

BID SET

2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072 5000 KWAC STC RATED SOLAR ELECTRIC SYSTEM

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NOT FOR CONSTRUCTION

BIDSET
2621 STATE HIGHWAY 5S SOLAR PROJECT
2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/10/21	DC	GG	PLANNING BOARD SUBMISSION
	06/17/21	DC	GG	FOR SHUMAKER
	06/28/21	DC	GG	REVISIONS
	08/13/21	DC	GG	REVISIONS
	08/25/21	DC	GG	REVISIONS
	09/08/21	DC	GG	REVISIONS
	02/07/22	DC	GG	REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" x 36"

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TITLE PAGE

GENERAL NOTES

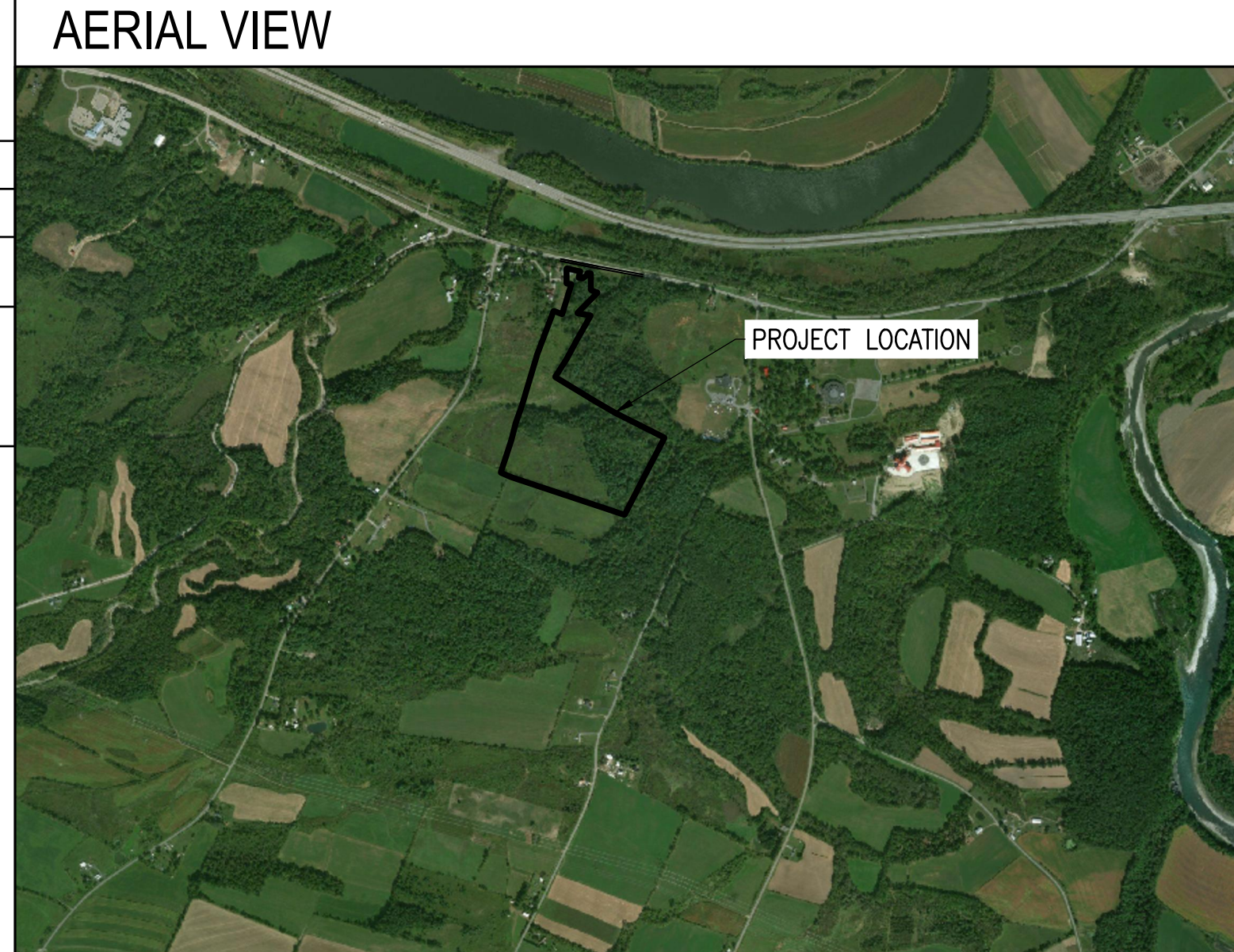
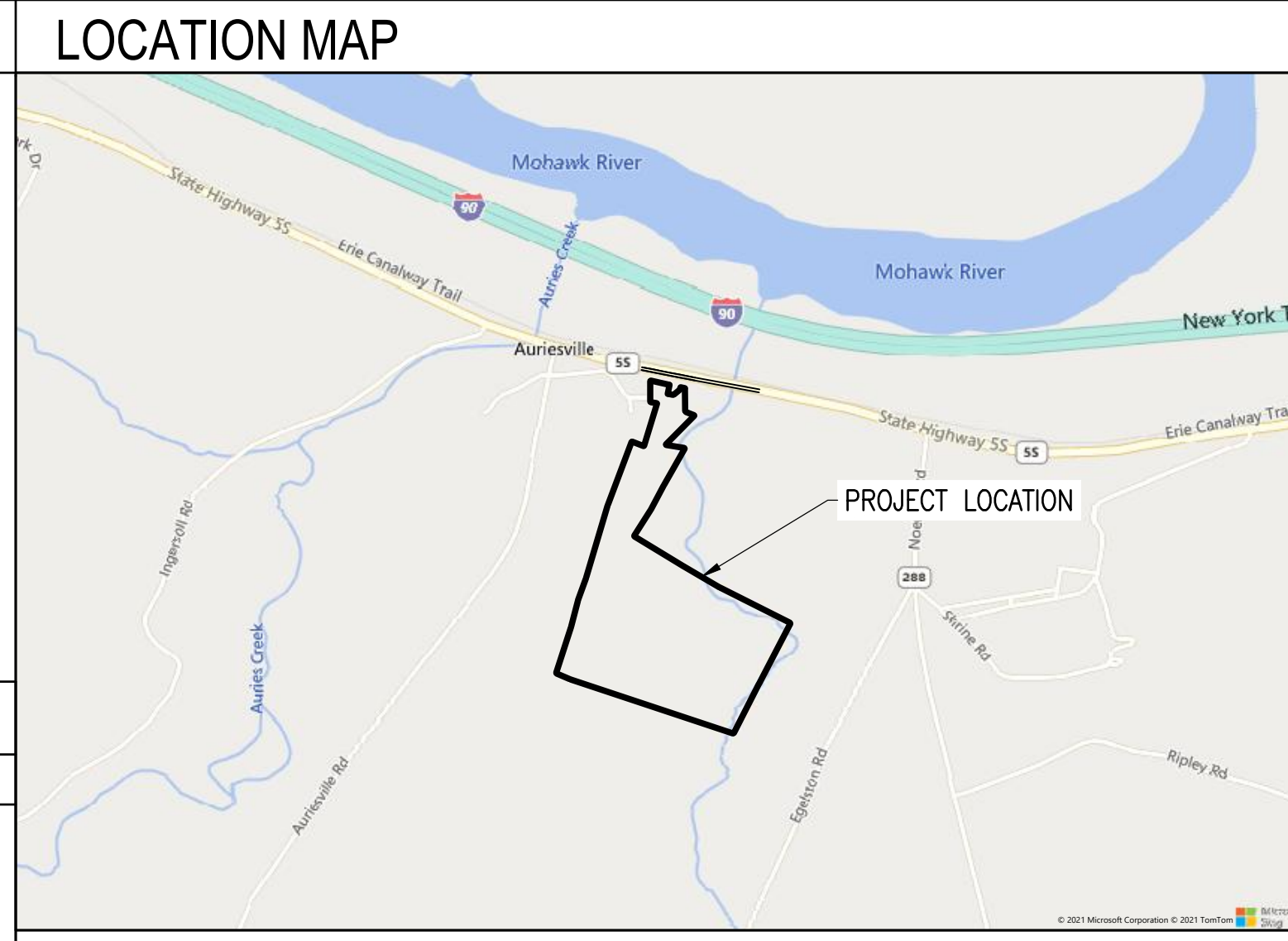
- AS CONTAINED HEREIN, "CONTRACTOR" IS ASSUMED TO BE THE EPC PROVIDER HIRED BY THE SYSTEM/PROJECT OWNER.
- WHEN THERE IS A CONFLICT BETWEEN THESE GENERAL NOTES AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
- ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING: LOCAL BUILDING CODE, LOCAL ELECTRICAL CODE, ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK AND THOSE CODES AND STANDARDS LISTED IN THESE DRAWINGS.
- THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A CONSTRUCTION LEVEL DESIGN AND ASSOCIATED DRAWINGS AND DETAILS.
- COORDINATE THESE DRAWINGS WITH SPECIFICATIONS AND MANUFACTURER INSTALLATION AND OPERATION MANUALS.
- UNLESS OTHERWISE NOTED, THE DESIGN REPRESENTED ON THESE PLANS IS BASED ON THE INFORMATION AND CRITERIA LISTED IN THE "BASIS OF DESIGN" SECTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH INFORMATION IN PREPARATION OF THE CONSTRUCTION DESIGN.
- THE EXISTING CONDITIONS REPRESENTED ON THESE PLANS ARE BASED ON PUBLICLY AVAILABLE INFORMATION AND THE SITE DISCOVERY SUMMARIZED IN THESE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF SUCH INFORMATION AND SUPPLEMENT WITH ANY ADDITIONAL REQUIRED INFORMATION.
- UNLESS INDICATED AS EXISTING (E), ALL PROPOSED MATERIALS AND EQUIPMENT SHALL BE CONSIDERED TO BE NEW.
- ALL EQUIPMENT AND COMPONENTS SHALL BE MOUNTED IN COMPLIANCE WITH THE MANUFACTURER'S REQUIREMENTS, CONSTRUCTION DETAILS, AND/OR PRUDENT INDUSTRY STANDARDS.
- TO THE EXTENT THAT TRESS AND OTHER FEATURES AFFECT THE SYSTEM'S PRODUCTION, SUCH PRODUCTION MODELING IS BASED ON THE EXISTING APPROXIMATE HEIGHTS AND LOCATIONS RELATIVE TO THE SYSTEM AND MAY BE IMPACTED AS TREES GROW AND OTHER FEATURES CHANGE.

PROJECT SCOPE

THIS PROJECT CONSISTS OF THE INSTALLATION OF SOLAR MODULES PER THE SYSTEM DESCRIPTION, BELOW. THE MODULES WILL BE INSTALLED ON A GROUND MOUNTED RACKING SYSTEM. THE MODULES WILL BE WIRED IN SERIES STRINGS AND CONNECTED IN PARALLEL TO THE INVERTER(S), WHICH CONVERT THE PHOTOVOLTAIC OUTPUT POWER FROM DC TO AC. THE SOLAR ELECTRIC SYSTEM WILL BE INTERCONNECTED WITH THE EXISTING SITE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE APPLICABLE ELECTRICAL CODE AND NATIONAL GRID REQUIREMENTS.

SYSTEM DESCRIPTION

SYSTEM SIZE (DC STC)	6,234.8 KWDC	SYSTEM SIZE (AC)	5,000 KWAC
MODULES	(11440) HT-SAAE HT72-18X-545	INVERTER(S)	(40) CHINT CPS SCH125KTL-DO/US-600
STC RATING (W)	545 WDC	AZIMUTH	180°
MODULES PER STRING	26	TILT ANGLE	25°
# OF STRINGS	440	ESTIMATED FOUNDATIONS	TBD
RACKING MODEL	TERRASMART TGP2 2X12 & 2X10	RACKING QUANTITY	(465) 2x12 (14) 2x10
RACKING LEADING EDGE HEIGHT	38"		



DRAWING LIST

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C-2.0	TREE CLEARING PLAN
C-3.0	LAYOUT AND MATERIALS PLAN
C-4.0	GRADING AND EROSION CONTROL PLAN
C-5.0	CIVIL DETAILS
C-5.1	CIVIL DETAILS
C-5.2	CIVIL DETAILS
C-6.0	DRIVEWAY LAYOUT PLAN
C-6.1	DRIVEWAY GRADING & UTILITY PLAN
C-6.2	DRIVEWAY DETAILS (1 OF 2)
C-6.3	DRIVEWAY DETAILS (2 OF 2)
ELECTRICAL	
E-0.0	ELECTRICAL NOTES
E-1.0	ELECTRICAL SITE PLAN
E-2.0	E-2.0 PLAN DETAILS
E-3.0	E-3.0 DC SINGLE LINE DIAGRAM
E-3.1	E-3.1 AC SINGLE LINE DIAGRAM
E-4.0	E-4.0 ELECTRICAL SCHEDULES
E-5.0	ELECTRICAL DETAILS

APPLICABLE CODES AND STANDARDS

2017 NATIONAL ELECTRICAL CODE
2020 BUILDING CODE OF NEW YORK STATE
UL-1703 - SOLAR MODULES
UL-1741 - INVERTERS, COMBINER BOXES
UL-2703 - RACKING MOUNTING SYSTEMS AND CLAMPING DEVICES FOR PV MODULES

PROJECT DIRECTORY

LAND OWNER / HOST
JEFFREY A. LANFEAR
3427 STATE HIGHWAY 30A
FULTONVILLE, NY, 12072
518-527-0373

AUTHORITY HAVING JURISDICTION
TOWN OF GLEN
7 ERIE STREET
FULTONVILLE NY 12072

UTILITY
NATIONAL GRID

CIVIL ENGINEER
FIRM: BORREGO SOLAR SYSTEMS, INC
CONTACT: GREGORY GIBBONS, P.E.
PHONE: 315-378-9567

ELECTRICAL ENGINEER
FIRM: BORREGO SOLAR SYSTEMS, INC
CONTACT: AHARON WRIGHT, P.E.
PHONE: 978-221-3081

DESIGN ENGINEER
FIRM: BORREGO SOLAR SYSTEMS, INC
CONTACT: STEVEN RIGGALL
PHONE: 518-309-7837

GENERAL ABBREVIATIONS

(E) EXISTING	NS NORTH-SOUTH
AHJ AUTHORITY HAVING JURISDICTION	NTS NOT TO SCALE
AL ALUMINUM	OAE OR APPROVED EQUAL
APPROX APPROXIMATE	OC ON CENTER
ARY ARRAY	OD OUTSIDE DIAMETER
BLDG BUILDING	OFCI OWNER FURNISHED CONTRACTOR INSTALLED
BSS BORREGO SOLAR SYSTEM	PV PHOTOVOLTAIC
CL CENTERLINE	PVC POLY VINYL CHLORIDE
DAS DATA ACQUISITION SYSTEM	SCH SCHEDULE
DIA DIAMETER	SS STAINLESS STEEL
DO DITTO	SSS SOLAR SUPPORT STRUCTURE
EW EAST-WEST	STC STANDARD TEST CONDITIONS
FBO FURNISHED BY OTHERS	TBD TO BE DETERMINED
FF FORWARD FACING	TP TAMPER PROOF
GALV GALVANIZED	TYP TYPICAL
HDG HOT DIP GALVANIZED	UON UNLESS OTHERWISE NOTED
HVAC HEATING VENTILATION AND AIR CONDITIONING	VIF VERIFY IN FIELD
ID INSIDE DIAMETER	WP WEATHER PROOF
MFR MANUFACTURER	
MOD SOLAR MODULE	

REV 1.0

BASIS OF DESIGN

BOUNDARY & TOPOGRAPHIC SURVEY:
PERFORMED BY LAWSON SURVEYING & MAPPING ON JANUARY 15, 2021

WETLAND STREAM AND DELINEATION REPORT:
PERFORMED BY SHUMAKER CONSULTING ENGINEERING & LAND SURVEYING, D.P.C. ON OCTOBER 27, 2020

GEOTECHNICAL REPORT:
TBD

APPLICABLE BUILDING CODE:
2020 BUILDING CODE OF NEW YORK STATE

RISK CATEGORY: I

WIND CRITERIA:
EXPOSURE CATEGORY: C
WIND SPEED (V): 101 MPH
TOPOGRAPHIC FACTOR (K_{zt}): 1.0

SNOW CRITERIA:
GROUND SNOW (P_g): 50 PSF
MIN. FLAT ROOF SNOW (P_{s,min}): 0 PSF
EXPOSURE FACTOR (C_e): 1.0

SEISMIC CRITERIA
SITE CLASS: D
S_g: 0.216
S_s: 0.062
S_{ps}: 0.23
S_p: 0.1

GENERAL CIVIL NOTES

APPROVALS

1. SITE PLAN APPROVAL DATED JULY 15, 2021.
2. SEQR NEGATIVE DECLARATION DATED JULY 15, 2021.

GENERAL NOTES

1. AS CONTAINED HEREIN, "CONTRACTOR" IS ASSUMED TO BE THE EPC PROVIDER HIRED BY THE SYSTEM OWNER. "SUBCONTRACTOR" IS THE EPC PROVIDER'S INSTALLATION SUBCONTRACTORS (INCLUDING SITE WORK SUBCONTRACTOR) AND CIVIL ENGINEER OF RECORD (CEOR) IS THE EPC PROVIDER'S DESIGNATED CIVIL ENGINEER.
2. EXISTING CONDITIONS SURVEY INFORMATION WAS PREPARED BY LAWSON SURVEYING AND MAPPING. PERFORMED ON APRIL 26, 2021 HORIZONTAL DATUM IS REFERENCED TO THE NYS83-EF. VERTICAL DATUM IS REFERENCED TO NVD88.
3. THERE IS NO GUARANTEE THAT ALL THE EXISTING UTILITIES, WHETHER FUNCTIONAL OR ABANDONED WITHIN THE PROJECT LIMITS ARE ON THIS DRAWING. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE STARTING WORK AND SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM THIS WORK. A DIG SAFELY NEW YORK TICKET NUMBER INDICATING ALL EXISTING UTILITIES HAVE BEEN LOCATED AND MARKED SHALL BE OBTAINED PRIOR TO COMMENCING WORK. CONTACT "DIG SAFELY NEW YORK" AT 1-800-962-7962 AND PROVIDE 72 HOURS NOTICE TO RECEIVE A TICKET NUMBER.
4. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE ELECTRIC UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY CONNECTIONS WITH THE RESPECTIVE COMPANIES PRIOR TO ANY UTILITY CONSTRUCTION.
5. THE SUBCONTRACTORS SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD AND REPORT TO THE CONTRACTOR.
6. TOWN APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES.
7. PRIOR TO CONSTRUCTING THE SITE ENTRANCES ONTO NEW YORK STATE RT 5S, THE CONTRACTOR SHALL OBTAIN A HIGHWAY/DRIVEWAY PERMIT FROM THE APPLICABLE AHJ.
8. SUBCONTRACTOR(S) SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
9. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE CONTRACTOR/CEOR FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
10. AREAS USED AS FOR PARKING DURING CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS INCLUDING, BUT NOT LIMITED TO, REGRADING, LOAMING AND SEEDING. IN NO CASE SHALL PARKING AREAS, LAYDOWN AREAS, CONSTRUCTION TRAILERS, AND PORTABLE TOILETS BE LOCATED WITHIN A WETLAND RESOURCE AREA AND/OR ANY BUFFER ZONES.

SITE PREPARATION NOTES

1. AREAS DESIGNATED FOR TREE CLEARING SHALL BE CLEARED ONLY. NO GRUBBING OR STRIPPING OF TOPSOIL IS NECESSARY, UNLESS SPECIFICALLY SHOWN OTHERWISE AND APPROVAL HAS BEEN GIVEN BY THE CONTRACTOR.
2. TREE CLEARING AND STUMP REMOVAL SHALL BE IN ACCORDANCE WITH APPROVED LOCAL, STATE, AND FEDERAL PERMITS. TREES TO BE REMOVED SHALL BE MARKED BY THE CONTRACTOR'S PROJECT MANAGER OR SITE SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORK ON-SITE.
3. SEASONAL TREE CLEARING RESTRICTIONS MAY BE REQUIRED FOR ENDANGERED SPECIES PROTECTION. THE CONTRACTOR SHALL REFER TO THE TREE CLEARING PLAN FOR ANY RESTRICTIONS.
4. ITEMS TO BE REMOVED THAT ARE NOT STOCKPILED FOR LATER REUSE ON THE PROJECT OR DELIVERED TO THE OWNER SHALL BE LEGALLY DISPOSED OF OFF SITE BY THE SUBCONTRACTOR(S).
5. THE SUBCONTRACTOR(S) SHALL BE RESPONSIBLE FOR COORDINATING THEIR EFFORTS WITH ALL TRADES.
6. THE SUBCONTRACTOR(S) SHALL COORDINATE ALL ADJUSTMENT OR ABANDONMENT OF UTILITIES WITH THE RESPECTIVE UTILITY COMPANY.
7. TEMPORARY CONSTRUCTION HAUL ROADS (IF DEEMED NECESSARY) SHALL BE EXCAVATED AND THE SUB-BASE COMPACTED TO 95% SPMDD. THE USE OF SEPARATION FABRICS SHALL BE USED TO FACILITATE FUTURE REMOVAL AND RECOVERY OF GRANULAR MATERIALS. HAUL ROADS SHALL HAVE AT LEAST 9" OF 3-INCH MINUS STONE AND SHALL BE MAINTAINED DURING CONSTRUCTION.

EROSION AND SEDIMENT CONTROL MEASURES

1. A SPDES PERMIT SHALL BE IN PLACE PRIOR TO COMMENCING ANY EARTH DISTURBANCE.
2. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR DISTURBANCE AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME.
3. SEDIMENT BARRIERS SHALL BE INSPECTED AND APPROVED BY THE TOWN OF GLEN OR THEIR REPRESENTATIVE AND THE CONTRACTOR/CEOR BEFORE CONSTRUCTION BEGINS.
4. STRAW BALES AND MULCH SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE OF NOXIOUS WEEDS OR WOODY STEMS, AND SHALL BE DRY WHEN INSTALLED.
5. DISTURBED AREAS SHALL BE BLANKETED OR SEEDED AND MULCHED AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAVE CONCLUDED. ALL ERODABLE/BARE AREAS SHALL BE BLANKETED OR SEEDED AND MULCHED WITHIN 7 DAYS WITH TEMPORARY EROSION CONTROL SEEDING.
9. PRIOR TO SEEDING, ACCESS AISLES, TEMPORARY STAGING, STORAGE, AND PARKING AREAS ARE TO BE DE-COMPACTED AND RESTORED PER THE SWPPP.
10. STABILIZE SLOPES GREATER THAN 3:1 (HORIZONTAL: VERTICAL) WITH SEED, SECURED GEOTEXTILE FABRIC, SPRAYED COMPOST BLANKET, OR RIP-RAP AS REQUIRED TO PREVENT EROSION DURING CONSTRUCTION.
11. SEDIMENT BARRIERS SHALL BE CONSTRUCTED AROUND ALL SOIL STOCKPILE AREAS.
12. CLEAN OUT PROJECT DRAINAGE FEATURES AND STRUCTURES (I.E. CULVERTS, BASINS, SWALES, ETC.) AFTER COMPLETION OF CONSTRUCTION.
13. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM EROSION CONTROL SYSTEMS WHEN THE HEIGHT OF THE SEDIMENT EXCEEDS ONE-HALF OF THE HEIGHT OF THE SEDIMENT CONTROL MEASURE.
14. AFTER ALL DISTURBED AREAS HAVE BEEN FULLY STABILIZED, THE SUBCONTRACTOR(S) SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AT THE CONTRACTOR/CEOR DIRECTION.
15. AFTER THE REMOVAL OF TEMPORARY EROSION CONTROL MEASURES, THE SUBCONTRACTOR(S) SHALL GRADE AND SEED AREA OF TEMPORARY EROSION CONTROL MEASURE.
16. DAMAGED OR DETERIORATED EROSION AND SEDIMENT CONTROL ITEMS WILL BE REPAIRED IMMEDIATELY AFTER IDENTIFICATION OR AS DIRECTED BY THE CONTRACTOR/CEOR.
17. THE TRAINED CONTRACTOR SHALL INSPECT EROSION AND SEDIMENT CONTROL PRACTICES AND POLLUTION PREVENTION MEASURES BEING IMPLEMENTED WITHIN THE ACTIVE WORK AREA DAILY TO ENSURE THAT THEY ARE BEING MAINTAINED IN EFFECTIVE OPERATING CONDITION AT ALL TIMES. IF DEFICIENCIES ARE IDENTIFIED, THE CONTRACTOR SHALL BEGIN IMPLEMENTING CORRECTIVE ACTIONS WITHIN ONE BUSINESS DAY AND SHALL COMPLETE THE CORRECTIVE ACTIONS IN A REASONABLE TIME FRAME.
18. THE OWNER/OPERATOR SHALL HAVE THE QUALIFIED INSPECTOR CONDUCT INSPECTIONS ONCE EVERY SEVEN CALENDAR DAYS FOR SITE DISTURBANCES LESS THAN FIVE ACRES. FOR SITES WHICH HAVE RECEIVED AUTHORIZATION FROM NYSDEC TO DISTURB FIVE ACRES OR MORE, THE QUALIFIED INSPECTOR SHALL CONDUCT

- INSPECTIONS TWICE EVERY SEVEN CALENDAR DAYS WITH NO LESS THAN TWO DAYS SEPARATING THE INSPECTIONS.
19. PIPE OUTLETS (IF ANY) SHALL BE STABILIZED WITH STONE. REFER TO DETAILS.
20. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING SHALL BE DISCHARGED TO AN APPROPRIATE SEDIMENT TRAPPING DEVICE.
21. WHEN TEMPORARY DRAINAGE IS ESTABLISHED, EROSION/SEDIMENTATION CONTROL MEASURES MAY BE REQUIRED BY CONTRACTOR/CEOR.
22. GRAVEL ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASH DOWN FACILITIES, SHALL BE PROVIDED TO PREVENT SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED BEFORE THE END OF EACH WORKDAY.
23. NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUNOFF. NO RE-FUELING SHALL OCCUR WITHIN 100 FEET OF ANY WETLAND RESOURCE AREA AND 200 FEET FROM RIVERFRONT. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
24. THE COST OF REPAIRING EROSION CONTROL MEASURES OR REMOVING SEDIMENT FROM EROSION CONTROL SYSTEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE APPLICABLE EROSION CONTROL ITEM.
25. EROSION CONTROL MEASURES SHALL BE KEPT OPERATIONAL AND MAINTAINED CONTINUOUSLY THROUGHOUT THE PERIOD OF LAND DISTURBANCE UNTIL PERMANENT SEDIMENT AND EROSION CONTROL MEASURES ARE OPERATIONAL.
26. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT DUST FROM FORMING.
27. EROSION CONTROL MEASURES AS SHOWN ON THESE DRAWINGS IS INTENDED TO CONVEY MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS NECESSARY TO PREVENT SOIL EROSION AND TO COMPLY WITH THE PROJECT'S SPDES PERMIT STORMWATER POLLUTION PREVENTION PLAN.

NEW YORK STATE AGRICULTURE AND MARKETS NOTES

THIS PROJECT IS LOCATED WITHIN A NEW YORK AGRICULTURAL DISTRICT. CONTRACTOR SHALL ADHERE TO THE "GUIDELINES FOR SOLAR ENERGY PROJECTS - CONSTRUCTION MITIGATION FOR AGRICULTURAL LANDS (REVISION 10/18/19)". MAJOR ITEMS FROM THE GUIDELINES ARE SUMMARIZED BELOW:

1. AN ENVIRONMENTAL MONITOR (EM) HAS BEEN RETAINED FOR THIS PROJECT. THE PROJECT CIVIL ENGINEER WILL COORDINATE WITH THE CONSTRUCTION TEAM IN REGARDS TO THE NECESSARY ENVIRONMENTAL MONITORING. THE CONSTRUCTION TEAM SHALL MAINTAIN COMMUNICATION WITH THE EM THROUGHOUT THE CONSTRUCTION PROCESS AND FACILITATE SITE VISITS.
2. BEFORE ANY TOPSOIL IS STRIPPED, SOIL SAMPLES SHALL BE TAKEN AND SUBMITTED TO A LABORATORY, PER CORNELL UNIVERSITY'S SOIL TESTING GUIDELINES. IF SOIL SAMPLING IS NOT PERFORMED, FERTILIZER AND LIME APPLICATIONS SHALL BE APPLIED TO DISTURBED AREAS, AS REFERENCED IN THE GUIDELINES.
3. TOPSOIL SEGREGATION IS REQUIRED WHEN OPEN-CUT TRENCHING IN AGRICULTURAL AREAS.
4. STRIPPED TOPSOIL SHALL BE STOCKPILED AWAY FROM WORK AREAS AND KEPT SEPARATE FROM OTHER EXCAVATED MATERIALS UNTIL COMPLETION OF THE FACILITY FOR FINAL RESTORATION. AG & MARKETS STOCKPILE AREA IS SHOWN ON THE PLANS.
5. ANY TEMPORARY CONSTRUCTION DRAINAGE MODIFICATIONS SHALL BE RESTORED TO EXISTING CONDITIONS POST-CONSTRUCTION.

LAYOUT AND MATERIAL NOTES

1. THE CONTRACTOR SHALL HAVE PERIMETER FENCE, ELECTRICAL TRENCHES, AND RACKING STAKED OUT BY A LICENSED LAND SURVEYOR PRIOR TO ANY INSTALLATION OF RACKING OR TRENCHES.
2. EXCESS TRENCH MATERIAL SHALL BE PLACED ON THE SIDES OF THE TRENCH AND PLACED AT OR NEAR THE SAME LOCATION AS WHERE EXCAVATED. AFTER TRENCH HAS BEEN BACKFILLED TOPSOIL REMOVED SHALL BE PLACED ON TOP AND LIGHTLY COMPACTED.
3. SUBCONTRACTOR SHALL INSTALL CONDUITS FOR ALL ELECTRIC CONDUIT CROSSINGS PRIOR TO INSTALLATION OF THE GEOGRID MATERIAL. THE GEOGRID SHALL NOT BE HORIZONTALLY CUT ONCE INSTALLED.

GRADING NOTES

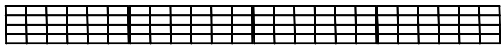
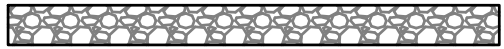
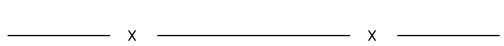






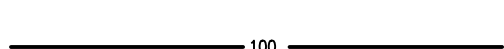
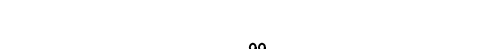









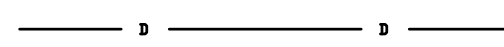



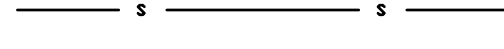
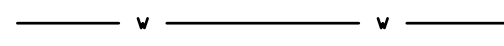
1. WHERE PROPOSED GRADES MEET EXISTING GRADES, SUBCONTRACTOR(S) SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS WILL NOT BE ALLOWED.
2. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS, STRUCTURES, PUBLIC ROADWAYS, AND ELECTRICAL EQUIPMENT AREAS.

ABBREVIATIONS

BIT	BITUMINOUS
BMP	BEST MANAGEMENT PRACTICE
BWV	BORDERING VEGETATED WETLANDS
CB	CONCRETE BOUND
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
DH	DRILL HOLE
DIP	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
ECB	EROSION CONTROL BARRIER
FES	FLARED END SECTION
FH	FIRE HYDRANT
FND	FOUND
GG	GAS GATE
HDPE	HIGH-DENSITY POLYETHYLENE
HW	HEADWALL
ILSF	ISOLATED LANDS SUBJECT TO FLOODING
IP	IRON PIPE
ISW	ISOLATED WETLANDS (FEDERAL JURISDICTION)
LA	LANDSCAPED AREA
LOW	LIMIT OF WORK
N/F	NOW OR FORMERLY
NTS	NOT TO SCALE
OCS	OUTLET CONTROL STRUCTURE
OHW	OVERHEAD WIRE
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
ROW	RIGHT-OF-WAY
SB	STONE BOUND
TEL	TELEPHONE CABLE
TYP	TYPICAL
UP	UTILITY POLE
WG	WATER GATE

REV 1.1

LEGEND

	SOLAR MODULES
	ROAD (GRAVEL)
	FENCE LINE
	PROPERTY LINE
	FLOW DIRECTION
	BANK LINE/FLAG
	WETLAND LINE/FLAG
	(E) MAJOR CONTOUR
	(E) MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	100' WETLAND BUFFER ZONE
	200' RIVERFRONT AREA
	100-YEAR FLOOD LINE
	WATER RESOURCE OVERLAY DISTRICT
	TREELINE
	STONE WALL
	SILT FENCE
	SILT SOCK
	DRAIN PIPE
	ELECTRICAL TRENCH
	OVERHEAD ELECTRIC
	SEWER LINE
	WATER LINE
	GAS MAIN
	ASSESSORS MAP-LOT

2.3-2.3A

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BIDSET
2621 STATE HIGHWAY 5S SOLAR PROJECT
2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:
108-4862

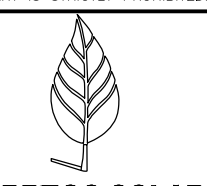
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	06/17/21	DC	GG	FOR SHUWAKER
	06/28/21	DC	GG	NYSDOT REVISIONS
	08/13/21	DC	GG	NYSDOT REVISIONS
	08/25/21	DC	GG	NYSDOT REVISIONS
	09/08/21	DC	GG	NYSDOT REVISIONS
	02/07/22	DC	GG	NYSDOT REVISIONS

SCALES STATED ON DRAWINGS
ARE VALID ONLY WHEN PLOTTED
ARCH D 24" X 36"

C-0.0

CIVIL NOTES

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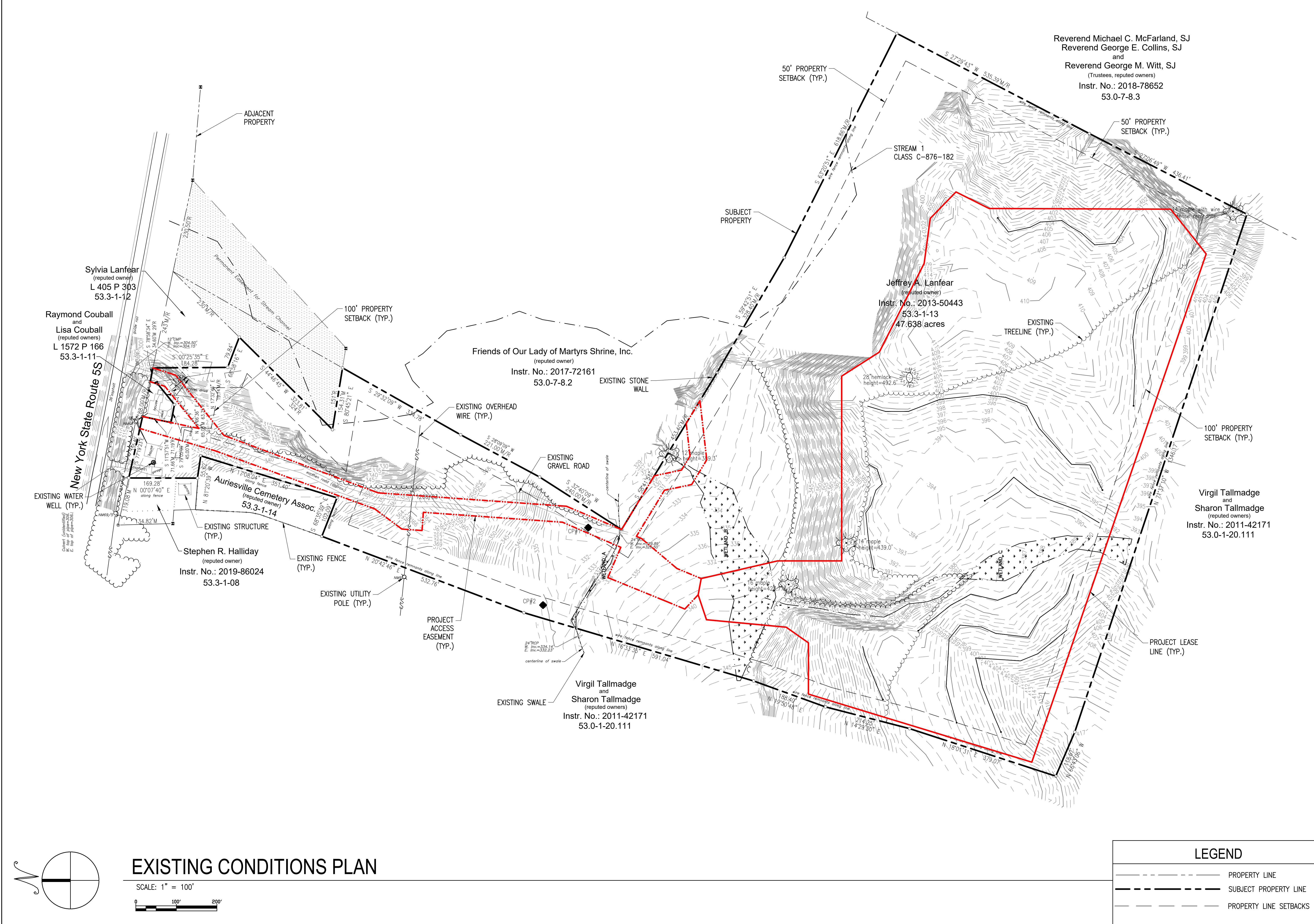
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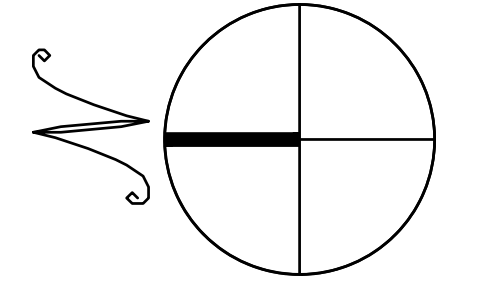
C-1.0
EXISTING CONDITIONS PLAN

Reverend Michael C. McFarland, SJ
Reverend George E. Collins, SJ
and
Reverend George M. Witt, SJ
(Trustees, reputed owners)
Instr. No.: 2018-78652
53.0-7-8.3



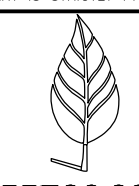
EXISTING CONDITIONS PLAN

SCALE: 1" = 100'
0 100' 200'



LEGEND	
	PROPERTY LINE
	SUBJECT PROPERTY LINE
	PROPERTY LINE SETBACKS

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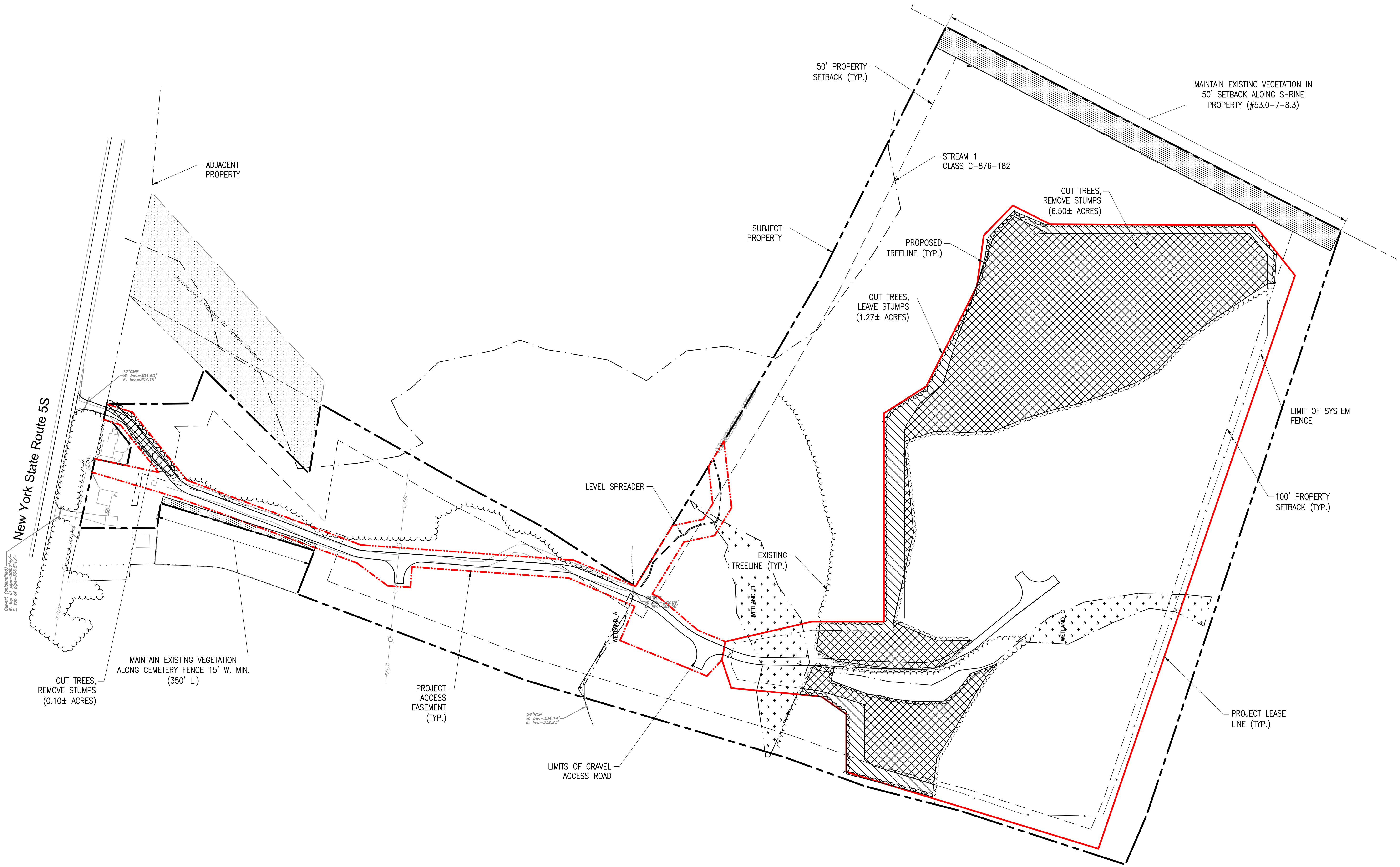
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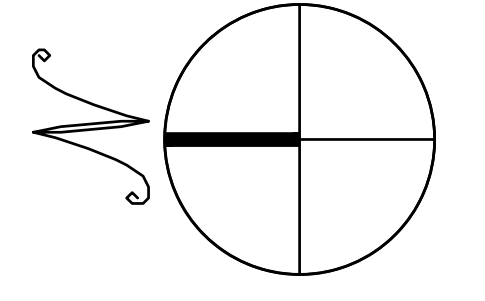
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C-2.0
TREE CLEARING PLAN



TREE CUTTING ONLY = 1.27 ACRES
TREE CUTTING AND STUMPING = 6.50 ACRES
TOTAL = 7.77 ACRES

LEGEND	
---	PROPERTY LINE
- - - - -	SUBJECT PROPERTY LINE
- - - - -	PROPERTY LINE SETBACKS
	TREE CUTTING ONLY
XXXXX	TREE CUTTING AND STUMPING



TREE CLEARING PLAN

SCALE: 1" = 100'
0 100' 200'

SEEDING SPECIFICATIONS

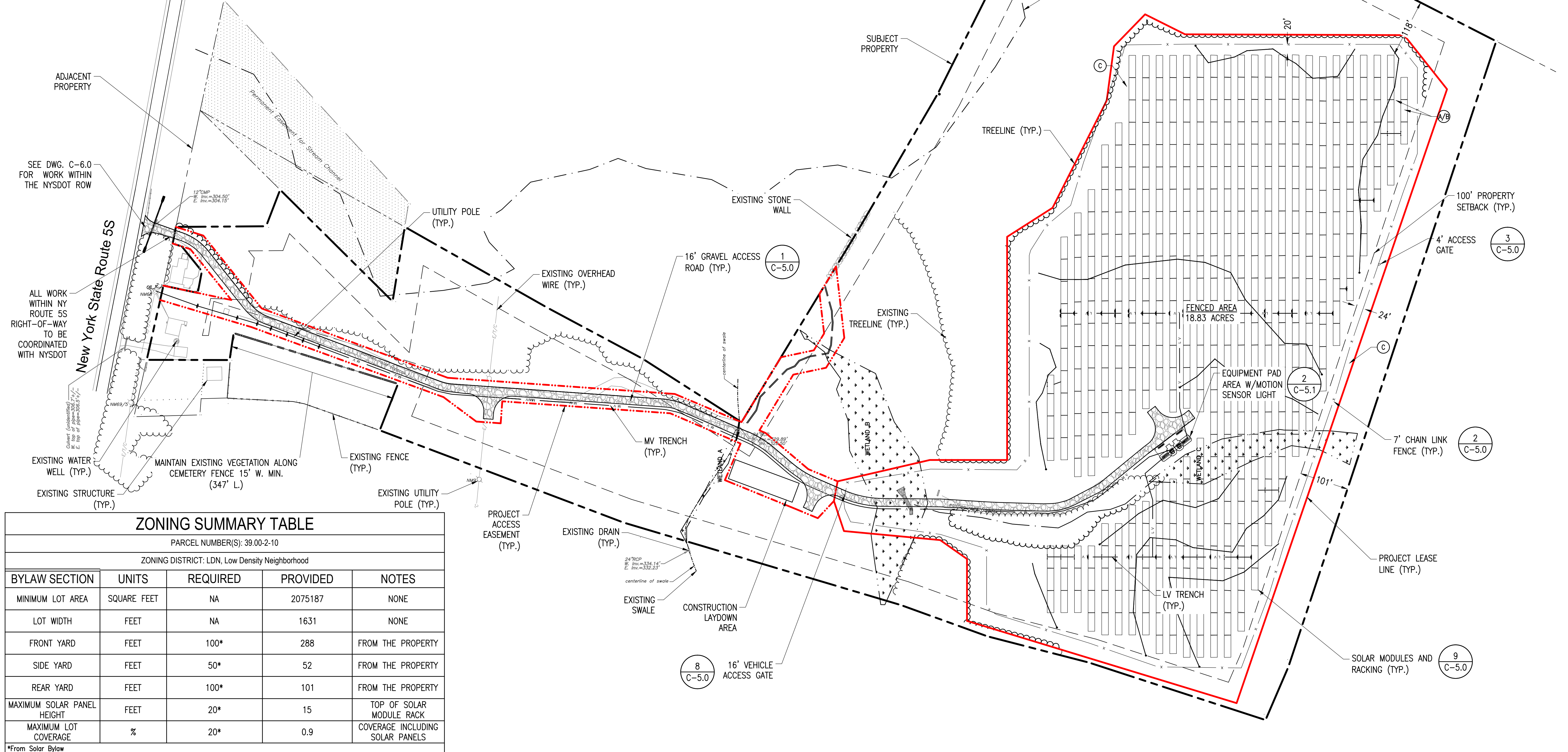
LOCATION	NAME/SPECIES	SUPPLIER	SEEDING RATE
A/B	BETWEEN AND UNDER SOLAR PANELS REBEL TALL FESCUE, CHEWINGS FESCUE OR HARD FESCUE ERNMX-129: CONSERVATION SHADE MIX	SEEDLAND.COM ERNST	5 lbs./1,000 SF
C	OUTSIDE OF FENCE ERNMX-179: BUTTERFLY & HUMMINGBIRD GARDEN MIX	ERNST	30 lbs./ACRE
D	SEE NOTE 4 GEOPERM BONDED FIBER MATRIX WITH TYPE A/B SEED	HYDROGRASS	6 LB./1,000 SF

1. BETWEEN DECEMBER 1ST AND APRIL 1ST, EACH TYPE OF SEED SHALL HAVE AN ADDITIONAL 1#/1,000 SF OF WINTER RYEGRASS OR GRAIN RYE GRASS SEED.

2. IT SHALL BE THE SUB-CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE PROJECT LIMIT OF WORK IS STABILIZED (IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS/REQUIREMENTS/PERMIT APPROVALS) DURING THE LENGTH OF THE PROJECT.

3. ALL DISTURBED AREAS SHALL BE RESTORED WITH 4" MINIMUM TOPSOIL & SEED PER SEEDING SPECIFICATIONS LISTED IN THIS TABLE.

4. ON SEEDED SLOPES OVER 20% THE CONTRACTOR SHALL ADD GEOPERM BONDED FIBER MATRIX TO TYPE A, B AND C SEED MIXES (6 LB./1000 SF)



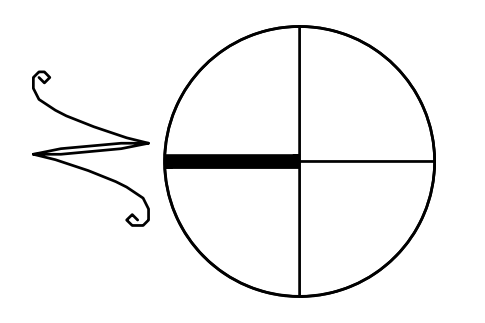
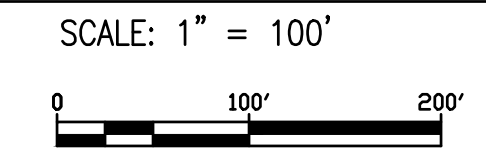
ZONING SUMMARY TABLE

PARCEL NUMBER(S): 39.00-2-10
ZONING DISTRICT: LDN, Low Density Neighborhood

BYLAW SECTION	UNITS	REQUIRED	PROVIDED	NOTES
MINIMUM LOT AREA	SQUARE FEET	NA	2075187	NONE
LOT WIDTH	FEET	NA	1631	NONE
FRONT YARD	FEET	100*	288	FROM THE PROPERTY
SIDE YARD	FEET	50*	52	FROM THE PROPERTY
REAR YARD	FEET	100*	101	FROM THE PROPERTY
MAXIMUM SOLAR PANEL HEIGHT	FEET	20*	15	TOP OF SOLAR MODULE RACK
MAXIMUM LOT COVERAGE	%	20*	0.9	COVERAGE INCLUDING SOLAR PANELS

*From Solar Bylaw

LAYOUT AND MATERIALS PLAN



LEGEND

	PROPERTY LINE
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	PROPERTY LINE SETBACKS

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C-3.0
LAYOUT AND MATERIALS PLAN

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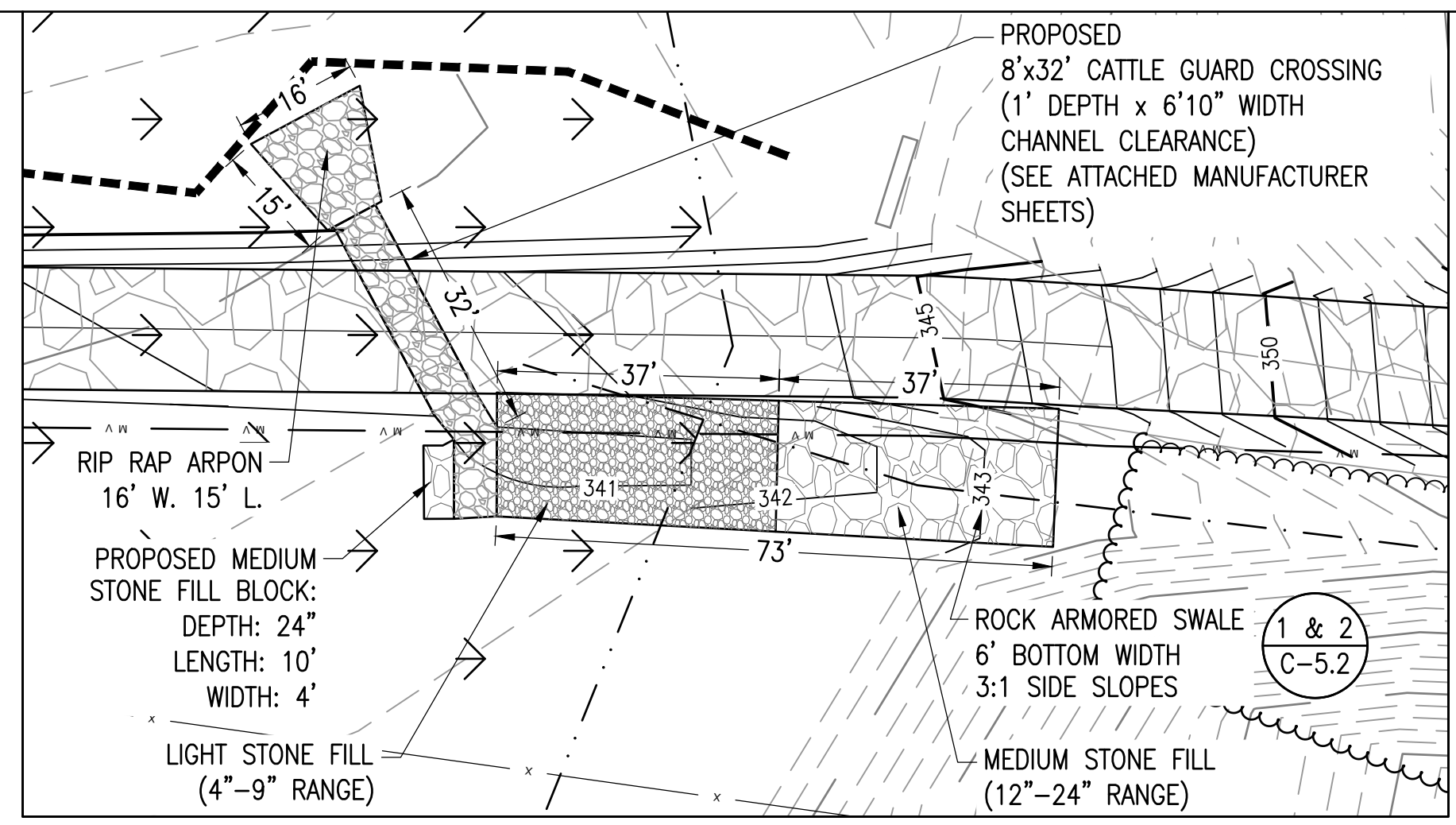
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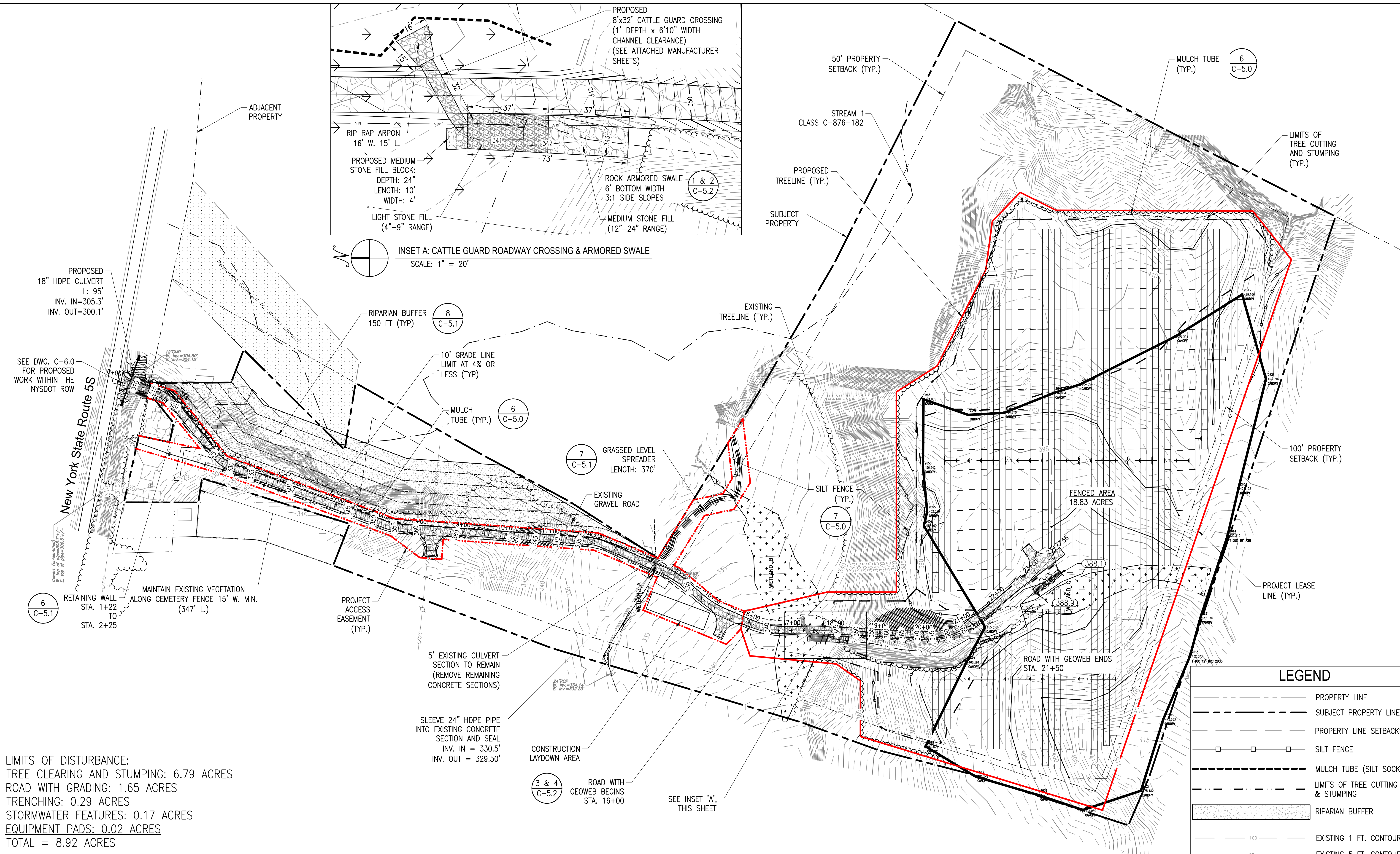
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GG	06/17/21	DC	GG	FOR SHUMAKER
GG	06/28/21	DC	GG	REVISIONS
GG	08/13/21	DC	GG	NYSDOT REVISIONS
GG	08/25/21	DC	GG	NYSDOT REVISIONS
GG	09/08/21	DC	GG	NYSDOT REVISIONS
GG	02/07/22	DC	GG	NYSDOT REVISIONS

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C-4.0
GRADING AND EROSION CONTROL PLAN



INSET A: CATTLE GUARD ROADWAY CROSSING & ARMORED SWALE
SCALE: 1" = 20'



PROPOSED 18" HDPE CULVERT
L: 95'
INV. IN=305.3'
INV. OUT=300.1'

SEE DWG. C-6.0 FOR PROPOSED WORK WITHIN THE NYSDOT ROW

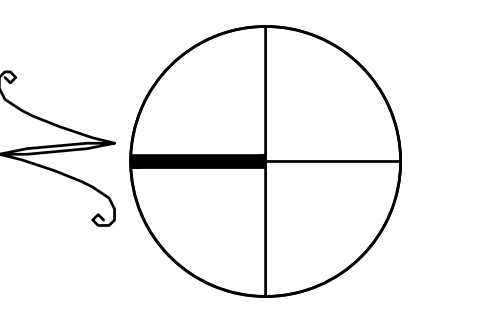
RETAINING WALL STA. 1+22 TO STA. 2+25

MAINTAIN EXISTING VEGETATION ALONG CEMETERY FENCE 15' W. MIN. (347' L.)

LIMITS OF DISTURBANCE:
TREE CLEARING AND STUMPING: 6.79 ACRES
ROAD WITH GRADING: 1.65 ACRES
TRENCHING: 0.29 ACRES
STORMWATER FEATURES: 0.17 ACRES
EQUIPMENT PADS: 0.02 ACRES
TOTAL = 8.92 ACRES

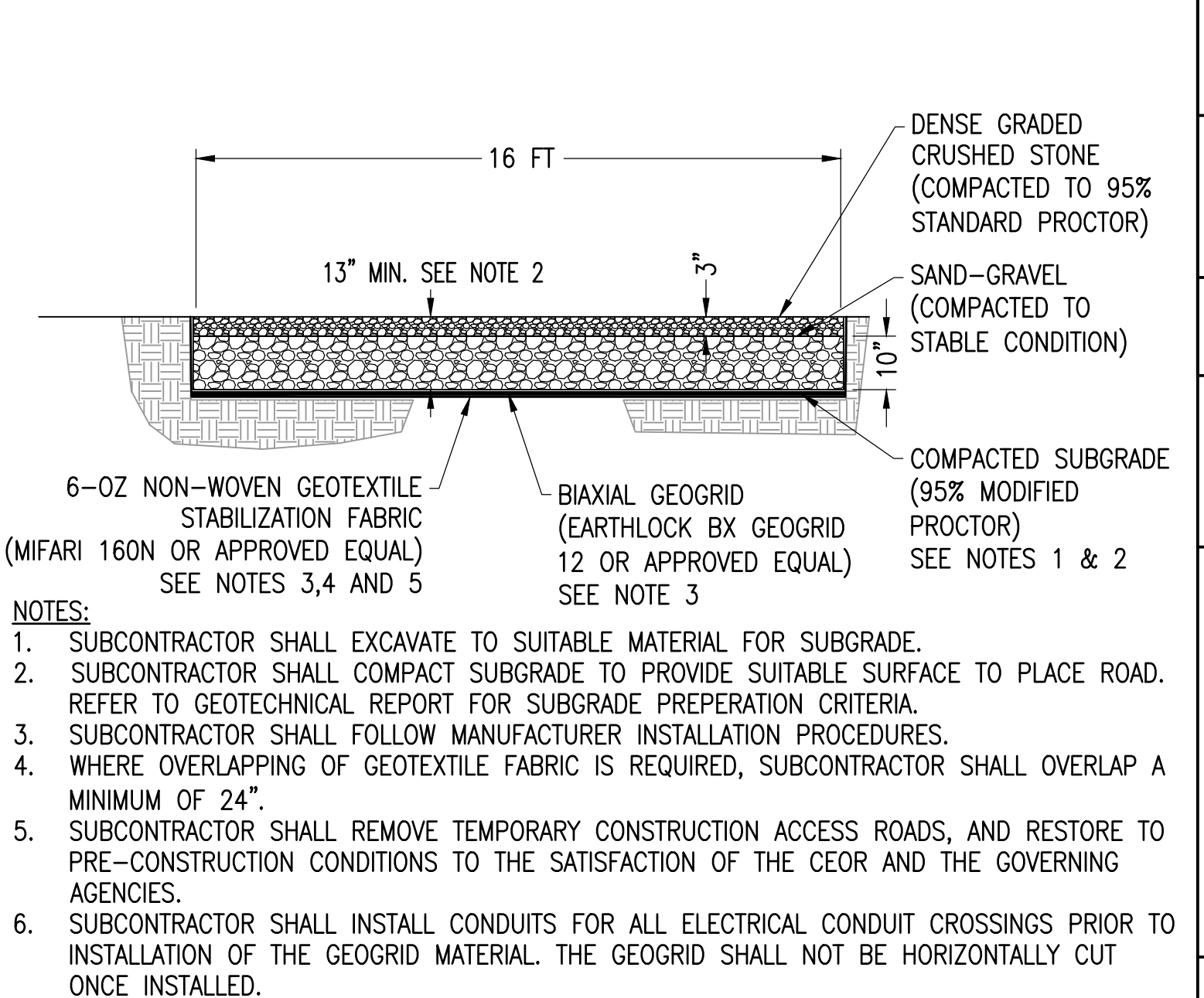
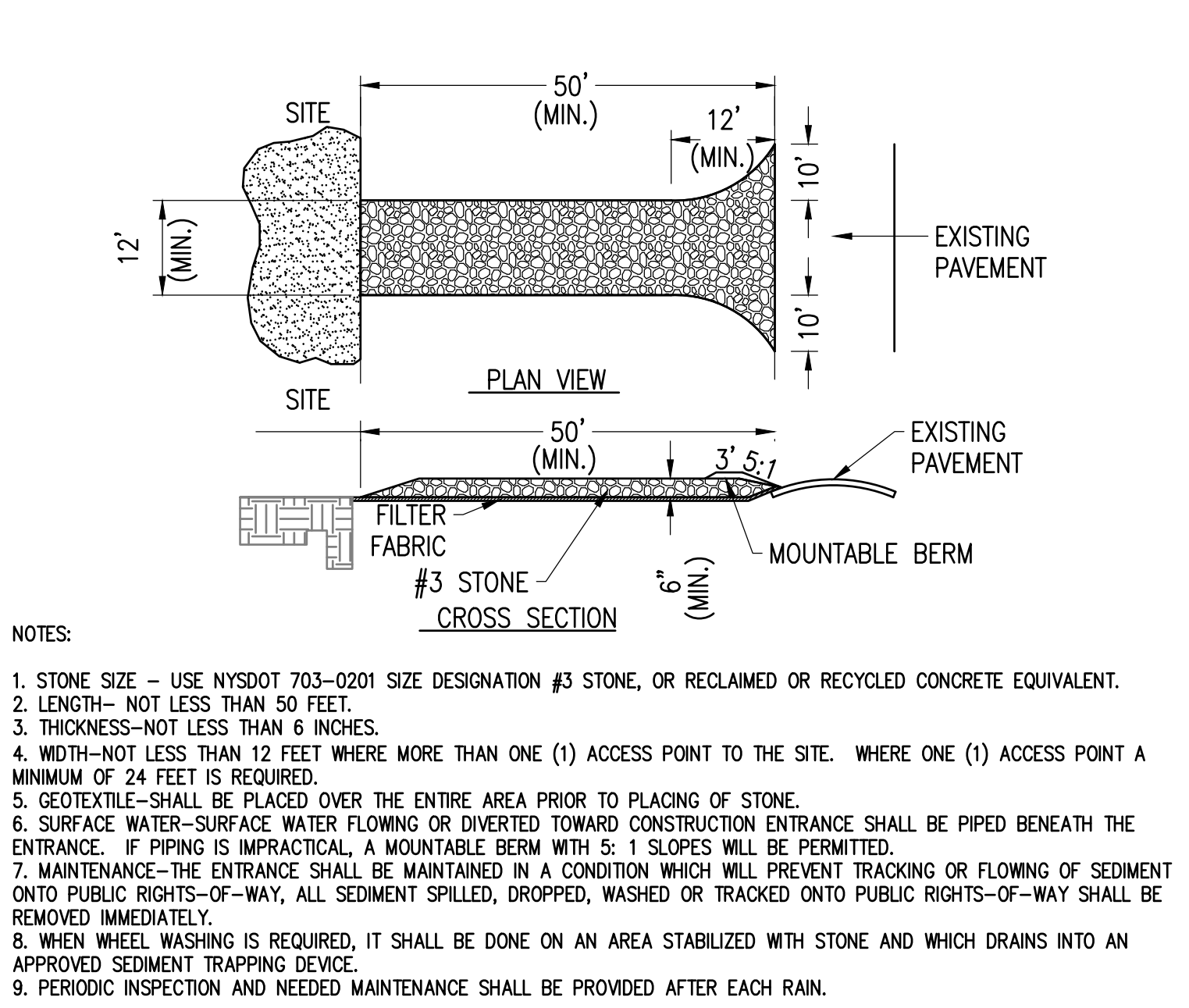
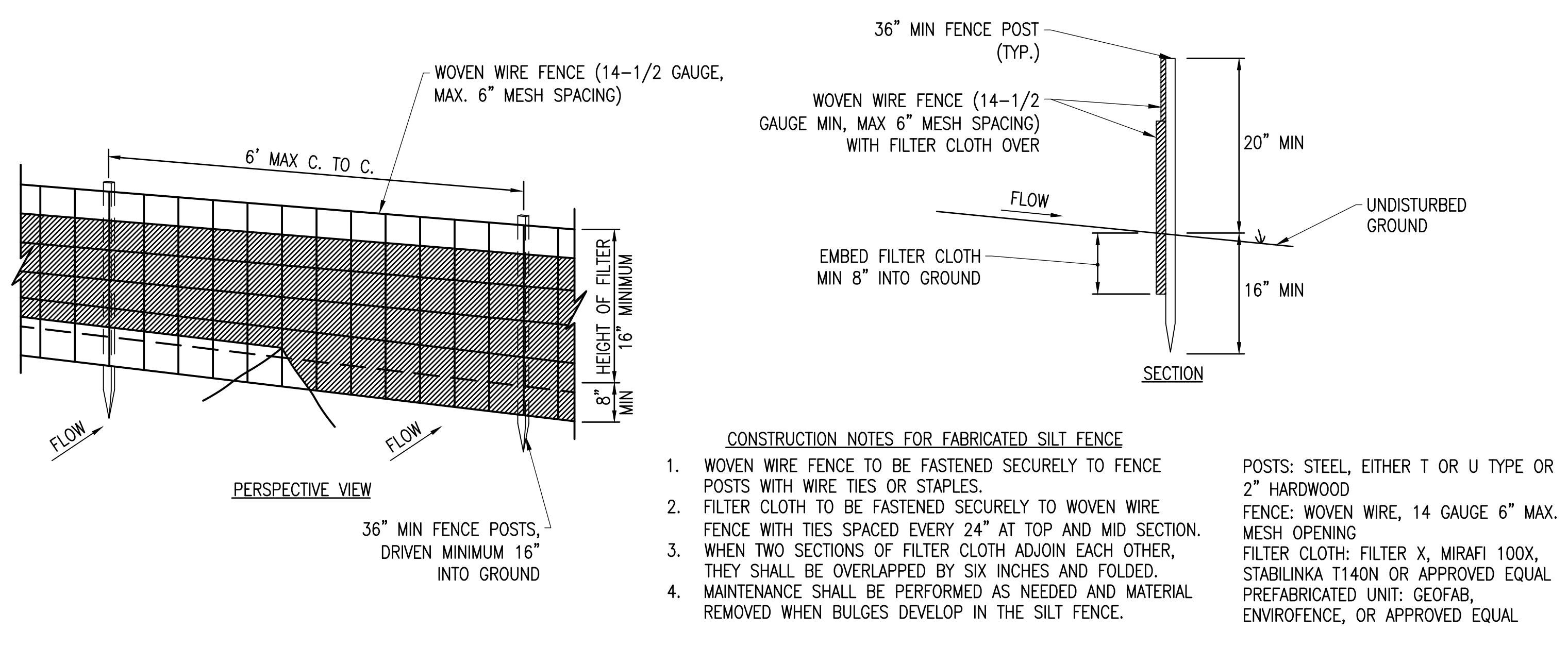
LEGEND

	PROPERTY LINE
	SUBJECT PROPERTY LINE
	PROPERTY LINE SETBACKS
	SILT FENCE
	MULCH TUBE (SILT SOCK)
	LIMITS OF TREE CUTTING & STUMPING
	RIPARIAN BUFFER
	EXISTING 1 FT. CONTOUR
	EXISTING 5 FT. CONTOUR
	PROPOSED 1 FT. CONTOUR
	PROPOSED 5 FT. CONTOUR
	TREELINE
	LV TRENCH
	MV TRENCH
	DRAIN CULVERT
	STATION



GRADING AND EROSION CONTROL PLAN

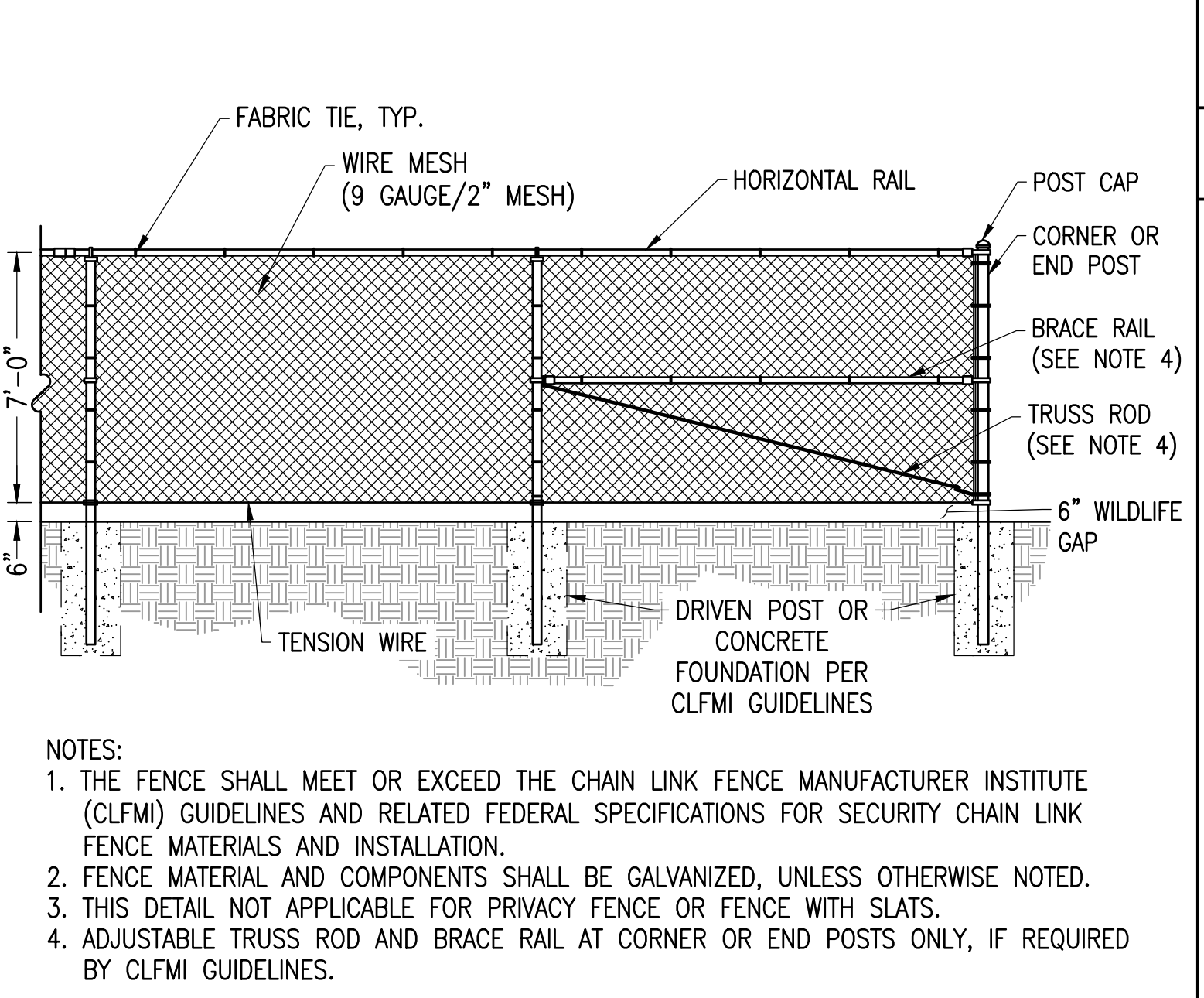
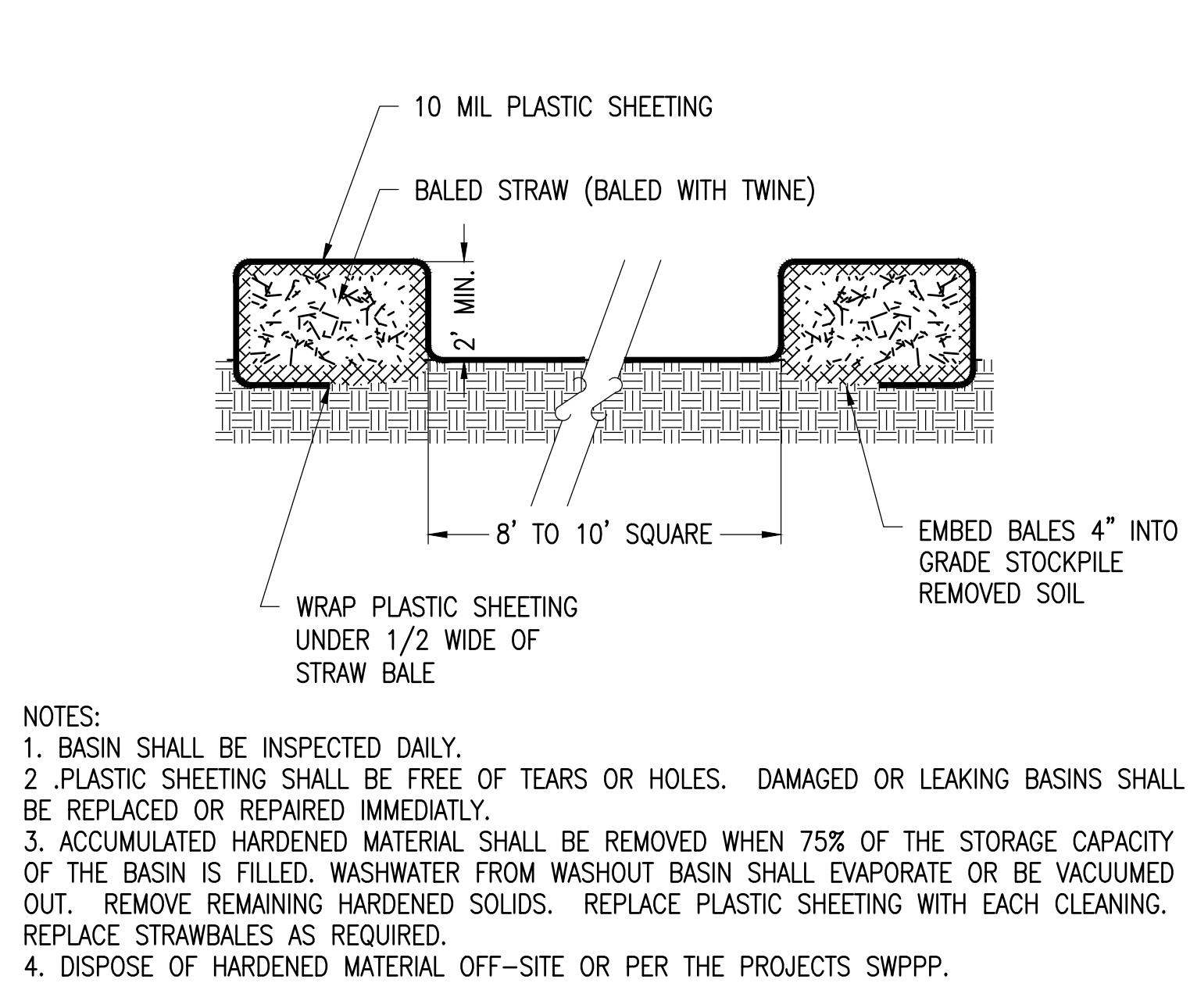
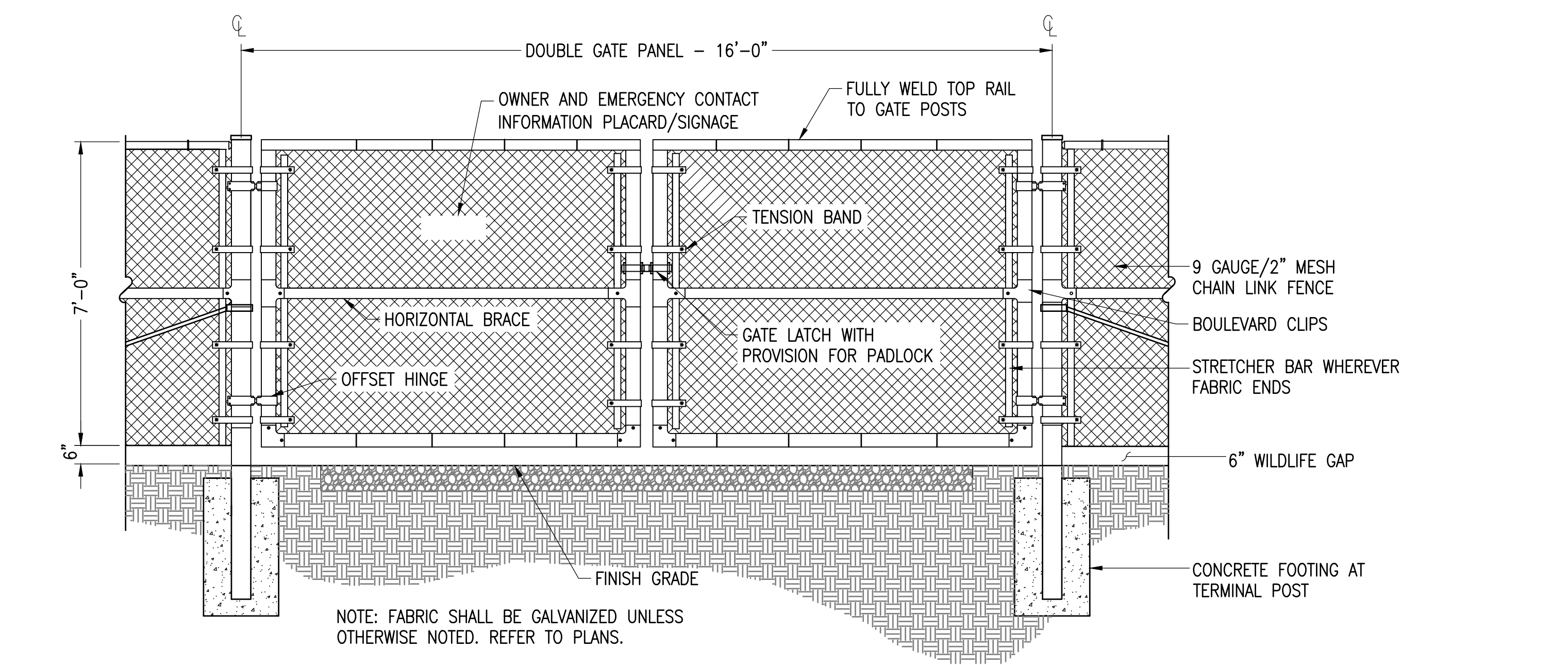
SCALE: 1" = 100'



7 SILT FENCE DETAIL SCALE: NTS
 XD_CIVIL_SILT-FENCE-DETAIL 03-07-2016

4 STABILIZED CONSTRUCTION EXIT SCALE: NTS
 XD_CIVIL_TEMPORARY CONSTRUCTION STABILIZED CONSTRUCTION EXIT_NY 2019-04-02

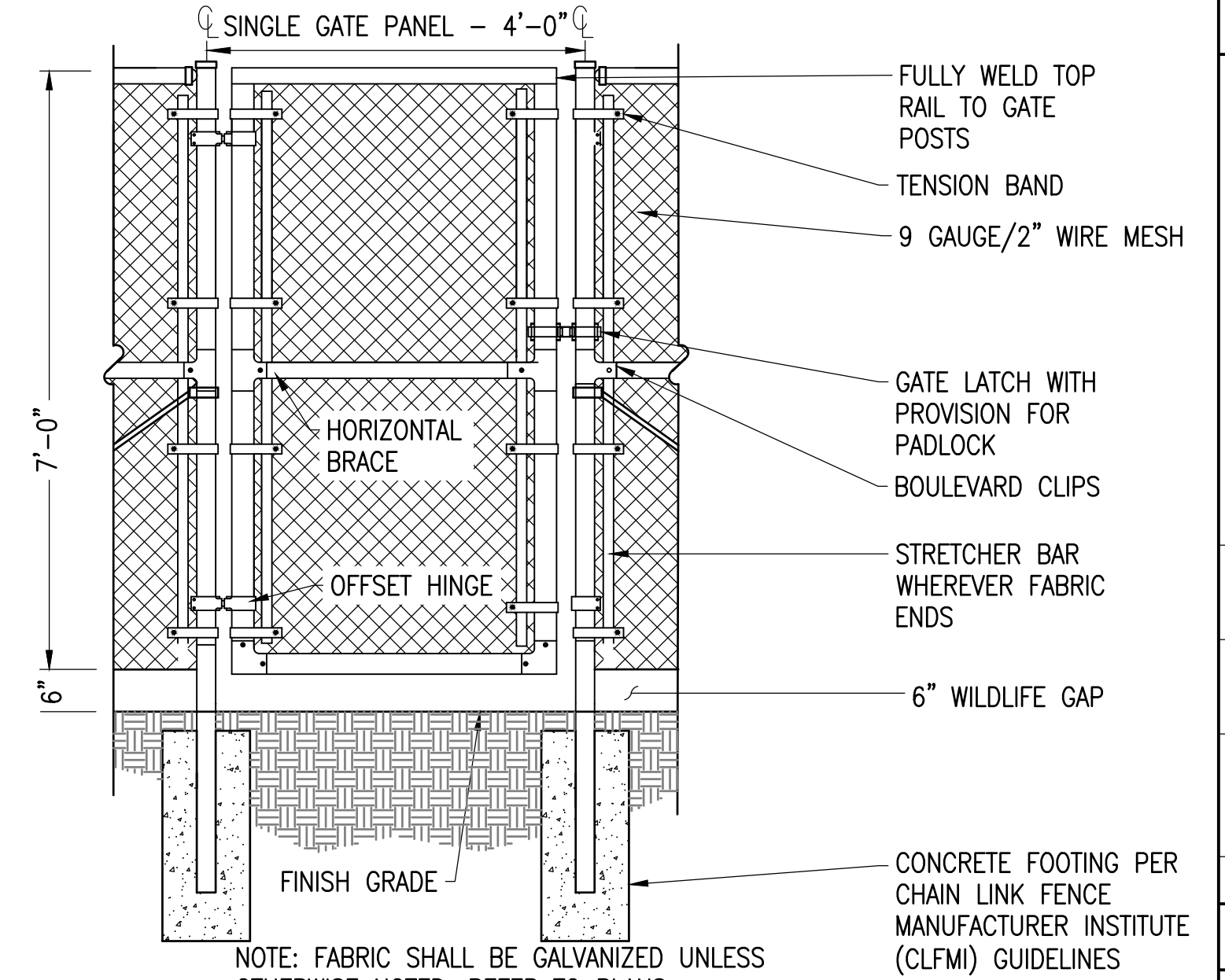
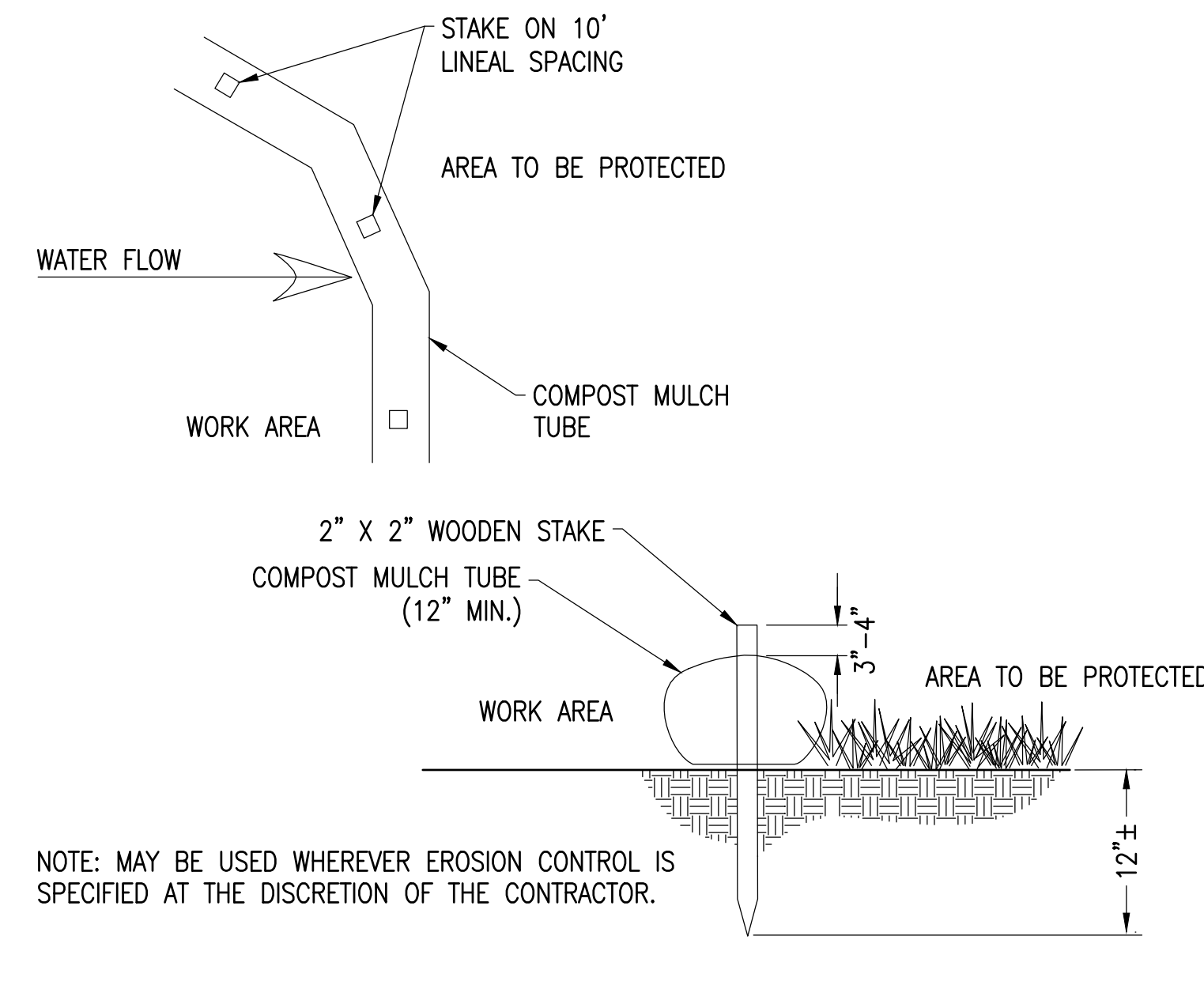
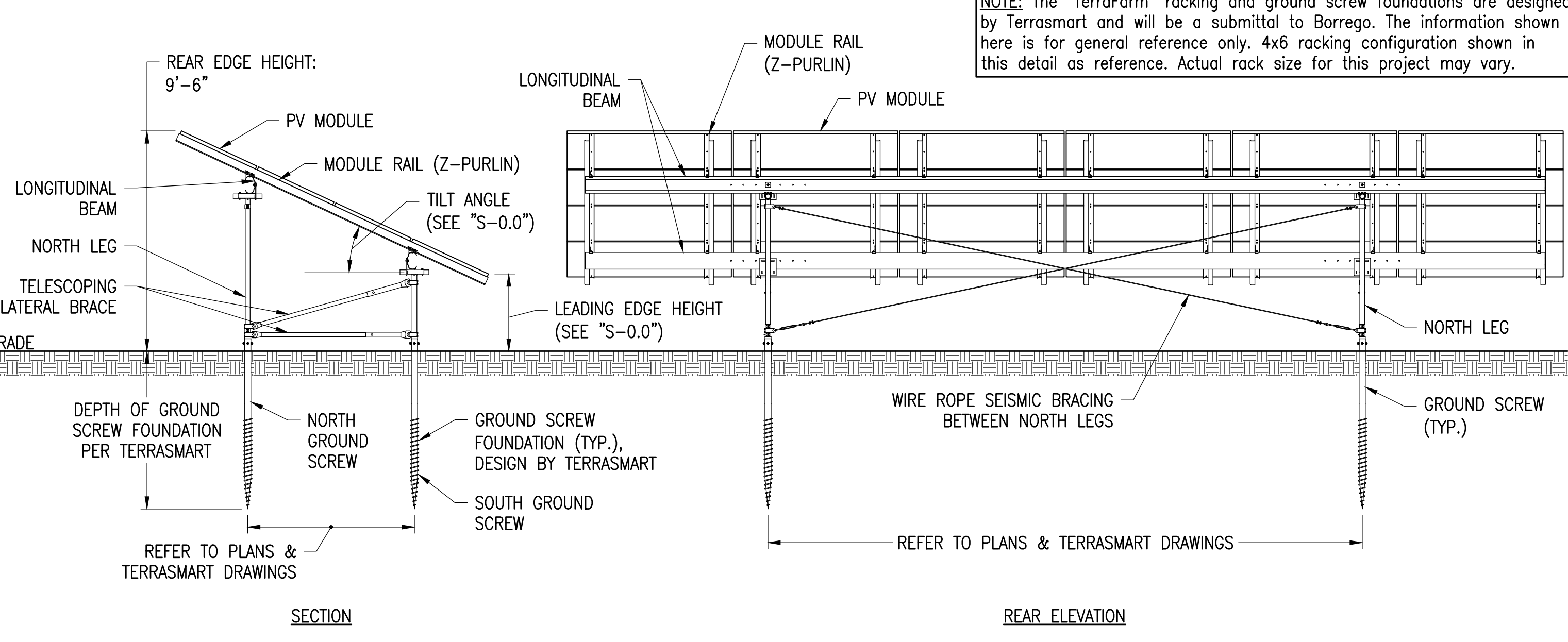
1 GRAVEL ACCESS ROAD SCALE: NTS
 XD_CIVIL_GRAVEL_ROAD_L 04-30-2019



8 VEHICLE GATE WITH WILDLIFE GAP SCALE: NTS
 XD_CIVIL_FENCE_VEHICLE_GATE_7 07-02-2020

5 CONCRETE WASHOUT BASINS SCALE: NTS
 XD_CIVIL_CONCRETE WASHOUT BASINS 07-26-2017

2 CHAIN LINK FENCE WITH WILDLIFE GAP SCALE: NTS
 XD_CIVIL_FENCE_7_CHAIN LINK_WILDLIFE_GAP 07-02-2020



9 TYPICAL RACK SECTION & REAR ELEVATION SCALE: NTS
 XD_STRUCT_TERRASMART_TF3L_RACK SECT & REAR ELEV 2016-12-03

6 MULCH TUBE SCALE: NTS
 XD_CIVIL_FILTERXX_FILTER SOCK 03-29-2016

3 4' ACCESS GATE WITH WILDLIFE GAP SCALE: NTS
 XD_CIVIL_SITE CONSTRUCTION_4' WALK THROUGH GATE 07-25-2017

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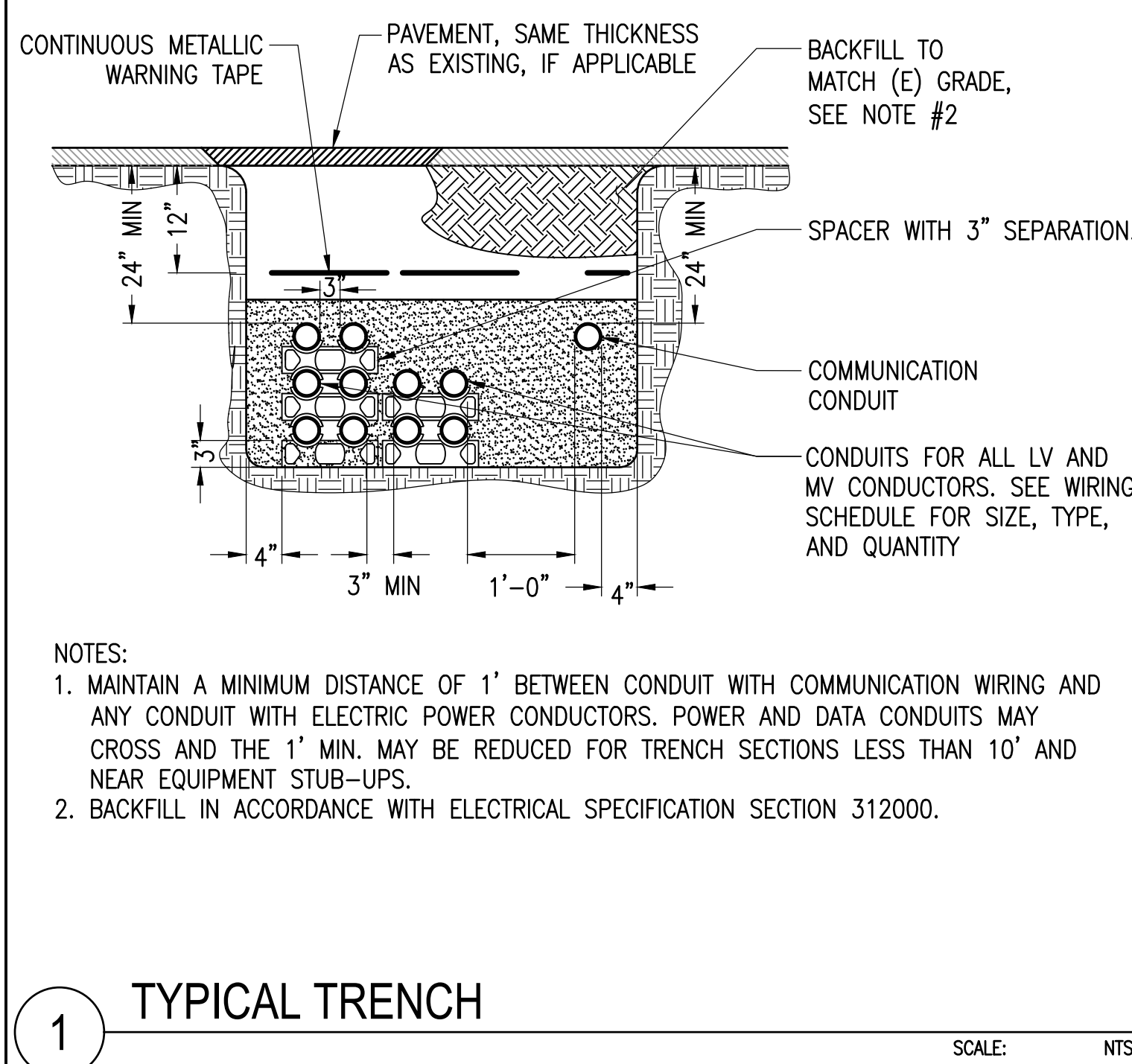
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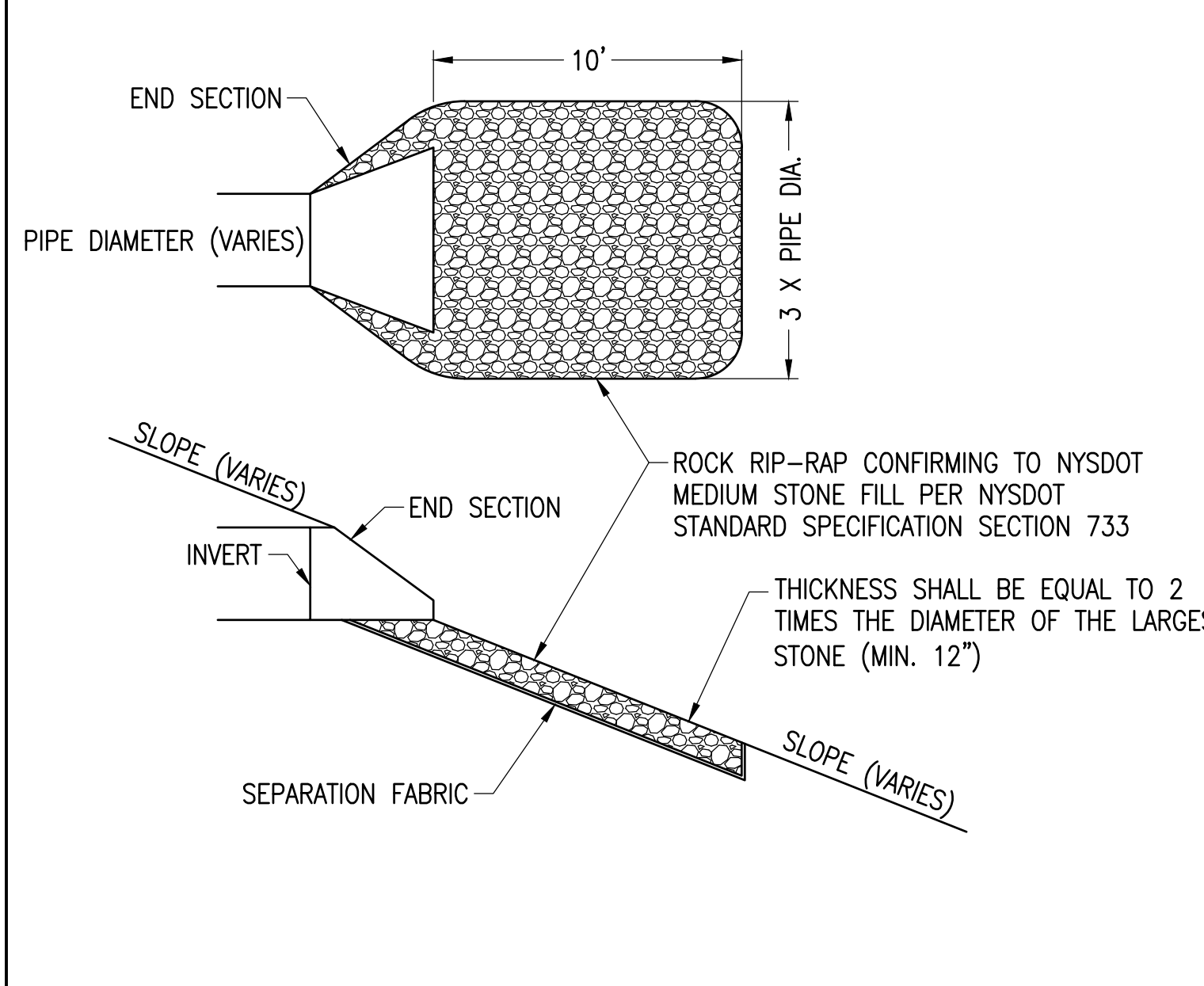
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C-5.0
 CIVIL DETAILS



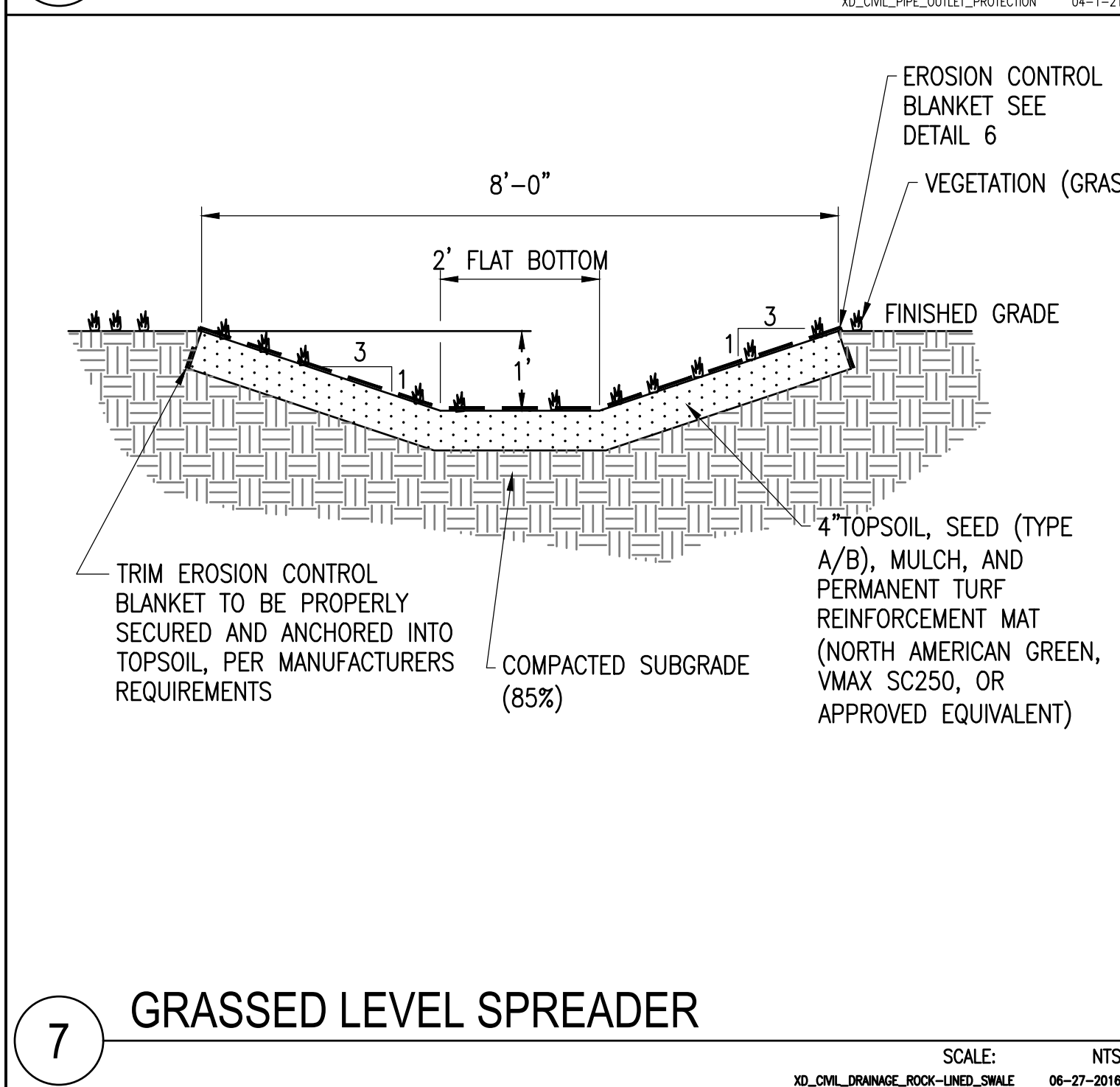
1 TYPICAL TRENCH

SCALE: NTS
XD_ELEC_TYPICAL_TRENCH 2018-10-30



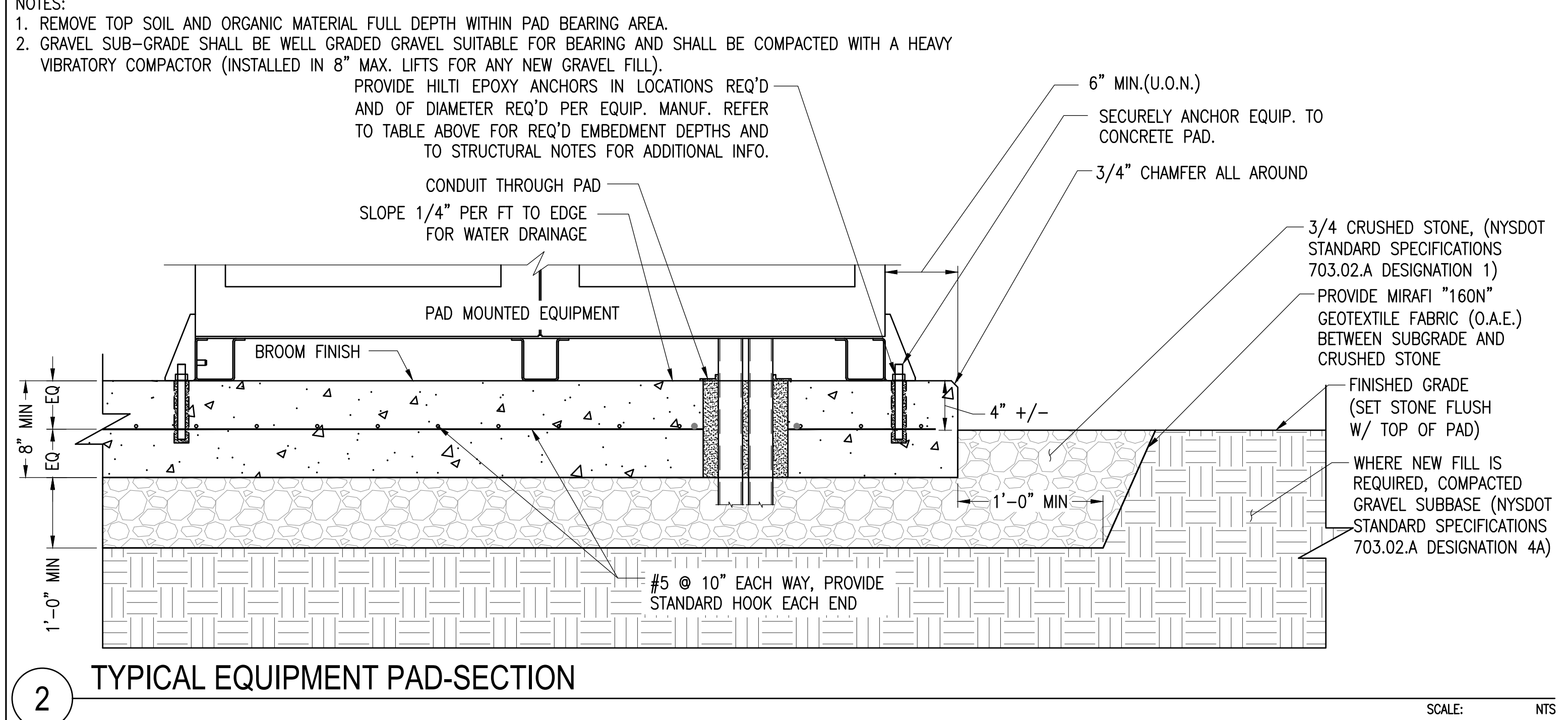
4 PIPE OUTLET PROTECTION

SCALE: NTS
XD_CML_PIPE_OUTLET_PROTECTION 04-1-21



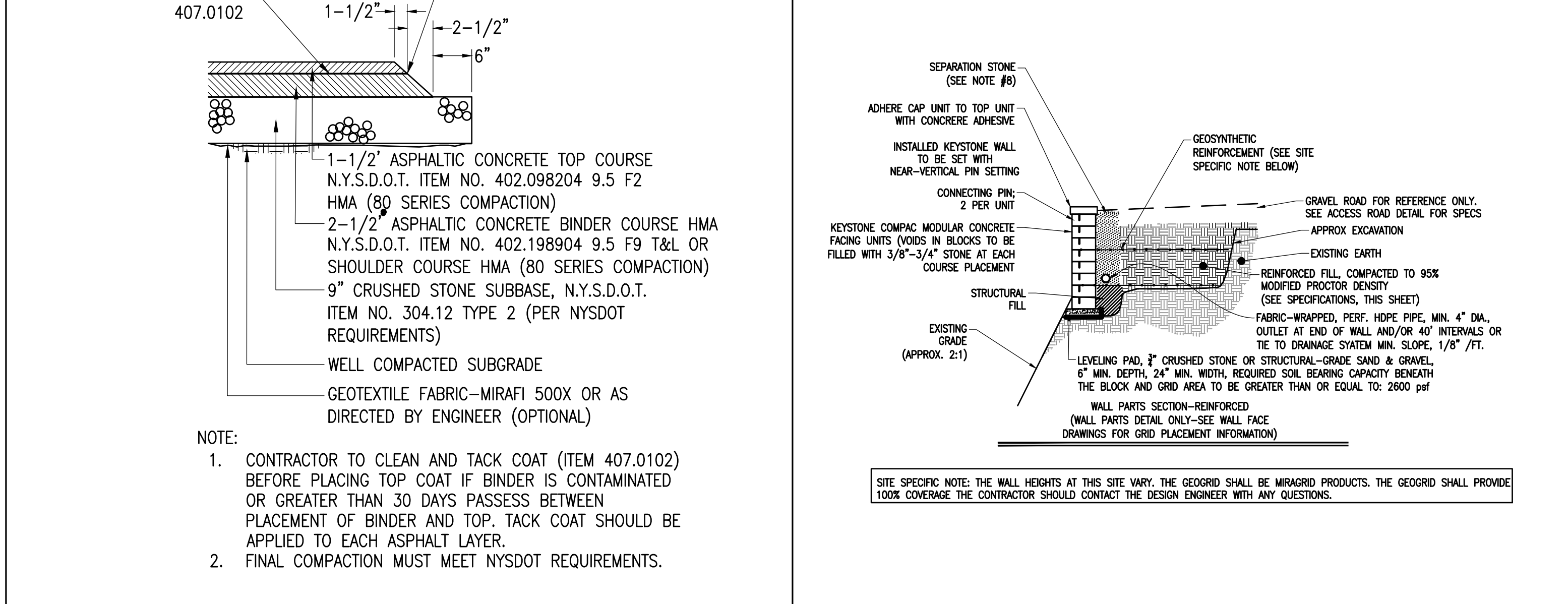
7 GRASSED LEVEL SPREADER

SCALE: NTS
XD_CML_DRAINAGE_ROCK-LINED_SWALE 06-27-2016



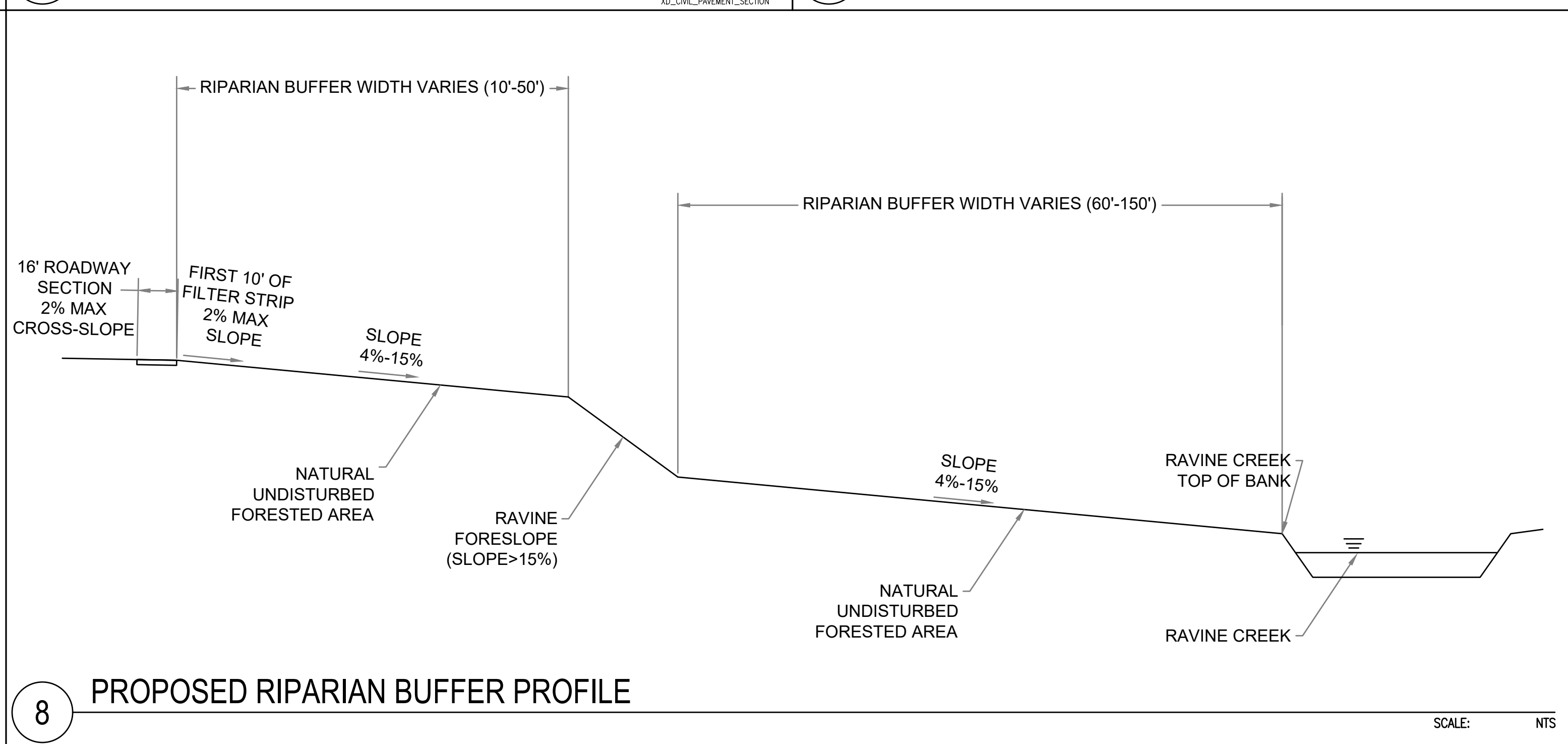
2 TYPICAL EQUIPMENT PAD-SECTION

SCALE: NTS
XD_STRUCT_EQUIPMENT_PAD_DETAILING (P) 2015-1-30



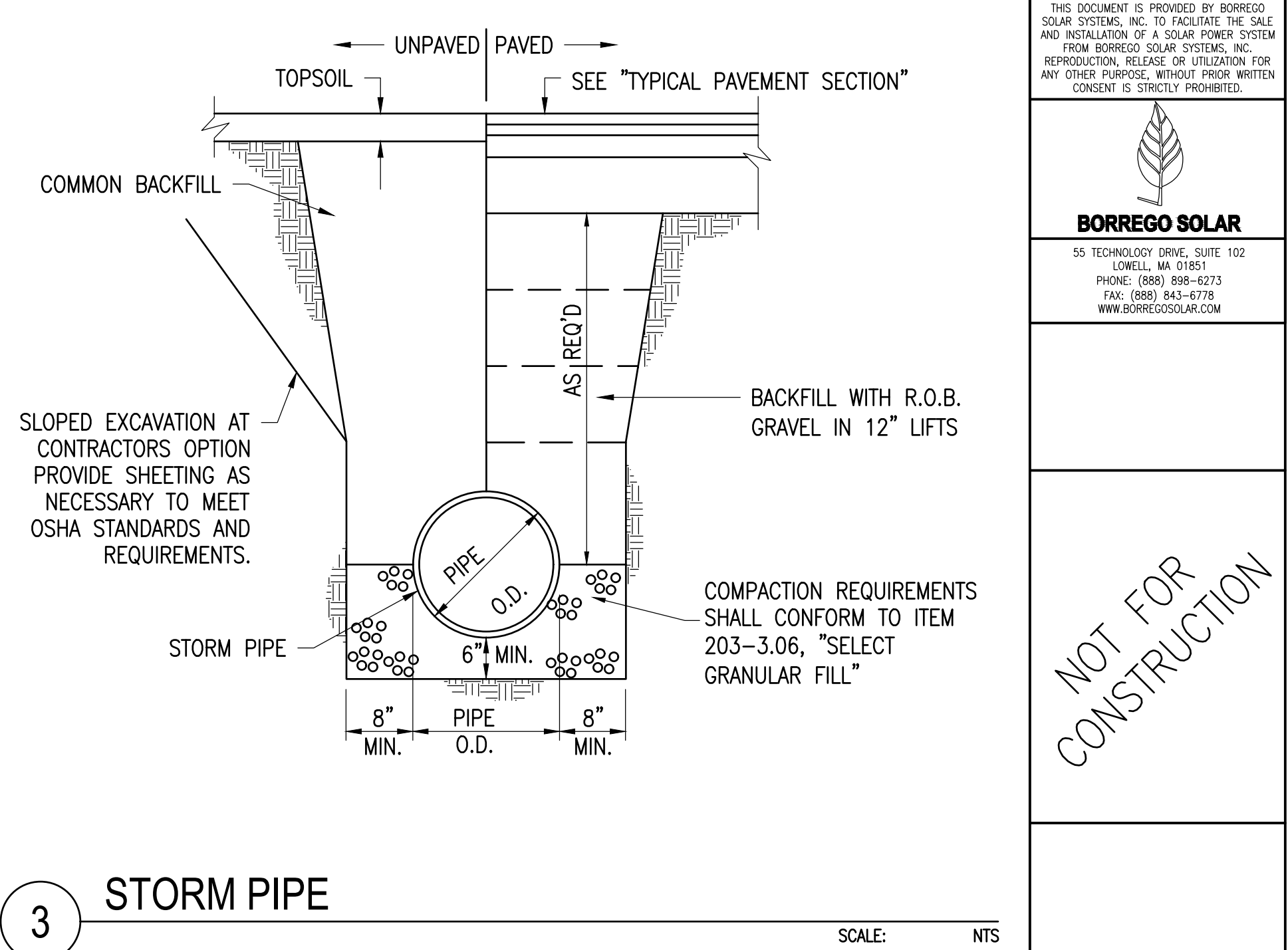
5 PAVEMENT SECTION

SCALE: NTS
XD_CML_PAVEMENT_SECTION



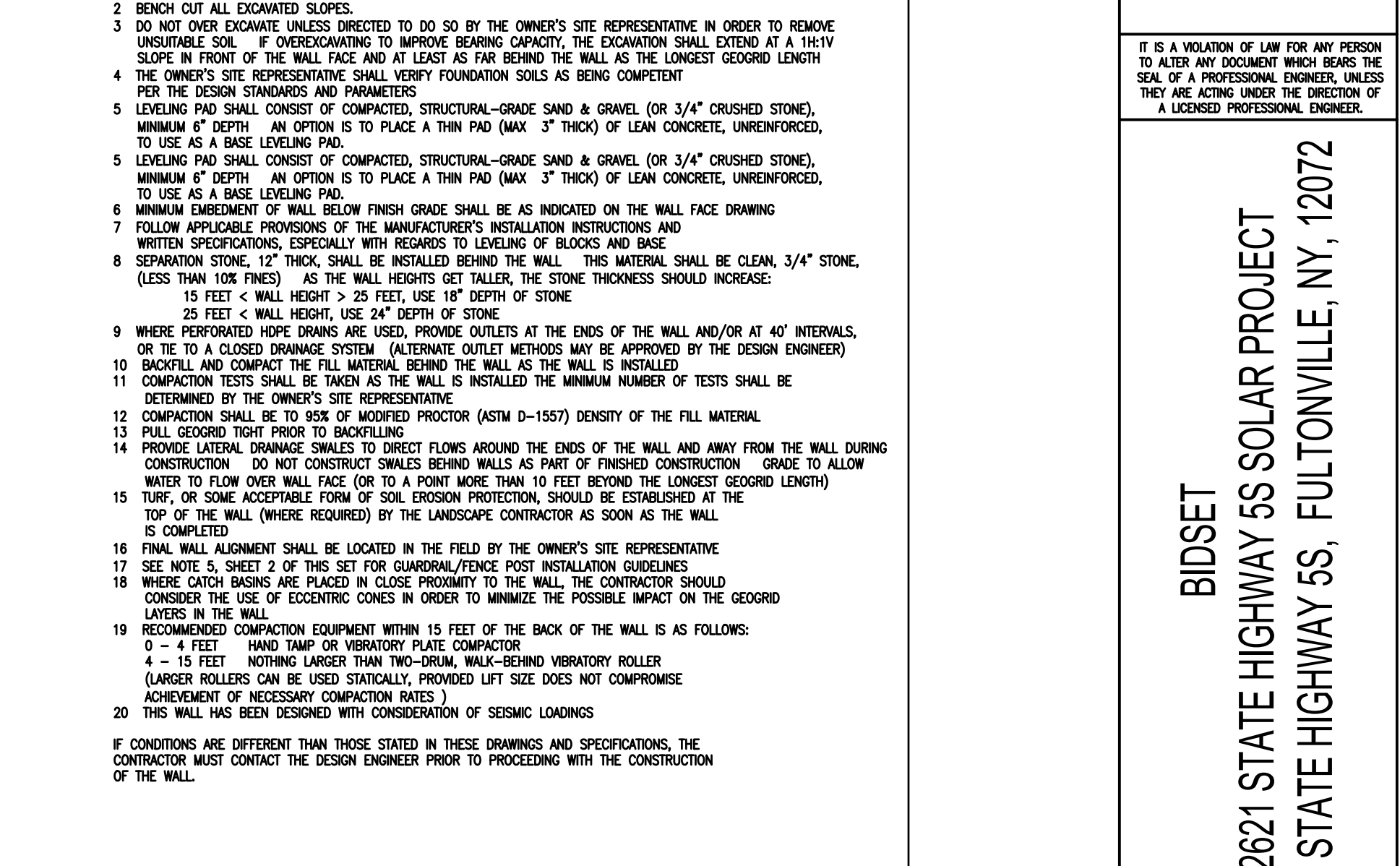
8 PROPOSED RIPARIAN BUFFER PROFILE

SCALE: NTS



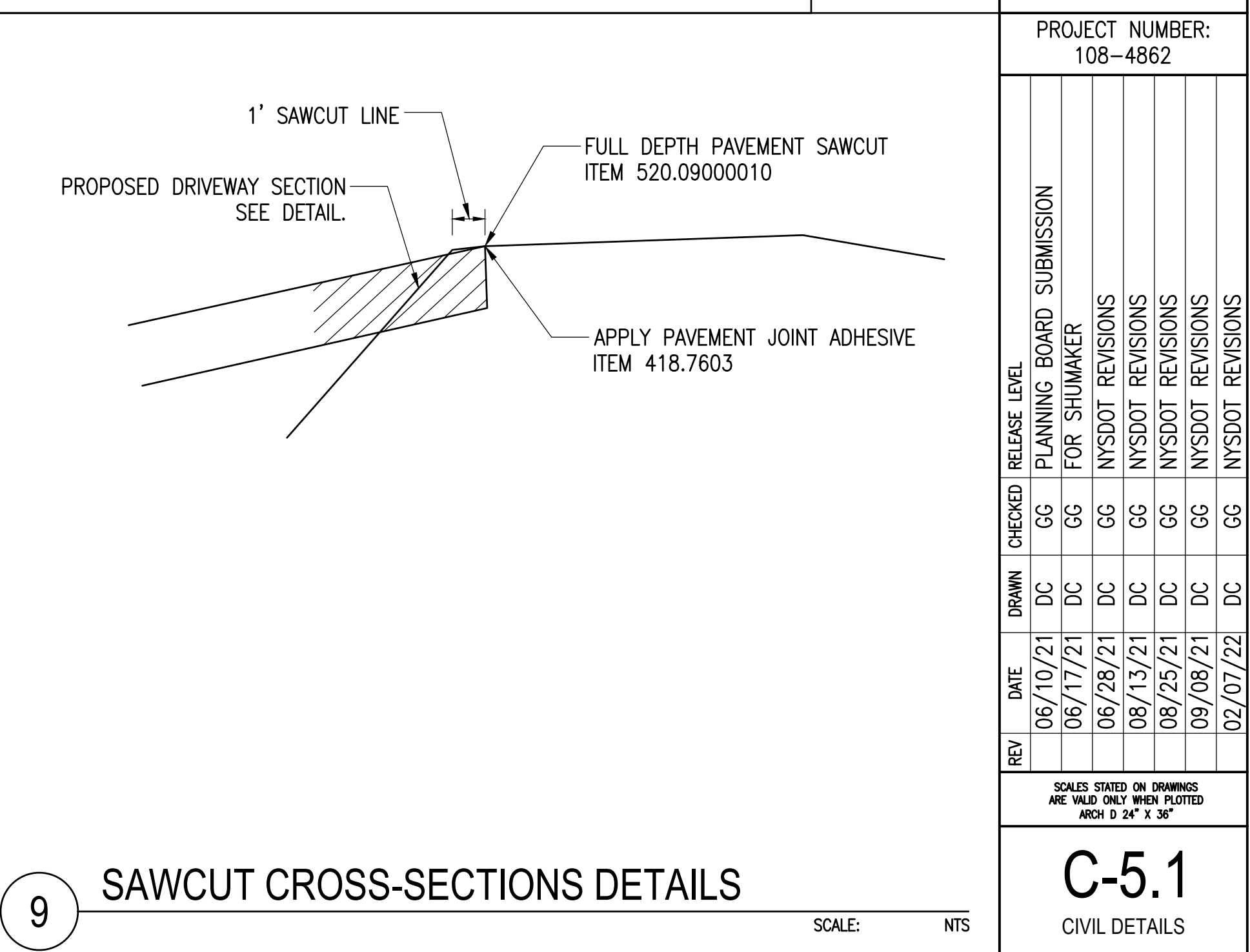
3 STORM PIPE

SCALE: NTS
XD_CML_STORM_PIPE 04-01-21



6 RETAINING WALL

SCALE: NTS



9 SAWCUT CROSS-SECTIONS DETAILS

SCALE: NTS

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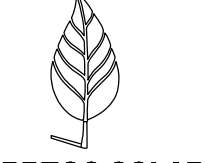
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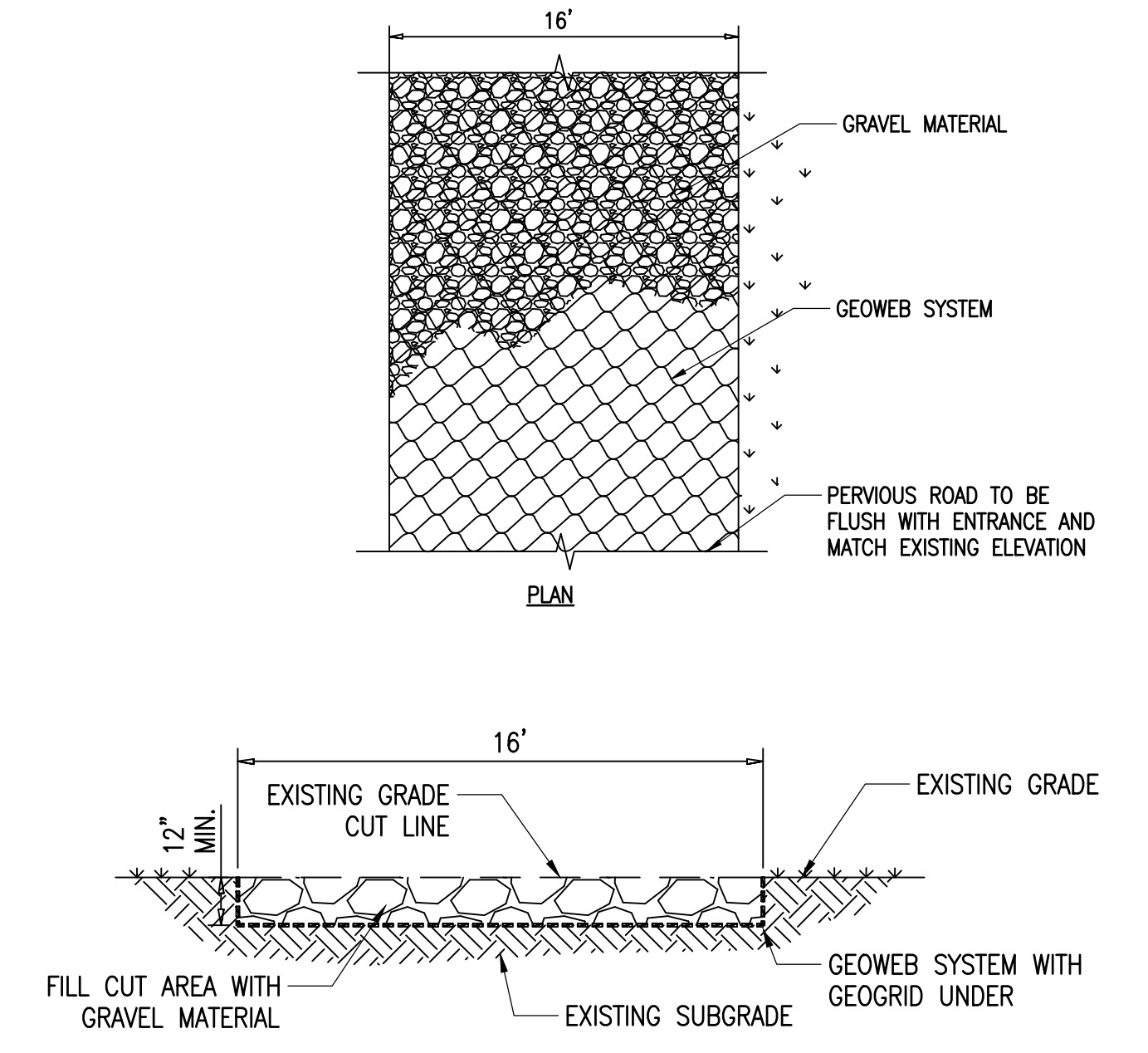
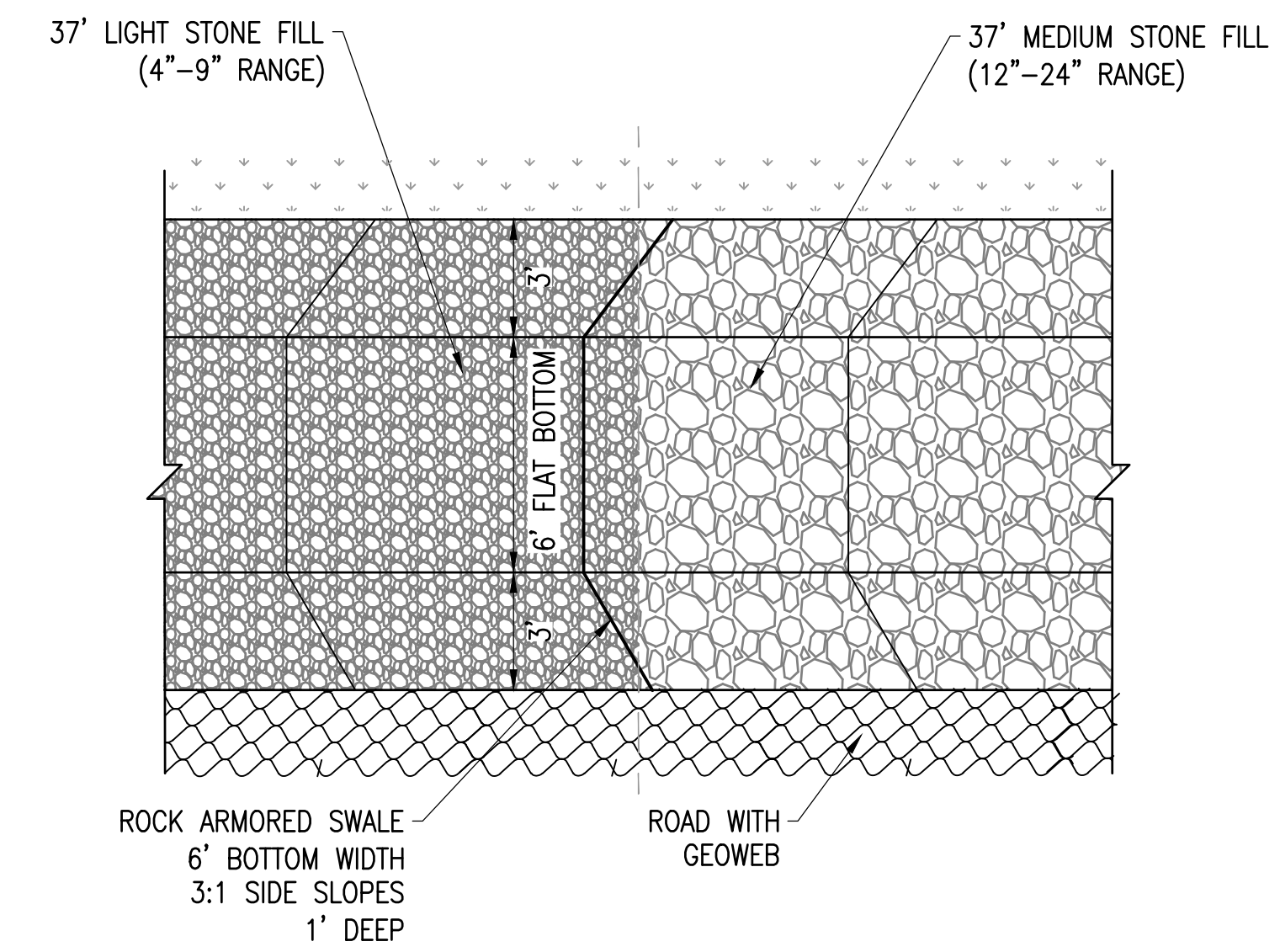
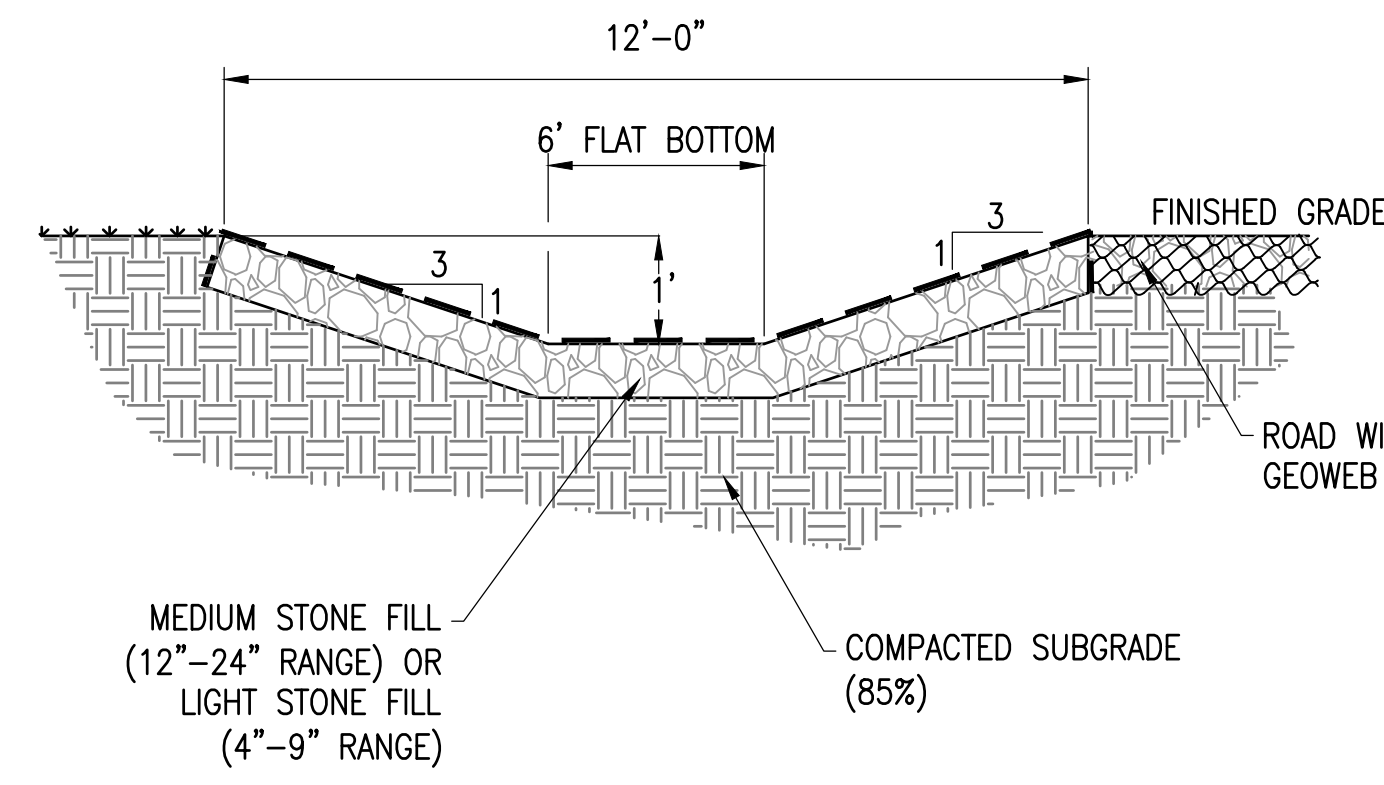
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SCALE: STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-5.2
CIVIL DETAILS



1 ROCK ARMORED SWALE SECTION VIEW

SCALE: NTS
XD_CIVIL_ROCK_ARMORED_SWALE_SECTION_VIEW 06-27-2016

2 ROCK ARMORED SWALE PLAN VIEW

SCALE: NTS
XD_CIVIL_ROCK_ARMORED_SWALE_PLAN_VIEW 06-27-2016

3 NYSDEC LIMITED USE PERVIOUS ACCESS ROAD W/GEOWEB

SCALE: NTS

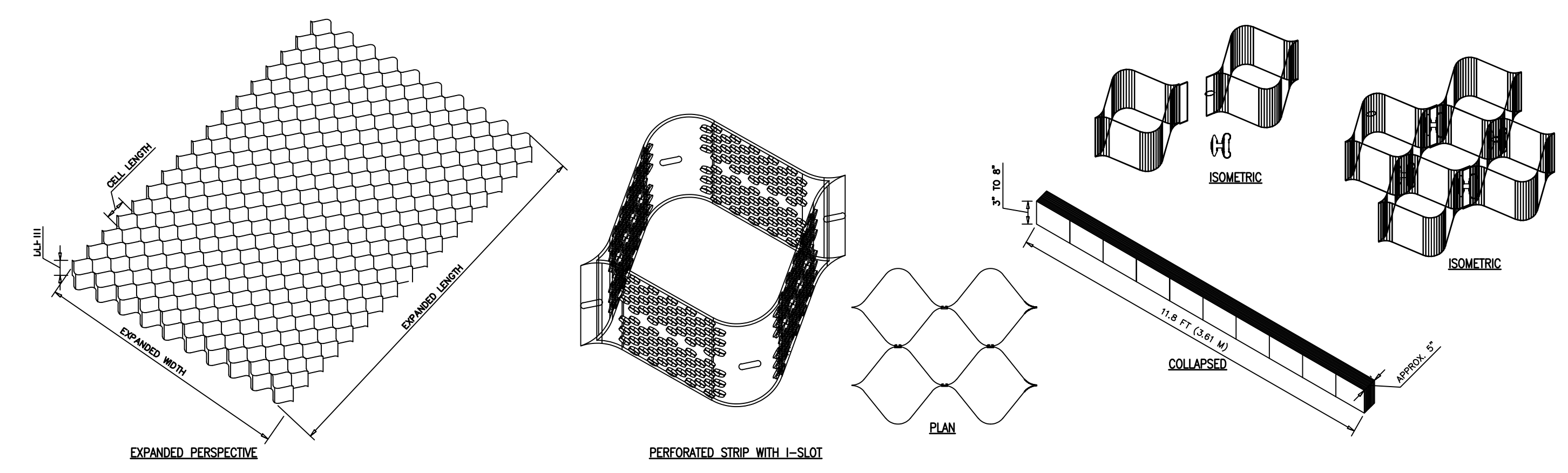
MATERIAL NOTES:

1. THE 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.
2. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
3. GEOGRID SHALL BE MIRAFI BXG110 OR APPROVED EQUAL. GEOGRID SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
4. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF SIX INCHES.
5. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.

WOVEN GEOTEXTILE MATERIAL NOTES:

1. 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.
2. 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.

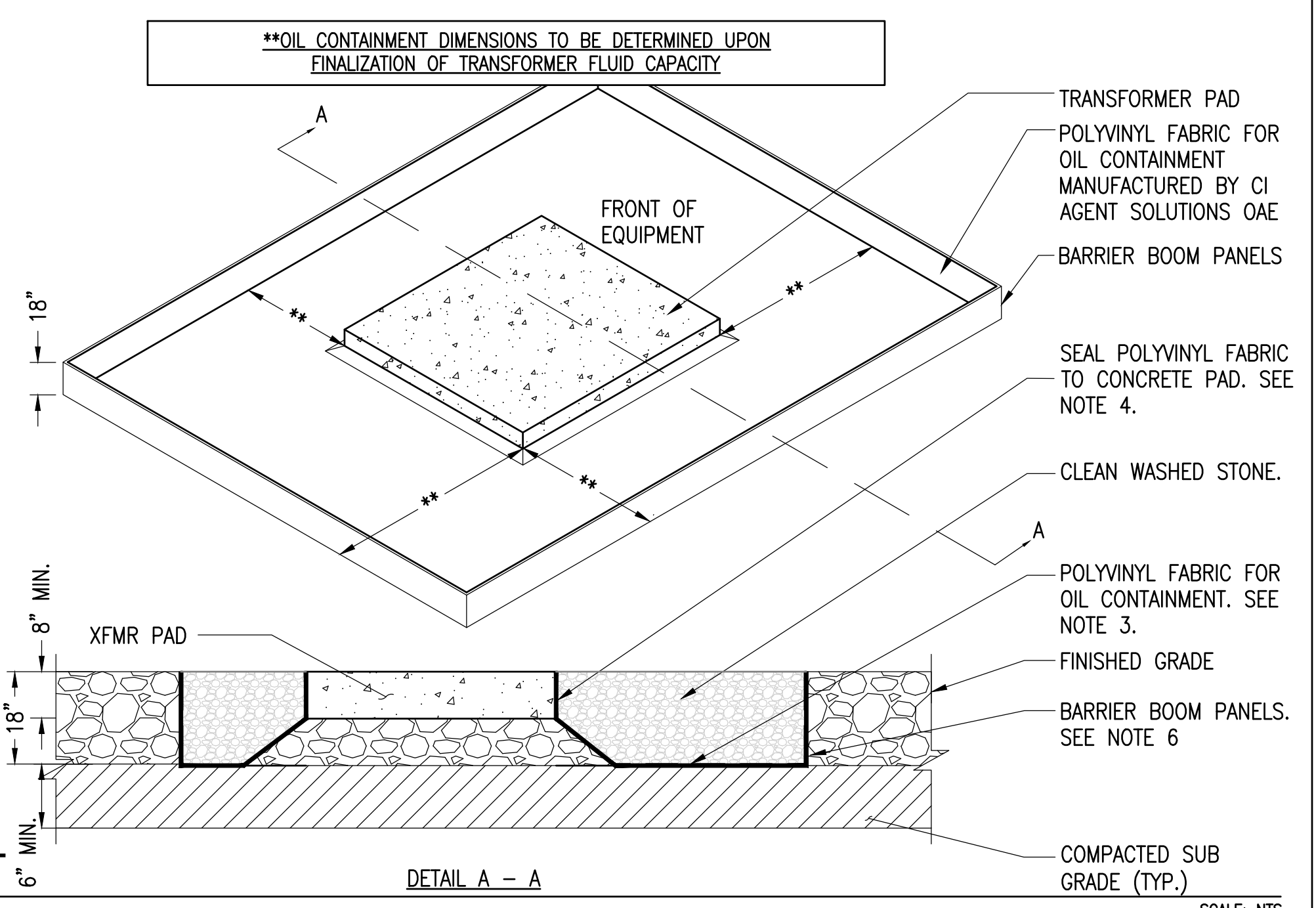
BASIS OF DESIGN: TENCATE MIRAFI RS#--- SERIES WOVEN GEOSYNTHETICS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, CA; 800--685--9990 OR 706--693--2226; WWW.MIRAFI.COM



4 GEOWEB SYSTEM

SCALE: N.T.S.

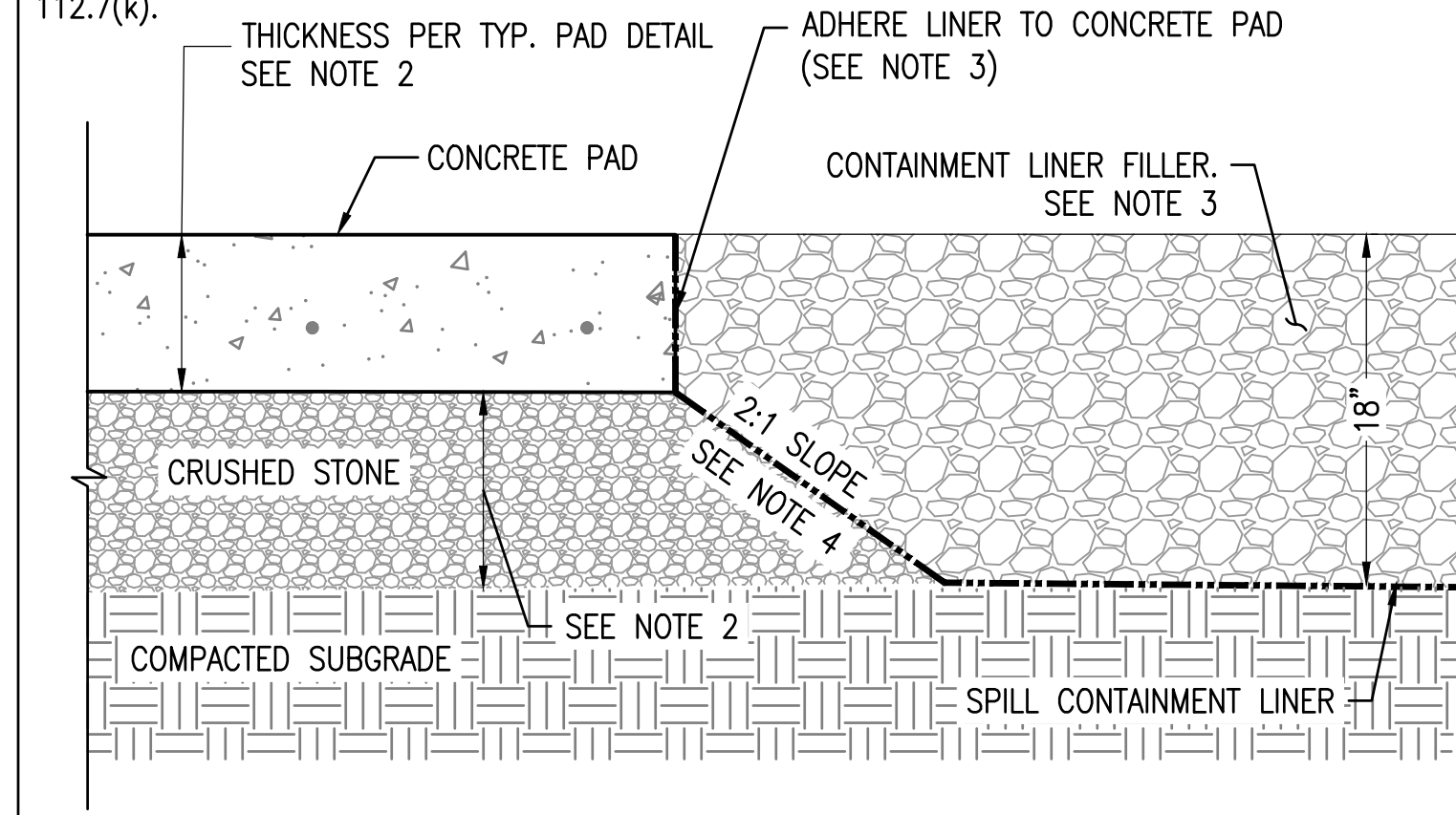
- NOTES:
1. PRIOR TO INSTALLATION, SUBCONTRACTOR SHALL CONTACT CONTAINMENT DISTRIBUTOR, SO THAT A REPRESENTATIVE CAN BE ON SITE DURING CONSTRUCTION. DOCUMENTING INSTALLATION IS REQUIRED TO VALIDATE OIL CONTAINMENT PROTECTION POLICY.
 2. EXCAVATION AREA TO BE MINIMUM OF 1' LARGER THAN SIZE OF CONTAINMENT UNIT AND MINIMUM OF 6" DEEPER THAN THE FLOOR OF THE CONTAINMENT UNIT.
 3. CONTRACTOR SHALL SEAM POLYVINYL FABRIC WITH ADHESIVE AND INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
 4. AFTER ALL FLOOR SEAMING IS COMPLETE, SUBCONTRACTOR SHALL SEAL POLYVINYL LINER TO CONCRETE PAD USING BENTONITE GRANULAR CLAY IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
 5. SUBCONTRACTOR SHALL SEAL ALL CONDUIT PENETRATIONS WITH FIELD CONSTRUCTED POLYVINYL BOOTS AND BRIMS PER MANUFACTURERS SPECIFICATIONS. A SINGLE BOOT SHALL BE PLACED AROUND GROUPS OF CONDUIT.
 6. SUBCONTRACTOR SHALL PROVIDE 2" WOODEN STAKES TO SUPPORT THE CONTAINMENT WALLS. INSTALLATION OF OUTSIDE BARRIER BOOM USING STAKES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 7. PRIOR TO BACKFILLING THE FABRIC THE CONTRACTOR SHALL NOTIFY THE BORREGO SOLAR CIVIL ENGINEER AND PROVIDE SUBMITTAL FOR BACKFILL MATERIAL. PROVIDE A MINIMUM OF 48 HOURS NOTICE.
- SECONDARY CONTAINMENT IS ONE METHOD FOR COMPLIANCE WITH SPCC REGULATIONS (40 CFR PART 112). ALTERNATIVE MEASURES AND SELF-CERTIFICATION OF THE SPCC PLAN MAY BE AVAILABLE UNDER SECTION 112.7(k)



5 SECONDARY SPILL CONTAINMENT LARGE

SCALE: NTS
XD_ELEC_TRANSFORMER_OIL_CONTAINMENT_SINGLE_LARGE 2020-7-1

SECONDARY CONTAINMENT IS ONE METHOD FOR COMPLIANCE WITH SPCC REGULATIONS (40 CFR PART 112). ALTERNATIVE MEASURES AND SELF-CERTIFICATION OF THE SPCC PLAN MAY BE AVAILABLE UNDER SECTION 112.7(k).



- NOTES:
1. THIS DETAIL APPLICABLE AT EQUIPMENT PADS WITH SPILL CONTAINMENT ONLY.
 2. REFER TO CONCRETE EQUIPMENT PAD SECTION FOR ADDITIONAL INFORMATION.
 3. REFER TO SPILL CONTAINMENT DETAIL(S) ON DRAWINGS BY OTHERS FOR ADDITIONAL INFORMATION.
 4. EXCAVATE OUT FROM THE CONCRETE PAD AT A 2:1 (HORIZONTAL TO VERTICAL) SLOPE TO AVOID UNDERMINING EQUIPMENT PAD.

6 SECONDARY SPILL CONTAINMENT LINER

SCALE: NTS
XD_STRUCT_EQUIPMENT_PAD_SPILL_CONTAINMENT 2019-12-13

NOT FOR CONSTRUCTION

IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER ANY DOCUMENT WHICH BEARS THE SEAL OF A PROFESSIONAL ENGINEER, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

BIDSET
2621 STATE HIGHWAY 55 SOLAR PROJECT
2621 STATE HIGHWAY 55, FULTONVILLE, NY, 12072

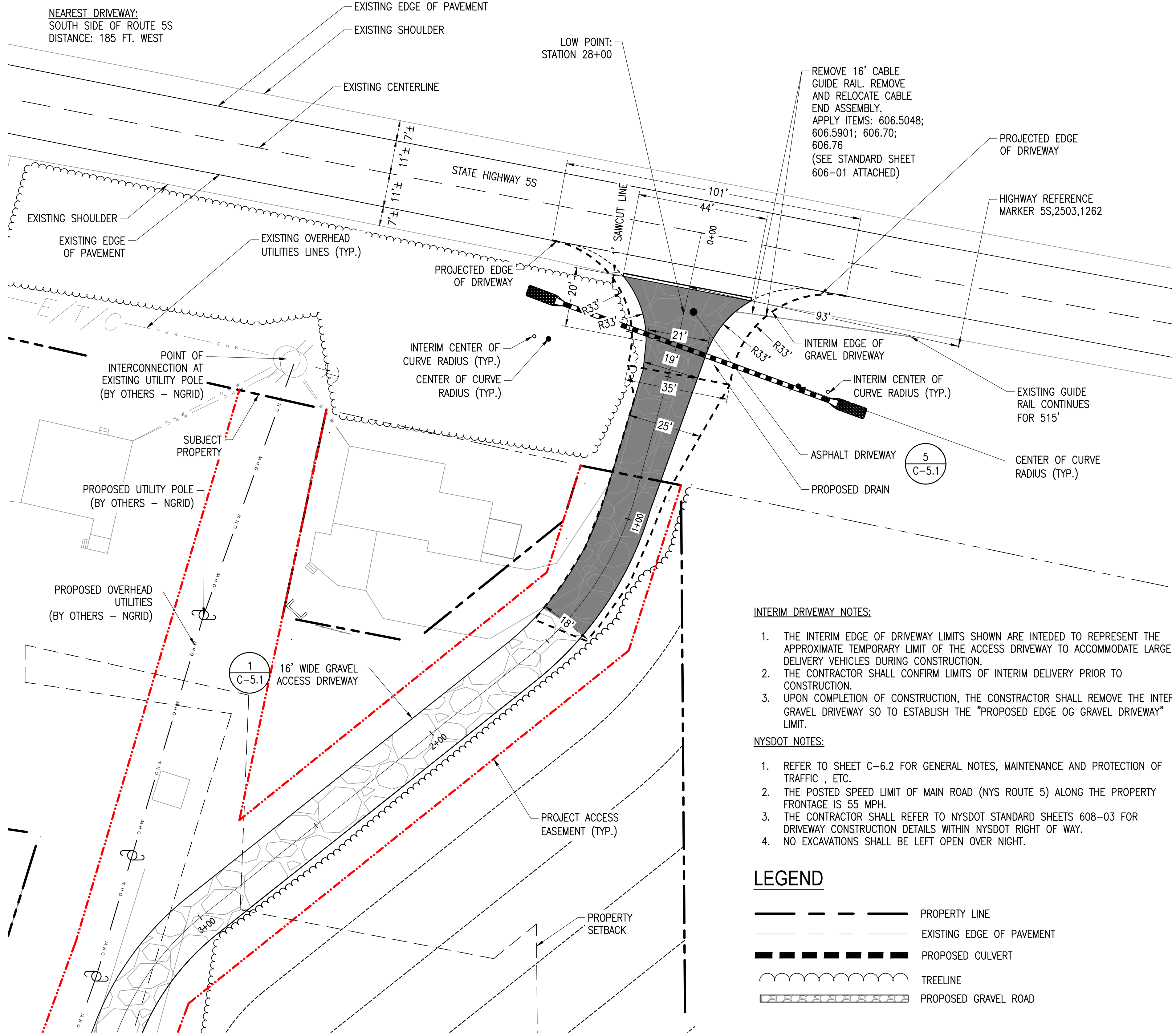
PROJECT NUMBER:
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/10/21	GG	GG	PLANNING BOARD SUBMISSION
	06/17/21	DC	GG	FOR SHUWAKER
	06/28/21	DC	GG	NYSDOT REVISIONS
	08/13/21	DC	GG	NYSDOT REVISIONS
	08/25/21	DC	GG	NYSDOT REVISIONS
	09/08/21	DC	GG	NYSDOT REVISIONS
	02/07/22	DC	GG	NYSDOT REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-6.0
DRIVEWAY LAYOUT PLAN

SIGHT DISTANCES
 EAST: >1400 FT
 WEST: >1500 FT
 NEAREST SIDE ROAD:
 AURIESVILLE ROAD
 DISTANCE: 970 FT. WEST
 NEAREST DRIVEWAY:
 SOUTH SIDE OF ROUTE 55
 DISTANCE: 185 FT. WEST



INTERIM DRIVEWAY NOTES:

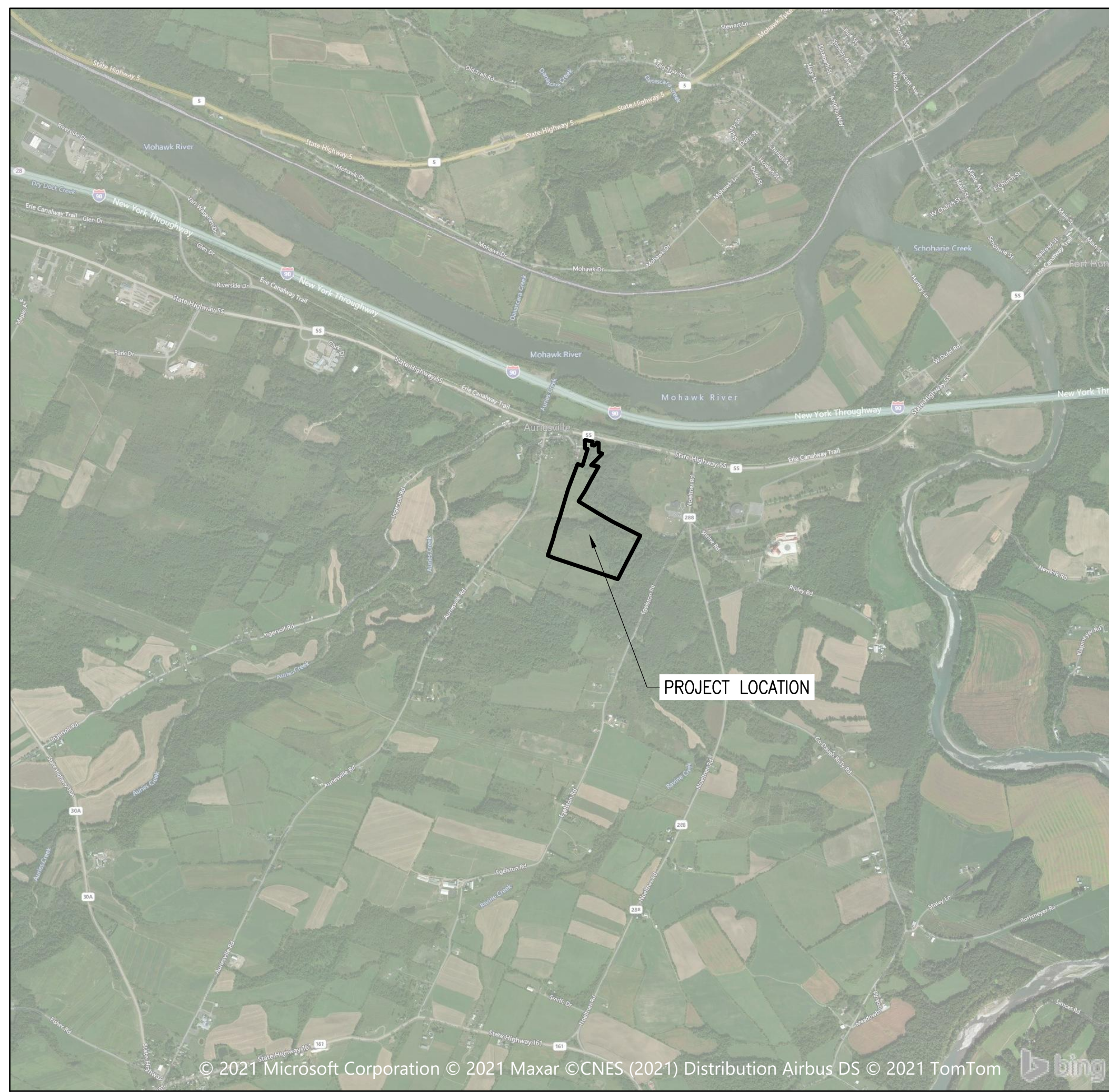
1. THE INTERIM EDGE OF DRIVEWAY LIMITS SHOWN ARE INTENDED TO REPRESENT THE APPROXIMATE TEMPORARY LIMIT OF THE ACCESS DRIVEWAY TO ACCOMMODATE LARGER DELIVERY VEHICLES DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL CONFIRM LIMITS OF INTERIM DELIVERY PRIOR TO CONSTRUCTION.
3. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE THE INTERIM GRAVEL DRIVEWAY SO TO ESTABLISH THE "PROPOSED EDGE OF GRAVEL DRIVEWAY" LIMIT.

NYSDOT NOTES:

1. REFER TO SHEET C-6.2 FOR GENERAL NOTES, MAINTENANCE AND PROTECTION OF TRAFFIC, ETC.
2. THE POSTED SPEED LIMIT OF MAIN ROAD (NYS ROUTE 5) ALONG THE PROPERTY FRONTAGE IS 55 MPH.
3. THE CONTRACTOR SHALL REFER TO NYSDOT STANDARD SHEETS 608-03 FOR DRIVEWAY CONSTRUCTION DETAILS WITHIN NYSDOT RIGHT OF WAY.
4. NO EXCAVATIONS SHALL BE LEFT OPEN OVER NIGHT.

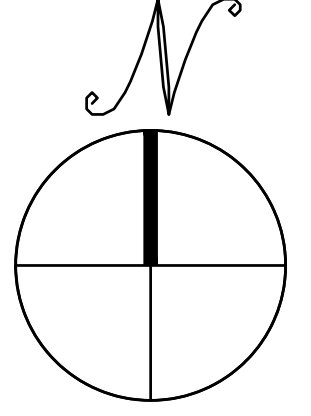
LEGEND

- — — — — PROPERTY LINE
- — — — — EXISTING EDGE OF PAVEMENT
- — — — — PROPOSED CULVERT
- — — — — TREELINE
- — — — — PROPOSED GRAVEL ROAD



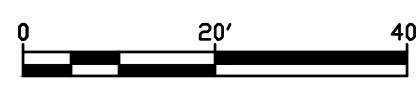
GENERAL PLAN NOTES

1. ROAD TO BE KEPT CLEAN OF MUD AND DEBRIS AT ALL TIMES.
2. ROADSIDE DRAINAGE TO BE MAINTAINED AT ALL TIMES.
3. MATERIALS, EQUIPMENT AND VEHICLES ARE NOT TO BE STORED OR PARKED WITHIN THE NEW YORK STATE RIGHT-OF-WAY.
4. MAINTENANCE AND PROTECTION OF TRAFFIC MUST COMPLY WITH THE CURRENT NATIONAL MUTCD WITH NYS SUPPLEMENT, SECTION 619 OF THE CURRENT NYSDOT STANDARD SPECIFICATIONS. THESE PLANS AND AS ORDERED BY THE ASSISTANT RESIDENT ENGINEER. ON A NYSDOT CONSTRUCTION PROJECT, MAINTENANCE AND PROTECTION OF TRAFFIC MUST COMPLY WITH THESE PLANS AND BE IN ACCORDANCE WITH THE NYSDOT CONTRACT DOCUMENTS AS DEEMED NECESSARY BY THE ENGINEER-IN-CHARGE.
5. NOTIFY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION'S ASSISTANT RESIDENT ENGINEER AT THE NUMBER BELOW, THREE (3) WORK DAYS PRIOR TO WORKING WITHIN THE STATE RIGHT-OF-WAY. CLINT KING, (518)-853-3441.
6. ALL MATERIALS USED WITHIN THE RIGHT-OF-WAY MUST COMPLY WITH THE CURRENT NEW YORK STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS ALONG WITH ANY APPROPRIATE CURRENT NYS DEPARTMENT OF TRANSPORTATION STANDARD SHEETS.
7. QUALITY CONTROL OF ASPHALT CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 401 OF THE STANDARD SPECIFICATIONS. ALL ASPHALT PRODUCED AS PART OF SECTION 401 WILL BE PAID AT A FINAL QUANTITY ADJUSTMENT FACTOR 1.0. ASPHALT COURSE DEPTHS SHOWN ON THE PLANS ARE COMPACTED DEPTHS.
8. NO NIGHT WORK SHALL BE ALLOWED UNLESS APPROVED PRIOR TO START OF PROJECT. ADDITIONAL MAINTENANCE AND PROTECTION OF TRAFFIC MAY BE REQUIRED INCLUDING THE ADDITION OF REFLECTIVE MATERIALS AND LIGHTING.
9. HAZARDOUS WASTE NOTIFICATION - THE PERMITTEE ACCEPTS THE RIGHT-OF-WAY OF THE STATE HIGHWAY IN ITS "AS IS" CONDITION. THE DEPARTMENT OF TRANSPORTATION MAKES NO REPRESENTATION AS TO THE ABSENCE OF UNDERGROUND TANKS, STRUCTURES, FEATURES OR SIMILAR IMPEDIMENTS TO THE COMPLETION OF THE WORK PERMITTED HEREUNDER. SHOULD PERMITTEE FIND SOME PREVIOUSLY UNKNOWN UNDERGROUND IMPEDIMENTS TO ITS WORK, THE DEPARTMENT OF TRANSPORTATION SHALL HAVE NO OBLIGATION TO CURE, REMOVE, REMEDY OR OTHERWISE DEAL WITH SUCH PREVIOUSLY UNKNOWN UNDERGROUND IMPEDIMENTS. THE PERMITTEE IS REQUIRED TO REMOVE, MODIFY, OR OTHERWISE DEAL WITH SUCH UNDERGROUND TANKS, STRUCTURES, FEATURES OR IMPEDIMENTS IN A MANNER WHICH MEETS ACCEPTABLE ENGINEERING PRACTICE AND IS APPROVED BY THE DEPARTMENT OF TRANSPORTATION.
10. ROADWORK REPORTING FORM SHALL BE SUBMITTED 7 DAYS PRIOR TO ANY WORK.
11. ANY WORK ZONE INTRUSION SHALL BE REPORTED TO THE TMC, (315)-733-2111, AND THE POLICE IMMEDIATELY.
12. DIGSAFE SHALL BE NOTIFIED PRIOR TO ANY EXCAVATION.
13. CABLE GUIDE RAIL WILL REQUIRE BARRELS WHILE BEING WORKED ON, THE PERIOD SHALL BE NO MORE THAN TWO (2) CONSECUTIVE DAYS.
14. ALL WORK WITHIN NYSDOT ROW SHALL MEET NYSDOT STANDARDS.
15. CABLE GUIDE RAIL ANCHOR SHALL BE REPLACED IF THERE IS ANY DEGRADING.



DRIVEWAY LAYOUT PLAN

SCALE: 1" = 20'



NOT FOR CONSTRUCTION

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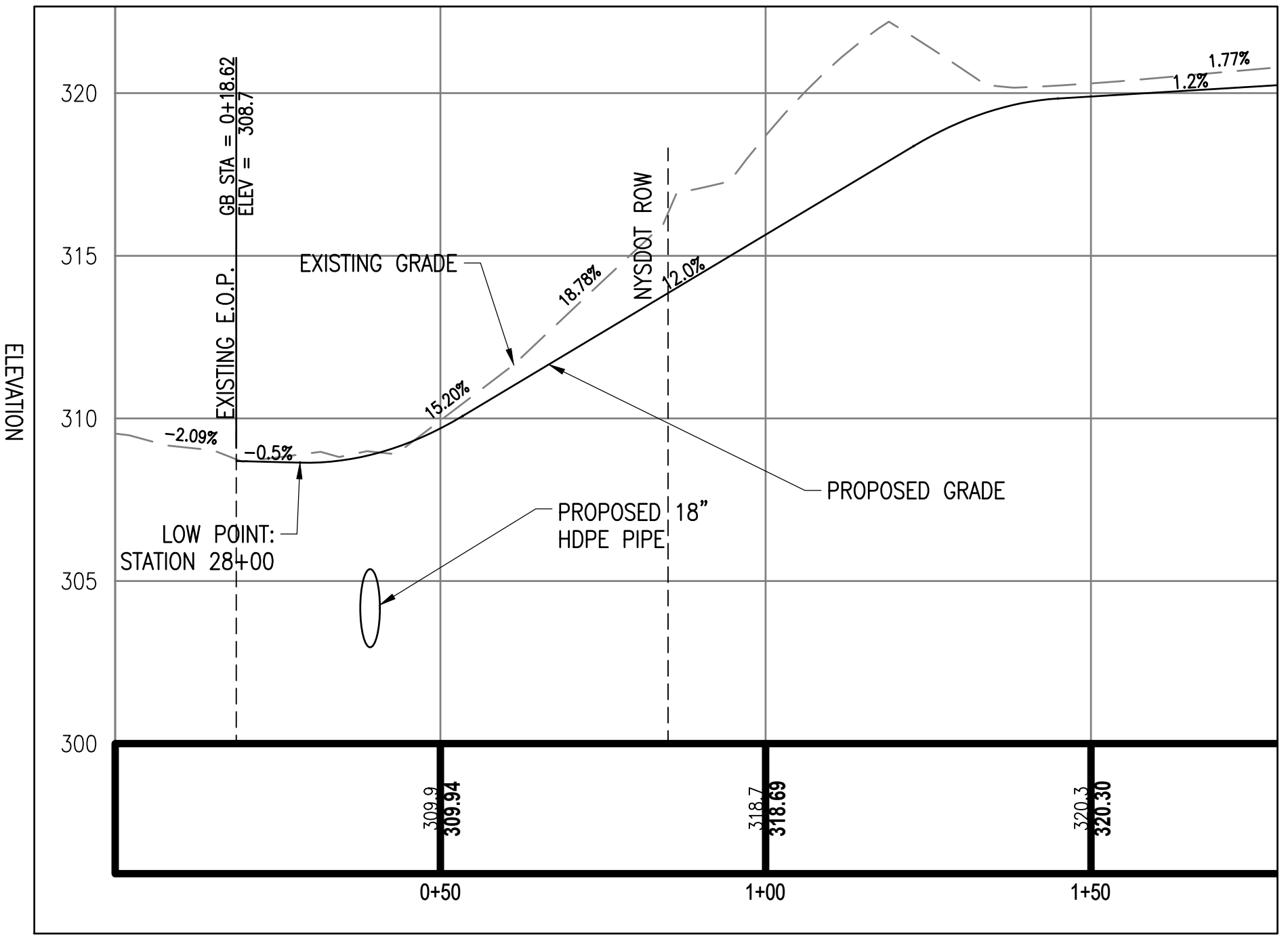
BIDSET
 2621 STATE HIGHWAY 5S SOLAR PROJECT
 2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/10/21	DC	GG	PLANNING BOARD SUBMISSION
	06/17/21	DC	GG	FOR SHUWAKER
	06/28/21	DC	GG	NYS DOT REVISIONS
	08/13/21	DC	GG	NYS DOT REVISIONS
	08/25/21	DC	GG	NYS DOT REVISIONS
	09/08/21	DC	GG	NYS DOT REVISIONS
	02/07/22	DC	GG	NYS DOT REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

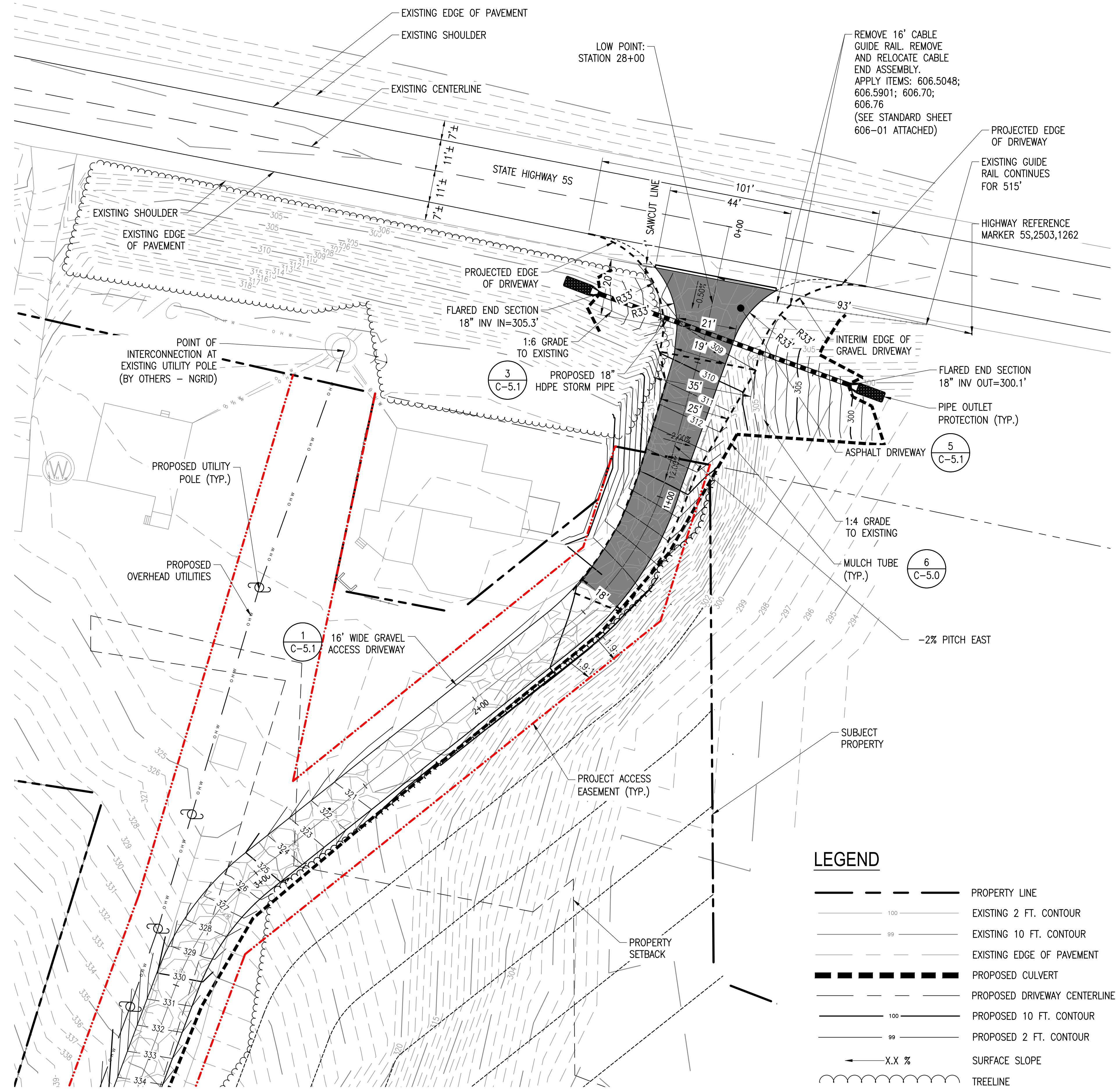
C-6.1
 DRIVEWAY GRADING & UTILITY PLAN



DRIVEWAY ENTRANCE PROFILE
 SCALE: 1" = 20' (HORIZONTAL)
 1" = 4' (VERTICAL)

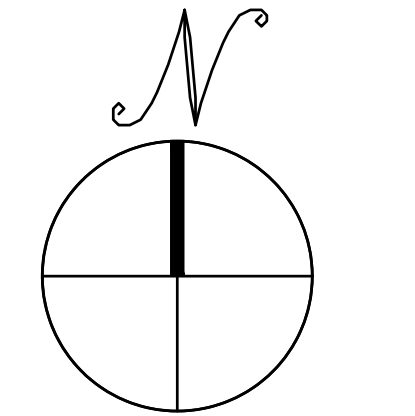
- NOTES:**
- REFER TO SHEET C-6.0 FOR GENERAL HIGHWAY NOTES, MAINTENANCE AND PROTECTION OF TRAFFIC, ETC.
 - THE POSTED SPEED LIMIT OF MAIN ROAD (STATE HIGHWAY 5S) ALONG THE PROPERTY FRONTAGE IS 55 MPH.
 - THE CONTRACTOR SHALL REFER TO NYSDOT STANDARD SHEETS 608-03 FOR DRIVEWAY CONSTRUCTION DETAILS WITHIN NYSDOT RIGHT OF WAY.
 - THE CONTRACTOR SHALL REFER TO NYSDOT STANDARD SHEET 606-01 FOR GUIDE RAIL CONSTRUCTION DETAILS.
 - NO EXCAVATIONS SHALL BE LEFT OPEN OVER NIGHT.

- NYSDOT EARTHWORK, TOPSOIL, AND TURF SPECIFICATIONS**
- EARTHWORK: PERFORM EXCAVATION & BACKFILL WITHIN NYSDOT RIGHT-OF-WAY ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION SECTION 200 (TYP.)
 - NYSDOT TOPSOIL: TOPSOIL PLACED WITHIN RIGHT-OF-WAY SHALL CONFORM TO NYSDOT ITEM# 610.14X
 - ESTABLISH TURF: GRASS TURF ESTABLISHMENT WITHIN NYSDOT RIGHT-OF-WAY SHALL CONFORM TO NYSDOT ITEM# 610.16X
 - CONTRACTOR SHALL IMMEDIATELY STABILIZE DISTURBED AREAS PER SECTION 610 OF THE NYSDOT SPECIFICATIONS.



LEGEND

	PROPERTY LINE
	EXISTING 2 FT. CONTOUR
	EXISTING 10 FT. CONTOUR
	EXISTING EDGE OF PAVEMENT
	PROPOSED CULVERT
	PROPOSED DRIVEWAY CENTERLINE
	PROPOSED 10 FT. CONTOUR
	PROPOSED 2 FT. CONTOUR
	X.X % SURFACE SLOPE
	TREELINE
	PROPOSED GRAVEL ROAD



DRIVEWAY GRADING & UTILITY PLAN

SCALE: 1" = 20'

WORK ZONE TRAFFIC CONTROL LEGEND

SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION WORDING
	ARROW PANEL TRAILER OR SUPPORT
	CHANGEABLE MESSAGE SIGN (PANEL)
	CHANNELIZING DEVICE
	CRASH CUSHION/TEMPORARY IMPACT ATTENUATOR
	DIRECTION OF TEMPORARY TRAFFIC DETOUR
	DIRECTION OF TRAFFIC
	FLAGGER
	FLAG TREE
	LIMELIGHT
	WARNING MARKINGS THAT SHALL BE REMOVED FOR A LONG TERM PROJECT
	SIGN, TEMPORARY
	TEMPORARY BARRIER
	TEMPORARY BARRIER WITH WARNING LIGHTS
	TRAFFIC OR PEDESTRIAN SIGNAL
	TYPE III BARRICADE
	WARNING LIGHTS
	WORK SPACE
	WORK VEHICLE
	WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
LEGENDS AND NOTES

APPROVED SEPTEMBER 16, 2008 ISSUED UNDER EB 08-036
/s/ DAVID J. CLEMENTS, P.E.
DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY

EFFECTIVE DATE: 01/08/09 619-11

**TABLE 6C-3
TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES**

TYPE OF TAPER	TAPER LENGTH (L)
WARNING TAPER	L/2
SHOULDER TAPER	L/2
ONE-LANE, TWO-WAY TRAFFIC TAPER	100 FT. MAXIMUM
DOWNSTREAM TAPER	100 FT. PER LANE

TABLE 6H-4 FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S) (MPH)
TAPER LENGTH (L) (FT.)
W = WIDTH OF OBJECT (FT.)
L = TAPER LENGTH
L = WS
L = WS + 100

STANDARD TAPER LENGTHS

LATERAL SHIFT OF TRAFFIC FLOW PATH	0.5 MPH	10 MPH	15 MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	60 MPH	70 MPH	80 MPH
4	48	60	84	112	136	160	184	208	232	256	312	368	424
5	55	78	106	135	165	195	225	255	285	315	380	445	510
6	65	90	120	160	200	240	280	320	360	400	480	560	640
7	75	105	140	180	220	260	300	340	380	420	500	580	660
8	85	120	165	215	265	315	365	415	465	515	600	690	780
9	95	135	185	240	295	345	395	445	495	545	630	720	810
10	105	150	200	260	320	380	440	500	560	620	700	790	880
11	115	165	220	285	350	415	480	545	610	675	760	850	940
12	125	180	240	310	380	450	520	590	660	730	820	910	1000

**TABLE NY1-A
BARRIER VEHICLE USE REQUIREMENTS (LONG TERM, INTERMEDIATE TERM, AND SHORT TERM STATIONARY CLOSURES)**

CLOSURE TYPE	EXPOSURE CONDITION ¹	USE REQUIREMENTS ^{4,5}			
		NON-FREEMAN PRECONSTRUCTION POSTED SPEED LIMIT	FREEMAN	35-40 MPH	≥ 30 MPH
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ²	REQUIRED ²	REQUIRED ²	OPTIONAL ²
	NON-TRAFFICABLE HAZARDOUS EQUIPMENT, MATERIALS, EXCAVATION ONLY, NO WORKERS EXPOSED TO TRAFFIC	REQUIRED ²	REQUIRED ²	OPTIONAL ²	OPTIONAL ²
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ²	REQUIRED ²	OPTIONAL ²	OPTIONAL ²
	NON-TRAFFICABLE HAZARDOUS EQUIPMENT, MATERIALS, EXCAVATION ONLY, NO WORKERS EXPOSED TO TRAFFIC	OPTIONAL ²	OPTIONAL ²	OPTIONAL ²	OPTIONAL ²

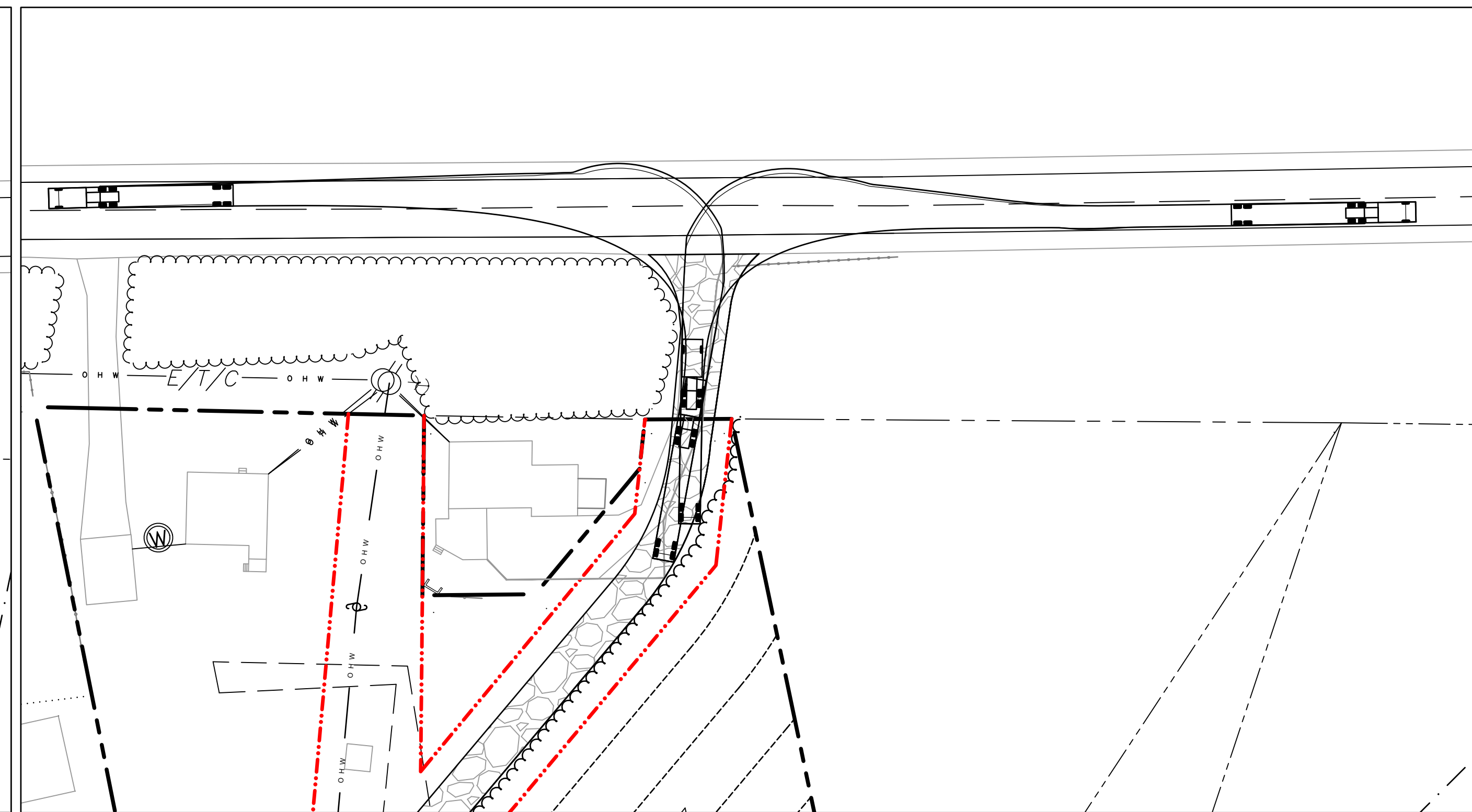
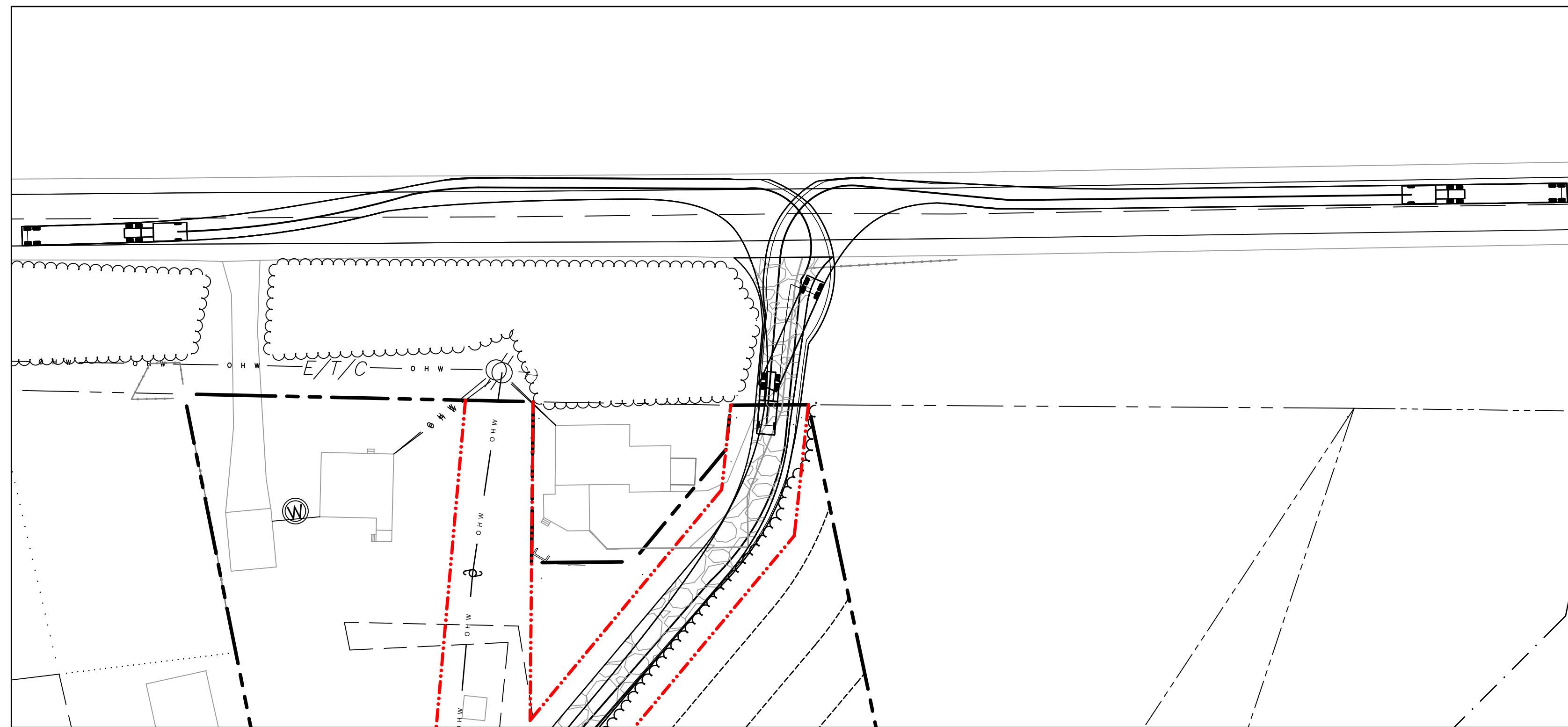
1. THE EXPOSURE CONDITIONS DESCRIBED IN TABLE NY1-A ASSUMES THERE IS NO POSITIVE PROTECTION (TEMPORARY TRAFFIC BARRIER PRESENT). WORKERS OR HAZARDOUS ARE PROTECTED BY A TEMPORARY TRAFFIC BARRIER, BARRIER VEHICLES ARE NOT REQUIRED.
2. THE REQUIREMENT IS "OPTIONAL" EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE TABLE 6C-3 SHALL BE PROVIDED.
3. REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED SHOULDER IF OR GREATER IN WIDTH OF THE WORK SPACE ADJACENT WITHIN THE STATIONARY CLOSURE. THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY AS WORKERS VEHICLES PROTECTING WORKERS OR HAZARDOUS MATERIALS REMAIN IN PLACE DURING WORKING AND NON-WORKING HOURS UNTIL THE HAZARD NO LONGER EXISTS. EXCEPTIONS TO THESE REQUIREMENTS MAY BE MADE AS APPROVED BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE. WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.
4. BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE TABLE 6C-3 SHALL BE PROVIDED.
5. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE TABLE 6C-3 SHALL BE PROVIDED.

**TABLE 6C-2
LONGITUDINAL BUFFER SPACE**

PROTECTION POSTED SPEED LIMIT (MPH)	MINIMUM BUFFER SPACE (FT.)	MAXIMUM BUFFER SPACE (FT.)
35	150	200
40	175	225
45	200	250
50	225	275
60	275	325
70	325	375
80	375	425

**TABLE 619-4
FLARE RATES FOR POSITIVE BARRIER**

TYPE OF POSITIVE BARRIER	POSTED SPEED LIMIT (MPH)	FLARE RATE (FLARES PER HOUR)
TEMPORARY CONCRETE BARRIER	35-45	150
TEMPORARY CONCRETE BARRIER	45-55	180
TEMPORARY CONCRETE BARRIER	55-65	210
TEMPORARY CONCRETE BARRIER	65-75	240
TEMPORARY CONCRETE BARRIER	75-85	270
TEMPORARY CONCRETE BARRIER	85-95	300
TEMPORARY CONCRETE BARRIER	95-105	330
TEMPORARY CONCRETE BARRIER	105-115	360
TEMPORARY CONCRETE BARRIER	115-125	390
TEMPORARY CONCRETE BARRIER	125-135	420
TEMPORARY CONCRETE BARRIER	135-145	450
TEMPORARY CONCRETE BARRIER	145-155	480
TEMPORARY CONCRETE BARRIER	155-165	510
TEMPORARY CONCRETE BARRIER	165-175	540
TEMPORARY CONCRETE BARRIER	175-185	570
TEMPORARY CONCRETE BARRIER	185-195	600
TEMPORARY CONCRETE BARRIER	195-205	630
TEMPORARY CONCRETE BARRIER	205-215	660
TEMPORARY CONCRETE BARRIER	215-225	690
TEMPORARY CONCRETE BARRIER	225-235	720
TEMPORARY CONCRETE BARRIER	235-245	750
TEMPORARY CONCRETE BARRIER	245-255	780
TEMPORARY CONCRETE BARRIER	255-265	810
TEMPORARY CONCRETE BARRIER	265-275	840
TEMPORARY CONCRETE BARRIER	275-285	870
TEMPORARY CONCRETE BARRIER	285-295	900
TEMPORARY CONCRETE BARRIER	295-305	930
TEMPORARY CONCRETE BARRIER	305-315	960
TEMPORARY CONCRETE BARRIER	315-325	990
TEMPORARY CONCRETE BARRIER	325-335	1020
TEMPORARY CONCRETE BARRIER	335-345	1050
TEMPORARY CONCRETE BARRIER	345-355	1080
TEMPORARY CONCRETE BARRIER	355-365	1110
TEMPORARY CONCRETE BARRIER	365-375	1140
TEMPORARY CONCRETE BARRIER	375-385	1170
TEMPORARY CONCRETE BARRIER	385-395	1200
TEMPORARY CONCRETE BARRIER	395-405	1230
TEMPORARY CONCRETE BARRIER	405-415	1260
TEMPORARY CONCRETE BARRIER	415-425	1290
TEMPORARY CONCRETE BARRIER	425-435	1320
TEMPORARY CONCRETE BARRIER	435-445	1350
TEMPORARY CONCRETE BARRIER	445-455	1380
TEMPORARY CONCRETE BARRIER	455-465	1410
TEMPORARY CONCRETE BARRIER	465-475	1440
TEMPORARY CONCRETE BARRIER	475-485	1470
TEMPORARY CONCRETE BARRIER	485-495	1500
TEMPORARY CONCRETE BARRIER	495-505	1530
TEMPORARY CONCRETE BARRIER	505-515	1560
TEMPORARY CONCRETE BARRIER	515-525	1590
TEMPORARY CONCRETE BARRIER	525-535	1620
TEMPORARY CONCRETE BARRIER	535-545	1650
TEMPORARY CONCRETE BARRIER	545-555	1680
TEMPORARY CONCRETE BARRIER	555-565	1710
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TEMPORARY CONCRETE BARRIER	715-725	2190
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TEMPORARY CONCRETE BARRIER	1005-1015	3060
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TEMPORARY CONCRETE BARRIER	1615-1625	4890
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TEMPORARY CONCRETE BARRIER	1635-1645	4950
TEMPORARY CONCRETE BARRIER	1645-1	



1 TURNING RADIUS PLAN - WB-67 VEHICLE ENTERING SITE

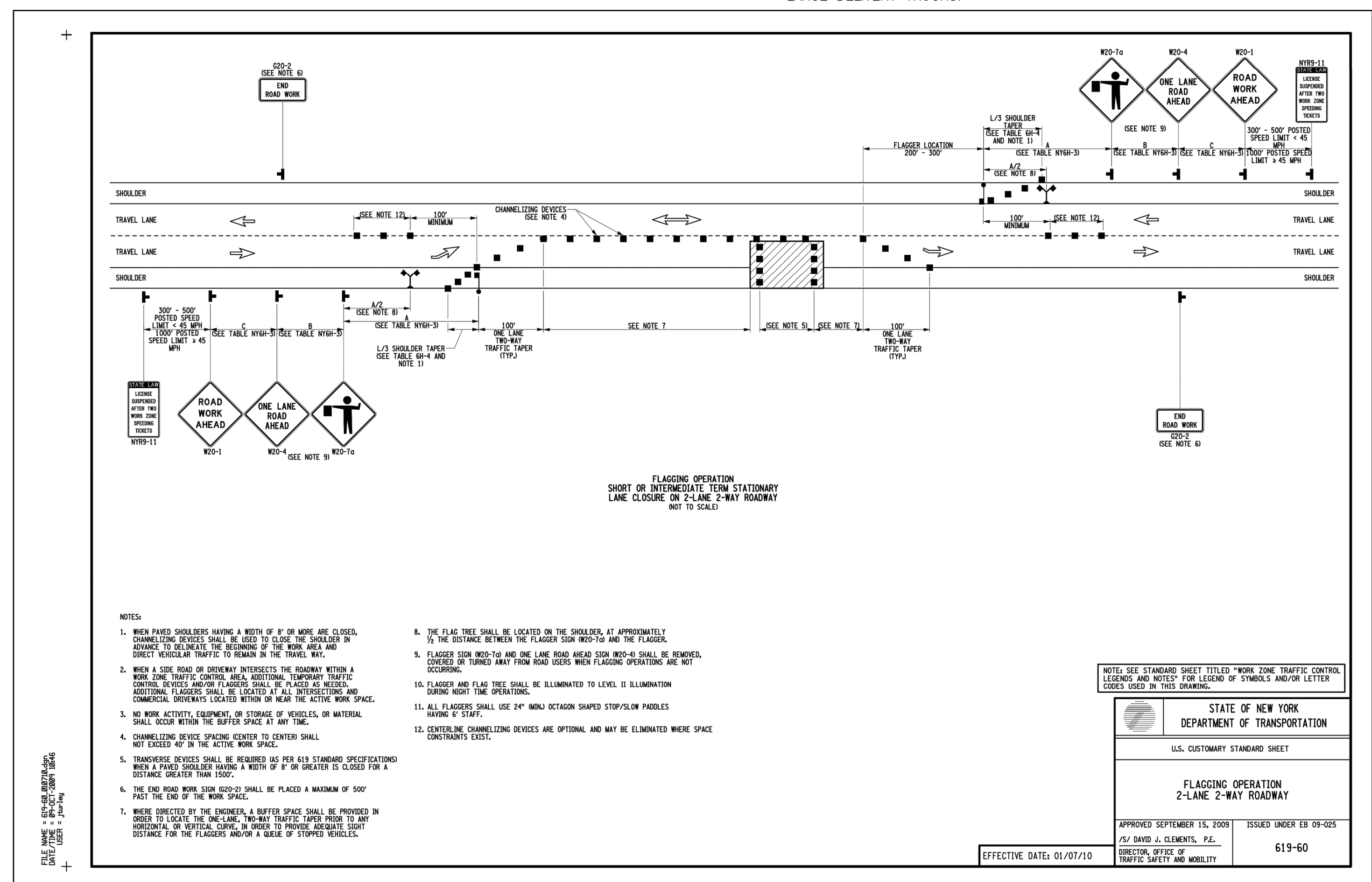
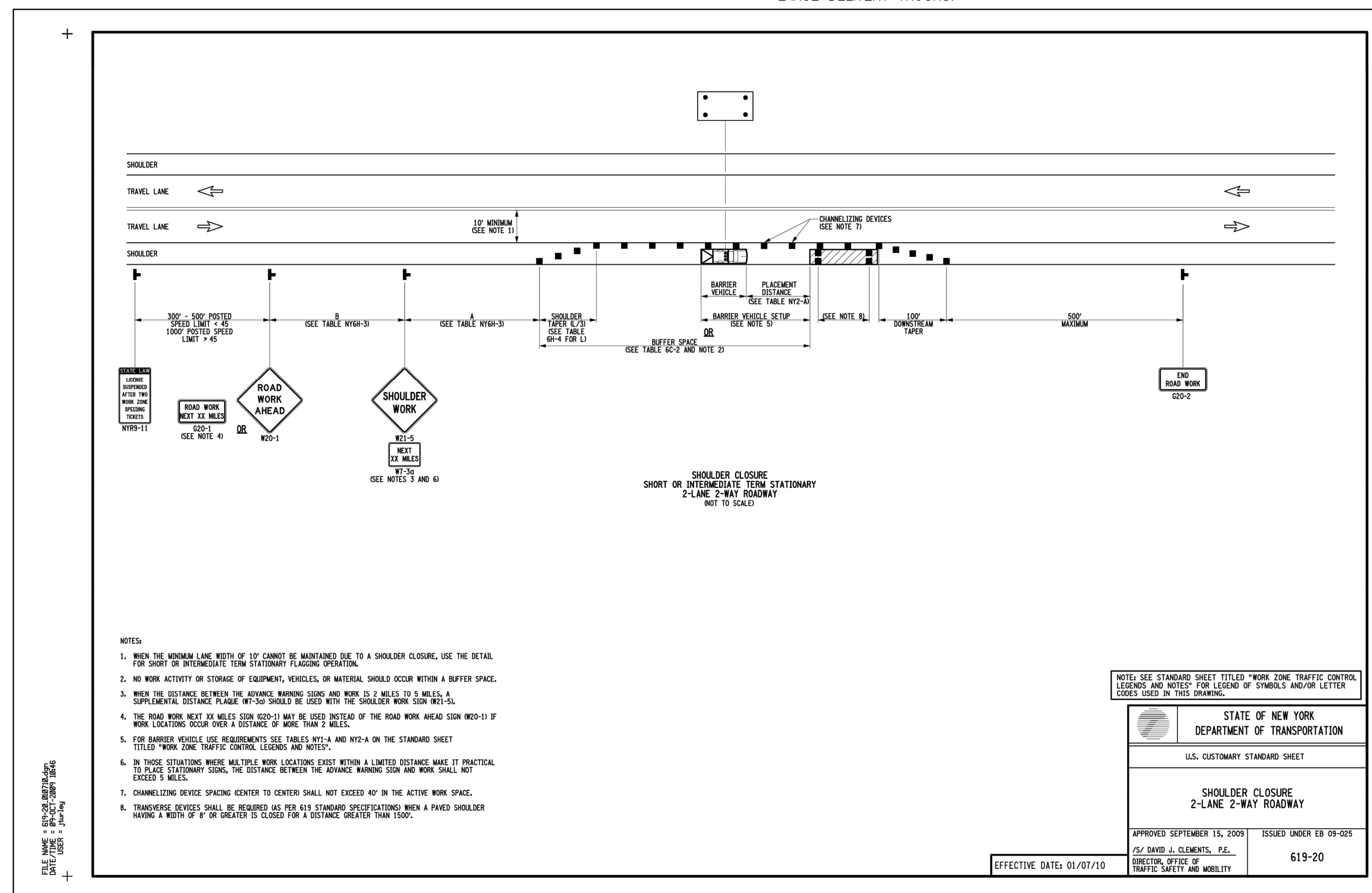
SCALE: 1" = 40'

NOTE:
1. FLAGGERS WILL CONTROL TRAFFIC ON ROUTE 5S FOR INCOMING AND OUTGOING LARGE DELIVERY TRUCKS.

2 TURNING RADIUS PLAN - WB-67 VEHICLE EXITING SITE

SCALE: 1" = 40'

NOTE:
1. FLAGGERS WILL CONTROL TRAFFIC ON ROUTE 5S FOR INCOMING AND OUTGOING LARGE DELIVERY TRUCKS.



DRIVEWAY DETAILS (2 OF 2)

SCALE: AS SHOWN

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BIDSET
2621 STATE HIGHWAY 5S SOLAR PROJECT
2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/10/21	DC	GG	PLANNING BOARD SUBMISSION
	06/17/21	DC	GG	FOR SHUMAKER
	06/28/21	DC	GG	REVISIONS
	08/13/21	DC	GG	REVISIONS
	08/25/21	DC	GG	REVISIONS
	09/08/21	DC	GG	REVISIONS
	02/07/22	DC	GG	REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" x 36"

C-6.3
DRIVEWAY DETAILS
(2 OF 2)

GENERAL ELECTRICAL NOTES

- DRAWINGS ARE NECESSARILY DIAGRAMMATIC BY THEIR NATURE AND ARE NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL. ELECTRICAL EQUIPMENT LOCATIONS ARE SHOWN BUT MUST BE FIELD VERIFIED AND COORDINATED WITH MANUFACTURER'S DRAWINGS AND INSTALLATION MANUAL REQUIREMENTS. EQUIPMENT CLEARANCES SHALL CONFIRM WITH THE NATIONAL ELECTRIC CODE.
- UNLESS OTHERWISE NOTED, THE DESIGN REPRESENTED ON THESE PLANS IS BASED ON THE INFORMATION AND CRITERIA LISTED IN THE "BASIS OF DESIGN" SECTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH INFORMATION IN PREPARATION OF THE FINAL DESIGN.
- THE EXISTING CONDITIONS REPRESENTED ON THESE PLANS ARE BASED ON PUBLICLY AVAILABLE INFORMATION AND THE SITE DISCOVERY SUMMARIZED IN THESE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF SUCH INFORMATION AND SUPPLEMENT WITH ANY ADDITIONAL REQUIRED INFORMATION.
- WORK, MATERIALS AND EQUIPMENT SHALL COMPLY WITH THE RULES AND REGULATIONS SPECIFIED IN THE EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) ADOPTED BY THE JURISDICTION OF THE PROJECT.
- PRODUCTS SHALL CONFORM TO REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE. WHERE UNDERWRITERS' LABORATORIES HAVE SET STANDARDS, LISTED PRODUCTS AND ISSUED LABELS, PRODUCTS USED SHALL BE LISTED AND LABELED TO THOSE STANDARDS BY UL OR ANOTHER AGENCY ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION. PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE LISTING OF THE EQUIPMENT.
- UTILITY OWNED EQUIPMENT IS SHOWN FOR REFERENCE PURPOSES ONLY. IT IS NOT FOR CONSTRUCTION AND MAY BE CHANGED AT ANY TIME.
- THE ELECTRICAL WORK SHOWN ON THESE PLANS MAY REQUIRE PERFORMING THE WORK OUTSIDE OF NORMAL WORKING HOURS, AND/OR PROVIDING TEMPORARY POWER WITH A PORTABLE GENERATOR OR BY OTHER APPROVED MEANS.
- SYSTEM/PROJECT OWNER RESERVES THE RIGHT TO APPROVE OR DISAPPROVE ANY PRODUCTS OR WORK NOT IN CONFORMANCE WITH THESE SPECIFICATIONS.

V.1.1

DAS LEGEND

	DAS	DATA ACQUISITION SYSTEM
		THERMO COUPLE TEMPERATURE SENSOR
		PYRANOMETER – SOLAR RADIATION
		CELL/ MODULE TEMPERATURE SENSOR
		ANEMOMETER
		BAROMETRIC PRESSURE SENSOR
		HUMIDITY SENSOR
		RAIN GAUGE

RACEWAY LEGEND

	FIBER CABLE
	CAT-5 ETHERNET
	RS-485 DATACOM
	DC CONDUCTOR/CONDUIT
	MEDIUM VOLTAGE CONDUCTOR/CONDUIT
	LOW VOLTAGE CONDUCTOR/CONDUIT
	COMMUNICATION CONDUCTOR/CONDUIT
	OVER HEAD WIRE

POWER LEGEND

	(XX) STRINGS XX MODULES/STRING	STRINGS OF SOLAR MODULES
	INV-1	INVERTER
	CBR- 1A.1	DISCONNECTING COMBINER BOX N INDICATES # OF FUSES XX INDICATES FUSE SIZE
	ACSW-N XXXAS	NON-FUSED AC SAFETY SWITCH
	ACSW-N XXXAS XXXAF	FUSED AC SAFETY SWITCH
		GROUND OR GROUNDING ELECTRODE
		SPLICE OR TAP
		CIRCUIT BREAKER
		FUSE
		SWITCH
		RELAY OR CONTACT N.O.
		RELAY OR CONTACT N.C.
		CURRENT TRANSFORMER
		TRANSFORMER
	M	METER
	HH	HANDHOLE
	C	CAMERA
	▽	TELEPHONE OR DATA OUTLET
		DUPLEX CONVENIENCE OUTLET, 120V, 20A, GROUNDING TYPE SPECIFICATION GRADE
		JUNCTION-BOX
		OMITTED MODULE
		SPARE MODULE
		NON-ACTIVE MODULE

ABBREVIATIONS

A AMPERE(S)	MLO MAIN LUG ONLY
AC ALTERNATING CURRENT	MPC MINI POWER CENTER
ACSW AC SWITCH	MPPT MAXIMUM POWER POINT TRACKING
AF AMPERE FRAME, AMP FUSE	MTR METER
AFCI ARC FAULT CIRCUIT INTERRUPTER	MV MEDIUM VOLTAGE
AIC AMPERE INTERRUPTING CAPACITY	N NEUTRAL
AL ALUMINUM	NEC NATIONAL ELECTRIC CODE
AS AMPERE SWITCH	NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
AT AMP TRIP	NGR NEUTRAL GROUNDING REACTOR
ATS AUTOMATIC TRANSFER SWITCH	OCPP OVER CURRENT PROTECTION DEVICE
AWG AMERICAN WIRE GAUGE	P POLE
BIL BASIC IMPULSE LEVEL	PB PULL BOX
BOS BALANCE OF SYSTEM	PH PHASE
C CONDUIT	PME PAD MOUNTED ENCLOSURE
CB CIRCUIT BREAKER	PNL PANEL BOARD
CBR COMBINER BOX	POC POINT OF COMMON COUPLING
CBSS CIRCUIT BREAKER SAFETY SWITCH	PT POTENTIAL TRANSFORMER
CMIL CIRCULAR MIL	PTC PVUSA TEST CONDITIONS
COMM COMMUNICATIONS	PVCB PHOTOVOLTAIC CIRCUIT BREAKER
CPT COMBINER PV TIE	PWR POWER
CT CURRENT TRANSFORMER	RCBR RE-COMBINER BOX
CU COPPER	RCL RECLOSER
DC DIRECT CURRENT	RECT RECTIFIER
DCCT DC CONTACTOR	RGS RIGID GALVANIZED STEEL
DCSW DC SWITCH	RMC RIGID METAL CONDUIT
EC ELECTRICAL SUBCONTRACTOR	RPVT REMOTE PV TIE
EGG EQUIPMENT GROUNDING CONDUCTOR	RTU REMOTE TERMINAL UNIT
EMT ELECTRICAL METALLIC TUBING	SCH SCHEDULE
FMC FLEXIBLE METAL CONDUIT	SPD SURGE PROTECTIVE DEVICE
FO FIBER-OPTIC CABLE	SS STAINLESS STEEL
GE GROUNDING ELECTRODE	STR STRING
GEC GROUNDING ELECTRODE CONDUCTOR	SWBD SWITCHBOARD
GFCI GROUND FAULT CIRCUIT INTERRUPTER	SWGR SWITCHGEAR
GFDI GROUND FAULT DETECTION AND INTERRUPTION	TBD TO BE DETERMINED
GND GROUND	TEL TELEPHONE CABLE
GOAB GROUP OPERATED AIR BREAK	TP TAMPER PROOF
HH HANDHOLE	TYP TYPICAL
HVAC HEATING VENTILATION AND AIR CONDITIONING	UON UNLESS OTHERWISE NOTED
IMC INTERMEDIATE METAL CONDUIT	UPS UNINTERRUPTIBLE POWER SUPPLY
IMP MAXIMUM POWER CURRENT	V VOLT(S)
INV INVERTER	VA VOLT-AMP
ISC SHORT CIRCUIT CURRENT (AVAILABLE)	VD VOLTAGE DROP
JB JUNCTION BOX	VFI VACUUM FAULT INTERRUPTER
K THOUSAND	VIF VERIFY IN FIELD
LA LIGHTNING ARRESTER	VMP MAXIMUM POWER VOLTAGE
LB LOAD BREAK	VOC OPEN CIRCUIT VOLTAGE
LFMC LIQUID-TIGHT FLEXIBLE METAL CONDUIT	W WATT(S)
LI LOAD INTERRUPTER	WH WATT-HOUR
LTG LIGHTING	WP WEATHER PROOF
M MILLION	XFMR TRANSFORMER
MC4 MULTI-CONTACT TYPE 4 (SOLARLINE2)	
MCB MAIN CIRCUIT BREAKER	
MDS MULTIPLE DISCONNECT SAFETY SWITCH	
MF MULTI FUNCTION	
MFR MANUFACTURER	

REV 2.0

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2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

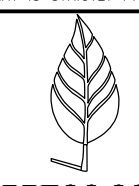
PROJECT NUMBER:
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/10/21	DC	GG	PLANNING BOARD SUBMISSION
	06/17/21	DC	GG	FOR SHUWAKER
	06/28/21	DC	GG	REVISIONS
	08/13/21	DC	GG	REVISIONS
	08/25/21	DC	GG	REVISIONS
	09/08/21	DC	GG	REVISIONS
	02/07/22	DC	GG	REVISIONS

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E-0.0
ELECTRICAL NOTES

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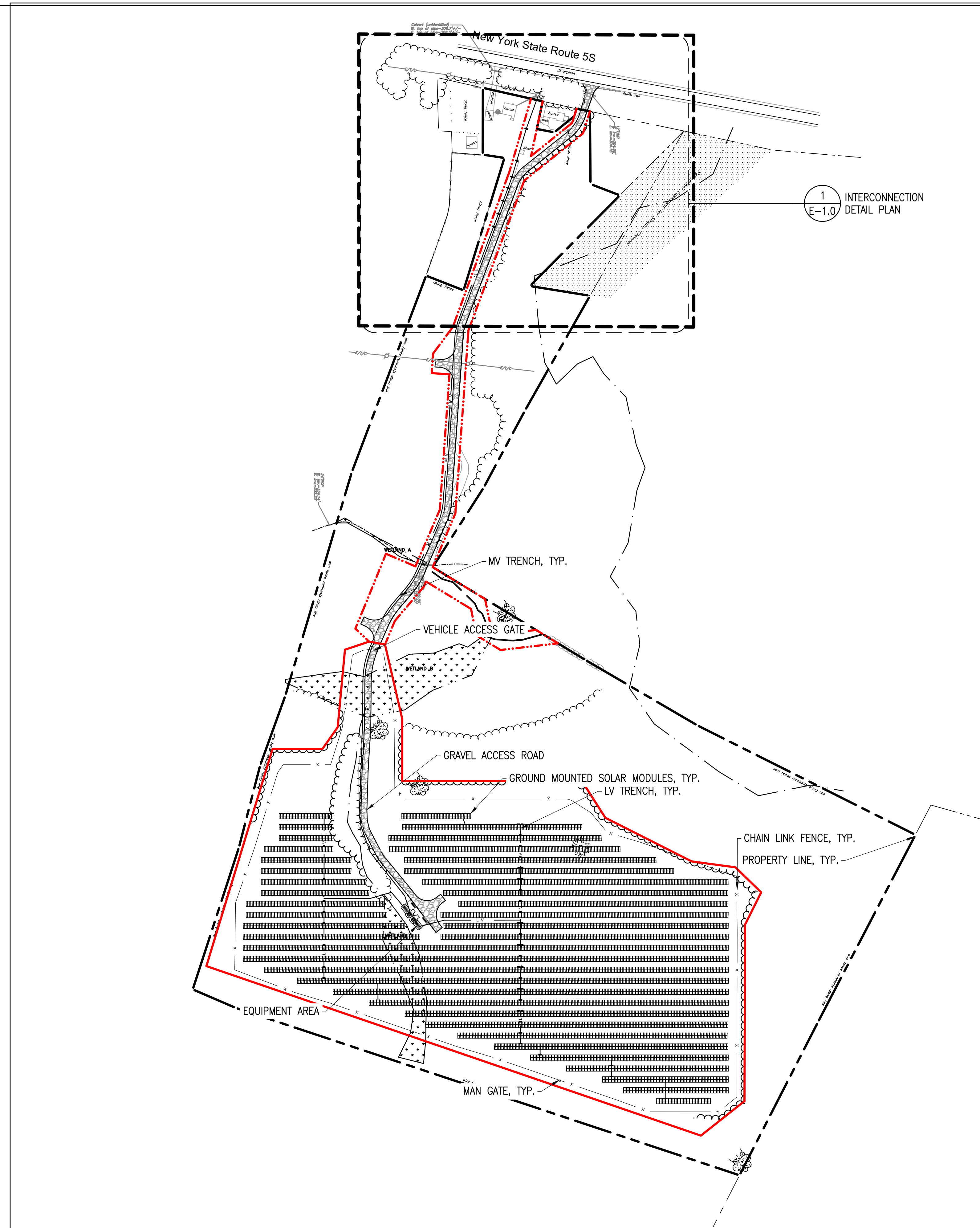
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	02/07/22	DC	GG	NYSDOT REVISIONS

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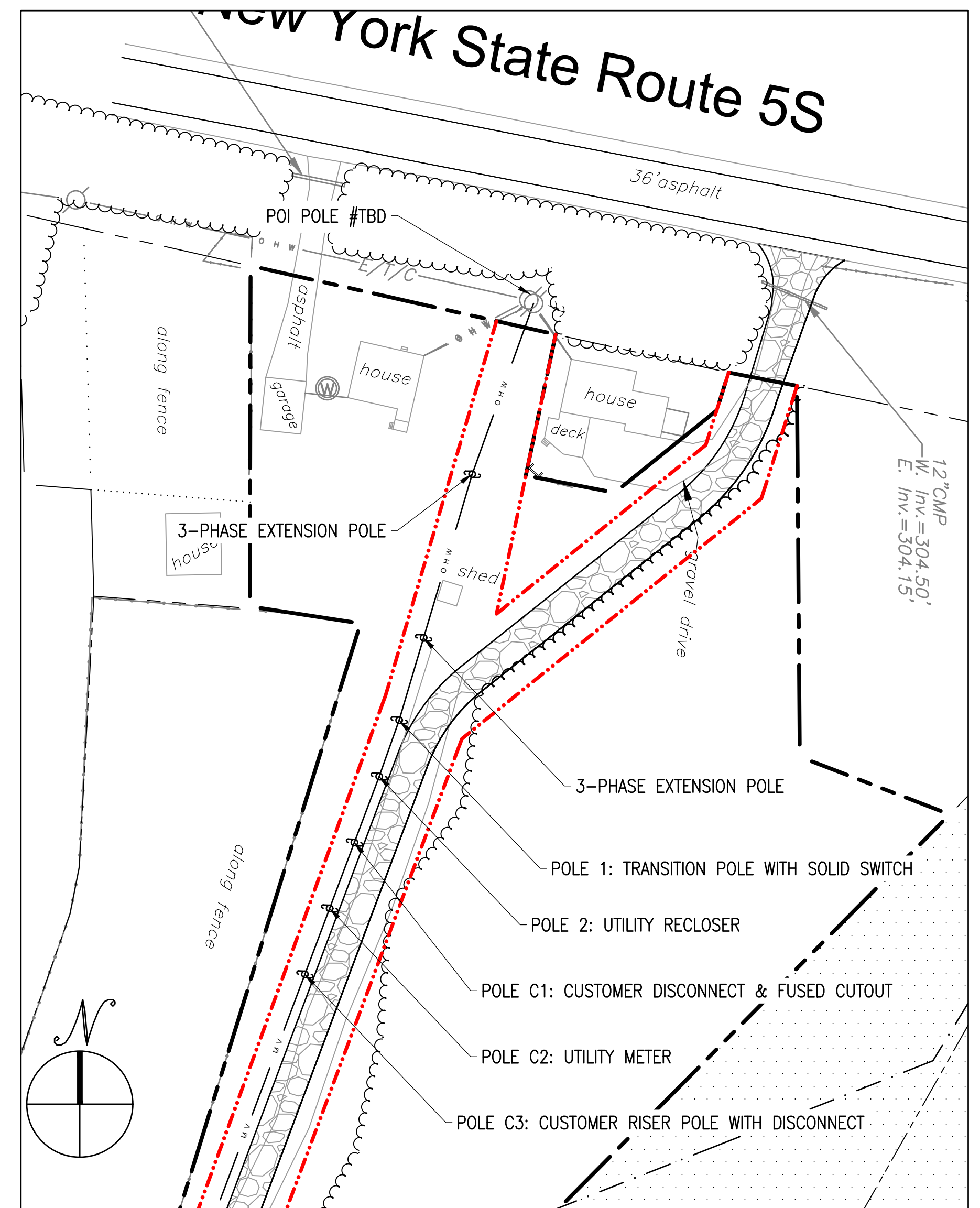
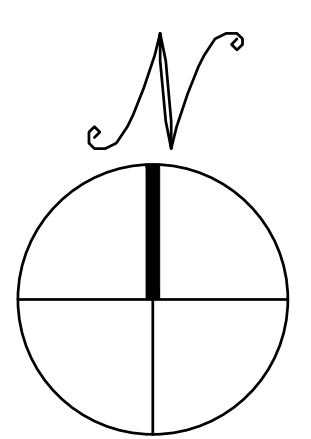
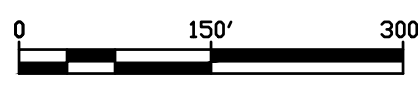
E-1.0
 ELECTRICAL SITE PLAN



1 INTERCONNECTION
 E-1.0
 DETAIL PLAN

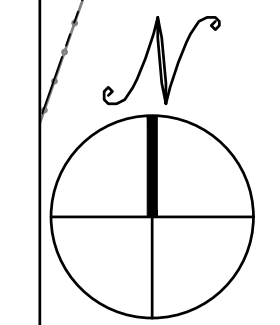
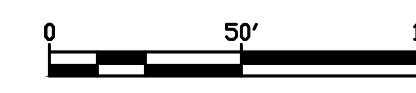
ELECTRICAL SITE PLAN

SCALE: 1" = 150'

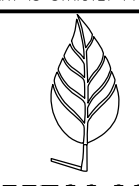


1 INTERCONNECTION
 E-1.0
 DETAIL PLAN

SCALE: 1" = 50'



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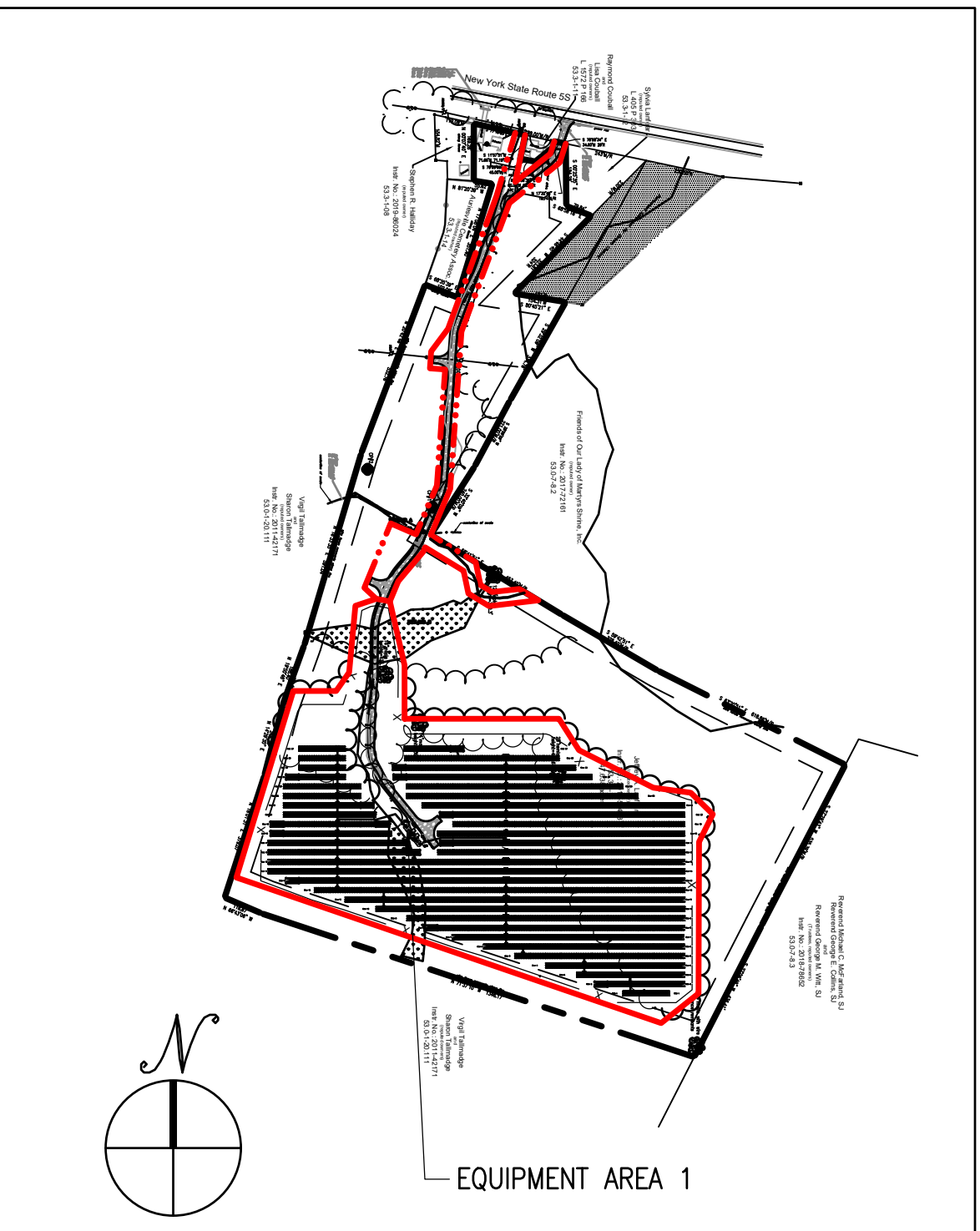
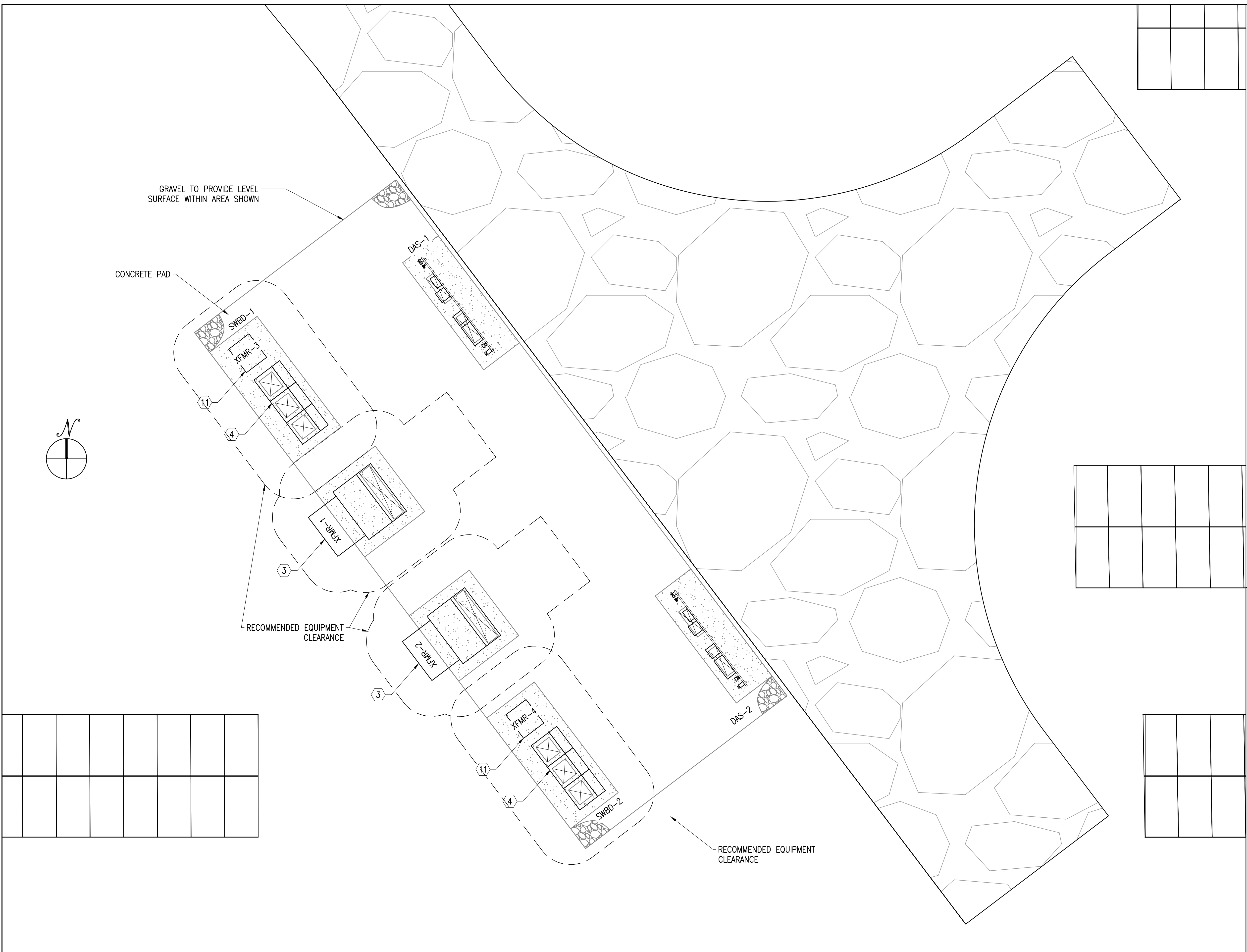
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 2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:
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E-2.0
 PLAN DETAILS



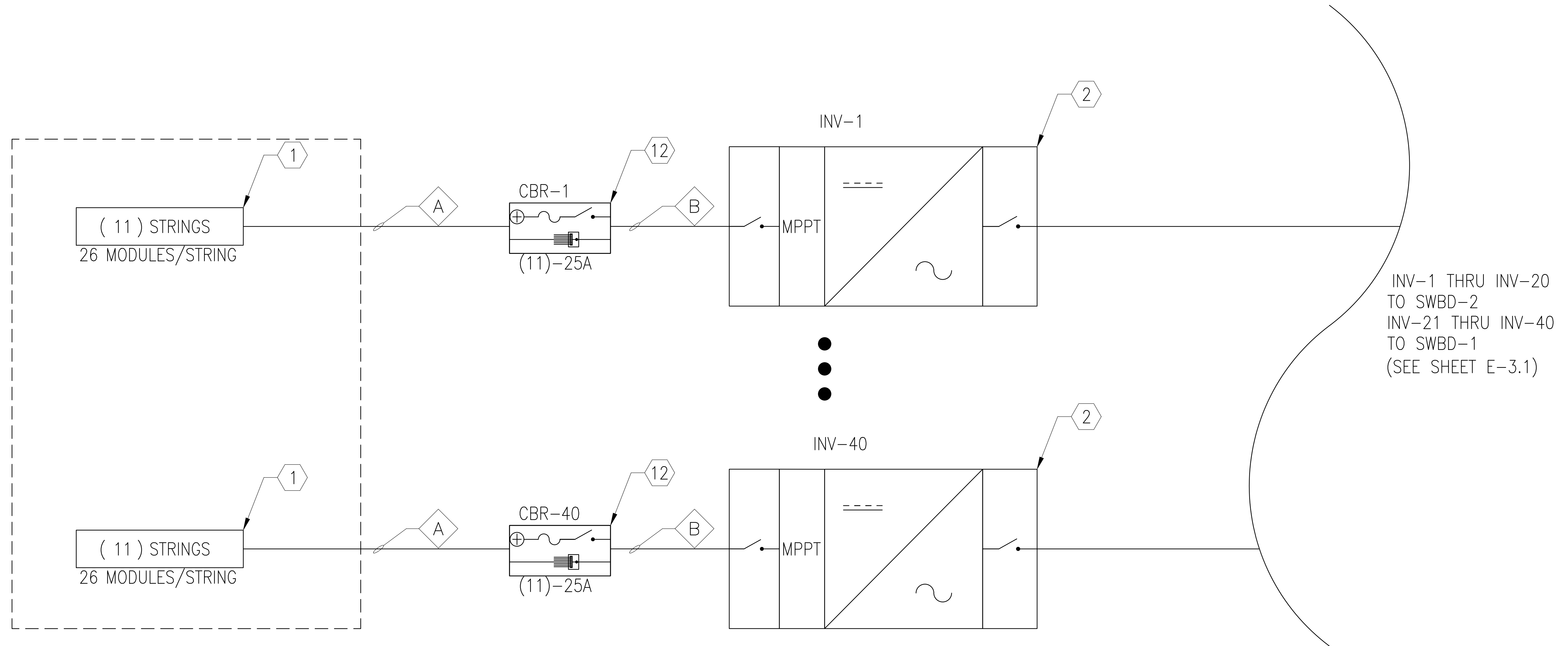
SITE KEY

1 EQUIPMENT AREA 1 & 2 - PLAN DETAIL
 SCALE: 3/16" = 1'

WIRING SCHEDULE - DC CONDUCTORS

TAG	CIRCUIT TYPE	DESCRIPTION	FILL %	CONDUIT TYPE
Ⓐ	PV SOURCE CIRCUIT	NO. OF CONDUCTORS VARIES (2 PER CIRCUIT) #10 PV WIRE 2KV EGC PER CONDUIT, CONDUIT SIZE VARIES	VARIES LESS THAN 40% PER NEC	PVC
Ⓑ	PV OUTPUT CIRCUIT	2X 350 AL PV WIRE 2KV, 1X#2 EGC, IN 2 1/2" CONDUIT	26.70%	PVC

* # OF WIRES EXCLUDES EGC'S
 ** DOES NOT INCLUDE SPARE CONDUIT



DC SINGLE LINE DIAGRAM

SCALE: NTS

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REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/10/21	DC	GG	PLANNING BOARD SUBMISSION
	06/17/21	DC	GG	FOR SHUMAKER
	06/28/21	DC	GG	NYSDOT REVISIONS
	08/13/21	DC	GG	NYSDOT REVISIONS
	08/25/21	DC	GG	NYSDOT REVISIONS
	09/08/21	DC	GG	NYSDOT REVISIONS
	02/07/22	DC	GG	NYSDOT REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

E-3.0
 DC SINGLE LINE DIAGRAM

NOT FOR CONSTRUCTION

IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER ANY DOCUMENT WHICH BEARS THE SEAL OF A PROFESSIONAL ENGINEER, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

BIDSET
2621 STATE HIGHWAY 5S SOLAR PROJECT
2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

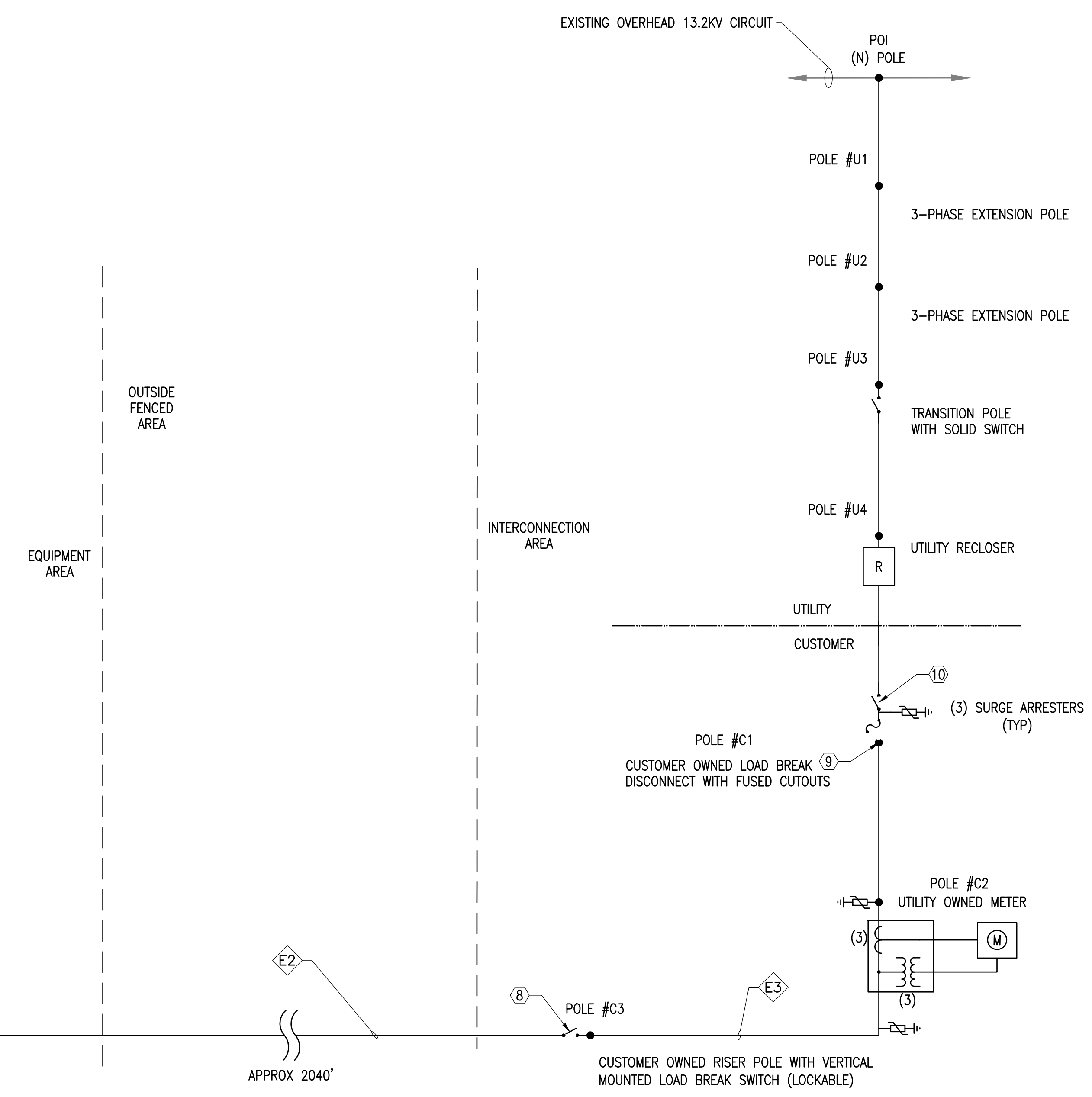
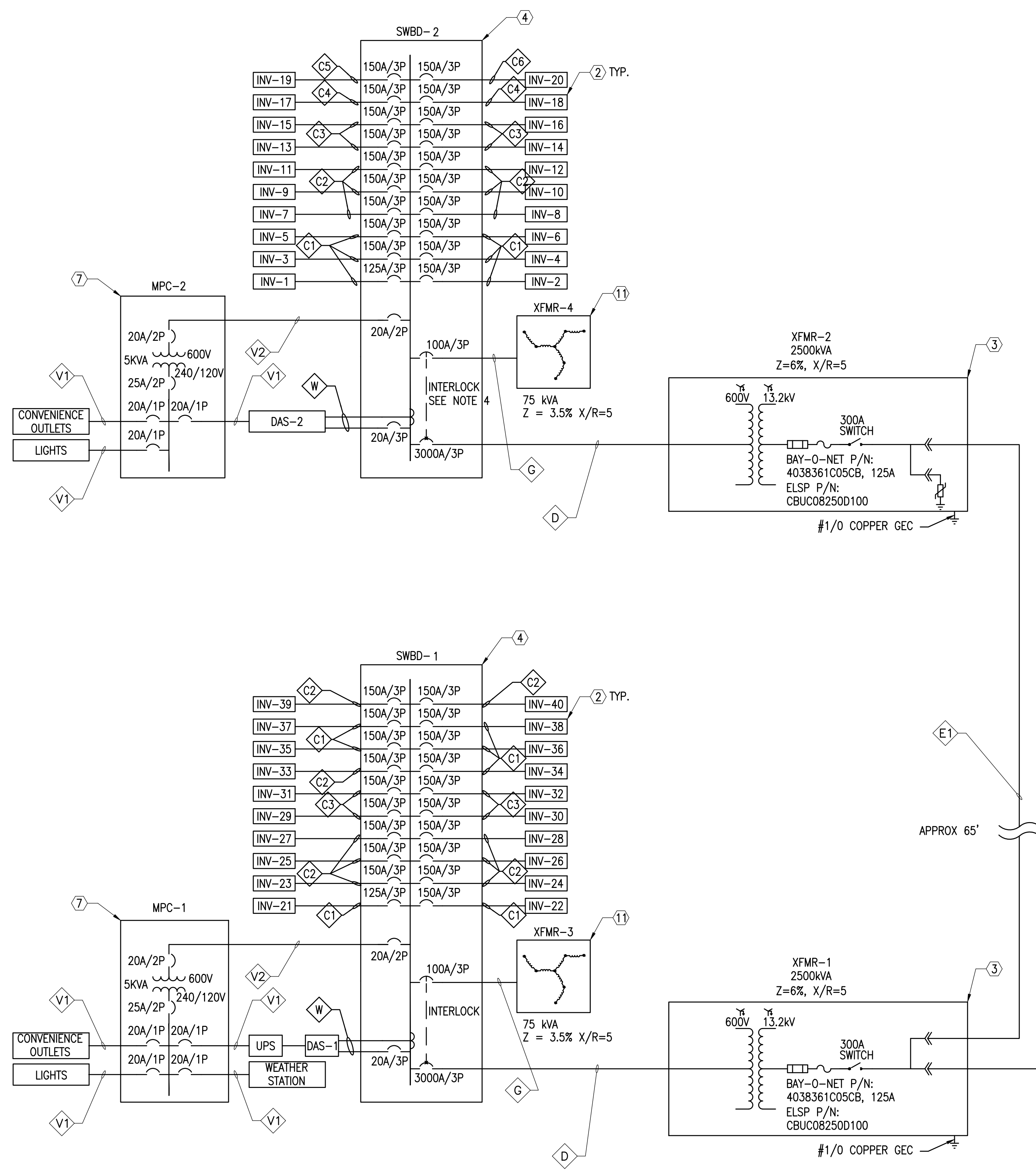
PROJECT NUMBER:
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
06/10/21	DC	GG	GG	PLANNING BOARD SUBMISSION
06/17/21	DC	GG	GG	FOR SHUMLAKER
06/28/21	DC	GG	GG	NYSDOT REVISIONS
08/13/21	DC	GG	GG	NYSDOT REVISIONS
08/25/21	DC	GG	GG	NYSDOT REVISIONS
09/08/21	DC	GG	GG	NYSDOT REVISIONS
02/07/22	DC	GG	GG	NYSDOT REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" x 36"

WIRING SCHEDULE - AC CONDUCTORS

TAG	CIRCUIT TYPE	DESCRIPTION	FILL %	CONDUIT TYPE	NOTES
Ⓢ1	INVERTER OUTPUT CIRCUIT	3X3/0 AL THWN-2, 1X#4 EGC, IN 2" CONDUIT	30.1%	PVC	
Ⓢ2	INVERTER OUTPUT CIRCUIT	3X4/0 AL THWN-2, 1X#2 EGC, IN 2" CONDUIT	36.90%	PVC	
Ⓢ3	INVERTER OUTPUT CIRCUIT	3X250 AL THWN-2, 1X#2 EGC, IN 2 1/2" CONDUIT	32.20%	PVC	
Ⓢ4	INVERTER OUTPUT CIRCUIT	3X300 AL THWN-2, 1X#1 EGC, IN 2 1/2" CONDUIT	37.60%	PVC	
Ⓢ5	INVERTER OUTPUT CIRCUIT	3X400 AL THWN-2, 1X1/0 EGC, IN 3" CONDUIT	30.90%	PVC	
Ⓢ6	INVERTER OUTPUT CIRCUIT	3X500 AL THWN-2, 1X2/0 EGC, IN 3" CONDUIT	36.50%	PVC	
Ⓢ	SWITCHBOARD OUTPUT CIRCUIT	12 SETS OF 4X600 AL THWN-2 IN 4" CONDUIT PER SET			
Ⓢ1	MV CIRCUIT	3X 1/0 MV105 AL, #4 EGC, IN 4" CONDUIT	25.40%	PVC	
Ⓢ2	MV CIRCUIT	3X 350MCM MV105 AL, #2 EGC, IN 5" CONDUIT	30.66%	PVC	
Ⓢ3	OVERHEAD CIRCUIT	3X 4/0 AAAC	--	--	
Ⓢ	GROUNDING TRANSFORMER	3X#3 THWN-2, #350 NEUTRAL, #4 EGC IN 1" CONDUIT	28.20%	PVC	
Ⓢ1	AUXILIARY POWER -1PH, 1-POLE	2X #12 THWN-2, #12 EGC, IN 1" CONDUIT	4.8%	PVC	
Ⓢ2	AUXILIARY POWER -1PH, 2-POLE	3X #12 THWN-2, #12EGC IN 1" CONDUIT	6.4%	PVC	
Ⓢ	METERING - PT'S AND CT'S	9X #12 THWN-2, #12 EGC IN 1" CONDUIT	14.40%	PVC	



SYSTEM SPECIFICATIONS

SYSTEM RATING: 6,234.800 kW STC			
DESIGN TEMPERATURES & SOURCES:			
MINIMUM TEMPERATURE (FOR MAXIMUM SYSTEM VOLTAGE CALCULATION PER NEC 690.7)		-8°F	
SOURCE:			
2013 ASHRAE HANDBOOK – FUNDAMENTALS (CHAPTER 14 CLIMATIC DESIGN INFORMATION)			
EXTREME ANNUAL MEAN MINIMUM DESIGN DRY BULB TEMPERATURE @ ALBANY REGIONAL AIRPORT			
CONDUCTOR DERATING TEMPERATURE (PRIOR TO ADJUSTMENTS FOR SUNLIGHT EXPOSURE PER NEC 310.15(B)(3)(C))		88.1°F	
SOURCE:			
2013 ASHRAE HANDBOOK – FUNDAMENTALS (CHAPTER 14 CLIMATIC DESIGN INFORMATION)			
MAXIMUM 2% MONTHLY DESIGN DRY BULB TEMPERATURE @ ALBANY REGIONAL AIRPORT			
MAXIMUM SYSTEM VOLTAGE CALCULATION:			
CALCULATION METHOD:			
CALCULATED USING MODULE OPEN CIRCUIT VOLTAGE TEMPERATURE COEFFICIENT IN ACCORDANCE WITH 2017 NEC			
CALCULATION OF MAXIMUM SYSTEM VOLTAGE			
LOWEST EXPECTED AMBIENT TEMPERATURE (°F)		-8.0	
LOWEST EXPECTED AMBIENT TEMPERATURE (°C)		-22.2	
MODULE OPEN CIRCUIT VOLTAGE (V)		49.5	
MODULE OPEN CIRCUIT VOLTAGE TEMPERATURE COEFFICIENT (V/°C)		-0.1436	
CORRECTED MODULE OPEN CIRCUIT VOLTAGE (V) (=V _{OC} +V _{BETA} *(LOW TEMPERATURE-25°C))		56.28	
MAXIMUM NUMBER OF MODULES IN SERIES		26	
MAXIMUM SYSTEM VOLTAGE (V)		1463.0	
MODULE SPECIFICATIONS:			
MAKE & MODEL: HT-SAAE HT72-18X-545			
STC RATING (W)	545	SHORT CIRCUIT CURRENT (A)	14.46
OPEN CIRCUIT VOLTAGE (V)	49.50	SHORT CIRCUIT CURRENT ADJUSTED FOR BI-FACIAL (A)	17.21
MAXIMUM POWER VOLTAGE (V)	51.10	MAXIMUM POWER CURRENT (A)	13.27
MAXIMUM SERIES FUSE RATING (A)	20	MAXIMUM POWER CURRENT ADJUSTED FOR BI-FACIAL (A)	15.79
MAXIMUM CIRCUIT CURRENT [PER 690.8(A)(1)(A)(2)] INCLUDING BIFACIAL GAIN (A)	19.56	MAXIMUM BI-FACIAL GAIN (%)	19
INVERTER SPECIFICATIONS:			
MAKE & MODEL: CHINT CPS SCH125KTL-DO/US-600 (DATA SHEET VERSION 2020-01-MKT-NA)			
RATED REAL POWER (KW)	125	NOMINAL VOLTAGE (V)	600
CEC EFFICIENCY (%)	98.5%	MAXIMUM OUTPUT CURRENT AT APPARENT POWER (A)	120
POWER FACTOR PER ISA	1.00		

ELECTRICAL EQUIPMENT SCHEDULE

REF. #	QTY.	DESCRIPTION
①	11440	MODULES, HT-SAAE HT72-18X-545
②	40	INVERTER, CHINT CPS SCH125KTL-DO/US-600, 125KWAC, ETHERNET/RS-485 COMMUNICATION
③	2	TRANSFORMER, XFMR-1, XFMR-2, EATON, 2500KVA, 13.2 GWYE PRIMARY, 600V GWYE SECONDARY, ELBOW ARRESTORS
④	2	SWITCHBOARDS, SWBD-1, SWBD-2
⑦	2	MPC-1, MPC-2, MINI POWER CENTER, 5kVA, 600:240/120V, 1PH
⑧	1	S&C15KV POLE MOUNTED, LOAD BREAK SWITCH, 900A, 65AIC, GANG OPERATED AIR-BREAK LOCKABLE VERTICAL DISCONNECT, 147532R4-B-P1/ED-713R4-S10
⑨	3	FUSED CUTOUPS, S&C SMD40, 14.4kV, 25kA, 110KV BIL, CATALOG #192322, SMU-40, 14.4kV, 150E, CATALOG #822150
⑩	1	S&C 15KV POLE MOUNTED, LOAD BREAK SWITCH 900A, 65KAIC, GANG OPERATED AIR-BREAK LOCKABLE HORIZONTAL DISCONNECT, 147442R4-A2-P1/ED-711R4-S1
⑪	2	GROUNDING TRANSFORMER, XFMR-3, XFMR-4, EATON, 75kVA, ZIG ZAG, NEMA 3R ENCLOSURE
⑫	40	COMBINER, NON-DISCONNECTING, FUNCTIONALLY GROUNDED, 250A, NEMA 4 ENCLOSURE

INVERTER PROTECTION SETTINGS

CHINT CPS 125KWTL				
DEVICE	PICKUP	UNIT	TIME DELAY (SEC)	DESCRIPTION
27-1	173	VOLTS	1.1	UNDER VOLTAGE
27-2	305	VOLTS	2	
59-1	381	VOLTS	2	OVER VOLTAGE
59-2	416	VOLTS	0.16	
81U-1	56.5	HZ	0.16	UNDER FREQUENCY
81U-2	58.5	HZ	300	
81O-1	61.2	HZ	300	OVER FREQUENCY
81O-2	62	HZ	0.16	

ELECTRICAL SCHEDULES

SCALE: NTS

SWITCHBOARD SCHEDULE

SWBD-2, 3000 AMP	MAIN CIRCUIT BREAKER 3000 A						600 VOLT,	3φ,	4W & GND,				
CT RATIO: 3000:5	INTERRUPTING CAPACITY: 65_kA RMS SYMMETRICAL						SURFACE MOUNT		NEMA 3R				
LOAD DESCRIPTION	KVA LOAD			CB/ PHASE	CKT. NO.	φ	CKT. NO.	CB/ PHASE	KVA LOAD	LOAD DESCRIPTION			
	φA	φB	φC								φA	φB	φC
INV-1	41.7			150A/3P	1	A	2	150A/3P	41.7	INV-2			
		41.7							3		B	4	41.7
			41.7						5		C	6	41.7
INV-3	41.7			150A/3P	7	A	8	150A/3P	41.7	INV-4			
		41.7							9		B	10	41.7
			41.7						11		C	12	41.7
INV-5	41.7			150A/3P	13	A	14	150A/3P	41.7	INV-6			
		41.7							15		B	16	41.7
			41.7						17		C	18	41.7
INV-7	41.7			150A/3P	19	A	20	150A/3P	41.7	INV-8			
		41.7							21		B	22	41.7
			41.7						23		C	24	41.7
INV-9	41.7			150A/3P	25	A	26	150A/3P	41.7	INV-10			
		41.7							27		B	28	41.7
			41.7						29		C	30	41.7
INV-11	41.7			150A/3P	31	A	32	150A/3P	41.7	INV-12			
		41.7							33		B	34	41.7
			41.7						35		C	36	41.7
INV-13	41.7			150A/3P	37	A	38	150A/3P	41.7	INV-14			
		41.7							39		B	40	41.7
			41.7						41		C	42	41.7
INV-15	41.7			150A/3P	43	A	44	150A/3P	41.7	INV-16			
		41.7							45		B	46	41.7
			41.7						47		C	48	41.7
INV-17	41.7			150A/3P	49	A	50	150A/3P	41.7	INV-18			
		41.7							51		B	52	41.7
			41.7						53		C	54	41.7
INV-19	41.7			150A/3P	55	A	56	150A/3P	41.7	INV-20			
		41.7							57		B	58	41.7
			41.7						59		C	60	41.7
MPC-1	2.5			20A/2P				100A/3P	25.0	GROUNDING TRANSFORMER			
		2.5							25.0				
DAS	1.0			20A/3P									
		1.0											
			1.0										
SUB-TOTAL						442.0			442.0				
PHASE A <u>862.5</u> KVA													
PHASE B <u>862.5</u> KVA										TOTAL LOAD <u>2585.0</u> KVA			
PHASE C <u>860.0</u> KVA													

MINI POWER CENTER SCHEDULE

MPC-1, 5 kVA	MAIN CIRCUIT BREAKER 20 A						120/240 VOLT,	1φ,	2W & GND,		
INTERRUPTING CAPACITY: 10_kA RMS SYMMETRICAL	SURFACE MOUNT						NEMA 3R				
LOAD DESCRIPTION	KVA LOAD			CB/ PHASE	CKT. NO.	φ	CKT. NO.	CB/ PHASE	KVA LOAD	LOAD DESCRIPTION	
	φA	φB	φC								φA
CONVENIENCE OUTLETS	0.2			20A/1P	1	A	2	20A/2P	0.2	DAS	
LIGHTS		0.2		20A/1P	3	B	4		0.2		
WEATHER STATION	0.2			20A/1P	5	A	6				
					7	B	8				
					9	A	10				
					11	B	12				
SUB-TOTAL						0.2			0.2		
PHASE A <u>0.6</u> KVA											
PHASE B <u>0.4</u> KVA										TOTAL LOAD <u>1.0</u> KVA	

SWITCHBOARD SCHEDULE

SWBD-1, 3000 AMP	MAIN CIRCUIT BREAKER 3000 A						600 VOLT,	3φ,	4W & GND,				
CT RATIO: 3000:5	INTERRUPTING CAPACITY: 65_kA RMS SYMMETRICAL						SURFACE MOUNT		NEMA 3R				
LOAD DESCRIPTION	KVA LOAD			CB/ PHASE	CKT. NO.	φ	CKT. NO.	CB/ PHASE	KVA LOAD	LOAD DESCRIPTION			
	φA	φB	φC								φA	φB	φC
INV-21	41.7			150A/3P	1	A	2	150A/3P	41.7	INV-22			
		41.7							3		B	4	41.7
			41.7						5		C	6	41.7
INV-23	41.7			150A/3P	7	A	8	150A/3P	41.7	INV-24			
		41.7							9		B	10	41.7
			41.7						11		C	12	41.7
INV-25	41.7			150A/3P	13	A	14	150A/3P	41.7	INV-26			
		41.7							15		B	16	41.7
			41.7						17		C	18	41.7
INV-27	41.7			150A/3P	19	A	20	150A/3P	41.7	INV-28			
		41.7							21		B	22	41.7
			41.7						23		C	24	41.7
INV-29	41.7			150A/3P	25	A	26	150A/3P	41.7	INV-30			
		41.7							27		B	28	41.7
			41.7						29		C	30	41.7
INV-31	41.7			150A/3P	31	A	32	150A/3P	41.7	INV-32			
		41.7							33		B	34	41.7
			41.7						35		C	36	41.7
INV-33	41.7			150A/3P	37	A	38	150A/3P	41.7	INV-34			
		41.7							39		B	40	41.7
			41.7						41		C	42	41.7
INV-35	41.7			150A/3P	43	A	44	150A/3P	41.7	INV-36			
		41.7							45		B	46	41.7
			41.7						47		C	48	41.7
INV-37	41.7			150A/3P	49	A	50	150A/3P	41.7	INV-38			
		41.7							51		B	52	41.7
			41.7						53		C	54	41.7
INV-39	41.7			150A/3P	55	A	56	150A/3P	41.7	INV-40			
		41.7							57		B	58	41.7
			41.7						59		C	60	41.7
DAS	1.0			20A/3P				100A/3P	25.0	GROUNDING TRANSFORMER			
		1.0							25.0				
MPC-2	2.5			20A/2P									
		2.5											
			2.5										
SUB-TOTAL						442.0			442.0				
PHASE A <u>862.5</u> KVA													
PHASE B <u>862.5</u> KVA										TOTAL LOAD <u>2585.0</u> KVA			
PHASE C <u>860.0</u> KVA													

MINI POWER CENTER SCHEDULE

MPC-2, 5 kVA	MAIN CIRCUIT BREAKER 20 A						120/240 VOLT,	1φ,	2W & GND,		
INTERRUPTING CAPACITY: 10_kA RMS SYMMETRICAL	SURFACE MOUNT						NEMA 3R				
LOAD DESCRIPTION	KVA LOAD			CB/ PHASE	CKT. NO.	φ	CKT. NO.	CB/ PHASE	KVA LOAD	LOAD DESCRIPTION	
	φA	φB	φC								φA
CONVENIENCE OUTLETS	0.2			20A/1P	1	A	2	20A/2P	0.2	DAS	
LIGHTS		0.2		20A/1P	3	B	4		0.2		
					5	A	6				
					7	B	8				
					9	A	10				
					11	B	12				
SUB-TOTAL						0.2			0.2		
PHASE A <u>0.4</u> KVA											
PHASE B <u>0.4</u> KVA										TOTAL LOAD <u>0.8</u> KVA	

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