

# StructuresPoint, 1st Quarter 2024 - NC Department of Transportation

## File Geodatabase Feature Class



### Tags

Bridge, Pipe, Culvert, Structures Maintenance Unit, SIP, SDV, Structures

### Summary

Provide all currently-inventoried NC bridge structures in one consistent format for query and display.

### Description

Point file representing North Carolina bridges and other structures, extracted and attributed by the NCDOT Structures Maintenance Unit's bridge database.

### Credits

The bridge layer is a compilation of data originally found in the Bridge Inventory maps produced by the Mapping group of the State Road Maintenance Unit which has been supplemented with updates from the bridge database of the NCDOT's Structures Maintenance Unit.

### Use limitations

The availability and accuracy of the bridge dataset is dependent upon an ongoing process of integration between the NCDIT-Transportation GIS Unit and the Structures Maintenance Unit's bridge database. Discrepancies may exist since the frequency with which the sources are updated is not the same among the different groups. Please take this into account prior to utilizing the GIS bridge layer.

### Extent

**West** -84.402343    **East** -75.423872

**North** 36.614200    **South** 33.769569

### Scale Range

**Maximum (zoomed in)** 1:5,000

**Minimum (zoomed out)** 1:150,000,000

### ArcGIS Metadata ►

### Topics and Keywords ►

**THEMES OR CATEGORIES OF THE RESOURCE** environment, inlandWaters, location, planningCadastre, structure, transportation

**\* CONTENT TYPE** Downloadable Data

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

**PLACE KEYWORDS** North Carolina

**THEME KEYWORDS** Bridge, Pipe, Culvert, bridge maintenance, SIP, SDV, Structures Management Unit, structures

[Hide Topics and Keywords ▲](#)

## Citation ►

TITLE StructuresPoint, 1st Quarter 2024 - NC Department of Transportation  
PUBLICATION DATE 2024-02-12 00:00:00  
CREATION DATE 2024-02-05 00:00:00

PRESENTATION FORMATS \* digital map

[Hide Citation ▲](#)

## Citation Contacts ►

### RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Transportation Geographic Information Systems Unit  
CONTACT'S POSITION GIS Help Desk  
CONTACT'S ROLE point of contact

### CONTACT INFORMATION ►

#### PHONE

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FAX 919.707.2210

#### ADDRESS

TYPE physical  
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CITY Raleigh  
ADMINISTRATIVE AREA NC  
POSTAL CODE 27610  
COUNTRY US  
E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

#### HOURS OF SERVICE

8 am to 5 pm, M-F

#### CONTACT INSTRUCTIONS

For further information about bridge attributes, contact Cary Clemmons of the Structures Maintenance Unit, at (919) 707-6458 or [cclemmons@ncdot.gov](mailto:cclemmons@ncdot.gov)

[Hide Contact information ▲](#)

### RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Transportation Geographic Information Systems Unit  
CONTACT'S POSITION GIS Help Desk  
CONTACT'S ROLE resource provider

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CONTACT'S POSITION GIS Help Desk  
CONTACT'S ROLE originator

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[Hide Contact information ▲](#)

[Hide Citation Contacts ▲](#)

## Resource Details ►

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

STATUS completed  
SPATIAL REPRESENTATION TYPE \* vector

SUPPLEMENTAL INFORMATION

\*\*\*\*\*This bridge layer contains many kinds of structures currently maintained by the Structures Maintenance Unit (SMU) of the NCDOT. They reflect an ongoing attempt by the NCDIT-Transportation GIS Unit to portray the traffic-carrying structures found in the NCDOT SMU's Bridge Database and shown in the GIS Bridge layer in as timely a manner as possible. Until such time as the GIS Unit can approximate the maintenance schedule of the SMU, the GIS layer may not accurately reflect the structures currently in service or the additions and deletions to the Bridge Inventory system which are performed on a daily basis by the SMU.\*\*\*\*\*

Due to changes to the WIGINS database maintained by NCDOT Structures Management Unit, the Sufficiency Rating and Structural Deficiency items are no longer calculated and are dropped from this GIS Structures layer as of the 3rd Quarter of 2023. The NHS, National Truck Network and Defense Network fields have also been dropped as of this same quarter. Equivalent values for the last 3 attributes can be found within the NCDIT GIS Unit's NCRouteCharacteristics linework. For further information, please contact the NCDOT Structures Management Unit.

#### Older attribute changes:

The GIS Unit adopted a new, 11-digit route-county number for their linework, replacing the 10-digit route-county number. This number is created by adding "1" to the previous county code numbers and adding leading zero(es) where needed to make up 3 digits. This new route number is now found in the RTE\_ID field (with alias "Route ID" for GDB users). The 8-digit route-only attribute (Route) has been maintained.

All TIER-related fields were removed for the 1st Quarter 2016 release. TIER values are no longer being utilized or maintained by the NCDOT.

Sign structures have been included in the data release since 1st Quarter 2016. These structures include Overhead, Cantilever and T-Pole signs. Points for Cantilever and T-Pole signs are snapped to the route closest to the main pole of the sign. Points for Overhead signs are snapped to the inventory direction of the route passing under the sign.

2 new fields were added for the 1st Qtr 2015 release:

- GOOGLE\_LINK - this field contains a hyperlink that will spawn a Google map location centered on the selected structure. Users should select the lightning-bolt shaped "Hyperlink" tool in ArcMap in order to utilize this field. SDV users can do an "Identify" on the structure, followed by a click on this hyperlink field to create a Google map.

- MAINT\_RESP - this is a new field indicating the agency with maintenance responsibility for the structure and can be used to indicate the difference between city or state maintenance for a structure. The main code indicating state maintenance is "01," while the main code for city maintenance is "04," although there are other codes for both. Please see the metadata entry for this field for a list of current enumerated codes and associated agencies.

Following the introduction of the new MAINT\_RESP field, structures were renamed to remove the "CITY" designation in the BRDG\_TYP\_NM field. Users can now distinguish city types by using the MAINT\_RESP code described above. BRDG\_TYP\_NM will now only contain the name of the structure type and no information concerning maintenance responsibility.

Please refer to the Attribute section of this metadata for more information on these and other attributes, as well as descriptions of the values.

Item names for 4 of the fields in the shapefile and derived tables have changed to match the item names found in the map services. The names changed are:

BRIDGE\_NUM changed to BRDG\_NBR;

TYPE changed to BRDG\_TYP\_NM, which will be truncated in the shapefile to BRDG\_TYP\_N;

BSIP\_BNUM changed to BSIP\_BRDG\_NUM, which will be truncated in the shapefile to BSIP\_BRDG\_;

ServiceOn has been capitalized to SERVICEON.

Many fields were previously added to the bridge layer for customer use. These include:

Coordinate information fields - X,Y coordinates in NAD 83 Stateplane Feet have been added, along with latitude/longitude coordinates in Geographic Decimal Degrees. Route-milepost information has also been included. Please note the milepost value is derived from the RTE\_ID field - this 10-digit field is a concatenation of the 8-digit ROUTE number and the 2-digit county number and there are a small number of instances across the state where the county number may differ from the COUNTY name carried by the SMU Bridge Database. These are usually cases of structures on or very near a county line and the structure's location along a route may differ from the county assigned by the bridge database.

Many fields from the bridge database have been added to make the shapefile (downloadable from the GIS Unit's Data Distribution page) the equivalent of the bridge map service found in the Spatial Data Viewer (SDV). These include functional class designations, sufficiency ratings, and posted weight values.

Added TYPEs include PAVEMENT ON PILES. FEDERAL BRIDGE replaces "Gov't Bridge;" FERRY RAMP replaces "Ferry;" and all TYPE values are now capitalized.

The Verification field was dropped. All structure points have been compared to the latest imagery available at the time of review and visually verified except for the newest structures under construction which don't appear yet in any imagery. These structures can't be verified until the imagery and linework have been updated. The GIS Unit does NOT guarantee accurate placement of the structure points, but does try to use all available information at the time of review to accomplish it.

RD\_ANGLE and STR\_ANGLE were added to the layer. RD\_ANGLE is the tangent angle of the road closest to the structure point. The STR\_ANGLE is the angle of the structure relative to the road at that same point. Many structure types will parallel the road ( these structures can be found by selecting for "RD\_ANGLE = STR\_ANGLE"). Other structure types may cross the road perpendicularly (culverts, pipes, railroads, and walkways). Most of these are calculated to be 90-degrees off the RD\_ANGLE value, although some may have values assigned manually during spatial reviews. The STR\_ANGLE can be used to assign angled symbols for structure display on maps - be aware, however, that many symbols may need to have their default angles adjusted in their layer's Properties before the value stored in STR\_ANGLE can display the symbol accurately.

\* [PROCESSING ENVIRONMENT](#) Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.1.14362

#### CREDITS

The bridge layer is a compilation of data originally found in the Bridge Inventory maps produced by the Mapping group of the State Road Maintenance Unit which has been supplemented with updates from the bridge database of the NCDOT's Structures Maintenance Unit.

[Hide Resource Details](#) ▲

## Extents ►

### EXTENT

#### GEOGRAPHIC EXTENT

##### BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

\* WEST LONGITUDE -84.402343

\* EAST LONGITUDE -75.423872

\* NORTH LATITUDE 36.614200

\* SOUTH LATITUDE 33.769569

\* EXTENT CONTAINS THE RESOURCE Yes

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

\* WEST LONGITUDE 412591.286460

\* EAST LONGITUDE 3050215.764481

\* SOUTH LATITUDE 48904.610063

\* NORTH LATITUDE 1042512.618249

\* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents](#) ▲

## Resource Points of Contact ►

### POINT OF CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation Geographic Information Systems Unit

CONTACT'S POSITION GIS Help Desk

CONTACT'S ROLE resource provider

CONTACT INFORMATION ►

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HOURS OF SERVICE

8 am to 5 pm, M-F

CONTACT INSTRUCTIONS

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POINT OF CONTACT

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*Hide Contact information ▲*

*Hide Resource Points of Contact ▲*

## Resource Maintenance ►

RESOURCE MAINTENANCE

UPDATE FREQUENCY quarterly

OTHER MAINTENANCE REQUIREMENTS

Time Period of content: 1st 2024 (source table date 01/31/2024) - Bridges  
1st Quarter 2024 - NCRoutes for route-MP references

MAINTENANCE CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation Geographic Information Systems Unit

CONTACT'S POSITION GIS Help Desk

CONTACT'S ROLE point of contact

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[Hide Contact information ▲](#)

[Hide Resource Maintenance ▲](#)

## Resource Constraints ►

CONSTRAINTS  
LIMITATIONS OF USE

The availability and accuracy of the bridge dataset is dependent upon an ongoing process of integration between the NCDIT-Transportation GIS Unit and the Structures Maintenance Unit's bridge database. Discrepancies may exist since the frequency with which the sources are updated is not the same among the different groups. Please take this into account prior to utilizing the GIS bridge layer.

[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 3048.0060960121928  
Z ORIGIN -100000  
Z SCALE 10000  
M ORIGIN -100000  
M SCALE 10000  
XY TOLERANCE 0.00328083333333333331  
Z TOLERANCE 0.001  
M TOLERANCE 0.001  
HIGH PRECISION true

LATEST WELL-KNOWN IDENTIFIER 2264

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],AUTHORITY["EPSG",2264]]

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 NCDOTStructureLocations

\* OBJECT TYPE point

\* OBJECT COUNT 22957

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ▶

FEATURE CLASS NAME NCDOTStructureLocations

\* FEATURE TYPE Simple

\* GEOMETRY TYPE Point

\* HAS TOPOLOGY FALSE

\* FEATURE COUNT 22957

\* SPATIAL INDEX TRUE

\* LINEAR REFERENCING FALSE

[Hide ArcGIS Feature Class Properties ▲](#)

[Hide Spatial Data Properties ▲](#)

## Data Quality ▶

SCOPE OF QUALITY INFORMATION ▶

RESOURCE LEVEL attribute

[Hide Scope of quality information ▲](#)

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY ▶

EVALUATION METHOD

There are no measurement, precision, spatial, or data schema standards assigned to this dataset.

[Hide Data quality report - Quantitative attribute accuracy ▲](#)

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY ▶

EVALUATION METHOD

There are no measurement, precision, spatial, or data schema standards assigned to this dataset.

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

DATA QUALITY REPORT - COMPLETENESS OMISSION ▶

EVALUATION METHOD

There are no measurement, precision, spatial, or data schema standards assigned to this dataset.

The bridge layer contains many kinds of structures currently maintained by the Structures Management Unit of the NCDOT. They reflect an ongoing integration between the structures found in the GIS bridge layer and the bridge database maintained by the Structures Management Unit. As such, the GIS layer may not accurately reflect the structures currently in service or the additions and deletions to the Bridge Inventory system which are performed on a daily basis.

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

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►  
DIMENSION horizontal

EVALUATION METHOD

Structures were compared for accuracy against the most current imagery and against field inspection reports where necessary. Structure points are snapped to the relevant state-maintained routes in the center of the structures where possible. In the case of intersecting, non-divided routes, the structure point is snapped to the routes' intersection point. In the case of divided highways, the structure point is snapped to the intersection of the inventory sides of the routes. Otherwise, there are no measurement, precision, spatial, or data schema standards assigned to this dataset.

[Hide Data quality report - Absolute external positional accuracy ▲](#)

[Hide Data Quality ▲](#)

## Lineage ►

LINEAGE STATEMENT

x,y-coordinate values were collected from Microstation DGN's used in the layout of the Bridge Inventory Maps. These x,y-coordinates were matched to a copy of the Bridge Database supplied by the NCDOT SMU which contained all structures. Matching structures were placed by these x,y-coordinates utilizing the Add XY Data tool in ArcMap. Non-matching structures were extracted and placed using their latitude/longitude values. The two datasets were then merged into one dataset under the NAD83 Stateplane Feet projection, and a process was started to review the positional accuracy of all bridges placed via latitude/longitude and to confirm other structures as deemed necessary.

Quarterly, the GIS Unit requests a bridge database update from SMU and compares this update against the existing GIS Bridge layer. Non-matching structure records are sorted according to whether they are additions or deletions compared to the existing bridge layer. Deletions are removed to a separate layer and additions are merged into the existing layer, followed by a period of review using the latest imagery for location verification. Coordinate information (X,Y's, lat/long's and route-MP's) are updated following this verification.

Because of timing issues, the current quarter's bridge mileposts are usually based on the previous quarter's linework.

[Hide Lineage ▲](#)

## Distribution ►

DISTRIBUTOR ►

CONTACT INFORMATION

INDIVIDUAL'S NAME GIS Help Desk  
ORGANIZATION'S NAME NCDOT GIS Unit

CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

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*Hide Contact information ▲*

*Hide Distributor ▲*

DISTRIBUTION FORMAT

\* NAME File Geodatabase Feature Class

*Hide Distribution ▲*

## Fields ►

DETAILS FOR OBJECT [NCDOTStructureLocations](#) ►

\* TYPE Feature Class

\* ROW COUNT 22957

DEFINITION

Bridges and other structures along NC highways

DEFINITION SOURCE

NCDOT Structures Management Unit

FIELD ROUTE ►

\* ALIAS Route

\* DATA TYPE String

\* WIDTH 10

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

8-digit route number on which structure is located; may be empty for non-verified bridges

DESCRIPTION SOURCE

NCDIT-T GIS Unit

[Hide Field ROUTE ▲](#)

FIELD BRDG\_NBR ►

- \* ALIAS Bridge Number
- \* DATA TYPE String
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

2-digit county number + 4-digit bridge number

DESCRIPTION SOURCE

NCDOT Structures Management Unit

[Hide Field BRDG\\_NBR ▲](#)

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 COUNTY ►

- \* ALIAS County
- \* DATA TYPE String
- \* WIDTH 15
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

County name

DESCRIPTION SOURCE

NCDOT Structures Management Unit

[Hide Field COUNTY ▲](#)

FIELD F\_CARRIED ►

- \* ALIAS F\_CARRIED
- \* DATA TYPE String
- \* WIDTH 50
- \* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Facility carried by the structure - highways, railroads, etc

DESCRIPTION SOURCE

NCDOT Structures Management Unit

*Hide Field F\_CARRIED ▲*

FIELD BRDG\_TYP\_NM ►

\* ALIAS Bridge Type

\* DATA TYPE String

\* WIDTH 25

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Structure type

DESCRIPTION SOURCE

NCDOT Structures Management Unit

*Hide Field BRDG\_TYP\_NM ▲*

FIELD FTR\_INTRSC ►

\* ALIAS FTR\_INTRSC

\* DATA TYPE String

\* WIDTH 50

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Feature intersected by the structure - streams, river, highways, etc

DESCRIPTION SOURCE

NCDOT Structures Management Unit

*Hide Field FTR\_INTRSC ▲*

FIELD DIVISION ►

\* ALIAS DIVISION

\* DATA TYPE String

\* WIDTH 2

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Division number

DESCRIPTION SOURCE

NCDOT Structures Management Unit

*Hide Field DIVISION ▲*

FIELD FUNC\_OBSOL ►

\* ALIAS FUNC\_OBSOL

\* DATA TYPE String

\* WIDTH 5

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Functional obsolescence

DESCRIPTION SOURCE

NCDOT Structures Management Unit

[Hide Field FUNC\\_OBSOL ▲](#)

FIELD [DETOUR\\_LEN ▶](#)

\* ALIAS DETOUR\_LEN

\* DATA TYPE String

\* WIDTH 5

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Detour length

DESCRIPTION SOURCE

NCDOT Structures Management Unit

[Hide Field DETOUR\\_LEN ▲](#)

FIELD [FUNC\\_CLASS ▶](#)

\* ALIAS FUNC\_CLASS

\* DATA TYPE String

\* WIDTH 60

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Functional class

DESCRIPTION SOURCE

NCDOT Structures Management Unit

[Hide Field FUNC\\_CLASS ▲](#)

FIELD [POSTED\\_SV ▶](#)

\* ALIAS POSTED\_SV

\* DATA TYPE Integer

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Posted weight limit, single vehicle

DESCRIPTION SOURCE

NCDOT Structures Management Unit

[Hide Field POSTED\\_SV ▲](#)

FIELD [STRTPMAIN ▶](#)

\* ALIAS STRTPMAIN

\* DATA TYPE String

\* WIDTH 5  
\* PRECISION 0  
\* SCALE 0  
FIELD DESCRIPTION  
Structure type main

DESCRIPTION SOURCE  
NCDOT Structures Management Unit

*Hide Field STRTYPMAIN ▲*

FIELD SUPERSTRUC ►

\* ALIAS SUPERSTRUC  
\* DATA TYPE String  
\* WIDTH 100  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION  
Superstructure

DESCRIPTION SOURCE  
NCDOT Structures Management Unit

*Hide Field SUPERSTRUC ▲*

FIELD BSIP\_BRDG\_NBR ►

\* ALIAS BSIP Bridge Number  
\* DATA TYPE String  
\* WIDTH 8  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION  
3-digit county number + 4-digit bridge number

DESCRIPTION SOURCE  
NCDIT-T GIS Unit

*Hide Field BSIP\_BRDG\_NBR ▲*

FIELD X\_COORD ►

\* ALIAS X\_COORD  
\* DATA TYPE Double  
\* WIDTH 8  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION  
Calculated X coordinate in NAD83 Stateplane Feet

DESCRIPTION SOURCE  
NCDIT-T GIS Unit

*Hide Field X\_COORD ▲*

FIELD Y\_COORD ►

\* ALIAS Y\_COORD

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

FIELD DESCRIPTION

Calculated Y coordinate in NAD83 Stateplane Feet

DESCRIPTION SOURCE

NCDIT-T GIS Unit

*Hide Field Y\_COORD ▲*

FIELD LONG\_DD ►

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

FIELD DESCRIPTION

Calculated Longitude value in Geographic decimal degrees

DESCRIPTION SOURCE

NCDIT-T GIS Unit

*Hide Field LONG\_DD ▲*

FIELD SUBSTRUCTU ►

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

FIELD DESCRIPTION

Substructure

DESCRIPTION SOURCE

NCDOT Structures Management Unit

*Hide Field SUBSTRUCTU ▲*

FIELD LAT\_DD ►

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

FIELD DESCRIPTION

Calculated Latitude value in Geographic decimal degrees

DESCRIPTION SOURCE

NCDIT-T GIS Unit

*Hide Field LAT\_DD ▲*

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 ServiceOn ►

\* ALIAS ServiceOn  
\* DATA TYPE String  
\* WIDTH 3  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

The type of service offered by the bridge, used in determining traffic-carrying structures (codes 1, 4, 5, 6, 7, 8 carry traffic)

DESCRIPTION SOURCE

NCDOT Structures Management Unit

LIST OF VALUES

VALUE 1

DESCRIPTION Highway

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 2

DESCRIPTION Railroad

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 3

DESCRIPTION Pedestrian-bicycle

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 4

DESCRIPTION Highway-railroad

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 5

DESCRIPTION Highway-pedestrian

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 6

DESCRIPTION Overpass structure at an interchange or second level of a multilevel interchange

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 7

DESCRIPTION Third level (Interchange)

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 8  
DESCRIPTION Fourth level (Interchange)  
ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 9  
DESCRIPTION Building or plaza  
ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 0  
DESCRIPTION Other  
ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

[Hide Field ServiceOn ▲](#)

FIELD RTE\_ID ►

- \* ALIAS Route ID
- \* DATA TYPE String
- \* WIDTH 12
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

11-digit route & county number, used for routing purposes

DESCRIPTION SOURCE

NCDIT-T GIS Unit

[Hide Field RTE\\_ID ▲](#)

FIELD POSTED\_TTST ►

- \* ALIAS POSTED\_TTST
- \* DATA TYPE Integer
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Posted weight limit, tractor trailer, semi-truck

DESCRIPTION SOURCE

NCDOT Structures Management Unit

[Hide Field POSTED\\_TTST ▲](#)

FIELD RD\_ANGLE ►

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

FIELD DESCRIPTION

Calculated angle of the road at the point closest to the structure (the tangent angle).

DESCRIPTION SOURCE

NCDIT-T GIS Unit

[Hide Field RD\\_ANGLE ▲](#)

FIELD STR\_ANGLE ►

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

FIELD DESCRIPTION

Calculated angle of the structure relative to the road; many types will parallel the road (RD\_ANGLE = STR\_ANGLE), others may cross the road perpendicularly (culverts, pipes, railroads, and walkways). Most of the perpendicular structures are calculated to be 90-degrees off the RD\_ANGLE value.

DESCRIPTION SOURCE

NCDIT-T GIS Unit

[Hide Field STR\\_ANGLE ▲](#)

FIELD MP ►

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

DESCRIPTION SOURCE

NCDIT-T GIS Unit

FIELD DESCRIPTION

Milepost of the structure along the indicated ROUTE

[Hide Field MP ▲](#)

FIELD GOOGLE\_LINK ►

- \* ALIAS GOOGLE\_LINK
- \* DATA TYPE String
- \* WIDTH 150
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Hyperlink to Google Maps showing structure selected; calculated from the LAT\_DD and LONG\_DD fields

DESCRIPTION SOURCE

NCDIT-T GIS Unit

[Hide Field GOOGLE\\_LINK ▲](#)

FIELD MAINT\_RESP ►

- \* ALIAS Maintenance Responsibility
- \* DATA TYPE String
- \* WIDTH 2
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

The actual name(s) of the agency(s) responsible for the maintenance of the structure. Values enumerated below are for the currently-existing codes in the database, as of 1st Qtr 2015

DESCRIPTION SOURCE

NCDOT Structures Management Unit

LIST OF VALUES

VALUE 01

DESCRIPTION State Highway Agency

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 04

DESCRIPTION City or Municipal Highway Agency

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 11

DESCRIPTION State Park, Forest, or Reservation Agency

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 21

DESCRIPTION Other State Agencies

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 25

DESCRIPTION Other Local Agencies

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 26

DESCRIPTION Private (other than railroad)

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 27

DESCRIPTION Railroad

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 31

DESCRIPTION State Toll Authority

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 60

DESCRIPTION Other Federal Agencies (not listed below)

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 66

DESCRIPTION National Park Service

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 70

DESCRIPTION Corps of Engineers (Civil)

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

*Hide Field MAINT\_RESP ▲*

FIELD SERVICEUNDER ►

\* ALIAS ServiceUnder

\* DATA TYPE String

\* WIDTH 3

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

The type of service offered by the route passing under the bridge (codes 5, 6, 7, 8, and 9 indicate a waterway under the bridge)

DESCRIPTION SOURCE

NCDOT Structures Management Unit

LIST OF VALUES

VALUE 1

DESCRIPTION Highway, with or without pedestrian

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 2

DESCRIPTION Railroad

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 3

DESCRIPTION Pedestrian-bicycle

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 4

DESCRIPTION Highway-railroad

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 5

DESCRIPTION Waterway

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 6

DESCRIPTION Highway-waterway

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 7

DESCRIPTION Railroad-waterway

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 8

DESCRIPTION Highway-waterway-railroad

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 9

DESCRIPTION Relief for waterway

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

VALUE 0

DESCRIPTION Other

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT Structures Management Unit

*Hide Field SERVICEUNDER ▲*

*Hide Details for object NCDOTStructureLocations ▲*

*Hide Fields ▲*

## Metadata Details ►

METADATA LANGUAGE English (UNITED STATES)

METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset

SCOPE NAME \* dataset

\* LAST UPDATE 2024-02-02

#### ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0  
STANDARD OR PROFILE USED TO EDIT METADATA ISO19139  
METADATA STYLE FGDC CSDGM Metadata

CREATED IN ARCGIS FOR THE ITEM 2023-08-03 06:34:10  
LAST MODIFIED IN ARCGIS FOR THE ITEM 2024-02-02 11:56:20

#### AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes  
LAST UPDATE 2024-02-02 11:56:20

[Hide Metadata Details ▲](#)

## Metadata Contacts ►

#### METADATA CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation Geographic Information Systems Unit  
CONTACT'S POSITION GIS Help Desk  
CONTACT'S ROLE point of contact

#### CONTACT INFORMATION ►

PHONE  
VOICE 919.707.2165  
FAX 919.707.2210

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TYPE physical  
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CITY Raleigh  
ADMINISTRATIVE AREA NC  
POSTAL CODE 27610  
COUNTRY US  
E-MAIL ADDRESS [gishelp@ncdot.gov](mailto:gishelp@ncdot.gov)

#### HOURS OF SERVICE

8 am to 5 pm, M-F

#### CONTACT INSTRUCTIONS

For further information about bridge attributes, contact Cary Clemmons of the Structures Maintenance Unit, at (919) 707-6458 or [clemmons@ncdot.gov](mailto:clemmons@ncdot.gov)

[Hide Contact information ▲](#)

#### METADATA CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation Geographic Information Systems Unit  
CONTACT'S POSITION GIS Help Desk  
CONTACT'S ROLE resource provider

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POSTAL CODE 27610  
COUNTRY US  
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CONTACT'S POSITION GIS Help Desk  
CONTACT'S ROLE originator

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[Hide Metadata Contacts ▲](#)

## Metadata Maintenance ►

MAINTENANCE

UPDATE FREQUENCY quarterly

MAINTENANCE CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation Geographic Information Systems Unit  
CONTACT'S POSITION GIS Help Desk  
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

PHONE

VOICE 919.707.2165  
FAX 919.707.2210

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#### CONTACT INSTRUCTIONS

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[Hide Metadata Maintenance ▲](#)

## Metadata Constraints ►

#### CONSTRAINTS

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#### LEGAL CONSTRAINTS

##### OTHER CONSTRAINTS

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