From: Jason Blinkhorn < jblinkhorn@qualtekwireless.com>

Sent: Friday, April 9, 2021 10:47 AM

To: towncouncil@townofwindsorct.com; CSC-DL Siting Council <Siting.Council@ct.gov>;

souza@townofwindsorct.com

Cc: John Centore <jcentore@qualtekwireless.com>; Corey Michaud <cmichaud@qualtekwireless.com>;

Michael Cypranowski <mcypranowski@qualtekwireless.com>; ATT Closeouts

<attcloseouts@empiretelecomm.com>; New England Compliance

<newenglandcompliance@empiretelecomm.com>

Subject: ATT SITE CT5139 CSC SITE EM-AT&T-064-210125

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

CSC team,

We would like to start RF for this project on 4-19. Please see attached documents.

COP team,

Please see attached. CSC requires additional close out documentations. CCA will be completed by Crown castle. PO requested.

RE: EM-AT&T-064-210125 - AT&T notice of intent to modify an existing telecommunications facility located at 99 Day Hill Road, Windsor, Connecticut.

Dear Ms. Zsamba:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Prior to AT&T's antenna installation, the antenna mount modifications shall be installed in accordance with the Mount Analysis prepared by Power of Design Group, dated November 3, 2020 and stamped and signed by Jason Cheronis;
- Within 45 days following the completion of equipment installation, AT&T shall provide documentation certified by a Professional Engineer that its installation complied with the recommendations of the Mount Analysis;
- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- 7. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by AT&T shall be removed within 60 days of the date the antenna ceased to function:
- 8. The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

Thank You,



Windsor Building Department 275 Broad Street Windsor, CT, 06095 PHONE: (860) 285-1960

EMAIL: Building@townofwindsorct.com

www.townofwindsorct.com

BUILDING PERMIT Permit #: **B-210538**

ADDRESS OF WORK LOCATION: 99 DAY HILL RD

TYPE OF PERMIT: Telecommunications Application Date: 03/11/2021

Retail Market Value: \$20,000.00 Fee: **\$282.00**

Owner: Contractor(s):

WINDSOR TOWN OF **CROWN CASTLE USA INC 275 BROAD STREET** 2000 CORPORATE DR, CANONSBURG, PA 153178564 WINDSOR, CT, 06095 Email: annemarie.zsamba@crowncastle.com License #: Email: 903225

DESCRIPTION OF WORK:

AT& T proposes to modify their existing antenna configuration on the existing telecom tower by replacing (3) existing antennas with (3) new, as well as tower mount modifications as shown on the enclosed CD's. This scope of work is an eligible facilities request pursuant to section 6409 and has been approved by the Connecticut Siting Council.

Inspections Required: Please call (860) 285-1960 for inspections.									
☑ FINAL INSPECTION	☐ INSULATION before	e covering	☐ PRESSURE TEST	☐ FOUNDATION					
☐ IN PROGRESS	☐ ABOVE CEILING	☐ WEATHER	/DAMP PROOFING	☐ COMBUSTION TEST					
☐ FOOTING /PIERS	☐ FRAMING	☐ ROUGH EI	LECTRIC & MECHANIO	CALS SERVICE					
☐ CARBON MONOXIDE	& SMOKE DETECTORS	TO CODE	☐ OTHER						
☐ POOL BONDING BEF	ORE REBAR	☐ POOL GA	TING/FENCING <u>befo</u> i	<u>re</u> filling pool					
Reviewed By: Robert Ruzzo									
Issued By: Robert	t J. Ruzzo	Date: 03/1	1/2021						



AT&T SITE NUMBER:

CTL05139

AT&T SITE NAME:

WINDSORDAY HILL

AT&T FA CODE:

10071331

AT&T PACE NUMBER:

MRCTB047595

AT&T PROJECT:

LTE 5G/BWE

BUSINESS UNIT #: SITE ADDRESS:

99 DAY HILL ROAD WINDSOR, CT 06095

COUNTY: SITE TYPE: **HARTFORD MONOPOLE**

TOWER HEIGHT:

168'-0"

842875

SITE INFORMATION

CROWN CASTLE USA INC.

WINDSORDAY HILL

SITE ADDRESS:

SITE NAME:

99 DAY HILL ROAD

COUNTY:

MAP/PARCEL#: AREA OF CONSTRUCTION: LATITUDE:

LONGITUDE: LAT/LONG TYPE:

JURISDICTION:

PROPERTY OWNER:

TOWER OWNER:

ELECTRIC PROVIDER:

TELCO PROVIDER:

WINDSOR, CT 06095 HARTFORD

EXISTING 41.871139 -72.671111

NAD83 GROUND ELEVATION: 170'-0" **CURRENT ZONING:** NZTOWN OF WINDSOR

OCCUPANCY CLASSIFICATION: U

TYPE OF CONSTRUCTION: A.D.A. COMPLIANCE:

HUMAN HABITATION TOWN OF WINDSOR

WINDSOR, CT 06095

CROWN CASTLE USA INC 2000 CORPORATE DRIVE CANONSBURG, PA 15317

FACILITY IS UNMANNED AND NOT FOR

CARRIER/APPLICANT: AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE

> ATLANTA, GA 30324-3300 NORTHEASR UTILITIES

LIGHTOWER

DRAWING INDEX

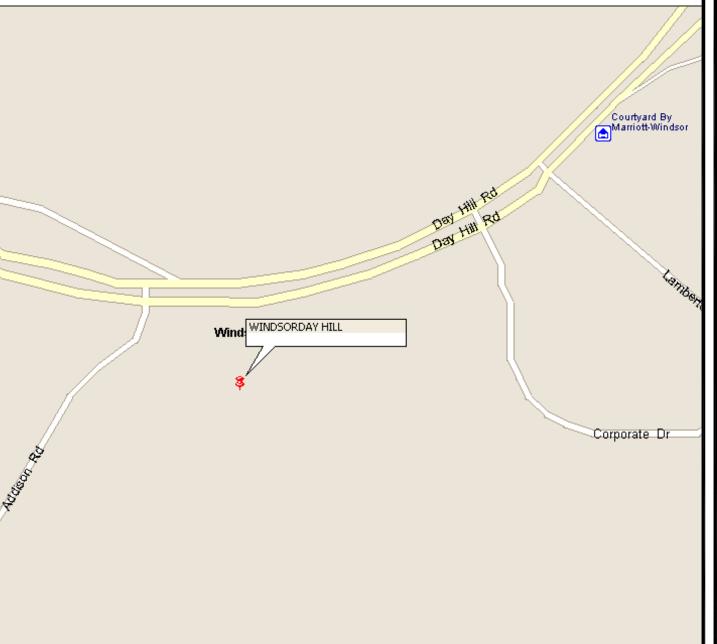
SHEET#	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EXISTING & FINAL EQUIPMENT PLANS
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	FINAL EQUIPMENT SCHEDULE
C-4	EQUIPMENT MOUNTING DETAILS
C-5	EQUIPMENT SPECS
E-1	POWER ANALYSIS
G-1	GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM
ATTACHED	MOUNT MOD SPEC SHEETS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FO DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHAP IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



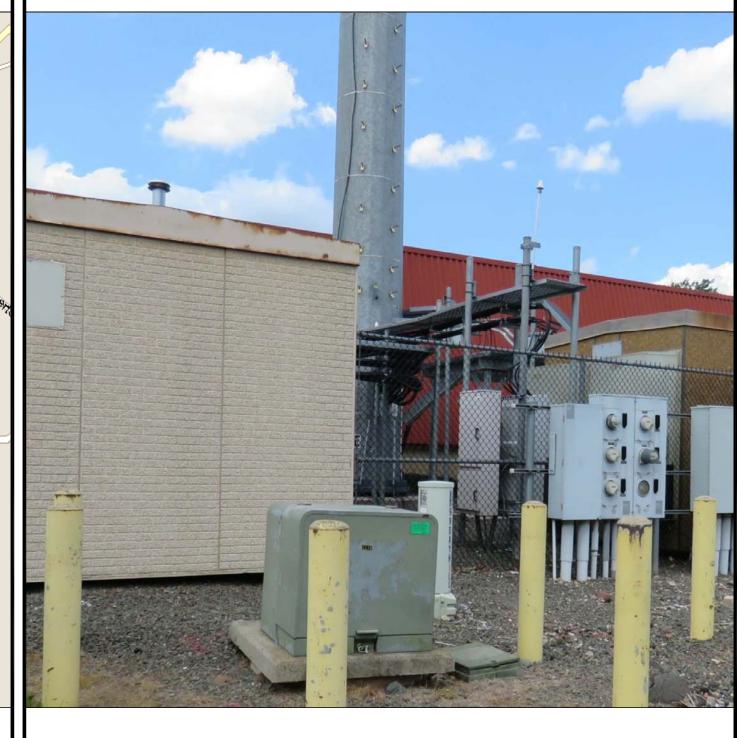
CALL 2 WORKING DAYS BEFORE YOU DIG!

LOCATION MAP



NO SCALE

SITE PHOTO



PROJECT TEAM

A&E FIRM: B+T GROUP

1717 S BOULDER AVE, SUITE 300 TULSA, OK 74119

JENNY PAUL jpaul@btgrp.com

CHARLOTTE, NC 28277

CROWN CASTLE USA INC. DISTRICT

CONTACTS:

3530 TORINGDON WAY, SUITE 300

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

TOWER SCOPE OF WORK:

• REMOVE (2) CCI PRODUCTS - OPA-65R-LCUU-H6 ANTENNAS

• REMOVE (1) CCI PRODUCTS - OPA-65R-LCUU-H8 ANTENNA

• REMOVE (3) RRUS-32 B2 RADIOs

• REMOVE (3) RRUS-11B12 RADIOs • REMOVE (6) TPX-070821 TRIPLEXERS

• INSTALL MOUNT MODIFICATIONS PER MOUNT ANALYSIS BY POD GROUP

DATED NOVEMBER 03, 2020

• INSTALL (2) CCI - DMP65R-BU6DA ANTENNAS

• INSTALL (1) CCI - DMP65R-BU8DA ANTENNA • INSTALL (3) ERICSSON - 4449 B5-B12 RADIOs

• INSTALL (3) ERICSSON - 4415 B25 RADIOs • INSTALL (3) VALMONT - RRUDSM BACK-TO-BACK RRH MOUNTS

GROUND SCOPE OF WORK:

• REMOVE (3) RRUS -11 B5

• INSTALL (1) BB6630

THE POWER DESIGN FOR ANY AC ELECTRICAL POWER CHANGES IS TO BE PERFORMED BY OTHERS AND IS SHOWN HERE FOR REFERENCE PURPOSES ONLY. AT&T IS SOLELY RESPONSIBLE FOR THE ELECTRICAL POWER DESIGN.

APPLICABLE CODES/REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE CODE

BUILDING 2015 IBC / 2018 CONNECTICUT STATE BUILDING CODE **MECHANICAL** 2015 IMC / 2018 CONNECTICUT STATE BUILDING CODE ELECTRICAL 2017 NEC / 2018 CONNECTICUT STATE BUILDING CODE

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: CROWN CASTLE

DATED: 11/5/20

MOUNT ANALYSIS: POD GROUP DATED: 11/5/20

AC ELECTRICAL POWER DESIGN: N/A

DATED:

RFDS REVISION: 3 DATED: 11/06/20

ORDER ID: 517092

REVISION: 0





CHARLOTTE, NC 28277



AT&T SITE NUMBER: CTL05139

BU #: **842875** WINDSORDAY HILL

99 DAY HILL ROAD WINDSOR, CT 06095

EXISTING 168'-0" MONOPOLE

	ISSUED FOR:									
	REV	DATE	DRWN	DESCRIPTION	DES./Q					
	A	11/24/20	LHT	CONSTRUCTION	MTJ					
П	0	12/11/20	MLC	CONSTRUCTION	GEH					
	1	12/28/20	JJD	CONSTRUCTION	RMC					
ļ										



B&T ENGINEERING, INC. PEC.0001564 Expires 2/10/21

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:

REVISION:

PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.

- 1. NOTICE TO PROCEED- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
- "LOOK UP" CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT: THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC STANDARD CED-STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
- 5. ALL SITE WORK TO COMPLY WITH QAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS. ORDINANCES. RULES. REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK. SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- 11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- 12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- 13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
- 14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- 15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- 16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED JRFACE APPLICATION
- 17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- 18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- 19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION
- 20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- 21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- 22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY: CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION CARRIER:

TOWER OWNER: CROWN CASTLE USA INC.

- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO. BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN
- 12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
- 13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- 14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED
- TO BE 1000 psf. 3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
- #5 BARS AND LARGER... ..60 ksi

#4 BARS AND SMALLER.....

- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH... CONCRETE EXPOSED TO EARTH OR WEATHER: #6 BARS AND LARGER ...
- #5 BARS AND SMALLER.. .1-1/2" CONCRETE NOT EXPOSED TO EARTH OR WEATHER: SLAB AND WALLS....
- BEAMS AND COLUMNS .. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

GREENFIELD GROUNDING NOTES:

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL—OF—POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED
- 11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- 12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS. 13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- 14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- 15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS. 16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- 17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- 18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- 19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- 20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
- 21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL. STATE. AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED
- AND TRIP HAZARDS ARE ELIMINATED. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC. 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO
- REQUIREMENT OF THE NATIONAL ELECTRICAL CODE ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
- EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR—CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- 6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS 8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES
- 9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- 10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIÉD.
- 11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED
- 12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TO CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- 13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75°C (90°C IF AVAILABLE).

14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE

- 15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR
- EXPOSED INDOOR LOCATIONS. 16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- 17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE
- 18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED. 19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET
- SCREW FITTINGS ARE NOT ACCEPTABLE. 20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND
- 21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS
- (WIREMOLD SPECMATE WIREWAY). SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL)
- 23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE. MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO
- PREVENT CONCRETE. PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE 24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY—COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY—COATED OR NON—CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- 26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS. 27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC.
- BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS. 28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE

APWA UNIFORM COLOR CODE:

PROPOSED EXCAVATION

GASEOUS MATERIALS

POTABLE WATER

SLURRY LINES

TEMPORARY SURVEY MARKINGS

LECTRIC POWER LINES, CABLES,

GAS, OIL, STEAM, PETROLEUM, OR

RECLAIMED WATER, IRRIGATION, AND

SEWERS AND DRAIN LINES

COMMUNICATION, ALARM OR SIGNAL LINES. CABLES, OR CONDUIT AND TRAFFIC LOOPS

CONDUIT, AND LIGHTING CABLES

- WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY. 29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "AT&T".
- 30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE								
SYSTEM	CONDUCTOR	COLOR						
	A PHASE	BLACK						
 120/240V, 1Ø	B PHASE	RED						
120/2400, 10	NEUTRAL	WHITE						
	GROUND	GREEN						
	A PHASE	BLACK						
	B PHASE	RED						
120/208V, 3Ø	C PHASE	BLUE						
	NEUTRAL	WHITE						
	GROUND	GREEN						
	A PHASE	BROWN						
	B PHASE	ORANGE OR PURPLE						
277/480V, 3Ø	C PHASE	YELLOW						
	NEUTRAL	GREY						
	GROUND	GREEN						
DC VOLTAGE	POS (+)	RED**						
DO VOLIAGE	NEG (-)	BLACK**						

* SEE NEC 210.5(C)(1) AND (2) ** POLARITY MARKED AT TERMINATION

ABBREVIATIONS

ANTENNA EXISTING FACILITY INTERFACE FRAME GEN GENERATOR GPS GLOBAL POSITIONING SYSTEM GSM GLOBAL SYSTEM FOR MOBILE LONG TERM EVOLUTION MGB MASTER GROUND BAR MW MICROWAVE

NATIONAL ELECTRIC CODE PROPOSED

QTY QUANTITY RECTIFIER RECT RADIO BASE STATION RBS RET REMOTE ELECTRIC TILT

RFDS RADIO FREQUENCY DATA SHEET REMOTE RADIO HEAD

POWER PLANT

RRU REMOTE RADIO UNIT SIAD SMART INTEGRATED DEVICE

WORK POINT

W.P.

TOWER MOUNTED AMPLIFIER TYP **TYPICAL** UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM

CHARLOTTE, NC 28277

575 MOROSGO DRIVE

ATLANTA, GA 30324-3300



AT&T SITE NUMBER: CTL05139

www.btgrp.com

BU #: **842875 WINDSORDAY HILL**

> WINDSOR, CT 06095 **EXISTING**

168'-0" MONOPOLE

99 DAY HILL ROAD

Willy.									
ISSUED FOR:									
REV	DATE	DRWN	DESCRIPTION	DES./C					
A	11/24/20	LHT	CONSTRUCTION	MTJ					
0	12/11/20	MLC	CONSTRUCTION	GEH					
1	12/28/20	JJD	CONSTRUCTION	RMC					



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3530 TORINGDON WAY, SUITE 300 CHARLOTTE, NC 28277



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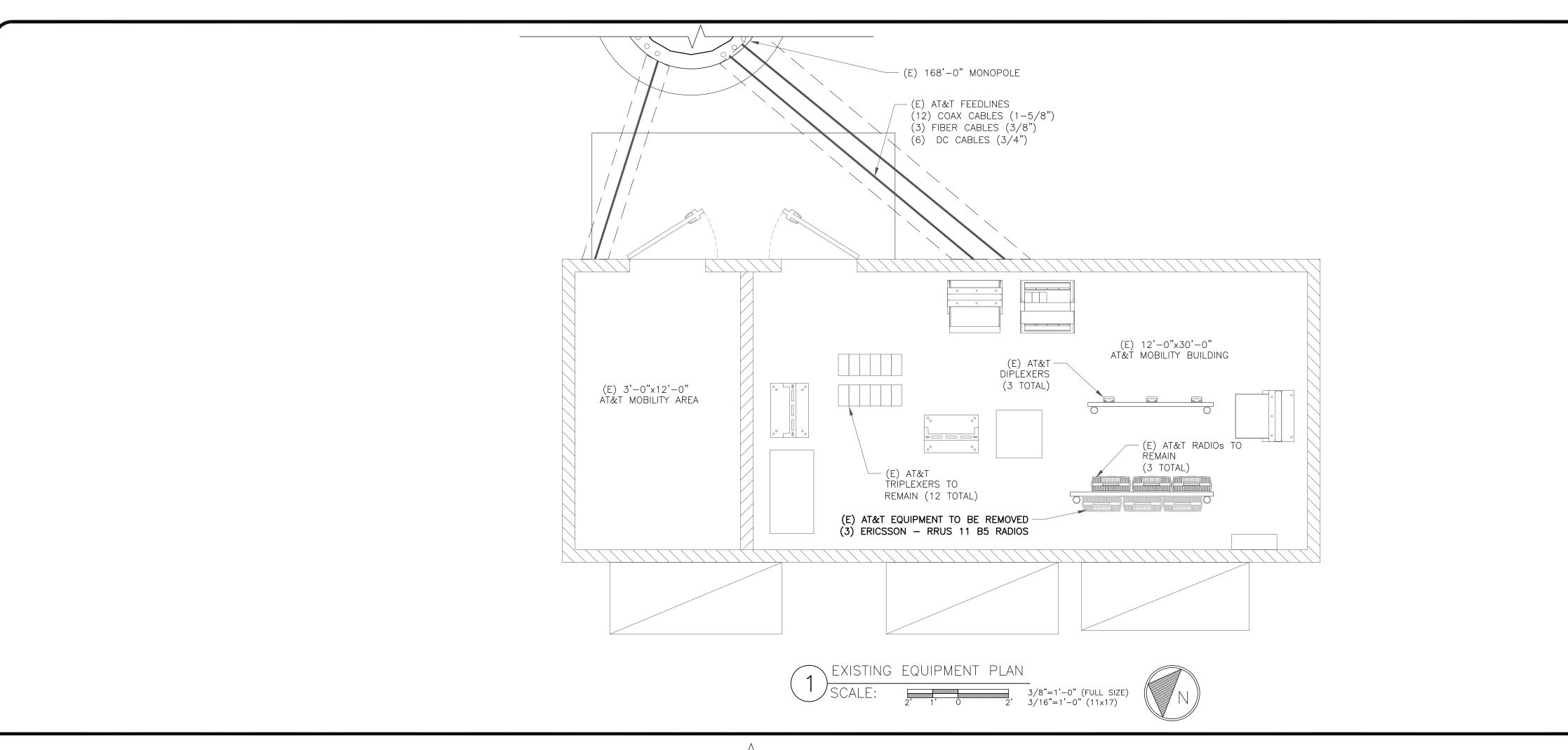


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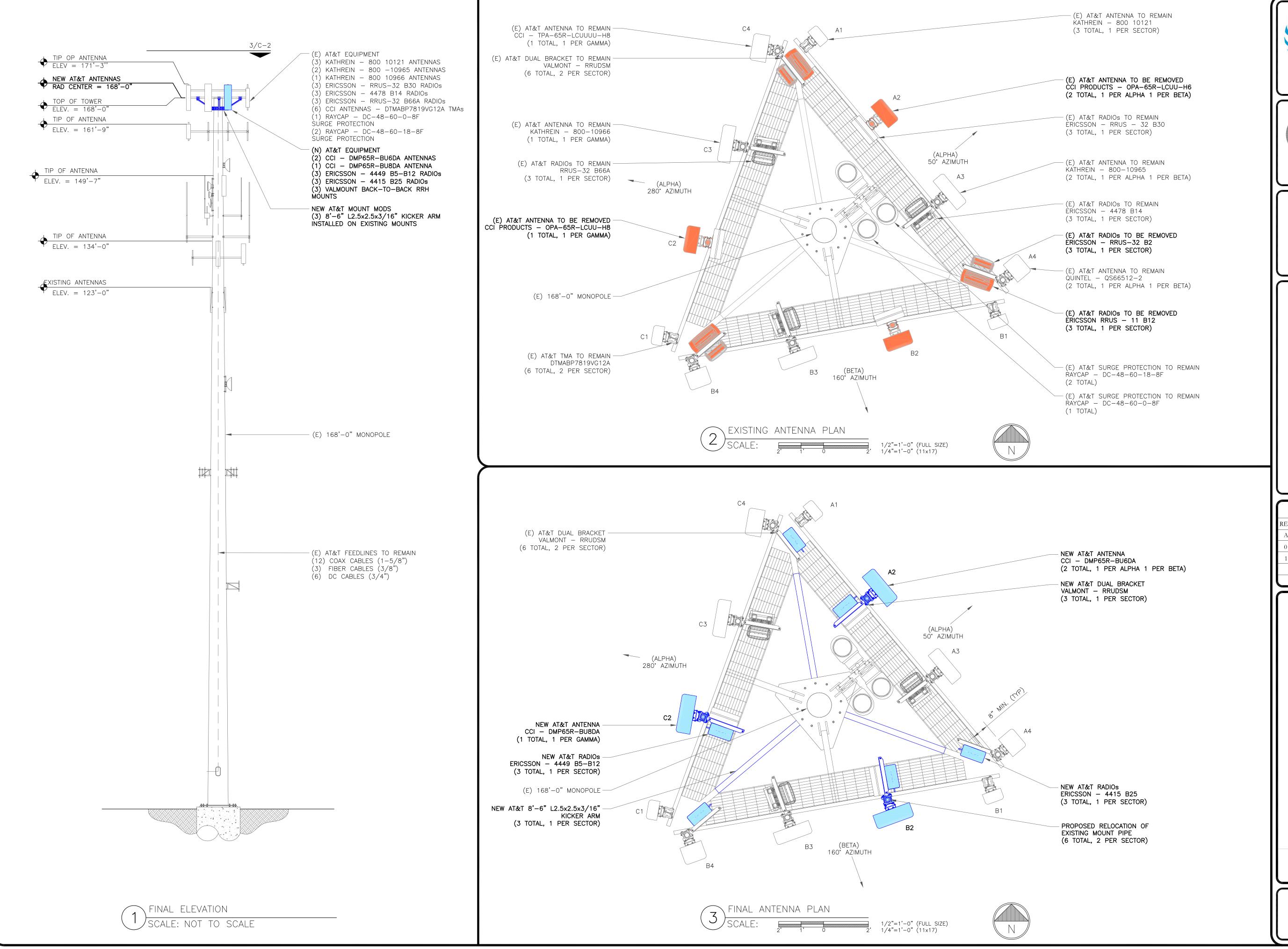
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(E) 168'-0" MONOPOLE (E) AT&T FEEDLINES
(12) COAX CABLES (1-5/8") (3) FIBER CABLES (3/8") (6) DC CABLES (3/4") (E) 12'-0"x30'-0" AT&T MOBILITY BUILDING (E) AT&T — TRIPĹEXERS (6 TOTAL) (E) UTILITY FRAME (TÝP) (E) AT&T — DIPLEXERS (E) 3'-0"x12'-0" AT&T MOBILITY AREA (3 TOTAL) (E) AT&T RADIOs (3 TOTAL) (N) AT&T 6630 -(1 TOTAL) (E) 700 DE B29 RADIOS TO BE PLUMMED TO EXISTING TRIPLEXERS

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ATLANTA, GA 30324-3300

3530 TORINGDON WAY, SUITE 300 CHARLOTTE, NC 28277



B+T GRP

1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

AT&T SITE NUMBER: CTL05139

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NOTE: BOLD DENOTES NEW EQUIPMENT

						FI	NAT AN	TENNA	AND FI	FFDI	INFSC	HEDULE						
POS.	TECH	STATUS	AZIMUTH	ANTENNA TYPE	ANTENNA RAD CENTER		ELECTRICAL DOWNTILT	MAIN COAX SIZE				SURGE PROTECTION	DC/FIBER CABLES	RRHs QTY & MODEL	LOCATION	ON	DIPLEXER ON GROUND	CARLE
ALPHA	SECTOR																	
A1	UMTS 850	EXISTING	50°	KATHREIN – 800 10121	168'-0"	O°	6°	1 5/8"	200'-0"	2	(2) DTMABP7819V G12A			_	TOWER	N	Y	N
A2	LTE 850 / LTE 700 / LTE WCS / 5G 850	NEW	50°	CCI-DMP65R-BU6D A	168'-0"	0°	4° / 3° / 0° / 3°	_	_	_	_	(2) DC-48-60-18-8F (1)	(2) DC POWER CABLE 3/4" (1) FIBER CABLE	(1) 4449 B5-B12 (1) RRUS-32 B30	TOWER	N	N	N
A3	LTE 700 / LTE AWS	EXISTING	50°	KATHREIN – 800–10965	168'-0"	0°	4° / 3°	_	_	_	_	DC-48-60-0-8F	1/8"	(1) 4478 B14 (1) RRUS-32 B66A	TOWER	N	Y	N
A4	LTE 700 / LTE 1900	EXISTING	50°	QUINTEL - QS66512-2	168'-0"	O.	4° / 3° / 3°	1 5/8"	200'-0"	2	_			(1) 4415 B25 (1) 700 DE B29	TOWER GROUND	Y	Y	N
BETA SI	ECTOR												,					
A1	UMTS 850	EXISTING	160°	KATHREIN – 800 10121	168'-0"	O°	8°	1 5/8"	200'-0"	2	(2) DTMABP7819V G12A			_	TOWER	N	Y	N
A2	LTE 850 / LTE 700 / LTE WCS / 5G 850	NEW	160°	CCI-DMP65R-BU6D A	168'-0"	0°	8° / 3° / 0°	_	_	_	_	_	(2) DC POWER CABLE 3/4" (1) FIBER CABLE	(1) 4449 B5-B12 (1) RRUS-32 B30	TOWER	N	N	N
А3	LTE 700 / LTE AWS	EXISTING	160°	KATHREIN - 800-10965	168'-0"	0°	10° / 8°	_	_	_	-		1/8"	(1) 4478 B14 (1) RRUS-32 B66A	TOWER	N	Y	N
A4	LTE 700 / LTE 1900	EXISTING	160°	QUINTEL - QS66512-2	168'-0"	O°	10° / 7° / 7° / 7° / 7°	1 5/8"	200'-0"	2	_			(1) 4415 B25 (1) 700 DE B29	TOWER GROUND	Y	Y	N
GAMMA	SECTOR														·			
A1	UMTS 850	EXISTING	280°	KATHREIN – 800 10121	168'-0"	0°	4°	1 5/8"	200'-0"	2	(2) DTMABP7819V G12A			_	TOWER	N	Y	N
A2	LTE 850 / LTE 700 / LTE WCS / 5G 850	NEW	280°	CCI-DMP65R-BU8D A	168'-0"	0°	2° / 3° / 0°	_	_	_	_	_	(2) DC POWER CABLE 3/4"	(1) 4449 B5-B12 (1) RRUS-32 B30	TOWER	N	N	N
A3	LTE 700 / LTE AWS	EXISTING	280°	KATHREIN – 800–10965	168'-0"	O°	2° / 6°	_	_	_	_			(1) 4478 B14 (1) RRUS-32 B66A	TOWER	N	Y	N
Α4	LTE 700 / LTE 1900	EXISTING	280°	QUINTEL - QS66512-2	168'-0"	O°	2° / 6° / 6° / 6°	1 5/8"	200'-0"	2	_			(1) 4415 B25 (1) 700 DE B29	TOWER GROUND	Y	Y	N







AT&T SITE NUMBER: **CTL05139**

BU #: **842875 WINDSORDAY HILL**

99 DAY HILL ROAD WINDSOR, CT 06095

EXISTING 168'-0" MONOPOLE

ISSUED FOR:									
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0	12/11/20	MLC	CONSTRUCTION	GEH					
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SHEET NUMBER:

revision:

FINAL ANTENNA AND FEEDLINE SCHEDULE

SCALE: NOT TO SCALE

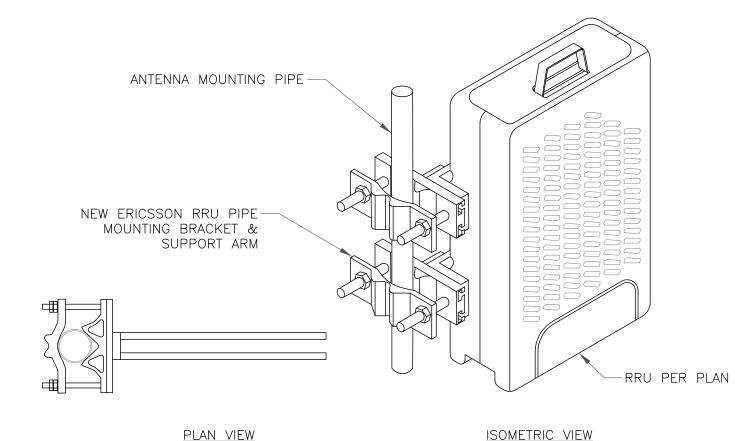
ERICSSON RRU MOUNTING KIT:

SXK 107 2839/1: SINGLE RRU SUPPORT KIT (PART # 5335) (OR ENGINEER APPROVED EQUIVALENT) SXK 107 2839/2: EXPANSION KIT (PART # 5336) (ÖR ENGINEER APPROVED EQUIVALENT)

MOUNTING NOTES:

REFER TO PRODUCT SPECS FOR BOLT SIZE & PIPE

DIAMETER TOLERANCES. THE PART NO. SXK107-2839/2 IS REQUIRED FOR (2) RRUS.



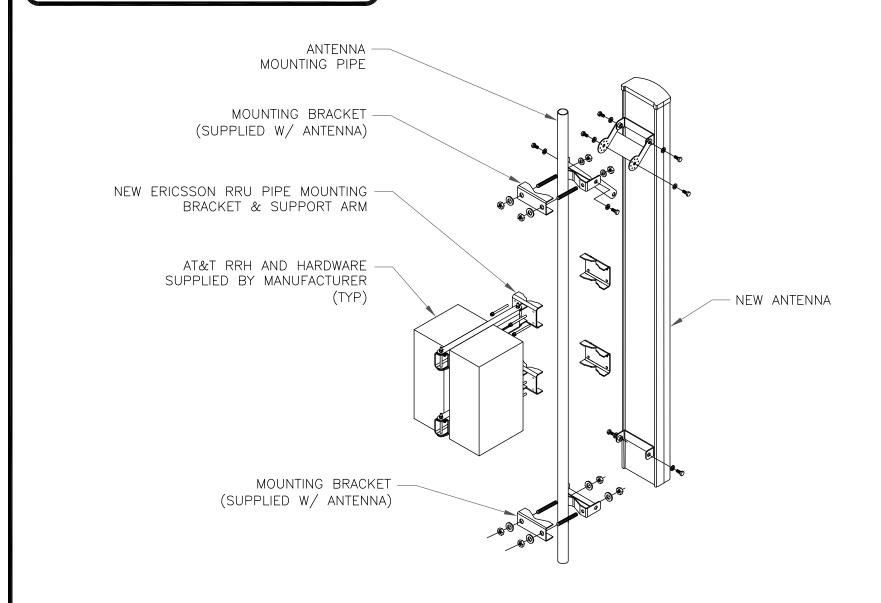
ERICSSON - SXK 107 2839

INSTALLER NOTES:

. COMPLY WITH MANUFACTURERS
INSTRUCTIONS TO ENSURE THAT ALL RRHS
RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE

MANUFACTURER'S PACKAGING. 2. DO NOT OPEN RRH PACKAGES IN THE RAIN. 3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.

4. 8" MINIMUM DISTANCE BETWEEN BACK OF ANTENNA AND RADIO.



ANTENNA WITH DUAL RRH MOUNTING DETAIL SCALE: NOT TO SCALE





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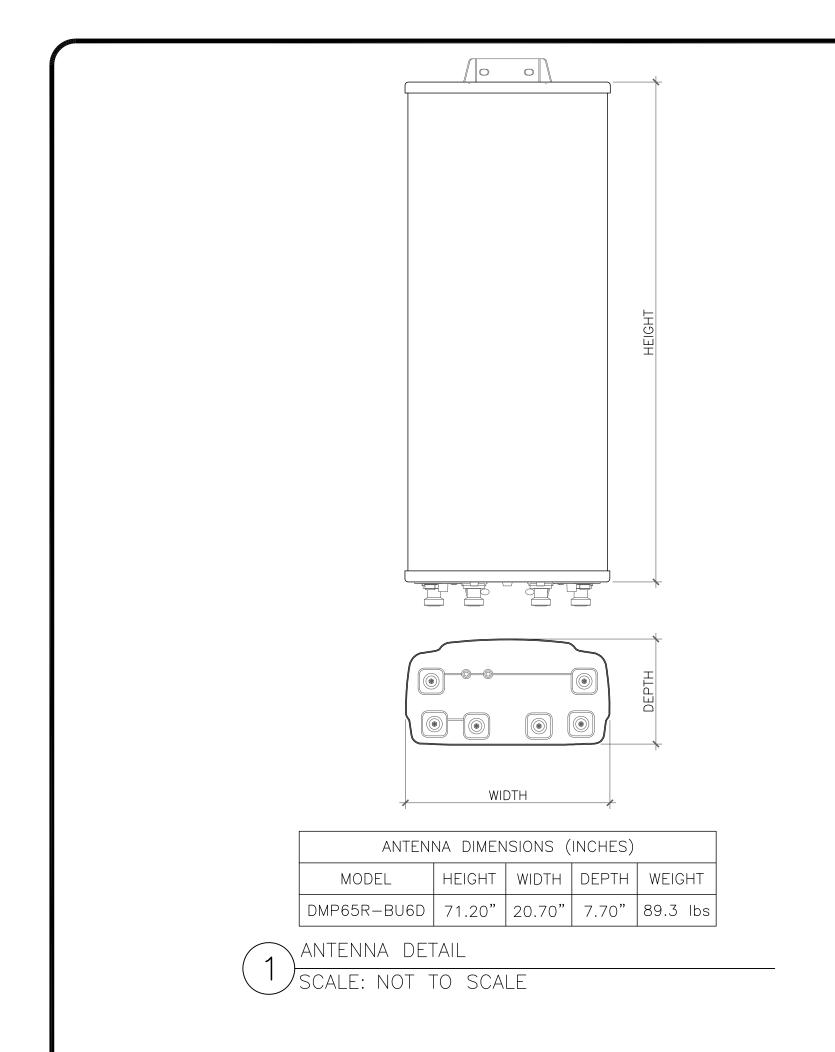
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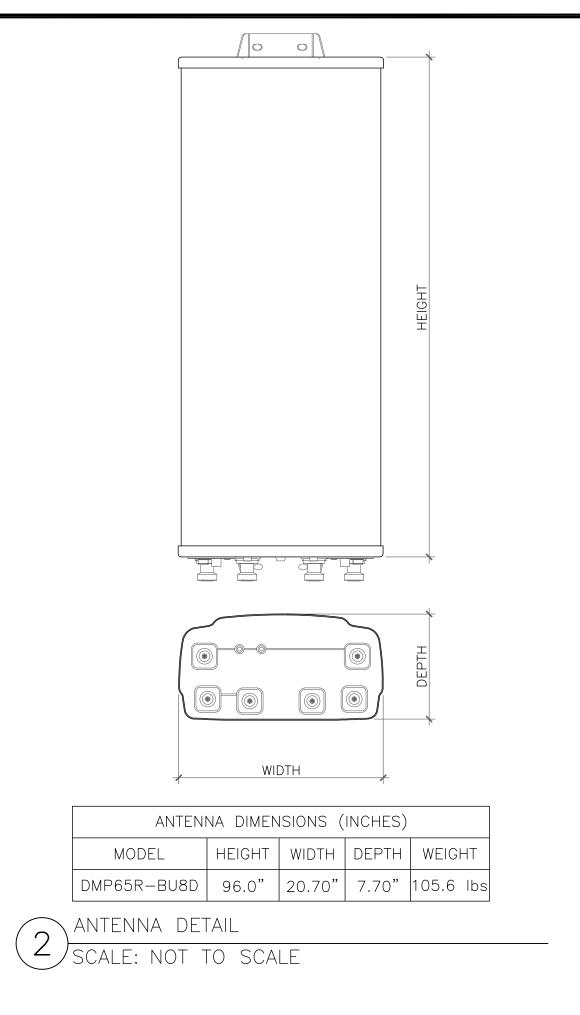
SHEET NUMBER:

REVISION:

<u>PLAN VIEW</u> ISOMETRIC VIEW

(2) SCALE: NOT TO SCALE





ERICSSON - RRUS 4415 B25 WEIGHT (FULLY EQUIPPED): 44 LBS SIZE (HxWxD): 14.96x13.19x5.39 IN. CONNECTOR TYPE: 4.3-10 FEMALE (4 TOTAL PORTS)

ERICSSON - RRUS 4415 B25 SCALE: NOT TO SCALE





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SHEET NUMBER:

REVISION:

 PROPOSED RELOCATION OF EXISTING MOUNT PIPE (6 TOTAL, 2 PER SECTOR) - NEW AT&T 8'-6" L2.5x2.5x3/16" KICKER ARM
(3 TOTAL, 1 PER SECTOR)

ERICSSON - RRUS 4449 B5/B12

SCALE: NOT TO SCALE

ERICSSON — RRUS 4449 B5/B12 WEIGHT (FULLY EQUIPPED): 71 LBS SIZE (HxWxD): 17.90x13.19x9.44 IN. CONNECTOR TYPE: 4.3—10 FEMALE (4 TOTAL PORTS)

5 KICKER ARM
SCALE: NOT TO SCALE

GROUNDING SCHEMATIC SCALE: NOT TO SCALE

GROUNDING PLAN LEGEND:

--- GROUND WIRE

© COPPER GROUND ROD

■ EXOTHERMIC WELD

CONDUĈTÓRS.

7.6.7.2).

REQUIREMENTS.

MECHANICAL CONNECTION

CELL REFERENCE GROUND BAR: POINT OF GROUND

REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT

FRAMES. ALL BONDS ARE MADE WITH #2 STRANDED

GREEN INSULATED COPPER CONDUCTORS. BOND TO

GROUND RING WITH (2) #2 SOLID TINNED COPPER

GROUND RING WITH (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A

ARE BOTH PRESENT, THE CELL SITE REFERENCE GROUND BAR MUST BE CONNECTED TO THE

EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE

HATCH-PLATE AND TO THE INTERIOR GROUND RING

USING (2) #2 STRANDED GREEN INSULATED COPPER

BUILDING. BOND TO GROUND RING WITH A #2 SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE (ATT-TP-76416

DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS

CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11

OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES

HATCH PLATE GROUND BAR: BOND TO THE INTERIOR

HATCH—PLATE AND A CELL REFERENCE GROUND BAR
ARE BOTH PRESENT, THE CELL SITE REFERENCE

CONDUITS (ATT-TP-76416 7.6.7).

S GROUND ROD W/ TEST WELL

575 MOROSGO DRIVE ATLANTA, GA 30324-3300



3530 TORINGDON WAY, SUITE 300 CHARLOTTE, NC 28277



B+T GRP 1717 S. BOULDER SUITE 300 TULSA, OK 74119 PH: (918) 587-4630

www.btgrp.com

AT&T SITE NUMBER: CTL05139

BU #: **842875** WINDSORDAY HILL

99 DAY HILL ROAD WINDSOR, CT 06095

EXISTING 168'-0" MONOPOLE

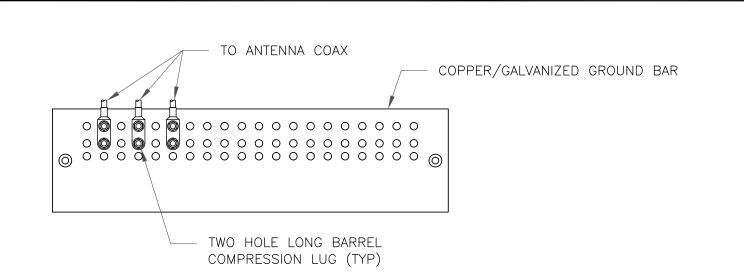
ISSUED FOR:					
REV DATE DRWN DESCRIPTION DES.					
A	11/24/20	LHT	CONSTRUCTION	MTJ	
0	12/11/20	MLC	CONSTRUCTION	GEH	
1	12/28/20	JJD	CONSTRUCTION	RMC	



B&T ENGINEERING, INC. PEC.0001564 Expires 2/10/21

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

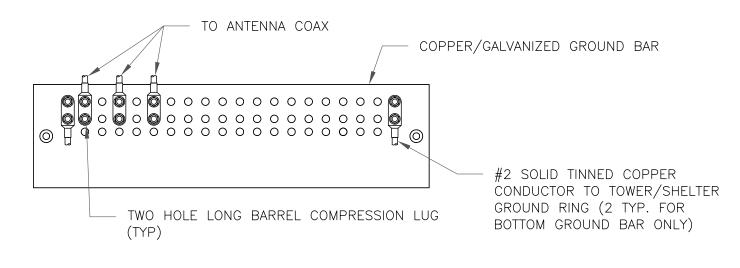
SHEET NUMBER:



NOTES:

- . DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
- EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
 GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

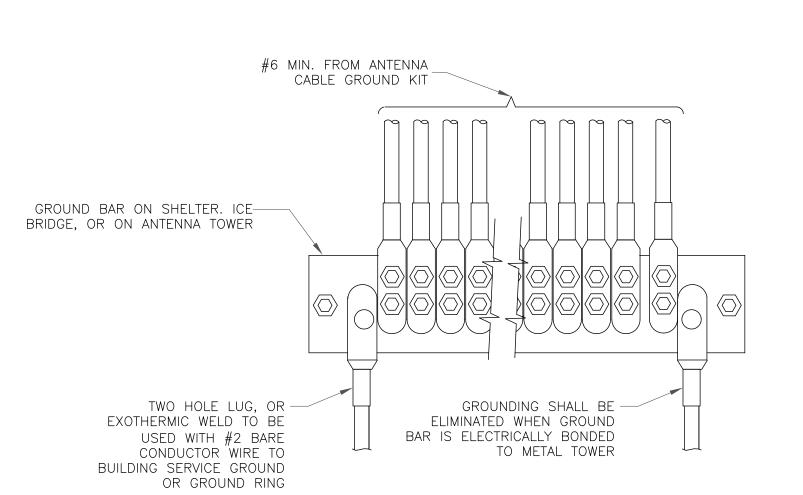




NOTES:

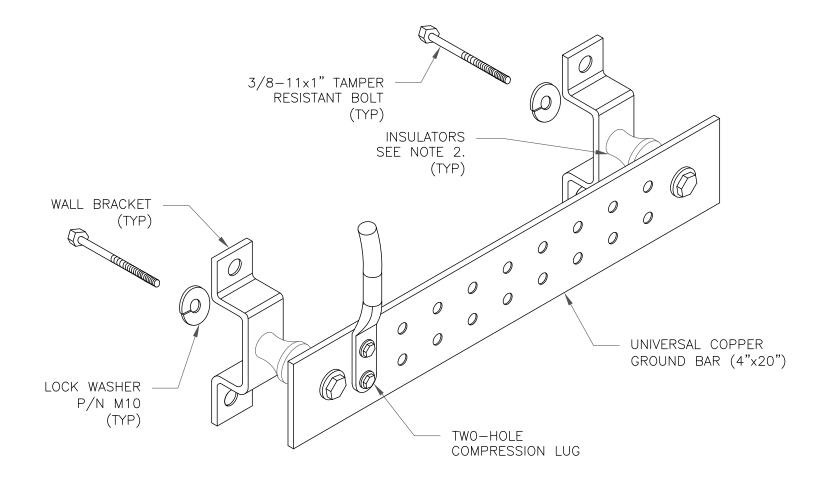
- 1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
- 2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
 3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL SCALE: NOT TO SCALE



GROUNDWIRE INSTALLATION

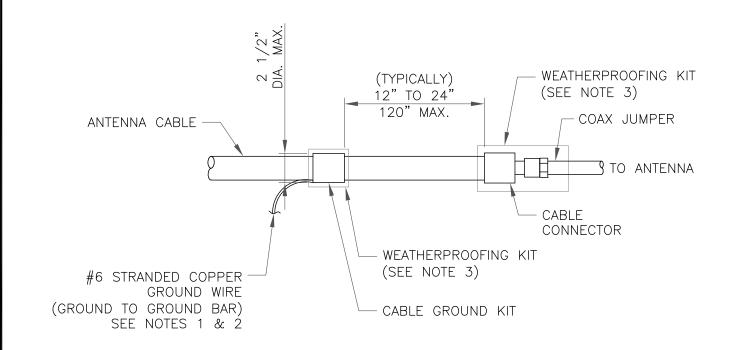
SCALE: NOT TO SCALE



NOTES:

- 1. DOWN LEAD (HOME RUN) CONDUCTORS ARE <u>NOT</u> TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS—STD—10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD—WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
- 2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.



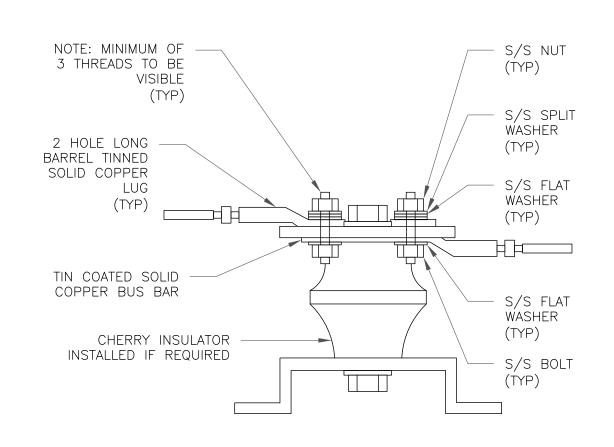


NOTES

- 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- 2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR
- RECOMMENDED BY CABLE MANUFACTURER.

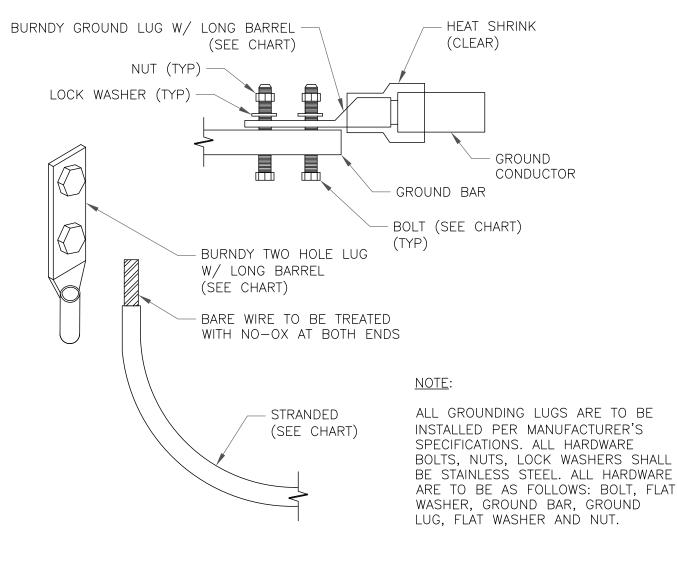
 3. WEATHER PROOFING SHALL BE TWO—PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 CABLE GROUND KIT CONNECTION SCALE: NOT TO SCALE

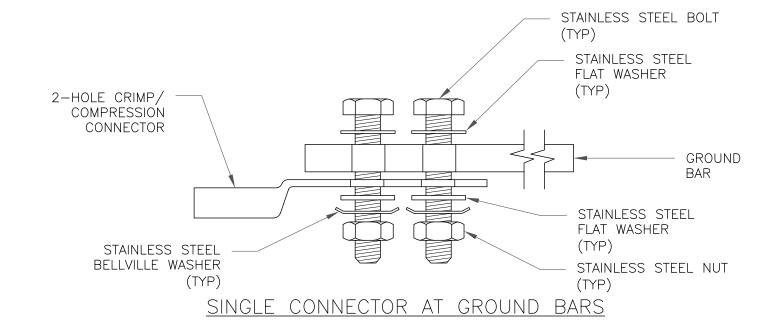


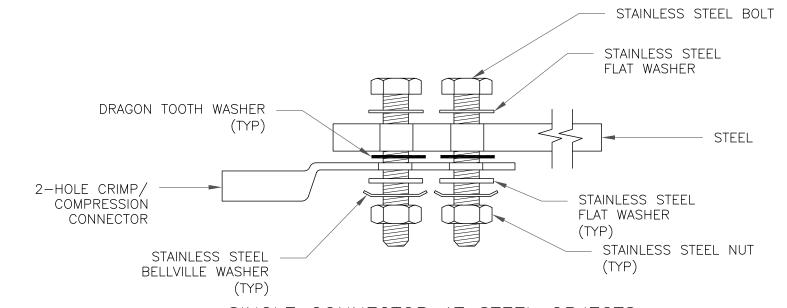


	WIRE SIZE	BURNDY LUG	BOLT SIZE
	#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
	#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
-	#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
-	#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
•	#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT

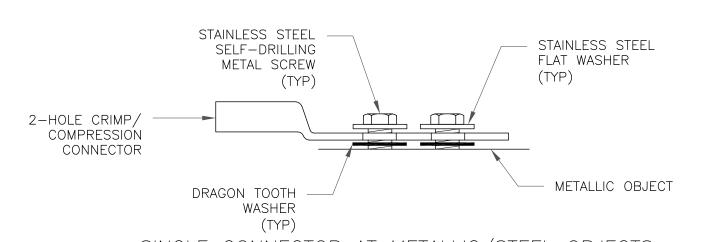


MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE





SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE





3530 TORINGDON WAY, SUITE 300 CHARLOTTE, NC 28277



AT&T SITE NUMBER: CTL05139

BU #: **842875 WINDSORDAY HILL**

99 DAY HILL ROAD WINDSOR, CT 06095

EXISTING 168'-0" MONOPOLE

ISSUED FOR:					
REV	DATE	DRWN	DESCRIPTION	DES./QA	
A	11/24/20	LHT	CONSTRUCTION	МТЈ	
0	12/11/20	MLC	CONSTRUCTION	GEH	
1	12/28/20	JJD	CONSTRUCTION	RMC	



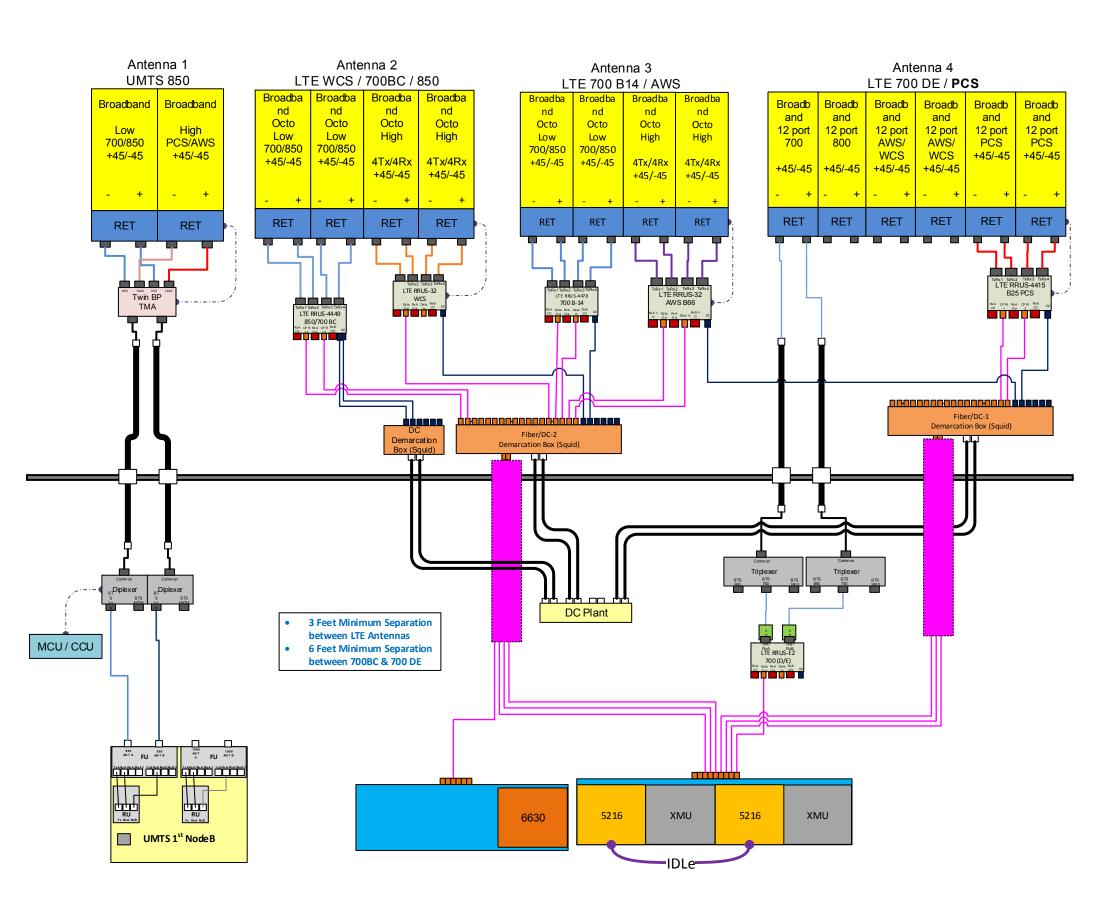
B&T ENGINEERING, INC. PEC.0001564 Expires 2/10/21

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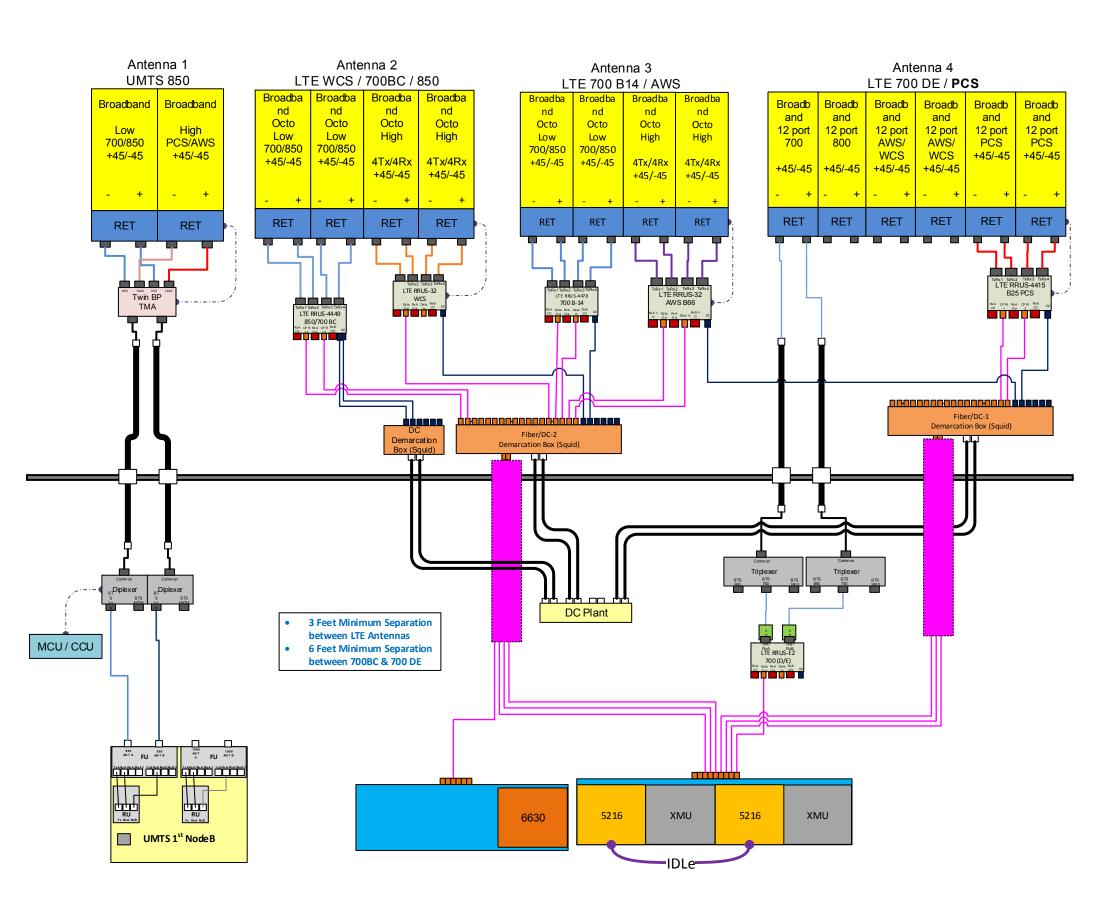
Atoll Site Name - CTL05139 Location Name - WINDSORDAY HILL Market - CONNECTICUT Market Cluster - NEW ENGLAND

Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson



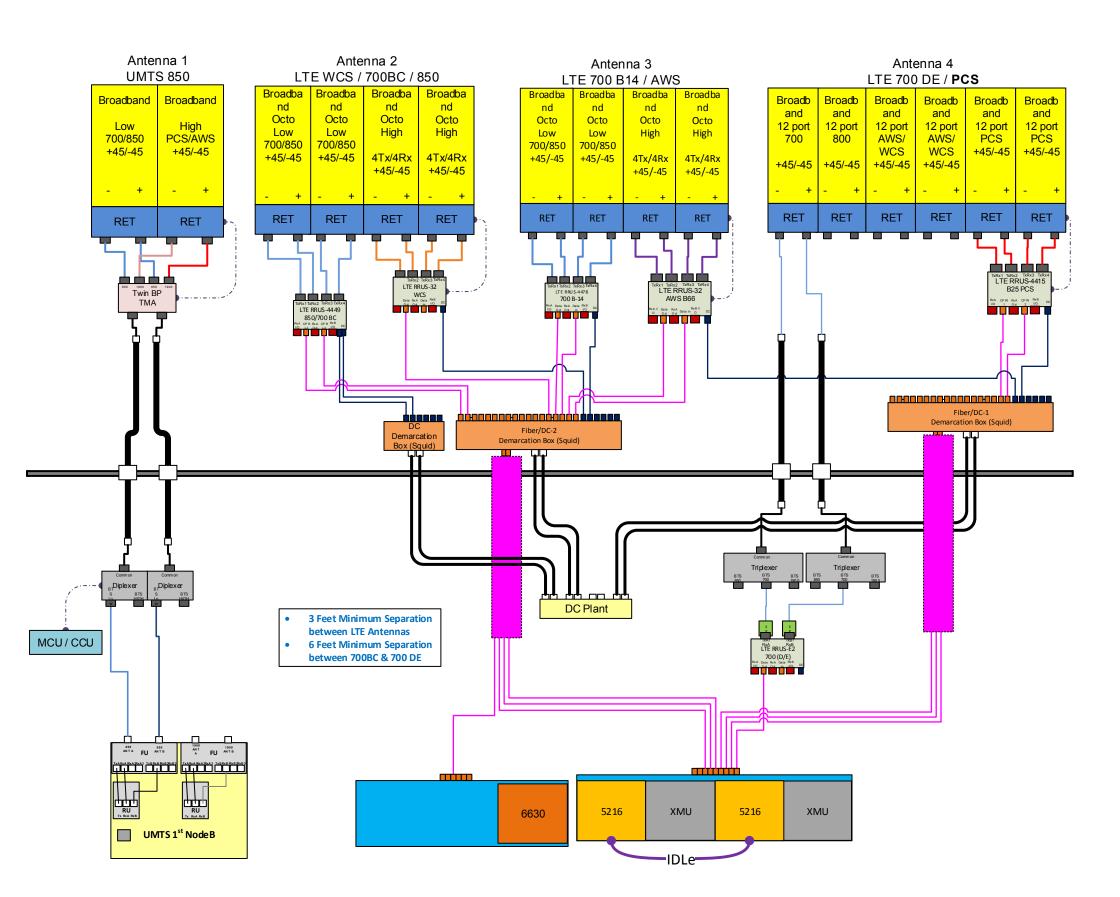
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Atoll Site Name - CTL05139 Location Name - WINDSORDAY HILL Market - CONNECTICUT Market Cluster - NEW ENGLAND

Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson





842875 WINDSORDAY HILL (10071331)

MODIFICATION DRAWING FOR AN EXISTING 14' PLATFORM W/ SUPPORT RAILS AT 168' ON A 168' MONOPOLE TOWER



PROJECT INFORMATION

HARTFORD

COUNTY:

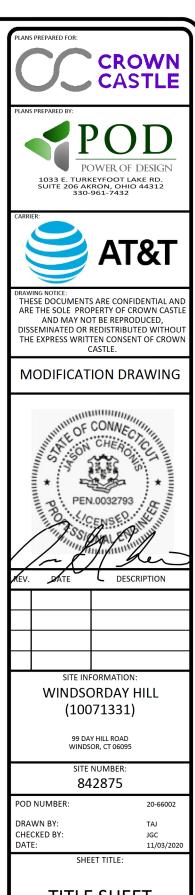
SITE ADDRESS:

99 DAY HILL ROAD WINDSOR, CT 06095

ATITUDE: 41° 52' 16.10" LONGITUDE: -72° 40' 16.00"

SCOPE OF WORK:

MOUNT MODIFICATION DRAWINGS INCLUDES: REPLACE EXISTING KICKER KIT ARMS. RELOCATE EXISTING MOUNT PIPES TO ALLOW REQUIRED ANTENNA SEPARATION.



TITLE SHEET

T-01

SENERAL NOTES

THE MODIFICATIONS REPRESENTED IN THESE DRAWINGS ARE BASED ON THE STRUCTURAL DOCUMENTS PROVIDED IN THE STRUCTURAL DOCUMENTS TABLE. THE CONTRACTOR SHALL OBTAIN AND BECOME FAMILIAR WITH ALL REFERENCED DOCUMENTS.

REFERENCE DOCUMENTS		
DOCUMENT TYPE	DESIGNATION	
MOUNT ANALYSIS	POD PROJECT NUMBER: 20-65702 DATED: 06/22/2020	

ALL MODIFICATIONS MUST BE INSTALLED TO BRING THE TOWER INTO CONFORMANCE WITH ALL APPLICABLE CODES.

GOVERNING CODES
ULTIMATE WIND SPEED

TIA-222-H 116 MPH 3 SECOND GUST

RADIAL ICE THICKNESS WIND SPEED W/ ICE 50 MPH 3 SECOND GUST

STRUCTURE CLASS

EXPOSURE CATEGORY TOPOGRAPHIC CATEGORY

SPECTRAL RESPONSE ACCELERATIONS SS= 0.179 & S1= 0.055

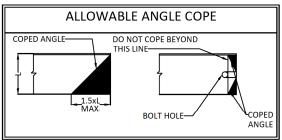
- ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE OR APPROVED BY THE EOR. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE PERFORMING WORK SIMILAR TO THAT DESCRIBED WITHIN THESE DRAWINGS. BY ACCEPTANCE OF THIS PROJECT, THE CONTRACTOR IS ATTESTING THAT HE HAS SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND REGISTERED TO PERFORM THE WORK IN THE PROJECT JURISDICTION.
 WORK SHALL ONLY BE PERFORMED DURING CALM, DRY DAYS (WINDS LESS THAN 10XMPH). IT IS THE
- CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE INSTILLATION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR $\begin{tabular}{ll} \begin{tabular}{ll} \be$ OR TIEXDOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
- ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND EOR. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE EOR SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES AND PROCEDURES.
- THE DESIGN WITHIN THESE DRAWINGS ASSUMES THE TOWER AND ITS FOUNDATIONS HAVE BEEN WELL MAINTAINED, IN GOOD CONDITION AND ARE WITHOUT DEFECT. BENT MEMBERS, CORRODED MEMBER, LOOSE BOLTS, CRACKED WELDS, AND OTHER STRUCTURAL DEFECTS HAVE NOT BEEN CONSIDERED UNLESS SPECIFICALLY NOTED. THE TOWER IS ASSUMED TO BE PLUMB AND THE SITE IS ASSUMED LEVEL. THE OWNER AND/OR EOR SHALL BE NOTIFIED IMMEDIATELY IF ANY VARIANCES ARE FOUND.
- THE CONTRACTOR SHALL ONLY WORK WITHIN THE LIMITS OF THE TOWER OWNER'S PROPERTY, LEASE AREA OR APPROVED EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS PERFORMED WITHIN THESE BOUNDARIES. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAIN AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT ALL WORK PERFORMED COMPLIES WITH ALL APPLICATION SAFETY CODES AND
- ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULES AND MATERIAL DELIVERIES, WITH THE OWNER/RESIDENT LEASING AGENT FOR APPROVAL
- THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNING AGENCIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS
- ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDED BUT NOT LIMITED TO ALTERED SIZED AND/OR STRENGTHS, MUST BE
- UNLESS NOTED OTHERWISE, ALL NEW MEMBERS SHALL MAINTAIN THE EXISTING MEMBER WORKING LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE
- ALL DIMENSIONS AND QUANTITIES LISTED WITHIN THESE DRAWINGS ARE INTENDED TO AID THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL DIMENSION AND QUANTITIES PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
- ALL MANUFACTURERS' INSTRUCTIONS SHALL BE FOLLOWED EXACTLY. ANY DEVIATION REQUIRES WRITTEN APPROVAL FROM THE EOR.
- THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY REMOVING COAX, BRACKETS, ANTENNAS MOUNTS AND ANY OTHER TOWER APPURTENANCE THAT MAY INTERFERE WITH THE INSTILLATION OF THE TOWER MODIFICATIONS. ALL TOWER APPURTENANCES MUST BE REPLACE AND/OR RESTORED TO ITS ORIGINAL LOCATION. SOME MOUNTS OR ATTACHMENTS MAY REQUIRE CUSTOM MODIFICATION TO PROPERLY FIT THE MODIFIED REGION OF THE STRUCTURE. THESE CUSTOM MOUNTS OR ATTACHMENTS ARE DESIGNED BY OTHERS AND MUST BE APPROVED BY THE OWNER/EOR PRIOR TO REMOVAL. ANY CARRIER DOWNTIME MUST BE COORDINATED WITH THE OWNER IN WRITING
- DO NOT SCALE DRAWINGS.

STRUCTURAL STEEL NOTES

- ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS, LATEST EDITION.
- ALL STRUCTURAL STEEL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS

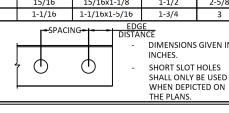
MATERIAL SPECIFICATIONS				
ANGLES	ASTM A36 (36 KSI YIELD STRENGTH)			
PIPES	ASTM A53 GR.B (35 KSI YIELD STRENGTH)			
BOLTS	ASTM A325N			
NUTS	ASTM A563			
WASHER	ASTM F436			
PLATE	ASTM A36 (36 KSI YIFI D STRFNGTH)			
U-BOLTS ASTM A307				

- ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATIONS, LATEST EDITION.
- CAULKING SHALL BE PROVIDED AROUND PERIMETER OF ANY AND ALL MODIFICATION MEMBERS TO ENSURE COMPLETE SEAL BETWEEN EXISTING STRUCTURE AND REINFORCING MEMBERS IN FULL CONTACT WITH EXISTING STEEL. SEALANT IS TO BE EXTERIOR GRADE, PAINTABLE SILICONE CAULKING AS MANUFACTURED BY DOW AND ACCEPTABLE TO EOR.
- HOLES SHALL NOT BE FLAME CUT THROUGH STEEL UNLESS APPROVED BY THE EOR
- ALL EXPOSED STEEL SHALL BE HOTXDIPPED GALVANIZED PER ASTM A123, ASTM A153/A153M, OR ASTM A653 G90, AS APPLICABLE FOR FULL WEATHER PROTECTION. FOR HIGH STRENGTH STEEL FASTENERS WHERE HOTXDIPPED GALVANIZING IS NOT PERMITTED DACROMET F1136 GRADE 3 COATING SHALL BE USED. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING TOWER STEEL. CONTRACTOR SHALL OBTAIN EOR APPROVAL FOR STEEL PROTECTION BY ANY OTHER MEANS.
- REPAIR DAMAGED PAINTED/GALVANIZED SURFACES WITH TWO COATS OF BRUSH OR ROLL ON ZRC COLD GALVANIZING COMPOUND OR EOR APPROVED COATING. SURFACES MUST BE WIRE BRUSHED AND SOLVENT CLEANED PRIOR TO APPLICATION OF GALVANIZING COMPOUND.
- ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES (LOCKING NUT/PAL NUT) TO BE INSTALLED IN ACCORDANCE WITH TIA/EIAX222 REQUIREMENTS.
- ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.



- ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS CONTRACTOR SHALL VERIEV EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED
- 2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENT

BOLT SCHEDULE						
BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING		
1/2	9/16	9/16x11/16	7/8	1-1/2		
5/8	11/16	11/16x7/8	1-1/8	1-7/8		
3/4	13/16	13/16x1	1-1/4	2-1/4		
7/8	15/16	15/16x1-1/8	1-1/2	2-5/8		
1	1-1/16	1-1/16x1-5/16	1-3/4	3		
	SPACING EDGE DISTANCE DIMENSIONS GIVEN IN					



WORKABLE GAGES					
LEG 2-1/2					
G	1-3/8				
- DIMENSIONS GIVEN IN INCHES MATCH EXISTING WHEN APPLICABLE.					



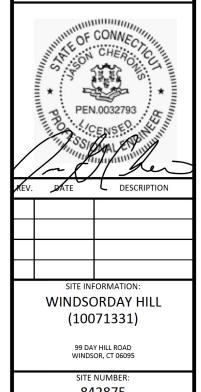


1033 E. TURKEYFOOT LAKE RD. SUITE 206 AKRON, OHIO 44312 330-961-7432



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MODIFICATION DRAWING



842875

POD NUMBER 20-66002 DRAWN BY: TAJ CHECKED BY: JGC DATE: 11/03/202

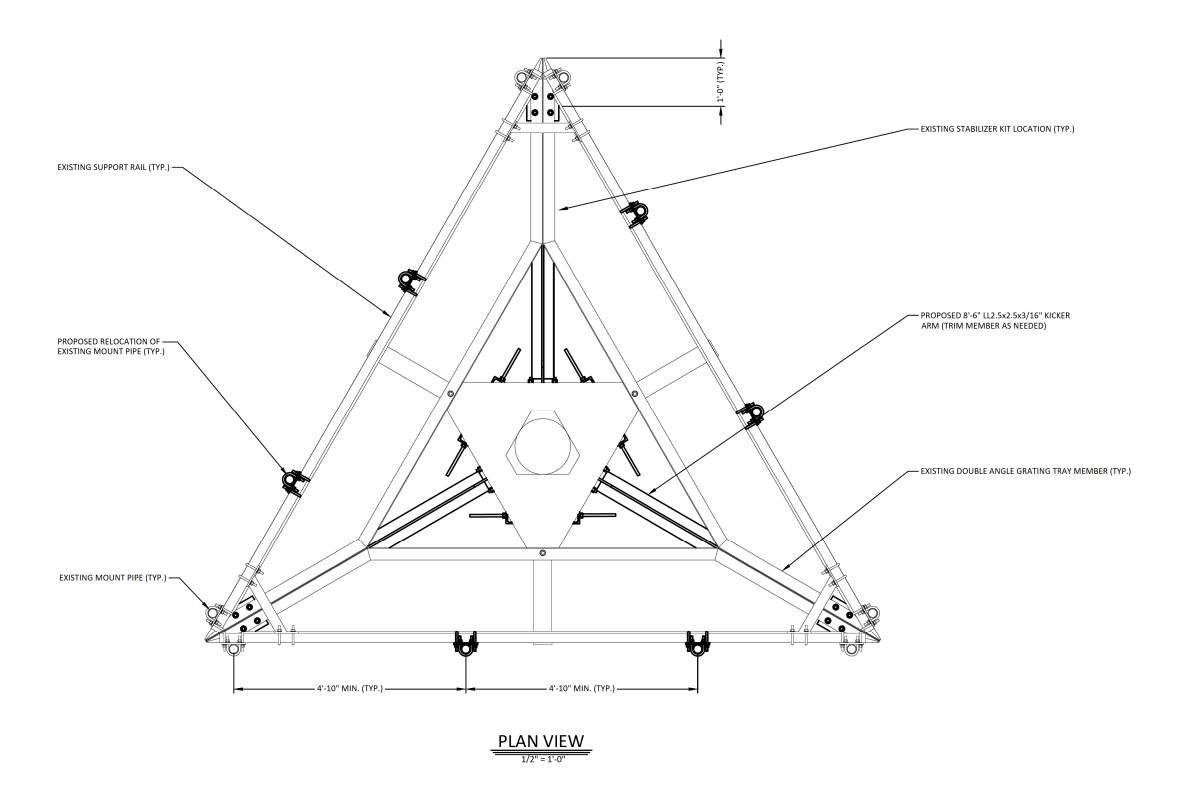
SHEET TITLE:

NOTES

N-01

- ANTENNAE & GRATING NOT SHOWN FOR CLARITY

 ALL FIELD DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF ZRC RICH PAINT EXCESS MATERIALS SHALL BE REMOVED AND DISPOSED OFF SITE BY THE CONTRACTOR





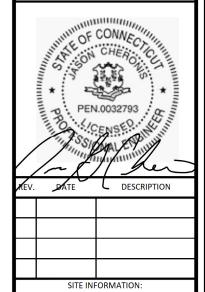


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THE EXPRESS WRITTEN CONSENT OF CROWN
CASTLE.

MODIFICATION DRAWING



WINDSORDAY HILL (10071331)

99 DAY HILL ROAD WINDSOR, CT 06095

SITE NUMBER: 842875

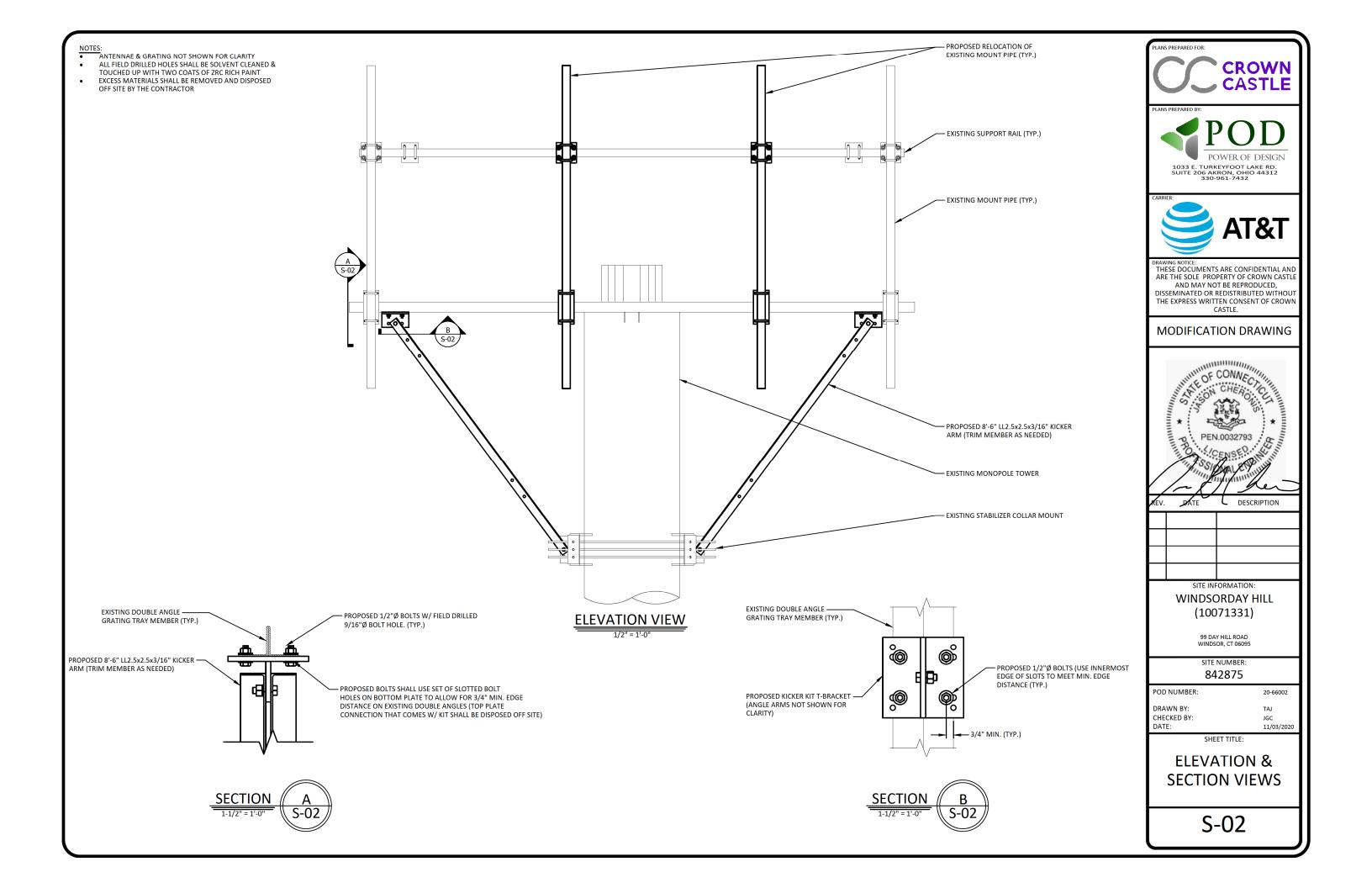
POD NUMBER: 20-66002

TAJ JGC 11/03/2020 DRAWN BY: CHECKED BY: DATE:

SHEET TITLE:

PLAN VIEW

S-01



MODIFICATION INSPECTION CHECKLIST

BEFORE CONSTRUCTION		DURING CONSTRUCTION		AFTER CO	
CONSTRUCTION/INSTALLATION INSPECTION AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM	CONSTRUCTION/INSTALLATION INSPECTION AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM	CONSTRUCTION/INSTALLATION INSPECTION AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	
Х	MODIFICATION INSPECTION CHECKLIST DWG	Х	CONSTRUCTION INSPECTION	Х	
-	ENGINEER OF RECORD APPROVED SHOP DRAWINGS	-	FOUNDATION INSPECTION	-	
-	FABRICATION INSPECTION	-	CONCRETE COMP. STRENGTH AND SLUMP TEST	х	
х	MATERIAL TEST REPORT	-	POST INSTALLED ANCHOR ROD VERIFICATION	ADDITIONAL TESTING AND INSPECTION	
-	FABRICATOR NDE INSPECTION	-	BASE PLATE GROUT VERIFICATION		
-	NDE REPORT OF MONOPOLE BASEPLATE (AS REQUIRED)		THIRD PARTY CERTIFIED WELD INSPECTION		
Х	PACKING SLIP	-	EARTHWORK LIFT AND DENSITY (REPORT REQUIRED)		
ADDITIONAL TESTING AND INSPECTION		Х	ON SITE COLD GALVANIZING VERIFICATION		
		-	GUY WIRE TENSION REPORT		
		х	GC AS-BUILT DOCUMENTS		
		ADDITIONAL TESTING AND INSPECTION			

MODIFICATION INSPECTION NOTES:

GENERAL:

- 1. THE MODIFICATION INSPECTION IS A VISUAL INSPECTION OF TOWER MODIFICATION AND A REVIEW OF CONSTRUCTION INSPECTION AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. NAMELY THE MODIFICATION DRAWINGS., AS
- 2. THE MODIFICATION INSPECTION IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AN IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF. NOR DOES THE MODIFICATION INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTENT RESIDES WITH THE ENGINEER OF RECORD AT ALL
- 3. TO ENSURE THAT THE REQUIREMENT OF THE MODIFICATION INSPECTION ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MODIFICATION INSPECTOR BEGIN COMMUNICATION AND COORDINATING AS SOON AS A PO OR PAYMENT IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN

MODIFICATION INSPECTOR:

- THE MODIFICATION INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO OR PAYMENT FOR THE MODIFICATION INSPECTION TO:
- REVIEW THE REQUIREMENT OF THE MODIFICATION INSPECTION CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE
- DISCUSS ANY SITE SPECIFIC INSPECTIONS OR CONCERNS
- 2. THE MODIFICATION INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR (GC) INSPECTION AND TEST REPORTS. REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS. CONDUCTING THE INXFEILD INSPECTIONS, AND SUBMITTING THE MODIFICATION INSPECTION REPORT.

GENERAL CONTRACTOR:

THE GC IS REQUIRED TO CONTACT THE MODIFICATION INSPECTOR AS SOON AS RECEIVING A PO OR PAYMENT FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO:

- REVIEW THE REQUIREMENT OF THE MODIFICATION INSPECTION CHECKLIST
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MODIFICATION INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS
- 2. THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MODIFICATION INSPECTION

- 1. IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, TO THE MODIFICATION INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR HE MODIFICATION INSPECTION TO BE CONDUCTED.
- THE GC AND MODIFICATION INSPECTION COORDINATE CLOSELY THROUGHOUT
- WHEN POSSIBLE IT IS PREFERRED TO HAVE THE MODIFICATION INSPECTOR AND GC ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR
- IT MAY BE BENEFICIAL TO INSTALL ALL TOWER MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTION TO ALLOW FOUNDATION AND MODIFICATION INSPECTION(S) DONE IN ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MODIFICATION INSPECTOR ON-SITE DURING THE MODIFICATION INSPECTION. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MODIFICATION INSPECTION CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CANCELLATION OR DELAYS IN SCHEDULED MODIFICATION INSPECTION:

IF THE GC AND MODIFICATION INSPECTOR AGREE TO A DATE ON WHICH THE MODIFICATION INSPECTION WILL BE CONDUCTED, AND EITHER ARTY CANCELS OR DELAYS, THE TOWER OWNER SHALL NOT BE RESPONSIBLE FOR ANY COSTS, FEES, LOSS OR DEPOSITS AND/OR OTHER PENALTIES RELATE TO THE CANCELLATION OR DELAY INCURRED BY EITHER PARTY FOR ANY TIME. EXCEPTIONS MAY BE MADE IN THE DELAY/ CANCELLATION IS CAUSED BY WEATHER OR OTHER CONDITIONS THAT MAY COMPROMISE THE SAFETY OF THE PARTIES INVOLVED

CORRECTION OF FAILING MODIFICATION INSPECTION:

1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE MODIFICATION

INSPECTION ("FAILED MODIFICATION INSPECTION"), THE GC SHALL WORK WITH MODIFICATION INSPECTOR TO COORDINATE A REMEDIATION PLAN IN ONE OF

• CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MODIFICATION INSPECTION. OR, WITH TOWER OWNER'S APPROVAL, THE GC MAY WORK WITH THE ENGINEER OF RECORD TO REXANALYZE THE MODIFCATION/REINFORCEMENT USING AS-BUILT CONDITION.

VERIFICATION INSPECTIONS:

AFTER CONSTRUCTION

REPORT ITEM

RECORD DRAWING(S)

PHOTOGRAPHS

MODIFICATION INSPECTOR REDLINE OR

POST INSTALLED ANCHOR ROD PULL-OUT

- TOWER OWNER RESERVES THE RIGHT TO CONDUCT A VERIFICATION INSPECTION TO VERIFY THE ACCURACY AND COMPLETENESS OF PREVIOUSLY COMPLETED MODIFICATION AND INSPECTION(S) ON TOWER MODIFICATION PRODUCTS.
- VERIFICATION INSPECTION MAY BE CONDUCTED BY AN INDEPENDENT FIRM AFTER A MODIFICATION PROJECT IS COMPLETED, AS MARKED BY THE DATE OF AN ACCEPTED "PASSING MODIFICATION INSPECTION MODIFICATION INSPECTION" REPORT FOR THE ORIGINAL PROJECT.

- BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS ARE TO BE TAKEN AND INCLUDED IN THE MODIFICATION INSPECTION REPORT:
- PREXCONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
- •• RAW MATERIALS
 •• PHOTOS OF ALL CRITICAL DETAILS
- WELD PREPARATION
- •• FOUNDATION MODIFICATION
- •• BOLT INSTALLATION AND TORQUE
 •• FINAL INSTALLED CONDITION
- •• SURFACE COATING REPAIR
- POST CONDITION PHOTOGRAPHS
- FINAL INFIELD CONDITION ANY OTHER PHOTOS DEEMED RELEVANT TO SHOW COMPLETE DENTALS OF MODIFICATIONS
- 2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE

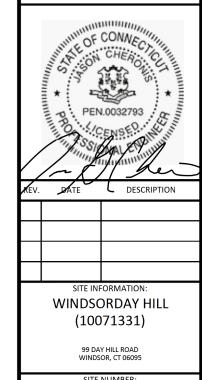


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MODIFICATION DRAWING



SITE NUMBER 842875

POD NUMBER 20-66002 TAJ CHECKED BY

DATE:

SHEET TITLE:

11/03/202

MODIFICATION CHECKLIST

MI-01