COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF	)	
NEW CINGULAR WIRELESS PCS, LLC,	)	
A DELAWARE LIMITED LIABILITY COMPANY,	)	
D/B/A AT&T MOBILITY	)	
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC	)	CASE NO.: 2017-00462
CONVENIENCE AND NECESSITY TO CONSTRUCT	)	
A WIRELESS COMMUNICATIONS FACILITY	)	
IN THE COMMONWEALTH OF KENTUCKY	)	
IN THE COUNTY OF MARION	)	

SITE NAME: LORETTO

* * * * * * *

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

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility ("Applicant"), 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 submits 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 the Applicant with wireless communications services.

In support of this Application, Applicant respectfully provides and states the following information:

1. The complete name and address of the Applicant: New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility, having a local address of Meidinger Tower, 462 S. 4th Street, Site 2400, Louisville, Kentucky 40202.

2. Applicant proposes construction of an antenna tower for communications services, which is to be located in an area outside the jurisdiction of a planning commission, and Applicant submits 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. The Certificate of Authority filed with the Kentucky Secretary of State for the Applicant entity was attached to a prior application and is part of the case record for PSC case number 2011-00473 and is hereby incorporated by reference.

4. The Applicant operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC requirements. A copy of the Applicant's 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 the Applicant's services to an area currently not served or not adequately served by the Applicant 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 the Applicant's 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 the Applicant's network design that must be in place to provide adequate coverage to the service area.

6. To address the above-described service needs, Applicant proposes to construct a WCF at 5095 Kentucky Highway 52, a.k.a. St Francis Highway, Loretto, Kentucky (37°38'03.81" North latitude, 85°24'20.40" 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 Freddie & Judy Miles pursuant to a Deed recorded at Deed Book 8, Page 127 in the office of the Marion County Clerk. The proposed WCF will consist of a 195-foot tall tower, with an approximately 4-foot tall lightning arrestor attached at the top, for a total height of 199-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of the Applicant's radio electronics equipment and appurtenant equipment. The Applicant's 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 the Applicant 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. Applicant has considered the likely effects of the installation of the proposed WCF on nearby land uses and values and has 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 Applicant's antennas on an existing structure. When suitable towers or structures exist, Applicant attempts to co-locate on existing structures such as communications towers or other structures capable of supporting Applicant's 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 report that notice to the Federal Aviation Administration ("FAA") is not required is attached as **Exhibit E**.

12. A copy of the communication from the Kentucky Airport Zoning Commission ("KAZC") confirming that a permit is not required 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. Applicant, 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 Don Murdock 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. Applicant has 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. Applicant has 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**. Notice of the location of the proposed facility has also been published in a newspaper of general circulation in the county in which the WCF is proposed to be located.

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

are no residential structures within 500' of the proposed tower site.

24. The process that was used by the Applicant's 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. Applicant's 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 the Applicant when searching for sites for its antennas that would provide the coverage deemed necessary by the Applicant. 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. In addition to expanding and improving voice and data service for AT&T mobile customers, this site will also provide wireless local loop ("WLL") broadband internet service in the subject area. As a participant in the FCC's Connect America Fund Phase II (CAF II) program, AT&T is aggressively deploying WLL service infrastructure to bring expanded internet access to residential and business customers in rural and other underserved areas. WLL will support internet access at the high speeds required to use and enjoy the

most current business, education and entertainment technologies. Broadband service via WLL will be delivered from the tower to a dedicated antenna located at the home or business receiving service and will support downloads at 10 Mbps and uploads at 1 Mbps.

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

WHEREFORE, Applicant 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 New Cingular Wireless PCS, LLC
d/b/a AT&T Mobility

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

N - Copy of Radio Frequency Design Search Area

EXHIBIT A
FCC LICENSE DOCUMENTATION

Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNKQ346	
Radio Service CL - Cellular	
Market Numer CMA446	**Channel Block** A
Sub-Market Designator 0	

FCC Registration Number (FRN): 0003291192

Market Name
Kentucky 4 - Spencer

Grant Date	Effective Date	Expiration Date	Five Yr Build-Out Date	Print Date
10-16-2012	06-13-2017	10-01-2022		

Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
12	38-01-44.0 N	085-18-16.0 W	235.9	91.1	1002473

Address: 100 Overlook Rd (86923)
City: TAYLORSVILLE **County:** SPENCER **State:** KY **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	120.800	95.400	102.100	97.600	95.800	113.600	147.700	114.700
Transmitting ERP (watts)	86.300	143.200	53.200	37.700	0.300	18.900	67.000	133.700
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	120.800	95.400	102.100	97.600	95.800	113.600	147.700	114.700
Transmitting ERP (watts)	18.000	119.800	240.400	250.300	157.000	45.000	33.200	12.400
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	120.800	95.400	102.100	97.600	95.800	113.600	147.700	114.700
Transmitting ERP (watts)	28.800	21.300	26.500	39.100	121.000	115.500	147.700	81.200

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.

FCC 601-C
August 2007

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
15	37-36-21.0 N	086-03-25.0 W	260.0	91.1	1009674

Address: 975 Meeting Creek Rd. (94217)
City: EASTVIEW **County:** HARDIN **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	114.000	122.900	133.500	138.400	151.700	127.100	115.800	123.200
Transmitting ERP (watts)	16.000	50.600	40.600	6.300	0.400	0.101	0.101	1.500
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	114.000	122.900	133.500	138.400	151.700	127.100	115.800	123.200
Transmitting ERP (watts)	0.400	0.400	11.700	89.800	178.200	74.900	6.100	0.800
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	114.000	122.900	133.500	138.400	151.700	127.100	115.800	123.200
Transmitting ERP (watts)	60.500	2.600	0.600	0.600	3.500	47.900	240.300	282.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
16	37-32-36.0 N	085-15-34.0 W	246.3	112.8	1203419

Address: 335 Thornton Smith Road (94223)
City: Lebanon **County:** MARION **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	116.100	86.000	77.700	104.400	108.400	123.500	143.500	128.500
Transmitting ERP (watts)	192.100	140.000	19.200	2.500	0.400	0.900	4.100	55.100
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	116.100	86.000	77.700	104.400	108.400	123.500	143.500	128.500
Transmitting ERP (watts)	0.900	4.100	55.100	192.100	140.000	19.200	2.500	0.400
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	116.100	86.000	77.700	104.400	108.400	123.500	143.500	128.500
Transmitting ERP (watts)	8.600	2.200	0.448	0.700	11.900	95.200	224.400	84.800

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
17	37-39-03.2 N	085-04-40.4 W	260.0	80.8	1253600

Address: 9076 Perryville Road (97855)
City: Springfield **County:** WASHINGTON **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	67.200	65.000	50.900	33.800	63.300	60.700	76.300	96.900
Transmitting ERP (watts)	170.600	190.300	55.800	31.200	0.400	11.600	64.100	190.300
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	67.200	65.000	50.900	33.800	63.300	60.700	76.300	96.900
Transmitting ERP (watts)	41.300	108.800	92.600	128.100	61.300	26.200	8.900	21.200
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	67.200	65.000	50.900	33.800	63.300	60.700	76.300	96.900
Transmitting ERP (watts)	55.800	31.200	0.400	11.600	64.100	190.300	170.600	190.300

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
21	37-25-20.1 N	085-16-59.5 W	333.5	60.7	

Address: 6945 NEW LEBANON ROAD (87882)
City: CAMPBELLSVILLE **County:** TAYLOR **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	145.100	145.900	105.000	110.500	135.200	126.600	110.600	124.300
Transmitting ERP (watts)	252.900	102.500	5.700	1.200	0.505	0.800	15.100	132.400
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	145.100	145.900	105.000	110.500	135.200	126.600	110.600	124.300
Transmitting ERP (watts)	1.400	16.000	81.800	98.400	23.100	2.200	0.200	0.300
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	145.100	145.900	105.000	110.500	135.200	126.600	110.600	124.300
Transmitting ERP (watts)	1.900	0.500	0.500	7.400	74.100	235.600	174.400	17.000

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
23	37-28-43.0 N	085-53-55.8 W	266.7	99.1	1200192

Address: 15385 South Dixie (37616)
City: Upton **County:** HARDIN **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	137.800	123.200	106.100	117.100	122.100	144.800	138.400	141.600
Transmitting ERP (watts)	22.500	14.000	1.500	0.100	0.100	0.200	1.700	14.000
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	137.800	123.200	106.100	117.100	122.100	144.800	138.400	141.600
Transmitting ERP (watts)	6.300	22.300	40.900	31.700	32.100	4.800	1.300	2.200
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	137.800	123.200	106.100	117.100	122.100	144.800	138.400	141.600
Transmitting ERP (watts)	63.400	41.400	38.200	75.300	214.800	202.800	252.300	137.100

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
25	37-53-29.0 N	085-31-56.0 W	220.7	78.3	1062550

Address: 720 South Saint Gregory Road (37679)
City: Samuels **County:** NELSON **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	128.800	95.600	83.500	85.900	115.200	97.000	105.400	106.900
Transmitting ERP (watts)	2.200	2.000	2.400	0.600	0.100	0.100	0.100	0.500
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	128.800	95.600	83.500	85.900	115.200	97.000	105.400	106.900
Transmitting ERP (watts)	0.200	0.300	1.300	2.600	2.400	1.500	0.200	0.100
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	128.800	95.600	83.500	85.900	115.200	97.000	105.400	106.900
Transmitting ERP (watts)	8.600	0.600	0.227	0.227	5.100	42.300	113.800	71.900

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
27	37-44-18.6 N	084-50-22.9 W	273.1	93.9	1042987

Address: 510 Lauren Drive (85566)
City: HARRODSBURG **County:** MERCER **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	94.900	97.000	92.200	89.100	67.100	91.800	105.500	107.400
Transmitting ERP (watts)	22.500	9.700	0.800	0.100	0.200	0.300	3.000	17.400
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	94.900	97.000	92.200	89.100	67.100	91.800	105.500	107.400
Transmitting ERP (watts)	0.100	1.000	9.400	22.000	17.400	2.600	0.200	0.100
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	94.900	97.000	92.200	89.100	67.100	91.800	105.500	107.400
Transmitting ERP (watts)	0.200	0.100	0.100	0.400	1.800	2.300	2.600	1.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
30	37-45-36.7 N	085-59-28.9 W	242.3	77.7	1228925

Address: 140 BERRYTOWN ROAD (86906)
City: Rineyville **County:** HARDIN **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	97.800	88.600	61.000	80.100	84.200	80.000	69.700	78.500
Transmitting ERP (watts)	223.400	150.100	23.100	8.300	0.446	1.100	25.400	136.900
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	97.800	88.600	61.000	80.100	84.200	80.000	69.700	78.500
Transmitting ERP (watts)	1.500	50.300	183.700	235.200	88.900	12.500	4.700	0.500
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	97.800	88.600	61.000	80.100	84.200	80.000	69.700	78.500
Transmitting ERP (watts)	10.200	1.200	0.500	7.000	88.900	214.500	206.100	42.800

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
31	37-56-34.5 N	084-57-41.8 W	279.2	99.1	1219406

Address: 1114 Bondville Road (94203)
City: Willisburg **County:** ANDERSON **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	133.500	140.200	135.100	117.400	118.100	134.100	132.900	128.800
Transmitting ERP (watts)	189.700	79.700	6.500	0.800	0.400	0.400	12.400	95.600
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	133.500	140.200	135.100	117.400	118.100	134.100	132.900	128.800
Transmitting ERP (watts)	1.500	17.300	88.500	106.400	25.000	2.400	0.212	0.400
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	133.500	140.200	135.100	117.400	118.100	134.100	132.900	128.800
Transmitting ERP (watts)	1.900	0.629	0.629	8.700	104.200	314.700	227.900	23.900

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
32	37-33-17.6 N	086-04-47.0 W	255.7	78.6	1224566

Address: 1051 Rock Creek Rd (81453)
City: Big Clifty **County:** HARDIN **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	97.100	117.100	126.800	128.200	117.700	108.900	118.200	111.300
Transmitting ERP (watts)	7.700	21.500	18.900	3.500	0.300	0.100	0.100	0.800
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	97.100	117.100	126.800	128.200	117.700	108.900	118.200	111.300
Transmitting ERP (watts)	180.400	21.600	3.300	0.611	1.200	8.700	98.400	305.700
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	97.100	117.100	126.800	128.200	117.700	108.900	118.200	111.300
Transmitting ERP (watts)	1.400	0.809	0.809	22.800	184.900	404.600	198.600	15.400

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
34	37-09-56.5 N	085-32-47.5 W	261.5	60.7	

Address: Matney Rd (114158)
City: Greensburg **County:** GREEN **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	117.100	110.000	104.200	85.500	77.400	93.900	94.100	102.900
Transmitting ERP (watts)	178.200	198.800	58.300	32.600	0.400	12.100	67.000	198.800
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	117.100	110.000	104.200	85.500	77.400	93.900	94.100	102.900
Transmitting ERP (watts)	16.300	108.000	216.800	225.700	141.600	40.600	29.900	11.200
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	117.100	110.000	104.200	85.500	77.400	93.900	94.100	102.900
Transmitting ERP (watts)	31.000	12.000	16.100	35.400	158.900	210.600	237.700	91.900

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
35	37-45-21.0 N	084-49-26.0 W	285.0	64.3	1031524

Address: 1190 US 127 Bypass (114803)
City: HARRODSBURG **County:** MERCER **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	73.000	82.600	68.600	68.500	43.400	68.500	77.300	78.300
Transmitting ERP (watts)	16.900	69.800	58.700	9.100	0.400	0.139	0.139	1.200
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	73.000	82.600	68.600	68.500	43.400	68.500	77.300	78.300
Transmitting ERP (watts)	0.200	0.200	3.000	34.100	79.400	38.200	3.800	0.200
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	73.000	82.600	68.600	68.500	43.400	68.500	77.300	78.300
Transmitting ERP (watts)	19.800	1.200	0.149	0.149	0.500	7.400	53.500	74.800

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
36	37-54-01.0 N	085-55-32.9 W	206.7	57.0	

Address: 7101 9th Cavalry Regiment Avenue (119146)
City: Fort Knox **County:** HARDIN **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	78.500	62.700	62.400	46.400	30.000	34.400	34.300	51.400
Transmitting ERP (watts)	14.200	22.100	6.400	2.600	0.300	1.600	8.200	17.900
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	78.500	62.700	62.400	46.400	30.000	34.400	34.300	51.400
Transmitting ERP (watts)	2.100	48.300	243.200	333.800	71.000	7.600	2.700	1.000
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	78.500	62.700	62.400	46.400	30.000	34.400	34.300	51.400
Transmitting ERP (watts)	41.800	16.200	21.700	47.700	214.300	284.100	320.600	124.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
37	37-19-24.0 N	085-19-29.0 W	276.8	63.1	1042222

Address: 685 Smith Ridge Road (94212)
City: CAMPBELLSVILLE **County:** TAYLOR **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	50.800	60.800	65.900	91.400	109.700	103.600	107.900	86.800
Transmitting ERP (watts)	23.000	86.600	74.000	13.000	0.600	0.200	0.200	1.700
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	50.800	60.800	65.900	91.400	109.700	103.600	107.900	86.800
Transmitting ERP (watts)	0.500	0.400	6.900	73.500	150.000	80.500	9.000	0.300
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	50.800	60.800	65.900	91.400	109.700	103.600	107.900	86.800
Transmitting ERP (watts)	17.900	1.100	0.135	0.135	0.400	6.700	48.300	67.600

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
39	37-59-45.5 N	085-57-01.3 W	131.7	45.7	

Address: 201 S 10TH STREET (37605)
City: WEST POINT **County:** HARDIN **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Transmitting ERP (watts)	7.600	6.900	10.000	3.400	1.100	0.100	0.700	3.100
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Transmitting ERP (watts)	2.700	0.600	0.900	21.900	145.300	283.900	89.300	9.100

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
40	37-31-58.0 N	085-18-59.0 W	319.1	103.6	1043055

Address: 5.6 KM SOUTHWEST OF (87842)
City: LEBANON **County:** MARION **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	134.500	114.000	119.600	125.400	109.400	124.600	166.500	158.900
Transmitting ERP (watts)	72.400	252.600	184.100	25.300	3.200	0.505	1.100	5.300
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	134.500	114.000	119.600	125.400	109.400	124.600	166.500	158.900
Transmitting ERP (watts)	0.600	0.900	15.700	125.200	295.100	111.600	11.400	2.900
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	134.500	114.000	119.600	125.400	109.400	124.600	166.500	158.900
Transmitting ERP (watts)	55.000	5.900	2.100	0.800	1.700	37.400	188.400	258.500

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
41	37-59-10.4 N	084-52-49.1 W	263.3	91.4	1250393

Address: 1815 Bypass South (148463)
City: Lawrenceburg **County:** ANDERSON **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	86.600	77.000	77.400	99.500	82.400	76.000	81.700	75.700
Transmitting ERP (watts)	118.900	197.200	73.300	51.900	0.400	26.000	92.300	184.100

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
41	37-59-10.4 N	084-52-49.1 W	263.3	91.4	1250393

Address: 1815 Bypass South (148463)
City: Lawrenceburg **County:** ANDERSON **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	86.600	77.000	77.400	99.500	82.400	76.000	81.700	75.700
Transmitting ERP (watts)	27.400	134.400	181.300	170.500	159.100	48.000	60.500	27.400
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	86.600	77.000	77.400	99.500	82.400	76.000	81.700	75.700
Transmitting ERP (watts)	47.300	18.300	24.500	54.000	242.700	321.700	363.100	140.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
42	37-46-06.0 N	084-51-43.0 W	275.2	93.3	1042217

Address: 840 Cornishville Road (94222)
City: HARRODSBURG **County:** MERCER **State:** KY **Construction Deadline:** 12-17-2015

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	107.300	113.900	98.100	93.600	90.600	103.600	113.100	108.400
Transmitting ERP (watts)	233.400	0.500	0.500	0.500	0.600	1.300	4.900	1.000
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	107.300	113.900	98.100	93.600	90.600	103.600	113.100	108.400
Transmitting ERP (watts)	2.500	296.500	18.600	4.900	1.000	0.600	0.600	0.600
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	107.300	113.900	98.100	93.600	90.600	103.600	113.100	108.400
Transmitting ERP (watts)	0.100	1.200	10.200	19.800	14.000	1.700	0.100	0.100
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	107.300	113.900	98.100	93.600	90.600	103.600	113.100	108.400
Transmitting ERP (watts)	1.400	0.200	0.102	0.400	6.100	36.600	51.100	16.900

Control Points:

Control Pt. No. 1

Address: 124 S. Keeneland Drive (Suite 103)
City: Richmond **County:** MADISON **State:** KY **Telephone Number:** (859)544-4804

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKQ346 **File Number:** **Print Date:**

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).

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNLG209	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
04-12-2017	06-13-2017	04-28-2027	

Market Number	Channel Block	Sub-Market Designator
BTA263	D	0

Market Name
Louisville, KY

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
04-28-2002			

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).

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.

Federal Communications Commission
Wireless Telecommunications Bureau

Spectrum Leasing Arrangement

ATTN: REGINALD YOUNGBLOOD
NEW CINGULAR WIRELESS PCS LLC
3300 E RENNER ROAD, B3132
RICHARDSON, TX 75082

Date: 12/08/2017
Reference Number:

This approval allows the Lessee to lease spectrum from the Licensee pursuant to the provisions and requirements of Subpart X of Part 1 of the Commission's Rules, 47 C.F.R. Part 1, and as described in the associated spectrum leasing application or notification.

Type of Lease Arrangement	Lease Term	Lease Identifier
Spectrum Manager Lease	Short Term	L000015162

Lease Grant/Accepted Date	Lease Commencement Date	Lease Expiration Date
03/13/2015	12/23/2014	04/30/2015

Call Sign	Radio Service
KNLG923	CW - PCS Broadband

Lessee Information

0003291192
NEW CINGULAR WIRELESS PCS LLC
Attn: REGINALD YOUNGBLOOD
3300 E RENNER ROAD, B3132
RICHARDSON, TX 75082

Licensee Information

0001832807
POWERTEL MEMPHIS LICENSES, INC.
Attn: FCC REGULATORY COMPLIANCE
12920 SE 38TH ST.
BELLEVUE, WA 98006

Geographically-Licensed Services		
Market Number	Market Name	Channel Block
BTA263	Louisville, KY	F

Condition:
This lease may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum associated with this leasing agreement, 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.

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.

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WPOI255	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
05-27-2015	06-14-2017	06-23-2025	

Market Number	Channel Block	Sub-Market Designator
MTA026	A	19

Market Name
Louisville-Lexington-Evansvill

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-23-2000	06-23-2005		

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

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).

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.

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WPOI255 **File Number:** **Print Date:**

This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

This license is conditioned upon compliance with the provisions of Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation For Consent to Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order, FCC 04-255 (rel. Oct. 26, 2004).

Spectrum Lease Associated with this License. See Spectrum Leasing Arrangement Letter dated 12/06/2004 and File # 0001918558.

The Spectrum Leasing Arrangement, which became effective upon approval of application file number 0001918558, was terminated on 04/14/2005. See file number 0002135370.

Commission approval of this application and the licenses contained therein are subject to the conditions set forth in the Memorandum Opinion and Order, adopted on December 29, 2006 and released on March 26, 2007, and revised in the Order on Reconsideration, adopted and released on March 26, 2007. See AT&T Inc. and BellSouth Corporation Application for Transfer of Control, WC Docket No. 06-74, Memorandum Opinion and Order, FCC 06-189 (rel. Mar. 26, 2007); AT&T Inc. and BellSouth Corporation, WC Docket No. 06-74, Order on Reconsideration, FCC 07-44 (rel. Mar. 26, 2007).

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WQFA869	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
04-11-2017	06-14-2017	04-28-2027	

Market Number	Channel Block	Sub-Market Designator
BTA263	E	4

Market Name
Louisville, KY

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

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).

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:

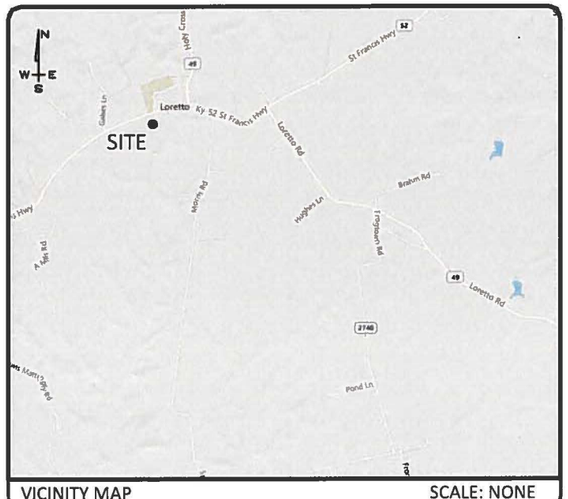
500' VICINITY MAP
LEGAL DESCRIPTIONS
FLOOD PLAIN CERTIFICATION
SITE PLAN
VERTICAL TOWER PROFILE

at&t

SITE NAME:
LORETTO

SITE NUMBER:
KYLSU1691

PROPOSED RAW LAND SITE WITH NEW 195' MONOPOLE
WITH A 4' LIGHTNING ARRESTOR AND INSTALLATION OF AN
80" x 80" WALK-IN EQUIPMENT CABINET ON PLATFORM
WITH A DIESEL GENERATOR ON PLATFORM



VICINITY MAP SCALE: NONE

DRIVE DIRECTIONS

FROM MARION COUNTY COURT CLERK, 223 N SPALDING AVE # 102, LEBANON, KY 40033:

HEAD NORTHWEST ON N SPALDING AVE TOWARD J T WHITLOCK AVE	0.2 MILES
TURN LEFT ONTO W WALNUT ST	0.3 MILES
TURN RIGHT ONTO KY-49 N/LORETTO ROAD	9.3 MILES
TURN LEFT ONTO KY-49 N/KY-52 W	0.8 MILES

ARRIVE AT SITE, ON THE LEFT

SCOPE OF WORK:

ZONING DRAWINGS FOR:
CONSTRUCTION OF A NEW UNMANNED TELECOMMUNICATIONS FACILITY.

SITE WORK: NEW TOWER, UNMANNED WALK IN EQUIPMENT CABINET WITH GENERATOR ON STEEL PLATFORMS, AND UTILITY INSTALLATIONS.

PROJECT INFORMATION

COUNTY:	MARION
SITE ADDRESS:	5095 KENTUCKY HIGHWAY 52 A.K.A ST FRANCIS HIGHWAY LORETTO, KY 40037
APPLICANT:	NEW CINGULAR WIRELESS PCS, LLC, A DELAWARE LIMITED LIABILITY COMPANY, D/B/A AT&T MOBILITY MEIDINGER TOWER 462 S. 4TH STREET, SUITE 2400 LOUISVILLE, KY 40202
LATITUDE:	37° 38' 03.81"
LONGITUDE:	85° 24' 20.40"

Kentucky 811
Know what's below. Call before you dig.
Call Monday thru Friday - 7 am to 6 pm
1-800-752-6007
PER KENTUCKY STATE LAW, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

BUILDING CODES AND STANDARDS

CONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION FOR THE LOCATION.

CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE 318

AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL OF STEEL CONSTRUCTION

TELECOMMUNICATIONS INDUSTRY ASSOCIATION TIA-222

STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND SUPPORTING STRUCTURES TIA-601

COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS

INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS IEEE-81, IEEE 1100, IEEE C62.41

ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION

2014 KBC

2014 NEC

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN.

SHEET INDEX

CONTACT INFORMATION

FIRE DEPARTMENT
LORETTO VOLUNTEER FIRE DEPARTMENT
PHONE: (270) 865-2268

POLICE DEPARTMENT
MARION COUNTY COUNTY SHERIFF DEPARTMENT
PHONE: (270)6923051

ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY
PHONE: (859)255-2100

TELEPHONE COMPANY
WINDSTREAM
PHONE: (877)553-7249

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

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

STATE OF KENTUCKY
MARK E. PATTERSON
16,300
LICENSED
PROFESSIONAL ENGINEER
12/7/2017

EN PERMIT: 3594

ZONING DRAWINGS

REV	DATE	DESCRIPTION
A	2.15.17	ISSUED FOR REVIEW
B	2.28.17	PLG COMMENTS
0	3.6.17	ISSUED FOR FINALS
1	12.6.17	TOWER DESIGN

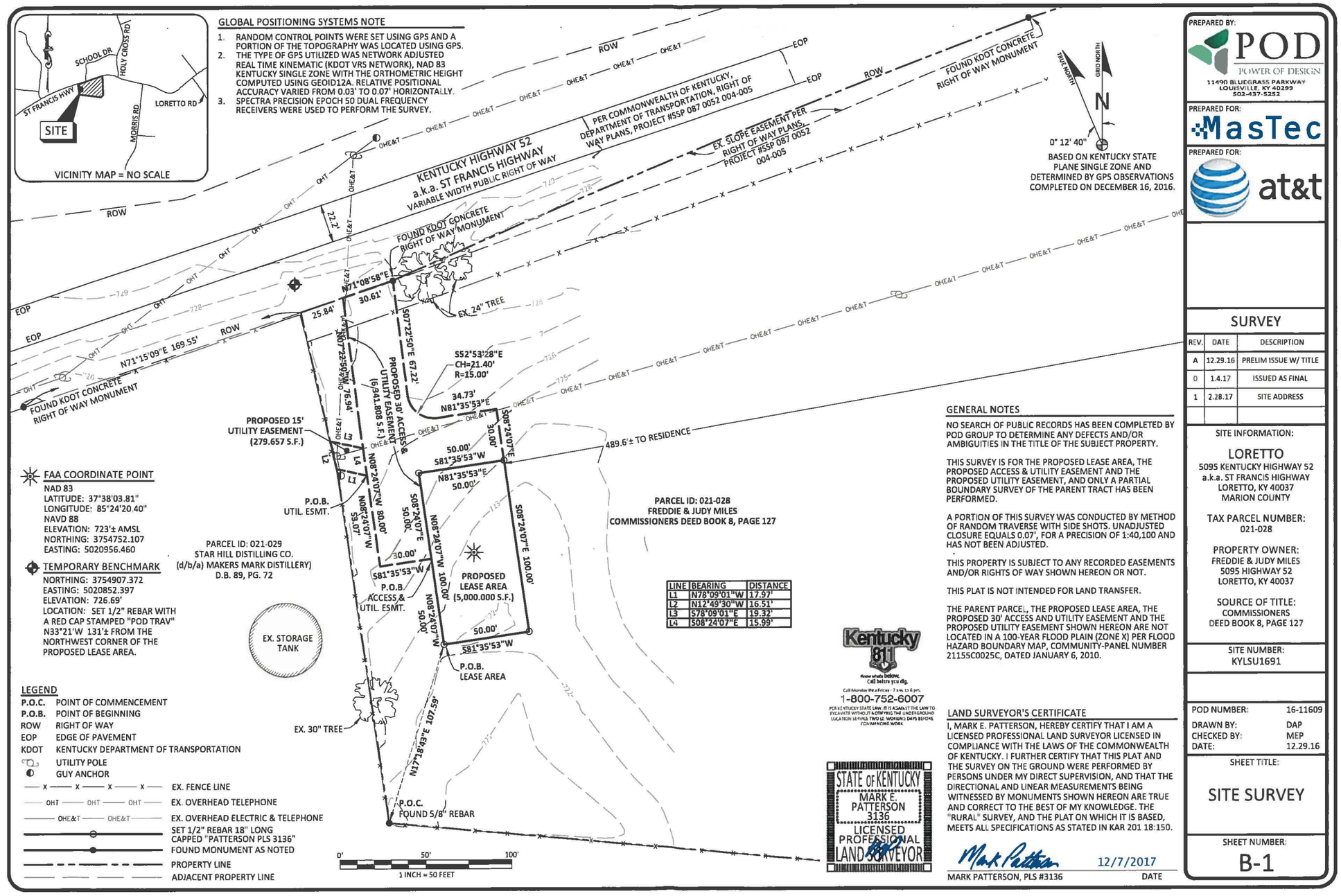
SITE INFORMATION:
LORETTO
5095 KENTUCKY HIGHWAY 52
A.K.A ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

SITE NUMBER:
KYLSU1691

POD NUMBER:	16-11611
DRAWN BY:	JGB
CHECKED BY:	MEP
DATE:	2.15.17

SHEET TITLE:
TITLE SHEET & PROJECT INFORMATION

SHEET NUMBER:
T-1



GLOBAL POSITIONING SYSTEMS NOTE

1. RANDOM CONTROL POINTS WERE SET USING GPS 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 SINGLE ZONE WITH THE ORTHOMETRIC HEIGHT COMPUTED USING GEOID12A. RELATIVE POSITIONAL ACCURACY VARIED FROM 0.03' TO 0.07' HORIZONTALLY.
3. SPECTRA PRECISION EPOCH 50 DUAL FREQUENCY RECEIVERS WERE USED TO PERFORM THE SURVEY.

FAA COORDINATE POINT

NAD 83
LATITUDE: 37°38'03.81"
LONGITUDE: 85°24'20.40"
NAVD 88
ELEVATION: 723'± AMSL
NORTHING: 3754752.107
EASTING: 5020956.460

TEMPORARY BENCHMARK

NORTHING: 3754907.372
EASTING: 5020852.397
ELEVATION: 726.69'
LOCATION: SET 1/2" REBAR WITH A RED CAP STAMPED "POD TRAV" N33°21'W 131'± FROM THE NORTHWEST CORNER OF THE PROPOSED LEASE AREA.

LINE	BEARING	DISTANCE
L1	N78°09'01"W	17.97'
L2	N12°49'30"W	16.51'
L3	S78°09'01"E	19.32'
L4	S08°24'07"E	15.99'

LEGEND

- P.O.C. POINT OF COMMENCEMENT
- P.O.B. POINT OF BEGINNING
- ROW RIGHT OF WAY
- EOP EDGE OF PAVEMENT
- KDOT KENTUCKY DEPARTMENT OF TRANSPORTATION
- UTILITY POLE
- GUY ANCHOR
- EX. FENCE LINE
- EX. OVERHEAD TELEPHONE
- EX. OVERHEAD ELECTRIC & TELEPHONE
- SET 1/2" REBAR 18" LONG CAPPED "PATTERSON PLS 3136"
- FOUND MONUMENT AS NOTED
- PROPERTY LINE
- ADJACENT PROPERTY LINE

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
PER KENTUCKY STATE LAW, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

STATE OF KENTUCKY
MARK E. PATTERSON
3136
LICENSED PROFESSIONAL LAND SURVEYOR

GENERAL NOTES

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

THIS SURVEY IS FOR THE PROPOSED LEASE AREA, THE PROPOSED ACCESS & UTILITY EASEMENT AND THE PROPOSED 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 0.07', FOR A PRECISION OF 1:40,100 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.

THE PARENT PARCEL, THE PROPOSED LEASE AREA, THE PROPOSED 30' ACCESS AND UTILITY EASEMENT AND THE PROPOSED UTILITY EASEMENT SHOWN HEREON ARE NOT LOCATED IN A 100-YEAR FLOOD PLAIN (ZONE X) PER FLOOD HAZARD BOUNDARY MAP, COMMUNITY-PANEL NUMBER 21155C0025C, DATED JANUARY 6, 2010.

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 12/7/2017
MARK PATTERSON, PLS #3136 DATE

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

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

SURVEY

REV.	DATE	DESCRIPTION
A	12.29.16	PRELIM ISSUE W/ TITLE
0	1.4.17	ISSUED AS FINAL
1	2.28.17	SITE ADDRESS

SITE INFORMATION:

LORETTO
5095 KENTUCKY HIGHWAY 52
a.k.a. ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

TAX PARCEL NUMBER:
021-028

PROPERTY OWNER:
FREDDIE & JUDY MILES
5095 HIGHWAY 52
LORETTO, KY 40037

SOURCE OF TITLE:
COMMISSIONERS
DEED BOOK 8, PAGE 127

SITE NUMBER:
KYLSU1691

POD NUMBER:	16-11609
DRAWN BY:	DAP
CHECKED BY:	MEP
DATE:	12.29.16

SHEET TITLE:
SITE SURVEY

SHEET NUMBER:
B-1

LEGAL DESCRIPTIONS

PROPOSED LEASE AREA

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED LEASE AREA TO BE LEASED FROM A PORTION OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127, PARCEL ID: 021-028, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN MARION COUNTY, KENTUCKY, ON THE SOUTH SIDE OF KENTUCKY HIGHWAY 52 (a.k.a. ST FRANCIS HIGHWAY).

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SINGLE ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON DECEMBER 16, 2016.

COMMENCING AT A FOUND 5/8" REBAR IN THE SOUTHWEST CORNER OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127 AND CORNER TO THE PROPERTY CONVEYED TO STAR HILL DISTILLING CO. AS RECORDED IN DEED BOOK 89, PAGE 72; THENCE LEAVING SAID COMMON CORNER AND TRAVERSING THE LAND OF SAID MILES PROPERTY N17°18'43"E 107.59' TO A SET 1/2" REBAR, 18" LONG, CAPPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE SOUTHWEST CORNER OF THE PROPOSED LEASE AREA AND BEING **THE TRUE POINT OF BEGINNING**; THENCE N08°24'07"W 100.00' TO A SET IPC; THENCE N81°35'53"E 50.00' TO A SET IPC; THENCE S08°24'07"E 100.00' TO A SET IPC; THENCE S81°35'53"W 50.00' TO THE POINT OF BEGINNING CONTAINING 5,000.000 SQUARE FEET AS PER SURVEY BY MARK E. PATTERSON, PLS #3136 DATED DECEMBER 16, 2016.

PROPOSED 30' ACCESS & UTILITY EASEMENT

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED 30' ACCESS & UTILITY EASEMENT TO BE GRANTED FROM A PORTION OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127, PARCEL ID: 021-028, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN MARION COUNTY, KENTUCKY, ON THE SOUTH SIDE OF KENTUCKY HIGHWAY 52 (a.k.a. ST FRANCIS HIGHWAY).

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SINGLE ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON DECEMBER 16, 2016.

COMMENCING AT A FOUND 5/8" REBAR IN THE SOUTHWEST CORNER OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127 AND CORNER TO THE PROPERTY CONVEYED TO STAR HILL DISTILLING CO. AS RECORDED IN DEED BOOK 89, PAGE 72; THENCE LEAVING SAID COMMON CORNER AND TRAVERSING THE LAND OF SAID MILES PROPERTY N17°18'43"E 107.59' TO A SET 1/2" REBAR, 18" LONG, CAPPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE SOUTHWEST CORNER OF THE PROPOSED LEASE AREA; THENCE WITH SAID LEASE AREA N08°24'07"W 50.00'; THENCE LEAVING SAID LEASE AREA S81°35'53"W 30.00'; THENCE N08°24'07"W 53.07' TO **THE TRUE POINT OF BEGINNING**; THENCE N78°09'01"W 17.97' TO THE WEST LINE OF MILES AND THE EAST LINE OF STAR HILL DISTILLING CO.; THENCE ALONG SAID COMMON LINE, N12°49'30"W 16.51'; THENCE LEAVING SAID COMMON LINE, S78°09'01"E 19.32'; THENCE S08°24'07"E 15.99' TO THE POINT OF BEGINNING CONTAINING 279.657 SQUARE FEET AS PER SURVEY BY MARK E. PATTERSON, PLS #3136 DATED DECEMBER 16, 2016.

PROPOSED 15' UTILITY EASEMENT

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED 15' UTILITY EASEMENT TO BE GRANTED FROM A PORTION OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127, PARCEL ID: 021-028, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN MARION COUNTY, KENTUCKY, ON THE SOUTH SIDE OF KENTUCKY HIGHWAY 52 (a.k.a. ST FRANCIS HIGHWAY).

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SINGLE ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON DECEMBER 16, 2016.

COMMENCING AT A FOUND 5/8" REBAR IN THE SOUTHWEST CORNER OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127 AND CORNER TO THE PROPERTY CONVEYED TO STAR HILL DISTILLING CO. AS RECORDED IN DEED BOOK 89, PAGE 72; THENCE LEAVING SAID COMMON CORNER AND TRAVERSING THE LAND OF SAID MILES PROPERTY N17°18'43"E 107.59' TO A SET 1/2" REBAR, 18" LONG, CAPPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE SOUTHWEST CORNER OF THE PROPOSED LEASE PREMISES; THENCE WITH SAID LEASE PREMISES N08°24'07"W 50.00' TO **THE TRUE POINT OF BEGINNING**; THENCE LEAVING SAID LEASE PREMISES S81°35'53"W 30.00'; THENCE N08°24'07"W 80.00'; THENCE N07°22'50"W 76.94' TO THE SOUTH LINE OF THE VARIABLE WIDTH RIGHT OF WAY OF KENTUCKY HIGHWAY 52(a.k.a. ST FRANCIS HWY) AND THE NORTHERN PROPERTY LINE OF SAID MILES PROPERTY; THENCE WITH SAID RIGHT OF WAY AND THE LINE OF MILES N71°08'58"E 30.61' TO A FOUND KY CONCRETE RIGHT OF WAY MONUMENT; THENCE LEAVING SAID RIGHT OF WAY AND TRAVERSING THE LAND OF SAID MILES S07°22'50"E 67.22'; THENCE WITH THE CHORD OF A CURVE TO THE LEFT HAVING A RADIUS OF 15.00', S52°53'28"E 21.40'; THENCE N81°35'53"E 34.73'; THENCE S08°24'07"E 30.00' TO A SET IPC IN THE NORTHEAST CORNER OF THE PROPOSED LEASE PREMISES; THENCE WITH SAID LEASE PREMISES S81°35'53"W 50.00' TO A SET IPC; THENCE S08°24'07"E 50.00' TO THE POINT OF BEGINNING CONTAINING 6,341.808 SQUARE FEET AS PER SURVEY BY MARK E. PATTERSON, PLS #3136 DATED DECEMBER 16, 2016.

PARENT PARCEL LEGAL DESCRIPTION, COMMISSIONERS DEED BOOK 8, PAGE 127 (NOT FIELD SURVEYED)

A CERTAIN TRACT OF LAND KNOWN AS THE LORETTO FARM CONSISTING OF 93 ACRES, SITUATED JUST WEST OF LORETTO IN MARION COUNTY, KY,

BEGINNING AT A STAKE IN THE LORETTO AND CHICAGO COUNTY ROAD, CORNER TO GENSIE SIMS, OF COLOR; THENCE SOUTH 86--1/2 WEST 67 POLES TO AN ASH, CORNER TO MRS. T. LAKE MILES, AND WITH LINES OF SAME SOUTH 73 EAST 7-3/5 POLES TO A CEDAR, SOUTH 58 EAST 52 POLES TO A STAKE, NORTH 84 EAST 30 POLES TO A BLACK OAK. SOUTH 70 EAST 12-2/5 POLES TO AN ELM, SOUTH 57 EAST 10 POLES TO AN ASH CORNER TO TOM ALVEY, AND WITH THE LINES OF SAME NORTH 30 POLES TO A WALNUT, NORTH 10 EAST 23 2/5 POLES TO A THORN NORTH 20 EAST 6 POLES TO A WALNUT, NORTH 5 WEST 21 POLES TO A HICKORY, CORNER TO CUMMINS AND CO., AND WITH LINES OF SAME NORTH 23 WEST 20 POLES TO A STAKE, NORTH 13 WEST 6 POLES TO A WHITE OAK, NORTH 31-1/2 WEST 23--2/5 POLES TO A STAKE, SOUTH 86 EAST 52 POLES TO A STAKE, NORTH 8-1/2 WEST 32-3/5 POLES TO A STAKE AT L & N R.R. RIGHT OF WAY, AND WITH SAME SOUTH 73 WEST 14 POLES, SOUTH 67-1/2 WEST 14 POLES, SOUTH 64 WEST 18 POLES, SOUTH 58 WEST 15 POLES, SOUTH 54 WEST 10 POLES, THENCE CROSSING RAILROAD NORTH 24 WEST 5 POLES TO CENTER OF LORETTO AND CHICAGO COUNTY ROAD, AND WITH SAME SOUTH 70 WEST 6 POLES SOUTH 87 WEST 55 POLES, SOUTH 40 WEST 110 POLES TO THE BEGINNING, CONTAINING 93

LESS AND EXCEPT THOSE PARCELS NOTED IN DEED BOOK 8, PAGE 127.

REPORT OF TITLE (PARCEL 09-051)

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 US TITLE SOLUTIONS, FOR THE BENEFIT OF MASTEC NETWORK SOLUTIONS - KY/TN ON BEHALF OF AT&T, FILE NO. 55245-KY1609-5034, REFERENCE NUMBER FA10589946, ISSUE DATE OF SEPTEMBER 22, 2016. THE FOLLOWING COMMENTS ARE IN REGARD TO SAID REPORT.

SCHEDULE B

1. TAXES, TAX LIENS, TAX SALES, WATER RATES, SEWER AND ASSESSMENTS SET FORTH IN SCHEDULE HEREIN.
TAX ID :021-28 - TOTAL ASSESSED VALUE:$90,000.00 - PERIOD :2015 PAYMENT STATUS: PAID - TAX AMOUNT : $460.01 - OTHER INFORMATION : COUNTY OF MARION TAX INFORMATION
TAX ID :021-28 - TOTAL ASSESSED VALUE:$90,000.00 - PERIOD :2015 PAYMENT STATUS: PAID - TAX AMOUNT : $66.38 - OTHER INFORMATION : CITY OF LORETTO TAX INFORMATION
(NOT A SURVEY ITEM, THEREFORE, POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)
2. MORTGAGES RETURNED HEREIN. (-0-). SEE SEPARATE MORTGAGE SCHEDULE. NONE WITHIN PERIOD SEARCHED
3. ANY STATE OF FACTS WHICH AN ACCURATE SURVEY MIGHT SHOW OR SURVEY EXCEPTIONS SET FORTH HEREIN. (POD GROUP, LLC DID NOT PERFORM A BOUNDARY SURVEY, THEREFORE WE DID NOT ADDRESS THIS ITEM.)
4. RIGHTS OF TENANTS OR PERSON IN POSSESSION. (POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

(JUDGMENTS, LIENS AND UCC)

5. NONE WITHIN PERIOD SEARCHED

(COVENANTS/RESTRICTIONS)

6. NONE WITHIN PERIOD SEARCHED

(EASEMENTS AND RIGHTS OF WAY)

7. NONE WITHIN PERIOD SEARCHED

STATE OF KENTUCKY
MARK E. PATTERSON
3136
LICENSED PROFESSIONAL LAND SURVEYOR

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.

12/7/2017

MARK PATTERSON, PLS #3136 — DATE

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

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

SURVEY

REV.	DATE	DESCRIPTION
A	12.29.16	PRELIM ISSUE W/ TITLE
0	1.4.17	ISSUED AS FINAL
1	2.28.17	SITE ADDRESS

SITE INFORMATION:

LORETTO
5095 KENTUCKY HIGHWAY 52
a.k.a. ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

TAX PARCEL NUMBER:
021-028

PROPERTY OWNER:
FREDDIE & JUDY MILES
5095 HIGHWAY 52
LORETTO, KY 40037

SOURCE OF TITLE:
COMMISSIONERS
DEED BOOK 8, PAGE 127

SITE NUMBER:
KYLSU1691

POD NUMBER:	16-11609
DRAWN BY:	DAP
CHECKED BY:	MEP
DATE:	12.29.16

SHEET TITLE:

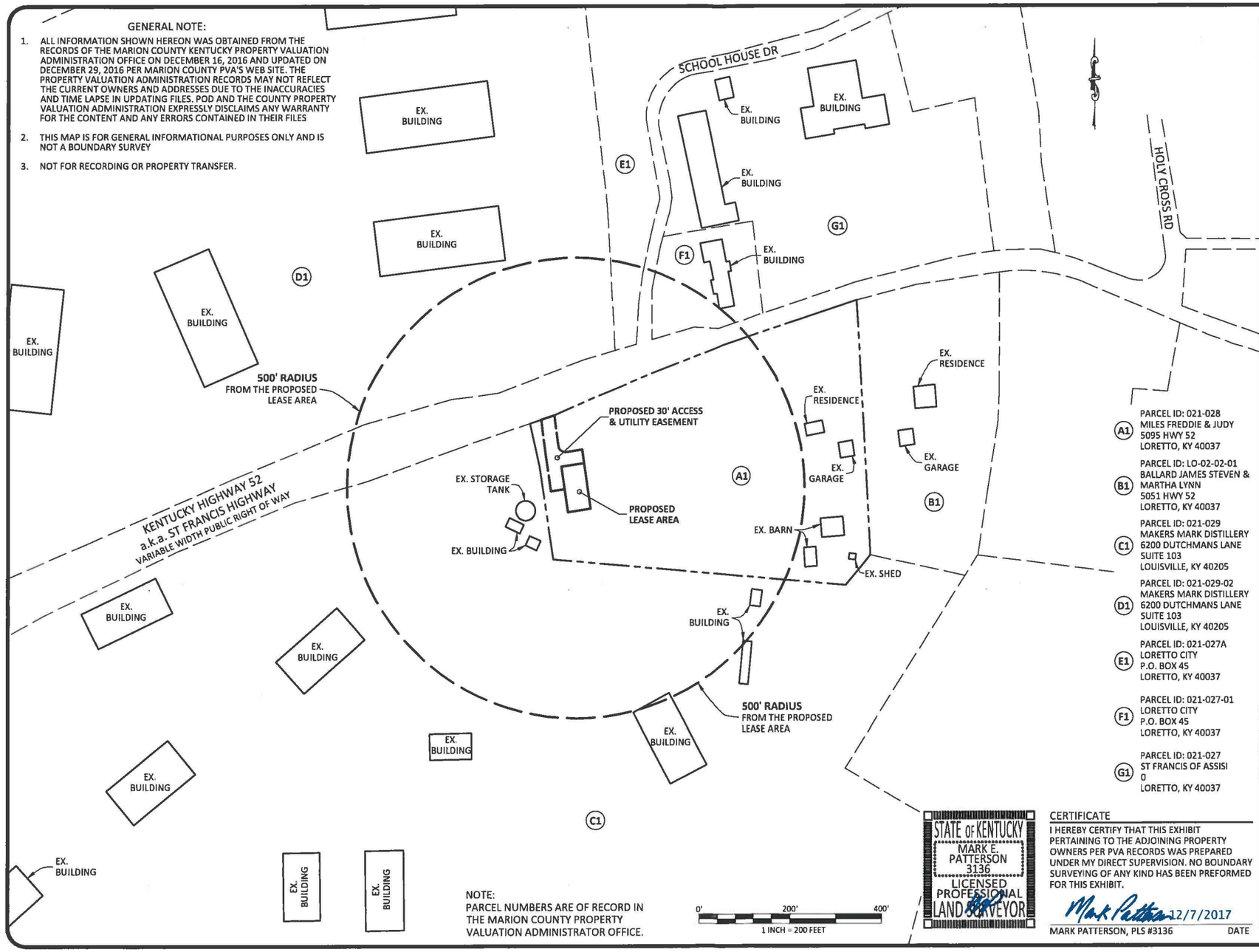
SITE SURVEY

SHEET NUMBER:

B-1.1

GENERAL NOTE:

1. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE MARION COUNTY KENTUCKY PROPERTY VALUATION ADMINISTRATION OFFICE ON DECEMBER 16, 2016 AND UPDATED ON DECEMBER 29, 2016 PER MARION COUNTY PVA'S WEB SITE. 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.



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

0' 200' 400'
1 INCH = 200 FEET

STATE OF KENTUCKY
MARK E. PATTERSON
3136
LICENSED PROFESSIONAL LAND SURVEYOR

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 PREFORMED FOR THIS EXHIBIT.

Mark Patterson 12/7/2017
MARK PATTERSON, PLS #3136 DATE

A1 PARCEL ID: 021-028
MILES FREDDIE & JUDY
5095 HWY 52
LORETTO, KY 40037

B1 PARCEL ID: LO-02-02-01
BALLARD JAMES STEVEN & MARTHA LYNN
5051 HWY 52
LORETTO, KY 40037

C1 PARCEL ID: 021-029
MAKERS MARK DISTILLERY
6200 DUTCHMANS LANE
SUITE 103
LOUISVILLE, KY 40205

D1 PARCEL ID: 021-029-02
MAKERS MARK DISTILLERY
6200 DUTCHMANS LANE
SUITE 103
LOUISVILLE, KY 40205

E1 PARCEL ID: 021-027A
LORETTO CITY
P.O. BOX 45
LORETTO, KY 40037

F1 PARCEL ID: 021-027-01
LORETTO CITY
P.O. BOX 45
LORETTO, KY 40037

G1 PARCEL ID: 021-027
ST FRANCIS OF ASSISI
0
LORETTO, KY 40037

PREPARED BY:
POD
POWER OF DESIGN
11490 BLUEGRASS PARKWAY
LOUISVILLE, KY 40299
502-457-5257

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

EXHIBIT

REV.	DATE	DESCRIPTION
A	12.29.16	ISSUED FOR REVIEW
0	1.4.17	ISSUED AS FINAL

SITE INFORMATION:
LORETTO
5095 KENTUCKY HIGHWAY 52
a.k.a. ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

TAX PARCEL NUMBER:
021-028

PROPERTY OWNER:
FREDDIE & JUDY MILES
5095 HIGHWAY 52
LORETTO, KY 40037

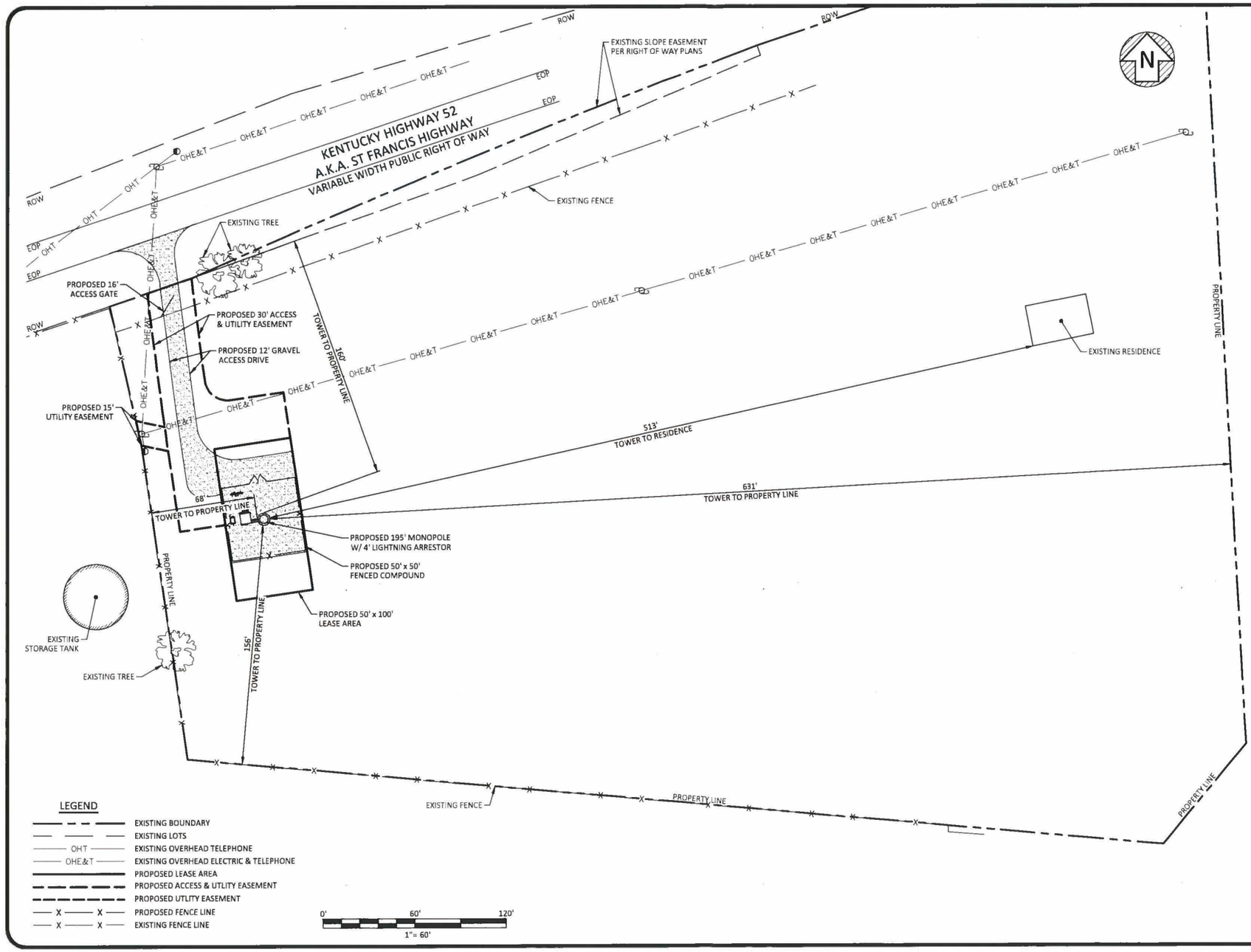
SOURCE OF TITLE:
COMMISSIONERS
DEED BOOK 8, PAGE 127

SITE NUMBER:
KYLSU1691

POD NUMBER:	16-11610
DRAWN BY:	DAP
CHECKED BY:	MEP
DATE:	12.29.16

SHEET TITLE:
500' RADIUS AND ABUTTERS MAP

SHEET NUMBER:
B-2



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

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

STATE OF KENTUCKY
MARK E. PATTERSON
16,300
LICENSED PROFESSIONAL ENGINEER
12/7/2017

EN PERMIT: 3594

ZONING DRAWINGS

REV	DATE	DESCRIPTION
A	2.15.17	ISSUED FOR REVIEW
B	2.28.17	PLG COMMENTS
0	3.6.17	ISSUED FOR FINALS
1	12.6.17	TOWER DESIGN

SITE INFORMATION:

LORETTO

5095 KENTUCKY HIGHWAY 52
A.K.A ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

SITE NUMBER:
KYLSU1691

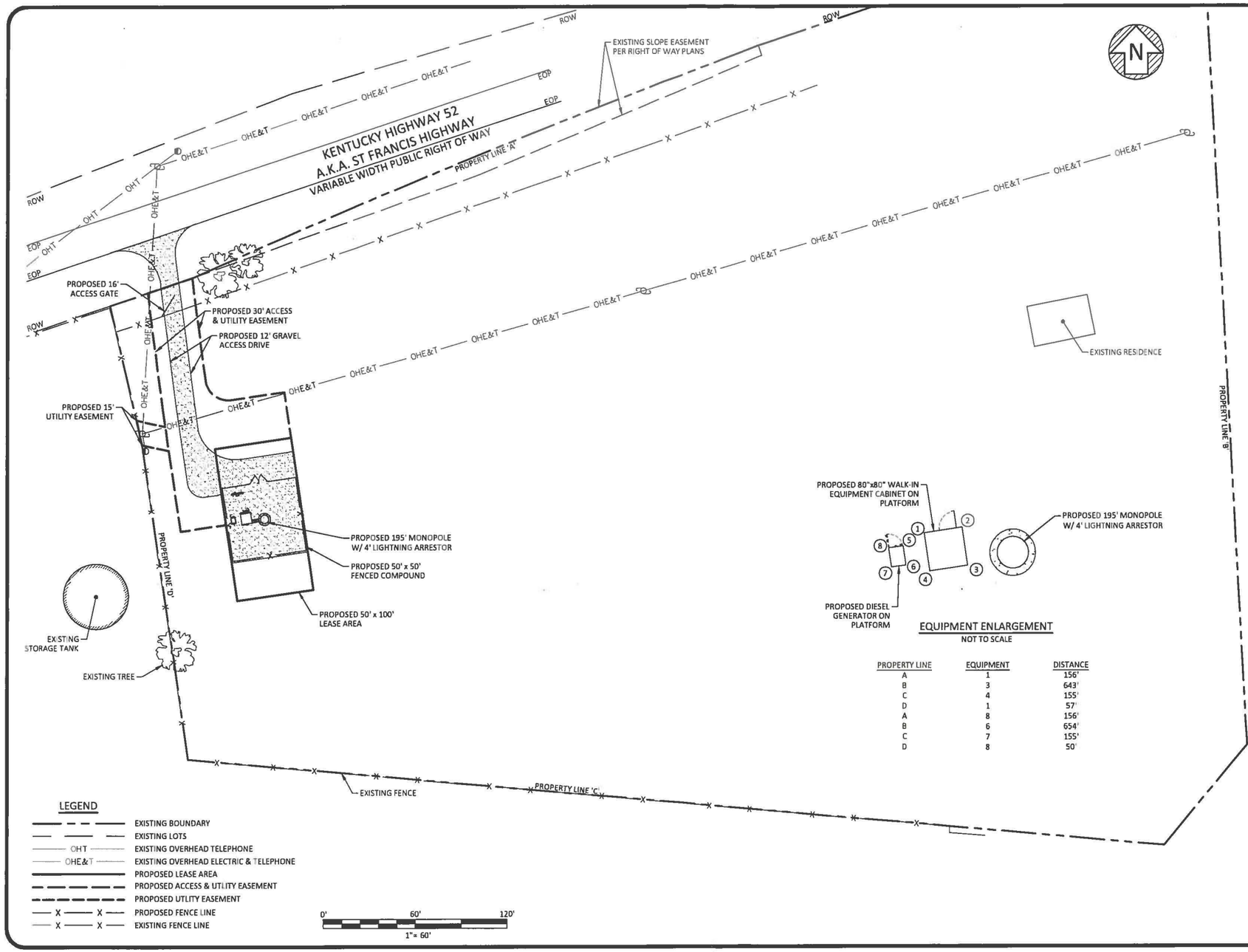
POD NUMBER:	16-11611
DRAWN BY:	JGB
CHECKED BY:	MEP
DATE:	2.15.17

SHEET TITLE:

OVERALL SITE LAYOUT

SHEET NUMBER:

C-1



EQUIPMENT ENLARGEMENT
NOT TO SCALE

PROPERTY LINE	EQUIPMENT	DISTANCE
A	1	156'
B	3	643'
C	4	155'
D	1	57'
A	8	156'
B	6	654'
C	7	155'
D	8	50'

LEGEND

- EXISTING BOUNDARY
- EXISTING LOTS
- OHT — EXISTING OVERHEAD TELEPHONE
- OHE&T — EXISTING OVERHEAD ELECTRIC & TELEPHONE
- PROPOSED LEASE AREA
- PROPOSED ACCESS & UTILITY EASEMENT
- PROPOSED UTILITY EASEMENT
- X — X — PROPOSED FENCE LINE
- X — X — EXISTING FENCE LINE

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

PREPARED FOR: MasTec

PREPARED FOR: at&t

STATE OF KENTUCKY
MARK E. PATTERSON
16,300
PROFESSIONAL ENGINEER
12/7/2017
EN PERMIT: 3594

ZONING DRAWINGS

REV	DATE	DESCRIPTION
A	2.15.17	ISSUED FOR REVIEW
B	2.28.17	PLG COMMENTS
0	3.6.17	ISSUED FOR FINALS
1	12.6.17	TOWER DESIGN

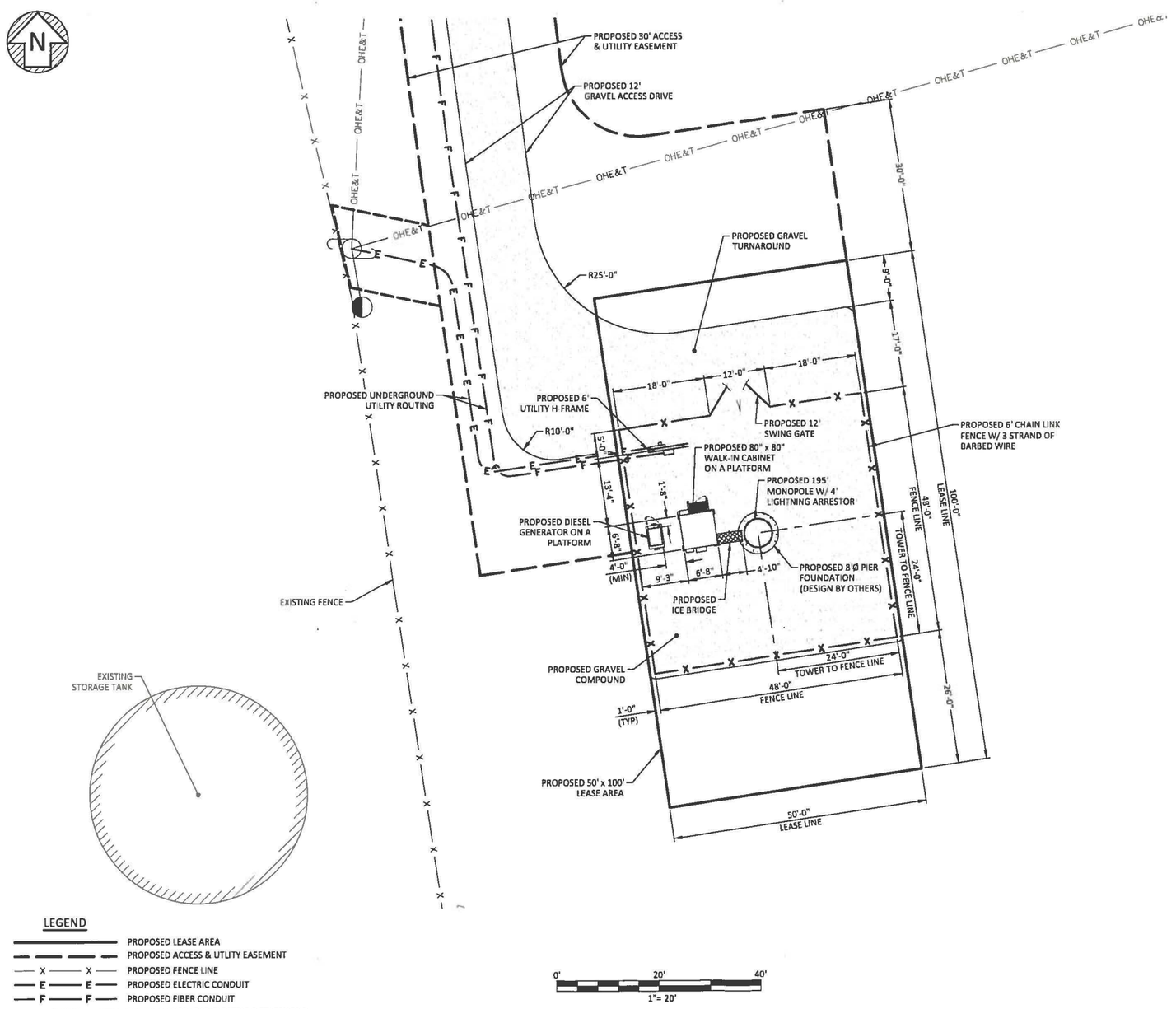
SITE INFORMATION:
LORETTO
5095 KENTUCKY HIGHWAY 52
A.K.A ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

SITE NUMBER:
KYLSU1691

POD NUMBER: 16-11611
DRAWN BY: JGB
CHECKED BY: MEP
DATE: 2.15.17

SHEET TITLE:
OVERALL SITE LAYOUT - CONT'D

SHEET NUMBER:
C-2



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

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

STATE OF KENTUCKY
MARK E. PATTERSON
16,300
LICENSED PROFESSIONAL ENGINEER
12/7/2017

EN PERMIT: 3594

ZONING DRAWINGS

REV	DATE	DESCRIPTION
A	2.15.17	ISSUED FOR REVIEW
B	2.28.17	PLG COMMENTS
0	3.6.17	ISSUED FOR FINALS
1	12.6.17	TOWER DESIGN

SITE INFORMATION:

LORETTO

5095 KENTUCKY HIGHWAY 52
A.K.A ST FRANCIS HIGHWAY
LORETTO, KY 40037

MARION COUNTY

SITE NUMBER:
KYLSU1691

POD NUMBER: 16-11611

DRAWN BY: JGB
CHECKED BY: MEP
DATE: 2.15.17

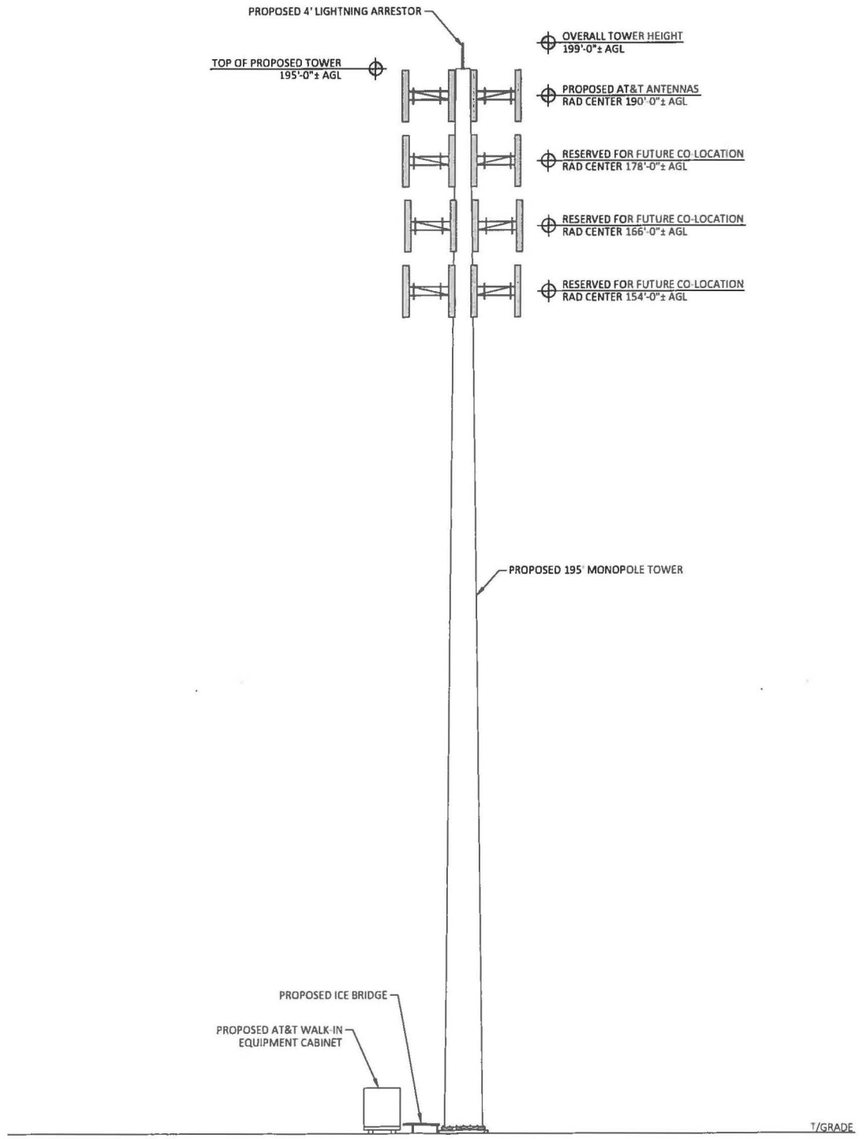
SHEET TITLE:

ENLARGED COMPOUND LAYOUT

SHEET NUMBER:
C-3

TOWER NOTES:

1. THE PROPOSED TOWER, FOUNDATION, ANTENNA MOUNTS, AND ANTENNAS WERE DESIGNED BY OTHERS.
2. THE TOWER ELEVATION SHOWN IS FOR REFERENCE ONLY.
3. SEE TOWER MANUFACTURER'S DRAWINGS FOR TOWER AND FOUNDATION DETAILS & SPECIFICATIONS.
4. MANUFACTURER'S DRAWINGS SUPERCEDE A&E DRAWINGS.



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

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

STATE OF KENTUCKY
MARK E. PATTERSON
16,390
PROFESSIONAL ENGINEER
12/7/2017

EN PERMIT: 3594

ZONING DRAWINGS

REV	DATE	DESCRIPTION
A	2.15.17	ISSUED FOR REVIEW
B	2.28.17	PLG COMMENTS
0	3.6.17	ISSUED FOR FINALS
1	12.6.17	TOWER DESIGN

SITE INFORMATION:

LORETTO

5095 KENTUCKY HIGHWAY 52
A.K.A ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

SITE NUMBER:
KYLSU1691

POD NUMBER:	16-11611
DRAWN BY:	JGB
CHECKED BY:	MEP
DATE:	2.15.17

SHEET TITLE:

TOWER ELEVATION

SHEET NUMBER:
C-4

EXHIBIT C
TOWER AND FOUNDATION DESIGN

Sabre Industries™
Towers and Poles

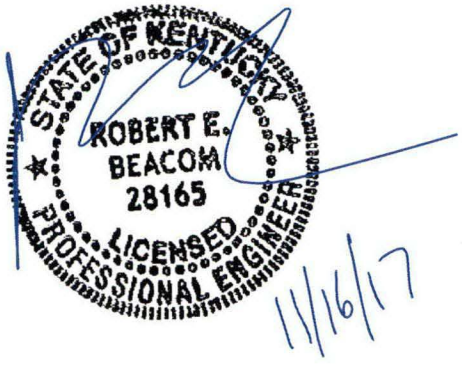
Structural Design Report

195' Monopole
Site: Loretto, KY
Site Number: KYLSU1691

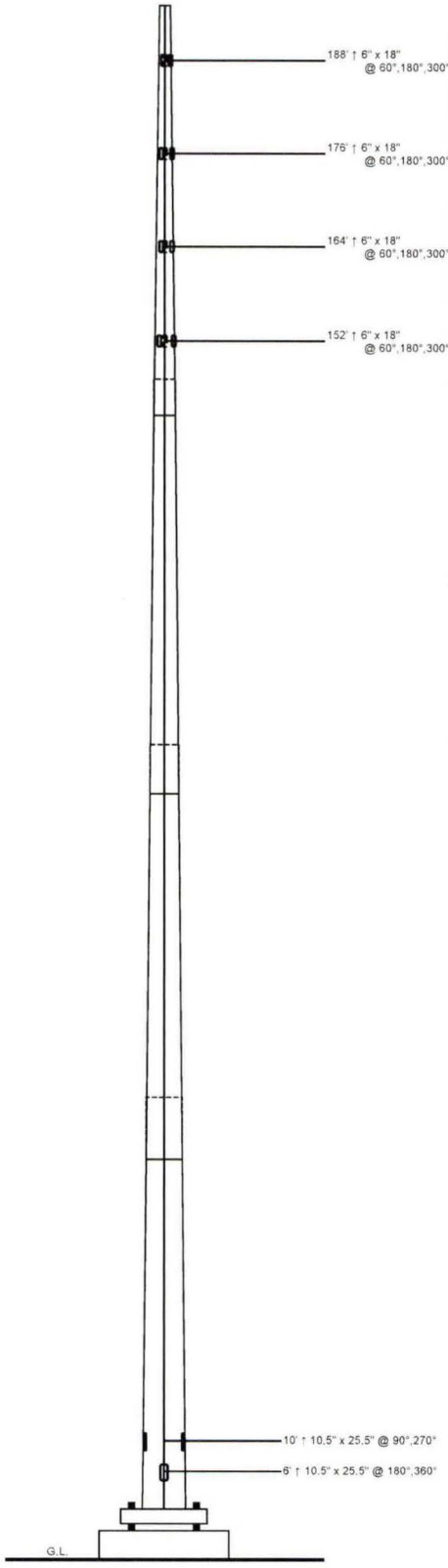
Prepared for: MASTEC NETWORK SOLUTIONS GROUP
by: Sabre Towers & Poles ™

Job Number: 174305

November 16, 2017



Length (ft)	53'-3"	53'-6"	53'-6"	52'-9"
Number Of Sides		18		
Thickness (in)	1/2"	7/16"	5/16"	
Lap Splice (ft)	8' - 0"	6' - 3"	A	
Top Diameter (in)	54.31"	43.08"	31.27"	19"
Bottom Diameter (in)	68.61"	57.45"	45.64"	33.17"
Taper (in/ft)	0.2686			
Grade	A572-65			
Weight (lbs)	20843	15234	10185	5373
Overall Steel Height (ft)	194			



Designed Appurtenance Loading

Elev	Description	Tx-Line
190	(1) 278 Sq. FT. EPA /6000# (No Ice)	(18) 1 5/8"
178	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"
166	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"
154	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"

Load Case Reactions

Description	Axial (kips)	Shear (kips)	Moment (ft-k)	Deflection (ft)	Sway (deg)
3s Gusted Wind	92.28	62.23	9824.28	19.49	11.85
3s Gusted Wind 0.9 Dead	69.19	62.1	9608.19	18.94	11.48
3s Gusted Wind&Ice	141.76	10.19	1778.9	3.77	2.25
Service Loads	77.01	15.83	2494.44	5.1	3.05

Base Plate Dimensions

Shape	Diameter	Thickness	Bolt Circle	Bolt Qty	Bolt Diameter
Round	81.75"	2.5"	76"	26	2.25"

Anchor Bolt Dimensions

Length	Diameter	Hole Diameter	Weight	Type	Finish
84"	2.25"	2.625"	3148.6	A615-75	Galv

Material List

Display	Value
A	4' - 9"

Notes

1) Antenna Feed Lines Run Inside Pole
2) All dimensions are above ground level, unless otherwise specified.
3) Weights shown are estimates. Final weights may vary.
4) The Monopole was designed for a basic wind speed of 89 mph with 0" of radial ice, and 30 mph with 3/4" of radial ice, in accordance with ANSI/TIA-222-G, Structure Class II, Exposure Category C, Topographic Category 1.
5) The tower design meets the requirements for an Ultimate Wind Speed of 115 mph (Risk Category II), in accordance with the 2012 International Building Code.
6) Full Height Step Bolts
7) Tower Rating: 99.6%

Sabre Industries
Towers and Poles

Sabre Communications Corporation
7101 Southbridge Drive
P.O. Box 658
Sioux City, IA 51102-0658
Phone: (712) 258-6690
Fax: (712) 279-0814

Job:	**174305**
Customer:	MASTEC NETWORK SOLUTIONS GROUP
Site Name:	Loretto, KY KYLSU1691
Description:	195' Monopole
Date:	11/16/2017 By: REB

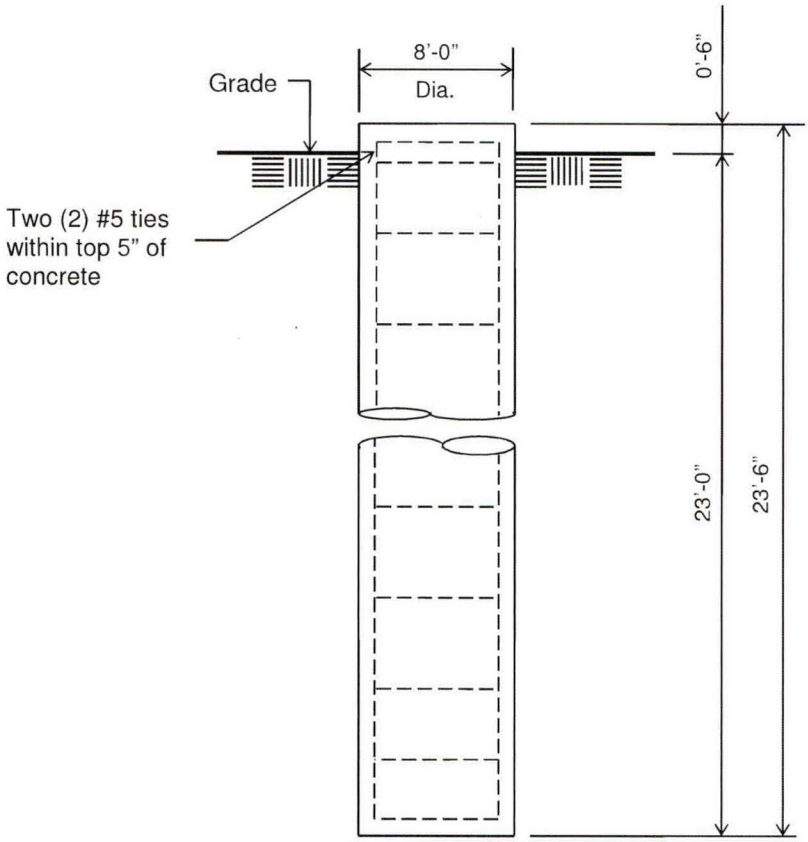
Sabre Industries™
Towers and Poles

No.: 174305

Date: 11/16/17
By: REB

Customer: MASTEC NETWORK SOLUTIONS GROUP
Site: Loretto, KY KYLSU1691

195' Monopole at
89 mph Wind with no ice and 30 mph Wind with 0.75 in. Ice per ANSI/TIA-222-G.
Antenna Loading per Page 1



ELEVATION VIEW
(43.75 Cu. Yds.)
(1 REQUIRED; NOT TO SCALE)

Notes:

1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-11.

2) Rebar to conform to ASTM specification A615 Grade 60.

3) All rebar to have a minimum of 3" concrete cover.

4) All exposed concrete corners to be chamfered 3/4".

5) The foundation design is based on the geotechnical report by POD project no. 16-12219, dated: 3/13/17

6) See the geotechnical report for drilled pier installation requirements, if specified.

7) The foundation is based on the following factored loads:
   Moment (kip-ft) = 9824.28
   Axial (kips) = 92.28
   Shear (kips) = 62.23

Rebar Schedule for Pier	
Pier	(42) #11 vertical rebar w/ #5 ties, two within top 5" of pier, then 7" C/C

7101 Southbridge Drive - P.O. Box 658 - Sioux City, IA 51102-0658 - Phone 712.258.6690 - Fax 712.279.0814

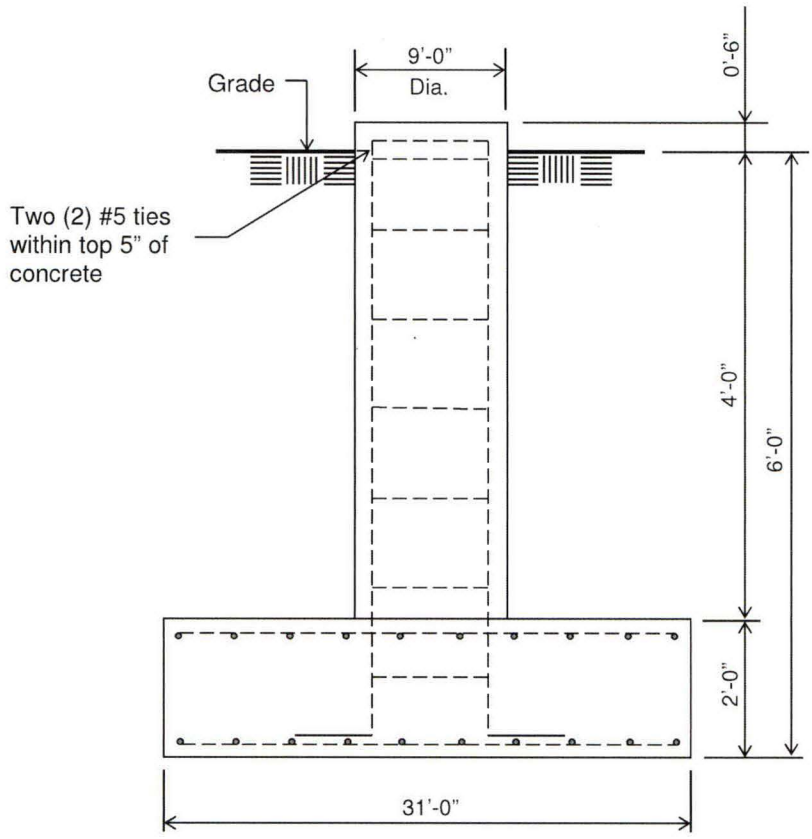
Sabre Industries™
Towers and Poles

No.: 174305

Date: 11/16/17
By: REB

Customer: MASTEC NETWORK SOLUTIONS GROUP
Site: Loretto, KY KYLSU1691

195' Monopole at
89 mph Wind with no ice and 30 mph Wind with 0.75 in. Ice per ANSI/TIA-222-G.
Antenna Loading per Page 1



ELEVATION VIEW
(81.79 Cu. Yds.)
(1 REQUIRED; NOT TO SCALE)

Notes:

1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-11.

2) Rebar to conform to ASTM specification A615 Grade 60.

3) All rebar to have a minimum of 3" concrete cover.

4) All exposed concrete corners to be chamfered 3/4".

5) The foundation design is based on the geotechnical report by POD project no. 16-12219, dated: 3/13/17

6) See the geotechnical report for compaction requirements, if specified.

7) 4 ft of soil cover is required over the entire area of the foundation slab.

8) The foundation is based on the following factored loads:
   Moment (kip-ft) = 9824.28
   Axial (kips) = 92.28
   Shear (kips) = 62.23

Rebar Schedule for Pad and Pier	
Pier	(62) #8 vertical rebar w/ hooks at bottom w/ #5 ties, two within top 5" of pier, then 12" C/C
Pad	(70) #9 horizontal rebar evenly spaced each way top and bottom (280 total)

7101 Southbridge Drive - P.O. Box 658 - Sioux City, IA 51102-0658 - Phone 712.258.6690 - Fax 712.279.0814

(USA 222-G) - Monopole Spatial Analysis (c)2015 Guymast Inc.

Tel:(416)736-7453 Fax:(416)736-4372 Web:www.guymast.com

Processed under license at:

Sabre Towers and Poles on: 16 nov 2017 at: 10:22:26

195' Monopole / Loretto, KY

* All pole diameters shown on the following pages are across corners.
See profile drawing for widths across flats.

POLE GEOMETRY

ELEV ft	SECTION NAME	No. SIDE	OUTSIDE DIAM in	THICK -NESS in	RESISTANCES ♦*Pn kip	♦*Mn ft-kip	SPLICE TYPE	...OVERLAP... LENGTH ft	RATIO	w/t
194.0										
			19.29	0.312	1377.1	524.8				
	A	18								9.0
			32.38	0.312	2319.8	1503.5				
146.0										
			32.38	0.312	2319.8	1503.5				
	A/B	18					SLIP	4.75	1.75	
			33.06	0.438	3313.3	2176.5				
141.2										
			33.06	0.438	3313.3	2176.5				
	B	18								11.4
			44.62	0.438	4488.6	4008.4				
98.7										
			44.62	0.438	4488.6	4008.4				
	B/C	18					SLIP	6.25	1.67	
			45.47	0.500	5220.4	4738.5				
92.5										
			45.47	0.500	5220.4	4738.5				
	C	18								14.0
			56.14	0.500	6302.8	7094.4				
53.2										
			56.14	0.500	6302.8	7094.4				
	C/D	18					SLIP	8.00	1.70	
			57.34	0.500	6399.4	7359.5				
45.2										
			57.34	0.500	6399.4	7359.5				
	D	18								18.2
			69.67	0.500	7297.5	10228.4				
0.0										

POLE ASSEMBLY

SECTION NAME	BASE ELEV ft	BOLTS AT BASE OF SECTION NUMBER	TYPE	DIAM in	STRENGTH ksi	THREADS IN SHEAR PLANE	CALC BASE ELEV ft
A	141.250	0	A325	0.00	92.0	0	141.250
B	92.500	0	A325	0.00	92.0	0	92.500
C	45.250	0	A325	0.00	92.0	0	45.250
D	0.000	0	A325	0.00	92.0	0	0.000

POLE SECTIONS

SECTION NAME	No.of SIDES	LENGTH ft	OUTSIDE.DIAMETER BOT * in	TOP * in	THICK-NESS in	MAT-ERIAL ID	FLANGE.ID BOT	TOP	FLANGE.WELD ..GROUP.ID.. BOT	TOP
A	18	52.75	33.68	19.29	0.312	1	0	0	0	0
B	18	53.50	46.34	31.75	0.438	2	0	0	0	0
C	18	53.50	58.34	43.75	0.500	3	0	0	0	0
D	18	53.25	69.67	55.14	0.500	4	0	0	0	0

* - Diameter of circumscribed circle

MATERIAL TYPES

TYPE OF SHAPE	TYPE NO	NO OF ELEM.	ORIENT & deg	HEIGHT in	WIDTH in	.THICKNESS. WEB in	FLANGE in	IRREGULARITY .PROJECTION. % OF AREA	ORIENT deg
PL	1	1	0.0	33.68	0.31	0.312	0.312	0.00	0.0
PL	2	1	0.0	46.34	0.44	0.438	0.438	0.00	0.0
PL	3	1	0.0	58.34	0.50	0.500	0.500	0.00	0.0
PL	4	1	0.0	69.67	0.50	0.500	0.500	0.00	0.0

& - With respect to vertical

MATERIAL PROPERTIES

MATERIAL TYPE NO.	ELASTIC MODULUS ksi	UNIT WEIGHT pcf	.. STRENGTH .. Fu ksi	Fy ksi	THERMAL COEFFICIENT /deg
1	29000.0	490.0	80.0	65.0	0.00001170
2	29000.0	490.0	80.0	65.0	0.00001170
3	29000.0	490.0	80.0	65.0	0.00001170
4	29000.0	490.0	80.0	65.0	0.00001170

* Only 3 condition(s) shown in full
* Some concentrated wind loads may have been derived from full-scale wind tunnel testing

LOADING CONDITION A

89 mph wind with no ice. Wind Azimuth: 0♦

LOADS ON POLE

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	189.000	0.00	0.0	0.0	0.0000	4.2457	0.0000	0.0000
C	189.000	0.00	0.0	0.0	13.6549	7.2000	0.0000	0.0000
C	177.000	0.00	0.0	0.0	0.0000	3.9761	0.0000	0.0000
C	177.000	0.00	0.0	0.0	10.1348	4.8374	0.0000	0.0000
C	165.000	0.00	0.0	0.0	0.0000	3.7066	0.0000	0.0000
C	165.000	0.00	0.0	0.0	9.9870	4.8374	0.0000	0.0000
C	153.000	0.00	0.0	0.0	0.0000	3.4370	0.0000	0.0000
C	153.000	0.00	0.0	0.0	9.8304	4.8374	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0569	0.0846	0.0000	0.0000
D	178.000	0.00	180.0	0.0	0.0569	0.0846	0.0000	0.0000
D	178.000	0.00	180.0	0.0	0.0672	0.1018	0.0000	0.0000
D	162.000	0.00	180.0	0.0	0.0672	0.1018	0.0000	0.0000
D	162.000	0.00	180.0	0.0	0.0770	0.1190	0.0000	0.0000
D	146.000	0.00	180.0	0.0	0.0770	0.1190	0.0000	0.0000
D	146.000	0.00	180.0	0.0	0.0830	0.3091	0.0000	0.0000
D	141.250	0.00	180.0	0.0	0.0830	0.3091	0.0000	0.0000
D	141.250	0.00	180.0	0.0	0.0866	0.1931	0.0000	0.0000
D	127.083	0.00	180.0	0.0	0.0866	0.1931	0.0000	0.0000
D	127.083	0.00	180.0	0.0	0.0940	0.2145	0.0000	0.0000
D	112.917	0.00	180.0	0.0	0.0940	0.2145	0.0000	0.0000
D	112.917	0.00	180.0	0.0	0.1007	0.2358	0.0000	0.0000
D	98.750	0.00	180.0	0.0	0.1007	0.2358	0.0000	0.0000
D	98.750	0.00	180.0	0.0	0.1050	0.5330	0.0000	0.0000
D	92.500	0.00	180.0	0.0	0.1050	0.5330	0.0000	0.0000
D	92.500	0.00	180.0	0.0	0.1066	0.2985	0.0000	0.0000
D	79.417	0.00	180.0	0.0	0.1066	0.2985	0.0000	0.0000

D	79.417	0.00	180.0	0.0	0.1108	0.3210	0.0000	0.0000
D	66.333	0.00	180.0	0.0	0.1108	0.3210	0.0000	0.0000
D	66.333	0.00	180.0	0.0	0.1138	0.3436	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.1138	0.3436	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.1151	0.7178	0.0000	0.0000
D	45.250	0.00	180.0	0.0	0.1151	0.7178	0.0000	0.0000
D	45.250	0.00	180.0	0.0	0.1132	0.3727	0.0000	0.0000
D	33.937	0.00	180.0	0.0	0.1132	0.3727	0.0000	0.0000
D	33.937	0.00	180.0	0.0	0.1100	0.3922	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.1052	0.4313	0.0000	0.0000

LOADING CONDITION M

89 mph wind with no ice. Wind Azimuth: 0♦

LOADS ON POLE

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	189.000	0.00	0.0	0.0	0.0000	3.1843	0.0000	0.0000
C	189.000	0.00	0.0	0.0	13.6549	5.4000	0.0000	0.0000
C	177.000	0.00	0.0	0.0	0.0000	2.9821	0.0000	0.0000
C	177.000	0.00	0.0	0.0	10.1348	3.6281	0.0000	0.0000
C	165.000	0.00	0.0	0.0	0.0000	2.7799	0.0000	0.0000
C	165.000	0.00	0.0	0.0	9.9870	3.6281	0.0000	0.0000
C	153.000	0.00	0.0	0.0	0.0000	2.5777	0.0000	0.0000
C	153.000	0.00	0.0	0.0	9.8304	3.6281	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0569	0.0635	0.0000	0.0000
D	178.000	0.00	180.0	0.0	0.0569	0.0635	0.0000	0.0000
D	178.000	0.00	180.0	0.0	0.0672	0.0764	0.0000	0.0000
D	162.000	0.00	180.0	0.0	0.0672	0.0764	0.0000	0.0000
D	162.000	0.00	180.0	0.0	0.0770	0.0893	0.0000	0.0000
D	146.000	0.00	180.0	0.0	0.0770	0.0893	0.0000	0.0000
D	146.000	0.00	180.0	0.0	0.0830	0.2318	0.0000	0.0000
D	141.250	0.00	180.0	0.0	0.0830	0.2318	0.0000	0.0000
D	141.250	0.00	180.0	0.0	0.0866	0.1448	0.0000	0.0000
D	127.083	0.00	180.0	0.0	0.0866	0.1448	0.0000	0.0000
D	127.083	0.00	180.0	0.0	0.0940	0.1608	0.0000	0.0000
D	112.917	0.00	180.0	0.0	0.0940	0.1608	0.0000	0.0000
D	112.917	0.00	180.0	0.0	0.1007	0.1768	0.0000	0.0000
D	98.750	0.00	180.0	0.0	0.1007	0.1768	0.0000	0.0000
D	98.750	0.00	180.0	0.0	0.1050	0.3997	0.0000	0.0000
D	92.500	0.00	180.0	0.0	0.1050	0.3997	0.0000	0.0000
D	92.500	0.00	180.0	0.0	0.1066	0.2239	0.0000	0.0000
D	79.417	0.00	180.0	0.0	0.1066	0.2239	0.0000	0.0000
D	79.417	0.00	180.0	0.0	0.1108	0.2408	0.0000	0.0000
D	66.333	0.00	180.0	0.0	0.1108	0.2408	0.0000	0.0000
D	66.333	0.00	180.0	0.0	0.1138	0.2577	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.1138	0.2577	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.1151	0.5383	0.0000	0.0000
D	45.250	0.00	180.0	0.0	0.1151	0.5383	0.0000	0.0000
D	45.250	0.00	180.0	0.0	0.1132	0.2795	0.0000	0.0000
D	33.937	0.00	180.0	0.0	0.1132	0.2795	0.0000	0.0000
D	33.937	0.00	180.0	0.0	0.1100	0.2941	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.1052	0.3234	0.0000	0.0000

LOADING CONDITION Y

30 mph wind with 0.75 ice. Wind Azimuth: 0♦

LOADS ON POLE

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	189.000	0.00	0.0	0.0	0.0000	4.2457	0.0000	0.0000

C	189.000	0.00	0.0	0.0	1.6678	17.9218	0.0000	0.0000
C	177.000	0.00	0.0	0.0	0.0000	3.9761	0.0000	0.0000
C	177.000	0.00	0.0	0.0	1.9965	11.9388	0.0000	0.0000
C	165.000	0.00	0.0	0.0	0.0000	3.7066	0.0000	0.0000
C	165.000	0.00	0.0	0.0	1.9587	11.8894	0.0000	0.0000
C	153.000	0.00	0.0	0.0	0.0000	3.4370	0.0000	0.0000
C	153.000	0.00	0.0	0.0	1.9188	11.8367	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0087	0.1353	0.0000	0.0000
D	178.000	0.00	180.0	0.0	0.0087	0.1353	0.0000	0.0000
D	178.000	0.00	180.0	0.0	0.0100	0.1615	0.0000	0.0000
D	162.000	0.00	180.0	0.0	0.0100	0.1615	0.0000	0.0000
D	162.000	0.00	180.0	0.0	0.0113	0.1874	0.0000	0.0000
D	146.000	0.00	180.0	0.0	0.0113	0.1874	0.0000	0.0000
D	146.000	0.00	180.0	0.0	0.0120	0.3829	0.0000	0.0000
D	141.250	0.00	180.0	0.0	0.0120	0.3829	0.0000	0.0000
D	141.250	0.00	180.0	0.0	0.0125	0.2706	0.0000	0.0000
D	127.083	0.00	180.0	0.0	0.0125	0.2706	0.0000	0.0000
D	127.083	0.00	180.0	0.0	0.0134	0.2991	0.0000	0.0000
D	112.917	0.00	180.0	0.0	0.0134	0.2991	0.0000	0.0000
D	112.917	0.00	180.0	0.0	0.0142	0.3273	0.0000	0.0000
D	98.750	0.00	180.0	0.0	0.0142	0.3273	0.0000	0.0000
D	98.750	0.00	180.0	0.0	0.0148	0.6292	0.0000	0.0000
D	92.500	0.00	180.0	0.0	0.0148	0.6292	0.0000	0.0000
D	92.500	0.00	180.0	0.0	0.0150	0.3972	0.0000	0.0000
D	79.417	0.00	180.0	0.0	0.0150	0.3972	0.0000	0.0000
D	79.417	0.00	180.0	0.0	0.0155	0.4252	0.0000	0.0000
D	66.333	0.00	180.0	0.0	0.0155	0.4252	0.0000	0.0000
D	66.333	0.00	180.0	0.0	0.0158	0.4526	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0158	0.4526	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0159	0.8302	0.0000	0.0000
D	45.250	0.00	180.0	0.0	0.0159	0.8302	0.0000	0.0000
D	45.250	0.00	180.0	0.0	0.0157	0.4860	0.0000	0.0000
D	11.312	0.00	180.0	0.0	0.0145	0.5267	0.0000	0.0000
D	11.312	0.00	180.0	0.0	0.0145	0.5396	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.0145	0.5396	0.0000	0.0000

(USA 222-G) - Monopole Spatial Analysis (c)2015 Guymast Inc.

Tel:(416)736-7453 Fax:(416)736-4372 Web:www.guymast.com

Processed under license at:

Sabre Towers and Poles on: 16 nov 2017 at: 10:22:26

195' Monopole / Loretto, KY

MAXIMUM POLE DEFORMATIONS CALCULATED(w.r.t. wind direction)

MAST ELEV ft	DEFLECTIONS (ft) HORIZONTAL ALONG	HORIZONTAL ACROSS	DOWN	ROTATIONS (deg) TILT ALONG	TILT ACROSS	TWIST
194.0	19.49B	-0.04R	2.83B	11.85B	-0.02R	0.00U
178.0	16.33B	-0.04R	2.18B	11.65B	-0.02R	0.00U
162.0	13.30B	-0.03R	1.58B	10.79B	-0.02R	0.00U
146.0	10.55B	-0.03R	1.10B	9.41B	-0.02R	0.00U
141.2	9.80B	-0.03R	0.98B	9.07B	-0.02R	0.00U
127.1	7.75B	-0.02R	0.67B	7.91B	-0.02R	0.00E
112.9	5.97B	-0.02R	0.44B	6.74B	-0.02R	0.00E
98.7	4.46B	-0.01R	0.28B	5.62B	-0.02R	0.00E
92.5	3.87B	-0.01R	0.23B	5.20B	-0.02R	0.00E
79.4	2.80B	-0.01R	0.14B	4.31B	-0.01R	0.00E

66.3	1.91B	-0.01R	0.08B	3.49B	-0.01R	0.00E
53.2	1.21B	0.00R	0.04B	2.72B	-0.01R	0.00E
45.2	0.86B	0.00R	0.02B	2.27B	-0.01R	0.00E
33.9	0.47B	0.00R	0.01B	1.65B	-0.01R	0.00E
22.6	0.21B	0.00R	0.00B	1.06B	0.00R	0.00E
11.3	0.05B	0.00R	0.00B	0.52B	0.00R	0.00E
0.0	0.00A	0.00A	0.00A	0.00A	0.00A	0.00A

MAXIMUM POLE FORCES CALCULATED(w.r.t. to wind direction)

MAST ELEV ft	TOTAL AXIAL kip	SHEAR.w.r.t.WIND.DIR ALONG kip	ACROSS kip	MOMENT.w.r.t.WIND.DIR ALONG ft-kip	ACROSS ft-kip	TORSION ft-kip
194.0	-0.01 I	0.00 Q	0.00 L	0.02 Q	-0.01 X	0.00 X
	24.33 AI	14.55 Q	0.00 L	-177.95 B	0.05 U	0.08 U
178.0	24.33 AJ	14.55 P	0.01 H	-177.93 B	0.06 U	0.07 U
	58.42 AJ	35.73 P	0.01 H	-656.41 B	0.18 U	0.28 U
162.0	58.43 AI	35.74 P	-0.01 X	-656.39 B	0.18 U	0.28 U
	76.70 AI	46.78 P	-0.01 X	-1386.26 B	0.41 U	0.60 U
146.0	76.70 AI	46.90 N	-0.19 H	-1386.42 F	0.43 T	0.61 U
	78.52 AI	47.29 N	-0.19 H	-1635.74 A	0.99 K	0.68 U
141.2	78.52 AA	47.31 E	0.16 E	-1635.88 L	0.93 E	0.69 U
	82.35 AA	48.53 E	0.16 E	-2391.14 A	2.35 N	1.12 U
127.1	82.35 AJ	48.54 E	-0.22 R	-2391.21 A	2.36 N	1.10 U
	86.59 AJ	49.86 E	-0.22 R	-3160.73 A	4.53 T	1.40 U
112.9	86.59 AJ	49.86 E	-0.23 R	-3160.67 E	4.52 T	1.40 U
	91.22 AJ	51.28 E	-0.23 R	-3945.03 E	7.39 R	1.71 E
98.7	91.22 AJ	51.31 A	-0.23 T	-3944.96 E	7.40 R	1.73 E
	95.15 AJ	51.96 A	-0.23 T	-4296.30 E	8.78 T	1.85 E
92.5	95.15 AJ	52.04 B	-0.24 R	-4296.05 E	8.82 R	1.85 E
	100.35 AJ	53.43 B	-0.24 R	-5042.79 B	11.94 R	2.14 E
79.4	100.35 AJ	53.41 B	-0.30 R	-5042.79 B	11.92 R	2.14 E
	105.91 AJ	54.85 B	-0.30 R	-5802.25 B	15.87 R	2.38 E
66.3	105.91 AJ	54.84 B	-0.31 R	-5802.26 B	15.86 R	2.38 E
	111.83 AJ	56.33 B	-0.31 R	-6573.83 B	19.98 R	2.56 E
53.2	111.83 AJ	56.37 B	-0.23 R	-6573.76 B	20.00 R	2.56 E
	118.47 AJ	57.29 B	-0.23 R	-7052.27 B	21.88 R	2.66 E
45.2	118.47 AJ	57.24 B	-0.26 R	-7052.26 B	21.90 R	2.66 E
	124.05 AJ	58.52 B	-0.26 R	-7735.58 B	24.86 R	2.76 E
33.9	124.05 AJ	58.57 B	-0.26 R	-7735.56 B	24.86 R	2.76 E
	129.77 AJ	59.81 B	-0.26 R	-8426.21 B	27.77 R	2.84 E

22.6	129.77 AJ	59.80 B	-0.26 R	-8426.20 B	27.79 R	2.84 E
	135.66 AJ	61.02 B	-0.26 R	-9122.61 B	30.72 R	2.88 E
11.3	135.66 AJ	61.03 B	-0.27 R	-9122.60 B	30.72 R	2.88 E
	141.76 AJ	62.23 B	-0.27 R	-9824.28 B	33.80 R	2.90 E
base reaction	141.76 AJ	-62.23 B	0.27 R	9824.28 B	-33.80 R	-2.90 E

COMPLIANCE WITH 4.8.2 & 4.5.4

ELEV ft	AXIAL	BENDING	SHEAR + TORSIONAL	TOTAL	SATISFIED	D/t(w/t)	MAX ALLOWED
194.00	0.00I	0.00Q	0.00Q	0.00Q	YES	8.96A	45.2
	0.01AI	0.22B	0.02Q	0.23B	YES	11.38A	45.2
178.00	0.01AJ	0.22B	0.02P	0.23B	YES	11.38A	45.2
	0.03AJ	0.58B	0.04N	0.60B	YES	13.81A	45.2
162.00	0.03AI	0.58B	0.04P	0.60B	YES	13.81A	45.2
	0.03AI	0.92B	0.04P	0.94B	YES	16.23A	45.2
146.00	0.02AI	0.66F	0.03N	0.68F	YES	11.09A	45.2
	0.02AI	0.72A	0.03N	0.74A	YES	11.61A	45.2
141.25	0.02AA	0.75L	0.03E	0.77L	YES	11.35A	45.2
	0.02AA	0.88A	0.03E	0.89A	YES	12.89A	45.2
127.08	0.02AJ	0.88A	0.03E	0.89A	YES	12.89A	45.2
	0.02AJ	0.95A	0.02E	0.96A	YES	14.42A	45.2
112.92	0.02AJ	0.95E	0.02E	0.96E	YES	14.42A	45.2
	0.02AJ	0.98E	0.02E	1.00E	YES	15.95A	45.2
98.75	0.02AJ	0.86E	0.02E	0.87E	YES	13.74A	45.2
	0.02AJ	0.87E	0.02E	0.88E	YES	14.33A	45.2
92.50	0.02AJ	0.91E	0.02B	0.92E	YES	14.02A	45.2
	0.02AJ	0.91B	0.02B	0.92B	YES	15.26A	45.2
79.42	0.02AJ	0.91B	0.02B	0.92B	YES	15.26A	45.2
	0.02AJ	0.92B	0.02E	0.93B	YES	16.50A	45.2
66.33	0.02AJ	0.92B	0.02E	0.93B	YES	16.50A	45.2
	0.02AJ	0.93B	0.02E	0.94B	YES	17.74A	45.2
53.25	0.02AJ	0.93B	0.02E	0.94B	YES	17.74A	45.2
	0.02AJ	0.93B	0.02E	0.94B	YES	18.50A	45.2
45.25	0.02AJ	0.96B	0.02E	0.97B	YES	18.15A	45.2
	0.02AJ	0.96B	0.02E	0.97B	YES	19.22A	45.2
33.94	0.02AJ	0.96B	0.02E	0.97B	YES	19.22A	45.2
	0.02AJ	0.96B	0.02E	0.97B	YES	20.29A	45.2
22.62	0.02AJ	0.96B	0.02E	0.97B	YES	20.29A	45.2

	0.02AJ	0.96B	0.02E	0.97B	YES	21.36A	45.2
11.31							
	0.02AJ	0.96B	0.02E	0.97B	YES	21.36A	45.2
	0.02AJ	0.96B	0.02E	0.97B	YES	22.43A	45.2
0.00							

MAXIMUM LOADS ONTO FOUNDATION(w.r.t. wind direction)

DOWN	SHEAR.w.r.t.WIND.DIR ALONG	ACROSS	MOMENT.w.r.t.WIND.DIR ALONG	ACROSS	TORSION
kip	kip	kip	ft-kip	ft-kip	ft-kip
141.76	62.23	-0.27	-9824.28	33.80	2.90
AJ	B	R	B	R	E

(USA 222-G) - Monopole Spatial Analysis (c)2015 Guymast Inc.

Tel:(416)736-7453 Fax:(416)736-4372 Web:www.guymast.com

Processed under license at:

Sabre Towers and Poles on: 16 nov 2017 at: 10:22:36

195' Monopole / Loretto, KY

****
********** Service Load Condition **********
****

* Only 1 condition(s) shown in full
* Some concentrated wind loads may have been derived from full-scale wind tunnel testing

LOADING CONDITION A

60 mph wind with no ice. Wind Azimuth: 0♦

LOADS ON POLE

LOAD TYPE	ELEV	APPLY..LOAD..AT RADIUS	AZI	LOAD AZI	.....FORCES..... HORIZ	DOWN	.....MOMENTS..... VERTICAL	TORSNAL
	ft	ft			kip	kip	ft-kip	ft-kip
C	189.000	0.00	0.0	0.0	0.0000	3.5381	0.0000	0.0000
C	189.000	0.00	0.0	0.0	3.4705	6.0000	0.0000	0.0000
C	177.000	0.00	0.0	0.0	0.0000	3.3134	0.0000	0.0000
C	177.000	0.00	0.0	0.0	2.5758	4.0312	0.0000	0.0000
C	165.000	0.00	0.0	0.0	0.0000	3.0888	0.0000	0.0000
C	165.000	0.00	0.0	0.0	2.5382	4.0312	0.0000	0.0000
C	153.000	0.00	0.0	0.0	0.0000	2.8642	0.0000	0.0000
C	153.000	0.00	0.0	0.0	2.4985	4.0312	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0145	0.0705	0.0000	0.0000
D	178.000	0.00	180.0	0.0	0.0145	0.0705	0.0000	0.0000
D	178.000	0.00	180.0	0.0	0.0171	0.0849	0.0000	0.0000
D	162.000	0.00	180.0	0.0	0.0171	0.0849	0.0000	0.0000
D	162.000	0.00	180.0	0.0	0.0196	0.0992	0.0000	0.0000
D	146.000	0.00	180.0	0.0	0.0196	0.0992	0.0000	0.0000
D	146.000	0.00	180.0	0.0	0.0211	0.2576	0.0000	0.0000
D	141.250	0.00	180.0	0.0	0.0211	0.2576	0.0000	0.0000
D	141.250	0.00	180.0	0.0	0.0220	0.1609	0.0000	0.0000
D	127.083	0.00	180.0	0.0	0.0220	0.1609	0.0000	0.0000
D	127.083	0.00	180.0	0.0	0.0239	0.1787	0.0000	0.0000
D	112.917	0.00	180.0	0.0	0.0239	0.1787	0.0000	0.0000
D	112.917	0.00	180.0	0.0	0.0256	0.1965	0.0000	0.0000
D	98.750	0.00	180.0	0.0	0.0256	0.1965	0.0000	0.0000

D	98.750	0.00	180.0	0.0	0.0267	0.4442	0.0000	0.0000
D	92.500	0.00	180.0	0.0	0.0267	0.4442	0.0000	0.0000
D	92.500	0.00	180.0	0.0	0.0271	0.2487	0.0000	0.0000
D	79.417	0.00	180.0	0.0	0.0271	0.2487	0.0000	0.0000
D	79.417	0.00	180.0	0.0	0.0282	0.2675	0.0000	0.0000
D	66.333	0.00	180.0	0.0	0.0282	0.2675	0.0000	0.0000
D	66.333	0.00	180.0	0.0	0.0289	0.2863	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0289	0.2863	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0293	0.5981	0.0000	0.0000
D	45.250	0.00	180.0	0.0	0.0293	0.5981	0.0000	0.0000
D	45.250	0.00	180.0	0.0	0.0288	0.3105	0.0000	0.0000
D	33.937	0.00	180.0	0.0	0.0288	0.3105	0.0000	0.0000
D	33.937	0.00	180.0	0.0	0.0280	0.3268	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.0267	0.3594	0.0000	0.0000

MAXIMUM POLE DEFORMATIONS CALCULATED(w.r.t. wind direction)

MAST ELEV ft	DEFLECTIONS (ft) HORIZONTAL ALONG	HORIZONTAL ACROSS	DOWN	ROTATIONS (deg) TILT ALONG	TILT ACROSS	TWIST
194.0	5.10L	0.01F	0.20K	3.05L	0.00K	0.00L
178.0	4.25L	0.01F	0.15K	2.99L	0.00K	0.00L
162.0	3.44L	0.01F	0.11K	2.77L	0.00F	0.00L
146.0	2.72L	0.00F	0.08K	2.41L	0.00F	0.00L
141.2	2.52L	0.00F	0.07K	2.32L	0.00F	0.00L
127.1	1.99L	0.00F	0.05K	2.02L	0.00F	0.00L
112.9	1.53L	0.00F	0.03K	1.72L	0.00F	0.00L
98.7	1.14L	0.00F	0.02K	1.43L	0.00F	0.00B
92.5	0.99L	0.00F	0.02K	1.32L	0.00F	0.00B
79.4	0.71L	0.00F	0.01K	1.10L	0.00F	0.00B
66.3	0.49L	0.00F	0.01K	0.89L	0.00F	0.00B
53.2	0.31L	0.00F	0.00K	0.69L	0.00F	0.00B
45.2	0.22L	0.00F	0.00L	0.58L	0.00F	0.00B
33.9	0.12L	0.00F	0.00L	0.42L	0.00F	0.00B
22.6	0.05L	0.00F	0.00L	0.27L	0.00F	0.00B
11.3	0.01L	0.00F	0.00B	0.13L	0.00F	0.00B
0.0	0.00A	0.00A	0.00A	0.00A	0.00A	0.00A

MAXIMUM POLE FORCES CALCULATED(w.r.t. to wind direction)

MAST ELEV ft	TOTAL AXIAL kip	SHEAR.w.r.t.WIND.DIR ALONG kip	ACROSS kip	MOMENT.w.r.t.WIND.DIR ALONG ft-kip	ACROSS ft-kip	TORSION ft-kip
194.0	0.00 D	0.00 E	0.00 I	0.00 E	0.00 B	0.00 I
	10.67 D	3.70 A	0.00 I	-45.93 A	-0.01 K	0.00 K
178.0	10.67 B	3.70 I	0.00 K	-45.94 A	-0.01 K	0.00 K
	26.49 B	9.09 I	0.00 K	-169.10 K	-0.04 K	-0.01 K
162.0	26.49 B	9.09 C	0.00 C	-169.10 K	-0.03 K	-0.01 K
	34.97 B	11.90 C	0.00 C	-356.11 K	-0.08 K	-0.02 K

146.0						
	34.98 B	11.93 I	-0.02 I	-356.17 C	-0.08 L	-0.02 K
	36.20 B	12.03 I	-0.02 I	-419.72 F	-0.11 K	-0.02 K
141.2						
	36.21 F	12.05 K	0.03 K	-419.69 B	-0.13 K	-0.02 K
	38.49 F	12.36 K	0.03 K	-612.26 K	-0.59 K	-0.02 K
127.1						
	38.49 B	12.36 L	0.04 E	-612.28 K	-0.59 K	-0.02 K
	41.02 B	12.70 L	0.04 E	-807.71 L	-1.01 E	-0.02 L
112.9						
	41.02 B	12.69 L	0.04 E	-807.72 L	-1.01 E	-0.02 L
	43.80 B	13.06 L	0.04 E	-1006.41 L	-1.59 E	-0.02 L
98.7						
	43.80 B	13.08 L	0.03 K	-1006.37 L	-1.64 E	-0.02 L
	46.58 B	13.25 L	0.03 K	-1095.38 L	-1.77 E	-0.03 L
92.5						
	46.58 B	13.24 L	0.05 F	-1095.41 L	-1.81 E	-0.03 L
	49.83 B	13.59 L	0.05 F	-1284.05 L	-2.14 F	-0.03 L
79.4						
	49.83 B	13.59 L	0.04 F	-1284.04 L	-2.13 E	-0.03 L
	53.33 B	13.96 L	0.04 F	-1475.81 L	-2.69 F	0.03 B
66.3						
	53.33 B	13.96 L	0.04 B	-1475.81 L	-2.70 F	0.03 B
	57.07 B	14.33 L	0.04 B	-1670.71 L	-3.17 F	0.04 B
53.2						
	57.07 B	14.33 L	0.04 B	-1670.72 L	-3.17 F	0.04 B
	61.86 B	14.56 L	0.04 B	-1791.56 L	-3.46 F	0.05 B
45.2						
	61.86 B	14.58 L	0.04 B	-1791.57 L	-3.46 F	0.05 B
	65.37 B	14.90 L	0.04 B	-1964.56 L	-3.90 F	0.05 B
33.9						
	65.37 B	14.91 L	0.04 B	-1964.56 L	-3.90 F	0.05 B
	69.13 B	15.22 L	0.04 B	-2139.50 L	-4.30 F	0.05 B
22.6						
	69.13 B	15.21 L	0.04 B	-2139.51 L	-4.30 F	0.05 B
	73.01 B	15.52 L	0.04 B	-2316.16 L	-4.72 F	0.06 B
11.3						
	73.01 B	15.52 L	0.04 B	-2316.16 L	-4.73 F	0.06 B
	77.01 B	15.83 L	0.04 B	-2494.44 L	-5.14 F	0.06 B
base reaction	77.01 B	-15.83 L	-0.04 B	2494.44 L	5.14 F	-0.06 B

COMPLIANCE WITH 4.8.2 & 4.5.4

ELEV ft	AXIAL	BENDING	SHEAR + TORSIONAL		TOTAL	SATISFIED	D/t(w/t)	MAX ALLOWED
194.00								
	0.00D	0.00E	0.00I	0.00E		YES	8.96A	45.2
	0.01D	0.06A	0.00A	0.06A		YES	11.38A	45.2
178.00								
	0.01B	0.06A	0.00I	0.06A		YES	11.38A	45.2
	0.01B	0.15K	0.01I	0.16K		YES	13.81A	45.2
162.00								
	0.01B	0.15K	0.01C	0.16K		YES	13.81A	45.2
	0.02B	0.24K	0.01C	0.25K		YES	16.23A	45.2
146.00								
	0.01B	0.17C	0.01I	0.18C		YES	11.09A	45.2

	0.01B	0.19F	0.01I	0.20F	YES	11.61A	45.2
141.25							
	0.01F	0.19B	0.01K	0.20B	YES	11.35A	45.2
	0.01F	0.22K	0.01K	0.24K	YES	12.89A	45.2
127.08							
	0.01B	0.22K	0.01L	0.24K	YES	12.89A	45.2
	0.01B	0.24L	0.01L	0.25L	YES	14.42A	45.2
112.92							
	0.01B	0.24L	0.01L	0.25L	YES	14.42A	45.2
	0.01B	0.25L	0.01L	0.26L	YES	15.95A	45.2
98.75							
	0.01B	0.22L	0.01L	0.23L	YES	13.74A	45.2
	0.01B	0.22L	0.00L	0.23L	YES	14.33A	45.2
92.50							
	0.01B	0.23L	0.01L	0.24L	YES	14.02A	45.2
	0.01B	0.23L	0.00L	0.24L	YES	15.26A	45.2
79.42							
	0.01B	0.23L	0.00L	0.24L	YES	15.26A	45.2
	0.01B	0.23L	0.00L	0.24L	YES	16.50A	45.2
66.33							
	0.01B	0.23L	0.00L	0.24L	YES	16.50A	45.2
	0.01B	0.24L	0.00L	0.24L	YES	17.74A	45.2
53.25							
	0.01B	0.24L	0.00L	0.24L	YES	17.74A	45.2
	0.01B	0.24L	0.00L	0.25L	YES	18.50A	45.2
45.25							
	0.01B	0.24L	0.00L	0.25L	YES	18.15A	45.2
	0.01B	0.24L	0.00L	0.25L	YES	19.22A	45.2
33.94							
	0.01B	0.24L	0.00L	0.25L	YES	19.22A	45.2
	0.01B	0.24L	0.00L	0.25L	YES	20.29A	45.2
22.62							
	0.01B	0.24L	0.00L	0.25L	YES	20.29A	45.2
	0.01B	0.24L	0.00L	0.25L	YES	21.36A	45.2
11.31							
	0.01B	0.24L	0.00L	0.25L	YES	21.36A	45.2
	0.01B	0.24L	0.00L	0.25L	YES	22.43A	45.2
0.00							

MAXIMUM LOADS ONTO FOUNDATION(w.r.t. wind direction)

DOWN	SHEAR.w.r.t.WIND.DIR ALONG	ACROSS	MOMENT.w.r.t.WIND.DIR ALONG	ACROSS	TORSION
kip	kip	kip	ft-kip	ft-kip	ft-kip
77.01	15.83	0.04	-2494.44	-5.14	0.06
B	L	B	L	F	B

Sabre Industries™
Towers and Poles

SO#: 174305
Site Name: Loretto, KY
Date: 11/16/2017

Round Base Plate and Anchor Rods, per ANSI/TIA 222-G

Pole Data

Diameter:	68.610	in (flat to flat)
Thickness:	0.5	in
Yield (Fy):	65	ksi
# of Sides:	18	"0" IF Round
Strength (Fu):	80	ksi

Reactions

Moment, Mu:	9824.28	ft-kips
Axial, Pu:	92.28	kips
Shear, Vu:	62.23	kips

Anchor Rod Data

Quantity:	26		
Diameter:	2.25	in	
Rod Material:	A615		
Strength (Fu):	100	ksi	
Yield (Fy):	75	ksi	
BC Diam. (in):	76	BC Override:	

Anchor Rod Results

Maximum Rod (Pu+ Vu/η):	247.0 Kips	
Allowable Φ*Rnt:	260.0 Kips	(per 4.9.9)
Anchor Rod Interaction Ratio:	**95.0%** **Pass**	

Plate Data

Diameter (in):	81.75	Dia. Override:	
Thickness:	2.5	in	
Yield (Fy):	50	ksi	
Eff Width/Rod:	8.38	in	
Drain Hole:	2.625	in. diameter	
Drain Location:	32.25	in. center of pole to center of drain hole	
Center Hole:	56.5	in. diameter	

Base Plate Results

Base Plate (Mu/Z):	43.1 ksi	
Allowable Φ*Fy:	45.0 ksi	(per AISC)
Base Plate Interaction Ratio:	**95.7%** **Pass**	

LPile for Windows, Version 2016-09.009

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

This copy of LPile is being used by:

Sabre Industries
SII

Serial Number of Security Device: 160777296

This copy of LPile is licensed for exclusive use by:

Sabre Communications Corporation

Use of this program by any entity other than Sabre Communications Corporation is a violation of the software license agreement.

Files Used for Analysis

Path to file locations:
\Program Files (x86)\Ensoft\Lpile2016\files\

Name of input data file:
174305.lp9d

Name of output report file:
174305.lp9o

Name of plot output file:
174305.lp9p

Name of runtime message file:
174305.lp9r

Date and Time of Analysis

Date: November 16, 2017 Time: 11:14:19

Problem Title

Site : Loretto, KY

Tower : 195' Monopole

Prepared for : MASTEC NETWORK SOLUTIONS GROUP

Job Number : 174305

Engineer : REB

Program Options and Settings

Computational Options:
 - Use unfactored loads in computations (conventional analysis)
Engineering Units Used for Data Input and Computations:
 - US Customary System Units (pounds, feet, inches)

Analysis Control Options:

- Maximum number of iterations allowed	=	999
- Deflection tolerance for convergence	=	1.0000E-05 in
- Maximum allowable deflection	=	100.0000 in
- Number of pile increments	=	100

Loading Type and Number of Cycles of Loading:
 - Static loading specified

 - Use of p-y modification factors for p-y curves not selected
 - No distributed lateral loads are entered
 - Loading by lateral soil movements acting on pile not selected
 - Input of shear resistance at the pile tip not selected
 - Computation of pile-head foundation stiffness matrix not selected
 - Push-over analysis of pile not selected
 - Buckling analysis of pile not selected

Output Options:
 - Output files use decimal points to denote decimal symbols.
 - Report only summary tables of pile-head deflection, maximum bending moment, and maximum shear force in output report file.
 - No p-y curves to be computed and reported for user-specified depths
 - Print using wide report formats

Pile Structural Properties and Geometry

Number of pile sections defined	=	1
Total length of pile	=	23.500 ft
Depth of ground surface below top of pile	=	0.5000 ft

Pile diameters used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over the length of the pile. A summary of values of pile diameter vs. depth follows.

Point No.	Depth Below Pile Head feet	Pile Diameter inches
1	0.000	96.0000
2	23.500	96.0000

Input Structural Properties for Pile Sections:

Pile Section No. 1:

Section 1 is a round drilled shaft, bored pile, or CIDH pile

Length of section	=	23.500000 ft
Shaft Diameter	=	96.000000 in
Shear capacity of section	=	0.0000 lbs

Ground Slope and Pile Batter Angles

Ground Slope Angle	=	0.000 degrees
	=	0.000 radians
Pile Batter Angle	=	0.000 degrees
	=	0.000 radians

Soil and Rock Layering Information

The soil profile is modelled using 3 layers

Layer 1 is stiff clay without free water

Distance from top of pile to top of layer	=	0.500000 ft
Distance from top of pile to bottom of layer	=	2.500000 ft
Effective unit weight at top of layer	=	120.000000 pcf
Effective unit weight at bottom of layer	=	120.000000 pcf
Undrained cohesion at top of layer	=	500.000000 psf
Undrained cohesion at bottom of layer	=	500.000000 psf
Epsilon-50 at top of layer	=	0.020000
Epsilon-50 at bottom of layer	=	0.020000

Layer 2 is stiff clay without free water

Distance from top of pile to top of layer	=	2.500000 ft
Distance from top of pile to bottom of layer	=	7.500000 ft
Effective unit weight at top of layer	=	130.000000 pcf
Effective unit weight at bottom of layer	=	130.000000 pcf
Undrained cohesion at top of layer	=	4000. psf
Undrained cohesion at bottom of layer	=	4000. psf
Epsilon-50 at top of layer	=	0.005000
Epsilon-50 at bottom of layer	=	0.005000

Layer 3 is stiff clay without free water

Distance from top of pile to top of layer	=	7.500000 ft
Distance from top of pile to bottom of layer	=	23.500000 ft
Effective unit weight at top of layer	=	135.000000 pcf
Effective unit weight at bottom of layer	=	135.000000 pcf
Undrained cohesion at top of layer	=	20000. psf
Undrained cohesion at bottom of layer	=	20000. psf
Epsilon-50 at top of layer	=	0.004000
Epsilon-50 at bottom of layer	=	0.004000

(Depth of the lowest soil layer extends 0.000 ft below the pile tip)

Summary of Input Soil Properties

Layer Num.	Soil Type Name (p-y Curve Type)	Layer Depth ft	Effective Unit Wt. pcf	Undrained Cohesion psf	E50 or krm
1	Stiff Clay w/o Free Water	0.5000 2.5000	120.0000 120.0000	500.0000 500.0000	0.02000 0.02000
2	Stiff Clay w/o Free Water	2.5000 7.5000	130.0000 130.0000	4000. 4000.	0.00500 0.00500
3	Stiff Clay w/o Free Water	7.5000 23.5000	135.0000 135.0000	20000. 20000.	0.00400 0.00400

Static Loading Type

Static loading criteria were used when computing p-y curves for all analyses.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 2

Load No.	Load Type	Condition 1	Condition 2	Axial Thrust Force, lbs	Compute Top y vs. Pile Length
1	1	V = 82973. lbs	M = 157188480. in-lbs	123040.	No
2	1	V = 15830. lbs	M = 29933280. in-lbs	77010.	No

V = shear force applied normal to pile axis

M = bending moment applied to pile head
y = lateral deflection normal to pile axis
S = pile slope relative to original pile batter angle
R = rotational stiffness applied to pile head
Values of top y vs. pile lengths can be computed only for load types with specified shear loading (Load Types 1, 2, and 3).
Thrust force is assumed to be acting axially for all pile batter angles.

Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

---

Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:

Dimensions and Properties of Drilled Shaft (Bored Pile):

Length of Section	=	23.500000 ft
Shaft Diameter	=	96.000000 in
Concrete Cover Thickness	=	3.625000 in
Number of Reinforcing Bars	=	42 bars
Yield Stress of Reinforcing Bars	=	60000. psi
Modulus of Elasticity of Reinforcing Bars	=	29000000. psi
Gross Area of Shaft	=	7238. sq. in.
Total Area of Reinforcing Steel	=	65.520000 sq. in.
Area Ratio of Steel Reinforcement	=	0.91 percent
Edge-to-Edge Bar Spacing	=	5.116926 in
Maximum Concrete Aggregate Size	=	0.750000 in
Ratio of Bar Spacing to Aggregate Size	=	6.82
Offset of Center of Rebar Cage from Center of Pile	=	0.0000 in

Axial Structural Capacities:

Nom. Axial Structural Capacity = 0.85 Fc Ac + Fy As	=	31366.814 kips
Tensile Load for Cracking of Concrete	=	-3377.093 kips
Nominal Axial Tensile Capacity	=	-3931.200 kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
1	1.410000	1.560000	43.670000	0.00000
2	1.410000	1.560000	43.182242	6.508676
3	1.410000	1.560000	41.729864	12.871958
4	1.410000	1.560000	39.345310	18.947703
5	1.410000	1.560000	36.081847	24.600187
6	1.410000	1.560000	32.012375	29.703143
7	1.410000	1.560000	27.227800	34.142581
8	1.410000	1.560000	21.835000	37.819329
9	1.410000	1.560000	15.954443	40.651257
10	1.410000	1.560000	9.717489	42.575102
11	1.410000	1.560000	3.263463	43.547890
12	1.410000	1.560000	-3.263463	43.547890
13	1.410000	1.560000	-9.717489	42.575102
14	1.410000	1.560000	-15.954443	40.651257
15	1.410000	1.560000	-21.835000	37.819329
16	1.410000	1.560000	-27.227800	34.142581
17	1.410000	1.560000	-32.012375	29.703143
18	1.410000	1.560000	-36.081847	24.600187
19	1.410000	1.560000	-39.345310	18.947703
20	1.410000	1.560000	-41.729864	12.871958
21	1.410000	1.560000	-43.182242	6.508676
22	1.410000	1.560000	-43.670000	0.00000
23	1.410000	1.560000	-43.182242	-6.508676
24	1.410000	1.560000	-41.729864	-12.871958
25	1.410000	1.560000	-39.345310	-18.947703
26	1.410000	1.560000	-36.081847	-24.600187
27	1.410000	1.560000	-32.012375	-29.703143
28	1.410000	1.560000	-27.227800	-34.142581
29	1.410000	1.560000	-21.835000	-37.819329

			174305	
30	1.410000	1.560000	-15.954443	-40.651257
31	1.410000	1.560000	-9.717489	-42.575102
32	1.410000	1.560000	-3.263463	-43.547890
33	1.410000	1.560000	3.263463	-43.547890
34	1.410000	1.560000	9.717489	-42.575102
35	1.410000	1.560000	15.954443	-40.651257
36	1.410000	1.560000	21.835000	-37.819329
37	1.410000	1.560000	27.227800	-34.142581
38	1.410000	1.560000	32.012375	-29.703143
39	1.410000	1.560000	36.081847	-24.600187
40	1.410000	1.560000	39.345310	-18.947703
41	1.410000	1.560000	41.729864	-12.871958
42	1.410000	1.560000	43.182242	-6.508676

NOTE: The positions of the above rebars were computed by LPile

Minimum spacing between any two bars not equal to zero = 5.117 inches
between bars 1 and 42.

Ratio of bar spacing to maximum aggregate size = 6.82

Concrete Properties:

Compressive Strength of Concrete	=	4500. psi
Modulus of Elasticity of Concrete	=	3823676. psi
Modulus of Rupture of Concrete	=	-503.115295 psi
Compression Strain at Peak Stress	=	0.002001
Tensile Strain at Fracture of Concrete	=	-0.0001152
Maximum Coarse Aggregate Size	=	0.750000 in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 2

Number	Axial Thrust Force kips
1	77.010
2	123.040

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

Load No.	Axial Thrust kips	Nominal Mom. Cap. in-kip	Max. Comp. Strain
1	77.010	159886.611	0.00300000
2	123.040	161467.532	0.00300000

Note that the values of moment capacity in the table above are not
factored by a strength reduction factor (phi-factor).

In ACI 318, the value of the strength reduction factor depends on whether
the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.70).

The above values should be multiplied by the appropriate strength reduction
factor to compute ultimate moment capacity according to ACI 318, Section
9.3.2.2 or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding
bending stiffnesses computed for common resistance factor values used for
reinforced concrete sections.

Axial Load No.	Resist. Factor for Moment	Nominal Moment Cap in-kips	Ult. (Fac) Ax. Thrust kips	Ult. (Fac) Moment Cap in-kips	Bend. Stiff. at Ult Mom kip-in^2
1	0.65	159887.	50.056500	103926.	3.7239E+09
2	0.65	161468.	79.976000	104954.	3.7648E+09
1	0.70	159887.	53.907000	111921.	3.7106E+09
2	0.70	161468.	86.128000	113027.	3.7490E+09

				174305	
1	0.75	159887.	57.757500	119915.	3.5943E+09
2	0.75	161468.	92.280000	121101.	3.6351E+09

Layering Correction Equivalent Depths of Soil & Rock Layers

Layer No.	Top of Layer Below Pile Head ft	Equivalent Top Depth Below Grnd Surf ft	Same Layer Type As Layer Above	Layer is Rock or is Below Rock Layer	F0 Integral for Layer lbs	F1 Integral for Layer lbs
1	0.5000	0.00	N.A.	No	0.00	26712.
2	2.5000	2.0000	Yes	No	26712.	550538.
3	7.5000	7.0000	Yes	No	577249.	N.A.

Notes: The F0 integral of Layer n+1 equals the sum of the F0 and F1 integrals for Layer n. Layering correction equivalent depths are computed only for soil types with both shallow-depth and deep-depth expressions for peak lateral load transfer. These soil types are soft and stiff clays, non-liquefied sands, and cemented c-phi soil.

Summary of Pile-head Responses for Conventional Analyses

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, V, lbs, and Load 2 = Moment, M, in-lbs
Load Type 2: Load 1 = Shear, V, lbs, and Load 2 = Slope, S, radians
Load Type 3: Load 1 = Shear, V, lbs, and Load 2 = Rot. Stiffness, R, in-lbs/rad.
Load Type 4: Load 1 = Top Deflection, y, inches, and Load 2 = Moment, M, in-lbs
Load Type 5: Load 1 = Top Deflection, y, inches, and Load 2 = Slope, S, radians

Load Case No.	Load Type 1	Pile-head Load 1	Load Type 2	Pile-head Load 2	Axial Loading lbs	Pile-head Deflection inches	Pile-head Rotation radians	Max Shear in Pile lbs	Max Moment in Pile in-lbs
1	V, lb	82973.	M, in-lb	1.57E+08	123040.	1.4441	-0.01909	-1394032.	1.60E+08
2	V, lb	15830.	M, in-lb	2.99E+07	77010.	0.01862	-2.35E-04	-252386.	3.04E+07

Maximum pile-head deflection = 1.4441182795 inches
Maximum pile-head rotation = -0.0190911587 radians = -1.093843 deg.

Summary of Warning Messages

The following warning was reported 552 times

**** Warning ****

An unreasonable input value for shear strength has been specified for a layer. defined using the stiff clay without free water criteria. The input value is greater than 8000 psf. Please check your input data for correctness.

The analysis ended normally.

1807.3.2.1 (2009 IBC, 2012 IBC, & 2015 IBC)

Moment (ft·k)	9,824.28	
Shear (k)	62.23	
Caisson diameter (ft)	8	
Caisson height above ground (ft)	0.5	
Caisson height below ground (ft)	23	
Lateral soil pressure (lb/ft^2)	**925.00**	
Ground to application of force, h (ft)	158.37	
Applied lateral force, P (lb)	62,230	
Lateral soil bearing pressure, S_1 (lb/ft)	7,091.67	
Diameter, b (ft)	8	
A	2.57	$= (2.34P)/(S_1 b)$
Minimum depth of embedment, d (ft)	22.37	$= 0.5A[\,1 + (\,1 + (\,4.36h / A\,)\,)^{1/2}\,]$

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES

195' Monopole MASTEC NETWORK SOLUTIONS GROUP Loretto, KY (174305) 11-16-17 REB

Overall Loads:			
Factored Moment (ft-kips)	9824.28		
Factored Axial (kips)	92.28		
Factored Shear (kips)	62.23		
Bearing Design Strength (ksf)	9	Max. Net Bearing Press. (ksf)	8.85
Water Table Below Grade (ft)	999		
Width of Mat (ft)	31	Allowable Bearing Pressure (ksf)	6.00
Thickness of Mat (ft)	2	Safety Factor	2.00
Depth to Bottom of Slab (ft)	6	Ultimate Bearing Pressure (ksf)	12.00
Quantity of Bolts in Bolt Circle	26	Bearing Φs	0.75
Bolt Circle Diameter (in)	76		
Top of Concrete to Top of Bottom Threads (in)	60		
Diameter of Pier (ft)	9	Minimum Pier Diameter (ft)	7.67
Ht. of Pier Above Ground (ft)	0.5	Equivalent Square b (ft)	7.98
Ht. of Pier Below Ground (ft)	4	Square Pier? (Y/N)	N
Quantity of Bars in Mat	70		
Bar Diameter in Mat (in)	1.128		
Area of Bars in Mat (in^2)	69.95		
Spacing of Bars in Mat (in)	5.29	Recommended Spacing (in)	5 to 12
Quantity of Bars Pier	62		
Bar Diameter in Pier (in)	1		
Tie Bar Diameter in Pier (in)	0.625		
Spacing of Ties (in)	12		
Area of Bars in Pier (in^2)	48.69	Minimum Pier A_s (in^2)	45.80
Spacing of Bars in Pier (in)	5.05	Recommended Spacing (in)	5 to 12
f'c (ksi)	4.5		
fy (ksi)	60		
Unit Wt. of Soil (kcf)	0.11		
Unit Wt. of Concrete (kcf)	0.15		
Volume of Concrete (yd^3)	81.79		
Two-Way Shear Action:			
Average d (in)	19.872		
ϕv_c (ksi)	0.227	v_u (ksi)	0.200
$\phi v_c = \phi(2 + 4/\beta_c)f'_c{}^{1/2}$	0.342		
$\phi v_c = \phi(\alpha_s d/b_o+2)f'_c{}^{1/2}$	0.227		
$\phi v_c = \phi 4f'_c{}^{1/2}$	0.228		
Shear perimeter, b_o (in)	401.72		
β_c	1		
One-Way Shear:			
ϕV_c (kips)	843.0	V_u (kips)	583.3
Stability:			
Overturning Design Strength (ft-k)	11201.7	Total Applied M (ft-k)	10228.8

Pier Design:

ϕV_n (kips)	1069.5	V_u (kips)	62.2
$\phi V_c=\phi 2(1+N_u/(2000A_g))f'_c{}^{1/2}b_wd$	1069.5		
V_s (kips)	0.0	*** V_s max = 4 $f'_c{}^{1/2}b_wd$ (kips)	2503.8
Maximum Spacing (in)	6.78	(Only if Shear Ties are Required)	
Actual Hook Development (in)	18.74	Req'd Hook Development l_{dh} (in)	11.78
		*** Ref. To Spacing Requirements ACI 11.5.4.3	

Flexure in Slab:

ϕM_n (ft-kips)	5791.2	M_u (ft-kips)	5733.0
a (in)	2.95		
Steel Ratio	0.00946		
β_1	0.825		
Maximum Steel Ratio (ρ_t)	0.0197		
Minimum Steel Ratio	0.0018		
Rebar Development in Pad (in)	135.14	Required Development in Pad (in)	31.88

Condition	1 is OK, 0 Fails
Maximum Soil Bearing Pressure	1
Pier Area of Steel	1
Pier Shear	1
Interaction Diagram Visual Check	1
Two-Way Shear Action	1
One-Way Shear Action	1
Overturning	1
Flexure	1
Steel Ratio	1
Length of Development in Pad	1
Hook Development	1

MasTec
Network Solutions

April 13th[h], 2017
Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

RE: Site Name – Loretto
Proposed Cell Tower
37 38 03.81 North Latitude, 85 24 20.40 West Longitude

Dear Commissioners:

The Project / Construction Manager for the proposed new communications facility will be Don Murdock. His contact information is (615) 207-8280 or Don.Murdock@mastec.com

Don has been in the industry completing civil construction and constructing towers since 2009. He has worked at Mastec Network Solutions since 2009 completing project and construction management on new site build projects.

Thank you,

Don Murdock, Sr. Project Manager – Tennessee/Kentucky Market
MasTec Network Solutions
(615) 207-8280

EXHIBIT D
COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST

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
				Active

Search

	Utility ID	Utility Name	Utility Type	Class	City	State
View	4107900	365 Wireless, LLC	Cellular	D	Atlanta	GA
View	4109300	Access Point, Inc.	Cellular	D	Cary	NC
View	4108300	Air Voice Wireless, LLC	Cellular	A	Bloomfield Hill	MI
View	4110650	Alliant Technologies of KY, L.L.C.	Cellular	C	Morristown	NJ
View	44451184	Alltel Communications, LLC	Cellular	A	Basking Ridge	NJ
View	4110850	AltaWorx, LLC	Cellular	C	Fairhope	AL
View	4107800	American Broadband and Telecommunications Company	Cellular	C	Toledo	OH
View	4108650	AmeriMex Communications Corp.	Cellular	D	Dunedin	FL
View	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Virginia Beach	VA
View	4110700	Andrew David Balholm dba Norcell	Cellular	C	Clayton	WA
View	4107400	Bandwidth.com, Inc.	Cellular	A	Raleigh	NC
View	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
View	4110550	Blue Casa Mobile, LLC	Cellular	D	Santa Barbara	CA
View	4108750	Blue Jay Wireless, LLC	Cellular	C	Carrollton	TX
View	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY
View	4107600	Boomerang Wireless, LLC	Cellular	B	Hiawatha	IA
View	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI

View	4110050	CampusSims, Inc.	Cellular	D	Boston	MA
View	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4106600	Cintex Wireless, LLC	Cellular	D	Rockville	MD
View	4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
View	4106400	Credo Mobile, Inc.	Cellular	A	San Francisco	CA
View	4108850	Cricket Wireless, LLC	Cellular	A	San Antonio	TX
View	4001900	CTC Communications Corp. d/b/a EarthLink Business I	Cellular	D	Grand Rapids	MI
View	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
View	4101000	East Kentucky Network, LLC dba Appalachian Wireless	Cellular	A	Ivel	KY
View	4002300	Easy Telephone Service Company dba Easy Wireless	Cellular	D	Ocala	FL
View	4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	OK
View	4110450	Excellus Communications, LLC	Cellular	D	Chattanooga	TN
View	4105900	Flash Wireless, LLC	Cellular	C	Concord	NC
View	4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Oak Hill	VA
View	4109350	Global Connection Inc. of America	Cellular	D	Norcross	GA
View	4102200	Globalstar USA, LLC	Cellular	B	Covington	LA
View	4109600	Google North America Inc.	Cellular	B	Mountain View	CA
View	33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
View	4106000	GreatCall, Inc. d/b/a Jitterbug	Cellular	A	San Diego	CA
View	10630	GTE Wireless of the Midwest dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4110600	Horizon River Technologies, LLC	Cellular	C	Atlanta	GA
View	4103100	i-Wireless, LLC	Cellular	A	Newport	KY
View	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Tulsa	OK
View	22215360	KDDI America, Inc.	Cellular	D	New York	NY
View	10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	NJ
View	10680	Kentucky RSA #3 Cellular General	Cellular	A	Elizabethtown	KY
View	10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	KY
View	4109750	Konatel, Inc. dba telecom.mobi	Cellular	D	Johnstown	PA
View	4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
View	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
View	4109650	Mitel Cloud Services, Inc.	Cellular	D	Mesa	AZ
View	4202400	New Cingular Wireless PCS,	Cellular	A	San Antonio	TX

		LLC dba AT&T Mobility, PCS				
View	10900	New Par dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4000800	Nextel West Corporation	Cellular	D	Overland Park	KS
View	4001300	NPCR, Inc. dba Nextel Partners	Cellular	D	Overland Park	KS
View	4001800	OnStar, LLC	Cellular	A	Detroit	MI
View	4110750	Onvoy Spectrum, LLC	Cellular	C	Plymouth	MN
View	4109050	Patriot Mobile LLC	Cellular	D	Southlake	TX
View	4110250	Plintron Technologies USA LLC	Cellular	D	Bellevue	WA
View	33351182	PNG Telecommunications, Inc. dba PowerNet Global Communications	Cellular	D	Cincinnati	OH
View	4202100	Powertel/Memphis, Inc. dba T-Mobile	Cellular	A	Bellevue	WA
View	4107700	Puretalk Holdings, LLC	Cellular	A	Covington	GA
View	4106700	Q Link Wireless, LLC	Cellular	A	Dania	FL
View	4108700	Ready Wireless, LLC	Cellular	B	Hiawatha	IA
View	4110350	Regional Strategic Partners LLC	Cellular	D	Buford	GA
View	4110500	Republic Wireless, Inc.	Cellular	D	Raleigh	NC
View	4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
View	4108550	Sage Telecom Communications, LLC dba TruConnect	Cellular	D	Los Angeles	CA
View	4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	D	Freemont	NE
View	4106300	SI Wireless, LLC	Cellular	A	Carbondale	IL
View	4110150	Spectrotel, Inc. d/b/a Touch Base Communications	Cellular	D	Neptune	NJ
View	4200100	Sprint Spectrum, L.P.	Cellular	A	Atlanta	GA
View	4200500	SprintCom, Inc.	Cellular	A	Atlanta	GA
View	4109550	Stream Communications, LLC	Cellular	D	Dallas	TX
View	4110200	T C Telephone LLC d/b/a Horizon Cellular	Cellular	D	Red Bluff	CA
View	4202200	T-Mobile Central, LLC dba T-Mobile	Cellular	A	Bellevue	WA
View	4002500	TAG Mobile, LLC	Cellular	D	Carrollton	TX
View	4109700	Telecom Management, Inc. dba Pioneer Telephone	Cellular	D	South Portland	ME
View	4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
View	4108900	Telrite Corporation dba Life Wireless	Cellular	D	Covington	GA
View	4108450	Tempo Telecom, LLC	Cellular	D	Kansas City	MO
View	4109950	The People's Operator USA, LLC	Cellular	D	New York	NY
View	4109000	Ting, Inc.	Cellular	A	Toronto	ON
View	4110400	Torch Wireless Corp.	Cellular	D	Jacksonville	FL

View	4103300	Touchtone Communications, Inc.	Cellular	D	Whippany	NJ
View	4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
View	4002000	Truphone, Inc.	Cellular	D	Durham	NC
View	4110300	UVNV, Inc.	Cellular	D	Costa Mesa	CA
View	4105700	Virgin Mobile USA, L.P.	Cellular	A	Atlanta	GA
View	4110800	Visible Service LLC	Cellular	C	Lone Tree	CO
View	4200600	West Virginia PCS Alliance, L.C.	Cellular	A	Waynesboro	VA
View	4106500	WiMacTel, Inc.	Cellular	D	Palo Alto	CA
View	4110100	Windward Wireless LLC	Cellular	D	Suwanee	GA
View	4109900	Wireless Telecom Cooperative, Inc. dba theWirelessFreeway	Cellular	D	Louisville	KY

EXHIBIT E
FAA

****
* Federal Airways & Airspace *
* Summary Report: New Construction *
* Antenna Structure *
****

Airspace User: David Duncan

File: LORETTO

Location: Loretto, KY

Latitude: 37°-38'-03.81" Longitude: 85°-24'-20.40"

SITE ELEVATION AMSL.....723 ft.
STRUCTURE HEIGHT.....200 ft.
OVERALL HEIGHT AMSL.....923 ft.

NOTICE CRITERIA
FAR 77.9(a): NNR (DNE 200 ft AGL)
FAR 77.9(b): NNR (DNE Notice Slope)
FAR 77.9(c): NNR (Not a Traverse Way)
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for 6I2
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for BRY
FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required
NNR = Notice Not Required
PNR = Possible Notice Required (depends upon actual IFR procedure)
For new construction review Air Navigation Facilities at bottom of this report.

Notice to the FAA is not required at the analyzed location and height for slope, height or Straight-In procedures. Please review the 'Air Navigation' section for notice requirements for offset IFR procedures and EMI.

OBSTRUCTION STANDARDS
FAR 77.17(a)(1): DNE 499 ft AGL
FAR 77.17(a)(2): DNE - Airport Surface
FAR 77.19(a): DNE - Horizontal Surface
FAR 77.19(b): DNE - Conical Surface
FAR 77.19(c): DNE - Primary Surface
FAR 77.19(d): DNE - Approach Surface
FAR 77.19(e): DNE - Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: 6I2: LEBANON SPRINGFIELD-GEORGE H
Type: A RD: 45031.09 RE: 826.2
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Approach Slope: DNE
VFR Transitional Slope: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: BRY: SAMUELS FIELD
Type: A RD: 69158.5 RE: 634.7
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Approach Slope: DNE

VFR Transitional Slope: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
FAR 77.17(a)(3) Departure Surface Criteria (40:1)
DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
The Maximum Height Permitted is 2200 ft AMSL

PRIVATE LANDING FACILITIES
No Private Landing Facilites Are Within 6 NM

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND ANGLE	APCH BEAR
IKY	NDB	D	42	89.84	48973	+51	KY	SPRINGFIELD	.06	
EWO	VOR/DME	I	110.8	269.23	78254	-37	KY	NEW HOPE	-.03	
Does Not Exceed FAA's adverse obstacle height assumption rule.										
Predict not within FAR 77.9 Final IFR Area for 6I2: VOR/DME RWY 11										
BRY	NDB	D	24	343.97	80887	+221	KY	BARDSTOWN/DCMSND	.16	
IIU	VORTAC	R	114.8	343.87	177853	+202	KY	LOUISVILLE	.07	
FTK	VOR/DME	I	109.6	301.4	191625	+189	KY	FORT KNOX	.06	
KLVX	RADAR WXL	Y		308.77	198950	+90	KY	LOUISVILLE WXL	.03	
SDF	RADAR	Y	2740.	335.34	221255	+346	KY	LOUISVILLE INTL-S	.09	

CFR Title 47, §1.30000-§1.30004
AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station.
Movement Method Proof as specified in §73.151(c) is not required.
Please review 'AM Station Report' for details.

Nearest AM Station: WLBN @ 14613 meters.

Airspace® Summary Version 17.3.436

03-21-2017
12:11:54

EXHIBIT F
KENTUCKY AIRPORT ZONING COMMISSION

Roy Johnson

From: Houlihan, John F (KYTC)
Sent: Thursday, January 05, 2017 8:15 AM
To: Roy Johnson
Subject: RE: AT&T Project Loretto

No permit is required from the KAZC. Thank you

Aeronautical Study Result
The structure is not in KAZC's jurisdiction and does not require a permit.
Structure's Coordinates: 37°38'3.81"N, 85°24'20.40"W
Structure's Height :199ft
User-submitted ground elevation is 723 ft.
DEM's ground elevation is 722.77 ft

Kentucky Airport Zoning Commission (KAZC)
John Houlihan, Administrator
200 Mero Street, 4th Floor Office of Audits
Frankfort, KY 40622
Office 502-782-4044, Cell 502-330-3955

KAZC webpage: http://transportation.ky.gov/Aviation/Pages/Zoning-Commission.aspx

From: Roy Johnson [mailto:rjohnson@johnsonpm.com]
Sent: Wednesday, January 04, 2017 5:25 PM
To: Houlihan, John F (KYTC) <John.Houlihan@ky.gov>
Cc: Kyle Ballard <Kyle.Ballard@mastec.com>
Subject: AT&T Project Loretto

John,
AT&T is proposing to construct a tower in Marion County. Can you confirm if KAZC filing is required for this project?

Project Name: Loretto
Latitude: 37 38 03.81 N
Longitude: 85 24 20.40 W
Ground Elevation: 723'
Overall tower height including lightning rod on top of tower: 199'

Thank you,

Roy Johnson
Johnson Project Management
3605 Mattingly Road
Buckner, KY 40010
Mobile: (502) 445-2475

EXHIBIT G
GEOTECHNICAL REPORT

Date: March 13, 2017 POD Job Number: 16-12219

GEOTECHNICAL REPORT

LORETTO
(KYLSU1691)
37° 38' 03.81" N
85° 24' 20.40" W

5095 KY Hwy 52 a.k.a St. Francis Hwy.,
Loretto, KY

Prepared For:

MasTec Network Solutions

For:

at&t

Prepared By:

POD
POWER OF DESIGN

11490 Bluegrass Parkway | Louisville, Kentucky 40299 | 502.437.5252
POWER OF DESIGN GROUP, LLC

POD
POWER OF DESIGN

March 13, 2017

Mr. Don Murdock
Mastec Network Solutions
1975 Joe B Jackson Hwy
Murfreesboro, TN 37127

Re: Geotechnical Report – **PROPOSED 195' MONOPOLE TOWER w/ 4' LIGHTNING ARRESTOR**
Site Name: **LORETTO (KYLSU1691)**
Site Address: 5095 KY Hwy 52 (St. Francis Highway), Loretto, Marion County, Kentucky
Coordinates: N37° 38' 03.81", W85° 24' 20.40"
POD Project No. 16-12219

Dear Mr. Murdock:

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,

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

Copies submitted: (3) Mr. Don Murdock

LETTER OF TRANSMITTAL

TABLE OF CONTENTS

APPENDIX

Geotechnical Report
PROPOSED 195' MONOPOLE TOWER w/ 4' LIGHTNING ARRESTOR
Site Name: **LORETTO (KYLSU1691)**
5095 KY Hwy 52 (St. Francis Highway), Loretto, Marion County, Kentucky
N37° 38' 03.81", W85° 24' 20.40"

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 shelter. 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

AT&T is proposing to construct a Monopole Tower at N37° 38' 03.81" W85° 24' 20.40", 5095 KY Hwy 52 (St. Francis Highway), Loretto, Marion County, Kentucky. The site located in a farm field on the west side of small town of Loretto next to whisky warehouses. The elevation at the proposed tower location is EL 723 and there is about 4 feet change in elevation across the site. The proposed lease area is 50 feet by 100 feet will be accessed along a new access road running south from KY Hwy 52. The development will also include a small equipment shelter 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 Middle to Upper Devonian age New Albany Shale and Beechwood Limestone members of the Sellersburg Formation. There is low karst potential for this formation. No sinkholes were noted on site or mapped with one-half mile of the site by the USGS but the Kentucky Geological Survey did map two areas with a half mile of the site.

The borings encountered about 6 to 7 inches of topsoil at the existing ground surface. Below the topsoil, the borings encountered silty clay (CL) of low plasticity that contained varying amounts of highly weathered rock fragments. The SPT N-values were inflated by the rock fragments and the soil is generally medium stiff. The borings encountered auger refusal

at depths between 2.2 and 3.2 feet. Auger refusal is defined as the depth at which the boring can no longer be advanced using the current drilling method.

The refusal material was cored in Boring 3 from 3.2 to 32.2 feet below the ground surface. Limestone with shale that was hard, slightly weathered, gray was encountered. Mud seams were encountered from about 3.2 to 6.2 feet. The recoveries of the rock cores were about 71 to 100 percent and the RQD values were 63 and 100 percent. These values generally represent good to excellent 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 monopole 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 23 feet, a deeper boring should be drilled to determine the nature of the deeper material.

Depth Below Ground Surface, feet	0 -2	2 - 7	7 - 23
Ultimate Bearing Pressure (psf)		22,100	110,000
C Undrained Shear Strength, psf	500	4,000	20,000
Ø Angle of Internal Friction degrees	0	0	0
Total Unit Weight, pcf	120	130	135
Soil Modulus Parameter k, pci	30	1000	2000
Passive Soil Pressure, psf/one foot of depth		2,700 + 43(D-2)	13,250 + 45(D-7)
Side Friction, psf		700	1000

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 weathered bedrock at a minimum of 2.5 feet can be designed using an allowable pressure of 6,000 pounds per square foot may be used. All soil must be removed. This value may be increased by 30 percent for the maximum edge pressure under transient loads. A friction value of 0.40 may

be used between the concrete and the bedrock. 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.

4.2. Equipment Platform

An equipment platform may be supported on shallow piers bearing in the bedrock and designed for a net allowable pressure of 4,000 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 soil should be removed beneath footings. Foundations must bear only on bedrock and not a combination of soil and rock. A free draining, self-compacting rock like KY #57 can be used to replace any soil under the foundations.

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 (k30) of 90 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 bedrock and designed for a net allowable soil pressure of 4,000 pounds per square foot.

The footings should be at least ten inches wide. All existing soil should be removed beneath footings. Foundations must bear only on bedrock and not a combination of soil and rock. A free draining, self-compacting rock like KY #57 can be used to replace any soil under the foundations.

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 (k30) of 90 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:

- Clean the foundation bearing area so it is nearly level or suitably benched and is free of ponded water or loose material.

- Provide a minimum drilled shaft diameter of 36 inches to reasonably enter the drilled shaft excavation for cleaning, bottom preparation and inspection.

- 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 insure 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.

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 2.2 and 3.2 feet. A sample of the refusal material was cored in Boring 3 from 3.2 to 23.2 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 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.

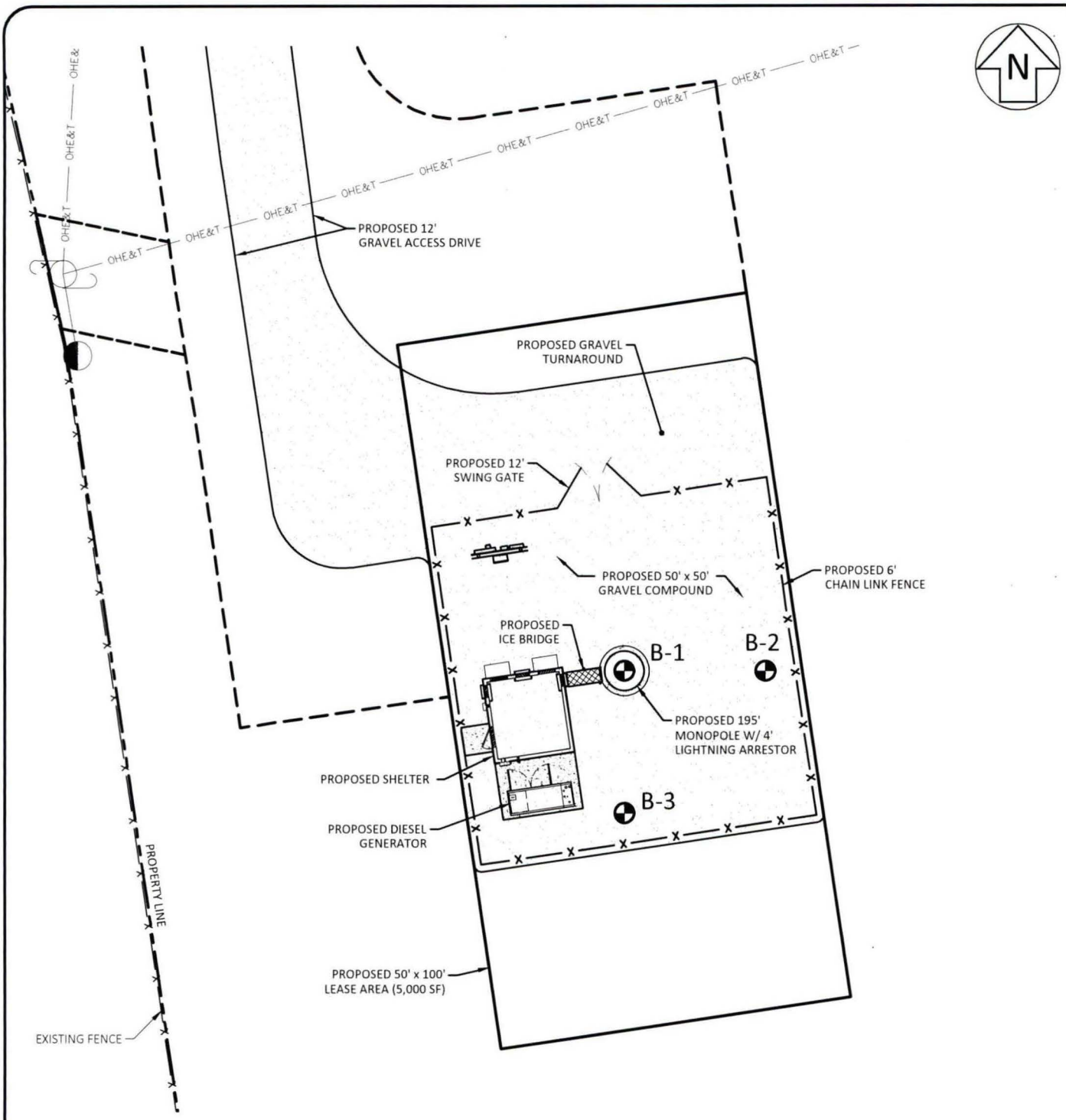
The nature and extent of variation and change in the subsurface conditions at the site may not become evident until the course of construction. Construction monitoring by the geotechnical engineer or a representative is therefore considered necessary to verify the subsurface conditions and to check that 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

BORING LOCATION

0' 20' 40'

1"= 20'

SHEET TITLE: BORING LOCATION PLAN	SITE NUMBER: KYLSU1691	SITE INFORMATION: LORETTO 5095 KENTUCKY HIGHWAY 52 A.K.A. ST FRANCIS HIGHWAY LORETTO, KY 40037 MARION COUNTY	POD POWER OF DESIGN 11490 BLUEGRASS PKWY LOUISVILLE, KY 40299 502-437-5252
	LATITUDE: 37° 38' 03.81" N LONGITUDE: 85° 24' 20.40" W		
SHEET NUMBER: 1	POD NUMBER: 16-12219 DRAWN BY: JGB CHECKED BY: MEP DATE: 3.2.17		at&t

POD
POWER OF DESIGN

Boring Log

Boring: B-1

Page 1 of 1

Project: Loretto **City, State** Loretto, KY

Method: H.S.A.	**Boring Date:** 6-Mar-17	**Location:** Proposed Lease Area
Inside Diameter: 3 1/4"	**Drill Rig Type:** ATV 550	**Hammer Type:** Manual
Groundwater: DRY		**Weather:**
Driller: Greenbaum Associates	**Note:** About 6 inches of 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, (ksf)
0.5	2.3	SILTY CLAY (CL) - medium stiff, slightly moist, tan with black streaks	1-2.3	SS	3, 3, 50	10	53,					3.0
		Auger Refusal at 2.3 feet										

POD
POWER OF DESIGN

Boring Log

Boring: B-2

Page 1 of 1

Project: Loretto **City, State** Loretto, KY

Method: H.S.A.	**Boring Date:** 6-Mar-17	**Location:** Proposed Lease Area
Inside Diameter: 3 1/4"	**Drill Rig Type:** ATV 550	**Hammer Type:** Manual
Groundwater: DRY		**Weather:**
Driller: Greenbaum Associates	**Note:** About 7 inches of 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, (ksf)
0.6	2.2	SILTY CLAY (CL) - medium stiff, slightly moist, brown with trace root fibers	1-2.2	SS	4, 4, 50	10	54,					2.4
		Auger Refusal at 2.2 feet										

POD
POWER OF DESIGN

Boring Log

Boring: B-3

Page 1 of 1

Project: Loretto **City, State** Loretto, KY

Method: H.S.A.	**Boring Date:** 6-Mar-17	**Location:** Proposed Lease Area
Inside Diameter: 3 1/4"	**Drill Rig Type:** ATV 550	**Hammer Type:** Manual
Groundwater: DRY		**Weather:**
Driller: Greenbaum Associates	**Note:** About 7 inches of 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, (ksf)
0.6	3.2	SILTY CLAY (CL) - medium stiff, slightly moist, brown with trace black nodes	1-2.5	SS	4, 4, 50	10	54,					2.4
3.2	23.3	LIMESTONE with SHALE - hard, slightly weathered, gray with a few mud seams between 3.2 and 6.2 feet.	3.2 - 7.2	RC		34		63%				
			7.2 - 12.2	RC		60		92%				
			12.2 - 17.2	RC		60		100%				
			17.2 - 22.2	RC		60		95%				
			22.2- 23.2	RC		10		83%				
		Boring Terminated at 23.2 feet										

SOIL SAMPLE CLASSIFICATION

FINE AND COARSE GRAINED SOIL INFORMATION

COARSE GRAINED SOILS (SANDS & GRAVELS)

N	Relative Density
0-4	Very Loose
5-10	Loose
11-20	Firm
21-30	Very Firm
31-50	Dense
Over 50	Very Dense

FINE GRAINED SOILS (SILTS & CLAYS)

N	Consistency	Qu, KSF Estimated
0-1	Very Soft	0-0.5
2-4	Soft	0.5-1
5-8	Firm	1-2
9-15	Stiff	2-4
16-30	Very Stiff	4-8
Over 31	Hard	8+

PARTICLE SIZE

Boulders	Greater than 300 mm (12 in)
Cobbles	75 mm to 300 mm (3 to 12 in)
Gravel	4.74 mm to 75 mm (3/16 to 3 in)
Coarse Sand	2 mm to 4.75 mm
Medium Sand	0.425 mm to 2 mm
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)

Percent RQD	Quality
0-25	Very Poor
25-50	Poor
50-75	Fair
75-90	Good
90-100	Excellent

ROCK HARDNESS

Very Hard:	Rock can be broken by heavy hammer blows.
Hard:	Rock cannot be broken by thumb pressure, but can be broken by moderate hammer blows.
Moderately Hard:	Small pieces can be broken off along sharp edges by considerable hard thumb pressure; can be broken with light hammer blows.
Soft:	Rock is coherent but breaks very easily with thumb pressure at sharp edges and crumbles with firm hand pressure.
Very Soft:	Rock disintegrates or easily compresses when touched; can be hard to very hard soil.

$$\text{Recovery} = \frac{\text{Length of Rock Core Recovered}}{\text{Length of Core Run}} \times 100$$

63 REC

$$\text{RQD} = \frac{\text{Sum of 4 in. and longer Rock Pieces Recovered}}{\text{Length of Core Run}} \times 100$$

43 RQD

Core Diameter	Inches
BQ	1-7/16
NQ	1-7/8
HQ	2-1/2

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
γ_D:	Dry Unit Weight, PCF
F:	Fines Content

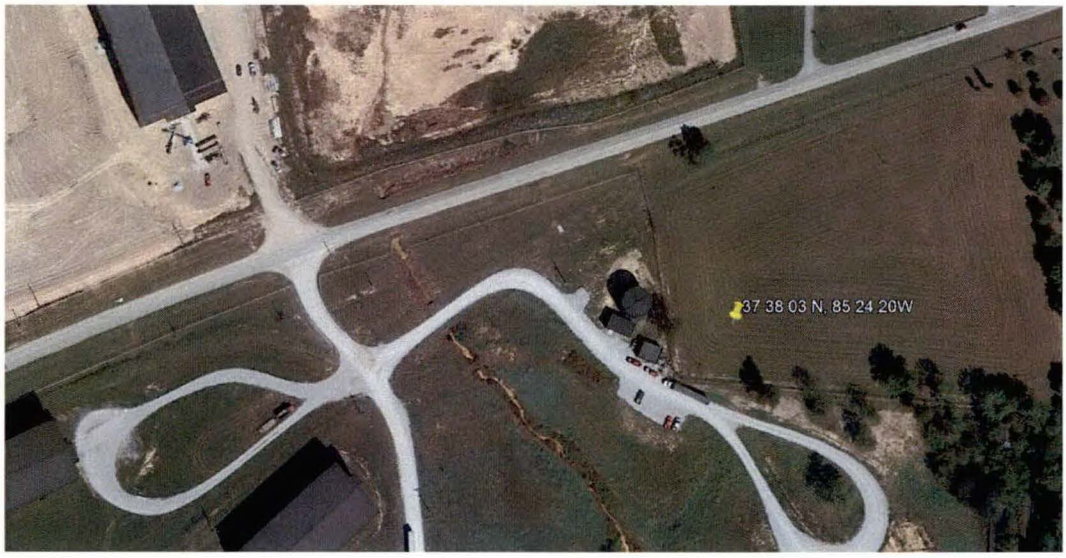
SAMPLING SYMBOLS

SS	Split Spoon Sample
UD	Relatively Undisturbed Sample
Core 1	Rock Core Sample

EXHIBIT H
DIRECTIONS TO WCF SITE

Site Name: Loretto
Driving Directions to Proposed Tower Site

1. Beginning at the offices of the County Judge Executive located at 223 N Spalding Ave, Lebanon, KY 40033 start out going northwest on N Spalding Ave/KY-55/KY-55S toward W Walnut St.
2. Take the 1st left onto W Walnut St/KY-55.
3. Turn right onto Loretto Rd/KY-52/KY-49. Continue to follow Loretto Rd/KY-49.
4. Turn right onto Highway 52/KY-52.
5. Arrive at 5095 KY Highway 52, Loretto, Kentucky.
6. The site coordinates are 37°38'03.81" North latitude, 85°24'20.40" West longitude.



Prepared by:
Robert W. Grant
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

Market: Louisville
Cell Site Number: KYLSU1691
Cell Site Name: Loretto
Fixed Asset Number: 10589946

OPTION AND LEASE AGREEMENT

THIS OPTION AND LEASE AGREEMENT ("**Agreement**"), dated as of the latter of the signature dates below (the "**Effective Date**"), is entered into by Freddie Miles and Judy Miles, his wife, having a mailing address of 5095 Highway 52, Loretto, KY 40037 ("**Landlord**") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 ("**Tenant**").

BACKGROUND

Landlord owns or controls that certain plot, parcel or tract of land, as described on **Exhibit 1**, together with all rights and privileges arising in connection therewith, located at 5095 Highway 52, Loretto, 40037 in the County of Marion, State of Kentucky (collectively, the "**Property**"). Tenant desires to use a portion of the Property in connection with its federally licensed communications business. Landlord desires to grant to Tenant the right to use a portion of the Property in accordance with this Agreement.

The parties agree as follows:

1. **OPTION TO LEASE.**

(a) Landlord grants to Tenant an option (the "**Option**") to lease a certain portion of the Property containing approximately 5,000 square feet including the air space above such ground space, as described on attached **Exhibit 1** (the "**Premises**"), for the placement of Tenant's Communication Facility.

(b) During the Option Term, and during the term of this Agreement, Tenant and its agents, engineers, surveyors and other representatives will have the right to enter upon the Property to inspect, examine, conduct soil borings, drainage testing, material sampling, radio frequency testing and other geological or engineering tests or studies of the Property (collectively, the "**Tests**"), to apply for and obtain licenses, permits, approvals, or other relief required of or deemed necessary or appropriate at Tenant's sole discretion for its use of the Premises and include, without limitation, applications for zoning variances, zoning ordinances, amendments, special use permits, and construction permits (collectively, the "**Government Approvals**"), initiate the ordering and/or scheduling of necessary utilities, and otherwise to do those things on or off the Property that, in the opinion of Tenant, are necessary in Tenant's sole discretion to determine the physical condition of the Property, the environmental history of the Property, Landlord's title to the Property and the feasibility or suitability of the Property for Tenant's Permitted Use, all at Tenant's expense. Tenant will not be liable to Landlord or any third party on account of any pre-existing defect or condition on or with respect to the Property, whether or not such defect or condition is disclosed by Tenant's inspection. Tenant will restore the Property to its condition as it existed at the commencement of the Option Term, reasonable wear and tear and loss by casualty or other causes beyond Tenant's control excepted.

(c) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of [redacted] within forty five (45) business days of the Effective Date. The Option will be for an initial term of one (1) year commencing on the Effective Date (the "**Initial Option Term**") and may be renewed by Tenant for an additional one (1) year (the "**Renewal Option Term**") upon written notification to Landlord and the payment of an additional [redacted] no later than five (5) days prior to the expiration date of the Initial Option Term. The Initial Option Term and any Renewal Option Term are collectively referred to as the "**Option Term.**"

(d) The Option may be sold, assigned or transferred at any time by Tenant to an Affiliate (as that term is hereinafter defined) of Tenant or to any third party agreeing to be subject to the terms hereof. Otherwise,

the Option may not be sold, assigned or transferred without the written consent of Landlord, such consent not to be unreasonably withheld, conditioned or delayed. From and after the date the Option has been sold, assigned ~~or transferred by Tenant to an Affiliate or a third party agreeing to be subject to the terms hereof, Tenant shall~~ immediately be released from any and all liability under this Agreement, including the payment of any rental or other sums due, without any further action.

(e) During the Option Term, Tenant may exercise the Option by notifying Landlord in writing. If Tenant exercises the Option then Landlord leases the Premises to Tenant subject to the terms and conditions of this Agreement. If Tenant does not exercise the Option during the Initial Option Term or any extension thereof, this Agreement will terminate and the parties will have no further liability to each other.

(f) If during the Option Term, or during the term of this Agreement the Option is exercised, Landlord decides to subdivide, sell, or change the status of the zoning of the Premises, Property or any of Landlord's contiguous, adjoining or surrounding property (the **"Surrounding Property,"**) or in the event of foreclosure, Landlord shall immediately notify Tenant in writing. Landlord agrees that during the Option Term, or during the Term of this Agreement if the Option is exercised, Landlord shall not initiate or consent to any change in the zoning of the Premises, Property or Surrounding Property or impose or consent to any other use or restriction that would prevent or limit Tenant from using the Premises for the Permitted Use. Any and all terms and conditions of this Agreement that by their sense and context are intended to be applicable during the Option Term shall be so applicable.

2. PERMITTED USE. Tenant may use the Premises for the transmission and reception of communications signals and the installation, construction, maintenance, operation, repair, replacement and upgrade of its communications fixtures and related equipment, cables, accessories and improvements, which may include a suitable support structure, associated antennas, equipment shelters or cabinets and fencing and any other items necessary to the successful and secure use of the Premises (collectively, the **"Communication Facility"**), as well as the right to test, survey and review title on the Property; Tenant further has the right but not the obligation to add, modify and/or replace equipment in order to be in compliance with any current or future federal, state or local mandated application, including, but not limited to, emergency 911 communication services, at no additional cost to Tenant or Landlord (collectively, the **"Permitted Use"**). Landlord and Tenant agree that any portion of the Communication Facility that may be conceptually described on **Exhibit 1** will not be deemed to limit Tenant's Permitted Use. If **Exhibit 1** includes drawings of the initial installation of the Communication Facility, Landlord's execution of this Agreement will signify Landlord's approval of **Exhibit 1**. For a period of ninety (90) days following the start of construction, Landlord grants Tenant, its subtenants, licensees and sublicensees, the right to use such portions of Landlord's contiguous, adjoining or Surrounding Property as described on **Exhibit 1** as may reasonably be required during construction and installation of the Communication Facility. Tenant has the right to install and operate transmission cables from the equipment shelter or cabinet to the antennas, electric lines from the main feed to the equipment shelter or cabinet and communication lines from the Property's main entry point to the equipment shelter or cabinet, and to make other improvements, alterations, upgrades or additions appropriate for Tenant's Permitted Use, including the right to construct a fence around the Premises and undertake any other appropriate means to secure the Premises at Tenant's expense. Tenant has the right to modify, supplement, replace, upgrade, expand the equipment, increase the number of antennas or relocate the Communication Facility within the Premises at any time during the term of this Agreement. Tenant will be allowed to make such alterations to the Property in order to ensure that Tenant's Communication Facility complies with all applicable federal, state or local laws, rules or regulations. In the event Tenant desires to modify or upgrade the Communication Facility, in a manner that requires an additional portion of the Property (the **"Additional Premises"**) for such modification or upgrade, Landlord agrees to lease to Tenant the Additional Premises, upon the same terms and conditions set forth herein, except that the Rent shall increase, in conjunction with the lease of the Additional Premises by the amount equivalent to the then-current per square foot rental rate charged by Landlord to Tenant times the square footage of the Additional Premises. Landlord agrees to take such actions and enter into and deliver to Tenant such documents as Tenant reasonably requests in order to effect and memorialize the lease of the Additional Premises to Tenant.

3. **TERM.**

(a) The initial lease term will be five (5) years (the "**Initial Term**"), commencing on the effective ~~date of written notification by Tenant to Landlord of Tenant's exercise of the Option (the "Term~~ **Commencement Date**"). The Initial Term will terminate on the fifth (5th) anniversary of the Term Commencement Date.

(b) This Agreement will automatically renew for four (4) additional five (5) year term(s) (each five (5) year term shall be defined as an "**Extension Term**"), upon the same terms and conditions unless Tenant notifies Landlord in writing of Tenant's intention not to renew this Agreement at least sixty (60) days prior to the expiration of the Initial Term or then-existing Extension Term.

(c) Unless (i) Landlord or Tenant notifies the other in writing of its intention to terminate this Agreement at least six (6) months prior to the expiration of the final Extension Term, or (ii) the Agreement is terminated as otherwise permitted by this Agreement prior to the end of the final Extension Term, then upon the expiration of the final Extension Term, this Agreement shall continue in force upon the same covenants, terms and conditions for a further term of one (1) year, and for annual terms thereafter ("**Annual Term**") until terminated by either party by giving to the other written notice of its intention to so terminate at least six (6) months prior to the end of any such Annual Term. Monthly rental during such Annual Terms shall be equal to the Rent paid for the last month of the final Extension Term. If Tenant remains in possession of the Premises after the termination of this Agreement, then Tenant will be deemed to be occupying the Premises on a month-to-month basis (the "**Holdover Term**"), subject to the terms and conditions of this Agreement.

(d) The Initial Term, any Extension Terms, any Annual Terms and any Holdover Term are collectively referred to as the Term (the "**Term**").

4. **RENT.**

(a) Commencing on the first day of the month following the date that Tenant commences construction (the "**Rent Commencement Date**"), Tenant will pay Landlord on or before the fifth (5th) day of each calendar month in advance [redacted] (the "**Rent**"), at the address set forth above. In any partial month occurring after the Rent Commencement Date, Rent will be prorated. The initial Rent payment will be forwarded by Tenant to Landlord within forty-five (45) days after the Rent Commencement Date.

(b) In year one (1) of each Extension Term, the monthly Rent will increase by [redacted] over the Rent paid during the previous five (5) year term.

(c) All charges payable under this Agreement such as utilities and taxes shall be billed by Landlord within one (1) year from the end of the calendar year in which the charges were incurred; any charges beyond such period shall not be billed by Landlord, and shall not be payable by Tenant. The foregoing shall not apply to monthly Rent which is due and payable without a requirement that it be billed by Landlord. The provisions of this subsection shall survive the termination or expiration of this Agreement.

5. **APPROVALS.**

(a) Landlord agrees that Tenant's ability to use the Premises is contingent upon the suitability of the Premises and Property for Tenant's Permitted Use and Tenant's ability to obtain and maintain all Government Approvals. Landlord authorizes Tenant to prepare, execute and file all required applications to obtain Government Approvals for Tenant's Permitted Use under this Agreement and agrees to reasonably assist Tenant with such applications and with obtaining and maintaining the Government Approvals.

(b) Tenant has the right to obtain a title report or commitment for a leasehold title policy from a title insurance company of its choice and to have the Property surveyed by a surveyor of its choice.

(c) Tenant may also perform and obtain, at Tenant's sole cost and expense, soil borings, percolation tests, engineering procedures, environmental investigation or other tests or reports on, over, and under the Property, necessary to determine if Tenant's use of the Premises will be compatible with Tenant's engineering specifications, system, design, operations or Government Approvals.

6. **TERMINATION.** This Agreement may be terminated, without penalty or further liability, as follows:

(a) by either party on thirty (30) days prior written notice, if the other party remains in default under Section 15 of this Agreement after the applicable cure periods;

~~(b) by Tenant upon written notice to Landlord, if Tenant is unable to obtain or maintain, any~~ required approval(s) or the issuance of a license or permit by any agency, board, court or other governmental authority necessary for the construction or operation of the Communication Facility as now or hereafter intended by Tenant; or if Tenant determines, in its sole discretion that the cost of or delay in obtaining or retaining the same is commercially unreasonable;

(c) by Tenant, upon written notice to Landlord, if Tenant determines, in its sole discretion, due to the title report results or survey results, that the condition of the Premises is unsatisfactory for its intended uses;

(d) by Tenant upon written notice to Landlord for any reason or no reason, at any time prior to commencement of construction by Tenant; or

(e) by Tenant upon sixty (60) days' prior written notice to Landlord for any reason or no reason, so long as Tenant pays Landlord a termination fee equal to three (3) months' Rent, at the then-current rate, provided, however, that no such termination fee will be payable on account of the termination of this Agreement by Tenant under any termination provision contained in any other Section of this Agreement, including the following: 5 Approvals, 6(a) Termination, 6(b) Termination, 6(c) Termination, 6(d) Termination, 11(d) Environmental, 18 Condemnation, or 19 Casualty.

7. INSURANCE.

(a) During the Term, Tenant will carry, at its own cost and expense, the following insurance: (i) workers' compensation insurance as required by law; and (ii) commercial general liability (CGL) insurance with respect to its activities on the Property, such insurance to afford protection of up to [redacted] per occurrence and [redacted] general aggregate, based on Insurance Services Office (ISO) Form CG 00 01 or a substitute form providing substantially equivalent coverage. Tenant's CGL insurance shall contain a provision including Landlord as an additional insured. Such additional insured coverage:

(i) shall be limited to bodily injury, property damage or personal and advertising injury caused, in whole or in part, by Tenant, its employees, agents or independent contractors;

(ii) shall not extend to claims for punitive or exemplary damages arising out of the acts or omissions of Landlord, its employees, agents or independent contractors or where such coverage is prohibited by law or to claims arising out of the gross negligence of Landlord, its employees, agents or independent contractors; and

(iii) shall not exceed Tenant's indemnification obligation under this Agreement, if any.

(b) Notwithstanding the foregoing, Tenant shall have the right to self-insure the coverages required in subsection (a). In the event Tenant elects to self-insure its obligation to include Landlord as an additional insured, the following provisions shall apply (in addition to those set forth in subsection (a)):

(i) Landlord shall promptly and no later than thirty (30) days after notice thereof provide Tenant with written notice of any claim, demand, lawsuit, or the like for which it seeks coverage pursuant to this Section and provide Tenant with copies of any demands, notices, summonses, or legal papers received in connection with such claim, demand, lawsuit, or the like;

(ii) Landlord shall not settle any such claim, demand, lawsuit, or the like without the prior written consent of Tenant; and

(iii) Landlord shall fully cooperate with Tenant in the defense of the claim, demand, lawsuit, or the like.

8. **INTERFERENCE.**

(a) Prior to or concurrent with the execution of this Agreement, Landlord has provided or will ~~provide Tenant with a list of radio frequency user(s) and frequencies used on the Property as of the Effective~~ Date. Tenant warrants that its use of the Premises will not interfere with those existing radio frequency uses on the Property, as long as those existing radio frequency user(s) operate and continue to operate within their respective frequencies and in accordance with all applicable laws and regulations.

(b) Landlord will not grant, after the date of this Agreement, a lease, license or any other right to any third party, if the exercise of such grant may in any way adversely affect or interfere with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will notify Tenant in writing prior to granting any third party the right to install and operate communications equipment on the Property.

(c) Landlord will not, nor will Landlord permit its employees, tenants, licensees, invitees, agents or independent contractors to, interfere in any way with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will cause such interference to cease within twenty-four (24) hours after receipt of notice of interference from Tenant. In the event any such interference does not cease within the aforementioned cure period, Landlord shall cease all operations which are suspected of causing interference (except for intermittent testing to determine the cause of such interference) until the interference has been corrected.

(d) For the purposes of this Agreement, "interference" may include, but is not limited to, any use on the Property or Surrounding Property that causes electronic or physical obstruction with, or degradation of, the communications signals from the Communication Facility.

9. **INDEMNIFICATION.**

(a) Tenant agrees to indemnify, defend and hold Landlord harmless from and against any and all injury, loss, damage or liability (or any claims in respect of the foregoing), costs or expenses (including reasonable attorneys' fees and court costs) arising directly from the installation, use, maintenance, repair or removal of the Communication Facility or Tenant's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Landlord, its employees, agents or independent contractors.

(b) Landlord agrees to indemnify, defend and hold Tenant harmless from and against any and all injury, loss, damage or liability (or any claims in respect of the foregoing), costs or expenses (including reasonable attorneys' fees and court costs) arising directly from the actions or failure to act of Landlord, its employees or agents, or Landlord's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Tenant, its employees, agents or independent contractors.

(c) The indemnified party: (i) shall promptly provide the indemnifying party with written notice of any claim, demand, lawsuit, or the like for which it seeks indemnification pursuant to this Section and provide the indemnifying party with copies of any demands, notices, summonses, or legal papers received in connection with such claim, demand, lawsuit, or the like; (ii) shall not settle any such claim, demand, lawsuit, or the like without the prior written consent of the indemnifying party; and (iii) shall fully cooperate with the indemnifying party in the defense of the claim, demand, lawsuit, or the like. A delay in notice shall not relieve the indemnifying party of its indemnity obligation, except (1) to the extent the indemnifying party can show it was prejudiced by the delay; and (2) the indemnifying party shall not be liable for any settlement or litigation expenses incurred before the time when notice is given.

10. **WARRANTIES.**

(a) Tenant and Landlord each acknowledge and represent that it is duly organized, validly existing and in good standing and has the right, power and authority to enter into this Agreement and bind itself hereto through the party set forth as signatory for the party below.

(b) Landlord represents, warrants and agrees that: (i) Landlord solely owns the Property as a legal lot in fee simple, or controls the Property by lease or license; (ii) the Property is not and will not be encumbered by any liens, restrictions, mortgages, covenants, conditions, easements, leases, or any other agreements of record or not of record, which would adversely affect Tenant's Permitted Use and enjoyment of the Premises under this

Agreement; (iii) as long as Tenant is not in default then Landlord grants to Tenant sole, actual, quiet and peaceful use, enjoyment and possession of the Premises without hindrance or ejection by any persons lawfully ~~claiming under Landlord; (iv) Landlord's execution and performance of this Agreement will not violate any~~ laws, ordinances, covenants or the provisions of any mortgage, lease or other agreement binding on Landlord; and (v) if the Property is or becomes encumbered by a deed to secure a debt, mortgage or other security interest, Landlord will provide promptly to Tenant a mutually agreeable subordination, non-disturbance and attornment agreement executed by Landlord and the holder of such security interest.

11. ENVIRONMENTAL.

(a) Landlord represents and warrants that, except as may be identified in **Exhibit 11** attached to this Agreement, (i) the Property, as of the date of this Agreement, is free of hazardous substances, including asbestos-containing materials and lead paint, and (ii) the Property has never been subject to any contamination or hazardous conditions resulting in any environmental investigation, inquiry or remediation. Landlord and Tenant agree that each will be responsible for compliance with any and all applicable governmental laws, rules, statutes, regulations, codes, ordinances, or principles of common law regulating or imposing standards of liability or standards of conduct with regard to protection of the environment or worker health and safety, as may now or at any time hereafter be in effect, to the extent such apply to that party's activity conducted in or on the Property.

(b) Landlord and Tenant agree to hold harmless and indemnify the other from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of the indemnifying party for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding ("**Claims**"), to the extent arising from that party's breach of its obligations or representations under Section 11(a). Landlord agrees to hold harmless and indemnify Tenant from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Landlord for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any Claims, to the extent arising from subsurface or other contamination of the Property with hazardous substances prior to the effective date of this Agreement or from such contamination caused by the acts or omissions of Landlord during the Term. Tenant agrees to hold harmless and indemnify Landlord from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Tenant for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any Claims, to the extent arising from hazardous substances brought onto the Property by Tenant.

(c) The indemnifications of this Section 11 specifically include reasonable costs, expenses and fees incurred in connection with any investigation of Property conditions or any clean-up, remediation, removal or restoration work required by any governmental authority. The provisions of this Section 11 will survive the expiration or termination of this Agreement.

(d) In the event Tenant becomes aware of any hazardous substances on the Property, or any environmental, health or safety condition or matter relating to the Property, that, in Tenant's sole determination, renders the condition of the Premises or Property unsuitable for Tenant's use, or if Tenant believes that the leasing or continued leasing of the Premises would expose Tenant to undue risks of liability to a government agency or other third party, Tenant will have the right, in addition to any other rights it may have at law or in equity, to terminate this Agreement upon written notice to Landlord.

12. ACCESS. At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access ("**Access**") to and over the Property, from an open and improved public road to the Premises, for the installation, maintenance and operation of the Communication Facility and any utilities serving the Premises. As may be described more fully in **Exhibit 1**, Landlord grants to Tenant an easement for such Access and Landlord agrees to provide to Tenant such codes, keys and other instruments necessary for such Access at no additional cost to Tenant. Upon Tenant's request, Landlord will execute a separate recordable easement evidencing this right. Landlord shall execute a letter granting Tenant Access to the Property substantially in the form attached as **Exhibit 12**; upon Tenant's request, Landlord shall execute

additional letters during the Term. Landlord acknowledges that in the event Tenant cannot obtain Access to the Premises, Tenant shall incur significant damage. If Landlord fails to provide the Access granted by this Section 12, such failure shall be a default under this Agreement. In connection with such default, in addition to any ~~other rights or remedies available to Tenant under this Agreement or at law or equity, Landlord shall pay~~ Tenant, as liquidated damages and not as a penalty, [redacted] in consideration of Tenant's damages until Landlord cures such default. Landlord and Tenant agree that Tenant's damages in the event of a denial of Access are difficult, if not impossible, to ascertain, and the liquidated damages set forth above are a reasonable approximation of such damages.

13. REMOVAL/RESTORATION. All portions of the Communication Facility brought onto the Property by Tenant will be and remain Tenant's personal property and, at Tenant's option, may be removed by Tenant at any time during or after the Term. Landlord covenants and agrees that no part of the Communication Facility constructed, erected or placed on the Premises by Tenant will become, or be considered as being affixed to or a part of, the Property, it being the specific intention of Landlord that all improvements of every kind and nature constructed, erected or placed by Tenant on the Premises will be and remain the property of Tenant and may be removed by Tenant at any time during or after the Term. Tenant will repair any damage to the Property resulting from Tenant's removal activities. Any portions of the Communication Facility that Tenant does not remove within one hundred twenty (120) days after the later of the end of the Term and cessation of Tenant's operations at the Premises shall be deemed abandoned and owned by Landlord. However, to the extent required by law, Tenant will remove the above-ground portions of the Communications Facility within such one hundred twenty (120) day period. Notwithstanding the foregoing, Tenant will not be responsible for the replacement of any trees, shrubs or other vegetation.

J.M. 10-1-16 J.M. 10-1-16

14. MAINTENANCE/UTILITIES.

(a) Tenant will keep and maintain the Premises in good condition, reasonable wear and tear and damage from the elements excepted. Landlord will maintain and repair the Property and access thereto and all areas of the Premises where Tenant does not have exclusive control, in good and tenantable condition, subject to reasonable wear and tear and damage from the elements. Landlord will be responsible for maintenance of landscaping on the Property, including any landscaping installed by Tenant as a condition of this Agreement or any required permit.

(b) Tenant will be responsible for paying on a monthly or quarterly basis all utilities charges for electricity, telephone service or any other utility used or consumed by Tenant on the Premises. In the event Tenant cannot secure its own metered electrical supply, Tenant will have the right, at its own cost and expense, to submeter from Landlord. When submetering is required under this Agreement, Landlord will read the meter and provide Tenant with an invoice and usage data on a monthly basis. Landlord agrees that it will not include a markup on the utility charges. Landlord further agrees to provide the usage data and invoice on forms provided by Tenant and to send such forms to such address and/or agent designated by Tenant. Tenant will remit payment within forty-five (45) days of receipt of the usage data and required forms. As noted in Section 4(c) above, any utility fee recovery by Landlord is limited to a twelve (12) month period. If Tenant submeters electricity from Landlord, Landlord agrees to give Tenant at least twenty-four (24) hours advance notice of any planned interruptions of said electricity. Landlord acknowledges that Tenant provides a communication service which requires electrical power to operate and must operate twenty-four (24) hours per day, seven (7) days per week. If the interruption is for an extended period of time, in Tenant's reasonable determination, Landlord agrees to allow Tenant the right to bring in a temporary source of power for the duration of the interruption. Landlord will not be responsible for interference with, interruption of or failure, beyond the reasonable control of Landlord, of such services to be furnished or supplied by Landlord.

(c) Landlord hereby grants to any company providing utility or similar services, including electric power and telecommunications, to Tenant an easement over the Property, from an open and improved public road to the Premises, and upon the Premises, for the purpose of constructing, operating and maintaining such lines, wires, circuits, and conduits, associated equipment cabinets and such appurtenances thereto, as such companies may from time to time require in order to provide such services to the Premises. Upon Tenant's or the service company's request, Landlord will execute a separate recordable easement evidencing this grant, at no cost to Tenant or the service company.

15. DEFAULT AND RIGHT TO CURE.

(a) The following will be deemed a default by Tenant and a breach of this Agreement: (i) non-payment of Rent if such Rent remains unpaid for more than thirty (30) days after written notice from Landlord of such failure to pay; or (ii) Tenant's failure to perform any other term or condition under this Agreement within forty-five (45) days after written notice from Landlord specifying the failure. No such failure, however, will be deemed to exist if Tenant has commenced to cure such default within such period and provided that such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Tenant. If Tenant remains in default beyond any applicable cure period, Landlord will have the right to exercise any and all rights and remedies available to it under law and equity.

(b) The following will be deemed a default by Landlord and a breach of this Agreement: (i) Landlord's failure to provide Access to the Premises as required by Section 12 of this Agreement within twenty-four (24) hours after written notice of such failure; (ii) Landlord's failure to cure an interference problem as required by Section 8 of this Agreement within twenty-four (24) hours after written notice of such failure; or (iii) Landlord's failure to perform any term, condition or breach of any warranty or covenant under this Agreement within forty-five (45) days after written notice from Tenant specifying the failure. No such failure, however, will be deemed to exist if Landlord has commenced to cure the default within such period and provided such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Landlord. If Landlord remains in default beyond any applicable cure period, Tenant will have: (i) the right to cure Landlord's default and to deduct the costs of such cure from any monies due to Landlord from Tenant, and (ii) any and all other rights available to it under law and equity.

16. ASSIGNMENT/SUBLEASE. Tenant will have the right to assign this Agreement or sublease the Premises and its rights herein, in whole or in part, without Landlord's consent. Upon notification to Landlord of such assignment, Tenant will be relieved of all future performance, liabilities and obligations under this Agreement to the extent of such assignment.

17. NOTICES. All notices, requests and demands hereunder will be given by first class certified or registered mail, return receipt requested, or by a nationally recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notices will be addressed to the parties as follows:

If to Tenant:
New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
Re: Cell Site #KYLSU1691; Cell Site Name: Loretto (KY)
Fixed Asset No.: 10589946
575 Morosgo Drive NE
Atlanta, GA 30324

With a copy to:
New Cingular Wireless PCS, LLC
Attn: Legal Department
Re: Cell Site #KYLSU1691; Cell Site Name: Loretto (KY)
Fixed Asset No.: 10589946
208 S. Akard Street
Dallas, TX 75202-4206

The copy sent to the Legal Department is an administrative step which alone does not constitute legal notice.

If to Landlord: Freddie Miles
5095 Highway 52
Loretto, KY 40037

Either party hereto may change the place for the giving of notice to it by thirty (30) days' prior written notice to the other as provided herein.

18. CONDEMNATION. In the event Landlord receives notification of any condemnation proceedings affecting the Property, Landlord will provide notice of the proceeding to Tenant within forty-eight (48) hours. If a condemning authority takes all of the Property, or a portion sufficient, in Tenant's sole determination, to render the Premises unsuitable for Tenant, this Agreement will terminate as of the date the title vests in the condemning authority. The parties will each be entitled to pursue their own separate awards in the condemnation proceeds, which for Tenant will include, where applicable, the value of its Communication Facility, moving expenses, prepaid Rent, and business dislocation expenses. Tenant will be entitled to reimbursement for any prepaid Rent on a prorata basis.

19. CASUALTY. Landlord will provide notice to Tenant of any casualty or other harm affecting the Property within forty-eight (48) hours of the casualty or other harm. If any part of the Communication Facility or Property is damaged by casualty or other harm as to render the Premises unsuitable, in Tenant's sole determination, then Tenant may terminate this Agreement by providing written notice to Landlord, which termination will be effective as of the date of such casualty or other harm. Upon such termination, Tenant will be entitled to collect all insurance proceeds payable to Tenant on account thereof and to be reimbursed for any prepaid Rent on a prorata basis. Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property, but only until such time as Tenant is able to activate a replacement transmission facility at another location; notwithstanding the termination of the Agreement, such temporary facilities will be governed by all of the terms and conditions of this Agreement, including Rent. If Landlord or Tenant undertakes to rebuild or restore the Premises and/or the Communication Facility, as applicable, Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property at no additional Rent until the reconstruction of the Premises and/or the Communication Facility is completed. If Landlord determines not to rebuild or restore the Property, Landlord will notify Tenant of such determination within thirty (30) days after the casualty or other harm. If Landlord does not so notify Tenant, and Tenant decides not to terminate under this Section, then Landlord will promptly rebuild or restore any portion of the Property interfering with or required for Tenant's Permitted Use of the Premises to substantially the same condition as existed before the casualty or other harm. Landlord agrees that the Rent shall be abated until the Property and/or the Premises are rebuilt or restored, unless Tenant places temporary transmission and reception facilities on the Property.

20. WAIVER OF LANDLORD'S LIENS. Landlord waives any and all lien rights it may have, statutory or otherwise, concerning the Communication Facility or any portion thereof. The Communication Facility shall be deemed personal property for purposes of this Agreement, regardless of whether any portion is deemed real or personal property under applicable law; Landlord consents to Tenant's right to remove all or any portion of the Communication Facility from time to time in Tenant's sole discretion and without Landlord's consent.

21. TAXES.

(a) Landlord shall be responsible for timely payment of all taxes and assessments levied upon the lands, improvements and other property of Landlord, including any such taxes that may be calculated by the taxing authority using any method, including the income method. Tenant shall be responsible for any taxes and assessments attributable to and levied upon Tenant's leasehold improvements on the Premises if and as set forth in this Section 21. Nothing herein shall require Tenant to pay any inheritance, franchise, income, payroll,

excise, privilege, rent, capital stock, stamp, documentary, estate or profit tax, or any tax of similar nature, that is or may be imposed upon Landlord.

(b) In the event Landlord receives a notice of assessment with respect to which taxes or assessments are imposed on Tenant's leasehold improvements on the Premises, Landlord shall provide Tenant with copies of each such notice immediately upon receipt, but in no event later than thirty (30) days after the date of such notice of assessment. If Landlord does not provide such notice or notices to Tenant within such time period, Landlord shall be responsible for payment of the tax or assessment set forth in the notice, and Landlord shall not have the right to reimbursement of such amount from Tenant. If Landlord provides a notice of assessment to Tenant within such time period and requests reimbursement from Tenant as set forth below, then Tenant shall reimburse Landlord for the tax or assessments identified on the notice of assessment on Tenant's leasehold improvements, which has been paid by Landlord. If Landlord seeks reimbursement from Tenant, Landlord shall, no later than thirty (30) days after Landlord's payment of the taxes or assessments for the assessed tax year, provide Tenant with written notice including evidence that Landlord has timely paid same, and Landlord shall provide to Tenant any other documentation reasonably requested by Tenant to allow Tenant to evaluate the payment and to reimburse Landlord.

(c) For any tax amount for which Tenant is responsible under this Agreement, Tenant shall have the right to contest, in good faith, the validity or the amount thereof using such administrative, appellate or other proceedings as may be appropriate in the jurisdiction, and may defer payment of such obligations, pay same under protest, or take such other steps as Tenant may deem appropriate. This right shall include the ability to institute any legal, regulatory or informal action in the name of Landlord, Tenant, or both, with respect to the valuation of the Premises. Landlord shall cooperate with respect to the commencement and prosecution of any such proceedings and will execute any documents required therefor. The expense of any such proceedings shall be borne by Tenant and any refunds or rebates secured as a result of Tenant's action shall belong to Tenant, to the extent the amounts were originally paid by Tenant. In the event Tenant notifies Landlord by the due date for assessment of Tenant's intent to contest the assessment, Landlord shall not pay the assessment pending conclusion of the contest, unless required by applicable law.

(d) Landlord shall not split or cause the tax parcel on which the Premises are located to be split, bifurcated, separated or divided without the prior written consent of Tenant.

(e) Tenant shall have the right but not the obligation to pay any taxes due by Landlord hereunder if Landlord fails to timely do so, in addition to any other rights or remedies of Tenant. In the event that Tenant exercises its rights under this Section 21(e) due to such Landlord default, Tenant shall have the right to deduct such tax amounts paid from any monies due to Landlord from Tenant as provided in Section 15(b), provided that Tenant may exercise such right without having provided to Landlord notice and the opportunity to cure per Section 15(b).

(f) Any tax-related notices shall be sent to Tenant in the manner set forth in Section 17 and, in addition, of a copy of any such notices shall be sent to the following address. Promptly after the Effective Date of this Agreement, Landlord shall provide the following address to the taxing authority for the authority's use in the event the authority needs to communicate with Tenant. In the event that Tenant's tax addresses changes by notice to Landlord, Landlord shall be required to provide Tenant's new tax address to the taxing authority or authorities.

New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration -- Taxes
Re: Cell Site #KYLSU1691; Cell Site Name: Loretto (KY)
Fixed Asset No: 10589946
575 Morosgo Drive NE
Atlanta, GA 30324

(g) Notwithstanding anything to the contrary contained in this Section 21, Tenant shall have no obligation to reimburse any tax or assessment for which the Landlord is reimbursed or rebated by a third party.

22. SALE OF PROPERTY

(a) Landlord shall not be prohibited from the selling, leasing or use of any of the Property or the Surrounding Property except as provided below.

(b) If Landlord, at any time during the Term of this Agreement, decides to rezone or sell, subdivide or otherwise transfer all or any part of the Premises, or all or any part of the Property or Surrounding Property, to a purchaser other than Tenant, Landlord shall promptly notify Tenant in writing, and such rezoning, sale, subdivision or transfer shall be subject to this Agreement and Tenant's rights hereunder. In the event of a change in ownership, transfer or sale of the Property, within ten (10) days of such transfer, Landlord or its successor shall send the documents listed below in this subsection (b) to Tenant. Until Tenant receives all such documents, Tenant shall not be responsible for any failure to make payments under this Agreement and reserves the right to hold payments due under this Agreement.

i. Old deed to Property
ii. New deed to Property
iii. Bill of Sale or Transfer
iv. Copy of current Tax Bill
v. New IRS Form W-9
vi. Completed and Signed AT&T Payment Direction Form
vii. Full contact information for new Landlord including phone number(s)

(c) Landlord agrees not to sell, lease or use any areas of the Property or Surrounding Property for the installation, operation or maintenance of other wireless communications facilities if such installation, operation or maintenance would interfere with Tenant's Permitted Use or communications equipment as determined by radio propagation tests performed by Tenant in its sole discretion. Landlord or Landlord's prospective purchaser shall reimburse Tenant for any costs and expenses of such testing. If the radio frequency propagation tests demonstrate levels of interference unacceptable to Tenant, Landlord shall be prohibited from selling, leasing or using any areas of the Property or the Surrounding Property for purposes of any installation, operation or maintenance of any other wireless communications facility or equipment.

(d) The provisions of this Section shall in no way limit or impair the obligations of Landlord under this Agreement, including interference and access obligations.

23. RENTAL STREAM OFFER. If at any time after the date of this Agreement, Landlord receives a bona fide written offer from a third party seeking an assignment or transfer of Rent payments associated with this Agreement ("**Rental Stream Offer**"), Landlord shall immediately furnish Tenant with a copy of the Rental Stream Offer. Tenant shall have the right within twenty (20) days after it receives such copy to match the Rental Stream Offer and agree in writing to match the terms of the Rental Stream Offer. Such writing shall be in the form of a contract substantially similar to the Rental Stream Offer. If Tenant chooses not to exercise this right or fails to provide written notice to Landlord within the twenty (20) day period, Landlord may assign the right to receive Rent payments pursuant to the Rental Stream Offer, subject to the terms of this Agreement. If Landlord attempts to assign or transfer Rent payments without complying with this Section, the assignment or transfer shall be void. Tenant shall not be responsible for any failure to make payments under this Agreement and reserves the right to hold payments due under this Agreement until Landlord complies with this Section.

24. MISCELLANEOUS.

(a) **Amendment/Waiver.** This Agreement cannot be amended, modified or revised unless done in writing and signed by Landlord and Tenant. No provision may be waived except in a writing signed by both parties. The failure by a party to enforce any provision of this Agreement or to require performance by the other

party will not be construed to be a waiver, or in any way affect the right of either party to enforce such provision thereafter.

~~(b) **Memorandum/Short Form Lease.** Contemporaneously with the execution of this Agreement,~~ the parties will execute a recordable Memorandum or Short Form of Lease substantially in the form attached as **Exhibit 24b**. Either party may record this Memorandum or Short Form of Lease at any time during the Term, in its absolute discretion. Thereafter during the Term of this Agreement, either party will, at any time upon fifteen (15) business days' prior written notice from the other, execute, acknowledge and deliver to the other a recordable Memorandum or Short Form of Lease.

(c) **Limitation of Liability.** Except for the indemnity obligations set forth in this Agreement, and otherwise notwithstanding anything to the contrary in this Agreement, Tenant and Landlord each waives any claims that each may have against the other with respect to consequential, incidental or special damages, however caused, based on any theory of liability.

(d) **Compliance with Law.** Tenant agrees to comply with all federal, state and local laws, orders, rules and regulations ("**Laws**") applicable to Tenant's use of the Communication Facility on the Property. Landlord agrees to comply with all Laws relating to Landlord's ownership and use of the Property and any improvements on the Property.

(e) **Bind and Benefit.** The terms and conditions contained in this Agreement will run with the Property and bind and inure to the benefit of the parties, their respective heirs, executors, administrators, successors and assigns.

(f) **Entire Agreement.** This Agreement and the exhibits attached hereto, all being a part hereof, constitute the entire agreement of the parties hereto and will supersede all prior offers, negotiations and agreements with respect to the subject matter of this Agreement. Exhibits are numbered to correspond to the Section wherein they are first referenced. Except as otherwise stated in this Agreement, each party shall bear its own fees and expenses (including the fees and expenses of its agents, brokers, representatives, attorneys, and accountants) incurred in connection with the negotiation, drafting, execution and performance of this Agreement and the transactions it contemplates.

(g) **Governing Law.** This Agreement will be governed by the laws of the state in which the Premises are located, without regard to conflicts of law.

(h) **Interpretation.** Unless otherwise specified, the following rules of construction and interpretation apply: (i) captions are for convenience and reference only and in no way define or limit the construction of the terms and conditions hereof; (ii) use of the term "including" will be interpreted to mean "including but not limited to"; (iii) whenever a party's consent is required under this Agreement, except as otherwise stated in this Agreement or as same may be duplicative, such consent will not be unreasonably withheld, conditioned or delayed; (iv) exhibits are an integral part of this Agreement and are incorporated by reference into this Agreement; (v) use of the terms "termination" or "expiration" are interchangeable; (vi) reference to a default will take into consideration any applicable notice, grace and cure periods; (vii) to the extent there is any issue with respect to any alleged, perceived or actual ambiguity in this Agreement, the ambiguity shall not be resolved on the basis of who drafted the Agreement; (viii) the singular use of words includes the plural where appropriate and (ix) if any provision of this Agreement is held invalid, illegal or unenforceable, the remaining provisions of this Agreement shall remain in full force if the overall purpose of the Agreement is not rendered impossible and the original purpose, intent or consideration is not materially impaired.

(i) **Affiliates.** All references to "Tenant" shall be deemed to include any Affiliate of New Cingular Wireless PCS, LLC using the Premises for any Permitted Use or otherwise exercising the rights of Tenant pursuant to this Agreement. "Affiliate" means with respect to a party to this Agreement, any person or entity that (directly or indirectly) controls, is controlled by, or under common control with, that party. "Control" of a person or entity means the power (directly or indirectly) to direct the management or policies of that person or entity, whether through the ownership of voting securities, by contract, by agency or otherwise.

(j) **Survival.** Any provisions of this Agreement relating to indemnification shall survive the termination or expiration hereof. In addition, any terms and conditions contained in this Agreement that by their sense and context are intended to survive the termination or expiration of this Agreement shall so survive.

(k) **W-9.** As a condition precedent to payment, Landlord agrees to provide Tenant with a completed IRS Form W-9, or its equivalent, upon execution of this Agreement and at such other times as may ~~be reasonably requested by Tenant, including, any change in Landlord's name or address.~~

(l) **Execution/No Option.** The submission of this Agreement to any party for examination or consideration does not constitute an offer, reservation of or option for the Premises based on the terms set forth herein. This Agreement will become effective as a binding Agreement only upon the handwritten legal execution, acknowledgment and delivery hereof by Landlord and Tenant. This Agreement may be executed in two (2) or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties. All parties need not sign the same counterpart.

(m) **Attorneys' Fees.** In the event that any dispute between the parties related to this Agreement should result in litigation, the prevailing party in such litigation shall be entitled to recover from the other party all reasonable fees and expenses of enforcing any right of the prevailing party, including without limitation, reasonable attorneys' fees and expenses. Prevailing party means the party determined by the court to have most nearly prevailed even if such party did not prevail in all matters. This provision will not be construed to entitle any party other than Landlord, Tenant and their respective Affiliates to recover their fees and expenses.

(n) **WAIVER OF JURY TRIAL.** EACH PARTY, TO THE EXTENT PERMITTED BY LAW, KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ITS RIGHT TO A TRIAL BY JURY IN ANY ACTION OR PROCEEDING UNDER ANY THEORY OF LIABILITY ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR THE TRANSACTIONS IT CONTEMPLATES.

[SIGNATURES AND ACKNOWLEDGMENTS APPEAR ON NEXT PAGES]

~~**IN WITNESS WHEREOF,** the parties have caused this Agreement to be effective as of the last date~~ written below.

"LANDLORD"

Freddie Miles

By: Freddie Miles
Print Name: Freddie Miles
Its: Owner
Date: 9-26-16

Judy Miles

By: Judy Miles
Print Name: Judy Miles
Its: Owner
Date: 9-26-16

LANDLORD ACKNOWLEDGMENT

STATE OF KENTUCKY)

) ss:

COUNTY OF MARION)

On the 26 day of Sept, 2016 before me, personally appeared Freddie Miles and Judy Miles, who acknowledged under oath, that he/she/they is/are the person/officer named in the within instrument, and that he/she/they executed the same in his/her/their stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.

Notary Public: Mikel Buckard
My Commission Expires: 8-15-2019

~~"TENANT"~~
New Cingular Wireless PCS, LLC,
a Delaware limited liability company
By: AT&T Mobility Corporation
Its: Manager

By: _____
Print Name: Russell Barakat
Its: Area Manager – TN/KY
Date: 1/31/17

TENANT ACKNOWLEDGMENT

STATE OF ALABAMA)
) ss:
COUNTY OF JEFFERSON)

On the 31st day of January, 2017, before me personally appeared Russell Barakat and acknowledged under oath that he is the Area Manager – TN/KY of AT&T Mobility Corporation, the Manager of New Cingular Wireless PCS, LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.

LISA HENDERSON NOTARY PUBLIC ALABAMA STATE AT LARGE

Lisa Henderson
Notary Public: Lisa Henderson
My Commission Expires: 7/9/2018

~~EXHIBIT 1~~

DESCRIPTION OF PREMISES

to the Option and Lease Agreement dated _____, 2016, by and between Freddie Miles and Judy Miles, his wife, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows: DB 8, PG 127

A certain tract of land known as the Loretto Farm consisting of 93 acres, situated just west of Loretto in Marion County, KY.

BEGINNING at a stake in the Loretto and Chicago County Road, corner to Genàie Simś, of color; thence South 86-1/2 West 67 poles to an ash, corner to Mrs. T. Lake Miles, and with lines of same South 73 East 7-3/5 poles to a cedar, South 58 East 52 poles to a stake, North 84 East 30 poles to a black oak, South 70 East 12-2/5 poles to an elm, South 57 East 10 poles to an ash corner to Tom Alvey, and with the lines of same North 30 poles to a walnut, North 10 East 23 2/5 poles to a thorn North 20 East 6 poles to a walnut, North 5 West 21 poles to a hickory, corner to Cummins and Co., and with lines of same North 23 West 20 poles to a stake, North 13 West 6 poles to a white oak, North 31-1/2 West 23-2/5 poles to a stake, South 86 East 52 poles to a stake, North 8-1/2 West 32-3/5 poles to a stake at L & N R.R. right of way, and with same South 73 West 14 poles, South 67-1/2 West 14 poles, South 64 West 18 poles, South 58 West 15 poles, South 54 West 10 poles, thence crossing railroad North 24 West 5 poles to center of Loretto and Chicago County Road, and with same South 70 West 6 poles South 87 West 55 poles, South 40 West 110 poles to the beginning, containing 93 acres, more or less.

THERE IS EXCEPTED HOWEVER, out of the said boundary and not conveyed herein that portion conveyed on January 11, 1936, by J. T. Medley, et. ux., to J. W. Thompson, see Deed Book 52, at page 512, and thus described:

BEGINNING at a spot set in solid rock at a corner to the lands of Thompson's Store and J. T. Medley, about 40 feet east of drain; thence in a straight line with the lands of said J. T. Medley north to a stake or stump at the south side of the right of way of the L & N R.R.; thence with the same side of the L & N R.R. right of way to the lands of T. Lake Miles, Miss Lizzie Mattingly and Marie and Jane Alvey and in the lands of Thompson's Store to the beginning, containing 60 acres of land, more or less, and is sold by the boundary, and not by the survey.

THERE IS ALSO EXCEPTED out of said boundary the following portion thereof conveyed to J. A. Ball; see Deed Book 61, at page 283, and thus described:

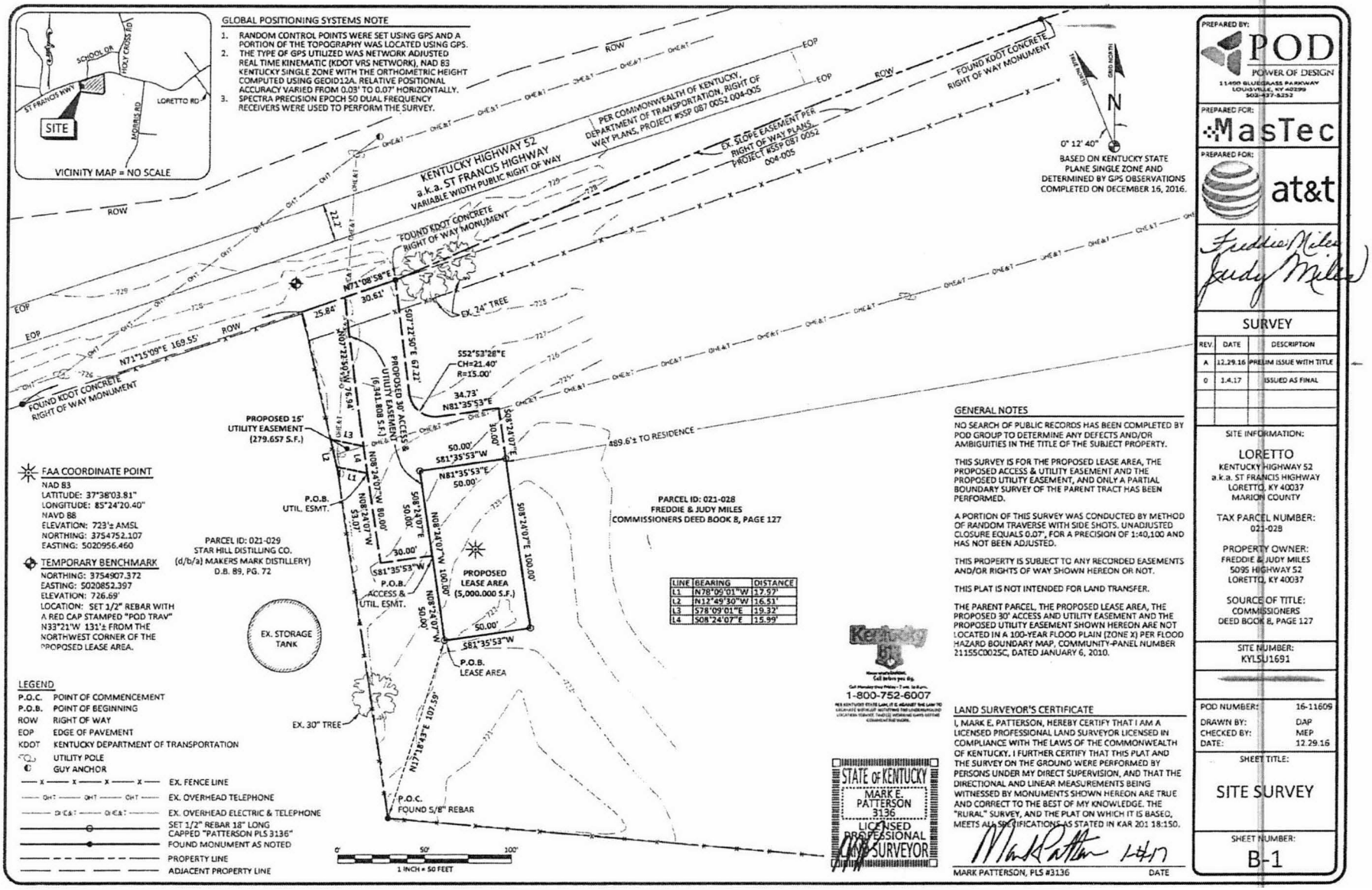
Situated in Marion County, KY, near the Loretto Distillery Company property, near Loretto in Marion County, KY, and

BEGINNING at a point, corner to roadway entering said distilling company property, thence along and parallel with the Loretto-St. Francis Highway a distance of 216 feet to a stake, thence at right angles to a straight line a distance of 84 feet and 10 inches to a stake 12 feet from the old line as herein described; thence at right angle at said line a distance of 108 feet and 6 inches to a stake at the right of way of the L & N R.R. Company, a corner to the old line as herein described; thence along and with said right of way a distance of 314 feet, more or less, to the point of beginning.

THERE IS ALSO EXCEPTED that portion conveyed on March 25, 1946, to David Springs Company, see Deed Book 62, page 398, and thus described:

A tract of land situated below Loretto in Marion County, KY, and on the South side of the L & N Railroad Company right of way fronting 136 feet on the land owned by the Loretto Distilling Company; thence running in a northern in direction a distance of 223 feet, more or less, to a braced telephone pole on the right of way of said railroad company; thence in a western direction with said railroad right of way a distance of 183 feet, more or less, to a stake, corner to said railroad right of way and the Loretto Distilling Company, thence in a southern direction a distance of 129 feet, more or less, to the point of beginning.

FREDDIE MILES - LORETTO



GLOBAL POSITIONING SYSTEMS NOTE

1. RANDOM CONTROL POINTS WERE SET USING GPS 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 SINGLE ZONE WITH THE ORTHOMETRIC HEIGHT COMPUTED USING GEOID12A. RELATIVE POSITIONAL ACCURACY VARIED FROM 0.03' TO 0.07' HORIZONTALLY.
3. SPECTRA PRECISION EPOCH 50 DUAL FREQUENCY RECEIVERS WERE USED TO PERFORM THE SURVEY.

FAA COORDINATE POINT

NAD 83
LATITUDE: 37°38'03.81"
LONGITUDE: 85°24'20.40"
NAVD 88
ELEVATION: 723'± AMSL
NORTHING: 3754752.107
EASTING: 5020956.460

TEMPORARY BENCHMARK

NORTHING: 3754907.372
EASTING: 5020852.397
ELEVATION: 726.69'
LOCATION: SET 1/2" REBAR WITH A RED CAP STAMPED "POD TRAV" N33°21'W 131'± FROM THE NORTHWEST CORNER OF THE PROPOSED LEASE AREA.

PARCEL ID: 021-029
STAR HILL DISTILLING CO.
(d/b/a) MAKERS MARK DISTILLERY)
D.B. 89, PG. 72

PARCEL ID: 021-028
FREDDIE & JUDY MILES
COMMISSIONERS DEED BOOK B, PAGE 127

LINE	BEARING	DISTANCE
L1	N78°09'01"W	17.97'
L2	N12°49'30"W	16.51'
L3	S78°09'01"E	19.32'
L4	S08°24'07"E	15.99'

LEGEND

P.O.C. POINT OF COMMENCEMENT
P.O.B. POINT OF BEGINNING
ROW RIGHT OF WAY
EOP EDGE OF PAVEMENT
KDOT KENTUCKY DEPARTMENT OF TRANSPORTATION
UTILITY POLE
GUY ANCHOR
EX. FENCE LINE
EX. OVERHEAD TELEPHONE
EX. OVERHEAD ELECTRIC & TELEPHONE
SET 1/2" REBAR 18" LONG CAPPED "PATTERSON PLS 3136"
FOUND MONUMENT AS NOTED
PROPERTY LINE
ADJACENT PROPERTY LINE

Kentucky 811 — Know what's below. Call before you dig. 1-800-752-6007

STATE OF KENTUCKY
MARK E. PATTERSON
3136
LICENSED PROFESSIONAL LAND SURVEYOR

GENERAL NOTES

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

THIS SURVEY IS FOR THE PROPOSED LEASE AREA, THE PROPOSED ACCESS & UTILITY EASEMENT AND THE PROPOSED 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 0.07', FOR A PRECISION OF 1:40,100 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.

THE PARENT PARCEL, THE PROPOSED LEASE AREA, THE PROPOSED 30' ACCESS AND UTILITY EASEMENT AND THE PROPOSED UTILITY EASEMENT SHOWN HEREON ARE NOT LOCATED IN A 100-YEAR FLOOD PLAIN (ZONE X) PER FLOOD HAZARD BOUNDARY MAP, COMMUNITY-PANEL NUMBER 21155C0025C, DATED JANUARY 6, 2010.

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, PLS #3136 — DATE 1-4-17

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

PREPARED FOR: MasTec

PREPARED FOR: at&t

Freddie Miles
Judy Miles

SURVEY

REV.	DATE	DESCRIPTION
A	12.29.16	PRELIM ISSUE WITH TITLE
0	1.4.17	ISSUED AS FINAL

SITE INFORMATION:
LORETTO
KENTUCKY HIGHWAY 52
a.k.a. ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

TAX PARCEL NUMBER:
021-028

PROPERTY OWNER:
FREDDIE & JUDY MILES
5095 HIGHWAY 52
LORETTO, KY 40037

SOURCE OF TITLE:
COMMISSIONERS
DEED BOOK B, PAGE 127

SITE NUMBER:
KYLSU1691

POD NUMBER: 16-11609
DRAWN BY: DAP
CHECKED BY: MEP
DATE: 12.29.16

SHEET TITLE:
SITE SURVEY

SHEET NUMBER:
B-1

LEGAL DESCRIPTIONS

PROPOSED LEASE AREA

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED LEASE AREA TO BE LEASED FROM A PORTION OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127, PARCEL ID: 021-028, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN MARION COUNTY, KENTUCKY, ON THE SOUTH SIDE OF KENTUCKY HIGHWAY 52 (a.k.a. ST FRANCIS HIGHWAY).

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SINGLE ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON DECEMBER 16, 2016.

COMMENCING AT A FOUND 5/8" REBAR IN THE SOUTHWEST CORNER OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127 AND CORNER TO THE PROPERTY CONVEYED TO STAR HILL DISTILLING CO. AS RECORDED IN DEED BOOK 89, PAGE 72; THENCE LEAVING SAID COMMON CORNER AND TRAVERSING THE LAND OF SAID MILES PROPERTY N17°18'43"E 107.59' TO A SET 1/2" REBAR, 18" LONG, CAPPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE SOUTHWEST CORNER OF THE PROPOSED LEASE AREA AND BEING THE TRUE POINT OF BEGINNING; THENCE N08°24'07"W 100.00' TO A SET IPC; THENCE N81°35'53"E 50.00' TO A SET IPC; THENCE S08°24'07"E 100.00' TO A SET IPC; THENCE S81°35'53"W 50.00' TO THE POINT OF BEGINNING CONTAINING 5,000.000 SQUARE FEET AS PER SURVEY BY MARK E. PATTERSON, PLS #3136 DATED DECEMBER 16, 2016.

PROPOSED 30' ACCESS & UTILITY EASEMENT

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED 30' ACCESS & UTILITY EASEMENT TO BE GRANTED FROM A PORTION OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127, PARCEL ID: 021-028, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN MARION COUNTY, KENTUCKY, ON THE SOUTH SIDE OF KENTUCKY HIGHWAY 52 (a.k.a. ST FRANCIS HIGHWAY).

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SINGLE ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON DECEMBER 16, 2016.

COMMENCING AT A FOUND 5/8" REBAR IN THE SOUTHWEST CORNER OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127 AND CORNER TO THE PROPERTY CONVEYED TO STAR HILL DISTILLING CO. AS RECORDED IN DEED BOOK 89, PAGE 72; THENCE LEAVING SAID COMMON CORNER AND TRAVERSING THE LAND OF SAID MILES PROPERTY N17°18'43"E 107.59' TO A SET 1/2" REBAR, 18" LONG, CAPPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE SOUTHWEST CORNER OF THE PROPOSED LEASE AREA; THENCE WITH SAID LEASE AREA N08°24'07"W 50.00'; THENCE LEAVING SAID LEASE AREA S81°35'53"W 30.00'; THENCE N08°24'07"W 53.07' TO THE TRUE POINT OF BEGINNING; THENCE N78°09'01"W 17.97' TO THE WEST LINE OF MILES AND THE EAST LINE OF STAR HILL DISTILLING CO.; THENCE ALONG SAID COMMON LINE, N12°49'80"W 16.51'; THENCE LEAVING SAID COMMON LINE, S78°09'01"E 19.82'; THENCE S08°24'07"E 15.99' TO THE POINT OF BEGINNING CONTAINING 279.657 SQUARE FEET AS PER SURVEY BY MARK E. PATTERSON, PLS #3136 DATED DECEMBER 16, 2016.

PROPOSED 15' UTILITY EASEMENT

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED 15' UTILITY EASEMENT TO BE GRANTED FROM A PORTION OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127, PARCEL ID: 021-028, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN MARION COUNTY, KENTUCKY, ON THE SOUTH SIDE OF KENTUCKY HIGHWAY 52 (a.k.a. ST FRANCIS HIGHWAY).

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SINGLE ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON DECEMBER 16, 2016.

COMMENCING AT A FOUND 5/8" REBAR IN THE SOUTHWEST CORNER OF THE PROPERTY CONVEYED TO FREDDIE & JUDY MILES AS RECORDED IN COMMISSIONERS DEED BOOK 8, PAGE 127 AND CORNER TO THE PROPERTY CONVEYED TO STAR HILL DISTILLING CO. AS RECORDED IN DEED BOOK 89, PAGE 72; THENCE LEAVING SAID COMMON CORNER AND TRAVERSING THE LAND OF SAID MILES PROPERTY N17°18'43"E 107.59' TO A SET 1/2" REBAR, 18" LONG, CAPPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE SOUTHWEST CORNER OF THE PROPOSED LEASE PREMISES; THENCE WITH SAID LEASE PREMISES N08°24'07"W 50.00' TO THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE PREMISES S81°35'53"W 30.00'; THENCE N08°24'07"W 80.00'; THENCE N07°22'50"W 76.94' TO THE SOUTH LINE OF THE VARIABLE WIDTH RIGHT OF WAY OF KENTUCKY HIGHWAY 52(a.k.a. ST FRANCIS HWY) AND THE NORTHERN PROPERTY LINE OF SAID MILES PROPERTY; THENCE WITH SAID RIGHT OF WAY AND THE LINE OF MILES N71°08'58"E 30.61' TO A FOUND IRY CONCRETE RIGHT OF WAY MONUMENT; THENCE LEAVING SAID RIGHT OF WAY AND TRAVERSING THE LAND OF SAID MILES S07°22'50"E 67.22'; THENCE WITH THE CHORD OF A CURVE TO THE LEFT HAVING A RADIUS OF 15.00', S52°58'28"E 21.40'; THENCE N81°35'53"E 84.73'; THENCE S08°24'07"E 30.00' TO A SET IPC IN THE NORTHEAST CORNER OF THE PROPOSED LEASE PREMISES; THENCE WITH SAID LEASE PREMISES S81°35'53"W 50.00' TO A SET IPC; THENCE S08°24'07"E 50.00' TO THE POINT OF BEGINNING CONTAINING 6,341.808 SQUARE FEET AS PER SURVEY BY MARK E. PATTERSON, PLS #3136 DATED DECEMBER 16, 2016.

PARENT PARCEL LEGAL DESCRIPTION, COMMISSIONERS DEED BOOK 8, PAGE 127 (NOT FIELD SURVEYED)

A CERTAIN TRACT OF LAND KNOWN AS THE LORETTO FARM CONSISTING OF 93 ACRES, SITUATED JUST WEST OF LORETTO IN MARION COUNTY, KY,

BEGINNING AT A STAKE IN THE LORETTO AND CHICAGO COUNTY ROAD, CORNER TO GENSIE SIMS, OF COLOR; THENCE SOUTH 86–1/2 WEST 67 POLES TO AN ASH, CORNER TO MRS. T. LAKE MILES, AND WITH LINES OF SAME SOUTH 73 EAST 7-3/5 POLES TO A CEDAR, SOUTH 58 EAST 52 POLES TO A STAKE, NORTH 84 EAST 30 POLES TO A BLACK OAK, SOUTH 70 EAST 12-2/5 POLES TO AN ELM, SOUTH 57 EAST 10 POLES TO AN ASH CORNER TO TOM ALVEY, AND WITH THE LINES OF SAME NORTH 80 POLES TO A WALNUT, NORTH 10 EAST 23 2/5 POLES TO A THORN NORTH 20 EAST 6 POLES TO A WALNUT, NORTH 5 WEST 21 POLES TO A HICKORY, CORNER TO CUMMINS AND CO., AND WITH LINES OF SAME NORTH 23 WEST 20 POLES TO A STAKE, NORTH 13 WEST 6 POLES TO A WHITE OAK, NORTH 31-1/2 WEST 23–2/5 POLES TO A STAKE, SOUTH 86 EAST 52 POLES TO A STAKE, NORTH 8-1/2 WEST 32-3/5 POLES TO A STAKE AT L & N R.R. RIGHT OF WAY, AND WITH SAME SOUTH 73 WEST 14 POLES, SOUTH 67-1/2 WEST 14 POLES, SOUTH 64 WEST 18 POLES, SOUTH 58 WEST 15 POLES, SOUTH 54 WEST 10 POLES, THENCE CROSSING RAILROAD NORTH 24 WEST 5 POLES TO CENTER OF LORETTO AND CHICAGO COUNTY ROAD, AND WITH SAME SOUTH 70 WEST 6 POLES SOUTH 87 WEST 55 POLES, SOUTH 40 WEST 110 POLES TO THE BEGINNING, CONTAINING 93

LESS AND EXCEPT THOSE PARCELS NOTED IN DEED BOOK 8, PAGE 127.

REPORT OF TITLE (PARCEL 09-051)

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 LIS TITLE SOLUTIONS, FOR THE BENEFIT OF MASTEC NETWORK SOLUTIONS - KY/TN ON BEHALF OF AT&T, FILE NO. 55245-KY1609-30314, REFERENCE NUMBER FA10589946, ISSUE DATE OF SEPTEMBER 22, 2016. THE FOLLOWING COMMENTS ARE IN REGARD TO SAID REPORT.

SCHEDULE B

1. TAXES, TAX LIENS, TAX SALES, WATER RATES, SEWER AND ASSESSMENTS SET FORTH IN SCHEDULE HEREIN.
TAX ID :021-28 - TOTAL ASSESSED VALUE:$90,000.00 - PERIOD :2015 PAYMENT STATUS: PAID - TAX AMOUNT : $460.01 - OTHER INFORMATION : COUNTY OF MARION TAX INFORMATION
TAX ID :021-28 - TOTAL ASSESSED VALUE:$90,000.00 - PERIOD :2015 PAYMENT STATUS: PAID - TAX AMOUNT : $66.38 - OTHER INFORMATION : CITY OF LORETTO TAX INFORMATION
(NOT A SURVEY ITEM, THEREFORE, POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

2. MORTGAGES RETURNED HEREIN. (-0-). SEE SEPARATE MORTGAGE SCHEDULE. NONE WITHIN PERIOD SEARCHED

3. ANY STATE OF FACTS WHICH AN ACCURATE SURVEY MIGHT SHOW OR SURVEY EXCEPTIONS SET FORTH HEREIN. (POD GROUP, LLC DID NOT PERFORM A BOUNDARY SURVEY, THEREFORE WE DID NOT ADDRESS THIS ITEM.)

4. RIGHTS OF TENANTS OR PERSON IN POSSESSION. (POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

(JUDGMENTS, LIENS AND UCC)

5. NONE WITHIN PERIOD SEARCHED

(COVENANTS/RESTRICTIONS)

6. NONE WITHIN PERIOD SEARCHED

(EASEMENTS AND RIGHTS OF WAY)

7. NONE WITHIN PERIOD SEARCHED

STATE OF KENTUCKY
MARK E. PATTERSON
3136
LICENSED PROFESSIONAL LAND SURVEYOR

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 201 18:150.

MARK PATTERSON, PLS #3136 — DATE 12-19-16

PREPARED BY:
POD
POWER OF DESIGN
[illegible]
[illegible]

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

Freddie Miles
Judy Miles

SURVEY

REV.	DATE	DESCRIPTION
A	12.29.16	PER 24 ISSUE WITH TITLE
0	1.4.17	ISSUED AS FINAL

SITE INFORMATION:
LORETTO
KENTUCKY HIGHWAY 52
a.k.a. ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

TAX PARCEL NUMBER:
021-028

PROPERTY OWNER:
FREDDIE & JUDY MILES
5095 HIGHWAY 52
LORETTO, KY 40037

SOURCE OF TITLE:
COMMISSIONERS
DEED BOOK 8, PAGE 127

SITE NUMBER:
KYLOU1691

POD NUMBER: 16-11608
DRAWN BY: DAP
CHECKED BY: MEP
DATE: 12.19.16

SHEET TITLE:
SITE SURVEY

SHEET NUMBER:
B-1.1

EXHIBIT 11

~~ENVIRONMENTAL DISCLOSURE~~

Landlord represents and warrants that the Property, as of the date of this Agreement, is free of hazardous substances except as follows:

1. NONE.

EXHIBIT 12

STANDARD ACCESS LETTER

[FOLLOWS ON NEXT PAGE]

[Landlord Letterhead]

DATE

Building Staff / Security Staff
Landlord, Lessee, Licensee
Street Address
City, State, Zip

Re: Authorized Access granted to AT&T

Dear Building and Security Staff,

Please be advised that we have signed a lease with AT&T permitting AT&T to install, operate and maintain telecommunications equipment at the property. The terms of the lease grant AT&T and its representatives, employees, agents and subcontractors ("representatives") 24 hour per day, 7 day per week access to the leased area.

To avoid impact on telephone service during the day, AT&T representatives may be seeking access to the property outside of normal business hours. AT&T representatives have been instructed to keep noise levels at a minimum during their visit.

Please grant the bearer of a copy of this letter access to the property and to leased area. Thank you for your assistance.

_____
Landlord Signature

EXHIBIT 24b

MEMORANDUM OF LEASE

[FOLLOWS ON NEXT PAGE]

EXHIBIT J
NOTIFICATION LISTING

Loretto – Notice List

MILES FREDDIE & JUDY
5095 HWY 52
LORETTO, KY 40037

BALLARD JAMES STEVEN &
MARTHA LYNN
5051 HWY 52
LORETTO, KY 40037

MAKERS MARK DISTILLERY
6200 DUTCHMANS LANE
SUITE 103
LOUISVILLE, KY 40205

LORETTO CITY
P.O. BOX 45
LORETTO, KY 40037

ST FRANCIS OF ASSISI
LORETTO, KY 40037

EXHIBIT K
COPY OF PROPERTY OWNER NOTIFICATION

PIKE
LEGAL

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: Loretto

Dear Landowner:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 5095 Kentucky Highway 52, a.k.a. St Francis Highway, Loretto, Kentucky (37°38'03.81" North latitude, 85°24'20.40" West longitude). The proposed facility will include a 195-foot tall antenna tower, plus a 4-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 2017-00462 in any correspondence sent in connection with this matter.

In addition to expanding and improving voice and data service for AT&T mobile customers, this site will also support deployment of wireless local loop ("WLL") technology to provide broadband internet service to homes and businesses in the area. WLL will support internet access at the high speeds required to use and enjoy the most current business, education and entertainment technologies.

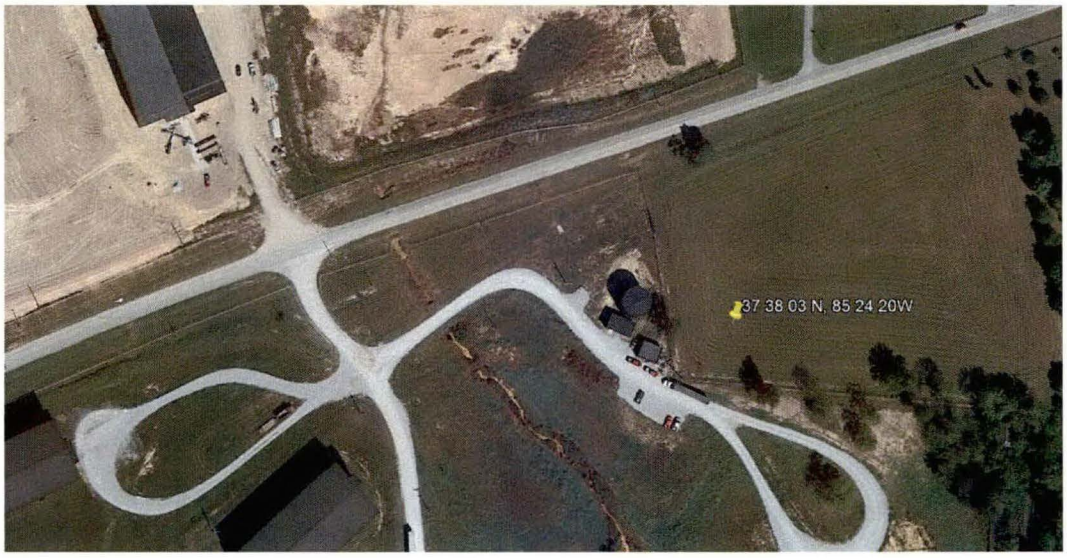
We have attached a map showing the site location for the proposed tower. Applicant's radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. 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 Applicant

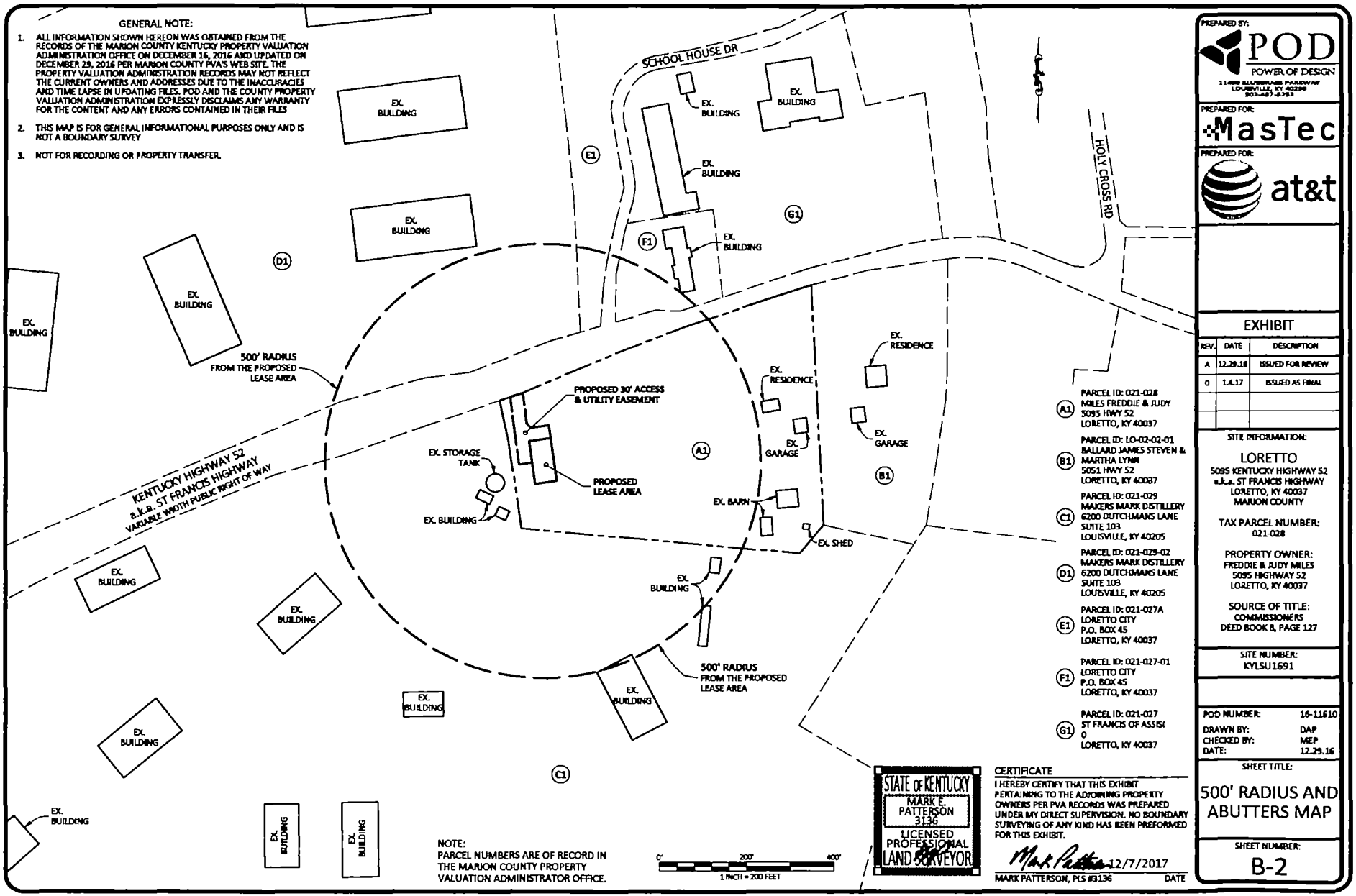
enclosure

Site Name: Loretto
Driving Directions to Proposed Tower Site

1. Beginning at the offices of the County Judge Executive located at 223 N Spalding Ave, Lebanon, KY 40033 start out going northwest on N Spalding Ave/KY-55/KY-55S toward W Walnut St.
2. Take the 1st left onto W Walnut St/KY-55.
3. Turn right onto Loretto Rd/KY-52/KY-49. Continue to follow Loretto Rd/KY-49.
4. Turn right onto Highway 52/KY-52.
5. Arrive at 5095 KY Highway 52, Loretto, Kentucky.
6. The site coordinates are 37°38'03.81" North latitude, 85°24'20.40" West longitude.



Prepared by:
Robert W. Grant
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



A1 PARCEL ID: 021-028
MILES FREDDIE & JUDY
5095 HWY 52
LORETTO, KY 40037

B1 PARCEL ID: LO-02-02-01
BALLARD JAMES STEVEN & MARTHA LYNN
5051 HWY 52
LORETTO, KY 40037

C1 PARCEL ID: 021-029
MAKERS MARK DISTILLERY
6200 DUTCHMANS LANE
SUITE 103
LOUISVILLE, KY 40205

D1 PARCEL ID: 021-029-02
MAKERS MARK DISTILLERY
6200 DUTCHMANS LANE
SUITE 103
LOUISVILLE, KY 40205

E1 PARCEL ID: 021-027A
LORETTO CITY
P.O. BOX 45
LORETTO, KY 40037

F1 PARCEL ID: 021-027-01
LORETTO CITY
P.O. BOX 45
LORETTO, KY 40037

G1 PARCEL ID: 021-027
ST FRANCIS OF ASSISI
0
LORETTO, KY 40037

STATE of KENTUCKY
MARK E. PATTERSON
3136
LICENSED PROFESSIONAL LAND SURVEYOR

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 PREFORMED FOR THIS EXHIBIT.

12/7/2017
MARK PATTERSON, PLS #3136 DATE

PREPARED BY:
POD
POWER OF DESIGN
11400 BLUEGRASS PARKWAY
LOUISVILLE, KY 40299
502-267-8393

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

EXHIBIT

REV.	DATE	DESCRIPTION
A	12.29.16	ISSUED FOR REVIEW
0	1.4.17	ISSUED AS FINAL

SITE INFORMATION:
LORETTO
5095 KENTUCKY HIGHWAY 52
a.k.a. ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

TAX PARCEL NUMBER:
021-028

PROPERTY OWNER:
FREDDIE & JUDY MILES
5095 HIGHWAY 52
LORETTO, KY 40037

SOURCE OF TITLE:
COMMISSIONERS
DEED BOOK B, PAGE 127

SITE NUMBER:
KYLSU1691

POD NUMBER:	16-11610
DRAWN BY:	DAP
CHECKED BY:	MEP
DATE:	12.29.16

SHEET TITLE:
500' RADIUS AND ABUTTERS MAP

SHEET NUMBER:
B-2

EXHIBIT L
COPY OF COUNTY JUDGE/EXECUTIVE NOTICE

PIKE LEGAL

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

Hon. David Daugherty
County Judge Executive
223 N Spalding Ave
Suite 201
Lebanon, KY 40033

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2017-00462
Site Name: Loretto

Dear Judge/Executive:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 5095 Kentucky Highway 52, a.k.a. St Francis Highway, Loretto, Kentucky (37°38'03.81" North latitude, 85°24'20.40" West longitude). The proposed facility will include a 195-foot tall antenna tower, plus a 4-foot lightning arrestor 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 2017-00462 in any correspondence sent in connection with this matter.

In addition to expanding and improving voice and data service for AT&T mobile customers, this site will also support deployment of wireless local loop ("WLL") technology to provide broadband internet service to homes and businesses in the area. WLL will support internet access at the high speeds required to use and enjoy the most current business, education and entertainment technologies.

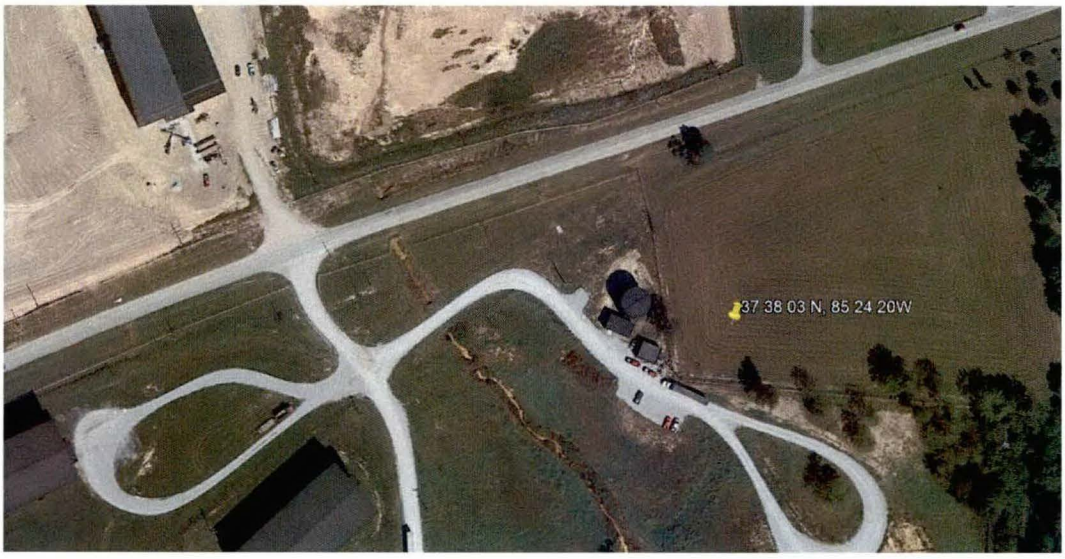
We have attached a map showing the site location for the proposed tower. New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility's radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and 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 Applicant

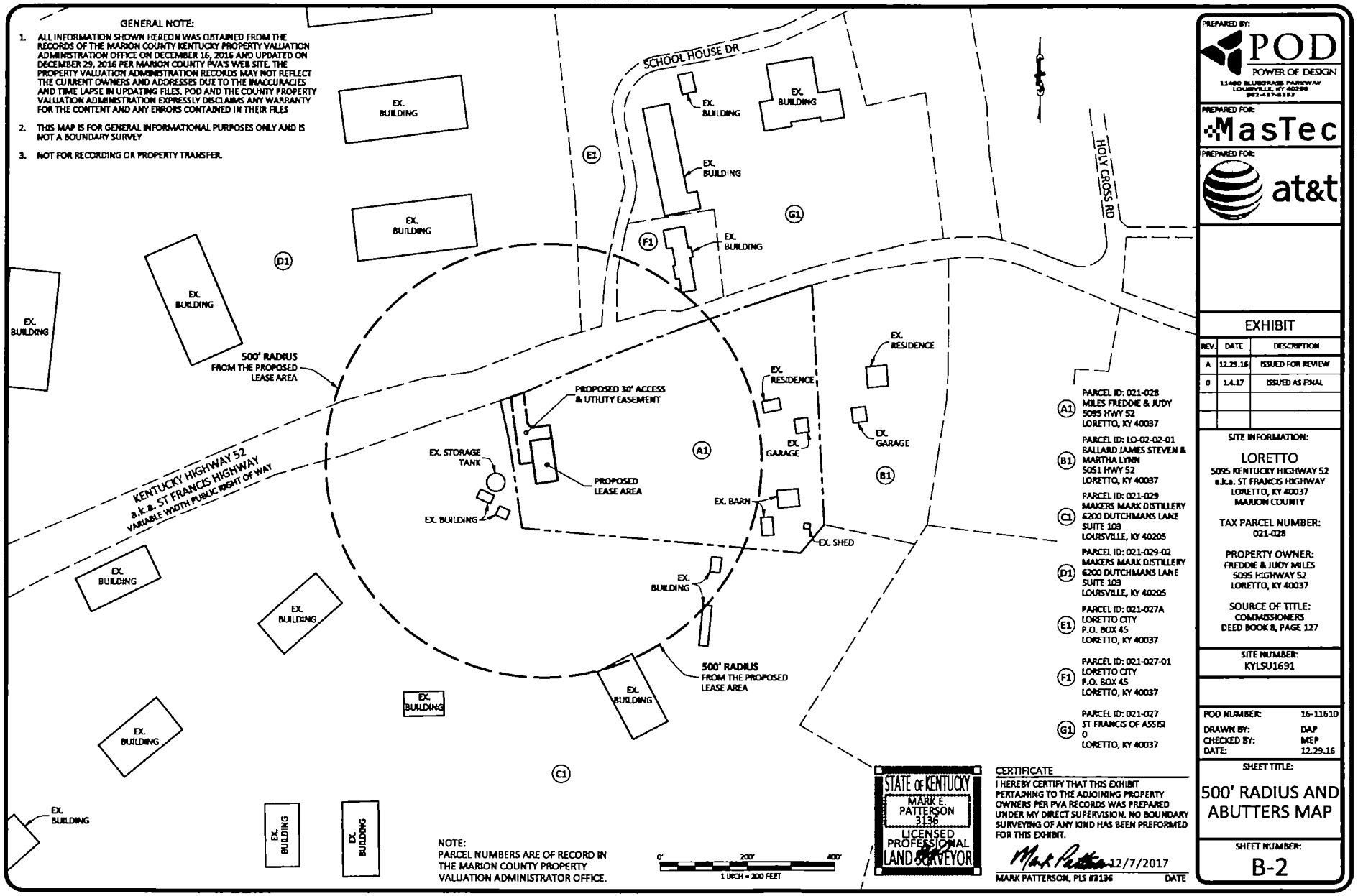
enclosures

Site Name: Loretto
Driving Directions to Proposed Tower Site

1. Beginning at the offices of the County Judge Executive located at 223 N Spalding Ave, Lebanon, KY 40033 start out going northwest on N Spalding Ave/KY-55/KY-55S toward W Walnut St.
2. Take the 1st left onto W Walnut St/KY-55.
3. Turn right onto Loretto Rd/KY-52/KY-49. Continue to follow Loretto Rd/KY-49.
4. Turn right onto Highway 52/KY-52.
5. Arrive at 5095 KY Highway 52, Loretto, Kentucky.
6. The site coordinates are 37°38'03.81" North latitude, 85°24'20.40" West longitude.



Prepared by:
Robert W. Grant
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



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 PREFORMED FOR THIS EXHIBIT.

Mark Patterson 12/7/2017

MARK PATTERSON, PLS #3136 DATE

PREPARED BY:
POD
POWER OF DESIGN
11480 BLUEGRASS PARKWAY
LOUISVILLE, KY 40299
(502) 457-8383

PREPARED FOR:
MasTec

PREPARED FOR:
at&t

EXHIBIT

REV.	DATE	DESCRIPTION
A	12.29.16	ISSUED FOR REVIEW
0	1.4.17	ISSUED AS FINAL

SITE INFORMATION:

LORETTO
5095 KENTUCKY HIGHWAY 52
a.k.a. ST FRANCIS HIGHWAY
LORETTO, KY 40037
MARION COUNTY

TAX PARCEL NUMBER:
021-028

PROPERTY OWNER:
FREDDIE & JUDY MILES
5095 HIGHWAY 52
LORETTO, KY 40037

SOURCE OF TITLE:
COMMISSIONERS
DEED BOOK 8, PAGE 127

SITE NUMBER:
KYLSU1691

POD NUMBER:	16-11610
DRAWN BY:	DAP
CHECKED BY:	MEP
DATE:	12.29.16

SHEET TITLE:

500' RADIUS AND ABUTTERS MAP

SHEET NUMBER:

B-2

EXHIBIT M
COPY OF POSTED NOTICES

SITE NAME: LORETTO
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.

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility proposes 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 2017-00462 in your correspondence.

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility proposes 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 2017-00462 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: 1-866-692-4237

The Lebanon Enterprise
Attn: Public Notice Ad Placement
119 South Proctor Knott Avenue
Lebanon, KY 40033

RE: Legal Notice Advertisement
Site Name: Loretto

Dear Lebanon Enterprise:

Please publish the following legal notice advertisement in the next edition of *The Lebanon Enterprise:*

NOTICE

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 5095 Kentucky Highway 52, a.k.a. St Francis Highway, Loretto, Kentucky (37°38'03.81" North latitude, 85°24'20.40" 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 2017-00462 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,
Robert W. Grant
Pike Legal Group, PLLC

EXHIBIT N
COPY OF RADIO FREQUENCY DESIGN SEARCH AREA


0.2
0