### **COMMONWEALTH OF KENTUCKY**

RECEIVED

### BEFORE THE PUBLIC SERVICE COMMISSION

APR 25 2011

In the Matter of:

PUBLIC SERVICE COMMISSION

APPLICATION OF KENTUCKY RSA #3
CELLULAR GENERAL PARTNERSHIP FOR
ISSUANCE OF A CERTIFICATE OF PUBLIC
CONVENIENCE AND NECESSITY TO CONSTRUCT
A CELL SITE (JOHNSON CROSSROADS) IN RURAL
SERVICE AREA #3 (GRAYSON) OF THE
COMMONWEALTH OF KENTUCKY

CASE NO. 2011-00090

## APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY (JOHNSON CROSSROADS)

Kentucky RSA #3 Cellular General Partnership ("Kentucky RSA #3"), through counsel, pursuant to KRS 278.020 and 278.040, hereby submits this application for a certificate of public convenience and necessity to construct a cell site to be known as the Johnson Crossroads cell site in and for rural service area ("RSA") #3 of the Commonwealth of Kentucky, namely the counties of Allen, Breckinridge, Butler, Edmonson, Grayson, Hancock, Logan, McLean, Meade, Muhlenberg, Ohio, Simpson, Todd and Warren, Kentucky.

- 1. As required by 807 KAR 5:001 Sections 8(l) and (3), and 807 KAR 5:063, Kentucky RSA #3 states that it is a Kentucky general partnership whose full name and post office address are: Kentucky RSA #3 Cellular General Partnership, 2902 Ring Road, Elizabethtown, Kentucky, 42701.
- 2. Pursuant to 807 KAR § 1 (1)(b), a copy of the applicant's applications to the Federal Aviation Administration and Kentucky Airport Zoning Commission are attached as Exhibit "A." Written authorizations from these agencies will be supplied to the Commission upon their approval.
- 3. Pursuant to 807 KAR 5:063 §1(1)(d), applicant is attaching as Exhibit "B" a geotechnical investigation report, signed and sealed by a professional engineer registered in Kentucky, that includes boring logs, foundation design recommendations, and a finding as to the susceptibility of the area surrounding the proposed site to flood hazard.

- 4. Pursuant to 807 KAR 5:063 §1(1)(e), clear directions from the county seat to the proposed site, including highway numbers and street names, with the telephone number of the person who prepared the directions are attached as Exhibit "C."
- 5. Pursuant to 807 KAR 5:063 §1(1)(f), a copy of the lease for the property on which the tower is proposed to be located is attached as Exhibit "D."
- 6. Pursuant to 807 KAR §1(1)(g), experienced personnel will manage and operate the Johnson Crossroads cell site. The President of Bluegrass Cellular Inc., Mr. Ron Smith, is ultimately responsible for all construction and operations of the cellular system of Kentucky RSA # 3, of which system the Johnson Crossroads cell site will be a part. Bluegrass Cellular Inc. provides management services to Kentucky RSA #3 under a management contract, just as it does with three (3) other wireless carriers in the Commonwealth. And, Bluegrass Cellular Inc. has been providing these management services to these other wireless carriers for well over a decade. This extensive management experience with Bluegrass Cellular demonstrates that Bluegrass Cellular Inc.'s management and technical ability to supervise the operations of a wireless carrier.
- 7. Pursuant to 807 KAR §1(1)(g), World Tower Company, Inc. is responsible for the design specifications of the proposed tower (identified in Exhibit "B").
- 8. Pursuant to 807 KAR 5:063 §1(1)(h), a site development plan and survey, signed and sealed by a professional engineer registered in Kentucky, that shows the proposed location of the tower and all easements and existing structures within 500 feet of the proposed site on the property on which the tower will be located, and all easements and existing structures within 200 feet of the access drive, including the intersection with the public street system is attached as Exhibit "B."
- 9. Pursuant to 807 KAR 5:063 §1(1)(i), a vertical profile sketch of the tower, signed and sealed by a professional engineer registered in Kentucky, indicating the height of the tower and the placement of all antennas is attached as Exhibit "B."

- 10. Pursuant to 807 KAR 5:063 §1(1)(j), the tower and foundation design plans and a description of the standard according to which the tower was designed, signed and sealed by a professional engineer registered in Kentucky is attached as Exhibit "B."
- 11. Pursuant to 807 KAR 5:063 § 1 (1)(k), a map, drawn to a scale no less than one (1) inch equals 200 feet, that identifies every structure and every owner of real estate within 500 feet of the proposed tower is attached as Exhibit "E."
- Pursuant to 807 KAR 5:063 § 1 (1)(1), applicant's legal counsel hereby affirms that every person who owns property within 500 feet of the proposed tower has been: (i) notified by certified mail, return receipt requested, of the proposed construction; (ii) given the commission docket number under which the application will be processed; and (iii) informed of his or her right to request intervention.
- 13. Pursuant to KRS 278.665(2), applicant's legal counsel hereby affirms that every person who, according to the records of the property valuation administrator, owns property contiguous to the property where the proposed cellular antenna tower will be located has been: (i) notified by certified mail, return receipt requested, of the proposed construction; (ii) given the commission docket number under which the application will be processed; and (iii) informed of his or her right to request intervention.
- 14. Pursuant to 807 KAR 5:063 §1(1)(m), a list of the property owners who received the notice together with copies of the certified letters sent to listed property owners is attached as Exhibit "F."
- 15. Pursuant to 807 KAR 5:063 § 1 (1)(n), applicant's legal counsel hereby affirms that the Grayson County Judge Executive has been: (i) notified by certified mail, return receipt requested, of the proposed construction; (ii) given the commission docket number under which the application will be processed; and (iii) informed of its right to request intervention.
- 16. Pursuant to 807 KAR 5:063 §1(1)(o), a copy of the notice sent to the Grayson County Judge Executive is Exhibit "G."
- 17. Pursuant to 807 KAR 5:063 § 1 (1)(p), applicant's legal counsel hereby affirms that (i) two written notices meeting subsection two (2) of this section have been posted, one in a visible location

on the proposed site and one on the nearest public road; and (ii) the notices shall remain posted for at least two weeks after the application has been filed.

- 18. Pursuant to 807 KAR 5:063 § 1 (2)(a), applicant's legal counsel affirms that:
  - (a) A written notice, of durable material at least two (2) feet by four (4) feet in size, stating that "Kentucky RSA #3 Cellular General Partnership proposes to construct a telecommunications tower on this site," including the addresses and telephone numbers of the applicant and the Kentucky Public Service Commission, has been posted and shall remain in a visible location on the proposed site until final disposition of the application;

and

(b) A written notice, of durable material at least two (2) feet by four (4) feet in size, stating that "Kentucky RSA #3 Cellular General Partnership proposes to construct a telecommunications tower near this site," including the addresses and telephone numbers of the applicant and the Kentucky Public Service Commission, has been posted on the public road nearest the site.

A copy of each sign is attached as Exhibit "H."

- 19. Pursuant to 807 KAR 5:063 § 1 (1)(q), a statement that notice of the location of the proposed construction has been published in a newspaper of general circulation in the county in which the construction is proposed is attached as Exhibit "I."
- 20. Pursuant to 807 KAR 5:063 § 1(1)(r), the cell site, which has been selected, is in a relatively undeveloped area in Clarkson, Kentucky.
- 21. Pursuant to 807 KAR 5:063 §1(1)(s), Kentucky RSA #3 has considered the likely effects of the installation on nearby land uses and values and has concluded that there is no more suitable location reasonably available from which adequate service to the area can be provided, and that there is no reasonably available opportunity to co-locate. Kentucky RSA #3 has attempted to co-locate on towers designed to host multiple wireless service providers' facilities or existing structures, such as a telecommunications tower, or another suitable structure capable of supporting the utility's facilities.
- 22. Pursuant to 807 KAR 5:063 § 1(1)(t), a map of the area in which the tower is proposed to be located, that is drawn to scale and that clearly depicts the search area in which a site should, pursuant to radio frequency requirements, be located is attached as Exhibit "J."

- 23. Pursuant to KRS 100.987(2)(a), a grid map, that is drawn to scale, that shows the location of all existing cellular antenna towers and that indicates the general position of proposed construction sites for new cellular antenna towers is attached as Exhibit "K."
- 24. No reasonably available telecommunications tower, or other suitable structure capable of supporting the cellular facilities of Kentucky RSA #3 and which would provide adequate service to the area exists.
- Correspondence and communication with regard to this application should be 25. addressed to:

John E. Selent Holly C. Wallace **DINSMORE & SHOHL LLP** 101 S. Fifth Street Suite 2500 Louisville, KY 40202 (502) 540-2300 (502) 585-2207 (facsimile) john.selent@dinslaw.com holly.wallace@dinslaw.com

WHEREFORE, Kentucky RSA #3 Cellular General Partnership requests the Commission to enter an order:

- 1. Granting a certificate of public convenience and necessity to construct the Johnson Crossroads cell site; and
  - 2. Granting all other relief as appropriate.

Respectivith Submitted,

John E. Selent

Holly Q. Wallace

DINSMORE & SHOHL LLP

101 S. Fifth Street

Suite 2500

Louisville, KY 40202

(502) 540-2300

(502) 585-2207 (facsimile)

john.selent@dinslaw.com

holly.wallace@dinslaw.com

843821v1



« OE/AAA

### Notice of Proposed Construction or Alteration - Off Airport

Project Name: BLUEG-000170079-11

Sponsor: Bluegrass Cellular, Inc.

### Details for Case: Johnson Crossroads

|                |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | Show Project Summ                                                                                 | nary                                                             |                                        |                |              |          |
|----------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------|----------------|--------------|----------|
| Case Statu:    | <br>S                         | The second secon |            | er regularing delig angularing productive in the productive and the last are the annual sections. | aabaan lagaga ay shiragii sasiiriingi i laasiisii ilaasaya kalaa | ************************************** |                |              |          |
| A5N:           | 2011-ASC                      | -1715-0E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                                                                                   | Date Accepted:                                                   | 03/18/2011                             |                |              |          |
| Status:        | Accepted                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                                                                                   | Date Determined:                                                 |                                        |                |              |          |
|                |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                                                                                   | Letters:                                                         | None                                   |                |              |          |
|                |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                                                                                   | Documents:                                                       | 03/18/2011 🔁 20                        | Survey.pdf     |              |          |
| Constructio    | on / Altera                   | tion Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                                                                                   | Structure Summ                                                   | nary                                   |                |              |          |
| Notice Of:     |                               | Construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                                                                                   | Structure Type:                                                  | Antenna Tower                          |                |              |          |
| Duration:      |                               | Permanent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                                                                                   | Structure Name:                                                  | Johnson Crassroads                     |                |              |          |
|                | iporary :                     | Months: Days:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                                                                                   | NOTAM Number:                                                    |                                        |                |              |          |
| Work Sched     |                               | 05/01/2011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                                                                                   | FCC Number:                                                      |                                        |                |              |          |
| Work Sched     |                               | 05/05/2011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                                                                                   | Prior ASN:                                                       |                                        |                |              |          |
| State Filing:  |                               | Filed with State                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                                                                                   |                                                                  |                                        |                |              |          |
| Structure (    | Details                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                                                                                   | Common Freque                                                    | ency Bands                             |                |              |          |
| Latitudo:      |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | 37° 25' 27.05" N                                                                                  | Law Freq                                                         | High Freq                              | Frag Unit      | ERP          | ERP Unit |
| Longitude:     |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | 86° 13' 46.74" W                                                                                  | 698<br>806                                                       | 806<br>824                             | 74112<br>14114 | 1000<br>560  | W<br>W   |
| Horizontal D   | Mtum:                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | NAD83                                                                                             | 624                                                              | 649                                    | MHz            | 500          | ŵ        |
| Site Elevation |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | 826 (nearest foot)                                                                                | 851                                                              | 866                                    | Mita           | 560          | W        |
|                |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | ,                                                                                                 | 869                                                              | 894                                    | Mitz           | 500          | W        |
| Structure He   | eight (AGL):<br>ered AGL is a | proposed change to an                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | 255 (nearest foot)                                                                                | 696<br>901                                                       | 901<br>902                             | Miss<br>Mris   | 500<br>7     | W<br>W   |
| existing stru  | icture's help                 | ht include the current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                                                                                   | 930                                                              | 931                                    | MHz            | 3500         | w        |
| AGL in the D   | escription (                  | of Proposal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                                                                                   | 931                                                              | 932                                    | Mitz           | 3500         | W        |
| D              | A.,                           | Lat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | Dual-red and medium intensity                                                                     | 932                                                              | 932.5                                  | Miz            | 17           | dBW      |
| Requested N    | aarking/Ligi                  | nting:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | Dual-red and medium intensity                                                                     | 935                                                              | 940                                    | MHZ            | 1000         | W        |
|                |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Other :    |                                                                                                   | 940                                                              | 941                                    | MHZ            | 3500         | W        |
| Recommend      | led Marking                   | /Lighting:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                                                                                   | 1850                                                             | 1910                                   | 11112<br>11112 | 1640<br>1640 | W<br>W   |
| Current Mar    | king/Lighth                   | ng:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | N/A New Structure                                                                                 | 1930<br>2305                                                     | 1990<br>2310                           | ette<br>ette   | 2000         | w        |
|                |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Other :    |                                                                                                   | 2345                                                             | 2360                                   | Mitz           | 2000         | w        |
| Nearest City   |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | Clarkson                                                                                          |                                                                  |                                        |                |              |          |
| Nearest Sta    |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | Kentucky                                                                                          | Specific Freque                                                  | ncies                                  |                |              |          |
| Description    | of Location:                  | :<br>y page upload any certifi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | nd survey. | 2601 St. Augustine Road<br>Clarkson, KY 42726                                                     |                                                                  |                                        |                |              |          |
| Description    |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ou mirruft | proposed Self-supporting<br>towar with top-mounted<br>antennas for overall height of<br>255'.     |                                                                  |                                        |                |              |          |



| Kentucky Transportation Cabinet, Kentucky Airport Zoning Commission, 200 Merca APPLICATION FOR PERMIT TO CONSTRUCT OR ALTERINSTRUCTIONS INCLUDED                                                                                                                                |                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. APPLICANT Name, Address, Telephone, Fax, etc. Scott McCloud Bluegrass Cellular, Inc. 2902 Ring Road Elizabethtown, KY 42702 T: 270-769-0339 F:270-737-0580  2. Representative of Applicant Name, Address, Telephone, Fax Leila Rezanavaz Lukas, Nace, Gutierrez & Sachs, LLP | 9. Latitude: 37 ° 25 ' 27 05 "  10. Longitude: 86 ° 13 ' 46 74 "  11. Datum: NAD83 NAD27 Other  12. Nearest Kentucky City: Clarkson County Grayson  13. Nearest Kentucky public use or Military airport: Grayson County Airport |
| 8300 Greensboro Drive, Suite 1200<br>McLean, VA 22102<br>T: 703-584-8668 F: 703-584-8694                                                                                                                                                                                        | 14. Distance from #13 to Structure: 2.4 Miles  15. Direction from #13 to Structure: NE  16. Site Elevation (AMSL): 826.00 Feet                                                                                                  |
| 3. Application for: ☑ New Construction ☐ Alteration ☐ Existing                                                                                                                                                                                                                  | 17. Total Structure Height (AGL): 255.00 Feet                                                                                                                                                                                   |
| 4. Duration: Permanent Temporary (Months Days 5. Work Schedule: Start 5/1/2011 End 5/5/2011                                                                                                                                                                                     | 18. Overall Height (#16 + #17) (AMSL):                                                                                                                                                                                          |
| 6. Type: ☒ Antenna Tower ☐ Crane ☐ Building ☐ Power Line ☐ Landfill ☐ Water Tank ☐ Other                                                                                                                                                                                        | N/A  20. Description of Location: (Attach USGS 7.5 minute Quadrangle Map                                                                                                                                                        |
| 7. Marking/Painting and/or Lighting Preferred:  ☐ Red Lights and Paint ☐ White - Medium Intensity ☐ Dual - Red & High Intensity White ☐ White - High Intensity ☐ Other                                                                                                          | or an Airport layout Drawing with the precise site marked and any certified survey)  Site is located at: 2601 St. Augustine Road Clarkson, KY 42726                                                                             |
| 8. FAA Aeronautical Study Number2011-ASO-1715-OE                                                                                                                                                                                                                                |                                                                                                                                                                                                                                 |
| Description of Proposal:     Structure: Proposed self-supporting tower with top-mounted anter Max. ERP: 250 Watts     Frequencies: Cellular Band B                                                                                                                              | inas for overall height of 255' AGL.                                                                                                                                                                                            |
| 22. Has a "NOTICE OF CONSTRUCTION OR ALTERATION" (FAA Form 7460-1                                                                                                                                                                                                               |                                                                                                                                                                                                                                 |
| CERTIFICATION: I hereby certify that all the above statements made by me are                                                                                                                                                                                                    |                                                                                                                                                                                                                                 |
| Leila Rezanavaz / Senior Consulting Engineer  Printed Name and Title  Signature                                                                                                                                                                                                 | Peza-a-3/18/2011  Date                                                                                                                                                                                                          |
| PENALTIES: Persons failing to comply with Kentucky Revised Statutes (KRS 18 050:Series) are liable for fines and/or imprisonment as set forth in KRS 183.990(3 in further penalties.                                                                                            | B3.861 through 183.990) and Kentucky Administrative Regulations (602 KAR                                                                                                                                                        |
| Commission Action:                                                                                                                                                                                                                                                              | irman, KAZC Administrator, KAZC                                                                                                                                                                                                 |
| ☐ Approved ☐ Disapproved                                                                                                                                                                                                                                                        | Date                                                                                                                                                                                                                            |

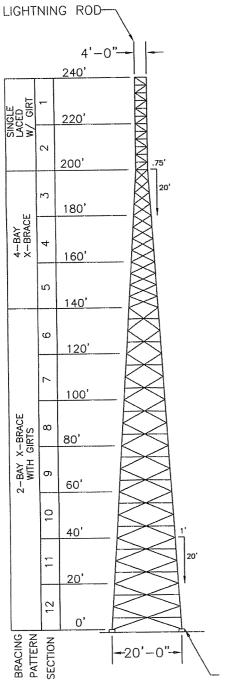


1213 Compressor Drive P O. Box 508 Mayfield, KY 42066 270-247-3642 FAX: 270-247-0909

E-mail: worldtower@worldtower.com
Web: www.worldtower.com

# 240' MODEL WSST TOWER FOR: BLUEGRASS CELLULAR SITE: JOHNSON CROSSROADS GRAYSON COUNTY, KY DESIGN PACKAGE





NOTES GENERAL

TOWER IS DESIGNED TO SUPPORT THE GIVEN LOAD AND MEET THE PROVISIONS OF TIA-222-G FOR A 90 MPH BASIC WIND SPEED WITH NO ICE. TOWER IS ALSO DESIGN FOR A 30 MPH BASIC WIND SPEED WITH 3/4" ICE. STRUCTURE CLASS II, EXP. CAT. CAND TOPO. CAT. 1.

7

2. WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISION OF THE AMERICAN WELDED CONNECTIONS SHALL BOL1.

3. TOWER AND ALL FABRICATED ACCESSORIES ARE HOT—DIP GALVANIZED.

4. ALL BOLTS SHALL BE GALVANIZED ACCORDING TO THE STANDARD SPECIFICATION FOR ALL BOLTS SHALL BE GALVANIZED ACCORDING TO THE STANDARD SPECIFICATION FOR STINC COATING OF IRON AND STEEL HARDWARE ASTM A153.

5. LEG STEEL IS 50 KSI MIN YIELD SOLID ROUND AND BRACING STEEL IS 36 KSI MIN YIELD SOLID ROUND OR STRUCTURAL ANGLE.

6. ALL STRUCTURAL BOLTS ARE ASTM A325.

7. TOWER IS DESIGNED FOR ALL LINES TO BE MOUNTED ACCORDING TO DRAWING Q11332WG.

8. TOWER SHOULD BE INSPECTED IN ACCORDANCE WITH TIA/EIA—222—G EVERY 5 YEARS.

9. TOWER SHOULD SHOULD ONLY BE PERFORMED BY EXPERIENCED QUALIFIED PERSONNEL. FOR ASSISTANCE IN PROPER MAINTENANCE OF YOUR TOWER, CALL WORLD TOWER AT 270—247—3642. ۶. 4 ن 5

9.2.89

CABLE SAFETY 0'-240'. ō <del>-</del>

SITE : JOHNSON CROSSROADS FOR: BLUEGRASS CELLULAR 240' MODEL WSST TOWER GRAYSON COUNTY, KY DATE 4-13-11

011332

DWG. NO.

CK6

ĽĸB

DWN.

SCALE NONE

| 60° TYP.   |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |
|------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|            |         | N TC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |
|            | STEP BO |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | MARININIAN MARINA        |
|            | -CABLE  | HE L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | OF WENTS                 |
| TOWER PLAN |         | AS A PRO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | KIRK R.<br>HALL<br>25154 |
|            |         | The state of the s | SCENSES                  |
|            |         | ·· <i>n</i> ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Vinnjensania)            |

ANCHOR BOLTS WITH EMBEDDED PL.

TOWER ELEVATION

| BASE. I        | REACTIONS | S        |
|----------------|-----------|----------|
| OTM:           | 6356.0    | FT. KIPS |
| COMP.          | 392.0     | KIPS     |
| UPLIFT         | 329.0     | KIPS     |
| SHEAR (3 LEGS) | 49.0      | KIPS     |
| WT. NO ICE     | 76.0      | KIPS     |
| WT. 3/4" ICE   | 188.0     | KIPS     |
| WT. NO ICE     |           |          |

| SECTION NO.         LEGS         DIAGONALS         CIRTS         SPLICE BOLTS         DIAG BOLTS         GIRT BOLTS           1         1 1/2         1         1         4 - 3/4"         WELDED CONSTRUCTION           2         2         2         1 1/8         1         4 - 3/4"         WELDED CONSTRUCTION           3         2         1 1/8         1         4 - 3/4"         WELDED CONSTRUCTION           4         2         3/4         2 × 1/8         4 - 3/4"         WELDED CONSTRUCTION           5         3         2 × 1/8         N/A         4 - 3/4"         WELDED CONSTRUCTION           4         2         3/4         4 - 1"         5/8         5/8           5         3         1         1         1/A         N/A           6         3 1/4         2 1/2 × 3/16         6-1"         3/4         3/4           7         3 1/2         3 × 1/4         2 1/2 × 3/16         1         1           8         3 1/2         3 × 1/4         3 × 3/16         3 × 3/16         1           10         3 3/4         3 × 1/4         3 × 3/16         1         1           11         4         3 1/2 × 1/4         3 × 3/16 |              |             |        |         |         |          |              |          |              |              |          |             |             |              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|--------|---------|---------|----------|--------------|----------|--------------|--------------|----------|-------------|-------------|--------------|
| LEGS DIAGONALS GIRTS SPLICE BOLTS  1 1/2  1 1/8  2 1/2  2 3/4  2 3/4  2 x 1/8  2 x 1/8  2 x 1/8  2 x 1/8  3 1/4  2 x 3/16  3 1/2  3 x 3/16  4 1/4"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | GIRT BOLTS   | ONSTRICTION |        | 5/8     | N/A     |          | 5/8          | -        | 3/4          |              |          |             | -           |              |
| LEGS DIAGONALS GIRTS  1 1/2  1 1/2  1 1/8  2 1/2  2 3/4  2 × 1/8  2 × 1/8  2 × 3/16  3 1/4  3 1/2 × 3/16  3 1/2  3 3/4  3 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  3 1/2 × 3/16  4 3 1/2 × 1/4  3 × 3/16  4 3 1/2 × 1/4  3 × 3/16  4 3 1/2 × 1/4  3 × 3/16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DIAG BOLTS   | WEI DED     | ארבטרט | 5/8     |         |          |              | -        | 3/4          |              |          |             |             |              |
| LEGS DIAGONALS  1 1/2 1 2 2 1/2 2 X 1/8 2 3/4 2 X 1/8 3 3/4 2 X 3/16 3 1/4 2 1/2 X 3/16 3 1/2 3 X 3/16 3 1/2 3 X 3/16 3 3/4 3 X 1/4 4 3 1/2 X 1/4 4 3 1/2 X 1/4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SPLICE BOLTS | 4- 3/4"     | -      | 4-1"    |         |          | 6-1"         |          |              | 6-1 1/4"     |          |             | 6-1 1/4"    | ANCHOR BOLTS |
| LEGS 1 1/2 2 1/2 2 3/4 3 1/4 3 1/2 3 3/4 4 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | GIRTS        | -           |        | 2 × 1/8 | N/A     |          | 2 X 1/8      | 2 X 3/16 | 2 1/2 X 3/16 | 2 1/2 X 3/16 | 3 X 3/16 | 3 X 3/16    | 3 X 3/16    |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DIAGONALS    |             | 1 1/8  | 2 X 1/8 | 2 X 1/8 | 2 X 3/16 | 2 1/2 X 3/16 | 3 X 3/16 | 3 X 3/16     | 3 X 1/4      | 3 X 1/4  | 3 1/2 X 1/4 | 3 1/2 X 1/4 |              |
| SECTION NO. 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LEGS         | 1 1/2       | 2      | 2 1/2   | 2 3/4   | 3        | 3 1/4        | 3 1/2    | 3 1/2        | 3 3/4        | 3 3/4    | 4           | 4           |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SECTION NO.  | ,           | 2      | 3       | 4       | S        | 9            | 7        | 80           | 0            | 10       | -           | 12          |              |

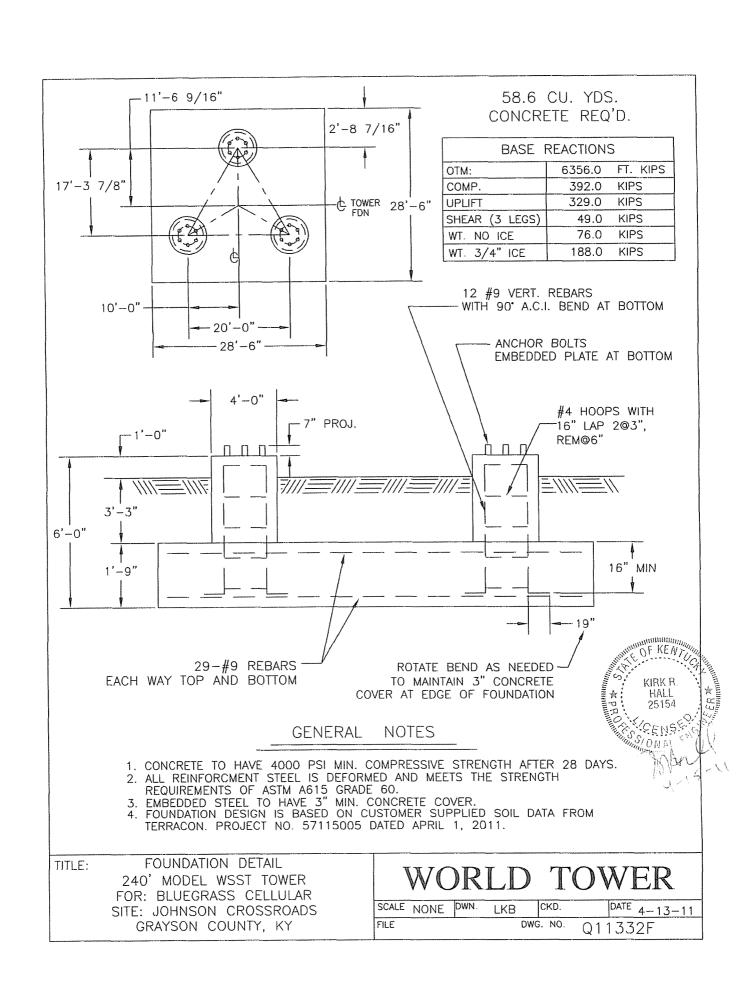
|       | ANTENNA LOADING                          |           |
|-------|------------------------------------------|-----------|
| ELEV. | DESCRIPTION                              | LINE      |
| 240,  | (6) ANTEL RWB 80014/120 ON WD13X53 MOUNT | 6- 1 5/8" |
| 220,  | (6) ANTEL RWB 80014/120 ON WD13X53 MOUNT | 6- 1 5/8" |
| 200,  | (6) ANTEL RWB 80014/120 ON WD13X53 MOUNT | 6- 1 5/8" |
| 180,  | (6) ANTEL RWB 80014/120 ON WD13X53 MOUNT | 6- 1 5/8" |
| 160'  | (6) ANTEL RWB 80014/120 ON WD13X53 MOUNT | 6- 1 5/8" |
| 140′  | 6' GRID DISH                             | 1- 1 5/8" |
|       |                                          |           |

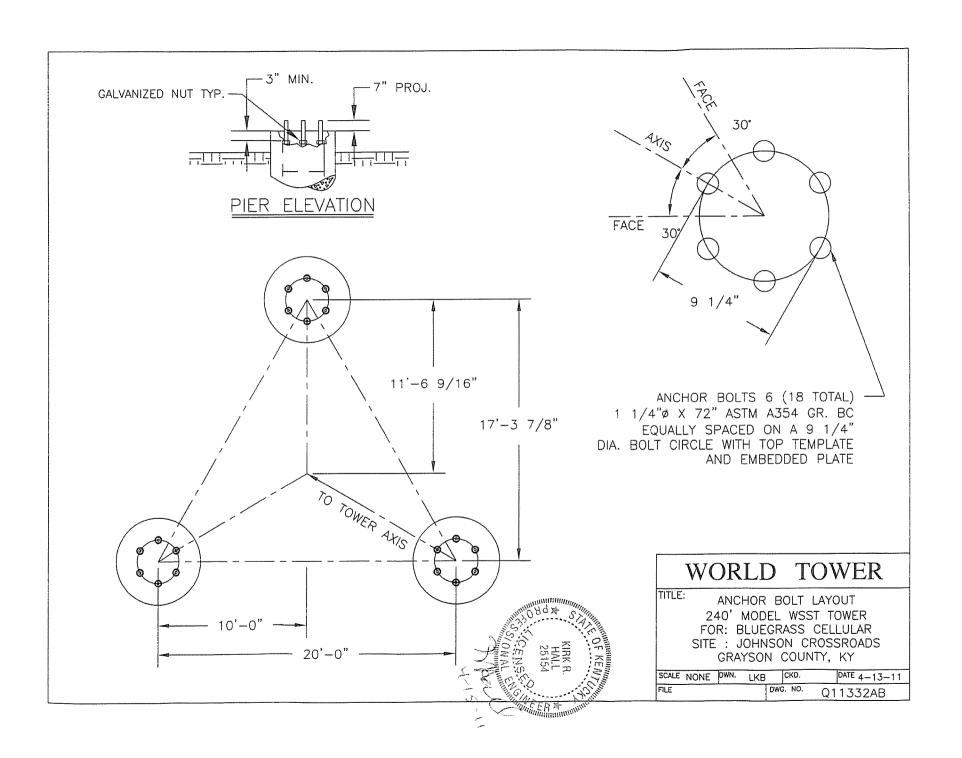


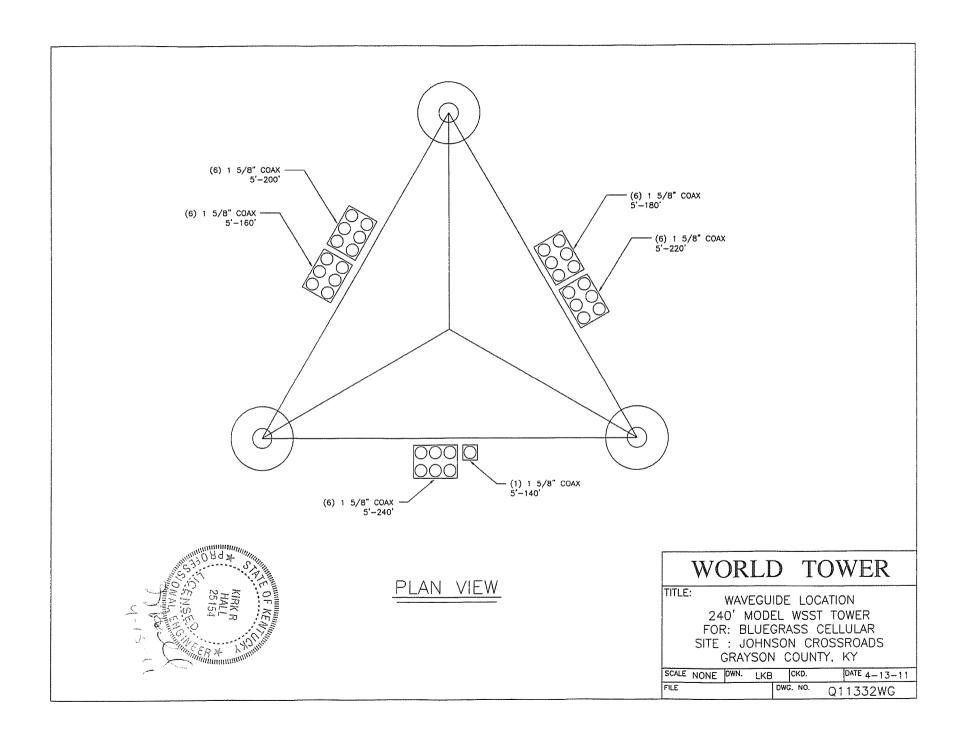
# WORLD TOWER

TITLE: 240' MODEL WSST TOWER FOR: BLUEGRASS CELLULAR SITE : JOHNSON CROSSROADS GRAYSON COUNTY, KY

| SOALE NONE DWN. LKB CKD. D | DATE 4-13-11 | 1011   | 15521 |
|----------------------------|--------------|--------|-------|
| DWN. LKB                   |              | 1      | 9     |
| DWN. LKB                   | CKD          | ON COM |       |
| 1 1                        | 2            | 2      | 3     |
| ILE                        | NWC          |        |       |
| CALE                       | 1401         | NOINE  |       |
| 10, 10                     | 20.00        | 1      | 1     |







|         |          |           |                   |                |           |              |                   |                 | 7               |                 |                 | 240 0 ft |          |
|---------|----------|-----------|-------------------|----------------|-----------|--------------|-------------------|-----------------|-----------------|-----------------|-----------------|----------|----------|
| 11      | SR 1 1/2 |           | SR 4              |                | SR 1      | SR 1         | SR 1              | SR 1            |                 | 12 @ 3.20833    | 60              | 220 O R  |          |
| u       | SR 2     |           | SR 1 1/8          |                | is        | īS           | īs                | ī               |                 | 12 @ :          | ū               |          | <b> </b> |
|         | SR 2 1/2 |           |                   |                | 2x2x1/8   |              |                   |                 |                 |                 | <b>1</b>        | 200 O ft |          |
|         |          |           | L2x2x1/8          |                | ř         |              |                   |                 | 5.5             |                 |                 | 180 OR   |          |
| 2       | SR 2 3/4 |           |                   |                |           |              | N.A.              |                 |                 |                 | 2.3             | 160 O ft |          |
| £       | SR 3     |           | L2x2x3/16         |                |           |              |                   |                 | 2               |                 | 73              |          |          |
|         | 1/4      |           | 1/2×3/16          |                |           |              | x1/8              |                 | 8,5             |                 | v               | 140.0 ft |          |
| F       | SR 3 1/4 | A572-50   | L2 1/2x2 1/2x3/16 | 435            |           |              | L2x2x1/8          |                 | 10              |                 | រា              | 120 0 ft |          |
| 11      | SR 3 1/2 |           | L3x3x3/16         |                |           | ŧ            | L2x2x3/16         | Ą.              |                 | 40 @ 5          | 1.1             | 100.0 ft |          |
| -CT     | SS       |           | (13x3)            |                | M.A.      | N.A.         | 16                | N.A.            | 11.5            | 40 (            | 3.2             |          |          |
|         |          |           |                   |                |           |              | L2 1/2x2 1/2x3/16 |                 | £               |                 |                 | ñ o 08   |          |
| 77      | SR 3 3/4 |           | L3x3x1/4          |                |           |              |                   |                 | 14.5            |                 | ¥ C             | 60 0 ft  |          |
| art     |          |           |                   |                |           |              |                   |                 |                 |                 | ÷               | 40 O ft  |          |
| 111     |          |           | *1                |                |           |              | L3x3x3/16         |                 | 16              |                 | 2.7             | 40011    |          |
|         | SR 4     |           | L3 1/2x3 1/2x1/4  |                |           |              | J                 |                 | 8               |                 |                 | 20 O ft  |          |
| 2142    |          |           |                   |                |           |              |                   |                 | 20              |                 | 33.8            | 0 O ft   |          |
| Section | regs     | Leg Grade | Diagonafs         | Diagonal Grade | Top Girts | Bottom Girts | Horizontals       | Sec. Horizontal | Face Width (ft) | # Panels @ (ft) | Weight (K) 33.8 |          |          |
|         |          |           |                   |                |           |              |                   |                 |                 |                 |                 |          |          |

### DESIGNED APPURTENANCE LOADING

| TYPE                                                             | ELEVATION  | TYPE                                                             | ELEVATION |
|------------------------------------------------------------------|------------|------------------------------------------------------------------|-----------|
| Flash Beacon Lighting<br>WD13X53 Antenna Mounting Frame          | 240<br>240 | (2) Antel RWB 80014/120 w/ mnt<br>pipe(Panel 96.5"x11.2"x5 9")*  | 200       |
| (w/ 75)*                                                         |            | (2) Antel RWB 80014/120 w/ mnt                                   | 200       |
| WD13X53 Antenna Mounting Frame<br>(w/ 75)*                       | 240        | pipe(Panel 96.5"x11 2"x5.9")* (2) Antel RWB 80014/120 w/ mnt     | 200       |
| WD13X53 Antenna Mounting Frame (w/ 75)*                          | 240        | pipe(Panel 96.5"x11.2"x5.9")* WD13X53 Antenna Mounting Frame     | 180       |
| (2) Antel RWB 80014/120 w/ mnt                                   | 240        | (w/ .75)*                                                        |           |
| pipe(Panel 96 5"x11 2"x5.9")*<br>(2) Antel RWB 80014/120 w/ mnt  | 240        | WD13X53 Antenna Mounting Frame (w/ .75)*                         | 180       |
| pipe(Panel 96.5"x11.2"x5.9")*                                    |            | WD13X53 Antenna Mounting Frame (w/ .75)*                         | 180       |
| (2) Antel RWB 80014/120 w/ mnt.<br>pipe(Panel 96 5"x11.2"x5 9")* | 240        | (2) Antel RWB 80014/120 w/ mnt.                                  | 180       |
| WD13X53 Antenna Mounting Frame (w/ 75)*                          | 220        | pipe(Panel 96.5"x11.2"x5 9")* (2) Antel RWB 80014/120 w/ mnt     | 180       |
| WD13X53 Antenna Mounting Frame (w/ 75)*                          | 220        | pipe(Panel 96 5"x11 2"x5 9")*                                    |           |
| WD13X53 Antenna Mounting Frame                                   | 220        | (2) Antel RWB 80014/120 w/ mnt.<br>pipe(Panel 96.5"x11 2"x5 9")* | 180       |
| (w/ 75)*<br>(2) Antel RWB 80014/120 w/ mnt.                      | 220        | WD13X53 Antenna Mounting Frame<br>(w/ 75)*                       | 160       |
| pipe(Panel 96 5"x11.2"x5 9")*                                    |            | WD13X53 Antenna Mounting Frame<br>(w/ .75)*                      | 160       |
| (2) Antel RWB 80014/120 w/ mnt<br>pipe(Panel 96 5"x11 2"x5.9")*  | 220        | WD13X53 Antenna Mounting Frame                                   | 160       |
| (2) Antel RWB 80014/120 w/ mnt<br>pipe(Panel 96 5"x11 2"x5 9")*  | 220        | (w/ 75)*<br>(2) Antel RWB 80014/120 w/ mnt.                      | 160       |
| WD13X53 Antenna Mounting Frame                                   | 200        | pipe(Panel 96.5'x11.2'x5.9')*                                    |           |
| (w/ 75)*<br>WD13X53 Antenna Mounting Frame                       | 200        | (2) Antel RWB 80014/120 w/ mnt<br>pipe(Panel 96.5"x11.2"x5.9")*  | 160       |
| (w/ 75)*                                                         | 200        | (2) Antel RWB 80014/120 w/ mnt<br>pipe(Panel 96.5"x11.2"x5.9")*  | 160       |
| WD13X53 Antenna Mounting Frame<br>(w/ 75)*                       | 200        | 6' Grid Dish                                                     | 140       |

### **MATERIAL STRENGTH**

| GRADE   | Fy     | Fu     | GRADE | Fy     | Fu     |  |
|---------|--------|--------|-------|--------|--------|--|
| A572-50 | 50 ksi | 65 ksi | A36   | 36 ksi | 58 ksi |  |

### **TOWER DESIGN NOTES**

- 1. Tower is located in Grayson County, Kentucky.

- Tower designed for Exposure C to the TIA-222-G Standard.
   Tower designed for a 90.00 mph basic wind in accordance with the TIA-222-G Standard.
   Tower is also designed for a 30.00 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height
- 5 Deflections are based upon a 60.00 mph wind.
- Tower Structure Class II
- Topographic Category 1 with Crest Height of 0 00 ft
- 8 Tower designed for feedlines distributed on 3 tower faces with a max of 6 lines exposed to the wind on any one face
- 9 Weak link in diagonals from 140' to 120' 10 TOWER RATING: 94 8%

ALL REACTIONS ARE FACTORED

MAX CORNER REACTIONS AT BASE. DOWN: 392 K UPLIFT: -329 K SHEAR: 32 K

> AXIAI 188 K

SHEAR 6 K

MOMENT , 833 kip-ft

TORQUE 1 kip-ft 30 00 mph WIND - 0.75 in ICE **AXIAL** 76 K

SHEAR 49 K \_3

MOMENT v 6356 kip-ft

TORQUE 3 kip-ft REACTIONS - 90 00 mph WIND



World Tower Company 1213 Compressor Drive Mayfield, Kentucky 42066 Phone: (270) 247-3642 FAX: (270) 247-0909

<sup>ob</sup> 240' Standard WSST Job Q11-332

Project: Clarkson, Johnson Crossroads, Kentucky Client: Bluegrass Cellular Drawn by: Kirk Hall App'd Scale: NTS Code. TIA-222-G Date: 04/12/11

Path: Dwg No. E-1

Proposed 240' Self-Supporting Tower Site Name: Johnson Crossroads Clarkson, Grayson County, Kentucky April 1, 2011 Project No. 57115005

Prepared for: Kentucky RSA #3 Cellular General Partnership A Kentucky General Partnership d/b/a Bluegrass Cellular Elizabethtown, Kentucky

> Prepared by: Terracon Consultants, Inc. Louisville, Kentucky

Offices Nationwide Employee-Owned Established in 1965 terracon.com





April 1, 2011

Kentucky RSA #3 Cellular General Partnership A Kentucky General Partnership d/b/a Bluegrass Cellular 2902 Ring Road Elizabethtown, Kentucky 42702

Attn: Mr. Doug Updegraff

Re: Geotechnical Engineering Report

Proposed 240' Self-Supporting Tower Site Name: Johnson Crossroads Clarkson, Grayson County, Kentucky Terracon Project No.: 57115005

Dear Mr. Updegraff:

Terracon Consultants, Inc. (Terracon) has completed the geotechnical engineering services for the above referenced project. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations for the proposed project.

Terracon's geotechnical design parameters and recommendations within this report apply to the existing planned tower height and would apply to adjustments in the tower height, up to a 20% increase or decrease in height, as long as the type of tower does not change. If changes in the height of the tower dictate a change in tower type (i.e. self-support to monopole), Terracon should be contacted to evaluate our recommendations with respect to these changes.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,

Terracon Consultants, Inc.

M. Todd England Project Geologist

Robert N. Kennedy, P.E.

ling & recon

Office Manager Kentucky PE# 23117

Reviewed by: Timothy G. LaGrow, PE - Senior Principal

Copies Addressee: 3 hardy copy and pdf

Terracon Consultants, Inc. 4545 Bishop Lane, Suite 101 Louisville, KY 40218 P [502] 456 1256 F [502] 456 1278 terracon.com

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### **APPENDIX**

Figure 1 – Boring Location Plan

**Boring Logs** 

Field Exploration and Laboratory Testing

**General Notes** 

**Unified Soil Classification** 

General Notes - Sedimentary Rock Classification

# GEOTECHNICAL ENGINEERING REPORT PROPOSED 240' SELF-SUPPORTING TOWER SITE NAME: JOHNSON CROSSROADS CLARKSON, GRAYSON COUNTY, KENTUCKY

Terracon Project No. 57115005 April 1, 2011

### 1.0 PROJECT INFORMATION

### 1.1 Project Description

| ITEM                         | DESCRIPTION                                              |  |  |  |  |
|------------------------------|----------------------------------------------------------|--|--|--|--|
| Site layout                  | See Appendix, Figure 1, Boring Location Plan             |  |  |  |  |
| Site dimensions              | About 100 feet by 100 feet                               |  |  |  |  |
| Tower                        | Self-Supporting, 240 feet tall                           |  |  |  |  |
|                              | Vertical: 600 kips (assumed)                             |  |  |  |  |
| Maximum loads                | Shear: 80 kips (assumed)                                 |  |  |  |  |
|                              | Uplift: 500 kips (assumed)                               |  |  |  |  |
| Maximum allowable settlement | 1-inch (assumed)                                         |  |  |  |  |
| Equipment Building:          | Column: 15 kips (assumed)                                |  |  |  |  |
| Maximum loads                | Wall: 1 kip/ft (assumed)                                 |  |  |  |  |
| Equipment Building:          | Total Settlement: 1-inch (assumed)                       |  |  |  |  |
| Maximum allowable settlement | Differential Settlement: 3/4 inch over 40 feet (assumed) |  |  |  |  |
|                              | Cut: 3 feet (+/-) max (assumed)                          |  |  |  |  |
| Grading                      | Fill: 3 feet (+/-) max (assumed)                         |  |  |  |  |

### 1.2 Site Location and Description

| ITEM                  | DESCRIPTION                                                                                                                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Location              | St. Augustine Road, Grayson County, Kentucky Lat./Long.: 37.4241 degrees N / -86.2296 degrees W                                                                |
| Existing improvements | Vacant                                                                                                                                                         |
| Current ground cover  | Grass with sporadic trees                                                                                                                                      |
| Existing topography   | The center of the site was located on a topographic high point.  The site sloped down in all directions with a total grade change on the order of 3 to 5 feet. |

The above presentation of pertinent project information is based on our understanding of the plans and information provided to Terracon Consultants, Inc. (Terracon). If this project information is not consistent with the development plans for the site, please inform us of any discrepancies or change in plans.



### 2.0 SUBSURFACE CONDITIONS

### 2.1 Geology

| Formation <sup>1</sup>    | Description                                                                      |  |  |  |  |  |  |  |  |  |
|---------------------------|----------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| Tradewater and Caseyville | Shale, siltstone, and thin sandstone beds: light-brown to gray and iron stained. |  |  |  |  |  |  |  |  |  |

<sup>1.</sup> Based on the *Geologic Quadrangle Map of Clarkson, Kentucky*, published by the Kentucky Geological Survey (1963).

### 2.2 Typical Profile

A soil test boring B-1 was drilled at the approximate center of the planned tower as staked by the owner's representative. In addition, three rock soundings were advanced at the approximate location of the tower legs. Samples of the more competent bedrock materials were obtained from boring B-1 and sounding S-3. Based on the results of the exploration, the subsurface conditions on the project site can be generalized as follows:

| Description | Approximate Depth to Bottom of Stratum (feet) | Material Encountered                    | Consistency/Density                          |  |  |  |
|-------------|-----------------------------------------------|-----------------------------------------|----------------------------------------------|--|--|--|
| Surface     | ± 1/2                                         | Topsoil                                 | N/A                                          |  |  |  |
| Stratum 1   | 8 ½                                           | 8 ½ Lean Clay, with Sandstone Fragments |                                              |  |  |  |
| Stratum 2   | 15                                            | Shale, Completely<br>Weathered          | Very Soft Rock, Hard Soil                    |  |  |  |
| Stratum 3   | 32 ½                                          | Shale <sup>2</sup>                      | Recovery = 86, to100%<br>RQD = 28 to 78%     |  |  |  |
| Stratum 4   | 36                                            | Sandstone <sup>3</sup>                  | Unconfined Compressive<br>Strength = 515 psi |  |  |  |

- 1. Standard penetration test (SPT) N-values ranged from 27 to 54 blows per foot (bpf). Auger refusal was encountered at a depth of approximately 15 feet in boring B-1 and was encountered at approximately 31 feet in rock soundings S-1, S-2, and S-3.
- 2. Moderately severe to severe weathering, poor to goodr RQD, medium hard, very thin to thin bedded; unit weight of approximately 120 pcf.
- 3. Slight weathering, hard, thing to medium bedded; unit weight of approximately 150 pcf.

Specific conditions encountered at the boring and sounding locations are indicated on the attached boring logs. Stratification boundaries on the boring logs represent the approximate location of changes in soil types; in-situ, the transition between materials may be gradual. Further details of the boring and soundings can be found on the boring logs in the Appendix of this report.

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### 2.3 Groundwater

No groundwater was encountered during the auger drilling portion of the borehole. Water was used to advance the borehole during rock coring operations. The introduction of water into the borehole precluded obtaining accurate groundwater level readings at the time of coring operations. Long term observation of the groundwater level in monitoring wells, sealed from the influence of surface water, would be required to obtain accurate groundwater levels on the site.

### 3.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

### 3.1 Geotechnical Considerations

Based on the encountered subsurface conditions, the proposed tower can be founded on either straight shaft drilled piers or a mat foundation. The equipment building may be supported on shallow spread footings. Design recommendations for drilled piers and mat foundation as well as shallow footings for the equipment building are presented in the following paragraphs.

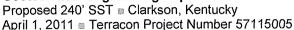
### 3.2 Foundation Recommendations

### 3.2.1 Shallow Mat Foundation System

If desired, a mat foundation can be used to support the proposed tower. The mat foundation can be designed using the following natural soil/engineered fill parameters.

| Description                                                 | Value                                                                                |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Foundation Subgrade <sup>1</sup>                            | Suitable natural soil or engineered granular fill extending to suitable natural soil |
| Net allowable bearing pressure <sup>2</sup>                 | 3,500 psf                                                                            |
| Allowable passive pressure <sup>3</sup>                     | 1,500 psf                                                                            |
| Coefficient of sliding friction <sup>3</sup>                | 0.35                                                                                 |
| Minimum embedment below finished grade for frost protection | 24 inches                                                                            |
| Approximate total settlement <sup>4</sup>                   | 1 inch                                                                               |

- 1. A geotechnical engineer should verify footing subgrade prior to concrete placement.
- 2. Assumes any soft or unsuitable soils, if encountered, will be undercut and replaced with approved engineered granular fill. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation.
- 3. The sides of the excavation for the mat foundation must be nearly vertical and the concrete should be placed neat against these vertical faces for the passive earth pressure values to be valid. If the loaded side is sloped or benched, and then backfilled, the allowable passive pressure will be significantly reduced. Passive resistance in the upper 3 feet of the soil profile should be neglected.





Lateral resistance due to friction at the base of the footing should be ignored where uplift also occurs.

4. The foundation settlement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footing, the thickness of compacted fill, and the quality of the earthwork operations.

Uplift forces can be resisted by the dead weight of the footing and the effective weight of any soil above the footing. A unit weight of soil not exceeding 115 pcf is appropriate for the on-site soils backfilled above the foundation, assuming that it is compacted to at least 98 percent of standard Proctor maximum dry density (ASTM D-698). A unit weight of 150 pcf could be assumed for mat foundation concrete. The ground surface should be sloped away from the foundation to avoid ponding of water and saturation of the backfill materials.

The base of all foundation excavations should be free of water and loose soil prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Should the soils at bearing level become excessively dry, disturbed or saturated, or frozen, the affected soil should be removed prior to placing concrete. Place a lean concrete mud-mat over the bearing soils if the excavations must remain open over night or for an extended period of time. It is recommended that the geotechnical engineer be retained to observe and test the soil foundation bearing materials.

### 3.2.2 Drilled Pier Foundation System

The proposed tower can be founded on a straight shaft drilled pier foundation system. Based on the results of field and laboratory testing, we have developed the following drilled pier design parameters.

| Approximate  Depth  (feet) 1     | Allowable<br>Skin<br>Friction <sup>2</sup><br>(psf) | Allowable<br>End<br>Bearing<br>Pressure<br>(psf) | Allowable<br>Passive<br>Pressure<br>(psf) | Cohesion<br>(psf)   | Internal<br>Angle of<br>Friction<br>(Degrees) | Strain ε <sub>50</sub> | Lateral<br>Subgrade<br>Modulus<br>(pci) |
|----------------------------------|-----------------------------------------------------|--------------------------------------------------|-------------------------------------------|---------------------|-----------------------------------------------|------------------------|-----------------------------------------|
| 0 – 3                            | Ignore                                              | Ignore                                           | Ignore                                    | Ignore              | Ignore                                        | Ignore                 | Ignore                                  |
| Lean Clay<br>3 – 8 ½             | 425                                                 | 3,000                                            | 1,500                                     | 1,500               |                                               | 0.007                  | 120                                     |
| Weathered<br>Shale<br>8 ½ - 32 ½ | 750                                                 | 5,000                                            | 2,500 2,500                               |                     |                                               | 0.004                  | 500                                     |
| Sandstone<br>32 ½ - 36           | 1,500 <sup>2</sup>   10,                            |                                                  | 4,000°                                    | 20,000 <sup>2</sup> |                                               | 0.0001                 | 2,400                                   |

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- 1. Pier observation is recommended to adjust pier length if variable soil and/or rock conditions are encountered. A total unit weight of 115 pcf can be assumed for the clay.
- 2. The piers should be embedded a minimum of 3 feet into competent sandstone to mobilize these higher rock strength parameters. Furthermore, it is assumed the rock socket will be extended using coring techniques rather than blasting/shooting.

The above indicated cohesion, lateral subgrade modulus and strain values have no factors of safety, and the allowable skin friction and the passive resistances have a factor of safety of about 2. The cohesion, lateral subgrade modulus and strain values given in the above table are based on our boring, published values and our past experience with similar soil and rock types. These values should, therefore, be considered approximate. The allowable end bearing pressure provided in the table has an approximate factor of safety of at least 3. If the drilled piers are designed to bear on shale or sandstone bedrock, settlements are not anticipated to exceed ½ inch.

The upper 3 feet of lean clay should be ignored due to the potential effects of frost action and construction disturbance. To avoid a reduction in lateral and uplift resistance caused by variable subsurface conditions and or bedrock depths, we recommend that drawings instruct the contractor to notify the engineer if subsurface conditions significantly different than encountered in our boring are disclosed during drilled pier installation. Under these circumstances, it may be necessary to adjust the overall length of the pier. To facilitate these adjustments and assure that the piers are embedded in suitable materials, it is recommended that a Terracon representative observe the drilled pier excavations.

If a sandstone bedrock socket is required, it is recommended that a minimum pier length and minimum competent rock socket length be stated on the design drawings. Sandstone bedrock was encountered in our boring below a depth of about 32 ½ feet, but could vary between tower legs or if the tower is moved from the location of our boring, or if significant grade changes occur at the site. If the tower center is moved more than 25 feet, our office should be notified to review our recommendations and determine whether an additional boring is required. To facilitate pier length adjustments that may be necessary because of variable rock conditions, it is recommended that a Terracon representative observe the drilled pier excavation.

Although our boring was able to penetrate the highly weathered shale, there is a possibility that larger diameter drilled pier equipment will refuse on this material at higher elevations than shown in our boring. The contractor should recognize the hardness of the material and be prepared to use rock teeth or other means to extend through these layers.

A drilled pier foundation should be designed with a minimum shaft diameter of 30 inches to facilitate clean out and possible dewatering of the pier excavation. Temporary casing will likely be required during the pier excavation in order to control possible groundwater seepage and support the sides of the excavation in weak soil zones, especially near the soil-shale bedrock interface. Care should be taken so that the sides and bottom of the excavations are not disturbed during construction. The

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bottom of the shaft should be free of loose soil or debris prior to reinforcing steel and concrete placement.

A concrete slump of at least 6 inches is recommended to facilitate temporary casing removal. It should be possible to remove the casing from a pier excavation during concrete placement provided that the concrete inside the casing is maintained at a sufficient level to resist any earth and hydrostatic pressures outside the casing during the entire casing removal procedure.

### 3.2.3 Equipment Building/Cabinet Foundations

| Description                                                              | Value                                                     |  |  |  |  |  |  |
|--------------------------------------------------------------------------|-----------------------------------------------------------|--|--|--|--|--|--|
| Foundation subgrade <sup>1</sup>                                         | Approved native soil or low volume change engineered fill |  |  |  |  |  |  |
| Net allowable bearing pressure <sup>2</sup>                              | 3,000 psf                                                 |  |  |  |  |  |  |
| Minimum footing sizes Isolated:                                          | 2 feet by 2 feet                                          |  |  |  |  |  |  |
| Wall:                                                                    | 16 inches wide                                            |  |  |  |  |  |  |
| Ultimate coefficient of sliding friction                                 | 0.35                                                      |  |  |  |  |  |  |
| Minimum embedment below finished grade for frost protection <sup>3</sup> | 24 inches                                                 |  |  |  |  |  |  |
| Approximate total settlement <sup>4</sup>                                | 1 inch                                                    |  |  |  |  |  |  |

- 1. A geotechnical engineer should verify footing subgrade prior to concrete placement.
- 2. Assumes any soft or unsuitable soils, if encountered, will be undercut and replaced with approved engineered fill. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation.
- 3. For perimeter footing and footings beneath unheated areas.
- 4. The foundation settlement will depend upon the variations within the subsurface profile, the structural loading conditions, the embedment depth of the footings, the thickness of any compacted fill, and the quality of the earthwork operations.

### 3.3 Earthwork

Site preparation should begin with removal of topsoil, vegetation, organics and any soft or otherwise unsuitable materials from the entire construction area. We recommend the actual stripping depth along with any soft soils that will require undercutting be evaluated by the geotechnical engineer at the time of construction. Engineered fill should meet the following material property requirements:

| Fill Type <sup>1</sup>           | USCS Classification                           | Acceptable Location for Placement <sup>1</sup>            |
|----------------------------------|-----------------------------------------------|-----------------------------------------------------------|
| Lean Clay<br>(On-Site Soils)     | CL                                            | Beneath equipment building and access road all elevations |
| Well Graded<br>Granular Material | GW <sup>2</sup> , SW, SM, and SC <sup>3</sup> | All locations and elevations                              |

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| Low Volume<br>Change Material <sup>4</sup> | CL or GW<br>and<br>(LL<50 & PI<22) | Beneath equipment building and access road all elevations |
|--------------------------------------------|------------------------------------|-----------------------------------------------------------|
|--------------------------------------------|------------------------------------|-----------------------------------------------------------|

- Controlled, compacted fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the geotechnical engineer for evaluation. Any fill to be placed beneath the tower footing should consist of well graded granular material.
- Similar to KDOT Section 302 for dense graded aggregate or crushed stone base limestone, limestone screenings, or granular material such as sand gravel or crushed stone containing not more than 13% non-plastic fines.
- 3. Similar to crushed limestone aggregate or limestone screenings or granular material such as sand, gravel or crushed stone (pug mix).
- 4. Low plasticity cohesive soils or granular soil having at least 18% low plasticity fines.

### 3.3.1 Compaction Requirements

| Fill Lift Thickness                     | 9-inches or less in loose thickness                                                                                                                               |  |  |  |  |  |  |  |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| Compaction Requirements <sup>1</sup>    | 98% of the materials standard Proctor maximum dry density (ASTM D-698)                                                                                            |  |  |  |  |  |  |  |
| Moisture Content – Granular<br>Material | Workable moisture levels <sup>2</sup>                                                                                                                             |  |  |  |  |  |  |  |
| Moisture Content – Cohesive Soil        | Within the range of optimum moisture content to 2% above or 1% below optimum moisture content as determined by the standard Proctor test at the time of placement |  |  |  |  |  |  |  |

- 1. We recommend that engineered fill be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.
- 2. Specifically, moisture levels should be maintained low enough to allow for satisfactory compaction to be achieved without the cohesionless fill material pumping when proofrolled.

### 3.3.2 Construction Considerations

Although the exposed subgrade is anticipated to be relatively stable upon initial exposure, unstable subgrade conditions could develop during general construction operations, particularly if the soils are wetted and/or subjected to repetitive construction traffic. The use of light construction equipment would aid in reducing subgrade disturbance. Should unstable subgrade conditions develop, stabilization measures will need to be employed.

Construction traffic over the completed subgrade should be avoided to the extent practical. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become frozen, desiccated, saturated, or disturbed, the

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affected material should be removed or these materials should be scarified, moisture conditioned, and recompacted.

As a minimum, all temporary excavations should be sloped or braced as required by Occupational Health and Safety Administration (OSHA) regulations to provide stability and safe working conditions. Temporary excavations will probably be required during grading operations. The grading contractor, by his contract, is usually responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required, to maintain stability of both the excavation sides and bottom. All excavations should comply with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards.

The geotechnical engineer should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation; proof-rolling; placement and compaction of controlled compacted fills; backfilling of excavations into the completed subgrade, and just prior to construction of foundations.

### 4.0 GENERAL COMMENTS

Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide observation and testing services during grading, excavation, foundation construction and other earth-related construction phases of the project.

The analysis and recommendations presented in this report are based upon the data obtained from the boring performed at the indicated location and from other information discussed in this report. This report does not reflect variations that may occur across the site, or due to the modifying effects of weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are

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planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

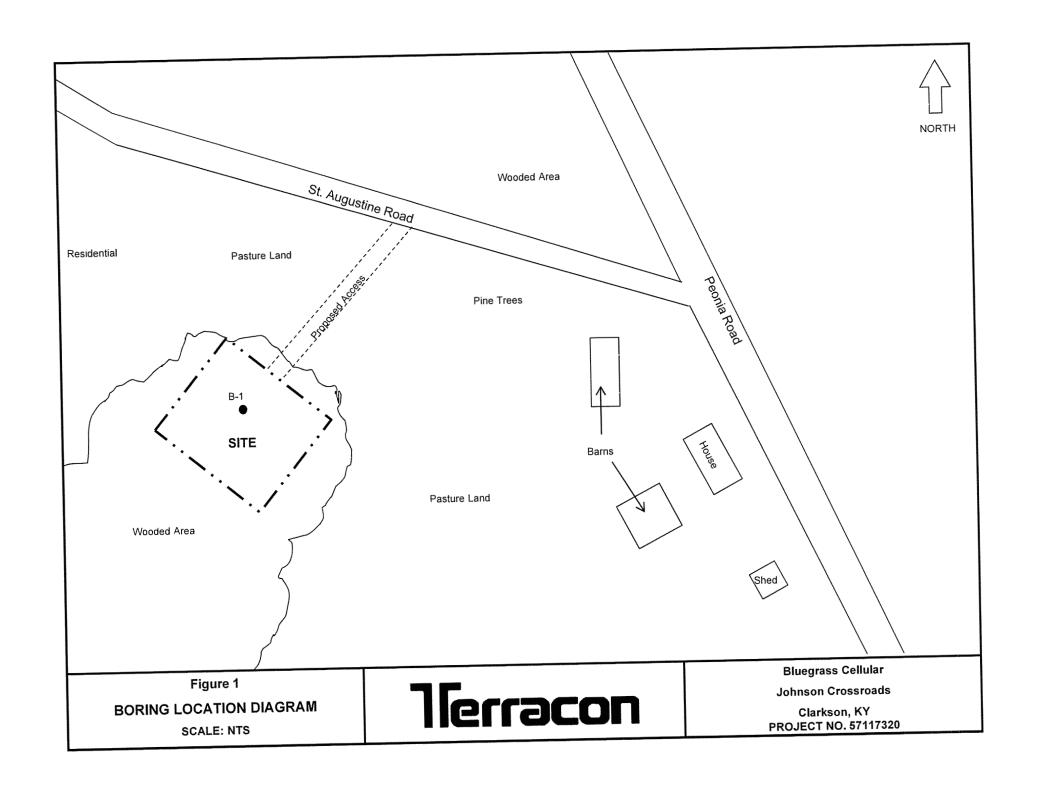
Geotechnical Engineering Report
Proposed 240' SST 

Clarkson, Kentucky
April 1, 2011 

Terracon Project Number 57115005



## **APPENDIX**



| $\bigcap$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LOG OF BOR                                                                                                                                                            | ING                                                     | NC          | ). E   | 3-1       |               | · · · · · · · · · · · · · · · · · · · |                     |                    | Pa                          | ige 1 of 1                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------|--------|-----------|---------------|---------------------------------------|---------------------|--------------------|-----------------------------|-----------------------------|
| CLI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ENT<br>Bluegrass Cellular                                                                                                                                             |                                                         |             |        |           |               |                                       |                     |                    |                             |                             |
| SIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                       | PROJECT 240' Self Support Tower Johnson Crossroads Site |             |        |           |               |                                       |                     |                    |                             |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Clarkson, Kentucky                                                                                                                                                    |                                                         |             | Ī      |           | APLES         |                                       | 0551                | vaus               | TESTS                       |                             |
| GRAPHIC LOG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DESCRIPTION  Approx. Surface Elev.: 826 ft                                                                                                                            | DЕРТН, ft.                                              | USCS SYMBOL | NUMBER | TYPE      | RECOVERY, in. | SPT - N **<br>BLOWS / ft.             | WATER<br>CONTENT, % | DRY UNIT WT<br>pcf | UNCONFINED<br>STRENGTH, psf | ATTERBERG<br>LIMITS         |
| \$ 34: 53<br>77777                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                       | _                                                       | 011         |        | 00        | 40            | 07                                    | 44                  |                    | F000*                       | 11-07                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>LEAN CLAY</b> with trace sand and sandstone fragments, orangish brown with oxidation staining, very stiff to hard, moist                                           | 5—                                                      | CH          | 2      | SS        | 18            | 70                                    | 12                  |                    | 5000*                       | LL= 37<br>PL= 22<br>PI= 15  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                       |                                                         | СН          | 3      | SS        | 18            | 54                                    | 13                  |                    | 5000*                       |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8.5 817.5  SHALE completely weathered, gray, hard                                                                                                                     | 10-                                                     |             | 4      | SS        | 16            | 76                                    | 4                   |                    | 5000*                       |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 15 811                                                                                                                                                                | 15                                                      |             | 5      | SS        | 0             | 50/0"                                 |                     |                    | 5000*                       |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Auger refusal at 15 feet, began coring  SHALE with clay seams, argillaceous, moderately severe to severe weathering, dark gray, medium hard, very thin to thin bedded | 20-                                                     |             | R-1    |           | 88%           | RQD<br>43%                            |                     |                    |                             |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | bedded                                                                                                                                                                | 25                                                      |             | R-2    | - Andrews | 86%           | 28%                                   |                     |                    |                             |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 28 798                                                                                                                                                                | 25                                                      |             | R-3    | DB        | 100%          | RQD<br>67%                            |                     |                    |                             |                             |
| The between the be | Coring terminated at 28 feet                                                                                                                                          | -                                                       |             |        |           |               |                                       |                     |                    |                             |                             |
| The                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | stratification lines represent the approximate boundary lines                                                                                                         |                                                         | <u></u>     |        |           |               |                                       |                     |                    |                             | Penetrometer<br>SPT Cathead |
| Det                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | veen soil and rock types: in-situ, the transition may be gradual.  ATER LEVEL OBSERVATIONS, ft                                                                        |                                                         |             |        | Т         | ROP           | ING ST                                | ΓΔΡΤ                |                    | ,,vi⊏ 140∏                  | 3-17-11                     |
| S WL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                       |                                                         |             |        | ŀ         |               | ING C                                 |                     |                    |                             | 3-17-11                     |
| WL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | A MD A JELL                                                                                                                                                           | 3                                                       |             | 7      | 7         | RIG           |                                       | ATV 5               |                    | OREMA                       |                             |
| ğ WL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                       |                                                         |             |        |           | APP           | ROVE                                  | ) M                 | ITE J              | OB#                         | 57115005                    |

|             | LOG OF BOF                                                                                                                         | RING                                                                   | NC          | ). S   | 5-1  |               |                        |                     |                    | Pa                          | ge 1 of 1 |
|-------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------|--------|------|---------------|------------------------|---------------------|--------------------|-----------------------------|-----------|
| CLI         | ENT<br>Bluegrass Cellular                                                                                                          |                                                                        |             |        |      |               |                        |                     |                    |                             | 1         |
| SIT         | E                                                                                                                                  | PROJECT 240' Self Support Tower Johnson Crossroads Site  SAMPLES TESTS |             |        |      |               |                        |                     |                    |                             |           |
|             | Clarkson, Kentucky                                                                                                                 |                                                                        | ····        |        |      | /PLES         |                        | 03310               |                    |                             |           |
| GRAPHIC LOG | DESCRIPTION                                                                                                                        | DEPTH, ft.                                                             | USCS SYMBOL | NUMBER | ТҮРЕ | RECOVERY, in. | SPT - N<br>BLOWS / ft. | WATER<br>CONTENT, % | DRY UNIT WT<br>pcf | UNCONFINED<br>STRENGTH, psf |           |
|             | OVERBURDEN, NO SAMPLES COLLECTED  31  Auger refusal at 31 feet                                                                     | 5                                                                      |             | Z      |      | ~             | <b>ω</b> m             |                     | Δ Δ                | D Ø                         |           |
| The be      | e stratification lines represent the approximate boundary lines tween soil and rock types: in-situ, the transition may be gradual. | 1                                                                      |             |        |      |               |                        |                     |                    |                             |           |
| <u> </u>    | ATER LEVEL OBSERVATIONS, ft                                                                                                        |                                                                        |             |        |      | BOF           | RING S                 | TART                | ED                 |                             | 3-17-11   |
| g W         | L                                                                                                                                  |                                                                        |             |        | n    |               | RING C                 |                     |                    |                             | 3-17-11   |
| 1 147       |                                                                                                                                    |                                                                        |             |        |      | RIG           |                        | ΔT\/                | 550 5              | OREMA                       | WW NA     |

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|                                                              | LOG OF BOR                                                                                     | RING       | NC                                      | ). S   | <b>5-2</b> |               |                        |                     |             | Pa                          | age 1 of 1 |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------|-----------------------------------------|--------|------------|---------------|------------------------|---------------------|-------------|-----------------------------|------------|
| CLI                                                          | ENT<br>Bluegrass Cellular                                                                      |            |                                         |        |            |               |                        |                     |             |                             |            |
| SIT                                                          | ······································                                                         | PRO        | JEC                                     | Γ      | ,          | 240'<br>John  | Self S<br>son C        | uppo                | rt Tow      | ver<br>Site                 |            |
|                                                              | Clarkson, Rentucky                                                                             |            |                                         |        |            | /PLES         |                        |                     |             | TESTS                       |            |
| GRAPHIC LOG                                                  | DESCRIPTION                                                                                    | DЕРТН, ft. | USCS SYMBOL                             | NUMBER | ТУРЕ       | RECOVERY, in. | SPT - N<br>BLOWS / ft. | WATER<br>CONTENT, % | DRY UNIT WT | UNCONFINED<br>STRENGTH, psf |            |
| BOREHOLE 99 57115005 BORING LOGS.GPJ TERRACON.GDT 3/31/11 GI | OVERBURDEN, NO SAMPLES COLLECTED  31  Auger refusal at 31 feet                                 | 10         |                                         |        |            |               |                        |                     |             |                             |            |
| Th                                                           | e stratification lines represent the approximate boundary lines                                |            | *************                           |        |            |               |                        |                     |             |                             |            |
| 11500E                                                       | ween soil and rock types: in-situ, the transition may be gradual.  ATER LEVEL OBSERVATIONS, ft |            | *************************************** |        |            | ВО            | RING S                 | TART                | ED          |                             | 3-17-11    |
| 99 57<br>A                                                   | ATER LEVEL OBSERVATIONS, II                                                                    |            |                                         |        |            | во            | RING C                 | OMP                 | LETE        | )                           | 3-17-11    |
| ₩<br>W                                                       |                                                                                                |            |                                         |        |            | RIG           | ;                      | ATV                 |             | FOREM                       |            |
| W SORE                                                       |                                                                                                |            |                                         |        |            | API           | PROVE                  | D I                 | MTE .       | JOB#                        | 57115005   |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LOG OF BOR                                                                                                                                                                                                                                            | RING       | NC          | ). S   | <b>5-3</b> |                |                        |                     |                 | Pa                          | ge 1 of 1 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--------|------------|----------------|------------------------|---------------------|-----------------|-----------------------------|-----------|
| CLI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ENT<br>Bluegrass Cellular                                                                                                                                                                                                                             |            |             |        |            |                |                        |                     |                 |                             |           |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SITE PROJECT 240' Self Support Tower  Clarkson Kentucky Johnson Crossroads Site                                                                                                                                                                       |            |             |        |            |                |                        |                     |                 |                             |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Clarkson, Kentucky                                                                                                                                                                                                                                    |            |             |        |            | John:<br>JPLES |                        | rossr               | oads S          | Site<br>TESTS               |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                       |            |             |        |            | .,             |                        |                     |                 |                             |           |
| GRAPHIC LOG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DESCRIPTION                                                                                                                                                                                                                                           | DEPTH, ft. | USCS SYMBOL | NUMBER | ТҮРЕ       | RECOVERY, in.  | SPT - N<br>BLOWS / ft. | WATER<br>CONTENT, % | DRY UNIT WT pcf | UNCONFINED<br>STRENGTH, psf |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | OVERBURDEN, NO SAMPLES COLLECTED                                                                                                                                                                                                                      |            |             |        |            |                |                        |                     |                 |                             |           |
| BOREHOLE 99 57115005 BORING LOGS.GPJ JSJ771 PRACHONICED JSJ771 PRACHOLICED JSJ771 PRACHOL | Auger refusal at 31 feet, began coring  32.5  SHALE, argillaceous, moderately severe weathering, dark gray, medium hard, very thin to thin bedded  SANDSTONE, slight weathering, dark gray, hard, thin to medium bedded  Coring terminated at 36 feet | 10         | 7           | R-11   | DB         | 93%            | RQD<br>78%             |                     |                 | 515<br>psi                  |           |
| The Set                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | e stratification lines represent the approximate boundary lines ween soil and rock types: in-situ, the transition may be gradual.                                                                                                                     |            |             |        |            |                |                        |                     |                 |                             |           |
| W.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ATER LEVEL OBSERVATIONS, ft                                                                                                                                                                                                                           |            |             |        |            | BOF            | RING S                 | TART                | ED              |                             | 3-17-11   |
| g WL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                       | _          |             |        |            |                | RING C                 | OMPL                |                 |                             | 3-17-11   |
| ₩I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SUE WD T                                                                                                                                                                                                                                              |            |             |        |            | RIG            |                        | ATV                 |                 | FOREMA                      |           |
| WI WI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                       |            |             |        |            | APF            | ROVE                   | D N                 | MTE .           | JOB#                        | 57115005  |

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### **Field Exploration Description**

The boring was drilled at the center of the lease area as staked in the field by the owner's representative. The tower center and tower legs were located in the field by a Landmark Surveying Co., Inc. The approximate boring location is shown on the enclosed boring location plan. The surface elevation shown on boring log B-1 was provided by Landmark Surveying Co., Inc.

Drilling was performed using a ATV mounted rotary drill rig. Hollow stem augers were initially used to advance the borehole. A soil sample was initially obtained by the split-barrel sampling procedure. In the split-barrel sampling procedure, the number of blows required to advance a standard 2-inch O.D. split-barrel sampler the last 12 inches of the typical total 18-inch penetration by means of a 140-pound hammer with a free fall of 30 inches, is the standard penetration resistance value (N). This value is used to estimate the in-situ relative density of cohesionless soils and the consistency of cohesive soils. The sampling depths and penetration distance, plus the standard penetration resistance values, are shown on the boring log. The samples were sealed and returned to the laboratory for testing and classification.

Auger refusal was encountered at a depth of about 15 feet in boring B-1 and 31 feet in sounding S-3. Below these depths, the borings were advanced into the refusal materials using a diamond bit attached to the outer barrel of a double core barrel. The inner barrel collected the cored material as the outer barrel was rotated at high speeds to cut the rock. The barrel was retrieved to the surface upon completion of each drill run. Once the core samples were retrieved, they were placed in a box and logged. The rock was later classified by an engineer and the "percent recovery" and rock quality designation (RQD) were determined.

The "percent recovery" is the ratio of the sample length retrieved to the drilled length, expressed as a percent. An indication of the actual in-situ rock quality is provided by calculating the sample's RQD. The RQD is the percentage of the cumulative length of broken cores retrieved which have core segments at least 4 inches in length (discounting mechanical breaks) compared to each drilled length. The percent recovery and RQD are related to rock soundness and quality as illustrated below:

| Relation of RQD and In-situ Rock Quality |              |  |  |  |
|------------------------------------------|--------------|--|--|--|
| RQD (%)                                  | Rock Quality |  |  |  |
| 90 - 100                                 | Excellent    |  |  |  |
| 75 - 90                                  | Good         |  |  |  |
| 50 - 75                                  | Fair         |  |  |  |
| 25 - 50                                  | Poor         |  |  |  |
| 0 -25                                    | Very Poor    |  |  |  |

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A field log of each boring was prepared by the drill crew and includes visual classifications of the materials encountered during drilling as well as the driller's interpretation of the subsurface conditions between samples. The final boring logs included with this report represent an interpretation of the field logs and include modifications based on laboratory observation and tests of the samples.

The soil samples were classified in the laboratory based on visual observation, texture and plasticity. The descriptions of the soils indicated on boring log B-1 are in general accordance with the enclosed General Notes and the Unified Soil Classification System. Estimated group symbols according to the Unified Soil Classification System are given on the boring log. A brief description of this classification system is attached to this report.

Classification and descriptions of rock core samples are in general accordance with the enclosed General Notes, and are based on visual and tactile observations. Petrographic analysis of thin sections may indicate other rock types. Percent recovery and rock quality designation (RQD) were calculated for these samples and are noted at their depths of occurrence on the boring log.

### **Laboratory Testing**

The laboratory testing program consisted of performing water content tests and an Atterberg Limits test on representative soil samples. An unconfined compression test was performed on a rock core sample. Information from these tests was used in conjunction with field penetration test data to evaluate soil strength in-situ, volume change potential, and soil classification. Results of these tests are provided on the boring logs.

### **GENERAL NOTES**

### **DRILLING & SAMPLING SYMBOLS:**

| SS: | Split Spoon - 1-3/8" I.D., 2" O.D., unless otherwise noted | HS: | Hollow Stem Auger |
|-----|------------------------------------------------------------|-----|-------------------|
| ST: | Thin-Walled Tube - 2" O.D., unless otherwise noted         | PA: | Power Auger       |
| RS: | Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted | HA: | Hand Auger        |
| DB: | Diamond Bit Coring - 4", N, B                              | RB: | Rock Bit          |

BS: Bulk Sample or Auger Sample WB: Wash Boring or Mud Rotary

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value".

### WATER LEVEL MEASUREMENT SYMBOLS:

| WL:  | Water Level  | WS:  | While Sampling        | N/E: | Not Encountered |
|------|--------------|------|-----------------------|------|-----------------|
| WCI: | Wet Cave in  | WD:  | While Drilling        |      |                 |
| DCI: | Dry Cave in  | BCR: | Before Casing Removal |      |                 |
| AB:  | After Boring | ACR: | After Casing Removal  |      |                 |

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels may not be possible with only short-term observations.

**DESCRIPTIVE SOIL CLASSIFICATION:** Soil classification is based on the Unified Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

### **CONSISTENCY OF FINE-GRAINED SOILS**

### **RELATIVE DENSITY OF COARSE-GRAINED SOILS**

**GRAIN SIZE TERMINOLOGY** 

**PLASTICITY DESCRIPTION** 

| <u>Unconfined</u><br><u>Compressive</u><br><u>Strength, Qu, psf</u> | Penetration or N-value (SS) Blows/Ft. | Consistency  | Standard Penetration<br>or N-value (SS)<br>Blows/Ft. | Relative Density |
|---------------------------------------------------------------------|---------------------------------------|--------------|------------------------------------------------------|------------------|
| < 500                                                               | <2                                    | Very Soft    | 0 – 4                                                | Very Loose       |
| 500 - 1,000                                                         | 2-4                                   | Soft         | 5 – 10                                               | Loose            |
| 1,001 - 2,000                                                       | 5-8                                   | Medium Stiff | 11 – 30                                              | Medium Dense     |
| 2,001 4,000                                                         | 9-15                                  | Stiff        | 31 – 50                                              | Dense            |
| 4,001 - 8,000                                                       | 16-30                                 | Very Stiff   | 51+                                                  | Very Dense       |
| 8,000+                                                              | 31+                                   | Hard         |                                                      | •                |

### RELATIVE PROPORTIONS OF SAND AND GRAVEL

| Descriptive Term(s) of other constituents | <u>Percent of</u><br>Dry Weight | Major Component<br>of Sample | Particle Size                        |
|-------------------------------------------|---------------------------------|------------------------------|--------------------------------------|
| Trace                                     | < 15                            | Boulders                     | Over 12 in. (300mm)                  |
| With                                      | 15 – 29                         | Cobbles                      | 12 in. to 3 in. (300mm to 75 mm)     |
| Modifier                                  | > 30                            | Gravel                       | 3 in. to #4 sieve (75mm to 4.75 mm)  |
|                                           |                                 | Sand                         | #4 to #200 sieve (4.75mm to 0.075mm) |
| RELATIVE PROPORTIONS                      | OF FINES                        | Silt or Clay                 | Passing #200 Sieve (0.075mm)         |

| Descriptive Term(s) of other | Percent of |
|------------------------------|------------|
| constituents                 | Dry Weight |

| constituents | <u>Dry Weight</u> | <u>Term</u>    | Plasticity Index |
|--------------|-------------------|----------------|------------------|
| Trace        | < 5               | Non-plastic    | 0                |
| With         | 5 – 12            | Low            | 1-10             |
| Modifiers    | > 12              | Medium<br>High | 11-30<br>30+     |
|              |                   |                |                  |



### UNIFIED SOIL CLASSIFICATION SYSTEM

|                                         |                                                                                                                     | A                                          |                                         |                                         | Soil Classification |                               |  |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------|-----------------------------------------|---------------------|-------------------------------|--|
| Criteria for Assign                     | Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests A                                       |                                            |                                         |                                         |                     | Group Name <sup>B</sup>       |  |
|                                         | Gravels:                                                                                                            | s: Clean Gravels: $Cu \ge 4$ and $1 \le 0$ |                                         |                                         | GW                  | Well-graded gravel F          |  |
|                                         | More than 50% of                                                                                                    | Less than 5% fines c                       | Cu < 4 and/or 1 > Cc > 3 <sup>E</sup>   |                                         | GP                  | Poorly graded gravel F        |  |
|                                         | coarse Gravels with Fines: Fines classify as ML or MH                                                               | Н                                          | GM                                      | Silty gravel F,G. H                     |                     |                               |  |
| Coarse Grained Soils:                   | fraction retained on No. 4 sieve                                                                                    | More than 12% fines c                      | Fines classify as CL or CH              | 1                                       | GC                  | Clayey gravel F.G.H           |  |
| More than 50% retained on No. 200 sieve | Sands:                                                                                                              | Clean Sands:                               | Cu ≥ 6 and 1 ≤ Cc ≤ 3 <sup>E</sup>      | 100000000000000000000000000000000000000 | SW                  | Well-graded sand <sup>I</sup> |  |
| 011 NO. 200 SIGVC                       | 50% or more of coarse                                                                                               | Less than 5% fines D                       | Cu < 6 and/or 1 > Cc > 3 <sup>E</sup>   |                                         | SP                  | Poorly graded sand I          |  |
|                                         | fraction passes                                                                                                     | Carras William I Micon                     | Fines classify as ML or MH              |                                         | SM                  | Silty sand <sup>G,H,I</sup>   |  |
|                                         | No. 4 sieve                                                                                                         |                                            | Н                                       | SC                                      | Clayey sand G,H.I   |                               |  |
|                                         | Silts and Clays: Liquid limit less than 50  Inorganic:  PI < 4 or plots below "A" line J  Liquid limit - oven dried | Increanic                                  | PI > 7 and plots on or above "A" line J |                                         | CL                  | Lean clay K.L.M               |  |
|                                         |                                                                                                                     | ne <sup>J</sup>                            | ML                                      | Silt <sup>K,L,M</sup>                   |                     |                               |  |
|                                         |                                                                                                                     | Liquid limit - oven dried                  | < 0.75 OL                               | Organic clay K,L,M,N                    |                     |                               |  |
| Fine-Grained Soils:                     |                                                                                                                     | Organic:                                   | Liquid limit - not dried                | < 0.75                                  | OL                  | Organic silt K.L.M.O          |  |
| 50% or more passes the No. 200 sieve    |                                                                                                                     | la caració:                                | PI plots on or above "A" line           |                                         | CH                  | Fat clay K,L,M                |  |
| 140. 200 01040                          |                                                                                                                     | PI plots below "A" line                    |                                         | MH                                      | Elastic Silt K.L.M  |                               |  |
|                                         | Liquid limit 50 or more                                                                                             |                                            | Liquid limit - oven dried               | - 0.75                                  | OH                  | Organic clay K,L.M.P          |  |
|                                         |                                                                                                                     | Organic:                                   | Liquid limit - not dried < 0.75         |                                         | OH                  | Organic silt K.L.M.Q          |  |
| Highly organic soils:                   | Primaril                                                                                                            | y organic matter, dark in o                | color, and organic odor                 |                                         | PT                  | Peat                          |  |

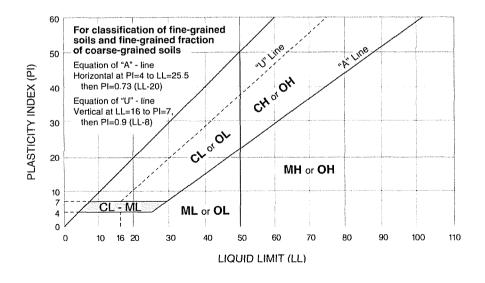
- A Based on the material passing the 3-in. (75-mm) sieve
- <sup>B</sup> If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
- <sup>c</sup> Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt. GP-GC poorly graded gravel with clay.
- graded gravel with silt, GP-GC poorly graded gravel with clay.

  Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

<sup>E</sup> 
$$Cu = D_{60}/D_{10}$$
  $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ 

- <sup>F</sup> If soil contains ≥ 15% sand, add "with sand" to group name.
- <sup>G</sup> If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

- <sup>H</sup> If fines are organic, add "with organic fines" to group name.
- <sup>1</sup> If soil contains ≥ 15% gravel, add "with gravel" to group name.
- J If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.
- K If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
- L If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.
- M If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
- N Pl ≥ 4 and plots on or above "A" line.
- O PI < 4 or plots below "A" line.
- P PI plots on or above "A" line.
- <sup>Q</sup> PI plots below "A" line.



## **GENERAL NOTES**

## **Description of Rock Properties**

## **WEATHERING**

Fresh Rock fresh, crystals bright, few joints may show slight staining. Rock rings under hammer if crystalline.

Very slight Rock generally fresh, joints stained, some joints may show thin clay coatings, crystals in broken face show

bright. Rock rings under hammer if crystalline.

Slight Rock generally fresh, joints stained, and discoloration extends into rock up to 1 in. Joints may contain clay. In

granitoid rocks some occasional feldspar crystals are dull and discolored. Crystalline rocks ring under hammer.

Moderate Significant portions of rock show discoloration and weathering effects. In granitoid rocks, most feldspars are dull

and discolored; some show clayey. Rock has dull sound under hammer and shows significant loss of strength as

compared with fresh rock.

Moderately severe All rock except quartz discolored or stained. In granitoid rocks, all feldspars dull and discolored and majority

show kaolinization. Rock shows severe loss of strength and can be excavated with geologist's pick.

Severe All rock except quartz discolored or stained. Rock "fabric" clear and evident, but reduced in strength to strong

soil. In granitoid rocks, all feldspars kaolinized to some extent. Some fragments of strong rock usually left.

Very severe All rock except quartz discolored or stained. Rock "fabric" discernible, but mass effectively reduced to "soil" with

only fragments of strong rock remaining.

Complete Rock reduced to "soil". Rock "fabric" not discernible or discernible only in small, scattered locations. Quartz may

be present as dikes or stringers.

## HARDNESS (for engineering description of rock - not to be confused with Moh's scale for minerals)

Very hard Cannot be scratched with knife or sharp pick. Breaking of hand specimens requires several hard blows of

geologist's pick.

Hard Can be scratched with knife or pick only with difficulty. Hard blow of hammer required to detach hand specimen.

Moderately hard Can be scratched with knife or pick. Gouges or grooves to ¼ in. deep can be excavated by hard blow of point of

a geologist's pick. Hand specimens can be detached by moderate blow.

Medium Can be grooved or gouged 1/16 in. deep by firm pressure on knife or pick point. Can be excavated in small chips

to pieces about 1-in. maximum size by hard blows of the point of a geologist's pick.

Soft Can be gouged or grooved readily with knife or pick point. Can be excavated in chips to pieces several inches in

size by moderate blows of a pick point. Small thin pieces can be broken by finger pressure.

Very soft Can be carved with knife. Can be excavated readily with point of pick. Pieces 1-in. or more in thickness can be

broken with finger pressure. Can be scratched readily by fingernail.

| Joint, Bedding, and Foliation Spacing in Rock <sup>a</sup> |                  |                   |  |  |  |
|------------------------------------------------------------|------------------|-------------------|--|--|--|
| Spacing                                                    | Joints           | Bedding/Foliation |  |  |  |
| Less than 2 in.                                            | Very close       | Very thin         |  |  |  |
| 2 in. – 1 ft.                                              | Close            | Thin              |  |  |  |
| 1 ft. – 3 ft.                                              | Moderately close | Medium            |  |  |  |
| 3 ft. – 10 ft.                                             | Wide             | Thick             |  |  |  |
| More than 10 ft.                                           | Very wide        | Very thick        |  |  |  |

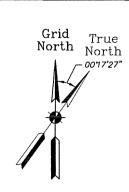
a Spacing refers to the distance normal to the planes, of the described feature, which are parallel to each other or nearly so.

| Rock Quality Designator (RQD) <sup>a</sup> |                        | Joint Openness Descriptors |                 |  |
|--------------------------------------------|------------------------|----------------------------|-----------------|--|
| RQD, as a percentage                       | Diagnostic description | Openness                   | Descriptor      |  |
| Exceeding 90                               | Excellent              | No Visible Separation      | Tight           |  |
| 90 – 75                                    | Good                   | Less than 1/32 in.         | Slightly Open   |  |
| 75 <b>–</b> 50                             | Fair                   | 1/32 to 1/8 in.            | Moderately Open |  |
| 50 <b>–</b> 25                             | Poor                   | 1/8 to 3/8 in.             | Open            |  |
| Less than 25                               | Very poor              | 3/8 in. to 0.1 ft.         | Moderately Wide |  |
|                                            |                        | Greater than 0.1 ft.       | Wide            |  |

a. RQD (given as a percentage) = length of core in pieces 4 in. and longer/length of run.

References: American Society of Civil Engineers. Manuals and Reports on Engineering Practice - No. 56. <u>Subsurface Investigation for Design and Construction of Foundations of Buildings.</u> New York: American Society of Civil Engineers, 1976.

U.S. Department of the Interior, Bureau of Reclamation, Engineering Geology Field Manual



## Basis of Bearings

The bearing system of this survey is based upon G.P.S. observations made on February 23, 2011 using the National Geodetic Survey monument "FBM CANNON" and the Kentucky State Plane Coordinate System, South Zone, NAD 83 (2007). This system is grid north.

## Tower Location Information

Designation: Johnson Crossroads
Site 10#: None
Horizontal Datum: NAD 83 (2007)
Latitude: 3725/27.05\* North
Longitude: 8613/45.74\* West
Vertical Datum: NAVD 88
Ground Elevation: 826.1 feet (251.80 m)
State Piane Coordinates
Northing: 2,037,935.65 feet (621,164.028 m)
Easting: 1,501,133.51 feet (457,546.409 m)

## Landowner Information

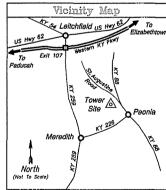
Landowner: Clyde and Dinah Haycraft 5235 People Road Clarkson, Kentucky 42726 Contact Person: Clyde Haycraft Phone: 270-242-9634 Cell: 270-259-7563 PVA Map No. 103-00-00-012

## ◆ Project Bench Mark ◆

Northina: 2.037.908 feet (621.156 m) Easting: 1,501,204 feet (457,568 m) 819.57 feet (249.805 m) Description: A railroad spike set in the west side of a 12" hickory, 9" above grade. The benchmark is 76 feet southeast of the center of the tower

## Flood Plain Statement

subject site lies with "Other Areas—Zone X' which are areas determined to be outside



## Directions to Site

From Elizabethtown, Kentucky, travel southwest on the Western Kentucky Parkway for about 30 miles to Exit 107 and Kentucky Highway 259 near Leitchfield; turn left onto Kentucky Highway 259 and travel south for 6.1 miles to Kentucky Highway 226 and travel east for 1.3 miles to Kentucky Highway 286 and travel east for 1.3 miles to Kentucky Highway 88 and travel north for 0.8 miles to St. Augustine Road; turn left onto Kentucky Highway 88 and travel north for 0.8 miles to St. Augustine Road and travel west for 250 feet to the tower access line on the left or south side of the road; turn left onto the lane and travel southwest for 600 feet to the tower site on a wooded ridge in feet to the tower site on a wooded ridge

# Site: Johnson Crossroads Lease Boundary and Topographic Survey Grayson County, Kentucky

## Proposed Self-Support Tower

Lat. = 37'25'27.05" North (NAD 1983) Lon. = 8673'46.74" West (NAD 1983) Ground Elev. = 826.1 feet or 251.80 m (NAVD 1988)

20.00'(c)

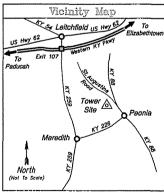
Surveyor's Notes

## Lease Tract 0.230 Acres or 10,000 Sq.Ft.

No Zoning in Grayson County

Clyde Haycraft and Dinah Haycraft Deed Book 234, Page 511

According to the Flood Insurance Rate Map for the Unincorporated Areas of Grayson County, Kentucky, Community Panel No. 210330 0200 B, dated February 15, 1991 ti the 500-year flood plain.



# This survey is subject to a statement of facts which may be disclosed by an Abstract of Title or a Title Commitment Policy. This documentation was not provided by the client.

2. No search of public records has been performed by this firm to determine any defects and/or ambiguities in the title of the parent tract.

3. The utilities shown on this plat may or may not represent all of the utilities located on the subject site. The presence of utilities was determined by a visual inspection of the property surface. No utility locate was called in prior to this survey. It shall be the responsibility of the contractor to locate utilities prior to construction.

/20.00'(c)

P.O.B. of Lease Tract

and Easement

P.O.C. of Lease Tract

The west corner of the 10.09-acre Ine west comer or the 10.09—acre tract described in deed to Kenny Meredith and Phyllie Meredith on May 10, 1993 in Deed Book 234, Page 591A in the office of the County Clerk of Grayson County, Kentucky.

5. According to Gary Logsdon, County Judge Executive of the Grayson County, no local planning unit exists which has geographical jurisdiction of the subject tower site. The County Judge Executive's Office may be contacted at (270) 259—3159 for confirmation.

6. The proposed location of the Johnson Crossroads cell site will be located outside of an incorporated city.

# 5 /R" Rehar Set Flush With A Survey

- 5/8" Rebar Set Flush No Cap
- Survey Cap Inscribed "Survey Point Do Not Disturb RLS 1894\*
- Found or Set

# Cap Inscribed "D.L. Helms PLS 3386

Clyde Haycraft and Dinah Haycraft Deed Book 234, Page 511

(Posture)

Reduced

Copy

B Utility Pole Steel T-Bar Found Exposed 6" With

Subject Boundaries - Subject Easement Boundaries

Property Line ---- Right of Way

Guy Anchor Telephone Pedesto Utility As Noted

(m) Measured Recorded (1)

(c) Calculated (s) Set

# Lease Boundary and Easement Description

St. Augustine Road

A tract of land that is located about 800 feet southwest of the intersection of kentucky Highway 88 and St. Augustine Road in the Peonia Community of Grayson County, Kentucky, said tract being described as follows:

described as toliows:

COMMENCING AT a steel t-bar found exposed 6 Inches with a survey cap inscribed "Survey Point Do Not Disturb RLS 1894", which marks the west comer of the 10.09-acre tract described in deed to Kenny Meredith and Phyllis Meredith on May 10, 1993 in Deed Book 234, page 5914 in the office of the County Clerk of Grayson County, Kentucky, thence North 21 degrees 05 minutes 34 seconds West 854.52 feet to a 5/8-inch rebar set flush with a survey cap inscribed "D.L. Helms PLS 3386" (referred to as a rebar in the remainder of this description) at the POINT OF BEGINNING of this description: thence South 58 degrees 15 minutes 27 seconds West 100.00 feet to a rebar set flush; thence North 31 degrees 44 minutes 33 seconds West 100.00 feet to a rebar set flush; thence North 58 degrees 15 minutes 27 seconds East 100.00 feet to a rebar set flush; thence North 58 degrees 15 minutes 27 seconds East 100.00 feet to a rebar set flush; thence South 31 degrees 44 minutes 33 seconds East 100.00 feet to the point of beginning and containing 0.230 acres (10,000 square feet), more or less.

TOGETHER WITH an access and utility easement from the above-described 0.230-acre lease tract to St. Augustine Road; said easement being described as follows: BEGINNING AT a 5/8-inch rebar set flush with a survey cap inscribed D.L. Helms PLS 3386° at the east comer of the above-described 0.230-acre lease tract; thence North 31 degrees 44 minutes 33 seconds West 100.00 feet to a North 31 degrees 44 minutes 33 seconds West 100.00 feet to a 5/8-inch rebar set flush with said Helms survey cap at the north comer of the above-described 0.230-acre lease tract; thence North 58 degrees 15 minutes 27 seconds East 39.97 feet; thence North 53 degrees 32 minutes 23 seconds East 39.97 feet; thence North 53 degrees 32 minutes 24 seconds East 578.82 feet to the southwestern right of way of 5t. Augustine Road (25 feet from the centerline); thence, along said southwestern right of way, South 59 degrees 37 minutes 49 seconds East 21.75 feet; thence South 53 degrees 32 minutes 24 seconds West 589.03 feet; thence South 51 degrees 44 minutes 33 seconds East 39.97 feet; thence South 51 degrees 15 minutes 27 seconds West 20.00 feet to the point of beginning.

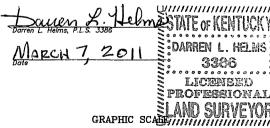
The bearing system of these descriptions is based upon the Kentucky State Plane Coordinate System, South Zone, NAD 83 (2007), as determined by G.P.S. observations made on February 23, 2011 using the National Geodetic Survey monument "FBN CANNON:

These descriptions are based upon a survey completed by Landmark Surveying Co., Inc. and certified by Darren L. Helms, P.L.S. 3386, on March 7, 2011. Sald survey is hereby referenced and made a part of

SOURCE OF TITLE: Being a portion of and lying entirely within the land described in deed to Clyde Haycraft and Dinah Haycraft on April 28, 1993 in Deed Book 234, page 511 in the office of the County Clerk

## Surveyor's Certification

I hereby certify that this plat has been compiled from a survey actually made upon the ground under my direct supervision on February 23, 2011 by the method of random traverse with sideshots. The unadjusted precision ratio of the traverse was 1:148,500 and it was not adjusted. This survey is a Class B survey and the accuracy and pracision of this survey meets all the specifications of this class.



( IN FEET ) 1 inch = 30 ft

Contour Interval = 1-foot

legrass Elizabeth town, Ring Blu 2902 REVISIONS DATE

Road

Augustine

St.

2601

Boul

ellulai

Kentucky

Clark

42701

Kentucky

Road

SHEET NO.

OF 1 SHEETS

FILE NO. iohnson.dwa



| APPROVAL SIGNATURES                       |  |
|-------------------------------------------|--|
| BLUEGRASS CELLULAR<br>PROJECT SUPERVISOR: |  |
| DATE:                                     |  |
| CITY REPRESENTATIVE:                      |  |
| TITLE:                                    |  |
| <u>DATE:</u>                              |  |
| PROPERTY OWNER/OWNERS: .                  |  |
| <u>-</u>                                  |  |
| DATE:                                     |  |
| TOWER OWNER/OWNERS:                       |  |
|                                           |  |
| DATE:                                     |  |

SITE NAME: JOHNSON CROSSROADS

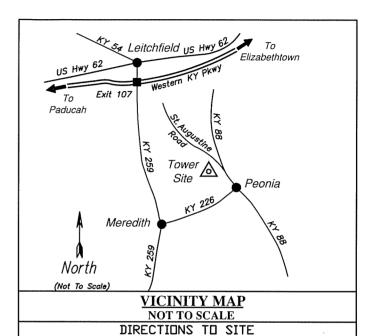
911 ADDRESS: 2601 ST. AUGUSTINE RD. CLARKSON, KY. 42726

COUNTY: GRAYSON

TOWER LATITUDE & LONGITUDE

N37\* 25' 27.05" W86\* 13' 14.74"

| TITLE SHEET SURVEY A-1 A-2 ANTENNA DETAILS 1 ANTENNA DETAILS 2 E-1 E-2 | TITLE SHEET SURVEY SITE PLAN FENCE DETAILS ANT.SPECS/TOWER ELEV. ANTENNA DETAILS 2 SITE PLAN - ELECTRICAL |  |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|
| A-1<br>A-2<br>ANTENNA DETAILS 1<br>ANTENNA DETAILS 2<br>E-1            | SITE PLAN FENCE DETAILS ANT.SPECS/TOWER ELEV. ANTENNA DETAILS 2                                           |  |
| A-2<br>ANTENNA DETAILS 1<br>ANTENNA DETAILS 2<br>E-1                   | FENCE DETAILS ANT.SPECS/TOWER ELEV. ANTENNA DETAILS 2                                                     |  |
| ANTENNA DETAILS 1<br>ANTENNA DETAILS 2<br>E-1                          | ANT.SPECS/TOWER ELEV. ANTENNA DETAILS 2                                                                   |  |
| ANTENNA DETAILS 2<br>E-1                                               | ANTENNA DETAILS 2                                                                                         |  |
| E-1                                                                    |                                                                                                           |  |
|                                                                        | SITE PLAN - ELECTRICAL                                                                                    |  |
| E-2                                                                    |                                                                                                           |  |
|                                                                        | ELECTRICAL DETAILS                                                                                        |  |
| LYNCOLE                                                                | LYNCOLE GROUNDING                                                                                         |  |
| E-3                                                                    | ELEC. PLAN - GROUNDING                                                                                    |  |
| E-4                                                                    | GROUNDING DETAILS                                                                                         |  |
| S-1                                                                    | FOUNDATION DETAILS                                                                                        |  |
| GENERATOR DETAIL                                                       | GENERATOR DETAIL                                                                                          |  |
| GENERAL NOTES                                                          | GENERAL NOTES                                                                                             |  |
|                                                                        |                                                                                                           |  |
|                                                                        |                                                                                                           |  |
|                                                                        |                                                                                                           |  |
|                                                                        |                                                                                                           |  |
|                                                                        |                                                                                                           |  |
|                                                                        |                                                                                                           |  |
|                                                                        |                                                                                                           |  |



From Elizabethtown, Kentucky: travel southwest on the Western Kentucky Parkway for about 30 miles to Exit 107 and Kentucky Highway 259 near Leitchfield; turn left onto Kentucky Highway 259 and travel south for 6.1 miles to Kentucky Highway 226 at Meredith; turn left onto Kentucky Highway 226 and travel east for 1.3 miles to Kentucky Highway 88 at Peonia; turn left onto Kentucky Highway 88 and travel north for 0.8 miles to St. Augustine Road; turn left onto St. Augustine Road and travel west for 250 feet to the tower access lane on the left or south side of the road; turn left onto the lane and travel southwest for 600 feet to the tower site on a wooded ridge in a pasture.

# PROPERTY OWNER: Clyde & Dinah Haycraft 5235 Peonia Rd. (270) 242–9634 259–7563 TOWER OWNER: BLUEGRASS CELLULAR (270) 769–0339 POWER COMPANY: WARREN RECC (270) 842–6541 TELEPHONE COMPANY: WINDSTREAM (800) 347–1991 BLUEGRASS PROJECT SUPERVISOR: JEFF BREWER (270) 734–3436

ROBIN BECKER (502)231-3656 OFFICE/FAX



## Basis of Bearings

The bearing system of this survey is based upon G.P.S. observations made on February 23, 2011 using the National Geodetic Survey manument "FBN CANNON" and the Kentucky State Plane Coordinate System, South Zone, NAD 83 (2007). This system is grid north.

## Tower Location Information

Designation: Johnson Crossroads
Site ID# None
Horizontal Datum: NAD 83 (2007)
Latitude: 37725'27.05" North
Longitude: 86'13'46.74" West
Vertical Datum: NAVD 88
Ground Elevation: 826.1 feet (251.80 m)
State Plane Coordinates Northing: 2,037,935.65 feet (621,164.028 m) Easting: 1,501,133.51 feet (457,546.409 m)

## Landowner Information

Landowner: Clyde and Dinah Haycraft 5235 Peonla Road

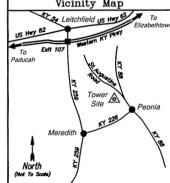
Contact Person: Clyde Haycraft PVA Map No. 103-00-00-012

## Project Bench Mark

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## Flood Plain Statement

According to the Flood Insurance Rate Map for the Unincorporated Areas of Grayson County, Kentucky, Community Panel No. 210330 0200 B, dated February 15, 1991 th subject site lies with "Other Areas—Zone X" which are areas determined to be outside the 500—year flood plain.



## Directions to Site

From Elizabethtown, Kentucky: travel southwest on the Western Kentucky Parkway for about 30 miles to Exit 107 and Kentucky Highway 259 near Leitchfield; turn left onto Kentucky Highway 259 and travel south for 6.1 miles to Kentucky Highway 226 and keredith; turn left onto Kentucky Highway 88 and Peonia; turn left onto Kentucky Highway 88 and travel north for 0.8 miles to St. Augustine Road; turn left onto St. Augustine Road and travel west for 250 feet to the tower access lane on the left or south side of the road; turn left onto the lane and travel southwest for 600 feet to the tower site on a wooded ridge in a pasture.

# **Site: Johnson Crossroads** Lease Boundary and Topographic Survey **Grayson County, Kentucky**

Clyde Haycraft and Dinah Haycrat Deed Book 234, Page 511

Proposed Self-Support Tower Lat. = 37'25'27.05" North (NAD 1983) Lan. = 86'13'48.74" West (NAD 1983) Ground Elex. = 826.1 feet or 251.80 m (NAVD 1988)

20.00'(c)

Surveyor's Notes

Lease Tract 0.230 Acres or 10,000 Sq.Ft. No Zoning in Grayson County

True North Point From

Clyde Haycraft and Dinah Haycraft Deed Book 234, Page 511

Vicinity Map

# This survey is subject to a statement of facts which may be disclosed by an Abstract of Title or a Title Commitment Policy. This documentation was not provided by the client.

- No search of public records has been performed by this firm to determine any defects and/or ambiguitles in the title of the parent tract.
- 3. The utilities shown on this plot may or may not represent all of the utilities located on the subject site. The presence of utilities was determined by a visual inspection of the property surface. No utility locate was called in prior to this survey. It shall be the responsibility of the contractor to locate utilities prior to construction.
- The topographic information contained on this plat was as requested by the client and may or may not represent all of the topographic features located on the subject property.

P.O.B. of Lease Tract

and Easement

P.O.C. of Lease Tract

The west corner of the 10.09-ocre tract described in deed to Kenny Meredith and Phyllis Meredith on May 10, 1993 in Deed Book 234, Page 591A in the office of the County Clerk of Grayeon County, Kentucky.

- 5. According to Gary Logsdon, County Judge Executive of the Grayson County, no local planning unit exists which has geographical jurisdiction of the subject tower site. The County Judge Executive's Office may be contacted at (270) 259-3159 for confirm
- 6. The proposed location of the Johnson Crossroads cell site will be located outside of an incorporated city.
- 5/8" Rebar Set Flush With A Survey Can Inscribed "D.L. Helms PLS 3386 5/8" Rebar Set Flush - No Cap
- Steel T-Bar Found Exposed 6" With A Survey Cap Inscribed "Survey Point Do Not Disturb RLS 1894"

Legend

Calculated Position - No Monumen Found or Set

Subject Boundaries ----- Subject Easement Boundaries ---- Property Line ----- Right of Way

Utility Pole Guy Anchor Telephone Pedesto Utility As Noted

Measured

Calculated

Lease Boundary and Easement Description

Clyde Haycraft and Dinah Hayc Deed Book 234, Page 511

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The bearing system of these descriptions is based upon the Kentucky State Plane Coordinate System, South Zone, NAD 83 (2007), as determined by G.P.S. observations made on February 23, 2011 using the National Geodetic Sur

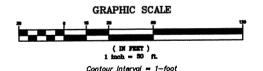
These descriptions are based upon a survey completed by Landmark Surveying Co., Inc. and certified by Darren L. Helms, P.L.S. 3386, on March 7, 2011. Said survey is hereby referenced and made a part of these descriptions.

SOURCE OF TITLE: Being a portion of and lying entirely within the land described in deed to Clyde Haycraft and Dinah Haycraft on April 28, 1993 in Deed Book 234, page 511 in the office of the County Clerk of Grayson County, Kentucky.

## Surveyor's Certification

I hereby certify that this plat has been compiled from a survey actually made upon the ground under my direct supervision on February 23, 2011 by the method of random traverse with sideshots. The unadjusted precision ratio of the traverse was 1:148,500 and it was not adjusted. This survey is a Class B survey and the accuracy and precision of this survey meets all the specifications of this class.

Darren L. Helms, P.L.S. 3386



Clarkson, St. Lease 2601 ellular 42701 Kentucky Bluegrass Road Elizabethtown, Ring 2902

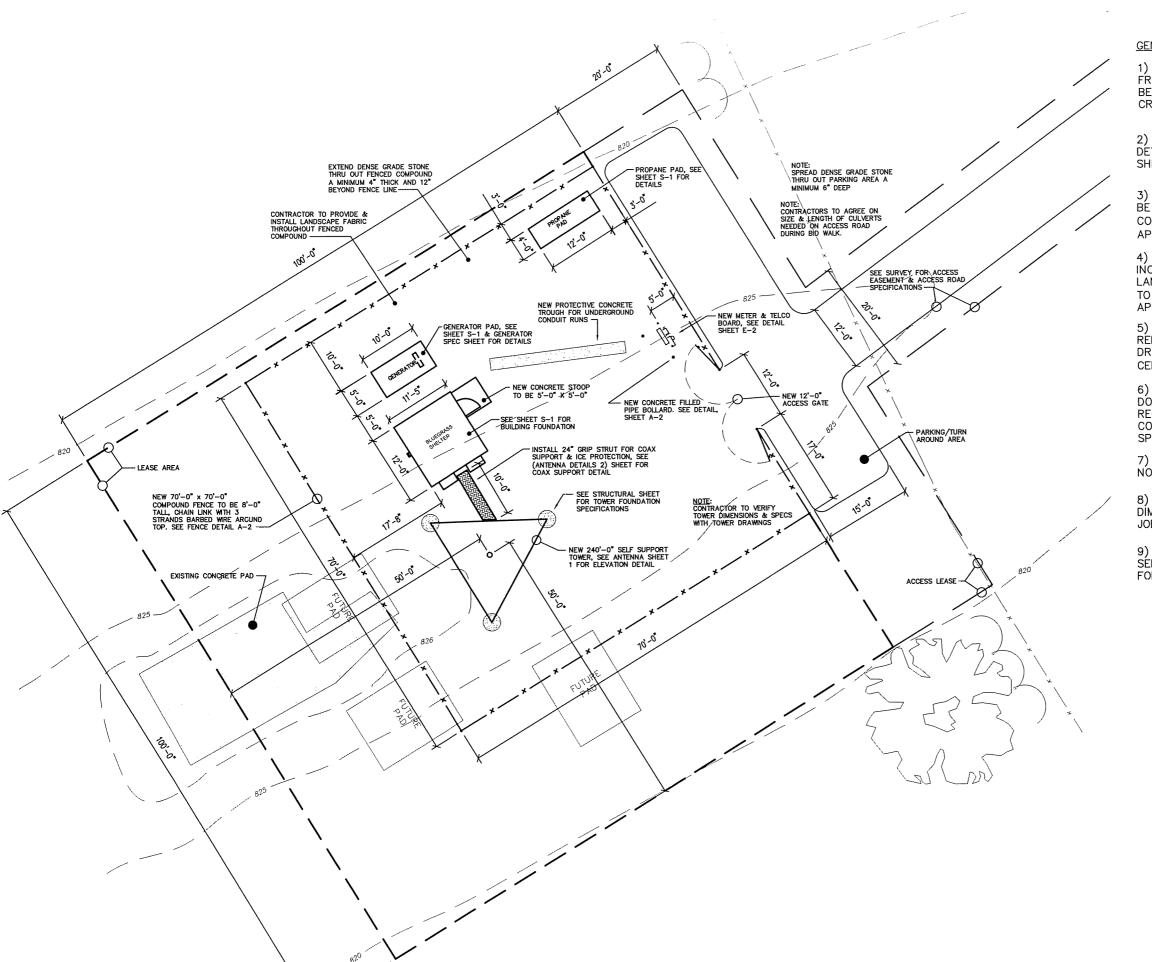
(<del>1</del> Road Augustine Boundary

42,

REVISIONS DATE

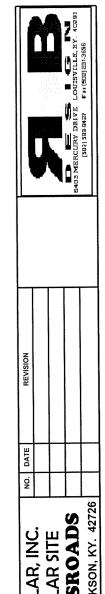
SHEET NO.

OF 1 SHEETS FILE NO.



## **GENERAL NOTES:**

- 1) EQUIPMENT PICK—UP AND DELIVERY TO SITE FROM BLUEGRASS CELLULAR STAGING FACILITY TO BE THE CONTRACTORS RESPONSIBILITY, INCLUDING CRANE SET, AND ALL COST INCURRED.
- 2) FOR, BUILDING AND ALL CONCRETE PAD DETAILS REFER TO STRUCTURALS AND SHEET \$1.1
- 3) ANY DAMAGE DUE TO CONSTRUCTION, TO BE REPAIRED OR REPLACED TO ORIGINAL CONDITION. (SUBJECT TO BLUEGRASS CELLULAR'S APPROVAL).
- 4) ANY DAMAGE OF NATURAL SURROUNDINGS, INCLUDING BUT NOT LIMITED TO, GRASS, TREES, LANDSCAPING, ETC.. TO BE REPAIRED OR REPLACED TO ORIGINAL CONDITION AT BLUEGRASS CELLULAR'S APPROVAL.
- 5) ROADWAYS TO BE GRADED SMOOTH AND EVEN, REMOVING ALL POTHOLES. ROADS TO HAVE PROPER DRAINAGE AND RUNOFF PER BLUEGRASS CELLULAR'S APPROVAL.
- 6) ANY RELOCATION OF EXISTING UTILITIES TO BE DONE IN ACCORDANCE WITH LOCAL CODES AND RECOMMENDATIONS, CONSULTING ALL UTILITY COMPANIES INVOLVED FOR APPROVAL AND SPECIFICATIONS REQUIRED.
- 7) FOR GRADING DETAILS, SEE GENERAL NOTESHEET
- 8) CONTRACTOR TO FIELD VERIFY ALL TOWER DIMENSIONS WITH TOWER MANUFACTURER PRIOR TO JOB BIDDING OR START OF ANY CONSTRUCTION
- 9) CONTRACTOR RESPONSIBLE FOR APPLYING FOR SERVICE TO SITE AND PAYING ANY FEES REQUIRED FOR PERMITS, HOOKUP, ETC..



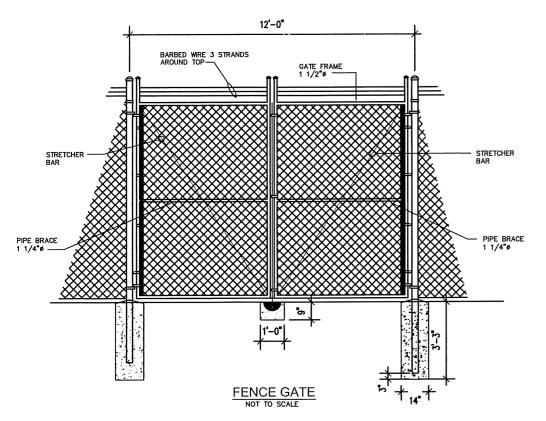
BLUEGRASS CELLULAR, INC.
STANDARD CELLULAR SITE
JOHNSON CROSSROADS
301 ST. AUGUSTINE RD. CLARKSON, KY. 42726

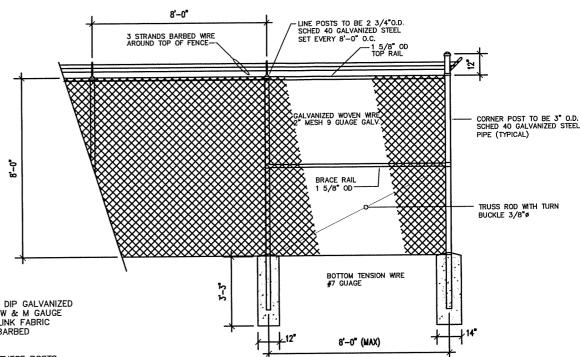
RAWN BY:

R. BECKER
SSUE DATE:
3-15-11

A-1

SITE PLAN
SCALE:  $\frac{1}{6} = 1'-0$ 





FENCE DETAIL END POLES

NOT TO SCALE

CHAIN LINK FENCING NOTES:

NOT TO SCALE

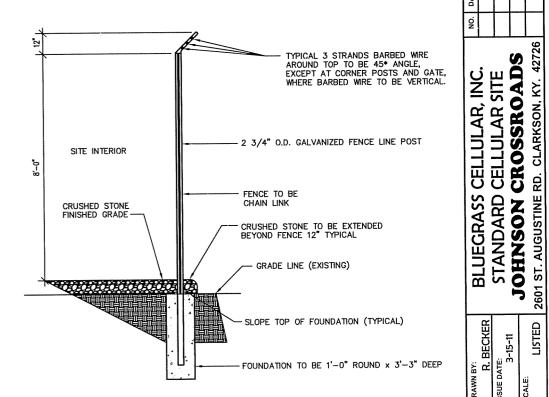
FABRIC: THE FABRIC SHALL BE COMPOSED OF INDIVIDUAL HOT DIP GALVANIZED WIRE PICKETS HELICALLY WOUND AND INTERWOVEN FROM NO.9 W & M GAUGE COPPER BEARING STEEL WIRE TO FORM A CONTINUOUS CHAIN LINK FABRIC HAVING A 2" MESH. TOP EDGES SHALL HAVE A TWISTED AND BARBED

POSTS: SHALL BE 2 3/4" O.D. SS 40 PIPE HOT GALVINIZED. THESE POSTS SHALL BE SPACED APPROXIMATELY 8'-0" ON CENTERS AND SET FULL 3'-3"IN BELL - SHAPED CONCRETE FOOTING, CROWNED AT TOP TO SHED WATER. 2

 $\underline{\text{TOP RAIL:}}$  Shall be 1 5/8" O.C. Standard PIPE hot galvanized and shall be furnished in random lengths averaging not less than 20".

FABRIC TIES: FOR ATTACHING FABRIC TO LINE POST, TOP RAIL OR TOP WIRE, SHALL BE ALUMINUM STRIP OF WIRE OF APPROVED GUAGE AND DESIGN. USED ON TOP OF RAIL EVERY 24" AND ONE POST EVERY 12".

EXTENSION ARMS: CAST STEEL GALVANIZED TO ACCOMODATE 3 STRANDS OF BARB WIRE, SINGLE ARM SLOPED TO 45', AND VERTICAL ON TOP OF SWING GATES.

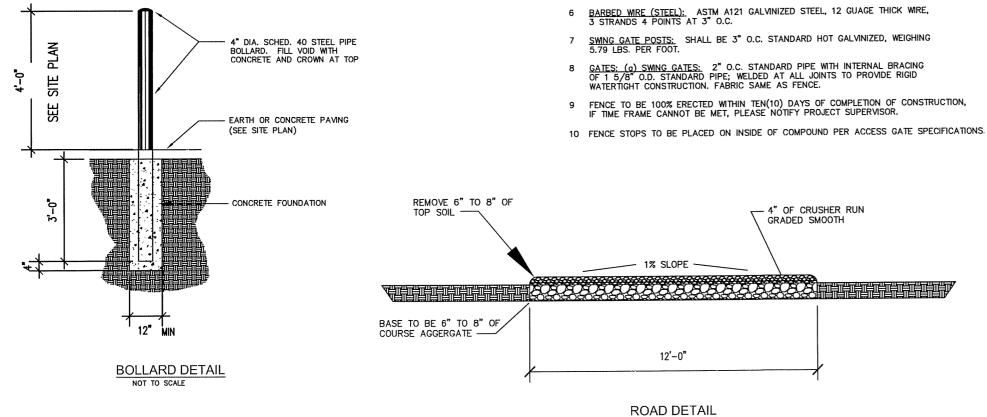


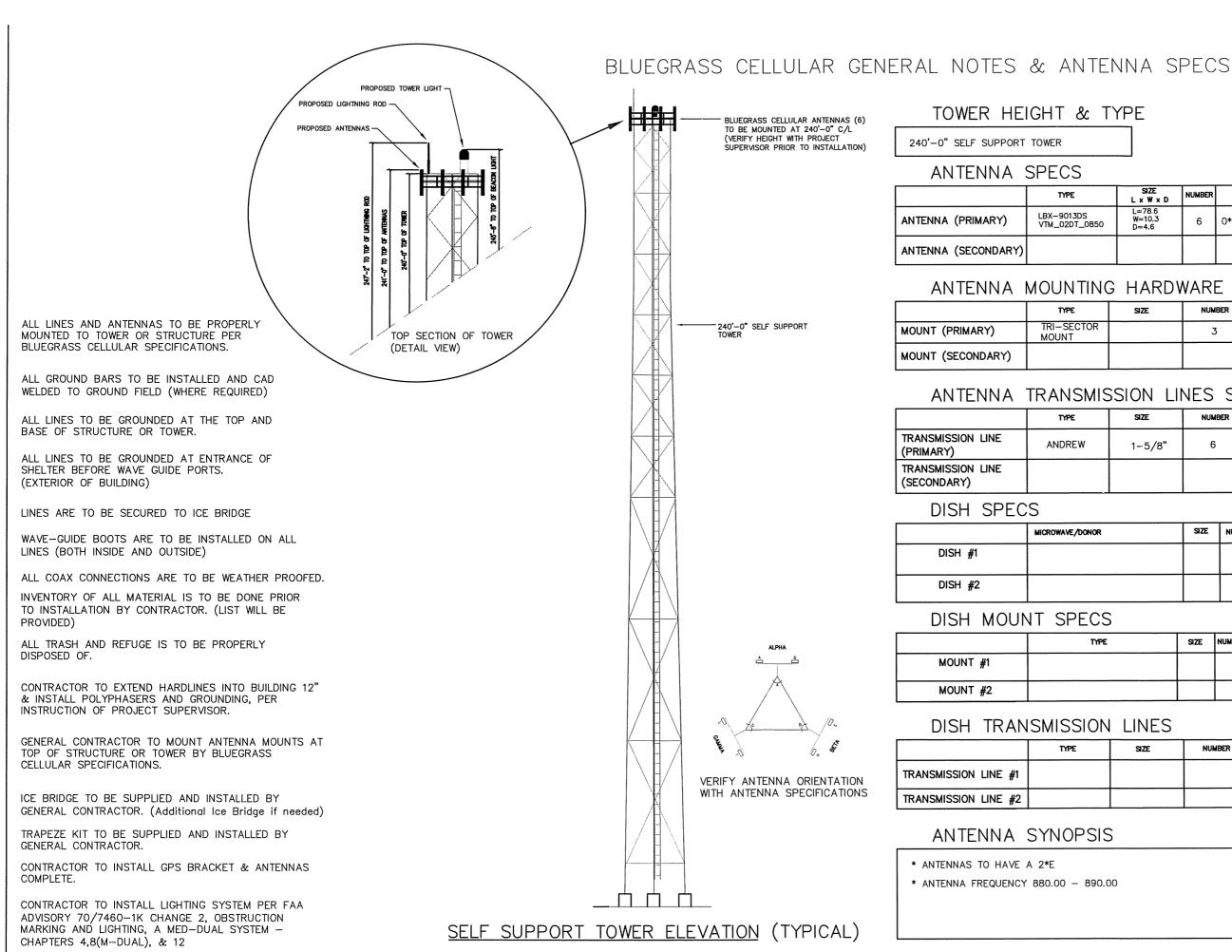
3-15-11

SHEET NUMBER

A-2

FENCE DETAIL LINE POLES NOT TO SCALE





## TOWER HEIGHT & TYPE

240'-0" SELF SUPPORT TOWER

## ANTENNA SPECS

|                     | TYPE                        | SIZE<br>L x W x D         | NUMBER | AZIMUTH        | MOUNTING HEIGHT                                       |
|---------------------|-----------------------------|---------------------------|--------|----------------|-------------------------------------------------------|
| ANTENNA (PRIMARY)   | LBX-9013DS<br>VTM_02DT_0850 | L=78.6<br>W=10.3<br>D=4.6 | 6      | 0*, 120*, 240* | 240'-0" C/L<br>VERIFY WITH<br>CONSTRUCTION SUPERVISOR |
| ANTENNA (SECONDARY) |                             |                           |        |                |                                                       |

## ANTENNA MOUNTING HARDWARE SPECS

|                   | TYPE                | SIZE | NUMBER |
|-------------------|---------------------|------|--------|
| MOUNT (PRIMARY)   | TRI-SECTOR<br>MOUNT |      | 3      |
| MOUNT (SECONDARY) |                     |      |        |

## ANTENNA TRANSMISSION LINES SPECS

|                               | TYPE   | SIZE   | NUMBER |
|-------------------------------|--------|--------|--------|
| TRANSMISSION LINE (PRIMARY)   | ANDREW | 1-5/8" | 6      |
| TRANSMISSION LINE (SECONDARY) |        |        |        |

## DISH SPECS

|         | MICROWAVE/DONOR | SIZE | NUMBER | AZIMUTH | MOUNTING HEIGHT |
|---------|-----------------|------|--------|---------|-----------------|
| DISH #1 |                 |      |        |         |                 |
| DISH #2 |                 |      |        |         |                 |

## DISH MOUNT SPECS

|          | TYPE | SIZE | NUMBE |
|----------|------|------|-------|
| MOUNT #1 |      |      |       |
| MOUNT #2 |      |      |       |

## DISH TRANSMISSION LINES

|                      | TYPE | SIZE | NUMBER |
|----------------------|------|------|--------|
| TRANSMISSION LINE #1 |      |      |        |
| TRANSMISSION LINE #2 |      |      |        |

## ANTENNA SYNOPSIS

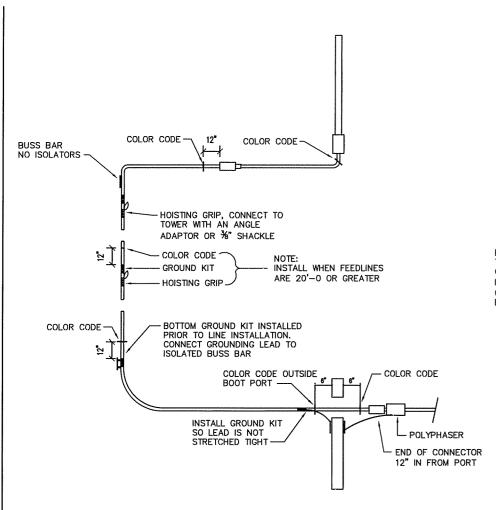
- \* ANTENNAS TO HAVE A 2\*E
- \* ANTENNA FREQUENCY 880.00 890.00



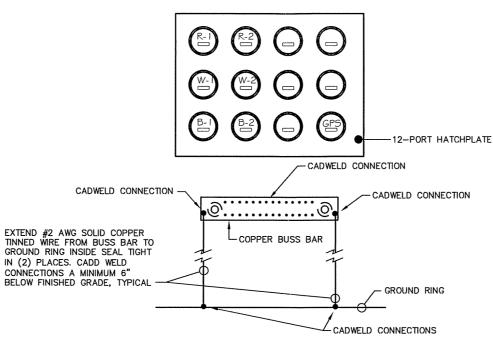
BLUEGRASS CELLULAR, INC. STANDARD CELLULAR SITE OHNSON CROSSROADS

SHEET NUMBER

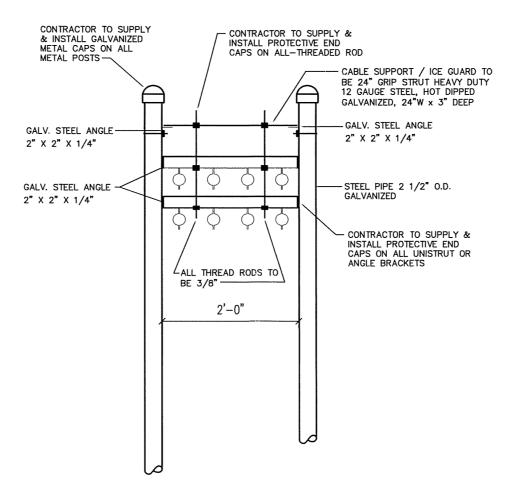
**ANTENNA DETAILS** 



# **COLOR CODING DETAIL**

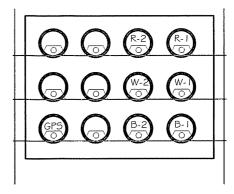


## **BOOT PORT GROUNDING DETAIL** NO SCALE



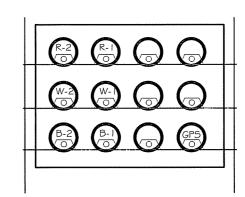
# ICE BRIDGE / COAX SUPPORT DETAIL

NO SCALE



# **COAX ENTRY DETAIL POWER SIDE** (VIEW FROM INSIDE SHELTER)

NO SCALE



## **COAX ENTRY DETAIL A/C SIDE** (VIEW FROM INSIDE SHELTER) NO SCALE

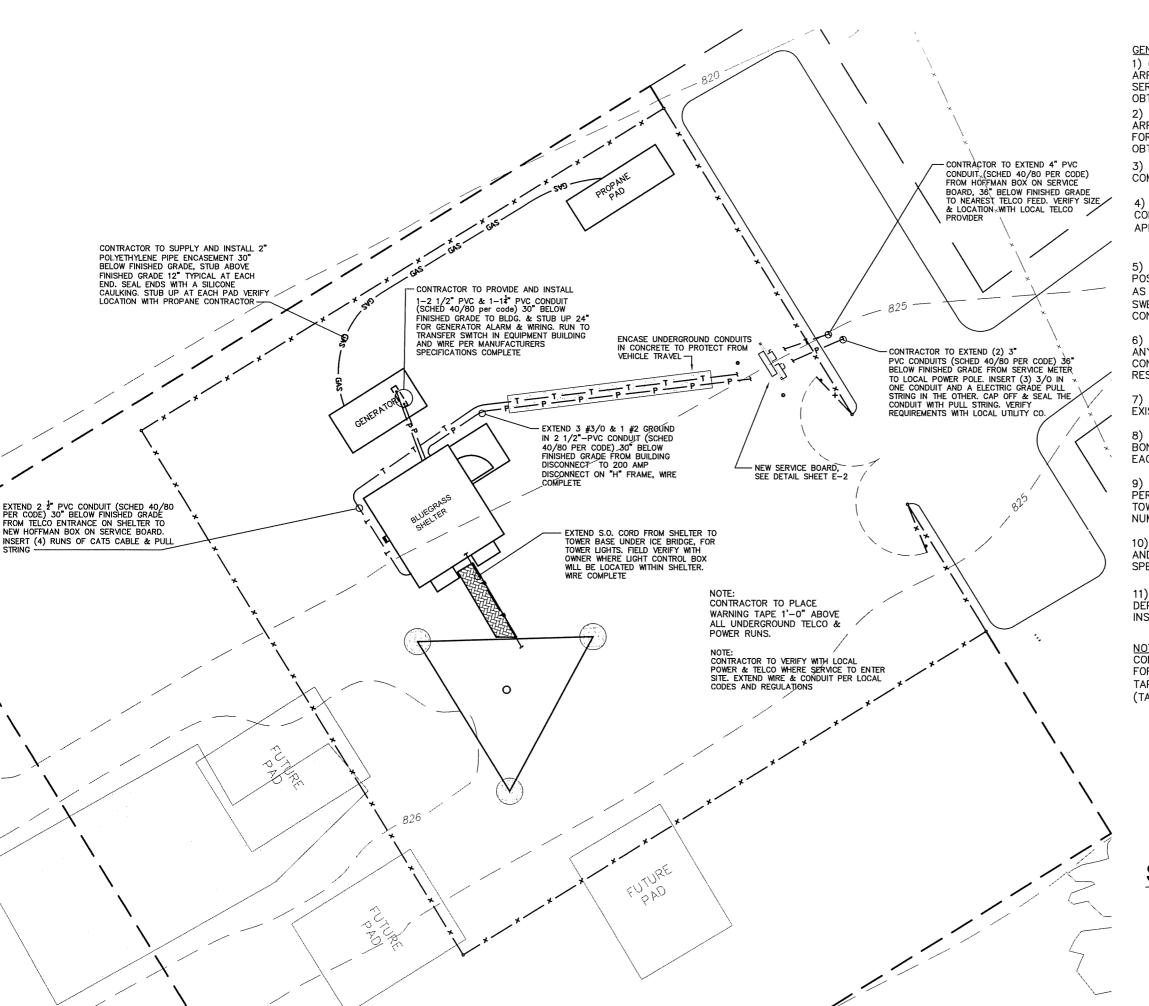


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# BLUEGRASS CELLULAR, INC. STANDARD CELLULAR SITE JOHNSON CROSSROADS

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SHEET NUMBER **ANTENNA** DETAILS

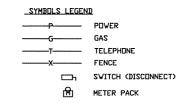


**GENERAL ELECTRICAL NOTES:** 

1) CONTRACTOR RESPONSIBLE FOR MAKING ALL ARRANGEMENTS WITH THE LOCAL UTILITIES FOR SERVICE AND FEE PAYMENTS REQUIRED TO OBTAIN SERVICE.

- 2) CONTRACTOR RESPONSIBLE FOR MAKING ALL ARRANGEMENTS WITH THE LOCAL TELEPHONE COMPANY FOR SERVICE AND FEE PAYMENTS REQUIRED TO OBTAIN SERVICE.
- 3) GROUND RING TO BE CONTAINED WITH IN THE COMPOUNDS FENCED AREA.
- 4) FENCE TO BE GROUNDED FROM GROUND RING TO ALL CORNER POST & GATES. SPACE FENCE GROUNDING APPROXIMATELY 20'-0" O/C. (CAD WELD ALL CONNECTIONS)
- 5) ALL GROUND RING CONNECTIONS TO BE AS CLOSE AS POSSIBLE, SHARP BENDS WILL NOT BE PERMITTED AS WELL AS "T" CONNECTIONS. ALL CONNECTIONS TO HAVE A SWEEPING RADIUS OF 8" MINIMUM. GROUNDING CONFIGURATION TO BE IN PARALLEL.
- 6) CONTACT POINTS FOR GROUNDING TO BE CLEANED OF ANY RUST, PAINT, DIRT, ETC. TO CREATE A GOOD BOND FOR CONDUCTOR. AREA THAT HAS BEEN CLEANED TO BE RESEALED TO PREVENT RUSTING.
- 7) PROPERLY GROUND ANY EXPOSED METAL THAT MAY EXIST ON EXTERIOR OF EQUIPMENT SHELTER OR CABINET.
- 8) WHERE GROUND CONDUCTORS REQUIRE MECHANICAL BONDING, STAINLESS STEEL CONNECTORS ARE REQUIRED AT EACH CONNECTING POINT USING LOCK WASHERS.
- 9) CONTRACTOR RESPONSIBLE FOR SEEING THAT UTILITY PÉRSONNEL MAKE FINAL CONNECTIONS, MAKING SURE THE TOWER ALARM IS CONNECTED AND WORKING. A TELEPHONE NUMBER FOR THE ALARM MUST BE SUPPLIED.
- 10) CONTRACTOR RESPONSIBLE FOR MEG TESTING THE SITE AND SUPPLYING OWNER WITH FINAL READINGS IN OWNERS
- 11) IF CONDUIT RUNS BURIED LESS THAN REQUIRED DÉPTHS, CONTACT BLUEGRASS CELLULAR FOR FURTHER

CONTRACTOR TO PROVIDE WARNING TAPE IN TRENCHES FOR ALL POWER AND TELCO RUNS UNDER GROUND. TAPE TO BE INSTALLED 1'-0" ABOVE CONDUIT RUNS. (TAKE PICTURES)



# SITE PLAN- ELECTRICAL

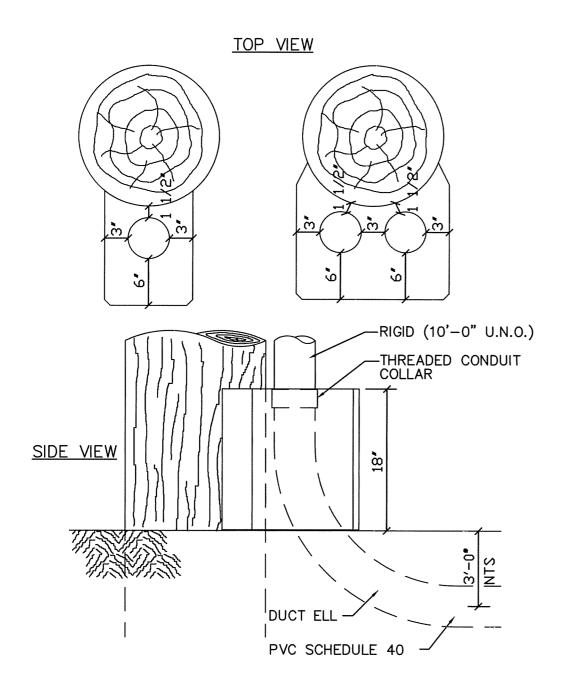
SCALE: 3/32" = 1'-0'



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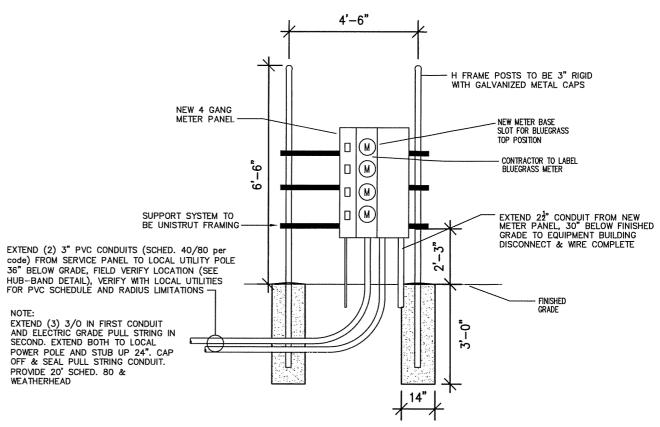
S CELLULAR, INC. D CELLULAR SITE I CROSSROADS BLUEGRASS ( STANDARD ( JOHNSON C

SHEET NUMBER



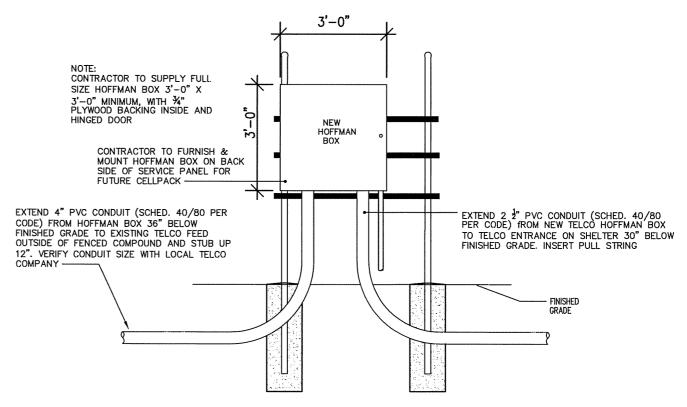
# **HUB-BAND DETAIL**

NO SCALE



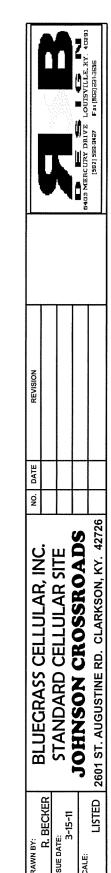
# SERVICE BOARD DETAIL

NO SCALE

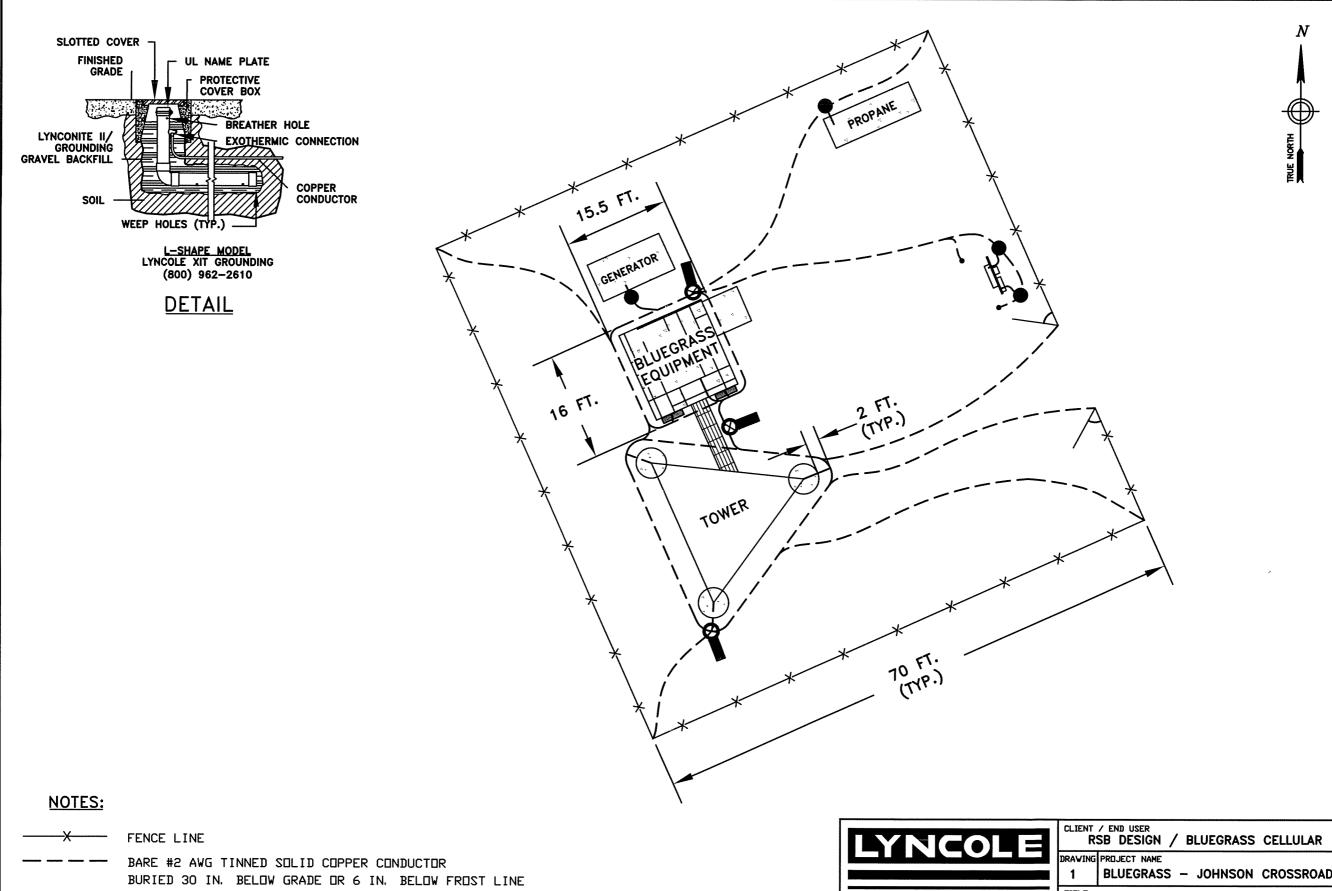


# **BACKBOARD DETAIL**

NO SCALE



SHEET NUMBER



K2L-10CS-24 (SEE DETAIL)

WITH 12 IN. RADIUS OR LARGER

ALL BENDS IN GROUND CONDUCTORS TO BE MADE

3/4' X 10' DRIVEN ROD

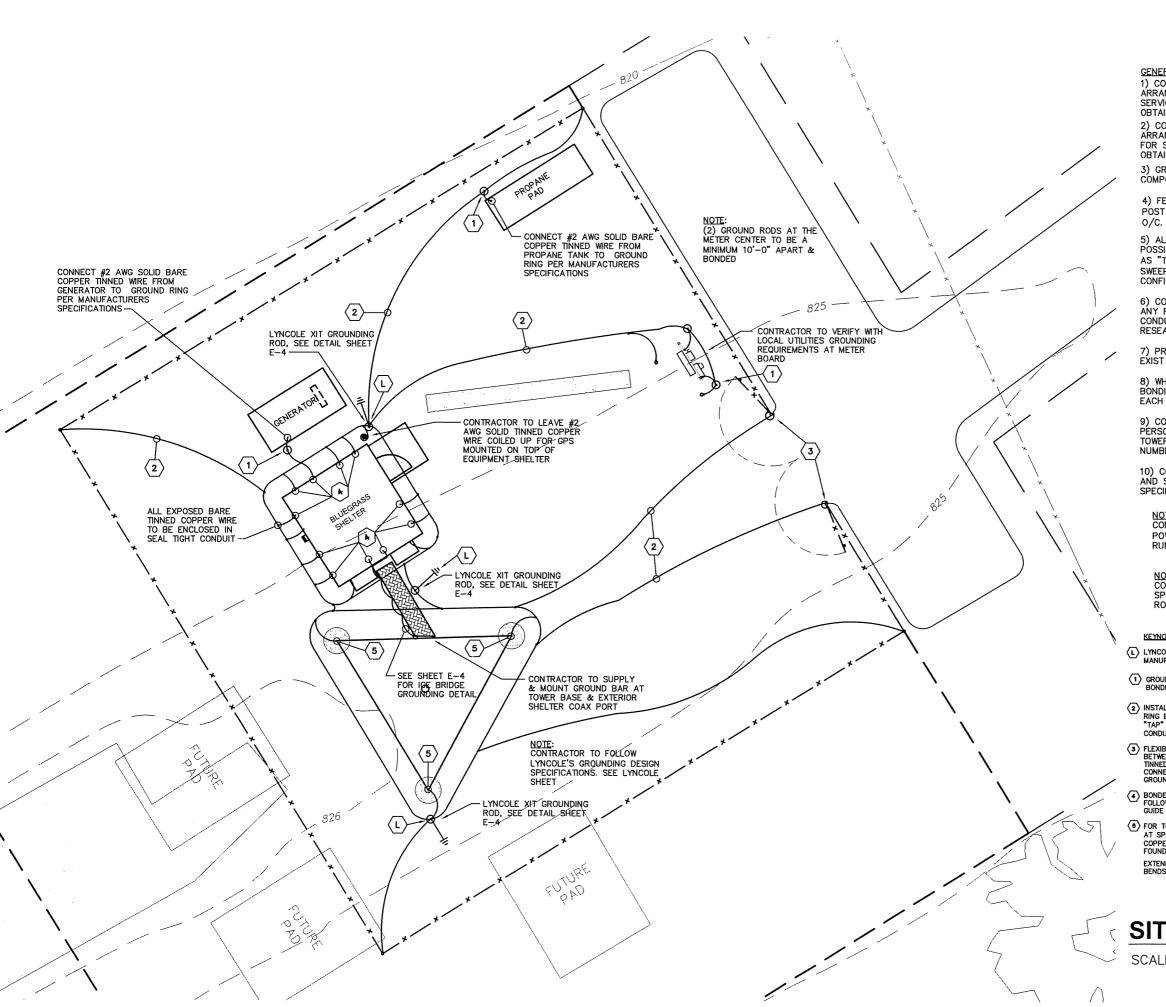
TECHNICAL SERVICES

3547 VUYAGER STREET, SUITE 204 TURRANCE, CA. 90503 (800)962-2610 FAX (310)214-1114 ENGINEERING@LYNCOLE.COM

**TERRACON** 

BLUEGRASS - JOHNSON CROSSROADS TITLE **GROUNDING OPTION** LOCATION: CITY, STATE CALCULATED RESISTANCE CLARKSON, KY < 5 OHMS DRAWN BY APPROVED BY DATE 03/28/2011 PD

SOIL DATA PROVIDED BY REFERENCE NUMBER LTS NUMBER N/A NONE 110045



GENERAL ELECTRICAL NOTES:

- 1) CONTRACTOR RESPONSIBLE FOR MAKING ALL ARRANGEMENTS WITH THE LOCAL UTILITIES FOR SERVICE AND FEE PAYMENTS REQUIRED TO OBTAIN SERVICE.
- 2) CONTRACTOR RESPONSIBLE FOR MAKING ALL ARRANGEMENTS WITH THE LOCAL TELEPHONE COMPANY FOR SERVICE AND FEE PAYMENTS REQUIRED TO OBTAIN SERVICE
- 3) GROUND RING TO BE CONTAINED WITH IN THE COMPOUNDS FENCED AREA.
- 4) FENCE TO BE GROUNDED FROM GROUND RING TO ALL CORNER POST & GATES. SPACE FENCE GROUNDING APPROXIMATELY 20'-0" O/C. (CAD WELD ALL CONNECTIONS)
- 5) ALL GROUND RING CONNECTIONS TO BE AS CLOSE AS POSSIBLE, SHARP BENDS WILL NOT BE PERMITTED AS WELL AS "T" CONNECTIONS. ALL CONNECTIONS TO HAVE A SWEEPING RADIUS OF 8" MINIMUM. GROUNDING CONFIGURATION TO BE IN PARALLEL.
- 6) CONTACT POINTS FOR GROUNDING TO BE CLEANED OF ANY RUST, PAINT, DIRT, ETC. TO CREATE A GOOD BOND FOR CONDUCTOR. AREA THAT HAS BEEN CLEANED TO BE RESEALED TO PREVENT RUSTING.
- 7) PROPERLY GROUND ANY EXPOSED METAL THAT MAY EXIST ON EXTERIOR OF EQUIPMENT SHELTER OR CABINET.
- 8) WHERE GROUND CONDUCTORS REQUIRE MECHANICAL BONDING, STAINLESS STEEL CONNECTORS ARE REQUIRED AT EACH CONNECTING POINT USING LOCK WASHERS.
- 9) CONTRACTOR RESPONSIBLE FOR SEEING THAT UTILITY PERSONNEL MAKE FINAL CONNECTIONS, MAKING SURE THE TOWER ALARM IS CONNECTED AND WORKING. A TELEPHONE NUMBER FOR THE ALARM MUST BE SUPPLIED.
- 10) CONTRACTOR RESPONSIBLE FOR MEG TESTING THE SITE AND SUPPLYING OWNER WITH FINAL READINGS IN OWNERS SPECIFICATIONS.

NOTE: CONTRACTOR TO PROVIDE WARNING TAPE IN ALL POWER & TELCO TRENCHES, 12" ABOVE CONDUIT RUNS, BUT BELOW FINISHED GRADE.

NOTE:
CONTRACTOR TO FOLLOW LYNCOLES GROUNDING
SPECIFICATIONS WHEN USING THEIR XIT GROUNDING
RODS. SEE DETAIL SHEET E-4.

## EYNOTES:

- LYNCOLE XIT GROUNDING ROD TO BE INSTALLED WHERE SHOWN AND TO MANUFACTURERS SPECIFICATIONS. (SEE LYNCOLE SPECIFICATIONS)
- GROUNDING RODS 10'-0" LONG x 3/4" COPPER BONDED GROUND RODS
- (2) INSTALL AND PROVIDE SOLID BARE TINNED COPPER WIRE #2 AWG, GROUND RING BELOW GRADE 30". USE #2 AWG SOLID BARE TINNED COPPER GROUND "TAP" CONNECTING CONDUCTORS. (CONNECTIONS FOR ALL TAP CONDUCTORS TO BE PARALLEL AND "CAD WELD" CONNECTIONS)
- (3) FLEXIBLE GROUNDING STRAP TO BE USED TO PROVIDE A COMMON BOND BETWEEN GATE AND CHAIN LINK FENCE, #2 AWG SOLID COPPER BARE TINNED CONDUCTOR FROM GROUND RING TO FENCE USING CAD WELD CONNECTIONS. GROUND TAP TO BE PROVIDED ON EACH 4 SIDES TO GROUND RING AS DESCRIBED ABOVE.
- (4) BONDED GROUND TO BE PROVIDED TO GROUND RING FOR EACH OF THE FOLLOWING: BUILDING STEEL, HATCH PLATE, EMERGENCY RECEPTACLE, WAVE GUIDE STRUCTURE, FRAME WORK, BUILDING DISCONNECT.
- (B) FOR TOWER FRAME GROUNDING, REMOVE GALVANIZED COATING COMPLETELY AT SPOT TO "CAD WELD" TO AND CLEAN. #2 AWG SOLID BARE TINNED COPPER CONDUCTOR TO BE CAD WELDED APPROXIMATELY 1"-O" ABOVE FOUNDATION OR AT FLANGE IF PROVIDED BY TOWER MANUFACTURER.

  EXTEND CONDUCTOR TO GROUND RING. RIGHT ANGLES NOT ACCEPTED ALL BENDS TO BE SWEEPING.

# SITE PLAN-GROUNDING

SCALE: 3/32" = 1'-0"



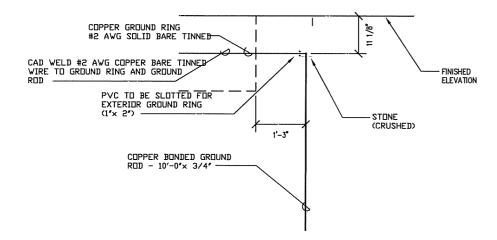
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BLUEGRASS CELLULAR, INC.
STANDARD CELLULAR SITE
JOHNSON CROSSROADS
2601 ST. AUGUSTINE RD. CLARKSON, KY. 42726

R. BECKER
ISSUE DATE:
3-15-11
SCALE:
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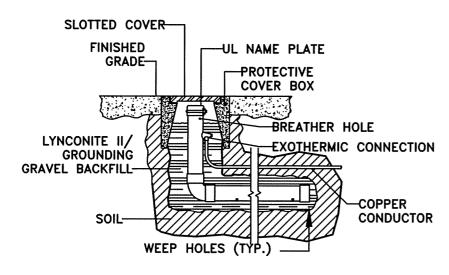
SHEET NUMBER

E-3



# **GROUND ROD DETAIL**

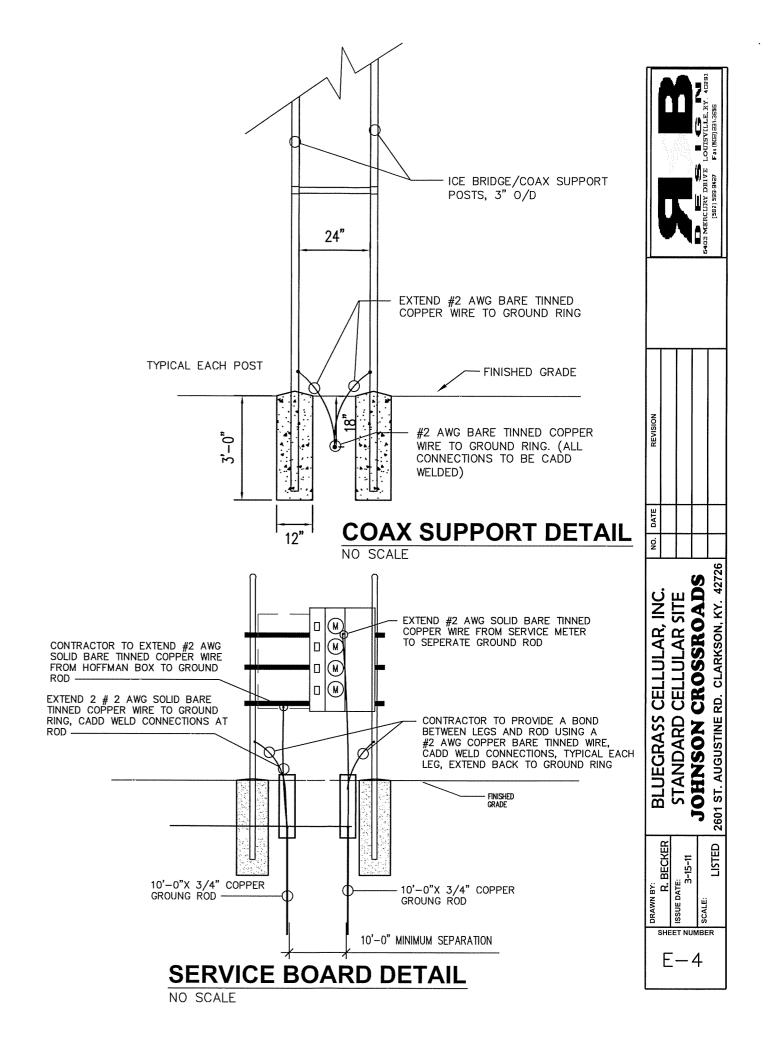
NO SCALE

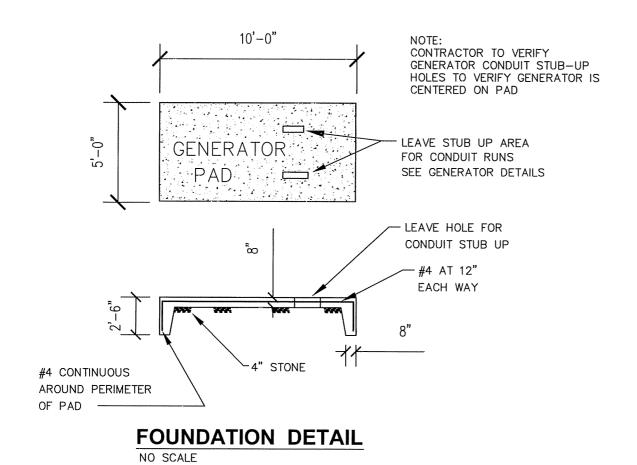


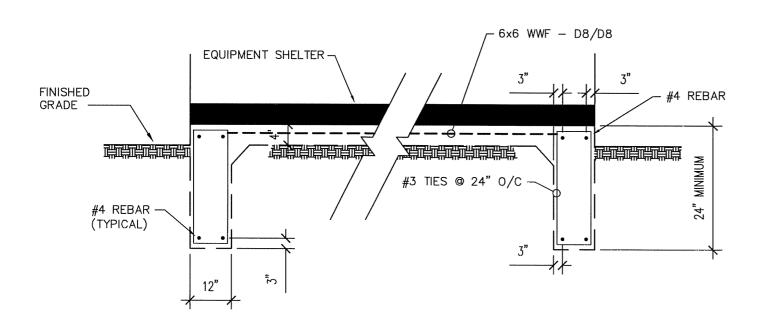
L-SHAPE MODEL LYNCOLE XIT GROUNDING (800) 962-2610

# LYNCOLE XIT ROD DETAIL

NO SCALE

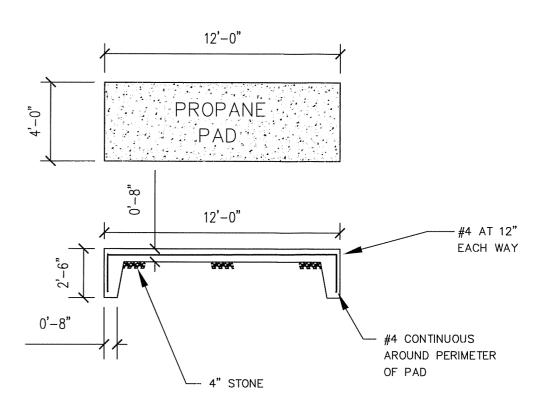






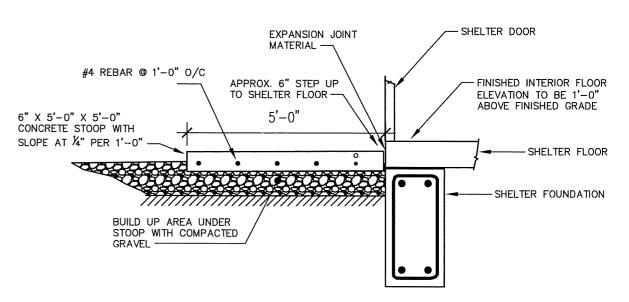
# **SHELTER FOUNDATION PLAN**

NO SCALE



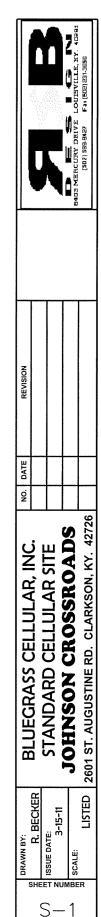
# FOUNDATION DETAIL

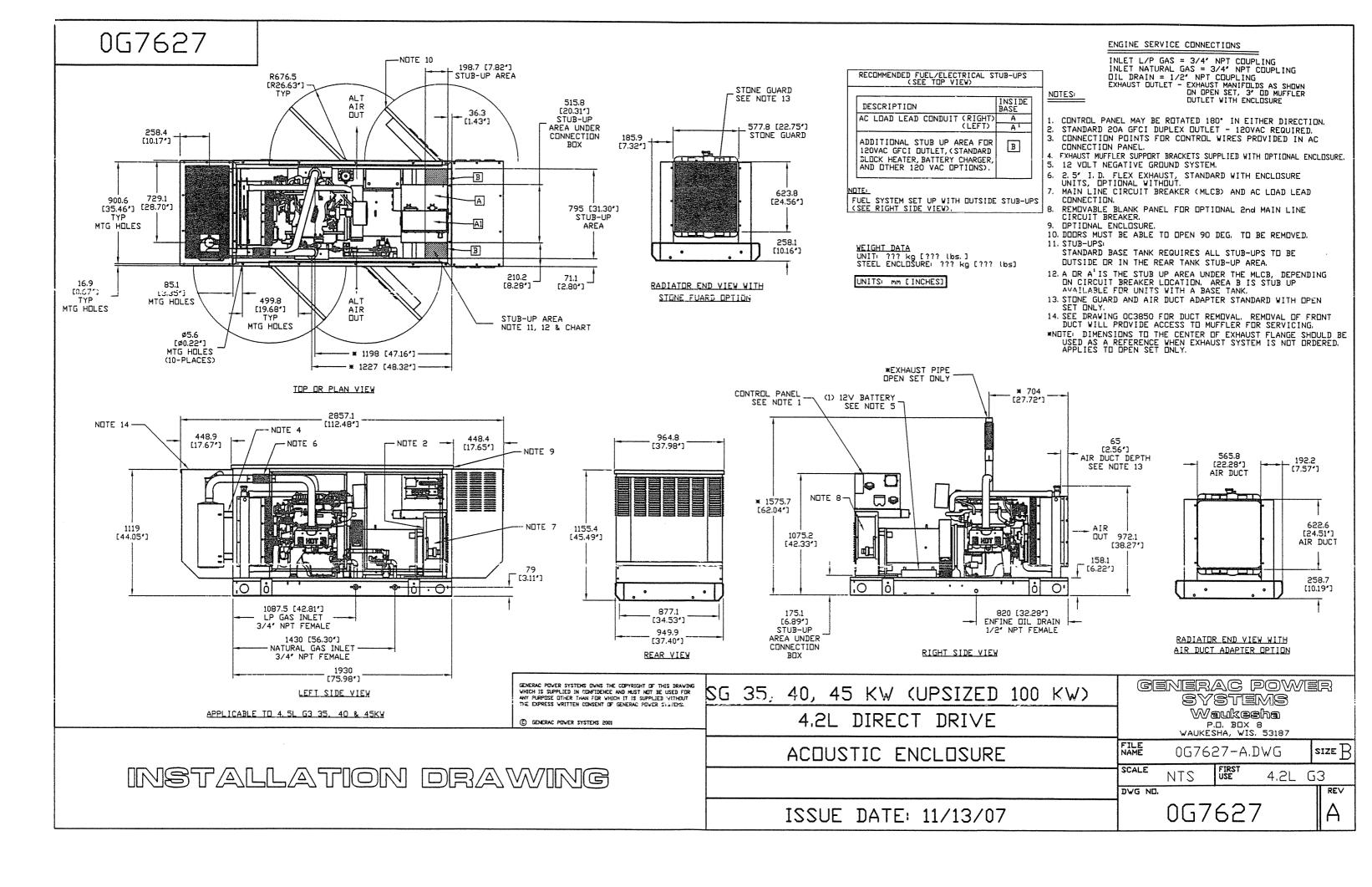
NO SCALE



# **CONCRETE STOOP DETAIL**

NO SCALE





## GENERAL NOTES:

- 1) THE CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT PICK UP DELIVERY TO SITE, ERECTION OF TOWER, AND CRANE SET, ALL COSTS
- 2) THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE PRIOR TO BIDDING AND REVIEWING EXISTING STRUCTURES OR UTILITIES THAT MIGHT BE LOCATED ON OR AROUND THE COMPOUND THAT COULD
- 3) THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING LOCAL AUTHORITIES NECESSARY FOR INSPECTIONS IF REQUIRED, PLEASE PROVIDE
- 4) THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING PERSONS RESPONSIBLE FOR ANY MATERIALS TESTING, PLEASE PROVIDE AMPLE
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH FINAL TEST RESULTS ON ALL MATERIALS TESTING. IF ANY PROBLEMS ARE FOUND PRIOR TO FINAL RESULTS PLEASE NOTIFY A&E
- 6) THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ADJOINING PROPERTY, AND REPAIRING OR REPLACING WHAT IS NECESSARY TO OWNERS APPROVAL.
- 7) THE CONTRACTOR IS TO VERIFY DIMENSIONS ON SITE PRIOR TO CONSTRUCTION STARTING, ANY PROBLEMS OR CHANGE FOUND CONTACT A&E OR OWNER TO VERIFY.
- 8) THE CONTRACTOR IS RESPONSIBLE FOR ANY TEMPORARY LIGHTING ON THE TOWER AND CONTACTING PROPER AUTHORITIES IF ANY LIGHTING PROBLEMS OCCUR, ALL FINAL LIGHTING TO BE MOUNTED ON TOWER DURING CONSTRUCTION, NOTIFY OWNER WHEN TOWER HAS REACHED FINAL HEIGHT.
- 9) THE CONTRACTOR IS RESPONSIBLE FOR ALL ON SITE WORK MEANS AND METHODS.
- 10) CONTRACTOR, ANY CONTRACTOR EMPLOYEES OR REPRESENTATIVES, OR SUB-CONTRACTOR, ANY SUB-CONTRACTOR EMPLOYEES OR REPRESENTATIVES, WILL CONFORM TO ALL LAWS AND REGULATIONS APPLICABLE TO THE WORK BEING PERFORMED, INCLUDING BUT NOT LIMITED TO, ALL OCCUPATIONAL SAFETY AND HEALTH ACT ("OSHA") STATUTES AND REGULATIONS AS WELL AS ALL OTHER FEDERAL, STATE AND/OR LOCAL LAWS OR REGULATIONS APPLICABLE TO THE WORK BEING PERFORMED BY CONTRACTOR.
- 11) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SITE DRAINAGE, AND PROVIDING SILT AND EROSION CONTROL NECESSARY TO MAINTAIN ANY RUN OFF.
- 12) THE CONTRACTOR IS RESPONSIBLE FOR ALL SEED AND STRAW WORK NECESSARY TO REPAIR DAMAGED AREAS.
- 13) CONTRACTOR TO GRADE SMOOTH OR REPAIR ANY POT HOLES OR DITCHING ON PROPERTY OR ROAD THAT HAS OCCURRED DURING CONSTRUCTION AT CONTRACTORS EXPENSE.
- 14) CONTRACTOR'S RESPONSIBILITIES REGARDING BUILD OUT ON FIBREBOND **EQUIPMENT SHELTERS TO INCLUDE:**
- \* INSTALLING THE DOOR CANOPY & BOND TO DOOR FRAME
- \* INSTALLING EXTERIOR LIGHT ON WALL DETERMINED BY PROJECT SUPERVISOR AND PHOTOCELL REQUIREMENTS
- \* INSTALLING INTRUDER ALARMS
- \* CHECK OPERATIONS OF DOOR AND DOOR HARDWARE
- \* ADJUST WEATHERSTRIPPING ON DOORS AS NEEDED
- \* INSPECT ROOF FOR DAMAGE AND POSSIBLE LEAKS
- \* INSPECT INTERIOR FINISH FOR IMPERFECTIONS AND REPAIR AS NEEDED
- \* CHECK OPERATION OF LIGHTS AND ELECTRICAL OUTLETS
- \* INSTALL GUTTER SYSTEM
- \* CHECK OPERATION OF ENVIRONMENTAL CONTROLS AND HVAC UNITS
- \* INSTALL AND PAINT SHELTER TIE-DOWNS TO MATCH
- 15) INSTALL CONCRETE PADS FOR BUILDING, PROPANE TANK, GÉNERATOR PAD.
- 16) INSTALL ELECTRIC AND GROUND FIELD FOR COMPOUND.

- 17) GC WILL BE RESPONSIBLE FOR ALL CRANE OPERATIONS IN ORDER TO SET FIBREBOND BUILDING. COORDINATE BUILDING DELIVERY DATE THROUGH BLUEGRASS CELLULAR.
- 18) GC WILL BE RESPONSIBLE FOR OFF LOADING AND STACKING OF TOWER WHEN APPLICABLE.
- 19) GC WILL BE RESPONSIBLE FOR MOUNTING ALL LINES AND ANTENNAS.
- 20) GC WILL BE RESPONSIBLE FOR SUPPLYING AND INSTALLING ICE BRIDGE.
- 21) GC WILL BE RESPONSIBLE FOR SCHEDULING PROPANE TANK DELIVERY AND HOOK-UP. PREFERRED SUPPLIERS ARE EMPIRE & AMERIGAS
- 22) GC WILL BE RESPONSIBLE FOR COORDINATING THE CLEANING OF THE INSIDE OF THE BUILDING WITH THE PROJECT SUPERVISOR AFTER THE SITE HAS BEEN TURNED OVER TO THE OPERATIONS DEPARTMENT AND ALL TURN-UP PROCEDURES HAVE BEEN COMPLETED. THIS WILL INCLUDE SUPPLYING A 30 GALLON TRASHCAN, 30 GALLON TRASH BAGS, BROOM, DUST PAN AND DOORMAT FOR BUILDING.
- 23) GC TO VERIFY ALL BLUEGRASS CELLULAR EQUIPMENT DIMENSIONS & SPECIFICATIONS WITH MANUFACTURER'S DRAWINGS, (FIBREBOND, GENERAC, EASTPOINTE ETC.) PRIOR TO CONSTRUCTION. ADDRESS ANY ISSUES WITH PROJECT SUPERVISOR BEFORE WORK BEGINS.
- 24) ALL WAREHOUSE MATERIAL (LINES, ANTENNAS, MOUNTING HARDWARE, GENERATOR, TOWER FOUNDATION KIT, ETC.) WILL NEED TO BE PICKED UP
- 25) GC WILL BE RESPONSIBLE FOR SCHEDULING GENERATOR START-UP WITH CONTACT SCOTT ANDERSON (EVAPAR) 502-267-6315
- 26) GC TO LABEL BLUEGRASS CELLULAR METER WITH NAME PLATE ON
- 27) GC WILL BE RESPONSIBLE FOR INSTALLATION OF ALL FENCING.
- 28) ALL TRASH AND DEBRIS TO BE REMOVED BY GC
- 29) GC WILL BE RESPONSIBLE FOR APPLYING FOR ELECTRICAL SERVICE AND PAYING NECESSARY FEES REQUIRED.
- 30) GC WILL BE RESPONSIBLE FOR SUPPLYING & INSTALLING PROTECTIVE END CAPS ON ANY EXPOSED THREADED ROD OR UNISTRUT USED ON SITE. VERIFY TYPE WITH PROJECT SUPERVISOR PRIOR TO INSTALLATION.
- 31) GC WILL BE RESPONSIBLE FOR HAVING A CERTIFIED ELECTRICIAN HOOK UP THE BATTERIES (IMMEDIATELY) AFTER POWER HAS BEEN TURNED UP AT THE SITE, PREVENTING THE DELAY OF ANY WORK FOR OPERATIONS. THE GENERAL CONTRACTOR MUST NOTIFY THE PROJECT SUPERVISOR IMMEDIATELY AT THIS TIME SO HE CAN COORDINATE A CELL TECH TO BE ONSITE WHEN THIS OCCURS.
- 32) GC WILL BE RESPONSIBLE FOR RUNNING (CAT5) FROM THE GENERATOR ALARM PANEL MOUNTED ON THE SIDE OF THE TRANSFER SWITCH (BY THE CONTRACTOR), THROUGH THE TRANSFER SWITCH AND UP TO THE EXISTING CONDUIT BESIDE THE A/C POWER FAIL RELAY. THE (CAT5) WILL BE PULLED THROUGH EXISTING CONDUIT AROUND THE SHELTER AND EXTENDED TO THE ALARM BLOCK. THERE SHOULD BE A MINIMUM 3'-0" OF (CAT5) LEFT HANGING ON EACH END FOR THE CELL TECH TO HOOK UP THE GENERATOR ALARMS.
- 33) GC MUST SUBMIT A COPY OF THE BUILDING PERMIT AND CONSTRUCTION SCHEDULE TO THE PROJECT SUPERVISOR PRIOR TO RECEIVING (NTP) TO BEGIN CONSTRUCTION (NO EXCEPTIONS).
- 34) GC MUST DISPLAY FCC TOWER REGISTRATION NUMBER AND EMERGENCY PHONE NUMBERS ON 3'-0 X 4'-0" MINIMUM WOODEN BACKBOARD SOMEWHERE ON SITE LOCATION PRIOR TO BREAKING

## GRADING & EXCAVATING NOTES:

- ANY DAMAGE TO EXISTING UTILITIES, STRUCTURES, ROADS AND PARKING AREAS TO BE REPAIRED OR REPLACED TO OWNERS SATISFACTION.
- PREPARATION FOR FILL: REMOVAL OF ALL DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, TOPSOIL, VEGETATION, AND HARMFUL MATERIALS FROM SURFACE OF GROUND PRIOR TO PLOWING, STRIPPING, PLACING FILLS OR BREAKING UP OF SLOPED SURFACES GREATER THAN 1 VERTICAL TO 4 HORIZONTAL SO MATERIAL FOR FILL WILL BOND TO EXISTING SURFACE. WHEN AREA TO RECEIVE FILL HAS A DENSITY LESS THAN
  REQUIRED, BREAK UP GROUND SURFACE TO DEPTH
  REQUIRED, AERATE, MOISTURE — CONDITION, OR PULVERIZE
  SOIL AND RECOMPACT TO REQUIRED DENSITY.
- 3) BACK FILLING: - EXCAVATED AREA SHALL BE CLEARED FROM STONES OR CLODS OVER 2 1/2" MAXIMUM DIAMETER - SHALL BE PLACED IN LAYERS OF 6" AND COMPACTED TO A 95% STANDARD PROCTOR, USE A 90% PROCTOR IN GRASSED / LANDSCAPED AREAS WHERE REQUIRED.
- SHALL BE APPROVED MATERIALS CONSISTING OF SANDY CLAY, GRAVEL AND SAND, SOFT SHALE, EARTH OR LOAM. CONSULT WITH OWNER PRIOR TO FILL BEING ADDED. 4) ALL MATERIAL FOR FILL TO BE APPROVED BY OWNER AND ALL COMPACTING TEST TO BE COMPLETED TO SPEC'S

ALL COMPACTING RESULTS TO BE TURNED OVER TO OWNER.

- 5) AFTER COMPLETION OF BELOW GRADE EXCAVATING, AREA TO BE CLEANED AND CLEARED OF ANY UNSUITABLE MATERIALS, SUCH AS TRASH, DEBRIS, VEGETATION AND SO
- 6) ANY EXCAYATING IN WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE OF ANY LOOSE MATERIAL AND EXCESS GROUND WATER.
- 7) IF SOUND SOIL IS NOT REACHED AT DESIGNATED EXCAVATION DEPTH, THE POOR SOIL IS TO BE EXCAVATED TO ITS FULL DEPTH AND EITHER REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION TO BE FILLED WITH THE SAME QUALITY CONCRETE SPECIFIED FOR THE FOUNDATION, PLEASE NOTIFY THE PROJECT SUPERVISOR AND THEY WILL HAVE A 3RD PARTY ENGINEERING FIRM CONTACT YOU WITH RECOMMENDATIONS.
- 8) MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATIONS TO BE USED IF EXCAVATION EXCEEDED THE OVERALL REQUIRED DEPTH, FOR STABILIZATION OF THE BOTTOM OF THE EXCAVATION, CRUSHED STONE MAY BE USED. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS. PLEASE NOTIFY THE PROJECT SUPERVISOR AND THEY WILL HAVE A 3RD PARTY ENGINEERING FIRM CONTACT YOU WITH RECOMMENDATIONS.
- 9) EXCAVATION TO COMPOUND TO INCLUDE WEED CONTROL MAT.
- 10) SITE TO HAVE PROPER DRAINAGE & EROSION CONTROL (CROWNED FORMATION)
- 11) GC WILL BE RESPONSIBLE FOR REPAIR OF ALL AREAS DISTURBED DURING CONSTRUCTION. (EXCAVATING ISSUES)

## CALL BEFORE YOU DIG"

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE UTILITY PROTECTION CENTER, PHONE 811 IN KENTUCKY, WHICH WAS ESTABLISHED TO PROVIDE ACCURATE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE UTILITY PROTECTION CENTER 48 HOURS IN ADVANCE OF ANY CONSTRUCTION ON THIS PROJECT. ALL NEW SERVICE AND GROUNDING TRENCHES PROVIDE A WARNING TAPE • 12 INCHES BELOW GRADE.

| SYMBOLS LEGEND                         |                           |  |  |
|----------------------------------------|---------------------------|--|--|
| ( <del>-</del> )                       | KEYNOTE                   |  |  |
| ←                                      | INSPEC. SLEEVE / GRND ROD |  |  |
| •                                      | INSPECTION SLEEVE         |  |  |
| •                                      | CAD WELD CONNECTION       |  |  |
| T                                      | TRANSFORMER               |  |  |
|                                        | LIGHTNING SUPPRESSOR      |  |  |
|                                        | SWITCH (DISCONNECT)       |  |  |
| <b>™</b>                               | METER PACK                |  |  |
| <del></del>                            | POWER                     |  |  |
| G                                      | GAS LINE                  |  |  |
| W                                      | WATER LINE                |  |  |
| SS                                     | SANITARY SEWER            |  |  |
| T                                      | TELEPHONE                 |  |  |
| —————————————————————————————————————— | STORM SEWER DRAIN         |  |  |

FENCE



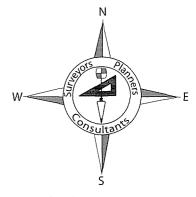


BLUEGRASS (
STANDARD (
JOHNSON C 3-15-11 œ SSUE DAT SHEET NUMBER

General Notes

# Landmark Surveying Co., Inc.

Darren L. Helms, P.L.S., PRESIDENT Dennis N. Helms, P.L.S., VICE PRESIDENT



15 N.E. 3rd Street Washington, Indiana 47501 Phone: 812-257-0950 Fax: 812-257-0953

Email: landmark97@sbcglobal.net

# <u>Directions to the Site</u> <u>From the County Seat of Grayson County, Kentucky</u>

## **Johnson Crossroads Site**

From the public square in downtown Leitchfield, Kentucky: travel south on Kentucky Highway 259, passing the Western Kentucky Parkway at 1.0 miles, 7.1 miles in all to Kentucky Highway 226 at Meredith; turn left onto Kentucky Highway 226 and travel east for 1.3 miles to Kentucky Highway 88 at Peonia; turn left onto Kentucky Highway 88 and travel north for 0.8 miles to St. Augustine Road; turn left onto St. Augustine Road and travel west for 250 feet to the tower access lane on the left or south side of the road; turn left onto the lane and travel southwest for 600 feet to the tower site on a wooded ridge in a pasture. The address of the site is 2601 St. Augustine Road, Clarkson, Kentucky 42726.

Darren L. Helms, Kentucky Professional Land Surveyor No. 3386

MARCH 7 2011

DARREN L. HELMS
3386
LICENSED
PROFESSION AL
LAND SURVEYOR

# OPTION TO LEASE AND LEASE AGREEMENT

I.

## OPTION TO LEASE REAL PROPERTY

entered into this 3 day of February 20//, by and between Clyde and Dinah Haycraft, husband and wife, whose address is 5235 Peonia Road, Clarkson, KY 42726 (the "Optionor (s)" and Kentucky RSA 3 Cellular General Partnership, d/b/a Bluegrass Cellular a Kentucky general Partnership with principal office and place of business at 2902 Ring Road, Elizabethtown, KY 42701 (the "Optionee")

## WITNESSETH:

WHEREAS, the Optionor(s) is the owner of certain real property located in <u>Grayson</u> County, **Kentucky** as more particularly described on Exhibit A attached hereto and incorporated herein by reference (the "Property"); and

WHEREAS, the Optionor(s) wishes to grant to the Optionee, and the Optionee wishes to obtain from the Optionor(s), an option to lease the Property upon the terms and conditions set forth herein;

**NOW**, **THEREFORE**, in consideration of the foregoing premises and for other good and valuable consideration, the mutuality, receipt and sufficiency of which are hereby acknowledged, the parties hereto do agree as follows.

1. In consideration of **One Thousand Eight Hundred Dollars and Zero Cents** (\$1,800.00) paid by the Optionec to the Optionor(s) (the "Option Consideration"), the receipt of which is hereby acknowledged by the Optionor(s), the Optionor(s) hereby grants to the Optionee an exclusive and irrevocable option to lease the Property (the "Option"), upon the terms and conditions hereinafter set forth, upon the exercise of the Option at any time before 4:00 p.m. prevailing time on <u>Official Policy</u> (the "Option Period") as set forth in Paragraph 5 thereof.

- 2. The parties hereto anticipate that the Property comprises approximately a One Hundred Foot by One Hundred Foot area, and that a right of way will be given by the Optionor(s) for the purposes of ingress and egress throughout the term of the lease. The Optionee shall obtain an accurate survey of the Property by a registered land surveyor licensed in the Commonwealth of Kentucky at the sole expense of the Optionee. A copy of the survey shall be provided to the Optionor(s). The description of the Property shall include the number of acres determined by the surveyor. The Optionee shall obtain said survey within a reasonable time following the date of the Option Agreement.
- 3. During the term of the Option, the Optionee may enter onto the Property at its own risk to obtain soil samples and to bore soil for the purposes of determining the suitability of the Property for a communications tower.
- 4. Upon the Optionee's proper exercise of the Option in accordance with Paragraph 5 hereof, the Optionor(s) shall be deemed to have immediately executed, acknowledged and delivered to the Optionee the Lease Agreement contained in Section II hereof. The description of the Property shall be that determined by the registered land surveyor in accordance with Paragraph 2 hereof.

5. If the Optionee elects to exercise the Option in accordance with the terms hereof, notice of such election shall be deemed sufficient if personally delivered or sent by registered or certified mail, return receipt requested, to the address of the Optionor(s) set forth in Paragraph 14 hereof.

- 6. The Optionor(s) agrees not to sell, lease or offer for sale or lease the Property during the term of this Option or any renewal or extension of the Option.
- 7. In the event the Optionee fails to exercise the Option as set forth herein (unless such failure is due to the discovery of a defect in the Property or other matter unsatisfactory to the Optionee), the Optionor(s) shall have the right to retain the Option Consideration.
- 8. The Optionee may assign this Option with written consent of the Optionor(s), which consent shall not be unreasonably withheld, and upon any assignment such assignee shall have all the rights, remedies and obligations as if it were the original Optionee hereunder. From and after any such assignment, the term "Optionee" shall refer to such assignee.
- 9. Each party hereto shall bear any and all of its own expenses in connection with the negotiation, execution or settlement of this Option.
- 10. Risk of loss with respect to the Property during the term of this Option and during the term of the lease shall be upon the Optionor(s). If, during the term of the Option, any portion of the Property shall be acquired by public authority under the right or threat of eminent domain, the Optionee may, at its sole option, either (i) exercise the

Option, and in such event, all sums received from the public authority by the Optionor(s) by reason of the taking of a portion of the Property shall reduce the rent due under the lease, or (ii) terminate this Option and thereupon the Optionor(s) shall be obligated to return to the Optionee the full amount of the Option Consideration previously paid to the Optionor(s) in "good and collected funds."

- 11. The parties hereto represent to each other that neither has engaged any broker to represent their interests in connection with the transactions contemplated hereby, and each agrees to indemnify the other against any and all claims made by any brokers engaged or purported to be engaged by the other for brokerage commissions or fees in connection with the transactions contemplated hereby.
- 12. The Optionor(s) represents, warrants and covenants to the Optionee that the Optionor(s) has not caused or permitted, and shall not cause or permit, and to the best of Optionor(s)' knowledge no other person has caused or permitted any hazardous material (as defined by any applicable federal, state or local law, rule or regulation) to be brought upon, placed, held, located or disposed of at the Property. In the event any such contamination occurs for which the Optionee becomes legally liable, the Optionor(s) shall indemnify the Optionee against all claims, damages, judgments, penalties and costs and expenses, including reasonable attorneys' fees, which Optionee may incur.
- 13. This Option Agreement and the rights and obligations of the parties hereto shall be construed in accordance with the laws of the Commonwealth of Kentucky.

- 14. For the purposes of giving notice as permitted or required herein, the address of the Optionor(s)shall be: 5235 Pconia Road, Clarkson, KY 42726; the Optionee's address shall be: 2902 Ring Road, Elizabethtown, KY 42701. Any inquiry by the Optionor to the Optionee regarding the terms and conditions of the Option Agreement or Lease Agreement, or otherwise related to the Option Agreement or Lease Agreement, shall be made in writing and submitted to the attention of the Optionee's Lease Administrator at the above address.
- 15. The Optionee shall have the right, in its sole discretion, to record this Option in the Office of the Clerk of the County Court of <u>Grayson</u> County, **Kentucky**.

## II.

## **LEASE AGREEMENT**

- 16. In the event the Optionee elects to exercise the Option to lease the Property, the terms of the Lease Agreement ("Lease Agreement" or "Lease") shall become immediately effective upon such exercise and shall be as follows.
  - 1. The term of the Lease shall commence on the date that the Optionor(s) receives proper notice that the Optionee has exercised the Option, pursuant to Paragraph 5 therein. The initial term shall expire five (5) year(s) from the commencement date of the Lease Agreement and shall include six (6) additional five (5)-year terms per the Lease Agreement. Optionee may, by providing written notice at least sixty (60) days prior to the expiration of the original or any renewal Lease term, elect to unilaterally terminate this Lease at the end of any original or renewal Lease term. Such notice must be

personally delivered or sent via registered or certified mail, return receipt requested, to the address of the Optioner(s) set forth in Paragraph 14 hereof. The Lease amount shall be adjusted at the end of each term by an increase of 12%.

- 2. The Optionee shall pay to the Optionor(s) rent for the Property in the sum of Four Thousand Eight Hundred Dollars and Zero Cents (\$4,800.00) yearly, to be paid in advance. All rent payments shall be personally delivered or mailed to the Optionor(s) at the address set forth in Paragraph 14 hereof. Any check payment of the rent due under the Lease shall be payable to the order of Optionor(s).
- 3. The Optionee shall be entitled to use and occupy the Property for the purpose of erecting, maintaining and operating a communications tower and communications facilities thereon and for all such other uses as Optionee may, in its sole discretion, deem necessary in connection therewith.
- 4. The Optionor(s) shall be responsible for the payment of all real estate taxes which shall be assessed against the Property during the term of the lease. The Optionee shall pay all charges for heat, water, gas, electricity, sewer use charges and any other utility used or consumed on the Property. The Optionee shall, at its own cost and expense, maintain and keep in full force and effect during the term of the lease public liability insurance with coverage in the amount of at least one million dollars (\$1,000,000.00) per person for bodily injury, disease, or death and shall maintain property insurance on any property the Optionee located on the Property.

5. The Optionee may assign the lease. The Optionee may sublet all or part of the space on the tower or ground space.

- 6. The Optionor(s) covenants that upon the Optionee's payment of the rent agreed upon herein, as well as Optionee's observing and performing all of the covenants and conditions contained in the Lease, the Optionee may peacefully and quietly enjoy the Property subject to the terms and conditions set forth in the Lease.
- 7. The Optionee agrees to maintain an access road in a passable manner for the term of the lease.
- 8. Optionce's Payment of Taxes, Fees and Assessments. Optionee shall pay directly to the applicable federal, state or local governmental unit or agency ("Governmental Entity") or to Optionor if Optionor is invoiced by such Governmental Entity, all taxes, fees, assessments or other charges assessed by any Governmental Entity directly against Optionee's Equipment and/or Optionee's use of the Facility. Optionee shall also pay to Optionor Optionee's Pro Rata Share of all taxes, fees, assessments or charges including, but not limited to, personal property taxes attributable to Optionee's equipment and antenna(s), municipal franchise fees, use fees, municipal application fees, installation fees and increases thereof. "Pro Rata Share" shall mean the fraction of decimal equivalent of dividing one (1) by the total number of then existing users occupying a tower on the last day of the applicable calendar year.

17. This Option and Lease Agreement contains the entire agreement between the parties hereto and no modification or amendment shall be binding upon any party unless made in writing and signed by each of the parties hereto.

- 18. Upon the termination or other end of this Lease Agreement, Optionee shall have the right to remove any and all of its property (real or personal) from the Property regardless of whether or not such property may be considered a fixture thereto.
- 19. Upon abandonment of the property, Optionee shall have thirty (30) days to dismantle and remove the cellular antenna tower and any/all equipment located on Optionor's property.

[Remainder of Page Intentionally Left Blank]

## **EXECUTION OF AGREEMENT(S)**

By: Clyde Haycraft and Dinah Haycraft
Property Owner(s)

By: Ron Smith
Authorized Representative

NOTARY PUBLIC STATE AT LARGE

My commission expires: 0/-30-2014

| STATE OF                                                                   |      |  |  |
|----------------------------------------------------------------------------|------|--|--|
| COUNTY OF <u>Itaapaa</u>                                                   |      |  |  |
| The foregoing instrument was acknowledged before me thisday of,            |      |  |  |
| 20//, by <u>Dinah Haycraft</u> to be his/her free act and deed.            |      |  |  |
| NOTARY PUBLIC STATE AT LARGE                                               |      |  |  |
| My commission expires: 01 30-2014                                          |      |  |  |
|                                                                            |      |  |  |
| STATE OF KENTUCKY                                                          |      |  |  |
| COUNTY OF HARDIN                                                           |      |  |  |
| The foregoing instrument was acknowledged before me this 3 day of February | ary, |  |  |
| 20 //, by Ron Smith, to be his free act and deed.                          |      |  |  |
| NOTARY PUBLIC STATE AT LARGE                                               |      |  |  |
| My commission expires: $1-2-1-13$                                          |      |  |  |

This instrument prepared by:

John E. Selent
DINSMORE & SHOHL LLP

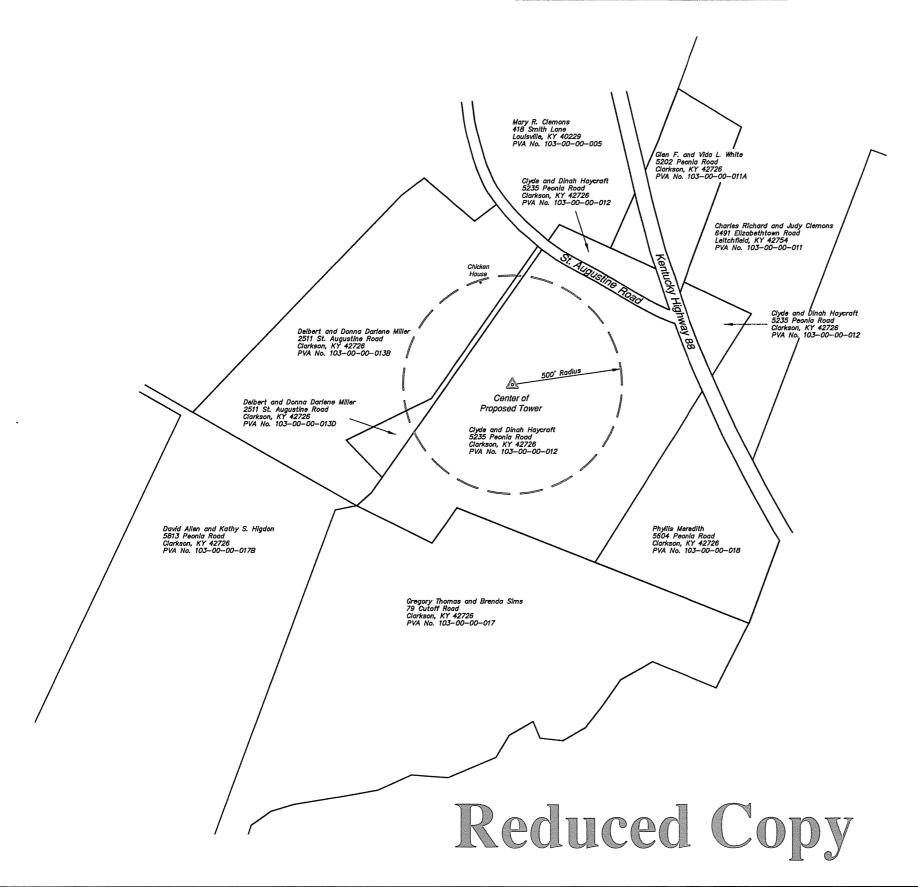
1400 PNC Plaza

500 West Jefferson Street

Louisville, KY 40202

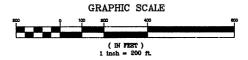
(502) 540-2300

# Site: Johnson Crossroads 500-Foot Radius Map for Structures and Landowners Grayson County, Kentucky





North



The location of the boundaries shown are approximate, and they are based upon aerial photographs and information on file in the office of the Property Valuation Administrator of Grayson County, Kentucky.

## Surveyor's Certification

February 23, 2011.

Darren L. Helms, P.L.S. 3386 MARCH 4, 2011

> STATE OF KENTUCKY
>
> DARREN L. HELMS
>
> 3386
>
> LICENSED
>
> PROFESSIONAL
>
> LIAND CUDYCYAD **ELAND SURVEYOR**

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| 500-Foot Radius Map | 2601 St. Augustine Road | Clarkson, Kentucky 42726 |  |  |
|---------------------|-------------------------|--------------------------|--|--|
| _                   |                         |                          |  |  |

Cellular 2902 Ring Road Elizabethtown, Kentucky Bluegrass

42701

| REVISIONS       |          |            | DATE       | ,         |
|-----------------|----------|------------|------------|-----------|
|                 |          |            |            |           |
|                 |          | ļ          |            |           |
| *************   |          | -          |            |           |
| DATE<br>3-07-11 | DRAWN BY | A. Winkler | CHECKED BY | D.L.Helms |
| -011            |          |            |            |           |

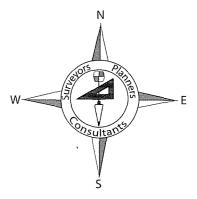
SHEET NO.

OF 1 SHEETS

FILE NO. johnson-radius.dwg

# Landmark Surveying Co., Inc.

Darren L. Helms, P.L.S., PRESIDENT Dennis N. Helms, P.L.S., VICE PRESIDENT



15 N.E. 3rd Street
Washington, Indiana 47501
Phone: 812-257-0950
Fax: 812-257-0953
Email: landmark97@sbcglobal.net

# Landowner and Adjacent Landowner List

## **Johnson Crossroads Site**

Mary R. Clemons 418 Smith Lane Louisville, KY 40229

Glen F. and Vida L. White 5202 Peonia Road Clarkson, KY 42726

Charles Richard and Judy Clemons 6491 Elizabethtown Road Leitchfield, KY 42754

Phyllis Meredith 5604 Peonia Road Clarkson, KY 42726 Gregory Thomas and Brenda Sims 79 Cutoff Road Clarkson, KY 42726

David Allen and Kathy S. Higdon 5813 Peonia Road Clarkson, KY 42726

Delbert and Donna Darlene Miller 2511 St. Augustine Road Clarkson, KY 42726

Clyde and Dinah Haycraft 5235 Peonia Road Clarkson, KY 42726

Darren L. Helms, Kentucky Professional Land Surveyor No. 3386

MARCH 7, 2011

STATE OF KENTUCKY

DARREN L. HELMS

3386

LICENSED

PROFESSIONAL

LAND SURVEYOR

Mary R. Clemons 418 Smith Lane Louisville, Kentucky 40229

# **Public Notice**

Kentucky RSA #3 Cellular General Partnership ("Kentucky RSA #3") is a Kentucky general partnership that markets its services as Bluegrass Cellular. Bluegrass Cellular has been serving Central Kentucky with wireless communications services for almost 20 years.

Kentucky RSA #3 is applying to the Public Service Commission of the Commonwealth of Kentucky (the "Commission") for a Certificate of Public Convenience and Necessity to construct a new cell facility to provide cellular telecommunications service in Grayson County. This facility will include a 240-foot tower and an equipment shelter to be located at 2601 St. Augustine Road, Clarkson, Kentucky, 42726. A map showing the location is attached.

The Commission invites your comments regarding this proposed construction. Also, the Commission wants you to be aware of your right to intervene in this matter. Your comments and request for intervention should be addressed to:

> **Executive Director's Office** Public Service Commission of the Commonwealth of Kentucky P.O. Box 615 Frankfort, Kentucky, 40602.

Please refer to case number 2011-00090 in your correspondence.

Bluegrass Cellular welcomes the opportunity to serve and provide wireless service in your community! (For more information, please check us out online at www.myblueworks.com)

| SENDER: COMPLETE THIS SECTION  Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  Print your name and address on the reverse so that we can return the card to you.  Attach this card to the back of the mailpiece, or on the front if space permits. | A. Signature  X Many Lemans Addressee  B. Received by (Printed Name)  C. pate of Belivery  D. Is delivery address different from item 1? Yes  If YES, enter delivery address below: |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 418 Smith Lane<br>Lonisville, KY 40229                                                                                                                                                                                                                                                  | 3. Service Type  ☐ Certified Mail ☐ Express Mail ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D.                                                              |
|                                                                                                                                                                                                                                                                                         | 4. Restricted Delivery? (Extra Fee)                                                                                                                                                 |
| 2. Article Number 7010 1.8                                                                                                                                                                                                                                                              | 70 0003 4605 1773 -                                                                                                                                                                 |
| PS Form 3811, February 2004 Domestic Retu                                                                                                                                                                                                                                               | urn Receipt 102595-02-M-1540                                                                                                                                                        |

Glen F. and Vida L. White 5202 Peonia Road Clarkson, Kentucky 42726

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| SENDER: COMPLETE THIS SECTION                                                                                                                                                                                                                                                                           | COMPLETE THIS SECTION ON DELIVERY                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  Print your name and address on the reverse so that we can return the card to you.  Attach this card to the back of the mailpiece, or on the front if space permits.  1. Article Addressed to:  Clay KSon, KY 42726 | A. Signature  A. Signature  Agent  Addressee  B. Received by (Printed Name)  C. Date of Delivery  C. Date of Delivery  D. Is delivery address different from item 1?  If YES, enter delivery address below: |
| Clarkson, KY 42726                                                                                                                                                                                                                                                                                      | 3. Service Type  ☐ Certified Mail ☐ Express Mail ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D.                                                                                      |
|                                                                                                                                                                                                                                                                                                         | 4. Restricted Delivery? (Extra Fee) ☐ Yes                                                                                                                                                                   |
| 2. Article Number 7010 187                                                                                                                                                                                                                                                                              | 0 0003 6605 1740                                                                                                                                                                                            |
| DC Form 3911 Fohrung 2004 Domestic Date                                                                                                                                                                                                                                                                 | ra Passint 102595-02-M-1540                                                                                                                                                                                 |

Charles Richard and Judy Clemons 6491 Elizabethtown Road Leitchfield, Kentucky 42754

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| SENDER: COMPLETE THIS SECTION                                                                                                                           | COMPLETE THIS SECTION ON DELIVERY                                     |
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| ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.                                                                   | A. Signature  X Judy Climon Agent                                     |
| ■ Print your name and address on the reverse<br>so that we can return the card to you.                                                                  | B. Received by (Printed Name)  C. Date of Delivery                    |
| Matach this card to the back of the mailpiece,     or on the front if space permits.                                                                    | D. Is delivery address different from item 1? Yes                     |
| Article Addressed to:     Article Addressed to: | If YES, enter delivery address below:                                 |
| Charleskichard+Judy Clemons                                                                                                                             |                                                                       |
| 6491 Elizabethtown Rd.                                                                                                                                  |                                                                       |
| Leitchfield, Ky 42754                                                                                                                                   | 3. Service Type ☐ Certified Mail ☐ Express Mail                       |
| CC110011610/KY 72 159                                                                                                                                   | ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D. |
|                                                                                                                                                         | 4. Restricted Delivery? (Extra Fee) Yes                               |
| 2. Article Number 7010 1871 (Transfer from service label)                                                                                               | 0 0003 6605 1757                                                      |
| PS Form 3811, February 2004 Domestic Ret                                                                                                                | urn Receipt 102595-02-M-1540                                          |

Phyllis Meredith 5604 Peonia Road Clarkson, Kentucky 42726

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| SENDER: COMPLETE THIS SECTION                                                                                                                                                                                                                                                                                         | COMPLETE THIS SECTION ON DELIVERY                                                                                                                                                 |
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| Clarkson, Kentucky 42726                                                                                                                                                                                                                                                                                              | 3. Service Type  ☐ Certified Mail ☐ Express Mail ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D.  4. Restricted Delivery? (Extra Fee) ☐ Yes                 |
| 2. Article Number 7010 16                                                                                                                                                                                                                                                                                             | 176 0003 6605 1764 /                                                                                                                                                              |
| PS Form 3811 February 2004 Domestic Retu                                                                                                                                                                                                                                                                              | rn Receipt 102595-02-M-1540                                                                                                                                                       |

Gregory Thomas and Brenda Sims 79 Cutoff Road Clarkson, Kentucky 42726

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------|--------------------|
| Clarkson, KY                                                                                                                                                                                                                                                                                                                                | 42726        | 3. Service Type  Cortified Mail                                                                     | ot for Merchandise |
|                                                                                                                                                                                                                                                                                                                                             |              | 4. Restricted Delivery? (Extra Fee)                                                                 | ☐ Yes              |
| Article Number (Transfer from service label)                                                                                                                                                                                                                                                                                                | 7010 187     | 70 0003 6603 9267                                                                                   |                    |
| PS Form 3811, February 2004                                                                                                                                                                                                                                                                                                                 | Domestic Ret | urn Receipt                                                                                         | 102595-02-M-1540   |

David Allen and Kathy S. Higdon 5813 Peonia Road Clarkson, Kentucky 42726

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Clarkson, Ky 42726                                                                                                                                                                                                                                                                                                                                                           | 3. Service-Type  Certified Mail  Registered  Resistered  Co.D.  Co.D.                                                                                                         |  |  |
| 4. Restricted Delivery? (Extra Fee) ☐ Yes  2. Article Number ☐ 7月7月7月7月7月7日7日7日7日7日7日7日7日7日7日7日7日7日7日7                                                                                                                                                                                                                                                                       |                                                                                                                                                                               |  |  |
| 2. Article Number (Transfer from service label) 7010 1.870 0003 1.803 7.250 102595-02-M-1540 PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540                                                                                                                                                                                                            |                                                                                                                                                                               |  |  |

Delbert and Donna Darlene Miller 2511 St. Augustine Road Clarkson, Kentucky 42726

# **Public Notice**

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Kentucky RSA #3 is applying to the Public Service Commission of the Commonwealth of Kentucky (the "Commission") for a Certificate of Public Convenience and Necessity to construct a new cell facility to provide cellular telecommunications service in Grayson County. This facility will include a 240-foot tower and an equipment shelter to be located at 2601 St. Augustine Road, Clarkson, Kentucky, 42726. A map showing the location is attached.

The Commission invites your comments regarding this proposed construction. Also, the Commission wants you to be aware of your right to intervene in this matter. Your comments and request for intervention should be addressed to:

> **Executive Director's Office** Public Service Commission of the Commonwealth of Kentucky P.O. Box 615 Frankfort, Kentucky, 40602.

Please refer to case number 2011-00090 in your correspondence.

Bluegrass Cellular welcomes the opportunity to serve and provide wireless service in your community! (For more information, please check us out online at www.myblueworks.com)

| SENDER: COMPLETE THIS SECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | COMPLETE THIS SECTION ON DELIVERY                                                                                                                                             |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  Print your name and address on the reverse so that we can return the card to you.  Attach this card to the back of the mailpiece, or on the front if space permits.  1. Article Addressed to:  Complete items 1, 2, and 3. Also complete items 4. If the reverse so the reverse so that we can return the card to you.  Attach this card to the back of the mailpiece, or on the front if space permits. | A. Signature  X. Agent  Addressee  B. Received by (Printed Name)  CDate of Delivery  D. Is delivery address different from Item 1?  If YES, enter delivery address below:  No |  |  |
| 2511 St. Augustine Rd.<br>Clarkson, KY 42726                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3. Service Type                                                                                                                                                               |  |  |
| 2. Article Number (Transfer from service label) 7009 3410                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0000 3562 7016                                                                                                                                                                |  |  |
| PS Form 3811, February 2004 Domestic Reti                                                                                                                                                                                                                                                                                                                                                                                                                                                     | urn Receipt 102595-02-M-1540                                                                                                                                                  |  |  |

Clyde and Dinah Haycraft 5235 Peonia Road Clarkson, Kentucky 42726

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| SENDER: COMPLETE THIS SECTION                                                                                                                                                                                                                                                                                   |                 | COMPLI             | ETE THIS S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ECTION O          | N DELIVE    | RY                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|--------------------------------------------------------------|
| © Complete items 1, 2, and 3. Also completem 4 if Restricted Delivery is desired.  © Print your name and address on the reso that we can return the card to you.  © Attach this card to the back of the mail or on the front if space permits.  1. Article Addressed to:  Clydl → Diwah Hayoro  5235 Prònia Pd. | verse<br>piece, | Di no<br>D. Is del | ived by (Prick)  ived by (Prick)  ivery address  iv | yeratt            | rom item 11 | ☐ Agent ☐ Addressee  Date of Delivery  3/17/11  ? ☐ Yes ☐ No |
| Clav K.SON, KY 42726  2. Article Number                                                                                                                                                                                                                                                                         | 7009            | ☐ Re Ins           | ce Type offified Mail egistered sured Mail icted Delive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ☐ Retu<br>☐ C.O.i | D.<br>ee)   | for Merchandise                                              |
| (Transfer from service label)                                                                                                                                                                                                                                                                                   |                 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |             |                                                              |
| PS Form 3811, February 2004                                                                                                                                                                                                                                                                                     | Domestic Ref    | turn Receip        | t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |             | 102595-02-M-1540                                             |

# insmore&Shohl

Kerry W. Ingle (502) 540-2354 (Direct Dial) kerry.ingle@dinslaw.com

March 17, 2011

Via Certified Mail

Gary Logsdon Grayson County Judge Executive 10 Public Square Leitchfield, Kentucky 42754

> Application of Kentucky RSA #3 Cellular General Partnership d/b/a RE: Bluegrass Cellular for a Certificate of Public Convenience and Necessity to construct a cellular tower to be located at 2601 St. Augustine Road, Clarkson, Grayson County, Kentucky, 42726, before the Public Service Commission of the Commonwealth of Kentucky, Case No. 2011-00090

Dear Judge Logsdon:

Kentucky RSA #3 Cellular General Partnership ("Kentucky RSA #3) is a Kentucky General Partnership that markets its services as Bluegrass Cellular. Kentucky RSA #3 is applying to the Public Service Commission of the Commonwealth of Kentucky (the Commission") for a Certificate of Public Convenience and Necessity to propose construction and operation for a new facility to provide cellular telecommunications service in rural service area (RSA) #3 in Butler County. The facility will include a 240 ft. tower and an equipment shelter to be located at 2601 St. Augustine Road, Clarkson, Kentucky, 42726. A map showing the location of the proposed new facility is enclosed.

The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter.

Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission of the Commonwealth of Kentucky, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2011-00090 in your correspondence.

Very truly yours,

DINSMORE & SHØHL/LLP

Paralegal

101 S. Fifth Street, Suite 2500 Louisville, KY 40202-3175 502.581.8000 502.581.8111 fax www.dinslaw.com

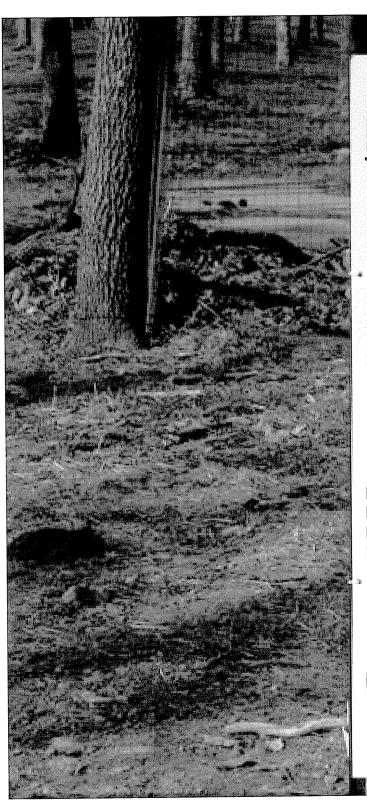
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| SENDER: COMPLETE THIS SECTION                                                                                                                                                                                                                                                                                                                | COMPLETE THIS SECTION ON DELIVERY                                                                                                                                                                                                      |
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| Leitchfield, KY 42754                                                                                                                                                                                                                                                                                                                        | ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D.                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                              | 4. Restricted Delivery? (Extra Fee) Yes                                                                                                                                                                                                |
| 2. Article Number (Transfer from service label) 7 1 1 1 1                                                                                                                                                                                                                                                                                    | 370 0003 0714 7266                                                                                                                                                                                                                     |

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540



# **PUBLIC NOTICE**

Kentucky RSA #3 Cellular General Partnership proposes to construct a cellular communications

# TOWER

on this site. If you have any questions please contact:

Kentechy ASA #3 Cellular General Parlmership P. O. Bon 5012 2002 Ring Soad Etirobethiowa, KY 42701 Executive Onector, The Public Service Commission 200 Sower Boolevord P. D. Boo 605 Franklord, NF 46602

Please refer to P.S.C.

Case #2011-00090 in your correspondence.













#### Affidavit of Advertising

The following newspaper, Grayson County News-Gazette agrees the scheduled Advertising was published in the  $3/26\&\ 3/30$  edition of the Grayson County News-Gazette.

CLIENT: Dinsmore & Shohl, LLP
Day/Date of Distribution:
3/26/11 & 3/30/11
Zip Codes and/or zones distributed:
42754,42755,42726,42721,42712,40119
AFFIDAVIT COMPLETED:
Date:3/30/2010 By: Leslie A. Shartzer
Title: Administration

NOTARY INFORMATION:

Affirmed before me this 29th day of November

(Signature)

My commission expires:4/28/2012

**NOTARY STAMP:** 

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3. E-mail: gcclassifieds@gcnewsgazette.com

4. Stop by: 40 Public Square

5. Mail: P.O. Box 305, Lettchfield, KY 42755

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Wednesday's paper @ 2 p.m. Monday Saturday's paper @ 2 p.m. Thursday

MEN - M/E - Check

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#### 3000

### Real Estate

#### Sales **Houses For Sale**

Trailor #1 For Rent: \$300 mth. Stove & fridge furnished. Deposit & reference required, 879-9128.

#### 3 bdrm.\$325 mth. Land (Acreage)

Grayson Co. Saltsman Dr. off Blowtown Rd. 3 acres county water, elect., mobile homes ok; \$7,500. Call 502-361-9970.

#### 3500 Real Estate Rentals

#### Apartments/ Townhouses

#### For Rent:

2 bedroom, 1 1/2 bath townhouse. Stove, Refrigerator, Dishwasher Furnished, Washer/Dryer connections, total electric Pets under 30, lbs. Allowed call 259-2149 until 4:00 p.m. or 259-5098 after 4:00

LEITCHFIELD-"SPECIAL PRICE RENT on Kelly Street-2 bedroom, 1 1/2 bath townhouses with washer & dryer hook-up. stove, refrigerator, dishwasher, furnished, insulated doors & win-b KU. Call for details dows. On 270-259-3114.

Houses For Rent

#### Embry's Rentals

Homes for rent, 589-0617. 259-3856

2 bedroom home in Leitchfield close to businesses, central h/a, frige, stove, compact washer/dryer included On K.U. No pets, \$400 month, \$300 deposit, 270-589-1430.

#### Want to Rent

#### For Rent:

1 Bath Duplex. Stove 2 Bedroom & Refrigerator Furnished. Total electric on K.U., Pets under 30 lbs. Allowed. Call: 259-2149 until 4:00 p.m. or 259-5098 after 4:00 p.m.

### 3 BEDROOM DUPLEX

2 bath,

#### Pear Village **Apartments** 259-6514

washer/dryer included IDD #1-800-545-1833

www,homelandinc.com

LEQUAL HOUSING OPPORTUNITY
HANDICAPPED
ACCESSIBLE

#### FOR RENT! 2BR Mobile, water, trash and sewer Clarkson & Leithfield Deposit/Reference Req. Call for details 259-0377 • 505-2491 • 505-2492

#### FOR RENT

Nice 2 bedroom home in Caneyville. Central heat/air, close to school, grocery, doctor office, church and WK Parkway. \$450/month • \$400 deposit Call 270-879-9644

#### 6000

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Skilled laborers & carpenters needed for residential construction company in Leitchfield. Call 270-259-5972 Tues-Frl

For application information

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#### NOTICE

Kentucky RSA#3 Cellular General Partnership is applying to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide cellular telecommunications service in rural service area #3 of the Commonwealth of Kentucky (Johnson Crossroads Cell Site). The facility will include a 240 foot tower and an equipment shelter to be located at 2601 St. Augustine Road; Clarkson, Kentucky, 42726. Your comments and requests for intervention should be addressed to: Executive Director's Office, Public Service Commission of the Commonwealth of Kentucky, Post Office Box 615, 211 Sower Boulevard, Frankfort, Kentucky 40602. Please refer to Case No. 2011-00090 in your correspondence.

News & Family mmudd@gene News & Datebook ng — tamastrong@gen eresa Armstrong -

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Hours of Operation Menday through Friday 8:00-5:00 \$26 annually.

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1, Call: (270) 259-9622 2. Fax: (270) 259-5537

3. E-mail: gcclassifieds@gcnewsgazette.com

4. Stop by: 40 Public Square

5. Mail: P.O. Box 305, Leitchfield, KY 42755

Our hours: 8am-5pm DEADLINES:

Wednesday's paper @ 2 p.m. Monday Saturday's paper @ 2 p.m. Thursday

VISA • M/C • Check

#### VIII WORK For You!!!

Real Estate Rentals

#### **Apartments/ Townhouses**

#### For Rent:

2 bedroom, 1 1/2 bath townhouse Stove, Refrigerator, Dishwasher Furnished, Washer/Dryer connections, total electric. Pets under 30 lbs. Allowed call 259-2149 until 4:00 p.m. or 259-5098 after 4:00 p.m.

In Leitchfield 3 bedroom apt, for rent 1 1/2 bath no pets. HWY 62 call 270-792-8155 or 270-230-0027

#### CEDAR RIDGE HOMES

For Rent: Apt. and Homes. 2 and 3 Bdrm. Apts., and 3 Bdrm., 2 Bath Homes all in L-field area. Rent To Own Available: Call 589-2151, 589-7132, 589-0927.

#### Embry's Rentals

Homes for rent. 259-3856 or 589-0617.

#### **Houses for Rent**

2 bedroom home in Leitchfield close to businesses, central h/a, frige, stove, compact washer/dryer included. On K.U. No pets. \$400 month, \$300 deposit, call 270-589-1430.

ROUGH RIVER HOUSE FOR RENT "New" 3 bedroom, 2 bath, access to lake, \$650.00 call 502-419-7554

SHOP CLASSIFIED

#### Want to Rent

#### For Rent:

2 Bedroom 1 Bath Duplex. Stove & Refrigerator Furnished. Total electric on K.U. Pets under 30 lbs. Allowed. Call 259-2149 until 4:00 p.m. or 259-5098 after 4:00 p.m.

#### For Rent

2 bedroom trailer in the country, with stove, fridge, and well water. Pet restrictions, \$240.00 month, phone (270) 242-7429.

## Suisaarije TODAYI ov CALL 2/5(9)5(9)6/2/2

6000

Employment

Help Wanted - General

#### **S&R** Excavation is now hiring:

Concrete Finisher with 5 years experience

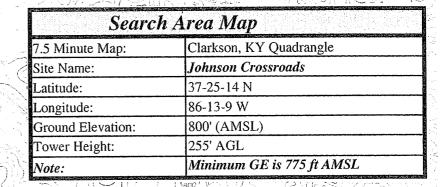
Tri-Axie Dump Truck Driver with 5 years experience We offer: paid vacation and holidays and excellent retirement opportunity. Apply in person

2137 Glen Lily Road Bowling Green, KY 42101 www.stewartrichey.com EOE

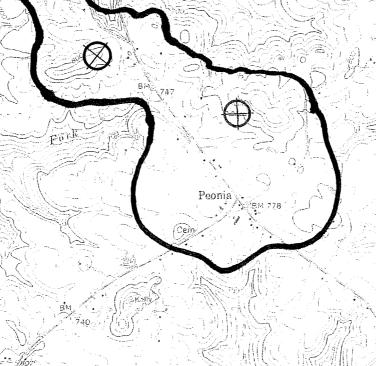
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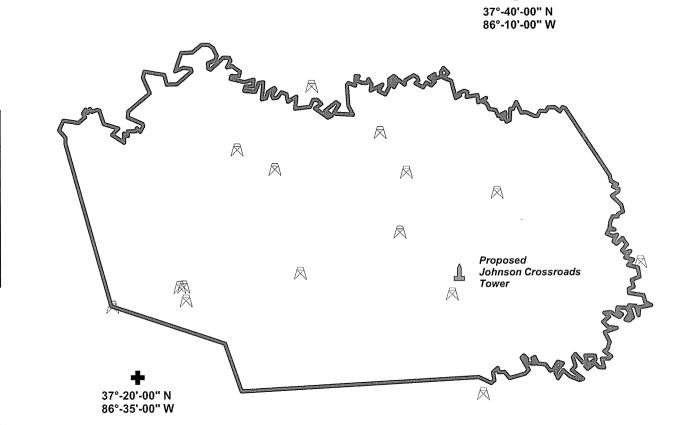


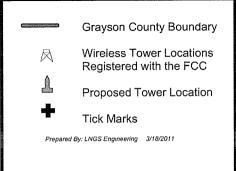
Cem 1779 779 Johnson Crossroads 14

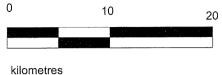


| Search Area Map          |                         |  |  |  |
|--------------------------|-------------------------|--|--|--|
| 7.5 Minute Map:          | Clarkson, KY Quadrangle |  |  |  |
| Site Name:               | Johnson Crossroads 😵    |  |  |  |
| Latitude:                | 37-25-27.05 N           |  |  |  |
| Longitude:               | 86-13-46.74 W           |  |  |  |
| Ground Elevation:        | 826' (AMSL)             |  |  |  |
| Radiation Center Height: | 255' AGL                |  |  |  |

Meredith







# Information on Towers Registered with the FCC in Grayson County and 1/2 Mile Area Outside of the County Boundary

| FCC Tower Reg.<br>No. | North<br>Latitude | West<br>Longitude | City, State      | Tower Owner                                                          |
|-----------------------|-------------------|-------------------|------------------|----------------------------------------------------------------------|
|                       |                   |                   |                  |                                                                      |
| 1043035               | 37-24-41          | 86-32-12          | Caneyville, KY   | KENTUCKY RSA 3 CELLULAR GENERAL PARTNERSHIP DBA = BLUEGRASS CELLULAR |
| 1043037               | 37-27-33          | 86-17-41          | Leitchfield, KY  | KENTUCKY RSA 3 CELLULAR GENERAL PARTNERSHIP DBA = BLUEGRASS CELLULAR |
| 1043268               | 37-30-40          | 86-17-15          | Leitchfield, KY  | HERITAGE MEDIA OF KENTUCKY INC                                       |
| 1043431               | 37-24-42.6        | 86-31-56.6        | Caneyville, KY   | NEW CINGULAR WIRELESS PCS, LLC                                       |
| 1044618               | 37-23-59          | 86-31-47          | Caneyville, KY   | KENTUCKY UTILITIES COMPANY                                           |
| 1052138               | 37-25-58          | 86-01-49          | Millerstown, KY  | FM 90.1, INC.                                                        |
| 1217206               | 37-29-36          | 86-11-16.5        | Clarkson, KY     | Crown Communication Inc.                                             |
| 1217214               | 37-25-24.5        | 86-24-14.9        | Millwood, KY     | Crown Communication Inc.                                             |
| 1217219               | 37-23-39.9        | 86-36-37.8        | Morgantown, KY   | Crown Communication Inc.                                             |
| 1235514               | 37-19-5.4         | 86-12-12.3        | Mammoth Cave, KY | Powertel/Memphis, Inc.                                               |
| 1244902               | 37-31-51.2        | 86-28-23.9        | Short Creek, KY  | NEW CINGULAR WIRELESS PCS, LLC                                       |
| 1250554               | 37-24-17.9        | 86-14-14.4        | Clarkson, KY     | Tennessee Valley Authority                                           |
| 1258451               | 37-32-44.1        | 86-18-58.4        | Leitchfield, KY  | KENTUCKY RSA 3 CELLULAR GENERAL PARTNERSHIP DBA = BLUEGRASS CELLULAR |
| 1268314               | 37-30-50          | 86-25-54.6        | Leitchfield, KY  | Mobilitie Investments II, LLC                                        |
| 1268315               | 37-35-8.1         | 86-23-28.8        | Leitchfield, KY  | Mobilitie Investments II, LLC                                        |