CHAPTER 9

DART APPLICATION/EDITS

FDOT

TABLE OF CONTENTS

Chapter 9. DART Application/Edits 9-1

9.1 DART 9-2

9.2 DART Edits 9-2

9.2.1 Main Edits 9-3

9.2.2 RCI Edits 9-9

9.2.3 HPMS Edits 9-15

9.2.4 Traffic Edits 9-19

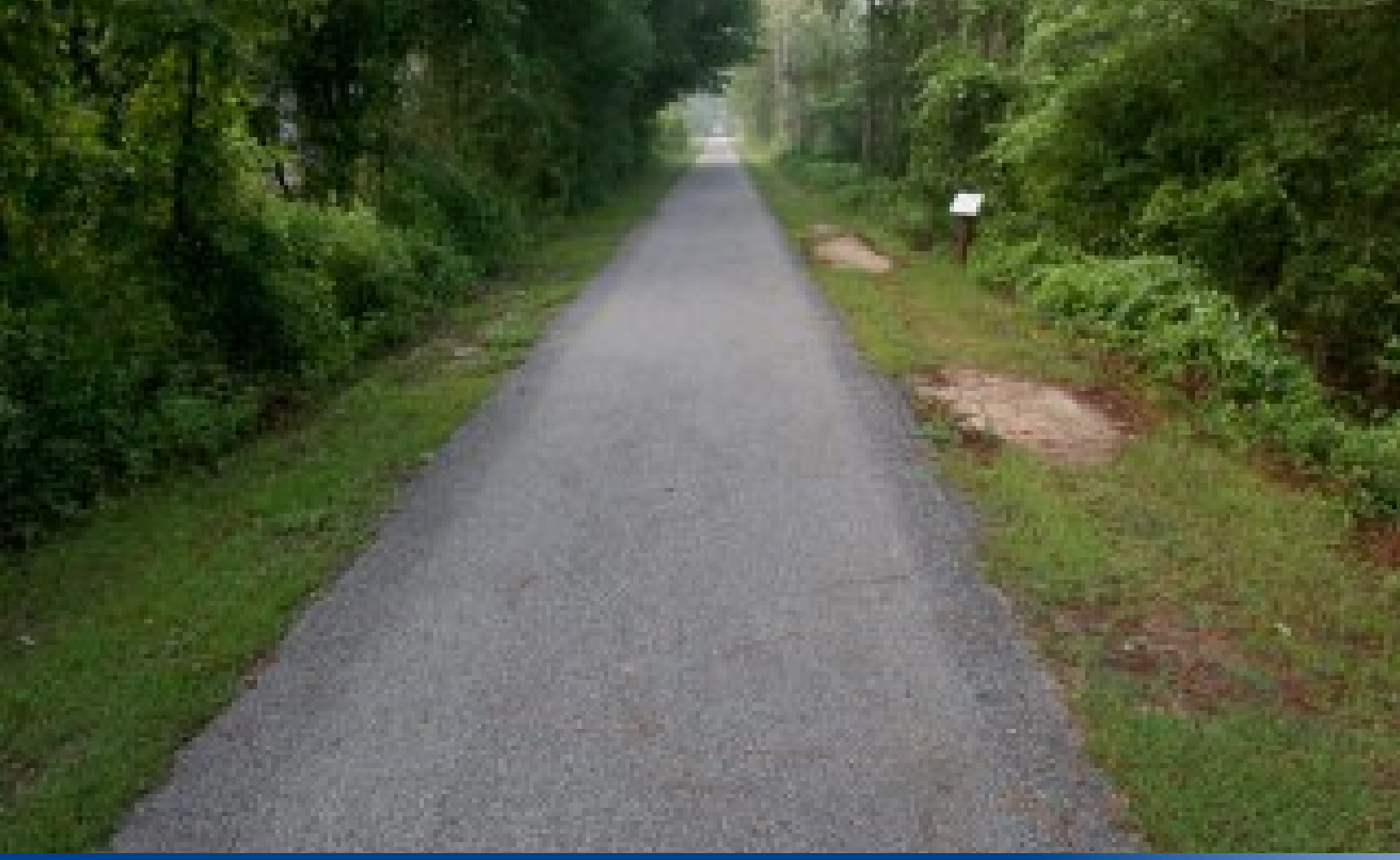
9.2.5 Traffic Operations Edits 9-20

9.3 Resolving DART Edits 9-21

9.3.1 How to Resolve Edits 9-21

LIST OF FIGURES

Figure 9.1 | DART Landing Page 9-2
Figure 9.2 | DART—View Error Desc. 9-3



CHAPTER 9. DART APPLICATION/EDITS

9

This chapter provides information on the Roadway Characteristics Inventory (RCI), Highway Performance Monitoring System (HPMS), Traffic, and Traffic Operations data validations (Edits) available through the Transportation Data and Analytics (TDA) Office's Data Analysis and Reporting for Transportation Systems (DART) web application. The Reports associated with the DART application are discussed in Chapter 8 of this handbook.

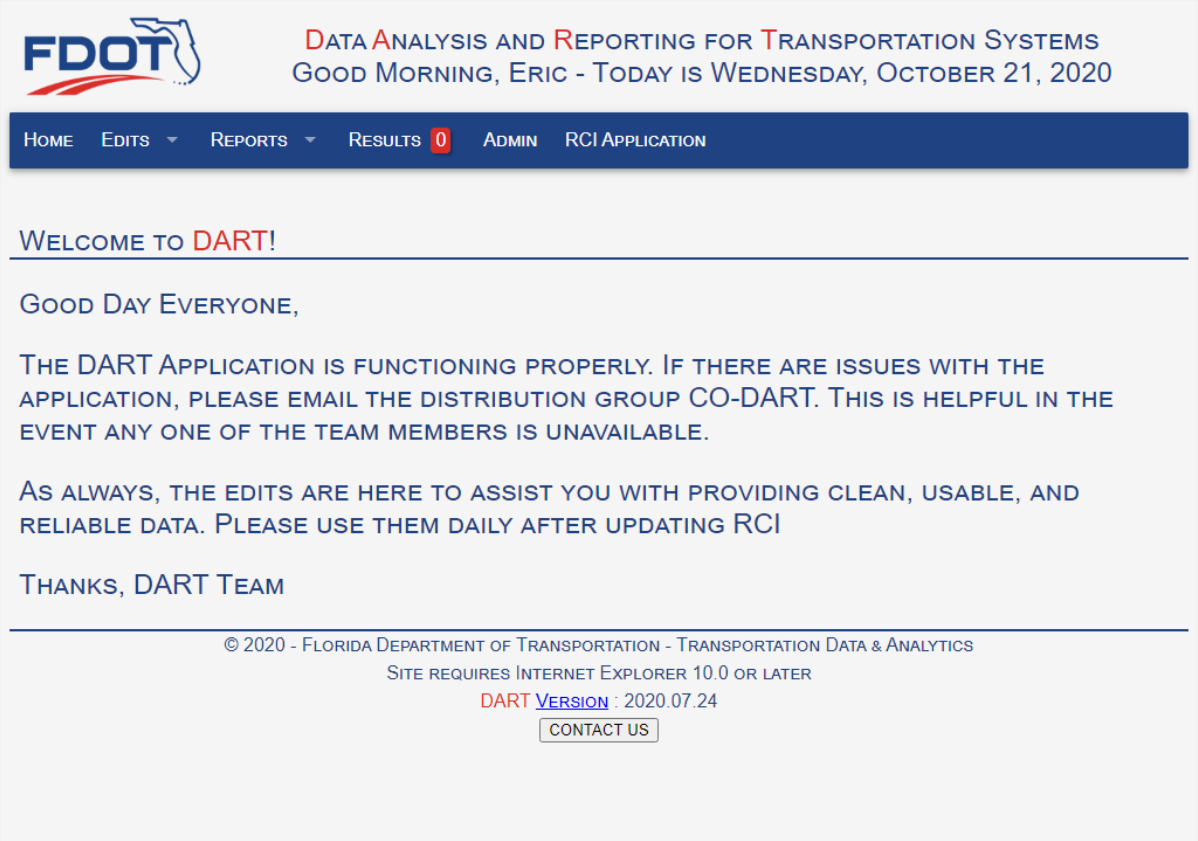
9.1 DART

The DART web application provides data validation and reporting for the RCI. DART has a straightforward user interface with a common menu structure consisting of multiple categories. Each category has a common interface that provides feedback to the user on the status of their report processing. This feedback enables users to quickly analyze and update roadway information and allows for the cleanest, most usable, and reliable data reporting possible.

The DART home page can be accessed from the Main tab of the RCI application under "Other Application Links" or directly using the following URL (inside of the FDOT firewall only):

https://tdaappsprod.dot.state.fl.us/prv/DART/hub.aspx

FIGURE 9.1 | DART LANDING PAGE



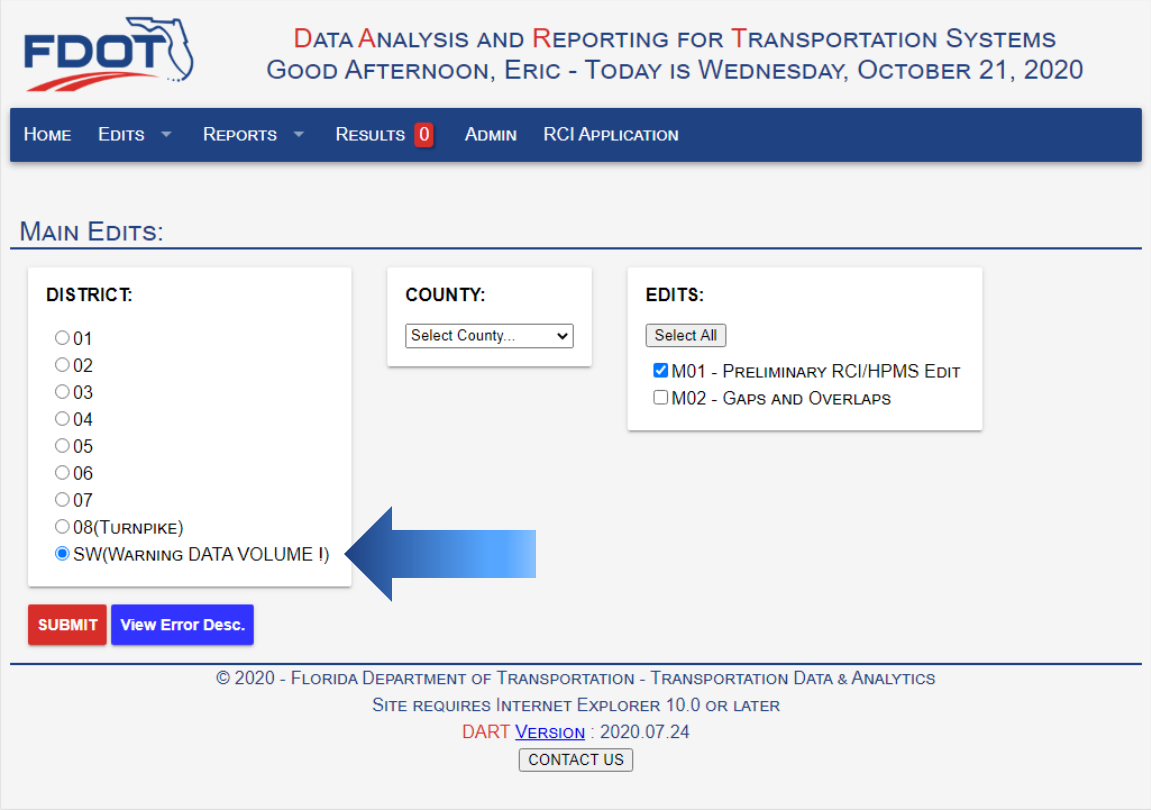
9.2 DART Edits

The General Interest Roadway Data (GIRD) Procedure, Topic Number: 525-020-310, requires that on June 30 and December 31, the District will have the RCI database free of errors. This requirement is to ensure that the cleanest data possible is used for the semi-annual mileage reports and the annual HPMS submittal to the Federal Highway Administration (FHWA). The District will make no changes to RCI from December 20 through 31 except to fix errors identified by DART, as necessary.

The data validations (Edits) in DART allow users to identify data compatibility issues (i.e., overlapping milepoints, missing information, conflicting data, etc.) by producing various data validation reports. While the edits do check for missing or incompatible RCI data, they do not verify or ensure the accuracy of the field-collected data. Whenever data entry is complete, the DART Edits should be run to make sure that there are no errors. If errors are present, then the data collector is expected to correct them and rerun the edits.

The following list of active edit error messages may not be current. For a more up-to-date list, use the "View Error Desc." button on any of the DART Edits pages.

FIGURE 9.2 | DART—VIEW ERROR DESC.



For questions regarding any of these edits, please contact CO-DART@dot.state.fl.us.

9.2.1 Main Edits

From the DART home page, use the Edits menu and choose the Main Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There are two sets of active Main Edits:

M01—Preliminary RCI/HPMS Edit

Purpose

To ensure the data consistency between the characteristics used in all the other edits. When the Main Edits are not consistent, the validity of the other edits is questionable.

Description

Edits M101—M104 compare the overall status (SECTSTAT) with segment status (STATEXPT):

- M101—OVERALL SECTION STATUS AND STATEXPT INCOMPATIBLE
- M102—COMBINATION ROADWAYS (SECTSTAT=12) MUST HAVE AT LEAST ONE ACTIVE SEGMENT
- M104—COMBINATION ROADWAYS (SECTSTAT=12) MUST HAVE MORE THAN ONE TYPE OF STATUS EXCEPTION

Edits M105—M106 enforce the business rules for local roads with FM projects:

- M105—RDWYID SECTION SHOULD BEGIN WITH 9 IF SECTSTAT IS 16
- M106—STATEXPT AND FUNCLASS INCOMPATIBLE

Edit M108 checks that federal highway system code (FAHWYSYS) and functional classification (FUNCLASS) business rules are enforced:

- M108—FAHWYSYS AND FUNCLASS INCOMPATIBLE

Edit M111 checks the segment status on the Strategic Intermodal System (SIS):

- M111—STATEXPT AND SISFCTP1 INCOMPATIBLE

Edits M112—M116 check for missing required characteristics on On-system and Off-system roadways.

- M112—URBSIZE, FUNCLASS, HWYLOCAL MISSING
- M113—MISSING DATA—FAHWYSYS MISSING
- M114—MISSING DATA—URBSIZE MISSING
- M115—MISSING DATA—URBSIZE, FUNCLASS, AND/OR HWYLOCAL
- M116—MISSING DATA—HWYLOCAL MISSING

Edits M117—M119 enforce the business rules for urban area numbers (URBAREA).

- M117—URBAREA CODE IS INCORRECT FOR URBSIZE
- M118—URBAREA IS IN THE INCORRECT COUNTY
- M119—URBAREA IS BEING SUNSETTED

Edits M120—M122 compare mode type (MODE_TYP_CD) and system (TRANSYS_CLS_CD) for consistency:

- M120—INVALID TRAIL TRANSYS_CLS_CD VALUE

- M121—INVALID ROAD TRANSYS_CLS_CD VALUE
- M122—INVALID RAIL TRANSYS_CLS_CD VALUE

Edits M123—M125 compare system (TRANSYS_CLS_CD) with state highway system (ST_HWY_SYS_CD) for consistency:

- M123—INVALID ST_HWY_SYS_CD FOR STATE HIGHWAYS
- M124—INVALID ST_HWY_SYS_CD FOR COUNTY ROADS
- M125—INVALID ST_HWY_SYS_CD FOR CITY STREETS

Edits M126—M128 compare system (TRANSYS_CLS_CD) with controlling city (CTRL_CTY_CD) for consistency:

- M126—INVALID CTRL_CTY_CD FOR STATE HIGHWAY
- M127—INVALID CTRL_CTY_CD FOR COUNTY ROADS
- M128—INVALID CTRL_CTY_CD FOR CITY STREETS

Edit M129 enforces the business rules for trails and governmental jurisdiction (GOV_JRDC_CD):

- M129—INVALID TRAIL GOV_JRDC_CD VALUES

Edits M130—M131 enforce the business rules for urban size (URBSIZE):

- M130—INCOMPATIBLE URBSIZE IS RURAL—HWYLOCAL IS URBAN
- M131—INCOMPATIBLE URBSIZE MISSING—URBAREA IS CODED

Edits M132—M134 compare urban size (URBSIZE) and functional classification (FUNCLASS) for consistency:

- M132—INCOMPATIBLE URBSIZE IS RURAL—FUNCLASS IS URBAN
- M134—INCOMPATIBLE URBSIZE IS URBAN—FUNCLASS IS RURAL

Edits M135—M136 compare highway location code (HWYLOCAL) and functional classification (FUNCLASS) for consistency:

- M135—INCOMPATIBLE HWYLOCAL IS RURAL—FUNCLASS IS URBAN
- M136—INCOMPATIBLE HWYLOCAL IS URBAN—FUNCLASS IS RURAL

Edits M137—M138 compare access control type (RDACCESS) and functional classification (FUNCLASS) for consistency:

- M137—FUNCLASS OF 14 SHOULD HAVE RDACCESS OF 3
- M138—INCOMPATIBLE FUNCLASS DOES NOT AGREE WITH RDACCESS

Edits M140—M141 compare urban size (URBSIZE) and urban area (URBAREA) with functional classification (FUNCLASS) for consistency:

- M140—INCOMPATIBLE URBSIZE MISSING—FUNCLASS IS URBAN
- M141—URBAREA MISSING WHERE URBSIZE GREATER THAN 1

Edit M144 enforces the business rule for MPO areas (MPOAREA):

- M144—MPOAREA IS MISSING IN AN MPO COUNTY. IF ROADWAY IS OUTSIDE OF AN MPO AREA, IT SHOULD BE CODED 00—NONE

Edits M146—M147 enforce the business rules for preliminary context classification (CCTXTCLS and CCTXTDTE):

- M146—CCTXTCLS IS REQUIRED ON ALL SHS ROADWAYS
- M147—CCTXTDTE IS REQUIRED ON ALL SHS ROADWAYS

Edit M148 compares preliminary context classification (CCTXTCLS) and access control type (RDACCESS) for consistency:

- M148—IF RDACCESS = 1 THEN CCTXTCLS SHOULD BE LA—LIMITED ACCESS

Edit M149 enforces the business rules for ramp federal category (RAMPFC):

- M149—RAMPFC IS REQUIRED FOR ALL RAMPS

Edits M150—M151 compare travel way along roadway (TRAVLWAY) and functional classification (FUNCLASS) for consistency:

- M150—FUNCLASS-INTERSTATE INCOMPATIBLE WITH TRAVLWAY
- M151—FUNCLASS INCOMPATIBLE WITH TRAVLWAY

Edit M152 compares federal highway system code (FAHWYSYS) and functional classification (FUNCLASS) for consistency:

- M152—FUNCLASS-INTERSTATE INCOMPATIBLE WITH FAHWYSYS

Edit M153 compares strategic highway network code (STGHWNWK) and functional classification (FUNCLASS) for consistency:

- M153—FUNCLASS-INTERSTATE INCOMPATIBLE WITH STGHWNWK

Edits M154—M157 enforce the business rules for travel way along roadway (TRAVLWAY):

- M154—FAHWYSYS-NHS AND TRAVLWAY MISSING
- M155—TRAVLWAY CODED AND FAHWYSYS NOT NHS

- M156—TRAVLWAY 1,2,3 AND STGHWNWK NOT YES
- M157—TRAVLWAY 6 AND SPECSYS MISSING

Edits M160—M163 check for missing required characteristics on local and off-system roadways:

- M160—URBAN FUNCLASS IS MISSING URBSIZE, URBAREA, OR HWYLOCAL
- M161—RURAL FUNCLASS IS MISSING URBSIZE, OR HWYLOCAL
- M162—FAHWYSYS IS INCORRECT FOR LOCAL FUNCLASS
- M163—HWYLOCAL IN CITY IS MISSING PLACECD

Edit M164 enforces the business rules for NHS roads (FAHWYSYS = 5):

- M164—NHS MISSING NHSDATE

Edits M165—M169 enforce the business rules for urban area census codes (URBAREAF).

- M165—URBAREAF CODE IS INCORRECT FOR URBSIZE
- M166—URBAREAF IS IN THE INCORRECT COUNTY
- M167—URBAREAF MISSING WHERE URBSIZE GREATER THAN 1
- M168—INCOMPATIBLE URBSIZE MISSING – URBAREAF IS CODED
- M169—URBAN FUNCLASS IS MISSING URBSIZE, URBAREAF, OR HWYLOCAL

Edits M170—M174 enforce the business rules for governmental jurisdiction (GOV_JRDC_CD):

- M170—INVALID ROAD GOV_JRDC_CD VALUES
- M171—INVALID RAIL GOV_JRDC_CD VALUE
- M172—INVALID GOV_JRDC_CD FOR STATE HIGHWAYS
- M173—INVALID GOV_JRDC_CD FOR COUNTY ROADS
- M174—INVALID GOV_JRDC_CD FOR CITY STREETS

Edits M175—M177 compare mode type (MODE_TYP_CD) and type (TRVLWAY_PUR_CD) for consistency:

- M175—INVALID TRAIL TRVLWAY_PUR_CD VALUE
- M176—INVALID ROAD TRVLWAY_PUR_CD VALUES
- M177—INVALID RAIL TRVLWAY_PUR_CD VALUE

Edits M178—M180 compare mode type (MODE_TYP_CD) and overall status (SECT_STAT_CD) for consistency:

- M178—INVALID TRAIL STATUS CODE
- M179—INVALID ROAD STATUS CODE
- M180—INVALID RAIL STATUS CODE

Edits M181—M183 compare system (TRANSYS_CLS_CD) and overall status (SECT_STAT_CD) for consistency:

- M181—INVALID SECT_STAT_CD FOR STATE HIGHWAYS
- M182—INVALID SECT_STAT_CD FOR COUNTY ROADS
- M183—INVALID SECT_STAT_CD FOR CITY STREETS

Edits M184—M187 compare type (TRVLWAY_PUR_CD) and overall status (SECT_STAT_CD) for consistency:

- M184—INVALID SECT_STAT_CD FOR MAINLINE ROAD
- M185—INVALID SECT_STAT_CD FOR RAMP
- M186—INVALID SECT_STAT_CD FOR FRONTAGE ROAD
- M187—INVALID SECT_STAT_CD FOR MANAGED LANE

Edits M188—M196 check RCI View/Update/Delete field values for validity:

- M188—INVALID SECT_RCI_EST_DT VALUE
- M189—INVALID MODE_TYP_CD VALUE
- M190—INVALID TRVLWAY_PUR_CD VALUE
- M191—INVALID SECT_NET_LNGTH_NUM VALUE
- M192—INVALID BEG_SECT_MIPNT_NUM VALUE
- M193—INVALID BEG_SECT_MIPNT_NUM VALUE
- M194—INVALID END_SECT_MIPNT_NUM VALUE
- M195—INVALID GNRL_CPS_DIR_CD VALUE
- M196—INVALID SECT_DS VALUE

M02—Gaps and Overlaps

Purpose

To look at select characteristics and compare all entries to find overlaps and duplicates.

Description

Edit M201 checks for missing required characteristics FUNCLASS, HWYLOCAL, RDACCESS, SECTADT, STROADNO, TOLLROAD, and FAHWYSYS:

- M201—DATA GAP EXISTS

Edits M202—M210 compare roadway side (RDWYSIDE) and offset (DIRFMRD) for consistency:

- M202—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 1 WITH RDWYSIDE R OFFSET 2
- M203—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 1 WITH RDWYSIDE L OFFSET 3
- M206—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 1 WITH RDWYSIDE C OFFSET 2
- M207—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 1 WITH RDWYSIDE C OFFSET 3
- M208—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 2 WITH RDWYSIDE R OFFSET 2
- M209—CHARACTERISTIC HAS OVERLAPPING VALUES ON RDWYSIDE C OFFSET 3 WITH RDWYSIDE L OFFSET 3
- M210—INVALID COMBINATION OF RDWYSIDE AND OFFSET DIRECTION FROM ROAD

9.2.2 RCI Edits

From the DART home page, use the Edits menu and choose the RCI Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There are seven sets of active RCI edits:

RCE01—Characteristics

Purpose

To identify consistency issues (e.g., missing values) between characteristics. The validity of this edit is contingent on M01 being free of errors.

Description

Edits R101—R103 compare the overall status (SECTSTAT) with segment status (STATEXPT) for consistency:

- R101—STATEXPT DOES NOT MATCH OVERALL STATUS
- R102—STATEXPT DOES NOT MATCH OVERALL STATUS
- R103—STATEXPT IS MISSING

Edits R104—R115 check for missing required characteristics on non-NHS roadways:

- R104—SHLDTYPE MISSING
- R105—SLDWIDTH SHOULD BE GREATER THAN 0 FOR SHLDTYPE OTHER THAN RAISED CURB
- R106—NOLANES IS MISSING
- R107—SURWIDTH IS MISSING
- R109—TOLLROAD MISSING
- R110—LOCALNAM IS MISSING
- R112—RDMEDIAN EXISTS WITHOUT L/R CHARACTERISTICS
- R113—L/R CHARACTERISTICS EXIST WITHOUT RDMEDIAN
- R114—ROADWAY HAS ISLDTYPE, RDMEDIAN MUST BE PRESENT
- R115—ROADWAY HAS RDMEDIAN, MEDWIDTH SHOULD BE GREATER THAN 0

Edits R116—R118 compare overall status (SECTSTAT), segment status (STATEXPT), and state road number (STROADNO) for consistency:

- R116—STROADNO IS MISSING
- R117—STATE ROAD NUMBER IS INCOMPATIBLE WITH STATEXPT
- R118—ON-SYSTEM ROADS CANNOT HAVE STROADNO WITH CR PREFIX

Edits R119—R127 enforce the business rules for type of road (TYPEROAD) on NHS roadways:

- R119—TYPEROAD IS MISSING
- R120—TYPEROAD OF 0 OR 4 SHOULD NOT HAVE MEDWIDTH
- R121—TYPEROAD OF 0 SHOULD HAVE 2 OR MORE LANES
- R122—TYPEROAD OF 4 SHOULD HAVE 1 OR MORE LANES
- R123—TYPEROAD OF 2 SHOULD HAVE 1 OR MORE LANES PER SIDE
- R124—TYPEROAD OF 2 SHOULD HAVE MEDWIDTH

- R125—TYPEROAD OF 0 OR 4 SHOULD NOT HAVE RDMEDIAN
- R126—TYPEROAD OF 2 SHOULD HAVE MEDIAN AND MEDWIDTH

Edit R128 checks for low AADTs (SECTADT) on NHS roadways with more than 3 lanes:

- R128—ROAD WITH MORE THAN 3 LANES HAS LANE ADT LESS THAN 400

Edit R129 checks for lane widths less than 7 feet:

- R129—LANE WIDTH IS LESS THAN 7 FEET

Edit R132 compares roundabouts & traffic circles (ROTARY) with type of road (TYPEROAD) for consistency:

- R132—ROTARY SHOULD HAVE TYPEROAD OF 4

Edit R135 compares national railroad crossing numbers (RRCROSNO) with bridge numbers (BRIDGENO) for consistency:

- R135—RRCROSNO SHOULD NOT BE ON A BRIDGE

Edit R136 compares type of median barrier (MDBARTYP) with highway median type (RDMEDIAN) for consistency:

- R136—MDBARTYP INCOMPATIBLE WITH RDMEDIAN

Edit R140 enforces the business rules for national railroad crossing numbers (RRCROSNO):

- R140—CHKDIGIT IS WRONG FOR RRCROSNO

Edits R141—R151 enforce the business rules for inside and outside shoulders:

- R141—SLDWIDTH IS GREATER THAN 0 AND SHLDTYPE IS MISSING
- R142—SHLDWTH2 IS GREATER THAN 0 AND SHLDTYP2 IS MISSING
- R143—SHLDWTH3 IS GREATER THAN 0 AND SHLDTYP3 IS MISSING
- R144—ISLDWDTH IS GREATER THAN 0 AND ISLDTYPE IS MISSING
- R145—ISLDWTH2 IS GREATER THAN 0 AND ISLDTYP2 IS MISSING
- R146—ISLDWTH3 IS GREATER THAN 0 AND ISLDTYP3 IS MISSING
- R147—ISLDWDTH SHOULD BE GREATER THAN 0 FOR ISLDTYPE OTHER THAN RAISED CURB
- R148—SHLDTYPE MISSING; REQUIRED BEFORE SHLDTYP2
- R149—SHLDTYP3 EXISTS BUT SHLDTYP2 DOES NOT
- R150—ISLDTYP2 EXISTS BUT ISLDTYPE DOES NOT

- R151—ISLDTYP3 EXISTS BUT ISLDTYP2 DOES NOT
- R154—WHEN THERE ARE LEFT LANES THERE SHOULD BE RIGHT LANES
- R155—WHEN THERE ARE RIGHT LANES THERE SHOULD BE LEFT LANES
- R156—WHEN THERE ARE RIGHT OR LEFT LANES THERE SHOULD NOT BE COMPOSITE LANES
- R158—WHEN TYPEROAD IS 2 (DIVIDED) THERE SHOULD BE LEFT LANES AND RIGHT LANES
- R159—WHEN TYPEROAD IS 2 (DIVIDED) LANES SHOULD NOT BE COMPOSITE
- R160—OFF SYSTEM ROAD ON THE SIS OR NHS REQUIRES MAXSPEED
- R161—BASETHK CODED AND TYPEBASE IS MISSING
- R162—TYPEBASE CODED AND BASETHK IS MISSING
- R165—ROADWAY HAS MEDWIDTH, RDMEDIAN SHOULD BE CODED
- R166—INSIDE SHOULDER TYPE/WIDTH CHARACTERISTICS ARE NOT ALLOWED WHERE RDMEDIAN = '01','35'
- R170—AUXLNTYP, AUXLNUM, AND AUXLNWTH SHOULD HAVE ONLY ONE VALUE FOR EACH ROADWAY BEGIN/END POST AND ROADWAY SIDE.
- R171—FEATURE 213 MUST HAVE AUXLNTYP, AUXLNUM, AND AUXLNWTH CODED FOR THE SAME ROADWAY SEGMENT AND SIDE
- R175—SIDEWALK WIDTH IS GT 20FT. REVIEW AND IF NECESSARY, CORRECT.
- R176—SIDEWALK SEPARATION IS GT 100FT. REVIEW AND IF NECESSARY, CORRECT.
- R177—OS ROAD NUMBER IS OLDER THAN ONE YEAR
- R178—OS ROAD NUMBER IS INCOMPATIBLE WITH STATEXPT
- R179—U.S. ROUTE NUMBER IS INCOMPATIBLE WITH STATEXPT

Edit R190 checks for National Highway Freight Network on roadways functionally classified as interstate:

- R190—NHFN INCOMPATIBLE WITH FUNCLASS-INTERSTATE

RCE02—RDWYSIDE

Purpose

To compare the roadway side to the median type for coded characteristics.

Description

- R201—L/R CHARACTERISTIC EXIST WITHOUT RDMEDIAN

- R202—RDMEDIAN EXIST WITHOUT L/R CHARACTERISTIC

RCE03—TYPEROAD

Purpose

To determine consistency between the type of road and characteristics.

Description

Edits R301—R304 compare roadway side (RDWYSIDE) for all characteristics to TYPEROAD to ensure consistency:

- R301—TYPEROAD DIVIDED / NOLANES COMPOSITE
- R302—TYPEROAD ONEWAY / NOLANES DIVIDED
- R303—TYPEROAD UNDIVIDED / NOLANES DIVIDED
- R304—TYPEROAD COMPOSITE / NOLANES DIVIDED

RCE04—Invalid Offset

Purpose

To determine consistency between the roadway side as compared to the offset direction code that is coded.

Description

Edits R401 and R402 compare roadway side (RDWYSIDE) and offset for consistency:

- R401—ROADWAY SIDE OF RIGHT SHOULD HAVE OFFSET OF 2
- R402—ROADWAY SIDE OF LEFT SHOULD HAVE OFFSET OF 3

RCE05—Active Exclusive Roads

Purpose

To determine if data is missing or requires updating. This is very much like the RCE01 but only for ramps and frontage roads that are active exclusive.

Description

- R501—STATEXPT DOES NOT MATCH OVERALL STATUS
- R502—TYPEROAD SHOULD BE CODED AND NOT HAVE A VALUE OF 1 OR 5
- R503—NOLANES SHOULD NOT BE MISSING
- R504—LANE WIDTH IS LESS THAN 7 FEET
- R505—SURFNUM SHOULD NOT BE MISSING
- R506—SURWIDTH SHOULD NOT BE MISSING

- R507—SHLDTYPE SHOULD NOT BE MISSING
- R508—OUTSIDE SHOULDER WIDTH SHOULD NOT BE MISSING
- R511—FAHWYSYS SHOULD NOT BE CODED
- R512—FUNCLASS SHOULD NOT BE CODED
- R513—STATUS 17 SHOULD NOT HAVE STATE ROAD (SR) NUMBER
- R514—STATUS 07 SHOULD HAVE STROADNO, LOCALNAM OR BOTH
- R577—OS ROAD NUMBER IS OLDER THAN ONE YEAR
- R578—OS ROAD NUMBER IS INCOMPATIBLE WITH STATEXPT
- R579—U.S. ROUTE NUMBER IS INCOMPATIBLE WITH STATEXPT
- R580—STATE ROAD NUMBER IS INCOMPATIBLE WITH STATEXPT

RCE06—Bridge Edit

Purpose

To determine if bridge numbers are missing, incomplete, or malformed. If the first two digits of the bridge number are not the county number, the district must contact TDA to have an exception added to DART.

Description

- R601—STRUCTURE NUMBERS SHOULD BEGIN WITH THE COUNTY NUMBER
- R602—STRUCTURE NUMBERS SHOULD NOT HAVE THE LAST 4 DIGITS ALL THE SAME
- R603—STRUCTURE NUMBERS SHOULD BE ONLY 6 DIGITS
- R604—STRUCTURE NUMBERS SHOULD HAVE NO ALPHA CHARACTERS

RCE07—On-System MAXSPEED

Purpose

To determine if the roadway side is properly coded for maximum speed limit (MAXSPEED). The district must coordinate with Traffic Operations to resolve any inconsistencies.

Description

- R701—L/R MAXSPEED EXIST WITHOUT RDMEDIAN
- R702—MAXSPEED MISSING ON SHS

9.2.3 HPMS Edits

From the DART home page, use the Edits menu and choose the HPMS Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There are six sets of active HPMS edits:

HPE01—Sample Sections

Purpose

To determine if data coded for samples are present and consistent with other items coded.

Description

- H101—CHARACTER COUNT IN FIELD (HPMSID) IS LESS THAN 12
- H102—HPMSIDNO DOES NOT MATCH A COUNTY
- H104—RURAL HPMS SAMPLE SHOULD HAVE TERRAIN
- H105—HORALADQ IS OBSOLETE—REMOVE FROM RCI
- H106—VRTALADQ IS OBSOLETE—REMOVE FROM RCI
- H107—RURAL AND URBAN ARTERIAL SAMPLES SHOULD HAVE AT LEAST 1 CURCLAS A THRU F
- H108—RURAL AND URBAN ARTERIAL HPMS SAMPLES SHOULD HAVE AT LEAST 1 GRACLAS A THRU F
- H109—HPMS SAMPLE WITH INTERSECTIONS SHOULD HAVE TURNLANR
- H110—HPMS SAMPLE WITH INTERSECTIONS SHOULD HAVE TURNLANL
- H111—HPMS SAMPLE WITHOUT INTERSECTIONS SHOULD NOT HAVE TURNLANL
- H112—HPMS SAMPLE WITHOUT INTERSECTIONS SHOULD NOT HAVE TURNLANR
- H113—URBAN HPMS SAMPLE WITH ATGRSIG SHOULD HAVE SIGPREV OF 1, 2, 3, OR 4
- H114—URBAN HPMS SAMPLE WITHOUT ATGRSIG SHOULD NOT HAVE SIGPREV OF 1, 2, 3, OR 4
- H115—URBAN HPMS SAMPLE WITH FULL/PART ACCESS CONTROL SHOULD NOT HAVE AT GRADE INTERSECTIONS
- H118—HPMS SAMPLE SHOULD HAVE SURWIDTH
- H119—HPMS SAMPLE SHOULD HAVE SHLDTYPE

- H120—HPMS SAMPLE SHOULD HAVE SLDWIDTH FOR NON-CURBED SHOULDERS
- H121—HPMS SAMPLE WITH RDMEDIAN SHOULD HAVE MEDWIDTH
- H122—HPMS SAMPLE ON DIVIDED ROADWAY SHOULD HAVE RDMEDIAN
- H123—HPMS SAMPLE ON UN-DIVIDED ROADWAY SHOULD NOT HAVE RDMEDIAN
- H124—HPMS SAMPLE SHOULD HAVE PAVECOND
- H129—HPMS SAMPLE SHOULD HAVE FLWBRKID
- H130—HPMS SAMPLE SHOULD HAVE MAXSPEED
- H131—HPMS SAMPLE SHOULD HAVE PEAKLANE
- H132—RURAL HPMS SAMPLE LESS THAN 4 LANES SHOULD HAVE PEAKLANE SAME AS NOLANES
- H133—RURAL HPMS SAMPLE MORE THAN 3 BI-DIRECTIONAL LANES SHOULD HAVE PEAKLANE SAME AS NOLANES
- H134—RURAL HPMS SAMPLE ON ONE-WAY SHOULD HAVE PEAKLANE SAME AS NOLANES
- H135—URBAN HPMS SAMPLE ON BI-DIRECTIONAL ROADWAY SHOULD NOT HAVE PEAKLANE SAME AS NOLANES
- H136—URBAN HPMS SAMPLE ON ONE-WAY ROADWAY SHOULD HAVE PEAKLANE SAME AS NOLANES
- H137—RURAL HPMS SAMPLE ON UNDIVIDED 2-LANE ROAD SHOULD HAVE SIT1500 AS 00 TO 99
- H142—URBAN HPMS SAMPLE SHOULD HAVE TYPEOP CODED
- H143—HPMS SAMPLE WITH A STRUCTURE (BRIDGENO, UNDPASNO, BOXCULNO, TUNNELNO) CANNOT BE WIDENED TO 9 LANES
- H144—ONLY RURAL HPMS SAMPLE SHOULD HAVE TERRAIN
- H147—HPMS SAMPLE SHOULD NOT HAVE SIT1500 CODED FOR 2 LANE ROADS
- H148—URBAN HPMS SAMPLE SHOULD NOT HAVE SIT1500
- H149—LOADTDEV NOT CODED FOR BRIDGE
- H151—HPMS SAMPLE ON INVALID FUNCLASS ** CONTACT CENTRAL OFFICE **
- H152—HPMS SAMPLE WITH WIDPOTNL < 9 SHOULD NOT HAVE WIDOBSTX CODED
- H153—HPMS SAMPLE WITH WIDPOTNL = 9 SHOULD NOT HAVE ANY WIDOBST(A-G) CODED

- H154—HPMS SAMPLE WITH WIDPOTNL < 9 SHOULD HAVE AT LEAST ONE WIDOBST(A-G)
- H155—HPMS SAMPLE SHOULD HAVE AT LEAST ONE WIDOBST(A-G) OR WIDOBSTX MUST BE CODED
- H156—HPMS SAMPLE WITH ANY WIDOBST(A-G) CODED THEN WIDOBSTX SHOULD NOT BE CODED
- H157—HPMS SAMPLE WITH WIDPOTNL=9 CODED THEN WIDOBSTX SHOULD BE 1
- H160—HPMS SAMPLE SHOULD HAVE RDACCESS
- H161—URBAN HPMS SAMPLE WITH FULL ACCESS CONTROL SHOULD HAVE NO PARKING ALLOWED
- H165—HPMS SAMPLE > 3 BI-DIRECTIONAL LANES PEAKLANE SHOULD BE AT LEAST HALF OF NOLANES
- H167—HPMS SAMPLE SHOULD HAVE YRCONST AND/OR YRIMPT
- H168—HPMS SAMPLE SHOULD HAVE SURFCTP
- H170—TYPEROAD NOT DIVIDED WITH LEFT/RIGHT DATA WILL CAUSE ERRORS WITH LANE CALCULATIONS

HPE02—Universe Sections

Purpose

To determine if the RCI data is correct for HPMS Universe data on roadways On and Off the SHS.

Description

- H210—YRIMPT CANNOT BE GREATER THAN CURRENT YEAR
- H211—YRIMPT MUST BE 4 DIGITS—FROM 1988 TO CURRENT YEAR
- H212—YRCONST MUST BE 4 DIGITS—FROM 1900 TO CURRENT YEAR
- H213—YRIMPT MUST BE GREATER THAN YRCONST
- H214—HPMS UNIVERSE SHOULD HAVE NOLANES
- H215—CONFIRM HOV WITH CENTRAL OFFICE HPMS STAFF
- H216—RAMPFC SHOULD NOT BE CODED FOR NON-RAMPS
- H217—RAMPFC SHOULD HAVE URBAREA
- H218—RAMPFC SHOULD HAVE URBSIZE
- H219—TOLLROAD SHOULD HAVE TOLLTYPE CODED

- H220—TOLLROAD SHOULD HAVE TOLLCHGS CODED
- H221—TOLLROAD SHOULD HAVE TOLLNAME CODED
- H222—HPMS UNIVERSE SHOULD HAVE RDACCESS
- H223—YRCONST MUST BE GREATER THAN CURRENT YEAR
- H231—SURFACTP (SURFACE TYPE) IS REQUIRED FOR NHS ROADWAYS

HPE04—Sample Breaks (by F330)

Purpose

To determine if the HPMS sample should be shortened.

Description

- HPE04 generates a report of HPMS samples not being subdivided for administrative or physical breaks.

HPE05—Incongruent Lengths

Purpose

To determine if the data coded for an HPMS sample is present and consistent with other items coded.

Description

- HPE05 generates a report of HPMS samples with characteristics not coded for the sample length.

HPE06—Curves/Grades by Class Lengths

Purpose

To determine if the sum of data coded for grades by class or the curves by class equals the full length of the HPMS Sample.

Description

- HPE06 generates a report of HPMS samples where the sum of grades by class is not equal to the sample length or the grade by class is not required for the sample's functional classification (FUNCLASS).

HPE10—HPMS Sample Number

Purpose

To determine if the HPMS Sample number is present and correct.

Description

- H1001—SECTSTAT HAS A VALUE OF (04 OR 05)
- H1002—HPMS SAMPLE NUMBER ON INVALID STATEXPT IN RCI
- H1003—HPMS SAMPLE NUMBER ON INVALID FUNCLASS IN RCI

- H1004—HPMS SAMPLE NUMBER NOT IN LOOKUP TABLE BUT IN RCI
- H1005—HPMS SAMPLE NUMBER APPROVED FOR DELETION REMOVE SAMPLE DATA
- H1006—HPMS SAMPLE NUMBER APPROVED FOR DELETION HPMSIDNO STILL IN RITA
- H1007—HPMS SAMPLE NUMBER NOT IN RCI BUT IN LOOKUP TABLE

9.2.4 Traffic Edits

From the DART home page, use the Edits menu and choose the Traffic Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There are four sets of active Traffic Edits:

TE01—Current AADT Required

Purpose

To determine if more current traffic data is needed for Active Off the SHS roadways that are federal-aid eligible based on functional classification, or part of the NHS that have an HPMS Sample with an AADT date older than three years.

Description

- TE101 generates a report of roadways with an AADT date (AADTDATE) older than 3 years.

TE03—AADT Edit

Purpose

To determine if updated traffic data is needed for Active Off the SHS roadways that are federal-aid eligible based on functional classification or part of the NHS that have an HPMS sample with an AADT date older than three years.

Description

- T301—OFF-SYSTEM ROAD—SECTADT, AADTTYPE OR AADTDATE IS MISSING
- T302—ON-SYSTEM ROAD—SECTADT, AADTTYPE OR AADTDATE IS MISSING
- T303—ROAD WITH MORE THAN 3 LANES HAS LANE ADT LESS THAN 400
- T304—BI-DIRECTIONAL ROADWAY WITH EXCESSIVE AVGDFACT
- T305—ONE-WAY ROADWAY MUST HAVE AVGDFACT = 99.99

TE04—Traffic Breaks

Purpose

To determine if the location traffic station numbers are consistent with the flow break ID that they are assigned to.

Description

- T401—INACTIVE TRFSTANO SHOULD NOT MATCH FLWBRKID
- T403—TRFSTANO SHOULD NOT BE AT ENDING MILEPOINT
- T404—TRSTATYP WITHOUT TRFSTANO
- T405—TRFSTANO WITHOUT TRSTATYP
- T406—ACTIVE COUNTERS SHOULD NOT BE ON DELETED, INACTIVE, OR PENDING
- T411—TRFSTANO MILEPOINT SHOULD NOT SHARE AN INTERSECTION OR SECTION END POINT
- T420—MISSING TRFSTANO ON LOCAL, SIS, OR NHS
- T421—MISSING FLWBRKID ON INTERCHANGE RAMP

TE05—Traffic Flow Breaks

Purpose

To check for traffic count station assigned to breaks (FLWBRKID) that have a type of road (TYPEROAD) of 1-way and 2-way.

Description

- T501—FLWBRKID SHOULD NOT HAVE TYPEROAD OF 1-WAY AND 2-WAY
- T502—TRFBRKCD SHOULD NOT BE ON A FLWBRKID SECTION
- T503—TRAFFIC FLOW BREAK REQUIRED FOR NHS, NHFN, STP, SHS, SIS, AND RUR MIN COLL

9.2.5 Traffic Operations Edits

From the DART home page, use the Edits menu and choose the Traffic-Ops Edits sub-menu options page. On the District menu, select the required two-digit district number. On the County menu, select the optional county from a list of counties that belong to the selected district. On the Edits menu, select one or more of the applicable edits.

There is one set of active Traffic Operations edits:

TOE01—Traffic Ops

Purpose

To determine if traffic signals are properly coded for types of traffic signals (SIGNALTY) and non-counted signals (SIGNALNC) that have an intersection. The districts must coordinate with Traffic Operations to resolve any inconsistencies.

Description

- O101—TRAFFIC SIGNAL NOT AT INTERSECTION

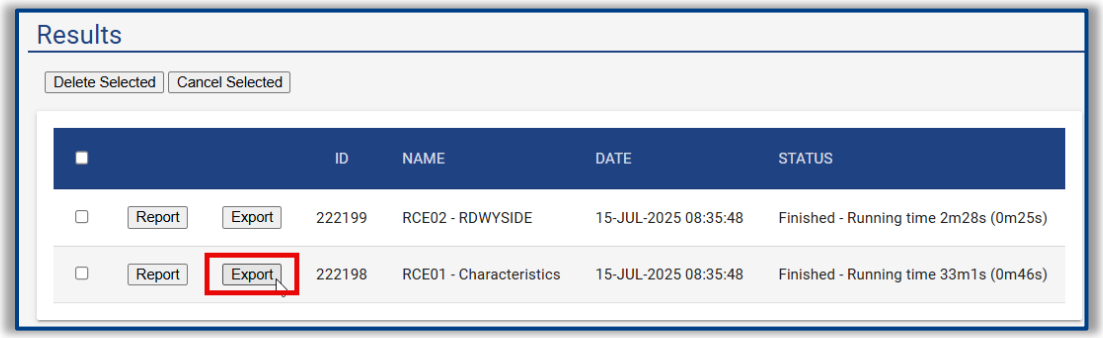
- O102—MID-BLOCK TRAFFIC SIGNAL CANNOT NOT BE AT INTERSECTION
- O103—TRAFFIC SIGNAL CANNOT NOT BE ON LIMITED ACCESS FACILITY

9.3 Resolving DART Edits

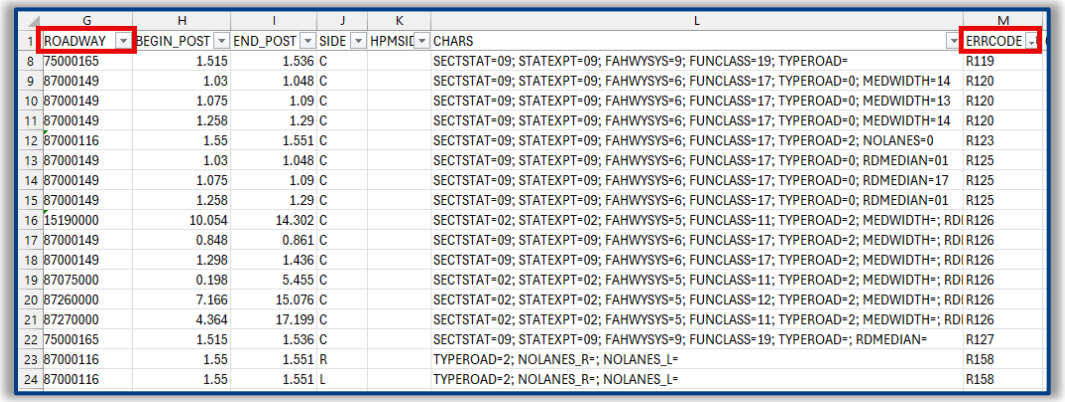
DART data validations (edits) employ logic to compare RCI feature and characteristic data for completeness and accuracy. The DART application provides District and Central Office users with information on potential coding issues to resolve. The following is a step-by-step guide for interpreting the DART edits to help the user correct data and resolve the edit.

9.3.1 How to Resolve Edits

1. After running the desired edits, navigate to the RESULTS tab in DART.
2. Click on the Export button to download the edits as an .xlsx document.

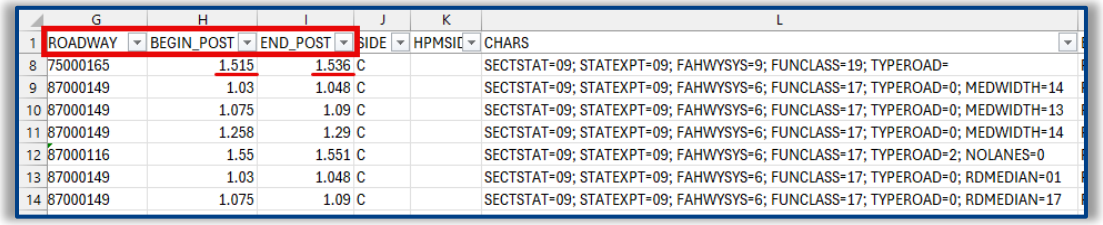


   a. Sort by roadway id/error code.



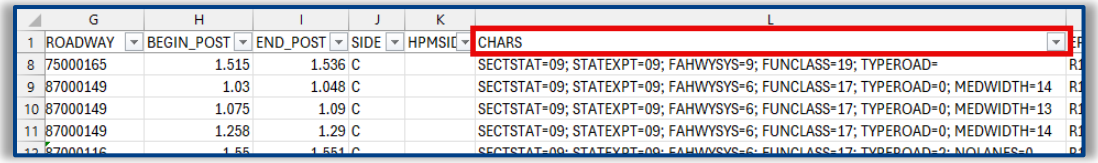
	G	H	I	J	K	L	M
1	ROADWAY	BEGIN_POST	END_POST	SIDE	HPMSID	CHARS	ERRCODE
8	75000165	1.515	1.536	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=9; FUNCLASS=19; TYPEROAD=	R119
9	87000149	1.03	1.048	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=14	R120
10	87000149	1.075	1.09	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=13	R120
11	87000149	1.258	1.29	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=14	R120
12	87000116	1.55	1.551	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=2; NOLANES=0	R123
13	87000149	1.03	1.048	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; RDMEDIAN=01	R125
14	87000149	1.075	1.09	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; RDMEDIAN=17	R125
15	87000149	1.258	1.29	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; RDMEDIAN=01	R125
16	15190000	10.054	14.302	C		SECTSTAT=02; STATEXPT=02; FAHWYSYS=5; FUNCLASS=11; TYPEROAD=2; MEDWIDTH=; RDI	R126
17	87000149	0.848	0.861	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=2; MEDWIDTH=; RDI	R126
18	87000149	1.298	1.436	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=2; MEDWIDTH=; RDI	R126
19	87075000	0.198	5.455	C		SECTSTAT=02; STATEXPT=02; FAHWYSYS=5; FUNCLASS=11; TYPEROAD=2; MEDWIDTH=; RDI	R126
20	87260000	7.166	15.076	C		SECTSTAT=02; STATEXPT=02; FAHWYSYS=5; FUNCLASS=12; TYPEROAD=2; MEDWIDTH=; RDI	R126
21	87270000	4.364	17.199	C		SECTSTAT=02; STATEXPT=02; FAHWYSYS=5; FUNCLASS=11; TYPEROAD=2; MEDWIDTH=; RDI	R126
22	75000165	1.515	1.536	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=9; FUNCLASS=19; TYPEROAD=; RDMEDIAN=	R127
23	87000116	1.55	1.551	R		TYPEROAD=2; NOLANES_R=; NOLANES_L=	R158
24	87000116	1.55	1.551	L		TYPEROAD=2; NOLANES_R=; NOLANES_L=	R158

3. Review the ROADWAY, BEGIN_POST, and END_POST columns to identify where the issue exists.



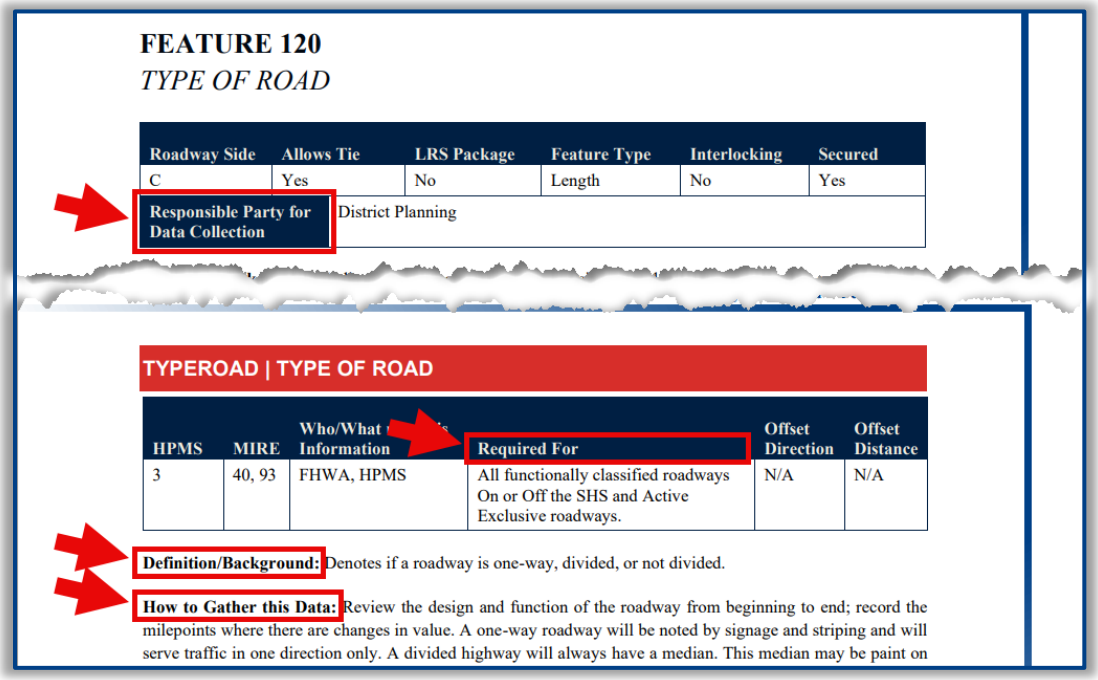
	G	H	I	J	K	L
1	ROADWAY	BEGIN_POST	END_POST	SIDE	HPMSID	CHARS
8	75000165	1.515	1.536	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=9; FUNCLASS=19; TYPEROAD=
9	87000149	1.03	1.048	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=14
10	87000149	1.075	1.09	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=13
11	87000149	1.258	1.29	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=14
12	87000116	1.55	1.551	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=2; NOLANES=0
13	87000149	1.03	1.048	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; RDMEDIAN=01
14	87000149	1.075	1.09	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; RDMEDIAN=17

4. Review the CHARS column to see which RCI characteristics are being checked.



	G	H	I	J	K	L
1	ROADWAY	BEGIN_POST	END_POST	SIDE	HPMSID	CHARS
8	75000165	1.515	1.536	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=9; FUNCLASS=19; TYPEROAD=
9	87000149	1.03	1.048	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=14
10	87000149	1.075	1.09	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=13
11	87000149	1.258	1.29	C		SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=14

5. Reference Chapter 7 in the RCI Handbook to look up the RCI characteristic(s) by name to understand the responsible party for data collection, the required for situation, and the Definition/How to Gather.



FEATURE 120

TYPE OF ROAD

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
C	Yes	No	Length	No	Yes

Responsible Party for Data Collection	District Planning

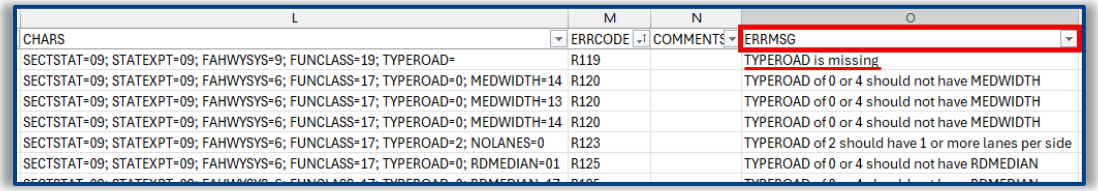
TYPEROAD | TYPE OF ROAD

HPMS	MIRE	Who/What Information	Required For	Offset Direction	Offset Distance
3	40, 93	FHWA, HPMS	All functionally classified roadways On or Off the SHS and Active Exclusive roadways.	N/A	N/A

Definition/Background: Denotes if a roadway is one-way, divided, or not divided.

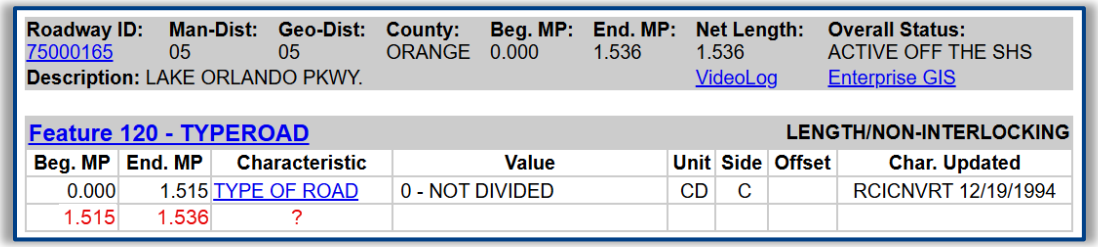
How to Gather this Data: Review the design and function of the roadway from beginning to end; record the milepoints where there are changes in value. A one-way roadway will be noted by signage and striping and will serve traffic in one direction only. A divided highway will always have a median. This median may be paint on

6. Read the ERRMSG column, which provides a simple description of what needs to be reviewed for the given characteristic(s) on the given roadway segment.



	L	M	N	O
	CHARS	ERRCODE	COMMENTS	ERRMSG
	SECTSTAT=09; STATEXPT=09; FAHWYSYS=9; FUNCLASS=19; TYPEROAD=	R119		TYPEROAD is missing
	SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=14	R120		TYPEROAD of 0 or 4 should not have MEDWIDTH
	SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=13	R120		TYPEROAD of 0 or 4 should not have MEDWIDTH
	SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; MEDWIDTH=14	R120		TYPEROAD of 0 or 4 should not have MEDWIDTH
	SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=2; NOLANES=0	R123		TYPEROAD of 2 should have 1 or more lanes per side
	SECTSTAT=09; STATEXPT=09; FAHWYSYS=6; FUNCLASS=17; TYPEROAD=0; RDMEDIAN=01	R125		TYPEROAD of 0 or 4 should not have RDMEDIAN

7. Use the RCI Web Application to look up the identified characteristics on the given roadway segment to identify the issue. Is something missing or inconsistent with the guidance in Chapter 7?



Roadway ID:	Man-Dist:	Geo-Dist:	County:	Beg. MP:	End. MP:	Net Length:	Overall Status:
75000165	05	05	ORANGE	0.000	1.536	1.536	ACTIVE OFF THE SHS

Description: LAKE ORLANDO PKWY. VideoLog Enterprise GIS

Feature 120 - TYPEROAD — **LENGTH/NON-INTERLOCKING**

Beg. MP	End. MP	Characteristic	Value	Unit	Side	Offset	Char. Updated
0.000	1.515	TYPE OF ROAD	0 - NOT DIVIDED	CD	C		RCICNVRT 12/19/1994
1.515	1.536	?					

8. Correct the missing data or incompatible values in the RCI Web Application.
    a. Coordination with the responsible RCI data owner may be necessary to perform the correction.
    b. Validation edits may flag data that may need additional review to confirm the coded data is correct.

9. Re-run the DART Edits to verify whether the edit has been resolved.