

Site Plans

Issued for	Application
Date Issued	December 19, 2022
Latest Issue	March 1, 2023

Collins Aerospace Solar

1 Hamilton Rd
Windsor Locks, Connecticut



Applicant

Earthlight Technologies
128 West Road
Ellington, CT 06029

Map / Block / Lot:

016 / 001 / 002

Owner

Hamilton Sunstrand Corporation
8 Farm Springs Road
Tax Dept 8FS2
Farmington, CT 06032

Sheet Index

No.	Drawing Title	Latest Issue
C-1.0	Legend and General Notes	March 1, 2023
C-2.0	Layout and Materials Plan	March 1, 2023
C-3.0	Grading, Drainage, and Utilities Plan	March 1, 2023
C-4.0	Erosion and Sediment Control Plan	March 1, 2023
C-5.1-5.2	Site Details	March 1, 2023

Reference Drawings

No.	Drawing Title	Latest Issue
Sv-1 to Sv-5	Partial Property and Topographic Survey	September 19, 2022



100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
860.807.4300

Legend

Legend table with columns for Exist. and Prop. symbols and descriptions for various site features like Property Line, Pavement, Easement, etc.

Abbreviations

Abbreviations table listing symbols and names for General items such as ABAN (Abandon), ACR (Accessible Curb Ramp), ADJ (Adjust), etc.

Notes

- General notes including Erosion Control, Existing Conditions Information, Utilities, Layout and Materials, and Demolition instructions.

Collins Aerospace Solar

1 Hamilton Rd
Windsor Locks, Connecticut

Revision table with columns for No., Revision, Date, and Apprd.

Designed by DRB Checked by SJK
Issued for Date

Application December 19, 2022

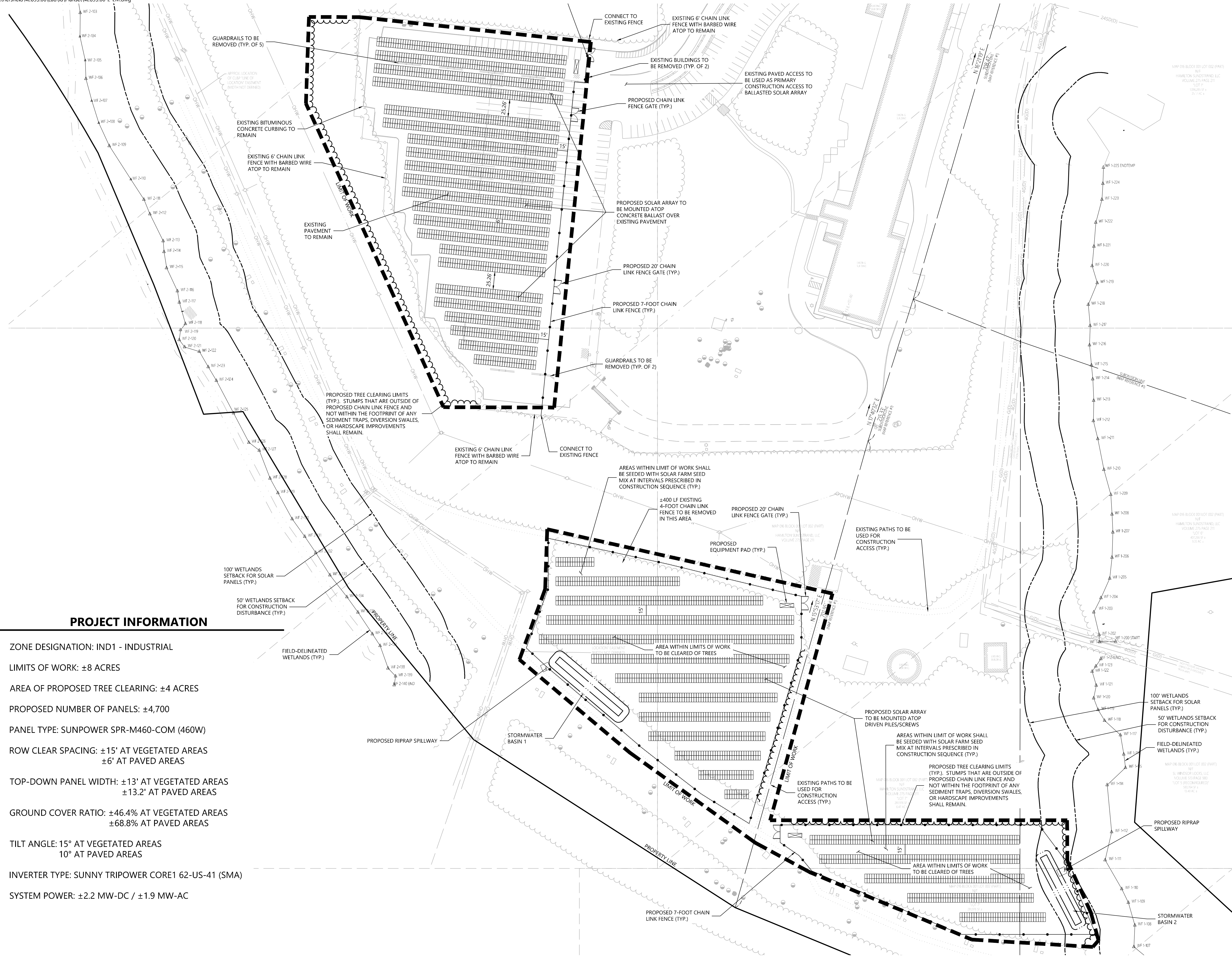
Not Approved for Construction

Legend and General Notes title block with drawing title and sheet information.

Drawing Number

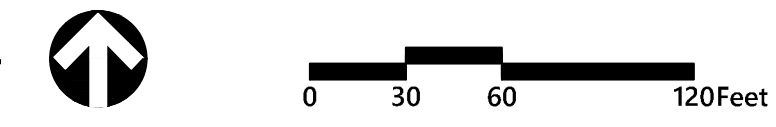
C-1.0

Sheet of 1 6



PROJECT INFORMATION

- ZONE DESIGNATION: IND1 - INDUSTRIAL
- LIMITS OF WORK: ±8 ACRES
- AREA OF PROPOSED TREE CLEARING: ±4 ACRES
- PROPOSED NUMBER OF PANELS: ±4,700
- PANEL TYPE: SUNPOWER SPR-M460-COM (460W)
- ROW CLEAR SPACING: ±15' AT VEGETATED AREAS
±6' AT PAVED AREAS
- TOP-DOWN PANEL WIDTH: ±13' AT VEGETATED AREAS
±13.2' AT PAVED AREAS
- GROUND COVER RATIO: ±46.4% AT VEGETATED AREAS
±68.8% AT PAVED AREAS
- TILT ANGLE: 15° AT VEGETATED AREAS
10° AT PAVED AREAS
- INVERTER TYPE: SUNNY TRIPOWER CORE1 62-US-41 (SMA)
- SYSTEM POWER: ±2.2 MW-DC / ±1.9 MW-AC

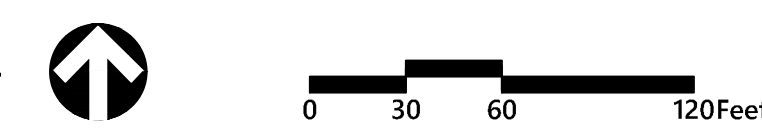


Collins Aerospace Solar
1 Hamilton Rd
Windsor Locks, Connecticut

No.	Revision	Date	Appr.
1	Revised Fence Detail	3/1/2023	SJK

Designed by	DRB	Checked by	SJK
Issued for	Application	Date	December 19, 2022

Not Approved for Construction
Layout and Materials Plan



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1 Hamilton Rd
Windsor Locks, Connecticut

No.	Revision	Date	Appr'd.
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Application
Not Approved for Construction
Grading, Drainage, and Utilities Plan

CONSTRUCTION SEQUENCING

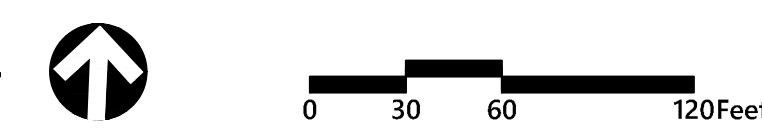
- ALL CONSTRUCTION ACTIVITIES ARE EXPECTED TO BEGIN IN THE SPRING/SUMMER OF 2023 AND BE COMPLETED BY THE END OF 2023. THE GENERAL CONSTRUCTION NOTES ARE AS FOLLOWS:
1. THE SITE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT ROADS/HIGHWAYS AND THEIR DRAINAGE SYSTEM, NEIGHBORING PROPERTIES, WETLANDS AND REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT. DESIGNATED ACCESS DRIVES MUST BE USED TO THE MAXIMUM EXTENTS POSSIBLE. IT IS REQUIRED THAT THE SITE CONTRACTOR PERFORM A DAILY INSPECTION OF ALL EROSION AND SEDIMENT CONTROL MEASURES EMPLOYED AT THE SITE.
 2. A CTDEEP-APPROVED QUALIFIED INSPECTOR SHALL BE ASSIGNED TO BE RESPONSIBLE FOR PERFORMING INSPECTIONS AND PREPARING REPORTS IN ACCORDANCE WITH SECTION 5(B)(4)(B) OF THE CONSTRUCTION GENERAL PERMIT. THESE INSPECTIONS SHALL TAKE PLACE WEEKLY, AT A MINIMUM, AND SHALL BE REQUIRED WITHIN 24 HOURS OF A RAINFALL EVENT EXCEEDING 0.5 INCHES. THE ENGINEER OF RECORD SHALL BE REQUIRED TO REVIEW AND COUNTER-SIGN THE PREPARED WEEKLY REPORTS. IT IS ALSO ANTICIPATED THAT REPRESENTATIVES FROM CTDEEP AND/OR THE STATE CONSERVATION DISTRICT MAY PERFORM PERIODIC INSPECTIONS.
 3. ENGINEER OF RECORD WILL PERFORM MONTHLY PLAN IMPLEMENTATION INSPECTIONS UNTIL EROSION CONTROLS ARE IN PLACE, OR THE FIRST THREE MONTHS (WHICHEVER IS GREATER) AND WILL PREPARE REPORTS OF THE FINDINGS.
 4. THROUGHOUT THE COURSE OF THE CONSTRUCTION PROJECT, ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES MAY BE WARRANTED AT THE DISCRETION OF THE QUALIFIED INSPECTOR AND/OR DESIGN ENGINEER. THESE IMPROVEMENTS MUST BE IMPLEMENTED IN A TIMELY FASHION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION GENERAL PERMIT. ADDITIONALLY, AREAS OF PROPOSED COMPACTED NATIVE SOIL ROADS SHALL BE CONVERTED TO STABLE GRAVEL ROADS IF/AS DETERMINED BY THE QUALIFIED INSPECTOR OR ENGINEER OF RECORD.
 5. PRIOR TO CONSTRUCTION, THE APPLICANT SHALL PROVIDE THE TOWN OF WINDSOR LOCKS WITH THE NAME OF CONTACT AND 24-HOUR CONTACT INFORMATION.
 6. CONTRACTOR SHALL ADHERE TO 2002 CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL, AS AMENDED.
 7. THE CONTRACTOR SHALL HOLD PRE-CONSTRUCTION MEETING(S). ATTENDEES SHALL INCLUDE, BUT NOT BE LIMITED TO, REPRESENTATIVES OF THE GENERAL CONTRACTOR, SITE CONTRACTOR, CTDEEP, TOWN OF WINDSOR LOCKS, ENGINEER OF RECORD, AND QUALIFIED SWPPP INSPECTOR.
 8. THE CONTRACTOR SHALL CONTACT CALL-BEFORE-YOU-DIG (1-800-922-4455) PRIOR TO ENGAGING IN ANY EXCAVATION ACTIVITIES AT THE SITE.
 9. THE CONTRACTOR SHALL NOTIFY THE TOWN OF WINDSOR LOCKS AGENT, ZONING ENFORCEMENT OFFICER, AND ENGINEERING DEPARTMENT, 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.
 10. NO CONSTRUCTION OF SITE IMPROVEMENTS MAY BEGIN UNTIL THE PROPER EROSION CONTROL MEASURES SERVING THE AREA TO BE DISTURBED ARE IN PLACE.
 11. ANTICIPATED WORK HOURS WILL BE BETWEEN 7:00 AM AND 5:00 PM.
 12. HIGH FLOTATION TIRE EQUIPMENT SHALL BE USED TO THE MAXIMUM EXTENTS PRACTICABLE IN LIEU OF TRACK CONSTRUCTION EQUIPMENT IN AN EFFORT TO AVOID COMPACTION OF THE NATIVE SOILS.

- PRE-CONSTRUCTION SITE PROTECTION SEQUENCE (SPRING/SUMMER 2023)**
1. SURVEY AND MARK ALL WOODLAND CLEARING LIMITS.
 2. EXISTING ACCESS ROADS SHALL BE DESIGNATED AS EARLY AS FEASIBLE AND USED PRIMARILY FOR CONSTRUCTION TRAFFIC.
 3. FIELD SURVEY AND MARK BOUNDARY BETWEEN CLEARING LIMITS AND GRUBBING LIMITS.
 4. INSTALL EROSION AND SEDIMENT CONTROLS FOLLOWING THE CT GUIDELINES AND MANUFACTURER'S DIRECTIONS. DURING CONSTRUCTION, THE CONTRACTOR SHALL INSTALL MEASURES AS REQUIRED BY THE ENGINEER OF RECORD OR QUALIFIED INSPECTOR, TO PREVENT SEDIMENT-LADEN RUNOFF FROM REACHING WETLANDS OR DISCHARGING OFFSITE.
 4. CLEAR AND GRUB VEGETATION PER SITE PLANS.
 5. INSTALL STORMWATER BASINS AND SEDIMENT TRAPS AS EARLY AS FEASIBLE IN ACCORDANCE WITH THE APPROVED SITE-SPECIFIC SWPPP AND CT GUIDELINES. THE ENGINEER OF RECORD SHALL INSPECT FEATURES TO CONFIRM REQUIRED STORAGE CAPACITIES ARE PROVIDED AND THAT OUTLETS AND/OR SPILLWAYS ARE CONSTRUCTED CORRECTLY. DISCHARGE AREAS BELOW OUTFALLS MUST BE INSPECTED TO CONFIRM FLOW WILL BE OVER STABLE GROUND AND SHEET FLOW IS ENCOURAGED. IF DISTURBED SOILS ARE PRESENT, THE ENGINEER OF RECORD TO PROVIDE CORRECT MEASURES TO ADDRESS CONDITION.
 6. SEED AND PROTECT DISTURBED SOILS AROUND SEDIMENT TRAPS AND BASINS WITHIN 72 HOURS OF COMPLETION.
 7. THE USE OF A TUB GRINDER IS RECOMMENDED FOR THE MULCHING OF FELLED TREES IF CHIPPED ON SITE. MULCH SHALL NOT BE CAST WIDESPREAD ACROSS SITE AS IT WILL INHIBIT VEGETATIVE GROWTH.
 8. PERFORM EARTHWORK AND SHAPING ON THE SITE. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FROM AREAS PROPOSED FOR REGRADING. EXCESS SOIL WHICH IS NOT REUSED IN PROPOSED SITE GRADING AND SHAPING SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER, WHO SHALL DIRECT THE HANDLING OF THIS SOIL.
 9. TOPSOIL SHALL BE REPLACED OVER REGRADED AREAS UPON COMPLETION OF MASS EARTHWORK ACTIVITIES AND AREAS WHICH WERE DISTURBED BY MASS EARTHWORK OPERATIONS SHALL BE RESEED WITHIN 72 HOURS OF COMPLETION.
 10. THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL ADDRESS ONGOING EROSION PROBLEMS USING TEMPORARY DIVERSIONS AND FILLING AND GRADING GULLIES.
 11. UPON COMPLETION OF THIS CONSTRUCTION PHASE, ALL DISTURBED AREAS SHALL BE SEEDED WITH TACKIFIER AND ALLOWED TO GROW THROUGH A GROWING SEASON PRIOR TO INITIATION OF CONSTRUCTION SEQUENCE, TO THE SATISFACTION OF THE WEEKLY INSPECTOR, ENGINEER OF RECORD, AND/OR CONSERVATION DISTRICT.

- CONSTRUCTION SEQUENCE (SUMMER/FALL 2023)**
1. INSTALL GROUND SCREWS OR CONCRETE BALLAST FOR SOLAR PANEL RACKING.
 2. THE INSTALLATION OF RACKING SHALL FOLLOW THE FOUNDATION INSTALLATION.
 3. RESEED AND REGRADE ALL AREAS DISTURBED BY CONSTRUCTION TRAFFIC WITHIN THE ARRAYS WHERE RACKS ARE INSTALLED AS EARLY AS POSSIBLE. RUTS AND RILLS SHALL BE SMOOTHED AND GRADED AS DISCOVERED.
 4. INSTALL SOLAR PANEL MODULES IN THE RACKING. MUCH OF THIS WORK IS ANTICIPATED TO BE PERFORMED BY HAND AND LIGHT CONSTRUCTION EQUIPMENT WHICH WILL CAUSE MINIMAL DISTURBANCE COMPARED TO THE USE OF HEAVY EQUIPMENT. DESIGNATED ACCESS ROADS SHALL STILL BE USED TO THE MAXIMUM EXTENTS POSSIBLE.
 5. UPON COMPLETION OF CONSTRUCTION, RE-SEED ALL DISTURBED AREAS WITHIN 72 HOURS AND PREVENT VEHICULAR TRAFFICKING OVER THESE AREAS. INSTALL FINAL LANDSCAPING.
 6. AFTER SITE IS STABILIZED, AND AFTER INSPECTION BY DESIGN ENGINEER, OR OTHER OWNER'S REPRESENTATIVE, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS. ENTIRE SITE SHALL BE CHECKED FOR AND CLEANED OF SEDIMENT AS NEEDED.



100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
860.807.4300



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No.	Revision	Date	Appr.
1	Revised Fence Detail	3/1/2023	SJK

Designed by: DRB
Checked by: SJK
Issued for: Application
Date: December 19, 2022

Not Approved for Construction
Drawing Title: Erosion and Sediment Control Plan
Drawing Number: C-4.0

Sheet 4 of 6

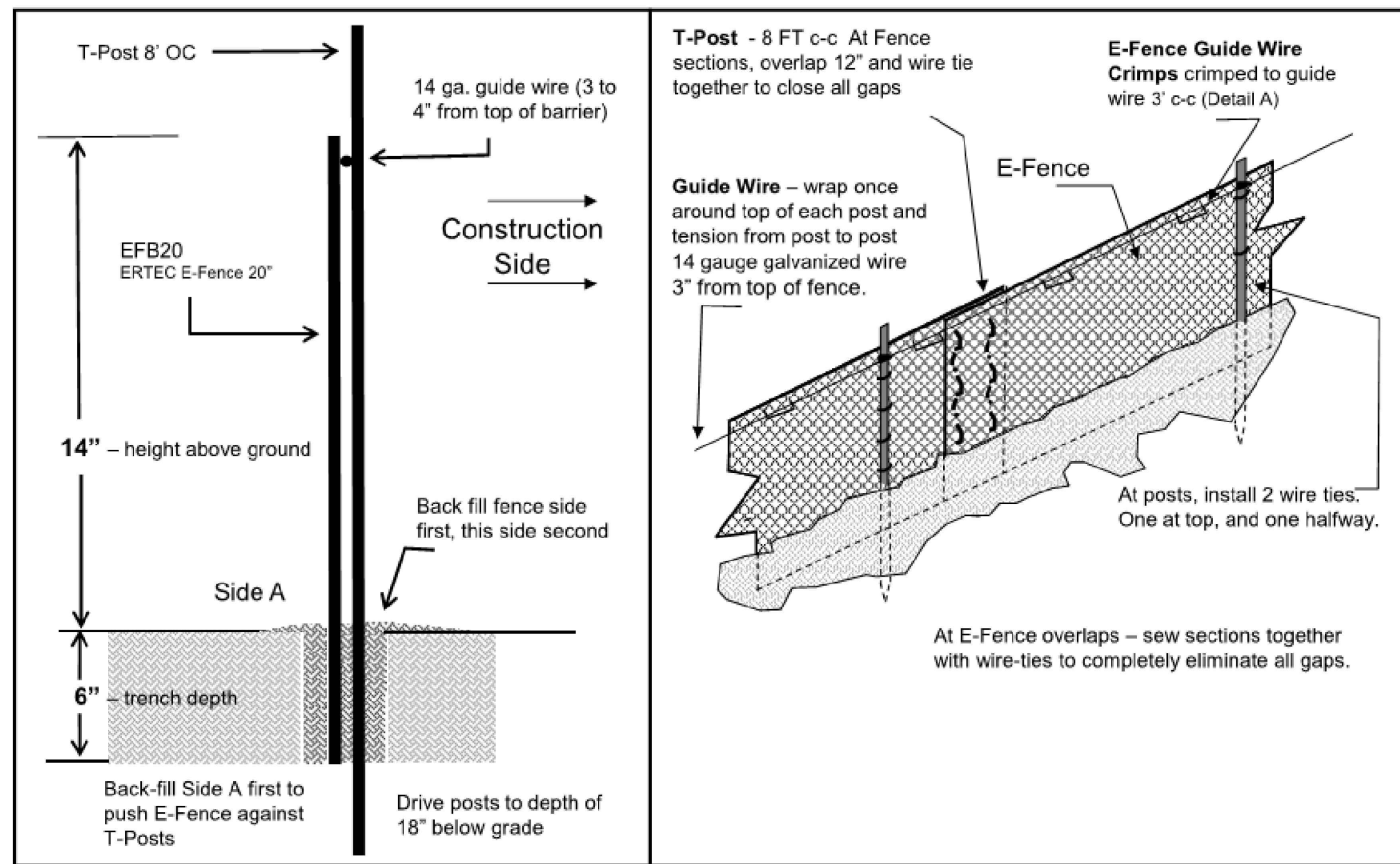
Project Number: 42893.00



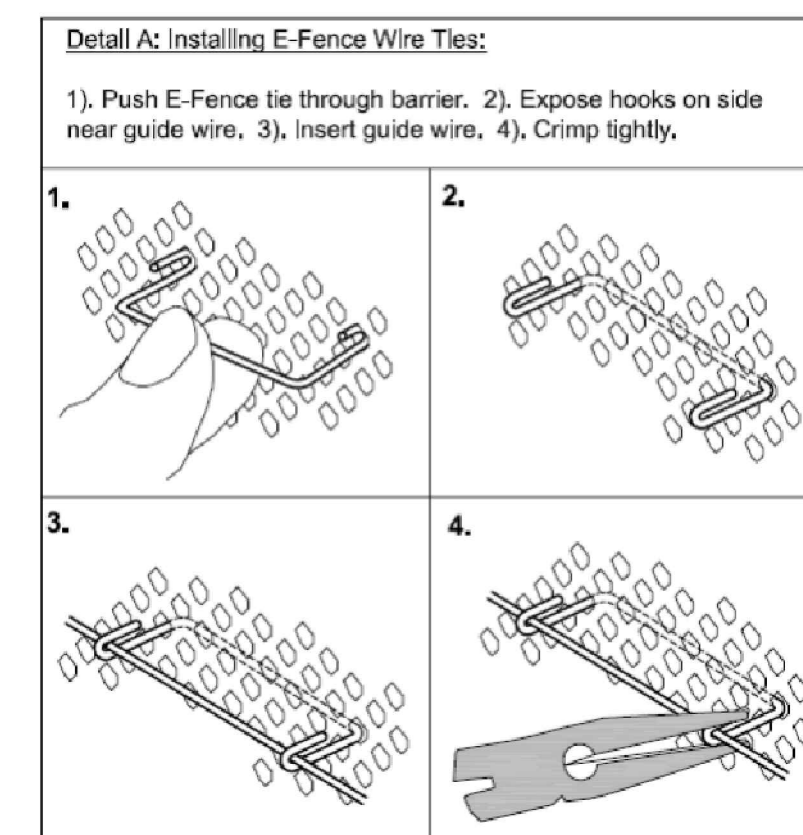
100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
860.807.4300

E-Fence DETAILS – Wildlife Exclusion - WPT

E-Fence™ (Patent #US8402630, other patents pending)



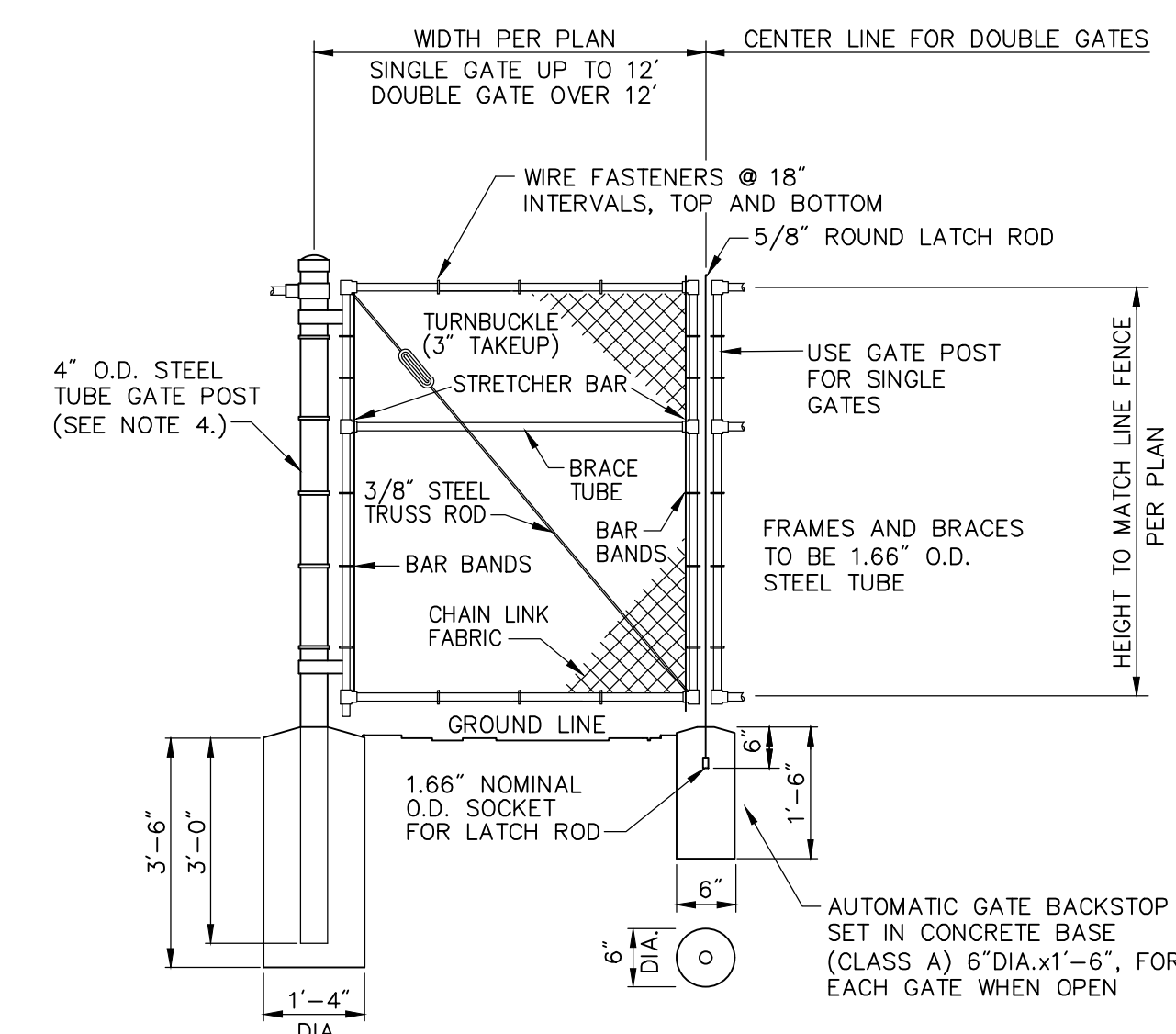
E-Fence DETAILS – Guidewire Crimp



E-Fence™ DETAILS – Wildlife Exclusion

Installation Notes:

- Excavate a trench a minimum of 4" wide and a minimum of 5" deep.
- T-posts shall be a minimum of 0.95 lbs/ft. T-posts shall be driven a minimum 18" deep into the ground 8" centers.
- Insert barrier material into trench and attach to post in two places: 1) at 3" below top of fence and at 2) mid-height.
- At 3 inches from top of fence (above wire tie), wrap 14 gauge galvanized wire once around each T-post and pull the guide wire from post to post, wrap, secure and pull wire tight between each post.
- At segment overlaps (roll length 100 or 150 LF), overlap segments a minimum of 12". Eliminate all gaps by tying sections together with tie wire in two vertical rows, as shown.
- Push E-Fence Guide Wire Crimps through the E-Fence and crimp the ties to the guide wire on the other side of the fence (two crimps per tie) at 3' intervals, as illustrated in Detail A of the installation guidelines. Crimp to the guide-wire securely.
- E-Fence must be installed in continuous lengths (100 or 150 feet rolls). Do not cut segments into shorter lengths unless necessary due to sudden changes in elevation.
- Backfill trench with trench spoils. Backfill from E-Fence side of posts first so that E-Fence is pushed up against T-posts. Back fill other side to complete backfill.



Notes:

- CHAIN LINK FABRIC FOR GATES TO BE THE SAME AS REQUIRED FOR FENCE.
- GATE POST BASE—PORTLAND CEMENT CONCRETE (3000 PSI).
- FENCE FABRIC, POSTS, FRAMEWORKS, AND HARDWARE SHALL BE GALVANIZED STEEL OR BLACK VINYL (AS INDICATED ON PLANS) PER SPECIFICATIONS.
- GATE POSTS TO BE USED ON EACH SIDE OF SINGLE AND DOUBLE GATE OPENINGS.

E-Fence Installation Details

N.T.S.

Source: Ertec Environmental Systems

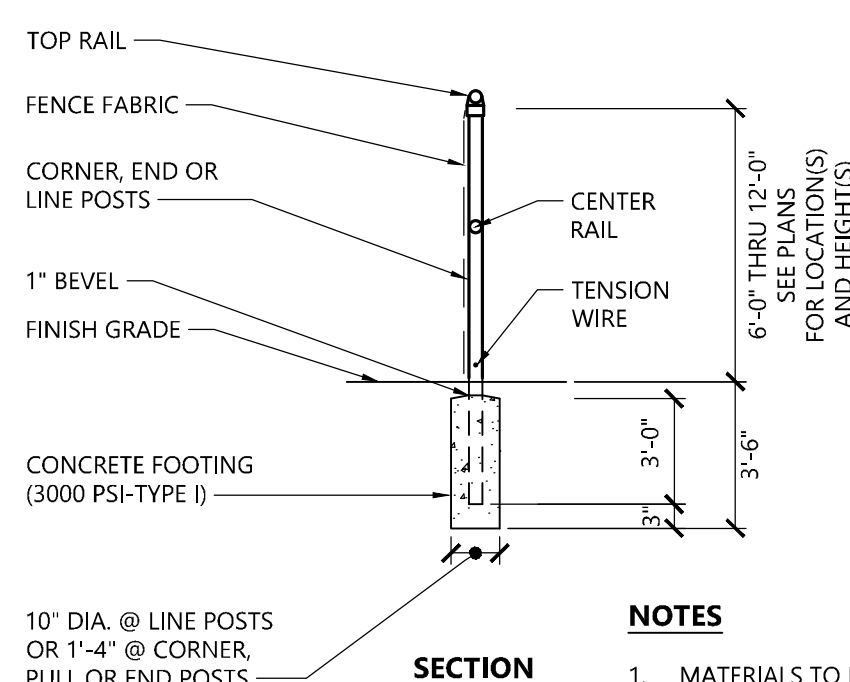
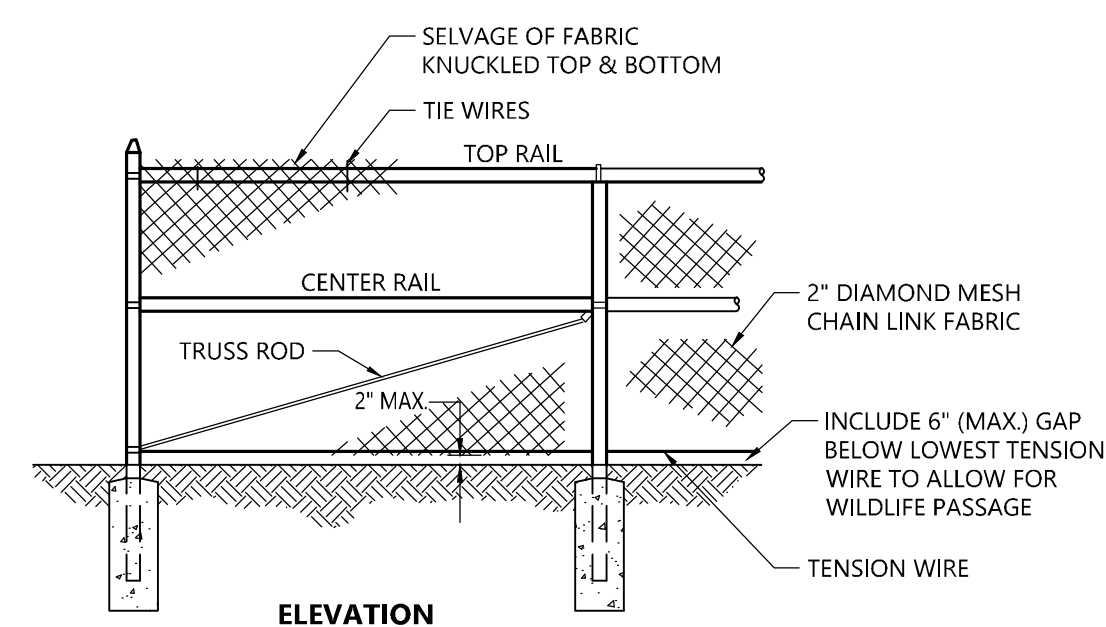
Chain Link Fence Gate

N.T.S.

Source: VHB

6/08

LD_482



NOTES

- MATERIALS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH "CHAIN LINK MANUFACTURER'S INSTITUTE" PRODUCT MANUAL.

7' Chain Link Fence

N.T.S.

Source: VHB

REV

10/20

LD_480

Danger and Site Facility Signs

N.T.S.

Source: VHB

1/16

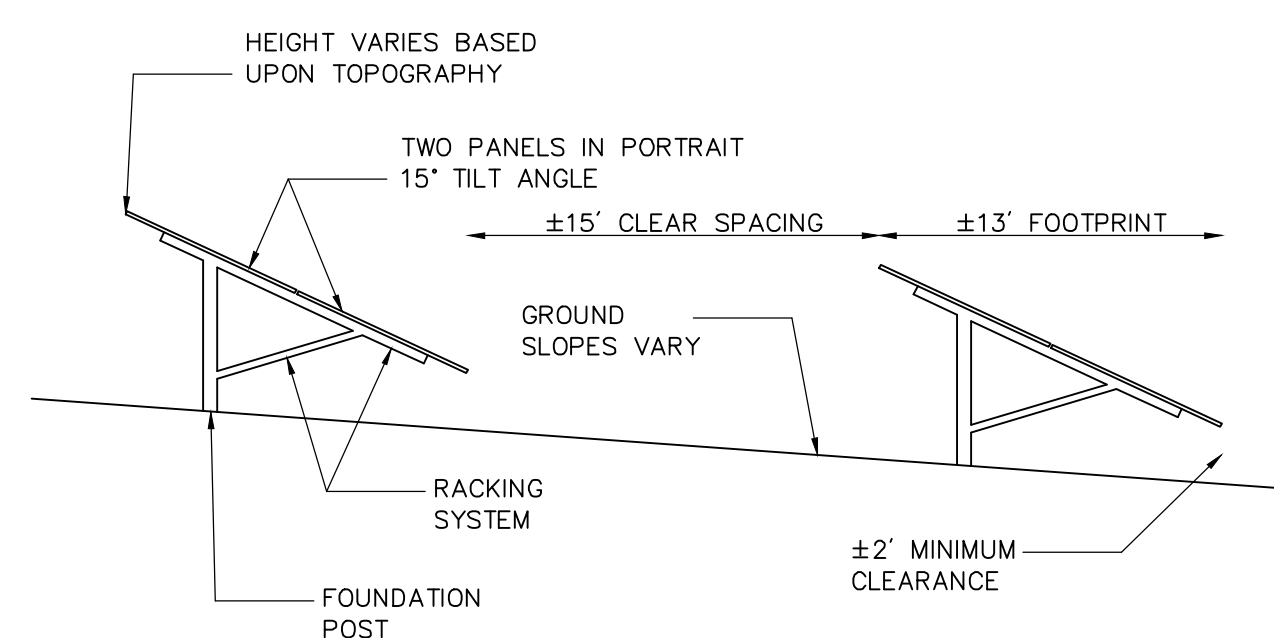


PHOTOVOLTAIC INSTALLATION
Site Location: 1 Hamilton Road, Windsor Locks, CT
Owner: Collins Aerospace

IN CASE OF EMERGENCY CALL 911
ORANGE POLICE DEPARTMENT - (860) 627-1461

Notes:

- THE SITE FACILITY SIGN IS A DRAFT SHOWING THE MINIMUM AMOUNT OF INFORMATION THAT WILL BE PROVIDED. SIGN WILL BE 18" X 24".
- ALL SIGNS WILL BE MOUNTED ONTO THE CHAIN LINK FENCE.



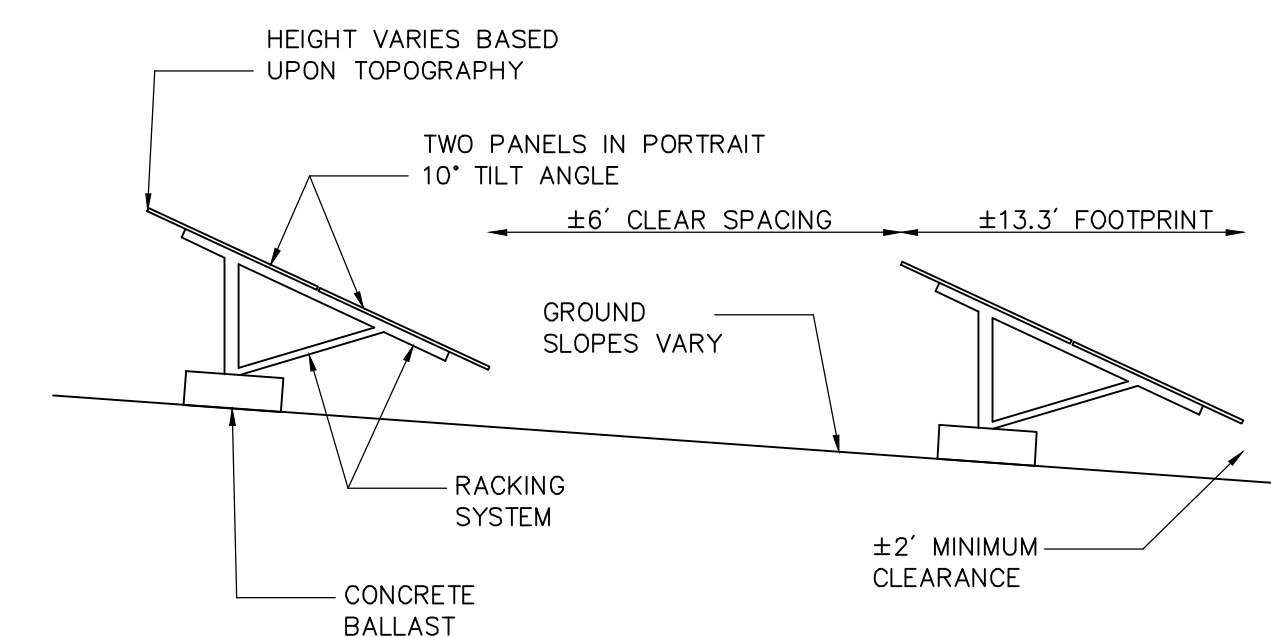
Notes:

- FINAL DETERMINATION OF PANEL TYPE, RACKING SYSTEM, AND FOUNDATION POSTS TO BE DETERMINED PENDING BEST AVAILABLE TECHNOLOGY AT TIME OF CONSTRUCTION AND STRUCTURAL GROUND TESTING.

Cross Section of Fixed-Tilt Panel Array in Vegetated Area

N.T.S.

Source: VHB



Notes:

- FINAL DETERMINATION OF PANEL TYPE, RACKING SYSTEM, AND FOUNDATION POSTS TO BE DETERMINED PENDING BEST AVAILABLE TECHNOLOGY AT TIME OF CONSTRUCTION AND STRUCTURAL GROUND TESTING.

Cross Section of Fixed-Tilt Panel Array in Paved Area

N.T.S.

Source: VHB

Collins Aerospace Solar

1 Hamilton Rd
Windsor Locks, Connecticut

No.	Revision	Date	App'd.
1	Revised Fence Detail	3/1/2023	SJK

Designed by	DRB	Checked by	SJK
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Not Approved for Construction

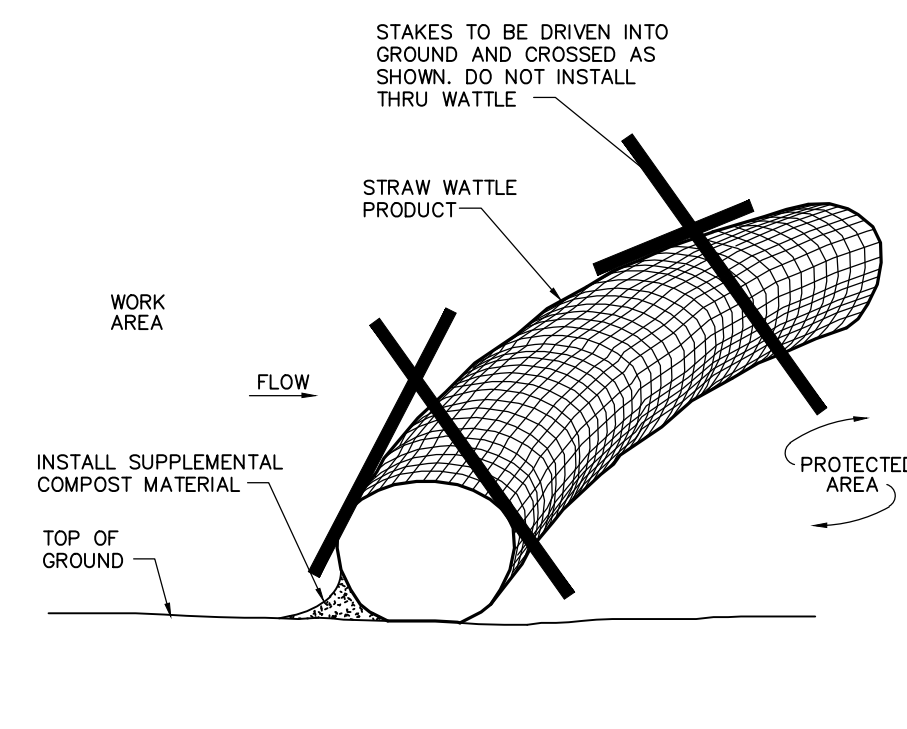
Site Details 1

Drawing Number

C-5.1

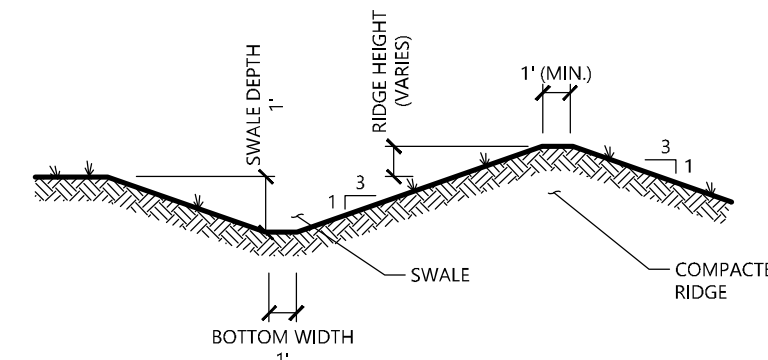
Sheet 5 of 6

Project Number
42893.00



Straw Wattle Installation

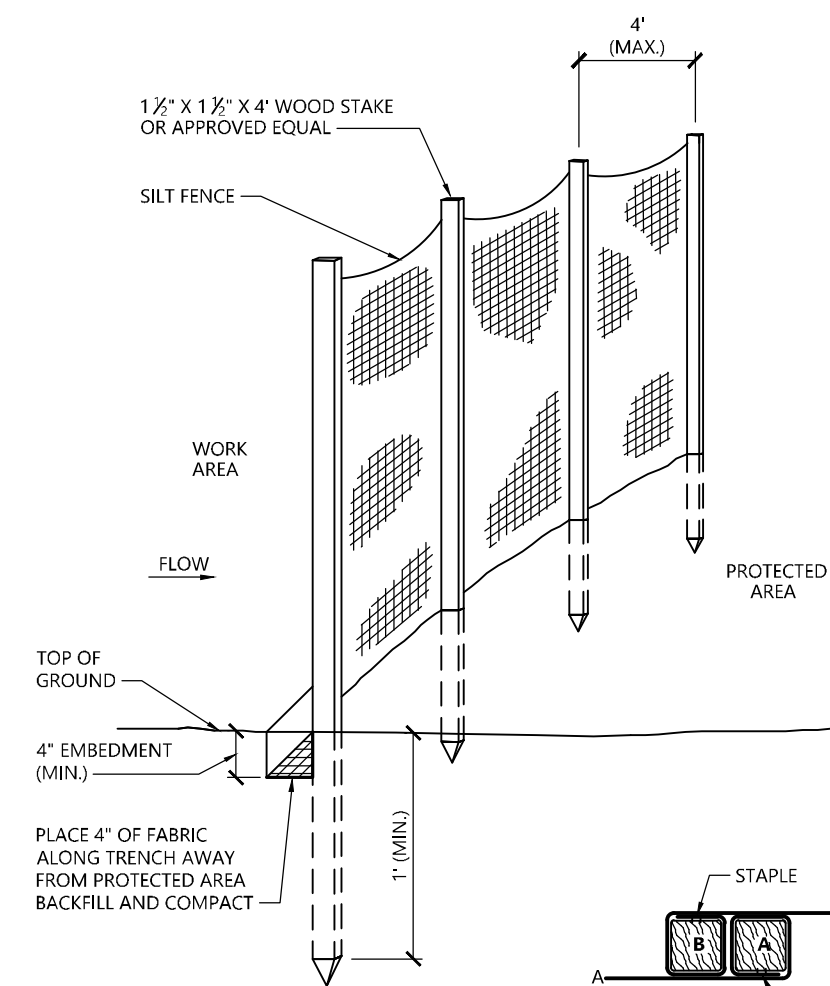
N.T.S. Source: VHB 8/12 LD_658



NOTE:
1. ALL SIDE SLOPES SHALL NOT EXCEED 3:1
2. THE INTENT IS TO USE THE MATERIAL EXCAVATED FROM THE SWALE TO CONSTRUCT THE RIDGE.
3. BOTTOM OF SWALE SHALL BE LINED WITH EROSION CONTROL BLANKET.

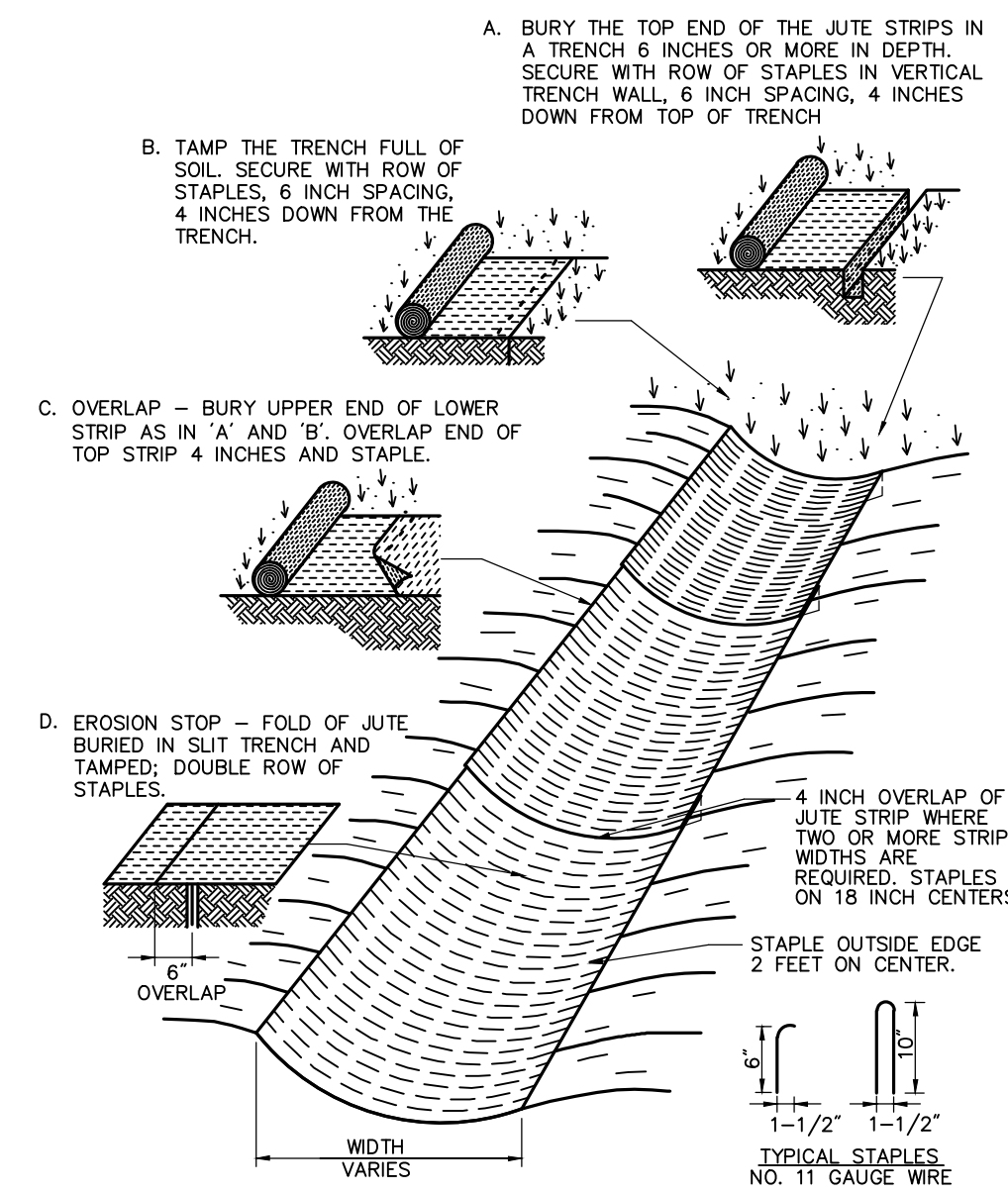
Diversion Swale

N.T.S. Source: VHB



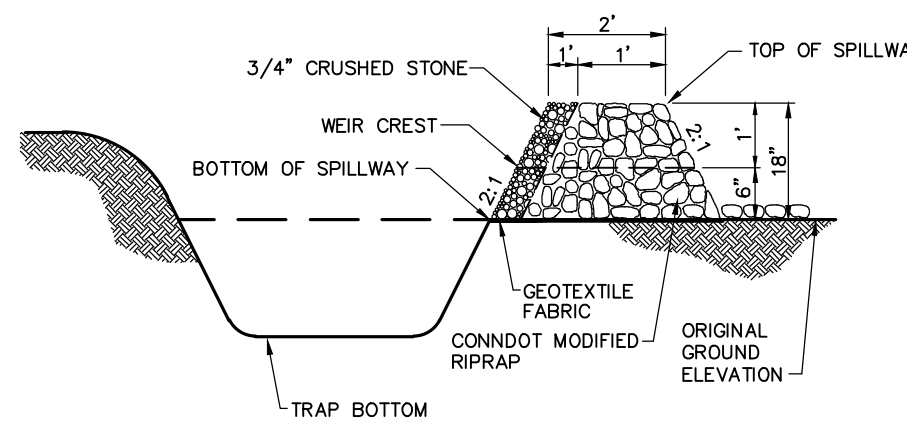
Silt Fence Barrier

N.T.S. Source: VHB 1/16 LD_650



Erosion Control Blanket (ECB) Swale Installation

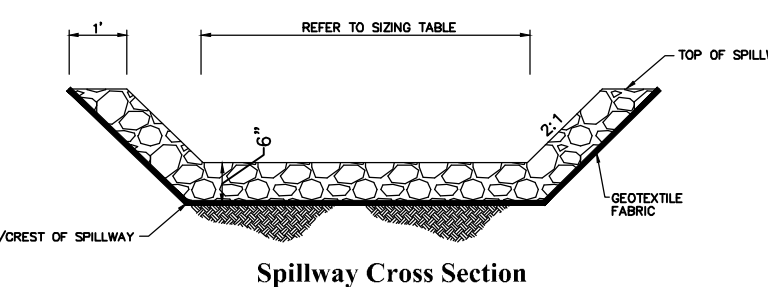
N.T.S. Source: VHB 6/08 LD_681



NOTE:
1. ALL VEGETATED SIDE SLOPES SHALL NOT EXCEED 3:1
2. SIDE SLOPES OF EMBANKMENT SHALL BE STABILIZED BY EROSION CONTROL BLANKETS OR AS DIRECTED BY THE ENGINEER.
3. TRAP SHALL BE DRAINED AND CLEANED OF SEDIMENT ONCE SEDIMENT IS > 1\"/>

Sediment Trap (TST)

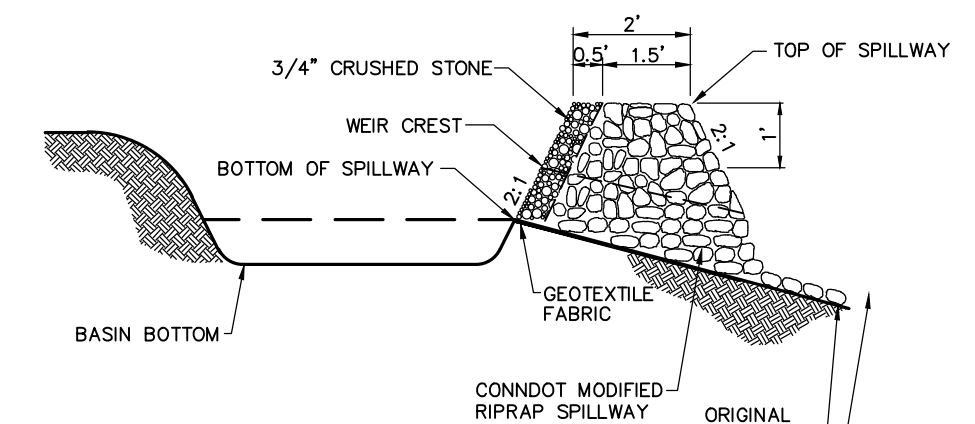
N.T.S. Source: VHB



NOTE:
1. ALL SIDE SLOPES SHALL NOT EXCEED 2:1 FOR SPILLWAY
2. STONE FOR SPILLWAY SHALL BE 8-12\"/>

Stormwater Basin Spillway

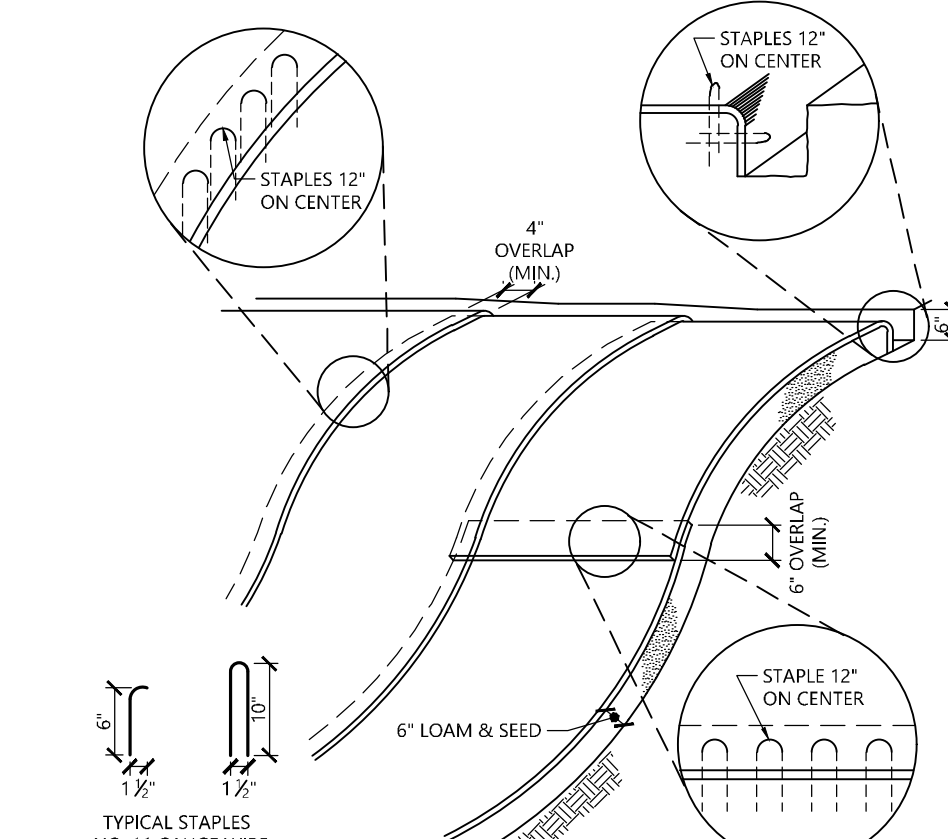
N.T.S. Source: VHB



NOTE:
1. ALL VEGETATED SIDE SLOPES SHALL NOT EXCEED 3:1
2. TOP OF EMBANKMENT SHALL BE 2\"/>

Permanent Stormwater Basin

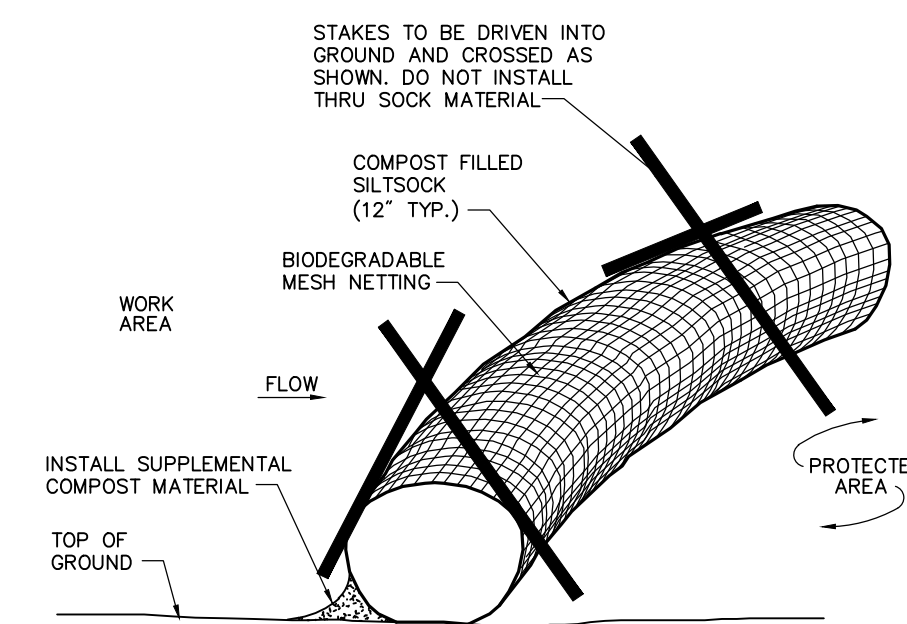
N.T.S. Source: VHB



NOTES:
1. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6\"/>

Erosion Control Blanket Slope Installation

N.T.S. Source: VHB REV LD_680



Notes:
1. SILT SOCK SHALL BE 12\"/>

Compost Filter Sock (CFS)

N.T.S. Source: VHB 8/12 LD_688

PERMANENT STORMWATER BASIN SIZING								
NUMBER	BASIN TYPE	LENGTH AT BASIN BOTTOM (TIDE OF SLOPE), FT	WIDTH AT BASIN BOTTOM (TIDE OF SLOPE), FT	SIDE SLOPES	BOTTOM ELEVATION, FT	ELEVATION OF BOTTOM/CREST OF SPILLWAY, FT	SPILLWAY WIDTH AT BASE, FT	MINIMUM TOP OF BERM ELEVATION, FT
1	PERMANENT	120	10	3:1	100.5	103.5	10	104.0
2	PERMANENT	100	10	3:1	103.0	105.0	10	106.0

Sizing Tables for Temporary & Permanent Stormwater Features

N.T.S. Source: VHB

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Site Details 2