Examining Cyclomedia:

Applications for Event Planning and Management

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Grade Level: High School Seniors or College Freshmen

Time Frame: 1 hour and 15 minutes

National Geographic Standards:

Standard 3: How to analyze the spatial organization of people, places, and environments on the Earth's surface.

Standard 18: How to apply geography to interpret the present and plan for the future.

Objectives: After the completion of this exercise, students should be able to:

- Explain how Cyclomedia can be used to aid in event planning and management.
- Analyze Street Smart Imagery using 3-D features and measurement techniques.

Note: This document will need to be modified for class use as there are answers included to the questions presented in the procedure.

Overview:

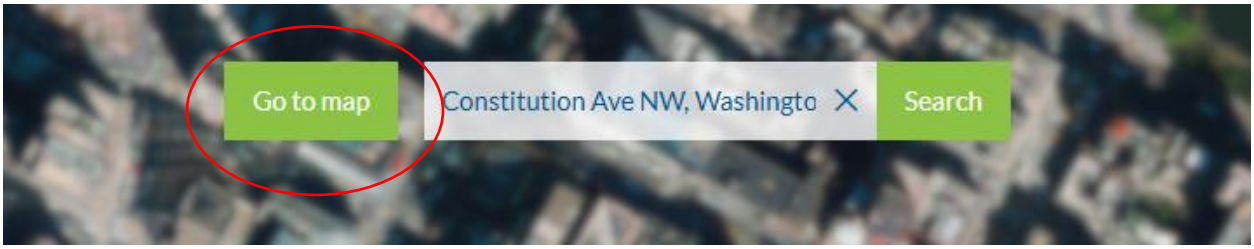
For this exercise, you will be taking on the lead role of the organization that undergoes setting up historical parades in Washington, D.C. Your job will be to analyze the parade route that is used in the annual National Cherry Blossom Parade to inform parade attendees and participants about

potential regulations and hazards. To complete this analysis, you will use Cyclomedia's Street Smart to help plan for the upcoming event.

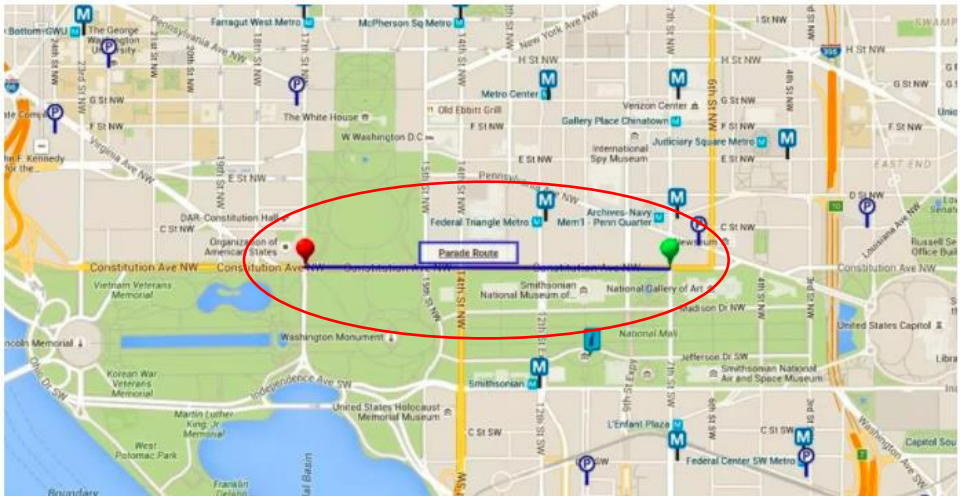
Procedure - Part One: Event Planning:

Step 1: Go to https://streetsmart.cyclomedia.com/streetsmart and sign in with your credentials. After logging in, click on the green button that says, "Go to map."

Step 2: Click on the search bar and type in the following address: **Constitution Ave NW, Washington, DC 20004.** This will take you to the street that the parade route is on.

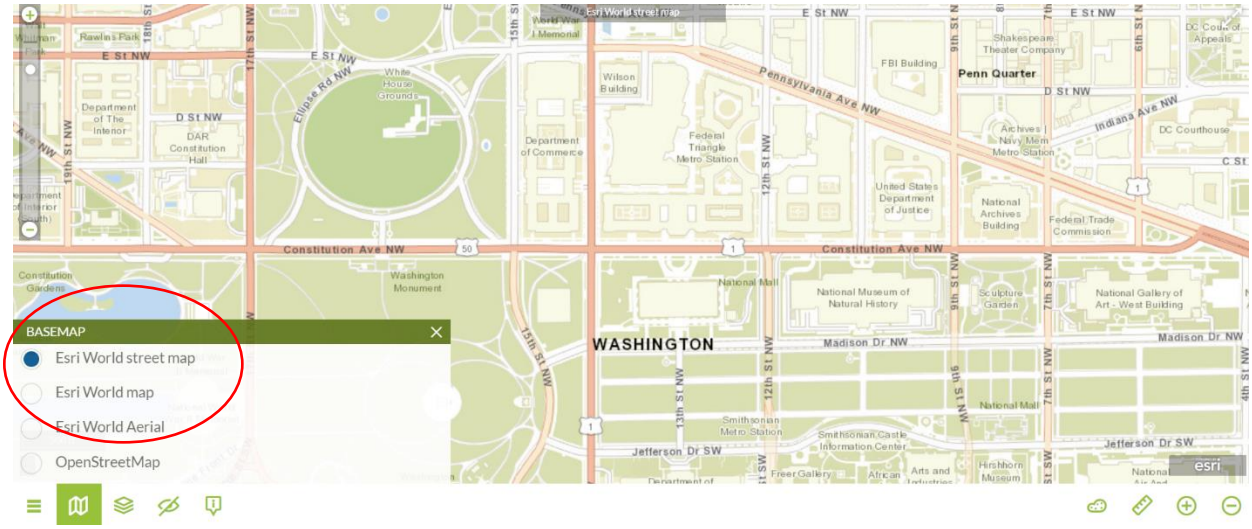


NOTE: The parade begins where Constitution Ave NW intersects 7th Street NW and ends where Constitution Ave NW intersects 17th street NW. The parade route can be seen in the image below (**see purple line**).



Step 3: After you have searched for the address, Street Smart will take you to the general area where the location you specified resides. To make the parade route easier for you to locate, click

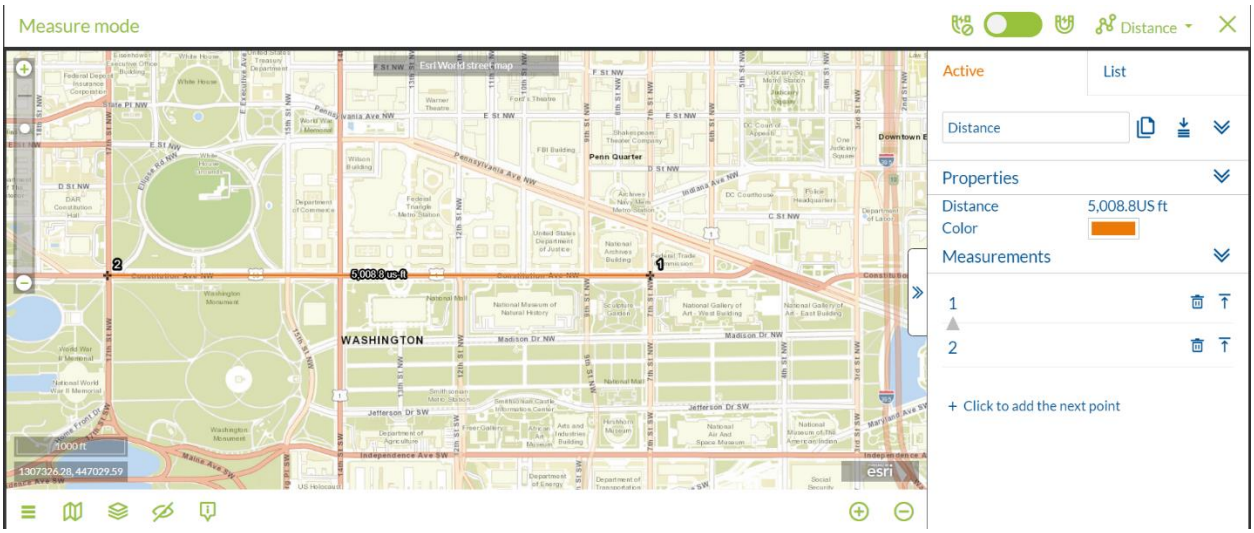
the basemap button on the lower left corner of the screen. When the basemap options come up, select Esri World Street Map.



Step 4: As discussed previously, the parade route will start where Constitution Ave NW intersects 7th Street NW and ends where Constitution Ave NW intersects 17th Street NW. **Locate these two intersection points on your map.** You need to know the length of the parade route so that you can inform the participants about how long their floats must travel during the duration of the parade.

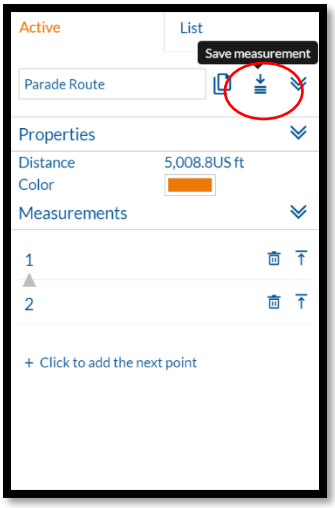
Step 5: Once you have the start and end points for the parade route located on your map, click the ruler icon on the bottom right of the screen. This is the measure tool. It will allow you to measure the total length of the parade route. For measurement type, select distance. When you hover your cursor over the map you will see a black cross.

Step 6: Move your cursor to the intersection of Constitution Ave NW and 7th Street NW. Click on the map once to start the measurement. Next, drag your cursor to the intersection of Constitution Ave NW and 17th Street NW. Double click on this intersection to complete your measurement. What is the measurement for the parade route? **(Answer: around 5,008 US Feet)**



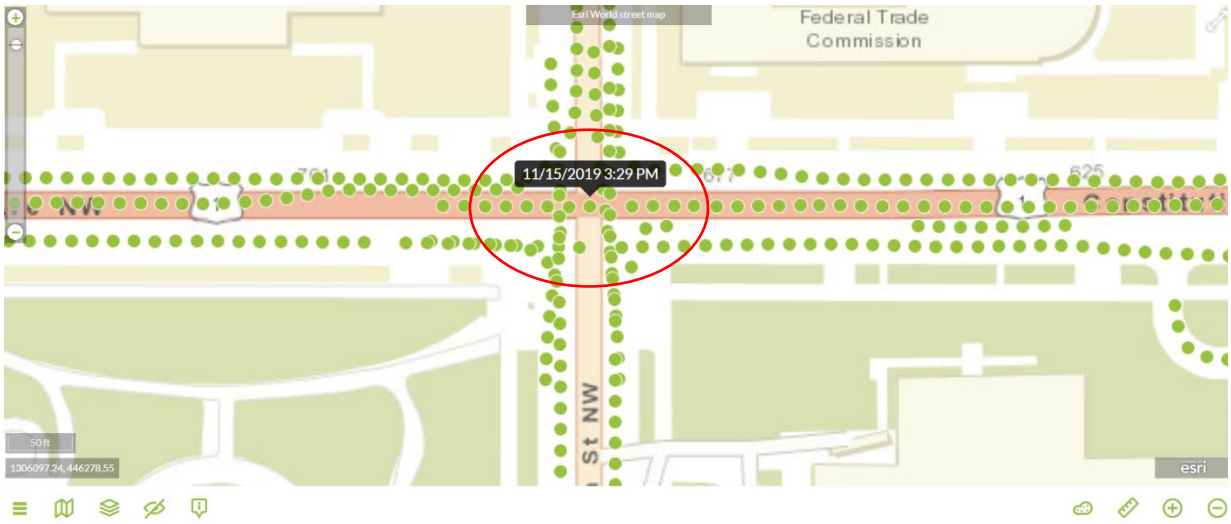
NOTE: Your measurement may differ slightly from the one that you see in the image.

Step 7: In the measurement box under the active tab, change the name of the measurement from "Distance," to "Parade Route." Hover over the icons next to the title until you find the "Save Measurement," button. Click on this button. Doing this will save your measurement if you need to return to it later.

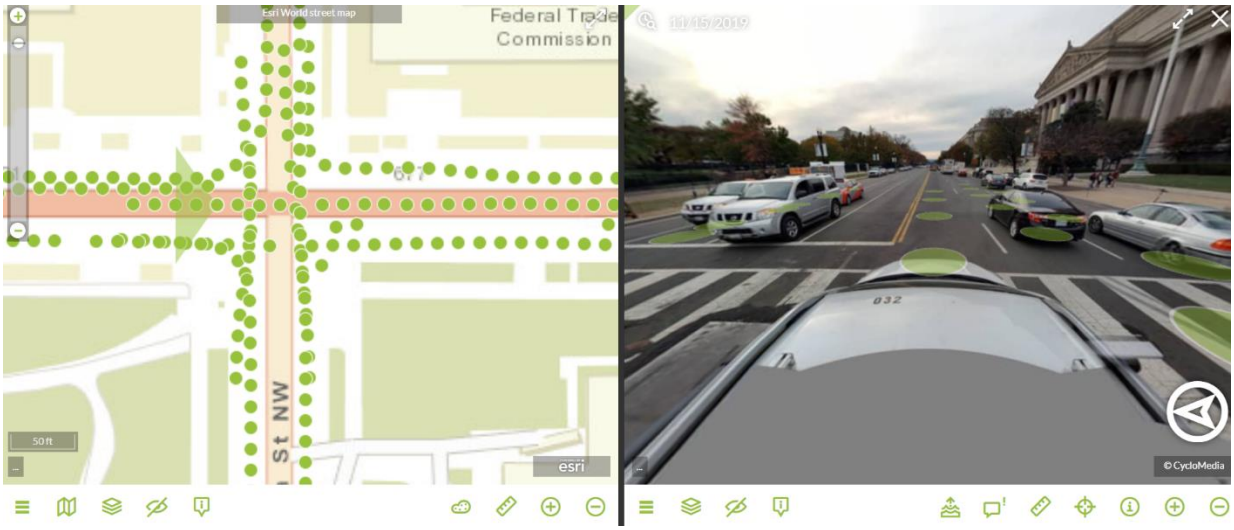


Step 8: Now that you know how long the parade route is in US Feet, you need to know the maximum dimensions for each parade float that is participating in the parade. To do this, hit the "X" on the top right of the screen to close out of Measure Mode. Using the "+" button on the top

left of the map, zoom into the intersection of Constitution Ave NW and 7th Street NW until you see green circles appear. Click the circle that is directly in the middle of the intersection as shown in the image below.

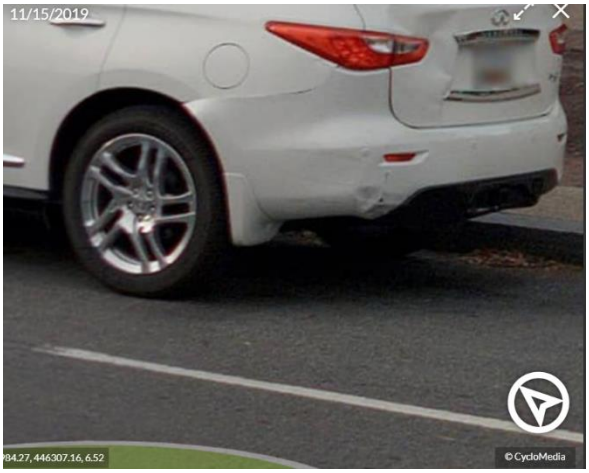


Step 9: Clicking on the green circles opens the Geocyclorama. This provides you with 3-D imagery of a specific location as well as the ability to take measurements of features or objects. Once the Geocyclorama window opens, move a few Geocyclorama's over until you are heading west on Constitution Ave NW and are out of the intersection.



NOTE: Not sure which way is west? If you look on the map tab to the left of the image above, the green triangle tells you which direction you are facing on the street. In this case, the base of the triangle is facing west so you are headed west down Constitution Ave NW.

Step 10: Once you have navigated out of the intersection, you should be far enough west onto Constitution Ave NW that you can see the lines on both sides of the road designated for street parking. An example is provided for you below.



Your goal is to make a distance measurement from the parking lines on the left side of the street to the parking lines on the right sides of the street. This will tell you the maximum width that each parade float can be while traveling along the parade route.

Step 11: Within the Geocyclorama Window (not the map window on the left), click the ruler icon on the bottom right of your screen. For measurement type, select distance. Make a measurement from each parking line as discussed above. Name the measurement "Float Width 1" and save it as you did in step 7.

Hint: Not sure how to get your measurements? Hold down your mouse on the area that you would like to zoom in and move your cursor until you reach the spot where you would like to make a measurement. Release your mouse on that spot and Street Smart will automatically select that point to use in your measurement.

Part One – Conclusion: After completing step one of this exercise, you should now be able to inform the parade participants of how long the parade route is and how wide their parade floats can be. Remember, the measurement you obtained in step 11 tells you how wide each float can be without interfering with parade bystanders. You can also figure out the maximum height and width that the parade floats can be using similar measurement tools. This will be discussed in later lessons.

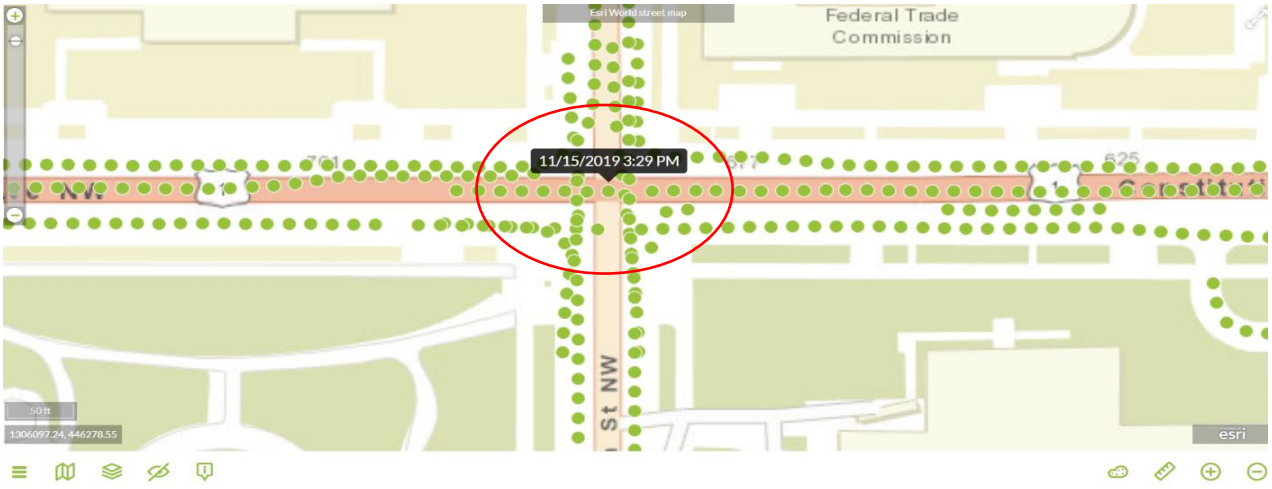
Now it's your turn: Go to various locations on the parade route and redo the width measurements using the steps above. Save each measurement as you did in previous steps so that you can compare them at the end. Answer the following:

Are there any places on the route where the maximum width of the floats may need to be adjusted in the parade regulations? Why or why not?

Procedure - Part Two: Event Management:

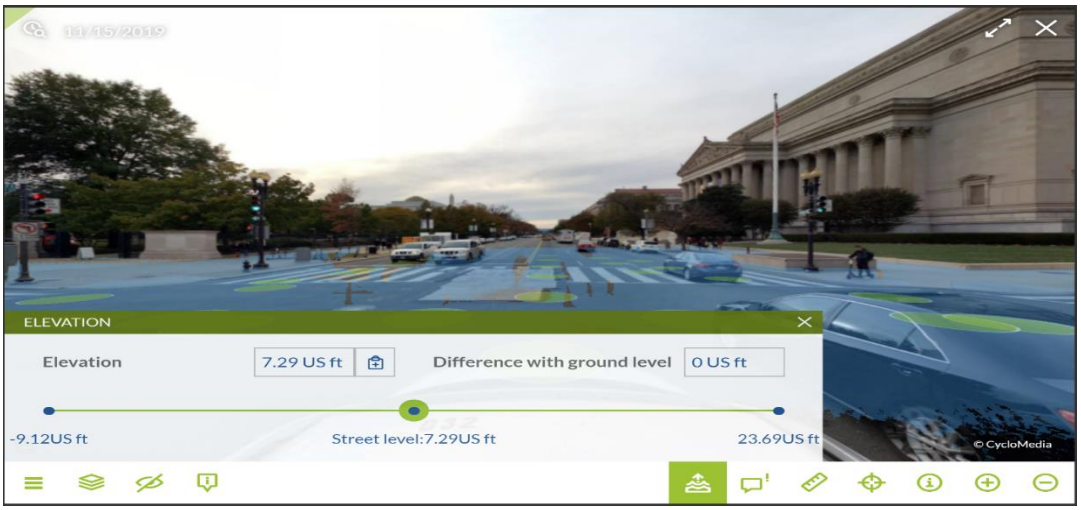
The occurrence of severe weather or significant amounts of rain before the parade may impact whether the event can occur. Even if the weather is nice on the day of the parade, previous rainfall can possibly cause pooling of water on the roads that would still postpone the event. To assess the risk of the pooling of water in this area, you will look on the map at the eight intersections that are a part of the parade route to see if they would potentially pool with water in the event of heavy rainfall.

Step 1: Go to where the parade begins at the intersection of Constitution Ave NW and 7th Street NW. Open the Geocyclorama in the center of the intersection as shown below.



Step 2: Click on the **Elevation Button** on the bottom tool bar.

When the Geocyclorama window opens, you should see the image below.

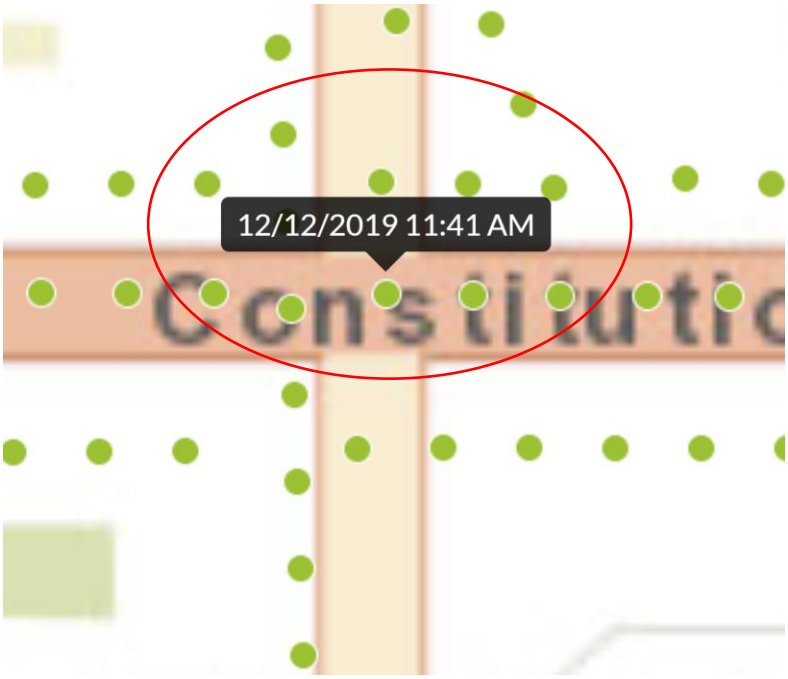


Note: This tool is called the elevation tool. It shades the image with a blue tint for elevations that are lower than street level. Using this tool can help show which intersections can potentially pool with water during an event of heavy rain.

Looking at the image above, would the intersection of Constitutional Ave NW and 7th Street NW potentially pool with water in the event of heavy rain? **(Answer: Yes)**

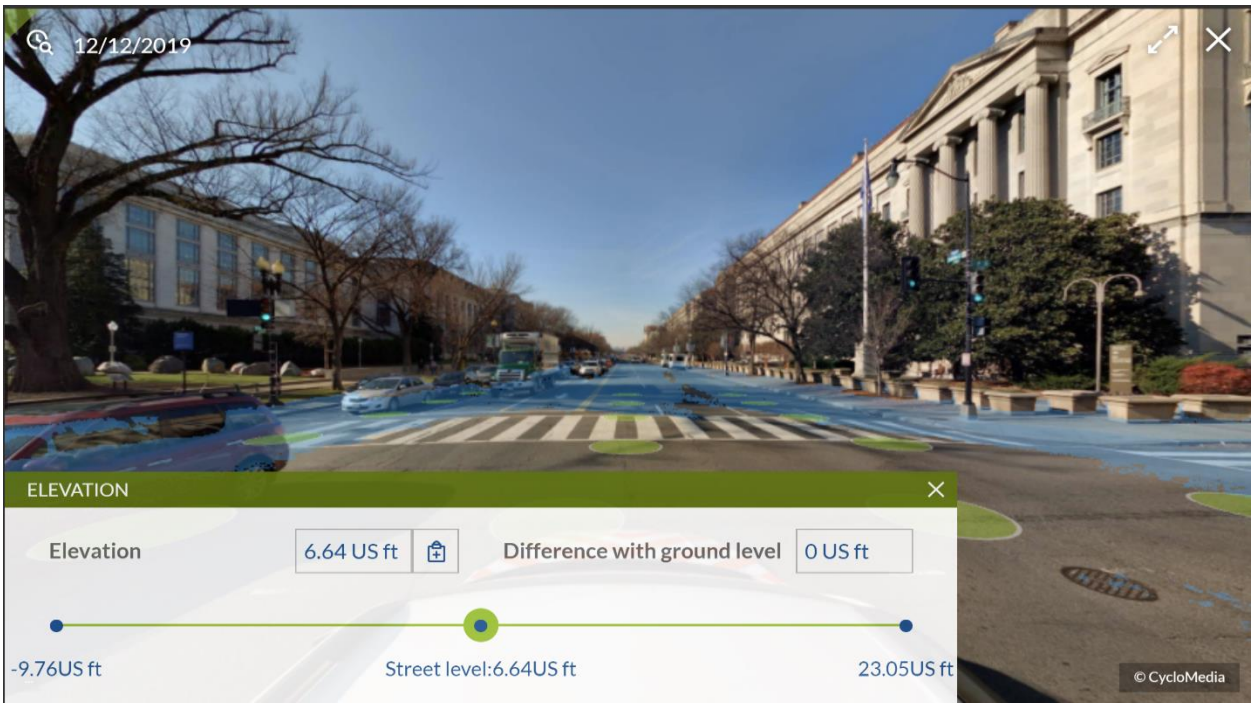
Step 3: Go to the intersection of Constitutional Ave NW and 9th Street NW, shown below on the map.

Step 4: Select the GeoCyclorama highlighted below with the date and time as specified in the image.

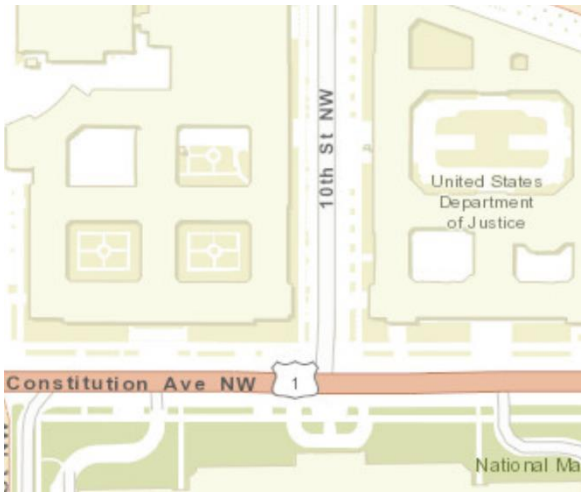


Step 5: Select the **Elevation Tool**. You should see the image below. Will the intersection of Constitutional Ave NW and 9th Street NW potentially pool with water due to heavy rain?

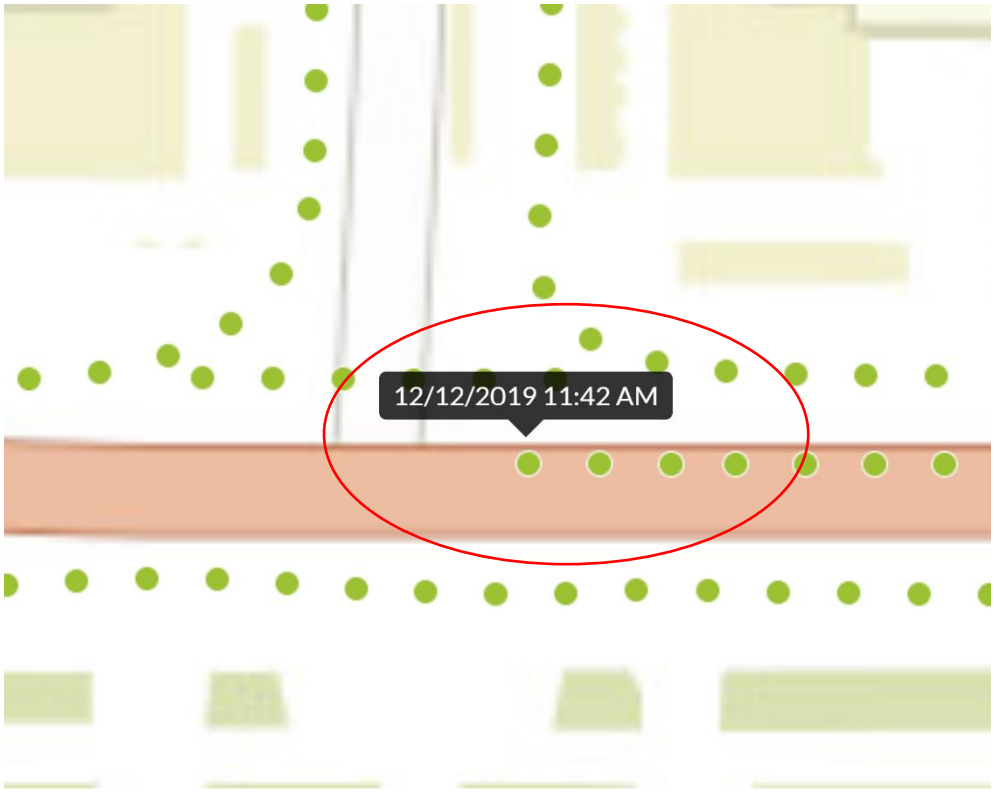
(**Answer: Yes)**



Step 6: Go to the intersection of Constitutional Ave NW and 10th Street NW, shown below on the map.

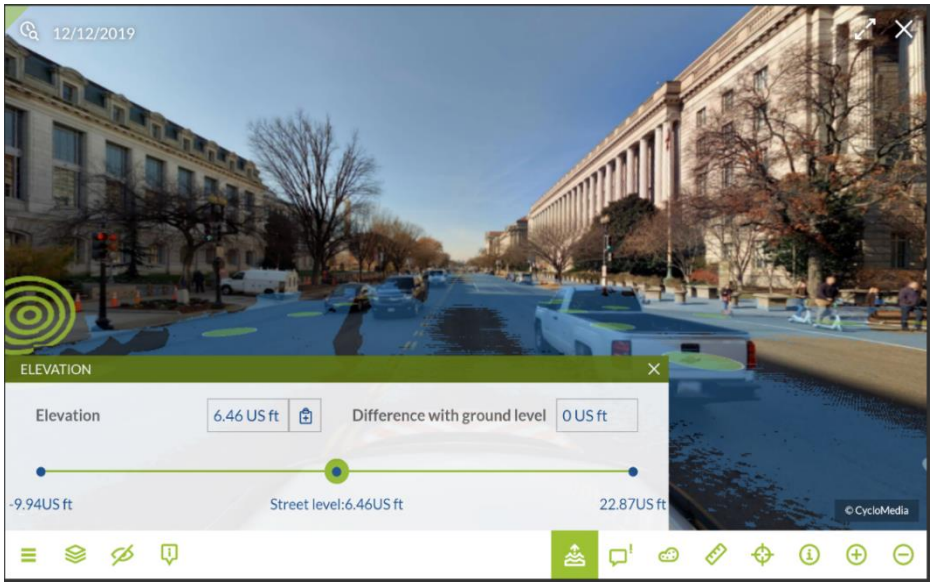


Step 7: Select the GeoCyclorama highlighted below with the date and time box pointing to it.



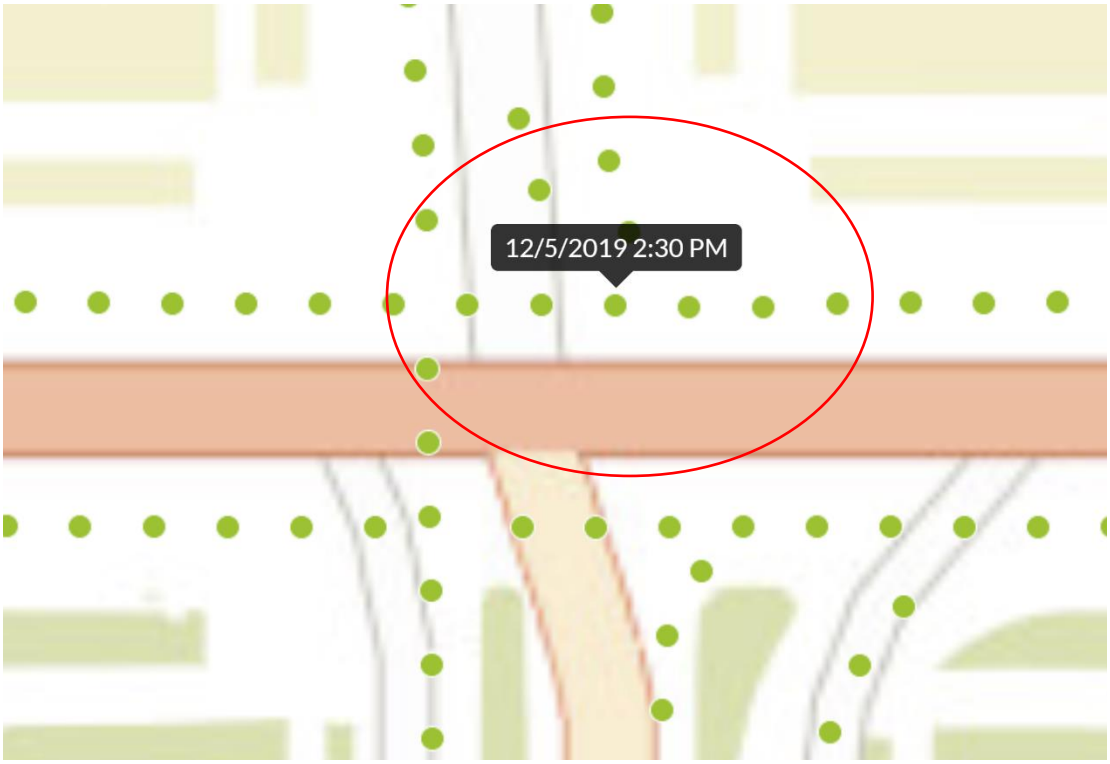
Step 8: Select the **Elevation Tool**. You should see the image below. Will the intersection of Constitutional Ave NW and 10th Street NW potentially pool with water due to heavy rain?

(Answer: Yes)



Step 9: Go to the intersection of Constitutional Ave NW and 12th Street NW, shown below on the map.

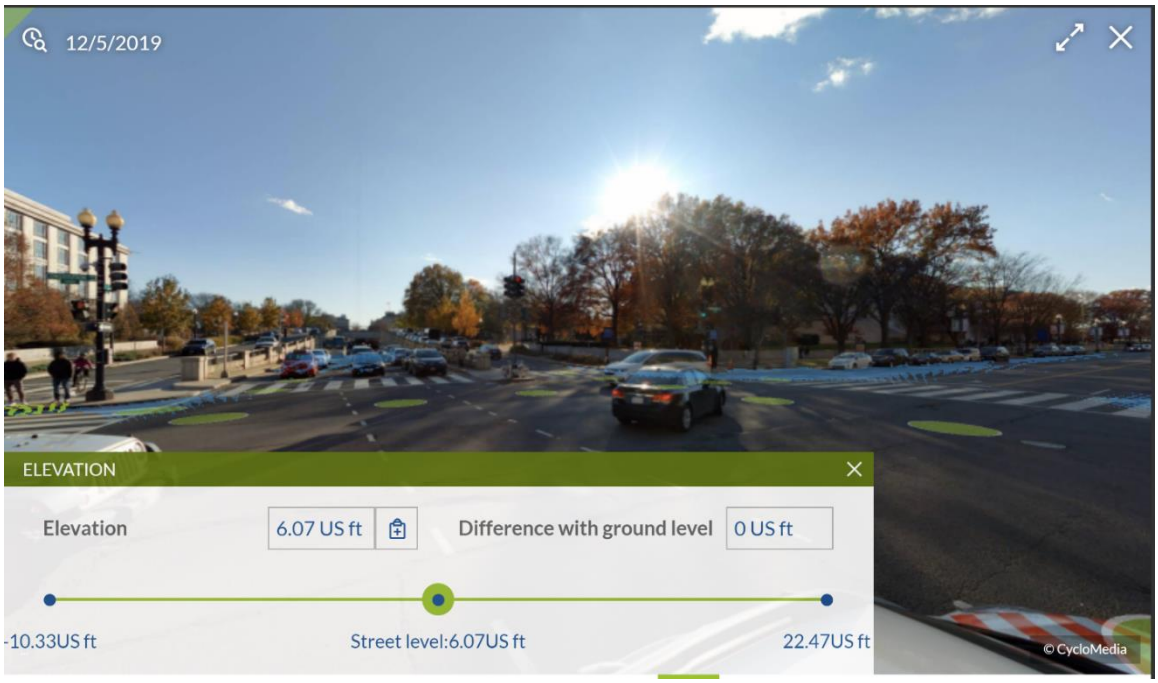
Step 10: Select the GeoCyclorama highlighted below with date and time box pointing to it.



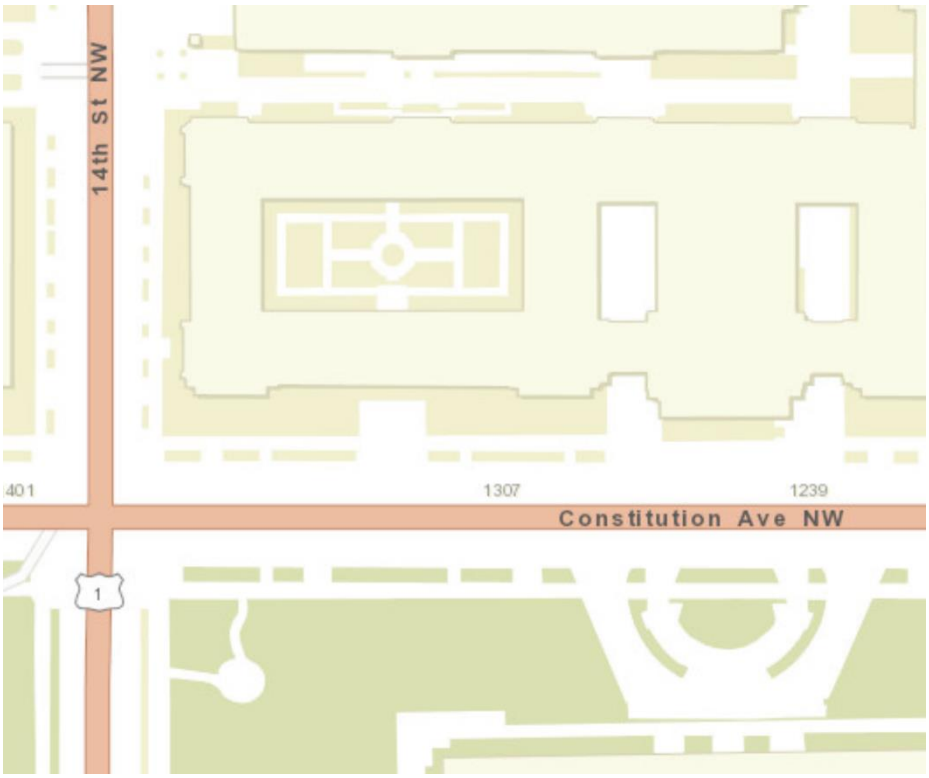
Note: Make sure the direction you are looking in the GeoCyclorama is pointed toward the intersection, as shown below with the **Green Triangle**. You can change the direction of the triangle by clicking and dragging it around in map view to the direction you want to look in.

Step 11: Select the **Elevation Tool**. You should see the image below. Will the intersection of Constitutional Ave NW and 12th Street NW potentially pool with water due to heavy rain?

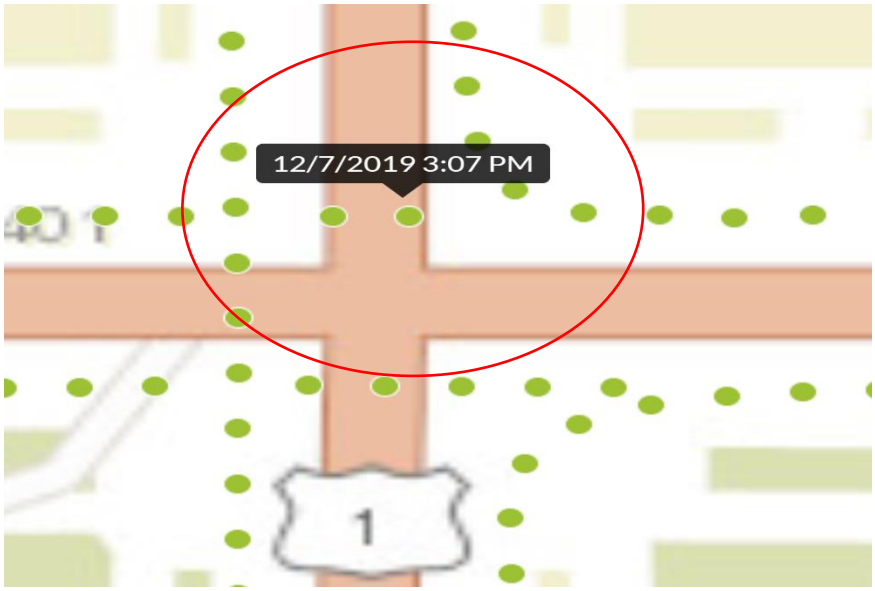
(**Answer: Partially, but very little, so most likely would not have an effect on the parade).**



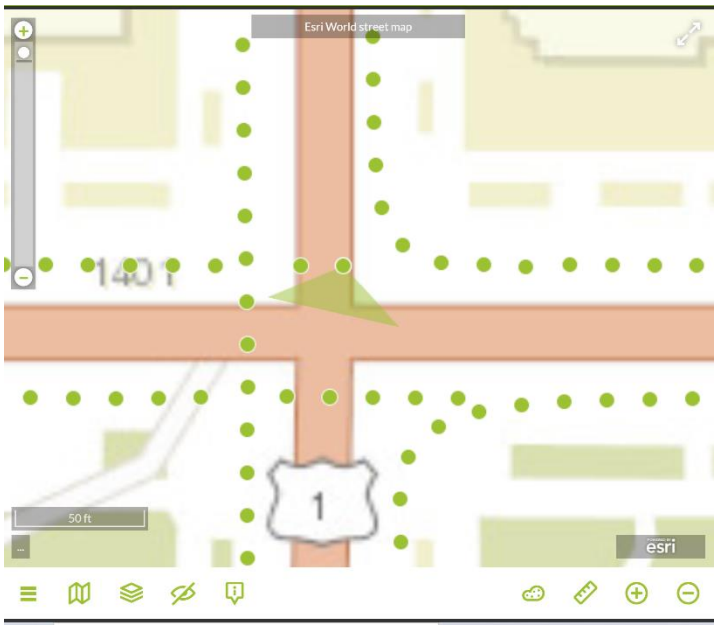
Step 12: Go to the intersection of Constitutional Ave NW and 14th Street NW, shown below on the map.



Step 13: Select the GeoCyclorama highlighted below with date and time box pointing to it.



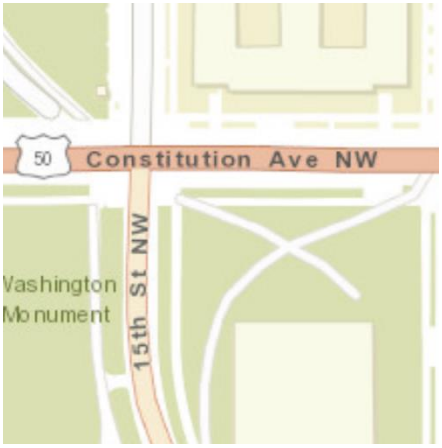
Note: Make sure the direction you are looking in the GeoCyclorama is pointed toward the intersection, as shown below with the **Green Triangle**.



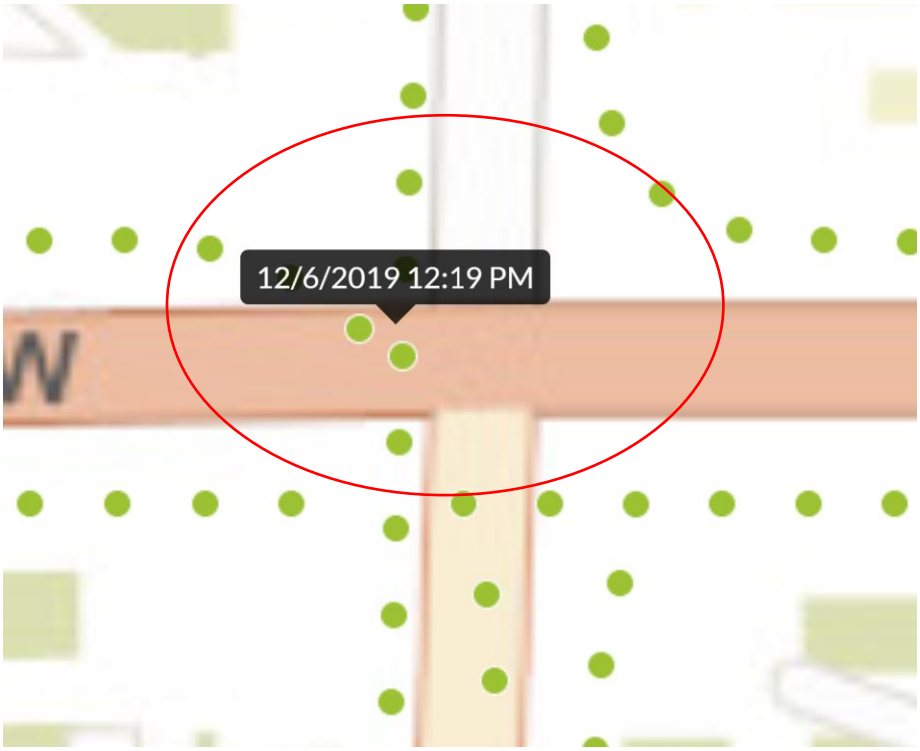
Step 14: Select the **Elevation Tool**. You should see the image below. Will the intersection of Constitutional Ave NW and 14th Street NW potentially pool with water due to heavy rain?

(Answer: Yes)

Step 15: Go to the intersection of Constitutional Ave NW and 15th Street NW, shown below on the map.



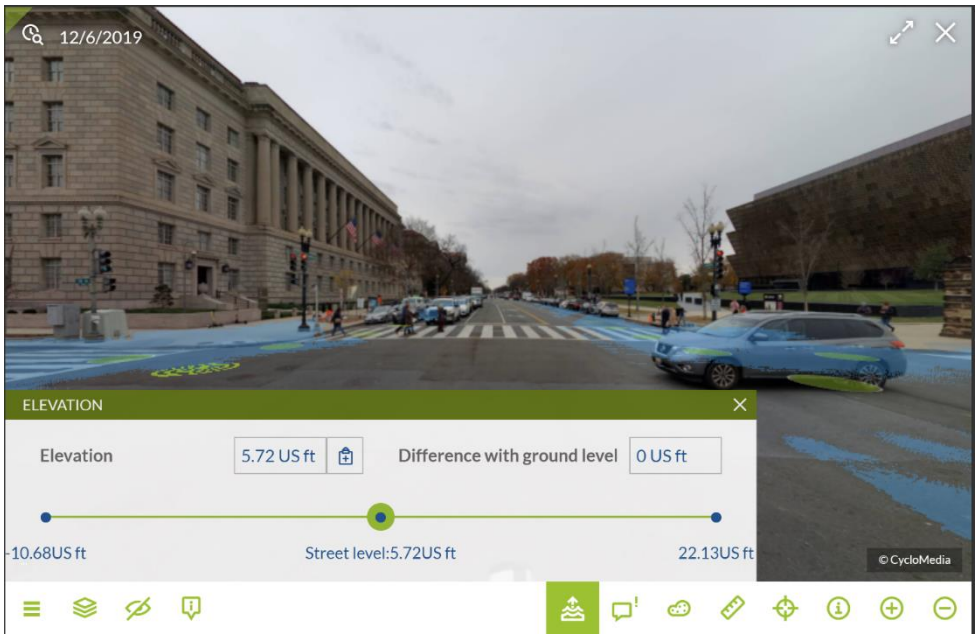
Step 16: Select the GeoCyclorama highlighted below with date and time box pointing to it.



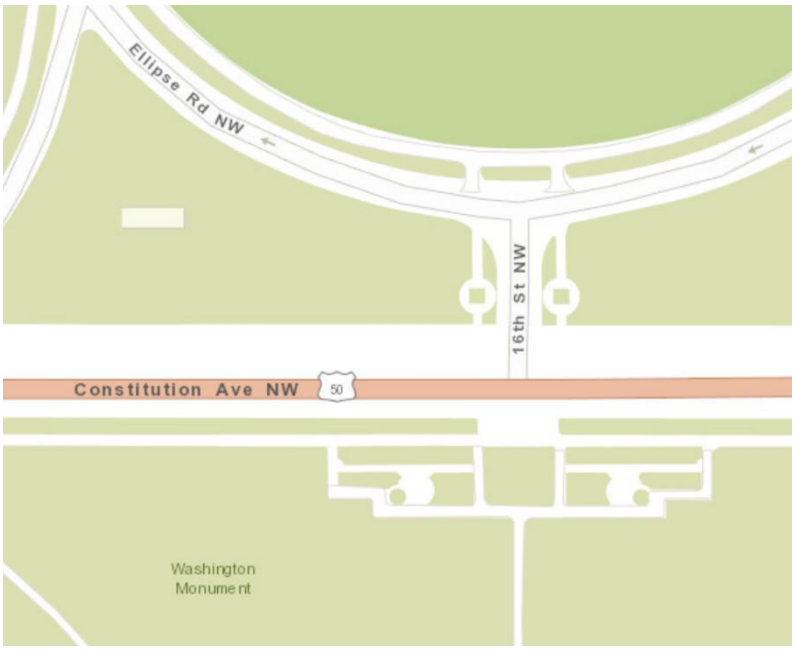
Note: Make sure the direction you are looking in the GeoCyclorama is pointed toward the intersection, as shown below with the **Green Triangle**.

Step 17: Select the **Elevation Tool**. You should see the image below. Will the intersection of Constitutional Ave NW and 15th Street NW potentially pool with water due to heavy rain?

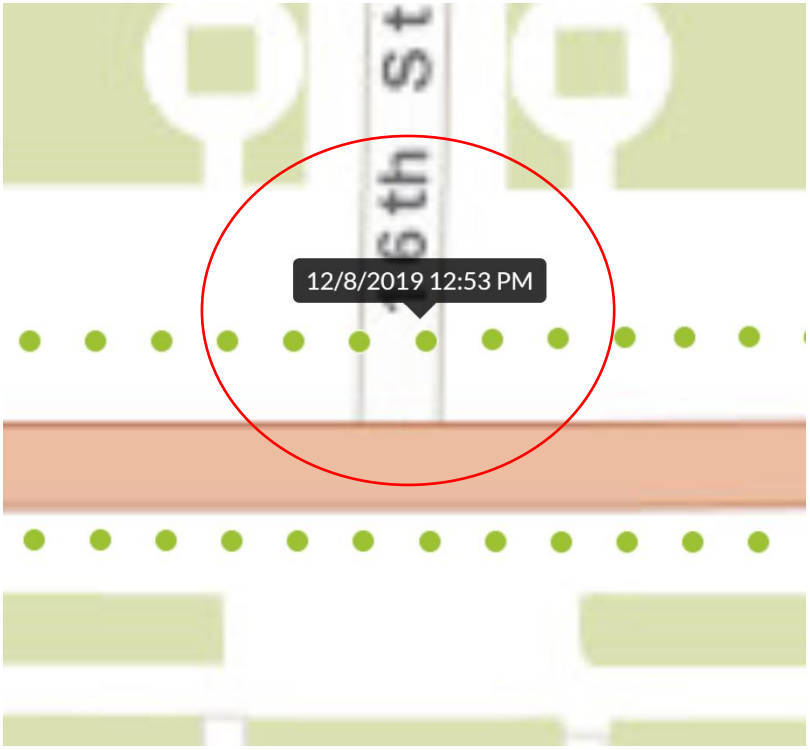
(Answer: Yes)



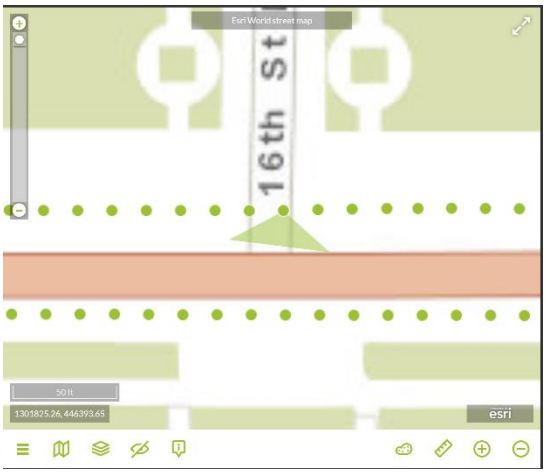
Step 18: Go to the intersection of Constitutional Ave NW and 16th Street NW, shown below on the map.



Step 19: Select the GeoCyclorama highlighted below with date and time box pointing to it.



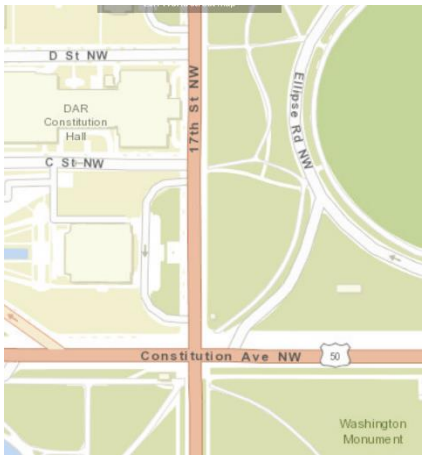
Note: Make sure the direction you are looking in the GeoCyclorama is pointed toward the intersection, as shown below with the **Green Triangle**.



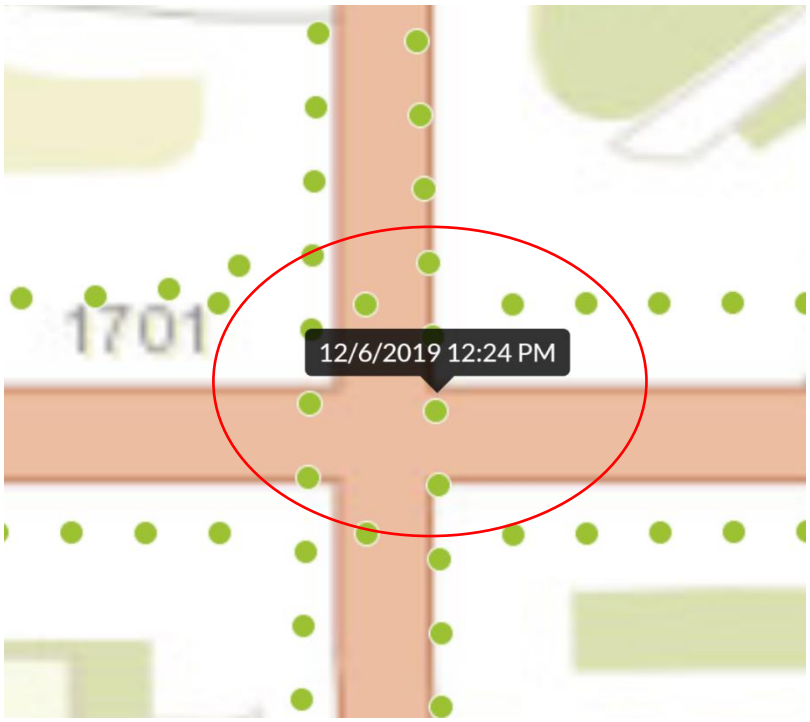
Step 20: Select the **Elevation Tool**. You should see the image below. Will the intersection of Constitutional Ave NW and 16th Street NW potentially pool with water due to heavy rain?

(Answer: Yes)

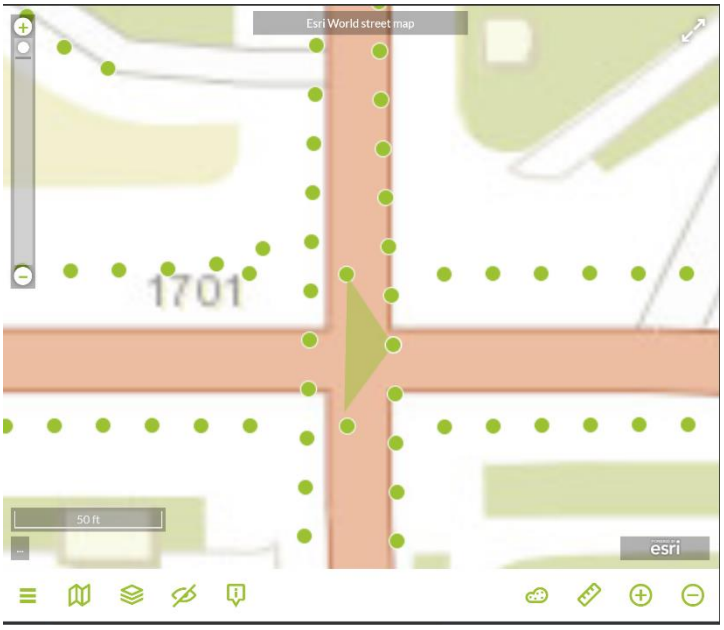
Step 21: Go to the intersection of Constitutional Ave NW and 17th Street NW, shown below on the map.



Step 22: Select the GeoCyclorama highlighted below with date and time box pointing to it.



Note: Make sure the direction you are looking in the GeoCyclorama is pointed toward the intersection, as shown below with the **Green Triangle**.



Step 23: Select the **Elevation Tool**. You should see the image below. Will the intersection of Constitutional Ave NW and 17th Street NW potentially pool with water due to heavy rain?

(Answer: Yes)

Therefore, with the multiple areas showing the possibility of the intersections pooling with water in the event of heavy rainfall, the parade would have to be postponed if that weather event took place.

Cyclomedia and StreetSmart are powerful tools in GIS that can perform multiple useful tasks such as those shown in this exercise. These skills can be applicable to many different situations and can be an excellent addition to a resume showing competency with this software. In this exercise, you should have learned how Cyclomedia and StreetSmart can be used in event planning and management as well as how to analyze imagery and use 3D measurement tools to complete tasks.