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ATHENA MAPPING

Geocode Editor V2: Segment and Point Training Resource Guide

Geocode Editor V2: Segment and Point

Training Resource Guide

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GEOCODE EDITOR V2: SEGMENT AND POINT TRAINING RESOURCE GUIDE

PURPOSE OF THE GEOCODE EDITOR V2 GUIDE

The Geocode Editor Resource Guide will be broken into two parts, each of which will provide you with explanations on the following procedures within the software: Segment Layers and Point Layers. Additionally, this guide will review the basic tools within Athena, as well as provide you with specific scenarios you may encounter as you begin to independently navigate the system within the User Stories section of this guide.

ATHENA SEGMENT INTRODUCTION

Within the “Segment Layer” the user will be building the network of streets the Athena system will later recognize when matching a student’s address, and building out a district’s runs and routes. Utilizing tools within the Map Panel, the user will build connections between street segments, and later be able to assign address points to these connections.

Some language to keep in mind when navigating this layer:

- **Segment:** A larger connection piece; usually pieces of a larger street, connected to nodes which dictate the “flow”, or direction, of the segment.

- **Node:** Nodes are the small grey circles attached to the mouse when editing within the “Segment Layer”. Nodes connect segments together; “*from nodes*” are what lead the flow or direction of a segment.

- **Segment Flow:** Street segments are most beneficial when they are built in the direction of an increase in address numbers. The user will connect the “*from node*” to the side of the street that the house numbers begin to increase.

ATHENA SEGMENT MAP ASSET KEY

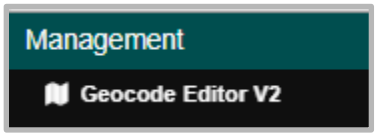
Symbol	Explanation	Symbol	Explanation
	Edit		Redo
	Save		Join
	Clear Selection		Reverse
	Zoom To		Trace

	Detach From		Delete
	Detach To		Select Method
	Undo		

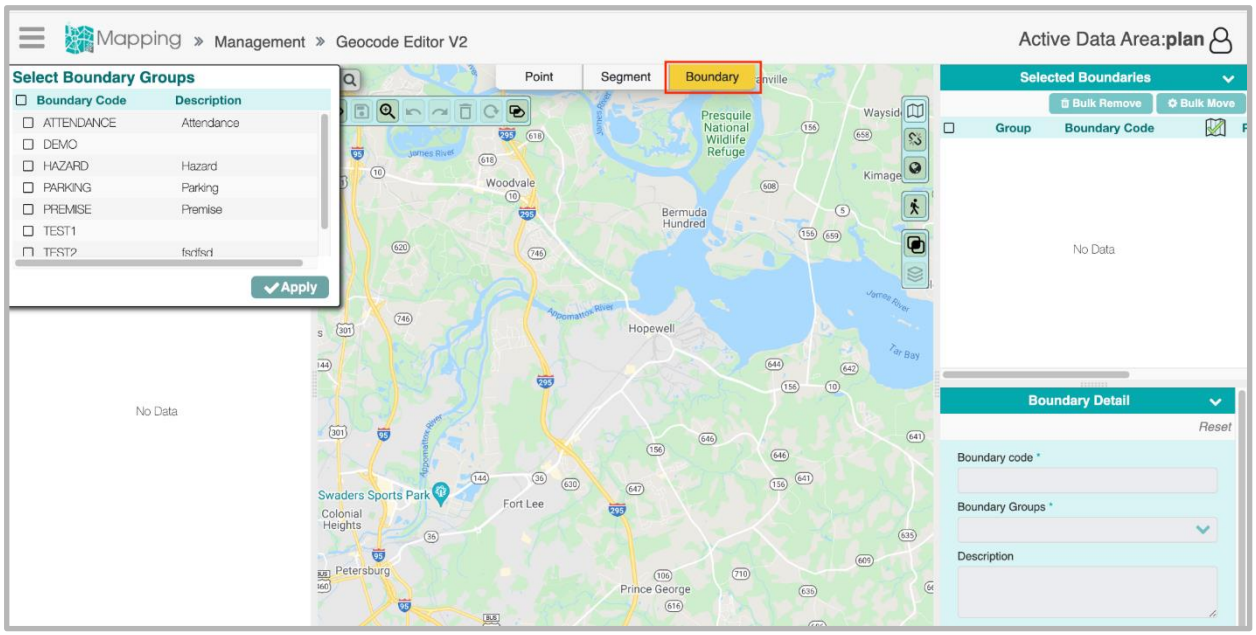
NAVIGATING THE SEGMENT LAYER

1. **Getting Started:**
   Once logged in, select the Mapping application from the portal page.

2. Select Geocode Editor in the action bar menu.



3. **Panel Layout:**
   The layout of the module is as follows:

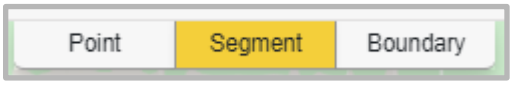


Data Panel *Map Panel* *Workspace Panel*

4. **Layers:**

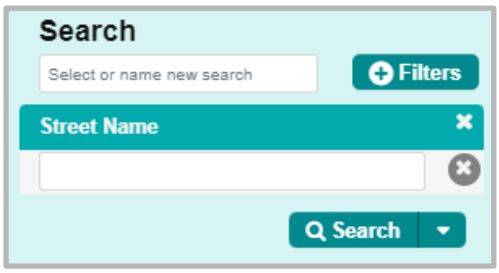
At the top of the Map Panel the user will find different layers to taggle between when working in the Geocode module:

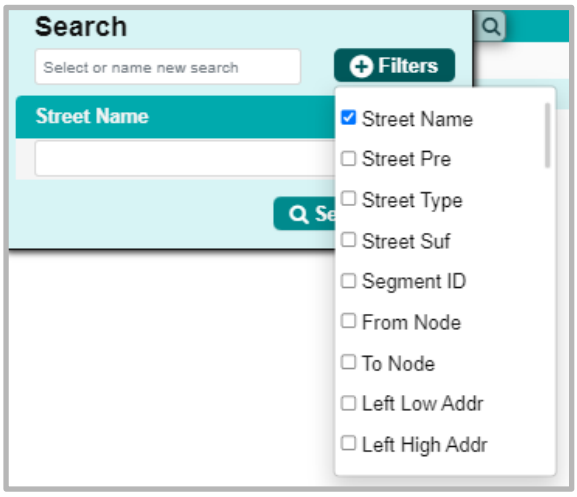
- Point
- Segment
- Boundary



5. **Segment Layer:**

Once the user has selected the Segment layer in the Map Panel, a search tray will appear where the user can choose from several filters to vet their search.

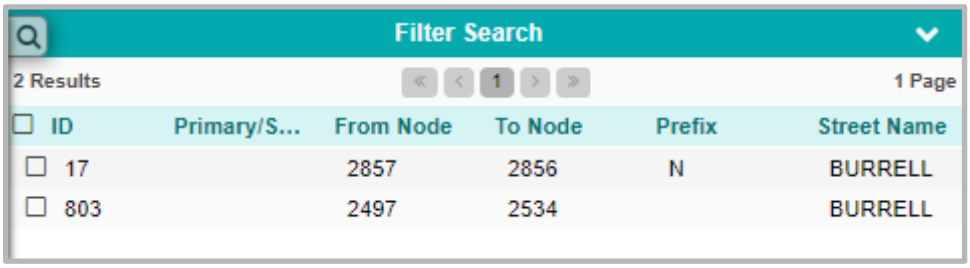




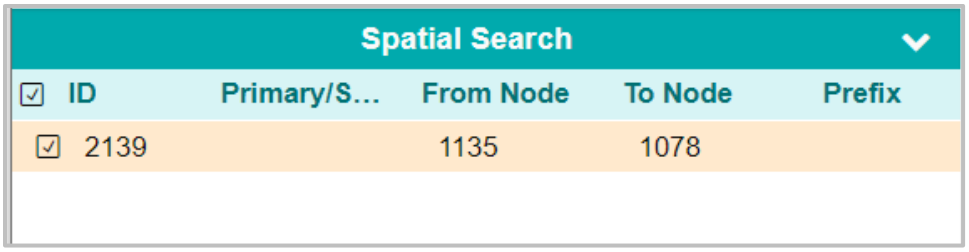
5.1 Data Panel:

The Data Panel consists of two cards:

- **Filter Search:** Results of your search query.

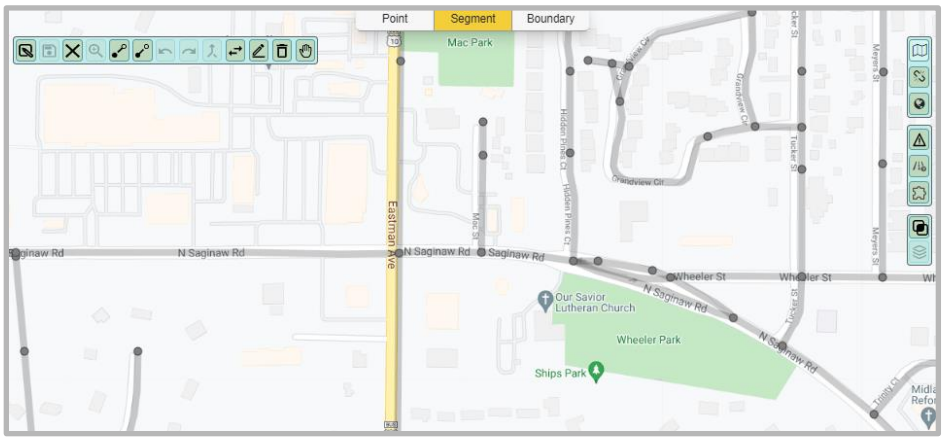


- **Spatial Search:** When selecting a segment directly on the map, it will populate in the Spatial Search.



5.2 Map Panel:

The Map Panel contains various tools and individual workflows integral to the development of segments within the Geocode Module.



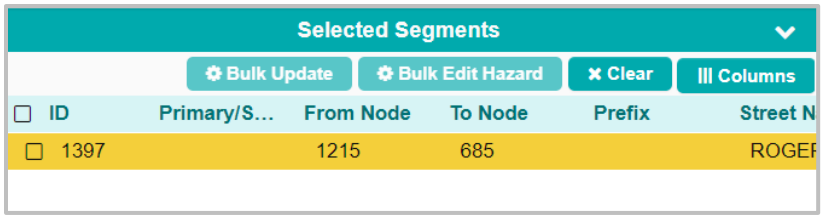
Symbol	Explanation
	**Edit:** This tool “edits” the street network; use this tool to add segments to the map.
	**Save:** Recommended for users to save after every change within the Segment layer.
	**Clear Selection:** Clear’s the segment’s the user is no longer working with from the Workspace Panel.
	**Zoom To**
	**Detach From/To:** To remove a segment from another connection, the user can use the “detach from tool” to separate the connections, before deleting the excess segment.

	**Undo:** User can “undo” or go back as far as the user’s last save; the system saves the work the user does along the way.
	**Redo:** Will take the user to the previous move; the system saves the work the user does along the way.
	**Join:** Takes two compatible street segments and makes them into one segment. The segments must share the same street name.
	**Reverse:** If a user needs to change the “flow” of a segment, highlight the segment, and the “reverse button” will swap the “from” and “to” nodes.
	**Trace**: Once the user has selected segments that are not aligning with the google background image, utilizing the trace tool, the segments will automatically align with the google image of the streets.
	**Delete**
	**Select Method:** Select segments within the range of the user’s search parameter, and will populate in the “Selected Segments” card of the Workspace Panel.
	**Hazard:** When selecting this icon Hazards will display graphically on the map. Hovering over an individual Hazard on the map will display information in the Segments Card.
	**Resolve Unnamed Street:** When selecting this icon, unnamed streets will highlight on the map. Select an unnamed segment and the information will display in the “Segment Attributes” card.
	**Connectivity Validation:** When selecting this icon, unconnected segments will highlight in blue, and showcase can empty space where the segments are not connected. If all segments are connected, the user will receive a message confirming “All components are connected”.

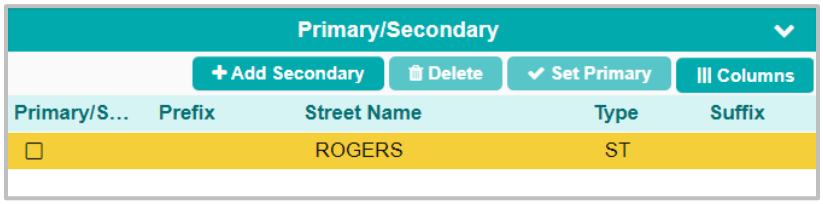
5.3 Workspace Panel:

Selecting a street name in the Data Panel will populate additional information in the Workspace Panel, and within these cards the user can edit segment properties.

- **Selected Segments:**
  The segment that is selected on the map, will populate in the “Selected Segments” card. The user has an option to “Bulk Edit” information within this panel: Prefix, street name, type, suffix, etc.

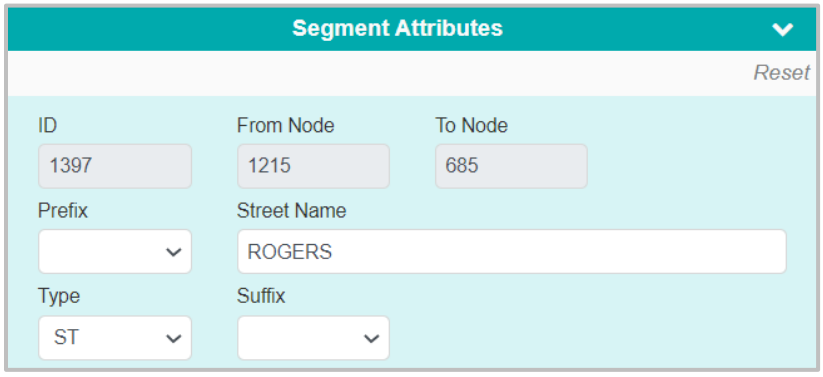


- **Primary/Secondary:**



- **Segment Attributes:**

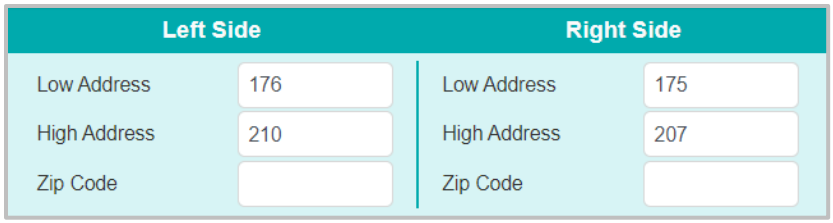
  A name will always be associated with a segment, and within the “Segment Attributes” card the user will be able to see the additional attributes associated to a specific segment’s name.



- **Left Side / Right Side:**

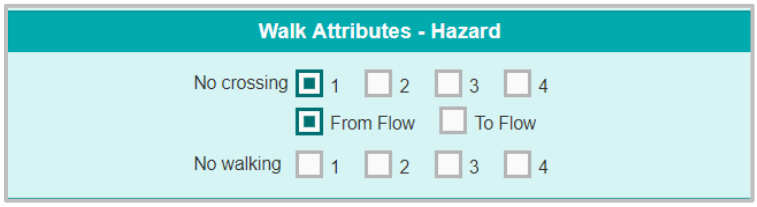
  If the user knows the flow of addresses in an area, it is encouraged for the user to build the segments in the direction of an increase in home addresses. The user would input the low and high ranges of addresses within the “Left Side” and “Right Side” card.

  This is especially beneficial when there is a transition of zip codes, and the user needs to specific two sperate zip codes on the same street.

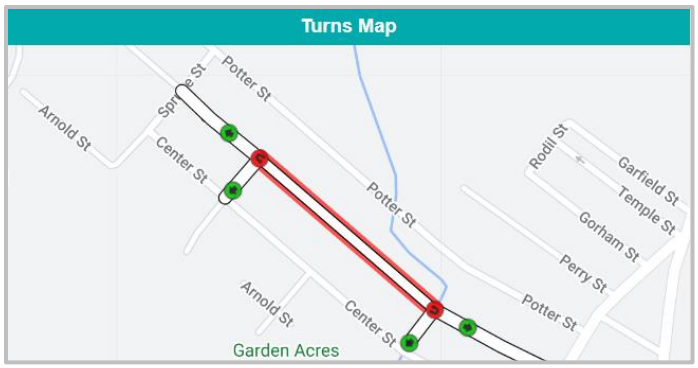


- **Road Attributes:**
  This card indicates how fast a bus can travel across the selected segment.

- **Walk Attributes – Hazard:**



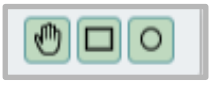
- **Turns Map:**



ATHENA POINT INTRODUCTION

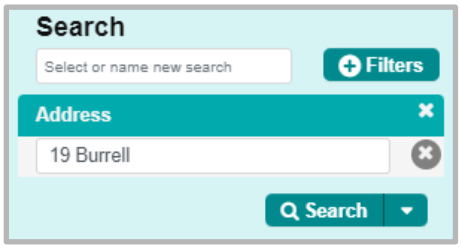
The Points Layer allows the user to view and edit known address points that are automatically imported into the system, or create new address points as a user develops information within the Geocode Module. Users will be unable to add or view address points until the nearby segments are established.

ATHENA POINT MAP ASSET KEY

Symbol	Explanation	Symbol	Explanation
	Edit		Zoom To
	Reprojection		Select Method
	Add New Point Location		Select Method—Drag to Multiselect
	Save		Delete

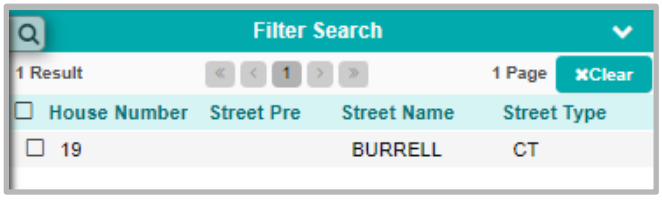
NAVIGATING THE POINT LAYER

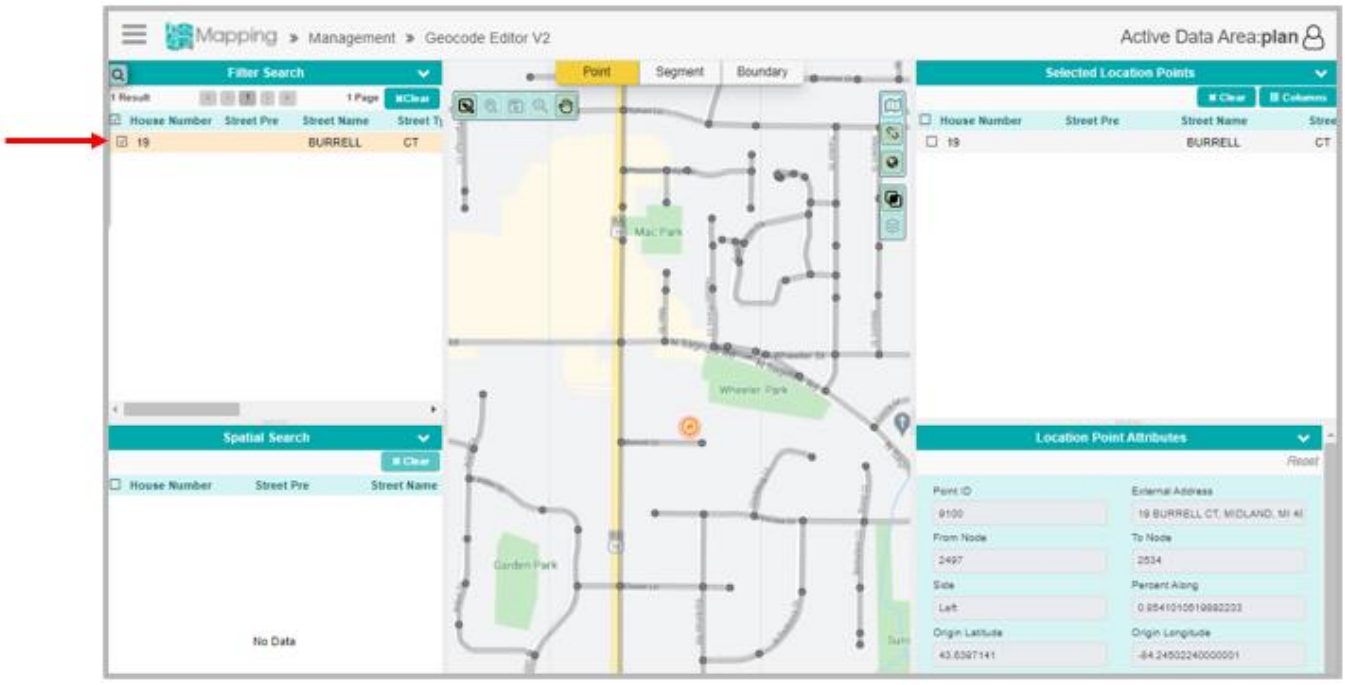
1. **Point Layer:**
   Once the user has selected the Points layer in the Map Panel, a search tray will appear where the user can enter an address of interest to work with.

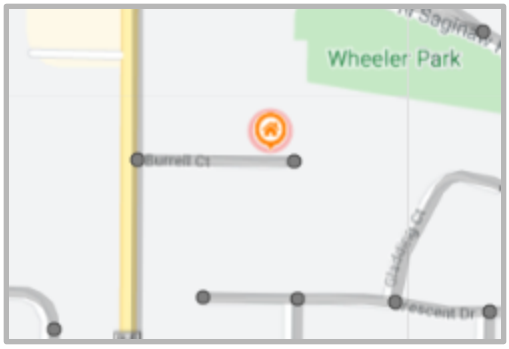


1.1 Data Panel:

Results from the search will display in the Data Panel. When selecting the address in the Data Panel, the information will populate in the Workspace Panel, as well as highlight on the Map.

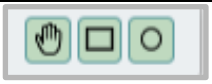




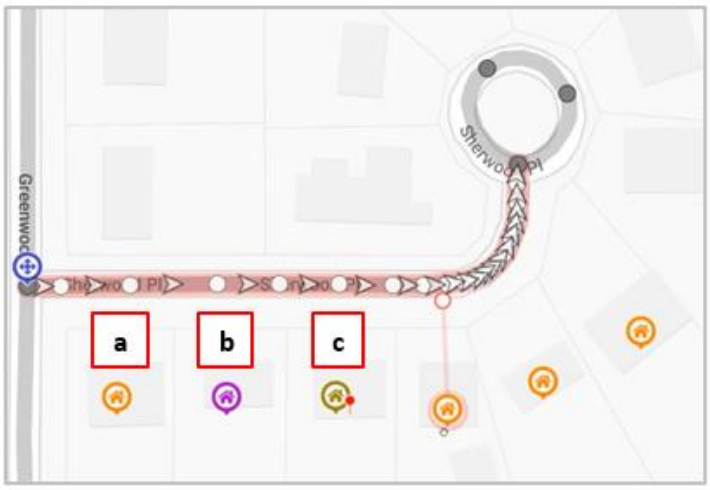


1.2 Map Panel:

The Map Panel has multiple tools for viewing and editing Points within the system.

Symbol	Explanation
	Edit
	Reprojection
	Add New Point Location
	Save
	Zoom To
	Select Method
	Select Method—Drag to Multiselect
	Delete

1.2.1 Identify the Different Point Locations:



a. **Orange:** Validated point, can freely move (drag and drop) orange points to new locations.

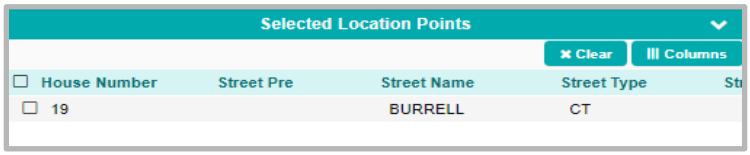
b. **Purple:** Indicating an unmatched segment—the point and segment do not share the same street name. Therefore, purple points are unable to be freely moved to a new location, but clients can use the reprojection tool to attach point to the correct segment.

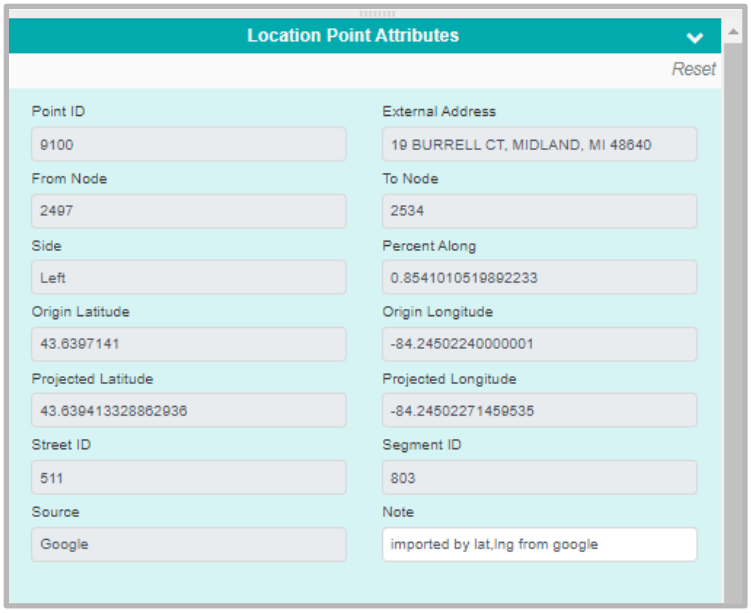
c. **Mustard:** Reprojected segments using manual override; when a purple point is reprojected to a different segment it will turn into a mustard point.

d. **Black:** Points that were unable to project to a nearby street upon the upload of a student data import file. These points can be manually reprojected to a nearby segment, turning the point into a mustard point.

1.3 Workspace Panel:

Selecting a location point in the Data Panel, will populate additional information within the Workspace Panel.





ATHENA USER STORIES

The User Stories section of this guide will offer you scenarios that are applicable to some of the workflows you might encounter in your day-to-day tasks within Athena. Some scenarios that will be discussed include:

Segment Layer User Stories:

- Creating and Tracing Segment
- Detaching and Splitting Segments
- Reversing and Splitting Segments
- Deleting Shape Nodes

Point Layer User Stories:

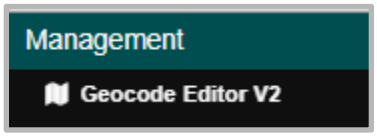
- Adding and Editing Point Locations

Segment Layer Stories

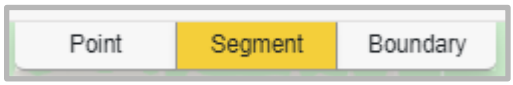
1. Creating and Tracing Segments:

1. **Getting Started:**
   Once logged in, select the Mapping application from the portal page.

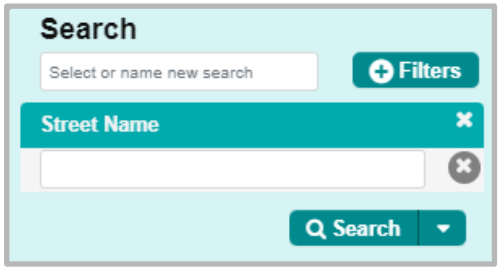
2. Select Geocode Editor in the action bar menu.

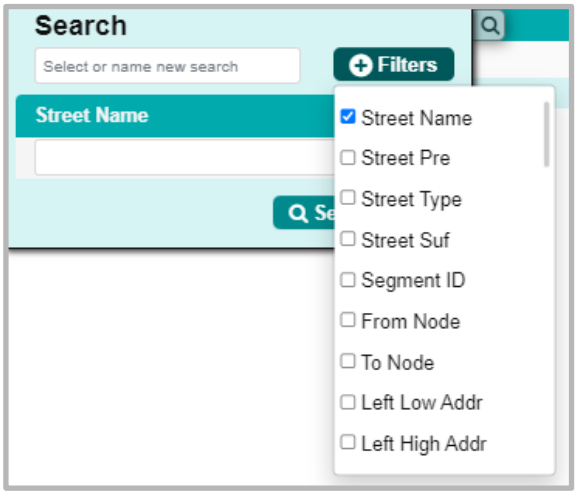


3. **Layers:**
   At the top of the Map Panel the user will find different layers to taggle between when working in the Geocode module:
   - Point
   - Segment
   - Boundary



4. **Segment Layer:**
   Once the user has selected the Segment layer in the Map Panel, a search tray will appear where the user can choose from several filters to vet their search.



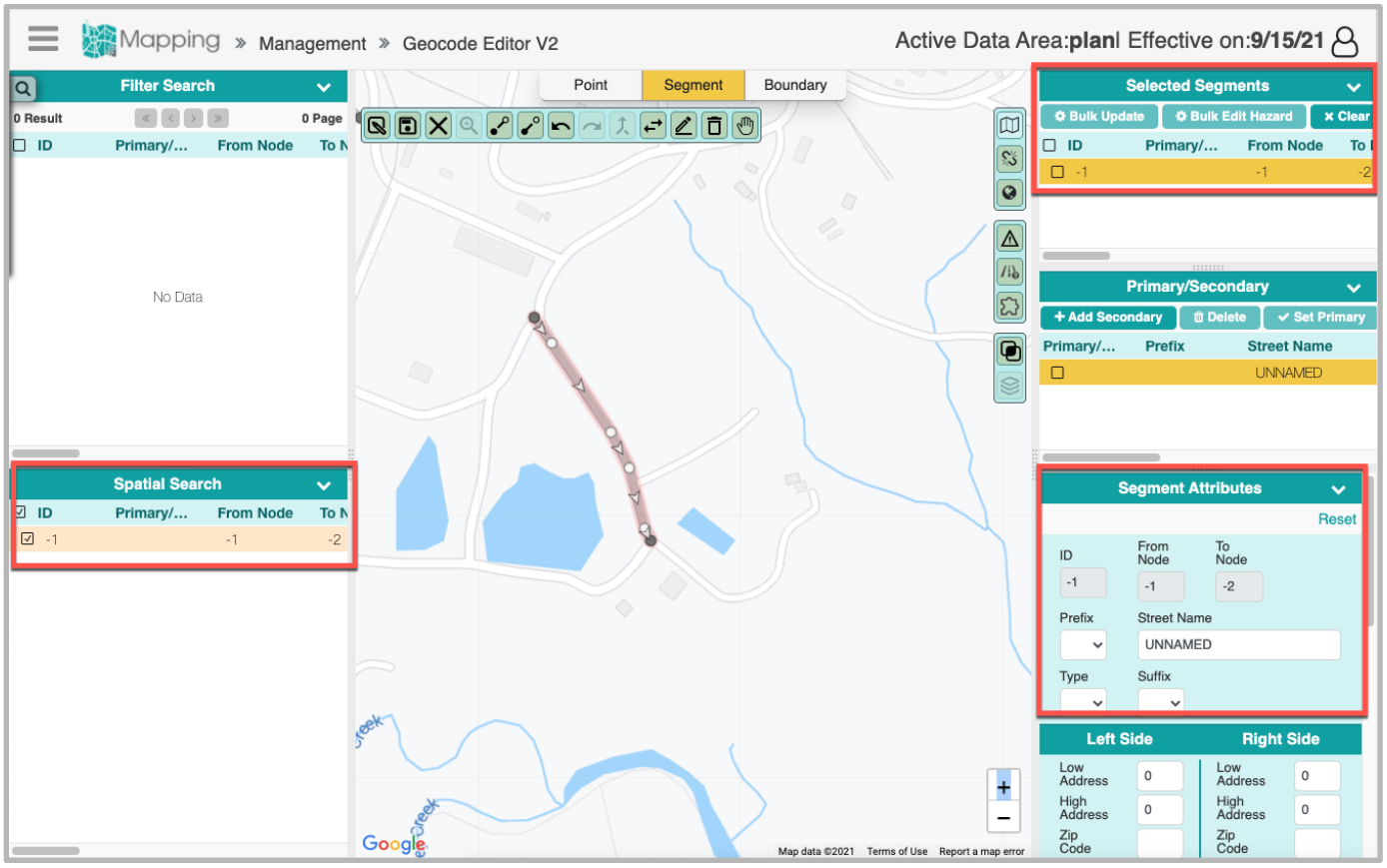


Alternatively, to quickly be taken to the segments already established on the map, navigate to the toolbar at the top of the Map Panel, and select the “Zoom To” button.

5. Drawing Segments:

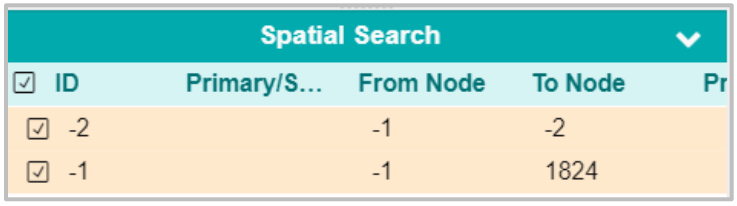
To begin drawing segments onto the map, the user will first have to select the “Edit” button in the tool bar, when the edit function is activated, the button will highlight in yellow.

Once activated, the user can begin drawing segments by clicking a street or desired location that does not already have a segment, and moving the mouse to follow the flow of the street. The user will draw the segment section and double click to release the new segment.

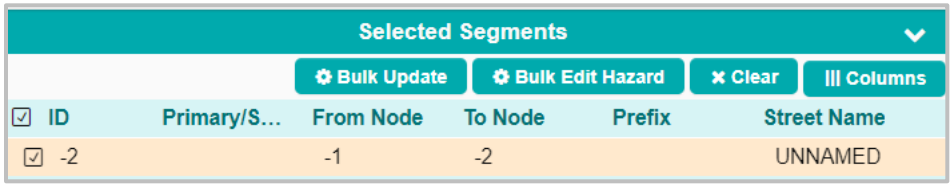


Following the addition of a new segment, the user will notice a few updates:

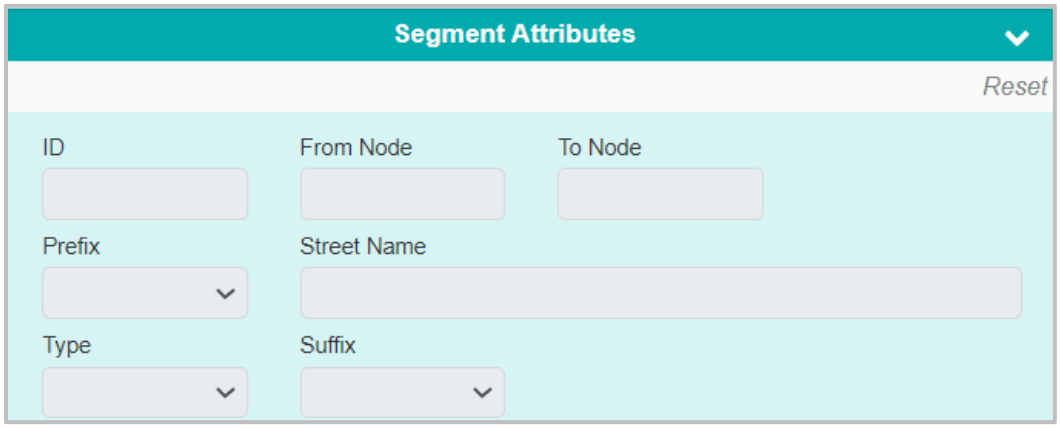
- The new segment will be created and highlighted on the map—it is recommended that the user save their work after the creation of a new segment.
- The new segment is added to a few spaces within the Data and Workspace Panels:
  - **Spatial Search** card—the new segment will be highlighted.



- **Selected Segments** card—will have a Negative ID assigned.



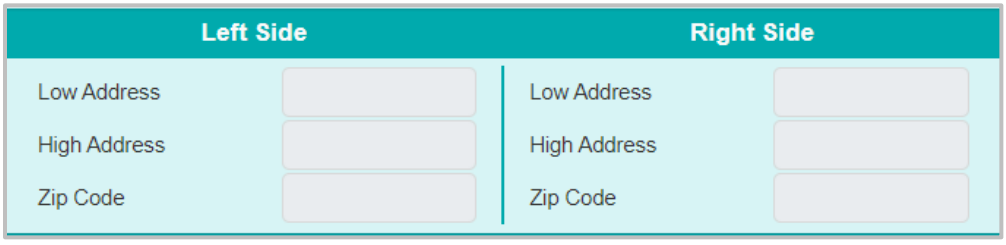
- **Segment Attributes** includes the following fields: ID, **From** and **To Node** Values, Street Name (the Street Name value of the new segment will remain unnamed until manually assigned).



5.1 Additionally, following the establishment of a new segment the user will then begin to complete the fields within the Workspace Panel as displayed above:

- Set the value within the **Segment Attributes** fields (optional): Prefix, Street Name, Type, and Suffix.

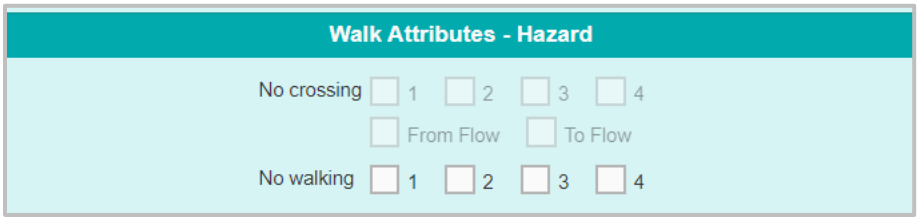
- Set the value for the **Left Side** and **Right-Side** fields—Left-Side being the Low Address and Right Side being the High Address.



  - Low Address and High Address values must be larger than zero.
  - Low Address must be less than High Address value.
  - If Left Side uses odd numbers, Right Side must use even.
  - Zip Code must be a valid format (5 digit number).

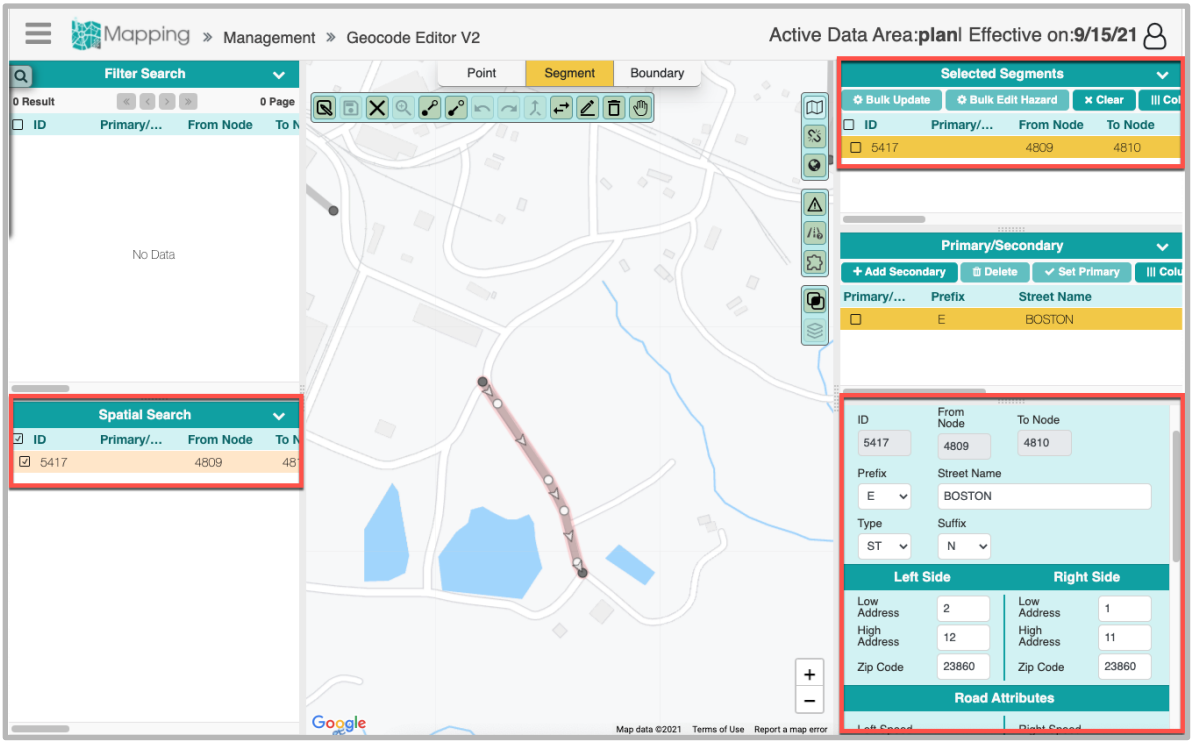
- Set value for **Road Attributes** fields: Left Speed, Right Speed, No Drive.
  - **Note:** Left Speed and Right Speed values must be greater than zero.

- Set value for **Walk Attributes/Hazard** fields: Hazard, From Flow, and To Flow.



When the fields within the Workspace Panel have been completed, select the “Save” button to store the new segment in the system.

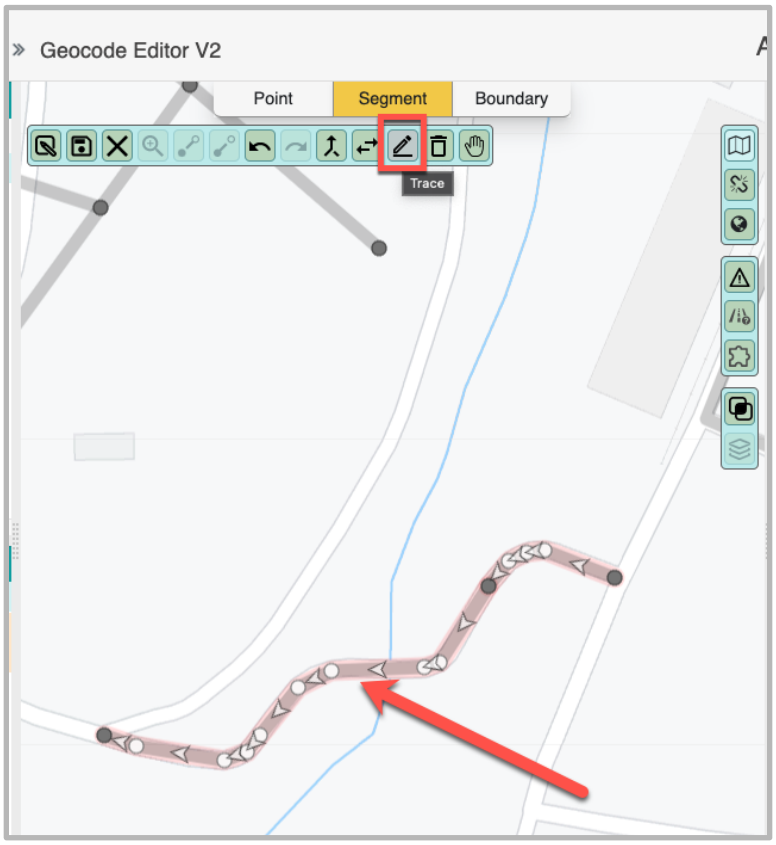
Once saved, the system will auto-generate and assign a unique ID, From Node, and To Node to that segment.



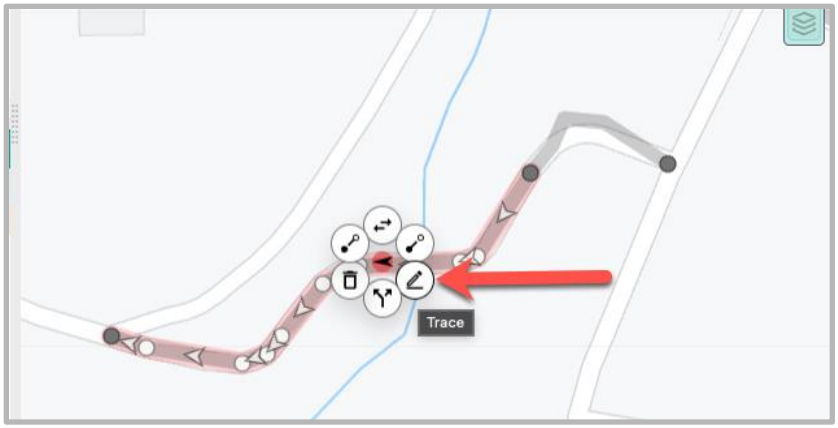
Note: When creating segments, the user can continue to single click to add shape nodes before finishing the segment off.

- If the user would like to create a new segment off an existing segment, they will single click the node where the new segment should start, and follow the same process as detailed above.

6. **Tracing Segments:**
   On the map, select one or more segments that need to be edited to follow the roads projected path. There are two ways to trace segments:
   - **Map Tool Bar**: Select the Trace button within the map tool bar and all selected segments will follow the shape of the street.

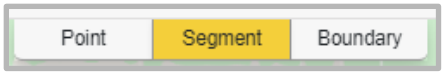


   - **Context Menu:** Right-click on the segment that needs to be traced, and the context menu will populate. Once the tracing tool is selected, only focused segments will follow the shape of the street.



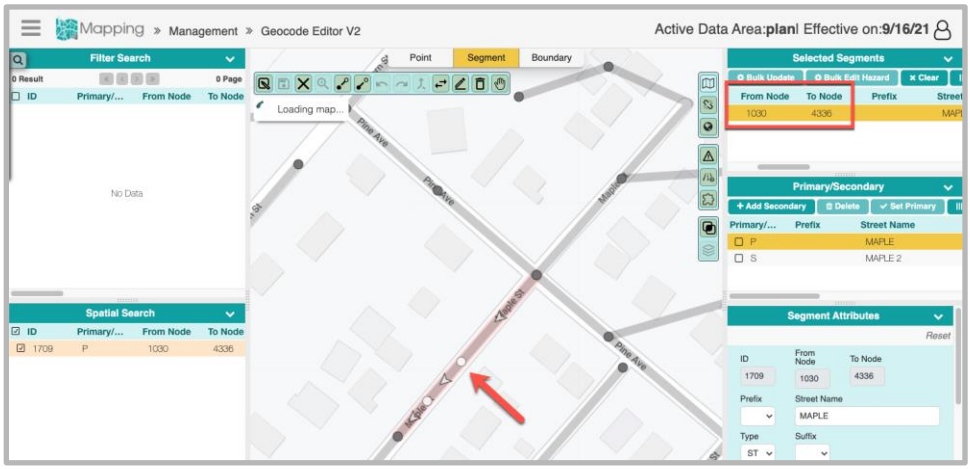
2. Detaching and Splitting Segments:

1. **Layers:**
   At the top of the Map Panel the user will find different layers to taggle between when working in the Geocode module:
   - Point
   - Segment
   - Boundary

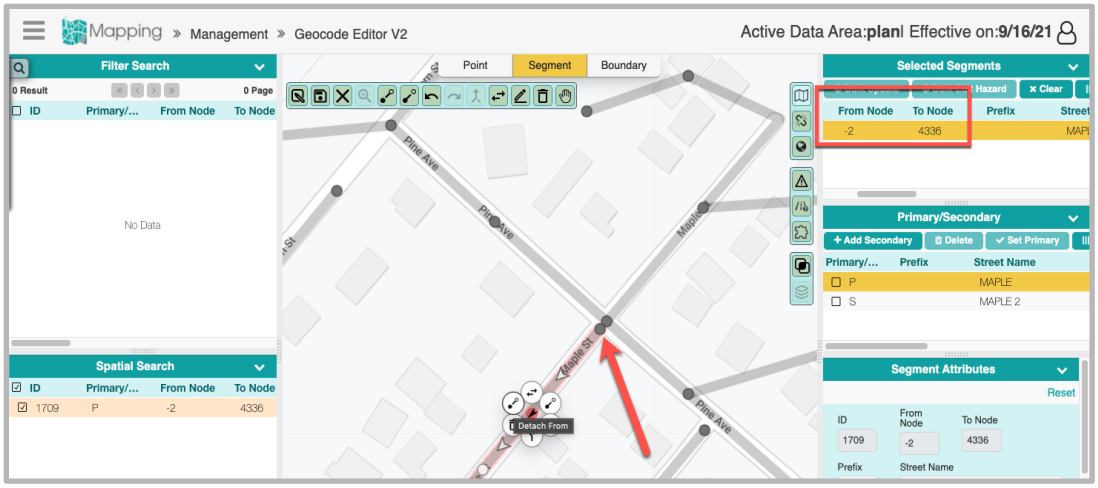


2. To quickly be taken to the segments already established on the map, navigate to the toolbar at the top of the Map Panel, and select the “Zoom To” button.

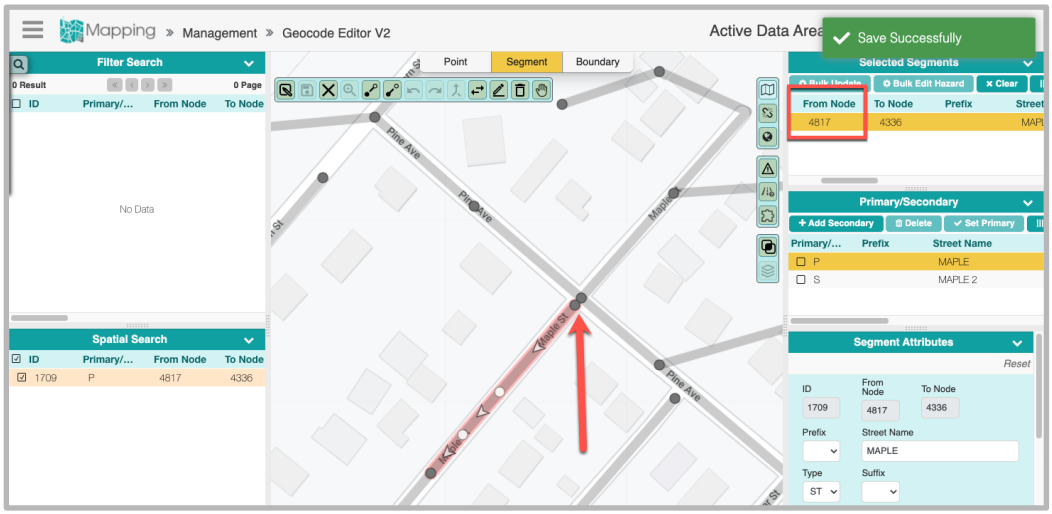
3. **Detaching Segments:**
   Locate the segments that need to be detached, and select one of the segments on the map.



Once selected, navigate to the tool bar at the top of the Map Panel, and select the “Detach From” button. The “From Node” of that segment will detach from the other segment.



Save your changes, before navigating to the “Segment Attributes” card to assign a new “From ID” for the detached segment.



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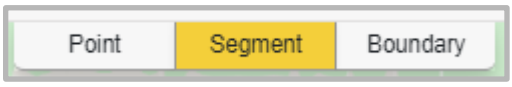
3. Reversing and Splitting Segments:

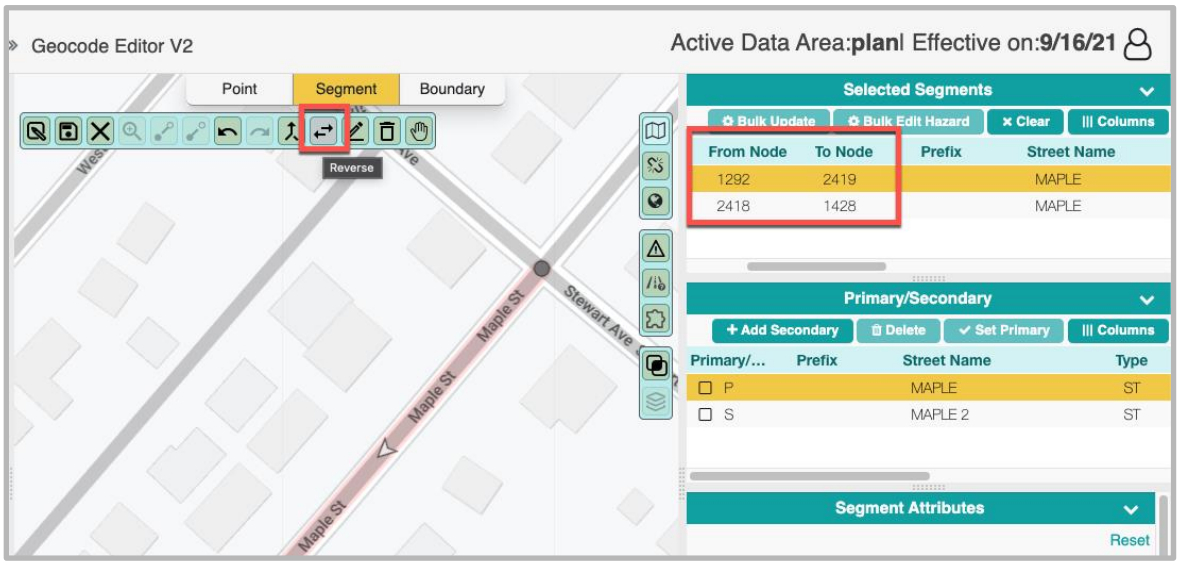
1. **Layers:**
   At the top of the Map Panel the user will find different layers to taggle between when working in the Geocode module:
   - Point
   - Segment
   - Boundary



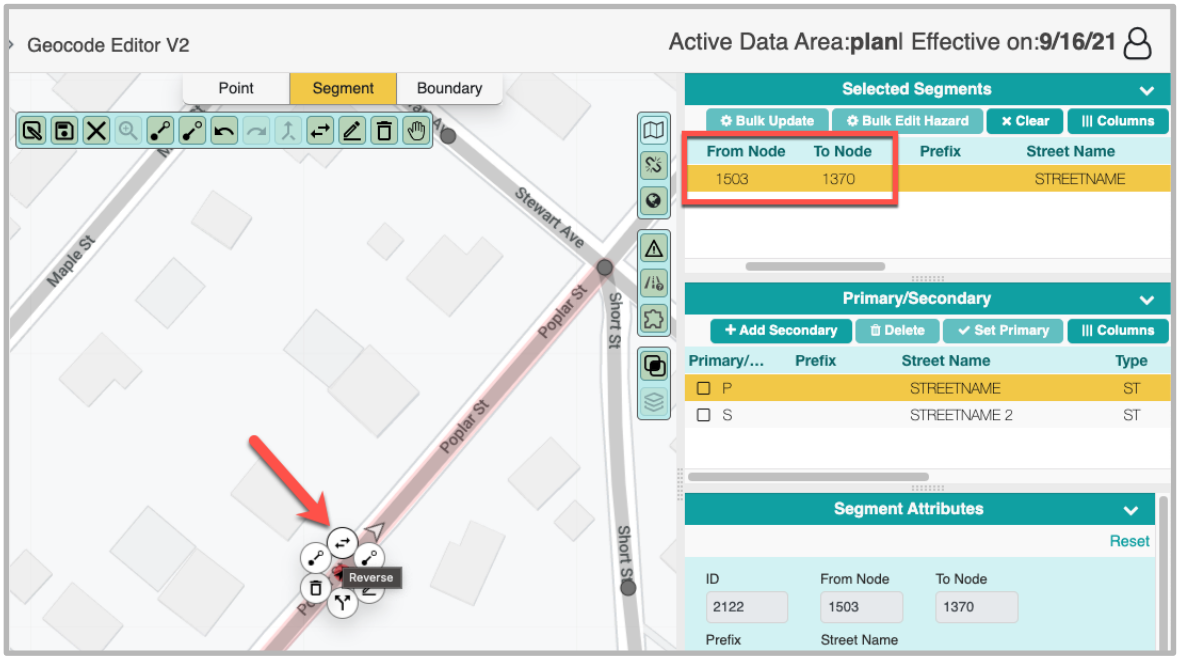
2. To quickly be taken to the segments already established on the map, navigate to the toolbar at the top of the Map Panel, and select the “Zoom To” button.

3. **Reversing Segments:**
   Select one or more segments on the map. There are three different ways to reverse a segment:

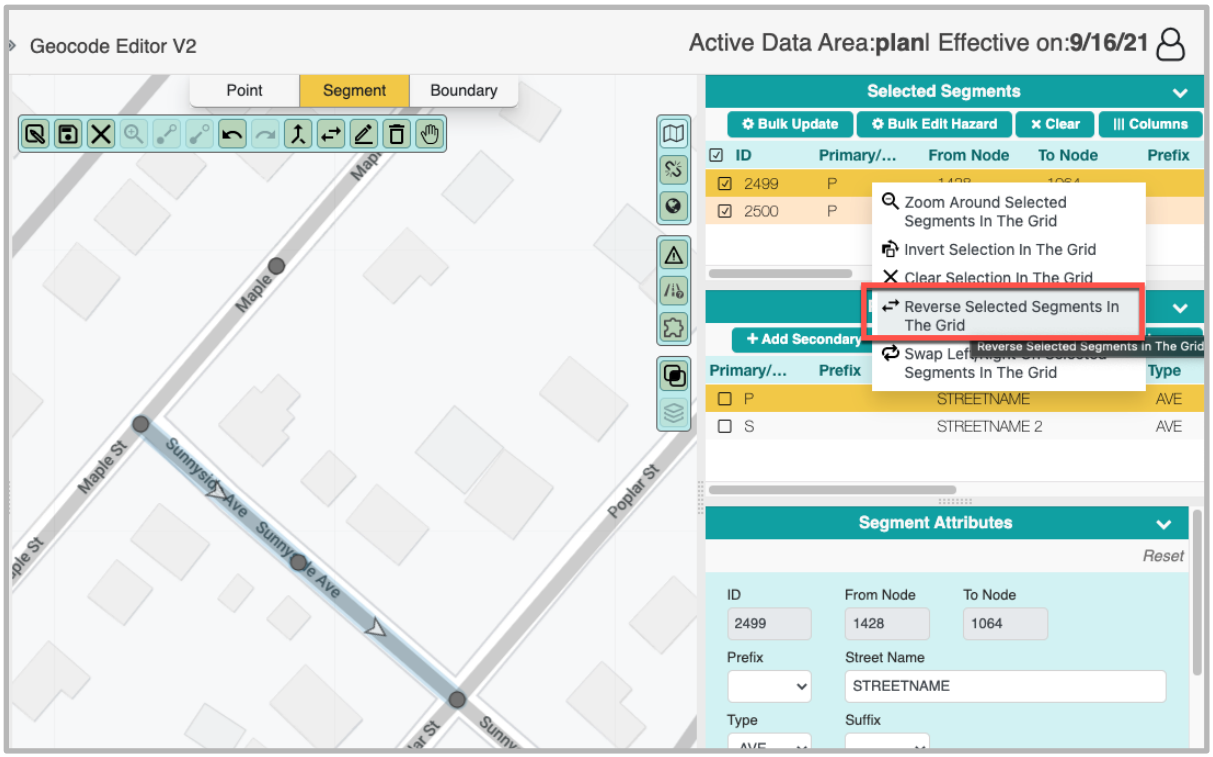
   - **Reverse Button** – in the map tool bar, the user can select the “Reverse” button, and all selected segment directions are reversed (The ‘From Node’ and ‘To Node’ of each segment are swapped.



   - **Context Menu:** Right clicking on a segment will populate a “context menu” which provide quick access to applicable tools, including the reverse tool. Once selected in the context menu, the From and To Nodes are swapped.

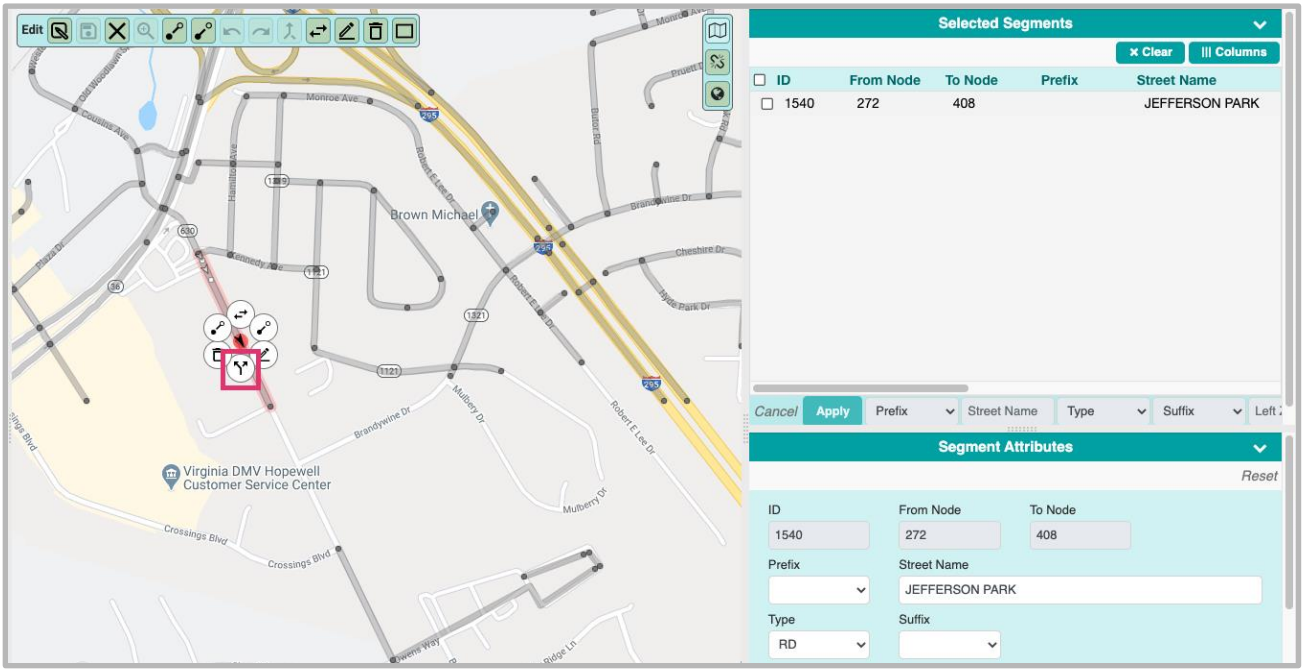


- **Select Multiple Segments:** Right click on the segment within the “Selected Segments” card, and select ‘reverse selected segments in the grid” from the drop-down window that populates.

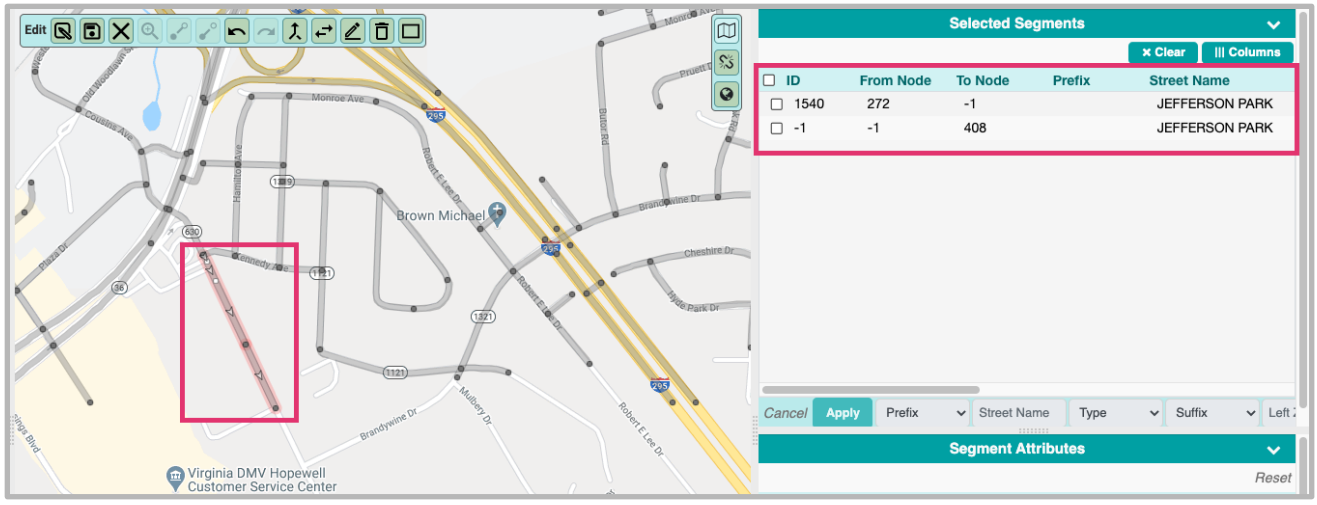


4. **Splitting Segments:**

Right-click on the segment that needs to be split, and the context menu will populate.



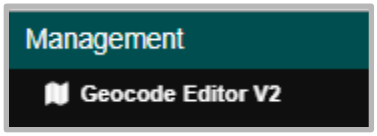
Select the split tool within the menu, and the selected segment will split into two segments, both of which will have the same “Segment Attributes”.



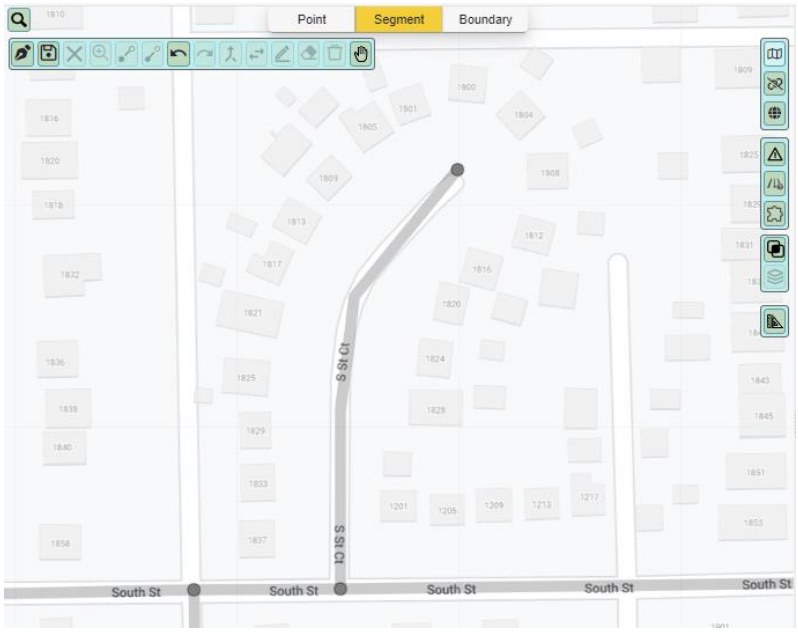
4. Deleting Shape Nodes

1. **Getting Started:**
   Once logged in, select the Mapping application from the portal page.

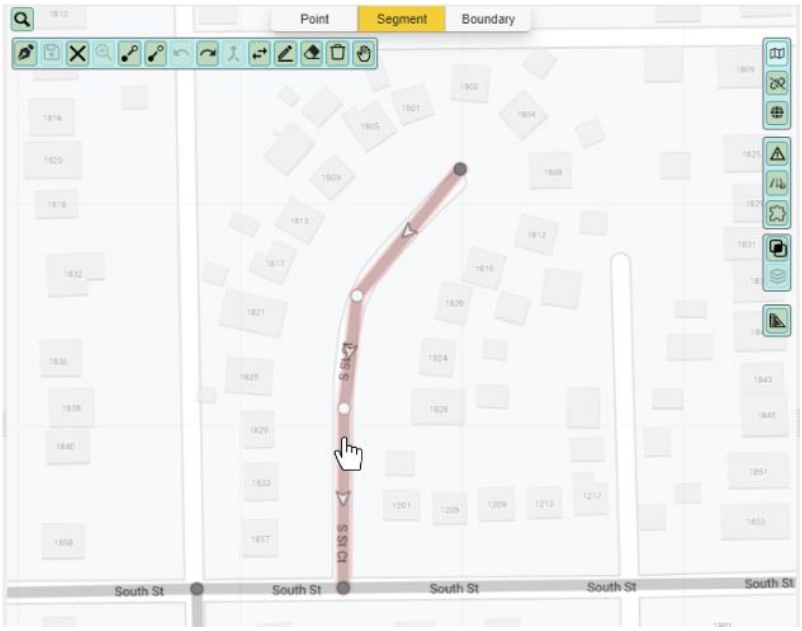
2. **Select Geocode Editor in the action bar menu.**



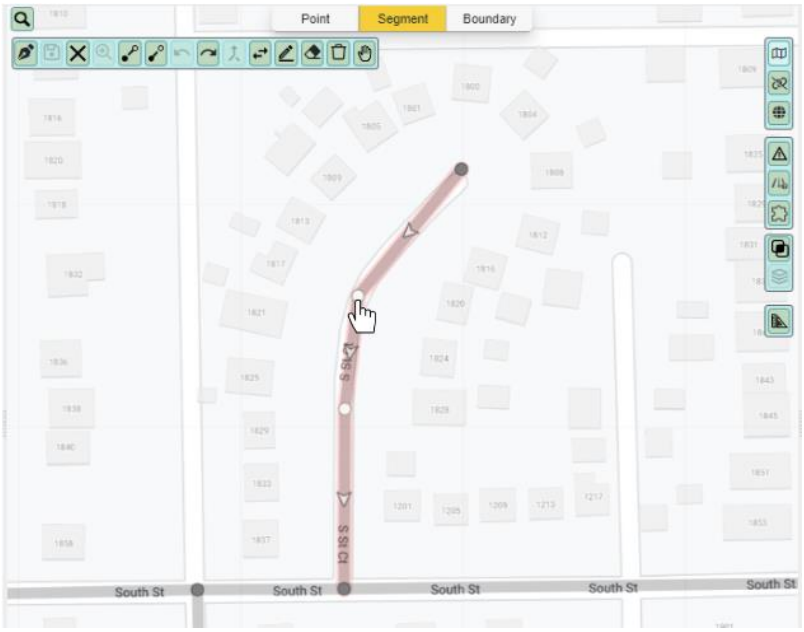
3. **Zoom in to a curved segment**



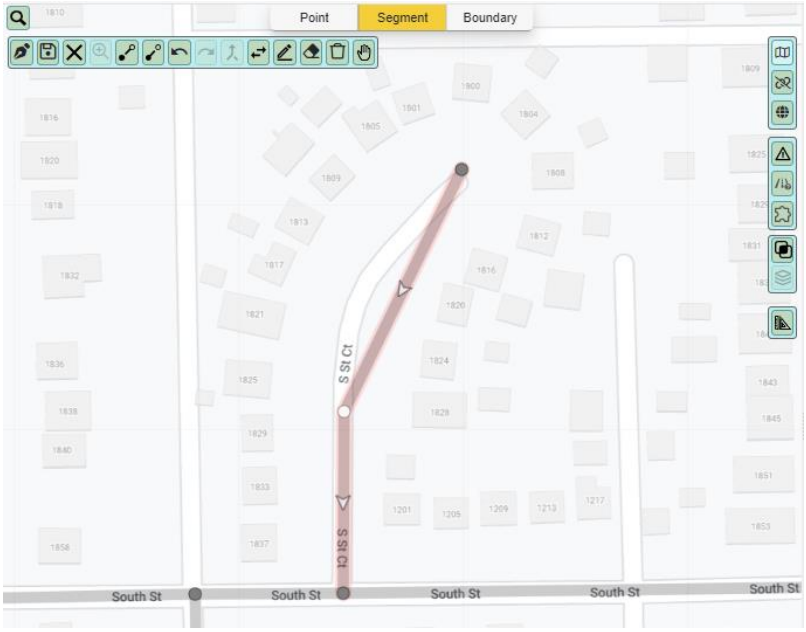
4. **Select a curved segment to edit by clicking on it**



5. **Hover your mouse over a shape node you wish to delete**



6. **Delete the shape node by holding your SHIFT button on your keyboard and clicking the right-click button on your mouse**

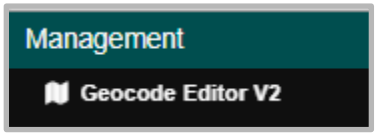


Point Layer Stories:

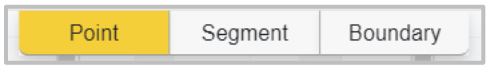
5. Adding and Editing Point Locations

1. **Getting Started:**
   Once logged in, select the Mapping application from the portal page.

2. Select Geocode Editor in the action bar menu.



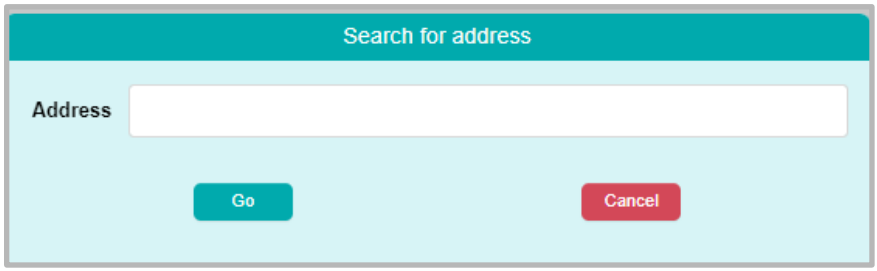
3. **Layers:**
   At the top of the Map Panel the user will find different layers to taggle between when working in the Geocode module:
   - Point
   - Segment
   - Boundary



4. To quickly be taken to the points already established on the map, navigate to the toolbar at the top of the Map Panel, and select the “Zoom To” button.

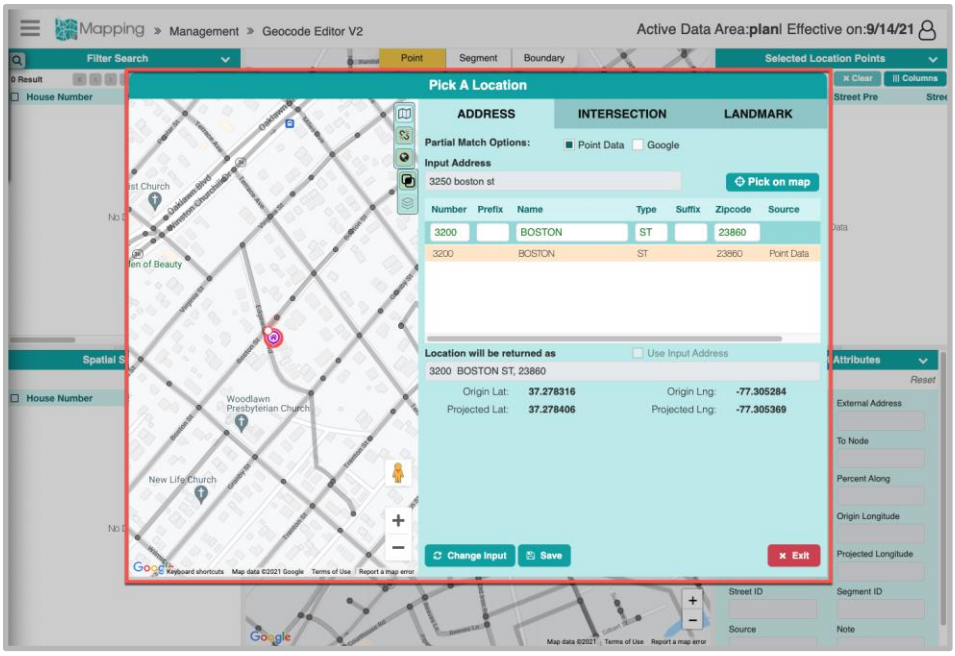
   Select the “Edit” button in the Map Panel tool bar, to begin editing within the layer.

5. **Add New Point Location:**
   Select the “Add New Point Location” tool in the tool bar, and the following window will populate:

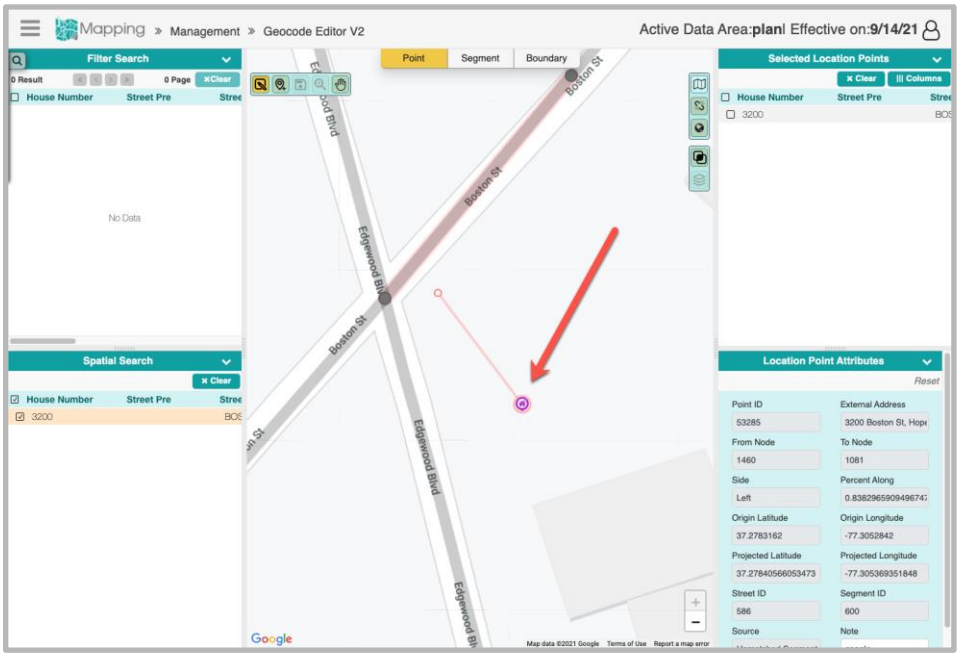


   Input the address the user wants to create Point Location data for, and click “Go” to save.

   - The Pick a Location pop-up is shown with the inputted address.



- If the inputted address already has an existing point, the user will be taken directly to the existing point. Users can select Save to view the existing point on the map within the Point Layer.



- If the inputted address does not have an existing point location, the user can create a new point location one of three ways:
    - Point Data
    - Google
    - Pick on Map

5.1 Edit Projection of Point Location:

To edit the projection of a point location on the map, hold the “Ctrl” key, select the point location, and drag it the desired location.