Local Park Amenities

Survey of Amenities in Local Parks near
Cambrian Park, San Jose, California.

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Abstract

A survey was conducted of the amenities offered by local parks
near the Cambrian Park neighborhood of San Jose, California. The
data collection forms and base-maps used to capture the data were
created ahead of time with the web-based ArcGIS Field Maps
Designer. Three parks were surveyed in the field using the ArcGIS
Field Maps mobile app running on an iPhone. This StoryMap
presents videos illustrating the data capture process, the data
captured as interactive ArcGIS Online Web Maps, and a summary
of lessons learned.

Background

ArcGIS Field Maps mobile app

ArcGIS Field Maps is a mobile application that can run on a smart device such as an iPhone. It allows you to capture data, perform inspections, take notes, and share information from the field with the office. The ArcGIS Field Maps mobile app was used to capture the survey data in this study.

ArcGIS Field Maps Designer

ArcGIS Field Maps Designer is a web-based app that runs in a browser. It is used to configure maps and deploy them for use in the field. Using Field Maps Designer, you can create the maps, layers, and forms for mobile workers to use when collecting field data. ArcGIS Field Maps designer running in a browser on a desktop computer was used to configure the base-maps and data collection forms for this study ahead of time.

Data Collection

Survey data was collected in the field using the ArcGIS Field Maps app running on an iPhone. The data collection forms and park base-maps were prepared ahead of time using the web-based ArcGIS Field Maps Designer website. The GIS data for the base-maps was obtained online via the websites of the City of San Jose, and Santa Clara County. Unfortunately, similar GIS data for the parks managed by the Town of Los Gatos was not readily available. Once these forms and base-maps had been created they were then available in the field via the mobile app and could be used to facilitate data collection during the survey.

Feature Classes

Forms were prepared with ArcGIS Field Maps Designer to collect data for the following feature classes:

- Amenities – point features with additional attributes with the

following amenity types:

- ○ Bench

- ○ Light post

- ○ Recycling

- ○ Restroom

- ○ Trash

- Paths – line features

- Trees – point feature

Survey Results

Details of the survey results including maps of the data collected
are included below.

Esri, CGIAR, USGS | County of Santa Clara, California State Parks, Esri, To…   10 mi └─────────┘   Powered by Esri

Scope and Study Area

Three local parks were surveyed close to the Cambrian Park neighborhood of in San Jose, California. Data was collected by conducting field surveys at Carolyn Norris Park and Hogue Park managed by the City of San Jose, and Live Oak Manor Park managed by the Town of Los Gatos.

- Click on the buttons below to zoom into each park and view the area where survey data was collected for that park.
- Click on the last button "Overview of Parks in Santa Clara County" to return to the initial view.
- Continue scrolling down to view the survey data collected for each park.

Carolyn Norris Park

Houge Park

Live Oak Manor Park

Overview of Parks in Santa Clara County

Esri, NASA, NGA, USGS, FEMA | Esri Community Maps Contributors, Cou… 100 ft Powered by Esri

Carolyn Norris Park

Carolyn Norris Park is managed by the City of San Jose. It is located at 2133 Samaritan Dr. San Jose, CA 95124 and is open from sunrise to an a hour after sunset. The park has an area of 1.25 acres. Amenities offered include picnic areas, two playgrounds for ages 2-5, and one playground for ages 5-12. Parking is available on adjacent streets.

- Click on any feature to see details of that feature including a photo where available. Not every feature has a photo.
- Continue scrolling down to see survey data for the next park.

Esri, NASA, NGA, USGS, FEMA | Esri Community Maps Contributors, Cou…   200 ft   Powered by Esri

Houge Park

Houge Park is managed by the City of San Jose. It is located at Twilight Dr and White Oaks Ave, San Jose, CA 95124 and is open from sunrise to an hour after sunset. It has an area of 12.5 acres. Amenities offered include BBQs, horseshoe pits, a basketball court, a half-sized basketball court, two unlighted tennis courts, and an exercise course. It has playgrounds for ages 2-5 and ages 5-12. There are restrooms and a parking lot.

- Click on any feature to see details of that feature including a photo where available. Not every feature has a photo.
- Continue scrolling down to see survey data for the next park.

Esri, NASA, NGA, USGS, FEMA | Esri Community Maps Contributors, Cou…   100 ft   Powered by Esri
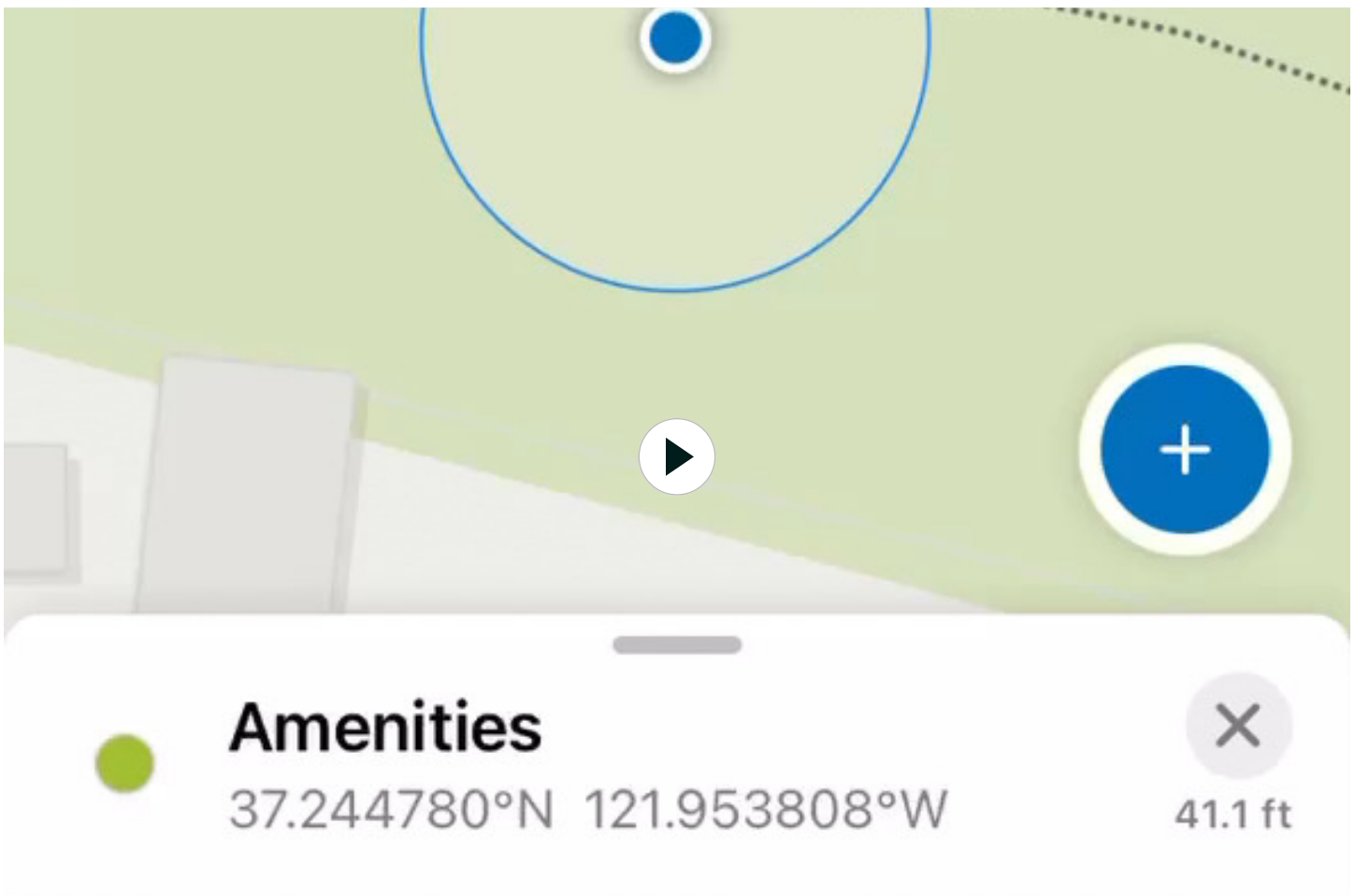
Live Oak Manor Park

Live Oak Manor Park is managed by the Town of Los Gatos. It is located off Gateway Drive, between Carlton Avenue and Lester Lane. Amenities offered include a playground, basketball court, picnic tables, and large lawn areas.

- Click on any feature to see details of that feature including a photo where available. Not every feature has a photo.
- Continue scrolling down to see read the rest of the story.
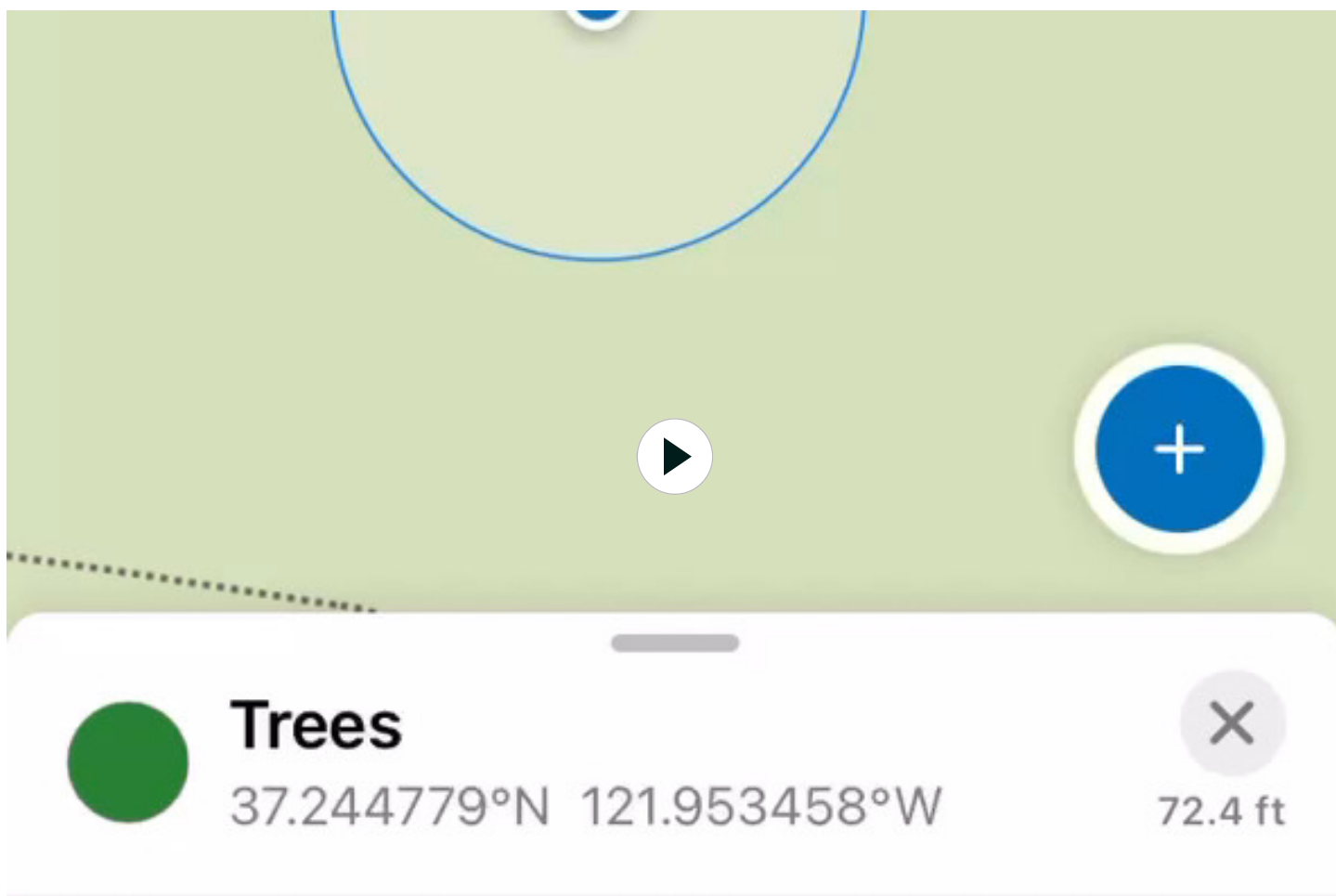
Videos of Data Collection Process

The following videos show the data capture process in the field using the ArcGIS Field Maps mobile app running on an iPhone.

Capturing a light post with photo

This video show the process of capturing a light post together
with a photograph. Additional data about the amenity is entered
on the data capture form. When the submit link is clicked the
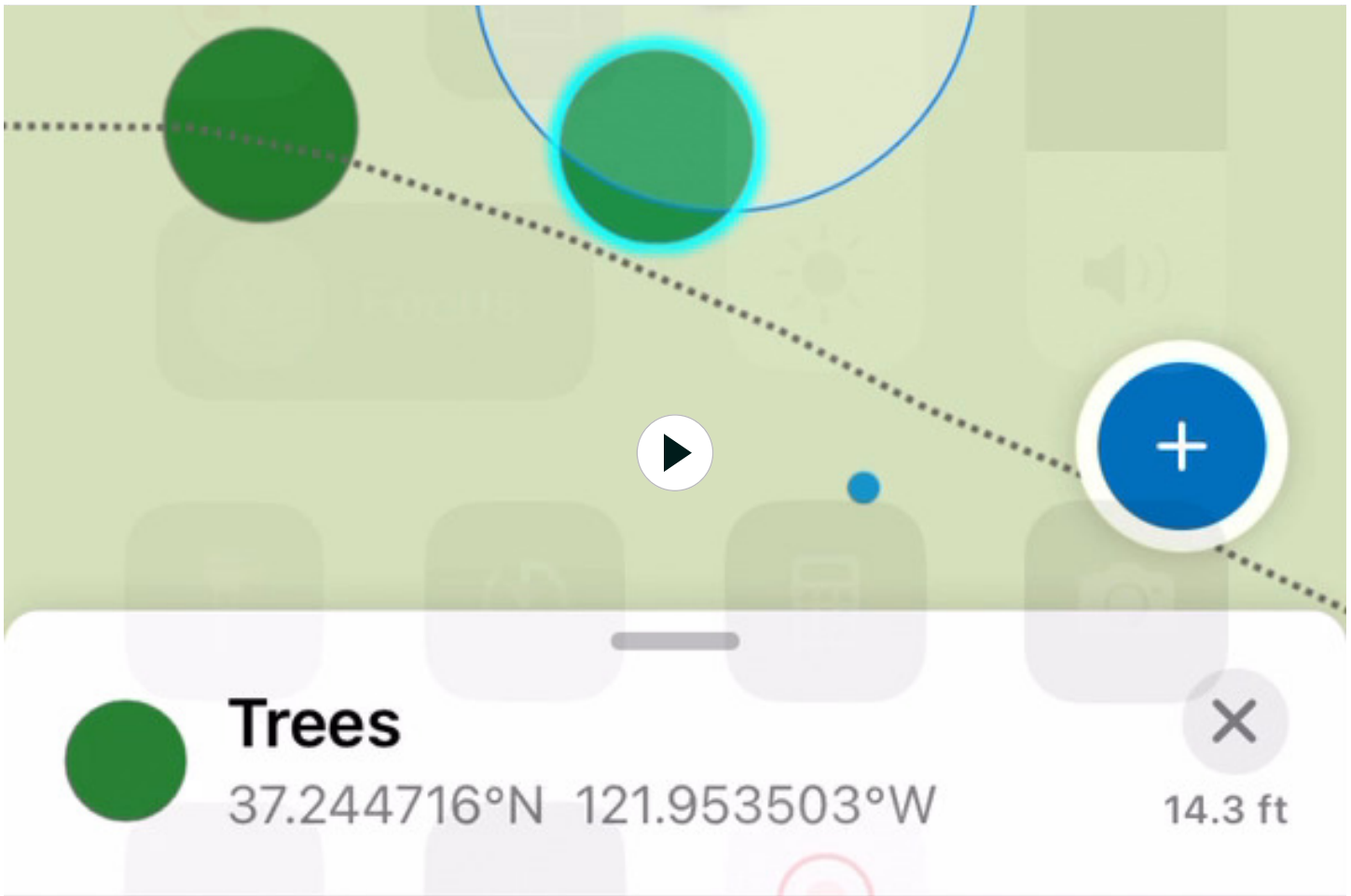data is sent to the server and becomes live on the ArcGIS Web
Map.

- The video will begin playing automatically.
- Continue scrolling down to view the next video.

Capturing a tree with photo

This video shows the process of capturing a tree with a
photograph. This is a quick and simple process because no
additional attributes are captured. Not having to fill out a data
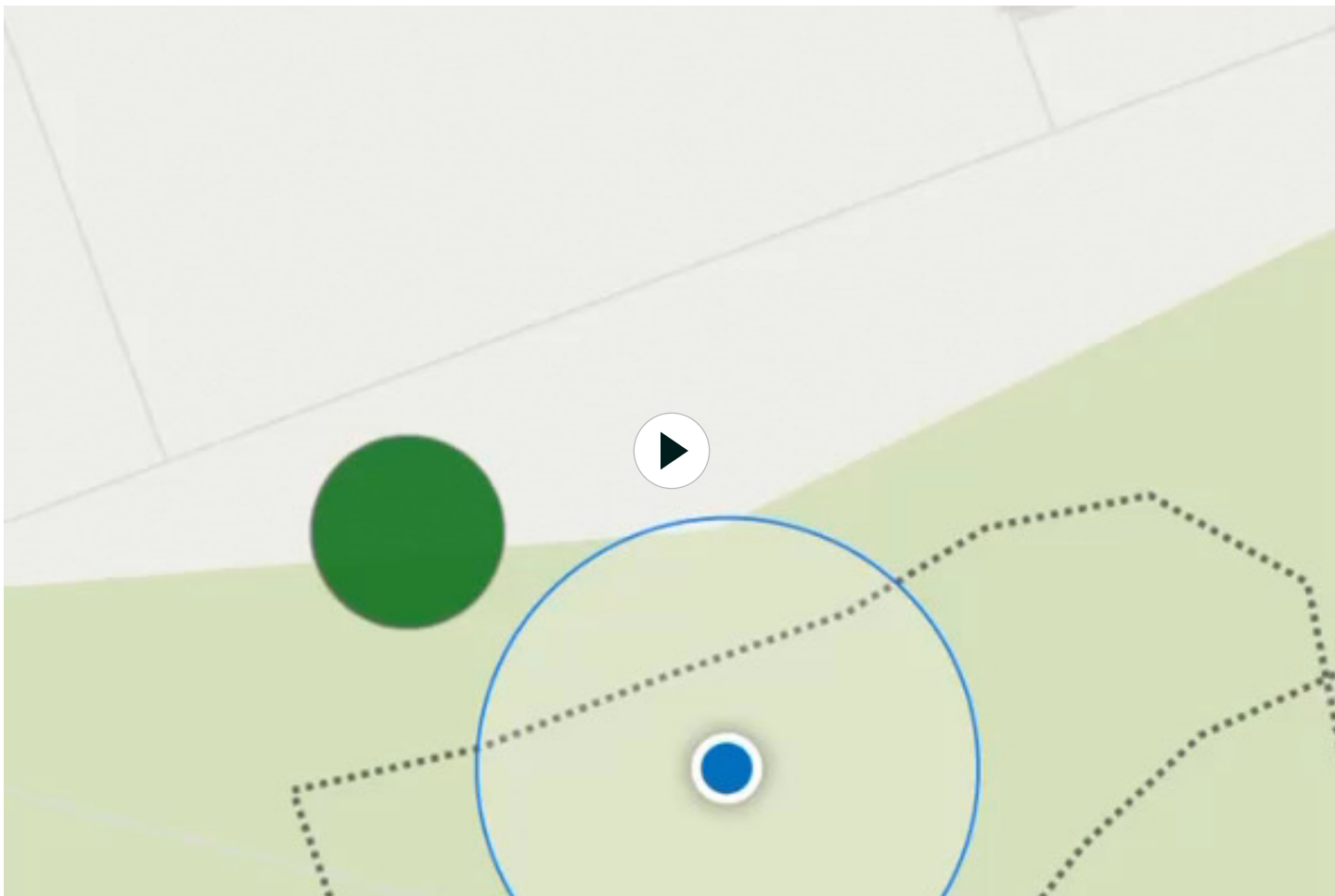capture form streamlines and speeds the task of data capture.

- The video will begin playing automatically.

- Continue scrolling down to view the next video.

Adding a photo to a tree that has already been captured

This video shows the process of adding a photograph to an existing tree that has already been captured earlier. It is sometime more efficient to capture the locations of features without additional information or photos and then go back and revisit them later to attach this additional data.
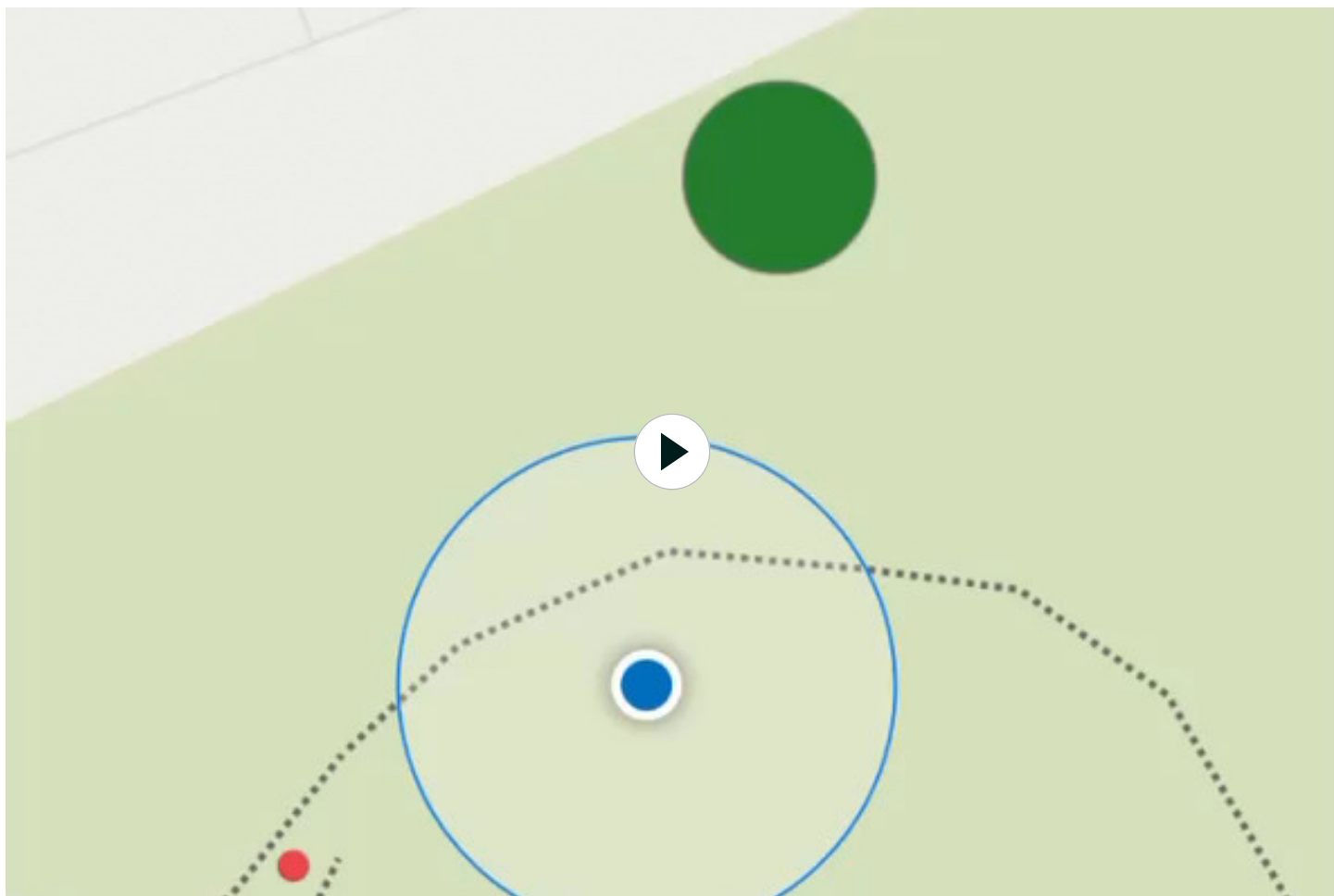
- The video will begin playing automatically.

- Continue scrolling down to view the next video.

Capturing a recycling bin with photo

This video shows the process of capturing a recycling bin with a photo. This is the same process used to capture a light post or other amenity except that a different selection is made from the list of amenity types.
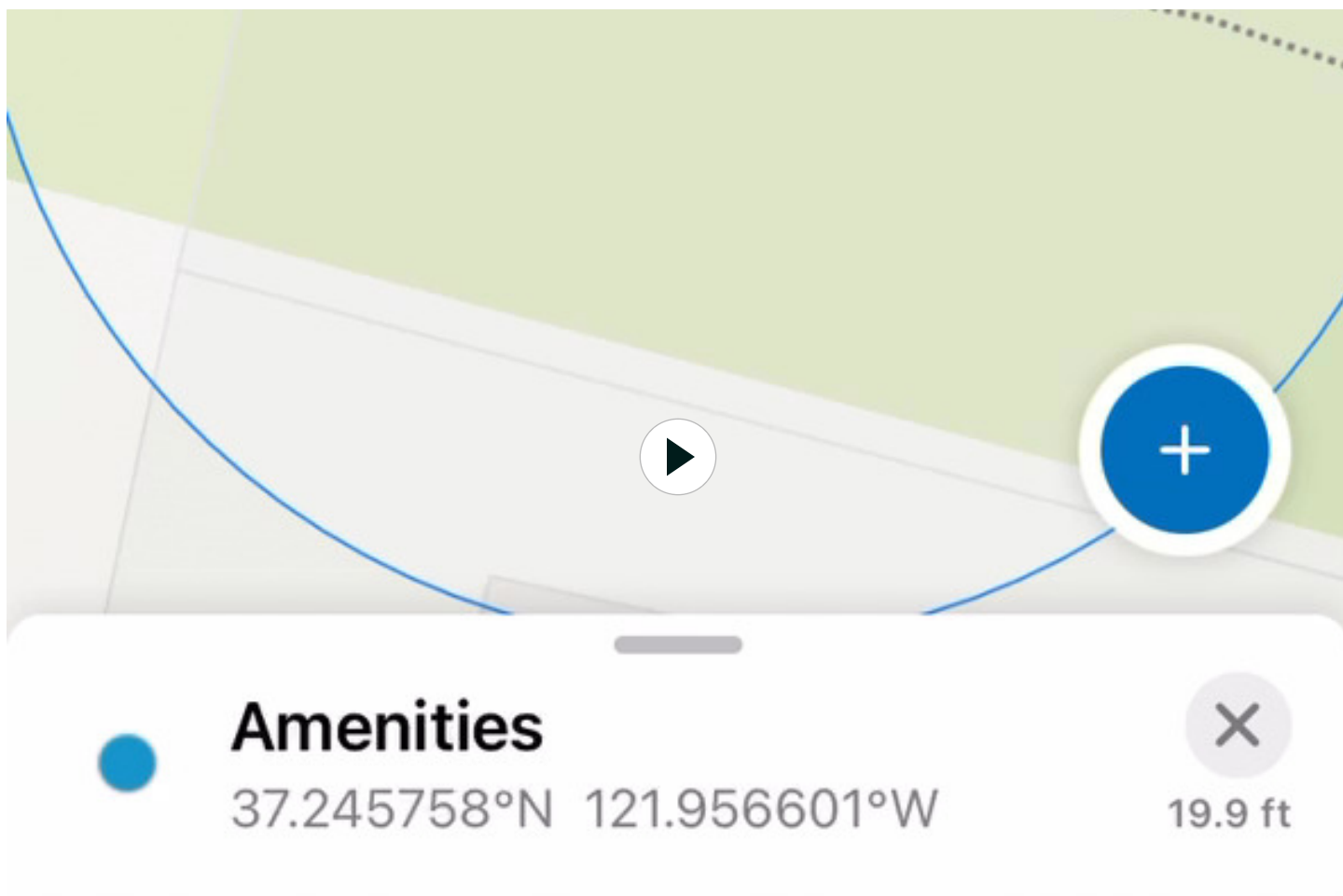
- The video will begin playing automatically.
- Continue scrolling down to view the next video.

Streaming a path

This video shows the process of streaming a path. This captures a line feature.
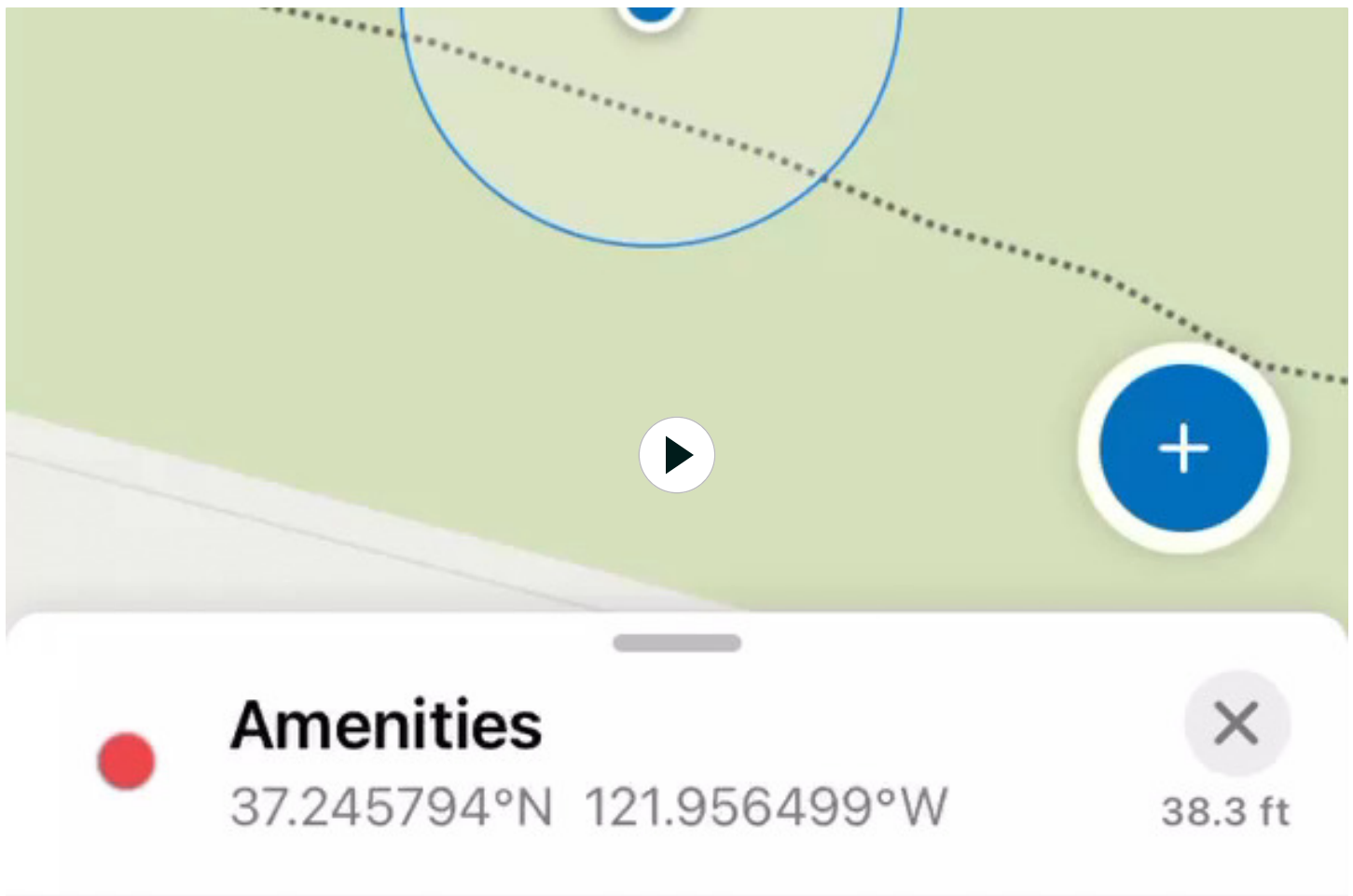
- The video will begin playing automatically.
- Continue scrolling down to view the next video.

Capturing a bench with poor GPS signal

This video shows the process of capturing a bench with a photograph. It illustrates what happens when the GPS signal quality is poor.

- The video will begin playing automatically.
- Continue scrolling down to view the next video.

Capturing a light post with poor GPS signal

This video shows the process of capturing a light post with a
photograph. It illustrates what happens when the GPS signal
quality is poor.

- The video will begin playing automatically.
- Continue scrolling down to continue reading the story.

Lessons Learned

The following list has some of the lessons learned while
performing these surveys:

- Forms with too many fields that do not have default values
  make it time consuming and error prone to collect data in the
  field on a touch screen. In my opinion, a touch screen is an

inefficient and sometimes frustrating interface for data capture. A keyboard would be better. It may be easier to collect data on a tablet with a larger screen using a stylus.

- I believe that it would streamline data entry to enter data into field sequentially in a form from top to bottom and then have the submit link a the bottom of the form.

- It is sometimes easier and more efficient to collect the locations of the features first with no additional attribute data and then go back and revisit the features to collect additional details. For example, when surveying trees, it may be faster to collect the point locations first and then go back and capture additional data such as photograph, height, trunk diameter, and species.

- The accuracy of points collected with an iPhone is reported by the app as approximately plus or minus 15 feet. This accuracy varies over time and across locations. Sometime the accuracy is much worse. The app will warn you when the location accuracy degrades. For professional work it is possible to use a more accurate GPS device.

- It does not seem possible to collect point feature data while simultaneously streaming a line feature. So, for example, you cannot capture a feature such as light post or bench which is adjacent to a path while you are in the process of streaming the path. This means that you have to go back and capture these features separately.

- Data collected in the field can be subsequently edited or deleted via an ArcGIS Online Web Map when back in the office.

- It is possible to edit and add the values in a drop down list after data has been captured.

- It is possible to add additional feature classes to be captures after some data has already been captured.

- Data collection forms created with Field Maps Designer seem to have less variety in the types of widgets available when compared to the choices in ArcGIS Survey123.

References

The following reference materials were used in the creation of this StoryMap:

ArcGIS Field Maps, www.arcgis.com/apps/fieldmaps/. Accessed 16 May 2024.

Carolyn Norris Park | Search Parks & Playgrounds | City of San José, www.sanjoseca.gov/Home/Components/FacilityDirectory/ FacilityDirectory/2140/2028. Accessed 16 May 2024.

Houge Park | Search Parks & Playgrounds | City of San José, www.sanjoseca.gov/Home/Components/FacilityDirectory/ FacilityDirectory/2231/2028. Accessed 17 May 2024.

"Live Oak Manor Park." Live Oak Manor Park | The Los Gatos CA Official Site!, www.losgatosca.gov/906/Live-Oak-Manor-Park. Accessed 16 May 2024.

"Try Data Collection in Arcgis Field Maps.", learn.arcgis.com/en/ paths/try-data-collection/. Accessed 16 May 2024.

GIS Data Sources

The following GIS data sources were used to prepare the overview map:

"Park." *San Jose CA GIS Open Data*, gisdata-csj.opendata.arcgis.com/ datasets/CSJ::park/about. Accessed 16 May 2024.

"SCCPRD Park Boundaries." *Parks GIS Data*, gisdata-sccparks.hub.arcgis.com/ maps/73cd47b3cab546d1b98b5a8aa320160d/about. Accessed 16 May 2024.