### **AFFIDAVIT**

STATE OF TEXAS

COUNTY OF TARRANT

BEFORE ME, the undersigned authority, this day personally appeared Vinayak Muthal, who being by me first duly sworn, on oath says as follows:

- 1. "My name is Vinayak Muthal. I am over the age of 18 and have never been convicted of a felony or crime involving moral turpitude. I have an MS Electrical Engineering and an BS Electronics Engineering degree. I have been working as a radio frequency specialist since 2005. I have personal knowledge of the facts and statements contained herein."
- 2. "I am an RF Design Engineer for Dallas MTA, L.P. d/b/a Verizon Wireless ("Verizon Wireless") in the Dallas-Fort Worth Market. As a graduate engineer and radio frequency specialist, I am trained to identify gaps in coverage in wireless communications systems and to assess the ability of proposed antenna sites to remedy gaps in signal coverage."
- 3. "Verizon Wireless is authorized by the Federal Communications Commission to build a wireless communications system that will provide reliable coverage within the City of Dallas."
- 4. "Verizon Wireless has conducted radio frequency studies of the area surrounding the wireless communications facility site located at 5619 Belmont Avenue, Dallas, Texas, 75206 (the "Proposed Site"). Verizon Wireless currently has antennas on the roof of a building at the Proposed Site ("Existing Antennas"), however, the owner of the property plans to demolish the existing building. Attached to this affidavit and incorporated herein by reference as Exhibits A, B, C, and D are propagation studies depicting simulated radio frequency coverage in the area of the Proposed Site before (Exhibit A) and after (Exhibit B) the removal of Existing Antennas, and with antennas on a temporary tower with antenna centerlines at 75' on a stealth monopole (Exhibit C) and with antenna centerlines at 95' and 105' on a stealth monopole (Exhibit D)."
- 5. "Verizon Wireless would have a significant gap in reliable coverage in the City of Dallas if the Existing Antennas are removed and not replaced. A gap in coverage is evidenced by the inability to adequately transmit or receive calls, or by interrupted or disconnected calls."
- 6. "The significant gap in reliable coverage that would be created in the City of Dallas if current coverage is not replaced, as shown in Exhibit B, would prevent Verizon Wireless from providing seamless wireless service to current and future public and private users of its wireless communication system including police, fire, ambulance and emergency response personnel."

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- 7. "Since wireless communication is used with increasing frequency to report crimes, accidents, fires, medical emergencies and other threats to people or property, a gap in coverage represents a demonstrable threat to public health, safety and welfare."
- 8. "Exhibit A is a true and accurate simulation of existing radio frequency coverage in the area of the Proposed Site and shows the location of Verizon Wireless' existing sites in and around the City of Dallas. Exhibit B is a true and accurate simulation of radio frequency coverage in the area of the Proposed Site after removal of the Existing Antennas, that indicates varying degrees of less than optimum coverage in the general vicinity of the Proposed Site, including, without limitation, projected significant gaps in coverage. In real world terms, the colors indicate the following:

White= No coverage
Pink = Poor coverage
Yellow = Good coverage inside vehicles & marginal coverage inside
buildings
Greens = Good coverage inside buildings

Upon removal of the Existing Antennas, Verizon Wireless proposes to install a temporary tower at the northeast corner of the Proposed Site in order to continue to provide approximately the same level of coverage as the current level of coverage shown in Exhibit A. After construction of the new buildings at the Proposed Site, Verizon Wireless intends to mount antennas on one or more of the new buildings and remove the temporary tower at the Proposed Site. Approximately equivalent coverage to what is provided by the Existing Antennas could be provided at the Proposed Site by antennas at 75' on a 90' standard monopole (with the highest point being 100' at the tip of a 10' lightning rod) as shown in Exhibit C, or by antennas at 95' and 105' on a 130' stealth monopole as shown in Exhibit D (interchangeably, "Proposed Tower"). The Proposed Tower is higher than necessary for Verizon Wireless' antennas alone because the Proposed Tower is intended to provide replacement coverage for three carriers and the tower height takes into account the co-location needs of ATT/Cingular and T-Mobile, who also currently have rooftop mounted antennas at the Proposed Site. This evidence conclusively demonstrates Verizon Wireless' need for the Proposed Tower."

- 9. "Natural and man-made features such as large buildings, hills, trees, and ridge lines all affect the way a signal travels, and can distort or obstruct radio signals. Radio signals will either bounce off, bounce back or be absorbed by these obstructions. These constraints severely limit the suitability of sites for purposes of remedying a gap in signal coverage."
- 10. "The Proposed Tower takes into account the foregoing topographic constraints and, following removal of the Existing Antennas and construction and activation of the Proposed Tower, Verizon Wireless' coverage and capacity needs in the immediate area of the Proposed Site will be substantially satisfied and coverage will be back to approximately the same level as the existing coverage shown in Exhibit A."

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- 11. "We have performed an FCC Antenna Structure Registrations Search for a one mile radius around the coordinates of the Proposed Site. The results of this search are attached and incorporated herein by reference as <a href="Exhibit E">Exhibit E</a>. There were three towers within the search radius, however one tower has been terminated and is therefore not available, and the other two towers are too far away to meet the coverage objective. This additional evidence further demonstrates the need for the Proposed Tower."
- 12. "The Proposed Tower will provide needed coverage into the surrounding commercial and residential developments within 0.6 miles around the Proposed Site upon removal of the Existing Antennas."
- 13. "Upon removal of the Existing Antennas, the Proposed Tower will provide optimal coverage for the commercial and residential areas along Greenville Avenue and Belmont Avenue, and will serve both coverage and capacity needs by filling significant gaps in the ability of remote users of Verizon Wireless' wireless network to access the national telephone network that would otherwise arise upon removal of the Existing Antennas."
- 14. "When coupled with Verizon Wireless' existing system and upon removal of the Existing Antennas, the minimum antenna centerline height at the Proposed Site necessary to meet Verizon Wireless' radio frequency coverage and capacity objectives is 75' for a standard monopole tower or at 95' and 105' for a stealth monopole tower. The Proposed Tower and related ground equipment, as designed, will substantially accomplish Verizon Wireless' radio frequency goals in the area while minimizing any aesthetic impact to the community."

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FURTHER, Affiant sayeth not.

Vinayak Muthal

SWORN TO AND SUBSCRIBED BEFORE ME this 13 day of April 2015, by Vinayak Muthal.

My commission expires:

Notary Public, in and for the State of Texas OF TEXAS

SEPTEMBER

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### **EXHIBIT A**

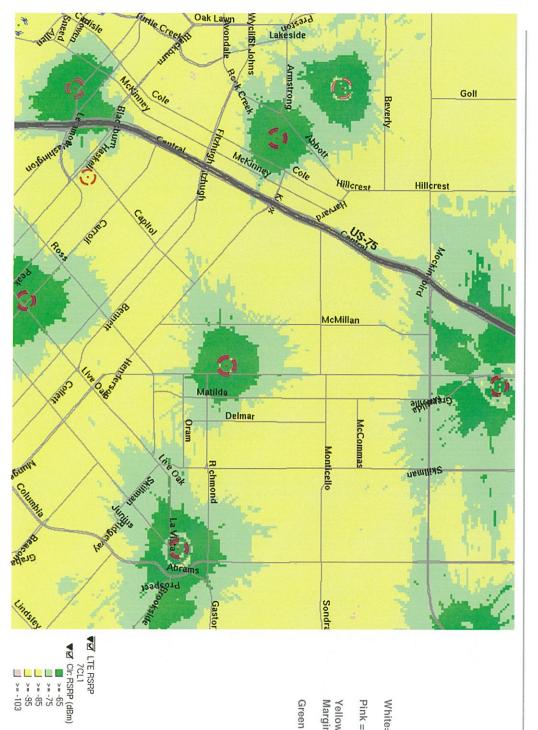
### To Affidavit of Vinayak Muthal

See attached Current Coverage with Existing Antennas Propagation Map

2145-274



### With Dallas Vickery Towers - LTE 700MHz RSRP



White= No coverage

Pink = Poor Coverage

Yellow = Good Coverage inside Vehicle & Marginal Coverage inside Building

Green = Good Coverage inside Buildings

### **EXHIBIT B**

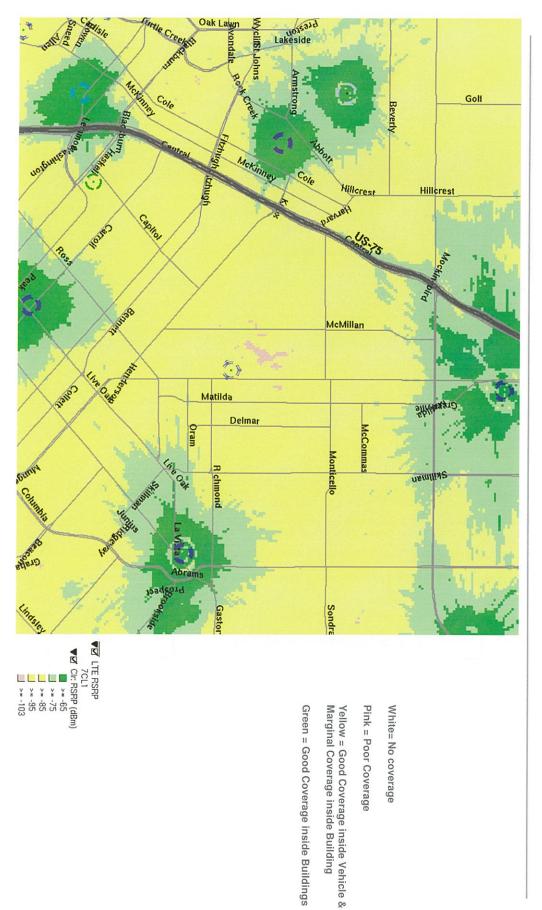
### To Affidavit of Vinayak Muthal

See attached After Removal of Existing Antennas Propagation Map

Z145-274



### Without Dallas Vickery Towers - LTE 700MHz RSRP



### **EXHIBIT C**

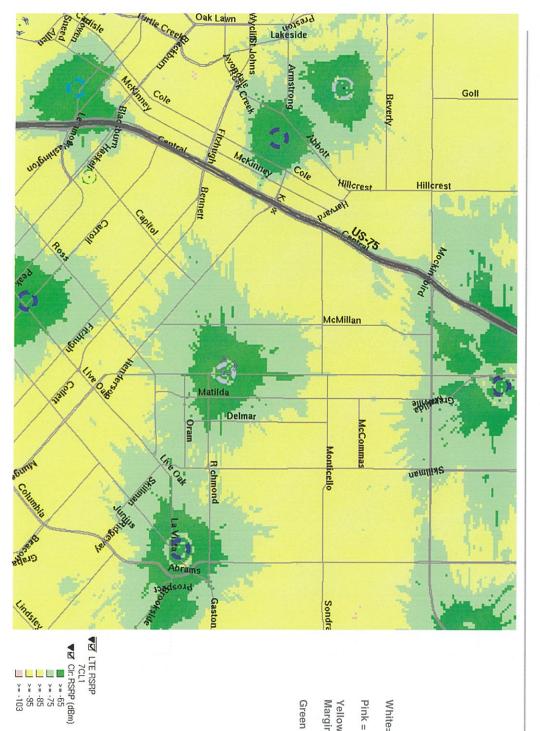
### To Affidavit of Vinayak Muthal

See attached Propagation Map with Standard Monopole Proposed Tower and Antennas at 75'

ZH5-274



## With Vickery Towers Temp @ 75ft - LTE 700MHz RSRP



White= No coverage

Pink = Poor Coverage

Yellow = Good Coverage inside Vehicle & Marginal Coverage inside Building

Green = Good Coverage inside Buildings

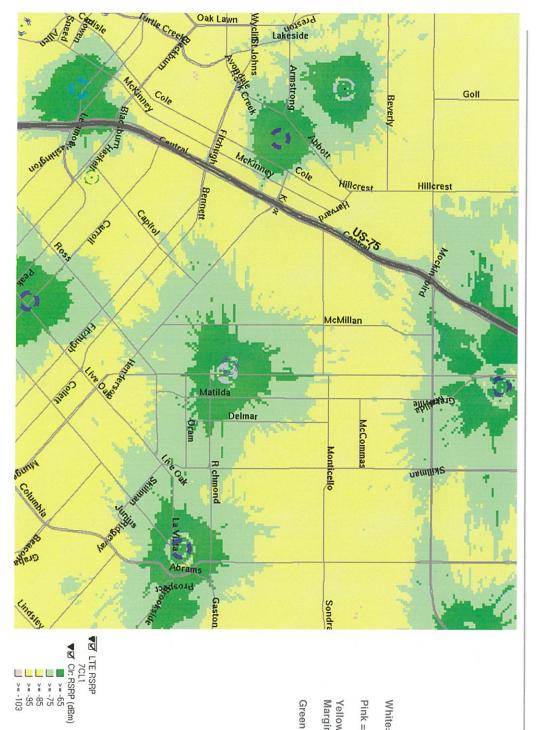
### EXHIBIT D

### To Affidavit of Vinayak Muthal

See attached Propagation Map with Stealth Monopole Proposed Tower and Antennas at 95' and 105'



# With Vickery Towers Temp @ 105ft - LTE 700MHz RSRP



White= No coverage

Pink = Poor Coverage

Yellow = Good Coverage inside Vehicle & Marginal Coverage inside Building

Green = Good Coverage inside Buildings

### EXHIBIT E

### To Affidavit of Vinayak Muthal

See attached FCC Antenna Structure Registrations Study Results



FCC > WTB > ASR > Online Systems > ASR Search

ASR Registration Search Results

New Search 

Refine Search 

Printable Page 

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Map Result(s)

	Location could not meet the desired RF Objective for VICKERY_TOWERS_TEMP Search Ring		Location could not meet the desired RF Objective for VICKERY_TOWERS_TEMP Search Ring		N/A	NOVE RF Justification for not Using candidates
	10.4		11.0		19.8	Overall Height Above Ground (AGL)
	Dallas, TX		Dallas, TX		DALLAS, TX	Structure City/State
096-46-13.4W	32-49-56.1N	096-46-13.1W	32-49-57.0N	096-46-14.0W	32-48-31.0N	Latitude/Longitude
	A0923432 St. Charles Tower		St. Charles Tower, Inc.		NEW CINGULAR WIRELESS SERVICES, INC. 32-48-31.0N	Owner Name
	A0923432		A0860155		A0464943	File Number Owner Name
	Granted		Constructed		Terminated	Status
	1294425		1287742		1003381	Registration Number