Affordable Housing and Sustainable Communities (AHSC) Round 10 Project Area Mapping Guide

This Mapping Guide provides detailed instructions for AHSC applicants to develop and submit the required Project Area Map, using Google Maps. An instructional video from Round 9 is also available here. However, please note that the Radius layer is now *required*, not optional as indicated in the video.

Applicants who wish to use ArcGIS, instead of Google Maps, to submit the Project Area Map, must still upload a KML/KMZ file along with their application.

Note: Defined terms are **bolded** throughout the document. Refer to Appendix A in AHSC Round 10 Guidelines for complete definitions.

Contents

Summary

Use Google maps to document the location of all proposed projects for which you are seeking AHSC funding. The map should include three required layers with the following information. The items listed under each layer should be mapped under the respective title. Full instructions on how to map each of these components are linked.

- Create a Google MyMaps Project
- Layer 1: Create Radius Layer:
  - Components to map:
    - One mile (For **TOD** or **ICP**) or two miles (For **RIPA**) radius around the **Affordable Housing Development (AHD)** as appropriate for the **Project's Project Area Type**.
- Layer 2: Create Base layer
  - Components to map:
    - **AHD** location
    - Qualifying **Transit Station/Stop** location, and
    - **Pedestrian Access Route** from the **AHD** to the qualifying **Transit Station/Stop**.
- Layer 3: Create AHSC-funded Components layer
  - Components to map:
    - AHSC-funded **AHD** Traffic Calming Measures
    - AHSC-funded bikeways
      - Note: Proposed Class III Bikeways, to be considered a **Context Sensitive Bikeway (CSB)** must also map the required traffic calming measures.
    - Existing bikeway used to meet scoring Section 111 QPS (a)(2)
    - AHSC-funded walkways
    - AHSC-funded Transit Improvements to fixed-route and **On-Demand Transit Service**
      - Examples include: a bus line, rail track extension, signal priority installation, bus shelters, vehicles, etc.
      - Applicants do not need to map transit improvements that are solely amenities to the transit (e.g. charging stations, street trees, lighting, etc.)
    - **Key Destinations** within 0.50 miles from **AHD**
    - **Key Destinations** within 0.25 and 0.50 miles from each bikeway or walkway listed in the Shared Mobility Tab of the GHG Benefits Calculator Tool
- Finalize and Upload Document:
  - Download the file
  - Export to KML/KMZ
  - Name the file: "[ID number] – [Project Name].kmz"
  - Upload the file to the portal

For general instructions on how to use Google MyMaps see the following sections under "Appendix A – Google MyMaps General Instructions", linked below:

- How to create a Google MyMaps Project
- How to map and name a line
- How to map and name a point
- How to measure distances

Map Project Components

The following instructions should be completed after setting up **Project's** Google MyMaps project. See "How to create a Google MyMaps Project" for instructions on downloading a template or creating your own.
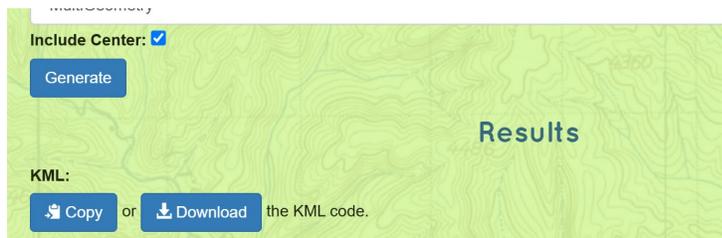
Edit Radius Layer

First paste the following link in your browser: https://www.scottmurray.me/kml/circle/index.php

Go to the "Inputs" section. Under "Center Coordinates" enter the GPS coordinates for the **AHD** site. The point may be chosen anywhere inside of the AHD site and must be referenced consistently through all application materials, including mapping and calculation of distances.

Then under "Radius" enter the number for the respective distance, which would be "1" for **TOD/ICP Project Areas** and would be "2" for **RIPAs**. Next under "Units", select "Miles" from the drop down. After that, click the "Generate" Button.
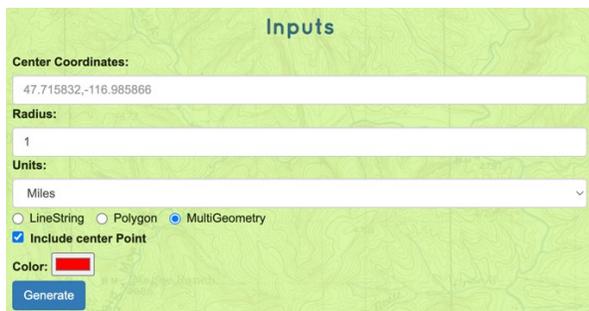
Clicking "Generate" will open a new section below called "Results". Under that section, select "Download".

Then go to the GoogleMap already set up. Under the "Radius" layer click the "Import" button. Then upload the file downloaded from the Circle Generator website.
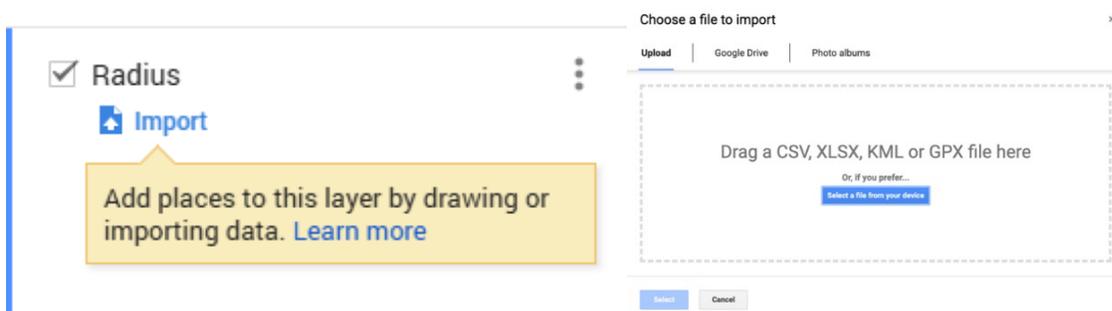
Base Layer

In your Google MyMaps project select the Base Layer by clicking to the left side of the title of the layer. The "Base Layer" of your Google MyMaps project should list your: **AHD,** qualifying **Transit Station/Stop**, and corresponding **Pedestrian Access Route**.

Then using the instructions on mapping and naming a point:
- Map the **AHD**. Name the point "AHD: [Project Name]". Change the color of the icon to a more noticeable color.
- Map the qualifying **Transit Station/Stop**. Name the point "Qualifying Transit Stop". Change the color of the icon to a more noticeable color (different from the **AHD** color).

Then using the instructions on mapping and naming a line:
- Map the current or planned **Pedestrian Access Route.** Line must start from **AHD** point selected to the pedestrian entrance to the qualifying **Transit Station/Stop** for the respective **Project Area Type**.

Edit AHSC-funded Components Layer:

Select the AHSC-funded Components layer by clicking right below the title of the layer. The "AHSC-funded Components Layer" of your Google MyMaps project should list your AHSC-Funded components including: **AHD** Traffic Calming Measures, Bikeways, Walkways, transit improvements (linear and nonlinear), key destinations around your **AHD**/Bikeways/Walkways, and connection to existing bikeway (if pursuing those points).

Traffic Calming Measures
Using the instructions on mapping and naming a point:
- Map AHSC-funded traffic calming measures within a 0.50 mile of the **AHD**. Name each point as follows: "AHD Traffic Calming Measure: [Type of measure]".
  - Note: Eligible traffic calming measures are listed in Section 104(f)(7) 8th bullet and in Appendix A under the definition for **Active Transportation**.

Mapping Bikeways
Using the instructions on mapping and naming a line:
- Map all AHSC-funded bikeways. Name it "Bikeway: [Street Name]". In the description note the bikeway class and if the bikeway is being quantified in GHG Benefits Calculator table (e.g. Class II, Listed in GHG Calculator).
  - Please map Class I, Class II, and Class IV paths by mapping each lane mile individually (i.e., 1 line for each direction if the bikeway is bidirectional). Like on-street bikeways, scoring for CSB and walkway lengths will be based on the distance entered into the Application Workbook and supported by the Project Area Map.
  - For Class III bikeways, map the location of each speed and volume management measures. To be a Context Sensitive Bikeway (CSB), Class III bikeways must combine all the following traffic calming measures: signs, pavement markings, speed and volume management measures, and infrastructure for safe and convenient crossings of busy arterials (5,000+ AADT or more).
- Map the existing bikeway used to meet scoring Section 111 QPS (a)(2). Bikeway should be named "Existing bikeway: [Street name]".

- Note: Clearly show where the existing bikeway connects to the AHSC-funded bikeway. You do not need to map the full length of the existing bikeway. Typically, the block face at the connection point is enough.

Mapping Walkways
[Using the instructions on mapping and naming a line:](#)
- Map the AHSC-funded walkway improvements. Map the cumulative distance of the pedestrian routes that will be improved as line(s), not each individual improvement. Name it "SAW: Street Name".
  - In the description, note if it is quantified in GHG Benefits Calculator table (e.g. Listed in GHG Calculator).
- Map new pedestrian facilities funded by AHSC, meaning the segment of continuous linear feet of new pedestrian facilities where none exist at time of application submission that the Project creates. To be considered 'continuous', the distance of the new facility should be represented by one singular, unbroken, unduplicated line on the Project Area Map. Name it "New Pedestrian Facility: [Street Name]".
  - In the description, note if a walkway is being quantified in GHG Benefits Calculator table (e.g. Listed in GHG Calculator).

Mapping Transit Improvements
[Using the instructions on mapping and naming a line](#):
- Map all linear AHSC funded transit improvements (e.g., A bus line, rail track extension, transit signal priority installation). Name it "[Transit Project Type]: [Improvement name]".
  - In the description note if the improvement is being quantified in GHG Benefits Calculator table (e.g. "Listed in GHG Calculator").

[Using the instructions on mapping and naming a point](#):
- Map all nonlinear AHSC funded transit improvements (e.g. bus shelters, new transit station, etc.) Name: "[Transit Project Type]: [Improvement name]"
  - In the description note if the improvement is being used for Local Bus points and if quantified in GHG Benefits Calculator table (e.g. "Local Bus, Listed in GHG Calculator").
  - For vehicle purchases:
    - Map the point at a stop within the **Project Area** of the route it will serve. In the description note the number of vehicles purchased and the name of the route serviced. If purchasing vehicles for two different types of transit (e.g. rail and bus), then map a point for each of the corresponding spots.
    - For **On-Demand Transit Service**, map the designated pick-up location.

Note: Applicants do not need to map transit improvements that are solely amenities to the transit (e.g. charging stations, street trees, lighting).

Mapping Key Destinations
[Use the instructions on mapping and naming a point](#):
- For **Projects located outside of Tribal land**, map all **Key Destinations** within 0.50 miles of the **AHD**. For **Projects on Indian Country**, map **Key Destinations** within 1.0 mile of the **AHD**.
- For all **Projects,** map **Key Destinations** within 0.25 and 0.50 mile of each bike and pedestrian project ("facility") listed in the Active Transportation tab of the GHG Benefits Calculator Tool.

- Name "[Key Destination Category(ies)]: [Name of Location]"
  - For QPS Scoring each **Key Destination** category may only be counted once for points.
  - For QPS scoring, measure key destinations from the AHD marker on the Project Area Map to any point on the destination's physical building. For outdoor destinations (e.g., parks), the distance may be measured to any point on the destination's parcel.
  - For GHG quantification multiple of the same type of **Key Destination** may be counted. The quantification methodology assigns a credit to a facility's proximity to a **Key Destination** for up to seven destinations. It's not necessary to identify more than seven **Key Destinations** within a quarter mile and within a half mile of each new facility.
  - For both: facilities that meet multiple categories (e.g., a Grocery Store with a Pharmacy) may be counted toward multiple categories and do not need to be mapped twice.
- Note: Applicants may find the complete list and definitions of **Key Destinations** in Appendix A of the AHSC Round 9 Guidelines (pg. 66). Links that may help applicants confirm a **Key Destination's** eligibility are listed below (this is not the full list of **Key Destinations**):
  a. Grocery Store: SNAP Retail Locator tool
  b. Medical Clinic: Medi-Cal Managed Care Health Care Options
  c. Licensed childcare facility: Department of Social Services (DSS) link to search for licensed child care facilities
  d. Public elementary, middle, high school: California Department of Education School Directory
  e. Post office: United States Postal Service Locator tool
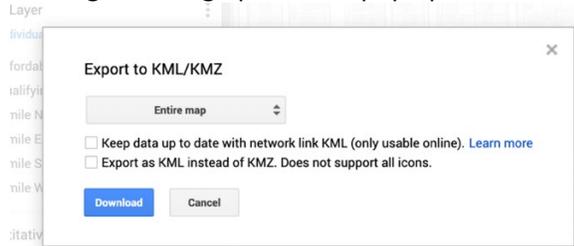
Finalize and upload

Once you have finalized your map and mapped all relevant components, download the file. To do so, click the three dots to the right of the Map title

This should then bring a pop-up window. Click "Export to KML/KMZ".
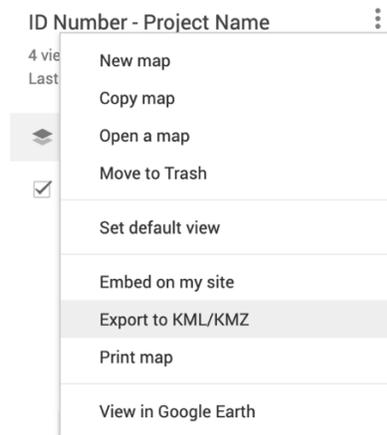
Clicking will bring up another pop up. Then click download.

The file name should match the title of your map (e.g., "[ID number] – [Project Name].kmz"). Then upload that file to the portal.

Appendix A – Google MyMaps General Instructions

Set up Google Maps Project

Applicants may choose to either download a template to start mapping or create their own map from scratch. There are instructions for both methods.

Download Template

Open your browser and paste the following link into your browser. It is recommended to use Chrome, but any browser works:

https://www.google.com/maps/d/u/0/edit?mid=1egt2y-O-odFznPvYqSI37kP6QfQLfyY&usp=sharingIf signed in, skip this step. If not already signed in, click on the "Sign In" button on the right side of the window and log into your google account. This will open a window of the map with your google account logged in (icon on right side will be in place of "Sign In" button).

Press the three dots to the right of the title. The title is "ID Number – Project Name"
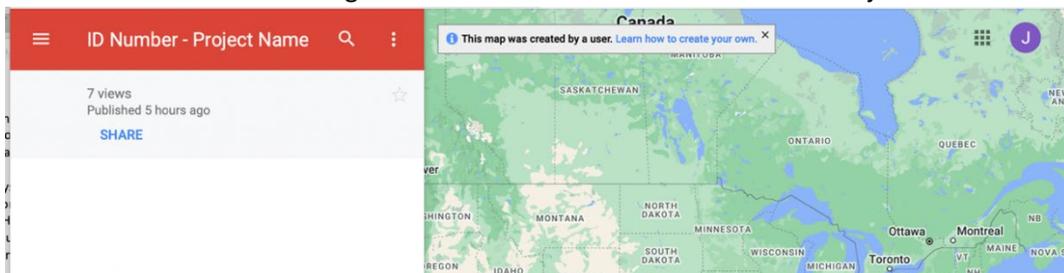

Clicking on the three dots, will bring up a separate window. Press "Copy Map" (the third option).
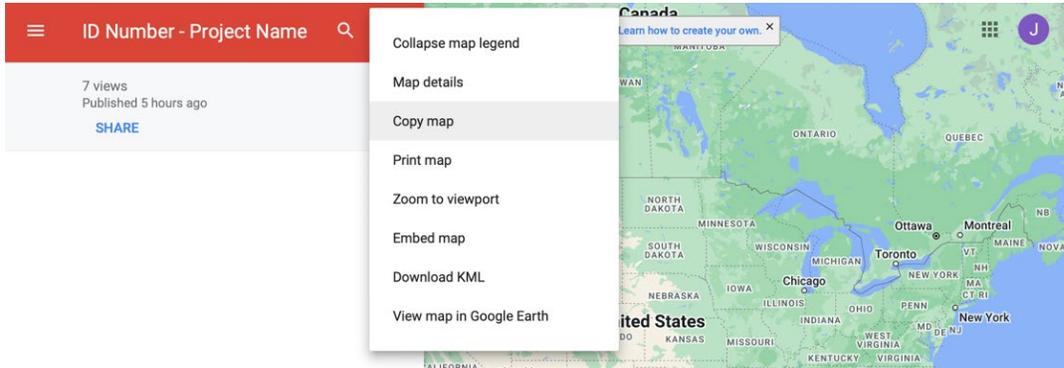
This will bring up a separate pop-up window. Type in the ID number of your project, then the name of your project as listed in the AHSC Workbook, "[ID Number] – [Project Name]". Then press "OK".
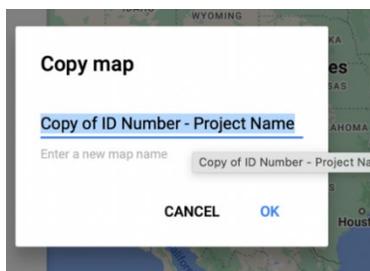
This will open the template in the applicant's Google MyMaps Account. It should have three layers: Base Layer, AHSC-funded Components Layer, and Radius.
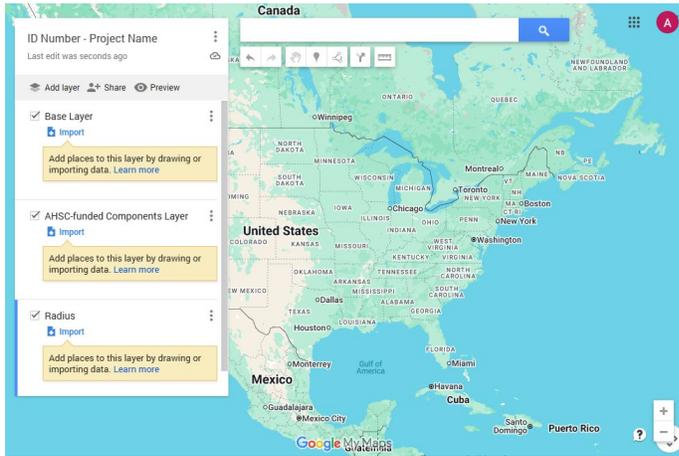

Create Your Own

First open Google MyMaps – find it by googling "Google MyMaps". Then sign-in or create a free account to access Google MyMaps home page. Make sure the window is expanded. Click on the icon titled "+Create a New Map" at the top left corner of the page.
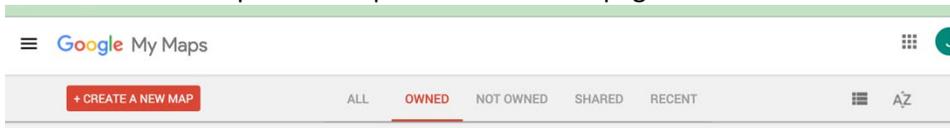
It will then bring you to a page with a map and on the left side will be a box with the name "Untitled Map". Click on that text and type your "[ID Number] – [Project Name]".
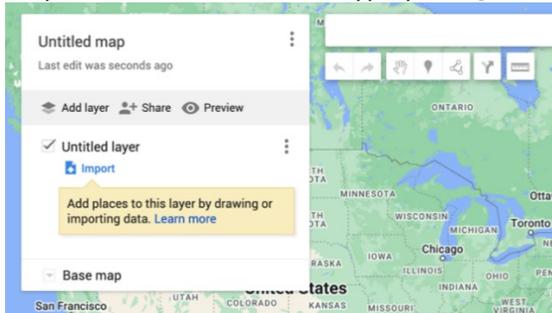
The Project Area Map will have two or three layers. The first layer is pre-populated and appears as "Untitled Layer". Click on that text and type "Base Layer". Then click on the "add layer" button under "[ID Number] – [Project Name]" and name "AHSC-funded Components Layer". Repeat and add the third optional layer and name "Radius".
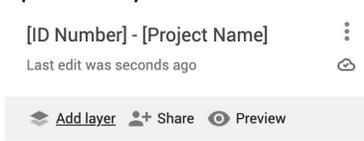
General Instructions for Mapping Components

All project components can be mapped using lines and points. The first three sections provide instruction on creating lines and points and using the measuring tool on GoogleMyMaps. The last three sections provide additional information for what to map and how to name project-specific components.
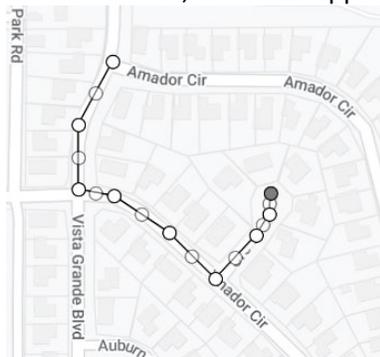
How to map and name a line

Some projects may have multiple segments of improvements. Map each at a time. First, locate the starting point for the improvement for the first segment. You could do this by moving the map to that location or entering the closest intersections in the address bar.

After locating the starting point, click the "Draw a line" button, which is the 5th square button to the right under the address search bar. Click on "Add a line or shape" from the drop down (default color for the line is black).
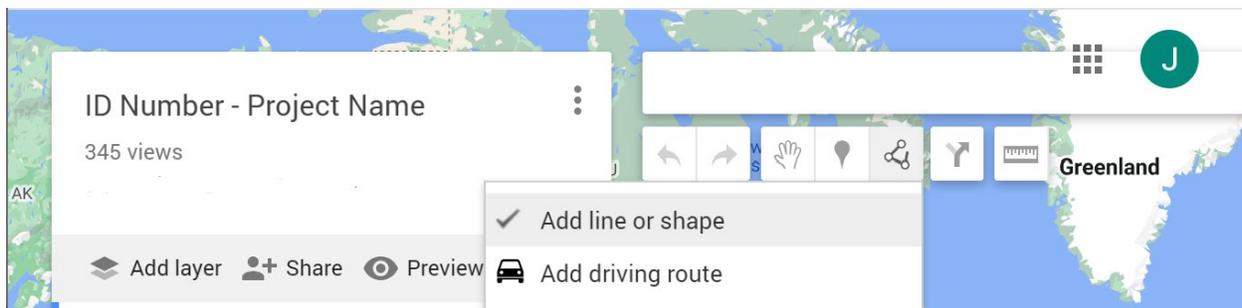
Then click the location of the starting point for the improvement. If the segment is a straight line, you can drag the line along the improvement until you reach the end point, then *double click* to end the segment. If the segment is along multiple blocks that connect but don't follow a straight line, drag the line along the first block then click *once*. Then drag the line along the next block (it is fine to drag it left or right). Continue until you reach the end of your segment then *double click* to end that line segment.

An example of a nonlinear segment is pictured below. Each white dot represents clicking *once*, except for the last dot, where an applicant would click *twice* to end the segment.


When you *double click* and end that segment a pop-up box should appear with the name "Line [#]". Click on that text and rename as specified for that scoring section. Repeat and name the segments as needed.

How to map and name a point

To map a point, type in the address or coordinate of the component and click search. A green location bubble will appear at the address/name you inputted. Click on the bubble. A box with more information should pop up, at the bottom left it should say "+Add to map". Click on "+Add to map".
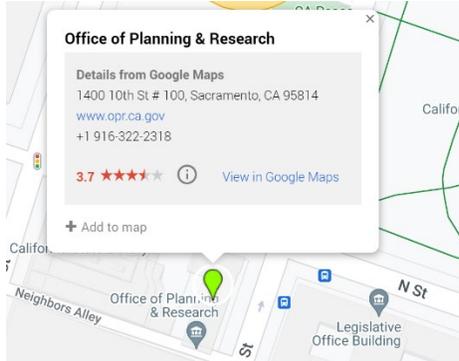
Once the point is added to the map, it will change to blue. If requested to change the color of the icon, at the bottom right-hand side there should be a paint bucket icon. Click on it. Select a more noticeable color.
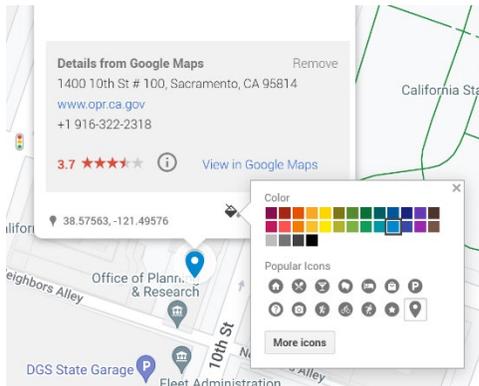

Then click on the edit button (pen icon), which is the second button to the right on the bottom right-side. Clicking the edit button will allow you to edit the name. Rename to the requested name. Then press "Save".
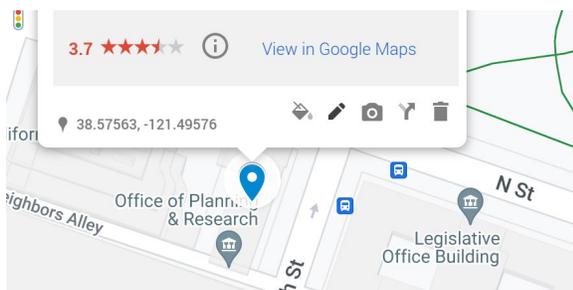
How to measure distances

Click on the ruler icon under the address search bar to use the "measure tool". Click the middle of the **AHD** icon and drag the line directly up until the number displayed in the blue bubble at the top is the desired measurement. Then double click. The dotted blue line should still remain. The applicant can then map a line over it, if desired. This can be helpful when creating the radius or when checking the distances for **Key Destinations**.

Example:
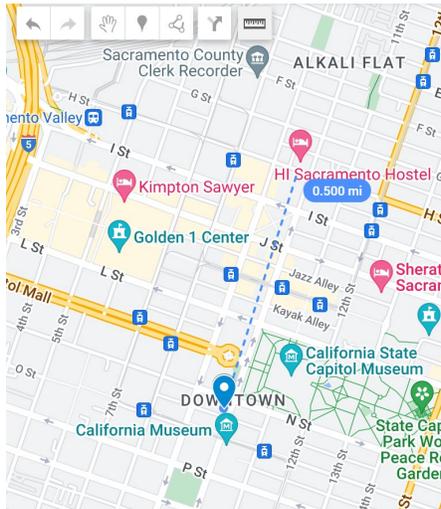
How to find coordinates

To find the coordinates of the **AHD,** input the address in [Google Maps](). Zoom into the site then right click the location of the center point desired (must be within **AHD** site boundaries). Coordinates should appear in a pop-up box. Take note of the numbers as written.