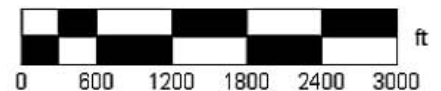


Original Search Area Map Issued by  
Verizon Radio Frequency Engineering

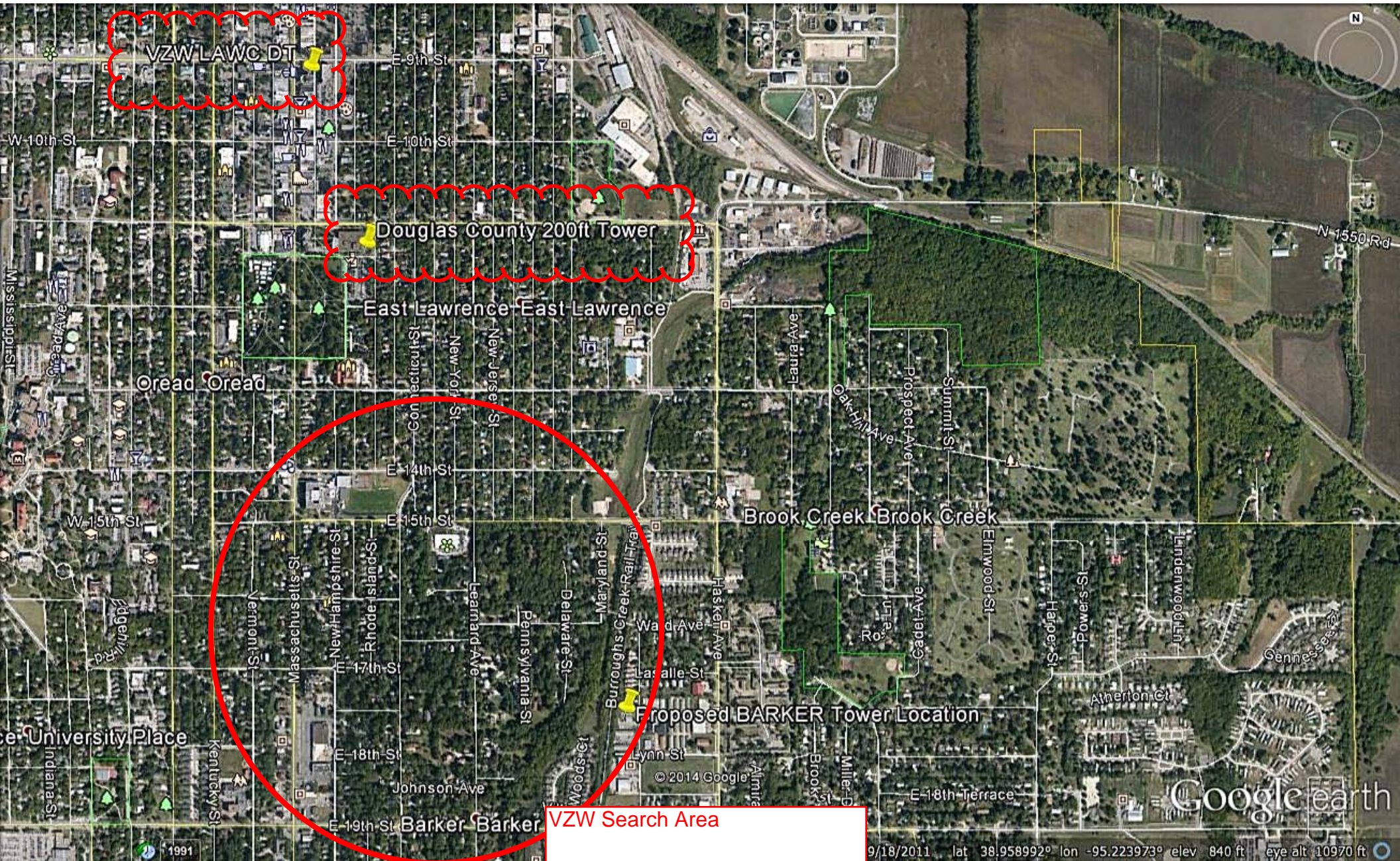
Data use subject to license.

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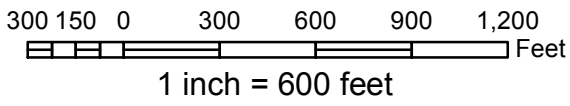
www.delorme.com



Data Zoom 13-4

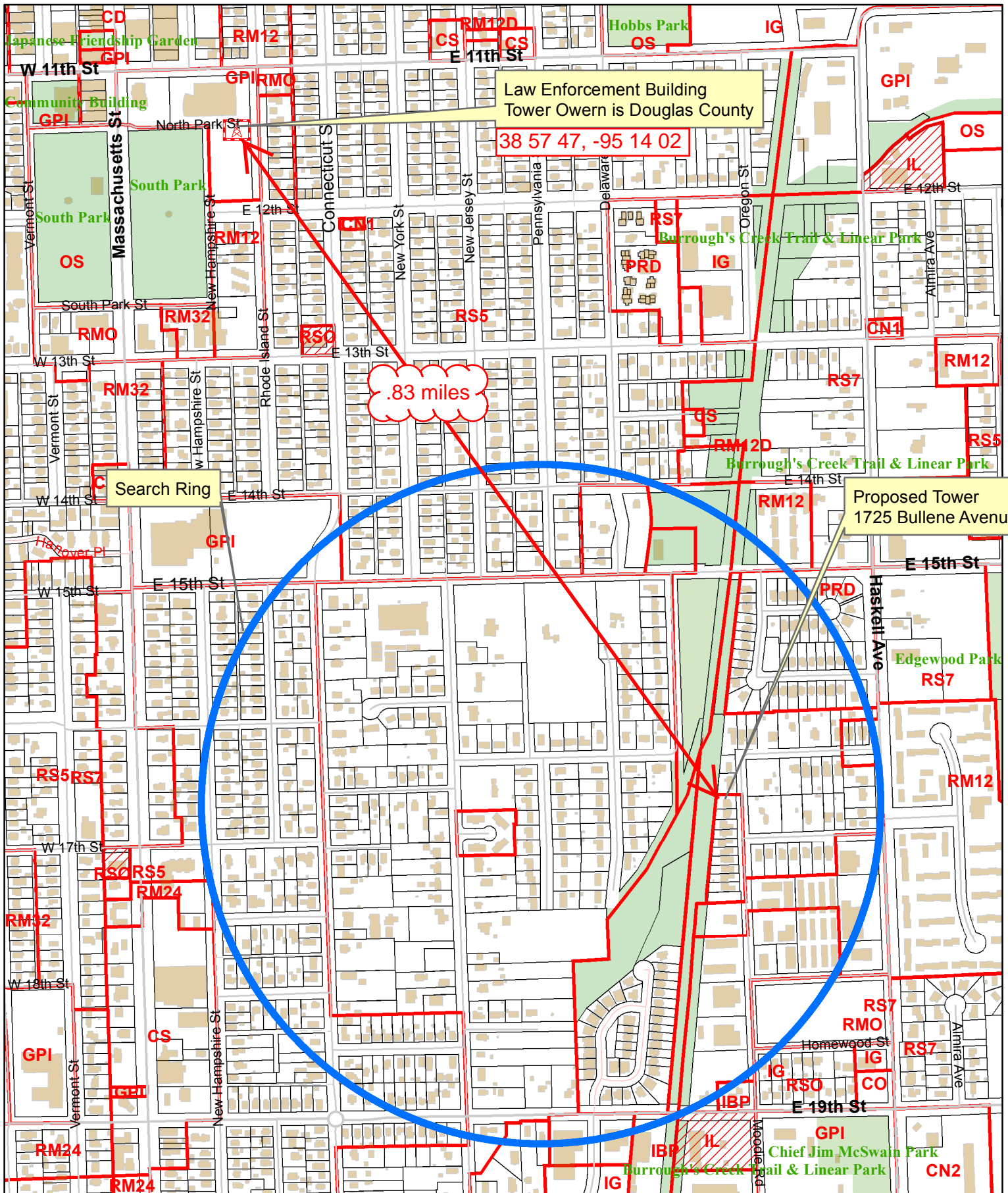


**VZW Search Area**  
North Boundary; E 13th Street  
East Boundary; Bullene Ave  
South Boundary; E 19th Street  
West Boundary; Kentucky Street



DISCLAIMER NOTICE  
 The map is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. The City of Lawrence makes no warranties, express or implied, as to the use of the map. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the map, including the fact that the map is dynamic and is in a constant state of maintenance, correction and update.

Date: 12/11/2014



ASR Registration Search

**Registration 1240013**[Map Registration](#)**Registration Detail**

Reg Number	1240013	Status	Constructed
File Number	A0338796	Constructed	08/21/2003
EMI	No	Dismantled	
NEPA	No		

**Antenna Structure**

Structure Type POLE - Any type of Pole

**Location** (in NAD83 Coordinates)

Lat/Long	38-57-47.0 N 095-14-02.0 W	Address	111 E 11th St
City, State	Lawrence , KS		
Zip	66044	County	DOUGLAS
Center of AM Array		Position of Tower in Array	

**Heights (meters)**

Elevation of Site Above Mean Sea Level	261.2	Overall Height Above Ground (AGL)	60.7
Overall Height Above Mean Sea Level	321.9	Overall Height Above Ground w/o Appurtenances	60.7 <b>200ft Monopole</b>

**Painting and Lighting Specifications**

None

**FAA Notification**

FAA Study	97-ACE-1562-OE	FAA Issue Date	12/15/1997
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**Owner & Contact Information**

FRN	0004709218	Owner Entity Type	
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**Owner**

Douglas County Kansas

111 E 11th St  
Lawrence , KS 66044**Craig Weinaug**  
**County Administrator**  
**(785) 832-5268****Contact**111 E.11th  
Lawrence , KS 66044**Lori Alexander**  
**Interim Director**  
**(785) 330-2861****Last Action Status**

Status	Constructed	Received	08/21/2003
Purpose	Notification	Entered	08/21/2003
Mode	Interactive		

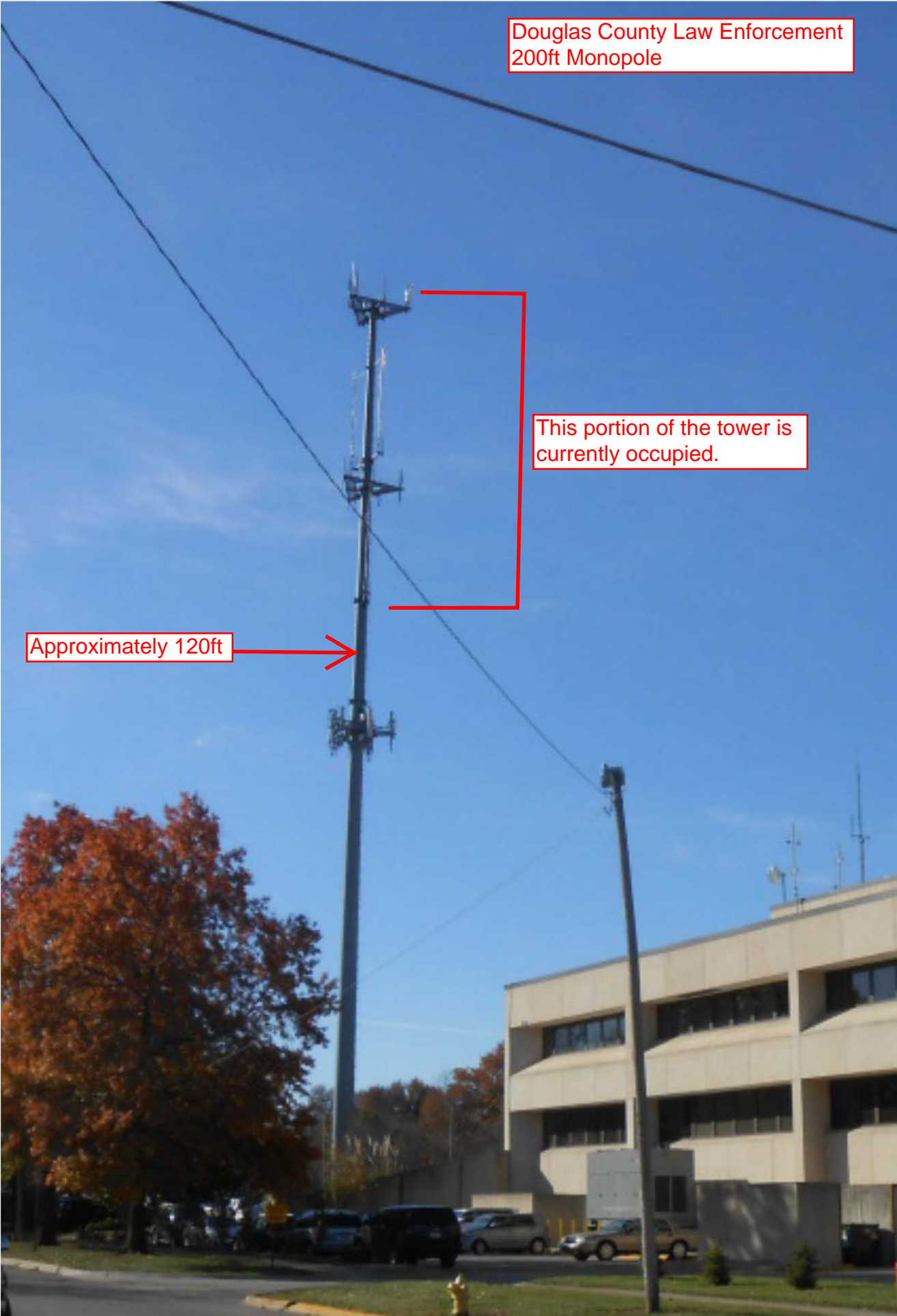


FCC Reg. No. 1240013  
Owner Douglas County, KS  
11<sup>th</sup> St. and Rhode Island St

Douglas County Law Enforcement  
200ft Monopole

This portion of the tower is  
currently occupied.

Approximately 120ft





From: Hank Madden – RF Engineer, Verizon Wireless

December 8, 2014

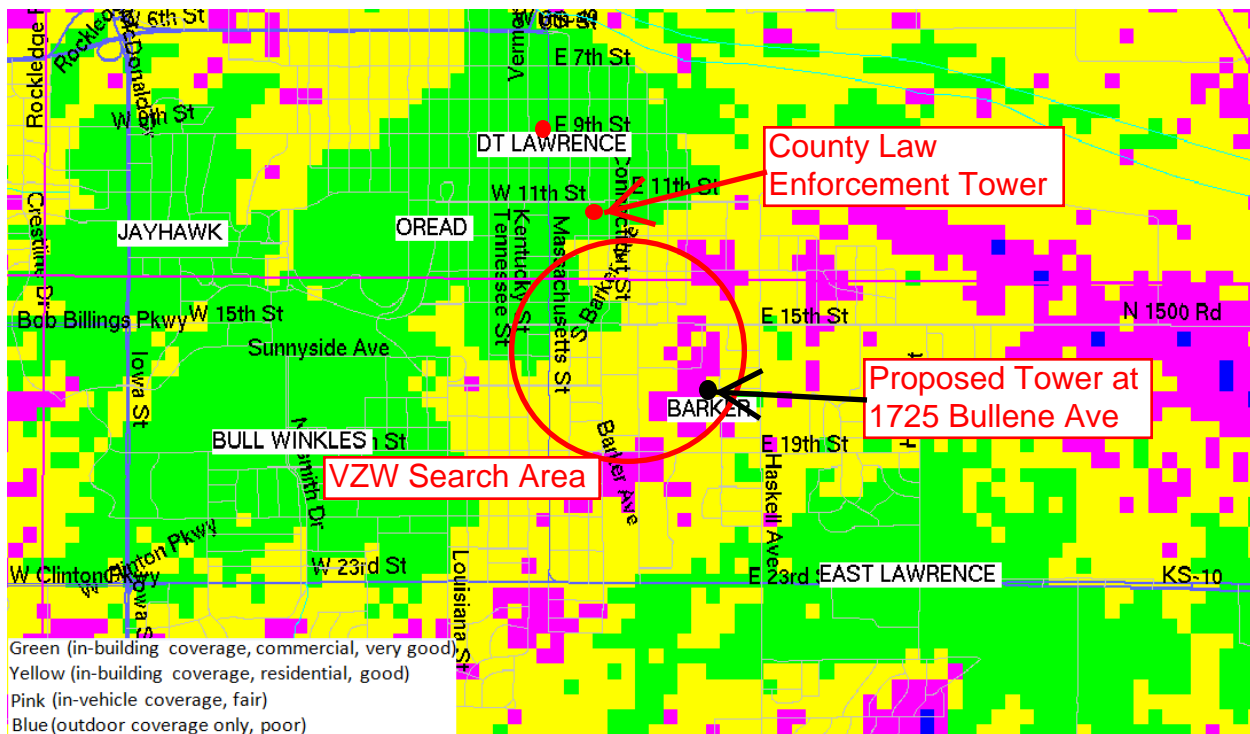
To: **The City Representatives**

RE: **Proposed Barker cell site**

Dear City Representatives,

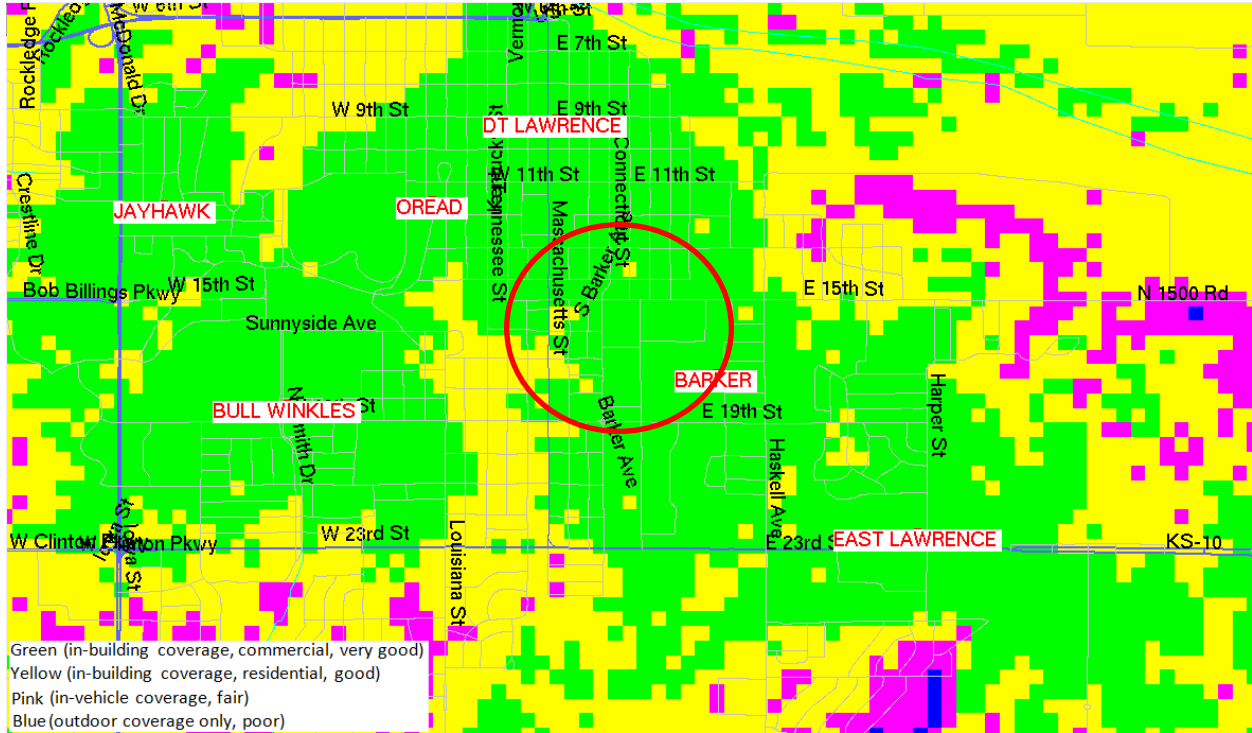
Verizon Wireless is proud to serve the greater Lawrence, KS area and we are always diligent to maintain excellent service and improvements. At this time, we are trying to enhance the area of east-central portions of Lawrence, KS where coverage service reliability and capacity must be improved. The area that needs improvement at this time in both capacity and performance is between Massachusetts St and Haskell Ave just north of 19<sup>th</sup> St in east-central Lawrence. The fast growing 4G (LTE) data usage has required us to plan for a new cell site in this area to improve coverage, performance and offload capacity from our existing sites namely DT Lawrence and East Lawrence sites as shown below, Map 1.

Map 1 – Existing Coverage



Below is Map 2 showing coverage improvement with the proposed new cell site, Barker.

Map 2 – Coverage with the new cell site



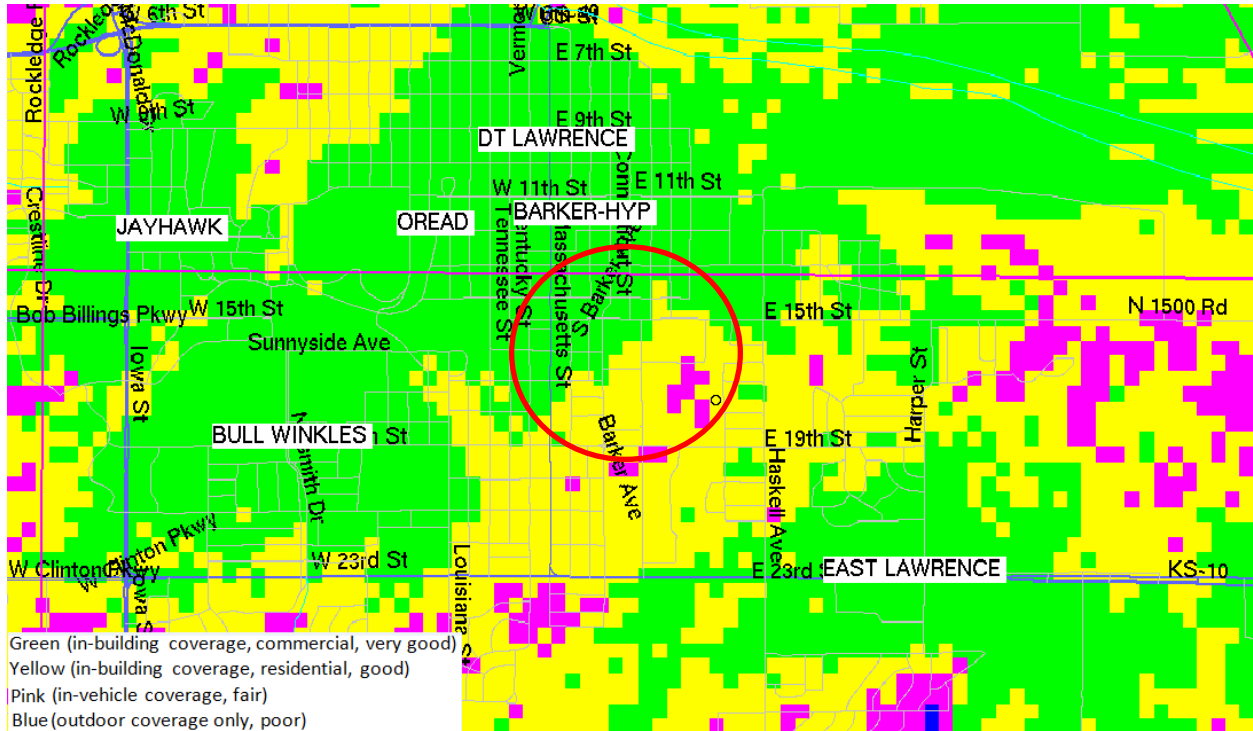
As 4G (LTE) data usage continues to increase dramatically as wireless customers utilize their phones for more day to day task and recreation, the demand also increases to meet these needs by creating new opportunities to develop methods of improving coverage, capacity, and data throughput. The most challenging is capacity and data throughput. Verizon Wireless is meeting the expectations of our customers by designing this proposed cell site in the Lawrence area.

This coverage improvement combined with the capacity offload will afford our customers the best possible data performance at the location identified. Verizon Wireless continues to strive to provide the best possible wireless experience for its customers while still recognizing the needs and desires of the surrounding community and being a good neighbor.



Below is Map 3 showing coverage improvement utilizing the Douglas County tower location.

Map 3 – Coverage with the new cell site on Douglas County tower



The Douglas County tower location (Barker-HYP) was considered in the analysis; however the proximity of the Douglas County tower is only 0.3 miles from the current VZW location of the DT Lawrence site. Typically, a separation of roughly 1 mile or more is preferred. If sites are closer than 1 mile apart this will cause excessive signal overlap and non-equidistant spacing among the other towers in the area. This could cause inter-signal interference which would result in poor signal quality or data throughput. The Douglas County tower location also does not fully address the coverage null identified earlier between Massachusetts St and Haskell Ave just north of 19<sup>th</sup> St in east-central Lawrence, which is the objective of the proposed site.

Based on these results, the Douglas County tower location is not considered a viable candidate.