

GARY C. PENNINGTON, ESQUIRE\*
GARYPENNINGTON@PENNLAWFIRM.COM
\*ALSO LICENSED IN GEORGIA

March 14, 2018

#### **VIA EMAIL AND FED EX**

Mr. David E. Reed, AICP Principal Planner Planning and Development Services 100 East First Street, Suite 225 Winston-Salem, North Carolina 27101

RE: APPLICATION BY ECO-SITE, LLC FOR REDUCTIONS OF THE SETBACK REQUIREMENTS PURSUANT TO SECTION 2.5.79(D)(1) TO PERMIT THE CONSTRUCTION OF A NEW COMMUNICATIONS TOWER

SITE ADDRESS: 2802 UNIVERSITY PARKWAY, WINSTON-SALEM, NORTH CAROLINA 27120

(NC-0035 SITE / PC LAW NO. 3050-010)

Dear Mr. Reed:

I hope this letter finds you well. Please allow this Letter, the enclosed Narrative, and the Exhibits attached to the Narrative to serve as an application (the "Application") by Eco-Site, LLC for two (2) reductions of the setback requirements to permit the construction of a new communications tower as permitted pursuant to Section 2-5.79(D)(1) of the Winston-Salem/Forsyth County Unified Development Ordinances (the "Ordinance").

Mr. David E. Reed March 14, 2018 Page 2 of 2

Thank you for your time and your attention to this matter.

Sincerely,

PENNINGTON LAW FIRM, LLC

Gary C. Pennington

**Enclosures** 

Cc: Ms. Mary Labarre (via email with enclosures)

## APPLICATION BY ECO-SITE, LLC FOR TWO (2) REDUCTIONS OF THE SETBACK REQUIREMENTS PURSUANT TO SECTION 2.5.79(D)(1) TO PERMIT THE CONSTRUCTION OF A NEW COMMUNICATIONS TOWER

INTRODUCTION. Eco-Site, LLC is based in Durham, North Carolina. Eco-Site, LLC builds and manages communications towers for wireless communications carriers. You can find more about Eco-Site, LLC on its website: <a href="www.eco-site.com">www.eco-site.com</a>. Eco-Site, LLC is proposing to build a new communications tower on behalf of its client T-Mobile. T-Mobile currently has a need for additional coverage and capacity in the area where the proposed tower is to be located. The proposed tower meets all the requirements of the Ordinance, except that the proposed location of the tower does not meet two (2) setback requirements. The purpose of this Application is to request a reduction of the setback from 40' to 5' on the eastern boundary, and a reduction of the setback from 140' to 100' on the western boundary adjacent to the right of way of Carriage Drive. All other setback requirements will be met or exceeded.

THE PROPERTY. The address of the property upon which the proposed tower will be located is 2802 University Parkway, Winston-Salem, North Carolina 27120. The property is 3.43 acres in size. It is owned by College Plaza Shopping Center LLC. The proposed tower will be located on the southwestern corner of the subject property.

THE EASTERN ADJACENT PROPERTY. The property upon which the proposed communications tower will be located is to the rear and adjacent to the property owned by Spainhour University Parkway, LLC located on University Parkway. This property is referred to herein as the "Eastern Adjacent Property". There is some form of restaurant/bar located on the Adjacent Property. The Eastern Adjacent Property subject of the requested setback reduction is located at 2730 University Parkway, Winston-Salem, North Carolina. The managing member of Spainhour University Parkway, LLC has been notified in writing by letter dated January 24, 2018 of the proposed construction, and the intent of Eco-Site, LLC to file this Application requesting a reduction in the setback. Multiple calls have been made to Ms. Spainhour and none have been returned.

THE WESTERN ADJACENT PROPERTY/ADJACENT ROAD. The property to the west of the tower site is denoted as Carriage Drive (the "Western Adjacent Property"). Carriage Drive is a public right of way just to the point of the entrance to the tower site. Then Carriage Drive becomes a private road and dead ends near the end of the property line upon which the tower will be located. Most of Carriage Drive adjacent to the tower site is a private road. Carriage Drive has a right of way that varies but is a minimum of 50'. On the opposite site of Carriage Drive the properties are zoned RM 18 and contain multi-family housing. The corner of the closet residential structure to the tower is approximately 195'. There is a row of

existing evergreen trees and shrubs between the tower site to the west and south that will shield the ground based equipment of the communications facility and a portion of the tower from Carriage Drive and the adjacent multi-family housing.

THE PROPOSED TOWER. The proposed tower is a monopole design. The antennas and other wireless equipment will be mounted on the top of the tower, and cabling will be placed inside the tower to connect the antennas to the base station equipment located within the communications facility on the ground. The tower will be approximately 140' tall. Refer to Sheet C11 (Tower Elevation) of the Preliminary Construction Drawings. The tower will be surrounded by a secure fence as well as a wooden slat fence. The tower will not be lighted. The tower will not generate any noise. There will be little if any traffic to and from the tower location once construction is complete. Ingress and egress to the tower site will be from the public road Bonhurst Drive and then via an easement over the private drive named Carriage Drive, and not through the parking lot of the Eastern Adjacent Property.

TOWER LOCATION ON PROPERTY. The tower will be tucked into the corner at the rear of the adjacent buildings on the subject property. There is existing vegetation around the perimeter of three (3) sides of the tower compound which will help screen the tower base and equipment. There will be an 8' foot wooden fence installed around all sides of the compound.

**EXHIBITS.** Attached to this Narrative in support of the Application are the following Exhibits.

- 1. Preliminary Construction Drawings. These drawings contain nine (9) pages which give a clear depiction of what will be constructed on the property.
- 2. Adjacent Property Survey. This survey shows the distance from the property line of the subject property to the building located on the Eastern Adjacent Property, which is approximately 110'.
- 3. Google Image. Google Earth images of the location of the tower and surrounding area.
- 4. Pictures. Pictures of the tower site and surrounding area.
- 5. Example Fall Zone Letter. A copy of a fall zone letter from another project to demonstrate certain safety aspects of the proposed tower.
- 6. Elevation Map. The elevation map indicates there are no changes in elevation that would impede the granting the reduced setback.

SETBACK REQUIREMENTS. The construction of communications towers is governed by the Unified Development Ordinance of Winston-Salem/Forsyth County (the "Ordinance"). Monopoles with exposed antennas up to a height of 199' are permitted in non-residential districts, and can be approved by the Zoning Administrator. In this case, the property upon which the tower is proposed is zoned HB. The Eastern Adjacent Property subject of the setback reduction is also zoned HB. To Western Adjacent Property, not including the right of way of Carriage Drive, is zoned RM-18 which is a residential zoning classification. There are multifamily residences constructed upon these properties.

The Ordinance requires that communications towers be set back a minimum of 40' from adjacent properties with a non-residential zoning. However, the Ordinance requires that communications towers be set back a minimum of 100' from any residentially zoned property. In this case, due to the shape and size of the subject property, to meet the setback from the RM-18 zoned residential properties, the tower had to be shifted towards the eastern property line. Shifting the tower to the east resulted in the tower being located approximately 5' from the Eastern Adjacent Property line. This means Eco-Site, LLC cannot meet the setback of 40'.

After the pre-application meeting, Eco-Site, LLC was notified that it also did not meet the required setback from the Carriage Drive to the west of the location of the proposed tower. Carriage Drive is a public right of way but ends near the entrance to the proposed tower site. The Section 2-5.79((D)(1) of the Ordinance requires that all towers be set back from a "public street" a minimum distance equal to the height of the tower. In this case, the tower is proposed to be 140', and is set back 100' from the right of way, so the setback is 40' short. However, if the tower were sited just 5' to the Southeast, it would not be adjacent to a public right of way, but a private road, and therefore, would meet the setback requirement. However, the tower is best placed by leaving it in its current location in closer proximity to the existing commercial buildings to partially shield it from public view.

SETBACK REDUCTION REQUESTS. There is a solution to this problem. Section 2.5.79(D)(1) of the Ordinance grants City Council the ability to reduce the required setbacks to accommodate the unique character of the site and the surrounding area. The Ordinance provides as follows: "Alternative Compliance. A developer may propose a setback that varies from the strict application of the provisions of this section in order to accommodate the unique character of the site and the surrounding area." The purpose of this Application is to respectfully request a reduction of the setbacks to permit the construction of the tower.

- A. Setback to the East. Eco-Site, LLC requests a reduction in setbacks to the eastern property line. The tower is located approximately 5' from the eastern property line. It is 35' short of the required setback. The Adjacent Property Survey enclosed demonstrates that that the distance between the property line of the tower site and the closest corner of the building located on the Eastern Adjacent Property subject of the setback reduction is approximately 110'. The area between the location of the tower and the building located on the Eastern Adjacent Property is an open parking lot. To eliminate any safety concerns, Eco-Site, LLC will have the tower designed and manufactured to have a fall zone radius much less than approximately 100'. This means that in the unlikely event of a tower failure, the tower will bend over at a designed break point, and not fall outside of the designed fall zone area. For example, if the tower is designed to have a fall zone of 60', in the unlikely event of a failure, the tower would bend 60' from the top, but not actually fall on the ground. The tower even if bent, would not collapse outside of this 60' radius. This fall zone will be certified by an engineer for the tower manufacturer in a fall zone letter. Included is an example of a fall zone letter. These towers are designed to be very safe, and are built to meet the standards of the American National Standards Institute.
- B. Setback to the West/Public Road. Eco-Site, LLC requests a reduction in setbacks to the western property line or the public road. The tower is located 100' from the right of way of Carriage Drive. It is 40' short of the required setback. The right of way of Carriage Drive is 50'. Carriage Drive is a private road along most of the shared boundary of the subject property where the tower is sited. The tower will be approximately 195' from the corner of the closest multi-family structure located to the west. The area between the tower location and the multifamily housing is mostly the private road and open space. To eliminate any safety concerns, Eco-Site, LLC will have the tower designed and manufactured to have a fall zone radius much less than approximately 100'. This means that in the unlikely event of a tower failure, the tower will bend over at a designed break point, and not fall outside of the designed fall zone area, or into any part of Carriage Drive.

DISCUSSION OF CRITERIA TO REDUCE THE SETBACKS. The Ordinance provides that "when evaluating alternative compliance, the Elected Body may consider the following factors and should only approve the request upon a finding that the proposed setback fulfills the intent and purposes of this section as well or better than would strict compliance with the requirements of this section."

- 1. Topography. There is nothing unique about the topography of the subject property and the Eastern Adjacent Property. The location of the proposed communications tower has an elevation of 955.52'. The elevation on the Eastern Adjacent Property gradually increases as it reaches University Parkway for an elevation of approximately 950'. The elevation of the Western Adjacent Property gradually decreases to approximately 945'. Please refer to the attached Elevation Map. The transition from the subject property to the Eastern Adjacent Property is relatively flat. Therefore, the topography of the subject property and the Eastern Adjacent Property or the Western Adjacent Property does not impact the reduction of the setback requirement.
- 2. Surrounding Development Plans. Upon information and belief, there are no current new development plans for the surrounding properties. All properties surrounding the subject property appear to be already developed. The subject property upon which the tower will be placed is already developed as a strip retail center. The other surrounding properties are developed as follows:
  - a. East. The Eastern Adjacent Property is located to the east and is occupied by a parking lot and a restaurant/bar closer to University Boulevard.
  - b. East. Also located to the east is a storage facility with outside storage and multiple storage buildings.
  - c. Southeast. The property to the southeast is developed as a parking lot to serve the multi-family housing located to the southwest of the subject property.
  - d. **Southwest**. The property to the southwest is developed with multiple multi-family or apartment buildings. The subject property and the property upon which the apartments are located are separated by a private drive known as Carriage Drive which has a varying width from an approximately minimum of 50' and greater.

e. **North**. The property to the north is part of the same property the tower site is located on, and is developed as a strip retail center.

Therefore, there are no surrounding development plans which would be negatively impacted by the requested reduction of the setback requirement. In support of granting the reduced setback, the surrounding properties are for the most part all commercial in nature and not occupied. The proposed tower meets the setback from the residentially zoned properties to the southwest.

- 3. Existing and Proposed Development of the Property. Except for the proposed tower, the subject property is already developed as a strip retail center. The location of the tower is to the rear of the retail center in an unoccupied area. Therefore, the existing and proposed development of the subject property would not be negatively impacted by the requested reduction of the setback requirement.
- 4. Existing and Proposed Screening and Buffering. Eco-Site, LLC will lease a 60' x 40' area on the subject property (the "Lease Area"). The entirety of the Lease Area will be secured with a fence. The fence will be 8' in height, and will consist of a pressure treated wooden fence to shield the view inside the Lease Area. Typically, communications facilities only have a chain link fence. The boards will provide more screening from the surrounding areas. Refer to Sheet C5 (Fence Details) of the Preliminary Construction Drawings for details on the fence. In addition, the Lease Area is shielded by existing and natural vegetation on three (3) sides. These appear to be mature trees and shrubs with a diameter ranging from 12" to 15". This natural vegetation will remain on the property and will not be removed for construction. Refer to the Google Earth image, the attached photographs, as well as Sheet 2 (Survey) and Sheet C2 (Site Plan) of the Preliminary Construction Drawings which demonstrate the existing vegetation. The 8' wood fence, and the existing evergreen trees between the subject property and the adjacent properties will screen the view of the ground based portion of the communications equipment and a portion of the tower. Therefore, the fence and existing natural vegetative screen justify the reduction of the required setback.
- 5. Distance to Existing Residential Structures. The only existing residential structures in proximity to the tower are the multi-family apartments located to the southwest. The tower meets the setback from these structures. The corner of the closest residential structure is approximately 195' from the tower. Moving the tower closer to the Eastern Adjacent Property moves the tower further away from the residential structures. Moving the tower closer to the Eastern Adjacent Property does not move

the tower closer to any existing residential structures. The tower will be set back 100' from the right of way of Carriage Drive to the South. This private right of way is more than 50' in width. The residential structures are located on the opposite side of this private right of way some distance away. Refer to Sheet 2 (Survey) of the Preliminary Construction Drawings which demonstrates the setback from the adjacent properties. Therefore, approving the requested reduced setback moves the tower further away from the multi-family structures which has a positive impact. Permitting the reduced setback fulfills the intent and purposes of the setback provisions of the Ordinance by ensuring a separation of at least 195' from residential structures.

- 6. Vegetation and Tree Canopy. The Lease Area is shielded by existing and natural vegetation on three (3) sides. These appear to be mature evergreen trees and shrubs with a diameter ranging from 12" to 15". This natural vegetation will remain on the property and will not be removed for construction. Refer to the Google Earth images, as well as Sheet 2 (Survey) and Sheet C2 (Site Plan) of the Preliminary Construction Drawings which demonstrate the existing vegetation. Therefore, the existing natural vegetative screen justifies the reduction of the required setbacks.
- 7. Visibility of the Tower from the Proposed Location from Public Rights of Way. The closest public right of way from the tower is Carriage Drive, but it ends before the lease area and becomes a private drive way. Then the road dead ends and is blocked with a chain-link fence. Carriage Drive has limited use since it is a dead-end street. All the communications ground based equipment will be shielded from the view of the public portion of Carriage Drive by the existing retail strip building located adjacent to the Lease Area. Moving the tower 5' from the Eastern Adjacent Property line will move the tower further away from the public right of way of Carriage Drive, thereby further reducing the visibility of the tower. The tower will still remain a great distance from University Parkway even if 5' from the eastern property line. The tower will be located approximately 250' from the right of way of University Parkway and 100' from Carriage Drive. Refer to the Google Earth image and Page 1 of the Adjacent Property Survey. Because of the other improvements located on the properties adjacent to University Parkway, and the distance between the tower and University Parkway and public portion of Carriage Drive, the visibility of the tower from the public rights of way will be minimal. Also, visibility will be partially blocked by the existing vegetation on the western boundary of University Parkway, as well as the existing commercial structures located on the lots on either side of the tower. Therefore, the visibility of the tower from the public rights of way

will not be negatively impacted by the requested reduction of the setback requirements.

- 8. Other Site Development Issues. The granting of the requested reduction in the setbacks is justified by the factors discussed herein, and will fulfill the intent and purposes of the Ordinance as well or better than would the strict conformance with the requirements of Section 2.5.79(D)(1) of the Ordinance, in one or more of the following ways:
  - a. The reduced setbacks will allow the tower to be best placed on the subject property. The tower will be tucked into the back corner of the building on the existing property, and partially hidden in the existing tree line.
  - b. The reduced setback will allow the tower to be placed in what is predominately a commercial area, further away from any residential use, but still far away from the closest commercial right of way.
  - c. The reduced setback will still keep the tower more than 40' from any other existing structures. The closest existing structure on the Eastern Adjacent Property to the east is a restaurant/bar which is approximately 110' away from the property line.
  - d. The reduced setbacks will still keep the tower more than 100' from that portion of Carriage Drive which is a public road, and approximately 195' from the closest residential structure on the Adjacent Western Property.
  - e. Notwithstanding the granting of the reduced setback, the tower will be engineered with a fall zone to prevent the tower from falling on the structure on the Eastern Adjacent Property or from falling into the right of way of Carriage Drive.
  - f. Most of the tower site is adjacent to a private road, and not a public road, which would not require the 140' setback.
  - g. The reduced setback will allow the tower to be placed in an area that will reduce the visibility of the tower from adjacent properties.

**CONCLUSION**. Eco-Site, LLC respectfully requests that its application to reduce the setbacks be approved for the reasons set forth herein. Eco-Site, LLC will comply with all other requirements and conditions of the Ordinance in the zoning and permitting process, as well as any other reasonable conditions imposed by City Council as a condition of approving the requested reduction in setbacks.

PENNINGTON LAW FIRM, LLC

530 Lady Street, Unit 403

Columbia, South Carolina 29201

803.929.1070 - Office

Mag leunhoff\_

803.306.3820 - Mobile

garypennington@pennlawfirm.com



240 LEIGH FARM ROAD, SUITE 230 DURHAM, NC 27707

NC-0035 / 27th ST.

FLOOD PLAIN NOTE STE IS NOT LOCATED WITHIN FEMA FLOOD MAP AREA AS PER FLR.M. PANEL & 37106826001, DATED JANUARY 2, 2009.

**LOWEISOUICE** 1875 OLD ALABAMA ROAD, SUITE 1008 ROSWELL, GA 30076 TEL; 678-960-2338 FAX; 678-990-234;

A&E FIRM:

ECC-Site
240 LEIGH FARM ROAD, SUTE 230
DURHAM, NG 27707





	FROM 240 LEIGH FARM ROAD, DURHAM, NC 27707	
stay on I-85 N	Merge onto I-85 N	21.4 mi
	Continue straight to stay on I-85 N	32.1 mi

Merge onto I-85 N	21.4 mi
Continue straight to stay on I-85 N	32.1 mi
Keep right at the fork to continue on I-85BUS N/US-52 N,	2 N,
follow signs for Interstate 85	
Business/Lexington/Winston-Salem	4.1 mi
Keep left to continue on US-52 N	22.2 mi
Keep left to stay on US-52 N	1,3 mi
Take exit 111A toward 28th St	0.1 mi
Use the left 2 lanes to turn left onto Indiana Ave	0.3 mi
Slight left onto E 28th St	im 6.0
Continue onto 27th St NW	0.5 mi
Continue onto Coliseum Dr NW	0.1 mi
Turn right onto Georgetown Dr	0.1 mi
Continue onto Carriage Dr	0.1 m
2802 University Pkwy	

DRIVING DIRECTIONS

# T-MOBILE / 5WS0054 SITE ADDRESS

LATITUDE: 36° 07' 38.38" N LONGITUDE: -80° 15' 41.39" W TAX/PIN #: 6826-77-4801.00 (E911 ADDRESS: TBD) 2802 UNIVERSITY PARKWAY WINSTON-SALEM NC, 7105 FORSYTH COUNTY ZONING: HB

# DEVELOPER ECG-SITE 240 LEIGH FARM ROAD, SUITE 230 DURHAM, NC 27707 PHONE: (919) 636-6810 GATE CODE: 6120

POWER COMPANY TBD PHONE: TBD ATTN.: TBD

NUMBER OF CARRIERS: 1 EXISTING, 1 PROPOSED

TOWER HEIGHT: 140 (150 TO HIGHEST APPURTENANCE)

STATE: NORTH CAROLINA TOWER TYPE: USE: PROPOSED TELECOMMUNICATIONS TOWER AND UNMANNED EQUIPMENT

VENTICO ENGINEERING, INC. 6835 JAMESTOWN DR. ALPHARETTA, GA 30005 ATTN.: ELIZABETH B. USHER, P.E. CONSULTANT

PROJECT SUMMARY

CONTACTS

NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED HANDICAP ACCESS IS NOT REQUIRED

TELEPHONE COMPANY
TBD
PHONE: TBD
ATTN.: TBD

JURISDITION CITY OR COUNTY ETC CITY OF WINSTON-SALEM WINSTON-SELEM, NG 27120 PHONE; (336) 747-7069 ATTN:: GARY ROBERTS JR.

PROPERTY OR TOWER OWNER COLLEGE PLAZA SHOPPING CENTER, LLC

P.O. BOX 20429 WINSTON-SALEM, NC 27120 PHONE: (336) 722-1986 ATTN.: TBD

PERMIT INFORMATION

SHEET	DESCRIPTION	REV.
11	COVER SHEET	٧
1	SITE SURVEY	٧
5	OVERALL SITE PLAN	٧
22	SITE PLAN	٧
2	CARRIER EQUIPMENT PAD PLAN	٧
જ	FENCE, GATE, AND COMPOUND DETAILS	٧
C11	ANTENNA AND TOWER ELEVATION DETAILS	٧
C12	ANTENNA PLAN 140' LEVEL	4
SHE	SHEET INDEX Pre-ZONING PLANS	

NC-0035

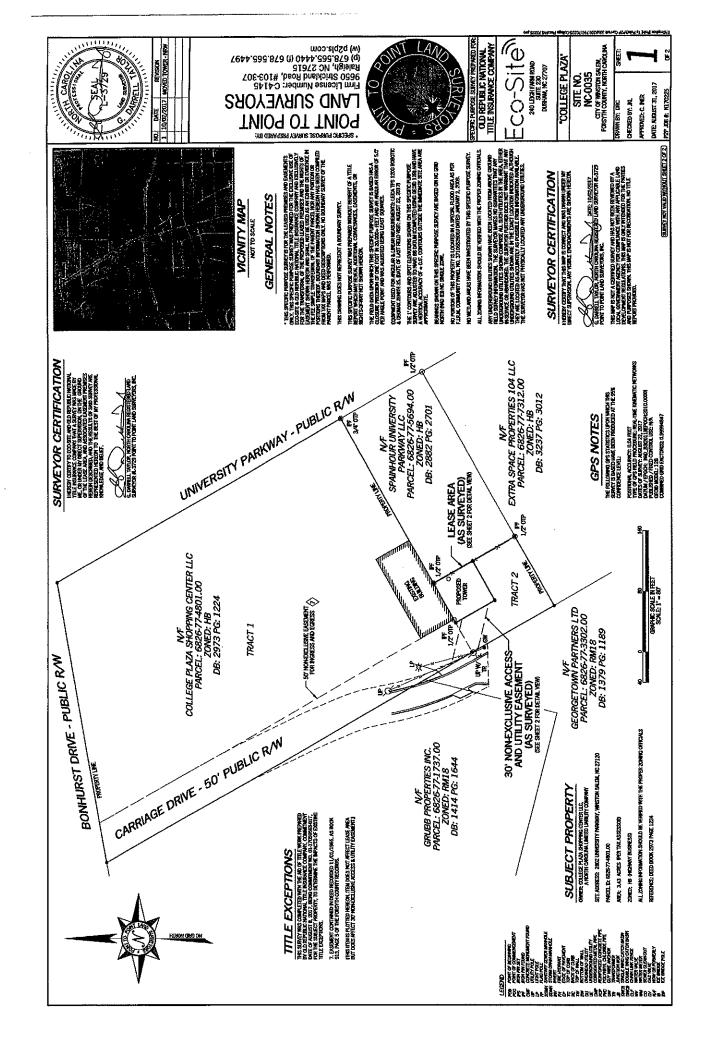
27th St.

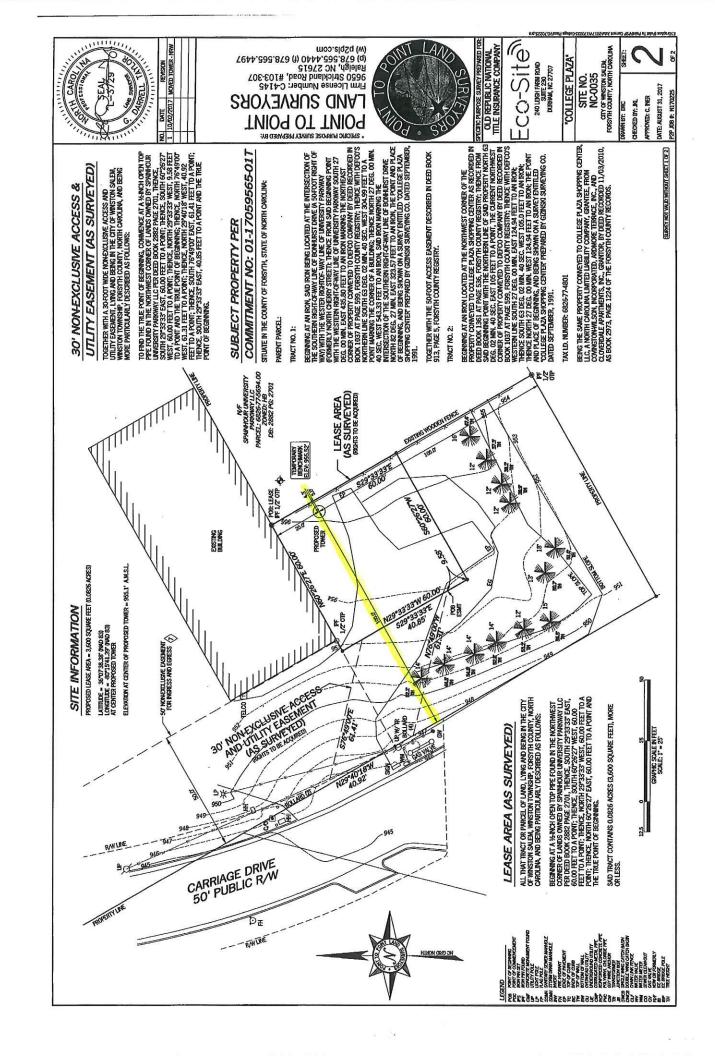
REVISIONS	DESCRIPTION	ISSUED FOR PRE-ZONING REVIEW													
	DATE	10,0017	T	Τ		Г	Г	Γ	Γ					Γ	Γ
	REV.	<	1	I											
_				_	=	_	=	_	_	_	_	_	_	_	_

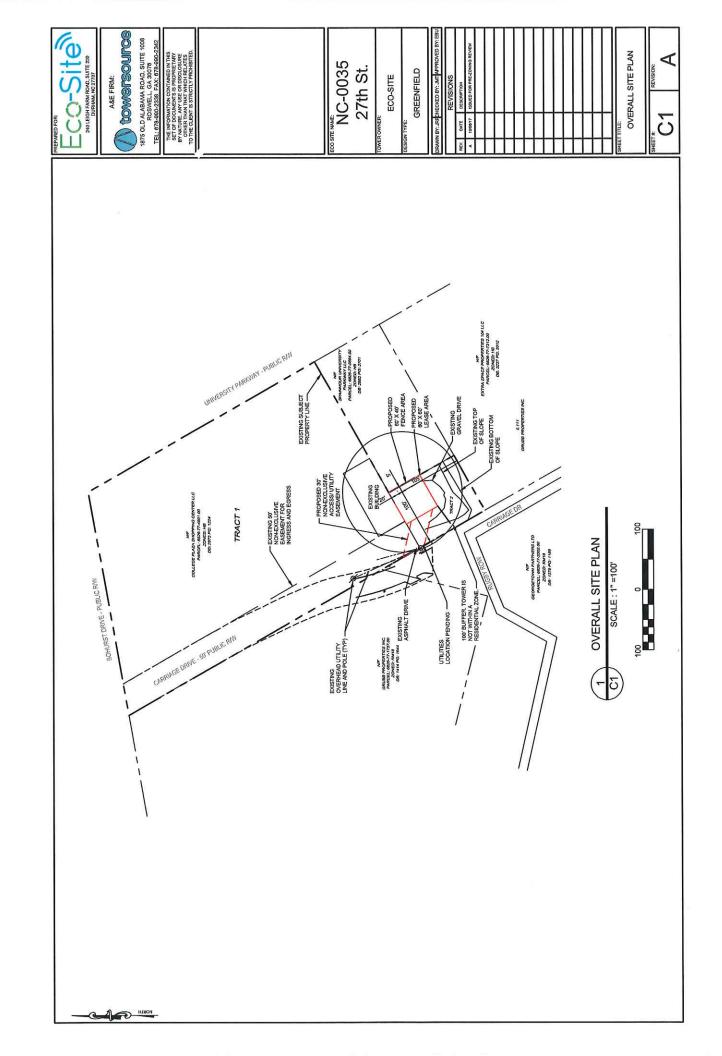
DRAWN BY: JRECHECKED BY: JIMTAPPROVED BY: EBU

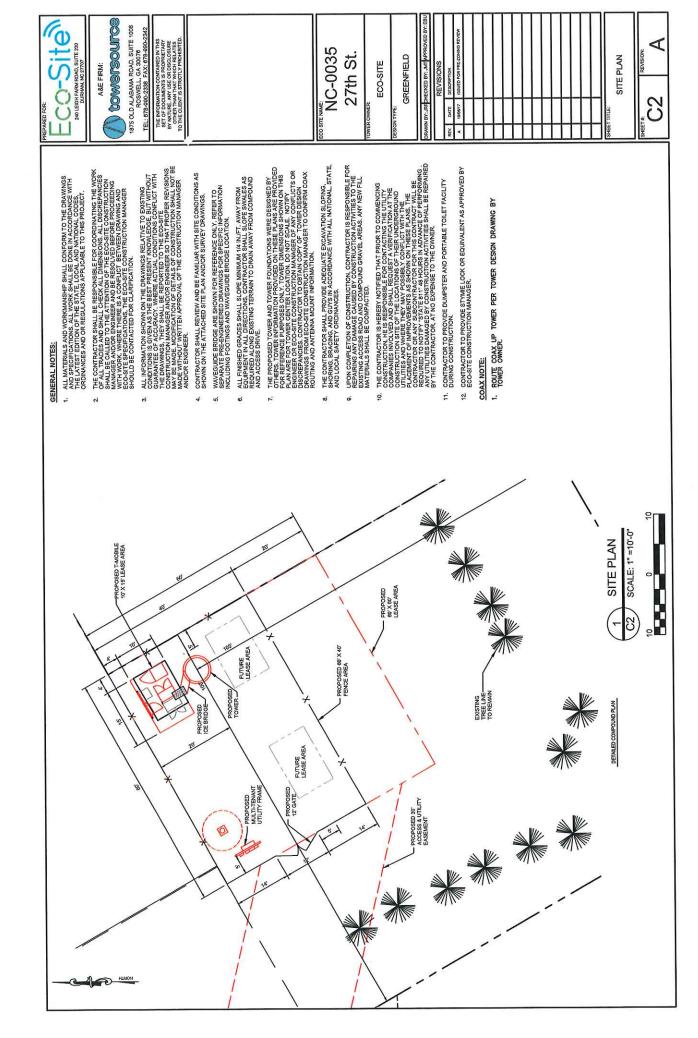
GREENFIELD ECO-SITE

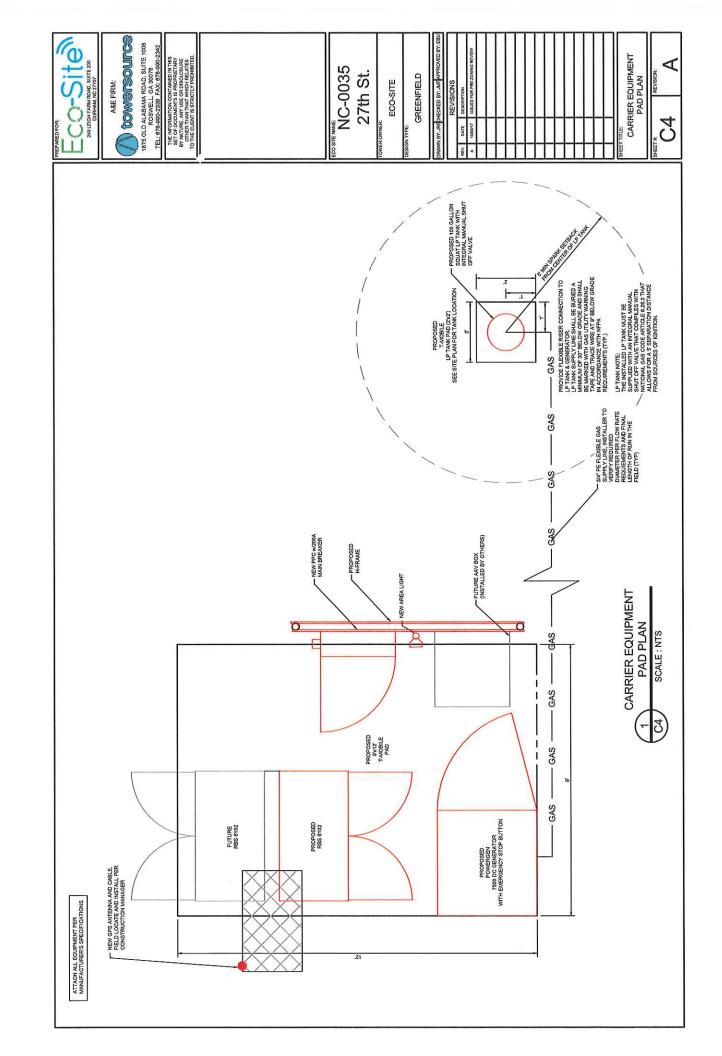
COVER SHEET

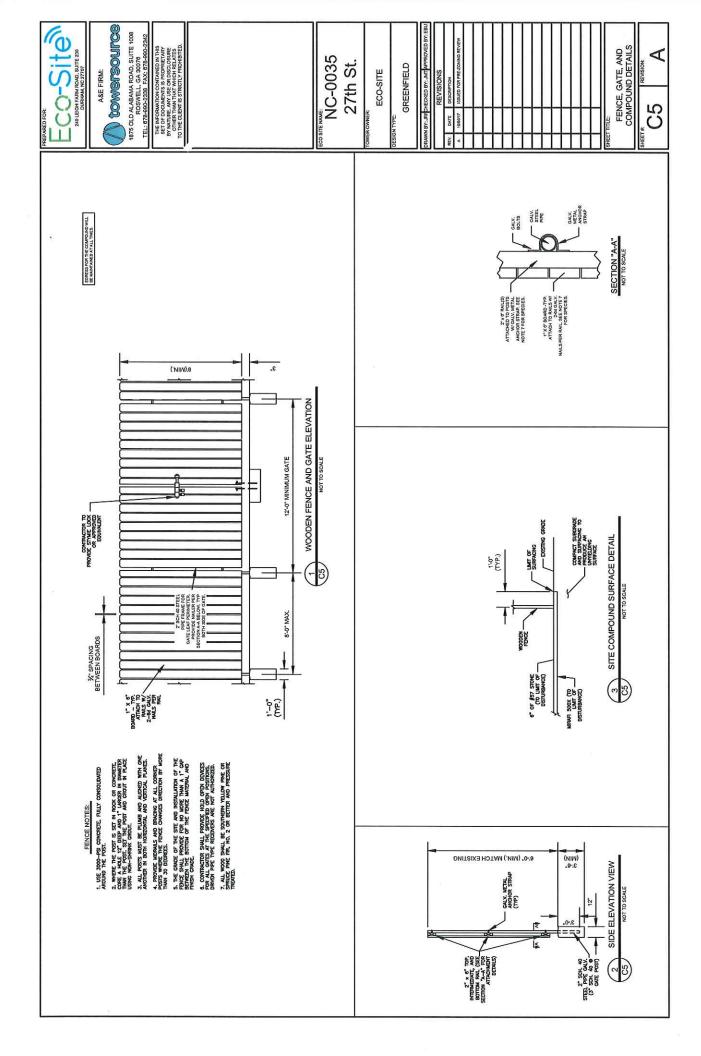


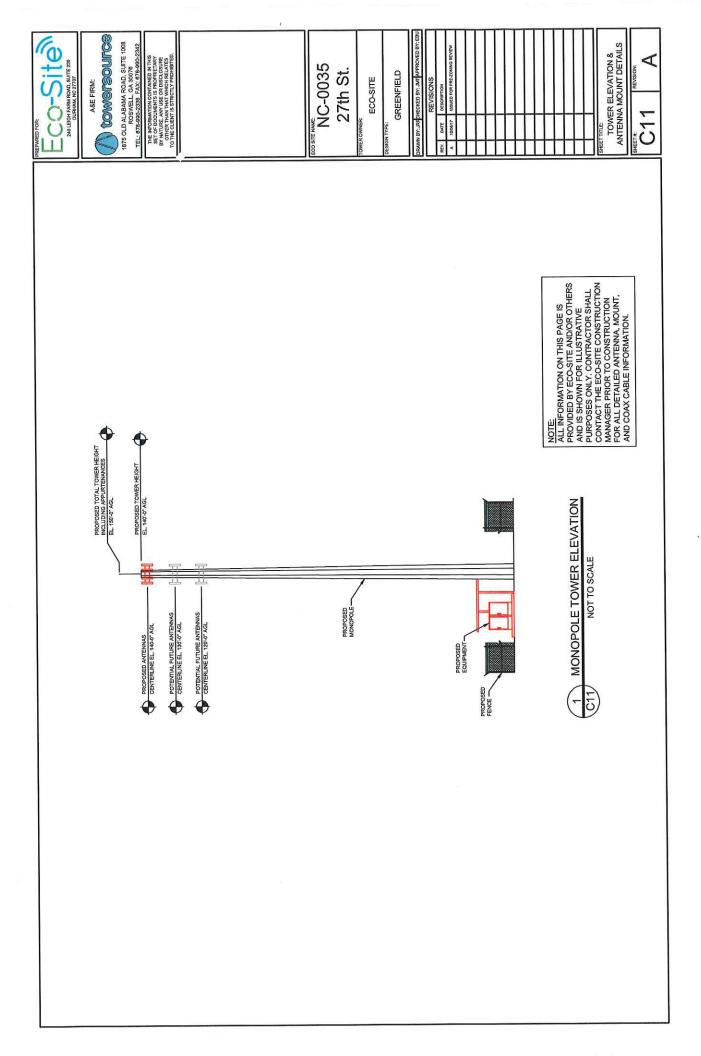












	TOWER	TOWER LOADING SUMMARY	MARY	
EXISTING	REMOVED	EQUIPMENT	QUANTITY	TOTAL QUANTITY
0	0	PANEL ANTENNA	0ET	091
0	0	HYBRD CABLE	0EL	081
	0	COVP	師	<b>GE</b>
0		FRU	鱼	081
0	0	FRBC	鱼	081
0	0	FHFB	OBT	OBT

## NOTES:

- CONTRACTOR SHALL PERFORM SWEEP TEST AND SUPPLY THE RESULTS TO T-MOBILE AFTER INSTALLATION.
- CONTRACTOR SHALL CONFIRM EQUIPMENT CONFIGURATION WITH THE FINAL T-MOBILE RFDS PRIOR TO INSTALLATION. 7
- CABLE LENGTH TO BE VERIFIED BY CONTRACTOR. nj
- CONTRACTOR SHALL COLOR CODE EXISTING AND NEW ANTENNA CABLES PER T-MOBILE INSTRUCTIONS.
- CONTRACTOR SHALL INSTALL ALL EQUIPMENT ACCORDING TO T-MOBILE INSTALLATION STANDARDS.



ANTENNA CABLE DESCRIPTION

COVP MODEL

O'=NORTH) CENTER

ANTENNA MODEL #

ANTENNA

ANTENNA /

RRUS11 B12 RRU

140

9

140

户

RFS-APXV18-206516S-A20 (DUAL)

ERICSSON-AIR32 KRD901146-1 (OCTA)

¥ A2

ALPHA

TOWER TOP EQUIPMENT SCHEDULE

CONFIGURATION TO BE CONFIRMED BY OBTAINING THE LATEST RFDS FROM T-MOBILE PRIOR TO BEGINNING CONSTRUCTION.

ERICSSON 6x12 HCS 6AWG 60m

ERICSSON 6x12 HCS 6AWG 60m

RRUS11 B12

140

ם

140

題

RFS-APXV18-206516S-A20 (DUAL)

ERICSSON-AIR32 KRD901146-1 (OCTA)

5

ß

GAMMA

RRUS11 B12

140

100

140

8

RFS-APXV18-206516S-A20 (DUAL)

BETA

ERICSSON—AIR32 KRD901146—1 (OCTA)

18 82 RRUS11 B12

140

ဓ

140

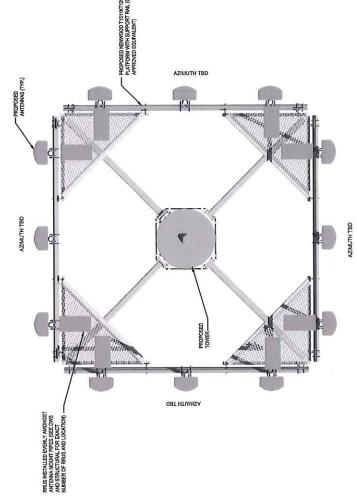
邑

RFS-APXV18-206516S-A20 (DUAL)

DELTA

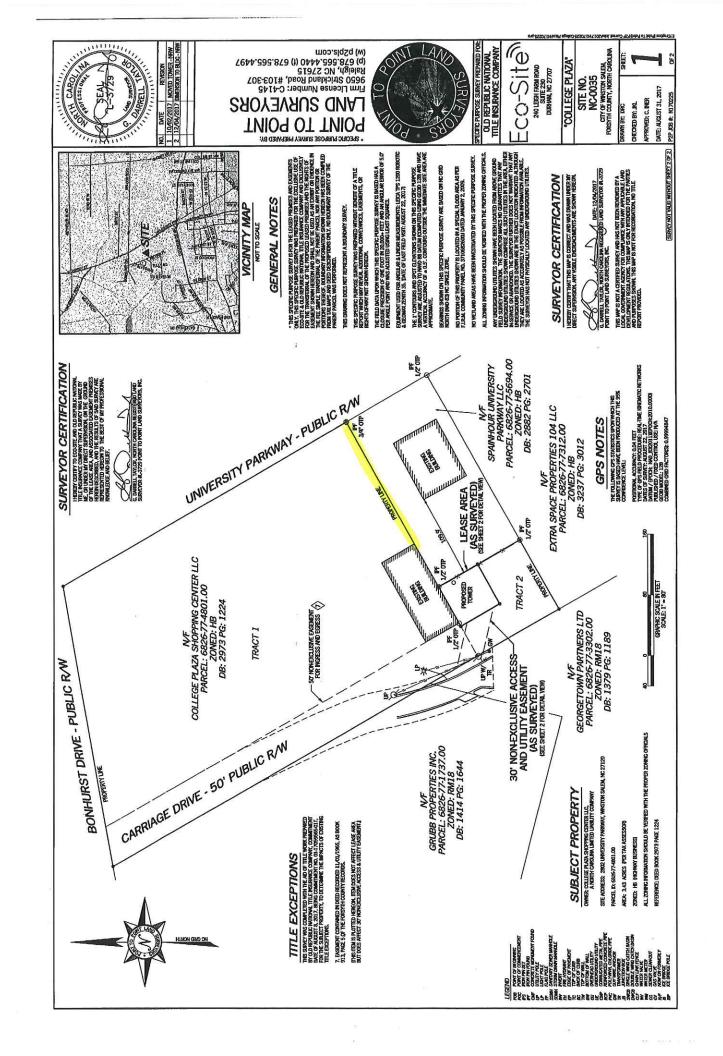
ERICSSON-AIR32 KRD901146-1 (OCTA)

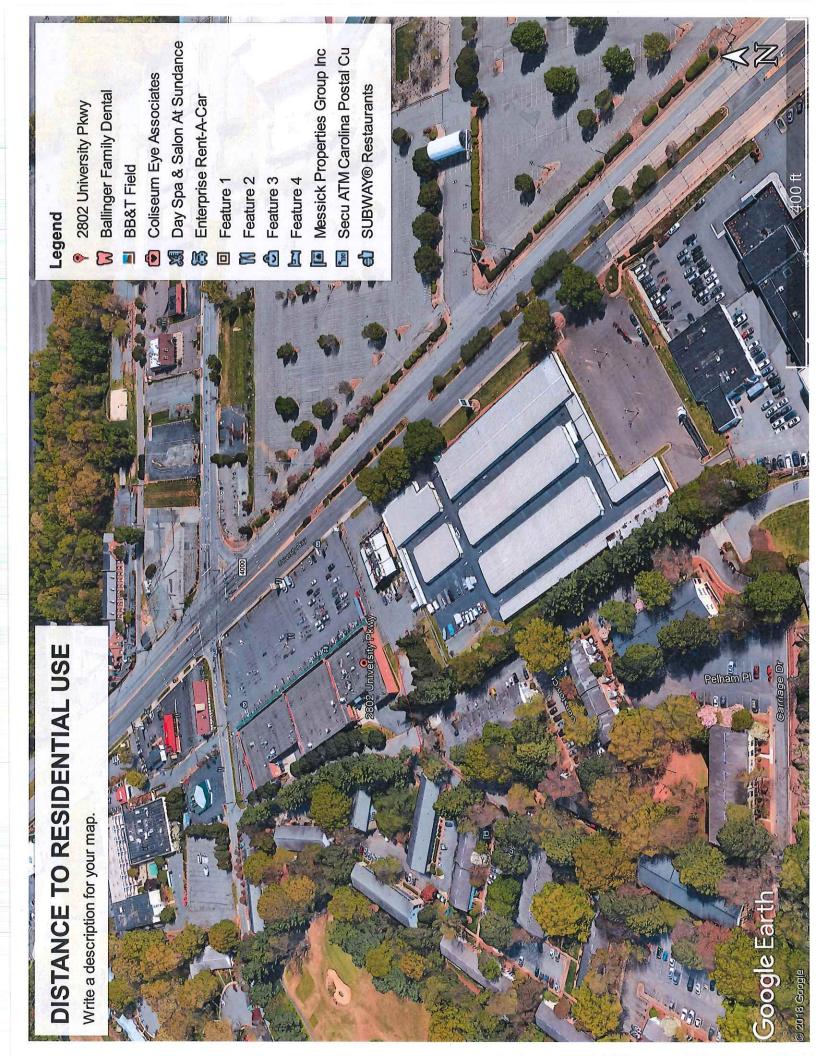
5 02



NOTE:
ALL INFORMATION ON THIS PAGE IS PROVIDED BY ECO-SITE AND/OR OTHERS AND IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR SHALL CONTACT THE ECO-SITE CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION FOR ALL DETAILED ANTENNA, MOUNT, AND COAX CABLE INFORMATION.

CO-Site	그 건 전 조유트 프리	NC-0035 27th St.	WINER: ECO-SITE	rree: GREENFIELD	YY: JRPHECKED BY: JANT APPROVED BY: EBU REVISIONS	ICRIPTION POR POR P				100	ANTENN	REVISION:
E C C C C C C C C C C C C C C C C C C C	1875 OLD AL 1875 O	ECO SITE NAME:	TOWER OWNER:	DESIGN TYPE:	DRAWN BY: JRG	REV. DATE		$\frac{1}{1}$	$\prod$		AP	SHEET #:





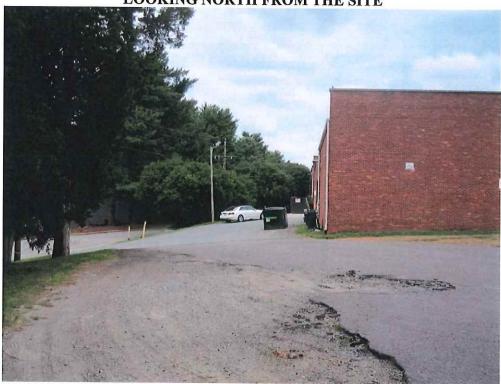






1875 Old Alabama Road, Suite 1008 Roswell, GA 30076

### SITE PHOTO LOOKING NORTH FROM THE SITE



SITE PHOTO LOOKING EAST FROM SITE









1875 Old Alabama Road, Suite 1008 Roswell, GA 30076

### SITE PHOTO LOOKING SOUTH FROM THE SITE



SITE PHOTO LOOKING WEST FROM THE SITE



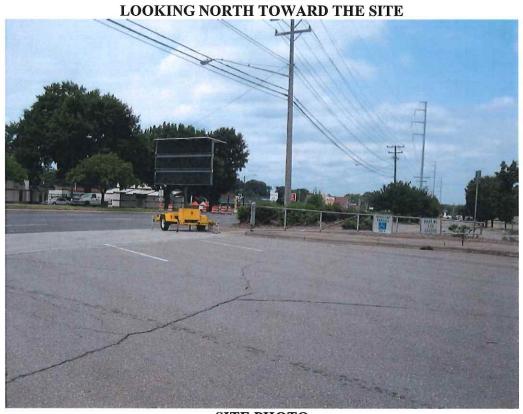




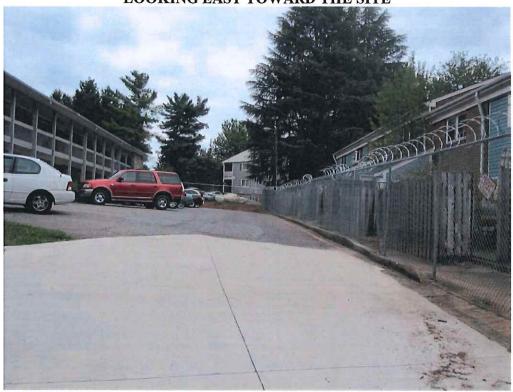


1875 Old Alabama Road, Suite 1008 Roswell, GA 30076

### SITE PHOTO



SITE PHOTO LOOKING EAST TOWARD THE SITE

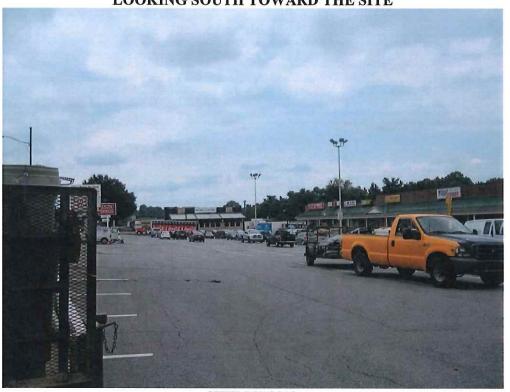








### SITE PHOTO LOOKING SOUTH TOWARD THE SITE



SITE PHOTO LOOKING WEST TOWARD THE SITE









1875 Old Alabama Road, Suite 1008 Roswell, GA 30076

### SITE PHOTO POWER





#### SITE PHOTO TELCO











1875 Old Alabama Road, Suite 1008 Roswell, GA 30076

#### SITE PHOTO ACCESS TOWARD THE SITE



SITE PHOTO ACCESS FROM THE SITE

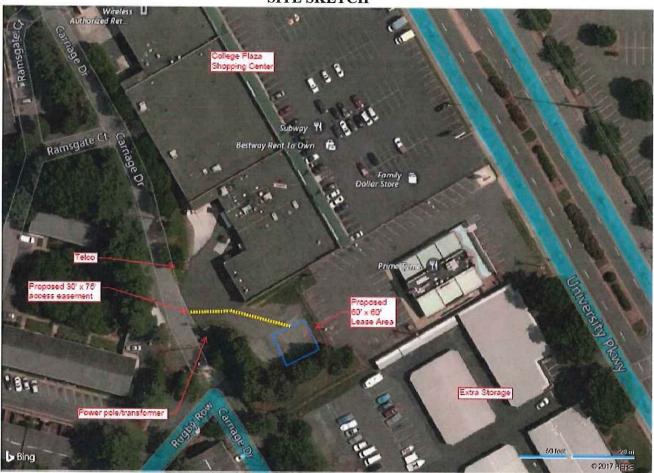








#### SITE SKETCH

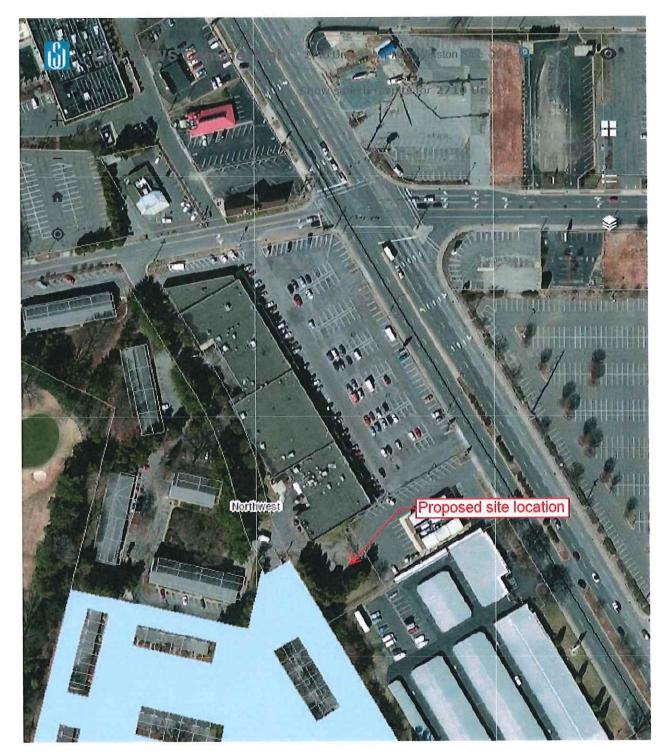








1875 Old Alabama Road, Suite 1008 Roswell, GA 30076



-80.256	36.130	Degrees

200ft

<



4400 West 31st St - Yankton, SD 57078

Phone: (605) 665-7532 Fax: (605) 665-9780 http://www.ehresmannengineering.com

E-Mail: e.heine@ehresmannengineering.com

#### FALL ZONE LETTER EXAMPLE

July 3, 2017

Gregg Godwin Eco-Site 240 Leigh Farm Rd., Suite 230 Durham, NC 27707

Subject:

155' Ehresmann Engineering, Inc. Monopine

Site:

SC-0001 Heckle Blvd

Location:

Rock Hill, SC (York County)

EEI JO:

99480-17

As requested, we have designed and will furnish a 155' Ehresmann Engineering, Inc. monopine to be located in Rock Hill, SC in York County. The site will be called SC-0001 Heckle Blvd.

Address:

Heckle Blvd

Rock Hill, SC 29732

Coordinates: 34-56-41.32 N

81-03-33.67 W

#### The monopole will be designed as follows:

- In accordance with the Telecommunications Industry Association TIA-222-G Standard
- 90 mph wind with no ice (Vasd)
- (Vult = 116 mph wind)
- 30 mph wind with 3/4" ice (Vasd)
- 60 mph wind with no ice (service)
- Structure Class II
- Exposure Category C
- Topographic Category 1

Design loading will be as outlined on drawing #99480E01.

This tower design standard takes into account several safety factors including load factors and steel strength capacities resulting in an overall minimum safety factor of 25%. Therefore, it is highly unlikely that the pole will fail structurally in a wind event where the design wind speed is exceeded within the range of built-in safety factors.

Should the wind speed increase beyond the capacity of the built-in safety factors to the point of failure of one or more structural elements, the most likely location of failure would be within one of the pole shaft sections. For the SC-0001 Heckle Blvd monopine this would most likely be in the section from 77.8' to 113.3' which is the highest stressed area of the pole. This would result in a buckling mode, where the steel shaft bends beyond its elastic limit (the point where the shaft does not return to its normal shape when the wind load is removed).

During this local buckling, a relatively small portion of the pole shaft distorts and merely kinks the steel causing the pole to buckle at the location of the highest combined stress ratio in the pole and "folds over" onto the portion below. This would cause the pole to most likely fall within a radius of 50' from the base of the pole. Please note, this is for the steel portion of the pole only. In an extreme wind event branches may become unattached and fall outside the 50' fall radius.

Please note, all opinions outlined in this letter are valid only if an Ehresmann Engineering, Inc. monopole is furnished and installed.

If you have any questions, please feel free to contact us.

Regards,

Eric Heine

No. 26669 T ALWONIA

PROJECT #: U1408-310-171
FIRM LICENSE #: COA #4120

FIRM LICENSE #: COA #4120

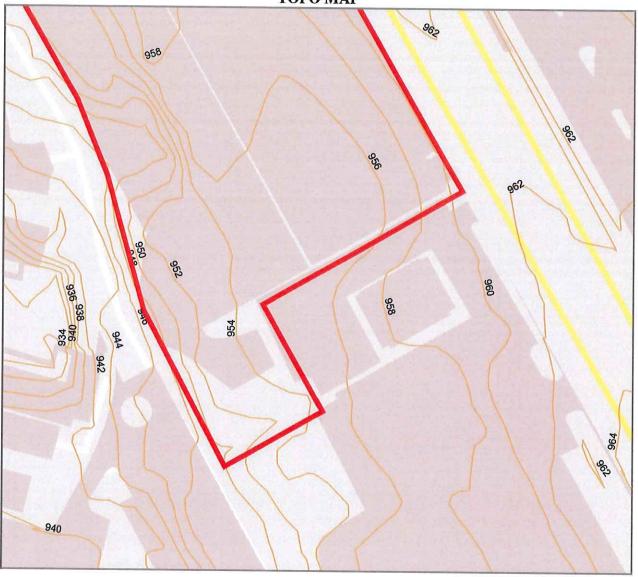
FIRM LICENSE #: PHONE (BD 1) 99D-1775

PRAPER, UTAH B4020

PHONE (BD 1) 99D-1775

PRAPER, UTAH B4020

### TOPO MAP



REID	6826774801000	Current Deed Date	11/3/2010
Parcel ID (PIN)	6826-77-4801.00	Current Deed Stamps	0
Property Address	2802 University PKWY	Assessment Method	INCO
Block Lot	3436114H	Total Value	2486200
Current Owner Name1	College Plaza Shopping Center Llc	Acreage	3.43
Current Owner Name2		CENSUS	13.0
Current Owner Address	PO BOX 20429	PRZONING	НВ
Current Owner City St Zip	Winston Salem NC 27120	MAPNUMBER	624866
Current Deed BkPg	002973-01224	Last Transaction Amount	0

Disclaimer: Forsyth County cannot guarantee the accuracy of this information, and the County hereby disclaims all warranties, including warranties as to the accuracy of this information.

Map Scale
1 inch = 94 feet
2/14/2018