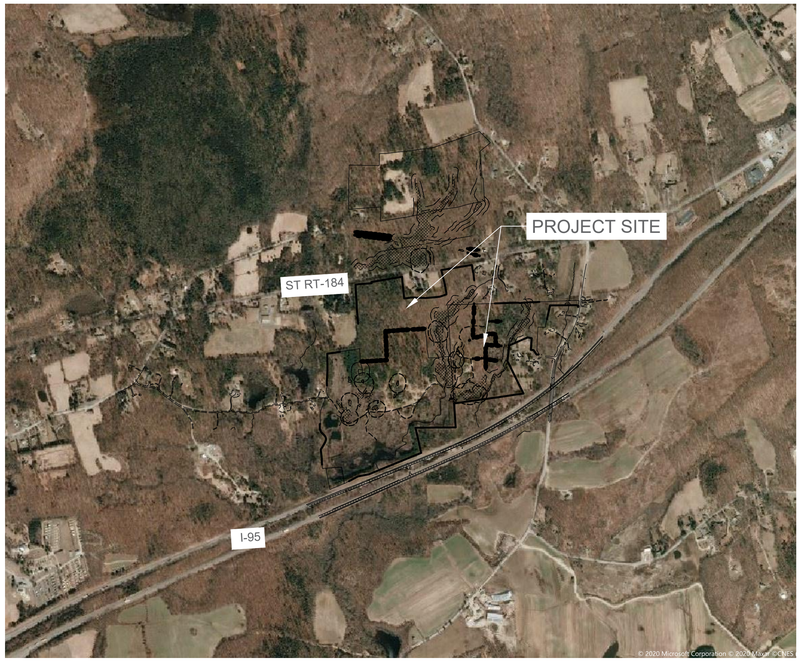


SCALE: 1"=1000'

Contract Drawings For

SILICON RANCH CORPORATION

North Stonington Solar

Site Civil Design

HDR Project No.
10243352

Stonington, Connecticut
ISSUED FOR PERMIT
9/30/2020 PROGRESS SET (Not for Construction)
02/19/2021 REVISION 1 (Not for Construction)
05/28/2021 REVISION 2 (Not for Construction)
06/25/2021 REVISION 3 (Not for Construction)
11/19/2021 REVISION 4 (Not for Construction)

INDEX OF DRAWINGS

GENERAL DEMOLITION NOTES:

1. ALL MATERIAL PRODUCED AS A RESULT OF DEMOLITION TO BE DISPOSED OF OFFSITE IN COMPLIANCE WITH ALL STATE, FEDERAL AND LOCAL ENVIRONMENTAL REGULATIONS.
2. CONTRACTOR TO FIELD VERIFY ALL UTILITIES BEFORE START OF DEMOLITION AND PROTECT AS REQUIRED TO COMPLETE DEMOLITION ACTIVITIES.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF DEMOLITION OR RELOCATION WITH APPLICABLE UTILITY COMPANIES: GAS, CABLE, POWER, TELEPHONE, WATER, SEWER, ETC.
4. CONTRACTOR TO INSTALL ALL PERIMETER EROSION CONTROLS PRIOR TO COMMENCEMENT OF DEMOLITION.
5. SAW CUT EXISTING ASPHALT TO CLEAN EDGE.
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 CLOSURES. IF PERIMETER FENCING EXISTS AND IS INTACT, CONTRACTOR TO PRESERVE AS POSSIBLE.
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. DEMOLITION OR REROUTE OF EXISTING UTILITIES TO REMAIN SHALL ALLOW FOR CONTINUOUS USE OF THE 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.
9. CONTRACTOR, PRIOR TO DEMOLITION, SHALL WALK THE SITE WITH THE OWNER AND SPECIFICALLY NOTE ITEMS THAT SHALL BE REMOVED AND HANDED OVER TO THE OWNER.

SEEDBED 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.
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. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
8. 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.
9. 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.
10. ALL MATERIALS REQUIRED FOR CONSTRUCTION OF SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE AVAILABLE ON SITE BEFORE ANY LAND-DISTURBING ACTIVITY IS BEGUN.
11. 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.

GENERAL NOTES:

1. PROVIDE SILT FENCE AROUND PERIMETER OF ALL STOCKPILES. STABILIZE IMMEDIATELY UPON ESTABLISHMENT OF PILE.
2. GRADING CONTRACTOR SHALL CHECK/ IDENTIFY FOR ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING THE CLEARING / GRADING.
3. 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.
4. THE CONSTRUCTION ENTRANCE MAY REQUIRE ADDITIONAL STONE TO PREVENT TRACKING.
5. 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.
6. 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.
7. BOUNDARY SURVEY FOR THE SITE PROVIDED BY PROVOST & ROVERO, INC. FOR SURVEY COMPLETED ON 06/27/2018.
9. GEOTECHNICAL INVESTIGATION PROVIDED BY TERRACON FOR SITE VISIT ON 06/06/2019.

PHASE 1 CONSTRUCTION SEQUENCE

1. CONTACT THE CT DEEP INSPECTOR TO SCHEDULE AN ON-SITE PRE-CONSTRUCTION CONFERENCE TO DISCUSS EROSION CONTROL MEASURES.
2. INSTALL THE CONSTRUCTION ENTRANCE, TREE PROTECTION FENCE, SILT FENCE AND SILT FENCE STONE OUTLETS AS SHOWN ON PLANS, PRIOR TO ANY SITE DISTURBANCE ACTIVITIES (CLEARING, GRUBBING, GRADING, OR EXCAVATION INCLUDING SKIMMER/SEDIMENT BASINS).
3. DEVIATIONS FROM THE APPROVED PLAN MUST BE SUBMITTED TO AND APPROVED BY CT DEEP. CONTACT THE INSPECTOR FOR AN ON-SITE INSPECTION OF THE INSTALLED TREE PROTECTION FENCE.
4. ALL FIELD NON-WOODED AREAS THAT ARE NOT TO BE GRADED (I.E. FIELDS) SHALL BE MOWED TO FACILITATE PANEL INSTALLATION BUT SHALL BE OTHERWISE LEFT UNDISTURBED TO MAINTAIN EXISTING DRAINAGE PATTERNS WHERE STABLE. ANY SEVERELY ERODED DRAINAGE WAYS SHALL BE GRADED BACK, ROUGHENED, MATTED AND SEEDED.
5. INSTALL BASINS. UPON INSTALLATION OF THE BASINS, INSTALL DIVERSION SWALES TO THE BASIN AS NEEDED. STABILIZE IMMEDIATELY UPON REACHING FINAL GRADE. PROVIDE TEMPORARY CULVERT FOR CROSSING EXISTING DRAINAGE AREAS.
6. INSTALL REMAINING EROSION CONTROL MEASURES AS INDICATED ON CONSTRUCTION DOCUMENTS TO FACILITATE SEDIMENT CONTROL PRIOR TO GRADING, CLEARING ONLY AS NECESSARY TO INSTALL THESE BEST MANAGEMENT PRACTICES (BMPs).
7. INSPECT ALL EROSION CONTROL DEVICES ONCE EVERY CALENDAR WEEK AND AFTER EVERY RAINFALL EXCEEDING 0.5" TO VERIFY THAT THEY ARE FUNCTIONING PROPERLY. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND PLACED IN A DESIGNATED SPOIL DISPOSAL AREA APPROVED BY THE INSPECTOR.
8. CONDUCT PERIODIC INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AND MAKE ANY REPAIRS OR MODIFICATIONS NECESSARY TO ASSURE CONTINUED EFFECTIVE OPERATION OF EACH DEVICE.
9. STABILIZE ALL GRADED AREAS WITH TEMPORARY SEEDING PER THE REQUIRED CT DEEP REGULATIONS. PROVIDE PERMANENT SEEDING AS GRADED AREAS ARE FINALIZED. PROVIDE NORTH AMERICAN GREEN S150 OR APPROVED EQUAL MATTING ON ALL FILL SLOPES.
10. BEGIN CLEARING, GRUBBING, DEMOLITION, AND GRADING OF SITE. STABILIZE SITE PER EROSION CONTROL NOTES AS AREAS ARE BROUGHT TO ROUGH GRADES.

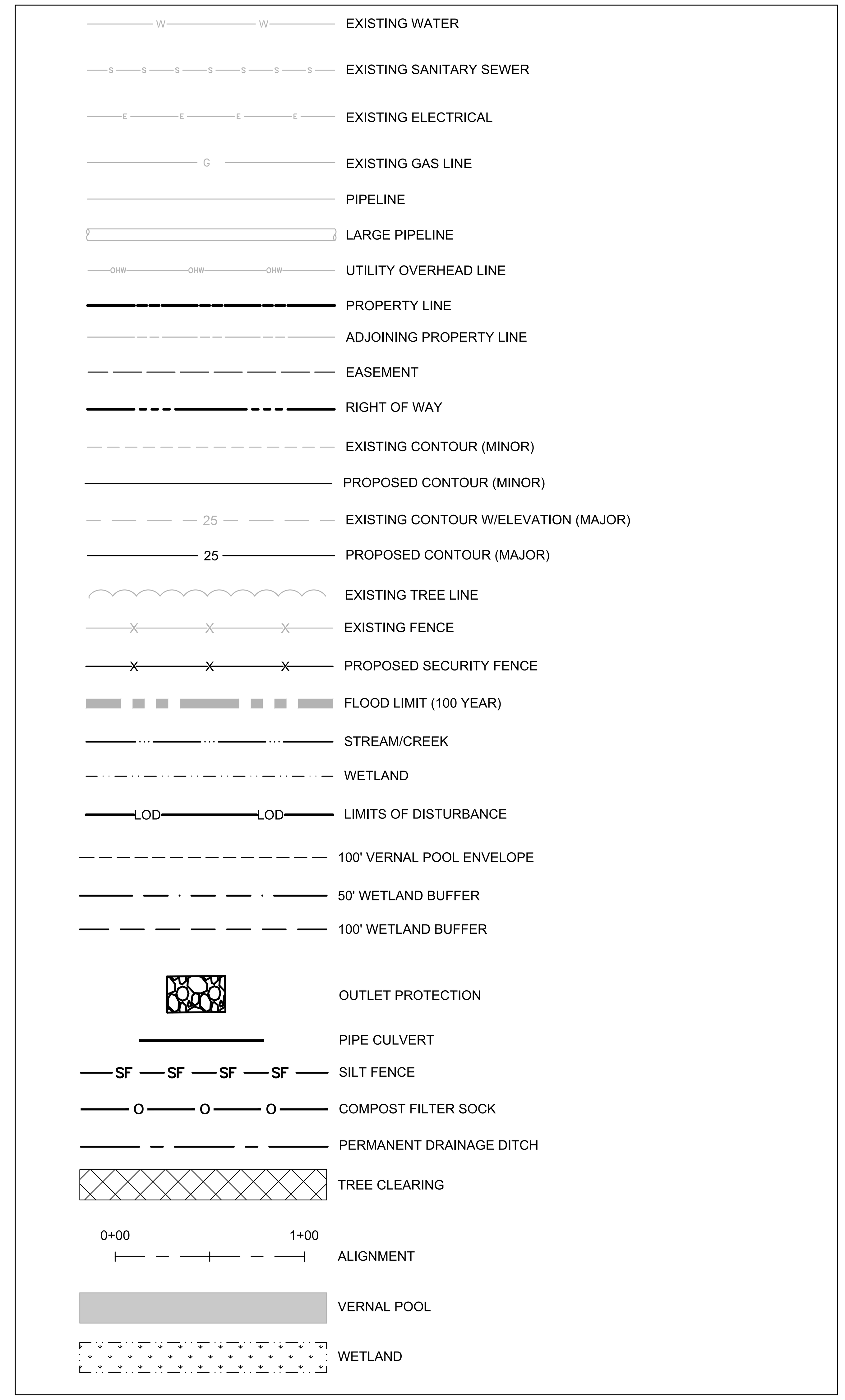
PHASE 2 CONSTRUCTION SEQUENCE

1. CLEAR AND GRUB REMAINDER OF AREA AS REQUIRED.
2. GRADE THE CONTRACTOR LAYDOWN AREA AND AREAS INDICATED TO ACHIEVE REQUIRED PANEL AREA SLOPES.
3. AS GRADED AREAS ARE BROUGHT TO GRADE, ROUGHEN AND IMMEDIATELY SEED WITH PERMANENT SEEDING TO ESTABLISH COVER. APPLY EROSION CONTROL MATTING AS DETAILED WITHIN THE PLANS CONSISTING OF NORTH AMERICAN GREEN S150 (OR APPROVED EQUAL) ON ALL FILL SLOPES.
4. INSTALL CULVERTS AS ACCESS ROADS ARE CONSTRUCTED TO FACILITATE DRAINAGE ACROSS DRIVES. NOTE THAT SOME CULVERTS MAY NEED TO BE BLOCKED TO MAINTAIN DIVERSION OF STORMWATER TO BASINS. COORDINATE WITH INSPECTOR WHEN AREAS OF THE SITE ARE STABILIZED AND BASINS CAN BE TRANSITIONED TO PERMANENT PONDS TO FACILITATE SITE STABILIZATION AND INSTALLATION OF FINAL PANELS IN PROXIMITY TO BASINS (SEE PHASE 3 BELOW).
5. PROVIDE INLET & OUTLET PROTECTION FOR EACH CULVERT AND BASIN OUTFALLS AS THEY ARE INSTALLED.
6. MAINTAIN EROSION CONTROL MEASURES DURING CONSTRUCTION ACCORDING TO CT DEEP REQUIREMENTS
7. COMPLETE ANY FINAL, FINE GRADING.

PHASE 3 CONSTRUCTION SEQUENCE

1. AT PROJECT END, CONTACT CT DEEP COUNTY FOR REVIEW AND WITH APPROVAL, REMOVE THE SKIMMER AND CONVERT TEMP. SEDIMENT BASINS TO PERMANENT STORMWATER PONDS AS SHOWN IN THE PLANS.
2. TEMPORARY DIVERSION DITCHES AND TEMPORARY SEDIMENT PONDS MY BE REMOVED ONCE THE SITE HAS ACHIEVED 80% STABILIZATION.
3. FORMER BASIN AREAS TO BE SEEDED AND STABILIZED. SILT FENCE TO REMAIN AROUND THE LOWER SIDE OF THE FORMER BASIN AREAS UNTIL VEGETATIVE STABILIZATION IS IN PLACE.

UTILITY/CIVIL LINE SYMBOLOGY



STONINGTON CIVIL QUANTITIES

ITEM	UNIT	QUANTITY
LIMITS OF DISTURBANCE	ACRES	34.6
PROPERTY AREA	ACRES	125
ROADS	LF	3711
PERIMETER FENCE	LF	7058
TREE REMOVAL	ACRES	34.6
CUT VOLUME	CY	23847
FILL VOLUME	CY	6151

HDR

SILICON RANCH

NOT FOR CONSTRUCTION

STONINGTON SOLAR

428, PROVIDENCE-NEW LONDON TURNPIKE
NORTH STONINGTON, CT 06359, USA

LAT: 41.431830°N
LON: 71.821514°W

STONINGTON, CT

REV. NO	DESCRIPTION	DATE
4	RE-ISSUED FOR PERMIT	11/19/21
3	RE-ISSUED FOR PERMIT	06/23/21
2	RE-ISSUED FOR PERMIT	05/28/21
1	RE-ISSUED FOR PERMIT	02/19/21
0	ISSUED FOR PERMIT	09/30/20

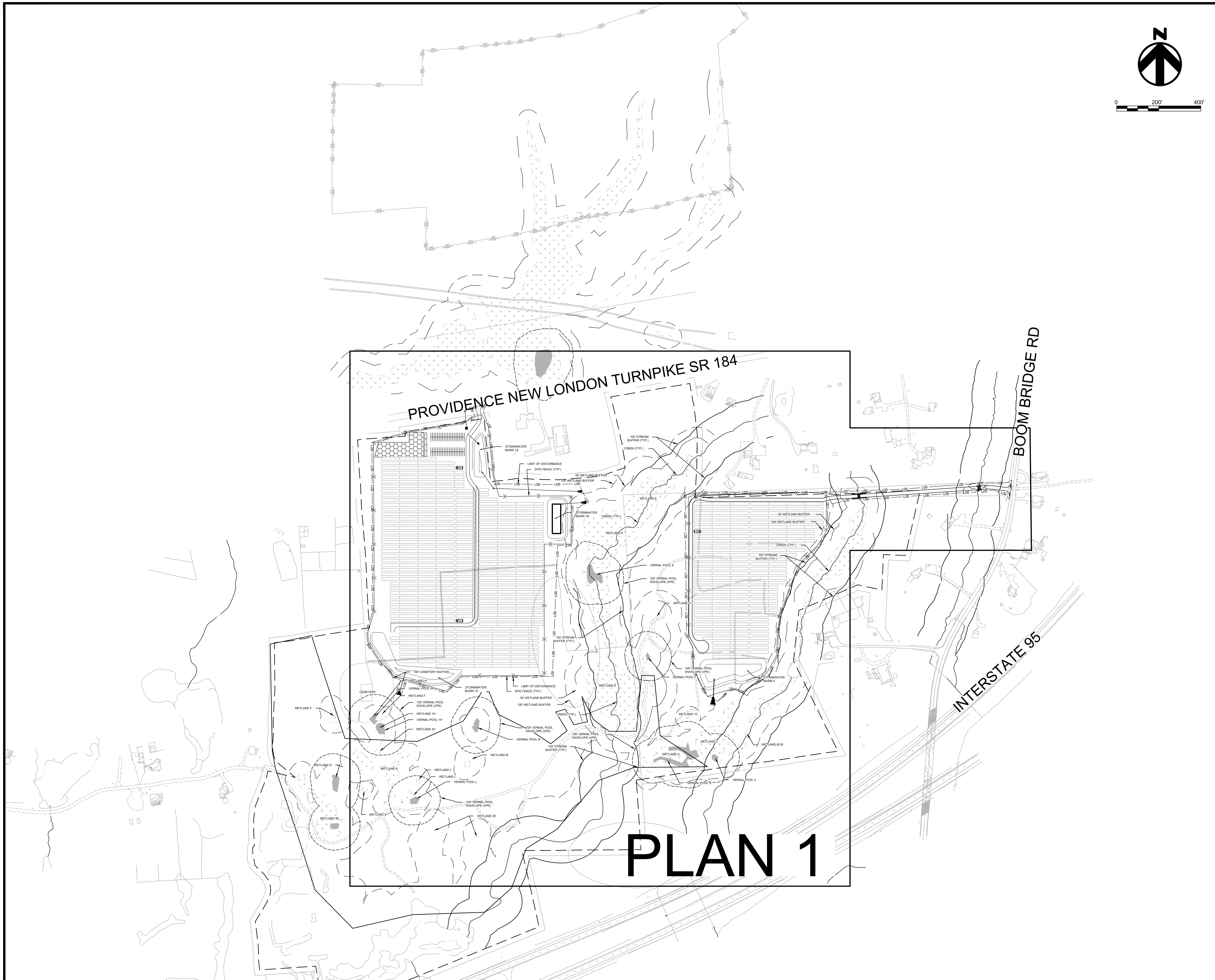
SHEET TITLE:

CIVIL NOTES AND ABBREVIATIONS

PROJ. MGR. WK	PROJ. ENGR. MB	DATE: 11/19/2021
DRAWN BY: NC	CHECKED BY: CP	SCALE:

DRAWING NO.

C002



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1	RE-ISSUED FOR PERMIT	02/19/21
0	ISSUED FOR PERMIT	09/30/20

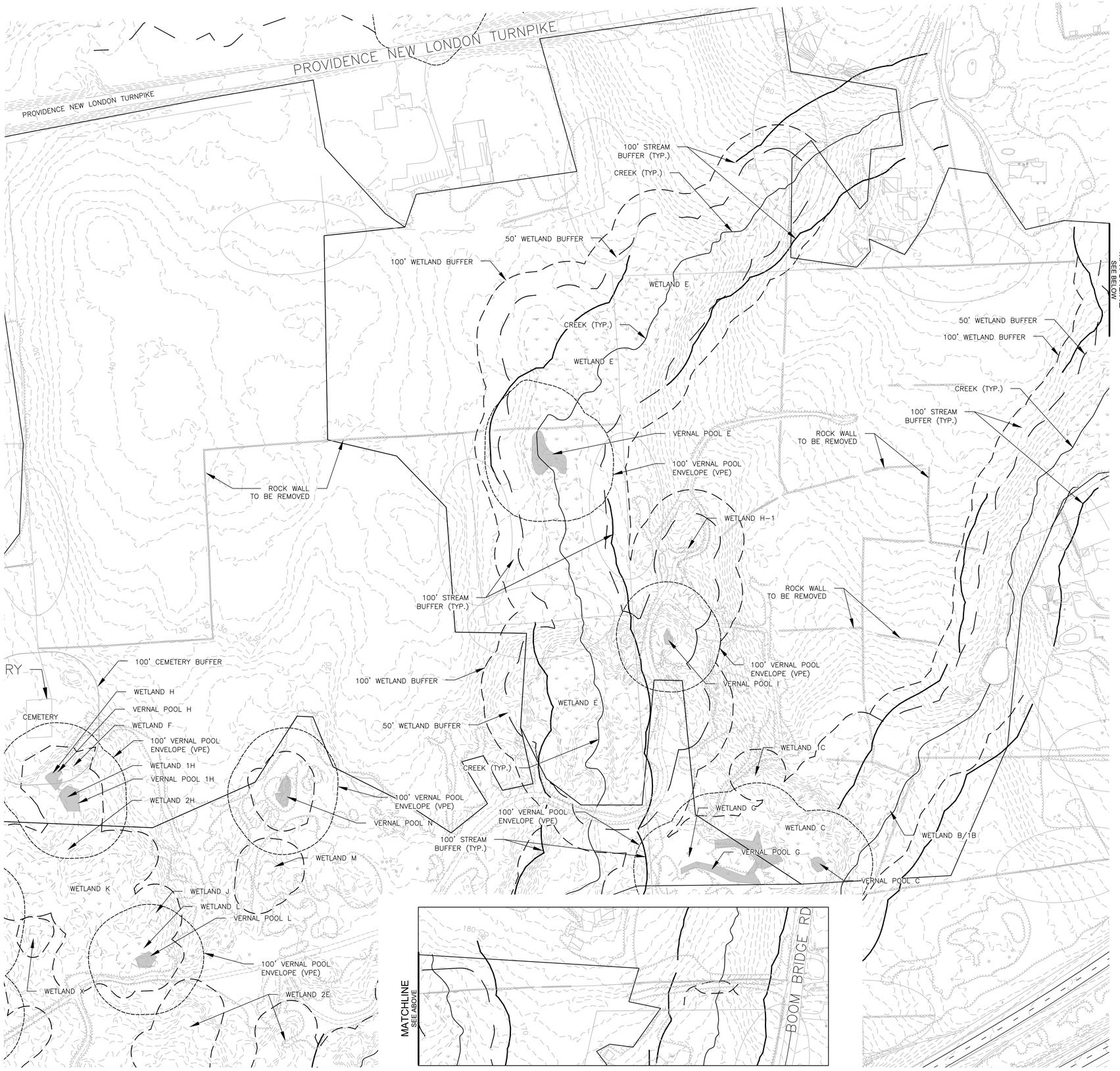
SHEET TITLE:

OVERALL SITE PLAN

PROJ. MGR.	PROJ. ENGR.	DATE:
WK	MB	11/19/2021
DRAWN BY: NC	CHECKED BY: CP	SCALE: 1:200

DRAWING NO.

C101



N

0 100' 200'

GENERAL NOTES :

1. SEE SHEET C101 FOR OVERALL PLAN.
2. ALTA PROVIDED BY PROVOST & ROVERO, INC DATED JUNE 18, 2018.

HDR

SILICON RANCH

NOT FOR CONSTRUCTION

STONINGTON SOLAR

428, PROVIDENCE-NEW LONDON TURNPIKE
NORTH STONINGTON, CT 06359, USA

LAT: 41.431830°N
LON: 71.821514°W

STATE OF CONNECTICUT · MATTHEW BRANCH · PEN.0035187 · LICENSED PROFESSIONAL ENGINEER

STONINGTON, CT

REV. NO	DESCRIPTION	DATE
4	RE-ISSUED FOR PERMIT	11/19/21
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2	RE-ISSUED FOR PERMIT	05/28/21
1	RE-ISSUED FOR PERMIT	02/19/21
0	ISSUED FOR PERMIT	09/30/20

SHEET TITLE:

EXISTING CONDITIONS PLAN 1

PROJ. MGR.	PROJ. ENGR.	DATE:
WK	MB	11/19/2021
DRAWN BY:	CHECKED BY:	SCALE:
NC	CP	1:100

DRAWING NO.

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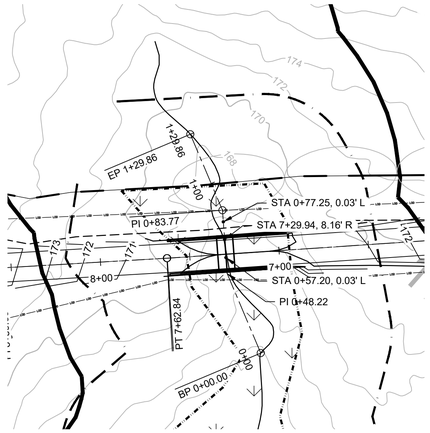
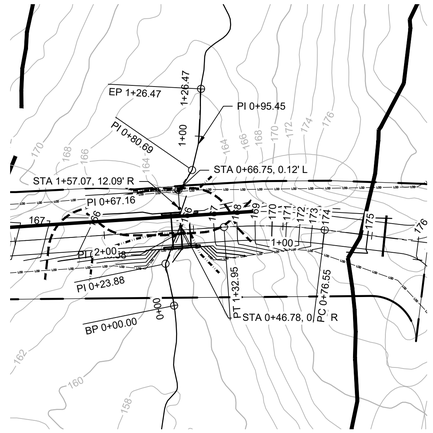
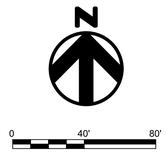
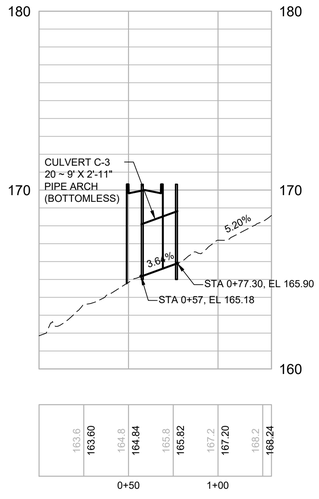


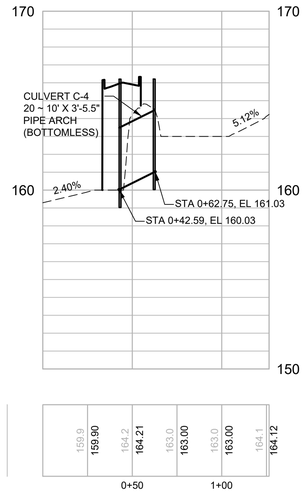
CULVERT C-3



CULVERT C-4

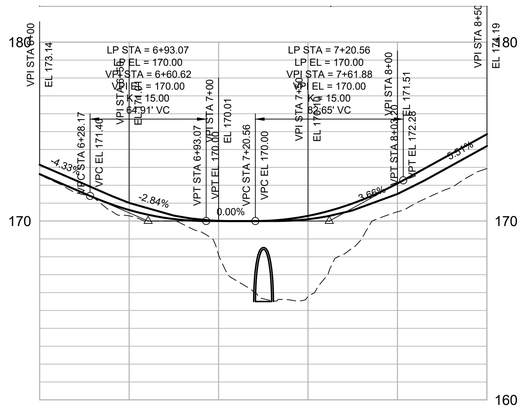


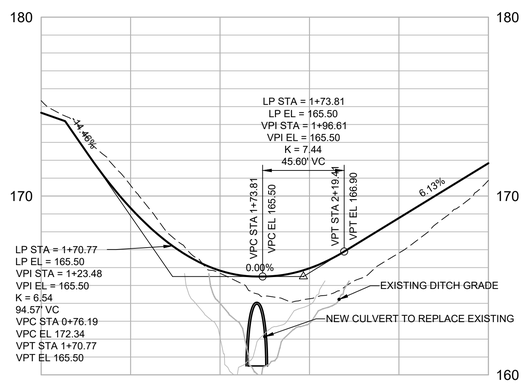




Culvert	Est. Peak FLow Q 50-yr (cfs)	Length (ft)	Shape	Span (ft)	Rise (ft)	Area (sf)	Open Area (sf)	OR (Open Area)/Length
C-3	87.2300	20	Arch (Bottomless)	9	2.92	26.25	26.25	1.31
C-4	104.7800	20	Arch (Bottomless)	10	3.46	34.58	34.58	1.73

PROVIDE PRECAST, 4000 PSI, CLASS IV, CULVERT. SHAPE AND DIMENSIONS PER TABLE ABOVE.





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0	ISSUED FOR PERMIT	09/30/20

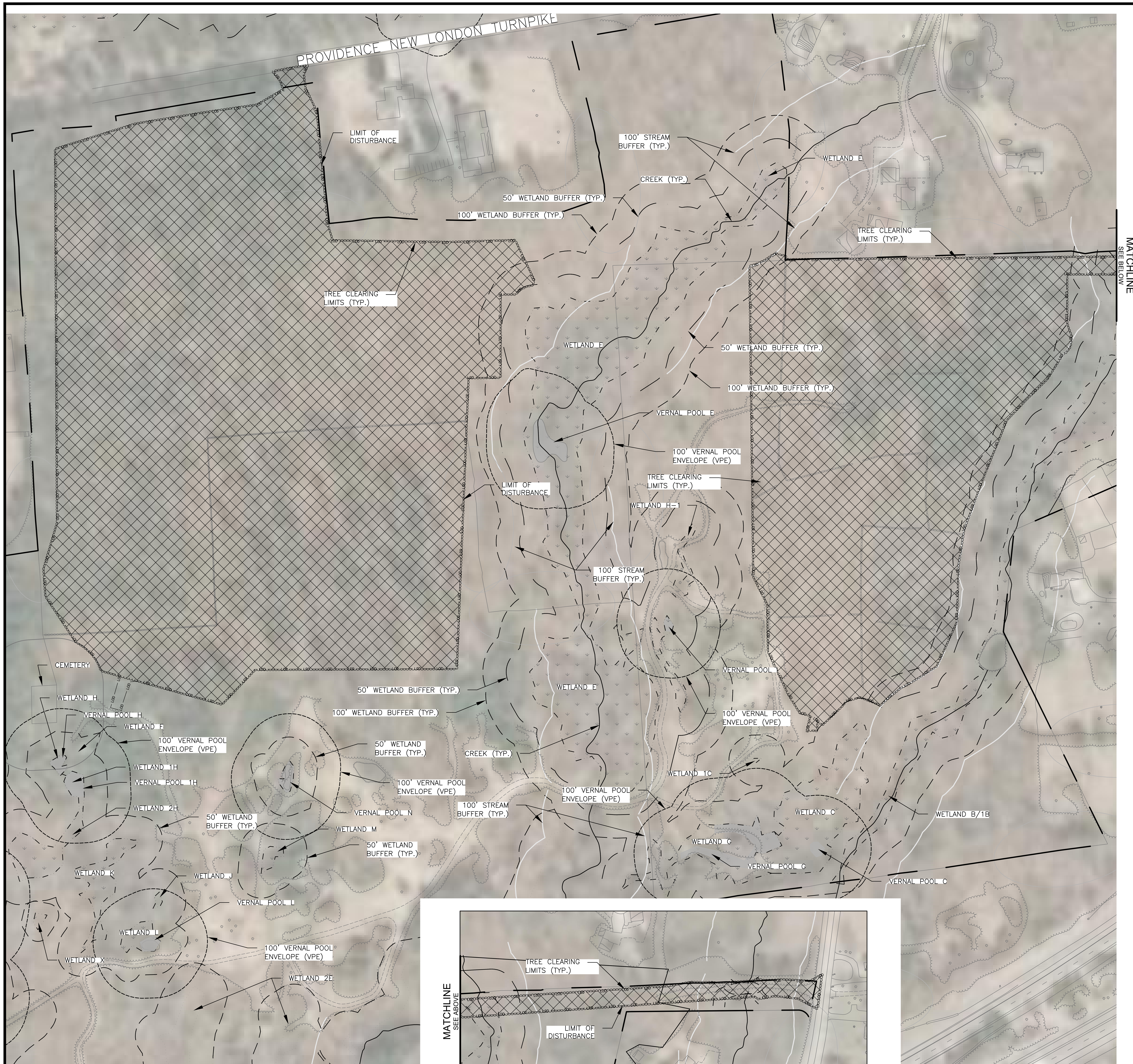
SHEET TITLE:

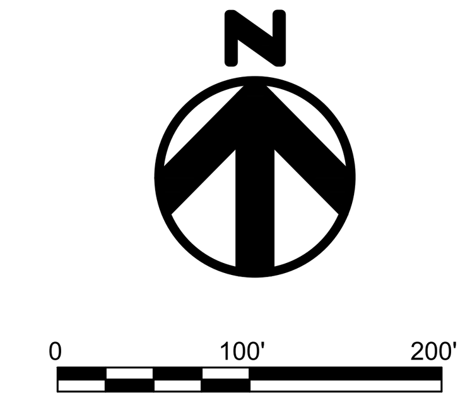
WETLAND CROSSINGS

PROJ. MGR.	PROJ. ENGR.	DATE:
WK	MB	11/19/2021
DRAWN BY:	CHECKED BY:	SCALE:
NC	CP	####

DRAWING NO.

C-200





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0	ISSUED FOR PERMIT	09/30/20

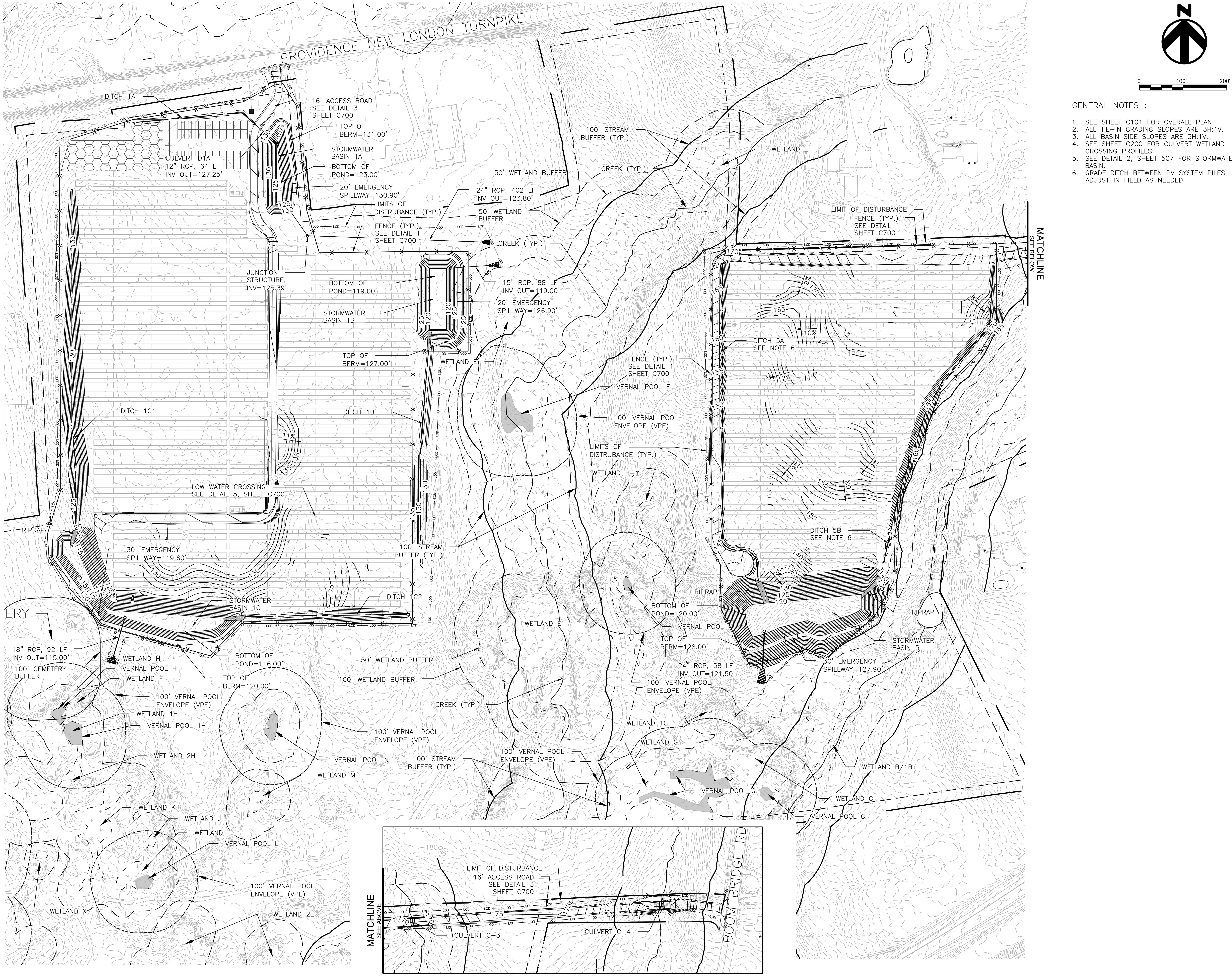
SHEET TITLE:

TREE CLEARING PLAN 1

PROJ. MGR.: WK	PROJ. ENGR.: MB	DATE: 11/19/2021
DRAWN BY: NC	CHECKED BY: CP	SCALE: 1:100

DRAWING NO.

C301



GENERAL NOTES :

1. SEE SHEET C101 FOR OVERALL PLAN.
2. ALL TIE–IN GRADING SLOPES ARE 3H:1V.
3. ALL BASIN SIDE SLOPES ARE 3H:1V.
4. SEE SHEET C200 FOR CULVERT WETLAND CROSSING PROFILES.
5. SEE DETAIL 2, SHEET 507 FOR STORMWATER BASIN.
6. GRADE DITCH BETWEEN PV SYSTEM PILES. ADJUST IN FIELD AS NEEDED.

HDR

SILICON RANCH

NOT FOR CONSTRUCTION

STONINGTON SOLAR

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NORTH STONINGTON, CT 06359, USA

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STATE OF CONNECTICUT LICENSED PROFESSIONAL ENGINEER

STONINGTON, CT

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0	ISSUED FOR PERMIT	09/30/20

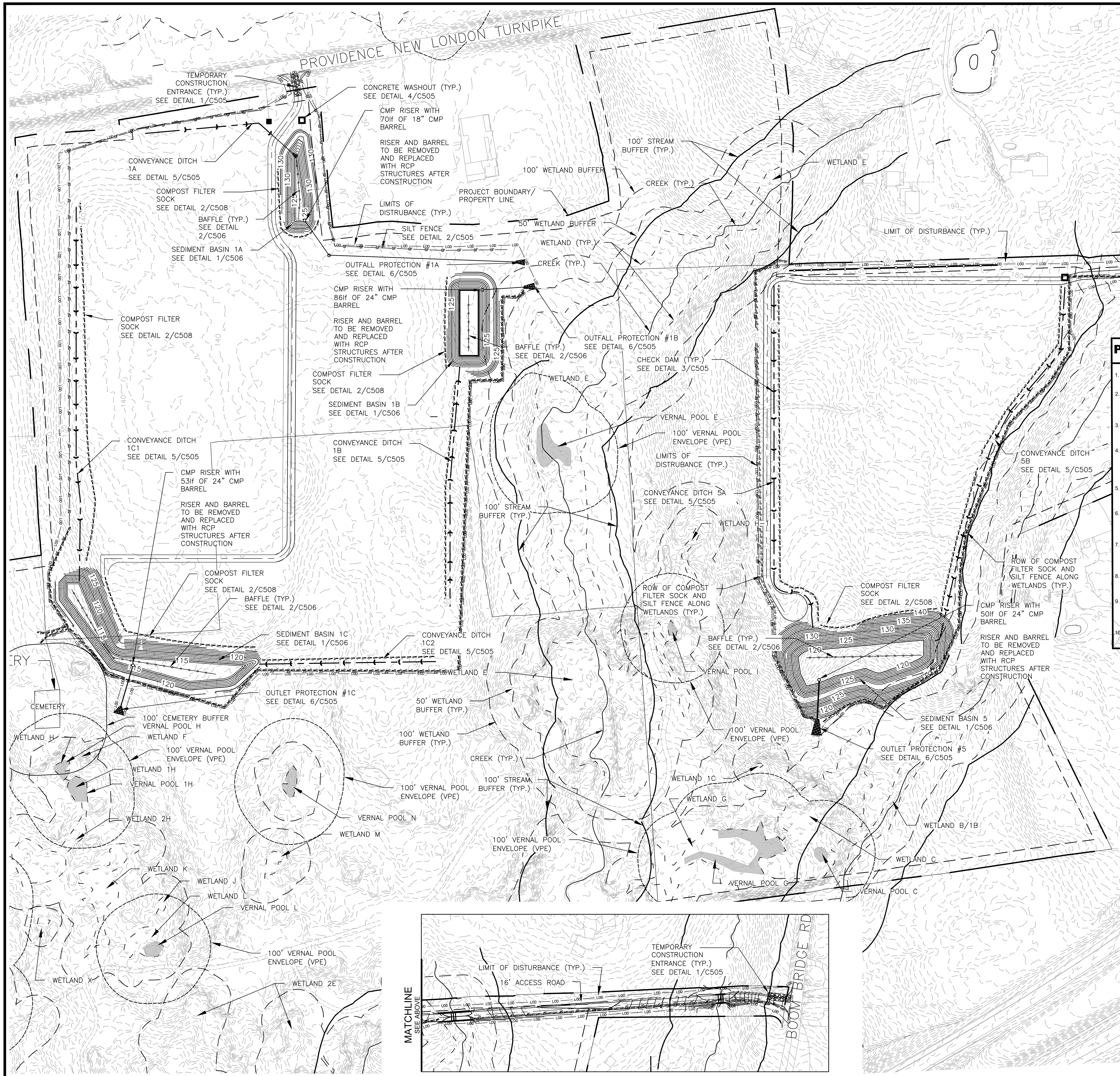
SHEET TITLE:

ARRAY GRADING AND DRAINAGE 1

PROJ. MGR.	PROJ. ENGR.	DATE:
WK	MB	11/19/2021
DRAWN BY: NC	CHECKED BY: CP	SCALE: 1:100

DRAWING NO.

C401



N

0 100' 200'

GENERAL NOTES :

1. SEE SHEET C101 FOR OVERALL PLAN.
2. ALL BASIN SIDE SLOPES ARE 3H:1V.

PHASE 1 CONSTRUCTION SEQUENCE

1. CONTACT THE CT DEEP INSPECTOR TO SCHEDULE AN ON-SITE PRE-CONSTRUCTION CONFERENCE TO DISCUSS EROSION CONTROL MEASURES.
2. INSTALL THE CONSTRUCTION ENTRANCE, TREE PROTECTION FENCE, SILT FENCE AND SILT FENCE STONE OUTLETS AS SHOWN ON PLANS, PRIOR TO ANY SITE DISTURBANCE ACTIVITIES (CLEARING, GRUBBING, GRADING, OR EXCAVATION INCLUDING SKIMMER/SEDIMENT BASINS).
3. DEVIATIONS FROM THE APPROVED PLAN MUST BE SUBMITTED TO AND APPROVED BY CT DEEP. CONTACT THE INSPECTOR FOR AN ON-SITE INSPECTION OF THE INSTALLED TREE PROTECTION FENCE.
4. ALL FIELD NON-WOODED AREAS THAT ARE NOT TO BE GRADED (I.E. FIELDS) SHALL BE MOWED TO FACILITATE PANEL INSTALLATION BUT SHALL BE OTHERWISE LEFT UNDISTURBED TO MAINTAIN EXISTING DRAINAGE PATTERNS WHERE STABLE. ANY SEVERELY ERODED DRAINAGE WAYS SHALL BE GRADED BACK, ROUGHENED, MATTED AND SEEDED.
5. INSTALL BASINS. UPON INSTALLATION OF THE BASINS, INSTALL DIVERSION SWALES TO THE BASIN AS NEEDED. STABILIZE IMMEDIATELY UPON REACHING FINAL GRADE. PROVIDE TEMPORARY CULVERT FOR CROSSING EXISTING DRAINAGE AREAS.
6. INSTALL REMAINING EROSION CONTROL MEASURES AS INDICATED ON CONSTRUCTION DOCUMENTS TO FACILITATE SEDIMENT CONTROL PRIOR TO GRADING, CLEARING ONLY AS NECESSARY TO INSTALL THESE BEST MANAGEMENT PRACTICES (BMPs).
7. INSPECT ALL EROSION CONTROL DEVICES ONCE EVERY CALENDAR WEEK AND AFTER EVERY RAINFALL EXCEEDING 1" TO VERIFY THAT THEY ARE FUNCTIONING PROPERLY. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND PLACED IN A DESIGNATED SPOIL DISPOSAL AREA APPROVED BY THE INSPECTOR.
8. CONDUCT PERIODIC INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AND MAKE ANY REPAIRS OR MODIFICATIONS NECESSARY TO ASSURE CONTINUED EFFECTIVE OPERATION OF EACH DEVICE.
9. STABILIZE ALL GRADED AREAS WITH TEMPORARY SEEDING PER THE REQUIRED CT DEEP REGULATIONS. PROVIDE PERMANENT SEEDING AS GRADED AREAS ARE FINALIZED. PROVIDE NORTH AMERICAN GREEN S150 OR APPROVED EQUAL MATTING ON ALL FILL SLOPES.
10. BEGIN CLEARING, GRUBBING, DEMOLITION, AND GRADING OF SITE. STABILIZE SITE PER EROSION CONTROL NOTES AS AREAS ARE BROUGHT TO ROUGH GRADES.

HDR

SILICON RANCH

NOT FOR CONSTRUCTION

STONINGTON SOLAR

428, PROVIDENCE-NEW LONDON TURNPIKE
NORTH STONINGTON, CT 06359, USA

LAT: 41.431830°N
LON: 71.821514°W

STATE OF CONNECTICUT LICENSED PROFESSIONAL ENGINEER

STONINGTON, CT

REV. NO	DESCRIPTION	DATE
4	RE-ISSUED FOR PERMIT	11/19/21
3	RE-ISSUED FOR PERMIT	06/23/21
2	RE-ISSUED FOR PERMIT	05/28/21
1	RE-ISSUED FOR PERMIT	02/19/21
0	ISSUED FOR PERMIT	09/30/20

SHEET TITLE:

EROSION AND SEDIMENTATION CONTROL PHASE 1 - SHEET 1

PROJ. MGR.: WK	PROJ. ENGR.: MB	DATE: 11/19/2021
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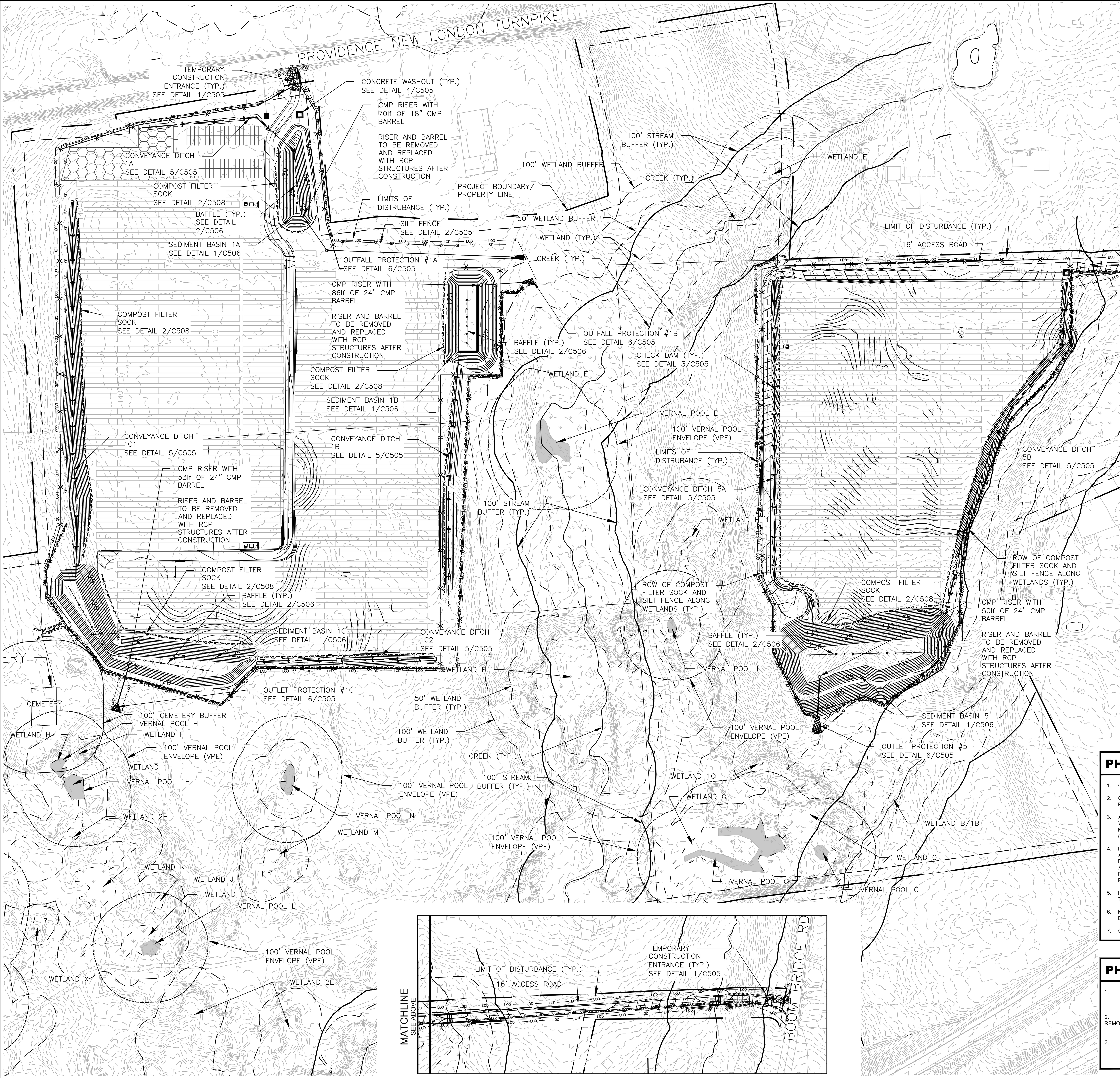
C501



N

0 100' 200'

GENERAL NOTES :

1. SEE SHEET C101 FOR OVERALL PLAN.
2. ALL TIE–IN GRADING SLOPES ARE 3H:1V.
3. ALL BASIN SIDE SLOPES ARE 3H:1V.

PHASE 2 CONSTRUCTION SEQUENCE

1. CLEAR AND GRUB REMAINDER OF AREA AS REQUIRED.
2. GRADE THE CONTRACTOR LAYDOWN AREA AND AREAS INDICATED TO ACHIEVE REQUIRED PANEL AREA SLOPES.
3. AS GRADED AREAS ARE BROUGHT TO GRADE, ROUGHEN AND IMMEDIATELY SEED WITH PERMANENT SEEDING TO ESTABLISH COVER. APPLY EROSION CONTROL MATTING AS DETAILED WITHIN THE PLANS CONSISTING OF NORTH AMERICAN GREEN (OR APPROVED EQUAL) ON ALL FILL SLOPES.
4. INSTALL CULVERTS AS ACCESS ROADS ARE CONSTRUCTED TO FACILITATE DRAINAGE ACROSS DRIVES. NOTE THAT SOME CULVERTS MAY NEED TO BLOCKED TO MAINTAIN DIVERSION OF STORMWATER TO BASINS. COORDINATE WITH INSPECTOR WHEN AREAS OF THE SITE ARE STABILIZED AND BASINS CAN BE TRANSITIONED TO PERMANENT PONDS TO FACILITATE SITE STABILIZATION AND INSTALLATION OF FINAL PANELS IN PROXIMITY TO BASINS (SEE PHASE 3 BELOW).
5. PROVIDE INLET & OUTLET PROTECTION FOR EACH CULVERT AND BASIN OUTFALLS AS THEY ARE INSTALLED.
6. MAINTAIN EROSION CONTROL MEASURES DURING CONSTRUCTION ACCORDING TO CT DEEP REQUIREMENTS
7. COMPLETE ANY FINAL, FINE GRADING.

PHASE 3 CONSTRUCTION SEQUENCE

1. AT PROJECT END, CONTACT CT DEEP COUNTY FOR REVIEW AND WITH APPROVAL, REMOVE THE SKIMMER AND CONVERT TEMP. SEDIMENT BASINS TO PERMANENT STORMWATER PONDS AS SHOWN IN THE PLANS.
2. TEMPORARY CONVEYANCE DITCHES AND TEMPORARY SEDIMENT PONDS MY BE REMOVED ONCE THE SITE HAS ACHIEVED 80% STABILIZATION.
3. FORMER BASIN AREAS TO BE SEEDED AND STABILIZED. SILT FENCE TO REMAIN AROUND THE LOWER SIDE OF THE FORMER BASIN AREAS UNTIL VEGETATIVE STABILIZATION IS IN PLACE.

HDR

SILICON RANCH

NOT FOR CONSTRUCTION

STONINGTON SOLAR

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STATE OF CONNECTICUT · LICENSED PROFESSIONAL ENGINEER

STONINGTON, CT

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SHEET TITLE:

EROSION AND SEDIMENTATION CONTROL PHASE 2 - SHEET 1

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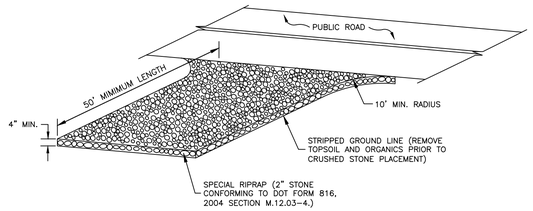
C502

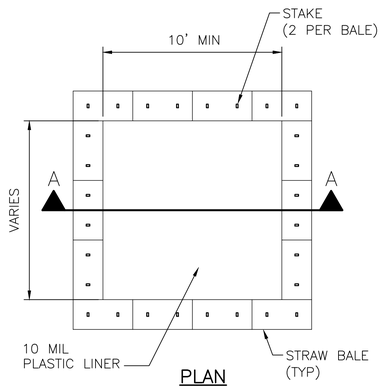


NOT TO SCALE

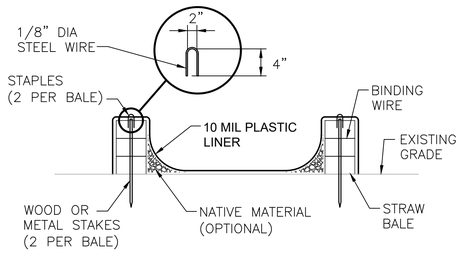
TOWN OF STONINGTON TECHNICAL STANDARDS	ANTI-TRACKING PAD	DATE:
		REVISED:
		DETAIL NUMBER: ES-2

TEMPORARY CONSTRUCTION ENTRANCE (1)

NOT TO SCALE



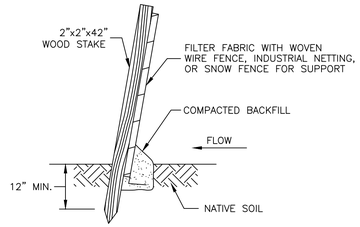
PLAN



SECTION A-A

CONCRETE WASHOUT (4)

NOT TO SCALE

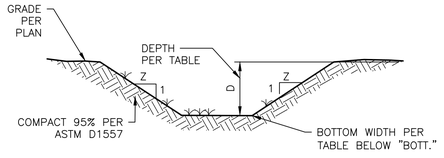


NOT TO SCALE

TOWN OF STONINGTON TECHNICAL STANDARDS	SILT FENCE	DATE:
		REVISED:
		DETAIL NUMBER: ES-1

SILT FENCE (2)

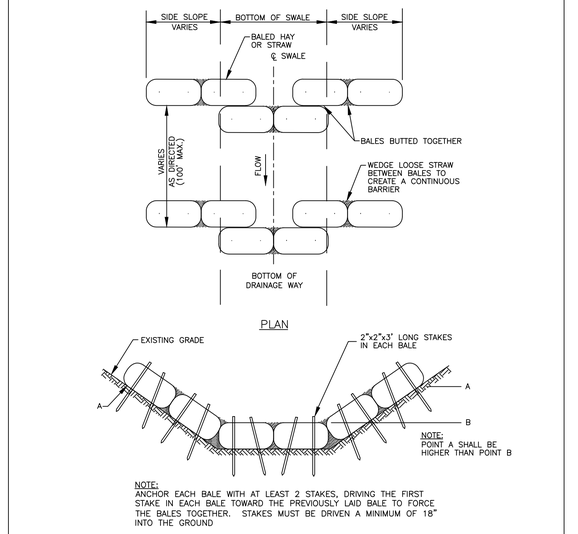
NOT TO SCALE



Ditch	Weighted Peak Runoff 100-yr Event (cfs)	Avg. Slope (%)	Shape	Side Slope z:1	Bott. (ft)	Depth (ft)	Top Width (ft)
1A	6.37	0.69%	Trap.	3	1	1.00	7.0
1B	10.15	0.29%	Trap.	3	1.5	1.25	9.0
1C1	12.06	1.77%	Trap.	3	1.5	1.00	7.5
1C2	22.91	1.19%	Trap.	3	2	1.25	9.5
5A	22.23	3.91%	Trap.	3	2	1.00	8.0
5B	7.52	4.99%	Tri.	3	0	1.00	6.0

CONVEYANCE DITCH DETAIL (5)

NOT TO SCALE



PLAN

NOTE:
ANCHOR EACH BALE WITH AT LEAST 2 STAKES, DRIVING THE FIRST STAKE IN EACH BALE TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER. STAKES MUST BE DRIVEN A MINIMUM OF 18" INTO THE GROUND

CROSS SECTION

NOT TO SCALE

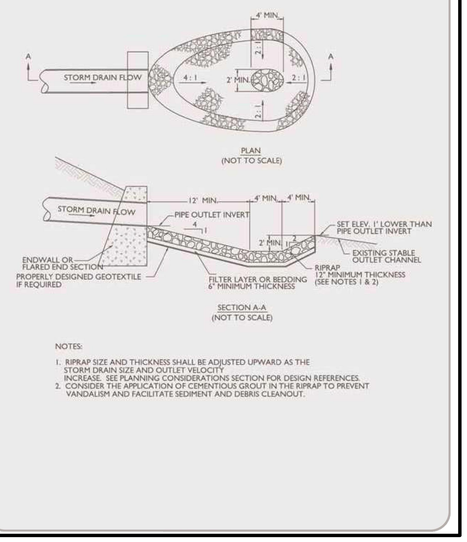
TOWN OF STONINGTON TECHNICAL STANDARDS	HAYBALE CHECK DAM	DATE:
		REVISED:
		DETAIL NUMBER: ES-5

CHECK DAM (3)

NOT TO SCALE

Culvert #	Q (cfs)	D_O (ft)	TW (ft)	L_a (ft)	W (ft)	d_{50} (ft)
1A	6.35	1.25	0.59	17.7	21.5	0.30
1B	1.65	1.25	1.25	12.0	8.6	0.02
1C	12.29	2	0.67	23.4	29.4	0.34
5	19.38	2	1.33	27.6	17.1	0.31
D1A	4.58	1	0.84	15.8	9.3	0.18

Figure OP-3 Configuration of Outlet Protection using a Riprap Stilling Basin



NOTES:
1. RIPRAP SIZE AND THICKNESS SHALL BE ADJUSTED UPWARD AS THE STORM DRAIN SIZE AND OUTLET VELOCITY INCREASE. SEE PLANNING CONSIDERATIONS SECTION FOR DESIGN REFERENCES.
2. CONSIDER THE APPLICATION OF CEMENTIOUS GROUT IN THE RIPRAP TO PREVENT VANDALISM AND FACILITATE SEDIMENT AND DEBRIS CLEANOUT.

OUTFALL PROTECTION (6)

NOT TO SCALE

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EROSION AND SEDIMENT CONTROL DETAILS 1

PROJ. MGR.	PROJ. ENGR.	DATE:
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NC	CP	AS NOTED

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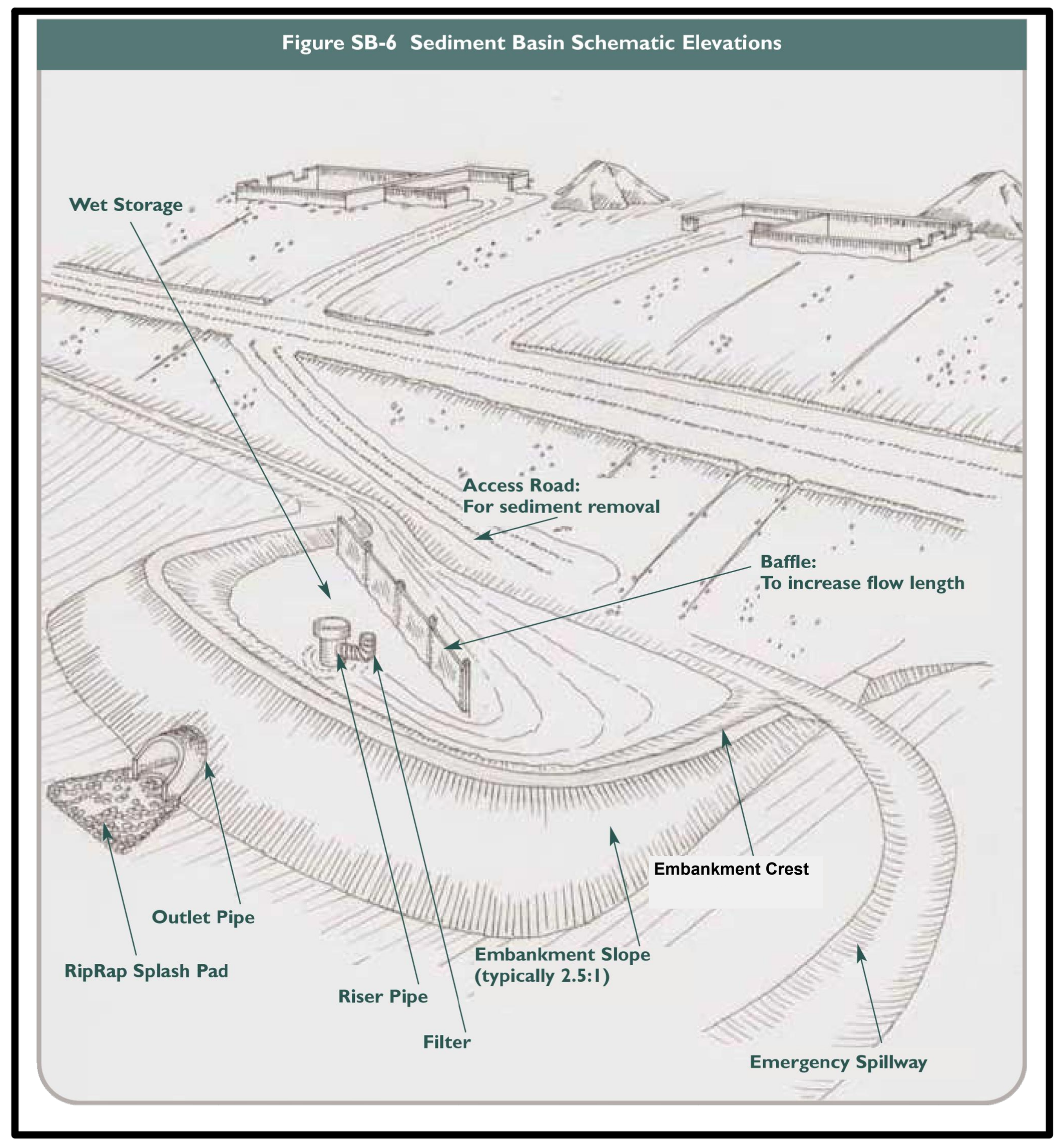
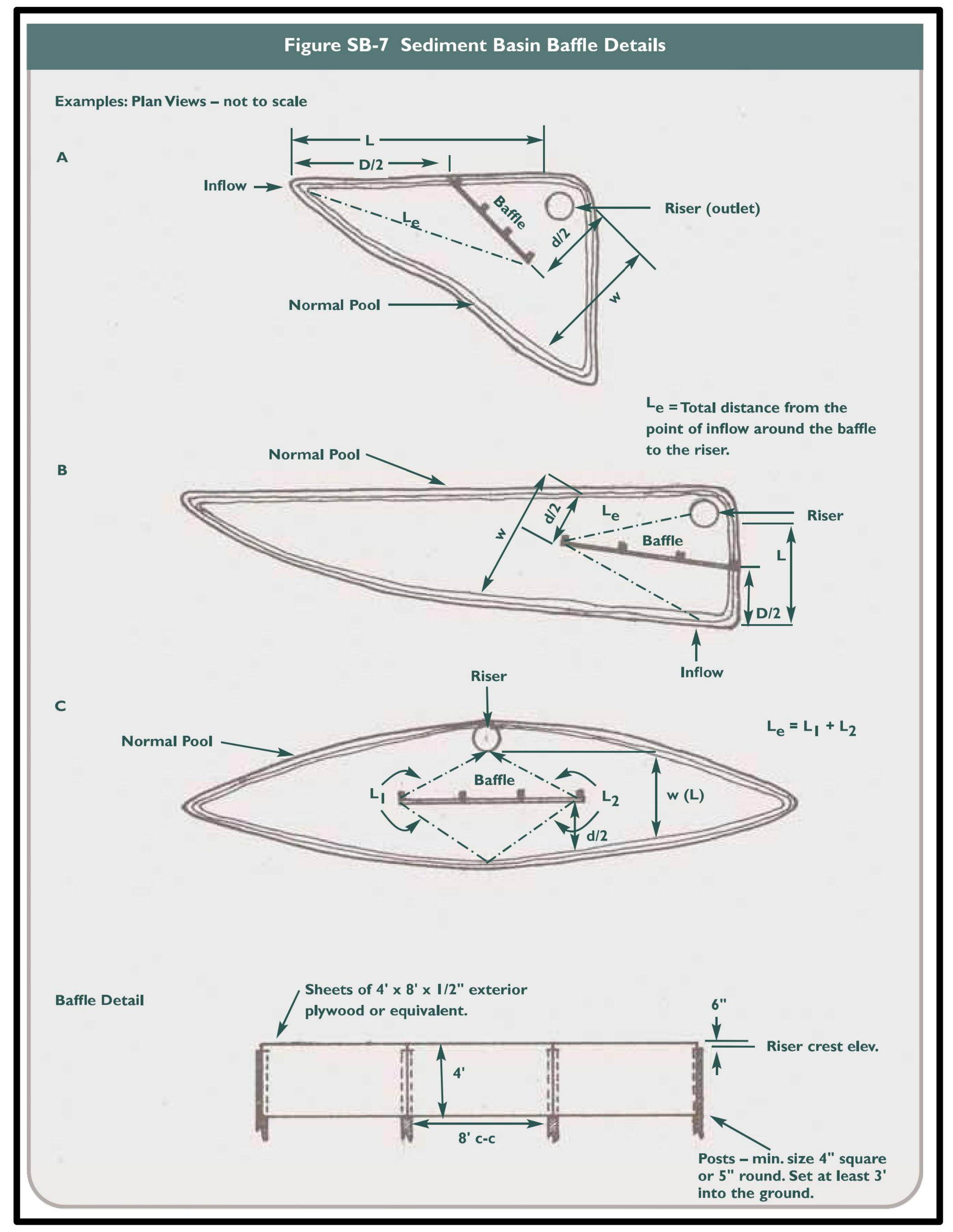
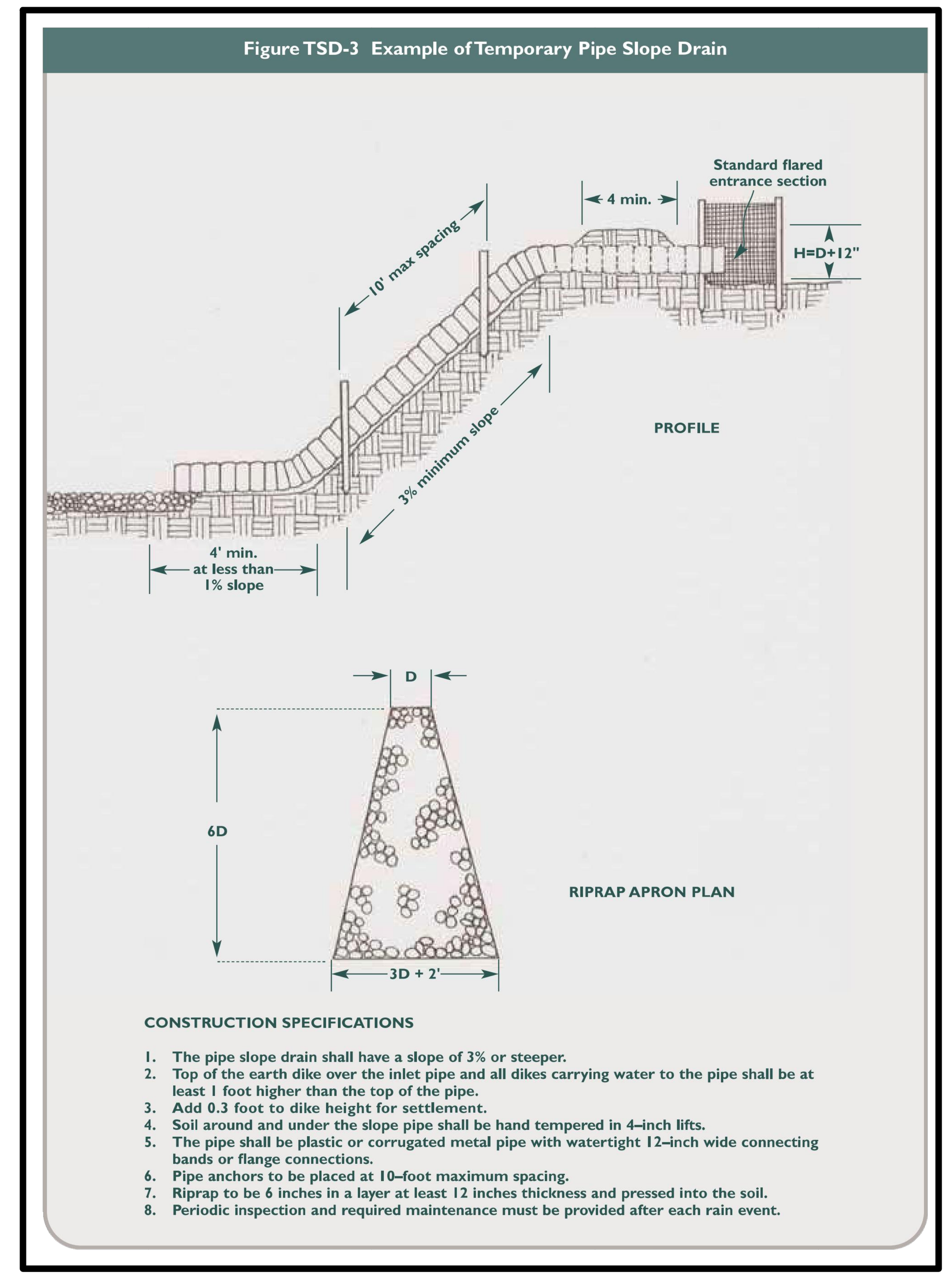
C503





BAFFLES 2

NOT TO SCALE



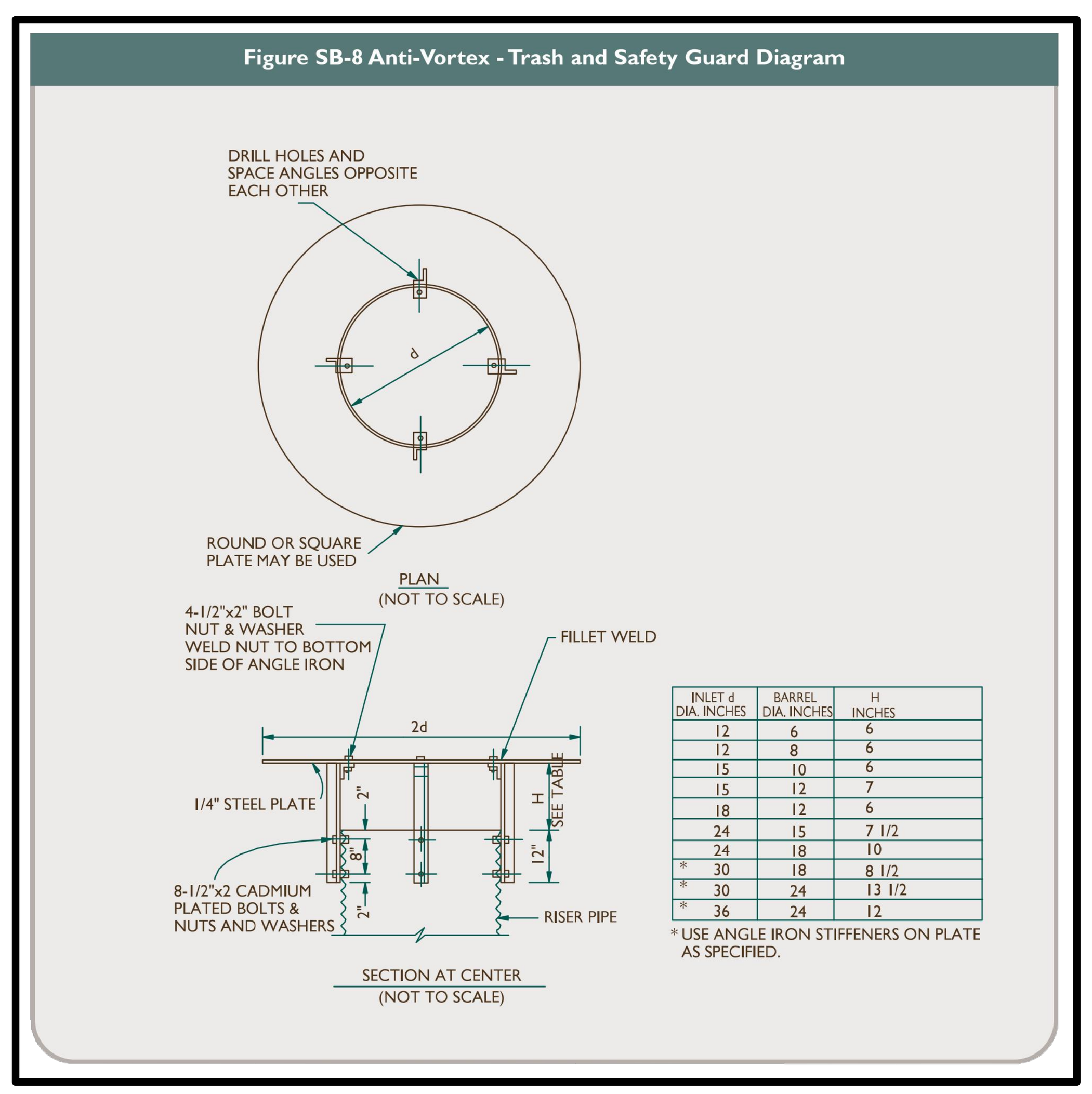
TEMPORARY SLOPE DRAIN 4

NOT TO SCALE

BASIN #	TOTAL DRAINAGE AREA (AC)	DEPTH OF STORAGE VOLUME (FT)	10YR PEAK FLOW (CFS)	RETENTION TIME REQUIRED (MIN)	RETENTION TIME PROVIDED (MIN)	BOTTOM ELEVATION (FT)	RISER CREST ELEVATION (FT)	EMERGENCY SPILLWAY ELEVATION (FT)	TOP OF BERM ELEVATION (FT)	HIGHWATER ELEVATION (10-YR) (FT)	OUTLET PIPE SIZE (INCH)	OUTLET PIPE INVERT IN (FT)	OUTLET PIPE INVERT OUT (FT)	Filter Orifice Size (INCH)
1A	4.19	7.00	2.45	600	609	124.00	128.50	130.50	131.00	128.63	18.00	124.00	123.50	4.00
1B	4.57	8.00	3.45	600	608	119.00	121.50	126.00	127.00	121.65	24.00	119.00	118.50	4.00
1C	11.85	6.00	8.18	600	652	114.00	115.50	119.00	120.00	116.80	24.00	114.00	113.50	4.00
5	15.23	8.00	16.20	600	764	120.00	123.00	127.00	128.00	125.11	24.00	120.00	117.00	3.00

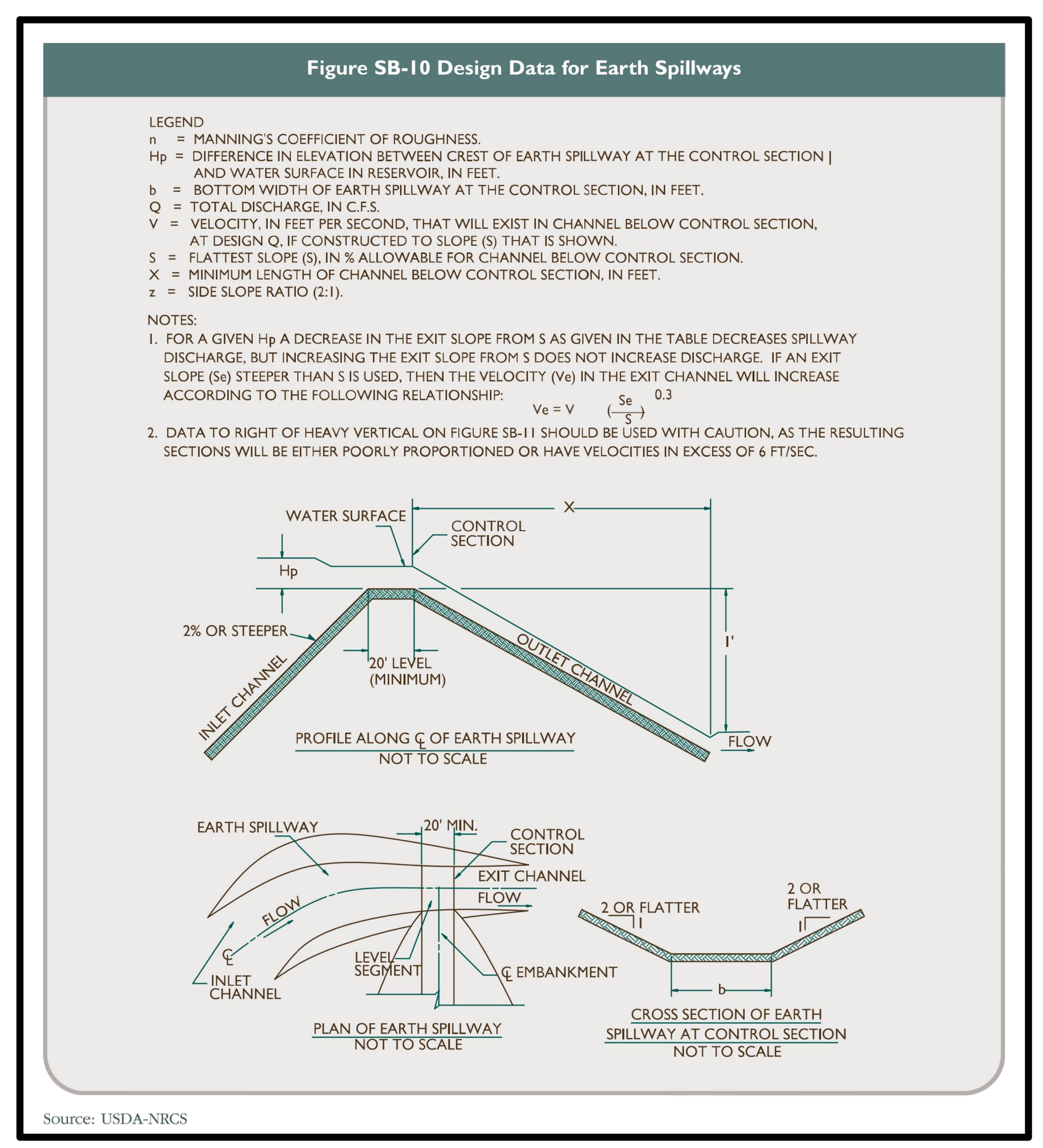
SEDIMENT BASIN 1

NOT TO SCALE



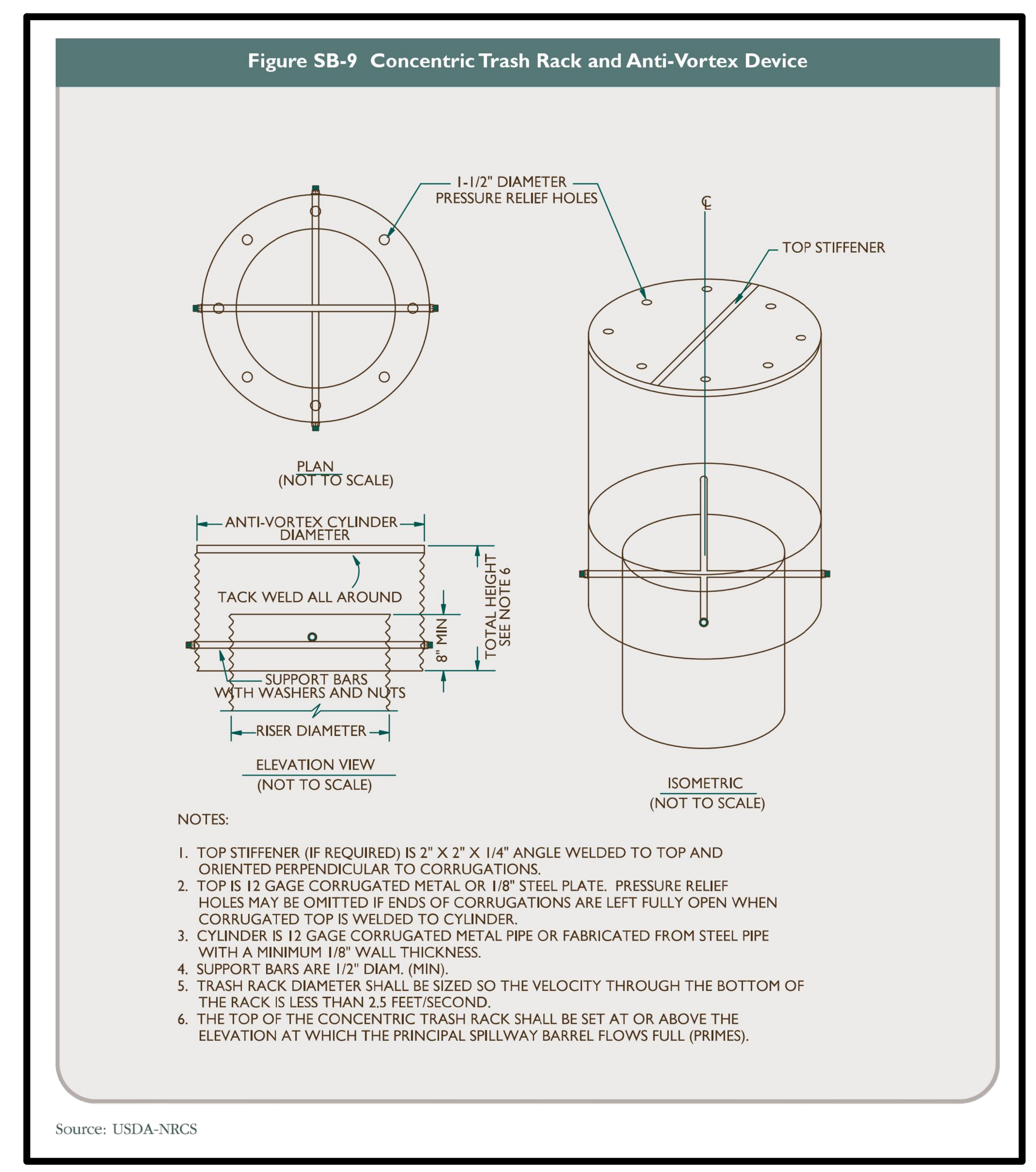
ANTI-VORTEX TRASH GUARD 3

NOT TO SCALE



EARTH SPILLWAY 5

NOT TO SCALE



CONCENTRIC TRASH RACK 4

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NORTH STONINGTON, CT 06359, USA

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STONINGTON, CT

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SHEET TITLE:

EROSION AND SEDIMENT CONTROL DETAILS 2

PROJ. MGR.: WK	PROJ. ENGR.: MB	DATE: 11/19/2021
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C504

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:

- ❍ *are biodegradable or photodegradable within two years but without substantial degradation over the period of intended usage (five months maximum);*
- ❍ *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;*
- ❍ *are free of any substance toxic to plant growth and unprotected human skin or which interferes with seed germination;*
- ❍ *contain no contaminants that pollute the air or waters of the State when properly applied; and*
- ❍ *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

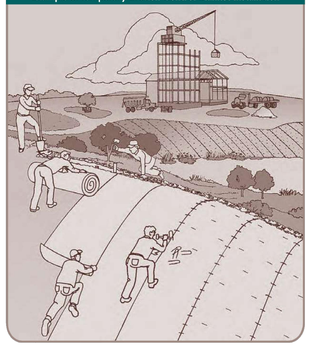
(see **Figure ECB-1**)

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.

Figure ECB-1
Example of Temporary Erosion Control Blanket Installation



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.

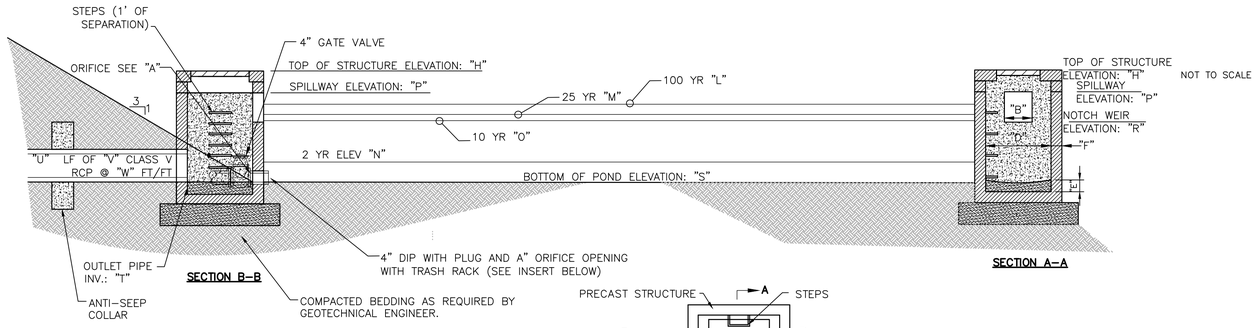
Repair any dislodged or failed blankets immediately.

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.

TEMPORARY EROSION CONTROL MATTING
NOT TO SCALE
1

GENERAL NOTES:

1. PRECAST STRUCTURES SHALL CONFORM TO LATEST ASTM C-913 SPECIFICATIONS FOR "REINFORCED CONCRETE WATER AND WASTEWATER STRUCTURES".
2. ALL EXPOSED CONCRETE TO BE CHAMFERED 1".
3. CONCRETE COMPRESSIVE STRENGTH 4000 PSI MINIMUM.
4. SECTION JOINTS TO BE SEALED WITH BUTYL RUBBER SEALANT SUPPLIED BY VENDOR AND INSTALLED BY CONTRACTOR. BARREL CONNECTIONS TO BE SEALED WITH LINK SEAL CONNECTORS SUPPLIED BY VENDOR AND INSTALLED BY CONTRACTOR.
5. CONCRETE PIPE SHALL HAVE 'O' RING SEALS OR WATER TIGHT JOINTS.
6. SHOP DRAWINGS MUST BE SUBMITTED AND APPROVED BY THE ENGINEER BEFORE CONSTRUCTION.
7. GEOTECHNICAL ENGINEER SHALL MONITOR DAM AND OUTLET STRUCTURE INSTALLATION. ALL FILL AREAS SHALL BE COMPACTED TO 100% OF THE MATERIALS MAXIMUM DRY DENSITY UNLESS OTHERWISE DICTATED BY THE GEOTECHNICAL ENGINEER.
8. PROVIDED STEPS 1' ON CENTERS. STEPS SHALL BE EPOXY COATED. MANHOLE OPENING TO ALIGN WITH STEPS.
9. ALL PIPE IN STORM DRAIN STRUCTURE TO BE STRUCK EVEN WITH THE INSIDE WALL, GROUTED AND BRUSHED SMOOTH.



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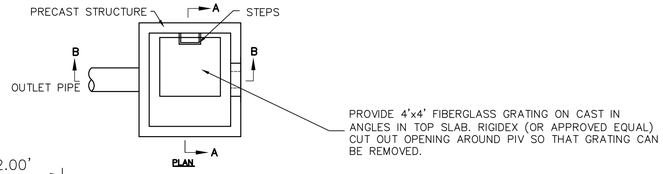
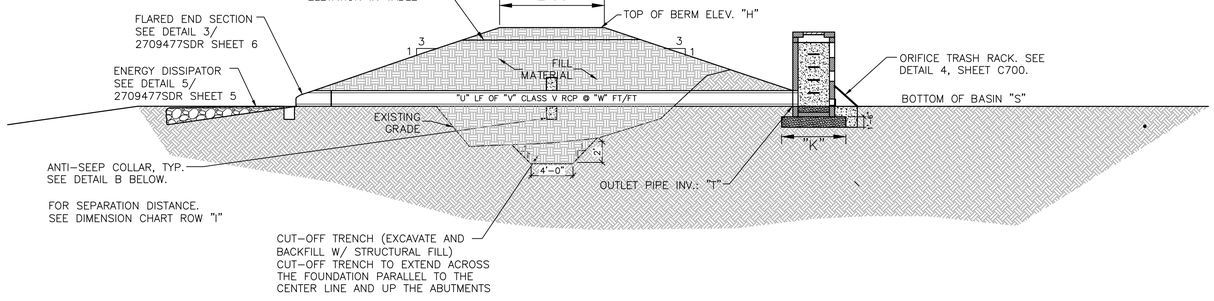
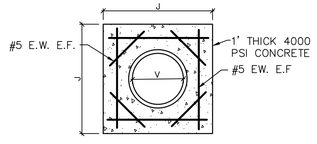




STORMWATER BASIN
NOT TO SCALE
2

DIMENSION CHART

	BASIN	POND 1A	POND 1B	POND 1C	POND 5
A	Orifice Diameter (in)	6	6	10	10
B	Weir Length (ft)	3	3	3	2
C	Emergency Spillway Length (ft)	20	20	30	30
D	Inside Dimension of Outlet Structure (ft) (Square Box)	4	4	4	4
E	Concrete Ballast Depth (in)	8	8	8	8
F	Width of Outlet Structure Walls (in)	6	6	6	6
G	NOT USED	–	–	–	–
H	Top of Berm – Top of Outlet Structure	131.00	127.00	120.00	128.00
I	Anti-seep Collar Separation (ft)	20	20	20	20
J	Anti-seep Collar Length and Width (ft)	4	4	4	4
K	Outlet Structure Base Dimension (ft) (Depth is 18")	6	6	6	6
L	100 Year Water Elevation	130.91	124.70	119.74	126.48
M	25 Year Water Elevation	129.84	123.49	118.70	125.45
N	2 Year Water Elevation	126.93	121.11	116.83	123.16
O	10 Year Water Elevation	128.80	122.58	117.94	124.71
P	Emergency Spillway Elevation	130.90	126.90	119.60	127.90
Q	Weir Elevation	130.50	124.55	116.90	123.50
R	Bottom of Pond Elevation	123.00	119.00	114.00	120.00
S	Outlet Pipe Invert	125.80	120.20	115.70	121.30
T	Linear Feet of Outlet Pipe	402	88	92	82
U	Diameter of Outlet Pipe	24"	15"	18"	24"
V	Outlet Pipe Slope Ft/Ft	0.0050	0.0136	0.0076	0.0742
W	Outlet Pipe FES Invert	123.80	119.00	115.00	115.25



DETAIL – B – ANTI-SEEP COLLAR

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SHEET TITLE:

EROSION AND SEDIMENT CONTROL DETAILS 3

PROJ. MGR.	PROJ. ENGR.	DATE:
WK	MB	11/19/2021
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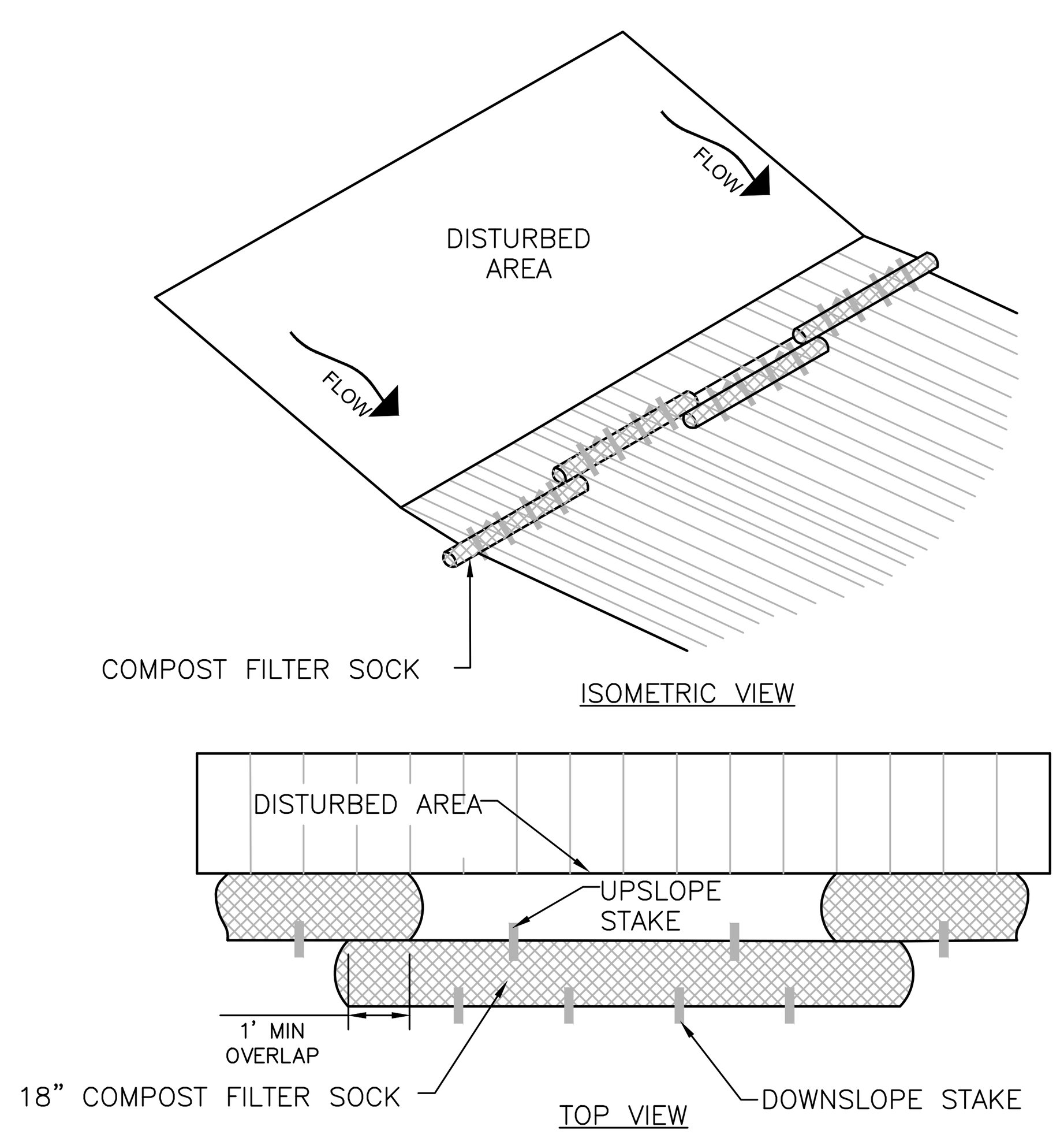
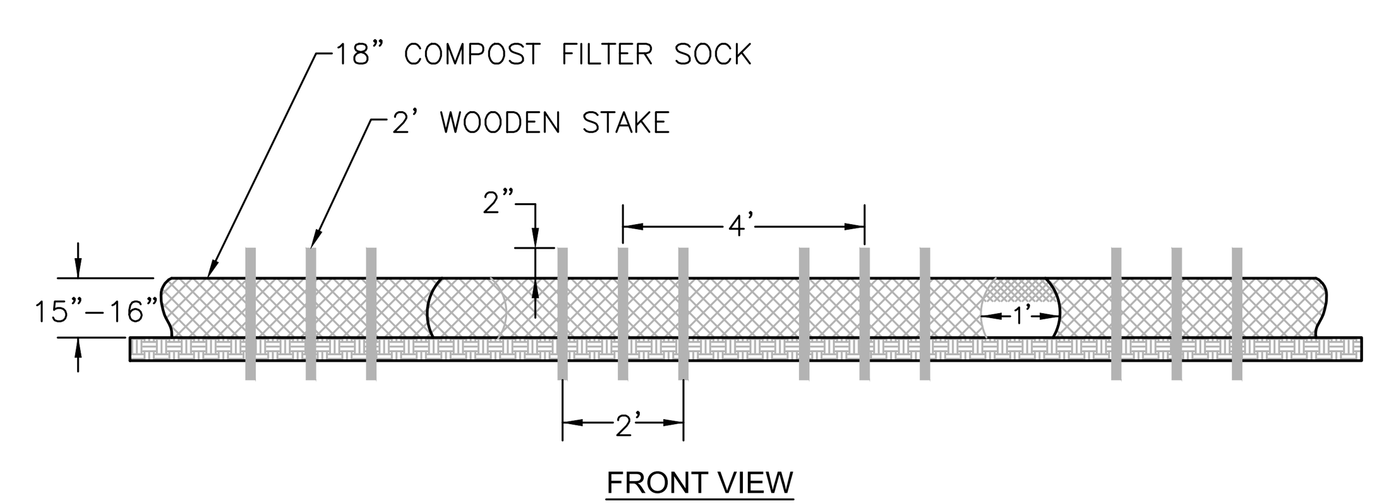


MAINTENANCE:

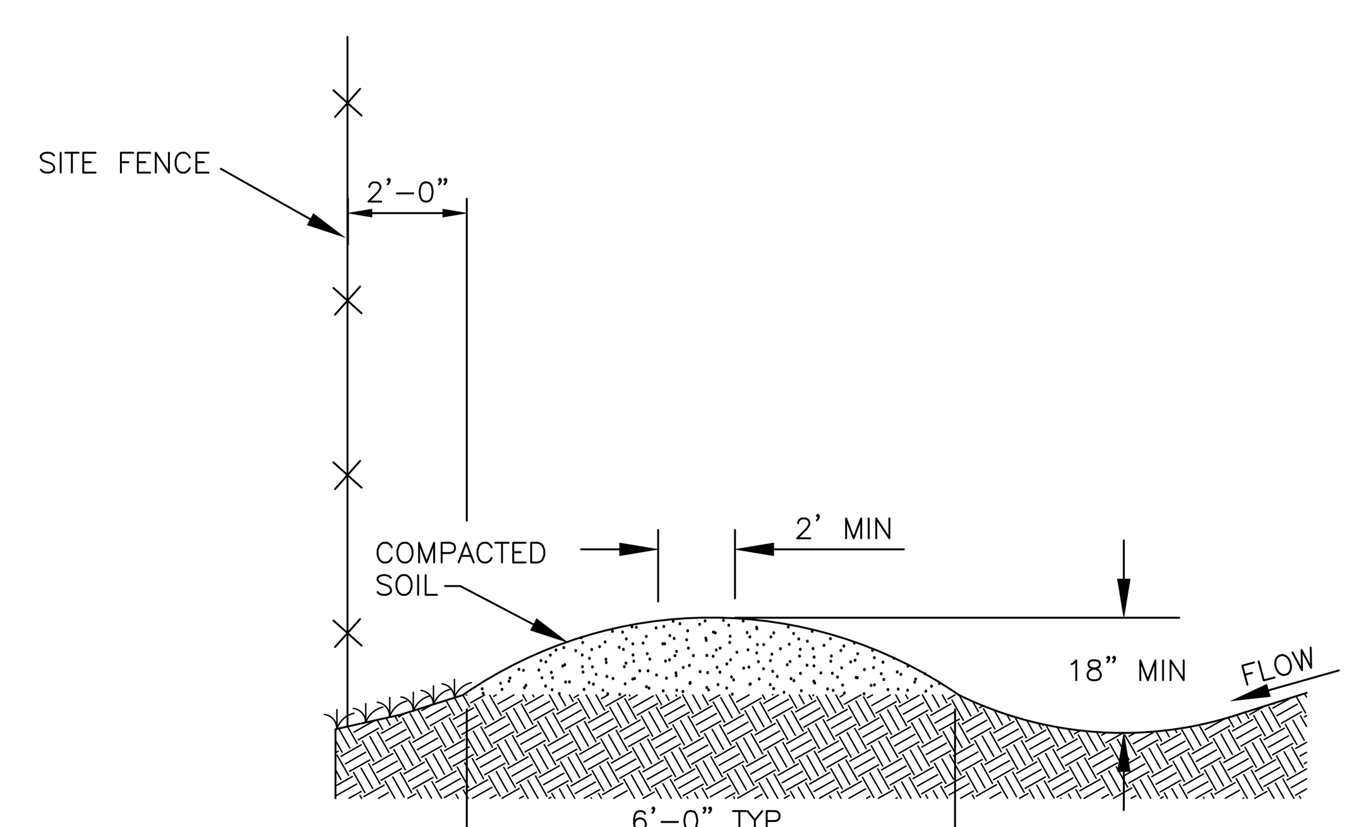
1. SEDIMENT DEPOSITS SHALL BE CLEANED FROM THE WATTLES WHEN IT REACHES HALF THE HEIGHT OF THE LOG.
2. DAMAGED WATTLES SHALL BE REPLACED WITHIN 24 HOURS OF INSPECTION. A SUPPLY OF WATTLES SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.

Table 1.

Slope	Barrier Row Spacing
<2%	100 feet
2 to 5%	75 feet
5 to 10%	50 feet
10 to 33%	25 feet
33 to 50%	20 feet
>50%	Not Permitted



COMPOST FILTER SOCK
NOT TO SCALE
2
–



NOTES

1. CONSTRUCT DIVERSION CHANNEL AT A MINIMUM OF 1.0% SLOPE TOWARD OUTLET.
2. SIDE SLOPES SHALL NOT EXCEED A 5:1 (H:V) SLOPE IN AREAS WHERE VEHICLES MUST CROSS, 3:1 SLOPE (MAX.) IN ALL OTHER AREAS.

DIVERSION DITCH DETAIL
NOT TO SCALE
3

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SILICON RANCH

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STONINGTON SOLAR

428, PROVIDENCE-NEW LONDON TURNPIKE
NORTH STONINGTON, CT 06359, USA

LAT: 41.431830°N
LON: 71.821514°W

STATE OF CONNECTICUT LICENSED PROFESSIONAL ENGINEER

STONINGTON, CT

REV. NO	DESCRIPTION	DATE
4	RE-ISSUED FOR PERMIT	11/19/21
3	RE-ISSUED FOR PERMIT	06/23/21
2	RE-ISSUED FOR PERMIT	05/28/21
1	RE-ISSUED FOR PERMIT	02/19/21
0	ISSUED FOR PERMIT	09/30/20

SHEET TITLE:

EROSION AND SEDIMENT CONTROL DETAILS 4

PROJ. MGR. WK	PROJ. ENGR. MB	DATE: 11/19/2021
DRAWN BY: NC	CHECKED BY: CP	SCALE: AS NOTED

DRAWING NO.

C506

EARTHEN STOCKPILE MANAGEMENT

1. 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.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. 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

1. 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.
3. 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 up area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. 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

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. 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.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. 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.
3. 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.
5. 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.
7. 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.
5. 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.
6. 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 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.

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	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

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SILICON RANCH

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STATE OF CONNECTICUT
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STONINGTON, CT

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0	ISSUED FOR PERMIT	09/30/20

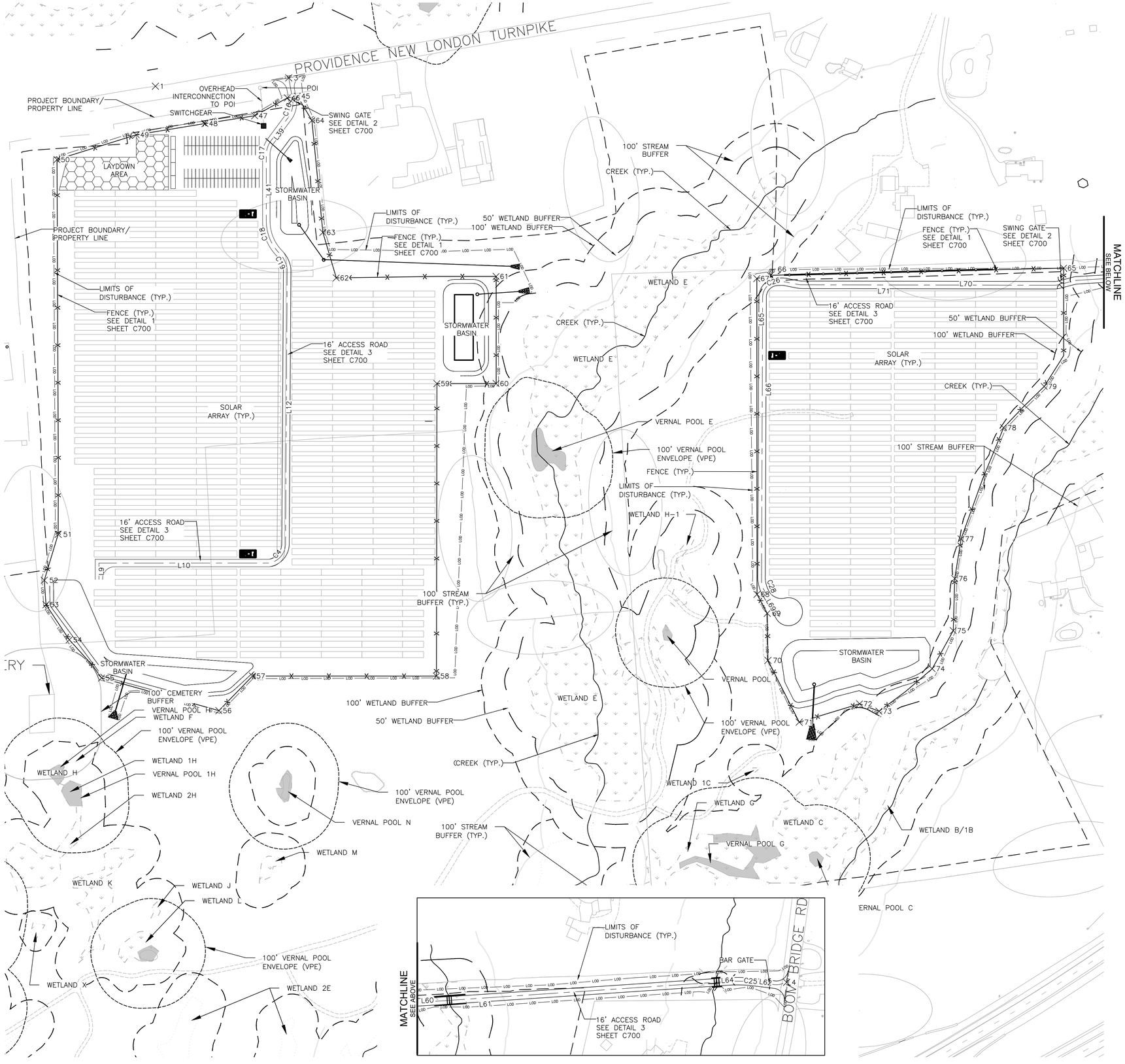
SHEET TITLE:

EROSION AND SEDIMENT CONTROL NOTES

PROJ. MGR.: WK	PROJ. ENGR.: MB	DATE: 11/19/2021
DRAWN BY: NC	CHECKED BY: CP	SCALE: AS NOTED

DRAWING NO.

C507



GENERAL NOTES :

1. SEE SHEET C101 FOR OVERALL PLAN.

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STONINGTON SOLAR

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NORTH STONINGTON, CT 06359, USA

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0	ISSUED FOR PERMIT	09/30/20

SHEET TITLE:

SITE PLAN 1

PROJ. MGR.	PROJ. ENGR.	DATE:
WK	MB	11/19/2021
DRAWN BY:	CHECKED BY:	SCALE:
NC	CP	1:100

DRAWING NO.

C601

Line Table		
Line #	Length	Direction
L9	35.000	N0° 00' 43.20"W
L10	363.832	N89° 59' 16.80"E
L12	588.305	N0° 20' 38.53"E
L39	61.997	N36° 36' 46.98"E
L41	141.376	N0° 00' 43.20"W
L60	93.896	N86° 37' 59.92"E
L61	630.051	N86° 07' 38.08"E
L62	22.756	S83° 05' 02.41"E
L64	630.051	N86° 07' 38.08"E
L65	74.928	N0° 13' 13.54"E
L66	519.199	N0° 13' 13.54"E
L69	62.746	N30° 00' 00.00"W
L70	540.130	S89° 54' 11.51"E
L71	540.130	S89° 54' 11.51"E

Curve Table			
Curve #	Length	Radius	Delta
C4	56.832	41.707	78.0752
C16	40.515	50.000	46.4269
C17	31.961	50.000	36.6250
C18	76.497	97.987	44.7300
C19	34.285	60.570	32.4316
C25	52.535	279.000	10.7888
C26	38.324	25.000	87.8320
C28	31.599	64.589	28.0306

POINT TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1	720802.21	1254261.22	ACCESS ROAD ENTRANCE
2	720995.62	1255412.07	ACCESS ROAD ENTRANCE
3	720820.09	1254546.24	ACCESS ROAD ENTRANCE
4	720433.20	1257078.42	ACCESS ROAD ENTRANCE
45	720780.98	1254564.70	FENCE
46	720777.29	1254543.36	FENCE
47	720739.04	1254473.52	FENCE
48	720722.34	1254367.28	FENCE
49	720698.33	1254220.32	FENCE
50	720645.24	1254050.82	FENCE
51	719843.75	1254053.26	FENCE
52	719745.54	1254023.61	FENCE
53	719693.41	1254027.31	FENCE
54	719618.24	1254077.13	FENCE
55	719536.57	1254146.06	FENCE
56	719466.74	1254396.97	FENCE
57	719540.72	1254468.69	FENCE
58	719540.65	1254862.04	FENCE
59	720166.23	1254863.00	FENCE
60	720166.23	1254989.65	FENCE

POINT TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
61	720395.42	1254989.65	FENCE
62	720392.26	1254647.88	FENCE
63	720489.52	1254619.22	FENCE
64	720728.98	1254595.68	FENCE
65	720413.23	1256202.91	FENCE
66	720397.76	1255575.32	FENCE
67	720390.88	1255546.91	FENCE
68	719715.51	1255547.33	FENCE
69	719674.81	1255569.17	FENCE
70	719574.21	1255570.69	FENCE
71	719442.02	1255637.55	FENCE
72	719481.39	1255766.61	FENCE
73	719465.46	1255808.16	FENCE
74	719556.34	1255921.78	FENCE
75	719637.74	1255966.82	FENCE
76	719749.22	1255969.97	FENCE
77	719833.94	1255983.56	FENCE
78	720071.91	1256074.51	FENCE
79	720160.05	1256161.27	FENCE

HDR

SILICON RANCH

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STATE OF CONNECTICUT
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STONINGTON, CT

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0	ISSUED FOR PERMIT	09/30/20

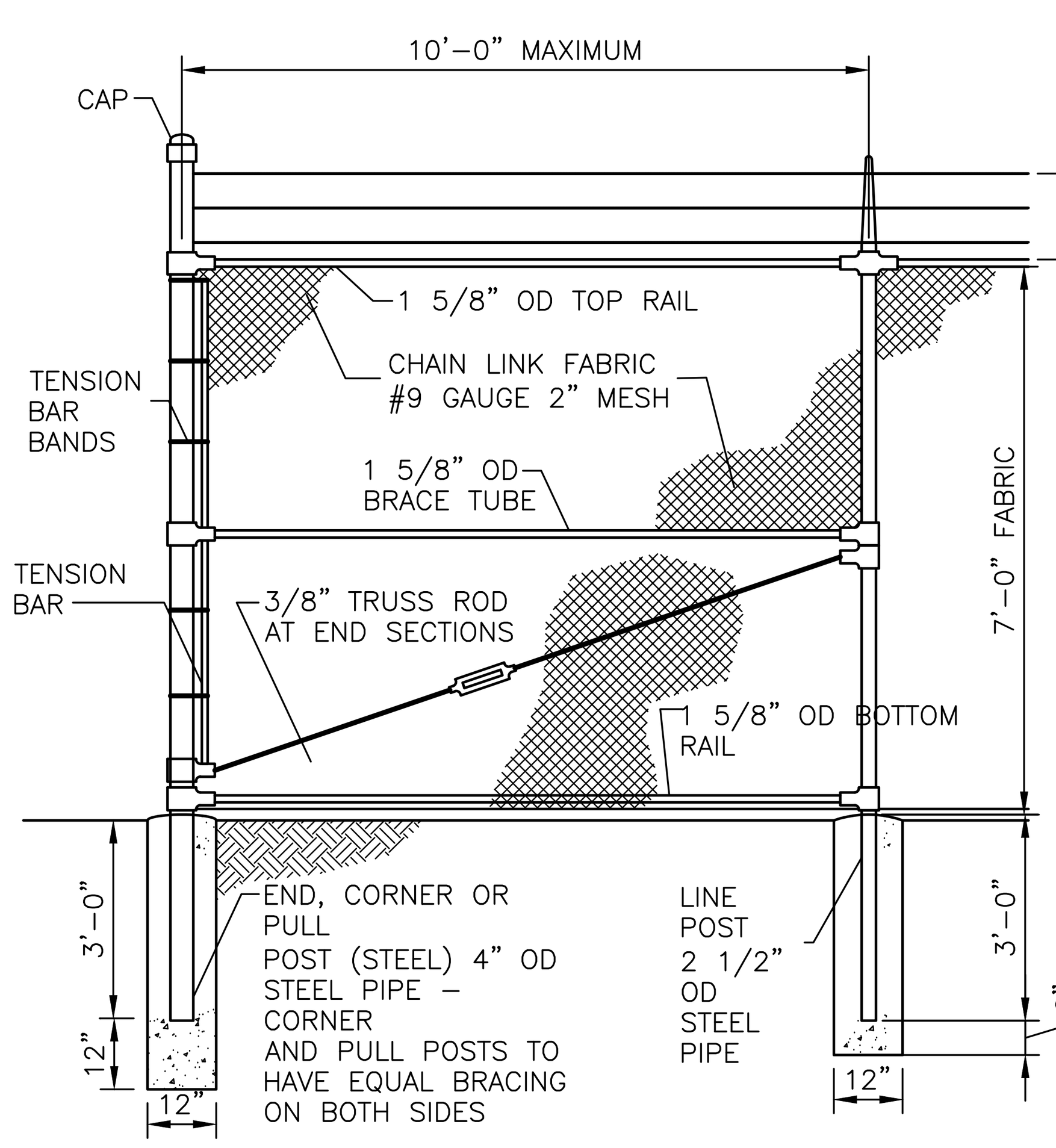
SHEET TITLE:

SITE PLAN DETAILS

PROJ. MGR.: WK	PROJ. ENGR.: MB	DATE: 11/19/2021
DRAWN BY: NC	CHECKED BY: CP	SCALE: NTS

DRAWING NO.

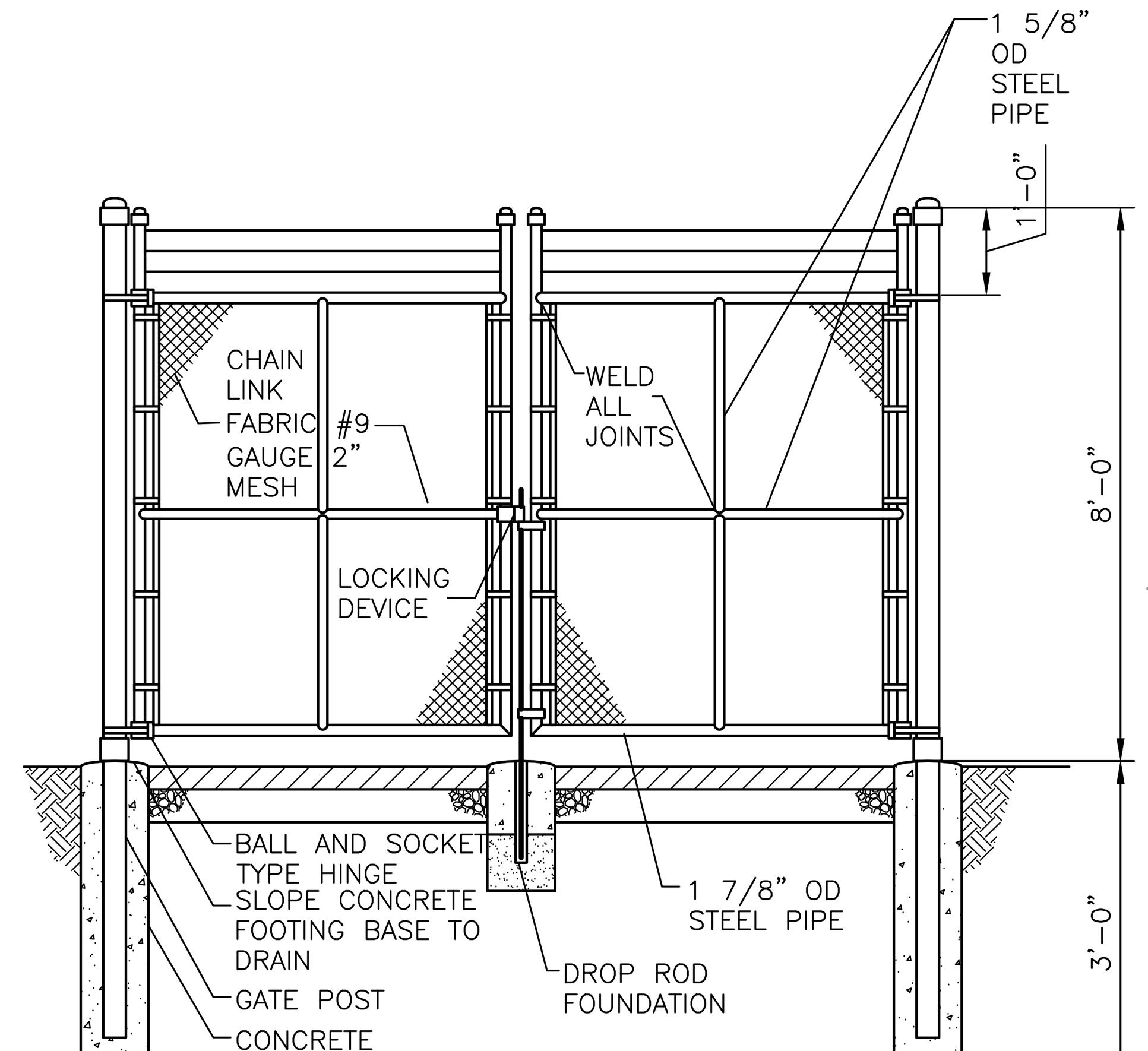
C602



SECURITY FENCE DETAIL

NOT TO SCALE

1

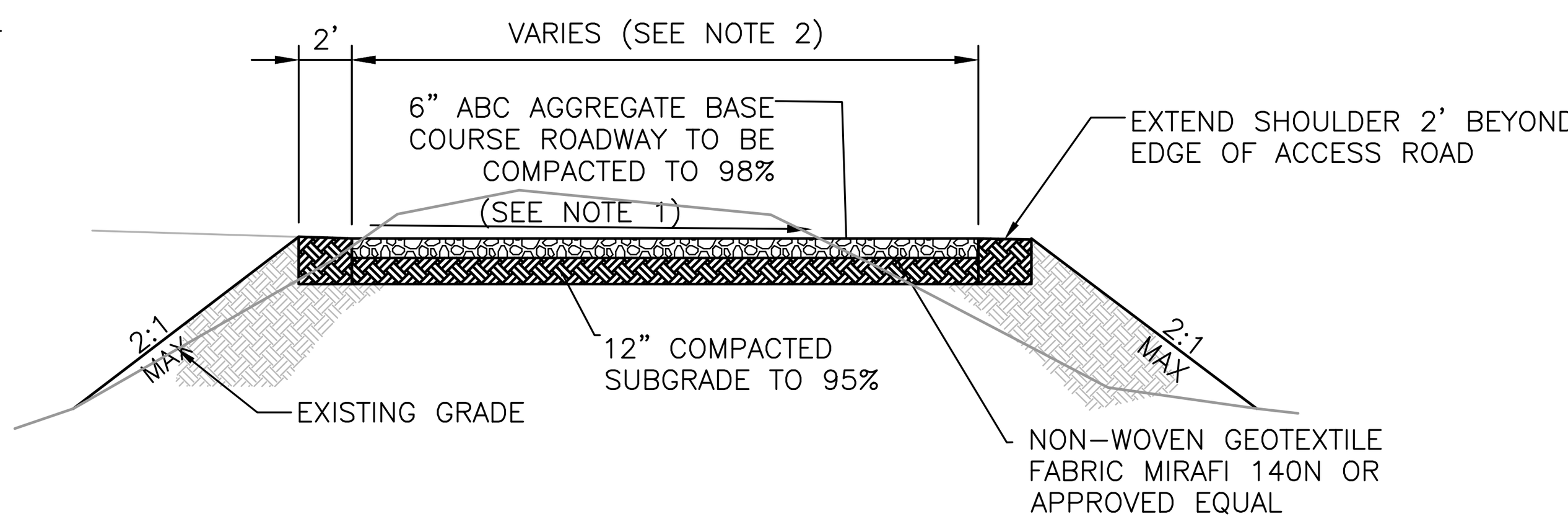


NOTE:
1. VINYL COATING TO MATCH FENCE.

SWING GATE DETAIL

NOT TO SCALE

2



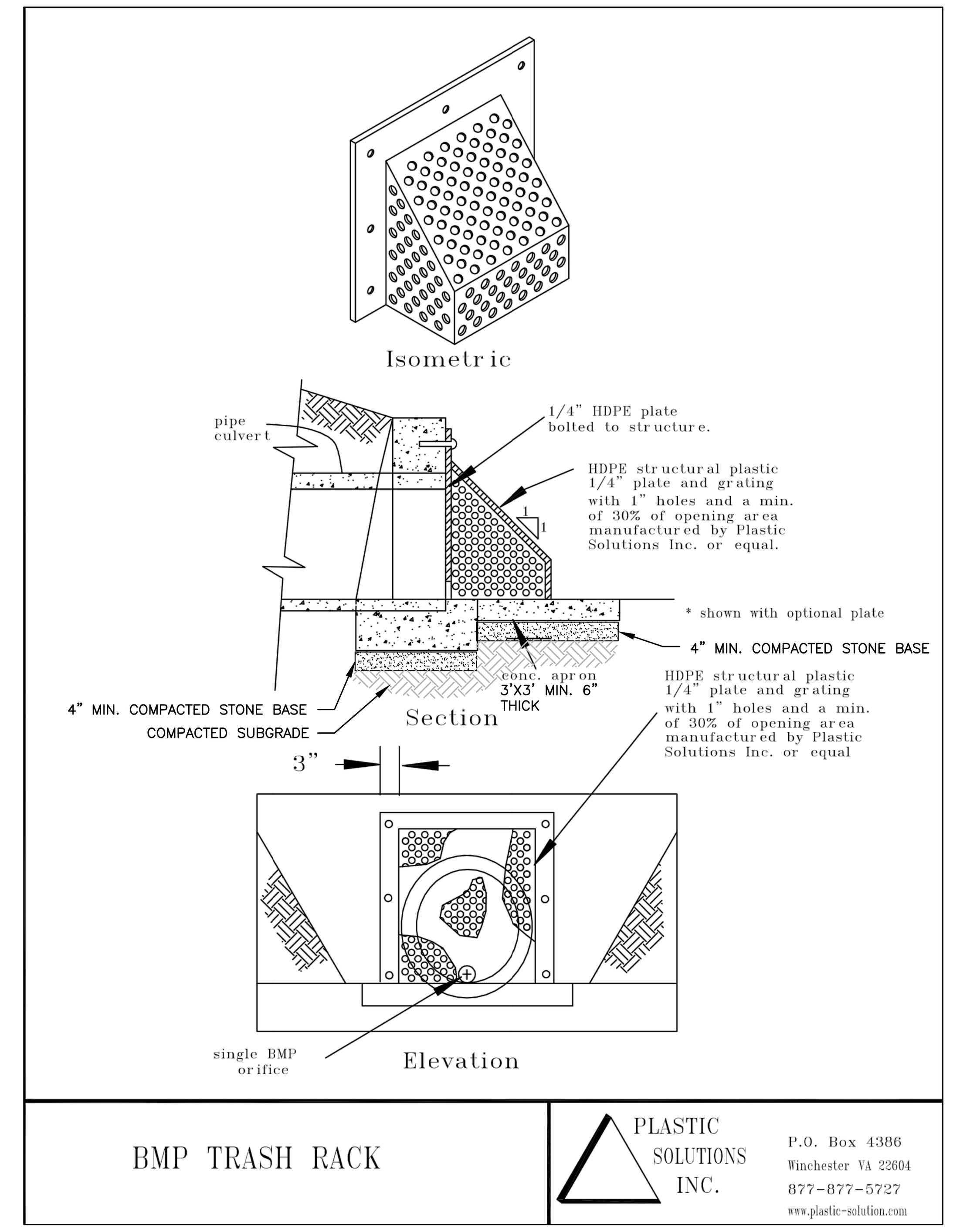
NOTES:

1. ACCESS ROAD SHALL BE INSTALLED PER THE DETAIL. MODIFY EXISTING GRADE AS NEEDED TO ESTABLISH ROAD WITH A CROSS-SLOPE BETWEEN 1% AND 5% TO ENSURE PROPER DRAINAGE.
2. STRAIGHT SECTION ROADS SHALL BE 16' WIDE AND ROAD SECTIONS IN CURVES AND TURNAROUNDS SHALL BE 20' WIDE. SEE SITE LAYOUT PLANS FOR SPECIFIC ROAD WIDTHS.

TYPICAL ROAD SECTION (RIGID LINE CONSTRUCTION)

NOT TO SCALE

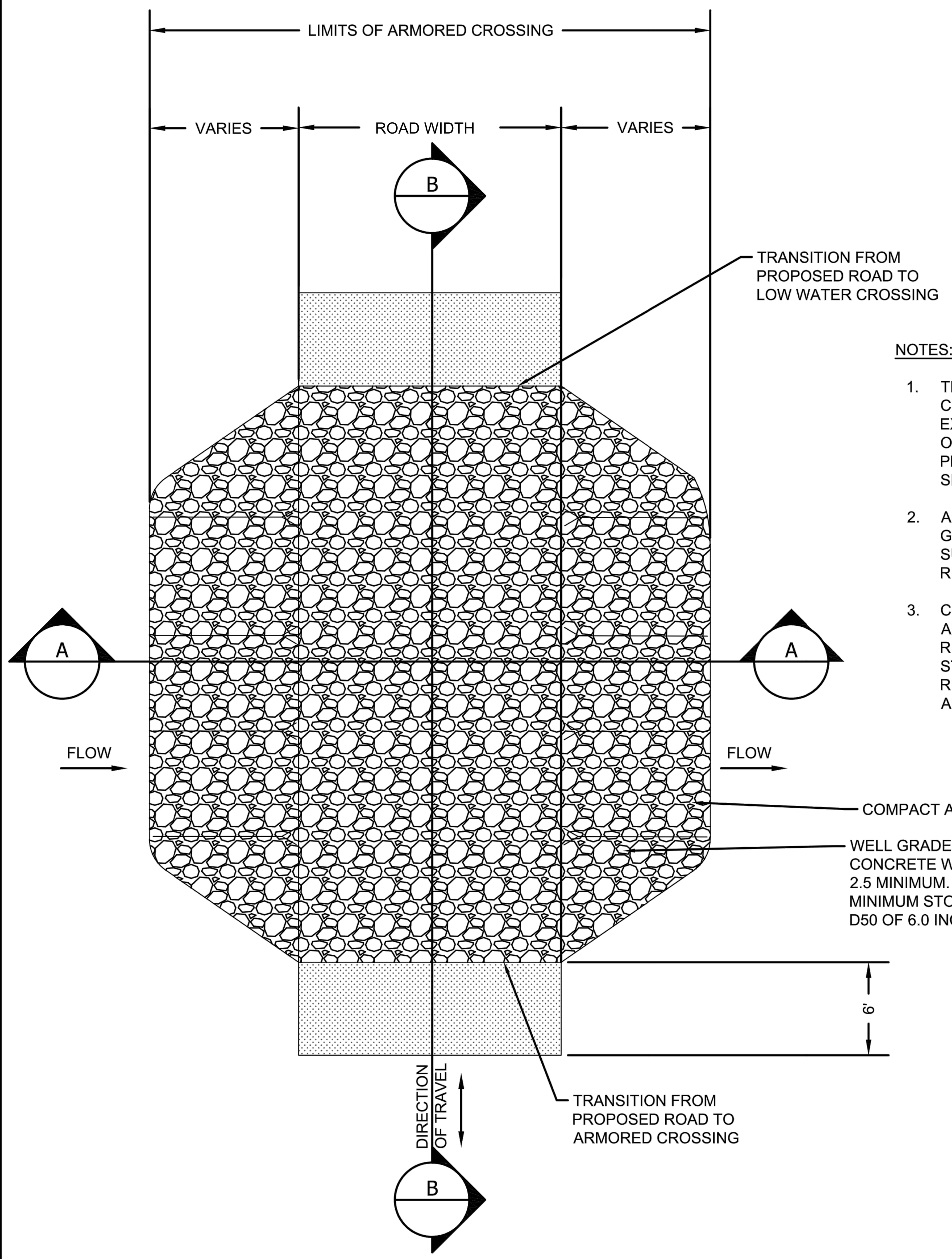
3



ORIFICE TRASH RACK

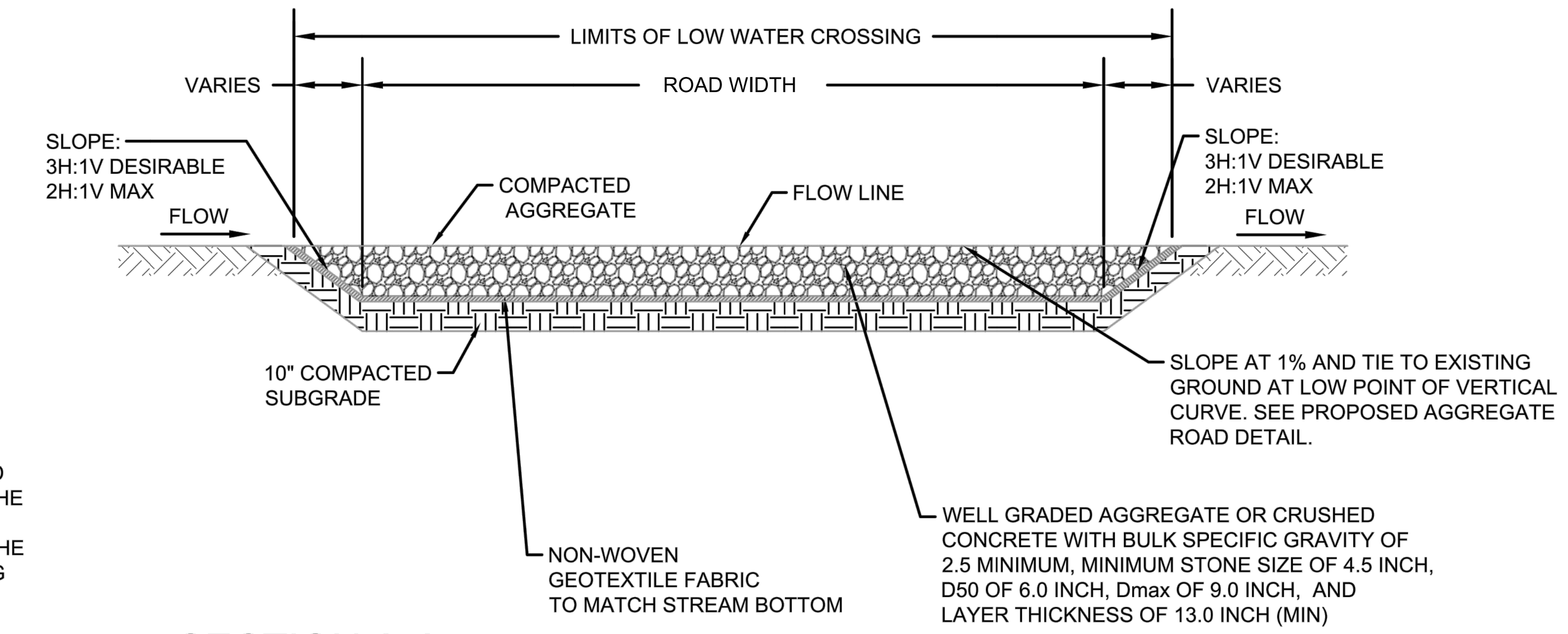
NOT TO SCALE

4



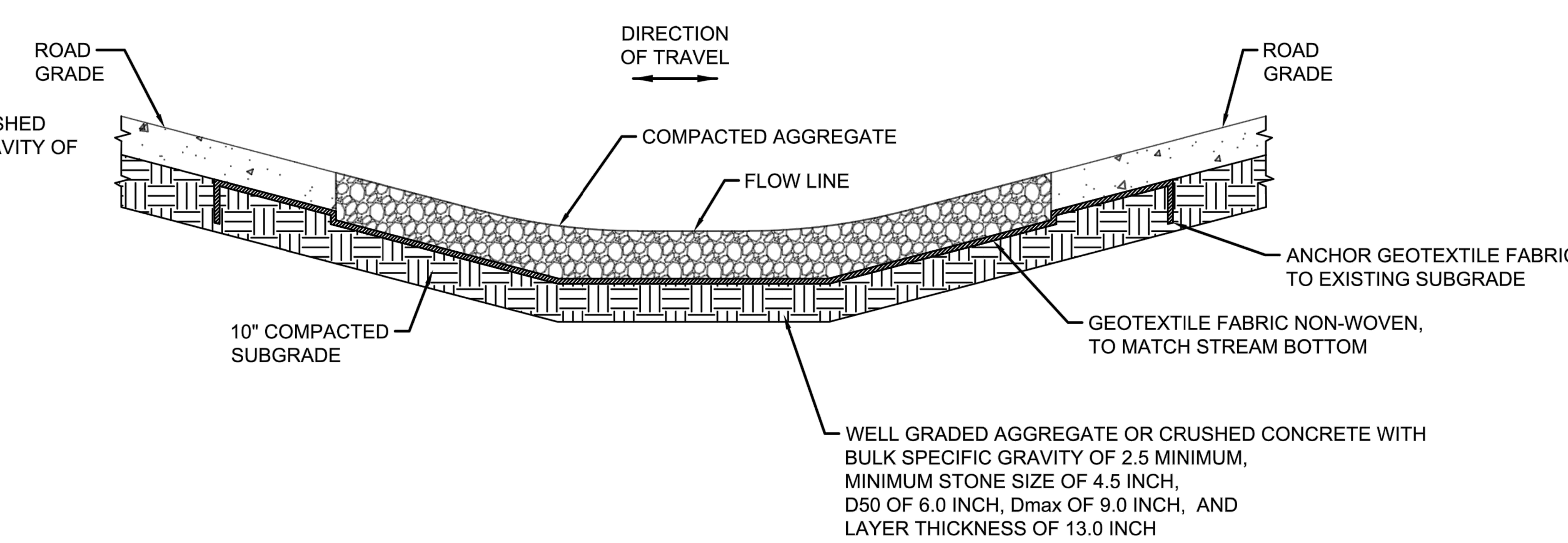
NOTES:

1. THE SLOPE OF THE ARMORED CROSSING SHOULD MATCH THE EXISTING CHANNEL UNLESS OTHERWISE IDENTIFIED ON THE PLAN AND STREAM CROSSING SHEETS.
2. ALL GEOFABRICS OR GEOTEXTILES MUST BE SUBMITTED TO THE ENGINEER OF RECORD (EOR) FOR APPROVAL.
3. CONTRACTOR MAY SUBMIT ALTERNATE ARMORED CROSSING REVETMENT AND ROAD BED STABILIZATION TO THE EOR FOR REVIEW AND POSSIBLE APPROVAL.



SECTION A-A

SCALE: NTS



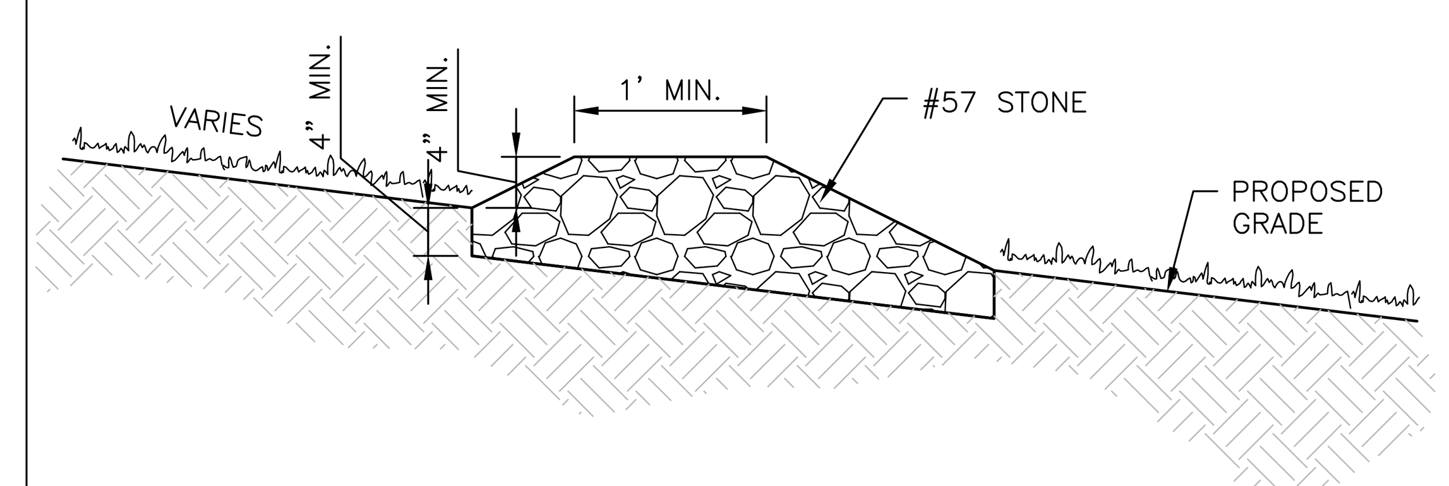
SECTION B-B

SCALE: NTS

LOW WATER CROSSING

NOT TO SCALE

5



NOTES:

1. LEVEL SPREADERS SHALL BE INSTALLED WHERE GRADE EXCEEDS 8%.
2. INSTALL LEVEL SPREADERS PERPENDICULAR TO THE SLOPE EVERY 100 LINEAR FEET.

GRAVEL LEVEL SPREADER

NOT TO SCALE

6

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SHEET TITLE:

SITE ACCESS PLAN & CIVIL DETAILS

PROJ. MGR.	PROJ. ENGR.	DATE:
WK	MB	11/19/2021
DRAWN BY: NC	CHECKED BY: CP	SCALE: #####

DRAWING NO.

C700