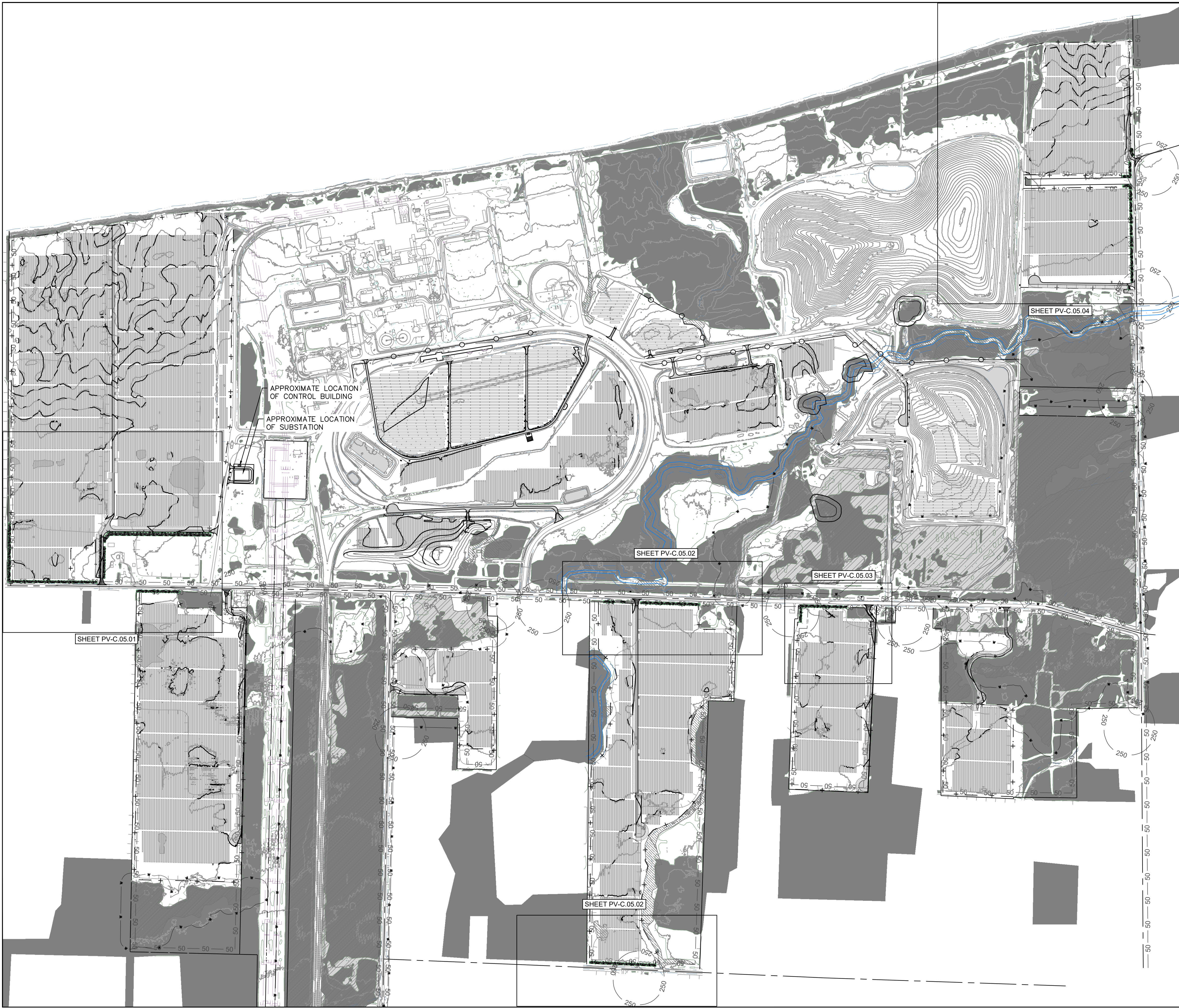


Appendix B: Landscaping Plan



LEGEND

	PROPERTY LINE
	EASEMENTS
	50' SENSITIVE AREA BUFFER
	EXISTING LOTLINES
	EXISTING GRAVEL DRIVE
	EXISTING RIGHT OF WAY
	EXISTING DRAINAGE DITCH
	EXISTING WATER EDGE
	APPROXIMATE TOP OF STREAM BANK
	EXISTING FENCE
	EXISTING GUIDERAIL
	EXISTING AGRICULTURE FIELD
	EXISTING TREE LINE
	EXISTING BRUSH LINE
	EXISTING RAILROAD
	EXISTING ELECTRIC TRANSMISSION LINE
	EXISTING OVERHEAD ELECTRIC
	EXISTING UNDERGROUND ELECTRIC
	DELINEATED WETLAND (USACE)
	DELINEATED WETLAND (STATE)
	DELINEATED WETLAND (NO JURISDICTION)
	DELINEATED DRAINAGE FEATURE
	100 FT DELINEATED WETLAND BUFFER
	50 FT STREAM BUFFER FROM TOP OF BANK
	PROPOSED TREE LINE
	PROPOSED BRUSH LINE
	PROPOSED CHAIN LINK FENCE
	PROPOSED AGRICULTURAL FENCE
	PROPOSED ACCESS ROAD
	PROPOSED GRASSED FILTER STRIP & BERM
	PROPOSED SOLAR ARRAY (TRACKER)
	PROPOSED SOLAR ARRAY (FIXED TILT)
	PROPOSED VEGETATIVE SCREENING
	REMAINING VEGETATION

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	03/03/2023	ISSUED FOR 94-C PERMIT
1	08/11/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD SOMERSET, NY

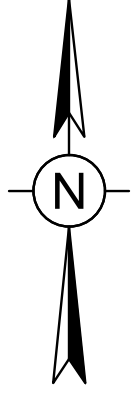
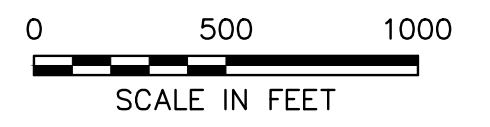
SHEET TITLE & DESCRIPTION:

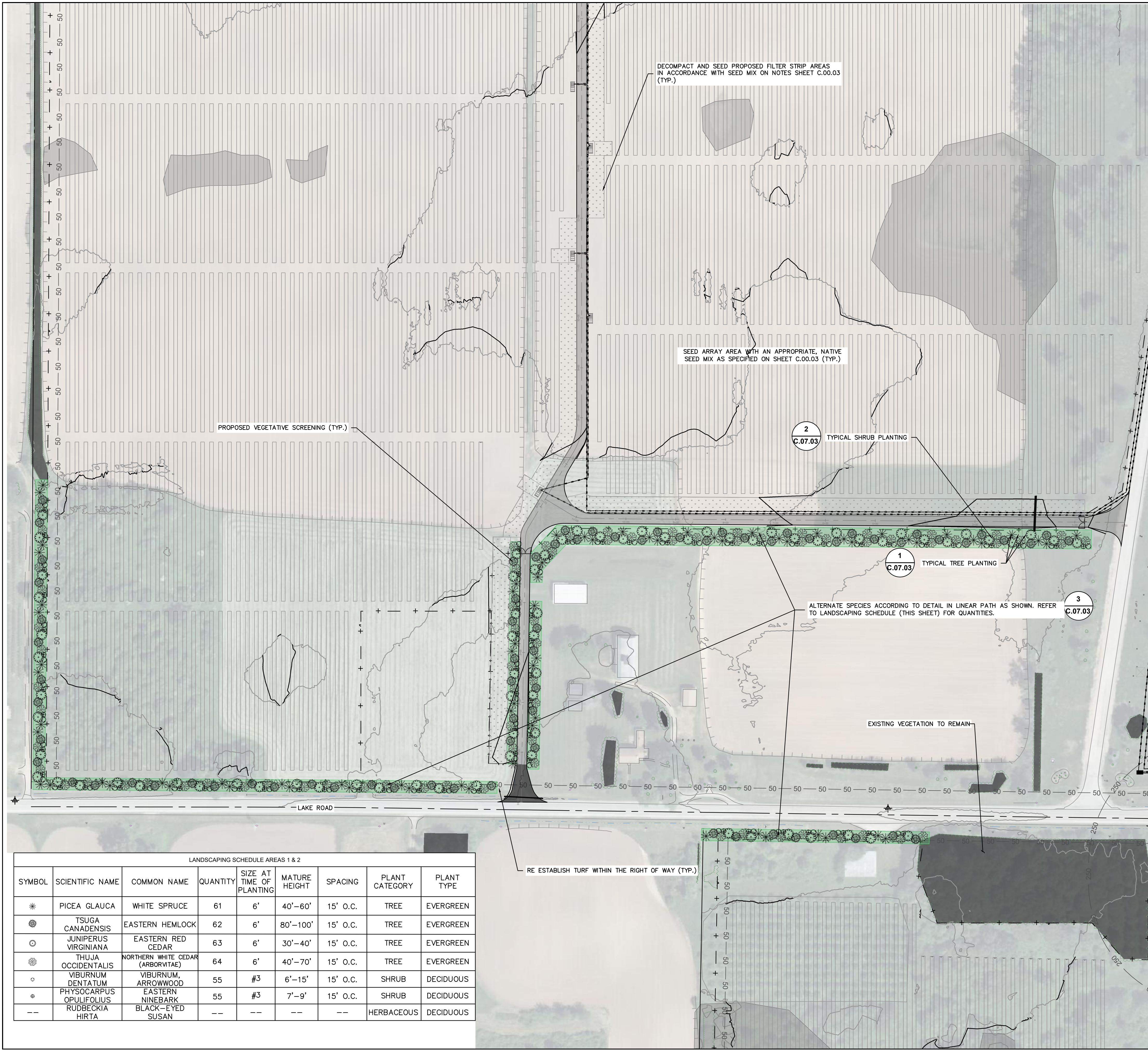
LANDSCAPING OVERVIEW

ISSUED FOR 94-C PERMIT ONLY
 NOT FOR CONSTRUCTION

PROJ NUM:	SU20.0012
DES:	RCD
DWN:	APC
CHK:	JPP/MAH
APV:	BMS
DATE:	08/11/2023
SCALE AT 22" x 34"	

AS SHOWN	SHEET NO: PV-C.05.00	REV: 1
----------	--------------------------------	------------------





LEGEND

—	PROPERTY LINE
- - - - -	EASEMENTS
.....	50' SENSITIVE AREA BUFFER
- - - - -	EXISTING LOTLINES
- - - - -	EXISTING GRAVEL DRIVE
—	EXISTING RIGHT OF WAY
- - - - -	EXISTING DRAINAGE DITCH
- - - - -	EXISTING WATER EDGE
- - - - -	APPROXIMATE TOP OF STREAM BANK
- x - x - x - x - x -	EXISTING FENCE
- □ - □ - □ - □ -	EXISTING GUIDERAIL
- - - - -	EXISTING AGRICULTURE FIELD
- ~ - ~ - ~ - ~ -	EXISTING TREE LINE
- ~ - ~ - ~ - ~ -	EXISTING BRUSH LINE
- - - - -	EXISTING RAILROAD
- - - - -	EXISTING PIPELINE
- E - E -	EXISTING ELECTRIC TRANSMISSION LINE
- OE -	EXISTING OVERHEAD ELECTRIC
- UE -	EXISTING UNDERGROUND ELECTRIC
⊕ ⊙ ⊗	EXISTING UTILITY POLE
↓	EXISTING GUY WIRE
⊕	EXISTING HYDRANT
⊙	SURVEY CONTROL POINT
⊗	APPROX. LOCATION-EXISTING ACTIVE WELLS
[Hatched]	DELINEATED WETLAND (USACE)
[Hatched]	DELINEATED WETLAND (STATE/USACE)
[Hatched]	DELINEATED WETLAND (NO JURISDICTION)
- - - - -	DELINEATED DRAINAGE FEATURE
- w - w -	100 FT DELINEATED WETLAND BUFFER
- - - - -	50 FT STREAM BUFFER FROM TOP OF BANK
- ~ - ~ - ~ - ~ -	PROPOSED TREE LINE
- ~ - ~ - ~ - ~ -	PROPOSED BRUSH LINE
- ○ - ○ -	PROPOSED CHAIN LINK FENCE
- + - + -	PROPOSED AGRICULTURAL FENCE
- - - - -	PROPOSED ACCESS ROAD
[Dotted]	PROPOSED GRASSED FILTER STRIP
[Grid]	PROPOSED SOLAR ARRAY (TRACKER)
[Grid]	PROPOSED SOLAR ARRAY (FIXED TILT)
[Green]	PROPOSED VEGETATIVE SCREENING
[Green]	PROPOSED HERBACEOUS SEEDING AREA
- UGE - UGE -	PROPOSED UNDERGROUND ELECTRIC TRENCH PATH
- AC - AC -	PROPOSED AC WIRE PATH
[Grey]	REMAINING VEGETATION

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.

KEY PLAN:



REVISIONS:

NO.	DATE	DESCRIPTION
0	03/03/2023	ISSUED FOR 94-C PERMIT
1	08/11/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD SOMERSET, NY AREAS 1 & 2

SHEET TITLE & DESCRIPTION:

LANDSCAPING PLAN

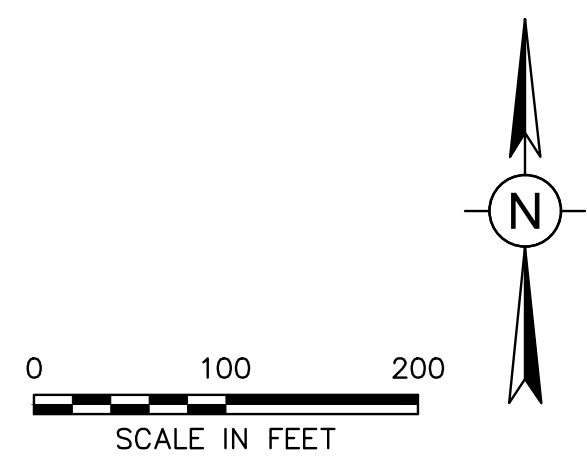
**ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION**

PROJ NUM:	SU20.0012
DES:	RCD
DWN:	APC
CHK:	JPP/MAH
APV:	BMS
DATE:	08/11/2023
SCALE AT 22" x 34":	

AS SHOWN

LANDSCAPING SCHEDULE AREAS 1 & 2

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QUANTITY	SIZE AT TIME OF PLANTING	MATURE HEIGHT	SPACING	PLANT CATEGORY	PLANT TYPE
*	PICEA GLAUCA	WHITE SPRUCE	61	6'	40'-60'	15' O.C.	TREE	EVERGREEN
●	TSUGA CANADENSIS	EASTERN HEMLOCK	62	6'	80'-100'	15' O.C.	TREE	EVERGREEN
⊙	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	63	6'	30'-40'	15' O.C.	TREE	EVERGREEN
⊗	THUJA OCCIDENTALIS	NORTHERN WHITE CEDAR (ARBORVITAE)	64	6'	40'-70'	15' O.C.	TREE	EVERGREEN
○	VIBURNUM DENTATUM	VIBURNUM, ARROWWOOD	55	#3	6'-15'	15' O.C.	SHRUB	DECIDUOUS
●	PHYSOCARPUS OPULIFOLIUS	EASTERN NINEBARK	55	#3	7'-9'	15' O.C.	SHRUB	DECIDUOUS
- -	RUDBECKIA HIRTA	BLACK-EYED SUSAN	- -	- -	- -	- -	HERBACEOUS	DECIDUOUS



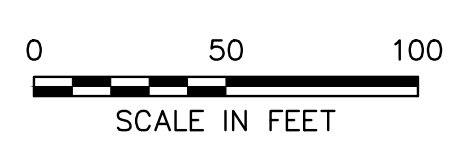


LEGEND

- PROPERTY LINE
- EASEMENTS
- 50' SENSITIVE AREA BUFFER
- EXISTING LOTLINES
- EXISTING GRAVEL DRIVE
- ROW
- EXISTING DRAINAGE DITCH
- EXISTING WATER EDGE
- APPROXIMATE TOP OF STREAM BANK
- EXISTING FENCE
- EXISTING GUIDERAIL
- EXISTING AGRICULTURE FIELD
- EXISTING TREE LINE
- EXISTING BRUSH LINE
- EXISTING RAILROAD
- EXISTING PIPELINE
- EXISTING ELECTRIC TRANSMISSION LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- EXISTING HYDRANT
- SURVEY CONTROL POINT
- APPROX. LOCATION-EXISTING ACTIVE WELLS
- DELINEATED WETLAND (USACE)
- DELINEATED WETLAND (STATE/USACE)
- DELINEATED WETLAND (NO JURISDICTION)
- DELINEATED DRAINAGE FEATURE
- 100 FT DELINEATED WETLAND BUFFER
- 50 FT STREAM BUFFER FROM TOP OF BANK
- PROPOSED TREE LINE
- PROPOSED BRUSH LINE
- PROPOSED CHAIN LINK FENCE
- PROPOSED AGRICULTURAL FENCE
- PROPOSED ACCESS ROAD
- PROPOSED GRASSED FILTER STRIP
- PROPOSED SOLAR ARRAY (TRACKER)
- PROPOSED SOLAR ARRAY (FIXED TILT)
- PROPOSED VEGETATIVE SCREENING
- PROPOSED HERBACEOUS SEEDING AREA
- PROPOSED UNDERGROUND ELECTRIC TRENCH PATH
- PROPOSED AC WIRE PATH
- REMAINING VEGETATION

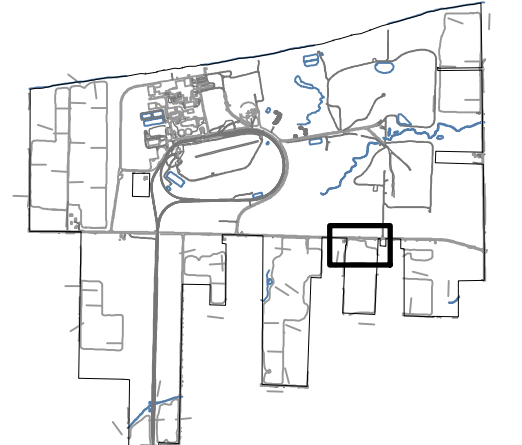
LANDSCAPING SCHEDULE AREA 5

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QUANTITY	SIZE AT TIME OF PLANTING	MATURE HEIGHT	SPACING	PLANT CATEGORY	PLANT TYPE
*	PICEA GLAUCA	WHITE SPRUCE	11	6'	40'-60'	15' O.C.	TREE	EVERGREEN
⊙	TSUGA CANADENSIS	EASTERN HEMLOCK	11	6'	80'-100'	15' O.C.	TREE	EVERGREEN
⊙	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	10	6'	30'-40'	15' O.C.	TREE	EVERGREEN
⊙	THUJA OCCIDENTALIS	NORTHERN WHITE CEDAR (ARBORVITAE)	11	6'	40'-70'	15' O.C.	TREE	EVERGREEN
○	VIBURNUM DENTATUM	VIBURNUM, ARROWWOOD	11	#3	6'-15'	15' O.C.	SHRUB	DECIDUOUS
●	PHYSOCARPUS OPULIFOLIUS	EASTERN NINEBARK	11	#3	7'-9'	15' O.C.	SHRUB	DECIDUOUS
--	RUDBECKIA HIRTA	BLACK-EYED SUSAN	--	--	--	--	HERBACEOUS	DECIDUOUS



IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.

KEY PLAN:



REVISIONS:

NO.	DATE	DESCRIPTION
0	03/03/2023	ISSUED FOR 94-C PERMIT
1	08/11/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD SOMERSET, NY AREA 5

SHEET TITLE & DESCRIPTION:

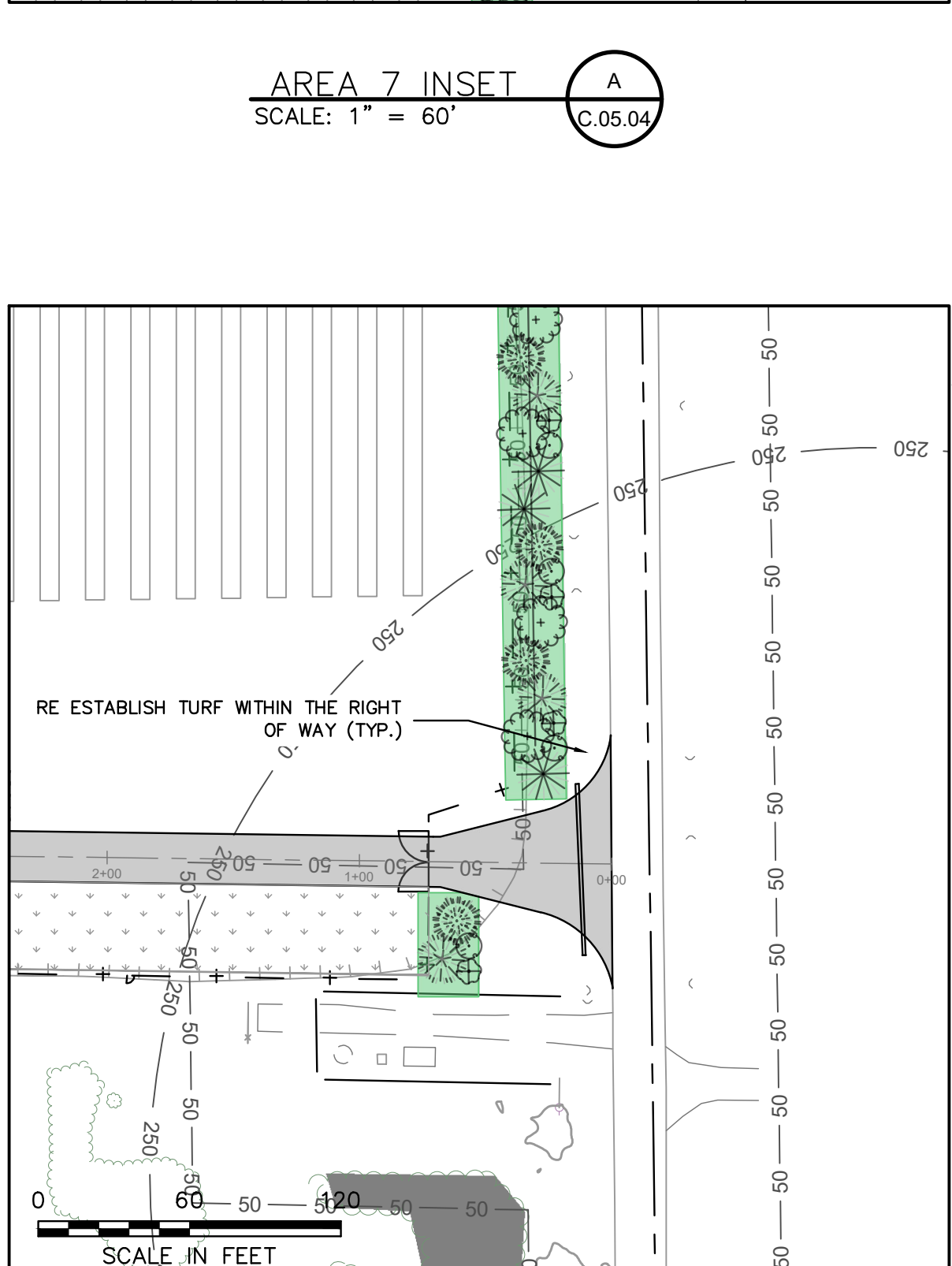
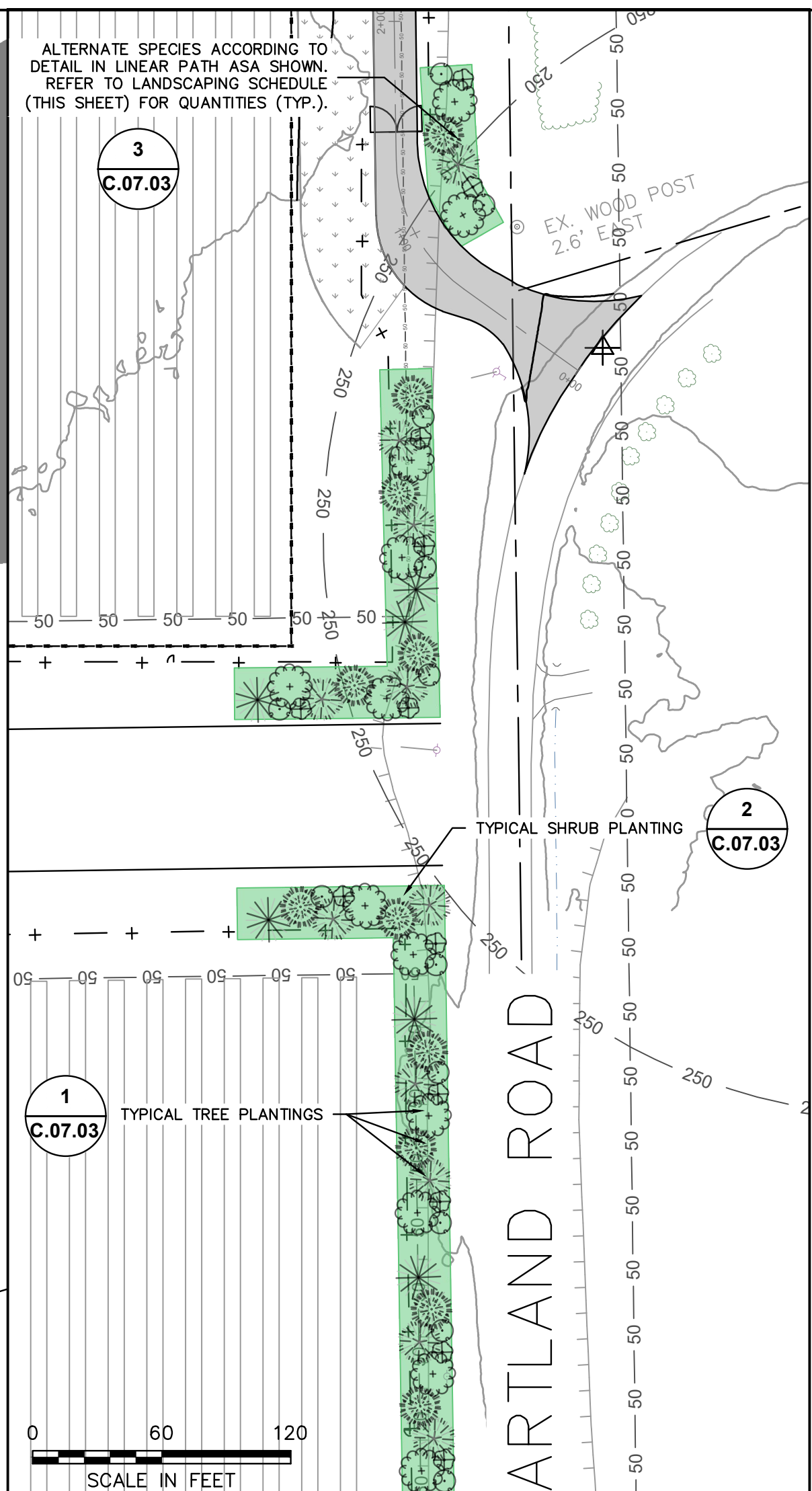
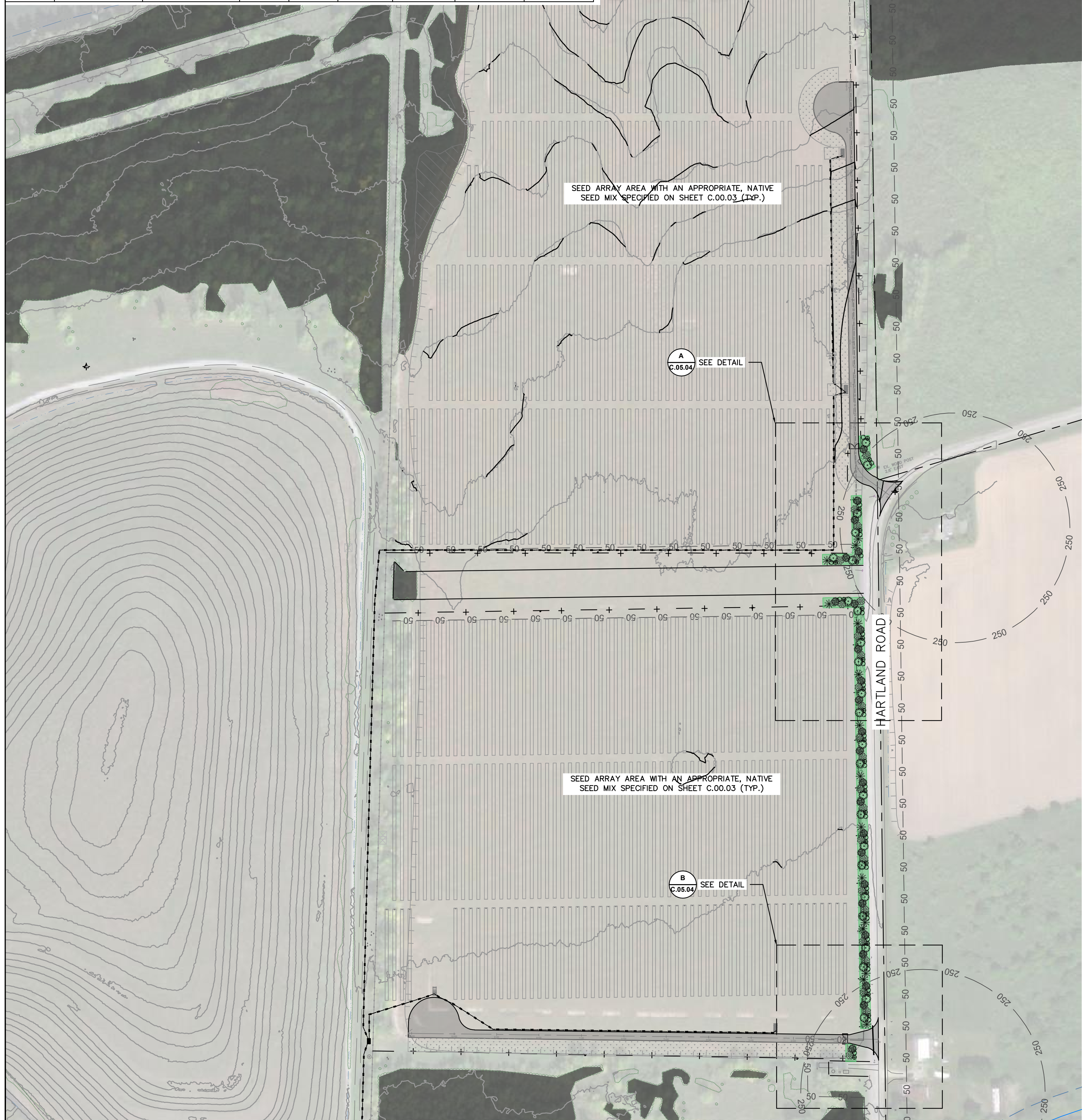
LANDSCAPING PLAN

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

PROJ NUM:	SU20.0012
DES:	RCD
DWN:	RCD
CHK:	JPP/MAH
APV:	BMS
DATE:	08/11/2023
SCALE AT 22" x 34":	

LANDSCAPING SCHEDULE AREA 7

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QUANTITY	SIZE AT TIME OF PLANTING	MATURE HEIGHT	SPACING	PLANT CATEGORY	PLANT TYPE
*	PICEA GLAUCA	WHITE SPRUCE	21	6'	40'-60'	15' O.C.	TREE	EVERGREEN
●	TSUGA CANADENSIS	EASTERN HEMLOCK	24	6'	80'-100'	15' O.C.	TREE	EVERGREEN
⊙	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	24	6'	30'-40'	15' O.C.	TREE	EVERGREEN
⊙	THUJA OCCIDENTALIS (ARBORVITAE)	NORTHERN WHITE CEDAR (ARBORVITAE)	24	6'	40'-70'	15' O.C.	TREE	EVERGREEN
○	VIBURNUM DENTATUM	VIBURNUM ARROWWOOD	25	#3	6'-15'	15' O.C.	SHRUB	DECIDUOUS
⊙	PHYSOCARPUS OPULIFOLIUS	EASTERN NINEBARK	25	#3	7'-9'	15' O.C.	SHRUB	DECIDUOUS
--	RUDBECKIA HIRTA	BLACK-EYED SUSAN	--	--	--	--	HERBACEOUS	DECIDUOUS

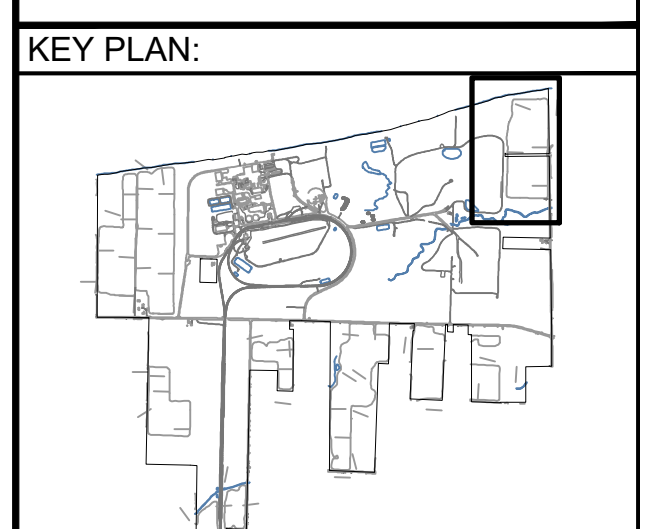


LEGEND

	PROPERTY LINE
	EASEMENTS
	50' SENSITIVE AREA BUFFER
	EXISTING LOTLINES
	EXISTING GRAVEL DRIVE
	EXISTING RIGHT OF WAY
	EXISTING DRAINAGE DITCH
	EXISTING WATER EDGE
	APPROXIMATE TOP OF STREAM BANK
	EXISTING FENCE
	EXISTING GUIDERAIL
	EXISTING AGRICULTURE FIELD
	EXISTING TREE LINE
	EXISTING BRUSH LINE
	EXISTING RAILROAD
	EXISTING PIPELINE
	EXISTING ELECTRIC TRANSMISSION LINE
	EXISTING OVERHEAD ELECTRIC
	EXISTING UNDERGROUND ELECTRIC
	EXISTING UTILITY POLE
	EXISTING GUY WIRE
	EXISTING HYDRANT
	SURVEY CONTROL POINT
	APPROX. LOCATION-EXISTING ACTIVE WELLS
	DELINEATED WETLAND (USACE)
	DELINEATED WETLAND (STATE/USACE)
	DELINEATED WETLAND (NO JURISDICTION)
	DELINEATED DRAINAGE FEATURE
	100 FT DELINEATED WETLAND BUFFER
	50 FT STREAM BUFFER FROM TOP OF BANK
	PROPOSED TREE LINE
	PROPOSED BRUSH LINE
	PROPOSED CHAIN LINK FENCE
	PROPOSED AGRICULTURAL FENCE
	PROPOSED ACCESS ROAD
	PROPOSED GRASSED FILTER STRIP
	PROPOSED SOLAR ARRAY (TRACKER)
	PROPOSED SOLAR ARRAY (FIXED TILT)
	PROPOSED VEGETATIVE SCREENING
	PROPOSED HERBACEOUS SEEDING AREA
	PROPOSED UNDERGROUND ELECTRIC TRENCH PATH
	PROPOSED AC WIRE PATH
	REMAINING VEGETATION



IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.



REVISIONS:

NO.	DATE	DESCRIPTION
0	03/03/2023	ISSUED FOR 94-C PERMIT
1	08/11/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:
SOMERSET SOLAR PROJECT

PROJECT LOCATION:
LAKE ROAD SOMERSET, NY AREA 7

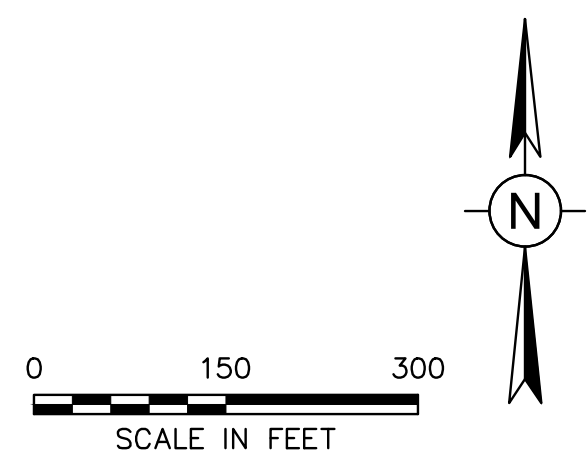
SHEET TITLE & DESCRIPTION:
LANDSCAPING PLAN

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

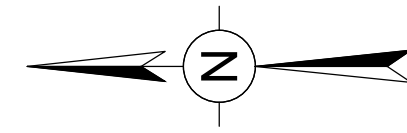
PROJ NUM:	SU20.0012
DES:	RCD
DWN:	RCD
CHK:	JPP/MAH
APV:	BMS
DATE:	08/11/2023
SCALE AT 22" x 34":	

AS SHOWN

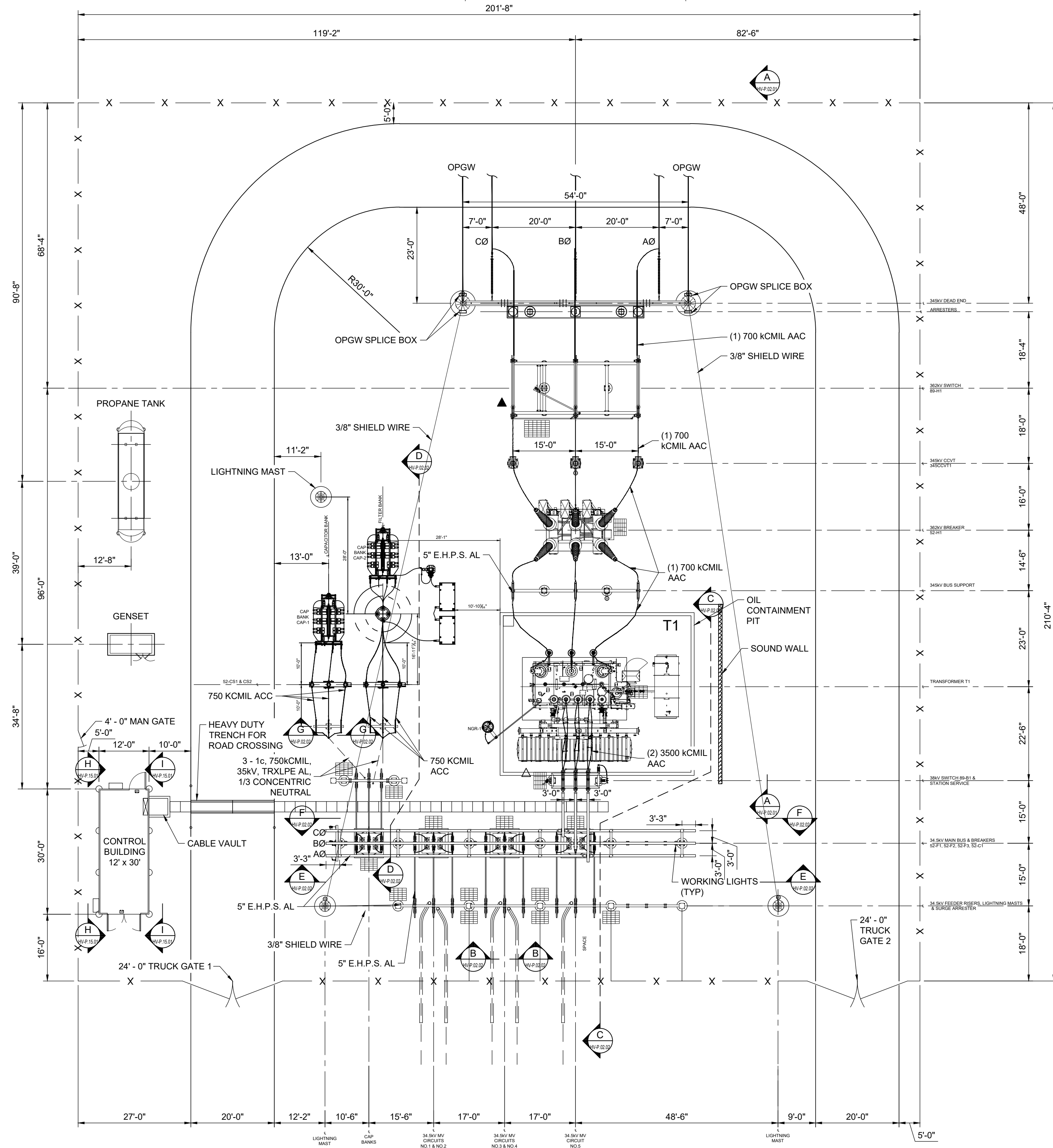
SHEET NO: PV-C.05.04	REV: 1
-------------------------	-----------



Attachment 9: Facility Substation Drawings



345kV OH CONNECTION TO KINTIGH SUBSTATION (APPROX. 159 FT)



NOTES

- TUBULAR BUS SHALL BE EXTRUDED, SEAMLESS BUS PIPE MADE OF 6063-T6 ALLOY, SCHEDULE 40.
- PHASING ARRANGEMENT TO BE CONFIRMED BASED ON THE TRANSMISSION LINE DESIGN.
- LEVELING NUTS SHALL BE USED ON ALL STEEL STRUCTURES.
- EQUIPMENT SHALL BE MOUNTED DIRECTLY ON PADS.
- EQUIPMENT RATINGS SUBJECT TO CHANGE BASED ON STUDIES RESULTS.
- DESIGN IS PRELIMINARY AND SHALL BE FINALIZED AT DETAILED DESIGN PHASE.

LEGEND

- LIGHT (STRUCTURE)
- SWITCH OPERATOR - MOTOR
- SWITCH OPERATOR - WORM GEAR
- FENCE
- 4'-0" x 6'-0" SWITCH GROUNDING MAT
- BURIED CABLE

MINIMUM CLEARANCE REQUIREMENT

345kV MINIMUM CLEARANCE (1300kV BIL):
 LIVE PARTS: Ø-G=106"
 Ø-G=119"
 TO GRADE: 18'-0" (BUS)
 30'-0" (DRIVEWAY)

34.5kV MINIMUM CLEARANCE (200kV BIL):
 LIVE PARTS: Ø-G=13"
 Ø-G=18"
 TO GRADE: 10'-0" (BUS)
 22'-0" (DRIVEWAY)

DRAWING NUMBER	DRAWING DESCRIPTION
HV-E.02.01	345/34.5kV SUBSTATION SWITCHING ONE-LINE DIAGRAM
HV-P.08.01	345/34.5kV SUBSTATION GROUNDING PLAN
HV-P.14.01	345/34.5kV SUBSTATION CONTROL BUILDING LAYOUT
HV-P.02.01	345/34.5kV SUBSTATION 345kV ELEVATION VIEW
HV-P.02.02	345/34.5kV SUBSTATION 34.5kV ELEVATION VIEW
HV-P.15.01	345/34.5kV SUBSTATION CONTROL BUILDING ELEVATION



AES CLEAN ENERGY DEVELOPMENT, LLC
292 MADISON AVENUE, 15TH FLOOR
NEW YORK, NY 10017



IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	03/08/2023	ISSUED FOR 94-C PERMIT
1	07/24/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD, SOMERSET NY

SHEET TITLE & DESCRIPTION:

345/34.5kV SUBSTATION

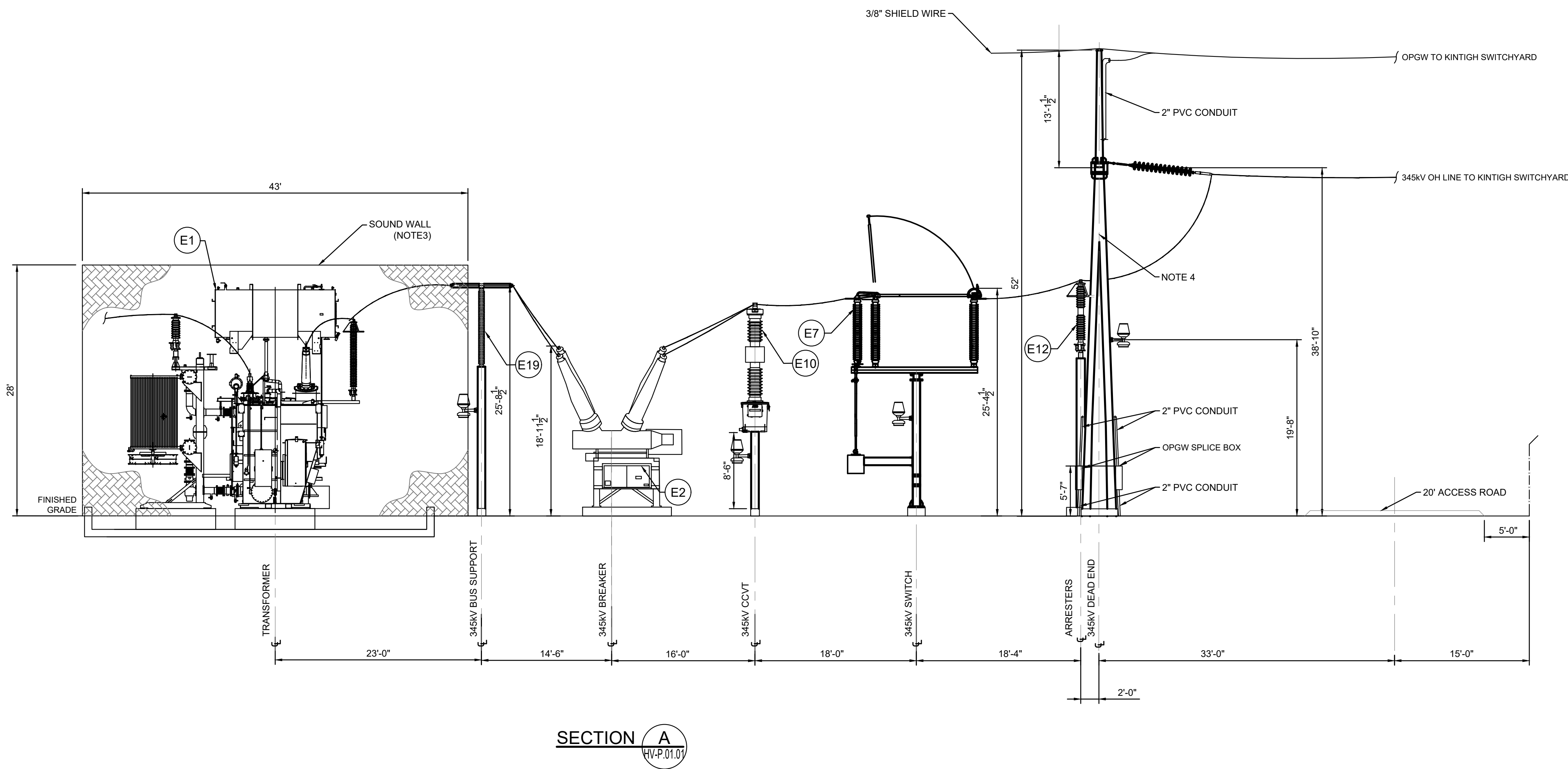
GENERAL PLAN

PROJ NUM:	SU20.0012
DES:	MIKE MAILLE
DWN:	MIKE MAILLE/KRINA GANDHI
CHK:	AZIN SHAHAB
APV:	ZHONG BING SHEN, P.E.
DATE:	02/17/2023

SCALE AT 22' x 34'
0 8' 16' 24' 32'
1/16" = 1'-0"

SHEET NO:	REV:
HV-P.01.01	1

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

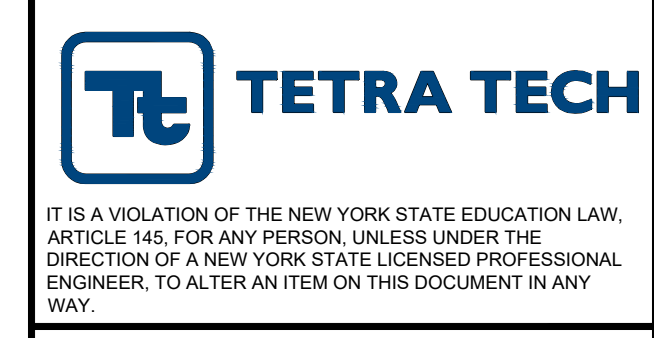


NOTES	
1.	THIS IS A PRELIMINARY ELEVATION VIEW AND IS FOR PERMITTING PURPOSES ONLY.
2.	DESIGN IS PRELIMINARY AND SHALL BE FINALIZED AT DETAILED DESIGN PHASE.
3.	REFER TO DETAIL 7 ON SHEET C.10.05
4.	DEADEND TAKEOFF STRUCTURE MATERIAL IS GALVANIZED STEEL.

LEGEND	
	LIGHT (MAST/DEADEND)
	MATERIAL ITEM OR SUB ITEM NUMBER

MINIMUM CLEARANCE REQUIREMENT	
345kV MINIMUM CLEARANCE (1300kV BIL):	
LIVE PARTS:	Ø-G=108"
	Ø-G=119"
TO GRADE:	18'-0" (BUS)
	30'-0" (DRIVEWAY)
34.5kV MINIMUM CLEARANCE (200kV BIL):	
LIVE PARTS:	Ø-G=13"
	Ø-G=18"
TO GRADE:	10'-0" (BUS)
	22'-0" (DRIVEWAY)

DRAWING NUMBER	DRAWING DESCRIPTION
C.10.05	SOUND WALL DETAILS
HV-P.01.01	345/34.5kV SUBSTATION GENERAL ARRANGEMENT
HV-P.08.01	345/34.5kV SUBSTATION GROUNDING PLAN
HV-P.14.01	345/34.5kV SUBSTATION CONTROL BUILDING LAYOUT
HV-E.02.01	345/34.5kV SUBSTATION SWITCHING ONE-LINE DIAGRAM
HV-P.02.02	345/34.5kV SUBSTATION 34.5kV ELEVATION VIEW



KEY PLAN:		

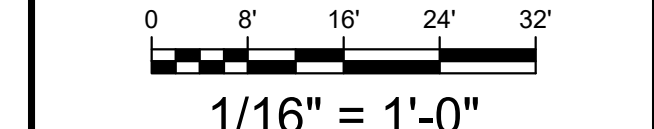
REVISIONS:		
NO.	DATE	DESCRIPTION
0	03/08/2023	ISSUED FOR 94-C PERMIT
1	07/24/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:
SOMERSET SOLAR PROJECT

PROJECT LOCATION:
LAKE ROAD, SOMERSET NY

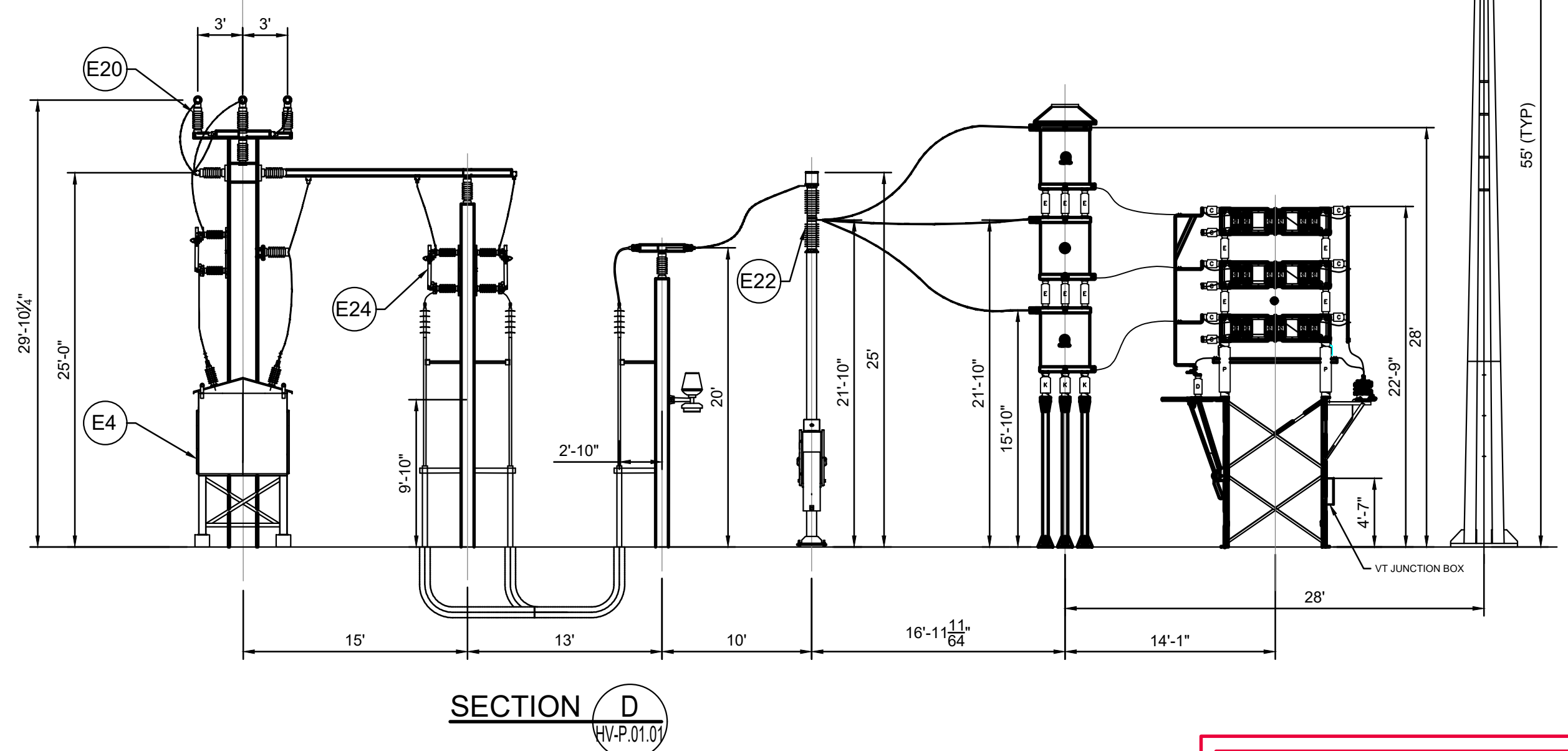
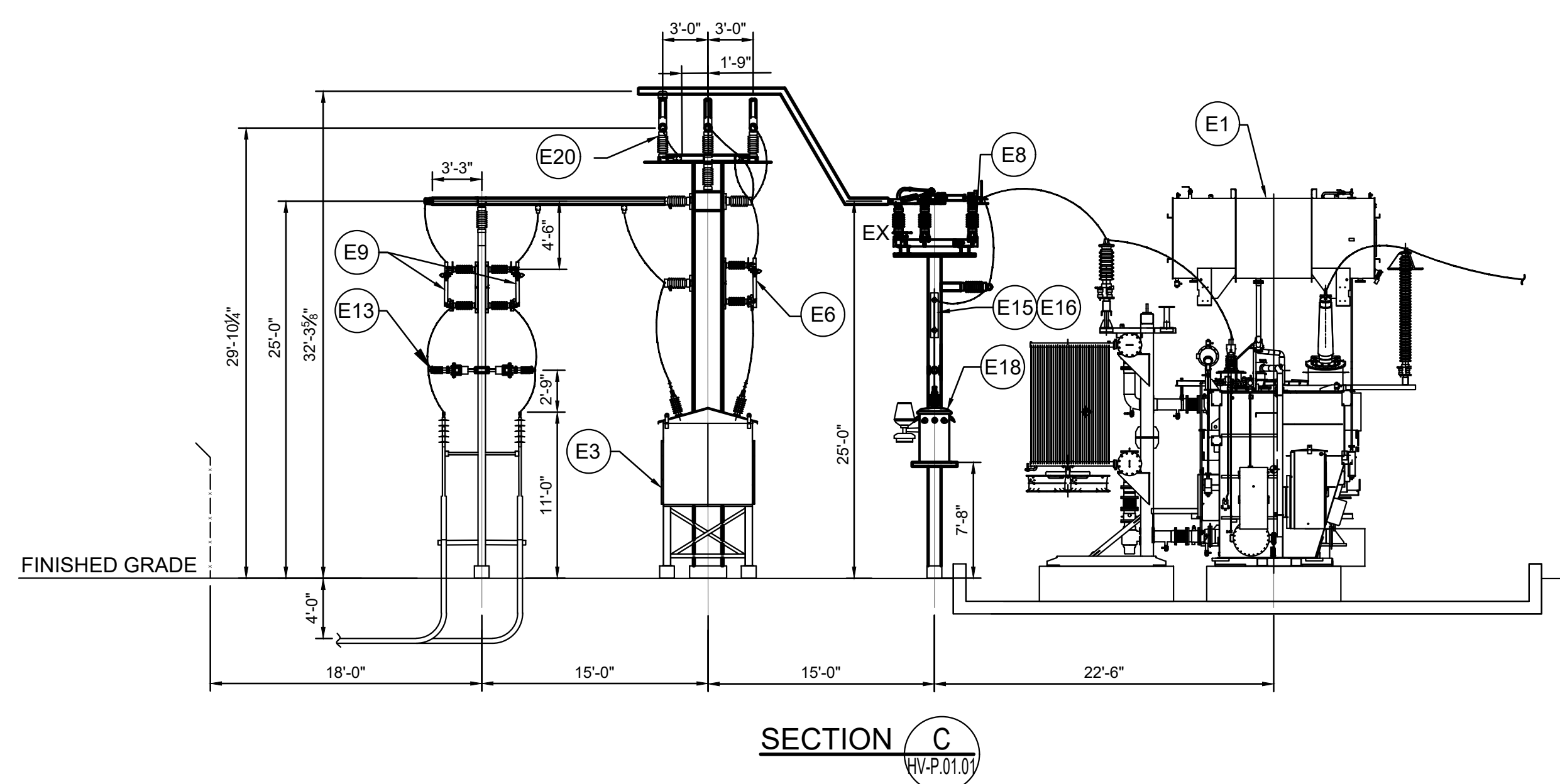
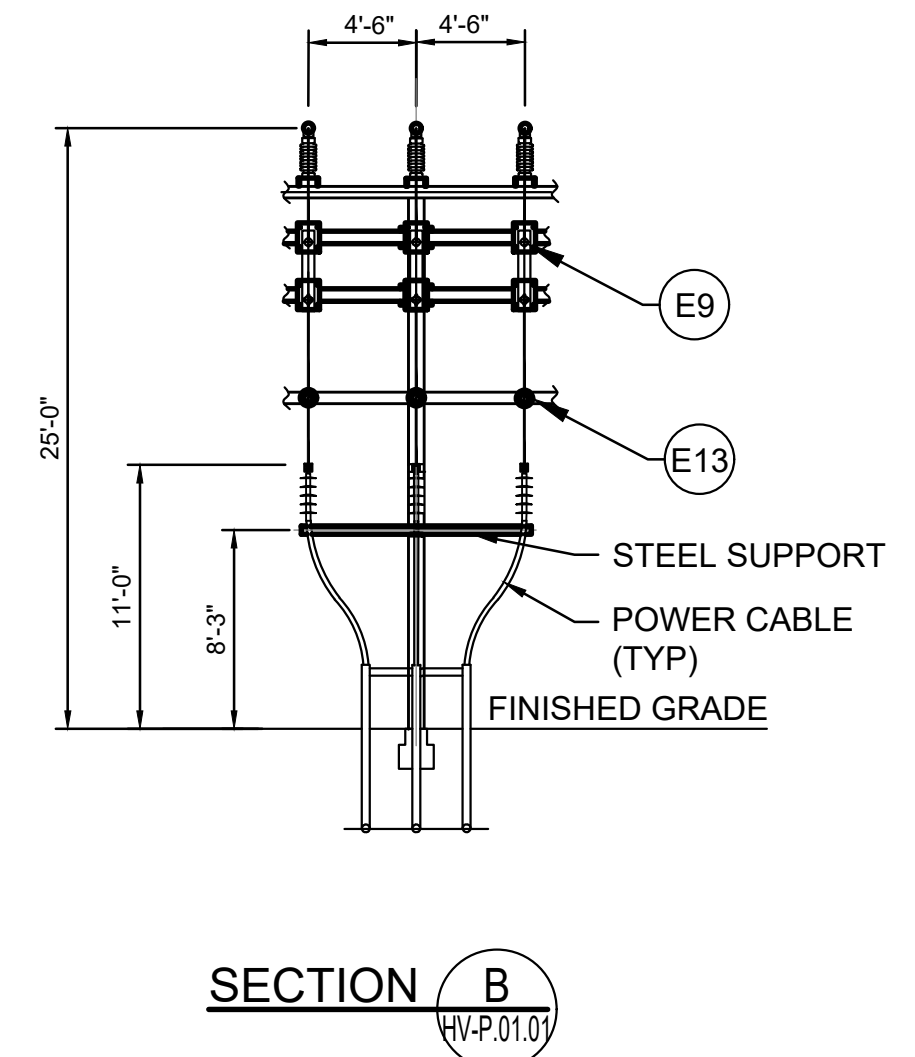
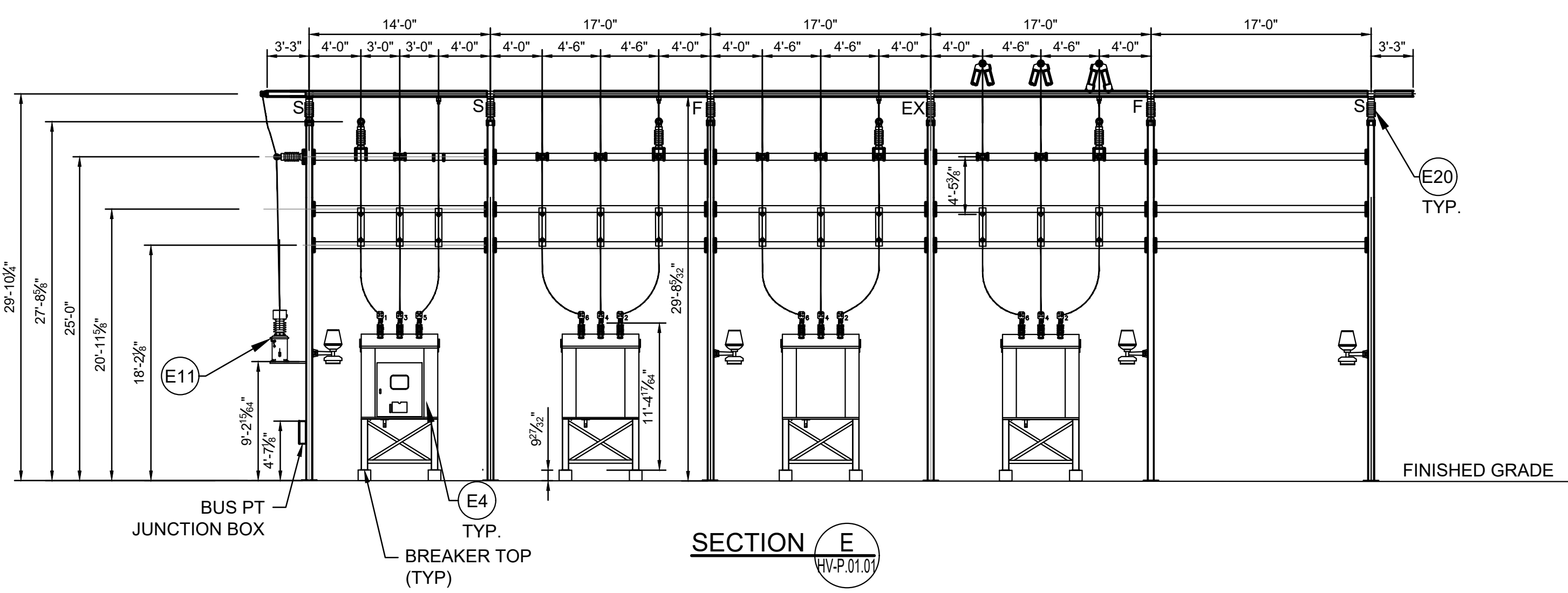
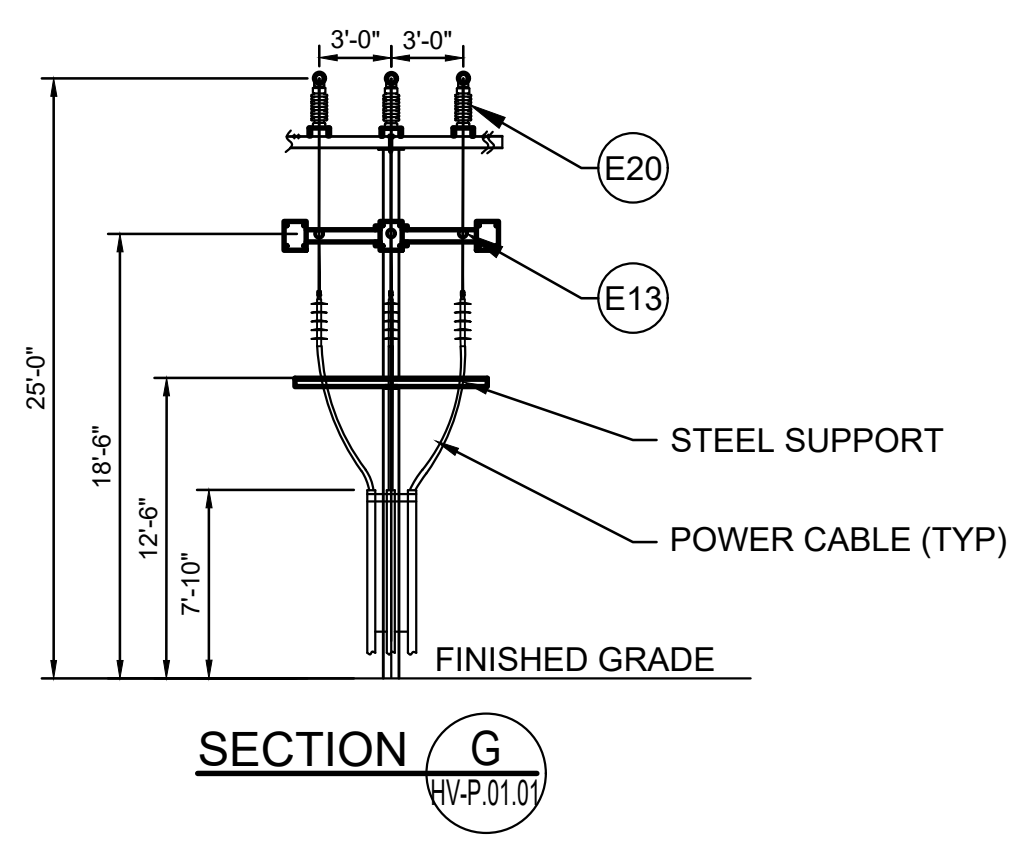
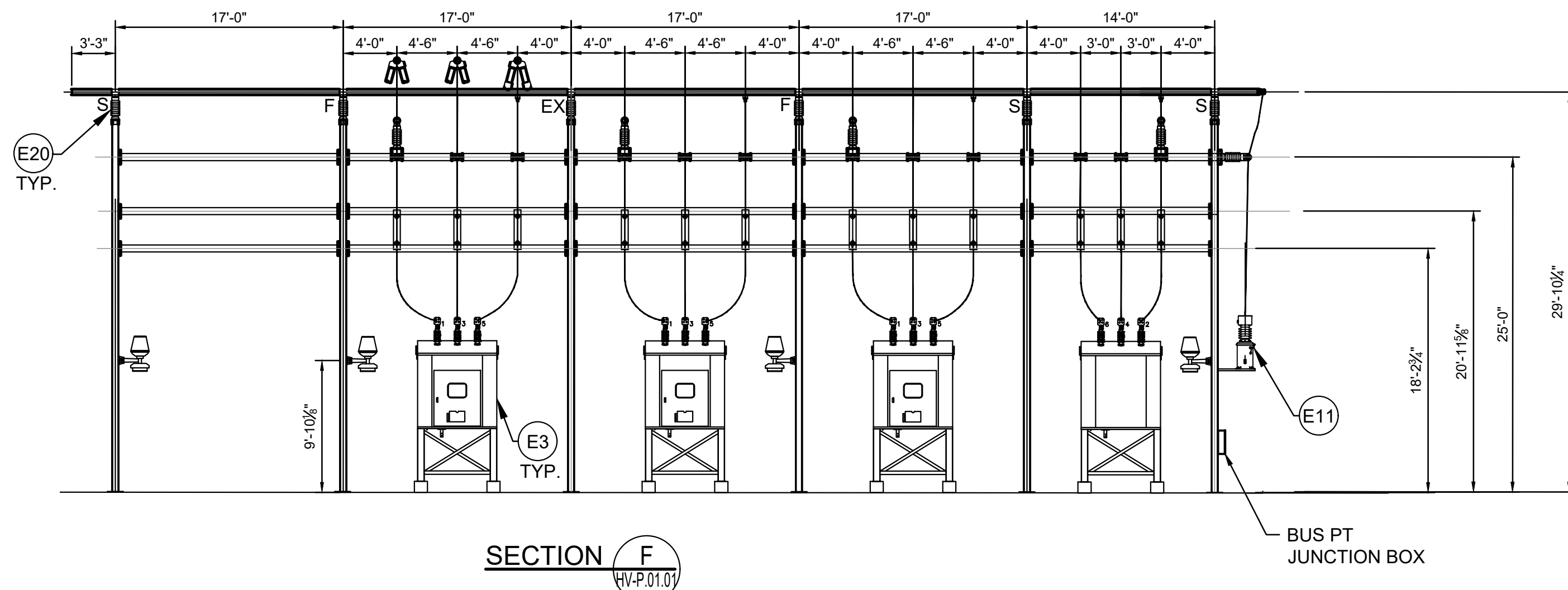
SHEET TITLE & DESCRIPTION:
345/34.5kV SUBSTATION
345kV ELEVATION VIEW

PROJ NUM: SU20.0012
DES: MIKE MAILLE
DWN: MIKE MAILLE/KRINA GANDHI
CHK: AZIN SHAHAB
APV: ZHONG BING SHEN, P.E.
DATE: 02/17/2023



SHEET NO.	REV.
HV-P.02.01	1

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION



NOTES

- THIS IS A PRELIMINARY ELEVATION VIEW AND IS FOR PERMITTING PURPOSES ONLY.
- DESIGN IS PRELIMINARY AND SHALL BE FINALIZED AT DETAILED DESIGN PHASE.

LEGEND

- LIGHT (MAST/DEADEND)
- FENCE
- BURIED CABLE
- MATERIAL ITEM OR SUB ITEM NUMBER

MINIMUM CLEARANCE REQUIREMENT

345KV MINIMUM CLEARANCE (1300KV BIL):	
LIVE PARTS:	Ø-G=106"
	Ø-G=119"
TO GRADE:	18'-0" (BUS)
	30'-0" (DRIVEWAY)
34.5KV MINIMUM CLEARANCE (200KV BIL):	
LIVE PARTS:	Ø-G=13"
	Ø-G=18"
TO GRADE:	10'-0" (BUS)
	22'-0" (DRIVEWAY)

DRAWING NUMBER	DRAWING DESCRIPTION
HV-P.01.01	345/34.5KV SUBSTATION GENERAL ARRANGEMENT
HV-P.08.01	345/34.5KV SUBSTATION GROUNDING PLAN
HV-P.14.01	345/34.5KV SUBSTATION CONTROL BUILDING LAYOUT
HV-P.02.01	345/34.5KV SUBSTATION 345KV ELEVATION VIEW
HV-E.02.01	345/34.5KV SUBSTATION SWITCHING ONE-LINE DIAGRAM



IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	03/08/2023	ISSUED FOR 94-C PERMIT
1	07/24/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

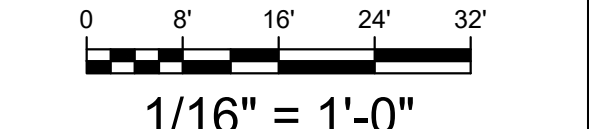
LAKE ROAD, SOMERSET NY

SHEET TITLE & DESCRIPTION:

345/34.5KV SUBSTATION

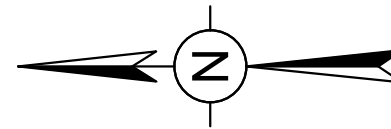
34.5KV ELEVATION VIEW

PROJ NUM:	SU20.0012
DES:	MIKE MAILLE
DWN:	MIKE MAILLE/KRINA GANDHI
CHK:	AZIN SHAHAB
APV:	ZHONG BING SHEN, P.E.
DATE:	02/17/2023

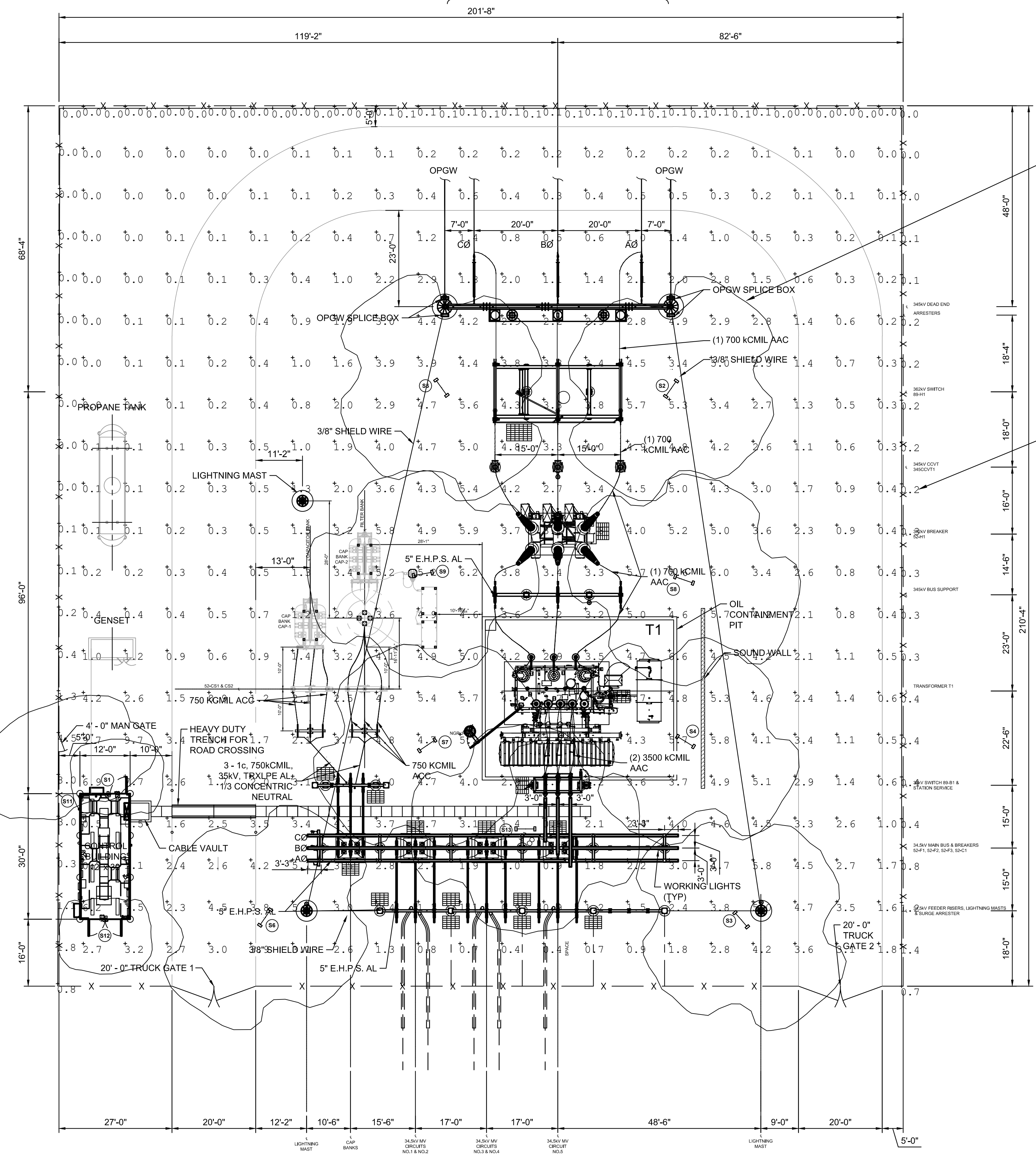


SHEET NO:	HV-P.02.02	REV:	1
-----------	------------	------	---

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION



345kV OH CONNECTION TO
KINTIGH SUBSTATION
(APPROX. 159 FT)



2.0 PHOTOMETRIC ISOLINE (TYP)

PHOTOMETRIC CALCULATION AT FENCE LINE

- NOTES**
- STATION LIGHTING IS COMPROMISED OF 120 AV LED FLOOD LIGHTS.
 - LUMINAIRES TO MOUNTED IN INDICATED 4" DIAMETER POLES 15'-0" ABOVE FINISHED GRADE. THE LUMINAIRES SHALL BE AIMED AS SHOWN ON THE PLAN AND HAVE TILT ANGLE BASED ON LUMINAIRE SCHEDULE. BACK TO BACK HEADS HAVE 1'-0" ARMS.
 - YARD CONTOURS ARE 2.0 FT CANDLES (F.C.) FOR THIS STATION. 2 FT CANDLES IS THE EQUIVALENT OF 22 LUMENS PER SQUARE METER.
 - LUMINAIRES INSTALLED WITH TOP AND SIDE VISORS ACHIEVE FULL CUTOFF REQUIREMENT (0 F.C.) ABOVE LUMINAIRE.
 - LUMINAIRES SHALL BE CABLE OF MANUAL SHUT OFF.

MINIMUM CLEARANCE REQUIREMENT

345kV MINIMUM CLEARANCE (1300kV BIL):
LIVE PARTS: Ø-G=106"
Ø-G=119"
TO GRADE: 18'-0" (BUS)
30'-0" (DRIVEWAY)

34.5kV MINIMUM CLEARANCE (200kV BIL):
LIVE PARTS: Ø-G=13"
Ø-G=18"
TO GRADE: 10'-0" (BUS)
22'-0" (DRIVEWAY)

DRAWING NUMBER	DRAWING DESCRIPTION
HV-E.02.01	345/34.5kV SUBSTATION SWITCHING ONE-LINE DIAGRAM
HV-P.08.01	345/34.5kV SUBSTATION GROUNDING PLAN
HV-P.14.01	345/34.5kV SUBSTATION CONTROL BUILDING LAYOUT
HV-P.02.01	345/34.5kV SUBSTATION 345kV ELEVATION VIEW
HV-P.02.02	345/34.5kV SUBSTATION 34.5kV ELEVATION VIEW
HV-P.15.01	345/34.5kV SUBSTATION CONTROL BUILDING ELEVATION

LUMINAIRE SCHEDULE

LUMINAIRE #	ARRANGEMENT	WATTAGE	LUMENS	TOP/SIDE VISOR	TILT ANGLE	DESCRIPTION
A1	WALL MOUNT	21	2900	-	0	EWAS01_A3AW730
S2	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730
S3	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730
S4	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730
S5	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730
S6	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730
S7	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730
S8	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730
S9	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730
S10	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730
S11	ROOF MOUNT	55	13360	TSVBLC	0	EAEL01_C4AF730
S12	WALL MOUNT	21	2900	-	0	EWAS01_A3AW730
S13	BACK TO BACK	110	13360	TSVBLC	0	(2) EAEL01_C4AF730

CALCULATION SUMMARY

UNITS	AVERAGE	MAX	MIN
FC	2.43	9.7	0
FC (FENCE LINE)	.49	8	0

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION



IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	03/08/2023	ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

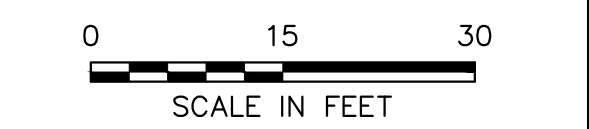
LAKE ROAD, SOMERSET NY

SHEET TITLE & DESCRIPTION:

345/34.5kV SUBSTATION

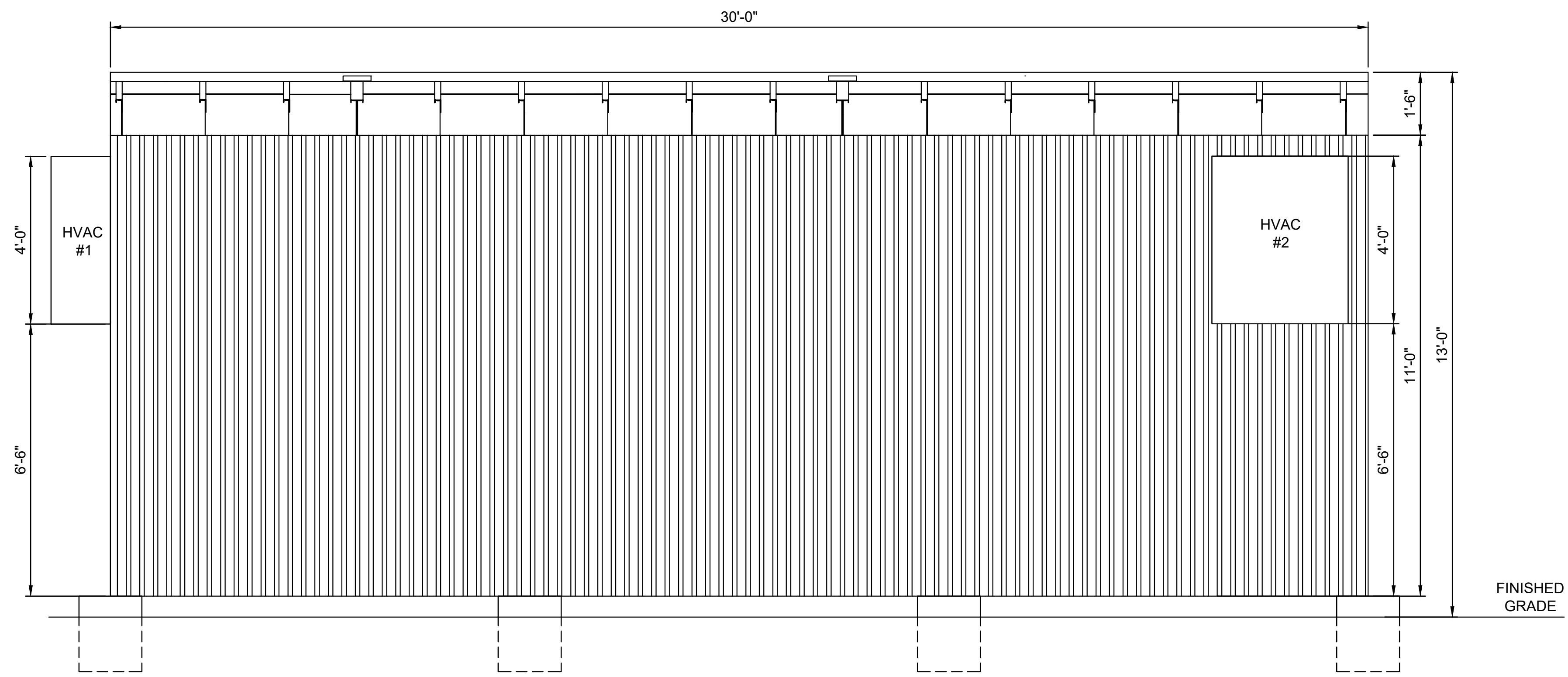
LIGHTING PLAN

PROJ NUM: SU20.0012
DES: MIKE MAILLE
DWN: MIKE MAILLE/KRINA GANDHI
CHK: AZIN SHAHAB
APV: ZHONG BING SHEN, P.E.
DATE: 03/11/2022
SCALE AT 22" x 34":



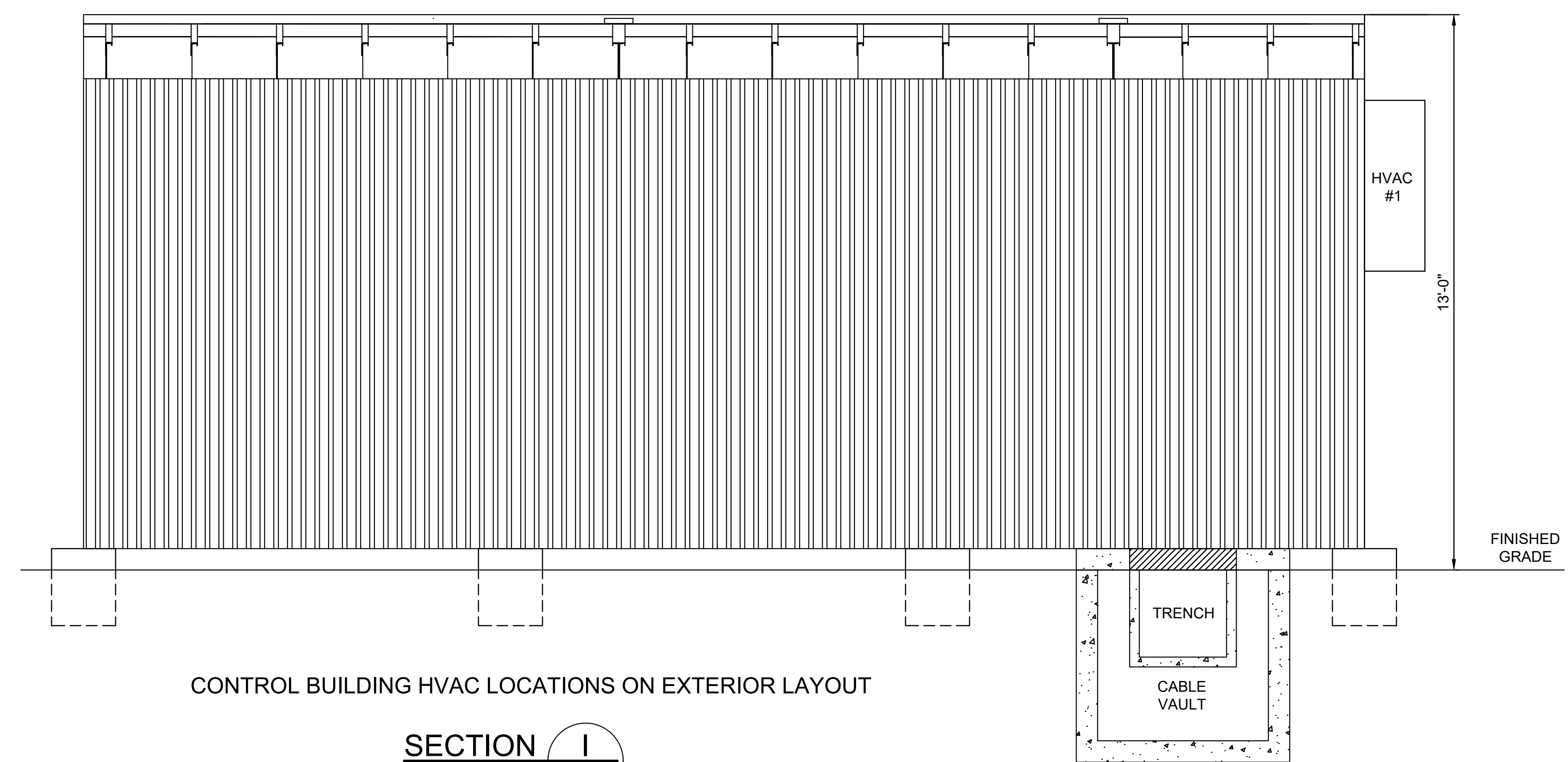
SHEET NO: HV-P.13.01
REV: C

AES-THREDA 25/24-V10101



CONTROL BUILDING HVAC LOCATIONS ON EXTERIOR LAYOUT

SECTION H
1/2" = 1'-0" HV-P.01.01



CONTROL BUILDING HVAC LOCATIONS ON EXTERIOR LAYOUT

SECTION I
1/2" = 1'-0" HV-P.01.01

NOTES	
1.	THIS IS A PRELIMINARY CONTROL BUILDING EXTERIOR LAYOUT WITH THE INTENSION OF SHOWING HVAC LOCATIONS, AND IS FOR PERMITTING PURPOSES ONLY.
2.	DESIGN IS PRELIMINARY AND SHALL BE FINALIZED AT DETAILED DESIGN PHASE.
3.	CONTROL BUILDING COLOR IS GRAY, MATERIAL IS CORRUGATED STEEL.

DRAWING NUMBER	DRAWING DESCRIPTION
HV-P.01.01	345/34.5kV SUBSTATION GENERAL PLAN
HV-P.02.01	345/34.5kV SUBSTATION 345kV ELEVATION VIEW
HV-P.02.02	345/34.5kV SUBSTATION 34.5kV ELEVATION VIEW
HV-P.08.01	345/34.5kV SUBSTATION GROUNDING PLAN
HV-P.14.01	345/34.5kV SUBSTATION CONTROL BUILDING LAYOUT
HV-E.02.01	345/34.5kV SUBSTATION SWITCHING ONE-LINE DIAGRAM



IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	03/08/2023	ISSUED FOR 94-C PERMIT
1	07/24/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

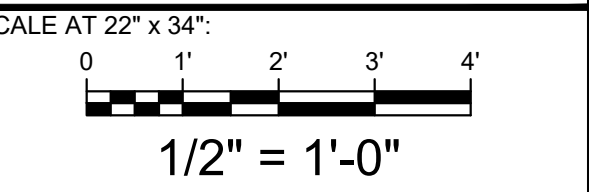
LAKE ROAD, SOMERSET NY

SHEET TITLE & DESCRIPTION:

345/34.5kV SUBSTATION

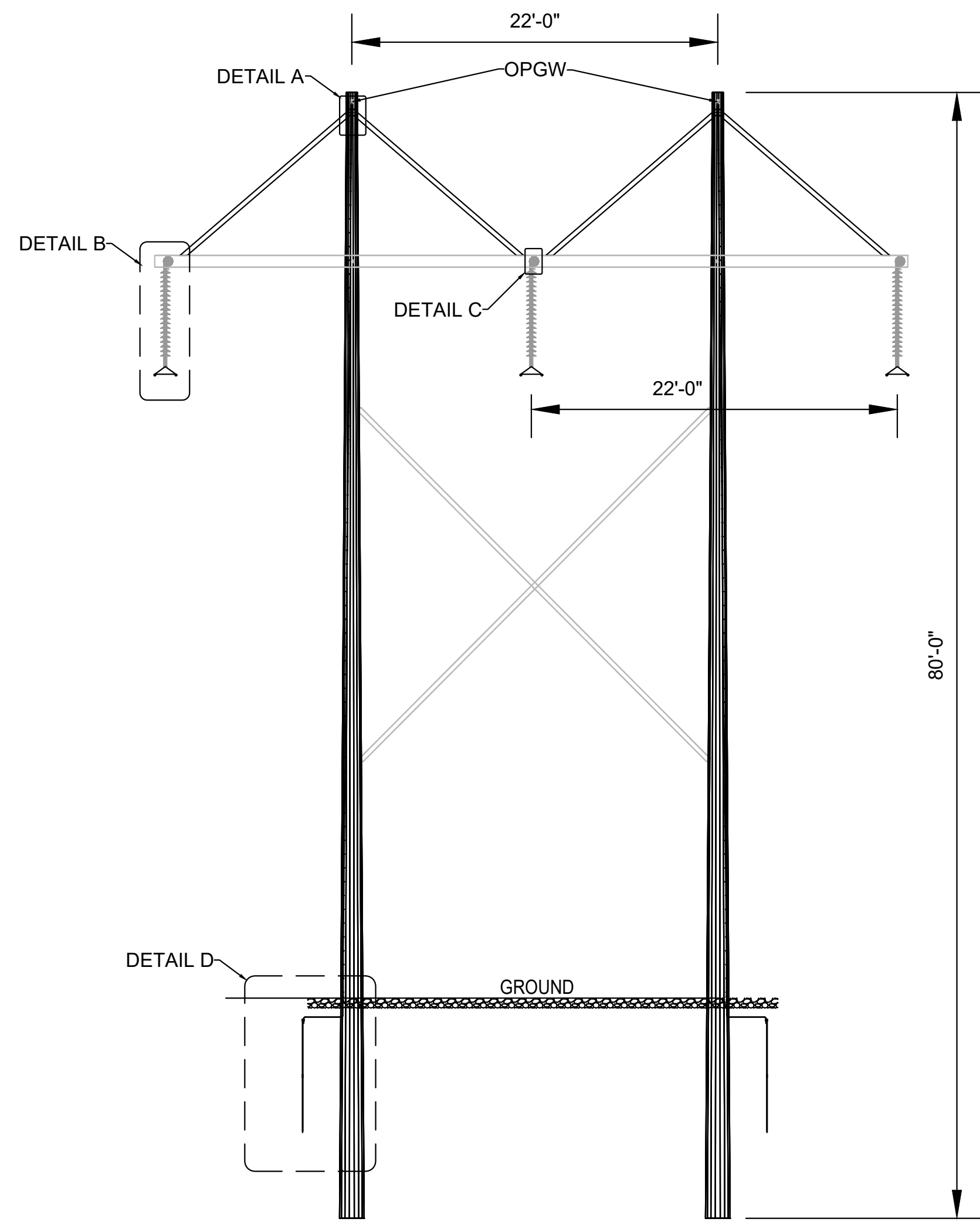
CONTROL BUILDING ELEVATION

PROJ NUM:	SU20.0012
DES:	KRINA GANDHI
DWN:	KRINA GANDHI
CHK:	AZIN SHAHAB
APV:	ZHONG BING SHEN, P.E.
DATE:	02/17/2023

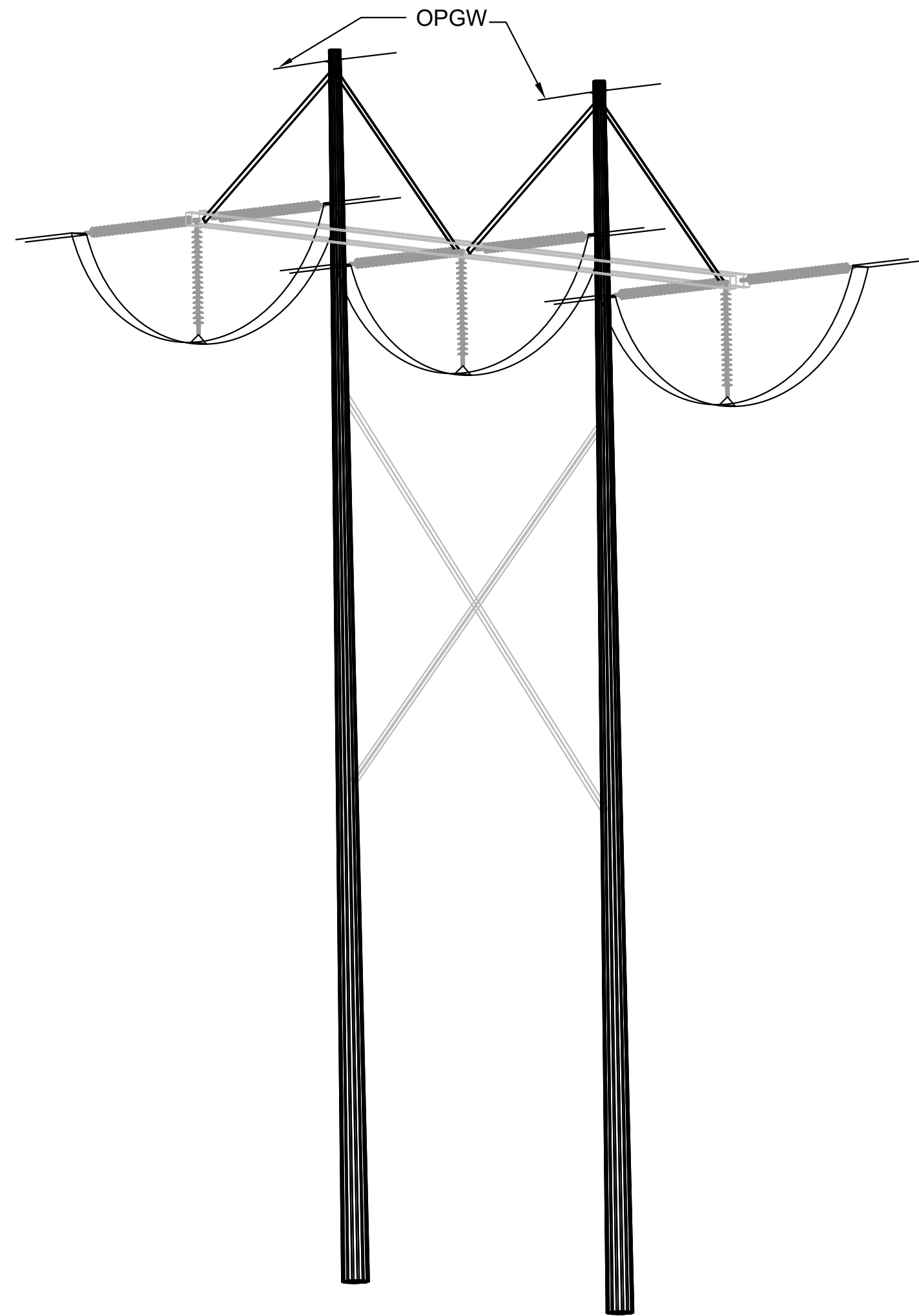


ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

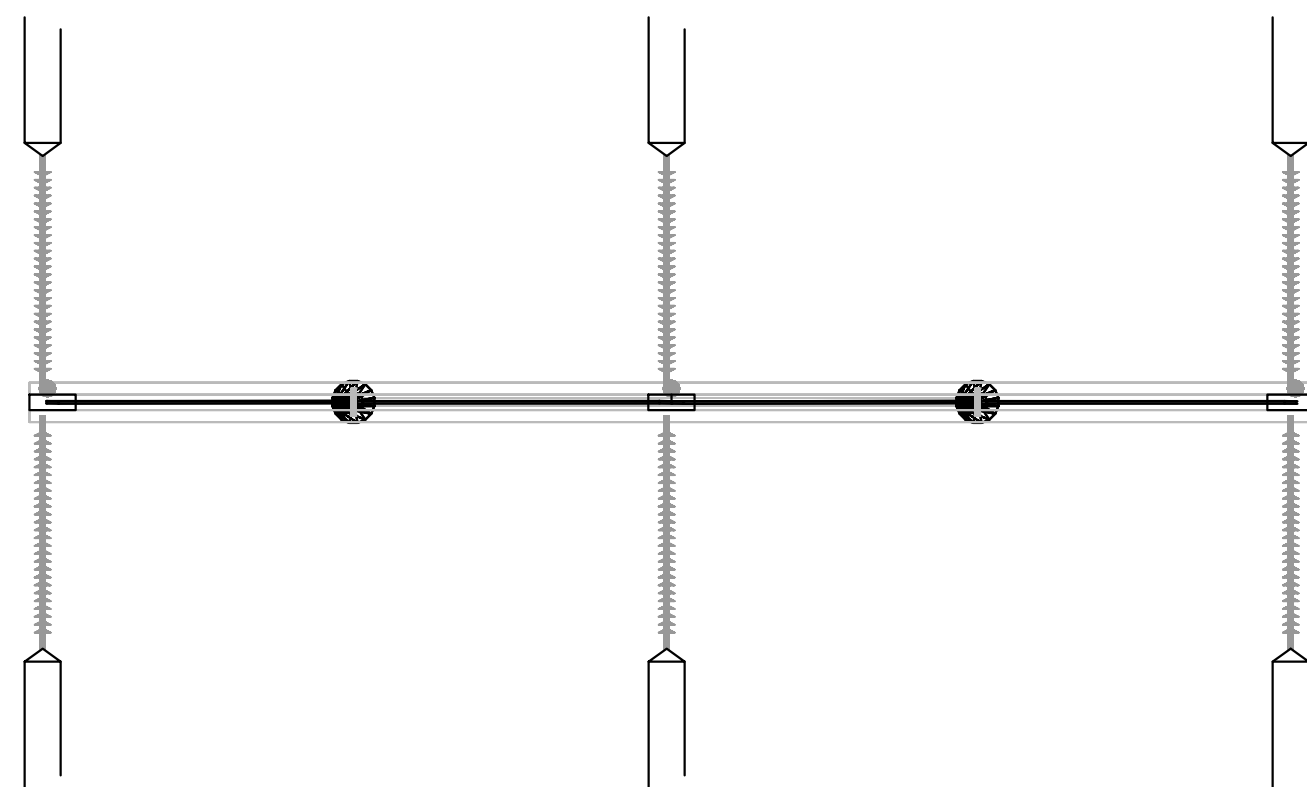
SHEET NO:	REV:
HV-P.15.01	1



ELEVATION VIEW
1:8



ISOMETRIC VIEW
1:8



PLAN VIEW
1:8

NOTES

1. DESIGN IS PRELIMINARY.
2. CONDUCTOR SIZE SELECTED IS ACSR 795kcmil DRAKE.
3. SFPOC/SFSJ-J-13587 IS SELECTED FOR OPGW.
4. TYPICAL EMBEDMENT IS 10% POLE LENGTH + 2 FT.

REFERENCE DRAWINGS

- TL-P.00.01 - 345kV GEN-TIE TRANSMISSION LINE ROUTE MAP
- TL-P.01.01 - 345kV GEN-TIE TRANSMISSION LINE ELEVATION VIEW



AES CLEAN ENERGY DEVELOPMENT, LLC
292 MADISON AVENUE, 15TH FLOOR,
NEW YORK, NY 10017



IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	03/08/2023	ISSUED FOR 94-C PERMIT
1	07/24/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD
SOMERSET, NY

SHEET TITLE & DESCRIPTION:

345kV GEN-TIE
TRANSMISSION LINE

WOOD H-FRAME
FRAMING DRAWING

PROJ NUM: SU20.0012

DES: HAMDI GATO

DWN: HAMDI GATO

CHK: JON LEMON, P.E.

APV: JON LEMON, P.E.

DATE: 07/22/2022

SCALE:

N.T.S

SHEET NO:	REV:
TL-P.02.01-SHEET 10F3	1



Photo 1. Control Building Example #1



Photo 2. Control Building Example #1



Photo 3. Control Building Example #2



7/14/23 10:39:38 AM CDT

Photo 4. Control Building Example #2