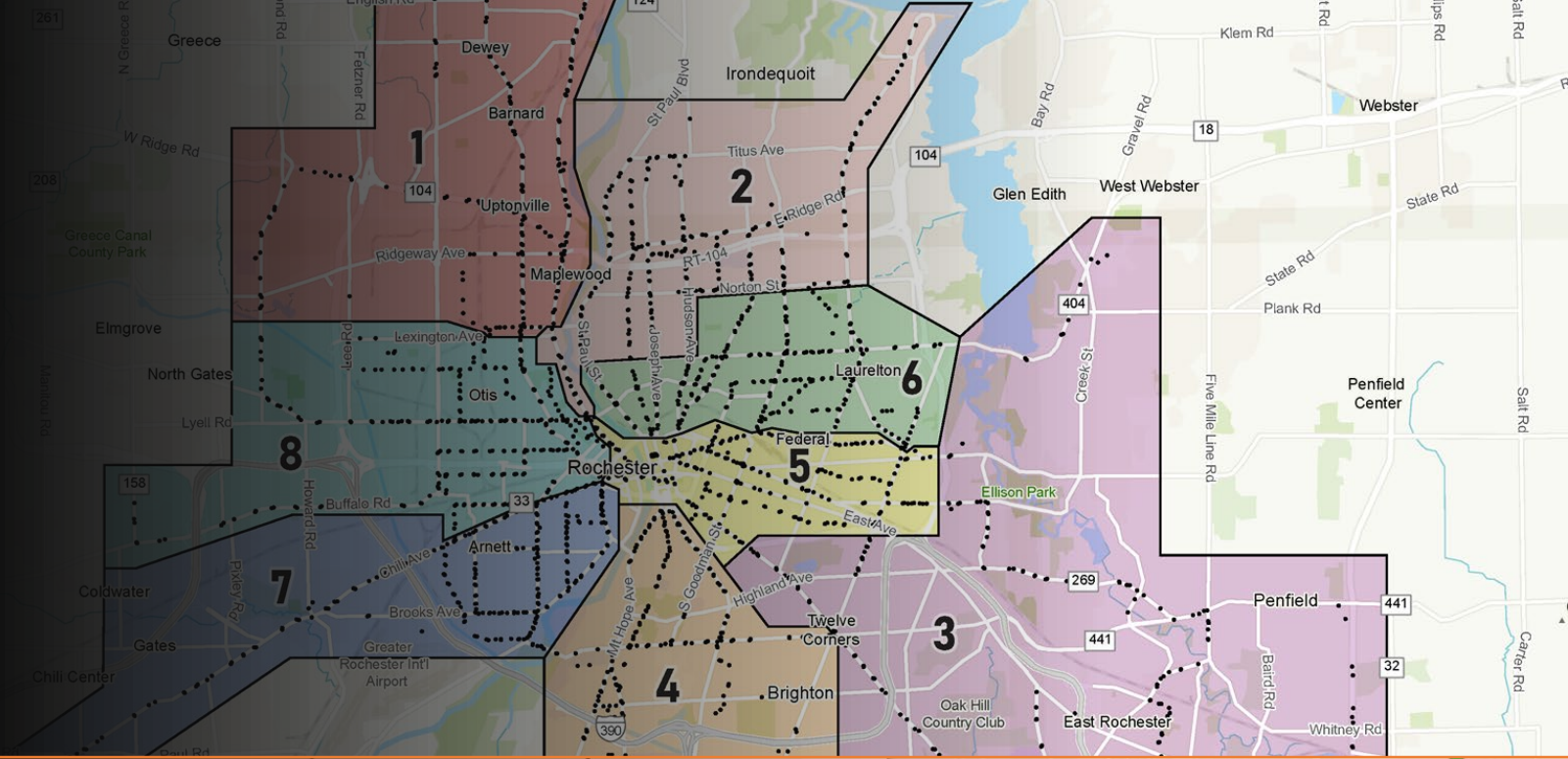
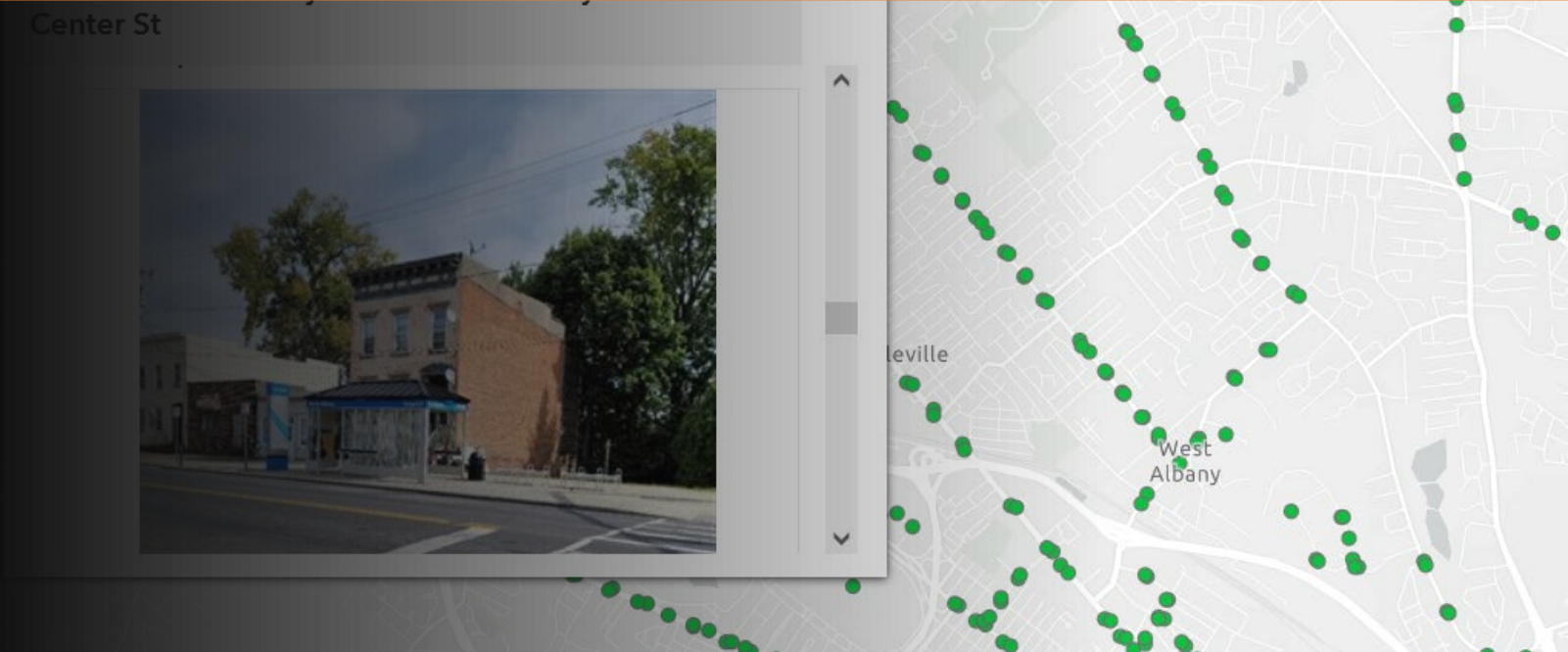


Bus Stop Field Assessments



Methodology and Benefits



The humble bus stop

- Most basic element of fixed route bus service
- First interaction point between service and the customer
- Influence on perceived quality and safety of service
- New user experience
- Not all stops are created equal





busplus

busplus Capitol/Hawk

CDTA

Capitol/Hawk

Capitol/
Hawk

iride
CDTA
www.cdta.org

Hawk St

CDTA





NORTH ST

JUST
A
SA...





iride

100	106
107	125
922	923

03943
BUS STOP
CDTA
518-482-8822 www.cdta.org



iride

522

04187
BUS STOP
CDTA
518-482-8822 www.cdta.org





13228
600 602
BUS STOP
CDTA
Central District Transit Authority

ONE WAY
→

NO
PARKING
ANY TIME

ENG-2975





750 bus stops
50 shelters



1,875 bus stops
150 shelters



2,750 bus stops
350 shelters

the bee-line system



3,300 bus stops
325 shelters



3,800 bus stops
275 shelters

Contributing Factors

- General Wear & Tear
- Vandalism
- Maintenance Jurisdictions
- Vehicle Collisions
- Agency Resource Levels
- Asset Management Procedures
- Under Reporting
- Construction Impacts
- Inter-department Communication
- Work Order Procedures



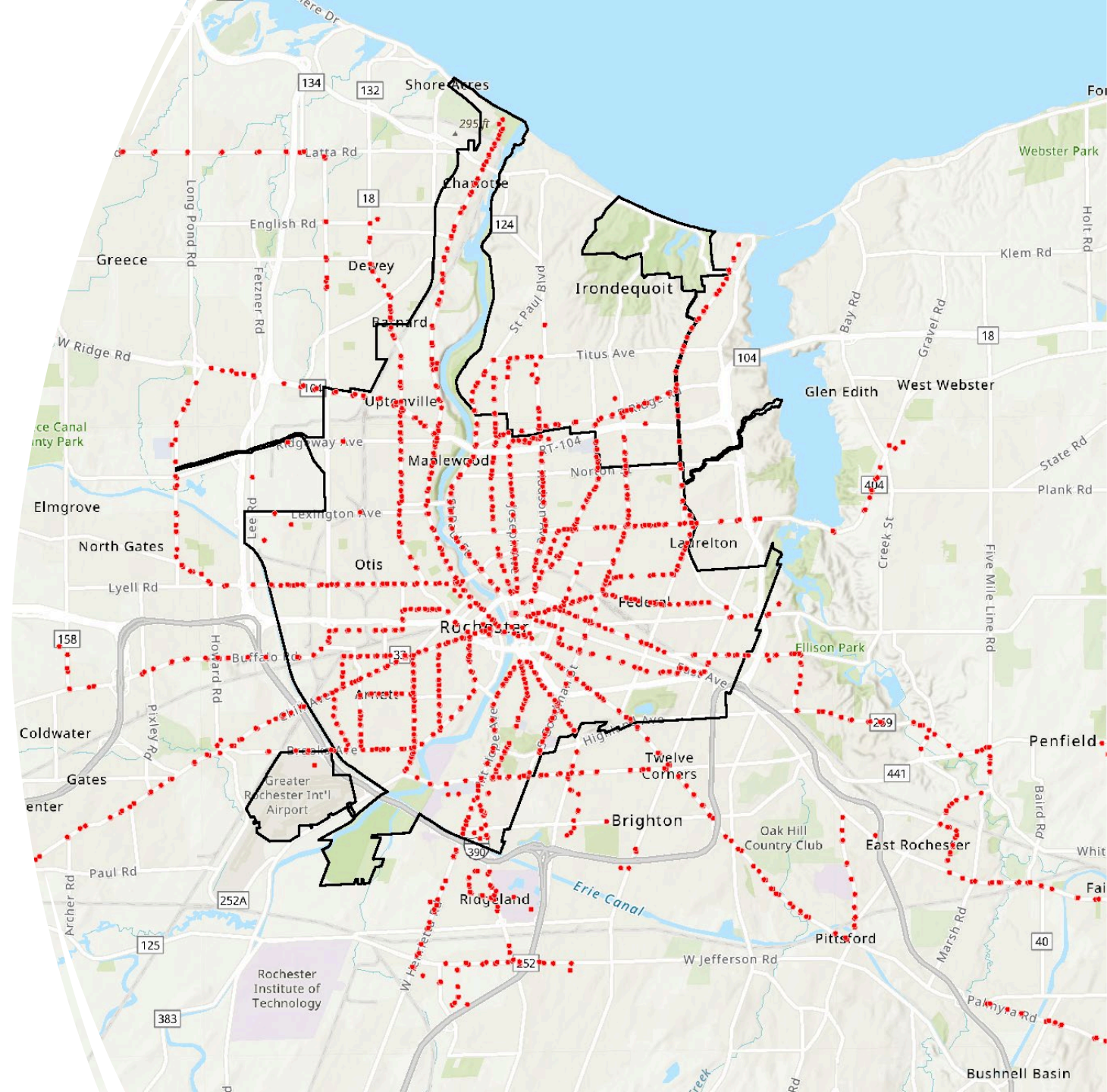
Bus Stop Field Assessment

- Inventory agency assets & stop conditions
- ~100% sample of all stops
- Catalogue physical condition of assets
- Confirm accuracy public facing information
- Develop photographic record of assets
- Identify priority needs & inputs into capital plan



Existing Conditions

- GTFS used as base condition
- Facilitates field work planning
- Verify internal data matches customer-facing information
- Efficient progress tracking





ArcGIS[®] Field Maps



Data Collection Platforms

- Smartphone-based minimizes equipment
- Flexible & customizable forms
- Automatic, real-time record uploads
- Ability to modify questionnaire or function
- Syncs with ArcGIS

Inventory Questionnaire

Keep it short, but effective

Limit potential for user error

Clear direction on qualitative responses

Prior training session is essential

The image shows a mobile application interface for a questionnaire. It features two sections, each with a title and a sub-header, followed by radio button options. The first section is titled 'Bus Stop Information *' and contains the instruction 'Please fill out all necessary fields.' It has two questions: 'Is there a bus stop sign? *' with 'Yes' (selected) and 'No' options, and 'Is the Bus Stop ID printed on the sign? *' with 'Yes' and 'No' options. The second question in this section is 'Bus stop sign condition: *' with 'Good', 'Poor', and 'Damaged' options. The second section is titled 'Bus Stop Amenities *' and contains two questions: 'Is there a bus shelter? *' with 'Yes' (selected) and 'No' options, and 'Bus shelter condition: *' with 'Good', 'Poor', and 'Damaged' options. The interface is dark-themed with white text and radio buttons.

Bus Stop Information * ^

Please fill out all necessary fields.

Is there a bus stop sign? *

Yes

No

Is the Bus Stop ID printed on the sign? *

Yes

No

Bus stop sign condition: *

Good

Poor

Damaged

Bus Stop Amenities * ^

Is there a bus shelter? *

Yes

No

Bus shelter condition: *

Good

Poor

Damaged

Inventory Questionnaire

Ped infrastructure = passenger experience

Identify stops for priority investment

Data can inform & support:

1. Cost sharing agreements
2. Capital plans
3. Grant applications for ADA and access to transit programs

Is there a sidewalk? *

Yes

No

Are there any sidewalk surface problems? (e.g., cracks, uneven pavement, etc.) *

Yes

No

Which sidewalk surface problems did you observe? *

Major Cracks

Uneven Pavement

Vegetation

Slope

ADA Information *

Is there a 3' wide accessible path? *

Yes

No

Is there a 5' x 8' wheelchair loading zone? *

Yes

No

Is the cross slope greater than 2%? *

Yes

No

Is there a continuous sidewalk connection to the nearest pedestrian crossing? *

Yes

No

Is there a pedestrian ramp at the nearest crossing? *

Yes

No

Is there a marked crosswalk? *

Yes

No

Photo Record

Consistent set of photos at each stop

Used to review conditions and assess needs

Confirm condition assessments and determine priorities

Provides agency staff with reference database

More photos = More data = More costs

Stop Shelter & Amenity Focus



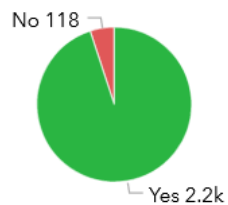
Total stops selected:

📍 2,426

CDTA Bus Stops

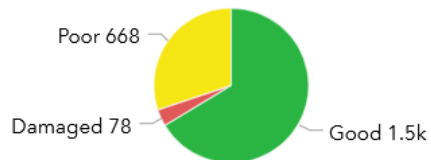
- Yes
- No

Is there a bus stop sign?



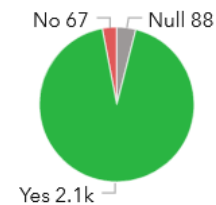
Last update: 1 minute ago

Bus stop sign condition:



Last update: 1 minute ago

Does the Stop ID on the Sign match the Stop ID in GTFS?



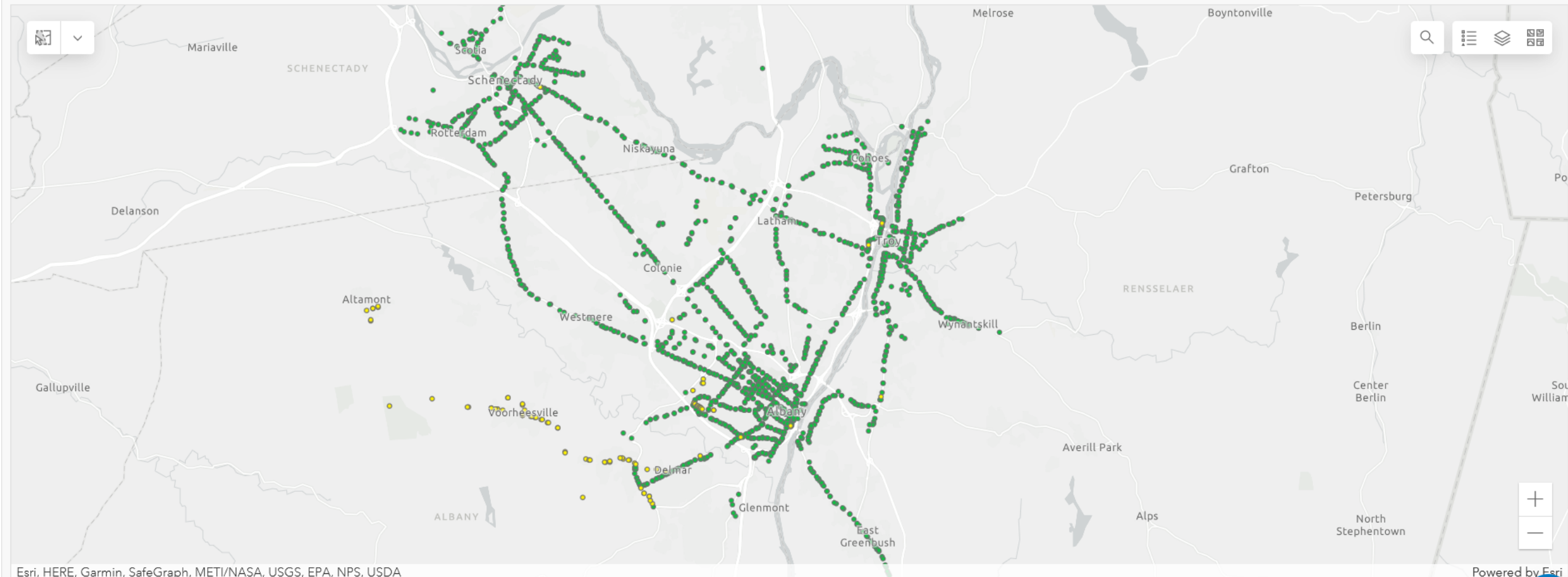
Last update: 1 minute ago

[Bus Stop Info \(Condition, ID, etc.\)](#)

[Bus Stop Amenities](#)

[Sidewalk Info](#)

[ADA Info](#)

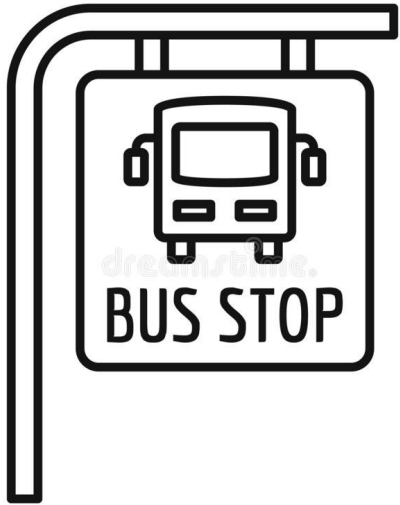


Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

Powered by Esri



Capital Planning



Address missing,
incorrect, or
damaged signs



Prioritize repair
and replacement
of assets



Cost sharing
agreements for
infrastructure issues

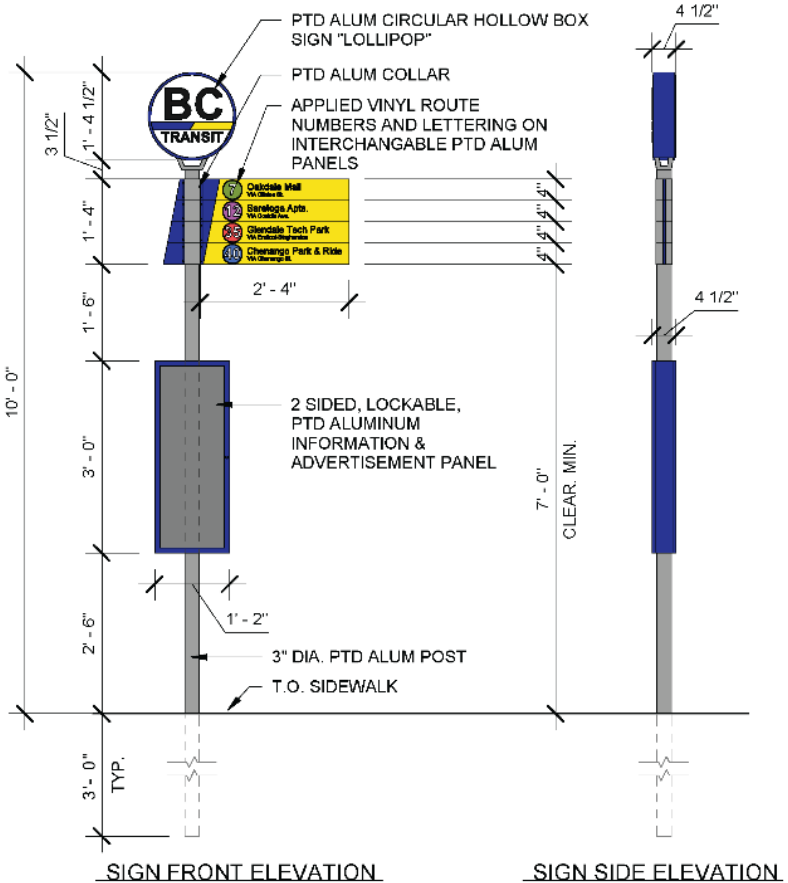


Utilize data to
support grant
applications

Informing Capital Investment - BMTS



2019



2020ish



2023

BENEFITS

- Full inventory of roadside assets
- Identify missing or incorrect signs
- Identify infrastructure condition issues
- Develop short-term action plan
- Inform medium-term capital plan
- Support grant applications
- Identify gaps in workflow processes

COSTS

- Time & manpower intensive
- Training & oversight costs
- Data validation could require revisits
- Provides only a snapshot in time
- Transfer of GIS project could incur additional costs
- May not be compatible with other asset management or HASTUS



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Thank You!

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