

# LRS Editing System: Base Events, Continuous Capture – NC Department of Transportation

## SDE Geodatabase Feature Class



### Tags

Linear Referencing System, Event, Measure, Line, North Carolina, NCDOT, Transportation, Highway, Roads, Routes, Centerline, State Highway Network, Inventory, Transportation Planning, Location, Road Construction Materials, Base Course

### Summary

This feature class contains measured occurrences (events) of road base properties represented as lines aligned to NCDOT's Linear Reference System (LRS) Network of routes. Attributes containing Event ID and the NCDOT 11-digit Route ID are included. This event also contains the following attributes: Base Detail and Base Thickness. For each linear event occurrence, From Measure and To Measure fields provide beginning and end locations of the event along the NCDOT's MilePoint route network. Measures represent a location along a route based on distance from the route's origin. The measure is captured in miles. The precision is to the 6th decimal in the tabular column. Measure precision on the shape is to the 7th decimal. This is one of many events included in NCDOT's LRS, representing route characteristic attributes of the NCDOT state road system. The LRS route network is comprised of Interstate, US, NC, Secondary Roads, Ramps, and non-state maintained and projected roads required for federal reporting purposes.

### Description

Measured linear events indicating the different road base material types on North Carolina's road network. Some of the base material types include Coarse Aggregate Base Course, Stabilized Subgrade, Cement Treated Aggregate Base Course, Soil Type Base Course, and B25.0B. Road Base thickness values ranging from 1 to 14 inches is also provided with this data. Base Course is the Pavement Layer between the surface course or intermediate course layer and the subgrade (fine grade and compacted soil). Common base course: SP B25.0B and Aggregate Base Course.

NCDOT adopted the road centerline based LRS Network as it's official Enterprise LRS, to which multiple road inventory attributes are referenced along measured routes throughout North Carolina. These routes are classified as either System or Non-System routes. System routes are routes within the state-maintained road network, and are comprised of Interstates, US Routes, NC Routes, Secondary Routes, Ramps, and Non-System Routes. Non-System routes are routes that are typically not maintained by NCDOT, but instead by a local agency (county, city or MPO/RPO). The local agency is the source for updating these Non-System route in NCDOT's LRS.

An LRS is a system for storing geographic locations along linear elements using relative locations. Location is given in terms of a known linear feature and a position, or measure, along it based on a distance from a known point of origin. The road centerline feature class is the geometry source from which NCDOT's routes are created in the LRS. The collection of routes, System and Non-System, is the NCDOT LRS Network referred to as MilePoint. For NCDOT, MilePoint provides the linear measures in miles, from the origin of each route. Events are stored on or along routes. Events are continuous linear or point features and can be anything that occurs on or describes a route. Examples in NCDOT's LRS are speed limit, lane width, functional class, surface type, ownership, or highway exit. Events describe an attribute of a route and have a location along the route (measured by the distance, in miles for NCDOT's LRS, from the start of the route). Multiple sets of road attributes (events) can be associated with any portion of the underlying routes. This allows the events to be

independent of where the route of begins and ends, preventing the linework split each time there is an attribute value change.

The GIS Unit of the North Carolina Department of Information Technology-Transportation (NCDIT-T) has been tasked with developing and maintaining NCDOT's Linear Referencing System. The GIS Unit employs the use of GIS spatial layers to reference LRS data to real world locations. The integration of LRS to spatial layers provides a means to analyze data using GIS methods, facilitates the creation of cartographic products, and allows the enforcement of business rules. The unit is authorized to edit the LRS to match official documentation. This also includes the capture of attributes (event data) that are referenced to the linework. The NCDOT road centerline is a spatial representation of official documentation of what roads or sections of roads are physically maintained by the State. Changes to the spatial representation of the road centerline for NCDOT are authorized by the NC Board of Transportation or other business units within NCDOT.

Editing of the LRS at NCDOT is performed by multiple contributing business unit data owners. This designates it as an enterprise GIS data editing system. The GIS Unit at NCDIT-T modifies the LRS Network routes by creating, editing, or retiring based on official change notification from various NCDOT sources. Once the routes have been edited, business units may update their event data as found on the routes based on the same or additional documentation. Business units edit the LRS events using Esri's ArcGIS Event Editor, a map-centric web app that supports linear referenced event data editing via feature services. Some events are also maintained by the GIS Unit at NCDIT-T. More information about Event Editor is available here: <https://enterprise.arcgis.com/en/roads-highways/latest/event-editor/what-is-event-editor.htm>.

### Credits

The North Carolina Department of Transportation, Division of Highways.

Support and maintenance of the enterprise spatial database where this data resides is handled by the North Carolina Department of Information Technology-Transportation, GIS Unit.

### Use limitations

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

This data should be used for planning, maintenance, and decision-making support purposes only. It should be used only by those who fully understand the extents, limitations, and content of the data. This data should not be used for routing. The data should not be used in place of field survey or data collection efforts that are normally performed by licensed professionals and it should not replace any data collection efforts that are typically required as a part of detailed design and construction efforts.

### Extent

**West** -84.313078    **East** -75.425846  
**North** 36.581800    **South** 33.797939

### Scale Range

**Maximum (zoomed in)** 1:5,000  
**Minimum (zoomed out)** 1:500,000

[ArcGIS Metadata](#) ►

[Topics and Keywords](#) ►

**THEMES OR CATEGORIES OF THE RESOURCE** location, society, structure, transportation

**CONTENT TYPE** Geographic Services

**EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION** No

**PLACE KEYWORDS** North Carolina

THESAURUS ▶

TITLE User

CREATION DATE 2016-10-13 00:00:00

PUBLICATION DATE 2016-10-13 00:00:00

[Hide Thesaurus ▲](#)

THEME KEYWORDS Line, Linear Referencing System, Event, Measure, Line, NCDOT, Transportation, Highway, Roads, Routes, Centerline, State Highway Network, Inventory, Road Construction Materials, Base Course

THESAURUS ▶

TITLE User

CREATION DATE 2016-10-13 00:00:00

PUBLICATION DATE 2016-10-13 00:00:00

[Hide Thesaurus ▲](#)

[Hide Topics and Keywords ▲](#)

## Citation ▶

TITLE LRS Editing System: Base Events, Continuous Capture – NC Department of Transportation

ALTERNATE TITLES LRSE\_Base

CREATION DATE 2016-10-13 00:00:00

PUBLICATION DATE 2016-10-13 00:00:00

PRESENTATION FORMATS \* digital map

FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

[Hide Citation ▲](#)

## Citation Contacts ▶

### RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit

CONTACT'S POSITION GIS Data and Services Consultant

CONTACT'S ROLE point of contact

### CONTACT INFORMATION ▶

#### ADDRESS

TYPE physical

DELIVERY POINT 4101 Capital Blvd.

CITY Raleigh

ADMINISTRATIVE AREA North Carolina

POSTAL CODE 27604

COUNTRY US

E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

#### HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

#### CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Transportation, Operations Program Management  
CONTACT'S POSITION Road Inventory Engineer  
CONTACT'S ROLE originator

CONTACT INFORMATION ►

PHONE

VOICE 919-733-3725

ADDRESS

TYPE physical

DELIVERY POINT 4809 Beryl Road

CITY Raleigh

ADMINISTRATIVE AREA NC

POSTAL CODE 27606

COUNTRY US

E-MAIL ADDRESS [jtdavis@ncdot.gov](mailto:jtdavis@ncdot.gov)

HOURS OF SERVICE

9:00am - 5:00pm Monday – Friday

CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, please call the contact number or indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit  
CONTACT'S POSITION GIS Data and Services Consultant  
CONTACT'S ROLE resource provider

CONTACT INFORMATION ►

ADDRESS

TYPE physical

DELIVERY POINT 4101 Capital Blvd.

CITY Raleigh

ADMINISTRATIVE AREA North Carolina

POSTAL CODE 27604

COUNTRY US

E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Citation Contacts ▲](#)

**Resource Details ►**

DATASET LANGUAGES \* English (UNITED STATES)  
DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS on-going  
SPATIAL REPRESENTATION TYPE \* vector

PROCESSING ENVIRONMENT Esri ArcGIS 12.9.3.32739

#### CREDITS

The North Carolina Department of Transportation, Division of Highways.

Support and maintenance of the enterprise spatial database where this data resides is handled by the North Carolina Department of Information Technology-Transportation, GIS Unit.

[Hide Resource Details ▲](#)

## Extents ►

#### EXTENT

##### VERTICAL EXTENT

\* MINIMUM VALUE 0.000000  
\* MAXIMUM VALUE 3844.900000

#### EXTENT

##### GEOGRAPHIC EXTENT

##### BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

\* WEST LONGITUDE -84.313078  
\* EAST LONGITUDE -75.425846  
\* NORTH LATITUDE 36.581800  
\* SOUTH LATITUDE 33.797939  
\* EXTENT CONTAINS THE RESOURCE Yes

#### EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE 438239.146000  
\* EAST LONGITUDE 3050060.427520  
\* SOUTH LATITUDE 57904.270000  
\* NORTH LATITUDE 1030714.603264  
\* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

## Resource Points of Contact ►

#### POINT OF CONTACT

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit  
CONTACT'S POSITION GIS Data and Services Consultant  
CONTACT'S ROLE point of contact

#### CONTACT INFORMATION ►

##### ADDRESS

TYPE physical  
DELIVERY POINT 4101 Capital Blvd.  
CITY Raleigh  
ADMINISTRATIVE AREA North Carolina  
POSTAL CODE 27604  
COUNTRY US  
E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

#### HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

#### CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

## Resource Maintenance ►

#### RESOURCE MAINTENANCE

UPDATE FREQUENCY continual

SCOPE OF THE UPDATES dataset

#### OTHER MAINTENANCE REQUIREMENTS

The North Carolina Department of Transportation, Division of Highways maintenance is as needed and not regularly scheduled.

Support and maintenance of the spatial database where this data resides is handled by the North Carolina Department of Information Technology-Transportation, GIS Unit.

#### MAINTENANCE CONTACT

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit

CONTACT'S POSITION GIS Data and Services Consultant

CONTACT'S ROLE point of contact

#### CONTACT INFORMATION ►

##### ADDRESS

TYPE physical

DELIVERY POINT 4101 Capital Blvd.

CITY Raleigh

ADMINISTRATIVE AREA North Carolina

POSTAL CODE 27604

COUNTRY US

E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

##### HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

#### CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Resource Maintenance ▲](#)

## Resource Constraints ►

#### CONSTRAINTS

##### LIMITATIONS OF USE

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary

sources from which this data was compiled must be consulted for verification of information contained in this data.

This data should be used for planning, maintenance, and decision-making support purposes only. It should be used only by those who fully understand the extents, limitations, and content of the data. This data should not be used for routing. The data should not be used in place of field survey or data collection efforts that are normally performed by licensed professionals and it should not replace any data collection efforts that are typically required as a part of detailed design and construction efforts.

#### LEGAL CONSTRAINTS

##### LIMITATIONS OF USE

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

This data should be used for planning, maintenance, and decision-making support purposes only. It should be used only by those who fully understand the extents, limitations, and content of the data. This data should not be used for routing. The data should not be used in place of field survey or data collection efforts that are normally performed by licensed professionals and it should not replace any data collection efforts that are typically required as a part of detailed design and construction efforts.

#### SECURITY CONSTRAINTS

CLASSIFICATION unclassified

CLASSIFICATION SYSTEM None

##### LIMITATIONS OF USE

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

This data should be used for planning, maintenance, and decision-making support purposes only. It should be used only by those who fully understand the extents, limitations, and content of the data. This data should not be used for routing. The data should not be used in place of field survey or data collection efforts that are normally performed by licensed professionals and it should not replace any data collection efforts that are typically required as a part of detailed design and construction efforts.

[Hide Resource Constraints ▲](#)

## Spatial Reference ►

#### ARCGIS COORDINATE SYSTEM

\* TYPE Projected

\* GEOGRAPHIC COORDINATE REFERENCE GCS\_North\_American\_1983

\* PROJECTION NAD\_1983\_StatePlane\_North\_Carolina\_FIPS\_3200\_Feet

\* COORDINATE REFERENCE DETAILS

##### PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102719

X ORIGIN -121841900

Y ORIGIN -93659000

XY SCALE 1893.9393939393938

Z ORIGIN -100000

Z SCALE 9.9999999999999982

M ORIGIN -100000

M SCALE 10000000

XY TOLERANCE 0.00528

Z TOLERANCE 0.20000000000000004

M TOLERANCE 9.9999999999999995e-007

HIGH PRECISION true

LATEST WELL-KNOWN IDENTIFIER 2264

VCSWKID 105703

LATESTVCSWKID 6360

WELL-KNOWN TEXT

PROJCS["NAD\_1983\_StatePlane\_North\_Carolina\_FIPS\_3200\_Feet",GEOGCS["GCS\_North\_American\_1983",DATUM["D\_North\_American\_1983",SPHEROID["GRS\_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Lambert\_Conformal\_Conic"],PARAMETER["False\_Easting",2000000.0026166666],PARAMETER["False\_Northing",0.0],PARAMETER["Central\_Meridian",-79.0],PARAMETER["Standard\_Parallel\_1",34.33333333333334],PARAMETER["Standard\_Parallel\_2",36.16666666666666],PARAMETER["Latitude\_Of\_Origin",33.75],UNIT["Foot\_US",0.3048006096012192]],VERTCS["NAVD\_1988\_Foot\_US",VDATUM["North\_American\_Vertical\_Datum\_1988"],PARAMETER["Vertical\_Shift",0.0],PARAMETER["Direction",1.0],UNIT["Foot\_US",0.3048006096012192]]

REFERENCE SYSTEM IDENTIFIER

\* VALUE 2264

\* CODESPACE EPSG

\* VERSION 6.12(9.0.0)

[Hide Spatial Reference ▲](#)

## Spatial Data Properties ►

VECTOR ►

\* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME LRSE\_Base

\* OBJECT TYPE composite

\* OBJECT COUNT 6644

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

FEATURE CLASS NAME LRSE\_Base

\* FEATURE TYPE Simple

\* GEOMETRY TYPE Polyline

\* HAS TOPOLOGY FALSE

\* FEATURE COUNT 6644

\* SPATIAL INDEX TRUE

\* LINEAR REFERENCING TRUE

[Hide ArcGIS Feature Class Properties ▲](#)

[Hide Spatial Data Properties ▲](#)

## Data Quality ►

SCOPE OF QUALITY INFORMATION ►

RESOURCE LEVEL dataset

[Hide Scope of quality information ▲](#)

DATA QUALITY REPORT - COMPLETENESS COMMISSION ►

MEASURE DESCRIPTION



Contributing editors are responsible for the quality control and assessment of data at the time of data entry. Additional resources may be utilized by the data owner/editor groups to assess quality of data on a more comprehensive scale. The primary tool in use for quality assessment in the NCDOT LRS Editing System is Esri's Data Reviewer extension. The quality of this data is subject to the oversight of the editing party.

CONFORMANCE TEST RESULTS

TEST PASSED Yes  
RESULT EXPLANATION  
Pass.

PRODUCT SPECIFICATION ▶

TITLE NCDOT Geospatial Data Specifications  
CREATION DATE 2016-10-13 00:00:00  
PUBLICATION DATE 2016-10-13 00:00:00

[Hide Product specification ▲](#)

[Hide Data quality report - Completeness commission ▲](#)

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY ▶

MEASURE DESCRIPTION

Contributing editors are responsible for the quality control and assessment of data at the time of data entry. Additional resources may be utilized by the data owner/editor groups to assess quality of data on a more comprehensive scale. The primary tool in use for quality assessment in the NCDOT LRS Editing System is Esri's Data Reviewer extension. The quality of this data is subject to the oversight of the editing party.

CONFORMANCE TEST RESULTS

TEST PASSED Yes  
RESULT EXPLANATION  
Pass.

PRODUCT SPECIFICATION ▶

TITLE NCDOT Geospatial Data Specifications  
CREATION DATE 2016-10-13 00:00:00  
PUBLICATION DATE 2016-10-13 00:00:00

[Hide Product specification ▲](#)

[Hide Data quality report - Conceptual consistency ▲](#)

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY ▶

MEASURE DESCRIPTION

Contributing editors are responsible for the quality control and assessment of data at the time of data entry. Additional resources may be utilized by the data owner/editor groups to assess quality of data

on a more comprehensive scale. The primary tool in use for quality assessment in the NCDOT LRS Editing System is Esri's Data Reviewer extension. The quality of this data is subject to the oversight of the editing party.

#### CONFORMANCE TEST RESULTS

TEST PASSED **Yes**  
RESULT EXPLANATION  
Pass.

#### PRODUCT SPECIFICATION ▶

TITLE **NCDOT Geospatial Data Specifications**  
CREATION DATE **2016-10-13 00:00:00**  
PUBLICATION DATE **2016-10-13 00:00:00**

*Hide Product specification ▲*

*Hide Data quality report - Quantitative attribute accuracy ▲*

*Hide Data Quality ▲*

## Lineage ▶

#### LINEAGE STATEMENT

LRS editing is done across many NCDOT business units on an enterprise system using Esri's ArcGIS Event Editor web mapping application. This dataset was originally developed by the North Carolina Department of Transportation, Operations Program Management in conjunction with the GIS Unit at NCDIT-T, to provide a geographic representation of road base course material types in North Carolina. The GIS Unit modifies the LRS Network routes by creating, editing, or retiring based on official change notification from various NCDOT sources. Once the routes have been edited, business units may update their data as found on the routes based on the same or additional documentation. Web mapping services are created from some of the events. The LRS supports systems, web applications, and geospatial data needs across NCDOT business units, as well as submittal to the Federal Highway Administration's Highway Performance Monitoring System (HPMS).

#### PROCESS STEP ▶

WHEN THE PROCESS OCCURRED **2016-10-13 00:00:00**

##### DESCRIPTION

Development and maintenance of NCDOT's Linear Referencing System. This includes the road centerline, route network, some events, and other related spatial data.

#### PROCESS CONTACT

ORGANIZATION'S NAME **North Carolina Department of Information Technology -Transportation, GIS Unit**  
CONTACT'S POSITION **GIS Data and Services Consultant**  
CONTACT'S ROLE **originator**

#### CONTACT INFORMATION ▶

##### ADDRESS

TYPE **physical**  
DELIVERY POINT **4101 Capital Blvd.**  
CITY **Raleigh**  
ADMINISTRATIVE AREA **North Carolina**

POSTAL CODE 27604  
COUNTRY US  
E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

HOURS OF SERVICE  
9:00am - 5:00pm Monday - Friday

CONTACT INSTRUCTIONS  
Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Process step ▲](#)

PROCESS STEP ▶

WHEN THE PROCESS OCCURRED 2016-10-13 00:00:00

DESCRIPTION

Routes are created, edited, and/or retired based on official change notification from various NCDOT sources. Road attribute-only information is also provided to the GIS Unit. Once the routes have been edited, business units may update their data as found on the routes based on the same or additional documentation.

PROCESS CONTACT

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit  
CONTACT'S POSITION GIS Data and Services Consultant  
CONTACT'S ROLE resource provider

CONTACT INFORMATION ▶

ADDRESS

TYPE physical  
DELIVERY POINT 4101 Capital Blvd.  
CITY Raleigh  
ADMINISTRATIVE AREA North Carolina  
POSTAL CODE 27604  
COUNTRY US  
E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

HOURS OF SERVICE  
9:00am - 5:00pm Monday - Friday

CONTACT INSTRUCTIONS  
Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Process step ▲](#)

PROCESS STEP ▶

WHEN THE PROCESS OCCURRED 2016-10-13 00:00:00

DESCRIPTION

Road attributes (event data) are referenced to the LRS network (routes). The event is edited by the NCDOT Operations Program Management in an enterprise environment using Esri's online ArcGIS Event Editor software.

#### PROCESS CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation, Operations Program Management  
CONTACT'S POSITION Road Inventory Engineer  
CONTACT'S ROLE point of contact

#### CONTACT INFORMATION ►

##### PHONE

VOICE 919-733-3725

##### ADDRESS

TYPE physical  
DELIVERY POINT 4809 Beryl Road  
CITY Raleigh  
ADMINISTRATIVE AREA NC  
POSTAL CODE 27606  
COUNTRY US  
E-MAIL ADDRESS [jtdavis@ncdot.gov](mailto:jtdavis@ncdot.gov)

##### HOURS OF SERVICE

9:00am - 5:00pm Monday – Friday

##### CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, please call the contact number or indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Process step ▲](#)

[Hide Lineage ▲](#)

## Distribution ►

#### DISTRIBUTOR ►

##### CONTACT INFORMATION

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit  
CONTACT'S POSITION GIS Data and Services Consultant  
CONTACT'S ROLE point of contact

#### CONTACT INFORMATION ►

##### ADDRESS

TYPE physical  
DELIVERY POINT 4101 Capital Blvd.  
CITY Raleigh  
ADMINISTRATIVE AREA North Carolina  
POSTAL CODE 27604  
COUNTRY US  
E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

##### HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

#### CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Distributor ▲](#)

#### DISTRIBUTION FORMAT

NAME SDE Geodatabase Feature Class

VERSION 10.8.1

[Hide Distribution ▲](#)

## Fields ►

#### DETAILS FOR OBJECT LRSE\_Base ►

TYPE SDE Geodatabase Feature Class

\* ROW COUNT 6644

DEFINITION

Base

DEFINITION SOURCE

North Carolina Department of Transportation

#### FIELD OBJECTID ►

\* ALIAS OBJECTID

\* DATA TYPE OID

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

\* FIELD DESCRIPTION

Internal feature number.

\* DESCRIPTION SOURCE

Esri

\* DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

[Hide Field OBJECTID ▲](#)

#### FIELD Shape ►

\* ALIAS Shape

\* DATA TYPE Geometry

\* WIDTH 0

\* PRECISION 0

\* SCALE 0

\* FIELD DESCRIPTION

Feature geometry.

\* DESCRIPTION SOURCE  
Esri

\* DESCRIPTION OF VALUES  
Coordinates defining the features.

*Hide Field Shape ▲*

FIELD FromDate ►

\* ALIAS FromDate  
\* DATA TYPE Date  
\* WIDTH 8  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

The date the event becomes active on the route.

DESCRIPTION SOURCE  
NCDOT

DESCRIPTION OF VALUES  
Dates vary.

*Hide Field FromDate ▲*

FIELD ToDate ►

\* ALIAS ToDate  
\* DATA TYPE Date  
\* WIDTH 8  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

The date the event is retired on the route.

DESCRIPTION SOURCE  
NCDOT

DESCRIPTION OF VALUES  
Dates vary.

*Hide Field ToDate ▲*

FIELD EventID ►

\* ALIAS EventID  
\* DATA TYPE String  
\* WIDTH 50  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

The unique ID for each event record.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

*Hide Field EventID ▲*

FIELD RouteID ►

- \* ALIAS RouteID
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

The NCDOT eleven-digit number for each route in the network. More information explaining this route naming convention used by NCDOT is available here:

<https://xfer.services.ncdot.gov/gisdot/DistDOTData/Guide%20to%20the%20NCDOT%20Eleven-Digit%20Route%20Number%20-%20Rome%20Implementation.pdf>

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

*Hide Field RouteID ▲*

FIELD FromMeasure ►

- \* ALIAS FromMeasure
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

The measure on the route where the beginning of the event is located. The measure is captured in miles. The precision is to the 6th decimal in the tabular column. Measure precision on the shape is to the 7th decimal.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

*Hide Field FromMeasure ▲*

FIELD BaseDetail ►

- \* ALIAS BaseDetail

\* DATA TYPE String

\* WIDTH 10

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Detailed values of road base material types.

DESCRIPTION SOURCE

NCDOT

LIST OF VALUES

VALUE Aggregate Base Course, Stone

DESCRIPTION Road base material is Aggregate Base Course and stone

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Soil

DESCRIPTION Road base material is soil

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Soil Type Base Course

DESCRIPTION Road base material is soil type base course.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Coarse Aggregate Base Course

DESCRIPTION Road base material is coarse aggregate Base Course. Base Course in pavements refers to the sub-layer material of an asphalt roadway and is placed directly on top of the undisturbed soil (Sub-Grade) so as to provide a foundation to support the top layers of the pavement. It is typically made of a recipe of different sizes of aggregate rock inclusive of 1" to fine dust. Aggregate is made from quarried rock, recycled asphalt, or concrete.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Stabilized Subgrade

DESCRIPTION Road base material is stabilized subgrade. Subgrade Stabilization is the use of geosynthetic reinforcement elements to provide constructability and access over very soft soils. Its use establishes a well-compacted non-yielding platform with uniform load support.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE CTBC Cement Treated Aggregate Base Course

DESCRIPTION Road base material is Cement Treated Aggregate Base Course. An intimate mixture of native soils and/or manufactured aggregates with Portland Cement Concrete and water.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE B25.0B

DESCRIPTION Road base material is Asphalt Concrete Base Course mix type B25.0B.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE B25.0C

DESCRIPTION Road base material is Asphalt Concrete Base Course mix type B25.0C.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE I19.0B

DESCRIPTION Road base material is Asphalt Concrete Base Course mix type I19.0B.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE I19.0C

DESCRIPTION Road base material is Asphalt Concrete Base Course mix type I19.0C.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE I19.0C

DESCRIPTION Road base material is Asphalt Concrete Base Course mix type I19.0D.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT



[Hide Field BaseDetail ▲](#)

FIELD [BaseThickness ▶](#)

- \* ALIAS BaseThickness
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Thickness of the road's base material layer in inches. Thickness in inches to the nearest tenth of an inch.

DESCRIPTION SOURCE

NCDOT

RANGE OF VALUES

MINIMUM VALUE 1.0  
MAXIMUM VALUE 14.0

[Hide Field BaseThickness ▲](#)

FIELD [ToMeasure ▶](#)

- \* ALIAS ToMeasure
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

The measure on the route where the end of the event is located. The measure is captured in miles. The precision is to the 6th decimal in the tabular column. Measure precision on the shape is to the 7th decimal.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

[Hide Field ToMeasure ▲](#)

FIELD [LocError ▶](#)

- \* ALIAS LocError
- \* DATA TYPE String
- \* WIDTH 100
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

The location error for the event. Values are generated as part of an internal Esri software QC process for the event time slice on the matching route time slice. Possible values listed below.  
NO ERROR: The event measures match or are within the route measures.

MEASURE EXTENT OUT OF ROTE MEASURE RANGE: The event measures for the FromMeasure and To Measure fields (Measure fields for point events) are outside the route measures for that time slice.

**PARTIAL MATCH FOR THE FROM-MEASURE:** The event FromMeasure values are greater than the route FromMeasure values, i.e., if the route FromMeasure is 0 then the event FromMeasure is a negative value or the event has "slid" off the front of the route.

**PARTIAL MATCH FOR THE TO-MEASURE:** The event ToMeasure values are greater the route ToMeasure values, i.e., if the route ToMeasure is 1.0 then the event ToMeasure is 1.01 or the event has "slid" off the end of the route.

**ROUTE LOCATION NOT FOUND:** The event xy coordinates do not match the route xy coordinates. Typically this is caused by Esri's ArcGIS Roads & Highways software not cleaning up a route edit correctly.

**ROUTE NOT FOUND:** The event time slice does not match the route timeslice, i.e., the event is active and the route is not active. Typically this is caused by Esri's ArcGIS Roads & Highways software not cleaning up a route edit correctly.

**ZERO LENGTH EXTENT:** The event FromMeasure and ToMeasure values are the same, i.e., a point. Typically this is caused by Esri's ArcGIS Roads & Highways software not cleaning up a route edit correctly.

DESCRIPTION SOURCE  
NCDOT

DESCRIPTION OF VALUES  
Values vary.

*Hide Field LocError ▲*

FIELD CreatedUser ►  
\* ALIAS CreatedUser  
\* DATA TYPE String  
\* WIDTH 255  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION  
User name who created the event record.

DESCRIPTION SOURCE  
NCDOT

DESCRIPTION OF VALUES  
Values vary.

*Hide Field CreatedUser ▲*

FIELD CreatedDate ►  
\* ALIAS CreatedDate  
\* DATA TYPE Date  
\* WIDTH 8  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION  
Date event record was created.

DESCRIPTION SOURCE  
NCDOT

DESCRIPTION OF VALUES  
Dates vary.

*Hide Field CreatedDate ▲*

FIELD **LastEditedUser** ►

- \* ALIAS LastEditedUser
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

User name who last edited the event record.

DESCRIPTION SOURCE  
NCDOT

DESCRIPTION OF VALUES  
Values vary.

*Hide Field LastEditedUser ▲*

FIELD **GlobalID** ►

- \* ALIAS GlobalID
- \* DATA TYPE GlobalID
- \* WIDTH 38
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

A field of type UUID (Universal Unique Identifier) in which values are automatically assigned by the geodatabase when a row is created. The GlobalID field is necessary for maintaining object uniqueness across replicas. All feature classes and tables participating in one-way or two-way replication must contain the GlobalID field. This field is not editable and is automatically populated when it is added for existing data.

DESCRIPTION SOURCE  
NCDOT

DESCRIPTION OF VALUES  
Values vary.

*Hide Field GlobalID ▲*

FIELD **LastEditedDate** ►

- \* ALIAS LastEditedDate
- \* DATA TYPE Date
- \* WIDTH 8

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Most recent date the event record was edited.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Dates vary.

*Hide Field LastEditedDate ▲*

FIELD Shape\_Length ►

\* ALIAS Shape\_Length

\* DATA TYPE Double

\* WIDTH 8

\* PRECISION 0

\* SCALE 0

\* FIELD DESCRIPTION

Length of feature in internal units.

\* DESCRIPTION SOURCE

Esri

\* DESCRIPTION OF VALUES

Positive real numbers that are automatically generated.

*Hide Field Shape\_Length ▲*

*Hide Details for object LRSE\_Base ▲*

*Hide Fields ▲*

## Metadata Details ►

\* METADATA LANGUAGE English (UNITED STATES)

SCOPE OF THE DATA DESCRIBED BY THE METADATA \* dataset

SCOPE NAME \* dataset

\* LAST UPDATE 2022-12-09

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

STANDARD OR PROFILE USED TO EDIT METADATA ISO19139

CREATED IN ARCGIS FOR THE ITEM 2022-09-03 17:01:23

LAST MODIFIED IN ARCGIS FOR THE ITEM 2022-12-09 13:22:18

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2022-12-09 13:22:18

[Hide Metadata Details ▲](#)

## Metadata Contacts ►

### METADATA CONTACT

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit  
CONTACT'S POSITION GIS Data and Services Consultant  
CONTACT'S ROLE point of contact

### CONTACT INFORMATION ►

#### ADDRESS

TYPE physical  
DELIVERY POINT 4101 Capital Blvd.  
CITY Raleigh  
ADMINISTRATIVE AREA North Carolina  
POSTAL CODE 27604  
COUNTRY US  
E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

#### HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

#### CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

## Metadata Maintenance ►

### MAINTENANCE

UPDATE FREQUENCY as needed

SCOPE OF THE UPDATES dataset

### MAINTENANCE CONTACT

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit  
CONTACT'S POSITION GIS Data and Services Consultant  
CONTACT'S ROLE point of contact

### CONTACT INFORMATION ►

#### ADDRESS

TYPE physical  
DELIVERY POINT 4101 Capital Blvd.  
CITY Raleigh  
ADMINISTRATIVE AREA North Carolina  
POSTAL CODE 27604  
COUNTRY US  
E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

#### HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

#### CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Metadata Maintenance ▲](#)

## Metadata Constraints ►

### CONSTRAINTS

#### LIMITATIONS OF USE

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

This data should be used for planning, maintenance, and decision-making support purposes only. It should be used only by those who fully understand the extents, limitations, and content of the data. This data should not be used for routing. The data should not be used in place of field survey or data collection efforts that are normally performed by licensed professionals and it should not replace any data collection efforts that are typically required as a part of detailed design and construction efforts.

### SECURITY CONSTRAINTS

CLASSIFICATION unclassified

CLASSIFICATION SYSTEM None

#### LIMITATIONS OF USE

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

This data should be used for planning, maintenance, and decision-making support purposes only. It should be used only by those who fully understand the extents, limitations, and content of the data. This data should not be used for routing. The data should not be used in place of field survey or data collection efforts that are normally performed by licensed professionals and it should not replace any data collection efforts that are typically required as a part of detailed design and construction efforts.

[Hide Metadata Constraints ▲](#)

## Thumbnail and Enclosures ►

### THUMBNAIL

THUMBNAIL TYPE JPG

[Hide Thumbnail and Enclosures ▲](#)