NORTH OGDEN

SITE NUMBER: 310320

2367 N RULON WHITE BLVD **ODGEN, UT 84404**

EXISTING 147' MONOPOLE

SHEET #

T-1

GN-1

C-2

C-3

TITLE SHEET

GENERAL NOTES

ANTENNA SPECS

CABINET DETAILS ELECTRICAL PLAN

OVERALL SITE PLAN

ENLARGED SITE PLAN

ANTENNA ELEVATIONS

GROUNDING DETAILS

GROUNDING DETAILS

ANTENNA MOUNT SPECS

ELECTRICAL/GROUNDING NOTES

TOWER ELEVATION & AZIMUTH PLAN

PROJECT SUMMARY

SITE NAME:

NORTH OGDEN SITE NUMBER:

SITE ADDRESS:

2367 N RULON WHITE BLVD ODGEN, UT 84404

JURISDICTION:

SALT LAKE CITY AMERICAN TOWER CORPORATION 116 HUNTINGTON AVE, 11TH FLOOR TOWER OWNER:

BOSTON, MA 02116

PROPERTY OWNER: CRAIG S & TERESA HOTCHKISS

I ATITUDE -41° 17' 56.20" N 112° 00' 55.18" W

VIVINT WIRELESS CUSTOMER/APPLICANT:

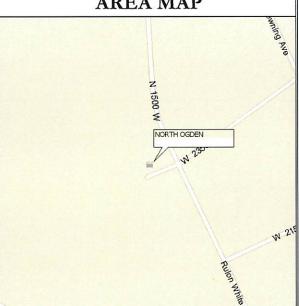
4931 NORTH 300 WEST PROVO, UTAH 84601

(801) 234-6359

OCCUPANCY TYPE:

FACILITY IS UNMANNED AND NOT A.D.A. COMPLIANCE:

AREA MAP



NO SCALE

N 2700 N W 2550 N

LOCATION MAP

NO SCALE

	C-4
	C-5
	C-6
89 19	C-7
N N	E-1
	G-1
4	G-2
	G-3
-\	
leights >	
Military 1974	III.

DRIVING DIRECTIONS CONTACT INFORMATION

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3625 BROOKSIDE PARKWAY, SUITE 380

ALPHARETTA, GA 30022 CAROLINE BLOUNT, P.E. (918) 587-4630

VIVINT WIRELESS 4931 NORTH 300 WEST PROVO, UTAH 84601

CONTACT: VINCE TANNER (801) 229-6412

ROCKY MOUNTAIN POWER PROVIDER:

QWEST

DEPART SALT LAKE CITY INTERNATIONAL AIRPORT ONTO I-80, AT EXIT 117, TURN RIGHT ONTO RAMP. TAKE RAMP (LEFT) ONTO I-215, TAKE

RAMP ONTO I-15. AT EXIT 349, TURN RIGHT ONTO RAMP, KEEP STRAIGHT TO STAY ON RAMP. TURN RIGHT ONTO UT-134 [W 2700 N], TURN RIGHT ONTO N 1500 W [N 15TH W]. KEEP STRAIGHT ONTO (N) 1500 (W) [RULON WHITE BLVD], TURN RIGHT ONTO W 2350 N. TURN RIGHT ONTO ACCESS ROAD AND ARRIVE AT NORTH OGDEN.

CODE COMPLIANCE

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 BUILDING/DWELLING STRUCTURAL MECHANICAL FI FCTRICAL

IBC 2012 IMC 2012 NEC 201

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES: INSTALL (5) ANTENNAS ON NEW MOUNT AT 120'.

INSTALL (2) CATSE CABLES.

INSTALL (1) EQUIPMENT CABINET ON CONCRETE PAD.

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SEE SHEET GN-1 & G-1 FOR ADDITIONAL CONSTRUCTION NOTES

A/E DOCUMENT REVIEW STATUS

DRAWING INDEX

SHEET DESCRIPTION

SIGNATURE	DATE
	All and the second
	#
	SIGNATURE

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION
DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE
LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS



CALL UTAH ONE CALL (800) 662-4111 CALL 3 WORKING DAYS BEFORE YOU DIG!



REV. #

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EXISTING MONOPOLE

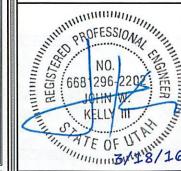
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PROJECT NO:

CHECKED BY: CWB

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- DRAWINGS ARE NOT TO BE SCALED. WRITTEN DIMENSIONS TAKE PRECEDENCE. THIS SET OF DOCUMENTS IS INTENDED TO BE USED FOR DIAGRAM PURPOSES ONLY, UNLESS NOTED OTHERWISE. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS.
- THE GENERAL CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ANY REQUIREMENTS DEEMED NECESSARY TO COMPLETE INSTALLATION AS DESCRIBED IN THE DRAWINGS AND AS DISCUSSED ON THE SITE
- 4. PRIOR TO THE SUBMISSION OF BIDS, CONTRACTORS SHALL VISIT THE JOB SITE TO FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT. CONTRACTORS SHALL VISIT THE CONSTRUCTION SITE WITH THE CONSTRUCTION DOCUMENTS TO VERIFY FIELD CONDITIONS AND CONFIRM THAT THE PROJECT WILL BE ACCOMPLISHED AS SHOWN. PRIOR TO PROCEEDING WITH CONSTRUCTION, AN ERRORS, OMISSIONS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF VIVINT WIRELESS VERBALLY AND
- THE GENERAL CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS.
- 6. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES SEQUENCES AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO MANUFACTURER'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE
- 8. ALL WORK PERFORMED ON THE PROJECT AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODE REGULATIONS AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCES OF THE WORK
- GENERAL CONTRACTOR SHALL PROVIDE, AT THE PROJECT SITE, A FULL SET OF CONSTRUCTION DOCUMENTS UPDATED WITH THE LATEST REVISIONS AND ADDENDA OR CLARIFICATIONS FOR USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT
- 10. THE STRUCTURAL COMPONENTS OF ADJACENT CONSTRUCTION OR FACILITIES ARE NOT TO BE ALTERS BY THIS CONSTRUCTION PROJECT UNI ESS NOTED OTHERWISE
- 11. CONTRACTOR TO SEAL ALL PENETRATIONS THROUGH FIRE-RATED AREAS WITH U.L. LISTED OR FIRE MARSHALL APPROVED MATERIALS IF APPLICABLE TO THIS FACILITY OR PROJECT SITE
- 12. CONTRACTOR TO PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING
- 13. CONTRACTOR SHALL MEET ALL OSHA REQUIREMENTS FOR ALL INSTALLATIONS
- 14. CONTRACTOR TO VERIFY LOCATION OF ALL BURIED UTILITIES PRIOR TO EXCAVATION
- 15. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY
- 16. CONTRACTOR SHALL KEEP GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS AND RUBBISH. CONTRACTOR SHALL REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OR PREMISES. SITE SHALL BE LEFT IN CLEAN CONDITION DAILY AND FREE FROM PAINT SPOT, DUST OR SMUDGES OF ANY NATURE

- 17. THE ARCHTECTS/ENGINEERS HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK, CONTRACTORS BIDDING THE JOB ARE NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOTE EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS. THE BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) VIVINT WIRELESS OF ANY CONFLICTS, ERROR OR OMISSIONS PRIOR TO SUBMISSION OF CONTRACTOR'S PROPOSAL. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTREME WORK, UNLESS DIRECTED OTHERWISE
- 18. THE CONTRACTOR SHALL PERFORM WORK DURING OWNER'S PREFERRED HOURS TO AVOID DISTURBING NORMAL BUSINESS.
- 19. THE CONTRACTOR SHALL PROVIDE VIVINT WIRELESS PROPER INSURANCE CERTIFICATES NAMING VIVINT WIRELESS AS ADDITIONAL INSURED AND VIVINT WIRELESS PROOF OF LICENSE(S) AND PL & PD

B+T GRP

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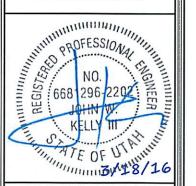
MONOPOLE N RULON ODGEN, I EXISTING

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PROJECT NO: 105242.001 CHECKED BY: CWB

ISSUED FOR: REV DATE DRWN DESCRIPTION A 3/10/16 SMM PRELIMINARY REVIEW 0 3/18/16 SMM CONSTRUCTION

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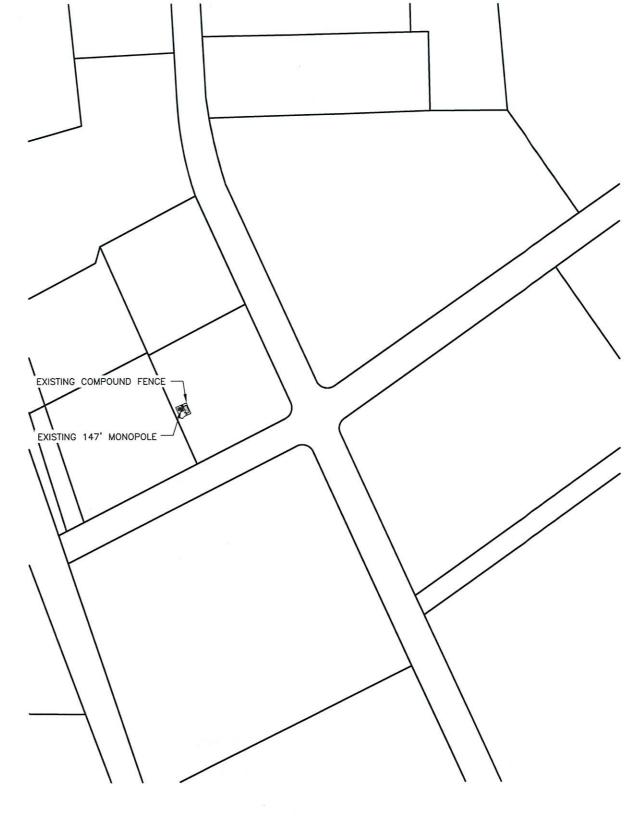
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REVISION

THE EXISTING CONDITIONS REPRESENTED HEREIN ARE BASED ON VISUAL OBSERVATIONS AND INFORMATION PROVIDED BY OTHERS. B+T GROUP CANNOT GUARANTEE THE CORRECTNESS NOR THE COMPLETENESS OF THE EXISTING CONDITIONS SHOWN AND ASSUMES NO RESPONSIBILITY THEREOF. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AS REQUIRED FOR PROPER COMPLETION OF THE PROJECT.







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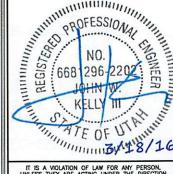
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EXISTING MONOPOLE

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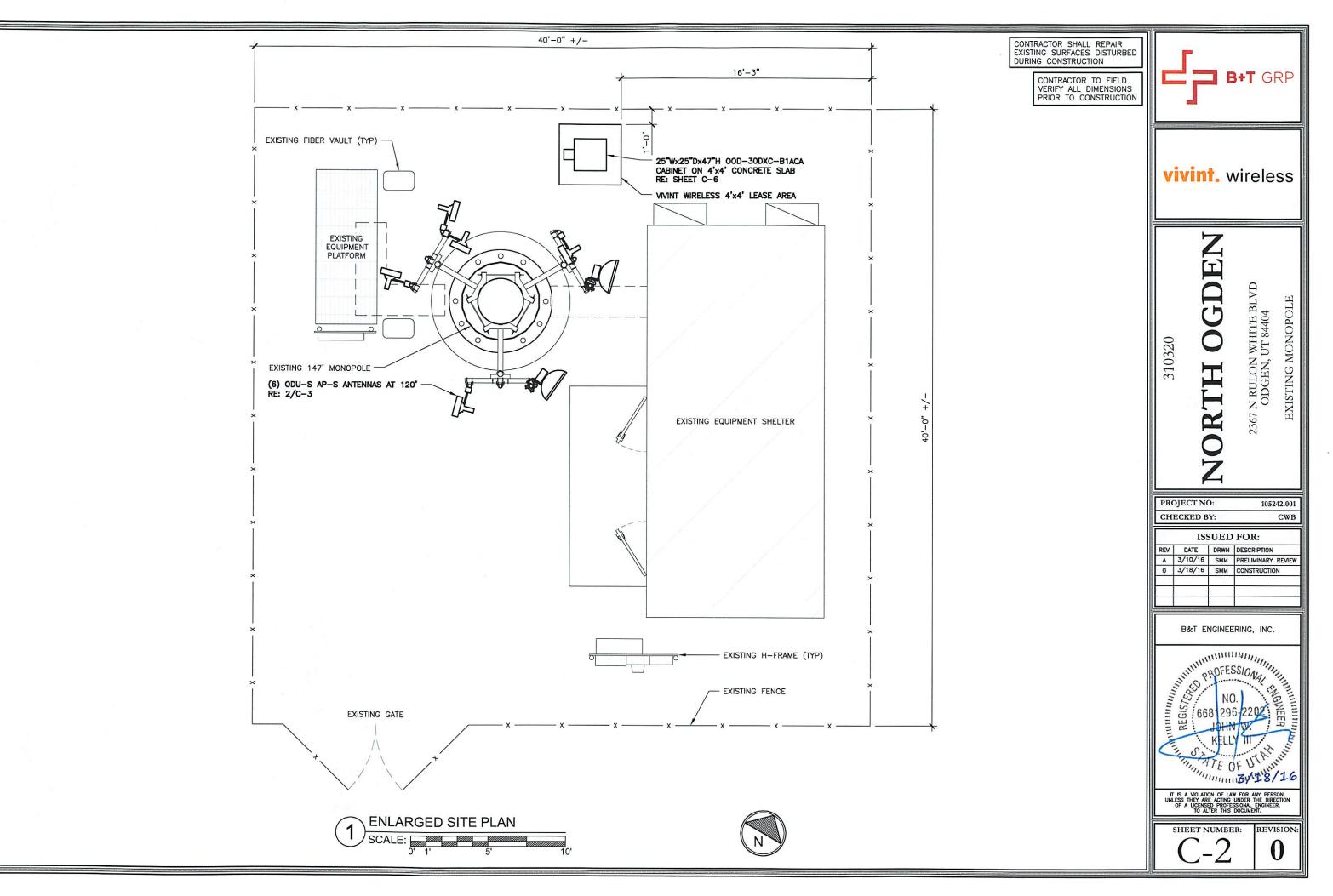
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SHEET NUMBER:

OVERALL SITE PLAN SCALE: N.T.S.



5242.001_310320_North Oaden ATC.dwa - Sheet:C-2 - User chlount - Mar 21 2016 - 11:38a

0.3 m | 1 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 71.000-86.000 GHz, custom flange and color, polymer radome without flash, standard

General Specifications

Antenna Type VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized Diameter, nominal 0.3 m | 1 ft Packing Standard pack Radome Color Custom Radome Material Polymer Reflector Construction One-piece reflector Antenna Input Custom Antenna Color White Antenna Type VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized Diameter, nominal Flash Included Polarization Single

Electrical Specifications

Operating Frequency Band 71.000 - 86.000 GHz Beamwidth, Horizontal 0.9 0 Beamwidth, Vertical 0.9 0 Cross Polarization Discrimination (XPD) 25 dB Electrical Compliance ETSI 302 217 Class 3 Front-to-Back Ratio 61 dB Gain, Low Band 43.0 dBi Gain, Mid Band 43.5 dBi Gain, Top Band 44.0 dBI 71.000 - 86.000 GHz Operating Frequency Band Radiation Pattern Envelope Reference (RPE) 7287 Return Loss

1.50

Mechanical Specifications

Fine Azimuth Adjustment

Fine Elevation Adjustment Mounting Pipe Diameter 50 mm-115 mm | 2.0 in-4.5 in Net Weight 7 kg | 14 lb Side Struts, Included Side Struts, Optional

Wind Velocity Operational 200 km/h | 124 mph Wind Velocity Survival Rating 250 km/h | 155 mph

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Product Specifications



0.6 m | 2 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 71.000–86.000 GHz, custom flange and color, polymer radome without flash, standard pack—one-

General Specifications

Antenna Type VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized 0.6 m | 2 ft Diameter, nominal Packing Standard pack Radome Color Custom Radome Materia Polymer Reflector Construction One-piece reflector Antenna Input Custom Antenna Color Antenna Type VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized Diameter, nominal 0.6 m | 2 ft Flash Included Polarization Single

Electrical Specifications

Operating Frequency Band 71.000 - 86.000 GHz Beamwidth, Horizontal Beamwidth, Vertical 0.5 0 Cross Polarization Discrimination (XPD) Electrical Compliance ETSI 302 217 Class 3 | US FCC Part 101.115 Front-to-Back Ratio 68 dB Gain, Low Band 50.0 dBi Gain, Mid Band 50.5 dBi Gain, Top Band 51.0 dBi 71.000 - 86.000 GHz Operating Frequency Band Radiation Pattern Envelope Reference (RPE) 7288 14.0 dB 1.50

Mechanical Specifications

Fine Azimuth Adjustment Fine Elevation Adjustment ±15° 50 mm-115 mm | 2.0 in-4.5 in Mounting Pipe Diameter Net Weight 9 kg | 20 lb

Side Struts, Included

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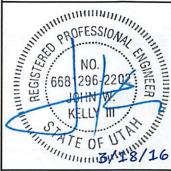
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EXISTING MONOPOLE

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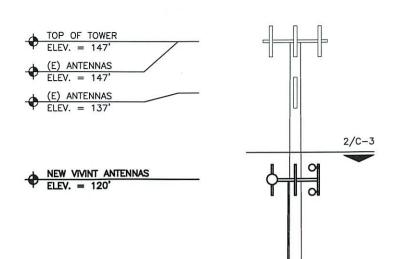
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SHEET NUMBER:

VHLP1-80-XXX SPECS

VHLP2-80-XXX SPECS



STRUCTURAL ANALYSIS NOTE:

REFER TO STRUCTURAL ANALYSIS OR STRUCTURAL LETTER FOR APPROVAL OF ADDITIONAL NEW APPURTENANCES.

THESE DRAWINGS ARE NOT INTENDED TO REFLECT THE STRUCTURAL INTEGRITY OF THE TOWER. THE PROPOSED ANTENNAS AND TRANSMISSION LINES SHOWN ARE REPRESENTATIVE IN NATURE AND DO NOT REFLECT THE ACTUAL CONFIGURATIONS REQUIRED. THE CONTRACTOR SHALL REFER TO THE ORIGINAL TOWER DRAWINGS FOR THIS TOWER SITE TO DETERMINE ACTUAL TOWER CONDITIONS AND SPECIFICATIONS.

(S) (B) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	

ANTENNA CHART

ANTENNA AZIMUTH FREQUENCY POLARIZATION CENTERLINE

UNK

UNK

UNK

UNK

UNK

UNK

UNK

UNK

119'

121'

119'

121'

121'

121'

120'

120'

UNK

UNK

UNK

UNK

UNK

UNK

UNK

UNK

10°

45°

90°

180°

270°

90°

110

PROPOSED ANTENNA AZIMUTH PLAN SCALE: N.T.S.





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2367 N RULON WHITE BLVD ODGEN, UT 84404

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TOWER ELEVATION SCALE: N.T.S.

PROPOSED (1) ROSENBERGER WR-CAT5E10P & (1) ROSENBERGER WR-CAT5E4P

PROPOSED VIVINT CABINET -

B+T GRP

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NORTH OGDEN

2367 N RULON WHITE BLVD ODGEN, UT 84404

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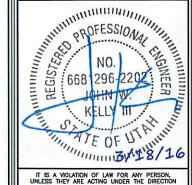
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:

REVISION:

310320

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ANTENNA CHART ANTENNA | AZIMUTH | FREQUENCY | POLARIZATION | CENTERLINE 10° UNK 121' UNK 121' 119' 45° UNK UNK 45° UNK UNK 90, UNK UNK 121' 121' 121' 120' UNK 180* UNK 270 UNK UNK 90° UNK UNK 110 UNK UNK 120'

BAND 1: SECTION
ALPHA = RED
BETA = BLUE
GAMMA = GREEN

COLOR CODE

BAND 2: POSITION 1 = RED 2 = BLUE 3 = GREEN

BAND 3: POLARITY H = RED V = BLUE

BAND 4: AP = RED RT = BLUE

NEW VIVINT ANTENNAS

ELEV. = 121'

MOUNT HEIGHT
ELEV. = 120'

NEW VIVINT ANTENNAS

ELEV. = 119'

ALPHA SECTOR

BETA SECTOR

4

7

GAMMA SECTOR

8

(5)

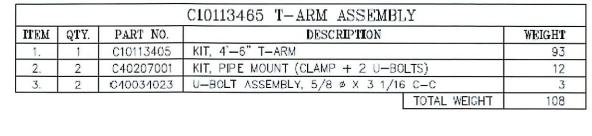
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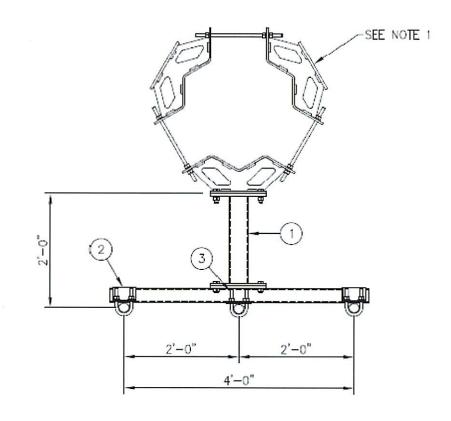
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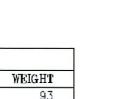
ANTENNA PROFILE DETAIL

SCALE: N.T.S.





PLAN VIEW



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EXISTING MONOPOLE

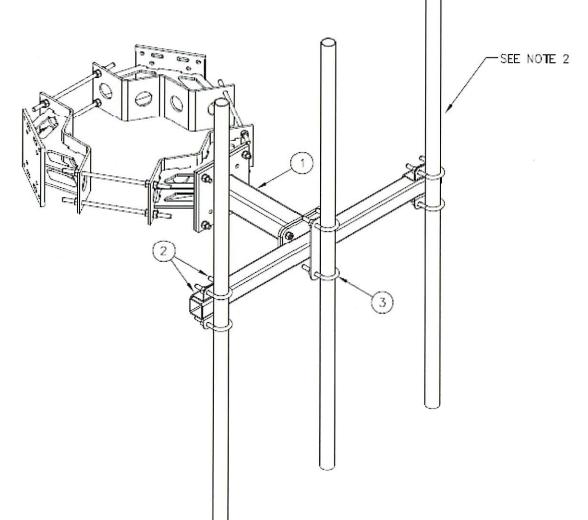
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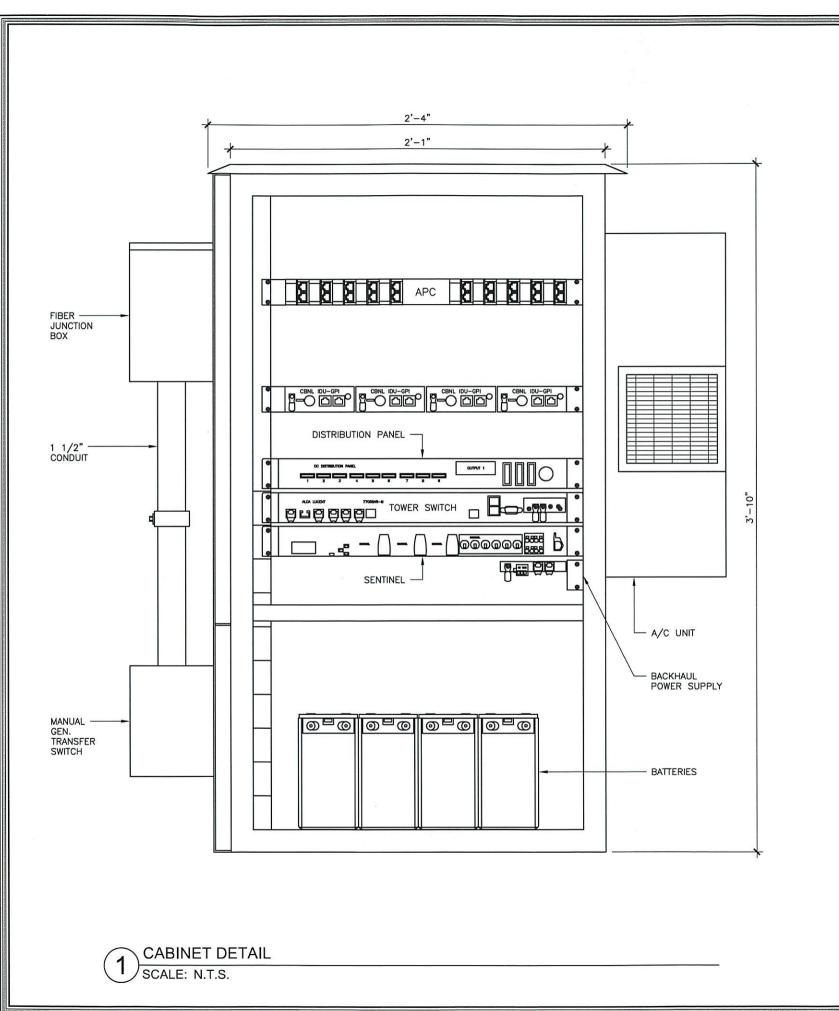


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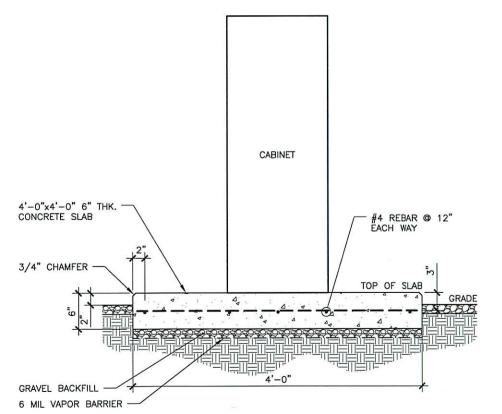
ISOMETRIC VIEW

ANTENNA MOUNT SPECS SCALE: N.T.S.





EQUIPMENT CABINET SCALE: N.T.S.



EQUIPMENT MOUNTING DETAIL SCALE: N.T.S.



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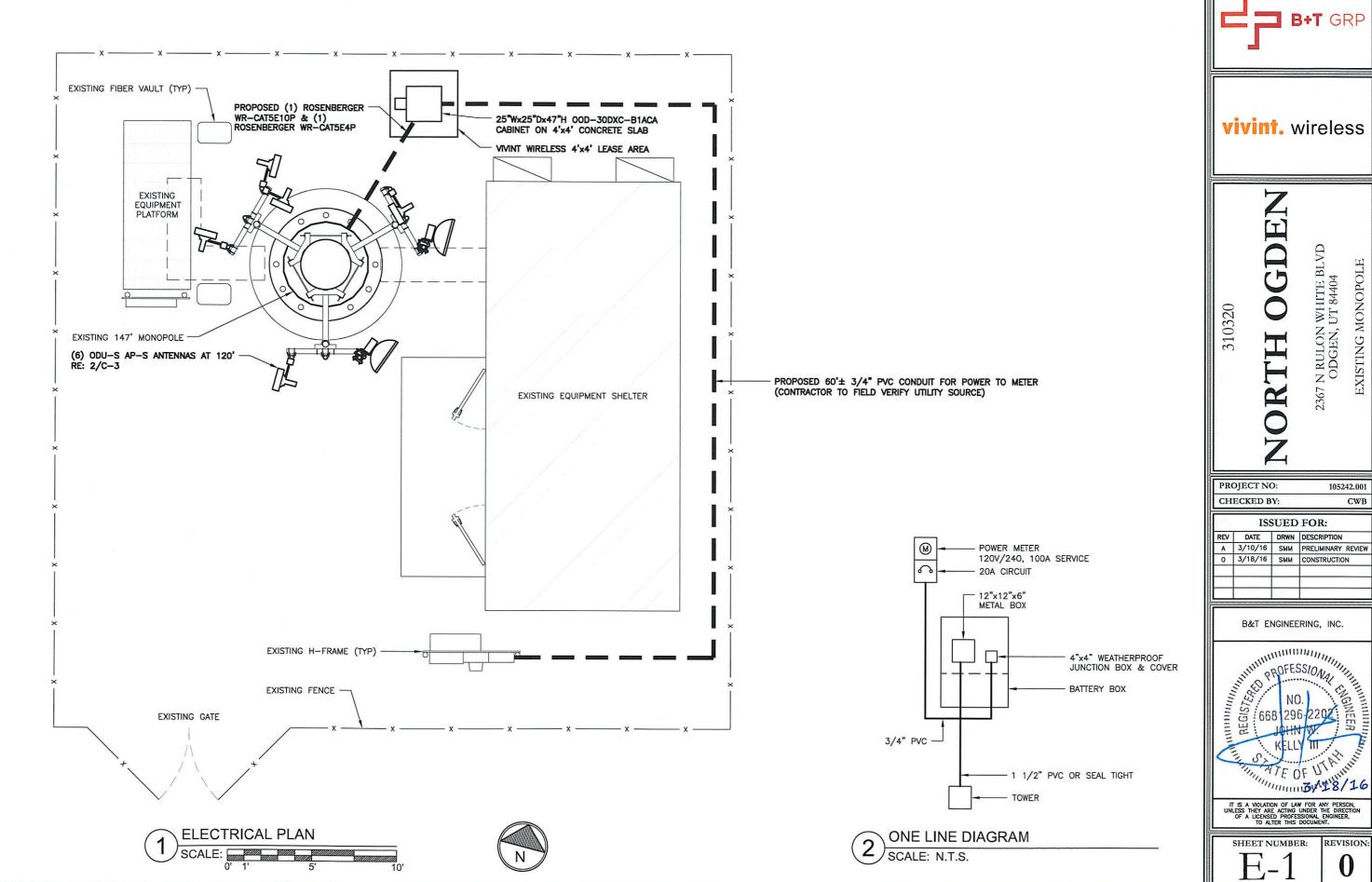
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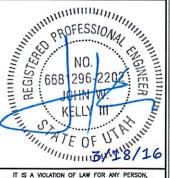




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CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.

WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC. HILTI EPOXY ANCHORS ARE REQUIRED BY CROWN CASTLE.

ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.

CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.

EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING AND T1 CONDUCTOR AND 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.

ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PLASTIC TAPE PER COLOR SCHEDULE. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, 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) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.

ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.

POWER, CONTROL AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.

SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.

POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION WITH OUTER JACKET LISTED OR LABELED FOR THE LOCATION USED UNLESS OTHERWISE SPECIFIED.

ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP—STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75° C (90° C IF AVAILABLE).

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

ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E. RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS

SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.

LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION—TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.

CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.

WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER).

CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES 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 BUSHIN ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

ELECTRICAL INSTALLATION NOTES (CONT.):

EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY—COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND RATED NEMA 1 (OR BETTER) INDOORS OR NEMA 3R (OR BETTER) OUTDOORS.

METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS

THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

INSTALL PLASTIC LABEL ON THE METER CENTER TO SHOW "VIVINT WIRELESS".

ALL CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

ELECTRICAL/TELEPHONE/SITE NOTES:

- PERFORM DETAILED VERIFICATION OF WORK PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND COMMENCING CONSTRUCTION. NOTIFY VIVINT WIRELESS OF ANY DISCREPANCIES.
- PRIOR TO BEGINNING WORK, COORDINATE ALL POWER AND TELCO WORK WITH THE LOCAL UTILITY COMPANY AS IT MAY APPLY TO THIS SITE, ALL WORK TO COMPLY WITH THE RULES AND REGULATIONS OF THE UTILITIES INVOLVED.
- RUN TELEPHONE FROM EXISTING PEDESTAL OR TELEPHONE BOARD TO PPC LOCATION. CONTRACTOR SHALL FIELD VERIFY EXACT ROUTING OF POWER AND TELCO. FOLLOW ALL APPLICABLE LOCAL CODES AND UTILITY REQUIREMENTS.
- FABRICATION AND INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM SHALL BE DONE IN A
 FIRST CLASS WORKSHOP BY QUALIFIED PERSONNEL EXPERIENCED IN SUCH WORK.
- PROVIDE 2" CONDUIT EQUIPPED WITH ONE PULL STRING AND ONE 1" INNERDUCT. ALL TELEPHONE CONDUITS AND TELEPHONE WIRING MUST MAINTAIN A MINIMUM SEPARATION DISTANCE OF 18" AWAY FROM ALL A/C POWER CONDUITS AND WIRING.
- 6. CONTRACTOR TO PROVIDE 1" CONDUIT FOR POWER ROUTING TO CABINET.
- ALL ELECTRICAL WORK SHALL CONFORM TO THE EDITION OF THE NEC ACCEPTED BY THE LOCAL JURISDICTION AND TO THE APPLICABLE LOCAL CODES AND REGULATIONS.
- 8. SCHEDULE THE WORK IN AN ORDERLY MANNER SO AS NOT TO IMPEDE PROGRESS OF THE PROJECT.
- 9. CONTRACTOR TO VERIFY AZIMUTHS WITH FINAL RF DATA SHEET FROM RF ENGINEER.

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 SUBCONTRACTOR SHALL PERFORM IEEE FALL—OF—POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

THE SUBCONTRACTOR 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 TESTING RESULTS.

METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

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 BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 AWG 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 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.

ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.

EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.

COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.

ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WIT A CORROSION RESISTANT MATERIAL.

MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.

GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS, WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 TINNED SOLID IN 3/4" LIQUID TIGHT CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).



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N RULON WHITE BLVD ODGEN, UT 84404

EXISTING MONOPOLE

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PROJECT NO: 105242.001

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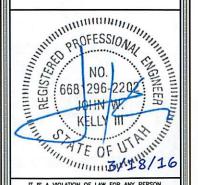
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O 3/18/16 SMM CONSTRUCTION

B&T ENGINEERING, INC.

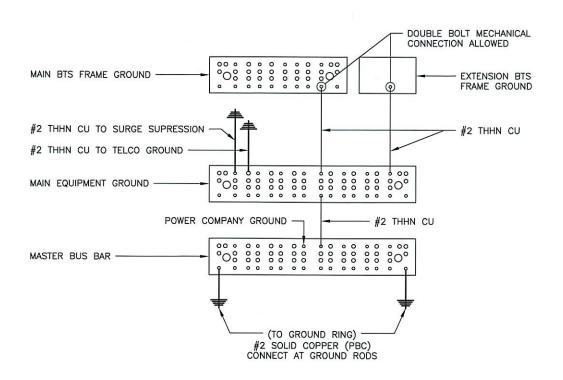


IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

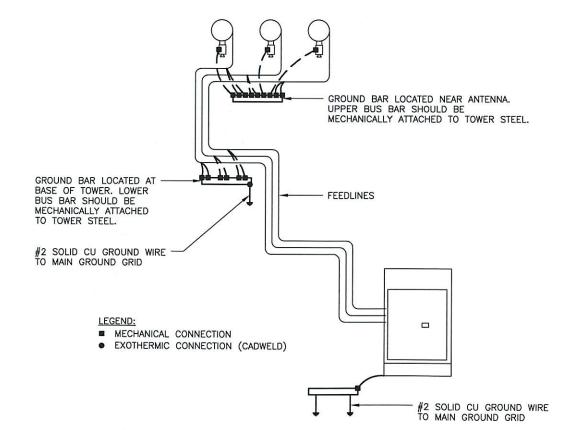
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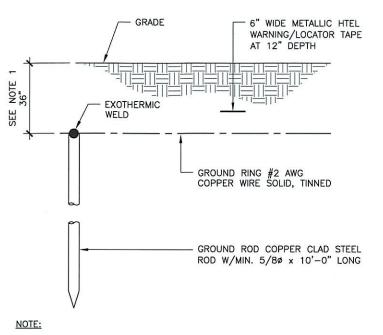
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ANTENNA GROUNDING DIAGRAM SCALE: N.T.S.

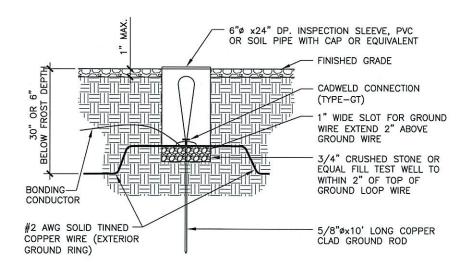


GROUNDING SCHEMATIC SCALE: N.T.S.



GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL

GROUND ROD DETAIL SCALE: N.T.S.



INSPECTION WELL DETAIL SCALE: N.T.S.



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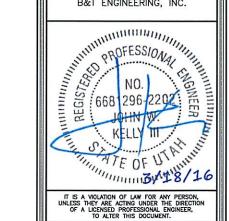
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EXISTING MONOPOLE

PROJECT NO: 105242.001 CHECKED BY: CWB

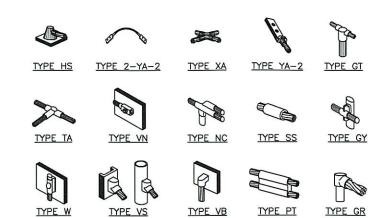
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NOTE:

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

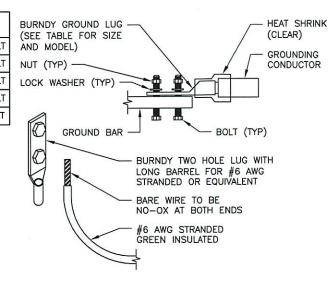
CADWELD GROUNDING CONNECTIONS

SCALE: N.T.S.

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

NOTES:

- ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.
- COPPER SHIELD, ANTIOX, CR NO-OX OR EQUIVALENT SHALL BE PLACE WHERE ALL DISSIMILAR METALS CONNECT.
- ALL LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.



MECHANICAL LUG CONNECTION SCALE: N.T.S.



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2367 N RULON WHITE BLVD ODGEN, UT 84404

EXISTING MONOPOLE

PROJECT NO:

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