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DENVER REGIONAL COUNCIL OF GOVERNMENTS

Regional planimetrics: Stories from the field

Presented by:
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What are “planimetrics”?

DRCOG’s regional planimetric project creates detailed built environment features from high-resolution orthoimagery in the urbanized area of the Denver region.

building outlines | edge of pavement | parking lots | sidewalks | driveways | trails | ramps

What makes this data valuable?

very detailed

- 1:100 map scale

manually drawn

- no automated methods = no errors of commission

based on DRAPP imagery

- high resolution and strict positional accuracy standards

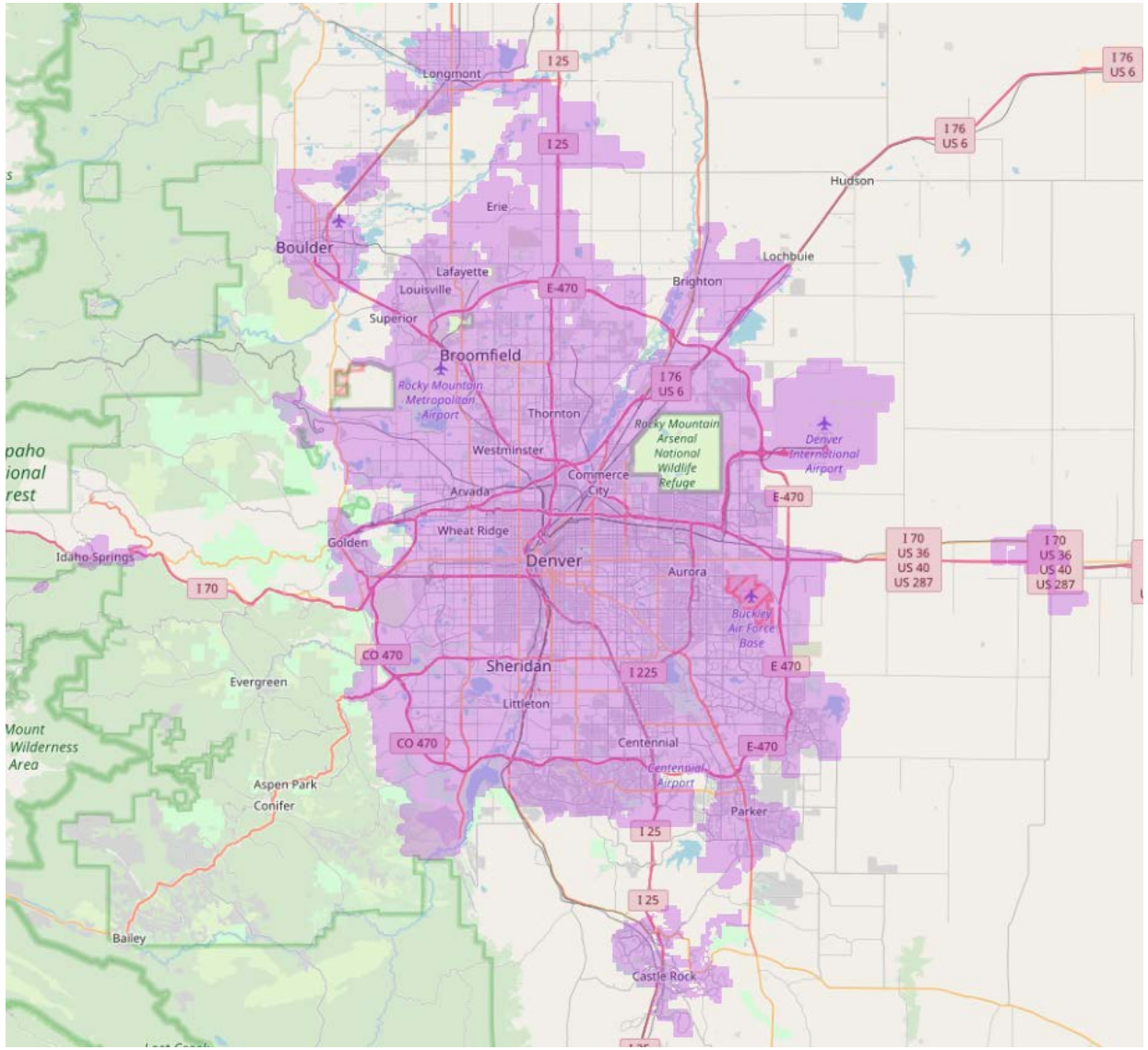
current

- updated every two years following completion of DRAPP

regional

- consistent collection methods for 1000+ square miles so analysis can cross jurisdictional boundaries

Where have we collected planimetric data?



Over 1,000 square miles captured and two time periods so far!

Next project will be based on 2018 imagery.

How is the data used?

Public agencies

water modeling | emergency response planning | floodplain analysis | asset management | bike/ped master planning | scenario planning | identifying change

Private companies

app to help the visually impaired navigate as pedestrians | selling attribution that attaches to our geometries | consulting firms doing better work for local clients like cities and counties | site selection apps

Researchers

evaluating intersection safety | estimating energy savings

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Planimetric case study – Arapahoe County

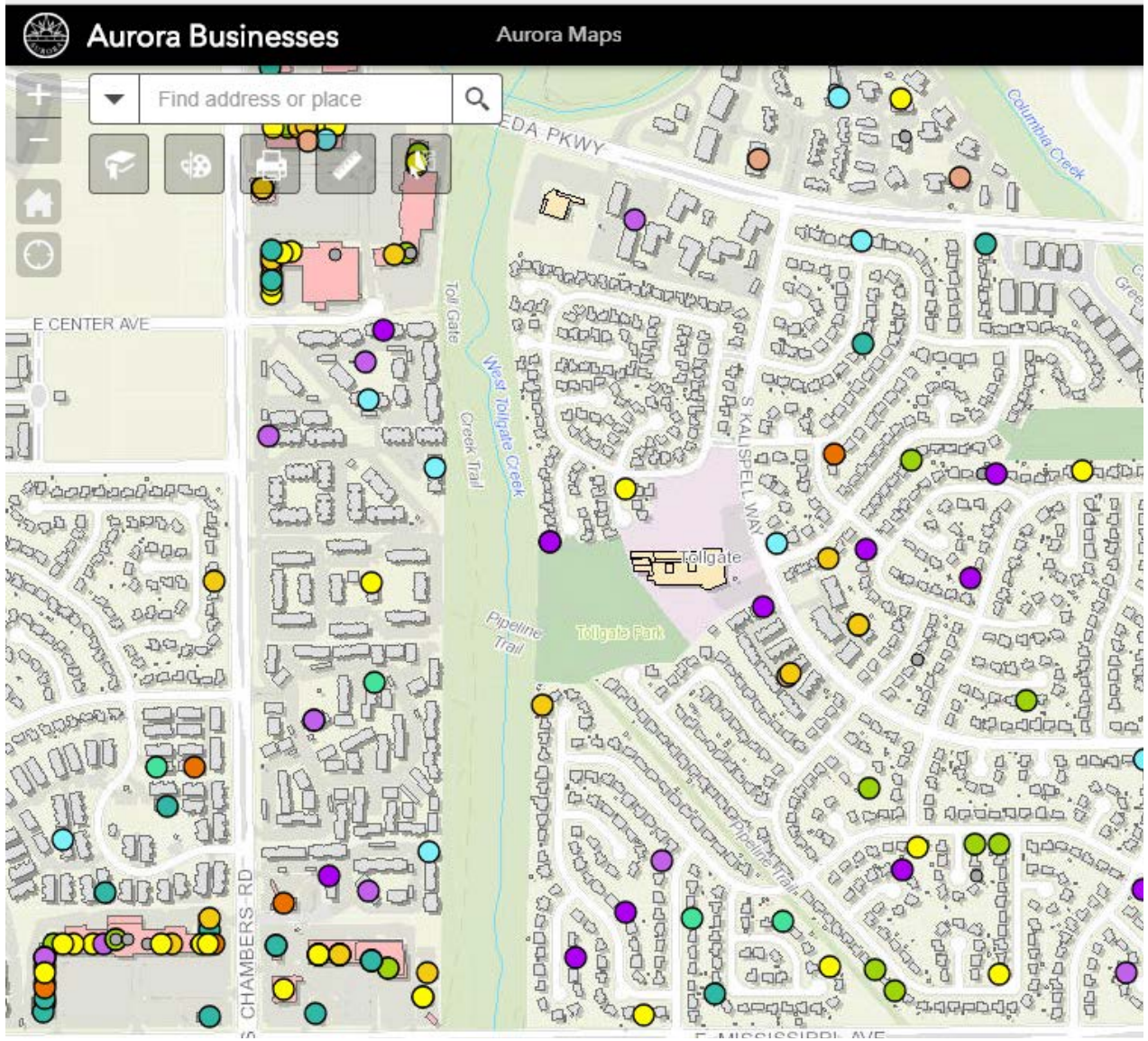
Participation in the Federal Emergency Management Agency's Community Rating System for the National Flood Insurance Program.

Used **building roofprints** and imagery.

Increased safety and decreased insurance costs by identifying structures in the floodplain.

Decreased analysis time from weeks to days.

Planimetric case study – Aurora

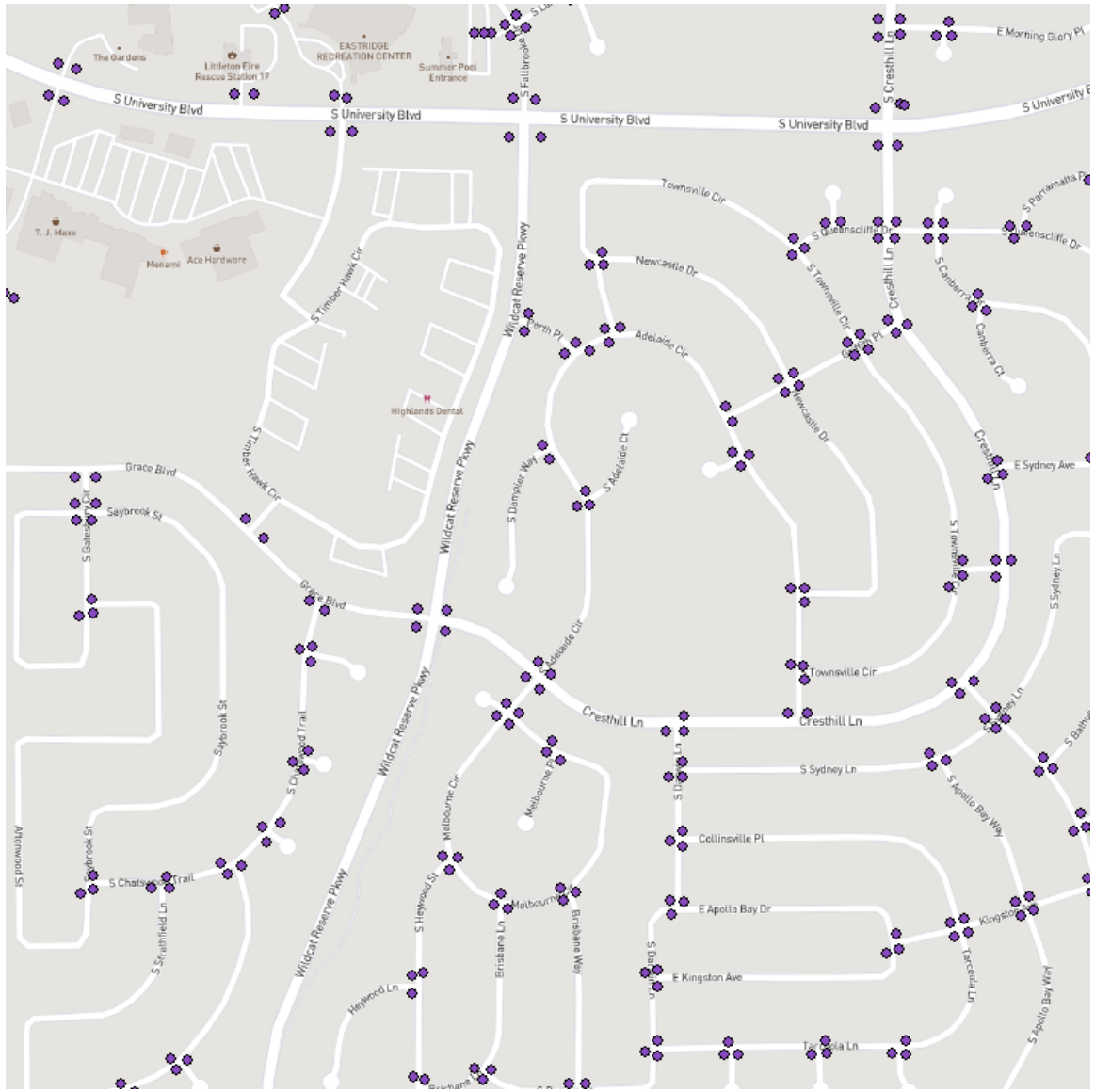


Built a custom basemap to use in its web viewers and field collection applications.

Used by the fire department to create pre-plan maps.

Example: used **building roofprints**.

Planimetric case study – Douglas County



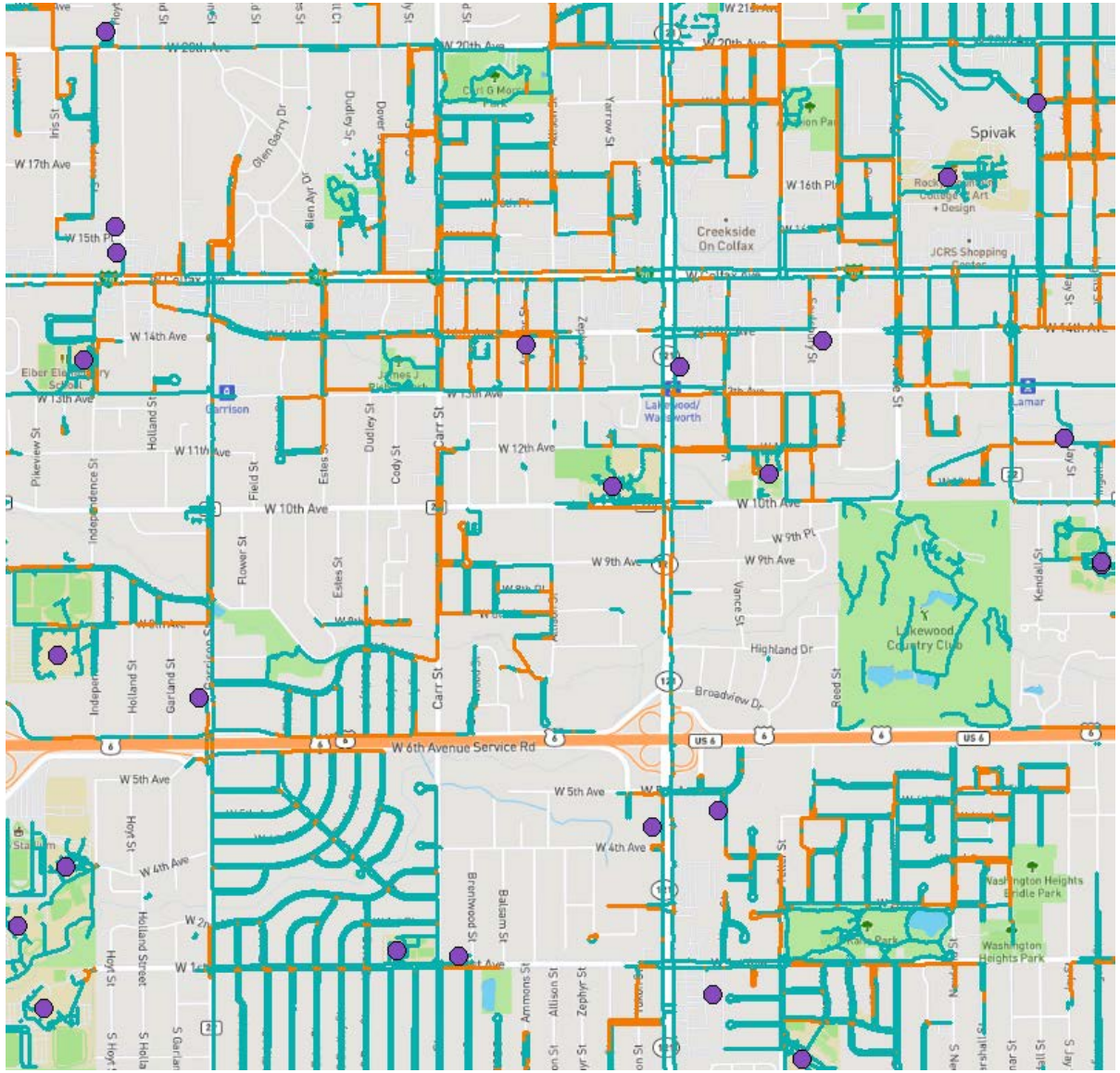
Sidewalk ramp asset inventory.

Interns checked the points in the field and added information about the ramp.

Since an accurate point already existed, no GPS point collection was needed.

Field time was cut in half.

Planimetric case study – Jefferson County



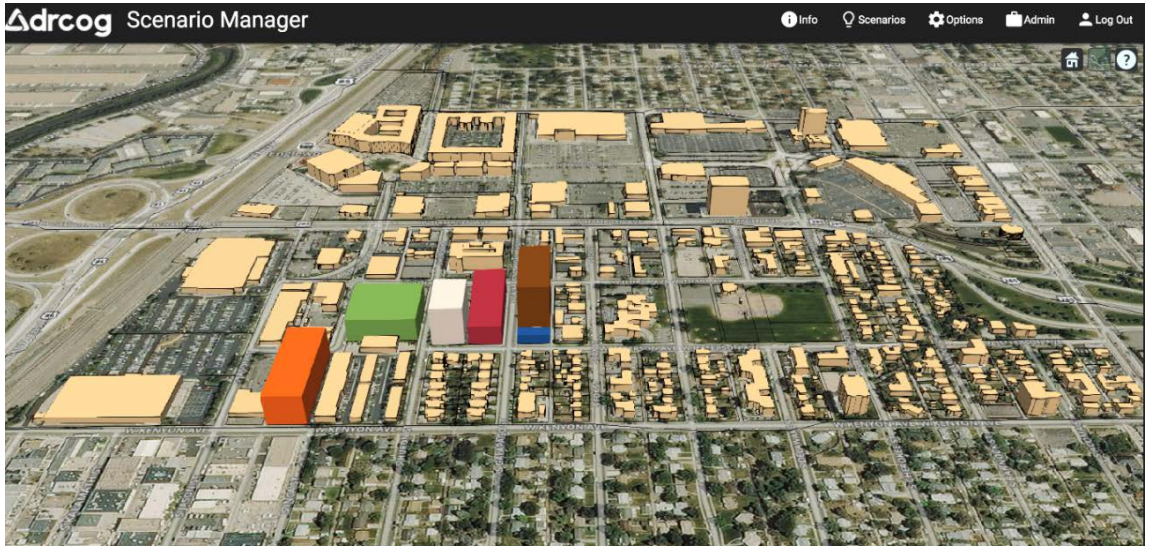
Mapping safe routes to schools using planimetric **sidewalk** data.

Planimetric case study – DRCOG and local governments

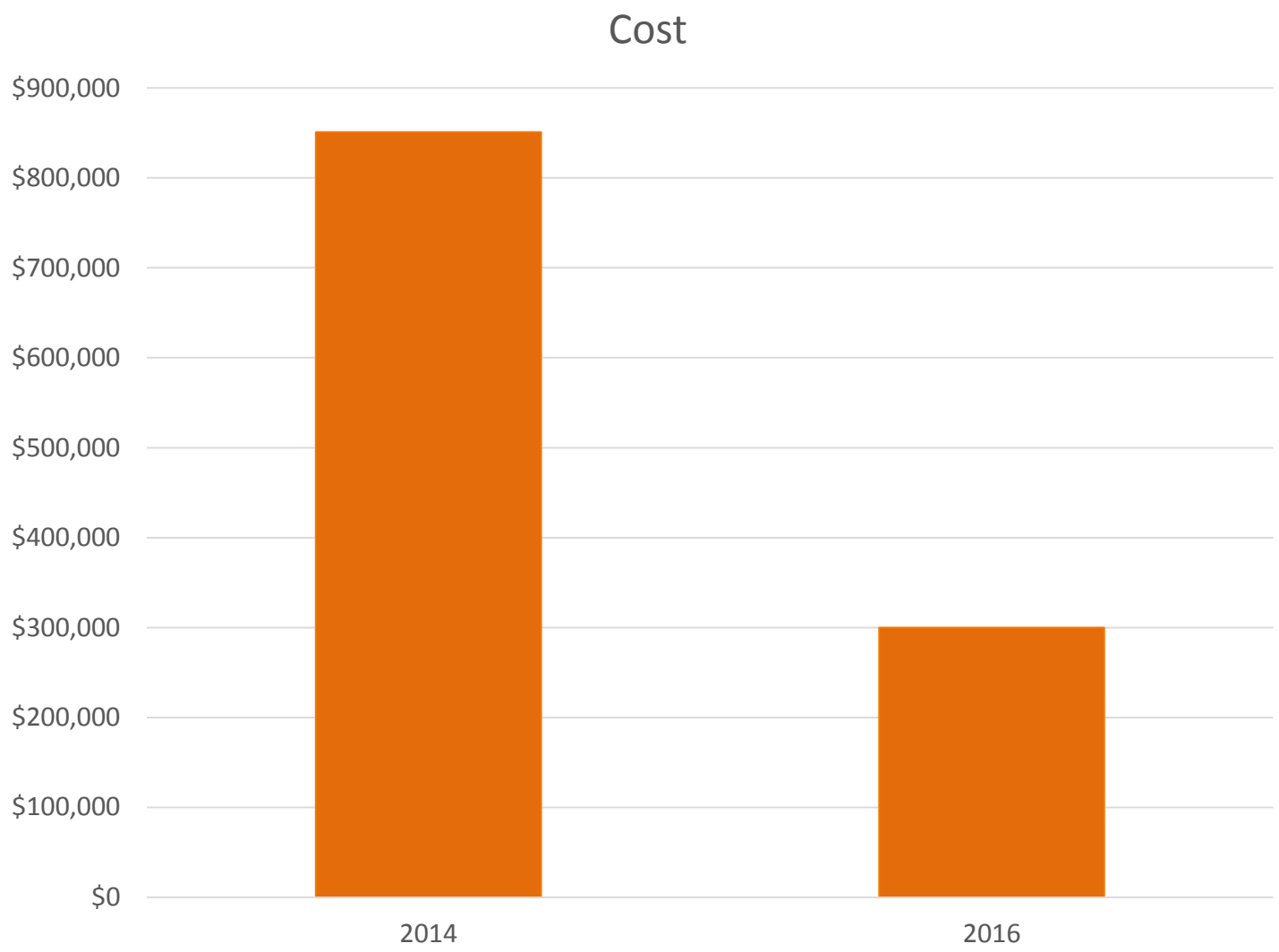
Visualizing development and zoning scenarios **in 3D**.

Supporting continual conversations about growth assumptions.

- local development scenarios
- informing regional planning assumptions



Project cost and cost management



Initial collection is expensive, but maintenance is reasonable as long as the project is **routine and contiguous in extent**.

What do our peers say?

"Benefits [of your program] are just fantastic" – Atlanta Regional Commission

"Don't I wish [we had a similar program]! – Baltimore Metropolitan Council

"I definitely see the value in having something similar to your [project]. I would very much be interested in developing something of the sort for CAMPO!" – Capital Area Metropolitan Planning Organization

"..most [of our projects] are one-off efforts that aren't structured under an umbrella like you have going on. (Which is really wise and fantastic, btw.)" – Delaware Valley Regional Planning Commission

"Your regional planimetrics project sounds like a great example of a region working together." – Ohio-Kentucky-Indiana Regional Council of Governments

The scope, extent, quality and routine nature of DRCOG's program make it unique.

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How can you be involved going forward?

Participate in the regional planimetric project 2018 by:

- Joining us for a project planning meeting.
  - June 28, 10-noon
  - Aspen conference room
- Supporting the project as a partner.
  - Your staff received initial quotes in April.
  - Payment can be made in 2018, 2019 or early 2020.

Email me at asummers@drcog.org

QUESTIONS?