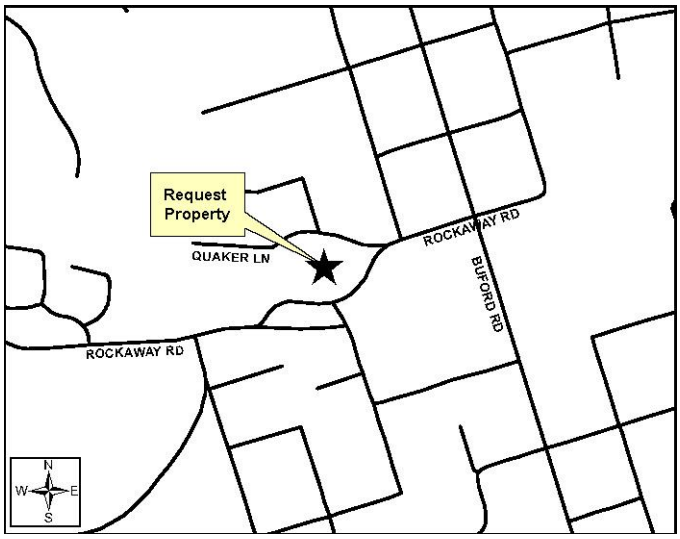
CASE NUMBER: 15SN0605
APPLICANT: Robert Steele, President Board of Trustees

STAFF'S ANALYSIS AND RECOMMENDATION

CHESTERFIELD COUNTY, VIRGINIA
Magisterial District: **MIDLOTHIAN**



Board of Supervisors (BOS) Public Hearing Date:
FEBRUARY 11, 2015
BOS Time Remaining:
365 DAYS

Applicant's Agent:
JOSIE LODDER
(704-560-1422)
Applicant's Contact:
ROBERT STEELE
(840-272-8745)
Planning Department Case Manager:
RYAN RAMSEY (804-768-7592)

APPLICANT'S REQUEST

Conditional use to permit a communications tower (data node antenna) in a Residential (R-15) District).

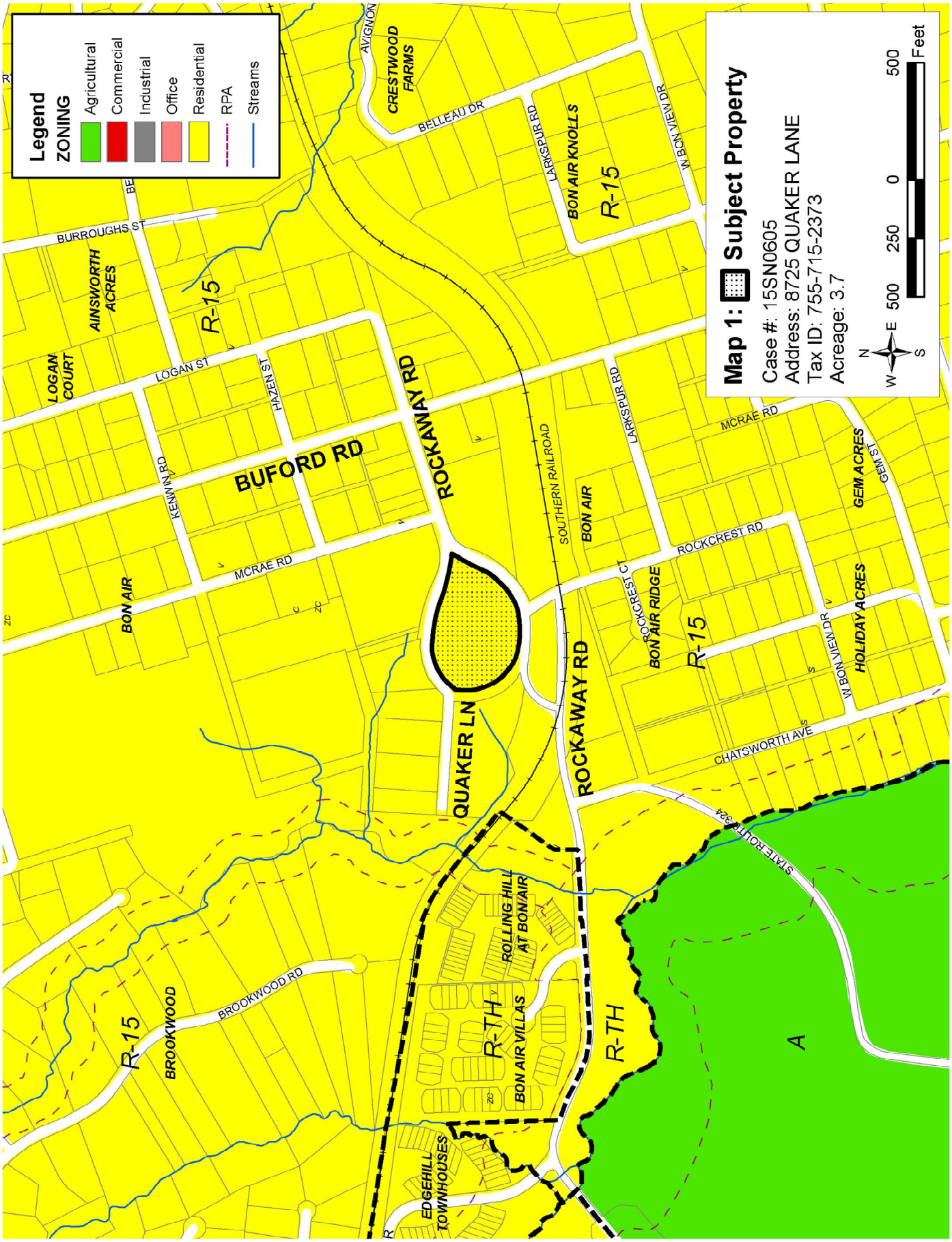
An antenna (data node/small cell) mounted on existing recreational light pole is planned.

(NOTES: A. Conditions may be imposed or the property owner may proffer conditions.
B. Under the Federal Telecommunications Act, localities cannot regulate cell towers on the basis of possible health or environmental effects of radio frequency emissions.
C. Proffered conditions are located in Attachment 1.)

RECOMMENDATION

PLANNING COMMISSION (1/20/15)	RECOMMEND APPROVAL
STAFF	RECOMMEND APPROVAL • Complies with Comprehensive Plan • Consistent with Telecommunications Tower Siting Policy criteria

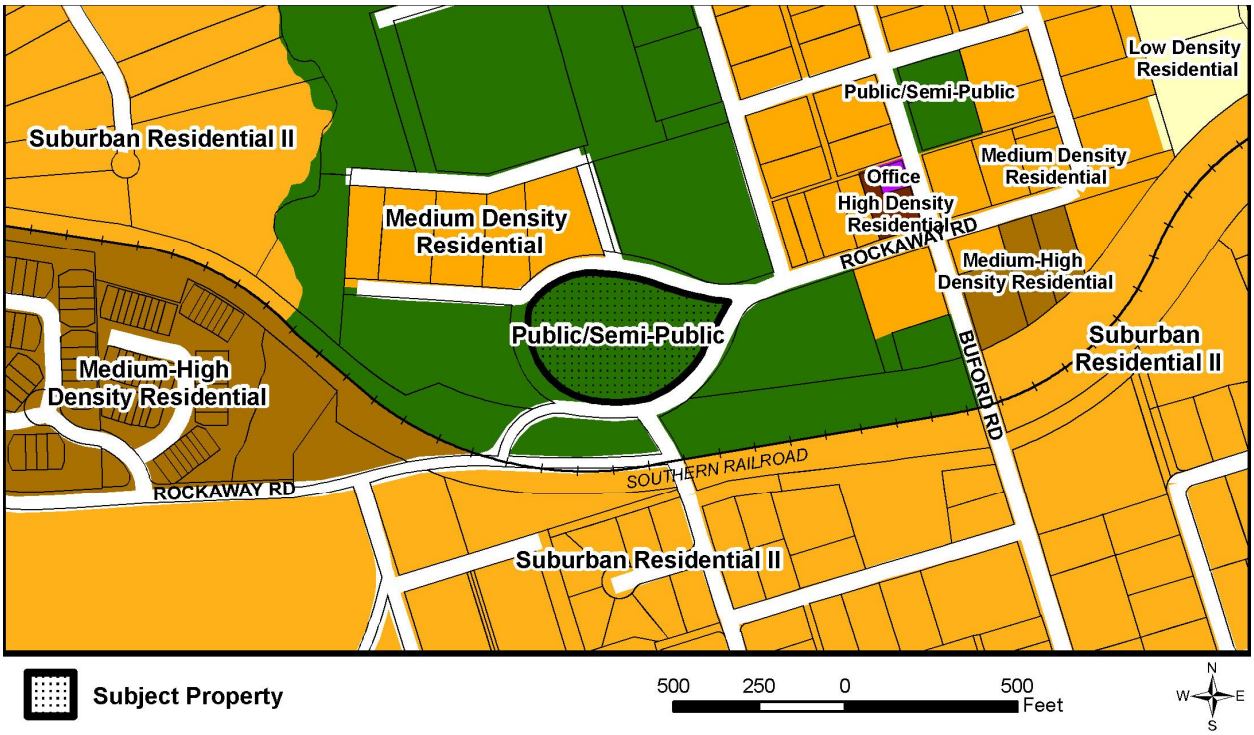
SUMMARY OF IDENTIFIED ISSUES	
Department	**Issue**
PLANNING	-
FIRE	-
CDOT	-
VDOT	-
UTILITIES	-
ENVIRONMENTAL ENGINEERING	-


Legend
ZONING
Agricultural
Commercial
Industrial
Office
Residential
RPA
Streams
Map 1: Subject Property
Case #: 15SN0605
Address: 8725 QUAKER LANE
Tax ID: 755-715-2373
Acreage: 3.7
N
W
E
S
500
250
0
500
Feet
BURROUGHS ST
AINSWORTH ACRES
LOGAN COURT
LOGAN ST
HAZEN ST
KENWIN RD
BUFORD RD
MCRAE RD
BON AIR
R-15
ROCKAWAY RD
QUAKER LN
SOUTHERN RAILROAD
AVIGNON
CRESTWOOD FARMS
BELLEAU DR
LARKSPUR RD
BON AIR KNOLLS
W BON VIEW DR
ROCKCREST RD
ROCKCREST CT
BON AIR RIDGE
GEM ACRES
GEM ST
HOLIDAY ACRES
CHATSWORTH AVE
STATE ROUTE 634
BROOKWOOD
BROOKWOOD RD
ROLLING HILL AT BON AIR
BON AIR VILLAS
EDGEHILL TOWNHOUSES
R-TH
A

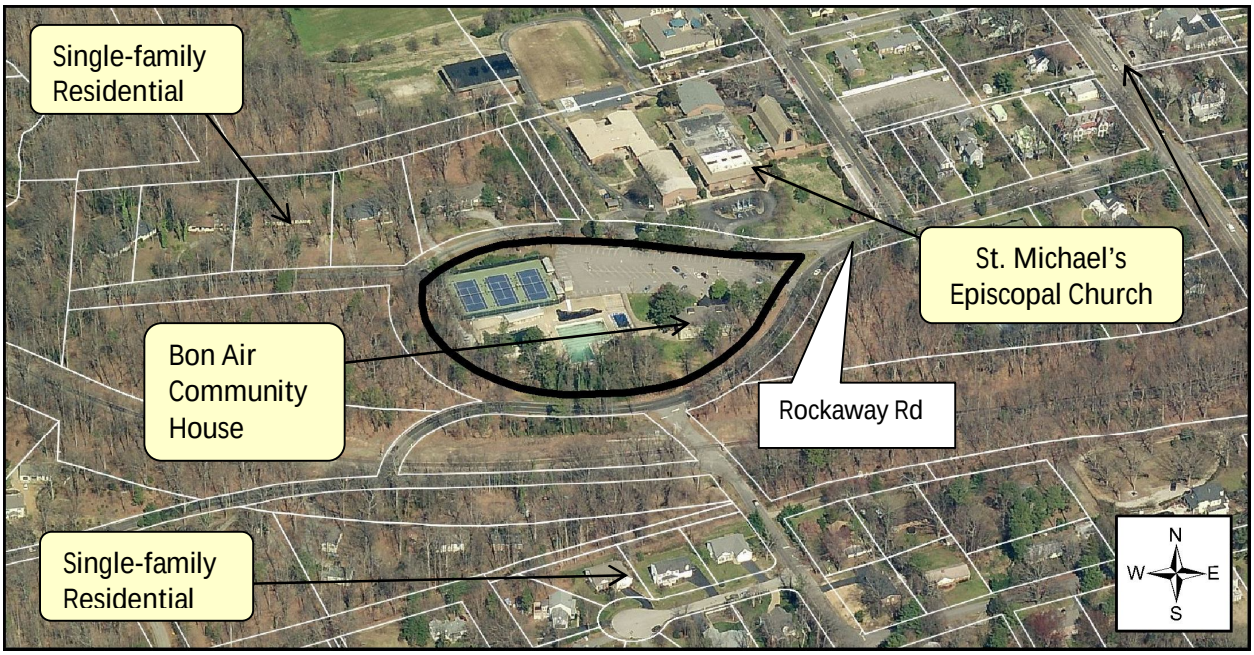
Map 2: Comprehensive Plan (The Bon Air Community Plan)

Classification: **PUBLIC/SEMI-PUBLIC**

The designation suggests the property is appropriate for public/semi-public uses.



Map 3: Surrounding Land Uses & Development



PLANNING

Staff Contact: Ryan Ramsey (804-768-7592) ramseyrp@chesterfield.gov

PROPOSAL

An antennae (data node/small cell) mounted to an existing recreational light pole within the Bon Air Community House complex is planned.

This proposal consists of a cylindrical antenna, approximately fifteen (15) inches in diameter and two (2) feet in height, top-mounted onto a five (5) foot mast on the top of a recreational light pole. To minimize visibility, the antenna will be painted to match the utility pole. (Proffered Condition 2.b.)

PUBLIC FACILITIES PLAN

The Public Facilities Plan, an element of the Comprehensive Plan, encourages:

- co-location on existing telecommunications towers, or
- architectural incorporation into existing building features

Where co-location or architectural incorporation is not feasible, in areas designated for residential development, the Plan suggests that towers should be located and designed to conceal these facilities to the greatest degree feasible and minimize their visual impact.

TOWER SITING POLICY

The Policy establishes guidelines for design, setbacks and security. Elements of the Policy applicable to the proposal are as follows:

- Prohibits signs, except as required by state or federal guidelines
- Provides for screening of ground mounted equipment
- Requires certification of structural integrity
- Requires removal when communications use ceases for more than twelve (12) consecutive months

The following provides an overview of proffered conditions to mitigate the impact of the tower on area properties:

General Overview	
Requirements	**Details**
Signage	• Not permitted, unless otherwise required by applicable (federal or state) law *Proffered Condition 1* *Policy*
Location, Design, Color and Lighting	• Located on existing light pole, as shown on Attachment 2 • Designed as shown on Attachment 3 • Painted to match recreational light pole • Lighting not permitted *Proffered Condition 2* *Plan and Ordinance*
Screening	• Mechanical equipment screened per ordinance *Proffered Condition 3* *Policy*
Structural Integrity	• Provide certification prior to use *Proffered Condition 4* *Policy*
Height	• Not to exceed 35 feet *Proffered Condition 5*
Removal	• Required if use ceases for more than 12 consecutive months *Proffered Condition 6* *Policy*

As proffered, the proposed communications tower complies with the Comprehensive Plan and is consistent with the Telecommunications Tower Siting Policy and Ordinance criteria.

PUBLIC FACILITIES

FIRE SERVICE
Staff Contact: Greg Smith (804-706-2012) smithgd@chesterfield.gov

Nearby Fire and Emergency Medical Service (EMS) Facilities	
Fire Station	The Buford Fire Station, Company Number 9
EMS Facility	The Forest View Volunteer Rescue Squad

When the property is developed, the number of hydrants, quantity of water needed for fire protection, and access requirements will be evaluated during the plans review process.

COUNTY DEPARTMENT OF TRANSPORTATION
Staff Contact: Jim Banks (804-748-1037) banksj@chesterfield.gov

The Comprehensive Plan, which includes the Thoroughfare Plan, identifies county-wide transportation needs that are expected to mitigate traffic impacts of future growth. The anticipated traffic impact of the proposal has been evaluated and it is anticipated to be minimal.

VIRGINIA DEPARTMENT OF TRANSPORTATION
Staff Contact: Brian Lokker (804-674-2384) brian.lokker@vdot.virginia.gov

VDOT Land Use Regulations	
Traffic Impact Analysis (24VAC30-155)	-
Access Management (24VAC30-73)	-
Subdivision Street Acceptance (24VAC30-91/92)	-
Land Use Permit (24VAC30-151)	-
Summary	VDOT has no comment on this case.

COUNTY COMMUNICATIONS

Staff Contact: Robert Vest (804-717-6950) vestr@chesterfield.gov

The system installation may be approved when meeting the standard conditions regarding interference to Chesterfield County Radio and Microwave Systems.

COUNTY AIRPORT

Staff Contact: Jeremy Wilkinson (804-768-7700) wilkinsonj@chesterfield.gov

This request will have no impact on the County Airport.

WATER AND WASTEWATER SYSTEMS

Staff Contact: Jamie Bland (804-751-4439) blandj@chesterfield.gov

The proposal's impacts on the County's utility system are detailed in the chart below:

Water and Wastewater Systems			
	Currently Serviced?	**Size of Existing Line**	**Connection Required by County Code?**
Water	Yes	8"	Yes
Wastewater	No	N/A	No

Additional Information:

The proposed request will not impact the public water and wastewater systems.

ENVIRONMENTAL

Drainage, Erosion and Water Quality

Staff Contact: Doug Pritchard (804-748-1028) pritchardd@chesterfield.gov

Environmental Engineering has no comment on this request.

CASE HISTORY	
Applicant Submittals	
10/31/14	Application submitted
12/23/14	Proffers were submitted
Community Meeting	
12/2/14	**Issues Discussed** • Midlothian Planning Commissioner, applicant, agent and staff attended this meeting at the Bon Air Community House • Location, size and shape of antenna
Planning Commission	
1/20/15	**Citizen Comments** No citizens spoke to this case. **Commission Discussion** The Commission noted their support for this case: • Community meeting attended by adjacent landowners where the applicant was able to explain nature of the request • No opposition to request **Recommendation – APPROVAL AND ACCEPTANCE OF THE PROFFERED CONDITIONS IN ATTACHMENT 1** **Motion:** Waller; **Seconded:** Brown **AYES:** Gulley, Waller, Brown, Patton and Wallin
The Board of Supervisors on Wednesday, February 11, 2015, beginning at 6:30 p.m., will consider this request.	

ATTACHMENT 1

PROFFERED CONDITIONS

Note:
"STAFF/CPC" – Recommended by both staff and Planning Commission

(STAFF/CPC) 1. There shall be no signs permitted to identify this use other than those required by applicable law and regulation. (P)

(STAFF/CPC) 2. The color, design and lighting system for the communications tower (data node antenna) shall be as follows:

a. The communications tower shall be a small cell/data node structure mounted onto the top of utility (light) pole, generally as located on Attachment 2 and designed on Attachment 3.

b. The components of the small cell equipment shall have a durable finish color that matches the utility pole upon which it is located, as approved by the Planning Department. The finish color shall be maintained to address fading, flaking, or other finish issues, as determined by the Planning Department, to include matching any repainting of the utility structure upon which it is mounted.

c. The communications tower (data node antenna) shall not be lighted. (P)

(STAFF/CPC) 3. Other than the data node antenna, any mechanical equipment shall comply with the Zoning Ordinance relative to screening of mechanical equipment in O, C and I Districts. (P)

(STAFF NOTE: The Zoning Ordinance requires the screening of mechanical equipment located on the building or ground from adjacent properties and public rights of way.)

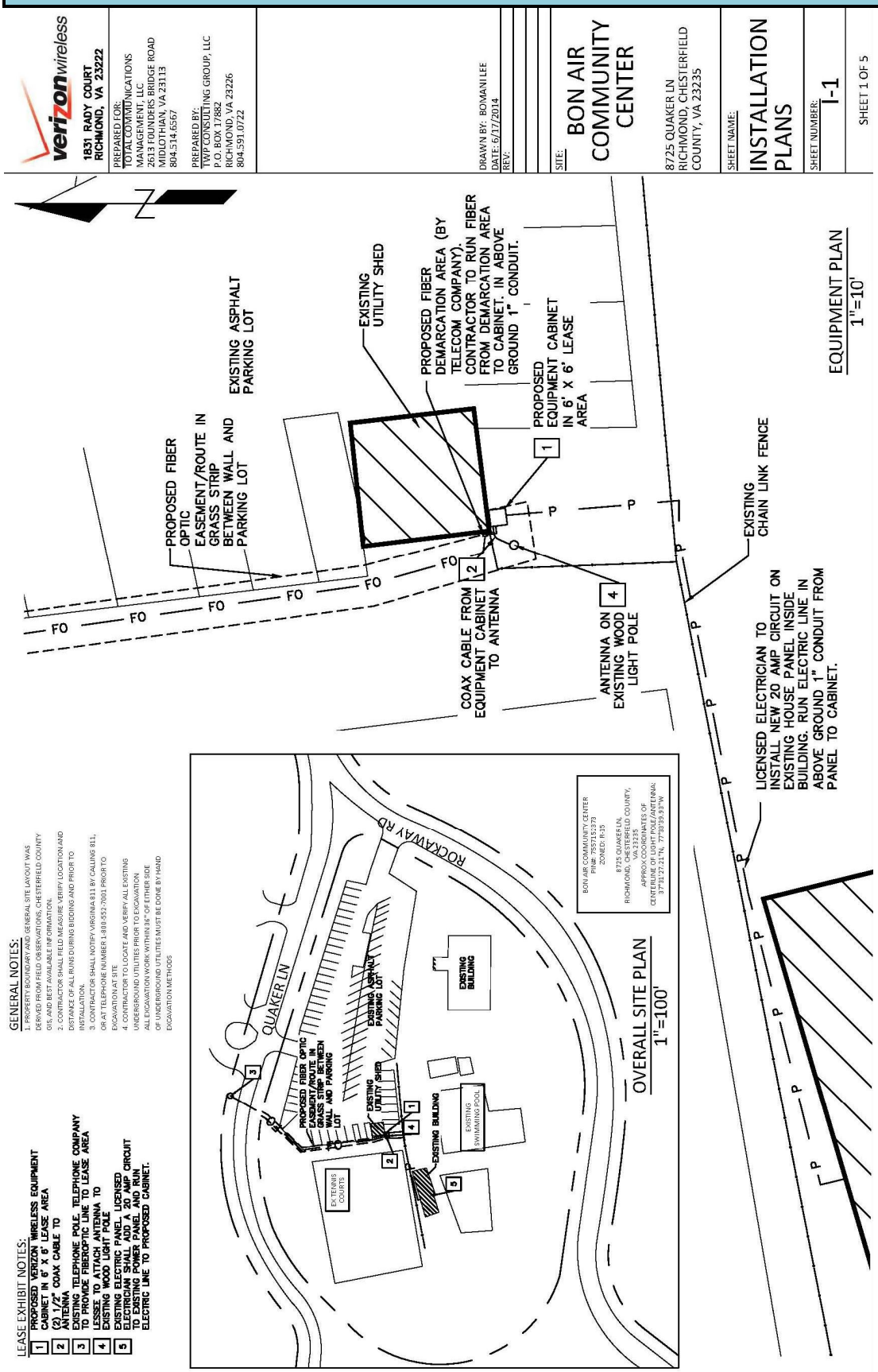
(STAFF/CPC) 4. Prior to use of this communications tower (data node antenna), the owner of the communications tower (data node antenna) shall obtain approval of the structural integrity by a registered professional engineer licensed in Virginia and a copy of the report filed with the Planning Department. (P)

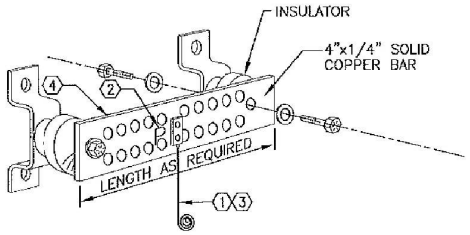
(STAFF/CPC) 5. The communications tower (data node antenna), located on top of a utility (light) pole, shall not exceed a height of 35 feet. (P)

(STAFF/CPC) 6. At such time that the communications tower (data node antenna) ceases to be used for communications purposes for a period exceeding twelve (12) consecutive months, the owner/developer shall dismantle and remove the tower and all associated equipment from the property. (P)

ATTACHMENT 2

SITE LAYOUT





GROUND BAR DETAIL NOTES:

1. TWO-HOLE LONG BARREL COMPRESSION LUG WITH 2 AWG STRANDED COPPER CONDUCTOR AND GREEN THW INSULATION TO GROUND BAR. ROUTE CONDUCTOR AS APPLICABLE TO EXISTING BUILDING GROUNDING SYSTEM.

2. USE PERMANENT MARKER TO LABEL THE WHOLE BAR AS "P" WITH 1" HIGH LETTERS.

3. FOR GROUND BAR LOCATED OUTDOORS, ON-GRADE ONLY, EXOTHERMICALLY WELD A 2 AWG BARE TINNED COPPER CONDUCTOR TO GROUND BAR AND EXOTHERMICALLY WELD TO BURIED GROUND CONDUCTOR.

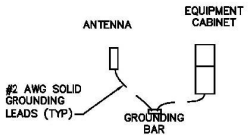
4. GROUND BARS SHALL BE TINNED COPPER AND SHALL BE ENGRAVED OR IMPRESSED STOLEN-DO NOT RECYCLE" AND/OR "PROPERTY OF VZW", ETCHED OR STAMPED WITH SITE FA LOCATION AND SECURED WITH ANTI-THEFT HARDWARE.

GROUND NOTES:

1. EGR-(EXTERIOR GROUND RING) THE BUILDING GROUNDING SYSTEM SHALL BE INSTALLED BY CONTRACTOR. GROUND LEADS OF SUFFICIENT LENGTH SHALL BE PROVIDED FOR THE FOLLOWING:
   - A. TWO (2) GROUND LEADS FOR TL-LE BASE OF THE TOWER.
   - B. TWO (2) GROUND LEADS FOR THE TOWER BOTTOM GROUND BAR.
   - C. GROUND LEADS SHALL BE PROVIDED FOR EACH ICE-BRIDGE POST.
   - D. TWO (2) GROUND LEADS SHALL BE CAD-WELDED TO THE BASE OF POL YPHASER STRAPS AT EACH END OF THE SANDWICH BARS THAT IS PROVIDED.
   - E. GROUND LEADS SHALL BE PROVIDED FOR EACH MECHANICAL UNIT.
   - F. GROUND LEADS SHALL BE PROVIDED FOR THE TELCO GROUND BAR.
   - G. GROUND LEADS SHALL BE PROVIDED FOR EACH CORNER OF THE BUILDING AND TWO CENTER LEADS.
   - H. ONE (1) GROUND LEAD SHALL BE PROVIDED FOR THE ELECTRICAL DISCONNECT AT THE BUILDING.
   - I. ONE (1) GROUND LEAD SHALL BE PROVIDED FOR THE METER BASE.

3. POLYPHASER-CONTRACTOR SHALL ATTACH THE POLYPHASER GROUND STRAPS TO THE BUILDING AND CONNECT THEM TO THE EXTERIOR GROUND RING PER SPECIFICATIONS. VERIZON WIRELESS SHALL FURNISH THE POL YPHASER GROUND STRAPS

4. GROUND RING-CONTRACTOR SHALL INSTALL A GROUND RING PER VERIZON WIRELESS SPECIFICATIONS. THE GROUND RING MUST BE INSTALLED TO A DEPTH OF 30", 8' GROUND RODS SPACED "TIP TO TIP" AND IN EACH CORNER. #2 TINNED SOLID COPPER, EXOTHERMIC WELDS ONLY BELOW GROUND. #2 LEADS FROM THE EGR ARE TO BE SLEEVED IN PVC. TOWER ATTACHMENTS, EXTERIOR BUSS BARS, ICE BRIDGE POSTS, AND POLYPHASER SANDWICH BAR ARE TO BE ATTACHED BY EXOTHERMIC WELD. #2 LEADS FOR ATTACHMENT TO THE INTERIOR HALO ARE TO BE BROUGHT INTO THE SHELTER AND DOUBLE C-TAPPED TO THE #2 STRANDED DOWN-LEADS INSIDE OF THE BUILDING. THE GROUND RING SHALL BE EXOTHERMICALLY WELDED TO TI-LE EXISTING TOWER GROUND RING AT A MINIMUM OF TWO POINTS AND SHOULD BE ACCESSABLE BY A CAPPED PVC TEST WELL. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE THAT MAY BE CAUSED TO ANY EXISTING GROUND RING DURING THE INSTALLATION OF THE NEW GROUND RING.



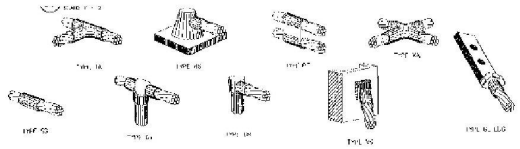
GROUNDING DIAGRAM

5.RESISTIVITY/EGR INSPECTION-24 HOUR NOTICE SHALL BE GIVENTO VERIZON WIRELESS BEFORE THE COMPLETION OF THE EGR, TO ALLOW FOR AN OPEN TRENCH INSPECTION OF THE SYSTEM, AND TO WITNESS THE GROUND FIELD RESISTIVITY TEST. A THREE ELECTRODE FALL OF POTENTIAL TEST IS REQUIRED WITH AN EXPECTED READING OF LESS THAN 5 OHMS. A RESISTIVITY TEST REPORT, WITH A COPY OF THE TEST UNIT'S MOST RECENT CALIBRATION CERTIFICATION IS REQUIRED.

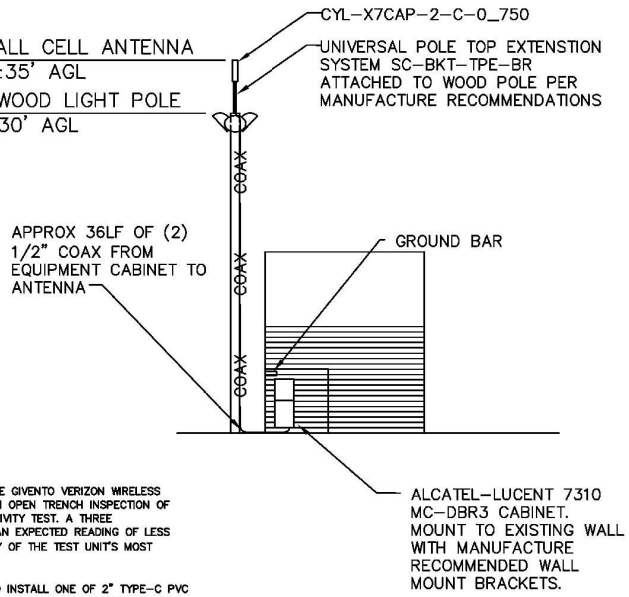
6.ELECTRICAL SERVICE- CONTRACTOR SHAL FURNISH AND INSTALL ONE OF 2" TYPE-C PVC CONDUIT FROM THE BUILDINGS ELECTRICAL DISCONNECT TO THE COMPOUND'S METER BASE. CONTRACTOR SHALL FURNISH AND INSTALL THE ELECTRICAL SERVICE FOR THE BUILDING, CONSISTING OF THE CONDUIT AND WIRE FOR A 200 AMP, SINGLE PHASE SYSTEM.

7.TELECOM CONDUIT-CONTRACTOR SHALL FURNISH AND INSTALL A 2" TYPE-C PVC CONDUIT FROM THE TELEPHONE PROVIDER'S PEDESTAL OR CABINET TO THE EQUIPMENT SHELTER.

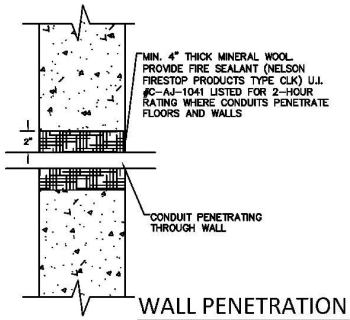
7.EXISTING BELOW GRADE GROUNDING SYSTEM IS BASED ON PROTOTYPICAL GROUNDING SYSTEMS FOR CELLULAR SITES OF THIS NATURE AS WELL AS FIELD OBSERVATIONS OF ABOVE GRADE BONDING CONDITIONS. THE CONTRACTOR SHALL VERIFY THAT THE GROUNDING SYSTEM IS IN PLACE AND SHALL INDICATE EXACT ROUTING OF THE GROUNDING SYSTEM USING SURFACE MARKING METHOD. WHERE PLANS INDICATE TO CONNECT TO EXISTING GROUNDING SYSTEM CONTRACTOR SHALL CAREFULLY EXCAVATE TO EXPOSE EXISTING GROUNDING CONDUCTOR. USE CARE TO MAINTAIN CONTINUITY OF EXISTING GROUND SYSTEM WHILE PERFORMING WORK UNDER THS CONTRACT.



TYPICAL CADWELD & COMPRESSION CONNECTION DETAILS



ELEVATION PLAN
1" = 10'



WALL PENETRATION DETAIL

verizonwireless

1831 RADY COURT
RICHMOND, VA 23222

PREPARED FOR:
TOTAL COMMUNICATIONS MANAGEMENT, LLC
2613 FOUNDERS BRIDGE ROAD
MIDLOTHIAN, VA 23113
804.514.6567

PREPARED BY:
TWP CONSULTING GROUP, LLC
P.O. BOX 17882
RICHMOND, VA 23226
804.591.0722

DRAWN BY: BOMANI LEE
DATE: 6/17/2014
REV:

SITE:
BON AIR COMMUNITY CENTER

8725 QUAKER LN
RICHMOND, CHESTERFIELD COUNTY, VA 23235

SHEET NAME:
INSTALLATION PLANS

SHEET NUMBER:
I-2

SHEET 2 OF 5

TOWER ELEVATION

ATTACHMENT 3

ATTACHMENT 4

PHOTO SIMULATION