Remote Ticket Entry

Mapping Guide

Last Revised: March 2026

Table of Contents

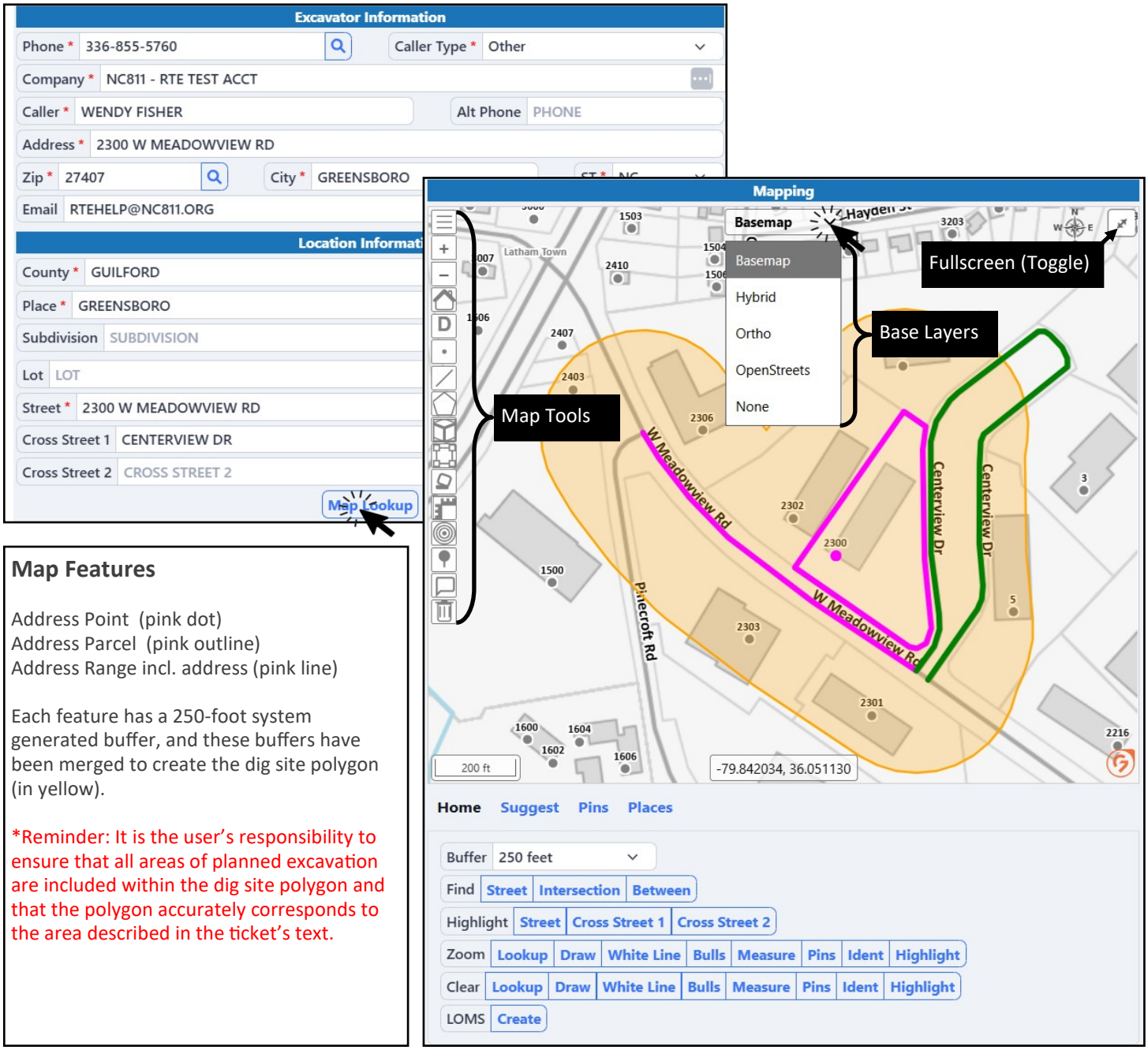
Gridding and How To's

QuickMap Purpose

Upon completion of all necessary ticket entry fields, access the map to define and select the dig site geographically. The maps purpose is to determine which member facility operators will receive your notice. The members maintain a polygon database of the general area of their facilities and when your dig site (yellow polygon) overlaps member polygon(s), the member will be notified on the request. Incorrectly selecting a dig site may result in one or more facility operators not being notified.

Note: There are some instances where the excavation area is too new and will not display any of the street / cross street data. Should this occur please make a note in the In-House Comments field stating the area is not in the map. However, if you are able to determine the digsite using existing streets/parcels, please make a note in the In-House Comments describing how the digsite area was selected.

Members fully rely on the text locate description to determine the area to mark, as required by the Underground Utility Safety and Damage Prevention Act.



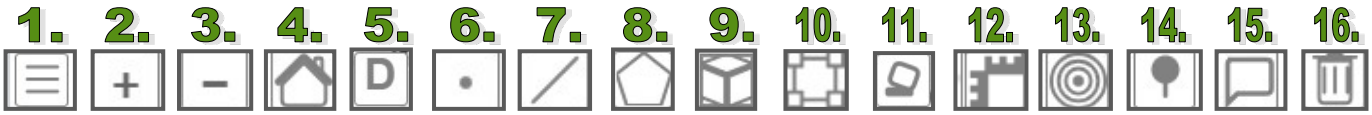
Map Features

Address Point (pink dot)
Address Parcel (pink outline)
Address Range incl. address (pink line)

Each feature has a 250-foot system generated buffer, and these buffers have been merged to create the dig site polygon (in yellow).

*Reminder: It is the user's responsibility to ensure that all areas of planned excavation are included within the dig site polygon and that the polygon accurately corresponds to the area described in the ticket's text.

Map Tool Bar Buttons and Definitions

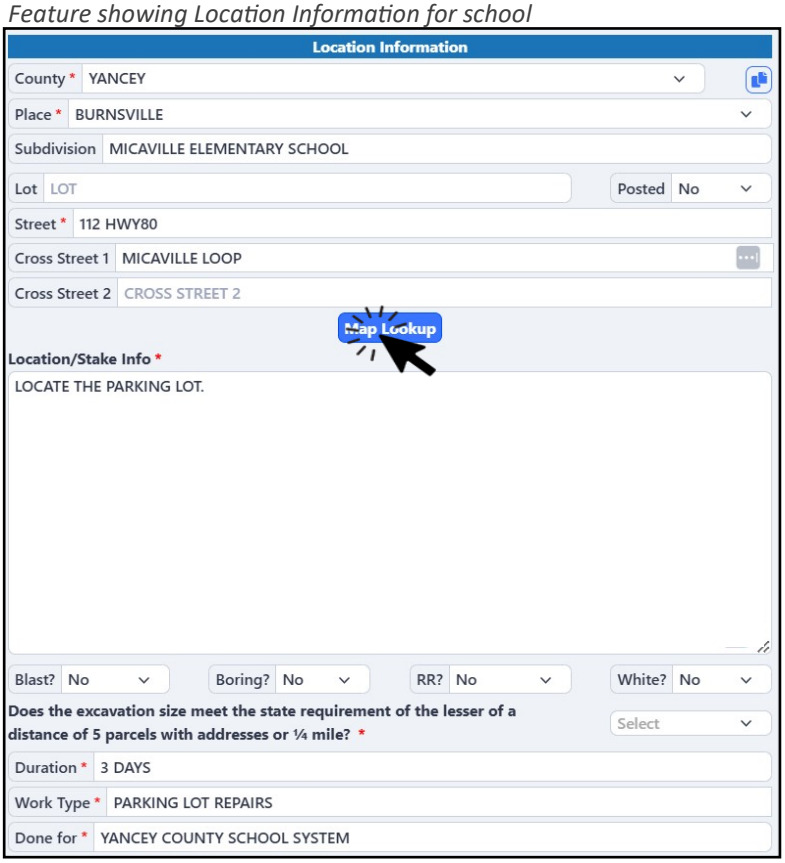


1. **Toggle Controls** Click to show and hide the mapping tools.
2. **Zoom In** Zoom into the map. This function can give more clarity when viewing a specific area including a school, cell tower, football field, etc.
3. **Zoom Out** Zoom out of the map. This function allows the user to view a larger area in the map, e.g., airport.
4. **Zoom to All** Click this button for a full view of all highlighted work areas in the map, including Street, Cross St 1 and Cross St 2.
5. **Draw / White Lining (Toggle)** Offers the ability to identify and draw a buffered electronic white-lined area to represent the work area on the map.
6. **Draw point** After finding a location, offers the ability to draw a buffered work area around a point.
7. **Draw line** After finding a location, offers the ability to draw a buffered work area around a line drawn on the map.
8. **Draw polygon** After finding an area, offers the ability to draw a buffered polygon around an area on the map.
9. **Block** Allows the user to polygon an entire address block where work will take place.
   Example: If multiple address blocks appear for an area, the user should select the Block button, then click on the street where the address blocks are displayed. This will place a buffered polygon around the blocks and convert them to a work area.
10. **Edit** After creating a polygon on the map, Edit allows the user to change the shape or size of the polygon by moving the vertices* to new positions. **Vertices are the individual points around a polygon where two of its sides meet.*
11. **Erase** The Erase tool allows users to remove their drawn lines from the map.
12. **Measure** Allows the user to measure distances and areas on the map.
13. **Bullseye** Provides a radius measurement up to 1/4 mile. Each of the ten concentric circles represent a 100ft increment with the outer circle indicating 1/4 mile.
14. **Pins** Allows the user to place marker pins on the map, which can be converted to points, line, or polygon.
15. **Identify** Allows the user to click on a specific location or feature on the map to view detailed information.
16. **Clear All Features** Allows the user to clear all drawings, grids, or highlights from the map.

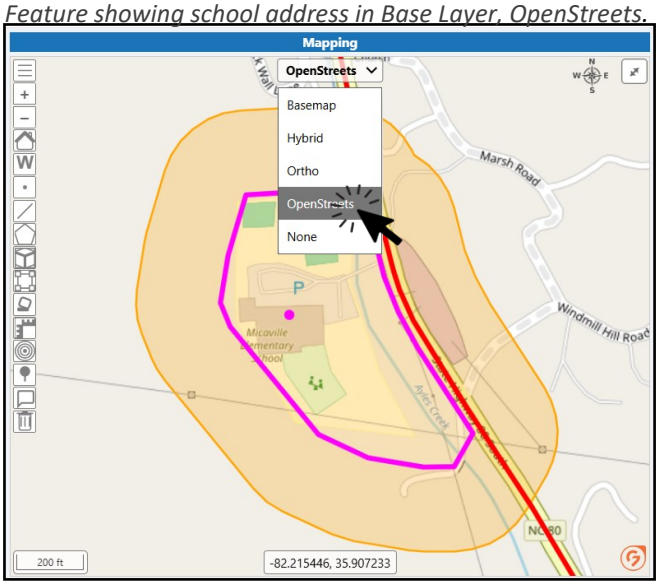
Base Layers

Base Layers can be used when looking for specific features such as schools, sports fields, pipeline rights of way, airports, pools, or other structures. To access all Base Layers, click the arrow to the right of Basemap. *Note: Basemap is the default base layer in the Center Logix map.*

Feature showing Location Information for school



Feature showing school address in Base Layer, OpenStreets.



The Find row will allow you to find information pertaining to the excavation site in the map. This row contains the trigger buttons ((Street, Intersection, and Between).

Find - "Trigger Buttons"

- **Street** searches for the street and the address provided by the user. It will also search for address points and parcels when available.
- **Intersection** searches for the intersecting point of the Street and Cross St 1.
- **Between** searches for the streets specified in the Street, Cross St 1 and Cross St 2 fields.

*If an exact match is not found in the County/Place specified, then the Select Matches Window will display.

Select Matches Window

When the address or street (e.g., 123 Main St) is not found within the selected County/Place, the Select Matches window will appear, showing the closest matching streets or addresses within the County/Place specified.

There are three sections of the **Select Matches** window:

- **Address** (the address point for a specific address)
- **Parcel** (a plot of land identified as having a specific address)
- **Street** (an address range that includes the specific address)

*Any items listed in the **Select Matches** window that exactly match the Street field will be automatically selected. The user should review the list carefully, check any additional items that are needed to define the Work site, and uncheck any items that are not relevant.

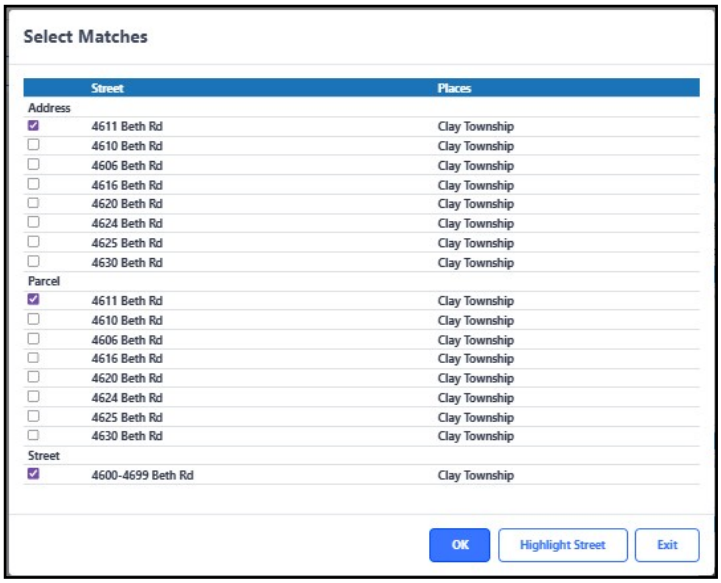


Figure showing the Select Matches window with Address, Parcel, and Street auto-selected by the system.

Before clicking OK, make sure all matches that are relevant to the desired locate area are checked. Each selected item will highlight map features and generate a 250-foot buffer around them (*see figure below*), which is used to create the dig site polygon.
Reminder: Uncheck any items that are not needed to avoid including unnecessary areas!

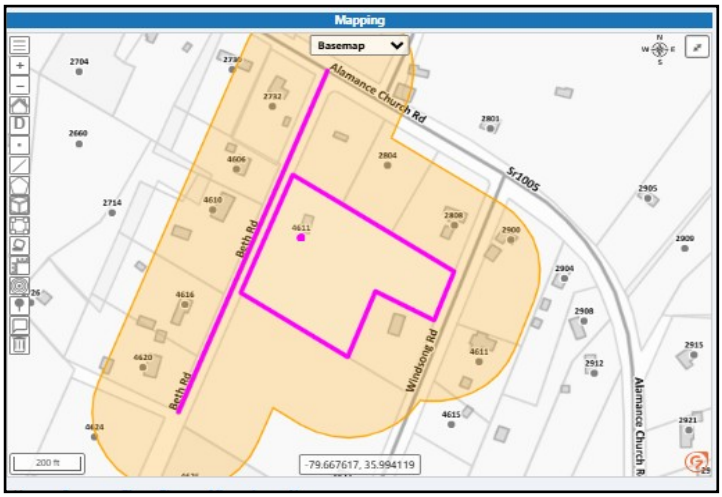


Figure showing the highlighted map features (in pink) that were selected to define the dig site area. Each feature has a 250-foot buffer, and these buffers have been merged to create the dig site polygon (in yellow).

Electronic White Lining (EWL)

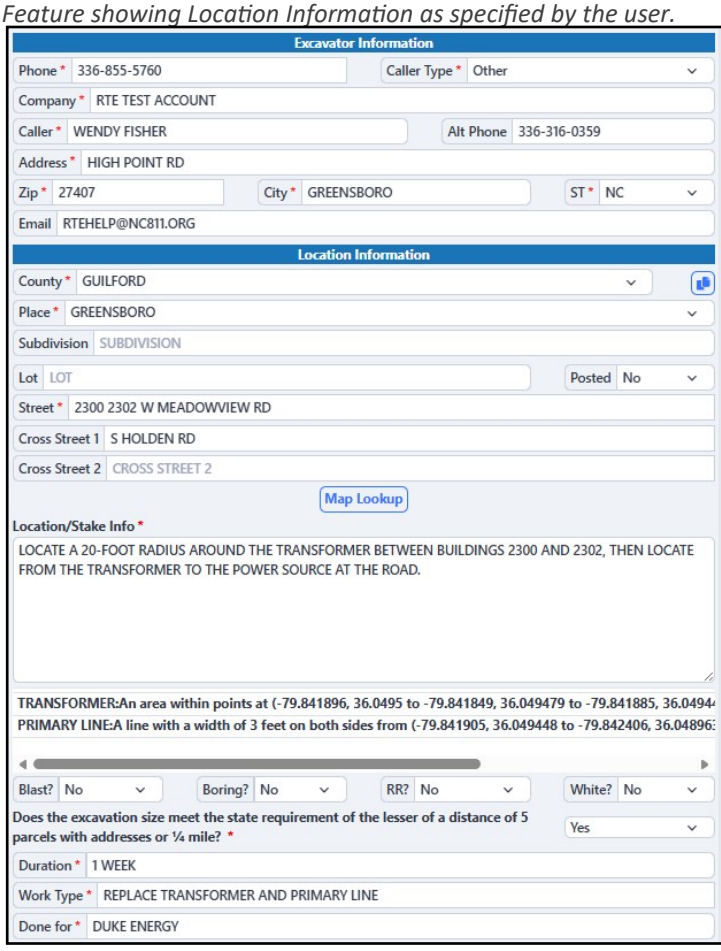
Electronic White Lining is a digital method that allows excavators to show their exact Work area by drawing , points, lines or polygons on the Map outlining the proposed excavation area electronically. This mapped outline is transmitted to utility locators before they arrive on site, and can be viewed by clicking the Map link, giving them a clear visual reference of the work area.

Example of Electronic White Lining

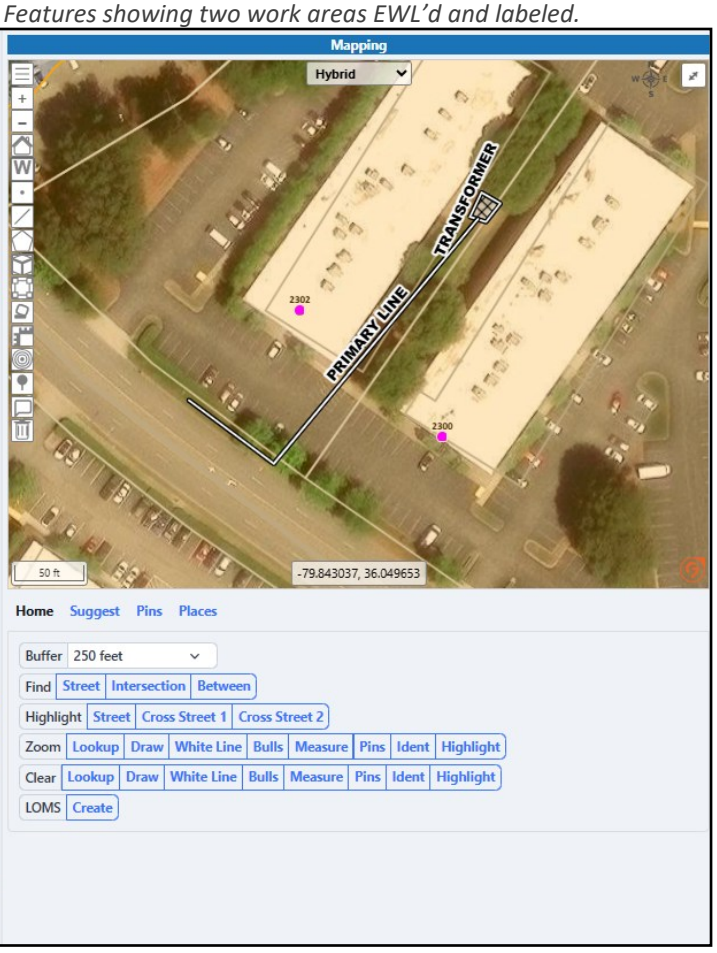
- The Work area is around a transformer (between 2302 and 2300), then extends to the street in-front of 2302 W Meadowview Rd.
- For a view of the work area select base level, **ORTHO**.
- **Click** the **Toggle Drawing/White lining (D) button**, the button will switch to active state, (W). Next, select a drawing tool, (i.e., Draw Polygon, Line, or Point) and draw the Work area. In the White Lining pop-up, enter the description (e.g., Transformer). If applicable, enter the Radius/Width (e.g., 20 feet). Click Ok to confirm and close the window. **Note: Multiple work areas can be white-lined in the map.*

*Note: Information provided in the White Lining pop-up will be recorded below the Location/Stake Info, and should match all other ticket text.

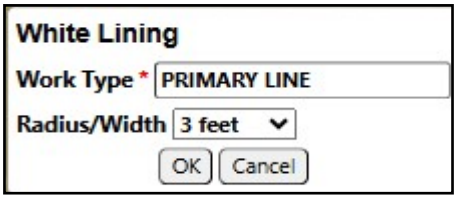
Feature showing Location Information as specified by the user.



Features showing two work areas EWL'd and labeled.



Feature showing White Lining pop-up



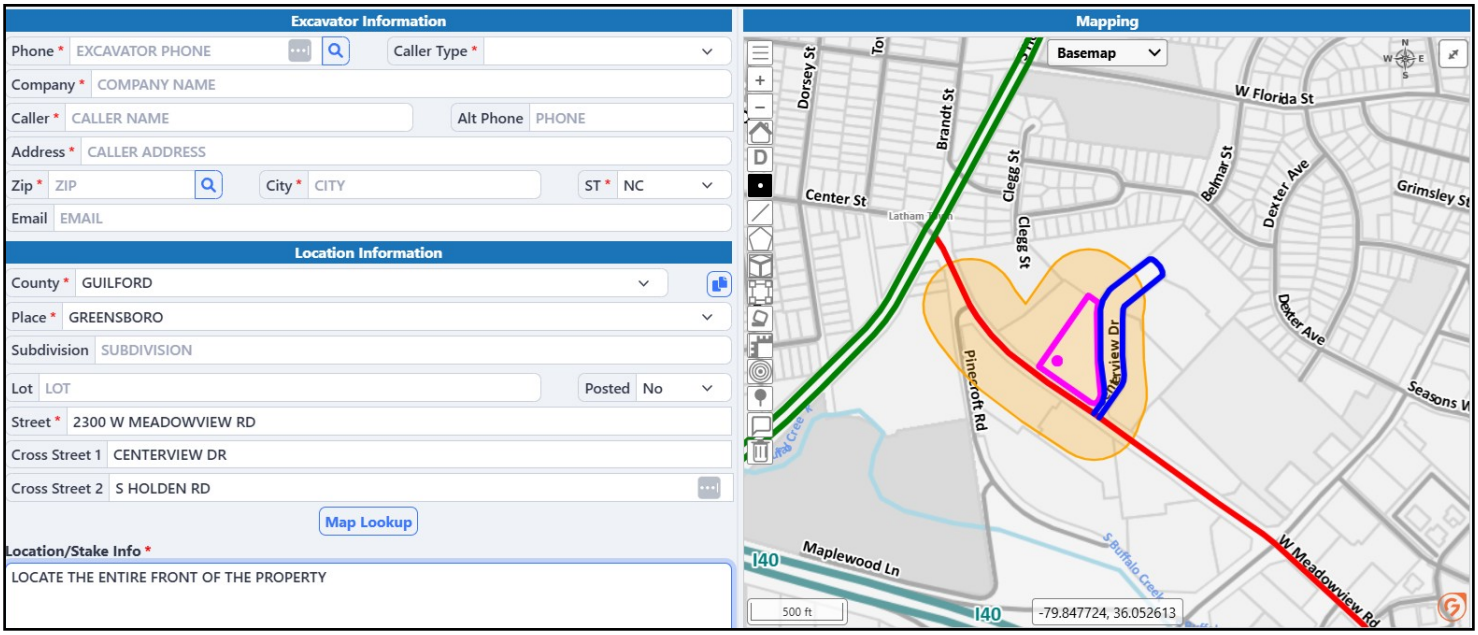
*Feature showing White Lining pop-up including Radius/Width for drawn line. *3 feet (default).*

Highlight Row will highlight the streets and cross streets in the map.

1) **Street** will highlight the given street in the Street field **RED** within the map view.

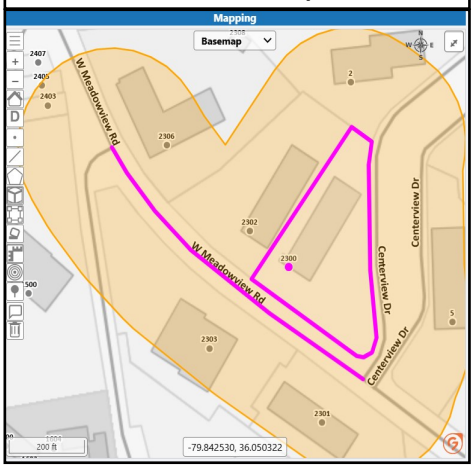
2) **Cross St 1** will highlight the given street in the Cross St 1 field **BLUE** within the map view.

3) **Cross St 2** will highlight the given street in the Cross St 2 field in **GREEN** within the map view.

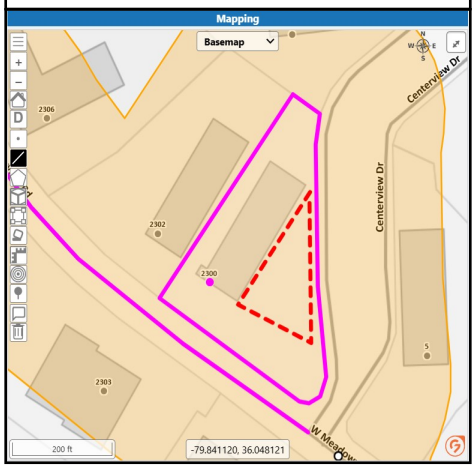


1) **Lookup** will zoom and display the selected work area (dig site polygon) within the map view.
2) **Draw** will zoom in and display drawn work areas (red dashed line) created by the user within in the map view.
3) **White Line** will zoom in and display the electronic white-lined area created by the user within the map view.
4) **Bullseye** will zoom and display the bullseye placed by the user within the map view.
5) **Measure** will zoom and display measured area (black dashed line) drawn by the user within the map view.
6) **Pins** will zoom and display to markers (red) placed by the user within the map view.
7) **Ident** will zoom and display identify features selected by the user within the map view.
8) **Highlight** will zoom and display **Street**, **Cross St 1**, and **Cross Street 2** as highlighted by the user within the map view.

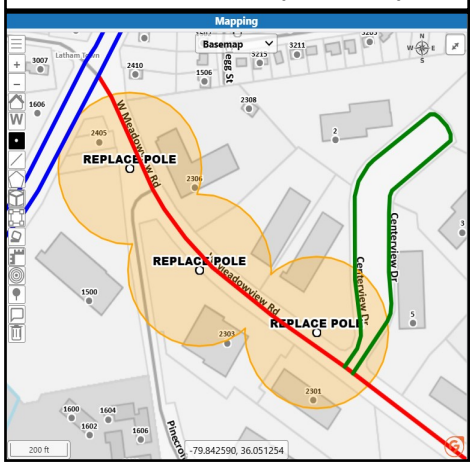
Zoom - Lookup



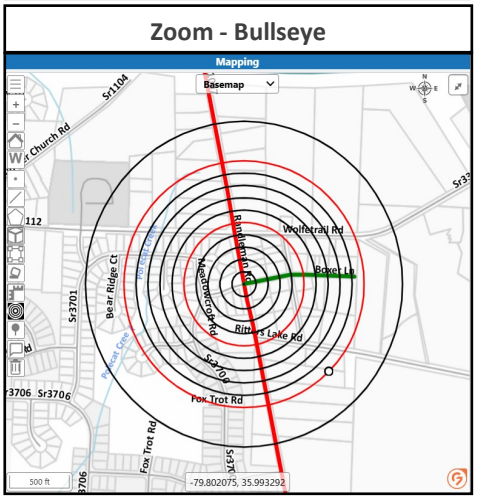
Zoom - Draw



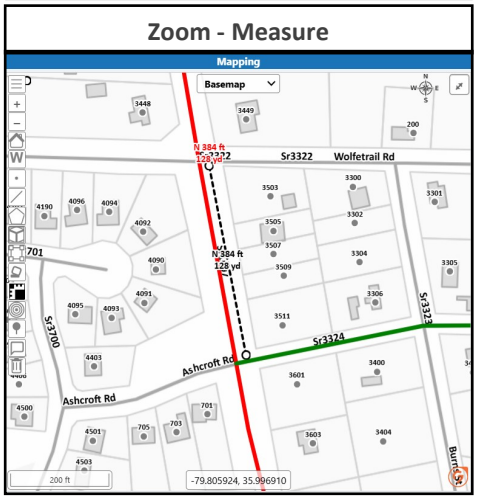
Zoom - White Line (Electronic)



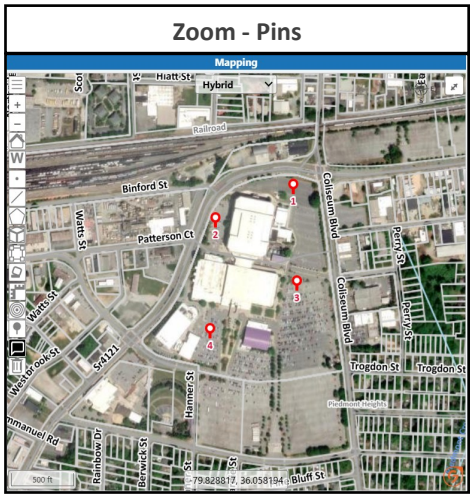
Zoom - Bullseye



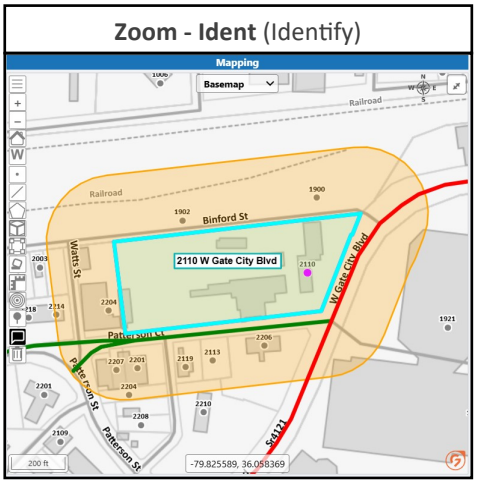
Zoom - Measure



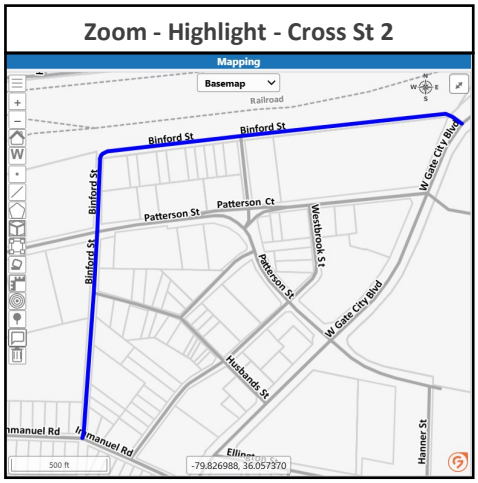
Zoom - Pins



Zoom - Ident (Identify)



Zoom - Highlight - Cross St 2



Clear

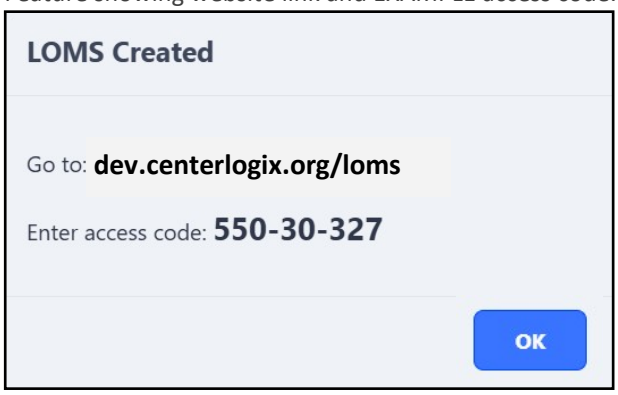
1) **Lookup** will clear the selected work area, including the dig site polygon, from the map view.
2) **Draw** will clear any work areas (red dashed lines) that the user created on the map.
3) **White Line** will clear the electronic white-lined area created by the user from the map view.
4) **Bullseye** will clear the bullseye placed by the user from the map view.
5) **Measure** will clear measured area (black dashed line) drawn by the user from the map view.
6) **Pins** will remove any markers (red pin) that the user placed on the map.
7) **Ident** will clear the identified features (Parcel Identity) selected by the user from the map view.
8) **Highlight** will clear the **Street**, **Cross St 1**, and/or **Cross Street 2** features highlighted by the user from the map view.

LOMS

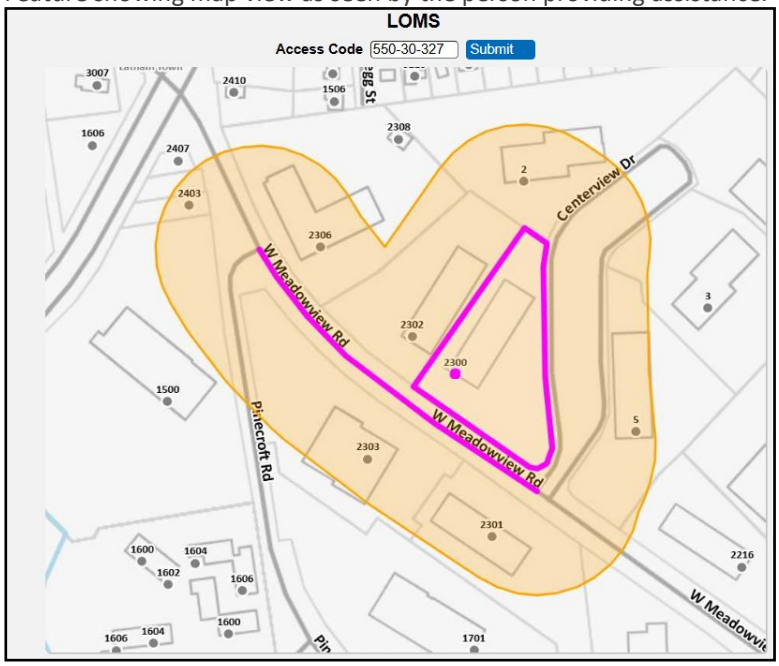
LOMS (Look Over My Shoulder):

This electronic feature allows one person to assist another with mapping in real time. To begin, the person requesting assistance clicks the **LOMS Create** button in the Map. A pop-up will appear with a website link (**dev.centerlogix.org/loms**) and an access code that can be shared with the person providing assistance. This link displays the current map view. If the person needing assistance makes any changes to the map during the session, they must re-click the LOMS Create button to refresh the view for the person assisting. The access code will **not** change when the Create button is re-clicked.

Feature showing website link and EXAMPLE access code.

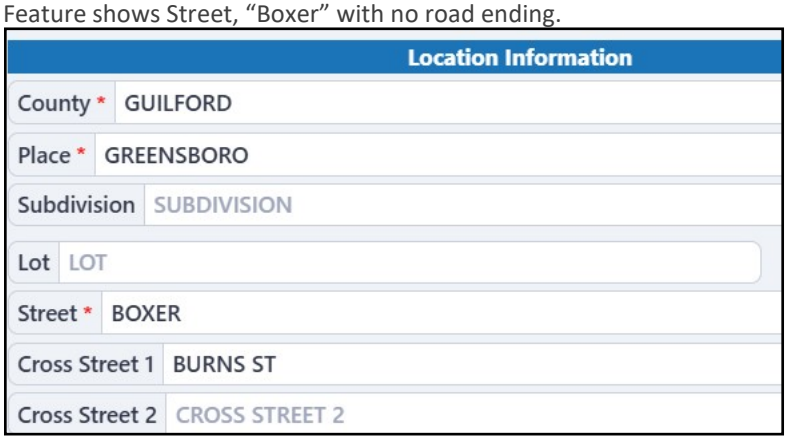


Feature showing map view as seen by the person providing assistance.



Suggest allows the user to search for street names when the exact street name, directional, or street ending is not known. It also allows the user to enter variations of a street name to broaden the search criteria into all Counties and Places by selecting the All Counties and/or All Places checkboxes.

Feature shows Street, "Boxer" with no road ending.



Feature shows ALL Counties/Places selected to search for all road names including "BOXER".

Clicking the **Search button** to the right of the suggest box will allow you to search for similar road names within the county provided.

Feature shows **Boxer Ln** in Guilford County (red), verified by Cross St 1, **Burns St** (blue). To display the suggestion in the map view, click the appropriate suggestion, if applicable.

The dig site polygon (yellow), drawn by the user, includes the intersection of Boxer Ln and Burns St. It is the user's responsibility to update the tickets' text with the correct Street, Cross St 1, and Cross St 2.

Home Suggest **Pins** Places

PINS Tab (Latitude / Longitude)

The **PINS Tab** is used to locate a specified point(s) on the map using Latitude and Longitude coordinates. Enter the values as follows:

- **Decimal Degrees** 12.345677 (dd.dddddd)
- **Degrees, decimal minutes** 12 34.567892 (dd mm.mmmmmm)
- **Degrees, minutes, seconds** 12 34 56.789112 (dd mm ss.sssss)

Enter the latitude and longitude into the text then click the **Enter** button. Lat/Long points in the map are indicated by a **red** pin marker along with a number. Lat/long coordinates will be numbered after pressing enter to allow you to polygon the work site more efficiently.

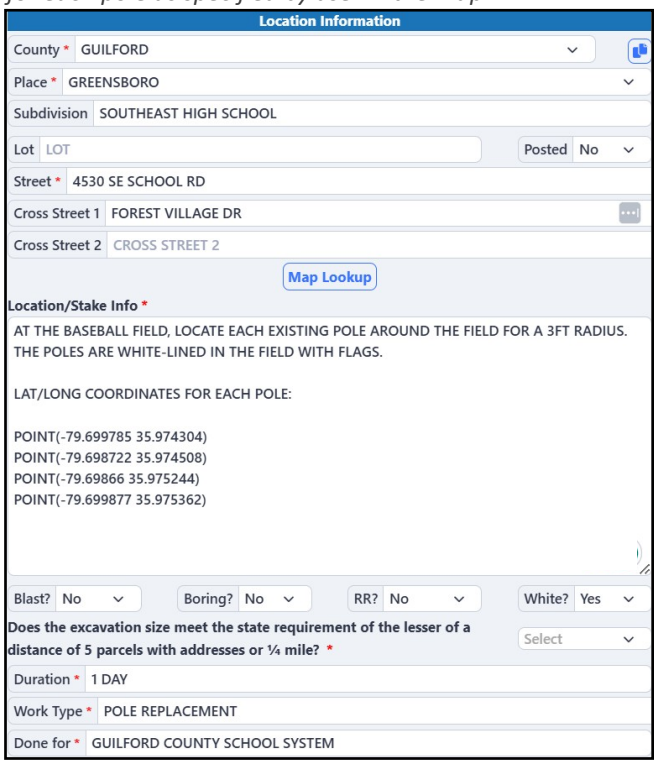
⇒ **Zoom Pins** will zoom and display Lat/Long coordinates for All Pins, the first Pin, or the last Pin placed on the map by the user.

⇒ **Clear Pins** will remove All Pins, the first Pin, or the last Pin from the map placed by the user.

⇒ **Copy** will allow the Lat/Long coordinates for each Pin to be copied to the Location/Stake Info field of the ticket and vice/ versa.

⇒ **Convert Pins to** will convert a Pin to a point or convert TWO or more Pins to line or THREE or more Pins to a polygon. Upon converting the Pins the dig site polygon (yellow) will automatically be generated by the system.

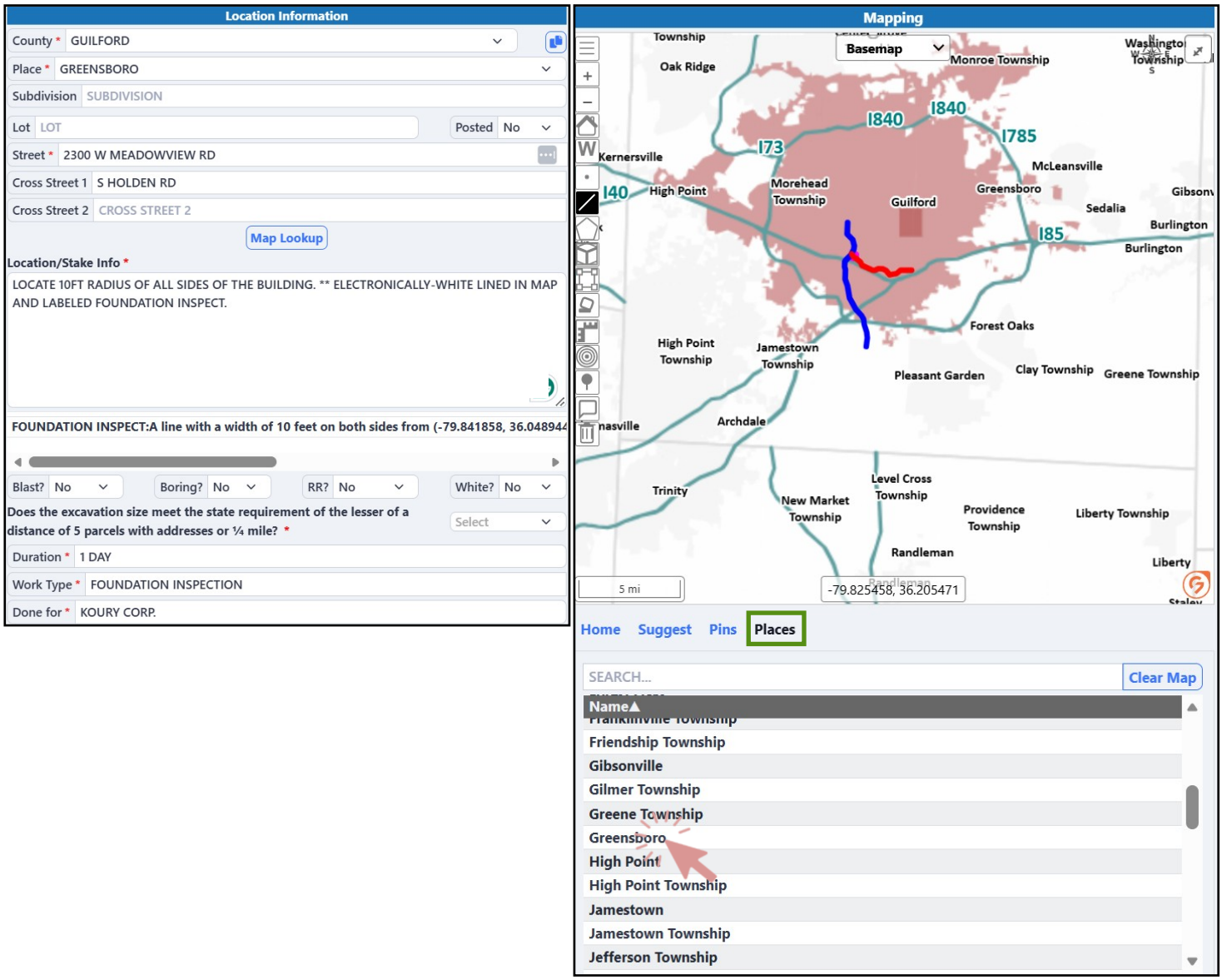
Feature showing Location Information including Lat/Long for each pole as specified by user in the map.



*Note: If enough digits are not provided to form a complete latitude and longitude coordinate, the pin may be used as a reference in the Location/Stake Info section but cannot be used to polygon the ticket.

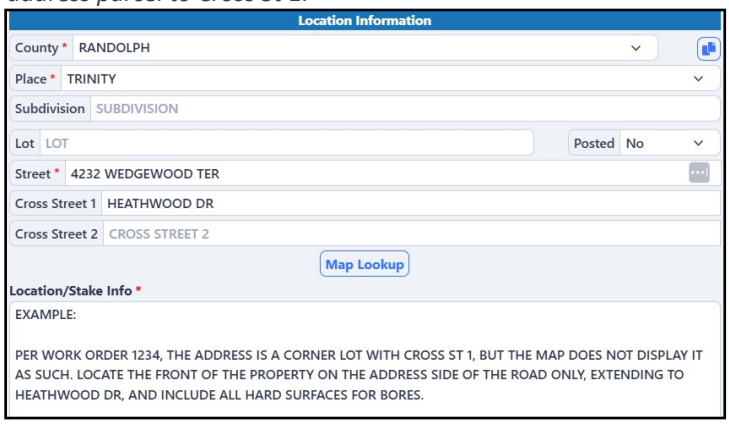
Feature showing converted Pins to Points for each pole as described by the user in the Location Information.

The **Places Tab** provides a search for all incorporated places (i.e., cities, towns, villages) visible in the current map view. The feature is showing Greensboro (mauve).

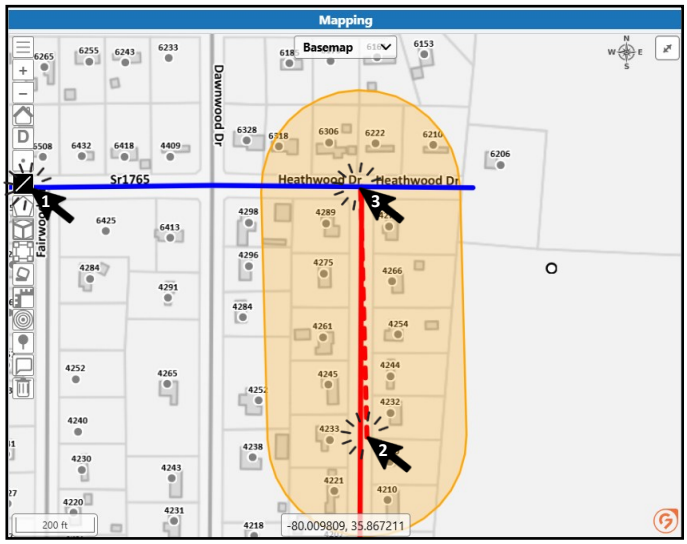


Corner Lot (map not showing address at corner) For corner lots where the map does not show the address at the corner, and the excavation is at or on the address. Once the Work area is highlighted in the map, the user should choose a drawing tool (e.g., Draw line) to trace the Work area from the address to the intersection.

Feature showing Location Information including from address parcel to Cross St 1.

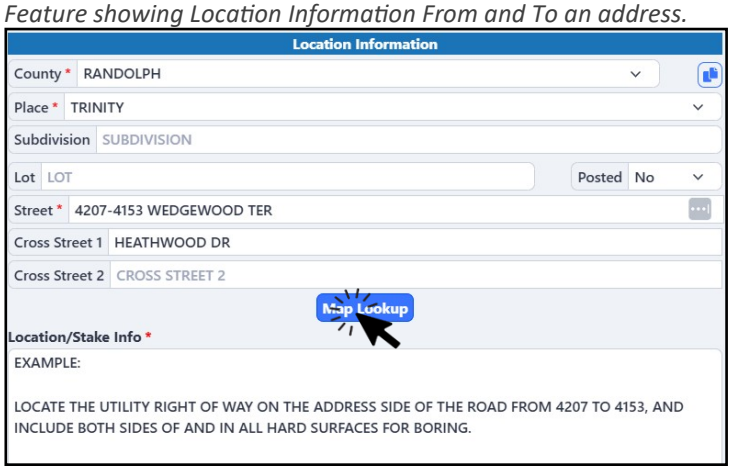


Feature showing dig site polygon drawn from the address to the intersection with Cross St 1.

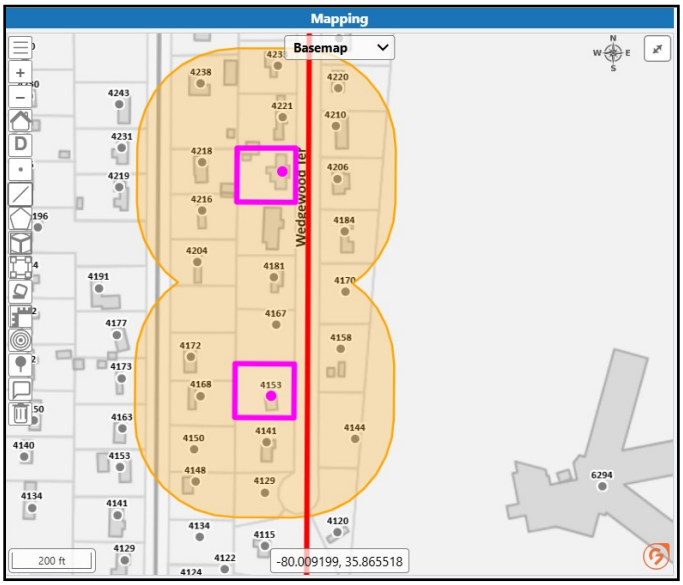


Address to Address - When requesting an area to be located from one address to another, enter the starting and ending addresses, including the road name, in the Street field.

Feature showing Location Information From and To an address.



Feature showing dig site polygon (yellow) including work area from address, 4207 to 4153 Wedgewood Ter.



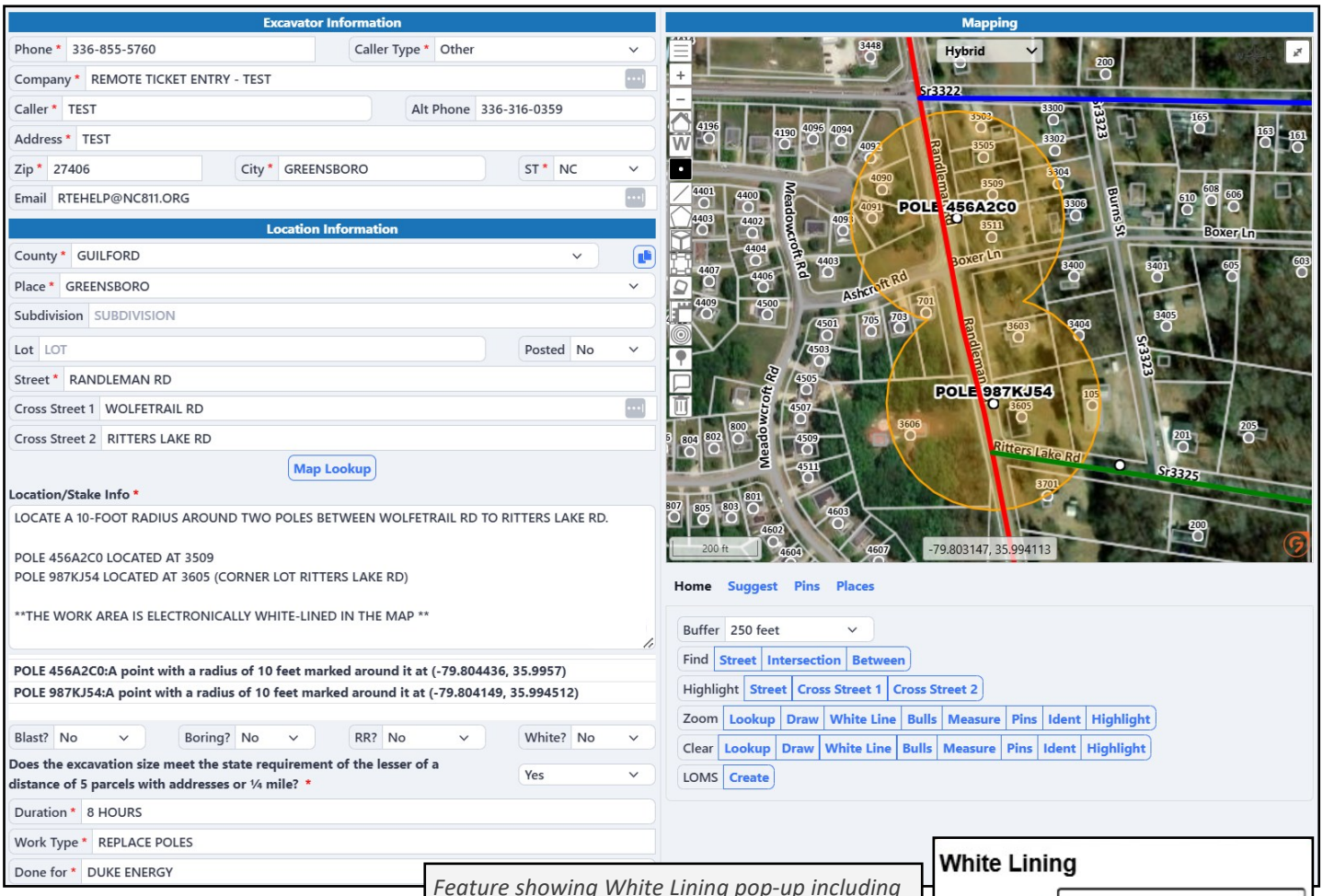
***Reminder:** A single ticket may include a proposed excavation or demolition work area of no more than five adjoining parcels identified by addresses, not to exceed 1/4 mile (1,320 ft) in linear length, **OR** an area not to exceed 1/4 mile in linear length.

Any work area that exceeds five adjoining parcels, identified by addresses, or extends beyond 1/4 mile must be requested on additional ticket(s).

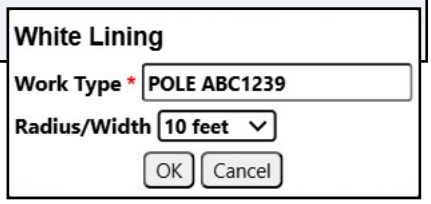
Free-Standing Objects (FSO) - When requesting a Work area to be located at /or around FSO's (i.e, Ped, Pole, Terminal), enter the location of each FSO in the Location / Stake Info field.

Feature showing Location Information including location of each pole.

Feature showing poles electronically white lined and labeled with pole number in description in White Lining pop-up.



Feature showing White Lining pop-up including Description (Pole #) and Radius/Width for drawn line/point



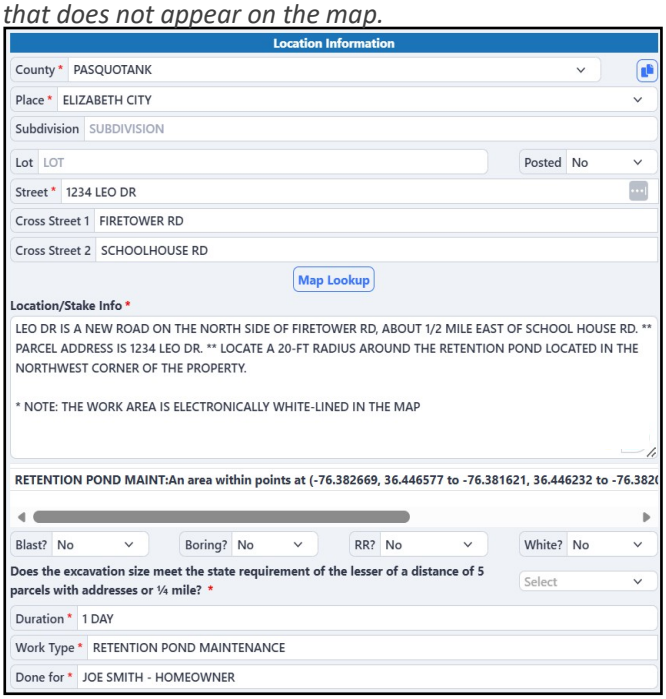
Mapping What You Cannot See

There may be instances when an address, street, or location does not appear on the map. This can happen when the map data is new and has not yet been provided by the county. When this occurs, you can still complete the ticket by using visible landmarks, such as nearby roads, or by selecting a Base Layer that includes aerial views to outline the correct work area.

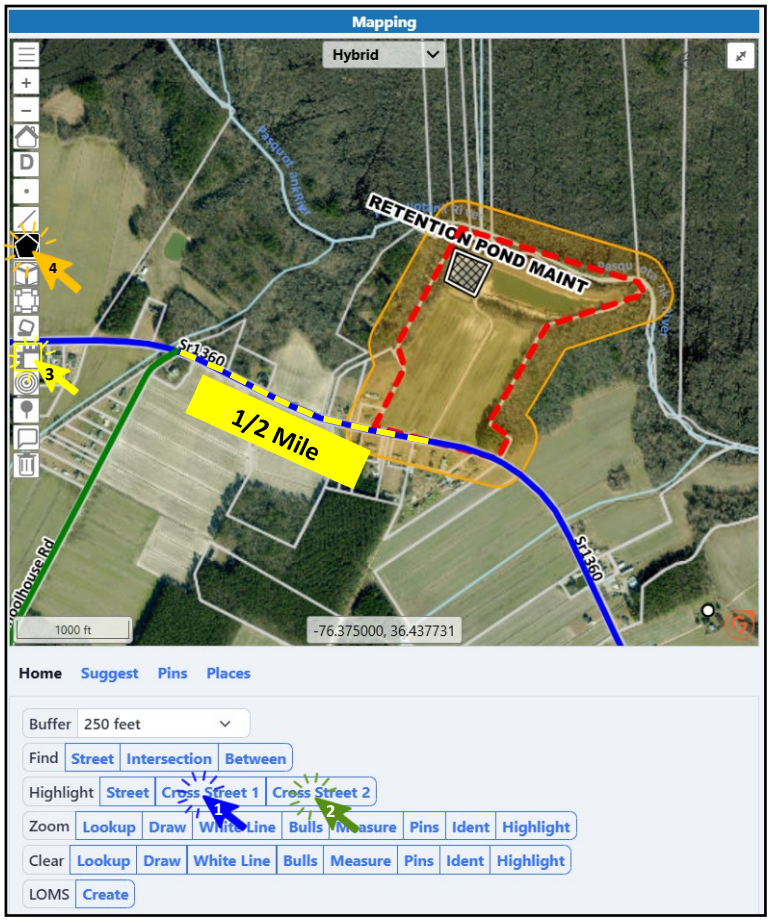
After mapping the approximate location, provide clear written instructions in the **In-House Comments** field explaining how the dig site area was determined.

Reminder: Members rely fully on the written locate description to determine the area to mark, as required by the Underground Utility Safety and Damage Prevention Act.

Feature showing Location Information for an address that does not appear on the map.



*Feature showing the new address, 1234 Leo Dr, outlined in the map, and polygoned. *includes Electronic White-lining.*

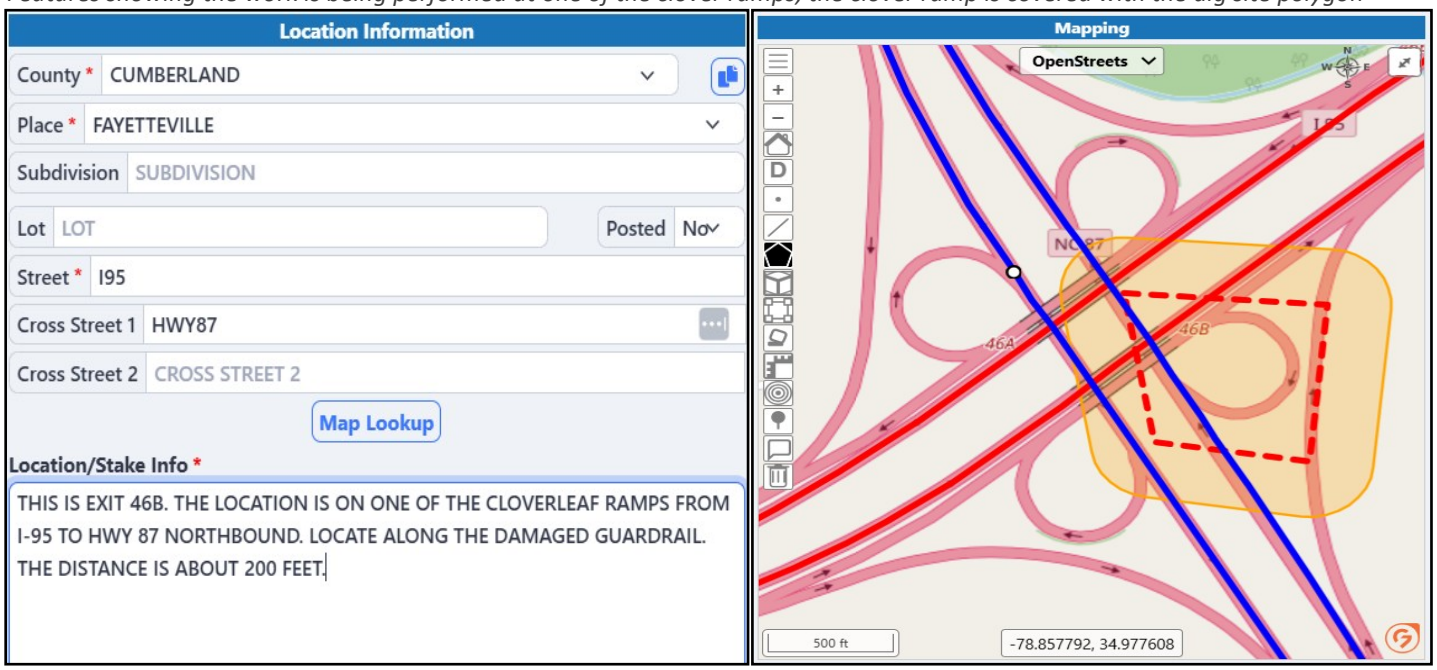


Ramps

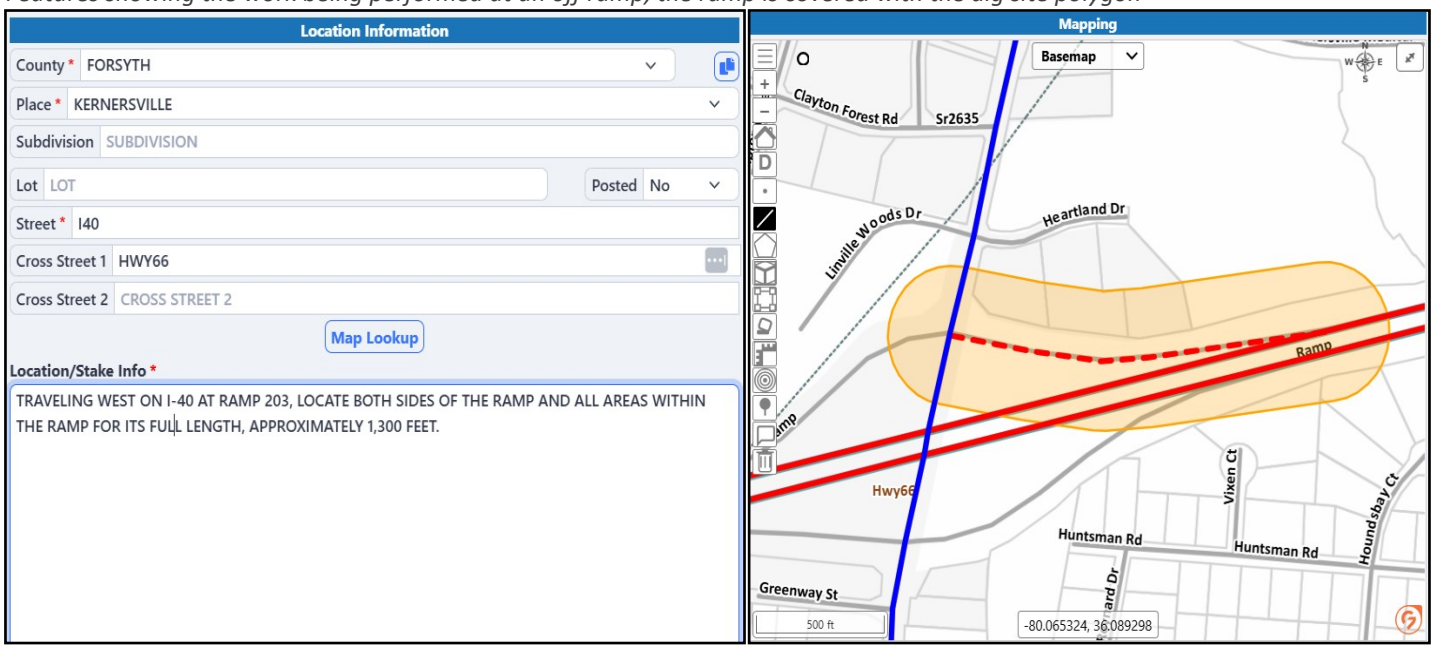
Should work take place along a ramp, highlight the street names in the map, then use a drawing tool to outline the entire Work area along or around the ramp where the digging will take place.

Note: The Locate Information and Location/Stake Info should always match the selected dig site polygon shown in the map.

Features showing the work is being performed at one of the clover ramps, the clover ramp is covered with the dig site polygon



Features showing the work being performed at an off ramp, the ramp is covered with the dig site polygon



Alleyway

All Location Information in the ticket entry fields should always match the Dig site polygon selected in the map.

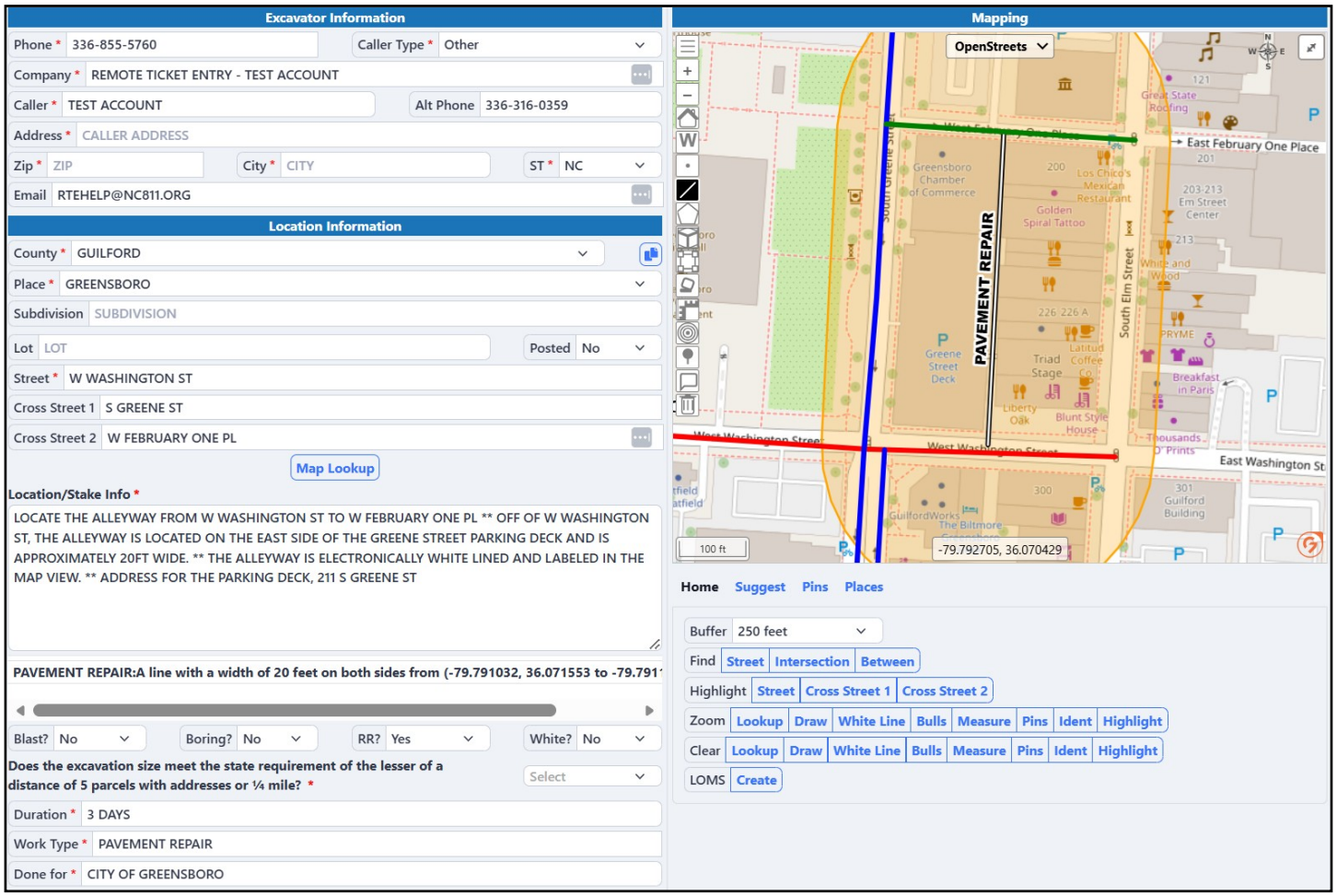
Example Alleyway

- Digging is taking place **in an alleyway** running **behind 211 S Greene St** *between* **W Washington St** and **W February One Pl.**
- A visual view of the alleyway can be obtained by selecting a base map, i.e., OpenStreets.
- Use one of the draw buttons (e.g., draw line) to draw along or around the alleyway.
- The user may electronically White Line the work area by clicking the White Line button (D), then selecting the Draw Line tool to trace along the alleyway. Next, specify the Work Type, e.g., Pavement Repair and radius or width (e.g., 20 feet). **Note: The White Line button is a toggle button (D/W).*

NOTE: This type of locate request can be processed as one ticket. However, if work will take place directly on any properties the alleyway runs along, then an additional ticket will need to be issued for those addresses in accordance with NC811 procedures for multiple addresses.

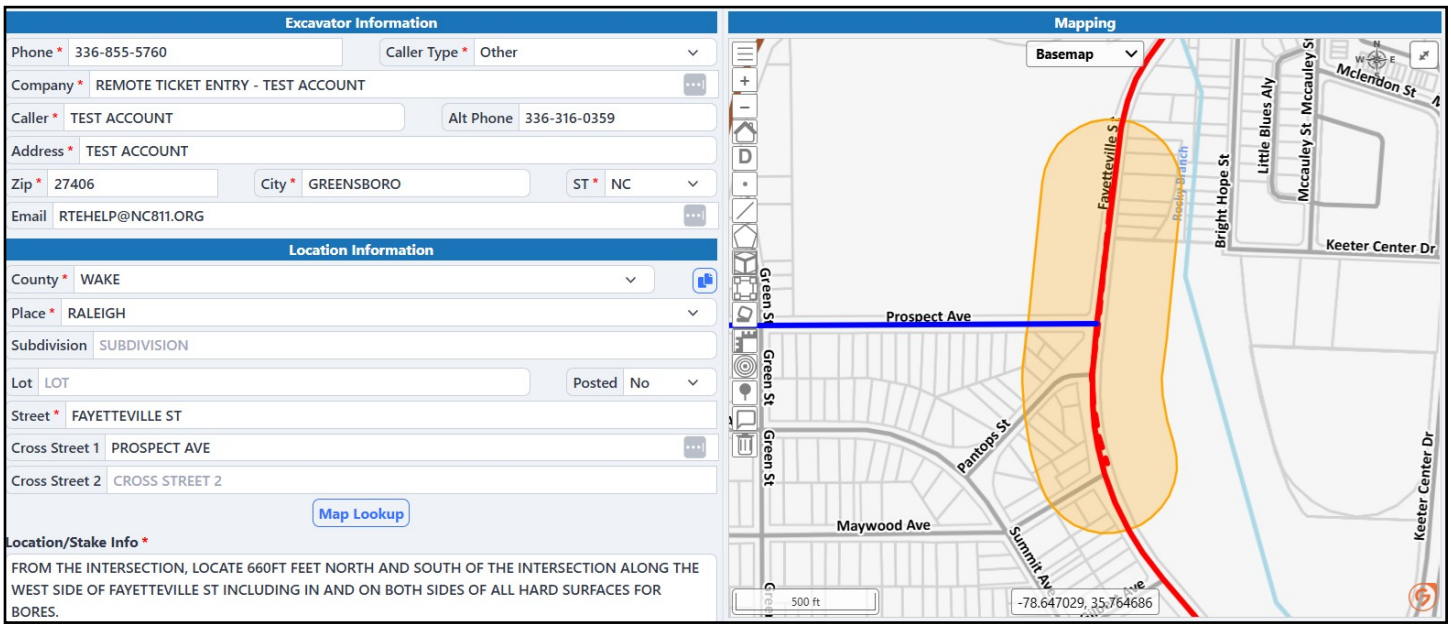
Feature showing Location Information where work will take place.

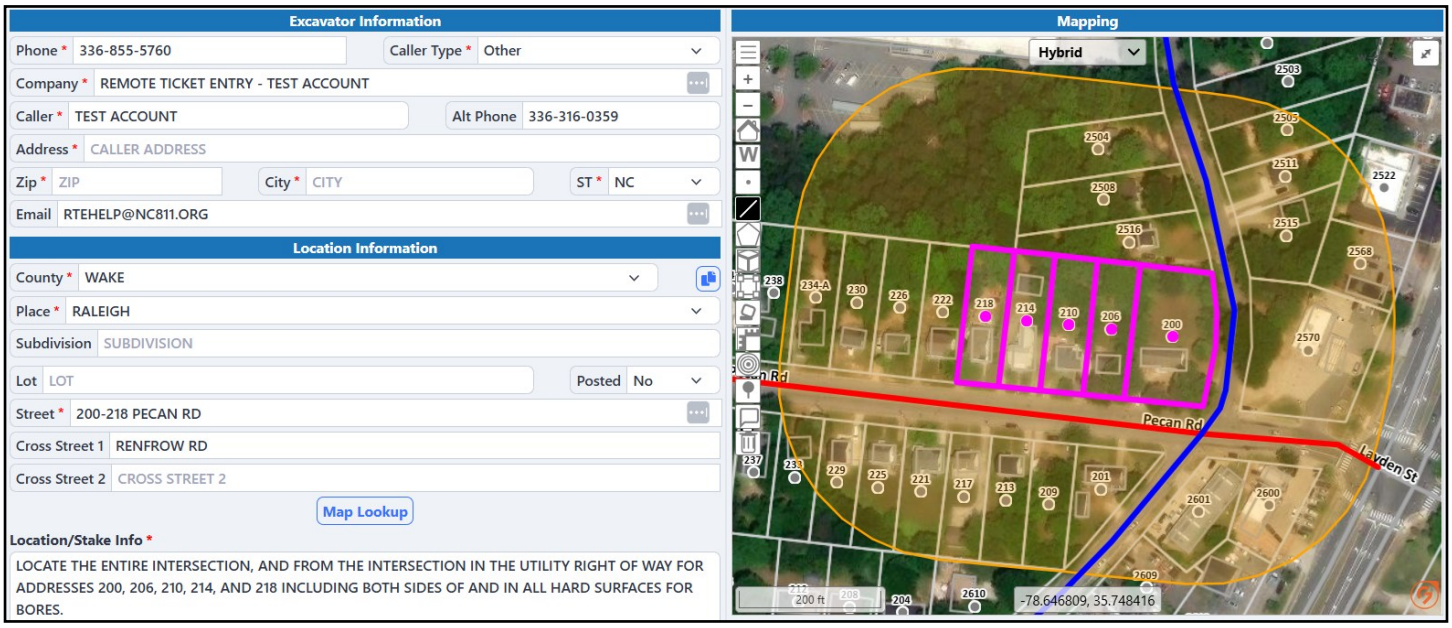
Feature showing the dig site polygon, including all work areas referenced in the ticket text.



Intersections

An intersection locate request will require only one ticket, as long as the Work Area requesting to be located is in accordance with the NC General Statutes 87-122. 5 (a) (b). The features below show examples of work areas located at or originating from an intersection. Each example includes the dig site polygon including all work areas referenced in the tickets' text.





***Reminder:** A single ticket may include a proposed excavation or demolition work area of no more than five adjoining parcels identified by addresses, not to exceed 1/4 mile (1,320 ft) in linear length, **OR** an area not to exceed 1/4 mile in linear length.

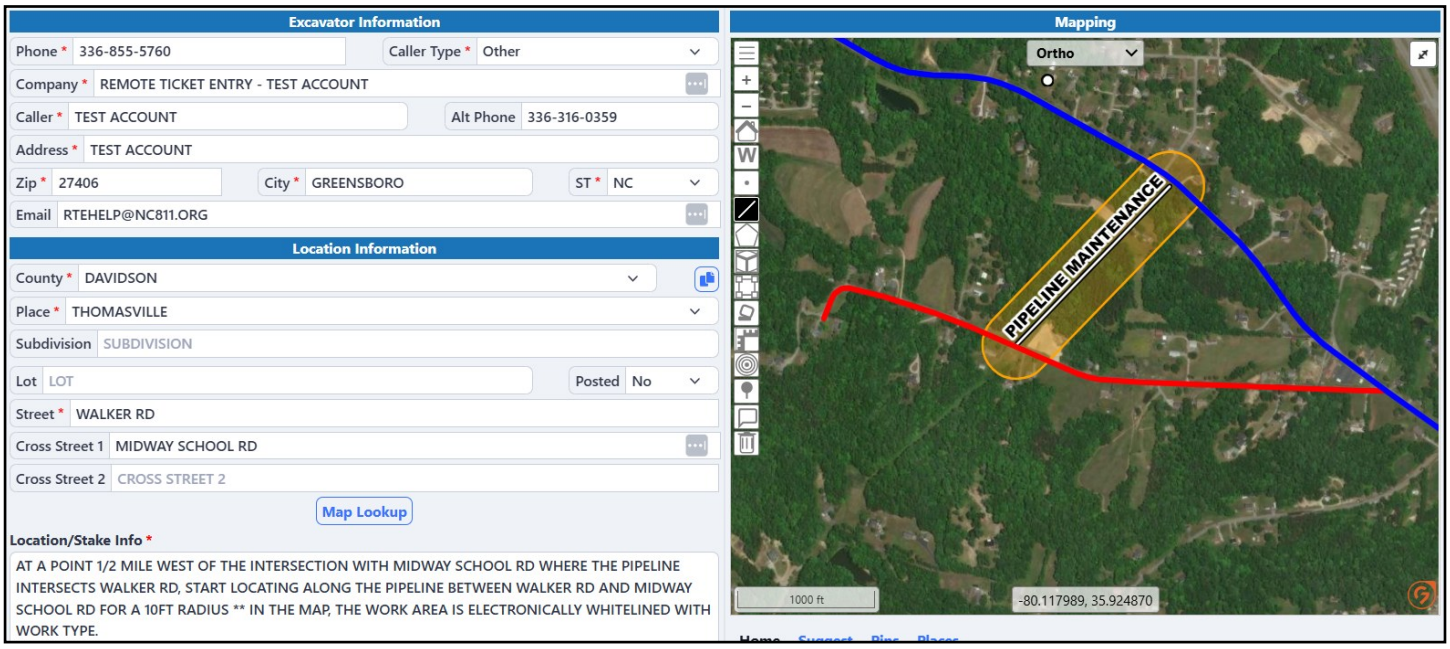
Any work area that exceeds five adjoining parcels, identified by addresses, or extends beyond 1/4 mile must be requested on additional tickets.

Mapping Cross Country Using ORTHO View

The information specified in the tickets text should always match the selected work area in the map.

Example:

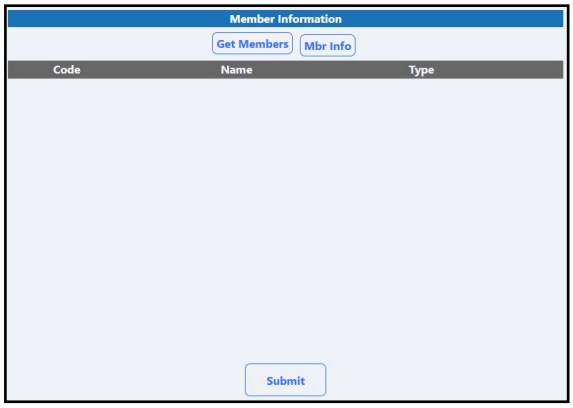
- The work is taking place along a pipeline located **1/2 mile west of** the intersection.
- Use the **Measure** tool to measure from the intersection to the starting point.
- A visual of the pipeline right-of-way can be viewed by choosing base layer, **ORTHO**.
- Use the **Draw Line** tool to create a polygon that covers the distance along the pipeline right of way and includes the entire work area.



Intercept Code

On occasion, certain areas of North Carolina may show no member operators to notify. This occurs when none of our member utilities have chosen to receive notifications for the work area drawn on the map. When this happens, clicking **Get Members** will return an empty Member Information section. If no members are listed, simply click **Submit** to proceed with submitting the locate request as usual. A ticket number will still be created, providing the necessary documentation for both the excavator and NC811.

If you believe member utilities should be notified for the work area, please contact NC811 at 1-800-632-4949 and a Customer Service Representative will be happy to assist you.



Yards to Feet

1 YARD = 3 FEET
10 YARDS = 30 FEET
50 YARDS = 150 FEET
100 YARDS = 300 FEET
150 YARDS = 450 FEET
200 YARDS = 600 FEET
250 YARDS = 750 FEET
300 YARDS = 1050 FEET
400 YARDS = 1200 FEET
450 YARDS = 1350 FEET
500 YARDS = 1500 FEET
600 YARDS = 1800 FEET
700 YARDS = 2100 FEET
800 YARDS = 2400 FEET
900 YARDS = 2700 FEET
1000 YARDS = 3000 FEET
1100 YARDS = 3300 FEET
1200 YARDS = 3600 FEET
1300 YARDS = 3900 FEET
1400 YARDS = 4200 FEET
1500 YARDS = 4500 FEET
1600 YARDS = 4800 FEET
1700 YARDS = 5100 FEET
1800 YARDS = 5400 FEET
1900 YARDS = 5700 FEET
2000 YARDS = 6000 FEET

Mileage to Feet

1/10 MILE = 528 FEET
2/10 MILE = 1056 FEET
3/10 MILE = 1584 FEET
4/10 MILE = 2112 FEET
5/10 MILE = 2640 FEET
6/10 MILE = 3168 FEET
7/10 MILE = 3696 FEET
8/10 MILE = 4224 FEET
9/10 MILE = 4752 FEET

1/4 (.25) MILE = 1320 FEET = 440 YARDS
1/2 (.50) MILE = 2640 FEET = 880 YARDS
3/4 (.75) MILE = 3960 FEET = 1320 YARDS
1 MILE = 5280 FEET = 1760 YARDS

QuickMap Zoom Levels

LEVEL 1 = 500 METERS = 1640 FEET
LEVEL 2 = 1000 METERS = 3281 FEET
LEVEL 3 = 1500 METERS = 4921 FEET
LEVEL 4 = 2500 METERS = 8202 FEET
LEVEL 5 = 5000 METERS = 16,404 FEET