

November 13, 2015

Melanie Bachman, Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

**RE: Docket 435
Post-construction EMF Monitoring Report
Stamford Reliability Cable Project ("SRCP")**

Dear Ms. Bachman:

In accordance with condition 2(f) in the September 5, 2013 Decision and Order of the Connecticut Siting Council ("Council") in Docket 435, The Connecticut Light and Power Company doing business as Eversource Energy ("Eversource") submitted a Post-construction EMF Monitoring Plan ("Plan") in Volume III - Appendix F of the Development and Management Plan on October 31, 2013, which the Council approved on December 12, 2013.

Per Section V of the Plan, Eversource is providing to the Council this report on the post-construction electric and magnetic field ("EMF") measurements within 12 months of the in-service date of the SRCP facilities.

The SRCP 115-kV line (circuit # 1151) entered service on November 21, 2014. The post-construction field measurements were performed in March and June, 2015 by Mr. Christopher Soderman, a Senior Engineer at Eversource. Mr. Soderman's measurements of electric and magnetic fields were taken in accordance with IEEE Standard 644-1994 (R2008), Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines. The measurements were taken with an EMDEX II meter manufactured by EnerTech Consultants, Campbell, CA. This meter and its accessories meet the associated instrumentation standards

The EMF monitoring locations as specified in the Plan are listed below. Aerial photographs depicting these locations are attached to this letter.

1. Lincoln Avenue (near the Glenbrook Substation fence)
2. Culloden Road (near the crossing with Scott Place)

In each location, measurements were taken above and on either side of the transmission line where access permitted. Magnetic fields were taken twice at each location to account for seasonal variation of transmission line current flow.

Electric and/or magnetic fields were measured at both locations on March 3, 2015 and June 29, 2015. The current flows over the transmission line when magnetic fields were measured at each location, as recorded by the CONVEX SCADA system, are listed in Table 1 for March 3, 2015 and for June 29, 2015. The table identifies only the current on the underground transmission line, which is the dominant source of magnetic

fields. However, other nearby distribution and transmission facilities, the electrified railroad and individual service lines affected the measurements.

Recorded Line Currents (1151 Line)		
	March 3, 2015	June 29, 2015
Lincoln Ave	362	367
Culloden Rd	356	371

Table 1- Recorded Transmission Line Currents (Amperes per phase)

Graphs of the measured electric and magnetic fields are presented in Figures 1 through 6 (Attachment 1). Figures 1 through 4 also include a graph of calculated field values for locations 1 and 2. These locations were selected as the "true-up locations, so the calculated values reflect not only the recorded line currents at the time of the measurements but also actual cable depths at the measurement location. The recorded line currents on March 3 and June 29, 2015 were both higher than the currents used for the Annual Average Load case modeling in the Docket 435 record, and the cable depths at each location were lower (deeper) as compared to those assumed for the modeling in the Docket 435 record.

If the Council has any questions about this report, please contact me at (860) 728-4532.

Sincerely,



John Morisette
Project Manager – Transmission Siting - CT

Attachments:

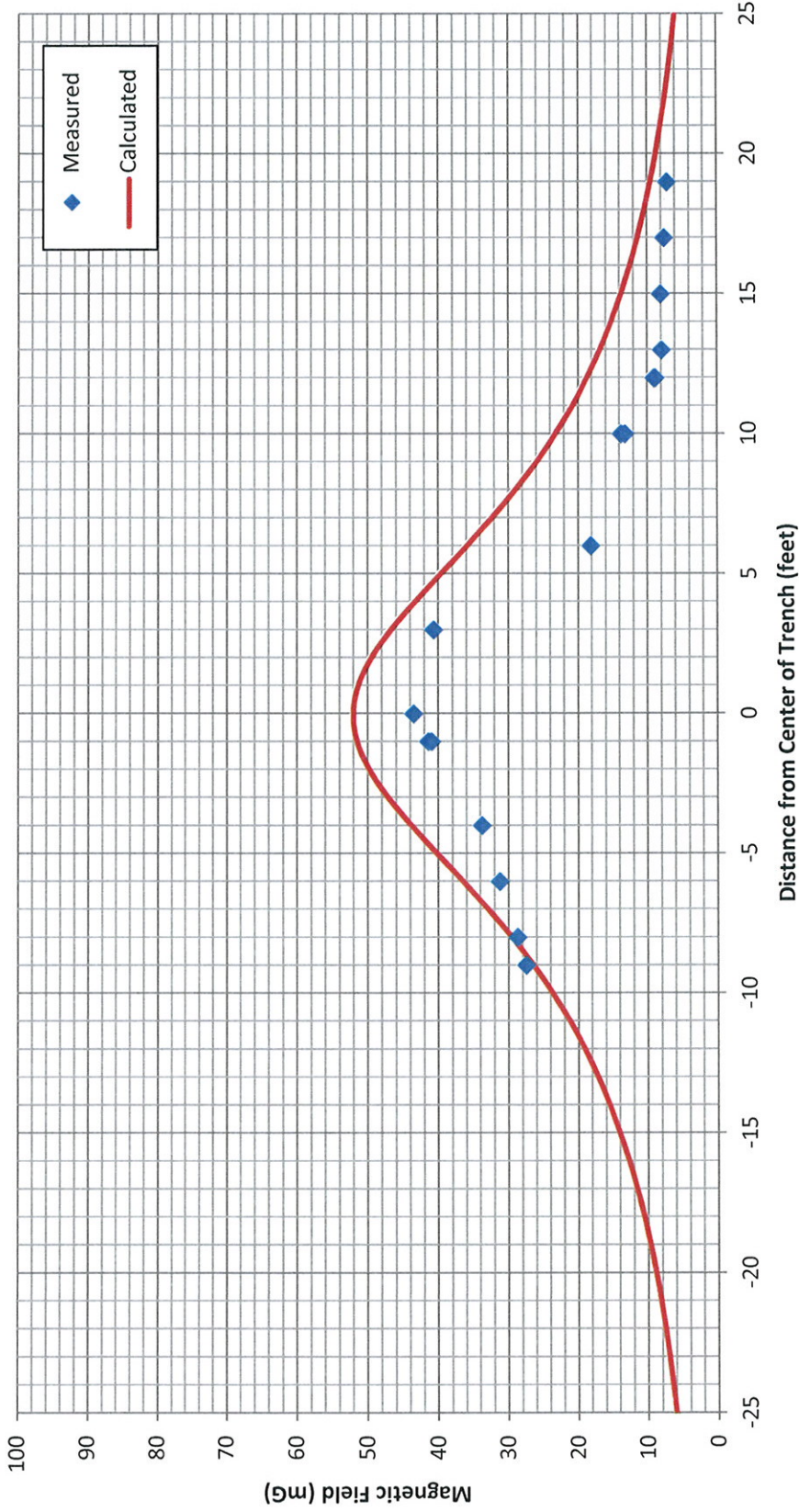
- Attachment 1: Graphs of Field Measurements
- Attachment 2: Aerial Photographs Depicting EMF Measurement Locations

cc. Docket 435 Service List

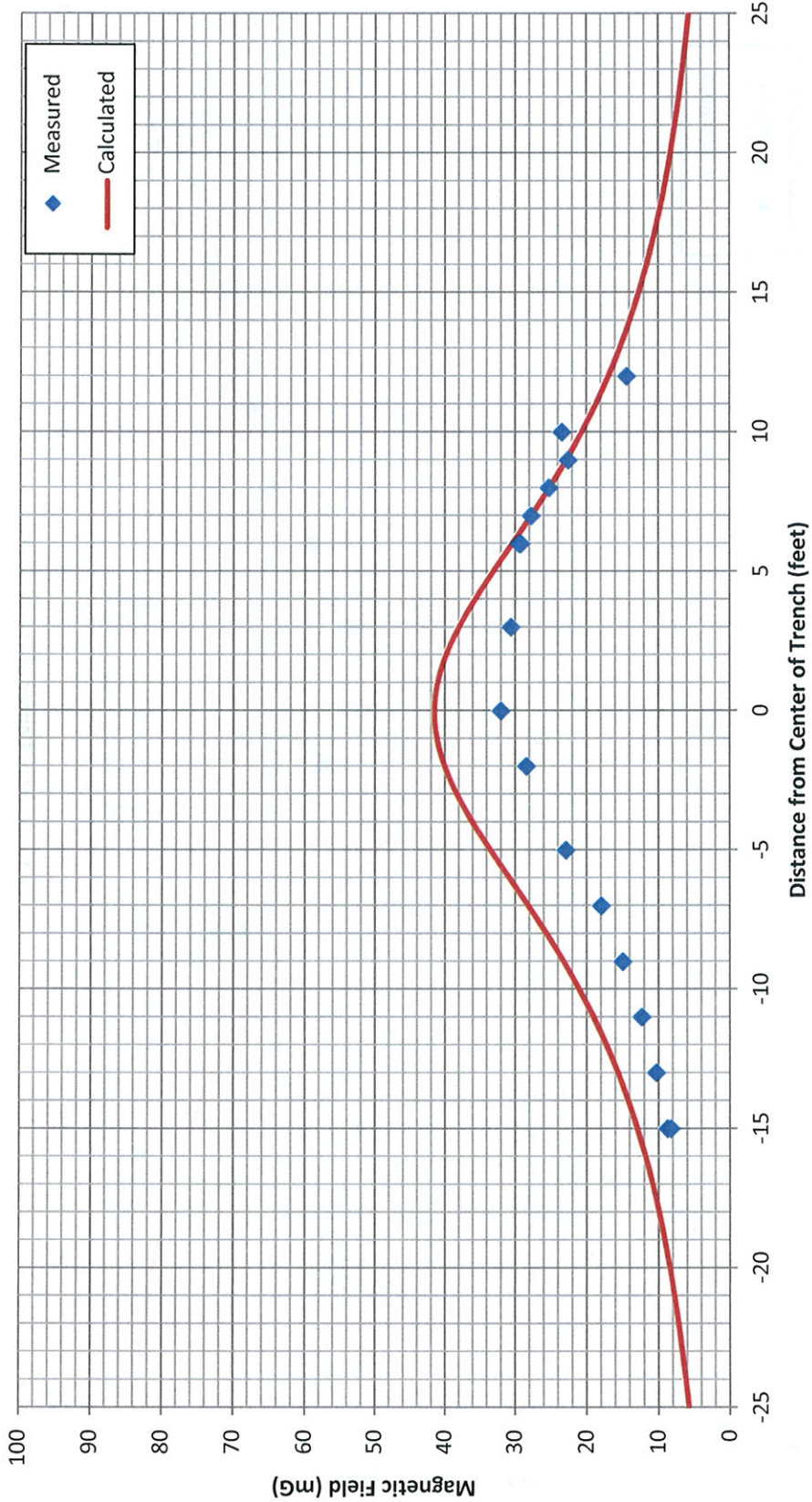
Attachment 1 – Graphs of Field Measurements



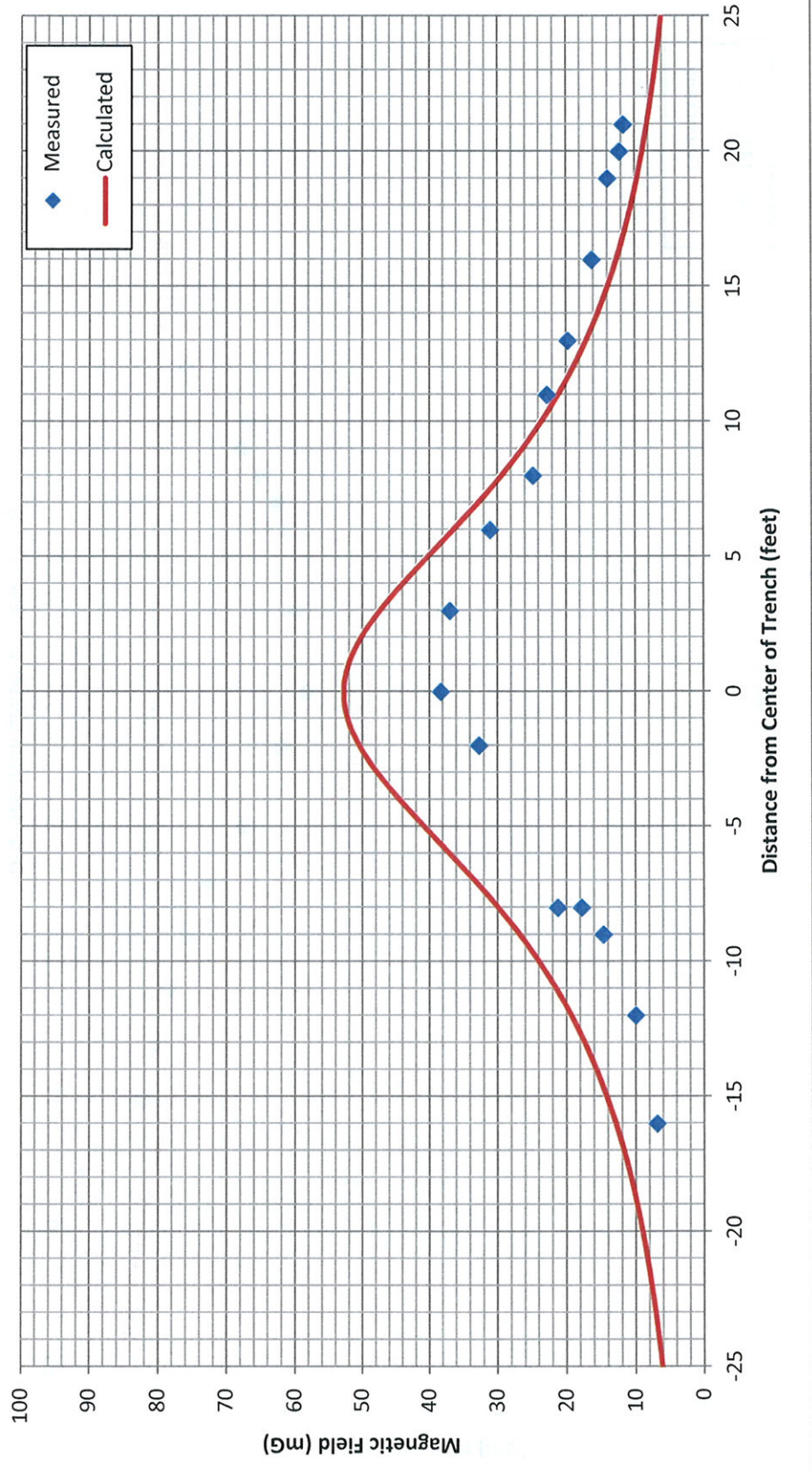
Calculated and Measured Magnetic Fields on Lincoln Ave (March 3, 2015)



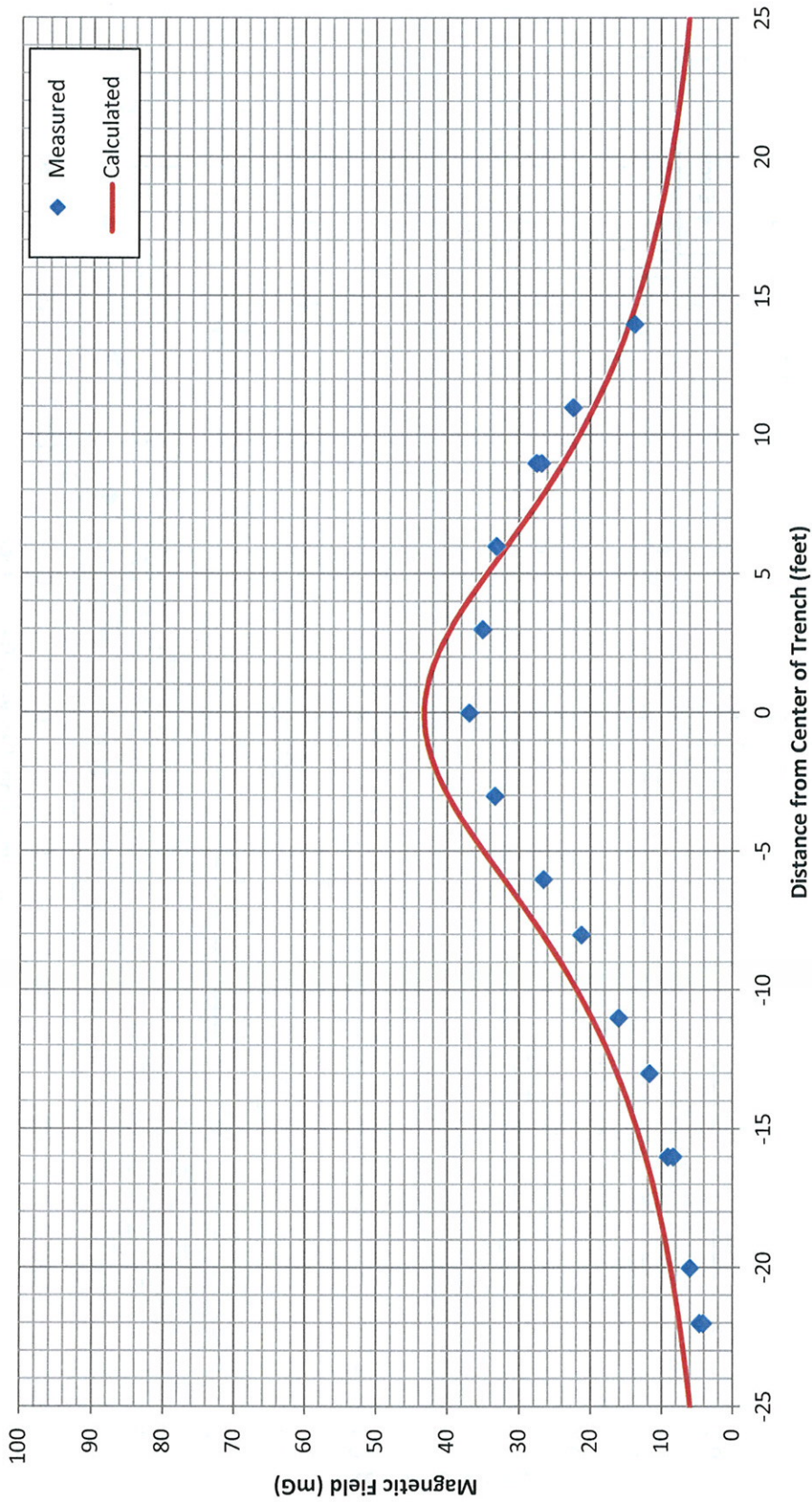
Calculated and Measured Magnetic Fields on Culloden Rd (March 3, 2015)



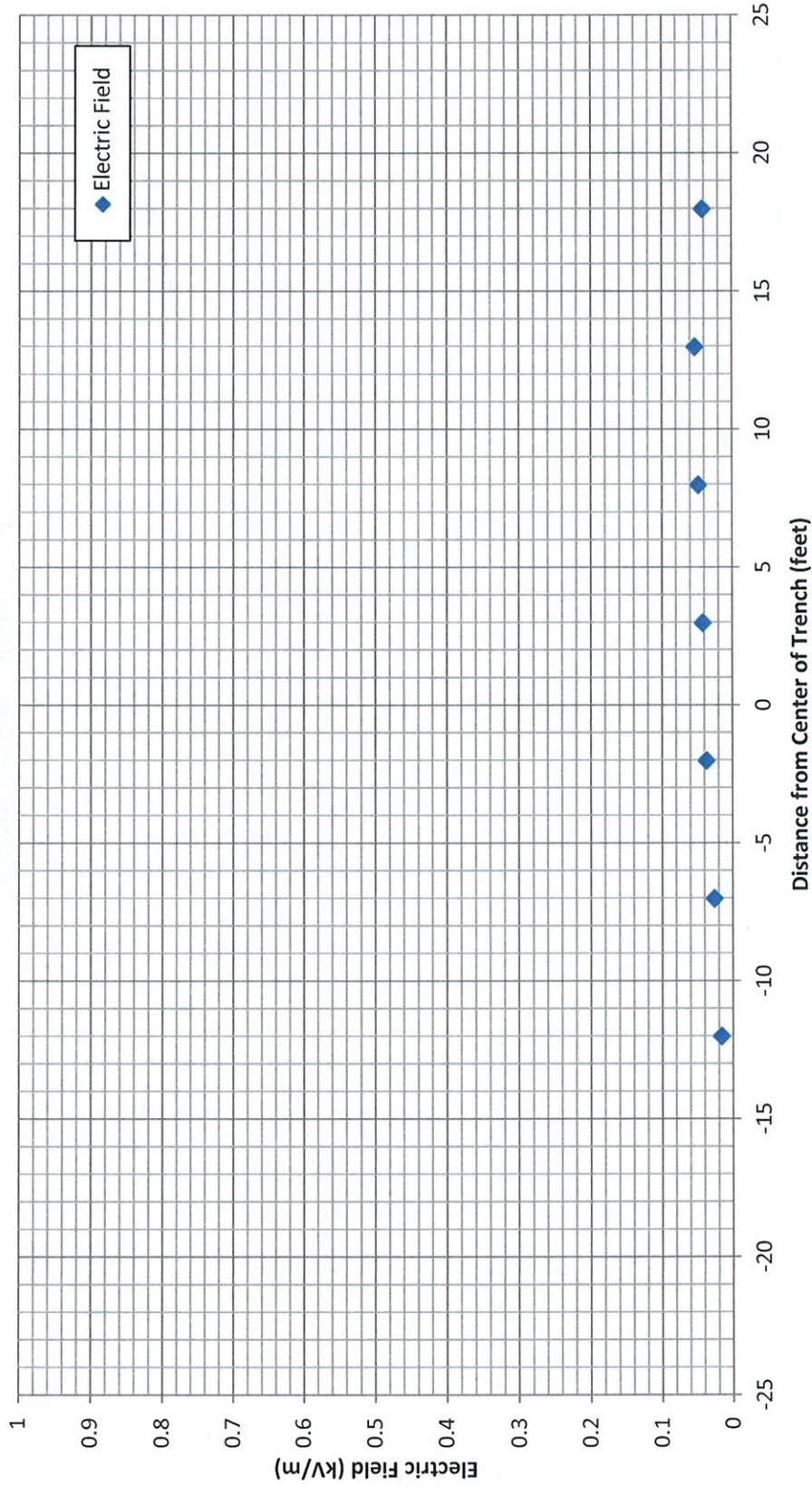
Calculated and Measured Magnetic Fields on Lincoln Ave (June 29, 2015)



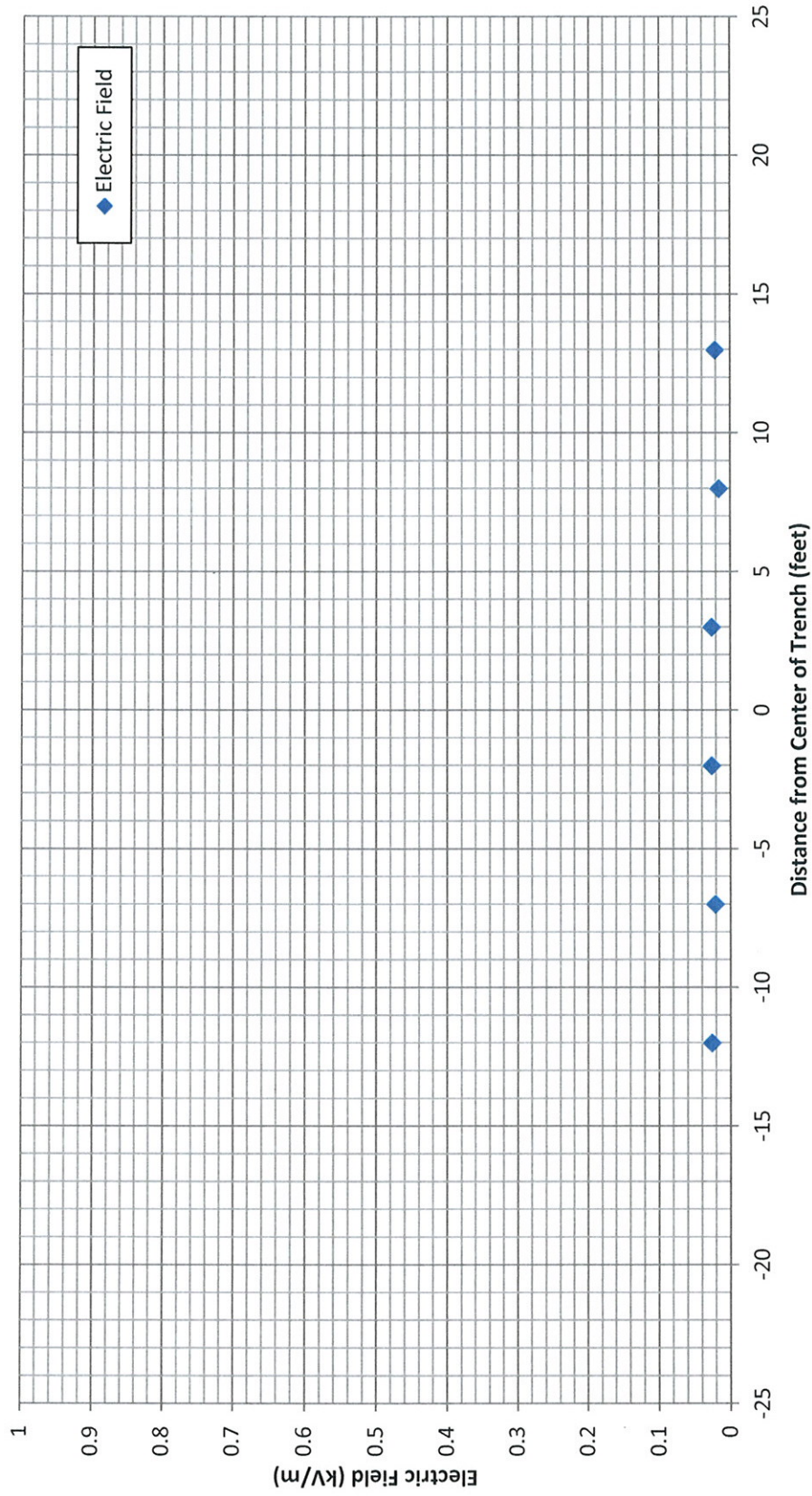
Calculated and Measured Magnetic Fields on Culloden Rd (June 29, 2015)



Measured Electric Field on Lincoln Ave On June 29, 2015



Measured Electric Field on Culloden Rd On June 29, 2015



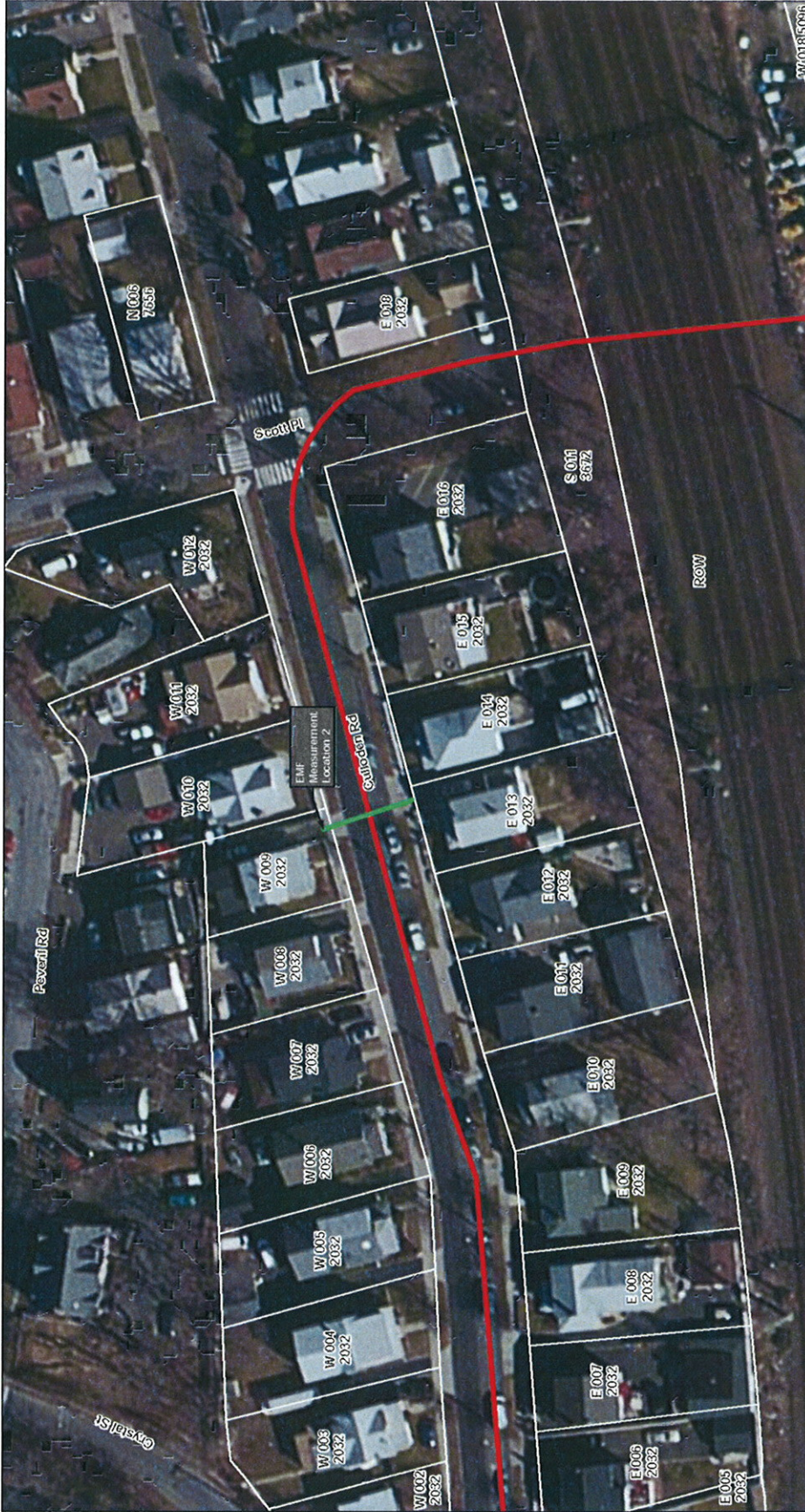


56 Prospect Street
Hartford, CT 06103

Attachment 2 – Aerial Photographs Depicting EMF Measurement Locations



		<p>Legend</p> <ul style="list-style-type: none"> Preferred Route With Canal Street Option (Updated) EMF Measurement NU Property Line Parcel Boundary <p>0 50 100 Feet</p> <p>1:600 1" = 50'</p> <p>Data Source: ESRI Bing Imagery, Town of Stamford 2008, NU 2013</p>	<p>Stamford Reliability Cable Project</p> <p>EMF Monitoring Location Maps</p> <p>Mapsheet 1 of 2</p>	<p>A Northeast Utilities Company</p> <p>AECOM</p> <p>Date: September 10 2013</p>
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		<p>Legend</p> <ul style="list-style-type: none"> Preferred Route With Canal Street Option (Updated) EMF Measurement NUJ Property Line Parcel Boundary <p>0 50 100 Feet</p> <p>1:500 1" = 50'</p> <p>Data Source: ESRI Bing Imagery; Town of Stamford 2009; NUJ 2013</p>	<p>Stamford Reliability Cable Project</p> <p>EMF Monitoring Location Maps</p> <p>Mapsheet 2 of 2</p>	<p>A National Utilities Company</p> <p>AECOM</p> <p>Date: September 10 2013</p>
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