JOINT FLORIDA
Model Task Force & Transportation
Data and Analytics Workshop

FTO
FORECASTING & TRENDS OFFICE

FDOT TDA
TRANSPORTATION DATA & ANALYTICS

Roadway Characteristics Inventory Basics Training

Transportation Data and Analytics Office

What State Road Number is I-10?
Which roads in my county are Federal Aid Eligible?
How many through lanes are from Milepoint 5 to Milepoint 7?

PUBLIC ROAD MILEAGE
STATE OF FLORIDA

FEDERAL ROADS — 2,284 miles

Indian Nations, USDA Forest Service, National Park Service, US Army Corps of Engineers, US Army, US Department of Defense, US Fish & Wildlife Service, NASA

STATE ROADS — 12,103 miles

Florida Department of Transportation (FDOT)

CITY ROADS — 38,205 miles
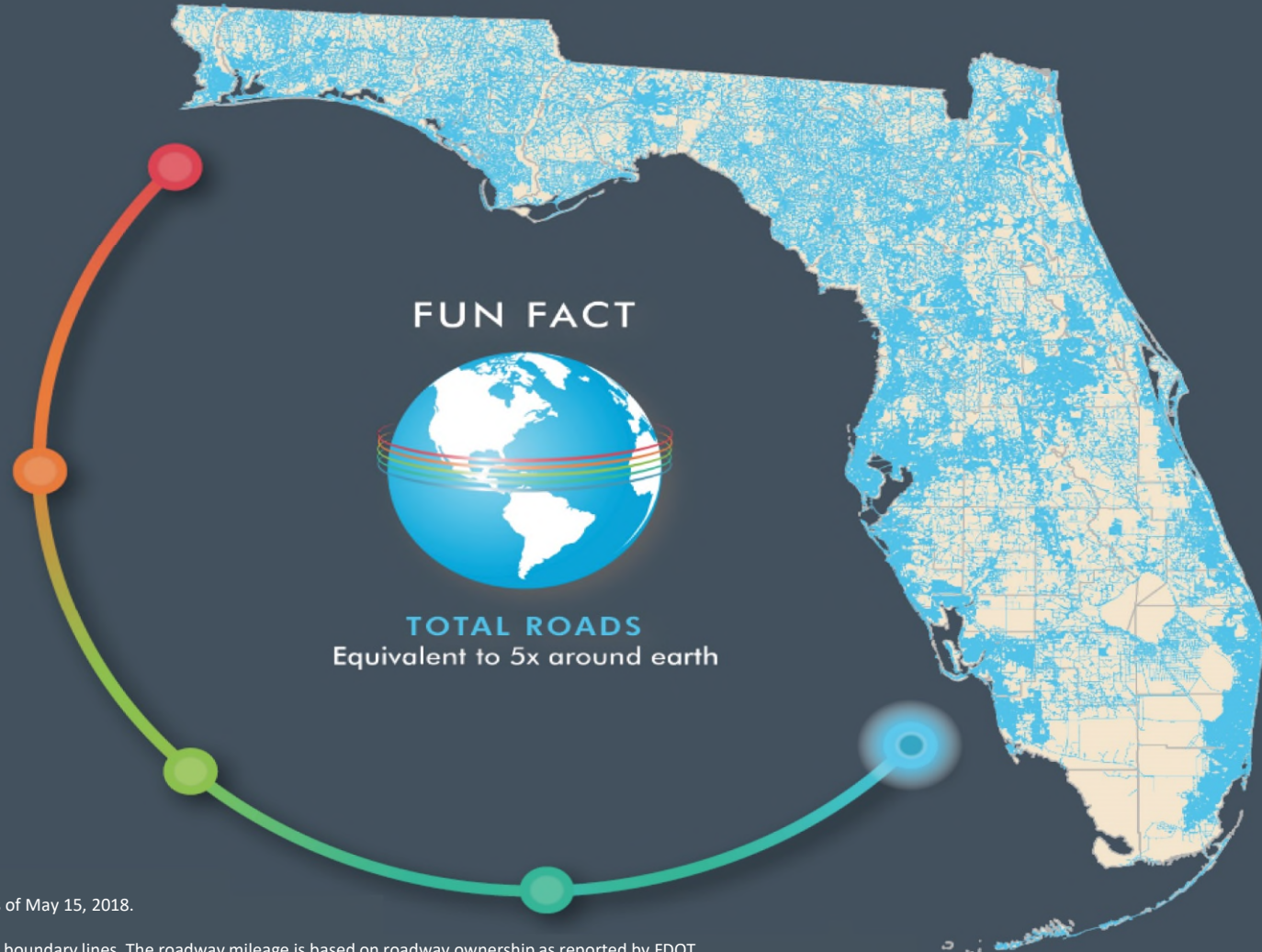
Roads within City boundaries only

COUNTY ROADS — 70,372 miles

Roads within County boundaries, but not City boundaries

TOTAL ROADS — 123,099 miles

All Public Roadways in Florida (paved & unpaved)

FUN FACT

TOTAL ROADS
Equivalent to 5x around earth

Map Source: US Census TIGER, used for graphical representation only.
Mileage Source: Certification of Public Road Mileage for the State of Florida, as of May 15, 2018.

Graphical representation of the roadway networks are based on administrative boundary lines. The roadway mileage is based on roadway ownership as reported by FDOT.

Roadway Characteristics Inventory Basics Training Goals

- Program Background
- Deliver High-Level Workflow View
- Explain RCI Data Model Components
- Understand Inventory Processes

Course Outline

- RCI Introduction
  - Statutes, Procedures, & Requirements
  - RCI Data Governance and Ownership
  - Handbooks and Manuals
- RCI Fundamentals
  - Mode types
  - The Roadway ID
  - Milepoints
  - The Data
- Data Collection Process
  - Pre-Inventory
  - Inventory
  - Post-Inventory

Introduction

Key Terms

- <u>Functional Classification</u> – the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

- <u>Local Roads</u> – Active OFF the SHS roads that are functionally classified below a collector

- <u>National Highway System (NHS)</u> – A system designated by congress that includes all Interstate routes, urban and rural principal arterials, the Strategic Highway Network, and Strategic Highway Network Connectors and connectors to approved Intermodal Facilities.

- <u>State Highway System (SHS)</u> – Roads under the jurisdiction of the Florida Department of Transportation (FDOT), state-chartered expressway authority, and other state agencies.

Roadway Characteristics Inventory Program

- The enterprise location system of record for multimodal transportation systems that include roadway, bicycle, pedestrian, rail, and SUNTrail and related existing asset information of State interest.

- Contains transportation data and other data as required for Federal and State Reporting purposes and ad-hoc data requests.

Statutes, Procedures, & Requirements

- Sections 20.23(3)(a) and 334.048(3) Florida Statutes (F.S.)

- General Interest Roadway Data (GIRD) Procedure, Topic No. 52-020-310
- Transportation System Jurisdiction and Numbering Procedure, Topic No. 25-020-010
- Urban Boundary and Functional Classification of Roadways, Topic No. 525-020-311
- Project Traffic Forecasting, Topic No. 525-030-120
- Traffic Monitoring, Topic No. 525-030-150
- Quality Assurance Reporting, Topic No. 260-030-005
- Data Governance, Topic No. 001-325-064
- Roadway Characteristics Inventory Traffic Operations Data, Topic No. 750-000-001
- Transportation Data Collection, Storage and Reporting, Topic No. 850-000-001
- Work Program Instructions Part III – Chapter 19: Location Information for Roadways, Bridges, and Trail Systems
- Complete Streets, Topic No. 000-625-017
- Assignment of Access Management Classifications to the State Highway System, Topic No. 525-030-155

Handbooks & Manuals

- RCI Data Handbooks are the go-to source for current data collection practices
- Contains instructions for data collection, entry, and usage for all area's of FDOT's RCI system

Related Resources
- Transportation System Jurisdiction and Numbering Handbook
- Urban Boundary and Functional Classification of Roadways Handbook
- Traffic Monitoring Handbook
- Routine Maintenance Cost Handbook
- Maintenance Rating Program Handbook
- Florida Design Manual
- FDOT Context Classification Document
- FHWA HPMS Field Manual
- FHWA Traffic Monitoring Guide
- FHWA Highway Functional Classification Concepts, Criteria and Procedures

RCI Data Governance and Ownership

FDOT Offices responsible for maintaining RCI data:
- Transportation Data and Analytics Office
- Office of Maintenance
- Traffic Engineering and Operations Office
- District Planning, Maintenance, and Operations Offices
- Systems Implementation Office
- Freight and Multimodal Operations Office

What Roads are required in RCI?

- Roads owned and maintained by FDOT
  - Road Status – Active On the SHS

- Functionally Classified Roadways
  - Arterial/Collector/Local
  - SHS/County Road System/City Street System

- HPMS Samples
  - On-System and Off-System Roads

- Local Roads of State interest
  - Programmed with FM Projects
  - Connectivity to Bridges/Rail Crossings
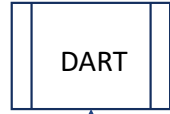 - National Highway System/Strategic Intermodal System Connectors
  - Scenic Highways

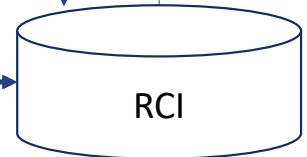# Typical District RCI Planning Data Collection Cycle

Business Notifications

FDOT Databases
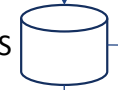
DART

Reports

Field Collection

RCI

Oracle/HPMS

LRS
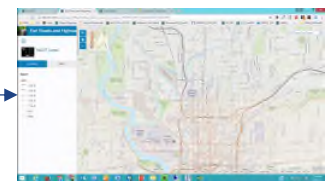
GIS Users

RITA

Mileage Reports

Roadway 55005500
0.000 – 15.000
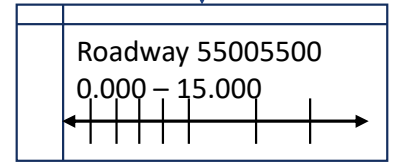
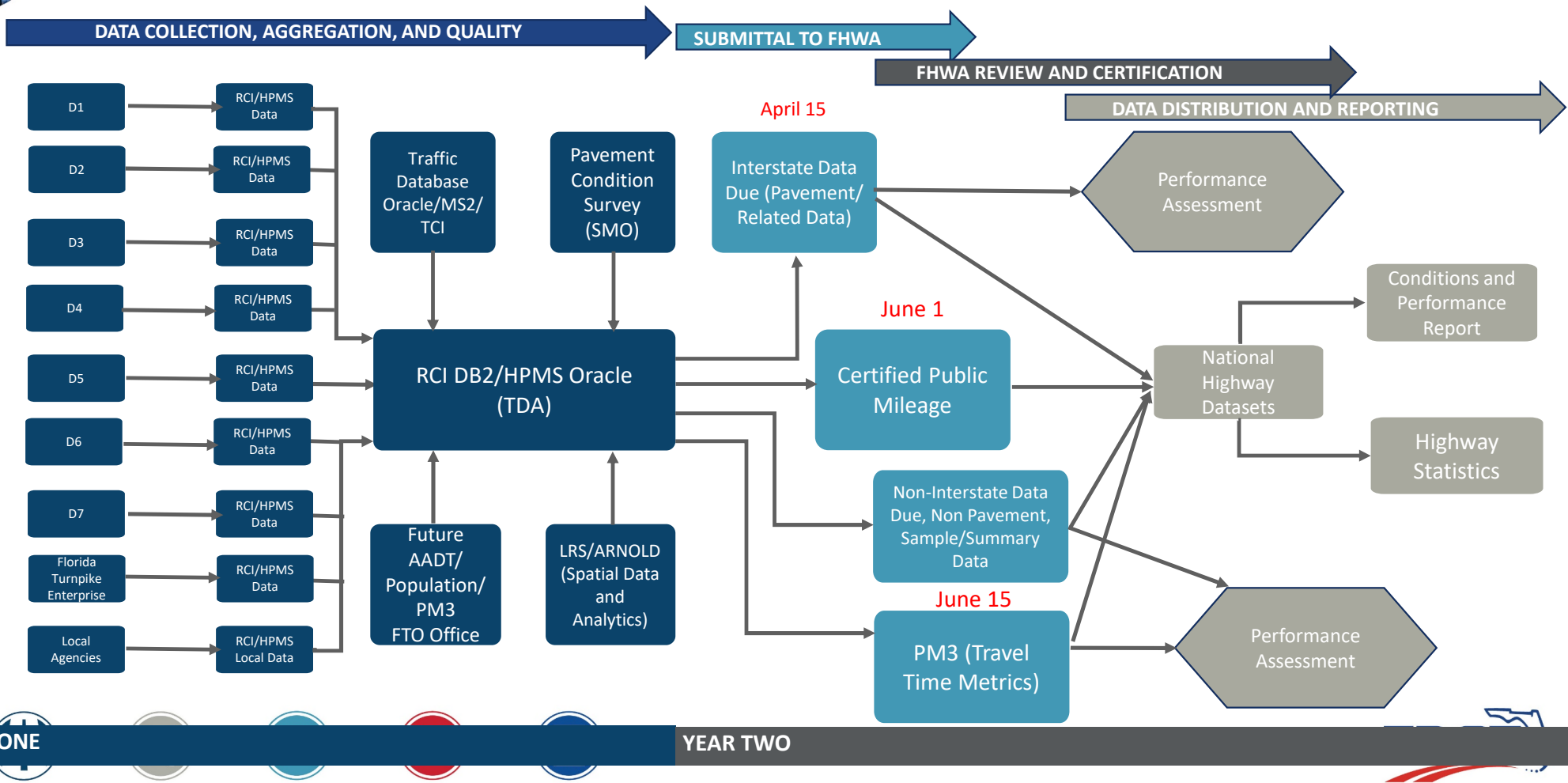Straight-Line Diagrams

Goal: 120 Days

Data Requirements and Uses

- Funding Apportionment
- Project Programming/Construction Tracking
- Planning/Design/Estimates
- Asset Management/Maintenance
- Safety and Crash Analysis
- Data Analysis, Research and Data Requests
- Highway System Condition and Performance Reporting
  - HPMS

FDOT HPMS Submission Cycle

DATA COLLECTION, AGGREGATION, AND QUALITY

SUBMITTAL TO FHWA

FHWA REVIEW AND CERTIFICATION

DATA DISTRIBUTION AND REPORTING

D1 → RCI/HPMS Data
D2 → RCI/HPMS Data
D3 → RCI/HPMS Data
D4 → RCI/HPMS Data
D5 → RCI/HPMS Data
D6 → RCI/HPMS Data
D7 → RCI/HPMS Data
Florida Turnpike Enterprise → RCI/HPMS Data
Local Agencies → RCI/HPMS Local Data

Traffic Database Oracle/MS2/TCI

Pavement Condition Survey (SMO)

Future AADT/ Population/ PM3 FTO Office

LRS/ARNOLD (Spatial Data and Analytics)

RCI DB2/HPMS Oracle (TDA)

April 15
Interstate Data Due (Pavement/ Related Data)

June 1
Certified Public Mileage

Non-Interstate Data Due, Non Pavement, Sample/Summary Data

June 15
PM3 (Travel Time Metrics)

Performance Assessment

National Highway Datasets

Conditions and Performance Report

Highway Statistics

Performance Assessment

YEAR ONE   YEAR TWO

RCI Fundamentals

Tina Thompson and Jerry Scott

Roadway Linear Reference System (LRS)

- The LRS is a collection of routes measured to a specific location using these methods
  - Interpolative is using the roadway length (e.g. 4 miles) and selecting a location along the line at 25% (e.g. At mile 1)
  - Referent from/to established physical locations (e.g. from Hi St intersection to Lo St intersection) and the route is measured along the roadway line.
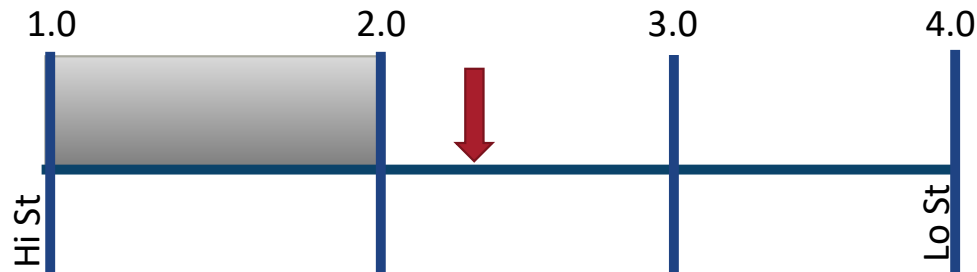
RCI Mode Types

- These are the three modes of travel in RCI, all of which are linear:

  - **Roadway** – a concrete, asphalt paved, or unpaved roadway.

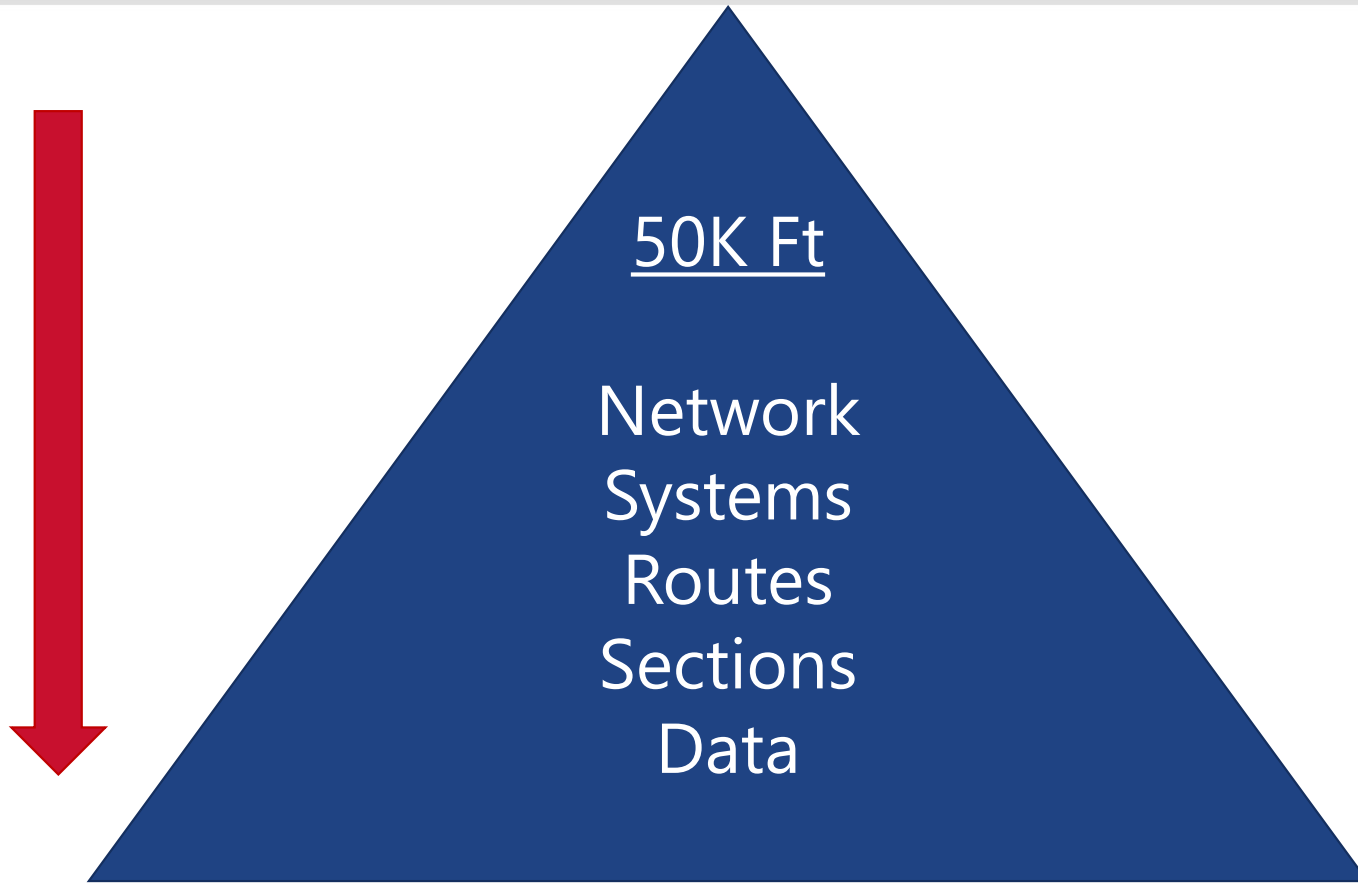 - **Non-Motorized Way (Trails)** – not a roadway or rail line.

  - **Rail line** – a rail line.

- While these are distinguishable by the Mode coded on the Roadway Section screen, they are also identifiable by the Section Number.
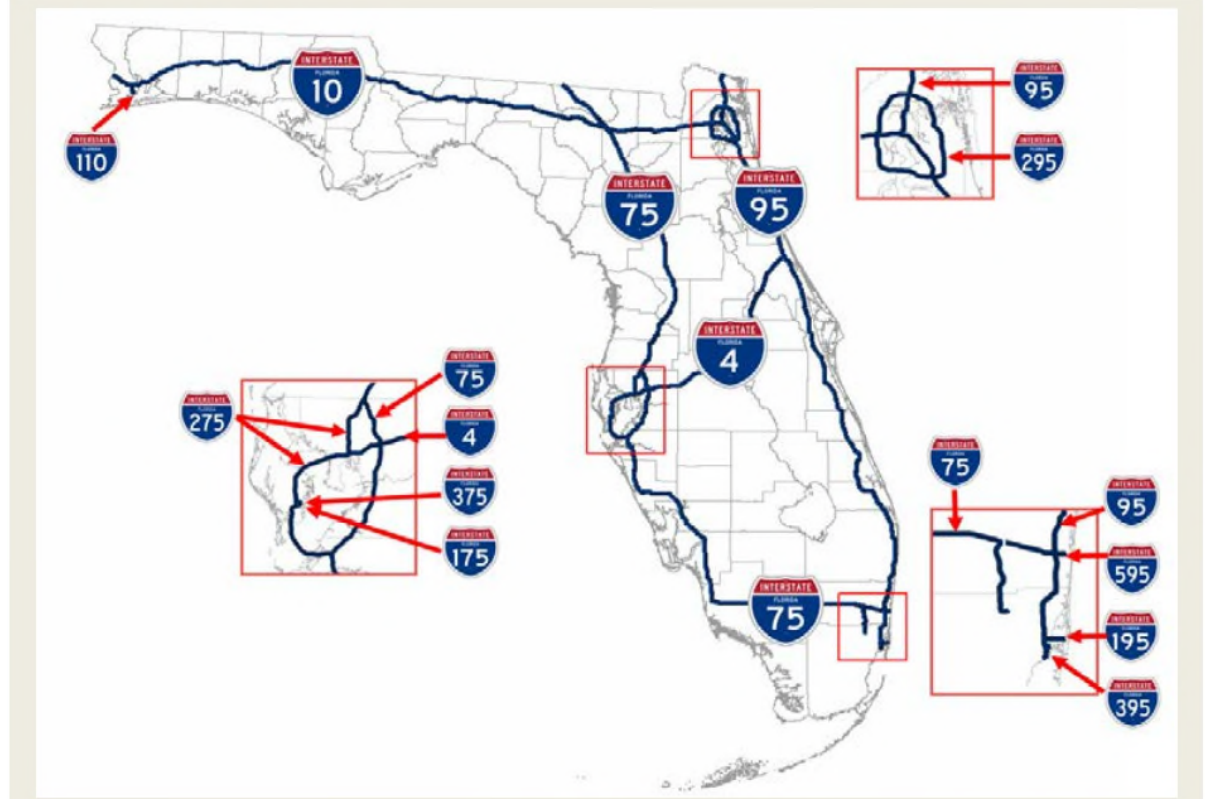
Roadway Network and Systems

- **Network** of all roads that allow travel from your home to where you need to go.

- **Systems**, one is the Interstate Highway System. The Interstate is connected to allow for vehicles to travel across the State and the Nation.

Interstates

- **Routes** are part of a System (e.g. I-10)

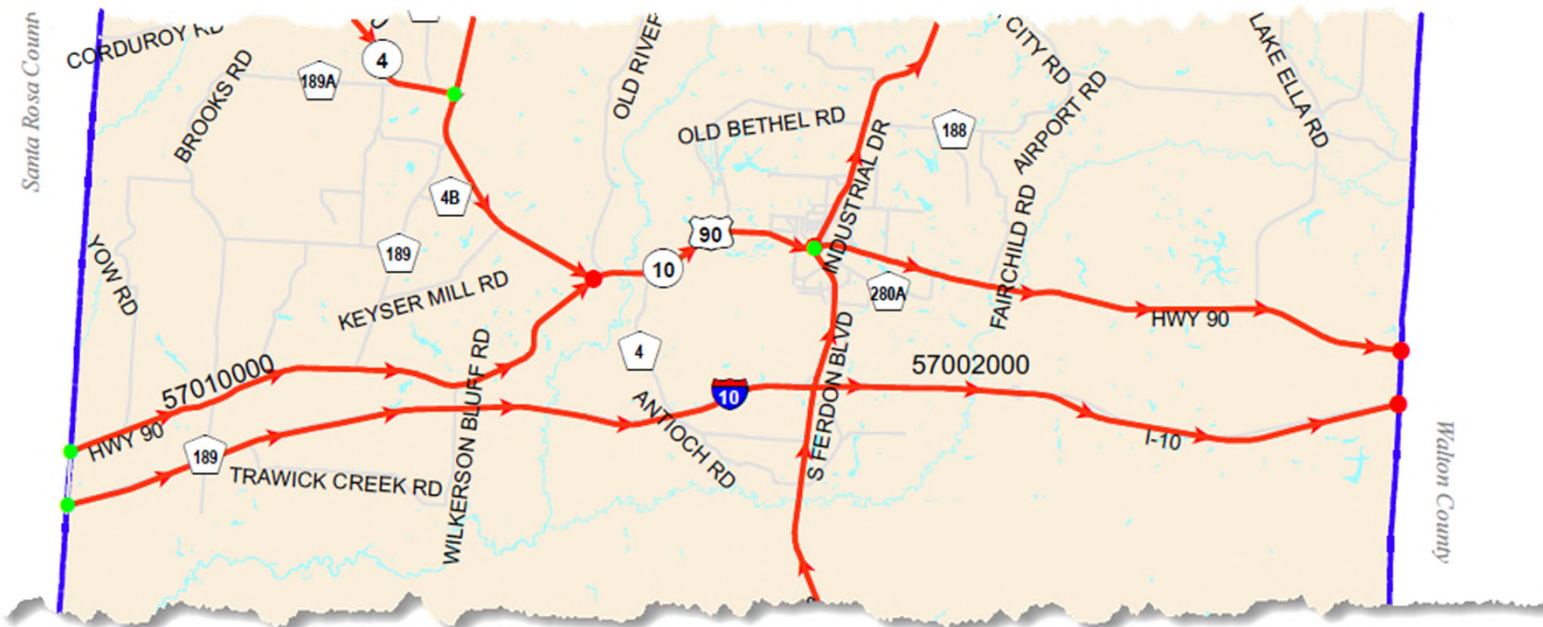- **Roads** are part of a Route (e.g. I-10 in Leon Co)

Roadway Section Length

- The length is the "as driven" or "as digitized" from the beginning milepoint to the ending milepoint.

0.000
Ocala Rd

1.700
Tampa St

Roadway Section Location

- The location of the roadway section, is from the beginning milepoint to the ending milepoint. The data is digitized in a mapping application.

Section Numbers (by mode)

10-470-000   10-929-000   10-931-000

Roadways
- First two digits unique County Number (e.g. **"10"** is Hillsborough)
- Next three digits are the Section Number
  - When it begins with **"47"** then it is a Turnpike roadway
- Last three digits are the Sub-Section Numbers
  - Sequentially added (e.g. new off system road, ramps for interchanges)

Rail Lines – **"929"** are middle three digits

Trails – **"931"** are middle three digits

55-000-046

- Responsibility of the District to request new Roadway sections due to:
  - Construction
  - Early Planning for important corridors (e.g. Wekiva Parkway, M-Cores, I-295)
  - Functional Classification/Urban Boundary Decennial Reviews
- Responsibility of Central Office to create requested Roadways in RCI, with an associated route alignment in GIS.
- New Roadway IDs require the submission of an RCI/LRS Package

RCI Data – Key Terms

- **Characteristics –** this are the various types of Administrative, Physical, Operational, and Maintenance elements along the roadway. (e.g. Lanes, Shoulders, Medians, Attenuators, Speed Limits, Traffic Counts, Urban Area, …)

- **Milepoints** – are the offset distance as measured from the roadway section begin point in the inventory direction.

- **Location** – this is where a characteristics resides (point data) or where a characteristic has both beginning and ending points existing along the roadway section (length characteristic).

- **Length** – this is as measured from the beginning of the characteristic to the ending of the characteristic. This is as related to the roadway beginning milepoint.

RCI Data – Administrative Characteristics

- Administrative characteristics are typically applied to roadways based on a jurisdiction or designation.

- This data is collected using GIS and/or can be captured from the field.

- Some examples are …

  - **Urban Areas** – Tampa, Miami, Ocala, Pensacola, …

  - **Routes** –

  - **Toll Road with Owning Authority** –

- **Milepoints**
  - Used to represent specific locations or physical points along the Roadway Section for a characteristic (e.g. intersection, bridge)
  - **Beginning Milepoint   (BMP)**   – point and length characteristics
  - **Ending Milepoint   (EMP)**   – only for length characteristics
  - Specified to 3 decimal places = X.XXX = 1/1000th of a mile (5.28 ft)
  - These milepoints are the offset distance as measured from the BMP of 0.000.
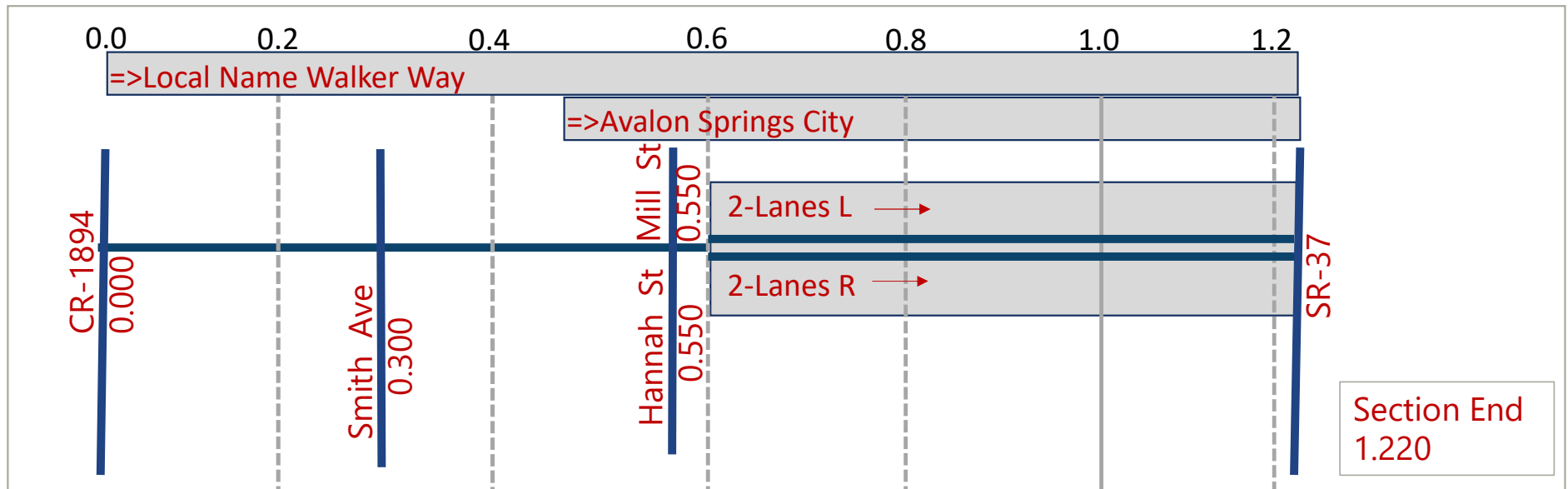
- **Lengths**
  - The length of a characteristic is from the BMP to the EMP of where it is located along the roadway.

# RCI Data – Milepoints – Points & Lengths

- **Point Characteristics** – only have BMP, such as intersecting roadways.

- **Length Characteristics** – have both BMP and EMP, such as Local Name, Number of Lanes...

RCI Data – Location

- The location of the data should be in the correct sequence (e.g. Smith Ave comes before Mill St) and the lengths match the measure distance.

- Since the Roadway Section has an LRS, the events can be mapped along the road "Walker Way".

- Where should the city limits begin?
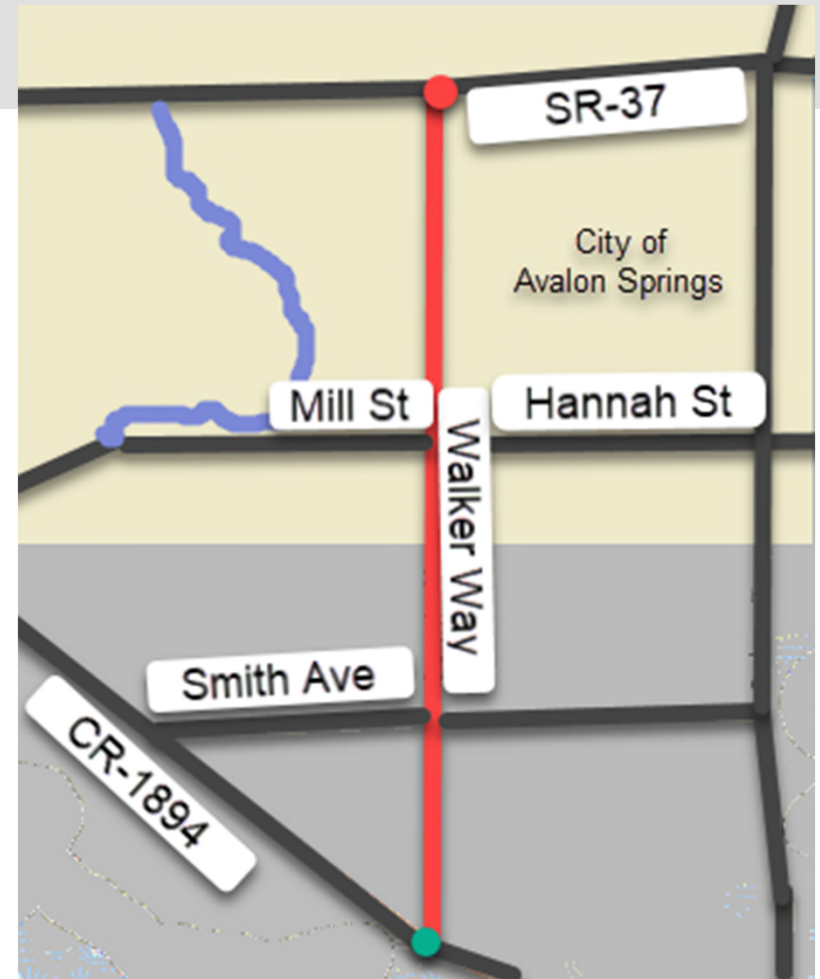
RCI Data – System Performance

- Evaluating the System Performance requires data to understand the level of congestion, the reliability of travel time, and many more aspects of travel. Federal Highway is a key stakeholder of the information received via HPMS.

- Some data in RCI used as inputs are
  - **Traffic Flow**
  - **Number of Lanes**
  - **Speed Limit**
  - **Highway Capacity**

SPEED LIMIT 55
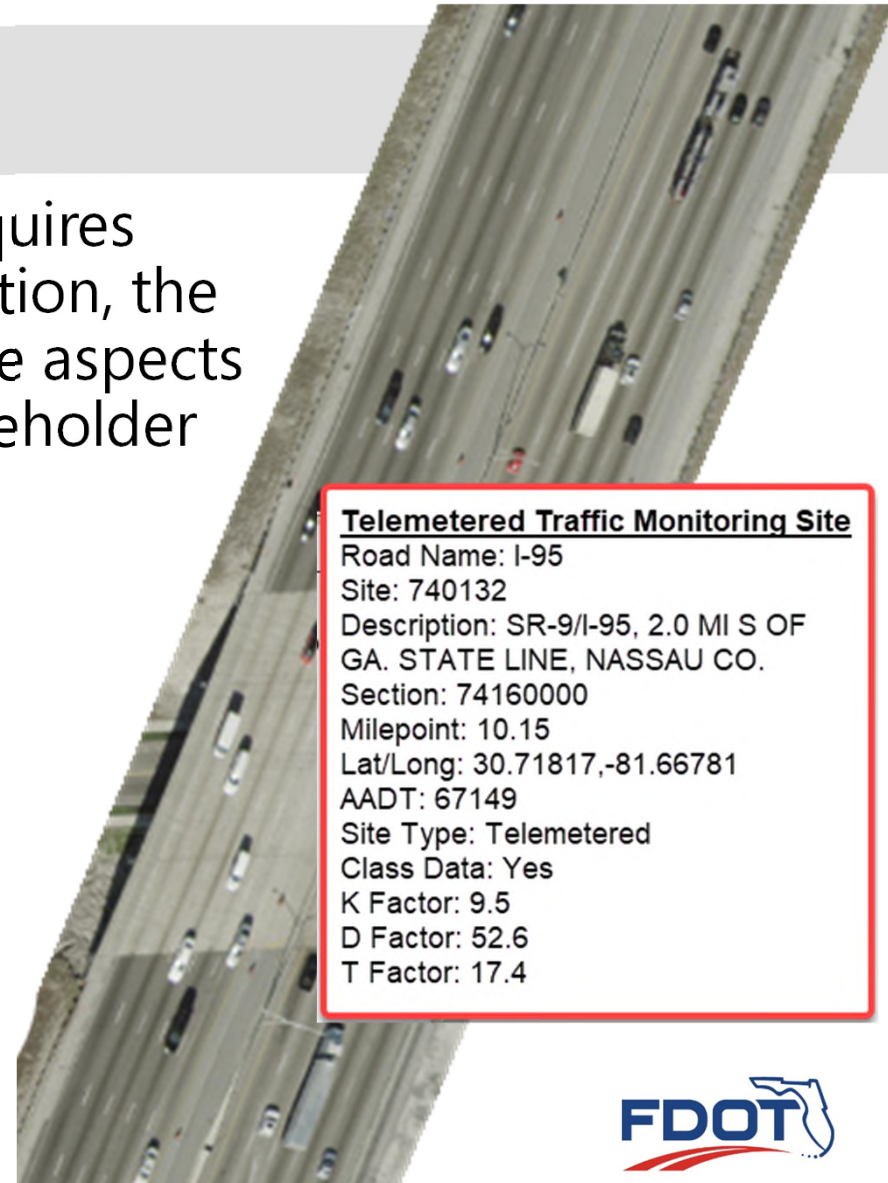
Telemetered Traffic Monitoring Site
Road Name: I-95
Site: 740132
Description: SR-9/I-95, 2.0 MI S OF GA. STATE LINE, NASSAU CO.
Section: 74160000
Milepoint: 10.15
Lat/Long: 30.71817,-81.66781
AADT: 67149
Site Type: Telemetered
Class Data: Yes
K Factor: 9.5
D Factor: 52.6
T Factor: 17.4

FDOT

RCI Data – Condition

- Physical condition is determined by evaluating the pavement smoothness, rutting, faulting, and cracking.

- The State Materials Office collects this data and it is also provided to Federal Highway through HPMS.

RCI Data Collection Methods

- Distance Measuring Instruments (DMI) with Global Position System (GPS) or Vehicle Speed Sensor enabled
- Construction As-Built plans
- Official Designation Paperwork
- Geographical Information Systems (GIS)
- Aerial Imagery
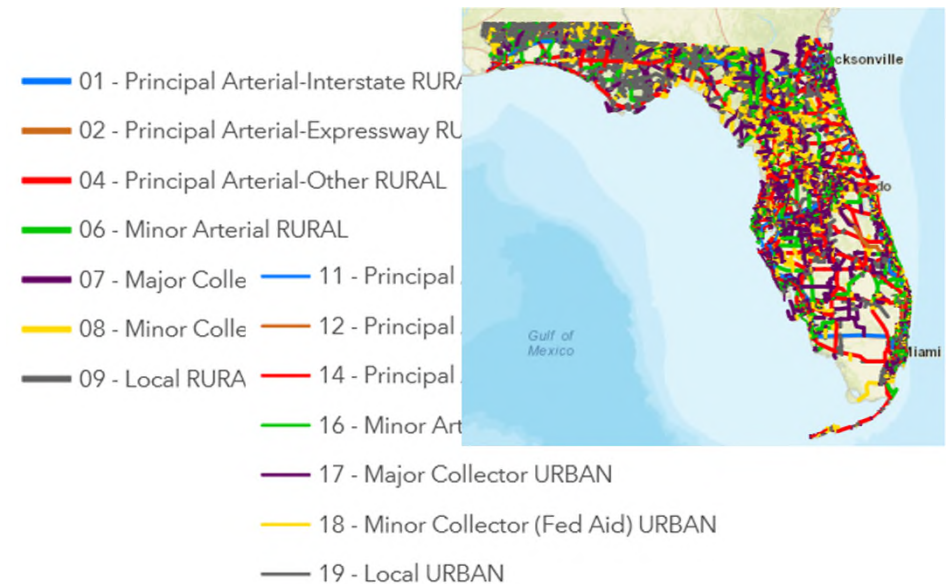- LiDAR Imagery (testing possibilities/usefulness)

Roadway: Functional Classification

Functional Classification is the assignment of roadways into systems according to the character of service they provide in relation to the total roadway network.

- Determined by FDOT/Locals

- New Construction

- Requires Local Coordination (MPO)

- Changes require FHWA approval*

    *Except Rural/Urban Local Designations

- 01 - Principal Arterial-Interstate RURA
- 02 - Principal Arterial-Expressway RU
- 04 - Principal Arterial-Other RURAL
- 06 - Minor Arterial RURAL
- 07 - Major Colle   — 11 - Principal
- 08 - Minor Colle   — 12 - Principal
- 09 - Local RURA   — 14 - Principal
- 16 - Minor Art
- 17 - Major Collector URBAN
- 18 - Minor Collector (Fed Aid) URBAN
- 19 - Local URBAN

Roadway: Urban Boundary

Urban Boundaries designate if a roadway segment is located in a rural or urban area and whether or not it is within a municipality (e.g., city limits).

- Determined by Decennial Census
  - Smoothed by TDA's Spatial Data & Analytics section
- Changes require FHWA approval
- Requires Local Coordination (MPO)

MPOs are federally mandated Transportation Planning Organizations (TPO) comprised of representatives from local governments and transportation authorities.
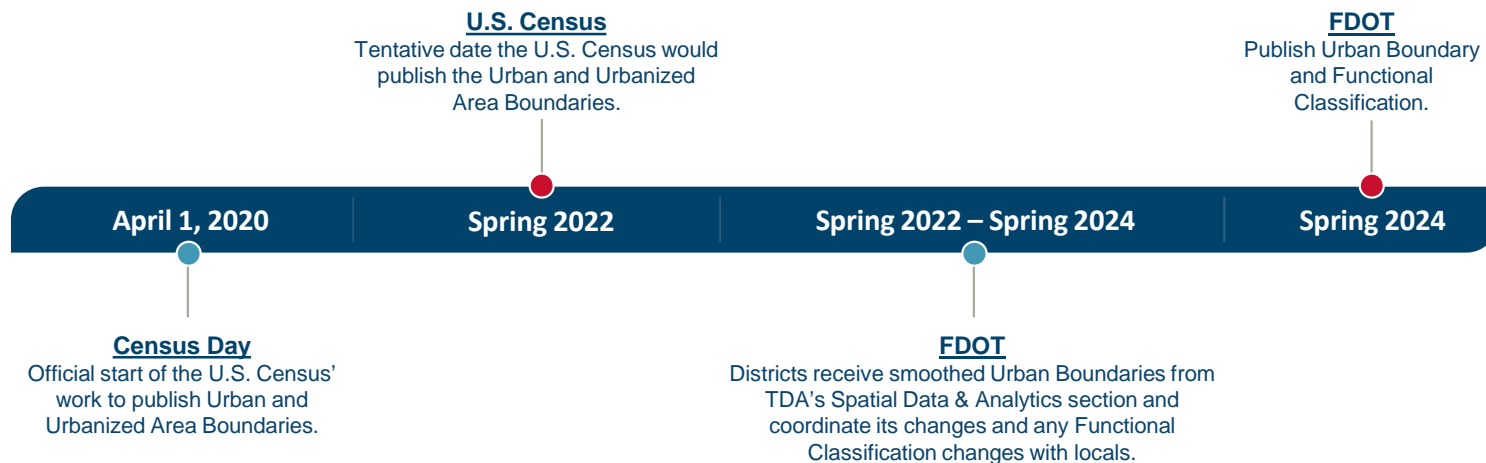
The MPO's role is to develop and maintain the required transportation plans for a metropolitan area boundary to ensure that federal funds support local priorities.
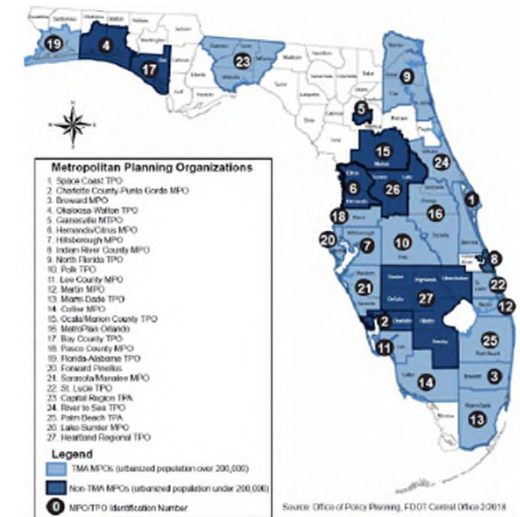
Roadway: Decennial Data Efforts

Every 10 years, the United States Census Bureau updates Urban Boundaries nationwide. The Districts will work with their local counterparts to modify the U.S. Census derived boundaries and to finalize any major changes to Functional Classification.


U.S. Census
Tentative date the U.S. Census would publish the Urban and Urbanized Area Boundaries.

FDOT
Publish Urban Boundary and Functional Classification.

April 1, 2020	Spring 2022	Spring 2022 – Spring 2024	Spring 2024

Census Day
Official start of the U.S. Census' work to publish Urban and Urbanized Area Boundaries.

FDOT
Districts receive smoothed Urban Boundaries from TDA's Spatial Data & Analytics section and coordinate its changes and any Functional Classification changes with locals.

Data Governance: Road Naming and Numbering

Road Numbering:

- Every State Road must have a State Road (SR) number. The State is authorized to assign a number to each State Road per Florida Statute 335.08. Any County Road may have a County Road (CR) number but is not required do to so.
  - Roads can be jointly named (i.e., SR-27 and Main Street), but not solely named Main Street, if it is a state road. State Roads are created in RCI as requested by the Districts of the TDA Multimodal Data System Coordinator.

Road Naming:

- Local naming is up to the local entity and the Districts should suggest signed petitions, public meetings and updating all parties involved should the road name change (law enforcement, 911 responders, utility providers, FDOT, etc.).
  - Examples of local naming include: U.S. 19 in Hernando County, named "Suncoast Boulevard" and U.S. 19 in Citrus County which is named "Commercial Way" for the entire roadway section in these counties.
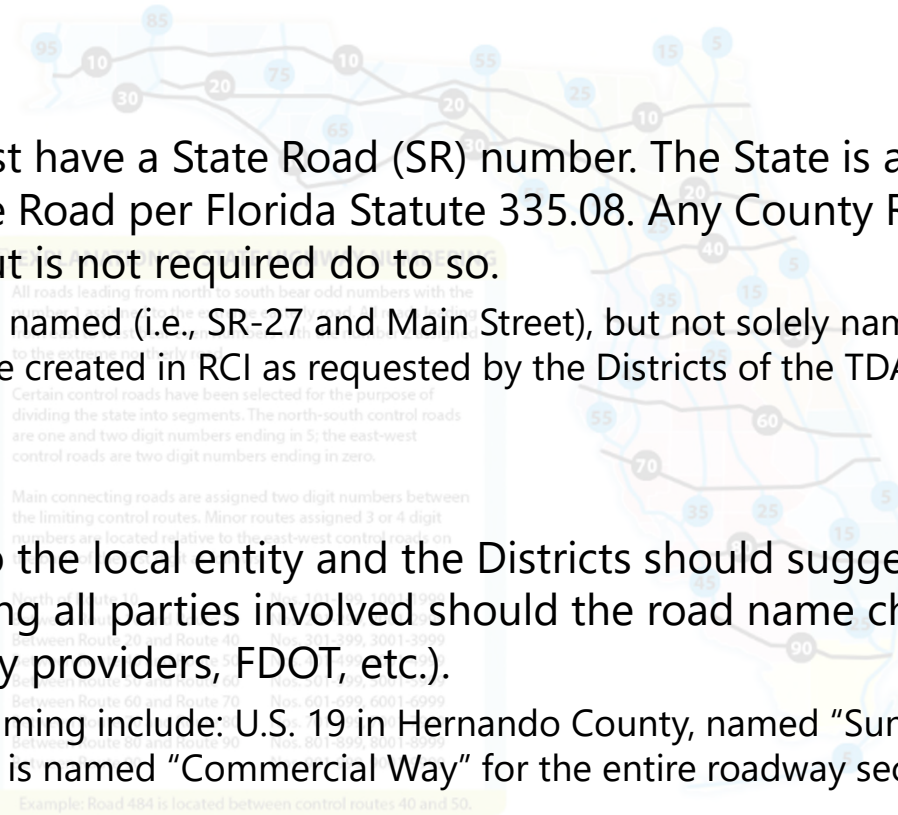
Data Governance: Road Jurisdiction Transfers (RJT)

The transfer of Roadway Jurisdiction is controlled by section 335.0415, F.S., which provides that any transfer of Road Jurisdiction affecting the State Highway System (SHS) **must be by mutual agreement** of the affected governmental entities and approved by the FDOT Secretary.

Process (simplified):

| District and Locals determine a need. | → | District surveys District and Central Offices for issues. | → | No Survey issues, District creates draft agreement with District Legal. | → | Central Office TDA and Legal review draft language. | → | Upon approval of preliminary review, District gets local signatures. | → | Upon local execution, final review occurs in CO TDA/Legal. | → | Upon approval, FDOT Secretary executes the transfer by signature. |

Data Governance: Federal Funding

Federal Aid Roads are those on the National Highway System (NHS) or functionally classified as Urban Collector/Rural Major Collector, or higher.

1. **NHS Funds (NHS):** a system designated by Congress that includes all interstate routes, urban and rural principal arterials, the Strategic Highway Network (STRAHNET), Strategic Highway Network Connectors and NHS connectors to approved Intermodal facilities. ***Require FHWA approval.***

2. **STP Funds (STP)*:** federal funding category available for all roads functionally classified as rural major collector, urban minor collector, urban major collector, minor arterial and principal arterial. MAJOR COLLECTOR AND ABOVE and NOT NHS.
   *The Surface Transportation Program was superseded in 2016 by the Surface Transportation Block Grant Program.

3. **Federal Aid None (FA None):** highways not on the Federal Aid Highway Systems and all other public roads classified as local roads or rural minor collectors. RURAL MINOR COLLECTORS AND LOCALS, NOT NHS.

Data Governance: U.S. Routes

Establishments, revisions, additions, or deletions for U.S. Routes, U.S. Bicycle Routes and Interstate Routes are submitted to the American Association of State Highway and Transportation Officials (AASHTO) on a bi-annual basis.

SPRING

FEB. REQUEST | APR. SUBMITTAL

MAY MEETING | JUN. OUTCOME

Designation Process:

1. Draft the Route

2. Secure Local Agreements along Route

3. Complete AASHTO Application

4. Get FDOT Secretary approval/signature

5. CO TDA submits to AASHTO during cycle

FALL

JUN. REQUEST | AUG. SUBMITTAL

SEPT. MEETING | OCT. OUTCOME

FDOT

Data Governance: Additional Designations

Data	Owning Office
National Highway Freight Network (NHFN)	NHF network and line data is provided by the Freight and Multimodal Operations Office.
Rail	Rail network and line data is provided by the Freight and Multimodal Operations Office.
Scenic Highway	Scenic Highway network and line data is provided by the Office of Design.
STRAHNET	STRAHNET network and line data is provided by the U.S. Department of Defense (DOD).
SUN Trails	SUN Trail network and line data is provided by the Systems Implementation Office.
Tolls	Toll network and line data is provided by Expressway Authorities.

Data Governance to ensure Timeliness & Accuracy

- **Timeliness** – Roadway Inventory Tracking Application (RITA)
  - Every 5 years for Roadways
  - Every 3 years for HPMS Samples
  - Within 120 days for New Construction
- RCI/LRS Reconciliation Process
  - Process for changes to Overall Section data or Designations (e.g. NHS)
- **Accuracy** – Transportation Data Quality Management
  - Quality Assurance Review (QAR)
  - District Quality Evaluations (DQE)
  - Reporting Periods
    - QAR – 4 districts per year
    - DQE – All districts for Fiscal Year End and Calendar Year End

Data Governance – Reporting

- **HPMS Submission** – data from previous calendar year, submitted to FHWA
  - April 15th – Pavement Condition
  - June 1st – Certified Public Mileage (CPM)
  - June 15th – All other data items
- **Mileage Reports** – created for calendar/fiscal year ends for all systems (SHS, NHS, SIS), as well as Centerline Miles and Daily Vehicle Miles Traveled (DVMT)

Data Products and Where to find them

Straight Line Diagrams (SLD)

- SLD Web Page

GIS Shapefiles

- Data Factory (Public Facing Web Page)
- ArcGIS Online (AGOL)
- Open Data Hub

Database Extracts

- FTI DVD (now in FTO)
- RCI Top 30 (Access via DART)
- Reporting (RCI Application)
- Specialized Reports (Custom detailed analysis)

Data Products and Where to find them (continued)

Transportation System Designations

Functional Classification and Urban Boundary Maps

Data Collection Process

Daniel Diaz and Chelsea Stelter

Overview of the Data Collection Process

- Inventory requirements differ for each of the following cases:
  - Active On the State Highway System (SHS) Roadways
  - Active Exclusive Roadways
  - Active Off the SHS Roadways
  - Local Roads
  - New Construction/Pending Roadway
  - Highway Performance Monitoring System (HPMS)

- Required features and characteristics are dependent upon:
  - Feature 140 - Section Status Exception
  - Feature 121 - Functional Classification
  - Feature 124 - Urban Classification

The Inventory Process

1. **Pre-Inventory Process**: Preparations before going into the field include developing an inventory schedule, using the Roadway Inventory Tracking Application (RITA), and collecting administrative data.

2. **Inventory Process**: Physically collecting field data.

3. **Post-Inventory Process**: Coding data into RCI, generating and distributing SLDs, updating RITA, and finally notifying TDA.

Pre-Inventory

↓

Inventory

↓

Post-Inventory

Applications

- Roadway Inventory Tracking Application (RITA)
- Data Analysis and Reporting for Transportation Systems (DART)

Pre-Inventory

- Office Preparation
  - Inventory Schedule
    - 3 year
    - 5 year
    - Construction (GIRD)
  - Identify Roadway ID Requiring Inventory
  - Collect and Review Existing/Historical Data
  - Verify Administrative Data
- Field Preparation
  - Equipment
  - Vehicle Safety Inspection
  - Calibrate DMI

Pre-Inventory
Office Preparation
Inventory Schedule
Identify Section
Existing & Historical Data
Verification of Existing Data
Field Preparation
Checklist
Safety Inspection
Calibrate DMI

Inventory

- Safety First
- Be consistent
- 5 Steps in RCI Field Inventory

Inventory
Field Activity

| Collect Elements/Establish Length |
| Collect Intersection MPs |
| Collect Roadway Feature Changes |
| Measure Roadway Widths |
| Collect Misc. Feature Data |

SAFETY FIRST

5 Steps of RCI Field Inventory

1. Record street names, bridge numbers, mile markers, county lines, railroad crossing numbers, and intersection names while establishing roadway length.

2. Record milepoints for all intersections and traffic counter stations.

3. Record milepoints for roadway feature changes (number of lanes, median type, and shoulder type).

4. Measure lane width, median width, and shoulder width.

5. Record milepoints for miscellaneous features (pavement condition and friction course).

Post-Inventory

- Obtain any data that could not be collected in the field
- Reconcile Milepoints
- Create RCI/LRS package if appropriate
- Enter data into RCI
- Run DART Edits/Validations
- Update RITA
- Produce & Distribute SLD & Key Sheet
- Send notifications

Post-Inventory

Office Activity
- Construction Plans
- Convert Stations to MPs
- Reconcile MPs

RCI Data Entry
- Code Feature 251 to Establish LRS
- Code Administrative Features
- Code Physical/Geometric Features
- Run Edits & Make Corrections

Update RITA
- Update RITA

Basemap
- Review Basemap Alignment

Produce SLD
- Generate SLD
- Edit SLD

Produce County Key Sheet
- Generate County Key Sheet

Update SLO Site
- Upload SLD and Key Sheet

Active On the SHS

- Roads on the State Highway System require the most robust inventory.

- Straight-Line Diagrams and County Key Sheets are required.
  - Upload to the Straight-Line Diagrams Online application (SLO) site (https://slo.dot.state.fl.us/)

Active On - Required Inventory Features & Characteristics

__100 SERIES FEATURES - ADMINISTRATIVE FEATURES__
- **111-State Road System:** STRDNUM2, STROADNO
- **112-Federal System:** FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY
- **113-AASHTO:** USROUTE, USROUTE2
- **114-Local System:** LOCALNAM
- **115-Special Designations:** SCENEDTE, SCENEEXT, SCENEHWY
- **119-HPMS - Universe:** BASETHIK, BASETYPE, FLEXTHIK, HOVNUMLN, HOVTYPE, IRIDATE, OVRYTHIK, RAMPFC, RIGIDTHIK, TOLLCHGS, TOLLTYPE, YRCONST, YRIMPT
- **120-Type of Road:** RTESGNCD, TYPEROAD
- **121-Functional Classification:** FUNCLASS
- **122-Facility Classification:** OWNAUTH, RDACCESS, TOLLROAD, TOLLNAME
- **124-Urban Classification:** HWYLOCAL, PLACECD, URBAREA, URBSIZE
- **125-Adjacent Land Classification:** LANDUSE, ROUGHIND
- **140-Section Status Exception:** OSDATE, STATEXPT
- **147-Strategic Intermodal System:** SISFCTPx, SISMPIDx

Active On - Required Inventory Features & Characteristics

200 and 300 Series - Physical and Operational Features

- **212-Thru Lanes:** NOLANES, SURWIDTH
- **213-Auxiliary Lanes:** AUXLNTYP, AUXLNUM, AUXLNWTH
- **214-Outside Shoulders:** SHLDTYPE, SHLDTYPx, SLDWIDTH, SHLDWTHx
- **215-Medians:** MEDBARTYP, MEDWIDTH, RDMEDIAN
- **216-Bike Lanes/Pedestrian Facilities:** BIKELNCD, BIKSLTCD, SDWLKBCD, SHARDPTH, SIDWLKWD
- **219-Inside Shoulders:** ISLDTYPE, ISLDTYPx, ISLDWDTH, ISLDWTHx
- **220-Non-Curve Intersection Point:** NCPTINT
- **221-Horizontal Curve:** BEARING, HRZCANGL, HRZDGCRV, HRZPTINT
- **230-Surface Description:** PAVECOND, PAVINDEX, SURFNUM
- **232-Surface Layers:** FRICTCSE, SURFLAYx, SURFLxTH
- **233-Base:** BASETHK, TYPEBASE
- **251-Intersection:** BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx
- **252-Interchanges:** CROSRDNM, EXITNO, INTERCHG
- **253-Railroads:** CHKDIGIT, RRCROSNO
- **258-Structures:** BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO
- **311-Speed Limits:** DTESZAPP, DTESZIMP, MAXSPEED, MINSPEED
- **330-Traffic Flow Break Stations:** FLWBRKID, TRFBRKCD
- **331-Traffic Flow Breaks:** AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

Active Exclusive

- Inventory collects information about ramps and frontage roads.
- GIRD requires 5-year inventory cycle for all Active Exclusive facilities associated with other State-maintained facilities.
- Production of SLDs is not required.

EXIT ⬇ ONLY

Active Exclusive - Required Inventory Features & Characteristics

100 SERIES FEATURES - ADMINISTRATIVE FEATURES

- **111-State Road System:** STRDNUM2, STROADNO
- ~~112-Federal System: FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY~~
- **113-AASHTO:** USROUTE, USROUTE2
- **114-Local System:** LOCALNAM
- ~~115-Special Designations: SCENEDTE, SCENEEXT, SCENEHWY~~
- **119-HPMS - Universe:** ~~BASETHIK, BASETYPE, FLEXTHIK, HOVNUMLN, HOVTYPE, IRIDATE,~~ ~~OVRYTHIK,~~ RAMPFC, ~~RIGIDTHIK, TOLLCHGS, TOLLTYPE, YRCONST, YRIMPT~~
- **120-Type of Road:** RTESGNCD, TYPEROAD
- ~~121-Functional Classification: FUNCLASS~~
- ~~122-Facility Classification: OWNAUTH, RDACCESS, TOLLROAD, TOLLNAME~~
- **124-Urban Classification:** HWYLOCAL, PLACECD, URBAREA, URBSIZE
- ~~125-Adjacent Land Classification: LANDUSE, ROUGHIND~~
- **140-Section Status Exception:** OSDATE, STATEXPT
- **147-Strategic Intermodal System:** SISFCTPx, SISMPIDx

Active Exclusive - Required Inventory Features & Characteristics

200 and 300 Series - Physical and Operational Features

- **212-Thru Lanes:** NOLANES, SURWIDTH
- **213-Auxiliary Lanes:** AUXLNTYP, AUXLNUM, AUXLNWTH
- **214-Outside Shoulders:** SHLDTYPE, SHLDTYPx, SLDWIDTH, SHLDWTHx
- **215-Medians:** MEDBARTYP, MEDWIDTH, RDMEDIAN
- **216-Bike Lanes/Pedestrian Facilities:** BIKELNCD, BIKSLTCD, SDWLKBCD, SHARDPTH, SIDWLKWD
- **219-Inside Shoulders:** ISLDTYPE, ISLDTYPx, ISLDWDTH, ISLDWTHx
- ~~**220-Non-Curve Intersection Point:** NCPTINT~~
- ~~**221-Horizontal Curve:** BEARING, HRZCANGL, HRZDGCRV, HRZPTINT~~
- **230-Surface Description:** PAVECOND, PAVINDEX, SURFNUM
- **232-Surface Layers:** FRICTCSE, SURFLAYx, SURFLxTH
- **233-Base:** BASETHK, TYPEBASE
- **251-Intersection:** BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx
- ~~**252-Interchanges:** CROSRDNM, EXITNO, INTERCHG~~
- **253-Railroads:** CHKDIGIT, RRCROSNO
- **258-Structures:** BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO
- **311-Speed Limits:** DTESZAPP, DTESZIMP, MAXSPEED, MINSPEED
- **330-Traffic Flow Break Stations:** FLWBRKID, TRFBRKCD
- **331-Traffic Flow Breaks:** AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

- Production of SLDs is not required.
  - SLD's must be retained if a road was once Active On and now is Active Off.
- If Functional Classification = rural minor collector or above, or if a local road on the NHS, or if a Scenic Highway:
  - Required to appear in the LRS and RCI.
  - Must be included in 5-year off-system re-inventory cycle.

VOLUSIA
2813
COUNTY

END STATE
MAINTENTANCE

100 SERIES FEATURES - ADMINISTRATIVE FEATURES
- **111-State Road System:** STRDNUM2, STROADNO
- **112-Federal System:** FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY
- ~~**113-AASHTO:** USROUTE, USROUTE2~~
- **114-Local System:** LOCALNAM
- **115-Special Designations:** SCENEDTE, SCENEEXT, SCENEHWY
- **119-HPMS - Universe:** BASETHIK, BASETYPE, FLEXTHIK, HOVNUMLN, HOVTYPE, IRIDATE, OVRYTHIK, RAMPFC, RIGIDTHIK, TOLLCHGS, TOLLTYPE, YRCONST, YRIMPT
- **120-Type of Road:** RTESGNCD, TYPEROAD
- **121-Functional Classification:** FUNCLASS
- **122-Facility Classification:** OWNAUTH, RDACCESS, TOLLROAD, TOLLNAME
- **124-Urban Classification:** HWYLOCAL, PLACECD, URBAREA, URBSIZE
- **125-Adjacent Land Classification:** LANDUSE, ROUGHIND
- **140-Section Status Exception:** OSDATE, STATEXPT
- **147-Strategic Intermodal System:** SISFCTPx, SISMPIDx

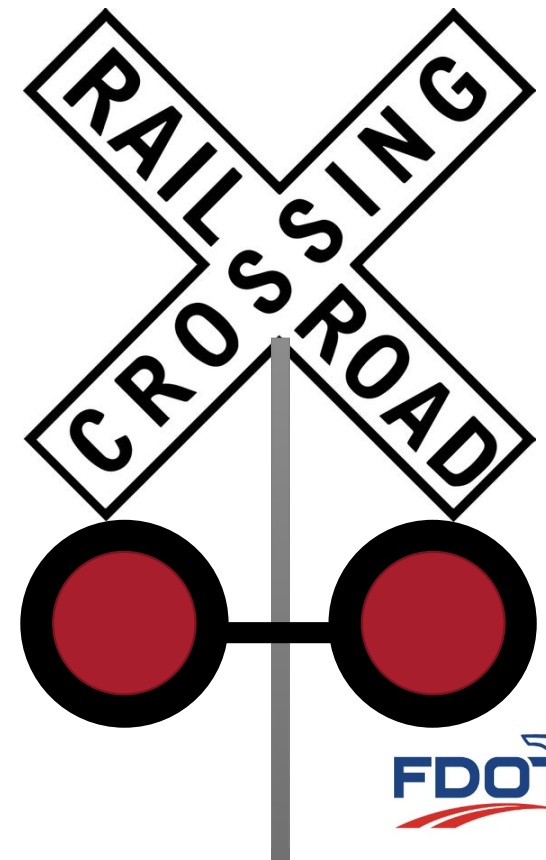FDOT

200 and 300 Series - Physical and Operational Features

- **212-Thru Lanes:** NOLANES, SURWIDTH
- **213-Auxiliary Lanes:** AUXLNTYP, AUXLNUM, AUXLNWTH
- **214-Outside Shoulders:** SHLDTYPE, SHLDTYPx, SLDWIDTH, SHLDWTHx
- **215-Medians:** MEDBARTYP, MEDWIDTH, RDMEDIAN
- **216-Bike Lanes/Pedestrian Facilities:** BIKELNCD, BIKSLTCD, SDWLKBCD, SHARDPTH, SIDWLKWD
- **219-Inside Shoulders:** ISLDTYPE, ISLDTYPx, ISLDWDTH, ISLDWTHx
- ~~220-Non-Curve Intersection Point: NCPTINT~~
- ~~221-Horizontal Curve: BEARING, HRZCANGL, HRZDGCRV, HRZPTINT~~
- **230-Surface Description:** PAVECOND, PAVINDEX, SURFNUM
- **232-Surface Layers:** FRICTCSE, SURFLAYx, SURFLxTH
- **233-Base:** BASETHK, TYPEBASE
- **251-Intersection:** BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx
- **252-Interchanges:** CROSRDNM, EXITNO, INTERCHG
- **253-Railroads:** CHKDIGIT, RRCROSNO
- **258-Structures:** BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO
- **311-Speed Limits:** DTESZAPP, DTESZIMP, MAXSPEED, MINSPEED
- **330-Traffic Flow Break Stations:** FLWBRKID, TRFBRKCD
- **331-Traffic Flow Breaks:** AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

Local Roads

- Local roads of State Interest must be part of the District's 5-year off-system inventory cycle.

- Local roads of State interest include:
  - Designated as NHS
  - Designated as SIS
  - Designated as a Scenic Highway
  - Contain bridge structures and/or railroad crossings
  - Roadways for which Old Federal Aid Primary (FAP) data exists in Feature 112

Local Roads - Required Inventory Features & Characteristics

100 SERIES FEATURES - ADMINISTRATIVE FEATURES
- **111-State Road System:** STRDNUM2, STROADNO
- **112-Federal System:** FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY
- ~~113-AASHTO: USROUTE, USROUTE2~~
- **114-Local System:** LOCALNAM
- **115-Special Designations:** SCENEDTE, SCENEEXT, SCENEHWY
- **119-HPMS - Universe:** BASETHIK, BASETYPE, FLEXTHIK, HOVNUMLN, HOVTYPE, IRIDATE, OVRYTHIK, RAMPFC, RIGIDTHIK, TOLLCHGS, TOLLTYPE, YRCONST, YRIMPT
- **120-Type of Road:** RTESGNCD, TYPEROAD
- **121-Functional Classification:** FUNCLASS
- **122-Facility Classification:** OWNAUTH, RDACCESS, TOLLROAD, TOLLNAME
- **124-Urban Classification:** HWYLOCAL, PLACECD, URBAREA, URBSIZE
- **125-Adjacent Land Classification:** LANDUSE, ROUGHIND
- **140-Section Status Exception:** OSDATE, STATEXPT
- **147-Strategic Intermodal System:** SISFCTPx, SISMPIDx

Local Roads - Required Inventory Features & Characteristics

200 and 300 Series - Physical and Operational Features

- **212-Thru Lanes:** NOLANES, SURWIDTH
- **213-Auxiliary Lanes:** AUXLNTYP, AUXLNUM, AUXLNWTH
- **214-Outside Shoulders:** SHLDTYPE, SHLDTYPx, SLDWIDTH, SHLDWTHx
- **215-Medians:** MEDBARTYP, MEDWIDTH, RDMEDIAN
- ~~216-Bike Lanes/Pedestrian Facilities: BIKELNCD, BIKSLTCD, SDWLKBCD, SHARDPTH, SIDWLKWD~~
- **219-Inside Shoulders:** ISLDTYPE, ISLDTYPx, ISLDWDTH, ISLDWTHx
- ~~220-Non-Curve Intersection Point: NCPTINT~~
- ~~221-Horizontal Curve: BEARING, HRZCANGL, HRZDGCRV, HRZPTINT~~
- **230-Surface Description:** PAVECOND, PAVINDEX, SURFNUM
- ~~232-Surface Layers: FRICTCSE, SURFLAYx, SURFLxTH~~
- **233-Base:** BASETHK, TYPEBASE
- **251-Intersection:** BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx
- **252-Interchanges:** CROSRDNM, EXITNO, INTERCHG
- **253-Railroads:** CHKDIGIT, RRCROSNO
- **258-Structures:** BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO
- ~~311-Speed Limits: DTESZAPP, DTESZIMP, MAXSPEED, MINSPEED~~
- ~~330-Traffic Flow Break Stations: FLWBRKID, TRFBRKCD~~
- **331-Traffic Flow Breaks:** AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

New Construction/Pending Roadway

- Pending Roadways:
  - Collect administrative data for a new roadway ID in RCI.
  - No field inventory.
- New Construction (upon completion):
  - Update required administrative features for SHS roadways within 15 days.
  - Conduct inventory within 90 days.
  - Use updated limit description and milepoints on the Addition to SHS form.
  - Regenerate and distribute SLDs (if required) within 120 days.

100 SERIES FEATURES - ADMINISTRATIVE FEATURES

- **111-State Road System:** STRDNUM2, STROADNO
- **112-Federal System:** FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY
- **113-AASHTO:** USROUTE, USROUTE2
- **114-Local System:** LOCALNAM
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200 and 300 Series - Physical and Operational Features

- 212-Thru Lanes: NOLANES, SURWIDTH
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- 215-Medians: MEDBARTYP, MEDWIDTH, RDMEDIAN
- 216-Bike Lanes/Pedestrian Facilities: BIKELNCD, BIKSLTCD, SDWLKBCD, SHARDPTH, SIDWLKWD
- 219-Inside Shoulders: ISLDTYPE, ISLDTYPx, ISLDWDTH, ISLDWTHx
- 220-Non-Curve Intersection Point: NCPTINT
- 221-Horizontal Curve: BEARING, HRZCANGL, HRZDGCRV, HRZPTINT
- 230-Surface Description: PAVECOND, PAVINDEX, SURFNUM
- 232-Surface Layers: FRICTCSE, SURFLAYx, SURFLxTH
- 233-Base: BASETHK, TYPEBASE

- **251-Intersection: BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx**
- 252-Interchanges: CROSRDNM, EXITNO, INTERCHG
- 253-Railroads: CHKDIGIT, RRCROSNO
- 258-Structures: BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO
- 311-Speed Limits: DTESZAPP, DTESZIMP, MAXSPEED, MINSPEED
- 330-Traffic Flow Break Stations: FLWBRKID, TRFBRKCD
- 331-Traffic Flow Breaks: AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

Questions ?

Upcoming Events

Time	Topic
10:00 am – 10:15 am	Break
10:15 am – 11:45 am	HPMS Training
11:45 am – 1:15 pm	Lunch
1:15 pm – 2:45 pm	Traffic Training
2:45 pm – 3:00 pm	Break
3:00 pm – 5:00 pm	**Data Collection Managers Meeting** Strategic Plan for Data Collection Traffic Data Monitoring System Integrated Roadway Asset Identification System