



10740 NALL AVE,
SUITE 400
OVERLAND PARK, KS 66211
PHONE: 913-344-2800

KCYC LEES SUMMIT C-BAND - CARRIER ADD

900 SW BLUE PKWY
LEES SUMMIT, MO 64063

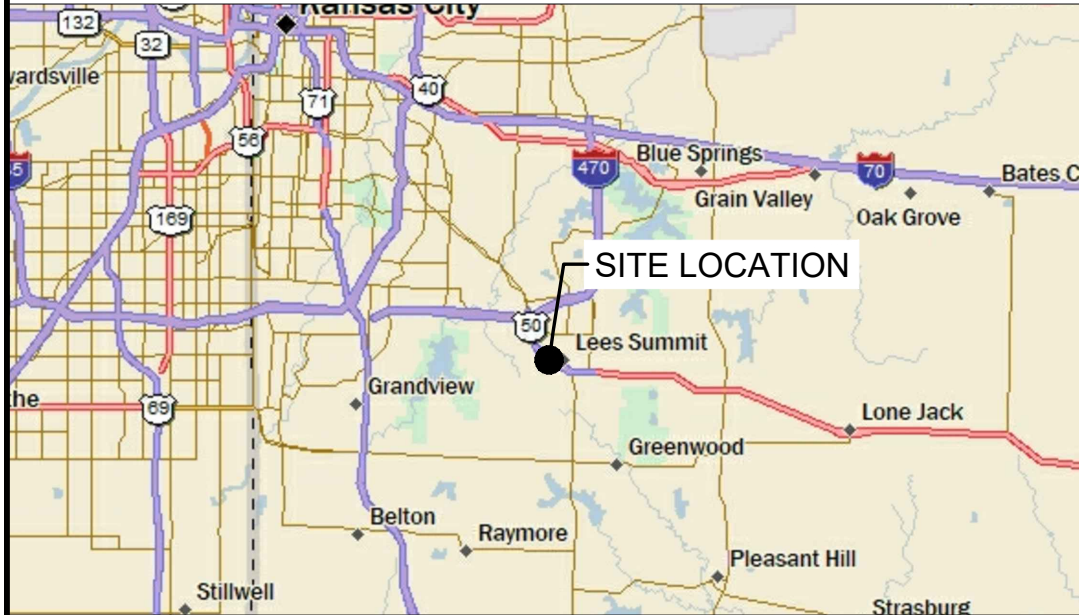
PROJECT TEAM

A&E CONSULTANT: TERRA CONSULTING GROUP, LTD
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PHONE: (847) 698-6400
FAX: (847) 698-6401

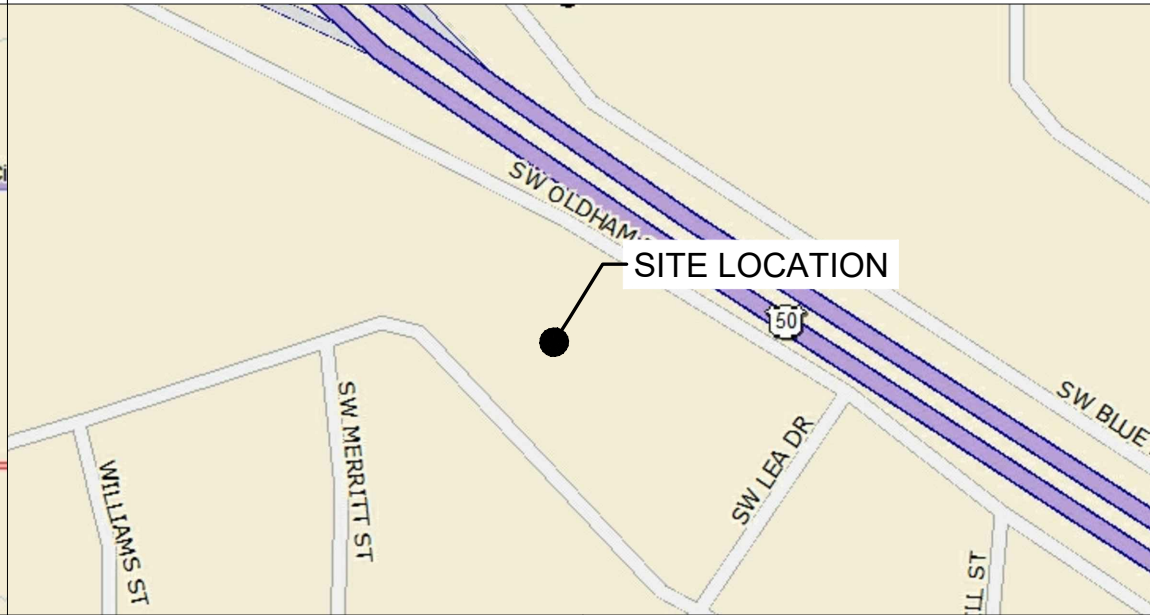
SITE ACQUISITION: FAULK & FOSTER
POC: SHARLA BATES
(816) 678-2184

STRUCTURAL: PROVIDED BY TOWER OWNER

REGIONAL MAP



VICINITY MAP



PROJECT INFORMATION

PROJECT DESCRIPTION: C-BAND - CARRIER ADD

SITE NAME: KCYC LEES SUMMIT

LOCATION #: 140684

VERIZON PROJECT #: 20202201695

FUZE PROJECT ID: 16248298

SITE ADDRESS: 900 SW BLUE PKWY
LEES SUMMIT, MO 64063

TOWER OWNER: ATC
SITE NAME: LEE'S SUMMIT 2
SITE #: 209106
FCC ASR#: 1280041

APPLICANT: VERIZON WIRELESS
10740 NALL AVE, SUITE 400
OVERLAND PARK, KS 66211
(913) 344-2896

POWER COMPANY: EVERGY
RON DEJARNETTE (816) 810-5234
ACCT#: 9035668338

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT <https://pmi.vzwsmart.com>

SMART TOOL VENDOR PROJECT NUMBER 10023391

VZW LOCATION CODE (PSLC) 140684

FUZE ID 16248298

*** PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

MOUNT MODIFICATION REQUIRED

Y

VZW APPROVED SMART KIT VENDORS

REFER TO MOUNT MODIFICATION DRAWINGS PAGE FOR VZW SMART KIT
APPROVED VENDORS

SCOPE OF WORK

- ADD L-SUB6 5G
- INSTALL 4449 AND 8843 ON THE TOWER.
- REMOVE EXISTING 4449 INSIDE THE SHELTER.
- UPGRADE ANTENNAS

TOWER INFORMATION

LATITUDE: 38° 54' 36.63" N

LONGITUDE: 94° 23' 28.47" W

GROUND ELEVATION: 1017 FT A.M.S.L.

OVERALL STRUCTURE HEIGHT: 154 FT ± A.G.L.

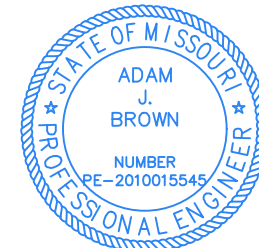
TOWER HEIGHT: 150 FT ± A.G.L.

VZW CL HEIGHT: 150 FT A.G.L.

VERIZON WIRELESS DEPARTMENTAL APPROVALS

	INITIALS:	DATE:
RF ENGINEER	CF	12/28/20
TRANSPORT ENGINEER		
OPERATIONS MANAGER		
CONSTRUCTION ENGINEER	BW	12/29/20
CONSTRUCTION MANAGER		
REAL ESTATE MANAGER	SK	1/26/21

PROFESSIONAL ENGINEER'S STAMP



09/01/21

LESSOR / LICENSOR APPROVAL

PRINTED NAME: _____ SIGNATURE: _____ DATE: _____

☐ NO CHANGES

☐ CHANGES REQUESTED, SEE
COMMENTS ON PLANS

SHEET INDEX

SHEET	DESCRIPTION	REV.
T-1	TITLE SHEET	0
C-1	SITE LAYOUT	0
ANT-1	SITE ELEVATION	0
ANT-2	ANTENNA KEYS & LAYOUT	0
ANT-3	SECTOR PLAN & ELEVATION DETAILS	0
ANT-4	COAX ENTRY PANEL & PARTS LIST	0
ANT-5	ANTENNA PLUMBING DIAGRAM	0
ANT-6	SITE DETAILS	0
E-1	ELECTRICAL SITE PLAN	0
E-1A	ELECTRICAL FLOOR PLAN	0
E-1B	SITE GROUNDING PLAN	0
E-2	ONE LINE DEMOLITION	0
E-3	ONE LINE DIAGRAM & PANEL LAYOUT	0
E-4	ELECTRICAL NOTES	0
N-1	GENERAL NOTES & SITE PHOTOS	0
N-2	SITE PHOTOS	0

MOUNT MODIFICATION DESIGN BY OTHERS

T-1	TITLE SHEET	-
S-1	BILL OF MATERIALS	-
S-2	MODIFICATION NOTES	-
S-3	MODIFICATION NOTES	-
S-4	MODIFICATION DETAILS	-
S-5	MODIFICATION DETAILS	-
S-6	MOUNT PHOTOS	-
-	SPECIFICATION SHEETS	-



NO.	DESCRIPTION	DATE	BY
A	ISSUED FOR REVIEW	12/17/20	JGL
B	POWER UPGRADE	08/17/21	BE
0	ISSUED FOR CONSTRUCTION	09/01/21	BE

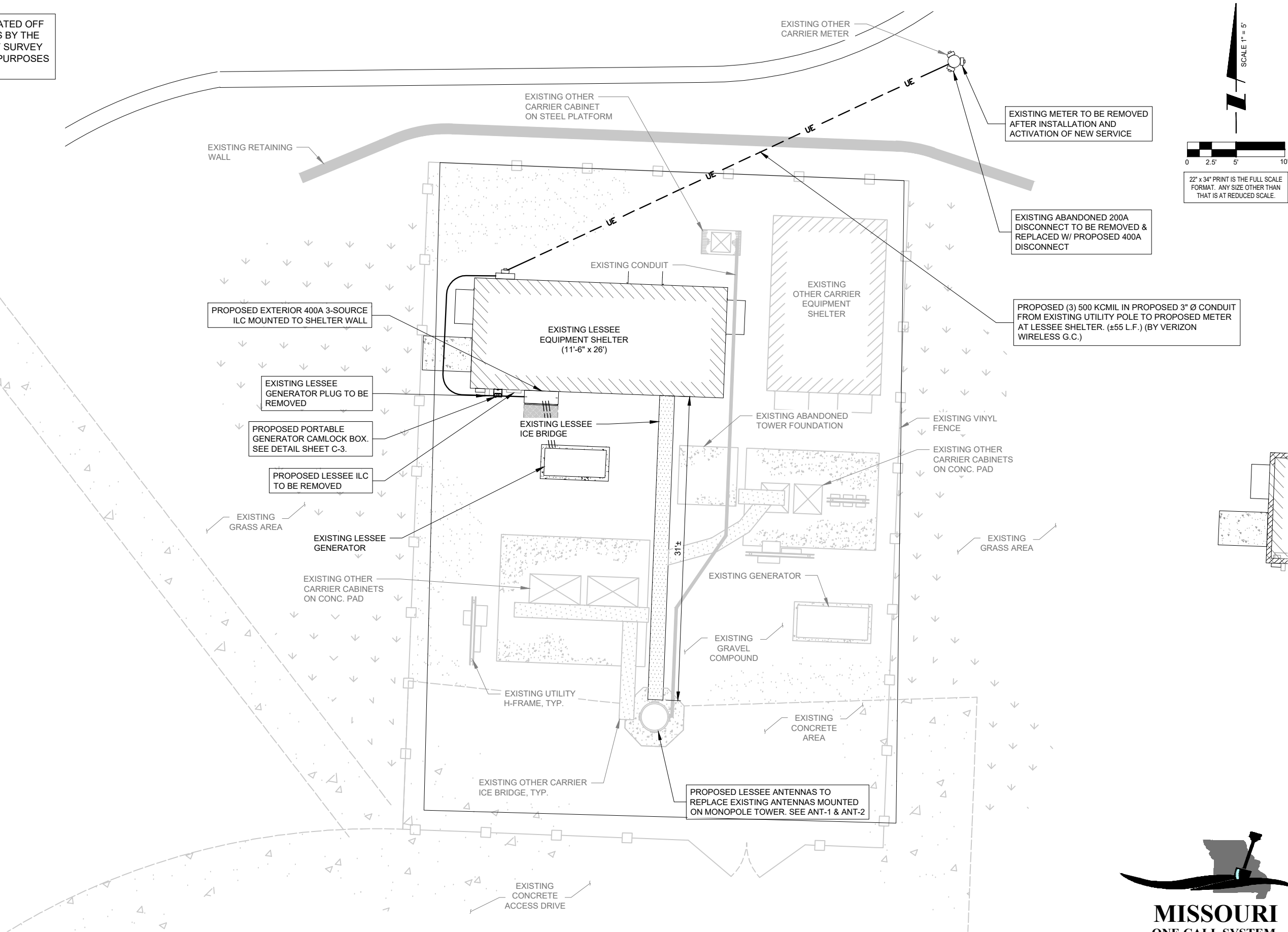
LOC# 140684
KCYC
LEES SUMMIT
900 SW BLUE PKWY
LEES SUMMIT, MO 64063

DRAWN BY: JGL
CHECKED BY: AJB
DATE: 12/17/20
PROJECT #: 54-1356

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

THIS SITE PLAN WAS CREATED OFF OF FIELD MEASUREMENTS BY THE DESIGNER. AS BOUNDARY SURVEY WAS NOT SUPPLIED FOR PURPOSES OF SITE LAYOUT.



1 SITE LAYOUT
SCALE: 1" = 5'

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TOLL FREE

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10740 NALL AVE, SUITE 400
OVERLAND PARK, KS 66211

TERRA
CONSULTING GROUP, LTD.
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

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KCYC
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900 SW BLUE PKWY
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DRAWN BY:	JGL
CHECKED BY:	AJB
DATE:	12/17/20
PROJECT #:	54-1356

SHEET TITLE
SITE LAYOUT

SHEET NUMBER
C-1

- UTILITY NOTES:
- WORK INCLUDES:
- THESE NOTES AND ACCOMPANYING DRAWINGS COMPLEMENT THE PROVISIONS AND INSTALLATIONS BY THE ELECTRICAL CONTRACTOR, OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE ELECTRICAL WORK COMPLETE IN CONNECTION WITH THIS VERIZON WIRELESS SITE AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
1. THE PROVISIONS, INSTALLATION, AND CONNECTION OF A GROUNDING ELECTRODE SYSTEM COMPLETE WITH A BUILDING AND SECONDARY GROUNDING, CELLULAR TELEPHONE COMMUNICATIONS TOWER AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
 2. THE PROVISION AND INSTALLATION OF AN OVERHEAD ELECTRICAL SERVICE OR UNDERGROUND ELECTRICAL SERVICE AND ALL ASSOCIATED WIRE AND CONDUIT AS REQUIRED AND/OR INDICATED ON PLANS.
 3. THE PROVISION, INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL TELEPHONE SERVICE.
 4. THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUCTORS, CONDUITS, METER SOCKET, AND CONNECTIONS TO THE SERVICE EQUIPMENT WITHIN THE ENCLOSURE.
 5. TWO INCH (2") AND THREE INCH (3") DIAMETER PVC CONDUITS SCHEDULE 40.
 6. ALL PVC CONDUITS SHOULD BE LEFT WITH NYLON PULL CORD FOR FUTURE USE.
 7. EXCAVATION, TRENCHING, AND BACKFILLING FOR CONDUIT(S), CABLE(S), AND EXTERNAL GROUNDING SYSTEM.

- CODES, PERMITS, AND FEES:
1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
 2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL, AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE VARIOUS APPLICABLE STANDARD SPECIFICATIONS OF THE FOLLOWING AUTHORITIES:

N.E.C.	NATIONAL ELECTRIC CODE
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E.	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
U.L.	UNDERWRITERS LABORATORIES, INC.
N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION

- RACEWAYS AND WIRING:
1. WIRING OF EVERY KIND MUST BE INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ENGINEER.
 2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
 3. RACEWAYS SHALL BE GALVANIZED STEEL, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, UNLESS OTHERWISE NOTED. ALL RACEWAYS SHALL BE APPROVED FOR THE INSTALLATION.
 4. PULL OR JUNCTION BOXES SHALL BE PROVIDED AS REQUIRED TO FACILITATE INSTALLATION OF RACEWAYS AND WIRING. PROVIDE JUNCTION AND PULLBOXES FOR CONDUIT RUNS WITH MORE THAN (360) DEGREES OF BENDS.
 5. PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
 6. ELECTRICAL PANELBOARD TO BE FURNISHED BY VERIZON WIRELESS AND INSTALLED BY THE GENERAL CONTRACTOR/ELECTRICAL CONTRACTOR.
 7. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUNDING BUSHING.

GENERAL NOTES:

SEE DETAILS AND SCHEDULES ON DRAWINGS AND SPECIFICATIONS FOR MEANING OF ABBREVIATIONS AND ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO ENGINEER BEFORE SUBMITTING BID. ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WIRE DIAGRAM AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

COORDINATION WITH UTILITY COMPANY:

THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM, INCLUDING TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, IF REQUIRED, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY SERVICE, ETC. PRIOR TO SUBMITTING BID TO INCLUDE ALL LABOR AND MATERIALS. THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID ANY OPTIONAL OR EXCESS FACILITY CHARGES ASSOCIATED WITH PROVIDING ELECTRICAL SERVICE FROM LOCAL UTILITY COMPANY. VERIFY BEFORE BIDDING TO INCLUDE ALL COSTS. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVER CURRENT PROTECTION DEVICES IN DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM LOCAL UTILITY COMPANY. ALL GROUNDING RODS PROVIDED BY THE POWER OR TELEPHONE UTILITY COMPANIES MUST BE TIED INTO THE MAIN EXTERNAL GROUND RING.

ELECTRICAL CONTRACTOR SHALL COORDINATE WITH POWER COMPANY FOR ENTRY INTO FENCED AREA BY EITHER MAILING A KEY TO A SLAVE LOCKED CHAIN AT THE FENCE GATE OR CALLING AND LEAVING A COMBINATION.

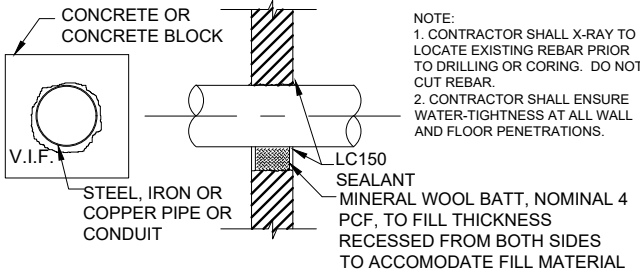
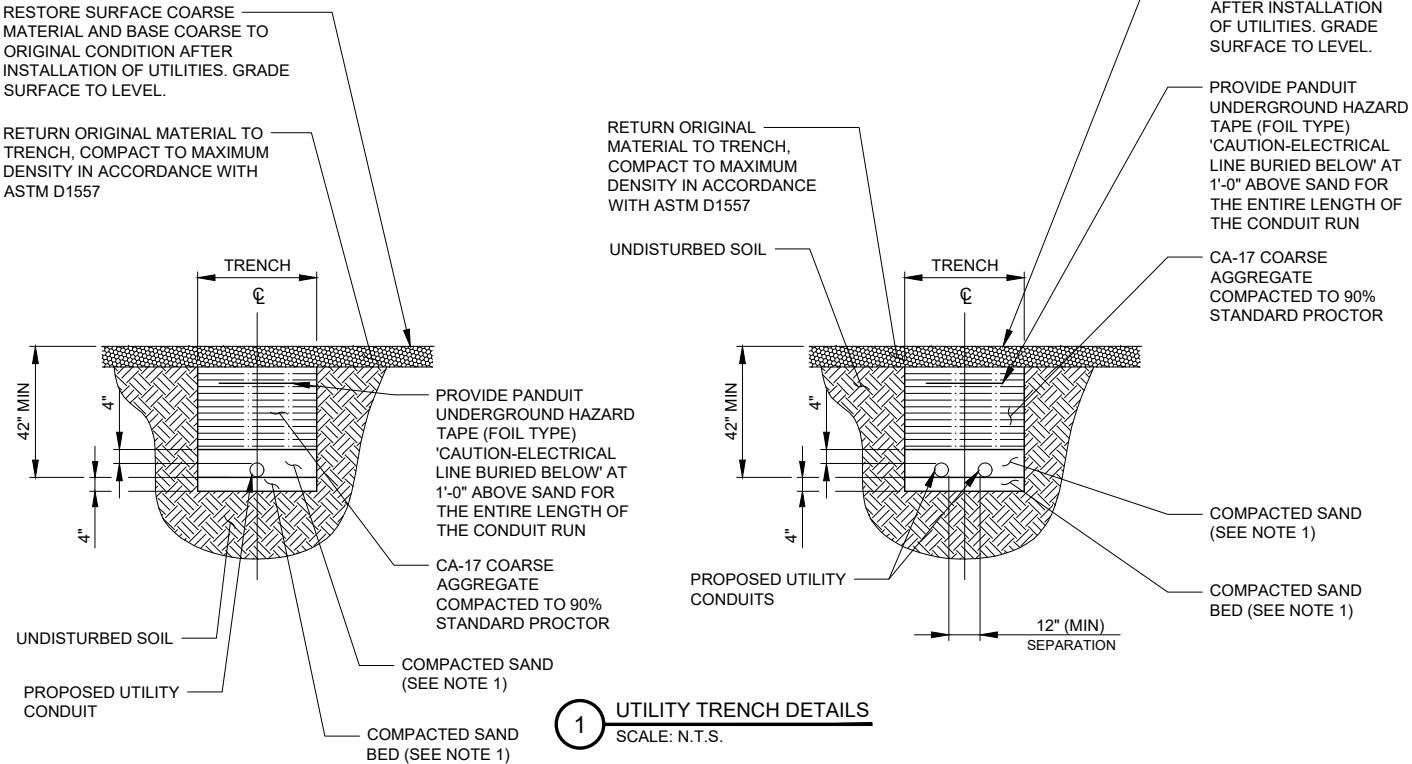
FOR CONTINUATION AND CONNECTION OF ELECTRIC AND FIBER SERVICE. COORDINATE WITH ELECTRIC AND FIBER COMPANY.



MISSOURI
ONE CALL SYSTEM

CALL BEFORE YOU
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1-800-344-7483
TOLL FREE

- NOTES:
1. LEAN CONCRETE, RED-COLORED TOP, MAY BE USED IN PLACE OF COMPACTED SAND.
 2. BURY CONDUITS 42" BELOW GRADE OR 6" BELOW FROST LINE, WHICHEVER IS GREATER
 3. CONDUIT SIZE, TYPE, QUANTITY AND SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS



PENETRANT	MAXIMUM TRADE SIZE (IN.)	SEALANT DEPTH (IN.)	MINERAL WOOL (IN.)	ANNULUS (IN.)	
				MINIMUM	MAXIMUM
STEEL OR IRON	24	1/2	3	POINT CONTACT	2
STEEL OR IRON	4	1	NONE REQ'D	POINT CONTACT	1-1/2
COPPER	4	1/2	3	POINT CONTACT	2

- 2 UL C-AJ-1213 FIRE STOP DETAIL (FOR ALL PENETRATIONS)
SCALE: N.T.S.

verizon
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NO.	DESCRIPTION	DATE	BY	JGL	BE				
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B	POWER UP GRADE	08/17/21							
0	ISSUED FOR CONSTRUCTION	09/01/21							

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LEES SUMMIT

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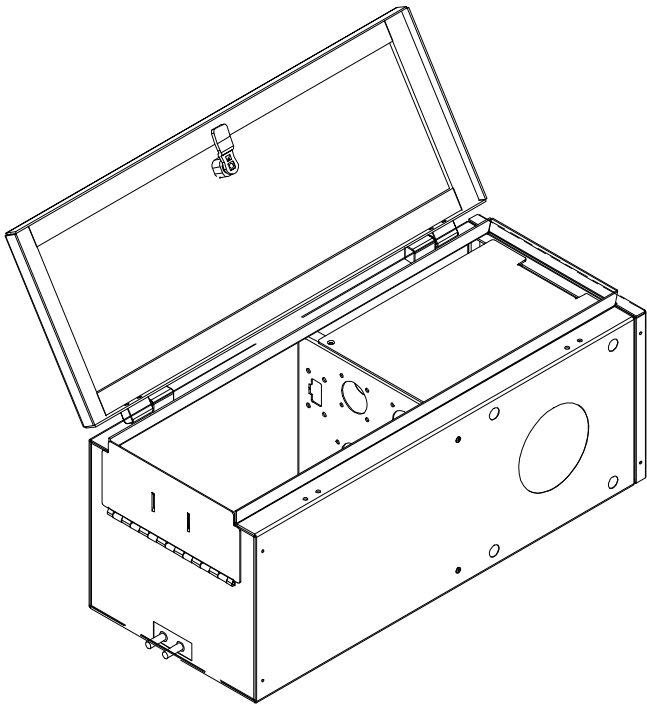
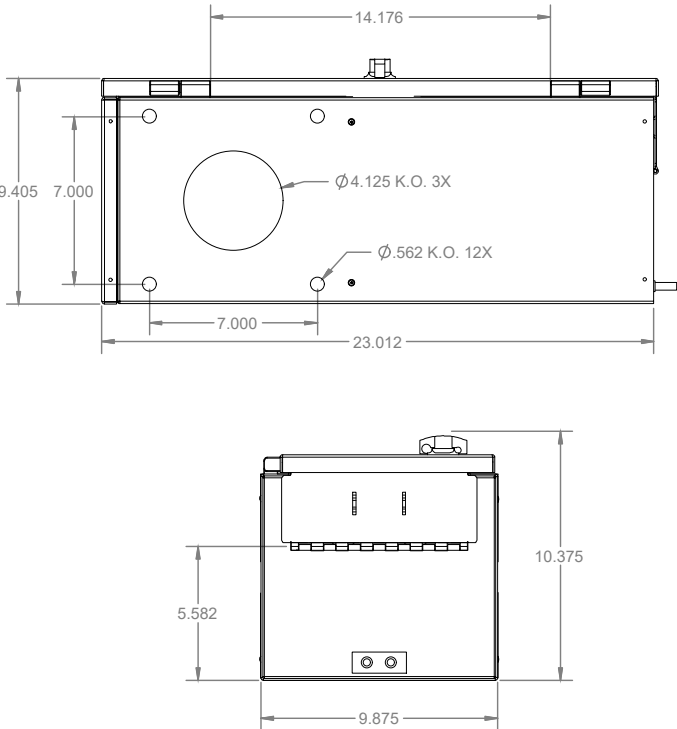
PROJECT #: 54-1356

SHEET TITLE

SITE
DETAILS

SHEET NUMBER

C-2



1 CAM-LOK DETAIL
SCALE: N.T.S.

SERIES NUMBER	PRODUCT CONFIGURATION*
ICGC-1P-400	1Ø, L1, L2, N, AND G
ICGC-1P-400-CBL	1Ø, L1, L2, N, AND G WITH DEUTSCH CONNECTOR AND 20' CBL
ICGC-3P-400	3Ø, L1, L2, N, AND G
ICGC-3P-400-CBL	3Ø, L1, L2, N, AND G WITH DEUTSCH CONNECTOR AND 20' CBL
ACCESSORIES	
ICGC-CBL	1Ø OR 3Ø DEUTSCH CONNECTOR AND 20' CABLE ASSEMBLY
ICGC-MB	MOUNTING BOX FOR USE WITH 1Ø OR 3Ø ICGC ENCLOSURES
400LKB-1P	400A LUG KIT BURNDY (8 LUGS) 3/0 CU 1-HOLD SHORT LUGS
400LKB-3P	400A LUG KIT BURNDY (10 LUGS) 3/0 CU 1-HOLD SHORT LUGS
400LKP-1P	400A LUG KIT PANDUIT (8 LUGS) 3/0 CU 1-HOLD SHORT LUGS
400LKP-3P	400A LUG KIT PANDUIT (10 LUGS) 3/0 CU 1-HOLD SHORT LUGS

*ALL PARTS LISTED INCLUDE MALE CAM LOK-STYLE CONNECTORS. UNITS ARE UL 1008 TRANSFER SWITCH POWER INLET STANDARD RATED FOR USE ON 120/240 OR 120/208 V UP TO 400 AMP INSTALLATIONS.

General Data

Enclosure dimensions (H x W x D)

23 x 10 x 9.5 inches

Weight

14 lbs (approx.)

Enclosure

- UL Type 3R aluminum enclosure
- Uses die-cast pin hinges, black powder coated
- Dead front panel protects utility gen set wiring connections (Fig 1)
- Gasket provided to help insure water-tight seal
- Flush mount weld
- Bottom closure employs an integrated hinge for integrity, strength and durability while keeping bugs and critters out when gen set is not connected (Fig 2)
- Bottom closure hinges open to provide 7.25" W x 3"D opening for cable conductors
- Cable management system is a bridge lance for plastic zip ties
- Optional Deutsch connector is connected via an "O ring" to base

Powder coat paint

UL RAL 7035 - Lilght grey

Door

- Pad lockable
- Ships with left opening; may open to the right by moving hinges to the opposite side of cabinet (Fig 3)

UL

- UL 1008, 5th ed, or current
- Single phase, rated 240/120, 400 A, 10 kA short circuit
- Three phase, rated 208/120, 400 amps, 10 kA short circuit

Manufacturer's warranty

5 years

Cam Lok-Style Connectors

Type

Male

Electrical

- UL Listed Cam Lok-style, 180° twist on/off single-pole receptacles
- Conforms to NEC
- Rated up to 400 A, 208/120 V
- May be used for 240/120 single phase applications
- CamLok terminal acceptance 400 A
 - Single hole lugs suitable for 3/0 AWG copper per CamLok Listing
 - Two crimped 3/0 AWG copper wires per terminal
 - UL Listed lugs (Fig 4, kits available as Accessories)

Power connectors

- Solid brass machined connectors
- Color coded:
 - Green— Ground
 - White—Neutral
 - Black — Line 1
 - Red— Line 2
 - Blue—Line 3

Intersect, Inc.

verizon
10740 NALL AVE, SUITE 400
OVERLAND PARK, KS 66211

TERRA
CONSULTING GROUP, LTD.
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PH: 847-698-6400
FAX: 847-698-6401

REVISONS		BY	DATE	DESCRIPTION	NO.
		JGL	12/17/20	ISSUED FOR REVIEW	A
		BE	08/17/21	POWER UP GRADE	B
		BE	09/01/21	ISSUED FOR CONSTRUCTION	0

LOC# 140684

KCYC
LEES SUMMIT

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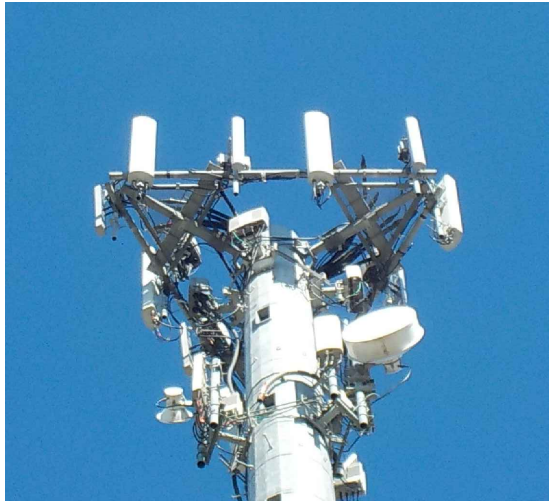
DRAWN BY:	JGL
CHECKED BY:	AJB
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PROJECT #:	54-1356

SHEET TITLE

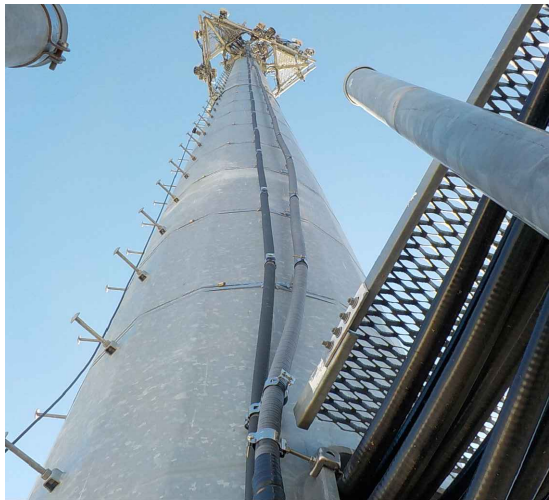
SITE
DETAILS

SHEET NUMBER

C-3



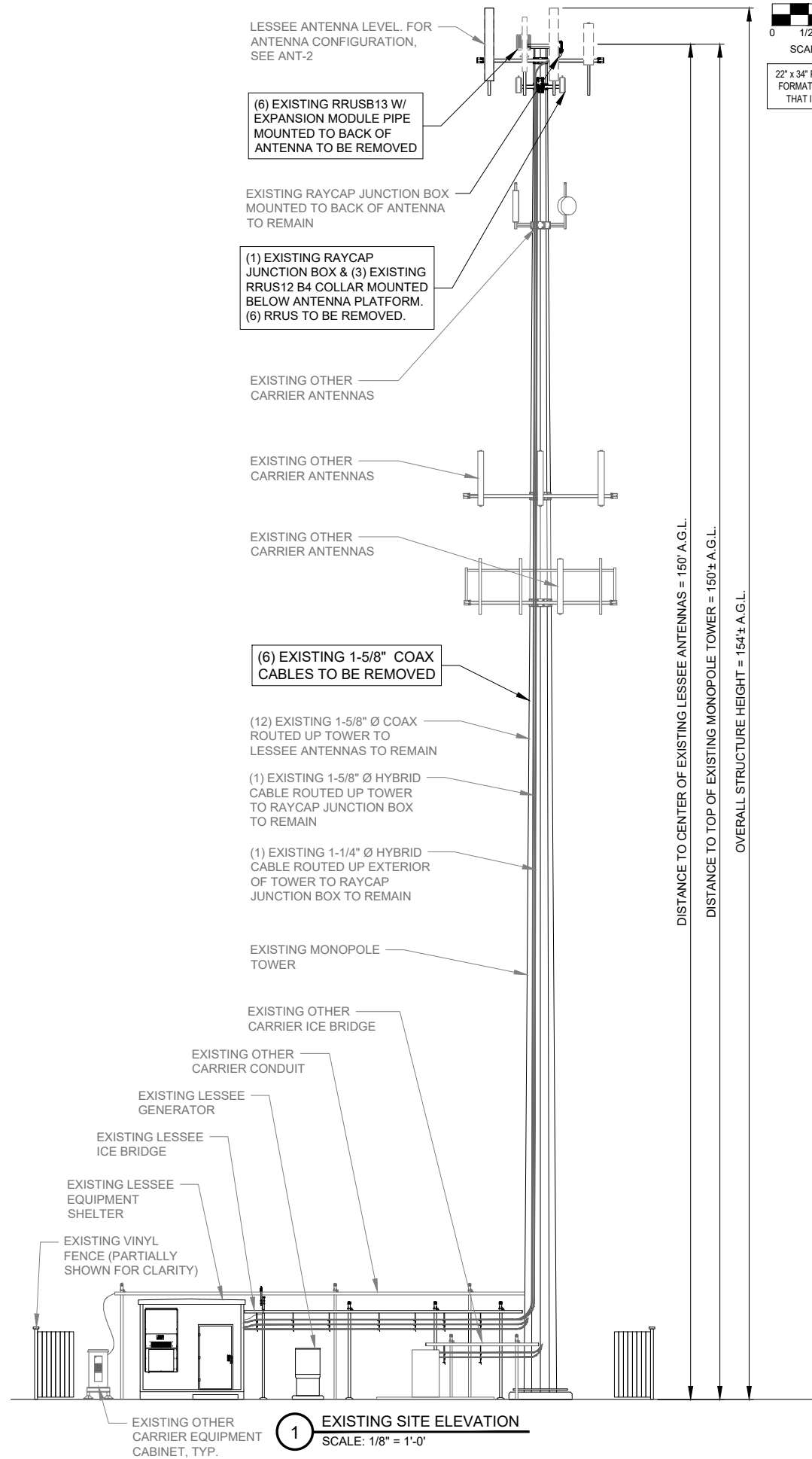
3 TYPICAL LESSEE ANTENNA SECTOR



4 LESSEE COAX ROUTE ON TOWER

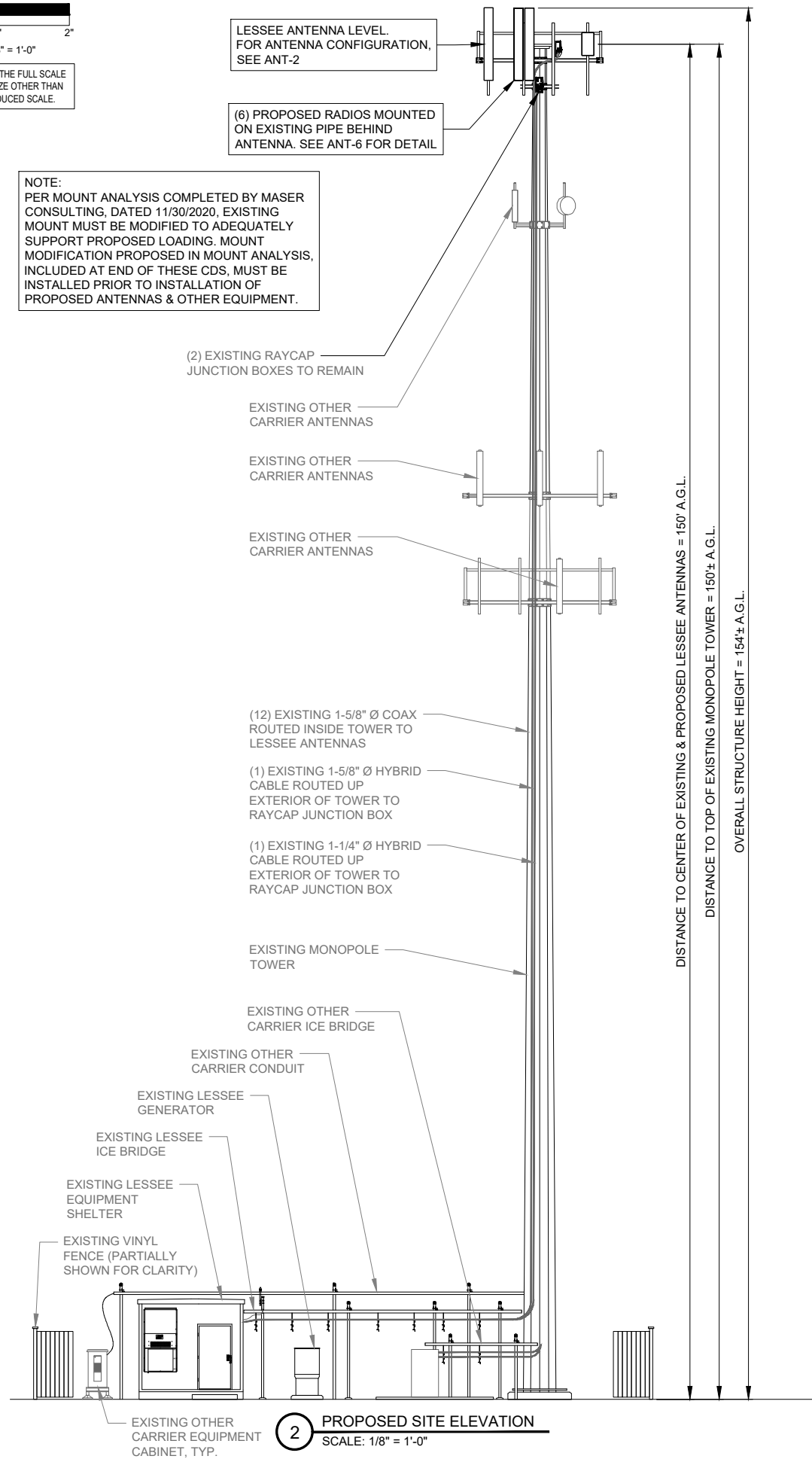
NOTES

1. THIS DRAWING IS FOR EXHIBIT AND LAYOUT PURPOSES ONLY.
2. REFER TO PASSING STRUCTURAL ANALYSIS BY TOWER OWNER.
3. REFER TO MOUNT MODIFICATION DESIGN ATTACHED TO THIS SET.



0 1/2" 1" 2"
SCALE: 1/8" = 1'-0"
22" x 34" PRINT IS THE FULL SCALE
FORMAT. ANY SIZE OTHER THAN
THAT IS AT REDUCED SCALE.

NOTE:
PER MOUNT ANALYSIS COMPLETED BY MASER
CONSULTING, DATED 11/30/2020, EXISTING
MOUNT MUST BE MODIFIED TO ADEQUATELY
SUPPORT PROPOSED LOADING. MOUNT
MODIFICATION PROPOSED IN MOUNT ANALYSIS,
INCLUDED AT END OF THESE CDS, MUST BE
INSTALLED PRIOR TO INSTALLATION OF
PROPOSED ANTENNAS & OTHER EQUIPMENT.



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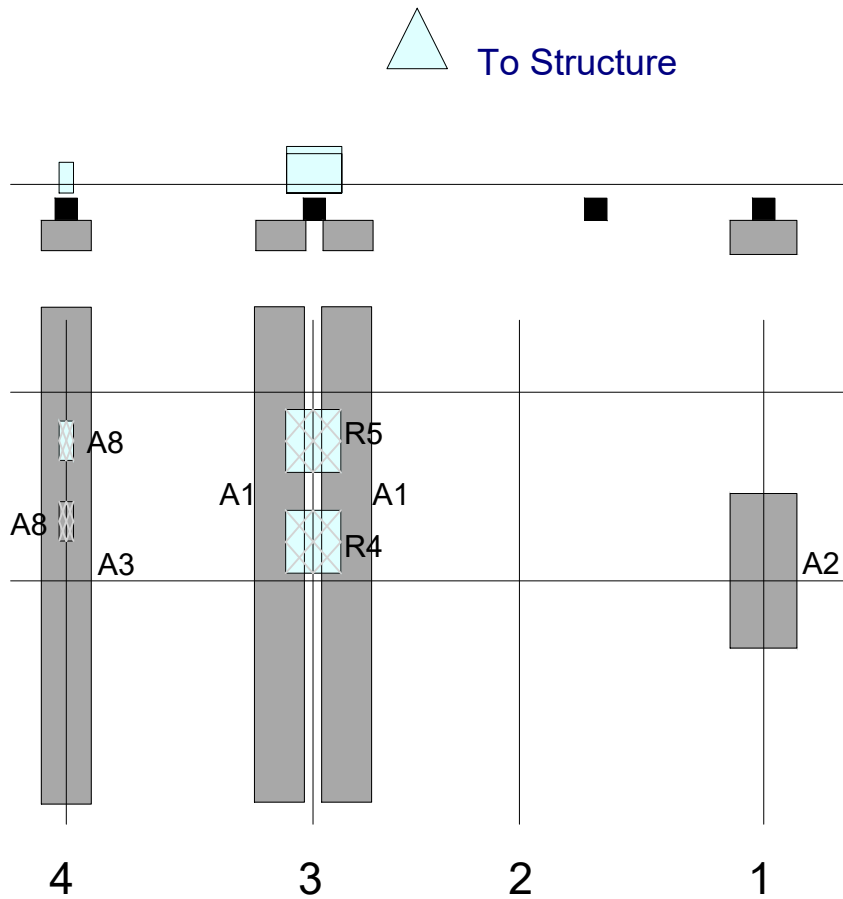
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SHEET TITLE
SITE ELEVATION
SHEET NUMBER
ANT-1

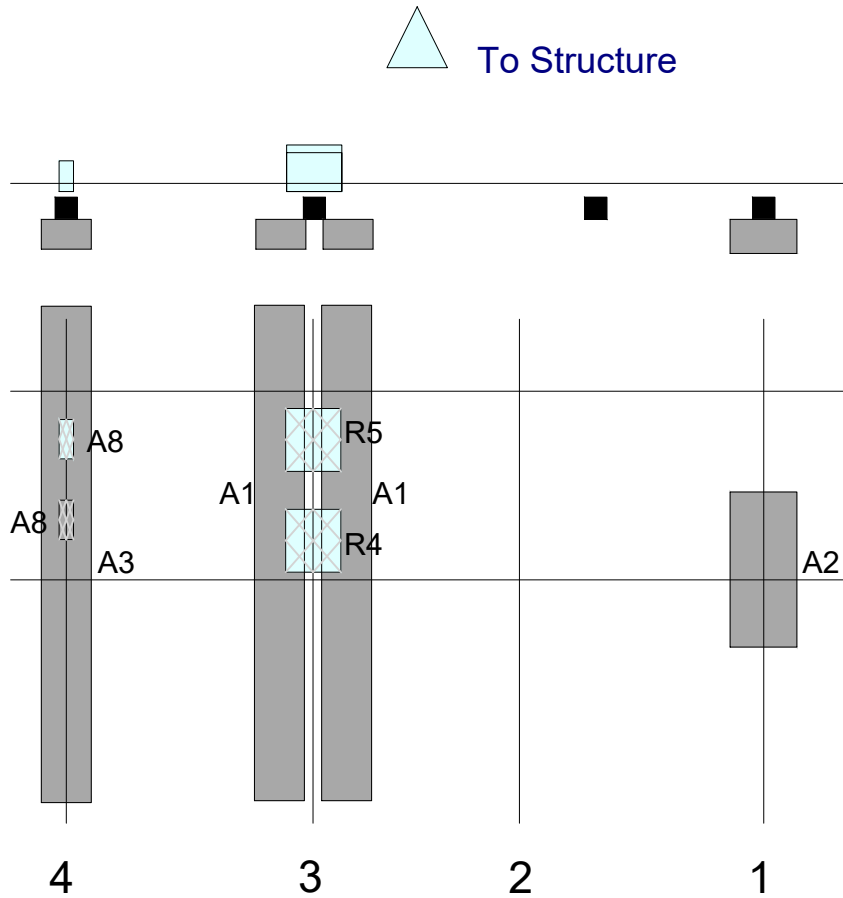
PROPOSED ANTENNA KEY																																																	
	Position	Status	Antenna Centerline (ft AGL)	Antenna Make / Model	Antenna Count	Height (in)	Width (in)	Depth (in)	Weight (lbs)	Azimuth (true north)	Mech Down tilt	Electrical Down tilt	TMA Make/Model	TMA Count	Diplexer Make/Model	Diplexer Count	Coax Make/Model	Coax Count	Coax Size	Coax Length	RRU Make/Model	RRU Count	Distribution Box Make/Model	Raycap Count	Hybrid Cable Make/Model	Hybrid Cable Count	Hybrid Cable Size	Hybrid Cable Length	Hybrid Jumper Count	Hybrid Jumper Size	Hybrid Jumper Length	RF Jumper Count	RF Jumper Length																
Mainline Cable & Distribution																						RFS/RFS DB-81-6C-12AB-02	2	RFS/HBF-158-13UGS6	1	1-5/8"	200																						
																								RFS/HBF-114-13UGS12	1	1-1/4"	200																						
Alpha Sector	A	proposed	150	nL-SUB6 VZE01	1	30.4	15.9	8.1	81.6	0	0	3														HBF058-08U2S1-15FY				2	5/8"	15																	
	B	empty																																															
	C	proposed	150	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	0	0	5	ADC/CG-1900DD	2			AVA7-50	2	1-5/8"	200	E/// 8843	1					HBF058-08U2S1-15FY				1	5/8"	15	8	10														
	D	proposed	150	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	0	0	5																HBF058-08U2S1-15FY				1	5/8"	15	4	10													
Beta Sector	E	existing	150	Andrew/LNX-6515DS-A1M	1	96.6	11.9	7.1	43.7	0	4	5																																					
	F	proposed	150	nL-SUB6 VZE01	1	30.4	15.9	8.1	81.6	120	0	3																HBF058-08U2S1-15FY				2	5/8"	15															
	G	empty																																															
	H	proposed	150	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	120	0	8	ADC/CG-1900DD	2			AVA7-50	2	1-5/8"	200	E/// 8843	1					HBF058-08U2S1-15FY				1	5/8"	15	8	10														
Gamma Sector	I	proposed	150	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	120	0	8																HBF058-08U2S1-15FY				1	5/8"	15	4	10													
	J	existing	150	Andrew/LNX-6515DS-A1M	1	96.6	11.9	7.1	43.7	120	3	5																HBF058-08U2S1-15FY				1	5/8"	15	2	10													
	K	proposed	150	nL-SUB6 VZE01	1	30.4	15.9	8.1	81.6	240	0	3																HBF058-08U2S1-15FY				2	5/8"	15															
	L	empty																																															
	M	proposed	150	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	240	0	8	ADC/CG-1900DD	2			AVA7-50	2	1-5/8"	200	E/// 8843	1					HBF058-08U2S1-15FY				1	5/8"	15	8	10														
	N	proposed	150	COMMSCOPE NHH-65C-R2B	1	96	11.9	7.1	51.6	240	0	8																HBF058-08U2S1-15FY				1	5/8"	15	4	10													
	O	existing	150	Andrew/LNX-6515DS-A1M	1	96.6	11.9	7.1	43.7	240	2	5																																					
				Antenna Total	12									TMA Total	6	Diplexer Total	0	Coax Total	12				RRU Total	6	Distro Box Total	2	Hybrid Cable Total	2	Jumper Total	12	RF Jumper Total	42																	

SHEET NUMBER

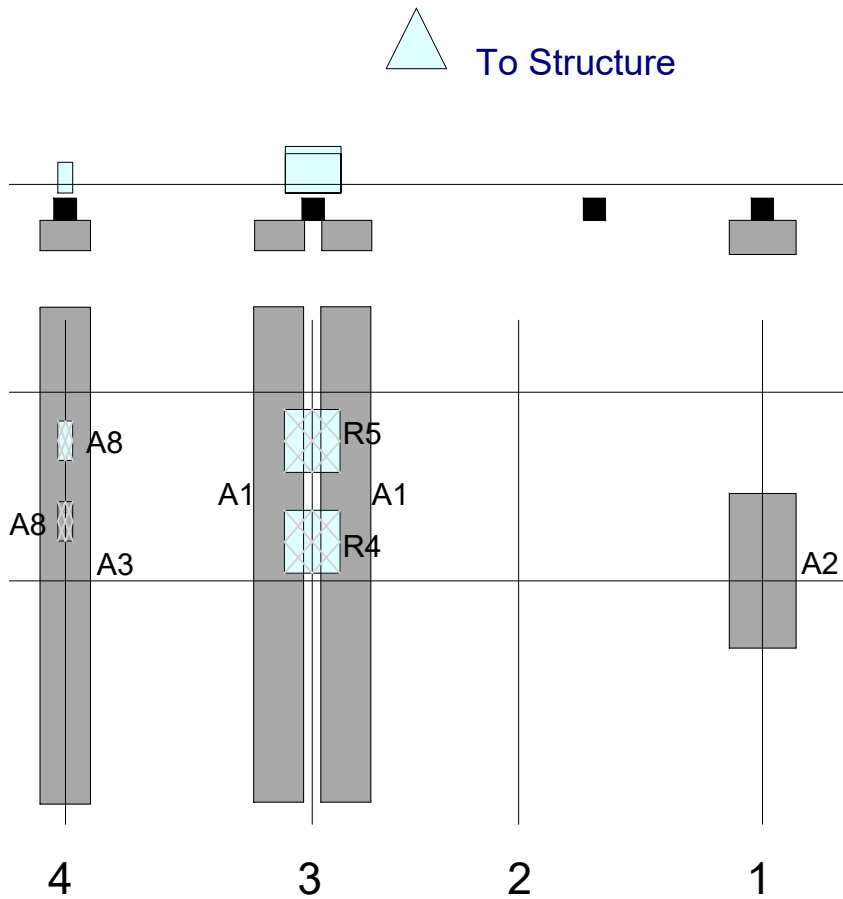
ANT-2



SECTOR: A



SECTOR: C



SECTOR: B

SECTOR: A

Ref#	Model	Height (in)	Width (in)	H Dist Frm L #	Pipe Pos	Pipe V Pos	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	VZE01	30.4	15.9	144	1	a	Front	48	0	Added	
A1	NHH-65C-R2B	96	11.9	59	3	a	Front	45	-6	Added	
A1	NHH-65C-R2B	96	11.9	59	3	b	Front	45	-6	Added	
R4	4449	15	13.2	59	3	a	Behind	42	0	Added	
R5	8843	15	13.2	59	3	a	Behind	24	0	Added	
A3	LNK-6515DS-A1M	96.4	11.9	12	4	a	Front	45	0	Retained	11/09/2017
A8	LGP13513	12.2	4.8	12	4	B	Behind	24	0	Added	
A8	LGP13513	12.2	4.8	12	4	B	Behind	39	0	Added	


SECTOR: B

Ref#	Model	Height (in)	Width (in)	H Dist Frm L #	Pipe Pos	Pipe V Pos	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	VZE01	30.4	15.9	144	1	a	Front	48	0	Added	
A1	NHH-65C-R2B	96	11.9	59	3	a	Front	45	-6	Added	
A1	NHH-65C-R2B	96	11.9	59	3	b	Front	45	-6	Added	
R4	4449	15	13.2	59	3	a	Behind	42	0	Added	
R5	8843	15	13.2	59	3	a	Behind	24	0	Added	
A3	LNK-6515DS-A1M	96.4	11.9	12	4	a	Front	45	0	Retained	11/09/2017
A8	LGP13513	12.2	4.8	12	4	B	Behind	24	0	Added	
A8	LGP13513	12.2	4.8	12	4	B	Behind	39	0	Added	


SECTOR: C

Ref#	Model	Height (in)	Width (in)	H Dist Frm L #	Pipe Pos	Pipe V Pos	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	VZE01	30.4	15.9	144	1	a	Front	48	0	Added	
A1	NHH-65C-R2B	96	11.9	59	3	a	Front	45	-6	Added	
A1	NHH-65C-R2B	96	11.9	59	3	b	Front	45	-6	Added	
R4	4449	15	13.2	59	3	a	Behind	42	0	Added	
R5	8843	15	13.2	59	3	a	Behind	24	0	Added	
A3	LNK-6515DS-A1M	96.4	11.9	12	4	a	Front	45	0	Retained	11/09/2017
A8	LGP13513	12.2	4.8	12	4	B	Behind	24	0	Added	
A8	LGP13513	12.2	4.8	12	4	B	Behind	39	0	Added	

ANTENNA PLACEMENT



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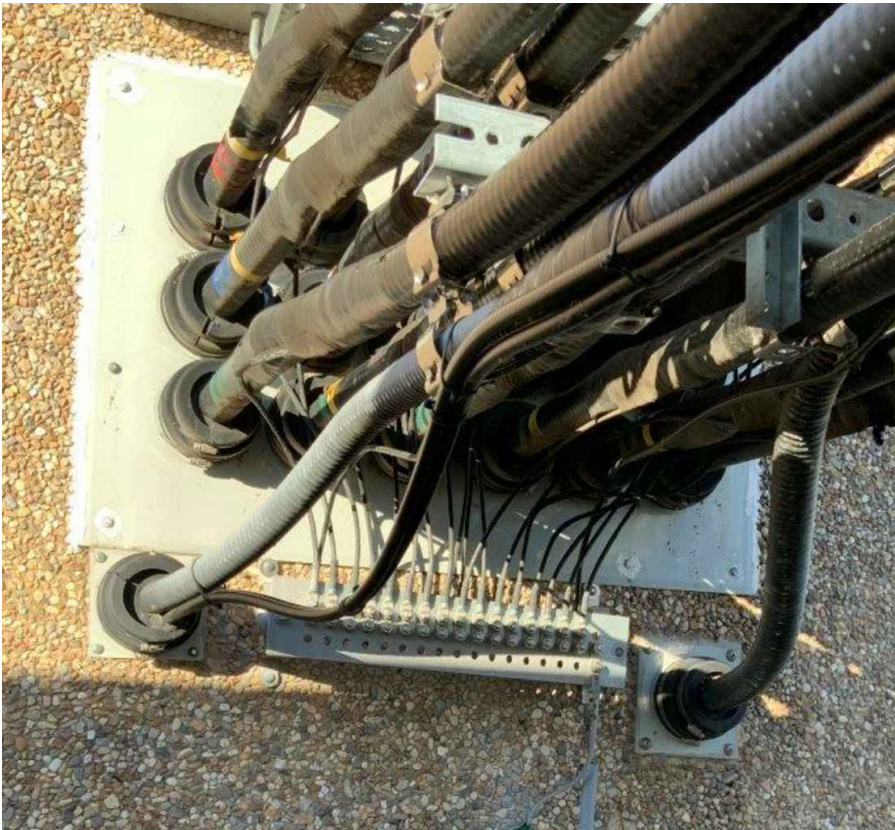
REVISONS		DATE	BY	DESCRIPTION	
NO.				A	ISSUED FOR REVIEW
		12/17/20	JGL	B	POWER UP GRADE
		08/17/21	BE	0	ISSUED FOR CONSTRUCTION
		09/01/21	BE		

LOC# 140684
KCYC
LEES SUMMIT
900 SW BLUE PKWY
LEES SUMMIT, MO 64063

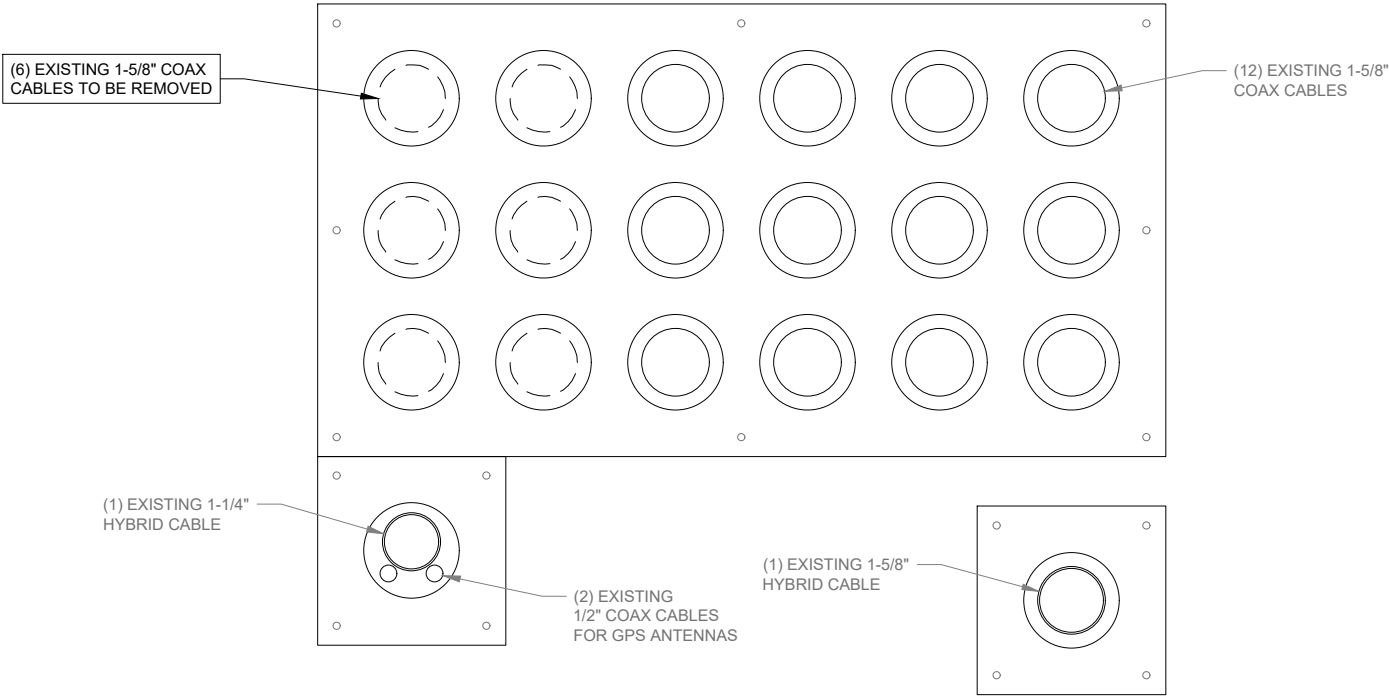
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PROJECT #:	54-1356

SHEET TITLE
SECTOR PLAN
& ELEVATION DETAILS

SHEET NUMBER
ANT-3



1 LESSEE ENTRY PANEL

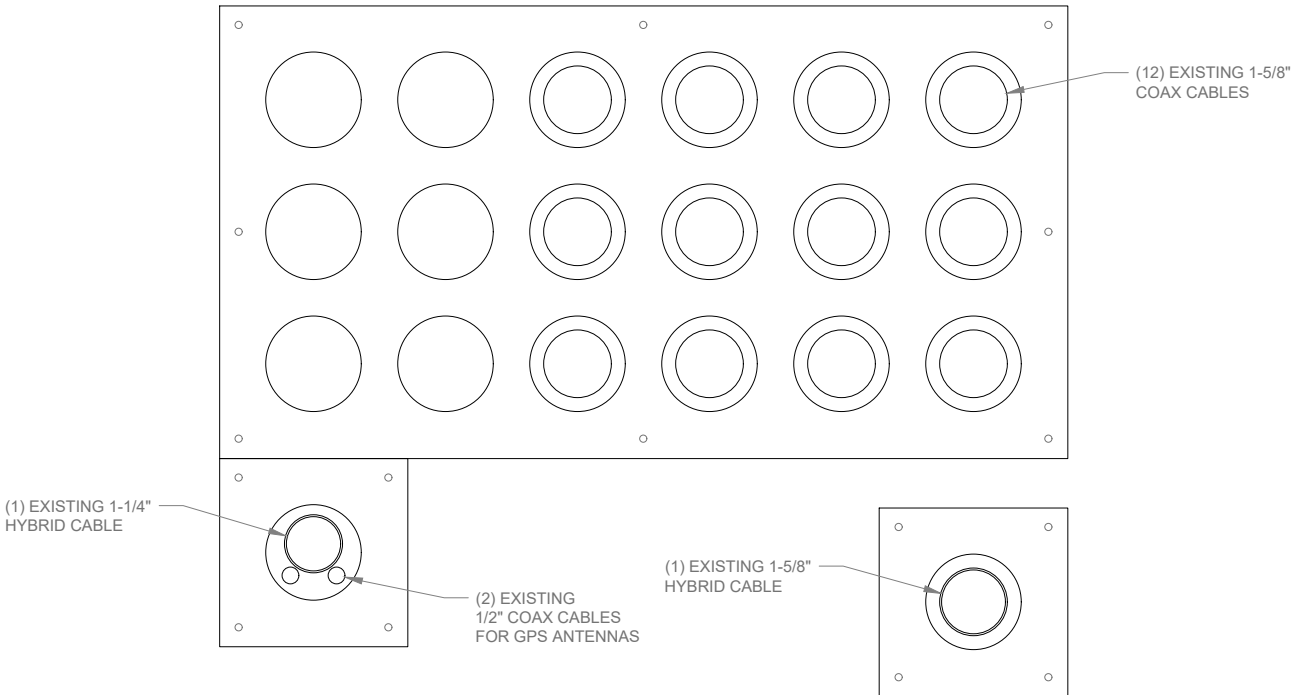


NOTE:
G.C. TO VERIFY CORRECT
LINES PRIOR TO DISCONNECTION

2 EXISTING ENTRY PANEL LAYOUT FROM OUTSIDE SHELTER
N.T.S.

PARTS LIST

- (1) NEW L-SUB6 BBU
- (3) ERICSSON 5G VZE01
- (3) ERICSSON 8843 FOR AWS LTE
- (3) ERICSSON 4449 FOR 700, 850 LTE
- (6) COMMSCOPE NHH-65C-R2B
- (3) COMMSCOPE BRACKET BSAMNT-SBS-1-2
- (6) Y-CABLES RFS HBF058-08U2S1-15FY
- (6) 5/8"± FIBER JUMPERS



3 PROPOSED ENTRY PANEL LAYOUT FROM OUTSIDE SHELTER
N.T.S.

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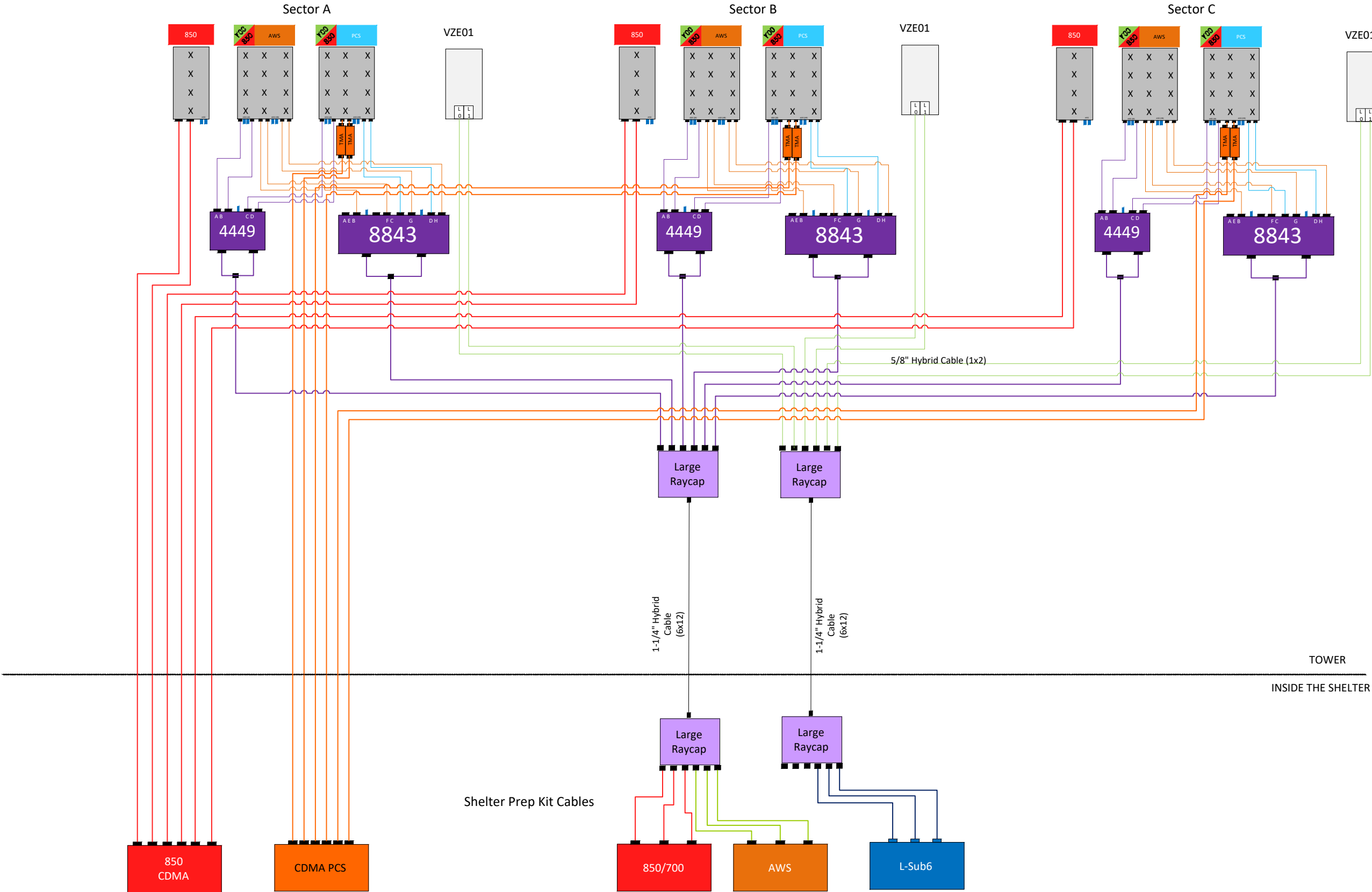
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PROJECT #:	54-1356

SHEET TITLE
COAX ENTRY PANEL
&
PARTS LIST

SHEET NUMBER
ANT-4

Arrangement of
Antennas may not
match arrangement on
the tower

CDMA 850 / CDMA PCS / 700 LTE / AWS LTE / 850 LTE / 850 5G / L-Sub6



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LOC# 140684

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CHECKED BY: AJB

DATE: 12/17/20

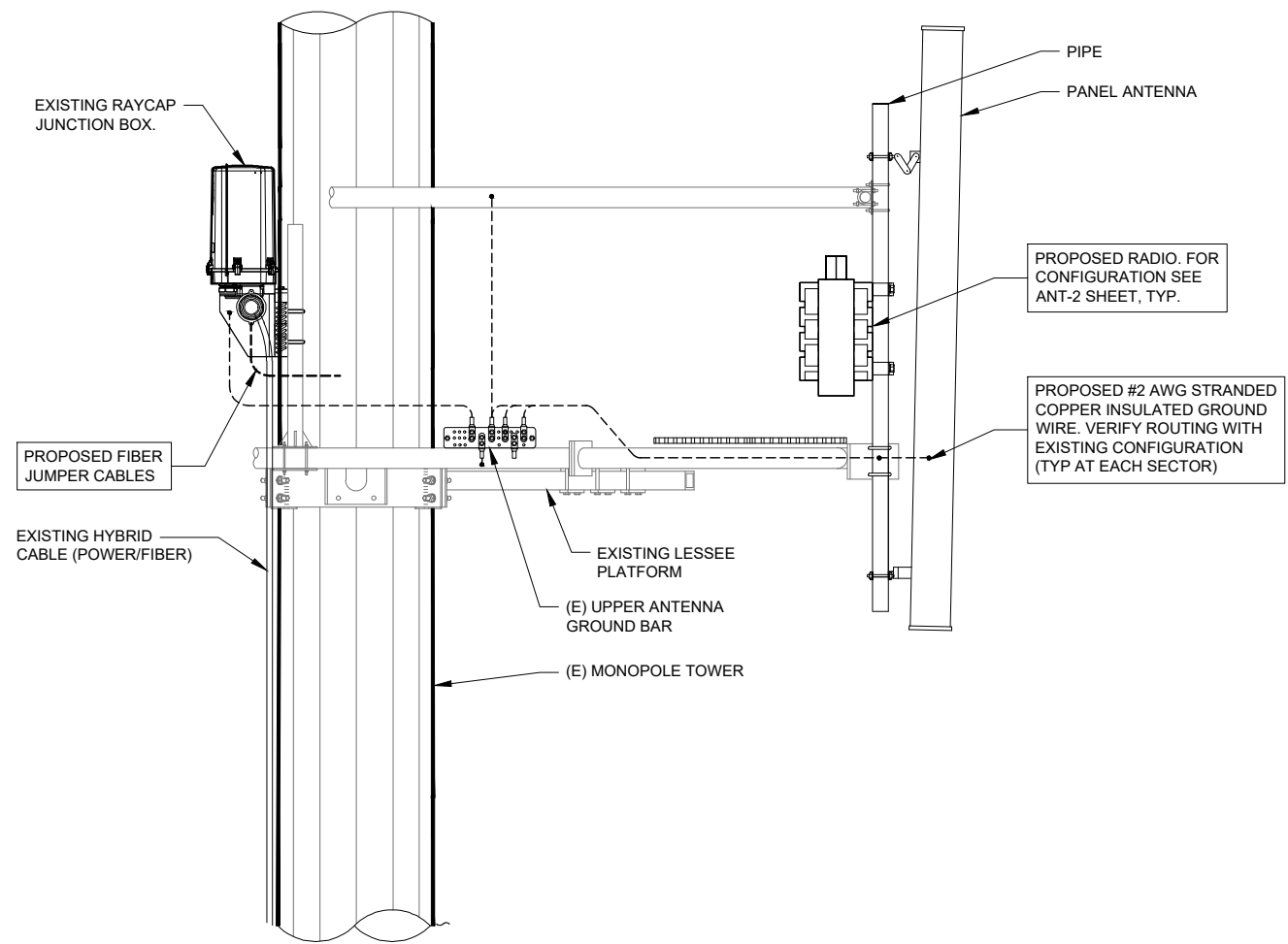
PROJECT #: 54-1356

SHEET TITLE

ANTENNA
PLUMBING DIAGRAM

SHEET NUMBER

ANT-5



1 ANTENNA, RRU & RAYCAP JUNCTION BOX MOUNTING DETAIL
SCALE: N.T.S.

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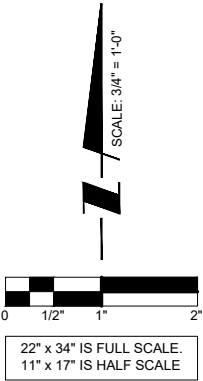
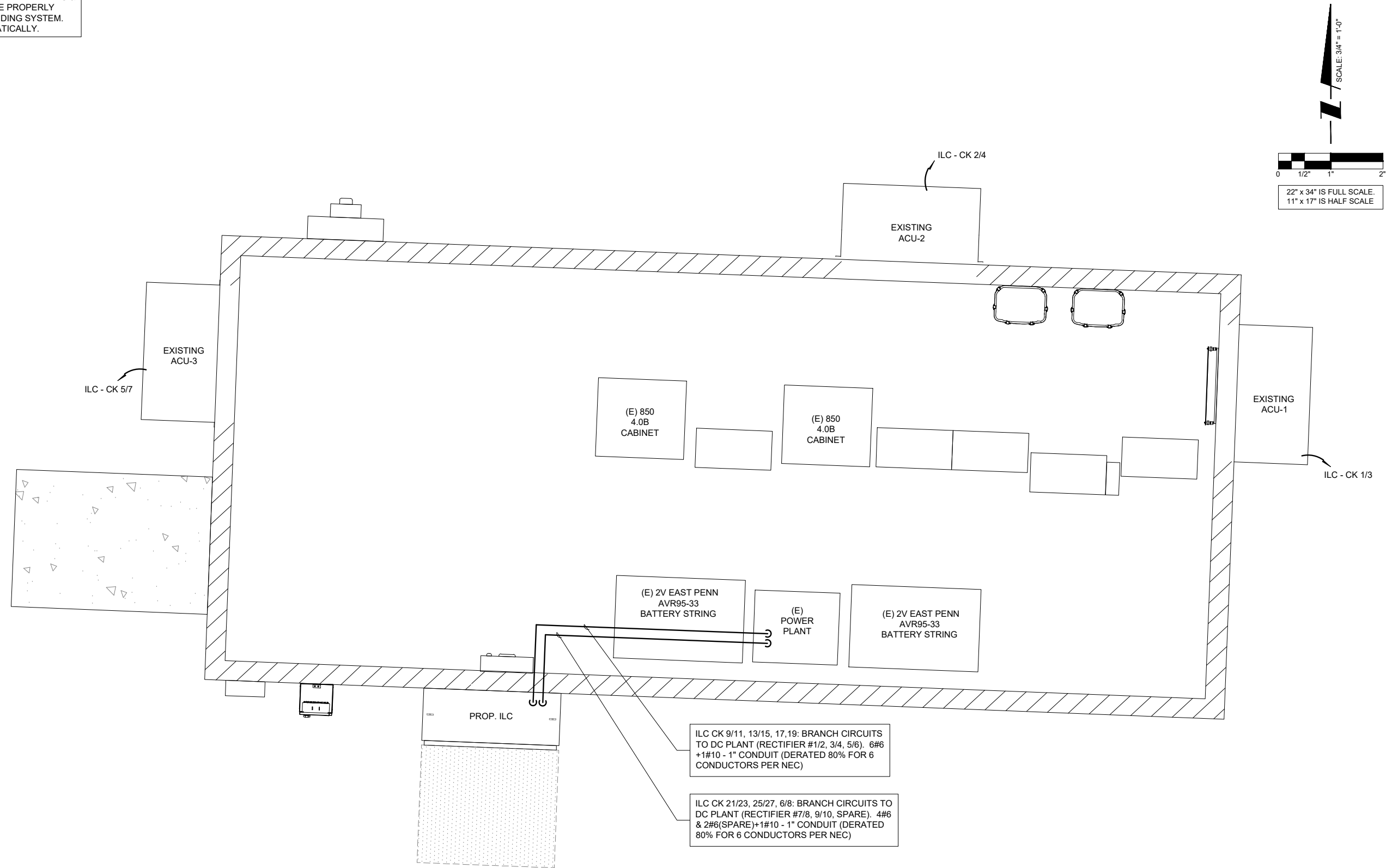
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SHEET TITLE
SITE DETAILS

SHEET NUMBER
ANT-6

- NOTES:
1. CONTRACTOR SHALL VERIFY ALL EXISTING & PROPOSED EQUIPMENT ARE PROPERLY GROUNDED TO THE GROUNDING SYSTEM.
 2. CONDUITS SHOWN SCHEMATICALLY.



1 ELECTRICAL FLOOR PLAN
SCALE: 3/4" = 1'-0"

ILC NOTE:
CONTRACTOR TO PROVIDE FIELD-MARKING:
"THIS ASSEMBLY HAS MULTIPLE SOURCES OF
SUPPLY"

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LEES SUMMIT, MO 64063

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DATE:	12/17/20
PROJECT #:	54-1356

SHEET TITLE
ELECTRICAL
FLOOR PLAN

SHEET NUMBER
E-1A

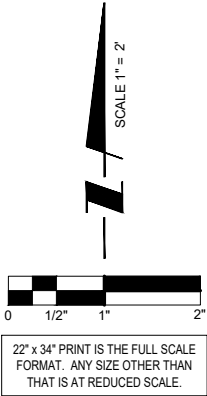
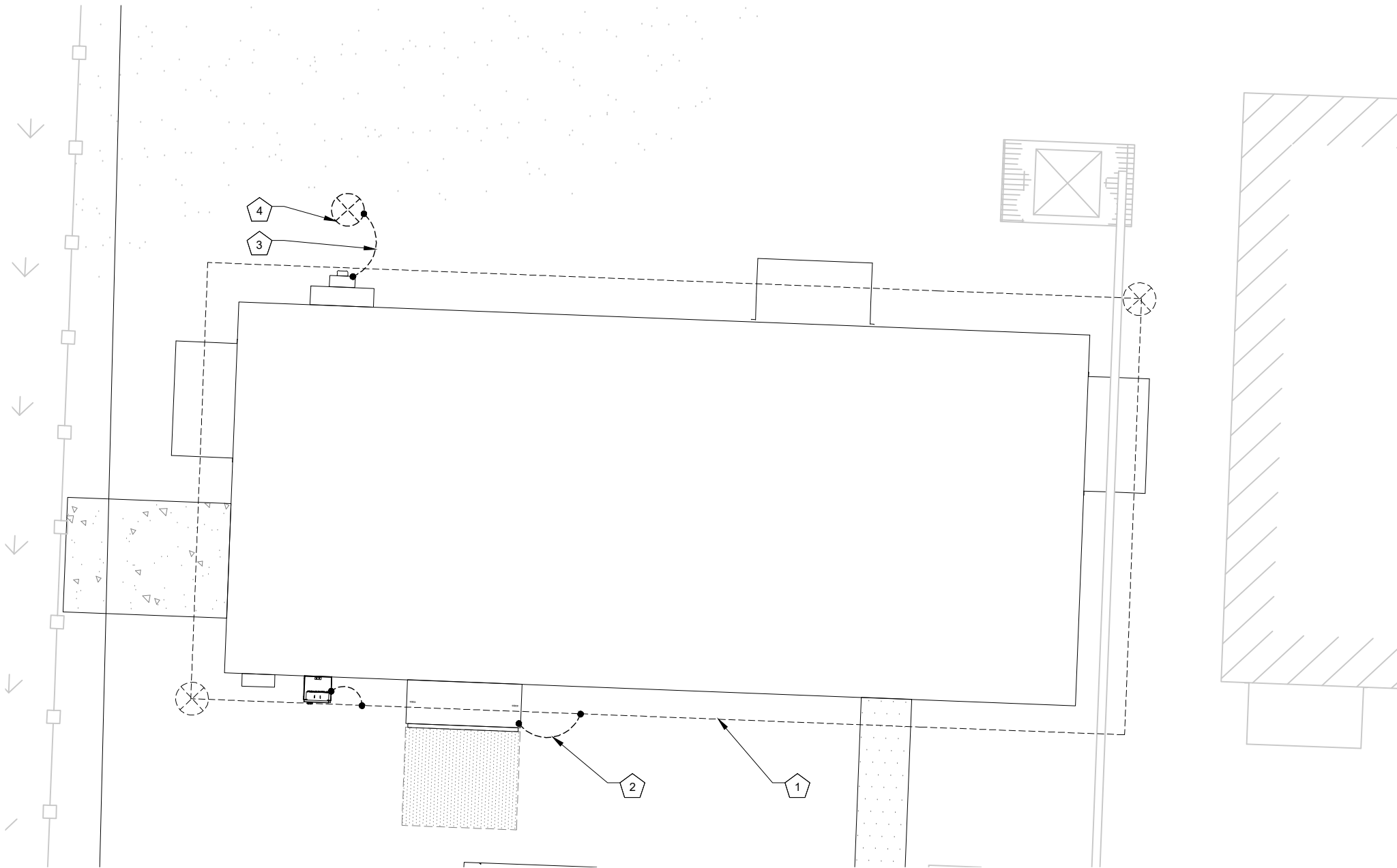


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1-800-344-7483
TOLL FREE

KEY NOTES:

- 1 LOCATION OF BURIED GROUND RING, GROUNDING LEADS FROM BUILDING EXTERIOR AND CONNECTIONS TO AND FROM EQUIPMENT ARE SHOWN FOR REFERENCE ONLY. ACTUAL LEAD LOCATIONS ARE TO BE FIELD VERIFIED AS NEEDED.
- 2 #2 AWG TNN D SOLID BARE COPPER CONDUCTOR 42" BELOW GRADE (TYPICAL) MINIMUM 24" BENDING RADIUS
- 3 DISCONNECT & ELECTRIC SERVICE GROUND TO GROUND ROD
- 4 5/8" DIAMETER X 10'-0" LONG COPPER CLAD GROUND ROD



1 SITE GROUNDING PLAN
SCALE: 1" = 2'-0"

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PROJECT #:	54-1356

SHEET TITLE
SITE
GROUNDING PLAN

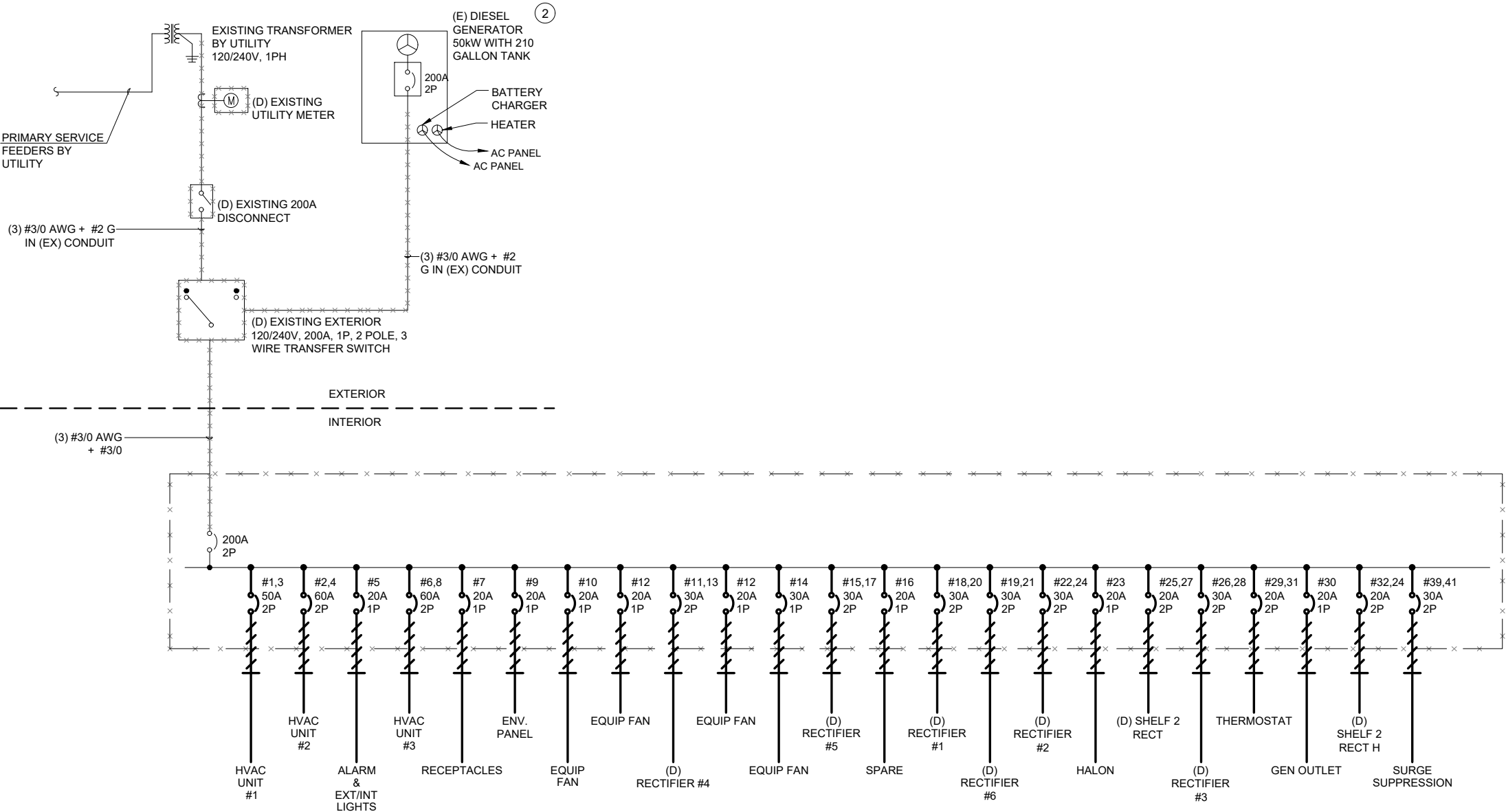
SHEET NUMBER

E-1B

LEGEND:

~~-----~~ DEMO

~~-----~~ PARTIAL DEMO



1 ONE LINE DEMOLITION
SCALE: N.T.S.

NOTES:

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE EXACT EXTENT OF WORK, COORDINATION, DEMOLITION, TEMPORARY FACILITIES, UTILITIES, ETC. NECESSARY TO COMPLETE THE PROJECT AS INDICATED ON THE CONTRACT DOCUMENTS.
- VERIFY LOCATION IN THE FIELD OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATING. COORDINATE WITH PUBLIC UTILITIES AS NECESSARY TO COMPLETE REQUIRED WORK AS INDICATED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT OF ALL DAMAGED UTILITIES AT THE EXPENSE OF THE CONTRACTOR.
- PANELBOARDS AND SWITCHBOARDS DO NOT SHOW ALL BRANCH CIRCUITS. REFER TO SCHEDULES.
- PROVIDE SEPARATE INSULATED GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUITS.
- PROVIDE A 4" HOUSEKEEPING PAD FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT, INCLUDING SWITCHBOARDS, TRANSFORMERS AND TRANSFER SWITCHES.
- SEE PANELBOARD AND SWITCHBOARD SCHEDULES FOR PANEL AND SWITCHBOARD BUS AND FEEDER LOADS.
- PROVIDE 2-HOLE LUGS CAPABLE OF ACCEPTING MULTIPLE CRIMPS FOR ALL POWER AND GROUNDING CONNECTIONS TO A BUS OR WHERE FEASIBLE. USE MANUFACTURER'S COMPRESSION TOOL WITH PROPER DIE FOR EACH CONNECTOR. MANUFACTURER'S EMBOSSED CODING SYSTEM IS REQUIRED. A UNIVERSAL OR DIE-LESS TYPE CRIMPING TOOL SHALL NOT BE USED. PROVIDE LUGS WITH INSPECTOR HOLE FOR ALL INTERIOR INSTALLATIONS. PROVIDE CLOSED LUGS (NO INSPECTION HOLE) FOR EXTERIOR OR UNDERGROUND CONNECTIONS.
- PANEL/SWB/SWGR/AIC RATING IS BASED UPON LOWEST RATED CIRCUIT BREAKER INSTALLED IN EQUIPMENT.
- VERIFY LASHING REQUIREMENTS FOR SERVICE ENTRANCE AND MAIN DISTRIBUTION EQUIPMENT WITH MANUFACTURER. INSTALL LASHING PER MANUFACTURER REQUIREMENTS.

KEY NOTES:

- COORDINATE METER BOX AND METER LOCATION WITH EXISTING UTILITY.
- EXISTING 50 kW DIESEL GENERATOR TO REMAIN.
- SEE EXISTING 200A AC PANEL FOR ALL SINGLE PHASE AC LOADS. EXISTING 200A AC PANEL TO BE REMOVED.

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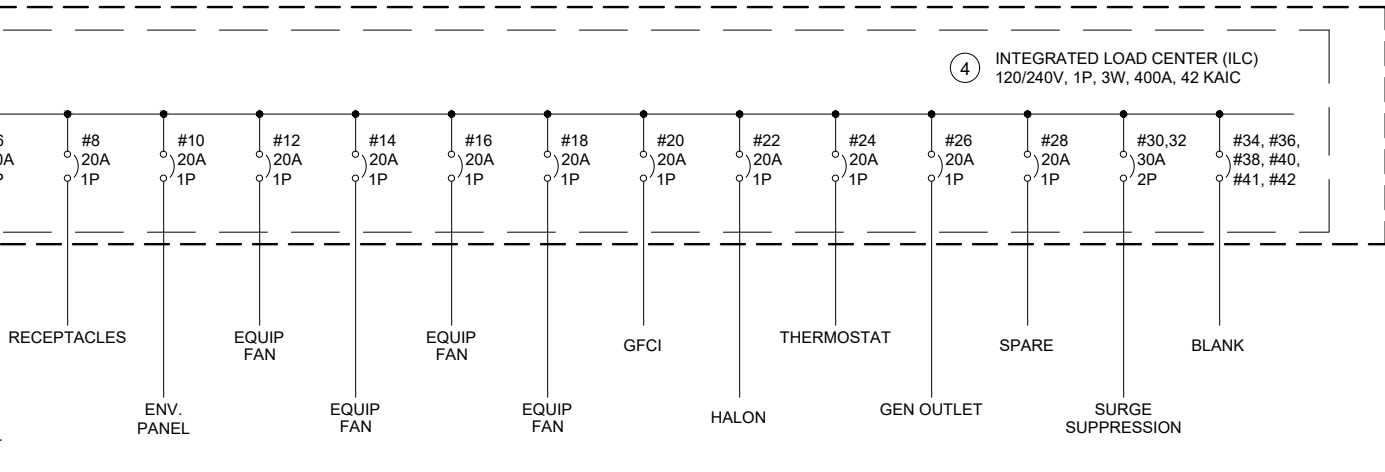
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CHECKED BY:	AJB
DATE:	12/17/20
PROJECT #:	54-1356

SHEET TITLE
ONE LINE
DEMOLITION

SHEET NUMBER
E-2

[illegible]

PANEL NAME			LOCATION:	VOLTAGE: 240 / 120V 1 Ø							MOUNTING SURFACE			
ILC PANEL			SHELTER EXTERIOR	MAIN C/B: 400 AMPS							AVAIL. FAULT CURRENT:			
				BUS RATING: 400 AMPS							SHORT CIRCUIT RATING: 42 KAIC			
AMPS	POLES	TYPE	CIRCUIT DESCRIPTION	KVA	CKT	A		B	CKT	KVA	CIRCUIT DESCRIPTION	TYPE	POLES	AMPS
50	2	AC	ACU-1	4.44	1	8.88			2	4.44	ACU-2	AC	2	60
		AC		4.44	3		8.88	4	4.44	AC				
60	2	AC	ACU-3	4.44	5	5.44			6	1.00	ALARM & INT/EXT LIGHTS	R	1	20
		AC		4.44	7		4.84	8	0.40	RECEPTACLES	R	1	20	
30	2	R	(E) RECTIFIER #1	2.00	9	3.00			10	1.00	ENV. PANEL	R	1	20
		R		2.00	11		2.50	12	0.50	EQUIP FAN	M	1	20	
30	2	R	(E) RECTIFIER #2	2.00	13	2.50			14	0.50	EQUIP FAN	M	1	20
		R		2.00	15		2.50	16	0.50	EQUIP FAN	M	1	20	
30	2	R	(E) RECTIFIER #3	2.00	17	2.50			18	0.50	EQUIP FAN	M	1	20
		R		2.00	19		2.75	20	0.75	GFCI	R	1	20	
30	2	R	(E) RECTIFIER #4	2.00	21	2.50			22	0.50	HALON	R	1	20
		R		2.00	23		2.50	24	0.50	THERMOSTAT	R	1	20	
30	2	R	(E) RECTIFIER #5	2.00	25	3.00			26	1.00	GEN OUTLET	E	1	20
		R		2.00	27		3.00	28	1.00	SPARE	R	1	20	
30	2	R	(E) RECTIFIER #6	2.00	29	2.20			30	0.20	SURGE SUPPRESSION	R	2	30
		R		2.00	31		2.20	32	0.20	R				
30	2	R	(E) RECTIFIER SHELF 2	2.00	33	2.00			34		BLANK		1	
		R		2.00	35		2.00	36		BLANK		1		
30	2	R	(E) RECTIFIER SHELF 2-H	2.00	37	2.00			38		BLANK		1	
		R		2.00	39		2.00	40		BLANK		1		
	1		BLANK		41				42		BLANK		1	
PHASE TOTAL						34.02		33.17	KVA					
											TOTAL CONNECTED LOAD	67	KVA	280
											TOTAL DEMAND LOAD	50	KVA	210



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SHEET NUMBER

E-3

SECTION 16010
GENERAL PROVISIONS

- A. WORK INCLUDED:
1. SCOPE
 2. GENERAL REQUIREMENTS
 3. CODES, PERMITS, FEES, AND SALES TAX
 4. MATERIALS SUBSTITUTIONS
 5. DRAWINGS AND SPECIFICATIONS
 6. CUTTING AND PATCHING
 7. CLEANUP AND PAINTING
 8. IDENTIFICATIONS AND INSTRUCTIONS
 9. SAFETY PRECAUTIONS
 10. FINAL TESTS AND DEMONSTRATIONS
 11. GUARANTEES
 12. RECORD DRAWINGS
 13. REVISIONS AND REMOVAL OF EXISTING EQUIPMENT

B. THE FOLLOWING IS INTENDED TO SERVE AS AN ELECTRICAL INDEX ONLY, WITHOUT INTENDING TO RESTRICT THE VOLUME OF WORK REQUIRED.

SECTION 16010 - GENERAL PROVISIONS
SECTION 16100 - BASIC MATERIALS AND METHODS
SECTION 16400 - STANDBY GENERATOR

2. GENERAL REQUIREMENTS
A. THIS SECTION OF THE SPECIFICATIONS IS A SEPARATE CONTRACT AND INCLUDES THE FURNISH ALL LABOR, MATERIALS, TOOL, TRANSPORTATION, TEST EQUIPMENT, PERMITS, CERTIFICATES , TEMPORARY PROTECTION, AND STORAGE REQUIRED TO COMPLETE THE ELECTRICAL WORK

B. WHEREVER THE WORDS " THE ELECTRICAL CONTRACTOR " "CONTRACTOR" OR "THIS CONTRACTOR" APPEAR IN THIS DIVISION OF THE SPECIFICATIONS THEY APPLY SPECIFICALLY TO THE ELECTRICAL CONTRACTOR.

C. ELECTRICAL CONTRACTOR TO REVIEW ALL PROJECT CONTRACT DOCUMENTS, AND PROVIDE ALL MATERIALS AND LABOR FOR ALL ELECTRICAL REQUIREMENTS INDICATED.

D. CONTRACTOR SHALL READ THE ENTIRE SPECIFICATION, AND SHALL EXAMINE ALL THE PROJECTS PLANS THE PROPOSED CONSTRUCTION SITE AS HE WILL BE REQUIRED TO DO ALL OF THE ELECTRICAL WORK WHETHER OR NOT SPECIFICALLY MENTIONED HEREIN OR INDICATED OR SHOWN ON THE ELECTRICAL PLANS.

E. SUCCESSFUL BIDDER WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING WHICH SUCH BIDDER MIGHT HAVE INFORMED HIMSELF PRIOR TO THE BID OPENING IT SHALL BE UNDERSTOOD THAT THE ACT OF SUBMITTING A BID CARRIES WITH IT THE AGREEMENT TO ALL ITEMS AND CONDITIONS REFEREED OR INDICATED OR IMPLIED ON THE CONTRACT DOCUMENT DRAWINGS AND THE SPECIFICATIONS.

F. IN THE EVENT OF A REQUEST FOR ADDITIONAL PAYMENT DUE TO CHANGES , SUBCONTRACTOR TO PROVIDE TO THE ENGINEERS A DETAILED DESCRIPTION OF CHANGES REQUIRED, INCLUDING REASONS FOR PROPOSED WORK AND A COMPLETE MATERIAL AND LABOR BREAKDOWN OF ALL ASSOCIATED COSTS.

G. THIS CONTRACTOR SHALL FURNISH AND REMOVE UPON COMPLETION OF THE PROJECT ALL SCAFFOLDING, RIGGING, HOISTING, AND SERVICES NECESSARY FOR DELIVERY, ERECTION, AND INSTALLATION OF ALL EQUIPMENT AND APPARATUS REQUIRED TO BE INSTALLED BY THIS CONTRACTOR.

3. CODES, PERMITS, FEES, AND SALES TAX

A. INSTALLATION SHALL COMPLY WITH RULES AND REGULATIONS OF THE LATEST EDITION OF THE OCCUPATIONAL SAFETY AND HEALTH ACT, NATIONAL ELECTRICAL CODE, STATE ELECTRICAL CODE, LOCAL MUNICIPAL CODE, AMERICANS WITH DISABILITIES ACT (AD), THE ELECTRIC UTILITY FURNISHING ELECTRICAL ENERGY TO THIS PROJECT AND ANY OTHER BOARD HAVING JURISDICTION OVER THE ELECTRICAL INSTALLATION.

B. CONTRACTOR SHALL BE LICENSED TO PERFORM ELECTRICAL WORK IN THE MUNICIPALITY IN WHICH THE PROJECT IS LOCATED AND SHALL OBTAIN ALL NECESSARY PERMITS FOR ELECTRICAL WORK AND SHALL PAY ALL REQUIRED FEES AND SALES OR USE TAX AS APPLICABLE TO THIS BRANCH OF WORK. UPON COMPLETION OF THE WORK, DELIVER TO THE OWNER WITHOUT COST ALL REQUIRED CERTIFICATES OF INSPECTION AN D APPROVAL.

4. MATERIAL AND EQUIPMENT SUBSTITUTIONS

A. MATERIAL OF OF THE TYPES FOR WHICH THERE ARE NATIONAL BOARD OF FIRE UNDERWRITERS (U.L.) LISTING AND LABEL SERVICE, SHALL SO BE LABELED AND SHALL BE USED BY THE CONTRACTOR.

B. CONTRACTOR SHALL BID ON ITEMS AS SPECIFIED . IF THE CONTRACTOR DESIRES TO SUBSTITUTE ANY MATERIAL OR HE SHALL SUBMIT ALTERNATE BID ITEMS, WHICH SHALL BE LISTED ON A SEPARATE SHEET ACCOMPANYING THE BID, STATING MANUFACTURER, TRADE NAME, CATALOG DESIGNATION, AND AMOUNT OF DEDUCT FROM BASE BID IF ANY.

C. MATERIALS BY MANUFACTURES OTHER THAN THOSE NAMED WILL BE CONSIDERED IF SUCH SUBSTITUTE ITEMS ARE EQUAL IN QUALITY AND OTHERWISE SIMILAR IN COMPOSITION, DESIGN, CONSTRUCTION, DIMENSION, CAPACITY, EFFICIENCY, FINISH AND PERFORMANCE.

D. WHERE THE SUBSTITUTIONS HAVE BEEN ACCEPTED BY THE ENGINEERS AND IT IS LATER FOUND SUCH SUBSTITUTIONS ALTER THE DESIGN OR SPACE REQUIREMENTS INDICATED ON THE PLANS, THE CONTRACTORS SHALL BE RESPONSIBLE FOR THE COST INVOLVED TO REVISE THE BUILDING DESIGN AND CONSTRUCTION INCLUDING THE COST OF AO ALL ALLIED TRADES INVOLVED.

5. DRAWINGS AND SPECIFICATIONS

A. WORK CALLED FOR IN THESE SPECIFICATIONS, BUT NOT SHOWN ON THE DRAWINGS IN THEIR PRESENT FORM OR VICE VERSA, AND WORK NOT SPECIFIED IN EITHER CONTRACT SPECIFICATIONS OR DRAWINGS, BUT INVOLVED IN CARRYING OUT THEIR INTENT OR NECESSARY FOR COMPLETE AND PROPER EXECUTION OF THE WORK IS IS REQUIRED AND SHALL BE PERFORMED AS THOUGH IT WERE SPECIFICALLY OUTLINED OR DESCRIBED.

B. THE INTENT OF THESE SPECIFICATIONS AND THE DRAWINGS IS TO INCLUDE A COMPLETE WIRING SYSTEM FORM SERVICE ENTRANCE TO EACH OUTLET INDICATED OR SPECIFIED , INCLUDING CONNECTING ALL ELECTRICAL DEVICES AND OR EQUIPMENT FURNISHED BY THE OWNER OR OTHER CONTRACTORS.

C. ANY CONFLICT BETWEEN DRAWINGS AND SPECIFICATIONS SHALL BE DEEMED TO HAVE BEEN ESTIMATED THE MORE EXPENSIVE WAY OF THE THE WORK AND/OR THE MOST STRINGENT REQUIREMENTS SHALL PREVAIL.

D. THE DRAWINGS , WHICH CONSTITUTE A PART OF THE CONTRACT, ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF CIRCUITS AND OUTLETS. GENERALLY, OUTLETS SHALL BE LOCATED REQUIRED BY CODE OR FOR PROPER INSTALLATION OF EQUIPMENT AND TO BE COORDINATED WITH WORK OF EQUIPMENT SUPPLIER.

6. CUTTING AND PATCHING

A. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING NECESSARY FOR THE ELECTRICAL WORK. IN THE EVENT HOLES MUST BE CUT THOUGH REINFORCED CONCRETE, THEY MUST BE CORE DRILLED AND WITH SPECIFIC APPROVAL OF THE ENGINEER.

B. DAMAGE DONE BY THE ELECTRICAL CONTRACTOR SHALL BE REPAIRED BY THE ELECTRICAL CONTRACTOR SO THAT ALL THE DAMAGED AREA WILL MATCH SURROUNDING AREAS AND WILL FUNCTION AS ORIGINALLY INTENDED.

7. CLEANUP AND PAINTING

A. REMOVE FROM THE SITE ALL DEBRIS AND RUBBISH ACCUMULATING AS A RESULT OF THE ELECTRICAL INSTALLATION. UPON COMPLETION OF THE PROJECT, DISPOSE OF ALL DEBRIS AND RUBBISH AND:

1. LEAVE ELECTRICAL EQUIPMENT AREAS BROOM CLEAN
2. CLEAN INTERIOR OF ALL PANEL CABINETS, PULL BOXES, AND OTHER EQUIPMENT ENCLOSURES.

B. WHERE PAINTED SURFACE OF EQUIPMENT HAVE BEEN ABUSED, REMOVED OR RUSTED DURING CONSTRUCTION, THIS CONTRACTOR SHALL PAINT SAME TO MATCH ORIGINAL FACTORY OR SURROUNDING FINISH.

8. IDENTIFICATIONS AND INSTRUCTIONS

A. THE LOAD CENTER SHALL BE EQUIPPED WITH A DIRECTORY ACCURATELY INDICATING EQUIPMENT BEING SERVED.

B. ON BRANCH CIRCUITS, USE SHALL BE MADE OF ALL STANDARD COLORS AVAILABLE. WHERE WIRES OF DIFFERENT SYSTEMS JUNCTION IN A COMMON BOX, EACH CABLE SHALL BE GROUPED WITH ITS OWN SYSTEMS AND IDENTIFIED USING TAGS OR IDENTIFICATION STRIPS. ALL CONTROL AND SPECIAL SYSTEM WIRES SHALL ALSO BE CLEARLY IDENTIFIED BY DESCRIPTION AND LOCATION.

9. SAFETY PRECAUTIONS

A. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND PLACE GUARDS FOR PREVENTING OF ACCIDENTS FOR ALL WORK COVERED BY THIS CONTRACT. HE SHALL PROVIDE AND MAINTAIN ANY NECESSARY OSHA REQUIRED CONSTRUCTION NECESSARY TO SECURE SAFETY OF LIFE OR PROPERTY.

10. FINAL TESTS AND DEMONSTRATIONS

A. UPON COMPLETION OF THE WORK, THE ELECTRICAL INSTALLATION SHALL TEST ENTIRELY FREE OF GROUNDS AND SHORT CIRCUITS. ALL FEEDERS TOP BE MEGGERED. MADE ELECTRODES TO BE TESTED WITH A DIRECT READING GROUND RESISTANCE TESTER. ONE (1) COPY OF MEGGER READINGS AND GROUND RESISTANCE TEST TO BE SUBMITTED TO OWNER AND ONE (1) COPY TO ENGINEER.

B. ALL AUXILIARY SYSTEMS SHALL BE CHECKED FOR OPTIMUM PERFORMANCE AND ALL MOTORS SHALL BE CHECKED FOR PROPER ROTATION.

C. CONTRACTOR SHALL BALANCE LOAD AMONG THE FEEDER CONDUCTORS AT THE LOAD CENTER, AND SHALL RECONNECT LOADS AS MAY BE NECESSARY TO OBTAIN A MAXIMUM OF 7 1/2% UNBALANCE OF LOAD ON EACH LEG.

D. THE CONTRACTOR SHALL UPON REQUEST DEMONSTRATE PROPER OPERATION OF ALL ELECTRICAL SYSTEMS AND EQUIPMENT IN THE PRESENCE OF THE ENGINEER AND/OR OTHER DESIGNATED PERSONS.

II. GUARANTEES

A. ELECTRICAL CONTRACTOR SHALL LEAVE THE ENTIRE ELECTRICAL SYSTEMS IN GOOD WORKING ORDER AND SHALL AT HIS EXPENSE REPAIR, REBUILD, REMOVAL, AND MAKE GOOD AND ACCEPTABLE ALL DEFECTIVE LABOR AND MATERIALS THAT MATERIALS THAT MAY DEVELOP WITHIN ONE (1) YEAR AFTER COMPLETION AND FINAL ACCEPTANCE OF THE WORK HERE UNDER AND AS FURTHER DESCRIBED UNDER DIVISIONS OF THE SPECIFICATIONS

B. IT MAY BE NECESSARY TO ENERGIZE PORTIONS OF THE ELECTRICAL SYSTEM PRIOR TO FINAL ACCEPTANCE OF THE COMPLETED WORK BY THE OWNER . IT IS THE INTENT OF THESE SPECIFICATIONS THAT THE GUARANTEE PERIOD SHALL BE ONE (1) FULL YEAR AFTER FINAL ACCEPTANCE.

12. RECORD DRAWINGS

A. CONTRACTOR SHALL KEEP AN UP TO DATE SET OF "RECORD DRAWINGS" KEPT CURRENT ON A DAILY BASIS. SUCH DRAWINGS SHALL BE AVAILABLE TO THE ENGINEER OR HIS REPRESENTATIVE AT THE JOB SITE AT ALL TIMES. UPON COMPLETION OF THE CONTRACT TURN OVER TO THE ENGINEER ONE COMPLETE SET OF REPRODUCIBLE DRAWINGS

13. REVISIONS AND REMOVAL OF EXISTING EQUIPMENT

A. CONTRACTOR SHALL NOTE THAT THE EXISTING BUILDING WILL REMAIN IN SERVICE DURING CONSTRUCTION. ALL WORK SHALL BE DONE IN A TIMELY MANOR AND IN COMPLIANCE WITH THE "SEQUENCE OF CONSTRUCTION" LISTED ON THE PLANS.

B. ANY EXISTING CIRCUITS OR EQUIPMENT NOT SHOWN ON THE DRAWINGS AND WHICH ARE LOGICALLY EXPECTED TO BE CONTINUED IN SERVICE AND WHICH MAY BE INTERRUPTED OR DISTURBED DURING CONSTRUCTION, SHALL BE RECONNECTED IN A APPROVED MANNER. IN ADDITION, ANY EXISTING CIRCUIT OR EQUIPMENT, WHICH MAY REQUIRE RELOCATION OR REROUTING AS A RESULT OF CONSTRUCTION, SHALL BE CONSIDERED A PART OF THE WORK OF THIS BRANCH AND SHALL BE DONE BY THIS CONTRACTOR WITH NO ADDITIONAL COMPENSATION.

C. KEEP ALL EXISTING ELECTRIC CIRCUITS, TELEPHONE SERVICE, AND ALARM SIGNAL SYSTEMS IN OPERATION DURING CONSTRUCTION AS REQUIRED BY THE OWNER.

SECTION 16100
BASIC MATERIALS AND METHODS

1. SCOPE

A. THIS SECTION OF WORK INCLUDES THE BASIC MATERIALS TO INSTALL, CONNECT AND COMPLETE ELECTRICAL WORK IN A FINISHED WORKMANLIKE MANNER.

B. WORK INCLUDED:

1. SCOPE
2. RACEWAY SYSTEM
3. SUPPORT OF CONDUIT
4. CONDUIT FITTINGS
5. FIRE STOPS
6. LOCATION OF EQUIPMENT
7. WIRE AND WIRING METHOD-600 VOLT AND BELOW
8. CONCRETE PLATFORMS AND BASES.

2. RACEWAY SYSTEMS

A. FURNISH AND INSTALL A COMPLETE CONDUIT RACEWAY SYSTEMS FOR ALL FEEDERS, BRANCH CIRCUITS AND COMMUNICATION CIRCUITS AS SHOWN ON THE PLANS.

B. ALL CONDUIT SHALL BE FURNISHED IN MANUFACTURED LENGTHS AND U.L. LISTED FOR EACH MANUFACTURED LENGTH. RIGID HEAVY WALL CONDUIT SHALL BE FULL WEIGHT, HOT DIP GALVANIZED STEEL CONDUIT. E.M.T. SHALL BE ELETRO-GALVANIZED MILD STEEL WITH THOROUGHLY WELDED SEAMS.

C. RIGID HEAVY WALL STEEL CONDUIT MUST BE USED IN THE FOLLOWING LOCATION:

1. ALL CONDUIT EXPOSED OUTDOORS.
2. ALL CONDUIT INSTALLED IN CONCERT THAT IS ON GRADE OR BELOW GRADE.
3. ALL CONDUIT RUN UNDERGROUND.

D. DIRECT BURIED CONDUIT SHALL BE:

1. RIGID HEAVY WALL STEEL CONDUIT.
2. WHERE HEAVY TRUCK TRAFFIC IS ANTICIPATED, CONDUIT TO BE ENCASED IN A 3" CONCRETE ENVELOPE IN THAT AREA.
- 3.INSTALLED ON UNDISTURBED EARTH AND SURROUNDED BY A 3" SAND ENVELOPE (WHEN NOT CONCRETE ENCASED.)

E. ELECTRIC METALLIC TUBING (THIN WALL CONDUIT) BEARING THE UL LABEL OF APPROVAL MAY BE USED FOR BRANCH CIRCUIT WIRING AND FOR AUXILIARY SYSTEMS EXCEPT IT SHALL NOT BE USED FOR RUNS SPECIFIED TO BE INSTALLED IN RIGID CONDUIT. (SEE PARAGRAPH C.)

F. CONDUIT SHALL BE CONTINUOUS FROM OUTLET, AND FROM OUTLETS TO CABINETS, JUNCTION OR PULL BOXES, SUCH THAT EACH SYSTEM SHALL BE ELECTRICALLY CONTINUOUS FROM POINT OF SERVICE TO ALL OUTLETS, ENTIRE RACEWAY SYSTEMS SHALL BE SPACED WATER TIGHT WHERE INSTALLED IN WET PLACES, UNDERGROUND OR WHERE BURIED IN MASONRY OR CONCRETE.

G. CONDUIT RUNS THAT EXTEND THROUGH AREAS OF DIFFERENT TEMPERATURE OR ATMOSPHERIC CONDITIONS OR THAT ARE PARTLY INDOORS AND PARTLY OUTDOORS, SHALL BE SEALED AND INSTALLED IN A MANNER THAT WILL PREVENT DRAINAGE OF CONDENSED OR ENTRAPPED MOISTURE INTO CABINETS, MOTOR AND EQUIPMENT ENCLOSURES. OVERHEAD CONDUIT SHALL BE PROVIDE WITH SEAL AND DRAIN FITTINGS TO PROVIDE CONTINUOUS AUTOMATIC DRAINAGE.

H. CONDUIT AND SLEEVES SHALL BE LOCATED AS CLOSE TO THE MIDDLE OF CONCRETE SLABS AS PRACTICAL WITHOUT DISTURBING THE REINFORCEMENT. OUTSIDE DIAMETER SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS AND CONDUIT SHALL NOT BE SPACED CLOSER THAN THREE TIMES CONDUIT DIAMETER AND SHALL OTHERWISE COMPLY WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE "MANUAL OF CONCRETE PRACTICE - AC1-347"

I. FLEXIBLE METAL CONDUIT IN CODE APPROVED LENGTHS AND SIZES SHALL BE USED FOR FINAL CONNECTIONS OF ALL EQUIPMENT SUBJECT TO VIBRATION OR MOVEMENT, FOR ALL MOTORS. LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE USED IN WET LOCATIONS. A SEPARATE GROUND WIRE SHALL BE PROVIDE THOUGH ALL FLEXIBLE CONNECTIONS.

3. SUPPORT OF CONDUIT

A. CONDUIT SHALL BE SECURELY FASTENED TO STRUCTURAL PARTS OF THE BUILDING. SUPPORTING DEVICES SHALL BE SPECIFICALLY DESIGNED FOR THE APPLICATION. PERFORATED HANGER IRON IS NOT ACCEPTABLE.

B. FURNISH SUPPORTS ASM REQUIRED BY CODE, BUT IN ANY EVENT DO NOT EXCEED 10' BETWEEN ANT SUPPORTS.

4. CONDUIT FITTINGS

A. CONDUIT TERMINATION AT CABINETS AND BOXES SHALL BE RIGIDLY SECURED WITH GALVANIZED LOCK NUTS AND BUSHINGS AS REQUIRED BY CODE.

1. TERMINATION FOR RIGID HEAVY WALL STEEL CONDUIT SHALL BE LIQUID TIGHT , MADE OF STEEL WITH INSULATED THROATS AND DOUBLE LOCK NUTS
2. TERMINATION FOR E.M.T. SHALL BE RAIN-TIGHT COMPRESSION TYPE MADE OF STEEL. MALE FITTINGS TO HAVE INSULATED THROATS.
- 3.INDETOR, SET-SCREW CAST OR DRIVEN-ON TYPE COUPLINGS OR CONNECTORS ARE NOT ACCEPTABLE.
4. APPROVED MANUFACTURES: RACO, STEEL CITY, T&B MIDWEST OR APPLETON.

B. RUNNING THREADS WILL NOT BE PERMITTED. WHERE REQUIRED,USE MANUFACTURED THREAD'S COUPLINGS. SET SCREW AND SPLIT TYPE CONNECTORS ARE NOT ACCEPTABLE.

C. PROVIDE EXPANSION -DEFLECTION FITTINGS IN ALL METALLIC CONDUIT RUNS WHERE CROSSING EXPANSION JOINTS IN A STRUCTURAL WALL OR SLAB.

D. CONDUITS PASSING THOUGH EXTERIOR FOUNDATION WALLS OF THE BUILDING SHALL BE EQUIPPED WITH WALL ENTRANCE SEALS, O.Z. TYPE FSK, FSC, WSK, WSC, OR FST.

5. FIRE STOPS

A. WHERE CONDUITS OR EXPOSED CABLES PENETRATE FIRE STOPPED WALLS, PARTITIONS, CEILINGS, FLOORS, ETC. APPROVED FIRE STOP DEVICES SHALL BE USED TO KEEP FIRE RATING INTEGRITY.

B. FIRE STOPS TO BE NELSON ELECTRIC TYPE MCT OR HUBBELL FP OR WALKER 1600/1500 SERIES.

6. LOCATION OF OUTLETS AND EQUIPMENT

A. LOCATION OF OUTLETS AND EQUIPMENT AS SHOWN ON PLANS IS APPROXIMATE AND EXACT LOCATION IS TO BE VERIFIED BY THE CONTRACTOR AND WILL BE DETERMINED BY:

1. EQUIPMENT MANUFACTURER'S DRAWINGS.

B. MINOR MODIFICATIONS IN THE LOCATION OF OUTLETS AND EQUIPMENT IS CONSIDERED A PART OF THIS SPECIFICATION AND SHALL BE MADE WITH NO ADDITIONAL COMPENSATION

7. WIRE AND WIRING METHOD-600VOLT AND BELOW

A. ALL WIRE SIZES AND ALL CONDUIT SIZES SHOWN ON THE PLANS ARE FOR COPPER CONDUCTORS. CONDUCTORS FOR FEEDERS, BRANCH CIRCUITS CONTROL, AND OTHER CIRCUITS 600 VOLTS AND BELOW SHALL HAVE 600 VOLT INSULATION: NO. 12MINMUM UNLESS NOTED OTHERWISE, FACTORY COLOR CODED (SEE PARAGRAPH B) ALL WIRE AND CABLE SHALL BE AS MANUFACTURED BY OKONITE, ROME,COLLYER,CABLEC,OR AS OTHERWISE APPROVED AND AS FOLLOWS.

1. TYPE THWN/THHN SOLID OR STRANDED IN ALL GENERAL AREAS FOR NO. 12 AND NO.10 AWG BRANCH CIRCUIT WIRING.
2. TYPE THWN/THHN STRANDED FOR ALL WIRE NO. 8 AWG AND LARGER.

B. CONDUCTORS FOR ALARM SYSTEM SHALL BE AS MANUFACTURED BY BELDEN CORPORATION AND AS FURTHER DESCRIBED HEREIN.

1. IN GENERAL, NO.16 AWG 2 CONDUCTOR, TINNED COPPER, POLYETHYLENE INSULATED, CONDUCTORS CABLE, STRANDED TINNED COPPER DRAIN WIRE AND CHROME VINYL OUTER JACKET.

C. JOINTS, TAPS, AND SPLICES IN CONDUCTORS NO.10 AWG AND SMALLER SHALL BE MADE WITH COMPRESSION TYPE SOLDER LESS CONNECTORS WITH PLASTIC COVERS AND SHALL BE 3M "SCOTCHLOK", IDEAL "SUPER NUT" OR BUCHANON "B-CAPS".

D. JOINTS, TAPS, AND SPLICES IN CONDUCTORS NO. AWG AND LARGER SHALL BE MADE WITH SOLDER LESS PRESSURE TYPE CONNECTORS SIMILAR TO BURNDY, ANDERSON, THOMAS & BETTS COMPANY OR APPROVED EQUAL. EACH TAP, JOINT AND SPLICE IN CONDUCTORS NO.8 AWG AND LARGER SHALL BE TAPED WITH TWO HALF-LAP LAYERS OF SCOTCH NO. 33 VINYL PLASTIC ELECTRICAL TAPE. MARKING TO BE MADE BY SCOTCH NO. 35 COLOR CODING TAPE. EQUAL TAPES BY PLYMOUTH ARE ACCEPTABLE.

8. CONCRETE PLATFORMS AND BASES

A. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL CONCRETE PLATFORMS AND BASES SHOWN ON THE ELECTRICAL PLANS . THIS SHALL INCLUDE BASES FOR STAND BY GENERATOR.

B. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO CHECK MANUFACTURER'S CERTIFIED EQUIPMENT DRAWINGS IN ORDER TO DETERMINE EXACT DIMENSIONS AND OTHER REQUIREMENT . CONTRACTOR SHALL FURNISH AND INSTALL ALL ANCHOR BOLTS REQUIRED.

SECTION 16400
STANDBY GENERATOR

1. THIS SECTION OF THE WORK INCLUDES ALL THE NECESSARY EQUIPMENT, MATERIALS AND WORK REQUIRED TO RECEIVE, INSTALL AND WIRE A COMPLETE EMERGENCY GENERATOR SYSTEM.

- B. WORK INCLUDED:
1. SCOPE
 2. GROUNDING
 3. FEEDERS
 4. BRANCH CIRCUITS
 5. STANDBY GENERATOR

2. GROUNDING

A. A COMPLETE GROUNDING GRID SYSTEM SHALL BE (PROVIDE AS SHOWN ON THE PLANS AND SHALL BE TIED INTO THE BUILDING GROUND GRID AS SHOWN.

B. CARE MUST BE TAKEN TO DIG UP AND EXPOSE THE EXISTING UNDERGROUND BUILDING GROUND GRID.

C. HEAVY DUTY EXOTHERMIC (CAD WELD) CONNECTIONS MUST BE MADE FROM THE GENERATOR GROUND GRID TO THE BUILDING GROUND GRID AS SHOWN ON THE PLANS AT THE TWO LOCATIONS INDICTED.

D. IF THE BUILDING GROUND GRID IS DAMAGED DURING THE EXCAVATION OF THE GENERATOR GROUND GRID OR THE INSTALLATION OF THE UNDERGROUND CONDUIT SYSTEM BETWEEN THE GENERATOR AND THE BUILDING, IT MUST BE RESTORED TO ITS ORIGINAL CONFIGURATION AND OPERATING CONDITION.

3. FEEDERS

A. FURNISH, INSTALL, AND CONNECT FEEDERS IN ACCORDANCE WITH INFORMATION ON THE DRAWINGS WITH CONDUCTORS INSULATION TO CONFORM TO REQUIREMENT OF THESE SPECIFICATION.

B. EACH CONDUIT RACEWAY SHALL CONTAIN ONLY THOSE CONDUCTORS CONSTITUTING A SINGLE FEEDER CIRCUIT.

C. FEEDER CONDUCTORS SHALL BE SIZED SO TO PROVIDE A MAXIMUM OF 5% VOLTAGE DROP PER N.E.C. ARTICLE 215(B)(F.P.N. NO2).

D. CONDUCTOR SUPPORTS IN VERTICAL RACEWAYS SHALL MEET THE REQUIREMENTS OF ARTICLE 300-19 OF THE N.E.C. LATEST ADDITION.

4. BRANCH CIRCUITS

FURNISH AND INSTALL A COMPLETE BRANCH CIRCUIT AND CONTROL WIRING SYSTEM AS INDICATED ON THE PLANS. BALANCED LOAD ON THE PANEL BOARD BUS IS TO THE DETERMINE FACTOR IN ARRANGEMENT OF CIRCUIT. PANEL BOARD LOADING SHALL BE BALANCED TO ±10%

B. NO WIRE SMALLER THEN 12 AWG (UNLESS OTHERWISE NOTED) SHALL BE USED FOR BRANCH CIRCUIT WIRING INCLUDING MOTOR CIRCUITS. BRANCH CIRCUITS 15 AMP AND 20 AMP MUST BE SIZED FOR LENGTH OF RUN ON THE FOLLOWING BASIS:

1. IN GENERAL, BRANCH CIRCUIT WIRING SHALL BE PROVIDE TO LIMIT VOLTAGE DROP TO 3% AT ANY OUTLET PER I.E. ARTICLE 210.19(a)(F.P.N. NO. 4)

2. THE FOLLOWING WILL BE CONSIDERED AS MINIMUM REQUIREMENTS.

- a. 120 VOLT CIRCUITS
(1) 0 TO 75 FOOT RUNS FROM PANEL BOARD TO FIRST OUTLET: NO. 12 AWG MINIMUM.
- (2) 75 TO 150 FOOT RUN: INCREASE ONE WIRE SIZE TO NO.10 AWG.


5. STANDBY GENERATOR

A. THE STANDBY GENERATOR SHALL BE FURNISH BY LESSEE AND SHALL BE RECEIVED, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR AS SHOWN ON THE PLANS

B. THE GENERATOR SHALL BE RATED NOT LESS THAN 48 KW AS MANUFACTURED BY GENERAC POWER SYSTEMS, INC.

C. AUTOMATIC TRANSFER SWITCHES SHALL BE FURNISHED BY LESSEE, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR AS SHOWN ON THE PLANS AND AS INDICATED IN THE SEQUENCE OF CONSTRUCTION.

D. AFTER INSTALLATION BUT PRIOR TO CONNECTION TO THE BUILDING LOAD CENTER A STARTUP TEST MUST BE RUN AND ALL COMPONENTS CHECKED OUT FOR PROPER INSTALLATION. STARTUP TEST MUST BE DONE BY THERMFLO WITH THE ELECTRICAL CONTRACTOR PRESENT. LOADS SHALL BE TESTED AT 75% AT THE RATE KW FOR 2 HOURS AND AT RATED KW FOR 2HOURS. CHECK VOLTAGE FREQUENCY OIL PRESSURE, WATER TEMPERATURE. PROVIDE A TEST REPORT ON ALL THE RESULTS. RECORDS GENERATOR FRAME TEMPERATURE AT HOTTEST AFTER THE UNIT HAS CARRIED THE FULL LOAD FOR 2 HOURS. ALL ADJUSTMENTS AND REPLACEMENTS OF UNSATISFACTORY EQUIPMENT MUST BE MADE BY THE GENERATOR MANUFACTURER PRIOR TO FINAL CONNECTION TO THE LOAD CENTER.



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REVISIONS									
NO	DESCRIPTION	DATE	BY	JGL	BE	BE			
A	ISSUED FOR REVIEW	12/17/20							
B	POWER UP/GRADE	08/17/21							
O	ISSUED FOR CONSTRUCTION	09/01/21							

LOC# 140684

KCYC
LEES SUMMIT

900 SW BLUE PKWY
LEES SUMMIT, MO 64063

DRAWN BY:	JGL
CHECKED BY:	AJB
DATE:	12/17/20
PROJECT #:	54-1356

SHEET TITLE

ELECTRICAL NOTES

SHEET NUMBER

E-4

GENERAL NOTES

1. THE CONTRACTOR SHALL SUPERVISE AND DIRECT ALL WORK USING HIS OR HER BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE TO REVIEW THE SCOPE OF WORK AND EXISTING CONDITIONS INCLUDING, BUT NOT LIMITED TO ELECTRICAL SERVICE AND OVERALL COORDINATION.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS, ETC. SHALL BE REPORTED TO VERIZON WIRELESS BEFORE PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING CONSTRUCTION, STRUCTURE, OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF VERIZON WIRELESS, AT THE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL SAFEGUARD THE OWNER'S PROPERTY DURING CONSTRUCTION AND SHALL REPLACE ANY DAMAGED PROPERTY OF THE OWNER TO ORIGINAL CONDITION WITH THE APPROVAL OF THE OWNER.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETE.
8. ALL CONSTRUCTION WORK SHALL CONFORM TO THE I.B.C. AND ALL APPLICABLE LOCAL REGULATIONS, ORDINANCES, STATUTES AND CODES.
9. VERIZON WIRELESS SHALL OBTAIN THE CONSTRUCTION PERMIT, UNLESS JURISDICTION REQUIRES PERMIT TO BE PICKED UP BY A GENERAL CONTRACTOR. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK AND INCLUDE THOSE IN THE COST OF THE WORK TO THE OWNER.
10. CITY APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES. THESE ARE TO BE UNDER THE CARE OF JOB SUPERINTENDENT.
11. THE CONTRACTOR SHALL PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A:10-B:C WITHIN 75 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF THE BUILD OUT AREA DURING CONSTRUCTION.
12. ANY CONNECTION FEES FOR TEMPORARY ELECTRICAL SERVICE SHALL BE PAID BY THE CONTRACTOR.
13. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY POWER. CONTRACTOR SHALL NOT USE THE VERIZON WIRELESS GENERATOR ON SITE.

ABBREVIATIONS

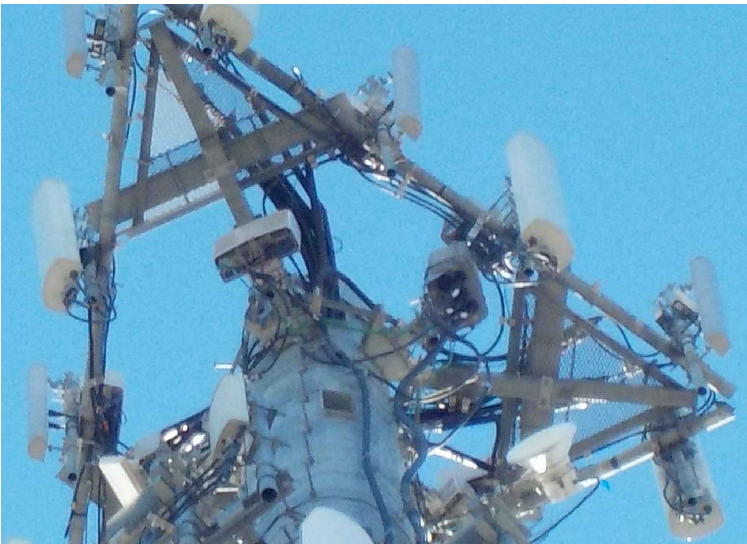
AGL	ABOVE GRADE LINE	GC	GENERAL CONTRACTOR
AMP	AMPERE	GND	GROUND
ARCH	ARCHITECT	HT	HEIGHT
BLDG	BUILDING	LF	LINEAR FEET
CL	CENTER LINE	MIN	MINIMUM
CONC	CONCRETE	MISC	MISCELLANEOUS
CONST	CONSTRUCTION	NTS	NOT TO SCALE
CONTR	CONTRACTOR	OC	ON CENTER
DET	DETAIL	PL	PLATE
DIA	DIAMETER	REQ'D	REQUIRED
DIAG	DIAGONAL	SF	SQUARE FEET
DIM	DIMENSION	SHT	SHEET
DN	DOWN	SIM	SIMILAR
DWG	DRAWING	SPECS	SPECIFICATIONS
EA	EACH	STD	STANDARD
ELEC	ELECTRICAL	STL	STEEL
ELEV	ELEVATOR, ELEVATION	STRUCT	STRUCTURAL
EQ	EQUAL	TC	TOP OF CURB
EQUIP	EQUIPMENT	TERRA	TERRA CONSULTING GROUP, L.T.D.
EXIST	EXISTING	TOP	TOP OF PAVING
FND	FOUNDATION	TOS	TOP OF STEEL
FTG	FOOTING	TOC	TOP OF CONCRETE
GA	GAUGE	TYP	TYPICAL
GALV	GALVANIZED	UNO	UNLESS NOTED OTHERWISE



1 EXISTING ASR SIGN PHOTO
N.T.S.



2 LESSEE COAX ROUTE ON ICE BRIDGE
N.T.S.



3 LESSEE COAX ROUTE @ TOP
N.T.S.



4 EXISTING TOWER PHOTO
N.T.S.



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SHEET TITLE
GENERAL NOTES
&
SITE PHOTOS

SHEET NUMBER
N-1



1 EXISTING ATS TO BE REMOVED



2 PROPOSED ILC LOCATION



3 EXISTING UTILITY POLE



4 EXISTING LOAD PANEL



5 PROPOSED METER LOCATION



6 EXISTING GENERATOR TO REMAIN

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SHEET TITLE
SITE PHOTOS

SHEET NUMBER
N-2