



410 East 5<sup>th</sup> Street  
Loveland, Colorado  
970.962.2523

## PRELIMINARY FINDINGS REPORT

### 310 South Cleveland Avenue Special Review #950 (PZ #18-00189)

*January 14, 2019*

**TITLE:** 310 South Cleveland Avenue – Special Review #950

**LOCATION:** Located on the East side of South Cleveland, south of 4<sup>th</sup> Street Southeast.

**APPLICANT:** Ryan Sagar – LRK Consulting LLC

**STAFF CONTACT:**  
Emily Tarantini, Current Planning  
Suzette Schaff, Stormwater  
Mark Warner, Power  
Ingrid McMillan-Ernst, Fire

**APPLICATION TYPE:** Special Review #950

**STAFF RECOMMENDATION:** Staff recommends that the Current Planning Manager preliminarily approve a Type 2 Zoning Permit for 310 South Cleveland Avenue, described in this report dated January 14, 2019.

## **I. ATTACHMENTS**

1. Vicinity Map
2. Special Review/Site Development Plan

## **II. SITE DATA**

EXISTING USE      Commercial/Vehicle Repair

PROPOSED USE      To remain the same with the installation of small cell in the form of a flag pole

EXISTING ZONING AREA (acres) DT– Downtown (1 acre/43,560 square feet)

EXISTING ADJACENT ZONING & USE- North DT– Downtown

EXISTING ADJACENT ZONING & USE – East DT– Downtown

EXISTING ADJACENT ZONING & USE- South DT– Downtown

EXISTING ADJACENT ZONING & USE - West I– Developing Industrial

UTILITY SERVICE – WATER      City of Loveland

UTILITY SERVICE – SEWER      City of Loveland

UTILITY SERVICE – ELECTRIC      City of Loveland

## **III. PROJECT DESCRIPTION**

The applicant is proposing to replace the existing 20' flag pole with a new 30' flag pole with a concealed antenna at the top of the pole located at 310 South Cleveland Avenue. The proposed flag pole with concealed antenna, and new ground equipment will be located within the parking lot/ vehicle storage area of the existing business. The new flag pole with concealed antenna and ground equipment will be utilizing the existing fence to screen the ground equipment and a portion of the pole. The proposed use of a small cell pole is permitted through the approval of a special review. The special review application includes a review of the site plan by the City for conformance to all applicable standards, input from the surrounding property owners and findings of compatibility within the neighborhood.

## **IV. KEY ISSUES**

Staff has not identified key issues associated with this special review application in terms of compliance with the Municipal Code. There were no members of the neighborhood present at the neighborhood meeting.

## **V. BACKGROUND**

The zoning on the property is DT-Downtown, uses on the site have remained the same over the years as light industrial and commercial uses.

The most recent building permit is dated from 1993 for the Corbett Auto business.

## **VI. STAFF, APPLICANT, AND NEIGHBORHOOD INTERACTION**

### **A. Notification**

A letter advertising the neighborhood meeting was sent out by applicant Ryan Sagar, on December 19, 2018 to all neighbors within the “Neighborhood” as defined in Section 18.40.010.C of the Loveland Municipal Code. Meeting notice signs were posted on the property on December 19, 2018.

### **B. Neighborhood Response**

A neighborhood meeting was held on **January 3, 2019**, regarding this project. The applicant, and City staff were in attendance, however no members of the neighborhood attended the meeting.

### **C. Project Schedule**

1. Type 2 Special Review #950 was filed with the Current Planning Department on **November 14, 2018**.

2. A neighborhood meeting was held on **January 3, 2019**, at 5:30 p.m. at the Gertrude Scott Room, Loveland Public Library (300 N Adams Avenue Loveland, CO 80537)

3. The staff preliminary findings and determination was posted on **January 14, 2019**.

4. The public review period for the staff preliminary findings and determinations is from **January 14, 2019** to **January 23, 2019**.

5. Final findings and determination will be issued on **January 24, 2019**.

5. The appeal period for the Type 2 Special Review #950 is from **January 24, 2019** to **February 4, 2019**.

## **VII. FINDINGS AND ANALYSIS**

**Finding 1.** That the proposed special review use meets the purposes set forth in Section 18.04.010 of the Loveland Municipal Code.

The special review meets the purposes of Section 18.04.010 of the Loveland Municipal Code in that it is designed to adhere to the zoning regulations and districts established in Title 18 and more particularly

those for the DT district including but not limited to providing adequate facilities (i.e. transportation, water, sewer, power, etc.), appropriate use of land, and keeping with the character of the land.

**Finding 2.** That the effects of the proposed special review use on the surrounding neighborhood and the public in general will be ameliorated.

The proposed small cell pole is replacing an existing flag pole in the same location and style, the ground equipment is screened from the view of the public.

**Finding 3.** That in assessing the potential effects of the proposed special review use, at a minimum, the following matters have been considered:

**3a.** Type, size, amount, and placement of landscaping;

Landscaping is not being proposed with this special review, there is no existing landscaping on the site and ground equipment will be located behind the existing fence.

**3b.** Height, size, placement, and number of signs;

No signage is proposed with this special review.

**3c.** Use, location, number, height, size, architectural design, materials, and colors of buildings;

No additional building structures are being proposed with this project.

**3d.** Configuration and placement of vehicular and pedestrian access and circulation;

Not applicable.

**3e.** Amount and configuration of parking;

The site currently offers ample parking, there is no proposal for additional parking.

**3f.** Amount, placement, and intensity of lighting;

Lighting is not being proposed with this project.

**3g.** Hours of operation;

Not applicable.

**3h.** Emissions of noise, dust, fumes, glare, and other pollutants.

Not applicable.

**Finding 4.** Except as may be varied in accordance with this special review permit, the special review site plan conforms to the restrictions and regulations set forth in the Loveland Municipal Code for the zoning district in which the special review use is located.

The proposed special review meets this finding. The proposed small cell pole is being disguised as a flag pole while the ground equipment is being screened by the existing fencing..

**Finding 5.** The special review site plan meets the requirements set forth in Section 16.41 - Adequate Community Services - of the Loveland Municipal Code.

**Transportation:**

TDR has reviewed the FTC application and a finding has been made that the proposed tower installation will have an insignificant impact on the City's transportation network.

**Fire:** Staff believes that this finding can be met, due to the following:

- The development site will comply with the requirements in the ACF Ordinance for response distance requirements from the first due Engine Company.
- The proposed enclosed cell tower facility will not negatively impact fire protection for the subject development or surrounding properties.

**Water/Wastewater:** Staff believes that this finding can be met, due to the following:

- The proposed development will not negatively impact City water and wastewater facilities.
- The proposed public facilities and services are adequate and consistent with the City's utility planning and provides for efficient and cost-effective delivery of City water and wastewater service.

**Stormwater:** Staff believes that this finding can be met, due to the following:

- This special review site plan and the site development plan comply with the Adequate Community Facilities standards set forth in the Loveland Municipal Code, Section 16.41.140.

**Power:** Staff believes that this finding can be met, due to the following:

- The proposed development will not negatively impact City power facilities.
- The proposed public facilities and services are adequate and consistent with the City's utility planning and provides for efficient and cost-effective delivery of City power.

## **VIII. CONDITIONS OF APPROVAL**

**1.**

**PW-Transportation:**

-ROW Work Permit from the Public Works Engineering Division prior to starting the work.

## Attachment 1: Vicinity Map

VICINITY MAP



## Attachment 2: Special Review/Site Development Plan

**(SITE PLAN CERTIFICATION)**

PROPERTY OWNER

THE UNDERSIGNED AGREE THAT THE REAL PROPERTY DESCRIBED IN THE APPLICATION FOR SPECIAL REVIEW FILED HEREWITHE AND AS SHOWN ON THE SITE PLAN, SHALL BE SUBJECT TO THE REQUIREMENTS OF CHAPTER 18.40 OF THE MUNICIPAL CODE OF THE CITY OF LOVELAND, COLORADO, AND ANY OTHER ORDINANCES OF THE CITY OF LOVELAND THERETO. THE UNDERSIGNED ALSO UNDERSTANDS THAT IF CONSTRUCTION OF ALL IMPROVEMENTS IS NOT COMPLETED AND IF THE SPECIAL REVIEW USES ARE NOT ESTABLISHED WITHIN THREE YEARS OF THE DATE OF APPROVAL, OR OTHER COMPLETIONS DATE OR DATES ESTABLISHED IN A DEVELOPMENT AGREEMENT APPROVED BY THE CITY, THE CITY MAY TAKE AN ACTION TO DECLARE THE PERMIT AND SPECIAL REVIEW PLANS ABANDONED AND NULL AND VOID.

STATE OF COLORADO )  
 ) SS.  
COUNTY OF LARIMER )THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS \_\_\_\_\_ DAY OF  
\_\_\_\_\_, A.D. 20\_\_\_\_.

BY \_\_\_\_\_

WITNESS MY HAND AND OFFICIAL SEAL.

MY COMMISSION EXPIRES: \_\_\_\_\_

NOTARY PUBLIC

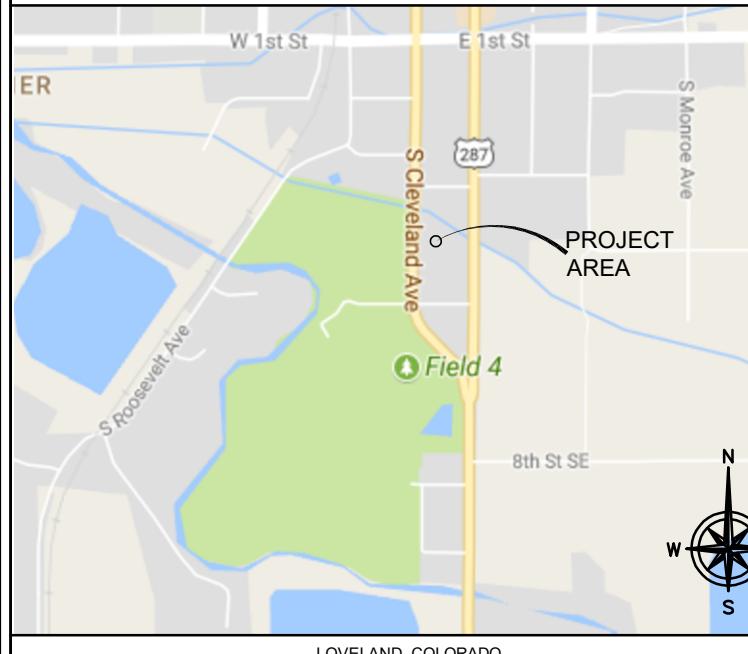
CURRENT PLANNING MANAGER APPROVAL CERTIFICATE  
THIS SPECIAL REVIEW IS APPROVED, SUBJECT TO ALL CONDITIONS SET FORTH HEREON, BY  
THE CURRENT PLANNING MANAGER OF THE CITY OF LOVELAND, LARIMER COUNTY,  
COLORADO, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

CURRENT PLANNING MANAGER

**SITE DIRECTIONS**

FROM SOUTH VAUGHN WAY, MERGE ONTO I-225 N, TAKE EXIT 12A TO MERGE ONTO I-70 W, KEEP  
RIGHT AT THE FORK TO CONTINUE ON I-270 W, TAKE EXIT 0 TO MERGE ONTO I-25 N TOWARDS FT.  
COLLINS, TAKE EXIT 255 FOR CO-402 W TOWARD LOVELAND, TURN LEFT ONTO CO-402 W/14TH ST.,  
TURN RIGHT ONTO US 287 N/ S LINCOLN AVE, TURN LEFT ONTO SOUTHEAST 3RD STREET, AND  
SITE WILL BE ON YOUR LEFT.

1

**VICINITY MAP****CLIENT**

VERIZON WIRELESS REAL ESTATE  
9656 S. PROSPERITY RD  
WEST JORDAN, UT 84088  
CONTACT: BRANDON KISER  
PHONE: 801-260-8700

**PROPERTY OWNER**

BAC LOVELAND HOLDINGS LLC  
314 S CLEVELAND AVE  
LOVELAND, CO 80537  
CONTACT: BILL CORBETT  
PHONE: 970-481-5976

**CONSTRUCTION MANAGER**

CONTACT: KENT McDERMOTT  
EMAIL: KENT.McDERMOTT@VERIZONWIRELESS.COM

**RF ENGINEER**

VERIZON WIRELESS  
3131 S. VAUGHN WAY #550  
AURORA, CO 80014  
CONTACT: RAM NANDIRAJU  
EMAIL: Ram.Nandiraju@verizonwireless.com

**SITE ACQUISITION**

LRK CONSULTING  
1196 GRANT STREET, UNIT 313  
DENVER, CO 80203  
CONTACT: RYAN SAGAR  
PHONE: 219-477-0099

**ENGINEER**

AERO SOLUTIONS, LLC  
5555 CENTRAL AVE #100  
BOULDER, CO 80301  
CONTACT: MATT FLECK  
PHONE: 720-279-8973

**PROJECT DATA**

JURISDICTION: CITY OF LOVELAND  
ZONING: BE- ESTABLISHED CENTRAL BUSINESS  
APN: 9524200007

PARCEL SIZE: 46,560 SQ. FT.  
ELEVATION: 4944 (NAVD 88)

STRUCTURE TYPE: FLAG POLE SMALL CELL  
STRUCTURE HEIGHT: 30'-0"± (TOP OF PROPOSED POLE)

ANTENNA RAD CENTER: 28'-0"  
APPLICANT: VERIZON WIRELESS

APPLICANT CONTACT: BRANDON KISER  
9656 S. PROSPERITY RD  
WEST JORDAN, UT 84088  
PHONE: 801-260-8700

ENGINEERING: AERO SOLUTIONS, LLC

ENGINEERING CONTACT: MATT FLECK  
5555 CENTRAL AVENUE #100  
BOULDER, COLORADO 80301  
PHONE: 720 279-8973

**CODE ANALYSIS**

BUILDING CODE: IBC 2012 (W/ LOCAL AMENDMENTS)

ELECTRICAL CODE: NEC 2014

FIRE SAFETY CODE: NFPA-1 (2006)

USE GROUP: U - UTILITY

CONSTRUCTION TYPE: IIB

 **SHEET INDEX**

T-1	TITLE SHEET
GN-1	GENERAL NOTES
Z-1	SITE PLAN
Z-2	ENLARGED SITE PLAN
C-1	EQUIPMENT PLAN
C-2	EXISTING ELEVATION
C-3	PROPOSED ELEVATION
C-4	CONSTRUCTION DETAILS
C-5	CONSTRUCTION DETAILS (CONTINUED)
C-6	CONSTRUCTION DETAILS (CONTINUED)
E-1	ONE LINE DIAGRAM & PANEL SCHEDULE
U-1	UTILITY COORDINATION
G-1	GROUNDING PLAN
G-2	GROUNDING DETAILS

**PROJECT DESCRIPTION**

1. REPLACE EXISTING FLAG POLE WITH NEW SMALL CELL POLE.
2. INSTALL NEW FIBER VAULT FOR PROPOSED FIBER RUN.
3. RUN FIBER TO PROPOSED EQUIPMENT.
4. INSTALL ASSOCIATED EQUIPMENT WITHIN NEW POLE.
5. NEW COMMERCIAL POWER TO SITE.

**APPROVALS**

VERIZON (RF): \_\_\_\_\_ DATE: \_\_\_\_\_

VERIZON (CONST.): \_\_\_\_\_ DATE: \_\_\_\_\_

VERIZON (RE): \_\_\_\_\_ DATE: \_\_\_\_\_

LANDLORD: \_\_\_\_\_ DATE: \_\_\_\_\_

# verizon

## FTC SOUTH LOVELAND SC

**SMALL CELL NSB****314 S CLEVELAND AVE  
LOVELAND, COLORADO 80537  
CONSTRUCTION DRAWINGS**

**verizon**  
3131 SOUTH VAUGHN WAY #500  
AURORA, COLORADO 80014  
(303) 873-2652

**AeroSolutions LLC**  
Optimizing Your Wireless Infrastructure  
5555 CENTRAL AVENUE #100  
BOULDER, COLORADO 80301  
PH: (720) 304-6882  
FAX: (720) 304-6883

AERO PROJECT #: 097-16-0165

**REVISION SCHEDULE**

DRAWING TITLE:

**TITLE SHEET**

DRAWING SHEET:

**T-1**

SHEET NUMBER:

**1 OF 14**

SITE INFORMATION:

SITE NAME:  
**FTC SOUTH LOVELAND SC**SITE ADDRESS:  
314 S CLEVELAND AVE  
LOVELAND, CO 80537JURISDICTION:  
**CITY OF LOVELAND**

JOSHUA D. ROZINA, P.E.  
COLORADO PROFESSIONAL ENGINEER  
LICENCE #53217 (EXP. 10/31/2019)

## GENERAL NOTES:

1. THIS PLAN WAS PREPARED USING AN APPROVED SURVEY PLAN ENTITLED "BOUNDARY DETAIL" BY RLF CONSULTING, DATED 06/01/18.
2. THE PROPOSED FACILITY WILL CAUSE "DE MINIMIS" INCREASE IN STORMWATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
3. NO NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
4. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. (THERE IS NO HANDICAP ACCESS REQUIRED).
5. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
6. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
7. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE STREET SIGNS OF ANY TYPE.
8. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES. ANY WORK ASSOCIATED WITH THE ROOFING MEMBRANE SUCH AS ANCHORAGE, CONDUIT PLACEMENT, ADDED ISOLATION PADS, ETC. MUST BE INSTALLED BY A ROOFER THAT IS APPROVED BY THE MANUFACTURER OF THE INSTALLED ROOF MEMBRANE.
9. ACCESS SHALL BE MADE VIA PROPER AREAS EITHER THROUGH THE ROOF HATCH.
10. FINAL WORK SHALL BE PROPERLY SEALED AND WATERTIGHT.
11. RF SIGNAGE TO BE INSTALLED AT ANY/ALL ROOF ACCESS POINTS ON THE BUILDING.

## GROUNDING NOTES:

1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRIC CODE.
2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
3. ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
4. GROUND WIRES SHALL BE #2 AWG BARE SOLID COPPER UNLESS NOTED OTHERWISE.
5. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC ("CADWELDS") TO GROUND RODS, GROUND RING WIRE, AND FENCE POSTS UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZED PAINT.
6. GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET.) CLEAN GROUND BAR TO SHINY METAL AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTI-OXIDANT COATING.
7. GROUND CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
8. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 8" RADIUS.
9. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE, INC.) PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
10. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.

## ELECTRICAL NOTES:

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO ROUGH-IN.
3. THE CONDUIT RUNS AS SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATION AND ROUTING SHALL BE PER EXISTING FIELD CONDITIONS.
4. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.
5. ALL CONDUITS SHALL BE MET WITH BENDS MADE IN ACCORDANCE WITH NEC CHAPTER 9, TABLE #2. NO RIGHT ANGLE DEVICE OTHER THAN STANDARD CONDUIT ELBOWS WITH 12" MINIMUM INSIDE SWEEPS FOR ALL CONDUITS 2" OR LARGER.
6. ALL CONDUIT TERMINATIONS SHALL BE PROVIDED WITH PLASTIC THROAT INSULATING GROUNDING BUSHINGS.
7. ALL WIRE SHALL BE TYPE THHN/THWN, SOLID, ANNEALED COPPER UP TO SIZE #10 AWG (#8 AND LARGER SHALL BE CONCENTRIC STRANDED) 75° C (167° F), 98% CONDUCTIVITY, MINIMUM #12.
8. ALL WIRES SHALL BE TAGGED AT ALL PULL BOXES, J-BOXES, EQUIPMENT BOXES AND CABINETS WITH APPROVED PLASTIC TAGS, ACTION CRAFT, BRADY, OR APPROVED EQUAL.
9. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
10. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION TO CONFLICTS. VERIFY WITH MECHANICAL CONTRACTOR AND COMPLY AS REQUIRED.
11. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN NOT HAND WRITTEN.
12. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.
13. THE CONTRACTOR SHALL PREPARE AS-BUILT DRAWINGS, DOCUMENT ANY AND ALL WIRING AND EQUIPMENT CONDITIONS AND CHANGES WHILE COMPLETING THIS CONTRACT. SUBMIT AT SUBSTANTIAL COMPLETION.
14. ALL DISCONNECT SWITCHES AND OTHER CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM (NO EXCEPTIONS.)
15. ALL ELECTRICAL DEVICES AND INSTALLATIONS OF THE DEVICES SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT (ADA) AS ADOPTED BY THE APPLICABLE STATE.
16. PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS OR RISERS THROUGH BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS WITHOUT CONSTRUCTION MANAGER'S APPROVAL. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE PACKED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FILL FOR FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.
17. ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT (NEW AND EXISTING) SHALL BE FIELD VERIFIED WITH THE OWNER'S REPRESENTATIVE AND EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN OF CONDUIT AND WIRE. ALL EQUIPMENT SHALL BE PROPERLY CONNECTED ACCORDING TO THE NAMEPLATE DATA FURNISHED ON THE EQUIPMENT (THE DESIGN OF THESE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN AND SOME EQUIPMENT CHARACTERISTICS MAY VARY FROM DESIGN AS SHOWN ON THESE DRAWINGS). LOCATION OF ALL OUTLET, BOXES, ETC., AND THE TYPE OF CONNECTION (PLUG OR DIRECT) SHALL BE CONFIRMED WITH THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.

## VERIZON COLOR STANDARDS

GRAY-EXISTING EASEMENT		ORANGE-FIBER	
PURPLE #1-LEASE AREA		TAN-ANTENNAS	
BLUE GRAY#1-ACCESS/UTILITY		RED-PENETRATIONS	
BLUE #1-HYBRID CABLES/COAX		UMBER-NEW WORK UTILITY EASEMENT	
BLUE #2-RRHS		GRAY-WALL HATCH	
GREEN-DC POWER		GREY-EXISTING	

## LEGEND

WATER LINE	— V —	STORM SEWER	— SD — SD — SD — SD —
SANITARY SEWER	— SS — SS — SS —	UG ELECTRIC	— UE — UE — UE —
GAS LINE	— GAS — GAS — GAS — GAS —	ELECTRIC	— E — E — E —
FIBER LINE	— F — F — F —	OH TELCO	— DT — DT — DT —
OH ELECTRIC	— DE — DE —	PROPERTY LINE	— — — —
UG TELCO	— UT — UT —	FENCE IRON	— O — O — O —
FENCE CLF	— X — X —	UG UTILITIES	— U/G — U/G —
RIGHT OF WAY	— — — —	OH UTILITIES	— DHW — DHW —
WATER METER	WM	SIGNAGE	— O —
WATER VALVE	WV	CATCH BASIN	CB
IRRIGATION VALVE	ICV	STORM MANHOLE	SM
SAN SEWER MH	S	POWER POLE	PP
TELCO MAN HOLE	T	TRAFFIC SIGNAL	TS
LIGHT POLE	L	ELECTRIC VAULT	EV
ELEC PULL BOX	E	ELECTRIC CABINET	CAB
ELECTRIC EQUIP	EQ	ELECTRICAL XFMR	ET
SKYLIGHT	SK	HVAC UNIT	AC
SECURITY CAMERA	SC	VENT PIPE	VP
BOLLARD	B	COMM DISH	CD

**verizon**  
3131 SOUTH VAUGHN WAY #500  
AURORA, COLORADO 80014  
(303) 873-2652

**AeroSolutions LLC**  
Optimizing Your Wireless Infrastructure  
5555 CENTRAL AVENUE #100  
BOULDER, COLORADO 80301  
PH: (720) 304-6882  
FAX: (720) 304-6883

AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

1	11-09-18	GAC	REVISED PRELIM CDs
0	06-15-18	RPH	PRELIM CDs
REV	DATE	BY	DESCRIPTION

DRAWING TITLE:

GENERAL NOTES

DRAWING SHEET:

**GN-1**

SHEET NUMBER:  
2 OF 14

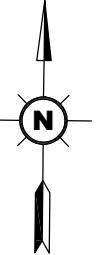
SITE INFORMATION:

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FTC SOUTH LOVELAND SC

SITE ADDRESS:  
314 S CLEVELAND AVE  
LOVELAND, CO 80537

JURISDICTION:  
CITY OF LOVELAND

JOSHUA D. ROZINA, P.E.  
COLORADO PROFESSIONAL ENGINEER  
LICENSE #53217 (EXP. 10/31/2019)



811  
Know what's below.  
Call before you dig.

PROTECT YOURSELF. GIVE THREE  
WAVES NOTICE.  
THIS DRAWING DOES NOT CONTAIN NECESSARY  
COMPONENTS FOR CONSTRUCTION SAFETY. ALL  
CONSTRUCTION MUST BE DONE IN COMPLIANCE  
WITH THE APPROPRIATE LOCAL, STATE AND FEDERAL  
HEALTH  
ACT OF 1976 AND ALL RULES AND REGULATIONS  
THERE TO APPURTENANT.

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THERE TO APPURTENANT.

THIS DRAWING DOES NOT CONTAIN NECESSARY  
COMPONENTS FOR CONSTRUCTION SAFETY. ALL  
CONSTRUCTION MUST BE DONE IN COMPLIANCE  
WITH THE APPROPRIATE LOCAL, STATE AND FEDERAL  
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HEALTH  
ACT OF 1976 AND ALL RULES AND REGULATIONS  
THERE TO APPURTENANT.

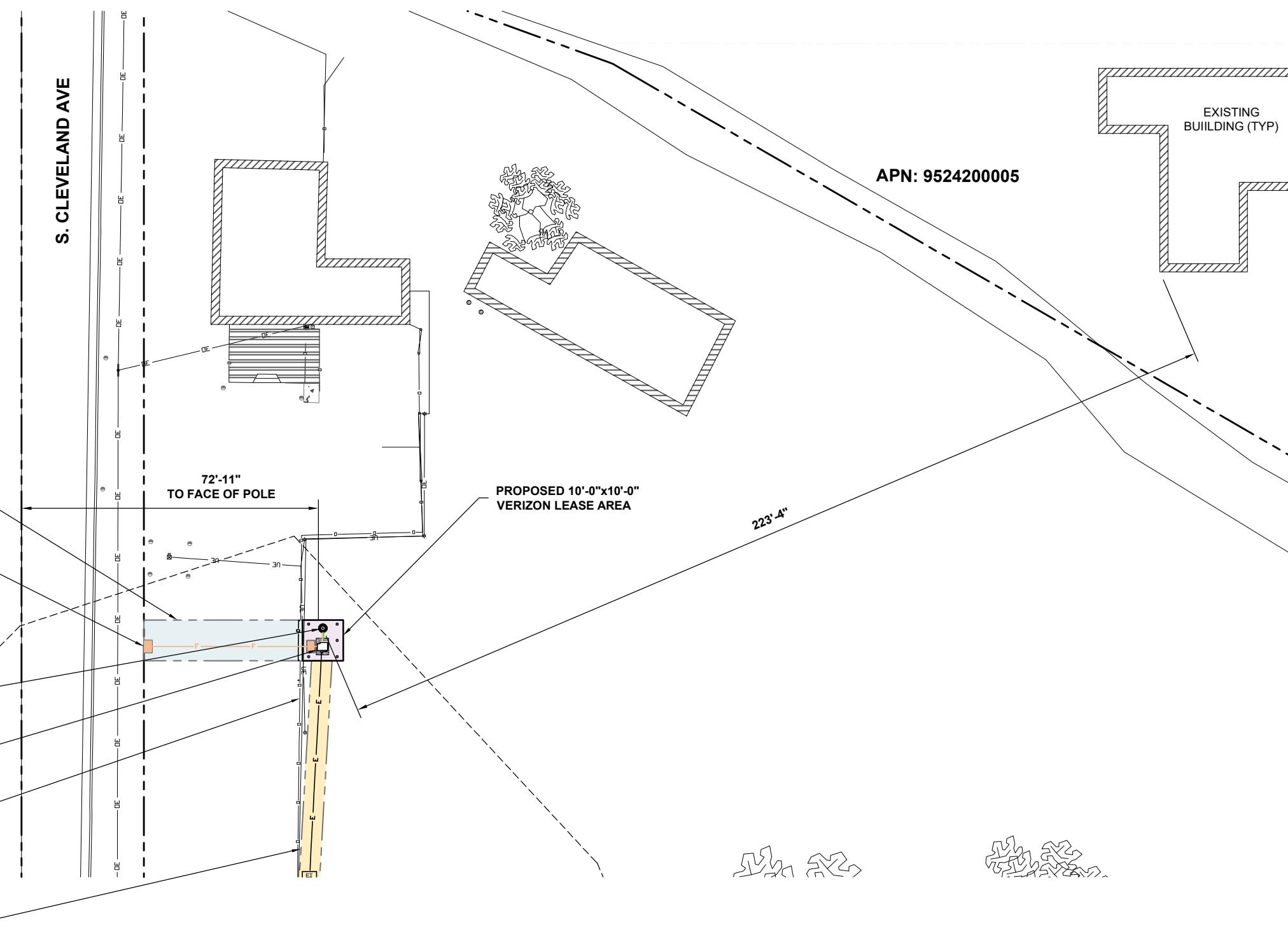
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HEALTH  
ACT OF 1976 AND ALL RULES AND REGULATIONS  
THERE TO APPURTENANT.



**SITE PLAN**

**Z-1**

SCALE: 1"=30'-0"

**GRAPHIC SCALE**



(SCALE BASED ON 11"x17" SHEETS ONLY)  
(DO NOT USE SCALE ON OTHER SIZED DRAWINGS)

EQUIPMENT VOLUME TABLE		
DESCRIPTION:	INCLUDES:	VOLUME (ft <sup>3</sup> ):
ANTENNA(S)	14"x48" OMNI	4.27
ASSOCIATED EQUIPMENT	CABINET, RADIO(S), POWER PANEL	10.82
UTILITY	METER	0.69
<b>TOTAL</b>		<b>15.78</b>

**verizon**  
3131 SOUTH VAUGHN WAY #500  
AURORA, COLORADO 80014  
(303) 873-2652

**AeroSolutions LLC**  
Optimizing Your Wireless Infrastructure  
5555 CENTRAL AVENUE #100  
BOULDER, COLORADO 80301  
PH: (720) 304-6882  
FAX: (720) 304-6883

AERO PROJECT #: 097-16-0165

REVISION SCHEDULE			
1	11-09-18	GAC	REVISED PRELIM CDs
0	06-15-18	RPH	PRELIM CDs
REV	DATE	BY	DESCRIPTION

DRAWING TITLE:  
**SITE PLAN**

DRAWING SHEET:  
**Z-1**

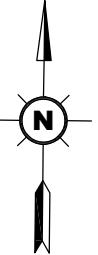
SHEET NUMBER:  
**3 OF 14**

SITE INFORMATION:  
SITE NAME:  
**FTC SOUTH LOVELAND SC**

SITE ADDRESS:  
**314 S CLEVELAND AVE**  
**LOVELAND, CO 80537**

JURISDICTION:  
**CITY OF LOVELAND**

JOSHUA D. ROZINA, P.E.  
COLORADO PROFESSIONAL ENGINEER  
LICENCE #53217 (EXP. 10/31/2019)



**verizon**  
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AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

1 11-09-18 GAC REVISED PRELIM CDs  
0 06-15-18 RPH PRELIM CDs  
REV DATE BY DESCRIPTION

DRAWING TITLE:

**SITE PLAN**

DRAWING SHEET:

**Z-2**

SHEET NUMBER:  
**4 OF 14**

SITE INFORMATION:  
SITE NAME:  
**FTC SOUTH LOVELAND SC**

SITE ADDRESS:  
**314 S CLEVELAND AVE  
LOVELAND, CO 80537**

JURISDICTION:  
**CITY OF LOVELAND**

PROPOSED FIBER IN 2" PVC CONDUIT W/  
3-CELL PLENUM MAXCELL INNERDUCT  
(SEE DETAIL 4/C-5)

PROPOSED 2'-0"x3'-0" FIBER  
VAULT (TYP)  
(SEE DETAIL 6/C-5)

PROPOSED 10'-0" WIDE ACCESS  
& UTILITY EASEMENT

A KEY OR OTHER APPROVED UNLOCKING DEVICE THAT  
PROVIDES ACCESS TO ANY TELECOMMUNICATIONS  
STRUCTURES/ENCLOSURES SHALL BE PROVIDED IN A  
KNOX BOX, INCLUDING AT THE FENCE/GATE AT PARKING  
LOT AREA. A KNOX PADLOCK CAN ALSO BE USED. A  
CODE TO THE COMPANY LOCK WILL NOT SUFFICE.

**S. CLEVELAND AVE**

**ENLARGED SITE PLAN**

1  
Z-2  
SCALE: 1"=20'-0"



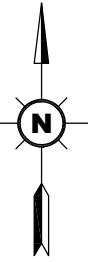
(SCALE BASED ON 11"x17" SHEETS ONLY)  
(DO NOT USE SCALE ON OTHER SIZED DRAWINGS)



**Know what's below.**  
**Call before you dig.**

PROTECT YOURSELF. GIVE THREE  
WEEKS' NOTICE  
THIS DRAWING DOES NOT CONTAIN NECESSARY  
COMPONENTS FOR CONSTRUCTION SAFETY. ALL  
CONSTRUCTION MUST BE DONE IN COMPLIANCE  
WITH THE APPROPRIATE LOCAL, STATE, AND FEDERAL  
ACT OF 1979 AND ALL RULES AND REGULATIONS  
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JOSHUA D. ROZINA, P.E.  
COLORADO PROFESSIONAL ENGINEER  
LICENCE #53217 (EXP. 10/31/2019)



PROPOSED SLIDING WOODEN GATE INSTALLED  
ON EXISTING WOODEN FENCE  
(GATE DESIGN TO MATCH EXISTING FENCE STYLE)  
(SEE SHEET C-6 FOR MORE DETAIL)

PROPOSED 2'-0"x3'-0" FIBER VAULT  
(SEE DETAIL 6/C-5)

EXISTING  
ASPHALT

PROPOSED FIBER IN 2" PVC CONDUIT W/  
3-CELL PLENUM MAXCELL INNERDUCT  
(SEE DETAIL 4/C-5)

A KEY OR OTHER APPROVED UNLOCKING DEVICE THAT  
PROVIDES ACCESS TO ANY TELECOMMUNICATIONS  
STRUCTURES/ENCLOSURES SHALL BE PROVIDED IN A  
KNOX BOX, INCLUDING AT THE FENCE/GATE AT PARKING  
LOT AREA. A KNOX PADLOCK CAN ALSO BE USED. A  
CODE TO THE COMPANY LOCK WILL NOT SUFFICE.

PROPOSED 10'-0" WIDE  
UTILITY EASEMENT

EXISTING WOOD  
FENCE

PROPOSED 10'-0"x10'-0"  
VERIZON LEASE AREA

PROPOSED RADIOS  
INCORPORATED INTO POLE

PROPOSED QUASI OMNI ANTENNA  
MOUNTED TO NEW POLE

REMOVE EXISTING 20'-0" FLAG POLE  
AND REPLACE WITH NEW POLE

PROPOSED U/G FIBER AND DC  
JUMPERS

PROPOSED VERIZON EQUIPMENT CABINET  
MOUNTED TO CONCRETE PAD  
(SEE DETAIL 1/C-5)

PROPOSED ELECTRICAL METER  
AND POWER PANEL MOUNTED TO  
EQUIPMENT CABINET

PROPOSED 6"Ø BOLLARD (TYP OF 5)  
(SEE DETAIL 5/C-5)

PROPOSED POWER ROUTED IN 3" PVC CONDUIT FROM  
PROPOSED PAD MOUNT TRANSFORMER TO  
EQUIPMENT CABINET  
(SEE SHEET E-1 FOR MORE DETAIL)

**EQUIPMENT PLAN**  
1  
C-1

GRAPHIC SCALE  
2 0 1 2 4 8  
( IN FEET )  
1/4 inch = 1 ft.

(SCALE BASED ON 11"x17" SHEETS ONLY)  
(DO NOT USE SCALE ON OTHER SIZED DRAWINGS)



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WORKING DAYS NOTICE  
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ACT OF 1970 AND ALL RULES AND REGULATIONS  
THERE TO APPROPRIATE.

**verizon**  
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AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

1 11-09-18 GAC REVISED PRELIM CDs  
0 06-15-18 RPH PRELIM CDs  
REV DATE BY DESCRIPTION

DRAWING TITLE:

**EQUIPMENT PLAN**

DRAWING SHEET:

**C-1**

SHEET NUMBER:  
5 OF 14

SITE INFORMATION:

SITE NAME:  
FTC SOUTH LOVELAND SC

SITE ADDRESS:  
314 S CLEVELAND AVE  
LOVELAND, CO 80537

JURISDICTION:  
CITY OF LOVELAND

<b>CABLE TABLE</b>					
SECTOR	AZIMUTH	LENGTH	NO.	SIZE	TYPE
A	N/A	40'	4	1/2"	COAX

NOTES:

1. LENGTHS ARE ESTIMATES; CONTRACTOR AND/OR CONSTRUCTION MANAGER SHALL FIELD VERIFY ALL LENGTHS PRIOR TO ORDERING.
2. ALL AZIMUTHS SHOWN ARE RELATIVE TO TRUE NORTH, UNLESS NOTED OTHERWISE.
3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY AZIMUTHS DEPICTED HEREIN WITH THE RF DEPARTMENT PRIOR TO INSTALLING ANY ANTENNAS.

JOSHUA D. ROZINA, P.E.  
COLORADO PROFESSIONAL ENGINEER  
LICENCE #53217 (EXP. 10/31/2019)

AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

REV	DATE	BY	DESCRIPTION
1	11-09-18	GAC	REVISED PRELIM CDs
0	06-15-18	RPH	PRELIM CDs

DRAWING TITLE:

**EXISTING ELEVATION**

DRAWING SHEET:

**C-2**

SHEET NUMBER:

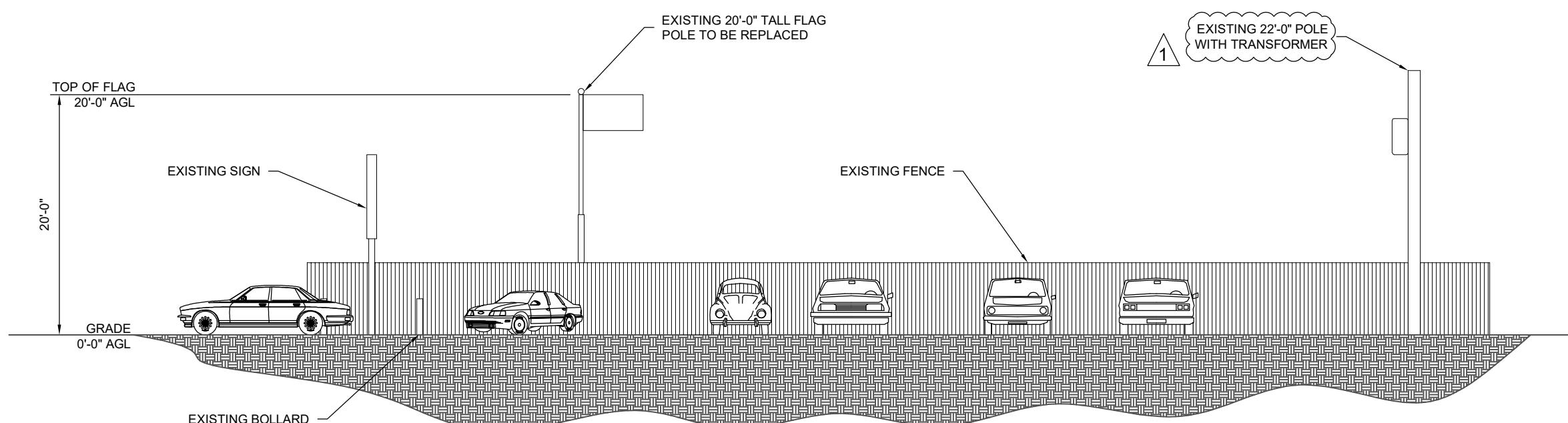
6 OF 14

SITE INFORMATION:

SITE NAME:  
**FTC SOUTH LOVELAND SC**

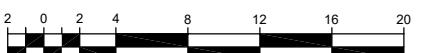
SITE ADDRESS:  
**314 S CLEVELAND AVE  
 LOVELAND, CO 80537**

JURISDICTION:  
**CITY OF LOVELAND**



**EXISTING EAST ELEVATION**  
 C-2  
 SCALE: 3/32"=1'-0"

GRAPHIC SCALE



( IN FEET )  
 3/32 inch = 1 ft.

(SCALE BASED ON 11"x17" SHEETS ONLY)  
 (DO NOT USE SCALE ON OTHER SIZED DRAWINGS)

AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

REV	DATE	BY	DESCRIPTION
1	11-09-18	GAC	REVISED PRELIM CDs
0	06-15-18	RPH	PRELIM CDs

DRAWING TITLE:

**PROPOSED ELEVATION**

DRAWING SHEET:

**C-3**

SHEET NUMBER:

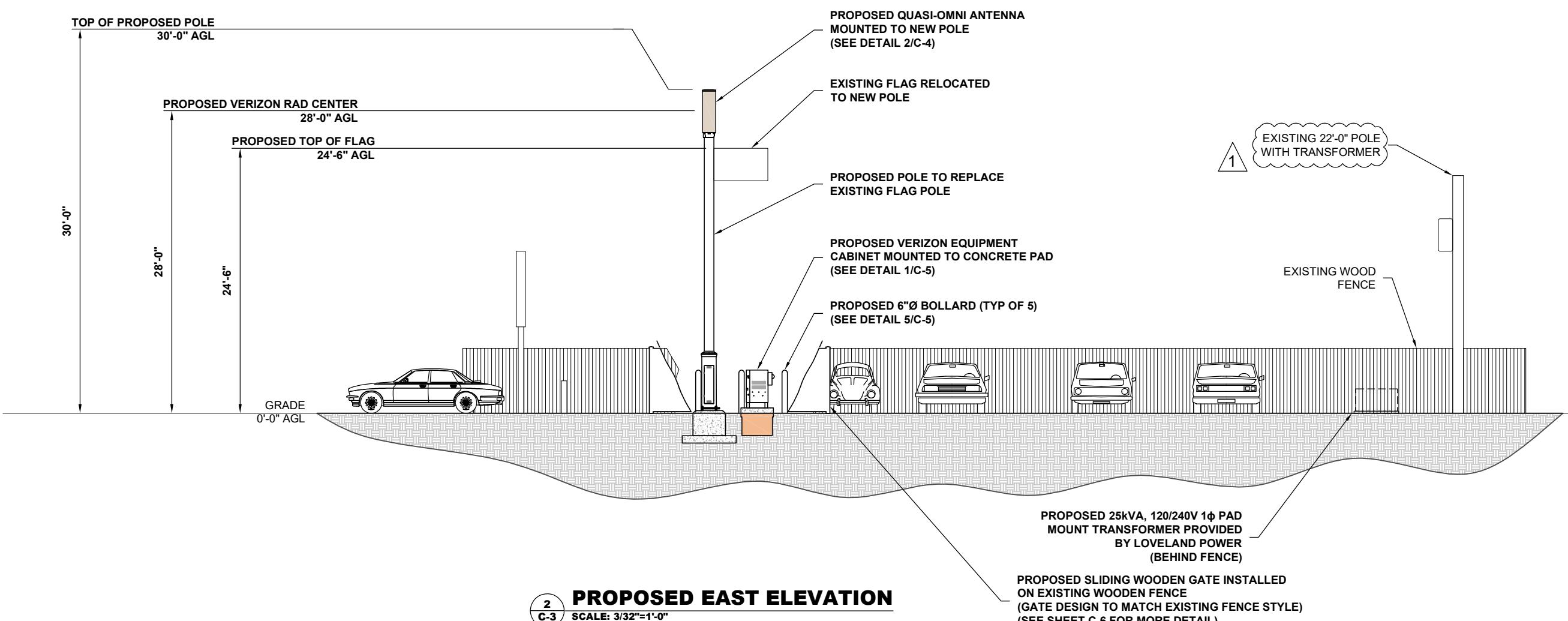
7 OF 14

SITE INFORMATION:

SITE NAME:  
**FTC SOUTH LOVELAND SC**

SITE ADDRESS:  
**314 S CLEVELAND AVE  
 LOVELAND, CO 80537**

JURISDICTION:  
**CITY OF LOVELAND**

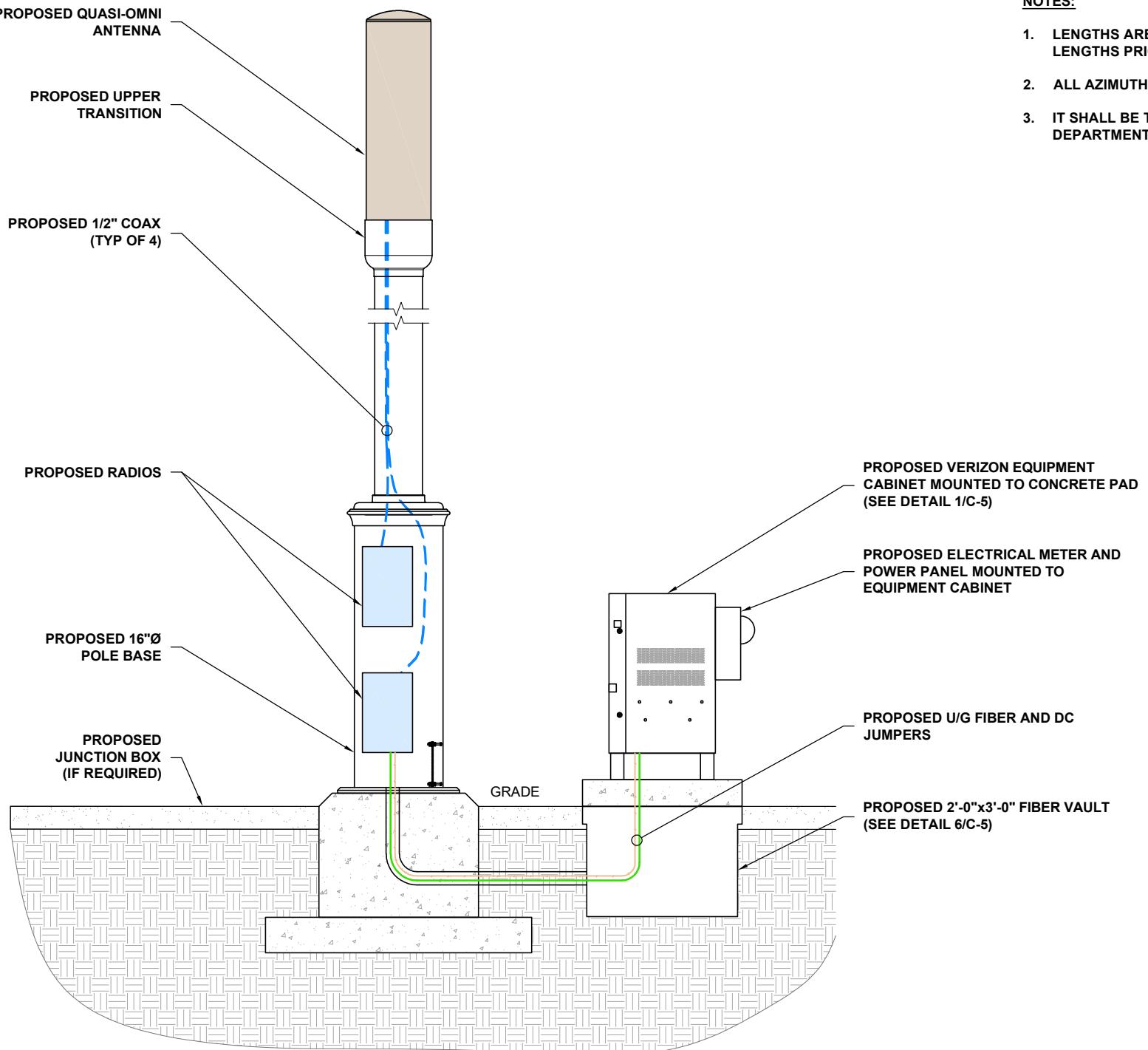


## ANTENNA & CABLE SCHEDULE

AZIMUTH	MOUNTING HEIGHT	ANTENNA SPECIFICATIONS	ELECTRICAL DOWNTILT	CABLE SIZE	CABLE LENGTH
N/A	28'-0"	48.0"(L) X 14.0"(D) (4.27 FT <sup>3</sup> ) 50 LBS	N/A	(4) 1/2" COAX	40 FT.

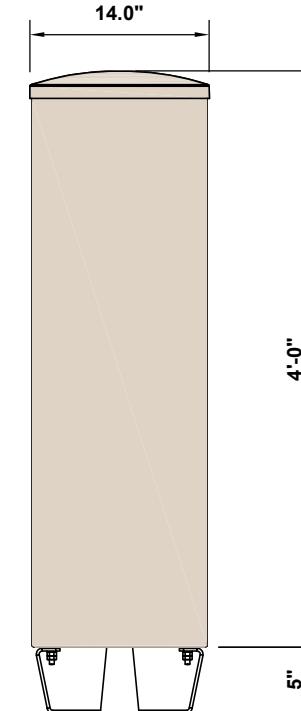
### NOTES:

1. LENGTHS ARE ESTIMATES; CONTRACTOR AND/OR CONSTRUCTION MANAGER SHALL FIELD VERIFY ALL LENGTHS PRIOR TO ORDERING.
2. ALL AZIMUTHS SHOWN ARE RELATIVE TO TRUE NORTH, UNLESS NOTED OTHERWISE.
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1  
C-4  
N.T.S.

### PROPOSED POLE ELEVATION



### PROPOSED ANTENNA DETAIL

2  
C-4  
N.T.S.



PROTECT YOURSELF, GIVE THREE  
WORKING DAY NOTICE  
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ACT OF 1970 AND ALL RULES AND REGULATIONS  
THERE TO APPURTENANT.

REVISION SCHEDULE			
1	11-09-18	GAC	REVISED PRELIM CDs
0	06-15-18	RPH	PRELIM CDs
REV	DATE	BY	DESCRIPTION

DRAWING TITLE:  
**CONSTRUCTION DETAILS**

DRAWING SHEET:  
**C-4**

SHEET NUMBER:  
**8 OF 14**

SITE INFORMATION:  
SITE NAME:  
**FTC SOUTH LOVELAND SC**

SITE ADDRESS:  
**314 S CLEVELAND AVE  
LOVELAND, CO 80537**

JURISDICTION:  
**CITY OF LOVELAND**

AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

1	11-09-18	GAC	REVISED PRELIM CDs
0	06-15-18	RPH	PRELIM CDs
REV	DATE	BY	DESCRIPTION

DRAWING TITLE:  
**CONSTRUCTION DETAILS (CONTINUED)**

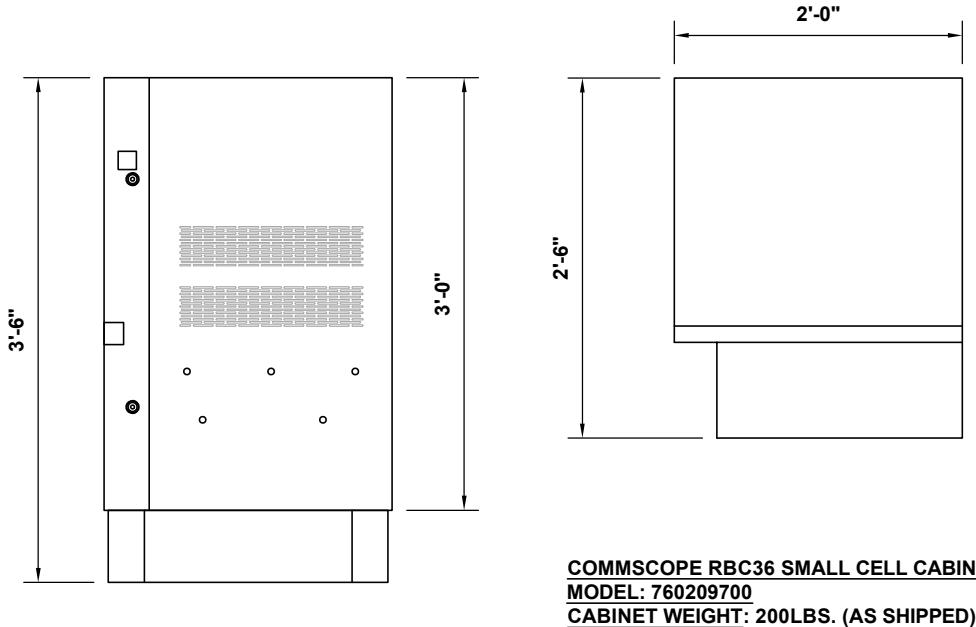
DRAWING SHEET:  
**C-5**

SHEET NUMBER:  
**9 OF 14**

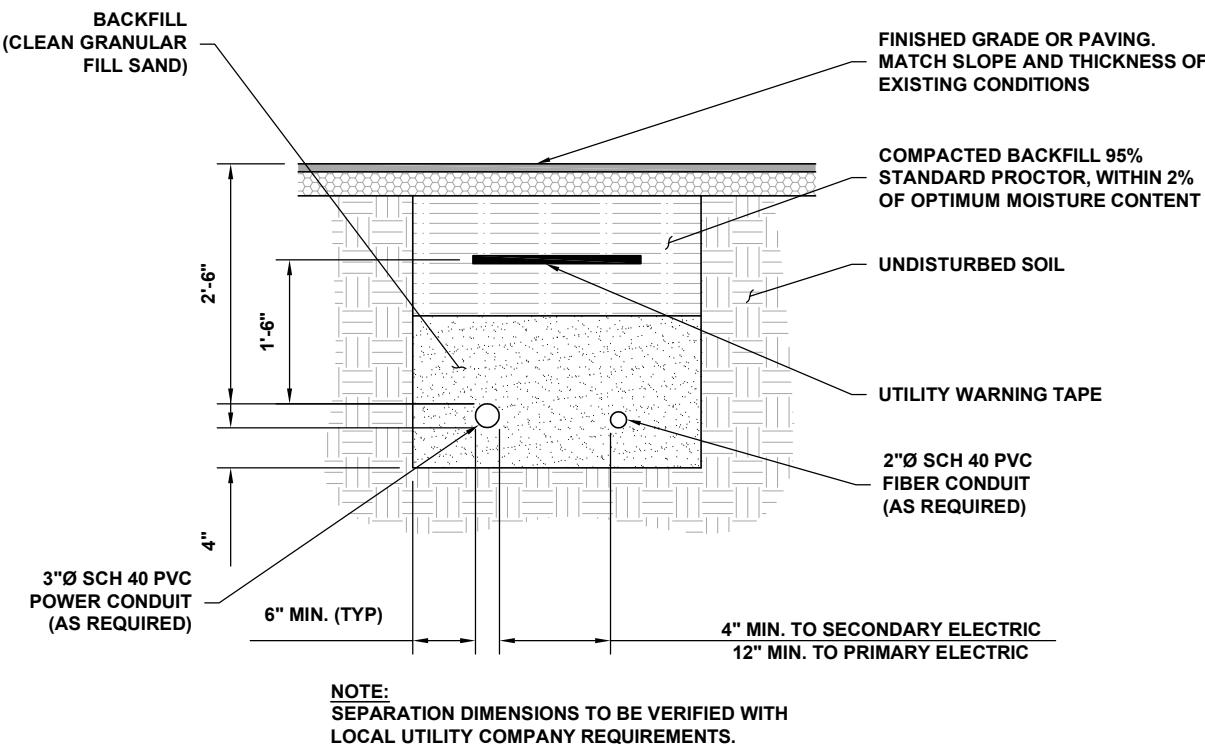
SITE INFORMATION:  
SITE NAME:  
**FTC SOUTH LOVELAND SC**

SITE ADDRESS:  
**314 S CLEVELAND AVE  
LOVELAND, CO 80537**

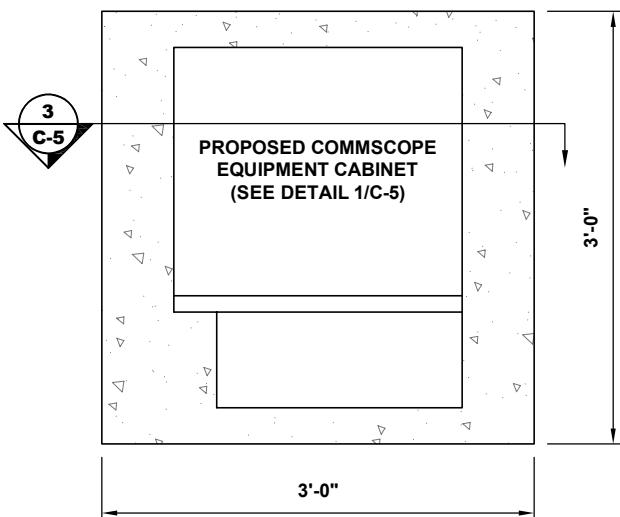
JURISDICTION:  
**CITY OF LOVELAND**



### **EQUIPMENT CABINET DETAIL**

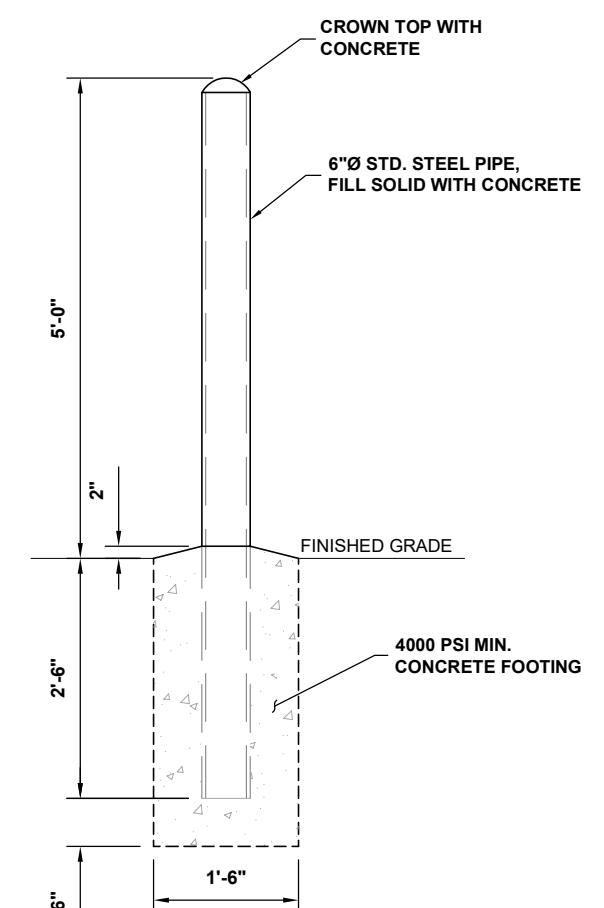


### **UTILITY TRENCH DETAIL**



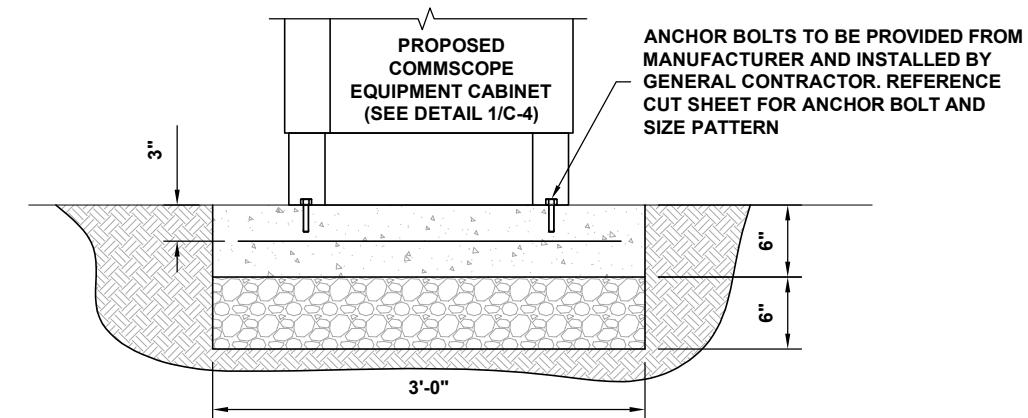
### **CONCRETE PAD DETAIL**

**2 C-5**  
N.T.S.



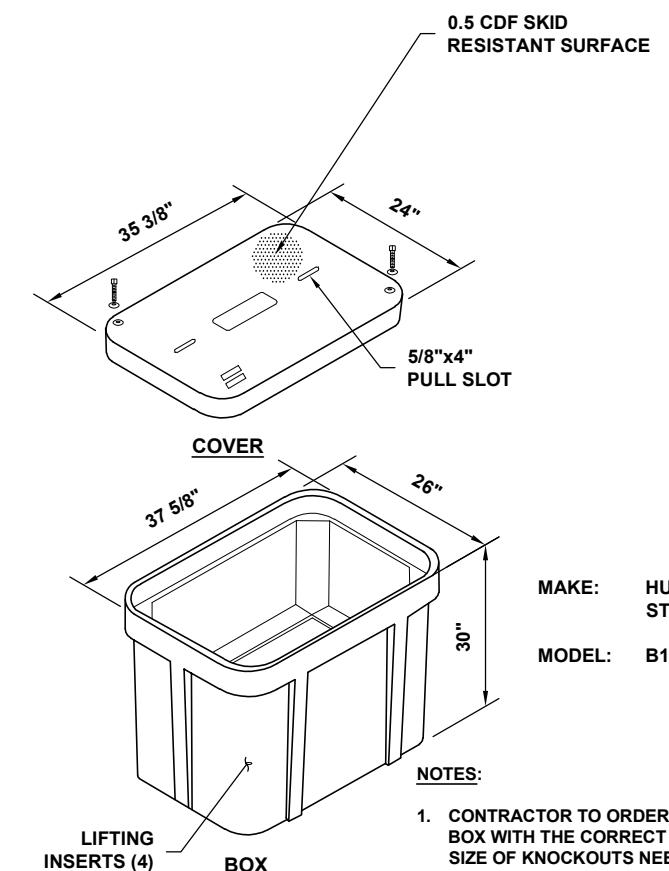
### **BOLLARD DETAIL**

**5 C-5**  
N.T.S.



### **CONCRETE PAD SECTION**

**3 C-5**  
N.T.S.

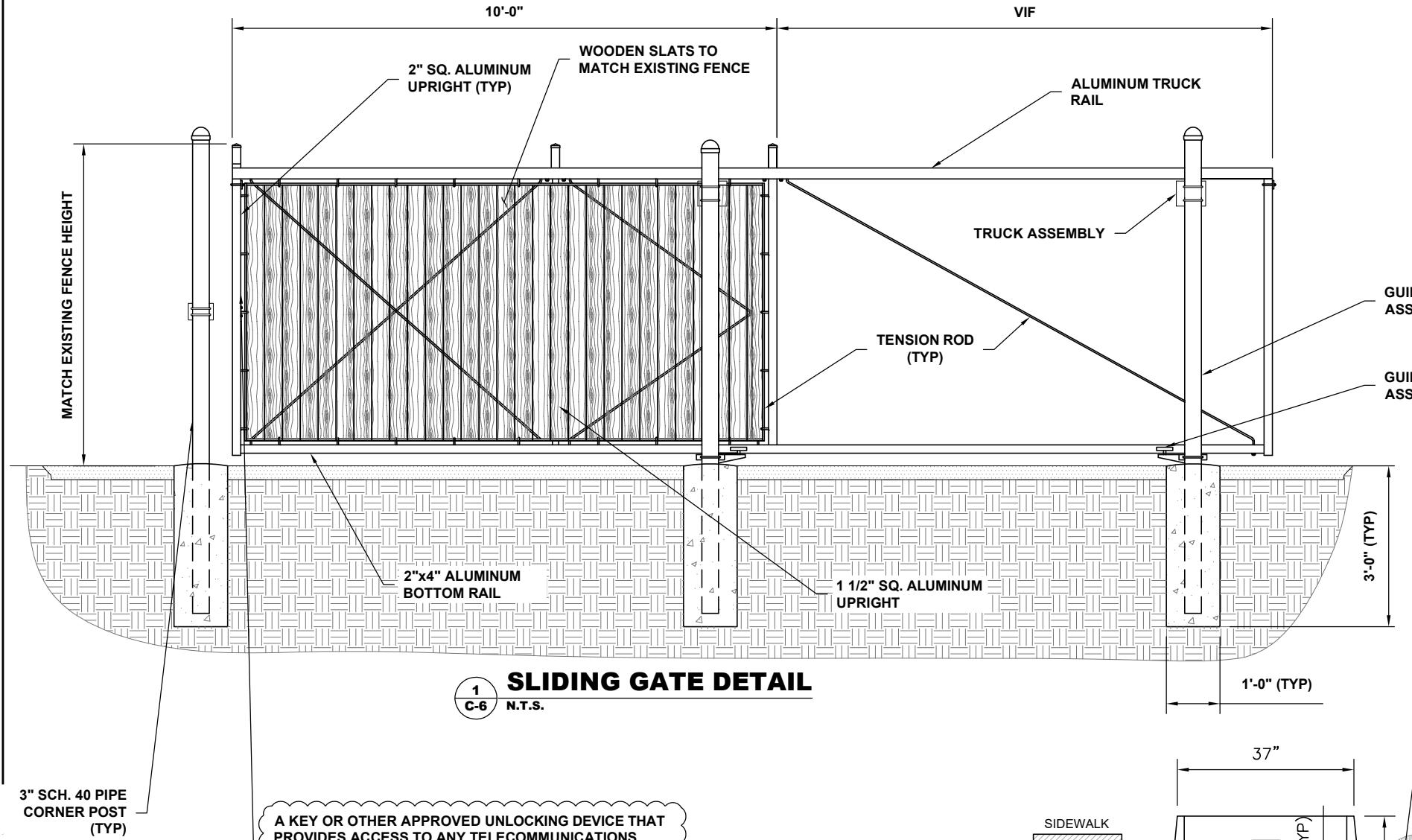


### **PULLBOX DETAIL**

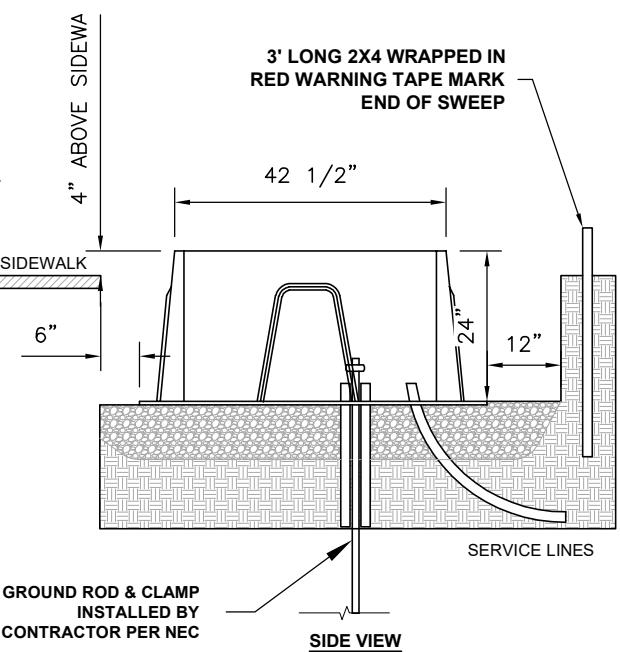
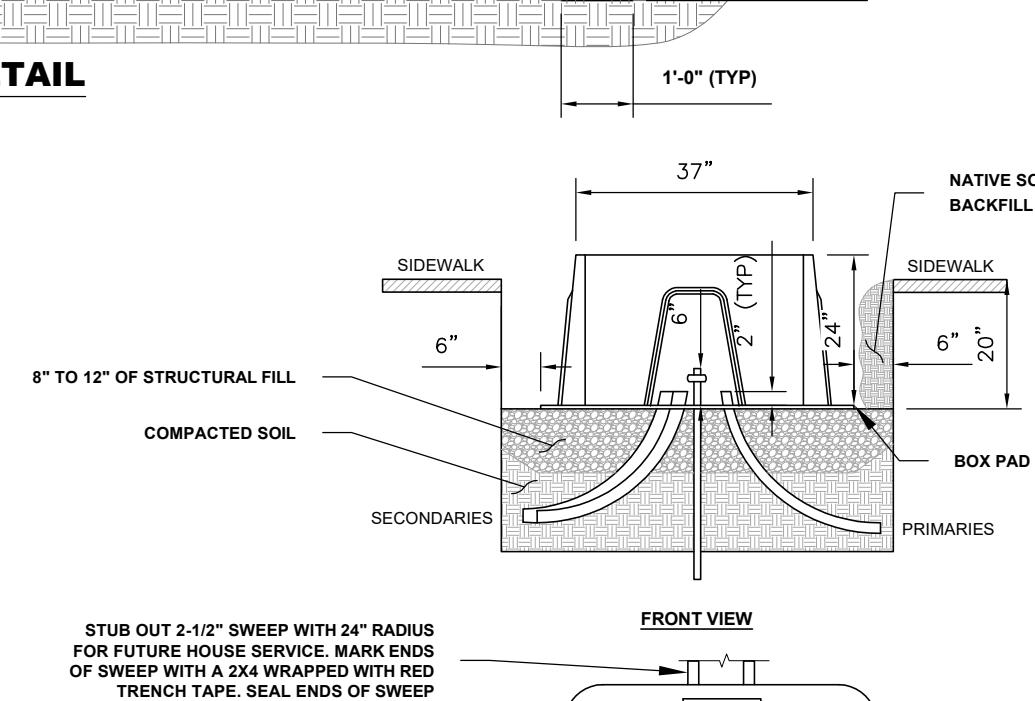
**6 C-5**  
N.T.S.

**811**  
Know what's below.  
Call before you dig.

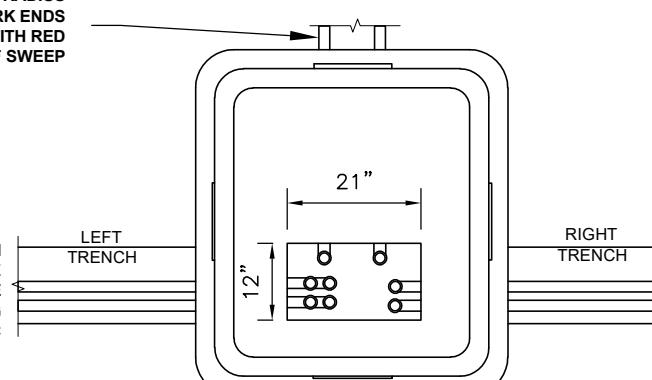
PROTECT YOURSELF, GIVE THREE  
DAYS NOTICE  
THIS DRAWING DOES NOT INCLUDE NECESSARY  
COMPONENTS FOR CONSTRUCTION SAFETY. ALL  
CONSTRUCTION MUST BE DONE IN COMPLIANCE  
WITH THE APPROPRIATE LOCAL, STATE, AND FEDERAL  
HEALTH AND SAFETY CODES AND REGULATIONS  
THERE TO APPURTAINANT.



**SLIDING GATE DETAIL**  
1  
C-6  
N.T.S.



ALL SECONDARY CIC CABLES MUST BE ON LEFT SIDE OF TRANSFORMER AS YOU FACE TRANSFORMER. PROVIDE MIN 5' CABLE LENGTH ABOVE PAD FOR TERMINATING WHEN USING CIC



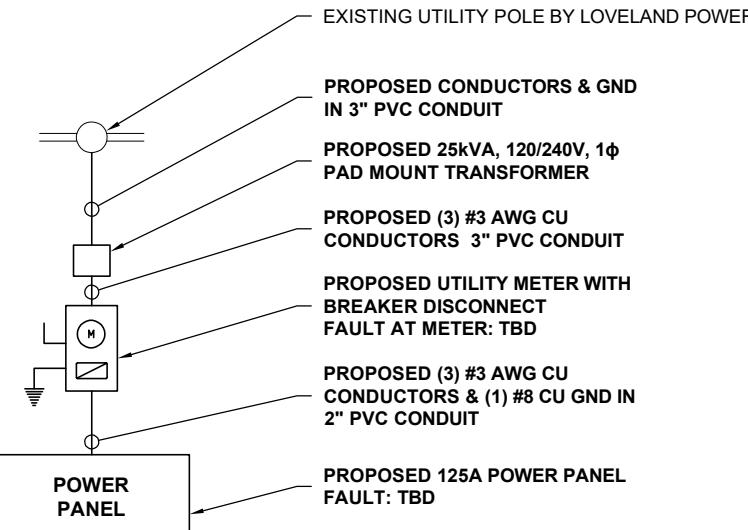
ALL PRIMARY CIC CABLES MUST BE ON RIGHT SIDE OF TRANSFORMER AS YOU FACE TRANSFORMER. PROVIDE MIN 5' CABLE LENGTH ABOVE PAD FOR TERMINATING WHEN USING CIC

**TRANSFORMER DETAIL (SINGLE PHASE)**  
2  
C-6  
N.T.S.

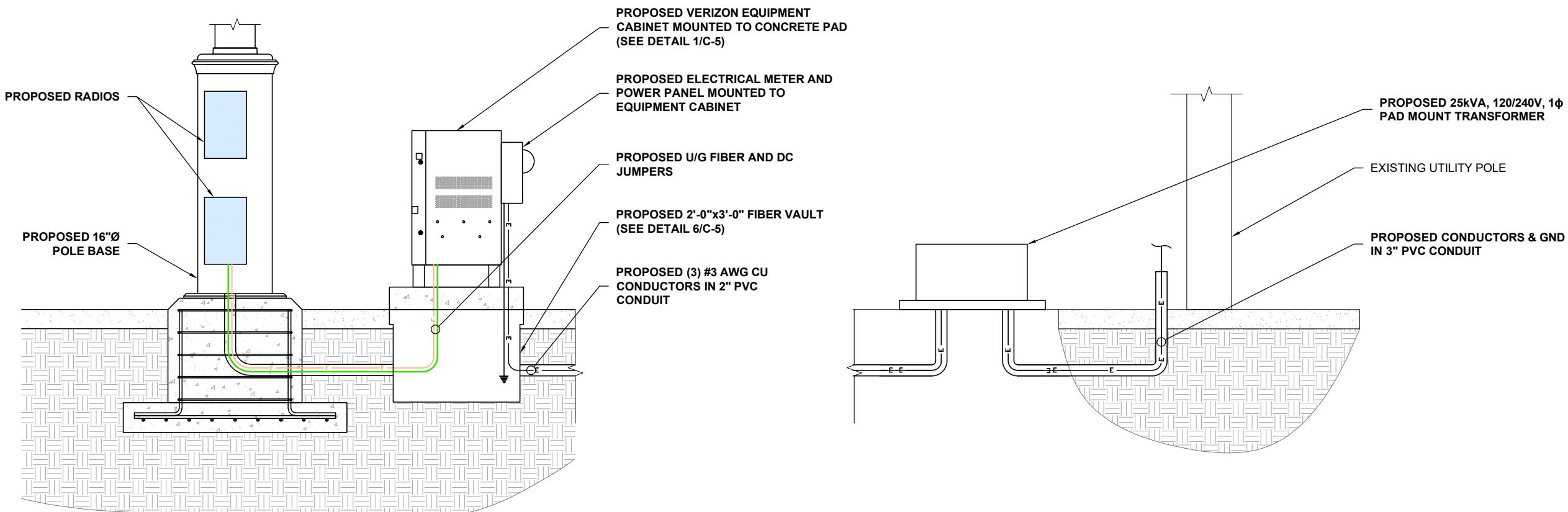


Know what's below.  
Call before you dig.

PROTECT YOURSELF, GIVE THREE  
DIALING 811  
DIALING 811  
THIS DRAWING DOES NOT INCLUDE NECESSARY  
COMPONENTS FOR CONSTRUCTION SAFETY. ALL  
CONSTRUCTION MUST BE DONE IN COMPLIANCE  
WITH THE COLORADO STATE AND LOCAL SAFETY AND  
HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS  
THERE TO APPURTENANT.



**ONE-LINE DIAGRAM**  
1  
E-1  
N.T.S.



**ONE-LINE ELEVATION**  
2  
E-1  
N.T.S.

100A, 120/240V, 1Ø, 3W PROPOSED SUB-PANEL SCHEDULE										
LOAD SERVED	VOLT AMPERES (WATTS)		TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPERES (WATTS)		LOAD SERVED
	L1	L2						L1	L2	
RECTIFIER #1	500		25A	1	A	2	25A	500		RECTIFIER #2
		500		3	B	4			500	
SPARE	-		-	5	A	6	25A	500		RECTIFIER #3
GFCI		180	20A	7	B	8			500	
VOLT AMPS		500	680					1000	1000	VOLT AMPS
L1 VOLT AMPERES				1500	1680			L2 VOLT AMPERES		
L1 AMPS				12.5	14			L2 AMPS		
					14			MAX AMPS		
						17.5		MAX AMPS x125%		
							19.25	X 110% FOR MAIN		

**NOTES:**

1. TOTAL VERIZON LOAD TO BE APPROX 19.25A.
2. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT CABINET MANUFACTURER.
3. CONTRACTOR TO INSTALL SCH80 PVC FOR ALL CONDUIT SWEEPS, OTHERWISE SCH40 PVC IS ACCEPTABLE EXCEPT WHERE NOTED.

**verizon**  
3131 SOUTH VAUGHN WAY #500  
AURORA, COLORADO 80014  
(303) 873-2652

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BOULDER, COLORADO 80301  
PH: (720) 304-6882  
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AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

1 11-09-18 GAC REVISED PRELIM CDs

0 06-15-18 RPH PRELIM CDs

REV DATE BY DESCRIPTION

DRAWING TITLE:  
**ONE LINE DIAGRAM & PANEL SCHEDULE**

**E-1**

SHEET NUMBER:  
**11 OF 14**

SITE INFORMATION:  
SITE NAME:  
**FTC SOUTH LOVELAND SC**

SITE ADDRESS:  
**314 S CLEVELAND AVE  
LOVELAND, CO 80537**

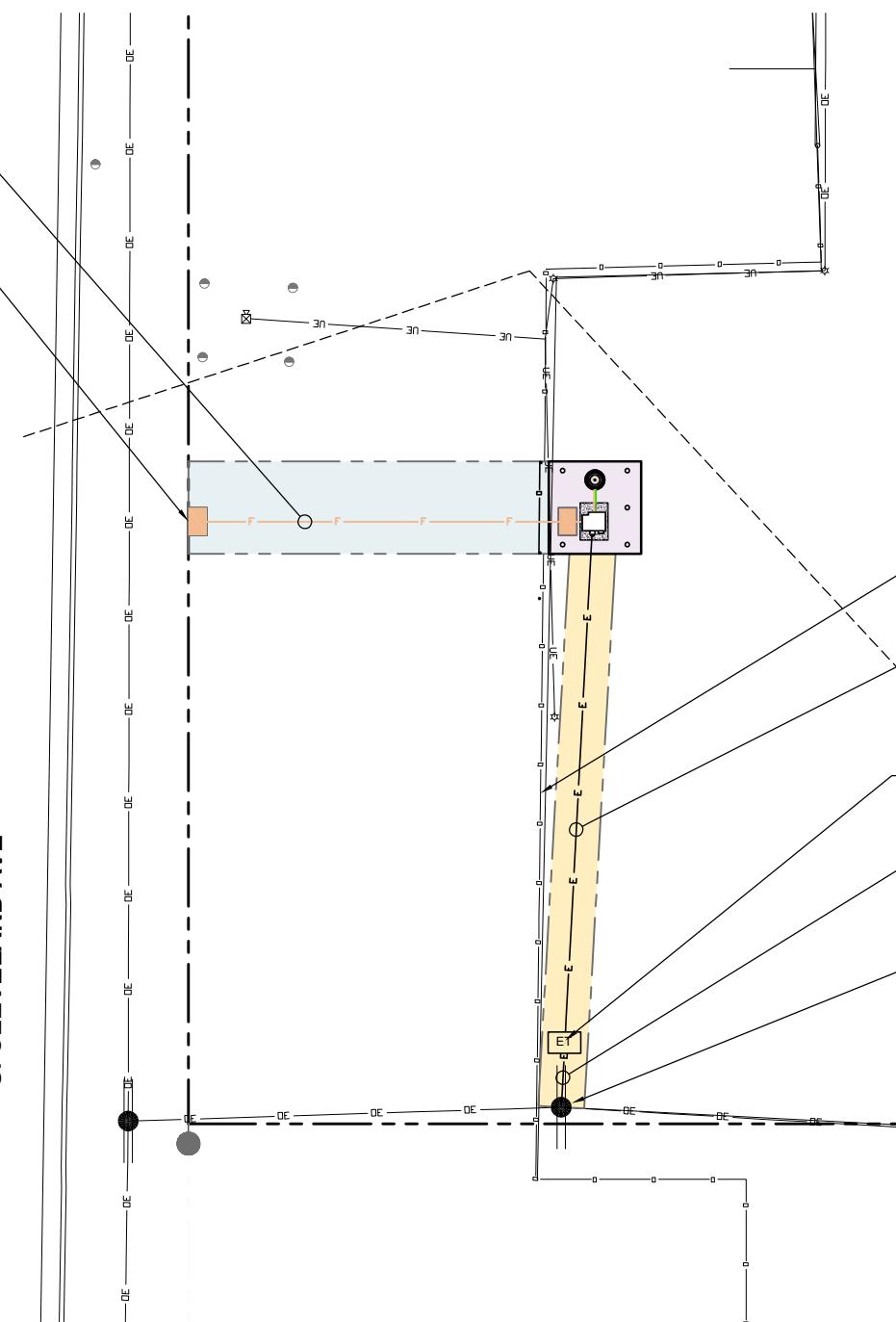
JURISDICTION:  
**CITY OF LOVELAND**



PROPOSED FIBER IN 2" PVC CONDUIT W/  
3-CELL PLENUM MAXCELL INNERDUCT  
(SEE DETAIL 1/C-5)

PROPOSED 2'-0" x 3'-0" FIBER  
VAULT (TYP)  
(SEE DETAIL 2/C-5)

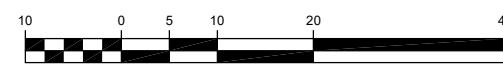
S. CLEVELAND AVE



**UTILITY PLAN**  
1  
U-1

SCALE: 1"=20'-0"

GRAPHIC SCALE



( IN FEET )  
1 inch = 20 ft.

(SCALE BASED ON 11" x 17" SHEETS ONLY)  
(DO NOT USE SCALE ON OTHER SIZED DRAWINGS)

**UTILITY PLAN SCHEDULE**

QUANTITY	ITEM	DESCRIPTION	LENGTH	PROVIDED BY	INSTALLED BY
1	TRANSFORMER	PROPOSED 120/240V, 1Ø, 3W, 25kVA	-	LOVELAND POWER	LOVELAND POWER
1	TRANSFORMER PAD	37" x 42 1/2"	-	CONTRACTOR	CONTRACTOR
1	CONDUITS - LNE TO METER	2" PVC	65±	CONTRACTOR	CONTRACTOR
3	CONDUCTORS - LINE TO METER	(3) TBD AWG AWG CU CONDUCTORS	65±	CONTRACTOR	CONTRACTOR
1	DISCONNECT	LEVER-TYPE 100A FUSED	-	CONTRACTOR	CONTRACTOR
1	METER SOCKET	TYP	-	CONTRACTOR	CONTRACTOR
1	METER	TYP	-	LOVELAND POWER	LOVELAND POWER

**POWER NOTES:**

1. SERVICE SHALL BE 120/208V, 1Ø, 3W, 100A
2. CONTRACTOR TO COORDINATE INSPECTION AND PLACEMENT OF METER WITH THE LOCAL UTILITY COMPANY:  
FTC L&P  
CONTACT: TBD  
PHONE: TBD  
W.O. NUMBER: TBD

**verizon**  
3131 SOUTH VAUGHN WAY #500  
AURORA, COLORADO 80014  
(303) 873-2652

**AeroSolutions LLC**  
Optimizing Your Wireless Infrastructure  
5555 CENTRAL AVENUE #100  
BOULDER, COLORADO 80301  
PH: (720) 304-6882  
FAX: (720) 304-6883

AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

REV	DATE	BY	DESCRIPTION
1	11-09-18	GAC	REVISED PRELIM CDs
0	06-15-18	RPH	PRELIM CDs

DRAWING TITLE:  
**UTILITY COORDINATION**

DRAWING SHEET:  
**U-1**

SHEET NUMBER:  
**12 OF 14**

SITE INFORMATION:  
SITE NAME:  
**FTC SOUTH LOVELAND SC**  
SITE ADDRESS:  
**314 S CLEVELAND AVE  
LOVELAND, CO 80537**

JURISDICTION:  
**CITY OF LOVELAND**



**Know what's below.  
Call before you dig.**

PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE  
THIS DRAWING DOES NOT CONTAIN ALL NECESSARY  
COMPONENTS FOR CONSTRUCTION SAFETY. ALL  
CONSTRUCTION MUST BE DONE IN COMPLIANCE  
WITH THE APPROPRIATE LOCAL, STATE AND FEDERAL  
ACT OF 1979 AND ALL RULES AND REGULATIONS  
THERE TO APPURTENANT.

JOSHUA D. ROZINA, P.E.  
COLORADO PROFESSIONAL ENGINEER  
LICENSE #53217 (EXP. 10/31/2019)

AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

1 11-09-18 GAC REVISED PRELIM CDs  
0 06-15-18 RPH PRELIM CDs  
REV DATE BY DESCRIPTION

DRAWING TITLE:

**GROUNDING PLAN**

DRAWING SHEET:

**G-1**

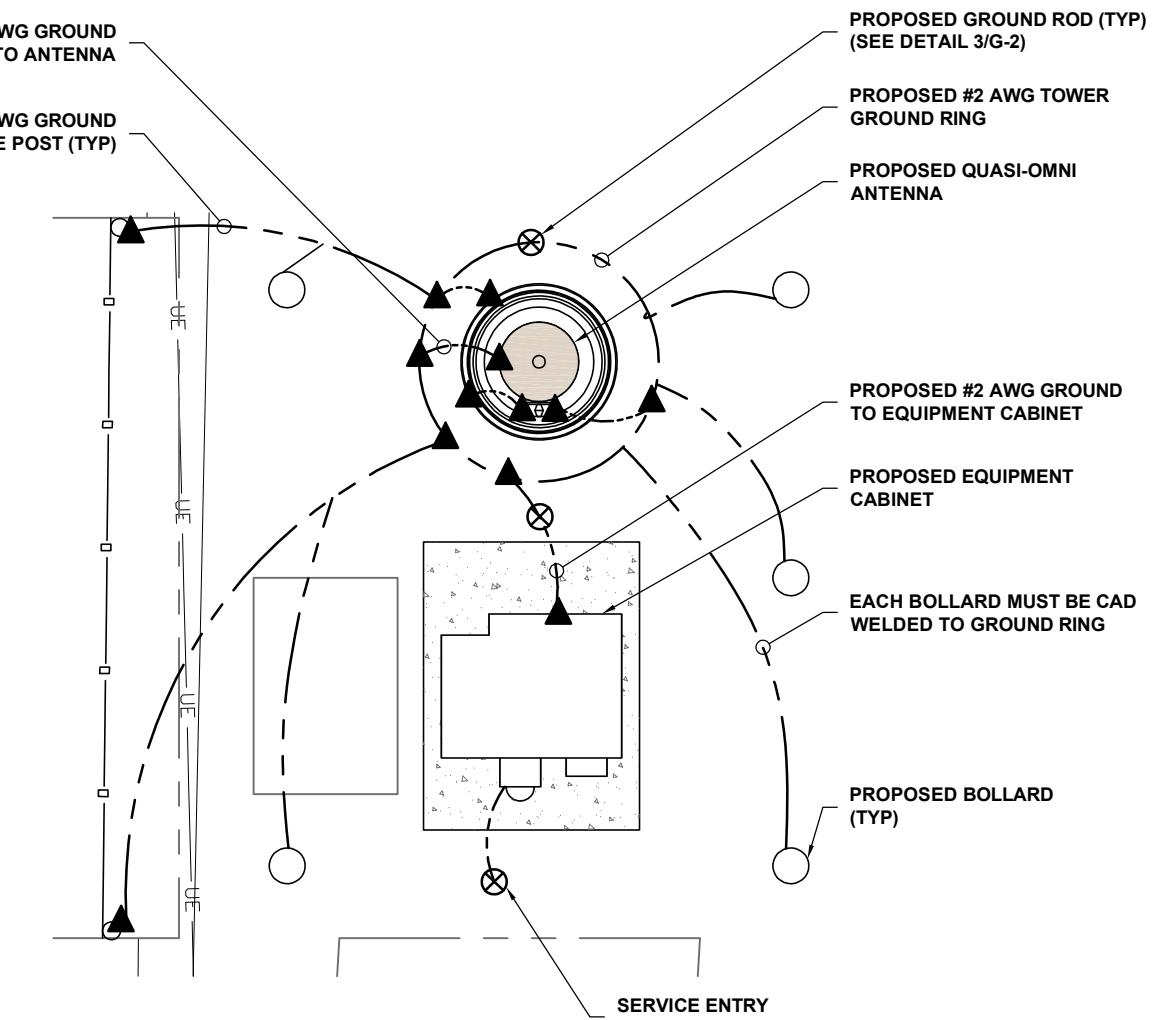
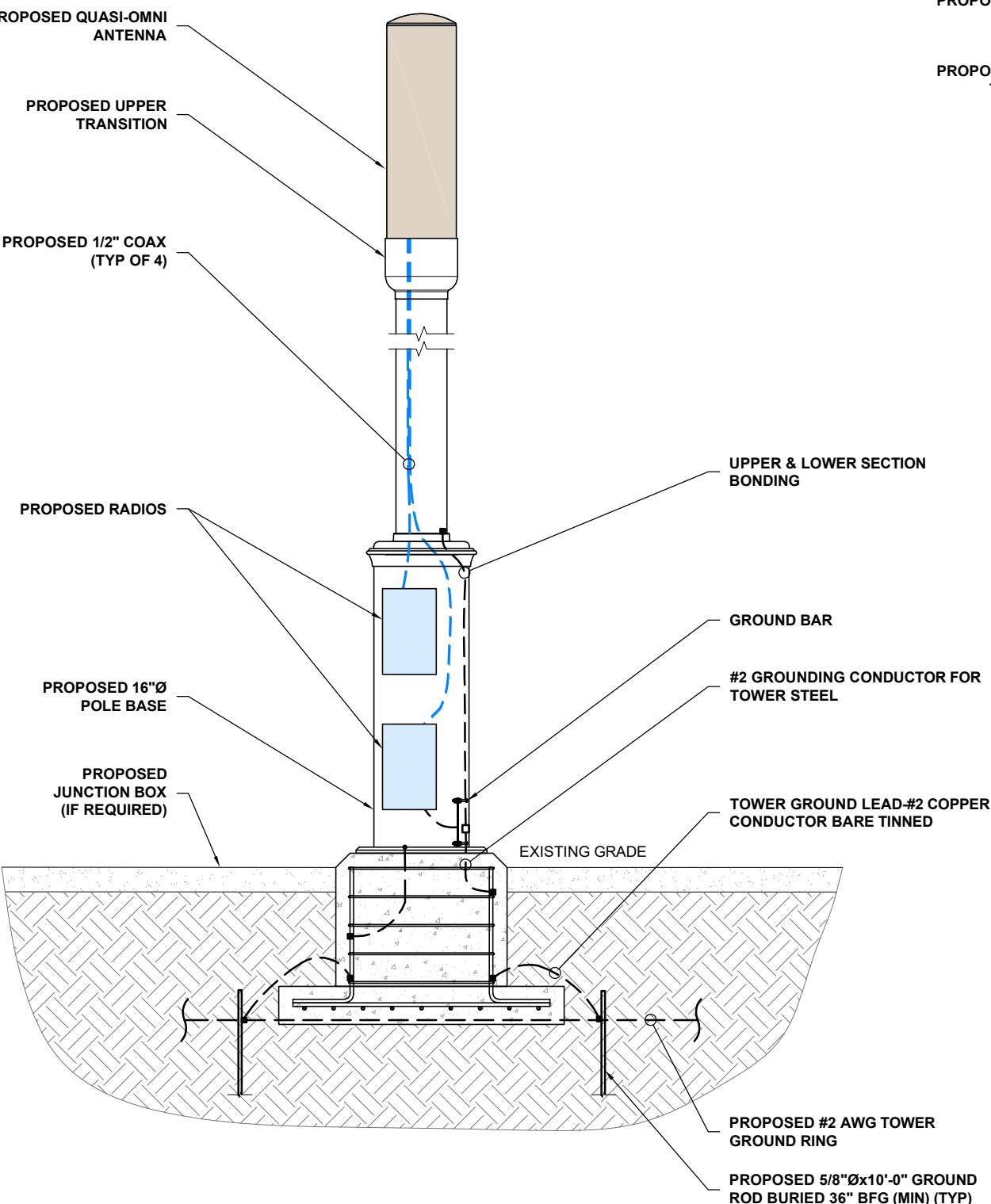
SHEET NUMBER:  
13 OF 14

SITE INFORMATION:

SITE NAME:  
FTC SOUTH LOVELAND SC

SITE ADDRESS:  
314 S CLEVELAND AVE  
LOVELAND, CO 80537

JURISDICTION:  
CITY OF LOVELAND



**GROUND SYMBOLS:**

- ◻ GROUND ROD W/ ACCESS
- XIT GROUND ROD
- ⊗ 5/8" GALVANIZED GROUND ROD
- MECHANICAL TYPE CONNECTION
- ▲ CADWELD TYPE CONNECTION
- GROUNDING WIRE



Know what's below.  
Call before you dig.

PROTECT YOURSELF. GIVE THREE  
WORKING DAYS NOTICE  
THIS DRAWING DOES NOT INDICATE NECESSARY  
COMPONENTS FOR CONSTRUCTION SAFETY. ALL  
CONSTRUCTION MUST BE DONE IN COMPLIANCE  
WITH THE APPROPRIATE SECTION OF THE NATIONAL ELECTRICAL  
CODE OF 1970 AND ALL RULES AND REGULATIONS  
THERE TO APPURTAINANT.

AERO PROJECT #: 097-16-0165

REVISION SCHEDULE

1	11-09-18	GAC	REVISED PRELIM CDs
0	06-15-18	RPH	PRELIM CDs
REV	DATE	BY	DESCRIPTION

DRAWING TITLE:

**GROUNDING  
DETAILS**

DRAWING SHEET:

**G-2**

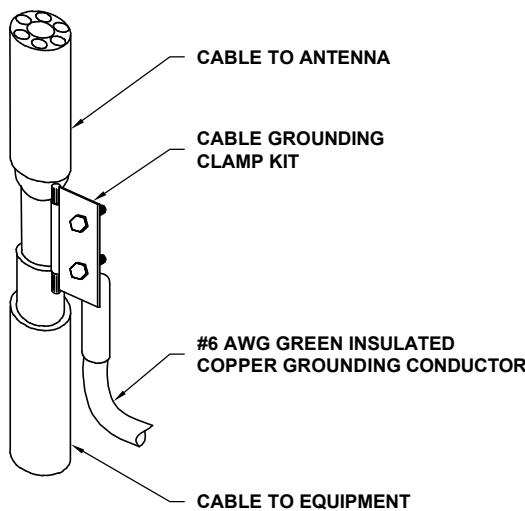
SHEET NUMBER:  
**14 OF 14**

SITE INFORMATION:

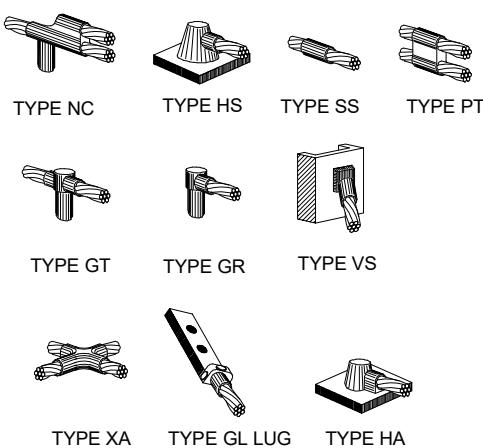
SITE NAME:  
**FTC SOUTH LOVELAND SC**

SITE ADDRESS:  
**314 S CLEVELAND AVE  
LOVELAND, CO 80537**

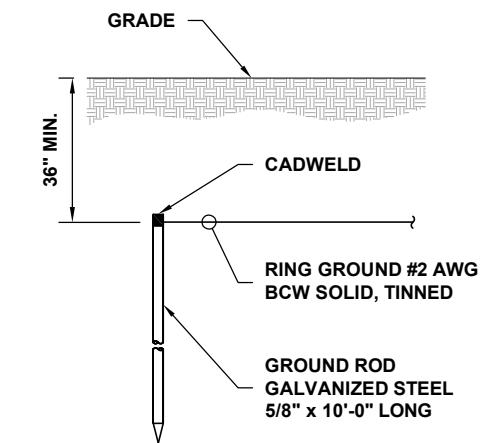
JURISDICTION:  
**CITY OF LOVELAND**



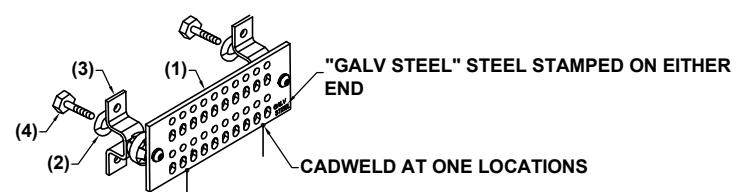
**TYPICAL CABLE GROUNDING**



**CADWELD TYPE CONNECTIONS**



**GROUND ROD DETAIL**



**LEGEND**

- (1) GALVANIZED STEEL GROUND BAR, BY ELECTRIC MOTION COMPANY (SEE SCHEDULE BELOW).
- (2) 5/8" LOCKWASHERS, STAINLESS STEEL.
- (3) WALL MOUNTING BRACKET, HARGER CAT. #WBKT-2.
- (4) 5/8" THREADED STUD WELDED DIRECTLY TO TOWER STEEL.

<b>GROUND BAR SCHEDULE</b>		
MANUFACTURER	CAT. NO.	REMARKS
ELECTRIC MOTION COMPANY	EM SGC412-VZW	OR EQUAL
ELECTRIC MOTION COMPANY	EM SGC424-VZW	OR EQUAL

**GROUND BAR DETAIL**