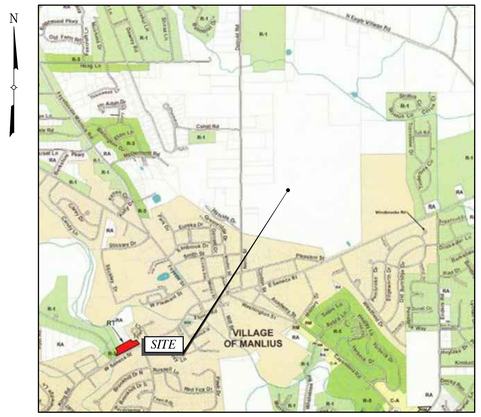
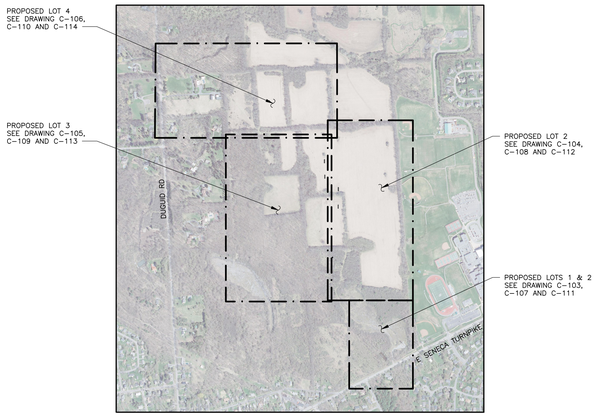
CVE - MANLIUS

TOWN OF MANLIUS
VILLAGE OF MANLIUS
ONONDAGA COUNTY, NEW YORK



ZONING MAP
SCALE: NTS



KEY MAP
SCALE: NTS

LOCATION MAP
SCALE: NTS

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PROJECT DESIGN

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ORIGINAL SIZE IN INCHES

Digitally signed by Mark Lukasik
Date: 2022.09.08 09:31:48 -04'00'

NYSERDA REFERENCE:

CVE US EI4 MANLIUS NORTH, LLC
CVE US EI5 MANLIUS EAST, LLC
CVE US EI6 MANLIUS WEST, LLC
8107, 8109, & 8105 EAST SENECA TURNPIKE

Rev	Date	Revision	Approved
3	2/23/22	REVISED PER CVE COMMENTS	
4	3/9/22	REVISED PER OCWA COMMENTS	
5	5/27/22	REVISED PER MS4 REVIEW COMMENTS	
6	6/13/22	REVISED FOR NYSERDA SUBMISSION	
7	6/16/22	REVISED PER NYSERDA SUBMISSION	
8	9/9/22	REVISED PER CVE	MAL

DRAWING CONTROL

Designed by: LAP/RCC	Drawn by: ECM	Checked by: MAL	
Purpose	Released by	Date	
○ For Comment			
● For Approval	MAL	9/9/22	
○ For Bid			
○ For Construction			

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COVER SHEET

CVE MANLIUS
8119 E SENECA TURNPIKE
TOWN OF MANLIUS/VILLAGE OF MANLIUS
COUNTY OF ONONDAGA, NEW YORK

Date	Work Order	Drawing No.	Rev
4/23/2021	10519.04	C-100	8
Scale: AS NOTED			

GENERAL NOTES

A. SITE CONDITIONS

1. EXISTING CONDITIONS ARE BASED ON A MAP ENTITLED "PARTIAL BOUNDARY SURVEY, SU-10-103" BY TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, D.P.C. DATED 12/17/2020.
2. ALL ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL INFORMATION SHOWN OR NOTED FOR EXISTING FACILITIES, GRADES, ROADWAYS, AND MATERIALS IS APPROXIMATE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL INFORMATION WHICH MAY AFFECT HIS WORK.
4. TEST PITS SHALL BE CONSTRUCTED BY THE CONTRACTOR AT ALL PIPE CROSSINGS AS REQUIRED TO COMPLETE THE WORK OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE PROVISION OF ALL MATERIALS, LABOR AND INSTALLATION OF ALL ITEMS OF CONSTRUCTION FOR THE SUCCESSFUL COMPLETION AND OPERATION OF THE PROJECT SATISFACTORY TO THE OWNER AND THEIR REPRESENTATIVE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL PROVIDE HIS OWN LAYOUT AND STAKEOUT OF ALL PROPOSED IMPROVEMENTS. OFFSET LINES WITH STAKES SHALL BE SET AT APPROPRIATE INTERVALS TO FACILITATE CONSTRUCTION. CUT SHEETS SHALL BE SUBMITTED FOR APPROVAL TO THE OWNERS REPRESENTATIVE AND TO THE WORK CREWS IN THE TIME IDENTIFIED IN SPECS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL VERIFY ALL BENCHMARKS PRIOR TO THE START OF CONSTRUCTION.
8. THE CONTRACTOR SHALL PROTECT ALL BENCH MARKS AND MONUMENTS FROM DAMAGE AND SHALL ESTABLISH OFFSET POINTS AS REQUIRED FOR THIS WORK.
9. ALL STATIONS SHOWN ON PLANS ARE MEASURED ALONG THE VARIOUS CONSTRUCTION BASELINES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY THROUGHOUT THE DURATION OF THE PROJECT AND SHALL PROVIDE AND MAINTAIN SECURITY FENCING, MEASURES, AND PERSONNEL AS REQUIRED AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
11. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE SAFETY REQUIREMENTS AS OUTLINED IN THE GENERAL CONDITIONS OF THE CONSTRUCTION SPECIFICATIONS. THE OWNER AND ENGINEER SHALL ASSUME NO RESPONSIBILITY AND/OR LIABILITY FOR THE SAFETY OF THE WORKERS WHERE THE WORK IS BEING PERFORMED.
12. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND ALL CODES, ORDINANCES, RULES AND REGULATIONS OF HEALTH, PUBLIC OR OTHER AUTHORITIES CONTROLLING OR LIMITING THE METHODS, MATERIAL TO BE USED, OR THE ACTIONS OF THOSE EMPLOYED IN WORK OF THIS KIND. ALL WORK, LABOR OR MATERIAL NECESSARY TO COMPLY WITH THESE LAWS, CODES, ORDINANCES, RULES AND REGULATIONS SHALL BE PERFORMED AND FURNISHED BY THE CONTRACTOR.
13. THE MUNICIPAL AND COUNTY DEPARTMENT OF PUBLIC WORKS AS WELL AS THE STATE DOT (WHERE STATE ROADS ARE INVOLVED) SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF ANY ROAD OPENING OF ANY STREET.
14. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL NECESSARY PERMITS AND LICENSES REQUIRED TO CARRY OUT HIS WORK IN FULL ACCORDANCE WITH REQUIREMENTS OF ALL REGULATIONS AND AUTHORITIES HAVING JURISDICTION.
15. AREA OF SUBJECT PARCEL: 240.66 ACRES OR 10,483,110 SQUARE FEET.

OWNER:	APPLICANT:
DUGUID REALTY CORPORATION TARKI LOMBARDI, JR 6248 STEINWAY DRIVE JAMESVILLE, NY 13078	CVE NORTH AMERICA, INC. 109 W 27TH ST., 8TH FLOOR NEW YORK, NY 10001

16. AT LEAST ONE WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK, INCLUDING THE INSTALLATION OF EROSION CONTROL DEVICES OR THE REMOVAL OF TREES AND VEGETATION, A PRE-CONSTRUCTION MEETING MUST BE HELD WITH MUNICIPAL REPRESENTATIVES. IT IS THE RESPONSIBILITY AND OBLIGATION OF THE PROPERTY OWNER TO ARRANGE SUCH A MEETING.

B. SOIL EROSION, SEDIMENT, AND DUST CONTROL

1. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN DUST CONTROL AS REQUIRED OR DIRECTED BY THE ENGINEER. ALL VEHICLES SHALL BE CLEAN AND ALL ROADWAYS SHALL BE MAINTAINED FREE OF CONSTRUCTION DEBRIS AND SOIL.
2. ALL SEDIMENT AND SOIL EROSION CONTROLS PRACTICES ARE TO BE INSTALLED IN CONFORMANCE WITH STATE AND LOCAL STANDARDS PRIOR TO ANY MAJOR SOIL DISTURBANCES. ALL WORK SHALL BE COMPLETED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. THE SOIL EROSION AND SEDIMENT CONTROL PLAN SHEET INCLUDES ADDITIONAL NOTES WHICH SHALL BE ADHERED TO BY THE CONTRACTOR.
4. THE STORM WATER POLLUTION CONTROL PLAN (SWPPP) AS APPROVED BY THE TOWN OF MANLIUS AND VILLAGE OF MANLIUS AND THE NYSDEC SPDES PERMIT IS A PART OF THE CONTRACT DOCUMENTS AND ASSISTS THE OWNER WITH COMPLIANCE WITH GP 0-20-001.

C. UTILITIES

1. AVAILABLE INFORMATION AS TO THE LOCATION OF EXISTING UTILITIES HAS BEEN COLLECTED FROM VARIOUS SOURCES. THE RESULTS OF SUCH INVESTIGATIONS, AS MAY BE SHOWN ON THE CONTRACT DRAWINGS, ARE NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL CONTACT THE DIG SAFELY NEW YORK (UFPO) SHOWN BELOW. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, IDENTIFY AND PROTECT UTILITIES WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL DIG TEST PITS TO LOCATE UTILITIES WITHIN THE PROJECT LIMITS
2. DIG SAFELY NEW YORK (UFPO), PHONE # 1-800-962-7962.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TEN (10) DAYS PRIOR TO CONSTRUCTION, OF THEIR ANTICIPATED START DATE.
4. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES TO DETERMINE THEIR SCHEDULE FOR PERFORMING UTILITY RELOCATION AND INSTALLATION WORK AND HE SHALL SCHEDULE HIS WORK ACCORDINGLY SO AS NOT TO INTERFERE WITH THE WORK OF THE UTILITY COMPANIES.
5. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AT LEAST 72 HOURS IN ADVANCE OF ANY WORK ON THEIR FACILITIES.
6. EXISTING UTILITY FACILITIES THAT MAY HAVE TO BE RELOCATED ARE TO BE MOVED BY THE RESPECTIVE UTILITY COMPANY UNLESS OTHERWISE NOTED. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND SHALL NOT CLAIM ANY DELAYS TO HIS CONSTRUCTION SCHEDULE.
7. ALL PROPOSED GAS UTILITIES SHALL BE INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH THESE UTILITIES FOR THE PROJECT, BOTH ON AND OFF SITE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL REQUIRED UTILITY CONNECTIONS WITH THE RESPECTIVE UTILITY COMPANY.
9. ALL TRENCHES SHALL BE BACK FILLED WITHOUT DELAY. OPEN TRENCHES SHALL BE KEPT TO A MINIMUM. OPEN TRENCHES SHALL BE TEMPORARILY SUPPORTED AND STEEL PLATED WHEN WORK IS NOT IN PROGRESS. NO EXCAVATION AREAS SHALL REMAIN OPEN OVERNIGHT. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF STEEL PLATES THAT ARE CAPABLE OF SAFELY SUPPORTING THE LOADS THEY WILL BE SUBJECTED TO.
10. ANY DAMAGE TO UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND ALL COST FOR REPAIRS SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED IN TEMPORARY SUPPORT OF UTILITY POLES NEAR EXCAVATION THAT DO NOT REQUIRE RELOCATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE APPROPRIATE UTILITY COMPANY FOR UTILITY POLE RELOCATION.
12. ALL GAS VALVES, MARKERS, VENTS AND BOXES WITHIN THE CONSTRUCTION LIMITS SHALL BE RESET BY THE RESPECTIVE UTILITY COMPANIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY EACH UTILITY COMPANY AND SCHEDULE THE WORK ACCORDINGLY.
13. FIRE HYDRANTS SHALL BE RELOCATED BY THE CONTRACTOR.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED IN TEMPORARY SUPPORT OF UTILITY POLES NEAR EXCAVATION THAT DO NOT REQUIRE RELOCATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE APPROPRIATE UTILITY COMPANY FOR UTILITY POLE RELOCATION.
15. ALL PROPOSED WATER SERVICES SHALL BE LOCATED A MINIMUM SEPARATION DISTANCE OF 10 HORIZONTAL FEET AND 1.5 VERTICAL FEET FROM ALL SANITARY SEWER FACILITIES. A MINIMUM 4 FEET OF COVER SHALL BE PROVIDED OVER ALL WATER.
16. ALL EXCAVATIONS MADE TO REMOVE EXISTING UNDERGROUND UTILITIES/STRUCTURES, INSTALL NEW UNDERGROUND UTILITIES/STRUCTURES, WITHIN FIVE (5) FEET OUTSIDE OF THE BUILDING, OR WITHIN ROADWAYS SHALL BE BACKFILLED IN ACCORDANCE WITH THE PLAN DETAILS AND SPECIFICATIONS AND UNDER THE SUPERVISION OF THE OWNER'S REPRESENTATIVE.
17. UNDERGROUND IMPROVEMENTS IF ANY AND NOT VISIBLE AT THE TIME OF THE SURVEY, HAVE NOT BEEN LOCATED IN THE FIELD OR SHOWN HEREON. TO THE BEST OF OUR BELIEF, UNDERGROUND IMPROVEMENTS FROM AVAILABLE DOCUMENTATION HAVE BEEN SHOWN.

D. PEDESTRIAN AND TRAFFIC FLOW

1. THE CONTRACTOR MUST PROVIDE A MEANS OF SAFE INGRESS AND EGRESS AT ALL TIMES TO THE PUBLIC. THIS SHALL INCLUDE RIGHTS OF WAYS AS WELL AS INDIVIDUAL RESIDENCES AND/OR BUSINESSES WITHIN THE PROJECT AREA.
2. CONTRACTOR IS REQUIRED TO ENSURE THE SAFE, ORDERLY AND EXPEDITIOUS FLOW OF TRAFFIC AT ALL TIMES. SAID TRAFFIC FLOW IS TO BE MAINTAINED IN ACCORDANCE WITH RECOGNIZED TRAFFIC CONTROL STANDARDS AND IS ENSURED, BUT NOT LIMITED TO, THROUGH THE USE OF FLAGMAN, SIGNING, BARRICADES, FLASHING LIGHTS, CONES, BARRELS, ETC. AS APPROVED BY THE CONSTRUCTION MANAGER. A MEETING WITH THE TOWN HIGHWAY SUPERINTENDENT SHALL OCCUR PRIOR TO THE START OF CONSTRUCTION.
3. FLAGMAN SHALL BE EMPLOYED BY THE CONTRACTOR FOR THE PROTECTION OF ANY EQUIPMENT ENTERING, LEAVING OR CROSSING ACTIVE TRAFFIC LANES, OR AS MAY BE REQUIRED FOR THE ROUTING OF ANY TRAFFIC AROUND OR THROUGH THE CONSTRUCTION. FLAGMAN WILL BE EMPLOYED BY THE CONTRACTOR.
4. DURING THE WINTER MONTHS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL AND THE COMPLETE MAINTENANCE OF EXISTING ROADWAYS UTILIZED FOR CONSTRUCTION PURPOSES BY ALL TRADES. THE ROADWAYS SHALL BE KEPT FREE OF ALL OBSTRUCTIONS AND KEPT IN A SMOOTH RIDING CONDITION AT ALL TIMES. ALL POT HOLES, WASHOUTS, CAVE-INS, ETC., DEVELOPING DURING THIS PERIOD SHALL BE PROPERLY FILLED IN WITH MATERIAL BY METHOD APPROVED BY THE OWNERS REPRESENTATIVE. HOWEVER, THE CONTRACTOR SHALL NOT BE REQUIRED TO REMOVE SNOW FROM ROADS OVER WHICH TRAFFIC IS BEING MAINTAINED.
5. BEFORE BEGINNING WORK ON ANY STAGE OF THE PROJECT, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIFIED WARNING SIGNS, BARRICADES, LIGHTS, AND OTHER DEVICES AS SHOWN ON THE CONTRACT PLANS, OR DEEMED NECESSARY, IN THE OPINION OF THE OWNERS REPRESENTATIVE, TO PROTECT THE PUBLIC DURING THAT PHASE OF HIS OPERATIONS.
6. ALL NECESSARY REGULATORY AND WARNING SIGNS SHALL BE IN ACCORDANCE WITH THE FHWA MUTCD (2003) WITH THE NYS SUPPLEMENT, LATEST EDITION, AND STANDARD HIGHWAY SIGNS, 2007 AND SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR. WHEN SUCH SIGNS ARE NO LONGER REQUIRED, THE CONTRACTOR SHALL IMMEDIATELY AND CAREFULLY REMOVE AND STORE THEM ON THE PROJECT SITE AT LOCATIONS APPROVED BY THE OWNERS REPRESENTATIVE UNTIL THEY ARE REUSED ON THE PROJECT OR REMOVED BY THE CONTRACTOR.
7. DURING CONSTRUCTION, ALL EXISTING ROADS AND RAMPS SHALL REMAIN OPEN AND BE PROPERLY MAINTAINED TO ACCOMMODATE EMERGENCY VEHICLES AT ALL TIMES.

E. CONSTRUCTION

1. EXISTING ASPHALT PAVEMENT SHALL BE SAWCUT AND REMOVED IN SUCH A MANNER SO AS NOT TO TEAR, BULGE OR DISPLACE ADJACENT PAVEMENT. EDGES SHALL BE CLEAN AND VERTICAL, ALL CUTS SHALL BE PARALLEL OR PERPENDICULAR TO THE DIRECTION OF TRAFFIC.
2. ALL ADJACENT CONCRETE AND BUILDING SURFACES SHALL BE PROTECTED WHEN TACK COAT AND/OR PRIME COAT IS APPLIED.
3. WHERE UNSTABLE SUBGRADE IS ENCOUNTERED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE COMPLETE EXTENT OF THE FAILED AREA AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL REPLACE THE UNSUITABLE SOILS WITH EMBANKMENT FILL, COMPACT THE AREA IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, AND PROOF ROLL THE AREA TO THE SATISFACTION OF THE OWNERS REPRESENTATIVE.
4. WHERE UNSTABLE OR WEAK AREAS OF PAVEMENT ARE ENCOUNTERED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE COMPLETE EXTENT OF THE FAILED AREA AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL REPLACE THE FAILED PAVEMENT WITH HMA BASE COURSE.
5. ONCE THE CONTRACTOR HAS COMMENCED CONSTRUCTION, THE WORK SHALL CONTINUE ON A DAILY BASIS WITHOUT INTERRUPTION UNTIL ALL OF THE WORK HAS BEEN COMPLETED.
6. MAILBOXES, STREET SIGNS, OR TRAFFIC SIGNS REMOVED FOR CONSTRUCTION PURPOSES MUST BE REPLACED BY THE CONTRACTOR WITHIN 24 HOURS.
7. ALL NEW SURFACE CONCRETE SHALL BE PROTECTED FROM DE-ICING SALTS FOR AT LEAST 60 DAYS AFTER THE POUR DATE.
8. ALL UNUSED SIGNS, SIGN POSTS, STORM SEWER CASTINGS AND GRATES REMOVED DURING CONSTRUCTION AND NOT REPLACED ELSEWHERE ON THIS PROJECT SHALL BECOME THE PROPERTY OF THE OWNER. IF THE OWNER DECLINES OWNERSHIP OF THE MATERIALS, THE CONTRACTOR SHALL REMOVE THE MATERIALS FROM THE SITE AT NO ADDITIONAL COST TO THE OWNER.
9. DEPRESSED CURBING SHALL BE CONSTRUCTED AT ALL WALKWAY CROSSINGS. DEPRESSED CURBS FOR HANDICAP ACCESS SHALL BE FLUSH WITH PAVEMENT. ALL HANDICAP ACCESS FACILITIES SHALL COMPLY WITH CURRENT A.D.A. REGULATIONS AND NEW YORK STATE BUILDING CODE, CHAPTER 11.
10. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT COVER (TEMPORARY AND PERMANENT) OVER ALL PIPES DURING THE CONSTRUCTION OF THE PROJECT IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
11. WHERE CONCRETE PIPE IS PROPOSED, ALL PIPE SHALL BE CLASS III WITH O-RING GASKETS, UNLESS OTHERWISE INDICATED.
12. THE APPLICANT SHALL SECURE ALL APPLICABLE TOWN OF MANLIUS AND VILLAGE OF MANLIUS PERMITS (ROAD OPENING, WATER, SEWER, ETC.) AND SCHEDULE A PRECONSTRUCTION MEETING WITH THE COMMISSIONER OF PUBLIC WORKS AND TOWN ENGINEER PRIOR TO THE START OF CONSTRUCTION.

F. SITE CLEARING AND GRADING

1. SITE CLEARING SHALL INCLUDE, BUT IS NOT LIMITED TO, THE REMOVAL OF ALL DEBRIS, RUBBLE, FENCES, TREES, EXISTING UTILITIES, EXISTING STRUCTURES, FOUNDATIONS, SUBSURFACE STRUCTURES, UNSUITABLE MATERIALS, EXISTING PAVEMENT, THE COORDINATION OF THE RELOCATION OF EXISTING UTILITIES, GRUBBING, ETC. AND ALL OTHER WORK REQUIRED TO COMPLETE THE PROJECT FOR WHICH THERE IS NO SPECIFIC PAY ITEM OR CALLOUT.
2. ALL DEMOLITION ACTIVITIES TO BE IN ACCORDANCE WITH ALL APPLICABLE AUTHORITIES INCLUDING BUT NOT LIMITED TO COUNTY RULES AND REGULATIONS, THE MUNICIPAL ORDINANCE, NYSDEC RULES AND REGULATIONS, AND NEW YORK STATE BUILDING CODE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL UNUSABLE MATERIALS EXCAVATED OF WHATEVER NATURE AT HIS OWN EXPENSE. THE OWNER IS NOT OBLIGATED TO SUPPLY A DISPOSAL SITE. THE CONTRACTOR MUST NOT DEPOSIT THE EXCESS MATERIALS WITHIN THE MUNICIPALITY LIMITS WITHOUT EXPRESS PERMISSION OF THE MUNICIPALITY. MATERIALS MUST BE DISPOSED OF IN ACCORDANCE WITH APPROVED NYSDEC METHODS AND MEANS.
4. ANY EXISTING AND NEW CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SITE AND LAWFULLY DISPOSED OF BY THE CONTRACTOR.
5. EXISTING ONSITE SUITABLE SOIL SHALL BE EXCAVATED, TRANSPORTED, SPREAD, GRADED, AND COMPACTED AS REQUIRED BY THE PROPOSED GRADES. ALL EARTHWORK OPERATIONS INVOLVING ONSITE SOILS SHALL BE COMPLETED PRIOR TO IMPORTING ANY OFFSITE MATERIALS. ALL IMPORTED FILL REQUIRED TO ACHIEVE THE PROPOSED GRADES SHALL BE INCLUDED IN THE PROPOSAL. IMPORTED SOIL SHALL BE FREE OF WASTE OR HAZARDOUS MATERIAL AND SHALL COMPLY WITH THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
6. THE CONTRACTOR SHALL NOT REMOVE ANY MATERIALS FROM THE SITE FOR DISPOSAL WITHOUT THE PERMISSION OF THE OWNER.
7. ALL AREAS UNDERGOING REGRADING SHOULD BE SLOPED TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND BUILDINGS.
8. NO TOPSOIL IS TO BE REMOVED FROM THE PROJECT SITE.
9. THE CONTRACTOR SHALL EXERCISE PARTICULAR CARE, ESPECIALLY AT INTERSECTIONS AND GUTTER LINES, IN THE PLACING OF PAVEMENT TO PROVIDE POSITIVE DRAINAGE. ANY AREAS WHERE WATER IS IMPOUNDED SHALL BE CORRECTED BY THE CONTRACTOR.
10. NO MATERIAL SHALL BE PLACED OR ANY DISTURBANCE PERMITTED BEYOND THE PROJECT PROPERTY LINE OR RIGHT OF WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER DIRECTLY INVOLVED.
11. ALL PRIVATE PROPERTY THAT MAY BE DISTURBED OR DAMAGED BY ANY CONSTRUCTION ACTIVITY SHALL BE RELOCATED, RESTORED, REPAIRED AND/OR REPLACED BY THE CONTRACTOR AT NO COST TO EITHER THE OWNER OR THE OWNER OF THE PROPERTY. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK OR MATERIALS.
12. ALL EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT FOR THE PROJECT.
13. PROOF ROLLING OF THE SUBBASE AND SUBGRADE SHALL BE PERFORMED IN THE PRESENCE OF BOTH THE TOWN ENGINEER AND THE OWNER'S REPRESENTATIVE AND FOUND TO BE ACCEPTABLE PRIOR TO PAVING. THE SUBGRADE SHALL BE FIRM AND UNYIELDING PRIOR TO PLACEMENT OF SUBBASE.

ZONING TABLE

ZONE - RESTRICTED AGRICULTURAL DISTRICT (R/A)

TOWN OF MANLIUS 099-1-3 & VILLAGE OF MANLIUS 026-2-6	REQUIRED	EXISTING	PROVIDED
EXISTING CELL TOWER			LOT 1
MINIMUM FRONTAGE (155-12-A.(1)) *	150 FT/200 FT	± 1,777 FT	± 150 FT
MINIMUM LOT AREA (155-12-A.(1)) *	40,000 SF/100,000 SF	± 10,483,110 SF	± 51,949 FT
MINIMUM FRONT YARD SETBACK (155-12-B)	40 FT	± 171 FT	± 171 FT
MINIMUM SIDE YARD SETBACK (ONE SIDE) (155-12-B)	20 FT	± 82 FT	± 82 FT
MINIMUM SIDE YARD SETBACK (BOTH SIDES) (155-12-B)	40 FT	± 2,734 FT	± 184 FT
MIMIMUM REAR YARD SETBACK (155-12-B)	40 FT	± 3,019 FT	± 50 FT

*150 FEET & 40,000 SF WHERE PUBLIC SANITARY SEWERS ARE PROVIDED, 200 FT & 100,000 SF WHERE A SEPTIC SYSTEM IS PROPOSED

ZONE - RESTRICTED AGRICULTURAL DISTRICT (R/A)

TOWN OF MANLIUS 099-1-3 & VILLAGE OF MANLIUS 26-2-6	REQUIRED	PROVIDED		
PROPOSED SPECIAL PERMIT: SOLAR ENERGY SYSTEM ARRAY (LARGE SCALE)		LOT 2	LOT 3	LOT 4
MINIMUM FRONTAGE (155-12-A.(1)) *	150 FT/200 FT	± 734 FT	± 950 FT	± 279 FT
MINIMUM LOT AREA (155-12-A.(1)) *	40,000 SF/100,000 SF	± 2,659,971 SF	± 5,902,579 SF	± 1,911,013 SF
MINIMUM FRONT YARD SETBACK (155-27.2-(3)(A)[2])	50 FT	± 936 FT	± 1,774 FT	± 53 FT
MINIMUM SIDE YARD SETBACK (ONE SIDE) (155-27.2-(3)(A)[2])	50 FT	± 51 FT	± 52 FT	± 58 FT
MINIMUM SIDE YARD SETBACK (BOTH SIDES) (155-27.2-(3)(A)[2])	50 FT	± 71 FT	± 508 FT	± 184 FT
MIMIMUM REAR YARD SETBACK (155-27.2-(3)(A)[2])	50 FT	± 51 FT	± 50 FT	± 52 FT

*150 FEET & 40,000 SF WHERE PUBLIC SANITARY SEWERS ARE PROVIDED, 200 FT & 100,000 SF WHERE A SEPTIC SYSTEM IS PROPOSED

EROSION AND SEDIMENTATION CONTROL NOTES

1. SITE DISTURBANCE SHALL BE LIMITED TO THE MINIMUM NECESSARY GRADING AND VEGETATION REMOVAL REQUIRED FOR CONSTRUCTION.
2. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL FOLLOWING DISTURBANCE TO STABILIZE BARE SOIL AND PROMOTE THE PROMPT-ESTABLISHMENT OF VEGETATION:
   - A. AN ADEQUATE SEEDBED SHALL BE PREPARED BY SCARIFYING COMPACTED SOIL AND REMOVING SURFACE DEBRIS AND OBSTACLES.
   - B. LIME SHALL BE APPLIED SUFFICIENTLY TO ATTAIN A SOIL ACIDITY Ph OF 6.0 TO 7.0.
   - C. FERTILIZER (20-0-4 MIXTURE OR EQUIVALENT) SHALL BE APPLIED PER SOIL TEST RESULTS OR AT A RATE OF 160 LBS. PER ACRE.
   - D. DISTURBED AREAS WHICH WILL REMAIN TEMPORARILY FALLOW FOR PERIODS GREATER THAN 14 DAYS SHALL BE SEEDED AT THE FOLLOWING RATE TO PRODUCE TEMPORARY GROUND COVER:
     30 LBS. RYEGRASS (ANNUAL) PER ACRE. DURING THE WINTER, USE 100 LBS. CERTIFIED "AROOSTOOK" WINTER RYE CEREAL RYE) PER ACRE.
   - E. ALL SEEDING SHALL BE PERFORMED USING THE BROADCAST METHOD OR HYDROSEEDING, UNLESS OTHERWISE APPROVED.
   - F. ALL DISTURBED AREAS SHALL BE STABILIZED SUBSEQUENT TO SEEDING BY APPLYING 2 TONS OF STRAW MULCH PER ACRE. STRAW MULCH SHALL BE ANCHORED BY APPLYING 750 LBS OF WOOD FIBER MULCH PER ACRE WITH A HYDROSEEDER, OR TUCKING THE MULCH WITH SMOOTH DISCS OR OTHER MULCH ANCHORING TOOLS TO A DEPTH OF 3". MULCH ANCHORING TOOLS SHALL BE PULLED ACROSS SLOPES ALONG TOPOGRAPHIC CONTOURS.
3. TEMPORARY CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED AND GROUND COVER IS COMPLETELY REESTABLISHED. FOLLOWING STABILIZATION, TEMPORARY MEASURES SHALL BE REMOVED TO AVOID INTERFERENCE WITH DRAINAGE.
4. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN SUFFICIENT QUANTITIES.
5. MULCH NETTING SUCH AS PAPER, JUTE, EXCELSIOR, COTTON OR PLASTIC MAY BE USED. STAPLE IN PLACE OVER HAY OR STRAW MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
6. PAVING, GRINDING, SAW CUTTING AND REMOVAL OPERATIONS:
   - A. AVOID PAVING WHEN RAIN IS IN THE FORECAST.
   - B. STORE MATERIALS AWAY FROM STORM DRAINS AND DRAINAGE COURSES TO PREVENT STORM WATER RUN-ON.
   - C. PROTECT DRAINAGE COURSES, PARTICULARLY IN AREAS WITH A GRADE, BY EMPLOYING BEST MANAGEMENT PRACTICES TO DIVERT RUNOFF OR TO TRAP AND FILTER SEDIMENT.
   - D. DISPOSAL OF PCC AND AC WASTE USING TEMPORARY CONCRETE WASHOUT SYSTEMS AND DUMP TRUCKS ONLY. NO STOCKPILING ON SITE PERMITTED.
   - E. SWEEP AND COLLECT ALL GRINDING RESIDUE, BROKEN ASPHALT, CONCRETE AND DEBRIS FROM REMOVAL OPERATIONS.
   - F. DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO A STORM DRAIN SYSTEM. COLLECT AND DISPOSE OF PROPERLY.
   - G. SHOVEL OR VACUUM SAW CUT SLURRY AND REMOVE FROM SITE.
   - H. PLACE DRIP PANS OR ABSORBENT MATERIAL UNDER PAVING EQUIPMENT WHEN NOT IN USE. CLEAN UP ALL SPILLS WITH ABSORBENT MATERIALS.
   - I. DO NOT WASH OUT CONCRETE TRUCKS ANYWHERE ON SITE, EXCEPT A DESIGNATED CONCRETE WASHOUT AREA OR APPROVED PORTABLE WASHOUT SYSTEM.
   - J. EXCESS CONCRETE SHALL NOT BE DUMPED ON SITE, EXCEPT IN A DESIGNATED CONCRETE WASHOUT AREA OR APPROVED PORTABLE WASHOUT SYSTEM.

EROSION AND SEDIMENTATION CONTROL SCHEDULE

CONSTRUCTION SCHEDULE

1. ALL APPROVALS AND PERMITS SHALL BE SECURED.
2. A PRE-CONSTRUCTION MEETING WITH OWNER, OWNER'S REPRESENTATIVE, MUNICIPAL REPRESENTATIVE AND CONTRACTOR PRESENT WILL BE HELD.
3. CERTIFICATIONS OBTAINED FROM CONTRACTORS, SUBCONTRACTORS AND ANY OTHERS PERFORMING SITE DISTURBANCES INCLUDING UNDERGROUND UTILITY CONTRACTORS BE SIGNED AND MAINTAINED ON SITE.
4. CONSTRUCTION ENTRANCE, SILT FENCE, STRAW BALE DIKE, DIVERSION SWALES/DIKES, SEDIMENTATION TRAPS, SEDIMENTATION BASIN, STORM DRAIN INLET PROTECTION, CONSTRUCTION FENCE AND OTHER TEMPORARY EROSION CONTROL MEASURES WILL BE INSTALLED PRIOR TO ANY CONSTRUCTION INCLUDING CLEARING, GRUBBING, AND DEMOLITION OF THE SITE IN ACCORDANCE WITH NYSDEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION.
5. INSTALL PROVISIONS FOR PROTECTION OF EXISTING FACILITIES WHERE INDICATED ON THE PLANS AND DETAILS
6. DISTURBANCE SHALL BE LIMITED TO A 5 ACRES MAXIMUM. ALL NON-ACTIVE DISTURBED AREAS SHALL RECEIVE TEMPORARY OR PERMANENT STABILIZATION. NON-ACTIVE DISTURBED AREAS SHALL NOT REMAIN FALLOW FOR LONGER THAN 14 DAYS WITHOUT BEING STABILIZED.
7. INSTALL TEMPORARY ACCESS ROAD, EQUIPMENT PADS AND SOLAR ARRAY SO AS NOT TO DISTURB MORE THAN 5 ACRES AT ANY ONE TIME.
8. INSTALL INTERMEDIATE EROSION CONTROL MEASURES BETWEEN CONSTRUCTION PHASES TO LIMIT DISTURBANCE TO 5 ACRES MAXIMUM.
9. INSTALL FINAL ACCESS ROAD.
10. INSTALL ASPHALT PAVEMENT MAINTAINING POSITIVE DRAINAGE AND FLUSH WITH EXISTING ADJOINING PAVEMENT.
11. ALL LANDSCAPED/GRASSED AREAS WILL BE SEEDED AND MULCHED IN A TWO STEP HYDRAULIC PROCESS TO PROMOTE GROWTH AS SOON AS POSSIBLE.
12. UPON STABILIZATION, ALL TEMPORARY MEASURES WILL BE REMOVED.
13. REMOVE ALL SILT AND SEDIMENT FROM SITE.
14. ALL DEBRIS, SILT, AND OTHER OBSTRUCTIONS ARE TO BE REMOVED FROM THE END OF THE DRAINAGE STRUCTURES AFTER ALL ON SITE WORK IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.

LEGEND

- PROPERTY LINE
- ADJOINING PROPERTY LINE
- EASEMENT LINE
- PROPOSED TOWN EASEMENT
- ZONE BOUNDARY
- MUNICIPAL BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- INDEX CONTOUR
- CONTOUR
- PROPOSED INDEX CONTOUR
- PROPOSED CONTOUR
- WETLANDS DELINEATION
- 100' WETLANDS BUFFER
- YARD SETBACK
- CURB LINE
- EDGE OF CONCRETE
- EDGE OF GRAVEL
- EDGE OF PAVEMENT
- OHW — OVERHEAD WIRES
- CHAIN LINK FENCE
- PROPOSED CHAIN LINK FENCE
- GUIDE RAIL
- PAINTED TRAFFIC LINES
- STONE WALL
- TREE LINE
- PROPOSED TREE LINE
- PROPOSED CHAIN LINK FENCE
- LIMIT OF DISTURBANCE
- U/G — UNDERGROUND ELECTRIC
- STRUCTURE
- MONUMENT FOUND
- DRILL HOLE FOUND
- UTILITY POLE
- CATCH BASIN
- MH — MANHOLE (UNKNOWN)
- SIGN
- BOLLARD
- TREE
- BUSH
- 16 — WETLANDS FLAG
- SOLAR PANELS
- EQUIPMENT PAD
- GRASS ROAD
- WETLANDS

ADJOINER MAP

SCALE: NTS

LIST OF PROPERTY OWNERS

SECTION 026, BLOCK 3, LOT 1
FAYETTEVILLE-MANLIUS CSD
8201 SENECA TURNPIKE
MANLIUS, NY 13104-2101

SECTION 099, BLOCK 1, LOT 36
FAYETTEVILLE-MANLIUS CSD
8199 SENECA TURNPIKE
MANLIUS, NY 13104-2101

SECTION 099, BLOCK 1, LOT 14.1
KELLY REVOC TRUST ANN E
EAGLE VILLAGE ROAD
FAYETTEVILLE, NY 13066

SECTION 099, BLOCK 1, LOT 10.2
KELLY REVOC TRUST ANN E
DUGUID ROAD
FAYETTEVILLE, NY 13066

SECTION 099, BLOCK 1, LOT 6
DIN PHILLIP J
5118 DUGUID ROAD
MANLIUS, NY 13104

SECTION 099, BLOCK 1, LOT 5.2
NELSON JON C
NELSON JANE M
5100 DUGUID ROAD
MANLIUS, NY 13104-1206

SECTION 099, BLOCK 1, LOT 5.4
PETTERELLI MICHAEL N
PETTERELLI KATHRIN Z
5102 DUGUID ROAD
MANLIUS, NY 13104-1206

SECTION 099, BLOCK 1, LOT 5.7
NELSON JON C
NELSON JANE M
5100 DUGUID ROAD
MANLIUS, NY 13104-1206

SECTION 099, BLOCK 1, LOT 5.6
JACOBI PHILIP
ADORNATO-JACOBI ANN MARIE
5000 DUGUID ROAD
MANLIUS, NY 13104

SECTION 099, BLOCK 1, LOT 5.1
DIMAGGIO LEN
4900 DUGUID ROAD
MANLIUS, NY 13104-1203

SECTION 099, BLOCK 1, LOT 5.3
DIMAGGIO LEN
4900 DUGUID ROAD
MANLIUS, NY 13104-1203

SECTION 099, BLOCK 1, LOT 5.5
HABAYEB NASSIB
HABAYEB REEMA
4898 DUGUID ROAD
MANLIUS, NY 13104-1203

SECTION 099, BLOCK 1, LOT 2
CORBETT JAMES & CORBETT LAUREL
4880 DUGUID ROAD
MANLIUS, NY 13104-1203

SECTION 099, BLOCK 1, LOT 1
STAROWICZ CASMIER
STAROWICZ CHARLES L
STAROWICZ MARTHA
CHRISTOPHER L STAROWICZ
4870 DUGUID ROAD
MANLIUS, NY 13104-1203

SECTION 099, BLOCK 1, LOT 37
SPRINGSTON, TIMOTHY M
1 LIMESTONE PLAZA
FAYETTEVILLE, NY 13066

SECTION 099, BLOCK 1, LOT 3
DUGUID REALTY CORPORATION
6248 STEINWAY DRIVE
MANLIUS, NY 13104-1203

SECTION 026, BLOCK 2, LOT 6
DUGUID REALTY CORPORATION
6248 STEINWAY DRIVE
JAMESVILLE, NY 13078

SECTION 026, BLOCK 2, LOT 5
KATHLEEN & GEORGE SHAHEEN
601 PLEASANT STREET
MANLIUS, NY 13104

SECTION 026, BLOCK 2, LOT 4
CAROL LYNN COOPER
603 PLEASANT STREET
MANLIUS, NY 13104-1924

SECTION 026, BLOCK 2, LOT 3.1
GRUNDER ERIKA
NACY HERZOG REVOCE TRUST
HERZOG NANCY
5404 SPRING VIEW DRIVE
FAYETTEVILLE, NY 13066

SECTION 026, BLOCK 2, LOT 2
MCLEAN CASEY
MCLEAN DONNA
617 PLEASANT STREET
MANLIUS, NY 13104-1924

SECTION 026, BLOCK 2, LOT 1.2
MARCIA J SULLIVAN
619 PLEASANT STREET
MANLIUS, NY 13104-1924

SECTION 026, BLOCK 2, LOT 1.1
KOSHNICHARSKI STOICHKO I
KOSHNICHARSKI VENETA P
621 PLEASANT STREET
MANLIUS, NY 13104-1924

SECTION 026, BLOCK 2, LOT 7
COLLINS SEAN
TRUMAN JENNA
525 PLEASANT STREET
MANLIUS, NY 13104

SECTION 026, BLOCK 2, LOT 8
STAROWICZ CHARLES L
STAROWICZ MARTHA
CHRISTOPHER L STAROWICZ
4870 DUGUID ROAD
MANLIUS, NY 13104-1203

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CVE US EI5 MANLIUS EAST, LLC
CVE US EI6 MANLIUS WEST, LLC
8107, 8109, & 8105 EAST SENECA TURNPIKE

Rev	Date	Revision	Approved
3	2/23/22	REVISED PER CVE COMMENTS	
4	3/9/22	REVISED PER OCWA COMMENTS	
5	5/27/22	REVISED PER MS4 REVIEW COMMENTS	
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7	6/16/22	REVISED PER NYSERDA SUBMISSION	
8	9/9/22	REVISED PER CVE	MAL

DRAWING CONTROL

Designed by: LAP/RCC	Drawn by: ECM	Checked by: MAL
Purpose	Released by	Date
○ For Comment		
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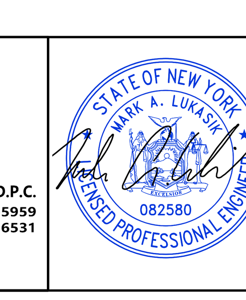

ADJOINERS LIST, ZONING TABLE, LEGEND & NOTES

CVE MANLIUS
8119 E SENECA TURNPIKE
TOWN OF MANLIUS/VILLAGE OF MANLIUS
COUNTY OF ONONDAGA, NEW YORK

Date	Work Order	Drawing No.	Rev
4/23/2021	10519.04	C-101	8
Scale: AS NOTED			

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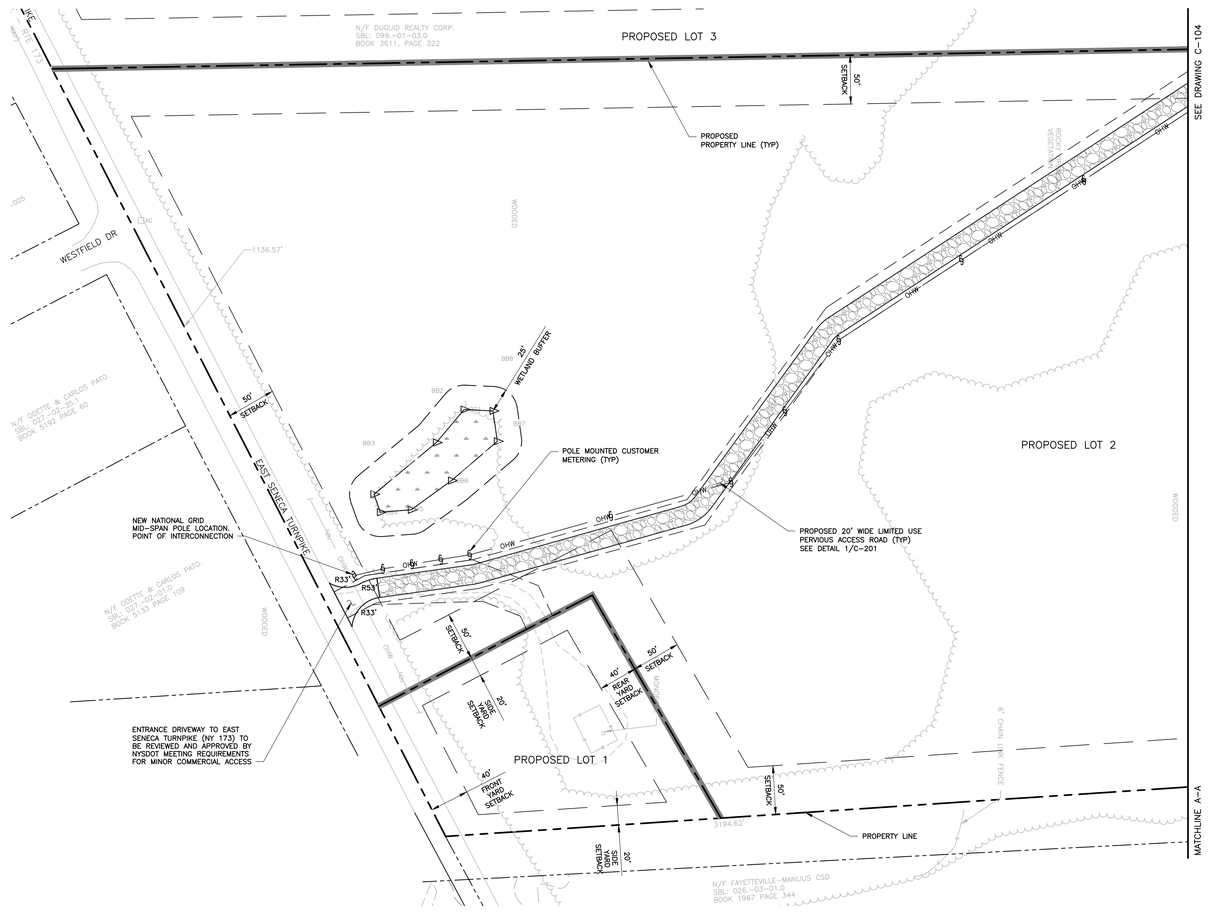
OVERALL PLAN

CVE MANLIUS
8119 E SENECA TURNPIKE
TOWN OF MANLIUS/VILLAGE OF MANLIUS
COUNTY OF ONONDAGA, NEW YORK

Date	Work Order	Drawing No.	Rev
4/23/2021	10519.04	C-102	8
Scale 1" = 150'			



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PARTIAL SITE PLAN – PROPOSED LOTS 1 & 2

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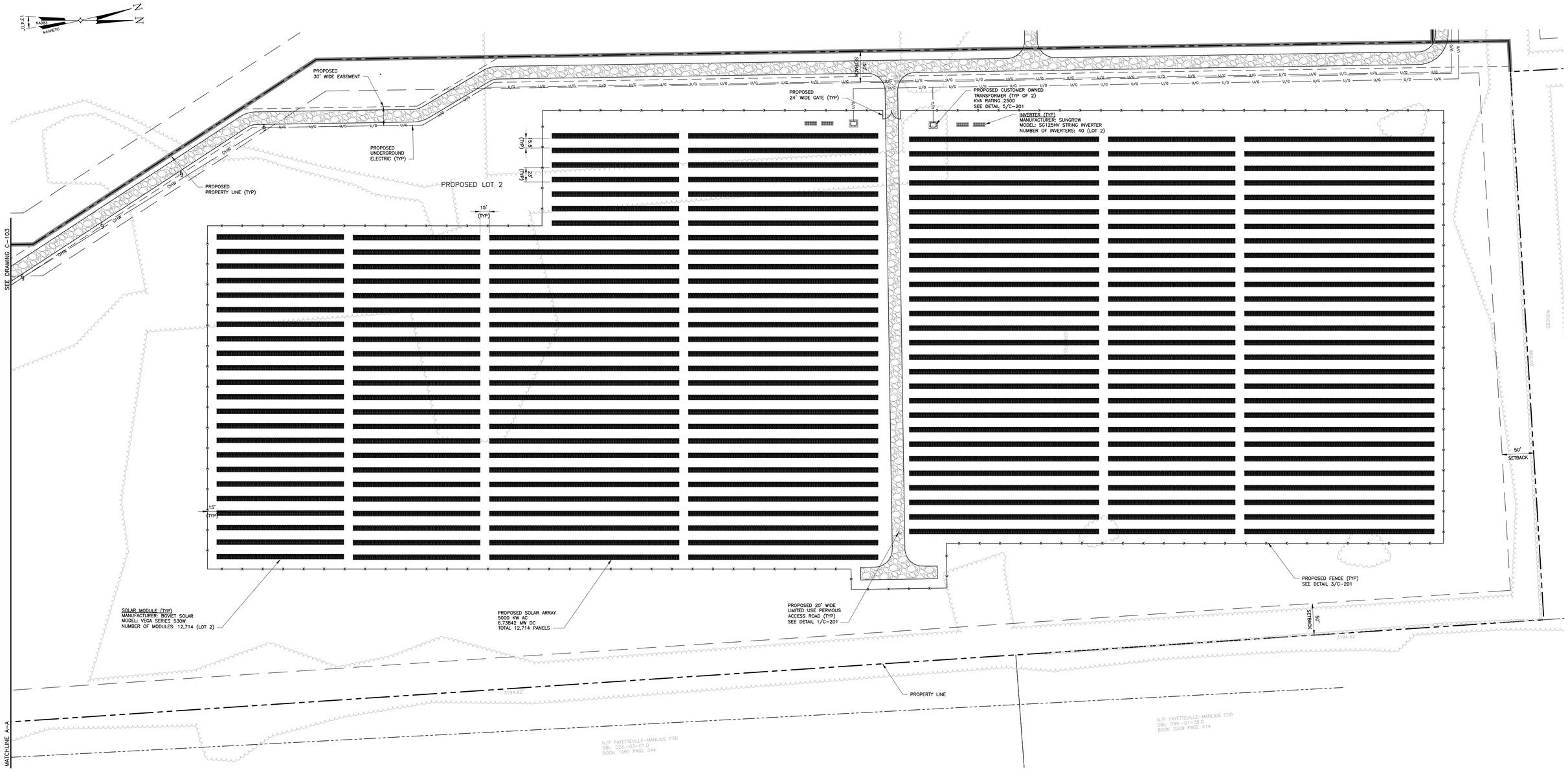
TOWN OF MANLIUS/VILLAGE OF MANLIUS
COUNTY OF ONONDAGA, NEW YORK

Date	Work Order	Drawing No.	Rev
4/23/2021	10519.04	C-103	8

Scale 1" = 60'



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PARTIAL SITE PLAN – PROPOSED LOT 2

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TOWN OF MANLIUS/VILLAGE OF MANLIUS
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4/23/2021	10519.04	C-104	8

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PARTIAL SITE PLAN – PROPOSED LOT 3

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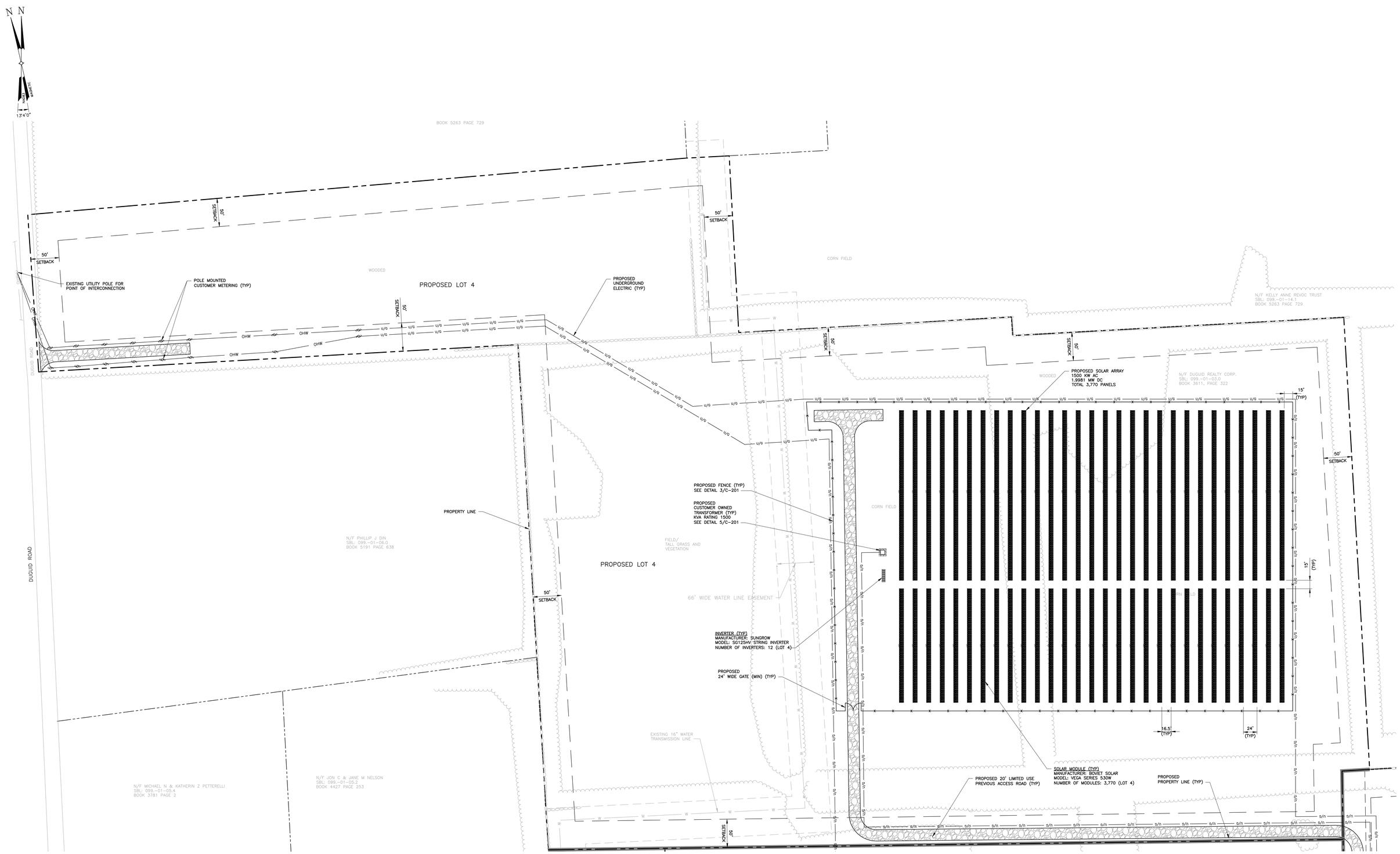
4/23/2021	10519.04	C-105	8
Scale 1" = 60'			



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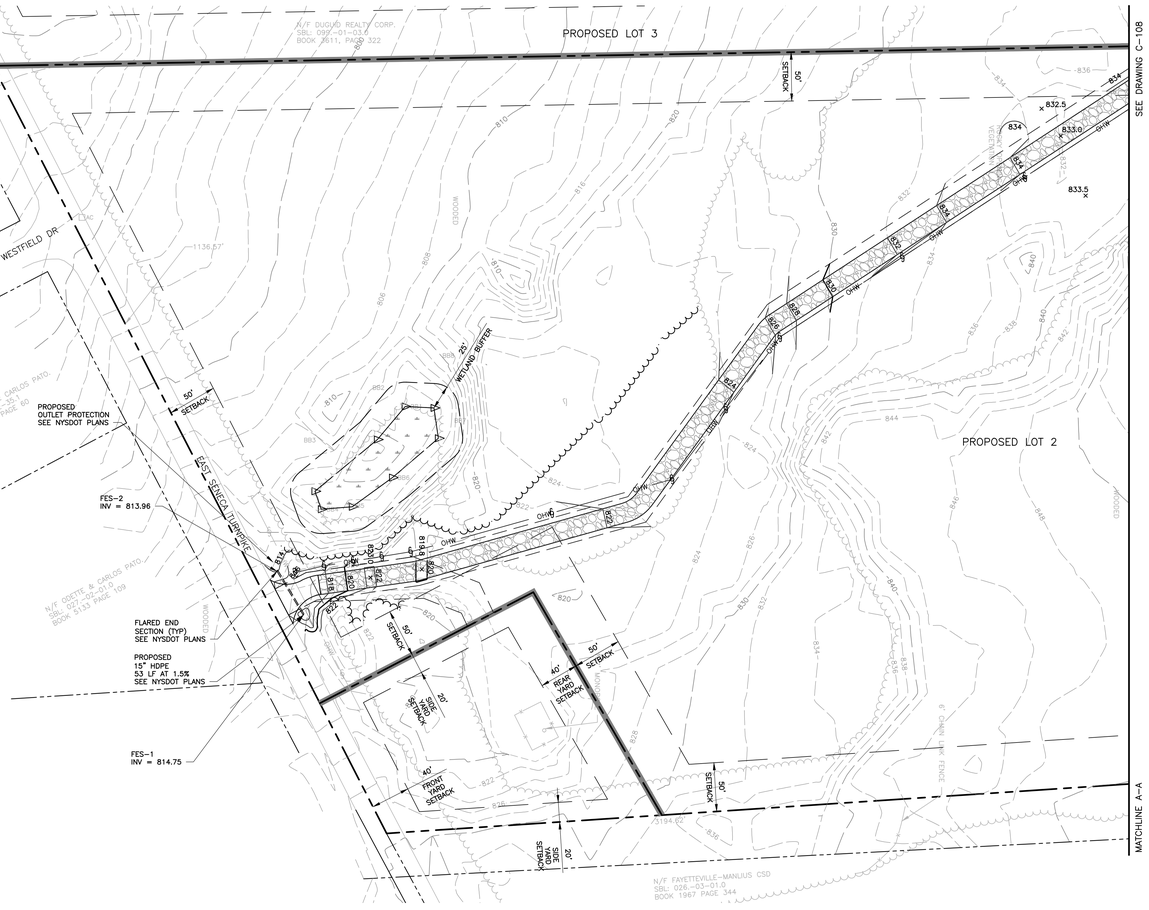
MARK A. LUKSON
082580
LICENSED PROFESSIONAL ENGINEER

PARTIAL SITE PLAN – PROPOSED LOT 4

CVE MANLIUS
8119 E SENECA TURNPIKE
TOWN OF MANLIUS/VILLAGE OF MANLIUS
COUNTY OF ONONDAGA, NEW YORK

Date	Work Order	Drawing No.	Rev
4/23/2021	10519.04	C-106	8
Scale 1" = 60'			



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ORIGINAL SIZE IN INCHES

NYSERDA REFERENCE:

CVE US EI4 MANLIUS NORTH, LLC
CVE US EI5 MANLIUS EAST, LLC
CVE US EI6 MANLIUS WEST, LLC
8107, 8109, & 8105 EAST SENECA TURNPIKE

Rev	Date	Revision	Approved
3	2/23/22	REVISED PER CVE COMMENTS	
4	3/9/22	REVISED PER OCWA COMMENTS	
5	5/27/22	REVISED PER MS4 REVIEW COMMENTS	
6	6/13/22	REVISED FOR NYSERDA SUBMISSION	
7	6/16/22	REVISED PER NYSERDA SUBMISSION	
8	9/9/22	REVISED PER CVE	MAL

DRAWING CONTROL

Designed by: LAP/RCC | Drawn by: ECM | Checked by: MAL

Purpose	Released by	Date
○ For Comment		
● For Approval	MAL	9/9/22
○ For Bid		
○ For Construction		

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STATE OF NEW YORK · SARA A. LUKASH · 082580 · LICENSED PROFESSIONAL ENGINEER

GRADING AND DRAINAGE PARTIAL PLAN

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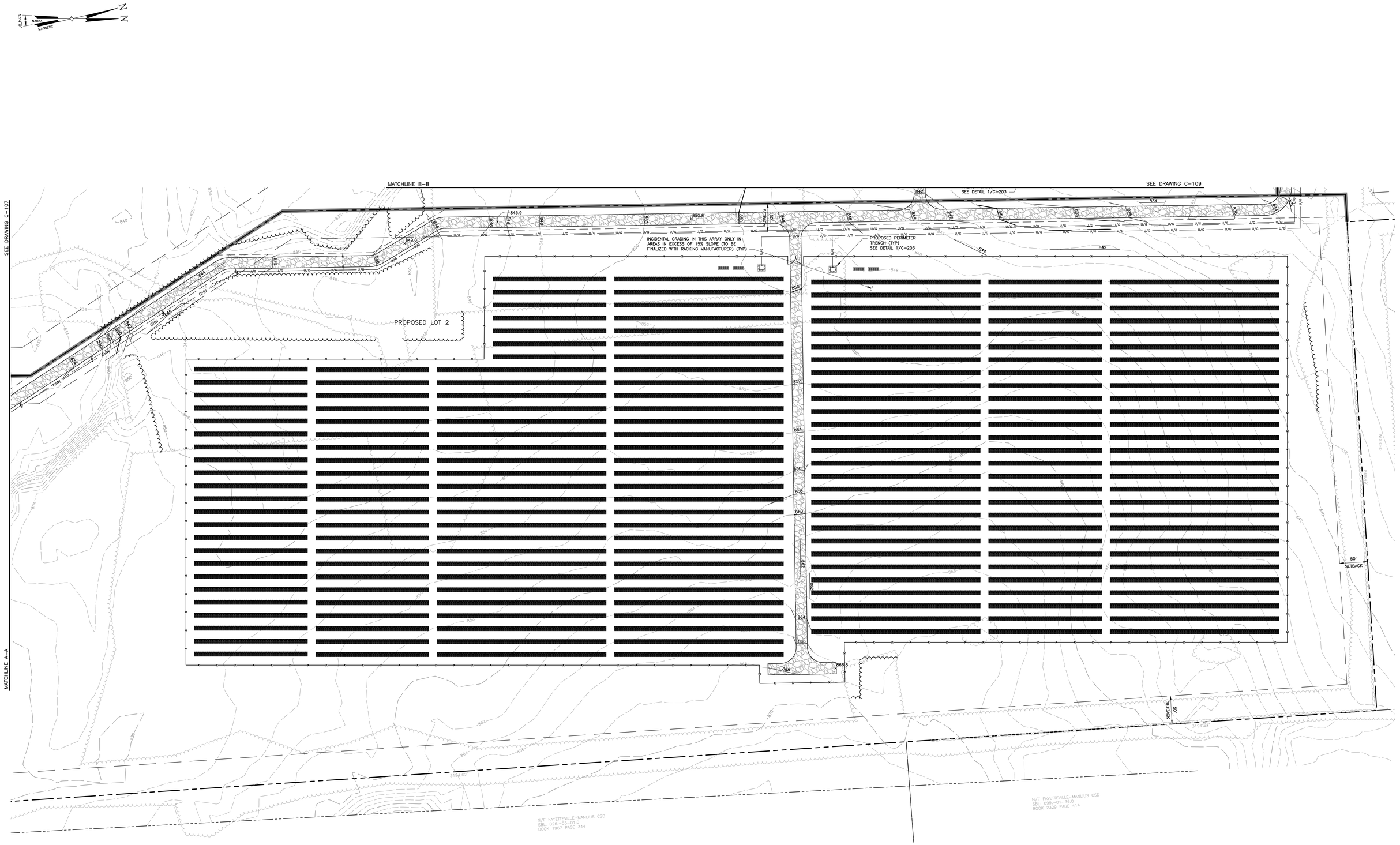

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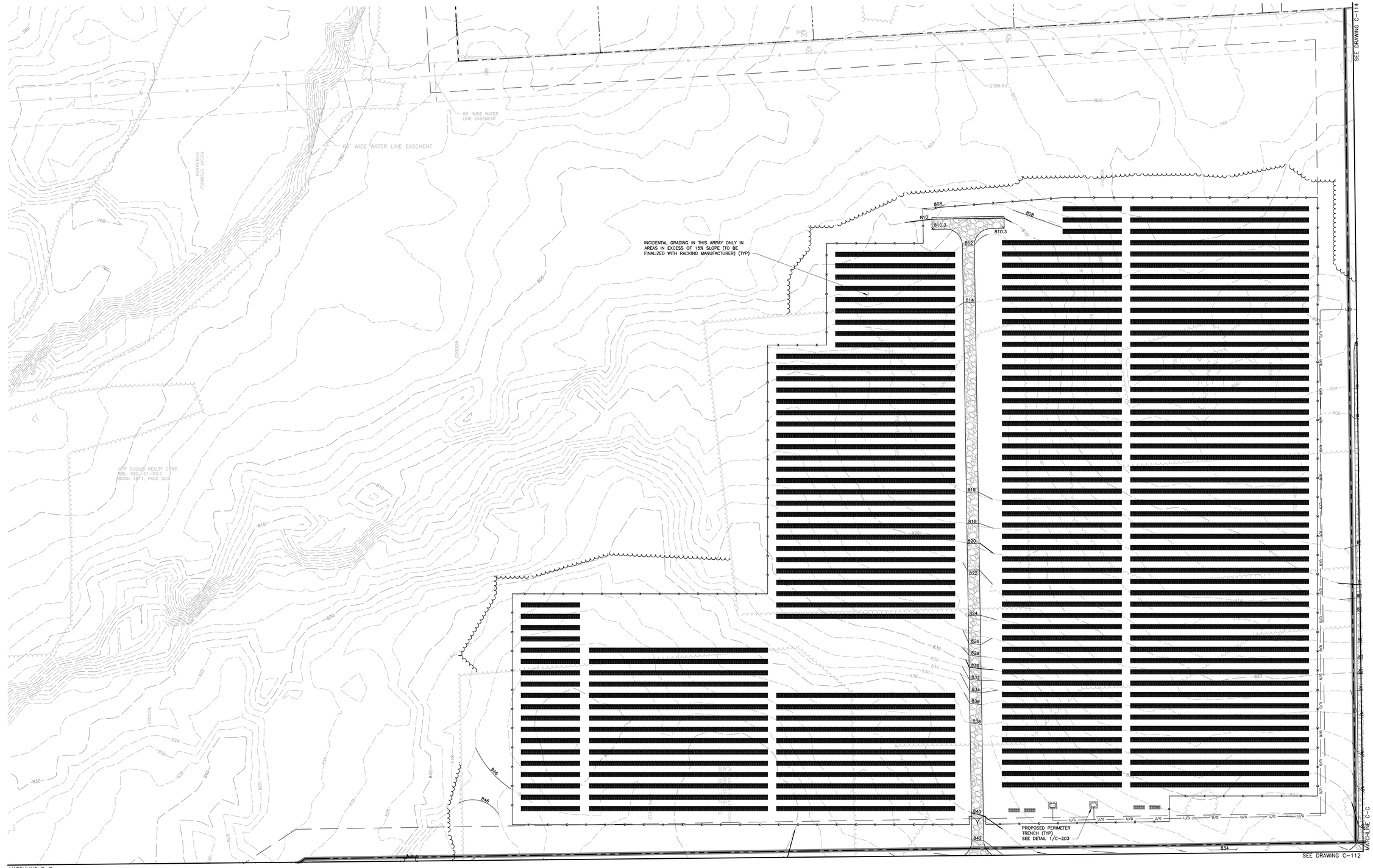

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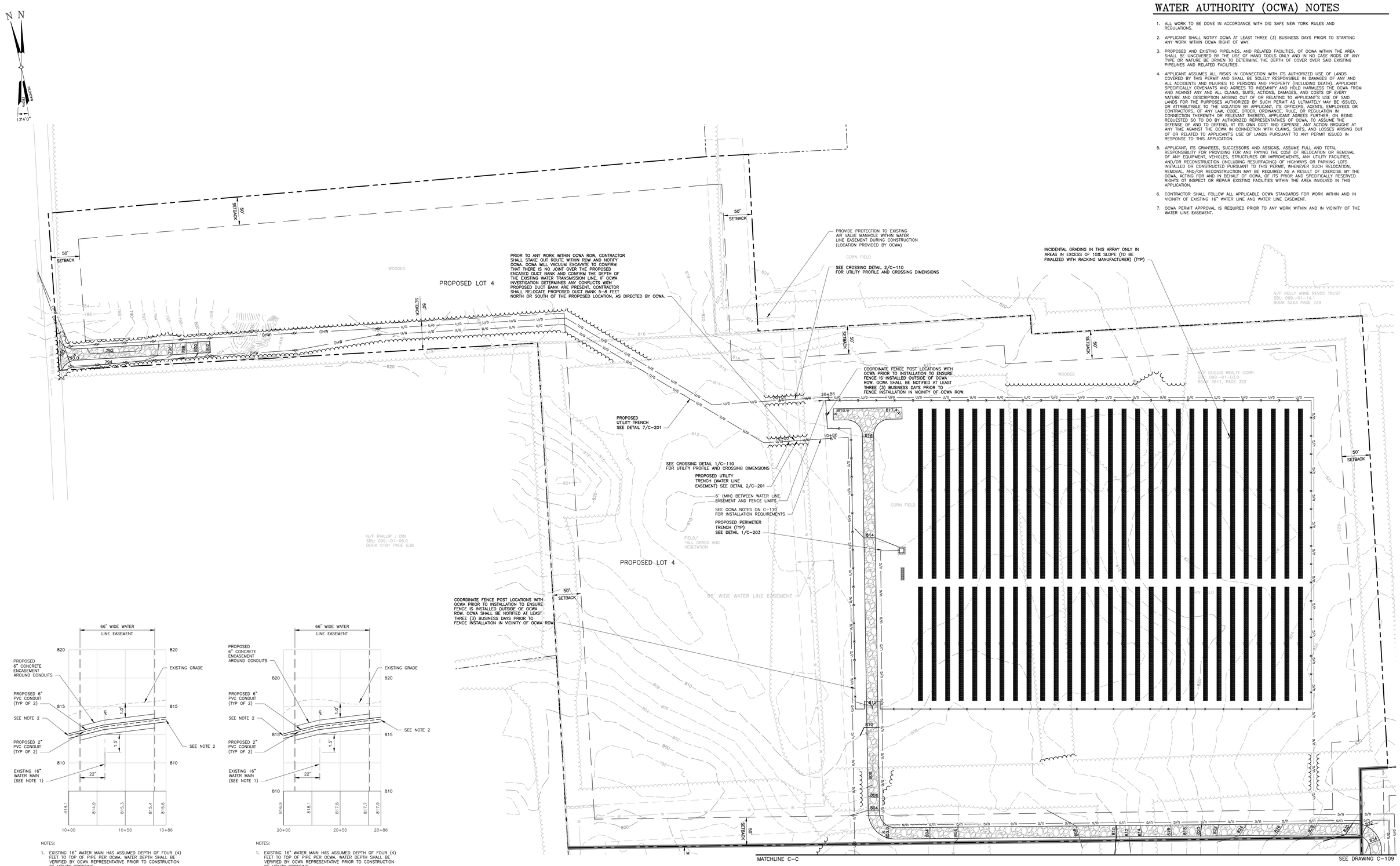
ONONDAGA COUNTY WATER AUTHORITY (OCWA) NOTES

1. ALL WORK TO BE DONE IN ACCORDANCE WITH DIG SAFE NEW YORK RULES AND REGULATIONS.
2. APPLICANT SHALL NOTIFY OCWA AT LEAST THREE (3) BUSINESS DAYS PRIOR TO STARTING ANY WORK WITHIN OCWA RIGHT OF WAY.
3. PROPOSED AND EXISTING PIPELINES, AND RELATED FACILITIES, OF OCWA WITHIN THE AREA SHALL BE UNCOVERED BY THE USE OF HAND TOOLS ONLY AND IN NO CASE RODS OF ANY TYPE OR NATURE BE DRIVEN TO DETERMINE THE DEPTH OF COVER OVER SAID EXISTING PIPELINES AND RELATED FACILITIES.
4. APPLICANT ASSUMES ALL RISKS IN CONNECTION WITH ITS AUTHORIZED USE OF LANDS COVERED BY THIS PERMIT AND SHALL BE SOLELY RESPONSIBLE IN DAMAGES OF ANY AND ALL ACCIDENTS AND INJURIES TO PERSONS AND PROPERTY (INCLUDING DEATH). APPLICANT SPECIFICALLY COVENANTS AND AGREES TO INDEMNIFY AND HOLD HARMLESS THE OCWA FROM AND AGAINST ANY AND ALL CLAIMS, SUITS, ACTIONS, DAMAGES, AND COSTS OF EVERY NATURE AND DESCRIPTION ARISING OUT OF OR RELATING TO APPLICANT'S USE OF SAID LANDS FOR THE PURPOSES AUTHORIZED BY SUCH PERMIT AS ULTIMATELY MAY BE ISSUED, OR ATTRIBUTABLE TO THE VIOLATION BY APPLICANT, ITS OFFICERS, AGENTS, EMPLOYEES OR CONTRACTORS, OF ANY LAW, CODE, ORDER, ORDINANCE, RULE, OR REGULATION IN CONNECTION THEREWITH OR RELEVANT THERETO, APPLICANT AGREES FURTHER, ON BEING REQUESTED SO TO DO BY AUTHORIZED REPRESENTATIVES OF OCWA, TO ASSUME THE DEFENSE OF AND TO DEFEND, AT ITS OWN COST AND EXPENSE, ANY ACTION BROUGHT AT ANY TIME AGAINST THE OCWA IN CONNECTION WITH CLAIMS, SUITS, AND LOSSES ARISING OUT OF OR RELATED TO APPLICANT'S USE OF LANDS PURSUANT TO ANY PERMIT ISSUED IN RESPONSE TO THIS APPLICATION.
5. APPLICANT, ITS GRANTEES, SUCCESSORS AND ASSIGNS, ASSUME FULL AND TOTAL RESPONSIBILITY FOR PROVIDING FOR AND PAYING THE COST OF RELOCATION OR REMOVAL OF ANY EQUIPMENT, VEHICLES, STRUCTURES OR IMPROVEMENTS, ANY UTILITY FACILITIES, AND/OR RECONSTRUCTION (INCLUDING RESURFACING) OF HIGHWAYS OR PARKING LOTS INSTALLED OR CONSTRUCTED PURSUANT TO THIS PERMIT, WHENEVER SUCH RELOCATION, REMOVAL AND/OR RECONSTRUCTION MAY BE REQUIRED AS A RESULT OF EXERCISE BY THE OCWA, ACTING FOR AND IN BEHALF OF OCWA, OF ITS PRIOR AND SPECIFICALLY RESERVED RIGHTS OT INSPECT OR REPAIR EXISTING FACILITIES WITHIN THE AREA INVOLVED IN THIS APPLICATION.
6. CONTRACTOR SHALL FOLLOW ALL APPLICABLE OCWA STANDARDS FOR WORK WITHIN AND IN VICINITY OF EXISTING 16" WATER LINE AND WATER LINE EASEMENT.
7. OCWA PERMIT APPROVAL IS REQUIRED PRIOR TO ANY WORK WITHIN AND IN VICINITY OF THE WATER LINE EASEMENT.



NOTES:

1. EXISTING 16" WATER MAIN HAS ASSUMED DEPTH OF FOUR (4) FEET TO TOP OF PIPE PER OCWA. WATER DEPTH SHALL BE VERIFIED BY OCWA REPRESENTATIVE PRIOR TO CONSTRUCTION OF UTILITY CROSSING.
2. PULL BOXES (AS REQUIRED) WILL BE INSTALLED OUTSIDE LIMITS OF WATER LINE EASEMENT.
3. OCWA REPRESENTATIVE IS TO BE ON SITE DURING PROPOSED CROSSING. OCWA SHALL BE NOTIFIED AT LEAST 3 BUSINESS DAYS IN ADVANCE FOR SCHEDULING. CONTACT OCWA ENGINEERING AT 315-455-7061 EXT. 3104.

1 / C-110 CROSSING DETAIL 1

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'

NOTES:

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2 / C-110 CROSSING DETAIL 2

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'

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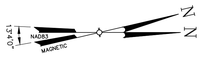

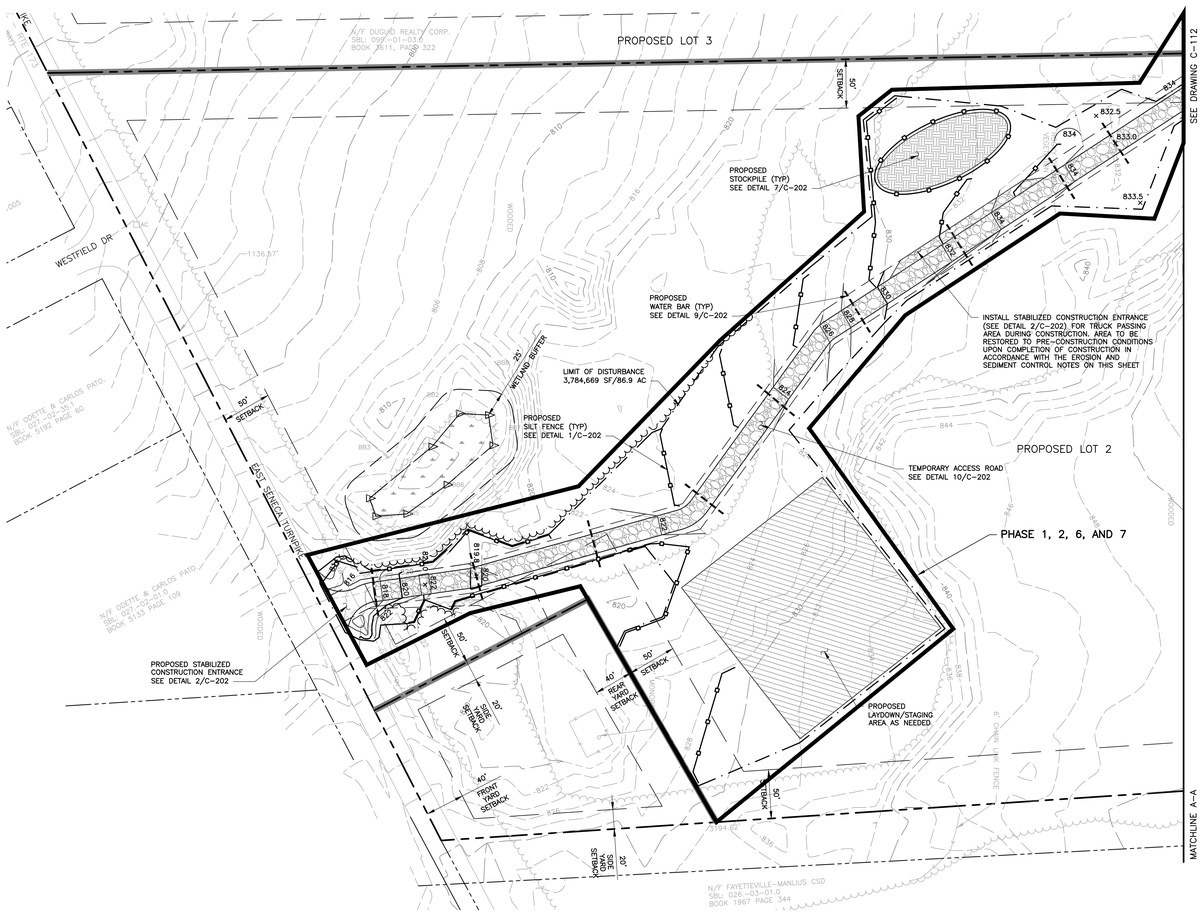

EROSION CONTROL LEGEND

- WATER BAR
- SILT FENCE
- PHASING LIMITS

PROJECT PHASING SEQUENCING

CONSTRUCTION PHASING		PHASE CONSTRUCTION SEQUENCE
PHASE NO.	SUBPHASE	
1*	-	INSTALL PERIMETER CONTROLS AROUND ACCESS ROAD. MAINTAIN UNTIL CONSTRUCTION IS COMPLETE AND FINAL STABILIZATION IS ACHIEVED.
2*	-	CONSTRUCT TEMPORARY ACCESS ROAD WITH WATER BARS WITH PROPOSED GRADES OVER DESIGNATED FINAL ACCESS ROAD. STONE REQUIRED FOR PERMANENT ACCESS ROAD MAY BE USED FOR THE TEMPORARY ROAD. HOWEVER, THIS STONE MAY REQUIRE REPLACEMENT PRIOR TO FINAL INSTALLATION OF GRASS ON PERMANENT ACCESS ROAD IF LOADED WITH SEDIMENT DUE TO CONSTRUCTION OPERATIONS.
3*	A	INSTALL PERIMETER CONTROLS AND CONCRETE WASHOUT IN PROPOSED ARRAY AREA IN LOT 2.
	B**	PERFORM TREE CLEARING OPERATIONS WITHIN LOT 2.
	C	CONSTRUCT SOLAR ARRAY WITHIN LOT 2.
	D***	CONSTRUCT FENCING, GATES, AND CONCRETE PADS IN LOT 2.
	E	APPLY HAY AND SEED IN ACCORDANCE WITH EROSION AND SEDIMENT CONTROL NOTES ON SHEET 2.
	F	REMOVE EROSION AND SEDIMENT CONTROLS WITHIN LOT 2 WHEN FINAL STABILIZATION IS ACHIEVED.
4*	-	REPEAT STEPS 3A-3F FOR ARRAYS ON LOT 3.
5*	-	REPEAT STEPS 3A-3F FOR ARRAYS ON LOT 4.
6*	-	INSTALL THE ELECTRICAL CONNECTIONS TO THE PROPERTY FROM EAST SENECA TURNPIKE AND DUGUID ROAD. INSTALL ALL OVERHEAD WIRES AND UNDERGROUND ELECTRIC AS SHOWN ON THE PLANS. INSTALL REMAINING FENCING.
7*	-	CONVERT THE TEMPORARY ACCESS ROAD TO THE PERMANENT ACCESS ROAD. REMOVE WATER BARS. REPLACE ALL STONE FOULED WITH SEDIMENT ON THE ACCESS ROAD AND INSTALL THE PERMANENT ACCESS ROAD IN ACCORDANCE WITH THE SPECIFIED DETAIL.
8*	-	REMOVE ALL EROSION AND SEDIMENT CONTROLS WHEN CONSTRUCTION IS COMPLETE AND SITE HAS REACHED FINAL STABILIZATION.
*AT NO POINT DURING CONSTRUCTION, SHALL THE LIMIT OF DISTURBANCE EXCEED 5 ACRES.		
**TREE CLEARING OPERATIONS MAY BEGIN ON ALL LOTS DURING PHASE 2. DURING THIS PHASE TREE CLEARING SHALL NOT INCLUDE STUMP REMOVAL.		
***MAINTAIN OPENING IN FENCE AT LOCATIONS OF UNDERGROUND ELECTRIC WIRING IN PHASE 3D.		

EROSION AND SEDIMENTATION CONTROL NOTES

1. SITE DISTURBANCE SHALL BE LIMITED TO THE MINIMUM NECESSARY GRADING AND VEGETATION REMOVAL REQUIRED FOR CONSTRUCTION.
2. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL FOLLOWING DISTURBANCE TO STABILIZE BARE SOIL AND PROMOTE THE PROMPT-ESTABLISHMENT OF VEGETATION:
   A. AN ADEQUATE SEEDBED SHALL BE PREPARED BY SCARIFYING COMPACTED SOIL AND REMOVING SURFACE DEBRIS AND OBSTACLES.
   B. LIME SHALL BE APPLIED SUFFICIENTLY TO ATTAIN A SOIL ACIDITY Ph OF 6.0 TO 7.0.
   C. FERTILIZER (20-0-4 MIXTURE OR EQUIVALENT) SHALL BE APPLIED PER SOIL TEST RESULTS OR AT A RATE OF 160 LBS. PER ACRE.
   D. DISTURBED AREAS WHICH WILL REMAIN TEMPORARILY FALLOW FOR PERIODS GREATER THAN 14 DAYS SHALL BE SEEDED AT THE FOLLOWING RATE TO PRODUCE TEMPORARY GROUND COVER:
      30 LBS. RYEGRASS (ANNUAL) PER ACRE. DURING THE WINTER, USE 100 LBS. CERTIFIED "AROOSTOOK" WINTER RYE CEREAL RYE) PER ACRE.
   E. ALL SEEDING SHALL BE PERFORMED USING THE BROADCAST METHOD OR HYDROSEEDING, UNLESS OTHERWISE APPROVED.
   F. ALL DISTURBED AREAS SHALL BE STABILIZED SUBSEQUENT TO SEEDING BY APPLYING 2 TONS OF STRAW MULCH PER ACRE. STRAW MULCH SHALL BE ANCHORED BY APPLYING 750 LBS OF WOOD FIBER MULCH PER ACRE WITH A HYDROSEEDER, OR TUCKING THE MULCH WITH SMOOTH DISCS OR OTHER MULCH ANCHORING TOOLS TO A DEPTH OF 3". MULCH ANCHORING TOOLS SHALL BE PULLED ACROSS SLOPES ALONG TOPOGRAPHIC CONTOURS.
3. TEMPORARY CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED AND GROUND COVER IS COMPLETELY REESTABLISHED. FOLLOWING STABILIZATION, TEMPORARY MEASURES SHALL BE REMOVED TO AVOID INTERFERENCE WITH DRAINAGE.
4. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN SUFFICIENT QUANTITIES.
5. MULCH NETTING SUCH AS PAPER, JUTE, EXCELSIOR, COTTON OR PLASTIC MAY BE USED. STAPLE IN PLACE OVER HAY OR STRAW MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
6. PAVING, GRINDING, SAW CUTTING AND REMOVAL OPERATIONS:
   A. AVOID PAVING WHEN RAIN IS IN THE FORECAST.
   B. STORE MATERIALS AWAY FROM STORM DRAINS AND DRAINAGE COURSES TO PREVENT STORM WATER RUN-ON.
   C. PROTECT DRAINAGE COURSES, PARTICULARLY IN AREAS WITH A GRADE, BY EMPLOYING BEST MANAGEMENT PRACTICES TO DIVERT RUNOFF OR TO TRAP AND FILTER SEDIMENT.
   D. DISPOSAL OF PCC AND AC WASTE USING TEMPORARY CONCRETE WASHOUT SYSTEMS AND DUMP TRUCKS ONLY. NO STOCKPILING ON SITE PERMITTED.
   E. SWEEP AND COLLECT ALL GRINDING RESIDUE, BROKEN ASPHALT, CONCRETE AND DEBRIS FROM REMOVAL OPERATIONS.
   F. DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO A STORM DRAIN SYSTEM. COLLECT AND DISPOSE OF PROPERLY.
   G. SHOVEL OR VACUUM SAW CUT SLURRY AND REMOVE FROM SITE.
   H. PLACE DRIP PANS OR ABSORBENT MATERIAL UNDER PAVING EQUIPMENT WHEN NOT IN USE. CLEAN UP ALL SPILLS WITH ABSORBENT MATERIALS.
   I. DO NOT WASH OUT CONCRETE TRUCKS ANYWHERE ON SITE, EXCEPT A DESIGNATED CONCRETE WASHOUT AREA OR APPROVED PORTABLE WASHOUT SYSTEM.
   J. EXCESS CONCRETE SHALL NOT BE DUMPED ON SITE, EXCEPT IN A DESIGNATED CONCRETE WASHOUT AREA OR APPROVED PORTABLE WASHOUT SYSTEM.

EROSION CONTROL MAINTENANCE SCHEDULE

EROSION CONTROL MAINTENANCE SCHEDULE			
MEASURE	INSPECTION FREQUENCY	PROBLEMS TO LOOK FOR	POTENTIAL REMEDIES
AS SHOWN ON PLANS			
SILT FENCE	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	DAMAGED FABRIC	REPLACE DAMAGED FABRIC
		DAMAGED POSTS	REPLACE DAMAGED POSTS
		DAMAGE OF WIRE FOR REINFORCED SILT FENCE AND CHAIN LINK FENCE FOR SUPER SILT FENCE	REINSTALL ENTIRE WIRE BACKED SILT FENCE FOR REINFORCED SILT FENCE AND REINSTALL CHAIN LINK FENCE FOR SUPER SILT FENCE
		DAMAGED FASTENING OF SILT FENCE FABRIC TO POSTS	REFASTEN SILT FENCE FABRIC TO POSTS
		BULGES DEVELOPING IN SILT FENCE	REMOVE SEDIMENT AND REINSTALL SECTION OF SILT FENCE
		SILT FENCE SEDIMENT ACCUMULATION HAS REACHED 50% ITS CAPACITY	REMOVE SEDIMENT AND REINSTALL. REPLACE SILT FENCE IF DAMAGED
STRAW BALE DIKE	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	STRAW BALE DIKE SEDIMENT ACCUMULATION HAS REACHED 50% ITS CAPACITY	REMOVE SEDIMENT AND REINSTALL. REPLACE HAY BALE IF EXCEESIVE DAMAGE OBSERVED
		DISCHARGE IS SEDIMENT-LADEN	REINSTALL STRAW BALE DIKE
		DAMAGE TO ANCHORING SYSTEM	REINSTALL REBAR ANCHORS
STONE CHECK DAM	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT		DECREASE SPACING AND INCREASE FREQUENCY OF CHECK DAMS, OR LINE CHANNEL WITH RIPRAP MATERIAL BETWEEN CHECK DAMS
		RUTTING OBSERVED IN CHANNEL BETWEEN CHECK DAMS	
		DAMAGE TO STRUCTURAL INTEGRITY OF MATERIAL USED FOR CHECK DAM	REINSTALL CHECK DAM MATERIAL. REPLACE DAMAGED SECTIONS
		CHECK DAM OVERLOADED WITH SEDIMENT	REPLACE CHECK DAM MATERIAL AND REINSTALL
		LOW POINT OF TOP OF CHECK DAM IS NOT AT CENTER OF CHANNEL	REINSTALL CHECK DAM MATERIAL TO MAKE CENTER OF CHANNEL LOWEST POINT
		DAMAGE TO CHECK DAM CAUSES OBSTRUCTION TO CULVERT OR OTHER DRAINAGE STRUCTURE	REINSTALL CHECK DAM IN ACCEPTABLE LOCATION AND CLEAR OBSTRUCTION OF DOWNSTREAM INLET
STABILIZED CONSTRUCTION ACCESS	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	TRACKING OF SEDIMENT OBSERVED ON PAVEMENT	INCREASE THICKNESS OF AGGREGATE MATERIAL. REMOVE SEDIMENT LOADED AGGREGATE AND REINSTALL NEW AGGREGATE. EXTEND LENGTH OF AGGREGATE MATERIAL AND INSTALL TIRE WASHING STATIONS NEAR ENTRANCE. PROVIDE WATER BAR UPSTREAM OF ENTRANCE AND DIRECT TO A SEDIMENT TRAPPING STRUCTURE
		DAMAGE TO FILTER CLOTH	REPLACE FILTER CLOTH
		DAMAGE TO FILTER CLOTH	REPLACE FILTER CLOTH
CONCRETE TRUCK WASHOUT	DAILY	RAINWATER FILLS WASHOUT PIT	DISCHARGE TO GRASS IF NO MIXING WITH CONCRETE OCCURS. TREAT AS CONCRETE IF MIXING OCCURS AND DISPOSE OF PROPERLY
		OVERLOADING OF WASHOUT PIT WITH CONCRETE	DISPOSE OF CONCRETE PROPERLY
		CONCRETE DISCARDED OUTSIDE OF WASHOUT PIT	PLACE CONCRETE AND ASSOCIATED SOIL IN WASHOUT PIT
STORM DRAIN INLET PROTECTION	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	DAMAGE TO MATERIAL USED FOR INLET PROTECTION	REPLACE MATERIAL USED FOR INLET PROTECTION
		INLET PROTECTION OVERLOADED WITH SEDIMENT	REMOVE SEDIMENT AND REPLACE MATERIAL IF NO LONGER FUNCTIONAL
		INLET ISNT AT LOWEST POINT AND CAUSES PONDING	REGRADE SURROUNDING AREA OR RESET GRATE ELEVATION
COMPOST FILTER SOCK	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	ACCUMULATED SEDIMENT REACHES HALF THE HEIGHT OF THE SOCK	REMOVE SEDIMENT AND REPLACE MATERIAL IF NO LONGER FUNCTIONAL
		DAMAGED WOODEN STAKES	REPLACE WOODEN STAKES
		DAMAGED FILTER MATERIAL	REPLACE COMPOST FILTER SOCK
POTENTIAL USE ONSITE			
DEWATERING SUMP PIT	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	DAMAGED HOSE, PUMP, STANDPIPE, & FILTER (IF WARRANTED)	REPLACE COMPONENT OR REPAIR (EQUIPMENT ONLY)
FLOW DIFFUSER	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	ACCUMULATED SEDIMENT IN AGGREGATE	REPLACE MATERIAL IN AGGREGATE
LINED ROCK WATERWAY	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	VEGETATIVE ROOT UPLIFTING DAMAGES WATERWAY	REMOVE PLANTS AND ROOT STRUCTURE WITHIN LIMITS OF WATERWAY. REPAIR WATERWAY
WATER BAR	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	RUTTING OBSERVED AT BOTTOM OF WATER BAR	REGRADE WATER BAR ELEVATIONS
		VEHICULAR DAMAGE TO WATER BAR	REGRADE WATER BAR ELEVATIONS & ENSURE POSITIVE DRAINAGE
		ACCUMULATED SEDIMENT IN AGGREGATE (OUTLET AND CHANNEL)	REMOVE SEDIMENT AND REPLACE AGGREGATE
ANCHORED STABILIZATION MATTING	EVERY OTHER DAY AND AFTER RUNOFF EVENT	DAMAGED OR DISPLACED BLANKETS	REPAIR & REINSTALL BLANKETS. REPLACE IF DAMAGED
DEWATERING DEVICE	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	DAMAGED FILTER FABRIC	REPLACE FILTER FABRIC
		MALFUNCTIONING SKIMMER	REPAIR SKIMMER. REPLACE IF CANNOT BE REPAIRED
		SEDIMENT REACHES LEVEL MARKED ON SEDIMENT CLEANOUT STAKE	REMOVE SEDIMENT
GEOTEXTILE FILTER BAG	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	REDUCTION OF BAG FLOW AREA REDUCES 75% FROM INITIAL CAPACITY	REPLACE BAG
		DAMAGED BAG	REPLACE BAG
*WINTER STABILIZATION MEASURES SHALL BE APPLIED BETWEEN DATES OF 11/15 TO 4/1.			

CONSERVATION SEED MIX TABLE

PERMANENT VEGETATIVE MIXTURES, PLANTING RATES AND PLANTING DATES						
NUMBER	SEED MIXTURE	PLANTING RATE		PLANTING DATES O = OPTIMAL PLANING PERIOD A = ACCEPTABLE PLANTING PERIOD			REMARKS
		LBS/AC	LBS/1000 SQ. FT	3/15 - 4/30	5/1 - 8/14	8/15 - 11/15	
186*	SHEEP FESCUE 'WHISPER '	79	1.8	0	A	A	BALANCE OF SITE DISTURBANCE
	CREEPING RED FESCUE	79	1.8	0	A	A	
	HARD FESCUE 'HERON'	40	0.9	0	A	0	
	ANNUAL RYEGRASS	27	0.6	0	A	0	
	HARD FESCUE 'AHF116'	20	0.45	0	A	0	
	HARD FESCUE 'MATTERHORN'	20	0.45	0	A	0	

* SOLAR FARM SEED MIX, ERNST CONSERVATION SEEDS (800) 873-3321

PHASE 8 APPLIES TO ENTIRE SITE

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STATE OF NEW YORK MARK A. LUCE 082580 LICENSED PROFESSIONAL ENGINEER

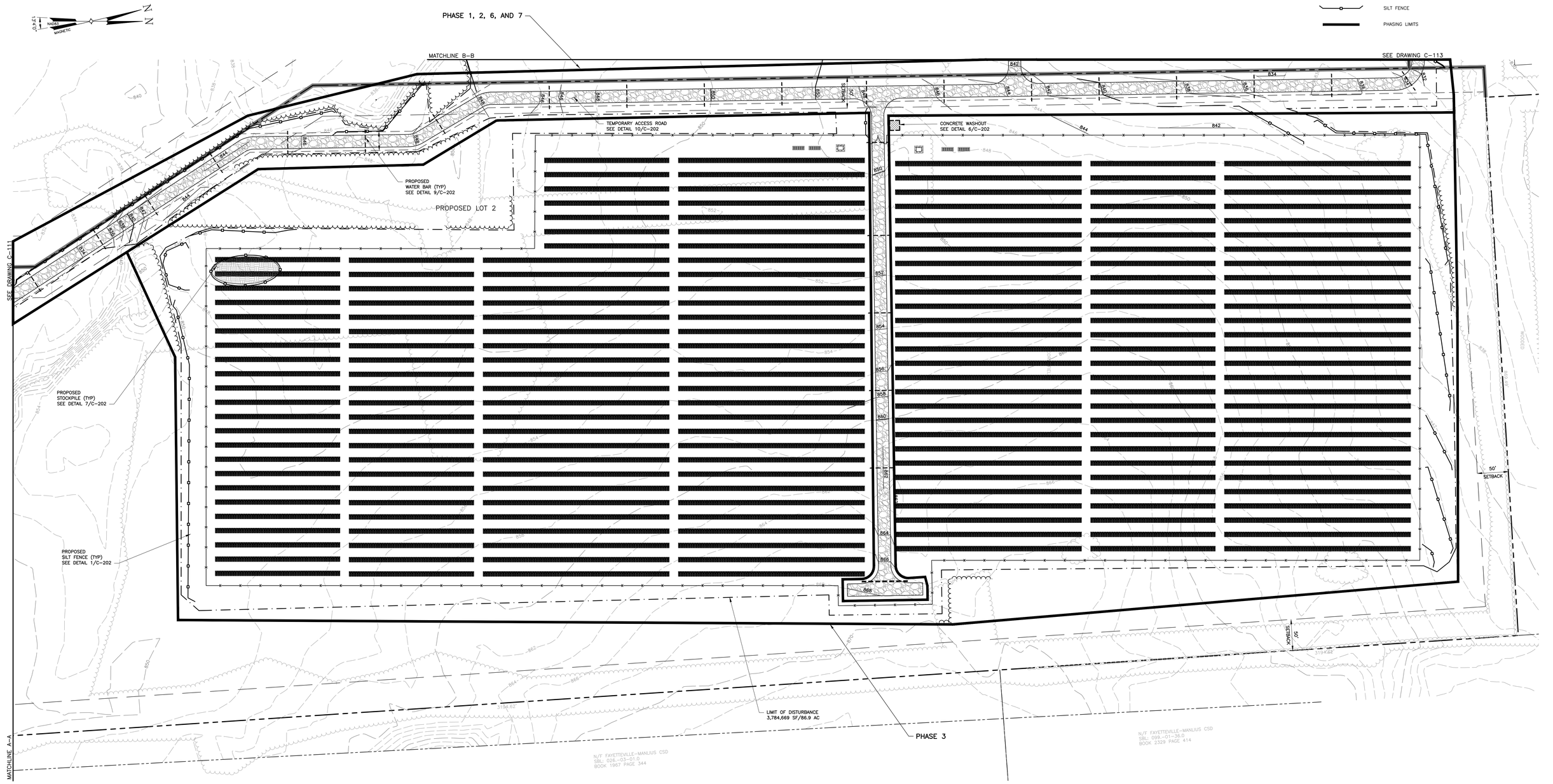
EROSION CONTROL PARTIAL PLAN

CVE MANLIUS
8119 E SENECA TURNPIKE
TOWN OF MANLIUS/VILLAGE OF MANLIUS
COUNTY OF ONONDAGA, NEW YORK

Date	Work Order	Drawing No.	Rev
4/23/2021	10519.04	C-111	8
Scale: 1" = 60'			

EROSION CONTROL LEGEND

- WATER BAR
- SILT FENCE
- PHASING LIMITS



PHASE 8 APPLIES TO ENTIRE SITE

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CONSTRUCTION PHASING		PHASE CONSTRUCTION SEQUENCE
PHASE NO.	SUBPHASE	
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2*	-	CONSTRUCT TEMPORARY ACCESS ROAD WITH WATER BARS WITH PROPOSED GRADES OVER DESIGNATED FINAL ACCESS ROAD. STONE REQUIRED FOR PERMANENT ACCESS ROAD MAY BE USED FOR THE TEMPORARY ROAD. HOWEVER, THIS STONE MAY REQUIRE REPLACEMENT PRIOR TO FINAL INSTALLATION OF GRASS ON PERMANENT ACCESS ROAD IF LOADED WITH SEDIMENT DUE TO CONSTRUCTION OPERATIONS.
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EROSION CONTROL LEGEND

- WATER BAR
- SILT FENCE
- PHASING LIMITS

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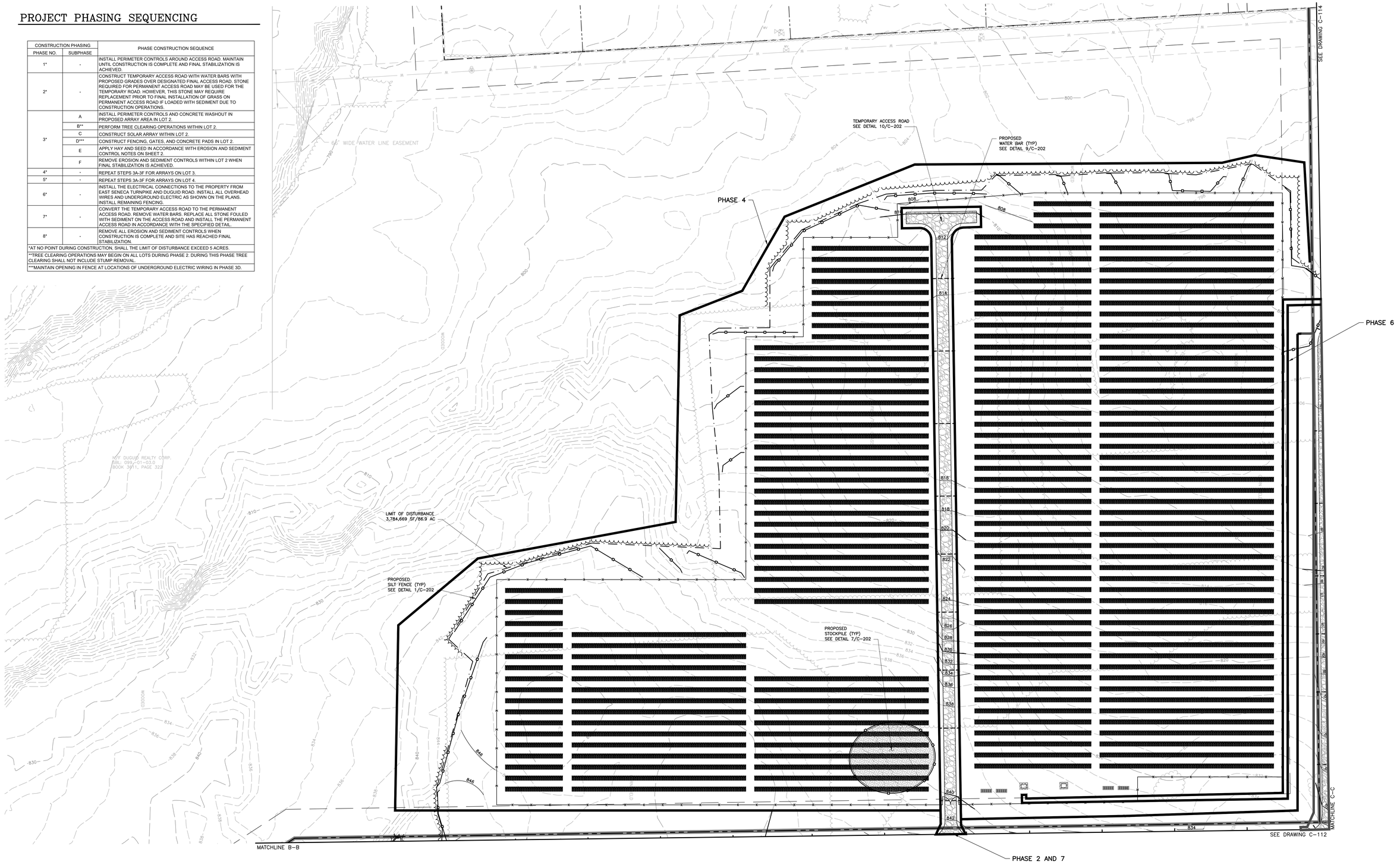

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EROSION CONTROL LEGEND

WATER BAR

SILT FENCE

PHASING LIMITS

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N N

MINOR MAJOR

1"=40'

PHASE 1, 2, 6, AND 7

PHASE 6

PROPOSED LOT 4

PROVIDE PROTECTION TO EXISTING AIR VALVE MANHOLE WITHIN WATER LINE EASEMENT DURING CONSTRUCTION (LOCATION PROVIDED BY OCWA)

CORN FIELD

PHASE 5

PHASE 6

N/F KELLY ANNE REVOC TRUST
SBL: 099.-01-14.1
BOOK 5263 PAGE 729

PROPOSED STOCKPILE (TYP) SEE DETAIL 7/C-202

WOODED

N/F DUGUID REALTY CORP.
SBL: 099.-01-03.0
BOOK 3611, PAGE 322

PROPOSED STABILIZED CONSTRUCTION ENTRANCE SEE DETAIL 2/C-202

PROVIDE 12" HOPE CULVERT DURING CONSTRUCTION AS FIELD CONDITIONS WARRANT

LIMIT OF DISTURBANCE
3,784,669 SF/86.9 AC

PROPOSED SILT FENCE (TYP) SEE DETAIL 1/C-202

5' (MIN) BETWEEN WATER LINE EASEMENT AND FENCE LIMITS

SEE OCWA NOTES ON C-110 FOR INSTALLATION REQUIREMENTS

TEMPORARY ACCESS ROAD SEE DETAIL 10/C-202

FIELD/ TALL GRASS AND VEGETATION

N/F PHILLIP J DIN
SBL: 099.-01-06.0
BOOK 5191 PAGE 638

DUGUID ROAD

PROPOSED LOT 4

80' WIDE WATER LINE EASEMENT

PROPOSED WATER BAR (TYP) SEE DETAIL 9/C-202

N/F MICHAEL N & KATHERIN Z PETTERELLI
SBL: 099.-01-05.4
BOOK 3781 PAGE 2

N/F JON C & JANE M NELSON
SBL: 099.-01-05.2
BOOK 4427 PAGE 253

MATCHLINE C-C

SEE DRAWING C-113

PHASE 1, 2, 6, AND 7

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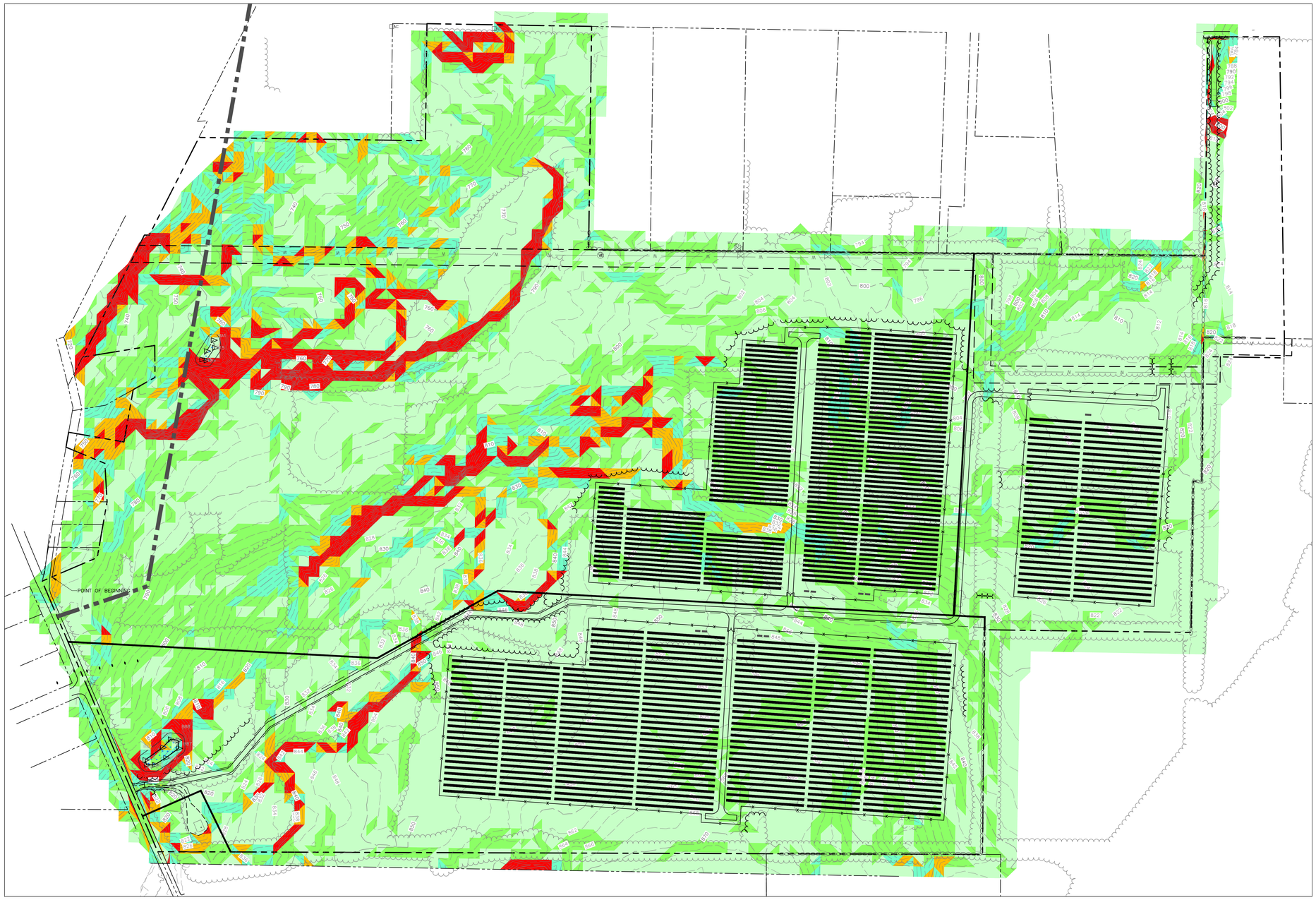
GRID MAGNETIC

1"=40'-0"



SLOPE MAPPING TABLE

SLOPES TABLE			
NUMBER	MINIMUM SLOPE	MAXIMUM SLOPE	COLOR
1	0.00%	5.00%	
2	5.00%	10.00%	
3	10.00%	15.00%	
4	15.00%	20.00%	
5	20.00%	100.00%	

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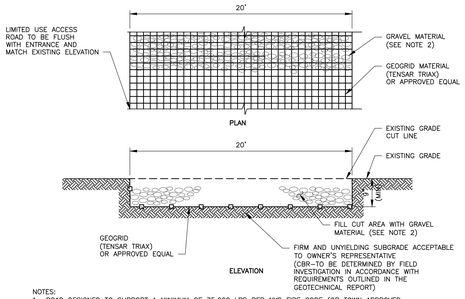
082580
LICENSED PROFESSIONAL ENGINEER

SLOPE MAP

CVE MANLIUS
8119 E SENECA TURNPIKE
TOWN OF MANLIUS/VILLAGE OF MANLIUS
COUNTY OF ONONDAGA, NEW YORK

Date	Work Order	Drawing No.	Rev
4/23/2021	10519.04	C-115	8
Scale 1" = 100'			



NOTES:

1. ROAD DESIGNED TO SUPPORT A MINIMUM OF 75,000 LBS PER NYS FIRE CODE (OR TOWN APPROVED LOADING IF GREATER THAN 75,000 LBS).
2. GRAVEL FILL MATERIAL SHALL CONSIST OF NYSDOT TYPE 2 CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT SECTION 703-02, SIZE DESIGNATION 2 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED. USE OF SIZE DESIGNATIONS OTHER THAN 3 SHALL BE APPROVED BY THE OWNER. GRAVEL FILL SHALL BE THOROUGHLY TAMPED IN PLACE IN HORIZONTAL LIFTS NOT TO EXCEED 6 INCHES LOOSE THICKNESS. COMPACTION SHOULD BE BY UNIFORM PASSES OF COMPACTION EQUIPMENT IN SUFFICIENT NUMBER, BUT NOT LESS THAN FOUR PASSES, SUCH THAT NO FURTHER CONSOLIDATION IS EVIDENT. THE GRAVEL FILL SHOULD NOT BE DUMPED INTO PLACE BUT SHOULD BE DISTRIBUTED IN HORIZONTAL LIFTS BY BLADING AND DOZING IN SUCH A MANNER AS TO ENSURE PROPER PLACEMENT INTO FINAL POSITION.
3. GEOGRID PRODUCT NUMBER TO BE SELECTED AS FOLLOWS FROM FIELD INVESTIGATION RESULTS BY CPNTRACTOR PRIOR TO INSTALLATION:

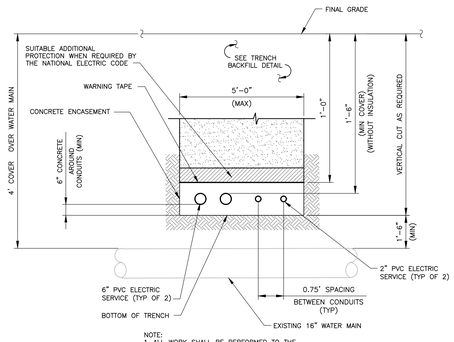
CBR	TENSAR TRIAX #	FIELD RESULTS (MAY 2022)*
1.3 < CBR <5	T160	2.4
>5%	T150S	--

* DATA PROVIDED FROM MAY 2022 GEOTECHNICAL INVESTIGATION IS PROVIDED FOR INFORMATION ONLY AND IS NOT REPRESENATIVE OF THE ENTIRE SITE. CONTRACTOR IS REQUIRED TO CONDUCT THEIR OWN CBR TESTS PRIOR TO GEOGRID INSTALLATION TO ENSURE CORRECT GEOGRID IS INSTALLED.

4. USE OF THIS DETAIL/CRITERION IS LIMITED TO ACCESS ROADS USED ON AN OCCASIONAL BASIS ONLY (I.E., PROVIDE ACCESS FOR MOWING, EQUIPMENT REPAIR OR MAINTENANCE, ETC.).
5. LIMITED USE PERVIOUS ACCESS ROAD IS LIMITED TO LOW IMPACT IRREGULAR MAINTENANCE ACCESS ASSOCIATED WITH RENEWABLE ENERGY PROJECTS IN NEW YORK STATE.
6. REMOVE STUMPS, ROCKS AND DEBRIS AS NECESSARY, FILL VOIDS TO MATCH EXISTING NATIVE SOILS AND COMPACTION LEVEL.
7. REMOVED TOPSOIL MAY BE SPREAD IN ADJACENT AREAS AS DIRECTED BY THE PROJECT ENGINEER. COMPACT TO THE DEGREE OF THE NATIVE INSITU SOIL. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
8. GRADE ROADWAY, WHERE NECESSARY, TO NATIVE SOIL AND DESIRED ELEVATION. MINOR GRADING FOR CROSS SLOPE CUT AND FILL MAY BE REQUIRED.
9. REMOVE REFUSE SOILS AS DIRECTED BY THE PROJECT ENGINEER. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
10. ANY GEOGRID, OR COMPARABLE PRODUCT, IS INTENDED FOR USE FOR ALL CONDITIONS, IN ORDER TO ASSIST IN MATERIAL SEPARATION FROM NATIVE SOILS AND PRESERVE ACCESS LOADS. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF SIX INCHES. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS. CONTRACTOR SHALL FOLLOW MANUFACTURER INSTALLATION REQUIREMENTS AND RECOMMENDATIONS FOR GEOGRID.
11. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH NYSDOT TYPE 2 CRUSHED STONE MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.
12. SPECIFIED GEOTEXTILE WILL ONLY BE UTILIZED IN PLACID SOILS. PLACID SOILS CONSIST OF POORLY DRAINED SOILS COMPOSED OF FINELY TEXTURED PARTICLES AND ARE PRONE TO RUTTING. PLACID SOILS ARE TYPICALLY PRESENT IN LOW-LYING AREAS WITH HYDROLOGIC SOILS GROUP (HSG) OF C OR D, OR AS SPECIFIED FROM AN ENVIRONMENTAL SCIENTIST, SOIL SCIENTIST, OR GEOTECHNICAL DATA.
13. THE CONCERN FOR POTENTIAL REDUCTION OF NATIVE INFILTRATION RATES DUE TO THE GEOTEXTILE MATERIAL WOULD NOT BE A SIGNIFICANT CONCERN IN POORLY DRAINED SOILS WHERE SEGREGATION OF PERVIOUS STONE AND NATIVE MATERIALS IS CRUCIAL FOR LONG TERM OPERATION AND MAINTENANCE.

1 C-201 LIMITED USE PERVIOUS ACCESS ROAD – 0% TO 10% SLOPES

SCALE: NTS

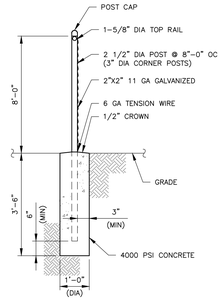


NOTE:

1. ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE LOCAL UTILITY COMPANIES.
2. TRENCHES FOR SEPARATE ARRAYS ON DIFFERENT LOTS SHALL HAVE A MINIMUM OF 6 FEET BETWEEN THE EDGES OF TRENCHES.

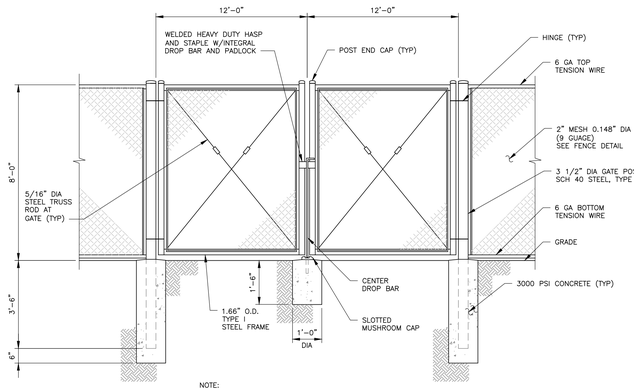
2 C-201 UTILITY TRENCH (WATER LINE EASEMENT)

SCALE: NTS



3 C-201 FENCE

SCALE: 1/2" = 1'-0"

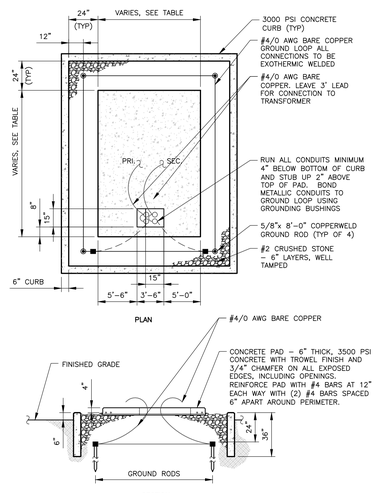


NOTE:

1. ALL STEEL SHALL BE HOT DIPPED GALVANIZED.

4 C-201 DOUBLE GATE

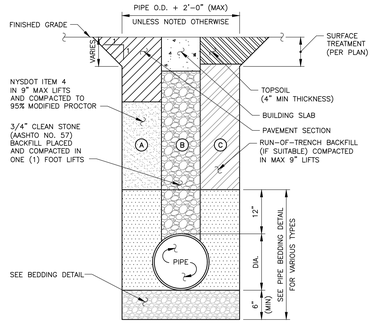
SCALE: NTS



kVA RATING	WIDTH (FEET)	LENGTH (FEET)
1500	7'-6"	7'-9"
2500	6'-4"	8'-7"

5 C-201 TRANSFORMER PAD

SCALE: 1/4" = 1'-0"



CONSTRUCTION CASES:

A. TRENCH UNDER ROADWAY (EXTEND 5' OUTSIDE CURB/EDGE OF PAVEMENT)

B. TRENCH UNDER BUILDING SLAB/FOOTING (EXTEND 5' OUTSIDE BUILDING LINE)

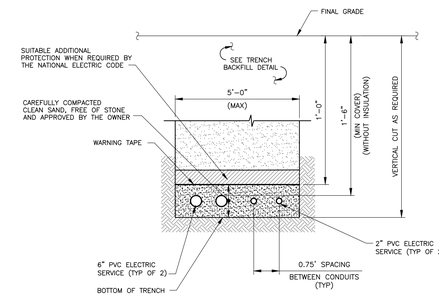
C. TRENCH UNDER OFF-ROAD AREAS

NOTES:

1. ALL COSTS ASSOCIATED WITH THE PROVISION TRENCH BACKFILL IN ACCORDANCE WITH THIS DETAIL SHALL BE INCLUDED.
2. ALL EXCAVATION AND TRENCHING MEET OSHA REQUIREMENTS.
3. BACKFILL WITH EXCAVATED TRENCH MATERIAL FREE OF DELETERIOUS MATERIAL AND STONES OVER 6" DIAMETER (UNLESS OTHERWISE NOTED). BACKFILL TO BE PLACED IN 8" (MAX) LIFTS AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY (ASTM D1557) (UNLESS OTHERWISE NOTED).

6 C-201 TRENCH BACKFILL

SCALE: NTS



NOTE:

1. ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE LOCAL UTILITY COMPANIES.
2. TRENCHES FOR SEPARATE ARRAYS ON DIFFERENT LOTS SHALL HAVE A MINIMUM OF 6 FEET BETWEEN THE EDGES OF TRENCHES.

7 C-201 UTILITY TRENCH

SCALE: NTS

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0 1 2 3

ORIGINAL SIZE IN INCHES

NYSERDA REFERENCE:

CVE US EI4 MANLIUS NORTH, LLC
CVE US EI5 MANLIUS EAST, LLC
CVE US EI6 MANLIUS WEST, LLC
8107, 8109, & 8105 EAST SENECA TURNPIKE

Rev	Date	Revision	Approved
3	2/23/22	REVISED PER CVE COMMENTS	
4	3/9/22	REVISED PER OCWA COMMENTS	
5	5/27/22	REVISED PER MS4 REVIEW COMMENTS	
6	6/13/22	REVISED FOR NYSERDA SUBMISSION	
7	6/16/22	REVISED PER NYSERDA SUBMISSION	
8	9/9/22	REVISED PER CVE	MAL

DRAWING CONTROL

Designed by: LAP/RCC | Drawn by: ECM | Checked by: MAL

Purpose	Released by	Date
○ For Comment		
● For Approval	MAL	9/9/22
○ For Bid		
○ For Construction		

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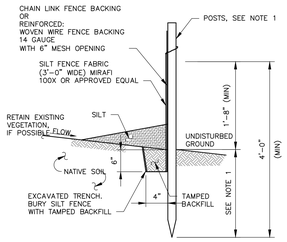
STATE OF NEW YORK · MARK A. LUKASH · 082580 · LICENSED PROFESSIONAL ENGINEER

DETAILS

CVE MANLIUS
8119 E SENECA TURNPIKE
TOWN OF MANLIUS/VILLAGE OF MANLIUS
COUNTY OF ONONDAGA, NEW YORK

Date	Work Order	Drawing No.	Rev
4/23/2021	10519.04	C-201	8

Scale: AS NOTED



SLOPE	STEEPNESS	SLOPE LENGTH/FENCE LENGTH (FEET)		
		STANDARD	REINFORCED	SUPER
<2%	<50:1	300/1500	N/A	N/A
2-10%	50:1 TO 10:1	125/1000	250/2000	300/2500
10-20%	10:1 TO 5:1	100/750	150/1000	200/1000
20-33%	5:1 TO 3:1	60/500	80/750	100/1000
33-50%	3:1 TO 2:1	40/250	70/350	100/500
>50%	>2:1	20/125	30/175	50/250

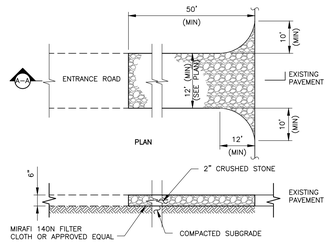
TABLE A

NOTES:

1. POST MATERIAL AND SPACING:
   - A. STANDARD SILT FENCE – POSTS SHALL BE 2"X2" HARDWOOD OR "T" OR "U" SHAPED STEEL NOT LESS THAN 1.00 POUND PER LINEAR FOOT AND SPACED A MAXIMUM OF 4'-0" ON CENTER. POST EMBEDMENT = 1'-4" (MIN).
   - B. REINFORCED SILT FENCE– POSTS SHALL BE 2"X2" HARDWOOD OR "T" OR "U" SHAPED STEEL NOT LESS THAN 1.00 POUND PER LINEAR FOOT AND SPACED A MAXIMUM OF 10'-0" ON CENTER. POST EMBEDMENT = 1'-4" (MIN).
   - C. SUPER SILT FENCE – POSTS SHALL BE 2 ½" DIAMETER STEEL, DIRECT BURY, AND SPACED A MAXIMUM OF 10'-0" ON CENTER. POST EMBEDMENT = 3'-0" (MIN).
2. REINFORCEMENT SHALL BE FASTENED TO THE POSTS DEPENDENT ON THE POST MATERIAL AS FOLLOWS:
   - A. HARDWOOD – WIRE TIES OR STAPLES
   - B. STEEL – WIRE TIES
3. FILTER CLOTH TO BE FASTENED SECURELY TO FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID–SECTION. UNREINFORCED SILT FENCE MUST BE FASTENED SECURELY TO ALL POSTS.
4. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6 INCHES AND FOLDED.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" FORM IN SILT FENCE.
6. SILT FENCE TO BE MAINTAINED IN PLACE DURING CONSTRUCTION AND SOIL STABILIZATION PERIOD.
7. SILT FENCE SHALL BE INSTALLED PARALLEL TO CONTOURS TO ASSURE NO CONCENTRATION OF WATER.
8. PREFABRICATED UNITS TO MEET THE MINIMUM REQUIREMENTS SHOWN.
9. THE TYPE OF SILT FENCE SPECIFIED FOR EACH LOCATION ON THE PLAN SHALL NOT EXCEED THE MAXIMUM SLOPE LENGTH AND MAXIMUM FENCE LENGTH REQUIREMENTS SHOWN IN TABLE A.

1 C–202 SILT FENCE

SCALE: NTS

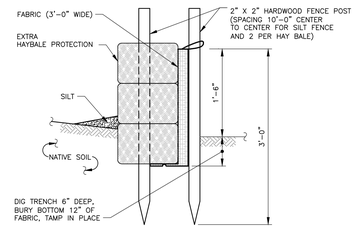


NOTES:

1. STONE SIZE – USE MATRIX 1" TO 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF– WAY. THIS MAY REQUIRED PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTIONS AND NEEDED MAINTENANCE SHALL BE PROVIDED.

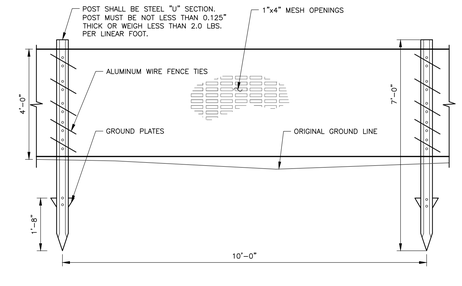
2 C–202 STABILIZED CONSTRUCTION ENTRANCE

SCALE: 3/8" = 1'–0"



3 C–202 SILT FENCE WITH STRAW BALE DIKE

SCALE: 1" = 1'–0"

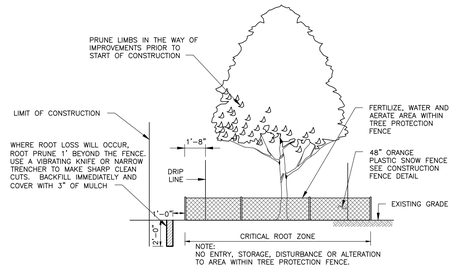


NOTES:

1. FENCING TO BE PLACED LINEARLY ALONG LIMIT OF CLEARING, AND AS SHOWN ON PLAN AND AS REQUIRED BY REFERRING DETAILS.
2. MESH COLOR TO BE BLAZE ORANGE.

4 C–202 CONSTRUCTION FENCE (PLASTIC)

SCALE: NTS



TREE PROTECTION NOTES:

THE TREE PROTECTION AND PRESERVATION GUIDELINES ADOPTED PURSUANT TO THE LAND DEVELOPMENT REGULATIONS OF THE MUNICIPALITY WILL BE IMPLEMENTED IN ORDER TO PROTECT AND PRESERVE BOTH INDIVIDUAL SPECIMEN TREES AND BUFFER AREAS WITH MANY TREES. STEPS THAT WILL BE TAKEN TO RESERVE AND PROTECT EXISTING TREES TO REMAIN ARE AS FOLLOWS:

A. NO CONSTRUCTION EQUIPMENT SHALL BE PARKED UNDER THE TREE CANOPY.

B. THERE WILL BE NO EXCAVATION OR STOCKPILING OF EARTH UNDERNEATH THE TREES.

C. TREES DESIGNATED TO BE PRESERVED SHALL BE MARKED CONSPICUOUSLY ON ALL SIDES AT A 5 TO 10 FOOT HEIGHT.

D. THE TREE PROTECTION ZONE FOR TREES DESIGNATED TO BE PRESERVED WILL BE ESTABLISHED BY ONE OF THE FOLLOWING METHODS:

ONE (1) FOOT RADIUS FROM TRUNK PER INCH DBH

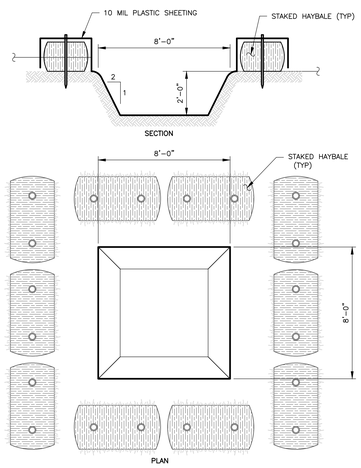
DRIP LINE OF THE TREE CANOPY. THE METHOD CHOSEN SHOULD BE BASED ON PROVIDING THE MAXIMUM PROTECTION ZONE POSSIBLE. A BARRIER OF F. SNOW FENCE OR EQUAL IS TO BE PLACED AND MAINTAINED ONE YARD BEYOND THE ESTABLISHED TREE PROTECTION ZONE. IF IT IS AGREED THAT THE TREE PROTECTION ZONE OF A SELECTED TREE MUST BE VIOLATED, ONE OF THE FOLLOWING METHODS MUST BE EMPLOYED TO MITIGATE THE IMPACT: LIGHT TO HEAVY IMPACTS – MINIMUM OF EIGHT INCHES OF WOOD CHIPS INSTALLED IN THE AREAS TO BE PROTECTED. CHIPS SHALL BE REMOVED UPON COMPLETION OF WORK.

LIGHT IMPACTS ONLY – INSTALLATION OF 3/4 INCH OF PLYWOOD OR BOARDS, OR EQUAL OVER THE AREA TO BE PROTECTED.

E. SEPARATE PAYMENT WILL NOT BE MADE FOR THIS WORK

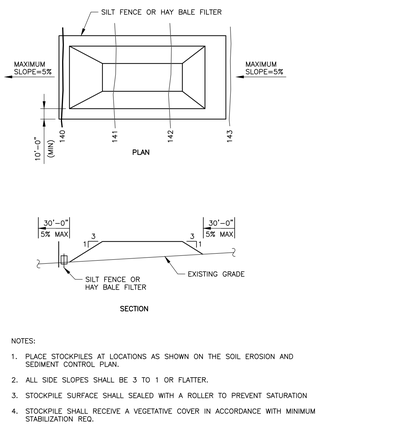
5 C–202 TREE PROTECTION AND PRUNING

SCALE: NTS



6 C–202 TEMPORARY CONCRETE WASH

SCALE: NTS

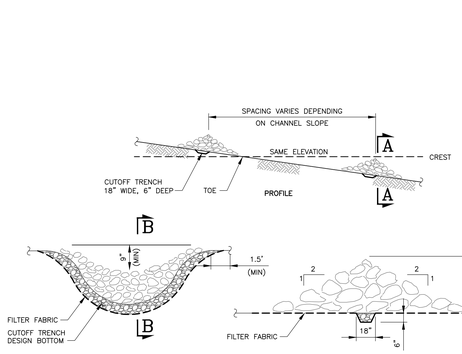


NOTES:

1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. ALL SIDE SLOPES SHALL BE 3 TO 1 OR FLATTER.
3. STOCKPILE SURFACE SHALL SEALED WITH A ROLLER TO PREVENT SATURATION
4. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQ.
5. SILT FENCE OR HAY BALE FILTER SHALL BE INSTALLED AS DETAILED HEREON.

7 C–202 SOIL STOCKPILE

SCALE: NTS

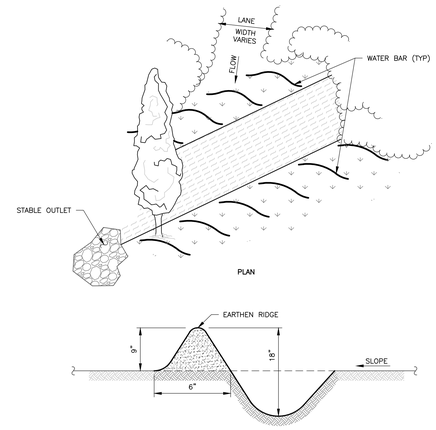


CONSTRUCTION SPECIFICATIONS:

1. STONE SHALL BE MAXIMUM SIZE OF 12" WITH 50 TO 100 PERCENT BY WEIGHT LARGER THAN 6" AND 0 TO 10 PERCENT SMALLER THAN 1/2".
2. FILTER FABRIC SHALL BE POLY–FILTER X CLOTH AS MANUFACTURED BY CARTHAGE MILLS OR APPROVED EQUAL.
3. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION AT LOCATIONS SHOWN ON THE PLAN.
4. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
5. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
6. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
7. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

8 C–202 STONE CHECK DAM

SCALE: NTS

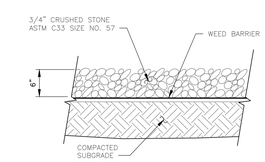


CONSTRUCTION SPECIFICATIONS:

1. INSTALL THE WATER BAR AS SOON AS THE RIGHT OF WAY IS CLEARED AND GRADED.
2. DISK OR STRIP THE SOD FROM THE BASE FRO THE CONSTRUCTED RIDGE BEFORE PLACING FILL.
3. TRACK THE RIDGE TO COMPACT IT TO THE DESIGN CROSS SECTION.
4. THE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION WILL BE PROVIDED WHEN NATURAL AREAS ARE NOT ADEQUATE.
5. VEHICLE CROSSING SHALL BE STABILIZED WITH GRAVEL. EXPOSED AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED.
6. PERIODICALLY INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.
7. WATER BARS SHALL BE SPACED AT 125 FEET ALONG ACCESS ROAD DUE TO A SLOPE OF LESS THAN 5%.

9 C–202 WATER BARS

SCALE: NTS



10 C–202 TEMPORARY ACCESS ROAD

SCALE: NTS

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0 1 2 3

ORIGINAL SIZE IN INCHES

NYSERDA REFERENCE:

CVE US EI4 MANLIUS NORTH, LLC
CVE US EI5 MANLIUS EAST, LLC
CVE US EI6 MANLIUS WEST, LLC
8107, 8109, & 8105 EAST SENECA TURNPIKE

Rev	Date	Revision	Approved
3	2/23/22	REVISED PER CVE COMMENTS	
4	3/9/22	REVISED PER OCWA COMMENTS	
5	5/27/22	REVISED PER MS4 REVIEW COMMENTS	
6	6/13/22	REVISED FOR NYSERDA SUBMISSION	
7	6/16/22	REVISED PER NYSERDA SUBMISSION	
8	9/9/22	REVISED PER CVE	MAL

DRAWING CONTROL

Designed by: LAP/RCC	Drawn by: ECM	Checked by: MAL

Purpose	Released by	Date
○ For Comment		
● For Approval	MAL	9/9/22
○ For Bid		
○ For Construction		

Tectonic

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Tectonic Engineering Consultants, Geologists & Land Surveyors,D.P.C.
70 Pleasant Hill Road Phone: (845) 534-5959
P.O. Box 37 (800) 829-6531
Mountainville, NY 10953
www.tectonicengineering.com

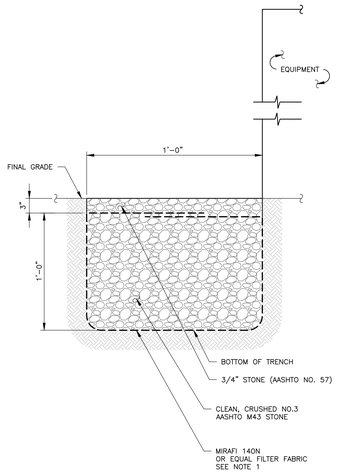
STATE OF NEW YORK — MARK A. LUKESH — 082580 — LICENSED PROFESSIONAL ENGINEER

DETAILS

CVE MANLIUS
8119 E SENECA TURNPIKE
TOWN OF MANLIUS/VILLAGE OF MANLIUS
COUNTY OF ONONDAGA, NEW YORK

Date	Work Order	Drawing No.	Rev
4/23/2021	10519.04	C–202	8

Scale: AS NOTED



NOTES:

1. FILTER FABRIC SHOULD COMPLETELY ENVELOP GRAVEL TRENCH.

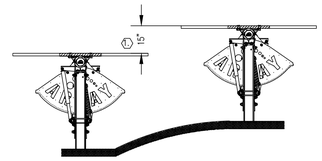
1 / C-203 PERIMETER TRENCH DETAIL

SCALE: NTS

NOTE:

EXTERIOR ROW HEIGHT PARAMETER

1. IF HEIGHT DIFFERENCE EXCEEDS THE DISTANCE NOTED, ROW ON HIGHER PLANE IS AN EXTERIOR ROW.

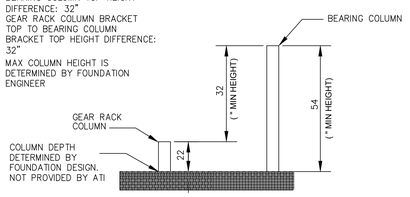


DETAIL A

NOTES:

COLUMN HEIGHT REQUIREMENTS

1. GEAR RACK COLUMN TOP TO BEARING COLUMN TOP HEIGHT DIFFERENCE: 32"
2. GEAR RACK COLUMN BRACKET TOP TO BEARING COLUMN BRACKET TOP HEIGHT DIFFERENCE: 32"
3. MAX COLUMN HEIGHT IS DETERMINED BY FOUNDATION ENGINEER

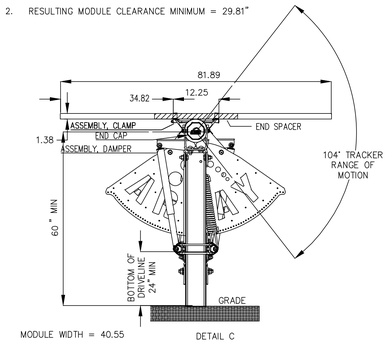


DETAIL B

NOTE:

MINIMUM DISTANCES AND MODULE DATA

1. REFERENCE INDIVIDUAL FIELD ASSEMBLY DRAWINGS FOR DETAILS. INSTALL END CLAMP SPACER ON END CLAMPS. INSTALL END CAP AT END OF TUBE.
2. RESULTING MODULE CLEARANCE MINIMUM = 29.81"



MODULE WIDTH = 40.55

DETAIL C

REV	DESCRIPTION	DATE
A	INITIAL RELEASE	04/09/2021

Manlius
Approx. 15 MWDC
Seneca NY
CVE

PROPRIETARY AND CONFIDENTIAL

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UNLESS OTHERWISE SPECIFIED DIMS ARE IN INCHES [mm]
TOLERANCES:
X ±0.5 [12]
.X ±0.25 [6]
.XX ±0.05 [1.25]
.XXX ±0.015 [0.4]
FRACTIONAL ±1/4
ANGULAR:
X ±1.0°
.X ±0.1°

DRAWING STATUS: INITIAL DRAFT
PRODUCT STATUS: INITIAL DRAFT

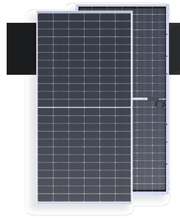
	NAME	DATE
DRAWN	KM	04/09/2021
CHECKED	RPCS	04/09/2021
APPROVED	----	----

ARRAY TECHNOLOGIES
3901 Midway Place NE Albuquerque, NM 87109
(505) 881-7567

TITLE: DuraTrack® HZ Project: Manlius
Detail Views

SIZE: D | PRODUCT NUMBER: 10xxx | REVISION: A
SCALE: NTS | DWG NO: 10xxx-901 | U.S. PATENT NO #8,459,249 & 9,281,778 | 2 OF 2

BOVIET SOLAR



VEGA SERIES™

UTILITY SCALE SOLAR
MONO | BIFACIAL | PERC | PV MODULE

Power Range:	525W	530W	535W	540W	545W	550W
Technology:	PERC	Half cut cell	10 Busbar	144 cells
Design:	Double Glass	Silver Frame	Glass Back
Module Efficiency:	21.1%
Cell Efficiency:	22.5%–23.3%
Power Tolerance:	0~+5W
System Voltage:	1000/1500 V DC
Module Size:	90.40 x 44.65 x 1.38 inch
Module Weight:	73.86 lb.
Module Code:	BVM7612M-XXX-H-HC-BF-DG

DESIGNED TO PERFORM AND BUILT TO LAST

Our PV modules are designed with better technology in mind, made from robust product components, under stringent quality control steps and high-tech manufacturing processes.

PERC, half-cut, multi-busbar, and large cell designs enables our PV modules to pack more power per module, capture more photons, produce more energy, and provide reliable, dependable system performance under different installations requirements, difficult weather, or environmental conditions. Whether you are EPC, installer, contractor, or project developer, we have the right and better PV module for your residential, commercial, industrial, and utility scale solar projects.

- Monocrystalline technology
- P-Type semiconductor
- PERC — Passivated emitter and rear cell technology
- Half cut cell
- Multi-Busbar cell
- Large wafer design
- Beautiful aesthetic
- Robust product component

WARRANTY

30 Years - Linear power performance warranty
12 Years - Enhanced product warranty

1 (1.2) years product warranty
2 Out linear warranty with 2.5% degradation in the 1st year and less than 0.7% degradation each year from 2nd year to 30th year

CERTIFICATES

UL 61730 I IEC 61215 I IEC 61730 I CEC Listed I CE
ISO 9001 Quality Management System
ISO 14001 Environmental Management System
ISO 45001 Occupational Health and Safety Management System

*Please contact with Boviet Solar representatives for full list of certificates according to local requirements and product type

ELECTRICAL CHARACTERISTICS I STC

Maximum Power (Pmax)	525W	530W	535W	540W	545W	550W
Maximum Power Current (Imp)	12.60A	12.66A	12.71A	12.76A	12.82A	12.88A
Maximum Power Voltage (Vmp)	41.47V	41.94V	42.17V	42.40V	42.58V	42.76V
Short Circuit Current (Isc)	13.37A	13.43A	13.48A	13.55A	13.72A	13.84A
Open Circuit Voltage (Voc)	49.52V	49.71V	49.80V	49.89V	49.98V	50.13V
Module Efficiency	20.2%	20.4%	20.5%	20.7%	20.9%	21.1%
Power Tolerance	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W

STC: AM1.5 Irradiance 1000W/m, 25° C

ELECTRICAL CHARACTERISTICS I NOCT

Maximum Power (Pmax)	525W	530W	535W	540W	545W	550W
Maximum Power (Pmax)	413W	417W	421W	425W	429W	433W
Maximum Power Current (Imp)	10.08A	10.16A	10.24A	10.32A	10.40A	10.48A
Maximum Power Voltage (Vmp)	41.03V	41.1V	41.15V	41.20V	41.25V	41.32V
Short Circuit Current (Isc)	10.63A	10.71A	10.74A	10.81A	10.86A	10.92A
Open Circuit Voltage (Voc)	48.92V	49.0V	49.23V	49.45V	48.87V	50.68V

NOCT: AM 1.5 Irradiance 800(W/m², 20° C, Wind speed 1m/s

MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline I PERC PV Cells 182mm Cell I Half-cut I 10 Busbar I 144 (6x24) pcs in series
Solar Modules	Bifacial I 90.40 x 44.65 x 1.38 inch. I Weight: 73.86 lb.
Module Glass	2.0 mm (0.079 inch) I High transparency, low iron, AR Coated tempered Glass
Module Frame	Frame 35 mm Ultra-strong anodized aluminum alloy frame
Module Junction Box	IP68 rated I 3 bypass diodes
Module Output Cable	4mm² (EU) I 12 AWG (US) 39.38 inch
Module Connector	Multi contact (MC4) compatible connectors
Module Encapsulant	POE
Module Backsheet	2.0mm thickness, transparent with a grid. High transmited, low iron, and strength tempered glass
Module Fire Type	Type 29 Fire rated

PACKING INFORMATION

Pieces per pallet:	31
Pallets per container (40HQ):	20
Pieces per container (40HQ):	620
Pallet Weight:	2399.73 lb
Pallet Dimension:	91.37 x 44.69 x 49.49 inch

MAXIMUM RATING

Operating Temperature	-40°F~185°F
Maximum Series Fuse Rating	30A
Isc Temperature Coefficient	1000/1500V DC

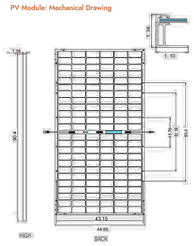
THERMAL CHARACTERISTICS

Pmax Temperature Coefficient	-0.35%/K
Voc Temperature Coefficient	-0.285%/K
Isc Temperature Coefficient	+0.05%/K
NOCT	113±35.6°F

BIFACIAL OUTPUT-BACKSIDE POWER GAIN

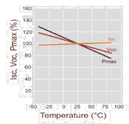
10%	Pmax(W)	578	583	589	594	600	605
	Module efficiency (%)	22.18	22.39	22.60	22.81	23.03	23.24
20%	Pmax(W)	630	636	642	648	654	660
	Module efficiency (%)	24.20	24.43	24.66	24.89	25.12	25.35

PV Module: Mechanical Drawing



PV Module: IV Curve

Irradiance: AM 1.5, 1,000W/m² (540W)



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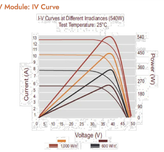

BOVIET SOLAR | www.bovietsolar.com | V3 | February 10, 2022

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