



WIRELESS COMMUNICATION FACILITY REPORT

▶ **FILE #:** 1-A-19-WCF **AGENDA ITEM #:** 33
AGENDA DATE: 1/10/2019

▶ **APPLICANT:** VERIZON WIRELESS PARTNERSHIP
OWNER(S): Knoxville Botanical Gardens and Arboretum

▶ **PROPOSED USE:** Wireless communication facility: New tower
COMPLETE APPLICATION DATE: 12/3/2018

TAX ID NUMBER: 82 N J 009 [View map on KGIS](#)
JURISDICTION: City Council District 6
STREET ADDRESS: 2649 Boyds Bridge Pike

▶ **LOCATION:** Located along Wimpole Avenue on the Knoxville Botanical Gardens and Arboretum site, west of the existing cell tower

▶ **APPX. SIZE OF TRACT:** 18.39 acres
SECTOR PLAN: East City
ACCESSIBILITY: Site is accessed via Wimpole Ave.

▶ **ZONING:** A (Agricultural), R-1, and R-2

▶ **EXISTING LAND USE:** Botanical Garden and Arboretum
SURROUNDING LAND USE AND ZONING:
North: Single Family Residential
South: Church
East: Botanical Garden and Arboretum
West: Single and Multi-family Residential

NEIGHBORHOOD CONTEXT: Single Family Residential Neighborhood

STAFF RECOMMENDATION:

▶ **Approve the Wireless Communication Facilities (WCF) application for a new 120 foot type 1 monopole, subject to Waiver #1 and meeting City Engineering standards.**

Waiver #1: A waiver is required for this application because the tower is located within 50 feet of an existing US Cellular tower. The ordinance has a 1,500 foot separation standard (distance between towers). The ordinance permits the Planning Commission to grant an exception to this separation standard, provided the applicant can demonstrate that technically neither coverage nor capacity can be achieved using these standards. The applicant has documented that the structure is incapable of supporting another antenna. This information was reaffirmed by Knoxville-Knox County Planning's WCF consultant.

COMMENTS:

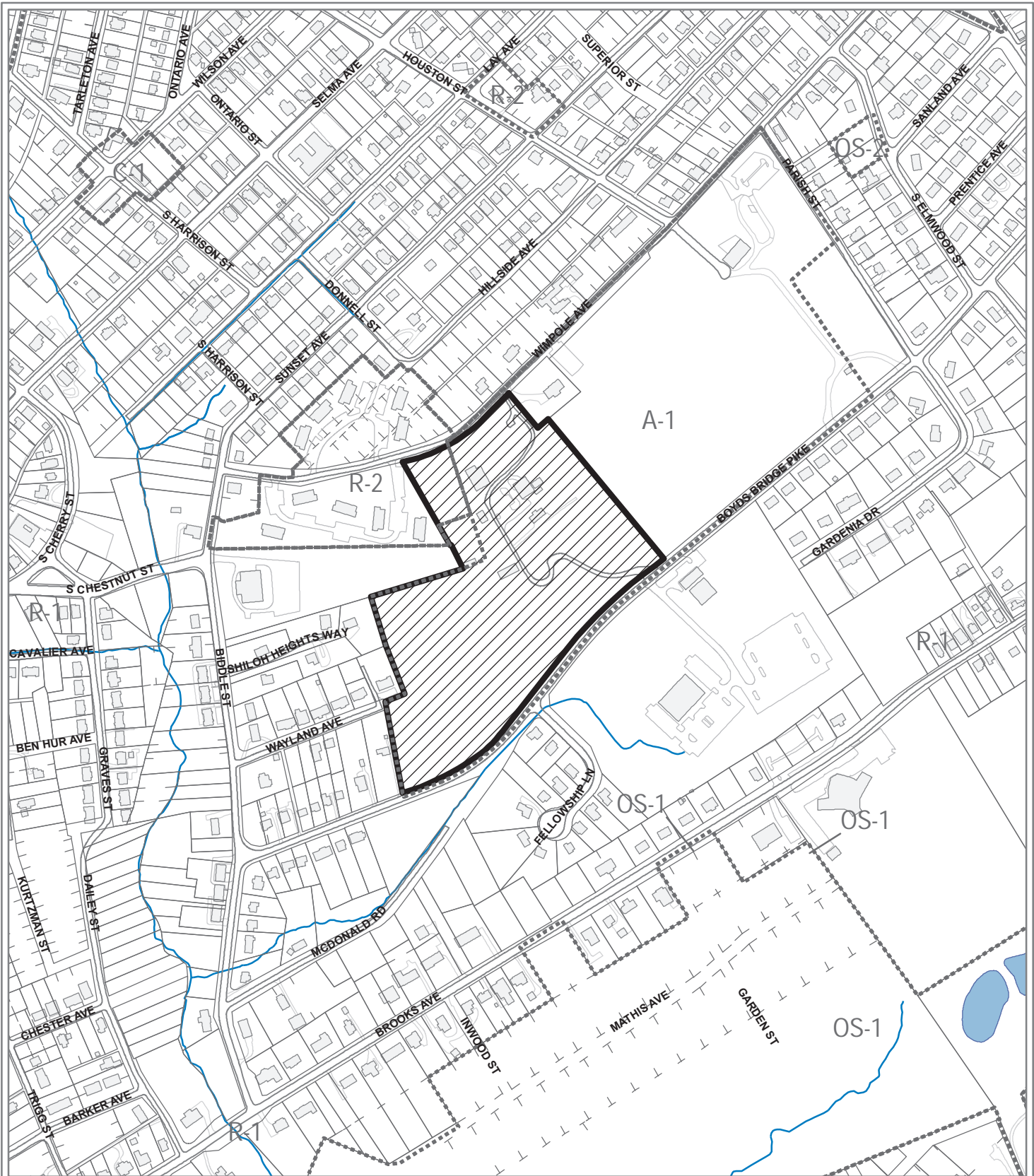
The proposed wireless communications facilities (WCF) application is for a 120 foot type 1 monopole cell tower, located on the north side of the Knoxville Botanical Gardens & Arboretum, 2649 Boyds Bridge Pike (Parcel# 082NJ009). The proposed tower is within 1,500 feet of an existing tower, requiring a level 2 review. The applicant investigated alternative preferred site locations and possible collocation on existing towers in the surrounding area. All the sites investigated proved to be not feasible to address the applicants coverage needs.

The application was unable to meet the perimeter landscaping requirement in their leased space. However, the applicant reached an agreement with Knoxville Botanical Gardens & Arboretum to provide landscaping outside the leased area that meets the perimeter landscaping standards as set forth in the ordinance.

City Fire and City Engineering Departments have expressed concerns pertaining to the driveway access. These details can be addressed through the City permitting process.

Knoxville-Knox County Planning's consultant also recommends approval based on their analysis of this application.

Appeals shall be filed within 15 days of a decision. The City of Knoxville or Knox County building official shall be notified of any appeals filed. Appeals are heard by Knoxville City Council or Knox County Board of Zoning Appeals.



**1-A-19-WCF
WIRELESS COMMUNICATIONS FACILITY**



Case Area - currently zoned A-1, R-1, R-2

Petitioner: Verizon Wireless Partnership

Map No: 82

Jurisdiction: City



Original Print Date: 12/17/2018 Revised:
Metropolitan Planning Commission * City / County Building * Knoxville, TN 37902

MEMORANDUM

DATE: December 14, 2018

TO: MPC Staff

FROM: Curtis Williams

SUBJECT: UOR – Verizon Wireless Tower

ADDRESS: Wimpole Ave

DATE SUBMITTED: November 2018

Engineering Comments – (Can typically be handled on permit review)

1. **Most engineering elements will be reviewed in detail during the permit review.**
2. Please note that ~~CGP coverage~~, bonds, ~~covenants~~, plats, SPAP, Water Quality (FF), ~~floodplain development permit~~, downstream study, etc... may be required as part of the permitting for this site.
3. Additional items may be covered under plat review.
4. Most landscaping elements will be addressed in permitting. (if applicable)
5. A detailed striping and signage plan will be required.
6. Please verify that ½ of impervious area has not been added to this parcel since 1997. (Detention and water quality may be required if ½ or more of impervious are has been added since 1997)

UOR Comments

7. This plan appears to be designed without consideration of Policy 28 of the City of Knoxville Land Development Manual. Please reference this policy for additional info. Many of the following comments are based on this info.
8. Please see comments above. These may impact the proposed site.
9. Please note that this parcel is not a lot of record and may need to be platted in order to obtain a building permit.
10. The driveway needs to be a min. of 16' wide, and a minimum of 20' wide in the ROW.
11. Please show turning templates for a BUS-40.
12. Please provide an ADA apron on the driveway.
13. Please provide a paved surface and cross section for the driveway per Policy 28.
14. Please verify sight distance in each direction of the driveway.
 - a. Sight profiles, as well as sight triangles need to be shown.
 - b. Please identify any vegetation that needs to be addressed to provide sight distance.
15. It is recommended that you reach out to the local neighborhood groups prior to completing this UOR. Please contact Eden Slater at 865 215-2113 for local neighborhood contact info.
16. Please provide a comment response document for the revised submittal.

Wireless Telecommunications

Level II Review
Knoxville-Knox County Planning Commission
Verizon Wireless Site #303400, Maynard Glen
Wimpole Avenue, Knoxville, TN 37914
Parcel ID: 082N J 009

Proposed Tower Detail: 120-foot Type 1 Monopole, with 4-foot lightning rod
Use: Telecommunications Antenna Support Structure
Zoning Classification of underlying parcel: A-1
Current Property Owner: Knoxville Botanical Gardens & Arboretum

MPC – City of Knoxville Ordinance (**“Ordinance”**) Section 20 Governing Wireless Communication Facilities (**“WCF”**)

New Tower Development Standards:

Section C3c. Preferred Locations: A-1 Zone class as a preferred location for WCFs within these regulations. Verizon Wireless is in compliance with this section.

All new towers shall be either type 1 or type 2 monopole design. Type 1 monopole is sometimes referred to as a slick stick or unipole. It is a type of monopole design where all antenna and related equipment are housed inside the pole structure rather than attached to the exterior of the pole in an effort to conceal the visual impact of the antennas.

Section D3 a. 1) The proposed 120-foot tall tower will be a type 1 monopole as defined by the zoning ordinance. Verizon is in compliance with this section of the ordinance.

Section D3 b. The maximum allowable height in an A-1 zone as regulated by Section E, Table 1 is 125 feet. The tower proposed is 120 feet in height. Verizon is in compliance with this section of the ordinance.

Section D3 c. Separation. All towers shall have a minimum separation of one thousand five hundred (1,500) feet. This separation standard shall not apply to sites where applicants are proposing a new tower to replace an existing tower. The old tower shall be removed within sixty (60) days of the new tower becoming operational.

There is an existing tower located on the Botanical Gardens property. This tower will be approximately 50 feet to the west of the proposed tower. Verizon first sought to collocate on this existing tower but tests for the structural capacity determined that the tower would not be able to support the additional weight of Verizon's equipment. Email from Crown's representatives evidencing the existing tower is currently at 103.9% capacity is included with

the application. All other existing towers are more than 1,500 feet from the proposed site. Verizon is in compliance with this section of the Ordinance.

Section D3 d. Collocation. A new WCF tower proposed for construction must accommodate a minimum of two (2) antenna arrays if the tower is less than one hundred twenty-five (125) feet in height, and at least three (3) antenna arrays if the tower is one hundred twenty-five feet in height or greater. The base station area shall contain adequate space for ground equipment associated with the proposed number of antenna arrays.

As shown on pages C2 and C4 of the civil plans submitted with their application, Verizon will provide space on this tower for a total of two carriers. Verizon is in compliance with this section of the Ordinance.

Section D3 e. Driveway access. Shall be paved meeting applicable city standards (land development manual). The driveway shall follow the existing topography as much as possible and limit views of the base station from the public street.

The access drive has been designed to comply with the applicable city standards after consultation with the City of the Knoxville Fire Marshal's Office. The proposed driveway will be asphalt. Verizon is in compliance with this section of the Ordinance.

Section D3 f. Landscaping and screening.

1) Towers on ridges. *Not applicable*

2) Base Station

a) Landscaping. All landscaping shall be installed and maintained in accordance with this subsection.

(1) The outside perimeter of the base station shall be planted with at least a twelve-foot wide planting area that contains six-foot high (at the time of planting) columnar or pyramidal evergreens that will form a solid screen at maturity. A break in the planting area not to exceed twelve (12) feet in width shall be allowed for access.

Verizon Wireless is proposing to utilize new plantings along the driveway area along with the installation of a wooden fence to provide a visual screen from the public right of way along Wimpole Avenue. However, page L1 included in the site plans must be amended per the requirement of this section to show the full outside perimeter of the compound to be planted with at least a twelve-foot wide planting area that contains six-foot high (at the time of planting) columnar or pyramidal evergreens that will form a solid screen at maturity.

(2) Existing vegetation shall be used when feasible to camouflage the base station.

Existing vegetation to the south and west of the existing site will be retained to help screen the site from view of adjoining properties.

b) Screening. All base stations shall be fenced. In residential zones, scenic highway, and historic areas base stations may include wood or masonry fencing. Fencing shall be designed to blend in with existing surroundings, using architecturally compatible construction and colors.

Verizon Wireless is proposing to erect a six (6) foot tall wooden fence around the entire perimeter of the equipment area to screen the equipment from view. The fence details are shown on page C6 of the civil drawings submitted with this application. Upon revisions added to the L1 page, Verizon will be in compliance with this section of the Ordinance.

Section D3 g. Equipment shelter. An equipment shelter used in connection with a WCF shall be limited to four hundred (400) square feet of gross floor area per provider and twelve (12) feet in height. In residential zones, all equipment shelters should be designed to blend in with existing surroundings, using architecturally compatible construction and colors.

As depicted on page C2A, all ground equipment will be contained within a 12' x 30' area.

Verizon Wireless will be utilizing outdoor equipment cabinets. This provision is not applicable to this request.

Section D3 h. Setbacks

1) Towers

a) All towers shall be set back from the property line of all properties zoned A-1, R-1, R-1A, R-1E, R-2, R-3, RP-1, RP-2, RP-3, R-4, TC-1, or TND-1 (not including right-of-way), all properties with an H-1 or an NC-1 overlay, and any residentially zoned property within the Town of Farragut or the county, a minimum distance equal to one hundred ten (110) percent of the height of the tower.

Per calculations of this section, Verizon Wireless is required to provide a 132-foot setback from all adjoining property lines. As depicted on page C1 of the site plans, Verizon Wireless fully complies with the setback requirements of the Ordinance.

2) Base station. Perimeter fencing shall meet the setback requirements of the base zoning district, but not less than twenty-five (25) feet.

Verizon Wireless fully complies with this requirement of the Ordinance.

Section D3 i. Lighting. For new wireless communication support towers, only such lighting as is necessary to satisfy FAA requirements is permitted. Dual (low intensity) lighting shall be encouraged. All FAA-required lighting shall use lights that are designed to minimize downward illumination. Security lighting for the equipment shelters or cabinets and other on-the-ground ancillary equipment is permitted as long as full cutoff fixtures are used.

The FCC and FAA do not require lighting for towers less than 200 feet in height. This provision is not applicable to this request.

Section D3 j. Visual impact. All WCFs in residential zones, within two thousand (2,000) feet of a scenic highway or Tennessee parkway, and historic districts shall be sited and designed to minimize adverse visual impacts on surrounding properties and the traveling public to the greatest extent reasonably possible, consistent with the proper functioning of the WCF.

Photo simulations have been included with **Verizon's application**. These photos show that the visual impact is minimal. In addition, the existing tower has already established the visual

impact on adjoining properties and the addition of a new slick-stick monopole will have minimal additional impact. Verizon is in compliance with this section of the Ordinance.

Section D3 k. Stealth design/technology. Stealth design is encouraged in zoning districts. Stealth and concealment techniques must be appropriate given the proposed location, design, visual environment, and nearby uses, structures, and natural features (including, but not limited to clock towers, flag poles, or faux-tree). Stealth design shall be designed and constructed to substantially conform to surrounding building designs or natural settings, so as to be visually unobtrusive. Stealth design that relies on screening wireless communications facilities in order to reduce visual impact must screen all substantial portions of the facility from view. Stealth and concealment techniques do not include incorporating faux-tree designs of a kind that are not native to East Tennessee and out of scale with natural vegetation.

The proposed WCF design will be a new slick-stick monopole which will greatly assist in the proposed tower in being visually unobtrusive. Views of the photo simulations submitted with this request help to demonstrate the design and its visual unobtrusiveness. Verizon is in compliance with this section of the Ordinance.

Supplemental documentation in support of Verizon's application reviewed:

Letter of commitment.

Site plans.

Statement of purpose.

Collocation consent letter from Jean Musa stating Verizon Wireless agrees to allow additional carriers to collocation on the proposed tower.

Alternative site analysis.

Visual analysis in the form of mapping and photo simulation.

SUMMARY

The proposed antenna support structure is 120-feet including a 4-foot lightning rod. Lighting WILL NOT BE required for this structure by the FAA due to its proposed height.

A review of the proposed structure and specifications support the use of the monopole structure by one additional potential user in the future.

The structure design meets or exceeds FCC and EIA requirements

The proposed ground equipment will have no impact on the aesthetics of the adjacent land uses. The site plans will need to be revised according to the requirements of the ordinance for the compound to be surrounded by a wooden fence and new proposed vegetation.

The applicant has received authorization from the various governmental agencies, including the Federal Communications Commission, to provide communication service to the citizens of the City of Knoxville.

The existing monopole is not viable for Verizon's equipment as the analysis confirms the structures is already at capacity loading.

The proposed site and structure will have no environmental impact within the federal guidelines.

There is a need for a new wireless facility in this area to provide for the wide spectrum wireless (4G and 5G technology) internet data service and for other wireless voice and data services to be provided under government regulation by the various proposed carriers who plan to use the site with uninterrupted service.

There is no noise associated with the operation of the proposed site other than the emergency power generator and when running will be well within permitted sound levels.

RECOMMENDATION:

In light of the analysis and review of documents, it is my professional opinion that upon the inclusion of the revisions requested to the landscaping, the applicant will meet all requirements of the Ordinance and the federal/state requirements.

Respectfully submitted,

Victoria M. Farmer

Zoning Consultant

On behalf of Knoxville/Knox County

Level II Review
Knoxville-Knox County Planning Commission
Verizon Wireless Site #303400, Maynard Glen

RF summary:

- This a new site. This tower proposes to enhance coverage and capacity in the area. There is marginal coverage in the area already.
- The coverage is based on the new technology currently being promoted by the various carriers, 4G LTE and 5G, for data and voice transmission. The tower height is justified in this case in that the new technology is fairly limited as to range which the new tower will help prevent shadow areas. Also, space for one additional user to be added in the future without need for additional towers in the immediate vicinity.
- This tower will require a high-gain antennas because of policy requirement for towers in this area to comply with esthetic policy of the county.
- Assuming that there are multiple carriers operating cellular or PCS transmitters/receivers at this site and all are operating at the same time, the radiation produced by the combination of all the users at the same time using the standards and protocols proposed and used by the carriers today, will be considerably below that established by the Federal Communications Commission and the EPA as creating any danger to humans or animals.
- There is a need for the structure in this area to provide for the wide spectrum wireless (4G and 5G technology) internet data service and for other wireless voice and data services to be provided under government regulation by the various proposed carriers who plan to use the site with uninterrupted service.

RECOMMENDATION: After studying the propagation presentation as provided by Verizon **Wireless, the "before" coverage as indicated clearly shows a hole in their current coverage in this** area; after installation the demonstrated coverage, using high-gain antennas, will fix the gap and provide necessary capacity and in-building penetration. I recommend APPROVAL of this site.

Respectfully submitted,

John F. Adams
RF Engineer/ Spectrum Manager

RF Engineer with 35+ years in Wireless Engineering
Master's Degree in Technology Management.

STATEMENT OF COMPLIANCE WITH THE KNOXVILLE ZONING ORDINANCE

Verizon Wireless is required to obtain a Level II Review from the City of Knoxville's Planning Commission for Verizon Wireless' 120 foot tall type 1 monopole pursuant to Section 20 of Article V of the City of Knoxville's Zoning Ordinance. The proposed tower is located on property owned by Knoxville Botanical Gardens & Arboretum. The proposed tower is located at Wimpole Avenue, which is zoned A-1. Verizon Wireless complies with the standards set forth in the Ordinance with the exception of item 3(c) and respectfully requests that the proposed tower be approved.

I. Section 20 - Wireless communication facilities (WCF). Verizon Wireless complies with the Wireless Communications Facilities (WCF) set forth in Section 20 with the exception of item D3(c) of the Ordinance as follows:

3. New tower development standards.

a. Tower type. All new towers shall be either type 1 or type 2 monopole design.

1) Type 1 monopole is sometimes referred to as a slick stick or unipole. It is a type of monopole design where all antenna and related equipment are housed inside the pole structure rather than attached to the exterior of the pole in an effort to conceal the visual impact of the antennas.

- The proposed 120 foot tall tower will be a type 1 monopole as defined by the zoning ordinance.

b. Height. The maximum height of new tower is regulated by the zoning districts in section E table 1.

- The maximum allowable height in a A-1 zone is 125 feet. The tower proposed by Verizon Wireless is 120 feet in height

c. Separation. All towers shall have a minimum separation of one thousand five hundred (1,500) feet. This separation standard shall not apply to sites where applicants are proposing a new tower to replace an existing tower. The old tower shall be removed within sixty (60) days of the new tower becoming operational.

- Currently, there is an existing tower located on the Botanical Gardens property. This tower will be approximately 50 feet to the west of the proposed tower. Exhibit A Shows a photograph of the existing tower.
- Verizon first sought to collocate on this existing tower but tests for the structural capacity determined that the tower would not be able to support the additional weight of Verizon's antennae. Please see email from Crown's representatives discussing that the existing tower is at 103.9% capacity (Exhibit B)
- All other towers are more than 1,500 feet from the location that Verizon proposes.

- d. Collocation. A new WCF tower proposed for construction must accommodate a minimum of two (2) antenna arrays if the tower is less than one hundred twenty-five (125) feet in height, and at least three (3) antenna arrays if the tower is one hundred twenty-five feet in height or greater. The base station area shall contain adequate space for ground equipment associated with the proposed number of antenna arrays.
- Verizon Wireless will provide space for a total of two carriers as required by the zoning ordinance. As shown on pages C2 and C4 of the civil plans submitted with this application, Verizon is showing space for an additional collocators on both the pole and in the equipment area.
- e. Driveway access. Shall be paved meeting applicable city standards (land development manual). The driveway shall follow the existing topography as much as possible and limit views of the base station from the public street.
- The access drive has been designed to comply with the applicable city standards after consultation with the City of the Knoxville Fire Marshal's Office. The proposed driveway will be asphalt.
- f. Landscaping and screening.
- 1) Towers on ridges. *Not applicable*
 - 2) Base Station
 - i. Landscaping. All landscaping shall be installed and maintained in accordance with this subsection.
 1. The outside perimeter of the base station shall be planted with at least a twelve-foot wide planting area that contains six-foot high (at the time of planting) columnar or pyramidal evergreens that will form a solid screen at maturity. A break in the planting area not to exceed twelve (12) feet in width shall be allowed for access.
 - Verizon Wireless is proposing to utilize new plantings along the driveway area along with the installation of a wooden provide a visual screen from the public right of way along Wimpole Avenue. The remainder of the site is only visible from within the subject property.
 2. Existing vegetation shall be used when feasible to camouflage the base station.
- Verizon Wireless will be retaining existing vegetation to the south and west of the existing site to help screen the site from view of adjoining properties.

ii. Screening

1. All base stations shall be fenced.
2. In residential zones, scenic highway, and historic areas base stations may include wood or masonry fencing. Fencing shall be designed to blend in with existing surroundings, using architecturally compatible construction and colors.

- Verizon Wireless is proposing to erect a six (6) foot tall wooden fence around the entire perimeter of the equipment area to screen the equipment from view. The fence details are shown on page C6 of the civil drawings submitted with this application.

g. Equipment shelter.

- 1) An equipment shelter used in connection with a WCF shall be limited to four hundred (400) square feet of gross floor area per provider and twelve (12) feet in height.
- 2) In residential zones, all equipment shelters should be designed to blend in with existing surroundings, using architecturally compatible construction and colors.

- Verizon Wireless will be utilizing outdoor equipment cabinets as shown on page C2A. This provision is not applicable to this request.

h. Setbacks

1) Towers

- i. All towers shall be set back from the property line of all properties zoned A-1, R-1, R-1A, R-1E, R-2, R-3, RP-1, RP-2, RP-3, R-4, TC-1, or TND-1 (not including right-of-way), all properties with an H-1 or an NC-1 overlay, and any residentially zoned property within the Town of Farragut or the county, a minimum distance equal to one hundred ten (110) percent of the height of the tower.

- Verizon Wireless is required to provide a 132 foot setback from all adjoining property lines. Verizon Wireless fully complies with the setback requirements of the zoning ordinance as shown on page C1 of the civil drawings submitted.

- 2) Base station. Perimeter fencing shall meet the setback requirements of the base zoning district, but not less than twenty-five (25) feet.

- Verizon Wireless fully complies with this requirement.

- i. Lighting. For new wireless communication support towers, only such lighting as is necessary to satisfy FAA requirements is permitted. Dual (low intensity) lighting shall be encouraged. All FAA-required lighting shall use lights that are

designed to minimize downward illumination. Security lighting for the equipment shelters or cabinets and other on-the-ground ancillary equipment is permitted as long as full cutoff fixtures are used.

- Verizon Wireless is not proposing to place lighting on the tower. The FCC and FAA do not require lighting for towers less than 200 feet in height.
- j. Visual impact. All WCFs in residential zones, within two thousand (2,000) feet of a scenic highway or Tennessee parkway, and historic districts shall be sited and designed to minimize adverse visual impacts on surrounding properties and the traveling public to the greatest extent reasonably possible, consistent with the proper functioning of the WCF.
- The visual impact of the proposed tower will be greatly minimized due to the slick stick design of the proposed pole. An elevation of the proposed pole is shown on page C4 of the civil drawings submitted with this application.
 - Additionally, a photo simulation was performed showing the proposed tower superimposed from views around the area. These photo simulations have been included with this submittal as Exhibit C. These photos show that the visual impact is minimal. By placing the tower adjacent to the existing much larger tower, the visual impact is minimized.
 - The existing tower has already established the visual impact on adjoining properties and the addition of a new slick-stick monopole which complies with Knoxville's new telecommunications ordinance will have minimal additional impact.
- k. Stealth design/technology. Stealth design is encouraged in zoning districts. Stealth and concealment techniques must be appropriate given the proposed location, design, visual environment, and nearby uses, structures, and natural features (including, but not limited to clock towers, flag poles, or faux-tree). Stealth design shall be designed and constructed to substantially conform to surrounding building designs or natural settings, so as to be visually unobtrusive. Stealth design that relies on screening wireless communications facilities in order to reduce visual impact must screen all substantial portions of the facility from view. Stealth and concealment techniques do not include incorporating faux-tree designs of a kind that are not native to East Tennessee and out of scale with natural vegetation.
- The proposed flag pole type construction of the proposed WCF greatly assists in the proposed tower in being visually unobtrusive. No flag is proposed to be placed on the proposed tower. Views of the photo simulations submitted with this request help to demonstrate the design and its visual unobtrusiveness.

Section 20 (I) Application Submittal Requirements.

1. General Requirements

- a. For public hearing review, a pre-application meeting with MPC staff is required.
 - A pre-application conference was held on November 6, 2018 between Joey Hargis and Jeff Archer.
- b. Letter of commitment. The applicant shall provide a written letter of commitment from at least one cellular provider to locate on an existing or proposed facility.
 - Verizon Wireless is the applicant for this request and the owner of the proposed tower. Verizon Wireless will be the initial tenant of the tower after its construction.
- c. Site plans. Complete and accurate plans and drawings to scale, prepared, signed and sealed by a Tennessee-licensed engineer, land surveyor and/or architect, including:
 - 1) Plan views and elevations showing tower, base station, fencing, landscaping, associated ground equipment, driveway design, lease area, and access and utility easements. All items shall include required dimensions;
 - 2) Identification of distances to the lot lines for adjoining properties and right-of-way from proposed tower and base station.
 - Site plans conforming to the requirements listed above are included with this submittal.
- d. Statement of purpose. A clear and complete written statement of purpose shall minimally include: 1) A description of the technical objective to be achieved, whether it be to close a gap or address a deficiency in coverage, capacity, frequency and/or change in technology; 2) A scaled map that identifies the proposed site location and the targeted service area. The map will be used to determine potential collocation and preferred siting opportunities.
 - Although Tennessee law, (T.C.A. §13-24-305(2)), prohibits a government from creating a regulation that would "Require the applicant to provide any sort of justification for radio frequency need".
 - The Maynard Glen was proposed to provide offload to Burlington-2, as well as provide a coverage upgrade in the residential area surrounding. A copy of the is included within this submittal as Exhibit D.

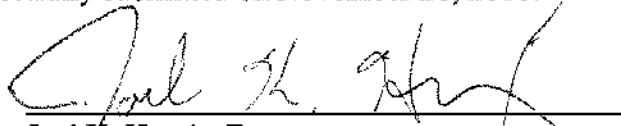
2. Collocation consent. A written statement, signed by a person with the legal authority to bind the applicant and the project owner, which indicates whether the applicant is willing to allow other transmission equipment owned by others to collocate with the proposed WCF whenever technically and economically feasible and aesthetically desirable.
 - Verizon Wireless is submitting a collocation consent letter from Jean Musa which states that Verizon Wireless agrees to allow additional carriers to collocation on the proposed tower. This letter is shown as Exhibit E
3. Not applicable to this request.
4. Additional requirements for new tower.
 - a. Collocation and alternative sites analysis.
 - i. Collocation requirement for all new towers. All applications for a new tower shall demonstrate that existing towers within one (1) mile and other structures and buildings within a half mile are not feasible for collocation, consistent with subsection D.1.
 1. a) For all new towers the applicant shall provide a description of why each tower within one (1) mile of the proposed WCF is not feasible for collocation.
 - There are no towers within 1 mile of the proposed tower. The closest tower is 1.1 miles to the northwest on a site called "Burlington". Verizon Wireless currently has antennae placed upon this tower.
 2. Alternative site analysis. All towers in a residential zone, within two thousand (2,000) feet of a scenic highway or Tennessee parkway, historic district or within 250 feet of a residential zone. a) The tower location preferences located in subsection C.3 must be addressed in a clear and complete written alternative site analysis that shows at least five (5) higher ranked preferred locations, alternative sites considered to the extent that such higher ranked alternative sites are located within one (1) mile of the proposed site. A factually detailed and meaningful comparative analysis between each alternative candidate and the proposed site that explains the substantive reasons why the applicant rejected the alternative candidate. An applicant may reject an alternative tower site for one (1) or more of the following reasons: (1) Inability to obtain authorization by the owner; (2) Failure to meet the service coverage objectives of the applicant; (3) Failure to meet other engineering requirements for such things as location, height and size; (4) Zoning constraints, such as the inability to meet setbacks; (5) Physical or environmental constraints, such as

unstable soils or wetlands; and/or (6) Being a more intrusive location despite the higher priority in this chapter.

A complete alternative sites analysis provided under this subsection may include less than five (5) alternative sites so long as the applicant provides a factually detailed written rationale for why it could not identify at least five (5) potentially available, higher ranked, alternative sites.

- Included with this submission as Exhibit F is a detailed alternative site analysis as required by the ordinance.
- b. Visual analysis. For public hearing reviews, the applicant shall provide color photo simulations of the proposed tower. The photo simulations shall include before and after images of the site, taken from at least four (4) different perspectives and a map identifying the locations that the photos were taken.
- Verizon Wireless has submitted the photo simulations as required as shown in Exhibit C.
- c. Design justification. A clear and complete written analysis that explains how the proposed design complies with the applicable design standards under this chapter to the maximum extent feasible. A complete design justification must identify all applicable design standards under this chapter and provide a factually detailed reason why the proposed design either complies or cannot feasibly comply.
- Verizon Wireless has submitted drawings in full compliance of the standards set forth in Section 20 of the Knoxville Zoning Ordinance with the exception of spacing standards.
- The proposed tower is a Type 1 Monopole with a slick stick design which meets all required setbacks and landscaping requirements of the code. The proposed height of the tower is 120 feet which is 15 feet less than the maximum allowable height in the A-1 zoning district. Finally, the proposed tower is a stealth design with all antennae designed to be completely hidden from view within the proposed tower.

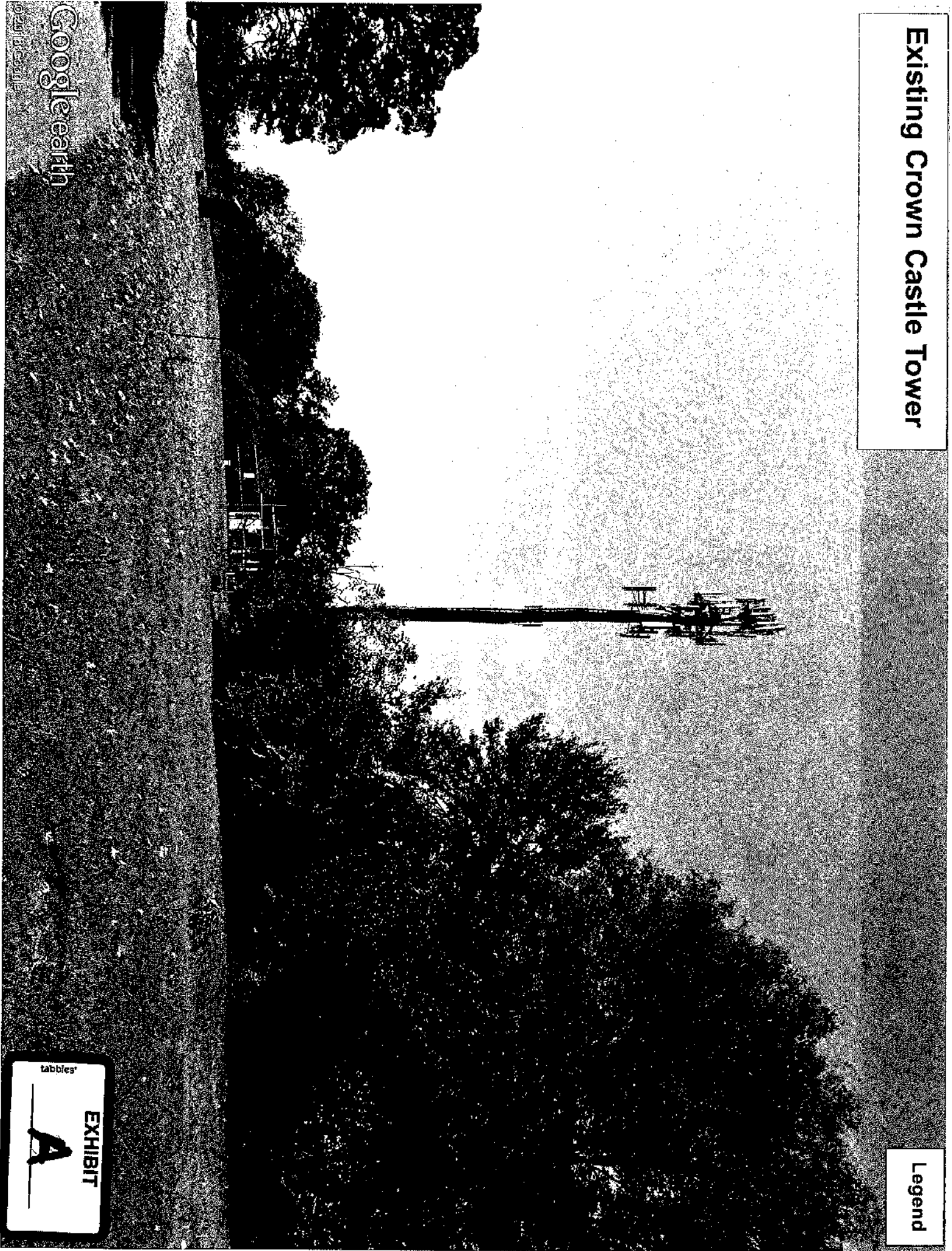
Respectfully submitted on November 21, 2018.



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Fax: (615) 744-7391
Email: jhargis@bakerdonelson.com
Attorney for Verizon Wireless

Existing Crown Castle Tower

Legend



Google Earth

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tabbles®

EXHIBIT

A



From: Northcutt, Bryce [mailto:Bryce.Northcutt@crowncastle.com]
Sent: Monday, December 12, 2016 3:18 PM
To: Richard Williams <richard@rgwilliamsinc.com>
Cc: McNally, Tracy <Tracy.McNally@crowncastle.com>
Subject: RE: Site ID: 813494 > Site Name: PARK CITY 232-076 / Maynard Glen

Richard,

Here's some info our engineering group sent back to us:

ROUGH Estimate for Modifications:

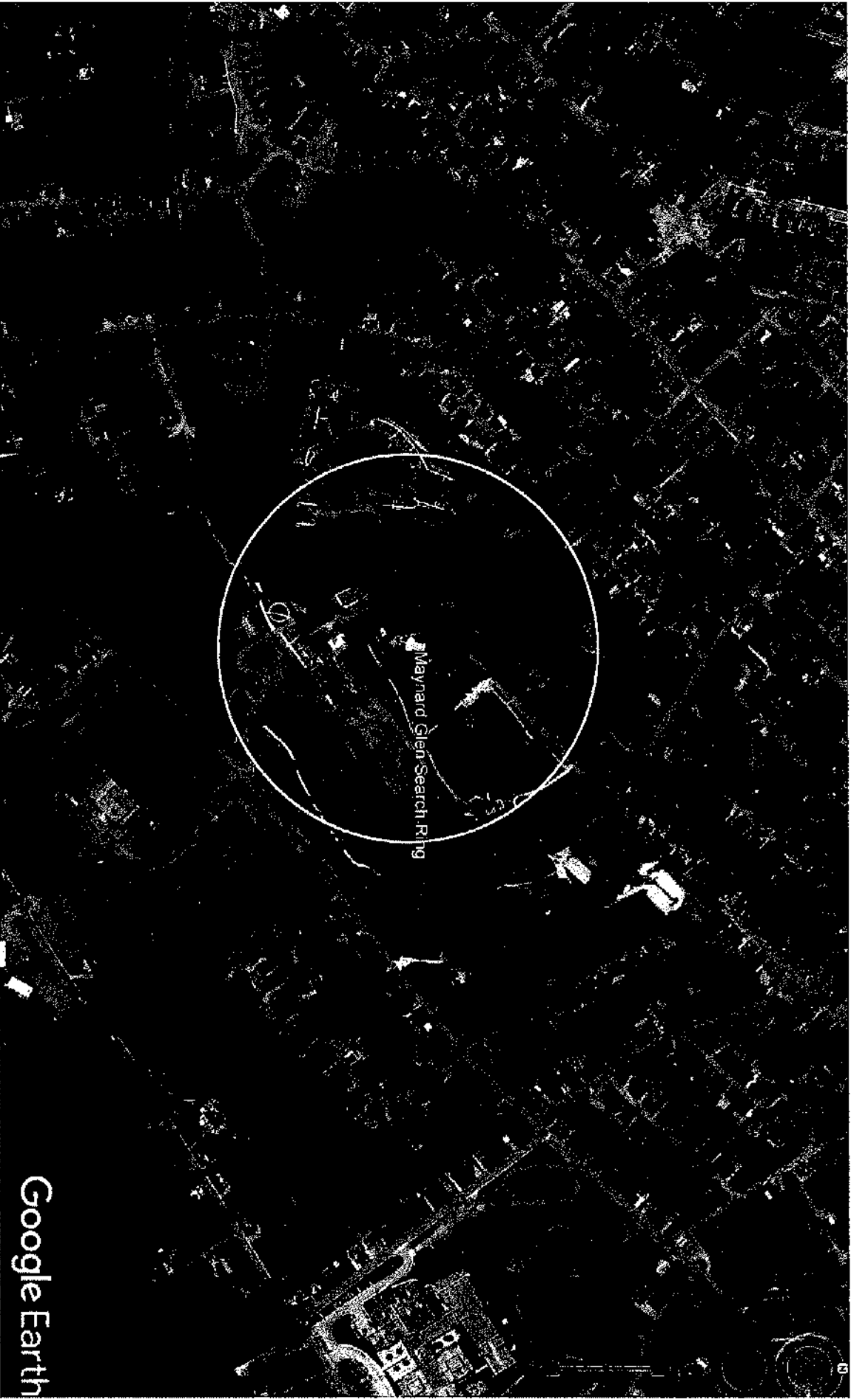
- *The tower currently at 103.9% in Rev F., we would need to run their proposed loading in G.*
- *Of the last thee analysis we ran in G it required 100' (+) of shaft reinforcements, anchor rods and baseplate.*
- *We had a design and a hard cost for this in 2014 @ \$252,000, and I think that this would a good ball park for Vzw's proposed loading (unless their loading causes additional foundation failure).*

First time install so Crown would cover \$100k.

ROUGH Estimate for D&S.

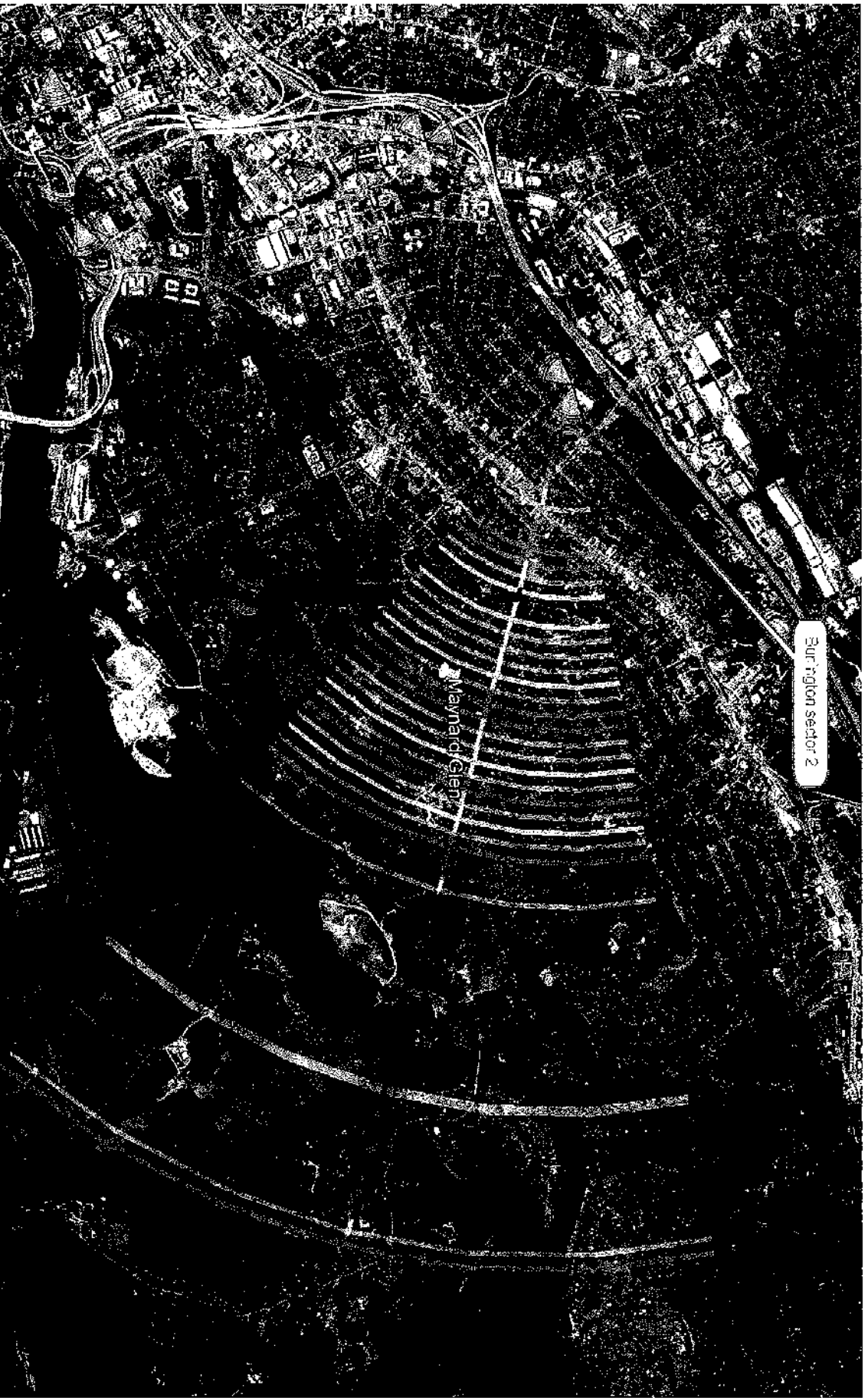
- *Not sure about fitting Vzw within our ground lease space, but it looks like we can fit another MP in this compound.*
- *I would say that the new tower install would be about the same as the mods, but the cost of moving the carriers over to the new tower will really drive the cost.*
- *Moving AT&T, TMO, Sprint, and US Cellular, could bring the cost closer to the \$350 - \$400k (+) mark.*

Search Ring



Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.

Coverage Objectives – Maynard Glen was proposed to provide offload to Burlington-2, as well as provide a coverage upgrade in the residential area surrounding.



Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.

Nearest tower – Crown Tower to NW 1.1 miles – we are already on this tower



Network Operations



Verizon Wireless
8921 Research Drive
Charlotte, North Carolina 28262

Phone 704 510-8500


November 15, 2018

To Whom It May Concern
City of Knoxville Metro Planning Commission
400 Main Street
Knoxville, TN 37902

Re: Future Co-location statement: **Maynard Glen**

Verizon Wireless agrees to accommodate collocation of additional antennae for future users and that the application will charge comparable rates, reasonable within the area market to all users. The proposed tower will provide space for one additional carrier to locate their antenna.

Sincerely,


Jean M Musa
Specialist/Real Estate/Regulatory





December 3, 2018

Verizon Wireless
8921 Research Drive
Charlotte NC 28262

Attention: Michael Haven, Senior Manager RE/Regulatory

Reference: **Visibility Assessment**
Maynard Glen Tower
Knoxville, Tennessee
S&ME Project No. 4143-18-001B P18

Mr. Haven:

S&ME, Inc., has completed a visibility assessment for a new 124 feet tall monopole tower. The project area is located near 2651 Wimpole Avenue in Knoxville, Tennessee (Latitude 35° 58' 55.04" Longitude -83° 52' 58.70").

The goal of this study was to characterize potential visual impacts to the community by creating photosimulations of the proposed tower. The proposed tower location is near an existing communication tower complex and has overhead utility lines along its north and west sides. To conduct this study while avoiding the electrical hazards we used the existing 137' monopole tower located adjacent to the proposed tower location as a reference datum, and photographed the tower area from select locations in the project vicinity.

On Thursday November 29, 2018 S&ME staff performed the fieldwork portion of this study. Jessica Hussey served as the photographer. Photograph locations were suggested by Mr. Joey Hargis, Attorney, of Baker Donelson, Bearman, Caldwell & Berkowitz, PC through an email provided to S&ME's Leira Douthat on November 21, 2018. Mr. Hargis provided seven suggested locations for the photographs. The existing tower was visible at or near four of the seven suggested locations. Photographs of the four visible locations were used for the photosimulations. Each photograph was framed to include a field of view that was wide enough to encompass the existing tower's location, the future location of the tower, and the surrounding view-shed.

This study found that the tower will be visible from all four of the photosimulation locations. However, in each case the view is partially obstructed by intervening buildings, vegetation, and/or the existing tower. In many cases overhead powerlines are also visible.

We have attached an aerial view (Appendix A-1) showing the location of the tower, and the locations of interest from where the photographs were taken and a photosimulation from each target location (Appendix A-2 through A-5).



Attachments



PHOTOSIMULATED
TOWER

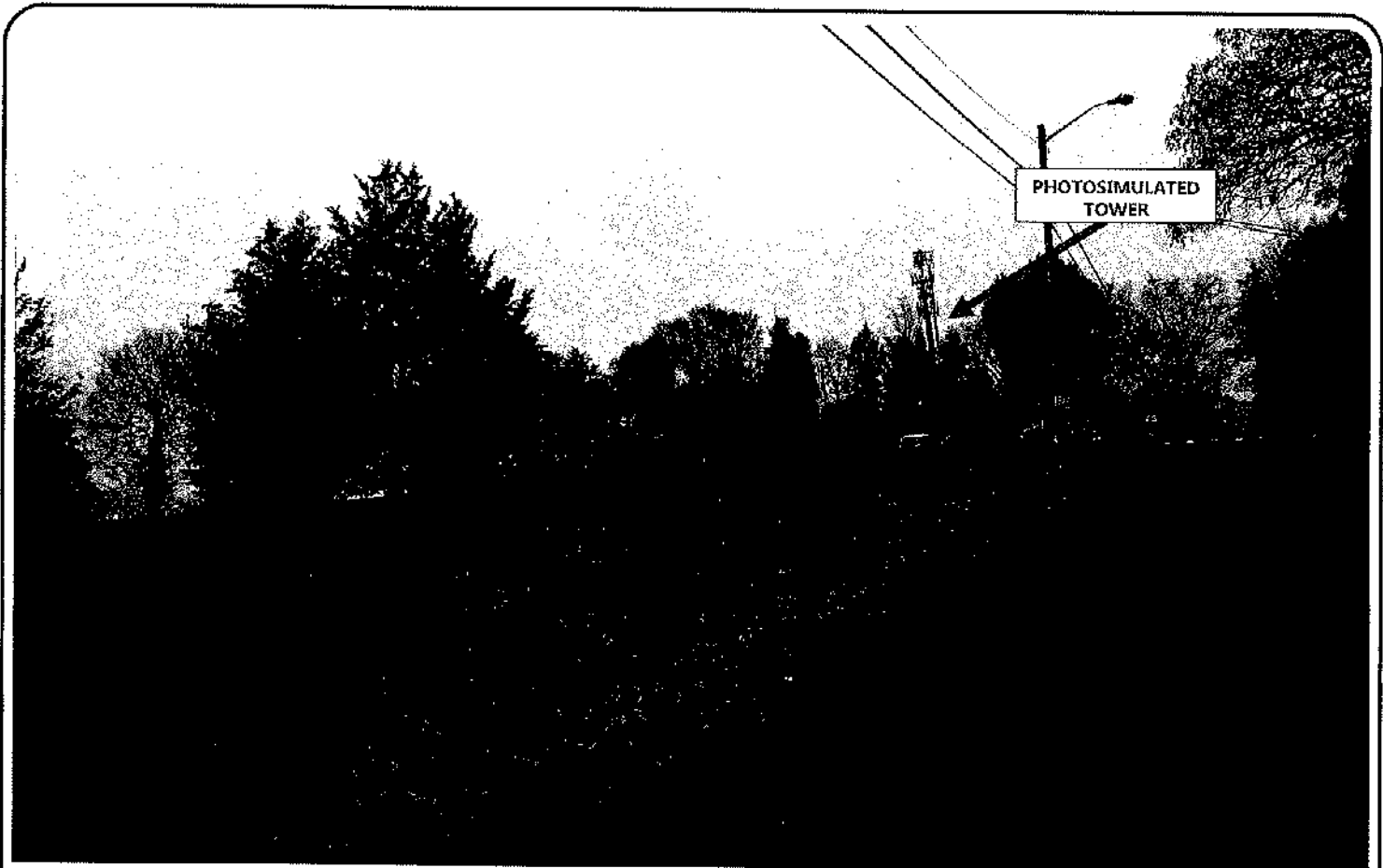


PHOTOSIMULATION 1

KNOXWOOD HILLS APARTMENTS FACING EAST
 PROPOSED MAYNARD GLEN TOWER
 KNOXVILLE, KNOX COUNTY, TENNESSEE

SCALE:
 NOT TO SCALE
 DATE:
 11-30-2018
 PROJECT NUMBER
 4143-18-001B P18

FIGURE NO.
 A-2



PHOTOSIMULATED
TOWER



PHOTOSIMULATION 3

WIMPOLE AVE NEAR BOTANICAL GARDENS VISITOR CENTER FACING SOUTHWEST
PROPOSED MAYNARD GLEN TOWER
KNOXVILLE, KNOX COUNTY, TENNESSEE

SCALE:
NOT TO SCALE
DATE:
11-30-2018
PROJECT NUMBER
4143-18-002B P18

FIGURE NO.
A-4

Maynard Glen - Alternative Site Analysis

1. Crown Castle - 1010130

Site Address: 1931 Laurans Avenue

Coordinates

35 58-0.8 N 83-53-53.2 W

Analysis : This tower was reviewed by Verizon Wireless RF This tower is located 1.31 miles to the southwest. It location is close to an existing Verizon installation to the west located at 820 Townview Drive. The close proximity to the existing site and the location would not meet the service coverage and capacity objectives of Verizon Wireless.

This site was rejected because of its failure to meet the service coverage objectives of Verizon Wireless and is located outside of the search ring.

(Sec. 20 (1)(4)(a)(2)(a)(2)& (3)).

2. Crown Castle - 1010124

Lat/Long: 35-58-53.4 N 83-51-1.9 W

Address: 4501 Strawberry Plains Pike KNOXVILLE, TN, 37921-1904

Analysis: This Crown Castle site is located 1.81 miles to the east of the subject property. The location would not meet the service coverage and capacity objectives of Verizon Wireless.

This site was rejected because of its failure to meet the service coverage objectives of Verizon Wireless and is located outside of the search ring.

(Sec. 20 (1)(4)(a)(2)(a)(2)& (3))

3. Crown Castle -1037159

Lat/Long: 35-59-21.3 N 83-54-2.7 W

Address: 2500 Nichols Avenue Knoxville, TN

Analysis: This Crown Castle site currently hosts an existing Verizon Wireless site as shown in the submitted propagation maps. Additional antenna on this site would not meet the service coverage objectives of Verizon Wireless.

This site was rejected because of its failure to meet the service coverage objectives of Verizon Wireless and is located outside of the search ring.

(Sec. 20 (1)(4)(a)(2)(a)(2)& (3))



4. Crown Castle - 1043664

Lat / Long: 35-58-55.4 N 83-52-58.3 W

Address: 2651 Boyds Bridge Pike, Knoxville, TN

Analysis: This tower is currently located 50 feet east of the proposed tower site and is owned by Crown Castle. As shown in Exhibit B of the submittal application, Verizon inquired as to the ability of the tower to support Verizon's proposed antenna installation. As stated in the email from Crown Castle, the existing tower is at 103.9% capacity.

This site was rejected because of the inability to collocate upon the existing tower

(Sec. 20 (1)(4)(a)(2)(a)(3)).

There are no other towers located within the area in order to meet Verizon Wireless' capacity and coverage network objectives as stated in the propagation maps and graphics shown in the submitted PowerPoint.

KNOXVILLE-KNOX COUNTY

MPC

METROPOLITAN
PLANNING
COMMISSION
TENNESSEE

Suite 400 • City County Building
400 Main Street
Knoxville, Tennessee 37902
885 • 215 • 2600
FAX • 215 • 2088
www.knoxmpc.org

APPLICATION FOR WIRELESS COMMUNICATION FACILITY CERTIFICATE OF APPROPRIATENESS

Name of Applicant: Verizon Wireless Tennessee Partnership

Date Filed: 11/26/2018 Fee Paid: 3000.00 File Number: 1-A-19-WCF

FOR STAFF USE ONLY:

Complete Application Date: 11/26 - Missing Visual Analysis Lead Staff: Jeff A.

PROPERTY INFORMATION

Address: Wimpole Avenue

General Location: Knoxville Botanical Gardens & Arboretum

Map/Parcel No.: 082N J 009 Size of Tract: 18.39 acres

Jurisdiction: City of Knoxville

Zoning District: A-1, R-2, R-1

Existing Land Use: Botanical Gardens

REQUEST

Type of Approval Requested: Level II Review

Locating on a Structure or Building

Small Cell

New Tower

Req'd Pre-Application Meeting: 11/6/2018

MPC Meeting: 1/10/2019

General Requirements

Letter of Commitment

Site Plan

Statement of Purpose

Landscape Agreement

Additional Requirements for New Towers

Collocation and alternative site analysis

Alternative Site Analysis

Visual Analysis *will send when received*

Design Justification

Additional Req'ts for Locating on Structure/Building

Collocation Consent

Additional Requirements for Small Cell

Design Summary

PROPERTY OWNER

Name: KNOXVILLE BOTANICAL GARDENS & ARBORETUM

Address: 2743 WIMPOLE AVE

City/ST/Zip: KNOXVILLE, TN 37914

Telephone: Fax:

APPLICATION CORRESPONDENCE

Name: Joey Hargis, Esq.

Address: 211 Commerce Street

City/ST/Zip: Nashville / TN / 37201

Telephone: 615-726-7391 Fax:

APPLICATION AUTHORIZATION

I hereby certify that I am the authorized applicant, representing the property owner involved in this request or the option holder on same.

Name: Joey Hargis

Signature: *Joey Hargis*

Address: 211 Commerce Street

City/ST/Zip: Nashville / TN / 37201 Telephone: 615-726-7391 Fax: Email: jhargis@bakerdonelson.com

Application Accepted By: *[Signature]*

PROJECT SUMMARY

SITE NAME: MAYNARD GLEN
SITE ADDRESS: WIMPOLE AVE, KNOXVILLE, TN 37914
JURISDICTION: CITY OF KNOXVILLE
COUNTY: KNOX COUNTY
ZONING: SUBURBAN
PROPERTY OWNER: JIM TRACHULIS, 7743 WIMPOLE AVE, KNOXVILLE, TN 37914
OWNER COMPANY: VERIZON WIRELESS TENNESSEE PARTNERSHIP, 575 HICKORY HILLS BLVD, WHITES CREEK, TN 37189
PROJECT NUMBER: 2014092118
SITE LOCATION CODE: 303480
KEVIN CALDWELL: 8614 714-7114
SITE COORDINATE: NA
LAITUDE: 35° 58' 53.04" N (NAD 83)
LONGITUDE: 83° 52' 51.78" W (NAD 83)
ELEVATION: 1038.5 (NAVD 83)
OCCUPANCY: UNMANNED
CONSTRUCTION TYPE: RAWLAND
TELEPHONE COMPANY: TDS
CONTACT: TDS
PHONE: TDS
POWER COMPANY: KNOXVILLE UTILITIES BOARD
CONTACT: CUSTOMER SERVICE
PHONE: (865) 524-2911
FIRE DEPARTMENT: RURAL AUTO FIRE DEPT.
PHONE: (865) 675-0690
POLICE DEPARTMENT: KNOX COUNTY SHERIFF
PHONE: (865) 671-7389
911 ADDRESSING: METRO PLANNING COMMISSION
CONTACT: PENNA LITE
PHONE: (865) 219-2897
 911 ADDRESS WILL NOT BE ASSIGNED UNTIL SITE IS APPROVED IN PLANNING OR BUILDING PERMIT IS ISSUED
 UTILITY NOTES WILL NOT BE ADDED UNTIL SITE IS APPROVED IN PLANNING OR BUILDING PERMIT IS ISSUED

STRUCTURAL REVIEW

CONTRACTOR SHALL OBTAIN AND VERIFY STRUCTURAL EVALUATION REPORT OF EXISTING POWER FOR EXACT PLACEMENT OF ANTENNAS AND CABLE CARRIES. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE STRUCTURAL EVALUATION REPORT AND NOTIFY VERIZONS CONSTRUCTION MANAGER IN THE CASE OF ANY DISCREPANCIES. ANY STRUCTURAL MODIFICATION, IF REQUIRED, SHALL BE DONE PRIOR TO THE INSTALLATION OF ANTENNAS.

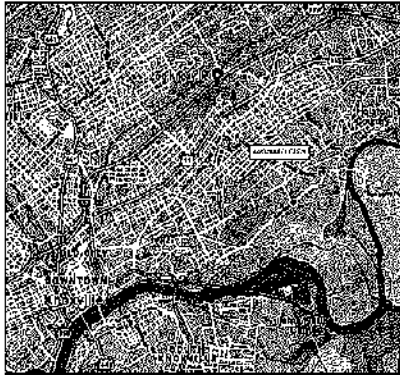


TENNESSEE PARTNERSHIP
 (FOR INFORMATION PURPOSES ONLY)

575 HICKORY HILLS BLVD.
 WHITES CREEK, TN 37189
 ATTN: KEVIN CALDWELL (615)-714-7114

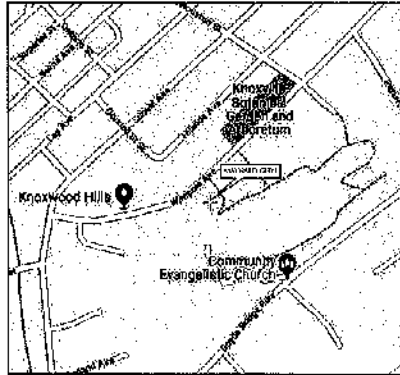
**SITE NAME: MAYNARD GLEN
 WIMPOLE AVE.
 KNOXVILLE, TN 37914**

VICINITY MAP



NOT TO SCALE

LOCATION MAP



NOT TO SCALE

DRIVING DIRECTIONS

FROM VERIZON MTSO, NASHVILLE, TN:
 LET US 24 E, FOLLOW I-40 E TO N CHERRY ST IN KNOXVILLE. TAKE EXIT 191 FROM I-40 E, CONTINUE ON N CHERRY ST. TAKE N 230 WEST ST TO WIMPOLE AVE. TURN RIGHT ONTO N CHERRY ST. TURN RIGHT ONTO E MAGNOLIA AVE. TURN LEFT ONTO N CHESTNUT ST. SLIGHT RIGHT ONTO S CHESTNUT ST. TURN LEFT ONTO BIDDLE ST. TURN RIGHT ONTO WIMPOLE AVE. DESTINATION WILL BE ON THE RIGHT.

SHEET SCALE FACTOR:
 PLOT SIZE:
 11x17" TO SCALE
 74x104" PLOT SCALE AS NEEDED

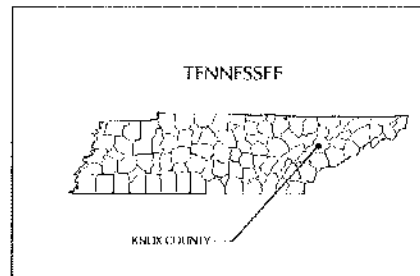


1 (800) 351-1111
 www.verizon.com
 CONTRACTOR TO CALL TENNESSEE
 ONE-CALL SYSTEMS AT LEAST (2) WORKING
 DAYS PRIOR TO DIGGING.

SHEET INDEX

NO.	DESCRIPTION
11	TITLE SHEET
001	GENERAL NOTES
151	LAND SURVEY SHEET
152	LAND SURVEY SHEET
153	LAND SURVEY SHEET
154	LAND SURVEY SHEET
C1	OVERALL SITE LAYOUT PLAN
C1A	SITE GRADING PLAN
C1B	DRIVEWAY PROFILE
C2	SITE LAYOUT PLAN
C2A	EQUIPMENT LAYOUT PLAN
C3	SITE DETAILS
C3A	SITE DETAILS
C3B	SITE DETAILS
C4	SITE DETAILS
C4A	SITE DETAILS
C5	SITE DETAILS
C5A	SITE DETAILS
C6	FENCE DETAILS
C7	SIGNAGE DETAILS
L1	LANDSCAPE PLAN
L2	LANDSCAPE DETAILS
E1	CONTRACT ELECTRICAL SITE PLAN
E1A	ELECTRICAL SITE PLAN
E2	SITE GROUNDING PLAN
E2A	EQUIPMENT GROUNDING PLAN
E3	ELECTRICAL SPECIFICATIONS
E4	ELECTRICAL DETAILS
E5	ELECTRICAL DETAILS
E6	ELECTRICAL DETAILS
E6A	ELECTRICAL DETAILS
E6B	ELECTRICAL DETAILS
E7	SINGLE LINE DIAGRAM
E8	GROUNDING SINGLE LINE

STATE COUNTY MAP



LESSEE

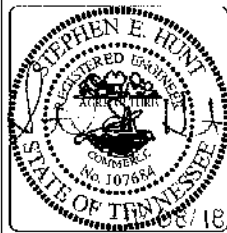


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USE PROJECT # 2014092118
 DRAWN BY: ALP
 CHECKED BY: CAJ

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	11/08/19	ALP	CONSTRUCTION BASE
2	06/26/16	ALP	PRELIMINARY MATRIN



PROJECT #: 2014092118
SITE NAME: MAYNARD GLEN
SITE NUMBER: 303480
SITE ADDRESS: WIMPOLE AVE, KNOXVILLE, TN 37914

DESIGN TYPE: RAWLAND
SHEET TITLE: TITLE SHEET

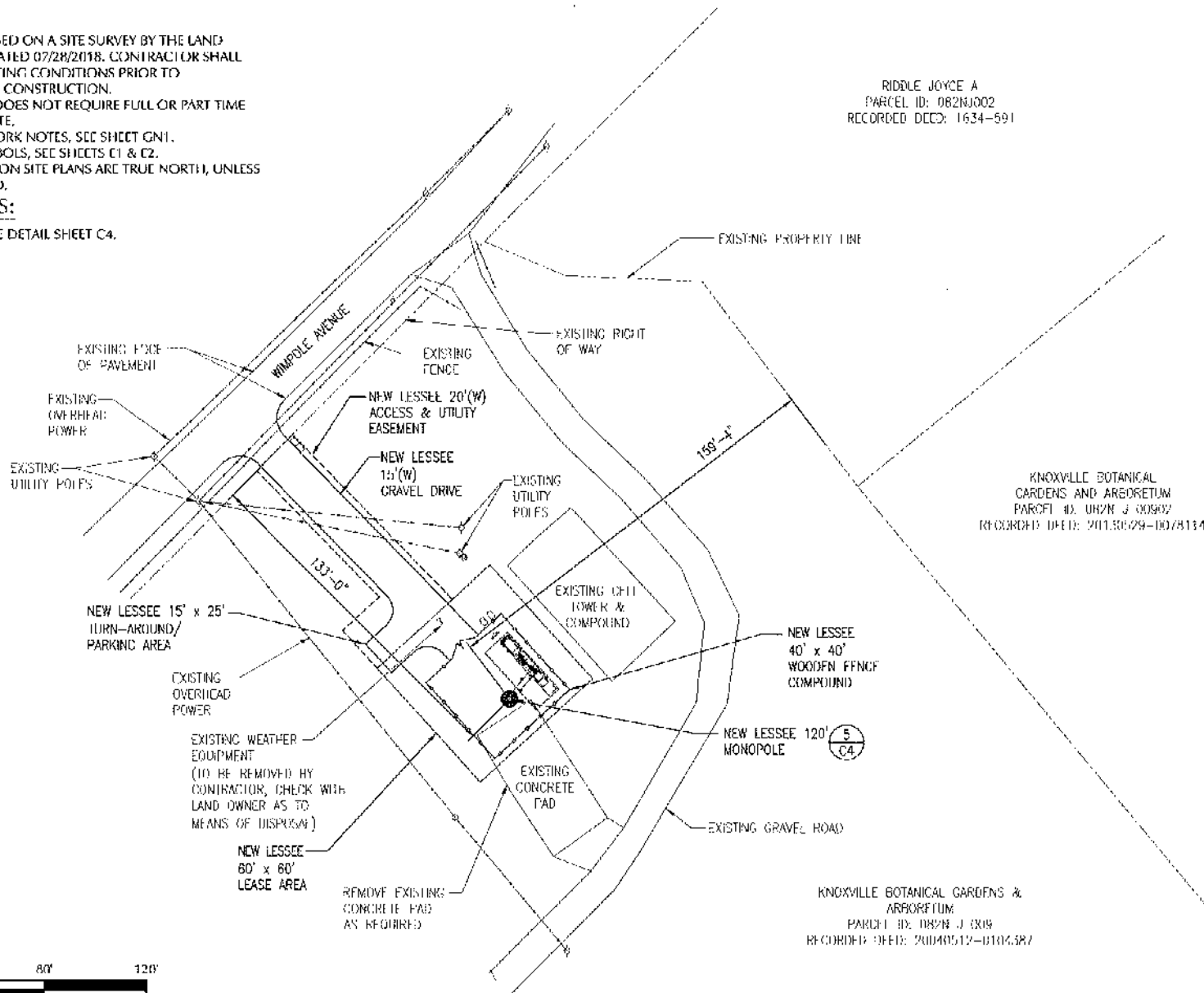
DRAWING NO: T1
REVISION: 0

NOTES:

1. THIS DRAWING IS BASED ON A SITE SURVEY BY THE LAND CONSULTANTS LLC DATED 07/28/2018. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GNI.
4. FOR ELECTRICAL SYMBOLS, SEE SHEETS E1 & E2.
5. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.

REFERENCE NOTES:

- 5 - TOWER ELEVATION. SEE DETAIL SHEET C4.



RIDDLE JOYCE A
 PARCEL ID: 082N002
 RECORDED DEC: 1634-591

KNOXVILLE BOTANICAL
 GARDENS AND ARBORETUM
 PARCEL ID: 082N J 00802
 RECORDED DEED: 2011.50629-10/8114

KNOXVILLE BOTANICAL GARDENS &
 ARBORETUM
 PARCEL ID: 082N J 008
 RECORDED DEED: 201040512-01104387

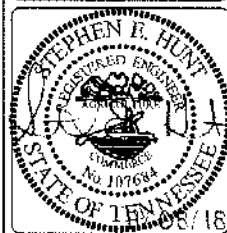
LESSEE

TeleCAD Wireless
 1991 NORTHPOINT BLVD, SUITE 130
 HIXSON, TN 37143
 PH: 123 845-9500
 FAX: 423-643-9500

THE INFORMATION CONTAINED IN THIS DRAWING IS UNLESS OTHERWISE SPECIFIED BY TITLE, AND USE OR REPRODUCTION THEREOF IS LIMITED TO THE PROJECT AND SITE SPECIFICALLY IDENTIFIED.

ASE PROJECT #	20141092118
DRAWN BY	ALP
CHECKED BY	CAD

REVISIONS			
NO.	DATE	BY	DESCRIPTION
11/05/18	BIS	CONSTRUCTION	AS-BUILT
08/05/18	ALP	FINAL/ISSUE	REVISED



PROJECT #	20141092118
SITE NAME	MAYNARD GLEN
REF NUMBER	303400
SITE ADDRESS	WIMPOLE AVE KNOXVILLE, TN 37914
DESIGN TYPE	RAWLAND

SHEET TITLE
OVERALL SITE LAYOUT PLAN

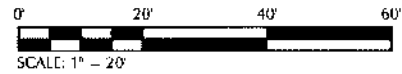
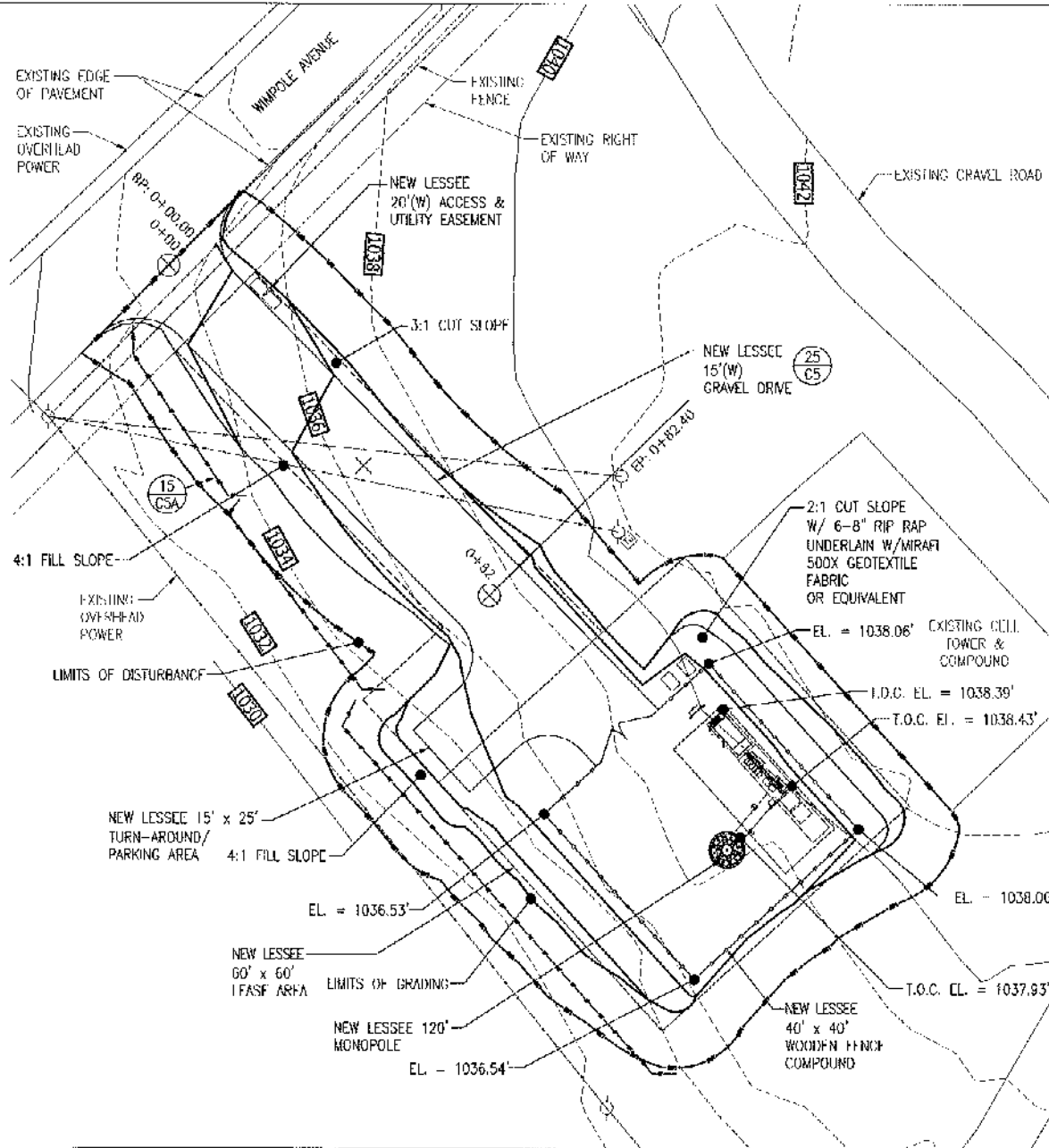
DRAWING NO.	REVISION
C1	0

GRADING NOTES:

1. PROPOSED CONTOURS AND SPOT ELEVATIONS ARE SHOWN AT TOP OF CRUSHED STONE, TOP OF FOUNDATION, OR TOP OF TOPSOIL. SEE DETAILS FOR THICKNESS OF CRUSHED STONE. MASS GRADED AREAS AND CRUSHED STONE SHALL BE FINISHED WITHIN 4" OF GRADES SHOWN.
2. ALL TREES, ROOTS, BRUSH, AND ORGANIC MATTER (TOPSOIL) SHALL BE REMOVED BEFORE BEGINNING FILL. FILL MATERIAL SHALL BE CLEAR SOIL CONTAINING NO ROCKS LARGER THAN 6 INCHES.
3. HILLS SHALL BE FORMED OF SATISFACTORY MATERIAL PLACED IN SUCCESSIVE HORIZONTAL LAYERS OF NOT MORE THAN 6 INCHES IN LOOSE DEPTH FOR THE FULL WIDTH OF EACH STRIP. FILL SOIL SHALL BE PLACED AT A MOISTURE CONTENT THAT IS WITHIN MINUS 1% OR PLUS 3% POINTS OF THE OPTIMUM MOISTURE CONTENT AND TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM 698 (STANDARD PROCTOR). THE UPPER 12 INCHES OF FILL SHALL BE COMPACTED TO 98%.
4. STANDARD PROCTOR TESTS (ASTM 698) SHALL BE DONE BY AN INDEPENDENT TESTING LABORATORY EMPLOYED BY THE CONTRACTOR. IN-PLACE DENSITY TESTS SHALL BE PERFORMED ON EACH LIFT TO ENSURE PROPER PLACEMENT OF FILL MATERIAL.
5. ALL DISTURBED AREAS SHALL RECEIVE GROUND COVER. ALL AREAS TO RECEIVE GROUND COVER SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL. ALL FOREIGN DEBRIS SHALL BE REMOVED BEFORE PLACING TOPSOIL. AREAS WITH LESS THAN 4:1 SLOPE SHALL BE SEEDDED WITH FOUR POUNDS OF KENTUCKY 31 FESCUE AND ONE POUND OF ANNUAL RYE PER 1,000 SQUARE FEET. SLOPES STEEPER THAN 4:1 SHALL BE SEEDDED WITH A MIXTURE OF 1/4 POUND SCARIFIED SERICCA LESPEDEZA, 1/4 POUND CROWN VETCH, AND ONE POUND KENTUCKY 31 FESCUE PER 1,000 SQUARE FEET WITH 30 POUNDS PER 1,000 SQUARE FEET OF 6-12-12 FERTILIZER. SLOPES 3:1 OR STEEPER SHALL BE COVERED WITH NORTH AMERICAN GREEN EROSION CONTROL BLANKET S150 INSTALLED PER MANUFACTURER'S SPECIFICATIONS (OR ENGINEER APPROVED EQUIVA) TO PREVENT EROSION. CONTRACTOR SHALL WARRANT GROUND COVER AND SLOPES FOR A PERIOD OF 1 YEAR.
6. CONFINE ALL CONSTRUCTION ACTIVITY TO PROPERTY OWNER'S PARCEL. DO NOT ENTER ADJACENT PROPERTY WITHOUT OBTAINING APPROVAL THROUGH CELCO PARTNERSHIP.
7. CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FENCE AND OTHER TEMPORARY EROSION CONTROL MEASURES AFTER GRASS IS ESTABLISHED AND STABILIZED.
8. SLOPES 2:1 OR STEEPER MUST BE LINED WITH GEO FABRIC, MIRAFI 500X OR EQUIVALENT, AND HEAVY RIP RAP STONE PLACED ON TOP OF FABRIC TO STABILIZE SLOPE.

REFERENCE NOTES:

- 15 - SILT FENCE DETAIL. SEE DETAIL SHEET CSA.
- 25 - GRAVEL ACCESS. SEE DETAIL SHEET CS.



LESSEE

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 120
IRVING, TN 37342
PH: 615-843-0500
FAX: 615-843-0500

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PROJECT NO.	20141092110
DRAWN BY:	ALP
CHECKED BY:	CAD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	11/08/10	ALP	CONSTRUCTION SET
2	02/03/11	ALP	PERM. BOUNDARY ADJUST

STEPHEN E. HUNT
REGISTERED ENGINEER
No. 10768
STATE OF TENNESSEE

PROJECT NO.	20141092110
SITE NAME:	MAYNARD GLEN
SITE NUMBER:	303400
SITE ADDRESS:	WIMPOLE AVE. KNOXVILLE, TN 37914
DESIGN TYPE:	RAWLAND
SHEET TITLE:	SITE GRADING PLAN

DRAWING NO.	REVISION
C1A	0

REFERENCE NOTES:

- 14 - COMPOUND SURFACING. SEE DETAIL SHEET C5.
- 17 - WOOD FENCE. SEE DETAIL SHEET C6.
- 18 - WOOD CORNER, GATE, END, OR POST. SEE DETAIL SHEET C6.
- 19 - WOODEN DOUBLE GATE. SEE DETAIL SHEET C6.

NEW LESSEE 15' x 25'
TURN-AROUND/
PARKING AREA

NEW LESSEE 60' x 60'
LEASE AREA

(17) (18)
C6 C6 NEW LESSEE 40' x 40'
WOODEN FENCE
COMPOUND

(19)
C6 NEW LESSEE 12'(W)
DOUBLE GATE

NEW LESSEE .30KW
DIESEL GENERATOR
ON A 4'-0" x 8'-0"
CONCRETE SLAB

NEW LESSEE
(GROUND) RADIOS
EQUIPMENT
H-FRAME

NEW LESSEE
ICE BRIDGE

NEW LESSEE 120'
MONOPOLE

NEW LESSEE
4' 0" x 10' 0"
EQUIPMENT SLAB

NEW LESSEE
FIBER HAND
HOLE

NEW LESSEE
DARK FIBER
HAND HOLE

EXISTING
POWER
POLE

EXISTING CELL
TOWER &
COMPOUND

3'-0"
LEASE

12'-7"
LEASE



LESSEE

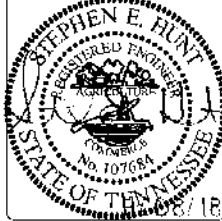
TeleCAD Wireless
1961 N. HICKORY BLVD., SUITE 110
HIXSON, TN 37343
TEL: 423-841-9500
FAX: 423-843-9509

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ASE PROJECT #	20141092118
DRAWN BY	ALP
CHECKED BY	GAU

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	11/09/10	ALP	CONSTRUCTION ISSUE
2	06/08/10	ALP	PRELIMINARY REVISION



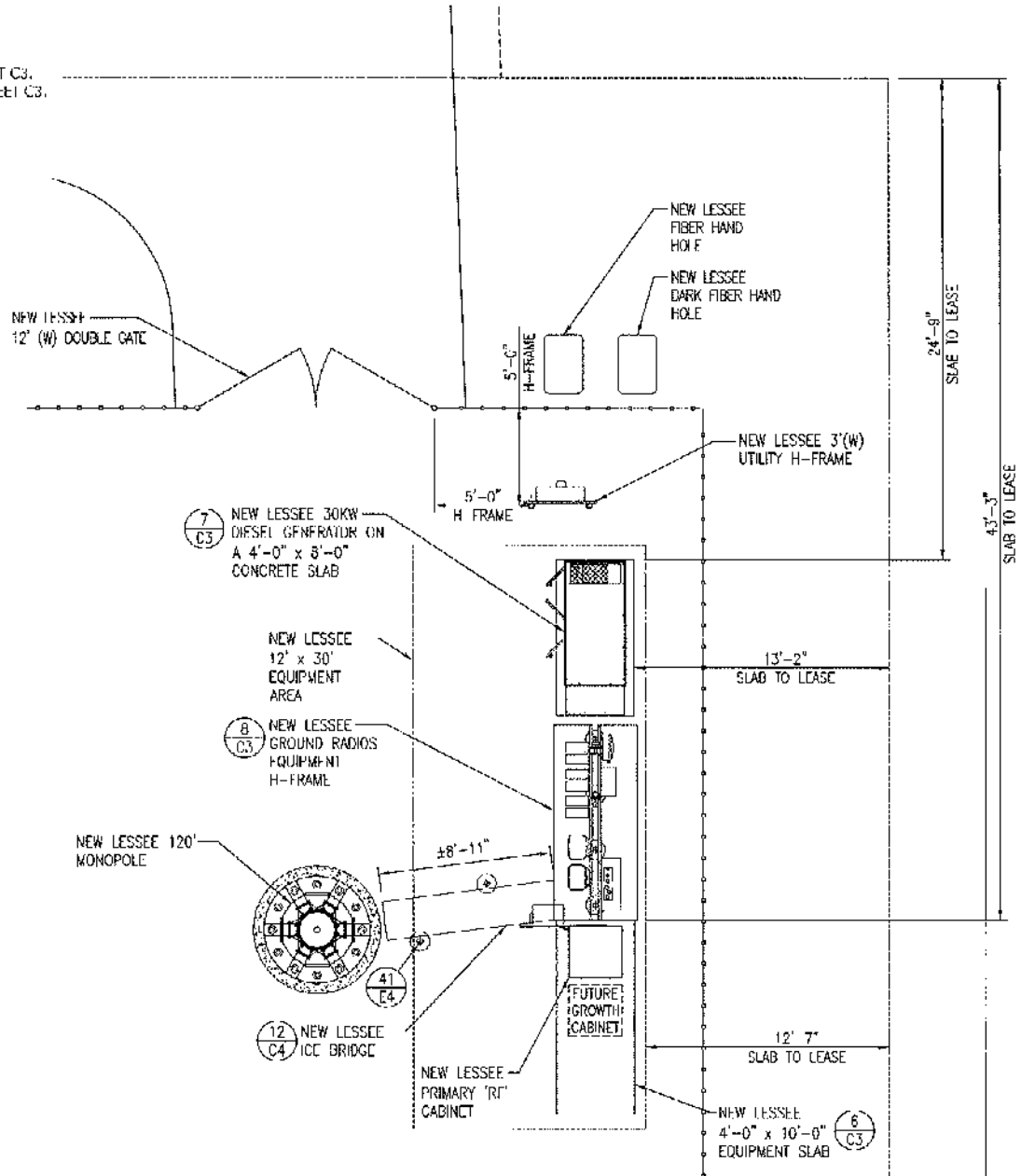
PROJECT NO.	20141092118
SITE NAME:	MAYNARD GLEN
SITE NUMBER	303400
SITE ADDRESS:	WIMPOLL AVE. KNOXVILLE, TN 37914
DISTRICT:	RAWLAND

SHEET TITLE
SITE LAYOUT PLAN

DRAWING NO.	REVISION:
C2	0

REFERENCE NOTES:

- 6 - EQUIPMENT PAD DETAIL, SEE DETAIL SHEET C3.
- 7 - DIESEL GENERATOR CONCRETE DETAIL, SEE DETAIL SHEET C3.
- 8 - GROUND RADIOS EQUIPMENT H-FRAME, SEE DETAIL SHEET C3.
- 12 - ICE BRIDGE AT MONOPOLE, SEE DETAIL SHEET C4.
- 41 - GROUND BAR DETAIL, SEE DETAIL SHEET E4.



LESSEE

TeleCAD Wireless
 1961 NORTH POINT BLVD, SUITE 130
 HIXSON, TN 37343
 PH: 423-843-9500
 FAX: 423-843-9510

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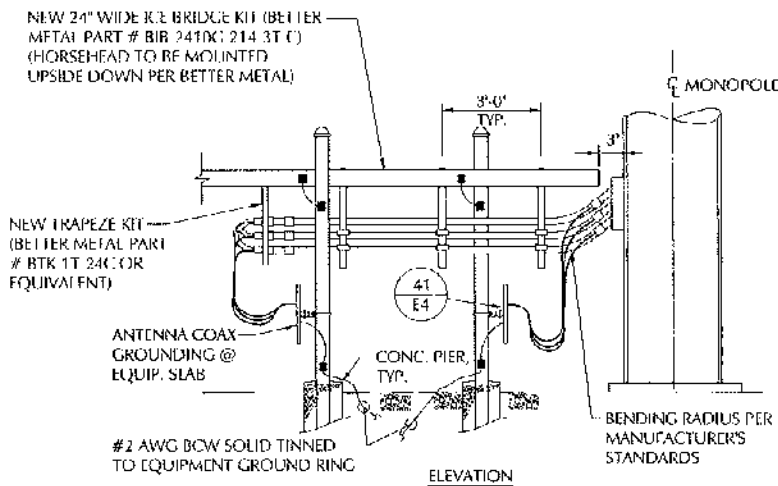
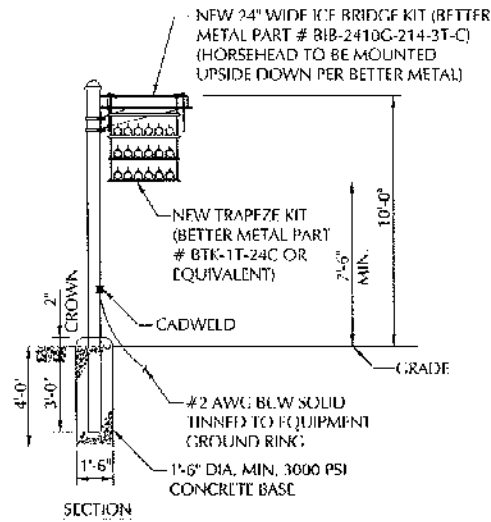
ASL PROJECT #	20141092110
DRAWN BY	ALP
CHECKED BY	CAD

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	11/26/18	ALP	CONSTRUCTION ISSUE
2	09/28/18	ALP	PRELIMINARY REVIEW



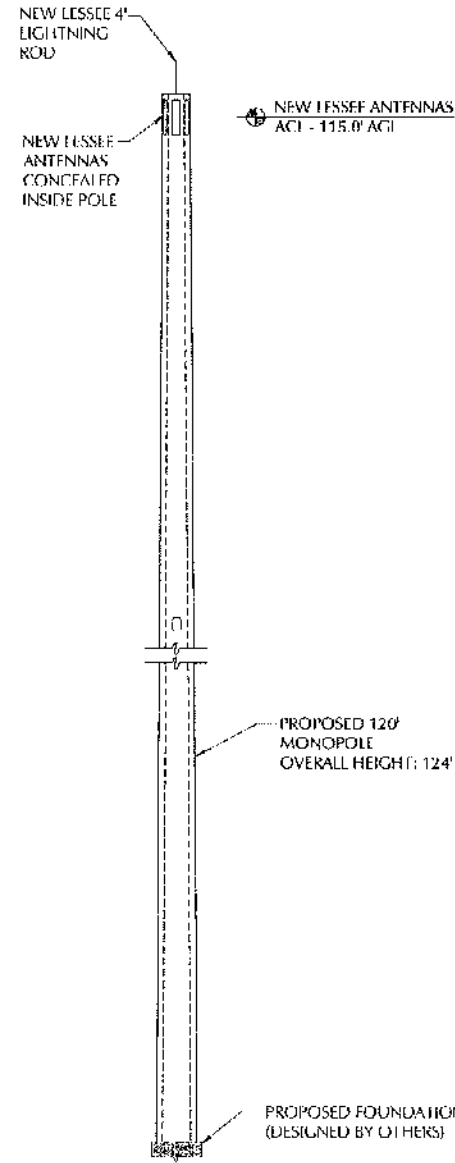
PROJECT No	20141092118
SITE NAME	MAYNARD CLEN
SITE NUMBER	303400
SITE ADDRESS	MONOPOLE AVE. KNOXVILLE, TN 37914
DESIGN TYPE	RAWI AND

SHEET TITLE	
EQUIPMENT LAYOUT PLAN	
DRAWING NO.	REVISION
C2A	0



ICE BRIDGE AT MONOPOLE
NTS

12
C2A



5
C1

LESSEE

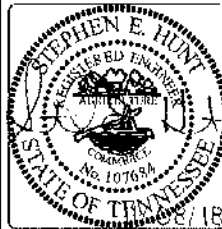
TeleCAD Wireless

1961 NORTH POINT BLVD, SUITE 130
MISSION, TN 37343
PH: 423-843-9500
FAX: 423-843-9609

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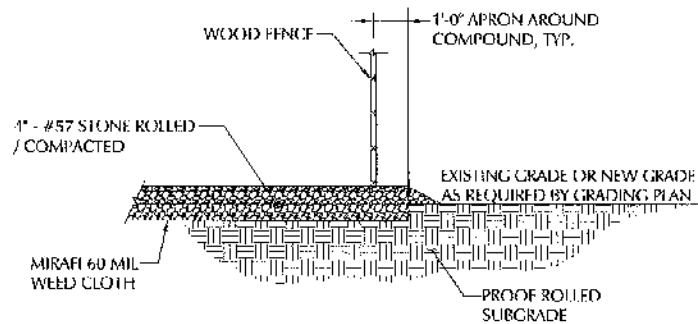
DESIGNED BY:	20141092118
DRAWN BY:	ALP
CHECKED BY:	CAD

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	11/08/18	RES	CONSTRUCTION ISSUE
2	02/08/19	ALP	PRELIMINARY REPAIR

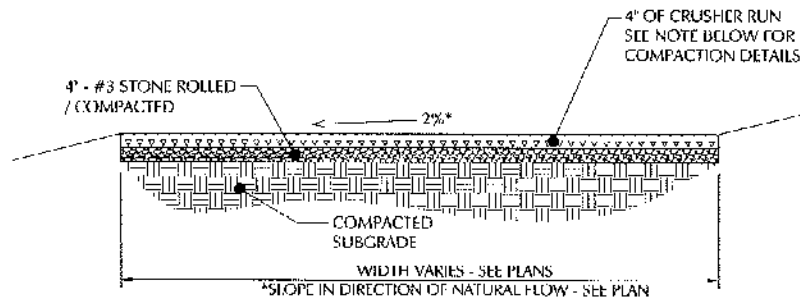


PROJECT No:	20141092118
SITE NAME:	MAYNARD GLEN
SITE NUMBER:	003400
SITE ADDRESS:	WIMPOLE AVE. KNOXVILLE, TN 37912
DESIGN TYPE:	RAWLAND

SITE DETAILS	
DRAWING NO.	REVISION
C4	0



COMPOUND SURFACING (14) C2
NTS



COMPACTION NOTE:
ALL AREAS TO RECEIVE H&J SHALL FIRST BE PROOF ROLLED UNDER THE SUPERVISION OF THE ENGINEER OR TESTING LAB PERSONNEL. ANY AREAS WHICH EXHIBIT "PUMPING" SHALL BE UNDERCUT (OR OTHERWISE STABILIZED) TO A FIRM SOIL BEFORE PLACING FILL. ALSO, ALL FINAL SUBGRADES, WHETHER IN CUT OR FILL, SHALL BE PROOF ROLLED PRIOR TO CONSTRUCTING SLABS OR PAVEMENTS. CONTACT ENGINEER FOR DIRECTION IN SITUATIONS WHERE SOIL COMPACTION OR BEARING CAPACITY MAY BE INADEQUATE.

GRAVEL ACCESS ROAD & PARKING / TURNAROUND AREA (25) C1A
NTS

LESSEE

TeleCAD
Wireless
1961 NORTHPOINT BLVD, SUITE 130
HICKMAN, IN 47143
PH: 471-843-9500
FAX: 471-843-9509

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APP. PROJ. #	201410921 05
DRAWN BY:	ALP
CHECKED BY:	CAD

REVISIONS	

NO.	DATE	BY	DESCRIPTION
11/08/18			CONSTRUCTION ISSUE
09/08/18		ALP	PRELIMINARY REVIEW



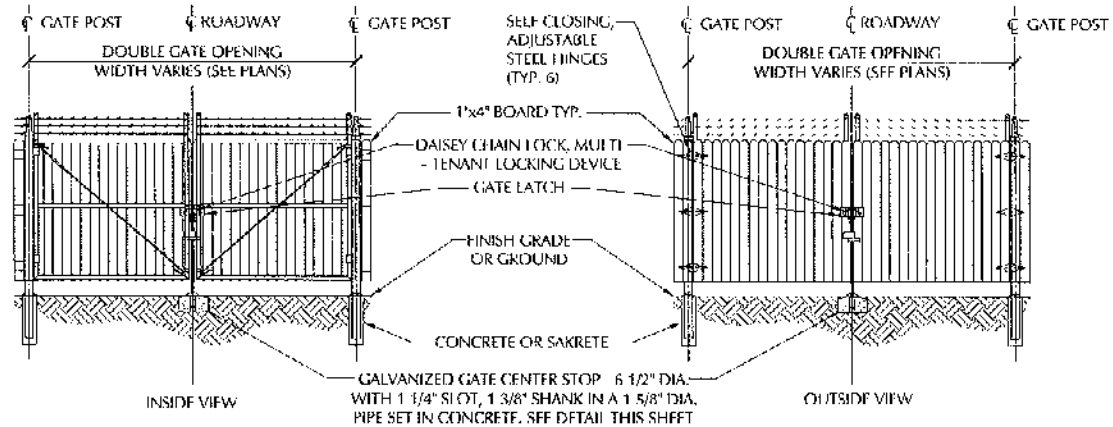
PROJECT No:	201410921 05
SITE NAME:	MAYNAIRD GLEN
SITE NUMBER:	303400
SITE ADDRESS:	WIMPOLE AVE. KNOXVILLE, TN 37914
DESIGN TYPE:	RAWLAND
SHEET TITLE:	SITE DETAILS

DRAWING NO.	REVISIONS
C5	0

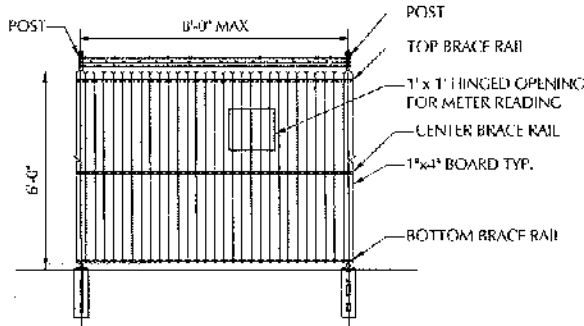
TYPICAL WOOD (METAL FRAME) FENCING NOTES

(INSTALL FENCING PER ASTM F-867, SWING GATES PER ASTM F-900)

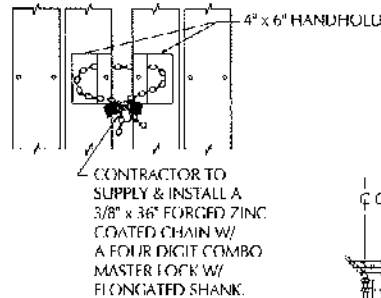
1. GATE POST, CORNER, TERMINAL OR PULL POST SHALL BE 4"Ø SCHEDULE 40 FOR GATE WIDTHS UP TO 10 FEET OR 14 FEET FOR DOUBLE SWING GATE PER ASTM-F1083.
2. LINE POST: 3"Ø SCHEDULE 40 PIPE PER ASTM-F1083. INSTALL EVERY 8' ALONG FENCE LINE.
3. TOP RAIL, BOTTOM, & BRACE RAIL: 2"Ø SCHEDULE 40 PIPE PER ASTM-F1083.
4. BARBED WIRE: DOUBLE STRAND 12-1/2 GAUGE TWISTED WIRE, 4 PL. BARBS SPACED ON APPROXIMATELY 5" CENTERS.
5. GATE LATCH: 1-3/8" O.D. PLUNGER ROD W/ MUSHROOM TYPE CATCH.
6. LOCAL ORDINANCE FOR BARBED WIRE PERMIT SHALL GOVERN INSTALLATION.
7. HEIGHT - 6" VERTICAL + 1" BARBED WIRE VERTICAL DIMENSION.
8. WORK WITH SPECIFICATION 2831.
9. PICKETS TO BE 7/8" THICK NO. 1 SPRUCE.
10. USE WOOD TO METAL (EXTERIOR USE) SELF TAPPING SCREWS TO ATTACH PICKETS.
TWO SCREWS PER BRACE. SIX SCREWS TOTAL PER PICKET.
11. ALL HARDWARE TO BE HOT DIP GALVANIZED.



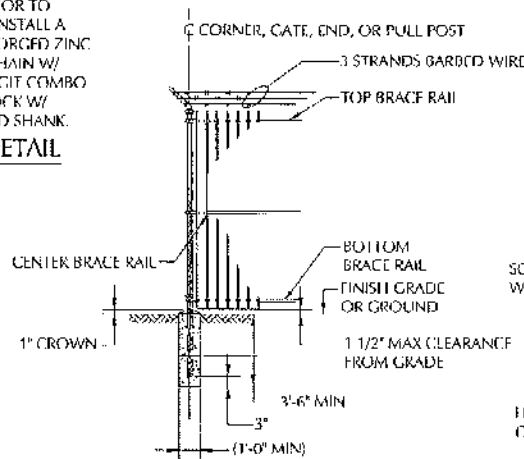
WOODEN SWING DOUBLE GATE (19)
NTS (C2)



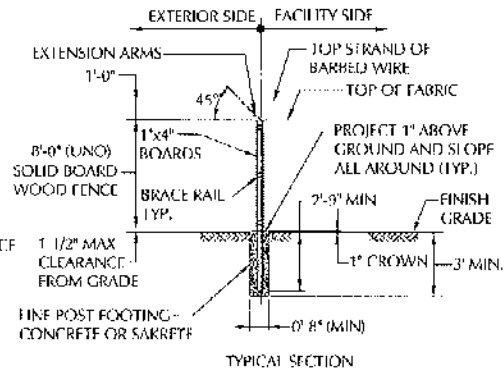
TYPICAL WOOD FENCE
NTS



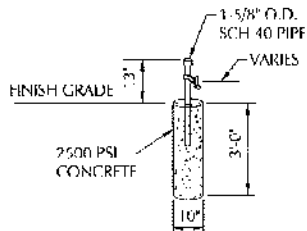
FENCE LOCK DETAIL
NTS



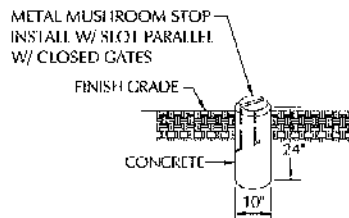
CORNER, GATE, END, OR PULL POST (18)
NTS (C2)



WOOD FENCE (17)
NTS (C2)



GATE STOP DETAIL
NTS



MUSHROOM STOP
NTS

LESSEE

TeleCAD Wireless
1961 NORTHPOINT BLVD, SUITE 130
KNOXVILLE, TN 37946
PH: 423-843-9500
FAX: 423-843-9549

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ASC PROJECT #	20141082116
DRAWN BY:	ALP
CHECKED BY:	CAD

REVISIONS			
NO.	DATE	BY	DESCRIPTION



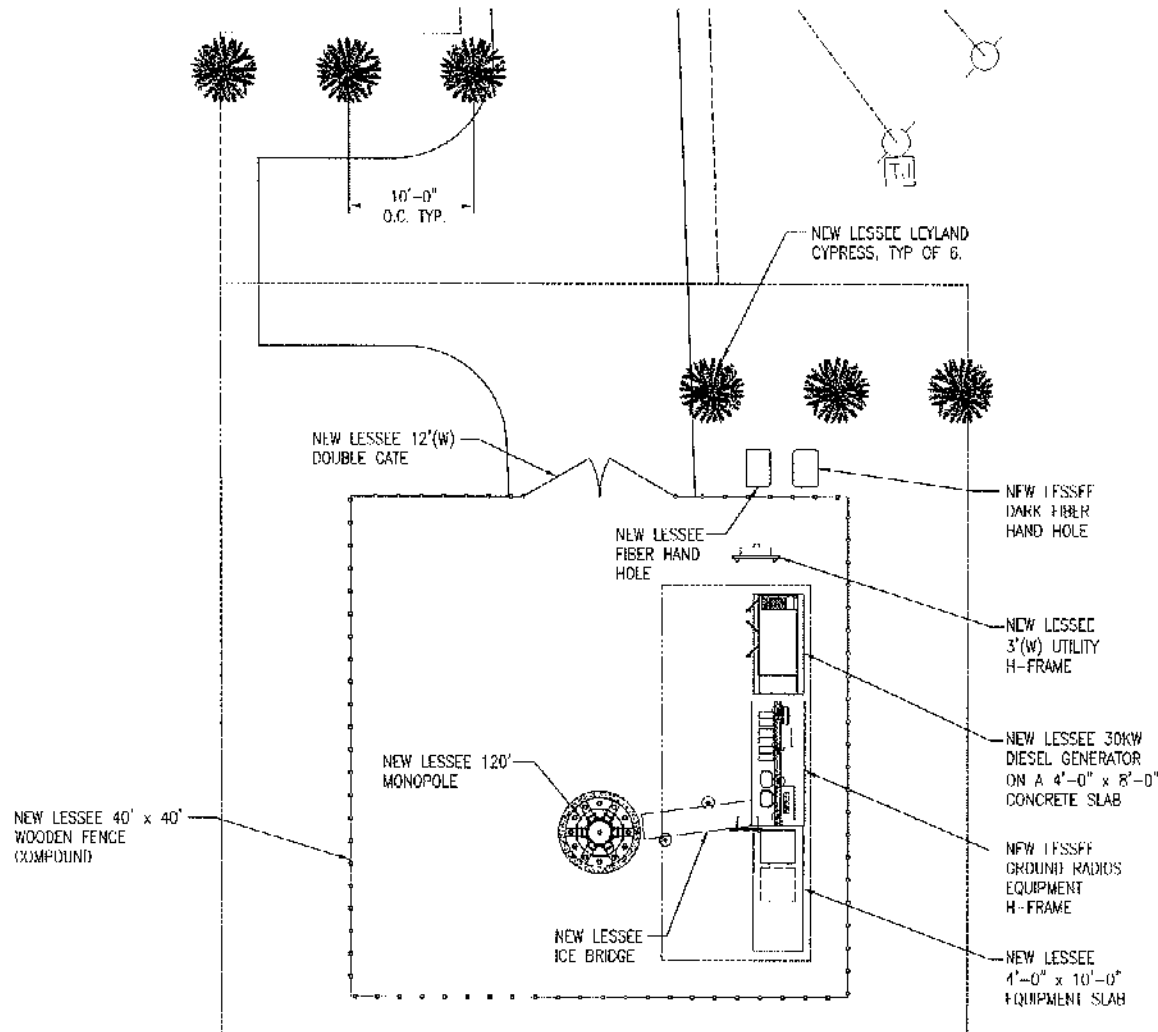
PROJECT NO:	20141082116
SITE NAME:	MAYNARD GLEN
SITE NUMBER:	303400
SITE ADDRESS:	WIMPOLE AVE. KNOXVILLE, TN 37914
DESIGN TYPE:	RAW LAND

SHEET TITLE:	
FENCE DETAILS	
DRAWING NO.	REVISION
C6	0

PLANTING SCHEDULE													
QTY	BOTANICAL NAME	COMMON NAME	CALIPER	TYPE	SPACING	PLANTING HEIGHT	PLANTING WIDTH	MATURE HEIGHT	MATURE SPREAD	SUNLIGHT	SOIL CONDITIONS	SYMBOL	REMARKS
6	X Cupressocyparis leylandii	Leyland Cypress	N/A	UNDERSTORY EVERGREEN	SEE PLAN	6 FT	N/A	25-50 FT	10 FT	FULL OR PARTIAL	ADAPTABLE		FULL TO BASE

LANDSCAPE NOTES:

- ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS SET FORTH THE CURRENT EDITION OF AMERICAN STANDARDS FOR NURSERY STOCK OF NURSERYMEN.
- PLANTING PLAN TAKES PRECEDENCE OVER PLANT LIST.
- ALL TREES SHALL BE STAKED OR GUYED AT TIME OF PLANTING UNLESS NO STAKES IS PRE-APPROVED BY OWNER. STAKES OR GUYS SHALL NOT RESTRICT MOVEMENT OF THE PLANT, BUT SHALL HAVE 2"-3" OF SLACK IN EACH GUY WIRE.
- ALL PLANT MATERIAL IS SUBJECT TO THE OWNERS APPROVAL PRIOR TO INSTALLATION TO INSURE THE CONFORMITY TO THE SPECIFICATIONS.
- APPLY GRANULAR PRE-EMERGENT HERBICIDE TO SOIL PER MANUFACTURERS RECOMMENDATIONS BELOW MULCH BED PRIOR TO MULCH APPLICATION.
- APPLY "LESCO" (OR EQUAL) GRANULAR SLOW RELEASE FERTILIZER PER MANUFACTURERS RECOMMENDATIONS TO TREES AT TIME OF PLANTING.
- PLACE 3"-4" MIN. THICKNESS OF SHREDDED BROWN HARDWOOD MULCH 18" WIDE AROUND FENCED AREA AS SHOWN ON PLAN. IF NECESSARY, INSTALL METAL OR PVC EDGING STRIPS TO PREVENT MULCH FROM WASHING ONTO ROAD OR OTHERWISE CAUSING PROBLEMS.
- CONTRACTOR SHALL WARRANTY PLANTS FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE.



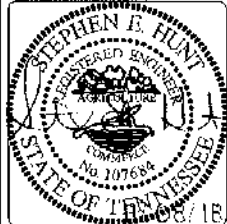
LESSEE

TeleCAD
Wireless
1961 NORTHPOINT BLVD, SUITE 1150
HIXSON, TN 37348
PH: 423-844-5800
FAX: 423-844-8509

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ASB PROJECT #:	2014108211B
DRAWN BY:	AJP
CHECKED BY:	CAD

REVISIONS		
NO.	DATE	DESCRIPTION



PROJECT NO:	2014108211B
SITE NAME:	MAYNARD GLEN
TWP NUMBER:	308400
SITE ADDRESS:	WIMPOLE AVF KNOXVILLE, TN 37914
DESIGN TYPE:	RAWLAND
SHEET TITLE:	LANDSCAPE PLAN

DRAWING NO.	REVISION
L1	0



KNOXVILLE-KNOX COUNTY

MPC

METROPOLITAN
PLANNING
COMMISSION
TENNESSEE

Suite 403 • City County Building
400 Main Street
Knoxville, Tennessee 37902
865 • 216 • 2600
FAX • 215 • 2088
WWW • KNOXMPCC • ORG

APPLICATION FOR WIRELESS COMMUNICATION FACILITY CERTIFICATE OF APPROPRIATENESS

Name of Applicant: Verizon Wireless Tennessee Partnership
Date Filed: 11/26/2018 Fee Paid: 3000.00 File Number: 1-A-19-WCF
FOR STAFF USE ONLY:
Complete Application Date: 11/26 - Missing Visual Analysis Lead Staff: Jeff A.

PROPERTY INFORMATION

Address: Wimpole Avenue
General Location: Knoxville Botanical Gardens & Arboretum
Map/Parcel No.: 082N J 009 Size of Tract: 18.39 acres
Jurisdiction: City of Knoxville
Zoning District: A-1, R-2, R-1
Existing Land Use: Botanical Gardens

REQUEST

Type of Approval Requested: Level II Review
 Locating on a Structure or Building
 Small Cell
 New Tower
Req'd Pre-Application Meeting: 11/6/2018
MPC Meeting: 1/10/2019

General Requirements

- Letter of Commitment
- Site Plan
- Statement of Purpose
- Landscape Agreement

Additional Requirements for New Towers

- Collocation and alternative site analysis
- Alternative Site Analysis
- Visual Analysis *will send when received*
- Design Justification

Additional Req'ts for Locating on Structure/Building

- Collocation Consent

Additional Requirements for Small Cell

- Design Summary

PROPERTY OWNER

Name: KNOXVILLE BOTANICAL GARDENS & ARBORETUM
Address: 2743 WIMPOLE AVE
City/ST/Zip: KNOXVILLE, TN 37914
Telephone: Fax:

APPLICATION CORRESPONDENCE

Name: Joey Hargis, Esq.
Address: 211 Commerce Street
City/ST/Zip: Nashville / TN / 37201
Telephone: 615-726-7391 Fax:

APPLICATION AUTHORIZATION

I hereby certify that I am the authorized applicant, representing the property owner involved in this request or the option holder on same.

Name: Joey Hargis Signature: *Joey Hargis*
Address: 211 Commerce Street
City/ST/Zip: Nashville / TN / 37201 Telephone: 615-726-7391 Fax: Email: jhargis@bakerdonelson.com

Application Accepted By: *[Signature]*

BAKER DONELSON
BEARMAN, CALDWELL & BERKOWITZ, PC

BAKER DONELSON
BEARMAN, CALDWELL & BERKOWITZ, PC
ATTORNEYS AT LAW
1000 BANKERS BUILDING
SUITE 2000
MEMPHIS, TENNESSEE 38103
TEL: 901.251.1400
FAX: 901.251.1401
WWW.BAKERDONELSON.COM

www.bakerdonelson.com

JOEL K. HARGIS, ATTORNEY
Direct Dial: 615.726.7391
Direct Fax: 615.744.7391
E-Mail Address: jhargis@bakerdonelson.com

December 5, 2018

Mr. Jeff Archer
Knoxville / Knox County Planning Commission
400 Main Street
City County Building, Suite 403
Knoxville, TN 37902

Re: Proposed Wireless Telecommunications Facility located on
Wimpole Avenue

Dear Mr. Archer:

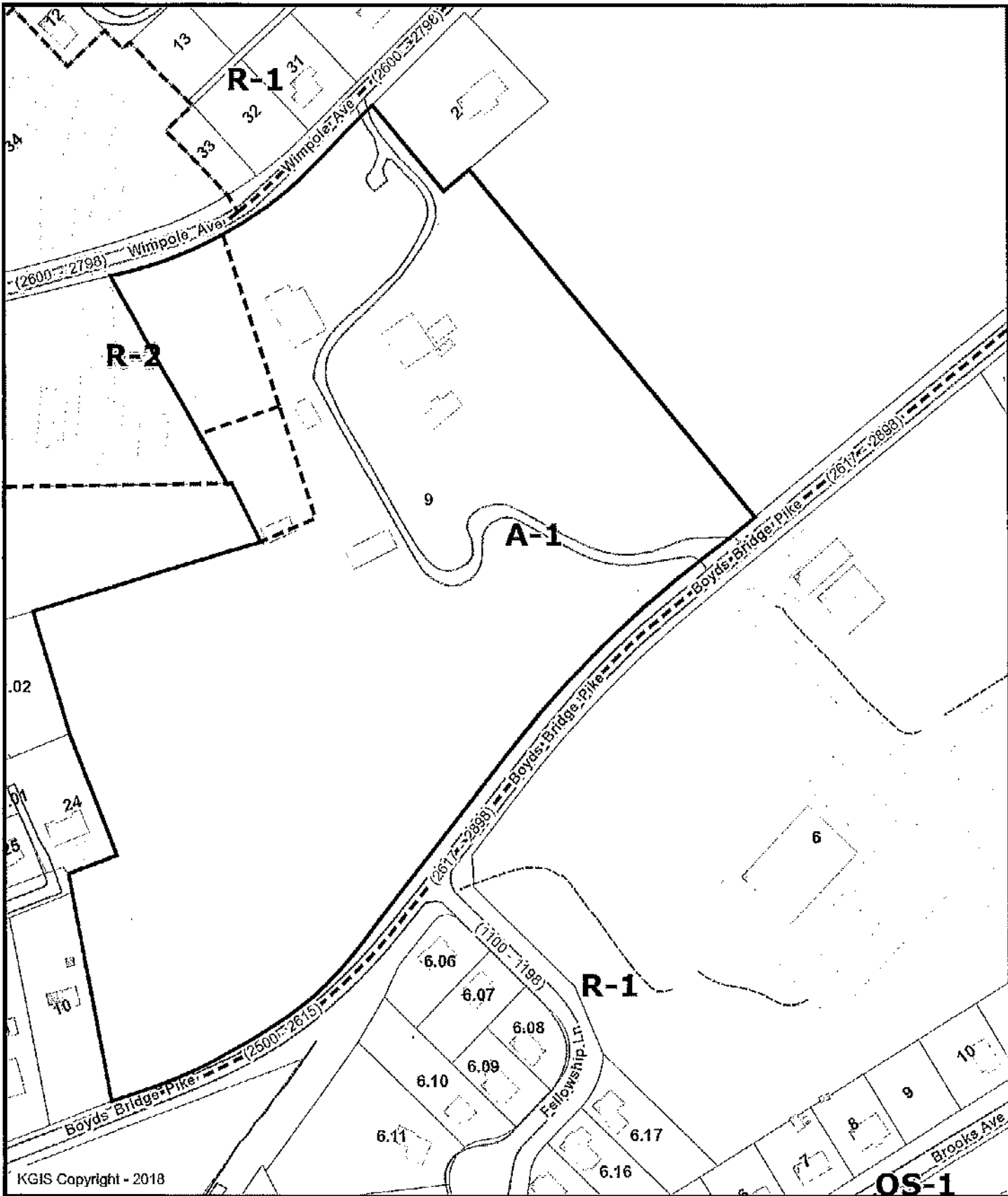
Enclosed are submittal materials associated with Verizon Wireless' Level II Application for the above-referenced location.

Verizon Wireless requests to construct a 120 foot tall Type I Wireless Communication Tower Facility in the A zoning district as a Level II review from the Metropolitan Planning Commission of Knoxville / Knox County.

On behalf of our client, Verizon Wireless, we respectfully request approval of our permit. Enclosed are the following items which constitute our application:

1. 10 Copies of proposed site plans on 11 x 17.
2. 10 Copies of each exhibit
3. Certification of Zoning Compliance
4. Check in the amount of \$3000.

Please confirm that the materials enclosed with this letter are complete and that you do not need any further information from Verizon Wireless in order for the Metropolitan Planning



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Letter Portrait

Knoxville - Knox County - KUB Geographic Information System



Printed: 11/26/2018 at 2:09:48 PM



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sign picked up 12-19-18 8:00 a.m.

E&D.

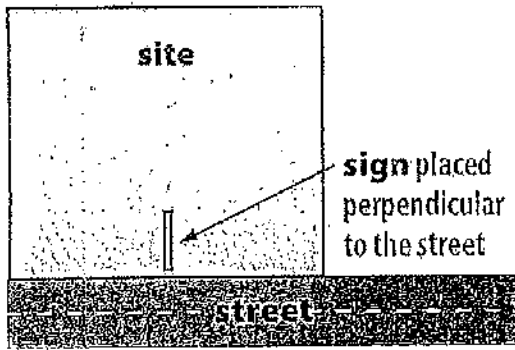
REQUIRED SIGN POSTING AGREEMENT

For all rezoning, plan amendment, concept plan, use on review, right-of-way closure, and street name change applications, a sign must be posted on the subject property, consistent with the adopted MPC Administrative Rules and Procedures.

At the time of application, MPC staff will provide a sign(s) to post on the property as part of the application process. If the sign(s) go missing for any reason and need to be replaced, then the applicant will be responsible for picking up a new sign(s) from the MPC offices. The applicant will be charged a fee of \$10 for each replacement sign.

LOCATION AND VISIBILITY

The sign must be posted in a location that is clearly visible from vehicles traveling in either direction on the nearest adjacent/frontage street. If the property has more than one street frontage, then the sign should be placed along the street that carries more traffic. MPC staff may recommend a preferred location for the sign to be posted at the time of application.



TIMING

The sign(s) must be posted 15 days before the scheduled MPC public hearing and must remain in place until the day after the meeting. In the case of a postponement, the sign can either remain in place or be removed and reposted 15 days before the next MPC meeting.

I hereby agree to post and remove the sign(s) provided on the subject property consistent with the above guidelines and between the dates of:

December 26, 2018 and January 11, 2019
(15 days before the MPC meeting) (the day after the MPC meeting)

Signature: Joel K. Hargis

Printed Name: Joel K. Hargis

Phone: 615-726-7391 Email: jhargis@bakerdonelson.com

Date: 12-18-18

MPC File Number: 1-A-19-WCF