

# NCRouteArcs Field Descriptions

## General Notes:

The layer contains route data maintained by the state and counties. Text in brackets, [ ], represent the previous field name. Fields dropped from the previous output product will be listed in the 'Removed Fields' section.

X indicates that the definition is stated once but applies to each co-route 2-6. The LRS supports a dominant route (1) and up to 5 additional co-routes (2 – 6) for each segment. For example, the definition for RouteIDX applies to all of the following fields: RouteID2, RouteID3, RouteID4, RouteID5 and RouteID6.

The Data Owner is the group that is responsible for maintaining that data item. There may be one or more additional business owners associated with that information, but the Data Owner should be the first group to contact when there is a question about the data in this Layer.

Domains are represented as coded values and descriptions. The geodatabase version of the file contains the descriptions. The shapefile version contains the values, which tend to be abbreviated or numeric versions of the description. If the geodatabase table is exported, the resulting table will contain the values.

NCRouteCharacteristics is a dual-carriageway system meaning that divided roads (roads with medians) are represented as two separate lines and undivided roads are represented as a single line. This allows for different characteristics to be coded on each side of the route. On divided roads, most characteristics apply to just that side of the road.

The 11-Digit RouteID is a unique number assigned to each route. The first digit represents the route class, the second digit represents a route qualifier (for example a business route), the third digit represents the inventory or non-inventory direction, the fourth digit through eighth digit represents the route number and lastly, the last three digits represent the Sap County code. Please see 'Guide to the NCDOT Eleven-Digit Route Number' for further illustration ([Guide to NCDOT Eleven Digit Route Number \(pdf\)](#))

Currently the BeginFeatureID and EndFeatureID fields have six (6) types of representation and are explained below.

1. Dominant intersecting Route which is determined by
  - a. lowest numeric RouteClass then
  - b. lowest numeric RouteQualifier then
  - c. lowest numeric RouteNumber and lastly the
  - d. lowest numeric RouteInventory
2. County Boundary (BC000001 - BC000100) where the last three (3) digits represent the sap county number,
3. State Boundary - BS000901 (Georgia), BS000902 (South Carolina ), BS000903 (Tennessee) and BS000904 (Virginia),
4. Pseudo ( Route event attributes change within a single segment such as StreetName and Pavement Type),
5. Dead-End (the Route terminates) or
6. X-Cross (where a Route intersects itself).

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## Field Definitions:

### 1. OBJECTID

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Object Identifier  |
| <b>Definition</b>  | A unique number that is automatically generated for each segment |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every Segment  |
| <b>Values</b>      | Positive numbers   |
| <b>Notes</b>       | The Object Identifier changes with each publication.             |

### 2. Shape

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Shape  |
| <b>Definition</b>  | Stores the geometry information for each segment and is used by GIS software to display the line |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every Segment  |
| <b>Values</b>      | Polyline   |

### 3. Division

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Division   |
| <b>Definition</b>  | The NCDOT Division number for each route segment |
| <b>Data Owner</b>  | NC DOT   |
| <b>Extent</b>      | Every Segment                                    |
| <b>Values</b>      | Data Type = numeric; Data Range from 1-14        |
| <b>Notes</b>       |  |

### 4. MaintCntyCode [MAINT\_CNTY\_CD]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Maintenance County; (Sap County Code)  |
| <b>Definition</b>  | For state-maintained roads, it is the county responsible for maintaining the section of road. For non-state maintained roads, it is the county that the segment is located in.   |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Data Type = text ; Coded domain – see the metadata or contact the GIS Unit for a full list of codes  |
| <b>Notes</b>       | This is the primary county field that should be used. In general both county fields will have the same value. The exceptions are around the county boundaries. For example, a portion of SR-1828 has a Maintenance County of Iredell County and a Location County of Yadkin County where it crosses the county boundary into Yadkin County. This route should be considered SR-1828 Iredell County even though it is physically located in Yadkin County. The domain for the county codes is not listed here because it is so long. The coded values begin with 001 for Alamance County and end with 100 for Yancey County. These are the codes (for roads that are maintained by NCDOT but cross the state boundary): Georgia – 901, South Carolina – 902, Tennessee – 903, Virginia – 904. |

### 5. LocCntyCode [LOC\_1\_CNTY\_CD]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Location County; (Sap County Code)   |
| <b>Definition</b>  | The county that the segment is physically located in   |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Data Type = text; Coded domain – see the metadata or contact the GIS Unit for a full list of codes |

## 6. RouteClass [RTE\_1\_CLSS\_CD]

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Route Class   |
| <b>Definition</b>  | The NCDOT route class code for Dominant Route                 |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment except for gap segments                         |
| <b>Values</b>      | Data Type = text; Coded domain                                |
| <b>Notes</b>       | Route Class drives the 1 <sup>st</sup> digit of the Route ID. |

Domain:

| Value | Description                   | Notes   |
|-------|-------------------------------|---|
| 1     | Interstate (I)                | State-maintained  |
| 2     | US Route (US)                 | State-maintained  |
| 3     | NC Route (NC)                 | State-maintained  |
| 4     | Secondary Route (SR)          | State-maintained  |
| 5     | Non-System (NS)               | Not state maintained  |
| 6     | Other State Agency Route (SA) | Federal-aid roads maintained by other state agencies                        |
| 7     | Federal Route (FED)           | Federal-aid roads maintained by federal agencies                            |
| 80    | Ramp (RMP)                    | Typically state-maintained but not counted towards state-maintained mileage |
| 81    | Rest Areas (RST)              | Typically state-maintained but not counted towards state-maintained mileage |
| 89    | Non-Mainline (NML)            | Typically state-maintained but not counted towards state-maintained mileage |
| 9     | Projected (PRJ)               | Generalized locations of major facilities that have not yet been built      |

## 7. RouteNumber [RTE\_1\_NBR]

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Route Number  |
| <b>Definition</b>  | The NCDOT route number for the Dominant Route   |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Positive numbers  |
| <b>Notes</b>       | The Route Number is in the 4 <sup>th</sup> – 8 <sup>th</sup> positions of the RouteID |

## 8. RouteQualifier [RTE\_1\_PRIM\_CD]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Route Qualifier  |
| <b>Definition</b>  | An additional code that further defines the Dominant Route   |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Data Type = text; Coded domain   |
| <b>Notes</b>       | On state-maintained routes, values of Normal indicate the regular route and other values indicate a related route (e.g., I-95 and I-95 Business). The Route Qualifier is represented in the 2 <sup>nd</sup> position of the Route ID. An exception is that Ramps, Rest Areas and Non-Mainline begin with 80, 81 and 89 respectively so that they can be distinguished by the Route ID. |

Domain:

| Value | Description     | Notes  |
|-------|-----------------|--|
| 0     | Normal Route    | On most routes this indicates it is the normal route. If the route class is FED, then Normal/0 means Blue Ridge Parkway. |
| 1     | Alternate Route | If the route class is FED, then Alternate/1 means the road is owned by the military.                                     |
| 2     | Bypass Route    |  |
| 5     | East Route      | This is only used for US-19 East which is a different route than US-19   |

|    |                      |  |
|----|----------------------|--|
| 6  | West Route           | This is only used for US-19 West which is a different route than US-19   |
| 7  | Spur/Connector Route | If the Route Class is Interstate, then the route is a spur; if the Route Class is US or NC Route then the route is a connector |
| 8  | Truck Route          |  |
| 80 | Ramp                 |  |
| 81 | Rest Area            |  |
| 89 | Non-Mainline         |  |
| 9  | Business Route       |  |

## 9. RouteInventory [RTE\_1\_DDIR\_CD]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Route Inventory  |
| <b>Definition</b>  | The NCDOT route direction for Dominant Route   |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Data Type = text; Coded domain   |
| <b>Notes</b>       | Inventory directions are Inventory (0) and Clockwise (8). All other values indicate the non-inventory direction of the route. To determine if the route is one-way or both directions of travel, use the One-way Direction Flag (i.e., Inventory Route Direction and Both Directions for the One-way Direction Flag imply that the route is bidirectional). The Route Direction is represented in the 3 <sup>rd</sup> position of the RouteID. |

Domain:

| Value | Description                       | Notes  |
|-------|-----------------------------------|--|
| 0     | Inventory                         | Includes bidirectional, Northbound, Eastbound, and one-way inventory                                     |
| 4     | Non-Inventory (Southbound)        | On secondary routes, rest areas and non-state maintained route classes, "Southbound" means non-inventory |
| 6     | Non-Inventory (Westbound)         |  |
| 8     | Inventory (Clockwise)             |  |
| 9     | Non-Inventory (Counter-Clockwise) |  |

## 10. Direction

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Direction                                   |
| <b>Definition</b>  | Indicates the actual direction of the route |
| <b>Data Owner</b>  | GIS Unit                                    |
| <b>Extent</b>      | Every segment                               |
| <b>Values</b>      | Data Type = text; Coded domain              |
| <b>Notes</b>       |   |

Domain:

| Value | Description      | Notes |
|-------|------------------|-------|
| BD    | Bidirectional    |       |
| NB    | Northbound       |       |
| SB    | Southbound       |       |
| EB    | Eastbound        |       |
| WB    | Westbound        |       |
| OI    | Oneway Inventory |       |
| OO    | Oneway Opposite  |       |
| CW    | Clockwise        |       |
| CC    | Counterclockwise |       |

### 11. TravelDirection [ONEWAY\_DIR\_FLG]

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Travel Direction  |
| <b>Definition</b>  | Indicates whether traffic is restricted to one direction or both  |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Data Type = text; Coded domain  |
| <b>Notes</b>       | Since the Route Direction code of 0 can be either one-way or both directions, this field is used to determine if the route is bidirectional or one-way. |

Domain:

| <b>Value</b> | <b>Description</b> | <b>Notes</b> |
|--------------|--------------------|--------------|
| Both         | Both directions    |              |
| One-way      | One direction      |              |

### 12. MPLength [MP\_LENGTH]

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Milepost Length   |
| <b>Definition</b>  | The length of the segment in miles, calculated by the ending milepost minus the beginning milepost. The milepost values are based on 3D measures generated from LIDAR data. |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Positive numbers; six decimal places  |
| <b>Notes</b>       | Calculated field;   |

### 13. RouteName [STREET\_NAME]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Route Name   |
| <b>Definition</b>  | The NCDOT name of the dominant route   |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Data Type = text;  |
| <b>Notes</b>       | It is a concatenation of an abbreviation of Route Class, Route Number and Route Qualifier. |

### 14. StreetName [STREET\_NAME]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Street Name                                  |
| <b>Definition</b>  | The name of the street such as 'Main Street' |
| <b>Data Owner</b>  | GIS Unit                                     |
| <b>Extent</b>      | Every segment                                |
| <b>Values</b>      | Data Type = text;                            |
| <b>Notes</b>       |  |

### 15. RouteMaintCode [RTE\_STATUS\_CD]

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Route Maintenance Code  |
| <b>Definition</b>  | The system status of the route  |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Data Type = text; Derived   |
| <b>Notes</b>       | This field has a value of "System" on every record except for where Non-System routes. System Routes = RouteClass IN (1,2,3,4,8,9) ; Non-System = RouteClass IN (5,6,7) |

## 16. SrcDocType [SRCDOC\_TYP\_CD]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Source Document Type   |
| <b>Definition</b>  | The type of source documentation that created the segment or caused the most recent official change. |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | All system routes  |
| <b>Values</b>      | Data Type = text; Coded domain   |
| <b>Notes</b>       | This field should be used with the Source Document field.  |

Domain:

| <b>Value</b> | <b>Description</b>  | <b>Notes</b>  |
|--------------|---------------------|---|
| N            | Not-Verified        | Indicates either legacy segments or that the source document is unknown   |
| P            | Petition            | The petition number is stored in the Source Document field                |
| T            | TIP                 | TIP or Project; the project number is stored in the Source Document field |
| R            | Project Alignment   |   |
| M            | Municipal Agreement | The municipal agreement number is stored in the Source Document field     |
| O            | Other               |   |

## 17. SrcDocID [SRCDOC\_NBR]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Source Document  |
| <b>Definition</b>  | The document reference that created the segment or caused the most recent official change                                |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | All system routes  |
| <b>Values</b>      | Data Type = text;  |
| <b>Notes</b>       | Typical values are the TIP number or the Petition number. This field should be used with the Source Document Type field. |

## 18. GeoDocType [REVDOC\_TYP\_CD]

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Revision Source Type  |
| <b>Definition</b>  | The most recent data source type used to draw or modify the segment's alignment/geometry.   |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | All system routes   |
| <b>Values</b>      | Data Type = text; Coded domain  |
| <b>Notes</b>       | This field should be used with the GeoDocID field. For example, if the value is Aerial Photo and the GeoDocID is 2010, this means that the segment was aligned to an Aerial Photo that was flown in 2010. |

Domain:

| <b>Value</b> | <b>Description</b> | <b>Notes</b>  |
|--------------|--------------------|---|
| N            | Not-Verified       | Indicates the segment alignment has not been verified by the GIS Unit; the segment has not been photo-revised yet |
| A            | Aerial Photo       | Indicates that the segment has been photo revised   |
| C            | Local Centerline   |   |
| P            | Parcels            |   |
| L            | Plat               |   |
| G            | GPS                |   |
| F            | Field Research     |   |
| O            | Other              |   |



## 19. GeoDocID [REVDOC\_NUM]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Revision Source  |
| <b>Definition</b>  | The most recent data source reference that was used to draw or modify the segment's alignment/geometry   |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment that has been verified   |
| <b>Values</b>      | Data Type = text;  |
| <b>Notes</b>       | When Aerial Photo is used as the Revision Source Type, the Revision Source Identifier is either the year the photo was flown or else the source of the photo if the year is unknown. |

## 20. OwnerType [OWNR\_TYP\_CD]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Ownership type   |
| <b>Definition</b>  | The agency that maintains the segment, if ownership cannot be derived from Route Class   |
| <b>Data Owner</b>  | OPM (Operations Program Management)  |
| <b>Extent</b>      | Where applicable   |
| <b>Values</b>      | Number; Coded domain   |
| <b>Notes</b>       | This field contains exceptions, i.e., US, NC or Secondary Route that is not maintained by NCDOT would have the correct owner identified in this field. |

Domain:

| Value | Description                                  | Notes  |
|-------|--|--|
| 2     | County Highway Agency                        | County highway agency  |
| 3     | Town or Township Highway Agency              | Town or township highway agency                                  |
| 4     | City or Municipal Highway Agency             | City or municipal highway agency                                 |
| 11    | State Park, Forest, or Reservation Agency    | State park, forest or reservation agency                         |
| 12    | Local Park, Forest, or Reservation Agency    | Local park, forest or reservation agency                         |
| 21    | Other State Agency                           | Other state agency   |
| 25    | Other Local Agency                           | Other local agency   |
| 27    | Railroad                                     | Railroad   |
| 31    | State Toll Road                              | State toll authority   |
| 32    | Local Toll Authority                         | Local toll authority   |
| 40    | Other Public Instrumentality (e.g., Airport) | Other public instrumentality (e.g., airport, school, university) |
| 50    | Indian Tribe Nation                          | Indian Tribe Nation  |
| 60    | Other Federal Agency                         | Other federal agency   |
| 62    | Bureau of Indian Affairs                     | Bureau of Indian Affairs   |
| 63    | Bureau of Fish and Wildlife                  | Bureau of Fish and Wildlife                                      |
| 64    | U.S. Forest Service                          | U.S. Forest Service  |
| 66    | National Park Service                        | National Park Service  |
| 67    | Tennessee Valley Authority                   | Tennessee Valley Authority                                       |
| 68    | Bureau of Land Management                    | Bureau of Land Management  |
| 69    | Bureau of Reclamation                        | Bureau of Reclamation  |
| 70    | Corps of Engineers                           | Corps of Engineers   |
| 72    | Air Force                                    | Air Force  |
| 73    | Navy/Marines                                 | Navy/Marines   |
| 74    | Army   | Army   |
| 80    | Other  | Other  |
| 98    | Private-Residential                          | Private-Residential  |
| 99    | Private-Other                                | Private-Other  |

## 21. RouteXClass [RouteX Class]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Route Class                                  |
| <b>Definition</b>  | The NCDOT route class code for Co-Routes 2-6 |

|                   |   |
|-------------------|---|
| <b>Data Owner</b> | GIS Unit  |
| <b>Extent</b>     | Every segment except for gap segments                       |
| <b>Values</b>     | Data Type = text; Coded domain                              |
| <b>Notes</b>      | Route Class drives the 1 <sup>st</sup> digit of the RouteID |

Domain:

| <b>Value</b> | <b>Description</b>            | <b>Notes</b>  |
|--------------|-------------------------------|---|
| 1            | Interstate (I)                | State-maintained  |
| 2            | US Route (US)                 | State-maintained  |
| 3            | NC Route (NC)                 | State-maintained  |
| 4            | Secondary Route (SR)          | State-maintained  |
| 5            | Non-System (NS)               | Federal-aid roads maintained by municipalities                              |
| 6            | Other State Agency Route (SA) | Federal-aid roads maintained by other state agencies                        |
| 7            | Federal Route (FED)           | Federal-aid roads maintained by federal agencies                            |
| 80           | Ramp (RMP)                    | Typically state-maintained but not counted towards state-maintained mileage |
| 81           | Rest Areas (RST)              | Typically state-maintained but not counted towards state-maintained mileage |
| 89           | Non-Mainline (NML)            | Typically state-maintained but not counted towards state-maintained mileage |
| 9            | Projected (PRJ)               | Generalized locations of major facilities that have not yet been built      |

## 22. RouteXNumber [RTE\_X\_NBR]

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Route Number  |
| <b>Definition</b>  | The NCDOT route number for Co-Routes 2-6  |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Positive numbers  |
| <b>Notes</b>       | The Route Number is in the 4 <sup>th</sup> – 8 <sup>th</sup> positions of the RouteID |

## 23. RouteXQualifier [RTE\_X\_PRIM\_CD]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Route Qualifier  |
| <b>Definition</b>  | An additional code that further defines the Co-Route 2-6   |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Data Type = text; Coded domain   |
| <b>Notes</b>       | On state-maintained routes, values of Normal indicate the regular route and other values indicate a related route (e.g., I-95 and I-95 Business). The Route Qualifier is represented in the 2 <sup>nd</sup> position of the Route ID. An exception is that Ramps, Rest Areas and Non-Mainline begin with 80, 81 and 89 respectively so that they can be distinguished by the Route ID. |

Domain:

| <b>Value</b> | <b>Description</b>   | <b>Notes</b>   |
|--------------|----------------------|--|
| 0            | Normal Route         | On most routes this indicates it is the normal route. If the route class is FED, then Normal/0 means Blue Ridge Parkway.       |
| 1            | Alternate Route      | If the route class is FED, then Alternate/1 means the road is owned by the military.   |
| 2            | Bypass Route         |  |
| 5            | East Route           | This is only used for US-19 East which is a different route than US-19   |
| 6            | West Route           | This is only used for US-19 West which is a different route than US-19   |
| 7            | Spur/Connector Route | If the Route Class is Interstate, then the route is a spur; if the Route Class is US or NC Route then the route is a connector |
| 8            | Truck Route          |  |

|    |                |
|----|----------------|
| 80 | Ramp           |
| 81 | Rest Area      |
| 89 | Non-Mainline   |
| 9  | Business Route |

#### 24. RouteXInventory [RTE\_X\_DDIR\_CD]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Route Direction  |
| <b>Definition</b>  | The NCDOT route direction for Co-Routes 2-6  |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Data Type = text; Coded domain   |
| <b>Notes</b>       | Inventory directions are Inventory (0) and Clockwise (8). All other values indicate the non-inventory direction of the route. To determine if the route is one-way or both directions of travel, use the One-way Direction Flag (i.e., Inventory Route Direction and Both Directions for the One-way Direction Flag imply that the route is bidirectional). The Route Direction is represented in the 3 <sup>rd</sup> position of the RouteID. |

Domain:

| Value | Description                      | Notes  |
|-------|----------------------------------|--|
| 0     | Inventory                        | Includes bidirectional, Northbound, Eastbound, and one-way inventory                                     |
| 4     | Non-Inventory (Southbound)       | On secondary routes, rest areas and non-state maintained route classes, "Southbound" means non-inventory |
| 6     | Non-Inventory (Westbound)        |  |
| 8     | Inventory (Clockwise)            |  |
| 9     | Non-Inventory (Counterclockwise) |  |

#### 25. RouteID [Rte\_Id]

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Route Identifier for Dominant Route   |
| <b>Definition</b>  | The 11-digit composite route number   |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Positive 11-digit numbers (text field)  |
| <b>Notes</b>       | It uniquely identifies routes statewide and should be used as the route identifier when performing LRS analysis using route/milepost referencing. |

#### 26. BeginMp1 [BegMp1]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Beginning Milepost for Dominant Route                      |
| <b>Definition</b>  | The ending milepost for route at that point on the segment |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Numbers; six decimal places                                |

#### 27. EndMp1 [EndMp1]

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Ending Milepost for Dominant Route                         |
| <b>Definition</b>  | The ending milepost for route at that point on the segment |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Numbers; six decimal places                                |

**28. BeginFeatureID [Beg\_Intersect]**

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Beginning Intersection Feature for Dominant Route   |
| <b>Definition</b>  | This field identifies the intersecting route (or county or route change or dead-end) for the beginning of the associated LRS segment. |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Data Type = text;   |
| <b>Notes</b>       | Use with the Beginning Milepost field.  |

**29. EndFeatureID [End\_Intersect]**

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Ending Intersection Feature For Dominant Route   |
| <b>Definition</b>  | This field identifies the intersecting route (or county or route change or dead-end) for the ending of the associated LRS segment. |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Data Type = text;  |
| <b>Notes</b>       | Use with the Ending Milepost field.  |

**30. MaxMP1 [MaxMp1]**

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Maximum Milepost                                 |
| <b>Definition</b>  | The maximum milepost value of the dominant route |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment                                    |
| <b>Values</b>      | Positive numbers; six decimal places             |
| <b>Notes</b>       |  |

**31. RouteX [RouteX]**

|                    |  |
|--------------------|--|
| <b>Common Name</b> | 11-Digit Route Number                  |
| <b>Definition</b>  | The 11-digit composite Co-Route number |
| <b>Data Owner</b>  | GIS Unit                               |
| <b>Extent</b>      | Every segment                          |
| <b>Values</b>      | Positive 11-digit numbers (text field) |

**32. BeginMpX [BegMpX]**

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Beginning Milepost  |
| <b>Definition</b>  | The beginning milepost for route at that point on the segment |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Numbers; six decimal places                                   |

**33. EndMpX [EndMpX]**

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Ending Milepost  |
| <b>Definition</b>  | The ending milepost for route at that point on the segment |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Numbers; six decimal places                                |

### 34. Shape\_Length

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Shape Length  |
| <b>Definition</b>  | The two-dimensional length of the segment in feet   |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Positive numbers; six decimal places  |
| <b>Notes</b>       | This field should not be used to determine the length of segments or routes. Instead the user should create a field and calculate the values to be Ending Milepost minus Beginning Milepost. The official length is based on mileposts because they reflect three-dimensional measurements. |

## Removed Fields

### 35. G1\_FtSeg\_Id

|                    |  |
|--------------------|--|
| <b>Common Name</b> | G1_FtSeg_Id  |
| <b>Definition</b>  | Numbers assigned to LRS segments that can be used in Linear Referencing operations   |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every Segment  |
| <b>Values</b>      | Positive and negative numbers  |
| <b>Notes</b>       | A single G1 FTSEG may be made up of several individual segments. G1 FTSEGs are measured from 0 (From Percent) to 1 (To Percent). G1 FTSEGs can be split at LRS segment breaks (intersections, county boundaries, direction changes, historic changes and pseudo nodes) and can also be split at event breaks (changes in one of the characteristics of the road). Segments that have the same G1 FTSEG would have unique, non-overlapping From and To Percent measures. G1 FTSEG is stable and does not change between publications. Should be used as the route identifier when performing LRS analysis using G1 referencing. |

### 36. Beg\_G1Factor

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Beginning G1Factor  |
| <b>Definition</b>  | The length of every G1 FTSEG is normalized from 0 – 1 (to indicate the percentage of the total segment length). The Beg_G1Factor is the location along the Route ID where the event segment begins. |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every Segment   |
| <b>Values</b>      | Positive numbers; six decimal places  |
| <b>Notes</b>       | From Percent should be used when performing LRS analysis using G1 referencing as the To-Measure field.  |

### 37. End\_G1Factor

|                    |  |
|--------------------|--|
| <b>Common Name</b> | End Percent  |
| <b>Definition</b>  | The location along the G1 FTSEG where the segment ends |
| <b>Data Owner</b>  | GIS Unit   |

|               |   |
|---------------|---|
| <b>Extent</b> | Every Segment   |
| <b>Values</b> | Positive numbers; six decimal places  |
| <b>Notes</b>  | A segment with a Beg_G1Factor value of 0 and a End_G1Factor value of 1 represents the entire G1 FTSEG; the segment has never been split by LRS or event changes. End_G1Factor should be used when performing LRS analysis using G1 referencing as the To-Measure field. |

### 38. FTSEG

|                    |                              |
|--------------------|------------------------------|
| <b>Common Name</b> | FTSEG                        |
| <b>Definition</b>  | Segments of a split G1_FTSEG |
| <b>Data Owner</b>  | GIS Unit                     |
| <b>Extent</b>      | Where applicable             |
| <b>Values</b>      | Positive numbers             |
| <b>Notes</b>       |                              |

### 39. TMPRY\_FTSEG

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Temporary FTSEG                               |
| <b>Definition</b>  | Segments of a split G1_FTSEG in holding layer |
| <b>Data Owner</b>  | GIS Unit                                      |
| <b>Extent</b>      | Where applicable                              |
| <b>Values</b>      | Negative numbers                              |
| <b>Notes</b>       |   |

### 40. Hold

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Hold                                     |
| <b>Definition</b>  | Working segments of a split G1_FTSEG     |
| <b>Data Owner</b>  | GIS Unit                                 |
| <b>Extent</b>      | Where applicable                         |
| <b>Values</b>      | Positive and negative numbers; yes,no,na |
| <b>Notes</b>       |  |

### 41. RTE\_X\_START

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Route Start  |
| <b>Definition</b>  | The beginning segment of the route   |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Coded domain   |
| <b>Notes</b>       | Divided routes have a start in each direction. This field is used to create milepost values. |

Domain:

| Value | Description | Notes   |
|-------|-------------|---|
| 0     | Not start   |   |
| 1     | Start       |   |
| 9     | NA          | Indicates no co-route present (used for routes 2-6) |

### 42. RTE\_SUBCTGY\_CD

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Route Subcategory                                    |
| <b>Definition</b>  | A classification that can be used to symbolize roads |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Coded domain   |

|              |  |
|--------------|--|
| <b>Notes</b> | This field should not be used to determine route direction or the number of lanes. |
|--------------|--|

Domain:

| <b>Value</b> | <b>Description</b> | <b>Notes</b> |
|--------------|--------------------|--------------|
| 2L           | 2-Lane Undivided   |              |
| DCL          | Divided Centerline |              |
| 4L           | 4-Lane Undivided   |              |
| SVR          | Service Road       |              |
| RMP          | Ramp               |              |
| UNK          | Unknown            |              |

#### 43. RVRS\_ATRBT\_IND

|                    |   |  |
|--------------------|---|--|
| <b>Common Name</b> | Reverse Segment Indicator   |  |
| <b>Definition</b>  | A flag that indicates whether the segment is facing in its original direction or if it has been physically flipped  |  |
| <b>Data Owner</b>  | GIS Unit  |  |
| <b>Extent</b>      | Every segment   |  |
| <b>Values</b>      | Coded domain  |  |
| <b>Notes</b>       | Segments that have been flipped since they were originally created are marked as "Yes." The milepost values are opposite of the line orientation on flipped segments because the line direction follows the G1 linear referencing method which does not change when a segment is flipped. |  |

Domain:

| <b>Value</b> | <b>Description</b> | <b>Notes</b>             |
|--------------|--------------------|--------------------------|
| 0            | No                 | Segment is not flipped   |
| 1            | Yes                | Segment has been flipped |
| 9            | NA                 | Segment is not flipped   |

#### 44. LOC\_2\_CNTY\_CD

|                    |  |  |
|--------------------|--|--|
| <b>Common Name</b> | Location Two County  |  |
| <b>Definition</b>  | For roads that are on the county line, it is the adjacent county                 |  |
| <b>Data Owner</b>  | GIS Unit   |  |
| <b>Extent</b>      | Every segment  |  |
| <b>Values</b>      | Coded domain – see the metadata or contact the GIS Unit for a full list of codes |  |
| <b>Notes</b>       | Every value other than NA indicates that the road is on the county boundary.     |  |

#### 45. RTE\_TYP\_CD

|                    |  |  |
|--------------------|--|--|
| <b>Common Name</b> | Route Type Code                        |  |
| <b>Definition</b>  | Indicates the Route Type               |  |
| <b>Data Owner</b>  | GIS Unit                               |  |
| <b>Extent</b>      | Every segment                          |  |
| <b>Values</b>      | Text; Primary, Ramp, Secondary , Other |  |
| <b>Notes</b>       | Derived field                          |  |

#### 46. RTE\_RMP\_CD

|                    |  |  |
|--------------------|--|--|
| <b>Common Name</b> | Ramp Routes  |  |
| <b>Definition</b>  | A list of route classifications that the ramp connects to  |  |
| <b>Data Owner</b>  | GIS Unit   |  |
| <b>Extent</b>      | Sparsely populated   |  |
| <b>Values</b>      | Coded domain   |  |
| <b>Notes</b>       | Applies to the entire ramp, not just that particular segment (ramps connect facilities and may be comprised of multiple segments). |  |

Domain:

| Value      | Description | Notes   |
|------------|-------------|---|
| I          | Interstate  | Ramp connects to Interstates  |
| US         | US          | Ramp connects to US Routes  |
| NC         | NC          | Ramp connects to NC Routes  |
| SR         | SR          | Ramp connects to Secondary Routes                                   |
| I&US       | I&US        | Ramp connects an Interstate and US Route                            |
| I&NC       | I&NC        | Ramp connects an Interstate and NC Route                            |
| I&SR       | I&SR        | Ramp connects an Interstate and Secondary Route                     |
| US&NC      | US&NC       | Ramp connects a US Route and NC Route                               |
| US&SR      | US&SR       | Ramp connects a US Route and Secondary Route                        |
| NC&SR      | NC&SR       | Ramp connects an NC Route and Secondary Route                       |
| I&NC&US&SR | I&NC&US&SR  | Ramp connects an Interstate, NC Route, US Route and Secondary Route |
| I&NC&US    | I&NC&US     | Ramp connects an Interstate, NC Route and US Route                  |
| I&NC&SR    | I&NC&SR     | Ramp connects an Interstate, NC Route and Secondary Route           |
| I&US&SR    | I&US&SR     | Ramp connects an Interstate, US Route and Secondary Route           |
| NONE       | Null        | Data not populated  |

#### 47. ArcID

|                    |  |
|--------------------|--|
| <b>Common Name</b> | ArcID  |
| <b>Definition</b>  | Identifies road linework segments that can be edited.  |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Where available  |
| <b>Values</b>      | GUID   |
| <b>Notes</b>       | From and to endpoints corresponds to intersections at 'on system routes' and the current LRS ARCS network. |

#### 48. Beg\_Node

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Beginning Node                                      |
| <b>Definition</b>  | Identifies a start point for the centerline segment |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | All segments  |
| <b>Values</b>      | Sequential Positive numbers for the dominant route  |
| <b>Notes</b>       |   |

#### 49. End\_Node

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Ending Node  |
| <b>Definition</b>  | Identifies end point for the centerline segment    |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | All segments                                       |
| <b>Values</b>      | Sequential Positive numbers for the dominant route |
| <b>Notes</b>       |  |

#### 50. ShieldType

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Shield Type  |
| <b>Definition</b>  | The type of highway shield used to label the route |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment                                      |
| <b>Values</b>      | Text   |



### 51. LupdADate

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Last Attribute Update  |
| <b>Definition</b>  | The date of the last LRS-attribute change (all of the fields listed before Route Name in this document) to the segment |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Dates  |
| <b>Notes</b>       | The date 6/1/2006 indicates that the segment has not had an LRS-attribute edit since the LRS went live in 2006.        |

### 52. LupdFDate

|                    |   |
|--------------------|---|
| <b>Common Name</b> | Last Feature Update   |
| <b>Definition</b>  | The date of the last geometric change to the segment  |
| <b>Data Owner</b>  | GIS Unit  |
| <b>Extent</b>      | Every segment   |
| <b>Values</b>      | Dates   |
| <b>Notes</b>       | The date reflects either the date that the feature was created or the last time it was modified. The date 6/1/2006 indicates that the segment has not had a geometric edit since the LRS went live in 2006. |

### 53. TIER\_CD

|                    |  |
|--------------------|--|
| <b>Common Name</b> | Tier   |
| <b>Definition</b>  | The North Carolina Multimodal Investment Network classification system |
| <b>Data Owner</b>  | GIS Unit   |
| <b>Extent</b>      | Every segment  |
| <b>Values</b>      | Coded domain   |

Domain:

| <b>Value</b> | <b>Description</b> | <b>Notes</b>                              |
|--------------|--------------------|---|
| SB           | SubRegional        | Facilities that serve localized movements |
| R            | Regional           | Facilities that serve regional movements  |
| ST           | Statewide          | Facilities that serve statewide movements |
| N            | None               | Used for non-system roads                 |

### 54. TIER\_SRC

|                    |                 |
|--------------------|-----------------|
| <b>Common Name</b> | Tier Source     |
| <b>Definition</b>  |                 |
| <b>Data Owner</b>  | GIS Unit        |
| <b>Extent</b>      | Where available |
| <b>Values</b>      | Codes domain    |

Domain:

| <b>Value</b> | <b>Description</b> | <b>Notes</b> |
|--------------|--------------------|--------------|
| DA           | Default Auto       |              |
| DM           | Default Manual     |              |
| I            | Initial Import     |              |
| N            | Notification       |              |

### 55. TIER\_STTS

|                    |             |
|--------------------|-------------|
| <b>Common Name</b> | Tier Status |
|--------------------|-------------|

|                   |                 |
|-------------------|-----------------|
| <b>Name</b>       |                 |
| <b>Definition</b> |                 |
| <b>Data Owner</b> | GIS Unit        |
| <b>Extent</b>     | Where available |
| <b>Values</b>     | Coded domain    |

Domain:

| <b>Value</b> | <b>Description</b> | <b>Notes</b> |
|--------------|--------------------|--------------|
| N            | Not Reviewed       |              |
| C            | Complete           |              |
| CT           | Change Tier        |              |