NCRouteArcs Field Descriptions

General Notes:

The layer contains route data maintained by the state and counties. 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 RouteX applies to the following fields: Route2, Route3, Route4, Route5 and Route6.

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. If the geodatabase table is exported, the resulting table will contain the coded values of the domains; not the descriptions.

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), BS0000902 (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).

Table of Contents

Field Definitions:

1. OBJECTID

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

2. Shape

Common Name	Shape
Definition	Stores the geometry information for each segment; Used by GIS software to display the line.
Data Owner	GIS Unit
Extent	Every Segment
Values	Polyline ZM
Notes	

3. Division

Common Name	Division
Definition	The NCDOT division number for each route segment.
Data Owner	GIS Unit
Extent	Every Segment
Values	Positive numbers. Data Range from 1-14
Notes	

4. MaintCntyCode

Common Name	Maintenance County (SAP County Code)
Definition	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.
Data Owner	GIS Unit
Extent	Every Segment
Values	Text: Coded domain – see metadata or contact the GIS Unit for a full list of codes
Notes	The primary county field. The coded domain values reflect the alphabetical order of North Carolina's counties, with a range from 001 (Alamance County) to 100 (Yancey County). Codes for roads maintained by NCDOT but cross the state boundary: 901 (Georgia), 902 (South Carolina), 903 (Tennessee), 904 (Virginia).

	In general, the MaintCntyCode will have the same value as other county fields, with exceptions around county boundaries. For example, a portion of SR-1828 is in Yadkin County but maintained by Iredell County. The MaintCntyCode for this section is 049 (Iredell County).

5. LocCntyCode

Common Name	Location County (SAP County Code)
Definition	The county the segment is physically located in.
Data Owner	GIS Unit
Extent	Every Segment
Values	Text: Coded domain – see metadata or contact the GIS Unit for a full list of codes
Notes	

6. RouteClass

Common Name	Route Class
Definition	The NCDOT route class code for the dominant route.
Data Owner	GIS Unit
Extent	Every segment except for gap segments
Values	Text: Coded domain
Notes	The Route Class is represented by the 1st 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)	Maintained by other state agencies
7	Federal Route (FED)	Maintained by federal agencies
80	Ramp (RMP)	State-maintained, but not counted towards state-maintained mileage
81	Rest Areas (RST)	State-maintained, but not counted towards state-maintained mileage
82	Non-System Ramp	Not state-maintained
9	Projected (PRJ)	Generalized locations of major facilities that have not yet been built

7. RouteNumber

Common Name	Route Number
Definition	The NCDOT route number for the dominant route.
Data Owner	GIS Unit
Extent	Every Segment

Values	Positive numbers
Notes	The route number is represented by the 4th – 8th digits of the RouteID.

8. RouteQualifier

Common Name	Route Qualifier
Definition	An additional code that further defines the dominant route.
Data Owner	GIS Unit
Extent	Every Segment
Values	Text; Coded domain
Notes	On state-maintained routes, values of 0 (Normal) indicate the regular route, while other values indicate a related route (e.g., I-95 and I-95 Business). The Route Qualifier is represented by the 2nd digit of the Route ID (except for Ramps and Rest Areas, where the first two digits of the Route ID for ramps are 80 or 82 and for Rest Areas are 81).

Domain:

Value	Description	Notes
0	Normal Route	On most routes, this indicates the normal route
1	Alternate Route	
2	Bypass Route	
5	East Route	Used only for US-19 East, which is a different route than US-19
6	West Route	Used only 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	
82	Non-System Ramp	
9	Business Route	

9. RouteInventory

Common Name	Route Inventory
Definition	The NCDOT route direction for dominant route.
Data Owner	GIS Unit
Extent	Every Segment
Values	Text; Coded domain
Notes	Inventory directions are coded with Inventory (0) or 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 Travel Direction field. The Route Direction is represented by the 3rd position of the Route ID.

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)	Primary routes only (Interstates, US Routes, and NC Routes)
8	Inventory (Clockwise)	Primary routes only (Interstates, US Routes, and NC Routes)
9	Non-Inventory (Counterclockwise)	Primary routes only (Interstates, US Routes, and NC Routes)

10. Direction

Common Name	Direction
Definition	Indicates the direction of the route.
Data Owner	GIS Unit
Extent	Every Segment
Values	Text; coded domain
Notes	

Domain:

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

11. TravelDirection

Common Name	Travel Direction
Definition	Indicates whether traffic is restricted to one direction or both.
Data Owner	GIS Unit
Extent	Every Segment
Values	Text; coded domain

Notes	The Route Inventory code of 0 can be one-way or both directions, so TravelDirection is used to determine if the route is one-way or bidirectional.

Domain:

Value	Description	Notes
Both	Both directions	
One-way	One direction	

12. MPLength

Common Name	Milepost Length
Definition	The segment length (in miles). Calculated by the ending milepost minus the beginning milepost. The milepost values are based on 3D measures generated from LiDAR data.
Data Owner	GIS Unit
Extent	Every Segment
Values	Positive numbers; six decimal places
Notes	Calculated field.

13. RouteName

Common Name	Route Name
Definition	The NCDOT name of the dominant route.
Data Owner	GIS Unit
Extent	Every Segment
Values	Text
Notes	A concatenation of Route Class, Route Number, and Route Qualifier.

14. StreetName

Common Name	Street Name
Definition	The name of the street (ex. ‘Main Street’).
Data Owner	GIS Unit
Extent	Every Segment
Values	Text
Notes	

15. RouteMaintCode

Common Name	Route Maintenance Code
Definition	The system status of the route.
Data Owner	GIS Unit
Extent	Every Segment
Values	Text; Derived
Notes	This field has a value of “System” on every record except for Non-System routes. System Routes = RouteClass IN (1,2,3,4,80,81,9). Non-System Routes = RouteClass IN (5,6,7,82).

16. SrcDocType

Common Name	Source Document Type
Definition	The type of source documentation that created the segment or caused the most recent official change.
Data Owner	GIS Unit
Extent	All system routes
Values	Text; Coded domain
Notes	This field should be related to the Source Document field.

Domain:

Value	Description	Notes
N	Non-Verified	Indicates legacy segments or an unknown source document
M	Municipal Agreement	The municipal agreement number is stored in the Source Document field
P	Petition	The petition number is stored in the Source Document field
R	Project Alignment	
T	TIP	TIP or Project; the project number is stored in the Source Document field
O	Other	

17. SrcDocID

Common Name	Source Document
Definition	The document reference that created the segment or caused the most recent official change.
Data Owner	GIS Unit
Extent	All system routes
Values	Text
Notes	This field is where project numbers and agreement numbers are stored. This field should be related to the Source Document Type field.

18. GeoDocType

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

Domain:

Value	Description	Notes
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	
F	Field Research	
G	GPS	
L	Plat	
P	Parcels	
O	Other	

19. GeoDocID

Common Name	Revision Source
Definition	The most recent data source reference that was used to draw or modify the segment's alignment/geometry.
Data Owner	GIS Unit
Extent	Every segment that has been verified
Values	Text
Notes	When Aerial Photo is used as the Revision Source Type, the Revision Source Identifier is the year the photo was flown (or the source of the photo, if the year is unknown).

20. OwnerType

Common Name	Ownership Type
Definition	The agency that maintains the segment if ownership cannot be derived from Route Class.
Data Owner	OPM (Operations Program Management)

Extent	Where applicable
Values	Coded domain
Notes	This field contains exceptions: US, NC, or Secondary Routes that are not maintained by NCDOT should 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
13	Wildlife Resources Commission	Wildlife Resources Commission
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

Common Name	Route Class
Definition	The NCDOT route class for co-routes 2-6.
Data Owner	GIS Unit
Extent	Every segment (except gap segments)

Values	Text; Coded domain
Notes	The route class is represented by the 1st digit of the RouteID.

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)	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
82	Non-System Ramps	Not state-maintained
9	Projected (PRJ)	Generalized locations of major facilities that have not yet been built

22. RouteXNumber

Common Name	Route Number
Definition	The NCDOT route class for co-routes 2-6.
Data Owner	GIS Unit
Extent	Every segment
Values	Positive numbers
Notes	The route number is represented by the 4th-8th digits of the RouteID.

23. RouteXQualifier

Common Name	Route Qualifier
Definition	An additional code that further defines co-routes 2-6.
Data Owner	GIS Unit
Extent	Every segment
Values	Text; Coded domain
Notes	On state-maintained routes, values of 0 (Normal) indicate the regular route, while other values indicate a related route (e.g., I-95 and I-95 Business). The route qualifier is represented by the 2nd digit of the Route ID (except for Ramps and Rest Areas, where the first two digits of the Route ID are 80 and 81, respectively).

Domain:

Value	Description	Notes
0	Normal Route	On most routes, this indicates the normal route If the route class is FED, then 0 (Normal) means Blue Ridge Parkway
1	Alternate Route	If the route class is FED, then 1 (Alternate) is military-owned
2	Bypass Route	
5	East Route	Used only for US-19 East, which is a different route than US-19
6	West Route	Used only 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	
82	Non-System Ramp	
9	Business Route	

24. RouteXInventory

Common Name	Route Direction
Definition	The NCDOT route direction for co-routes 2-6.
Data Owner	GIS Unit
Extent	Every segment
Values	Text; Coded domain
Notes	Inventory directions are coded with 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). Route Inventory is represented by the 3rd 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)	Primary routes only (Interstates, US Routes, and NC Routes)

8	Inventory (Clockwise)	Primary routes only (Interstates, US Routes, and NC Routes)
9	Non-Inventory (Counterclockwise)	Primary routes only (Interstates, US Routes, and NC Routes)

25. RouteID

Common Name	Route Identifier for the dominant route
Definition	The 11-digit composite route number.
Data Owner	GIS Unit
Extent	Every segment
Values	Positive 11-digit numbers (text field)
Notes	A unique identifier for routes across the state; Should be used as the route identifier when performing LRS analysis with route/milepost referencing.

26. BeginMp1

Common Name	Beginning milepost for the dominant route
Definition	The beginning milepost value at that point on the segment.
Data Owner	GIS Unit
Extent	Every segment
Values	Positive numbers; six decimal places
Notes	

27. EndMp1

Common Name	Ending milepost for the dominant route
Definition	The ending milepost value for the route at that point on the segment.
Data Owner	GIS Unit
Extent	Every segment
Values	Positive numbers; six decimal places
Notes	

28. BeginFeatureID

Common Name	Beginning intersection feature for dominant route
Definition	Identifies the intersecting route (or county or route change or dead-end) for the beginning of the associated LRS segment.
Data Owner	GIS Unit
Extent	Every segment
Values	Text (11-digit Route ID when the feature is a route)
Notes	Use with the Ending Milepost field.

29. EndFeatureID

Common Name	Ending intersection feature for dominant route
Definition	Identifies the intersecting route (or county or route change or dead-end) for the ending of the associated LRS segment.
Data Owner	GIS Unit
Extent	Every segment
Values	Text (11-digit Route ID when the feature is a route)
Notes	Use with the Ending Milepost field.

30. MaxMp1

Common Name	Maximum milepost
Definition	The maximum milepost value of the dominant route.
Data Owner	GIS Unit
Extent	Every segment
Values	Positive numbers; six decimal places
Notes	

31. RouteX

Common Name	11-digit route number
Definition	The 11-digit composite route number for co-routes 2-6.
Data Owner	GIS Unit
Extent	Every segment
Values	Positive 11-digit numbers (text field)
Notes	

32. BeginMpX

Common Name	Beginning milepost
Definition	The beginning milepost value for co-routes 2-6 at that point on their segment.
Data Owner	GIS Unit
Extent	Every segment
Values	Positive number; six decimal places
Notes	

33. EndMpX

Common Name	Ending milepost
Definition	The ending milepost value for co-routes 2-6 at that point on their segment.
Data Owner	GIS Unit
Extent	Every segment
Values	Positive numbers; six decimal places
Notes	

34. Shape_Length

Common Name	Shape length
Definition	The two-dimensional segment length (in feet), automatically generated for each segment by ArcGIS.
Data Owner	GIS Unit
Extent	Every segment
Values	Positive numbers; six decimal places
Notes	Do not use this field to determine the length of segments or routes. Instead, refer to the MPLength field for an accurate segment length. The official length is based on mileposts because they reflect three-dimensional measurements.

Removed Fields