



NEW SITE
BUILD

T-MOBILE SITE NAME: WOODMEN ELEMENTARY
VERTICAL BRIDGE SITE NAME: WOODMEN HILLS ELEMENTARY
T-MOBILE SITE NUMBER: DN04333A
VERTICAL BRIDGE SITE NUMBER: US-CO-5052
SITE ADDRESS: 12119 McCLURE ROAD
FALCON, CO 80831
SITE TYPE: MONOPOLE

VA-17-005 approved the CMRS facility within the RR-0.5 zoning district.
The recording of the tower structural agreement and collateral are required prior to building permit authorization.

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

COLORADO LICENSED
CHRISTOPHER J. WARREN
47849
10-12-17
PROFESSIONAL ENGINEER

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:			
DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

TITLE SHEET &
PROJECT DATA

SHEET NUMBER:

T-1

SITE INFORMATION		AREA MAP	PROJECT DESCRIPTION	DRAWING INDEX		
APPLICANT: T-MOBILE 2323 DELGANY STREET DENVER, CO 80216 CONTACT: JOHN WABISZCZEWICZ (303) 313-6930 TOWER OWNER: VERTICAL BRIDGE 750 PARK OF COMMERCE DRIVE, STE 200 BOCA RATON, FL 33478 VERTICAL BRIDGE PM: MATT GRUGAN (678) 488-1866 LATITUDE (NAD83): 38° 57' 04.91" N -104.599297° LONGITUDE (NAD83): 104° 35' 57.47" W -104.599297° COUNTY: EL PASO ZONING JURISDICTION: EL PASO COUNTY POWER COMPANY: MOUNTAIN VIEW ELECTRIC (719) 775-2861 TELCO PROVIDER: CENTURYLINK (303) 343-0861 T-MOBILE CM: TBD			THESE PLANS HAVE BEEN DEVELOPED FOR THE INSTALLATION OF AN UNMANNED TELECOMMUNICATION & PUBLIC UTILITY FACILITY, CONSISTING OF THE PLACEMENT OF A 90' MONOPOLE TOWER, SPACE FOR CARRIER EQUIPMENT & A UTILITY RACK WITHIN A FENCED COMPOUND (NO WATER OR SEWER IS REQUIRED), IN ACCORDANCE WITH THE SCOPE OF WORK PROVIDED BY VERTICAL BRIDGE & T-MOBILE. INFINIGY HAS INCORPORATED THIS SCOPE OF WORK IN THE PLANS. THESE PLANS ARE NOT FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PASSING STRUCTURAL STABILITY ANALYSIS PREPARED BY A LICENSED STRUCTURAL ENGINEER. STRUCTURAL ANALYSIS MUST INCLUDE BOTH TOWER AND MOUNT. T-MOBILE PROPOSES TO INSTALL THE FOLLOWING: <ul style="list-style-type: none">INSTALL (1) NEW ANTENNA MOUNT, (2) NEW COVPS, (3) NEW FRBG's & (3) NEW T-MOBILE PANEL ANTENNAS AT ANTENNA MOUNT LEVELINSTALL (2) NEW HI-CAP HYBRID CABLESINSTALL (1) NEW DELTA SITE SUPPORT CABINET, (1) NEW STACKED SLEEVE & (2) NEW COVPS ON NEW 10'x12' STEEL EQUIPMENT PLATFORM WITHIN 10'x20' LEASE AREAINSTALL (1) NEW GPS UNIT WITH (1) NEW 1/2" COAX CABLEINSTALL NEW ICE BRIDGE	SHEET NO:	SHEET TITLE	REV
			ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALL 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. 1. INTERNATIONAL BUILDING CODE (2009 IBC) 2. TIA-EIA-222-G OR LATEST EDITION 3. NFPA 780 - LIGHTNING PROTECTION CODE 4. 2014 NATIONAL ELECTRIC CODE OR LATEST EDITION 5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS 6. CO BUILDING CODE 7. LOCAL BUILDING CODE 8. CITY/COUNTY ORDINANCES	T-1	TITLE SHEET & PROJECT DATA	3
				SP-1	T-MOBILE SPECIFICATIONS	3
				LS1	LAND SURVEY	3
				LS2	LAND SURVEY	3
				A-1	OVERALL SITE PLAN	3
				A-2	PROPOSED SITE PLAN	3
				A-3	STAKING PLAN	3
				A-4	PROPOSED TOWER ELEVATION	3
				A-5	ANTENNA LAYOUT & LOADING CHART	3
				A-6	EQUIPMENT & MOUNTING DETAILS	3
				A-7	EQUIPMENT LAYOUT & DETAILS	3
				A-8	EQUIPMENT & MOUNTING DETAILS	3
				A-9	PLUMBING DIAGRAM	3
				A-10	FENCE DETAILS	3
				A-11	CIVIL DETAILS	3
				E-1	OVERALL UTILITY LAYOUT	3
				E-2	COMPOUND UTILITY LAYOUT	3
				E-3	EQUIPMENT UTILITY LAYOUT	3
				E-4	ELECTRICAL DETAILS	3
				E-5	UTILITY RACK DETAIL	3
				G-1	COMPOUND GROUNDING PLANS	3
				G-2	GROUNDING PLANS	3
				G-3	GROUNDING DETAILS	3
				G-4	GROUNDING DETAILS	3
				G-5	GROUNDING DETAILS	3

ELECTRICAL NOTES:

- WORK INCLUDED
1. INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, PLANT SERVICES AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - A. PREPARE AND SUBMIT SHOP DRAWINGS, DIAGRAMS AND ILLUSTRATIONS.
 - B. PROCURE ALL NECESSARY PERMITS AND APPROVALS AND PAY ALL REQUIRED FEES AND CHARGES IN CONNECTION WITH THE WORK OF THIS CONTRACT.
 - C. SUBMIT AS-BUILT DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTIONS AND MANUALS.
 - D. EXECUTE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING OF EXISTING OR NEWLY INSTALLED CONSTRUCTION REQUIRED FOR THE WORK OF THIS CONTRACT. FOR SLAB PENETRATIONS THROUGH POST TENSION SLABS, X-RAY EXACT AREA OF PENETRATION PRIOR TO PERFORMING WORK. COORDINATE ALL X-RAY WORK WITH BUILDING ENGINEER.
 - E. PROVIDE HANGERS, SUPPORTS, FOUNDATIONS, STRUCTURAL FRAMING SUPPORTS, AND BASES FOR CONDUIT AND EQUIPMENT PROVIDED OR INSTALLED UNDER THE WORK OF HIS CONTRACT. PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.
 - F. MAINTAIN ALL EXISTING ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATION DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING ALL TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED. PROVIDE TEMPORARY LIGHT AND POWER FOR CONSTRUCTION PURPOSES.
 2. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO CALL FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT. IT IS NOT THE INTENT TO GIVE EVERY DETAIL ON THE DRAWINGS AND IN THE SPECIFICATIONS. IF AN ITEM OF WORK IS INDICATED IN THE DRAWINGS, IT IS CONSIDERED SUFFICIENT FOR INCLUSION IN THE CONTRACT. FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT USUALLY FURNISHED OR NEEDED TO MAKE A COMPLETE INSTALLATION WHETHER OR NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.

GENERAL REQUIREMENTS

1. PROVIDE ALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL AND STATE ELECTRICAL CODES.
 2. THE ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY. REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF THE BUILDING.
 3. LOAD CALCULATIONS ARE BASED ON EXISTING BUILDING INFORMATION/DRAWINGS PROVIDED TO ENGINEERING. CONTRACTOR IS TO VERIFY ALL EXISTING RATINGS AND LOADS PRIOR TO PURCHASING OF SPECIFIED EQUIPMENT FOR COMPLIANCE TO NEC. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES AND REQUEST FURTHER DIRECTION BY ENGINEER.
 4. EXISTING BUILDING EQUIPMENT IS NOTED ON THE DRAWINGS. NEW OR RELOCATED EQUIPMENT IS SHOWN WITH SOLID LINES. FUTURE EQUIPMENT (NOT IN THIS CONTRACT) IS DEPICTED WITH SHADED LINES. REQUEST CLARIFICATION OF DRAWINGS OR OF SPECIFICATIONS PRIOR TO PRICING OR INSTALLATION.
 5. GENERAL
 - A. AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, MAKE A MANDATORY SITE VISIT TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED. NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT MAY HAVE BEEN NOTED BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS.
 - B. VERIFY ALL MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR CORRECTNESS OF SAME.
 6. QUALITY, WORKMANSHIP, MATERIALS AND SAFETY
 - A. PROVIDE NEW MATERIALS AND EQUIPMENT OF A DOMESTIC MANUFACTURER BY THOSE REGULARLY ENGAGED IN THE PRODUCTION AND MANUFACTURE OF SPECIFIED MATERIALS AND EQUIPMENT. WHERE UL, OR OTHER AGENCY, HAS ESTABLISHED STANDARDS FOR MATERIALS, PROVIDE MATERIALS WHICH ARE LISTED AND LABELED ACCORDINGLY. THE COMMERCIALY STANDARD ITEMS OF EQUIPMENT AND THE SPECIFIC NAMES MENTIONED HEREIN ARE INTENDED FOR THE PROPER FUNCTIONING OF THE WORK.
 - B. WORK SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE REQUIRED FOR THE WORK. INSTALL MATERIALS AND EQUIPMENT TO PRESENT A NEAT APPEARANCE WHEN COMPLETED AND IN ACCORDANCE WITH THE APPROVED RECOMMENDATIONS OF THE MANUFACTURER AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
 - C. PROVIDE LABOR, MATERIALS, APPARATUS AND APPLIANCES ESSENTIAL TO THE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHENEVER MENTIONED IN THE CONTRACT DOCUMENT OR NOT.
 - D. MAKE WRITTEN REQUESTS FOR SUPPLEMENTARY INSTRUCTIONS TO ARCHITECT/ENGINEER IN CASE OF DOUBT AS TO WORK INTENDED OR IN EVENT OF NEED FOR EXPLANATION THEREOF.
 - E. PERFORMANCE AND MATERIAL REQUIREMENTS SCHEDULED OR SPECIFIED ARE MINIMUM STANDARD ACCEPTABLE. THE RIGHT TO JUDGE THE QUALITY OF EQUIPMENT THAT DEVIATES FROM THE CONTRACT DOCUMENT REMAINS SOLELY WITH ARCHITECT/ENGINEER. CONTRACT DOCUMENT OR NOT.
- GUARANTEE
1. GUARANTEE MATERIALS, PARTS AND LABOR FOR WORK FOR ONE YEAR FROM THE DATE OF ISSUANCE OF OCCUPANCY PERMIT. DURING THAT PERIOD, MAKE GOOD FAULTS OR IMPERFECTIONS THAT MAY ARISE DUE TO DEFECTS OR OMISSIONS IN MATERIALS OR WORKMANSHIP WITH NO ADDITIONAL COMPENSATION AND AS DIRECTED BY ARCHITECT.

CLEANING

1. REMOVE ALL CONSTRUCTION DEBRIS RESULTING FROM THE WORK.
2. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE COMPLETION OF THE PROJECT TO THE SATISFACTION OF THE ENGINEER.

COORDINATION AND SUPERVISION

1. CAREFULLY LAY OUT ALL WORK IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES. WHERE SUCH WORK IS NECESSARY, HOWEVER, PATCH AND REPAIR THE WORK IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER. RENDER FULL COOPERATION TO OTHER TRADES WHERE WORK WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES. ASSIST IN WORKING OUT SPACE CONDITIONS. IF WORK IS INSTALLED BEFORE COORDINATION WITH OTHER TRADES, OR CAUSES INTERFERENCE, MAKE CHANGES NECESSARY TO CORRECT CONDITIONS WITHOUT EXTRA CHARGE.

SUBMITTALS

1. AS-BUILT DRAWINGS:
 - A. UPON COMPLETION OF THE WORK, FURNISH TO THE OWNER "AS-BUILT" DRAWINGS.
2. SERVICE MANUALS:
 - A. UPON COMPLETION OF THE WORK, FULLY INSTRUCT T-MOBILE AS TO THE OPERATION AND MAINTENANCE OF ALL MATERIAL, EQUIPMENT AND SYSTEMS.
 - B. PROVIDE 3 COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL SYSTEMS AND EQUIPMENT.

CUTTING AND PATCHING

1. PROVIDE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED TO COMPLETE THE WORK.
2. OBTAIN OWNER APPROVAL PRIOR TO CUTTING THROUGH FLOORS OR WALLS FOR PIPING OR CONDUIT.

TESTS, INSPECTION AND APPROVAL

1. BEFORE ENERGIZING ANY ELECTRICAL INSTALLATION, INSPECT EACH UNIT IN DETAIL. TIGHTEN ALL BOLTS AND CONNECTIONS (TORQUE-TIGHTEN WHERE REQUIRED) AND DETERMINE THAT ALL COMPONENTS ARE ALIGNED, AND THE EQUIPMENT IS IN SAFE, OPERATIONAL CONDITION.
2. PROVIDE THE COMPLETE ELECTRICAL SYSTEM FREE OF GROUND FAULTS AND SHORT CIRCUITS SUCH THAT THE SYSTEM WILL OPERATE SATISFACTORILY UNDER FULL LOAD CONDITIONS, WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

SPECIAL REQUIREMENTS

1. DO NOT LEAVE ANY WORK INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. DO NOT INTERFERE WITH OR CUTOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.
2. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUITING SUPPLYING EXISTING FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON. SHUTDOWN NOTE: SCHEDULE AND NOTIFY OWNER 48 HOURS PRIOR TO SHUTDOWN. ALL SHUTDOWN WORK TO BE SCHEDULED AT A TIME CONVENIENT TO OWNER.

GROUNDING

1. ROUTE ALL GROUNDING CONDUCTORS AS SHOWN ON CONDUIT/GROUNDING RISER.
2. ROUTE 500 KCMIL CU. THIN CONDUCTOR FROM THE MGB LOCATION TO BUILDING STEEL. VERIFY BUILDING STEEL IS EFFECTIVELY GROUNDED PER NEC TO THE MAIN SERVICE GROUNDING ELECTRODE CONDUCTOR (GEC).
3. MAKE ALL GROUND CONNECTIONS FROM MGB TO ELECTRICAL EQUIPMENT WITH 2 HOLE, CRIMP TYPE, BURNDY COMPRESSION TERMINATIONS, SIZED AS REQUIRED.
4. USE 1 HOLE, CRIMP TYPE, BURNDY COMPRESSIONS TERMINATIONS, SIZED AS REQUIRED, AT EQUIPMENT GROUND CONNECTIONS.
5. HIRE AN INDEPENDENT LAB TO PERFORM THE SPECIFIED OHMS TESTING. PROVIDE 4 SETS OF THE CERTIFIED DOCUMENTS TO THE OWNER FOR VERIFICATION PRIOR TO THE PROJECT COMPLETION.

RACEWAYS

1. ALL WIRING TO BE INSTALLED IN CONDUIT SYSTEMS IN ACCORDANCE WITH THE FOLLOWING:
 - A. EXTERIOR FEEDERS AND CONTROL, WHERE UNDERGROUND, TO BE IN SCH 40 PVC.
 - B. EXTERIOR, ABOVE GROUND POWER CONDUITS TO BE GALVANIZED RIGID STEEL (RGS).
 - C. ALL TELECOMMUNICATION CONDUITS, INTERIOR/EXTERIOR, TO BE EMT.
- ON THIS PROJECT.
- E. ALL TELECOM CONDUITS AND PULL BOXES INSTALLED ON THIS PROJECT TO BE LABELED "T-MOBILE". OWNER WILL PROVIDE LABELS FOR CONTRACTOR TO INSTALL.
- F. INTERIOR FEEDERS TO BE INSTALLED IN E.M.T. WITH STEEL COMPRESSION FITTINGS.
- G. MINIMUM SIZE CONDUIT TO BE ¾" TRADE SIZE UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- H. FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT TO BE INSTALLED IN LIQUID-TIGHT FLEXIBLE METAL CONDUIT.

- AREAS OR DRYWALL PARTITIONS, UNLESS OTHERWISE NOTED.
- J. THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC. BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND CLEARANCES.
 - K. ALL EXTERIOR MOUNTING HARDWARE TO BE GALVANIZED STEEL. COORDINATE WITH BUILDING ENGINEER PRIOR TO ATTACHING TO BUILDING STRUCTURE.

RACEWAYS CONT'D

- L. PENETRATIONS OF WALLS, FLOORS AND ROOFS, FOR THE PASSAGE OF ELECTRICAL RACEWAYS, TO BE PROPERLY SEALED AFTER INSTALLATION OF RACEWAYS SO AS TO MAINTAIN THE STRUCTURAL OR WATERPROOF INTEGRITY OF THE WALL, FLOOR OR ROOF SYSTEM TO BE PENETRATED. SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS OR SMOKE TIGHT CORRIDOR PARTITIONS TO MAINTAIN PROPER RATING OF WALL OR CEILING.
- M. PROVIDE ALL CONDUIT ENDS WITH INSULATED METALLIC GROUNDING BUSHINGS.
- N. CONDUIT TO BE SUPPORTED AT MAXIMUM DISTANCE OF 8'-0", OR AS REQUIRED BY NEC, IN HORIZONTAL AND VERTICAL DIRECTIONS.
- O. PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR ALL JUNCTION BOXES AND/OR OUTLET BOXES NOT USED IN EXPOSED AREAS. PROVIDE ALL OTHER UNUSED BOXES WITH STANDARD STEEL COVER PLATES.
- P. WHERE APPLICABLE, PROVIDE ROOFTOP CONDUIT SUPPORT SYSTEM, CONFORMING TO ROOFTOP WARRANTY REQUIREMENTS, PER BUILDING.

WIRES AND CABLES

1. CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIER AND VENDOR FOR EXACT EQUIPMENT OVER-CURRENT PROTECTION VOLTAGE, WIRE SIZE AND PLUG CONFIGURATION, IF APPLICABLE, PRIOR TO BID.
2. ALL EQUIPMENT/DEVICES TO BE PROVIDED WITH INSULATED GROUND CONDUCTOR.
3. ALL WIRE AND CABLE TO BE 600VOLT, COPPER, WITH THWN/ THHN INSULATION, EXCEPT AS NOTED.
4. WIRE FOR POWER AND LIGHTING WILL NOT BE LESS THAN NO. 12AWG. ALL WIRE NO. 8 AND LARGER TO BE STRANDED.
5. CONTROL WIRING IS NOT TO BE LESS THAN NO. 14AWG, FLEXIBLE IN SINGLE CONDUCTORS OR MULTI-CONDUCTOR CABLES. CONTROL WIRING WILL CONSIST OF MULTI-CONDUCTOR CABLES WHEREVER POSSIBLE. CABLES TO BE PROVIDED WITH AN OVERALL FLAME-RETARDANT, EXTRUDED JACKET AND RATED FOR PLENUM USE. ALL CONTROL WIRE TO BE 600VOLT RATED.
6. WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND IS NOT TO BE RE-PULLED.
7. HOME RUNS AND BRANCH CIRCUIT WIRING FOR 20A, 120V CIRCUITS:

LENGTH (FT.)	HOME RUN WIRE SIZE
0 TO 50	NO. 12
51 TO 100	NO. 10
101 TO 150	NO. 8
8. VOLTAGE DROP IS NOT TO EXCEED 3%.
9. MAKE ALL CONNECTIONS WITH UL APPROVED, SOLDERLESS, PRESSURE TYPE INSULATED CONNECTORS: SCOTCHLOK OR AND APPROVED EQUAL.

WIRING DEVICES

1. ALL RECEPTACLES INSTALLED IN THIS PROJECT TO BE GROUNDING TYPE, WITH GROUNDING PIN SLOT CONNECTED TO DEVICE GROUND SCREW FOR GROUND WIRE CONNECTION.

DISCONNECT SWITCHES AND FUSES

1. DISCONNECT SWITCHES TO BE VOLTAGE-RATED TO SUIT THE CHARACTERISTICS OF THE SYSTEM FROM WHICH THEY ARE SUPPLIED.
2. PROVIDE HEAVY-DUTY, METAL-ENCLOSED, EXTERNALLY-OPERATED DISCONNECT SWITCHES, FUSED OR UNFUSED, OF SUCH TYPE AND SIZE AS REQUIRED TO PROPERLY PROTECT OR DISCONNECT THE LOAD FOR WHICH THEY ARE INTENDED.
3. PROVIDE NEMA 1 DISCONNECT SWITCHES FOR INTERIOR INSTALLATION, NEMA 3R FOR EXTERIOR INSTALLATION.
4. DISCONNECT SWITCHES TO BE MANUFACTURED BY:
 - A. GENERAL ELECTRIC COMPANY
 - B. SQUARE-D
5. PROVIDE RK-1 TYPE FUSES, UNLESS NOTED OTHERWISE.

INSTALLATION

1. INSTALL DISCONNECT SWITCHES WHERE INDICATED ON DRAWINGS.
2. INSTALL FUSES IN FUSIBLE DISCONNECT SWITCHES. FUSES MUST MATCH IN TYPE AND RATING.
3. FUSES TO BE MOUNTED SO THAT THE LABELS SHOWING THEIR RATINGS CAN BE READ WITHOUT REQUIRING FUSE REMOVAL.
4. FURNISH AND DEPOSIT SPARE FUSES AT THE JOB SITE AS FOLLOWS:
 - A. THREE SPARES FOR EACH TYPE AND SIZE, IN EXCESS OF 60A, USED FOR INITIAL FUSING.
 - B. TEN PERCENT SPARES FOR EACH TYPE AND SIZE, UP TO AND INCLUDING 60A, USED FOR INITIAL FUSING. IN NO CASE WILL LESS THAN THREE FUSES OF ONE PARTICULAR TYPE AND SIZE BE FURNISHED.

CONFLICTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATIONS OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
2. THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
3. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.

CONTRACTS AND WARRANTIES

1. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.
2. SEE MASTER CONTRACTION SERVICES AGREEMENT FOR ADDITIONAL DETAILS.

STORAGE

1. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

CLEANUP

1. THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK. THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY TO USE.
2. EXTERIOR
 - A. VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
 - B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
 - C. IF NECESSARY, TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.
3. INTERIOR
 - A. VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER FROM WALLS, FLOOR, AND CEILING.
 - B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
 - C. REMOVE PAINT DROPPINGS, SPOTS, STAINS, AND DIRT FROM FINISHED SURFACES.

CHANGE ORDER PROCEDURE:

1. REFER TO SECTION 17 OF SIGNED MCSA: SEE PROFESSIONAL SERVICE AGREEMENT FOR MCSA.

RELATED DOCUMENTS AND COORDINATION

1. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

SHOP DRAWINGS

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROVAL.
2. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.

PRODUCTS AND SUBSTITUTIONS

1. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST, IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
2. SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER, SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.

QUALITY ASSURANCE

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO THE APPLICABLE CODES SET FORTH BY THE LOCAL GOVERNING BODY. SEE "CODE COMPLIANCE" T-1.

ADMINISTRATION

1. BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
2. SUBMIT A BAR TYPE PROGRESS CHART, NOT MORE THAN 3 DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE WORK.
3. PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE, BUT NOT LIMITED TO, THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).
4. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.
5. DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL WPCS SAFETY REQUIREMENTS IN THEIR AGREEMENT.
6. PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE OWNER.
7. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
8. NOTIFY THE OWNER/PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.

INSURANCE AND BONDS

1. CONTRACTOR, AT THEIR OWN EXPENSE, SHALL CARRY AND MAINTAIN, FOR THE DURATION OF THE PROJECT, ALL INSURANCE, AS REQUIRED AND LISTED, AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER. REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.
2. THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
3. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

GENERAL NOTES:

INTENT

1. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH.
3. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
4. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
5. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

ABBREVIATIONS	
ADJ	ADJUSTABLE
AGL	ABOVE GROUND LINE
&	AND
APPROX	APPROXIMATE
Ø	AT
BTS	BASE TRANSMISSION STATION
CAB	CABINET
CLG	CEILING
CONC	CONCRETE
CONT	CONTINUOUS
DIA OR Ø	DIAMETER
DWG	DRAWING
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
EGB	EQUIPMENT GROUND BAR
(E)	EXISTING
EXT	EXTERIOR
FF	FINISHED FLOOR
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GRND	GROUND
LG	LONG
MAX	MAXIMUM
MECH	MECHANICAL
MW	MICROWAVE DISH
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MTL	METAL
(N)	NEW
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OPP	OPPOSITE
(P)	PROPOSED
PCS	PERSONAL COMMUNICATION SYSTEM
PPC	POWER PROTECTION CABINET
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SS	STAINLESS STEEL
STL	STEEL
TOC	TOP OF CONCRETE
TOM	TOP OF MASONRY
TP	TYPICAL
VIF	VERIFY IN FIELD
UON	UNLESS OTHERWISE NOTED
WWF	WELDED WIRE FABRIC
W/	WITH

PLANS PREPARED FOR:



2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:



FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:



750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33467
Office # (561) 948-6367

ENGINEERING LICENSE:



10-12-17

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:
DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

T-MOBILE SPECIFICATIONS

SHEET NUMBER:

SP-1

SURVEYOR'S CERTIFICATE

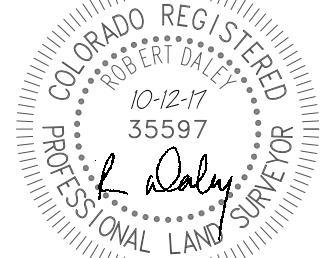
I, Robert Daley, do hereby certify, that on August 2, 2016, a topographic survey was conducted under my supervision using the normal standard of care of Professional Land Surveyors and the map hereon accurately represents said survey, to the best of my knowledge.

This drawing does not represent a Land Survey, Land Survey Plat, Improvement Land Survey Plat or Improvement Location Certificate and any monuments or boundary lines shown are for information only and are not to be relied on.

This survey relied upon Fidelity National Title Insurance Company Commitment No.: 23253661 for legal descriptions and easements.

This survey does not constitute a title search by this surveyor or Daley Land Surveying, Inc. of the property shown and described hereon to determine:

1. Ownership of this tract of land.
2. Rights-of-way, easements and encumbrances recorded or unrecorded affecting this tract of land.
3. Compatibility of this description with those of adjacent tracts of land.



Job No. 1606-003
For and on behalf of
Daley Land Surveying, Inc.
17011 Lincoln Ave., #361
Parker CO. 80134
303 953 9841
Robert Daley, PLS 35597

BASIS OF BEARINGS:

The bearings shown on this survey are referenced to the easterly line of Tract A, Woodmen Hills Filing 8, along Eastonville Road assumed to bear South 36°42'24" West.

COORDINATE SYSTEM AND DATUM:

Horizontal coordinates are referenced to NAD83, Vertical datum is NAVD88 and originates from the local C.O.R.S. network, utilizing the Geoid12A model.

UTILITIES:

The utilities which are readily visible upon the ground, such as manholes, power and light poles, inlets, etc. were located by field surveys and shown hereon. Sub-surface utilities, if shown, are the result of field surveys of utility location marks provided by others.

LEGAL DESCRIPTION PARENT TRACT:

Per Commitment No. 23253661 Effective Date: June 30, 2016 at 8:00 am, Fidelity National Title Insurance Company.

The land referred to in Schedule A is situated in the County of El Paso, State of Colorado and is described as follows:

An interest in land, said interest being over a portion of the following described parent parcel:

Tract A, Woodmen Hills Filing No. 8, County of El Paso, State of Colorado.

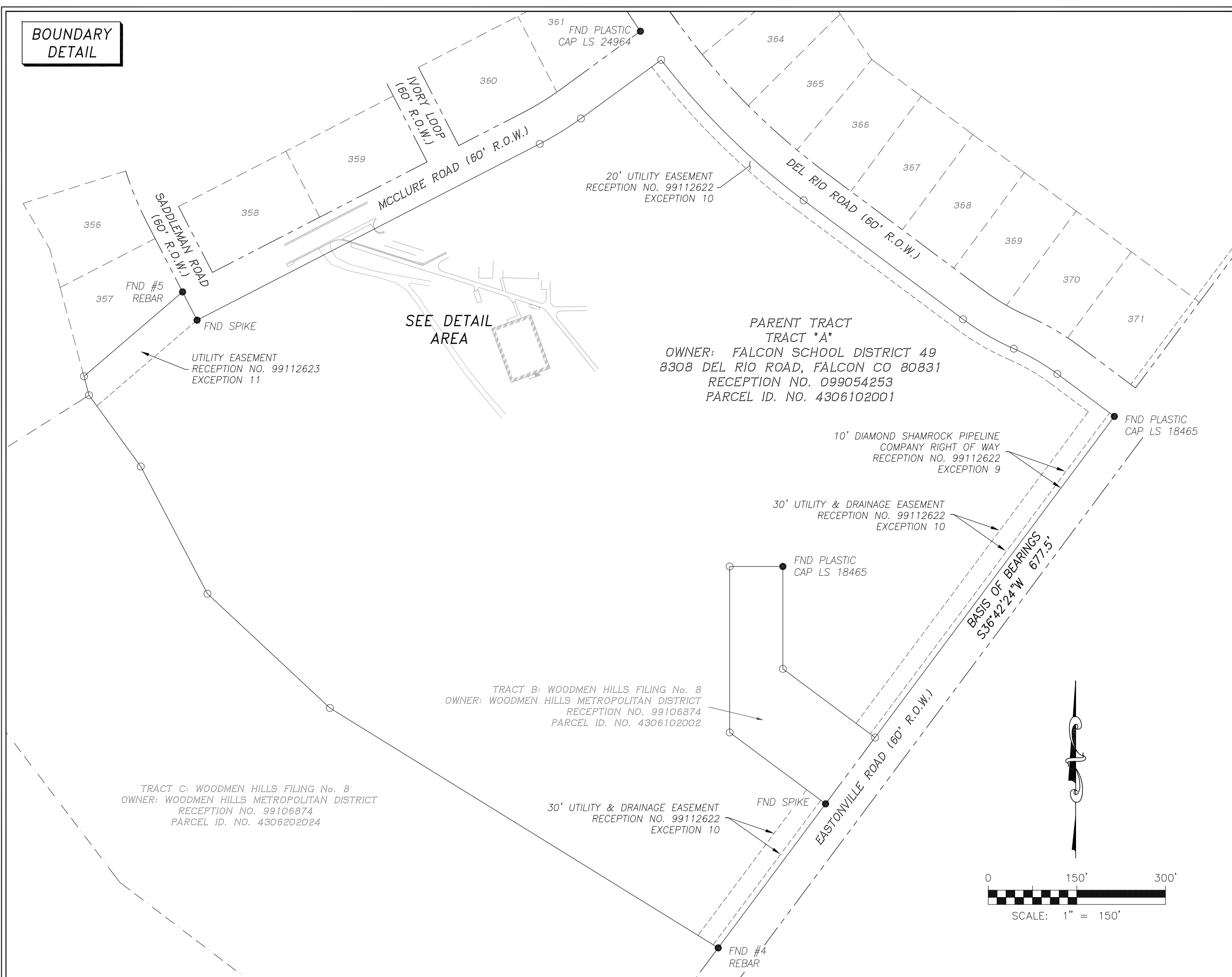
AND BEING a portion of the same property conveyed to Falcon School District 49, of the County of El Paso and State of Colorado from Falcon Properties and Investments, LLP by Special Warranty Deed dated April 06, 1999 and recorded April 08, 1999 in Instrument No. 099054253.

EXCEPTIONS LISTED IN TITLE COMMITMENT:

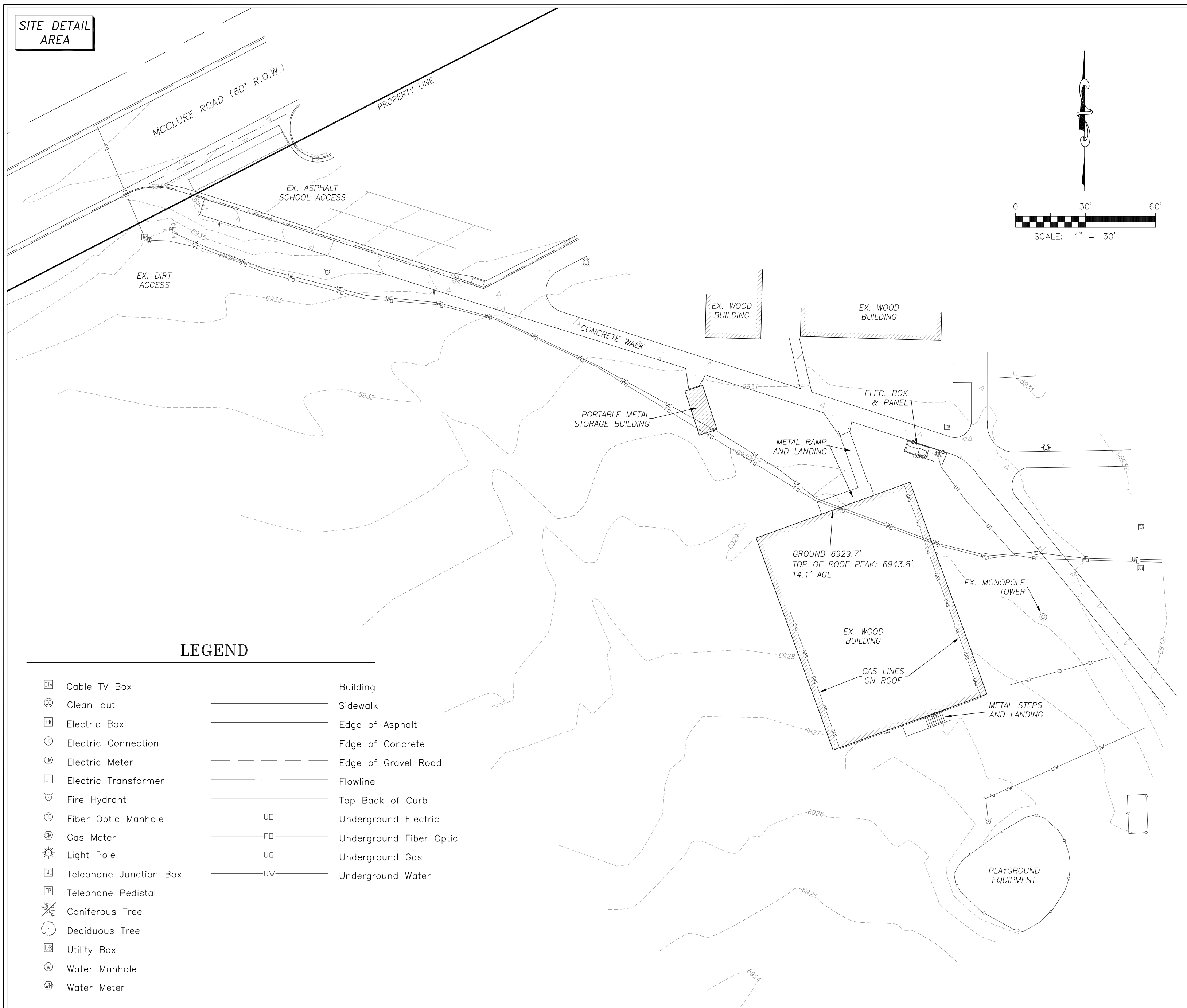
- Item 1. Not survey related
- Item 2. Not survey related
- Item 3. Not survey related
- Item 4. Not survey related
- Item 5. Shown hereon, if any
- Item 6. Not survey related
- Item 7. Not survey related
- Item 8. Not survey related
- Item 9. Shown hereon
- Item 10. Shown hereon
- Item 11. Shown hereon
- Item 12. Shown hereon
- Item 13. Not survey related
- Item 14. Not survey related

TOPOGRAPHIC SURVEY
VERTICAL BRIDGE SITE No. US-CO-5052
SITUATED IN THE NORTH HALF OF SECTION 6,
TOWNSHIP 13 SOUTH, RANGE 64 WEST OF THE 6TH P.M.
COUNTY OF EL PASO, STATE OF COLORADO

BOUNDARY
DETAIL



SITE DETAIL
AREA



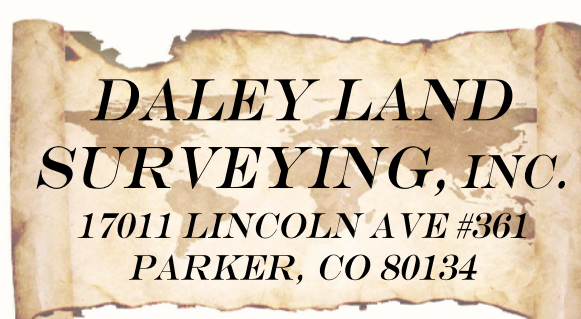
LEGEND

- | | |
|--------------------------|--------------------------------|
| ☐ Cable TV Box | — Building |
| ⊙ Clean-out | — Sidewalk |
| ☑ Electric Box | — Edge of Asphalt |
| ⊕ Electric Connection | — Edge of Concrete |
| ⊗ Electric Meter | — Edge of Gravel Road |
| ⊞ Electric Transformer | — Flowline |
| ⊘ Fire Hydrant | — Top Back of Curb |
| ⊙ Fiber Optic Manhole | — UE — Underground Electric |
| ⊕ Gas Meter | — FD — Underground Fiber Optic |
| ☀ Light Pole | — UG — Underground Gas |
| ☑ Telephone Junction Box | — UW — Underground Water |
| ☑ Telephone Pedestal | |
| ☀ Coniferous Tree | |
| ☀ Deciduous Tree | |
| ☑ Utility Box | |
| ⊙ Water Manhole | |
| ⊗ Water Meter | |



INFINIGY
THE SOLUTIONS ARE ENDLESS

7301 FEDERAL BOULEVARD STE. 300
WESTMINSTER, CO 80030
(303) 219-1178
WWW.INFINIGY.COM



Rev:	Date:	Description:	By:
1	8/5/16	Survey	RD
2	8/15/16	Easement/Lease	AV
3	10/12/17	Address change	RD

PROJECT INFORMATION:

SITE NAME: WOODMEN HILLS ELEMENTARY
SITE ADDRESS: 12119 McCLURE ROAD
FALCON, COLORADO 80831
VERTICAL BRIDGE SITE NUMBER: US-CO-5052

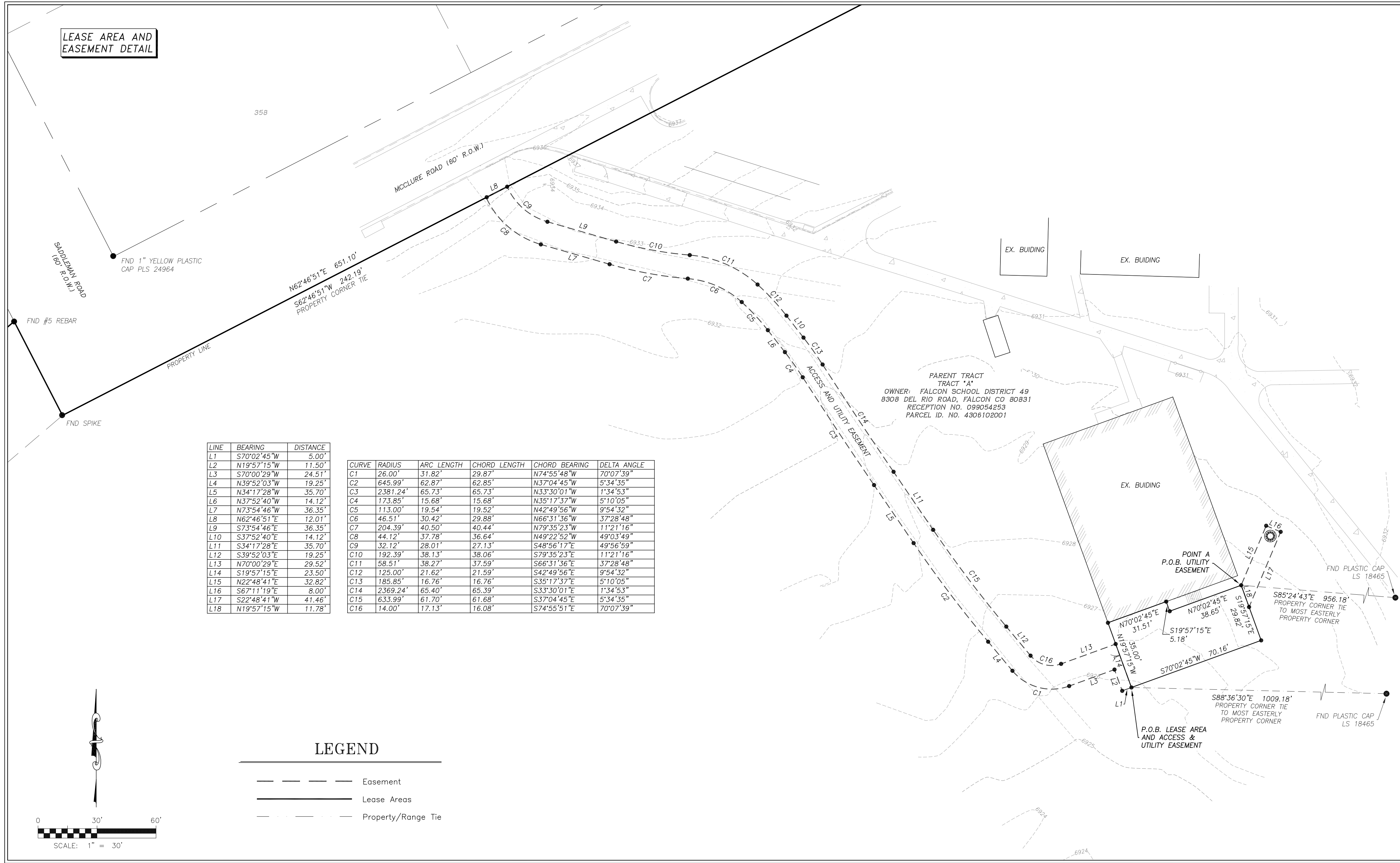
DRAWN BY:	CHK BY:	APV BY:
AV	RD	RD

LAND SURVEY

Sheet Number:

LS1

TOPOGRAPHIC SURVEY
VERTICAL BRIDGE SITE No. US-CO-5052
SITUATED IN THE NORTH HALF OF SECTION 6,
TOWNSHIP 13 SOUTH, RANGE 64 WEST OF THE 6TH P.M.
COUNTY OF EL PASO, STATE OF COLORADO



TOWER & FOUNDATION DESIGNS NOT AVAILABLE AT TIME OF ISSUANCE OF THESE PLANS. CONTRACTOR TO REFER TO TOWER & FOUNDATION DESIGNS PRIOR TO CONSTRUCTION.


INFORMATION CONTAINED WITHIN DRAWINGS IS BASED ON PROVIDED INFORMATION AND A DESIGN WALK BY INFINIGY, DATED 06/20/16, AND A TOPOGRAPHIC SURVEY BY DALEY LAND SURVEYING, DATED 08/15/16.

PLANS PREPARED FOR:



2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:



FROM ZERO TO INFINIGY
the solutions are endless


7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:



750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DDB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DDB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

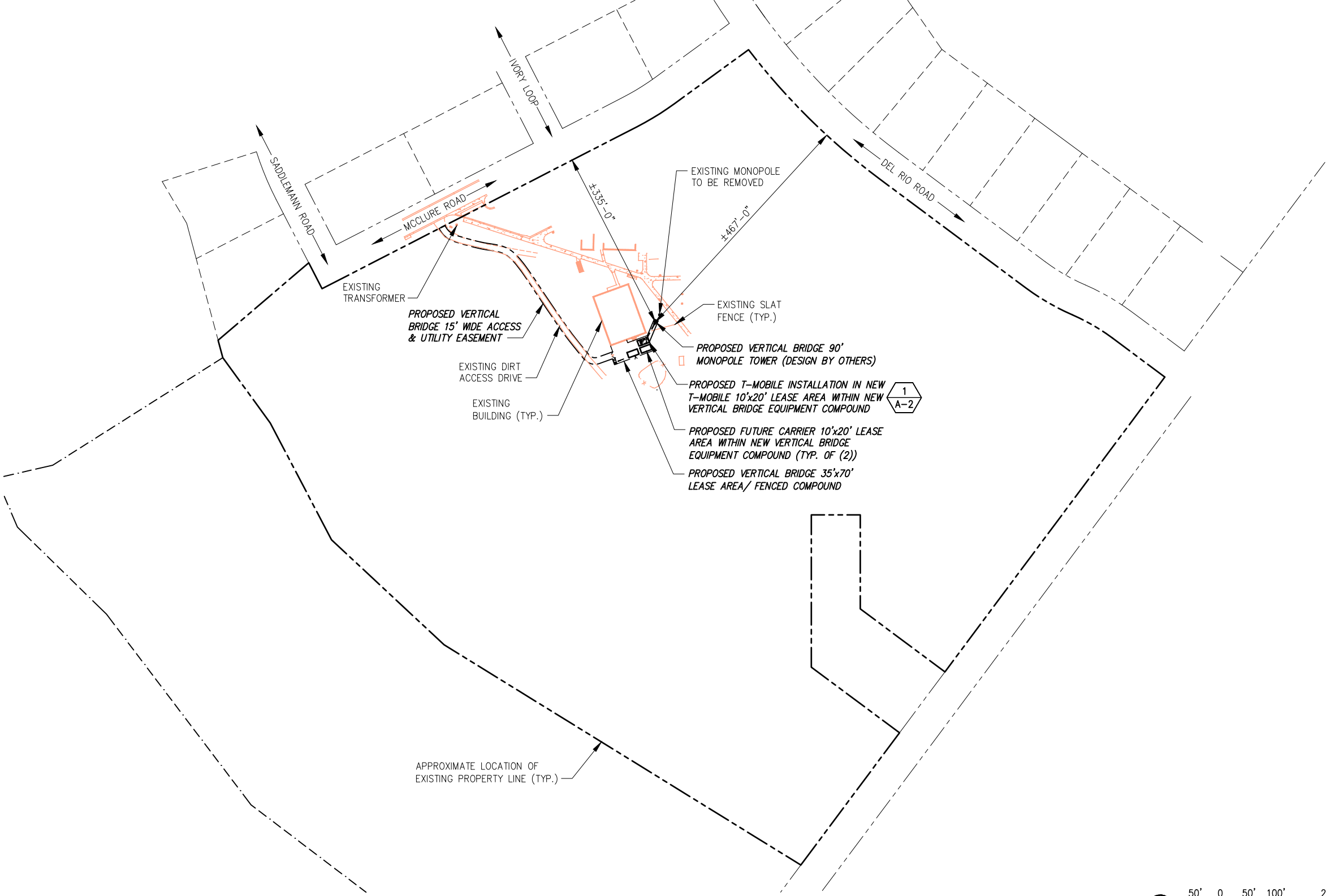
12119 McCLURE ROAD
FALCON, CO 80831


SHEET DESCRIPTION:

OVERALL SITE PLAN

SHEET NUMBER:

A-1





NORTH

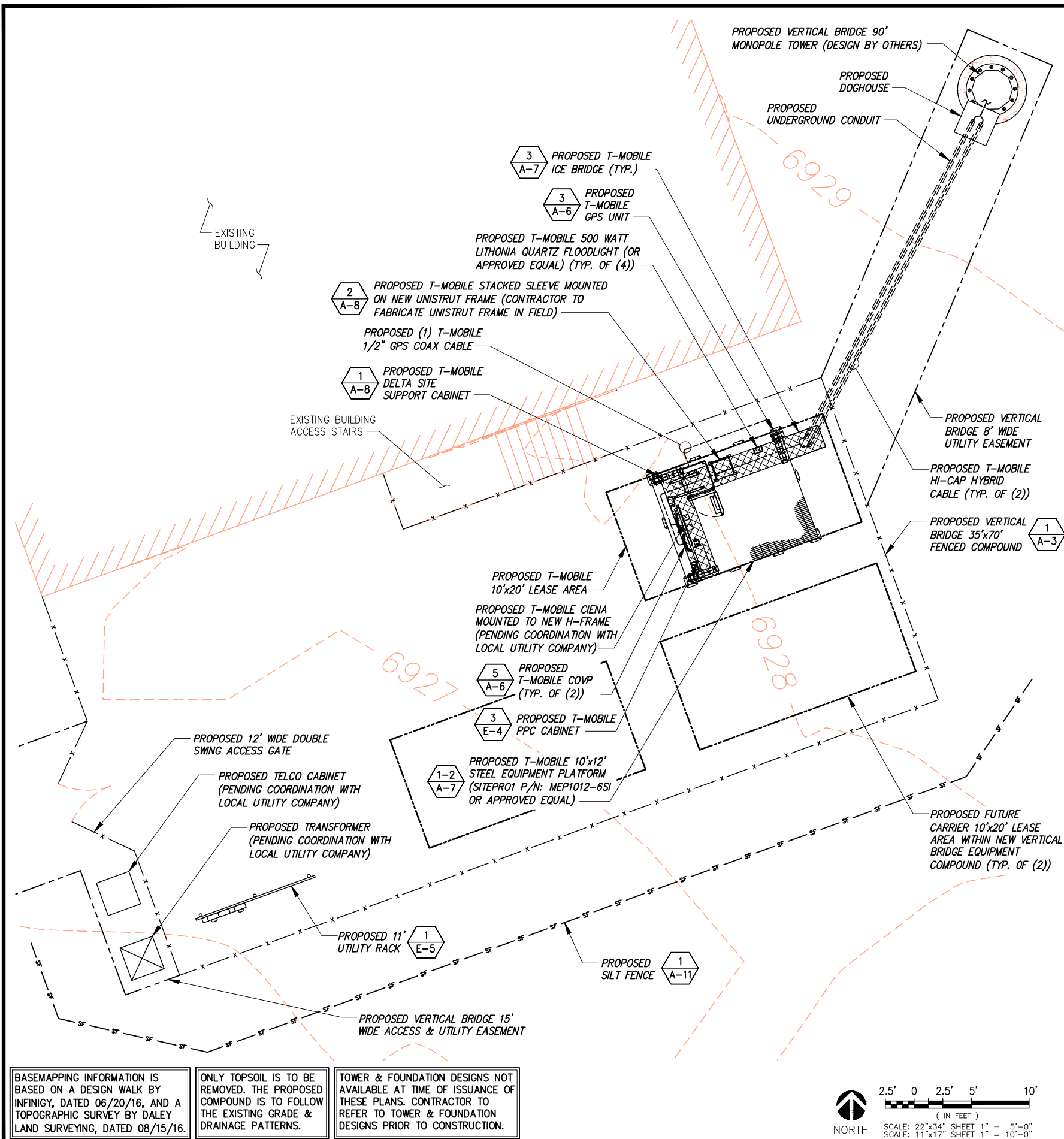
50' 0 50' 100' 200'

(IN FEET)

SCALE: 22"x34" SHEET 1" = 100'-0"
SCALE: 11"x17" SHEET 1" = 200'-0"

OVERALL SITE PLAN

SCALE: AS NOTED



PROPOSED COMPOUND PHOTO



PROPOSED COMPOUND PHOTO

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

10-12-17

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:				
DESCRIPTION	DATE	BY	REV	
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3	
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2	
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1	
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0	

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

**12119 McCLURE ROAD
FALCON, CO 80831**

SHEET DESCRIPTION:

PROPOSED SITE PLAN

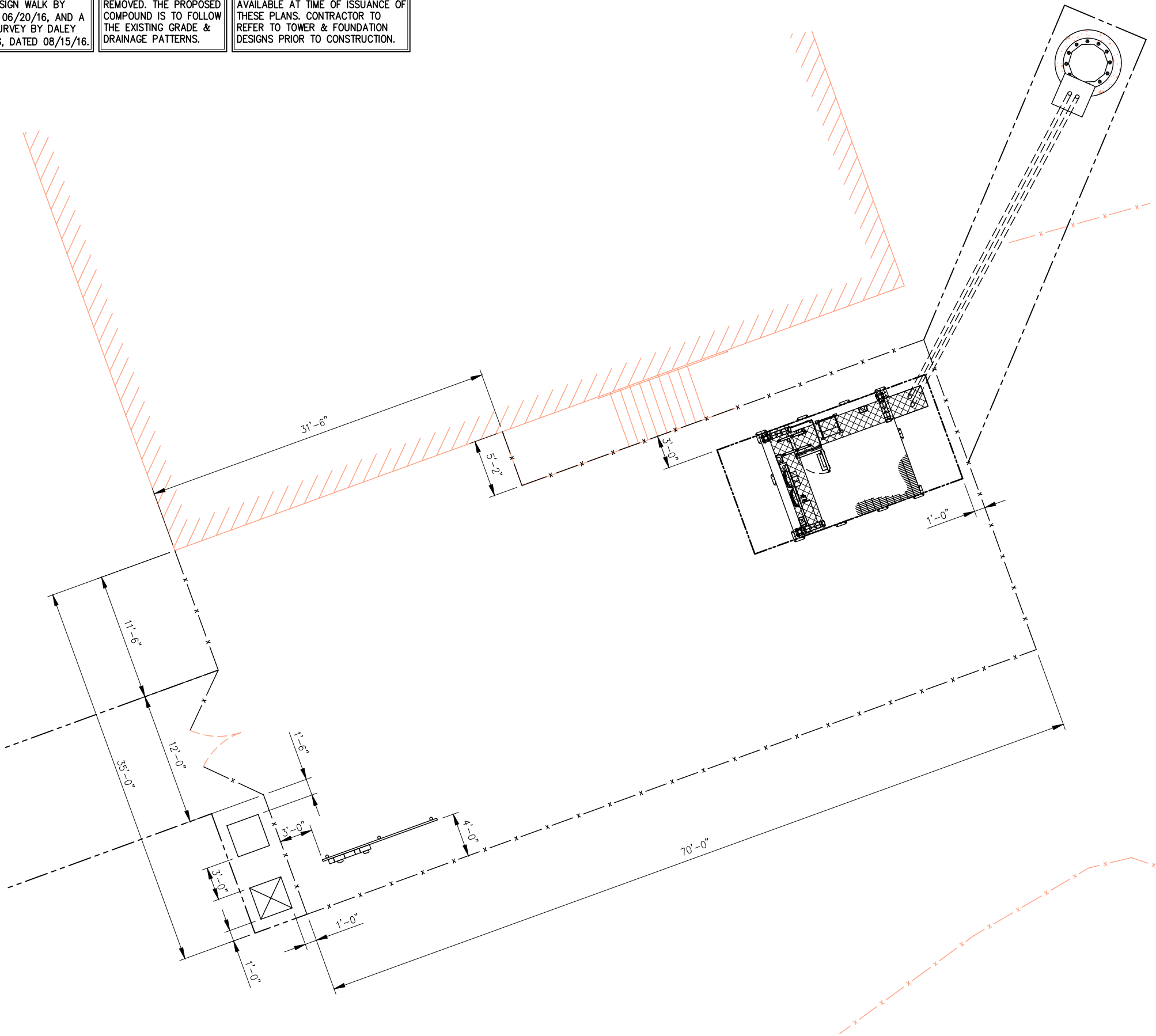
SHEET NUMBER:

A-2

BASEMAPPING INFORMATION IS BASED ON A DESIGN WALK BY INFINIGY, DATED 06/20/16, AND A TOPOGRAPHIC SURVEY BY DALEY LAND SURVEYING, DATED 08/15/16.

ONLY TOPSOIL IS TO BE REMOVED. THE PROPOSED COMPOUND IS TO FOLLOW THE EXISTING GRADE & DRAINAGE PATTERNS.

TOWER & FOUNDATION DESIGNS NOT AVAILABLE AT TIME OF ISSUANCE OF THESE PLANS. CONTRACTOR TO REFER TO TOWER & FOUNDATION DESIGNS PRIOR TO CONSTRUCTION.



2.5' 0 2.5' 5' 10'

(IN FEET)

SCALE: 22"x34" SHEET 1" = 5'-0"

SCALE: 11"x17" SHEET 1" = 10'-0"

STAKING PLAN

NO SCALE

1

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DDB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DDB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

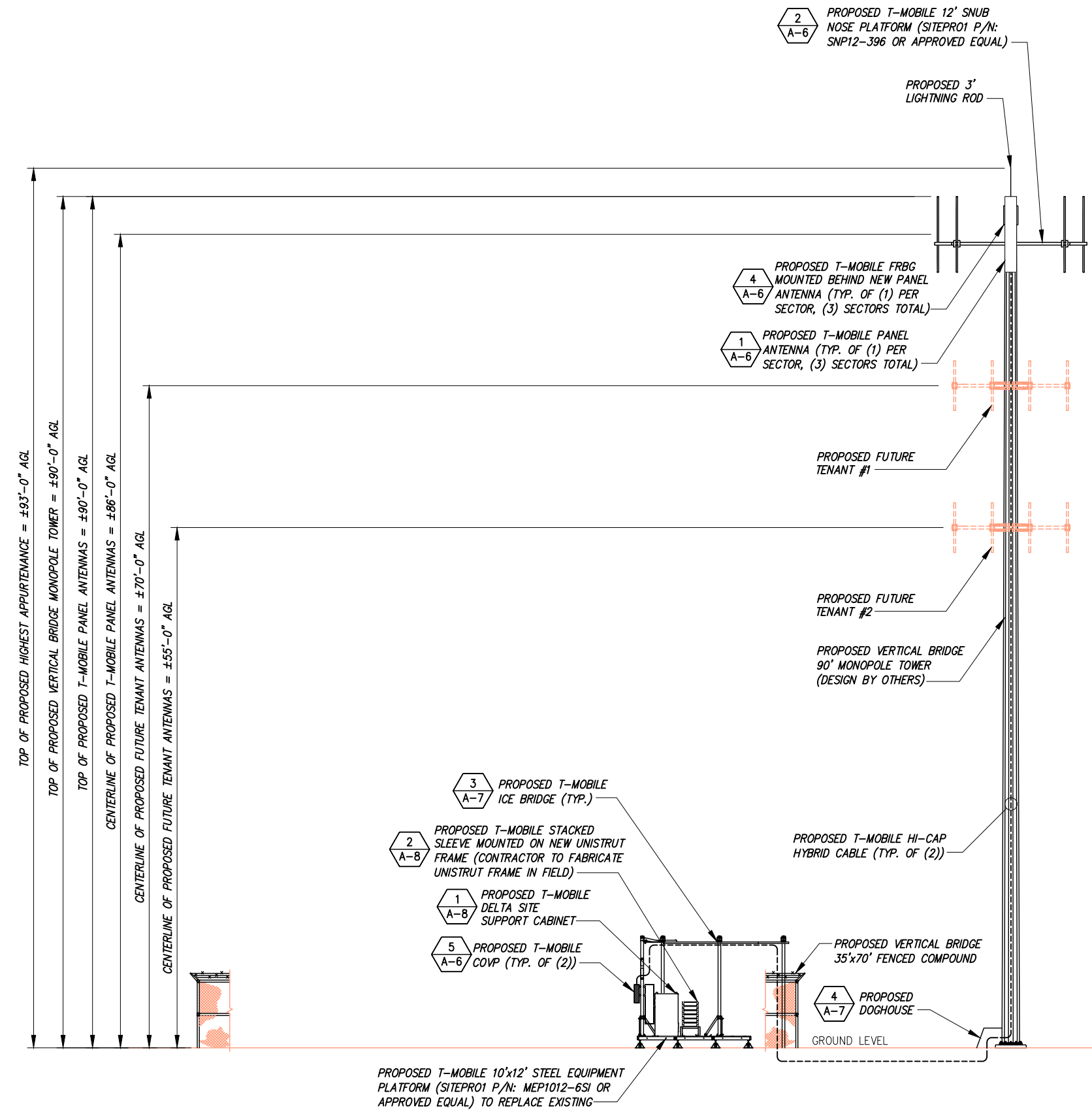
STAKING PLAN

SHEET NUMBER:

A-3

TOWER & FOUNDATION DESIGNS NOT AVAILABLE AT TIME OF ISSUANCE OF THESE PLANS. CONTRACTOR TO REFER TO TOWER & FOUNDATION DESIGNS PRIOR TO CONSTRUCTION.

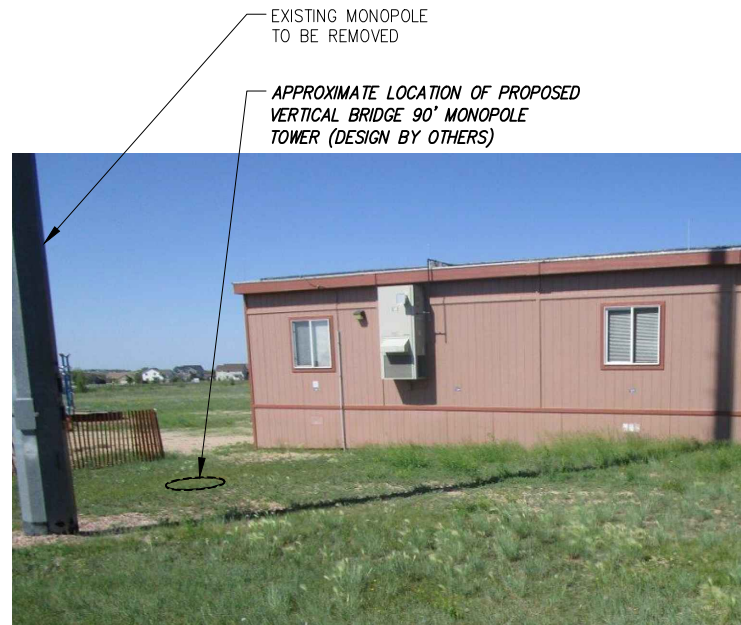
INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER OR MOUNT FOR THIS SITE AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. REFER TO STRUCTURAL ANALYSIS BY OTHERS PRIOR TO ANY CONSTRUCTION.



PROPOSED TOWER ELEVATION

NO SCALE

1



PROPOSED TOWER PHOTO

NO SCALE

2

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

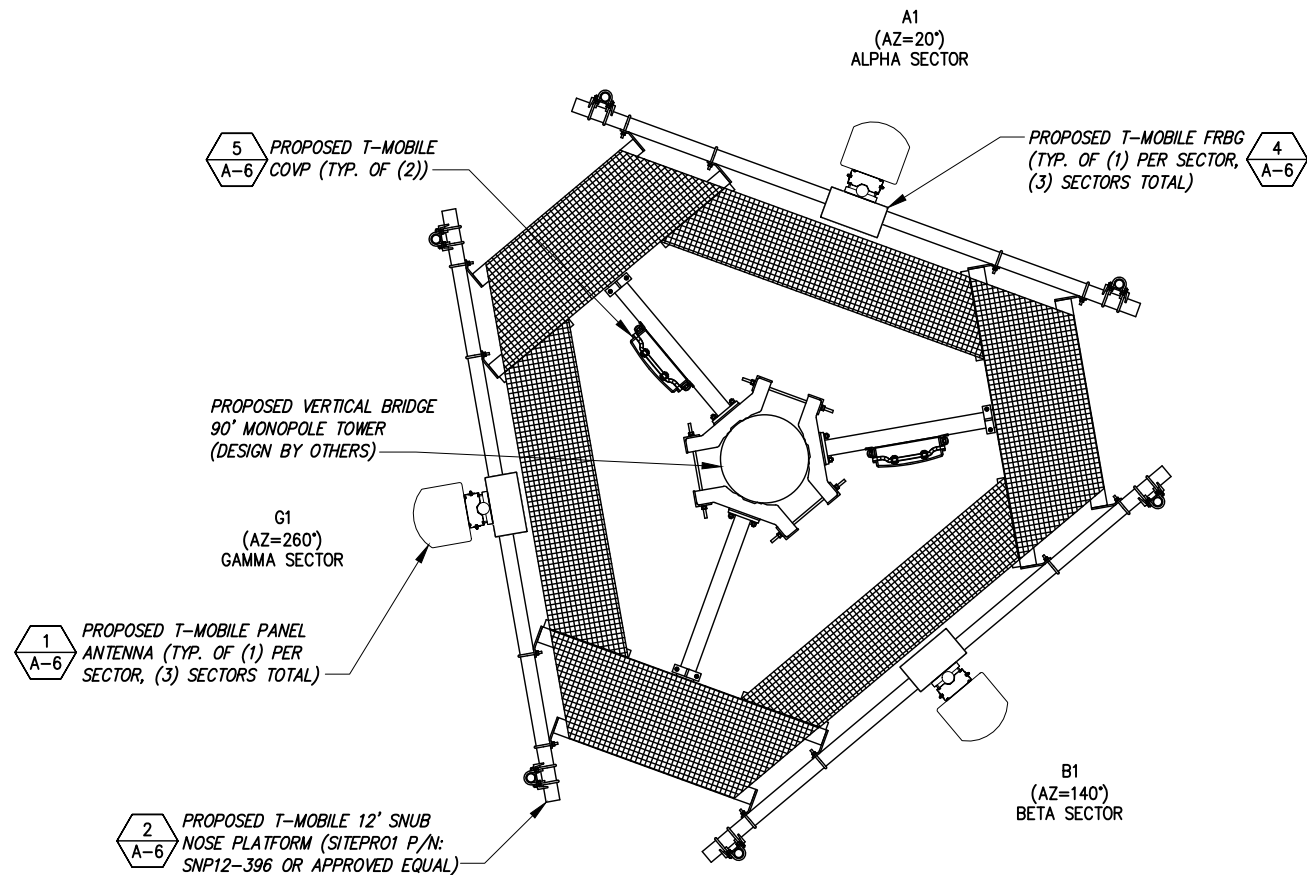
12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

PROPOSED TOWER
ELEVATION

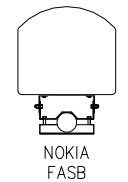
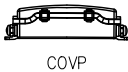
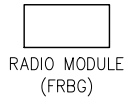
SHEET NUMBER:

A-4



THE CONFIGURATION PLAN IS BASED ON PROVIDED INFORMATION AND IS FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR TO VERIFY FIELD CONDITIONS PRIOR TO CONSTRUCTION.

ANTENNA & COMPONENT LEGEND



PLANS PREPARED FOR:



PLANS PREPARED BY:



MLA PARTNER:



ENGINEERING LICENSE:



PROPOSED ANTENNA LAYOUT

NO SCALE

1

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DDB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DDB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

ANTENNA LAYOUT &
LOADING CHART

SHEET NUMBER:

A-5

SITE LOADING CHART

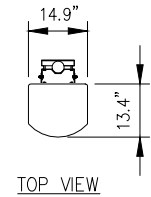
SECTOR	POSITION	SECTOR COLOR	TECHNOLOGY	ANTENNA MODEL #	VENDOR	QTY. (REMOVED)	QTY. (NEW)	TMA (QTY/MODEL)	AZIMUTH	DOWNTILT		RAD CENTER	FEED LINE TYPE/LENGTH
										MECHANICAL	ELECTRICAL		
ALPHA	A1	RED	LTE 700/LTE AWS UMTS PCS	FASB RAS	NOKIA	--	1	--	20°	0	4/2/0	±86' AGL	PROPOSED (2) HI-CAP HYBRID CABLES LENGTH = ±175'
BETA	B1	BLUE	LTE 700/LTE AWS UMTS PCS	FASB RAS	NOKIA	--	1	--	140°	0	4/2/0	±86' AGL	HYBRID CABLES SHARED W/ ALPHA SECTOR
GAMMA	G1	WHITE	LTE 700/LTE AWS UMTS PCS	FASB RAS	NOKIA	--	1	--	260°	0	4/2/0	±86' AGL	HYBRID CABLES SHARED W/ ALPHA SECTOR

NOTE:
CABLE LENGTHS ARE BASED ON PROVIDED INFORMATION. CONTRACTOR TO VERIFY REQUIRED CABLE LENGTHS PRIOR TO CONSTRUCTION.

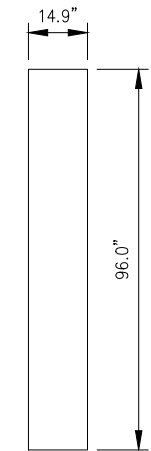
SITE LOADING CHART

NO SCALE

2

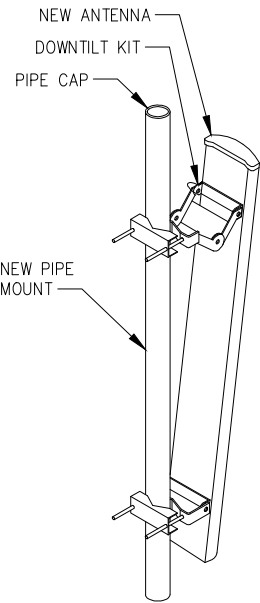


TOP VIEW

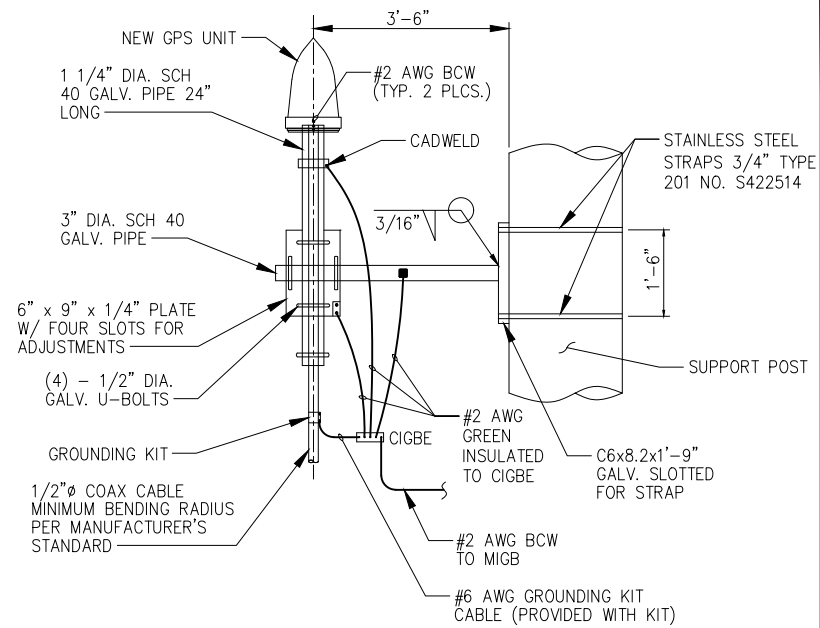
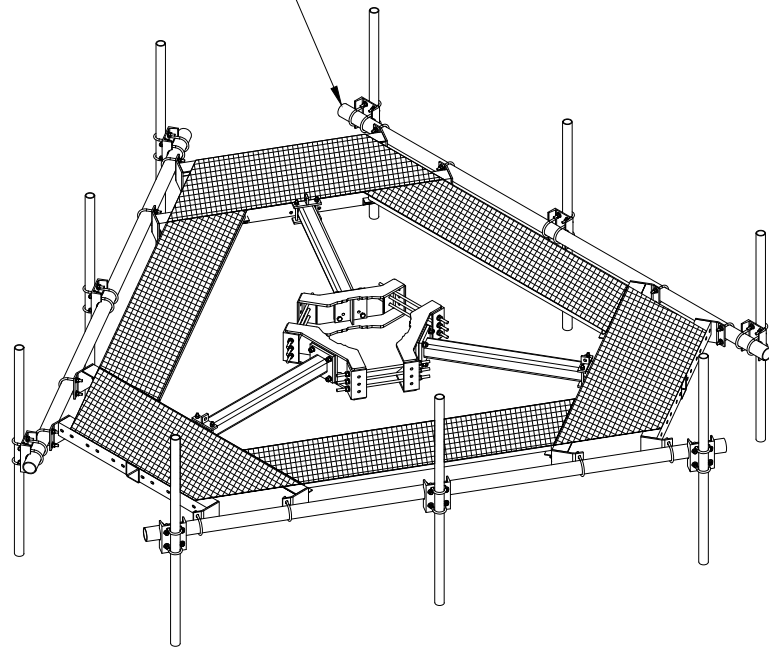


FRONT VIEW

NOKIA ANTENNA
P/N: FASB



PROPOSED T-MOBILE 12' SNUB
NOSE PLATFORM (SITEPRO1 P/N:
SNP12-396 OR APPROVED EQUAL)



THE ELEVATION AND LOCATION OF THE GPS UNIT SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORTS.

THE GPS UNIT MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40 GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE GPS MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18 INCHES) USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE GPS MOUNT.

ANTENNA DETAIL

NO SCALE

1

ANTENNA MOUNT DETAIL

NO SCALE

2

TYPICAL GPS MOUNTING DETAIL

NO SCALE

3

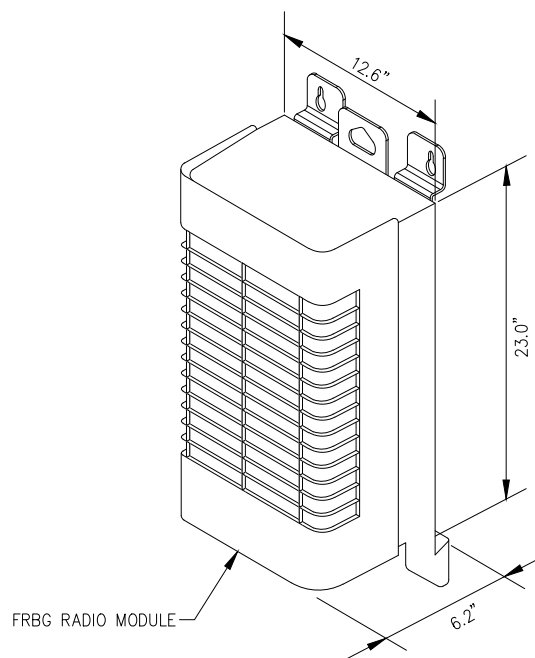
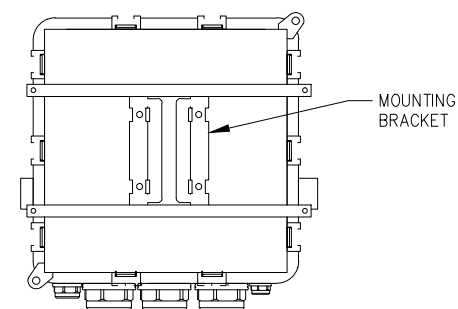
DIMENSIONS (WxHxD) W/O SOLAR COVER OR MOUNTING	12.6"x23.0"x6.2"
RADIO MODULE UNIT WEIGHT	24.0 kg/52.9 lbs
MOUNTING BRACKET WEIGHT	2.0 kg/4.4 lbs
TOTAL WEIGHT	26.0 kg/57.3 lbs

NOTE:
RADIO MODULE TO BE
MOUNTED VERTICALLY ONLY.

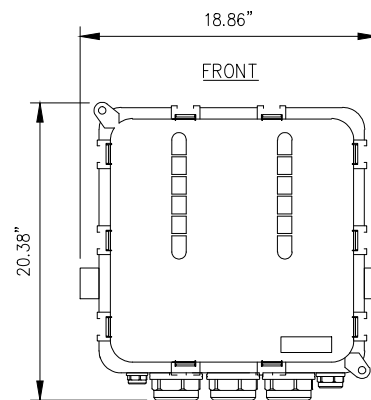
RAYCAP: ASUTYP01 (RNSNDC-7771-PF-48)

NOMINAL OPERATING VOLTAGE: 48VDC
NOMINAL DISCHARGE CURRENT: 20kA 8/20ms
MAXIMUM DISCHARGE CURRENT: 60kA 8/20ms
MAXIMUM CONTINUOUS OPERATING VOLTAGE: 75VDC
VOLTAGE PROTECTION RATING: 400V
CLEARANCE: FRONT: 36"
TOTAL WEIGHT: 19 lbs.

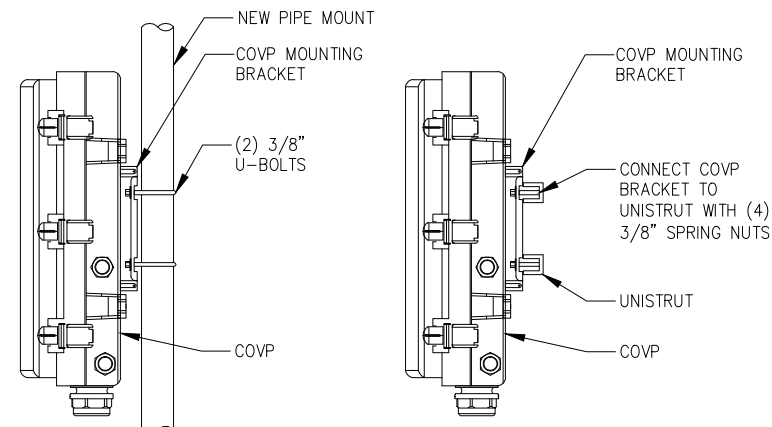
BACK



FRBG RADIO MODULE



FRONT



FRBG DETAIL

NO SCALE

4

COVP & MOUNTING DETAILS

NO SCALE

5

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

COLORADO LICENSED
CHRISTOPHER J. WARREN
47849
10-12-17
PROFESSIONAL ENGINEER

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:	DESCRIPTION	DATE	BY	REV

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

**12119 McCLURE ROAD
FALCON, CO 80831**

SHEET DESCRIPTION:

**EQUIPMENT &
MOUNTING DETAILS**

SHEET NUMBER:

A-6

1	PROPOSED T-MOBILE 10'x12' STEEL EQUIPMENT PLATFORM (SITEP01 P/N: MEP1012-6SI OR APPROVED EQUAL)
2	PROPOSED T-MOBILE H-FRAME
3	PROPOSED T-MOBILE STACKED SLEEVE
4	PROPOSED T-MOBILE DELTA SITE SUPPORT CABINET
5	PROPOSED T-MOBILE CIENA ENCLOSURE
6	PROPOSED T-MOBILE PPC CABINET
7	PROPOSED T-MOBILE COVP (TYP. OF (2))

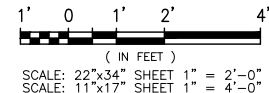
Technical drawing of a mechanical assembly, likely a pump or motor unit, showing dimensions and callouts. The drawing is oriented vertically on the page.

Dimensions:

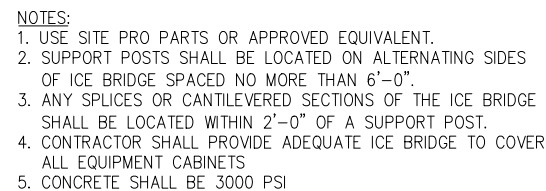
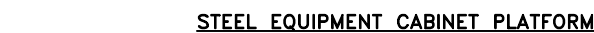
- Overall width: $12'-0"$
- Overall height: $10'-0"$
- Top horizontal offset: $\pm 2'-6"$
- Top horizontal offset: $\pm 6"$
- Vertical offset from top: $\pm 3'-6"$
- Vertical offset from top: $\pm 4"$
- Vertical offset from top: $\pm 8"$
- Horizontal offset from left: $\pm 6'-0"$
- Horizontal offset from left: $\pm 3"$ TYP.
- Horizontal offset from left: $\pm 1'-2"$

Callouts:

- 1: Points to a series of horizontal lines on the right side.
- 2: Points to a curved dashed line.
- 3: Points to a rectangular component.
- 4: Points to a rectangular component.
- 5: Points to a rectangular component.
- 6: Points to a rectangular component.
- 7: Points to a rectangular component.



SCALE: AS NOTED



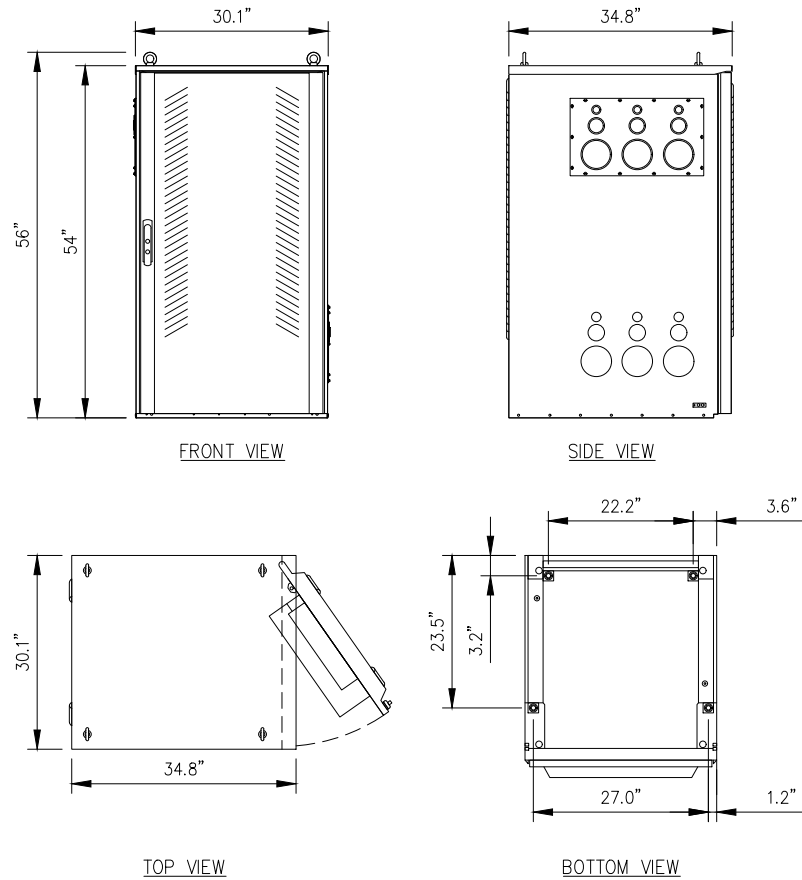
NO SCALE



NO SCALE

A circular professional engineer seal for Christopher J. Warren. The outer ring contains the text "COLORADO LICENSED" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by dots. The inner ring contains the name "CHRISTOPHER J. WARREN" and the license number "47849". Below the license number is the expiration date "10-12-17". The seal is surrounded by a decorative rope-like border. A blue ink signature is written across the seal.

A-7



DELTA SITE SUPPORT CABINET DETAIL

NO SCALE

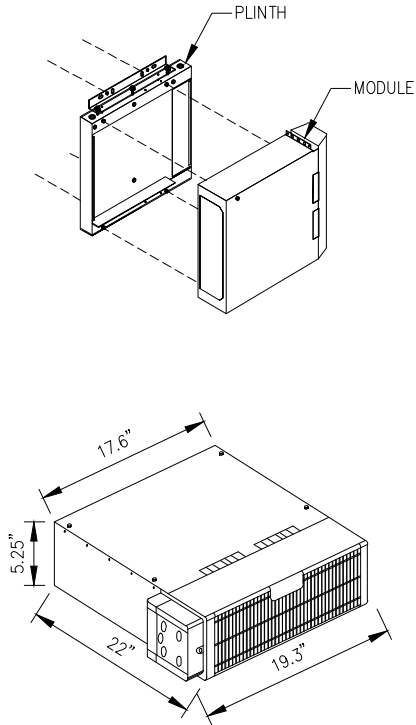
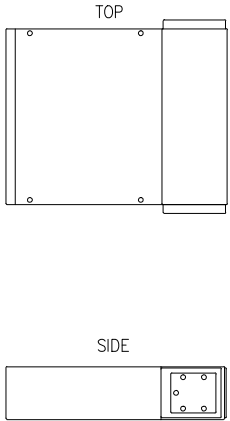
1

NOKIA FLEX SYSTEM RADIO MODULES:
FBBC, FSME, FSMF, FXFC

CLEARANCES: FRONT: 23.6"
BACK: 8"
TOP: 1.2"
SIDES: 4"

WEIGHT: 44 lbs.

NOTE: MODULE CAN BE INSTALLED VERTICALLY AND HORIZONTALLY



RADIO MODULE DETAIL

NO SCALE

2

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

COLORADO LICENSED
CHRISTOPHER J. WARREN
47849
10-12-17
PROFESSIONAL ENGINEER

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:			
DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DDB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DDB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

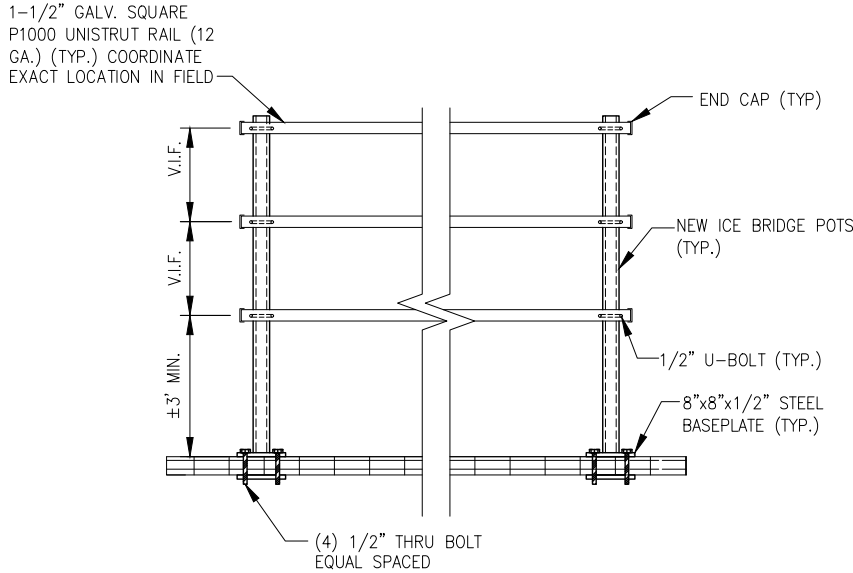
**12119 McCLURE ROAD
FALCON, CO 80831**

SHEET DESCRIPTION:

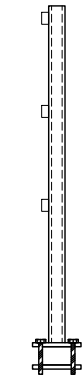
**EQUIPMENT &
MOUNTING DETAILS**

SHEET NUMBER:

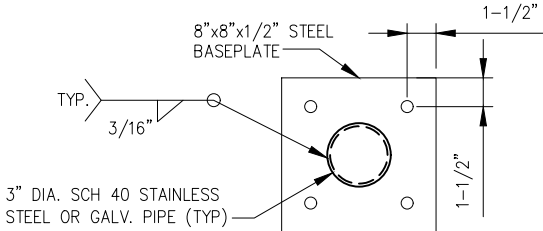
A-8



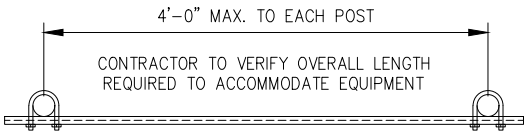
ELEVATION



END VIEW



BASEPLATE VIEW



PLAN VIEW

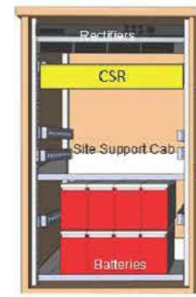
TYPICAL H-FRAME FABRICATION DETAIL

NO SCALE

3

Configuration 716R (L700/L2100/U19)

FR1J
LTE AWS



NO SCALE

1

A-9

T-Mobile

INFINIGY®

JOB NUMBER 404-052



A circular professional engineer seal for Christopher J. Warren. The outer ring contains the text "COLORADO LICENSED" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by dots. The inner circle contains the name "CHRISTOPHER J. WARREN" and the license number "47849". Below the license number is the date "10-12-17". A blue ink signature is written across the seal.

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

WOODMEN ELEMENTARY

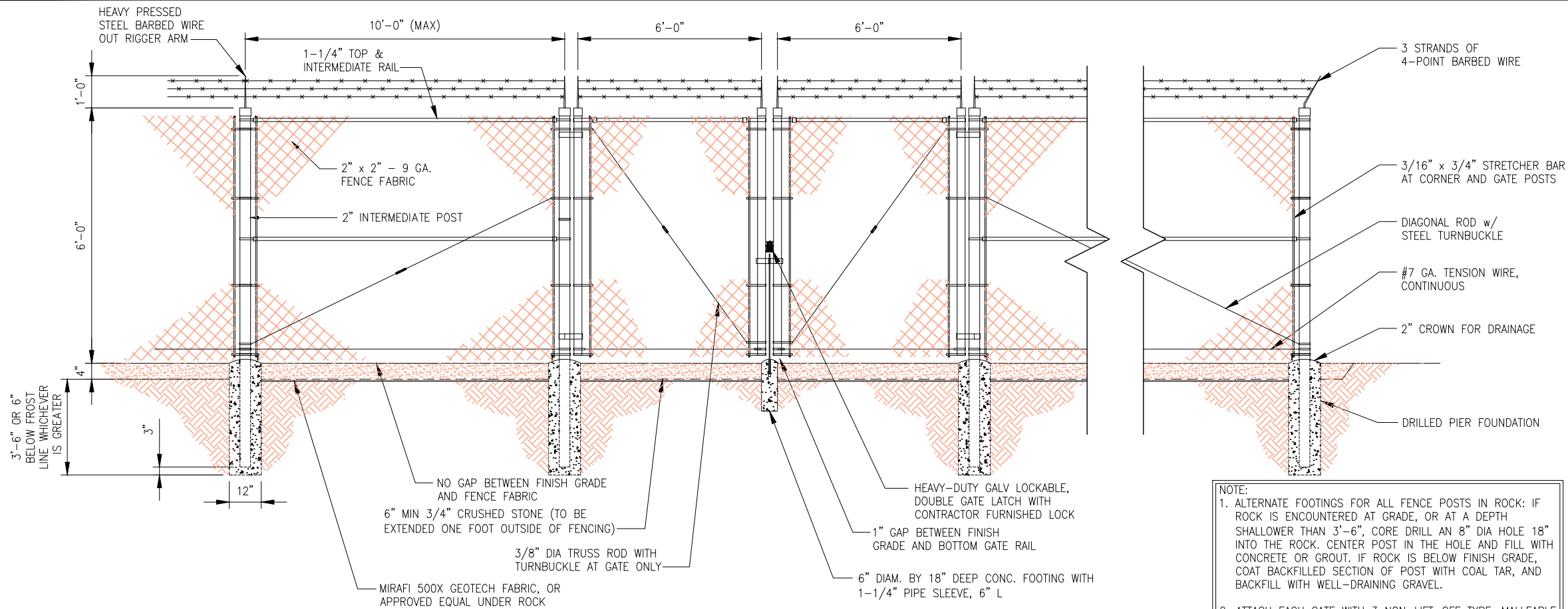
DN04333A

US-CO-5052

12119 McCLURE ROAD
FALCON, CO 80831

PLUMBING DIAGRAM

A-9



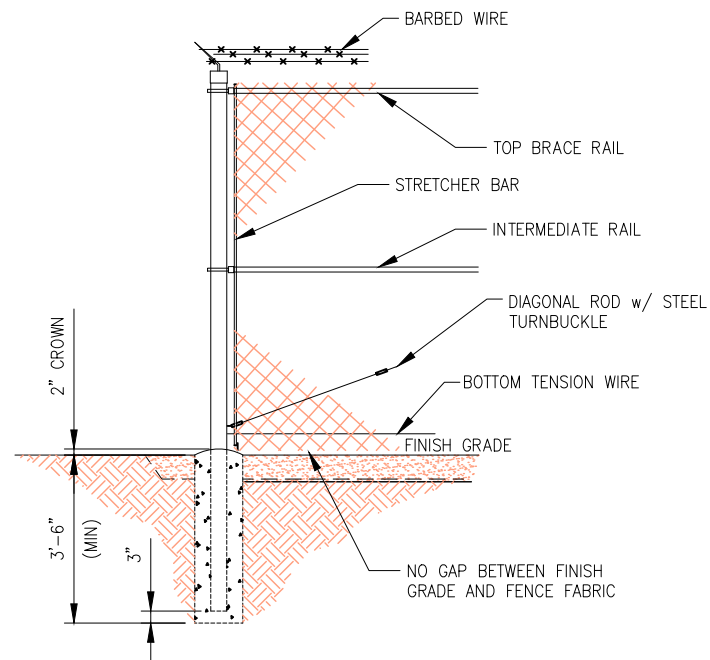
NOTE:

1. ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN ROCK: IF ROCK IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'-6", CORE DRILL AN 8" DIA HOLE 18" INTO THE ROCK. CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF ROCK IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL-DRAINING GRAVEL.
2. ATTACH EACH GATE WITH 3 NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL. (THREE POINT HINGE)

DOUBLE SWING ACCESS GATE DETAIL

NO SCALE

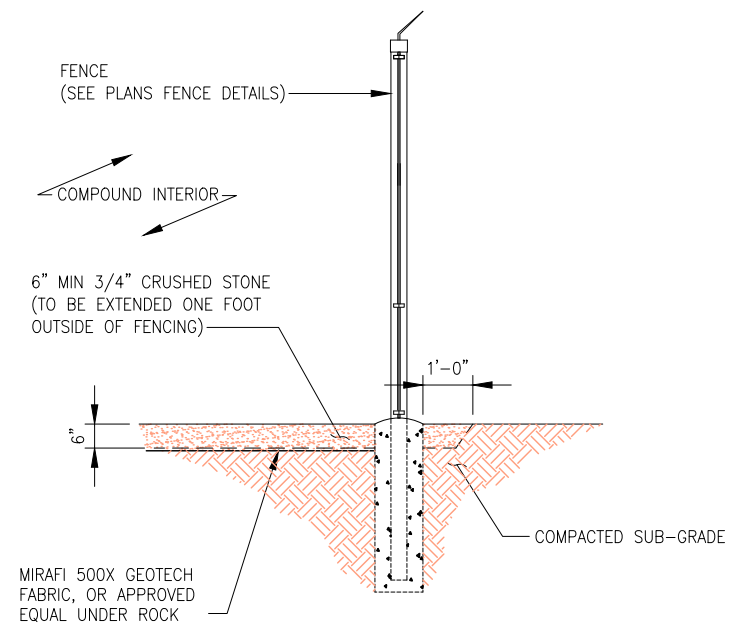
1



CHAIN LINK FENCE DETAIL

NO SCALE

2



SECTION THROUGH COMPOUND

NO SCALE

3

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

COLORADO LICENSED
CHRISTOPHER J. WARREN
47849
10-12-17
PROFESSIONAL ENGINEER

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:	DESCRIPTION	DATE	BY	REV
	REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
	REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
	REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
	ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

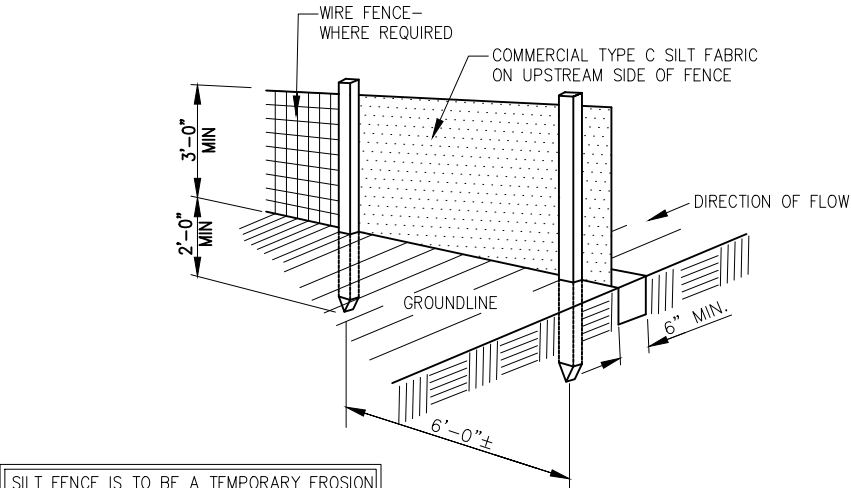
**12119 McCLURE ROAD
FALCON, CO 80831**

SHEET DESCRIPTION:

FENCE DETAILS

SHEET NUMBER:

A-10



SILT FENCE IS TO BE A TEMPORARY EROSION CONTROL DEVICE, AND SHOULD REMAIN IN PLACE UNTIL THE SITE IS STABILIZED.

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6IN AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULDGES" DEVELOP IN THE SILT FENCE.
5. ALL SILT FENCE MATERIALS MUST BE LISTED ON THE CURRENT STATES. D.O.T. QUALIFIED PRODUCTS LIST.

- NOTE:
1. DIG TRENCH.
 2. LAY IN FABRIC TO BOTTOM OF TRENCH.
 3. BACKFILL TRENCH, COVERING FABRIC.

POSTS: STEEL EITHER T OR U TYPE.

FENCE: WOVEN WIRE 14 GA.
6" MAX. MESH OPENING.

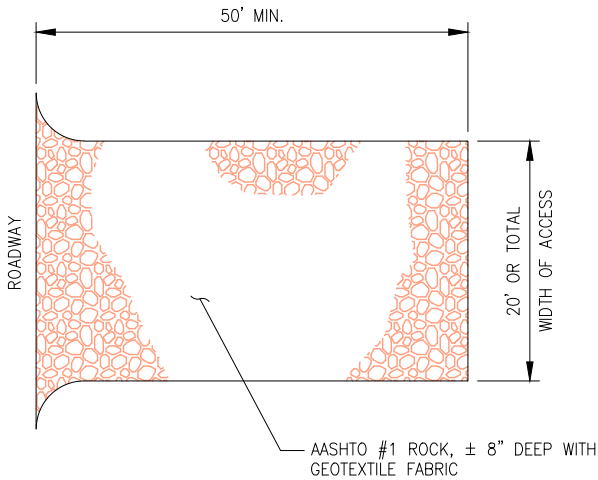
FILTER CLOTH: FILTER X, MIRAFI
100X' STABILINKA T140N OR
APPROVED EQUAL.

PREFABRICATED UNIT: GEOFAB
ENVIROFENCE OR APPROVED
EQUAL.

SILT FENCE DETAIL

NO SCALE

1

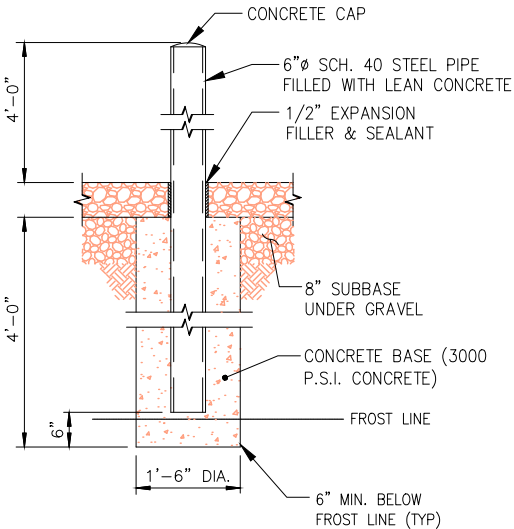


- NOTES:
1. ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.
 2. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

DRIVEWAY SECTION - CROWNED

NO SCALE

2



BOLLARD DETAIL

NO SCALE

3

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

CIVIL DETAILS

SHEET NUMBER:

A-11

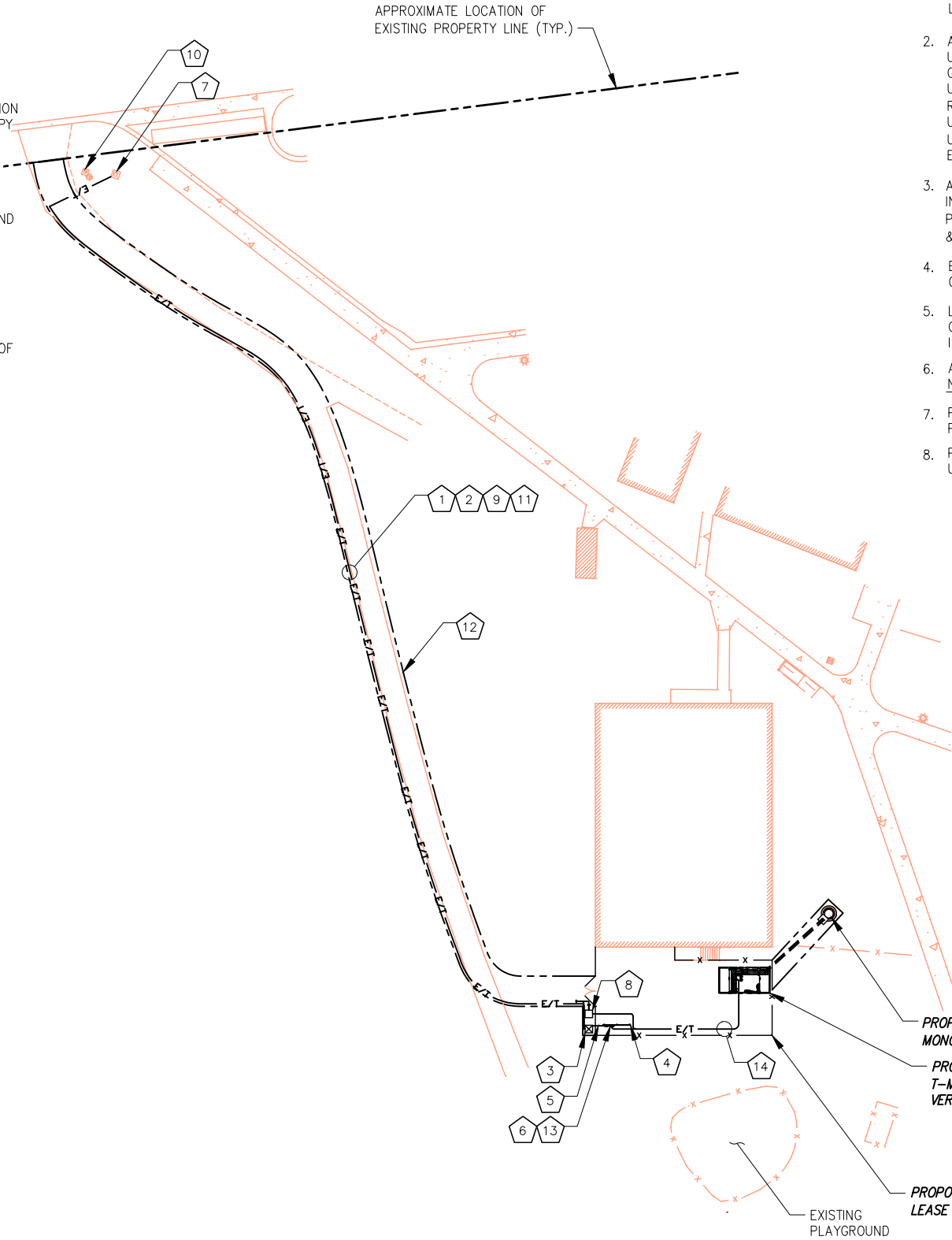
UTILITY NOTES:

1. CONNECTION TO EXISTING UTILITIES AND INCOMING POWER AND TELEPHONE SERVICES IS FOR CONCEPT ONLY. THE CONTRACTOR SHALL COORDINATE THE ACTUAL LOCATION WITH THE ELECTRIC AND TELEPHONE UTILITIES AND CARRIER.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS WITH THE ELECTRIC AND TELEPHONE UTILITIES TO ENSURE TO A TIMELY INSTALLATION OF THE INCOMING POWER AND TELEPHONE SERVICES. THE CARRIER WILL OBTAIN AN ELECTRIC SERVICE ORDER (ESO) FOR THIS SITE PRIOR TO THE CONTRACTOR INITIATING ANY WORK ON-SITE.
3. THE INCOMING ELECTRIC SERVICE SHALL BE INSPECTED BY THE AUTHORITY HAVING JURISDICTION AND A CERTIFICATE OF SUCH INSPECTION SHALL BE FURNISHED TO THE CARRIER WITH A COPY FORWARDED TO THAT UTILITY.
4. ANY UTILITY CHARGES ASSOCIATED WITH THIS SITE SHALL BE PAID BY THE CARRIER AND NO CHARGES, THEREFORE SHALL ACCRUE TO THE CONTRACTOR.
5. COORDINATE METER SOCKET REQUIREMENTS AND UTILITY METER ENCLOSURE WITH CARRIER. AND ELECTRIC UTILITY.
6. INCOMING ELECTRIC SERVICES SHALL BE IN CONFORMANCE WITH THE UTILITIES STANDARDS (LATEST EDITION).
7. INSTALL PULL ROPES IN ALL CONDUITS UNLESS NOTED OTHERWISE.
8. CONDUIT RUNS SHALL HAVE ONE 18"x18"x8" TRAFFIC RATED PULLBOX AFTER 270 DEGREES OF BEND.
9. CONDUIT RUNS SHALL HAVE A PULLBOX WITH A MAXIMUM SPACING OF 500 LINEAR FEET.

CODED DRAWING NOTES:

- 1 COORDINATE EXACT LOCATION WITH UTILITY COMPANY. STUB UP POWER AND CONDUITS AS DIRECTED BY UTILITY COMPANY. REFER TO EQUIPMENT SPECIFICATIONS FOR ELECTRICAL REQUIREMENTS.
- 2 PROPOSED UNDERGROUND POWER SERVICE ROUTED FROM NEAREST DEMARC TO PROPOSED TRANSFORMER. (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 3 PROPOSED TRANSFORMER PROVIDED BY ELECTRIC SERVICE PROVIDER (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 4 PROPOSED 10' WIDE UTILITY RACK/H-FRAME
- 5 CONTRACTOR TO PROVIDE (2) 4" SCH 40 PVC CONDUITS FROM TRANSFORMER TO 4-GANG METER BANK (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 6 PROPOSED MAIN ELECTRICAL SERVICE CABINET WITH 4-GANG METER BANK
- 7 EXISTING TRANSFORMER
- 8 PROPOSED TELCO CABINET PROVIDED BY TELCO COMPANY (CONTRACTOR TO COORDINATE WITH UTILITY COMPANY PRIOR TO CONSTRUCTION.)
- 9 PROPOSED TELCO IN 4" SCH. 40 PVC FROM NEAREST TELCO/FIBER DEMARC TO PROPOSED TELCO CABINET (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 10 EXISTING TELCO PEDESTAL
- 11 ALL TELCO CONDUITS SHALL USE LONG SWEEPS AT BENDS.
- 12 PROPOSED VERTICAL BRIDGE 15' WIDE ACCESS & UTILITY EASEMENT
- 13 PROPOSED T-MOBILE METER & DISCONNECT IN PROPOSED 4-GANG METER BANK
- 14 PROPOSED SCH 40 PVC CONDUIT FROM PROPOSED T-MOBILE DISCONNECT FOR AC POWER TO PROPOSED T-MOBILE DELTA SITE SUPPORT CABINET (CONTRACTOR TO SUPPLY SIZE/QTY CONDUCTORS PER MANUFACTURER SPECIFICATIONS) & PROPOSED SCH 40 PVC CONDUIT FOR FIBER FROM PROPOSED TELCO CABINET TO PROPOSED CIENA ENCLOSURE (PENDING COORDINATION WITH UTILITY COMPANIES)

NOTE:
CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. COORDINATE LOCATION OF ALL PROPOSED DIGGING & UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.



GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES, LAWS, AND ORDINANCES.
2. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE INDICATED. CONDUITS EXPOSED ABOVE GROUND SHALL BE RIGID GALVANIZED STEEL. ALL UNDERGROUND CONDUIT SHALL TRANSITION FROM PVC TO RIGID ABOVE GRADE. PROVIDE 36" SEPARATION BETWEEN UNDERGROUND POWER AND TELEPHONE CONDUITS. SUPPLY UTILITY MARKING TAPE BURIED 12" BELOW GRADE ALONG ENTIRE LENGTH OF UNDERGROUND CONDUITS.
3. ALL CONDUCTORS SHALL BE COPPER WITH THHN/THWN INSULATION. CONTROL CONDUCTORS SHALL BE STRANDED, POWER & LIGHTING CONDUCTORS SHALL BE SOLID FOR #10 & #12 CONDUCTORS AND STRANDED FOR ALL OTHER SIZES.
4. ELECTRICAL DRAWINGS ARE IN PART DIAGRAMMATIC. COORDINATE ELECTRICAL WORK WITH SITE CONDITIONS.
5. LOCATE ALL UNDERGROUND UTILITIES BEFORE TRENCHING. IF CONFLICTS ARISE, CONTACT UTILITY COMPANY AND ENGINEER IMMEDIATELY.
6. ALL EXPOSED CONDUITS SHALL HAVE WEATHERPROOF CAPS NOT DUCT TAPE.
7. PROVIDE 200 LB TEST PULL WIRES IN EACH TELEPHONE AND POWER CONDUIT.
8. PULL BOXES SHALL BE INSTALLED AS NEEDED PER NEC UTILITY REQUIREMENTS.

ABBREVIATIONS:

&	AND
AWG	AMERICAN WIRE GAUGE
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
BTS	BARE TINNED STRANDED
C	CONDUIT
CAB	CABINET
CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
DLO	DIESEL LOCOMOTIVE CABLE
DWG	DRAWING
EGR	EXTERIOR GROUND RING
EIGB	EXTERIOR ISOLATED GROUND BAR
G	GROUND
GPS	GLOBAL POSITIONING SYSTEM
HALO	INTERIOR GROUND RING
MIGB	MAIN ISOLATED GROUND BAR
MGN	MULTI-GROUNDED NEUTRAL
MSC	MOBILE SWITCHING CENTER
MTSO	MOBILE TELEPHONE SWITCHING OFFICE
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
SST	SELF SUPPORT TOWER
TGR	TOWER GROUND RING
TYP.	TYPICAL
W/	WITH

PLANS PREPARED FOR:



PLANS PREPARED BY:



MLA PARTNER:



ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

OVERALL
UTILITY LAYOUT

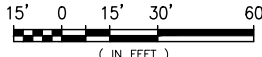
SHEET NUMBER:

E-1

OVERALL UTILITY LAYOUT



NORTH



(IN FEET)

SCALE: 22"x34" SHEET 1" = 30'-0"

SCALE: 11"x17" SHEET 1" = 60'-0"

SCALE: AS NOTED

1

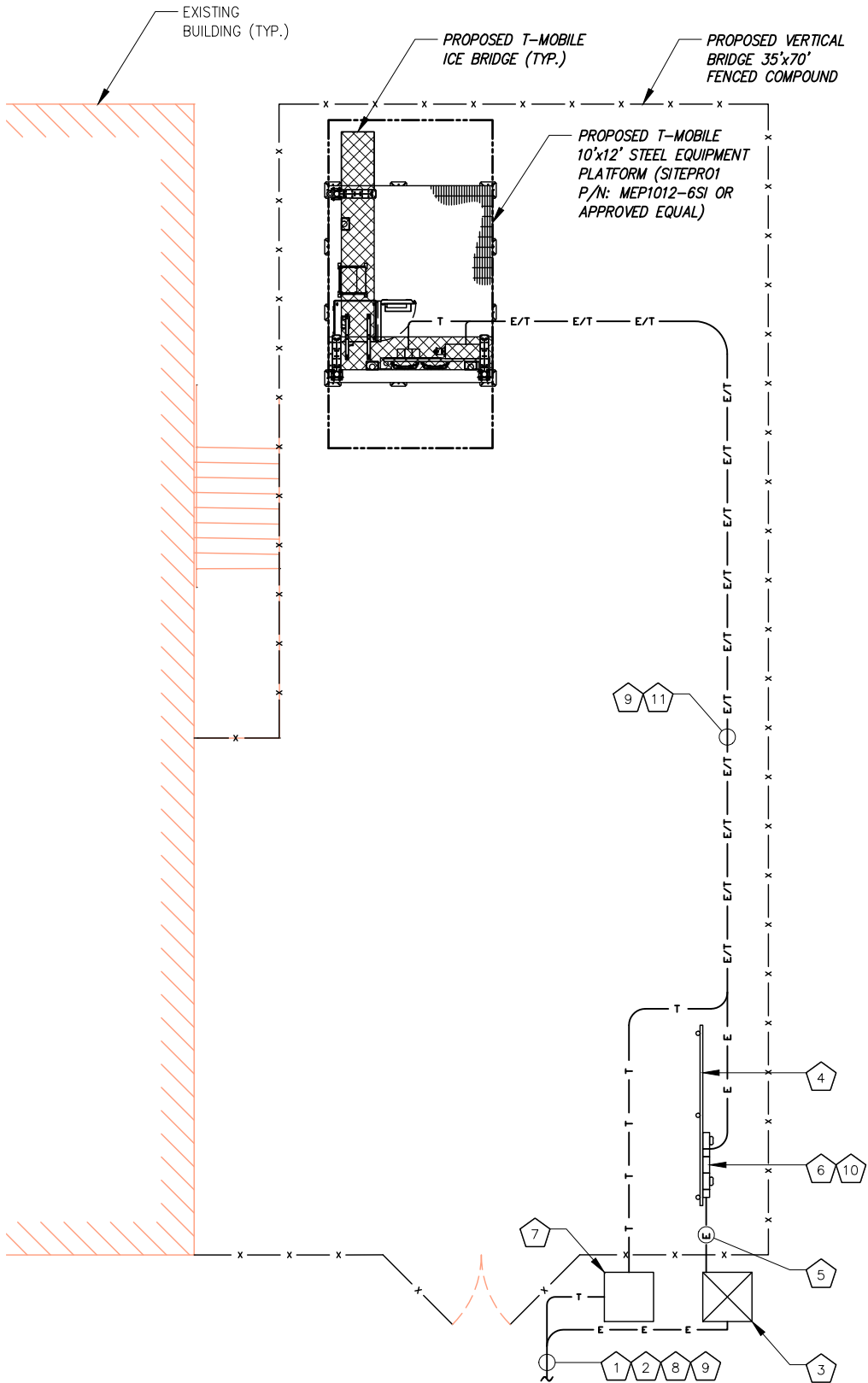
GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES, LAWS, AND ORDINANCES.
2. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE INDICATED. SUPPLY UTILITY MARKING TAPE BURIED 12" BELOW GRADE ALONG ENTIRE LENGTH OF UNDERGROUND CONDUITS.
3. ALL CONDUCTORS SHALL BE COPPER WITH THHN/THWN INSULATION. CONTROL CONDUCTORS SHALL BE STRANDED, POWER & LIGHTING CONDUCTORS SHALL BE SOLID FOR #10 & #12 CONDUCTORS AND STRANDED FOR ALL OTHER SIZES.
4. ELECTRICAL DRAWINGS ARE IN PART DIAGRAMMATIC. COORDINATE ELECTRICAL WORK WITH SITE CONDITIONS.
5. LOCATE ALL UNDERGROUND UTILITIES BEFORE TRENCHING. IF CONFLICTS ARISE, CONTACT UTILITY COMPANY AND ENGINEER IMMEDIATELY.
6. ALL EXPOSED CONDUITS SHALL HAVE WEATHERPROOF CAPS NOT DUCT TAPE.
7. PROVIDE 200 LB TEST PULL WIRES IN EACH TELEPHONE AND POWER CONDUIT.
8. PULL BOXES SHALL BE INSTALLED AS NEEDED PER NEC UTILITY REQUIREMENTS.

CODED DRAWING NOTES:

- 1 COORDINATE EXACT LOCATION WITH UTILITY COMPANY. STUB UP POWER AND CONDUITS AS DIRECTED BY UTILITY COMPANY. REFER TO EQUIPMENT SPECIFICATIONS FOR ELECTRICAL REQUIREMENTS.
- 2 PROPOSED UNDERGROUND POWER SERVICE ROUTED FROM NEAREST DEMARC TO PROPOSED TRANSFORMER. (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 3 PROPOSED TRANSFORMER PROVIDED BY ELECTRIC SERVICE PROVIDER (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 4 PROPOSED 10' WIDE UTILITY RACK/H-FRAME
- 5 CONTRACTOR TO PROVIDE (2) 4" SCH 40 PVC CONDUITS FROM TRANSFORMER TO 4-GANG METER BANK (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 6 PROPOSED MAIN ELECTRICAL SERVICE CABINET WITH 4-GANG METER BANK
- 7 PROPOSED TELCO CABINET PROVIDED BY TELCO COMPANY (CONTRACTOR TO COORDINATE WITH UTILITY COMPANY PRIOR TO CONSTRUCTION.)
- 8 PROPOSED TELCO IN 4" SCH. 40 PVC FROM NEAREST TELCO/FIBER DEMARC TO PROPOSED TELCO CABINET (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 9 ALL TELCO CONDUITS SHALL USE LONG SWEEPS AT BENDS.
- 10 PROPOSED T-MOBILE METER & DISCONNECT IN PROPOSED 4-GANG METER BANK
- 11 PROPOSED SCH 40 PVC CONDUIT FROM PROPOSED T-MOBILE DISCONNECT FOR AC POWER TO PROPOSED T-MOBILE DELTA SITE SUPPORT CABINET (CONTRACTOR TO SUPPLY SIZE/QTY CONDUCTORS PER MANUFACTURER SPECIFICATIONS) & PROPOSED SCH 40 PVC CONDUIT FOR FIBER FROM PROPOSED TELCO CABINET TO PROPOSED CIENA ENCLOSURE (PENDING COORDINATION WITH UTILITY COMPANIES)

NOTE:
CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. COORDINATE LOCATION OF ALL PROPOSED DIGGING & UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.



ABBREVIATIONS:

&	AND
AWG	AMERICAN WIRE GAUGE
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
BTS	BARE TINNED STRANDED
C	CONDUIT
CAB	CABINET
CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
DLO	DIESEL LOCOMOTIVE CABLE
DWG	DRAWING
EGR	EXTERIOR GROUND RING
EIGB	EXTERIOR ISOLATED GROUND BAR
G	GROUND
GPS	GLOBAL POSITIONING SYSTEM
HALO	INTERIOR GROUND RING
MIGB	MAIN ISOLATED GROUND BAR
MGN	MULTI-GROUNDED NEUTRAL
MSC	MOBILE SWITCHING CENTER
MTSO	MOBILE TELEPHONE SWITCHING OFFICE
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
SST	SELF SUPPORT TOWER
TGR	TOWER GROUND RING
TYP.	TYPICAL
W/	WITH

ELECTRICAL SYMBOLS:

⌀	RECEPTACLE
— E —	BURIED POWER CONDUIT
— T —	BURIED TELCO CONDUIT
(M)	ELECTRICAL METER
#	INDICATES CODED NUMBER
□	SAFETY SWITCH
⊘	UTILITY POLE

PLANS PREPARED FOR:



PLANS PREPARED BY:



MLA PARTNER:



ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

COMPOUND
UTILITY LAYOUT

SHEET NUMBER:

E-2

COMPOUND UTILITY LAYOUT



2.5' 0 2.5' 5' 10'
(IN FEET)

SCALE: 22"x34" SHEET 1" = 5'-0"
SCALE: 11"x17" SHEET 1" = 10'-0"

SCALE: AS NOTED

1

GENERAL ELECTRICAL NOTES:

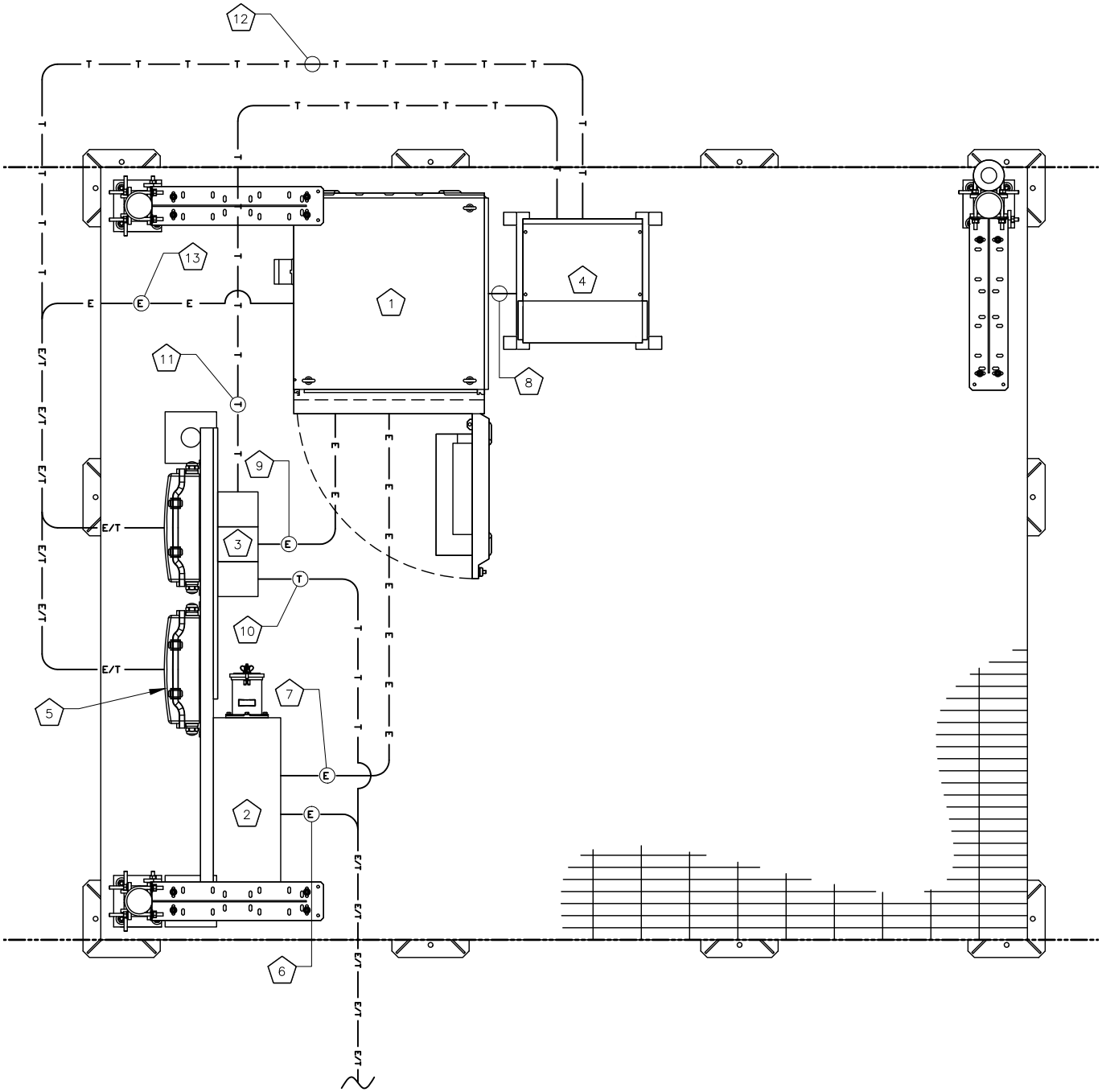
1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES, LAWS, AND ORDINANCES.
2. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE INDICATED. SUPPLY UTILITY MARKING TAPE BURIED 12" BELOW GRADE ALONG ENTIRE LENGTH OF UNDERGROUND CONDUITS.
3. ALL CONDUCTORS SHALL BE COPPER WITH THHN/THWN INSULATION. CONTROL CONDUCTORS SHALL BE STRANDED, POWER & LIGHTING CONDUCTORS SHALL BE SOLID FOR #10 & #12 CONDUCTORS AND STRANDED FOR ALL OTHER SIZES.
4. ELECTRICAL DRAWINGS ARE IN PART DIAGRAMMATIC. COORDINATE ELECTRICAL WORK WITH SITE CONDITIONS.
5. LOCATE ALL UNDERGROUND UTILITIES BEFORE TRENCHING. IF CONFLICTS ARISE, CONTACT UTILITY COMPANY AND ENGINEER IMMEDIATELY.
6. ALL EXPOSED CONDUITS SHALL HAVE WEATHERPROOF CAPS NOT DUCT TAPE.
7. PROVIDE 200 LB TEST PULL WIRES IN EACH TELEPHONE AND POWER CONDUIT.
8. PULL BOXES SHALL BE INSTALLED AS NEEDED PER NEC UTILITY REQUIREMENTS.

CODED DRAWING NOTES:

- 1 PROPOSED T-MOBILE DELTA SITE SUPPORT CABINET
- 2 PROPOSED T-MOBILE PPC CABINET
- 3 PROPOSED CIENA ENCLOSURE
- 4 PROPOSED T-MOBILE STACKED SLEEVE
- 5 PROPOSED T-MOBILE COVP (TYP. OF (2))
- 6 (1) 2" PVC CONDUIT WITH (3) 3#0 & (1) #6 GROUND AWG FROM NEW T-MOBILE DISCONNECT TO PROPOSED T-MOBILE PPC (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 7 (1) 2" GRC OR LIQUIDTIGHT CONDUIT FROM PROPOSED T-MOBILE DISCONNECT FOR AC POWER TO PROPOSED T-MOBILE DELTA SITE SUPPORT CABINET (CONTRACTOR TO SUPPLY SIZE/QTY CONDUCTORS PER MANUFACTURER SPECIFICATIONS)
- 8 (1) 2" GRC OR LIQUIDTIGHT CONDUIT FOR DC POWER TO PROPOSED T-MOBILE STACKED SLEEVE (CONTRACTOR TO SUPPLY SIZE/QTY CONDUCTORS PER MANUFACTURER SPECIFICATIONS)
- 9 (1) 2" GRC OR LIQUIDTIGHT CONDUIT FOR DC POWER TO PROPOSED CIENA ENCLOSURE (CONTRACTOR TO SUPPLY SIZE/QTY CONDUCTORS PER MANUFACTURER SPECIFICATIONS)
- 10 (1) 2" GRC OR LIQUIDTIGHT CONDUIT FOR FIBER FROM NEW TELCO CABINET TO PROPOSED CIENA ENCLOSURE
- 11 (1) 2" GRC OR LIQUIDTIGHT CONDUIT FOR FIBER FROM PROPOSED CIENA ENCLOSURE TO PROPOSED T-MOBILE STACKED SLEEVE
- 12 (2) 1" GRC OR LIQUIDTIGHT CONDUITS FOR FIBER FROM PROPOSED T-MOBILE STACKED SLEEVE TO PROPOSED T-MOBILE COVPs
- 13 (3) 1" GRC OR LIQUIDTIGHT CONDUITS FOR DC POWER FROM PROPOSED T-MOBILE DELTA SITE SUPPORT CABINET TO PROPOSED T-MOBILE COVPs (CONTRACTOR TO SUPPLY SIZE/QTY CONDUCTORS PER MANUFACTURER'S SPECIFICATIONS)

NOTE:
ICE BRIDGE NOT
SHOWN FOR CLARITY.

NOTE:
CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR
TO CONSTRUCTION. COORDINATE LOCATION OF ALL PROPOSED
DIGGING & UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.



ABBREVIATIONS:

&	AND
AWG	AMERICAN WIRE GAUGE
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
BTS	BARE TINNED STRANDED
C	CONDUIT
CAB	CABINET
CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
DLO	DIESEL LOCOMOTIVE CABLE
DWG	DRAWING
EGR	EXTERIOR GROUND RING
EIGB	EXTERIOR ISOLATED GROUND BAR
G	GROUND
GPS	GLOBAL POSITIONING SYSTEM
HALO	INTERIOR GROUND RING
MIGB	MAIN ISOLATED GROUND BAR
MGN	MULTI-GROUNDED NEUTRAL
MSC	MOBILE SWITCHING CENTER
MTSO	MOBILE TELEPHONE SWITCHING OFFICE
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
SST	SELF SUPPORT TOWER
TGR	TOWER GROUND RING
TYP.	TYPICAL
W/	WITH

ELECTRICAL SYMBOLS:

⌀	RECEPTACLE
— E —	BURIED POWER CONDUIT
— T —	BURIED TELCO CONDUIT
(M)	ELECTRICAL METER
#	INDICATES CODED NUMBER
□	SAFETY SWITCH
⊘	UTILITY POLE

PLANS PREPARED FOR:



PLANS PREPARED BY:



MLA PARTNER:



ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

EQUIPMENT
UTILITY LAYOUT

SHEET NUMBER:

E-3

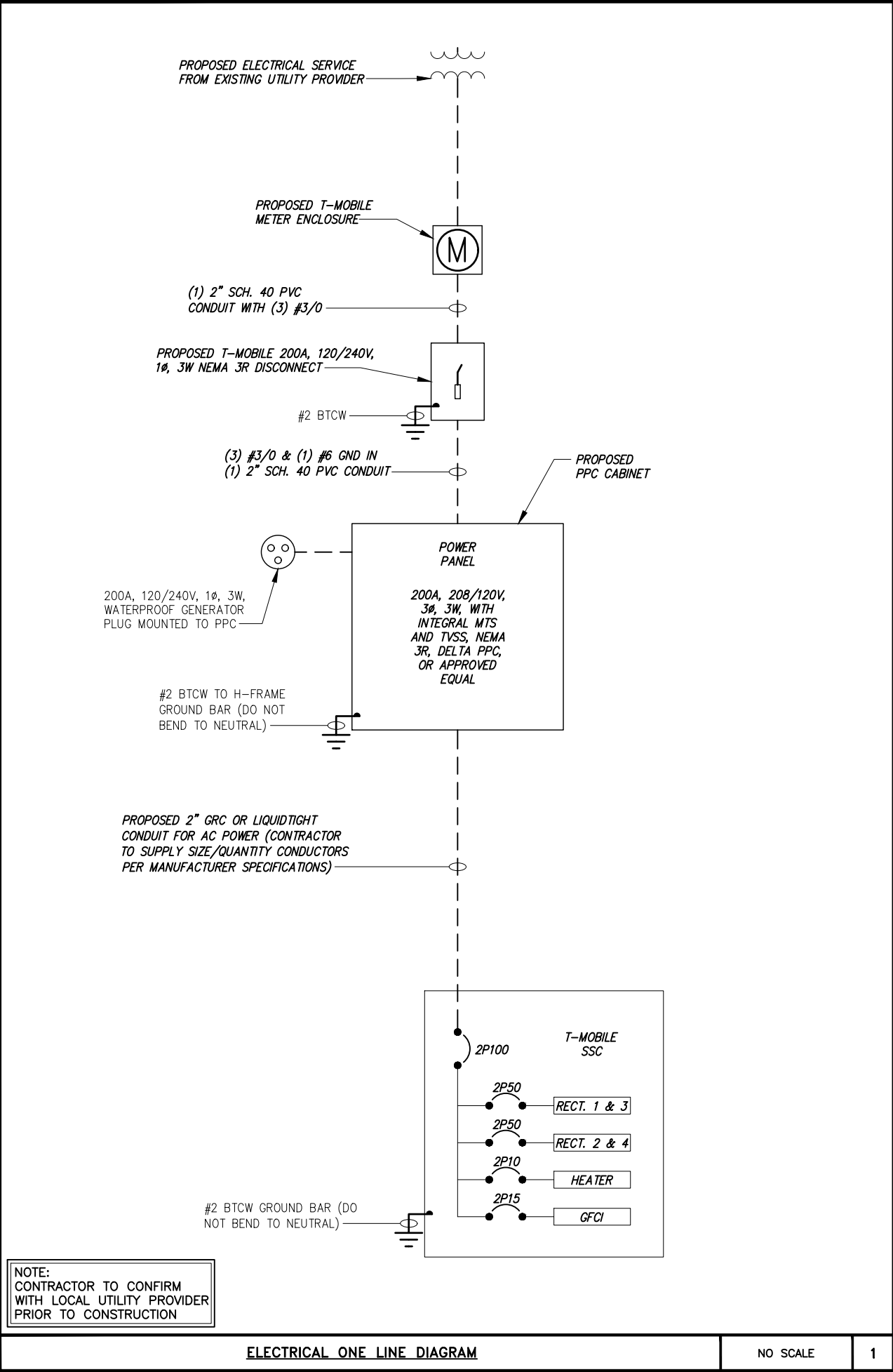
EQUIPMENT UTILITY LAYOUT



0.75' 0 0.75' 1.5' 3'
(IN FEET)
SCALE: 22"x34" SHEET 1" = 1'-6"
SCALE: 11"x17" SHEET 1" = 3'-0"

SCALE: AS NOTED

1



200A BUS, 208/120V, 60 HZ												PANEL SCHEDULE				
CKT NO.	CKT BKR		DESCRIPTION	LOAD (WATTS)					DESCRIPTION	CKT POLES	BKR AMPS	CKT NO.				
	AMPS	POLES		L1	L2	LCL	L2	L1								
1	20	1	GFCI RECEPTACLE	180				600	TVSS	2	30	2				
3	20	1	LIGHTS		360			600				4				
5	--	1	EMPTY	0				TBD	SSC	TBD	TBD	6				
7	--	1	EMPTY		0			TBD				8				
9	--	1	EMPTY	0				0	EMPTY	TBD	TBD	10				
11	--	1	EMPTY		0			0	EMPTY	TBD	TBD	12				
PHASE TOTALS (WATTS)				TBD	TBD			TBD	TBD							
TOTAL CONNECTED (WATTS)				TBD	TBD											
PHASE BALANCE				TBD	TBD											
TOTAL AMPS PER PHASE (AMPS)				TBD	TBD											
TOTAL LOAD (AMPS)				TBD												

NEW PPC

SCREENED LOUVERS FOR TELCO COMPARTMENT

ELEVATION VIEW

WIND STOP

FRONT

TOP PLAN VIEW (DOOR OPEN)

NOTES:
1. METER SOCKET BY THIS CONTRACT. METER TO BE SUPPLIED BY LOCAL UTILITY COMPANY.
2. AC POWER ENCLOSURE. 200 AMP, 208/120V, 3Ø, 3W W/ GROUND. 200A/2P MAIN CIRCUIT BREAKER.
3. ALL EQUIPMENT SHALL BE GROUNDED PER LATEST EDITION OF NEC AND AS INDICATED.
4. ELECTRICAL EQUIPMENT SHALL BE MIN. 3'-0" FROM ANY STRUCTURE AND AS REQUIRED BY LOCAL UTILITY COMPANIES AND AHJ.
5. CONTRACTOR MUST LABEL ALIKE BREAKERS IN POWER CABINET.
6. REFER TO ACTUAL EQUIPMENT DRAWINGS.

PPC DETAIL

NO SCALE

3

MATCH EXISTING GRADE

6" WIDE YELLOW WARNING TAPE WITH BLACK LETTER. TAPE TO READ: CAUTION ELECTRIC LINE BURIED BELOW.

30" TYP.

2" PVC TELCO CONDUIT

5-1/4"

5-1/4"

17-1/4"

6-3/4"

COMPACTED BACKFILL

2" PVC POWER CONDUIT

GROUND CONNECTOR - UL LISTED (SEE NOTE 2 BELOW) (SIZE AS REQ. FOR CONDUIT)

RIGID STEEL CONDUIT COUPLING

GRADE

PVC SCH 40 SIZE AS SHOWN ON LAYOUTS

RIGID STEEL CONDUIT

RIGID STEEL TO PVC ADAPTER

NOTES:
1. ALL CONDUIT ABOVE GRADE MUST BE RIGID STEEL OR LIQUIDTIGHT.
2. ALL NEW STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 G90 AFTER FABRICATION.
3. FIELD ABRASIONS SHALL BE TOUCH UP PAINTED WITH ZINC RICH GALVANIZING REPAIR PAINT IN ACCORDANCE WITH ASTM A780.
4. ALL EXPOSED ENDS OF CONDUITS SHALL HAVE WEATHER PROOF CAPS. DO NOT USE DUCT TAPE.
5. PROVIDE 200LB. TEST PULL WIRES IN EACH TELEPHONE AND POWER CONDUIT. STUB CONDUITS INTO ENCLOSURE AND LABEL.

CONDUIT TRENCH DETAIL

NO SCALE

4

UNDERGROUND CONDUIT STUB-UP

NO SCALE

5

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

COLORADO LICENSED
CHRISTOPHER J. WARREN
47849
PROFESSIONAL ENGINEER
10-12-17

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

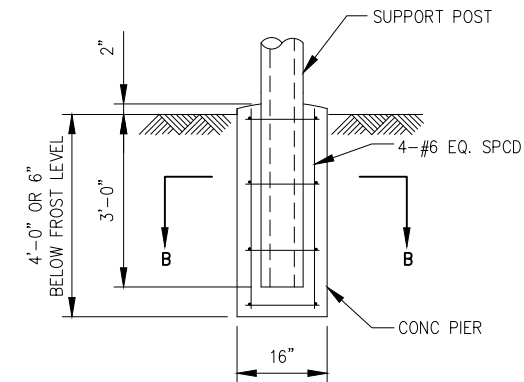
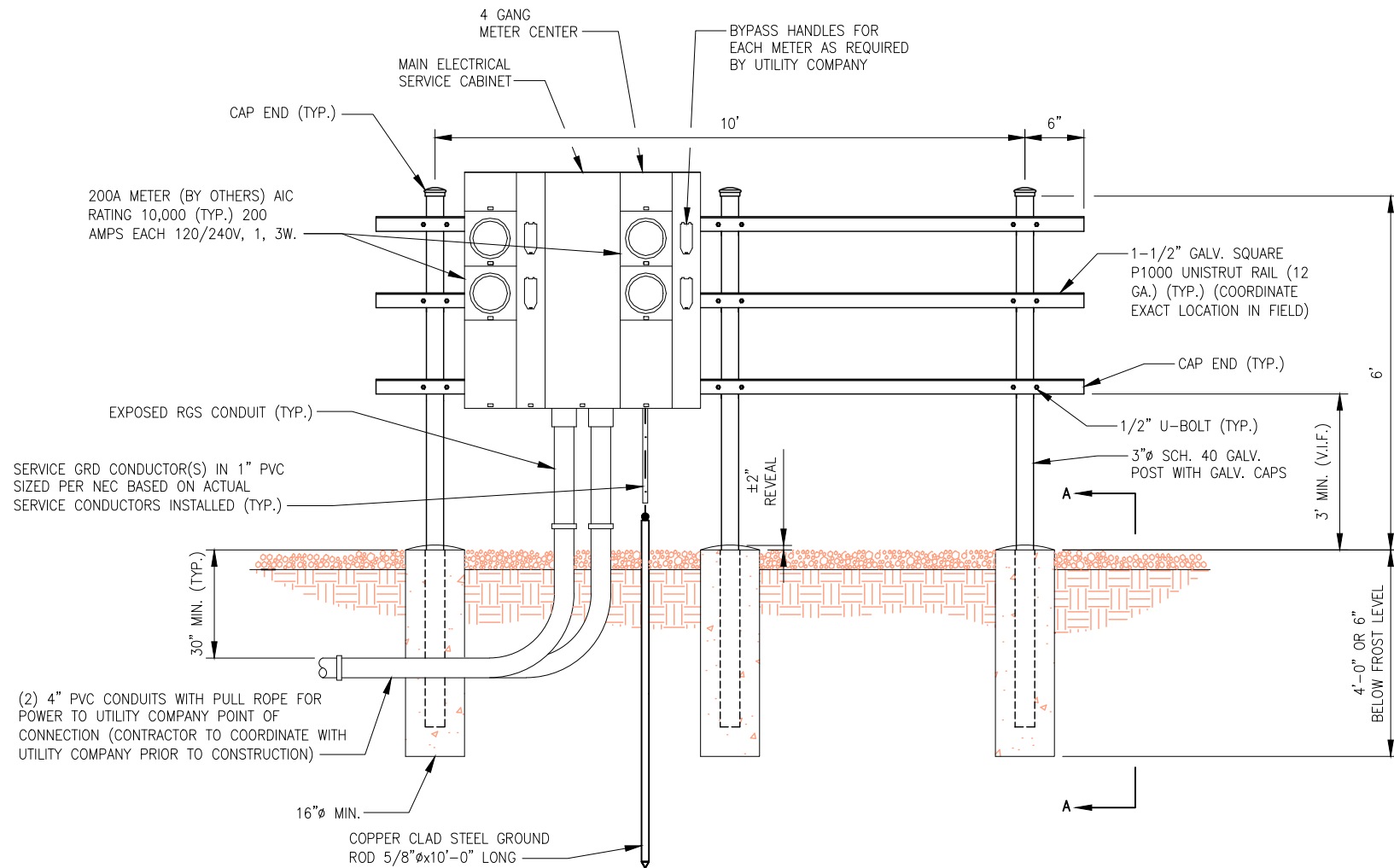
12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

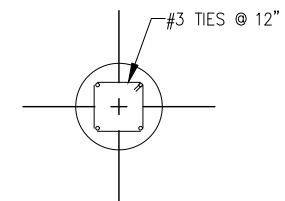
ELECTRICAL DETAILS

SHEET NUMBER:

E-4



SECTION A-A



SECTION B-B

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:			
DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

**12119 McCLURE ROAD
FALCON, CO 80831**

SHEET DESCRIPTION:

UTILITY RACK DETAIL

SHEET NUMBER:

E-5

CODED DRAWING NOTES:

- 1 BOND PROPOSED UTILITY RACK & MAIN ELECTRICAL SERVICE CABINET TO COPPER CLAD STEEL GROUND ROD 5/8"x10" LONG PER MANUFACTURER'S SPECIFICATIONS WITH #2 AWG SOLID TINNED BCW.
- 2 PROPOSED TOWER GROUND RING (#2 AWG SOLID TINNED BCW)
- 3 BOND PROPOSED TOWER TO PROPOSED TOWER GROUND RING WITH #2 AWG SOLID TINNED BCW PER TOWER OWNER'S SPECIFICATIONS. (TYP. OF (3) PLACES)
- 4 PROPOSED COMPOUND GROUND RING (#2 AWG SOLID TINNED BCW)
- 5 BOND PROPOSED CORNER FENCE POSTS TO PROPOSED COMPOUND GROUND RING WITH #2 AWG SOLID TINNED BCW. (TYP. OF (6) PLACES)
- 6 BOND PROPOSED GATE FENCE POSTS TO PROPOSED COMPOUND GROUND RING WITH #2 AWG SOLID TINNED BCW. (TYP. OF (2) PLACES)
- 7 BOND PROPOSED ACCESS GATE TO PROPOSED GATE FENCE POSTS WITH #2 AWG SOLID TINNED BCW. (TYP. OF (2) PLACES)
- 8 BOND PROPOSED TELCO CABINET TO COPPER CLAD STEEL GROUND ROD 5/8"x10" LONG WITH #2 AWG SOLID TINNED BCW.
- 9 BOND PROPOSED TRANSFORMER TO COPPER CLAD STEEL GROUND ROD 5/8"x10" LONG WITH #2 AWG SOLID TINNED BCW.
- 10 PROPOSED T-MOBILE BURIED EQUIPMENT GROUND RING (#2 AWG SOLID TINNED BCW.)
- 11 BOND PROPOSED DOGHOUSE TO PROPOSED TOWER GROUND BAR WITH #2 AWG SOLID TINNED BCW.
- 12 BOND PROPOSED TOWER GROUND RING TO PROPOSED TOWER GROUND BAR WITH #2 AWG SOLID TINNED BCW.
- 13 BOND PROPOSED MAIN EQUIPMENT GROUND BAR TO TOWER GROUND BAR WITH #2 AWG SOLID TINNED BCW. (TYP. OF (2) PLACES)

GENERAL GROUNDING NOTES:

1. TO ENSURE PROPER BONDING, ALL CONNECTIONS SHALL BE AS FOLLOWS:
- #2 AWG BARE TINNED SOLID COPPER CONDUCTOR: EXOTHERMIC WELD TO RODS OR GROUND RING
- LUGS AND BUS BAR (UNLESS NOTED OTHERWISE): SANDED CLEAN, COATED WITH OXIDE INHIBITOR AND BOLTED FOR MAXIMUM SURFACE CONTACT. ALL LUGS SHALL BE COPPER (NO ALUMINUM SHALL BE PERMITTED). PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
2. ALL GROUNDING CABLE IN CONCRETE OR THROUGH WALLS SHALL BE IN 3/4" PVC CONDUIT. SEAL AROUND CONDUIT THROUGH WALLS. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTORS.
3. OWNER'S REPRESENTATIVE WILL INSPECT EXOTHERMIC WELD AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS REQUIRED.
4. CONTRACTOR TO INSTALL GROUNDING IN CLOSE PROXIMITY TO EQUIPMENT PLATFORM OR PAD.
5. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS SHALL BE A MINIMUM 8" RADIUS AND NO GREATER THAN 90 DEGREES.
6. ALL CADWELDS TO BURIED GROUND RING SHALL BE THE PARALLEL TYPE, EXCEPT FOR THE GROUND RODS WHICH SHALL BE THE TEE TYPE.
7. BOND SERVICE CONDUITS TO GROUND RING AS THEY CROSS. DO NOT EXOTHERMICALLY WELD TO CONDUITS.
8. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.
9. THE MINIMUM SPACING BETWEEN GROUND RODS SHALL BE 10'-0" (MAX. 15'-0").
10. BOND CIGBE TO EXTERNAL GROUND RING WITH 2 RUNS OF #2 AWG BARE, TINNED, SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
11. THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND.
12. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250-30.

PLANS PREPARED FOR:



PLANS PREPARED BY:



MLA PARTNER:



ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

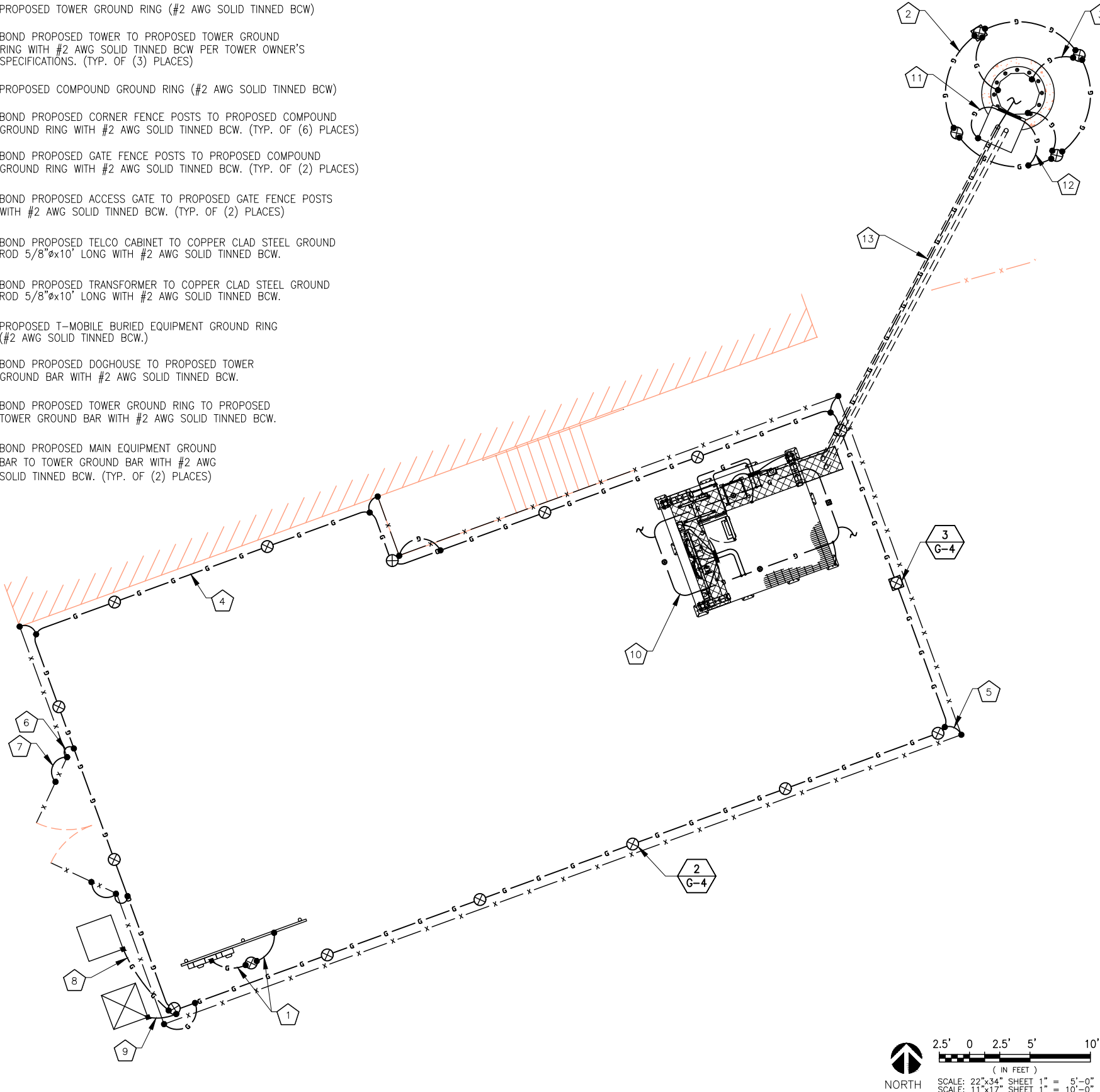
12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

GROUNDING PLANS
COMPOUND

SHEET NUMBER:

G-1

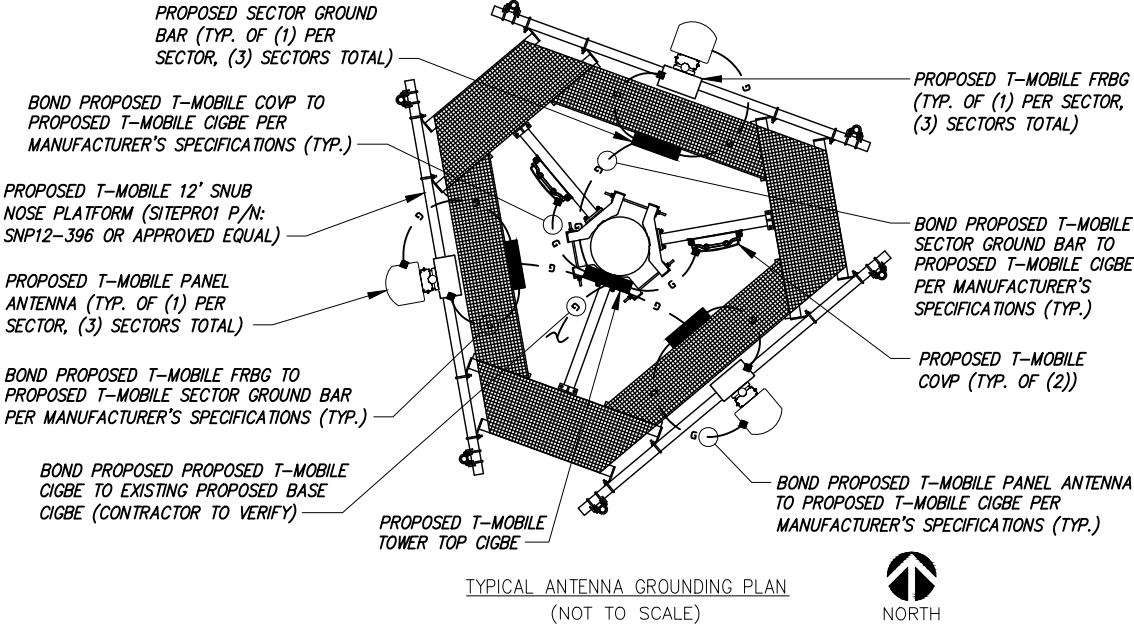


GROUNDING SYMBOLS:

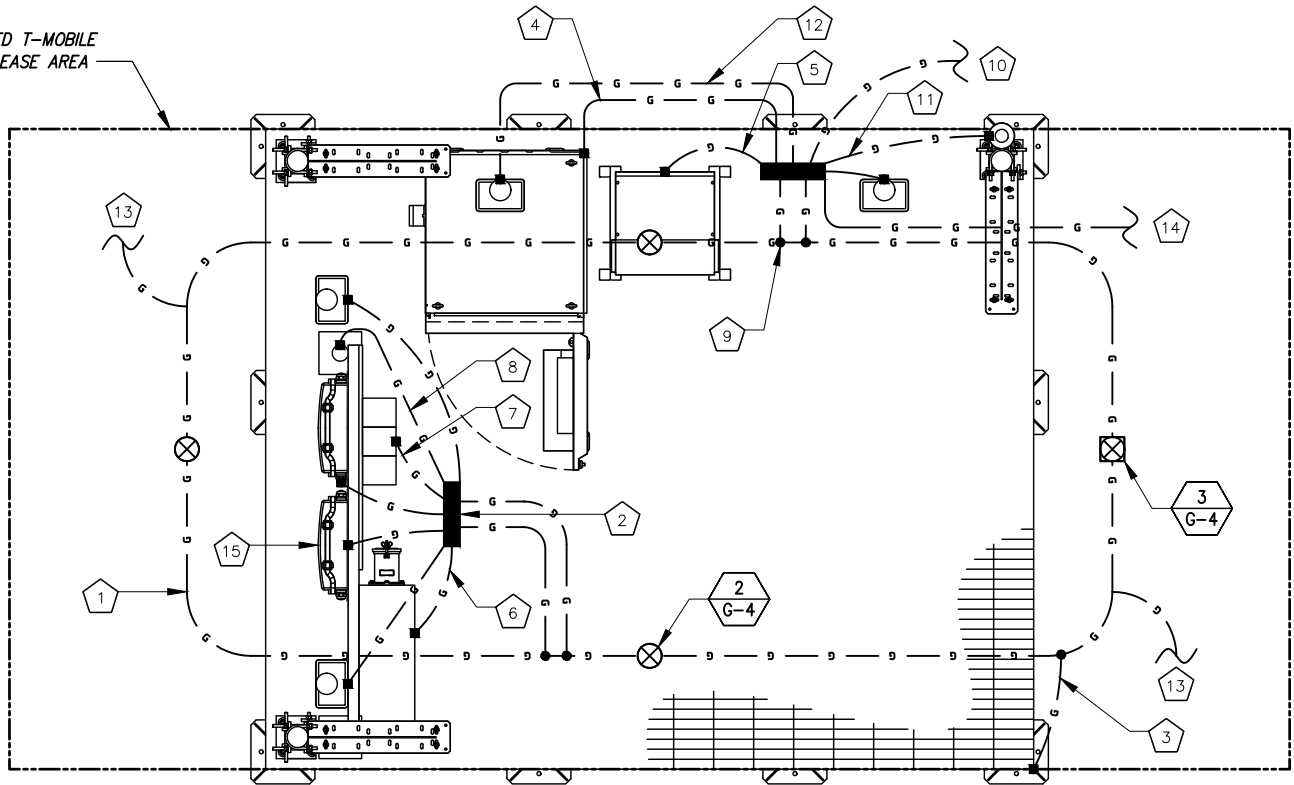
- ⊗ GROUND ROD
- ACCESS WELL
- ⊗ GROUND ROD WITH ACCESS
- COMPRESSION TYPE CONNECTION
- EXOTHERMIC WELD TYPE CONNECTION
- G — #2 BTS COPPER CONDUCTOR BURIED GROUND CABLE
- # INDICATES CODED NOTE

CODED DRAWING NOTES:

- 1 PROPOSED T-MOBILE BURIED EQUIPMENT GROUND RING (#2 AWG SOLID TINNED BCW) (BELOW PLATFORM)
- 2 PROPOSED EQUIPMENT GROUND BAR NEAR PROPOSED T-MOBILE EQUIPMENT (TYP. OF (2))
- 3 PROPOSED T-MOBILE STEEL EQUIPMENT PLATFORM TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS
- 4 PROPOSED T-MOBILE DELTA SITE SUPPORT CABINET TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS
- 5 PROPOSED T-MOBILE STACKED SLEEVE TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS
- 6 PROPOSED T-MOBILE PPC CABINET TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS (TYP.)
- 7 PROPOSED T-MOBILE CIENA ENCLOSURE TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS (TYP.)
- 8 BOND PROPOSED T-MOBILE H-FRAME TO NEW T-MOBILE BURIED EQUIPMENT GROUND RING WITH #2 AWG SOLID TINNED BCW.
- 9 BOND PROPOSED EQUIPMENT GROUND BAR TO NEW T-MOBILE BURIED EQUIPMENT GROUND RING WITH #2 AWG SOLID TINNED BCW.
- 10 BOND PROPOSED ICE BRIDGE TO NEW T-MOBILE BURIED EQUIPMENT GROUND RING WITH #2 AWG SOLID TINNED BCW.
- 11 BOND PROPOSED T-MOBILE GPS UNIT TO NEW T-MOBILE BURIED EQUIPMENT GROUND RING WITH #2 AWG SOLID TINNED BCW.
- 12 PROPOSED T-MOBILE 500 WATT LITHONIA QUARTZ FLOODLIGHT (OR APPROVED EQUAL) TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS
- 13 BOND PROPOSED T-MOBILE BURIED EQUIPMENT GROUND RING TO PROPOSED BURIED COMPOUND GROUND RING WITH #2 AWG SOLID TINNED BCW. (TYP. OF (2) PLACES) (CONTRACTOR TO VERIFY)
- 14 BOND PROPOSED T-MOBILE TOWER BASE CIGBE TO PROPOSED EQUIPMENT GROUND BAR WITH #2 AWG SOLID TINNED BCW. (CONTRACTOR TO VERIFY)
- 15 PROPOSED T-MOBILE COVP TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS (TYP.)



PROPOSED T-MOBILE 10'x20' LEASE AREA



GENERAL GROUNDING NOTES:

1. TO ENSURE PROPER BONDING, ALL CONNECTIONS SHALL BE AS FOLLOWS:
- #2 AWG BARE TINNED SOLID COPPER CONDUCTOR: EXOTHERMIC WELD TO RODS OR GROUND RING
- LUGS AND BUS BAR (UNLESS NOTED OTHERWISE): SANDED CLEAN, COATED WITH OXIDE INHIBITOR AND BOLTED FOR MAXIMUM SURFACE CONTACT. ALL LUGS SHALL BE COPPER (NO ALUMINUM SHALL BE PERMITTED). PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
2. ALL GROUNDING CABLE IN CONCRETE OR THROUGH WALLS SHALL BE IN 3/4" PVC CONDUIT. SEAL AROUND CONDUIT THROUGH WALLS. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTORS.
3. OWNER'S REPRESENTATIVE WILL INSPECT EXOTHERMIC WELD AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS REQUIRED.
4. CONTRACTOR TO INSTALL GROUNDING IN CLOSE PROXIMITY TO EQUIPMENT PLATFORM OR PAD.
5. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS SHALL BE A MINIMUM 8" RADIUS AND NO GREATER THAN 90 DEGREES.
6. ALL CADWELDS TO BURIED GROUND RING SHALL BE THE PARALLEL TYPE, EXCEPT FOR THE GROUND RODS WHICH SHALL BE THE TEE TYPE.
7. BOND SERVICE CONDUITS TO GROUND RING AS THEY CROSS. DO NOT EXOTHERMICALLY WELD TO CONDUITS.
8. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.
9. THE MINIMUM SPACING BETWEEN GROUND RODS SHALL BE 10'-0" (MAX. 15'-0").
10. BOND CIGBE TO EXTERNAL GROUND RING WITH 2 RUNS OF #2 AWG BARE, TINNED, SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
11. THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND.
12. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250-30.

PLANS PREPARED FOR:



PLANS PREPARED BY:



MLA PARTNER:



ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

12119 McCLURE ROAD
FALCON, CO 80831

SHEET DESCRIPTION:

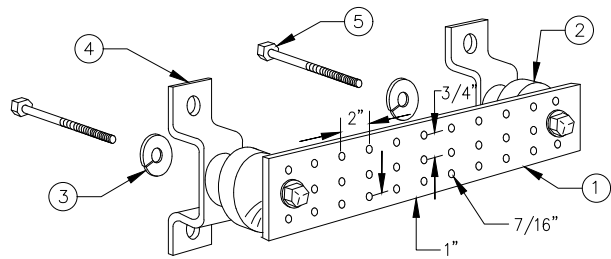
GROUNDING PLANS

SHEET NUMBER:

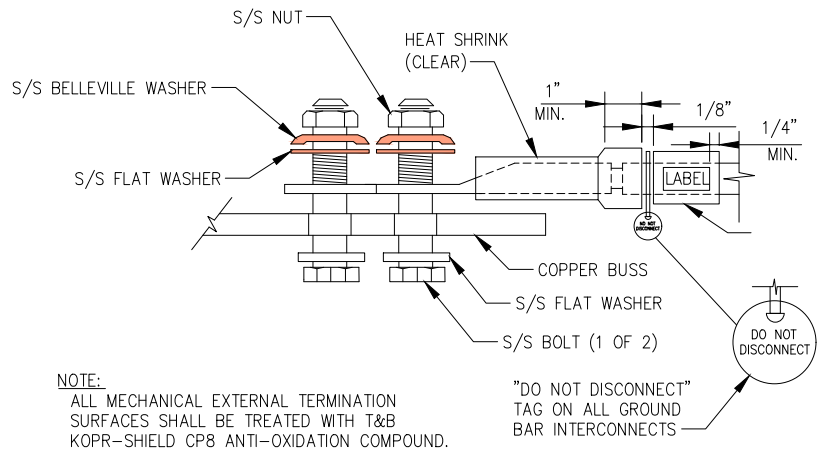
G-2

GROUNDING SYMBOLS:

- ⊗ GROUND ROD
- ACCESS WELL
- ⊗ GROUND ROD WITH ACCESS
- COMPRESSION TYPE CONNECTION
- EXOTHERMIC WELD TYPE CONNECTION
- G — #2 BTS COPPER CONDUCTOR BURIED GROUND CABLE
- # INDICATES CODED NOTE

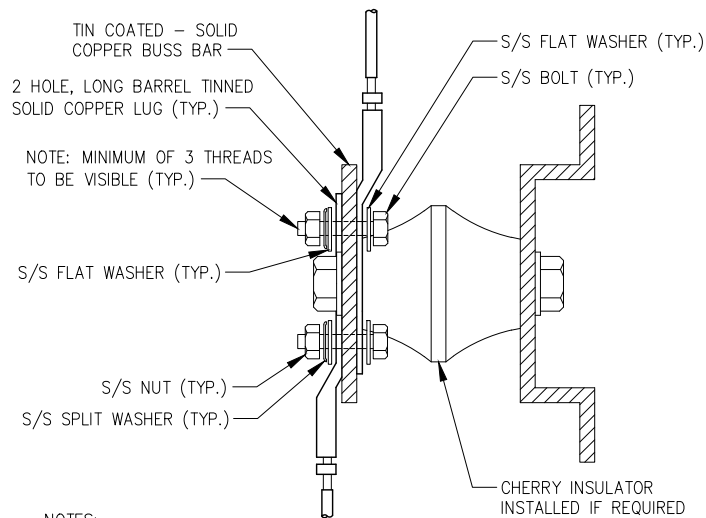


- LEGEND
1. TINNED COPPER GROUND BAR, 1/4"x4"x20", NEWTON INSTRUMENT CO., HARGER TGB114420M, OR EQUIVALENT. HOLE CENTERS TO MATCH
 2. NEMA DOUBLE LUG CONFIGURATION.
 3. INSULATORS, NEWTON INSTRUMENT CO. CAT. NO. 3061-4 OR HARGER EQUIVALENT.
 4. 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8 OR EQUIVALENT.
 5. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR HARGER EQUIVALENT.
 6. 5/8-11"x1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 3012-1 OR HARGER EQUIVALENT.
- NOTES:
1. ALL MOUNTING HARDWARE CAN ALSO BE USED ON 6", 12", 18", ETC. GROUND BARS.
 2. ENTIRE ASSEMBLY AVAILABLE FROM NEWTON INSTRUMENT CO. CAT. NO. 2106060010 OR AS HARGER TGB114420M.

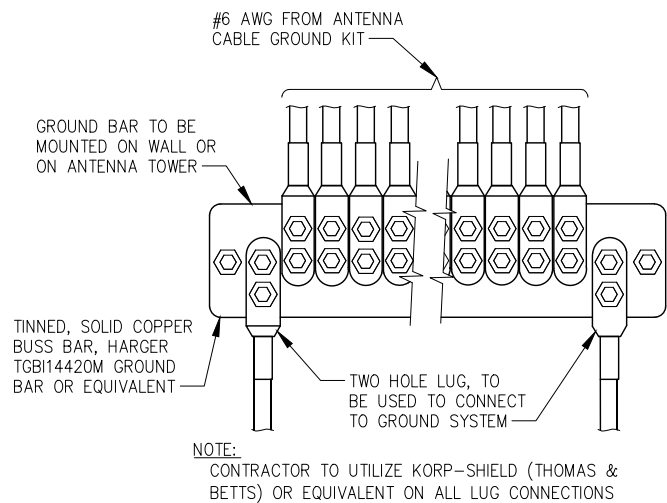
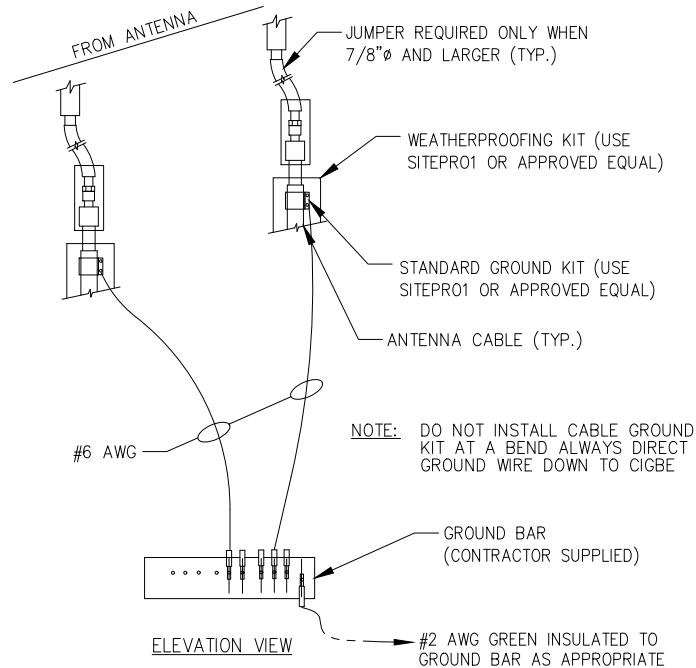


NOTE:
ALL MECHANICAL EXTERNAL TERMINATION SURFACES SHALL BE TREATED WITH T&B KOPR-SHIELD CP8 ANTI-OXIDATION COMPOUND.

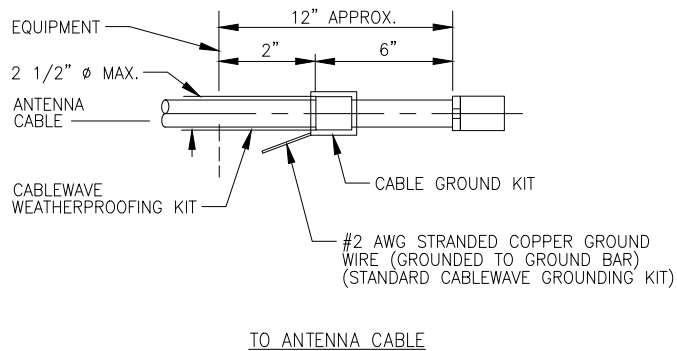
"DO NOT DISCONNECT"
TAG ON ALL GROUND BAR INTERCONNECTS



- NOTES:
1. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING SPLIT WASHERS.
 2. COAT WIRE END WITH ANTI-OXIDATION COMPOUND PRIOR TO INSERTION INTO LUG BARREL AND CRIMPING.
 3. APPLY ANTI-OXIDATION COMPOUND BETWEEN ALL LUGS AND BUSS BARS PRIOR TO MATING AND BOLTING.



NOTE:
CONTRACTOR TO UTILIZE KOPR-SHIELD (THOMAS & BETTS) OR EQUIVALENT ON ALL LUG CONNECTIONS



NOTE:
DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

COLORADO LICENSED
CHRISTOPHER J. WARREN
47849
10-12-17
PROFESSIONAL ENGINEER

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:			
DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

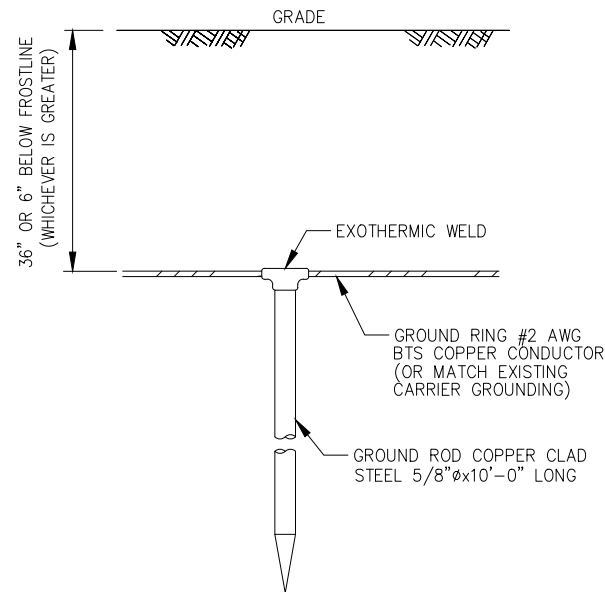
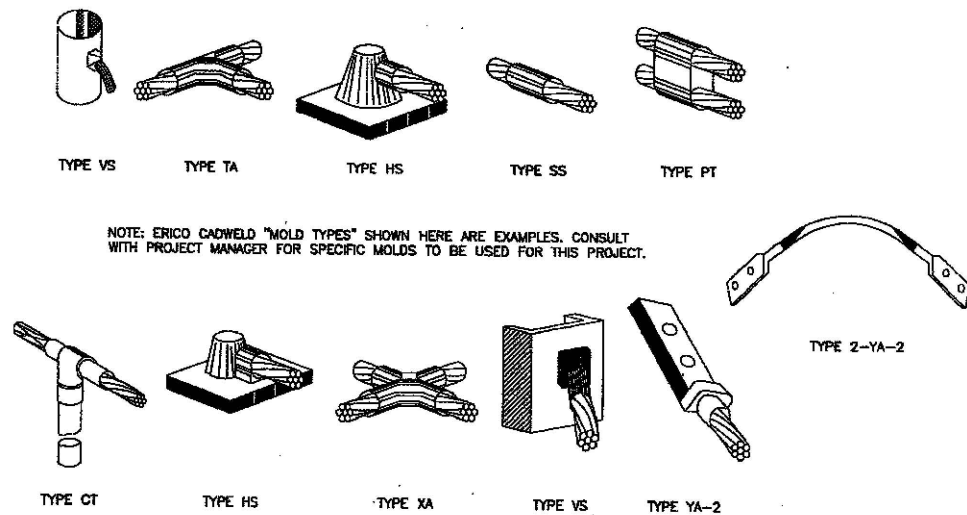
**12119 McCLURE ROAD
FALCON, CO 80831**

SHEET DESCRIPTION:

GROUNDING DETAILS

SHEET NUMBER:

G-3



TYPICAL EQUIPMENT GROUND CONNECTIONS

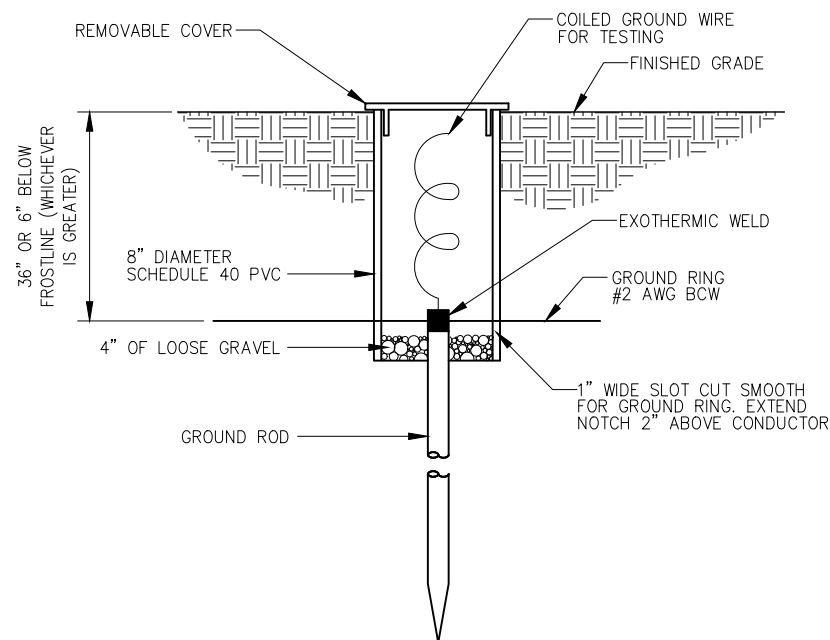
NO SCALE

1

TYPICAL GROUND ROD

NO SCALE

2



TYPICAL INSPECTION SLEEVE

NO SCALE

3

DETAIL NOT USED

NO SCALE

4

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

COLORADO LICENSED
CHRISTOPHER J. WARREN
47849
10-12-17
PROFESSIONAL ENGINEER

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:			
DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DDB	3
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DDB	2
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

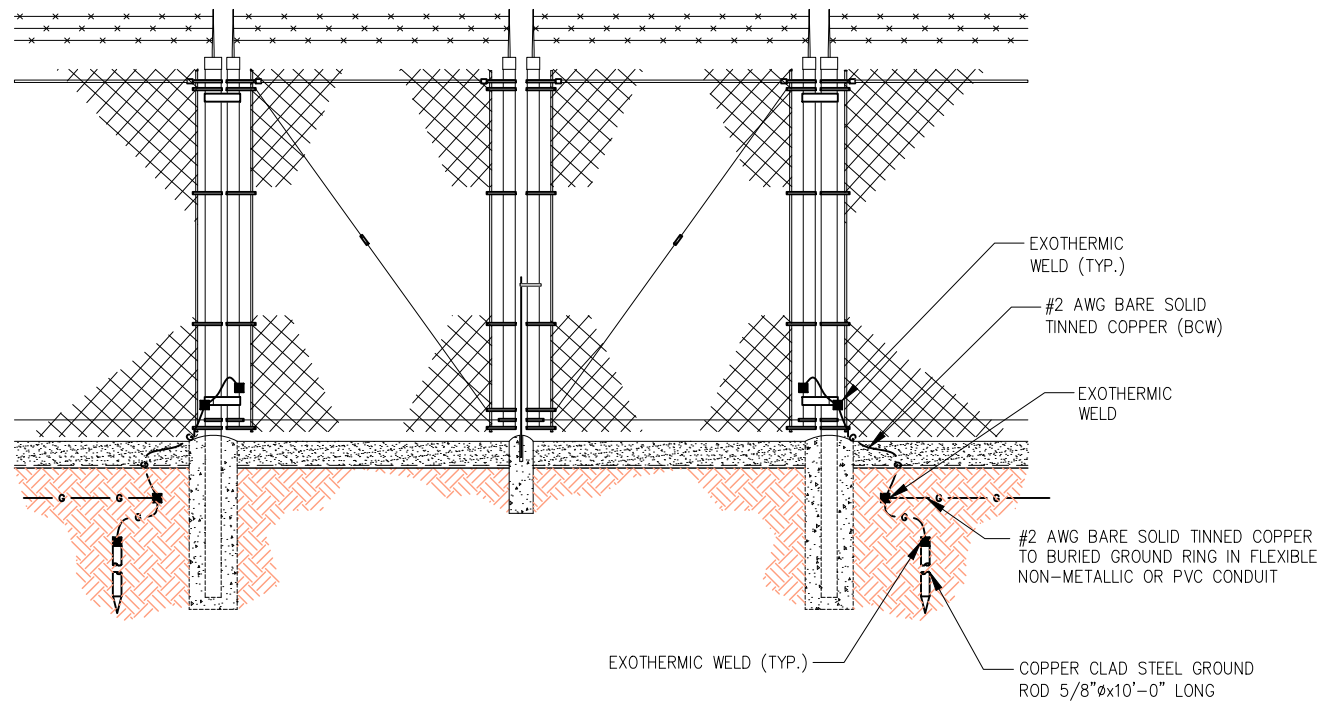
**12119 McCLURE ROAD
FALCON, CO 80831**

SHEET DESCRIPTION:

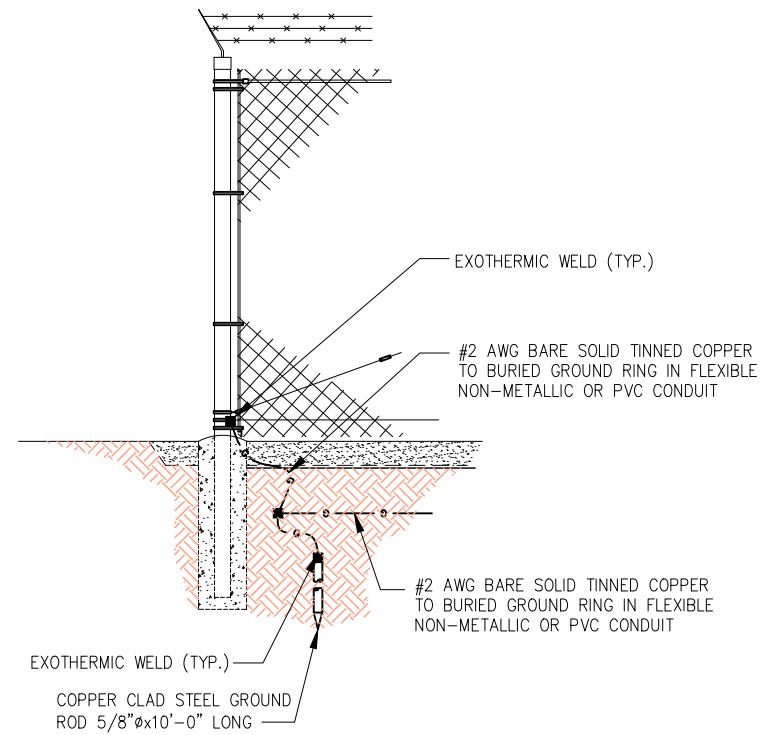
GROUNDING DETAILS

SHEET NUMBER:

G-4



TYPICAL ACCESS GATE GROUNDING DETAIL



TYPICAL FENCE POST GROUNDING DETAIL

PLANS PREPARED FOR:

T-Mobile

2323 Delegany Street
Denver, CO 80216

PLANS PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

7301 Federal Blvd, Suite 301
Westminster, CO 80030
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER 404-052

MLA PARTNER:

verticalbridge

750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487
Office # (561) 948-6367

ENGINEERING LICENSE:

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF T-MOBILE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF T-MOBILE.

REVISIONS:				
DESCRIPTION	DATE	BY	REV	
REVISED/ISSUED FOR CONSTRUCTION	09/12/17	DOB	3	
REVISED/ISSUED FOR CONSTRUCTION	05/25/17	DOB	2	
REVISED/ISSUED FOR CONSTRUCTION	03/22/17	MEL	1	
ISSUED FOR CONSTRUCTION	9/19/16	JLM	0	

VERTICAL BRIDGE SITE NAME:

WOODMEN ELEMENTARY

T-MOBILE SITE #:

DN04333A

VERTICAL BRIDGE SITE #:

US-CO-5052

SITE ADDRESS:

**12119 McCLURE ROAD
FALCON, CO 80831**

SHEET DESCRIPTION:

GROUNDING DETAILS

SHEET NUMBER:

G-5