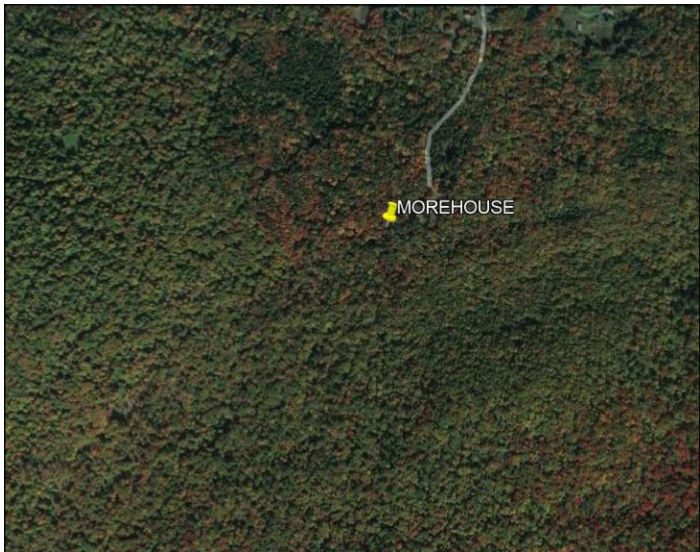




CONTRACT DRAWINGS
FOR THE CONSTRUCTION OF

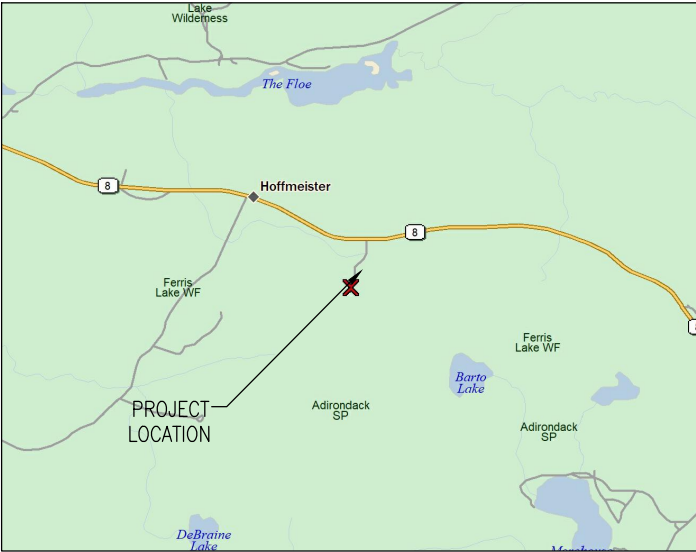
HAMILTON COUNTY
EMERGENCY COMMUNICATIONS PROJECT
SITE NAME: MOREHOUSE

802 STATE ROUTE 8
HOFFMEISTER, NY 13353



AERIAL MAP

DIRECTIONS TO SITE: (FROM HAMILTON COUNTY OFFICE) HEAD WEST ON NY-8 SOUTH TOWARD GOLF COURSE ROAD FOR 17 MILES, THEN TURN LEFT ONTO MOREHOUSE ROAD AND THE SITE IS ON THE RIGHT AT THE END OF THE ROAD.



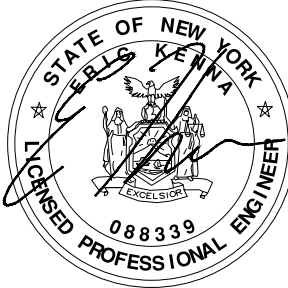
VICINITY MAP

PROJECT INFORMATION	
LANDLORD NAME:	DANIEL VIRGIL
PROJECT OWNER:	HAMILTON COUNTY
SITE NAME:	MOREHOUSE
E911 SITE ADDRESS:	802 STATE ROUTE 8 HOFFMEISTER, NY 13353
TAX MAP #:	125.000-1-16.111 125.000-1-16.112
LATITUDE:	N43° 23' 0.56"
LONGITUDE:	W 74° 42' 21.67"
AREA OF DISTURBANCE:	0.72 ACRES
GROUND ELEVATION:	2145.78± AMSL
ZONING JURISDICTION:	TOWN OF MOREHOUSE
COUNTY:	HAMILTON
TYPE OF SITE:	PROPOSED SELF SUPPORT
TOWER HEIGHT:	120'-0" AGL
PROPOSED USE:	EMERGENCY COMMUNICATIONS FACILITY
PROJECT DIRECTORY	
APPLICANT:	HAMILTON COUNTY
CONTACT:	JILL DUNHAM
PHONE:	(518) 548-6223
CIVIL ENGINEERING FIRM:	C&S ENGINEERS INC. 499 COL. EILEEN COLLINS BLVD. SYRACUSE, NY 13212 ERIC N. KENNA P.E. (315) 455-2000
CONTACT:	ERIC N. KENNA P.E.
PHONE:	(315) 455-2000
POWER COMPANY:	NATIONAL GRID
PHONE:	(800) 867-5222
GENERAL NOTES	
THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.	
<div><div><div>Dig Safely</div><div>Call 811</div><div>before you dig</div></div><div><div>DIG SAFELY</div><div>PHONE #: 1-800-962-7962 OR 811</div><div>WEBSITE: HTTP://WWW.DIGSAFELYNEWYORK.COM</div></div></div>	

DRAWING LIST			
SHEET NO.	SHEET NAME	REV	DATE
GENERAL			
G-001	TITLE SHEET	1	11-4-24
G-002	GENERAL NOTES	1	11-4-24
CIVIL			
C-100	PROPERTY PLAN	1	11-4-24
C-101	OVERALL SITE PLAN	1	11-4-24
C-102	GRADING PLAN	1	11-4-24
C-103	GRADING PLAN	1	11-4-24
C-104	GRADING PLAN	1	11-4-24
C-105	COMPOUND PLAN	1	11-4-24
C-106	TREE SURVEY PLAN	1	11-4-24
C-201	TOWER ELEVATION	1	11-4-24
C-501	EQUIPMENT SHELTER DETAILS	1	11-4-24
C-502	SHELTER FOUNDATION DETAILS	1	11-4-24
C-503	FOUNDATION DETAILS	1	11-4-24
C-504	ICE BRIDGE DETAILS	1	11-4-24
C-505	WAVEGUIDE/ CABLE DETAILS	1	11-4-24
C-506	FENCE DETAILS	1	11-4-24
C-507	SITE DETAILS	1	11-4-24
C508	PROPANE TANK DETAILS	1	11-4-24
C-509	SIGN DETAILS ON SPECIFICATIONS	1	11-4-24
ELECTRICAL			
E-101	GROUNDING PLAN AND NOTES	1	11-4-24
E-501	ELECTRICAL DETAILS	1	11-4-24
E-502	ELECTRICAL DETAILS	1	11-4-24
E-503	ELECTRICAL DETAILS	1	11-4-24
E-504	GROUNDING DETAILS	1	11-4-24
E-505	GROUNDING DETAILS	1	11-4-24
E-506	GROUNDING SCHEMATIC	1	11-4-24

C&S PROJECT: F75.004.001

FEBRUARY 2024



TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF THE PLANS AND SPECIFICATIONS FOR THIS PROJECT ARE IN COMPLIANCE WITH THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE AND THE BUILDING CODE OF NEW YORK STATE

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

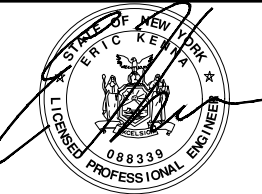
G-001

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C	1		2		3		4	
	<p>1. ALL STEEL WORK SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.</p> <p>2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.</p> <p>3. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"Ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.</p> <p>4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.</p> <p>5. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS.</p> <p>6. ALL METAL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A123. ALL SHOP WELDED MEMBERS SHALL BE GALVANIZED AFTER WELDING.</p>						<p>AGL ABOVE GRADE LEVEL (E) EXISTING MIN MINIMUM N.T.S. NOT TO SCALE REF REFERENCE RF RADIO FREQUENCY T.B.D. TO BE DETERMINED T.B.R. TO BE RESOLVED TYP TYPICAL REQ REQUIRED AWG AMERICAN WIRE GAUGE MGB MASTER GROUND BUS BCW BARE COPPER WIRE GEN GENERATOR IGR INTERIOR GROUND RING (HALO) RBS RADIO BASE STATION TGB TOWER GROUND BAR EGB EXTERIOR GROUND BAR</p>	
	C1 STRUCTURAL STEEL NOTES						A3 ABBREVIATIONS	
B	NTS						NTS	
	<p>1. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.</p> <p>2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.</p> <p>3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.</p> <p>4. ALL TREES, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, OTHER REFUSE, AND GRUBBING SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.</p> <p>5. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.</p> <p>6. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION.</p> <p>7. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE EQUIPMENT AND TOWER AREAS.</p> <p>8. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.</p> <p>9. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.</p> <p>10. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.</p> <p>11. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.</p>						<p>1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY: CONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION) OWNER - COUNTY OF HAMILTON</p> <p>2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE.</p> <p>3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.</p> <p>4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.</p> <p>5. SOME DRAWINGS PROVIDED HERE ARE NOT TO SCALE AND ARE INTENDED TO SHOW OUTLINE ONLY.</p> <p>6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.</p> <p>7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.</p> <p>8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE OWNERS REPRESENTATIVE.</p> <p>9. CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, GROUNDING CABLES AS SHOWN ON THE POWER AND GROUNDING SCHEMATIC.</p> <p>10. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.</p> <p>11. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.</p> <p>12. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.</p>	
	A1 SITE WORK GENERAL NOTES						A3 GENERAL NOTES	
A	NTS						NTS	
	1		2		3		4	



C&S Engineers, Inc.
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Syracuse, New York 13212
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Fax: 315-455-9667
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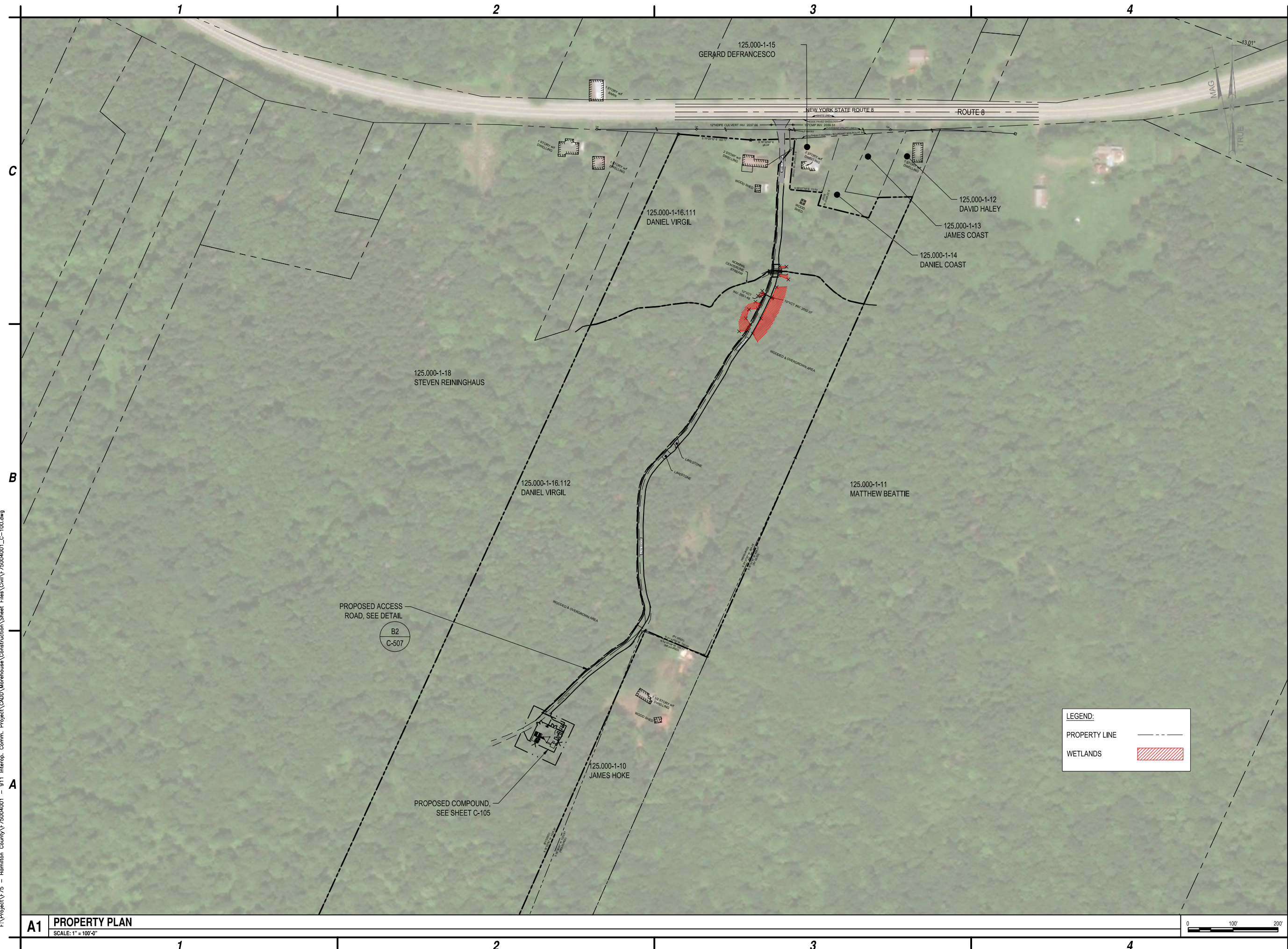
HAMILTON COUNTY
SITE NAME: MOREHOUSE
802 STATE ROUTE 8
HOFFMEISTER, NY 13353

1	11-4-24	ACCESS GATE
0	2-12-24	ISSUED FOR PERMITTING
MARK	DATE	DESCRIPTION

REVISIONS	
PROJECT NO:	F75.001.001
DATE:	JANUARY 2022
DRAWN BY:	M. BUCKINGHAM
DESIGNED BY:	E.N. KENNA, P.E.
CHECKED BY:	E.N. KENNA, P.E.
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GENERAL
NOTES

G-002



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**HAMILTON COUNTY
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802 STATE ROUTE 8
HOFFMEISTER, NY 13353**

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REVISIONS

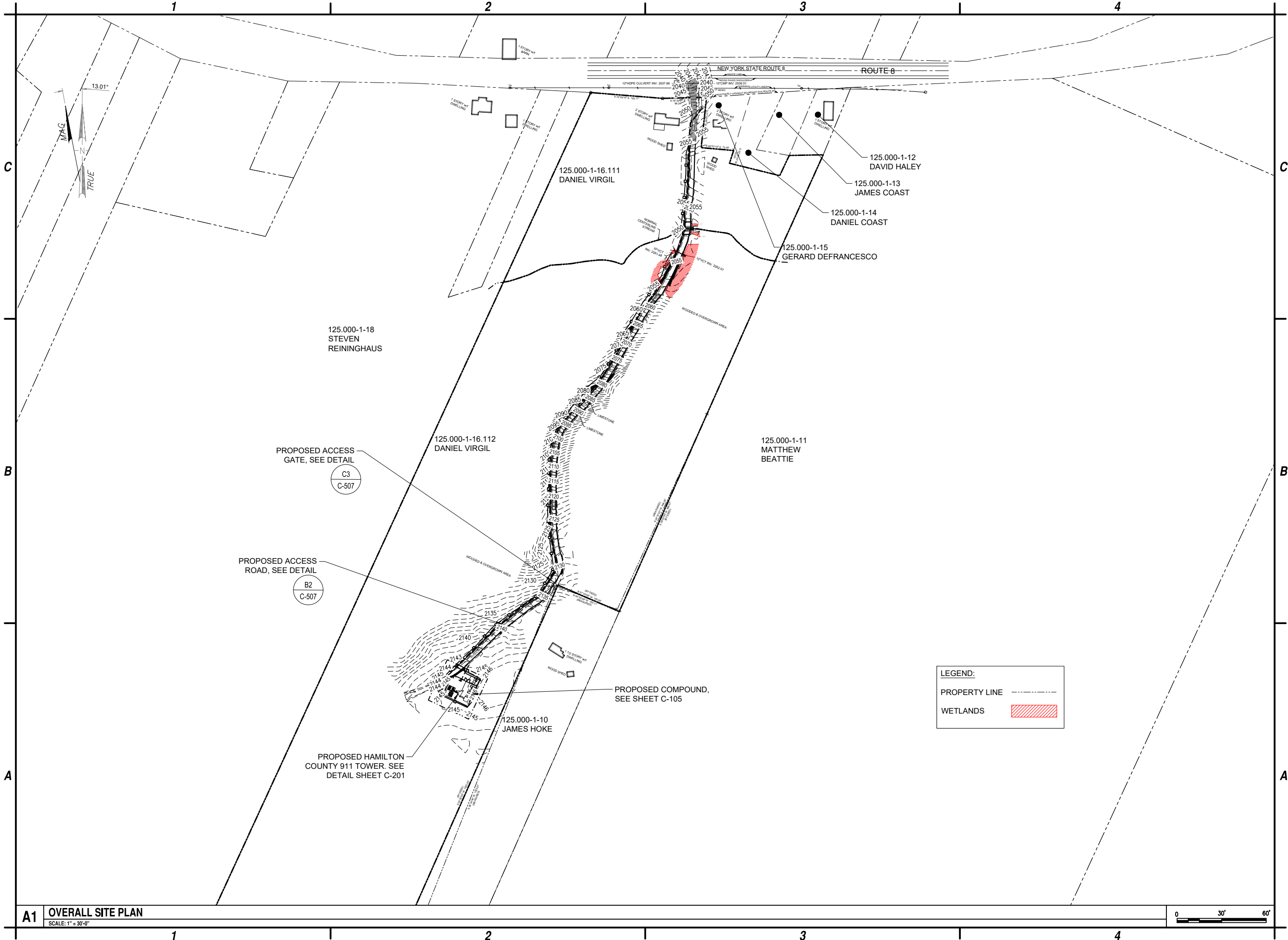
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PROPERTY PLAN

C-100

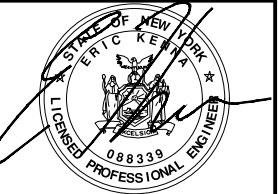
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A1 **OVERALL SITE PLAN**
SCALE: 1" = 30'-0"



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HOFFMEISTER, NY 13353

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**OVERALL
SITE PLAN**

C-101

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NEW YORK STATE ROUTE 8

UP

EXISTING 15" CMP TO REMAIN

EXISTING UTILITY POLE, PROPOSED
SOURCE OF ELECTRIC AND TELCO
SERVICE, SEE DETAIL

B1
E-502

RIGHT OF WAY

EXISTING ENTRANCE TO BE
RESURFACED, FROM ROW LINE ON.
NO WORK TO BE DONE IN ROW.

MEET EXISTING GRADE

PROPOSED 12'-0" WIDE
ACCESS ROAD, SEE DETAIL

B2
C-507

PROPOSED UNDERGROUND
ELECTRIC AND TELCO, SEE DETAIL

A2
C-507

GRADE TO EXISTING AT A
33% MAXIMUM SLOPE (TYP.)

GRADE TO EXISTING AT A 50%
MAXIMUM SIDE SLOPE (TYP.)
EL. 2054.54'

EL. 2054.35'

PROPOSED TELCO PULL BOX,
APPROXIMATELY EVERY 400'-0"
(TYP.), SEE DETAIL

PROPOSED BOX CULVERT, 1.25 TIMES
THE WIDTH OF THE ORDINARY
HIGHWATER MARK AND 30'-0" LONG

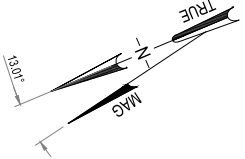
INV. EL. 2052.76'

EL. 2054.21'

12" DIA. HDPE CULVERT, 24'-0"
LONG AT A SLOPE OF 3.21% TO
REPLACE EXISTING

INV. EL. 2051.98'

NOMINAL CENTERLINE OF STREAM



LEGEND:

PROPERTY LINE

WETLANDS

///

MATCHLINE C-103

A1 GRADING PLAN

SCALE: 1" = 20'-0"



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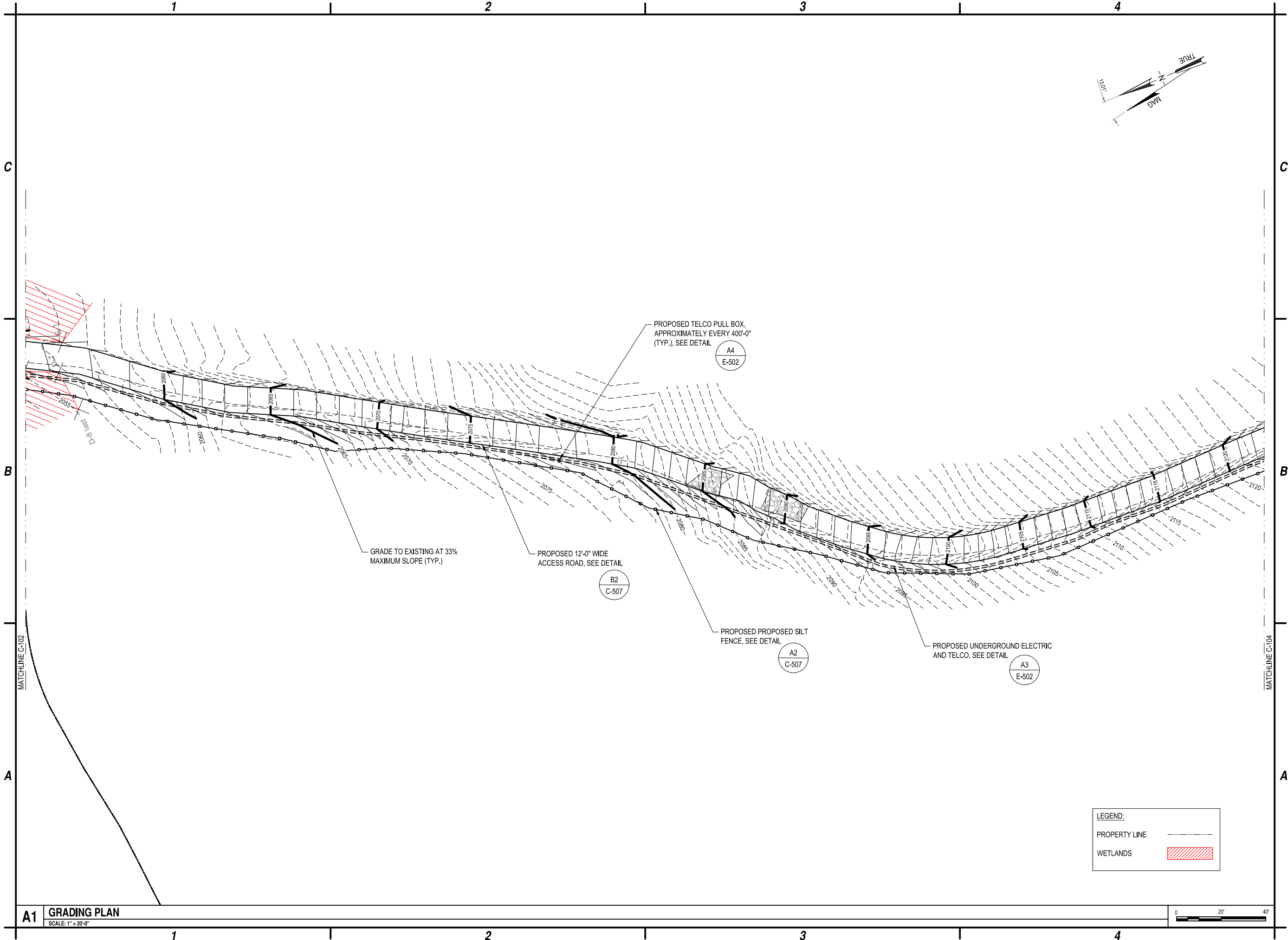
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GRADING
PLAN

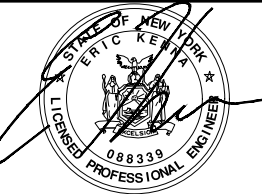
C-102

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GRADING
PLAN

C-103

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A1

GRADING PLAN
SCALE: 1" = 20'-0"

MATCHLINE C-103

C

B

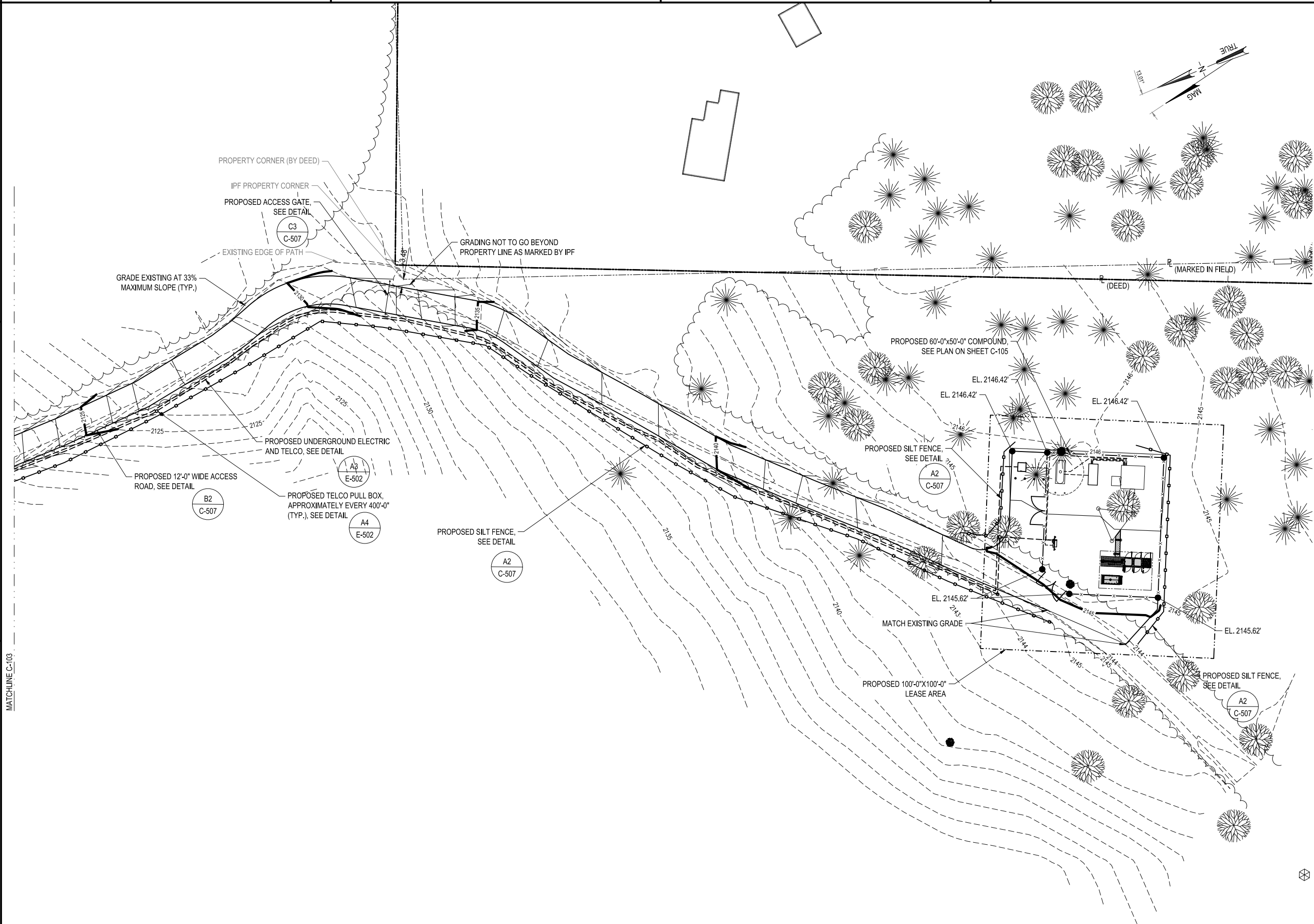
A

1

2

3

4



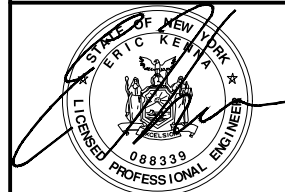
C

B

A



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HAMILTON COUNTY
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802 STATE ROUTE 8
HOFFMEISTER, NY 13353

MARK	DATE	DESCRIPTION
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0	2-12-24	ISSUED FOR PERMITTING

REVISIONS	
PROJECT NO:	F75.001.001
DATE:	JANUARY 2022
DRAWN BY:	M. BUCKINGHAM
DESIGNED BY:	E.N. KENNA, P.E.
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EDUCATION LAW

GRADING
PLAN

C-104

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A1

COMPOUND PLAN

SCALE: 1" = 5'-0"

1

2

3

4

C

B

A

C

B

A

PROPOSED 12'-0" WIDE DOUBLE SWING GATE, SEE DETAILS ON SHEET C-506

PROPOSED STONE YARD, SEE DETAIL

FUTURE 22'-6"x16'-0" VERIZON LEASE AREA

PROPOSED 120'-0" SELF SUPPORT TOWER, SEE SHEET C-201

PROPOSED 60'-0"x50'-0" 6'-0" HIGH CHAIN-LINK FENCED COMPOUND, SEE SHEET C-506

PROPOSED 12'-0" WIDE GRAVEL ACCESS ROAD, SEE DETAIL

PROPOSED UNDERGROUND ELECTRIC AND TELCO SERVICE, SEE DETAIL

PROPOSED 12'-0" WIDE DOUBLE SWING GATE, SEE DETAILS ON SHEET C-506

PROPOSED BOLLARDS SPACED EVENLY (TYP. 4) MAX. SPACING 4'-0" PER FC 312.2, SEE DETAIL

PROPOSED SINGLE PHASE TRANSFORMER (BY UTILITY), SEE DETAIL

PROPOSED 500 GAL. PROPANE TANK, PROVIDED AND INSTALLED BY CONTRACTOR, MOUNTED ON PROPOSED 4'-0"x10'-0" CONCRETE PAD, SEE DETAIL ON SHEET C-508 AND DETAILS

10'-0" RADIUS "NO SPARK ZONE"

3" SCH. 80 PVC CONDUIT SLEEVE FOR PROPANE GAS LINE

1" SCH. 80 PVC CONDUIT FOR PROPANE TANK ALARM

PROPOSED UNDERGROUND ELECTRIC IN 2" SCH. 80 PVC CONDUIT & 2" SCH 80 PVC FIBER CONDUIT, SEE DETAIL

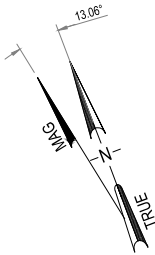
PROPOSED 4'-0"x9'-0" CONCRETE GENERATOR PAD, GENERATOR PROVIDED AND INSTALLED BY CONTRACTOR, SEE DETAILS

1 1/2" SCH. 80 PVC CONDUIT FOR GENERATOR ALARMS

-2 SCH. 80 PVC CONDUIT FOR GENERATOR POWER WIRING
-1" SCH. 80 PVC CONDUIT FOR GENERATOR BATTERY HEATER CONTROL, SEE ONE-LINE DIAGRAM ON SHEET E-501

PROPOSED 10'-0"x10'-0" EQUIPMENT SHELTER, SEE DETAILS ON SHEETS C-501 & C-502

PROPOSED 100'-0"x100'-0" LEASE AREA



0° TRUE NORTH

LEG A

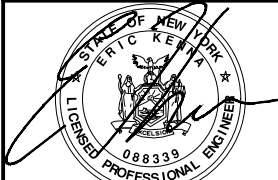
LEG B

LEG C

PROPOSED ICE BRIDGE, SEE DETAILS

C&S
COMPANIES

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HOFFMEISTER, NY 13353

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COMPOUND
PLAN

C-105

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QTY.	SIZE (INCHES)	SPECIES
1	10	MAPLE
1	14	MAPLE
1	8	MAPLE
2	10	SPRUCE
1	12	SPRUCE
1	10	RIVER BIRCH

8" 2145 QL MAPLE

PROPOSED 60'-0"x50'-0" 6'-0" HIGH
CHAIN-LINK FENCED COMPOUND,
SEE SHEET C-506



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**HAMILTON COUNTY
SITE NAME: MOREHOUSE
802 STATE ROUTE 8
HOFFMEISTER, NY 13353**

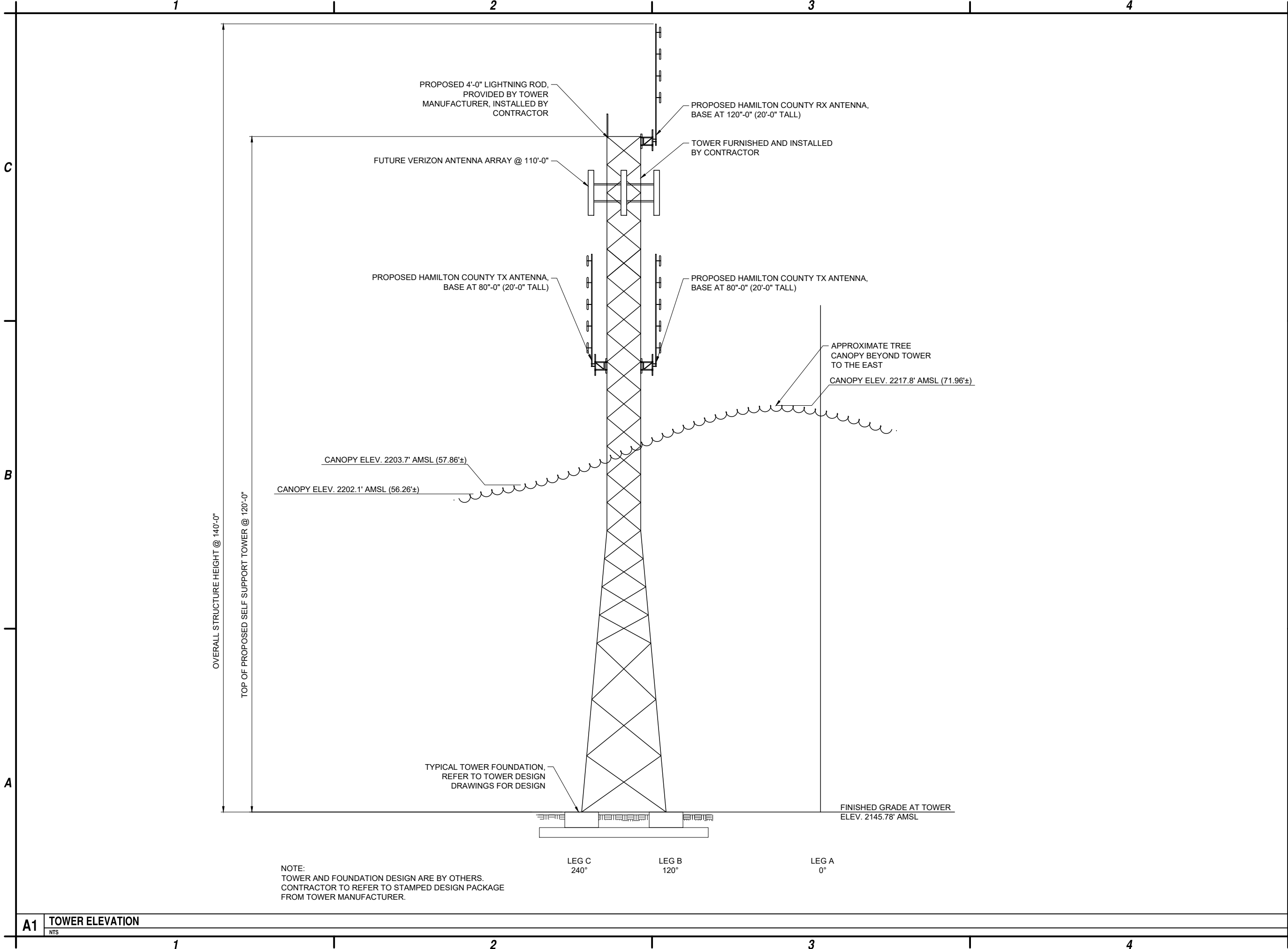
1	11-4-24	ACCESS GATE
0	2-12-24	ISSUED FOR PERMITTING
MARK	DATE	DESCRIPTION
REVISIONS		

PROJECT NO:	F75.001.001
DATE:	JANUARY 2022
DRAWN BY:	M. BUCKINGHAM
DESIGNED BY:	E.N. KENNA, P.E.
CHECKED BY:	E.N. KENNA, P.E.
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TREE SURVEY PLAN

C-106

Nov 04, 2024 - 10:28am
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A1 TOWER ELEVATION



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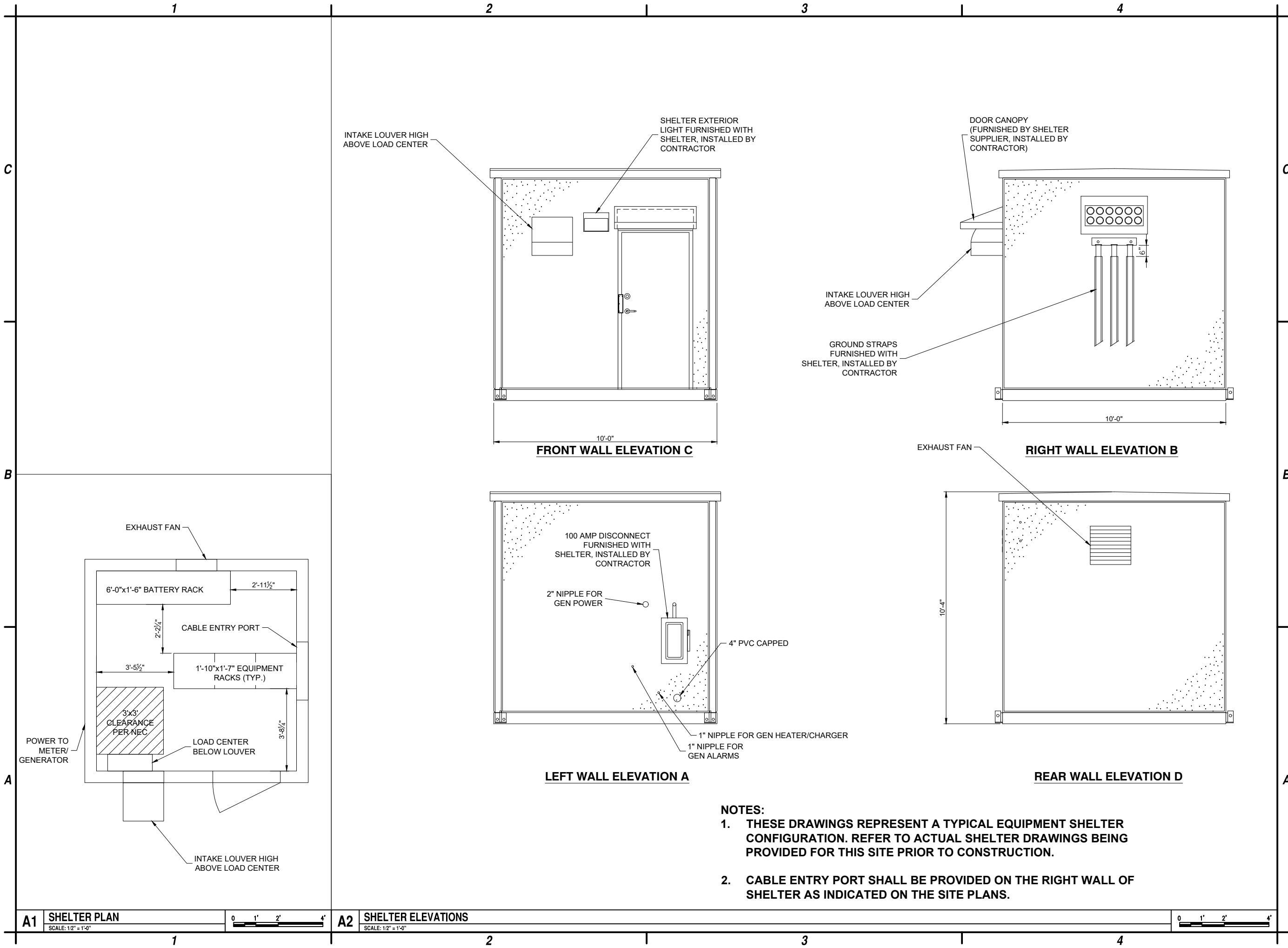
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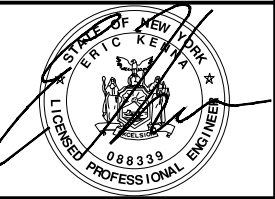
**TOWER
ELEVATION**

C-201

Nov 04, 2024 - 10:28am County\F7504001 - Hamilton County\F7504001 - 911 Interop. Comm. Project\CADD\Morehouse\Construction\Sheet Files\Civil\F7504001_C-501.dwg



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EQUIPMENT
SHELTER
DETAILS

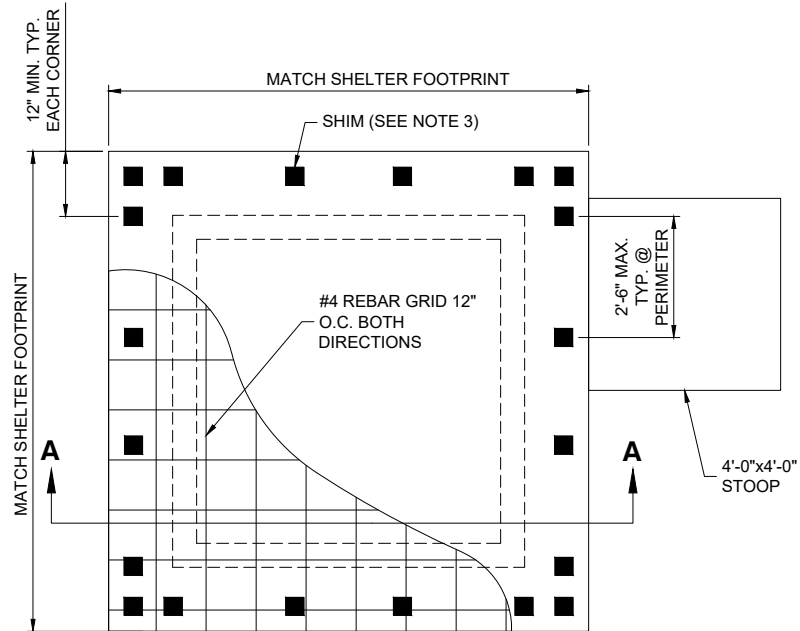
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C

B

A



SHELTER FOUNDATION NOTES:

1. FOUNDATION SURFACE SHALL BE LEVEL TO WITHIN $\pm\frac{1}{8}$ " PER 10 LINEAR FEET IN ANY DIRECTION.
2. FOUNDATION SHALL BE SQUARE TO WITHIN $\pm\frac{1}{4}$ ".
3. SHELTER MUST BE SHIMMED TO LEVEL ABOVE IRREGULARITIES IN SLAB AND BUILDING FLOOR SYSTEM. SHIM HARDNESS NOT LESS THAN 60 DUROMETER OR COMPRESSIVE STRENGTH 9,000 PSI MIN. SHIMS NOT LESS THAN 3" SQUARE, THICKNESS AS REQUIRED.
4. PROVIDE PROPER DRAINAGE AWAY FROM FOUNDATION AT GRADE.
5. SLAB REINFORCEMENT TO BE LOCATED IN UPPER THIRD OF SLAB.
6. REFER TO SHELTER DRAWINGS FOR ADDITIONAL INFORMATION.

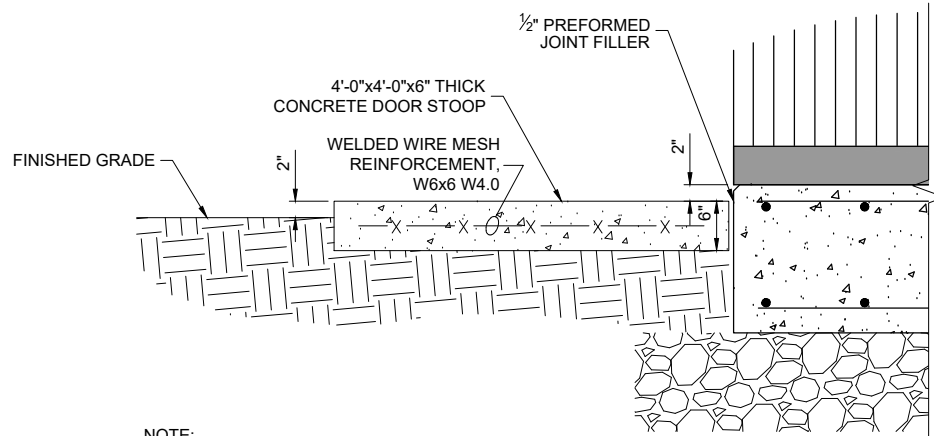
A1 SHELTER FOUNDATION PLAN VIEW
NTS

1

2

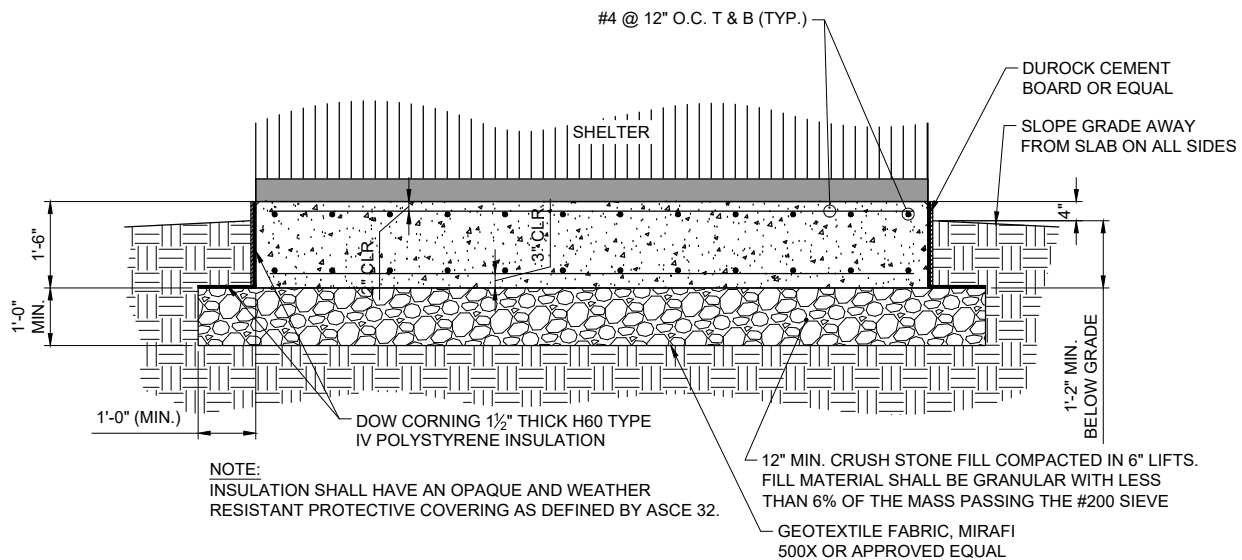
3

4



NOTE:
ALIGN CENTER OF STOOP WITH
CENTER OF SHELTER DOOR

B3 DOOR STOOP DETAIL
NTS



NOTE:
INSULATION SHALL HAVE AN OPAQUE AND WEATHER
RESISTANT PROTECTIVE COVERING AS DEFINED BY ASCE 32.

12" MIN. CRUSH STONE FILL COMPACTED IN 6" LIFTS.
FILL MATERIAL SHALL BE GRANULAR WITH LESS
THAN 6% OF THE MASS PASSING THE #200 SIEVE
GEOTEXTILE FABRIC, MIRAFI
500X OR APPROVED EQUAL

A3 SHELTER FOUNDATION SECTION A-A
NTS

3

4



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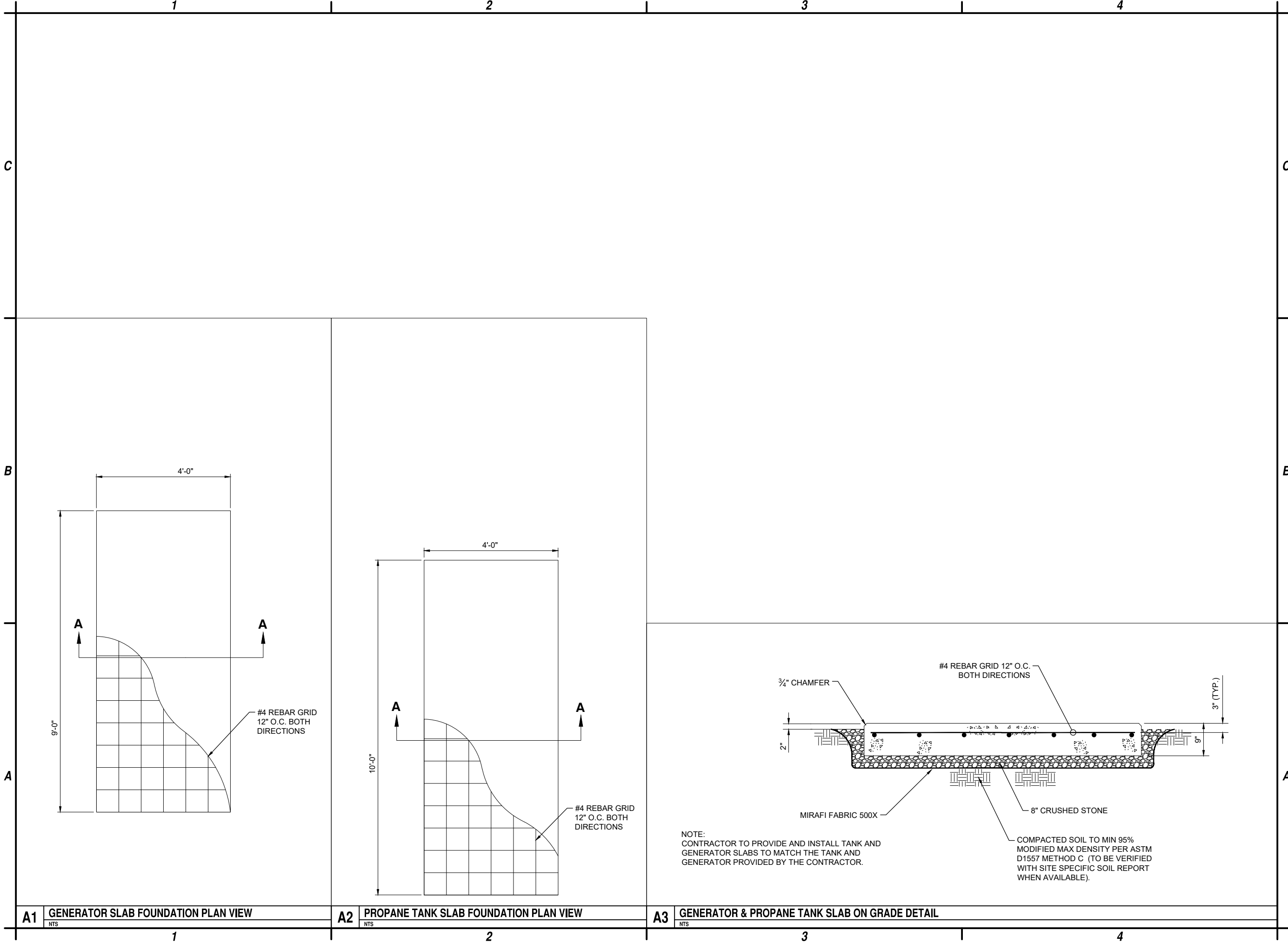
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**SHELTER
FOUNDATION
DETAILS**

C-502

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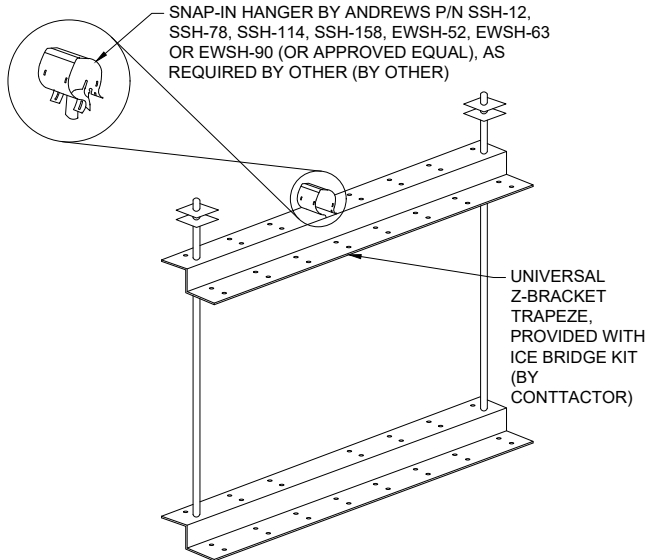
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FOUNDATION
DETAILS

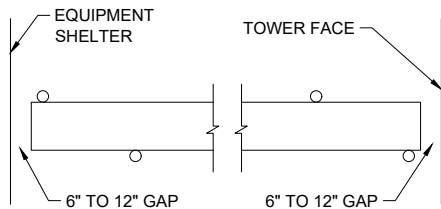
C-503

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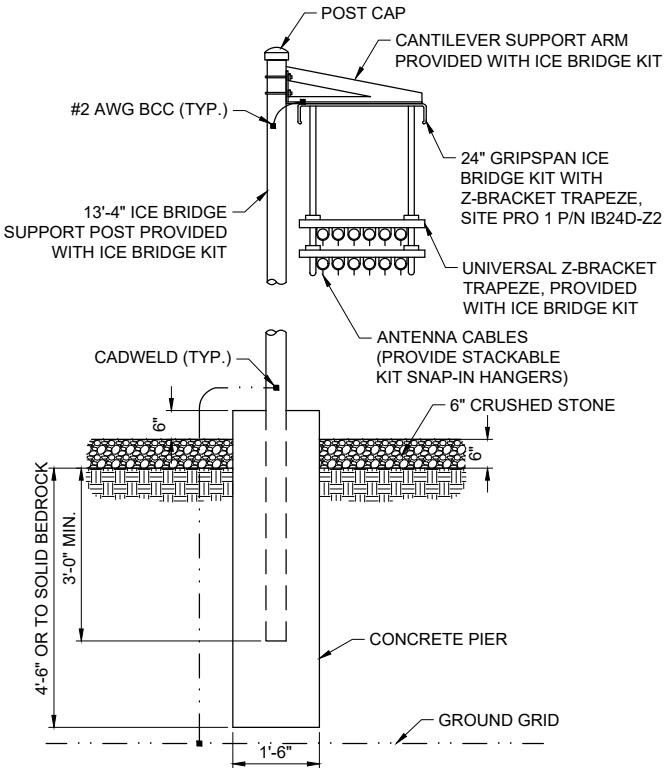
A1 TRAPEZE KIT DETAIL
NOT TO SCALE



A2 ICE BRIDGE PLAN VIEW
NOT TO SCALE

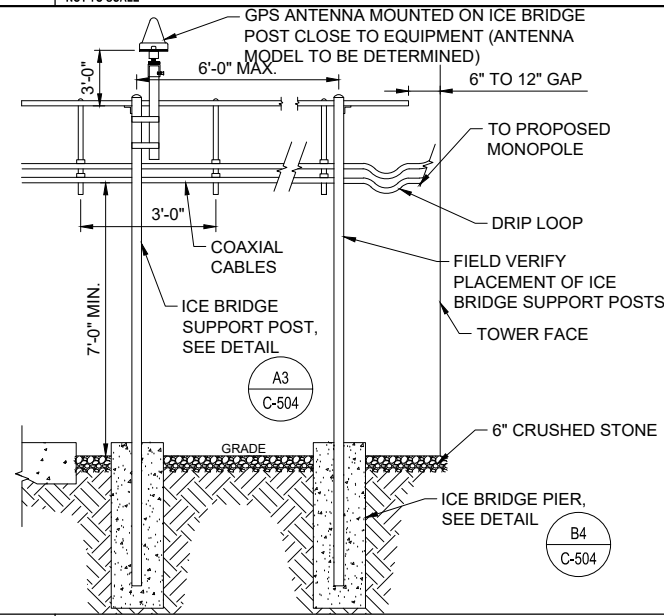


A3 ICE BRIDGE PIER DETAIL
NOT TO SCALE

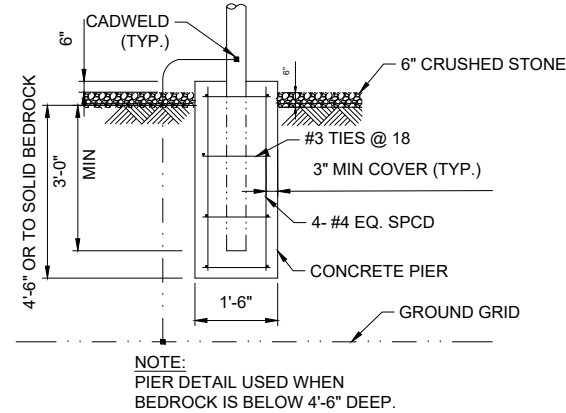


- NOTES:
1. USE SITE PRO 1 PARTS OR APPROVED EQUAL.
 2. SUPPORT POSTS SHALL BE STAGGERED ON BOTH SIDES OF ICE BRIDGE SPACED NO MORE THAN 6'-0\"/>
 3. ANY SPLICES OR CANTILEVERED SECTIONS OF THE ICE BRIDGE SHALL BE LOCATED WITHIN 2'-0\"/>

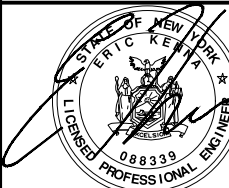
A4 ICE SHIELD - ICE BRIDGE ELEVATION
NOT TO SCALE



B4 POST CONNECTION DETAIL
NOT TO SCALE



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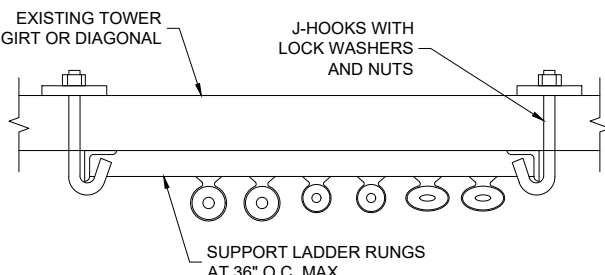
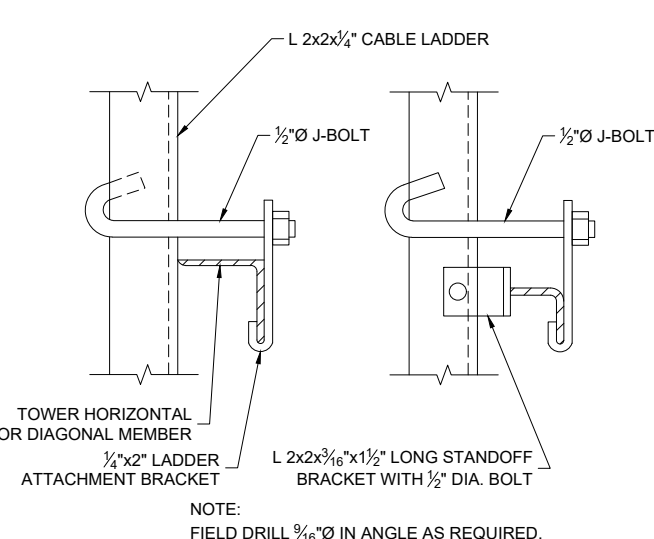
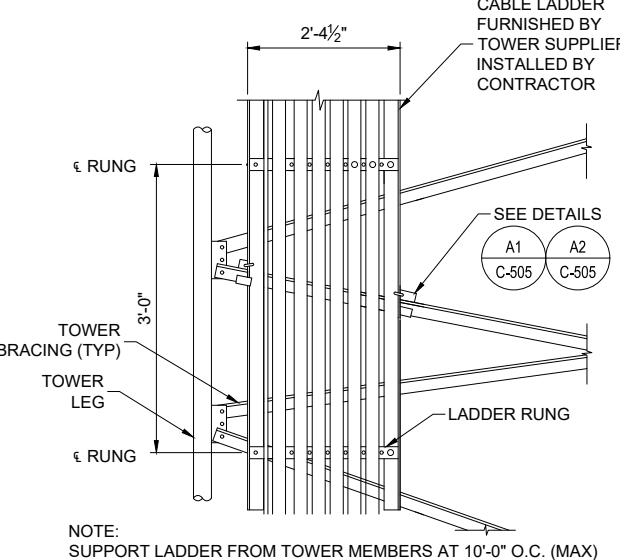
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ICE BRIDGE
DETAILS

C-504

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1		2		3		4						
C												
	C1	NOT USED NTS	C2	NOT USED NTS	C3	NOT USED NTS	C4	NOT USED NTS				
B												
	B1	NOT USED NTS	B2	NOT USED NTS	B3	NOT USED NTS	B4	NOT USED NTS				
A	<div><table data-bbox="198 1630 711 1689"><tr><th>SITE PRO 1 P/N</th><th>DESCRIPTION</th></tr><tr><td>WCL9</td><td>COAX SUPPORT LADDER, 20 FT LONG</td></tr></table><p>NOTES:</p><ol style="list-style-type: none">LADDER ATTACHES TO TOWER GIRTS OR DIAGONALS WITH INCLUDED J-BOLTS AND BACKING PLATES.LADDER BASE KIT INCLUDES SPLICES FOR ATTACHING THE FIRST LADDER SECTION.CABLE LADDER FURNISHED BY TOWER SUPPLIER, INSTALLED BY CONTRACTOR.</div>		SITE PRO 1 P/N	DESCRIPTION	WCL9	COAX SUPPORT LADDER, 20 FT LONG	<div><p>NOTE: FIELD DRILL 9/16"Ø IN ANGLE AS REQUIRED.</p></div>		<div><p>NOTE: SUPPORT LADDER FROM TOWER MEMBERS AT 10'-0" O.C. (MAX)</p></div>			
	SITE PRO 1 P/N	DESCRIPTION										
WCL9	COAX SUPPORT LADDER, 20 FT LONG											
A1	WAVEGUIDE/CABLE LADDER SUPPORT NTS	A2	WAVEGUIDE/CABLE LADDER ATTACHMENT NTS	A3	WAVEGUIDE/CABLE LADDER NTS	A4	NOT USED NTS					
1		2		3		4						



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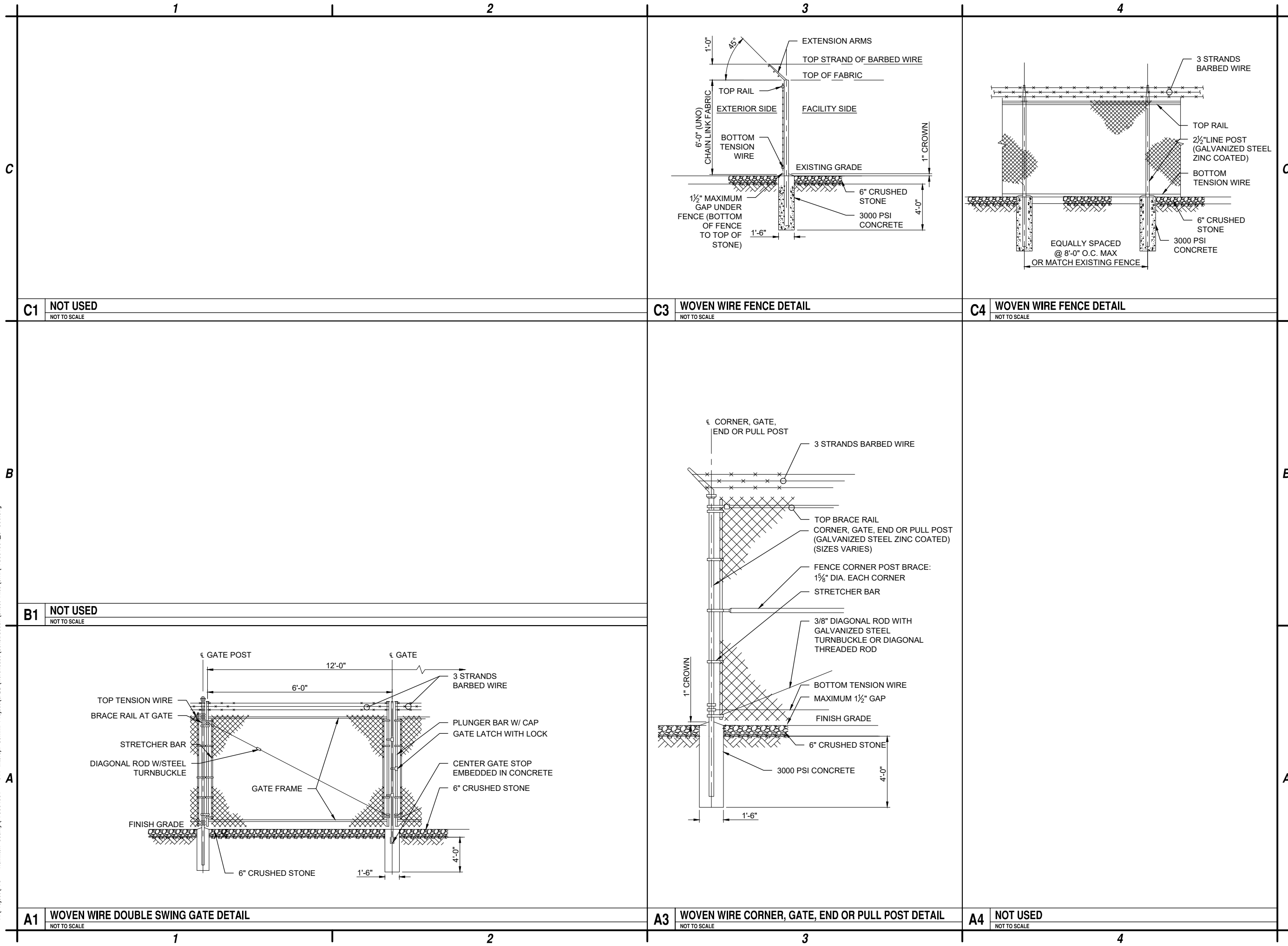
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WAVEGUIDE/ CABLE
DETAILS

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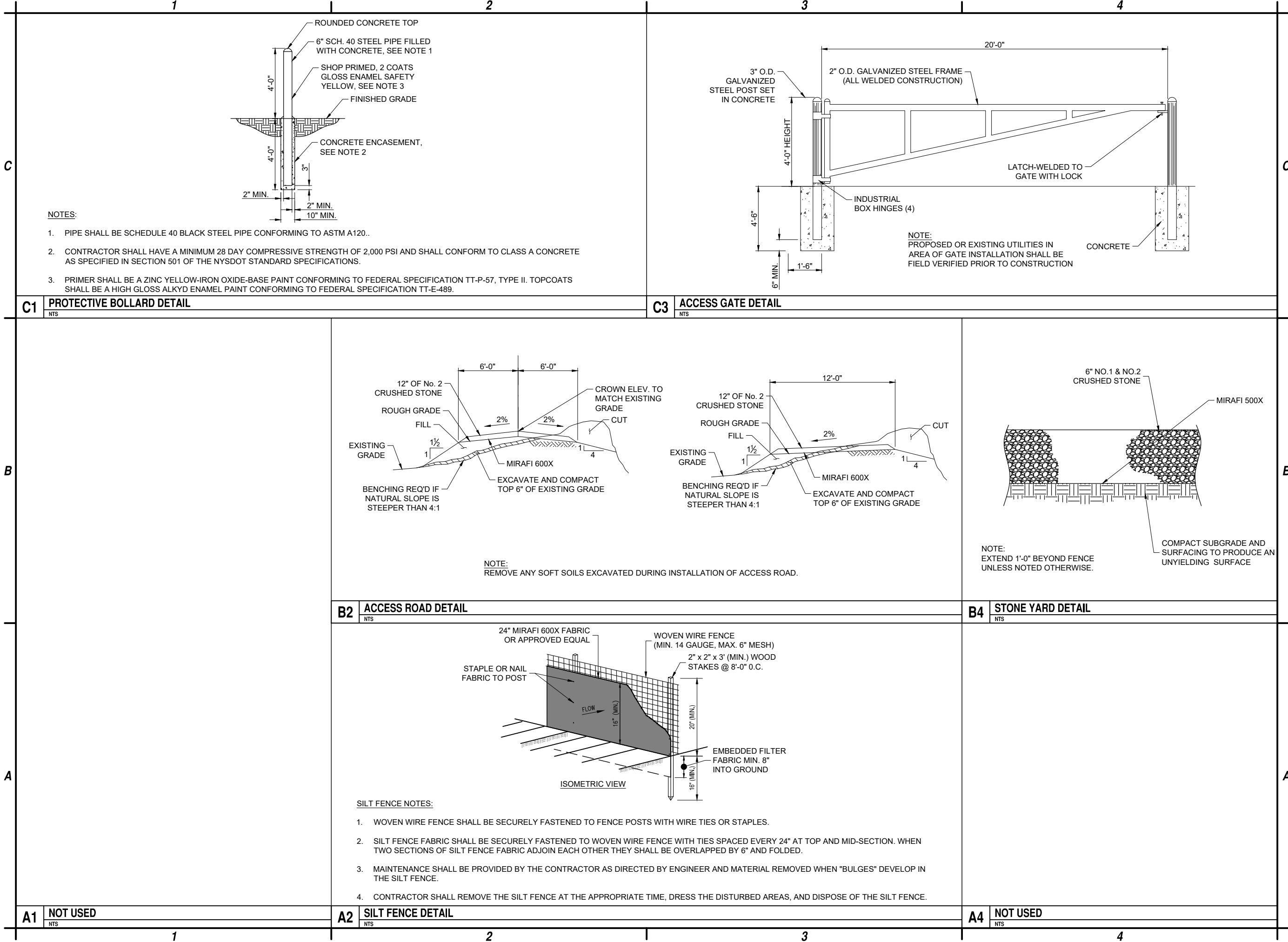
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FENCE
DETAILS

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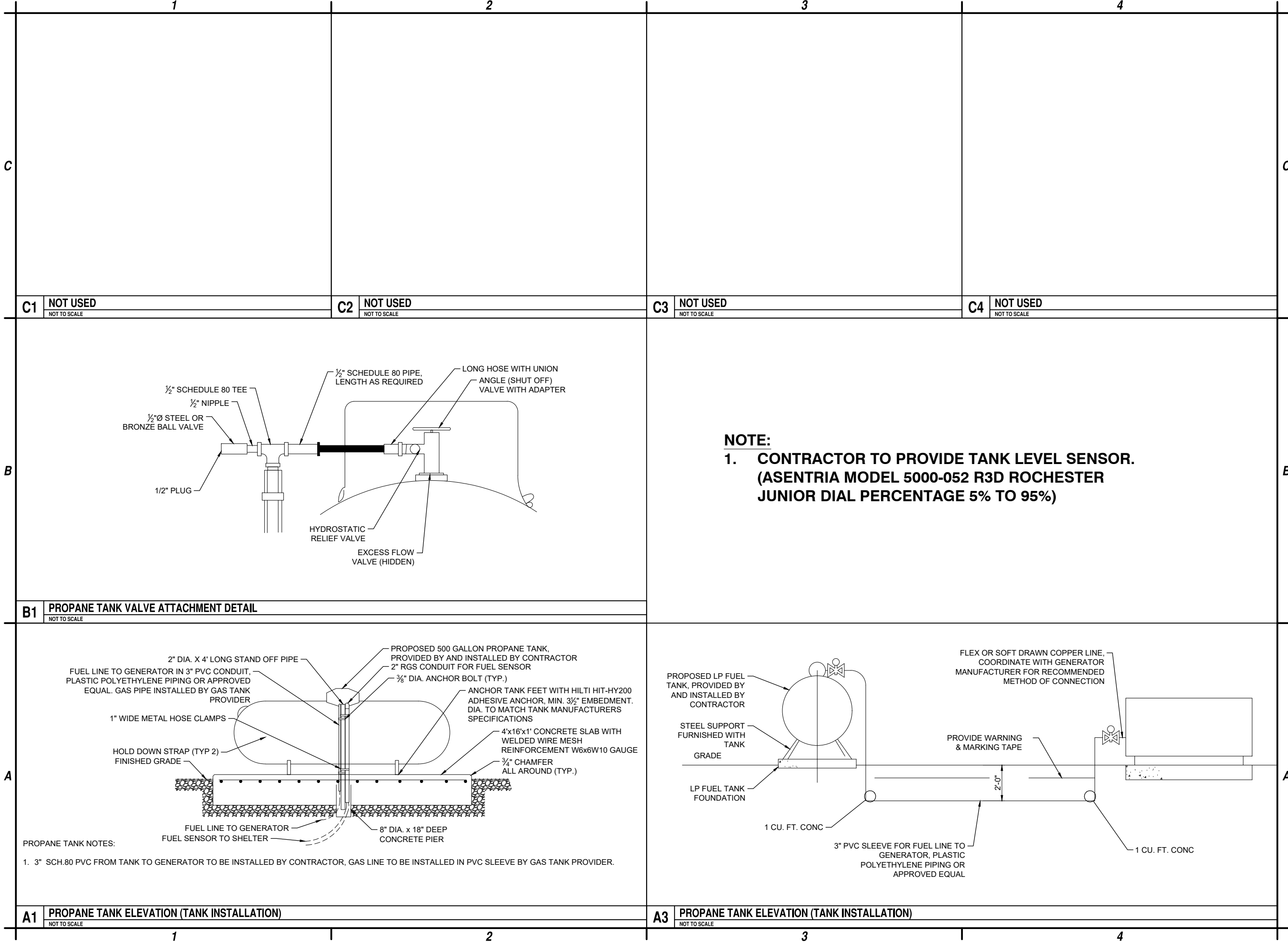
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SITE
DETAILS

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PROPANE TANK
DETAILS

C-508



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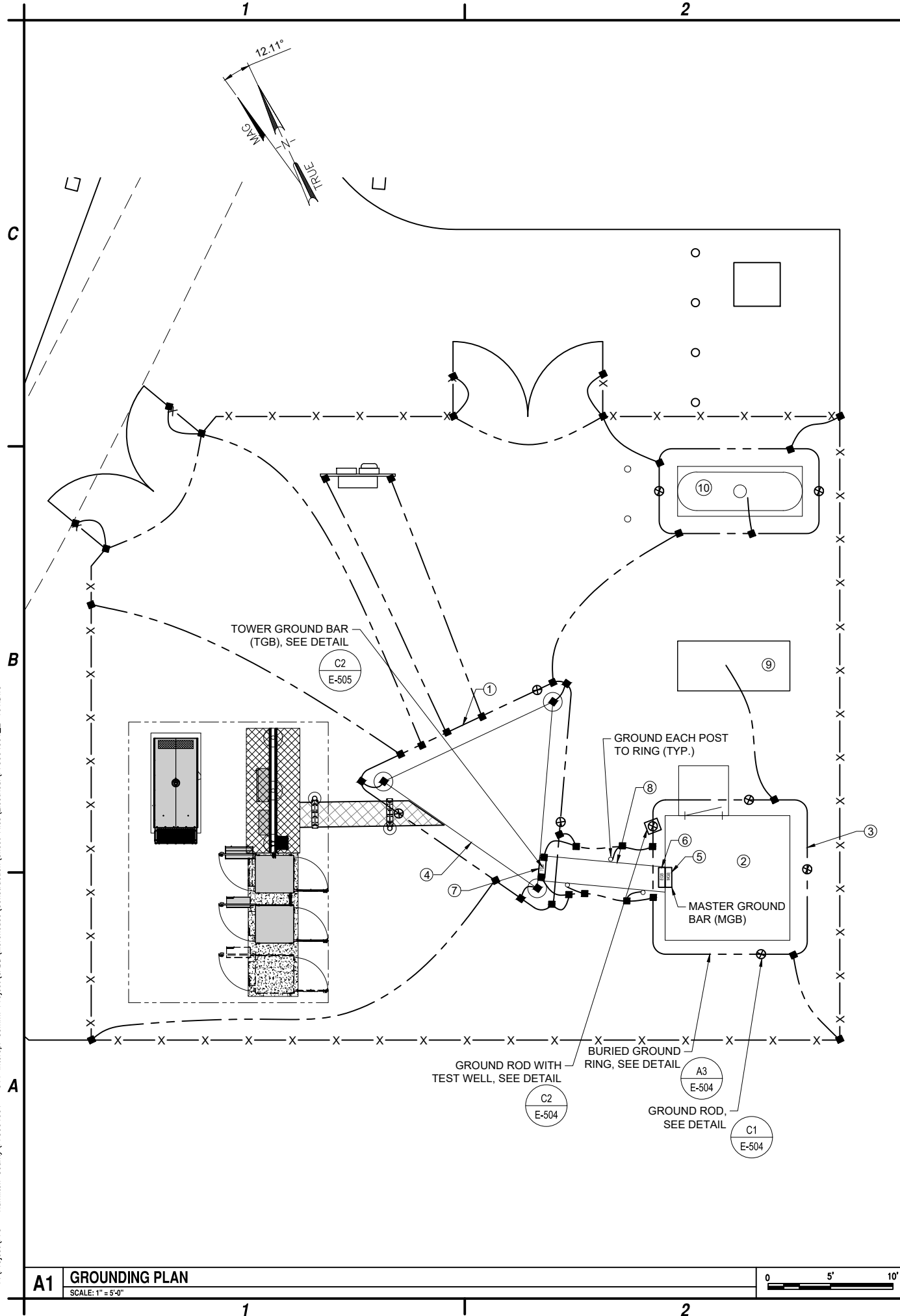
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SIGN DETAILS AND SPECIFICATIONS

C-509

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CODED DRAWING NOTES:

- #2 SOLID TINNED BCC. BURIED TOWER GROUND RING AT 30" BELOW FINISHED GRADE OR 6" BELOW FROST LINE TO BE INSTALLED OUTSIDE OF TOWER FOUNDATION FOOTPRINT.
- INTERIOR PERIMETER GROUND BUS AND MAIN GROUND BAR BY SHELTER MANUFACTURER. CABLES AND TERMINATIONS BY THIS CONTRACT
- #2 SOLID TINNED BCC BURIED EXTERIOR GROUND RING AT 4'-6" BELOW FINISHED GRADE OR 6" BELOW FROST LINE
- PROPOSED TOWER
- MASTER GROUND BAR (MGB) (BY SHELTER MANUFACTURER)
- EXTERIOR GROUND BUS BAR (EGB) (BY SHELTER MANUFACTURER)
- TOWER GROUND BAR (TGB)
- ICE BRIDGE. BOND EACH SECTION AND SUPPORT POST
- PROPOSED GENERATOR ON CONCRETE PAD
- PROPOSED PROPANE TANK ON CONCRETE PAD

ABBREVIATIONS:

AWG	AMERICAN WIRE GAUGE
BCC	BARE COPPER CABLE
EGB	EXTERNAL GROUND BAR
IPGB	INTERIOR PERIMETER GROUND BUS
MGB	MASTER GROUND BAR
TGB	TOWER GROUND BAR

GROUNDING NOTES

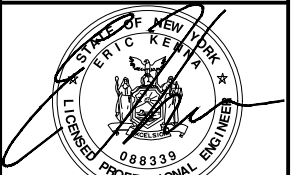
- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING OF GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
- METAL CONDUIT AND TRAYS SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE AND UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. ALL BENDS SHALL BE MADE WITH 12" RADIUS OR LARGER.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE AND EXTERIOR.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS. EXCEPT FOR GROUND BAR CONNECTION FROM MGB TO OUTSIDE. EXTERIOR GROUND SHALL ALL BE CADWELD CONNECTIONS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR AND INTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER) 600V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET OR DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO THE EQUIPMENT.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
- GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

LEGEND:

■	EXOTHERMIC WELD CONNECTION
●	COMPRESSION CONNECTION
(M)	METER SOCKET BY CONTRACTOR
⌋	METER BY UTILITY COMPANY
---	GROUNDING WIRE, #2 BCC U.N.O.
#	CODED DRAWING NOTE
MGB	MGB - MASTER GROUND BAR
EGB	EGB - EXTERNAL GROUND BAR
TGB	TGB - TOWER GROUND BAR
⊗	5/8"x8'-0" COPPER CLAD GROUND ROD
⊗	5/8"x8'-0" COPPER CLAD GROUND ROD WITH ACCESS TEST WELL



C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
Fax: 315-455-9667
www.cscos.com



HAMILTON COUNTY
SITE NAME: MOREHOUSE
802 STATE ROUTE 8
HOFFMEISTER, NY 13353

1	11-4-24	ACCESS GATE
0	2-12-24	ISSUED FOR PERMITTING
MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: F75.001.001		
DATE: JANUARY 2022		
DRAWN BY: M. BUCKINGHAM		
DESIGNED BY: E.N. KENNA, P.E.		
CHECKED BY: E.N. KENNA, P.E.		
NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW		

GROUNDING
PLAN AND
NOTES

E-101

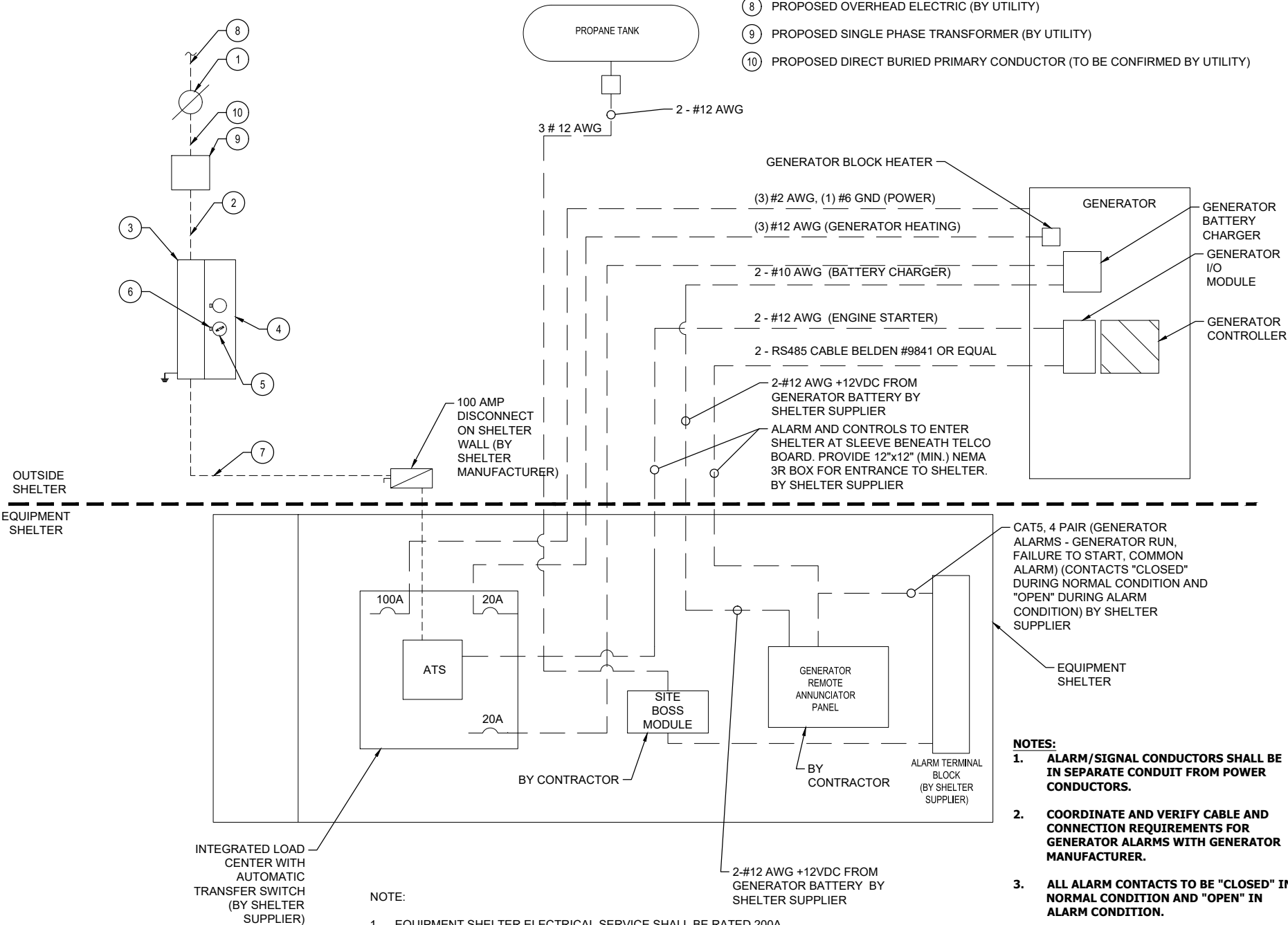
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ELECTRICAL INSTALLATION NOTES

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING, AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- RIGID GALVANIZED STEEL INTERMEDIATE (RGS) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- ELECTRICAL METALLIC TUBING (EMT) SHALL BE USED FOR ALL INDOOR LOCATIONS.
- RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

A2

POWER ONE-LINE DIAGRAM



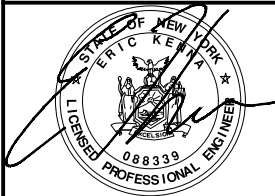
- EXISTING UTILITY POLE, PROPOSED SOURCE OF ELECTRIC SERVICE (BY UTILITY).
- 1 - 4" SCH. 80 PVC CONDUIT WITH (3) 350 KCMIL AND (1) #1/0 AWG GND (FINAL DESIGN TO BE CONFIRMED BY UTILITY)
- 400A, 240V, SINGLE PHASE, NEMA 3R SQUARE D TERMINAL BOX
- 240V, SINGLE PHASE, 2 GANG NEMA 3R METER BASE, 225A MAX BRANCH CIRCUIT
- PROPOSED HAMILTON COUNTY METER (METER BY UTILITY)
- 100A 2-POLE BREAKER (BY CONTRACTOR)
- 3-#2 AWG 1-#6 GND IN 2" SCH. 80 PVC CONDUIT
- PROPOSED OVERHEAD ELECTRIC (BY UTILITY)
- PROPOSED SINGLE PHASE TRANSFORMER (BY UTILITY)
- PROPOSED DIRECT BURIED PRIMARY CONDUCTOR (TO BE CONFIRMED BY UTILITY)

NOTES:

- ALARM/SIGNAL CONDUCTORS SHALL BE IN SEPARATE CONDUIT FROM POWER CONDUCTORS.
- COORDINATE AND VERIFY CABLE AND CONNECTION REQUIREMENTS FOR GENERATOR ALARMS WITH GENERATOR MANUFACTURER.
- ALL ALARM CONTACTS TO BE "CLOSED" IN NORMAL CONDITION AND "OPEN" IN ALARM CONDITION.

C&S
COMPANIES

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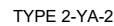
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ELECTRICAL
DETAILS

E-501



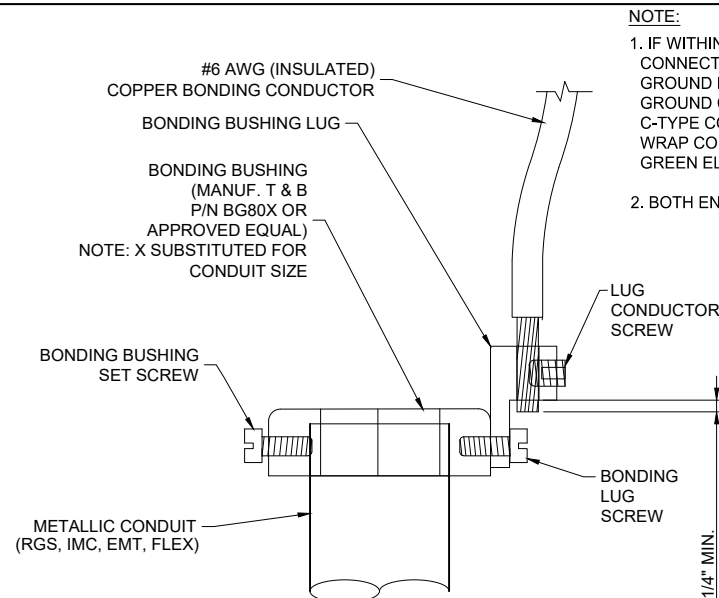
NOTE: ERICO CADWELD "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.



C4	NOT USED
	NTS

B1	EXOTHERMIC WELD DETAILS
	NTS

B4	NOT USED
	NTS



NOTE:

1. IF WITHIN 18 INCHES OF A GROUND BAR, CONNECT CONDUIT BOND CONDUCTOR TO GROUND BAR. OTHERWISE, CONNECT TO MAIN GROUND CONDUCTOR EXITING CONDUIT VIA C-TYPE COMPRESSION CONNECTION. WRAP CONNECTION POINT WITH UL LISTED GREEN ELECTRICAL TAPE

2. BOTH ENDS OF CONDUIT TO BE GROUNDED.

DIRECTIONS:

1. MOUNT BONDING BUSHING ONTO CONDUIT
2. TIGHTEN BOND BUSHING SET SCREW
3. INSERT COPPER CONDUCTOR INTO LUG
4. TIGHTEN LUG CONDUCTOR SCREW
5. TIGHTEN BONDING LUG SCREW

NOTE: BONDING BUSHING, SET SCREW, LUG,
LUG SCREW, COND. LUG SCREW, SHOWN
AS COMPLETE UNIT.

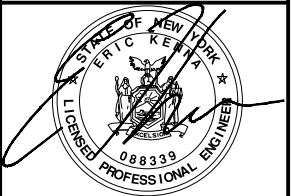
A1	NOT USED
	NTS

A2	CONDUIT BOND/GROUND BUSHING DETAIL
	NTS

A4	NOT USED
	NTS



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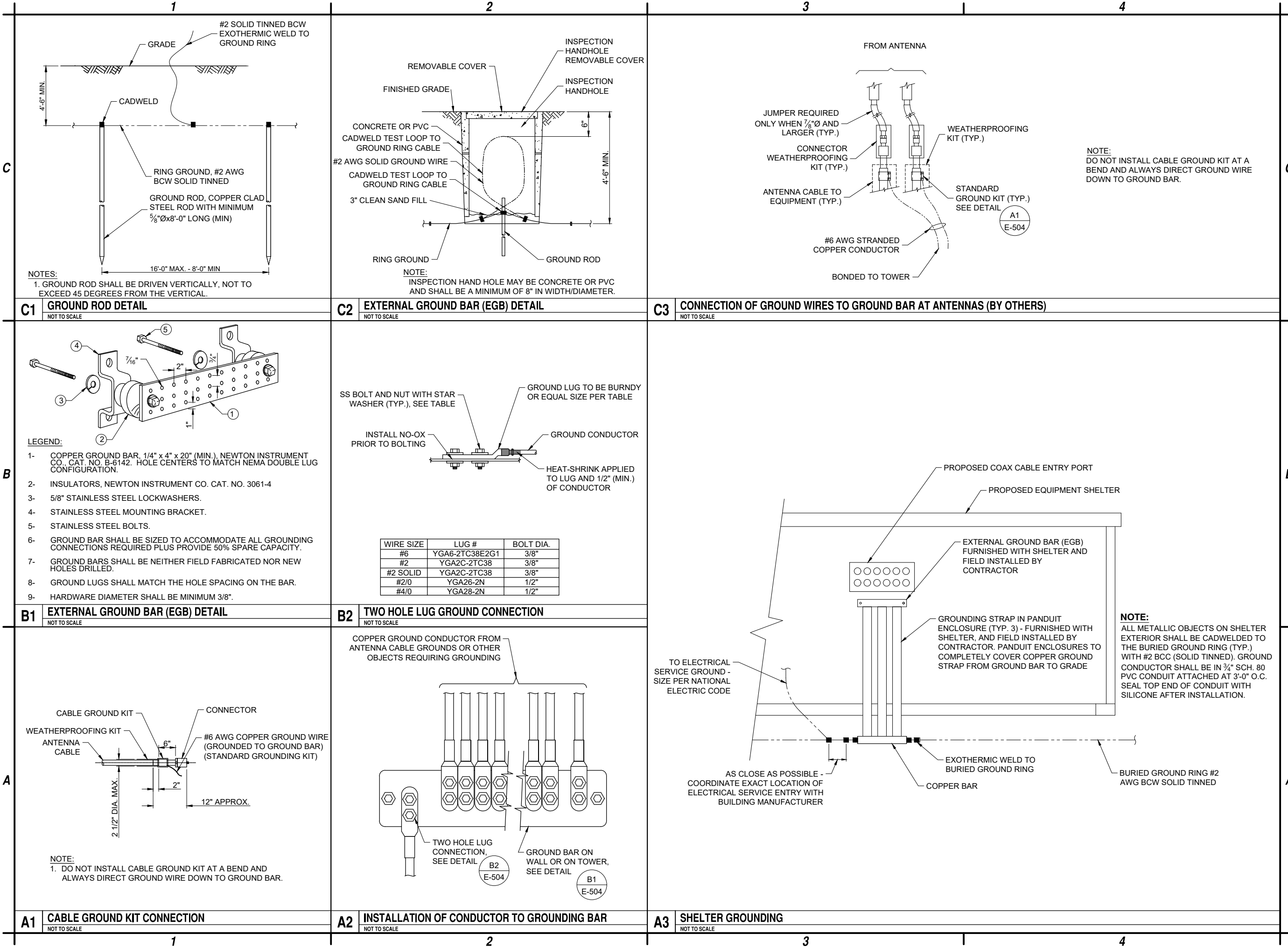
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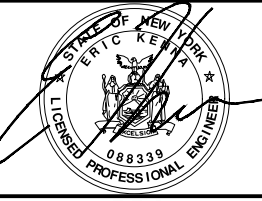
ELECTRICAL DETAILS

E-503

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GROUNDING
DETAILS

E-504



EL	

