

# RCI

ROADWAY CHARACTERISTICS INVENTORY

## PLANNING DATA HANDBOOK



Florida Department of Transportation  
Transportation Statistics Office

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The **RCI PLANNING DATA HANDBOOK** is produced by:

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## Acknowledgements

The Florida Department of Transportation has created the Roadway Characteristics Inventory (RCI) Handbook to be an important guide for those working with the RCI data. Our office wishes to acknowledge the collaborative efforts of the supporting offices and subject matter experts that contributed to its content.

Our goal is to have the best possible handbook in order to provide the best data. The intent of this handbook is to provide guidance for those that collect, code, and use the RCI data in an accurate and consistent manner statewide. In coordination with the district offices, Central Transportation Statistics Office ensures the data is enter into the RCI database to reflect existing field conditions. All diagrams and images depict the most typical occurrences of actual field conditions and do not cover all occurrences. Therefore subscribed methods, guidelines, and practices outlined may contain errors and omissions, and as such are subject to change. The contents herein are intended for those with transportation background and technical knowledge, which are required for a full understanding of the RCI data and the prescribed collection methodologies.

So that our office continues to have reliable, organized, accurate, and consistent data, we encourage users' feedback to help improve the quality of this handbook.

Please provide any comments or suggestions to:

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## INTRODUCTION TO RCI

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This chapter is a brief introduction to the Roadway Characteristics Inventory (RCI) system at the Florida Department of Transportation (FDOT or the Department). Included are subjects such as the function and interrelationships of the RCI Planning Data Handbook and the RCI Features & Characteristics Handbook; what RCI is; who uses RCI; and an introduction to terms used in the RCI process.

### **The RCI Planning Data Handbook**

#### What the RCI Planning Data Handbook Covers

The purpose of the RCI Planning Data Handbook is to provide instructions and reference for data entry and usage for areas of the FDOT's RCI system for which the Transportation Statistics Office (TranStat) is currently responsible. This edition of the handbook reflects the current RCI program application, other applications associated with RCI, and updates to previous versions of this handbook.

#### Using the RCI Planning Data Handbook with the Features & Characteristics Handbook

A companion volume, the RCI Features & Characteristics Handbook, covers all the features and characteristics in the RCI database and the definition and code values. While each volume has been written to be used alone, they should be useful to both field and office personnel.

### **What is RCI?**

RCI is a computerized database of information related to the roadway environment. The data in RCI is maintained by and is of special interest to the Department. In addition to data required by the Department, RCI contains other data as required for special Federal and State reporting obligations. This other data aspect lends RCI to be one of the most influential databases used at FDOT. It is linked to and used by many Department agencies. RCI is maintained by District and Central Office personnel. While there are many other important databases maintained by the Department (several that contain more highly technical data such as bridge specifications, highway design, or pavement), RCI remains the largest database with over 12 million records and growing.

#### Responsibility for RCI Elements

The General Interest Roadway Data (GIRD) Procedure, Topic No: 525-020-310 describes requirements for RCI. The Department's concept of "data sponsorship" further defines District and Central Office responsibility for data inventory, maintenance, quality assurance and control, and reporting obligations. TranStat, under the direction of the Assistant Secretary for Intermodal System Development, develops procedures and training for proper and uniform collection, reporting, and storage of the RCI data. However, most of the actual RCI data collection is the responsibility of the District Planning or Maintenance Offices. Quality control (QC) and quality assurance (QA) activities are shared by Districts and TranStat.

### **RCI Uses and Users**

Many entities/agencies use RCI data. In addition to producing special reports, TranStat uses RCI data in producing reports for the Federal Highway Administration (FHWA), which in turn are used in funding apportionment and system performance evaluation. RCI users within FDOT:

- |                              |  |
|------------------------------|--|
| ○ General Counsel Office     | ○ Right of Way Office                      |
| ○ Office of Maintenance      | ○ Safety Office                            |
| ○ Outdoor Advertising Office | ○ Systems Planning Office                  |
| ○ Public Transit Office      | ○ Rail and Motor Carrier Operations Office |

Other RCI users outside the Department include the general public, local governments, engineers, mapping companies, law enforcement agencies, the legal profession, realtors, developers, theme park operators, the media, and emergency medical service providers.

A very important use of RCI data involves obtaining and disbursing transportation funds. In this area, the Department has specific obligations, ranging from obtaining proper funding to demonstrating the performance and efficiency of various system elements. RCI plays an important role in these requirements.

#### Transportation Funding

The Department is a trust-funded State Agency. This means that the Department's funds primarily come from user fees such as highway fuel taxes, motor vehicle license fees, and aviation fuel taxes. These monies are deposited into the State Transportation Trust Fund (STTF) and are primarily used on projects from the Department's 5-Year Work Program.

An equally important transportation-funding source is the Federal Government. The Highway Performance Monitoring System (HPMS) data, extracted from RCI, is a Federal requirement administered by the U.S. Department of Transportation (USDOT) and FHWA. These efforts are served through the HPMS inventory and monitoring of the system through RCI.

HPMS data are used by the FHWA as follows:

- Apportionment of Federal Aid Highway Program Funds
- Estimates of Highway Investment Requirements
- Support for the FHWA's Strategic Planning efforts
- Transportation/air quality planning
- Development of a National Highway System (NHS)
- Support programs of a diverse group of partners and stakeholders

#### Need for Accurate RCI Data

Collecting and coding RCI data is a complex task. RCI serves as the foundation for numerous other processes such as system performance or funding evaluations that have a major impact on programs and decisions. Errors in RCI have a cumulative effect – one view is that errors in RCI data lead to more errors in later programs. A more positive view is that accuracy in RCI will result in more accuracy with associated processes that depend on RCI data. Taking the time and effort in the basic RCI activities will be very beneficial in the long run.

### **The RCI System**

The RCI database resides on the Southwood Shared Resource Center mainframe computer system and is maintained by Department personnel, with access by specified personnel from the District and Central Offices. There are two main applications for accessing RCI data, the basic web-based RCI application and the Time Sharing Option (TSO) application. Security clearance or resource access control facility (RACF) gives you specific privileges in either or both areas and is assigned by security coordinators throughout the Department. Security elements and responsibilities are presented in this handbook. The ability to add, update, or delete RCI data is assigned by area of responsibility (e.g. Planning, Traffic Operations, Office of Maintenance, etc.) and respective Districts. To receive security clearance, contact your security coordinator.

#### Web-based RCI Application

The current web-based version of RCI was implemented by the Department in 2004. The current system replaces several previous versions, extending from the first RCI process developed in the late 1970s. The current RCI program provides access to and administration of the traditional RCI database, but with enhanced functionality. The current program was developed by the Department's Office of Information Technology (OIT), using a Joint Application Development (JAD) Committee approach to ensure that user needs and requests were included. A separate RCI Application User Guide provides details on the use of the web-based RCI application.

### **What Roads are Required to be in RCI?**

Roads functionally classified as arterial and collectors are to receive a roadway ID number in RCI and be mapped on the Department's basemap. The functional classification of a road refers to the FHWA approved designations that are divided into a hierarchy of road types that range from arterials to locals. This hierarchy is chosen for individual roads based upon traffic mobility and land access, which is updated as needed. All functionally classified arterials and collectors may be found on the State Highway System (SHS), county road system, and city street network.

These RCI required roads belong to either Active On or the Active Off the SHS. Not only does the Department require Active On the SHS and Active Off the SHS roads to be included in RCI and be mapped, it requires the ramps and frontage roads (Active Exclusive system) that are associated with the SHS to be included as well.

Active Off the SHS (city and county) roads that are functionally classified below a collector are known as local roads and are usually not found in RCI nor the basemap. However, specific off-system alignments functionally classified as local are required to be in RCI if one of the following instances occurs:

- Construction/reconstruction records in the Department's Financial Management (FM) System
- Roadways with bridges or railroad crossings
- On or proposed for the NHS
- On or proposed for the Florida Freight System
- On or proposed for the Strategic Intermodal System (SIS) or SIS connector

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**RCI BUILDING BLOCKS**

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This chapter explains the basic terms used in the Roadway Characteristics Inventory (RCI) database. This basic information will assist the reader in understanding the structure and terms found herein.

Florida's roads are represented by multiple data segments in RCI. Each segment has data elements that describe the roadway in physical terms. RCI identifies segments of a road with a unique roadway ID where groups of data elements are described by features and characteristics. Most data is stored at the characteristic level.

The Department conducts inventories of the roadway data elements based on the type of road, its owner, how it functions, and its physical characteristics. There are four distinct inventory processes for different types of roads: active on the State Highway System (SHS), Active Off the SHS, active exclusive, and Highway Performance Monitoring System (HPMS).

**Roadway ID**

The roadway ID number is a fundamental concept in RCI. The roadway IDs are eight-digit numbers assigned to any roadway for which the Department collects and reports roadway information. A roadway ID contains three different groups of numbers: county, section, and sub-section.

The county numbers occupy digits 1-2. These are the standard county numbers used by the Department. The section numbers occupy digits 3-5 and the sub-section numbers occupy digits 6-8. An example roadway ID is 99 010 000 where 99 is the county number, 010 is the section number, and 000 is the sub-section number.

Features and characteristics may run for the entire length of the roadway ID or for specific portions of the roadway ID. The Department uses roadway ID numbers when collecting and reporting roadway information. These numbers can be assigned to state, county, or city roadways (the three jurisdictional bodies in the State of Florida).

**Milepoints**

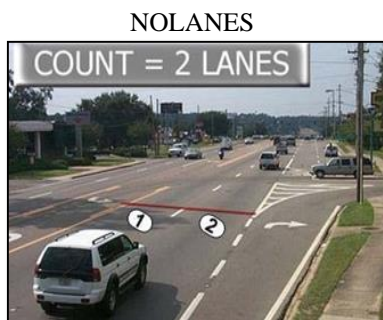
Milepoints are associated with roadway IDs and represent specific locations or physical points on the road. Milepoints follow the accumulated mileage along the road. Typically, milepoints start at the roadway ID's beginning milepoint (BMP) with a value of 0.000, and accumulate to the ending milepoint (EMP) of the roadway ID. It is preferred that alignment directions proceed generally from south to north or west to east. Milepoints are specified to three decimal places.

A milepoint represents distance from the starting point expressed in miles, to 1/1000 of a mile (3 decimal places). Thus, a milepoint of 0.075 would represent  $5,280 \times 0.075 = 396$  feet, while a milepoint of 1.075 would represent 5,676 feet ( $5,280 + 396$ ) from the starting point.

**Features & Characteristics**

For RCI purposes, a feature is a general grouping of physical attributes of a roadway, identified by a unique three-digit number and name. A characteristic is a more specific element of the roadway and is identified by a unique name up to eight alpha characters. Features and characteristics are explained in greater detail in the RCI Features & Characteristics Handbook.

To help understand the relationship between features and characteristics, features can be thought of in the same way as overall type of motor vehicle (sedan, truck, etc.), while characteristics can be thought of as the components of the vehicle (color, number of doors, etc.). As a more precise example, Feature 212 contains two characteristics, Number of Lanes NOLANES and Surface Width SURWIDTH. In the image below, notice that NOLANES is two and SURWIDTH is 24 feet.



## Feature Attributes

### Length Features

Have BMPs that are different from their EMPs. Length features may contain more than one characteristic.

111 – State Road Sys.	143 – Assoc. Station Exceptions	273 – Cable Barriers
112 – Federal Sys.	144 – FL Intra. Hwy Sys. (inactive)	311 – Speed Zone
113 – AASHTO	145 – Level of Service	313 – Parking Restrictions
114 – Local Name	146 – Access Management Class.	323 – School Zones
115 – Special Designations	147 – Strategic Intermodal Sys. (SIS)	330 – Traffic Flow Break Station
116 – Freight Network	212 – Through Lanes	331 – Traffic Flow Breaks
118 – HPMS	213 – Auxiliary Lanes	361 – Service Plazas
119 – HPMS Universe Inventory	214 – Outside Shoulders	421 – Roadside Ditch Cleaning
120 – Type Road	215 – Highway Median	422 – Median Ditch Cleaning
121 – Functional Class.	216 – Bike Lanes & Sidewalks	451 – Striping
122 – Road Access	217 – Sidewalks	456 – Retroreflectivity Measurement
124 – Urban Class.	219 – Inside Shoulders (R/L only)	457 – Retroreflectivity Parameters
125 – Adjacent Land Class.	221 – Horizontal Curve	481 – Highway Maintenance Class.
137 – Maintenance Area Boundary	230 – Surface Description	801 – Trails
138 – Roadway Realignment	232 – Surface Layers	901 – Rail Line Facility
139 – New Alignment	233 – Base	902 – Passenger Rail
140 – Section Status Exception	245 – Roadside Ditches	
141 – Stationing Exceptions	258 – Structures	
142 – Managed Lanes	272 – Fencing	

### Point Features

Locate specific items that occur at a particular point on the roadway. Point features may contain more than one characteristic.

220 – Non-Curve Intersection	253 – Railroads	351 – Motorist Aid Call Boxes
241 – Crossdrains & Box Culverts	257 – Crossovers	360 – Toll Plazas
243 – Off Roadway Areas	312 – Turning Restrictions	431 – Parks & Rest Areas
248 – Outfall Ditches	320 – Milemarker Signs	460 – Attenuators
251 – Intersections	322 – Signals	903 – Rail Passenger Station Name
252 – Interchanges	326 – Traffic Monitoring Sites	

### Total Features

Record area volumes along roadways. Total features may contain more than one characteristic.

242 – Storm Sewer	411 – Roadside Mowing	453 – Crosswalks
256 – Turnouts	412 – Weed Control	454 – Stopbars
271 – Guardrail	413 – Landscape Area	455 – Raised Pavement Markers
275 – Misc. Concrete Structures	443 – Delineators	480 – Highway Signs
341 – Lighting	452 – Symbols & Messages	

### Administrative Features

Include some items visible in the field and others that must be collected in the District or TranStat through documents or by designations. Many elements associated with the roadway are not visible in the field and are assigned using records available in the office.

111 – State Road Sys.	120 – Type Road	140 – Section Status Exception
112 – Federal Sys.	121 – Functional Class.	141 – Stationing Exceptions
113 – AASHTO	122 – Facility Class.	142 – Managed Lanes
114 – Local Name	124 – Urban Class.	143 – Assoc. Station Exceptions
115 – Special Designations	125 – Adjacent Land Class.	144 – FL Intra. Hwy Sys. (inactive)
116 – Freight Network	137 – Maintenance Area Boundary	145 – Level of Service
118 – HPMS	138 – Roadway Realignment	146 – Access Management Class.
119 – HPMS Universe Inventory	139 – New Alignment	147 – Strategic Intermodal Sys. (SIS)

### Automatically Generated Features

These are automatically created by the RCI system when entering other feature data.

139 – New Alignment	143 – Associated Station Exceptions
---------------------	-------------------------------------

**Secured Features**

Only TranStat personnel can update data elements. The District Offices will notify TranStat when changes to secured features are needed.

112 – Federal Sys.	145 – Level of Service	901 – Rail Line Facility
115 – Special Designations	146 – Access Management Class.	902 – Passenger Rail
116 – Freight Network	147 – Strategic Intermodal Sys. (SIS)	903 – Rail Passenger Station Name
144 – FL Intra. Hwy Sys. (inactive)	801 – Trails	

**Interlocking Features with Interlocking Characteristics**

A feature that has characteristics coded with the same beginning and ending milepoints range. Once the characteristics within the feature interlock, only the BMP and EMP of the interlocking characteristic group need to be changed-- the RCI system will automatically change the milepoints for all the characteristics that are interlocked.

**NOTE:** Only characteristics within the same feature can be interlocked. Features cannot be interlocked with other features.

**NOTE:** Once the characteristics are interlocked within a feature, they cannot be unlocked. In order to do so, the single characteristic or group of characteristics must be deleted then re-added.

116 – Freight Network	212 – Through Lanes	311 – Speed Zone
118 – HPMS	213 – Auxiliary Lanes	320 – Milemarker Signs
138 – Roadway Realignment	215 – Highway Median	326 – Traffic Monitoring Sites
139 – New Alignment	216 – Bike Lanes & Sidewalks	330 – Traffic Flow Break Station
140 – Section Status Exception	221 – Horizontal Curve	331 – Traffic Flow Breaks
141 – Stationing Exceptions	233 – Base	360 – Toll Plazas
143 – Assoc. Station Exceptions	251 – Intersections	361 – Service Plazas
144 – FL Intra. Hwy Sys. (inactive)	252 – Interchanges	801 – Trails
146 – Access Management Class.	253 – Railroads	
147 – Strategic Intermodal Sys. (SIS)	273 – Cable Barriers	

**Physical Features**

Include components that are quantified or measured. They are collected in the field and each has specific dimensional accuracy requirements.

212 – Through Lanes	221 – Horizontal Curve	251 – Intersection
213 – Auxiliary Lanes	230 – Surface Description	252 – Interchanges
214 – Outside Shoulders	232 – Surface Layers	253 – Railroads
215 – Median	233 – Base	256 – Turnouts
216 – Bike Lanes & Pedestrian Sidewalks	241 – Crossdrains	257 – Crossovers
217 – Sidewalks	242 – Storm Sewer	258 – Structures
219 – Inside Shoulders (R/L only)	243 – Off Roadway Areas	271 – Guardrail
220 – Non-Curve Intersection Point	245 – Roadside Ditches	272 – Fencing
	248 – Outfall Ditches	275 – Misc. Concrete Structures

**Characteristics**

Characteristics contain the individual unique data elements that give definition to their associated feature. For a full list of characteristics, see the following areas in the RCI Features & Characteristics Handbook:

- Table of Contents for the listing of features and their associated characteristics.
- Features content for detailed descriptions of the characteristic codes.
- Appendix No. 7 for an alphabetical listing of characteristics.

The following are components of a characteristic.

**Road Side**

Used to indicate which side of the roadway the characteristic appears. A roadway is divided if it contains a median separator, or a divider located longitudinally along the roadway serving to separate traffic in opposing directions. A roadway is composite if it does not contain a median. If the roadway is divided, the characteristics that are not composite must be entered for both the left side and the right side of the road. All characteristics found to exist either on the physical centerline or to the right of the physical centerline, as determined by direction of increasing milepoints, are recorded as right. All characteristics to the left of the physical centerline are recorded as left.

C – Composite

R – Right

L – Left

Offset Distance and Direction

The offset distance is the measured distance from the edge of the roadway to the characteristic. The offset direction can be left, right, or both and depends on the direction of travel. To determine whether the offset is left or right, first determine the inventory direction of the roadway. Roadway IDs are assigned milepoints increasing in the inventory direction, usually from west to east and south to north. The inventory direction with increasing milepoints is the right side of the roadway. The inventory direction with decreasing milepoints is the left side of the road. The following codes are used to indicate the offset location of roadway characteristics.

1 – Right and Left (composite)

2 – Right (right side)

3 – Left (left side)

Composite Features

Characteristics in these features are always coded as composite for any type of roadway (divided or undivided).

111 – State Road Sys.	124 – Urban Class.	147 – Strategic Intermodal Sys. (SIS)
112 – Federal Sys.	125 – Adjacent Land Class.	215 – Median
113 – AASHTO	138 – Roadway Realignment	251 – Intersections
114 – Local Name	139 – New Alignment	252 – Interchanges
115 – Special Designations	140 – Section Status Exception	253 – Railroads
116 – Freight Network	141 – Stationing Exceptions	326 – Traffic Monitoring Sites
118 – HPMS	142 – Managed Lanes	330 – Traffic Flow Break Station
119 – HPMS Universe Inventory	143 – Assoc. Station Exception	331 – Traffic Flow Breaks
120 – Type Road	144 – FL Intra. Hwy Sys. (inactive)	901 – Rail Line Facility
121 – Functional Class.	145 – Level of Service	
122 – Road Access	146 – Access Management Class.	

Composite, Left, or Right Features

Characteristics in these features must be coded as composite for an undivided roadway or appropriately left or right for a divided roadway. This must agree with Feature 120 TYPEROAD.

212 – Through Lanes	258 – Structures*	230 – Surface Description
213 – Auxiliary Lanes	311 – Speed Zone	232 – Surface Layers
214 – Outside Shoulders	320 – Milemarker Signs	233 – Base
216 – Bike Lanes & Sidewalk	220 – Non-Curve Intersection*	360 – Toll Plaza
219 – Inside Shoulders	221 – Horizontal Curve*	361 – Service Plazas

\* May be left, right, or composite on a divided highway.

Unit of Measurement

Characteristics are measured in one of the units below.

Acre	Feet	Miles
Code	Hours	Miles/hour
Days	ID No.	Sq. Ft
Degrees	Inches	Sq. Yd
Each	Lumen	

Metric Unit of Measurement

Metric units of measurement are not currently used by the Department. The following is a list of the metric measurement units that may still exist.

Hectare	Meter
Kilometer	Square Meter

Value Codes

Correspond with a characteristic's particular unit of measure. The size of the value field is also given for each characteristic in terms of bytes. Where decimals are permitted, the decimal point does not count as a character space (i.e. 99.9 contains three bytes, 0.9 contains one byte).

Inventory Methods

The following inventory methods describe the typical means by which data is collected.

Automatic

Automatically generated by the computer (no user input required).

Field

Physically measured at the site.

None

Data is provided from an external source.



Office

Collected from administrative sources (plans, maps, classifications, etc.).

Video/Field

Collected from video log (if current and available) or by measuring in the field.

Office/Field

Collected from an administrative source or by physically measuring the characteristic.

Imagery

Collected from aerials, DOQQ's, etc.

**Inventory Types**

The Department conducts inventories of roadway data elements based on the type of road, its ownership, function, and physical characteristics. Each of these categories has its own requirements.

Active On the SHS

Active roadways are all roads on the SHS, defined as the roadway network owned by the State of Florida and maintained by the Department. The term "Active On the SHS" means that the roads are currently being used. The SHS includes interstate routes, numbered U.S. routes, and state roads. The term "Active On the SHS" has also replaced the term "active-on," which, while occasionally encountered, is no longer used. A more appropriate term is "On-system."

Active Off the SHS

Active Off the SHS roadways are owned by counties and cities but are of special interest to the Department. The Active Off the SHS inventory is generally not as detailed as the Active On the SHS inventory; however, some Districts may maintain more information for their Active Off the SHS roads than is required.

Active Exclusive

Active exclusive roadways are typically ramps or frontage roads. The term "active" means that it is currently being used and the term "exclusive" means that it is not included as part of the Active On the SHS or Active Off the SHS roadway system mileage.

Local Active Off

Local roads are not owned by the state nor are they on the SHS.

New Construction/Pending

New construction roadways are roads being added to the SHS.

Managed Lanes

Managed lanes are tolled roadways that assist with the traffic flow along interstates.

**General Compass Direction Template**

Used to determine the general compass direction for each roadway ID alignment. The digital copy of the general compass direction template can be obtained from the District SharePoint website:

<http://fdotsp.dot.state.fl.us/sites/ISD-TRANSTAT/Training/Shared%20Documents/Forms/AllItems.aspx?RootFolder=/sites/ISD-TRANSTAT/Training/Shared%20Documents/RCI%20Training%20Docs&FolderCTID=0x0120003DF54A3457DE9B47AF012A40179163E1&View=%7b82B23021-57E9-40C5-80B2-68D01D0885D2%7d>

**Compass Direction Tool**

The compass direction tool is a geographic information systems (GIS) application that can be used to quickly and easily derive the compass direction for any roadway ID on the TranStat GIS basemap. Please contact the TranStat GIS Section for assistance with this tool.

## View/Update/Delete Roadway ID Screen

This screen, often referred to as the V/U/D screen, displays information about roadway IDs.

Read Only Mode . Roadway Characteristics Inventory Help Login  
 5/29/2013 10:12AM EST

Main Feat/Char Roadway ID Routes Reports History Other

Find Feature Data Route List Detail

### View/Update/Delete Roadway ID

Roadway ID:	01999999	Managing District:	DISTRICT 1 - BARTOW
County:	01 - CHARLOTTE	Geographic District:	DISTRICT 1 - BARTOW
Section:	999	General Compass Direction:	NORTHEAST
Sub-Section:	999	System:	STATE HIGHWAYS
Beg. Mile Point:	0.000	State Highway System:	PRIMARY
End. Mile Point:	18.180	Controlling City:	
Gross Length:	18.18	RCI Section Established Date:	04/15/2013
Net Length:	18.180	(MM/DD/YYYY)	
State Owned:	100%	Stationing Exceptions Exist?	NO
Overall Status:	ACTIVE ON THE SHS	Feature/Characteristics Exist?	YES
Type:	MAINLINE	FM Projects Exist?	NO
Mode Type:	ROADWAY		
Governmental Jurisdiction:	STATE DEPT. OF TRANSPORTATION		
Overall Description:			

Update Delete Enterprise GIS Last Updated By: RCIUSR1 On: 05/28/2013

Beg. MP	End. MP	Feature/Characteristic	Value
0.000	10.023	114 - LOCAL NAME OF FACILITY	TEST RD
2.000	14.000	114 - SCENIC HIGHWAY	JCPMH - JC PENNEY MEM HWY
10.023	18.180	114 - LOCAL NAME OF FACILITY	TES TER
0.000	18.180	120 - TYPE OF ROAD	2 - DIVIDED
0.000	18.180	140 - SECTION STATUS EXCEPTION	02 - ACTIVE ON THE SHS

### Roadway ID

The eight-digit roadway ID number.

### County

The county code and county name where the roadway exists.

### Section

Taken from the roadway ID.

### Sub-Section

Taken from the roadway ID.

### Beg. Mile Point

The milepoint assigned to the beginning of a roadway ID.

### End. Mile Point

The milepoint assigned to the ending of a roadway ID.

### Gross Length

The EMP minus the BMP.

### Net Length

The sum of roadway segments that are drivable and that have their data carried by a single roadway ID. This excludes portions that are shown in Feature 140 to be pending, inactive, deleted, or GIS route, or that have an exception coded in Feature 141.

#### Net Length Example

(Gross length) 18.20  
 (Deleted) - 0.386  
 Net length) 17.815

Net length = gross length minus (any portion included in Feature 141) minus (any portion with Feature 140's STATEXPT = 01-Pending, 04-Inactive, 05-Deleted, or 10-GIS Routes)

### State Owned

The percentage of the roadway length owned by the State. This is automatically calculated by the RCI system.

**Overall Status**

Indicates the assigned functionality of the entire roadway segment as coded in Feature 140. Statuses are listed below:

**01 Pending**

New construction or road transfers anticipated to be added to the roadway network.

**02 Active On the SHS**

A road segment that is owned and maintained by the Department as part of the SHS.

**04 Inactive**

Indicates a roadway ID will no longer be considered as an operational number. An operational number is a roadway ID currently being used to store RCI data. All other RCI data currently coded under this number must be retained for an indefinite period. This road may or may not be of any interest later.

**05 Deleted**

A road segment that has been physically removed. Any data currently in RCI must remain in the database for a minimum of five years after a status change to deleted. Prior to deletion of RCI data, the Safety Office must be notified.

**NOTE:** Individual portions of a roadway can have a status other than 4-Inactive or 5-Deleted despite the overall status coded that way. Once a roadway ID is given an overall status of 4-Inactive or 5-Deleted its data is effectively hidden from reporting purposes and none of the individual portions should be changed.

**07 Active Exclusive**

A road segment that is maintained by the Department; however, the mileage associated with the length is not added into the overall system mileage. This status is assigned mainly to ramps, frontage roads, or any other facility not considered as mainline. Do not code more than one status value for active exclusive roadways.

**09 Active Off the SHS**

A road segment that is not part of the SHS. An Active Off the SHS segment is maintained by another entity (county or city), but the Department collects some data for reporting purposes.

**10 GIS Route**

This road type is placed in RCI and the GIS basemap upon the request of the GIS Support Section and is used to improve the appearance of maps. A GIS basemap is a geographic representation of roadways maintained in RCI. It uses the 800 series of the sub-section number.

**12 Active with Combination**

A mainline roadway ID with two or more status codes (e.g., both Active On the SHS and Active Off the SHS). When it is necessary to have road segments under a single roadway ID with different status codes, the overall status must be coded as Active with Combination. Submit an RCI/basemap package to have the V/U/D screen changed.

**16 Local Roads with FM Projects**

Local roads with Financial Management (FM) projects are placed in the RCI database as requested by the District Work Program Office. They help identify projects belonging to the Small County Resurfacing Assistance Program (SCRAP), Small County Outreach Program (SCOP), or County Incentive Grant Program (CIGP) and use the 900 series of section numbers. There are no inventory requirements for these roads.

**17 Active Off Exclusive**

A ramp, frontage road, or similar facility that is not maintained by FDOT and whose mileage is not included in Active Off the SHS reports.

**81 Pending Trails or Pending non-motorized way****82 Active Trails or Active non-motorized way****83 Combo Trails or Combo non-motorized way****84 Inactive Trails or Inactive non-motorized way****85 Deleted Trails****91 Pending Rail Line**

New construction or rail line transfers anticipated to be added.

**92 Active Rail Line**

A rail line that is operational.

**93 Combo Rail Line**

A rail line that has combinations.

**94 Inactive Rail Line**

A SIS railroad line that is no longer operational.

**95 Deleted Rail Line****Type (Road Type)**

Provides a consistent way to determine road inventory needs. They are not relevant for other purposes, such as highway access or highway design.

**00 Mainline**

Mainlines are a collection of through and other lanes that carry major traffic volumes and are included in the Department's standard mileage reports. These may be on or off the SHS. The status codes for this road type are Active On the SHS, Active Off the SHS, or Combination.

**01 Ramp**

A ramp is a segment of road that has one-way traffic with the primary purpose of allowing traffic to enter or exit a road with full or partial control of access. The status code for this road type is Active Exclusive or Active Off Exclusive.

**03 Frontage Road**

A roadway that allows some control of access between a mainline and nearby commercial areas or residences. The majority of traffic on the frontage road comes from the nearby mainline, or goes to it. The status code for this road type is active exclusive or active off exclusive. A road that allows for access control between a mainline and nearby area, but has significant traffic going to or from other roads in addition to the mainline, is itself another mainline and not a frontage road.

**08 Managed Lane**

Managed lane refers to a toll lane that is in conjunction with an interstate that allows for variable situations depending on traffic volume and road conditions. An example is the I-95 Express. Another name for a managed lane is HOT (high occupancy toll) lane.

**85 Non-Motorized Way**

A trail.

**90 Rail Line**

A SIS rail line.

**Mode Type**

Indicates the mode of travel.

**Rail Line**

A rail line.

**Roadway**

A concrete or unpaved roadway.

**Non-motorized Way (Trails)**

Not a roadway or rail line.

**Government Jurisdiction** (Updated September 2014)

Refers to the government body that is legally responsible for the maintenance of the roadway. If any percentage of a road is State owned, then it must be reflected as State Highways under System on the V/U/D screen.

01 – State Dept. of Transportation*	21 – State Toll Authority* (must have Feature 122 OWNAUTH and TOLLROAD coded)	66 – National Park Service
02 – County*	22 – County Toll Authority	68 – Bureau of Land Management
03 – Town, Township	23 – Town, Township Toll Authority	70 – Military Reservation
04 – Municipal*	24 – Municipal Toll Authority	72 – Corps of Engineers
11 – Other State Agency, Non-Toll	25 – Other Local Toll Authority	74 – Energy Research & Devl. Admin.
12 – Other County Agency, Non-Toll	26 – Private Toll	76 – Tennessee Valley Authority
13 – Other Town, Township, Non-Toll	60 – Federal Agency	78 – NASA
14 – Other Municipal Agency, Non-Toll	62 – Bureau of Indian Affairs	80 – Fish and Wildlife Service
15 – Other Local Agency, Non-Toll	64 – U.S. Forest Service	85 – Non-motorized way*
16 – Private, Non-Toll		90 – Rail Line*

**NOTE:** The above named government bodies are Federal codes for all 50 states. \*The government bodies based in Florida are County, Municipal, State Dept. of Transportation, State Toll Authority, Rail Line , and Non-motorized way.

## Overall Description

The common local name for the road represented by the roadway ID.

e.g., MAIN ST SW. The following guidelines were developed to increase statewide consistency in naming roads.

1. Avoid using milepoint and technical terms, use the U.S. Postal standard street abbreviations instead.
2. Use all 40 characters as much as possible to avoid abbreviations.
3. Use United States Postal standard street suffix abbreviations.
4. Use the following abbreviations for directions:
 

N – North	S – South	E – East
NE – Northeast	SE – Southeast	W – West
NW – Northwest	SW – Southwest	
5. Use the following standard format to denote county line (Name Co Line) e.g. DUVAL CO LINE.
6. No certain punctuation or symbols – periods, commas, colons, semi-colons, @, &, etc.
7. List routes in the following order.
  - a. Interstate route/U.S. route/state road/local name:
    - i. Use hyphens for all roadways, interstate routes, U.S. routes, state roads, and local names.
8. No roadway IDs or ramp IDs.
9. No milepoints/mileposts.
10. One local name – just use local name (MERCER RD).
11. Multiple local names:
  - a. Use first and last local names (MERCER RD/DEBARY AVE).
  - b. Use the most prominent local road name.
  - c. Use all local names if they fit.
  - d. Or just use the state road number.
12. Local name with U.S. route and/or state road number:
  - a. List the route number(s) first, then the local name(s) e.g. U.S. route/state road/local name.
13. Active exclusives – Identify the facility it is on and its direction:
  - a. I-10 W ON RAMP FROM SR 21
  - b. I-10 E OFF RAMP TO SR 21
  - c. TURNPIKE TO SR 408 E

## Managing District

The District that manages the roadway (District 1, District 2, District 3, District 4, District 5, District 6, District 7, or Turnpike).

## Geographic District

The District in which the roadway exists. For example, roadway ID 08470001 is managed by Turnpike, but its geographic District is District 7.

## General Compass Direction

The predominant direction of the roadway.

1 – North	4 – Southeast	7 – West
2 – Northeast	5 – South	8 – Northwest
3 – East	6 – Southwest	

## System

Describes the system on which the road resides. If any percentage of a road is State owned, then it must be reflected as State Highways under System on the V/U/D screen.

10 – Federal Highways Only	13 – City Streets	85 – Non-Motorized Way
11 – State Highways	14 – State Park Roads	90 – SIS Rail Line
12 – County Roads	15 – Private Roads	

## State Highway System

A general description for the majority of the road. If any percentage of a road is State owned, then it must be reflected as State Highways under System on the V/U/D screen.

1 – Interstate	3 – Primary	9 – None
2 – Turnpike	4 – Int./Art. (not used)	

## Controlling City

Supplies the current place code and city name.

**RCI Section Established Date (MM/DD/YYYY)**

The origination date of the roadway ID when it was officially added to the SHS.

**Stationing Exceptions Exist?**

If yes, then there are stationing exceptions. If no, there are no exceptions.

**Features/Characteristics Exist?**

If yes, then features and characteristics exist. If no, there are none.

**FM Projects Exist?**

If yes, then FM projects exist. If no, they do not.

**NOTE:** If an FM project exists, then the roadway ID cannot be removed from RCI.

## RCI Data Entry Process

Once the field inventory collection is complete, the RCI data entry process begins. The following is the recommended coding process.

1. Establish LRS – Code Feature 251\* Intersections. This feature establishes the linear referencing system (LRS) in RCI for the roadway ID. Other features are associated with the locations of these points.

2. Administrative Features – Code administrative features.

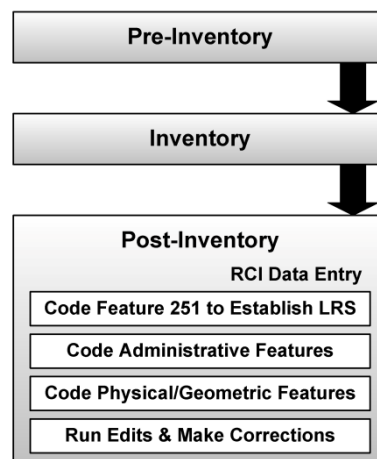
111 – State Road Sys.*	125 – Adjacent Land Class.
112 – Federal Sys.*	137 – Maintenance Area Boundary
113 – AASHTO	138 – Roadway Realignment
114 – Local Name*	139 – New Alignment
115 – Special Designations	140 – Section Status Exception*
116 – Freight Network	141 – Stationing Exceptions
118 – HPMS	142 – Managed Lanes
119 – HPMS Universe Inventory	143 – Assoc. Station Exceptions
120 – Type Road*	144 – FL Intrastate Highway Sys
121 – Functional Class.*	145 – Level of Service Input Data
122 – Facility Class.*	146 – Access Management
124 – Urban Class.*	147 – Strategic Intermodal System

3. Physical Features – Code physical/geometric features.

212 – Through Lanes*	230 – Surface Description*	253 – Railroads
213 – Auxiliary Lanes	232 – Surface Layers	256 – Turnouts
214 – Outside Shoulders	233 – Base	257 – Crossovers
215 – Highway Median	241 – Crossdrains	258 – Structures
216 – Bike Lanes & Sidewalks	243 – Off Roadway Areas	271 – Guardrail
217 – Sidewalks	245 – Roadside Ditches	272- Fencing
219 – Inside Shoulders (R/L only)	248 – Outfall Ditches	275 – Misc. Concrete Structures
220 – Non-Curve Intersection	251 – Intersections	
221 – Horizontal Curve	252 – Interchanges	

4. RCI Edits – Run all RCI and Traffic Edits. See chapter 4 RCI and Traffic Edits for more details.

**NOTE:** Features denoted with an asterisk (\*) must be coded continuously throughout the entire roadway ID, with the exception of Feature 140. If there is a gap in Feature 140, then either Feature 138 or Feature 141 must be coded to account for the gap.





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**RCI FUNCTIONS**

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This chapter contains two sections. The first is about generating Roadway Characteristics Inventory (RCI) reports via the Data Analysis and Reporting for Transportation (DART) Systems and the second is about RCI security.

### **Generating RCI Reports via the Data Analysis Reporting for Transportation (DART) System**

RCI edits are now obtained through DART. Please visit the following link to get started and to learn more:

[http://dot-wpap007.fdot.state.fl.us/DART\\_WebApp/HUB.aspx](http://dot-wpap007.fdot.state.fl.us/DART_WebApp/HUB.aspx)

If you have any suggestions or find an issue with an edit or report missing information or errors, please contact:

DART Support

Email: [CO-DART\\_Support@dot.state.fl.us](mailto:CO-DART_Support@dot.state.fl.us)

Phone number: (850) 414-4848

### **RCI Security Information RACF & CICS Surrogate Authority**

Security information has been excluded from this manual. In order for users to obtain access to any FDOT applications, please contact the FDOT Applications Coordinator.

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**RCI AND TRAFFIC EDITS**

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This chapter presents information on Roadway Characteristics Inventory (RCI) and Traffic edits. RCI and Traffic edits can be obtained through the Data Analysis and Reporting for Transportation (DART) Systems.

**RCI and Traffic Edits Menus**

RCI edits are obtained through DART. Please visit the following link to get started and to learn more:

[http://dot-wpap007.fdot.state.fl.us/DART\\_WebApp/HUB.aspx](http://dot-wpap007.fdot.state.fl.us/DART_WebApp/HUB.aspx)

If you have any suggestions or find an issue with an Edit or Report missing information or errors, please contact:

DART Support

Email: [CO-DART\\_Support@dot.state.fl.us](mailto:CO-DART_Support@dot.state.fl.us)

Phone number: (850) 414-4848

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## ADVANCED RCI CONCEPTS

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This chapter presents several advanced Roadway Characteristics Inventory (RCI) concepts. These include important aspects of roadway ID numbering, roadway realignments, and stationing exceptions. Coding of Features 138, 139 (automatically), 140, 141, and 143 (automatically) are discussed as they relate to roadway realignment and stationing exceptions. For more RCI coding examples see the Transportation Statistics Office (TranStat) District SharePoint website:

<http://fdotsp.dot.state.fl.us/sites/ISD-TRANSTAT/SitePages/Home.aspx>

### Roadway ID Numbering System

Providing correct roadway IDs is important, as they are the basis for the RCI system. A roadway ID consists of an 8-digit number, identifying the county or jurisdiction, the type of system, and the type of road. The numbering of the county, section, and sub-sections of the roadway ID is the responsibility of District personnel. However, this activity must be closely coordinated with TranStat staff.

Below is the dominant roadway ID numbering system that TranStat promotes; however, there are some instances of roadway IDs created without adherence to this system. Every attempt should be made to adhere to the prescribed roadway ID numbering system. A basemap package must be submitted to assign or change the roadway ID numbers.

#### County Number

The first two digits of the roadway ID are the county for the road's location, or the county jurisdiction.

#### Section Number

The next three digits of the roadway ID are the section number, which are assigned in sequential order starting with 001, except for Active Off the SHS roads that are assigned 000. Sections numbers 500 and above are reserved for the old secondary system. Section numbers are assigned using the following scheme:

- 000 – Active Off the SHS roads only
- 001-469 – Active On the SHS roads
- 470-479 – Turnpike facilities
- 480-499 – Active On the SHS roads
- 500-699 – Old secondary system formerly (may be reused)
- 700-899 – Reserved for future use
- 900-969 – Local roads with Financial Management (FM) projects (except 929)
- 929 – SIS Rail Line
- 970-979 – Local roads with FM projects (Turnpike)
- 980-998 – Work Program Transportation System 16
- 999 – Test number

#### Sub-section Number

The last three digits of the roadway ID are the sub-section number and should be assigned using the following scheme:

- 000 – Original mainline alignment (all digits are zero)
- 001, 002 through 009 – Realignments (first two digits are zero)
- 101, 102 through 109 – One-way pairs (middle digit is zero)
  - 111 through 799 – Ramps (no digits are zeroes, some numbers will not be used, i.e. 120, 130, 140, etc.)
- 100 series through 700 – Frontage roads (last two digits are zero)
  - 800 through 899 – GIS routes only (800 series)
  - 900 through 909 – Managed Lane
  - 910 through 998 – Maintenance yards, tollbooths, service plazas, and other non-roads, e.g. roads to fishing piers, open road tolling (ORT) lanes, etc.
  - 970 through 979 – Turnpike local road w/FM projects
  - 999 – Test number (except Turnpike)

Roadway ID Examples

<b>Roadway ID</b>	<b>Road Type</b>	<b>Numbering System Description</b>
99 000 000	County-wide Roads*	All section & sub-section digits are zero
99 000 001	Active Off the SHS	All section digits are zero
99 000 010	Active Off the SHS	All section digits are zero
99 000 100	Active Off the SHS	All section digits are zero
99 001 000	Active On the SHS	All section digits are not zero
99 010 000	Active On the SHS	All section digits are not zero
99 100 000	Active On the SHS	All section digits are not zero
99 001 001	Realignment	First two sub-section digits are zero
99 001 101	One-way Pair	Middle sub-section digit is zero
99 001 111	Ramp	No sub-section digits are zero
99 001 100	Frontage Road	Last two sub-section digits are zero
99 001 800	GIS Route	800 series sub-section
99 001 900	Managed Lane	900 series sub-section
99 470 000	Turnpike Facility	470 series section
99 500 000	Old Secondary System	500 series section
99 600 000	Old Secondary System	600 series section
99 900 000	Local Roads w/FM Projects	900 series section (except 929)
99 929 000	SIS Rail Line	929 section
99 970 000	Local Roads w/FM Projects (Turnpike)	970 series section

**NOTE:** Spacing in the roadway ID numbers is provided for reading clarity only. In use, there are no spaces.

**\*Special Case:** Use these roadway IDs for the key sheet naming convention. It is imperative that they remain coded as Pending in RCI. Do not remove them from RCI. They are necessary for the key sheet application to work properly.

Active On the SHS Examples

Active On the State Highway System (SHS) – Examples of typical numbers are 99002000 and 99040000. Roadway ID 99040000 is newer, because it is higher. When numbering Active On the SHS roads, keep this same convention; for example, if 99003000 is available and 99040000 is the last number, use 99050000 instead.

Active Off the SHS Examples

Active Off the SHS – For Active Off the SHS roads that do not have a secondary number or county-city roadway ID, select a number that is not presently listed in the RCI database. This number will begin with the two-digit county number followed by three zeroes, then three additional digits that range between 001 and 999. These numbers are usually given to roads with FM projects and lower functional classification such as locals and collectors. Higher numbers are given to roads of a higher classification. Examples of typical Active Off the SHS numbers are 99000010 or 990002000. Roadway ID 99000010 is older. If 99000006 is available but if the last number is 99000200, then use 99000201. Roadway ID 99650000 is a secondary number that is on the Active Off the SHS. Do not use numbers in the third digit that are five or higher.

Old Secondary Systems

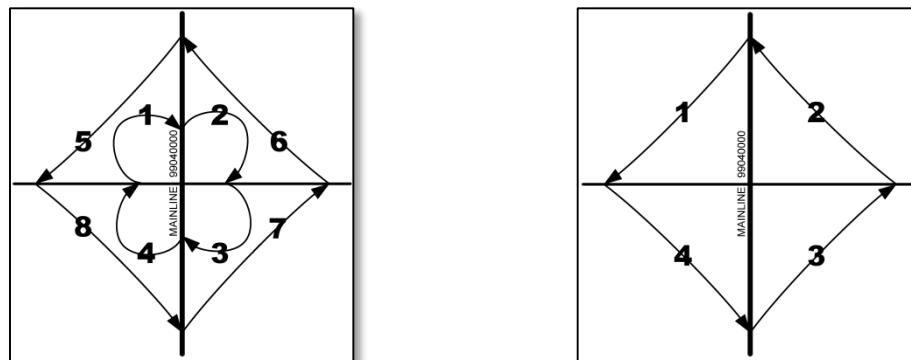
**NOTE:** Since the old Secondary Systems have been abolished, the old secondary numbers do not have to be held for the old secondary systems and be reused.

### Active Exclusive Examples

Active Exclusive – This roadway status is assigned to ramps and frontage roads that are associated to mainline alignments. Common numbers are 99040111, 99040112, 99040113, and 99040114. These sub-section numbers would be assigned to the mainline 99040000. If 99040000 intersected 99050000 at that interchange, all ramps would be associated with 99040000 because it has the lower number and is higher on the numbering hierarchy or assigned to the number of the construction job. There are exceptions to this rule, so assign ramps based on ownership. Use sub-section numbers 111-799 to denote ramps.

When assigning roadway IDs, consistency is key. Assign ramp numbers clockwise from the mainline inventory direction. Following this pattern results with the even numbers as ON ramps and the odd numbers as OFF ramps.

**Figure 5A – Active Exclusive Numbering Examples**



If an interchange is in two counties (crosses county line), then assign the ramps to the county that the bridge at the interchange is assigned to.

**NOTE:** Do not go back and change roadway ID assignments, but for future roadway ID assignments, try to keep all ramps in one county/district.

### Past Primary and Secondary Road Systems

In years past, the Department had two separate roadway systems identified as primary and secondary. To view the old secondary maps or the spreadsheets visit the District SharePoint:

<http://fdotsp.dot.state.fl.us/sites/ISD-TRANSTAT/Divisions/sld/SitePages/Home.aspx>

The primary system is today's Active On the SHS roads. These systems were identified through digits three to five of the roadway ID. The primary system was identified by a series of roadway ID numbers ranging from 000 to 499. The secondary system is the city and county roads that are now Active Off the SHS roads. These roads once received state funding for improvements, but in 1977 the legislature abolished the secondary system. The secondary system roadway ID numbers ranged from 500 to 999. When the Turnpike Enterprise road system was created, its roads were assigned roadway ID numbers in the 470 range (471, 472, etc.). The last three digits of the roadway ID number were sequential. When a secondary road was added to the SHS, it was given a new Active On the SHS roadway ID number. (The old number remained on the key sheet.)

### County & City Systems

When it became necessary to classify roads by function in accordance with Federal standards, roads other than state primary and secondary had to be assigned new roadway IDs. These roads were locally owned and maintained, so a new county and city system-numbering scheme was developed. In this scheme, the first two digits of the roadway ID represented the particular county; the next three were all zeroes and the last three were the sequential number, ranging from 001 to 999.

#### County-City:

- 15 000 001 (Pinellas County, Sequence 001)
- 48 000 444 (Escambia County, Sequence 444)
- 72 000 099 (Duval County, Sequence 099)

Roadway IDs similar to these were assigned to roads that never had another ID assigned. The numbering system for these types of roads was identified with a roadway ID number review as discussed later in this section.

In another instance, when numerous sub-sections were created, the original roadway ID status was made Pending, and all data was removed and transferred into the sub-sections. The original roadway ID could not be deleted as it was linked to the Work Program Administration/Financial Management (WPA/FM) systems. The history associated with the original roadway ID was therefore misrepresented due to the sub-sectioning. This process is no longer utilized; however, RCI may have some examples lingering in the database.

## Roadway ID Assignment Process

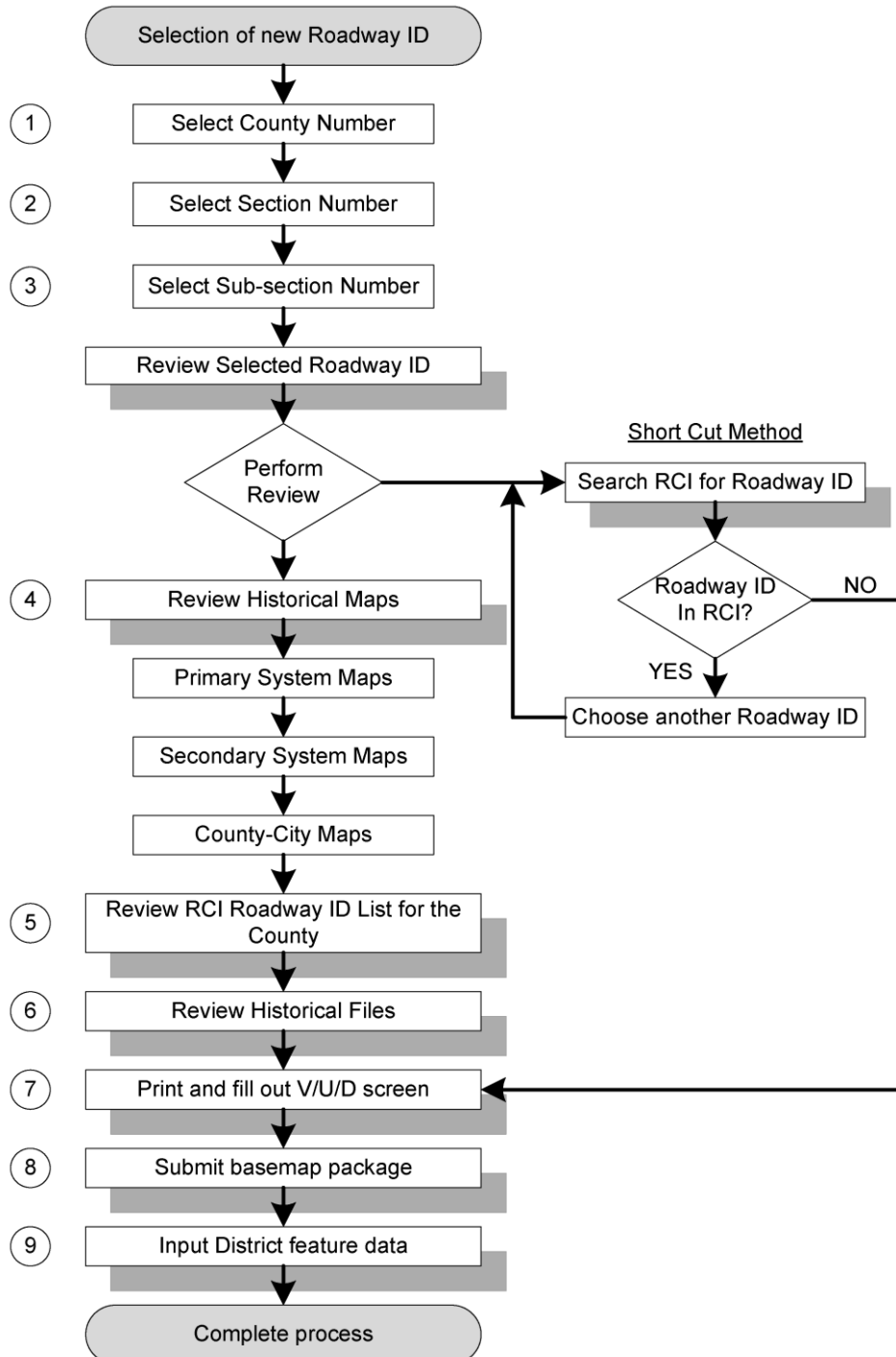
The current numbering scheme was established in 1985 and is a modification of the system used prior to 1985. The existing primary, secondary, and county-city roadway IDs should be preserved.

For roadway IDs being added, the number should not have been previously assigned. This involves performing a roadway ID review and selecting a new roadway ID that is associated within the range of roadway numbers that have similar status.

If possible, use the original construction job number under which the road was built; then assign a number under that construction job.

The assignment of a new roadway ID involves correctly selecting the number, and performing a review to ensure that it is not already in use. This section covers these steps, which are also illustrated in the accompanying flow chart.

**Figure 5B – Flow Diagram for Roadway ID Selection and Review Process**



## Roadway ID Assignment Process Steps

Steps 1-3 involve selection of the roadway ID; steps 4-6 (and the short-cut method) involve checking the selected roadway ID; and steps 7-9 are the final steps in establishing the roadway ID for further use.

### Step 1

County number: Select an appropriate two-digit county number, based on the county or jurisdiction in which the roadway lies. If the roadway lies within two counties, determine the county jurisdiction, and use the appropriate two-digit county number, e.g. county line roads.

### Step 2

Section number: Select the section number (digits three through five) based on the roadway status. Determine the appropriate numbering schematic according to the roadway ID numbering system.

### Step 3

Sub-Section number: Select the sub-section number (digits six through eight) for the next available sequential number.

At this point, continue with the detailed review method or the short-cut method. For the detailed method, follow steps 4-6. The short cut method is presented on the flow chart, and is discussed following step 9.

### Step 4

In the District Offices, three sets of maps identify the three different roadway systems. The primary, secondary, and county-city maps show the roadway ID assignment and location. Every District will have a copy of each set of these maps. Historical maps can also be accessed through the Electronic Document Management System (EDMS). When a roadway ID is being researched or verified, start with the primary map. If the road is shown as a solid line, use that number; if not, go back to the primary map and use the dotted primary number. If a number cannot be located on the primary or secondary maps, then go to the county-city map. Visit the District SharePoint site to view the old secondary maps or spreadsheets:

<http://fdotsp.dot.state.fl.us/sites/ISD-TRANSTAT/Divisions/sld/SitePages/Home.aspx>

Countywide roadway IDs are used for roads that have never been on the SHS or the secondary system. The third, fourth, and fifth digits are usually zeroes.

The zero milepoint is usually denoted at the beginning of the southern/western end of the solid line depicting the roadway unless a straight-line diagram (SLD) shows differently. Where a secondary roadway ID begins as a dotted line then becomes a solid line, the roadway ID would be referenced as noted below.

Ignore changes made to the secondary system roadway ID assignments after 1977. If in doubt whether a change to the secondary system map or other map was made after 1977, look for an SLD produced before 1977. This map should have only countywide numbers, not primary (third digit less than five) or secondary (third digit five or higher) roadway IDs.

It will also be necessary to compare information from these maps with the information found in the RCI database. When a secondary road system was transferred to the State system, a new roadway ID was given to it using the standard numbering conventions as Active On the SHS. Therefore, on the primary and secondary maps, the road would be displayed with two roadway IDs. Parentheses were used to identify the roadway number that it previously occupied or referenced on the other system. It would be displayed above or below the new number. Roads should retain the original roadway ID along with the beginning and ending milepoints. Even with consistent records, historical research can be difficult. When milepoints are moved and portions of roads deleted from the database, it becomes virtually impossible to track history. If a roadway ID is changed, the Safety Office cannot properly analyze crash histories to determine where improvements are most needed.

### Step 5

Review the countywide roadway ID listing by using the Roadway ID List screen. This will list every roadway ID in each county by roadway status. (See Figure 5C)

**Figure 5C**

Read Only Mode .

**Roadway Characteristics Inventory**

Help Login  
4/23/2013 1:47PM EST

Main Feat/Char Roadway ID Routes Reports History Other

**Roadway ID List**

Information Selected

County: 33 - LAFAYETTE Overall Status: ACTIVE ON THE SHS

Previous Next

Roadway ID	Overall Description	Local Name	Route Name	City	Net Length
<a href="#">33010000</a>	E W US-27/E W MAIN ST	W US-27, W MAIN ST, E MAIN ST, E US-27		MAYO	31.029
<a href="#">33030000</a>	SR 349	S SR 349			8.724
<a href="#">33040000</a>	SR 51	SR 51, SR 51, S FLETCHER AVE, N FLETCHER AVE		MAYO	22.467

Previous Next

**Step 6**

Historical Files: If the proposed roadway ID is not located on any of the above sources, then review any historical files. Districts should have and keep old historical files and SLDs by roadway ID.

**Step 7**

V/U/D screen: Once the chosen roadway ID number is OK for use, print a blank V/U/D screen and fill in all the required items to create a roadway ID.

**Step 8**

Submit basemap correction package: Submit a basemap correction package according to the RCI/basemap correction package process to TranStat to create the roadway ID.

**Step 9**

Update district data: After the package has been completed and returned, update District features according to the inventory practices. Ensure that administrative Features 111, 113, 114, 140, and 251, including BEGSECNM and ENDSECNM, are updated immediately.

**Short-Cut Method**

The short-cut method is an alternative to the detailed method and involves performing a search of RCI once a new roadway ID number is chosen. In most cases, if the number is not in the RCI database, it may be used. If the number is in use, choose another and perform a second search until a usable number is found. Proper judgment is required for this method – for example, if a roadway has been on the old secondary system, further research may be required.

**Special Cases**

Ramps to rest areas, service plazas, agricultural inspection stations, weigh stations, and toll collection lanes will all be treated in the same way. Each ramp to these facilities will receive one continuous roadway ID per direction, which will be a sub-section of the mainline.

**Roadway ID Assignments**

The roadway ID for the ramps will have its section and sub-section components assigned according to the highest classification hierarchy of the mainline. Hierarchy of classifications is interstates, US routes, state roads, and local roads, in that order. If two roads within the same hierarchy intersect, the lowest roadway ID will be used.

**Roadway ID Assignment for Rest Areas**

The current practice is to assign one continuous roadway ID, one roadway ID per rest area. The same practice is used for weigh stations and agricultural inspection stations.

**Roadway ID Assignment for Service Plazas**

Only one continuous roadway ID per direction should be used for the service plaza just as a rest area, weigh station, or agricultural inspection station. One continuous roadway ID sub-section of the mainline exiting and returning from the service plaza will be used.

**Roadway ID Assignment for Toll Collection Lanes**

Across the State, mainline toll plazas are being replaced with high tech plazas with ORT – no gates, no tollbooths, and no need to slowdown for drivers with SunPass.

An additional roadway ID will be assigned for toll collection lanes with separated ORT electronic toll collection and conventional toll collection. The different toll collection methods must be located on separate lanes that are off the mainline. (See Figures 5D and 5E)

No additional roadway IDs will be assigned where the electronic and conventional toll collection lanes are adjacent on the mainline. (See Figure 5F)

Toll collection on the mainline with combined electronic and convention toll collection:

- Feature 360, collect the milepoint at the midpoint of the toll collection booth.

Only one roadway ID will be assigned for a ramp with toll collection lanes with ORT electronic toll collection and separate lanes for conventional toll collection. (See Figure 5G)

Toll collection on the mainline:

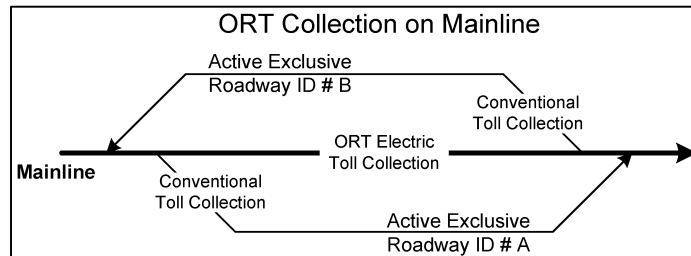
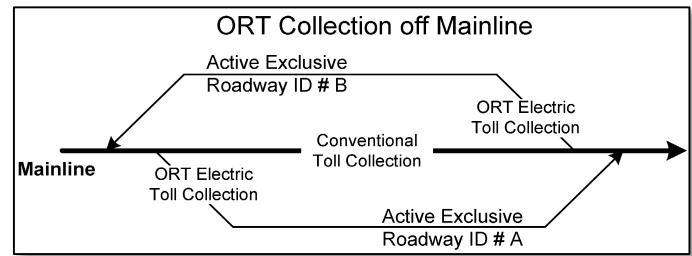
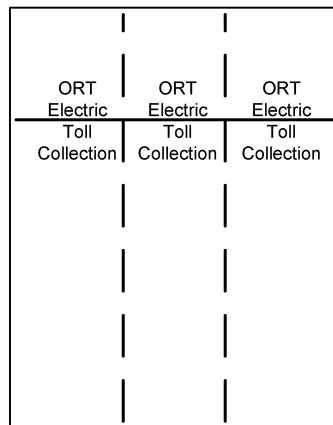
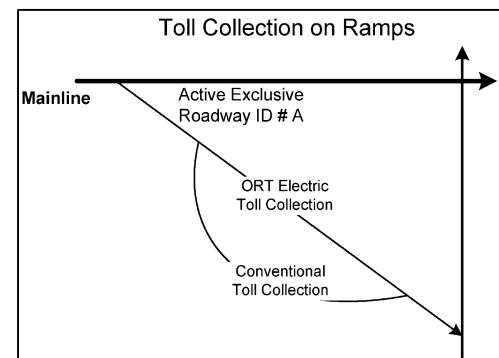
- Feature 360, collect the milepoint at the midpoint of the electronic toll collection readers



## Toll Collection off the Mainline:

- Assign one continuous Active Exclusive roadway ID for the toll collection on each side of the mainline, one for the left side and one for the right side.
- Feature 360, collect the milepoint at the midpoint of the tollbooth.

Sub-section numbers 900-998 are assigned to maintenance yards, tollbooths, and other special-use roads, e.g. roads to fishing piers, open road tolling lanes, etc.

**Figure 5D****Figure 5E****Figure 5F****Figure 5G**

## Managed Lanes

Managed lanes refer to toll lanes that are in conjunction with mainline facilities that allow for variable situations depending on traffic volume and road conditions. An example is the I-95 Express. Another name for managed lanes is high occupancy toll (HOT) lanes.

Each direction of travel of the managed lanes will be assigned a roadway ID. The roadway ID number of the managed lane will match the associated mainline section number and the sub-section number will be in the 900 series. The managed lanes will be coded as Active Exclusive under the inventory type and as managed lanes under the road type. For inventory requirements, reference the Managed Lanes RCI Inventory sheet in the Appendix of this handbook.

Managed lanes will not add centerline miles to the SHS, but will add lane miles, which will provide proper funding to the Office of Maintenance. Managed lanes will be added to the basemap and video log will be collected for them.

SLDs will be required for managed lanes. Display Section Q Managed Lanes on the mainline SLD to display the limits of the associated managed lanes.

### Coding Managed Lanes in RCI (Effective April 2013)

1. Assign a roadway ID to each travelway.
2. Inventory each roadway ID in the direction it travels, i.e., the ascending managed lanes are inventoried from south to north, and the descending managed lanes are inventoried from north to south.
3. The two roadway IDs for the managed lanes can be of unequal length.
4. The managed lanes will not add any mileage to the interstate system.
5. The VMT for the managed lanes will increase the interstate total VMT.
6. The lanes for the managed lanes will be added to the mainline total number of lanes for reporting purposes.
7. Code Feature 142 –Managed Lanes. Characteristics a-i are coded for the mainline roadway. Characteristics j-l are coded for each of the managed lane roadways.
  - a. RMLRDWY – Right Managed Lane Roadway ID
  - b. RMLBMP – Right Managed Lane Begin Milepoint
  - c. RMLEMP – Right Managed Lane End Milepoint
  - d. LMLRDWY – Left Managed Lane Roadway ID
  - e. LMLBMP – Left Managed Lane Begin Milepoint
  - f. LMLEMP – Left Managed Lane End Milepoint
  - g. CMLRDWY – Composite Managed Lane Roadway ID
  - h. CMLBMP – Composite Managed Lane Begin Milepoint
  - i. CMLEMP – Composite Managed Lane End Milepoint
  - j. MAINRDWY – Roadway ID for the associated mainline highway
  - k. MAINBMP – Begin Milepoint of the associated mainline highway
  - l. MAINEMP – End Milepoint of the associated mainline highway
8. MLTRFSEP Managed Lane Separator, is under Feature 214. It is only coded for managed lane roadways. The MLTRFSEP codes are:
 

<b>0</b> – None	<b>1</b> – Flexible Posts	<b>2</b> – Guardrail	<b>3</b> – Barrier Wall
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### CASE A – Locations where the managed lanes run adjacent to the Interstate lanes

#### Mainline:

- There is no median or inside shoulder between the mainline and the managed lane of the same direction. Therefore, code Feature 215 RDMEDIAN as code 50 – Non-counted Managed Lane.
  - Do not code Feature 219.

#### Managed Lanes:

1. The delineator (MLTRFSEP) is between the free and tolled lanes will only be coded once, and will be assigned to the managed lanes roadway id.
2. The type and width of the inside shoulders will be coded.
3. Half of the median width will be coded for each managed lane roadway.
4. In locations where the managed lane shares a bridge with the mainline, the bridge number is also coded on the managed lane roadway id.
5. In locations where the NB and SB managed lanes share a bridge, code the bridge number on both of the managed lanes roadways.
6. Code any tolling data that applies.
7. Code lanes and surface width under Feature 212.

**CASE B** – Locations where one managed lane occupies a new alignment

## Mainline:

1. There is no median or inside shoulder between the mainline and the managed lane of the same direction. However, if there is not a managed lane between the through lanes and the inside shoulder/median then code the inside shoulder and ½ the width of the median.
2. There will be no other changes made to the mainline data.

Managed Lane, separate alignment – The managed lane data will be recorded the same way as any other roadway.

Managed Lane, same alignment – Refer to CASE A above.

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**CASE C** – Locations where the managed lanes run in between the Interstate lanes as a potential one-way or reversible facility (Effective April 2014)

## Mainline:

1. Code all associated features as usual.
2. Code Feature 215 RDMEDIAN as code 50.

Managed Lane, separate alignment – Refer to CASE A above.

Managed Lane, same alignment – The managed lane data will be recorded in the same manner as a one-way roadway. Code Feature 214 SHLDTYPE from outside edge of lane striping to the MLTRFSEP.

Figure 5H

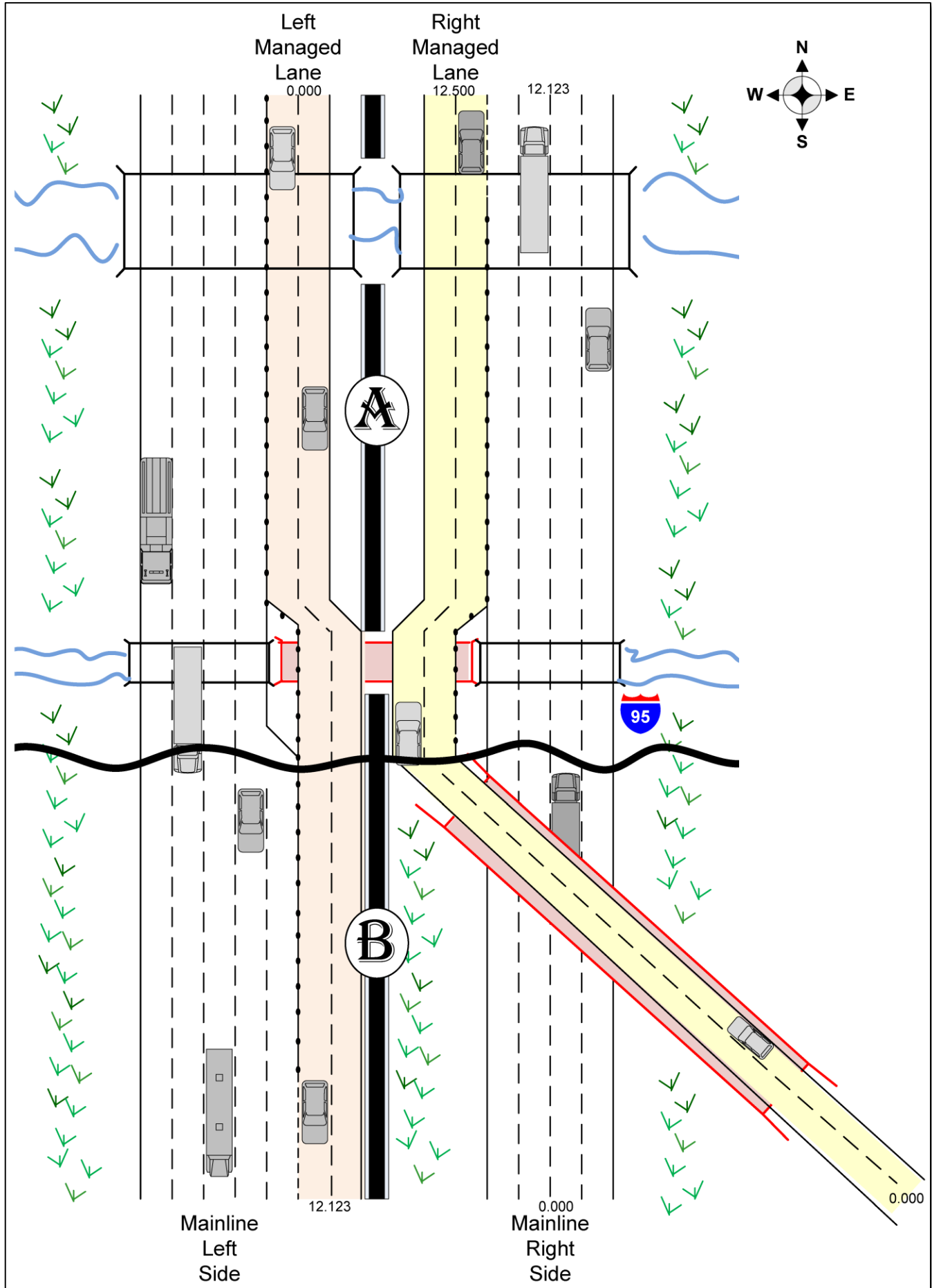


Figure 5I

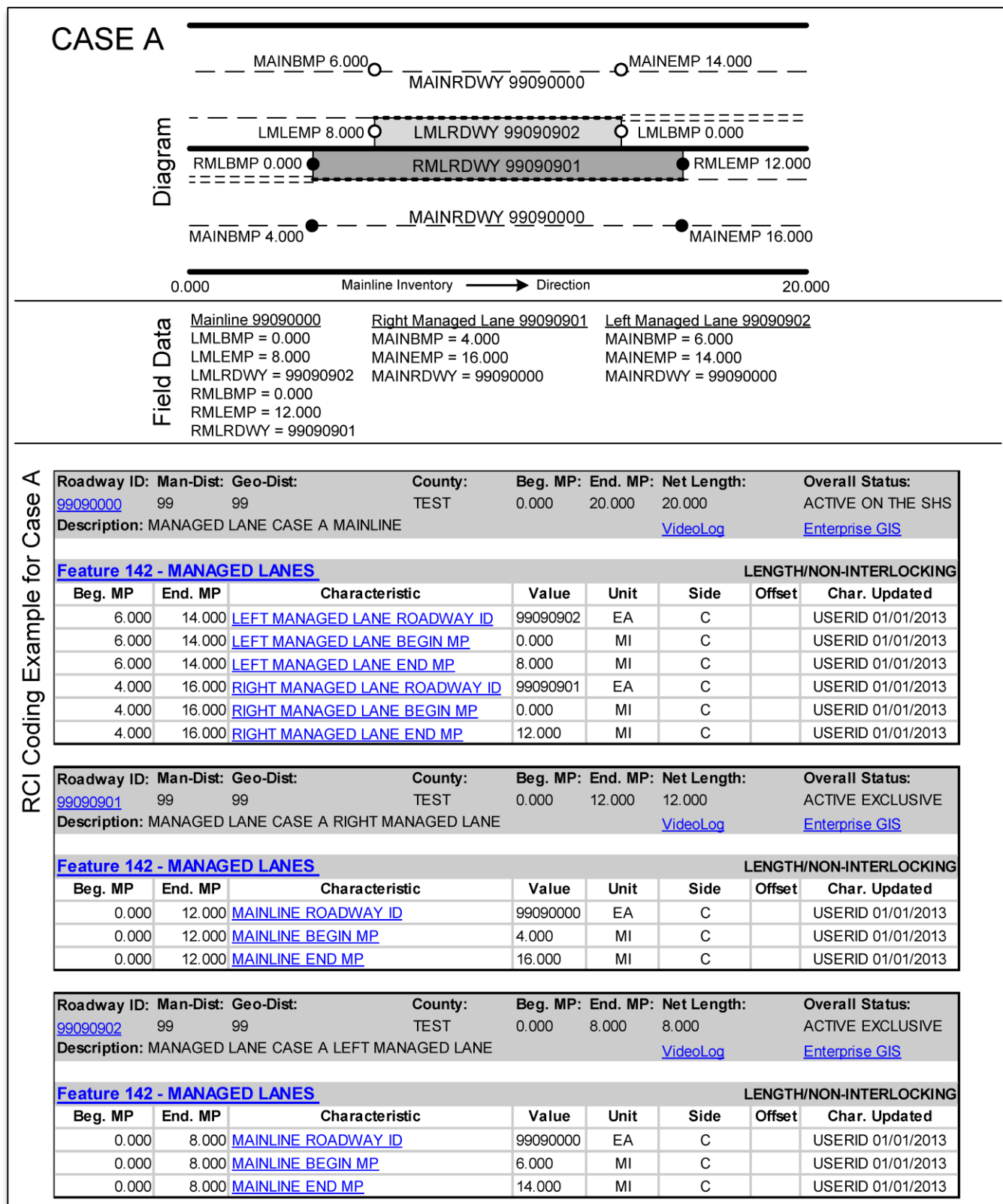
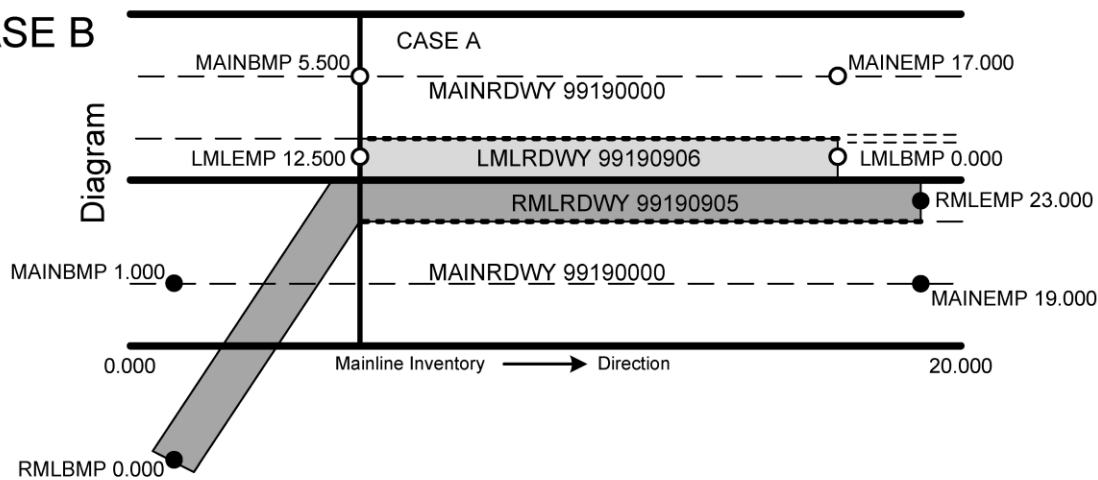


Figure 5J

## CASE B



## Field Data

## Mainline 99190000

LMLBMP = 0.000  
 LMLEMP = 12.500  
 LMLRDWY = 99190906  
 RMLBMP = 0.000  
 RMLEMP = 23.000  
 RMLRDWY = 99190905

## Right Managed Lane 99190905

MAINBMP = 1.000  
 MAINEMP = 19.000  
 MAINRDWY = 99190000

## Left Managed Lane 99190906

MAINBMP = 5.500  
 MAINEMP = 17.000  
 MAINRDWY = 99190000

## RCI Coding Example for Case B

Roadway ID:	Man-Dist:	Geo-Dist:	County:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99190000</a>	99	99	TEST	0.000	20.000	20.000	ACTIVE ON THE SHS
Description: MANAGED LANE CASE B MAINLINE				<a href="#">VideoLog</a>		<a href="#">Enterprise GIS</a>	

Feature 142 - MANAGED LANES						LENGTH/NON-INTERLOCKING	
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Offset	Char. Updated
5.500	17.000	<a href="#">LEFT MANAGED LANE ROADWAY ID</a>	99190906	EA	C		USERID 01/01/2013
5.500	17.000	<a href="#">LEFT MANAGED LANE BEGIN MP</a>	0.000	MI	C		USERID 01/01/2013
5.500	17.000	<a href="#">LEFT MANAGED LANE END MP</a>	12.500	MI	C		USERID 01/01/2013
1.000	19.000	<a href="#">RIGHT MANAGED LANE ROADWAY ID</a>	99190905	EA	C		USERID 01/01/2013
1.000	19.000	<a href="#">RIGHT MANAGED LANE BEGIN MP</a>	0.000	MI	C		USERID 01/01/2013
1.000	19.000	<a href="#">RIGHT MANAGED LANE END MP</a>	23.000	MI	C		USERID 01/01/2013

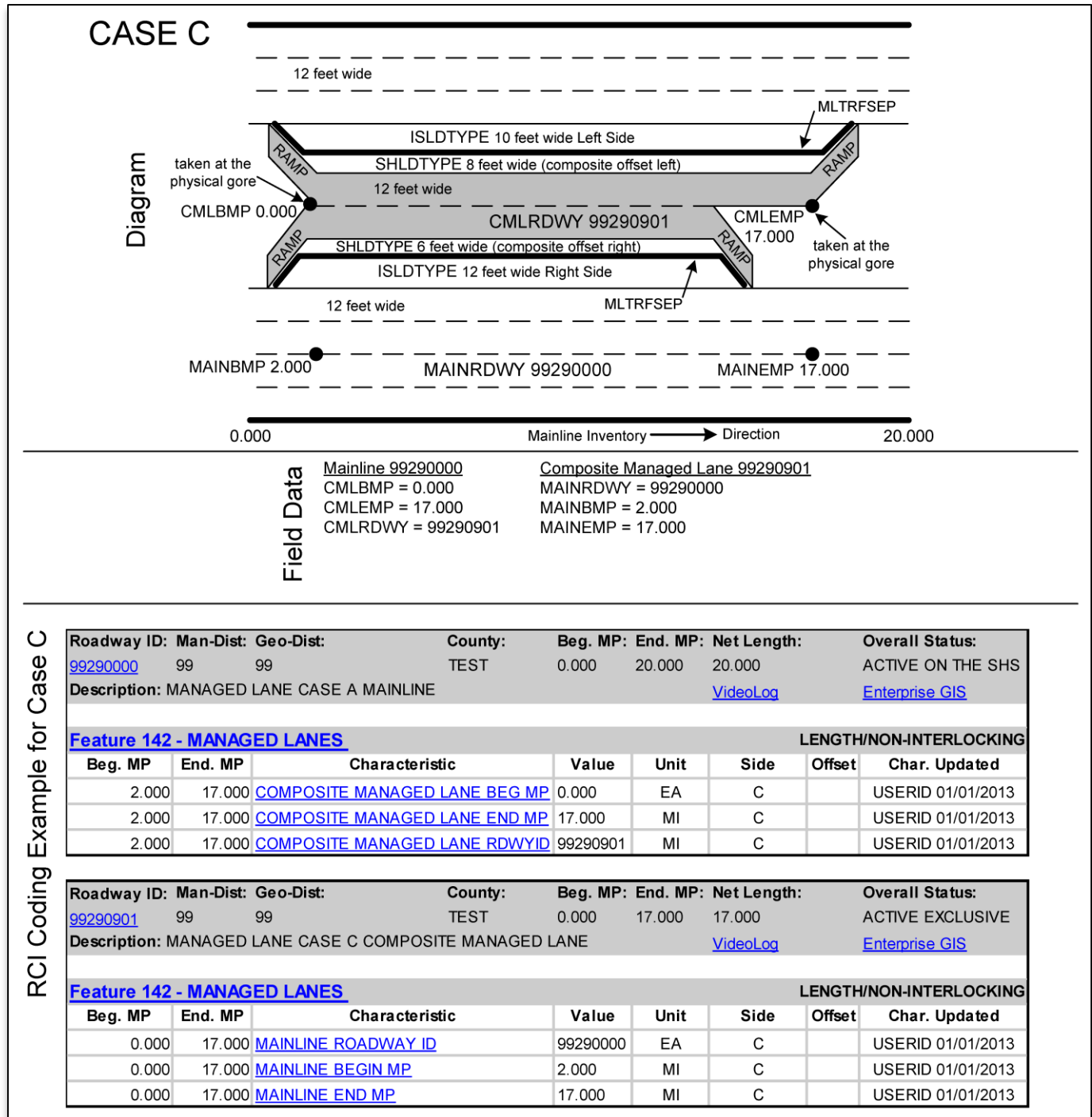
Roadway ID:	Man-Dist:	Geo-Dist:	County:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99190905</a>	99	99	TEST	0.000	23.000	23.000	ACTIVE EXCLUSIVE
Description: MANAGED LANE CASE B RIGHT MANAGED LANE				<a href="#">VideoLog</a>		<a href="#">Enterprise GIS</a>	

Feature 142 - MANAGED LANES						LENGTH/NON-INTERLOCKING	
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Offset	Char. Updated
0.000	23.000	<a href="#">MAINLINE ROADWAY ID</a>	99190000	EA	C		USERID 01/01/2013
0.000	23.000	<a href="#">MAINLINE BEGIN MP</a>	1.000	MI	C		USERID 01/01/2013
0.000	23.000	<a href="#">MAINLINE END MP</a>	19.000	MI	C		USERID 01/01/2013

Roadway ID:	Man-Dist:	Geo-Dist:	County:	Beg. MP:	End. MP:	Net Length:	Overall Status:
<a href="#">99190906</a>	99	99	TEST	0.000	12.000	12.000	ACTIVE EXCLUSIVE
Description: MANAGED LANE CASE B LEFT MANAGED LANE				<a href="#">VideoLog</a>		<a href="#">Enterprise GIS</a>	

Feature 142 - MANAGED LANES						LENGTH/NON-INTERLOCKING	
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Offset	Char. Updated
0.000	12.500	<a href="#">MAINLINE ROADWAY ID</a>	99190000	EA	C		USERID 01/01/2013
0.000	12.500	<a href="#">MAINLINE BEGIN MP</a>	5.500	MI	C		USERID 01/01/2013
0.000	12.500	<a href="#">MAINLINE END MP</a>	17.000	MI	C		USERID 01/01/2013

Figure 5K



## Reversible Lanes

Reversible lanes refer to lanes in which traffic may travel in either direction, depending on the traffic peak demands and the operational hours of the roadway. Reversible lanes reduce congestion by handling traffic demands such as morning and evening commutes, and may be reactive to other possible usage such as emergency events like hurricane evacuation or other local events. The directional flow of the reversible lanes are determined by operational hours at specified time, and are adjusted by changeable message signs and barricades. Reversible lanes work through their ability to increase the lane capacity for peak lanes at the appropriate hours.

Reversible lanes will be treated similar to new construction of a new road. As such, reversible lanes will add centerline miles to the SHS.

### Coding requirements for Reversible Lanes

1. Assign an appropriate state roadway ID number for the reversible lane.
2. Assign a state road number associated with the mainline with the next available suffix. Coordinate this with the Transportation Systems Coordinator.
3. SHS additional mileage paperwork will be required.
4. Basemap package will be submitted to add the reversible lanes to the basemap.
5. The RCI V/U/D screen information will have the following codes:
  - a. The overall status of the reversible lane will be coded as Active On the SHS.
  - b. The road type will be coded as mainline.
  - c. The mode type will be coded as roadway.
  - d. The system will coded as state highways.
  - e. The state highway system will be coded as interstate or primary.
  - f. The compass direction from the V/U/D screen will be the same as the associated mainline's compass direction.
  - g. NOTE: All ramps on the reversible lane will have the same compass direction as the associated mainline.
6. The reversible lane will be inventoried as a one-way roadway.
7. Generate SLDs and Key Sheets for the reversible lane.



## Pending Roads and Pending Road Transfers

When a new road, new construction, or realignment is planned, then a new roadway ID number should be assigned with an overall status of Pending. Follow the roadway ID numbering system process. Pending roadway IDs can be created for Active On the SHS, Active Off the SHS, and Active Exclusives. A basemap package will need to be submitted to create and add the new roadway ID number. Pending roads are not required nor are they included in the Planning basemap. Only existing routes are displayed on official maps.

Pending roads should also be created for anticipated road transfers onto the SHS, since on and Active Off the SHS roadway ID numbers have to be changed to a new Active On the SHS roadway ID number. The new Active On the SHS roadway ID number should be created with an overall status of Pending. Please follow the roadway ID number system process. A basemap package will be submitted to create and add the new roadway ID number. The new roadway ID number will be created in RCI with a Pending status, awaiting the signature or execution of the road transfer. Once the road transfer negotiation documents are signed and become effective, the District is to follow the FHWA Urban Boundary and Functional Classification of Roadways Procedure 525-020-311 and the Transportation System Jurisdiction and Numbering Handbook. Submission of the transfer package to the Central Office will generate an update to the overall status of the affected roadway IDs. Districts should perform as much advance coordination with Central Office staff as possible when it comes to road transfers, in assurance that all appropriate requirements are met.

The section length of the Pending road may be estimated from conceptual plans or construction plans, but it should be as accurate as possible. The estimated ending milepoint (EMP) may be rounded to the nearest whole mile, e.g. if the conceptual plans end at approximately 4.650 then the EMP can be rounded to 5.000. All known administrative data should also be coded for Pending roads. Please reference the Pending Road matrix in the appendix of this handbook for the list of required features for pending roads. Code as many known features as possible. There may be cases in which some data may not be coded because it has not been established.

After construction is complete, then the roadway ID should be field inventoried. A basemap should be submitted to change the overall status to active and with the measured EMP.

Any county-wide roadway ID must be retained and not be removed from RCI because they are used for the key sheet application. Examples of county-wide roadway IDs are CC000000 for District counties and CC479999 for Turnpike counties where “CC” stands for county code.

In order to remove any Pending roads from the database, Districts are required to submit a basemap package by the annual cutoff deadline of June 15<sup>th</sup> and December 15<sup>th</sup>. In order to request any exclusion for the District Quality Evaluation (DQE) grading period, Districts should appropriately submit a request to the QAR Coordinator by the appropriate deadline.

All Pending statuses are to be assigned a new roadway ID. All roadway IDs with Active with combination status will be split up into multiple roadway IDs, so that each Pending portion will receive its own roadway ID regardless of the length or location of the Pending portion. The roadway ID for each Pending portion will be given a subsection of the original alignment, similar to how new alignment and new construction roadway IDs are assigned subsection numbers associated to the original alignments.

## New Construction

New construction of a new road is assigned a new roadway ID. The District is responsible for assigning the new roadway ID number according to the roadway ID numbering system process. Submit a basemap package to create and add the new roadway ID.

### Active On the SHS

Since this is new construction with a new Active On the SHS roadway, SHS mileage addition paperwork with the District Secretary's signature must be submitted to add mileage for the new mainline roadway ID. Reference the Transportation System Jurisdiction and Numbering Procedure Topic No. 525-020-010 regarding the SHS mileage paperwork.

**NOTE:** SHS mileage paperwork does not have to be submitted for addition of Active Off the SHS or Active Exclusive roadways, since their mileage is excluded from the SHS mileage.

### Zero Milepoint

The location of the zero milepoint cannot be moved for on system roads.

### Ramps and Frontage Roads

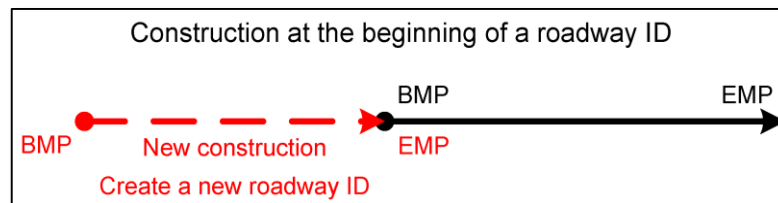
The location of the zero milepoint for ramps and frontage roads can be changed or moved.

### New Construction at Beginning of Roadway ID Alignment

If new construction occurs before the zero milepoint, then a new roadway ID must be created for the new construction. Follow the roadway ID assignment process. A basemap package will need to be submitted to create and add the new roadway ID. (See Figure 5L)

Select a roadway ID that is under the construction job number and is not currently being used.

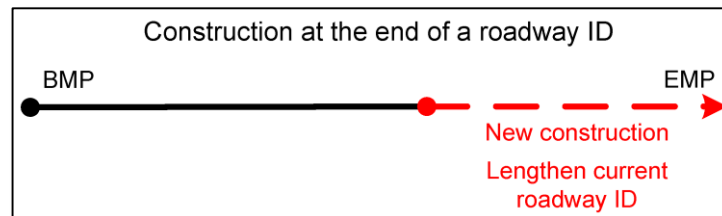
**Figure 5L**



### New Construction at Ending of Roadway ID Alignment

If the new construction is at the end of the EMP, then the roadway ID can be lengthened. A basemap package will need to be submitted to lengthen the EMP. (See Figure 5M)

**Figure 5M**



## Realignments

The function of a roadway realignment is to improve transportation service by rerouting traffic. A roadway is considered a realignment if it replaces an existing alignment when the existing alignment is changed from active on SHS to active off SHS or is physically removed and rebuilt on a different alignment. It occurs when a new road is constructed to replace an existing road on a different path. This typically occurs with the construction of a new bridge or with some type of road straightening that eliminates or reduces curves. Usually the old roadway will be physically removed or closed to traffic. Otherwise, the new construction is simply a new roadway added to the system.

Road construction where the alignment has not been altered from the existing travel path is not a realignment. Roadway reconstruction and widening are not considered realignments when they are constructed on the same alignment or existing road.

### Realignment Length

The length of a realignment may be more or less than the length of the original alignment. All additions and deletions to the SHS mileages require appropriate District Secretary approval. For more details, refer to the Transportation System Jurisdiction and Numbering Procedure, Topic Number 525-020-010.

### Roadway ID Retention

When a road is realigned, the original alignment retains the existing roadway ID and milepoints, and the new alignment will be established with a different sub-section number. The District is responsible for assigning the new sub-section number. The new number should maintain the original two-digit county and three-digit section numbers, with the next available sub-section number.

### Beginning and Ending Milepoints

The BMP of the realigned sub-section starts at the centerline of where the old roadway diverges and will end at the centerline of the old roadway where it rejoins. Furthermore, the BMP and EMP of the realignment should be tied to a nearby physical point that may easily be identified by future inventory teams. These beginning and ending intersecting milepoints should be noted at bridges, intersections, cross drains, or other non-movable physical characteristics. The milepoints should be compared and verified in the field with the construction plans stationing.

### Realignment Coding

Features 138 and 139 are used strictly for realignments. These two features cross-reference the realigned roadways. Feature 138 is coded with the information for the new roadway ID. The old alignment retains data for historical purposes and the updated data is entered on the new roadway ID. No feature data should be deleted from the old alignment roadway ID.

### Coding Feature 138 Roadway Alignment

On the old alignment, code Feature 138 with the information for the new Active On the SHS roadway ID. The old alignment retains data for historical purposes and the updated data is input on the new roadway ID. The data from the old alignment should be retained for one year after the roadway has been physically deleted, then after the one year anniversary date of the physical deletion the data should be removed from RCI. Feature 140 should also be changed to Deleted (if physically removed) or Inactive (if not in use). Feature 138 is NOT required to be coded for Active Off the SHS and should not be coded for Active Exclusive roadways.

Refer to the RCI Features & Characteristics Handbook, for data collection and coding details for realignments.

### Coding Feature 139 (New Alignment)

Feature 139, along with Features 138 and 140, provides a method of identifying old alignments and realignments. Features 138 and 139 are coded for realignments. Feature 139 is automatically generated when Feature 138 is coded on the old alignment.

### Coding Feature 140 Section Status Exception

Feature 140 gives the date the roadway ID was added to or removed from the SHS. It also gives the current status of the roadway ID. Feature 140 must agree with the overall status on the V/U/D screen. When coding a roadway ID that has a physically deleted or inactive segment, the data should be retained for one year after the roadway has been physically deleted, then after the one year anniversary date of the physical deletion the data should be removed from RCI. However, Feature 140 must be updated when the status of a roadway ID changes, since it keeps track of the date of the change.

If any portion of the roadway is physically removed elsewhere along the roadway, then Feature 140 must be coded for the deleted portion. The same applies for any portion made Inactive.

On the new Active On the SHS alignment, Feature 140 will be coded for the OSDATE to reflect the date the mileage was officially added to the SHS. This is the date of the District Secretary's signature on the SHS mileage paperwork. A basemap package will need to be submitted to create and add the new roadway ID as Active On the SHS.

V/U/D Screen Overall Status

If the overall status is Active On the SHS or Active Off the SHS, then the status in Feature 140 must match. When it is necessary to have more than one status on any roadway, the overall status must be changed to Active with Combination (submit a basemap package).

Active Exclusive roadways should not be coded as Active with Combination because active with combination only applies to mainline roadways.

**Active Off the SHS Realignments**

When an Active Off the SHS roadway requires realignment, as determined by an office review or field visit, Districts can follow either of the following processes:

Current realignment process:

1. Submit a basemap package to create a new roadway alignment.
2. Code Feature 138 on the old roadway alignment.
3. Submit a basemap package to change the status of the old roadway ID to Inactive or Deleted.

OR

Alternate Active Off the SHS realignment process:

1. Re-inventory the Active Off the SHS alignment.
2. Submit a basemap package to adjust the data to match the re-inventory.
3. E-mail all stakeholders on the District notification list, including the following offices:
  - Safety Office
  - District and Central Office (CO) Traffic Data Sections
  - Adjacent Districts, if the alignment begins or ends at a District boundary
  - CO Transportation Systems Coordinator
  - CO Highway Performance Monitoring System (HPMS) Coordinator\*
  - CO Strategic Intermodal System (SIS) Coordinator\*
  - Other District stakeholders

*\*If either HPMS or SIS is affected.*

Changes to RCI and the basemap will be submitted to TranStat in a basemap package. Aerials and/or GPS data will be submitted as appropriate. Once the changes in the package have been completed, the District will contact the applicable members of the stakeholders on the notification list regarding the change.

If, by means of a countywide basemap review, the TranStat GIS Section determines that an Active Off the SHS roadway needs realignment, the District is given 90 days from the notification date to make all of the appropriate changes to RCI and the basemap. Completion of these changes will be tracked using the basemap discrepancy report.

The following Active Off the SHS candidates for the alternate Active Off the SHS realignment process will be approved on a case-by-case basis.

Candidates for the alternate Active Off the SHS realignment process:

- Any portion with a National Highway System (NHS) designation; coordinate with the Transportation Systems Coordinator.
- Any portion with the Federal Aid or Old Federal Aid designation; coordinate with the Transportation Systems Coordinator.
- Any portion with SIS designation or SIS connectors; coordinate with the State SIS Coordinator.
- Any portion with any railroads; coordinate with the Rail Office.
- Any portion with any structures; coordinate with the Structure Office.

However, some Active Off the SHS realignments will not apply to this alternate Active Off the SHS realignment process, i.e. when significant history needs to be retained or if the Active Off the SHS roadway interfaces with the SHS network. See the exclusion list below.

Exclusions to the alternate Active Off the SHS realignment process:

- One or more segments of the Active Off the SHS alignment include an Active On the SHS portion, i.e. an Active with Combination.
- Any portion with a functional classification that interfaces with a nearby Active On the SHS roadway.
- Any portion with a documented roadway transfer.
- Any portion with any HPMS samples
- Any portion with an overall status of road w/FM projects.

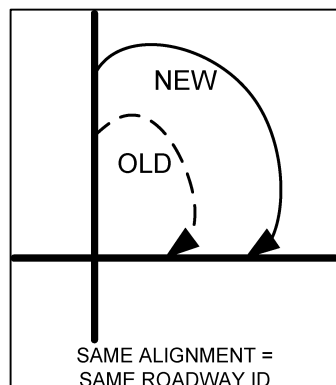
The intent of the alternate Active Off the SHS realignment process is to eliminate the need for any District work that does not add value to the processes for maintaining the roadway work. This will reduce the amount of work the districts are required to do related to processing Active Off the SHS roadway realignments. Early coordination should be made with TranStat, prior to a basemap submittal, to determine which process would be more appropriate. It is imperative that whichever process the District uses, either the current Active Off the SHS realignment or alternate Active Off the SHS realignment process, the District must commit to it for the duration of the transaction and not switch processes midstream.

### Active Exclusive Realignments

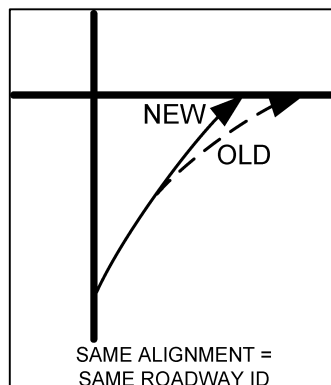
**NOTE:** The 75% ramp rule was abolished in the Technical Task Force meeting held October 18, 2012.

Any ramp realignment will retain the same roadway ID number, if the realigned ramp still connects from and to the same roads and essentially follows the same alignment. If the realignment is different from the old alignment, then a different roadway ID number will be assigned.

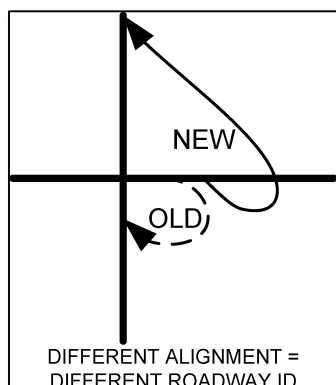
**Figure 5N**



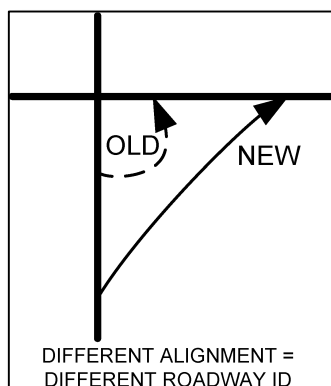
**Figure 5O**



**Figure 5P**



**Figure 5Q**



### Special Ramps to Rest Areas/Weigh Stations/Agricultural Stations

When a ramp to rest areas/weigh stations/agricultural stations is realigned and the location of the facility remains the same, the existing roadway ID will be retained. The ramp alignment will be adjusted in the basemap to the new DMI field measured length.

However, if the location of the facility changes, and results in a realignment of the ramp, then a new Roadway ID will be assigned and the original Roadway ID is made Inactive.

Only ramps to agricultural stations maintained by the Department are required to have roadway IDs and a 5-year re-inventory cycle.

### Realignment of a State Road with Retention of Old Alignment

If the original alignment was not physically deleted, a portion of the old roadway bed was retained and provides access to adjacent properties or connects to other roadways and still functions as a road, then a new state road number has to be designated to the old alignment. The original state road number can be re-designated or transferred to the new alignment.

Any changes to the V/U/D screen require an RCI/GIS basemap package. Reference the GIS Handbook on the process of submitting a basemap package.

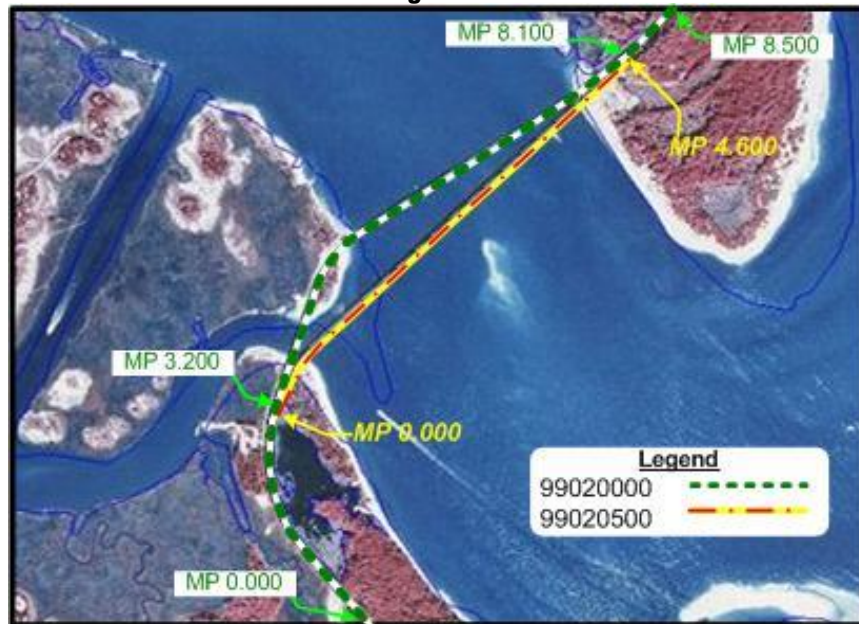
## Realignment of a State Road with Retention of Old Alignment Resulting from New Construction Example

Figure 5R illustrates a realignment of a state facility resulting from new construction, where the old alignment became Inactive. None of these examples were intended to represent any specific roadway ID.

A new bridge was built instead of rehabilitating the old bridge, which has deteriorated and can no longer support the load bearing of traffic. The new bridge had a new and better direct alignment resulting in a shorter span length.

- Roadway ID 99020000 from milepoint (MP) 3.200 to MP 8.100, the original bridge was realigned but old structure physically remained.
- The old structure was not torn down.
- Instead it was converted to a pedestrian trail and fishing pier.
- Roadway ID 99020500 from MP 0.000 to MP 4.600, was a new roadway ID assigned to the new bridge alignment. A sub-section number of the original roadway ID was used.
- The new bridge of 4.600 miles was slightly shorter than the old bridge of 4.900 miles.
- The state road number has been transferred to the new bridge alignment, because the old alignment no longer functioned as a road.
- The District Secretary must approve the changes to the SHS mileage and re-designation of the state road number.
- The District must prepare and submit the appropriate approved SHS addition/deletion paperwork to Central Office, according to the Transportation System Jurisdiction and Numbering Procedure Topic No. 525-020-010.
- Appropriate RCI administrative features should be updated according to the requirements and timeliness standards of the Transportation System Jurisdiction and Numbering Procedure Topic No. 525-020-010 and GIRD Procedure Topic No. 525-020-310.
- Appropriate RCI physical features and characteristics, SLDs, and county section number key sheet should also be updated according to the requirements and timeliness standards of the GIRD Procedure Topic No. 525-020-310.
- All other appropriate Planning features and characteristics will have to be reviewed and updated accordingly.

**Figure 5R**



### Roadway ID 99020000 (Original Bridge Alignment)

#### Feature 111

- Refer to the RCI Features & Characteristics Handbook for coding requirements of Feature 111. Code new milepoint break files for the multiple State Road number designations.
  1. Code MP 0.000 to MP 3.200, as the original "SR" State Road number.
  2. Code MP 3.200 to MP 8.100, to "OS" Old State Road Number since the road was transferred from the SHS.
  3. Code MP 8.100 to MP 8.500, as the original "SR" State Road number.

#### Feature 138

- Refer to the RCI Features & Characteristics Handbook for coding requirements of Feature 138. Feature 138 was coded on the old alignment. Note that Feature 138 is an interlocking feature if all the characteristics are coded using the same BMP and EMP.
  1. Code BMP 3.200 to EMP 8.100, for all the characteristics of Feature 138, which was the limit of the old bridge alignment.

2. Code NALIGNDT, which was the date of the realignment. Use the date when the deletion of roadway mileage was officially deleted off the SHS as approved by the District Secretary.
3. Code 99020500 for NALIGNID, which was the new alignment Roadway ID.
4. Code MP 0.000 for NALNBGPT, which was the new alignment BMP.
5. Code MP 4.600 for NALNENPT, which was the new alignment EMP.

<b>Roadway ID:</b> <a href="#">99020000</a>	<b>Man-Dist:</b> 00	<b>Geo-Dist:</b> 00	<b>County:</b> TEST	<b>Beg. MP:</b> 0.000	<b>End. MP:</b> 8.500	<b>Net Length:</b> 3.600	<b>Overall Status:</b> ACTIVE WITH COMBINATION	
<b>Description:</b> EXAMPLE 2 ROAD						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>	
<b>Feature 138 - ROADWAY REALIGNMENT</b>							<b>LENGTH/INTERLOCKING</b>	
<b>Beg. MP</b>	<b>End. MP</b>	<b>Characteristic</b>			<b>Value</b>	<b>Unit</b>	<b>Side</b>	<b>Char. Updated</b>
3.200	8.100	<a href="#">NEW ALIGNMENT DATE</a>			05/01/2007	DA	C	KNRSHTL 05/25/2007
		<a href="#">SECT/SUBSECT OF NEW ALIGNMENT</a>			99020500	ID	C	KNRSHTL 05/25/2007
		<a href="#">NEW ALIGNMENT BEG. PT.</a>			0.000	MI	C	KNRSHTL 05/25/2007
		<a href="#">NEW ALIGNMENT END PT.</a>			4.600	MI	C	KNRSHTL 05/25/2007

#### Feature 140

- Refer to the RCI Features & Characteristics Handbook for coding requirements of Feature 140. Code multiple milepoint break files for the multiple section statuses.
  1. Code 02 – Active On the SHS from MP 0.000 to MP 2.000, should be coded for the section status of the limits of the old alignment that was not realigned.
  2. Code 04 – Inactive from MP 3.200 to MP 8.100, since the limit of the old bridge was no longer used as a road and was converted to a pedestrian trail and fishing pier.
    - a. Code OSDATE, which was the date when the old alignment mileage was officially deleted from the SHS System as approved by the District Secretary.
    - b. All other original features or characteristics data coded should NOT be deleted nor removed from RCI.
    - c. The data should be retained for history on the physically deleted old alignment.
    - d. Feature 140 Inactive code reflects the inactive status of the roadway. Any feature data coded within the Inactive milepoint range will not be reported, therefore there is no need to delete nor remove any of the data.
  3. Code 02 – Active On the SHS from MP 8.100 to MP 8.500, should be coded for the section status of the limits of the old alignment that was not realigned.

<b>Roadway ID:</b> <a href="#">99020000</a>	<b>Man-Dist:</b> 00	<b>Geo-Dist:</b> 00	<b>County:</b> TEST	<b>Beg. MP:</b> 0.000	<b>End. MP:</b> 8.500	<b>Net Length:</b> 3.600	<b>Overall Status:</b> ACTIVE WITH COMBINATION
<b>Description:</b> EXAMPLE 2 ROAD				<a href="#">VideoLog</a>		<a href="#">Enterprise GIS</a>	
Feature 140 - SECTION STATUS EXCEPTION							LENGTH/INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Char. Updated	
0.000	3.200	<a href="#">ON OR OFF-SYSTEM DATE</a>	04/15/1963	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007	
3.200	8.100	<a href="#">ON OR OFF-SYSTEM DATE</a>	05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	04 - INACTIVE	CD	C	KNRSHTL 05/25/2007	
8.100	8.500	<a href="#">ON OR OFF-SYSTEM DATE</a>	04/15/1963	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007	

#### V/U/D Screen

Since the roadway has multiple section statuses, the overall status for the roadway ID should be Active with Combination.

- Any changes to the V/U/D screen require a submittal of a basemap package to the Central Office.
- Overall Descriptions may be submitted via email requests. Multiple items should be submitted in as a spreadsheet attachment
- Refer to the GIS Handbook for the basemap process and requirements.

#### Roadway ID 99020500 (New Bridge Alignment)

All Planning physical features and characteristics should be collected and coded for the new road alignment. Coordinate with the other offices to have their RCI features collected and coded for the new road alignment.

#### Feature 111

Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 111.

- MP 0.000 to MP 4.600, should be coded with state road number designation of the old alignment, since the state road number designation was transferred to the new bridge alignment.

#### Feature 138

No coding required.

- Feature 138 was coded under old alignment roadway ID 99020000.



## Feature 139

No coding required.

- Automatically generated on the new alignment roadway ID 99020500.
  1. Automatically generated if Feature 138 was correctly coded on the old alignment roadway ID 99020000.
  2. The information will be a mirror of Feature 138 on the old alignment roadway ID 99020000.

Roadway ID: <a href="#">99020500</a>	Man-Dist: 00	Geo-Dist: 00	County: TEST	Beg. MP: 0.000	End. MP: 4.600	Net Length: 4.600	Overall Status: ACTIVE ON THE SHS	
Description: EXAMPLE 2 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>	
Feature 139 - NEW ALIGNMENT							LENGTH/INTERLOCKING	
Beg. MP	End. MP	Characteristic			Value	Unit	Side	Char. Updated
0.000	4.600	<a href="#">SECT./SUBSECT.OF OLD ALIGNMENT</a>			99020000	ID	C	KNRSHTL 05/25/2007
		<a href="#">OLD ALIGNMENT BEG. PT.</a>			3.200	MI	C	KNRSHTL 05/25/2007
		<a href="#">OLD ALIGNMENT END PT.</a>			8.100	MI	C	KNRSHTL 05/25/2007

## Feature 140

Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 140.

- Code OSDATE, the date when the new alignment mileage was officially added to the SHS system as approved by the District Secretary.
- Code 02 – Active On the SHS from MP 0.000 to MP 8.500, should be coded for the section status of the limits of the new alignment.

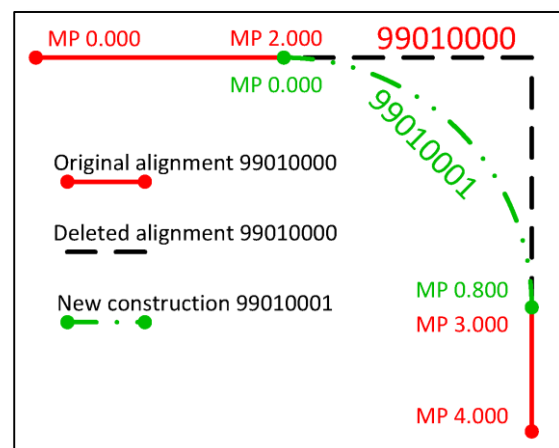
Roadway ID: <a href="#">99020500</a>	Man-Dist: 00	Geo-Dist: 00	County: TEST	Beg. MP: 0.000	End. MP: 4.600	Net Length: 4.600	Overall Status: ACTIVE ON THE SHS	
Description: EXAMPLE 2 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>	
Feature 140 - SECTION STATUS EXCEPTION							LENGTH/INTERLOCKING	
Beg. MP	End. MP	Characteristic		Value		Unit	Side	Char. Updated
0.000	4.600	<a href="#">ON OR OFF-SYSTEM DATE</a>		05/01/2007		DA	C	KNRSHTL 05/25/2007
		<a href="#">SECTION STATUS EXCEPTION</a>		02 - ACTIVE ON THE SHS		CD	C	KNRSHTL 05/25/2007

## Realignment of a State Road with Physical Deletion Resulting from New Construction Example

This example illustrates a realignment of a state road resulting from new construction, where the original alignment was physically deleted. The original road was realigned from a sharp right angle turn to a smooth curve, to enhance traffic movement and increase safety. The asphalt of the old road was removed and a new roadway bed was built in a different configuration. (See Figure 5S)

- Roadway ID 99010000 from MP 2.000 to MP 3.000, the original alignment was realigned and physically deleted. The data for the physically deleted portion should NOT be removed from RCI. Feature 140 should be coded Deleted to reflect the physically deleted portion of the roadway. The Department has removed the old asphalt and planted grass on the right of way, which retained by the State.
- Roadway ID 99010001 from MP 0.000 to MP 0.800, was a new roadway ID assigned to the new alignment. A subsection number of the original roadway ID was used.
- The new alignment of 0.800 mile was shorter than the old alignment of 1.000 mile.
- The state road number has been transferred to the new alignment, because the old alignment no longer exists.
- The District Secretary must approve the changes to the SHS mileage and re-designation of the state road number.
- The District must prepare and submit the appropriate approved SHS addition/deletion paperwork to Central Office, according to the Transportation System Jurisdiction and Numbering Procedure Topic No. 525-020-010.
- Appropriate RCI administrative features should be updated according to the requirements and timeliness standards of the Transportation System Jurisdiction and Numbering Topic No. 525-020-010 and GIRD Procedure Topic No. 525-020-310.
- Appropriate RCI physical features and characteristics, SLD, and county section number key sheet should also be updated according to the requirements and timeliness standards of the GIRD Procedure Topic No. 525-020-310. Also, all other appropriate Planning features and characteristics will have to be reviewed and updated accordingly.

**Figure 5S**





Roadway ID 99010000 (Original Alignment)

## Feature 111

No updates should be done.

- The state road number of the original alignment should retain the original milepoint coding for the original state road number designation.
- The data should be retained for history on the original alignment of the state road number designation.

## Feature 138

Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 138.

- Feature 138 was coded on the old alignment. Note that Feature 138 is an interlocking feature if all the characteristics are coded using the same BMP and EMP.
  1. Code BMP 2.000 to EMP 3.000 for all the characteristics of Feature 138, for the limits of the physical deletion of the old alignment.
  2. Code NALIGNDT, the date of the realignment. Use the date when the deletion of roadway mileage was officially deleted off the SHS as approved by the District Secretary.
  3. Code 99010001 for NALIGNID, the new alignment roadway ID.
  4. Code MP 0.000 for NALNBGPT, the new alignment BMP.
  5. Code MP 0.800 for NALNENPT, the new alignment EMP.

<b>Roadway ID:</b> <a href="#">99010000</a>	<b>Man-Dist:</b> 00	<b>Geo-Dist:</b> 00	<b>County:</b> TEST	<b>Beg. MP:</b> 0.000	<b>End. MP:</b> 4.000	<b>Net Length:</b> 3.000 <a href="#">VideoLog</a>	<b>Overall Status:</b> ACTIVE WITH COMBINATION <a href="#">Enterprise GIS</a>
<b>Description:</b> EXAMPLE 1 ROAD							
<b>Feature 138 - ROADWAY REALIGNMENT</b>							<b>LENGTH/INTERLOCKING</b>
<b>Beg. MP</b>	<b>End. MP</b>	<b>Characteristic</b>	<b>Value</b>	<b>Unit</b>	<b>Side</b>	<b>Char. Updated</b>	
2.000	3.000	<a href="#">NEW ALIGNMENT DATE</a>	05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECT./SUBSECT. OF NEW ALIGNMENT</a>	99010001	ID	C	KNRSHTL 05/25/2007	
		<a href="#">NEW ALIGNMENT BEG. PT.</a>	0.000	MI	C	KNRSHTL 05/25/2007	
		<a href="#">NEW ALIGNMENT END PT.</a>	0.800	MI	C	KNRSHTL 05/25/2007	

## Feature 140

Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 140.

- Code multiple milepoint break files for the multiple section statuses.
  1. Code 02 – Active On the SHS from MP 0.000 to MP 2.000, should be coded for the section status of the original alignment that was not realigned.
  2. Code 05 – Deleted from MP 2.000 to MP 3.000, should be coded for the section status of the original alignment that was physically deleted and removed.
  3. Code OSDATE, which was the date when the old alignment mileage was officially deleted from the SHS system as approved by the District Secretary.
- All other original features or characteristics data coded on the physically deleted portion should NOT be deleted nor removed from RCI.
- The data should be retained for history on the physically deleted old alignment.
- Feature 140 Deleted code will reflect the physically deleted roadway. Any feature data coded within the Deleted milepoint range will not be reported, therefore there is no need to delete nor remove any of the data.
- Code 02 – Active On the SHS from MP 3.000 to MP 4.000, should be coded for the section status of the original alignment that was not realigned.

<b>Roadway ID:</b> <a href="#">99010000</a>	<b>Man-Dist:</b> 00	<b>Geo-Dist:</b> 00	<b>County:</b> TEST	<b>Beg. MP:</b> 0.000	<b>End. MP:</b> 4.000	<b>Net Length:</b> 3.000 <a href="#">VideoLog</a>	<b>Overall Status:</b> ACTIVE WITH COMBINATION <a href="#">Enterprise GIS</a>	
<b>Description:</b> EXAMPLE 1 ROAD								
<b>Feature 140 - SECTION STATUS EXCEPTION</b>							<b>LENGTH/INTERLOCKING</b>	
<b>Beg. MP</b>	<b>End. MP</b>	<b>Characteristic</b>	<b>Value</b>			<b>Unit</b>	<b>Side</b>	<b>Char. Updated</b>
0.000	2.000	<a href="#">ON OR OFF-SYSTEM DATE</a>	04/15/1963			DA	C	KNRSHTL 05/25/2007
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS			CD	C	KNRSHTL 05/25/2007
2.000	3.000	<a href="#">ON OR OFF-SYSTEM DATE</a>	05/01/2007			DA	C	KNRSHTL 05/25/2007
		<a href="#">SECTION STATUS EXCEPTION</a>	05 - DELETED			CD	C	KNRSHTL 05/25/2007
3.000	4.000	<a href="#">ON OR OFF-SYSTEM DATE</a>	04/15/1963			DA	C	KNRSHTL 05/25/2007
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS			CD	C	KNRSHTL 05/25/2007

## V/U/D Screen

Since the roadway has multiple section statuses, the overall status for the roadway ID should be Active with Combination.

- Any changes to the V/U/D screen require a submittal of a basemap package to the Central Office.
- Refer to the GIS Handbook for the basemap process and requirements.

**Roadway ID 99010001 (New Alignment)**

All Planning physical features and characteristics should be collected and coded for the new road alignment. Coordinate with the other offices to have their RCI features collected and coded for the new road alignment.

**Feature 111**

Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 111.

- MP 0.000 to MP 0.800, should be coded with state road number designation of the old alignment.

**Feature 138**

No coding required.

- Feature 138 was coded under old alignment roadway ID 99010000.
- Feature 139 will automatically generate on the new alignment roadway ID 99010001.

**Feature 139**

No coding required.

- Automatically generated on the new alignment roadway ID 99010001.
- Automatically generated if Feature 138 was correctly coded on the old alignment roadway ID 99010000.
- The information will be a mirror of Feature 138 on the old alignment roadway ID 99010000.

<b>Roadway ID:</b>	<b>Man-Dist:</b>	<b>Geo-Dist:</b>	<b>County:</b>	<b>Beg. MP:</b>	<b>End. MP:</b>	<b>Net Length:</b>	<b>Overall Status:</b>
99010001	00	00	TEST	0.000	0.800	0.800	ACTIVE ON THE SHS
<b>Description:</b> EXAMPLE 1 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 139 - NEW ALIGNMENT</b>							<b>LENGTH/INTERLOCKING</b>
<b>Beg. MP</b>	<b>End. MP</b>	<b>Characteristic</b>	<b>Value</b>	<b>Unit</b>	<b>Side</b>	<b>Char. Updated</b>	
0.000	0.800	<a href="#">SECT./SUBSECT OF OLD ALIGNMENT</a>	99010000	ID	C	KNRSHTL 05/25/2007	
		<a href="#">OLD ALIGNMENT BEG. PT.</a>	2.000	MI	C	KNRSHTL 05/25/2007	
		<a href="#">OLD ALIGNMENT END PT.</a>	3.000	MI	C	KNRSHTL 05/25/2007	

**Feature 140**

Refer to the RCI Features & Characteristics Handbook for coding requirements of Feature 140.

- Code OSDATE, the date when the new alignment mileage was officially added to the SHS system as approved by the District Secretary.
- Code 02 – Active On the SHS from MP 0.000 to MP 0.800, should be coded for the limits of the new alignment.

<b>Roadway ID:</b>	<b>Man-Dist:</b>	<b>Geo-Dist:</b>	<b>County:</b>	<b>Beg. MP:</b>	<b>End. MP:</b>	<b>Net Length:</b>	<b>Overall Status:</b>
99010001	00	00	TEST	0.000	0.800	0.800	ACTIVE ON THE SHS
<b>Description:</b> EXAMPLE 1 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 140 - SECTION STATUS EXCEPTION</b>							<b>LENGTH/INTERLOCKING</b>
<b>Beg. MP</b>	<b>End. MP</b>	<b>Characteristic</b>	<b>Value</b>	<b>Unit</b>	<b>Side</b>	<b>Char. Updated</b>	
0.000	0.800	<a href="#">ON OR OFF-SYSTEM DATE</a>	05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007	

## Physically Removed

If any segment of the roadway is physically removed, whether at the beginning, the ending, or anywhere along the roadway, then Feature 140 must be coded to reflect the deleted segments. The BMP and/or EMP should not be changed nor moved for a physical deletion for Active On the SHS roads.

### V/U/D Screen Overall Status

If any segment of a mainline roadway is coded Deleted and Feature 140 has more than one code, a basemap package will need to be submitted to have the overall status in the V/U/D screen changed to Active with Combination.

Active Exclusive roadways should not have an overall status of Active with Combination. See Active Exclusive Realignment on page 61.

### Coding Feature 140 Road Segments

If any segment of the roadway is physically removed elsewhere along the roadway, then Feature 140 must be coded for the deleted segments. A basemap package will need to be submitted to have the overall status in the V/U/D screen changed to Active with Combination.

### Coding Feature 140 Entire Roadway

If the entire roadway is physically removed, then Feature 140 should NOT be updated. A basemap package will need to be submitted to have the overall status in the V/U/D screen changed to Deleted. The data must be retained in RCI for a minimum of 5 years.

After 5 years, the District may elect to delete all the data in RCI and submit a basemap package to have the roadway ID deleted from RCI. There is no mandate to delete the data after the minimum 5 years retention.

**NOTE:** TranStat does not recommend the deletion of any data.

### SHS Paperwork

SHS mileage deletion paperwork must be submitted with the RCI/basemap package for physical removal of any roadbed on the SHS.

**NOTE:** SHS mileage paperwork does not have to be submitted for deletion of Active Off the SHS and Active Exclusive roadways, since their mileage are excluded from the SHS mileage.

### Physically Removed Beginning of Roadway ID Alignment

If any segment of an Active Off the SHS or Active Exclusive roadway is physically removed at the beginning, then the BMP can be changed to a non-zero milepoint. All data will be updated to start from the new BMP. A basemap package will need to be submitted to change the BMP.

### Physically Removed Ending of Roadway ID Alignment Ramps

If any segment of any roadway is physically removed at the ending, then the roadway ID can be shortened to the new EMP. All data will be shortened to the new EMP. A basemap package will need to be submitted to shorten the EMP.

If any segment of the ramp or frontage road is physically removed elsewhere along the roadway, then a basemap package will need to be submitted to have the roadway ID number made Inactive and replaced with a new roadway ID.

## Inactive

Inactive is a characteristic value that indicates a roadway ID and its associated data will no longer be considered as an operational number. (Operational numbers are used to store current RCI data.) RCI data coded under this number must be retained for an indefinite period. This road may or may not be of any interest later.

### Active On the SHS

If any segment of an Active On the SHS roadway is made Inactive, whether at the beginning, the ending, or anywhere along the roadway, then Feature 140 must be coded to reflect the Inactive segments. If Feature 140 has more than one code, a basemap package will need to be submitted to have the overall status in the V/U/D screen changed to Active with Combination. (See Figure 5T)

### Active Off the SHS Beginning of Roadway ID Alignment

If any segment of an Active Off the SHS roadway is made Inactive at the beginning, then the BMP can be changed to a non-zero milepoint. All data will start from the new BMP. A basemap package will need to be submitted to change the BMP.

### Old Secondary System Roadway

Old secondary system will be treated as Active Off the SHS roads.

### Ending of Roadway ID Alignment

If any segment of an Active Off the SHS roadway is made Inactive at the ending, then the roadway ID can be shortened to the new EMP. All data will be shortened to the new EMP. A basemap package will need to be submitted to shorten the EMP.

If any segment of an Active Off the SHS roadway is made Inactive elsewhere along the roadway, then Feature 140 must be coded to reflect the Inactive segments. A basemap package will need to be submitted to have the overall status in the V/U/D screen changed to Active with Combination. (See Figure 5U)

### Active Exclusive

If any segment of the ramp or frontage road is made Inactive elsewhere along the roadway, then a basemap package will need to be submitted to have the roadway ID number be made Inactive and replaced with a new roadway ID. Active Exclusive roadways should not have an overall status of Active with Combination. (See Figure 5V)

### Entire Roadway

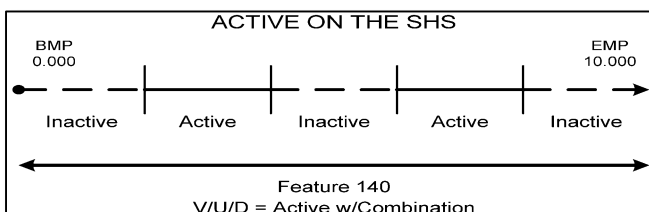
If the entire roadway is made Inactive, Feature 140 should NOT be changed. A basemap package will need to be submitted to have the overall status in the V/U/D screen changed to Inactive.

### SHS Paperwork

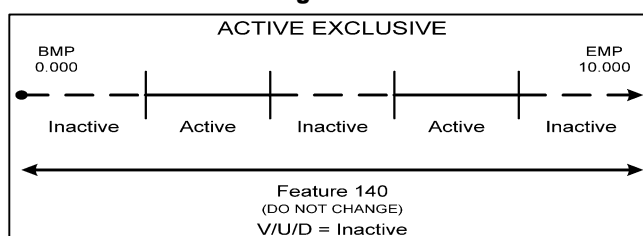
SHS mileage deletion paperwork must be submitted with the RCI/basemap package for any physical removal of any roadbed, since inactivating any segments of the roadway subtracts from the mainline mileage and affects SHS mileage report. Reference the Transportation System Jurisdiction and Numbering Procedure Topic No. 525-020-010 regarding the SHS mileage paperwork.

SHS mileage paperwork does not have to be submitted for deletion of Active Off the SHS and Active Exclusive roadways, since their mileage are excluded from the SHS mileage.

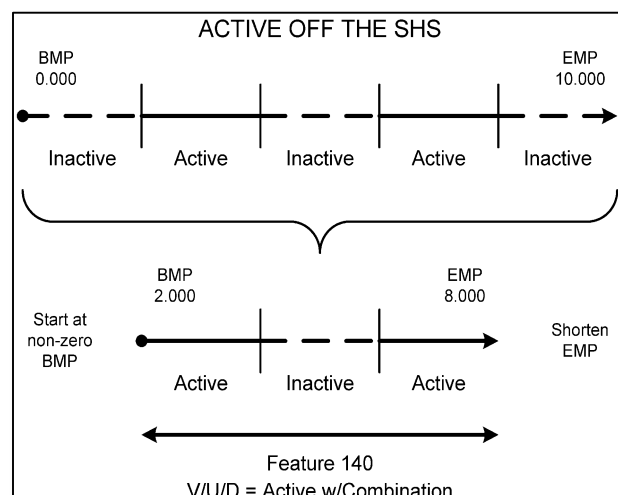
**Figure 5T**



**Figure 5V**



**Figure 5U**



## Shortening and Lengthening

Some roadway segments present difficult coding situations. A common example is a road that has been assigned to both state and county systems in the past. Roadways with different IDs and different beginning and ending points have caused past coding problems that must be resolved.

### Roadway ID Shortening

An existing roadway segment may be shortened if the portion is at the end of the roadway ID alignment. A roadway may be shortened if an error occurred when a road was initially entered into RCI without field verification.

If length in RCI does not match field measurement, if the original length was from a quarter quad map when the roadway ID was created, or if the road was originally measured at a painted gore and is now being changed to a physical gore.

If the estimated EMP for a Pending road, then constructed and field measured may be different.

### Roadway ID Lengthening

An existing roadway ID may be extended if the extension is at the end of a roadway. However, the District should ensure that the change will not cause overlaps or gaps with other roadway IDs. A roadway ID may be lengthened due to errors in RCI when it was initially entered without field verification or new construction. In addition, if a roadway ID was combined with another ID Number, then one number would be lengthened.

## Deleting

### Deleting a Roadway ID

This should only be done if no critical history will be lost by doing so. Some critical historical milepoints and roadway IDs are recorded on jurisdictional road transfer documents that may need to be retained. For instance, other historical realignments identified by or associated with certain roadway ID numbers should also be retained. Combining and/or deleting roadway ID numbers should be done with careful review.

### Cannot Delete SHS Roadway IDs

SHS roadway IDs cannot be deleted, even if they are being combined into a single number. Data must be retained for historical purposes. Roadway ID should be revised to Inactive. Do not delete any data.

Active off the SHS roadway IDs should NOT be deleted if they have:

- Construction/reconstruction records in the FM System
- Roadways with structures and/or railroad crossings
- On or proposed for the NHS
- On or proposed for the Florida Freight System
- On or proposed for the Strategic Intermodal System (SIS) or SIS connector
- Old secondary system

### Reinstating a Roadway ID

If a roadway ID has been deleted from RCI, it should never be reused for a different alignment. A previously assigned roadway ID should only be reinstated for the same alignment it was originally assigned.

### Reassignment

The District can elect to replace the existing roadway ID with a new one by assigning a new roadway ID. The original roadway ID will be made Inactive. Roadway ID reassignment is done to combine and eliminate multiple roadway IDs. A basemap package will need to be submitted to have the overall status in the V/U/D screen of the original roadway ID(s) changed to Inactive and to create a new roadway ID. Any roadway ID reassignments must be approved by the TranStat Transportation Data Section Manager.

## Combining

### Multiple Roadway IDs

It is possible for a roadway to have had two or more roadway IDs assigned to it depending on the maintenance on realigned projects over the years. Multiple roadway IDs could exist for the primary or secondary or Active Off the SHS roads, but only one of the numbers should be chosen to represent the roadway. In the past, roadway segments were swapped between systems for funding purposes. Such swaps were frequent, and record keeping was poor.

When two or more roadway IDs are assigned to the same alignment, the most appropriate roadway ID must be chosen.

The overlapping roadway ID on the SHS will be placed in Inactive status. For Active Off the SHS roads, the District may choose to either delete the ID number or place the ID number in Inactive status.

### Combining Roadway IDs

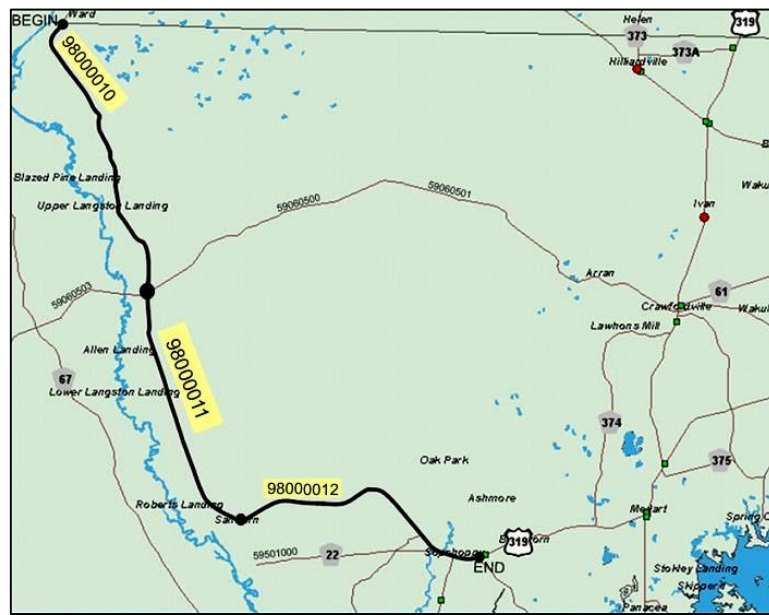
When there are multiple short Active Off the SHS alignments, these roadway IDs can be combined into one number. This requires that all the information found in the short roadway IDs be transferred to the desired ID, and the information from the unwanted IDs be deleted. An inventory of the merged roadway ID may be necessary to get accurate milepoints. Once the information has been transferred/inventoried, request the unwanted ID to be deleted from the RCI database by submitting a basemap package.

**NOTE:** Any roadway ID reassignment must be approved by TranStat. See GIRD Procedure Topic No. 525-020-310.

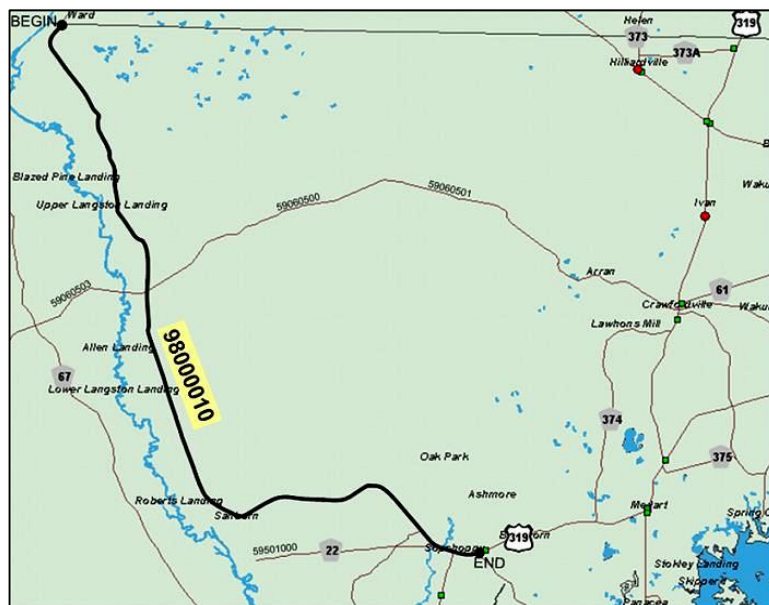
### Combining Roadway IDs Example

Active Off the SHS roadway IDs 98000010, 98000011, and 98000012 are consecutive roadway segments. They can be combined into one roadway ID number. Roadway IDs 98000011 and 98000012 may be combined with roadway ID 98000010. This would be accomplished by transferring the data from roadway IDs 98000011 and 98000012 to 98000010, and then deleting roadway IDs 98000011 and 98000012. This process of combining roadway IDs into one number allows easier re-inventory, and streamlines both the RCI database and the RCI GIS basemap. (See Figures 5W and 5X)

**Figure 5W – Original Roadway ID Numbering**



**Figure 5X – Combined Roadway ID Numbering**



## Road Transfers

Roadway jurisdictional transfers are governed by *Section 335.0415, Florida Statutes (F.S.)* and the Transportation System Jurisdiction and Numbering Procedure, Topic No. 525-020-010. See the Transportation System Jurisdiction and Numbering Handbook for details on the process of transferring the ownership of roads to or from the City, County or other entity. Here in the RCI Planning Data Handbook, only the aspects of transfers that directly affect RCI are discussed.

### Active Off the SHS to Become Active On the SHS

When an Active Off the SHS roadway is transferred onto the SHS, it may have a new roadway ID assigned using the roadway ID numbering system for Active On the SHS roads. Its state road number must be determined and may need to be created. A basemap package will be submitted to create the new roadway ID and/or state road number.

The overall status and roadway ID or state road number of the road must not be changed in RCI until the transfer agreement becomes effective, i.e. either the date the FDOT Secretary signs the transfer form or a later date as specified in the transfer agreement.

Preliminary actions may be taken prior to the effective date of the road transfer. TranStat recommends taking such steps to ensure that the timeliness standard is met. The District must update required administrative features within 15 calendar days of the establishment of, or change to, the actual value. Reference the GIRD Procedure Topic No. 525-020-310 for the timeliness standard and list of required features.

If the road was not previously in RCI, then the new roadway ID should have an overall status of Pending since it is anticipated to be added to the SHS. The Pending road should be populated with all known or anticipated administrative features. The Traffic Counts Section should be coordinated with so that a traffic site can be assigned to the new state road and counts can be scheduled for the year that the transfer will be effective. The Office of Maintenance should also be coordinated with so that the appropriate funds can be encumbered for the year the transfer will be effective.

Once the transfer agreement becomes effective, follow the guidelines outlined in the Transportation System Jurisdiction and Numbering Handbook accordingly. District is to coordinate with TranStat to ensure that the Overall status, governmental jurisdiction, overall description, system, or any other pertinent fields in the V/U/D Roadway ID screen and other secured RCI features are updated to reflect the transfer agreement. Feature 140 OSDATE should be coded with the transfer effective date to reflect when the mileage is officially added to the SHS.

The District will then update RCI and produce and distribute SLDs and corresponding county section number key sheets as prescribed by the GIRD Procedure Topic No. 525-020-310. Since the update is due to a road transfer, the District must update the required RCI features within 90 calendar days and produce SLDs and county section number key sheets within 120 calendar days of the transfer effective date. RITA should also be updated to reflect these activities.

### New Construction or Removal of a State Road

When the Department constructs a new state road, or a realignment of an old state road, or physically removes an old state road, the District Secretary must approve the addition or deletion of the segments. The same RCI requirements apply as above, triggered by the date of the District Secretary's approval.

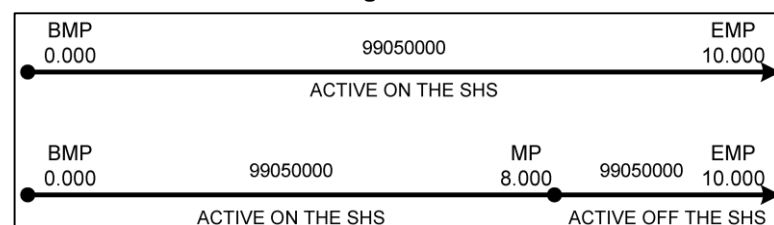
### Road Transfer and Re-Transfer

It may happen that a transfer is expected to be reversed in the relatively near future. If an Active Off the SHS roadway is transferred onto the SHS and will be transferred off the SHS again, then the roadway should retain its Active Off the SHS roadway ID.

### Transfer of Part of a Roadway ID

Consider the following:

**Figure 5Y**





Roadway ID 99050000 was 10.000 miles long originally. A segment from MP 8.000 to 10.000 was transferred to a city. With the development and utilization of Feature 140, the original roadway ID can be retained, utilizing the same beginning and ending points with the roadway segment divided as needed. In this case, there would be an Active On the SHS segment between MPs 0.000 to 8.000 and an Active Off the SHS segment between MPs 8.000 to 10.000.

#### Realignment of a State Road Involving a Jurisdictional Road Transfer Resulting from New Construction

This example illustrates a realignment and jurisdictional road transfer of a state facility.

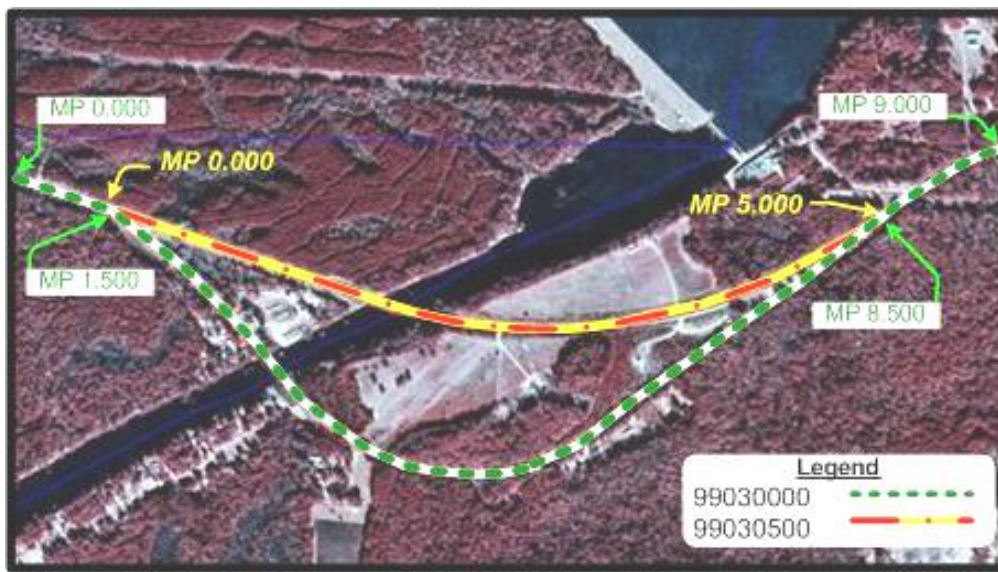
A new bridge alignment was built replacing an old bridge alignment, which was transferred off the SHS.

- Roadway ID 99030000 from MP 1.500 to MP 8.500, was the original bridge that was realigned with the old structure.
- Roadway ID 99030500 from MP 0.000 to MP 5.000, was a new roadway ID assigned to the new bridge alignment. A subsection number of the original roadway ID was used. Note that the new bridge of 5.000 miles was shorter than the old bridge of 7.000 miles.
- The state road number has been transferred to the new bridge alignment, because the old alignment will be removed from the SHS.

Appropriate RCI administrative features should be updated according to the requirements and timeliness standards of the Transportation System Jurisdiction and Numbering Topic No. 525-020-010 and GIRD Procedure No. 525-020-310. The FDOT Secretary's approval determines the timeliness requirements for the transferred bridge, and the District Secretary's approval determines the timeliness for the new bridge data.

- Appropriate RCI physical features and characteristics, SLD, and county section number key sheet should also be updated according to the requirements and timeliness standards of the GIRD Procedure Topic No. 525-020-310. Also, all other appropriate Planning features and characteristics will have to be reviewed and updated accordingly.

**Figure 5Z**



#### Roadway ID 99030000 (Original Bridge Alignment)

Feature 111

- Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 111. Code new multiple milepoint break files for the multiple state road number designations.
  1. Code MP 0.000 to MP 1.500, as the original "SR" state road number.
  2. Code MP 1.500 to MP 8.500, to "OS" old state road number since the road was transferred from the SHS.
  3. Code MP 8.500 to MP 9.000, as the original "SR" state road number.

Roadway ID: <a href="#">99030000</a>	Man-Dist: 00	Geo-Dist: 00	County: TEST	Beg. MP: 0.000	End. MP: 9.000	Net Length: 9.000	Overall Status: ACTIVE WITH COMBINATION
Description: EXAMPLE 3 ROAD						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
Feature 111 - STATE ROAD SYSTEM							LENGTH/NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Char. Updated	
0.000	1.500	<a href="#">STATE ROAD NUMBER</a>	SR 12	ID	C	KNRSHTL 05/29/2007	
1.500	8.500	<a href="#">STATE ROAD NUMBER</a>	CR 12	ID	C	KNRSHTL 05/29/2007	
8.500	9.000	<a href="#">STATE ROAD NUMBER</a>	SR 12	ID	C	KNRSHTL 05/29/2007	



## Feature 138

- Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 138. Feature 138 is coded on the old alignment. Note that Feature 138 is an interlocking feature if all the characteristics are coded using the same BMP and EMP.
  1. Code BMP 1.500 to EMP 8.500, for all the characteristics of Feature 138, which is the limit of the old bridge alignment.
  2. Code NALIGNDT, which is the date of the realignment. Use the date when the deletion of roadway mileage was officially deleted off the SHS as approved by the District Secretary.
  3. Code 99030500 for NALIGNID, which is the new alignment roadway ID.
  4. Code MP 0.000 for NALNBGPT, which is the new alignment BMP.
  5. Code MP 5.000 for NALNENPT, which is the new alignment EMP.

## Feature 140

- Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 140.
- Code multiple milepoint break files for the multiple section statuses.
  1. Code 02 – Active On the SHS from MP 0.000 to MP 1.500, should be coded for the section status of the limits of the old alignment that was not realigned nor transferred.
  2. Code 09 – Active Off the SHS from MP 1.500 to MP 8.500, for the limit of the road transfer.
    - a. Code OSDATE, which is the date when the old alignment mileage was officially deleted from the SHS System as approved by the State Secretary.
    - b. All other original features or characteristics data coded on the transferred portion should NOT be deleted nor removed from RCI.
    - c. The data should be retained because the roadway still existed as Active Off the SHS.
  3. Code 02 – Active On the SHS from MP 8.500 to MP 9.000, should be coded for the section status of the limits of the old alignment that was not realigned nor transferred.

<b>Roadway ID:</b> <a href="#">99030000</a>	<b>Man-Dist:</b> 00	<b>Geo-Dist:</b> 00	<b>County:</b> TEST	<b>Beg. MP:</b> 0.000	<b>End. MP:</b> 9.000	<b>Net Length:</b> 9.000	<b>Overall Status:</b> ACTIVE WITH COMBINATION		
<b>Description:</b> EXAMPLE 3 ROAD						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>		
<b>Feature 140 - SECTION STATUS EXCEPTION</b>							<b>LENGTH/INTERLOCKING</b>		
<b>Beg. MP</b>	<b>End. MP</b>	<b>Characteristic</b>			<b>Value</b>	<b>Unit</b>	<b>Side</b>	<b>Char. Updated</b>	
0.000	1.500	<a href="#">ON OR OFF-SYSTEM DATE</a>			04/15/1963	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>			02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/25/2007	
1.500	8.500	<a href="#">ON OR OFF-SYSTEM DATE</a>			05/01/2007	DA	C	KNRSHTL 05/25/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>			09 - ACTIVE OFF THE SHS	CD	C	KNRSHTL 05/29/2007	
8.500	9.000	<a href="#">ON OR OFF-SYSTEM DATE</a>			04/15/1963	DA	C	KNRSHTL 05/29/2007	
		<a href="#">SECTION STATUS EXCEPTION</a>			02 - ACTIVE ON THE SHS	CD	C	KNRSHTL 05/29/2007	

## V/U/D Screen

Since the roadway has multiple section statuses, the overall status for the roadway ID.

- Any changes to the V/U/D screen require a submittal of a basemap package to TranStat.
- Overall Descriptions may be submitted via email requests. Multiple items should be submitted in as a spreadsheet attachment.
- Refer to the GIS Handbook for RCI/basemap process and requirements.

## Roadway ID 99020500 (New Bridge Alignment)

All Planning physical features and characteristics should be collected and coded for the new road alignment. Coordinate with the other offices to have their RCI features collected and coded for the new road alignment.

## Feature 111

Refer to the RCI Features & Characteristics Handbook for coding requirements of Feature 111.

- MP 0.000 to MP 5.000 should be coded with state road number designation of the old alignment, since the state road number designation was transferred to the new bridge alignment.

<b>Roadway ID:</b>	<b>Man-Dist:</b>	<b>Geo-Dist:</b>	<b>County:</b>	<b>Beg. MP:</b>	<b>End. MP:</b>	<b>Net Length:</b>	<b>Overall Status:</b>
<a href="#">99030500</a>	00	00	TEST	0.000	0.500	0.500	ACTIVE ON THE SHS
<b>Description:</b> EXAMPLE 3 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
<b>Feature 111 - STATE ROAD SYSTEM</b>							<b>LENGTH/NON-INTERLOCKING</b>
<b>Beg. MP</b>	<b>End. MP</b>	<b>Characteristic</b>	<b>Value</b>	<b>Unit</b>	<b>Side</b>	<b>Char. Updated</b>	
0.000	0.500	<a href="#">STATE ROAD NUMBER</a>	SR 12	ID	C	KNRSHTL 05/29/2007	

## Feature 138

No coding required.

- Feature 138 is coded under old alignment and will automatically generate Feature 139 on the new alignment.

## Feature 139

No coding required.

- Automatically generated on the new alignment roadway ID 99020500.
- Automatically generated if Feature 138 is correctly coded on the old alignment roadway ID 99020000.
- The information will be a mirror of Feature 138 of the old alignment roadway ID 99020000.

## Feature 140

- Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 140.
- Code OSDATE, the date is when the new alignment mileage was officially added to the SHS system as approved by the District Secretary.
- Code 09 – Active OFF the SHS from MP 0.000 to MP 5.000, should be coded for the section status of the limits of the new alignment.

Roadway ID: <a href="#">99030500</a>	Man-Dist: 00	Geo-Dist: 00	County: TEST	Beg. MP: 0.000	End. MP: 0.500	Net Length: 0.500	Overall Status: ACTIVE ON THE SHS
Description: EXAMPLE 3 NEW ALIGNMENT						<a href="#">VideoLog</a>	<a href="#">Enterprise GIS</a>
Feature 140 - SECTION STATUS EXCEPTION							LENGTH/INTERLOCKING
Beg. MP	End. MP	Characteristic	Value		Unit	Side	Char. Updated
0.000	0.500	<a href="#">ON OR OFF-SYSTEM DATE</a>	05/01/2007		DA	C	KNRSHTL 05/25/2007
		<a href="#">SECTION STATUS EXCEPTION</a>	02 - ACTIVE ON THE SHS		CD	C	KNRSHTL 05/25/2007

## Feature 141

### Stationing Exceptions

Feature 141, along with Feature 143, provides a method of coding RCI roadway IDs with stationing exceptions. A stationing exception (a.k.a. an exception) occurs when two or more active roadway IDs overlap the same road. To avoid duplication in data, the data is only reported under one roadway ID.

Usually, the roadway ID carrying the data will have a lower value and the roadway ID with the exception will have a higher value. This concept allows a portion of two roadways to coincide on a single roadway with data reflected under only one roadway ID.

### Beginning and Ending Milepoints

The beginning and ending points of the stationing exception are the centerline points where the roadway IDs overlap. The beginning point of the exception is the centerline of the intersecting road where the two converge and the ending point is the centerline of the intersecting road where the two roadway IDs diverge.

### Coding Stationing Exceptions

No data is coded for the specific road segment that has the Feature 141, because it points to the roadway that carries the exception information. If an exception begins or ends at either terminus of a roadway ID, then the terminus point will be recorded within the feature data. If an exception begins at the beginning of a roadway ID (0.000 MP), code the beginning road name located at that 0.000 MP. Conversely, if the exception ends at the ending point of the roadway ID, then the ending road name/MP of the exception will be coded.

### Roadway ID Assignment Hierarchy

To determine which roadway ID gets Feature 141 Stationing Exception coded, first need to determine which roadway ID has the higher hierarchy. The roadway ID with the higher hierarchy will reflect the roadway data. The roadway ID with the lower hierarchy will have Feature 141 coded referencing the higher hierarchy roadway ID.

The hierarchy order is as follows:

- Existing Work Program Assignment
- SIS
- Functional classification
- Lowest Active On the SHS roadway ID
- Old secondary system roadway ID
- Lowest Active Off the SHS roadway ID

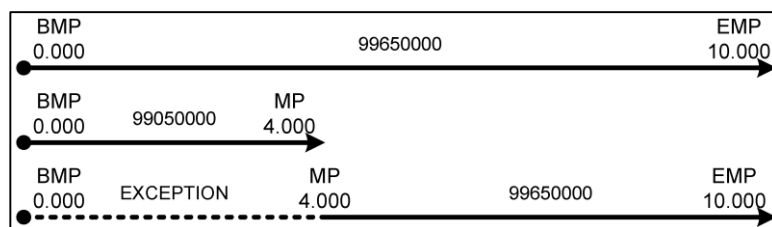
The roadway ID with Feature 141 coded will show a gap on the SLD with a reference note to other roadway ID.

### Dual Alignment

If two roadway IDs have dual alignments, resolution will be required. Each situation will require a different approach to resolving the issue with the hierarchical assignment determining which roadway ID to utilize. Consider the following example.

Below, 5AA represents roadway ID 99650000 with a length of ten miles (coded as state secondary). The bottom entry represents roadway ID 99050000 with a length of four miles (coded as state primary). Both are on the same alignment. The issue is to decide which roadway ID will be used for this roadway. Further research reveals 99050000 is State maintained. Therefore 99650000 will require an exception to be coded under Feature 141 for milepoints 0.000 to 4.000. The SHS for the entire portion will be reported under roadway ID 99050000 for milepoints 0.000 to 4.000 and under roadway ID 99650000 for MPs 4.000 to 10.000.

**Figure 5AA – Example of Dual Alignments**



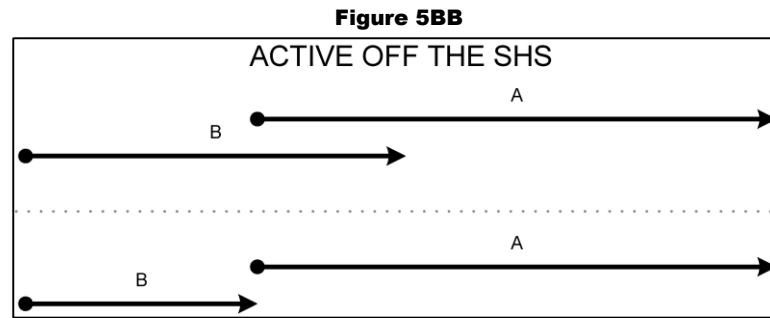
### Completing the Stationing Exception Process

All changes to lengths and statuses of roadway IDs require a basemap package to be sent to TranStat requesting the change, addition, and/or deletion. Packages include changes to the Federal Aid Systems and to the FDOT RCI/basemap. Follow the process as listed in the GIS Handbook for the basemap package requirements.

## **Overlapping**

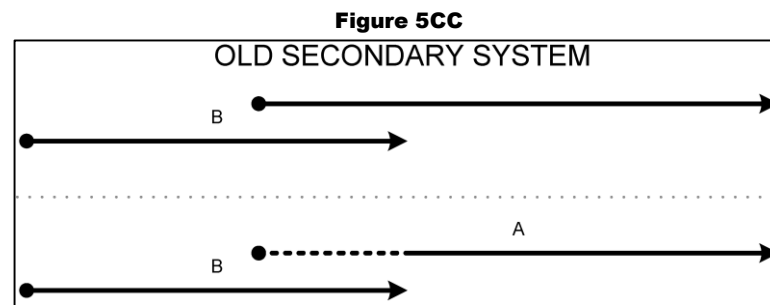
### Two Overlapping Active Off the SHS Roads

Figure 5BB represents roadway ID A has a lower roadway ID number. Roadway ID B is shortened to remove the exception. Since the overlapping segment was made Inactive, data is only being recorded on one roadway ID. Feature 141 Stationing Exception does not have to be coded. F141 only has to be coded for overlap of multiple active roadways.



### Two Overlapping Old Secondary System Roads

In Figure 5CC roadway ID A and roadway ID B are old secondary system. Roadway ID B has a lower roadway ID number. Roadway ID A is inactivated where the two roads overlap. It cannot be shortened because history must be maintained.



### Example

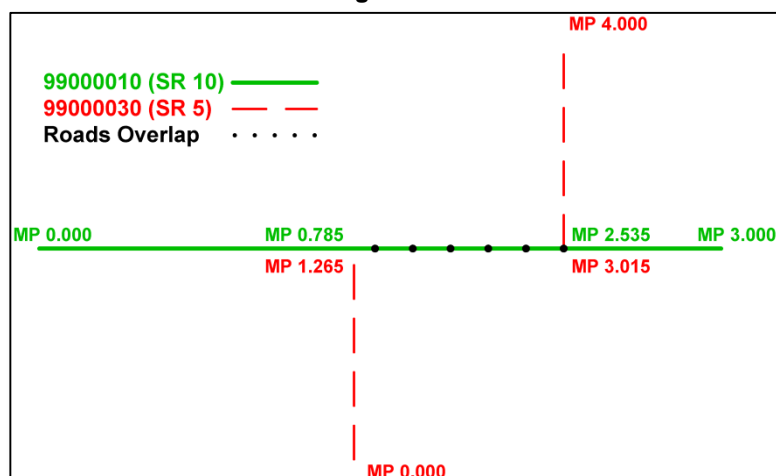
Figure 5DD illustrates when, why, and how to code Feature 141 Stationing Exceptions and Feature 143 Associated Station Exceptions. Stationing exceptions must be coded when two active roadway ID alignments overlap on top of one another over the same road bed or travel way.

In order to avoid reporting and coding the highway data twice for the overlapped alignments, stationing exceptions is coded on one of the roadway and the data is coded on the other roadway. Stationing exceptions coded on a roadway ID creates a gap of data on that roadway. Since the data is coded only on one of the roadway IDs and a gap of data is shown on the other roadway ID, the highway data is only collected, coded, and reported once on one roadway ID. The SLD for the roadway ID with Feature 141 coded will display a gap on the SLD to reflect the stationing exceptions and a reference to the corresponding roadway ID with the data. The SLD for the roadway ID that is reflecting the data will display continuous data on the SLD, without any gap.

To only show the data on one of the overlapped roadway IDs, one of the roadway IDs must have Feature 141 Stationing Exceptions coded. The roadway ID with Feature 141 coded has a gap of data for the limits of the stationing exceptions, therefore there is no data coded for the MP's range of Feature 141. One of the overlapped alignments will not have Feature 141 coded on the roadway ID number. The roadway ID that does not have Feature 141 coded will have no gap and data is coded continuously throughout the roadway ID over the overlap portion. Therefore, the roadway ID without Feature 141 is carrying and showing the data.

Feature 141 is an interlocking feature. If the same BMP and EMP are coded for all the characteristics in Feature 141, this will interlock and the characteristics and display the feature as blocks of data. Feature 143 is automatically generated when Feature 141 is coded. All other appropriate Planning features and characteristics will have to be reviewed and updated accordingly. See the RCI coding images on the following pages.

Figure 5DD



### Roadway ID 99000010 (Higher Roadway ID with the Stationing Exceptions)

#### Feature 141 Coding Requirements

Refer to the RCI Features & Characteristics Handbook for the coding requirements of Feature 141.

- No data can be coded within the Feature 141 BMP or EMP milepoint range.
- The other features would have to be shortened or updated before Feature 141 can be coded so that no features are coded within Feature 141 milepoint range.
- Another important aspect of Feature 141 is that it cannot be edited nor updated once the feature is created. In order to make any changes to Feature 141, the feature must first be deleted and then re-enter again with the new information.
- Code the BMP and EMP, MP 1.265 to MP 3.015, which are the limits of the stationing exceptions of the higher roadway ID 99000030 that will not carry the data.
  1. To determine which roadway ID to code Feature 141 under, the rule is to use the higher roadway ID 99000030.
  2. The lower roadway ID 99000010 number will carry the data, since the lower roadway ID 99000010 was usually created before the higher roadway ID 99000030, if established practice of assigning roadway ID was used.
- Code BEGSECPT, MP 0.785, which the milepoint is the limits of the overlapped roadway ID 99000010.
- Code ENDSECPT, MP 2.535, which the milepoint is the limits of the overlapped roadway ID 99000010.
- Code RDWYID, the roadway ID 99000010, which is the lower roadway ID that will carry the data.

#### Feature 143

No coding required.

- Automatically generated on the lower roadway ID 99000010.
- Automatically generated if Feature 141 is correctly coded on the overlapped alignment higher roadway ID 99000030.
- The information will be a mirror of Feature 141 on the lower roadway ID 99000010 that carries the data on the overlap.
- All appropriate Planning features and characteristics will have to be reviewed and coded accordingly for roadway ID 99000010, including data for the overlapped portion on roadway ID 99000030.

Roadway ID: <a href="#">99000010</a>	Man-Dist: 00	Geo-Dist: 00	County: TEST	Beg. MP: 0.000	End. MP: 3.000	Net Length: 3.000	Overall Status: ACTIVE ON THE SHS
Description: EXAMPLE 4 SR 10				<a href="#">VideoLog</a>		<a href="#">Enterprise GIS</a>	

Feature 143 - ASSOCIATED STATION EXCEPTION							LENGTH/INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Char. Updated	
0.785	2.535	<a href="#">BEG SECT PT OF EXCEPTION FIELD</a>	1.265	MI	C	KNRSHTL 05/29/2007	
		<a href="#">END SECT PT OF EXCEPTION FIELD</a>	3.015	MI	C	KNRSHTL 05/29/2007	
		<a href="#">COUNTY SECT SUB-SECTION</a>	99000030	ID	C	KNRSHTL 05/29/2007	

Roadway ID 99000030 (Higher Roadway ID with the Stationing Exceptions)

## Feature 141

No coding required.

- Feature 141 was coded on the higher roadway ID 99000030.

<b>Roadway ID:</b> <a href="#">99000030</a>	<b>Man-Dist:</b> 00	<b>Geo-Dist:</b> 00	<b>County:</b> TEST	<b>Beg. MP:</b> 0.000	<b>End. MP:</b> 4.000	<b>Net Length:</b> 2.250 <a href="#">VideoLog</a>	<b>Overall Status:</b> ACTIVE ON THE SHS <a href="#">Enterprise GIS</a>
<b>Description:</b> EXAMPLE 4 SR 5							
Feature 141 - STATIONING EXCEPTIONS							LENGTH/INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Char. Updated	
1.265	3.015	<a href="#">BEG SECT PT OF EXCEPTION FIELD</a>	0.785	MI	C	KNRSHTL 05/29/2007	
		<a href="#">END SECT PT OF EXCEPTION FIELD</a>	2.535	MI	C	KNRSHTL 05/29/2007	
		<a href="#">COUNTY SECT SUB-SECTION</a>	99000010	ID	C	KNRSHTL 05/29/2007	

## Feature 143

No coding required.

- Automatically generated on the lower roadway ID 99000010.
- Automatically generated if Feature 141 is correctly coded on the overlapped alignment higher roadway ID 99000030.
- The information will be a mirror of Feature 141 on the lower roadway ID 99000010 that carries the data on the overlap.

<b>Roadway ID:</b> <a href="#">99000010</a>	<b>Man-Dist:</b> 00	<b>Geo-Dist:</b> 00	<b>County:</b> TEST	<b>Beg. MP:</b> 0.000	<b>End. MP:</b> 3.000	<b>Net Length:</b> 3.000 <a href="#">VideoLog</a>	<b>Overall Status:</b> ACTIVE ON THE SHS <a href="#">Enterprise GIS</a>
<b>Description:</b> EXAMPLE 4 SR 10							
Feature 143 - ASSOCIATED STATION EXCEPTION							LENGTH/INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Char. Updated	
0.785	2.535	<a href="#">BEG SECT PT OF EXCEPTION FIELD</a>	1.265	MI	C	KNRSHTL 05/29/2007	
		<a href="#">END SECT PT OF EXCEPTION FIELD</a>	3.015	MI	C	KNRSHTL 05/29/2007	
		<a href="#">COUNTY SECT SUB-SECTION</a>	99000030	ID	C	KNRSHTL 05/29/2007	

## Route Sequencing

### District Responsibilities

In order to facilitate route sequencing in RCI and to allow GIS and other mapping sequencing, it is necessary to code Feature 111 and 113 on Active Exclusive roadways. This includes recording state, U.S., and interstate route numbers that are assigned to the mainline for Active Exclusive roadways. For this step, match the same section number (3rd, 4th, and 5th digits) of the roadway ID number with the mainline. For example, ramp 55320049 located at US27/SR63 (55010000) and I-10/SR8 (55320000) would receive Feature 111 coding of SR8 and Feature 113 coding of I-10.

The same coding methodology applies to Active Exclusive roads located at the interchange of two interstates such as I-10 and I-75. The feature coding for the Active Exclusive ramps would reflect the road number from the mainline that has the identical section number (3rd, 4th, and 5th digits) of the eight-digit roadway ID number. An example of this would be that for ramp 29180067, the Features 111 and 113 will utilize I-75/SR93 from the mainline I-75/SR93 (29180000) and not I-10/SR8 from the mainline 29170000.

### TranStat Responsibilities

Therefore, to complete a route sequence, code the associated route numbers in the proper route segment order as it appears geographically along the mainline. This route sequence design would put frontage roads, ramps, and other similar roads in parallel with the associated mainline. It also allows for one-way subsections to be placed parallel with the other appropriate one-way portion of the mainline. With the use of the milepoint linkages from data that are based on RCI features, the entire sequencing is automated, and the only manual sequencing that is needed is to arrange the mainline counties in proper order. This is most critical with roads entering a county more than once, such as I-10 through Washington and Holmes Counties. This method also provides for ramps intersecting ramps, as is the case with many of the major directional (non-loop) interchanges. Note that there are many ramps to frontage roads that have ramps to the local highway system. This design also provides for the automated designation of reversal sections. Route sequencing is currently performed and maintained by TranStat.

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## DATA COLLECTION PROCESS

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This chapter describes the general methods used to conduct an inventory for active on the State Highway System (SHS), Active Exclusive, Active Off the SHS, Local Roads, New Construction/Pending, and managed lane roadways. Highway Performance Monitoring System (HPMS) roadway inventory is explained in the HPMS Handbook.

Roadway inventory types are summarized graphically and by narrative.

Data collection matrices are provided in the Appendix to assist in tracking the required features and characteristics. They display the data elements to be collected according to functional classification and road ownership.

### Roadway Inventory Types

Data collection of required features and characteristics for any roadway is dependent upon that roadway's Feature 140 Section Status Exception, Feature 121 Functional Classification, and Feature 124 Urban Classification. Other roadway data collection requirements may be necessitated by data needs for the Strategic Intermodal System (SIS), Work Program, Small County Road Assistance Program (SCRAP), or the Transportation Regional Incentive Program (TRIP). These important criteria determine the amount of data needed for reporting purposes and funding.

### Basic Data Collection Process

The data collection includes these basic activities or processes.

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 TranStat.



More steps may have to be performed to ensure accuracy.



## Data Collection Process for Active On the SHS Inventory

### Pre-Inventory – Office Preparation

1. Generate the RCI 5-year inventory schedule report in RITA.
2. Select roadway or roadways to inventory from the inventory schedule spreadsheet.
3. Collect and review existing and historical data.
4. Verify existing administrative data.

### Pre-Inventory – Field Preparation

5. Gather equipment and verify that it is in working condition.
6. Do vehicle safety inspection.
7. Calibrate the distance measuring instrument (DMI).

### Inventory – Field Activity

1. Drive through and record roadway elements while establishing roadway length.
2. Record milepoints and data for intersections and construction stations.
3. Record milepoints and data for feature changes.
4. Record lane, median, and shoulder widths.
5. Record milepoints and data for miscellaneous features.

### Post-Inventory – Office Activity

1. Use the latest construction plans to obtain data that could not be collected in the field.
2. Convert construction stations to milepoints.
3. Check milepoint deviation tolerances between collected data and existing data.

### Post-Inventory – RCI Data Entry

4. Code or update Feature 251 Intersections to establish a linear referencing system (LRS) for the roadway ID.
5. Code or update administrative features.
6. Code or update physical/geometric features.
7. Run all RCI and Traffic Edits, then make any necessary corrections.

### Post-Inventory – Update RITA

8. Revise the date of the actual field inventory and database input in RITA.

### Post-Inventory – Basemap

9. If the basemap and final RCI mileage lengths are out of tolerance or incorrectly aligned in the basemap, submit an RCI/basemap package to TranStat.

### Post-Inventory – Produce SLD

10. Use the SLD Diagrammer to generate a PDF and/or DXF file(s).
11. Edit the SLD to reduce clutter and/or add enhancements.

### Post-Inventory – Produce County Key Sheet

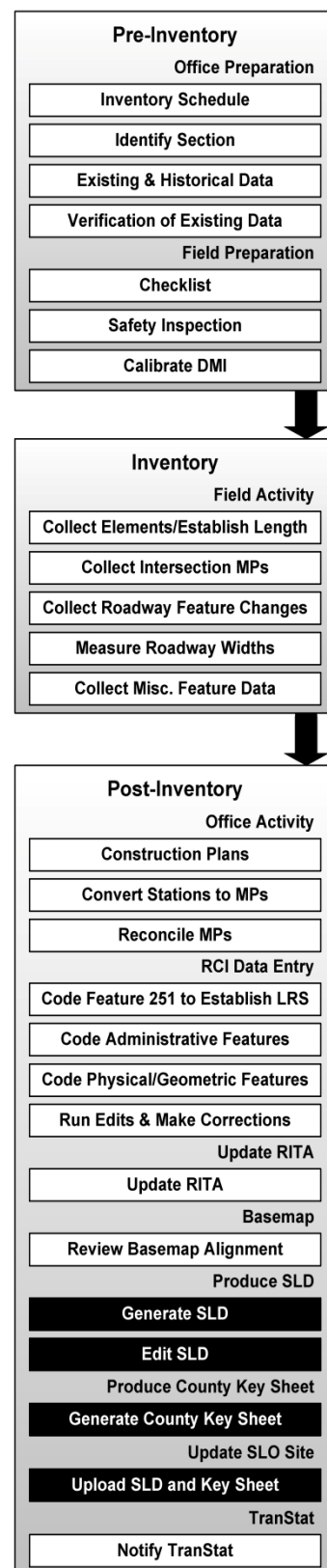
12. Use the County Key Sheet application to generate the key sheet(s).

### Post-Inventory – Update SLO Site

13. Update the SLO site with the new SLD and county key sheet(s).

### Post-Inventory – TranStat

14. Notify TranStat about any changes made.



### Requirements

RCI information for roadways with a current status of Active On the SHS is collected using the Active On the SHS inventory process. Statewide uniformity relies on guidelines that determine the beginning and ending points of a roadway as outlined in this handbook. When a new state road is built, a roadway ID will be assigned by the District in coordination with TranStat.

The General Interest Roadway Data (GIRD) procedure requires that each District re-inventory every roadway within the District every five years. Re-inventory and database input of a segment that is under construction must be completed within 90

calendar days of TranStat weekly construction notification. After the database has been updated, the District has 120 calendar days in which to produce and distribute the updated SLDs. SLDs are considered distributed once the District SLD server is updated, RITA is updated, and TranStat is notified. The SLDs must match the RCI database, which in turn must match the characteristics collected in the field. The accuracy of this data collection effort is very important.

#### Required Inventory Features and Characteristics

Refer to the data collection matrices in the Appendix for details of the characteristics required by urban/rural classification and type of roadway.

#### Feature      Characteristic(s)

111	STRDNUM2, STROADNO
112	FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY
113	USROUTE, USROUTE2
114	LOCALNAM
115	SCENEDTE, SCENEEXT, SCENEHWY
116	NHFN
119	BASETHIK, BASETYPE, FLEXTHIK, HOVNUMLN, HOVTYPE, IRIDATE, OVRYTHIK, RAMPFC, RIGIDTHIK, TOLLCHGS, TOLLNAME, TOLLTYPE, YRCONST, YRIMPT
120	ROTARY, RTESGNCD, TYPEROAD
121	FUNCLASS
122	OWNAUTH, RDACCESS, TOLLROAD
124	HWYLOCAL, PLACECD, URBAREA, URBSIZE
125	LANDUSE, ROUGHIND
140	OSDATE, STATEXPT
147	SISFCTPx, SISMPIDx
212	NOLANES, SURWIDTH
213	AUXLNTYP, AUXLNUM, AUXLNWTH
214	SHLDTYPE, SHLDTYPx, SLDWIDTH, SHLDWTHx
215	MEDWIDTH, RDMEDIAN
216	BIKELNCD, BIKSLTCD, SDWLKBCD, SHARDPTH, SIDWLKWD
219	ISLDTYPE, ISLDTYPx, ISLDWDTH, ISLDWTHx
220	NCPTINT
221	BEARING, HRZCANG, HRZDGCRV, HRZPTINT
230	PAVECOND, PAVINDEX, SURFNUM
232	FRICTCSE, SURFLAYx, SURFLxTH
233	BASETHK, TYPEBASE
251	BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx
252	EXITNO, INTERCHG
253	CHKDIGIT, RRCROSNO
258	BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO
330	FLWBRKID, TRFBRKCD
331	AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

#### Ongoing RCI Requirements

Accuracy for the existence of roadway IDs on the SHS must be 100 percent within 15 calendar days of the establishment of, or change to, the actual. This includes the following (see the GIRD for more information).

#### Feature      Characteristic(s)

V/U/D Screen	Roadway ID
111	STRDNUM2, STROADNO State Road Number(s)
112	FAHWYSYS Federal Highway System Code; TRAVLWAY Travel Way Along Roadway
113	USROUTE2, USROUTE U.S. Route Number(s)
114	LOCALNAM Local Name of Facility
121	FUNCLASS Functional Classification
122	RDACCESS Access Control Type
124	HWYLOCAL Highway Location Code
124	PLACECD Census Place (City) Code
124	URBAREA Urban Area Number
140	STATEXPT Section Status Exception

## Data Collection Process for Active Exclusive Inventory

### Pre-Inventory – Office Preparation

1. Generate the RCI 5-year inventory schedule report in RITA.
2. Select roadway or roadways to inventory from the inventory schedule spreadsheet.\*\*
3. Collect and review existing and historical data.
4. Verify existing administrative data.

### Pre-Inventory – Field Preparation

5. Gather equipment and verify that it is in working condition.
6. Do vehicle safety inspection.
7. Calibrate the DMI.

\*\*Active exclusive roadways should be inventoried at the same time as their associated mainline roadways.

### Inventory – Field Activity

1. Drive through and record roadway elements while establishing roadway length.
2. Record milepoints and data for intersections and construction stations.
3. Record milepoints and data for feature changes.
4. Record lane, median, and shoulder widths.
5. Record milepoints and data for miscellaneous features.

### Post-Inventory – Office Activity

1. Use the latest construction plans to obtain data that could not be collected in the field.
2. Convert construction stations to milepoints.
3. Check milepoint deviation tolerances between collected data and existing data.

### Post-Inventory – RCI Data Entry

4. Code or update Feature 251 Intersections to establish a LRS for the roadway ID.
5. Code or update administrative features.
6. Code or update physical/geometric features.
7. Run all RCI and Traffic Edits, then make any necessary corrections.

### Post-Inventory – Update RITA

8. Revise the date of the actual field inventory and database input in RITA.

### Post-Inventory – Basemap

9. If the basemap and final RCI mileage lengths are out of tolerance or incorrectly aligned in the basemap, submit an RCI/basemap package to TranStat.

### Post-Inventory – TranStat

10. Notify TranStat about any changes made.

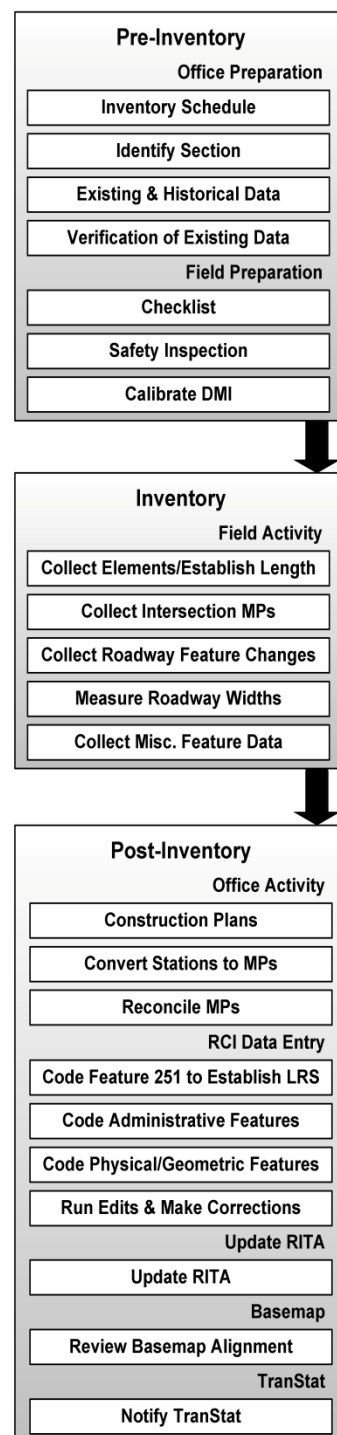
**NOTE:** No SLDs are required for Active Exclusive roadways.

### Requirements

The Active Exclusive inventory collects information about ramps and frontage roads. The GIRD requires a 5-year inventory cycle for all Active Exclusive facilities associated with other State-maintained facilities. The RCI characteristics are to be collected and stored in RCI for all state roadways, without restriction to mainline segments. The Active Exclusive inventory does not require or maintain an SLD; however, each District is required to re-inventory these roadways every five years. These roadways include all ramps, frontage roads, connectors and other non-mainline roadways. Refer to the data collection matrices in the Appendix for details of the characteristics required by urban/rural classification and type of roadway.

### Feature Characteristic(s)

- 111 STRDNUM2, STROADNO
- 113 USROUTE, USROUTE2
- 114 LOCALNAM
- 119 RAMPFC
- 120 ROTARY, RTEGNCND, TYPEROAD



124 URBAREA, URBSIZE  
 140 OSDATE, STATEXPT  
 147 SISFCTPx, SISMPIDx  
 212 NOLANES, SURWIDTH  
 213 AUXLNTYP, AUXLNUM, AUXLNWTH  
 214 SHLDTYPE, SHLDTYPx, SLDWIDTH, SHLDWTHx  
 215 MEDWIDTH, RDMEDIAN  
 216 BIKELNCD, BIKSLTCD, SDWLKBCD, SHARDPTH, SIDWLKWD  
 219 ISLDTYPE, ISLDTYPx, ISLDWDTH, ISLDWTHx  
 230 PAVECOND, PAVINDEX, SURFNUM  
 232 FRICTCSE, SURFLAYx, SURFLxTH  
 233 BASETHK, TYPEBASE  
 251 BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx  
 252 EXITNO, INTERCHG  
 253 CHKDIGIT, RRCROSNO  
 258 BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO  
 330 FLWBRKID, TRFBRKCD  
 331 AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

### State Road, U.S. Route, and Interstate Numbers on Active Exclusive Roadways

In order to facilitate route sequencing in RCI and to allow GIS and other mapping sequencing, it is necessary to include Feature 111 and 113 where available. Therefore, to complete a route sequence, code the associated route numbers in the proper route segment order as it appears geographically along the mainline. This route sequence design would put frontage roads, ramps, and other similar roadways in parallel with the associated mainline. It also allows one-way sub-sections to be placed parallel with the other appropriate one-way portion of the mainline. With the use of the milepoint linkages from data that are based on RCI features, the entire sequencing is automated, and the only manual sequencing that is needed is to arrange the mainline counties in proper order. This is most critical with roadways entering a county more than once, such as I-10 through Washington and Holmes counties. This method also provides for ramps intersecting ramps, as is the case with many of the major directional (non-loop) interchanges. Note that there are many ramps to frontage roads that have ramps to the local highway system. This design also provides for the automated designation of reversal sections.

Feature 111 State Road System and 113 AASHTO are to be collected on Active Exclusive roadways for route sequencing. This includes recording state, U.S., and interstate route numbers that are assigned to the mainline for Active Exclusive roadways. For this step, match the same section number (3rd, 4th, and 5th digits) of the roadway ID number with the mainline. For example, the Active Exclusive ramps located at US27/SR63 (55010000) and I-10/SR8 (55320000) would receive Feature 111 coding of SR8 and Feature 113 coding of I-10.

The same coding methodology applies to Active Exclusive roadways located at the interchange of two interstates such as I-10 and I-75. The feature coding for the Active Exclusive ramps would reflect the road number from the mainline that has the identical section number (3rd, 4th, and 5th digits) of the eight-digit roadway ID number. An example of this would be that for ramp 29180067, the Features 111 and 113 will utilize I-75/SR93 from the mainline I-75/SR93 (29180000) and not I-10/SR8 from the mainline 29170000.

### Ramps

For FDOT purposes, a ramp is a segment of road with the primary purpose of allowing traffic to enter or exit a road with full or partial control access. Ramps may also be used to connect at-grade roadways. Ramps usually have one-way traffic and are coded in RCI as Active Exclusive road types.

### Ramp Beginning/Ending Points

Ramps are established using the physical gore as the beginning or ending point. The physical gore is the actual point where the pavement of the ramp leaves or meets the pavement of the mainline. Segments of the ramp should begin and end at the physical gore of the intersecting roadway. A physical gore is the actual point where the pavement of the ramp leaves or meets the pavement of the mainline.

We use the physical gore as defined, versus the painted or other gores because the physical gore is the most consistent, repeatable, discernible type over the course of time.

Reference the RCI Features & Characteristics Handbook for more information on definitions and diagrams of Active Exclusive roadways.

## Data Collection Process for Active Off the SHS Inventory

### Pre-Inventory – Office Preparation

1. Generate the RCI 5-year inventory schedule report in RITA.
2. Select roadway or roadways to inventory from the inventory schedule spreadsheet.
3. Collect and review existing and historical data.
4. Verify existing administrative data.

### Pre-Inventory – Field Preparation

5. Gather equipment and verify that it is in working condition.
6. Do vehicle safety inspection.
7. Calibrate the DMI.

### Inventory – Field Activity

1. Drive through and record roadway elements while establishing roadway length.
2. Record milepoints and data for intersections and construction stations.
3. Record milepoints and data for feature changes.
4. Record lane, median, and shoulder widths.
5. Record milepoints and data for miscellaneous features.

### Post-Inventory – Office Activity

1. Use the latest construction plans to obtain data that could not be collected in the field.
2. Convert construction stations to milepoints.
3. Check milepoint deviation tolerances between collected data and existing data.

### Post-Inventory – RCI Data Entry

4. Code or update Feature 251 Intersections to establish a LRS for the roadway ID.
5. Code or update administrative features.
6. Code or update physical/geometric features.
7. Run all RCI and Traffic Edits, then make any necessary corrections.

### Post-Inventory – Update RITA

8. Revise the date of the actual field inventory and database input in RITA.

### Post-Inventory – Basemap

9. If the basemap and final RCI mileage lengths are out of tolerance or incorrectly aligned in the basemap, submit an RCI/basemap package to TranStat.

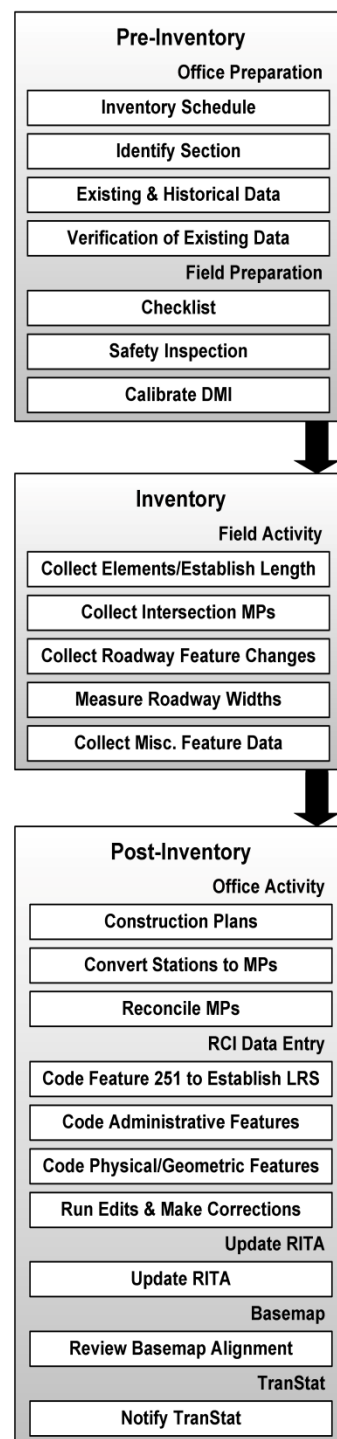
### Post-Inventory – TranStat

10. Notify TranStat about any changes made.

**NOTE:** No SLDs are required for Active Off the SHS roadways.

### Requirements

In addition to the roadways on the SHS, the RCI database represents roadways categorized as Active Off the SHS. These roadways, as identified in the GIRD are to be maintained by the Department's Planning Statistics or Office of Maintenance according to their functional classification. The RCI information for these typically city or county roads is collected using the Active Off the SHS inventory process.



<u>Feature</u>	<u>Characteristic(s)</u>
111	STRDNUM2, STROADNO
112	FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY
114	LOCALNAM
119	BASETHIK, BASETYPE, FLEXTHIK, HOVNUMLN, HOVTYPE, IRIDATE, OVRYTHIK, RAMPFC, RIGIDTHIK, TOLLCHGS, TOLLNAME, TOLLTYPE, YRCONST, YRIMPT
120	ROTARY, RTESGNCD, TYPEROAD
121	FUNCLASS
122	OWNAUTH, RDACCESS, TOLLROAD
124	HWYLOCAL, PLACECD, URBAREA, URBSIZE
125	LANDUSE, ROUGHIND
140	OSDATE, STATEXPT
147	SISFCTPx, SISMPIDx
212	NOLANES, SURWIDTH
213	AUXLNTP, AUXLNUM, AUXLNWTH
214	SHLDTYPE, SHLDTYPx, SLDWIDTH, SHLDWTHx
215	MEDWIDTH, RDMEDIAN
216	BIKELNCD, BIKSLTCD, SDWLKBCD, SHARDPTH, SIDWLKWD
219	ISLDTYPE, ISLDTYPx, ISLDWDTH, ISLDWTHx
230	PAVECOND, PAVINDEX, SURFNUM
232	FRICTCSE, SURFLAYx, SURFLxTH
233	BASETHK, TYPEBASE
251	BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx
252	EXITNO, INTERCHG
253	CHKDIGIT, RRCROSNO
258	BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO
330	FLWBRKID, TRFBRKCD
331	AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

Districts should realign off-system roadways using the current realignment process. However, certain off-system realignments may be considered for the alternate off-system realignment process as outlined in the chapter 5 Off-System Realignments page 60 on a case-by-case basis.

The GIRD procedure requires each District to re-inventory every roadway ID every five years. The data required for Active Off the SHS (likewise with Active On the SHS) roadways is listed in the inventory matrices in the Appendix of this handbook. These matrices explicitly identify all the required RCI features and characteristics by either their Federal functional classification (e.g. SIS, NHS, etc.) or level of interest.

TranStat does not require the production or maintenance of straight-line diagrams (SLDs) for Active Off the SHS roadways. However, the SLD software allows for production of SLDs for Active Off the SHS roadways if the District chooses to produce them. Old SLDs may exist for roadways that were once on the SHS and, if available, should be retained for historical purposes.

#### Data Collection for Rural Minor Collectors and above Roadways

Active Off the SHS roadways functionally classified as rural minor collectors and above are required to be in the basemap and RCI and shall be part of the District's 5-year off-system re-inventory cycle. Refer to the Active Off the SHS RCI inventory matrix in the Appendix of this handbook for the required features and characteristics for all roadways functionally classified rural minor collectors and above.

## Data Collection Process for Local Roads Inventory

### Pre-Inventory – Office Preparation

1. Generate the RCI 5-year inventory schedule report in RITA.
2. Select roadway or roadways to inventory from the inventory schedule spreadsheet.
3. Collect and review existing and historical data.
4. Verify existing administrative data.

### Pre-Inventory – Field Preparation

5. Gather equipment and verify that it is in working condition.
6. Do vehicle safety inspection.
7. Calibrate the DMI.

### Inventory – Field Activity

1. Drive through and record roadway elements while establishing roadway length.
2. Record milepoints and data for intersections and construction stations.
3. Record milepoints and data for feature changes.
4. Record lane, median, and shoulder widths.
5. Record milepoints and data for miscellaneous features.

### Post-Inventory – Office Activity

1. Use the latest construction plans to obtain data that could not be collected in the field.
2. Convert construction stations to milepoints.
3. Check milepoint deviation tolerances between collected data and existing data.

### Post-Inventory – RCI Data Entry

4. Code or update Feature 251 Intersections to establish a LRS for the roadway ID.
5. Code or update administrative features.
6. Code or update physical/geometric features.
7. Run all RCI and Traffic Edits, then make any necessary corrections.

### Post-Inventory – Update RITA

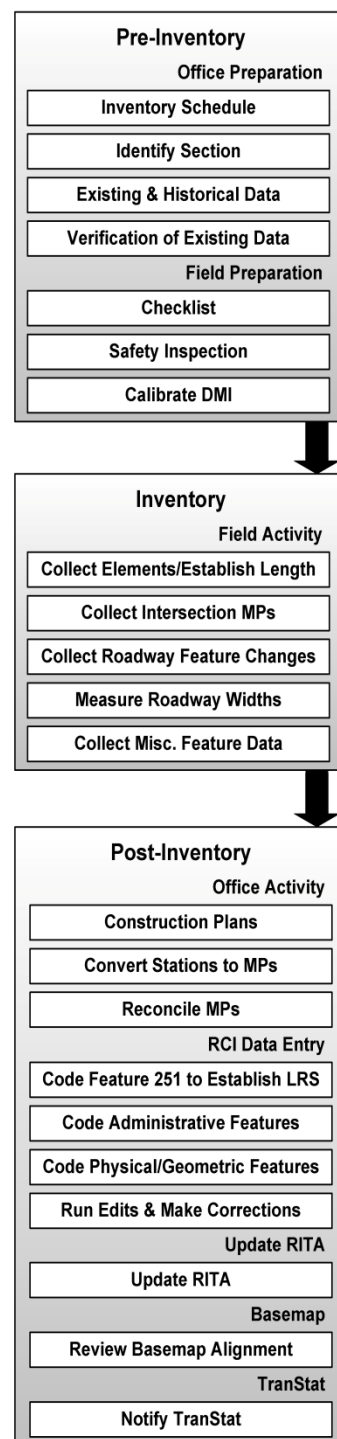
8. Revise the date of the actual field inventory and database input in RITA.

### Post-Inventory – Basemap

9. If the basemap and final RCI mileage lengths are out of tolerance or incorrectly aligned in the basemap, submit an RCI/basemap package to TranStat.

### Post-Inventory – TranStat

10. Notify TranStat about any changes made.



### Data Collection for Local Roads

In order to improve the management of Local Roads, and to allow Districts choices within their own local road network, TranStat has developed criteria to follow when processing Local Roads for RCI. The concepts of Local Roads of State and District interest identify the types of Local Roads as well as the data to be established and maintained in RCI for these designations. If either of these types of road are included in RCI and do not have a status that excludes field inventory, they must be part of the District's 5-year off-system re-inventory cycle.

Feature Characteristic(s)

111	STRDNUM2, STROADNO
112	FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY
114	LOCALNAM
119	BASETHIK, BASETYPE, FLEXTHIK, HOVNUMLN, HOVTYPE, IRIDATE, OVRYTHIK, RAMPFC, RIGIDTHIK, TOLLCHGS, TOLLNAME, TOLLTYPE, YRCONST, YRIMPT
120	ROTARY, RTESGNCN, TYPEROAD
121	FUNCLASS
122	OWNAUTH, RDACCESS, TOLLROAD
124	HWYLOCAL, PLACECD, URBAREA, URBSIZE
125	LANDUSE, ROUGHIND
140	OSDATE, STATEXPT
147	SISFCTPx, SISMPIDx
212	NOLANES, SURWIDTH
213	AUXLNTYP, AUXLNUM, AUXLNWTH
214	SHLDTYPE, SHLDTPPx, SLDWIDTH, SHLDWTHx
215	MEDWIDTH, RDMEDIAN
219	ISLDTYPE, ISLDTPPx, ISLDWDTH, ISLDWTHx
230	PAVECOND, PAVINDEX, SURFNUM
233	BASETHK, TYPEBASE
251	BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx
252	EXITNO, INTERCHG
253	CHKDIGIT, RRCROSNO
258	BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO
331	AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

Local Roads of State Interest

Field alignment and data verification is required for Local Roads of State interest and must be inventoried using conventionally accepted methods, unless the road status excludes field inventory. Local roads of State interest include those that are:

- Designated as NHS
- Designated as SIS
- Contain bridge structures and/or railroad crossings
- Roadways for which Federal Aid Primary (FAP) data exists in Feature 112

Local Roads of State Interest with NHS or SIS Designation

Local roads with NHS or SIS designations shall be part of the District's 5-year off-system re-inventory cycle. These roadways will be placed in the basemap and in the RCI database with the field verified length and all the applicable data noted in the Local Roads RCI inventory matrix located in the Appendix of this handbook.

Local Roads with Bridge Structures and/or Railroad Crossings

Local roads with bridge structures and/or railroad crossings shall be part of the District's 5-year off-system re-inventory cycle. The entire alignment shall be placed in the basemap and in the RCI database with the field verified length and all the applicable data noted in the Local Roads RCI inventory matrix located in the Appendix of this handbook.

Only the shortest roadway ID length necessary to represent the extent of these roadways should be added to the basemap. However, when it is possible to establish a link to an active roadway ID, a longer length may be necessary. Discretion should always be used to minimize the number of dangling road segments, arcs, or isolated alignments on maps generated using the basemap shapefiles.

Adding alignments to RCI and/or the basemap requires Districts to submit a basemap package and to coordinate and receive approval from TranStat.

Local Roads of District Interest

Local roads of District interest are defined as Local Roads that a District requests to be included in the RCI database and basemap (i.e., park roads, minor evacuation routes, roadways of MPO interest, etc.). The data collection and inventory requirements for Local Roads of District interest can be satisfied through research of office resource material (i.e., aerial photographs, basemap, SLDs, or related documentation).



**Local Roads with FM Projects (Work Program Transportation System 16)**

Local roads with FM projects that are part of the SCRAP (Small County Road Assistance Program), Small County Outreach Program (SCOP), or County Incentive Grant Program (CIGP) are required to be part of the District's 5-year off-system re-inventory cycle. Assigning roadway IDs to these alignments assists the Department in maintaining accurate FM data. Roadway IDs will be assigned for FM projects on roadways off the SHS and off the Federal Aid System (coined "off/off" roadways) based on collaboration between the District RCI Staff and the District Work Program Office. Data collection and verification for these Local Roads can be done using aerial photographs or other methods. These alignments should be added in the RCI database with the verified length and all applicable data as noted in the Local Roads RCI inventory matrix located in the Appendix of this handbook.

According to the Work Program Instructions:

All active and future roadway projects are required to have unique roadway ID numbers. Sidewalks, signs, landscaping and/or signal projects off the roadway do not require roadway ID numbers.

**NOTE:** The Districts are not required to provide roadway IDs for railroads crossing closure/signal upgrade projects.

For off the state highway system, off federal aid system projects, roadway ID numbers are required if a project exists. Once these roadway IDs are created, they are to be retained in the database.

**NOTE:** The District will use code 16 – Local Roads with FM Projects for the overall status on the V/U/D screen and in Feature 140 – Section Status Exception on these roadways. Once coded, the roadway ID will not have to be inactivated and no further District action will be required by TranStat.

The Transportation Statistics Office will set up a series of roadway ID numbers with a section number in the 900 series for off the state highway system projects. Each distinct project (with a financial item identifier) will have its own subsection number. The approach is similar to the county-wide approach but allows Local Roads to be uniquely identified.

Example: Instead of 10 projects on off-system or Local Roads having a county-wide roadway ID of 55-000-000, each of these roadways would be assigned a roadway ID ranging from 55-900-001 through 55-900-010. This approach allows each to have its own roadway ID in RCI.

**NOTE:** Roadway ID assignments should follow the prescribed method outlined in the RCI Planning Data Handbook Chapter 5 Roadway ID Numbering System.

Please reference the Work Program Instructions using the following link for more information:

[http://www.dot.state.fl.us/programdevelopmentoffice/Development/WP\\_instructions.shtm](http://www.dot.state.fl.us/programdevelopmentoffice/Development/WP_instructions.shtm)

A minimum set of data provided by the District Work Program Office will be used to establish FM project information in the RCI database:

- Beginning and ending milepoint information tied to logical termini using the standard RCI convention, i.e. physical points that are easily identified in the field.
- Local name, location map, length, and/or limits of the FM project.
- Number of lanes according to the information provided by the Work Program Office or other requesting office. A default value of two 10 foot lanes will be assigned if the information is not available.

All other applicable data will be collected as noted in the Local Roads RCI inventory matrix located in the Appendix of this handbook. Local road alignments will be added to the basemap based on collaboration between the District RCI staff and the District Work Program Office.

Adding alignments to the RCI and/or the basemap requires a basemap package, coordination, and approval from TranStat.

**Local Roads are to be Maintained in RCI and Basemap**

The District must use RCI and other available resources to record data for Local Roads of State or District interest.

Local Roads are to be maintained in RCI and basemap: (Effective December 2014)

1. Investigate the View/Update/Delete Roadway ID (V/U/D) screen in RCI to access information for the overall status, established date, FM projects, etc., for Local Roads of State interest. Verify the roadway alignment and historically significant data using all available office resources. These include maps, aerial photographs, RCI data, RITA, District/local knowledge, and all other applicable sources.
2. If the District chooses to retain Local Roads of District interest, then these roadways must be maintained in RCI and the basemap and be included in the 5-year off-system re-inventory cycle.
3. If an RCI roadway ID is to be deleted, because the entire roadway was physically deleted, then the District shall follow the roadway ID deleting process outlined in chapter 5 Deleting page 69.

**NOTE:** Any roadways where the entire limit of the roadway ID has an overall status of deleted or inactive will be removed from the basemap, since only existing routes are displayed.

It is recommended that the District maintain a hardcopy of the roadway ID history in its office for future reference. TranStat does not recommend deleting any data in RCI. When the overall status in the V/U/D screen is changed to deleted or inactive, all coded data in RCI will not be included in any reports.

**NOTE:** Do not remove the roadway IDs from RCI, nor change the overall status to Deleted or Inactive on roadways that have existing FAP data coded in Feature 112.

## Data Collection Process for New Construction/Pending Roadway Inventory

### Pre-Inventory – Office Preparation

1. Generate the RCI 5-year inventory schedule report in RITA.
2. Select roadway or roadways to inventory from the inventory schedule spreadsheet.
3. Collect and review existing and historical data.
4. Verify existing administrative data.

### Pre-Inventory – Field Preparation

5. Gather equipment and verify that it is in working condition.
6. Do vehicle safety inspection.
7. Calibrate the DMI.

### Inventory – Field Activity

1. Drive through and record roadway elements while establishing roadway length.
2. Record milepoints and data for intersections and construction stations.
3. Record milepoints and data for feature changes.
4. Record lane, median, and shoulder widths.
5. Record milepoints and data for miscellaneous features.

### Post-Inventory – Office Activity

1. Use the latest construction plans to obtain data that could not be collected in the field.
2. Convert construction stations to milepoints.
3. Check milepoint deviation tolerances between collected data and existing data.

### Post-Inventory – RCI Data Entry

4. Code or update Feature 251 Intersections to establish a LRS for the roadway ID.
5. Code or update administrative features.
6. Code or update physical/geometric features.
7. Run all RCI and Traffic Edits, then make any necessary corrections.

### Post-Inventory – Update RITA

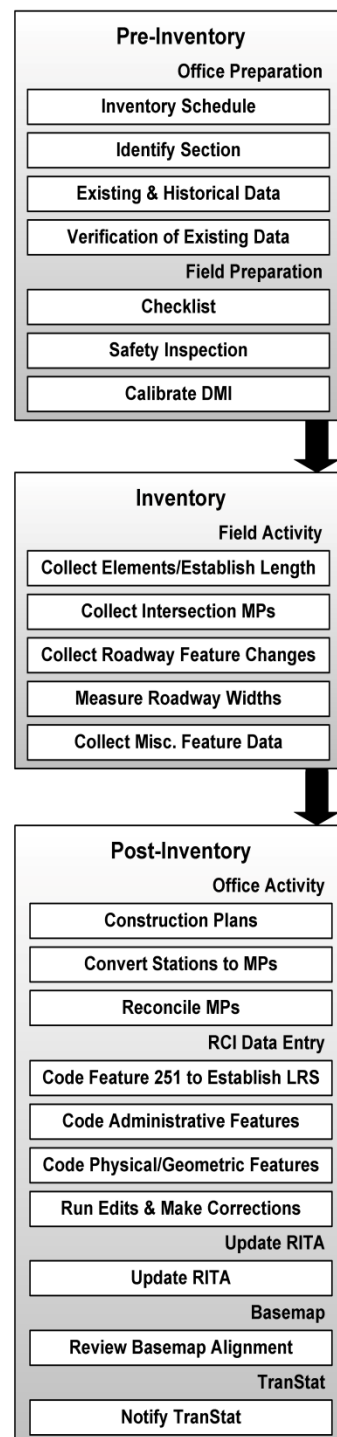
8. Revise the date of the actual field inventory and database input in RITA.

### Post-Inventory – Basemap

9. If the basemap and final RCI mileage lengths are out of tolerance or incorrectly aligned in the basemap, submit an RCI/basemap package to TranStat.

### Post-Inventory – TranStat

10. Notify TranStat about any changes made.



### Pending Roadway (not in Database)

An impending construction/realignment requires collection of administrative data to facilitate the creation of a roadway ID number in RCI. Pending roadways are not required nor are they included in the basemap. Only existing routes are displayed on official maps.

Once the District Secretary approves the SHS mileage addition or deletion, the District will update the remaining features and characteristics as described within GIRD Procedure Topic No. 525-020-310; and Transportation System Jurisdiction and Numbering Procedure Topic No. 525-020-010.

### New Road Construction (not in Database)

When a new road is to be constructed and no other roadways are involved, the District shall contact the TranStat Highway Database Supervisor to create the new V/U/D screen with a new roadway ID provided by the District Office. When construction of the new road is complete, the District shall conduct a complete inventory of the features for the road segment being added. The updated limit description and milepoint information will be used on the addition to the State Highway

System form. These administrative features will be added to the RCI database within 15 calendar days after the inventory field crew returns to the office from the field. The remaining information will be added according to the time given in GIRD Procedure Topic No. 525-020-310.

#### Realignments (not in Database)

When realignment occurs, even if the old portion of the road is physically removed, the District shall conduct a complete appropriate inventory for the road segment being added. Updated limit description and milepoint information will be used on the forms documenting the actions taken, including the District Secretary signature form. These administrative features will be added to the RCI database within 15 calendar days. The remaining information will be added according to the timeframe given in GIRD Procedure Topic No. 525-020-310.

#### District Secretary Approval of Required Features

The following are the features required to complete the approval forms for new construction and realignments. Accurate data is required for District Secretary approval.

<u>Feature</u>	<u>Characteristic(s)</u>
111	STRDNUM2, STROADNO
112	FAHWYSYS, TRAVLWAY (if NHS)
113	USROUTE, USROUTE2
114	LOCALNAM
121	FUNCLASS
122	OWNAUTH, RDACCESS, TOLLROAD
124	HWYLOCAL, PLACECD, URBAREA, URBSIZE
140	STATEXPT
147	SISFCTPx, SISMPIDx
251	BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx

## Data Collection Process for Managed Lanes Inventory

### Pre-Inventory – Office Preparation

8. Generate the RCI 5-year inventory schedule report in RITA.
9. Select roadway or roadways to inventory from the inventory schedule spreadsheet.
10. Collect and review existing and historical data.
11. Verify existing administrative data.

### Pre-Inventory – Field Preparation

12. Gather equipment and verify that it is in working condition.
13. Do vehicle safety inspection.
14. Calibrate the DMI.

### Inventory – Field Activity

6. Drive through and record roadway elements while establishing roadway length.
7. Record milepoints and data for intersections and construction stations.
8. Record milepoints and data for feature changes.
9. Record lane, median, and shoulder widths.
10. Record milepoints and data for miscellaneous features.

### Post-Inventory – Office Activity

11. Use the latest construction plans to obtain data that could not be collected in the field.
12. Convert construction stations to milepoints.
13. Check milepoint deviation tolerances between collected data and existing data.

### Post-Inventory – RCI Data Entry

14. Code or update Feature 251 Intersections to establish a LRS for the roadway ID.
15. Code or update administrative features.
16. Code or update physical/geometric features.
17. Run all RCI and Traffic Edits, then make any necessary corrections.

### Post-Inventory – Update RITA

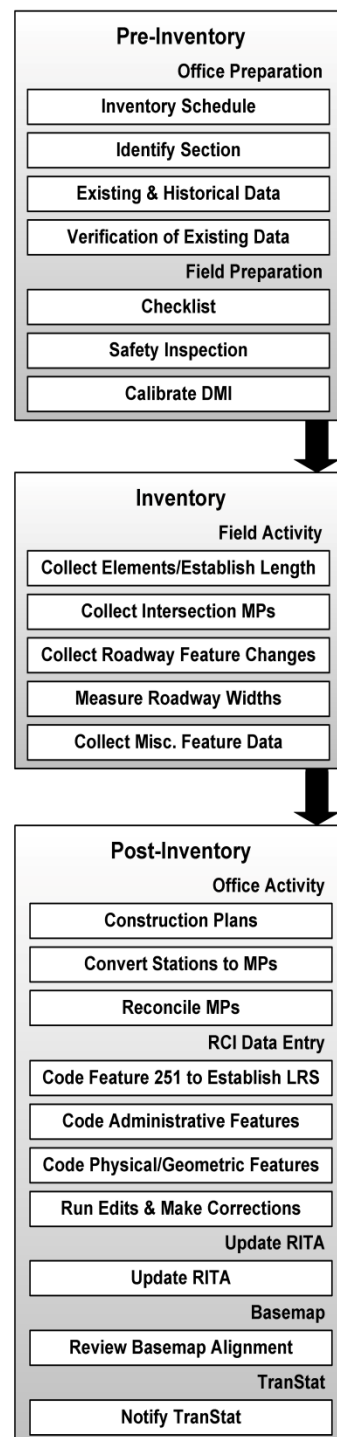
18. Revise the date of the actual field inventory and database input in RITA.

### Post-Inventory – Basemap

19. If the basemap and final RCI mileage lengths are out of tolerance or incorrectly aligned in the basemap, submit an RCI/basemap package to TranStat.

### Post-Inventory – TranStat

20. Notify TranStat about any changes made.



## Requirements

The Managed Lanes inventory collects information about three types of managed lanes. Refer to Chapter 5 Managed Lanes of this handbook to determine if the managed lane is a Case A, Case B, or Case C. Also, refer to the RCI Features & Characteristics Handbook for specifics about characteristics and codes.

<u>Feature</u>	<u>Characteristic(s)</u>
111	STRDNUM2, STROADNO
112	FAHWYSYS, TRAVLWAY
113	USROUTE, USROUTE2
114	LOCALNAM
119	HOVNUMLN, HOVTYPE, TOLLCHGS, TOLLNAME, TOLLTYPE
120	TYPEROAD
121	FUNCLASS
122	OWNAUTH, RDACCESS, TOLLROAD
124	HWYLOCAL, PLACECD, URBAREA, URBSIZE
140	STATEXPT
147	SISFCTPx, SISMPIDx
212	NOLANES, SURWIDTH
214	MLTRFSEP, SHLDTYPE, SHLDTYPx, SLDWIDTH, SHLDWTHx
215	MEDWIDTH, RDMEDIAN
230	PAVECOND, PAVINDEX, SURFNUM
232	FRICTCSE, SURFLAYx, SURFLxTH
233	BASETHK, TYPEBASE
251	BEGSECNM, ENDSECNM, INTSDIRx, INTSRTPx
258	BOXCULNO, BRIDGENO, FACCROSS, TUNNELNO, UNDPASNO
330	FLWBRKID, TRFBRKCD
331	AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

## The Data Collection Process

This section presents a detailed explanation of the general process used to collect data for the Active On the SHS inventory. All other inventories will follow a similar process; however, the details will be different based on the items to be collected. The differences from the basic data collection process are noted and summarized for each category.

### Pre-Inventory Process

Before going into the field to collect data, office preparations should be completed. First, develop an inventory schedule. Select the roadway or roadways to be inventoried and collect and review existing and historical office data. Also, assemble the necessary equipment, perform a vehicle safety inspection, and calibrate the DMI.

### Office Preparation

#### Inventory Schedule and Scheme

Produce the RCI 5-year inventory schedule report from RITA. Inventory types have different requirements; so generate separate spreadsheets for each type. The spreadsheet contains the following fields:

- |                        |                   |                       |
|------------------------|-------------------|-----------------------|
| ○ Roadway ID           | ○ RCI Update Date | ○ RCI Update Deadline |
| ○ Previous RCI Update  | ○ SLD Update Date | ○ Under Construction? |
| ○ Field Inventory Date | ○ SLD Dist. Date  | ○ Comments            |

#### Identify Roadway ID Requiring Inventory

Usually about five roadway IDs are prepared at the same time to facilitate one month's worth of inventory work, depending on the length and complexity of the roadways. Before going to the field to perform an RCI inventory, a roadway or roadways will be selected from the inventory schedule spreadsheet.

#### Collect and Review Existing/Historical Data

Reference material used to compare the accuracy of a roadway ID may include construction plans, right of way maps, and SLDs. The beginning and ending of a roadway and any other history should be determined.

Several items should be assembled and reviewed in the office prior to any field visit. These items are:

- Current SLD
- Related key sheet insets
- Aerial photos of interchanges and complex alignments
- Construction/As Builts Plans (see below)
- Features/characteristics sort (before updates to database)
- FM projects by roadway ID
- Structures (see below)
- Basemap alignment (see below)
- Video logs (see below)

Construction plans to assist in determining the correct alignment for the inventory. Be sure to obtain the latest plan set; however, construction plans may not be completely accurate due to changes from the original design and conditions encountered during the construction process. Final construction plans, known as "as builts," may not be available at the time of inventory. The FDOT Construction Department should be contacted to obtain the latest set of "as builts" plans.

All structures (bridges, culverts, and underpasses) must be identified. Check the bridge inventory spreadsheet to verify bridge number, crossing facility, and bridge width. Use the bridge length information for structures coded as BR. Use the bridge deck width for structures coded as UP and CB.

The basemap alignment and the RCI data should agree. View the roadway from the basemap with a geographic information system (GIS) application to check for consistency and location accuracy. A review of aerials in combination with the basemap may assist in determining the adequacy of existing data. If a roadway involves an interchange, comes to an apex, or has a complex alignment at an intersection, an aerial photograph of that particular area will help in clarifying the alignment. TranStat has a copy of the latest aerial images through the digital ortho quarter quads (DOQQs). These aerial images (in digital format) have been geo-referenced and are used in conjunction with the GIS basemap generated by TranStat and are an excellent reference.

Video logs (images taken from a vehicle traveling the roadway) are available for all Active On the SHS roadways. These video logs can be used to determine if there has been an addition or change to a number of characteristics in the RCI database. In many cases, the actual data can be determined, and in other cases, it can be used to determine if a field visit is necessary. Video logs are redone every three years, but while very useful, do not entirely replace field visits. *When should you use the video log?* The following represent cases where field visits are currently conducted and the video log could be a potential alternative.

Missing data: Video logs should be checked first. If they are reasonably current and the data item is not likely to change (such as the name of a cross street), using the video log can make a field trip unnecessary.

Re-inventory: The first step in a re-inventory should be to review the most recent video log. This review should consist of a comparison of the video log with the latest SLD. If there are changes, the new data should be obtained from field visits.

### Verification of Administrative Data

Prior to going on a field visit, compare the administrative data to other known correct data for internal consistency. Administrative features include characteristics that are collected within the office through documents. Many elements associated with the roadway are not visible in the field or may be assigned administrative values. These features include:

#### Feature Characteristic(s)

- 111 STROADNO, STRDNUM2
- 112 FAHWYSYS, OLDFASYS, SPECSYS, STGHWNWK, TRAVLWAY
- 113 USROUTE, USROUTE2
- 114 LOCALNAM
- 119 BASETHIK, BASETYPE, FLEXTHIK, HOVNUMLN, HOVTYPE, IRIDATE, OVRYTHIK, RAMPFC, RIGIDTHIK, TOLLCHGS, TOLLNAME, TOLLTYPE, YRCONST, YRIMPT
- 121 FUNCLASS
- 124 HWYLOCAL, PLACECD, URBAREA, URBSIZE
- 139 OALIGNID, OALNBGPT, OALNENPT (all are automatically generated)
- 140 OSDATE, STATEXPT
- 143 BEGSECPT, ENDSECPT, RDWYID (all are automatically generated)
- 147 SISFCTPx, SISMPIDx
- 331 AADTDATE, AADTTYPE, AVGDFACT, AVGKFACT, AVGTFACT, SECTADT

### **Field Preparation**

In preparation for the field activity, verify that all equipment is in good working condition. These are the minimum recommended items:

- Pre-inventory historical files (at minimum, the current SLD)
- Tire gauge
- Writing instruments
- Everything listed on the Vehicle Safety Inspection Sheet Examples (See the Appendix.)

### Vehicle Safety Inspection

A vehicle inspection and safety check will help ensure that the vehicle is operable before leaving the parking lot. Is the vehicle's fuel tank filled? Are the windows clean and clear of condensation? Has the vehicle log been filled out? Perform all necessary vehicle inspections listed in the vehicle log book. Use one of the Vehicle Safety Inspection Sheet Examples from the Appendix.

### Calibrate DMI

Check the calibration of the DMI daily. An accurate DMI is extremely important. The DMI measurements will be used as milestones and as reference points in many different situations and by other departments and agencies. An important part of the vehicle inspection is daily checking of the tire pressure to ensure the accuracy of the DMI. Almost anything can affect tire pressure (i.e., pulling off the road onto shoulders, jumping the curbs and medians, running over nails, etc.). If the tire pressure changes, the accuracy of the DMI will be affected. All four tires must be set at the same pressure. Tire pressure may vary with each tire gauge; therefore, utilization of the same gauge every time the pressure is checked can avoid this potential error. If the tire pressure is different, correct the pressure of each affected tire.

### DMI Calibration Course

The calibration course needs to be located at least five miles away so that the tires can heat up to normal operating conditions. The course needs to be at least 1,000 feet in length, free from traffic, and on flat terrain. For maximum accuracy, the 1,000 foot calibration course should be established by a surveyor. A one mile course should also be established by a surveyor, and used to verify accurate measurement of a mile. For instance, a DMI calibrated on a 1,000 foot calibration course may be off by one foot. Subsequently, the DMI measurement of one mile could be off by 5± feet and may increase with distance. The DMI is only precise to within five feet or .001 of a mile.

Several factors affect the instrument itself. The interaction between the road and the tire has a great deal to do with the precision of the instrument. For instance, several factors can affect the friction between the road and the tire (i.e., speed of travel, inclement weather, outside temperature, temperature of the pavement). These factors can change the tire pressure through the course of a day, which may cause inaccurate DMI readings. A long roadway ID can also be measured inaccurately due to the cumulative error of the DMI. A second run on the roadway may produce different readings than the first run. It is



recommended that long roadway ID lengths be measured two or three times at the same speed, without any stopping if possible or deviation from travel path.

The measured location of the milepoints is only as precise as the equipment used.

#### Milepoint Tolerances

The maximum allowable milepoint deviation inside an urban area boundary is 0.010 mile (+/- 53 feet).

**NOTE:** Effective January 2016, all samples are to be inventoried using the tolerance of 0.01 mile (+/- 53 feet). By January 2021, all RCI milepoints should be in compliance with this change (as discussed in the December 2015 TTF meeting.)

### **Inventory Process**

Once the pre-inventory process is complete, the field inventory activity may begin. The person responsible for data collection may develop a personalized inventory process. However, experienced data collectors recommend the following process:

#### The Five Steps in RCI Field Inventory

The Five Steps in RCI Field Inventory:

1. Record street names, bridge numbers, mile markers, call boxes, county lines, railroad crossing numbers, and intersection names while establishing roadway length.
2. Record milepoints for all intersections and 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 (land use, pavement condition, and friction course).

Upon arriving at the beginning of the roadway ID to be inventoried, take time to become familiar with the roadway. Locate an area near the beginning of the roadway ID to pull the vehicle safely off the road. Several precautionary safety steps need to be taken at this time. Get the crew organized so that driving the roadway ID and collecting the data will run smoothly. Check vehicle safety and warning devices for proper placement and operation.

When collecting data, turn on the inventory vehicle's safety lights. The driver will need to drive slower than the flow of traffic to make sure that a feature change is not omitted in the collection process. Each time you exit the vehicle, wear your safety vest. Drive at a constant slow speed; the drivers behind the inventory vehicle are unaware of the data collection taking place. While traveling at this slow speed, be aware of the motoring public that is sharing the road. Maintain a safe speed to collect the necessary data and keep the flow of traffic moving without having to tap the brakes. When driving in high traffic volume, drive in the outside lane for safety reasons and to determine roadway ID length. Drivers must always use common sense and good judgment. If other transportation maintenance or construction activities are occurring, wait until those activities are complete before inventorying the roadway ID.

#### Locating Roadway Beginning/Ending Milepoints

When inventorying a roadway ID, a precursory drive-through is always helpful. This allows familiarity with the roadway ID and notes any current construction that is in progress. Being able to identify the flow of the traffic is important. Is it a heavily used truck route? Is the speed of traffic fast? From this information, determine if it will be safe to drive at the necessary slow speeds to collect the data. If necessary, an attenuator truck can accompany the data collection effort for safety. It is also necessary to have a work plan. Where is the roadway ID located? How long does it take to get to the field site? How long does it take to drive through the selected roadway? Which lane should you drive in to avoid deviating from the travel path due to lane shifting or lane dropage? Once this information is obtained, inventory the roadway in a logical order.

#### County Lines

When a roadway ID begins at a county line, the beginning milepoint should be zero. When a roadway ID is built backward from a county line, allow for sufficient mileage to accommodate lengthening, as the road is backed down to zero. Information on the county line locations may be obtained from the appropriate counties. Many times a county line may correspond to a monument/marker, a fence line, or tree line. When a county line follows a river, the roadway ID will begin or end at the bridge joint regardless of the surveyed county line. If the roadway travels south to north, then the zero milepoint of the roadway ID is usually the north end of the bridge joint. For roadways traveling west to east, the zero milepoint is the east end of the bridge joint. However, the bridge number will identify its associated county. If the bridge belongs to the county being inventoried, then the bridge is part of the roadway ID to be inventoried. Prior to any field visit, research must be done by checking the SLD to determine the appropriate point at which to begin or end the roadway ID.

Also, ensure that abutting roadway IDs are using the same physical point location for the BMPs and EMPs. Also, coordinate with bordering Districts to ensure that abutting roadway IDs between District boundaries are using the same physical point location for the BMPs and EMPs. This is to ensure that there are no overlaps or gaps in the statewide roadway network.

### Interchanges

Any roadway that begins or ends at an interchange should be researched and evaluated prior to inventorying to determine which roadway ID includes the interchange. If the roadway ends at an interchange and another begins at the same interchange, then the ending point of one roadway and the beginning point of the other roadway will be at the end of the interchange. The entire interchange includes the most distant gore point of the farthest ramp and should preferably be under one roadway ID.

When a roadway either begins or ends at an interchange, the length will be calculated from the most distant point on the farthest ramp (i.e. include the entire interchange in the roadway ID). All new roadways will utilize this method to identify either the beginning or ending points.

### Mark Difficult Inventory Items

Place a mark on the road to show features that are difficult to see on the left-side inventory. These include culverts, angled intersections, and facility crossings. Use temporary orange construction paint to assist with the inventory. This helps to ensure accuracy of the milepoints being recorded. Mark the following locations with temporary orange paint:

- Mark the BMPs and EMPs of a roadway facility crossings with a temporary paint dot at the bottom of barrier wall.
- If a railroad crossing has a bridge deck, mark the BMP of the crossing with a paint dot at the bottom of the barrier wall in conjunction with the bridge deck. Calculate the EMP by offsetting the BMP by 0.002 miles. These two points are so close together that measuring them is difficult.
- If a bridge is skewed, mark the left bridge BMP and EMP when there are two bridges for the segment and the left and right bridges are offset from one another. Mark with a dot on the top of the inventory direction bridge.
- Mark the BMP and EMP of a river facility crossing with a dot at the bottom of the barrier wall in conjunction with a dot on the bridge deck.

Mark on outside shoulder pavement:

- If a ramp is difficult to see, mark it on the inventory right shoulder.
- On angled roadways, mark where the centerline of the crossing street intersects the centerline of the inventory street.
- Mark any other feature that is difficult to inventory.

### Intersecting Roadways

Record the milepoint reading at the centerline of the crossing street and the centerline of the inventory street. It is very important while recording the side streets, that the street names are spelled correctly, since the street names will be put on the SLDs. Make specific note of the angle at which the crossing street intersects the inventory street. Verify the complete street name and whether or not the intersection is signalized.

### Collect and Record Point Features

Be consistent when recording DMI readings. Always use the same reference point (door lock, vehicle mirror, etc.) throughout the whole run. In addition to point feature milepoints also record street names, bridge numbers, and railroad crossing numbers.

### Collect and Record Length Features

Once the milepoints for the intersections have been collected, make another run to collect the roadway features. On this run, take milepoint readings whenever the road changes from divided to undivided, when the number of lanes changes, when the median changes, and/or when the shoulder changes. A change should also be noted when the lane width, median width, or shoulder width changes.

If feature changes occur within an intersection, a structure, or other visual object in the field, it is recommended to record the changes to the milepoint of the physical point, so that they can be easily located. Also, if multiple changes occur within proximity of each other, record them to the same milepoint.

### Predominate Roadway Feature (Effective July 2013, Updated May 2015)

Coding many roadway changes may result in very cluttered, difficult to read SLDs. In an effort to minimize this “over-coding,” the RCI training teaches data collectors to always record data for the predominate roadway feature. The training also stresses that some important features, such as SIS and number of lanes, need to be collected. If there is a need to code other features for District interest, Districts have the discretion to do so. There are no absolute rules that must be followed under all circumstances when collecting data. Just be consistent in the inventory practice and use good judgment when collecting and coding data.

### Measure Roadway Dimensions

Use a surveyor’s measuring tape, digital measuring wheel, or a laser instrument to measure total surface width, inside and outside shoulder widths, median widths, and box culvert dimensions. Total surface width for through lanes is measured from the outside edge of the paint stripes.

The median measurement should be taken from the edge of through lane pavement for the other direction of traffic flow. The median will include the inside shoulders on both sides of the median. The inside shoulder is the outer edge of the median and between the outer edge of the through lane pavement.

The outside shoulder is that portion of the roadway, outside the through lanes, where stopped vehicles can be accommodated in case of emergency. Measure the outside shoulder width from the outside edge of the edge pavement marking to the outside end of the shoulder. The outside end is identified as the intersection of the shoulder slope with a ditch or with a constraining feature (such as a guardrail, curbing, fence, etc.).

The total surface width on a divided highway is the pavement width between the edge of the median (same as the outer edge of the inside through lane) and the outer edge of through lane pavement at the outside shoulder. There will be two values: one for the left roadway and one for the right roadway.

For total surface width on an undivided roadway, measure from the pavement edge line of the outside shoulder on one side of the roadway to the pavement edge line of the outside shoulder on the other side of the roadway.

### Structures

The BMPs and EMPs for structures should be collected. Usually on both sides of a bridge, there is an approach slab (apron). Disregard the apron and take the reading at the bridge joint. Obtain the milepoint at the first joint (approach side) of the bridge and the last joint (end side) of the bridge. If the bridge is crossing a road, body of water, or railroad line, milepoints will need to be collected for these facility crossings. These point features should be marked during the pre-inventory, since it is difficult to see while driving where the actual crossing point is located. Marking those points on the bridge (inventory direction) makes taking a DMI reading easier. Recording the beginning and ending milepoints of the bridge establishes the approximate location of the bridge, which are used in the Pontis bridge report. The Pontis bridge report records the length of the bridge in meters. This length needs to be converted to feet and then to miles and compared with the DMI length.

### Underpasses

With an underpass (roadway ID under an overhead bridge), a reading should be taken at the bridge deck beginning and then again at the bridge deck end. If the underpass is at an angle, take the reading where the bridge crosses at the center of the roadway (i.e., median of inventory road). Use the pillars in the median to collect the milepoints for underpass structures.

### Field Inventory Wrap Up

Avoid secondary and tertiary field visits by confirming that all required data have been collected or verified before leaving the inventory site.

## **Post-Inventory Process**

The post-inventory process begins upon return to the office.

### **Office Activity**

After the field collection process is complete, obtain data that could not be collected in the field from construction plans. Use the latest construction plans available.

### Horizontal Bearings and Curves

The construction plans can be used to gather data for Feature 220 Non-curve Intersection and Feature 221 Horizontal Curve.

### Highlight SLD

Highlight SLD mark-ups as needed and make a copy for the RCI database input team. The field inventory sheets need to be examined by ensuring all recorded data is readable, complete, and unambiguous. Prepare the data package to send to the RCI database input team. Include copies of the marked-up SLD(s), inventory field sheet(s), construction plans, feature/characteristic sort, and the FM projects by roadway ID reports.

### Converting Station to Milepoint Measurements

Complete the station to milepoint spreadsheet tying construction plans to inventoried milepoints. Express milepoints in three decimals, round extraneous decimals. See the FDOT Construction Plan Reading Self-Study course book for more details on stationing.

The construction plans are drafted using “stations.” Station numbers are a method of recording measurements, with distances listed as “XX + XX.XX,” with the digits to the left of the plus sign representing one hundred foot intervals (for example, “9” or “09” would represent 900 feet), and the digits to the right representing feet. So, for example, a “station” of 9 + 10.50 would represent 900 feet plus 10.50 feet, or a total distance of 910.50 feet. Convert the construction plan stationing to feet (9 + 10.5 = 910.5 ft), then either divide the result by 5280 ft/mi or multiply by 0.000189 mi/ft to convert the result to a milepoint.

$$\text{Station } 9 + 10.50 = 910.50 \text{ ft}$$

$$1) 910.50 \text{ ft} \div 5280 \text{ ft/mi} = 0.172 \text{ mi}$$

$$2) 910.50 \text{ ft} \times 0.000189 \text{ mi/ft} = 0.172 \text{ mi}$$

### Reconcile Milepoints

Reconcile the difference between the field collected and recorded milepoints using the appropriate tolerance.

Before updating the RCI database, reconcile the field collected milepoints against the currently recorded milepoints to see if they are within tolerance. If the measurement of any physical feature milepoint differs from the record in an amount greater than the applicable standard or historical record, additional measurement may be necessary.

The maximum milepoint deviation to warrant a revision to the existing is 0.010 mile, or plus or minus 53 feet. If the data is within these tolerances, the data should not be changed.

### Dimensional Accuracy

For the dimensional measurements, the level of accuracy or tolerance is one foot for through lanes, shoulders, and inside shoulders. For median widths less than or equal to 50 feet, the tolerance is one foot. For median widths greater than 50 feet, the tolerance is two feet. These tolerances are not cumulative. For example, one foot per each measure.

### Check Input

Ensure features referenced by intersection milepoints match SLD mark-up milepoints.

As always, a quality control check is a good idea. Make sure that data ready for the RCI database matches the marked-up field inventory SLDs. If there is a discrepancy or a question, please contact the field inventory team to reconcile the problem.

### Check Ending Milepoint

Determine whether the ending milepoint is affected. If no, then input field data into RCI database. If yes, then either shorten or lengthen the roadway ID ending milepoint.

### **RCI Data Entry**

Update or input the data accordingly starting with Feature 251, then administrative features, then physical/geometric features.

### Run RCI Edits and Make Corrections

After all of the data entry is complete, run the RCI Edit reports to make sure that there are no consistency errors (i.e., overlaps in milepoints, missing information, conflicting data, etc.). If errors are present, then correct them and rerun edits.

**NOTE:** The RCI Edit reports do not verify any field measured dimensional accuracy.

### **Update RITA**

After the edits have been run and all errors have been reconciled, update the 5-year tracking database (RITA). This update should include the date of the actual field inventory and the data entry. RITA updates should be performed after each step is completed.

## Basemap

If the basemap and RCI mileage lengths vary greater than the acceptable minimum deviation, or if the basemap reflects an incorrect alignment, TranStat should be notified. The acceptable deviation requires that the length difference between RCI and basemap be less than 0.100 miles or less than 5% of the RCI value. When the RCI ending milepoint and the basemap alignment is being revised simultaneously, the District shall submit both actions together to TranStat in one package. To submit a package, the District shall use the process as noted in the Basemap Checklist referenced in the GIS Handbook.

### Shorten Roadway ID EMP before V/U/D Screen Updates

All District features are to be shortened to the new ending milepoint before submitting any packages to TranStat. Coordinate District features updates with the District Traffic Count Coordinator, District Maintenance, District Traffic Operations, and other appropriate District Office(s).

### Lengthen Roadway ID EMP before V/U/D Screen Updates

Take a screenshot of the V/U/D screen. Mark or strikethrough the changes. There is no need to re-create the V/U/D screen digitally. Screenshots are preferred because they provide exact documentation of the recorded data. Prepare a basemap package according to the GIS Handbook.

After TranStat has notified the District about the completed roadway ID milepoint request, the District should quality assure/quality control (QA/QC) the revised roadway ID on the V/U/D screen. District features are to be lengthened after the V/U/D screen has been revised.

## Produce SLD

After the RCI data has been entered, an SLD should be prepared. An SLD is a linear graphical representation of select physical and descriptive characteristics along a roadway. This process begins on the District TranStat intranet site. Use the following link to access the new SLD Diagrammer: <http://webapp02.dot.state.fl.us/straightlinediagrammer>

Upon completion, download the DXF and PDF files. Import the DXF file into MicroStation to enhance the SLD. Update the following SLD Inventory Blocks:

			Interim Revisions			
	5 YR INV	SLD REV	BMP	EMP	INV	SLD REV
DATE	08/18/2012	12/12/2013	5.384	6.985	04/17/13	04/25/2013
BY	AHJ	CFS	AFE	AFE	AFE	AFE

### Distribute SLD

Distribute the printed hardcopy SLD to designated District Office and TranStat. If electronic access to SLDs is available within a District, the District Planning Office may notify District personnel of the availability of new or revised SLDs.

## Produce County Key Sheet

Use the County Key Sheet application to produce the required county key sheet(s).

## Update SLO Site

See the SLD Handbook for more information on uploading SLDs and Key Sheets.

## Notify TranStat

Notify TranStat about the changes made.

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## **Vehicle Safety Inspection Sheet Examples**

The following Vehicle Safety Inspection Sheets are provided for the Districts' use. They are neither mandatory nor required. They are available for download from the TTF Task Team SharePoint site and can be modified to fit each District's needs or preference. Districts may also create their own Vehicle Safety Inspection Sheet.

A direct link to the editable files is here:

<http://fdotsp.dot.state.fl.us/sites/ISD->

[TRANSTAT/Divisions/TTF/Recommendations/Forms/AllItems.aspx?RootFolder=%2fsites%2fISD%2dTRANSTAT%2fDivisions%2fTTF%2fRecommendations%2fVehicle%20Safety%20Inspection%20Sheet%20Examples&FolderCTID=0x0120007EF321D2E117DA43A810A58B823B512C](http://fdotsp.dot.state.fl.us/sites/ISD-TRANSTAT/Divisions/TTF/Recommendations/Forms/AllItems.aspx?RootFolder=%2fsites%2fISD%2dTRANSTAT%2fDivisions%2fTTF%2fRecommendations%2fVehicle%20Safety%20Inspection%20Sheet%20Examples&FolderCTID=0x0120007EF321D2E117DA43A810A58B823B512C)

# Vehicle Safety Inspection Sheet

Date: \_\_\_\_\_ Data Collectors: \_\_\_\_\_  
 Inspected by: \_\_\_\_\_ Vehicle Number: \_\_\_\_\_

ITEMS	OPERATIONAL	COMMENTS
Lights	<input type="checkbox"/>	
Windshield Wipers	<input type="checkbox"/>	
Mirrors	<input type="checkbox"/>	
Seat Belts	<input type="checkbox"/>	
Horn	<input type="checkbox"/>	
Brakes Lights	<input type="checkbox"/>	
Signal Indicators	<input type="checkbox"/>	
Light Bars	<input type="checkbox"/>	
Strobes	<input type="checkbox"/>	
Vehicle Log Book	<input type="checkbox"/>	
Digital Measuring Instrument (DMI)	<input type="checkbox"/>	
Fire Extinguisher	<input type="checkbox"/>	
Car Jack	<input type="checkbox"/>	
Spare Tire	<input type="checkbox"/>	
First Aid Kit	<input type="checkbox"/>	
Water Cooler	<input type="checkbox"/>	
Safety Vests	<input type="checkbox"/>	
Measuring Wheel/ Measuring Instrument	<input type="checkbox"/>	
Cell phone, extra batteries, or chargers	<input type="checkbox"/>	
Temporary Marking Paint	<input type="checkbox"/>	
Street Network Maps	<input type="checkbox"/>	
SLDs	<input type="checkbox"/>	
Inventory Field Sheets	<input type="checkbox"/>	
Other Comments		
<b>Tire Pressure Cold (psi)</b>	Right Rear _____ Left Rear _____ Right Front _____ Left Front _____	
<b>Tire Pressure Warm (psi)</b>	Right Rear _____ Left Rear _____ Right Front _____ Left Front _____	



## Vehicle Safety Inspection Sheet

Data Collector Names:		License Plate #
Vehicle #	Vehicle Make/Model/Year	
Date	Inspected By	

REQUIRED DOCUMENTS									
Current Registration <input type="checkbox"/>		Proof of Insurance <input type="checkbox"/>		Driver's License <input type="checkbox"/>					
VEHICLE CONDITION				OTHER					
Tires				Fire Extinguisher <input type="checkbox"/>					
Left Front Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	Handbooks <input type="checkbox"/>					
Right Front Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	Maps <input type="checkbox"/>					
Left Back Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	Inventory Folder <input type="checkbox"/>					
Right Back Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	SLDs <input type="checkbox"/>					
Spare Tire	Adequate Tread <input type="checkbox"/>	Pressure	lbs	First Aid Kit <input type="checkbox"/>					
Lights		Fluids		Water <input type="checkbox"/>					
Headlights	Highbeams <input type="checkbox"/>	Oil <input type="checkbox"/>	Cell Phone <input type="checkbox"/>						
	Left <input type="checkbox"/>	Transmission <input type="checkbox"/>	Safety Vests <input type="checkbox"/>						
	Right <input type="checkbox"/>	Brake <input type="checkbox"/>	Camera <input type="checkbox"/>						
Turn Signals	Left Front <input type="checkbox"/>	Steering <input type="checkbox"/>	Paint <input type="checkbox"/>						
	Right Front <input type="checkbox"/>	Wiper Fluid <input type="checkbox"/>	Inventory Sheets <input type="checkbox"/>						
	Left Back <input type="checkbox"/>	Coolants <input type="checkbox"/>	Batteries <input type="checkbox"/>						
	Right Back <input type="checkbox"/>	Gasoline <input type="checkbox"/>	Measuring Wheel <input type="checkbox"/>						
Tail Lights	Left <input type="checkbox"/>	Comments							
	Right <input type="checkbox"/>								
Brake Lights	Left <input type="checkbox"/>								
	Right <input type="checkbox"/>								
Back up Lights	Left <input type="checkbox"/>								
	Right <input type="checkbox"/>								
Safety Lights	Strobe <input type="checkbox"/>								
	Light Bars <input type="checkbox"/>								
Remaining Vehicle Items									
Hazards <input type="checkbox"/>	Horn <input type="checkbox"/>								
Seat Belts <input type="checkbox"/>	Vehicle Log Book <input type="checkbox"/>								
Outside Mirrors <input type="checkbox"/>	Windsheild Wipers <input type="checkbox"/>								
DMI <input type="checkbox"/>	Car Jack <input type="checkbox"/>								

## **RCI Inventory Field Sheet Examples**

The following RCI Inventory Field Sheets are provided for the Districts' use. They are neither mandatory nor required. They are available for download from the TTF Task Team SharePoint site and can be modified to fit each District's needs or preference. Districts may also create their own RCI Inventory Field Sheet(s).

A direct link to the editable files is here:

<http://fdotsp.dot.state.fl.us/sites/ISD-TRANSTAT/Divisions/TTF/Recommendations/Forms/AllItems.aspx?RootFolder=%2fsites%2fISD%2dTRANSTAT%2fDivisions%2fTTF%2fRecommendations%2fRCI%20Inventory%20Field%20Sheet%20Examples&FolderCTID=0x0120007EF321D2E117DA43A810A58B823B512C>

DATE:

ROADWAY ID:

INTSDIR	Dir	INTERSECTION NAME 251	MILEPOINT	258 BRIDGENO BOXCULNO	
BEGSECNM					
INTSDIR				FACCROSS	
INTSDIR					
INTSDIR				Begin	End
INTSDIR					
INTSDIR				258 BRIDGENO BOXCULNO	
INTSDIR					
INTSDIR				FACCROSS	
INTSDIR					
INTSDIR				Begin	End
INTSDIR					
INTSDIR				258 BRIDGENO BOXCULNO	
INTSDIR					
INTSDIR				FACCROSS	
INTSDIR					
INTSDIR				Begin	End
INTSDIR					
INTSDIR				258 BRIDGENO BOXCULNO	
INTSDIR					
INTSDIR				FACCROSS	
INTSDIR					
INTSDIR				Begin	End
INTSDIR					
INTSDIR				258 BRIDGENO BOXCULNO	
INTSDIR					
INTSDIR				FACCROSS	
INTSDIR					
INTSDIR				Begin	End
INTSDIR					
INTSDIR				253 RRCROSSNO	
INTSDIR				CHKDIGIT	RRCROSSNO
INTSDIR					
INTSDIR				Begin	End
INTSDIR					
ENDSECNM				CHKDIGIT	RRCROSSNO

## Feature 213 AUXILIARY LANES

Roadway ID _____	BMP _____	Inv. By _____	Date _____
SR No _____	EMP _____	Data Ent. By _____	Date _____
Local Name _____		QC'ed By _____	Date _____

[illegible]

Feature 216 Bike Lanes/Ped Sidewalk							
Roadway ID:			Date:				
BMP	EMP	Characteristic	Codes	Separation	Side		
		SIDEWALK WIDTH	Feet	Feet	C	R	L
		SIDEWALK BARRIER CODE	0 1 2 3 4				
		SHARED PATH WIDTH	Feet	Feet	C	R	L
		BICYCLE LANE	0 1	Feet	C	R	L
		BICYCLE SLOT	0 1	Feet	C	R	L
		SIDEWALK WIDTH	Feet	Feet	C	R	L
		SIDEWALK BARRIER CODE	0 1 2 3 4				
		SHARED PATH WIDTH	Feet	Feet	C	R	L
		BICYCLE LANE	0 1	Feet	C	R	L
		BICYCLE SLOT	0 1	Feet	C	R	L
		SIDEWALK WIDTH	Feet	Feet	C	R	L
		SIDEWALK BARRIER CODE	0 1 2 3 4				
		SHARED PATH WIDTH	Feet	Feet	C	R	L
		BICYCLE LANE	0 1	Feet	C	R	L
		BICYCLE SLOT	0 1	Feet	C	R	L
		SIDEWALK WIDTH	Feet	Feet	C	R	L
		SIDEWALK BARRIER CODE	0 1 2 3 4				
		SHARED PATH WIDTH	Feet	Feet	C	R	L
		BICYCLE LANE	0 1	Feet	C	R	L
		BICYCLE SLOT	0 1	Feet	C	R	L
		SIDEWALK WIDTH	Feet	Feet	C	R	L
		SIDEWALK BARRIER CODE	0 1 2 3 4				
		SHARED PATH WIDTH	Feet	Feet	C	R	L
		BICYCLE LANE	0 1	Feet	C	R	L
		BICYCLE SLOT	0 1	Feet	C	R	L
		SIDEWALK WIDTH	Feet	Feet	C	R	L
		SIDEWALK BARRIER CODE	0 1 2 3 4				
		SHARED PATH WIDTH	Feet	Feet	C	R	L
		BICYCLE LANE	0 1	Feet	C	R	L
		BICYCLE SLOT	0 1	Feet	C	R	L

#### SIDEWALK BARRIER CODES

- 0 - No Barrier
- 1 - On-street parking lane
- 2 - Row of trees, planters, utility poles, etc.
- 3 - Both 1 and 2
- 4 - Guardrail/traffic railing barrier-swale

#### BICYCLE CODES

- 1 - Designated

[illegible]

[illegible]

## RCI Inventory Matrices

The following matrices present the features and characteristics to be collected by type of inventory, roadway type, and functional classification. The required features and characteristics are blank, white boxes. The grayed out boxes are not required for collection, but may be collected at the District's discretion.

Matrices are listed in the following order:

Active On the SHS RCI Inventory - Urban  
Active On the SHS RCI Inventory - Rural  
Active Off the SHS RCI Inventory - Urban  
Active Off the SHS RCI Inventory - Rural  
Local Active Off the SHS RCI Inventory - Urban  
Local Active Off the SHS RCI Inventory - Rural  
Active Exclusive RCI Inventory  
New Construction/Pending RCI Inventory  
Managed Lane RCI Inventory



# Active On the SHS RCI Inventory - Urban

☐ Inventory if existing

Feature		Characteristic	Urban								Urban							
			Principal Arterial-Interstate	Principal Arterial-Other Freeways	Principal Arterial-Other	Minor Arterial	Collector	NHS Routes/Connectors	SIS Related Designation	Rotary	Principal Arterial-Interstate	Principal Arterial-Other Freeways	Principal Arterial-Other	Minor Arterial	Collector	NHS Routes/Connectors	SIS Related Designation	Rotary
111	STRDNUM2																	
	STROADNO																	
	FAHWYSYS																	
112	OLDFASYS																	
	SPECSYS																	
	STGHWNVK																	
	TRVLWAY																	
113	USROUTE																	
	USROUTE2																	
114	LOCALNAM																	
	BASETHK																	
	BASETYPE																	
	FLEXTHK																	
	HOVNUMLN																	
	HOVTYPE																	
	IRIDATE																	
119	OVRYTHIK																	
	RAMPFC																	
	RIGDTHIK																	
	TOLLCHGS																	
	TOLLNAME																	
	TOLLTYPE																	
	YRCONST																	
	YRIMPT																	
	ROTARY																	
120	RTESGNCD																	
	TYPEROAD																	
121	FUNCLASS																	
	OWNAUTH			(1)														
122	RDACCESS																	
	TOLLROAD																	
	HWYLOCAL																	
124	PLACED																	
	URBAREA																	
125	URBSIZE																	
	LANDUSE		(2)	(2)	(2)	(2)												
	ROUGHIND																	
140	OSDATE																	
	STATEXPT																	
147	SISFCTPX																	
	SISMIDPX																	
212	NOLANES																	
	SURWIDTH																	
	AUXLNTP																	
213	AUXLNUM																	
	AUXLNWTH																	
	SHLDTYPE																	
	SHLDTPX																	
214	SHLDWTHX																	
	SLDWIDTH																	
<div>(1) Collect on all expressways managed by an owning authority. (2) Collect on principal arterials and minor arterials in urbanized areas ≥ 200,000. (3) Collect on principal arterial rotaries. <b>Note:</b> Active Exclusive alignments should be inventoried simultaneously with the associated Active On the SHS or Active Off the SHS mainline alignments.</div>																		

(1) Collect on all expressways managed by an owning authority.  
 (2) Collect on principal arterials and minor arterials in urbanized areas ≥ 200,000.  
 (3) Collect on principal arterial rotaries.  
**Note:** Active Exclusive alignments should be inventoried simultaneously with the associated Active On the SHS or Active Off the SHS mainline alignments.

# Active On the SHS RCI Inventory - Rural

☐ inventory if existing

Feature		Characteristic	Rural								Rural									
			Principal Arterial-Interstate	Principal Arterial-Other	Minor Arterial	Major Collector	Minor Collector	NHS Routes/Connectors	SIS Related Designation	Rotary	Feature	Characteristic	Principal Arterial-Interstate	Principal Arterial-Other	Minor Arterial	Major Collector	Minor Collector	NHS Routes/Connectors	SIS Related Designation	Rotary
111	STRDNUM2 STROADNO FAHWYSYS										215	MEDWIDTH RDMEDIAN BIKELNCD								
112	OLDFASYS SPECYSYS STGHWNWK TRAVLWAY										216	BIKSLTCD SDWLKBCD SHARDPTH SIDWLKWD								
113	USROUTE											ISLDTYPE								
114	USROUTE2 LOCALNAM										219	ISLDTYPEX ISLDWDTH ISLDWTHx								
119	BASETHK BASETYPE FLEXTHK HOVNUMLN HOVTYPE IRIDATE										220	NCPTINT BEARING HRZCANGL HRZDGRV HRZPTINT								
	OVRYTHK RAMPFC RIGDTHK TOLLCHGS										230	PAVECOND PAVINDEx SURENUM FRICtSE								
	TOLLNAME TOLLTYPE YRCONST YRIMPT										232	SURFLAYx SURFLXTH BASETHK TYPEBASE BEGSECNM							(3)	
	ROTARY RTESGNCD TYPEROAD										233	INTSDIRx INTSRTPx EXITNO INTERCHG							(3)	
	FUNCCLASS OWNAUTH RDACCESS TOLLROAD										251	ENDSECNM INTSDIRx INTSRTPx EXITNO INTERCHG							(3)	
120	RTESGNCD TYPEROAD										252	CHKDIGIT RRCROSNO BOXCULNO								
121	FUNCCLASS OWNAUTH RDACCESS TOLLROAD										253	BRIDGENO FACROSS TUNNELNO UNDPASNO								
122	OWNAUTH RDACCESS TOLLROAD										258	FLWBRKID TRFBRKCD AADTDATE AADTYPE AVGDFACT AVGKFAC								
124	HWYLOCAL PLACED URBAREA URBSIZE										330	SECTADT								
125	LANDUSE ROUGHIND OSDATE										331									
140	OSDATE STATEXPT SISFCTPx SISMPIDx																			
147	SISMPIDx NOLANES SURWIDTH																			
212	NOLANES SURWIDTH																			
213	AUXLNINTP AUXLNUM AUXLNWTH																			
214	SHLDTYPE SHLDWTHx SLDWIDTH																			
	SLDWIDTH																			

(3) Collect on principal arterial rotaries.

**Note:** Active Exclusive alignments should be inventoried simultaneously with the associated Active On the SHS or Active Off the SHS mainline alignments.

(3) Collect on principal arterial rotaries.  
**Note:** Active Exclusive alignments should be inventoried simultaneously with the associated Active On the SHS or Active Off the SHS mainline alignments.

# Active Off the SHS RCI Inventory - Urban

☐ inventory if existing

Feature	Characteristic	Urban							Characteristic	Feature	Urban							Principal Arterial-Interstate	Principal Arterial-Other Freeways and Expressways	Principal Arterial-Other	Minor Arterial	Major Collector	NHS Routes/Connectors	SIS Related Designation	Rotary				
		Principal Arterial-Interstate	Principal Arterial-Other Freeways and Expressways	Principal Arterial-Other	Minor Arterial	Major Collector	NHS Routes/Connectors	SIS Related Designation			Rotary	Principal Arterial-Interstate	Principal Arterial-Other Freeways and Expressways	Principal Arterial-Other	Minor Arterial	Major Collector	NHS Routes/Connectors									SIS Related Designation	Rotary		
111	STRDNUM2									SHLDTYPE																			
	STROADNO									SHLDTPX	214																		(2)
	FAHWYSYS									SHLDWTHX																			(2)
	OLDFASYS									SLDWIDTH																			(2)
	SPECSYS									MEDWIDTH	215																		(2)
112	STGHWNVK									RDMEDIAN																			
	TRAVLWAY									BIKELNCD																			
	LOCALNAM									BIKSLTCD																			
	BASETHK									SDWLKBCD	216																		
	BASETYPE									SHARDPH																			
	FLEXTHK									SDWLKWD																			
	HOVNUMLN									ISLDTYPE																			(2)
	HOVTYPE									ISLDTPX																			(2)
119	IRIDATE									ISLDWDTH	219																		(2)
	OVRYTHK									ISLDWTHX																			(2)
	RAMPFC									PAVECOND																			(2)
	RIGDTHK									PAVINDEX	230																		(2)
	TOLLCHGS									SURENUM																			
	TOLLNAME									FRICTGSE																			
	TOLLTYPE									SURFLAYX	232																		
	YRCONST									SURFLXTH																			
	YRIMPT									BASETHK	233																		(3)
	ROTARY									TYPEBASE																			(3)
	RTESGNCD									BEGSEGNM																			
	TYPEROAD									ENDSECNM	251																		
121	FUNCLASS									INTSDIRX																			
122	OWNAUTH									INTSRTPX																			
	RDACCESS									EXITNO	252																		
	TOLLROAD									INTERCHG																			
	HWYLOCAL									CHKDIGIT	253																		
124	PLACED									RRCROSNO																			
	URBAREA									BOXCULNO																			
	URBSIZE									BRIDGENO																			
	LANDUSE								(1)	FACROSS	258																		
125	ROUGHIND									TUNNELNO																			
140	OSDATE									UNDPASNO																			
	STATEXPT									FLWBRKID	330																		
	SISFCTPX									TRFBRKCD																			
	SISMPIDX									AADIDATE																			
212	NOLANES									AADITYPE																			
213	SURWIDTH									AVGDFACT	331																		
	AUXLNTP									AVGKFAC																			
	AUXLNUM									AVGTFAC																			
	AUXLNWTH									SECTADT																			

(1) Collect on principal arterials and minor arterials in urbanized areas ≥ 200,000.  
 (2) Collect on SIS designated rotaries.  
 (3) Collect on principal arterial rotaries.

# Active Off the SHS RCI Inventory - Rural

☐ inventory if existing

Feature	Characteristic	Rural								Characteristic	Rural							
		Principal Arterial-Interstate	Principal Arterial-Other	Minor Arterial	Major Collector	Minor Collector	NHS Routes/Connectors	SIS Related	Rotary		Principal Arterial-Interstate	Principal Arterial-Other	Minor Arterial	Major Collector	Minor Collector	NHS Routes/Connectors	SIS Related	Rotary
111	STRDNUM2									SHLDTYPE								(2)
	STROADNO									SHLDTPX								(2)
	FAHWYSYS									SHLDWTHX								(2)
	OLDFAYSYS									SLDWIDTH								(2)
112	SPECSYS									MEDWIDTH								
	STGHWNWK									RDMEDIAN								
114	LOCALNAM									BIKELNCD								
	BASETHIK									BIKSLTCD								
	BASETYPE									SDWLKBCD								
	FLEXTHIK									SHARDPH								
	HOVNUMLN									SLDWLKW								
	HOVTYPE									ISLDTYPE								(2)
	IRIDATE									ISLDWPTH								(2)
119	OVRVTHIK									ISLDWTHX								(2)
	RAMPEC									PAVECOND								
	RIGDTHIK									PAVINDE								
	TOLCHGS									SURENUM								
	TOLLNAME									FRICTSE								
	TOLLTYPE									SURFLAYX								
	YRCONST									SURFLXTH								
	YRIMPT									BASETHK								
120	ROTARY									TYPEBASE								
	RTESGNCD									BEGSECNM								
121	TYPEROAD									ENDSECNM								
	FUNCCLASS									INTSDIRX								
	OWNAUTH									INTSRTPX								
122	RDACCESS									EXITNO								
	TOLROAD									INTERCHG								
	HWYLOCAL									CHKDIGIT								
124	PLACED									RRCROSNO								
	URBAREA									BOXCUINO								
	URBSIZE									BRIDGENO								
125	LANDUSE									FACCROSS								
	ROUGHIND									TUNNELNO								
140	OSDATE									UNDPASNO								
	STATEXPT									FLWBRKID								
147	SISCTPX									TREBRKCD								
	SISMPIDX									AADTDATE								
212	NOLANES									AADTYPE								
	SURWIDTH									AVGDFACT								
	AUXINTYP									AVGKFACT								
213	AUXINUM									AVGTFACT								
	AUXINWTH									SECTADT								

(2) Collect on SIS designated rotaries.  
 (3) Collect on principal arterial rotaries.

☐ inventory if existing☐ inventory if existing



# Active Exclusive RCI Inventory

☐ inventory if existing

Feature	Characteristic	Urban				Feature	Characteristic	Urban				Rural			
		Ramp	Frontage Road	Connector	SIS Related Designation			Ramp	Frontage Road	Connector	SIS Related Designation	Ramp	Frontage Road	Connector	SIS Related Designation
111	STRDNUM2						PAVECOND								
	STROADNO					230	PAVINDE								
113	USROUTE						SURFNUM								
	USROUTE2						FRICTCSE								
114	LOCALNAM					232	SURFLAYx								
119	RAMPC	(1)					SURFLxTH								
	ROTARY					233	BASETHK								
120	RTESGNCD						TYPEBASE								
	TYPEROAD						BEGSECNM								
124	URBAREA					251	ENDSECNM								
	URBSIZE						INTSDIRx								
140	OSDATE						INTSRTPx								
	STATEXPT					252	EXITNO								
147	SISFCTPx						INTERCHG								
	SISMPIDx					253	CHKDIGIT								
212	NOLANES						RRCROSNO								
	SURWIDTH						BOXCULNO								
213	AUXLINTYP					258	BRIDGENO								
	AUXLNUM						FACCROSS								
	AUXLNWTH						TUNNELNO								
	SHLDTYPE						UNDPASNO								
214	SHLDTPPx					330	FLWBRKID								
	SHLDWTHx						TRFBRKCD								
	SLDWIDTH						AADTDAT	(2)				(2)			
215	MEDWIDTH						AADTTYPE								
	RDMEDIAN					331	AVGDFACT								
	BIKELNCD						AVGKFACT								
	BIKSLTCD						AVGTFACT	(2)				(2)			
216	SDWLKBCD						SECTADT								
	SHARDPH														
	SIDW/LKWD														
	ISLDTYPE														
219	ISLDTPPx														
	ISLDWDTH														
	ISLDWTHx														

(1) Code for ramps associated with Interchanges only.

(2) Only for ramps at grade-separated interchanges.

**Note:** Active Exclusive alignments should be inventoried simultaneously with the associated Active On or Off the SHS mainline alignments. This inventory includes Active Off Exclusive roadways.

## New Construction/Pending RCI Inventory

☐ inventory if existing

Feature	Characteristic	Urban								Characteristic	Rural						
		Principal Arterial-Interstate	Principal Arterial-Other Freeways	Principal Arterial-Expressways	Principal Arterial-Other	Minor Arterial	Collector	NHS Routes/Connectors	SIS Related Designation		Principal Arterial-Interstate	Principal Arterial-Other	Minor Arterial	Major Collector	Minor Collector	NHS Routes/Connectors	SIS Related Designation
111	STRDNUM2 STROADNO FAHWYSYS									111							
112	TRAVLWAY USROUTE									112							
113	USROUTE2 LOCALNAM									113							
114	LOCALNAM									114							
121	FUNCLASS OWNAUTH									121							
122	RDACCESS TOLLROAD									122							
124	HWYLOCAL PLACECD URBAREA URBSIZE									124							
140	STATEXPT SISFCTPx SISMPIDx									140							
147	BEGSECNM ENDSECNM									147							
251	INTSDIRx INTSRTPx									251							



# Managed Lane RCI Inventory

☐ inventory if existing

Feature	Characteristic	Urban			Feature	Characteristic	Urban		
		Principal Arterial-Interstate	Principal Arterial-Other Freeways	and Expressways			Principal Arterial-Interstate	Principal Arterial-Other Freeways	and Expressways
111	STRDNUM2				215	MEDWIDTH			
	STROADNO					RDMEDIAN			
112	FAHWYSYS					PAVECOND			
	TRAVLWAY				230	PAVINDEK			
113	USRROUTE					SURFNUM			
	USRROUTE2					FRICTCSE			
114	LOCALNAM				232	SURFLAYx			
	HOVNUMLN					SURFLxTH			
	HOVTYPE					BASETHK			
119	TOLLCHGS				233	TYPEBASE			
	TOLLNAME					BEGSECNM			
	TOLLTYPE					ENDSECNM			
120	TYPEROAD				251	INTSDIRx			
121	FUNCLASS					INTSRTPx			
	OWNAUTH					BOXCULNO			
122	RDACCESS					BRIDGENO			
	TOLLROAD				258	FACCROSS			
	HWYLOCAL					TUNNELNO			
124	PLACECD					UNDPASNO			
	URBAREA				330	FLWBRKID			
	URBSIZE					TRFBRKCD			
140	STATEXPT					AADTDATE			
147	SISFCTPX					AADTTYPE			
	SISMPIDx				331	AVGDFACT			
212	NOLANES					AVGKFACT			
	SURWIDTH					AVGTFACT			
	MLTRFSEP					SECTADT			
214	SHLDTYPE								
	SHLDTYPEx								
	SHLDWTHx								
	SLDWIDTH								



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