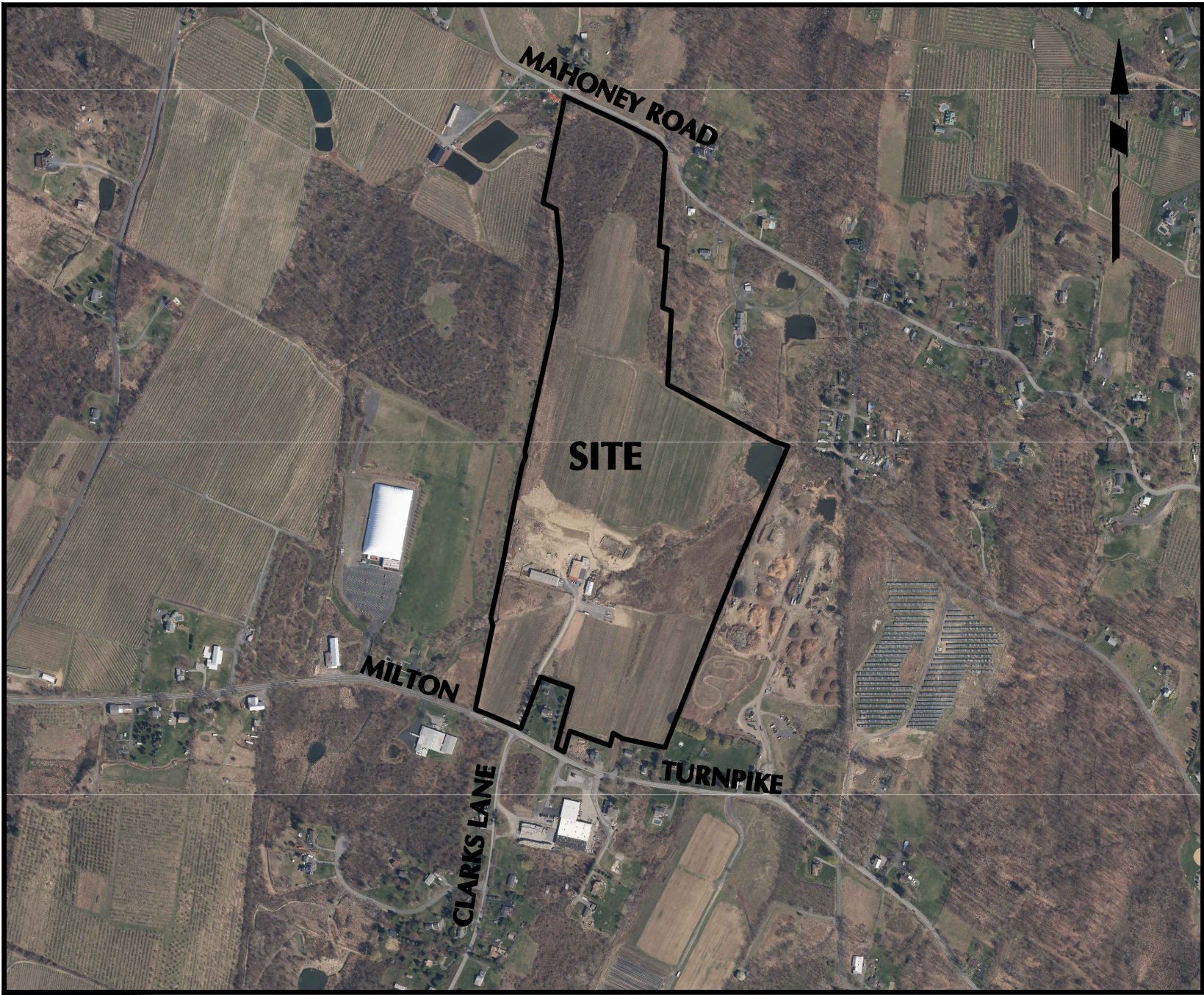


SITE PLAN REVIEW DOCUMENTS

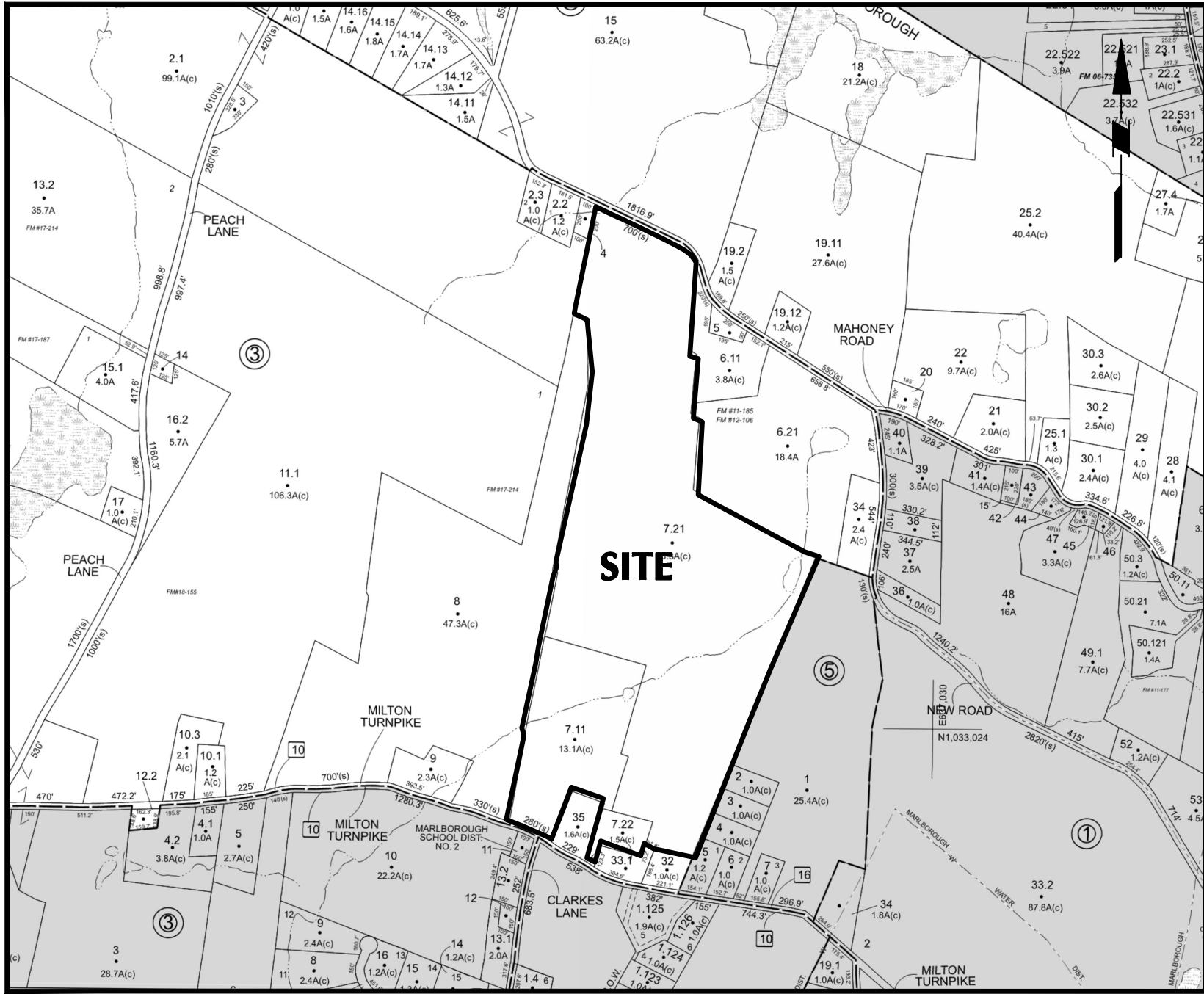
# HIGHLAND SOLAR, LLC

## 4.1 MWAC SOLAR FACILITY

TOWN OF MARLBOROUGH  
ULSTER COUNTY, NEW YORK

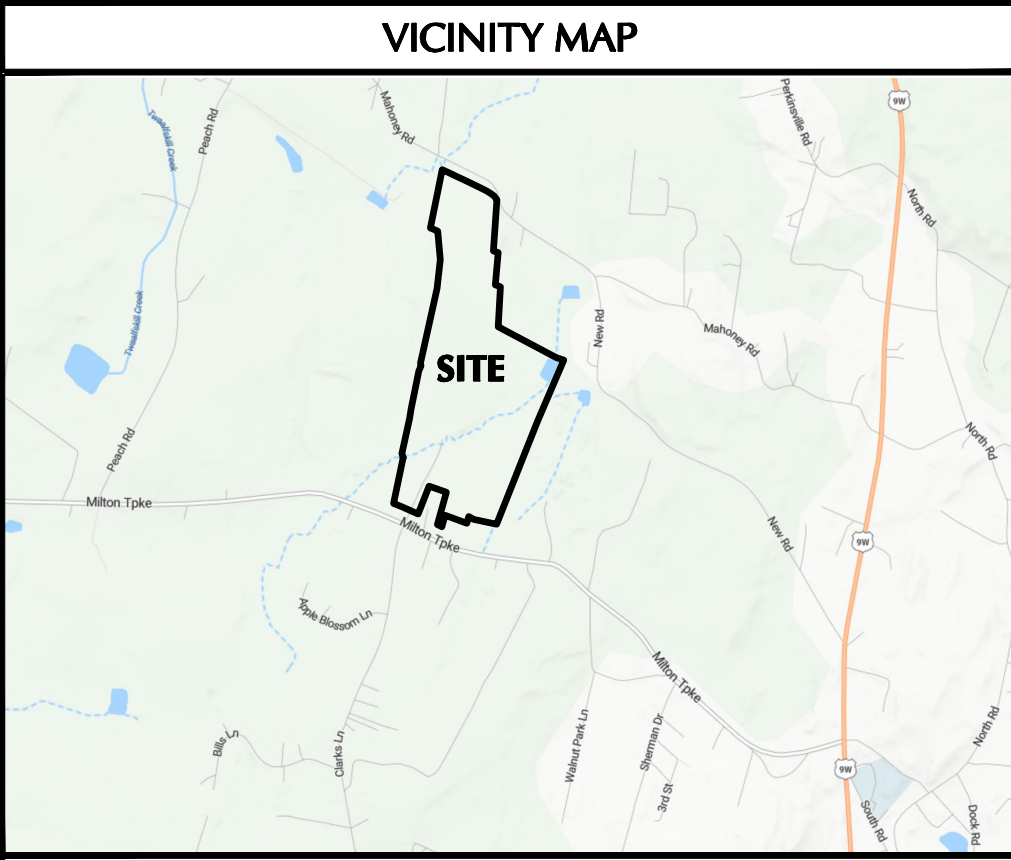


LOCATION MAP  
1"=800'



TAX MAP  
1"=800'

DRAWING LIST		
DRAWING NO.	SHEET NUMBER	DRAWING TITLE
CS001	1 OF 16	COVER SHEET
CB101	2 OF 16	EXISTING CONDITIONS PLAN
CA101	3 OF 16	SLOPES ANALYSIS PLAN
CD101	4 OF 16	TREE REMOVAL & DEMOLITION PLAN
CS100	5 OF 16	OVERALL SITE PLAN
CS101	6 OF 16	SITE PLAN (1 OF 2)
CS102	7 OF 16	SITE PLAN (2 OF 2)
CG101	8 OF 16	GRADING & DRAINAGE PLAN (1 OF 2)
CG102	9 OF 16	GRADING & DRAINAGE PLAN (2 OF 2)
CG201	10 OF 16	ACCESS ROAD PROFILES
CE100	11 OF 16	PHASING PLAN
CE101	12 OF 16	EROSION & SEDIMENT CONTROL PLAN (1 OF 2)
CE102	13 OF 16	EROSION & SEDIMENT CONTROL PLAN (2 OF 2)
CS501	14 OF 16	DETAILS
LP101	15 OF 16	PLANTING PLAN
LP501	15 OF 16	PLANTING NOTES & DETAILS



1"=2000'

SITE DATA	
MUNICIPALITY	TOWN OF MARLBOROUGH
TAX PARCEL #:	95.4-3-7.210 & 95.4-3-7.110 & 95.4-3-7.22
PROPERTY ACREAGE	78.0 Acres
SITE ADDRESS	206 MILTON TURNPIKE, MILTON NY
PROPERTY OWNER	CARSON POWER, LLC
ZONING DISTRICT	RAG-1
PROPOSED USE:	LARGE SCALE SOLAR ENERGY SYSTEM
DISTURBED AREA:	28.3 Acres
IMPERVIOUS AREA:	1.52 Acres

APPLICANT

CARSON POWER, LLC  
110 WILLIAM STREET, 24TH FLOOR  
NEW YORK, NY 10038  
  
TELEPHONE: (703) 485-6666  
CONTACT: VARDAAN GURUNG

CIVIL ENGINEER & LANDSCAPE ARCHITECT

LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING,  
LANDSCAPE ARCHITECTURE, AND GEOLOGY D.P.C.  
1 NORTH BROADWAY  
SUITE 910  
WHITE PLAINS, NY 10601  
  
TEL: 914-323-7400  
CONTACT: CHRISTINA M. ZOLEZI, PE

SURVEYOR

LAWSON SURVEYING & MAPPING  
2959 COUNTY ROUTE 8  
ONEONTA, NY 13820  
  
TEL: 607-432-3300  
CONTACT: ROBERT J. LAWSON, L.S.

110 William Street  
24th Floor  
New York, NY 10038

**LANGAN**  
Langan Engineering, Environmental, Surveying,  
Landscape Architecture, and Geology, D.P.C.  
One North Broadway, Suite 910  
White Plains, NY 10601  
T: 914.323.7400 F: 914.323.7401 www.langan.com

WARNING:  
IT IS THE POLICY OF THIS FIRM TO EXERCISE ALL RIGHTS OF INTELLECTUAL PROPERTY AND TO PROTECT THE CONFIDENTIALITY OF ALL INFORMATION AND TO ENFORCE THE PROTECTION OF ALL RIGHTS OF INTELLECTUAL PROPERTY.

Project No. 190107801

**HIGHLAND SOLAR**

SECTION 95.4, BLOCK 3, LOT 7.110, 7.210, & 7.220  
TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NEW YORK

TOWN OF MARLBOROUGH  
OWNER CONCURRENCES

THE UNDERSIGNED OWNER(S) OF THE PROPERTY SHOWN  
HEREIN CERTIFY THAT THEY ARE FAMILIAR WITH THIS MAP  
AND ITS NOTES AND CONTENTS AS STATED HEREON  
INCLUDING ALL CONDITIONS OF APPROVAL.

OWNER \_\_\_\_\_  
DATE \_\_\_\_\_

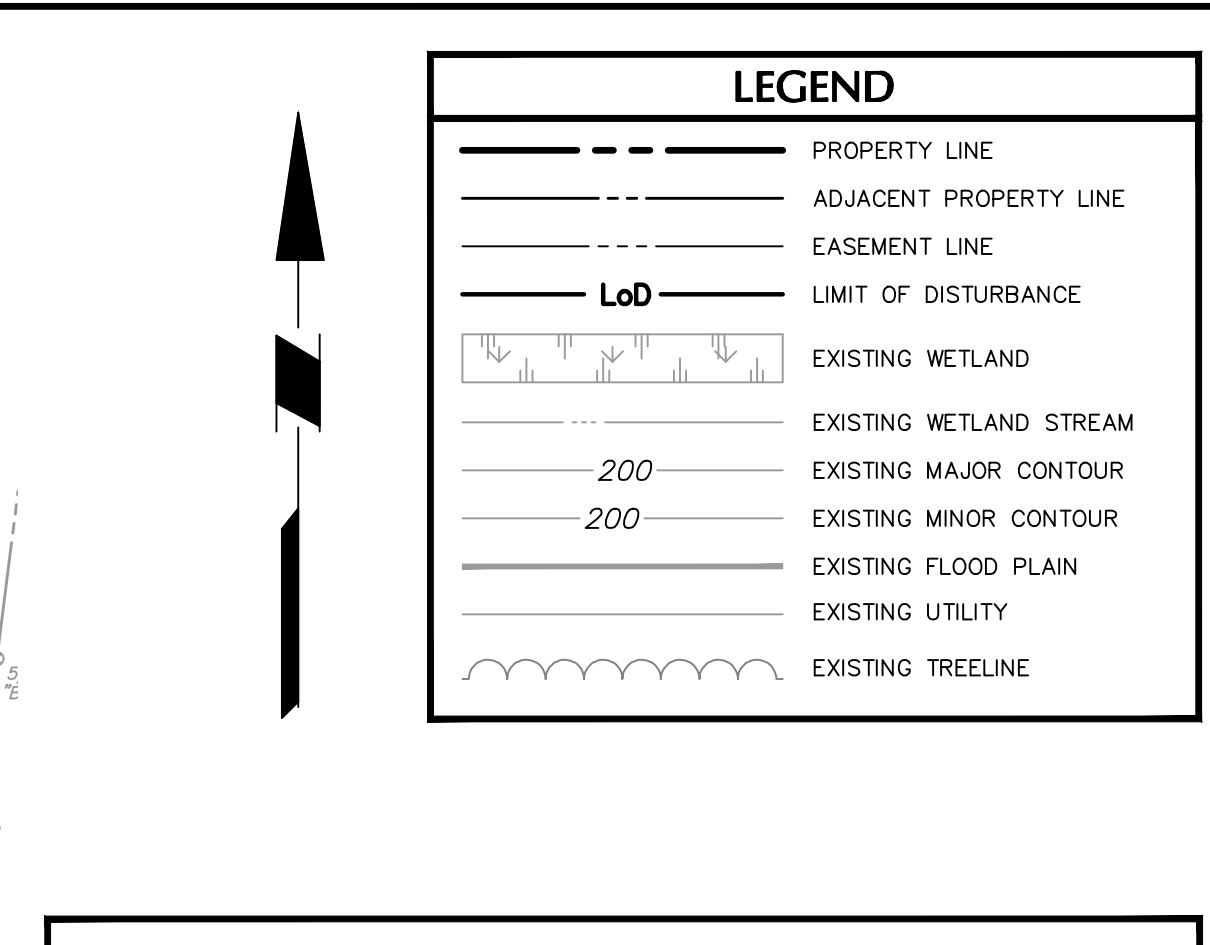
TOWN OF MARLBOROUGH  
PLANNING BOARD APPROVAL

Drawing No.

**CS001**  
**COVER SHEET**  
Sheet 1 of 16



ADJOINING OWNERS			
Moriarty Services, Inc. (reputed owner) L 5485 P 282 103.1-5-1	Moriarty Services, Inc. (reputed owner) L 5485 P 282 103.1-5-2	Moriarty Services, Inc. (reputed owner) L 5485 P 282 103.1-5-3	Moriarty Services, Inc. (reputed owner) L 5485 P 282 103.1-5-4
Gustavo L. Miranda & Elisa Lopez (reputed owner) L 5753 P 1 103.1-5-5	Theresa Corso & Robert Corso (reputed owner) L 1405 P 788 95.4-3-32	Timothy A. Marquis & Tara J. Marquis (reputed owner) L 1527 P 64 95.4-3-33.1	Theresa Ann Corso (reputed owner) L 3415 P 277 95.4-3-35
Hudson Valley Domicile, LLC (reputed owner) L 3016 P 219 95.4-3-8	Allstate Apple Exchange, Inc. (reputed owner) L 1240 P 599 95.4-3-2.1	Janet Wahl-Cordero (reputed owner) L 5566 P 54 95.4-3-4	James Mannese (reputed owner) L 4418 P 292 95.4-3-6.11
James J. Mannese & Bridget L. Mannese (reputed owner) L 5608 P 168 95.4-3-6.21			



GENERAL NOTES	
1.	SURVEY INFORMATION SHOWN IN THIS PLAN SET IS FROM A SURVEY ENTITLED "ORGANIC VALLEY, LLC" DATED APRIL 22, 2024 BY LAWSON SURVEYING & MAPPING.
2.	HORIZONTAL DATUM IS NEW YORK STATE EAST ZONE (3101) NAD 83 GP'S DERIVED.
3.	VERTICAL DATUM IS NAVD 88 GP'S DERIVED.
4.	A WETLAND AND WATERBODY DELINEATION PERFORMED BY NORTH COUNTRY ECOLOGICAL SERVICES IN MAY 2024.



## IX

Drawing No.

© 2024 Langan









LEGEND	
	PROPERTY LINE
	ADJACENT PROPERTY LINE
	EASEMENT LINE
	LIMIT OF DISTURBANCE
	EXISTING WETLAND
	EXISTING WETLAND STREAM
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING FLOOD PLAIN
	PAVEMENT REMOVAL
	SITE FEATURE TO BE REMOVED
	EXISTING UTILITY
	EXISTING TREELINE

TREE REMOVAL NOTES
1. ALL TREES TO BE REMOVED WITHIN LIMITS OF DISTURBANCE.



110 William Street  
24th Floor  
New York, NY 10038

**LANGAN**  
Langan Engineering, Environmental, Consulting,  
Landscape Architecture, and Geology, D.P.C.  
One North Broadway, Suite 910  
White Plains, NY 10601  
T: 914.323.7400 F: 914.323.7401 www.langan.com

WARNING:  
THIS DOCUMENT IS THE PROPERTY OF LANGEAN ENGINEERING, ENVIRONMENTAL, CONSULTING, LANDSCAPE ARCHITECTURE, AND GEOLOGY, D.P.C. (LANEAM). IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF LANEAM.

Project No. 190107801

Project

**HIGHLAND SOLAR**

SECTION 95.4, BLOCK 3, LOT 7.110, 7.210, & 7.220  
TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NEW YORK

REV	DATE	DRAWN	CHECKED	DESCRIPTION

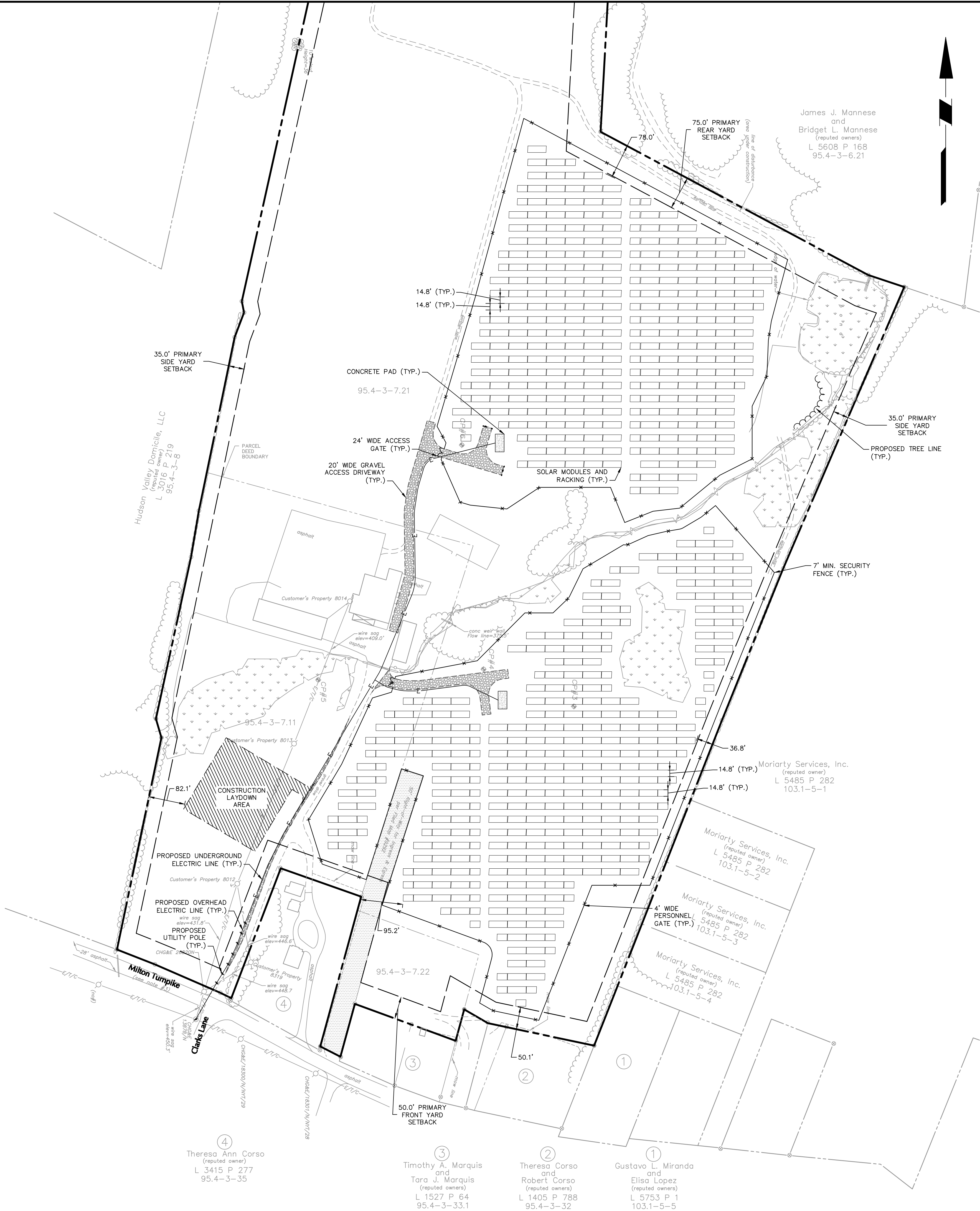
Drawing No.

**CD101**  
TREE REMOVAL &  
DEMOLITION PLAN  
Sheet 4 of 16

© 2024 Langan

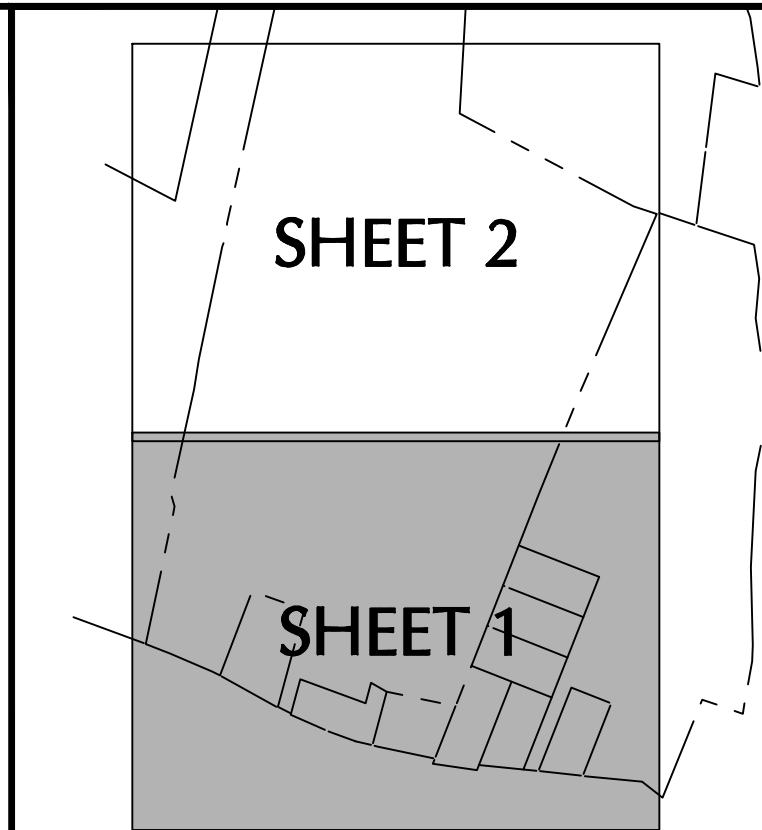


ZONING COMPLIANCE TABLE			
PROPERTY ADDRESS:	206 MILTON TURNPIKE		
TAX PARCEL:	95.4-3-7.110, 7.210 & 7.220		
ZONING DISTRICT:	RAG-1		
SITE USE:	LARGE SCALE SOLAR ENERGY SYSTEM		
ITEM	REQUIRED <sup>(1)</sup>	EXISTING	PROPOSED
MIN. LOT SIZE	1 ACRE	78.0 ACRES	78.0 ACRES
MIN. LOT WIDTH	150 FEET	1,148.7 FEET	1,148.7 FEET
MIN. LOT DEPTH	200 FEET	1,796.6 FEET	1,796.6 FEET
MIN. FRONT YARD SETBACK	50 FEET	803.4 FEET	50.1 FEET
MIN. SIDE YARD SETBACK			
ONE	35 FEET	170.2 FEET	36.8 FEET
BOTH	80 FEET	780.4 FEET	118.9 FEET
MIN. REAR YARD SETBACK	75 FEET	931.3 FEET	78.0 FEET
MAX. BUILDING COVERAGE	20%	0.9%	0.9%
MAX. AREA OF USE <sup>(2)</sup>	20 ACRES	--	16.75 ACRES
MAX. LOT COVERAGE <sup>(2)</sup>	30%	--	10.7%
MAX. HEIGHT <sup>(2)</sup>	15 FEET	--	<15 FEET
NOTE:			
1. THE REQUIREMENTS SHOWN ARE PER TOWN OF MARLBOROUGH TOWN CODE SECTION 155 ZONINGS.			
2. THE REQUIREMENTS SHOWN ARE PER TOWN OF MARLBOROUGH TOWN CODE SECTION 155.32.2 SOLAR ENERGY, SECTION I.			





SEE SHEET 2



LEGEND	
	PROPERTY LINE
	ADJACENT PROPERTY LINE
	EASEMENT LINE
	SETBACK LINE
	EXISTING WETLAND
	EXISTING WETLAND STREAM
	PROPOSED FENCELINE
	PROPOSED PANELS
	PROPOSED GRAVEL ACCESS ROAD
	PROPOSED CONCRETE PAD
	PROPOSED LAYDOWN AREA
	PROPOSED OVERHEAD ELECTRIC LINE
	PROPOSED UNDERGROUND ELECTRIC LINE
	PROPOSED UTILITY POLE
	PROPOSED TREELINE

110 William Street  
24th Floor  
New York, NY 10038

**LANGAN**  
Langan Engineering, Environmental, Consulting,  
Landscape Architecture, and Geology, D.P.C.  
One North Broadway, Suite 910  
White Plains, NY 10610  
T: 914.323.7400 F: 914.323.7401 www.langan.com

WARNING: IT IS THE RESPONSIBILITY OF THE USER OF THIS DOCUMENT TO VERIFY THE ACCURACY OF THE INFORMATION CONTAINED HEREIN FOR THE PROJECT AND TO OBTAIN NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

**HIGHLAND SOLAR**

SECTION 95.4, BLOCK 3, LOT 7.110, 7.210, & 7.220  
TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NEW YORK

Project No. 190107801

REV	DATE	DRAWN	CHECKED	DESCRIPTION

Drawing No.

**CS101**

**SITE PLAN**  
(1 OF 2)

Sheet 6 of 16

ENTRANCE ENLARGEMENT

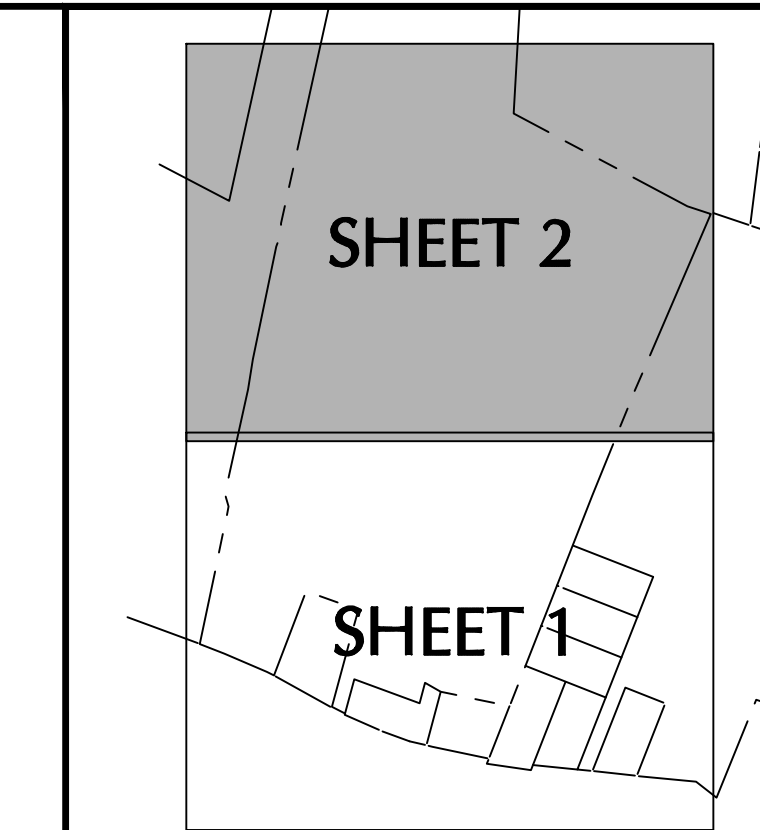
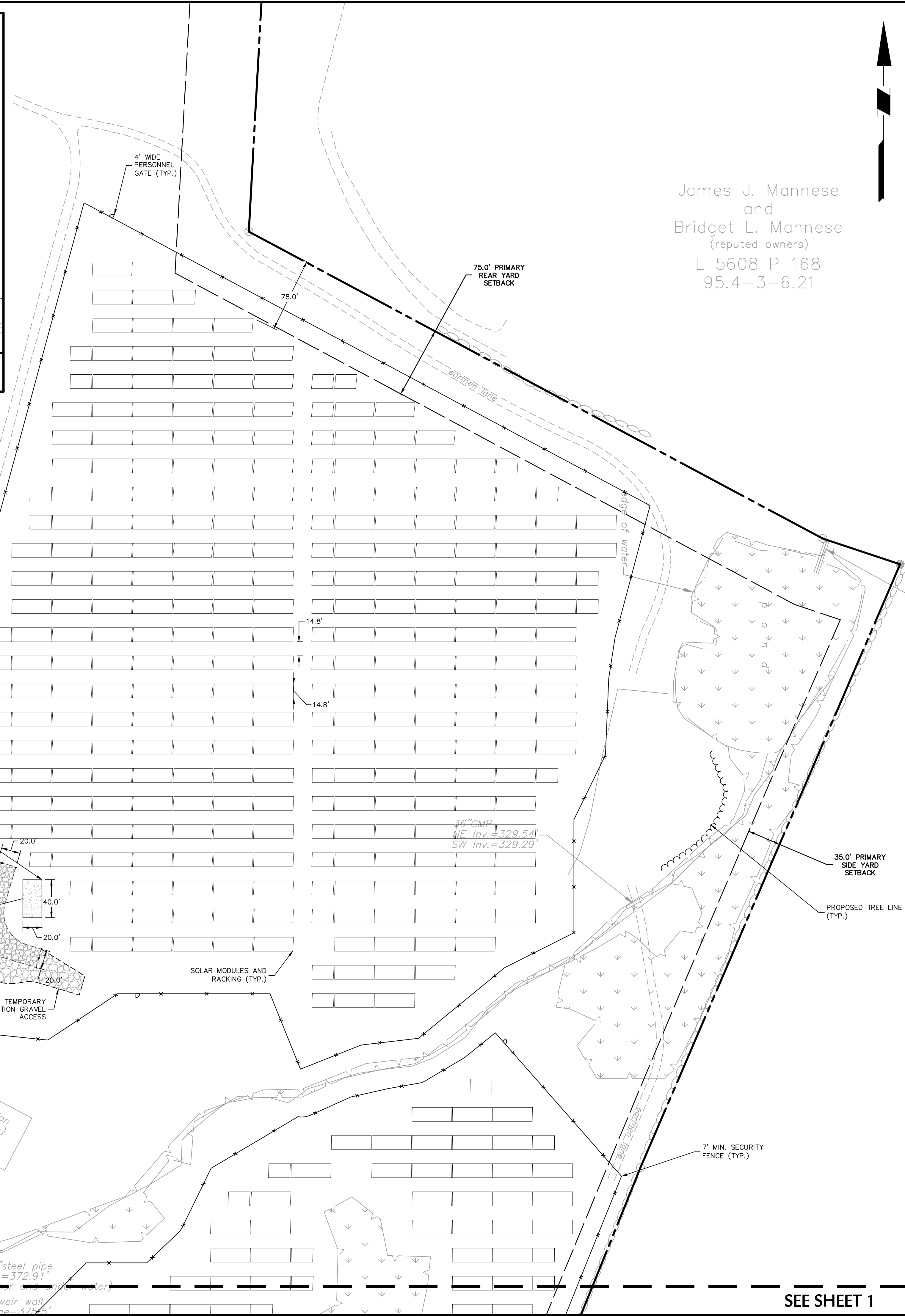
SCALE: 1 INCH = 50 FEET

TURNAROUND ENLARGEMENT #1

SCALE: 1 INCH = 50 FEET









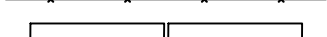
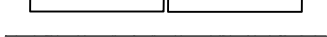





SCALE: 1 INCH = 60 FEET





# KEY MAP

## **LEGEND**

	PROPERTY LINE
	ADJACENT PROPERTY LINE
	EASEMENT LINE
	SETBACK LINE
	EXISTING WETLAND
	EXISTING WETLAND STREAM
	PROPOSED FENCELINE
	PROPOSED PANELS
	PROPOSED GRAVEL ACCESS ROAD
	PROPOSED CONCRETE PAD
	PROPOSED LAYDOWN AREA
	PROPOSED OVERHEAD ELECTRIC LINE
	PROPOSED UNDERGROUND ELECTRIC LINE
	PROPOSED UTILITY POLE
	PROPOSED TREELINE

[illegible]



SEE SHEET 2



SHEET 2

SHEET 1

KEY MAP

LEGEND

	PROPOSED CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	PROPOSED LEVEL SPREADER
	PROPOSED WATER BAR
	PROPOSED HDPE PIPE
	GRASS FILTER STRIP

APPROXIMATE EARTHWORK QUANTITIES

FINISHED GRADE TO EXISTING GRADE:

- CUT: 2,990 CU. YD.
- FILL: 10,550 CU. YD.
- NET (FILL): 7,560 CU. YD.

EARTHWORK ADJUSTMENTS:

- GRAVEL DRIVEWAY: 1,140 CU. YD.
- DRY SWALE: 220 CU. YD.
- CONCRETE PADS: 35 CU. YD.
- TOTAL ADJUSTMENT (CUT): 1,395 CU. YD.

TOTAL NET = 7,560 - 1,395 = 6,165 CU. YD. (FILL)

NOTE:  
1. EARTHWORK BASED UPON COMPARING THE FINISHED GRADE ELEVATION TO THE EXISTING GRADES. ANALYSIS DOES NOT ACCOUNT FOR ANY COMPACTION OR EXPANSION OF MATERIAL.



110 William Street  
24th Floor  
New York, NY 10038

**LANGAN**  
Langan Engineering, Environmental, Surveying,  
Landscape Architecture, and Geology, D.P.C.  
One North Broadway, Suite 910  
New York, NY 10002  
T: 914.323.7400 F: 914.323.7401 www.langan.com



HIGHLAND SOLAR

SECTION 95.4, BLOCK 3, LOT 7.110, 7.210, & 7.220  
TOWN OF MARLBOROUGH  
ULSTER COUNTY

Project

DESCRIPTION

CHECKED

DRAWN

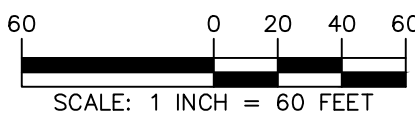
DATE

REV

Drawing No.

**CG101**  
GRADING PLAN  
(1 OF 2)

Sheet 8 of 16







SHEET 2

SHEET 1

KEY MAP

LEGEND

100

PROPOSED CONTOUR MAJOR

100

PROPOSED CONTOUR MINOR

PROPOSED LEVEL SPREADER

PROPOSED WATER BAR

PROPOSED HDPE PIPE

GRASS FILTER STRIP

110 William Street  
24th Floor  
New York, NY 10038

LANGAN

LANGAN Engineering, Environmental, Surveying,  
Landscape Architecture, and Geology, D.P.C.  
One North Broadway, Suite 910  
New York, NY 10002  
T: 914.323.7400 F: 914.323.7401 www.langan.com

WARNING:  
THIS DOCUMENT IS THE PROPERTY OF LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE, AND GEOLOGY, D.P.C. (LANGAN). IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF LANGAN.

STATE OF NEW YORK  
MICHAEL J. FINN  
081473  
LICENSED PROFESSIONAL ENGINEER

Project No. 190107801

Project

HIGHLAND SOLAR

SECTION 95.4, BLOCK 3, LOT 7.110, 7.210, & 7.220  
TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NEW YORK

Project

Project No. 190107801

REV	DATE	DRAWN	CHECKED	DESCRIPTION

Drawing No.

CG102  
GRADING PLAN  
(2 OF 2)  
Sheet 9 of 16

© 2024 Langan

SEE SHEET 2

Date: 8/30/2024 Time: 19:30 User: czolozli Style Table: Langan.sbt Layout: CS101 Document Code: 190107801-0501-CG101-0102







POLLUTION PREVENTION NOTES

- GOOD HOUSEKEEPING PRACTICES ARE DESIGNED TO MAINTAIN A CLEAN AND ORDERLY WORK ENVIRONMENT. GOOD HOUSEKEEPING MEASURES MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS BY THOSE PARTIES INVOLVED WITH THE DIRECT CARE AND DEVELOPMENT OF THE SITE. THE FOLLOWING MEASURES SHOULD BE IMPLEMENTED TO CONTROL THE POSSIBLE EXPOSURE OF HARMFUL SUBSTANCES AND MATERIALS TO STORMWATER RUNOFF:
- MATERIAL RESULTING FROM THE CLEARING AND GRUBBING OPERATION MUST BE STOCKPILED AWAY FROM STORM DRAINAGE, WATER BODIES AND/OR WATERCOURSES AND SURROUNDED WITH ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES. SOIL STOCKPILE LOCATIONS MUST BE EXPOSED NO LONGER THAN 14 DAYS BEFORE SEEDING.
  - EQUIPMENT MAINTENANCE AREAS MUST BE PROTECTED FROM STORMWATER FLOWS AND MUST BE SUPPLIED WITH APPROPRIATE WASTE RECEPTACLES FOR SPENT CHEMICALS, SOLVENTS, OILS, GREASES, GASOLINE, AND ANY POLLUTANTS THAT MIGHT CONTAMINATE THE SURROUNDING HABITAT AND/OR WATER SUPPLY. EQUIPMENT WASH-DOWN ZONES MUST BE LOCATED WITHIN AREAS DRAINING TO SEDIMENT CONTROL DEVICES.
  - THE USE OF DETERGENTS FOR LARGE-SCALE (I.E., VEHICLES, BUILDINGS, PAVEMENT SURFACES, ETC.) WASHING IS PROHIBITED.
  - MATERIAL STORAGE LOCATIONS AND FACILITIES (I.E., COVERED STORAGE AREAS, STORAGE SHEDS, ETC.) MUST BE LOCATED ON-SITE AND MUST BE STORED ACCORDING TO THE MANUFACTURER'S STANDARDS IN A DEDICATED STAGING AREA. CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER TOXIC MATERIAL MUST BE STORED IN WATERPROOF CONTAINERS. RUNOFF CONTAINING SUCH MATERIALS MUST BE COLLECTED, REMOVED FROM THE SITE, TREATED AND DISPOSED AT AN APPROVED SOLID WASTE OR CHEMICAL DISPOSAL FACILITY.
  - HAZARDOUS SPILLS MUST BE IMMEDIATELY CONTAINED TO PREVENT SUCH POLLUTANTS FROM ENTERING THE SURROUNDING HABITAT AND/OR WATER SUPPLY. SPILL KITS MUST BE PROVIDED ON-SITE AND MUST BE DISPLAYED IN A PROMINENT LOCATION FOR EASE OF ACCESS AND USE. SPILLS GREATER THAN FIVE (5) GALLONS MUST BE REPORTED TO THE NYSDEC RESPONSE UNIT AT 1-800-457-7362. IN ADDITION, A RECORD OF THE INCIDENT(S) AND/OR NOTIFICATIONS MUST BE DOCUMENTED AND ATTACHED TO THE SWPPP.
  - PORTABLE SANITARY WASTE FACILITIES MUST BE PROVIDED ON-SITE FOR WORKERS AND MUST BE PROPERLY MAINTAINED.
  - DUMPSTERS AND/OR DEBRIS CONTAINERS MUST BE LOCATED ON-SITE AND MUST BE OF ADEQUATE SIZE TO MANAGE RESPECTIVE MATERIALS. REGULAR COLLECTION AND DISPOSAL OF WASTES MUST OCCUR AS REQUIRED.
  - TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING. A SIGN SHOULD BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE MUST BE REMOVED AND DISPOSED OF. MATERIALS USED TO CONSTRUCT THE TEMPORARY CONCRETE WASHOUT FACILITIES MUST BE REMOVED AND DISPOSED OF. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES MUST BE BACKFILLED AND/OR REPAIRED, SEEDED, AND MULCHED FOR FINAL STABILIZATION.
  - NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION, WHICH DISCHARGES FROM THE SITE, MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE. IT CAN BE RETAINED IN THE PONDS UNTIL IT INFILTRATES AND EVAPORATES.

EROSION & SEDIMENT CONTROL NOTES

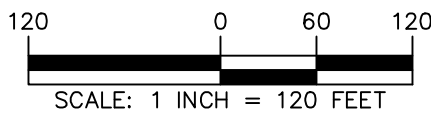
- REFER TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) SPODES GENERAL PERMIT IN APPENDIX A OF THE STORMWATER POLLUTION PREVENTION PLAN FOR ADDITIONAL REQUIREMENTS.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED IN ACCORDANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" LATEST EDITION.
- BEFORE BEGINNING CONSTRUCTION, THE OWNER MUST SET UP A PRE-CONSTRUCTION MEETING WITH THE QUALIFIED PROFESSIONAL, QUALIFIED INSPECTOR, CONTRACTORS, AND SUBCONTRACTORS TO DISCUSS THE RESPONSIBILITIES RELATED TO THE STORMWATER POLLUTION PREVENTION PLAN IMPLEMENTATION.
- THE CONTRACTOR AND SUBCONTRACTOR MUST IDENTIFY THE TRAINED INDIVIDUAL THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- BEFORE BEGINNING CONSTRUCTION, ALL EROSION AND SEDIMENT CONTROLS MUST BE INSTALLED IN ACCORDANCE WITH THE PLANS. SITE PREPARATION ACTIVITIES MUST BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISTURBANCE. EXISTING VEGETATION TO REMAIN MUST BE PROTECTED TO ENSURE OVER CLEARING DOES NOT OCCUR.
- PERMANENT TRAFFIC CORRIDORS MUST BE ESTABLISHED AND "ROUTES OF CONVENIENCE" MUST BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES MUST BE INSTALLED AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
- STOCKPILED TOPSOIL MUST BE ENCLOSED WITH SILT FENCE OR HAY BALES AND COVERED OR TEMPORARILY SEEDED. ALL GRASS SEED MUST CONTAIN AT LEAST 25% RAPID GERMINATING PERENNIAL RYE GRASS.
- DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION MUST BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
- DUST MUST BE CONTROLLED BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED.
- EROSIVE MATERIAL TEMPORARILY STOCKPILED ON SITE DURING CONSTRUCTION MUST BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND MUST BE PROPERLY PROTECTED BY A SILT FENCE BARRIER.
- EARTHWORK ACTIVITIES MUST BE CONSISTENT WITH THE PHASING PLANS. THE EARTHWORK OPERATION AREAS MUST BE STABILIZED ON AN ONGOING BASIS WITH NO AREAS THAT ARE NOT CURRENTLY UNDER CONSTRUCTION LEFT WITHOUT AT LEAST TEMPORARY COVER FOR MORE THAN 14 DAYS.
- EROSION AND SEDIMENT CONTROL INSPECTIONS:
  - THE TRAINED INDIVIDUAL MUST INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES ON A DAILY BASIS TO ENSURE PROPER PERFORMANCE. ANY SEDIMENT BUILD-UP MUST BE CLEANED AND REMOVED. ALL DAMAGES TO EROSION AND SEDIMENT CONTROLS MUST BE REPAIRED AT THE END OF THE WORK DAY.
  - THE QUALIFIED INSPECTOR MUST CONDUCT SITE INSPECTIONS EVERY 7 DAYS. ANY DEFICIENCIES NOTED IN THE REPORTS MUST BE CORRECTED IMMEDIATELY BY THE CONTRACTOR.
  - IF SOIL DISTURBANCE ACTIVITIES ARE SUSPENDED FOR WINTER SHUTDOWN, TEMPORARY STABILIZATION MEASURES WILL BE APPLIED TO ALL DISTURBED AREAS. IF APPROVED BY THE NYSDEC OR MS4 MUNICIPALITY, THE FREQUENCY OF INSPECTIONS BY THE QUALIFIED INSPECTOR MAY BE REDUCED TO ONE INSPECTION EVERY 30 DAYS.
  - IF AUTHORIZED BY THE NYSDEC OR MS4 MUNICIPALITY TO DISTURB MORE THAN 5 ACRES AT ONE TIME, THE QUALIFIED INSPECTOR MUST CONDUCT AT LEAST 2 SITE INSPECTIONS, SEPARATED BY 2 DAYS, EVERY 7 DAYS UNTIL SUCH TIME THAT LESS THAN 5 ACRES OF SOIL REMAIN EXPOSED.
- TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE REMOVED WHEN ALL DISTURBED AREAS HAVE UNDERGONE FINAL STABILIZATION. WHEN UPGRADE SURFACES ARE PROPERLY STABILIZED AND ALL STORMWATER MANAGEMENT SYSTEMS ARE IN PLACE AND OPERATIONAL, ALL AREAS DISTURBED BY THE REMOVAL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE FILLED IN, TOPSOILED, SEEDED, AND MULCHED. FINAL STABILIZATION IS ACHIEVED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 80% IS ESTABLISHED, OR EQUIVALENT STABILIZATION MEASURES, SUCH AS PLACEMENT OF MULCH OR GEOTEXTILE, IS COMPLETED ON ALL AREAS NOT PAVED OR COVERED BY PERMANENT STRUCTURES.



LEGEND	
	LoD LIMIT OF DISTURBANCE
	PHASE BOUNDARY
	100 PROPOSED MAJOR CONTOUR
	100 PROPOSED MINOR CONTOUR

PHASING AREA		CONSTRUCTION PHASE																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	CL ESC		RD TS															
2		CL ESC		GR TS						SOL TS								
3			CL ESC		GR TS						SOL TS							
4				CL ESC		GR TS						SOL TS						
5					CL ESC		GR TS						SOL TS					
6						CL ESC		GR TS						SOL TS				
FINAL							CL ESC		GR TS						FNC SMP	RDF	RST	RM

CONSTRUCTION SEQUENCE KEY	
CL	COMPLETE TREE REMOVAL AND STUMPING.
ESC	INSTALL EROSION AND SEDIMENT CONTROL PRACTICES.
FNC	INSTALL FENCE.
GR	SITE GRADING.
LD	REMOVE TEMPORARY LAYDOWN AREA. STABILIZE THE DISTURBED AREA.
RD	CONSTRUCT ACCESS ROAD, TEMPORARY LAYDOWN AREA, AND/OR INVERTER PADS.
RDF	COMPLETE SITE RESTORATION OVER PERMEABLE HAUL ROAD AND FINALIZE INSTALLATION.
RM	REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES. STABILIZE THE DISTURBED AREA.
RST	COMPLETE SITE RESTORATION. APPLY SEED AND MULCH.
SMP	INSTALL GRASS FILTER STRIP.
SOL	INSTALL SOLAR PANELS.
TS	APPLY TEMPORARY SEED AND MULCH.
NOTE - PHASE AND DESCRIPTIONS ARE INTENDED TO PROVIDE A GENERAL DESCRIPTION OF GROUND DISTURBING ACTIVITIES. GROUND DISTURBANCES SUCH AS TRENCHING FOR CONDUIT AND OTHER ELECTRICAL EQUIPMENT INSTALLATION NEEDS MAY ALSO BE OCCURRING DURING ANY GIVEN PHASE. THE OVERALL DISTURBANCE WILL BE MONITORED BY THE QUALIFIED INSPECTOR TO ENSURE THE SITE DISTURBANCE REMAINS UNDER FIVE ACRES AT ANY GIVEN TIME.	



110 William Street  
24th Floor  
New York, NY 10038

**LANGAN**  
Langan Engineering, Environmental, Surveying,  
Landscape Architecture, and Geology, D.P.C.  
One North Broadway, Suite 910  
New York, NY 10038  
T: 914.323.7400 F: 914.323.7401 www.langan.com

WARNING:  
THIS DOCUMENT IS THE PROPERTY OF LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE, AND GEOLOGY, D.P.C. (LANGAN). IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF LANGAN.

**HIGHLAND SOLAR**

SECTION 95.4, BLOCK 3, LOT 7.110, 7.210, & 7.220  
TOWN OF MARLBOROUGH  
ULSTER COUNTY, NEW YORK

Project No. 190107801

Project	
DESCRIPTION	
CHECKED	
DRAWN	
DATE	
REV	
Drawing No.	
<b>CE100</b>	
<b>PHASING PLAN</b>	
Sheet 11 of 16	

©2024 Langan



SEE SHEET 2



SHEET 2

SHEET 1

KEY MAP

LEGEND

- LoD LIMIT OF DISTURBANCE
- SILT FENCE
- FIBER ROLLS
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY SOIL STOCKPILE
- CONCRETE WASHOUT AREA



110 William Street  
24th Floor  
New York, NY 10038

**LANGAN**  
Langan Engineering, Environmental, Surveying,  
Landscape Architecture, and Geology, D.P.C.

One North Broadway, Suite 910  
New York, NY 10002  
T: 914.323.7400 F: 914.323.7401 www.langan.com

WARNING:  
THIS DOCUMENT IS THE PROPERTY OF LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE, AND GEOLOGY, D.P.C. (LANGAN). IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF LANGAN.



HIGHLAND SOLAR

SECTION 95.4, BLOCK 3, LOT 7.110, 7.210, & 7.220  
TOWN OF MARLBOROUGH  
ULSTER COUNTY

Project

DESCRIPTION

CHECKED

DRAWN

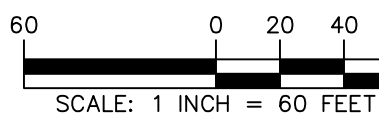
DATE

REV

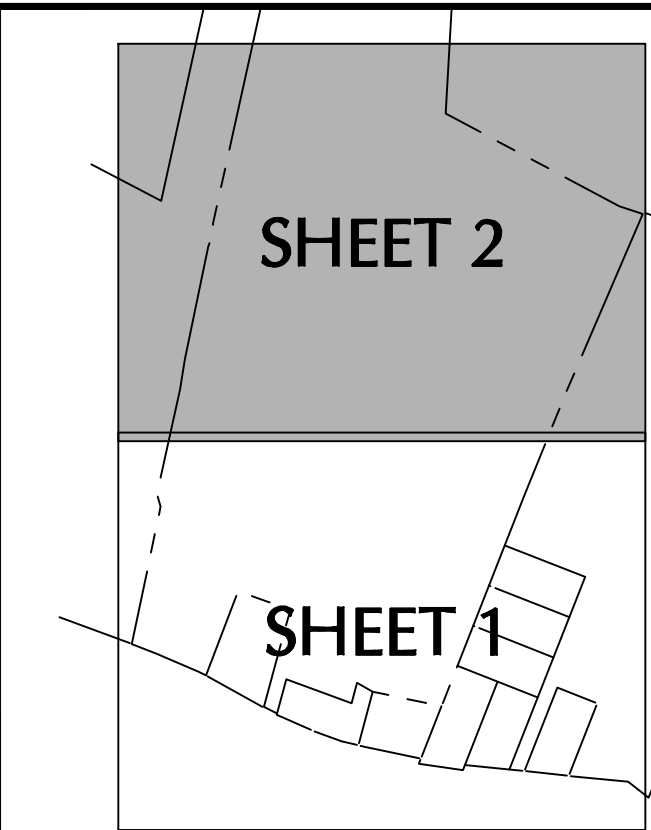
Drawing No.

**CE101**

EROSION &  
SEDIMENT CONTROL  
PLAN (1 OF 2)  
Sheet 11 of 16







SHEET 2

SHEET 1

KEY MAP

LEGEND

- LoD — LoD — LIMIT OF DISTURBANCE
- x - x - x - x - SILT FENCE
- ..... FIBER ROLLS
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY SOIL STOCKPILE
- CONCRETE WASHOUT AREA



110 William Street  
24th Floor  
New York, NY 10038

**LANGAN**  
Langan Engineering, Environmental, Surveying,  
Landscape Architecture, and Geology, D.P.C.  
One North Broadway, Suite 910  
New York, NY 10002  
T: 914.323.7400 F: 914.323.7401 www.langan.com

WARNING:  
THIS DOCUMENT IS THE PROPERTY OF Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C. (Langan).  
IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR  
DISTRIBUTED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF Langan.



Project No. 190107801

Project

DESCRIPTION

CHECKED

DRAWN

DATE

REV

Drawing No.

CE102

EROSION & SEDIMENT CONTROL

PLAN (2 OF 2)

Sheet 12 of 16

© 2024 Langan

Project No. 190107801

Project

DESCRIPTION

CHECKED

DRAWN

DATE

REV

Drawing No.

CE102

EROSION & SEDIMENT CONTROL

PLAN (2 OF 2)

Sheet 12 of 16

© 2024 Langan

Project No. 190107801

Project

DESCRIPTION

CHECKED

DRAWN

DATE

REV

Drawing No.

CE102

EROSION & SEDIMENT CONTROL

PLAN (2 OF 2)

Sheet 12 of 16

© 2024 Langan

Project No. 190107801

Project

DESCRIPTION

CHECKED

DRAWN

DATE

REV

Drawing No.

CE102

EROSION & SEDIMENT CONTROL

PLAN (2 OF 2)

Sheet 12 of 16

© 2024 Langan











## GENERAL LANDSCAPE PLANTING NOTES

1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION, PUBLISHED BY THE AMERICAN HORTICULTURAL SOCIETY, INC., WASHINGTON, D.C. 20004. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.
2. ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL MULCH THAT WILL PREVENT SOIL EROSION AND PREVENT WEEDS FROM GROWING.
3. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
4. STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, 1000 N. W. 12TH AVENUE, MIAMI, FLORIDA 33136. STANDARDS FOR SEEDING SHALL BE SET FORTH IN SEEDING MIXTURES AND INSECT INFESTATION.
5. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMS AND SHALL BEAR THE TRUNKS OF PLANTS SHALL BE PROTECTED BY AN APPROVED METHOD OF PROTECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SPECIES AND SPECIES AS THE SAME SIZE THAT SHOULD BE SIMILAR IN SHAPE, COLOR, AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE CONTRACT OR SPECIFIED HABIT OF THAT SPECIES.
6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES PRIOR TO THE START OF EXCAVATION WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
7. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL OBTAIN THE MATERIAL FROM ANOTHER SOURCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
8. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL OBTAIN THE MATERIAL FROM ANOTHER SOURCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
9. LANDSCAPE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL LOCATION OF PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.
10. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE, BEFORE PLANTING, FOR COMPLIANCE WITH REQUIREMENTS OF THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSEQUENCES OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.

## LANDSCAPE MAINTENANCE NOTES

- MAINTENANCE OPERATIONS BEFORE APPROVAL:**
- A. PLANT CARE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS SATISFACTORILY INSTALLED AND SHALL CONTINUE THROUGHOUT THE LIFE OF THE CONTRACT UNTIL FINAL ACCEPTANCE OF THE PROJECT.
  - B. CARE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPLACING OR RESHED MULCH, WEEDS, OR SAWDERS, MAINTAINING STAKES AND GUYS AS ORIGINALLY INSTALLED, WATERING WHEN NEEDED OR DIRECTED, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.
  - C. CONTRACTOR SHALL REMOVE AND REPLACE ALL DEAD, DEFECTIVE AND/OR REJECTED PLANTS AS REQUIRED BEFORE FINAL ACCEPTANCE.
- 2. MAINTENANCE DURING CONSTRUCTION:**
- A. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING. PLANTS SHALL BE WATERED, MULCHED, WEEDED, PRUNED, SPRAYED, FERTILIZED, AND OTHERWISE MAINTAINED AND PROTECTED UNTIL PROVISIONAL ACCEPTANCE. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE AND POSITION, PLANTING SCAVES RESTORED AND DEAD MATERIAL REMOVED. STAKES AND WIRES SHALL BE MAINTAINED. ANY DEFECTIVE WORK SHALL BE CORRECTED AS SOON AS POSSIBLE AFTER IT BECOMES APPARENT AND WEATHER AND SEASON PERMIT.
  - B. IF A SUBSTANTIAL NUMBER OF PLANTS ARE SICKLY OR DEAD AT THE TIME OF INSPECTION, ACCEPTANCE SHALL NOT BE GRANTED AND THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF ALL PLANTS SHALL BE EXTENDED FROM THE TIME REPLACEMENTS ARE MADE OR EXISTING PLANTS ARE DEEMED ACCEPTABLE BY THE LANDSCAPE ARCHITECT.
  - C. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE SPECIFIED ON THE PLANT LIST OR THAT WHICH WAS TO REMAIN OR BE RELOCATED. THEY SHALL BE FURNISHED AND PLANTED AS SPECIFIED, THE COST SHALL BE BORNE BY THE CONTRACTOR. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF THE PROJECT IN ANY PART OF VAN DUSEN PARK SHALL BE THE RESPONSIBILITY OF THE OWNER AND LOSSES DUE TO CURTILMENT OF WATER BY LOCAL AUTHORITIES SHALL BE APPROVED AND PAID FOR BY THE OWNER.
  - D. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS AFTER INSPECTION AND PROVISIONAL ACCEPTANCE.
  - E. AT THE END OF THE ESTABLISHMENT PERIOD, INSPECTION SHALL BE MADE AGAIN. ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR UNSATISFACTORY TO THE LANDSCAPE ARCHITECT OR OWNER SHALL BE REMOVED FROM THE SITE AND REPLANTED DURING THE NORMAL PLANTING SEASON.
- 3. LAWN MAINTENANCE:**
- A. BEGIN MAINTENANCE IMMEDIATELY AFTER EACH PORTION OF LAWN IS PLANTED AND CONTINUE FOR 8 WEEKS AFTER ALL LAWN PLANTING IS COMPLETED.
  - B. WATER TO KEEP SURFACE SOIL MOIST; REPAIR WASHED OUT AREAS BY FILLING WITH TOPSOIL, LIMING, FERTILIZING AND RE-SEEDING; MOW TO 2 1/2 - 3 INCHES AFTER GRASS REACHES 3 1/2 INCHES IN HEIGHT, AND MOW FREQUENTLY ENOUGH TO KEEP GRASS FROM EXCEEDING 3 1/2 INCHES. WEED BY LOCAL SPOT APPLICATION OF SELECTIVE HERBICIDE ONLY AFTER GRASS IS WELL-ESTABLISHED.
  - C. IN ORDER TO REMOVE WEEDS FROM THE LAWN AREAS, APPLY PRE-EMERGENT HERBICIDE ONCE GRASS IS WELL ESTABLISHED. APPLY POST-EMERGENT HERBICIDE AS NEEDED, IF WEEDS ARE STILL PRESENT, PER SUPPLIER RECOMMENDATIONS, REFER TO SUPPLIER FOR PRECAUTIONS.

## PLANTING SOIL SPECIFICATIONS

- PLANTING SOIL ALTERNATELY MAY BE REFERRED TO AS TOPSOIL, SHOULD BE FRIABLE, FERTILE, WELL DRAINED, FREE OF STONES, AND CAPABLE OF SUPPORTING PLANT GROWTH. IT SHOULD HAVE A HIGH ORGANIC CONTENT CAPABLE TO SUSTAIN HEALTHY PLANT GROWTH AND SHOULD LOOK AESTHETICALLY PLEASING HAVING NO NOXIOUS ODORS.
- 2. PLANTING SOIL:**
- REUSE SURFACE SOIL STOCKPILED ON SITE, IF VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL CRITERIA IN THE CONTRACT DOCUMENTS. IF THE SURFACE SOIL OF ALL ROOTS, PLANTS, SED, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS, IF ON-SITE SOILS ARE TO BE USED FOR PROPOSED PLANTING, THE CONTRACTOR SHALL SUBMIT TO THE CITY FOR TESTING, THAT ON-SITE SOILS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANS AND SPECIFICATIONS.
- SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN TOPSOIL AND PLANTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE AVAILABLE. AT LEAST 4" DEEP, DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.
- CONTRACTOR SHALL TEST SOILS AND FURNISH SAMPLES UPON REQUEST. PACKAGED MATERIALS SHALL BE KNOWN TO THE CITY. CONTRACTOR SHALL FURNISH SOIL SAMPLES AND SOIL TEST RESULTS TO THE PRODUCER, MATERIAL COMPOSITION, MANUFACTURER'S CERTIFIED ANALYSIS, AND THE WEIGHT OF THE MATERIALS. SOIL OR AMENDMENT MATERIALS SHALL BE STORED ON SITE TEMPORARILY IN STOCKPILES PRIOR TO PLACEMENT AND SHALL BE PROTECTED FROM CONTAMINANTS AND EROSION. AFTER MIXING, SOIL MATERIALS SHALL BE COVERED WITH A TARPULIN UNTIL TIME OF ACTUAL USE.
- ALL PLANTING SOILS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE, OR APPROVED TESTING FACILITY, TO DETERMINE THE QUALITY OF THE SOIL. CONTRACTOR SHALL FURNISH SOIL TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 CUBIC YARDS TO ENSURE CONSISTENT VOLUME OF PLANTING SOIL REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT THE SOILS ARE DEFICIENT IN ANY MANNER AND MAY BE CORRECTED BY ADDING AMENDMENTS, THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.
- A. THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT FOR APPROVAL:
- a. PARTICLE SIZE ANALYSIS – LOAMY SAND: 60-75% SAND, 25-40% SILT, AND 5-15% CLAY
  - b. FERTILITY ANALYSIS: PH (5.5-6.5), SOLUBLE SALTS (LESS THAN 2 MMHO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM
  - c. ORGANIC MATTER ANALYSIS: 2.0-5% IN NATIVE SOILS, 4% TO 10% IN AMENDED SOILS
  - d. SUBSTANCE ANALYSIS
  - e. MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED IN MORE THAN 15 MINUTES
- IF MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE
- 3. SOIL AMENDMENT FOR PLANT MATERIAL:**
- IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC MATTER SHOULD BE WELL COMPOSTED, FREE OF NOXIOUS CONTENT 25-55% BY WEIGHT 100% PASSING THROUGH #10 SIEVE, SOLUBLE SALT CONTENT LESS THAN 0.5 MM HO/CM, MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL
- ORGANIC MATTER AS A SOIL AMENDMENT: LEAF MOULD WITH 60-90% ORGANIC CONTENT BY WEIGHT, SHROODED CHIPS OR COMPOSTED FOR A MINIMUM OF 1 YR. SHOULD BE FREE OF DEBRIS, STONES OVER 1/2", WEED CHIPS OVER 1"
- B. SOIL IN BEDS AND PLANTING ISLANDS OTHER THAN BACKFILL MATERIAL AND TOPSOIL, SHOULD BE FRIABLE, WELL DRAINED, AND FREE OF DEBRIS, INCLUDING STONES AND TRASH.
- C. AMENDMENTS FOR BACK FILL IN TREE AND SHRUB PLANTS
- a. BRING PH LEVEL TO 5.5 TO 6.5
  - b. BRING PH LEVEL TO 5.5 TO 6.5 TO 6.5 FOR NON-ERCAEACEOUS PLANTS
  - c. BRING PH LEVEL TO 4.5 MIN. TO 5.5 FOR ERCAEACEOUS PLANTS
  - d. TERRA-SORB BY PLANT HEALTH CARE® 800-421-8051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES AND SHRUBS
  - e. MYCOR-RIZO SAVER BY PLANT HEALTH CARE® 800-421-8051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES.
4. WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS, BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT 25-55% BY WEIGHT) WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES.
- 5. INFILTRATION / DETENTION BASIN SOIL MIX**
- a. SPECIFIED SOIL MIX IS TO BE USED IN ALL DETENTION AND INFILTRATION BASINS.
- b. TOPSOIL/AMENDMENT/SOIL MIX: REFER TO SPECIFICATIONS LISTED IN SECTION ABOVE
  - c. PH: LOWER THAN 7.0
  - d. TOTAL SUBSTANCE ANALYSIS
- e. FINAL BORETENTION MIX
- 6. CHEMICAL ANALYSIS**
- a. PH – 5.5-6.5
  - b. SOLUBLE SALTS: LESS THAN 2 MMHO/CM
- 3) CONTRACTOR TO SUBMIT TOP SOIL SUBSTANCE ANALYSIS AND MATERIAL DRAINAGE RATE IN ADDITION TO INFORMATION LISTED ABOVE. DRAINAGE RATE OF MATERIAL TO BE 20 INCHES/HOUR(+/- 1 INCH/HOUR),

## MEADOW SEEDING NOTES

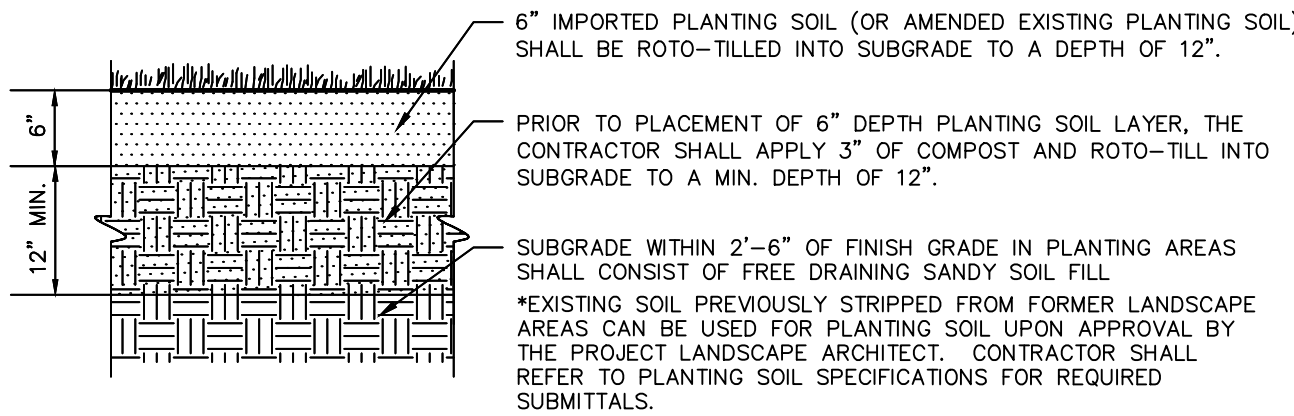
- SITE TO BE CLEARED WITHIN THE LIMITS OF DISTURBANCE. ALL EXISTING TREES, INCLUDING WOODY AND SHRUB VEGETATION, SHALL BE REMOVED. MEADOW SEED MIX "A" (SPECIFIED BELOW) WILL BE USED TO STABILIZE THE DISTURBED AREA WITHIN THE LIMITS OF DISTURBANCE.
2. MEADOW SEED MIX ERNST SEED MIX ERNMX-186 "ERNST SOLAR FARM SEED MIX"
- |                                      |                                |
|--------------------------------------|--------------------------------|
| 45.40% FESTUCA RUBRA                 | CREEPING RED FESCUE            |
| 15.00% FESTUCA LONGIFOLIA            | HARD FESCUE, "SWORD II"        |
| 15.00% FESTUCA OVINA VAR. DURIUSCULA | HARD FESCUE, "JETTY"           |
| 10.00% FESTUCA RUBRA SSP. COMMUTATA  | CHEWINGS FESCUE                |
| 5.00% POA PRATENSIS                  | KENTUCKY BLUEGRASS, "MAVERICK" |
| 5.00% POA PRATENSIS                  | KENTUCKY BLUEGRASS, "NAVY"     |
| 4.50% TRIFOLIUM REPENS               | WHITE CLOVER, DUTCH            |
- NOTES:
1. SEED AT A RATE OF 260 LBS./ACRE OF 100% PURE LUE SEED.
  2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 30 LBS./ ACRE.
  3. FOR FALL SEEDING, APPLY A NURSE CROP OF WINTER RYE AT A RATE OF 30 LBS./ ACRE.
3. MEADOW MIX B  
ERNST SEED MIX ERNMX-611 "NORTHEAST SOLAR POLLINATOR 4' MIX"
- |  |  |
|--|--|
| 35.00 % BOUTELOUA CURTIPENDULA         | BUTTE SIDEOTS GRAMA, BUTTE                     |
| 35.00 % SCHIZACHYRIUM SCOPARIUM        | FORT INDIANOWN GAP-PA ECOTYPE LITTLE BLUESTEM, |
|  | FORT INDIANOWN GAP-PA ECOTYPE                  |
| 10.00 % AGROSTIS PERENNANS             | ALBANY PINE BUSH-NY ECOTYPE AUTUMN BENTGRASS,  |
|  | ALBANY PINE BUSH-NY ECOTYPE                    |
| 4.00 % ASCLEPIAS TUBEROSA              | BUTTERFLY MILKWEED                             |
| 4.00 % CHAMAECRISTA FASCICULATA        | PARTRIDGE PEA, PA ECOTYPE                      |
| 4.00 % COREOPSIS LANCEOLATA            | LANCELEAF COREOPSIS                            |
| 4.00 % RUDECKIA HIRTA                  | BLACKWEED SUSAN                                |
| 4.00 % PYCNANETHUM TENUIFOLIUM         | NARROWLEAF MOUNTAINMINT                        |
| 0.80 % PENSTEMON DIGITALIS             | TALL WHITE BEARTOONING                         |
| 0.70 % ASTER OBLONGIFOLIUS, PA ECOTYPE | AROMATIC ASTER, PA ECOTYPE                     |
| 0.50 % ASTER PRENANTHOIDES, PA ECOTYPE | ZIGZAG ASTER, PA ECOTYPE                       |
| 0.50 % SISYRINCHIO ANGSTIFOLIUM        | NARROWLEAF BLUE EYED GRASS                     |
| 0.50 % ZIZA AUREA                      | GOLDEN ALEXANDERS                              |
| 0.10 % SCLADOLPH NEMORALIS, PA ECOTYPE | GOLD ENDOUR, PA ECOTYPE                        |
- NOTES:
1. SEED AT A RATE OF 15 LBS./ACRE OF 100% PURE LUE SEED.
  2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 30 LBS./ ACRE.
  3. FOR FALL SEEDING, APPLY A NURSE CROP OF WINTER RYE AT A RATE OF 30 LBS./ ACRE.

GENERAL SEEDING NOTES:

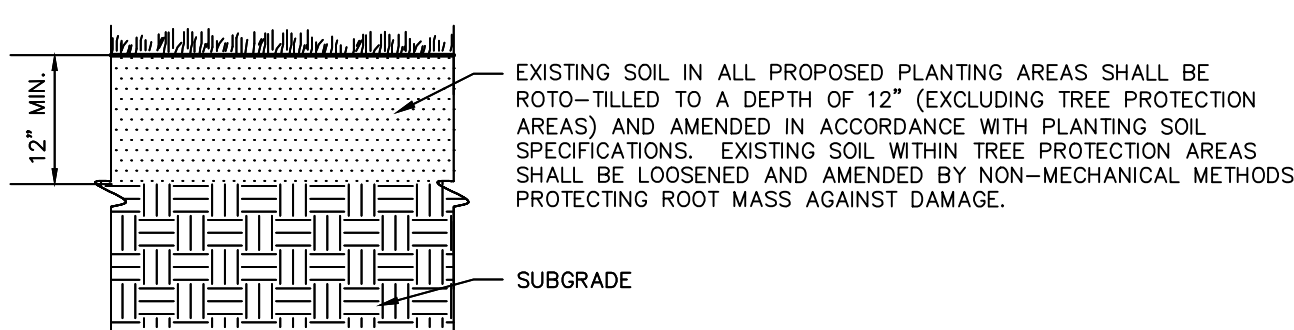
1. FINAL SEED MIXTURES, RATES & SPECIES TO BE DETERMINED BASED ON SCD REVIEW.
  2. ALL SEEDING RATES ARE BASED ON PURE LIVE SEED (PLS). CONTRACTOR SHALL ADJUST ANY SUPPLIER BULK SEEDING RATES (BSR) TO PROVIDE PLS EQUIVALENTS.
  3. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 15) OR THE FALL (SEPTEMBER 1 TO OCTOBER 1).
  4. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A BROAD-SPRINTZING NON-SELECTIVE HERBICIDE OR MANUFACTURER'S SPECIFICATIONS.
  5. IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRAJAX-TYPE DRILL WHERE APPLICABLE.
  6. MULCHING/TACKING IS REQUIRED ON ALL SEEDINGS. AN EROSION CONTROL BLANKET WITH A MINIMUM 12% NUTRIENT DEGRADABLE BY-PRODUCTS MUST BE USED IN LIEU OF STANDARD MULCHING/TACKING. PERMANENT BLANKETS WILL NOT BE ACCEPTED UNLESS OTHERWISE NOTED.
  7. CONTRACTOR SHALL USE ANIMAL CONTROL MEASURES AS NECESSARY FOR BASIN SEEDING, INCLUDING BUT NOT LIMITED TO GOOSE NETTING, TO PROTECT PLANTS DURING ESTABLISHMENT.
  8. CONTINUOUS MOISTURE MUST BE MAINTAINED DURING ESTABLISHMENT TO ALLOW PROPER GERMINATION. SOIL WILL REMAIN CONTINUOUSLY MOIST FOR THE TOP 4 INCHES OF TOPSOIL, DO NOT SATURATE OR WATER TO THE POINT OF RUNOFF OR THE DISPLACEMENT OF SEED.
  9. DEPENDING ON SOIL TYPE, IT MAY TAKE 2 TO 4 WEEKS FOR GERMINATION TO OCCUR.
  10. DIFFERENT SPECIES WITHIN THE MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT.
  11. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO BE A 6 INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.
- WEED CONTROL / MAINTENANCE

GENERAL NOTE:

DUE TO GENERAL CONSTRUCTION ACTIVITIES AND ADJACENT SITE COMPACTION REQUIREMENTS, SUBGRADE SOILS WITHIN PROPOSED PLANTING AREAS TEND TO BECOME HIGHLY COMPACTED. IN ORDER TO CREATE A HEALTHY GROWTH MEDIUM TO ALLOW PROPOSED PLANTINGS TO ESTABLISH A VIGOROUS ROOT MASS, THIS SUBGRADE SOIL MUST UNDERGO A RESTORATION PROCESS. IN ADDITION, IMPORTED OR AMENDED EXISTING SOILS SHALL BE MIXED WITH SUBGRADE SOILS WHERE THEY MEET IN ORDER TO CREATE A TRANSITIONAL GRADIENT TO ALLOW FOR PROPER DRAINAGE.



**IMPORTED OR AMENDED EXISTING PLANTING SOIL WITHIN AREAS OF RAISED GRADE**

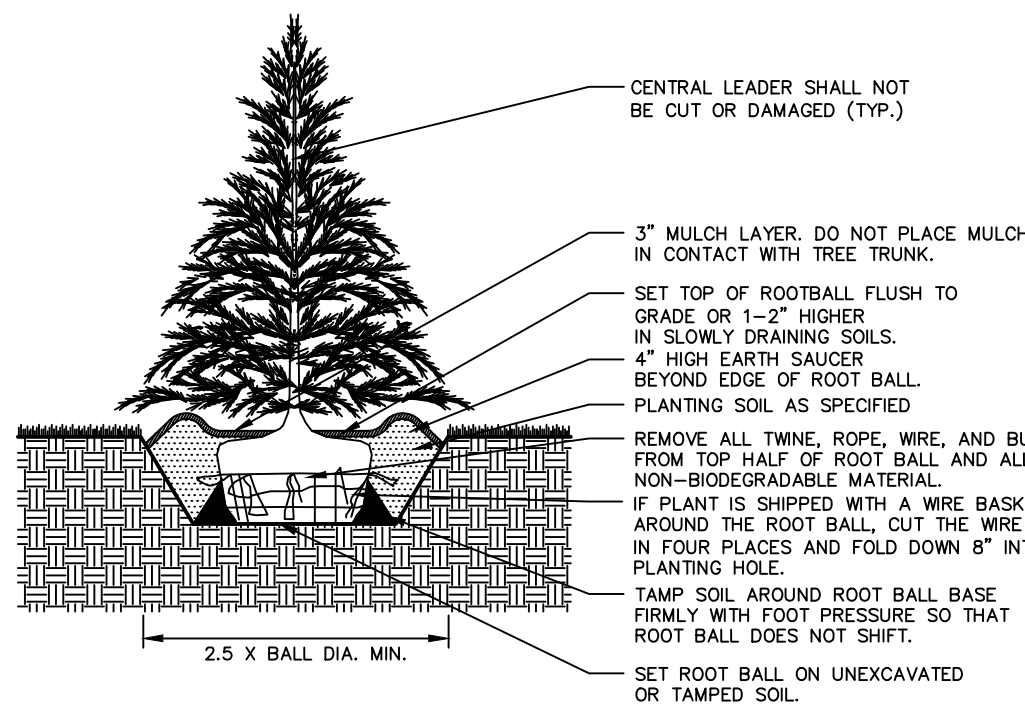


**AMENDED EXISTING PLANTING SOIL WITHIN AREAS OF UNCHANGED OR CUT GRAD**

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO SEND SAMPLES OF EXISTING SOILS INTENDED FOR USE IN PLANTING AREAS (1 PER 500 CY) TO TESTING LABORATORY OR UNIVERSITY COOPERATIVE EXTENSION FOR TESTING. ALL TESTING COSTS ARE AT THE CONTRACTOR'S EXPENSE.
2. RECYCLED CRUSHED CONCRETE, AND ASPHALT MILLINGS SHALL NOT BE PLACED WITHIN 2'-6" OF FINISH GRADE IN PROPOSED LANDSCAPE AREAS.
3. IMPORTED FILL SHALL CONTAIN NO CONTAMINATION IN EXCEEDENCE OF THE PROJECT STATE ENVIRONMENTAL REVIEW AGENCY STANDARDS AND MEET THE ENVIRONMENTAL REQUIREMENTS FOR THE PROJECT, IF APPLICABLE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF COMPLIANCE PRIOR TO DELIVERY OF ANY FILL TO THE SITE.
4. CONTRACTOR TO LIGHTLY COMPACT ALL PLACED PLANTING SOILS AND RAISE GRADES ACCORDINGLY TO ALLOW FOR FUTURE SETTLEMENT OF PLANTING SOILS (TYP.)
5. NO STONES, WOOD CHIPS, OR DEBRIS LARGER THAN 1/2" SHALL BE ACCEPTABLE WITHIN PLANTING AREAS.

## 1 PLANTING SOIL



## 2 TREE PLANTING

[illegible]