

LRS Editing System: Improvement 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 Improvement

Summary

This feature class contains measured occurrences (events) of road improvement types 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: Improvement Date, Improvement Document Type, Improvement Document ID, and Improvement Type. For each linear event occurrence, From Measure and To Measure fields provide beginning and end location 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 most recent road improvement types on North Carolina's route network. These events also contain attributes indicating:

- Improvement Date - The date of the most recent improvement that was made to the segment.
- NCDOT Road Improvement Document ID - The unique identification number or code that corresponds to the Improvement Document Type.
- NCDOT Road Improvement Document Type - Reference to the NCDOT document that represents the most recent improvement to the road segment. These documents are typically one of the types listed below:
 - TIP: Transportation Improvement Project.
 - Resurfacing Package: Resurfacing plans let from one of the 14 NCDOT Divisions.
 - Paving Report: Roads that have been updated from unpaved to paved according to the Quarterly Paving Report.
 - Other: Some other type of improvement document.

The events measure the following types of road improvements:

- Bridge Replacement: The total replacement of a structurally inadequate or functionally obsolete bridge with a new structure constructed in the same general traffic corridor to current geometric construction standards. A bridge removed and replaced with a lesser facility is considered a bridge replacement. Incidental roadway resurfacing and/or widening before and after the replaced bridge is included in this improvement type.
- Minor Widening: The addition of more width per through lane, shoulder improvements, and/or turn lanes (regardless of length or width) to an existing facility without adding through lanes. The existing pavement is salvaged. Also included, where necessary, is the resurfacing of the existing pavement and other incidental improvements such as shoulder and drainage improvements.
- New Construction: Construction of a new route on an original location that does not replace an existing route, but which was designed and built as an independent facility. It is not a relocation of an existing

route however; this newly constructed facility may carry the route number(s) of a previously existing facility.

- Resurfacing: Placement of additional material (concrete, asphalt, etc.) over the existing roadway to improve serviceability or to provide additional strength. The entire surface and intermediate courses may be milled. There may be upgrading of unsafe features and other incidental work. If resurfacing is done as a final stage of construction use the preceding stage (relocation, reconstruction, minor widening, etc.) as the improvement type.
- Relocation: Construction of a facility on new location that replaces an existing route. The new facility carries all the through traffic with the previous facility closed or retained as a land-service road only.
- Reconstruction: Reconstruction on substantially the same alignment. It may include the addition of through lanes, dualization, addition of interchanges or grade separations, or widening of through lanes. Reconstruction may also include the correction of alignment and/or shoulder and drainage deficiencies.
- Surface Improvement: Surface improvements such as crack sealing, diamond grinding, subsealing, joint repair, slurry seal, asphalt surface treatment, etc.
- Initial Pavement' The first time an unpaved road is paved.
- Other types of improvements.

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 -84.421464 **East** -75.418363

North 36.615122 **South** 33.751362

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, transportation, structure

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 Improvement

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: Improvement Events, Continuous Capture – NC Department of Transportation
ALTERNATE TITLES LRSE_Improvement
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 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

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.
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[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 -4.800000
* MAXIMUM VALUE 6576.500000

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching
* WEST LONGITUDE -84.421464
* EAST LONGITUDE -75.418363
* NORTH LATITUDE 36.615122
* SOUTH LATITUDE 33.751362
* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 406980.080272
* EAST LONGITUDE 3051823.000288
* SOUTH LATITUDE 42564.600160
* NORTH LATITUDE 1042848.119824
* 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

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DELIVERY POINT 4101 Capital Blvd.
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[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 ►

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[Hide Resource Maintenance ▲](#)

Resource Constraints ►

CONSTRAINTS

LIMITATIONS OF USE

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LEGAL CONSTRAINTS

LIMITATIONS OF USE

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SECURITY CONSTRAINTS

CLASSIFICATION unclassified
CLASSIFICATION SYSTEM None

LIMITATIONS OF USE

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[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",2000000.002616666],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_Improvement

* OBJECT TYPE composite

* OBJECT COUNT 92845

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

FEATURE CLASS NAME LRSE_Improvement

* FEATURE TYPE Simple

* GEOMETRY TYPE Polyline

* HAS TOPOLOGY FALSE

* FEATURE COUNT 92845

* 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

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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 the most recent type of improvement made to the road segments 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

HOURS OF SERVICE

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

CONTACT INSTRUCTIONS

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[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 ▶

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[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
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ADMINISTRATIVE AREA NC
POSTAL CODE 27606
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[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

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[Hide Contact information ▲](#)

[Hide Distributor ▲](#)

DISTRIBUTION FORMAT

NAME SDE Geodatabase Feature Class
VERSION 10.8.1

[Hide Distribution ▲](#)

Fields ►

DETAILS FOR OBJECT [LRSE_Improvement](#) ►

TYPE SDE Geodatabase Feature Class
* ROW COUNT 92845
DEFINITION

Improvement

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 ImprovementDate ►

* ALIAS ImprvDate

* DATA TYPE Date

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

The date of the most recent improvement that was made to the segment.

The date 12/31/1901 indicates that the date is unknown. Typically December 31st is used when the year was known but the day and month were not. The improvement Date should be later than 12/31/1929, unless the date is unknown.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Dates vary.

Hide Field ImprovementDate ▲

FIELD ImprovementDocumentID ►

* ALIAS ImprvDocID

- * DATA TYPE String
- * WIDTH 30
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The unique identification number or code that corresponds to the Improvement Document Type. The Improvement Document ID can be numeric, text or a combination of the two, 20 characters maximum.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

Hide Field ImprovementDocumentID ▲

FIELD ImprovementDocumentType ►

- * ALIAS ImprvDocType
- * DATA TYPE String
- * WIDTH 10
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The document reference that represents the most recent improvement to the segment.

DESCRIPTION SOURCE

NCDOT

LIST OF VALUES

VALUE TIP

DESCRIPTION Transportation Improvement Project

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Resurfacing Package

DESCRIPTION Resurfacing plans let from the division.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Paving Report

DESCRIPTION Roads that have been updated from unpaved to paved according to the Quarterly Paving Report.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Other

DESCRIPTION Some other type of improvement document.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

Hide Field ImprovementDocumentType ▲

FIELD ImprovementType ►

- * ALIAS ImprvType
- * DATA TYPE String
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The most recent type of improvement made to to the road segment.

DESCRIPTION SOURCE

NCDOT

LIST OF VALUES

VALUE Bridge Replacement

DESCRIPTION The total replacement of a structurally inadequate or functionally obsolete bridge with a new structure constructed in the same general traffic corridor to current geometric construction standards. A bridge removed and replaced with a lesser facility is considered a bridge replacement. Incidental roadway resurfacing and/or widening before and after the replaced bridge is included in this improvement type.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Minor Widening

DESCRIPTION The addition of more width per through lane, shoulder improvements, and/or turn lanes (regardless of length or width) to an existing facility without adding through lanes. The existing pavement is salvaged. Also included, where necessary, is the resurfacing of the existing pavement and other incidental improvements such as shoulder and drainage improvements.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Major Widening

DESCRIPTION The addition of through lanes or dualization of an existing facility where the existing pavement is salvaged. Also included, where necessary, is the resurfacing of the existing pavement and other incidental improvements such as shoulder and drainage improvements.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE New Construction

DESCRIPTION Construction of a new route on an original location that does not replace an existing route, but which was designed and built as an independent facility. It is not a relocation of an existing route however; this newly constructed facility may carry the route number(s) of a previously existing facility.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Resurfacing

DESCRIPTION Placement of additional material (concrete, asphalt, etc.) over the existing roadway to improve serviceability or to provide additional strength. The entire surface and intermediate courses may be milled. There may be upgrading of unsafe features and other incidental work. If resurfacing is done as a final stage of construction use the preceding stage (relocation, reconstruction, minor widening, etc.) as the improvement type.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Relocation

DESCRIPTION Construction of a facility on new location that replaces an existing route. The new facility carries all the through traffic with the previous facility closed or retained as a land-service road only.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Reconstruction

DESCRIPTION Reconstruction on substantially the same alignment. It may include the addition of through lanes, dualization, addition of interchanges or grade separations, or widening of through lanes. Reconstruction may also include the correction of alignment and/or shoulder and drainage deficiencies.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Surface Improvement

DESCRIPTION Surface improvements such as crack sealing, diamond grinding, subsealing, joint repair, slurry seal, asphalt surface treatment, etc.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Other

DESCRIPTION Other types of improvements.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Initial Types of Pavements

DESCRIPTION This is used the first time an unpaved road is paved.
ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

[Hide Field ImprovementType ▲](#)

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_Improvement ▲](#)

[Hide Fields ▲](#)

Metadata Details ▶

* METADATA LANGUAGE English (UNITED STATES)

SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset
SCOPE NAME * dataset

* LAST UPDATE 2022-12-16

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 2022-12-16 10:33:25

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes
LAST UPDATE 2022-12-16 10:33:25

[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 ▶

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TYPE physical
DELIVERY POINT 4101 Capital Blvd.
CITY Raleigh

ADMINISTRATIVE AREA North Carolina
POSTAL CODE 27604
COUNTRY US
E-MAIL ADDRESS 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
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[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

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[Hide Metadata Constraints ▲](#)

Thumbnail and Enclosures ►

THUMBNAIL

THUMBNAIL TYPE JPG

[Hide Thumbnail and Enclosures ▲](#)