

VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: WOODS CHAPEL
 ATC SITE NUMBER: 306042
 VERIZON SITE NAME: WOODS CHAPEL
 VERIZON SITE NUMBER: 140737
 SITE ADDRESS: 1204 WOODS CHAPEL RD
 LEE'S SUMMIT, MO 64064



LOCATION MAP



FULLERTON
 ENGINEERING · DESIGN

1100 E. WOODFIELD ROAD, SUITE 500
 SCHAUMBURG, ILLINOIS 60173
 TEL: 847-908-8400
 COA# E2019038761
 www.FullertonEngineering.com

REV.	DESCRIPTION	BY	DATE
△	PRELIM	SA	05/28/21
△	FINAL	RV	08/25/21
△			
△			
△			

ATC SITE NUMBER:
306042

ATC SITE NAME:
WOODS CHAPEL

VERIZON SITE NAME:
WOODS CHAPEL

SITE ADDRESS:
1204 WOODS CHAPEL RD
LEE'S SUMMIT, MO 64064

SEAL:



DATE DRAWN:	05/28/2021
ATC JOB NO:	13681558
CUSTOMER ID:	WOODS CHAPEL
CUSTOMER #:	140737

TITLE SHEET

SHEET NUMBER: **G-001** REVISION: **0**

**VERIZON
 ANTENNA AMENDMENT DRAWINGS**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. 2015 INTERNATIONAL BUILDING CODE (IBC) 2. 2020 NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 1204 WOODS CHAPEL RD LEE'S SUMMIT, MO 64064 COUNTY: JACKSON <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 38.983214 LONGITUDE: -94.350064 GROUND ELEVATION: 982' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: <u>TOWER WORK:</u> REMOVE (9) ANTENNA(S) AND (12) RRH(S) INSTALL (9) ANTENNA(S), (3) SWIVEL MOUNT(S), (3) SIDE-BY-SIDE MOUNT BRACKET(S), (6) RRH(S) AND MOUNT MODIFICATIONS EXISTING (3) ANTENNA(S), (6) TMA(S), (2) OVP(S), (12) 1-5/8" COAX CABLE(S) AND (2) 1-1/4" HYBRID CABLE(S) TO REMAIN <u>GROUND WORK:</u> EXISTING (2) OVP(S) TO REMAIN	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<u>PROJECT TEAM</u> <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>ENGINEER:</u> FULLERTON ENGINEERING CONSULTANTS, LLC 1100 E. WOODFIELD ROAD, SUITE 500 SCHAUMBURG, IL 60173 <u>PROPERTY OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801	<u>PROJECT NOTES</u> 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED.					
<u>UTILITY COMPANIES</u> POWER COMPANY: UTILITY COMPANY DIRECT PHONE: TBD TELEPHONE COMPANY: VERIZON PHONE: TBD		<u>PROJECT LOCATION DIRECTIONS</u> KANSAS CITY INTERNATIONAL AIRPORT, GET ON I-29 S/US-71 S IN MAY TOWNSHIP FROM NW 120TH ST, FOLLOW I-29 S, I-70 E AND I-470 S/MO-291 S TO NE WOODS CHAPEL RD IN LEE'S SUMMIT. TAKE EXIT 12 FROM I-470 S/MO-291 S, CONTINUE ON NE WOODS CHAPEL RD. DRIVE TO NE LAKEWOOD WAY, TURN LEFT ONTO NE WOODS CHAPEL RD, TURN LEFT ONTO NE LAKEWOOD WAY, DESTINATION WILL BE ON THE RIGHT					



Know what's below.
 Call before you dig.

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, VERIZON "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
 - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
 - B. AC/TELCO INTERFACE BOX (PPC)
 - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
 - D. TOWERS, MONOPOLES
 - E. TOWER LIGHTING
 - F. GENERATORS & LIQUID PROPANE TANK
 - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
 - H. ANTENNAS (INSTALLED BY OTHERS)
 - I. TRANSMISSION LINE
 - J. TRANSMISSION LINE JUMPERS
 - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
 - L. TRANSMISSION LINE GROUND KITS
 - M. HANGERS
 - N. HOISTING GRIPS
 - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF VERIZON TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.

22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. VERIZON OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
 - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
 - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND VERIZON SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
 - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
 - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER, SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
 - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS, WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
 - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



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 SCHAUMBURG, ILLINOIS 60173
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REV.	DESCRIPTION	BY	DATE
A	PRELIM	SA	05/28/21
0	FINAL	RV	08/25/21

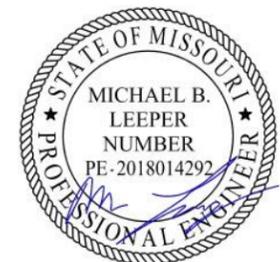
ATC SITE NUMBER:
306042

ATC SITE NAME:
WOODS CHAPEL

VERIZON SITE NAME:
WOODS CHAPEL

SITE ADDRESS:
1204 WOODS CHAPEL RD
LEE'S SUMMIT, MO 64064

SEAL:



DATE DRAWN:	05/28/2021
ATC JOB NO:	13681558
CUSTOMER ID:	WOODS CHAPEL
CUSTOMER #:	140737

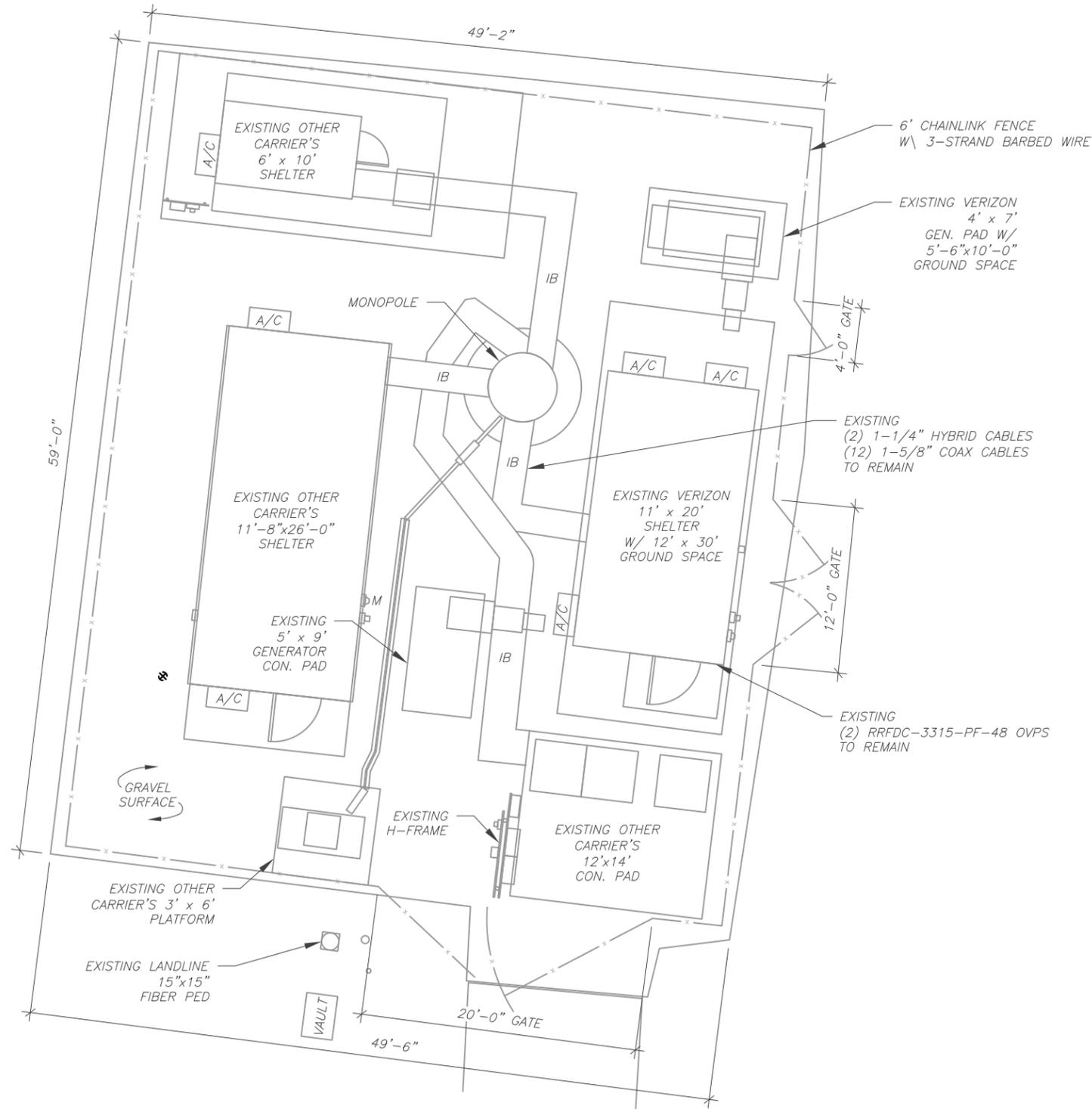
GENERAL NOTES

SHEET NUMBER: G-002	REVISION: 0
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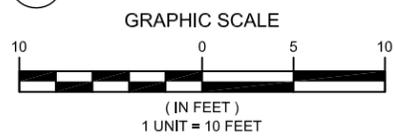
SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

LEGEND	
⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
—x—	CHAINLINK FENCE



1 DETAILED SITE PLAN



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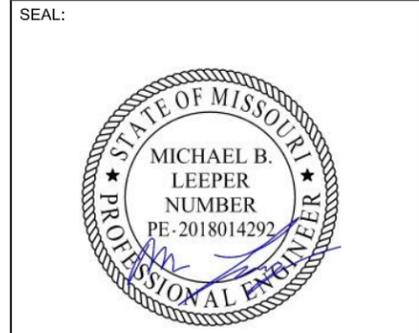
REV.	DESCRIPTION	BY	DATE
A	PRELIM	SA	05/28/21
O	FINAL	RV	08/25/21

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DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

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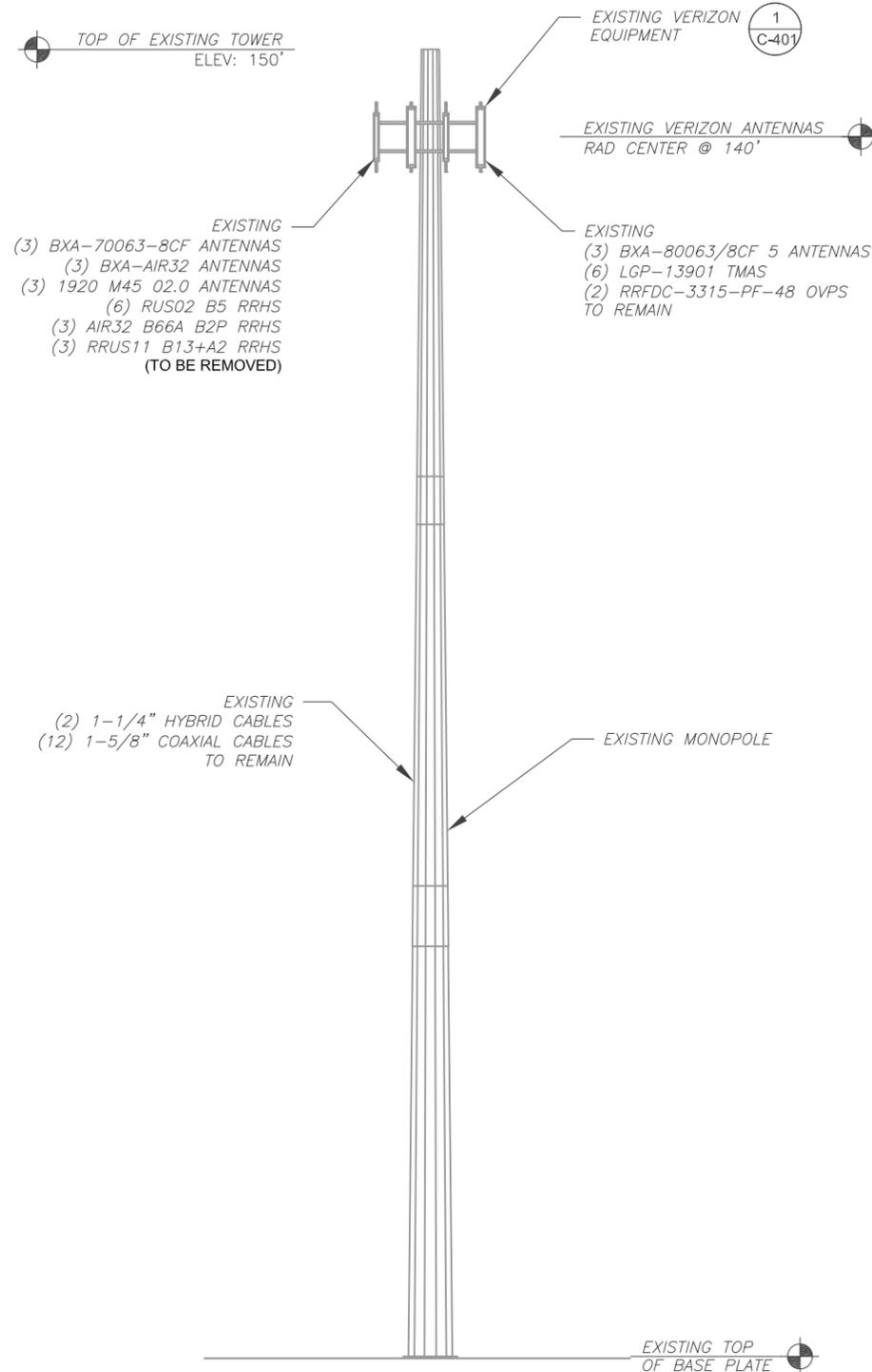
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TOWER ELEVATION

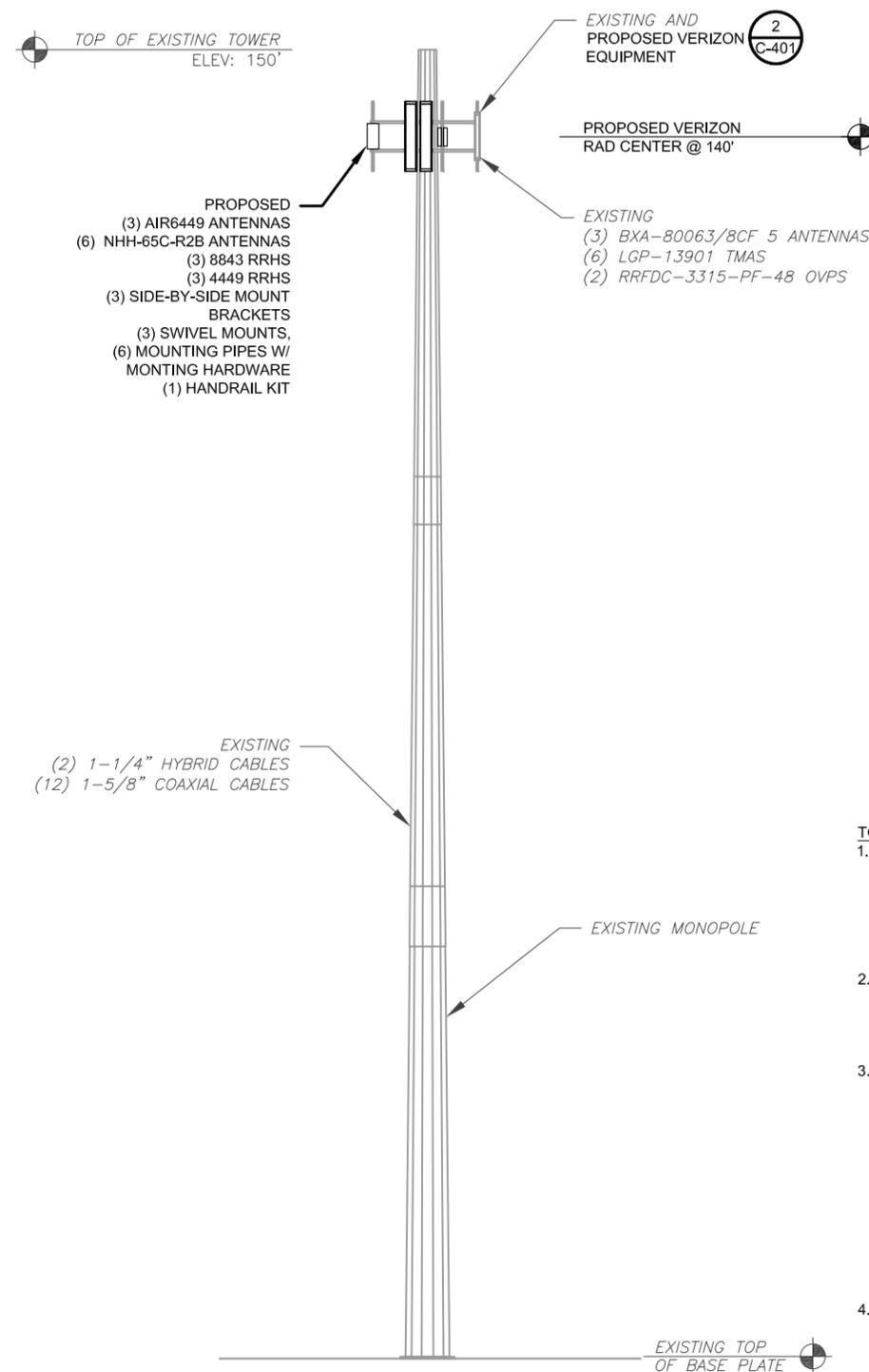
SHEET NUMBER:	REVISION:
C-201	0

PER MOUNT ANALYSIS COMPLETED BY TELAMON CLS, DATED 07/19/2021, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT

ATC HAS COMPLETED THE TOWER ANALYSIS ON 05/24/2021 AND THE TOWER CAN ADEQUATELY SUPPORT THE PROPOSED LOADS.



1 EXISTING TOWER ELEVATION
SCALE: N.T.S.



2 PROPOSED TOWER ELEVATION
SCALE: N.T.S.

TOWER NOTE:

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
- WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
- ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
- TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)



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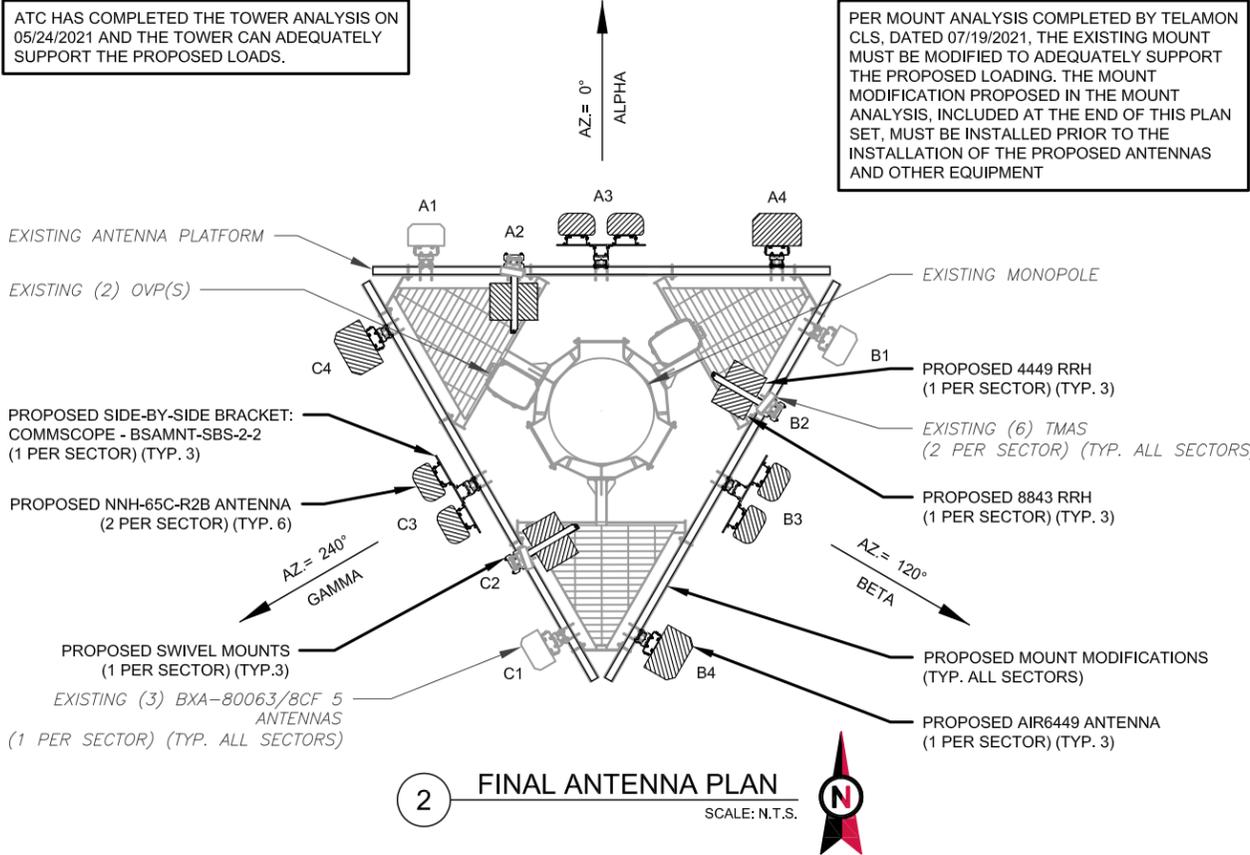
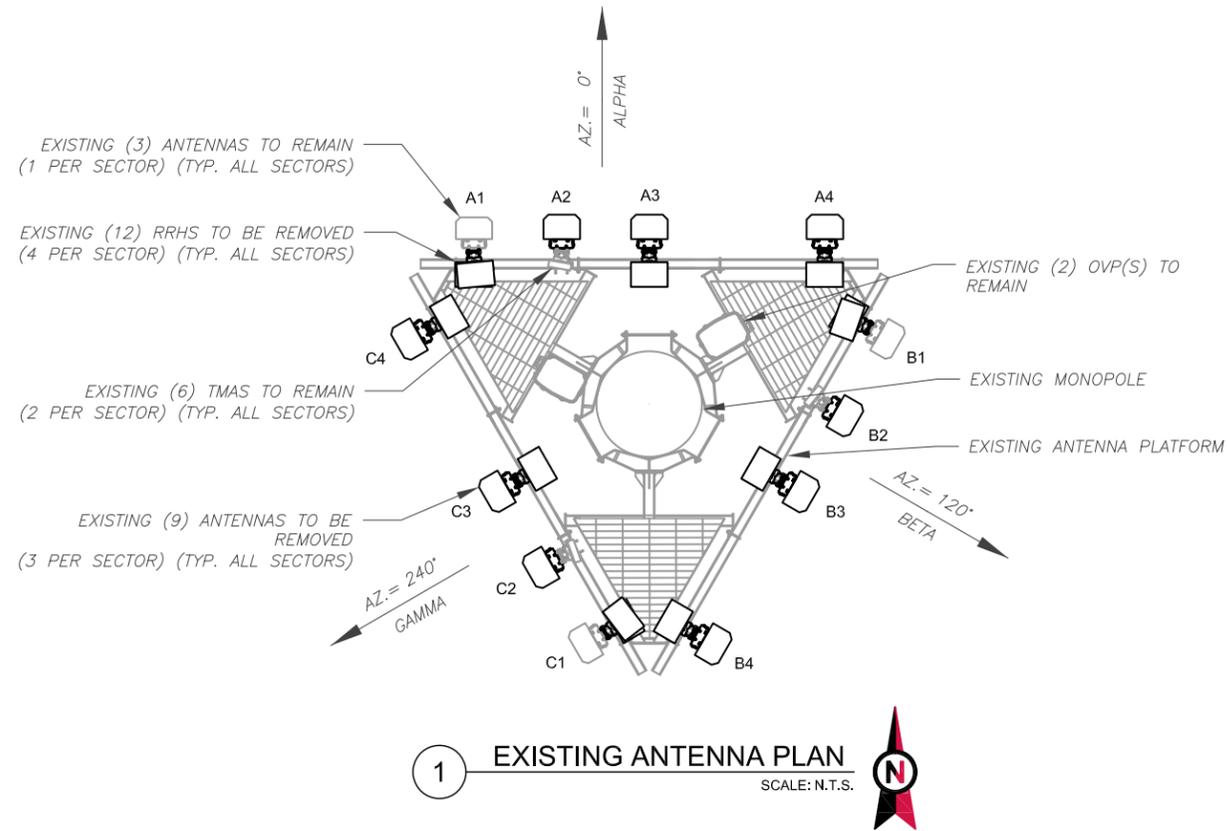
ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:
C-401

REVISION:
0

ATC HAS COMPLETED THE TOWER ANALYSIS ON 05/24/2021 AND THE TOWER CAN ADEQUATELY SUPPORT THE PROPOSED LOADS.

PER MOUNT ANALYSIS COMPLETED BY TELAMON CLS, DATED 07/19/2021, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT



EXISTING ANTENNA SCHEDULE									
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	140'	0°	A1	ANTEL - BXA-80063/BCF 5	CDMA 850	2/5	RMN	(2) RRUS02 B5	RMV
			A2	ERICSSON - AIR32	LAWS	2/2	RMV	(2) LGP-13901	RMN
			A3	ANTEL - BXA-70063-BCF	L700	4/0	RMV	AIR32 B66A B2P	RMV
			A4	KATHREIN-80010510V01	CDMA 1900	2/2	RMV	RRUS11 B13+A2	RMV
BETA	140'	120°	B1	ANTEL - BXA-80063/BCF 5	CDMA 850	2/5	RMN	(2) RRUS02 B5	RMV
			B2	ERICSSON - AIR32	LAWS	2/2	RMV	(2) LGP-13901	RMN
			B3	ANTEL - BXA-70063-BCF	L700	4/0	RMV	AIR32 B66A B2P	RMV
			B4	KATHREIN-80010510V01	CDMA 1900	2/2	RMV	RRUS11 B13+A2	RMV
GAMMA	140'	240°	C1	ANTEL - BXA-80063/BCF 5	CDMA 850	2/5	RMN	(2) RRUS02 B5	RMV
			C2	ERICSSON - AIR32	LAWS	2/2	RMV	(2) LGP-13901	RMN
			C3	ANTEL - BXA-70063-BCF	L700	4/0	RMV	AIR32 B66A B2P	RMV
			C4	KATHREIN-80010510V01	CDMA 1900	2/2	RMV	RRUS11 B13+A2	RMV

NOTES

1. CONFIRM WITH VERIZON REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.

2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE									
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	140'	0°	A1	ANTEL - BXA-80063/BCF 5	CDMA 850	2/5	RMN	-	-
			A2	-	-	-	-	8843 RRH 4449 RRH (2) LGP-13901	ADD ADD RMN
			A3	COMMSCOPE - NNH-65C-R2B	L700/L5G 850/LAWS CDMA1900	0/9	ADD	-	-
				COMMSCOPE - NNH-65C-R2B	L700/L5G 850/LAWS CDMA1900	0/9	ADD	-	-
BETA	140'	120°	A4	ERICSSON - AIR 6449	L-SUB6 5G	0/3	ADD	-	-
			B1	ANTEL - BXA-80063/BCF 5	CDMA 850	2/5	RMN	-	-
			B2	-	-	-	-	8843 RRH 4449 RRH (2) LGP-13901	ADD ADD RMN
			B3	COMMSCOPE - NNH-65C-R2B	L700/L5G 850/LAWS CDMA1900	0/9	ADD	-	-
COMMSCOPE - NNH-65C-R2B	L700/L5G 850/LAWS CDMA1900	0/9		ADD	-	-			
GAMMA	140'	240°	B4	ERICSSON - AIR 6449	L-SUB6 5G	0/3	ADD	-	-
			C1	ANTEL - BXA-80063/BCF 5	CDMA 850	2/5	RMN	-	-
			C2	-	-	-	-	8843 RRH 4449 RRH (2) LGP-13901	ADD ADD RMN
			C3	COMMSCOPE - NNH-65C-R2B	L700/L5G 850/LAWS CDMA1900	0/9	ADD	-	-
COMMSCOPE - NNH-65C-R2B	L700/L5G 850/LAWS CDMA1900	0/9		ADD	-	-			
C4	ERICSSON - AIR 6449	L-SUB6 5G	0/3	ADD	-	-			

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(2) RRFDC-3315-PF-48	RMN	(12) 1-5/8"	(2) 1-1/4"	RMN

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(2) RRFDC-3315-PF-48	RMN	(12) 1-5/8"	(2) 1-1/4"	RMN

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ENGINEERING · DESIGN

1100 E. WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
COA# E2019038761
www.FullertonEngineering.com

REV.	DESCRIPTION	BY	DATE
A	PRELIM	SA	05/28/21
0	FINAL	RV	08/25/21

ATC SITE NUMBER:
306042

ATC SITE NAME:
WOODS CHAPEL

VERIZON SITE NAME:
WOODS CHAPEL

SITE ADDRESS:
1204 WOODS CHAPEL RD
LEE'S SUMMIT, MO 64064

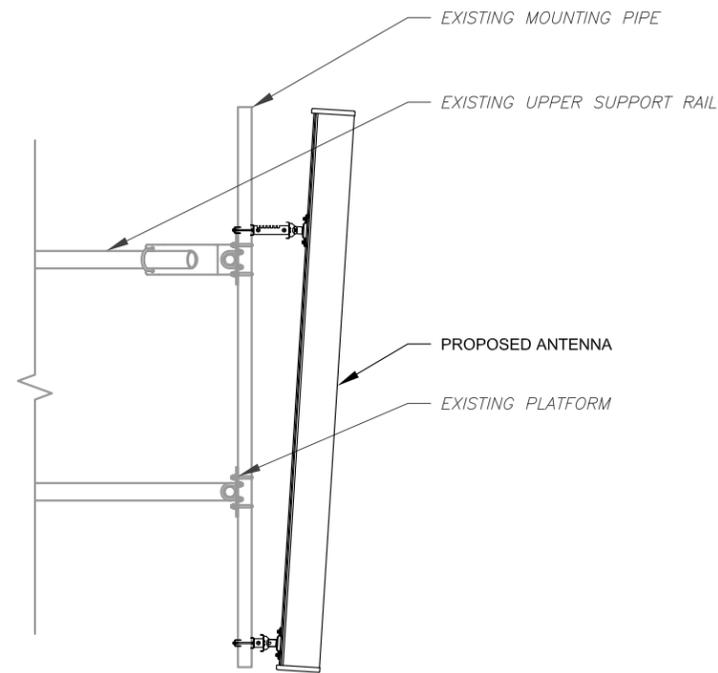
SEAL:



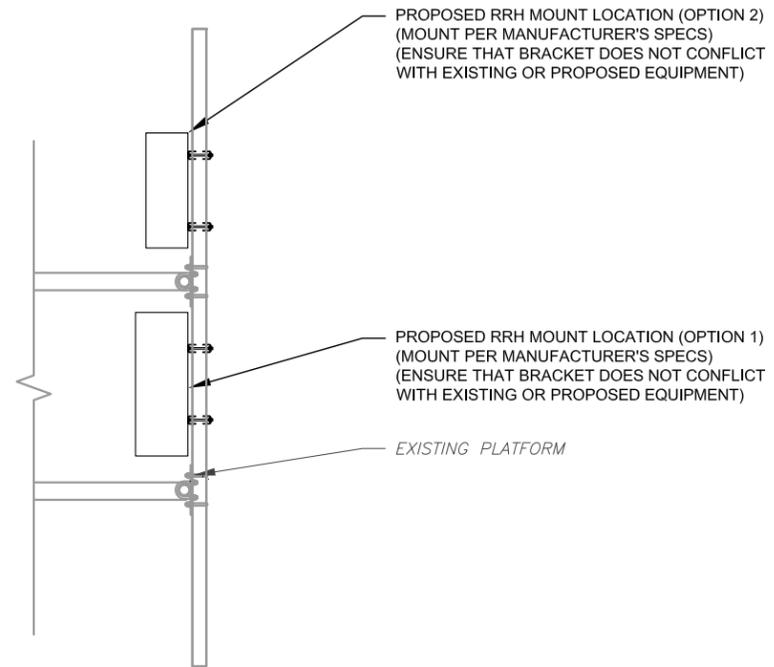
DATE DRAWN:	05/28/2021
ATC JOB NO:	13681558
CUSTOMER ID:	WOODS CHAPEL
CUSTOMER #:	140737

**CONSTRUCTION
DETAILS**

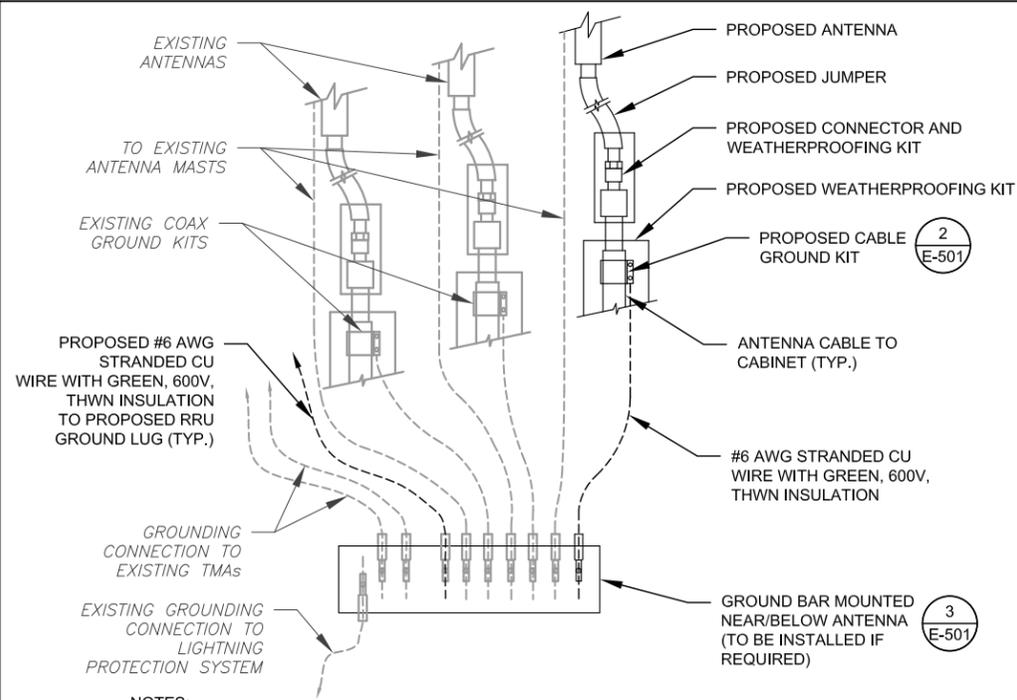
SHEET NUMBER:	REVISION:
C-501	0



1 ANTENNA DETAIL
SCALE: N.T.S.



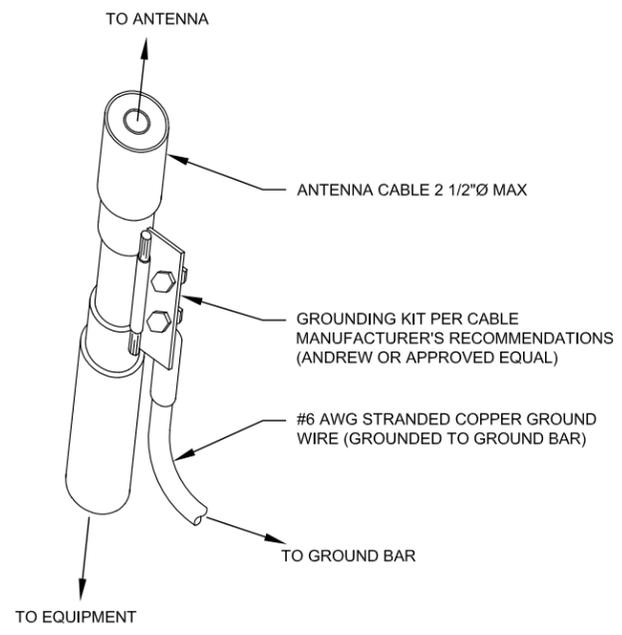
2 PROPOSED RRH MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



NOTES:

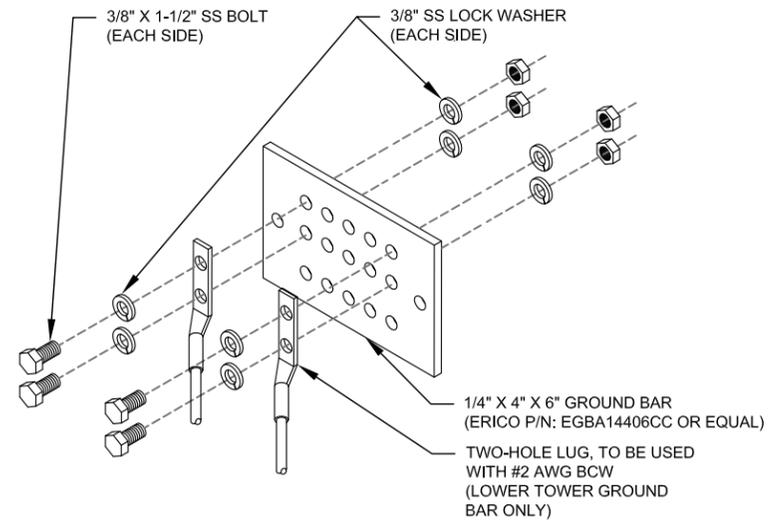
1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: N.T.S.



- GROUND KIT NOTES:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL
SCALE: N.T.S.



GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL
SCALE: N.T.S.



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1100 E. WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
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COA# E2019038761
www.FullertonEngineering.com

REV.	DESCRIPTION	BY	DATE
A	PRELIM	SA	05/28/21
0	FINAL	RV	08/25/21

ATC SITE NUMBER:
306042

ATC SITE NAME:
WOODS CHAPEL

VERIZON SITE NAME:
WOODS CHAPEL

SITE ADDRESS:
1204 WOODS CHAPEL RD
LEE'S SUMMIT, MO 64064

SEAL:



DATE DRAWN:	05/28/2021
ATC JOB NO:	13681558
CUSTOMER ID:	WOODS CHAPEL
CUSTOMER #:	140737

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

Antenna Summary

Added													
700	850	1900	AWS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity
LTE	LTE 5G	CDMA	LTE		COMMSCOPE	NHH-65C-R2B	140	144	0(0001) 0(01) 0(D1) 120(0002) 120(02) 120(D2) 240(0003) 240(03) 240(D3)	true	true	PHYSICAL	6
				5G	Ericsson	AIR6449	140	142.1	0(0001) 120(0002) 240(0003)	false	false	PHYSICAL	3
Removed													
700	850	1900	AWS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity
LTE					ANTEL	BXA-70063-8CF	140	143.9	0(01) 120(02) 240(03)	false	false	PHYSICAL	3
			LTE		ERICSSON	AIR32 02.0 B4A (215599)	140	142.4	0(01) 120(02) 240(03)	false	false	PHYSICAL	3
		CDMA			KATHREIN	80010510V01 1920 M45 02.0 LEFT (161021)	140	142.3	0(D1) 120(D2) 240(D3)	false	false	PHYSICAL	3
Retained													
700	850	1900	AWS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity
	CDMA				ANTEL	BXA-80063/8CF 5 (32555)	140	143.9	0(D1) 120(D2) 240(D3)	false	false	PHYSICAL	3

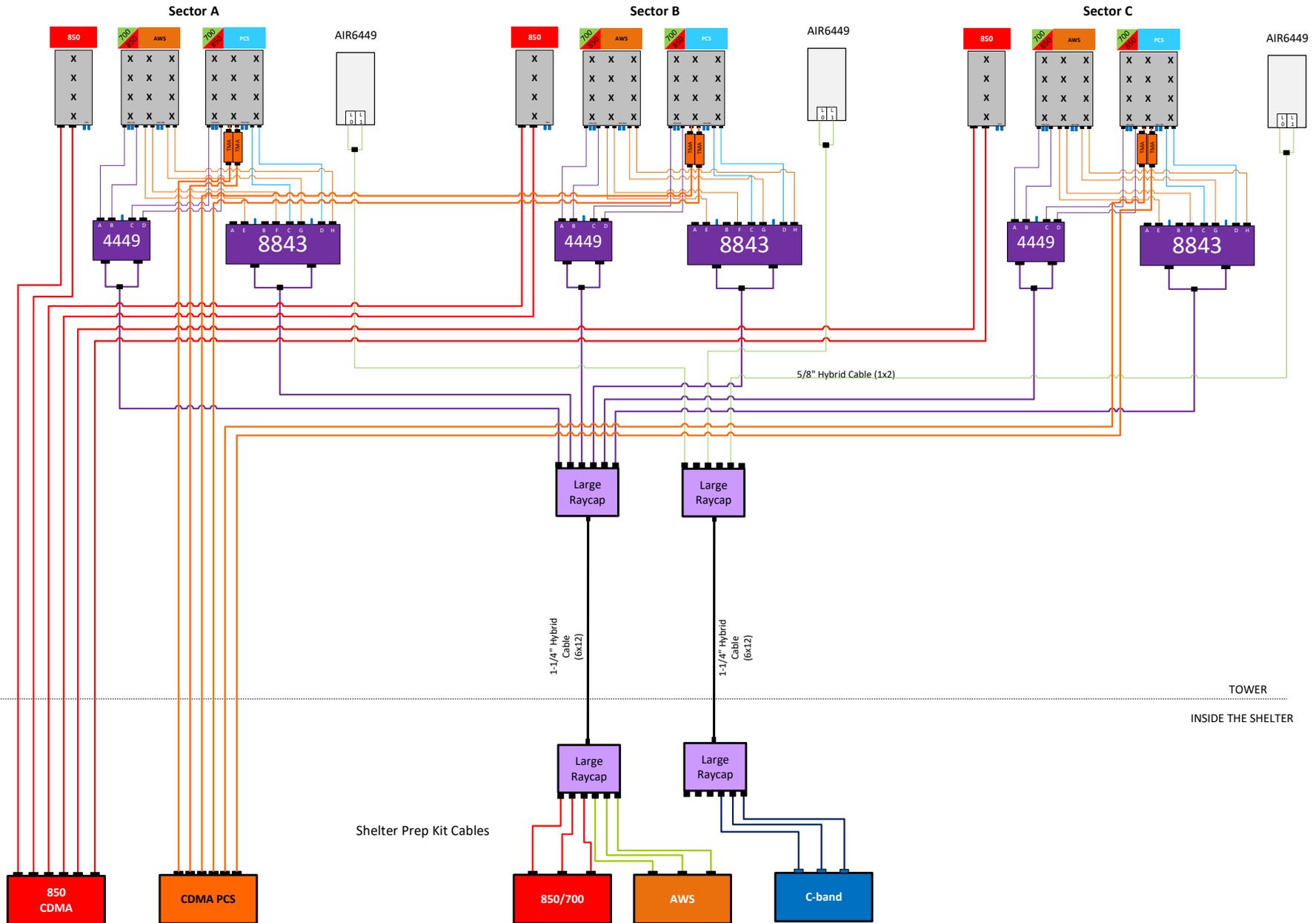
Added: 9
Removed: 9
Retained: 3

Equipment Summary

Added												
Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity
RRU	Tower	LTE	LTE 5G				Ericsson	4449			PHYSICAL	3
RRU	Tower				LTE		Ericsson	8843			PHYSICAL	3
RRU	Tower					5G	Ericsson	AIR6449			PHYSICAL	3
Removed												
Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity
RRU	Tower				LTE		Ericsson	AIR32 B66A B2P			PHYSICAL	3
RRU	Tower	LTE					Ericsson	RRUS11 B13+A2			PHYSICAL	3
RRU	Tower	LTE					Ericsson	RRUS11 B13+A2			PHYSICAL	3
RRU	Tower	LTE					Ericsson	RRUS11 B13+A2			PHYSICAL	3
RRU	Tower	LTE					Ericsson	RRUS11 B13+A2			PHYSICAL	3
RRU	Tower		LTE				Ericsson	RUS02 B5			PHYSICAL	6
Retained												
Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity
TMA	Tower			CDMA			Allgon	LGP-13901			PHYSICAL	6
Coaxial Cables	Tower			CDMA			Andrew	LDF7-50A	165'	1-5/8"	PHYSICAL	6
Coaxial Cables	Tower		CDMA				Andrew	LDF7-50A	165'	1-5/8"	PHYSICAL	6
Hybrid Cable	Tower	LTE	LTE 5G		LTE	5G	RFS	HBF114-13U6S12	170'	1-1/4"	PHYSICAL	2
OVP Box	Tower	LTE	LTE 5G		LTE	5G	Raycap	RRFDC-3315-PF-48			PHYSICAL	2
OVP Box	Shelter	LTE	LTE 5G		LTE	5G	Raycap	RRFDC-3315-PF-48			PHYSICAL	2

Arrangement of Antennas may not match arrangement on the tower

CDMA 850 / CDMA PCS / 700 LTE / AWS LTE / 850 LTE / 850 5G / C-band





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CORPORATION

This report was prepared for American Tower Corporation by

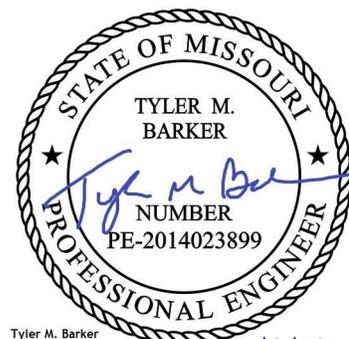


Antenna Mount Analysis Report

ATC Site Name : Woods Chapel
ATC Asset Number : 306042
Engineering Number : 13681558_C8_03
Mount Elevation : 138 ft
Carrier : Verizon Wireless
Carrier Site Name : Woods Chapel
Carrier Site Number : 140737
Site Location : 1204 N.E. Woods Chapel Road
Lees Summit, MO 64064-1989
38.98321389, -94.35006389
County : Jackson
Date : July 19, 2021
Max Usage : 64%
Result : Contingent Pass*
*See conclusion for requirements

Prepared By:
Kowsalya V
Telamon CLS

Reviewed By:
Tyler M. Barker, P.E.
Telamon CLS



Tyler M. Barker
CLS Group
PE # PE-2014023899 Exp. 12/31/2022
COA # 2010039825 Exp. 12/31/2022

Introduction

The proposed equipment is to be mounted to the existing Low Profile Platform w/ proposed Site Pro 1 HRK12 Support Rail kit. This proposed mounting configuration was analyzed using RISA-3D, a commercially available finite element analysis software package. A selection of input and output from our analysis is attached to the end of this report.

Supporting Documents

Structural Data	Site Photos dated January 21, 2020 Spec sheet by Andrew, Part #MC-PK12S
Previous Analyses	Tower SA by ATC, Engineering #13683130_C3_03, dated June 25, 2021
Loading Data	ATC Application, Project#13681558 Verizon RFDS, FUZE Project #16275043, dated March 23, 2021

Analysis

Codes	2018 IBC / TIA-222-H
Basic Wind Speed	109 mph, V_{ult} (3-Second Gust)
Basic Wind Speed w/ Ice	40 mph (3-Second Gust) w/ 1.5" Radial Ice (Escalating)
Exposure Category	C
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Risk Category	II
Maintenance Live Load	L_M : 500 lb
Spectral Response	S_S : 0.10; S_1 : 0.07; Site Class: D

Conclusion

Based on the analysis, the antenna mount meets the requirements per the applicable codes listed above. The mounting configuration considered in this analysis will be capable of supporting the referenced loading pursuant to referenced standards once the following scope is executed:

- **Replace existing (2) mount pipes at position 2 and position 3 with proposed Site Pro 1 SP219-96 Pipe Mount kits each sector (6 total). Connect mount pipes to platform base with Site Pro 1 X-SP219 cross plates included with the kit.**
- **Install (1) proposed Site Pro 1 HRK12 support rail kit at $\pm 3'-0"$ above the Platform Base as shown. Connect to all existing and proposed mount pipes using Site Pro 1 SCX1 crossover plate kits (12 total) included in the support rail kit.**

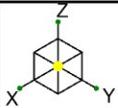
If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Antenna Loading

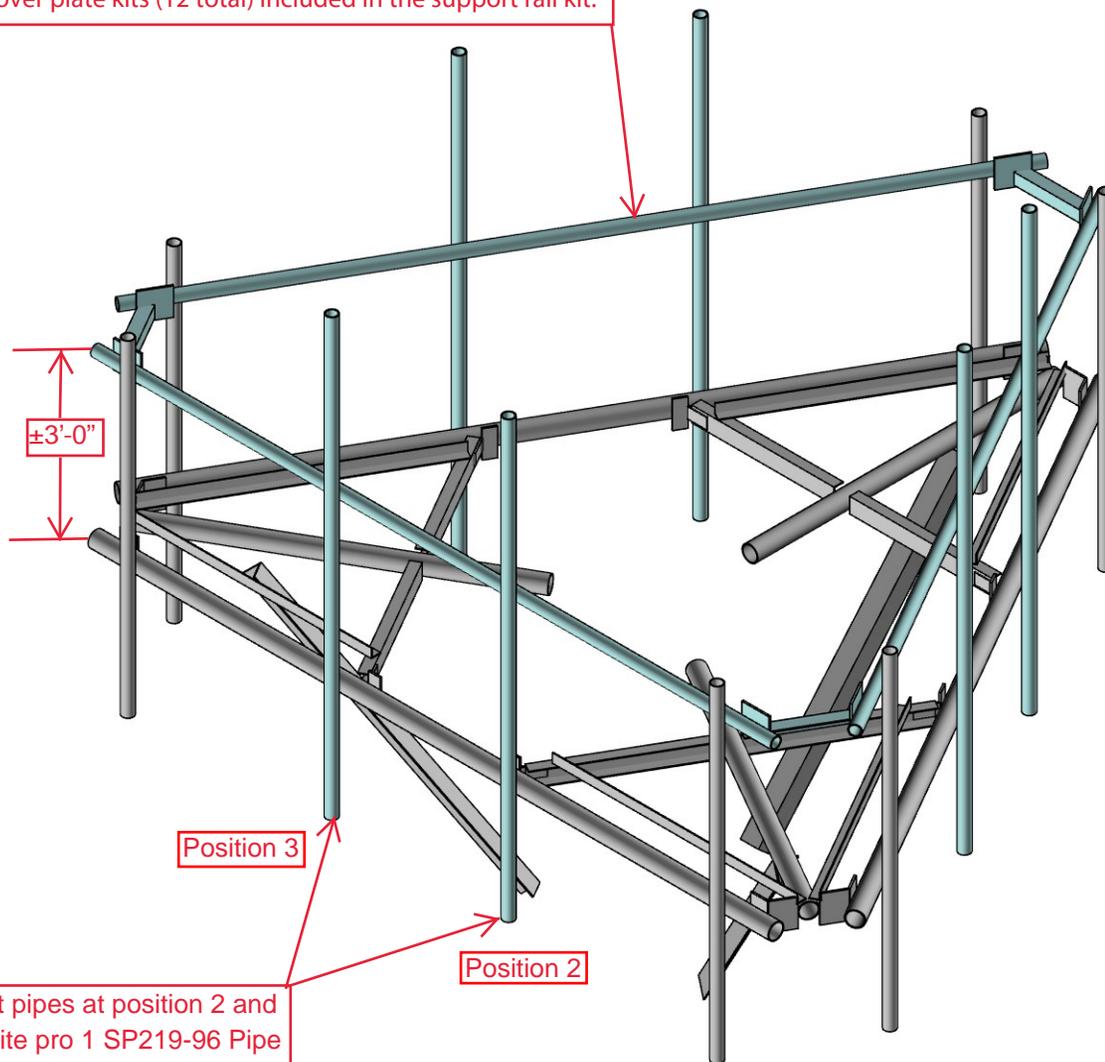
Elevation (ft)		Antennas	
Mount	Rad.	#	Name
138.0	140.0	6	Commscope NHH-65C-R2B
		3	Antel BXA-80063/8CF
		3	Ericsson AIR 6449 B77D/ C-Band
		3	Ericsson Radio 4449 - B13&B5
		3	Ericsson 8843 Rev 2
		6	Powerwave Allgon LGP 13901
		2	Raycap RRFDC-3315-PF-48

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Connections	64%	Pass
Corner Plates	54%	Pass
Bracing Members	45%	Pass
Mount Pipes	41%	Pass
Support Rail	30%	Pass
Platform Base	12%	Pass



Install (1) proposed Site Pro 1 HRK12 support rail kit at $\pm 3'-0''$ above the Platform Base as shown. Connect to all mount pipes using Site Pro 1 SCX1 crossover plate kits (12 total) included in the support rail kit.



Replace existing (2) mount pipes at position 2 and position 3 with proposed Site pro 1 SP219-96 Pipe Mount kits each sector (6 total). Connect mount pipes to platform base with Site Pro 1 X-SP219 cross plates included with the kit.

Telamon CLS

KV

41124-13681558_C8_03-01-MA

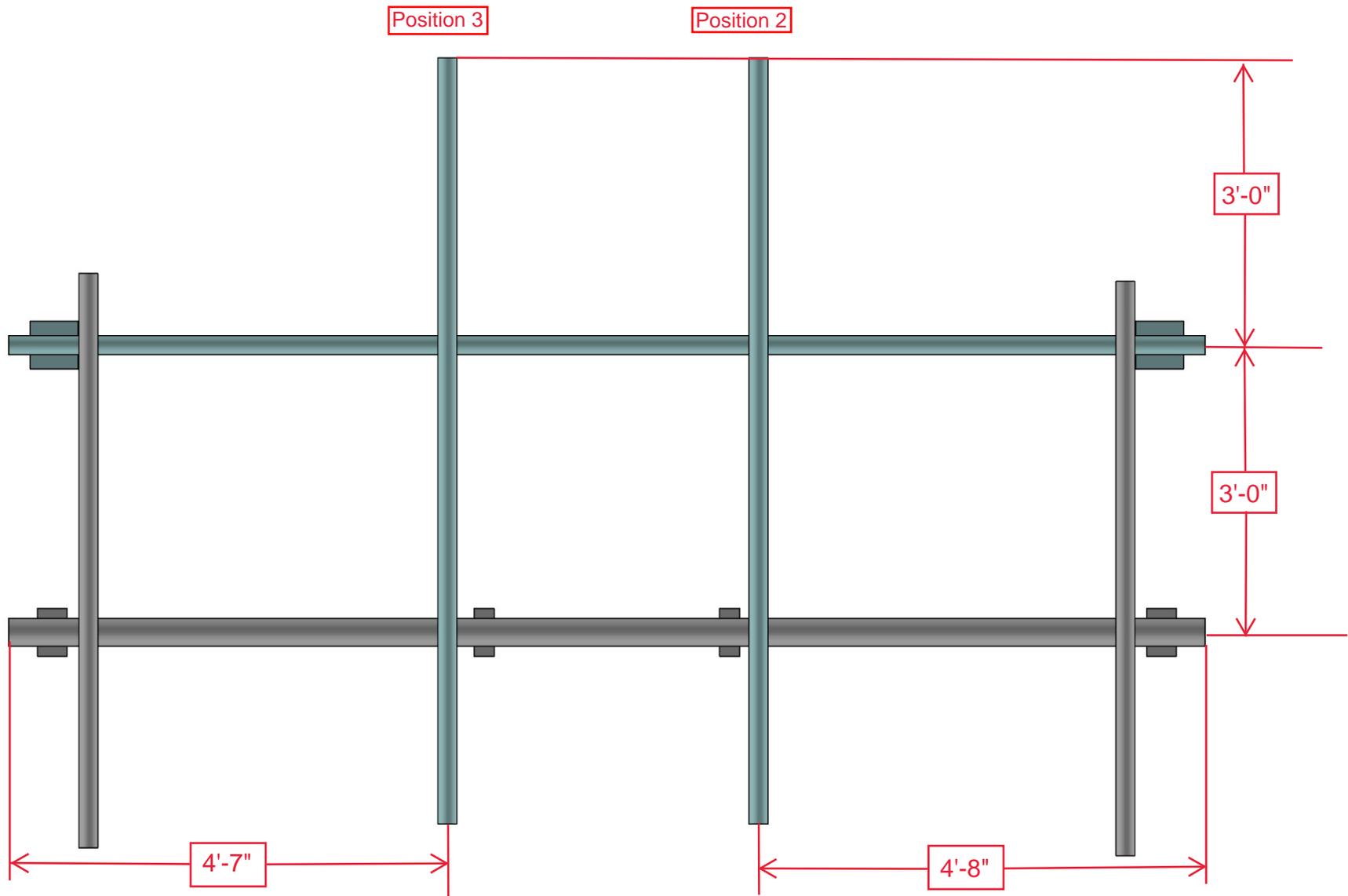
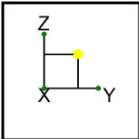
41124-13681558_C8_03-Woods Chapel

Proposed Modification - Rendered

IN-1

Jul 19, 2021

41124-13681558_C8_03-01-MA - Copy.r3d



Telamon CLS

KV

41124-13681558_C8_03-01-MA

41124-13681558_C8_03-Woods Chapel

Proposed Modification - Front Elevation

IN-2

Jul 19, 2021

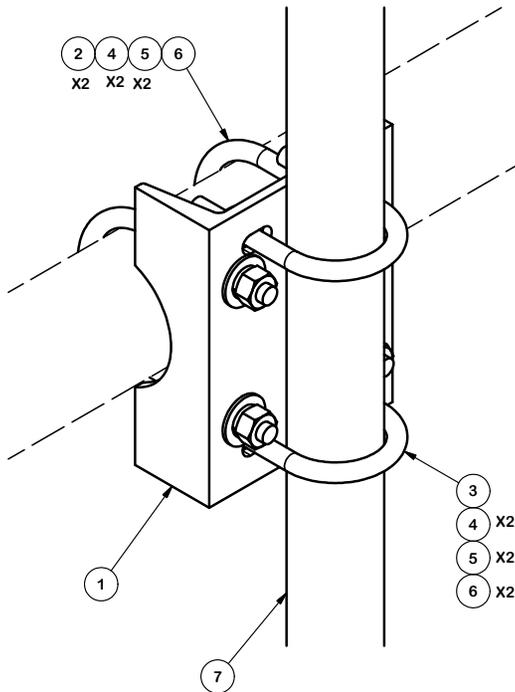
41124-13681558_C8_03-01-MA - Copy.r3d

2-3/8" O.D. VERTICAL MOUNTING PIPES

ASSEMBLY "A"	PART NO. "B"	PART DESCRIPTION	LENGTH "C"	UNIT WT. "D"	NET WT. "E"	TOTAL WEIGHT
SP219-63	P263	2-3/8" DIA X 63" SCH 40 GALVANIZED PIPE	63"	20.18	20.18	32.65
SP219-72	P272	2-3/8" DIA X 63" SCH 40 GALVANIZED PIPE	72"	23.07	23.07	35.54
SP219-84	P284	2-3/8" DIA X 63" SCH 40 GALVANIZED PIPE	84"	26.91	26.91	39.38
SP219-96	P296	2-3/8" DIA X 63" SCH 40 GALVANIZED PIPE	96"	30.76	30.76	43.23
SP219-126	P2126	2-3/8" DIA X 10'-6" SCH 40 GALVANIZED PIPE	126"	40.37	40.37	52.84

PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	X-SP219	SMALL SUPPORT CROSS PLATE	8.250 in	8.61	8.61
2	2	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.26	0.51
3	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.26	0.51
4	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
5	8	G12LW	1/2" HDG LOCKWASHER	.125	0.01	0.11
6	8	G12FW	1/2" HDG USS FLATWASHER	0.095	0.03	0.27
7	1	"B"	2-3/8" O.D. VERTICAL MOUNTING PIPES	"C"	"D"	"E"



FINISH:
HOT DIP GALVANIZED.

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.060"$)

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION
 PIPE MOUNT KITS



Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

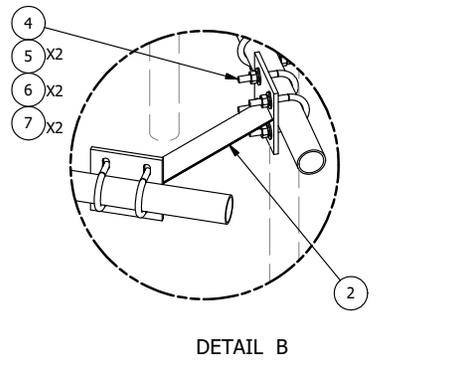
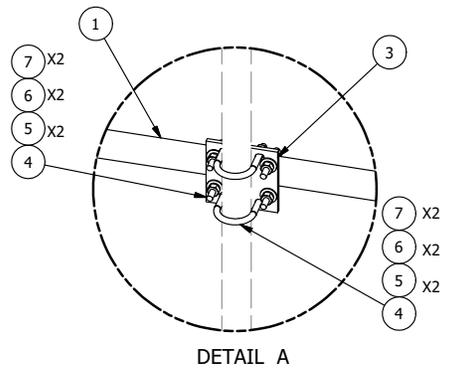
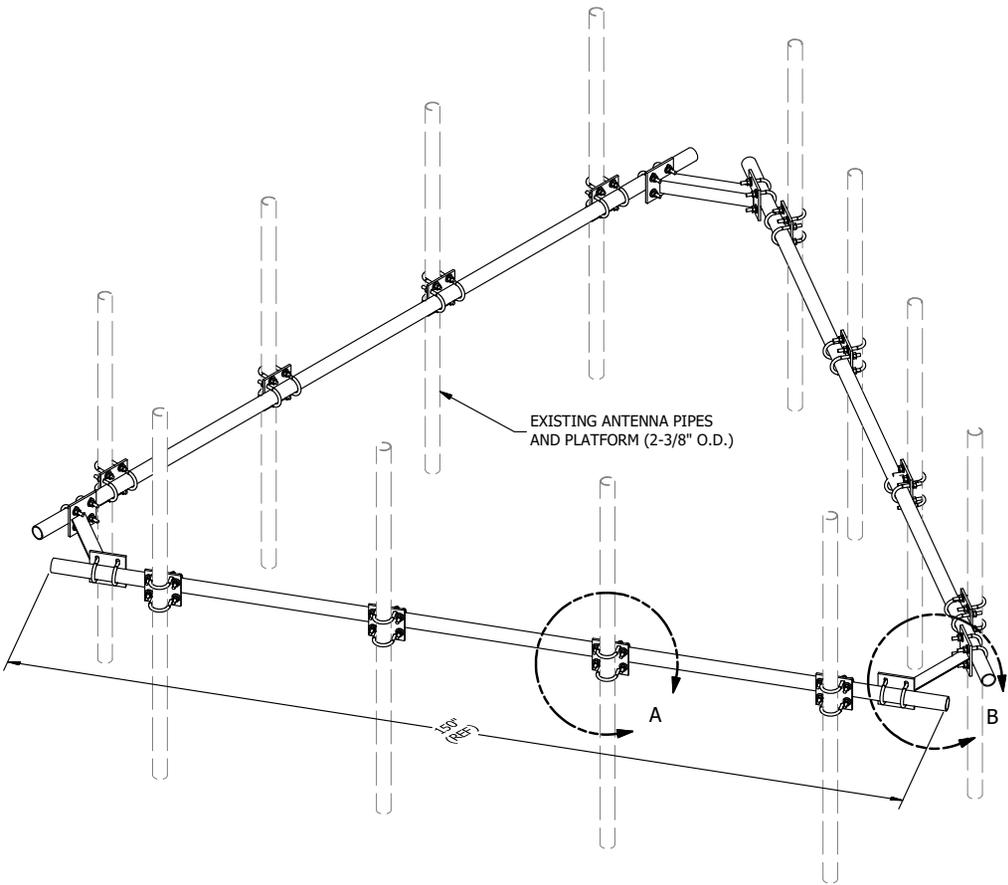
Engineering Support Team:
 1-888-753-7446

CPD NO.	DRAWN BY	ENG. APPROVAL
	KC8 8/8/2012	
CLASS	DRAWING USAGE	CHECKED BY
81	CUSTOMER	BMC 2/2/2016

PART NO.	SEE ASSEMBLY "A"
DWG. NO.	SP219-xxx

A	UPDATED DRAWING, MADE NEW DRAWING FOR SP219-xxxH	CEK	1/25/2016
REV	DESCRIPTION OF REVISIONS	CPD	BY
REVISION HISTORY			

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	P2150	2-3/8" O.D. X 150" SCH 40 GALVANIZED PIPE	150 in	45.77	137.31
2	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
3	12	SCX1	CROSSOVER PLATE 2-3/8" X 2-3/8"	6 in	3.71	44.50
4	60	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	37.51
5	120	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	4.09
6	120	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	1.67
7	120	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	8.60
TOTAL WT. #						272.43



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	REPLACED HCP WITH X-AHCP	CEK		7/10/2014
REVISION HISTORY				

TOLERANCE NOTES
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
BENDS ARE $\pm 1/2$ DEGREE
ALL OTHER MACHINING ($\pm 0.030"$)
ALL OTHER ASSEMBLY ($\pm 0.060"$)

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DESCRIPTION			
HANDRAIL KIT FOR 12'-6" FACE			
CPD NO.	DRAWN BY	ENG. APPROVAL	
	KC8 5/30/2012		
CLASS	SUB	DRAWING USAGE	CHECKED BY
81	01	CUSTOMER	BMC 7/13/2014

SITE PRO 1 A valmont COMPANY	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX
	Engineering Support Team: 1-888-753-7446
PART NO.	HRK12
DWG. NO.	HRK12