Multimodal System Inventory for Metropolitan Areas

Virtual Briefing #3

December 8, 2025

1:00 pm – 2:00 pm

Oregon Department of Transportation

ODOT Multimodal Inventory Project

AGENDA

Time	Topic
5 mins	Welcome and Agenda Review
5 mins	Project Overview and Updates
20 mins	Data Gathering and Findings
20 mins	Proposed Data Management Approach
10 mins	Open Discussion and Q&A

Throughout today's meeting, add your questions and comments to the chat box.

Project Updates

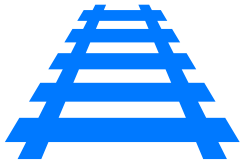
What is the Multimodal Inventory Project?

A collaborative effort to produce a multimodal dataset that supports local planning needs, aligns with the updated TPR and can be maintained over the long-term.

Project Outcomes

Standarized, multimodal datasets to comply with the updated TPR *(Geometry & Attributes)*

Methodologies for Data Collection, Processing, and QA/QC



Long-Term Data Management and Maintenance Framework

Using the data in Transportation System Plans

A TSP describes the existing transportation system and the projects, programs, and policies that will allow a community to meet its transportation needs and aspirations now and 20 years into the future.

Start the community conversation	Existing Conditions	Analyze Future Needs	Define Solutions	Create project list	Adopt, implement and revisit
Define goals, issues, and existing needs	Collect data about what is 'on the ground' now	If no changes are made, how will things look in 20 years?	What projects and programs can address needs for people driving, biking, walking, and taking transit? How can we achieve the 20-year vision?	Prioritize solutions that fit within likely budget	Revisit plans on regular basis Report progress on performance measures

Using the data in Transportation System Plans

A TSP describes the existing transportation system and the projects, programs, and policies that will allow a community to meet its transportation needs and aspirations now and 20 years into the future.

Start the community conversation	Existing Conditions	Analyze Future Needs	Define Solutions	Create project list	Adopt, implement and revisit
Create maps to support discussion of existing issues and future vision	Illustrate status & condition of the multimodal system - Pedestrian - Bicycle - Transit - Roadway - Crash analysis	Crash analysis Level of traffic stress Other performance measures (v/c, etc.) Travel demand modeling	Where do we need to fill gaps in the ped/bike system? Does modeling show a need to expand vehicle capacity? Are we serving key destinations?	Use the data to refine locations and extents of solutions	Track progress on: - Level of traffic stress - Safe, convenient ped crossings - Transit stops with nearby safe ped crossing

Longer-term opportunities

- Leverage our efforts today for long-term efficiencies
- Regional planning using a standardized dataset
- Active transportation planning, including safe routes to school and level of traffic stress
- Performance tracking and reporting on topics like connectivity, LTS, safety
- Pedestrian crossing gaps analysis and infill planning

Project Updates

2024 / Pilot Cohort:

- Draft data setup complete (without intersection data)
- Data review underway – Ashland, Salem and Keizer
- Final Data Delivered to Albany, Millersburg, Beaverton

Ashland	Albany	Millersburg
Beaverton	Keizer	Salem

Project Updates

2025 Cohort:

- Almost all draft data setup complete (without intersection data)
- QA / QC underway
- Final Data Delivered to Eagle Point

Bend	Hillsboro	Sherwood
Clackamas County	Jackson County	Springfield
Coburg	Jacksonville	Tualatin
Deschutes County	Medford	Washington County
Eagle Point	Multnomah County	Wilsonville
Forest Grove	Phoenix	
Gold Hill	Portland	

Project Updates

2026 Cohort:

- Will begin setting up intro calls in Dec/Jan timeframe
- Conducted first kick off meeting with City of Corvallis – expediting data processing to support local planning project

Adair Village	Gladstone	Lake Oswego	Rogue River
Benton County	Grants Pass	Lane County	Talent
Central Point	Gresham	Linn County	Tangent
Cornelius	Happy Valley	Marion County	Tigard
Corvallis	Jackson County	Maywood Park	Troutdale
Durham	Jefferson	Milwaukie	Turner
Eugene	Johnson City	Oregon City	West Linn
Fairview	Josephine Count	Philomath	Wood Village
	King City	Rivergrove	

Project Engagement

Multimodal Inventory Steering Committee (MISC)

ODOT staff who advise project management team on key project elements like:

- Inventory needs
- Collection methodologies
- Analysis
- Long-term data maintenance and management

Statewide Technical Advisory Committee (STAC)

Jurisdictional staff made up by:

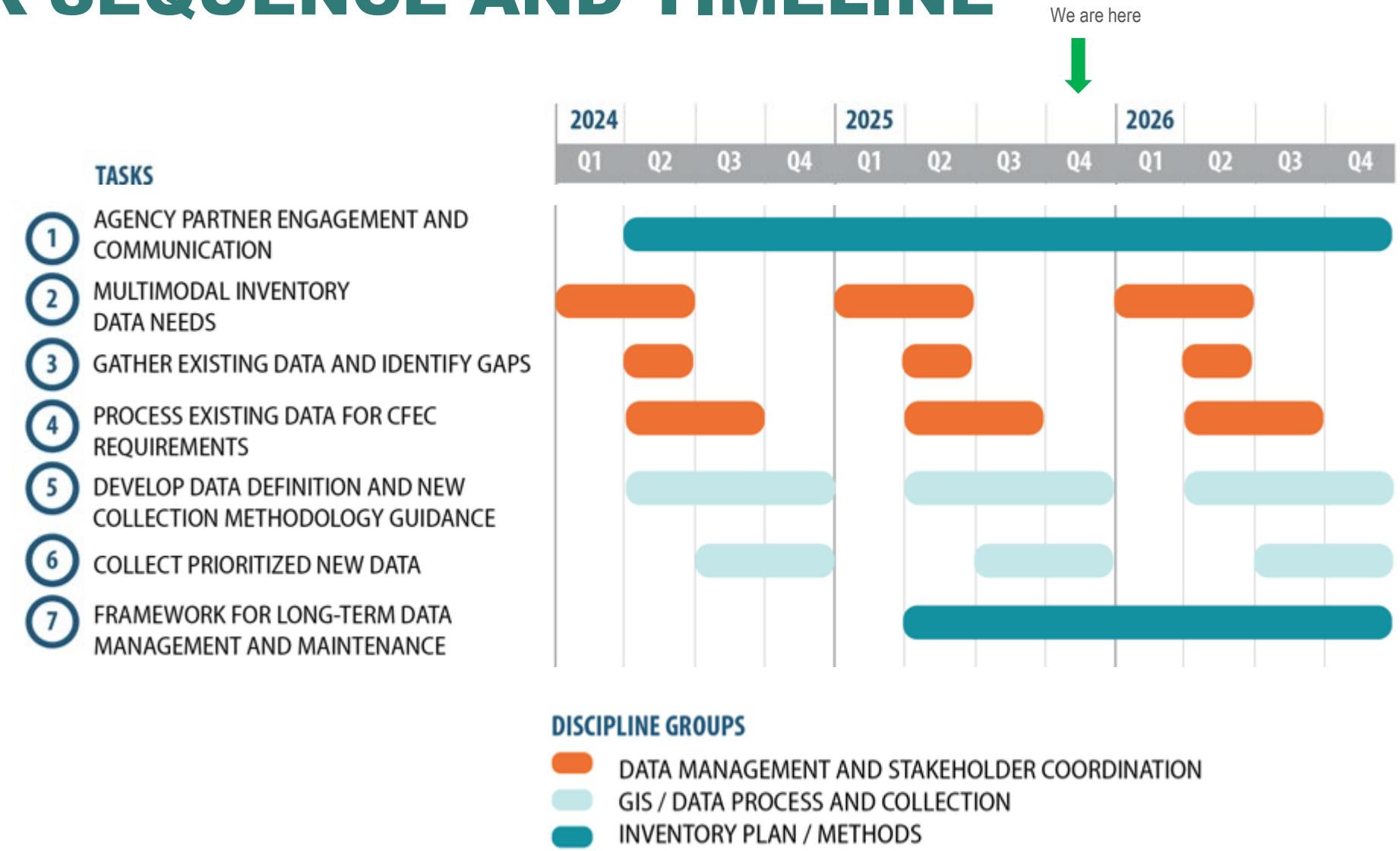
- GIS staff
- Planners
- Public works / asset managers

This committee advises on similar topics as the MISC but from the local perspective.

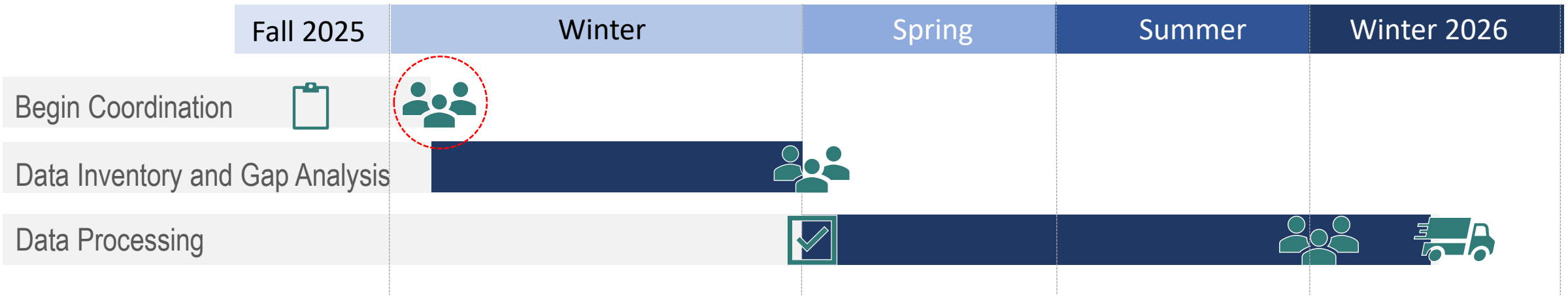
Other

+ 3 Project Briefings
+ Bimonthly project emails
+ Presentations and more

TASK SEQUENCE AND TIMELINE



Upcoming Data Processing Schedule (2026 Cohort)



Coordination

Survey

Data Check-out / Check-in

Data Delivery

Data Gathering and Findings

Project Datasets Updates

VEHICULAR + FREIGHT FACILITIES

- **Roadways**
- **Freight Routes**
- **Freight Terminals**

BICYCLE + PEDESTRIAN FACILITIES

- *Bicycle Routes*
- *Pedestrian Routes*
- *Pedestrian and Bicycle Crossings*

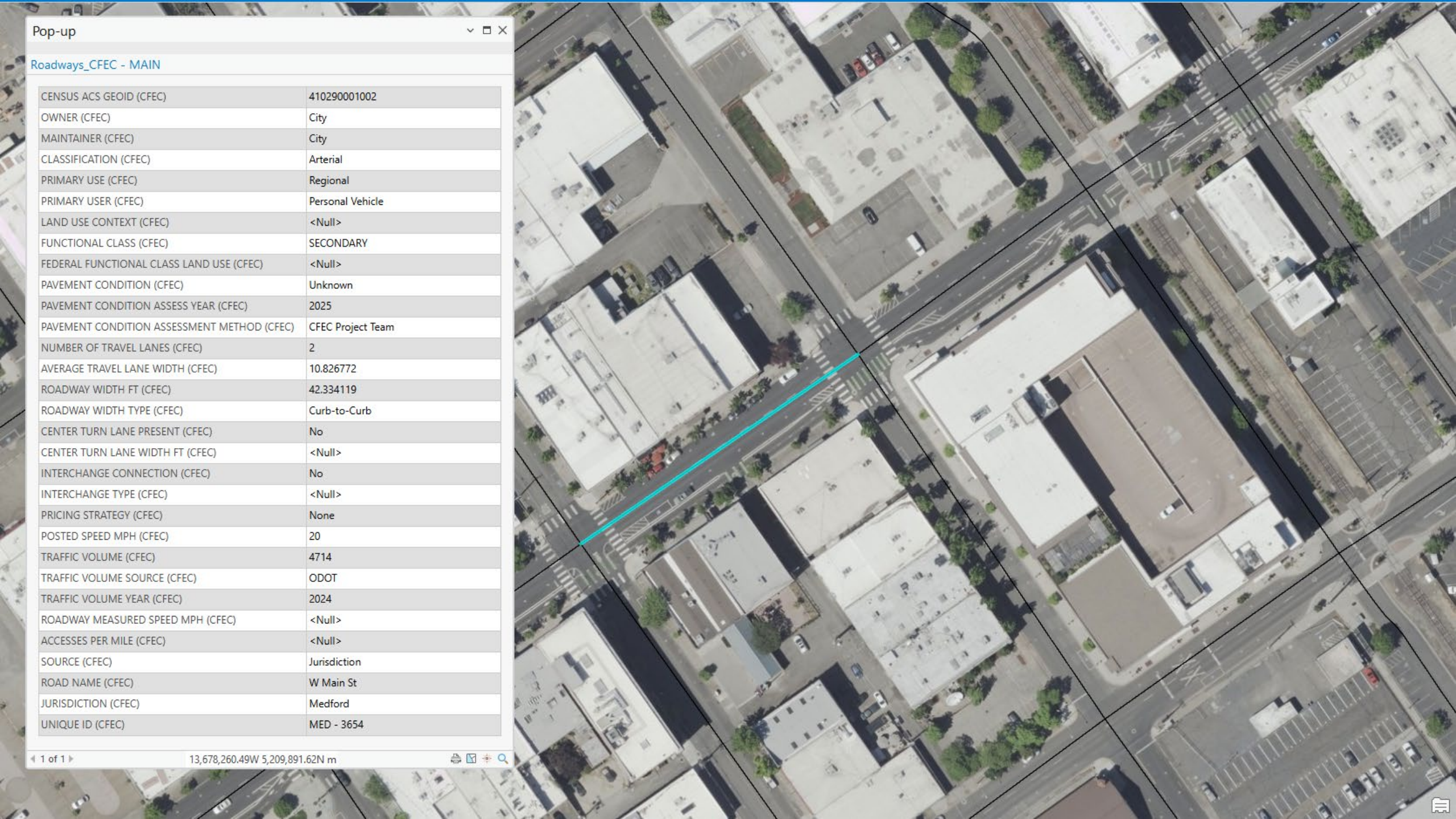
TRANSIT FACILITIES

- Transit Lines
- Transit Supportive Facilities (Stops)
- Transit Priority Infrastructure

OTHER RELEVANT DATA

- Key Destinations*
- Crashes
- *Intersection Points*

Bold = Update existing jurisdiction data
Italic = Develop using AI
* = Jurisdictions to populate during TSP


Pop-up
Roadways_CFEC - MAIN
CENSUS ACS GEOID (CFEC) 410290001002
OWNER (CFEC) City
MAINTAINER (CFEC) City
CLASSIFICATION (CFEC) Arterial
PRIMARY USE (CFEC) Regional
PRIMARY USER (CFEC) Personal Vehicle
LAND USE CONTEXT (CFEC) <Null>
FUNCTIONAL CLASS (CFEC) SECONDARY
FEDERAL FUNCTIONAL CLASS LAND USE (CFEC) <Null>
PAVEMENT CONDITION (CFEC) Unknown
PAVEMENT CONDITION ASSESS YEAR (CFEC) 2025
PAVEMENT CONDITION ASSESSMENT METHOD (CFEC) CFEC Project Team
NUMBER OF TRAVEL LANES (CFEC) 2
AVERAGE TRAVEL LANE WIDTH (CFEC) 10.826772
ROADWAY WIDTH FT (CFEC) 42.334119
ROADWAY WIDTH TYPE (CFEC) Curb-to-Curb
CENTER TURN LANE PRESENT (CFEC) No
CENTER TURN LANE WIDTH FT (CFEC) <Null>
INTERCHANGE CONNECTION (CFEC) No
INTERCHANGE TYPE (CFEC) <Null>
PRICING STRATEGY (CFEC) None
POSTED SPEED MPH (CFEC) 20
TRAFFIC VOLUME (CFEC) 4714
TRAFFIC VOLUME SOURCE (CFEC) ODOT
TRAFFIC VOLUME YEAR (CFEC) 2024
ROADWAY MEASURED SPEED MPH (CFEC) <Null>
ACCESSES PER MILE (CFEC) <Null>
SOURCE (CFEC) Jurisdiction
ROAD NAME (CFEC) W Main St
JURISDICTION (CFEC) Medford
UNIQUE ID (CFEC) MED - 3654
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13,678,260.49W 5,209,891.62N m

Project Datasets: Roadways

Technical Adjustments

- Alternative Source (E911)
- Additional Fields
- Developed AADT Priority

Lessons Learned

- AI has a hard time allocating lanes when there is no center stripe.
- AI has a hard time locating all center turn lanes.

Required TPR Attributes

- Location
- Ownership
- Maintenance Responsibility
- Classificaton
- Primary Uses
- Primary Users
- Land Use Context
- Functional Classificaton
- Condition
- Condition Year
- Condition Methodology
- Number of Travel Lanes
- Lane Width
- Center Turn Lane
- Center Turn Lane Width
- Interchange Location
- Interchange Type
- Pricing Strategy
- Travel Speed
- Traffic Volume
- Traffic Volume Year
- Traffic Volume Source
- Roadway Width
- Roadway Width Type
- Federal Functional Classification
- Access Density
- Name
- Jurisdiction
- Unique ID

Description: All roadway facilities, including local roads, collectors, arterials, and expressways on public rights of way within a UGB.

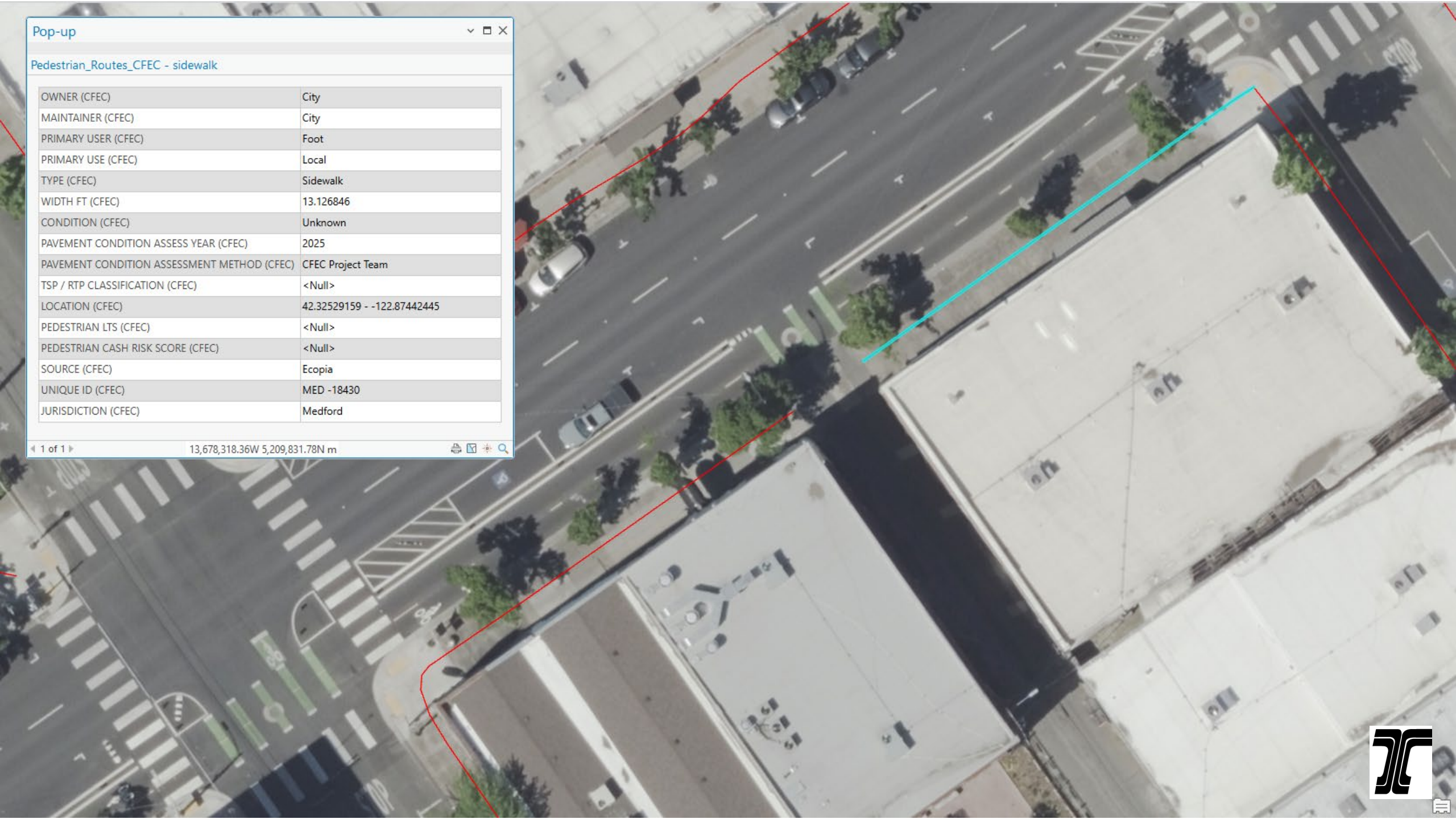
Geometry Type: Line

Source: Jurisdiction (Existing) or E911

Relevant TPRs: -0150, -0155, -0805

Project Phase: Primary

Level of Accuracy:
Spatial = Varies (existing data)
Attributes = High


Pop-up
Pedestrian_Routes_CFEC - sidewalk
OWNER (CFEC) City
MAINTAINER (CFEC) City
PRIMARY USER (CFEC) Foot
PRIMARY USE (CFEC) Local
TYPE (CFEC) Sidewalk
WIDTH FT (CFEC) 13.126846
CONDITION (CFEC) Unknown
PAVEMENT CONDITION ASSESS YEAR (CFEC) 2025
PAVEMENT CONDITION ASSESSMENT METHOD (CFEC) CFEC Project Team
TSP / RTP CLASSIFICATION (CFEC) <Null>
LOCATION (CFEC) 42.32529159 - -122.87442445
PEDESTRIAN LTS (CFEC) <Null>
PEDESTRIAN CASH RISK SCORE (CFEC) <Null>
SOURCE (CFEC) Ecopia
UNIQUE ID (CFEC) MED -18430
JURISDICTION (CFEC) Medford
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Project Datasets: Pedestrian Routes

Technical Adjustments

- Additional Fields
- Sidewalk and Trails Datasets
- Manually entering missing facilities

Required Attributes

- Location
- Owner
- Maintainer
- Use
- User
- Type
- Width
- Condition
- Condition Year
- Condition Methodology
- Classification/Designation
- Source
- Jurisdiction
- Unique ID

Secondary Attributes

- Level of Traffic Stress Inputs *
- Crash Risk Inputs *

Description: All paved pedestrian and shared use facilities on public rights of way within a UGB.

Geometry Type: Line

Source: Jurisdiction (Existing) + AI

Relevant TPRs: -0150, -0155, -0505, -0905

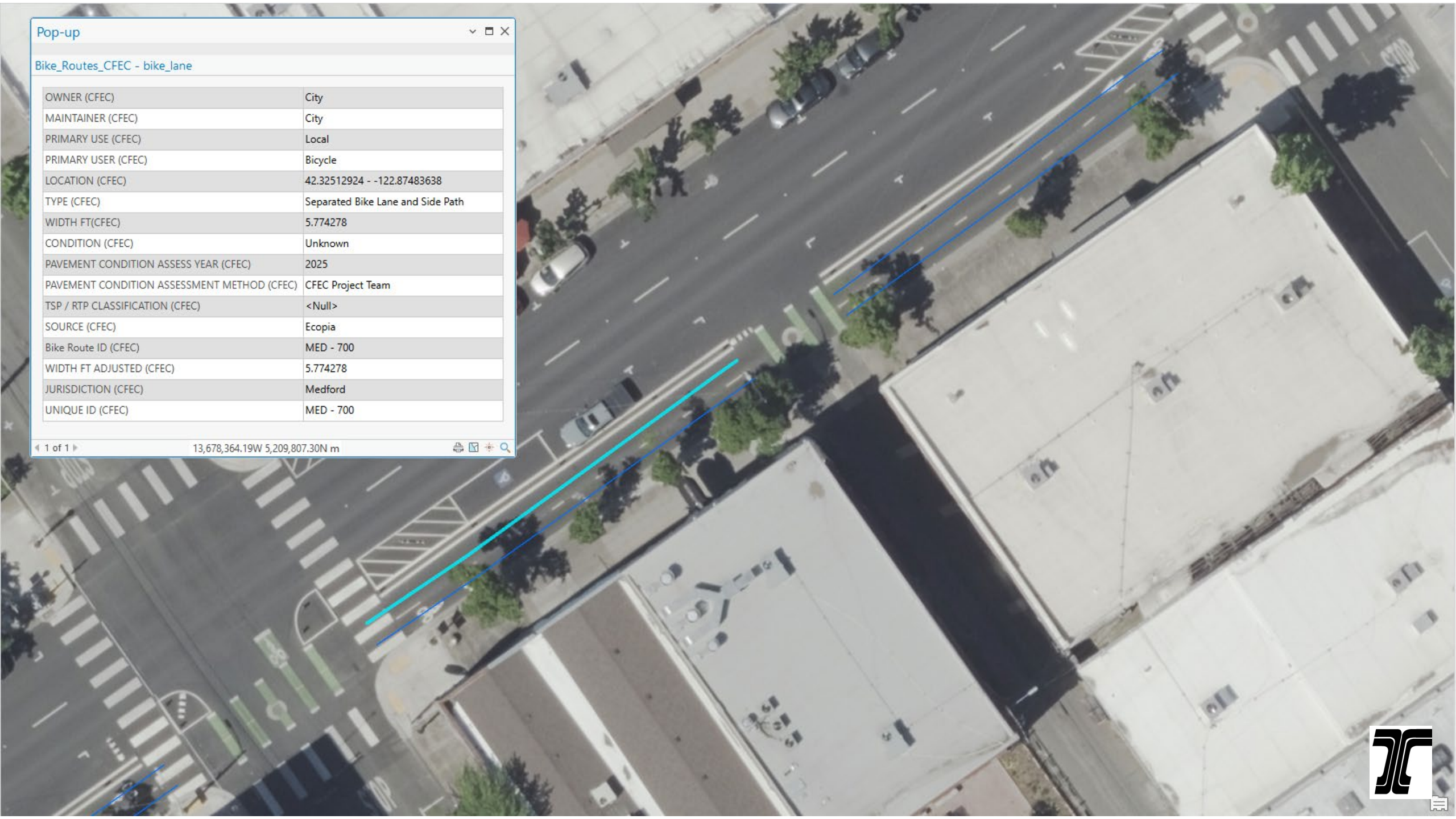
Project Phase: Primary

Level of Accuracy:
Spatial = High
Attributes = Moderate

Project Datasets: Pedestrian Routes

Lessons Learned So Far…

- AI has a hard time locating data in tree / tall building cover.
- AI derived widths can be inaccurate, but project team does not have the resources to review.
- AI derived widths are too detailed. Some jurisdictions will add a field to put them in bins (ex: 1-4', 5-8', >8')
- Some jurisdictions have a sidewalk layer with trails; others have a sidewalk layer as well as a trails layer.
- Jurisdictions vary on whether they want non-ROW facilities included. (ex: Southern Oregon Univ. Campus)
- Condition attribute may not be accurate enough for jurisdictions to have confidence.


Pop-up
Bike_Routes_CFEC - bike_lane
OWNER (CFEC) City
MAINTAINER (CFEC) City
PRIMARY USE (CFEC) Local
PRIMARY USER (CFEC) Bicycle
LOCATION (CFEC) 42.32512924 - -122.87483638
TYPE (CFEC) Separated Bike Lane and Side Path
WIDTH FT(CFEC) 5.774278
CONDITION (CFEC) Unknown
PAVEMENT CONDITION ASSESS YEAR (CFEC) 2025
PAVEMENT CONDITION ASSESSMENT METHOD (CFEC) CFEC Project Team
TSP / RTP CLASSIFICATION (CFEC) <Null>
SOURCE (CFEC) Ecopia
Bike Route ID (CFEC) MED - 700
WIDTH FT ADJUSTED (CFEC) 5.774278
JURISDICTION (CFEC) Medford
UNIQUE ID (CFEC) MED - 700
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Project Datasets: Bicycle Routes

Technical Adjustments

- Additional Fields
- Widths of narrow (<3ft) and wide (>9ft) need to be reviewed
- Updated Types
- Manually entering missing facilities

Required Attributes

- Location
- Type
- Width
- Review Width
- Condition
- Condition Year
- Condition Methodology
- Classification/Designation
- Jurisdiction
- Unique ID
- Source

Secondary Attributes

- Level of Traffic Stress Inputs *
- Crash Risk Inputs *

Description: All paved, marked bicycle facilities on public rights of way within a UGB.

Geometry Type: Line

Source: Jurisdiction (Existing) + AI

Relevant TPRs: -0605(1), -0610(1), -0150(4)(a), -0155(5)(a), -0905(2)(b)(A)

Project Phase: Primary

Level of Accuracy:
Spatial = High
Attributes = Moderate

Project Datasets: Bicycle Routes

Lessons Learned So Far…

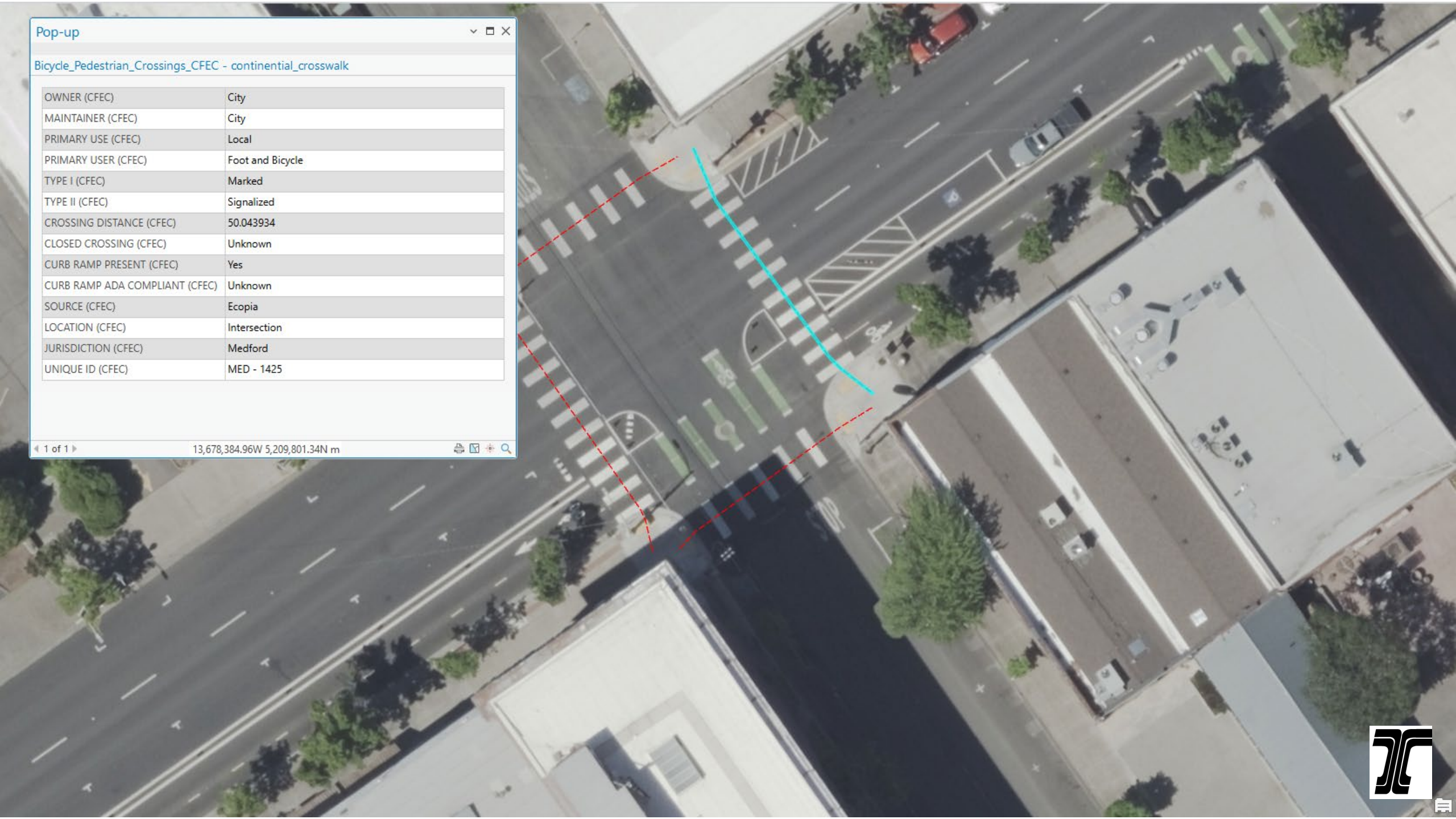
- AI has a hard time locating data in tree / tall building cover.
- AI derived widths can be inaccurate when the striping is limited, or there is adjacent parking.
- Identifying physical buffers (bollards, curbs) is difficult.
- Identifying Bike Boulevards as a type will require designation from jurisdictions.
- Identifying Paved Shoulders as a type will require designation from jurisdictions.
- AI derived lines do not extend through intersections.

Project Datasets: Bicycle Routes

Updating Bike Route Types

- Fall 2024: Bike/Ped Working Group direction to define bike route types using AASHTO Bike Guide typology.
- Summer 2025: Project team identifies need to distinguish between striped bike lanes and no marked ROW.
- Solution: Subdivide AASHTO category into striped lanes vs. shared facilities

AASHTO Bicycle Facility Type	MM Inventory Type
Shared Lanes and Bike Lanes	Shared Lane
	Bike Lanes (including buffered bike lanes utilizing only paint, no physical or elevation barrier)


Pop-up
Bicycle_Pedestrian_Crossings_CFEC - continential_crosswalk
OWNER (CFEC) City
MAINTAINER (CFEC) City
PRIMARY USE (CFEC) Local
PRIMARY USER (CFEC) Foot and Bicycle
TYPE I (CFEC) Marked
TYPE II (CFEC) Signalized
CROSSING DISTANCE (CFEC) 50.043934
CLOSED CROSSING (CFEC) Unknown
CURB RAMP PRESENT (CFEC) Yes
CURB RAMP ADA COMPLIANT (CFEC) Unknown
SOURCE (CFEC) Ecopia
LOCATION (CFEC) Intersection
JURISDICTION (CFEC) Medford
UNIQUE ID (CFEC) MED - 1425
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Project Datasets: Marked Crossings

Technical Adjustments

- Additional Fields
- Splitting AI-derived Crossings
- Revised Crossing Distanct Methodology
- ADA Accessibility will be jurisdictions responsibility
- Manually entering missing facilities

Required Attributes

- Location
- Owner
- Maintainer
- User
- Use
- Type
- Crossing Distance
- Closed Crossings
- Curb Ramp Present
- ADA Accesibility
- Jurisdiction
- Unique ID

Secondary Attributes

- Distance Between Crossings
- Crossing Treatment

Description: Pedestrian and bicycle crossings with striping on public rights of way within a UGB.

Geometry Type: Line

Source: Jurisdiction (Existing) + AI

Relevant TPRs: -0505(1)(b), 0155(5)(a), -0605(1), -0155(5)(a), -0905(2)(b)(A)

Project Phase: Primary

Level of Accuracy:
Spatial = High
Attributes = High

Project Datasets: Marked Crossings

Lessons Learned So Far…

- AI has a hard time locating data in tree / tall building cover.
- AI picks up crossings with pavers and other non-compliant treatments.
- AI derived geometery cannot be used for lengths and instead requires a process including AI derived land use.
- AI derived crossings include additional lines to connect to pedestrian facilities. These lines must be queried out when inventorying crossings.

Pop-up

Intersection Points - 1

BIKE FACILITY TYPE (CFEC)	<Null>
LANES PER DIRECTION (CFEC)	1 Lane
PARKING WIDTH (CFEC)	<Null>
BIKE LANE WIDTH (CFEC)	<Null>
BIKE LANE BUFFER PRESENCE (CFEC)	No
BIKE LANE BUFFER WIDTH (CFEC)	<Null>
BIKE LANE BUFFER TYPE (CFEC)	<Null>
RIGHT TURN LANE LENGTH (CFEC)	0
BIKE LEFT TURN LANES CROSSED (CFEC)	0
INTERSECTION TYPE (CFEC)	Roundabout
MEDIAN REFUGE (CFEC)	Yes
MEDIAN WIDTH (CFEC)	<Null>
ROUNDABOUT ENTRY TYPE (CFEC)	Single Entry
ROUNDABOUT EXITY TYPE (CFEC)	Single Exit
ROUNDABOUT # OF CIRCULATING LANES (CFEC)	1 Lane
SIDEWALK PRESENCE (CFEC)	<Null>
SIDEWALK WIDTH (CFEC)	0
SIDEWALK BUFFER TYPE (CFEC)	<Null>
SIDEWALK BUFFER WIDTH (CFEC)	0
PEDESTRIAN LANES CROSSED (CFEC)	<Null>
SIDEWALK RAMPS (CFEC)	<Null>
CROSSWALK TREATMENT - MARKINGS (CFEC)	Yes
CROSSWALK TREATMENT - RAISED (CFEC)	Unknown
CROSSWALK TREATMENT - FLASHING BEACON (CFEC)	Unknown
CROSSWALK TYPE (CFEC)	<Null>
TEMP_TOTAL_LANES	2
JURISDICTION (CFEC)	<Null>
UNIQUE ID (CFEC)	<Null>

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Project Datasets: Intersections (IN PROGRESS)

Technical Adjustments

- Consider removing redundant fields (ex. Bike Lane Type)
- May require adjusting domain values (ex. Bike Lane Buffer Type)
- Will likely require team to remove some intersections

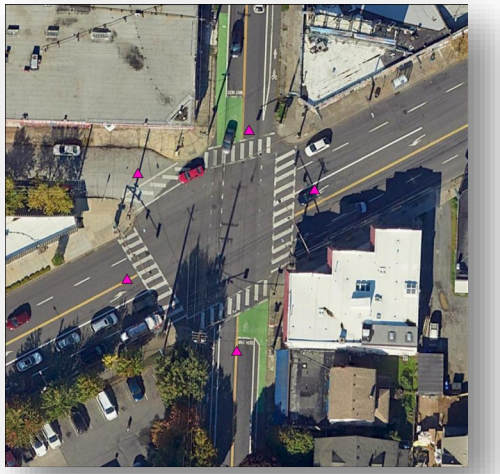
Lessons Learned so Far…

- AI derived attributes vary in terms of accuracy. This is due to the complexity of the attributes.
- This dataset will require the highest LOE for jurisdictions to review and update.

Required Attributes

- **Lanes per direction**
- Parking Presence
- Parking Width
- Frequent Blockage
- **Bike Lane Buffer Presence**
- Bike Lane Buffer Width
- Bike Lane Buffer Type
- **Right Turn Lane Type for Bicycle Users**
- **Right / Left Turn Lane Length**
- Right / Left Turn Lane Vehicle Speed
- **Bicycle Left Turn Lanes Crossed**
- Intersection Type
- **Median Refuge**
- **Median Refuge Width**
- Unsignalized One-way or Two-way
- Unsignalized Prevailing Speed
- **Roundabout Entry / Exit Type**
- **Roundabout Entry / Exit Approach**
- **Roundabout # of Circulating Lanes**
- Sidewalk Buffer Type
- **Sidewalk Buffer Width**
- Illumination Presence
- Sidewalk Ramps
- Treatments - Markings
- Treatments – Roadside Signage
- Treatments – PHB or RRFB
- Treatments – Street Signs
- Treatments – Curb Extensions
- Treatments – Raised Crosswalk
- Treatments – Flashing Beacon

(**Bold = AI Derived Attribute**)



Description: Points for each road entering an intersection. This dataset will be used primarily for BLTS and PLTS analyses. This dataset would only apply to collector and arterial streets. Typically, this dataset is developed manually, and it may not be possible to develop a statewide dataset with the specified level of detail.
Geometry Type: Point

Source: AI + Project Team

Relevant TPRs: -0905(2)(b)(A)

Project Phase: Contingency

Level of Accuracy:
Spatial = Moderate
Attributes = Moderate

What has your experience been like?

Dave Jacobus, City of Albany

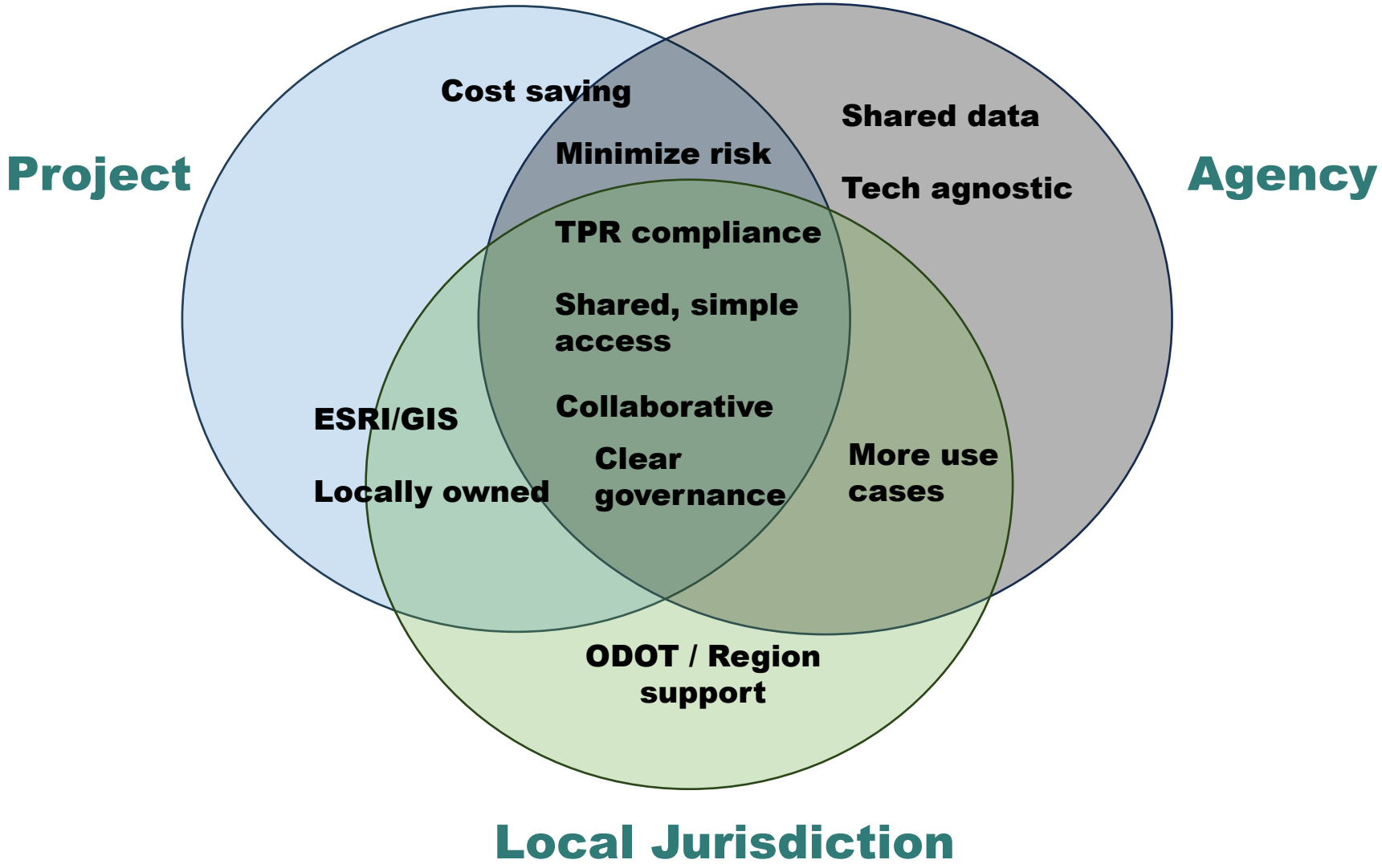
Proposed Data Management Approach

Building a Dataset for the Long-Term

A long-term governance strategy is necessary to ensure a sustainable dataset. The long-term plan will cover:

- Collaboration, coordination and communication (IGAs, roles, governance structure, etc)
- Data classification
- Data standards and definitions
- Policies on access, usage and security
- Data storage & technologies (how and where)
- Data processes, lineage, quality assurance

Project, Local Jurisdiction, and Agency Goals



Benefits of a long-term dataset

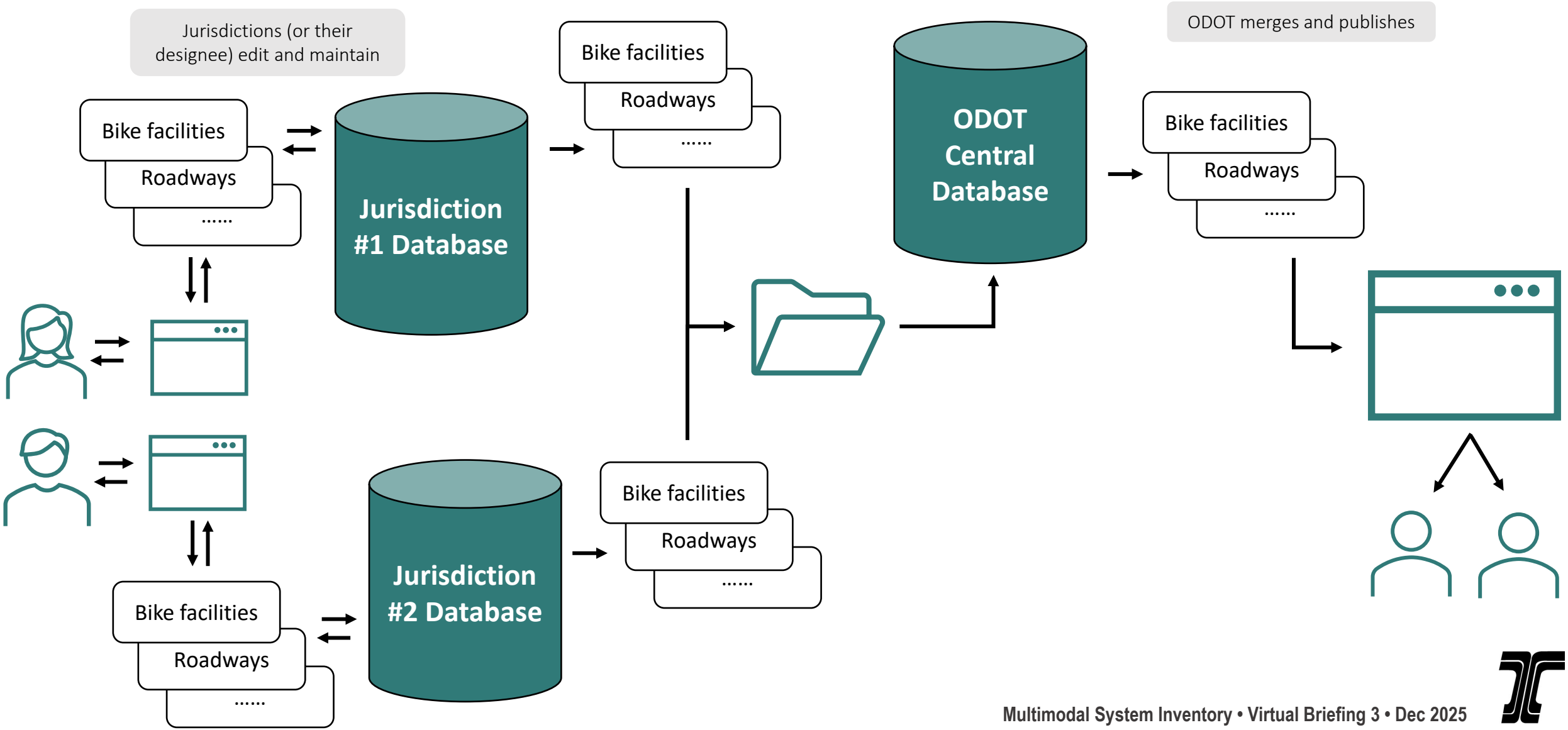
- Regional planning using a standardized dataset – that we may be able to continue building on (geographically or for specific attributes)
- Incremental ongoing maintenance to save costs at the local level
- Can support ongoing performance tracking and reporting on topics like transit access, LTS, safety

Proposed Data Management Approach

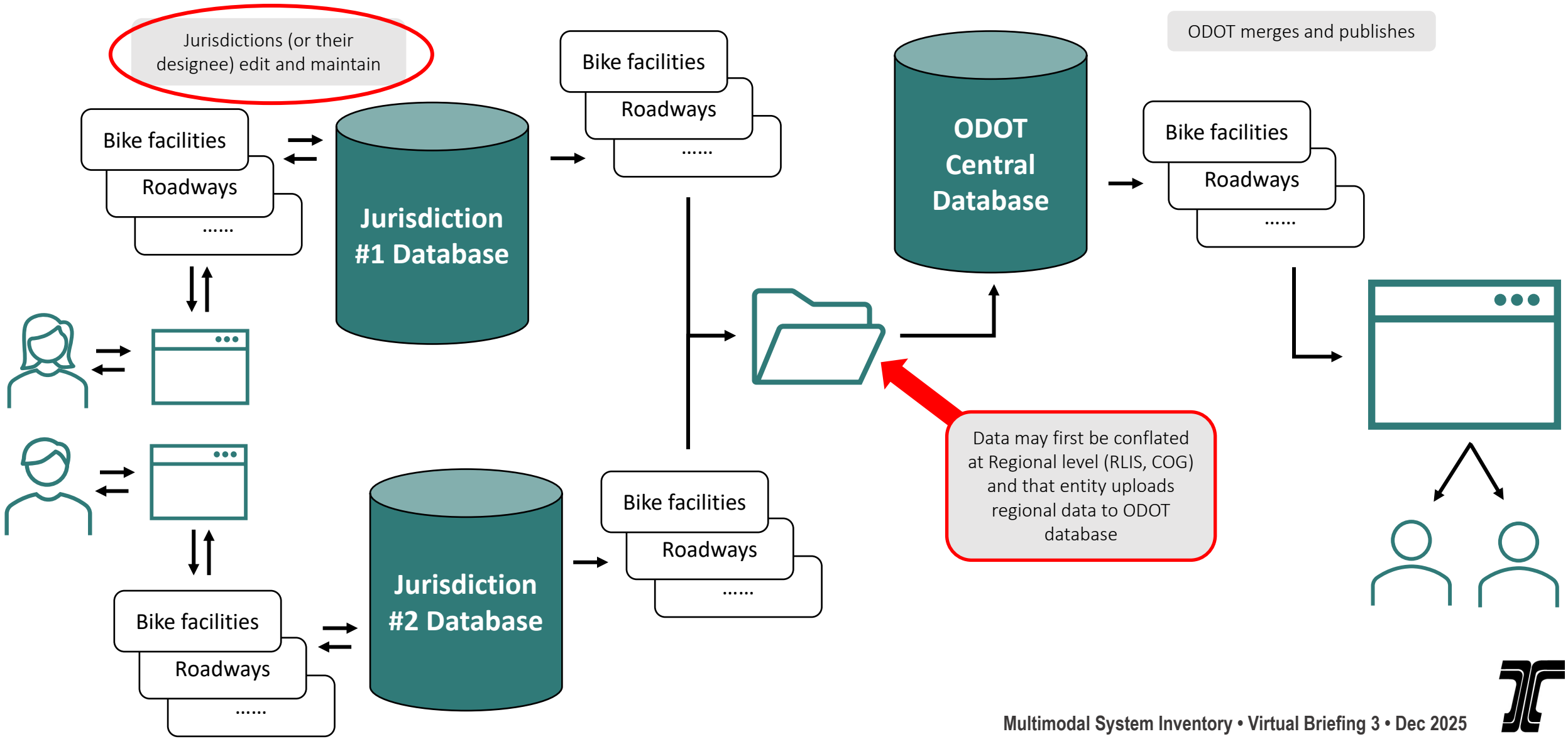
Hybrid approach

- Builds on feedback that state / regional roles are valuable
- Local agencies maintain autonomy & authoritative local data
- Local agencies will perform QA/QC and data upkeep
- ODOT will conflate and store data on enterprise GIS
- ODOT will continue to manage and contribute statewide layers

Collaborative Data Management



Collaborative Data Management



Roles

Local Jurisdictions/ Regional Agencies	ODOT
Local jurisdictions edit & maintain data for local system. May be in partnership with COG/Metro.	**ODOT maintains its existing statewide data layers and is the data administrator – responsible for collating & publishing statewide dataset**
Roadways	Freight routes
Pedestrian facilities	Freight terminals
Bike facilities	Transit lines
Pedestrian and bike crossings	Transit stops
Key destinations	Crashes
Intersection points	Conflated statewide layer
Transit priority infrastructure*	

*transit provider provides

Versioning / Release Ideas

- Statewide data releases once or twice a year
- No interim updates, but data collated from locals up to release time
- Older versions available
- All features for all data sets uploaded with each release
- Statewide dataset published as a webmap
- Project partners have full data download access via prior IGA. New data users complete a request form to access the data via download
- Local agencies own the data and can share it as needed

Longer term collaboration

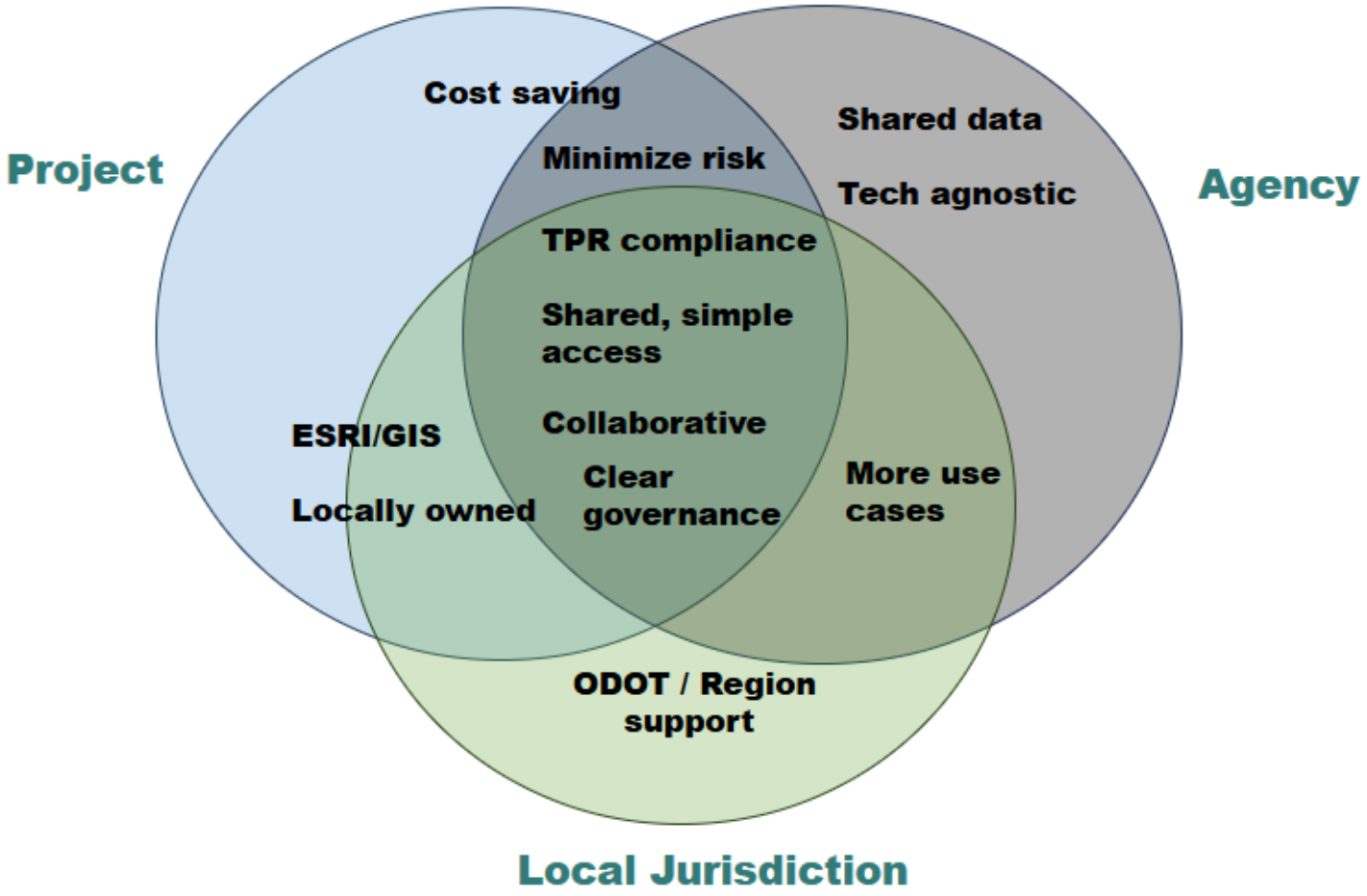
ODOT team is exploring IGA / MOU options to document agreements on:

- Coordination protocols, roles, governance structure, etc
- Data classification, standards and definitions
- Policies on access, usage and security
- Data storage & technologies (how and where)
- Data processes, lineage, quality assurance

Considering if an oversight body would be valuable for:

- Data schema revisions and schedule for rollout
- Improvements to data or workflows
- Outreach, training, documentation, funding opportunities
- Licensing and use agreements

Proposed Data Management Approach



- ✓ Locally owned
- ✓ ESRI/GIS
- ✓ ODOT / Region support
- ✓ Cost savings
- ✓ Min risk
- ✓ TPR compliance
- ✓ Shared, simple access
- ✓ Collaborative
- ✓ Governance *(in progress)*
- ✓ Shared data
- ✓ More use cases

✓ = partial fulfillment

Open Discussion and Q&A

Next Steps

- Review and finalize datasets for 2024 & 2025 Cohorts
- Reach out to 2026 Cohort members to begin data processing
- Final data delivery meetings with each jurisdiction
- Draft long term data management plan for committee review in early 2026

Sign up for project GovDelivery emails to stay up to date!