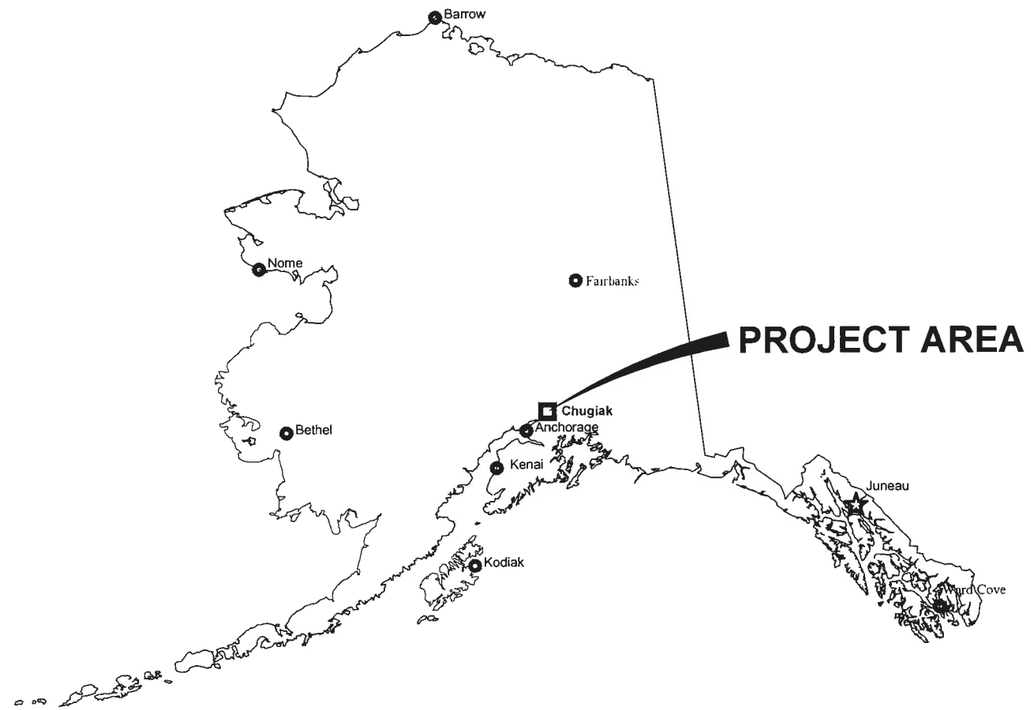
NORTON COURT
CONSTRUCTION DRAWINGS

PROJECT INFORMATION

PROJECT LOCATION: CHUGIAK, ALASKA

NHTI PROJECT NUMBER: 15-0082-20



CONTACT INFORMATION

STRUCTURAL ENGINEER

ROSS W. LEPPALA, PE, CE

NHTI - (907) 761-6052

901 COPE INDUSTRIAL WAY

PALMER, ALASKA 99645

ELECTRICAL ENGINEER

GEORGE P. DODGE, PE

NHTI - (907) 761-6053

901 COPE INDUSTRIAL WAY

PALMER, ALASKA 99645

Sheet List Table

REV	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	150501

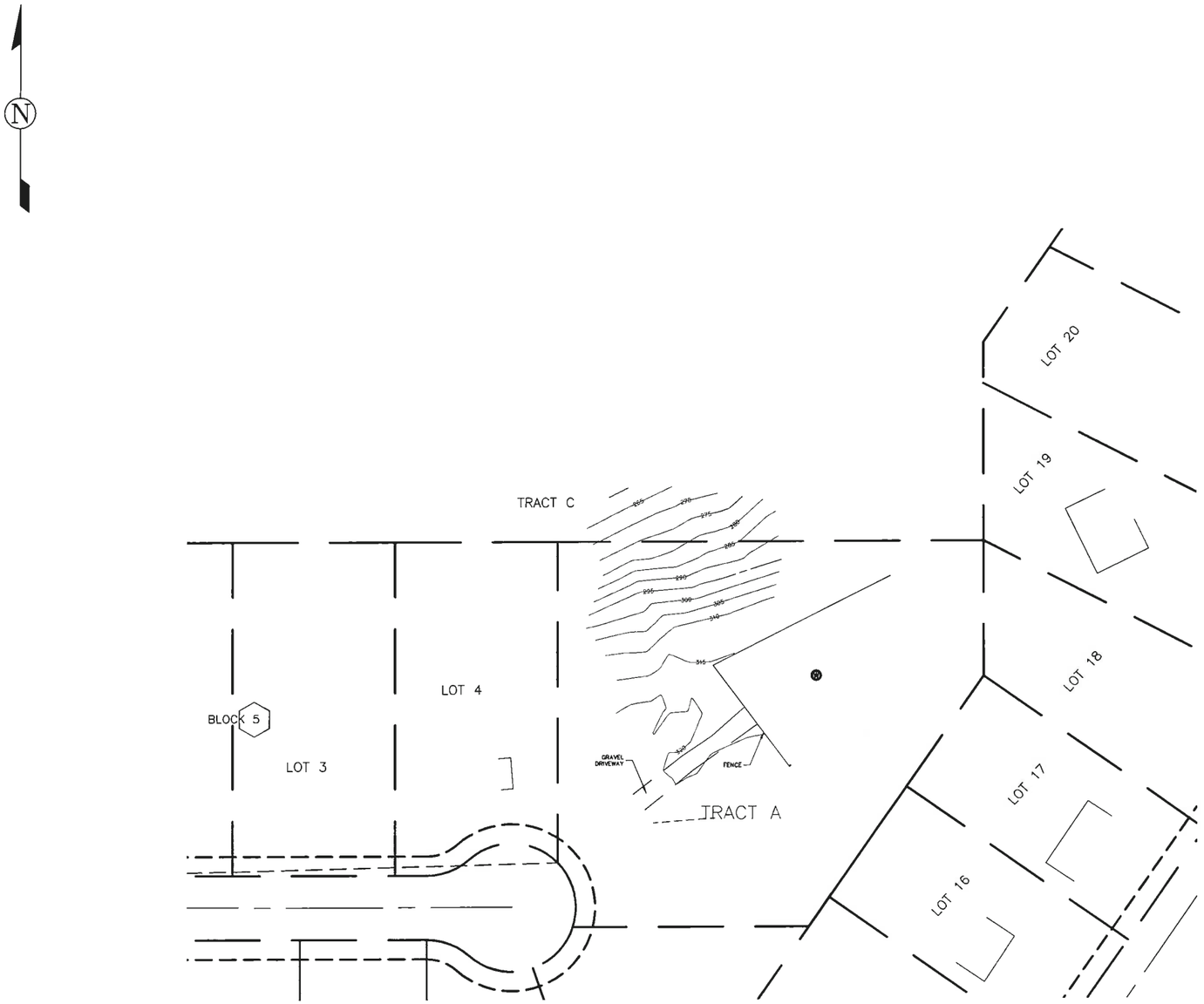
T1.0

SHEET: 01 OF: 20

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\T1.0 COVER SHEET.DWG | PLOT DATE: 150501 | PLOT SCALE: 1:1

NOTES:

1. THIS SITE PLAN WAS DEVELOPED FROM A SITE SURVEY BY ALASKA RIM ENGINEERING, INC. DATED 04/15/2015.



1 / C1.0 EXISTING SITE PLAN
SCALE: 1" = 100'

STATE OF ALASKA
49 TH
Ross W. Leppala
CE 13650
5-1-15
REGISTERED PROFESSIONAL ENGINEER

REV.	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	150501

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AWN
NORTON COURT
EXISTING
SITE PLAN

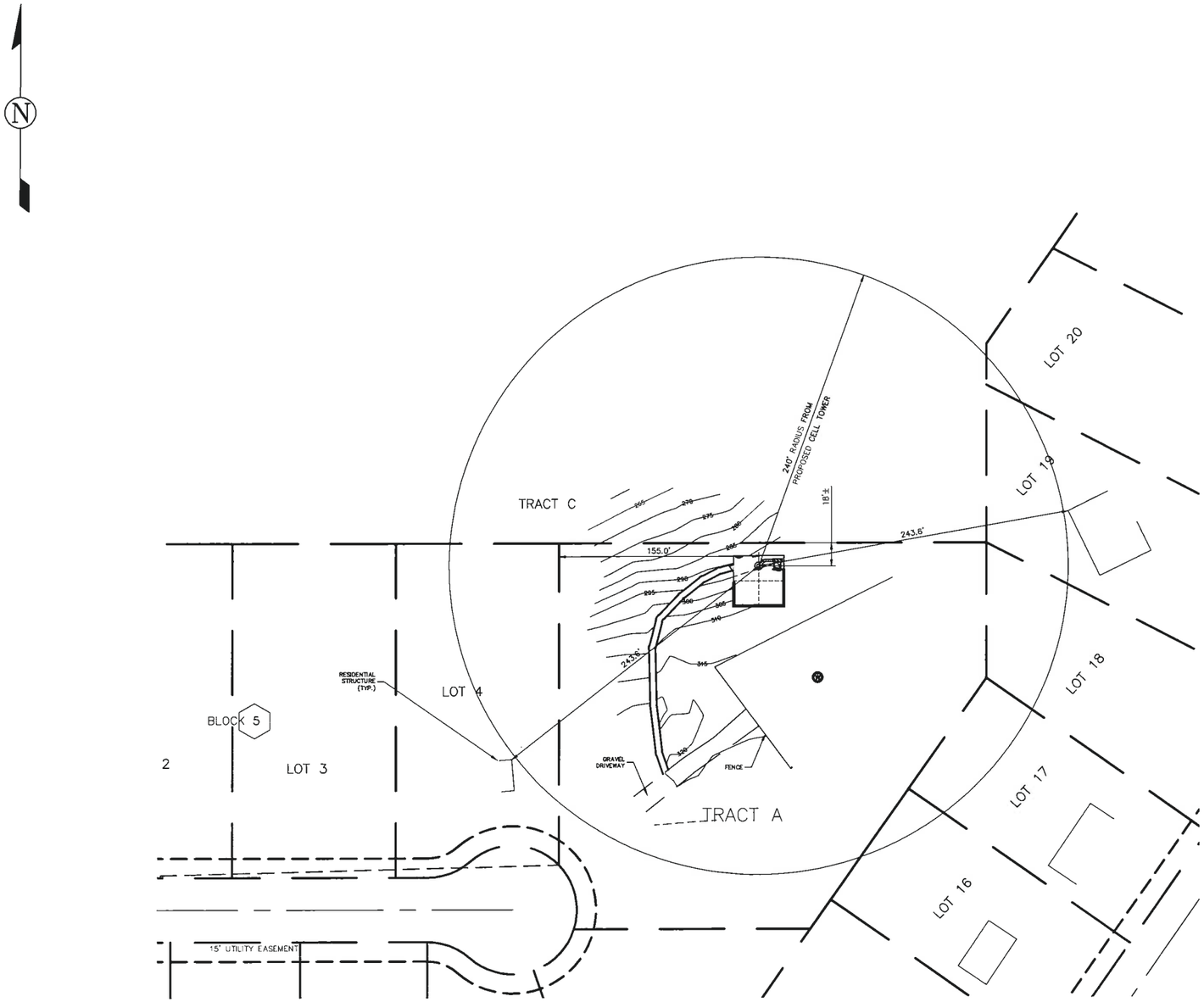
DRAWN BY: JAA	DESIGNED BY: RWL
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 02	OF: 20

C1.0

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\C1.0 EXISTING SITE PLAN.DWG | PLOT DATE: 150501 | PLOT SCALE: 1:1

NOTES:

1. THIS SITE PLAN WAS DEVELOPED FROM A SITE SURVEY BY ALASKA RIM ENGINEERING, INC. DATED 04/15/2015.



1 / C1.1 PROPOSED SITE PLAN
SCALE: 1" = 100'

STATE OF ALASKA
49 TH
Ross W. Leppala
CE 13650
5-1-15
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REV	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	150501

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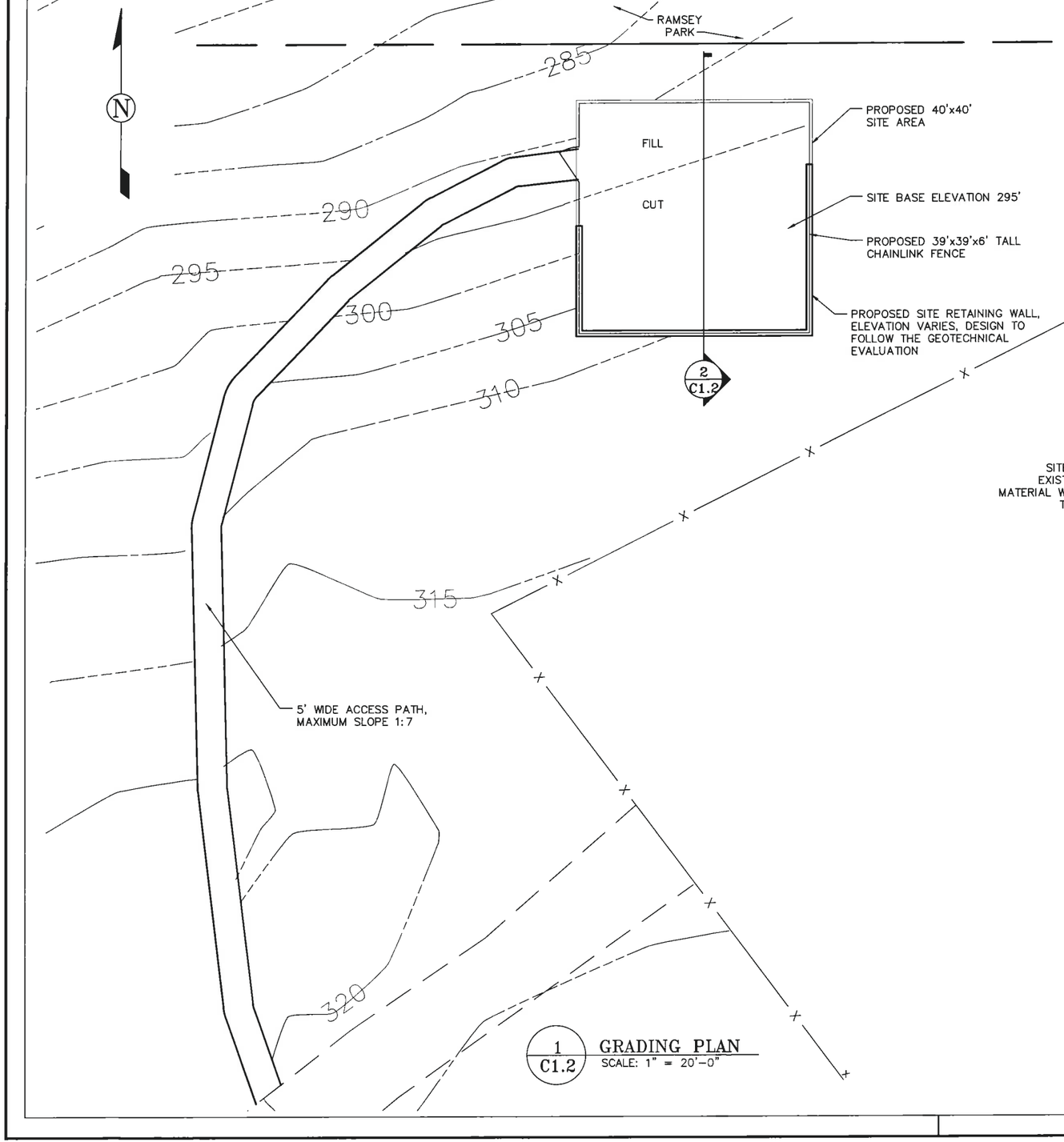
PROPOSED
SITE PLAN

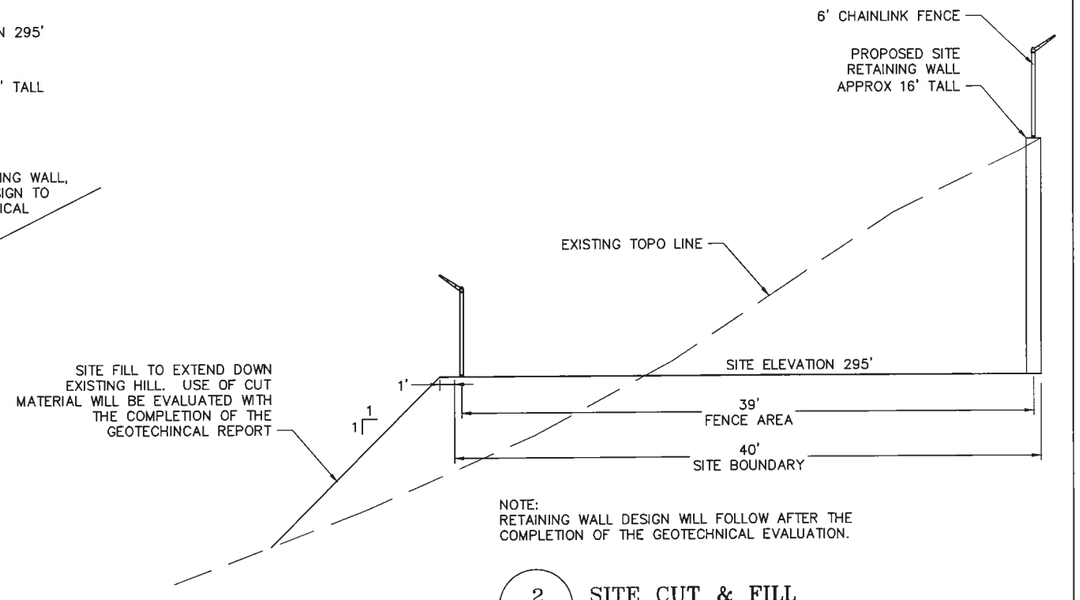
DRAWN BY: JAA	DESIGNED BY: RWL
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 03	OF: 20

C1.1

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\C1.1 PROPOSED SITE PLAN.DWG | PLOT DATE: 1:50501 | PLOT SCALE: 1:1



1 / C1.2 GRADING PLAN
SCALE: 1" = 20'-0"



NOTE:
RETAINING WALL DESIGN WILL FOLLOW AFTER THE COMPLETION OF THE GEOTECHNICAL EVALUATION.

2 / C1.2 SITE CUT & FILL
SCALE: 1" = 10'-0"

STATE OF ALASKA
49TH
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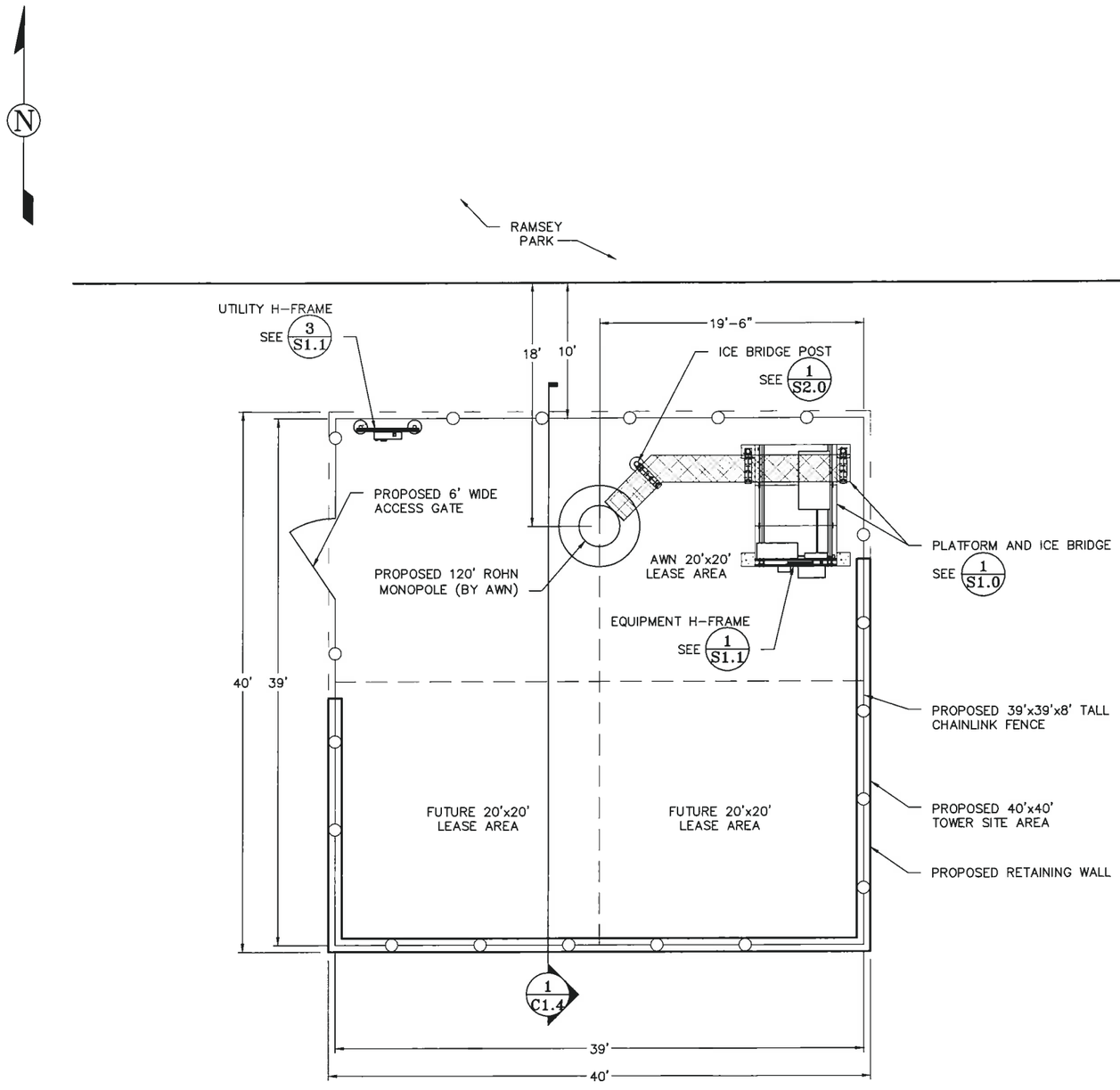
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 04	OF: 20

C1.2

PLAN

NOTES:

1. RETAINING WALL DESIGN WILL FOLLOW AFTER THE COMPLETION OF THE GEOTECHNICAL EVALUATION.



1/C1.3 ENLARGED SITE PLAN
SCALE: 1" = 10'-0"

REV.	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	150501

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ENLARGED
SITE PLAN

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JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 05	OF: 20

C1.3

STATE OF ALASKA
49 TH
Ross W. Leppala
CE 13650
5-1-15
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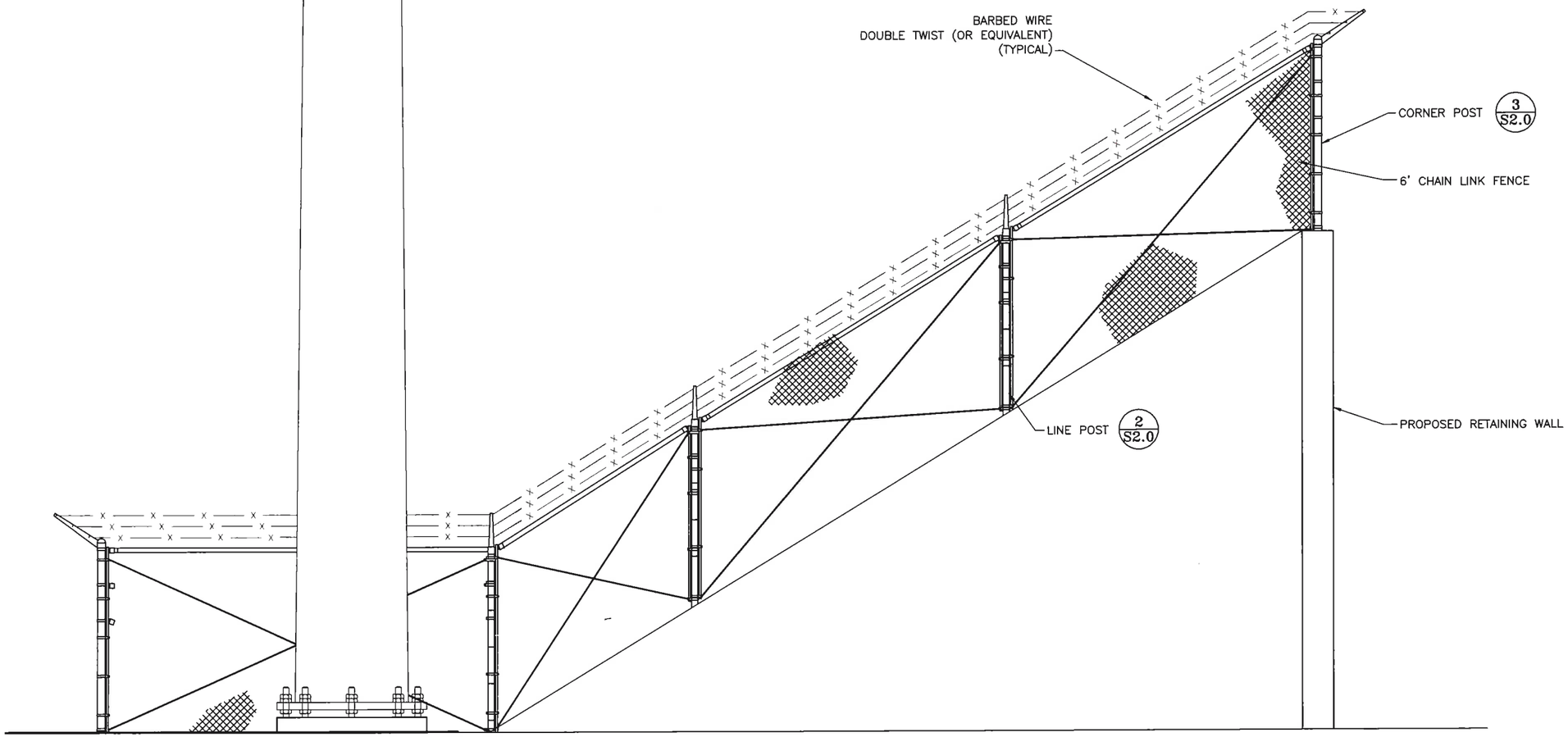
FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\C1.3 ENLARGED SITE PLAN.DWG | PLOT DATE: 150501 | PLOT SCALE: 1:1

NOTES:

1. FENCE DETAILS BY FENCE MANUFACTURER.



NOTE: EQUIPMENT NOT SHOWN FOR CLARITY.

1/C1.4 FENCE ELEVATION
SCALE: 3/8"=1'-0"

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AWN
NORTON COURT
FENCE
ELEVATION

DRAWN BY: JAA	DESIGNED BY: RWL
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C1.4

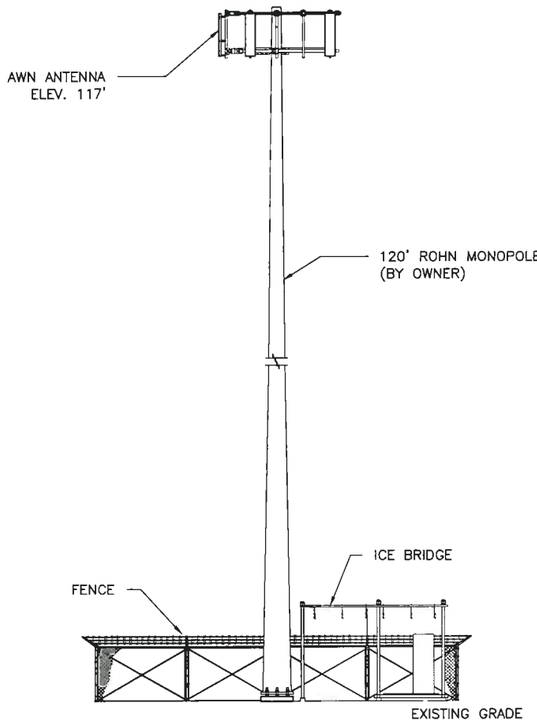
FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\C1.4 FENCE ELEVATION.DWG | PLOT DATE: 150501 | PLOT SCALE: 1:1

SECTOR	QTY.	ANTENNA MODEL	MECH DOWNTILT	AZIMUTH	RAD CENTER HEIGHT	COAX LENGTH	COAX SIZE	NUMBER OF COAX
ALPHA	1	APX16DWV-16DWVS-E	0	50°	117'	140'	1-1/4"	4
	1	RRUS 11	–	–	117'	–	–	–
	–	–	–	–	–	–	–	–
BETA	1	APX16DWV-16DWVS-E	0	190°	117'	140'	1-1/4"	4
	1	RRUS 11	–	–	117'	–	–	–
	–	–	–	–	–	–	–	–
GAMMA	1	APX16DWV-16DWVS-E	0	275°	117'	140'	1-1/4"	4
	1	RRUS 11	–	–	117'	–	–	–
	–	–	–	–	–	–	–	–
GPS	1	TMC-HC-26NCM	–	–	–	–	–	1
	1	LIGHTENING ROD						

2 / C2.0 ANTENNA SCHEDULE
SCALE: NTS

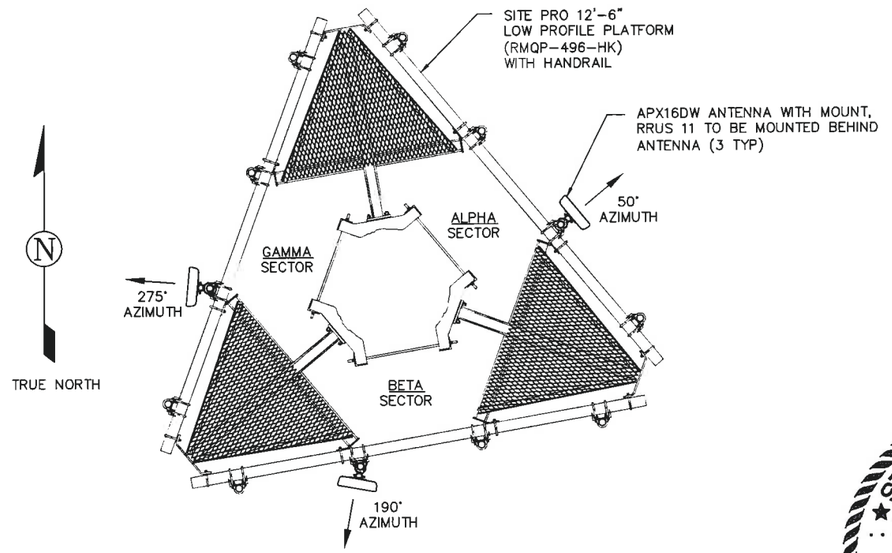
COAXIAL CABLE NOTES:

1. COAXIAL CABLE LENGTHS ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LENGTHS PER FINAL ICE-BRIDGE CONFIGURATION AND STRUCTURE MOUNTED ROUTING.
2. ALL COAXIAL CABLE INSTALLATION SHALL CONFORM TO CURRENT AWN WIRELESS STANDARDS.
3. ALL COAXIAL CABLE CONNECTIONS TO BE WEATHERPROOFED.
4. CONTRACTOR TO PROVIDE DRIP LOOPS IN CABLES AND JUMPERS WHERE NECESSARY. ALL COAXIAL CABLES TO BE MARKED WITH COLOR CODED TAPE TO INDICATE THE ANTENNA SECTOR.
5. COLORED ELECTRICAL TAPE SHALL MARK EACH END OF CABLE AND EACH END OF JUMPERS AS CLOSE TO EACH END AS POSSIBLE. (NOT TO INTERFERE WITH WEATHERPROOFING).



NOTE: TOPO NOT SHOWN FOR CLARITY

1 / C2.0 TOWER ELEVATION
SCALE: 1/16"=1'-0"



3 / C2.0 AWN ANTENNA PLAN VIEW
SCALE: 1/4"=1'-0"

REV.	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	150501

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AWN
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TOWER & ANTENNA
LAYOUTS & ELEVAITONS

DRAWN BY: JAA	DESIGNED BY: RWL
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 06	OF: 20

C2.0

STATE OF ALASKA
49TH
Ross W. Leppala
CE 13650
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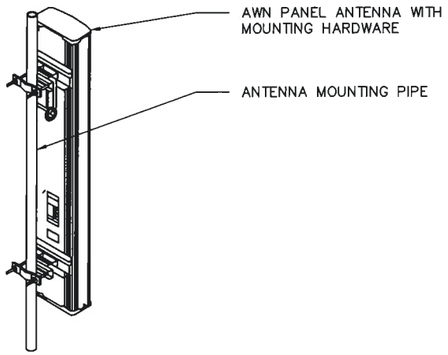
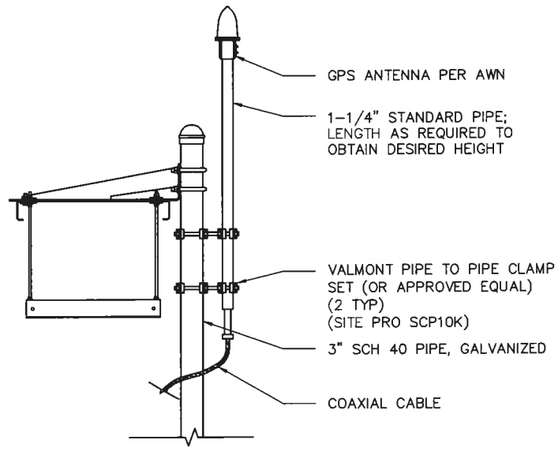
FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\C2.0 TOWER AND ANTENNA LAYOUT AND ELEVATIONS.DWG | PLOT DATE: 150501 | PLOT SCALE: 1:1



1 / C2.1 PANEL ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



2 / C2.1 GPS ANTENNA MOUNTING
SCALE: 1/2"=1'-0"

REV.	DESCRIPTION	DATE
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NORTON COURT
ANTENNA MOUNTING DETAILS

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JOB #: 15-0082-20	SCALE: AS SHOWN
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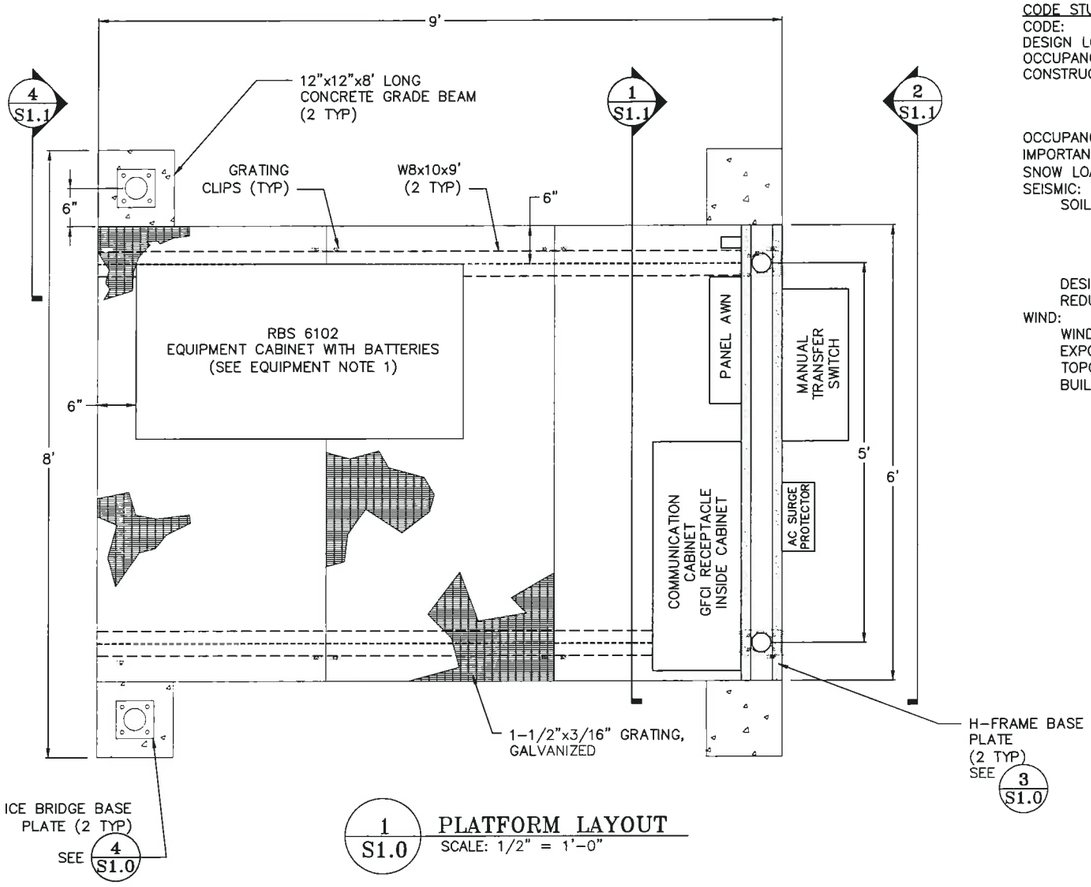
C2.1

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\C2.1 ANTENNA MOUNTING DETAILS.DWG | PLOT DATE: 150501 | PLOT SCALE: 1:1



1 / S1.0 PLATFORM LAYOUT
SCALE: 1/2" = 1'-0"

CODE STUDY/ DESIGN CRITERIA

CODE:	IBC 2009
DESIGN LOADS:	ASCE 7-05
OCCUPANCY CLASSIFICATION:	U
CONSTRUCTION TYPE:	V-B
OCCUPANCY CATEGORY:	II
IMPORTANCE FACTOR:	1.0 (SEISMIC, SNOW)
SNOW LOAD:	50 PSF (GROUND)
SEISMIC:	
SOIL SITE CLASS:	D
S_s:	1.455
S_1:	0.543
S_{DS}:	0.970
S_{D1}:	0.543
DESIGN CATEGORY:	B
REDUNDANCY FACTOR (ρ):	1.0
WIND:	
WIND SPEED:	100 MPH (3 SEC. GUST)
EXPOSURE:	B
TOPOGRAPHIC FACTOR (K_{ZT}):	1.0
BUILDING HEIGHT EXPOSURE FACTOR λ:	1.00

NOTES:

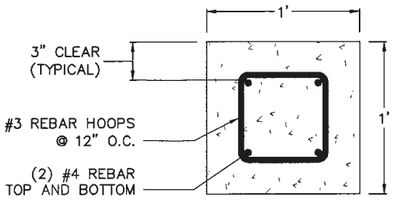
EARTHWORK:
1. REMOVE ALL ORGANIC MATTER AND DELETERIOUS MATERIALS FROM THE SITE AREA.
2. ALL COMPACTED FILL TO BE COMPACTED TO 95% MAXIMUM LABORATORY DENSITY IN 10 INCH LIFTS.
3. COMPACTED FILL AND OR EXCAVATION IS REQUIRED TO ALLOW DRAINAGE SO THAT NO STANDING WATER WILL ACCUMULATE AS A RESULT OF THIS WORK.
4. ALL EXCAVATIONS SHALL BE SHORED, SLOPED OR OTHERWISE SUPPORTED TO PROTECT PERSONNEL IN ACCORDANCE WITH OSHA, 29 CFR 1926, SUBPART P.

CONCRETE:
1. CONCRETE SHALL OBTAIN A 28-DAY COMPRESSIVE STRENGTH OF 4,500 PSI (F'c = 4,500 PSI). THE MIX SHALL CONTAIN A MINIMUM OF 6 SACKS CEMENT PER CUBIC YARD OF CONCRETE.
2. CEMENT SHALL CONFORM TO ASTM C150 TYPE I OR II.
3. AGGREGATE SHALL CONFORM TO ASTM C33. MAXIMUM AGGREGATE SIZE SHALL BE 3/4 INCH.
4. SLUMP SHALL BE BETWEEN 3 – 5 INCHES.
5. ADMIXTURE SHALL BE PROVIDED AS REQUIRED TO PROVIDE 5% – 8% AIR ENTRAINMENT WITH A MAXIMUM WATER/CEMENT RATIO OF 0.45.
6. CONCRETE SHALL BE KEPT FROM FREEZING FOR THE FIRST SEVEN DAYS AFTER PLACING. SURFACES TO RECEIVE CONCRETE SHALL BE NOT LESS THAN 40° F. THE TEMPERATURE OF THE CONCRETE WHEN PLACED SHALL NOT BE LESS THAN 50° F OR GREATER THAN 80° F.

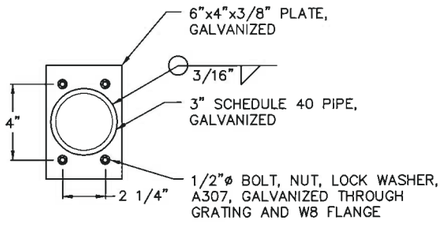
REINFORCING STEEL:
1. ALL REINFORCING BARS SHALL BE DEFORMED AND CONFORM TO ASTM A615, GRADE 60.
2. ALL BOTTOM MAT REINFORCING BARS SHALL BE ACCURATELY PLACED AND SUPPORTED BY GALVANIZED METAL CHAIRS OR CONCRETE BLOCKS (WOODEN STAKES SHALL NOT BE USED).
3. MINIMUM CONCRETE COVER FOR REBAR WHERE CONCRETE IS PLACED IN DIRECT CONTACT WITH SOIL IS 3 INCHES CLEAR, FOR ALL OTHER FORMED SURFACES IS 1.5 INCHES.
4. ALL REBAR SPLICES SHALL BE LAPPED 48 BAR DIAMETERS.

STRUCTURAL STEEL:
1. STRUCTURAL STEEL PLATES, ANGLES, AND MISCELLANEOUS SHAPES SHALL BE ASTM A36. W SHAPES SHALL BE ASTM A992.

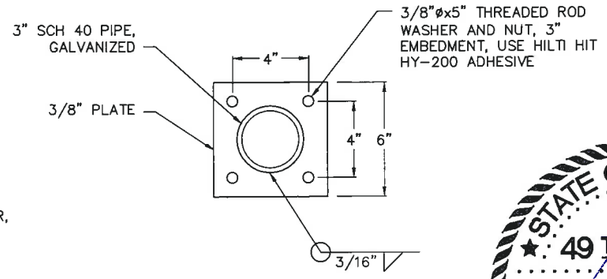
EQUIPMENT:
1. FASTEN EQUIPMENT WITH 1/2"ø BOLT THROUGH GRATING WITH OVERSIZED WASHER. USE MANUFACTURER'S BOLT PATTERN.



2 / S1.0 GRADE BEAM CROSS SECTION
SCALE: 1" = 1'-0"



3 / S1.0 EQUIPMENT H-FRAME BASE PLATE
SCALE: 1" = 1'-0"



4 / S1.0 ICE BRIDGE BASE PLATE
SCALE: 1" = 1'-0"

REV.	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	151515

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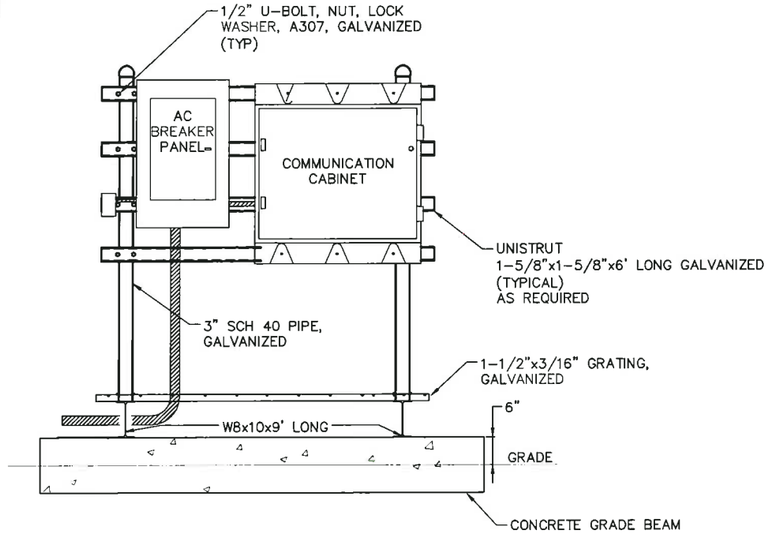
AWN
NORTON COURT
PLATFORM LAYOUT & DETAILS

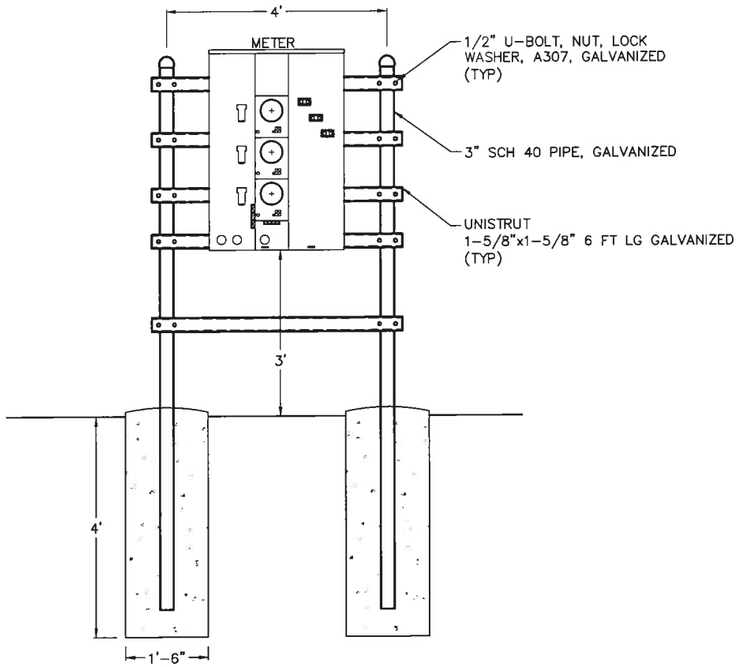
DRAWN BY: JAA	DESIGNED BY: RWL
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 08	OF: 20

S1.0

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADDS\1.0 PLATFORM LAYOUT AND DETAILS.DWG | PLOT DATE: 150501 | PLOT SCALE: 1:1



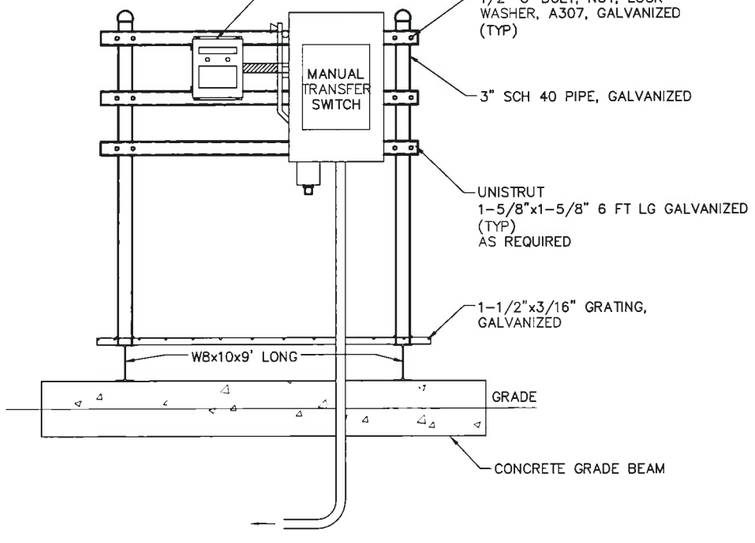
1 / S1.1 EQUIPMENT H-FRAME
SCALE: 3/8"=1'-0"



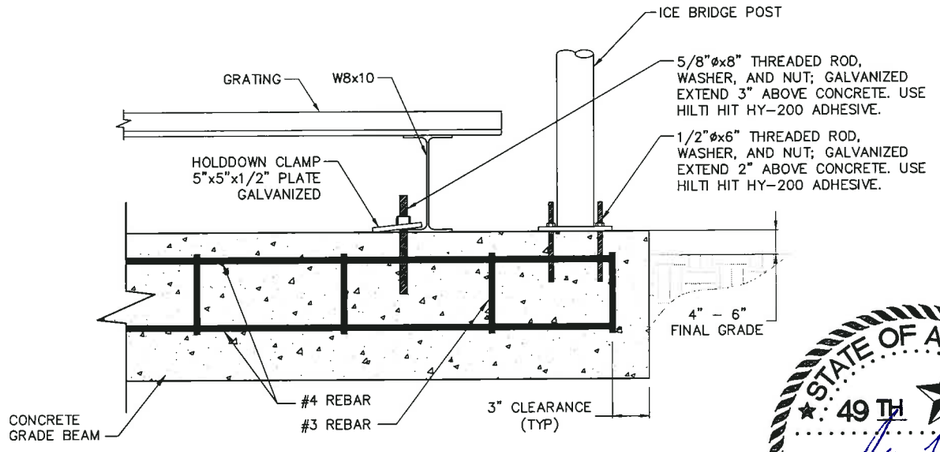
3 / S1.1 UTILITY H-FRAME
SCALE: 3/8"=1'-0"

NOTES:

1. INSTALL EPOXY ANCHORS PER MANUFACTURER PROCEDURES.



2 / S1.1 EQUIPMENT H-FRAME
SCALE: 3/8"=1'-0"



4 / S1.1 GRADE BEAM DETAIL
SCALE: 1" = 1'-0"

STATE OF ALASKA
49 TH
Ross W. Leppala
CE 13650
5-1-15
REGISTERED PROFESSIONAL ENGINEER

REV.		DATE
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NORTON COURT
GRADE BEAM & H-FRAME DETAILS

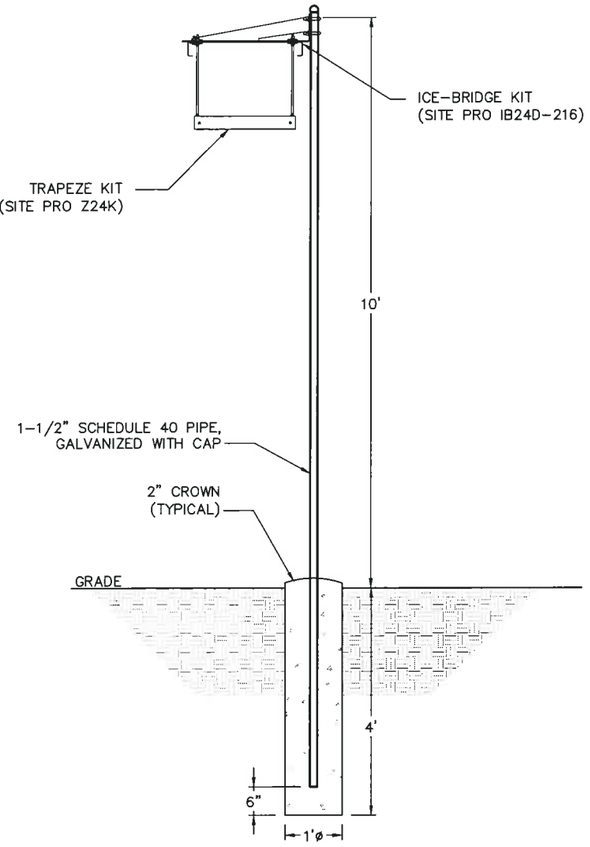
DRAWN BY: JAA	DESIGNED BY: RWL
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 09	OF: 20

S1.1

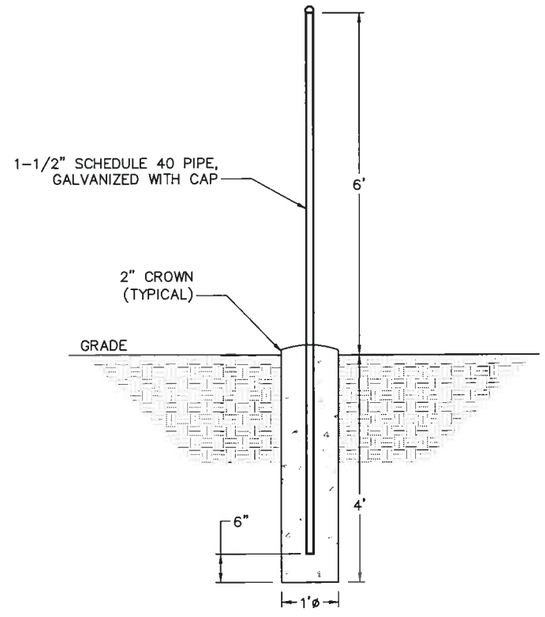
FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADDS\S1.1 GRADE BEAM AND H-FRAME DETAILS.DWG | PLOT DATE: 150501 | PLOT SCALE: 1:1

NOTES:

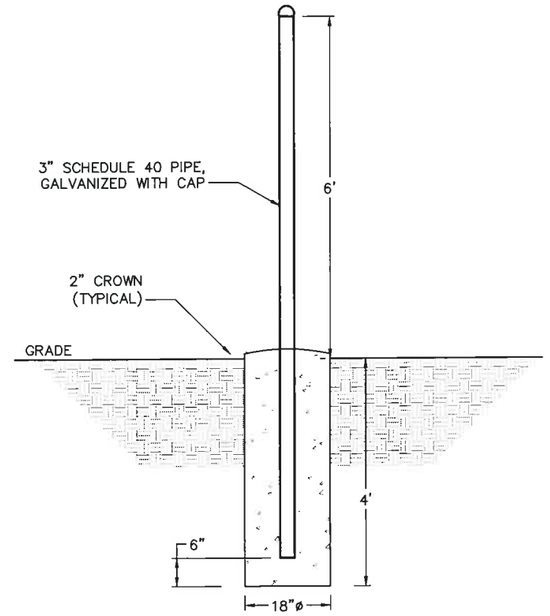
1. FENCE DETAILS BY FENCE MANUFACTURER.



1 S2.0 ICE BRIDGE SUPPORT
SCALE: 3/8"=1'-0"



2 S2.0 LINE POST
SCALE: 3/8"=1'-0"



3 S2.0 GATE AND CORNER POST
SCALE: 3/8=1'-0"

REV.	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	150501

STATE OF ALASKA
49 TH
Ross W. Leppala
CE 13650
5-15-15
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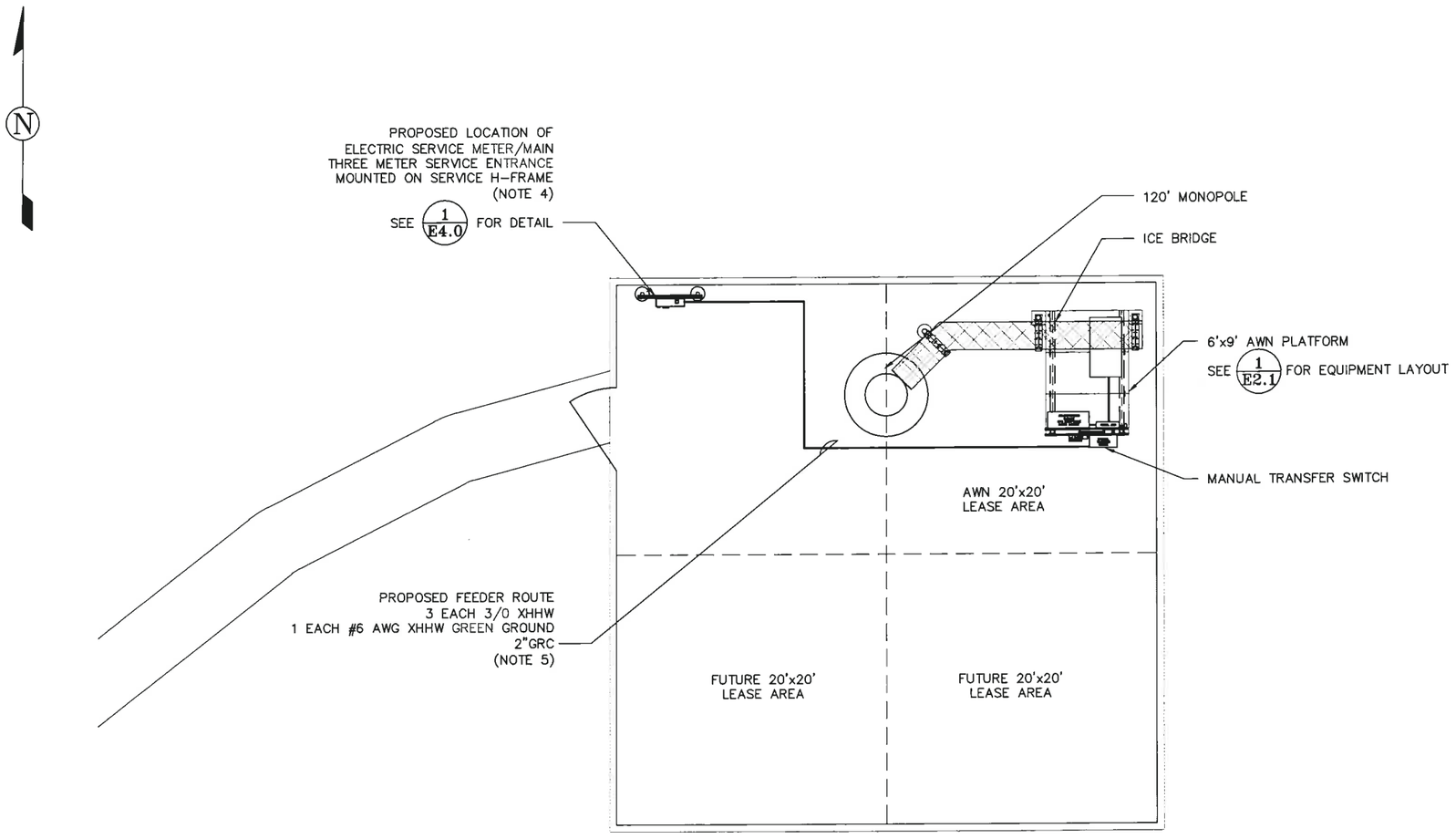
AWN
NORTON COURT
FENCE POST DETAILS

DRAWN BY: JAA	DESIGNED BY: RWL
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 11	OF: 20

S2.0

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\S2.0 FENCE POST DETAILS.DWG | PLOT DATE: 150501 | PLOT SCALE: 1:1



NOTES:

1. ALL ELECTRICAL WORK TO COMPLY WITH 2011 NEC.
2. ALL CONDUCTORS TO BE COPPER.
3. ELECTRIC SERVICE TO COMPLY WITH MEA "COMMERCIAL HANDBOOK" AND "SERVICE ASSEMBLY GUIDE".
4. LOCATION SHOWN FOR ELECTRIC SERVICE ENTRANCE EQUIPMENT IS PROPOSED. ACTUAL ELECTRIC SERVICE LOCATION AND TYPE TO BE DETERMINED AFTER REVIEW BY MEA.
5. AT BOTH ENDS, TRANSITION FROM GRC FEEDER CONDUIT TO LIQUID TIGHT BEFORE 90° BEND TOWARD VERTICAL.
   SEE 1/E4.0 AND 3/E4.0

1/E1.0 ELECTRICAL SITE PLAN
SCALE: 1" = 10'

STATE OF ALASKA
49 TH
George P. Dodge III
EE 10467
5-1-15
REGISTERED PROFESSIONAL ENGINEER

REV.	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	150501

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AWN
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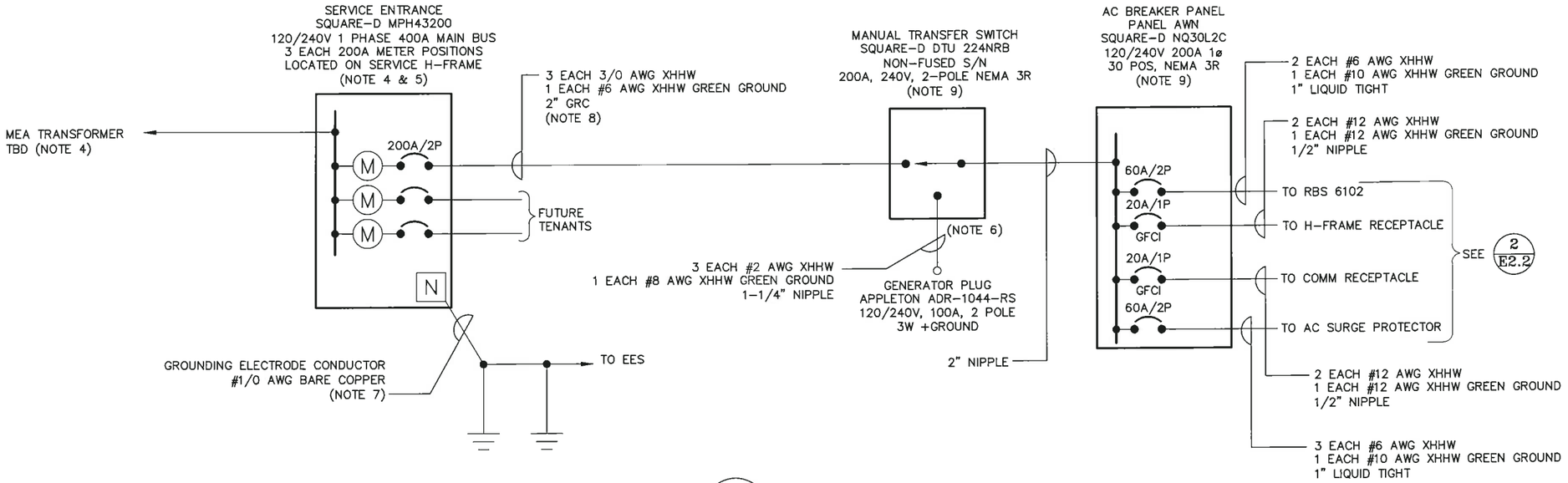
ELECTRICAL
SITE PLAN

DRAWN BY: JAA	DESIGNED BY: WDR
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 12	OF: 20

E1.0

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\E1.0 ELECTRICAL SITE PLAN.DWG | PLOT DATE: 150430 | PLOT SCALE: 1:1



1 / E2.0 AC-ONE LINE DIAGRAM
SCALE: N.T.S.

NOTES:

1. ALL ELECTRICAL WORK TO COMPLY WITH 2011 NEC.
2. ALL CONDUCTORS TO BE COPPER.
3. AIC CALCULATIONS TO BE RE-CALCULATED AFTER MEA DETERMINES ELECTRIC SERVICE.
4. MEA TO DETERMINE SERVICE TYPE.
5. ELECTRIC SERVICE TO COMPLY WITH MEA "COMMERCIAL HANDBOOK" AND "SERVICE ASSEMBLY GUIDE".
6. NEUTRALS NOT TO BE SWITCHED AT MANUAL TRANSFER SWITCH.
7. SERVICE NEUTRAL TO BE CONNECTED TO TWO (2) 5/8"X10' COPPER CLAD GROUND RODS. THESE GROUND RODS TO BE CONNECTED TO THE EARTH ELECTRODE SYSTEM (EES).
8. 3 EACH #3/0 AWG AND #6 AWG GROUND TO BE USED TO CONNECT ALL EQUIPMENT BETWEEN SERVICE ENTRANCE TO THE AC BREAKER PANEL.
9. SEE DWG E2.1 FOR EQUIPMENT PLACEMENT ON PLATFORM.

STATE OF ALASKA
49 TH
George P. Dodge III
EE 10467
5-1-15
REGISTERED PROFESSIONAL ENGINEER

REV.	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	150501

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AWN
NORTON COURT
ONE-LINE
DIAGRAM

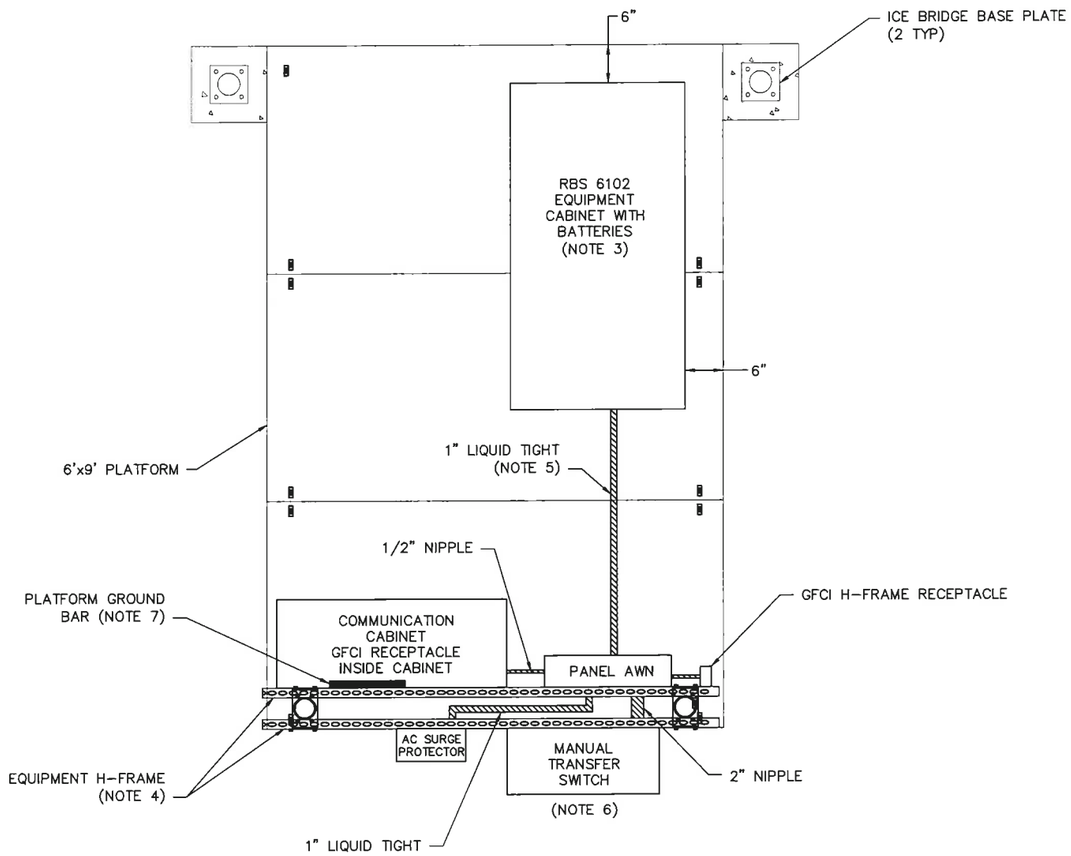
DRAWN BY: JAA	DESIGNED BY: WDR
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 13	OF: 20

E2.0

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\E2.0 AC ONE-LINE DIAGRAM.DWG | PLOT DATE: 1:50430 | PLOT SCALE: 1:1

NOTES:

1. ALL ELECTRICAL WORK TO COMPLY WITH 2011 NEC.
2. ALL CONDUCTORS TO BE COPPER.
3. INSTALL NEW RBS 6102 IN LOCATION SHOWN.
4. SEE E4.0 FOR EQUIPMENT H-FRAME DETAILS.
5. LIQUID TIGHT FROM PANEL AWN TO RBS 6102 TO BE ROUTED UNDER METAL GRATING OF PLATFORM.
6. GENERATOR PLUG IS APPLETON ADR-1044-RS WITH APPLETON J-BOX AJA-510 MOUNTED ON THE BOTTOM OF THE MANUAL TRANSFER SWITCH.
7. INSTALL PLATFORM GROUND BAR (12"x4"x1/4") IN LOCATION SHOWN BELOW COMMUNICATION CABINET.



1 / E2.1 EQUIPMENT PLAN
SCALE: 1/2"=1'-0"

REV.	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	150501

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AWN
NORTON COURT
EQUIPMENT
LAYOUT

DRAWN BY: JAA	DESIGNED BY: WDR
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 14	OF: 20

E2.1

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\E2.1 EQUIPMENT LAYOUT.DWG | PLOT DATE: 150430 | PLOT SCALE: 1:1

Panel: AWN
SQUARE D NQ30L2C

120/240V | 1 ph. | 3W | 60 ~ | 200 A Main Lugs | FED FROM MANUAL TRANSFER SWITCH

Load Description	kVA per leg L1	kVA per leg L2	Brkr	Ckt	Ckt	Brkr	kVA per leg L1	kVA per leg L2	Load Description
AC Surge Suppressor	0.00		60/2	1	2	20/1	0.18		H-Frame Receptacle
		0.00		3	4	20/1		0.18	Comm. Cabinet Recepticle
RBS 6102	3.45		60/2	5	6				
		3.45		7	8				
				9	10				
				11	12				
				13	14				
				15	16				
				17	18				
				19	20				
				21	22				
				23	24				
				25	26				
				27	28				
				29	30				
Totals, per leg	3.45	3.45					0.18	0.18	
L1 total (kVA)	3.63		Total L1 amps		30.25				
L2 total (kVA)	3.63		Total L2 amps		30.25				
Total (kVA)	7.26								

1 / E2.2 PANEL SCHEDULE
SCALE: N.T.S.

REV.	DESCRIPTION	DATE
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PANEL SCHEDULE

DRAWN BY: JAA	DESIGNED BY: WDR
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 15	OF: 20

E2.2

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\E2.2 PANEL SCHEDULE.DWG | PLOT DATE: 150430 | PLOT SCALE: 1:1

NOTES:

1. TO BE RE-CALCULATED AFTER MEA DETERMINES ELECTRIC SERVICE.

1-Phase Fault Current Calculator **Date: 28-Apr-15** **Site:** **AWN Norton Court**

Preliminary

Point to Point Method as described in the Cooper Bussmann Bulletin EPR-1

Assumes infinite primary current available.

At Utility Transformer

Utility Transformer KVA:	100.0	Full Load Amps (FLA):	417	$FLA = \frac{KVA \times 1000}{SV}$
Service Voltage (SV):	240	Multiplier	66.67	$Multiplier = \frac{100}{Transf\ \%Z}$
Transformer Impedance %Z:	1.50	**Short Circuit Amps (Isca):**	**27778**	Isca = FLA x Multiplier

At Service Entrance

Length of Service Cable ft (L):	100	F Factor (L-L)	0.867	$F(L\text{-}L) = \frac{2 \times L \times Isca}{C \times N \times SV}$
# Parallel Phase Conductors (N):	1	Multiplier M (L-L)	0.536	$M(L\text{-}L) = \frac{1}{1 + F(L\text{-}L)}$
Conductor Size:	500	F Factor (L-N)	2.600	$F(L\text{-}N) = \frac{2 \times L \times (1.5 \times Isca)}{C \times N \times (SV/2)}$
Conductor Material (AL or CU):	CU	Multiplier M (L-N)	0.278	$M(L\text{-}N) = \frac{1}{1 + F(L\text{-}N)}$
Metal Conduit (Y or N):	N	**Short Circuit Amps (L-L):**	**14880**	Isca (L-L) = Isca x M (L-L)
C Value:	26706	**Short Circuit Amps (L-N):**	**11573**	Isca (L-N) = (Isca x 1.5) x M (L-N)

1 / E2.3 AIC CALCULATIIONS
SCALE: N.T.S.

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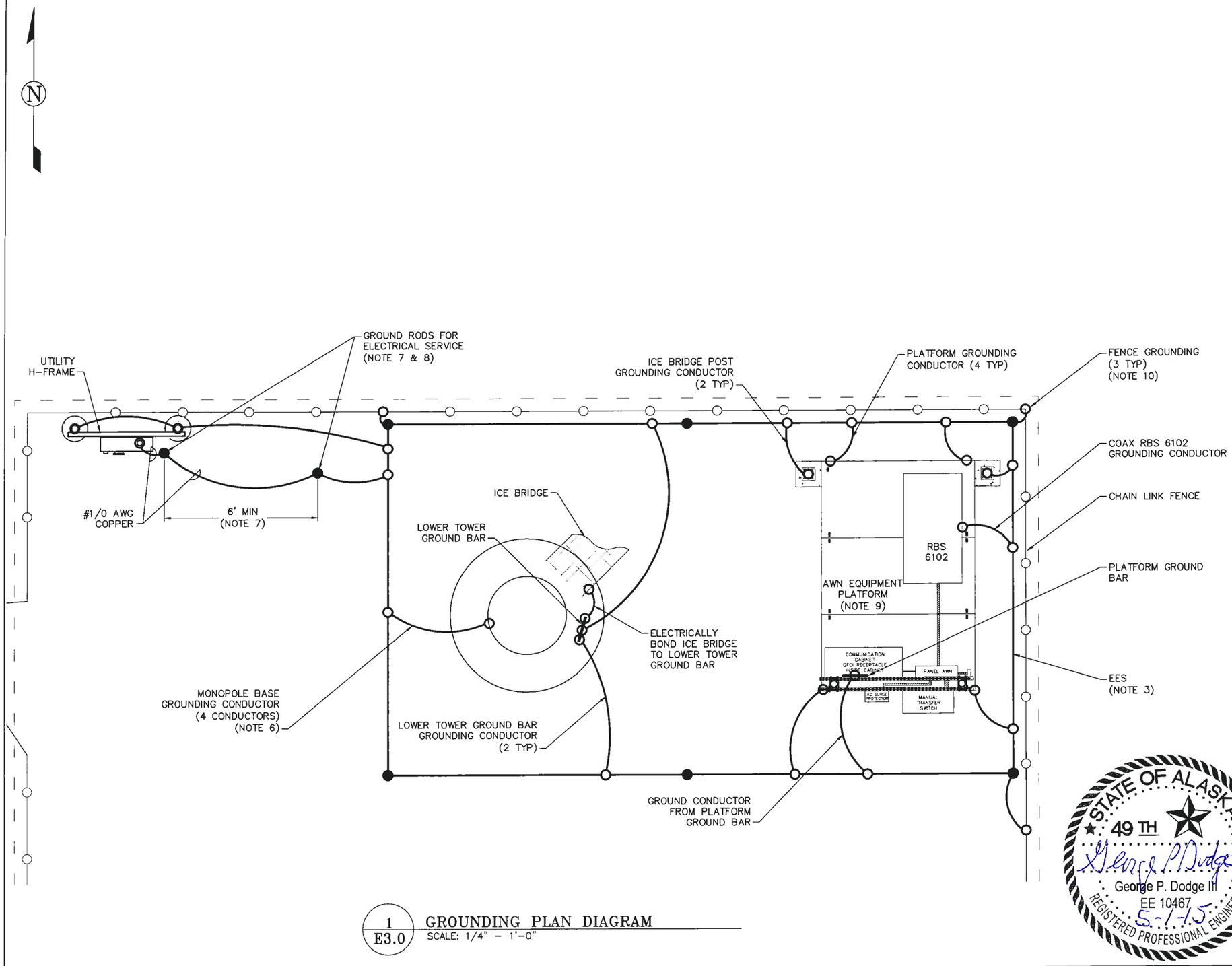
NORTON COURT
AIC
CALCULATIONS

DRAWN BY: JAA	DESIGNED BY: WDR
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 16	OF: 20

E2.3

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\E2.3 AIC CALCULATIONS.DWG | PLOT DATE: 150430 | PLOT SCALE: 1:1



1 / E3.0 GROUNDING PLAN DIAGRAM
SCALE: 1/4" – 1'–0"

LEGEND:

- GROUND RODS (5/8"x10' COPPER CLAD)
- CONNECTION (EXOTHERMIC OR MECHANICAL)
- GROUND BAR
- FENCE POST

NOTES:

1. SEE SPRINT NETWORK PRACTICES SNP312–201 "EXTERIOR GROUNDING SYSTEM DESIGN FOR DETAILS".
2. GROUND RODS TO BE 5/8"X10' COPPER CLAD, DRIVEN AS VERTICALLY AS POSSIBLE WITH THE TOP OF THE GROUND ROD A MINIMUM OF 12" BELOW GRADE.
3. THE EARTH ELECTRODE SYSTEM (EES) CONDUCTORS TO BE A MINIMUM OF #2 AWG, SOLID TINNED COPPER (UNLESS OTHERWISE NOTED), AND BURIED A MINIMUM OF 30" BELOW GRADE.
4. ALL BELOW GRADE CONNECTIONS TO THE EES TO BE CAD WELDED.
5. ALL GROUNDING CONDUCTORS TO BE #2 AWG SOLID TINNED COPPER UNLESS NOTED OTHERWISE.
6. PER SNP 312–201 MONOPOLE BASE TO BE GROUNDED IN FOUR (4) LOCATIONS.
7. GROUND RODS FOR ELECTRIC SERVICE TO BE SPACED A MINIMUM OF 6' APART.
8. GROUND RODS AND CONNECTING CONDUCTOR FOR ELECTRIC SERVICE TO REMAIN UNCOVERED UNTIL INSPECTED BY MEA.
9. METAL GRATING, H–FRAME AND ICE BRIDGE TO BE ELECTRICALLY BONDED TO PLATFORM GROUND CONDUCTORS.
10. GROUND FENCE POSTS TO EES AT THE THREE LOCATIONS SHOWN.

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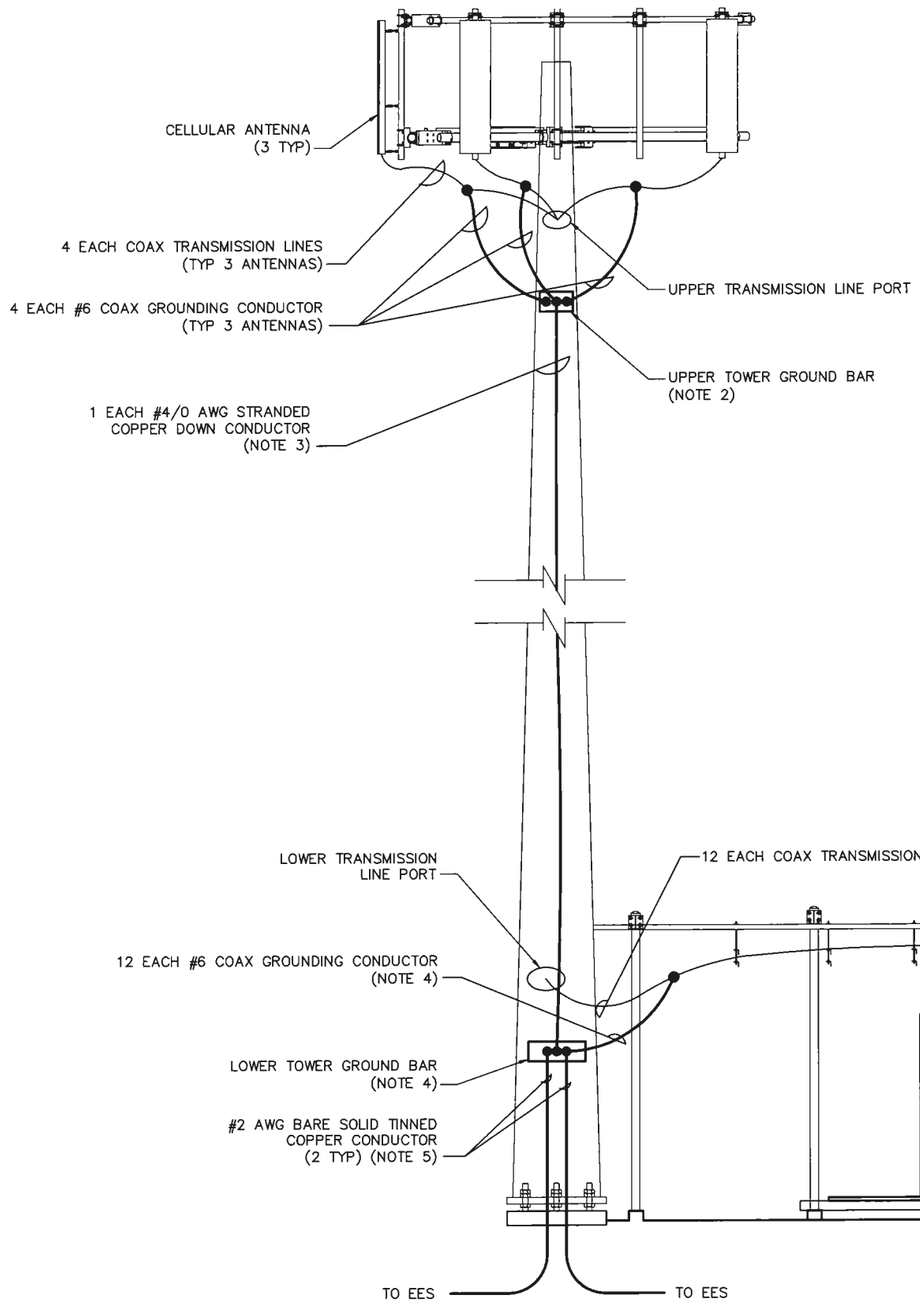
GROUNDING PLAN

DRAWN BY: JAA	DESIGNED BY: WDR
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 17	OF: 20

E3.0

FILE: X:\1.5 JOBS\1.5-0082-20 GCI NORTON'S COURT CD\CADD\E3.0 GROUNDING PLAN.DWG | PLOT DATE: 150430 | PLOT SCALE: 1:1



1 / E3.1 COAX GROUNDING DETAIL
SCALE: NTS

NOTES:

1. SEE SPRINT NETWORK PRACTICES SNP312-201 "EXTERIOR GROUNDING SYSTEM DESIGN" FOR DETAILS.
2. BOND TOP OF EACH COAX TRANSMISSION LINE TO THE UPPER TOWER GROUND BAR WITH APPROVED COAX GROUNDING KIT.
3. CONNECT THE UPPER TOWER GROUND BAR TO THE LOWER TOWER GROUND BAR WITH #4/0 AWG STRANDED COPPER CONDUCTOR.
4. BOND EACH COAX TRANSMISSION LINE AT THE 90° TURN TO THE LOWER TOWER GROUND BAR WITH APPROVED COAX GROUNDING KIT.
5. BOND THE LOWER TOWER GROUND BAR TO THE SITE EARTH ELECTRODE SYSTEM (EES) AT TWO LOCATIONS USING #2 AWG BARE SOLID TINNED COPPER CONDUCTOR. SEE DWG E3.0
6. GROUND EACH COAX TRANSMISSION LINE TO THE EES BEFORE ENTERING THE RBS 6102.

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AWN
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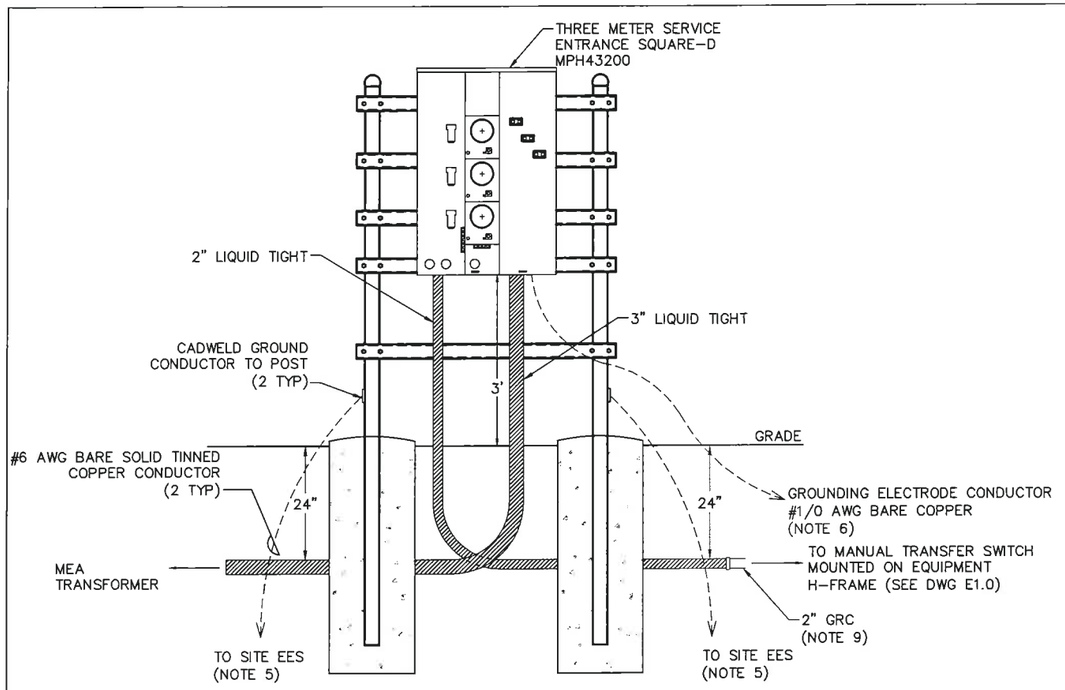
ANTENNA COAX GROUNDING DETAIL

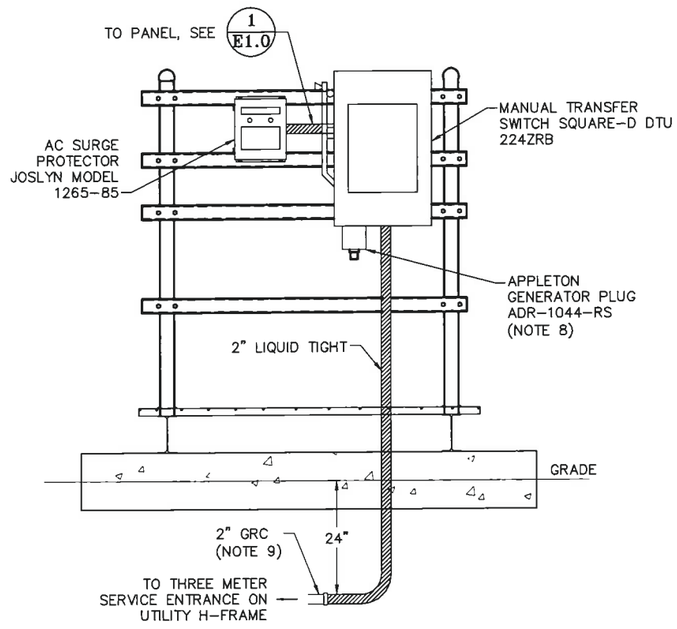
DRAWN BY: JAA	DESIGNED BY: WDR
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 18	OF: 20

E3.1

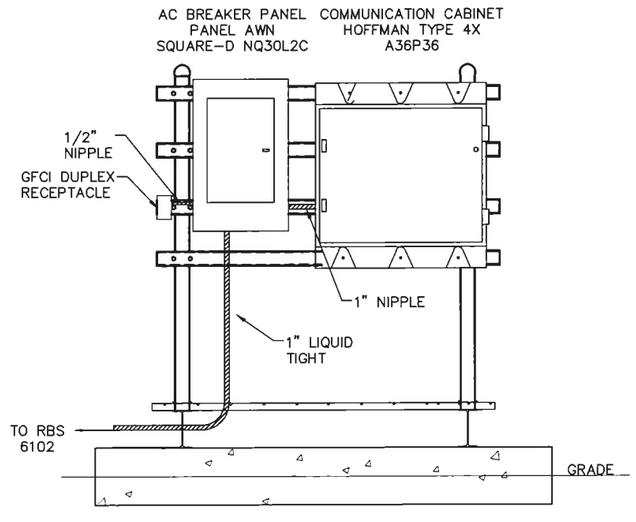
FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\E3.1 ANTENNA COAX GROUNDING DETAIL.DWG | PLOT DATE: 150430 | PLOT SCALE: 1:1



1/E4.0 UTILITY H-FRAME
SCALE: 3/8"=1'-0"



3/E4.0 EQUIPMENT H-FRAME
SCALE: 3/8"=1'-0"



2/E4.0 EQUIPMENT H-FRAME
SCALE: 3/8"=1'-0"

NOTES:

1. ALL ELECTRICAL WORK TO COMPLY WITH 2011 NEC.
2. ALL CONDUCTORS TO BE COPPER.
3. 3-GANG ELECTRIC METER. SUPPLIED BY CONTRACTOR AND TO BE PRE-APPROVED BY GVEA.
4. SEE DRAWING S2.0 FOR H-FRAME CONSTRUCTION DETAILS.
5. UTILITY H-FRAME POST GROUND CONDUCTORS TO BE CONNECTED TO THE SITE EARTH ELECTRODE SYSTEM (EES).
6. GROUND ELECTRODE CONDUCTOR TO BE CONNECTED TO TWO (2) 5/8"X10' COPPER CLAD GROUND RODS SPACED A MINIMUM OF 6' APART.
7. THESE GROUND RODS TO BE CONNECTED TO THE EES WITH #1/0 AWG BARE COPPER CONDUCTOR.
8. GENERATOR PLUG TO BE INSTALLED WITH APPLETON ADR-1044-RS WITH APPLETON J-BOX AJA510 IN LOCATION AS SHOWN.
9. TRANSITION FROM LIQUID TIGHT TO GRC AFTER 90° TURN. BURY GRC MINIMUM 24" BELOW GRADE.

STATE OF ALASKA 49 TH
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EE 10467
5-1-15
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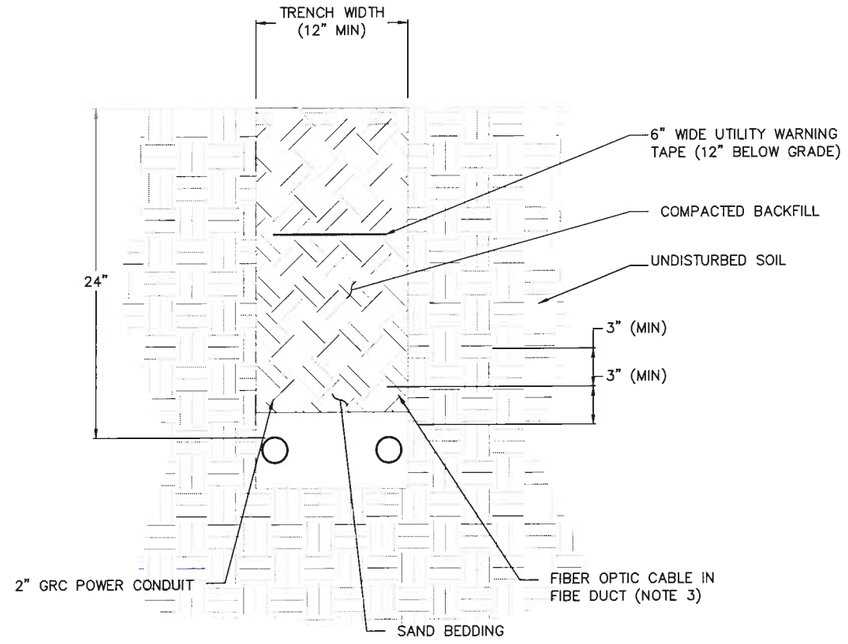
AWN
NORTON COURT
H-FRAME
DETAILS

DRAWN BY: JAA	DESIGNED BY: WDR
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 19	OF: 20

E4.0

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\E4.0 H-FRAME DETAIL.DWG | PLOT DATE: 150430 | PLOT SCALE: 1:1



1 / E4.1 TRENCHING DETAIL
SCALE: 1"=1'-0"

NOTES:

1. GRC POWER CONDUIT BETWEEN THE SERVICE ENTRANCE AND THE TRANSFER SWITCH LOCATED AT THE PLATFORM.
2. LOCATE ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. TYPE AND SIZE OF FIBER DUCT TO BE SPECIFIED BY AWN.

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TRENCHING
DETAIL

DRAWN BY: JAA	DESIGNED BY: WDR
JOB #: 15-0082-20	SCALE: AS SHOWN
SHEET: 20	OF: 20

E4.1

FILE: X:\15 JOBS\15-0082-20 GCI NORTON'S COURT CD\CADD\E4.1 TRENCHING DETAIL.DWG | PLOT DATE: 150430 | PLOT SCALE: 1:1