

RECEIVED

JUL 03 2018

PUBLIC SERVICE  
COMMISSION

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

THE APPLICATION OF	)	
SKYWAY TOWERS, LLC AND	)	
CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS	)	
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC	)	CASE NO.: 2018-00229
CONVENIENCE AND NECESSITY TO CONSTRUCT	)	
A WIRELESS COMMUNICATIONS FACILITY	)	
IN THE COMMONWEALTH OF KENTUCKY	)	
IN THE COUNTY OF CALDWELL	)	

SITE NAME: FREDONIA

\*\*\*\*\*

**APPLICATION FOR  
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY  
FOR CONSTRUCTION OF A WIRELESS COMMUNICATIONS FACILITY**

Skyway Towers, LLC (“Skyway”) and Cellco Partnership d/b/a Verizon Wireless (“Verizon Wireless” or together with Skyway, the “Applicants”), by counsel, pursuant to (i) KRS §§ 278.020, 278.040, 278.650, 278.665, and other statutory authority, and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996, respectfully submit this Application requesting issuance of a Certificate of Public Convenience and Necessity (“CPCN”) from the Kentucky Public Service Commission (“PSC”) to construct, maintain, and operate a Wireless Communications Facility (“WCF”) to serve the customers of Verizon Wireless with wireless communications services.

In support of this Application, Applicants respectfully provide and state the following information:

1. The complete name and address of the Applicants are: Skyway Towers, LLC,

a Delaware limited liability company, having a local address of 3637 Madaca Lane, Tampa, FL 33618 and Cellco Partnership d/b/a Verizon Wireless, a Delaware general partnership, having an address of 2421 Holloway Road, Louisville, KY 40299.

2. Applicants propose construction of an antenna tower for communications services, which is to be located in an area outside the jurisdiction of a planning commission, and Applicants submit this application to the PSC for a certificate of public convenience and necessity pursuant to KRS §§ 278.020(1), 278.040, 278.650, 278.665, and other statutory authority.

3. Verizon Wireless is a Delaware General Partnership and not an incorporated entity and, thus, does not have a copy of articles of incorporation on file with the Kentucky Secretary of State. The Amended Certificate of Assumed Name and the Renewal Certificate of Assumed Name issued by the Kentucky Secretary of State for Verizon Wireless are attached as part of **Exhibit A**. Skyway is a Delaware limited liability company and, thus, does not have a copy of articles of incorporation on file with the Kentucky Secretary of State. The Certificate of Authority issued by the Kentucky Secretary of State for Skyway is attached as part of **Exhibit A**. Skyway and Verizon Wireless are in good standing in the state in which they are organized and are authorized to transact business in Kentucky.

4. Verizon Wireless operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC requirements. A copy of Verizon Wireless' FCC licenses to provide wireless services are attached to this Application or described as part of **Exhibit A**, and the facility will be constructed and

operated in accordance with applicable FCC regulations.

5. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will bring or improve Verizon Wireless' services to an area currently not served or not adequately served by Verizon Wireless by increasing coverage or capacity and thereby enhancing the public's access to innovative and competitive wireless communications services. The WCF will provide a necessary link in Verizon Wireless' communications network that is designed to meet the increasing demands for wireless services in Kentucky's wireless communications service area. The WCF is an integral link in Verizon Wireless' network design that must be in place to provide adequate coverage to the service area.

6. To address the above-described service needs, Applicants propose to construct a WCF at Kentucky Highway 902 East, Fredonia, KY 42411 (37°13'32.74" North latitude, 88°02'32.09" West longitude), on a parcel of land located entirely within the county referenced in the caption of this application. The property on which the WCF will be located is owned by Dwight and Donna Green pursuant to a Deed recorded at Deed Book 169, Page 264 in the office of the County Clerk. The proposed WCF will consist of a 290-foot tall tower, with an approximately 10-foot tall lightning arrestor attached at the top, for a total height of 300-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of the Verizon Wireless' radio electronics equipment and appurtenant equipment. The Applicants' equipment cabinet or shelter will be approved for use in the Commonwealth of Kentucky by the relevant building inspector. The WCF compound will be fenced and all access gate(s) will be secured. A description of

the manner in which the proposed WCF will be constructed is attached as **Exhibit B** and **Exhibit C**.

7. A list of utilities, corporations, or persons with whom the proposed WCF is likely to compete is attached as **Exhibit D**.

8. The site development plan and a vertical profile sketch of the WCF signed and sealed by a professional engineer registered in Kentucky depicting the tower height, as well as a proposed configuration for the antennas of Verizon Wireless has also been included as part of **Exhibit B**.

9. Foundation design plans signed and sealed by a professional engineer registered in Kentucky and a description of the standards according to which the tower was designed are included as part of **Exhibit C**.

10. Applicants have considered the likely effects of the installation of the proposed WCF on nearby land uses and values and have concluded that there is no more suitable location reasonably available from which adequate services can be provided, and that there are no reasonably available opportunities to co-locate Verizon Wireless' antennas on an existing structure. When suitable towers or structures exist, Verizon Wireless attempts to co-locate on existing structures such as communications towers or other structures capable of supporting Verizon Wireless' facilities; however, no other suitable or available co-location site was found to be located in the vicinity of the site.

11. A copy of the Determination of No Hazard to Air Navigation issued by the Federal Aviation Administration ("FAA") is attached as **Exhibit E**.

12. A copy of the application for Kentucky Airport Zoning Commission ("KAZC")

Approval to construct the tower is attached as **Exhibit F**.

13. A geotechnical engineering firm has performed soil boring(s) and subsequent geotechnical engineering studies at the WCF site. A copy of the geotechnical engineering report, signed and sealed by a professional engineer registered in the Commonwealth of Kentucky, is attached as **Exhibit G**. The name and address of the geotechnical engineering firm and the professional engineer registered in the Commonwealth of Kentucky who supervised the examination of this WCF site are included as part of this exhibit.

14. Clear directions to the proposed WCF site from the County seat are attached as **Exhibit H**. The name and telephone number of the preparer of **Exhibit H** are included as part of this exhibit.

15. Skyway, pursuant to a written agreement, has acquired the right to use the WCF site and associated property rights. A copy of the agreement or an abbreviated agreement recorded with the County Clerk is attached as **Exhibit I**.

16. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced. The tower and foundation drawings for the proposed tower submitted as part of **Exhibit C** bear the signature and stamp of a professional engineer registered in the Commonwealth of Kentucky. All tower designs meet or exceed the minimum requirements of applicable laws and regulations.

17. The Construction Manager for the proposed facility is Jay Cantu and the identity and qualifications of each person directly responsible for design and construction of the proposed tower are contained in **Exhibits B & C**.

18. As noted on the Survey attached as part of **Exhibit B**, the surveyor has determined that the site is not within any flood hazard area.

19. **Exhibit B** includes a map drawn to an appropriate scale that shows the location of the proposed tower and identifies every owner of real estate within 500 feet of the proposed tower (according to the records maintained by the County Property Valuation Administrator). Every structure and every easement within 500 feet of the proposed tower or within 200 feet of the access road including intersection with the public street system is illustrated in **Exhibit B**.

20. Applicants have notified every person who, according to the records of the County Property Valuation Administrator, owns property which is within 500 feet of the proposed tower or contiguous to the site property, by certified mail, return receipt requested, of the proposed construction. Each notified property owner has been provided with a map of the location of the proposed construction, the PSC docket number for this application, the address of the PSC, and has been informed of his or her right to request intervention. A list of the notified property owners and a copy of the form of the notice sent by certified mail to each landowner are attached as **Exhibit J** and **Exhibit K**, respectively.

21. Applicants have notified the applicable County Judge/Executive by certified mail, return receipt requested, of the proposed construction. This notice included the PSC docket number under which the application will be processed and informed the County Judge/Executive of his/her right to request intervention. A copy of this notice is attached as **Exhibit L**.

22. Notice signs meeting the requirements prescribed by 807 KAR 5:063, Section

1(2) that measure at least 2 feet in height and 4 feet in width and that contain all required language in letters of required height, have been posted, one in a visible location on the proposed site and one on the nearest public road. Such signs shall remain posted for at least two weeks after filing of the Application, and a copy of the posted text is attached as **Exhibit M**. A legal notice advertisement regarding the location of the proposed facility has been published in a newspaper of general circulation in the county in which the WCF is proposed to be located. A copy of the newspaper legal notice advertisement is attached as part of **Exhibit M**.

23. The general area where the proposed facility is to be located is rural.

24. The process that was used by the Verizon Wireless' radio frequency engineers in selecting the site for the proposed WCF was consistent with the general process used for selecting all other existing and proposed WCF facilities within the proposed network design area. Verizon Wireless' radio frequency engineers have conducted studies and tests in order to develop a highly efficient network that is designed to handle voice and data traffic in the service area. The engineers determined an optimum area for the placement of the proposed facility in terms of elevation and location to provide the best quality service to customers in the service area. A radio frequency design search area prepared in reference to these radio frequency studies was considered by Verizon Wireless when searching for sites for its antennas that would provide the coverage deemed necessary by Verizon Wireless. A map of the area in which the tower is proposed to be located which is drawn to scale and clearly depicts the necessary search area within which the site should be located pursuant to radio frequency requirements is attached as

**Exhibit N.**

25. The tower must be located at the proposed location and proposed height to provide necessary service to wireless communications users in the subject area.

26. All Exhibits to this Application are hereby incorporated by reference as if fully set out as part of the Application.

27. All responses and requests associated with this Application may be directed to:

David A. Pike  
Pike Legal Group, PLLC  
1578 Highway 44 East, Suite 6  
P. O. Box 369  
Shepherdsville, KY 40165-0369  
Telephone: (502) 955-4400  
Telefax: (502) 543-4410  
Email: [dpike@pikelegal.com](mailto:dpike@pikelegal.com)



**WHEREFORE**, Applicants respectfully request that the PSC accept the foregoing Application for filing, and having met the requirements of KRS §§ 278.020(1), 278.650, and 278.665 and all applicable rules and regulations of the PSC, grant a Certificate of Public Convenience and Necessity to construct and operate the WCF at the location set forth herein.

Respectfully submitted,



---

David A. Pike  
Pike Legal Group, PLLC  
1578 Highway 44 East, Suite 6  
P. O. Box 369  
Shepherdsville, KY 40165-0369  
Telephone: (502) 955-4400  
Telefax: (502) 543-4410  
Email: dpike@pikelegal.com  
Attorney for Applicants

## LIST OF EXHIBITS

- A - FCC License Documentation
- B - Site Development Plan:
  - 500' Vicinity Map
  - Legal Descriptions
  - Flood Plain Certification
  - Site Plan
  - Vertical Tower Profile
- C - Tower and Foundation Design
- D - Competing Utilities, Corporations, or Persons List
- E - FAA
- F - Kentucky Airport Zoning Commission
- G - Geotechnical Report
- H - Directions to WCF Site
- I - Copy of Real Estate Agreement
- J - Notification Listing
- K - Copy of Property Owner Notification
- L - Copy of County Judge/Executive Notice
- M - Copy of Posted Notices and Newspaper Notice Advertisement
- N - Copy of Radio Frequency Design Search Area

**EXHIBIT A**  
**FCC LICENSE DOCUMENTATION**

Multi-page document. Select page: 1 2



COMMONWEALTH OF KENTUCKY  
ALISON LUNDERGAN GRIMES, SECRETARY OF STATE

0889888.06 amcray  
ADD  
Allison Lundergan Grimes  
Kentucky Secretary of State  
Received and Filed:  
8/16/2014 1:42 PM  
Fee Receipt: \$90.00

Division of Business Filings  
Business Filings  
PO Box 718  
Frankfort, KY 40602  
(602) 664-3400  
www.sos.ky.gov

Certificate of Authority  
(Foreign Business Entity)

FBE

Pursuant to the provisions of KRS 14A and KRS 271B, 273, 274, 275, 362 and 386 the undersigned hereby applies for authority to transact business in Kentucky on behalf of the entity named below and, for that purpose, submits the following statements:

- 1. The entity is a :  profit corporation (KRS 271B),  nonprofit corporation (KRS 273),  professional service corporation (KRS 274),  business trust (KRS 386),  limited liability company (KRS 275),  professional limited liability company (KRS 275),  limited partnership (KRS 362).

2. The name of the entity is Skyway Towers, LLC  
(The name must be identical to the name on record with the Secretary of State.)

3. The name of the entity to be used in Kentucky is (if applicable): \_\_\_\_\_  
(Only provide if "real name" is unavailable for use; otherwise, leave blank.)

4. The state or country under whose law the entity is organized is Delaware

5. The date of organization is 11/14/2014 and the period of duration is \_\_\_\_\_  
(If left blank, the period of duration is considered perpetual.)

6. The mailing address of the entity's principal office is  
20525 Amberfield Drive, Suite 102 Land O Lakes FL 34638  
Street Address City State Zip Code

7. The street address of the entity's registered office in Kentucky is  
306 W. Main Street, Suite 512, Frankfort KY 40601  
Street Address (No P.O. Box Numbers) City State Zip Code

and the name of the registered agent at that office is C T Corporation System

8. The names and business addresses of the entity's representatives (secretary, officers and directors, managers, trustees or general partners):

Name	Street or P.O. Box	City	State	Zip Code
Daniel Behuniak	20525 Amberfield Drive, Suite 102	Land O Lakes	FL	34638
Scott Behuniak	20525 Amberfield Drive, Suite 102	Land O Lakes	FL	34638
Eric Bondurant	20525 Amberfield Drive, Suite 102	Land O Lakes	FL	34638

9. If a professional service corporation, all the individual shareholders, not less than one half (1/2) of the directors, and all of the officers other than the secretary and treasurer are licensed in one or more states or territories of the United States or District of Columbia to render a professional service described in the statement of purposes of the corporation.

10. I certify that, as of the date of filing this application, the above-named entity validly exists under the laws of the jurisdiction of its formation.

11. If a limited partnership, it elects to be a limited liability limited partnership. Check the box if applicable:

12. This application will be effective upon filing, unless a delayed effective date and/or time is provided. The effective date or the delayed effective date cannot be prior to the date the application is filed. The date and/or time is \_\_\_\_\_  
(Delayed effective date and/or time)

[Signature] Daniel Behuniak, CEO 6/10/2014  
Signature of Authorized Representative Printed Name & Title Date

I, C T Corporation System, consent to serve as the registered agent on behalf of the business entity.  
Type/Print Name of Registered Agent

By: [Signature] Printed Name Title Date  
Signature of Registered Agent (01/12)

**Angel Nunez**  
**Assistant Secretary**

Multi-page document. Select page: 1 2

**Commonwealth of Kentucky**  
**Alison Lundergan Grimes, Secretary of State**

**0641227.07**  
Alison Lundergan Grimes  
KY Secretary of State  
Received and Filed  
5/31/2016 1:54:34 PM  
Fee receipt: \$20.00

Alison Lundergan Grimes  
Secretary of State  
P. O. Box 718  
Frankfort, KY 40602-0718  
(502) 564-3490  
<http://www.sos.ky.gov>

**Renewal Certificate of  
Assumed Name**

**REN**

This certifies that the assumed name of

**VERIZON WIRELESS**

is hereby renewed by the general partnership listed above, organized and existing in the state of Delaware.

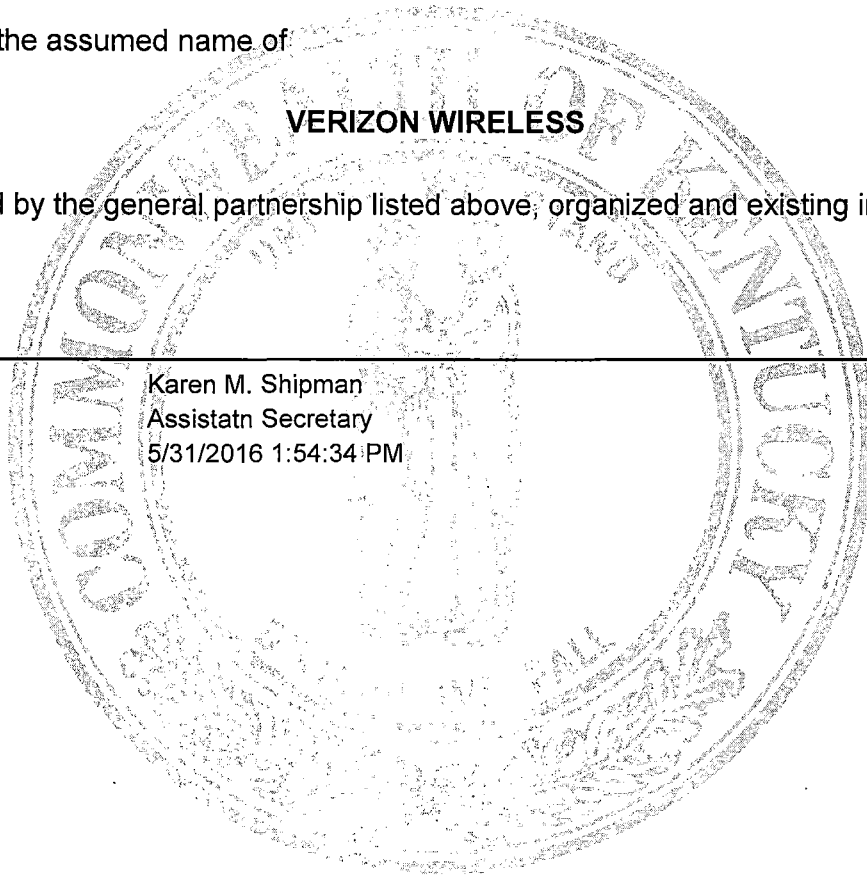
**Signatures**

**Signature**

**Title**

**Date**

Karen M. Shipman  
Assistatn Secretary  
5/31/2016 1:54:34 PM



0641227.07

dcornish  
AMD

Alison Lundergan Grimes  
Kentucky Secretary of State  
Received and Filed:  
5/18/2016 1:40 PM  
Fee Receipt: \$20.00



**COMMONWEALTH OF KENTUCKY**  
**ALISON LUNDERGAN GRIMES, SECRETARY OF STATE**

Division of Business Filings Business Filings PO Box 718 Frankfort, KY 40602 (502) 564-3490 www.sos.ky.gov	<b>Amended Certificate of Assumed Name</b> (Domestic or Foreign Business Entity)	<b>AAN</b>
---	---	------------

Pursuant to the provisions of KRS 365, the undersigned applies to amend the certificate of assumed name and, for that purpose, submits the following statement:

- The assumed name is Verizon Wireless  
(The name must be identical to the name on record with the Secretary of State.)
- The certificate of assumed name was filed with the Secretary of State on: 6/21/2006
- The current principal office address (if any) is:  

<u>One Verizon Way</u>	<u>Basking Ridge</u>	<u>NJ</u>	<u>07920</u>
Street Address or Post Office Box Numbers	City	State	Zip
- The principal office address is hereby changed to:  

Street Address or Post Office Box Numbers	City	State	Zip
---	------	-------	-----
- This application will be effective upon filing, unless a delayed effective date and/or time is provided. The effective date or the delayed effective date cannot be prior to the date the application is filed. The date and/or time is \_\_\_\_\_  
(Delayed effective date and/or time)
- The changes in the identity of the partners are as follows: See Addendum for current partners

I declare under penalty of perjury under the laws of Kentucky that the forgoing is true and correct.

	GTE Wireless Incorporated		
Signature of Applicant	Printed Name	Title	Date
	Kathleen Metzger	Vice President - Taxes	5/13/16

## Addendum

The full name of the Partnership is Cellco Partnership, a Delaware general partnership composed of the following partners:

<i>General Partners of Cellco Partnership</i>	<i>Address</i>
Bell Atlantic Mobile Systems LLC	One Verizon Way Basking Ridge, NJ 07920
GTE Wireless Incorporated	One Verizon Way Basking Ridge, NJ 07920
Verizon Americas Inc.	One Verizon Way Basking Ridge, NJ 07920

0641227.07

mstratton  
AMD

Alison Lundergan Grimes  
Kentucky Secretary of State  
Received and Filed:  
6/12/2018 2:15 PM  
Fee Receipt: \$20.00



**COMMONWEALTH OF KENTUCKY**  
**ALISON LUNDERGAN GRIMES, SECRETARY OF STATE**

<b>Division of Business Filings</b> <b>Business Filings</b> PO Box 718 Frankfort, KY 40602 (502) 564-3490 www.sos.ky.gov	<b>Amended Certificate of Assumed Name</b> (Domestic or Foreign Business Entity)	<b>AAN</b>
---	---	------------

Pursuant to the provisions of KRS 365, the undersigned applies to amend the certificate of assumed name and, for that purpose, submits the following statement:

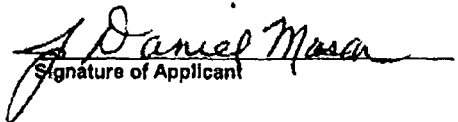
- The assumed name is Verizon Wireless  
(The name must be identical to the name on record with the Secretary of State.)
- The certificate of assumed name was filed with the Secretary of State on: 6/21/2006
- The current principal office address (if any) is:  

<u>One Verizon Way</u>	<u>Basking Ridge</u>	<u>NJ</u>	<u>07960</u>
<b>Street Address or Post Office Box Numbers</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
- The principal office address is hereby changed to:  

_____	_____	_____	_____
<b>Street Address or Post Office Box Numbers</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
- This application will be effective upon filing, unless a delayed effective date and/or time is provided. The effective date or the delayed effective date cannot be prior to the date the application is filed. The date and/or time is \_\_\_\_\_  
(Delayed effective date and/or time)
- The changes in the identity of the partners are as follows: See Addendum for current partners

I declare under penalty of perjury under the laws of Kentucky that the forgoing is true and correct.

GTE Wireless LLC

 Signature of Applicant	<u>J. Daniel Mason</u> Printed Name	<u>Assistant Secretary</u> Title	<u>6/11/2018</u> Date
---	--	-------------------------------------	--------------------------



## Addendum

The full name of the Partnership is Cellco Partnership, a Delaware general partnership composed of the following partners:

<i>General Partners of Cellco Partnership</i>	<i>Address</i>
Bell Atlantic Mobile Systems LLC	One Verizon Way Basking Ridge, NJ 07920
GTE Wireless LLC	One Verizon Way Basking Ridge, NJ 07920
Verizon Americas Inc.	One Verizon Way Basking Ridge, NJ 07920
GTE Wireless of the Midwest Incorporated	One Verizon Way Basking Ridge, NJ 07920

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



**Federal Communications Commission  
Wireless Telecommunications Bureau**

**RADIO STATION AUTHORIZATION**

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY  
CELLCO PARTNERSHIP  
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING  
ALPHARETTA, GA 30022

<b>Call Sign</b> KNKN871	<b>File Number</b>
<b>Radio Service</b> CL - Cellular	
<b>Market Numer</b> CMA444	<b>Channel Block</b> B
<b>Sub-Market Designator</b> 0	

FCC Registration Number (FRN): 0003290673

<b>Market Name</b> Kentucky 2 - Union
--

Grant Date	Effective Date	Expiration Date	Five Yr Build-Out Date	Print Date
08-30-2011	11-01-2016	10-01-2021		

**Site Information:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
1	37-30-51.2 N	087-30-18.0 W	139.9	91.4	1030659

Address: 2138 SR 1405

City: SLAUGHTERS County: WEBSTER State: KY Construction Deadline:

**Antenna: 2**

<b>Maximum Transmitting ERP in Watts:</b> 140.820								
Azimuth(from true north)	0	45	90	135	180	225	270	315
<b>Antenna Height AAT (meters)</b>	104.300	99.100	103.400	105.700	89.600	78.600	86.500	103.800
<b>Transmitting ERP (watts)</b>	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000

**Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKN871

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
2	37-16-53.0 N	087-29-17.0 W	176.8	90.8	1030654

Address: 1369 SAND CUT RD

City: Madisonville County: HOPKINS State: KY Construction Deadline:

Antenna: 5

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	127.800	138.700	133.200	133.500	121.500	113.200	123.000	142.100
Transmitting ERP (watts)	208.970	190.560	12.020	1.000	0.500	0.500	0.630	30.910
Antenna: 6								
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	127.800	138.700	133.500	133.500	121.500	113.200	123.000	142.100
Transmitting ERP (watts)	0.500	0.540	19.950	190.560	208.940	20.420	1.070	0.500
Antenna: 7								
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	127.800	138.700	133.500	133.500	121.500	113.200	123.000	142.100
Transmitting ERP (watts)	1.000	1.910	1.000	1.000	6.310	213.810	501.220	190.560

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
4	36-57-17.4 N	087-51-07.6 W	172.2	123.1	1030739

Address: (Hopson) RT 4 BOX 58 814999

City: Princeton County: CALDWELL State: KY Construction Deadline:

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	135.700	130.000	144.600	143.600	151.900	144.500	138.300	138.900
Transmitting ERP (watts)	18.030	88.290	65.450	2.610	0.360	0.200	0.200	0.350
Antenna: 3								
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	135.700	130.000	144.600	143.600	151.900	144.500	138.300	138.900
Transmitting ERP (watts)	0.420	0.420	2.640	89.540	209.890	79.800	0.420	0.800
Antenna: 4								
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	135.700	130.000	144.600	143.600	151.900	144.500	138.300	138.900
Transmitting ERP (watts)	55.210	1.870	1.030	0.840	1.150	19.590	283.140	381.940

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKN871

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
5	37-19-00.3 N	088-04-34.3 W	237.4	90.5	1030656

Address: (Marion) 11 Brairwood Drive

City: Marion County: CRITTENDEN State: KY Construction Deadline:

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	162.700	163.300	176.200	156.900	167.800	184.500	160.300	175.600
Transmitting ERP (watts)	271.010	402.110	56.170	1.380	1.090	1.090	1.090	16.570

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	162.700	163.300	176.200	156.900	167.800	184.500	160.300	175.600
Transmitting ERP (watts)	1.090	1.090	54.770	411.390	270.910	18.590	1.090	1.090

Antenna: 4

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	162.700	163.300	176.200	156.900	167.800	184.500	160.300	175.600
Transmitting ERP (watts)	2.710	0.550	0.550	0.550	2.110	63.550	191.830	63.550

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
8	37-19-19.5 N	087-30-03.8 W	144.5	99.1	1040639

Address: 54 W LAKE ST

City: Madisonville County: HOPKINS State: KY Construction Deadline:

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	97.900	120.000	110.700	105.000	90.400	94.900	118.300	102.200
Transmitting ERP (watts)	91.200	87.100	85.110	85.110	89.130	87.100	89.130	89.130

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
9	37-39-38.0 N	087-55-11.5 W	153.6	121.9	1030655

Address: (Morganfield) 996 TP LUCKETTE RD

City: Morganfield County: UNION State: KY Construction Deadline:

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	130.600	126.500	124.600	100.000	131.200	122.100	129.400	122.600
Transmitting ERP (watts)	355.170	248.530	31.970	1.840	0.810	0.810	2.870	89.690

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	130.600	126.500	124.600	100.000	131.200	122.100	129.400	122.600
Transmitting ERP (watts)	0.890	27.540	263.030	389.050	97.720	5.890	0.810	0.810

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKN871

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
9	37-39-38.0 N	087-55-11.5 W	153.6	121.9	1030655

Address: (Morganfield) 996 TP LUCKETTE RD

City: Morganfield County: UNION State: KY Construction Deadline:

Antenna: 4

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0							
Antenna Height AAT (meters)	130.600	126.500	124.600	100.000	131.200	122.100	129.400	122.600
Transmitting ERP (watts)	0.680	0.680	0.680	2.630	61.490	217.250	146.520	15.150

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
12	37-02-00.0 N	088-22-10.0 W	105.5	106.7	1040303

Address: (Calvert City) 641 Jary Johnson Rd.

City: Calvert City County: MARSHALL State: KY Construction Deadline:

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0							
Antenna Height AAT (meters)	78.900	77.600	88.100	83.000	68.600	85.300	97.900	93.100
Transmitting ERP (watts)	23.380	330.300	378.360	36.130	0.970	0.970	0.970	0.970

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0							
Antenna Height AAT (meters)	78.900	77.600	88.100	83.000	68.600	85.300	97.900	93.100
Transmitting ERP (watts)	0.970	0.970	0.970	14.730	240.930	357.480	49.940	1.230

Antenna: 4

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0							
Antenna Height AAT (meters)	78.900	77.600	88.100	83.000	68.600	85.300	97.900	93.100
Transmitting ERP (watts)	63.740	2.060	0.660	0.660	0.660	4.020	107.530	274.970

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
14	37-36-46.0 N	087-29-35.0 W	118.0	91.0	1034040

Address: EASTWOOD FERRY ROAD

City: SEBREE County: WEBSTER State: KY Construction Deadline: 02-23-2006

Antenna: 4

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0							
Antenna Height AAT (meters)	73.800	88.300	72.700	87.800	81.700	80.900	73.100	79.800
Transmitting ERP (watts)	0.560	0.200	0.200	0.280	2.400	42.760	89.330	12.910

Antenna: 5

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0							
Antenna Height AAT (meters)	73.800	88.300	72.700	87.800	81.700	80.900	73.100	79.800
Transmitting ERP (watts)	55.080	0.490	0.200	0.200	0.200	0.200	0.200	39.900

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKN871

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
14	37-36-46.0 N	087-29-35.0 W	118.0	91.0	1034040

Address: EASTWOOD FERRY ROAD

City: SEBREE County: WEBSTER State: KY Construction Deadline: 02-23-2006

Antenna: 6

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	73.800	88.300	72.700	87.800	81.700	80.900	73.100	79.800
Transmitting ERP (watts)	0.200	0.200	0.200	5.380	97.950	4.910	0.210	0.200

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
16	36-46-54.2 N	088-03-28.1 W	199.0	126.5	1205551

Address: SR 80/US 68 & Trace

City: Golden Pond County: TRIGG State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	165.000	178.000	160.000	175.000	171.000	167.000	177.000	184.000
Transmitting ERP (watts)	96.610	96.610	96.610	96.610	96.610	96.610	96.610	96.610

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
17	37-14-55.1 N	088-20-42.2 W	175.8	108.8	1231318

Address: 738 Mitchell Road

City: Burna County: LIVINGSTON State: KY Construction Deadline: 02-23-2006

Antenna: 4

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	116.800	144.900	144.500	172.100	154.500	163.300	146.900	139.500
Transmitting ERP (watts)	50.060	6.450	0.130	0.130	0.130	1.990	13.790	50.060

Antenna: 5

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	116.800	144.900	144.500	172.100	154.500	163.300	146.900	139.500
Transmitting ERP (watts)	4.780	26.880	61.590	32.320	2.880	0.130	0.130	0.600

Antenna: 6

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	116.800	144.900	144.500	172.100	154.500	163.300	146.900	139.500
Transmitting ERP (watts)	0.130	0.130	0.130	2.750	15.470	52.420	46.720	5.120

**Licensee Name:** CELLCO PARTNERSHIP

**Call Sign:** KNKN871

**File Number:**

**Print Date:**

**Control Points:**

**Control Pt. No. 2**

**Address:** 500 West Dove Road

**City:** Southlake **County:** TARRANT **State:** TX **Telephone Number:** (800)264-6620

---

**Waivers/Conditions:**

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



Federal Communications Commission  
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY  
CELLCO PARTNERSHIP  
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING  
ALPHARETTA, GA 30022

<b>Call Sign</b> WQGA718	<b>File Number</b> 0007518718
<b>Radio Service</b> AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003290673

<b>Grant Date</b> 11-29-2006	<b>Effective Date</b> 12-13-2016	<b>Expiration Date</b> 11-29-2021	<b>Print Date</b> 02-04-2017
<b>Market Number</b> REA004	<b>Channel Block</b> F		<b>Sub-Market Designator</b> 15
<b>Market Name</b> Mississippi Valley			
<b>1st Build-out Date</b>	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market-Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.



REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



Federal Communications Commission  
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY  
CELLCO PARTNERSHIP  
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING  
ALPHARETTA, GA 30022

<b>Call Sign</b> WQGA960	<b>File Number</b>
<b>Radio Service</b> AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003290673

<b>Grant Date</b> 11-29-2006	<b>Effective Date</b> 11-01-2016	<b>Expiration Date</b> 11-29-2021	<b>Print Date</b>
<b>Market Number</b> BEA072	<b>Channel Block</b> B	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Paducah, KY-IL			
<b>1st Build-out Date</b>	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



Federal Communications Commission  
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY  
CELLCO PARTNERSHIP  
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING  
ALPHARETTA, GA 30022

<b>Call Sign</b> WQJQ692	<b>File Number</b>
<b>Radio Service</b> WU - 700 MHz Upper Band (Block C)	

FCC Registration Number (FRN): 0003290673

<b>Grant Date</b> 11-26-2008	<b>Effective Date</b> 06-07-2018	<b>Expiration Date</b> 06-13-2019	<b>Print Date</b>
<b>Market Number</b> REA004	<b>Channel Block</b> C	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Mississippi Valley			
<b>1st Build-out Date</b> 06-13-2013	<b>2nd Build-out Date</b> 06-13-2019	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

**EXHIBIT B**

**SITE DEVELOPMENT PLAN:**

**500' VICINITY MAP  
LEGAL DESCRIPTIONS  
FLOOD PLAIN CERTIFICATION  
SITE PLAN  
VERTICAL TOWER PROFILE**



# SKYWAY TOWERS

3637 MADACA LANE  
TAMPA, FL 33618

# FREDONIA

KY-03071

KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

TENANT: CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS  
"EV FREDONIA"

FROM CALDWELL COUNTY JUDGE: 100 E MARKET ST, PRINCETON, KY 42445: HEAD NORTHWEST ON W MARKET ST TOWARD W COURT SQUARE/N HARRISON ST (0.3 MI), TURN RIGHT AFTER NAPA AUTO PARTS - COLEMAN AUTO PARTS (ON THE LEFT) (0.7 MI), TURN RIGHT TOWARD KY-91 N/MARION RD (128 FT), TURN RIGHT ONTO KY-91 N/MARION RD (12.2 MI), TURN RIGHT ONTO PINEY LN (0.5 MI), CONTINUE ONTO STATE HWY 902/KY-902 E (1.2 MI), SITE WILL BE LOCATED ON LEFT (NORTH) SIDE OF ROAD.

FROM EVANSVILLE MTSO: 800 RUSSELL ROAD CHANDLER, IN 47610: HEAD NORTH ON RUSSELL RD TOWARD GARDNER RD (0.2 MI). TURN LEFT ONTO GARDNER RD (1.6 MI). TURN LEFT ONTO IN-62 (4.2 MI). TURN RIGHT ONTO THE I-164 S RAMP (0.3 MI). MERGE ONTO I-69 S (8.1 MI). TAKE EXIT 0 TO MERGE ONTO US-41 S TOWARD HENDERSON KY (1.0 MI). MERGE ONTO US-41 S (6.1 MI). KEEP LEFT TO STAY ON US-41 S (2.4 MI). KEEP LEFT TO CONTINUE ON PENNYRILE PKWY, FOLLOW SIGNS FOR OWENSBORO (1.1 MI). CONTINUE ONTO I-69/PENNYRILE PKWY (42.6 MI). KEEP RIGHT AT THE FORK TO STAY ON I-69, FOLLOW SIGNS FOR PADUCAH (26.6 MI). TAKE EXIT 79 FOR KY-91/KY-139 (0.2 MI). TURN RIGHT ONTO KY-139 N/KY-91 N/MARION RD (11.7 MI). TURN RIGHT ONTO PINEY LN (0.5 MI). CONTINUE ONTO STATE HWY 902/KY-902 E (1.2 MI). SITE WILL BE LOCATED ON LEFT (NORTH) SIDE OF ROAD.

PREPARED BY: POWER OF DESIGN GROUP, LLC - (502) 437-5252

## NEW 290' SELF SUPPORT TOWER w/10' LIGHTNING ARRESTOR TOTAL TOWER HEIGHT 300'

### SKYWAY TOWERS SITE

FREDONIA  
SITE #: KY-03071  
VERIZON WIRELESS SITE  
EV FREDONIA  
PROJECT#: 20161506657  
LOCATION CODE: 433009

### SITE ADDRESS

KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY  
E911 ADDRESS: TBD

### TOWER OWNER

SKYWAY TOWERS  
3637 MADACA LANE  
TAMPA, FL 33618  
CONTACT: CARRIE TORREY  
PHONE: (813) 960-6213  
MOBILE: (813) 928-4824  
E-MAIL: CTORREY@SKYWAYTOWERS.COM

### PROPERTY OWNER

DWIGHT AND DONNA GREEN  
150 DRENNAN ROAD  
FREDONIA KY 42411  
CONTACT: DWIGHT GREEN  
PHONE: (270) 545-7544

### POLICE

CALDWELL COUNTY SHERIFF  
100 E MARKET ST #25  
PRINCETON, KY 42445  
PHONE: (270) 365-2088

### FIRE

FREDONIA WATER AND FIRE DEPT.  
312 CASSIDY AVE  
FREDONIA, KY 42411  
PHONE: (270) 545-3925

### GENERAL INFORMATION

LATITUDE : 37° 13' 32.74" N  
LONGITUDE : 88° 02' 32.09" W  
1983 (NAD83)  
ELEVATION : 522.00' AMSL  
1988 (NAVD88)

### SKYWAY TOWERS LEASED PREMISES

100'-0" x 100'-0"  
(10,000 SF)

### VERIZON WIRELESS LEASE AREA

12'-0" x 30'-0"  
(360 SF)

NOTE: ALL ITEMS WITHIN THESE CONSTRUCTION DOCUMENTS ARE BY TOWER OWNER'S GENERAL CONTRACTOR AND HIS SUB-CONTRACTORS UNLESS NOTED AS (VZW GC) WHICH SHALL INCLUDE VERIZON WIRELESS GENERAL CONTRACTOR AND HIS SUB-CONTRACTORS. GENERALLY DESCRIBED BELOW:

### SKYWAY TOWERS SCOPE:

- INSTALL A NEW 290' SELF SUPPORT TOWER w/ 10' LIGHTNING ROD (TOTAL 300')
- INSTALL A NEW TOWER FOUNDATION SYSTEM
- INSTALL A NEW 75'X75' FENCED GRAVEL COMPOUND
- INSTALL A NEW SITE H-FRAME
- INSTALL NEW TOWER LIGHTING AND TOWER LIGHTING CONTROLLER
- INSTALL A NEW ELECTRICAL SERVICE RUN TO SITE H-FRAME
- INSTALL A NEW GRAVEL ACCESS DRIVE
- NO WATER OR SEWAGE SERVICES RUN TO SITE
- INSTALL NEW TOWER & SITE GROUNDING SYSTEM
- INSTALL NEW VZW SUBSURFACE GROUNDING SYSTEM
- INSTALL A NEW 11'-6"X19'-6" CONCRETE EQUIPMENT/GENERATOR PAD
- INSTALL A NEW 3'-6"X10'-0" CONCRETE LP TANK PAD
- INSTALL NEW 3" PVC CONDUITS FROM LP TANK TO VZW GENERATOR.
- INSTALL ELECTRICAL SERVICE CONDUIT WITH PULL TAPES FROM ILC ENCLOSURE STUB-UP WITHIN VZW EQUIPMENT PAD TO UTILITY H-FRAME
- INSTALL NEW CONDUITS WITH PULL TAPES FROM VZW ILC ENCLOSURE STUB-UPS TO EQUIPMENT ENCLOSURE STUB-UPS WITHIN VZW EQUIPMENT PAD
- INSTALL NEW CONDUITS WITH PULL TAPES FROM VZW ILC & EQUIPMENT ENCLOSURES STUB-UP TO GENERATOR LOCATION WITHIN VZW EQUIPMENT PAD
- INSTALL NEW CONDUITS WITH PULL TAPES FROM DC POWER CABINET AND RF CABINET TO OVP H-FRAME (IF FIBER LOCATION)
- INSTALL (1) NEW "VERIZON WIRELESS ONLY" FIBER OPTIC CONDUIT WITH PULL TAPE AND TRACER WIRE FROM VZW EQUIPMENT TO NEW "VERIZON WIRELESS ONLY" HAND HOLE OUTSIDE COMPOUND
- INSTALL (1) NEW "VERIZON WIRELESS ONLY" FIBER OPTIC CONDUIT WITH PULL TAPE AND TRACER WIRE FROM NEW "VERIZON WIRELESS ONLY" HAND HOLE OUTSIDE COMPOUND TO NEW "VERIZON WIRELESS ONLY" AT ROW
- INSTALL (1) NEW "VERIZON WIRELESS ONLY" FIBER OPTIC CONDUIT WITH PULL TAPE FROM NEW "VERIZON WIRELESS ONLY" HAND HOLE AND STUB UP AT FUTURE FIBER PEDESTAL LOCATION
- PERMANENT ELECTRIC POWER MUST BE AVAILABLE FOR VERIZON WIRELESS AT THE METER BASE PRIOR TO THE SITE BEING RELEASED AS TENANT READY.
- INSTALL LANDSCAPING PER LANDSCAPING PLAN

### VERIZON WIRELESS SCOPE (VZW GC):

- INSTALL A NEW 11'-6"X19'-6" PREFABRICATED CANOPY ON EXISTING CONCRETE PAD FOUNDATION
- INSTALL NEW 35KW GAS VAPOR GENERATOR ON EXISTING CONCRETE FOUNDATION
- INSTALL NEW LP TANK ON EXISTING CONCRETE PAD
- INSTALL (1) NEW LP GAS LINE FROM LP TANK TO VZW GENERATOR IN EXISTING 3" PVC CONDUIT (1-1/2" HOPE PIPE WITH TRACER WIRE)
- INSTALL VZW ICE BRIDGE AND FOUNDATIONS
- INSTALL VZW ANTENNA MOUNTING SUPPORT STRUCTURE ON TOWER
- INSTALL VZW ANTENNAS, LINES, COAX, GPS ANTENNAS AND RADIO EQUIPMENT
- INSTALL EXISTING SUBSURFACE GROUND LEADS TO VZW EQUIPMENT & FACILITIES
- INSTALL VZW ELECTRIC SERVICE CONDUCTORS FROM UTILITY H-FRAME TO VZW ILC ENCLOSURE
- INSTALL VZW GENERATOR CIRCUITS FROM VZW ILC & EQUIPMENT ENCLOSURES TO VZW GENERATOR
- INSTALL CIRCUITS FROM VZW ILC TO VZW EQUIPMENT ENCLOSURES
- INSTALL NEW OUTDOOR OVP AND CABLING H-FRAME SUPPORT
- INSTALL (1) NEW "VERIZON WIRELESS ONLY" FIBER OPTIC CONDUIT WITH PULL TAPE AND TRACER WIRE FROM "VERIZON WIRELESS ONLY" HAND HOLE OUTSIDE COMPOUND TO "VERIZON WIRELESS ONLY" HAND HOLE AT ROW
- INSTALL (3) 1-1/4" INNERDUCTS WITH PULL TAPES AND TRACER WIRE WITHIN OWNER INSTALLED "VERIZON WIRELESS ONLY" FIBER OPTIC CONDUITS

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

BUILDING CODE 2013 KENTUCKY BUILDING CODE (KBC 2012)  
STRUCTURAL CODE TIA/EIA-222 - REVISION G (INCLUDES ADDENDUM #2)  
MECHANICAL CODE 2012 INTERNATIONAL MECHANICAL CODE (IMC 2012)  
PLUMBING CODE KENTUCKY STATE PLUMBING CODE (815 KAR CHAP. 20)  
ELECTRICAL CODE 2014 NATIONAL ELECTRICAL CODE (NEC) - NFPA 70  
FIRE/LIFE SAFETY CODE 2012 INTERNATIONAL FIRE CODE (2012 IFC)  
ENERGY CODE 2012 INTERNATIONAL ENERGY CODE (COMMERCIAL)  
GAS CODE 2009 NATIONAL FUEL GAS CODE (NFPA 54)

### ACCESSIBILITY REQUIREMENTS:

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2009 IBC BUILDING CODE.

### APPLICABLE CODES

#### SURVEYOR

POWER OF DESIGN GROUP, LLC  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
PHONE: (502) 437-5252

#### ARCHITECTURAL

POWER OF DESIGN GROUP, LLC  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
PHONE: (502) 437-5252

### ELECTRICAL

KENERGY CORP  
ADDRESS: PO BOX 268  
3000 US HIGHWAY 641  
MARION, KY 42064  
CONTACT: KEITH CONRAD  
PHONE: (270) 952-2668  
EMAIL: KCONRAD@KENERGYCORP.COM

### CONSULTANT TEAM

### SHEET NUMBER

T-1 PROJECT INFORMATION, SITE MAPS, SHEET INDEX  
B-1 TO B-1.1 SITE SURVEY  
B2 500' RADIUS AND ABUTTERS MAP  
R-1 REVISION LOG

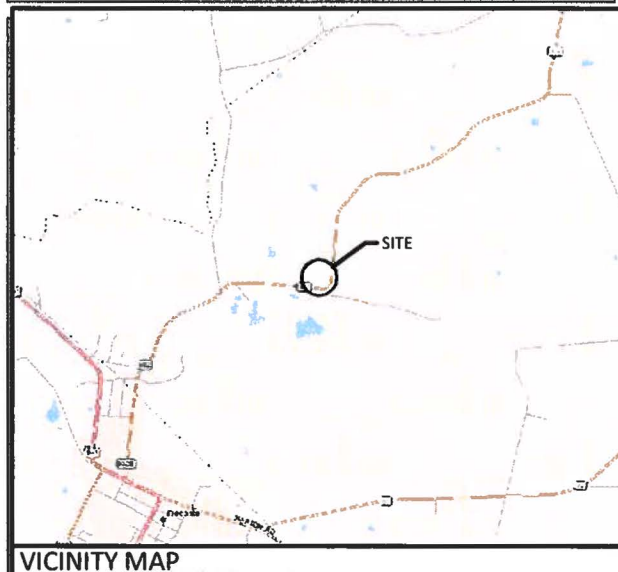
### TOWER ELEVATION

TE-1 TOWER ELEVATION

### CIVIL

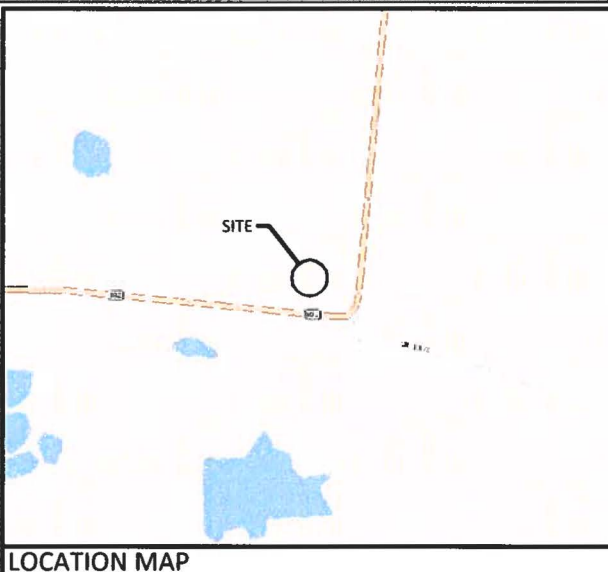
C-1 OVERALL SITE PLAN w/AERIAL OVERLAY  
C-1A OVERALL SITE PLAN  
C-3 DETAILED SITE PLAN  
C-4 DIMENSIONED SITE PLAN

### PROJECT SUMMARY



VICINITY MAP

### PROJECT DESCRIPTION



LOCATION MAP

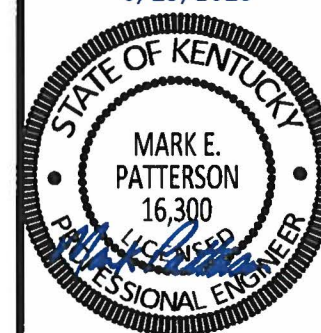


AERIAL



3637 MADACA LANE  
TAMPA, FL 33618  
(813) 960-6200

6/13/2018



EN PERMIT: 3594

### ZONING DRAWINGS

REV.	DATE	DESCRIPTION
A	5.29.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

### SITE INFORMATION: FREDONIA

KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

SKYWAY TOWERS SITE NUMBER:  
KY-03071

VERIZON WIRELESS SITE NAME:  
EV FREDONIA

POD NUMBER: 17-15293

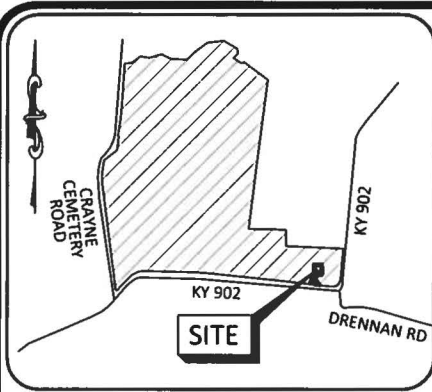
DRAWN BY: POD  
CHECKED BY: MEP  
DATE: 05.29.18

SHEET TITLE:

PROJECT INFORMATION, SITE MAPS, SHEET INDEX

SHEET NUMBER:

T-1



VICINITY MAP = NO SCALE

**GENERAL NOTES**

NO SEARCH OF PUBLIC RECORDS HAS BEEN COMPLETED BY POD GROUP, LLC TO DETERMINE ANY DEFECTS AND/OR AMBIGUITIES IN THE TITLE OF THE SUBJECT PROPERTY.

THIS SURVEY IS FOR THE PROPOSED LEASED PREMISES AND THE PROPOSED INGRESS / EGRESS & UTILITY EASEMENT, AND ONLY A PARTIAL BOUNDARY SURVEY OF THE PARENT TRACT HAS BEEN PERFORMED.

A PORTION OF THIS SURVEY WAS CONDUCTED BY METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. UNADJUSTED CLOSURE EQUALS 0.04', FOR A PRECISION OF 1:41,726 AND HAS NOT BEEN ADJUSTED.

THIS PROPERTY IS SUBJECT TO ANY RECORDED EASEMENTS AND/OR RIGHTS OF WAY SHOWN HEREON OR NOT.

THIS PLAT IS NOT INTENDED FOR LAND TRANSFER.

A PORTION OF THE PARENT PARCEL IS LOCATED IN A 100-YEAR FLOOD PLAIN (ZONE A - NO BASE FLOOD ELEVATIONS DETERMINED). THE PROPOSED LEASED PREMISES AND THE PROPOSED INGRESS / EGRESS & UTILITY EASEMENT SHOWN HEREON ARE NOT LOCATED IN A 100-YEAR FLOOD PLAIN, ZONE X, PER FLOOD HAZARD BOUNDARY MAP, COMMUNITY-PANEL NUMBER 21033C0110C, DATED OCTOBER 16, 2009.

PARCEL ID: 3-118 7-1  
WAYNE AND LINDA PROWELL  
DEED BOOK 222, PAGE 420

TRUE NORTH  
GRID NORTH  
-1° 23' 24"  
BASED ON KENTUCKY STATE PLANE SOUTH ZONE AND DETERMINED BY GPS OBSERVATIONS COMPLETED ON OCTOBER 11, 2017

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS
C1	N16°32'08"W	50.81'	65.00'
C2	N20°30'20"E	38.80'	80.00'
C3	N17°16'12"E	20.78'	35.00'
C4	S48°14'08"W	66.61'	50.00'
C5	S16°32'08"E	27.36'	35.00'
C6	N26°26'10"W	29.48'	65.00'
C7	S14°54'44"W	23.49'	80.00'
C8	S03°25'46"E	22.35'	65.00'

LINE	BEARING	DISTANCE
L1	N39°32'31"W	44.41'
L2	N06°28'15"E	5.10'
L3	N00°00'00"W	14.80'
L4	S00°00'00"E	30.00'
L5	N90°00'00"W	40.27'
L6	S06°28'15"W	5.10'
L7	S39°32'31"E	76.12'
L8	N82°57'45"W	43.65'
L9	S23°21'12"W	39.78'
L10	N66°38'48"W	15.00'
L11	N23°21'12"E	87.84'
L12	S06°28'15"W	5.10'

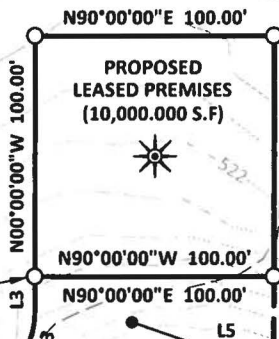
PARCEL ID: 3-11  
DWIGHT AND DONNA GREEN  
DEED BOOK 169, PAGE 264

P.O.B. LEASED PREMISES  
SPC KY SOUTH  
N:1,973,383.5990  
E:973,041.3761

PROPOSED 15'  
UTILITY EASEMENT  
(827.923 S.F)

P.O.B. UTILITY EASEMENT  
SPC KY SOUTH  
N:1,973,285.238  
E:973,022.378

P.O.C. LEASED PREMISES  
P.O.B. INGRESS / EGRESS & UTILITY EASEMENT  
SPC KY SOUTH  
N:1,973,224.5928  
E:973,063.7768



PROPOSED 30' INGRESS / EGRESS & UTILITY EASEMENT  
(7,721.834 S.F)

25' LT OF STATION 88+53.16  
COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS  
PROJECT NO. R.S. 17-402-1

FAA COORDINATE POINT  
NAD 83  
LATITUDE: 37°13'32.74"  
LONGITUDE: 88°02'32.09"  
NAVD 88  
ELEVATION: 522± AMSL  
NORTHING: 1973433.599  
EASTING: 973091.376

**LAND SURVEYOR'S CERTIFICATE**

I, MARK E. PATTERSON, HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL LAND SURVEYOR LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF KENTUCKY. I FURTHER CERTIFY THAT THIS PLAT AND THE SURVEY ON THE GROUND WERE PERFORMED BY PERSONS UNDER MY DIRECT SUPERVISION, AND THAT THE DIRECTIONAL AND LINEAR MEASUREMENTS BEING WITNESSED BY MONUMENTS SHOWN HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. THE "RURAL" SURVEY, AND THE PLAT ON WHICH IT IS BASED, MEETS ALL SPECIFICATIONS AS STATED IN KAR 201 18-150.

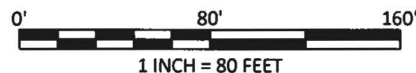
Mark Patterson  
MARK PATTERSON, PLS #3136

6/13/2018  
DATE



**GLOBAL POSITIONING SYSTEMS NOTE**

1. RANDOM TRAVERSE POINTS AND A PORTION OF THE TOPOGRAPHY WAS LOCATED USING GPS.
2. THE TYPE OF GPS UTILIZED WAS NETWORK ADJUSTED REAL TIME KINEMATIC (KDOT VRS NETWORK), NAD 83 KENTUCKY SOUTH ZONE WITH THE ORTHOMETRIC HEIGHT COMPUTED USING GEOID12A. RELATIVE POSITIONAL ACCURACY VARIED FROM 0.05' TO 0.06' HORIZONTALLY.
3. SPECTRA PRECISION EPOCH 50 DUAL FREQUENCY RECEIVERS WERE USED TO PERFORM THE SURVEY.



**LEGEND**

- EX. POWER POLE
- EX. GUY ANCHOR
- EX. LIGHT POLE
- EX. TELEPHONE PEDESTAL
- EX. FIRE HYDRANT
- EX. WATER VALVE
- P.O.C. POINT OF COMMENCEMENT
- P.O.B. POINT OF BEGINNING
- EOP EDGE OF PAVEMENT
- ROW RIGHT OF WAY
- EX. OVERHEAD ELECTRIC & TELEPHONE
- SET 1/2" REBAR 18" LONG CAPPED "PATTERSON PLS 3136"
- FOUND MONUMENT AS NOTED
- PROPERTY LINE
- ADJACENT PROPERTY LINE

PREPARED BY:  
**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

PREPARED FOR:  
**SKYWAY TOWERS**  
3637 MADACA LANE  
TAMPA, FL 33618  
(813) 960-6200

**SURVEY**

REV.	DATE	DESCRIPTION
A	10.17.17	PRELIM ISSUE w/ TITLE
B	5.18.18	SITE MAP ROAD NAME
O	6.13.18	ISSUED AS FINAL

**SITE INFORMATION:**  
**FREDONIA**  
KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

**TAX PARCEL NUMBER:**  
3-11

**PROPERTY OWNERS:**  
DWIGHT AND DONNA GREEN  
150 DRENNAN ROAD  
FREDONIA, KY 42411

**SOURCE OF TITLE:**  
DEED BOOK 169, PAGE 264

**SKYWAY SITE NUMBER:**  
KY-03071

**VERIZON SITE NAME:**  
EV FREDONIA

**POD NUMBER:** 17-15291  
**DRAWN BY:** TMD  
**CHECKED BY:** MEP  
**SURVEY DATE:** 10.11.17  
**PLAT DATE:** 10.17.17

**SHEET TITLE:**  
**SITE SURVEY**

**SHEET NUMBER:**  
**B-1**

**LEGAL DESCRIPTIONS**

**PROPOSED LEASED PREMISES**

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED LEASED PREMISES TO BE LEASED FROM THE PROPERTY CONVEYED TO DWIGHT AND DONNA GREEN AS RECORDED IN DEED BOOK 169, PAGE 264, PARCEL ID: 3-11, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON OCTOBER 11, 2017.

COMMENCING AT A POINT IN THE SOUTH BOUNDARY LINE OF THE PARCEL CONVEYED TO DWIGHT AND DONNA GREEN AS RECORDED IN DEED BOOK 169, PAGE 264, SAID COMMENCEMENT POINT BEING IN THE NORTH RIGHT OF WAY LINE OF KENTUCKY HIGHWAY 902 EAST, 25' LEFT OF CENTERLINE STATION 88+53.16 PER THE COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS PROJECT NUMBER R.S. 17-402-I HAVING A STATE PLANE COORDINATE, KENTUCKY SOUTH ZONE VALUE OF N:1,973,224.5928 & E:973,063.7768; THENCE LEAVING SAID LINE, TRAVERSING ACROSS THE LAND OF GREEN, N39°32'31"W 44.41'; THENCE WITH THE CHORD OF A CURVE TO THE RIGHT HAVING A RADIUS OF 65.00', N16°32'08"W 50.81'; THENCE N06°28'15"E 5.10'; THENCE WITH THE CHORD OF A CURVE TO THE RIGHT HAVING A RADIUS OF 80.00', N20°30'20"E 38.80'; THENCE WITH THE CHORD OF A REVERSE CURVE TO THE LEFT HAVING A RADIUS OF 35.00', N17°16'12"E 20.78'; N00°00'00"W 14.80' TO A SET 1/2" REBAR WITH CAP STAMPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE SOUTHWEST CORNER OF THE PROPOSED LEASED PREMISES HAVING A STATE PLANE COORDINATE, KENTUCKY SOUTH ZONE VALUE OF N:1,973,383.5990 & E:973,041.3761, AND BEING THE TRUE POINT OF BEGINNING; THENCE N00°00'00"W 100.00' TO A SET IPC; THENCE N90°00'00"E 100.00' TO A SET IPC; THENCE S00°00'00"E 100.00' TO A SET IPC; THENCE N90°00'00"W 100.00' TO THE POINT OF BEGINNING CONTAINING 10,000.000 SQUARE FEET AS PER SURVEY BY MARK PATTERSON, PLS #3136 WITH POWER OF DESIGN GROUP, LLC DATED OCTOBER 11, 2017.

**PROPOSED 30' INGRESS / EGRESS & UTILITY EASEMENT**

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED 30' INGRESS / EGRESS & UTILITY EASEMENT TO BE GRANTED FROM THE PROPERTY CONVEYED TO DWIGHT AND DONNA GREEN AS RECORDED IN DEED BOOK 169, PAGE 264, PARCEL ID: 3-11, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON OCTOBER 11, 2017.

**BEGINNING** AT A POINT IN THE SOUTH BOUNDARY LINE OF THE PARCEL CONVEYED TO DWIGHT AND DONNA GREEN AS RECORDED IN DEED BOOK 169, PAGE 264, SAID COMMENCEMENT POINT BEING IN THE NORTH RIGHT OF WAY LINE OF KENTUCKY HIGHWAY 902 EAST, 25' LEFT OF CENTERLINE STATION 88+53.16 PER THE COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS PROJECT NUMBER R.S. 17-402-I HAVING A STATE PLANE COORDINATE, KENTUCKY SOUTH ZONE VALUE OF N:1,973,224.5928 & E:973,063.7768; THENCE LEAVING SAID LINE, TRAVERSING ACROSS THE LAND OF GREEN, N39°32'31"W 44.41'; THENCE WITH THE CHORD OF A CURVE TO THE RIGHT HAVING A RADIUS OF 65.00', N16°32'08"W 50.81'; THENCE N06°28'15"E 5.10'; THENCE WITH THE CHORD OF A CURVE TO THE RIGHT HAVING A RADIUS OF 80.00', N20°30'20"E 38.80'; THENCE WITH THE CHORD OF A REVERSE CURVE TO THE LEFT HAVING A RADIUS OF 35.00', N17°16'12"E 20.78'; N00°00'00"W 14.80' TO A SET 1/2" REBAR WITH CAP STAMPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE SOUTHWEST CORNER OF THE PROPOSED LEASED PREMISES HAVING A STATE PLANE COORDINATE, KENTUCKY SOUTH ZONE VALUE OF N:1,973,383.5990 & E:973,041.3761; THENCE N90°00'00"E 100.00' TO A SET IPC IN THE SOUTHEAST CORNER OF SAID LEASED PREMISES; THENCE LEAVING SAID SOUTH LINE, S00°00'00"E 30.00'; THENCE N90°00'00"W 40.27'; THENCE WITH THE CHORD OF A CURVE TO THE LEFT HAVING A RADIUS OF 50.00', S48°14'08"W 66.61'; THENCE S06°28'15"W 5.10'; THENCE WITH THE CHORD OF A CURVE TO THE LEFT HAVING A RADIUS OF 35.00', S16°32'08"E 27.36'; THENCE S39°32'31"E 76.12' TO THE SOUTH BOUNDARY LINE OF GREEN AND THE NORTH RIGHT OF WAY LINE OF KENTUCKY HIGHWAY 902; THENCE ALONG SAID COMMON LINE, N82°57'45"W 43.65' TO THE POINT OF BEGINNING CONTAINING 7,721.834 SQUARE FEET AS PER SURVEY BY MARK PATTERSON, PLS #3136 WITH POWER OF DESIGN GROUP, LLC DATED OCTOBER 11, 2017.

**PROPOSED 15' UTILITY EASEMENT**

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED 15' UTILITY EASEMENT TO BE GRANTED FROM THE PROPERTY CONVEYED TO DWIGHT AND DONNA GREEN AS RECORDED IN DEED BOOK 169, PAGE 264, PARCEL ID: 3-11, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON OCTOBER 11, 2017.

COMMENCING AT A POINT IN THE SOUTH BOUNDARY LINE OF THE PARCEL CONVEYED TO DWIGHT AND DONNA GREEN AS RECORDED IN DEED BOOK 169, PAGE 264, SAID COMMENCEMENT POINT BEING IN THE NORTH RIGHT OF WAY LINE OF KENTUCKY HIGHWAY 902 EAST, 25' LEFT OF CENTERLINE STATION 88+53.16 PER THE COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS PROJECT NUMBER R.S. 17-402-I HAVING A STATE PLANE COORDINATE, KENTUCKY SOUTH ZONE VALUE OF N:1,973,224.5928 & E:973,063.7768; THENCE LEAVING SAID LINE, TRAVERSING ACROSS THE LAND OF GREEN, N39°32'31"W 44.41'; THENCE WITH THE CHORD OF A CURVE TO THE RIGHT HAVING A RADIUS OF 65.00', N26°26'10"W 29.48' AND BEING THE TRUE POINT OF BEGINNING HAVING A STATE PLANE COORDINATE, KENTUCKY SOUTH ZONE VALUE OF N:1,973,285.2380 & E:973,022.378; THENCE S23°21'12"W 39.78'; THENCE N66°38'48"W 15.00'; THENCE N23°21'12"E 87.84'; THENCE WITH THE CHORD OF A NON-TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 80.00', S14°54'44"W 23.49'; THENCE S06°28'15"W 5.10'; THENCE WITH THE CHORD OF A CURVE TO THE LEFT HAVING A RADIUS OF 65.00', S03°25'46"E 22.35' TO THE POINT OF BEGINNING CONTAINING 827.923 SQUARE FEET AS PER SURVEY BY MARK PATTERSON, PLS #3136 WITH POWER OF DESIGN GROUP, LLC DATED OCTOBER 11, 2017.

**PARENT PARCEL DEED BOOK 169, PAGE 264 (NOT FIELD SURVEYED)**

PROPERTY LOCATED IN CALDWELL, KY

THE FOLLOWING REAL PROPERTY LOCATED IN CALDWELL COUNTY, KENTUCKY, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS, TO WIT:

BEGINNING AT AN IRON PIN IN THE CENTER OF UNION GROVE CREEK, BEING 25 FT. FROM THE CENTER OF A BRIDGE ON TROLLEY ROAD, ABOUT 3 MILES NORTH OF FREDONIA, BEING A CORNER TO TRAYLOR AND AT KENTUCKY COORDINATES (SOUTH ZONE) NORTH 335,709.4 FT. EAST 1,330,159.7 FT.; THENCE WITH TRAYLOR 'S LINES AND UP THE CENTER OF THE CREEK AND WITH ITS MEANDERS N. 84 DEG. 31 MIN. E. 92.18 FT., N. 54 DEG. 28 MIN. E. 139.52 FT., S. 82 DEG. 27 MIN. E. 123.21 FT., N. 75 DEG. 37 MIN. E. 165.80 FT., S. 64 DEG. 00 MIN. E. 133.87 FT., S. 85 DEG. 23 MIN. E. 204.94 FT., N. 47 DEG. 59 MIN. E. 157.11 FT., N. 54 DEG. 59 MIN. E. 196.18 FT., N. 84 DEG. 34 MIN. E. 218.49 FT., S. 58 DEG. 45 MIN. E. 192.37 FT., S. 19 DEG. 37 MIN. E. 63.10 FT., S. 44 DEG. 33 MIN. W. 92.65 FT., S. 56 DEG. 33 MIN. E. 131.99 FT. TO AN IRON PIN IN THE CENTER OF THE CREEK; THENCE LEAVING THE CREEK AND WITH TRAYLOR'S LINE N. 57 DEG. 04 MIN. E. 32.95 FT. TO AN ASH AND IRON PIN, CORNER TO PROWELL; THENCE WITH HIS LINE S. 52 DEG. 57 MIN. E. 391.61 FT. TO AN IRON PIN, A NEW CORNER; THENCE WITH NEW DIVISION LINES S. 08 DEG. 15 MIN. W. 1277.74 FT. TO AN IRON PIN AND POST, S. 07 DEG. 56 MIN. W. 691.50 FT. TO AN IRON PIN AND POST, S. 87 DEG. 50 MIN. E. 489.41 FT. TO AN IRON PIN AND POST, S. 01 DEG. 20 MIN. W. 213.15 FT. TO AN IRON PIN, S. 86 DEG. 34 MIN. E. 761.42 FT. TO AN IRON PIN ON THE WEST SIDE OF KY. 902, BEING 25 FT. FROM THE CENTER OF THE HIGHWAY; THENCE WITH THE MEANDERS OF THE WEST AND NORTH RIGHT-OF-WAY ON KY. 902 S. 06 DEG. 06 MIN. W. 373.47 FT. TO A CONCRETE MARKER (DAUM 'S AZIMUTH MARKER), S. 11 DEG. 41 MIN. W. 49.19 FT., S. 19 DEG. 39 MIN. W. 38.79 FT., S. 44 DEG. 50 MIN. W. 39.67 FT., S. 73 DEG. 28 MIN. W. 29.89 FT., N. 88 DEG. 09 MIN. W. 48.72 FT., N. 82 DEG. 38 MIN. W. 609.77 FT., N. 83 DEG. 12 MIN. W. 1020.79 FT., N. 85 DEG. 07 MIN. W. 180.40 FT., N. 87 DEG. 27 MIN. W. 504.68 FT., N. 88 DEG. 43 MIN. W. 111.41 FT., S. 89 DEG. 05 MIN. W. 110.20 FT., S. 64 DEG. 55 MIN. W. 106.64 FT., S. 47 DEG. 59 MIN. W. 122.24 FT., S. 43 DEG. 14 MIN. W. 162.74 FT., N. 73 DEG. 25 MIN. W. 14.01 FT. TO A POST ON THE EAST SIDE OF TROLLEY ROAD AND BEING 25 FT. FROM THE CENTER OF SAME; THENCE WITH THE MEANDERS OF THE EAST SIDE OF TROLLEY ROAD N. 06 DEG. 25 MIN. W. 1090.17 FT., N. 06 DEG. 35 MIN. W. 322.21 FT., N. 00 DEG. 25 MIN. W. 106.07 FT., N. 08 DEG. 51 MIN. E. 198.61 FT. TO A SYCAMORE AND IRON PIN ON THE EAST SIDE OF THE ROAD, CORNER TO PHELPS; THENCE AROUND A SMALL TRACT BELONGING TO PHELPS N. 53 DEG. 24 MIN. E. 214.28 FT. TO AN IRON PIN, N. 07 DEG. 22 MIN. E. 185.58 FT. TO A POST, S. 87 DEG. 41 MIN. W. 10.00 FT. TO AN IRON PIN, BEING 25 FT. FROM THE CENTER OF TROLLEY ROAD; THENCE WITH THE MEANDERS OF THE EAST SIDE OF THE ROAD N. 09 DEG. 59 MIN. E. 145.19 FT., N. 09 DEG. 17 MIN. E. 126.60 FT., N. 05 DEG. 29 MIN. E. 330.10 FT., N. 04 DEG. 31 MIN. E. 340.05 FT. TO BEGINNING CONTAINING 139.33 ACRES BY SURVEY. SEE ATTACHED PLAT FOR GRAPHIC DESCRIPTION. THIS IS A GRID NORTH SURVEY, MAGNETIC NORTH IS 2 DEG. 25 MM. EAST OF GRID NORTH THIS DATE. SURVEY FINISHED MAY 15, 1987, REVISED SEPT. 15, 1987 BY BILLY J. MAY, LS #878.

AND BEING THE SAME PROPERTY CONVEYED TO JAMES A. HAYES AND FRANCES WAKE HAYES, HIS WIFE FROM BASIL, T. DAUM AND HELEN DAUM, HIS WIFE BY DEED OF CONVEYANCE DATED OCTOBER 10, 1965 AND RECORDED OCTOBER 14, 1965 IN DEED BOOK 115, PAGE 281.

TAX PARCEL NO. 3-11

**REPORT OF TITLE**

THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY POD GROUP, LLC. AND AS SUCH WE ARE NOT RESPONSIBLE FOR THE INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE, UNRECORDED EASEMENTS, AUGMENTING EASEMENTS, IMPLIED OR PRESCRIPTIVE EASEMENTS, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE AND THIS SURVEY WAS COMPLETED WITH THE AID OF TITLE WORK PREPARED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY, FOR THE BENEFIT OF SKYWAY TOWERS, LLC, ORDER NO. 25729284, EFFECTIVE DATE OF AUGUST 21, 2017. THE FOLLOWING COMMENTS ARE IN REGARD TO SAID REPORT.

1. TAXES  
TYPE OF TAX: COUNTY  
CALENDAR YEAR: 2016  
AMOUNT: \$289.28 ANNUALLY  
PARCEL ID #: 3-11  
PAID THROUGH: 2016  
ASSESSMENT: \$38,315.00 (TOTAL = LAND AND IMPROVEMENTS, IF ANY)  
(NOT A LAND SURVEYING MATTER, THEREFORE POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

**LAND SURVEYOR'S CERTIFICATE**

I, MARK E. PATTERSON, HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL LAND SURVEYOR LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF KENTUCKY. I FURTHER CERTIFY THAT THIS PLAT AND THE SURVEY ON THE GROUND WERE PERFORMED BY PERSONS UNDER MY DIRECT SUPERVISION, AND THAT THE DIRECTIONAL AND LINEAR MEASUREMENTS BEING WITNESSED BY MONUMENTS SHOWN HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. THE "RURAL" SURVEY, AND THE PLAT ON WHICH IT IS BASED, MEETS ALL SPECIFICATIONS AS STATED IN KAR 201 18:150.



*Mark Patterson* 6/13/2018  
MARK PATTERSON, PLS #3136 DATE



SURVEY		
REV.	DATE	DESCRIPTION
A	10.17.17	PRELIM ISSUE w/ TITLE
B	5.18.18	SITE MAP ROAD NAME
0	6.13.18	ISSUED AS FINAL

**SITE INFORMATION:**  
**FREDONIA**  
KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

**TAX PARCEL NUMBER:**  
3-11

**PROPERTY OWNERS:**  
DWIGHT AND DONNA GREEN  
150 DRENNAN ROAD  
FREDONIA, KY 42411

**SOURCE OF TITLE:**  
DEED BOOK 169, PAGE 264

**SKYWAY SITE NUMBER:**  
KY-03071

**VERIZON SITE NAME:**  
EV FREDONIA

**POD NUMBER:** 17-15291  
**DRAWN BY:** TMD  
**CHECKED BY:** MEP  
**SURVEY DATE:** 10.11.17  
**PLAT DATE:** 10.17.17

**SHEET TITLE:**  
**SITE SURVEY**

**SHEET NUMBER:**  
**B-1.1**

**(A1)** PARCEL ID: 3-11  
GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411

**(B1)** PARCEL ID: 3-11B 7-1  
PROWELL WAYNE & LINDA  
3620 KY HWY 902 EAST  
FREDONIA, KY 42411

**(C1)** PARCEL ID: 3-11A & 13  
GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411

**(D1)** PARCEL ID: 3-7  
R HILLTOP FARM LLC  
PO BOX 169  
FREDONIA, KY 42411

**(E1)** PARCEL ID: 3-9 12  
HOOKS MICHAEL S AND BETHANN  
45 SHEFFIELD PLACE  
SOUTHINGTON, CT 06489-1364

**(F1)** PARCEL ID: 3-9A 6-1  
PROWELL WAYNE & LINDA  
3620 KY HWY 902 EAST  
FREDONIA, KY 42411

**(G1)** PARCEL ID: 7-22  
GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411

NOTE:  
PARCEL NUMBERS ARE OF RECORD IN  
THE CALDWELL COUNTY PROPERTY  
VALUATION ADMINISTRATOR OFFICE.

PREPARED BY:  
**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

PREPARED FOR:  
  
**SKYWAY TOWERS**  
3637 MADACA LANE  
TAMPA, FL 33618  
(813) 960-6200

**EXHIBIT**

REV.	DATE	DESCRIPTION
A	5.21.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

SITE INFORMATION:  
**FREDONIA**  
KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

TAX PARCEL NUMBER:  
3-11

PROPERTY OWNERS:  
DWIGHT AND DONNA GREEN  
150 DRENNAN ROAD  
FREDONIA, KY 42411

SOURCE OF TITLE:  
DEED BOOK 169, PAGE 264

SKYWAY SITE NUMBER:  
KY-03071

VERIZON SITE NAME:  
EV FREDONIA

POD NUMBER: 17-15294  
DRAWN BY: DAP  
CHECKED BY: MEP  
SURVEY DATE: 10.11.17  
PLAT DATE: 5.21.18

SHEET TITLE:  
**500' RADIUS AND  
ABUTTERS MAP**

SHEET NUMBER:  
**B-2**

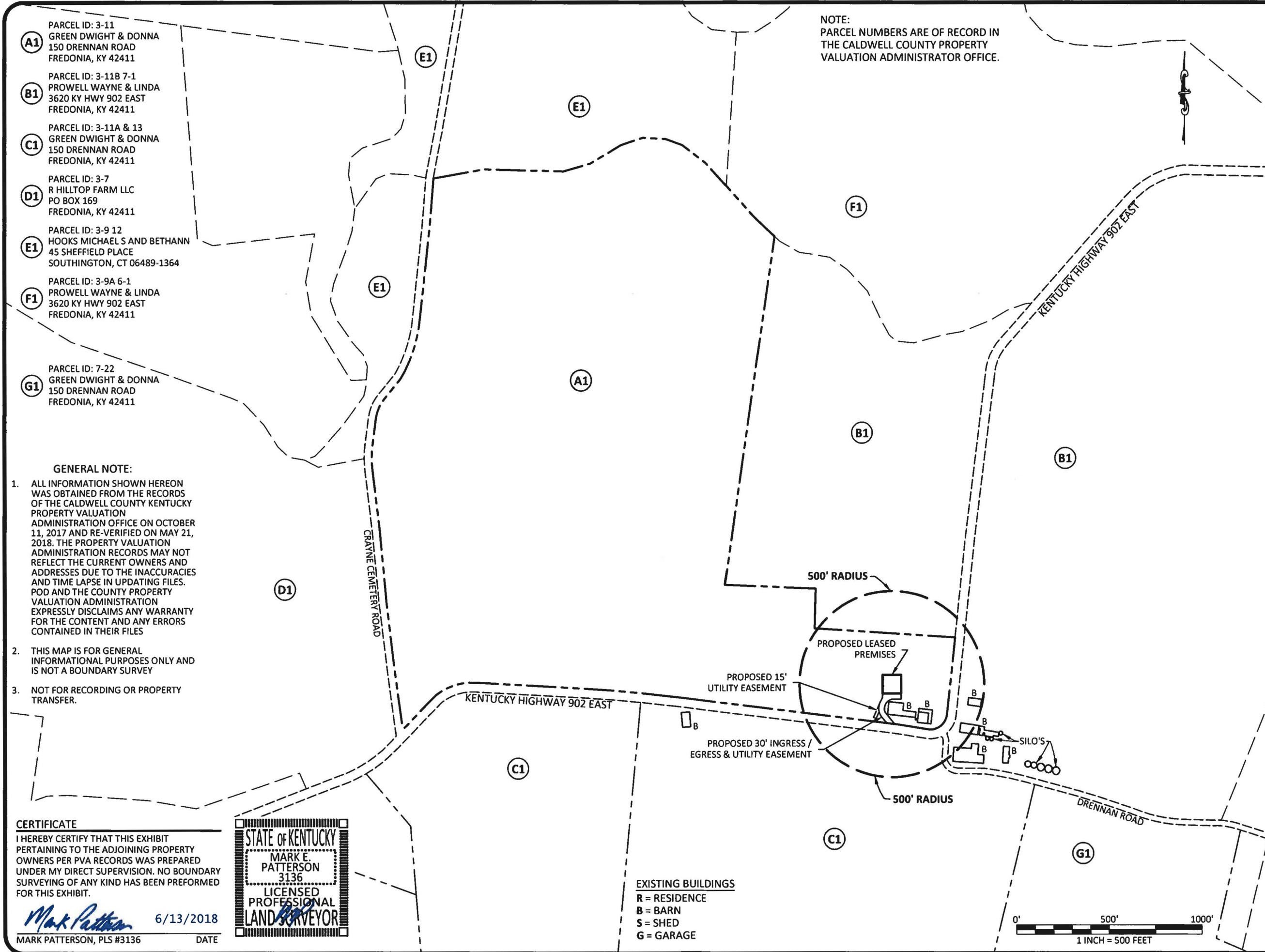
- GENERAL NOTE:**
1. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE CALDWELL COUNTY KENTUCKY PROPERTY VALUATION ADMINISTRATION OFFICE ON OCTOBER 11, 2017 AND RE-VERIFIED ON MAY 21, 2018. THE PROPERTY VALUATION ADMINISTRATION RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING FILES. POD AND THE COUNTY PROPERTY VALUATION ADMINISTRATION EXPRESSLY DISCLAIMS ANY WARRANTY FOR THE CONTENT AND ANY ERRORS CONTAINED IN THEIR FILES
  2. THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY
  3. NOT FOR RECORDING OR PROPERTY TRANSFER.

**CERTIFICATE**  
I HEREBY CERTIFY THAT THIS EXHIBIT PERTAINING TO THE ADJOINING PROPERTY OWNERS PER PVA RECORDS WAS PREPARED UNDER MY DIRECT SUPERVISION. NO BOUNDARY SURVEYING OF ANY KIND HAS BEEN PERFORMED FOR THIS EXHIBIT.

 6/13/2018  
MARK PATTERSON, PLS #3136 DATE



**EXISTING BUILDINGS**  
R = RESIDENCE  
B = BARN  
S = SHED  
G = GARAGE

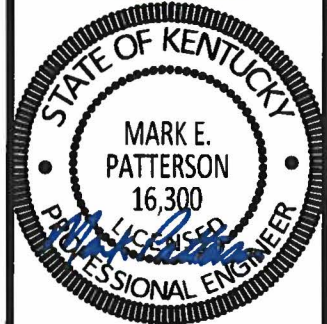


## REVISION LOG

REV *	MM/DD/YY	SHEET NUMBER	DESCRIPTION OF REVISION
A	5/29/2018	ALL SHEETS	ISSUED FOR REVIEW
0	6/13/2018	ALL SHEETS	ISSUED AS FINAL



6/13/2018



EN PERMIT: 3594

### ZONING DRAWINGS

REV.	DATE	DESCRIPTION
A	5.29.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

SITE INFORMATION:

### FREDONIA

KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

SKYWAY TOWERS SITE NUMBER:  
KY-03071

VERIZON WIRELESS SITE NAME:  
EV FREDONIA

POD NUMBER: 17-15293

DRAWN BY: POD  
CHECKED BY: MEP  
DATE: 05.29.18

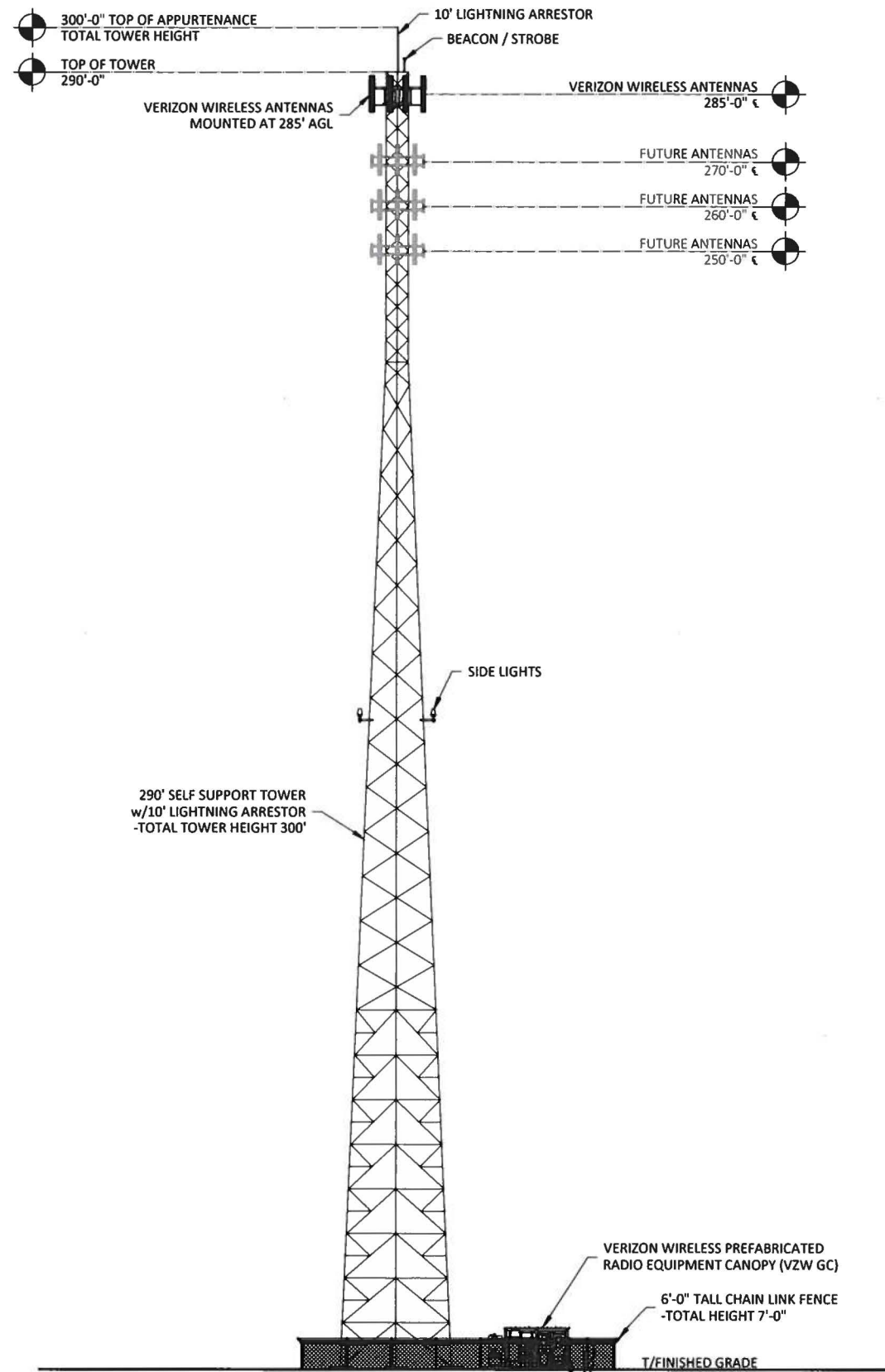
SHEET TITLE:

### REVISION LOG

SHEET NUMBER:

**R-1**



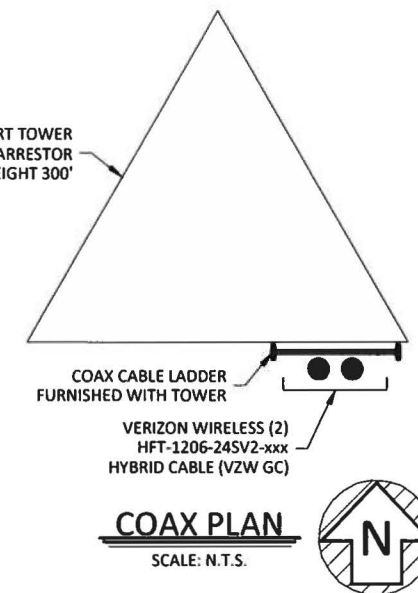


**TOWER ELEVATION** 1  
SCALE: N.T.S. TE-1

**NOTE:**

1. IT IS THE INSTALLING CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL ANTENNA INFORMATION AGAINST FINAL RADIO ENGINEERING PLAN PROVIDED BY CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS (VZW GC)
2. ALL TOWER LIGHTING SHALL BE INSTALLED AS REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION AND RECOMMENDED BY THE USFWS INTERIM GUIDELINES (2000) FOR LIGHTING OF TOWERS OVER 200' IN HEIGHT.

290' SELF SUPPORT TOWER  
w/10' LIGHTNING ARRESTOR  
-TOTAL TOWER HEIGHT 300'



**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

**SKYWAY TOWERS**  
3637 MADACA LANE  
TAMPA, FL 33618  
(813) 960-6200

6/13/2018

STATE OF KENTUCKY  
MARK E. PATTERSON  
16,300  
LICENSED PROFESSIONAL ENGINEER

EN PERMIT: 3594

**ZONING DRAWINGS**

REV.	DATE	DESCRIPTION
A	5.29.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

SITE INFORMATION:  
**FREDONIA**  
KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

SKYWAY TOWERS SITE NUMBER:  
KY-03071

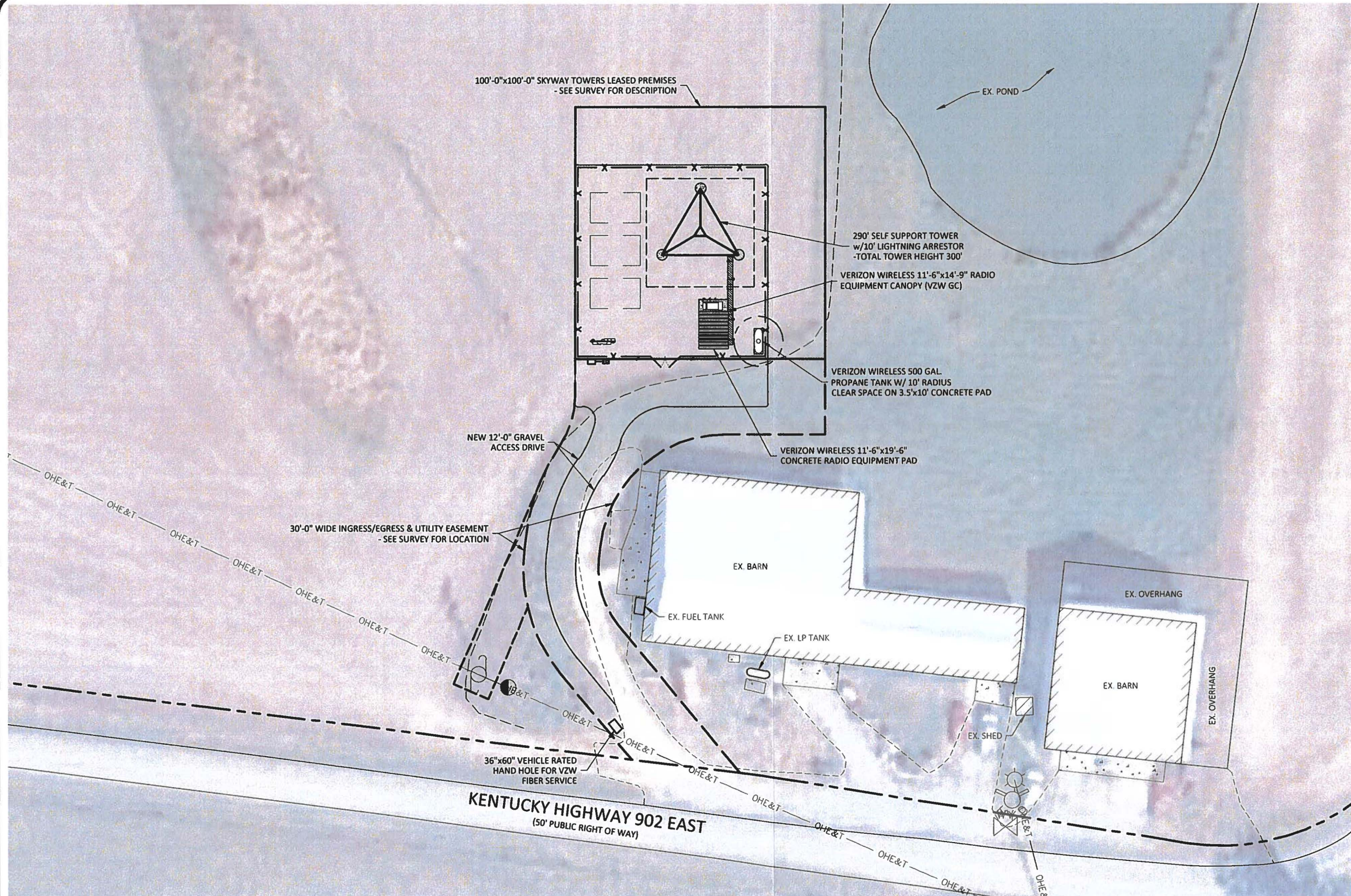
VERIZON WIRELESS SITE NAME:  
EV FREDONIA

POD NUMBER: 17-15293

DRAWN BY: POD  
CHECKED BY: MEP  
DATE: 05.29.18

SHEET TITLE:  
**TOWER ELEVATION**

SHEET NUMBER:  
**TE-1**



**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

**SKYWAY TOWERS**  
3637 MADACA LANE  
TAMPA, FL 33618  
(813) 960-6200

6/13/2018

MARK E. PATTERSON  
16,300  
PROFESSIONAL ENGINEER

EN PERMIT: 3594

**ZONING DRAWINGS**

REV.	DATE	DESCRIPTION
A	5.29.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

SITE INFORMATION:  
**FREDONIA**  
KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

SKYWAY TOWERS SITE NUMBER:  
**KY-03071**

VERIZON WIRELESS SITE NAME:  
**EV FREDONIA**

POD NUMBER: 17-15293  
DRAWN BY: POD  
CHECKED BY: MEP  
DATE: 05.29.18

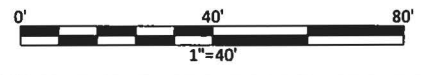
SHEET TITLE:

**OVERALL SITE PLAN W/AERIAL OVERLAY**

SHEET NUMBER:  
**C-1**



Know what's below.  
Call before you dig.  
Call Monday thru Friday - 7 am - 6 pm  
**1-800-752-6007**  
FOR A LIST OF PARTICIPATING SERVICE PROVIDERS VISIT US ONLINE AT [www.ky811.com](http://www.ky811.com)








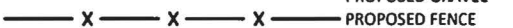

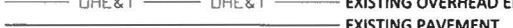





**OVERALL SITE PLAN W/AERIAL OVERLAY**

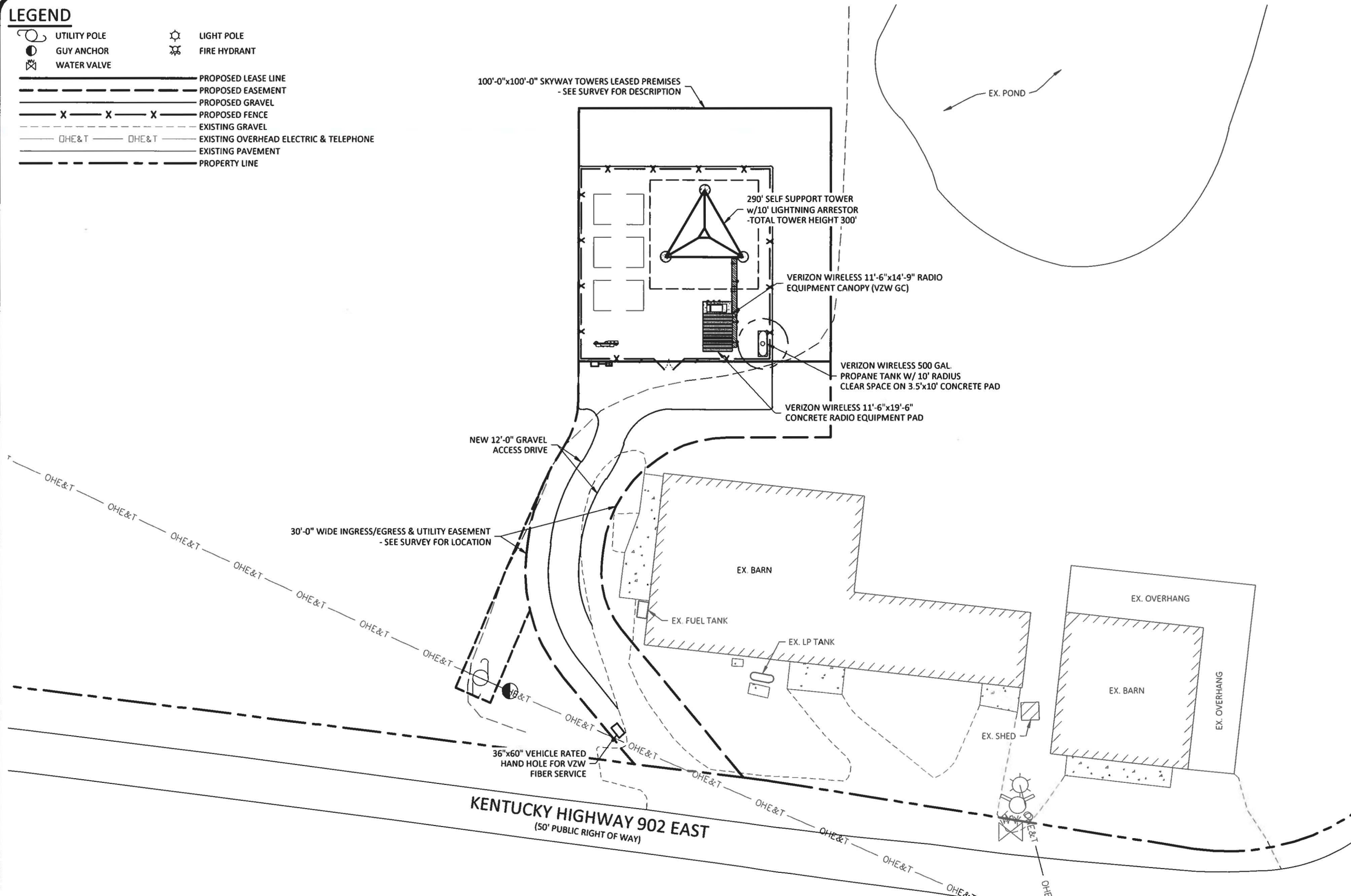
SCALE: 1" = 40'



**LEGEND**

-  UTILITY POLE
-  GUY ANCHOR
-  WATER VALVE
-  LIGHT POLE
-  FIRE HYDRANT
-  PROPOSED LEASE LINE
-  PROPOSED EASEMENT
-  PROPOSED GRAVEL
-  PROPOSED FENCE
-  EXISTING GRAVEL
-  EXISTING OVERHEAD ELECTRIC & TELEPHONE
-  EXISTING PAVEMENT
-  PROPERTY LINE

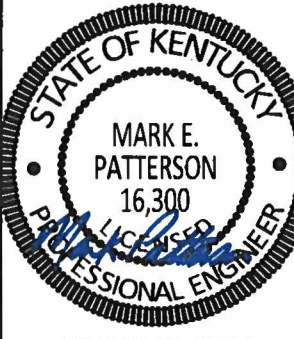
100'-0" x 100'-0" SKYWAY TOWERS LEASED PREMISES  
- SEE SURVEY FOR DESCRIPTION



**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

**SKYWAY TOWERS**  
3637 MADACA LANE  
TAMPA, FL 33618  
(813) 960-6200

6/13/2018



EN PERMIT: 3594

**ZONING DRAWINGS**

REV.	DATE	DESCRIPTION
A	5.29.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

SITE INFORMATION:  
**FREDONIA**  
KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

SKYWAY TOWERS SITE NUMBER:  
**KY-03071**

VERIZON WIRELESS SITE NAME:  
**EV FREDONIA**

POD NUMBER: 17-15293  
DRAWN BY: POD  
CHECKED BY: MEP  
DATE: 05.29.18

SHEET TITLE:  
**OVERALL SITE PLAN**

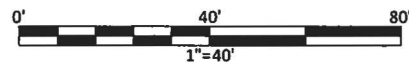
SHEET NUMBER:  
**C-1A**



Know what's Below.  
Call before you dig.

Call Monday thru Friday - 7 am - 6 pm  
**1-800-752-6007**

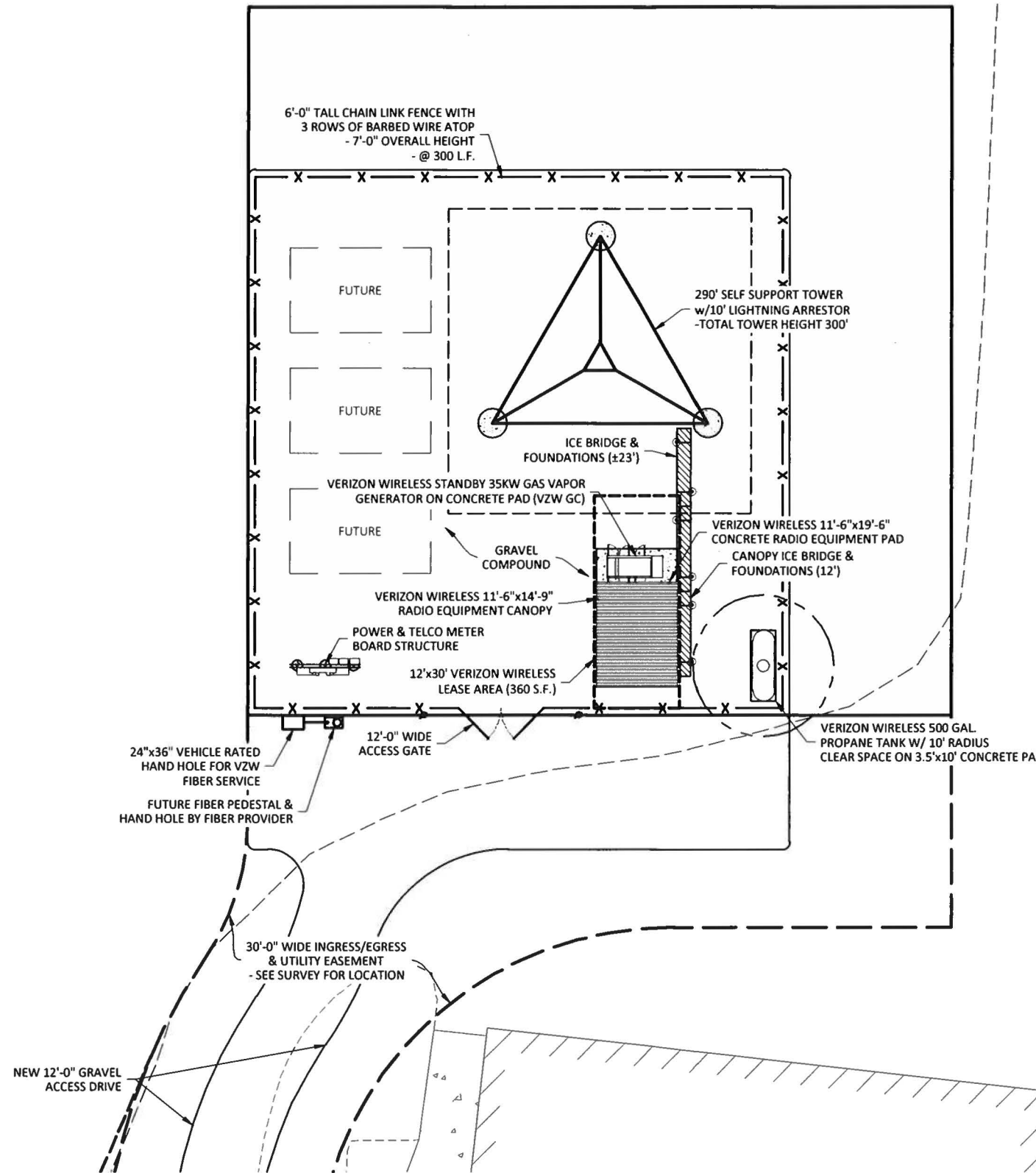
FLK 811 SERVICE SHALL ONLY BE USED FOR THE PURPOSE OF IDENTIFYING THE LOCATION OF UTILITIES. IT IS NOT A GUARANTEE OF THE LOCATION OR DEPTH OF UTILITIES. CALLING 811 DOES NOT GUARANTEE THE LOCATION OR DEPTH OF UTILITIES. CALLING 811 DOES NOT GUARANTEE THE LOCATION OR DEPTH OF UTILITIES.



**OVERALL SITE PLAN**

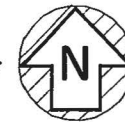
SCALE: 1" = 40'





**DETAILED SITE PLAN**

SCALE: 1" = 20'



**LEGEND**

- PROPOSED LEASE LINE
- - - - - PROPOSED EASEMENT
- PROPOSED GRAVEL
- x - x - x - PROPOSED FENCE
- - - - - EXISTING GRAVEL
- - - - - EXISTING CROP EDGE

**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

**SKYWAY TOWERS**  
3637 MADACA LANE  
TAMPA, FL 33618  
(813) 960-6200

6/13/2018

EN PERMIT: 3594

**ZONING DRAWINGS**

REV.	DATE	DESCRIPTION
A	5.29.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

SITE INFORMATION:  
**FREDONIA**  
KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

SKYWAY TOWERS SITE NUMBER:  
**KY-03071**

VERIZON WIRELESS SITE NAME:  
**EV FREDONIA**

POD NUMBER: 17-15293  
DRAWN BY: POD  
CHECKED BY: MEP  
DATE: 05.29.18

SHEET TITLE:

**DETAILED SITE PLAN**

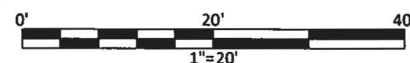
SHEET NUMBER:  
**C-3**

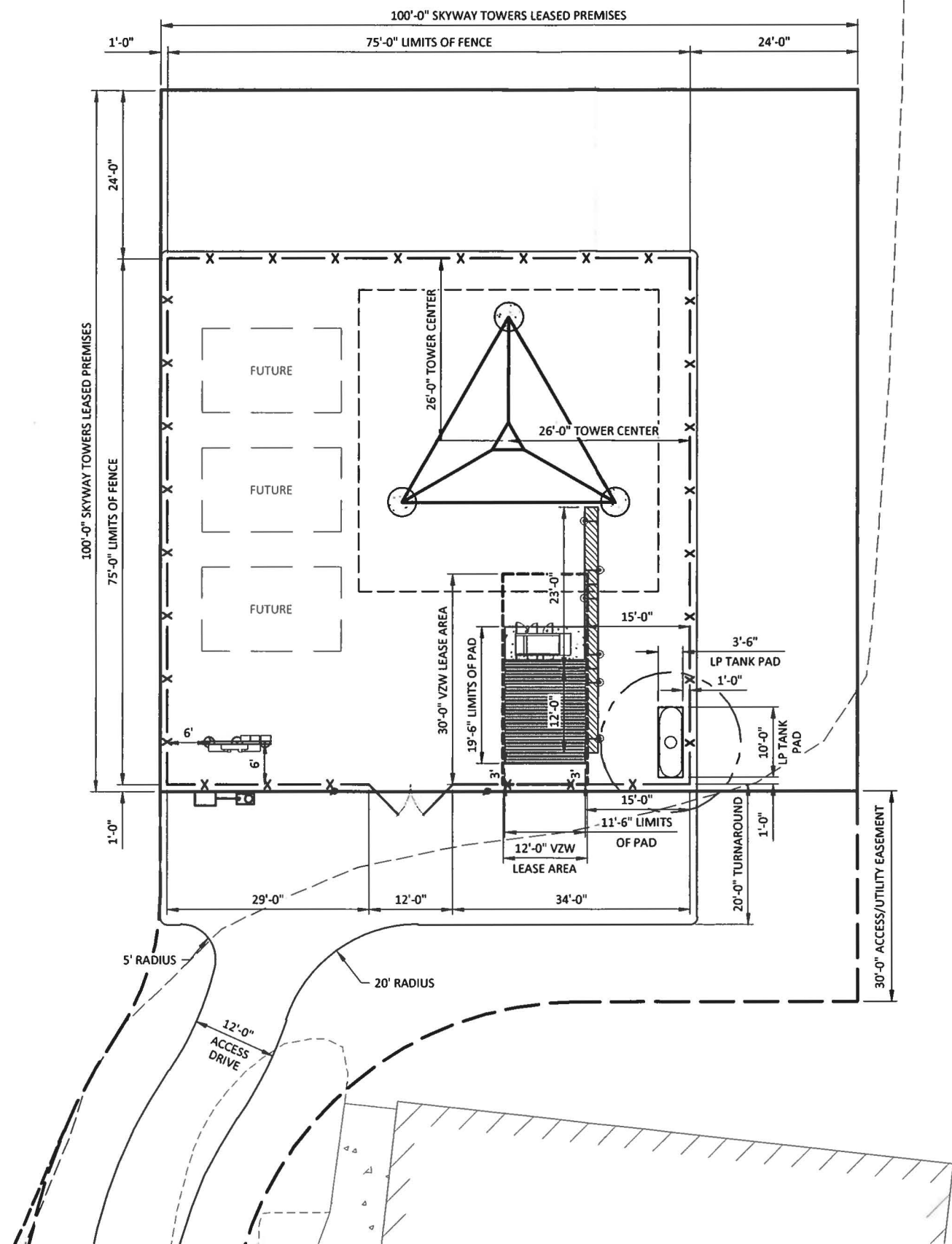


Know what's below.  
Call before you dig.  
Call Monday thru Friday - 7 am. to 6 pm.  
**1-800-752-6007**

FOR INFORMATION ONLY: CALL 811 TO REPORT ANY UNUSUAL FINDINGS OR TO REPORT ANY DAMAGE TO UTILITY LINES. CALL 811 TO REPORT ANY UNUSUAL FINDINGS OR TO REPORT ANY DAMAGE TO UTILITY LINES. CALL 811 TO REPORT ANY UNUSUAL FINDINGS OR TO REPORT ANY DAMAGE TO UTILITY LINES.

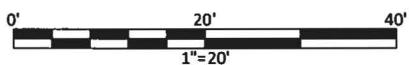
\*NOTE:  
GENERAL CONTRACTOR IS TO ENSURE  
THERE IS NO DISTURBANCE OF PROPERTY,  
SOIL, ETC. OUTSIDE OF THE STAKED LEASE  
AREA WITHOUT APPROVAL FROM  
VERIZON WIRELESS CONSTRUCTION  
MANAGER





**DIMENSIONED SITE PLAN**

SCALE: 1" = 20'



**LEGEND**

- PROPOSED LEASE LINE
- - - - - PROPOSED EASEMENT
- PROPOSED GRAVEL
- x - x - x - PROPOSED FENCE
- - - - - EXISTING GRAVEL
- - - - - EXISTING CROP EDGE

**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

**SKYWAY TOWERS**  
3637 MADACA LANE  
TAMPA, FL 33618  
(813) 960-6200

6/13/2018

EN PERMIT: 3594

**ZONING DRAWINGS**

REV.	DATE	DESCRIPTION
A	5.29.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

**SITE INFORMATION:**  
**FREDONIA**

KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

SKYWAY TOWERS SITE NUMBER:  
KY-03071

VERIZON WIRELESS SITE NAME:  
EV FREDONIA

POD NUMBER: 17-15293  
DRAWN BY: POD  
CHECKED BY: MEP  
DATE: 05.29.18

SHEET TITLE:

**DIMENSIONED SITE PLAN**

SHEET NUMBER:

**C-4**

**Kentucky 811**  
Know what's below.  
Call before you dig.  
Call Monday thru Friday - 7 a.m. to 6 p.m.  
**1-800-752-6007**  
PH: 811 IN KY 513 IN TN, IL IS ACROSS 119-121 IN MO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCAL 811 SERVICE. IN MO 231 VERIFYING UTILITIES J.I. OR CALLING 811 WORK.

\*NOTE:  
GENERAL CONTRACTOR IS TO ENSURE THERE IS NO DISTURBANCE OF PROPERTY, SOIL, ETC. OUTSIDE OF THE STAKED LEASE AREA WITHOUT APPROVAL FROM VERIZON WIRELESS CONSTRUCTION MANAGER

**EXHIBIT C**  
**TOWER AND FOUNDATION DESIGN**



June 28, 2018

RE: KY-03071 Fredonia

Dear Commissioners,

My name is **Jay Cantu**, and I am the Construction Manager for the proposed tower referenced within this application. I have been involved in the construction of wireless communications facilities for **18** years including the last 3 years as a **Construction Manager** with **Skyway Towers, LLC**. Prior to that, I held various positions at **Westower Communications in Houston, TX**.

I can be reached at **813-960-6200** to discuss this site further.

Sincerely,

*Jay Cantu*

Jay Cantu  
Construction Manager  
713-416-1545 Mobile  
[jcnatu@skywaytowers.com](mailto:jcnatu@skywaytowers.com)

DALEY JOB NO. 56063  
290' SELF SUPPORTING TOWER  
FREDONIA SITE  
CALDWELL COUNTY, KENTUCKY

TOWER AND FOUNDATION  
DESIGN & DRAWINGS

ZONING PACKAGE

CASE JOB NO. 18178

**PREPARED FOR:**

Daley Tower Service, Inc.  
601 Hector Connoly Road  
Carencro, Louisiana 70520

**PREPARED BY:**

**C**ivil **A**nd **S**tructural **E**ngineers, Incorporated

P.O. Box 4825  
Lafayette, LA 70502

[www.casengr.com](http://www.casengr.com)





# TOWER DESIGN



<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 1 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15.04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

## Tower Input Data

The main tower is a 3x free standing tower with an overall height of 290.00 ft above the ground line.

The base of the tower is set at an elevation of 0.00 ft above the ground line.

The face width of the tower is 4.50 ft at the top and 30.50 ft at the base.

This tower is designed using the TIA-222-G standard.

The following design criteria apply:

Tower is located in Caldwell County, Kentucky.

ASCE 7-10 Wind Data is used.

Basic wind speed of 115 mph.

Risk Category II.

Exposure Category C.

Topographic Category 1.

Crest Height 0.00 ft.

Nominal ice thickness of 1.0000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 30 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications..

Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards..

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in tower member design is 1.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

- |  |  |  |
|--|--|--|
| <ul style="list-style-type: none"> <li>Consider Moments - Legs</li> <li>Consider Moments - Horizontals</li> <li>Consider Moments - Diagonals</li> <li>Use Moment Magnification</li> <li>√ Use Code Stress Ratios</li> <li>√ Use Code Safety Factors - Guys</li> <li>Escalate Ice</li> <li>Always Use Max Kz</li> <li>Use Special Wind Profile</li> <li>√ Include Bolts In Member Capacity</li> <li>Leg Bolts Are At Top Of Section</li> <li>√ Secondary Horizontal Braces Leg</li> <li>√ Use Diamond Inner Bracing (4 Sided)</li> <li>√ SR Members Have Cut Ends</li> <li>SR Members Are Concentric</li> </ul> | <ul style="list-style-type: none"> <li>Distribute Leg Loads As Uniform</li> <li>Assume Legs Pinned</li> <li>Assume Rigid Index Plate</li> <li>√ Use Clear Spans For Wind Area</li> <li>√ Use Clear Spans For KL/r</li> <li>√ Retension Guys To Initial Tension</li> <li>Bypass Mast Stability Checks</li> <li>√ Use Azimuth Dish Coefficients</li> <li>√ Project Wind Area of Appurt.</li> <li>√ Autocalc Torque Arm Areas</li> <li>Add IBC .6D+W Combination</li> <li>Sort Capacity Reports By Component</li> <li>√ Triangulate Diamond Inner Bracing</li> <li>√ Treat Feed Line Bundles As Cylinder</li> </ul> | <ul style="list-style-type: none"> <li>Use ASCE 10 X-Brace Ly Rules</li> <li>√ Calculate Redundant Bracing Forces</li> <li>Ignore Redundant Members in FEA</li> <li>√ SR Leg Bolts Resist Compression</li> <li>√ All Leg Panels Have Same Allowable</li> <li>Offset Girt At Foundation</li> <li>√ Consider Feed Line Torque</li> <li>√ Include Angle Block Shear Check</li> <li>Use TIA-222-G Bracing Resist. Exemption</li> <li>Use TIA-222-G Tension Splice Exemption</li> </ul> |
| <b>Poles</b>   |  |  |
| <ul style="list-style-type: none"> <li>Include Shear-Torsion Interaction</li> <li>Always Use Sub-Critical Flow</li> <li>Use Top Mounted Sockets</li> <li>Pole Without Linear Attachments</li> <li>Pole With Shroud Or No Appurtenances</li> <li>Outside and Inside Corner Radii Are Known</li> </ul>   |  |  |



<b>inxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 3 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	290.00-280.00	5.00	X Brace	No	No	0.0000	0.0000
T2	280.00-260.00	4.00	X Brace	No	No	0.0000	0.0000
T3	260.00-240.00	4.00	X Brace	No	No	0.0000	0.0000
T4	240.00-220.00	4.00	X Brace	No	No	0.0000	0.0000
T5	220.00-200.00	5.00	X Brace	No	No	0.0000	0.0000
T6	200.00-180.00	5.00	X Brace	No	No	0.0000	0.0000
T7	180.00-160.00	5.00	X Brace	No	No	0.0000	0.0000
T8	160.00-140.00	6.67	X Brace	No	No	0.0000	0.0000
T9	140.00-120.00	6.67	X Brace	No	No	0.0000	0.0000
T10	120.00-100.00	6.67	X Brace	No	No	0.0000	0.0000
T11	100.00-80.00	10.00	Double K1	No	Yes	0.0000	0.0000
T12	80.00-60.00	10.00	Double K1	No	Yes	0.0000	0.0000
T13	60.00-40.00	10.00	Double K1	No	Yes	0.0000	0.0000
T14	40.00-20.00	10.00	Double K1	No	Yes	0.0000	0.0000
T15	20.00-0.00	10.00	Double K1	No	Yes	0.0000	0.0000

### Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 290.00-280.00	Solid Round	1 3/4	A529-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x1/8	A529-50 (50 ksi)
T2 280.00-260.00	Solid Round	2 1/4	A529-50 (50 ksi)	Equal Angle	L2x2x3/16	A529-50 (50 ksi)
T3 260.00-240.00	Solid Round	2 3/4	A529-50 (50 ksi)	Equal Angle	L2x2x3/16	A529-50 (50 ksi)
T4 240.00-220.00	Solid Round	3	A529-50 (50 ksi)	Equal Angle	L2x2x3/16	A529-50 (50 ksi)
T5 220.00-200.00	Solid Round	3 1/2	A529-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A529-50 (50 ksi)
T6 200.00-180.00	Solid Round	3 3/4	A529-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A529-50 (50 ksi)
T7 180.00-160.00	Solid Round	3 3/4	A529-50 (50 ksi)	Equal Angle	L3x3x3/16	A529-50 (50 ksi)
T8 160.00-140.00	Solid Round	4 1/4	A529-50 (50 ksi)	Equal Angle	L3x3x1/4	A529-50 (50 ksi)
T9 140.00-120.00	Solid Round	4 1/2	A529-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A529-50 (50 ksi)
T10 120.00-100.00	Solid Round	4 3/4	A529-50 (50 ksi)	Equal Angle	L4x4x1/4	A529-50 (50 ksi)
T11 100.00-80.00	Solid Round	4 1/2	A529-50 (50 ksi)	Equal Angle	L4x4x5/16	A529-50 (50 ksi)
T12 80.00-60.00	Solid Round	4 1/2	A529-50 (50 ksi)	Equal Angle	L4x4x5/16	A529-50 (50 ksi)
T13 60.00-40.00	Solid Round	4 3/4	A529-50 (50 ksi)	Equal Angle	L4x4x5/16	A529-50 (50 ksi)
T14 40.00-20.00	Solid Round	5	A529-50 (50 ksi)	Equal Angle	L4x4x5/16	A529-50 (50 ksi)
T15 20.00-0.00	Solid Round	5	A529-50 (50 ksi)	Equal Angle	L4x4x3/8	A529-50 (50 ksi)

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 4 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

**Tower Section Geometry (cont'd)**

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 290.00-280.00	Equal Angle	L1 3/4x1 3/4x1/8	A529-50 (50 ksi)	Solid Round		A529-50 (50 ksi)

**Tower Section Geometry (cont'd)**

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T11 100.00-80.00	None	Solid Round		A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A529-50 (50 ksi)
T12 80.00-60.00	None	Solid Round		A36 (36 ksi)	Equal Angle	L4x4x1/4	A529-50 (50 ksi)
T13 60.00-40.00	None	Solid Round		A36 (36 ksi)	Equal Angle	L4x4x1/4	A529-50 (50 ksi)
T14 40.00-20.00	None	Solid Round		A36 (36 ksi)	Equal Angle	L4x4x5/16	A529-50 (50 ksi)
T15 20.00-0.00	None	Solid Round		A36 (36 ksi)	Equal Angle	L4x4x3/8	A529-50 (50 ksi)

**Tower Section Geometry (cont'd)**

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T11 100.00-80.00	Solid Round		A36 (36 ksi)	Equal Angle	L2x2x1/8	A529-50 (50 ksi)
T12 80.00-60.00	Solid Round		A36 (36 ksi)	Equal Angle	L2x2x1/8	A529-50 (50 ksi)
T13 60.00-40.00	Solid Round		A36 (36 ksi)	Equal Angle	L2x2x1/8	A529-50 (50 ksi)
T14 40.00-20.00	Solid Round		A36 (36 ksi)	Equal Angle	L2x2x1/8	A529-50 (50 ksi)
T15 20.00-0.00	Solid Round		A36 (36 ksi)	Equal Angle	L2x2x1/8	A529-50 (50 ksi)

**Tower Section Geometry (cont'd)**

Tower Elevation ft	Redundant Bracing Grade	Redundant Type	Redundant Size	K Factor
T11	A529-50	Horizontal (1)	Equal Angle L2 1/2x2 1/2x3/16	1

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 5 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Elevation	Redundant Bracing Grade	Redundant Type	Redundant Size	K Factor	
ft					
100.00-80.00	(50 ksi)	Diagonal (1)	Equal Angle	L2 1/2x2 1/2x3/16	1
T12	A529-50	Horizontal (1)	Equal Angle	L2 1/2x2 1/2x3/16	1
80.00-60.00	(50 ksi)	Diagonal (1)	Equal Angle	L3x3x3/16	1
T13	A529-50	Horizontal (1)	Equal Angle	L3x3x3/16	1
60.00-40.00	(50 ksi)	Diagonal (1)	Equal Angle	L3x3x3/16	1
T14	A529-50	Horizontal (1)	Equal Angle	L3x3x3/16	1
40.00-20.00	(50 ksi)	Diagonal (1)	Equal Angle	L3x3x3/16	1
T15	A529-50	Horizontal (1)	Equal Angle	L3x3x1/4	1
20.00-0.00	(50 ksi)	Diagonal (1)	Equal Angle	L3x3x3/16	1

### Tower Section Geometry (cont'd)

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_f$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft <sup>2</sup>	in					in	in	in
T1	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
290.00-280.00			(36 ksi)						
T2	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
280.00-260.00			(36 ksi)						
T3	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
260.00-240.00			(36 ksi)						
T4	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
240.00-220.00			(36 ksi)						
T5	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
220.00-200.00			(36 ksi)						
T6	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
200.00-180.00			(36 ksi)						
T7	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
180.00-160.00			(36 ksi)						
T8	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
160.00-140.00			(36 ksi)						
T9	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
140.00-120.00			(36 ksi)						
T10	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
120.00-100.00			(36 ksi)						
T11	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
100.00-80.00			(36 ksi)						
T12	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
80.00-60.00			(36 ksi)						
T13	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
60.00-40.00			(36 ksi)						
T14	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
40.00-20.00			(36 ksi)						
T15 20.00-0.00	0.00	0.0000	A36	1	1	1.1	36.0000	36.0000	36.0000
			(36 ksi)						

### Tower Section Geometry (cont'd)

*K Factors<sup>1</sup>*





<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev. 0	<b>Page</b> 7 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T7 180.00-160.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 160.00-140.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 140.00-120.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 120.00-100.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 100.00-80.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T12 80.00-60.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T13 60.00-40.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T14 40.00-20.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T15 20.00-0.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

### Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 290.00-280.00	Flange	0.7500	4	0.5000	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T2 280.00-260.00	Flange	0.7500	4	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T3 260.00-240.00	Flange	1.0000	4	0.5000	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T4 240.00-220.00	Flange	1.0000	4	0.5000	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T5 220.00-200.00	Flange	1.0000	6	0.5000	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T6 200.00-180.00	Flange	1.0000	6	0.5000	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T7 180.00-160.00	Flange	1.1250	6	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T8 160.00-140.00	Flange	1.1250	6	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T9 140.00-120.00	Flange	1.1250	6	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T10 120.00-100.00	Flange	1.2500	6	0.7500	1	0.6250	0	0.6250	0	0.6250	0	0.5000	0	0.6250	0
T11 100.00-80.00	Flange	1.2500	6	0.8750	1	0.6250	0	0.6250	0	0.6250	0	0.8750	1	0.6250	0
T12 80.00-60.00	Flange	1.5000	6	0.8750	1	0.6250	0	0.6250	0	0.6250	0	0.8750	1	0.6250	0
T13 60.00-40.00	Flange	1.5000	6	0.8750	1	0.6250	0	0.6250	0	0.6250	0	0.8750	1	0.6250	0

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 8 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Elevation ft	Leg Connection Type	Leg Bolt Size in	Leg No.	Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
				Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T14 40.00-20.00	Flange	1.5000	6	0.8750	1	0.6250	0	0.6250	0	0.6250	0	0.8750	1	0.6250	0
T15 20.00-0.00	Flange	1.7500	6	0.8750	1	0.6250	0	0.6250	0	0.6250	0	0.8750	1	0.6250	0
		F1554-55		A325N		A325N		A325N		A325N		A325N		A325N	

**Feed Line/Linear Appurtenances - Entered As Round Or Flat**

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
Feedline Ladder (Af)	A	No	Ar (CaAa)	285.00 - 0.00	1	1	3.0000	3.0000		8.40
Feedline Ladder (Af)	B	No	Ar (CaAa)	270.00 - 0.00	1	1	3.0000	3.0000		8.40
Feedline Ladder (Af)	C	No	Ar (CaAa)	260.00 - 0.00	1	1	3.0000	3.0000		8.40
****										
LDF7-50A (1-5/8 FOAM)	A	No	Ar (CaAa)	285.00 - 0.00	15	8	0.5000 0.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	B	No	Ar (CaAa)	270.00 - 0.00	12	6	0.5000 0.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	C	No	Ar (CaAa)	260.00 - 0.00	12	6	0.5000 0.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	C	No	Ar (CaAa)	250.00 - 0.00	12	6	0.5000 0.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	B	No	Ar (CaAa)	120.00 - 0.00	4	4	0.5000 0.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	B	No	Ar (CaAa)	160.00 - 120.00	2	2	0.5000 0.0000	1.9800		0.82

**Feed Line/Linear Appurtenances - Entered As Area**

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number	C <sub>A</sub> A <sub>A</sub> ft <sup>2</sup> /ft	Weight plf
Climbing Ladder	C	No	CaAa (In Face)	290.00 - 0.00	1	No Ice	7.90
						1/2" Ice	10.60
						1" Ice	13.30
Safety Line 5/16	C	No	CaAa (In Face)	290.00 - 0.00	1	No Ice	0.26
						1/2" Ice	0.76
						1" Ice	1.26
1 1/4" Rigid Conduit	C	No	CaAa (In Face)	290.00 - 0.00	1	No Ice	0.70
						1/2" Ice	1.77
						1" Ice	3.45

**Feed Line/Linear Appurtenances Section Areas**

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight lb
T1	290.00-280.00	A	0.000	0.000	16.180	0.000	103.50
		B	0.000	0.000	0.000	0.000	0.00

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 9 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Section	Tower Elevation ft	Face	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_{AA}$ In Face ft <sup>2</sup>	$C_{AA}$ Out Face ft <sup>2</sup>	Weight lb
T2	280.00-260.00	C	0.000	0.000	4.713	0.000	88.60
		A	0.000	0.000	64.747	0.000	414.00
		B	0.000	0.000	26.439	0.000	182.40
T3	260.00-240.00	C	0.000	0.000	9.426	0.000	177.20
		A	0.000	0.000	64.790	0.000	414.00
		B	0.000	0.000	52.910	0.000	364.80
T4	240.00-220.00	C	0.000	0.000	86.097	0.000	640.40
		A	0.000	0.000	64.838	0.000	414.00
		B	0.000	0.000	52.958	0.000	364.80
T5	220.00-200.00	C	0.000	0.000	109.904	0.000	738.80
		A	0.000	0.000	64.890	0.000	414.00
		B	0.000	0.000	53.010	0.000	364.80
T6	200.00-180.00	C	0.000	0.000	109.956	0.000	738.80
		A	0.000	0.000	64.948	0.000	414.00
		B	0.000	0.000	53.068	0.000	364.80
T7	180.00-160.00	C	0.000	0.000	110.015	0.000	738.80
		A	0.000	0.000	65.014	0.000	414.00
		B	0.000	0.000	53.134	0.000	364.80
T8	160.00-140.00	C	0.000	0.000	110.080	0.000	738.80
		A	0.000	0.000	65.088	0.000	414.00
		B	0.000	0.000	61.128	0.000	397.60
T9	140.00-120.00	C	0.000	0.000	110.154	0.000	738.80
		A	0.000	0.000	65.175	0.000	414.00
		B	0.000	0.000	61.215	0.000	397.60
T10	120.00-100.00	C	0.000	0.000	110.241	0.000	738.80
		A	0.000	0.000	65.277	0.000	414.00
		B	0.000	0.000	69.237	0.000	430.40
T11	100.00-80.00	C	0.000	0.000	110.343	0.000	738.80
		A	0.000	0.000	65.400	0.000	414.00
		B	0.000	0.000	69.360	0.000	430.40
T12	80.00-60.00	C	0.000	0.000	110.466	0.000	738.80
		A	0.000	0.000	65.400	0.000	414.00
		B	0.000	0.000	69.360	0.000	430.40
T13	60.00-40.00	C	0.000	0.000	110.466	0.000	738.80
		A	0.000	0.000	65.400	0.000	414.00
		B	0.000	0.000	69.360	0.000	430.40
T14	40.00-20.00	C	0.000	0.000	110.466	0.000	738.80
		A	0.000	0.000	65.400	0.000	414.00
		B	0.000	0.000	69.360	0.000	430.40
T15	20.00-0.00	C	0.000	0.000	110.466	0.000	738.80
		A	0.000	0.000	65.400	0.000	414.00
		B	0.000	0.000	69.360	0.000	430.40
		C	0.000	0.000	110.466	0.000	738.80

**Feed Line/Linear Appurtenances Section Areas - With Ice**

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_{AA}$ In Face ft <sup>2</sup>	$C_{AA}$ Out Face ft <sup>2</sup>	Weight lb
T1	290.00-280.00	A	2.481	0.000	0.000	20.162	0.000	472.48
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	27.540	0.000	369.43
T2	280.00-260.00	A	2.468	0.000	0.000	80.507	0.000	1881.15
		B		0.000	0.000	34.518	0.000	831.86
		C		0.000	0.000	54.834	0.000	734.78
T3	260.00-240.00	A	2.449	0.000	0.000	80.310	0.000	1868.79
		B		0.000	0.000	68.834	0.000	1652.64
		C		0.000	0.000	149.839	0.000	2960.95

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 10 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight lb
T4	240.00-220.00	A	2.429	0.000	0.000	80.098	0.000	1855.54
		B		0.000	0.000	68.618	0.000	1640.77
		C		0.000	0.000	175.634	0.000	3514.21
T5	220.00-200.00	A	2.407	0.000	0.000	79.869	0.000	1841.25
		B		0.000	0.000	68.384	0.000	1627.98
		C		0.000	0.000	174.849	0.000	3486.13
T6	200.00-180.00	A	2.383	0.000	0.000	79.620	0.000	1825.74
		B		0.000	0.000	68.130	0.000	1614.10
		C		0.000	0.000	173.995	0.000	3455.60
T7	180.00-160.00	A	2.356	0.000	0.000	79.346	0.000	1808.74
		B		0.000	0.000	67.850	0.000	1598.89
		C		0.000	0.000	173.056	0.000	3422.14
T8	160.00-140.00	A	2.327	0.000	0.000	79.041	0.000	1789.92
		B		0.000	0.000	95.720	0.000	1963.76
		C		0.000	0.000	172.011	0.000	3385.03
T9	140.00-120.00	A	2.294	0.000	0.000	78.697	0.000	1768.79
		B		0.000	0.000	95.138	0.000	1938.27
		C		0.000	0.000	170.833	0.000	3343.33
T10	120.00-100.00	A	2.256	0.000	0.000	78.303	0.000	1744.63
		B		0.000	0.000	105.210	0.000	2144.50
		C		0.000	0.000	169.480	0.000	3295.60
T11	100.00-80.00	A	2.211	0.000	0.000	77.837	0.000	1716.32
		B		0.000	0.000	104.437	0.000	2106.99
		C		0.000	0.000	167.884	0.000	3239.57
T12	80.00-60.00	A	2.156	0.000	0.000	77.268	0.000	1681.91
		B		0.000	0.000	103.491	0.000	2061.47
		C		0.000	0.000	165.930	0.000	3171.38
T13	60.00-40.00	A	2.085	0.000	0.000	76.529	0.000	1637.62
		B		0.000	0.000	102.263	0.000	2002.94
		C		0.000	0.000	163.392	0.000	3083.38
T14	40.00-20.00	A	1.981	0.000	0.000	75.454	0.000	1574.04
		B		0.000	0.000	100.478	0.000	1919.10
		C		0.000	0.000	159.700	0.000	2958.04
T15	20.00-0.00	A	1.775	0.000	0.000	73.325	0.000	1450.89
		B		0.000	0.000	96.946	0.000	1757.34
		C		0.000	0.000	152.379	0.000	2726.24

### Feed Line Center of Pressure

Section	Elevation ft	CP <sub>x</sub> in	CP <sub>z</sub> in	CP <sub>x</sub> Ice in	CP <sub>z</sub> Ice in
T1	290.00-280.00	-9.0641	-1.8385	-4.5651	6.3867
T2	280.00-260.00	-4.7076	-5.7295	-3.0699	0.1275
T3	260.00-240.00	-0.4473	-1.8128	-0.2407	3.4310
T4	240.00-220.00	-0.5197	-1.2408	-0.2913	5.6598
T5	220.00-200.00	-0.6473	-1.5080	-0.3651	7.1349
T6	200.00-180.00	-0.7743	-1.7736	-0.4397	8.5894
T7	180.00-160.00	-0.9005	-2.0374	-0.5152	10.0196
T8	160.00-140.00	1.0405	-3.7818	2.6208	8.1790
T9	140.00-120.00	1.1712	-4.2251	2.9414	9.1424
T10	120.00-100.00	2.4525	-6.3068	3.9013	8.4744
T11	100.00-80.00	2.9145	-7.5286	4.2818	9.1693
T12	80.00-60.00	3.1837	-8.2034	4.6555	9.7805
T13	60.00-40.00	3.4530	-8.8781	5.0184	10.2588
T14	40.00-20.00	3.7222	-9.5528	5.3607	10.4811

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 11 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Section	Elevation	CP <sub>x</sub>	CP <sub>z</sub>	CP <sub>x</sub>	CP <sub>z</sub>
	ft	in	in	Ice in	Ice in
T15	20.00-0.00	3.9914	-10.2276	5.6385	9.9036

### Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T1	1	Climbing Ladder	280.00 - 290.00	0.6000	0.4429
T1	2	Safety Line 5/16	280.00 - 290.00	0.6000	0.4429
T1	3	1 1/4" Rigid Conduit	280.00 - 290.00	0.6000	0.4429
T1	4	Feedline Ladder (Af)	280.00 - 285.00	1.0000	0.4429
T1	8	LDF7-50A (1-5/8 FOAM)	280.00 - 285.00	0.6000	0.4429
T2	1	Climbing Ladder	260.00 - 280.00	0.6000	0.4378
T2	2	Safety Line 5/16	260.00 - 280.00	0.6000	0.4378
T2	3	1 1/4" Rigid Conduit	260.00 - 280.00	0.6000	0.4378
T2	4	Feedline Ladder (Af)	260.00 - 280.00	1.0000	0.4378
T2	5	Feedline Ladder (Af)	260.00 - 270.00	1.0000	0.4378
T2	8	LDF7-50A (1-5/8 FOAM)	260.00 - 280.00	0.6000	0.4378
T2	9	LDF7-50A (1-5/8 FOAM)	260.00 - 270.00	0.6000	0.4378
T3	1	Climbing Ladder	240.00 - 260.00	0.6000	0.4862
T3	2	Safety Line 5/16	240.00 - 260.00	0.6000	0.4862
T3	3	1 1/4" Rigid Conduit	240.00 - 260.00	0.6000	0.4862
T3	4	Feedline Ladder (Af)	240.00 - 260.00	1.0000	0.4862
T3	5	Feedline Ladder (Af)	240.00 - 260.00	1.0000	0.4862
T3	6	Feedline Ladder (Af)	240.00 - 260.00	1.0000	0.4862
T3	8	LDF7-50A (1-5/8 FOAM)	240.00 - 260.00	0.6000	0.4862
T3	9	LDF7-50A (1-5/8 FOAM)	240.00 - 260.00	0.6000	0.4862
T3	10	LDF7-50A (1-5/8 FOAM)	240.00 - 260.00	0.6000	0.4862
T3	11	LDF7-50A (1-5/8 FOAM)	240.00 - 250.00	0.6000	0.4862
T4	1	Climbing Ladder	220.00 - 240.00	0.6000	0.5511
T4	2	Safety Line 5/16	220.00 - 240.00	0.6000	0.5511
T4	3	1 1/4" Rigid Conduit	220.00 -	0.6000	0.5511

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 12 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
			240.00		
T4	4	Feedline Ladder (Af)	220.00 - 240.00	1.0000	0.5511
T4	5	Feedline Ladder (Af)	220.00 - 240.00	1.0000	0.5511
T4	6	Feedline Ladder (Af)	220.00 - 240.00	1.0000	0.5511
T4	8	LDF7-50A (1-5/8 FOAM)	220.00 - 240.00	0.6000	0.5511
T4	9	LDF7-50A (1-5/8 FOAM)	220.00 - 240.00	0.6000	0.5511
T4	10	LDF7-50A (1-5/8 FOAM)	220.00 - 240.00	0.6000	0.5511
T4	11	LDF7-50A (1-5/8 FOAM)	220.00 - 240.00	0.6000	0.5511
T5	1	Climbing Ladder	200.00 - 220.00	0.6000	0.6000
T5	2	Safety Line 5/16	200.00 - 220.00	0.6000	0.6000
T5	3	1 1/4" Rigid Conduit	200.00 - 220.00	0.6000	0.6000
T5	4	Feedline Ladder (Af)	200.00 - 220.00	1.0000	0.6000
T5	5	Feedline Ladder (Af)	200.00 - 220.00	1.0000	0.6000
T5	6	Feedline Ladder (Af)	200.00 - 220.00	1.0000	0.6000
T5	8	LDF7-50A (1-5/8 FOAM)	200.00 - 220.00	0.6000	0.6000
T5	9	LDF7-50A (1-5/8 FOAM)	200.00 - 220.00	0.6000	0.6000
T5	10	LDF7-50A (1-5/8 FOAM)	200.00 - 220.00	0.6000	0.6000
T5	11	LDF7-50A (1-5/8 FOAM)	200.00 - 220.00	0.6000	0.6000
T6	1	Climbing Ladder	180.00 - 200.00	0.6000	0.6000
T6	2	Safety Line 5/16	180.00 - 200.00	0.6000	0.6000
T6	3	1 1/4" Rigid Conduit	180.00 - 200.00	0.6000	0.6000
T6	4	Feedline Ladder (Af)	180.00 - 200.00	1.0000	0.6000
T6	5	Feedline Ladder (Af)	180.00 - 200.00	1.0000	0.6000
T6	6	Feedline Ladder (Af)	180.00 - 200.00	1.0000	0.6000
T6	8	LDF7-50A (1-5/8 FOAM)	180.00 - 200.00	0.6000	0.6000
T6	9	LDF7-50A (1-5/8 FOAM)	180.00 - 200.00	0.6000	0.6000
T6	10	LDF7-50A (1-5/8 FOAM)	180.00 - 200.00	0.6000	0.6000
T6	11	LDF7-50A (1-5/8 FOAM)	180.00 - 200.00	0.6000	0.6000
T7	1	Climbing Ladder	160.00 - 180.00	0.6000	0.6000
T7	2	Safety Line 5/16	160.00 - 180.00	0.6000	0.6000
T7	3	1 1/4" Rigid Conduit	160.00 - 180.00	0.6000	0.6000
T7	4	Feedline Ladder (Af)	160.00 - 180.00	1.0000	0.6000

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 13 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
			180.00		
T7	5	Feedline Ladder (Af)	160.00 -	1.0000	0.6000
			180.00		
T7	6	Feedline Ladder (Af)	160.00 -	1.0000	0.6000
			180.00		
T7	8	LDF7-50A (1-5/8 FOAM)	160.00 -	0.6000	0.6000
			180.00		
T7	9	LDF7-50A (1-5/8 FOAM)	160.00 -	0.6000	0.6000
			180.00		
T7	10	LDF7-50A (1-5/8 FOAM)	160.00 -	0.6000	0.6000
			180.00		
T7	11	LDF7-50A (1-5/8 FOAM)	160.00 -	0.6000	0.6000
			180.00		
T8	1	Climbing Ladder	140.00 -	0.6000	0.6000
			160.00		
T8	2	Safety Line 5/16	140.00 -	0.6000	0.6000
			160.00		
T8	3	1 1/4" Rigid Conduit	140.00 -	0.6000	0.6000
			160.00		
T8	4	Feedline Ladder (Af)	140.00 -	1.0000	0.6000
			160.00		
T8	5	Feedline Ladder (Af)	140.00 -	1.0000	0.6000
			160.00		
T8	6	Feedline Ladder (Af)	140.00 -	1.0000	0.6000
			160.00		
T8	8	LDF7-50A (1-5/8 FOAM)	140.00 -	0.6000	0.6000
			160.00		
T8	9	LDF7-50A (1-5/8 FOAM)	140.00 -	0.6000	0.6000
			160.00		
T8	10	LDF7-50A (1-5/8 FOAM)	140.00 -	0.6000	0.6000
			160.00		
T8	11	LDF7-50A (1-5/8 FOAM)	140.00 -	0.6000	0.6000
			160.00		
T8	13	LDF7-50A (1-5/8 FOAM)	140.00 -	0.6000	0.6000
			160.00		
T9	1	Climbing Ladder	120.00 -	0.6000	0.6000
			140.00		
T9	2	Safety Line 5/16	120.00 -	0.6000	0.6000
			140.00		
T9	3	1 1/4" Rigid Conduit	120.00 -	0.6000	0.6000
			140.00		
T9	4	Feedline Ladder (Af)	120.00 -	1.0000	0.6000
			140.00		
T9	5	Feedline Ladder (Af)	120.00 -	1.0000	0.6000
			140.00		
T9	6	Feedline Ladder (Af)	120.00 -	1.0000	0.6000
			140.00		
T9	8	LDF7-50A (1-5/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T9	9	LDF7-50A (1-5/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T9	10	LDF7-50A (1-5/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T9	11	LDF7-50A (1-5/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T9	13	LDF7-50A (1-5/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T10	1	Climbing Ladder	100.00 -	0.6000	0.6000
			120.00		
T10	2	Safety Line 5/16	100.00 -	0.6000	0.6000
			120.00		
T10	3	1 1/4" Rigid Conduit	100.00 -	0.6000	0.6000

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 14 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15.04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T10	4	Feedline Ladder (Af)	120.00 - 100.00	1.0000	0.6000
T10	5	Feedline Ladder (Af)	120.00 - 100.00	1.0000	0.6000
T10	6	Feedline Ladder (Af)	120.00 - 100.00	1.0000	0.6000
T10	8	LDF7-50A (1-5/8 FOAM)	120.00 - 100.00	0.6000	0.6000
T10	9	LDF7-50A (1-5/8 FOAM)	120.00 - 100.00	0.6000	0.6000
T10	10	LDF7-50A (1-5/8 FOAM)	120.00 - 100.00	0.6000	0.6000
T10	11	LDF7-50A (1-5/8 FOAM)	120.00 - 100.00	0.6000	0.6000
T10	12	LDF7-50A (1-5/8 FOAM)	120.00 - 100.00	0.6000	0.6000
T11	1	Climbing Ladder	80.00 - 100.00	0.6000	0.6000
T11	2	Safety Line 5/16	80.00 - 100.00	0.6000	0.6000
T11	3	1 1/4" Rigid Conduit	80.00 - 100.00	0.6000	0.6000
T11	4	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T11	5	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T11	6	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T11	8	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T11	9	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T11	10	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T11	11	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T11	12	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T12	1	Climbing Ladder	60.00 - 80.00	0.6000	0.6000
T12	2	Safety Line 5/16	60.00 - 80.00	0.6000	0.6000
T12	3	1 1/4" Rigid Conduit	60.00 - 80.00	0.6000	0.6000
T12	4	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T12	5	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T12	6	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T12	8	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T12	9	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T12	10	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T12	11	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T12	12	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T13	1	Climbing Ladder	40.00 - 60.00	0.6000	0.6000
T13	2	Safety Line 5/16	40.00 - 60.00	0.6000	0.6000
T13	3	1 1/4" Rigid Conduit	40.00 - 60.00	0.6000	0.6000
T13	4	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T13	5	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T13	6	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T13	8	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T13	9	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T13	10	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T13	11	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T13	12	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T14	1	Climbing Ladder	20.00 - 40.00	0.6000	0.6000
T14	2	Safety Line 5/16	20.00 - 40.00	0.6000	0.6000
T14	3	1 1/4" Rigid Conduit	20.00 - 40.00	0.6000	0.6000
T14	4	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T14	5	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T14	6	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T14	8	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T14	9	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T14	10	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T14	11	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T14	12	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T15	1	Climbing Ladder	0.00 - 20.00	0.6000	0.6000



<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 15 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T15	2	Safety Line 5/16	0.00 - 20.00	0.6000	0.6000
T15	3	1 1/4" Rigid Conduit	0.00 - 20.00	0.6000	0.6000
T15	4	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T15	5	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T15	6	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T15	8	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T15	9	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T15	10	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T15	11	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T15	12	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000

### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight lb	
Lightning Rod	C	None		0.0000	290.00	No Ice	1.00	1.00	10.00
						1/2" Ice	1.30	1.30	13.00
						1" Ice	1.60	1.60	16.00
L-864 Beacon	C	None		0.0000	290.00	No Ice	2.72	2.72	80.00
						1/2" Ice	2.98	2.98	115.00
						1" Ice	3.25	3.25	152.00
L-810 Side Light	A	From Leg	0.50	0.0000	145.00	No Ice	0.20	0.20	3.00
			0.00			1/2" Ice	0.28	0.28	6.00
			0.00			1" Ice	0.36	0.36	10.00
L-810 Side Light	B	From Leg	0.50	0.0000	145.00	No Ice	0.20	0.20	3.00
			0.00			1/2" Ice	0.28	0.28	6.00
			0.00			1" Ice	0.36	0.36	10.00
L-810 Side Light	C	From Leg	0.50	0.0000	145.00	No Ice	0.20	0.20	3.00
			0.00			1/2" Ice	0.28	0.28	6.00
			0.00			1" Ice	0.36	0.36	10.00
****									
Carrier 200 sq ft (4000 lbs)	C	None		0.0000	285.00	No Ice	200.00	200.00	4000.00
						1/2" Ice	225.00	225.00	6000.00
						1" Ice	250.00	250.00	8000.00
Carrier 150 sq ft (4000 lbs)	C	None		0.0000	270.00	No Ice	150.00	150.00	4000.00
						1/2" Ice	175.00	175.00	6000.00
						1" Ice	200.00	200.00	8000.00
Carrier 125 sq ft (4000 lbs)	C	None		0.0000	260.00	No Ice	125.00	125.00	4000.00
						1/2" Ice	150.00	150.00	6000.00
						1" Ice	175.00	175.00	8000.00
Carrier 105 sq ft (4000 lbs)	C	None		0.0000	250.00	No Ice	105.00	105.00	4000.00
						1/2" Ice	130.00	130.00	6000.00
						1" Ice	155.00	155.00	8000.00

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 16 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

## Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets:		Azimuth Adjustment	3 dB Beam Width	Elevation	Outside Diameter	Aperture Area	Weight		
				Horz Lateral	Vert								
				ft		°	°	ft	ft	ft <sup>2</sup>	lb		
8' HP Dish (60 sq ft, 1000 lbs)	B	Paraboloid w/Shroud (HP)	From Leg	1.50	0.0000	160.00	8.00	No Ice	60.00	1000.00			
				0.00	0.00						1/2" Ice	85.00	1263.44
				0.00	0.00						1" Ice	110.00	1526.89
8' HP Dish (60 sq ft, 1000 lbs)	C	Paraboloid w/Shroud (HP)	From Leg	1.50	0.0000	120.00	8.00	No Ice	60.00	1000.00			
				0.00	0.00						1/2" Ice	85.00	1263.44
				0.00	0.00						1" Ice	110.00	1526.89

## Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 17 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Comb. No.	Description
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

### Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	290 - 280	12.800	43	0.4809	0.0422
T2	280 - 260	11.780	43	0.4789	0.0417
T3	260 - 240	9.804	43	0.4361	0.0393
T4	240 - 220	8.055	43	0.3732	0.0353
T5	220 - 200	6.567	43	0.3123	0.0315
T6	200 - 180	5.312	43	0.2669	0.0285
T7	180 - 160	4.225	43	0.2283	0.0248
T8	160 - 140	3.297	43	0.1905	0.0213
T9	140 - 120	2.518	43	0.1613	0.0161
T10	120 - 100	1.854	43	0.1357	0.0125
T11	100 - 80	1.284	43	0.1130	0.0089
T12	80 - 60	0.823	43	0.0875	0.0067
T13	60 - 40	0.478	43	0.0623	0.0048
T14	40 - 20	0.232	39	0.0400	0.0030
T15	20 - 0	0.064	39	0.0198	0.0013

### Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
290.00	Lightning Rod	43	12.800	0.4809	0.0422	221698
285.00	Carrier 200 sq ft (4000 lbs)	43	12.289	0.4810	0.0419	221698
270.00	Carrier 150 sq ft (4000 lbs)	43	10.773	0.4628	0.0407	31461
260.00	Carrier 125 sq ft (4000 lbs)	43	9.804	0.4361	0.0393	18872
250.00	Carrier 105 sq ft (4000 lbs)	43	8.897	0.4054	0.0375	18210
160.00	8' HP Dish (60 sq ft, 1000 lbs)	43	3.297	0.1905	0.0213	31524
145.00	L-810 Side Light	43	2.700	0.1680	0.0174	38787
120.00	8' HP Dish (60 sq ft, 1000 lbs)	43	1.854	0.1357	0.0125	55233

### Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	290 - 280	46.987	10	1.7676	0.1552
T2	280 - 260	43.239	10	1.7603	0.1534

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 18 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T3	260 - 240	35.980	10	1.6022	0.1447
T4	240 - 220	29.557	10	1.3704	0.1298
T5	220 - 200	24.093	10	1.1462	0.1159
T6	200 - 180	19.487	10	0.9790	0.1048
T7	180 - 160	15.499	10	0.8373	0.0913
T8	160 - 140	12.098	10	0.6983	0.0783
T9	140 - 120	9.239	10	0.5915	0.0591
T10	120 - 100	6.804	10	0.4977	0.0459
T11	100 - 80	4.713	10	0.4147	0.0325
T12	80 - 60	3.022	10	0.3211	0.0246
T13	60 - 40	1.758	2	0.2285	0.0175
T14	40 - 20	0.854	3	0.1466	0.0109
T15	20 - 0	0.236	3	0.0726	0.0049

### Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
290.00	Lightning Rod	10	46.987	1.7676	0.1552	59174
285.00	Carrier 200 sq ft (4000 lbs)	10	45.111	1.7682	0.1544	59174
270.00	Carrier 150 sq ft (4000 lbs)	10	39.539	1.7010	0.1499	8550
260.00	Carrier 125 sq ft (4000 lbs)	10	35.980	1.6022	0.1447	5110
250.00	Carrier 105 sq ft (4000 lbs)	10	32.647	1.4888	0.1380	4942
160.00	8' HP Dish (60 sq ft, 1000 lbs)	10	12.098	0.6983	0.0783	8614
145.00	L-810 Side Light	10	9.909	0.6161	0.0639	10628
120.00	8' HP Dish (60 sq ft, 1000 lbs)	10	6.804	0.4977	0.0459	14992

### Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load per Bolt lb	Ratio Load Allowable	Allowable Ratio	Criteria	
T1	290	Leg	A325N	0.7500	4	1032.75	29820.60	0.035	✓	1	Bolt Tension
		Diagonal	A325N	0.5000	1	4271.54	6093.75	0.701	✓	1	Member Block Shear
T2	280	Leg	A325N	0.7500	4	16885.00	29820.60	0.566	✓	1	Bolt Tension
		Diagonal	A325N	0.6250	1	7598.58	9369.14	0.811	✓	1	Member Block Shear
T3	260	Leg	A325N	1.0000	4	34357.40	53014.40	0.648	✓	1	Bolt Tension
		Diagonal	A325N	0.5000	1	7446.47	7952.16	0.936	✓	1	Bolt Shear
T4	240	Leg	A325N	1.0000	4	48120.00	53014.40	0.908	✓	1	Bolt Tension
		Diagonal	A325N	0.5000	1	6791.14	7952.16	0.854	✓	1	Bolt Shear
T5	220	Leg	A325N	1.0000	6	39168.50	53014.40	0.739	✓	1	Bolt Tension
		Diagonal	A325N	0.5000	1	6801.42	7952.16	0.855	✓	1	Bolt Shear
T6	200	Leg	A325N	1.0000	6	45550.60	53014.40	0.859	✓	1	Bolt Tension

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Comoly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 19 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load per Bolt lb	Ratio Load Allowable	Allowable Ratio	Criteria	
T7	180	Diagonal	A325N	0.5000	1	7175.51	7952.16	0.902	✓	1	Bolt Shear
		Leg	A325N	1.1250	6	51469.10	67096.30	0.767	✓	1	Bolt Tension
T8	160	Diagonal	A325N	0.6250	1	7914.03	12425.20	0.637	✓	1	Bolt Shear
		Leg	A325N	1.1250	6	57263.30	67096.30	0.853	✓	1	Bolt Tension
T9	140	Diagonal	A325N	0.6250	1	9805.13	12425.20	0.789	✓	1	Bolt Shear
		Leg	A325N	1.1250	6	63263.40	67096.30	0.943	✓	1	Bolt Tension
T10	120	Diagonal	A325N	0.6250	1	10728.20	12425.20	0.863	✓	1	Bolt Shear
		Leg	A325N	1.2500	6	69411.00	82835.00	0.838	✓	1	Bolt Tension
T11	100	Diagonal	A325N	0.7500	1	12715.70	16087.50	0.790	✓	1	Member Bearing
		Leg	A325N	1.2500	6	72792.00	82835.00	0.879	✓	1	Bolt Tension
		Diagonal	A325N	0.8750	1	18853.40	24353.50	0.774	✓	1	Bolt Shear
		Horizontal	A325N	0.8750	1	8712.30	19500.00	0.447	✓	1	Member Block Shear
T12	80	Leg	A325N	1.5000	6	79054.00	119282.00	0.663	✓	1	Bolt Tension
		Diagonal	A325N	0.8750	1	17354.50	24353.50	0.713	✓	1	Bolt Shear
		Horizontal	A325N	0.8750	1	9531.43	19500.00	0.489	✓	1	Member Block Shear
T13	60	Leg	A325N	1.5000	6	84409.60	119282.00	0.708	✓	1	Bolt Tension
		Diagonal	A325N	0.8750	1	19680.10	24353.50	0.808	✓	1	Bolt Shear
		Horizontal	A325N	0.8750	1	10222.80	19500.00	0.524	✓	1	Member Block Shear
T14	40	Leg	A325N	1.5000	6	90257.40	119282.00	0.757	✓	1	Bolt Tension
		Diagonal	A325N	0.8750	1	18110.40	24353.50	0.744	✓	1	Bolt Shear
		Horizontal	A325N	0.8750	1	11012.70	24353.50	0.452	✓	1	Bolt Shear
T15	20	Leg	F1554-55	1.7500	6	95348.20	101473.00	0.940	✓	1	Bolt Tension
		Diagonal	A325N	0.8750	1	20078.70	24353.50	0.824	✓	1	Bolt Shear
		Horizontal	A325N	0.8750	1	11701.50	24353.50	0.480	✓	1	Bolt Shear

### Compression Checks

### Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T1	290 - 280	1 3/4	10.00	5.00	137.1 K=1.00	2.4053	-7159.57	28890.80	0.248 <sup>1</sup> ✓
T2	280 - 260	2 1/4	20.00	4.00	85.3 K=1.00	3.9761	-75309.30	105060.00	0.717 <sup>1</sup> ✓
T3	260 - 240	2 3/4	20.03	4.01	69.9 K=1.00	5.9396	-154418.00	186923.00	0.826 <sup>1</sup> ✓

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 20 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T4	240 - 220	3	20.03	4.01	64.1 K=1.00	7.0686	-213621.00	235529.00	0.907 <sup>1</sup>
T5	220 - 200	3 1/2	20.03	5.01	68.7 K=1.00	9.6211	-260746.00	306641.00	0.850 <sup>1</sup>
T6	200 - 180	3 3/4	20.03	5.01	64.1 K=1.00	11.0447	-304284.00	368015.00	0.827 <sup>1</sup>
T7	180 - 160	3 3/4	20.03	5.01	64.1 K=1.00	11.0447	-345590.00	368015.00	0.939 <sup>1</sup>
T8	160 - 140	4 1/4	20.03	6.68	75.4 K=1.00	14.1863	-388270.00	421170.00	0.922 <sup>1</sup>
T9	140 - 120	4 1/2	20.03	6.68	71.2 K=1.00	15.9043	-430948.00	493875.00	0.873 <sup>1</sup>
T10	120 - 100	4 3/4	20.03	6.68	67.5 K=1.00	17.7205	-475956.00	571599.00	0.833 <sup>1</sup>
T11	100 - 80	4 1/2	20.03	5.01	53.4 K=1.00	15.9043	-502378.00	580902.00	0.865 <sup>1</sup>
T12	80 - 60	4 1/2	20.03	5.01	53.4 K=1.00	15.9043	-549611.00	580902.00	0.946 <sup>1</sup>
T13	60 - 40	4 3/4	20.03	5.01	50.6 K=1.00	17.7205	-589475.00	661231.00	0.891 <sup>1</sup>
T14	40 - 20	5	20.03	5.01	48.1 K=1.00	19.6350	-635024.00	746168.00	0.851 <sup>1</sup>
T15	20 - 0	5	20.03	5.01	48.1 K=1.00	19.6350	-674745.00	746168.00	0.904 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T1	290 - 280	L1 3/4x1 3/4x1/8	6.73	3.11	110.7 K=1.03	0.4219	-4311.99	7713.26	0.559 <sup>1</sup>
T2	280 - 260	L2x2x3/16	6.02	2.74	92.6 K=1.11	0.7150	-7751.89	17195.50	0.451 <sup>1</sup>
T3	260 - 240	L2x2x3/16	7.13	3.40	107.8 K=1.04	0.7150	-7446.47	13766.90	0.541 <sup>1</sup>
T4	240 - 220	L2x2x3/16	9.21	4.43	135.0 K=1.00	0.7150	-6411.58	8858.65	0.724 <sup>1</sup>
T5	220 - 200	L2 1/2x2 1/2x3/16	11.41	5.53	134.1 K=1.00	0.9020	-6801.42	11323.00	0.601 <sup>1</sup>
T6	200 - 180	L2 1/2x2 1/2x3/16	13.23	6.44	156.0 K=1.00	0.9020	-7175.51	8369.73	0.857 <sup>1</sup>
T7	180 - 160	L3x3x3/16	15.10	7.37	148.4 K=1.00	1.0900	-7914.03	11176.20	0.708 <sup>1</sup>
T8	160 - 140	L3x3x1/4	17.49	8.59	174.1 K=1.00	1.4400	-9805.13	10737.20	0.913 <sup>1</sup>
T9	140 - 120	L3 1/2x3 1/2x1/4	19.35	9.51	164.4 K=1.00	1.6900	-10728.20	14125.20	0.760 <sup>1</sup>

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	Job	56063 Final Design Rev 0	Page	21 of 28
	Project	290' SST Fredonia Site, KY	Date	08:14:15 04/12/18
	Client	Skyway Towers	Designed by	MJG

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T10	120 - 100	L4x4x1/4	21.24	10.44	157.6 K=1.00	1.9400	-12270.20	17642.90	0.695 <sup>1</sup> ✓
T11	100 - 80	L4x4x5/16	15.05	14.47	140.0 K=1.00	2.4000	-18853.40	27647.70	0.682 <sup>1</sup> ✓
T12	80 - 60	L4x4x5/16	15.82	15.24	147.5 K=1.00	2.4000	-17354.50	24924.40	0.696 <sup>1</sup> ✓
T13	60 - 40	L4x4x5/16	16.60	16.02	155.0 K=1.00	2.4000	-19680.10	22554.60	0.873 <sup>1</sup> ✓
T14	40 - 20	L4x4x5/16	17.41	16.82	162.8 K=1.00	2.4000	-18110.40	20455.60	0.885 <sup>1</sup> ✓
T15	20 - 0	L4x4x3/8	18.24	17.66	172.3 K=1.00	2.8600	-20078.70	21775.20	0.922 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T11	100 - 80	L3 1/2x3 1/2x1/4	21.50	10.40	179.8 K=1.00	1.6900	-8712.30	11815.80	0.737 <sup>1</sup> ✓
T12	80 - 60	L4x4x1/4	23.50	11.40	172.0 K=1.00	1.9400	-9531.43	14812.30	0.643 <sup>1</sup> ✓
T13	60 - 40	L4x4x1/4	25.50	12.39	186.9 K=1.00	1.9400	-10222.80	12539.80	0.815 <sup>1</sup> ✓
T14	40 - 20	L4x4x5/16	27.50	13.38	202.9 K=1.00	2.4000	-11012.70	13169.00	0.836 <sup>1</sup> ✓
T15	20 - 0	L4x4x3/8	29.50	14.38	218.9 K=1.00	2.8600	-11701.50	13482.80	0.868 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T1	290 - 280	L1 3/4x1 3/4x1/8	4.50	4.35	138.9 K=0.92	0.4219	-851.58	4943.16	0.172 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 22 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

### Redundant Horizontal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T11	100 - 80	L2 1/2x2 1/2x3/16	5.38	5.19	125.8 K=1.00	0.9020	-8712.30	12884.80	0.676 <sup>1</sup> ✓
T12	80 - 60	L2 1/2x2 1/2x3/16	5.88	5.69	137.9 K=1.00	0.9020	-9531.43	10718.90	0.889 <sup>1</sup> ✓
T13	60 - 40	L3x3x3/16	6.38	6.18	124.4 K=1.00	1.0900	-10222.80	15919.50	0.642 <sup>1</sup> ✓
T14	40 - 20	L3x3x3/16	6.88	6.67	134.2 K=1.00	1.0900	-11012.70	13667.20	0.806 <sup>1</sup> ✓
T15	20 - 0	L3x3x1/4	7.38	7.17	145.3 K=1.00	1.4400	-11701.50	15415.20	0.759 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Redundant Diagonal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T11	100 - 80	L2 1/2x2 1/2x3/16	7.53	7.27	176.1 K=1.00	0.9020	-6100.54	6568.49	0.929 <sup>1</sup> ✓
T12	80 - 60	L3x3x3/16	7.91	7.66	154.2 K=1.00	1.0900	-6414.85	10360.00	0.619 <sup>1</sup> ✓
T13	60 - 40	L3x3x3/16	8.30	8.05	162.0 K=1.00	1.0900	-6655.85	9383.27	0.709 <sup>1</sup> ✓
T14	40 - 20	L3x3x3/16	8.71	8.44	170.0 K=1.00	1.0900	-6972.45	8518.10	0.819 <sup>1</sup> ✓
T15	20 - 0	L3x3x3/16	9.12	8.86	178.5 K=1.00	1.0900	-7234.54	7729.64	0.936 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Inner Bracing Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T11	100 - 80	L2x2x1/8	10.75	10.75	324.5 K=1.00	0.4844	-30.24	1039.22	0.029 <sup>1</sup> ✓
T12	80 - 60	KL/R > 250 (C) - 287 L2x2x1/8	11.75	11.75	354.7 K=1.00	0.4844	-32.10	869.86	0.037 <sup>1</sup> ✓
T13	60 - 40	KL/R > 250 (C) - 332 L2x2x1/8	12.75	12.75	384.9 K=1.00	0.4844	-33.04	738.76	0.045 <sup>1</sup> ✓



<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 23 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T14	40 - 20	KL/R > 250 (C) - 377 L2x2x1/8	13.75	13.75	415.0 K=1.00	0.4844	-33.97	635.21	0.053 <sup>1</sup> ✓
T15	20 - 0	KL/R > 250 (C) - 422 L2x2x1/8	14.75	14.75	445.2 K=1.00	0.4844	-34.35	552.00	0.062 <sup>1</sup> ✓
		KL/R > 250 (C) - 466							

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Tension Checks

### Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T1	290 - 280	1 3/4	10.00	5.00	137.1	2.4053	4130.99	108238.00	0.038 <sup>1</sup> ✓
T2	280 - 260	2 1/4	20.00	4.00	85.3	3.9761	67539.80	178924.00	0.377 <sup>1</sup> ✓
T3	260 - 240	2 3/4	20.03	4.01	69.9	5.9396	137429.00	267281.00	0.514 <sup>1</sup> ✓
T4	240 - 220	3	20.03	4.01	64.1	7.0686	192480.00	318086.00	0.605 <sup>1</sup> ✓
T5	220 - 200	3 1/2	20.03	5.01	68.7	9.6211	235011.00	432951.00	0.543 <sup>1</sup> ✓
T6	200 - 180	3 3/4	20.03	5.01	64.1	11.0447	273303.00	497010.00	0.550 <sup>1</sup> ✓
T7	180 - 160	3 3/4	20.03	5.01	64.1	11.0447	308814.00	497010.00	0.621 <sup>1</sup> ✓
T8	160 - 140	4 1/4	20.03	6.68	75.4	14.1863	343580.00	638381.00	0.538 <sup>1</sup> ✓
T9	140 - 120	4 1/2	20.03	6.68	71.2	15.9043	379580.00	715694.00	0.530 <sup>1</sup> ✓
T10	120 - 100	4 3/4	20.03	6.68	67.5	17.7205	416466.00	797425.00	0.522 <sup>1</sup> ✓
T11	100 - 80	4 1/2	20.03	5.01	53.4	15.9043	438062.00	715694.00	0.612 <sup>1</sup> ✓
T12	80 - 60	4 1/2	20.03	5.01	53.4	15.9043	475397.00	715694.00	0.664 <sup>1</sup> ✓
T13	60 - 40	4 3/4	20.03	5.01	50.6	17.7205	507606.00	797425.00	0.637 <sup>1</sup> ✓
T14	40 - 20	5	20.03	5.01	48.1	19.6350	542847.00	883573.00	0.614 <sup>1</sup> ✓
T15	20 - 0	5	20.03	5.01	48.1	19.6350	572953.00	883573.00	0.648 <sup>1</sup> ✓

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 24 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

<sup>1</sup>  $P_u / \phi P_n$  controls

### Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	$L_u$ ft	Kl/r	A in <sup>2</sup>	$P_u$ lb	$\phi P_n$ lb	Ratio $\frac{P_u}{\phi P_n}$
T1	290 - 280	L1 3/4x1 3/4x1/8	6.73	3.11	71.6	0.2578	4271.54	12568.40	0.340 <sup>1</sup>
T2	280 - 260	L2x2x3/16	6.02	2.74	56.1	0.4308	7598.58	21000.60	0.362 <sup>1</sup>
T3	260 - 240	L2x2x3/16	7.13	3.40	69.0	0.4484	7359.73	21857.50	0.337 <sup>1</sup>
T4	240 - 220	L2x2x3/16	7.80	3.73	75.5	0.4484	6688.41	21857.50	0.306 <sup>1</sup>
T5	220 - 200	L2 1/2x2 1/2x3/16	11.41	5.53	87.6	0.5886	6621.21	28694.70	0.231 <sup>1</sup>
T6	200 - 180	L2 1/2x2 1/2x3/16	13.23	6.44	101.5	0.5886	6976.00	28694.70	0.243 <sup>1</sup>
T7	180 - 160	L3x3x3/16	15.10	7.37	96.1	0.7120	7699.43	34711.50	0.222 <sup>1</sup>
T8	160 - 140	L3x3x1/4	17.49	8.59	112.7	0.9394	9587.16	45794.50	0.209 <sup>1</sup>
T9	140 - 120	L3 1/2x3 1/2x1/4	19.35	9.51	106.3	1.1269	10323.60	54935.20	0.188 <sup>1</sup>
T10	120 - 100	L4x4x1/4	21.24	10.44	101.6	1.2909	12715.70	62933.20	0.202 <sup>1</sup>
T11	100 - 80	L4x4x5/16	15.05	14.47	143.3	1.5656	17323.20	76324.20	0.227 <sup>1</sup>
T12	80 - 60	L4x4x5/16	15.05	14.48	143.3	1.5656	17339.10	76324.20	0.227 <sup>1</sup>
T13	60 - 40	L4x4x5/16	16.60	16.02	158.3	1.5656	17669.70	76324.20	0.232 <sup>1</sup>
T14	40 - 20	L4x4x5/16	16.60	16.01	158.2	1.5656	18064.20	76324.20	0.237 <sup>1</sup>
T15	20 - 0	L4x4x3/8	17.41	16.83	167.4	1.8637	17401.00	90857.80	0.192 <sup>1</sup>

<sup>1</sup>  $P_u / \phi P_n$  controls

### Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	$L_u$ ft	Kl/r	A in <sup>2</sup>	$P_u$ lb	$\phi P_n$ lb	Ratio $\frac{P_u}{\phi P_n}$
T11	100 - 80	L3 1/2x3 1/2x1/4	21.50	10.40	116.3	1.0800	8712.30	52650.00	0.165 <sup>1</sup>
T12	80 - 60	L4x4x1/4	23.50	11.40	111.0	1.2675	9531.43	61790.60	0.154 <sup>1</sup>
T13	60 - 40	L4x4x1/4	25.50	12.39	120.5	1.2675	10222.80	61790.60	0.165 <sup>1</sup>

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 25 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T14	40 - 20	L4x4x5/16	27.50	13.38	131.0	1.5656	11012.70	76324.20	0.144 <sup>1</sup> ✓
T15	20 - 0	L4x4x3/8	29.50	14.38	141.9	1.8637	11701.50	90857.80	0.129 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T1	290 - 280	L1 3/4x1 3/4x1/8	4.50	4.35	95.8	0.3164	864.08	15424.80	0.056 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Redundant Horizontal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T11	100 - 80	L2 1/2x2 1/2x3/16	5.38	5.19	80.0	0.9020	8712.30	40590.00	0.215 <sup>1</sup> ✓
T12	80 - 60	L2 1/2x2 1/2x3/16	5.88	5.69	87.7	0.9020	9531.43	40590.00	0.235 <sup>1</sup> ✓
T13	60 - 40	L3x3x3/16	6.38	6.18	78.9	1.0900	10222.80	49050.00	0.208 <sup>1</sup> ✓
T14	40 - 20	L3x3x3/16	6.88	6.67	85.2	1.0900	11012.70	49050.00	0.225 <sup>1</sup> ✓
T15	20 - 0	L3x3x1/4	7.38	7.17	92.5	1.4400	11701.50	64800.00	0.181 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Redundant Diagonal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T11	100 - 80	L2 1/2x2 1/2x3/16	7.53	7.27	112.1	0.9020	6100.54	40590.00	0.150 <sup>1</sup> ✓

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 26 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$ <sup>1</sup>
T12	80 - 60	L3x3x3/16	7.91	7.66	97.9	1.0900	6414.85	49050.00	0.131 <sup>1</sup> ✓
T13	60 - 40	L3x3x3/16	8.30	8.05	102.8	1.0900	6655.85	49050.00	0.136 <sup>1</sup> ✓
T14	40 - 20	L3x3x3/16	8.71	8.44	107.9	1.0900	6972.45	49050.00	0.142 <sup>1</sup> ✓
T15	20 - 0	L3x3x3/16	9.12	8.86	113.3	1.0900	7234.54	49050.00	0.147 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Inner Bracing Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$ <sup>1</sup>
T15	20 - 0	L2x2x1/8	14.75	14.75	282.6	0.4844	0.28	21796.90	0.000 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	φP <sub>allow</sub> lb	% Capacity	Pass Fail
T1	290 - 280	Leg	1 3/4	2	-7159.57	28890.80	24.8	Pass
		Diagonal	L1 3/4x1 3/4x1/8	8	-4311.99	7713.26	55.9	Pass
						70.1 (b)		
T2	280 - 260	Top Girt	L1 3/4x1 3/4x1/8	4	-851.58	4943.16	17.2	Pass
		Leg	2 1/4	20	-75309.30	105060.00	71.7	Pass
T3	260 - 240	Diagonal	L2x2x3/16	23	-7751.89	17195.50	45.1	Pass
		Leg	2 3/4	53	-154418.00	186923.00	82.6	Pass
						81.1 (b)		
T4	240 - 220	Diagonal	L2x2x3/16	62	-7446.47	13766.90	54.1	Pass
		Leg	3	86	-213621.00	235529.00	90.7	Pass
						90.8 (b)		
T5	220 - 200	Diagonal	L2x2x3/16	89	-6411.58	8858.65	72.4	Pass
		Leg	3 1/2	119	-260746.00	306641.00	85.0	Pass
						85.4 (b)		
T6	200 - 180	Diagonal	L2 1/2x2 1/2x3/16	122	-6801.42	11323.00	60.1	Pass
		Leg	3 3/4	146	-304284.00	368015.00	82.7	Pass
						85.5 (b)		
T7	180 - 160	Diagonal	L2 1/2x2 1/2x3/16	149	-7175.51	8369.73	85.7	Pass
		Leg	3 3/4	173	-345590.00	368015.00	93.9	Pass
						90.2 (b)		
T8	160 - 140	Diagonal	L3x3x3/16	176	-7914.03	11176.20	70.8	Pass
		Leg	4 1/4	200	-388270.00	421170.00	92.2	Pass
						91.3		Pass

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337-896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 27 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15 04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$\phi P_{allow}$ lb	% Capacity	Pass Fail
T9	140 - 120	Leg	4 1/2	221	-430948.00	493875.00	87.3	Pass
		Diagonal	L3 1/2x3 1/2x1/4	226	-10728.20	14125.20	94.3 (b) 76.0	Pass
T10	120 - 100	Leg	4 3/4	242	-475956.00	571599.00	83.3	Pass
		Diagonal	L4x4x1/4	245	-12270.20	17642.90	83.8 (b) 69.5	Pass
T11	100 - 80	Leg	4 1/2	263	-502378.00	580902.00	79.0 (b) 86.5	Pass
		Diagonal	L4x4x5/16	269	-18853.40	27647.70	87.9 (b) 68.2	Pass
		Horizontal	L3 1/2x3 1/2x1/4	265	-8712.30	11815.80	73.7	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	293	-8712.30	12884.80	67.6	Pass
T12	80 - 60	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	294	-6100.54	6568.49	92.9	Pass
		Inner Bracing	L2x2x1/8	287	-30.24	1039.22	2.9	Pass
		Leg	4 1/2	308	-549611.00	580902.00	94.6	Pass
		Diagonal	L4x4x5/16	314	-17354.50	24924.40	69.6	Pass
		Horizontal	L4x4x1/4	310	-9531.43	14812.30	71.3 (b) 64.3	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	315	-9531.43	10718.90	88.9	Pass
T13	60 - 40	Redund Diag 1 Bracing	L3x3x3/16	342	-6414.85	10360.00	61.9	Pass
		Inner Bracing	L2x2x1/8	332	-32.10	869.86	3.7	Pass
		Leg	4 3/4	353	-589475.00	661231.00	89.1	Pass
		Diagonal	L4x4x5/16	359	-19680.10	22554.60	87.3	Pass
		Horizontal	L4x4x1/4	355	-10222.80	12539.80	81.5	Pass
		Redund Horz 1 Bracing	L3x3x3/16	360	-10222.80	15919.50	64.2	Pass
T14	40 - 20	Redund Diag 1 Bracing	L3x3x3/16	384	-6655.85	9383.27	70.9	Pass
		Inner Bracing	L2x2x1/8	377	-33.04	738.76	4.5	Pass
		Leg	5	398	-635024.00	746168.00	85.1	Pass
		Diagonal	L4x4x5/16	404	-18110.40	20455.60	88.5	Pass
		Horizontal	L4x4x5/16	400	-11012.70	13169.00	83.6	Pass
		Redund Horz 1 Bracing	L3x3x3/16	428	-11012.70	13667.20	80.6	Pass
T15	20 - 0	Redund Diag 1 Bracing	L3x3x3/16	432	-6972.45	8518.10	81.9	Pass
		Inner Bracing	L2x2x1/8	422	-33.97	635.21	5.3	Pass
		Leg	5	443	-674745.00	746168.00	90.4	Pass
		Diagonal	L4x4x3/8	449	-20078.70	21775.20	94.0 (b) 92.2	Pass
		Horizontal	L4x4x3/8	445	-11701.50	13482.80	86.8	Pass
		Redund Horz 1 Bracing	L3x3x1/4	454	-11701.50	15415.20	75.9	Pass
Summary		Redund Diag 1 Bracing	L3x3x3/16	474	-7234.54	7729.64	93.6	Pass
		Inner Bracing	L2x2x1/8	466	-34.35	552.00	6.2	Pass
		Leg (T12)					94.6	Pass
		Diagonal (T3)					93.6	Pass
		Horizontal (T15)					86.8	Pass
		Top Girt (T1)					17.2	Pass
Redund					88.9	Pass		

<b>tnxTower</b>  <b>Daley Tower Service, Inc.</b> 601 Hector Connolly Road Carencro, Louisiana 70520 Phone: 337-896-6719 FAX: 337--896-3070	<b>Job</b> 56063 Final Design Rev 0	<b>Page</b> 28 of 28
	<b>Project</b> 290' SST Fredonia Site, KY	<b>Date</b> 08:14:15.04/12/18
	<b>Client</b> Skyway Towers	<b>Designed by</b> MJG

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$\phi P_{allow}$ lb	% Capacity	Pass Fail
						Horz 1 Bracing (T12)		
						Redund Diag 1 Bracing (T15)	93.6	Pass
						Inner Bracing (T15)	6.2	Pass
						Bolt Checks	94.3	Pass
						<b>RATING =</b>	<b>94.6</b>	<b>Pass</b>

# FOUNDATION DESIGN & DRAWINGS

# Civil And Structural Engineers, Inc.

Job No: 18178

Page 1 of 2

Designed By: MTG

Date: 4-12-18

Job Name: 56063, 290 SST FREDONIA, KY

Client: SKYWAY TOWERS

Revision	Date	Designed By	Approved

## FOUNDATION DESIGN

### MAT FOOTING

$$M_{max} = 17,211,384 \text{ ft} + (106,087 \times 6.5) = 17,900,950 \text{ ft}$$

$$C_{max} = 130,606 + (0.9 \times 150 \text{ PCF}) \left[ (143 \times 43 \times 2.5) + (3 \times 4')^2 (14 \times 4') \right] \\ + (0.9 \times 110 \text{ PCF}) \left[ (43 \times 43 \times 3.5) - (3 \times 4')^2 (14 \times 3.5) \right] = 1,402,616$$

$$e = \frac{17,900,950 \text{ ft}}{1,402,616} = 12.76' \quad e' = \frac{43}{2} - 12.76 = 8.74'$$

$$q_{max} = \frac{(2 \times 1,402,616)}{(3)(43 \times 8.74)} = 2,488 \text{ PSF} < (0.85 \times 4,000 \text{ PSF}) = 3,400 \text{ PSF}$$

PUNCHING/PULLOUT:  $C_{max} = 695,126 \quad T_{max} = 588,726$

$$\phi V_c = (0.85 \times 0.75 \times 4) / \sqrt{4,000 \text{ PSI}} (48 + 30 \times \pi \times 30) = 1,185,593$$

$$\phi V_c = (0.85 \times 0.75 \times 4) / \sqrt{4,000 \text{ PSI}} (42 + 20 \times \pi \times 20) = 628,263$$

PEDESTAL CHECK:  $V_{max} = 67,306 \quad M_{max} = (67,306 \times 4) = 269,224 \text{ ft} = 3,230 \text{ ki}$

$$\phi V_c = (0.85 \times 0.75 \times 2) / \sqrt{4,000 \text{ PSI}} (42)^2 (14) = 111,719$$

$$\phi M_n = (0.85 \times 0.9 \times 11 \times 0.79 \text{ in}^2 \times 60 \text{ ksi} \times 27.79) = 11,085 \text{ ki}$$

$$\phi T_n = (0.85 \times 0.9 \times 24 \times 0.79 \text{ in}^2 \times 60,000 \text{ PSI}) = 870,264$$

COMBINED:  $\frac{588,726}{870,264} + \frac{3,230 \text{ ki}}{11,085 \text{ ki}} = 0.968 < 1.0$



# Civil And Structural Engineers, Inc.

Job No: 18178

Page 2 of 2

Designed By: MJG

Revision	Date	Designed By	Approved

Date: 4-12-18

Job Name: 56063 290' SST FREDONIA KY

Client: SKYWAY TOWERS

## FOUNDATION DESIGN

### MAT FOOTING

SLAB CHECK:  $q_{max} = 2,488 \text{ PSF}$      $C_{max} = 1,402,616''$

$$W = (2,488 \text{ PSF})(43') = 106,984''\text{ft}$$

$$L = \frac{1,402,616''}{(1/2)(106,984''\text{ft})} = 26.22'$$

PRESSURE CHANGE:  $\frac{106,984''\text{ft}}{26.22'} = 4,080''\text{ft}$

MAX MOMENT OCCURS @ 12.7'

$$W @ 12.7' = 106,984''\text{ft} - (4,080''\text{ft} \times 12.7') = 55,168''\text{ft}$$

$$M_{max} = (1/2)(55,168''\text{ft})(12.7')^2 + (1/2)(106,984''\text{ft} - 55,168''\text{ft})(12.7')^2 (2/3)$$

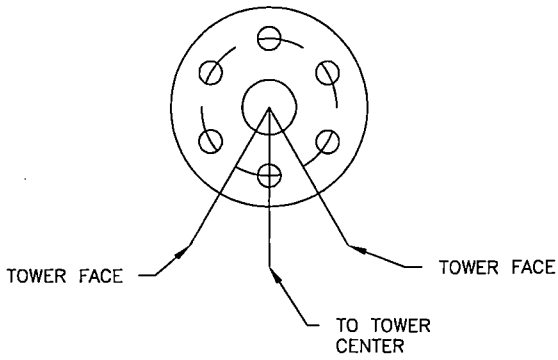
$$= 7,234,825''\text{ft} = 86,818 \text{ k-in}$$

$$4M_N = (0.85)(0.9)(81)(10,102)(60 \text{ ksi}) \left[ 25.3'' - \frac{(81)(10,102)(60 \text{ ksi})}{(2)(0.85)(4 \text{ ksi})(516'')} \right] = 88,913 \text{ k-in}$$

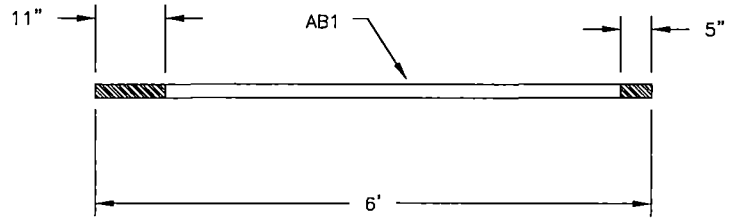
USE 43' x 43' x 2'-6" MAT FOOTING w/  
 (81) #9 BARS TOP + Btm BOTH WAYS  
 w/ (3) 4" STD PROCSIALS, 4' LONG

**BILL OF MATERIALS**

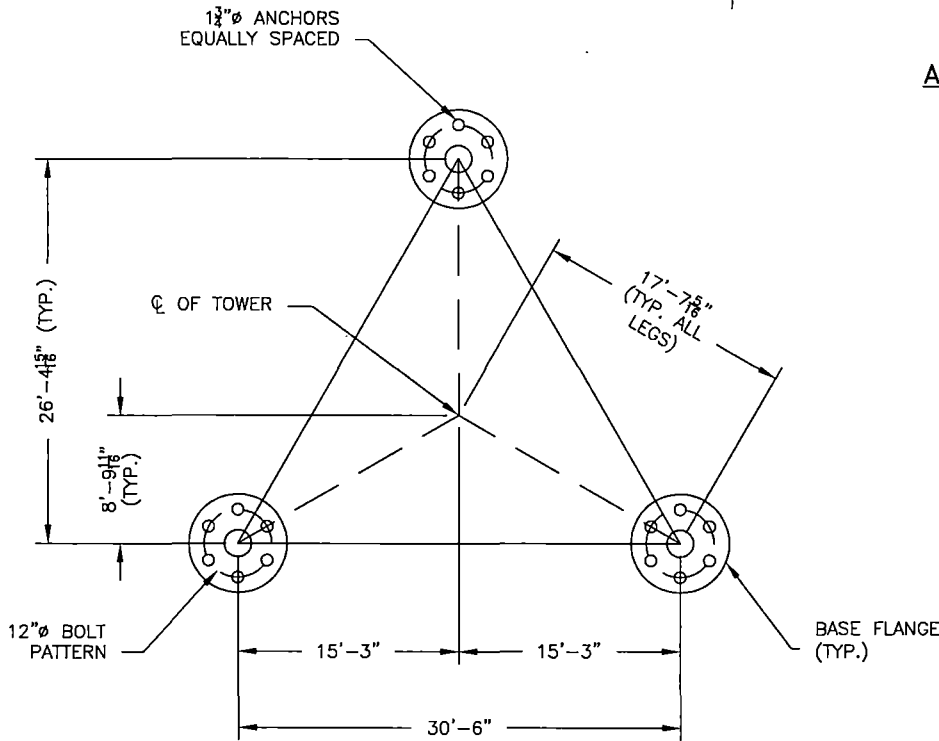
PIECE MARK	No.	DESCRIPTION	LENGTH		REMARKS	
			ft.	in.		
AB1	18	1 1/2" Ø SOLID ROD	6	0	ASTM F1554-55	1
						2
						3
						4
						5



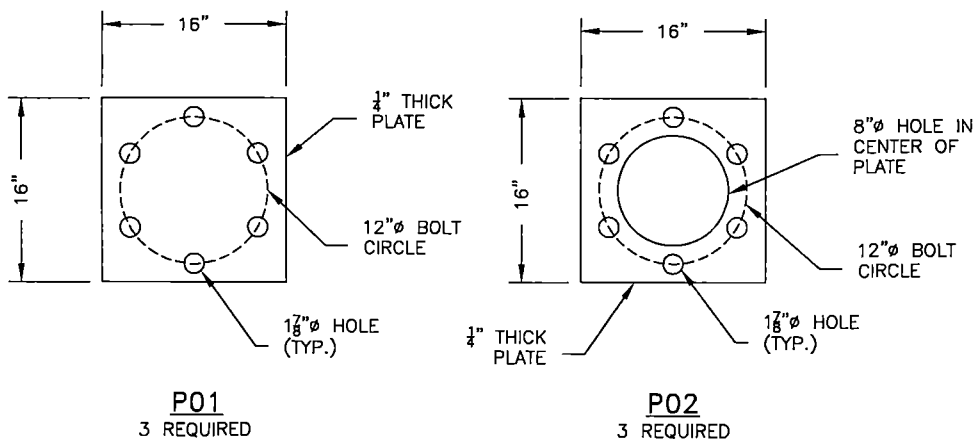
**ANCHOR BOLT PATTERN**



**ANCHOR BOLT  
DETAIL**



**ANCHOR BOLT LAYOUT**  
FOUNDATION NOT SHOWN FOR CLARITY



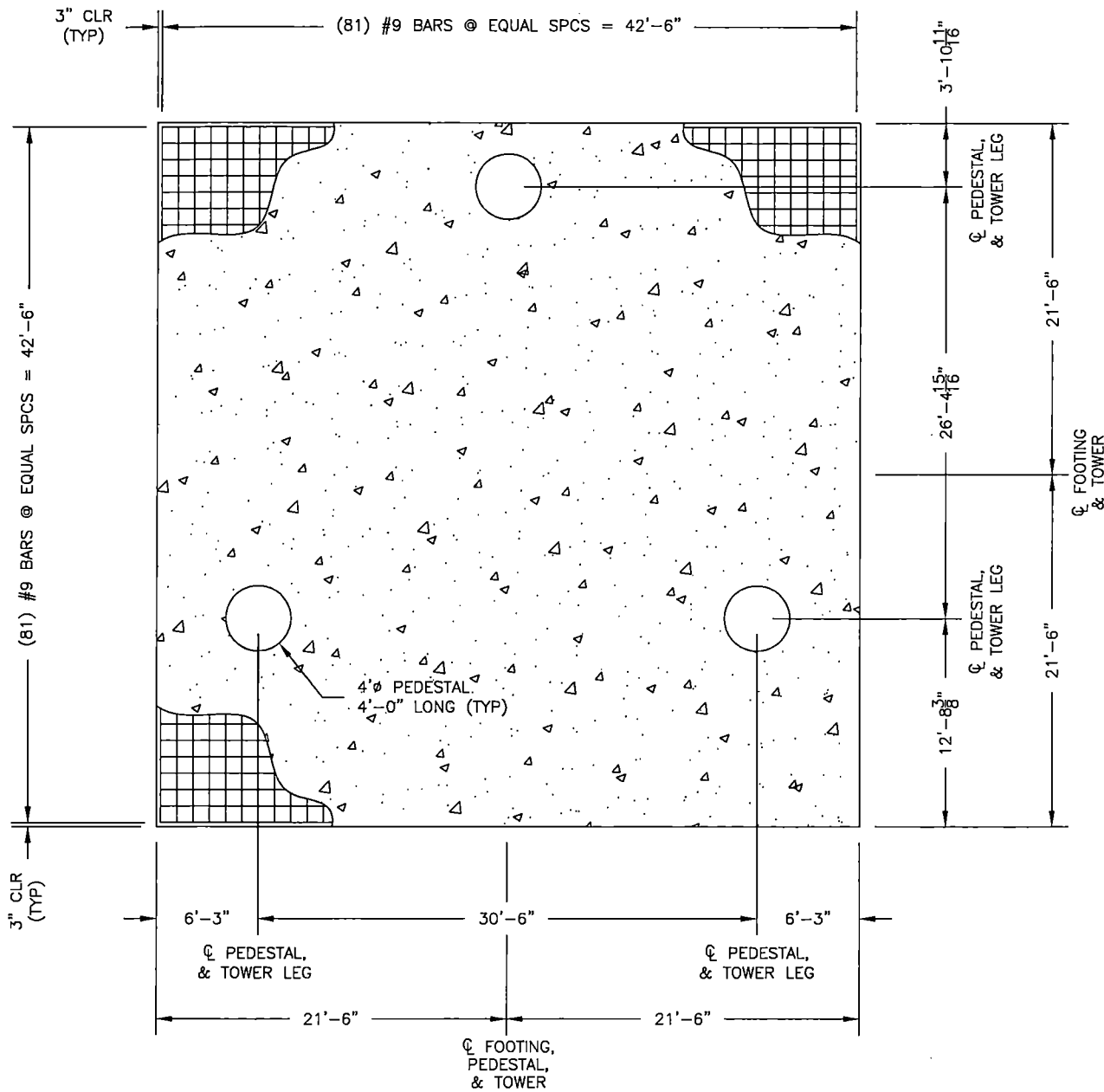
REV.	DATE:
3	
2	
1	

STRUCTURE: 290' SELF SUPPORTER
LOCATION: FREDONIA TOWER SITE
DETAIL: ANCHOR DETAILS
OWNER: SKYWAY TOWERS
DATE: 4-12-18
DRAWN: GS
CHKD: MJG
CASE JOB NO.: 18178
DALEY JOB NO.: 56063

Civil and Structural Engineers, Inc.  
P.O. Box 4825  
Lafayette, LA 70502  
Ph: (337) 232-3336

SHEET

AB01



PLAN VIEW

ESTIMATED QUANTITIES (PER FOOTING)

BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
#3	15	12'-0"	180'-0"	PEDESTAL TIES
TOTAL #3 BARS = 180'-0" = 68 LBS				
#8	72	6'-9"	486'-0"	PEDESTAL LONG.
TOTAL #8 BARS = 486'-0" = 1,298 LBS				
#9	324	42'-6"	13,770'-0"	MAT LONG.
TOTAL #9 BARS = 13,770'-0" = 46,818 LBS				
TOTAL DEFORMED REINFORCING STEEL = 48,184 LBS				
TOTAL 4000 PSI STRUCTURAL CONCRETE = 176.8 CU. YDS				

ESTIMATED QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR PURCHASING OF MATERIALS.

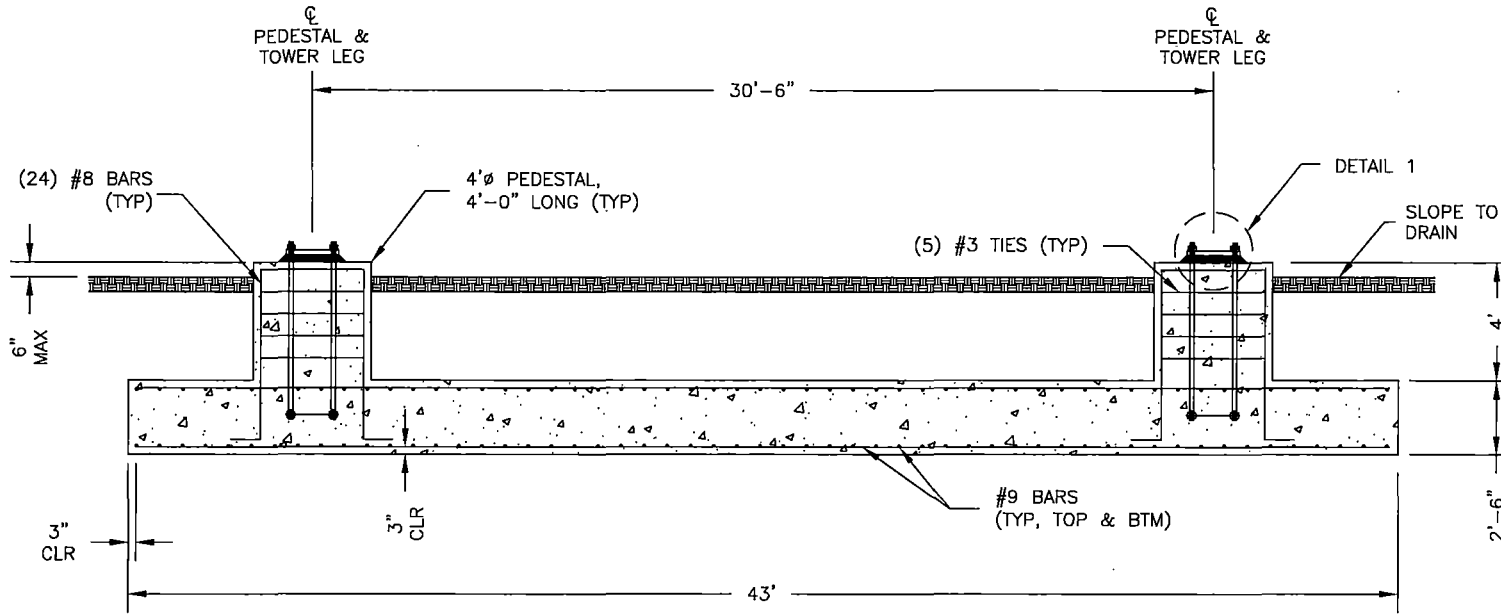
REV.	DATE:
3	
2	
1	

STRUCTURE: 290' SELF SUPPORTER
LOCATION: FREDONIA TOWER SITE
DETAIL: MAT FOUNDATION
OWNER: SKYWAY TOWERS
DATE: 4-12-18
DRAWN: GS
CHKD: MJG
CASE JOB NO.: 18178
DALEY JOB NO.: 56063

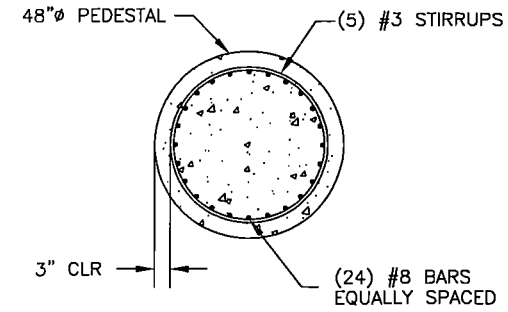
THIS FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT NO. 17-15296 PREPARED BY POWER OF DESIGN FOR THE FREDONIA TOWER SITE IN CALDWELL COUNTY, KY.

Civil And Structural Engineers, Inc.  
P.O. Box 4825  
Lafayette, LA 70502  
Ph: (337) 232-3336

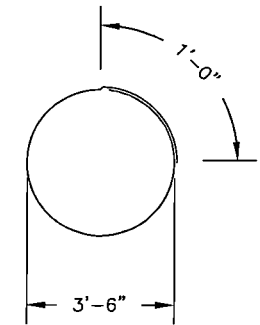
SHEET  
FD01



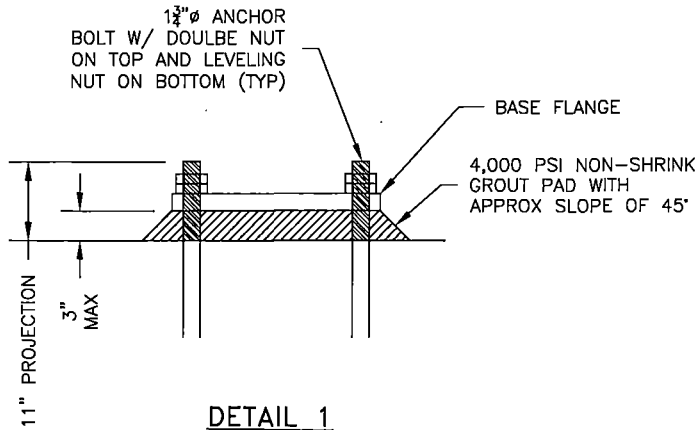
**ELEVATION**



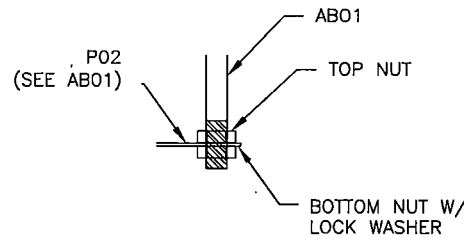
**SECTION A**



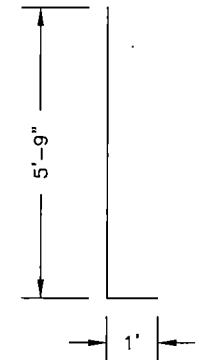
**#3 STIRRUP**



**DETAIL 1**



**BOTTOM PLATE CONNECTION**



**#8 PEDESTAL REBAR**

REV.	DATE:
3	
2	
1	

STRUCTURE: 290' SELF SUPPORTER
LOCATION: FREDONIA TOWER SITE
DETAIL: MAT FOUNDATION
OWNER: SKYWAY TOWERS
DATE: 4-12-18
DRAWN: GS
CHKD: MJG
CASE JOB NO.: 18178
DALEY JOB NO.: 56063

THIS FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT NO. 17-15296 PREPARED BY POWER OF DESIGN FOR THE FREDONIA TOWER SITE IN CALDWELL COUNTY, KY.

Civil And Structural Engineers, Inc.  
P.O. Box 4825  
Lafayette, LA 70502  
Ph: (337) 232-3336

SHEET  
FD02

**EXHIBIT D**  
**COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST**

Navigation

Reports

PSC Home

# KY Public Service Commission

## Master Utility Search

- Search for the utility of interest by using any single or combination of criteria.
- Enter Partial names to return the closest match for Utility Name and Address/City/Contact entries.

Utility ID	Utility Name	Address/City/Contact	Utility Type	Status
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Active <input type="text"/>
<input type="button" value="Search"/>				

	Utility ID	Utility Name	Utility Type	Class	City	State
<input type="button" value="View"/>	4111300	2600Hz, Inc. dba ZSWITCH	Cellular	C	San Francisco	CA
<input type="button" value="View"/>	4107900	365 Wireless, LLC	Cellular	D	Atlanta	GA
<input type="button" value="View"/>	4109300	Access Point, Inc.	Cellular	D	Cary	NC
<input type="button" value="View"/>	4108300	Air Voice Wireless, LLC	Cellular	A	Bloomfield Hill	MI
<input type="button" value="View"/>	4110650	Alliant Technologies of KY, L.L.C.	Cellular	D	Morristown	NJ
<input type="button" value="View"/>	44451184	Alltel Communications, LLC	Cellular	A	Basking Ridge	NJ
<input type="button" value="View"/>	4110850	AltaWorx, LLC	Cellular	D	Fairhope	AL
<input type="button" value="View"/>	4107800	American Broadband and Telecommunications Company	Cellular	D	Toledo	OH
<input type="button" value="View"/>	4108650	AmeriMex Communications Corp.	Cellular	D	Dunedin	FL
<input type="button" value="View"/>	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Virginia Beach	VA
<input type="button" value="View"/>	4110700	Andrew David Balholm dba Norcell	Cellular	D	Clayton	WA
<input type="button" value="View"/>	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
<input type="button" value="View"/>	4110550	Blue Casa Mobile, LLC	Cellular	D	Santa Barbara	CA
<input type="button" value="View"/>	4108750	Blue Jay Wireless, LLC	Cellular	C	Carrollton	TX
<input type="button" value="View"/>	4111050	BlueBird Communications, LLC	Cellular	C	New York	NY
<input type="button" value="View"/>	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY
<input type="button" value="View"/>	4107600	Boomerang Wireless, LLC	Cellular	B	Hiawatha	IA

<a href="#">View</a>	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI
<a href="#">View</a>	4110050	CampusSims, Inc.	Cellular	D	Boston	MA
<a href="#">View</a>	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	4106600	Cintex Wireless, LLC	Cellular	D	Rockville	MD
<a href="#">View</a>	4111000	ComApp Technologies LLC	Cellular	C	Melrose	MA
<a href="#">View</a>	4111150	Comcast OTR1, LLC	Cellular	D	Philadelphia	PA
<a href="#">View</a>	4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
<a href="#">View</a>	4106400	Credo Mobile, Inc.	Cellular	B	San Francisco	CA
<a href="#">View</a>	4108850	Cricket Wireless, LLC	Cellular	D	San Antonio	TX
<a href="#">View</a>	4001900	CTC Communications Corp. d/b/a EarthLink Business I	Cellular	D	Grand Rapids	MI
<a href="#">View</a>	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
<a href="#">View</a>	4111200	Dynalink Communications, Inc.	Cellular	C	Brooklyn	NY
<a href="#">View</a>	4101000	East Kentucky Network, LLC dba Appalachian Wireless	Cellular	A	Ivel	KY
<a href="#">View</a>	4002300	Easy Telephone Service Company dba Easy Wireless	Cellular	D	Ocala	FL
<a href="#">View</a>	4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	OK
<a href="#">View</a>	4110450	Excellus Communications, LLC	Cellular	D	Chattanooga	TN
<a href="#">View</a>	4105900	Flash Wireless, LLC	Cellular	C	Concord	NC
<a href="#">View</a>	4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Oak Hill	VA
<a href="#">View</a>	4109350	Global Connection Inc. of America	Cellular	D	Norcross	GA
<a href="#">View</a>	4102200	Globalstar USA, LLC	Cellular	B	Covington	LA
<a href="#">View</a>	4109600	Google North America Inc.	Cellular	A	Mountain View	CA
<a href="#">View</a>	33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
<a href="#">View</a>	4106000	GreatCall, Inc. d/b/a Jitterbug	Cellular	A	San Diego	CA
<a href="#">View</a>	10630	GTE Wireless of the Midwest dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	4103100	i-Wireless, LLC	Cellular	A	Newport	KY
<a href="#">View</a>	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Tulsa	OK
<a href="#">View</a>	22215360	KDDI America, Inc.	Cellular	D	New York	NY
<a href="#">View</a>	10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	10680	Kentucky RSA #3 Cellular General	Cellular	A	Elizabethtown	KY
<a href="#">View</a>	10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	KY
<a href="#">View</a>	4109750	Konatel, Inc. dba telecom.mobi	Cellular	D	Johnstown	PA
<a href="#">View</a>	4111250	Liberty Mobile Wireless, LLC	Cellular	C	Sunny Isles Beach	
<a href="#">View</a>	4110900	Lunar Labs, Inc.	Cellular	D	Detroit	MI

<a href="#">View</a>	4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
<a href="#">View</a>	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
<a href="#">View</a>	4109650	Mitel Cloud Services, Inc.	Cellular	D	Mesa	AZ
<a href="#">View</a>	4202400	New Cingular Wireless PCS, LLC dba AT&T Mobility, PCS	Cellular	A	San Antonio	TX
<a href="#">View</a>	10900	New Par dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	4000800	Nextel West Corporation	Cellular	D	Overland Park	KS
<a href="#">View</a>	4001300	NPCR, Inc. dba Nextel Partners	Cellular	D	Overland Park	KS
<a href="#">View</a>	4001800	OnStar, LLC	Cellular	A	Detroit	MI
<a href="#">View</a>	4110750	Onvoy Spectrum, LLC	Cellular	D	Plymouth	MN
<a href="#">View</a>	4109050	Patriot Mobile LLC	Cellular	D	Southlake	TX
<a href="#">View</a>	4110250	Plintron Technologies USA LLC	Cellular	D	Bellevue	WA
<a href="#">View</a>	33351182	PNG Telecommunications, Inc. dba PowerNet Global Communications	Cellular	D	Cincinnati	OH
<a href="#">View</a>	4202100	Powertel/Memphis, Inc. dba T- Mobile	Cellular	A	Bellevue	WA
<a href="#">View</a>	4107700	Puretalk Holdings, LLC	Cellular	A	Covington	GA
<a href="#">View</a>	4106700	Q Link Wireless, LLC	Cellular	B	Dania	FL
<a href="#">View</a>	4108700	Ready Wireless, LLC	Cellular	B	Hiawatha	IA
<a href="#">View</a>	4110500	Republic Wireless, Inc.	Cellular	D	Raleigh	NC
<a href="#">View</a>	4111100	ROK Mobile, Inc.	Cellular	C	Culver City	CA
<a href="#">View</a>	4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	4108550	Sage Telecom Communications, LLC dba TruConnect	Cellular	D	Los Angeles	CA
<a href="#">View</a>	4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	D	Freemont	NE
<a href="#">View</a>	4106300	SI Wireless, LLC	Cellular	A	Carbondale	IL
<a href="#">View</a>	4110150	Spectrotel, Inc. d/b/a Touch Base Communications	Cellular	D	Neptune	NJ
<a href="#">View</a>	4200100	Sprint Spectrum, L.P.	Cellular	A	Atlanta	GA
<a href="#">View</a>	4200500	SprintCom, Inc.	Cellular	A	Atlanta	GA
<a href="#">View</a>	4109550	Stream Communications, LLC	Cellular	D	Dallas	TX
<a href="#">View</a>	4110200	T C Telephone LLC d/b/a Horizon Cellular	Cellular	D	Red Bluff	CA
<a href="#">View</a>	4202200	T-Mobile Central, LLC dba T- Mobile	Cellular	A	Bellevue	WA
<a href="#">View</a>	4002500	TAG Mobile, LLC	Cellular	D	Carrollton	TX
<a href="#">View</a>	4109700	Telecom Management, Inc. dba Pioneer Telephone	Cellular	D	South Portland	ME
<a href="#">View</a>	4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
<a href="#">View</a>	4108900	Telrite Corporation dba Life Wireless	Cellular	D	Covington	GA
<a href="#">View</a>	4108450	Tempo Telecom, LLC	Cellular	D	Atlanta	GA



<a href="#">View</a>	4109950	The People's Operator USA, LLC	Cellular	D	New York	NY
<a href="#">View</a>	4109000	Ting, Inc.	Cellular	A	Toronto	ON
<a href="#">View</a>	4110400	Torch Wireless Corp.	Cellular	D	Jacksonville	FL
<a href="#">View</a>	4103300	Touchtone Communications, Inc.	Cellular	D	Whippany	NJ
<a href="#">View</a>	4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
<a href="#">View</a>	4002000	Truphone, Inc.	Cellular	D	Durham	NC
<a href="#">View</a>	4110300	UVNV, Inc.	Cellular	D	Costa Mesa	CA
<a href="#">View</a>	4105700	Virgin Mobile USA, L.P.	Cellular	A	Atlanta	GA
<a href="#">View</a>	4110800	Visible Service LLC	Cellular	D	Lone Tree	CO
<a href="#">View</a>	4106500	WiMacTel, Inc.	Cellular	D	Palo Alto	CA
<a href="#">View</a>	4110950	Wing Tel Inc.	Cellular	D	New York	NY
<a href="#">View</a>	4109900	Wireless Telecom Cooperative, Inc. dba theWirelessFreeway	Cellular	D	Louisville	KY

**EXHIBIT E**  
**FAA**



Mail Processing Center  
 Federal Aviation Administration  
 Southwest Regional Office  
 Obstruction Evaluation Group  
 10101 Hillwood Parkway  
 Fort Worth, TX 76177

Aeronautical Study No.  
 2017-ASO-22353-OE

Issued Date: 11/30/2017

Operations  
 Skyway Towers, LLC  
 3637 Madaca Lane  
 Tampa, FL 33618

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower KY-03071 Fredonia  
 Location: Fredonia, KY  
 Latitude: 37-13-32.74N NAD 83  
 Longitude: 88-02-32.09W  
 Heights: 522 feet site elevation (SE)  
 300 feet above ground level (AGL)  
 822 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 05/30/2019 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination does not constitute authority to transmit on the frequency(ies) identified in this study. The proponent is required to obtain a formal frequency transmit license from the Federal Communications Commission (FCC) or National Telecommunications and Information Administration (NTIA), prior to on-air operations of these frequency(ies).

This determination of No Hazard is granted provided the following conditional statement is included in the proponent's construction permit or license to radiate:

Upon receipt of notification from the Federal Communications Commission that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take such immediate corrective action as is necessary to eliminate the harmful interference. This condition expires after 1 year of interference-free operation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (202) 267-0105, or [j.garver@faa.gov](mailto:j.garver@faa.gov). On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ASO-22353-OE.

**Signature Control No: 348201960-350244872**

( DNE )

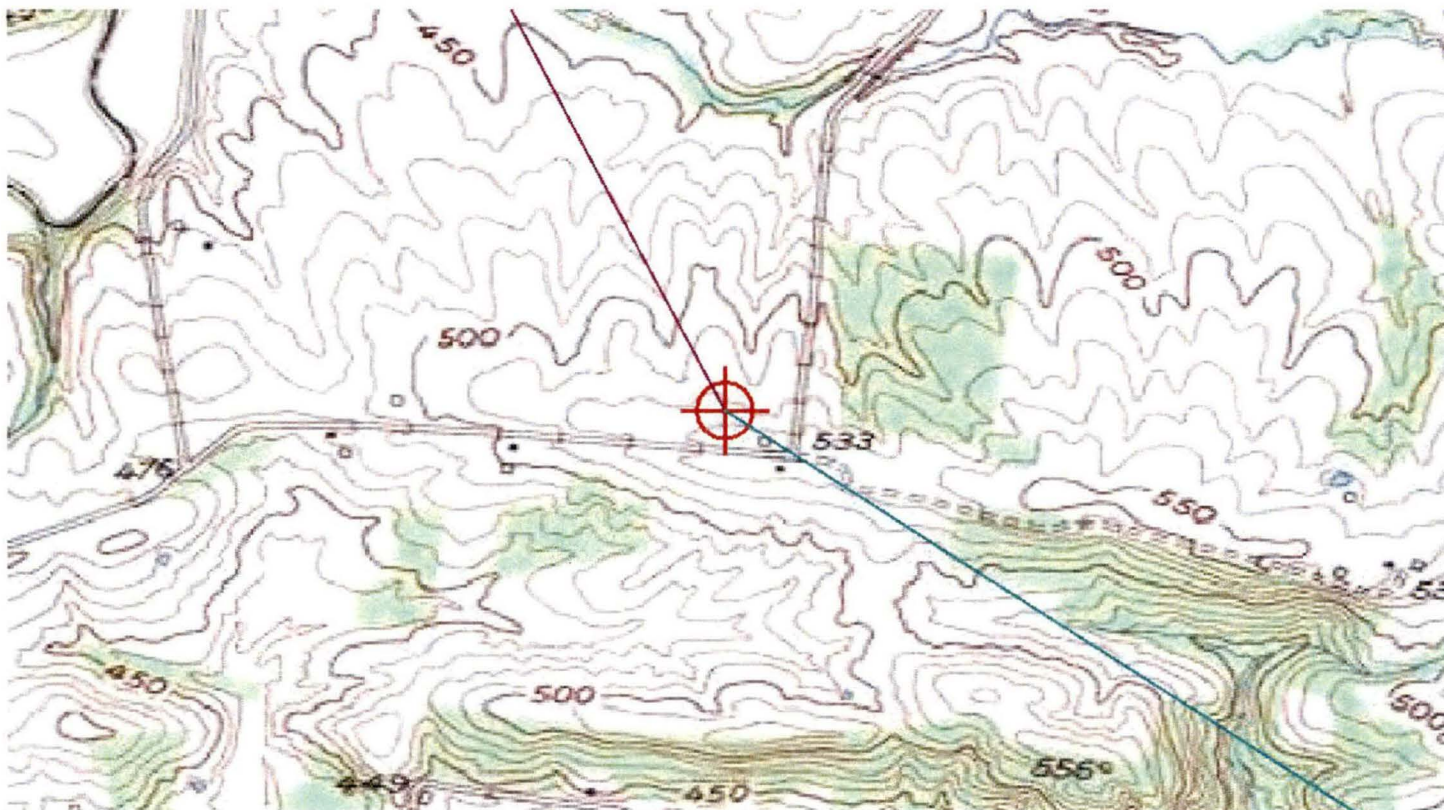
Jay Garver  
Specialist

Attachment(s)  
Frequency Data  
Map(s)

cc: FCC

**Frequency Data for ASN 2017-ASO-22353-OE**

<b>LOW FREQUENCY</b>	<b>HIGH FREQUENCY</b>	<b>FREQUENCY UNIT</b>	<b>ERP</b>	<b>ERP UNIT</b>
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W



**EXHIBIT F**  
**KENTUCKY AIRPORT ZONING COMMISSION**





KENTUCKY TRANSPORTATION CABINET  
KENTUCKY AIRPORT ZONING COMMISSION

TC 55-2  
Rev. 05/2017  
Page 2 of 2

**APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE**

APPLICANT (name) <i>Skyway Towers, LLC</i>		PHONE <i>813-960-6200</i>	FAX <i>813-960-6210</i>	KY AERONAUTICAL STUDY #	
ADDRESS (street) <i>3637 Madaca Lane</i>		CITY <i>Tampa</i>		STATE <i>FL</i>	ZIP <i>33618</i>
APPLICANT'S REPRESENTATIVE (name) <i>Carrie Torrey</i>		PHONE <i>813-960-6213</i>	FAX <i>813-960-6210</i>		
ADDRESS (street) <i>3637 Madaca Lane</i>		CITY <i>Tampa</i>		STATE <i>FL</i>	ZIP <i>33618</i>
APPLICATION FOR <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Alteration <input type="checkbox"/> Existing				WORK SCHEDULE	
DURATION <input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Temporary (months days )				Start End	
TYPE <input type="checkbox"/> Crane <input type="checkbox"/> Building		MARKING/PAINTING/LIGHTING PREFERRED			
<input checked="" type="checkbox"/> Antenna Tower		<input type="checkbox"/> Red Lights & Paint <input type="checkbox"/> White- medium intensity <input type="checkbox"/> White- high intensity			
<input type="checkbox"/> Power Line <input type="checkbox"/> Water Tank		<input checked="" type="checkbox"/> Dual- red & medium intensity white <input type="checkbox"/> Dual- red & high intensity white			
<input type="checkbox"/> Landfill <input type="checkbox"/> Other		<input type="checkbox"/> Other			
LATITUDE <i>37° 13' 32.74 "</i>		LONGITUDE <i>88° 02' 32.09 "</i>		DATUM <input checked="" type="checkbox"/> NAD83 <input type="checkbox"/> NAD27	
<input type="checkbox"/> Other					
NEAREST KENTUCKY City <i>Fredonia</i> County <i>Caldwell</i>		NEAREST KENTUCKY PUBLIC USE OR MILITARY AIRPORT <i>Marion - Crittenden County Airport</i>			
SITE ELEVATION (AMSL, feet) <i>522'</i>		TOTAL STRUCTURE HEIGHT (AGL, feet) <i>300'</i>		CURRENT (FAA aeronautical study #) <i>2017-ASO-22353-OE</i>	
OVERALL HEIGHT (site elevation plus total structure height, feet) <i>822'</i>				PREVIOUS (FAA aeronautical study #)	
DISTANCE (from nearest Kentucky public use or Military airport to structure) <i>7.36 NM</i>				PREVIOUS (KY aeronautical study #)	
DIRECTION (from nearest Kentucky public use or Military airport to structure) <i>Southeast</i>					
DESCRIPTION OF LOCATION (Attach USGS 7.5 minute quadrangle map or an airport layout drawing with the precise site marked and any certified survey.) <i>KY Highway 902 E, Fredonia, KY 42411 (map attached)</i>					
DESCRIPTION OF PROPOSAL <i>Proposed 290' Self-Support Tower with 10' lightning rod (300' overall)</i>					
FAA Form 7460-1 (Has the "Notice of Construction or Alteration" been filed with the Federal Aviation Administration?) <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, when?					
CERTIFICATION (I hereby certify that all the above entries, made by me, are true, complete, and correct to the best of my knowledge and belief.)					
PENALTIES (Persons failing to comply with KRS 183.861 to 183.990 and 602 KAR 050 are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Noncompliance with FAA regulations may result in further penalties.)					
NAME <i>Carrie Torrey</i>	TITLE <i>Program Manager</i>	SIGNATURE <i>Carrie Torrey</i>		DATE <i>7-2-18</i>	
COMMISSION ACTION					
<input type="checkbox"/> Chairperson, KAZC					
<input type="checkbox"/> Administrator, KAZC					
<input type="checkbox"/> Approved	SIGNATURE		DATE		
<input type="checkbox"/> Disapproved					

TOPO Map for ASN 2017-ASO-22353-OE



**EXHIBIT G**  
**GEOTECHNICAL REPORT**

Date: March 12, 2018

POD Job Number 17-15296

GEOTECHNICAL REPORT

**FREDONIA  
(KY-03071)**

**37° 13' 32.74" N  
88° 02' 32.09" W**

KY Hwy 902 East  
Fredonia, KY 42411

Prepared For:



Prepared By:





March 12, 2018

Ms. Carrie Torrey  
Skyway Towers  
3637 Madaca Lane  
Tampa, FL 33618

Re: Geotechnical Report – **PROPOSED 290' SELF-SUPPORT TOWER w/10' LIGHTNING ARRESTOR**  
Site Name: **FREDONIA (KY-03071)**  
Site Address: Kentucky Hwy 902 East, Fredonia, Caldwell County, Kentucky  
Coordinates: N37° 13' 32.74", W88° 02' 32.09"  
POD Project No. 17-15296

Dear Ms. Torrey:

Attached is our geotechnical engineering report for the referenced project. This report contains our findings, an engineering interpretation of these findings with respect to the available project characteristics, and recommendations to aid design and construction of the tower and equipment support foundations.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding this report, please contact our office.

Cordially,

A handwritten signature in blue ink that reads "Mark Patterson".

Mark Patterson, P.E.  
Project Engineer  
License No.: KY 16300



Copies submitted: (3) Ms. Carrie Torrey

**LETTER OF TRANSMITTAL**

**TABLE OF CONTENTS**

	<u>Page</u>
<b>1. PURPOSE AND SCOPE.....</b>	<b>1</b>
<b>2. PROJECT CHARACTERISTICS .....</b>	<b>1</b>
<b>3. SUBSURFACE CONDITIONS.....</b>	<b>1</b>
<b>4. FOUNDATION DESIGN RECOMMENDATIONS .....</b>	<b>2</b>
4.1. PROPOSED TOWER .....	3
4.1.1. Drilled Piers .....	3
4.1.2. Mat Foundation .....	4
4.2. EQUIPMENT PLATFORM.....	4
4.3. EQUIPMENT SLAB.....	4
4.4. EQUIPMENT BUILDING .....	5
4.5. DRAINAGE AND GROUNDWATER CONSIDERATIONS .....	5
<b>5. GENERAL CONSTRUCTION PROCEDURES AND RECOMMENDATIONS .....</b>	<b>6</b>
5.1 DRILLED PIERS.....	6
5.2 FILL COMPACTION.....	7
5.3 CONSTRUCTION DEWATERING.....	7
<b>6 FIELD INVESTIGATION .....</b>	<b>7</b>
<b>7 WARRANTY AND LIMITATIONS OF STUDY.....</b>	<b>8</b>

**APPENDIX**

BORING LOCATION PLAN  
BORING LOG  
SOIL SAMPLE CLASSIFICATION

Geotechnical Report  
**PROPOSED 290' SELF-SUPPORT TOWER w/ 10' LIGHTNING ARRESTOR**

Site Name: **FREDONIA (KY-03071)**  
Kentucky Hwy 902 East, Fredonia, Caldwell County, Kentucky  
N37° 13' 32.74" ,W88° 02' 32.09"

**1. PURPOSE AND SCOPE**

The purpose of this study was to determine the general subsurface conditions at the site of the proposed tower by drilling three borings and to evaluate this data with respect to foundation concept and design for the proposed tower and equipment support foundations. Also included is an evaluation of the site with respect to potential construction problems and recommendations dealing with quality control during construction.

**2. PROJECT CHARACTERISTICS**

Skyway Towers is proposing to construct a self-support tower and either an equipment shelter, slab or platform at N37° 13' 32.74", W88° 02' 32.09", KY Hwy 902 East, Fredonia, Caldwell County, Kentucky. The site is located in a farm field next to a pond and barn in a rural area north of Fredonia. The proposed lease area will be 10,000 square feet and will be accessed by a short access road running north from KY Hwy 902 East to the proposed lease area. The elevation at the proposed tower location is about EL 522 and there is about 5 feet of change in elevation across the proposed lease area. The development will also include a small equipment support foundation near the base of the tower. The proposed tower location is shown on the Boring Location Plan in the Appendix.

**3. SUBSURFACE CONDITIONS**

The subsurface conditions were explored by drilling three test borings near the base of the proposed tower. The Geotechnical Soil Test Boring Logs, which are included in the Appendix, describes the materials and conditions encountered. A sheet defining the terms and symbols used on the boring logs is also included in the Appendix. The general subsurface conditions disclosed by the test boring is discussed in the following paragraphs.

According to the Kentucky Geological Survey, Kentucky Geologic Map Information Services, the site is underlain by the Mississippian age Palestine Sandstone formation. This formation consists of sandstone with some minor shale and is non-karst.

No topsoil was encountered at the existing ground surface of the plowed field. From the ground surface, the borings encountered silty clay (CL) of low plasticity. The SPT N-values in the clay were between 10 to 28 blows per foot (bpf) generally indicating a stiff to hard consistency. At about 6 feet, the borings encountered highly weathered sandstone to auger refusal depths between 16.5 and 20 feet in the silty clay. Auger refusal is defined as the depth at which the boring

Geotechnical Report

FREDONIA  
March 12, 2018

can no longer be advanced using the current drilling method.

The refusal material was cored in Boring 1 from 20 to 30 feet below the ground surface. Sandstone that was hard, moderately weathered and rust brown and gray was encountered. The recovery of the core was about 90 percent with a RQD value of 29 percent. These values generally represent poor quality rock from a foundation support viewpoint.

Observations made at the completion of soil drilling operations indicated the borings to be dry. It must be noted, however, that short-term water readings in test borings are not necessarily a reliable indication of the actual groundwater level. Furthermore, it must be emphasized that the groundwater level is not stationary but will fluctuate seasonally.

Based on the limited subsurface conditions encountered at the site and using Table 1615.1.1 of the 2011 Kentucky Building Code, the site class is considered "C". Seismic design requirements for telecommunication towers are given in section 1622 of the code. A detailed seismic study was beyond the scope of this report.

#### **4. FOUNDATION DESIGN RECOMMENDATIONS**

The following design recommendations are based on the previously described project information, the subsurface conditions encountered in our borings, the results of our laboratory testing, empirical correlations for the soil types encountered, our analyses, and our experience. If there is any change in the project criteria or structure location, you should retain us to review our recommendations so that we can determine if any modifications are required. The findings of such a review can then be presented in a supplemental report or addendum.

We recommend that the geotechnical engineer be retained to review the near-final project plans and specifications, pertaining to the geotechnical aspects of the project, prior to bidding and construction. We recommend this review to check that our assumptions and evaluations are appropriate based on the current project information provided to us, and to check that our foundation and earthwork recommendations were properly interpreted and implemented.



**4.1. Proposed Tower**

Our findings indicate that the proposed self-support can be supported on drilled piers or on a common mat foundation.

**4.1.1. Drilled Piers**

The following table summarizes the recommended values for use in analyzing lateral and frictional resistance for the various strata encountered at the test boring. It is important to note that these values are estimated based on the standard penetration test results and soil types and were not directly measured. The all values provided are ultimate values and appropriate factors of safety should be used in conjunction with these values. If the piers will bear deeper than about 30 feet, a deeper boring should be drilled to determine the nature of the deeper material.

Depth Below Ground Surface, feet	0 - 2	2 - 8	8 - 20	20 - 30
Ultimate Bearing Pressure (psf)		8,300	16,600	55,300
<b>C</b> Undrained Shear Strength, psf	500	1,500	3,000	10,000
<b>∅</b> Angle of Internal Friction degrees	0	0	0	0
Total Unit Weight, pcf	120	120	120	135
Soil Modulus Parameter <b>k, pci</b>	30	750	1000	2000
Passive Soil Pressure, psf/one foot of depth		1,000 + 40(D-2)	2,000 + 40(D-8)	6,650 + 45(D-20)
Side Friction, psf		500	750	1200

Note: D = Depth below ground surface (in feet) to point at which the passive pressure is calculated.

It is important that the drilled piers be installed by an experienced, competent drilled pier contractor who will be responsible for properly installing the piers in accordance with industry standards and generally accepted methods,

without causing deterioration of the subgrade. The recommendations contained herein relate only to the soil-pier interaction and do not account for the structural design of the piers.

#### **4.1.2. Mat Foundation**

The tower could be supported on a common mat foundation bearing on the silty clay at a minimum of 4 feet can be designed using an allowable soil pressure of 4,000 pounds per square foot may be used. If the mat is founded on the highly weathered sandstone at about 6 feet, an allowable bearing pressure of 6,000 can be used. This value may be increased by 30 percent for the maximum edge pressure under transient loads. A friction value of 0.30 may be used between the concrete and the clay soil. The passive pressures given for the drilled pier foundation may be used to resist lateral forces.

It is important that the mat be designed with an adequate factor of safety with regard to overturning under the maximum design wind load.

The mat should bear only on soil or rock but not both. Any pockets of soils left in a rock only foundation should be removed and filled with a free draining material like KY #57 stone.

#### **4.2. Equipment Platform**

An equipment platform may be supported on shallow piers bearing in the natural clay and designed for a net allowable soil pressure of 2,500 pounds per square foot. The piers should bear at a depth of at least 30 inches to minimize the effects of frost action. All existing topsoil or soft natural soil should be removed beneath footings.

#### **4.3. Equipment Slab**

A concrete slab supporting the equipment must be supported on at least 6-inch layer of relatively clean granular material such as gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 sieve. This is to help distribute concentrated loads and equalize moisture conditions beneath the slab. Provided that a minimum of 6 in. of granular material is placed below the slab, a modulus of subgrade reaction ( $k_{30}$ ) of 110 lbs/cu.in. can be used for design of the slab. All existing topsoil or soft natural soil should be removed beneath crushed stone layer.

#### **4.4. Equipment Building**

If an equipment building support on a slab is chosen in place of the equipment platform, it may be supported on shallow spread footings bearing in the natural clay soil and designed for a net allowable soil pressure of 2,500 pounds per square foot.

The footings should be at least ten inches wide. If the footings bear on soil they should bear at a depth of at least 30 inches to minimize the effects of frost action. All existing topsoil or soft natural soil should be removed beneath footings.

The floor slab for the new equipment building can be supported on firm natural soils or on new compacted structural fill. Existing fill may be left in place below the slab if the owner can accept the possibility of greater than normal settlement and cracking. This risk can be reduced if the underlying subgrade is properly proof-rolled and any unstable areas disclosed by the proof-roll are improved as necessary.

Floor slabs must be supported on at least 4-inch layer of relatively clean granular material such as gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 sieve. This is to help distribute concentrated loads and equalize moisture conditions beneath the slab. Provided that a minimum of 4 in. of granular material is placed below the slab, a modulus of subgrade reaction ( $k_{30}$ ) of 110 lbs/cu.in. can be used for design of the floor slabs.

#### **4.5. Drainage and Groundwater Considerations**

Good site drainage must be provided. Surface run-off water should be drained away from the tower and platform and not allowed to pond. It is recommended that all foundation concrete be placed the same day the excavation is made.

At the time of this investigation, groundwater was not encountered. Therefore, no special provisions regarding groundwater control are considered necessary for shallow foundations. Any seepage should be able to be pumped with sumps.

## 5. GENERAL CONSTRUCTION PROCEDURES AND RECOMMENDATIONS

It is possible that variations in subsurface conditions will be encountered during construction. Although only minor variations that can be readily evaluated and adjusted for during construction are anticipated, it is recommended the geotechnical engineer, or a qualified representative, be retained to perform continuous inspection and review during construction of the soils-related phases of the work. This will permit correlation between the test boring data and the actual soil conditions encountered during construction.

### 5.1 Drilled Piers

The following recommendations are recommended for drilled pier construction:

- ✦ All piers must be poured the same day drilling is completed so that any shale is not allowed to swell. Clean the foundation bearing area so it is nearly level or suitably benched and is free of ponded water or loose material.
- ✦ Make provisions for ground water removal from the drilled shaft excavation. While the borings were dry prior to rock coring and significant seepage is not anticipated, the drilled pier contractor should have pumps on hand to remove water in the event seepage into the drilled pier is encountered.
- ✦ Specify concrete slumps ranging from 4 to 7 inches for the drilled shaft construction. These slumps are recommended to fill irregularities along the sides and bottom of the drilled hole, displace water as it is placed, and permit placement of reinforcing cages into the fluid concrete.
- ✦ Retain the geotechnical engineer to observe foundation excavations after the bottom of the hole is leveled, cleaned of any mud or extraneous material, and dewatered.
- ✦ Install a temporary protective steel casing to prevent side wall collapse, prevent excessive mud and water intrusion in the drilled shaft.
- ✦ The protective steel casing may be extracted as the concrete is placed provided a sufficient head of concrete is maintained inside the steel casing to prevent soil or water intrusion into the newly placed concrete.
- ✦ Direct the concrete placement into the drilled hole through a centering chute to reduce side flow or segregation.

## 5.2 Fill Compaction

All engineered fill placed adjacent to and above the tower foundation should be compacted to a dry density of at least 95 percent of the standard Proctor maximum dry density (ASTM D-698). This minimum compaction requirement should be increased to 98 percent for any fill placed below the tower foundation bearing elevation. Any fill placed beneath the tower foundation should be limited to well-graded sand and gravel or crushed stone. The compaction should be accomplished by placing the fill in about 8 inch (or less) loose lifts and mechanically compacting each lift to at least the specified minimum dry density. Field density tests should be performed on each lift as necessary to ensure that adequate moisture conditioning and compaction is being achieved.

Compaction by flooding is not considered acceptable. This method will generally not achieve the desired compaction and the large quantities of water will tend to soften the foundation soils.

## 5.3 Construction Dewatering

If groundwater is encountered in the shallow foundations, it should be minor and can be handled by conventional dewatering methods such as pumping from sumps.

If groundwater is encountered in the drilled pier excavations, it may be more difficult since pumping directly from the excavations could cause a deterioration of the bottom of the excavation. If the pier excavations are not dewatered, concrete should be placed by the tremie method. If groundwater sits on the bottom of the foundation for longer than an hour, the bottom should be cleaned again before the pier is poured.

## 6 FIELD INVESTIGATION

Three soil test boring was drilled near the base of the proposed tower. Split-spoon samples were obtained by the Standard Penetration Test (SPT) procedure (ASTM D1586) in all test borings. The borings encountered auger refusal between about 16.5 and 20 feet. A sample of the refusal material was cored in Boring 1 from 20 to 30 feet below the ground surface. The split-spoon samples were inspected and visually classified by a geotechnical engineer. Representative portions of the soil samples were sealed in glass jars and returned to our laboratory.

The boring log is included in the Appendix along with a sheet defining the terms and symbols used on the logs and an explanation of the Standard Penetration Test (SPT) procedure. The log present visual descriptions of the soil strata

Geotechnical Report

FREDONIA  
March 12, 2018

encountered, Unified System soil classifications, groundwater observations, sampling information, laboratory test results, and other pertinent field data and observations.

## **7 WARRANTY AND LIMITATIONS OF STUDY**

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties, either express or implied. POD Group is not responsible for the independent conclusions, opinions or recommendations made by others based on the field exploration and laboratory test data presented in this report.

A geotechnical study is inherently limited since the engineering recommendations are developed from information obtained from test borings, which depict subsurface conditions only at the specific locations, times and depths shown on the log. Soil conditions at other locations may differ from those encountered in the test borings, and the passage of time may cause the soil conditions to change from those described in this report.

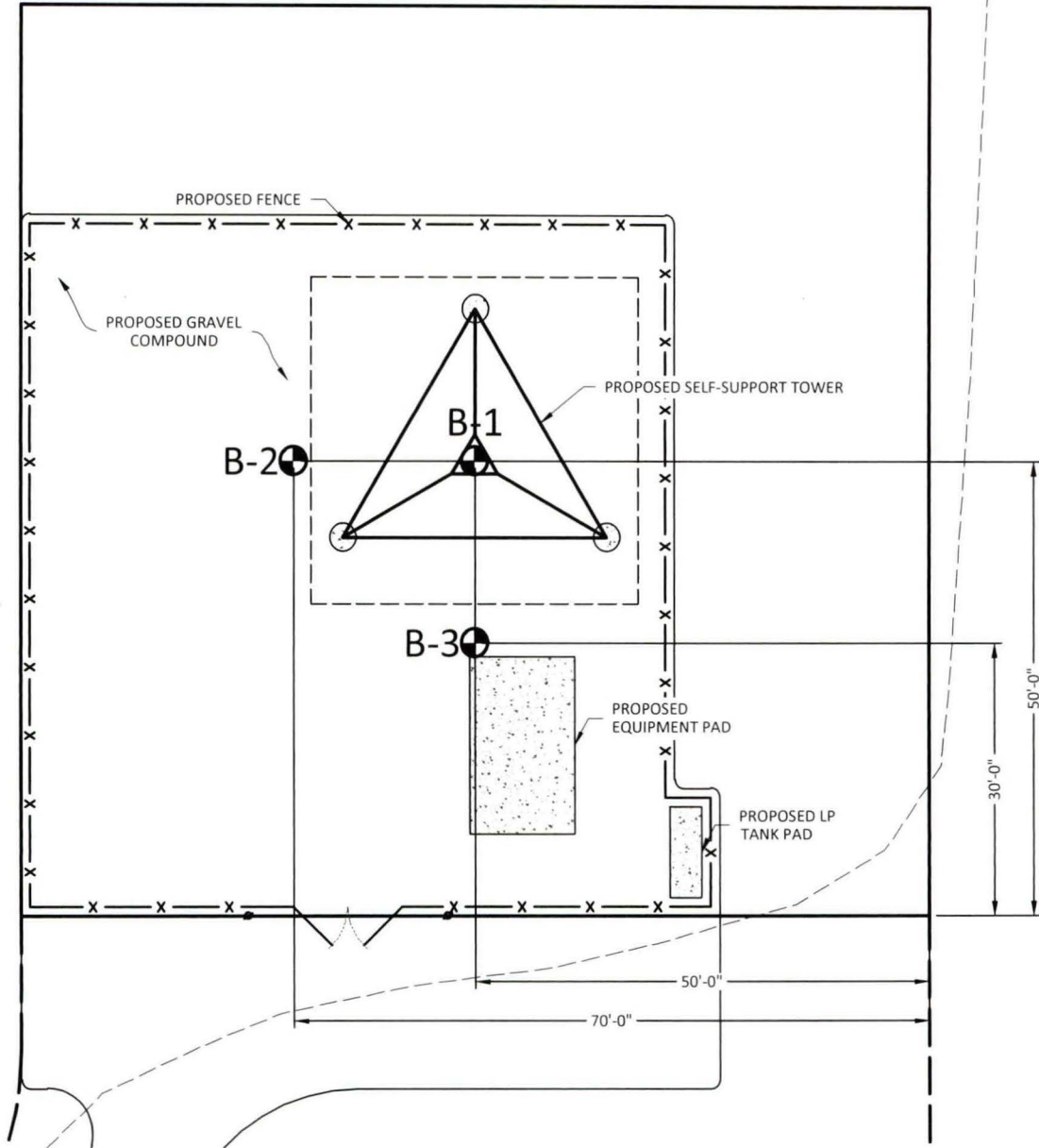
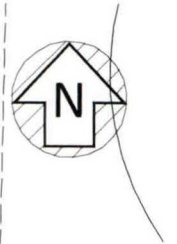
The nature and extent of variation and change in the subsurface conditions at the site may not become evident until the course of construction. Construction monitoring by the geotechnical engineer or a representative is therefore considered necessary to verify the subsurface conditions and to check that the soils connected construction phases are properly completed. If significant variations or changes are in evidence, it may then be necessary to reevaluate the recommendations of this report. Furthermore, if the project characteristics are altered significantly from those discussed in this report, if the project information contained in this report is incorrect, or if additional information becomes available, a review must be made by this office to determine if any modification in the recommendations will be required.

## **APPENDIX**

BORING LOCATION PLAN

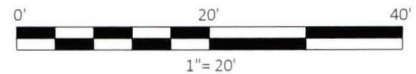
BORING LOG

SOIL SAMPLE CLASSIFICATION




**LEGEND**

**B-1** BORING LOCATION



SHEET TITLE: <b>BORING LOCATION PLAN</b>	VERIZON WIRELESS SITE NAME: <b>EV FREDONIA</b>	SITE INFORMATION: <b>FREDONIA IN-03071</b> KENTUCKY HIGHWAY 902 EAST FREDONIA, KY 42411 CADWELL COUNTY	 4500 OLD LAGRANGE ROAD BUCKNER, KY 40010 502-437-5252
	LATITUDE: 37° 13' 32.74" N LONGITUDE: 88° 02' 32.09" W PARCEL ID: 3-11 DEED BOOK 169, PAGE 264		
SHEET NUMBER: <b>1</b>	POD NUMBER: 17-15296 DRAWN BY: POD CHECKED BY: MEP DATE: 3.12.18		



	<h2 style="margin: 0;">Boring Log</h2>	<b>Boring: B-1</b>  <b>Page 1 of 1</b>
--	--	--

<b>Project:</b>	<b>Fredonia</b>	<b>City, State</b>	<b>Fredonia, KY</b>
-----------------	-----------------	--------------------	---------------------

<b>Method:</b>	<b>H.S.A.</b>	<b>Boring Date:</b>	<b>7-Mar-18</b>	<b>Location:</b>	<b>Proposed Tower</b>
----------------	---------------	---------------------	-----------------	------------------	-----------------------

<b>Inside Diameter:</b>	<b>3 1/4"</b>	<b>Drill Rig Type:</b>	<b>CME - 750 ATV</b>	<b>Hammer Type:</b>	<b>Auto</b>
-------------------------	---------------	------------------------	----------------------	---------------------	-------------

<b>Groundwater:</b> DRY	<b>Weather:</b>
-------------------------	-----------------

<b>Driller:</b> GeoTill Engineering	<b>Note: No topsoil was encountered at the ground surface</b>
-------------------------------------	---

From (ft)	To (ft)	Material Description		Sample Depth (ft)	Sample Type	Blows per 6-inch increment	Recovery (in)	SPT-N value	Rock Quality (RQD, %)	Atterberg Limits	Moisture Content (%)	% Fines (clay & silt)	Unconfined Compressive Strength,
0.0	6.0	SILTY CLAY (CL) - stiff, brown-gray mottled		1-2.5	SS	4, 6, 7	18	13,					3.2
	3.5	- very stiff with black nodes		3.5 - 5	SS	14, 14, 14	18	28,					3.1
6.0	17.5	SANDSTONE - highly weathered, orange brown and light gray with trace clay		6 - 7.5	SS	39, 50,	9	50,					
				8.5 - 10	SS	36, 50,	2	50,					
				13.5-15	SS	40, 50,	6	50,					
		<b>Auger Refusal at 17.5 feet</b>											



# Boring Log

**Boring: B-2**

**Page 1 of 1**

**Project: Fredonia**

**City, State**

**Fredonia, KY**

<b>Method:</b> H.S.A.	<b>Boring Date:</b> 7-Mar-18	<b>Location:</b> Proposed Tower
<b>Inside Diameter:</b> 3 1/4"	<b>Drill Rig Type:</b> CME - 750 ATV	<b>Hammer Type:</b> Auto
<b>Groundwater:</b> DRY		<b>Weather:</b>
<b>Driller:</b> GeoTill Engineering		
<b>Note:</b> No topsoil was encountered at the ground surface		

From (ft)	To (ft)	Material Description	Sample Depth (ft)	Sample Type	Blows per 6-inch increment	Recovery (in)	SPT-N value	Rock Quality (RQD, %)	Atterberg Limits	Moisture Content (%)	% Fines (clay & silt)	Unconfined Compressive Strength,
0.0	6.0	SILTY CLAY (CL) - very stiff, slightly moist, brown-gray mottled - stiff	1-2.5	SS	6, 7, 10	18	17,					3.4
	3.5		3.5 - 5	SS	6, 8, 13	12	21,					
6.0	16.5	SANDSTONE - highly weathered, orange brown and light gray with trace clay	6 - 7.5	SS	30, 50,	5	50,					
			8.5 - 10	SS	32, 50,	4	50,					
			13.5-15	SS	36, 50,	7	50,					
		Auger Refusal at 16.5 feet										



# Boring Log

**Boring: B-3**  
**Page 1 of 1**

**Project: Fredonia** **City, State: Fredonia, KY**

**Method: H.S.A.** **Boring Date: 7-Mar-18** **Location: Proposed Tower**  
**Inside Diameter: 3 1/4"** **Drill Rig Type: CME - 750 ATV** **Hammer Type: Auto**  
**Groundwater: DRY** **Weather:**  
**Driller: GeoTill Engineering** **Note: No topsoil was encountered at the ground surface**

From (ft)	To (ft)	Material Description	Sample Depth (ft)	Sample Type	Blows per 6-inch increment	Recovery (in)	SPT-N value	Rock Quality (RQD, %)	Atterberg Limits	Moisture Content (%)	% Fines (clay & silt)	Unconfined Compressive Strength,
0.0	6.0	SILTY CLAY (CL) - stiff, brown-gray mottled - medium stiff	1-2.5	SS	5, 6, 8	18	14,					3.8
	3.5		3.5 - 5	SS	3, 5, 5	18	10,					
6.0	20.0	SANDSTONE - highly weathered, orange brown and light gray with trace clay	6 - 7.5	SS	6, 27, 50	10	77,					
			8.5 - 10	SS	9, 50,	10	50,					
			13.5-15	SS	50,	3	50,					
			18.5-20	SS	50,	5	50,					
20.0	30.0	SANDSTONE - hard, moderately weathered, rust brown and gray	20-30	RC		108		29%				
Boring Terminated at 30 feet												

## SOIL SAMPLE CLASSIFICATION

### FINE AND COARSE GRAINED SOIL INFORMATION

COARSE GRAINED SOILS (SANDS & GRAVELS)		FINE GRAINED SOILS (SILTS & CLAYS)			PARTICLE SIZE	
N	Relative Density	N	Consistency	Qu, KSF Estimated		
0-4	Very Loose	0-1	Very Soft	0-0.5	Boulders	Greater than 300 mm (12 in)
5-10	Loose	2-4	Soft	0.5-1	Cobbles	75 mm to 300 mm (3 to 12 in)
11-20	Firm	5-8	Firm	1-2	Gravel	4.74 mm to 75 mm (3/16 to 3 in)
21-30	Very Firm	9-15	Stiff	2-4	Coarse Sand	2 mm to 4.75 mm
31-50	Dense	16-30	Very Stiff	4-8	Medium Sand	0.425 mm to 2 mm
Over 50	Very Dense	Over 31	Hard	8+	Fine Sand	0.075 mm to 0.425 mm
					Silts & Clays	Less than 0.075 mm

The **STANDARD PENETRATION TEST** as defined by ASTM D 1586 is a method to obtain a disturbed soil sample for examination and testing and to obtain relative density and consistency information. A standard 1.4-inch I.D./2-inch O.D. split-barrel sampler is driven three 6-inch increments with a 140 lb. hammer falling 30 inches. The hammer can either be of a trip, free-fall design, or actuated by a rope and cathead. The blow counts required to drive the sampler the final two increments are added together and designate the N-value defined in the above tables.

### ROCK PROPERTIES




ROCK QUALITY DESIGNATION (RQD)		ROCK HARDNESS	
Percent RQD	Quality		
0-25	Very Poor	Very Hard:	Rock can be broken by heavy hammer blows.
25-50	Poor	Hard:	Rock cannot be broken by thumb pressure, but can be broken by moderate hammer blows.
50-75	Fair	Moderately Hard:	Small pieces can be broken off along sharp edges by considerable hard thumb pressure; can be broken with light hammer blows.
75-90	Good	Soft:	Rock is coherent but breaks very easily with thumb pressure at sharp edges and crumbles with firm hand pressure.
90-100	Excellent	Very Soft:	Rock disintegrates or easily compresses when touched; can be hard to very hard soil.

Recovery =	$\frac{\text{Length of Rock Core Recovered}}{\text{Length of Core Run}} \times 100$	63 REC NQ 43 RQD	Core Diameter	Inches
			BQ NQ HQ	1-7/16 1-7/8 2-1/2
RQD =	$\frac{\text{Sum of 4 in. and longer Rock Pieces Recovered}}{\text{Length of Core Run}} \times 100$			

### SYMBOLS

#### KEY TO MATERIAL TYPES


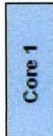
SOILS	
Group Symbols	Typical Names
GW	Well graded gravel - sand mixture, little or no fines
GP	Poorly graded gravels or gravel - sand mixture, little or no fines
GM	Silty gravels, gravel - sand silt mixtures
GC	Clayey gravels, gravel - sand - clay mixtures
SW	Well graded sands, gravelly sands, little or no fines
SP	Poorly graded sands or gravelly sands, little or no fines
SM	Silty sands, sand - silt mixtures
SC	Clayey sands, sand - clay mixtures
ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts
OL	Organic silts and organic silty clays of low plasticity
CL	Inorganic clays of low range plasticity, gravelly clays, sandy clays, silty clays, lean clays
MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
CH	Inorganic clays of high range plasticity, fat clays

ROCKS	
Symbols	Typical Names
	Limestone or Dolomite
	Shale
	Sandstone

#### SOIL PROPERTY SYMBOLS

- N: Standard Penetration, BPF
- M: Moisture Content, %
- LL: Liquid Limit, %
- PI: Plasticity Index, %
- Qp: Pocket Penetrometer Value, TSF
- Qu: Unconfined Compressive Strength Estimated Qu, TSF
- $\gamma_d$ : Dry Unit Weight, PCF
- F: Fines Content

#### SAMPLING SYMBOLS

- SS Split Spoon Sample
-  Relatively Undisturbed Sample
-  Rock Core Sample

**EXHIBIT H**  
**DIRECTIONS TO WCF SITE**

## Driving Directions to Proposed Tower Site

1. Beginning at the offices of the Caldwell County Judge Executive located at 100 E. Market Street, Princeton, Kentucky start out going northwest on E. Market Street toward N. Jefferson St.
2. Turn right after NAPA Auto Parts – Coleman Auto Parts (on the left).
3. Turn right onto KY-91N/Marion Road.
4. Turn right onto Piney Lane.
5. Continue onto State Highway 902/Ky-902 E.
6. The site will be on your left.
7. The site coordinates are 37°13'32.74" North latitude, 88°02'32.09" West longitude.



Prepared by:  
Jeremy D. Vizcarra  
Pike Legal Group PLLC  
1578 Highway 44 East, Suite 6  
P.O. Box 369  
Shepherdsville, KY 40165-3069  
Telephone: 502-955-4400 or 800-516-4293

**EXHIBIT I**  
**COPY OF REAL ESTATE AGREEMENT**

CALDWELL COUNTY  
PAGE 29 PAGE 629

LODGED FOR RECORD  
AT 1:53 PM

OCT 27 2017  
REG. FEE 20 TAX -  
CALDWELL COUNTY, TONI WATSON, CLERK  
BY M. Lockery D.C.

**Prepared by and Return to:**  
Skyway Towers LLC  
3637 Madaca Lane  
Tampa, FL 33618  
Attn: Arlene K. Evers, Property Manager

Preparer Signature: 

State: KENTUCKY  
County: CALDWELL  
Map Number: 3-11

#### MEMORANDUM OF AGREEMENT

This Memorandum of Agreement is entered into on this 10 day of October, 2017, by and between Dwight Green and Donna Green, husband and wife, having a mailing address of 150 Drennan Road, Fredonia, Kentucky 42411 (hereinafter referred to as "**Landlord**"), and Skyway Towers LLC, a Delaware limited liability company, having a mailing address of 3637 Madaca Lane, Tampa, Florida 33618 (hereinafter referred to as "**Tenant**").

1. Landlord and Tenant entered into a certain Option and Lease Agreement ("Agreement") on the 10 day of October, 2017, for the purpose of installing, operating and maintaining a Communications Tower Facility and other improvements. The property is more fully described in **Exhibit 1** attached hereto and made a part hereof (the "Property"). All of the foregoing is set forth in the Agreement.
2. The initial term will be five (5) years ("**Initial Term**") commencing on the Commencement Date, with ten (10) successive five (5) year renewal options.
3. In the event Landlord receives a bona fide written offer to sell, assign or transfer Landlord's interest under the Agreement and/or the Landlord's rights to receive rents under the terms of the Agreement (the "Rental Stream Offer"), Tenant retains a right of first refusal to match the Rental Stream Offer.
4. This Memorandum of Agreement is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Agreement, all of which are hereby ratified and affirmed.
5. In the event of a conflict between the provisions of this Memorandum of Agreement and the provisions of the Agreement, the provisions of the Agreement shall control.





"TENANT"

Skyway Towers LLC,  
a Delaware limited liability company

By: *SM Behuniak*  
Print Name: Scott M. Behuniak  
Its: President / COO  
Date: 10-10-17

**TENANT ACKNOWLEDGMENT**

STATE OF FLORIDA                    )  
  ) ss:  
COUNTY OF HILLSBOROUGH        )

The foregoing instrument was acknowledged before me this 10 day of October, 2017, by Scott M. Behuniak, as President / COO of Skyway Towers LLC, a Delaware limited liability company, on behalf of the company, who is personally known.



ARLENE K. EVERS  
NOTARY PUBLIC  
STATE OF FLORIDA  
Comm# GG033658  
Expires 9/26/2020

*Arlene K. Evers*  
Notary Public: Arlene K. Evers  
My Commission Expires: 9-26-20

EXHIBIT 1

DESCRIPTION OF THE PROPERTY

The Property is located in Caldwell County, Kentucky, and is described as follows:

Map Number: 3-11

Beginning at an iron pin in the center of Union Grove Creek, being 25 ft. from the center of a bridge on Trolley road, about 3 miles north of Fredonia, being a corner to Traylor and at Kentucky Coordinates (south zone) North 335,709.4 ft. East 1,330,159.7 ft.; thence with Traylor 's lines and up the center of the creek and with its meanders N. 84 deg. 31 min. E. 92.18 ft., N. 54 deg. 28 min. E. 139.52 ft., S. 82 deg. 27 min. E. 123.21 ft., N. 75 deg. 37 min. E. 165.80 ft., S. 64 deg. 00 min. E. 133.87 ft., S. 85 deg. 23 min. E. 204.94 ft., N. 47 deg. 59 min. E. 157.11 ft., N. 54 deg. 59 min. E. 196.18 ft., N. 84 deg. 34 min. E. 218.49 ft., S. 58 deg. 45 min. E. 192.37 ft., S. 19 deg. 37 min. E. 63.10 ft., S. 44 deg. 33 min. W. 92.65 ft., S. 56 deg. 33 min. E. 131.99 ft. to an iron pin in the center of the creek; thence leaving the creek and with Traylor's line N. 57 deg. 04 min. E. 32.95 ft. to an ash and iron pin, corner to Prowell; thence with his line S. 52 deg. 57 min. E. 391.61 ft. to an iron pin, a new corner; thence with new division lines S. 08 deg. 15 min. W. 1277.74 ft. to an iron pin and post, S. 07 deg. 56 min. W. 691.50 ft. to an iron pin and post, S. 87 deg. 50 min. E. 489.41 ft. to an iron pin and post, S. 01 deg. 20 min. W. 213.15 ft. to an iron pin, S. 86 deg. 34 min. E. 761.42 ft. to an iron pin on the west side of Ky. 902, being 25 ft. from the center of the highway; thence with the meanders of the west and north right-of-way on Ky. 902 S. 06 deg. 06 min. W. 373.47 ft. to a concrete marker (DAUM 'S azimuth marker), S. 11 deg. 41 min. W. 49.19 ft., S. 19 deg. 39 min. W. 38.79 ft., S. 44 deg. 50 min W. 39.67 ft., S. 73 deg. 28 min. W. 29.89 ft., N. 88 deg. 09 min. W. 48.72 ft., N. 82 deg. 38 min. W. 609.77 ft.,/N. 83 deg. 12 min. W. 1020.79 ft., N. 85 deg. 07 min. W. 180.40 ft., N. 87 deg. 27 min. W. 504.68 ft., N. 88 deg. 43 min. W. 111.41 ft., S. 89 deg. 05 min. W. 110.20 ft., S. 64 deg. 55 min. W. 106.64 ft., S. 47 deg. 59 min. W. 122.24 ft., S. 43 deg. 14 min. W. 162.74 ft., N. 73 deg. 25 min. W. 14.01 ft. to a post on the east side of Trolley Road and being 25 ft. from the center of same; thence with the meanders of the east side of Trolley Road N. 06 deg. 25 min. W. 1090.17 ft., N. 06 deg. 35 min. W. 322.21 ft., N. 00 deg. 25 min. W. 106.07 ft., N. 08 deg. 51 min. E. 198.61 ft. to a sycamore and iron pin on the east side of the road, corner to Phelps; thence around a small tract belonging to Phelps N. 53 deg. 24 min. E. 214.28 ft. to an iron pin, N. 07 deg. 22 min. E. 185.58 ft. to a post, S. 87 deg. 41 min W. 10.00 ft. to an iron pin, being 25 ft. from the center of Trolley road; thence with the meanders of the east side of the road N. 09 deg. 59 min. E. 145.19 ft., N. 09 deg. 17 min. E. 126.60 ft., N. 05 deg. 29 min. E. 330.10 ft., N. 04 deg. 31 min. E. 340.05 ft. to beginning containing 139.33 acres by survey. See attached plat for graphic description. This is a Grid North survey, magnetic north is 2 deg. 25 mm. east of Grid North this date. Survey finished May 15, 1987, revised Sept. 15, 1987 by Billy J. May, LS #878.

AND BEING the same property conveyed to James A. Hayes and Frances Wake Hayes, his wife from Basil, T. Daum and Helen Daum, his wife by Deed of Conveyance dated October 10, 1965 and recorded October 14, 1965 in Deed Book 115, Page 281.

Note:

This Exhibit may be supplemented or replaced by full legal description based upon a land survey of the Property by Tenant.

STATE OF KENTUCKY, COUNTY OF CALDWELL, SOF.

I, Toni Watson, Caldwell County Clerk, do certify that the foregoing instrument was on this day lodged for record at

1:53 P.M o'clock. Whereupon I have recorded the same with this certificate in my said office.

Given under my hand this 27th day of October 2017.

TONI WATSON, CLERK  
BY Melissa Dockery D.C.

**EXHIBIT J**  
**NOTIFICATION LISTING**

**Fredonia – Landowner Notice List**

GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411

PROWELL WAYNE & LINDA  
3620 KY HWY 902 EAST  
FREDONIA, KY 42411

R HILLTOP FARM LLC  
PO BOX 169  
FREDONIA, KY 42411

HOOKS MICHAEL S AND BETHANN  
45 SHEFFIELD PLACE  
SOUTHINGTON, CT 06489-1364

PROWELL WAYNE & LINDA  
3620 KY HWY 902 EAST  
FREDONIA, KY 42411

**EXHIBIT K**  
**COPY OF PROPERTY OWNER NOTIFICATION**



1578 Highway 44 East, Suite 6  
P.O. Box 369  
Shepherdsville, KY 40165-0369  
Phone (502) 955-4400 or (800) 516-4293  
Fax (502) 543-4410 or (800) 541-4410

**Notice of Proposed Construction of  
Wireless Communications Facility  
Site Name: Fredonia**

Dear Landowner:

Skyway Towers, LLC ("Skyway") and Cellco Partnership d/b/a Verizon Wireless ("Verizon Wireless") have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at Kentucky Highway 902 East, Fredonia, KY 42411 (37° 13' 32.74" North latitude, 88° 02' 32.09" West longitude). The proposed facility will include a 290-foot tall antenna tower, plus a 10-foot lightning arrestor and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

This notice is being sent to you because the County Property Valuation Administrator's records indicate that you may own property that is within a 500' radius of the proposed tower site or contiguous to the property on which the tower is to be constructed. You have a right to submit testimony to the Kentucky Public Service Commission ("PSC"), either in writing or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00229 in any correspondence sent in connection with this matter.

We have attached a map showing the site location for the proposed tower. Verizon Wireless' radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. Please feel free to contact us toll free at (800) 516-4293 if you have any comments or questions about this proposal.

Sincerely,  
David A. Pike  
Attorney for Applicants

enclosure

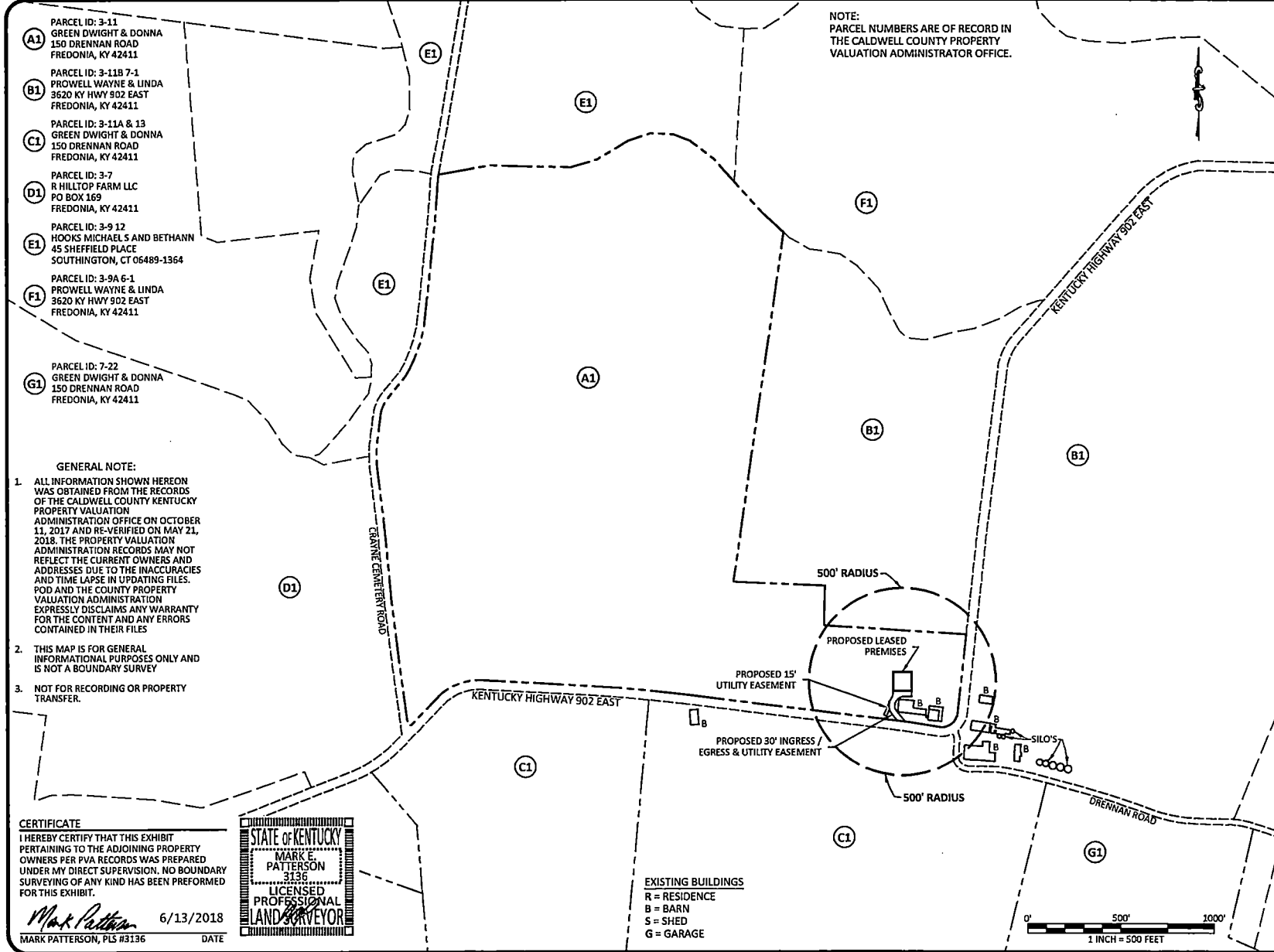
## Driving Directions to Proposed Tower Site

1. Beginning at the offices of the Caldwell County Judge Executive located at 100 E. Market Street, Princeton, Kentucky start out going northwest on E. Market Street toward N. Jefferson St.
2. Turn right after NAPA Auto Parts – Coleman Auto Parts (on the left).
3. Turn right onto KY-91N/Marion Road.
4. Turn right onto Piney Lane.
5. Continue onto State Highway 902/Ky-902 E.
6. The site will be on your left.
7. The site coordinates are 37°13'32.74" North latitude, 88°02'32.09" West longitude.



Prepared by:  
Jeremy D. Vizcarra  
Pike Legal Group PLLC  
1578 Highway 44 East, Suite 6  
P.O. Box 369  
Shepherdsville, KY 40165-3069  
Telephone: 502-955-4400 or 800-516-4293





NOTE:  
PARCEL NUMBERS ARE OF RECORD IN  
THE CALDWELL COUNTY PROPERTY  
VALUATION ADMINISTRATOR OFFICE.

- (A1) PARCEL ID: 3-11  
GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411
- (B1) PARCEL ID: 3-11B 7-1  
PROWELL WAYNE & LINDA  
3620 KY HWY 902 EAST  
FREDONIA, KY 42411
- (C1) PARCEL ID: 3-11A & 13  
GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411
- (D1) PARCEL ID: 3-7  
R HILLTOP FARM LLC  
PO BOX 169  
FREDONIA, KY 42411
- (E1) PARCEL ID: 3-9 12  
HOOKS MICHAELS AND BETHANN  
45 SHEFFIELD PLACE  
SOUTHINGTON, CT 06489-1364
- (F1) PARCEL ID: 3-9A 6-1  
PROWELL WAYNE & LINDA  
3620 KY HWY 902 EAST  
FREDONIA, KY 42411
- (G1) PARCEL ID: 7-22  
GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411

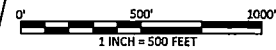
- GENERAL NOTE:**
1. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE CALDWELL COUNTY KENTUCKY PROPERTY VALUATION ADMINISTRATION OFFICE ON OCTOBER 11, 2017 AND RE-VERIFIED ON MAY 21, 2018. THE PROPERTY VALUATION ADMINISTRATION RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING FILES. POD AND THE COUNTY PROPERTY VALUATION ADMINISTRATION EXPRESSLY DISCLAIMS ANY WARRANTY FOR THE CONTENT AND ANY ERRORS CONTAINED IN THEIR FILES.
  2. THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
  3. NOT FOR RECORDING OR PROPERTY TRANSFER.

**CERTIFICATE**  
I HEREBY CERTIFY THAT THIS EXHIBIT PERTAINING TO THE ADJOINING PROPERTY OWNERS PER PVA RECORDS WAS PREPARED UNDER MY DIRECT SUPERVISION. NO BOUNDARY SURVEYING OF ANY KIND HAS BEEN PERFORMED FOR THIS EXHIBIT.

*Mark Patterson* 6/13/2018  
MARK PATTERSON, PLS #3136 DATE



**EXISTING BUILDINGS**  
R = RESIDENCE  
B = BARN  
S = SHED  
G = GARAGE



PREPARED BY:  
**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40290  
502-437-5252

PREPARED FOR:  
  
**SKYWAY TOWERS**  
3037 MADAGA LANE  
TAMPA, FL 33618  
(813) 960-6200

**EXHIBIT**

REV.	DATE	DESCRIPTION
A	5.21.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

**SITE INFORMATION:**  
**FREDONIA**  
KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

**TAX PARCEL NUMBER:**  
3-11

**PROPERTY OWNERS:**  
DWIGHT AND DONNA GREEN  
150 DRENNAN ROAD  
FREDONIA, KY 42411

**SOURCE OF TITLE:**  
DEED BOOK 169, PAGE 264

**SKYWAY SITE NUMBER:**  
KY-03071

**VERIZON SITE NAME:**  
EV FREDONIA

**POD NUMBER:** 17-15294  
**DRAWN BY:** DAP  
**CHECKED BY:** MEP  
**SURVEY DATE:** 10.11.17  
**PLAT DATE:** 5.21.18

**SHEET TITLE:**  
**500' RADIUS AND  
ABUTTERS MAP**

**SHEET NUMBER:**  
**B-2**

**EXHIBIT L**  
**COPY OF COUNTY JUDGE/EXECUTIVE NOTICE**



1578 Highway 44 East, Suite 6  
P.O. Box 369  
Shepherdsville, KY 40165-0369  
Phone (502) 955-4400 or (800) 516-4293  
Fax (502) 543-4410 or (800) 541-4410

**VIA CERTIFIED MAIL**

Ellen Dunning  
County Judge Executive  
PO Box 438  
100 E Market Street  
Princeton, KY 42445

RE: Notice of Proposal to Construct Wireless Communications Facility  
Kentucky Public Service Commission Docket No. 2018-00229  
Site Name: Fredonia

Dear Judge/Executive:

Skyway Towers, LLC ("Skyway") and Cellco Partnership d/b/a Verizon Wireless ("Verizon Wireless") have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at Kentucky Highway 902 East, Fredonia, KY 42411 (37° 13' 32.74" North latitude, 88° 02' 32.09" West longitude). The proposed facility will include a 290-foot tall antenna tower, plus a 10-foot lightning arrester and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

You have a right to submit comments to the PSC or to request intervention in the PSC's proceedings on the application. You may contact the PSC at: Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00229 in any correspondence sent in connection with this matter.

We have attached a map showing the site location for the proposed tower. Verizon Wireless' radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. Please feel free to contact us with any comments or questions you may have.

Sincerely,  
David A. Pike  
Attorney for Applicants

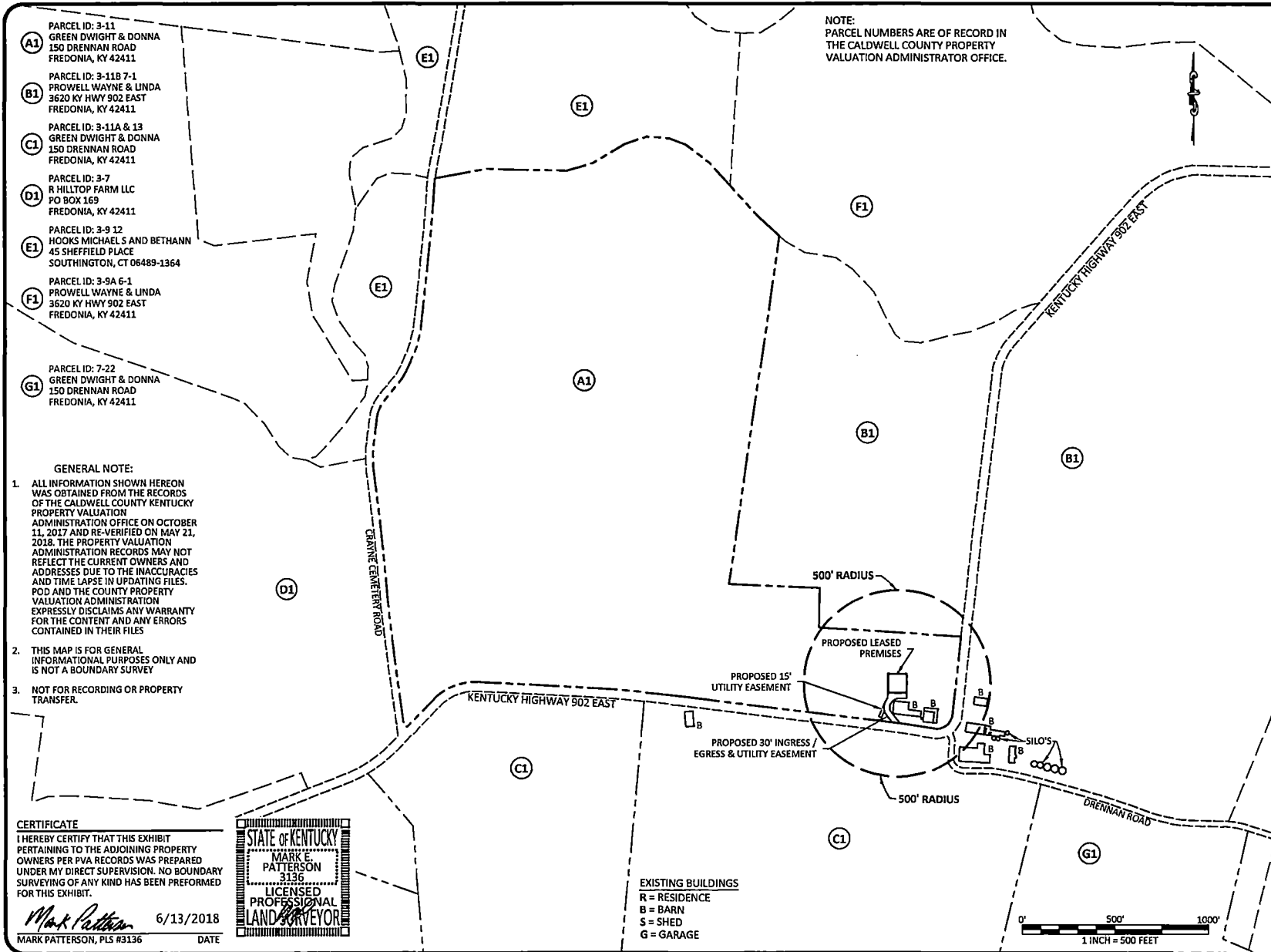
enclosures

## Driving Directions to Proposed Tower Site

1. Beginning at the offices of the Caldwell County Judge Executive located at 100 E. Market Street, Princeton, Kentucky start out going northwest on E. Market Street toward N. Jefferson St.
2. Turn right after NAPA Auto Parts – Coleman Auto Parts (on the left).
3. Turn right onto KY-91N/Marion Road.
4. Turn right onto Piney Lane.
5. Continue onto State Highway 902/Ky-902 E.
6. The site will be on your left.
7. The site coordinates are 37°13'32.74" North latitude, 88°02'32.09" West longitude.



Prepared by:  
Jeremy D. Vizcarra  
Pike Legal Group PLLC  
1578 Highway 44 East, Suite 6  
P.O. Box 369  
Shepherdsville, KY 40165-3069  
Telephone: 502-955-4400 or 800-516-4293



NOTE:  
PARCEL NUMBERS ARE OF RECORD IN  
THE CALDWELL COUNTY PROPERTY  
VALUATION ADMINISTRATOR OFFICE.

- (A1) PARCEL ID: 3-11  
GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411
- (B1) PARCEL ID: 3-11B 7-1  
PROWELL WAYNE & LINDA  
3620 KY HWY 902 EAST  
FREDONIA, KY 42411
- (C1) PARCEL ID: 3-11A & 13  
GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411
- (D1) PARCEL ID: 3-7  
R HILLTOP FARM LLC  
PO BOX 169  
FREDONIA, KY 42411
- (E1) PARCEL ID: 3-9 12  
HOOKS MICHAEL S AND BETHANN  
45 SHEFFIELD PLACE  
SOUTHINGTON, CT 06489-1364
- (F1) PARCEL ID: 3-9A 6-1  
PROWELL WAYNE & LINDA  
3620 KY HWY 902 EAST  
FREDONIA, KY 42411
- (G1) PARCEL ID: 7-22  
GREEN DWIGHT & DONNA  
150 DRENNAN ROAD  
FREDONIA, KY 42411

**GENERAL NOTE:**

1. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE CALDWELL COUNTY KENTUCKY PROPERTY VALUATION ADMINISTRATION OFFICE ON OCTOBER 11, 2017 AND RE-VERIFIED ON MAY 21, 2018. THE PROPERTY VALUATION ADMINISTRATION RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING FILES. POD AND THE COUNTY PROPERTY VALUATION ADMINISTRATION EXPRESSLY DISCLAIMS ANY WARRANTY FOR THE CONTENT AND ANY ERRORS CONTAINED IN THEIR FILES.
2. THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
3. NOT FOR RECORDING OR PROPERTY TRANSFER.

**CERTIFICATE**  
I HEREBY CERTIFY THAT THIS EXHIBIT PERTAINING TO THE ADJOINING PROPERTY OWNERS PER PVA RECORDS WAS PREPARED UNDER MY DIRECT SUPERVISION. NO BOUNDARY SURVEYING OF ANY KIND HAS BEEN PERFORMED FOR THIS EXHIBIT.  
*Mark Patterson* 6/13/2018  
MARK PATTERSON, PLS #3136 DATE



**EXISTING BUILDINGS**  
R = RESIDENCE  
B = BARN  
S = SHED  
G = GARAGE

PREPARED BY:  
**POD**  
POWER OF DESIGN  
11400 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

PREPARED FOR:  
  
**SKYWAY TOWERS**  
3637 MADACA LANE  
TAMPA, FL 33610  
(813) 960-6200

**EXHIBIT**

REV.	DATE	DESCRIPTION
A	5.21.18	ISSUED FOR REVIEW
0	6.13.18	ISSUED AS FINAL

**SITE INFORMATION:**  
**FREDONIA**  
KENTUCKY HIGHWAY 902 EAST  
FREDONIA, KY 42411  
CALDWELL COUNTY

**TAX PARCEL NUMBER:**  
3-11

**PROPERTY OWNERS:**  
DWIGHT AND DONNA GREEN  
150 DRENNAN ROAD  
FREDONIA, KY 42411

**SOURCE OF TITLE:**  
DEED BOOK 169, PAGE 264

**SKYWAY SITE NUMBER:**  
KY-03071

**VERIZON SITE NAME:**  
EV FREDONIA

**POD NUMBER:** 17-15294  
**DRAWN BY:** DAP  
**CHECKED BY:** MEP  
**SURVEY DATE:** 10.11.17  
**PLAT DATE:** 5.21.18

**SHEET TITLE:**  
**500' RADIUS AND  
ABUTTERS MAP**

**SHEET NUMBER:**  
**B-2**

**EXHIBIT M**  
**COPY OF POSTED NOTICES**  
**AND NEWSPAPER NOTICE ADVERTISEMENT**

**SITE NAME: Fredonia**  
**NOTICE SIGNS**

The signs are at least (2) feet by four (4) feet in size, of durable material, with the text printed in black letters at least one (1) inch in height against a white background, except for the word "tower," which is at least four (4) inches in height.

Skyway Towers, LLC and Cellco Partnership d/b/a Verizon Wireless propose to construct a telecommunications **tower** on this site. If you have questions, please contact Pike Legal Group, PLLC, P.O. Box 369, Shepherdsville, KY 40165; telephone: (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number  
2018 - 00229 \_\_\_\_\_ in your correspondence.

Skyway Towers, LLC and Cellco Partnership d/b/a Verizon Wireless propose to construct a telecommunications **tower** near this site. If you have questions, please contact Pike Legal Group, PLLC, P.O. Box 369, Shepherdsville, KY 40165; telephone: (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number  
2018 - 00229 \_\_\_\_\_ in your correspondence.



1578 Highway 44 East, Suite 6  
P.O. Box 369  
Shepherdsville, KY 40165-0369  
Phone (502) 955-4400 or (800) 516-4293  
Fax (502) 543-4410 or (800) 541-4410

VIA TELEPHONE: 270-365-5588

VIA TELEFAX: 270-365-7299

Princeton Times Leader  
Attn: Public Notice Ad Placement  
607 West Washington Street  
P.O. Box 439  
Princeton, KY 42445

RE: Legal Notice Advertisement  
Site Name: Fredonia

Dear Princeton Times Leader:

Please publish the following legal notice advertisement in the next edition of *The Princeton Times Leader*:

#### NOTICE

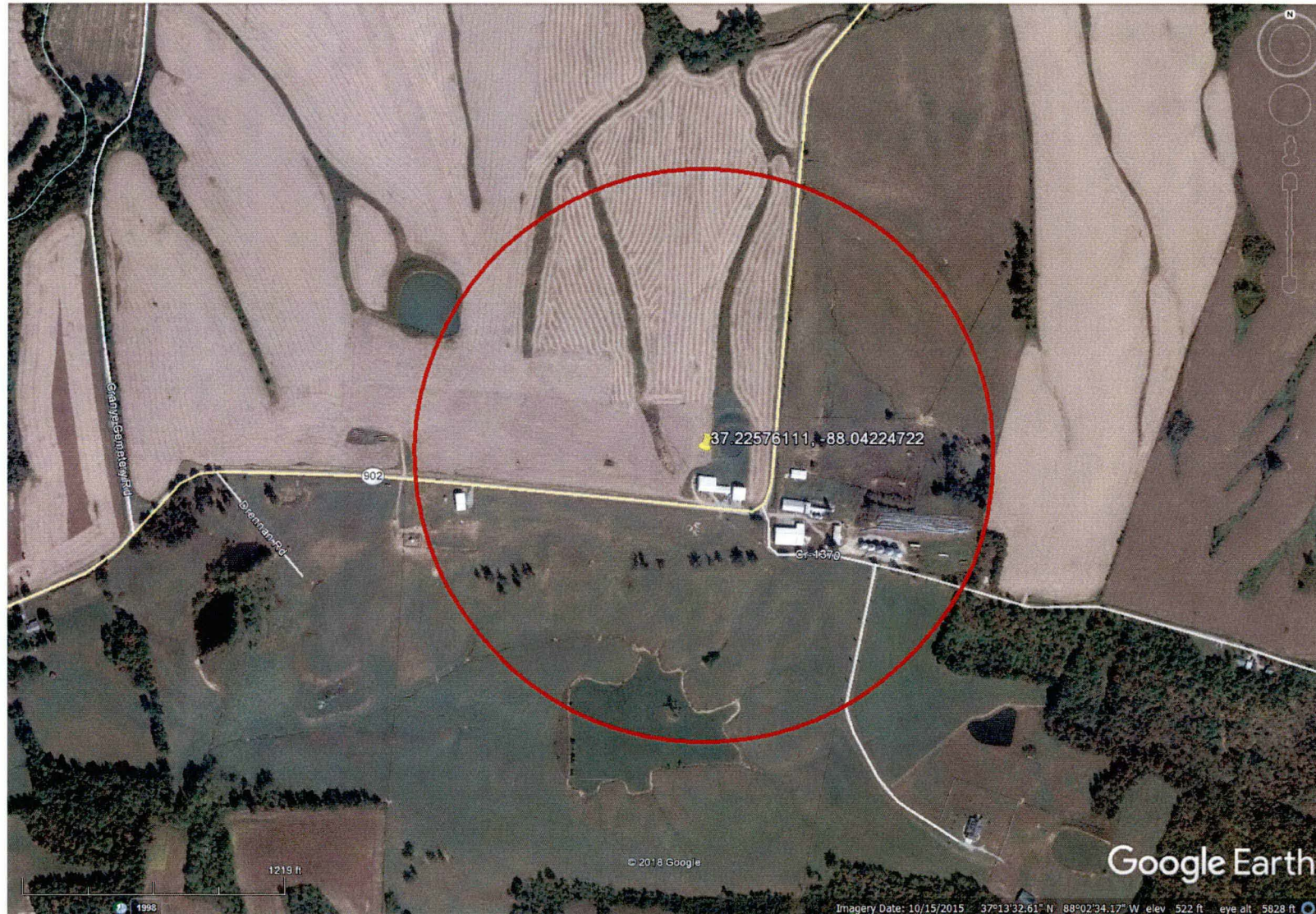
**Skyway Towers, LLC and Cellco Partnership d/b/a Verizon Wireless have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at Kentucky Highway 902 East, Fredonia, KY 42411 (37° 13' 32.74" North latitude, 88° 02' 32.09" West longitude). You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00229 in any correspondence sent in connection with this matter.**

After this advertisement has been published, please forward a tearsheet copy, affidavit of publication, and invoice to Pike Legal Group, PLLC, P. O. Box 369, Shepherdsville, KY 40165. Please call me at (800) 516-4293 if you have any questions. Thank you for your assistance.

Sincerely,  
Jeremy D. Vizcarra  
Pike Legal Group, PLLC



**EXHIBIT N**  
**COPY OF RADIO FREQUENCY DESIGN SEARCH AREA**



EV Fredonia – New Build SARF Map